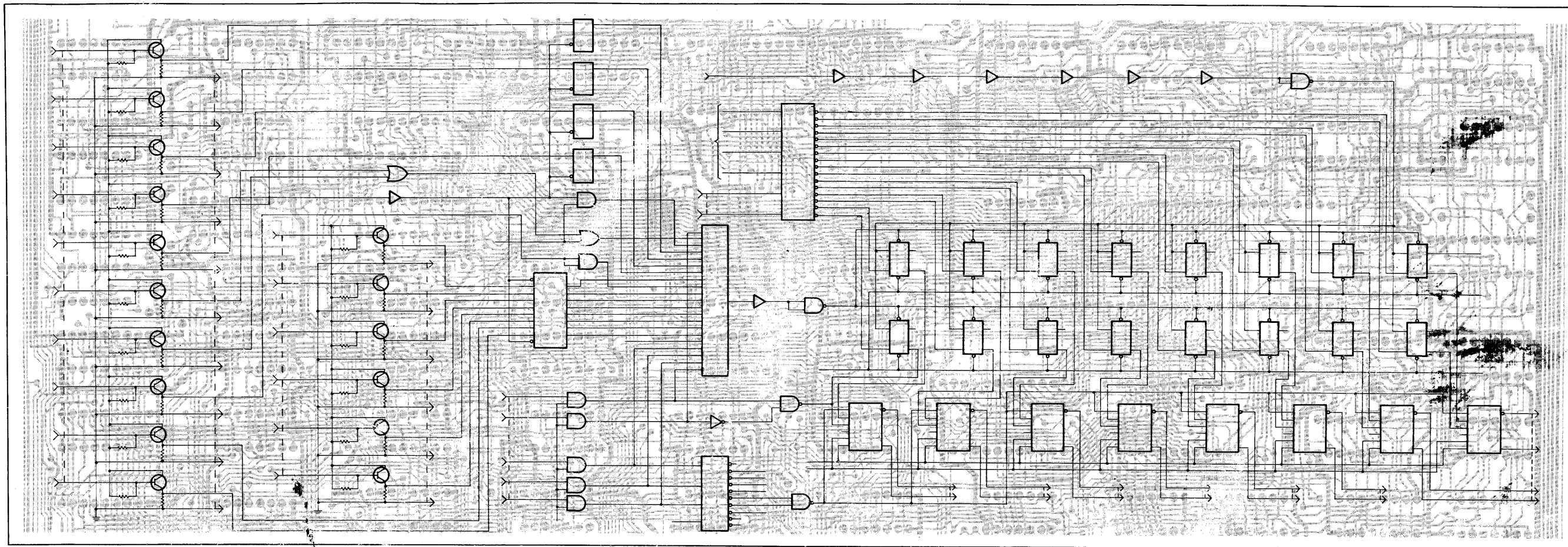




# Model 990 Computer Family Maintenance Drawings



## Processors and Memories Volume II

Part No. 945421-9702 \*B  
15 June 1980

# TEXAS INSTRUMENTS

© Texas Instruments Incorporated 1976, 1978, 1979, 1980

All Rights Reserved, Printed in U.S.A.

The information and/or drawings set forth in this document and all rights in and to inventions disclosed herein and patents which might be granted thereon disclosing or employing the materials, methods, techniques or apparatus described herein, are the exclusive property of Texas Instruments Incorporated.

### MANUAL REVISION HISTORY

Model 990 Computer Family Maintenance Drawings,  
Volume II, Processors and Memories (945421-9702)

Original Issue ..... 1 June 1976  
Revised ..... 1 August 1978 (ECN 419609)  
Revised ..... 1 October 1979 (MCR 990077)  
Revised ..... 15 June 1980 (MCR 000381)

Total number of pages in this publication is 466.

# Preface

---

The Model 990 Computer Family Maintenance Drawings provide assembly drawings, list of materials, logic diagrams, and electronic schematic diagrams for equipment currently available in the 990 Family of Computers. This information is designed for use as a reference by customer representatives, factory-service personnel, factory-customer support engineers, and other maintenance personnel involved in diagnosis and repair of 990 computer equipment.

The Model 990 Computer Family Maintenance Drawings consists of five volumes. The five volumes are:

Volume	Part Number 0945421	Volume Title
I	-9701	Computer Chassis and Enclosures
II	-9702	Processors and Memories
III	-9703	CRU Expansion and Peripherals
IV	-9704	TILINE Expansion and Peripherals
V	-9705	AMPL Systems

The contents of Volume II are summarized in the following paragraph:

**VOLUME II, PROCESSORS AND MEMORIES, PART NUMBER 0945421-9702.** Volume II contains the following information and drawings:

- Preface — Description of Volume II
- Table of Contents — For Volume II Only
- Section 1 — 990/4 Processor
- Section 2 — 990/5 Processor
- Section 3 — 990/10 Processor (Multiwire)
- Section 4 — 990/10 Processor (Printed Wiring Board)
- Section 5 — 990/12 Processor
- Section 6 — Memories



# Contents

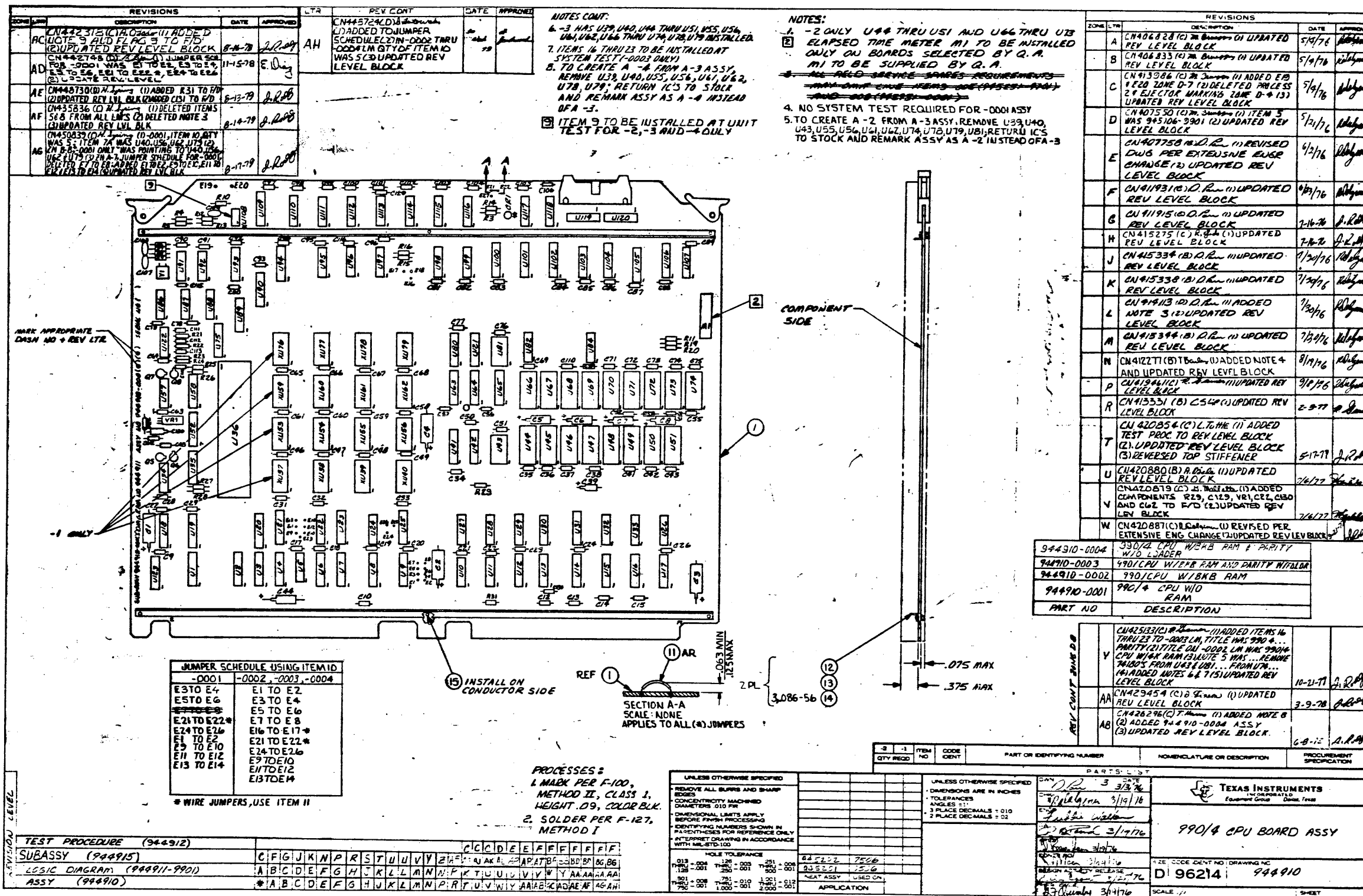
Drawing Number	Subject	Page
<b>1 — 990/4 Processor</b>		
0944910	Circuit Board Assembly — AD	1-1
	LM	1-2
0944915	Circuit Board Subassembly — AD	1-4
	LM	1-8
0944911	Logic Diagram	1-15
<b>2 — 990/5 Processor</b>		
2261930	Circuit Board Assembly — AD	2-1
	LM	2-3
2261932	Logic Diagram	2-11
<b>3 — 990/10 Processor (Multiwire)</b>		
0946625	Assembly Drawing	3-1
0946627	AU Logic Diagram	3-6
0946630	System and Memory Interface (SMI) Assembly — AD	3-17
	LM	3-19
0946632	SMI Logic Diagram	3-21
0946645	SMI (with Mapping) Assembly — AD	3-31
	LM	3-33
0946647	SMI (with Mapping) Logic Diagram	3-36
<b>4 — 990/10 Processor (Printed Wiring Board)</b>		
0944930	AU1 Assembly — AD	4-1
	LM	4-3
0944932	AU1 Logic Diagram	4-6
0944940	SMI Assembly — AD	4-16
	LM	4-18
0944942	SMI Logic Diagram	4-21
0944950	SMI (with Mapping) Assembly — AD	4-31
	LM	4-34
0944952	SMI (with Mapping) Logic Diagram	4-37

Drawing Number	Subject	Page
<b>5 — 990/12 Processor</b>		
2261970	AU Assembly — AD	5-1
	LM	5-2
2261972	AU Logic Diagram	5-5
2261975	SMI Assembly — AD	5-34
	LM	5-36
2261977	SMI Logic Diagram	5-40
<b>6 — Memories</b>		
0944935	990/4 Expansion Memory Assembly — AD	6-1
	LM	6-3
0944937	990/4 Expansion Memory Logic Diagram	6-30
0945120	4K Memory with Dynamic RAM Parity Option — AD	6-38
	LM	6-41
0944945	990/10 Expansion Memory (with Parity) Assembly — AD	6-43
	LM	6-46
0944947	990/10 Expansion Memory Logic Diagram	6-68
0946655	990/4K RAM Memory with ECC Assembly — AD	6-76
	LM	6-78
0946657	990/4K RAM Memory with ECC Logic Diagram	6-84
0945236	Memory with ECC Interconnect Schematic Diagram	6-99
0945170	EPROM Memory Assembly — AD	6-100
	LM	6-102
0945172	EPROM Memory Logic Diagram	6-104
2261980	990/16KR Memory Controller with ECC Assembly — AD	6-110
	LM	6-112
2261982	990/16KR Memory Controller with ECC Logic Diagram	6-123
2261990	Cache Memory Controller — AD	6-142
	LM	6-144
2261992	Cache Memory Control Board Logic Diagram	6-148
0948955	990/16K RAM EC Expansion Memory Module Assembly — AD	6-173
	LM	6-175
0948957	990/16K RAM EC Expansion Memory Logic Diagram	6-180
0975155	990/4K RAM EC Expansion Memory Module Assembly — LM	6-191
	LM	6-193
0975157	990/4K RAM EC Expansion Memory Module Logic Diagram	6-200

**Note:**

AD denotes Assembly Drawing  
LM denotes List of Materials





Circuit Board Assembly

TEXAS INSTRUMENTS INCORPORATED		DATE 10/17/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944910-0001		REV AH	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	00001.000	EA		0944915-0001	990/4 CPU BC SUBASSY W/D 4K RAM SOCKETS						
0002	REF	EA		0944911-9901	LOGIC DIAGRAM-990/4 CPU						
0003	REF	EA		0944912-9901	TEST PROCEDURE-990/4 CPU						
0004	REF	EA		0944913-9901	SPECIFICATCN-990/4 CPU						
0006	00001.000	EA		0972671-0001	NETWORK, MICROPROCESSOR, TMS9900						
0006A					U36						
0007	00004.000	EA		0972660-0001	NETWORK, TMS4051NL						
0007A					U44 U51 U59 U76						
0010	00008.000	EA		0972487-0001	JUMPER PLUG, CONNECTOR BLACK						
0011	00003.000	FT		0535978-0058	WIRE ELEC., SOLID, "KYNAR" INSUL #30 AWG						
0012	00002.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN						
0013	00002.000	EA		0944954-0001	INSULATOR, PWB, 14IN						
0014	00006.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG						
0015	00001.000	EA		0418730-0101	WASHER, NYLON						
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	990/4 CPU W/D RAM			
APPRO. MFG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	7506			
								PART NUMBER		REV	
								LM0944910-0001		AH	

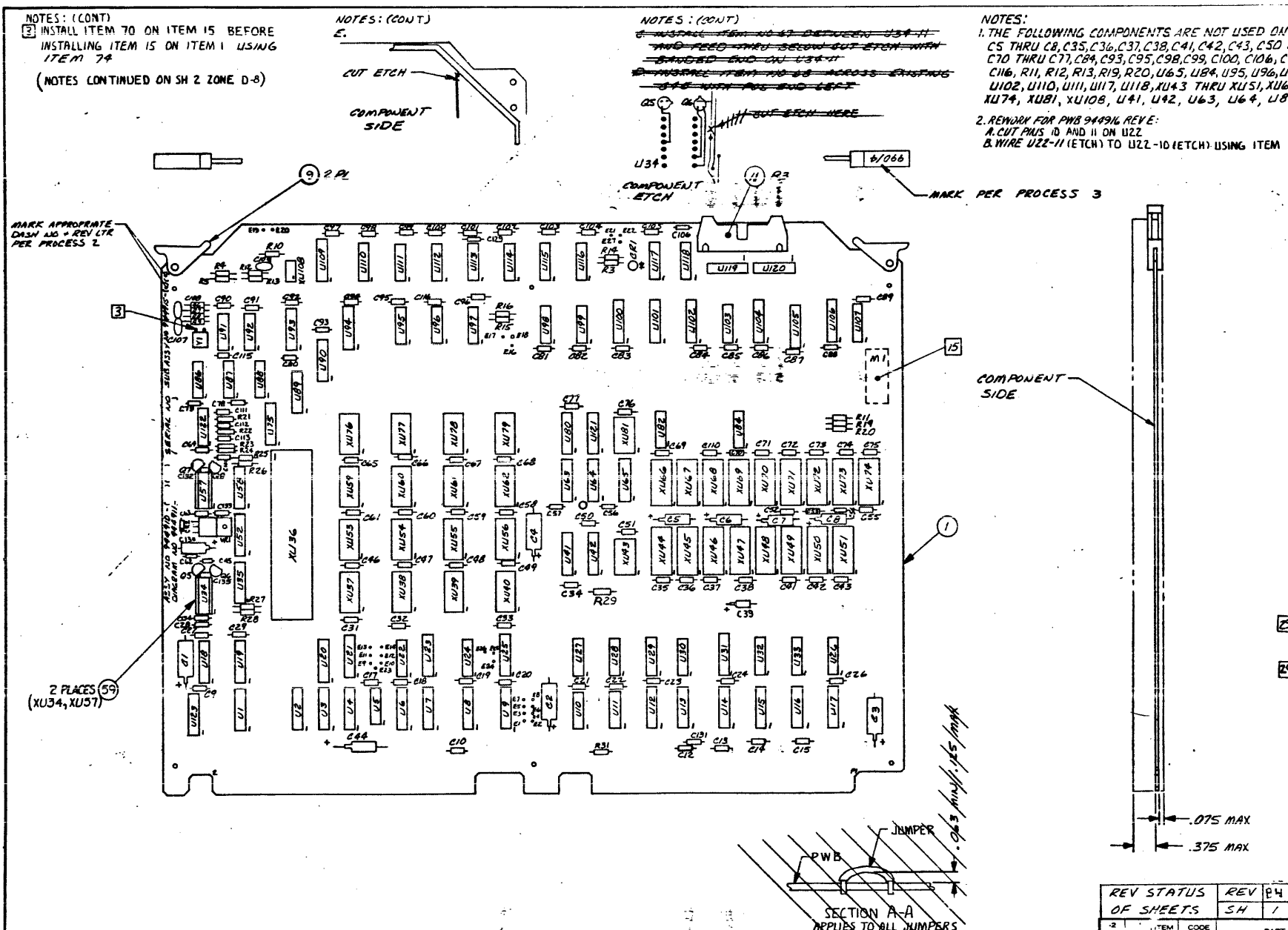
TEXAS INSTRUMENTS INCORPORATED		DATE 10/17/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944910-0002		REV AH	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	00001.000	EA		0944915-0002	990/4 CPU BC SUBASSY W/4K RAM SOCKETS						
0002	REF	EA		0944911-9901	LOGIC DIAGRAM-990/4 CPU						
0003	REF	EA		0944912-9901	TEST PROCEDURE-990/4 CPU						
0004	REF	EA		0944913-9901	SPECIFICATCN-990/4 CPU						
0006	00001.000	EA		0972671-0001	NETWORK, MICROPROCESSOR, TMS9900						
0006A					U36						
0007	00016.000	EA		0972660-0001	NETWORK, TMS4051NL						
0007A					U44 THR U51, U66 THR U73						
0009	00001.000	EA		0972188-0001	NETWORK, NE555V, MONOLITHIC TIMING, LINEAR						ST -NE555V
0009A					U108						
0010	00008.000	EA		0972487-0001	JUMPER PLUG, CONNECTOR BLACK						
0011	00003.000	FT		0535978-0058	WIRE ELEC., SOLID, "KYNAR" INSUL #30 AWG						
0012	00002.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN						
0013	00002.000	EA		0944954-0001	INSULATOR, PWB, 14IN						
0014	00006.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG						
0015	00001.000	EA		0418730-0101	WASHER, NYLON						
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	990/4 CPU W/8KB RAM			
APPRO. MFG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	LM0944910-0002			
								PART NUMBER		REV	
								LM0944910-0002		AH	

TEXAS INSTRUMENTS INCORPORATED		DATE 10/17/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944910-0003		REV AH	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	00001.000	EA		0944915-0003	990/4 CPU BC SUBASSY 4K SKTS & PARITY						
0002	REF	EA		0944911-9901	LOGIC DIAGRAM-990/4 CPU						
0003	REF	EA		0944912-9901	TEST PROCEDURE-990/4 CPU						
0004	REF	EA		0944913-9901	SPECIFICATION-990/4 CPU						
0006	00001.000	EA		0972671-0001	NETWORK, MICROPROCESSOR, TMS9900						
0006A					U36						
0007	00017.000	EA		0972660-0001	NETWORK, TMS4051NL						
0007A					U44 THRU U51, U66 THRU U74						
0009	00001.000	EA		0972188-0001	NETWORK, NE555V, MONOLITHIC TIMING, LINEAR						ST -NE555V
0009A					U108						
0010	00008.000	EA		0972487-0001	JUMPER PLUG, CONNECTOR BLACK						
0011	00003.000	FT		0535978-0058	WIRE ELEC., SOLID, "KYNAR" INSUL #30 AWG						
0012	00002.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN						
0013	00002.000	EA		0944954-0001	INSULATOR, PWB, 14IN						
0014	00006.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG						
0015	00001.000	EA		0418730-0101	WASHER, NYLON						
0016	00001.000	EA		0945190-0001	ROM #1 FLOPPY LDR F/S-T, 1/4 110 MH						
0016A					U40						
0017	00001.000	EA		0945190-0002	ROM #2 FLOPPY LDR F/S-T, 1/4 110 MH						
0017A					U56						
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	990/4 CPU W/8KB RAM & PARITY W/D LDR			
APPRO. MFG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	LM0944910-0003			
								PART NUMBER		REV	
								LM0944910-0003		AH	



TEXAS INSTRUMENTS INCORPORATED		DATE 10/17/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944910-0003		REV AH		
PRINT ITEM NUMBER	QUANTITY AND ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0018	00001.000	EA		0945190-0003	ROM #3 FLOPPY LDR F/S-T, 1/4 /10 MM							
0018A					U62							
0019	00001.000	EA		0945190-0004	ROM #4 FLOPPY LDR F/S-T, 1/4 /10 MM							
0019A					U79							
0020	00001.000	EA		0945192-0001	ROM #1 SELF-TEST STD/4							
0020A					U39							
0021	00001.000	EA		0945192-0002	ROM #2 SELF-TEST STD/4							
0021A					U55							
0022	00001.000	EA		0945192-0003	ROM #3 SELF-TEST STD/4							
0022A					U61							
0023	00001.000	EA		0945192-0004	ROM #4 SELF-TEST STD/4							
0023A					U78							
DRAFTSMAN		DATE	CHKD. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE 990/4 CPU W/8KB RAM&PARITY W/FD LDR					
APPR. MGR.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.					
								PART NUMBER LM0944910-0003		REV AH		

TEXAS INSTRUMENTS INCORPORATED		DATE 10/17/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944910-0004		REV AH		
PRINT ITEM NUMBER	QUANTITY AND ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0001	00001.000	EA		0944915-0003	990/4 CPU BC SUBASSY 4K SKTS & PARITY							
0002	REF	EA		0944911-9901	LOGIC DIAGRAM-990/4 CPU							
0003	REF	EA		0944912-9901	TEST PROCEDURE-990/4 CPU							
0004	REF	EA		0944913-9901	SPECIFICATION-990/4 CPU							
0006	00001.000	EA		0972671-0001	NETWORK, MICROCPROCESSOR, TMS9900							
0006A					U36							
0007	00017.000	EA		0972660-0001	NETWORK, TMS4051NL							
0007A					U44 THRU U51, U66 THRU U74							
0009	00001.000	EA		0972188-0001	NETWORK, NE555V, MONOLITHIC TIMING, LINEAR	ST	-NE555V					
0009A					U108							
0010	00008.000	EA		0972487-0001	JUMPER PLUG, CONNECTOR BLACK							
0011	00003.000	FT		0535978-0058	WIRE ELEC., SOLID, *KYNAR* INSUL #30 AWG							
0012	00002.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN							
0013	00002.000	EA		0944954-0001	INSULATOR, PWB, 14IN							
0014	00006.000	EA		0972684-0002	SCREW, THD FRNG, HEX WSHR HD, 2-56X1/4 LG							
0015	00001.000	EA		0418730-0101	WASHER, NYLON							
DRAFTSMAN		DATE	CHKD. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE 990/4 CPU W/8KB RAM & PARITY W/O LOADER					
APPR. MGR.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.					
								PART NUMBER LM0944910-0004		REV AH		



ZONE	LTR	DESCRIPTION	DATE	APPROVED
A		2. <del>ADDED NOTE</del> 2. <del>ADDED NOTE</del> REV LEVEL BLOCK	5/19/76	<i>Kilgus</i>
B		2. <del>ADDED NOTE</del> 2. <del>ADDED NOTE</del> REV LEVEL BLOCK	5/19/76	<i>Kilgus</i>
C		CN412697 (B)R. (A) (1) REVISED PER EXTENSIVE ENGR. CHANGE (2) ADDED SH 2 (3) UPDATE REV LEVEL BLOCK	5/14/76	<i>Kilgus</i>
D		CN406809 (B)R. (A) (1) ADDED NOTE 6 (SH 2) (2) UPDATE REV LEVEL BLOCK	5/19/76	<i>Kilgus</i>
E		CN406825 (B)R. (A) (1) ADDED NOTE 7 (SH 2) (2) UPDATE REV LEVEL BLOCK	5/19/76	<i>Kilgus</i>
F		CN406829 (A)R. (A) (1) REVISED PER EXTENSIVE ENGR. CHANGE (2) UPDATE REV LEVEL BLOCK	5/14/76	<i>Kilgus</i>
G		CN406831 (A)R. (A) (1) ADDED NOTE 9 (SH 2) (2) UPDATE REV LEVEL BLOCK	5/14/76	<i>Kilgus</i>
H		CN413957 (B)R. (A) (1) REVISED PER EXTENSIVE ENGR. CHANGE (2) UPDATE REV LEVEL BLOCK	5/14/76	<i>Kilgus</i>
J		CN413958 (C)R. (A) (1) REVISED PER EXTENSIVE ENGR. CHANGE (2) UPDATE REV LEVEL BLOCK	7/4/76	<i>Kilgus</i>
K		CN413959 (C)R. (A) (1) REVISED PER EXTENSIVE ENGR. CHANGE (2) UPDATE REV LEVEL BLOCK	7/15/76	<i>Kilgus</i>

JUMPER SCHEDULE USING ITEM 88

-0001 TH	-0022 E -0003
E1 TO E2	E1 TO E2
E3 TO E4	E3 TO E4
E5 TO E6	E5 TO E6
E7 TO E8	E7 TO E8
E9 TO E10	E9 TO E10
E11 TO E12	E11 TO E12
E13 TO E14	E13 TO E14
E15 TO E16	E15 TO E16
E17 TO E18	E17 TO E18
E19 TO E20	E19 TO E20
E21 TO E22	E21 TO E22
E23 TO E24	E23 TO E24
E25 TO E26	E25 TO E26
E27 TO E28	E27 TO E28
E29 TO E30	E29 TO E30
E31 TO E32	E31 TO E32
E33 TO E34	E33 TO E34
E35 TO E36	E35 TO E36
E37 TO E38	E37 TO E38
E39 TO E40	E39 TO E40
E41 TO E42	E41 TO E42
E43 TO E44	E43 TO E44
E45 TO E46	E45 TO E46
E47 TO E48	E47 TO E48
E49 TO E50	E49 TO E50
E51 TO E52	E51 TO E52
E53 TO E54	E53 TO E54
E55 TO E56	E55 TO E56
E57 TO E58	E57 TO E58
E59 TO E60	E59 TO E60
E61 TO E62	E61 TO E62
E63 TO E64	E63 TO E64
E65 TO E66	E65 TO E66
E67 TO E68	E67 TO E68
E69 TO E70	E69 TO E70
E71 TO E72	E71 TO E72
E73 TO E74	E73 TO E74
E75 TO E76	E75 TO E76
E77 TO E78	E77 TO E78
E79 TO E80	E79 TO E80
E81 TO E82	E81 TO E82
E83 TO E84	E83 TO E84
E85 TO E86	E85 TO E86
E87 TO E88	E87 TO E88
E89 TO E90	E89 TO E90
E91 TO E92	E91 TO E92
E93 TO E94	E93 TO E94
E95 TO E96	E95 TO E96
E97 TO E98	E97 TO E98
E99 TO E100	E99 TO E100

944915-5003	AUTO INSERTION TAPE FOR 944915-0003
944915-0003	990/4 CPU BOARD SUBASSY W/ 4K SOCKETS AND PARITY
944915-5002	AUTO INSERTION TAPE FOR 944915-2
944915-0002	990/4 CPU BOARD ASSY W/ 4K RAM SOCKETS
944915-0001	990/4 CPU BOARD ASSY W/ 10 4K RAM SOCKETS
PART NO	DESCRIPTION

TEST PROCEDURE (944912)

PWB (944916-0001)	L	N	U	N	N	N	P	R	R	D
ASSY (944915)	A	R	A	T	A	N	A	W	A	Y

TEST PROCEDURE (944912)

PWB (944916-0001)	G	H	H	H	H	H	H	H	H	H
ASSY (944915)	P	R	S	T	U	V	W	Y	Z	

PWB (944916-0001)

	E	E	E	G	E	E	E	E	E	F	F
--	---	---	---	---	---	---	---	---	---	---	---

ASSY (944915)

	A	R	C	D	E	F	G	H	J	K	L	M	N
--	---	---	---	---	---	---	---	---	---	---	---	---	---

**PROCESSES:**  
 1. SOLDER PER F-127, METHOD I, AUDIOR F-24  
 2. MARK PER F-100, METHOD II, CLASS 1, HEIGHT .05, COLOR BLACK  
 3. MARK PER F-100 METHOD III, CLASS 12, COLOR BLACK, TYPE 6

UNLESS OTHERWISE SPECIFIED	UNLESS OTHERWISE SPECIFIED
1. REMOVE ALL BURRS AND SHARP EDGES	1. DIMENSIONS ARE IN INCHES
2. CONCENTRICITY MACHINED DIAMETERS .010 FIR	2. TOLERANCES
3. DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING	ANGLES 3:1
4. IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY	3 PLACE DECIMALS = 010
5. INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100	2 PLACE DECIMALS = 02

REV STATUS OF SHEETS

REV	BY	AN	BF	BH
SH	1	2	3	4

QTY	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION

PARTS LIST

DATE	3/21/76
APPROVED	<i>Kilgus</i>
DESIGNED	<i>Kilgus</i>
CHECKED	<i>Kilgus</i>
DATE	3/11/76
APPROVED	<i>Kilgus</i>
DESIGNED	<i>Kilgus</i>
CHECKED	<i>Kilgus</i>
DATE	3/11/76
APPROVED	<i>Kilgus</i>
DESIGNED	<i>Kilgus</i>
CHECKED	<i>Kilgus</i>

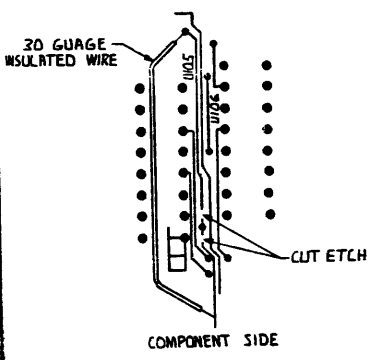
TEXAS INSTRUMENTS INCORPORATED Equipment Group Dallas Texas

990/4 CPU BOARD SUBASSY

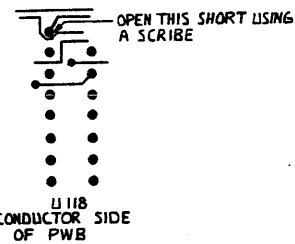
SIZE CODE IDENT NO DRAWING NO  
D 96214 944915

SCALE SHEET 1 OF 4

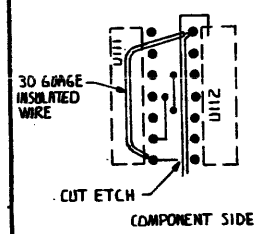
NOTES:(CONT FROM SH 1 ZONE D-8)  
**4. REWORK FOR PWB 944916 REV E:**  
 A. MAKE TWO ETCH CUTS AS SHOWN  
 B. WIRE AS SHOWN USING 30 GAUGE SOLID CONDUCTOR INSULATED WIRE



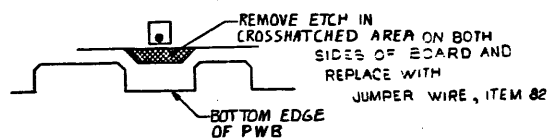
**5. REWORK FOR PWB 944916 REV E**



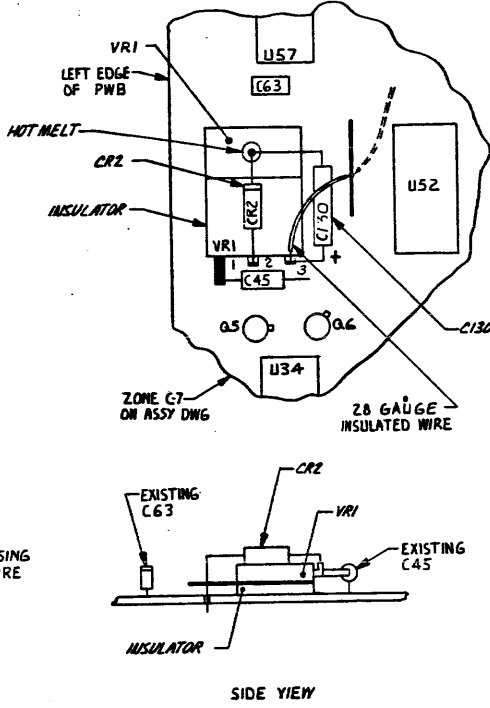
**6. REWORK FOR PWB 944916 REV E AND F:**  
 A. CUT ETCH AS SHOWN  
 B. WIRE U111-1 TO U112-8 ON CONDUCTOR SIDE USING 30 GAUGE SOLID CONDUCTOR INSULATED WIRE



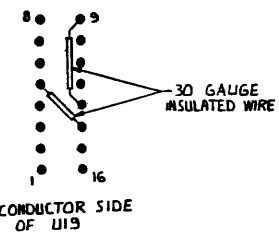
**7. REWORK FOR PWB 944916 REV E, F, G & H**



NOTES:(CONT)  
**8. REWORK FOR PWB 944916 REV E, F, G AND H ONLY IF A TMA 9900 DEVICE IS USED ON ASSY 944910, AT U36**  
 A. CUT ETCH BETWEEN U75-16 AND U36-2 ON COMPONENT SIDE OF PWB  
 B. INSTALL TRANSISTOR INSULATOR, PU 972170-2 AND NETWORK, LM 340-DST, PU 972172-9, VRI ON PWB. SOLDER LEAD 1 OF VRI TO LEFT LEAD OF EXISTING CR2  
 C. INSTALL DIODE CR2, PU 231784-4000 BETWEEN LEAD 2 OF VRI AND FEEDTHRU AS SHOWN, UNBAUNDED END TO LEAD 2 OF VRI. SLEEVE AS NECESSARY.  
 D. WIRE FROM LEAD 3 OF VRI TO PIN 2 OF U36. ROUTE WIRE THRU FEEDTHRU AS SHOWN. USE 28 GAUGE SOLID CONDUCTOR INSULATED WIRE.  
 E. INSTALL CAPACITOR C130, PU 972924-10 AS SHOWN BETWEEN LEAD 3 OF VRI AND FEEDTHRU. SLEEVE AS NECESSARY.  
 F. APPLY HOT MELT ADHESIVE, PU 996049-3 TO HOLE IN VRI SO THAT LEADS OF CR2 AND C130 DO NOT TOUCH METAL PARTS OF VRI.



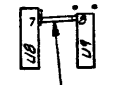
**9. REWORK FOR PWB 944916 REV E, F, G, AND H**  
 A. CUT PINS U19-10 AND U19-9  
 B. WIRE U19-14 TO U19-5 (USE 30 GAUGE SOLID CONDUCTOR INSULATED WIRE) ON CONDUCTOR SIDE OF PWB  
 C. WIRE U19-13 TO U19-9 AS SHOWN ON CONDUCTOR SIDE OF PWB (USE 30 GAUGE SOLID CONDUCTOR INSULATED WIRE)



NOTES:(CONT)  
**10. REWORK FOR PWB 944916 REV E, F, G, AND H**  
 A. WIRE U36, PIN 2 TO U36, PIN 59 ON CONDUCTOR SIDE OF PWB. USE 24 GAUGE SOLID WIRE AND SLEEVE AS NEEDED  
 B. WIRE U36, PIN 26 TO U36, PIN 40 ON CONDUCTOR SIDE OF PWB. USE 24 GAUGE SOLID WIRE AND SLEEVE AS NEEDED

11. AFTER BURN-IN TEST, JUMPERS E1 TO E2 AND E24 TO E26 WILL BE REMOVED AND JUMPERS E19 TO E20 AND E24 TO E25 WILL BE ADDED ON -0001 ONLY  
 12. ATTACH ITEM 15 TO PWB WITH ITEM 74  
 13. APPLY ITEM 74 TO BANDED END OF CR2 AND HOLE IN VRI

**14. REWORK FOR PWB 944916 REV E, F, G, AND H**  
 A. CONNECT U8-7 TO U9-8 ON COMPONENT SIDE USING 30 AWG INSULATED SOLID WIRE



15. ELAPSED TIME METER M1 TO BE INSTALLED ON SELECTED BOARDS DESIGNATED BY Q.A. M1 SUPPLIED BY Q.A.

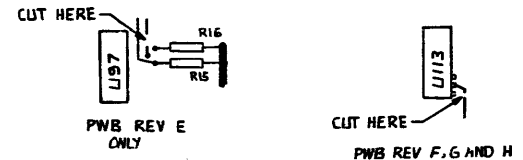
**16. REWORK FOR PWB REV E AND F**  
 A. WIRE U82 PIN 1 TO PIN 2 ON -0001 ASSEMBLY ONLY.

**17. ITEM 6 (STIFFENER INSULATOR) MAY BE SUBSTITUTED BY T.I. PU 966486-0001 IF 944954-0001 IS UNAVAILABLE. ONLY TOP INSULATOR MAY BE SUBSTITUTED.**

**18. REWORK FOR REV E, F, G & H PWB**  
 A. CUT ETCH BETWEEN PIN 4 AND PINS OF U106 ON COMPONENT SIDE.  
 B. WIRE (ON CONDUCTOR SIDE) U106-5 TO U92-9 USING 30 GA SOLID INSULATED WIRE.  
 C. APPLY ITEM 74 TO WIRE AS NEEDED  
 D. MOUNT ITEM 77 BETWEEN PIN 1 OF U113 AND PIN 7 OF U97 ON CONDUCTOR SIDE. APPLY ITEM 74 TO ITEM 77 AS NEEDED

**19. REV H PWB'S CAN NOT BE AUTO INSERTED**

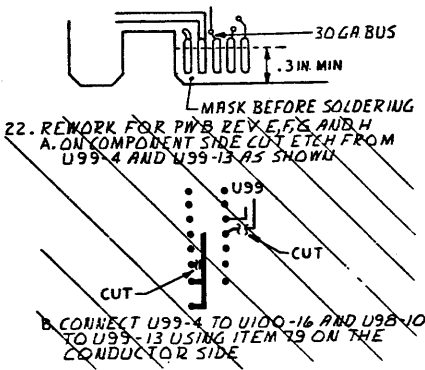
**20. REWORK FOR PWB 944916 REV E, F, G AND H**  
 A. CUT ETCH AS SHOWN ON COMPONENT SIDE



B. USING 30 GAUGE INSULATED, SOLID CONDUCTOR WIRE, WIRE ON COMPONENT SIDE: U113-2 TO U114-2 AND U114-3 U114-1 TO U115-3

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
L		ON 9075716 (2) D.W.G. (1) ADDED ITEM 75 TO -0002 L/M (2) ADDED NOTE 18 (3) UPDATED REV LEVEL BLOCK	5/25/76	Ridgeman
M		ON 911824 (3) D.W.G. (1) ITEM 9 WAS 945490-0001 (2) DELETED ITEM 10 (3) UPDATED REV LEVEL BLOCK	5/25/76	Ridgeman
N		ON 911839 (1) D.W.G. (1) REVISED L/M + DWG PER EXTENSIVE ENGR CHANGE. (2) UPDATED REV LEVEL BLOCK	6/16/76	Ridgeman
P		ON 911971 (3) D.W.G. (1) ITEM 20 WAS 972900-7404 (2) ADDED ITEM 77 (3) ADDED NOTE 15 (4) UPDATED REV LEVEL BLOCK	8/16/76	Ridgeman
R		ON 911974 (3) D.W.G. (1) L/M, NOTES, REVISED PER EXTENSIVE ENGR CHANGES (2) UPDATED REV LEVEL BLOCK	8/16/76	Ridgeman
S		CN415274 (B) R.Q.M. (1) ADDED NOTE 20 (2) UPDATE REV LEVEL BLOCK	8/16/76	Ridgeman
T		CN415337 (B) R.Q.M. (1) L/M (2) ADDED P/D OF ITEM 17 WAS 236081-0001 DESC WAS --- (2) 28 GAUGE (3) REVISED PICTORIAL OF C5, C6, C7 + C8 PER NEW PWB (3) DELETED ITEM 6 (4) REV BLOCK	8/16/76	Ridgeman
U		CN415337 (B) R.Q.M. (1) (1) (5) 2) ADDED NOTE 21 (2) NOTE 17 ADDED LAST PART OF NOTE (3) REVISED REV LEVEL BLOCK	8/16/76	Ridgeman
V		CN415435 (B) R.Q.M. (1) NOTE 20-B WAS --- U114-1 AND U114-2 U114-3 --- (2) REVISED REV LEVEL BLOCK	8/16/76	Ridgeman
W		CN411424 (B) ADDED NOTE 22 (2) QTY ITEM 51 FOR -1 WAS 1; 51A WAS (44) (116) (3) QTY ITEM 51 FOR -2 WAS 5; 51A WAS 25 THRU (8) (44) (116) (4) DELETED ITEM 8 AND 68 A -14-2 PICTORIAL OF NOTE B (1) 25 WAS (116) (6) DELETED ITEM 73 ALL DASH NOS (7) ADDED ITEM 79-1, 80-2	7/29/76	Ridgeman
Y		ON 910227 (B) D.W.G. (1) DELETED NOTE 22 + ADDED NOTE 23 (2) UPDATED REV LEVEL BLOCK	7/29/76	Ridgeman
Z		CN415357 (C) H.B.R.W. (1) ADDED NOTE 24 (2) NOTE 16 WAS --- REV E AND REV F: --- (3) UPDATED REV LEVEL BLOCK	8/11/76	Ridgeman

NOTES:(CONT)  
**21. REWORK FOR PWB REV E, F, G AND H**  
 A. ADD JUMPER AS SHOWN USING 30 GA. BUS WIRE. MASK OFF BOTTOM .3 INCHES OF TAB



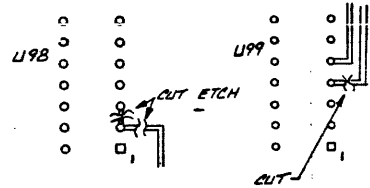
NOTES:(BOND ON SH 3)

SIZE	CODE IDENT NO	DRAWING NO
D	96214	944915
SCALE	1/1	SHEET 2

NOTES: (CONT FROM SH 2)

23. REWORK FOR PWB REV E, F, G AND H

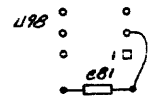
- A. CUT THE ETCH COMING FROM U99-4
- B. CUT THE ETCH BETWEEN U98-2 + U98-3
- C. CUT THE ETCH COMING FROM U98-2 ON COMPONENT SIDE



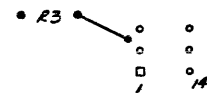
B. CUT PIN 13 OF U99 (LEAVING ENOUGH LEAD LENGTH TO SOLDER TO) (COMPONENT SIDE)

C. CONNECT U98-3 WITH U99-13 (CUT PIN) USING ITEM 80 COMPONENT SIDE

D. CONNECT U98-2 AND THE GROUND LEG OF C81 USING ITEM 80



E. CONNECT U98-3 TO THE FEED THRU NEAR U116-3 USING ITEM 80 (FEED THRU CONNECTS TO R3) CONDUCTOR SIDE

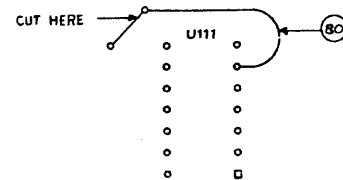


F. CONNECT U116-3 TO U99-4 USING ITEM 80, CONDUCTOR SIDE

24. TRANSISTOR AST4261, P/N 972424-2 MAY BE SUBSTITUTED FOR ITEM 17. DO NOT SUBSTITUTE WITH TYPE 2N2834

25. REWORK FOR PWB, REV H, REV L -0002 AND -0003 ONLY

- A. CUT ETCH AND CONNECT U111-6 TO FEED THRU USING ITEM 80 AS SHOWN



26. ALL PWBs WITH REWORK WIRES, SECURE WIRES TO BOARD WITH HOT MELT OR EQUIVALENT.

NOTES: CONT

27. REWORK FOR PWB REV H, -0002 AND -0003 ONLY

- A. CONNECT R29 (ITEM 46) FROM J41-2 TO J41-16

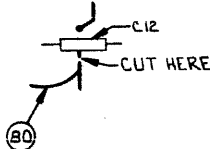
28. REWORK FOR PWB REV L

- A. CONNECT J1 TO J1 (U106-5 TO U92-9) ON COMPONENT SIDE USING ITEM 80. APPLY HOTMELT ADHESIVE, PN 946069-3 TO WIRE AS REQUIRED.
- B. CUT ETCH ON U99-4 AS SHOWN IN NOTE 23-A
- C. CONNECT J3 TO J3 (U98-3 TO R3) ON CONDUCTOR SIDE
- D. DO NOTE 23-F
- E. CONNECT WIRE (ITEM 80) FROM PLATED-THRU HOLE AT THE FAR RIGHT OF PIN 16 OF U57, TO LARGE PAD NEAR U58-1 ON CONDUCTOR SIDE

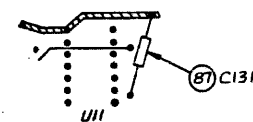
29. ITEM 84 IN -0002 AND -0003 LM CONSISTS OF COMPONENTS WHICH ARE AUTO INSERTED AND CONTAINED IN THE -5002 AND -5003 LM

30. REWORK FOR PWB REV E, F, G, H, J, L

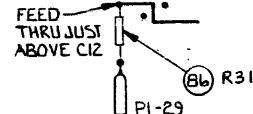
- A. COMPONENT SIDE. CUT ETCH BELOW FEED THRU NEXT TO C12 AS SHOWN
- B. CUT U9-1 PIN AS CLOSE TO PWB AS POSSIBLE
- C. CONNECT U9-1 (PACKAGE) TO ETCH BELOW CUT MADE IN A ABOVE (USING ITEM 80)



D. INSTALL C131 AS SHOWN BELOW, CONDUCTOR SIDE.



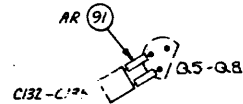
E. INSTALL R31 AS SHOWN BELOW, SOLDER SIDE.



~~31. REWORK FOR -0001 PWB REV E, F, G, H, J, L~~  
~~A. INSTALL R30 FROM U82-2 TO U82-14 (ITEM 44) COMPONENT SIDE~~

32. REWORK FOR PWB H, J, L

- A. INSTALL C132-C135 ON TRANSISTORS Q5-Q8 BETWEEN EMITTER AND BASE AS SHOWN, SOLDER SIDE.



33. REWORK FOR PWB REV L ONLY IF A TMS 9900 DEVICE IS USED ON ASSY 944910 AT U8a.

- A. INSTALL CAPACITORS C91, C92, C130 AND INSULATOR PER SILKSCREEN. C130 SHOULD BE INSTALLED AT LOCATION C130 ON SILKSCREEN. COMPONENTS ARE THOSE REQUIRED BY NOTE 2.
- B. CONNECT WIRE (ITEM 80) FROM LARGE PAD ON (+) END OF ELECTROLYTIC CAPACITOR NEAR C45 TO LARGE PAD NEAR U58-8 ON CONDUCTOR SIDE.

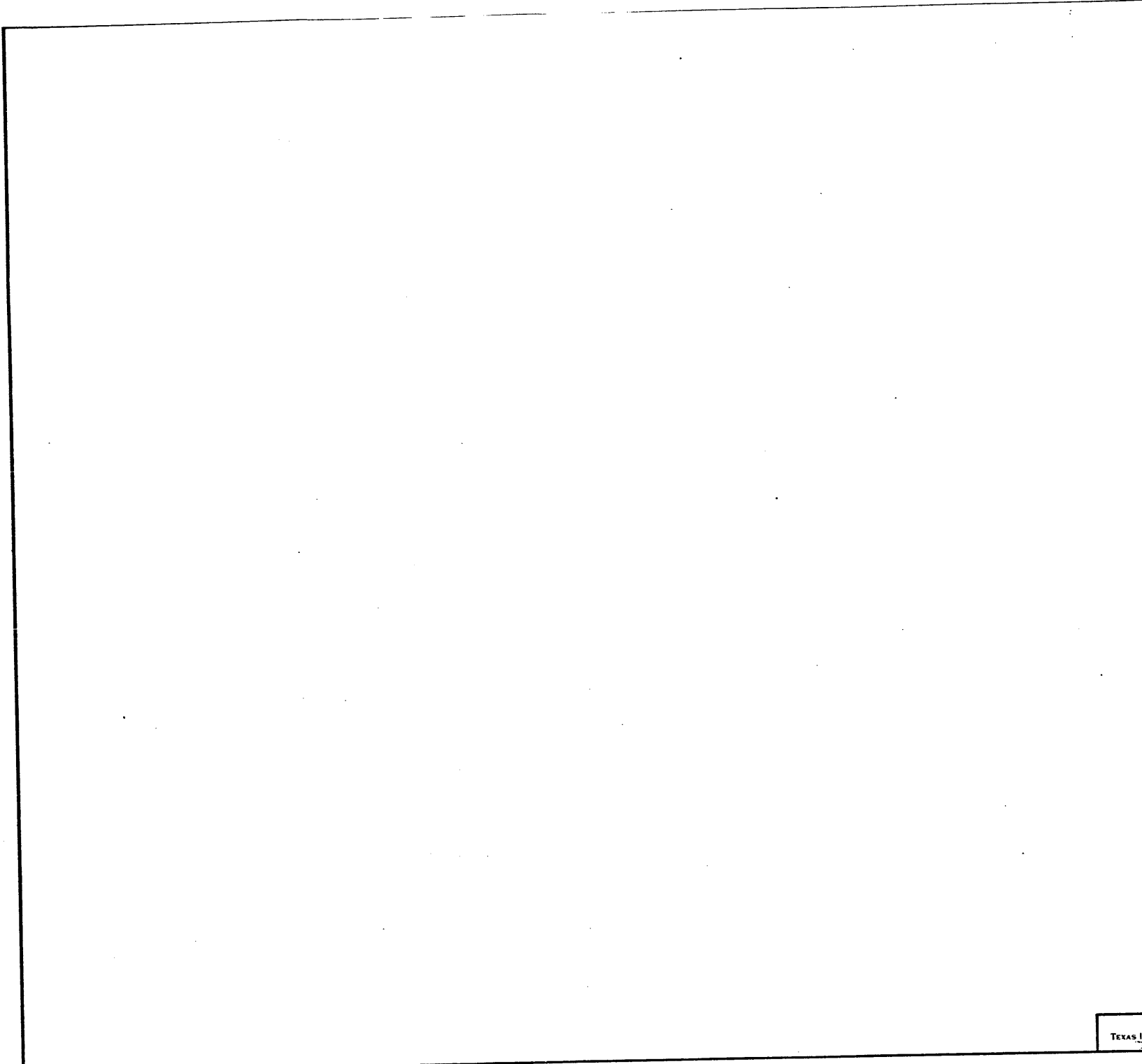
NOTES: CONT

34. R21, R22, R23, AND R24 MAY BE CHANGED BY UNIT TEST AS OUTLINED IN THE TEST PROCEDURE, 944912.

35. OVERSIZED PIN, 996805-4 MAY BE USED FOR ITEM 88 WHEN THE PINS ARE NOT HELD IN PLACE AFTER STAKING.

REVISIONS				
REV	DATE	DESCRIPTION	APPROVED	BY
AA	11/15/76	11/15/76		
AB	11/15/76	11/15/76		
AC	11/15/76	11/15/76		
AD	11/15/76	11/15/76		
AE	2-17-77	2-17-77		
AF	2-17-77	2-17-77		
AG	5-19-77	5-19-77		
AH	5-19-77	5-19-77		
AJ	8-18-77	8-18-77		
AK	8-19-77	8-19-77		
AL	10-13-77	10-13-77		
AM	10-13-77	10-13-77		
AN	10-13-77	10-13-77		
AO	10-13-77	10-13-77		
AP	10-17-77	10-17-77		
AR	8-9-78	8-9-78		
AT	8-7-78	8-7-78		
AU	8-7-78	8-7-78		
AV	8-7-78	8-7-78		
AW	8-7-78	8-7-78		
AX	8-7-78	8-7-78		
AY	8-7-78	8-7-78		
BA	8-7-78	8-7-78		
BB	8-7-78	8-7-78		

SIZE	CODE IDENT NO	DRAWING NO
D	96214	945421-9702
SCALE	1:1	5F
		SHEET 6



REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	BC	CN444353(C) R. P. (1) LM LM -0002 DELETED ITEMS 1, 18 THRU 39; 42, 54, 55, 57, 63, 64, 65, 75, 78 AND 79(2) LM -5002 ADDED ITEMS 1, 18 THRU 39; 42, 54, 55, 57, 63, 64, 65, 75, 78 AND 79(3) LM -0003 DELETED ITEMS 1, 18 THRU 39, 42, 54, 55, 57, 63, 64, 65, 75, 78 AND 79(4) LM -5003 ADDED ITEMS 1, 18 THRU 39; 42, 54, 55, 57, 63, 64, 65, 75, 78 AND 79(5) ADDED SH 4(6) UPDATED REV LEVEL BLOCK	1-9-79	E. King
	BD	CN451929 (D) R. P. (1) ON -0001, -0002 & -0003 LM; IT. 14 WAS 539544-0002 AND IT. 59 WAS 539544-0001 (2) ON -0002 & -0003 LM; IT. 58 WAS 539544-0005 (3) UPDATED REVISION LEVEL BLOCK	3-14-79	J. R. King
	BE	CN441723 (C) R. P. (1) ON LM -5002 & -5003 REMOVED ITEM 39 & ADDED TO -0002 & -0003 LM (2) UPDATED REV LEVEL BLOCK	5-23-79	E. King
	BF	CN450823 (D) R. P. (1) ON SH 3 ADD- ED NOTE 35(2) ON -1&-3 LM ITEM 88 WAS P/N 976805-4(3) UPDATED REV LEVEL BLOCK	6-19-79	J. R. King
	BG	CN451305 (D) R. P. (1) ON -2&-3 LM DELETED ITEMS 61, 62, 68 AND ADDED TO -5002 & -5003 LM (2) UP- DATED REV LEVEL BLOCK	6-19-79	J. R. King
	BH	CN455576 (C) R. P. (1) SH 1, ZONE C8 & D8, DELETED REV 70 ITEM 74 (2) ON LIA ALL DASH NOS. ITEM 70 WAS 417177-0211 (3) UPDATED REV LVL BLOCK	10-23-79	E. King

TEXAS INSTRUMENTS	DATE	ISSUE NO.	REV.
	ISSUE DATE	ISSUE NO.	REV.
		D 96214	544315
		PAGE 1/1	SHEET 4

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM944915-0001		REV BH		
DATE 09/28/79		DATE 09/28/79		DATE 09/28/79		DATE 09/28/79		DATE 09/28/79		
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0001	00001.000	EA		0944914-0001	PWB-990/4 CPU					
0002	REF	EA		0944911-9901	LOGIC DIAGRAM-990/4 CPU					
0003	REF	EA		0944912-9901	TEST PROCEDURE-990/4 CPU					
0004	REF	EA		0944913-9901	SPECIFICATION-990/4 CPU					
0009	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB					
0011	00001.000	EA		0972698-0001	CONNECTOR, PWB, 20P, RT.A, SORTL, HDR, FLTCBL					
0011A					P3					
0012	AR	FT		0411400-0030	WIRE BARE TINNED COPPER 30 AWG ROUND BUS	1WP	-	30-430		
0013	00001.000	EA		0945244-0001	SOCKET, INTEGRATED CIRCUIT, 64 PIN					
0013A					XU36					
0014	00016.000	EA		2210188-0003	SOCKET, LOW PROFILE, DIP, 16 CONT	003612-DIL816P-108				
0014A					XU37 THRU XU40, XU53 THRU					
0014B					XU56, XU59 THRU XU62, XU76					
0014C					THRU XU79					
0015	00001.000	EA		0972445-0001	CRYSTAL, 12 MHZ, QUARTZ	SEE	-	TI DRAWING		
0015A					Y1					
0016	00001.000	EA		0226409-0001	DIODE, VISIBLE LIGHT EMITTING					
0016A					CR1					
0017	00004.000	EA		0972424-0002	RESISTOR, NPN SILICON, AST4261					
0017A					Q5 Q6 Q7 Q8					
DRAFTSMAN		DATE	CDR DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE			
APPROVED		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	990/4 CPU BD SUBASSY W/O 4K RAM SOCKETS		
							7586	PART NUMBER LM944915-0001		
								REV BH		

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM944915-0001		REV BH		
DATE 09/28/79		DATE 09/28/79		DATE 09/28/79		DATE 09/28/79		DATE 09/28/79		
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0018	00001.000	EA		0972900-7400	NETWORK SN74LS00N	TI	-	SN74LS00N		
0018A					U82					
0019	00001.000	EA		0972900-7402	NETWORK SN74LS02N					
0019A					U114					
0020	00001.000	EA		0222222-7414	NETWORK SN7414N					
0020A					U113					
0021	00001.000	EA		0972900-7405	NETWORK SN74LS05N	TI	-	SN74LS05N		
0021A					U22					
0022	00001.000	EA		0222222-7407	NETWORK-SN7407N	TI-	-	SN7407N		
0022A					U122					
0023	00004.000	EA		0972749-0001	NETWORK, SN74LS08N					
0023A					U5 U11 U24 U114					
0024	00001.000	EA		0972900-7418	NETWORK SN74LS10N					
0024A					U32					
0025	00001.000	EA		0972784-0002	NETWORK SN74LS14N					
0025A					U30					
0026	00001.000	EA		0972814-0001	NETWORK-SN74LS27N					
0026A					U33					
0027	00001.000	EA		0972822-0001	NETWORK-SN74LS37N					
0027A					U87					
DRAFTSMAN		DATE	CDR DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE			
APPROVED		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	990/4 CPU BD SUBASSY W/O 4K RAM SOCKETS		
								PART NUMBER LM944915-0001		
								REV BH		

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM944915-0001		REV BH		
DATE 09/28/79		DATE 09/28/79		DATE 09/28/79		DATE 09/28/79		DATE 09/28/79		
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0028	00003.000	EA		0972783-0001	NETWORK, SN74LS42N BCD/DEC					
0028A					U20 U25 U100					
0029	00011.000	EA		0972900-7474	NETWORK SN74LS74N					
0029A					U10 U26 THRU U29, U92 U98					
0029B					U99 U103 U112 U115					
0030	00001.000	EA		0972819-0001	NETWORK-SN74LS05N					
0030A					U93					
0031	00001.000	EA		0219402-7133	NETWORK SN74LS13N					
0031A					U109					
0032	00001.000	EA		0972900-7138	NETWORK SN74LS138N	TI	-	SN74LS138N		
0032A					U104					
0033	00001.000	EA		0222222-7148	NETWORK SN74140N					
0033A					U21					
0034	00001.000	EA		0801383-0001	NETWORK SN74LS151N					
0034A					U8					
0035	00001.000	EA		0972900-7174	NETWORK SN74LS174N					
0035A					U4					
0036	00006.000	EA		0972199-7265	NETWORK, SN74265N					
0036A					U18 U75 U89 U90 U94 U106					
0037	00005.000	EA		0972556-0001	NETWORK SN74367N	TI-	-	SN74367N		
DRAFTSMAN		DATE	CDR DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE			
APPROVED		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	990/4 CPU BD SUBASSY W/O 4K RAM SOCKETS		
								PART NUMBER LM944915-0001		
								REV BH		

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM944915-0001		REV BH		
DATE 09/28/79		DATE 09/28/79		DATE 09/28/79		DATE 09/28/79		DATE 09/28/79		
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0037A					U16 U17 U19 U81 U185					
0038	00009.000	EA		0972787-0004	NETWORK SN74LS368N					
0038A					U2 U3 U7 U12 U13 U23 U35					
0038B					U52 U58					
0039	00002.000	EA		0972670-0001	NETWORK SN75322N					
0039A					U34 U57					
0040	00001.000	EA		0972037-1680	NETWORK, RES. 16P 68					
0040A					U120					
0041	00001.000	EA		0972037-2330	NETWORK, RES. 16P 330					
0041A					U119					
0042	00001.000	EA		0800118-0006	RESISTOR 470 OHMS DIL PULL UP 16 PINS	REC	-	8981R470		
0042A					U6					
0043	00004.000	EA		0972976-0047	RES FIXED 22 OHMS 5W 1/4 WATT	QPL	-	39008		
0043A					R25 THRU R28					
0044	00003.000	EA		0539370-0522	RES FIX FILM 221 OHM 1/4 .25 WATT	COR	-	MA55		
0044A					R21 R22 R23					
0045	00002.000	EA		0972944-0057	RES FIX 470 OHM 5W 1/4 .25 W CARBON FILM	ROH	-	R-25		
0045A					R8 R9					
0046	00009.000	EA		0972944-0081	RES FIX 4.7K OHM 5W 1/4 .25 W CARBON FILM	ROH	-	R-25		
0046A					R3 THRU R7, R10, R14, R15, R16					
DRAFTSMAN		DATE	CDR DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE			
APPROVED		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	990/4 CPU BD SUBASSY W/O 4K RAM SOCKETS		
								PART NUMBER LM944915-0001		
								REV BH		

TEXAS INSTRUMENTS INCORPORATED		DATE 09/28/79		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LMP944915-0001		REV BH		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0047	00001.000	EA		0972929-0361	CAP FIX CERAMIC 10.0 PF 10 x 200 V	QPL -M39014/01-1361						
0047A					C107							
0048	00004.000	EA		0972753-0013	CAP, FIXED 270PF 25V 2% CERAMIC DIEL	UC -C50D271G						
0048A					C111 THRU C114							
0049	00001.000	EA		0972965-0012	CAP FIX CERAMIC .010 MF 10x 200V	QPL - CK068X103K						
0049A					C108							
0050	00099.000	EA		0972763-0021	CAP., FINE, AXIAL LEAD, .047 UF, +80%, -20%							
0050A					C9 C10 C12 THRU C15							
0050B					C17 THRU C24, C26 THRU C29							
0050C					C31 THRU C34, C46 THRU C49							
0050D					C50 THRU C61, C63							
0050E					C70 THRU C83, C85 THRU C92							
0050F					C94, C96, C97, C101 THRU C105							
0050G					C65 THRU C69, C115							
0051	00001.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10 x 15 VOLT	QPL -M39003/1-2271						
0051A					C44							
0052	00001.000	EA		0972924-0006	CAP FIX TANT SOLID 39 MFD 10 x 10 VOLT	QPL -M39003/1-2259						
0052A					C39							
0053	00004.000	EA		0972924-0007	CAP FIX TANT SOLID 120 MFD 10 x 10 VOLT	QPL -M39003/1-2263						
0053A					C1 THRU C4							
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE 990/4 CPU BD SUBASSY W/O 4K RAM SOCKETS					
APP. MGR.		DATE	APP. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LMP944915-0001				

TEXAS INSTRUMENTS INCORPORATED		DATE 09/28/79		LIST OF MATERIAL		PAGE 6 of		PART NUMBER LMP944915-0001		REV BH		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0054	00002.000	EA		0222222-7437	NETWORK SN7437N							
0054A					U88 U107							
0055	00003.000	EA		8222222-7442	NETWORK-SN7442N							
0055A					U1 U14 U15							
0056	00001.000	EA		0974674-0001	NETWORK SN75138N							
0056A					U123							
0057	00001.000	EA		0972141-0057	NETWORK, RES. 4.7 K OHM 2 x 14 PIN DIP	BEC - 899-1-R4.7K						
0057A					U9							
0059	00002.000	EA		2210180-0002	SOCKET, LOW PROFILE, DIP, 14 PINS	003612-DILB14P-100						
0059A					XU34, XU57							
0070	AR	FT		0972437-0002	INSULATION SLEEVING PVC .187" x.025 WALL	MKL - HT-105C-UL-3/						
0076	00002.000	EA		0972965-0020	CAP FIX CERAMIC .047 MF 10x 100V	QPL - CK068X473K						
0076A					C45 C44							
0077	00001.000	EA		0972929-0391	CAP FIX CERAMIC 470 PF 10 x 200 V	QPL -M39014/01-1391						
0077A					C129							
0078	00001.000	EA		0222222-7400	NETWORK-SN7400N							
0078A					U86							
0080	00000.400	FT		0535970-0050	WIRE ELEC., SOLID, "KYNAR" INSUL #30 AWG							
0081	00001.000	EA		0222222-7400	NETWORK SN7400N	-SN7400N						
0081A					U91							
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE 990/4 CPU BD SUBASSY W/O 4K RAM SOCKETS					
APP. MGR.		DATE	APP. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LMP944915-0001				

TEXAS INSTRUMENTS INCORPORATED		DATE 09/28/79		LIST OF MATERIAL		PAGE 7 of		PART NUMBER LMP944915-0001		REV BH		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0082	00000.300	FT		0457313-0006	WIRE 24 AWG SOLID, TEFLON, WHITE	QPL - MIL-W-16878/4						
0083	00001.000	EA		0539370-0335	RES FIX FILM 301 OHM 1/8 .25 WATT	COR - M55						
0083A					R24							
0085	00004.000	EA		0972929-0367	CAP FIX CERAMIC 22.0 PF 10 x 200 V	QPL -M39014/01-1367						
0085A					C132 THRU C135							
0086	00001.000	EA		0972976-0077	RES, FIX, 390 OHM, 5%, 0.25 W, CARBON COMP.							
0086A					R31							
0087	00001.000	EA		0972757-0009	CAP FIX CER 470PF 10x 50V							
0087A					C131							
0088	00010.000	EA		0972456-0002	PIN, .025 SQUARE	BEI - 75481-002						
0088A					E1 THRU E14							
0088B					E23 THRU E26							
0089	00003.000	EA		0972487-0001	JUMPER PLUG, CONNECTOR BLACK							
0091	00000.100	FT		0410499-0004	INSULATION SLEEVING, TEFLON #22 NATURAL	QPL -81349						
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE 990/4 CPU BD SUBASSY W/O 4K RAM SOCKETS					
APP. MGR.		DATE	APP. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LMP944915-0001				

TEXAS INSTRUMENTS INCORPORATED		DATE 09/28/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LMP944915-0002		REV BH		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0002	REF	EA		0944911-9901	LOGIC DIAGRAM-990/4 CPU							
0003	REF	EA		0944912-9901	TEST PROCEDURE-990/4 CPU							
0004	REF	EA		0944913-9901	SPECIFICATION-990/4 CPU							
0009	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, P/B							
0011	00001.000	EA		0972698-0001	CONNECTOR, P/B, 20P, RT.A, SORTL, HDR, PLT/CBL							
0011A					P3							
0012	AR	FT		0411400-0030	WIRE BARE TINNED COPPER 30 AWG ROUND BUS	1WP - 30-630						
0013	00001.000	EA		0945244-0001	SOCKET, INTEGRATED CIRCUIT, 64 PIN							
0013A					XU36							
0014	00016.000	EA		2210180-0003	SOCKET, LOW PROFILE, DIP, 16 CONT	003612-DILB16P-100						
0014A					XU37 THRU XU40, XU53 THRU							
0014B					XU54, XU59 THRU XU62, XU76							
0014C					THRU XU79							
0015	00001.000	EA		0972449-0001	CRYSTAL, 12 MHZ, QUARTZ	SEE - TI DRAWING						
0015A					Y1							
0016	00001.000	EA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING							
0016A					CR1							
0017	00004.000	EA		0972424-0002	XISTOR, NPN SILICON, AST4261							
0017A					Q5 Q6 Q7 Q8							
0039	00002.000	EA		0972670-0001	NETWORK SN75322N							
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE 990/4 CPU BD SUBASSY W/4K RAM SOCKETS					
APP. MGR.		DATE	APP. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LMP944915-0002				

TEXAS INSTRUMENTS INCORPORATED		DATE 09/28/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM944915-0002		REV BH		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0039A					U34 U57							
0040	00001.000	EA		0972037-1680	NETWORK, RES. 16P 68							
0040A					U120							
0041	00001.000	EA		0972037-2330	NETWORK, RES. 16P 330							
0041A					U119							
0046	00001.000	EA		0972946-0081	RES FIX 4.7K OHM 5 % .25 W CARBON FILM	ROH	- R-25					
0046A					R29							
0047	00001.000	EA		0972929-0361	CAP FIX CERAMIC 10.0 PF 10 X 200 V	QPL	-H39014/01-1361					
0047A					C107							
0049	00002.000	EA		0972949-0012	CAP FIX CERAMIC .010 MF 10X 200V	QPL	- CK060X103K					
0049A					C100 C109							
0051	00001.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10 X 15 VOLT	QPL	-H39003/1-2271					
0051A					C44							
0053	00004.000	EA		0972924-0007	CAP FIX TANT SOLID 120 MFD 10 X 10 VOLT	QPL	-H39003/1-2263					
0053A					C1 THRU C4							
0056	00001.000	EA		0974674-0001	NETWORK SN75138N							
0056A					U123							
0058	00017.000	EA		2210180-0004	SOCKET, LOW PROFILE, DIP, 18 CONT.	003612-DIL818P-108						
0058A					XU44 THRU XU51 XU66 THRU							
0058B					XU74							
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE 990/4 CPU BD SUBASSY W/4K RAM SOCKETS					
APP. MGR.		DATE	APP. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO. PART NUMBER LM944915-0002					

TEXAS INSTRUMENTS INCORPORATED		DATE 09/28/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM944915-0002		REV BH		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0059	00004.000	EA		2210180-0002	SOCKET, LOW PROFILE, DIP, 14 PINS	003612-DIL814P-108						
0059A					XU43, XU81, XU34, XU57							
0060	00001.000	EA		2210180-0001	SOCKET, LOW PROFILE, DIP, 3 CONT, 8 PINS	003612-DIL88P-108						
0060A					XU108							
0070	AR	FT		0972437-0002	INSULATION SLEEVING PVC .187" X.025 WALL	MKL	- HT-105C-UL-3/4					
0076	00002.000	EA		0972965-0020	CAP FIX CERAMIC .047 MF 10X 100V	QPL	- CK060X473K					
0076A					C45 C64							
0077	00001.000	EA		0972929-0391	CAP FIX CERAMIC 470 PF 10 X 200 V	QPL	-H39014/01-1391					
0077A					C129							
0080	00000.400	FT		0535970-0058	WIRE ELEC., SOLID, "KYNAR" INSUL 830 AWG							
0082	00000.300	FT		0457313-0004	WIRE 24 AWG SOLID, TEFLON, WHITE	QPL	- MIL-W-16878/4					
0084	00001.000	EA		0944915-5002	AUTO INSERTION TAPE FOR 944915-2							
0085	00004.000	EA		0972929-0367	CAP FIX CERAMIC 22.0 PF 10 X 200 V	QPL	-H39014/01-1367					
0085A					C132 THRU C135							
0086	00001.000	EA		0972976-0077	RES, FIX, 390 OHM, 5%, 0.25 W, CARBON COMP.							
0086A					R31							
0087	00001.000	EA		0972757-0009	CAP FIX CER 470PF 10X 50V							
0087A					C131							
0088	00018.000	EA		0972456-0002	PIN, .025 SQUARE	BEI - 73481-002						
0088A					E1 THRU E14							
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE 990/4 CPU BD SUBASSY W/4K RAM SOCKETS					
APP. MGR.		DATE	APP. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO. PART NUMBER LM944915-0002					

TEXAS INSTRUMENTS INCORPORATED		DATE 09/28/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM944915-0002		REV BH		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0088B					E23 THRU E26							
0089	00003.000	EA		0972467-0001	JUMPER PLUG, CONNECTOR BLACK							
0091	00006.100	FT		0410499-0086	INSULATION SLEEVING, TEFLON #22 NATURAL	QPL	-81349					
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE 990/4 CPU BD SUBASSY W/4K RAM SOCKETS					
APP. MGR.		DATE	APP. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO. PART NUMBER LM944915-0002					

TEXAS INSTRUMENTS INCORPORATED		DATE 09/28/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM944915-0003		REV BH		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0002	REF	EA		0944911-9901	LOGIC DIAGRAM-990/4 CPU							
0003	REF	EA		0944912-9901	TEST PROCEDURE-990/4 CPU							
0004	REF	EA		0944913-9901	SPECIFICATION-990/4 CPU							
0009	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PH8							
0011	00001.000	EA		0972698-0001	CONNECTOR, PH8, 20P, RT.A, SDRTL, HDR, FLTCBL							
0011A					P3							
0012	AR	FT		0411400-0030	WIRE BARE TINNED COPPER 30 AWG ROUND BUS	1WP	- 30-630					
0013	00001.000	EA		0945244-0001	SOCKET, INTEGRATED CIRCUIT, 64 PIN							
0013A					XU36							
0014	00016.000	EA		2210180-0003	SOCKET, LOW PROFILE, DIP, 16 CONT	003612-DIL816P-108						
0014A					XU37 THRU XU40, XU53 THRU							
0014B					XU56, XU59 THRU XU62, XU76							
0014C					THRU XU79							
0015	00001.000	EA		0972645-0001	CRYSTAL, 12 PHZ, QUARTZ	SEE - TI DRAWING						
0015A					Y1							
0016	00001.000	EA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING							
0016A					CR1							
0017	00004.000	EA		0972624-0002	DIODE, NPN SILICON, AST4261							
0017A					Q5 Q6 Q7 Q8							
0039	00002.000	EA		0972670-0001	NETWORK SN75322N							
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE 990/4 CPU BD SUBASSY 4K SKTS & PARITY					
APP. MGR.		DATE	APP. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO. PART NUMBER LM944915-0003					



TEXAS INSTRUMENTS INCORPORATED		DATE 09/28/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LMP944915-0003		REV BH		
PART NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0039A					U34 U57							
0040	00001.000	EA		0972037-1680	NETWORK, RES. 16P 68							
0040A					U120							
0041	00001.000	EA		0972037-2330	NETWORK, RES. 16P 330							
0041A					U119							
0046	00001.000	EA		0972946-0081	RES FIX 4.7K OHM 5 % .25 W CARBON FILM	ROH	- R-25					
0046A					R29							
0047	00001.000	EA		0972929-0361	CAP FIX CERAMIC 10.0 PF 10 X 200 V	QPL	-M39014/01-1361					
0047A					C107							
0049	00002.000	EA		0972965-0012	CAP FIX CERAMIC .010 MF 104 200V	QPL	- CK068X103K					
0049A					C108 C109							
0051	00001.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10 X 15 VOLT	QPL	-M39003/1-2271					
0051A					C44							
0053	00004.000	EA		0972924-0007	CAP FIX TANT SOLID 120 MFD 10 X 10 VOLT	QPL	-M39003/1-2263					
0053A					C1 THRU C4							
0056	00001.000	EA		0974674-0001	NETWORK SN75130N							
0056A					U123							
0058	00017.000	EA		2210188-0004	SOCKET, LOW PROFILE, DIP, 18 CONT.	003612-DIL814P-108						
0058A					XU44 THRU XU51 XU66 THRU							
0058B					XU74							
DRAFTSMAN		DATE	CD. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE 990/4 CPU BD SUBASSY 4K SKTS & PARITY					
APPV. ENG.		DATE	APPV. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO. LMP944915-0003					
							PART NUMBER LMP944915-0003					
							REV BH					

TEXAS INSTRUMENTS INCORPORATED		DATE 09/28/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LMP944915-0003		REV BH		
PART NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0059	00004.000	EA		2210188-0002	SOCKET, LOW PROFILE, DIP, 14 PINS	003612-DIL814P-108						
0059A					XU43, XU81, XU34, XU57							
0060	00001.000	EA		2210188-0001	SOCKET, LOW PROFILE, DIP, 3 CONT. 8 PINS	003612-DIL80P-108						
0060A					XU108							
0070	AR	FT		0972437-0002	INSULATION SLEEVING PVC .187" X.025 WALL	MKL	- MT-105C-UL-3/4					
0076	00002.000	EA		0972965-0020	CAP FIX CERAMIC .047 MF 104 100V	QPL	- CK068X473K					
0076A					C45 C44							
0077	00001.000	EA		0972929-0391	CAP FIX CERAMIC 470 PF 10 X 200 V	QPL	-M39014/01-1391					
0077A					C129							
0080	00000.400	FT		0535978-0058	WIRE ELEC., SOLID, "KYNAR" INSUL #30 AWG							
0082	00000.300	FT		2210083-0003	WIRE, ELEC, COND U/L STYLE 1213, 24 AWG	090484-WTE24A						
0084	00001.000	EA		0944919-5003	AUTO INSERTION TAPE FOR 944915-3							
0085	00004.000	EA		0972929-0367	CAP FIX CERAMIC 22.0 PF 10 X 200 V	QPL	-M39014/01-1367					
0085A					C132 THRU C135							
0086	00001.000	EA		0972976-0077	RES, FIX, 390 OHM, 58, 0.25 W, CARBON COMP.							
0086A					R31							
0087	00001.000	EA		0972757-0009	CAP FIX CER 470PF 104 50V							
0087A					C131							
0088	00018.000	EA		0972456-0002	PIN, .025 SQUARE	BEI - 75481-002						
0088A					E1 THRU E14							
DRAFTSMAN		DATE	CD. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE 990/4 CPU BD SUBASSY 4K SKTS & PARITY					
APPV. ENG.		DATE	APPV. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO. LMP944915-0003					
							PART NUMBER LMP944915-0003					
							REV BH					

TEXAS INSTRUMENTS INCORPORATED		DATE 09/28/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LMP944915-0003		REV BH		
PART NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0088B					E23 THRU E26							
0089	00003.000	EA		0972487-0001	JUMPER PLUG, CONNECTOR BLACK							
0090	00002.000	EA		0222222-7180	NETWORK SN74180N							
0090A					U43 U81							
0091	00000.100	FT		0410499-0006	INSULATION SLEEVING, TEFLON #22 NATURAL	QPL	-81349					
DRAFTSMAN		DATE	CD. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE 990/4 CPU BD SUBASSY 4K SKTS & PARITY					
APPV. ENG.		DATE	APPV. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO. LMP944915-0003					
							PART NUMBER LMP944915-0003					
							REV BH					

TEXAS INSTRUMENTS INCORPORATED		DATE 09/28/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LMP944915-0002		REV BH		
PART NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0091	00001.000	EA		0944916-0001	PWB-990/4 CPU							
0018	00001.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N						
0018A					U82							
0019	00001.000	EA		0972900-7402	NETWORK SN74LS02N							
0019A					U114							
0020	00001.000	EA		0222222-7414	NETWORK SN7414N							
0020A					U113							
0021	00001.000	EA		0972900-7405	NETWORK SN74LS05N	TI -SN74LS05N						
0021A					U22							
0022	00001.000	EA		0222222-7407	NETWORK-SN7407N	TI -SN7407N						
0022A					U122							
0023	00004.000	EA		0972749-0001	NETWORK, SN74LS08N							
0023A					U5 U11 U24 U116							
0024	00002.000	EA		0972900-7410	NETWORK SN74LS10N							
0024A					U32 U110							
0025	00001.000	EA		0972784-0002	NETWORK SN74LS14N							
0025A					U30							
0026	00001.000	EA		0972814-0001	NETWORK-SN74LS27N							
0026A					U33							
0027	00001.000	EA		0972822-0001	NETWORK-SN74LS37N							
DRAFTSMAN		DATE	CD. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE AUTO INSERTION TAPE FOR 944915-2					
APPV. ENG.		DATE	APPV. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO. LMP944915-0002					
							PART NUMBER LMP944915-0002					
							REV BH					

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LMD944915-5002		REV BH		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0027A					U87					
0028	0003.000	EA		0972783-0001	NETWORK, SN74LS42N BCD/DEC					
0028A					U20 U25 U100					
0029	00013.000	EA		0972900-7474	NETWORK SN74LS74N					
0029A					U10 U26 THRU U29, U92, U95					
0029B					U98 U99 U103 U111 U112 U115					
0030	00001.000	EA		0972819-0001	NETWORK-SN74LS69N					
0030A					U93					
0031	00001.000	EA		0219402-7133	NETWORK SN74LS138N					
0031A					U109					
0032	00001.000	EA		0972900-7130	NETWORK SN74LS138N	TI	-SN74LS138N			
0032A					U104					
0033	00001.000	EA		0222222-7140	NETWORK SN74LS148N					
0033A					U21					
0034	00001.000	EA		0001303-0001	NETWORK SN74LS151N					
0034A					U8					
0035	00001.000	EA		0972900-7174	NETWORK SN74LS174N					
0035A					U4					
0036	00006.000	EA		0972199-7265	NETWORK, SN74268N					
0036A					U18 U75 U88 U90 U94 U106					
DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTION TAPE FOR 944915-2										
APPRO. MFG. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LMD944915-5002 REV BH										

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LMD944915-5002		REV BH		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0037	00005.000	EA		0972956-0001	NETWORK SN74367N	TI	-SN74367N			
0037A					U16 U17 U19 U31 U103					
0038	00009.000	EA		0972787-0004	NETWORK SN74LS368N					
0038A					U2 U3 U7 U12 U13 U23 U35					
0038B					U52 U58					
0042	00001.000	EA		0800110-0006	RESISTOR 470 OHMS DIL PULL UP 16 PINS	BEC	-8901R470			
0042A					U46					
0043	00005.000	EA		0972976-0047	RES FIXED 22 OHMS 5% 1/4 WATT	QPL	- 39008			
0043A					R12, R25 THRU R28					
0044	00003.000	EA		0539370-0322	RES FIX FILM 221 OHM 1% .25 WATT	COR	- MASS			
0044A					R21 R22 R23					
0045	00002.000	EA		0972946-0857	RES FIX 470 OHM 5% .25 W CARBON FILM	ROH	- R-25			
0045A					R8, R9					
0046	00012.000	EA		0972946-0081	RES FIX 4.7K OHM 5% .25 W CARBON FILM	ROH	- R-25			
0046A					R3 THRU R7, R10, R11, R14, R15, R16, R19, R20					
0048	00004.000	EA		0972793-0013	CAP, FIXED 270PF 25V 2% CERAMIC DIELECTRIC	UC	-C500271G			
0048A					C111 THRU C114					
0050	00001.000	EA		0972763-0021	CAP., FILMED, AXIAL LEAD, .047 UF, +50V, -20% TOL					
0050A					C9, C10, C12 THRU C15, C17					
DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTION TAPE FOR 944915-2										
APPRO. MFG. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LMD944915-5002 REV BH										

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LMD944915-5002		REV BH		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0050B					THRU C24, C26 THRU C29, C31					
0050C					THRU C38, C41, C42, C43, C46					
0050D					THRU C61, C63, C65 THRU C106,					
0050E					C110, C115, C116					
0051	00004.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10 x 15 VOLT	QPL	-M39003/1-2271			
0051A					C5, C6, C7, C8					
0052	00001.000	EA		0972924-0006	CAP FIX TANT SOLID 39 MFD 10 x 10 VOLT	QPL	-M39003/1-2259			
0052A					C39					
0054	00002.000	EA		0222222-7437	NETWORK SN7437N					
0054A					U68 U107					
0055	00003.000	EA		0222222-7442	NETWORK-SN7442N					
0055A					U1 U14 U15					
0057	00001.000	EA		0972141-0057	NETWORK, RES. 4.7 K OHM 2% 16 PIN DIP	BEC	- 899-1-R-4.7K			
0057A					U9					
0061	00001.000	EA		0222222-7420	NETWORK SN7420N		-SN7420N			
0061A					U97					
0062	00001.000	EA		0972900-7451	NETWORK SN74LS51N	TI	-SN74LS51N			
0062A					U96					
0063	00002.000	EA		0972686-0001	NETWORK-QUAC MULTIPLEXER, SN74LS157N					
0063A					U101 U102					
DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTION TAPE FOR 944915-2										
APPRO. MFG. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LMD944915-5002 REV BH										

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LMD944915-5002		REV BH		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0064	00006.000	EA		0972787-0003	NETWORK SN74LS367N					
0064A					U41 U42 U43 U44 U80 U121					
0065	00002.000	EA		0972653-0001	NETWORK, SN74LS293N					
0065A					U117 U118					
0066	00001.000	EA		0972976-0098	RES, FIX, 3.0K OHM, 5%, 0.25 W, CARBON COMP.					
0066A					R13					
0075	00001.000	EA		0800110-0013	RESISTOR, FIXED-ARRAY, 4.7K					
0075A					U65					
0078	00001.000	EA		0222222-7408	NETWORK-SN7408N					
0078A					U86					
0079	00001.000	EA		0972990-7404	NETWORK SN74LS04N					
0079A					U84					
0081	00001.000	EA		0222222-7400	NETWORK SN7400N		-SN7400N			
0081A					U91					
0083	00001.000	EA		0539370-0335	RES FIX FILM 301 OHM 1% .25 WATT	COR	- MASS			
0083A					R24					
DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTION TAPE FOR 944915-2										
APPRO. MFG. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LMD944915-5002 REV BH										

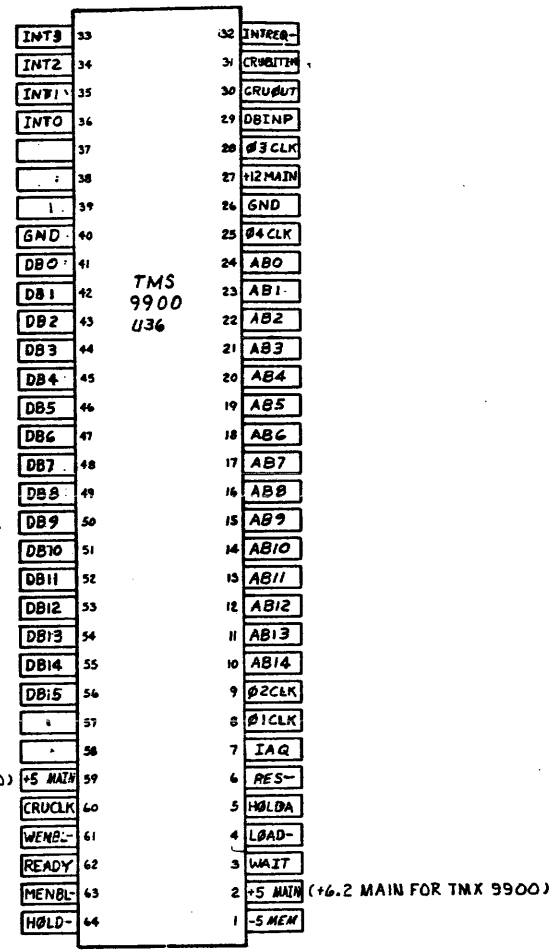
TEXAS INSTRUMENTS INCORPORATED		DATE 09/28/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LMD944915-5003		REV BH	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	0001.000	EA		0944916-0001	PMB-990/4 CPU	TI -SN74LS00N					
0018	0001.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N					
0018A					U02						
0019	0001.000	EA		0972900-7402	NETWORK SN74LS02N						
0019A					U114						
0020	0001.000	EA		0222222-7414	NETWORK SN7414N						
0020A					U113						
0021	0001.000	EA		0972900-7405	NETWORK SN74LS05N	TI -SN74LS05N					
0021A					U22						
0022	0001.000	EA		0222222-7407	NETWORK-SN7407N	TI- -SN7407N					
0022A					U122						
0023	00004.000	EA		0972749-0001	NETWORK, SN74LS08N						
0023A					U5 U11 U24 U116						
0024	00002.000	EA		0972900-7410	NETWORK SN74LS10N						
0024A					U32 U110						
0025	0001.000	EA		0972784-0002	NETWORK SN74LS14N						
0025A					U30						
0026	0001.000	EA		0972814-0001	NETWORK-SN74LS27N						
0026A					U33						
0027	0001.000	EA		0972822-0001	NETWORK-SN74LS37N						
DRAFTSMAN DATE CHG. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTION TAPE FOR 944915-3											
APP. MGR. DATE APP. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LMD944915-5003 BH											

TEXAS INSTRUMENTS INCORPORATED		DATE 09/28/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LMD944915-5003		REV BH	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0027A					U07						
0028	00003.000	EA		0972783-0001	NETWORK,SN74LS42N BCD/DEC						
0028A					U20 U25 U100						
0029	00013.000	EA		0972900-7474	NETWORK SN74LS74N						
0029A					U10 U26 THRU U29,U92 U95						
0029B					U98 U99 U103 U111 U112 U115						
0030	00001.000	EA		0972815-0001	NETWORK-SN74LS85N						
0030A					U93						
0031	00001.000	EA		0219402-7133	NETWORK SN74LS133N						
0031A					U109						
0032	00001.000	EA		0972900-7138	NETWORK SN74LS138N	TI -SN74LS138N					
0032A					U104						
0033	00001.000	EA		0222222-7148	NETWORK SN74148N						
0033A					U21						
0034	00001.000	EA		0801383-0001	NETWORK SN74LS151N						
0034A					U8						
0035	00001.000	EA		0972900-7174	NETWORK SN74LS174N						
0035A					U4						
0036	00006.000	EA		0972159-7265	NETWORK, SN74265N						
0036A					U18 U75 U89 U90 U94 U106						
DRAFTSMAN DATE CHG. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTION TAPE FOR 944915-3											
APP. MGR. DATE APP. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LMD944915-5003 BH											

TEXAS INSTRUMENTS INCORPORATED		DATE 09/28/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LMD944915-5003		REV BH	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0037	00003.000	EA		0972556-0001	NETWORK SN74367N	TI- -SN74367N					
0037A					U16 U17 U19 U31 U105						
0038	00009.000	EA		0972787-0004	NETWORK SN74LS348N						
0038A					U2 U3 U7 U12 U13 U23 U35						
0038B					U52 U58						
0042	00001.000	EA		0800118-0004	RESISTOR 470 OHMS DIL PULL UP 16 PINS	BEC -8981R470					
0042A					U6						
0043	00005.000	EA		0972974-0047	RES FIXED 22 OHMS 5 1/4 WATT	QPL - 39008					
0043A					R12,R23 THRU R28						
0044	00003.000	EA		0539378-0322	RES FIX FILM 221 OHM 1/8 .25 WATT	COR - NA55					
0044A					R21 R22 R23						
0045	00002.000	EA		0972944-0057	RES FIX 470 OHM 5 1/4 .25 W CARBON FILM	ROH - R-25					
0045A					R8,R9						
0046	00012.000	EA		0972944-0081	RES FIX 4.7K OHM 5 1/4 .25 W CARBON FILM	ROH - R-25					
0046A					R3 THRU R7,R10,R11,R14,R15,						
0046B					R16,R19,R20						
0048	00004.000	EA		0972753-0013	CAP, FIXED 270PF 25V 28 CERAMIC DIEL	UC -C500271G					
0048A					C111 THRU C114						
0050	00091.000	EA		0972743-0021	CAP.,FIXED,AXIAL LEAD,.047 UF,+80V,-20%						
0050A					C9,C10,C12 THRU C15,C17						
DRAFTSMAN DATE CHG. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTION TAPE FOR 944915-3											
APP. MGR. DATE APP. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LMD944915-5003 BH											

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM944915-5003		REV BH	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
00500					THRU C24,C26 THRU C29,C31				
0050C					THRU C38,C41,C42,C43,C46				
0050D					THRU C61,C63,C65 THRU C106,				
0050E					C110,C115,C116				
0051	00004.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10 X 15 VOLT	QPL	-M39003/1-2271		
0051A					C5,C6,C7,C8				
0052	00001.000	EA		0972924-0006	CAP FIX TANT SOLID 39 MFD 10 X 10 VOLT	QPL	-M39003/1-2259		
0052A					C39				
0054	00002.000	EA		022222-7437	NETWORK SN7437N				
0054A					U00 U107				
0055	00003.000	EA		022222-7442	NETWORK-SN7442N				
0055A					U1 U14 U15				
0057	00001.000	EA		0972141-0057	NETWORK,RES. 4.7 K OHM 2 X 14 PIN DIP	SEC	- 099-1-R4.7K		
0057A					U9				
0061	00001.000	EA		022222-7420	NETWORK SN7420N	-SN7420N			
0061A					U97				
0062	00001.000	EA		0972900-7451	NETWORK SN74LS51N	TI	-SN74LS51N		
0062A					U96				
0063	00002.000	EA		0972600-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N				
0063A					U101 U102				
DRAFTSMAN _____ DATE _____ CDL DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE _____ AUTO INSERTION TAPE FOR 944915-3									
APP. MGR. _____ DATE _____ APP. PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ PART NUMBER: LM944915-5003 REV: BH									

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LM944915-5003		REV BH	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0064	00006.000	EA		0972787-0003	NETWORK SN74LS367N				
0064A					U41 U42 U43 U44 U80 U121				
0065	00002.000	EA		0972653-0001	NETWORK,SN74LS293N				
0065A					U117 U118				
0066	00001.000	EA		0972976-0098	RES,FIX,3.0K OHM, 58,0.25 W,CARBON COMP.				
0066A					R13				
0075	00001.000	EA		0880118-0013	RESISTOR, FIXED-ARRAY, 4.7K				
0075A					U65				
0078	00001.000	EA		022222-7408	NETWORK-SN7408N				
0078A					U86				
0079	00001.000	EA		0972900-7404	NETWORK SN74LS04N				
0079A					U84				
0081	00001.000	EA		022222-7400	NETWORK SN7400N	-SN7400N			
0081A					U91				
0083	00001.000	EA		0539370-0335	RES FIX FILM 301 OHM 1/4 .25 WATT	COR	- M455		
0083A					R24				
DRAFTSMAN _____ DATE _____ CDL DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE _____ AUTO INSERTION TAPE FOR 944915-3									
APP. MGR. _____ DATE _____ APP. PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ PART NUMBER: LM944915-5003 REV: BH									

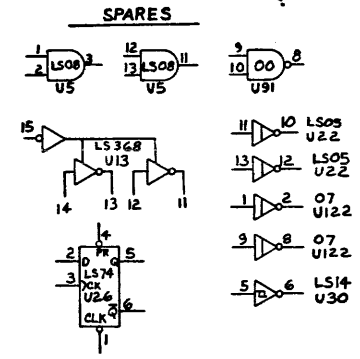


NOTES: UNLESS OTHERWISE SPECIFIED;  
 1. ALL DEVICE TYPES ARE PREFIXED WITH SN74  
 2. GROUND IS APPLIED TO PIN 7 OF ALL 14-PIN IC'S AND PIN 8 OF ALL 16-PIN IC'S EXCEPT RES. PKGS.  
 3. VCC IS APPLIED TO PIN 14 OF ALL 14-PIN IC'S AND PIN 16 OF ALL 16-PIN IC'S EXCEPT U117 AND U120.  
 4. DEVICE TYPE, PIN NUMBERS, AND REFERENCE DESIGNATOR OF IC IS SHOWN AS FOLLOWS:



- 00 AND 04 = DEVICE TYPE
- 4, 5, AND 6 = PIN NUMBERS
- U6 AND U10 = REFERENCE DESIGNATOR
- \* INDICATES PACKAGES POWERED BY +5V MEM
- 6. ALL PULL UP RESISTORS ARE 4.7K Ω EXCEPT U6 WHICH IS 470Ω
- 7. ALL SERIES RESISTORS ARE 68 Ω
- 8. DIFFERENT VALUES MAY BE SELECTED DURING TEST

ZONE	LTR	DESCRIPTION	DATE	A
A				
B				
C				
D				
E				
F				
G				
H				
J				
K				
L				
M				
N				
P				
R				
T				
U				
V				
W				
Y				
AA				
AB				



REV STATUS	REV	AB	AA	V	AB	Y	U	W	U	U
OF SHEETS	5	1	2	3	4	5	6	7	8	9

QTY	REQD	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION

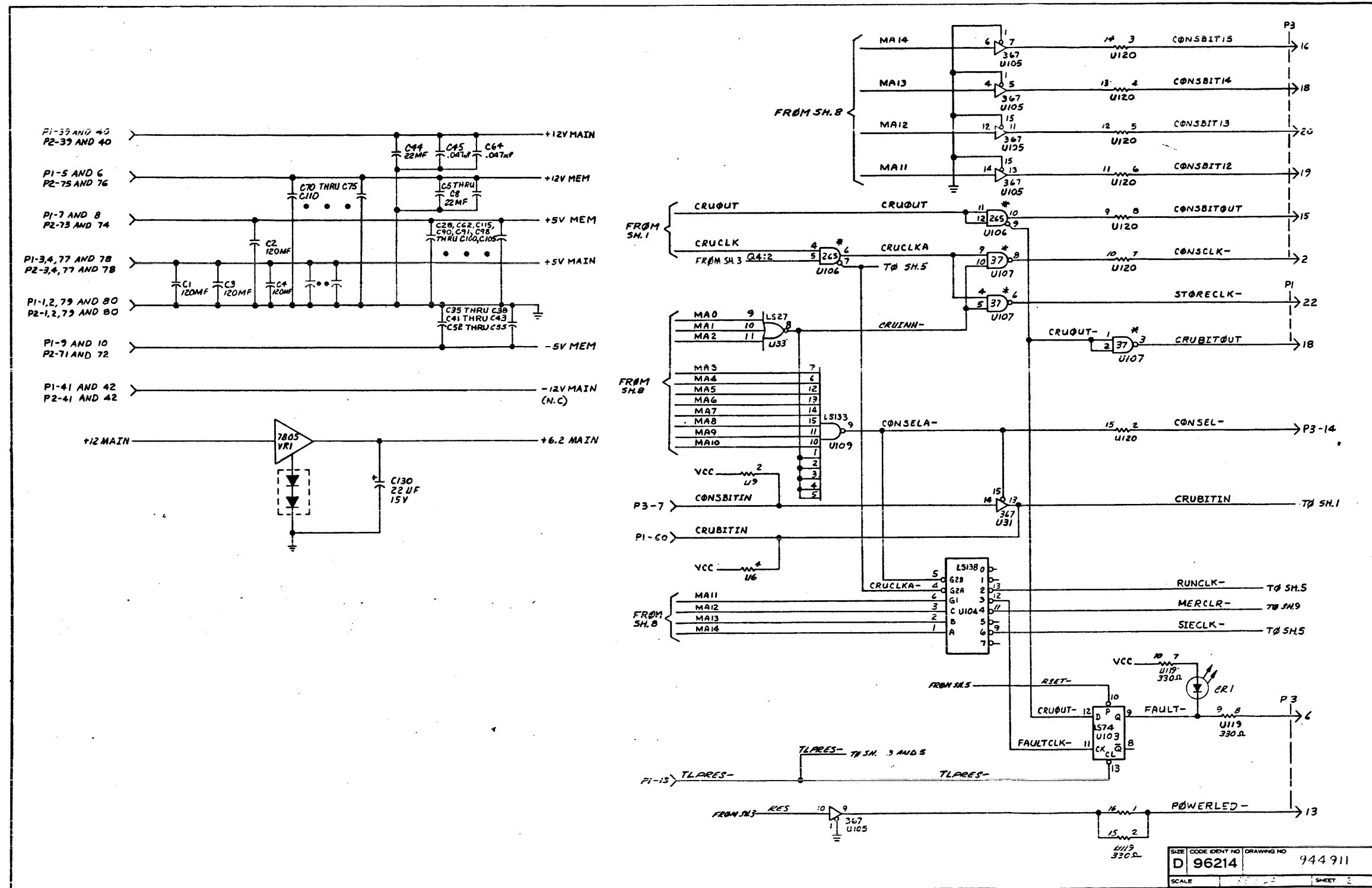
UNLESS OTHERWISE SPECIFIED	UNLESS OTHERWISE SPECIFIED
REMOVE ALL BURRS AND SHARP EDGES	DIMENSIONS ARE IN INCHES
CONCENTRICITY MACHINED DIAMETERS .010 PIR	TOLERANCES
DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING	ANGLES ±1°
IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY	3 PLACE DECIMALS ±.010
INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100	2 PLACE DECIMALS ±.02

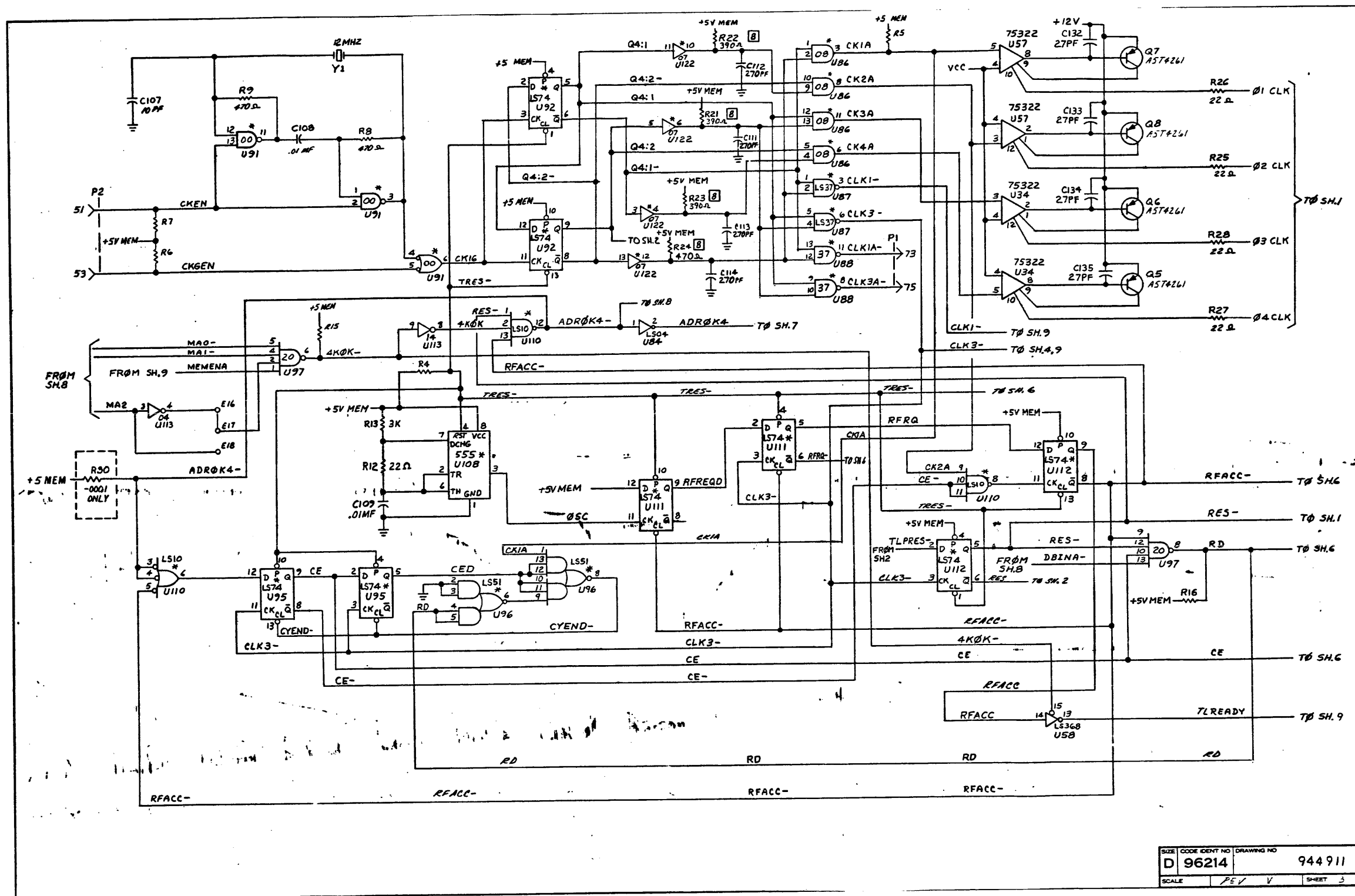
DESIGN ACTIVITY RELEASE	DATE	BY

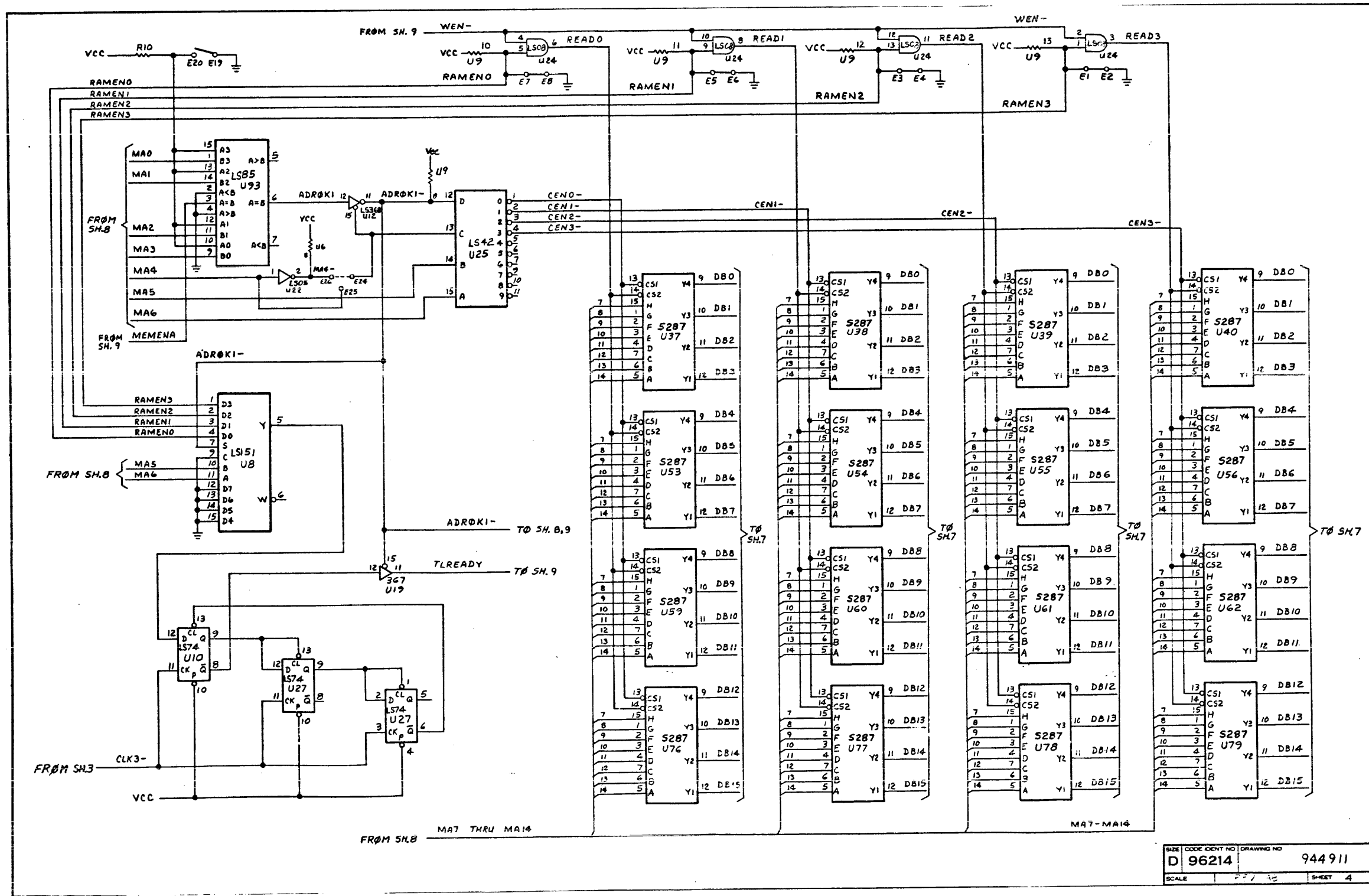
SIZE	CODE IDENT NO	DRAWING NO
D	96214	944911



SIZE	CODE	IDENT NO.	DRAWING NO.
D	96214		944911
SCALE			SHEET 2

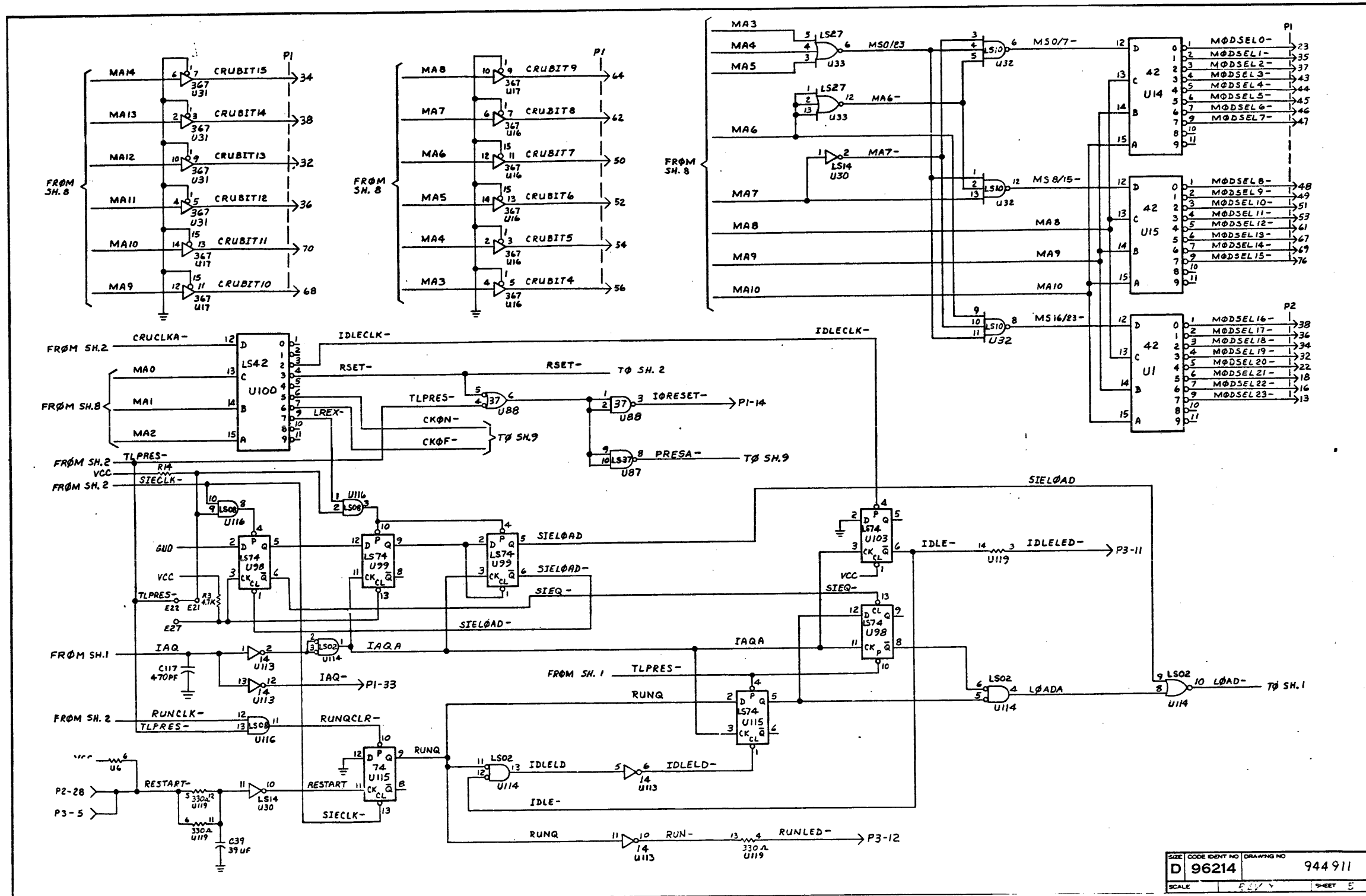


SIZE	CODE IDENT NO	DRAWING NO
D	96214	944911
SCALE	FE / V	SHEET 3

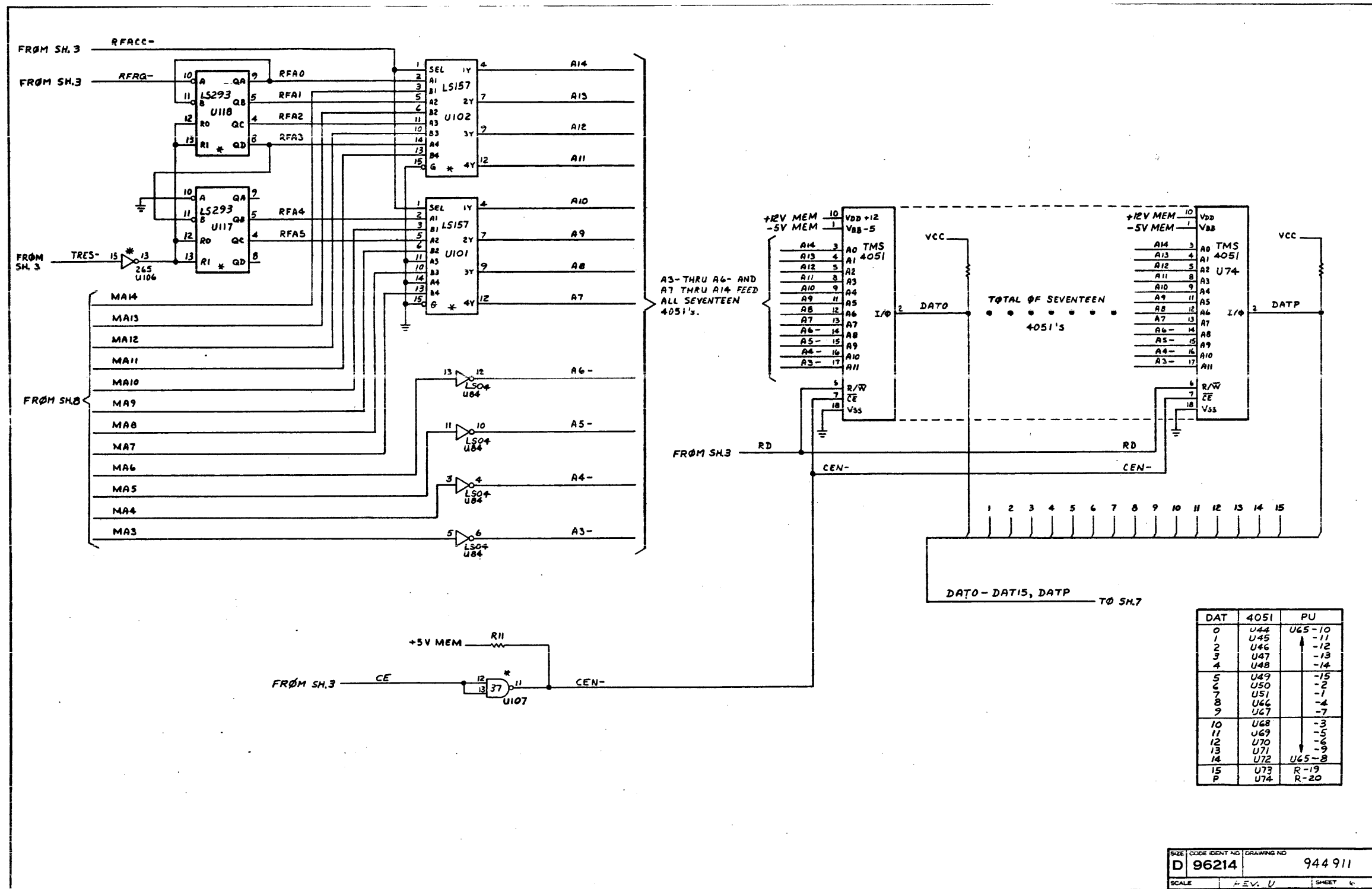


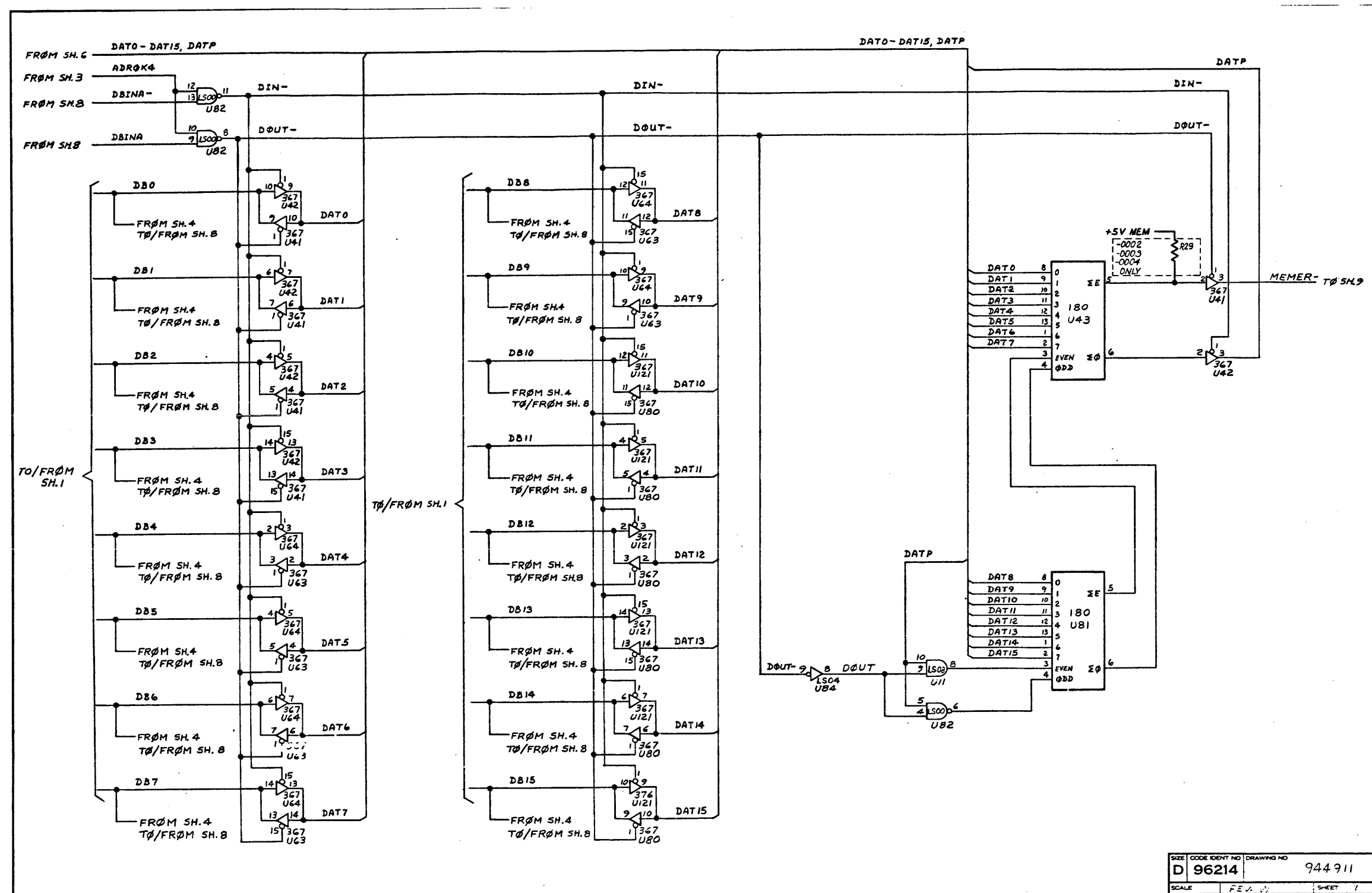
SIZE	CODE	IDENT NO	DRAWING NO
D	96214		944911
SCALE		SHEET	4

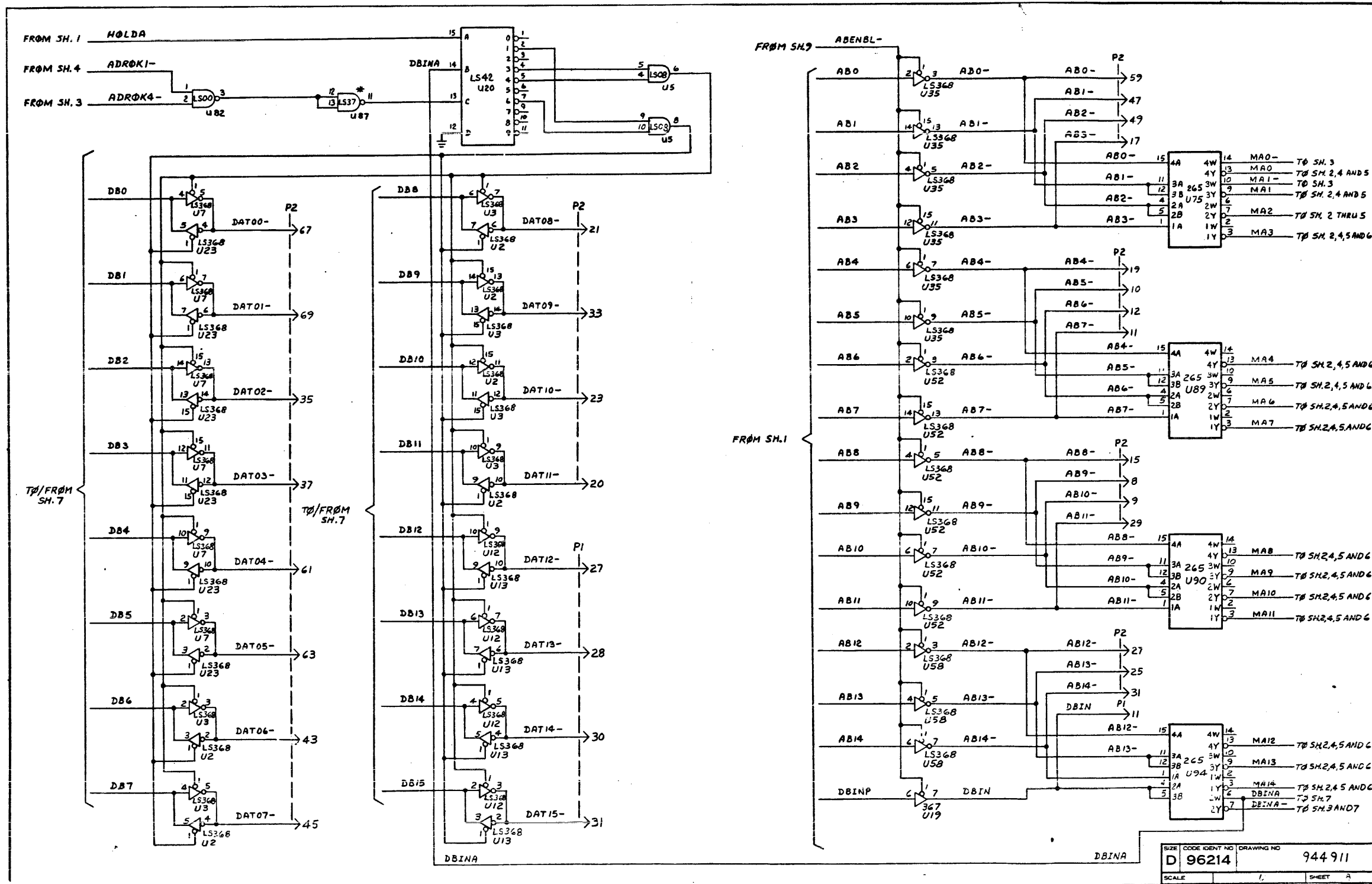


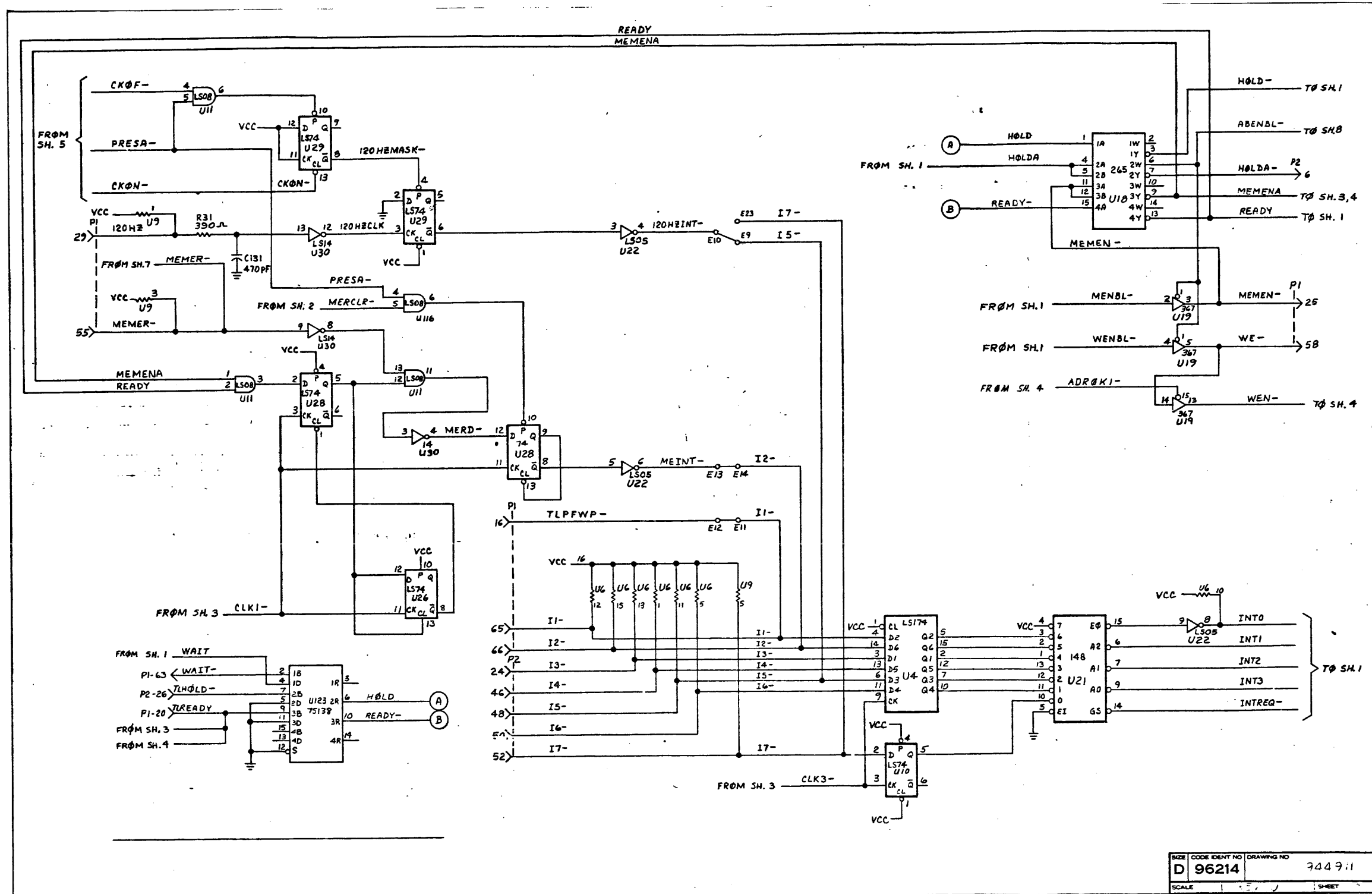


SIZE	CODE IDENT NO	DRAWING NO
D	96214	944911
SCALE	1:1	SHEET 5



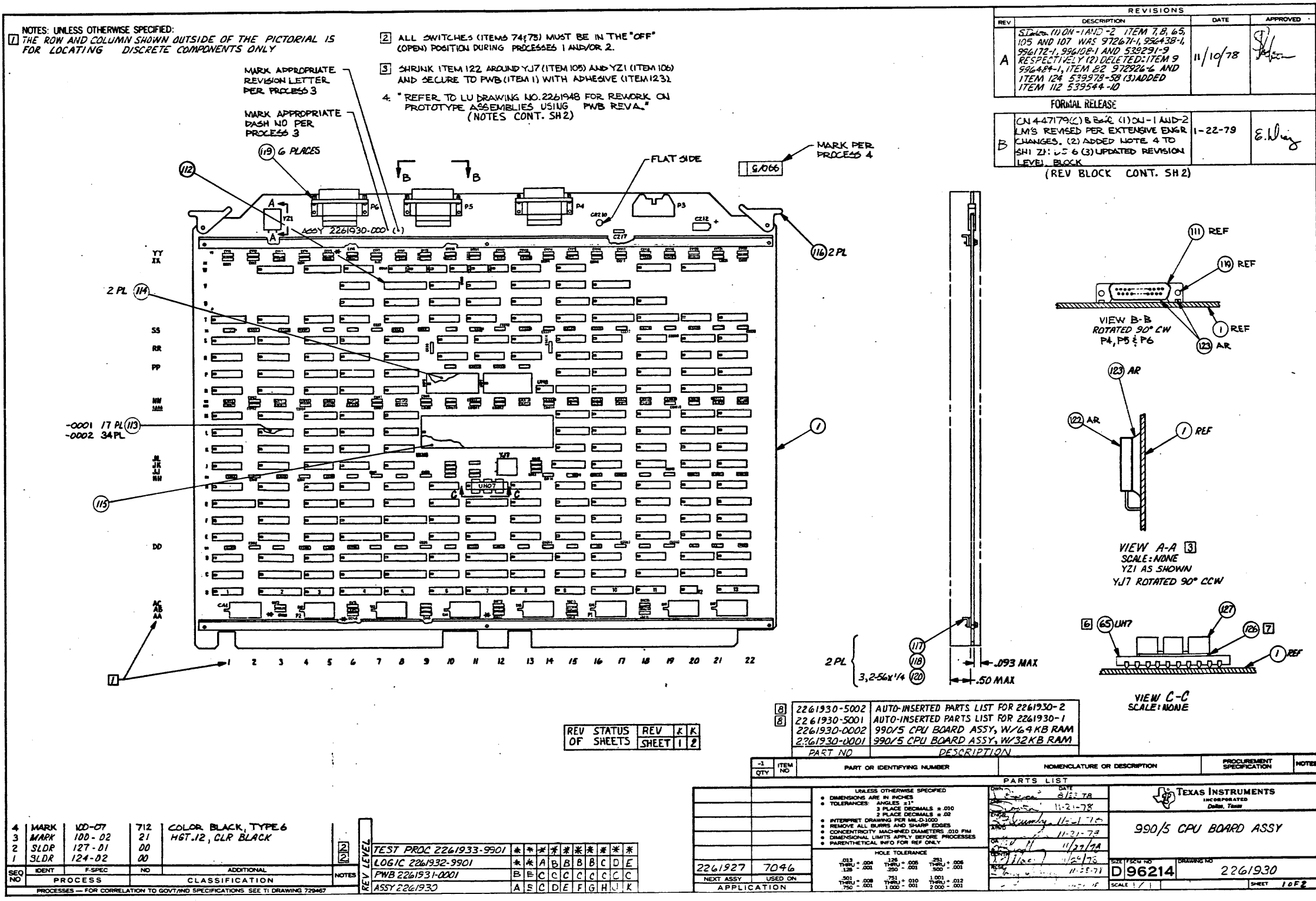






SIZE	CODE IDENT NO	DRAWING NO
D	96214	7449:1
SCALE	1	SHEET





REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	STANDARD 11/04-1 AND 2 ITEM 7, 8, 65, 105 AND 107 WAS 9726714, 996438-4, 996172-1, 996108-1 AND 539291-9 RESPECTIVELY. (12) DELETED. ITEM 9 996484-1, ITEM 82 972926-6 AND ITEM 124 539978-58 (3) ADDED. ITEM 112 539544-10	11/10/78	[Signature]

FORMAL RELEASE			
B	CN 4-47179(2) & 2042 (1) 0J-1 AND 2 LM'S REVISED PER EXTENSIVE ENGR CHANGES. (2) ADDED NOTE 4 TO SH1 Z1: 1-5 6 (3) UPDATED REVISION LEVEL BLOCK	1-22-79	E. Nig

(REV BLOCK CONT. SH 2)

REV STATUS OF SHEETS	REV	K	K

8	2261930-5002	AUTO-INSERTED PARTS LIST FOR 2261930-2
8	2261930-5001	AUTO-INSERTED PARTS LIST FOR 2261930-1
	2261930-0002	990/5 CPU BOARD ASSY, W/64KB RAM
	2261930-0001	990/5 CPU BOARD ASSY, W/32KB RAM
	PART NO	DESCRIPTION

QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

UNLESS OTHERWISE SPECIFIED:  
 \* DIMENSIONS ARE IN INCHES  
 \* TOLERANCES: ANGLES ±1°  
 \* 3 PLACE DECIMALS = .010  
 \* 2 PLACE DECIMALS = .02  
 \* INTERPRET DRAWING FOR MIL-D-1000  
 \* REMOVE ALL BURRS AND SHARP EDGES  
 \* CONCENTRICITY MACHINED DIAMETERS .010 P/M  
 \* DIMENSIONAL LIMITS APPLY BEFORE PROCESSES  
 \* PARENTHEetical INFO FOR REF ONLY

HOLE TOLERANCE  
 .013 THRU .004 .156 THRU .008 .251 THRU .008  
 .138 THRU .001 .250 THRU .001 .300 THRU .001

2261927 7096  
 NEXT ASSY USED ON APPLICATION

DATE: 11-21-78  
 DATE: 11-21-78  
 DATE: 11-21-78  
 DATE: 11-21-78  
 DATE: 11-21-78

TEXAS INSTRUMENTS INCORPORATED Dallas, Texas  
 990/5 CPU BOARD ASSY

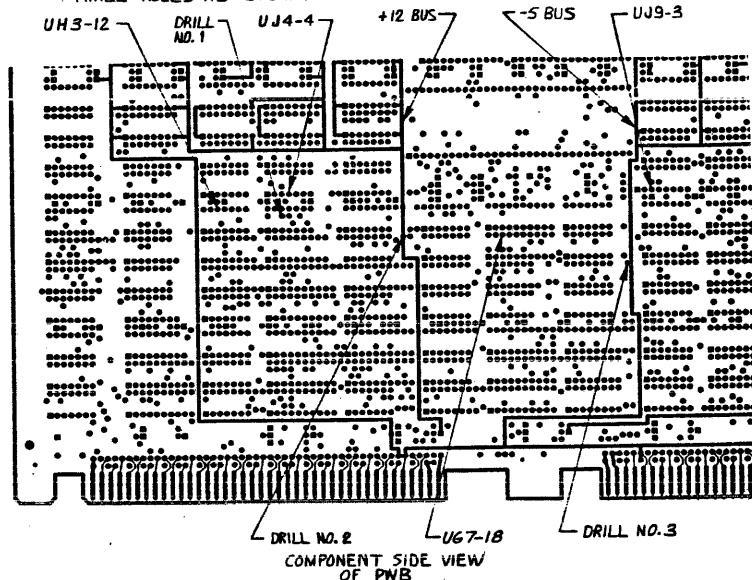
SIZE: 1/8" x 1/8" x 1/8" DRAWING NO: D96214 2261930  
 SCALE: 1/1 SHEET 1 OF 2

4	MARK	100-07	712	COLOR BLACK, TYPE 6
3	MARK	100-02	21	HGT. 12, CLR BLACK
2	SLDR	127-01	00	
1	SLDR	124-02	00	

REV LEVEL	TEST PROC	2261933-9901	*	*	*	*	*	*	*	*	*	*	*	*
	LOGIC	2261932-9901	* <td>* <td>A</td> <td>B</td> <td>B</td> <td>B</td> <td>B</td> <td>C</td> <td>D</td> <td>E</td> <td></td> <td></td> </td>	* <td>A</td> <td>B</td> <td>B</td> <td>B</td> <td>B</td> <td>C</td> <td>D</td> <td>E</td> <td></td> <td></td>	A	B	B	B	B	C	D	E		
	PWB	2261931-0001	B	E	C	C	C	C	C	C	C	C		
	ASSY	2261930	A	E	C	D	E	F	G	H	J	K		

NOTES CONT.

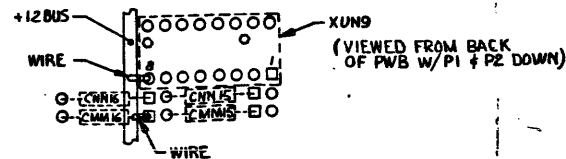
5. REWORK PROCEDURE FOR PWB 2261931 REV B:  
 A. USING A .040 (#60) TO .043 (#57) DRILL IN A  
 PIN VISE, DRILL OUT THE PLATING IN THE  
 THREE HOLES AS SHOWN BELOW:



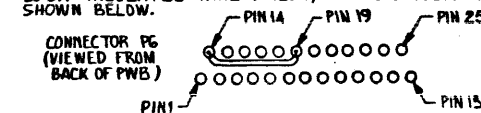
B. INSPECT THE DRILL HOLES FOR COPPER SMEARS  
 AND UNREMOVED PLATING. RE-DRILL IF NECESSARY.  
 USING AN OHMMETER ON X1 SCALE VERIFY NO  
 CONTINUITY BETWEEN THE FOLLOWING POINTS.

FROM	TO	IF CONTINUITY IS FOUND CHECK DRILLED HOLE:
UH3-12	UJ4-4	NO. 1
UH3-12	+12 BUS	NO. 1
UJ4-4	+12 BUS	NO. 1
UG7-18	+12 BUS	NO. 2
UG7-18	-5 BUS	NO. 3
UJ9-3	-5 BUS	NO. 3

C. FILL THE 3 DRILLED HOLES WITH EPOXY  
 (T.I. P/N 0994639-0001 OR EQUIVALENT) DO NOT APPLY  
 EPOXY TO PADS OR HOLES OTHER THAN THE 3  
 HOLES DRILLED PREVIOUSLY. ALLOW EPOXY TO  
 CURE AT LEAST 12 HOURS. AFTER COMPONENTS  
 ARE INSTALLED AND SOLDERED USE 306A INSULATED  
 WIRE (T.I. P/N 535978-0058 OR EQUIVALENT) TO  
 CONNECT THE FOLLOWING POINTS TOGETHER:  
 UH3-12, UJ4-4, UG7-18, UJ9-3  
 D. ON BACK SIDE OF BOARD WIRE XUNG PIN 2 AND  
 CNMIG PIN 1 (SQ. PAD) TO +12 BUS AS SHOWN BELOW,  
 USING T.I. P/N 535978-0058 WITH INSULATION  
 REMOVED.



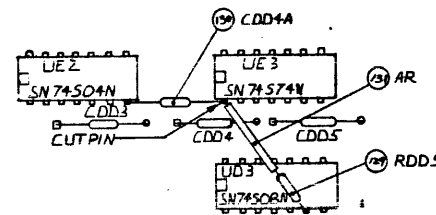
E. ON COMPONENT SIDE OF PWB, CUT UF13, PIN 15.  
 USING 30 GA. INSULATED WIRE (T.I. P/N 535978-0058  
 OR EQUIVALENT) CONNECT UF13, PIN 15 TO UF12, PIN 6.  
 ON BACK SIDE OF BOARD WIRE PG-14 TO PG-19 USING  
 30 GA. INSULATED WIRE (T.I. P/N 535978-0058) AS  
 SHOWN BELOW.



NOTE 6 CONT.

F. CUT PINS 1, 2, AND 3 OF UH04, USING 30 GA  
 INSULATED WIRE, WIRE UE02-2 TO  
 UH04-5, AND WIRE UE02-1 TO UDD1-6

- 6. ITEM 65 (SNT4LS359 AT LOCATION UH07) SHALL  
 NOT BE INSTALLED WITH A SOCKET
  - 7. USE AS SMALL AN AMOUNT OF ADHESIVE (ITEM 126)  
 AS POSSIBLE AND STILL ACHIEVE A COMPLETE  
 UNIFORM BOND BETWEEN HEAT SINK (ITEM 127)  
 AND IC (ITEM 65). ADHESIVE MUST CURE FOR A  
 MINIMUM OF 12 HOURS WITH ASSEMBLY IN A  
 HORIZONTAL POSITION
  - 8. ITEM 128 IN -0001 AND -0002 L/M'S CONSISTS OF PARTS  
 WHICH ARE AUTO-INSERTED AND ARE CONTAINED IN  
 -5001 AND -5002 L/M'S
9. REWORK PROCEDURE FOR PWB (2261931) REV B AND C: CUT  
 UFB PIN 13. USING 30 GA. INSULATED WIRE, CONNECT  
 UFB-13 TO UH11-8. CUT PIN 1 OF IC UE3. INSTALL  
 ITEMS 129, 130, AND 131 AS SHOWN BELOW. ITEM 129  
 SHALL BE FLAT AGAINST TOP SURFACE OF IC UDA.



10. REWORK FOR PWB (2261931) REV B AND C  
 A. CUT PIN 13 OF IC AT UH7  
 B. INSTALL 10-0HM RESISTOR (ITEM 132)  
 BETWEEN PIN 13 OF UH7 AND THE SQUARE  
 PAD OF CAPACITOR AT CWHH. SLEEVE LEADS  
 OF ITEM 132 WITH ITEM 131 AS NECESSARY

ZONE	LTN	DESCRIPTION	DATE	APPROVED
C		CN 448228 (C) 2.0mm (1) ON SH 1, ZNC-4, CE 12 POSITIVE END WAS POINTING TOWARD CONN. P2 (2) ADDED SH2 (3) CN-1 & 2 LM'S QTY ITEM 99 WAS 85 W/FRE 214, ADDED ITEM 82 ON-1 LM, QTY ITEM 90 WAS 20, ON-2 LM QTY ITEM 90 WAS 36 (UPDATED REV LEVEL BLK	3-20-79	E. Wang
D		CN 448236 (C) 2.0mm (1) ON-1 & -2 LM'S LINE SA WAS UNP06, LINE SA WAS UNP07 (2) ON-1 & -2 LM'S ITEM 112, 113, & 114 WAS 539544-10, 539544-2, & 539544-7 (2) NOTE 5, SR2, ADDED CUT PINS 1, 2, AND 3... UE02-1 TO UDD1-6 (3) UPDATED REV LEVEL BLK	3-20-79	E. Wang
E		CN 448242 (B) 2.0mm (1) ON LM-19-2, ITEM 5 PIN WAS 2261929-0001, ITEM 6, P/N WAS 2261929-0002 (2) ON LM -1 & -2 ADDED ITEMS 126 & 127 (3) ON SH1, PICTORIAL, 2 & 5 & 6, ADD ED: ITEM 127 AND VIEW ARROWS AT LOCATION UH07 (4) SH-1, ADDED VIEW C-C (5) SH-2 ADDED NOTES (6) AND (7) (6) UPDATED REV LEVEL BLOCK	6-5-79	AR
F		CN 448799 (C) 2.0mm (1) REVISED -0001 & -0002 L/M'S PER EXTENSIVE ENGRG CHANGES (2) CREATED -5001 & -5002 L/M'S (3) ADDED -5001 & -5002 TO P/N BLOCK (4) ADDED FLAG NOTE (5) TO F/D (5) UPDATED REV LEVEL BLOCK	7-24-79	E. Wang
G		CN 448800 (C) 2.0mm (1) SH 2, NOTE 5 WAS ... (#60) OR .041 (#58) DRILL... (2) UPDATED REV LEVEL BLOCK	7-24-79	E. Wang
H		CN 450280 (B) 2.0mm (1) ON -0001 LM, P/N'S OF ITEMS 5 & 6 WERE 2261929-5 & 2261929-6 RESPECTIVELY (2) ADDED NOTE 9 TO F/D (3) UPDATED REV LEVEL BLOCK (4) ON -0002 L/M, P/N'S OF ITEMS 5 & 6 WERE 2261929- 5 & 2261929-6 RESPECTIVELY	7-24-79	E. Wang
J		CN 433535 (B) 2.0mm (1) ADDED ITEMS 129, 130, AND 131 TO -0001 AND -0002 L/M (2) CONTINUED EXISTING NOTE 9 (3) UPDATED REV STATUS BLOCK	10-16-79	E. Wang
K		CN 451914 (B) 2.0mm (1) ADDED NOTE 10 (2) ADDED ITEM 132 TO -0001 & -0002 L/M (3) UPDATED REV LEVEL BLOCK	10-16-79	E. Wang

DATE	3-2-79	SCALE	1:1	DESIGN NO.	2261930	REV	K
ISSUE DATE							
TEXAS INSTRUMENTS		CORPORATION		DALLAS, TEXAS			



TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM 2261930-0001		REV K		
PART NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0002	REF	EA		2261932-9901	LOGIC DIAGRAM, 990/5 CPU							
0003	REF	EA		2261933-9901	TEST PROCEEDURE, 990/5 CPU							
0004	REF	EA		2261934-9901	SPECIFICATION, 990/5 CPU							
0005	00001.000	EA		2261929-0007	ROM,990/5 LOADER W/SELF TEST,STD,#1							
0005A					UNP07							
0006	00001.000	EA		2261929-0008	ROM,990/5 LOADER W/SELF TEST,STD,#2							
0006A					UNP06							
0007	00001.000	EA		2210175-0001	IC, MICROPROCESSOR, TMS9900-40	001295-TMS9900-40						
0007A					UKM06							
0008	00002.000	EA		2210238-0001	IC, COMM CONT	001295-TMS-9902-40						
0008A					UV08 UV10							
0010	00017.000	EA		0996680-0001	IC, 16K RAM, (SEL)	001295-TMS4116/ZA072						
0010A					UL02 THRU UL05							
0010B					UM02 THRU UM05							
0010C					UN02 THRU UN05							
0010D					UP02 THRU UP05							
0010E					UR05							
0058	00001.000	EA		0996089-0002	IC,SN74LS241N,LINE DRIVERS	012955-N74LS241N						
0058A					UD08							
0059	00001.000	EA		0996588-0001	IC,SN74LS242N QUADRUPLE BUS XCEIVER	012955-N74LS242N						
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE					
							990/5 CPU BOARD ASSY, W/32KB RAM					
APPD. MFG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM 2261930-0001				
							7046	REV K				

TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM 2261930-0001		REV K		
PART NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0059A					UB01							
0060	00015.000	EA		0996089-0004	IC,SN74LS244N LINE DRIVER	-SN74LS244N						
0060A					UB02 UB07 UB10 UB13 UC02							
0060B					UC04 UC11 UD04 UD07 UF04							
0060C					UF05 UG01 UG07 UT10 UQ10							
0063	00002.000	EA		0996029-0001	IC,SN74LS273N OCTAL D-TYPE FLIP/FLOP	TI -SN74LS273N						
0063A					UD05 US01							
0065	00001.000	EA		2210239-0001	IC,4-PHASE, 4MHZ CLOCK, GEN/DRVR	-SN74LS359N						
0065A					UH07							
0066	00004.000	EA		0996420-0002	IC,SN74LS374N EDGE-TRIGGERED FLIP-FLOPS	001295-SN74LS374N						
0066A					UB04 UC05 UC07 UE04							
0070	00001.000	EA		0996421-0001	IC,SN75140N DUAL LINE RECEIVER	001295-SN75140N						
0070A					UB12							
0073	00001.000	EA		0996058-0001	IC,COM5016-6 DUAL BAUD RATE GENERATOR	053848-COM 5016-6						
0073A					UN03							
0074	00001.000	EA		0996798-0004	SWITCH,SPST, 4 SECT-MULTI DUAL-IN-LINE	081640-SL1004						
0074A					UN08							
0075	00003.000	EA		0996798-0008	SWITCH,SPST,8 SECT-MULTI DUAL-IN-LINE	081640-SL1008						
0075A					UG09 UT05 UQ07							
0080	00008.000	EA		0972924-0016	CAP FIX TANT SOLID 100 MFD 10 3 20 VOLT QPL	-M39003/1-2301						
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE					
							990/5 CPU BOARD ASSY, W/32KB RAM					
APPD. MFG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM 2261930-0001				
								REV K				

TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM 2261930-0001		REV K		
PART NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0080A					CA1 CA2 CA3 CA4							
0080B					CA5 CA6 CA7 CA8							
0081	00001.000	EA		0972924-0006	CAP FIX TANT SOLID 39 MFD 10 3 10 VOLT QPL	-M39003/1-2259						
0081A					CZ12							
0086	00001.000	EA		0972757-0001	CAP, FIXED CERAMIC 100 PF 10% 50V	UC -C51C101K						
0086A					CYY01							
0087	00001.000	EA		0972763-0021	CAP.,FIXED,AXIAL LEAD,.047 UF,+80%,-20%							
0089A					CZ17							
0090	00001.000	EA		0972763-0025	CAPACITOR,.10UF 50V FX,CERAMIC DIEI	COR CA-C0325U1042050A						
0090A					CR009							
0100	00001.000	EA		0972946-0081	RES FIX 4.7K OHM 5 3 .25 W CARBON FILM	ROH - F-25						
0100A					RXX01							
0105	00001.000	EA		0418801-0006	CRYSTAL,QUARTZ 16.000 MHZ CR-64/U							
0105A					YJ07							
0106	00001.000	EA		0996618-0003	CRYSTAL,QUARTZ .0053 5.0688 MHZ	075378-MP050						
0106A					YZ01							
0108	00004.000	EA		0231784-6002	DIODE- 4 PELLETT, SILICON,MULTI	GE -MPD400						
0108A					CRAA6 CRAB3 CRAB12 CRXX5							
0109	00001.000	EA		0226609-0001	DIODE,VISIBLE LIGHT EMITTING							
0109A					CRZ10							
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE					
							990/5 CPU BOARD ASSY, W/32KB RAM					
APPD. MFG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM 2261930-0001				
								REV K				

TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM 2261930-0001		REV K		
PART NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0110	00001.000	EA		0972137-0001	CONNECTOR,PC-HEADER 20 CONTACT	BEI - 65483-001						
0110A					P3							
0111	00003.000	EA		0972709-0001	CONNECTOR,MS-232,25 PIN MALE							
0111A					P4 P5 P6							
0112	00001.000	EA		2210188-0005	SOCKET, LOW PROFILE, DIP, 20 PINS	003612-DILB20P-108						
0112A					XUV05							
0113	00017.000	EA		2210188-0003	SOCKET,LOW PROFILE,DIP,16 CONT	003612-DILB16P-108						
0113A					XUL02 THRU XUL05							
0113B					XUM02 THRU XUM05							
0113C					XUN02 THRU XUN05							
0113D					XUP02 THRU XUP05 XUR05							
0114	00002.000	EA		2210188-0007	SOCKET, LJM PROFILE, DIP, 24 PINS	003612-DILB24P-108						
0114A					XUNP06 XUNP07							
0115	00001.000	EA		0945244-0001	SOCKET,INTEGRATED CIRCUIT,64 PIN							
0115A					XUKM06							
0116	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB							
0117	00002.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN							
0118	00002.000	EA		0944954-0001	INSULATOR, PWB, 14IN							
0119	00006.000	EA		0406769-0001	SCREW,SPECIAL,CONNECTOR LOCKING	CIE - D20418-2						
0120	00006.000	EA		0972684-0002	SCREW,TMD FRMG,HEX WSHR HD,2-56X1/4 LG							
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE					
							990/5 CPU BOARD ASSY, W/32KB RAM					
APPD. MFG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM 2261930-0001				
								REV K				

TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LM 2261930-0001		REV K	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
Q122	00000.100	FT		0417177-0211	SLEEVE,PVC .170 DIA BLACK .012 WALL THK						
Q123	AR	EA		0996069-0003	ADM,SOLID,THRMPLSTC 250 BAG ANAEROBIC	PERSAL-917-6302					
Q125	00001.000	EA		0996063-0001	IC,SN74S241N,LINE DRIVERS	001295-SN74S241N					
Q125A					UT11						
Q126	00000.010	TU		0417857-0001	ADHESIVE,SILICON THERMAL COND						
Q127	00001.000	EA		2210450-0001	HEAT SINK, DIP	013103-60108					
Q128	00001.000	EA		2261930-5001	AUTO-INSERTED PARTS LIST FOR 2261930-1						
Q129	00001.000	EA		0972946-0035	RES FIX 56.0 OHM 5 % .25 W,CARBON FILM	RQH - R-25					
Q129A					RDD5						
Q130	00001.000	EA		0972757-0013	CAP.,FIXED,AXIAL LEAD,1000 PF,10%,50V						
Q130A					CDD4A						
Q131	00000.100	FT		0972434-0008	INSUL SLEEVING,TEFOM #18 .042ID .16 WALL MLK	- TFE-200C-UL-					
Q132	00001.000	EA		0972975-0001	RES. FIXED, COMP (1NS) 1/8W, 5% TOL.	SEE TI- DRAWING					
Q132A					RHH11						
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE 990/5 CPU BOARD ASSY, W/32KB RAM											
APP. MFG. DATE APP. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 2261930-0001 K											

TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM 2261930-0002		REV K	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
JJ02	REF	EA		2261932-9901	LOGIC DIAGRAM, 990/5 CPU						
JJ03	REF	EA		2261933-9901	TEST PROCEEDURE, 990/5 CPU						
JJ04	REF	EA		2261934-9901	SPECIFICATION, 990/5 CPU						
QJ05	00001.000	EA		2261929-0007	ROM,990/5 LOADER W/SELF TEST,STD,#1	UNP07					
QJ05A											
QJ06	00001.000	EA		2261929-0008	ROM,990/5 LOADER W/SELF TEST,STD,#2	UNP06					
QJ06A											
QJ07	00001.000	EA		2210175-0001	IC, MICROPROCESSOR, TMS9900-40	001295-TMS9900-40					
QJ07A					UKM06						
QJ08	00002.000	EA		2210238-0301	IC, COMM CONT	001295-TMS-9902-40					
QJ08A					UV06 UV10						
QJ10	00004.000	EA		0996680-0001	IC, 16K RAM, (SEL)	001295-TMS4116/ZA072					
QJ10A					UL02 THRU UL05						
QJ10B					UL09 THRU UL12						
QJ10C					UM02 THRU UM05						
QJ10D					UM09 THRU UM12						
QJ10E					UM02 THRU UM05						
QJ10F					UM09 THRU UM12						
QJ10G					UP02 THRU UP05						
QJ10H					UP09 THRU UP12						
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE 990/5 CPU BOARD ASSY, W/64KB RAM											
APP. MFG. DATE APP. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 2261930-0002 K											

TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM 2261930-0002		REV K	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
QJ10I					UR05 UR09						
QJ58	00001.000	EA		0996089-0002	IC,SN74LS241N,LINE DRIVERS	012955-N74LS241N					
QJ58A					UD08						
QJ59	00001.000	EA		0996588-0001	IC,SN74LS242N QUADRUPLE BUS XCEIVER	012955-N74LS242N					
QJ59A					UB01						
JJ60	00015.000	EA		0996089-0004	IC,SN74LS244N LINE DRIVER	-SN74LS244N					
QJ60A					UB02 UB07 UB10 UB13 UB02						
QJ60B					UC04 UC11 UD04 UD07 UF04						
QJ60C					UF05 UG01 UG07 UT10 UJ10						
QJ63	00002.000	EA		0996029-0001	IC,SN74LS273M OCTAL D-TYPE FLIP/FLOP	TI -SN74LS273N					
QJ63A					UD05 US01						
QJ65	00001.000	EA		2210239-0001	IC,4-PHASE, 4MHZ CLOCK, GEN/DRVR	-SN74LS359V					
QJ65A					UH07						
QJ66	00004.000	EA		0996420-0002	IC,SN74LS374N EDGE-TRIGGERED FLIP-FLOPS	001295-SN74LS374N					
QJ66A					UB04 UC05 UC07 UE04						
JJ70	00001.000	EA		0996421-0001	IC,SN75140N DUAL LINE RECEIVER	001295-SN75140N					
JJ70A					UB12						
JJ73	00001.000	EA		0996858-0001	IC,COM5016-6 DUAL BAUD RATE GENERATOR	053848-COM 5016-6					
JJ73A					UM03						
JJ74	00001.000	EA		0996798-0004	SWITCH,SPST, 4 SECT-MULTI DUAL-IN-LINE	081640-SL1004					
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE 990/5 CPU BOARD ASSY, W/64KB RAM											
APP. MFG. DATE APP. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 2261930-0002 K											

TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM 2261930-0002		REV K	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
JJ74A					UN08						
QJ75	00003.000	EA		0996798-0008	SWITCH,SPST,8 SECT-MULTI DUAL-IN-LINE	081640-SL1008					
QJ75A					UG09 UT05 UJ07						
JJ80	00008.000	EA		0972924-0016	CAP FIX TANT SOLID 100 MFD 10 % 20 VOLT QPL	-M39003/1-2301					
QJ80A					CA1 CA2 CA3 CA4						
QJ80B					CA5 CA6 CA7 CA8						
JJ81	00001.000	EA		0972924-0006	CAP FIX TANT SOLID 39 MFD 10 % 10 VOLT QPL	-M39003/1-2259					
QJ81A					C212						
QJ86	00001.000	EA		0972757-0001	CAP,FIXED CERAMIC 100 PF 10% 50V	UC -C51C101K					
QJ86A					CY01						
JJ89	00001.000	EA		0972763-0021	CAP.,FIXED,AXIAL LEAD,.047 UF,+80%,-20%						
QJ89A					C217						
JJ90	00002.000	EA		0972763-0025	CAPACITOR,.10UF 50V FX,CERAMIC DIELECT	CUR CA-C0325U1042050A					
QJ90A					CRR09 CRB14						
JJ100	00001.000	EA		0972946-0301	RES FIX 4.7K OHM 5 % .25 W CARBON FILM	RQH - R-25					
JJ100A					RXX01						
QJ105	00001.000	EA		0418831-3006	CRYSTAL,QUARTZ 16.000 MHZ CR-64/U						
QJ105A					YJ07						
JJ106	00001.000	EA		0996618-0303	CRYSTAL,QUARTZ .0058 5.0688 MHZ	075378-MP050					
QJ106A					YZ01						
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE 990/5 CPU BOARD ASSY, W/64KB RAM											
APP. MFG. DATE APP. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 2261930-0002 K											

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 11/14/79		PAGE 4 of		PART NUMBER LM 2261930-0002		REV K		
PART NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
J108	00004.000	EA		0231784-6002	DIODE- 4 PELLETS, SILICON, MULTI	GE -NPD400						
Q108A					CRAA6 CRA83 CRA812 CRXX5							
J109	00001.000	EA		0228609-0001	DIODE, VISIBLE LIGHT EMITTING							
Q109A					CRZ10							
Q110	00001.000	EA		0972137-0001	CONNECTOR, PC-HEADER 20 CONTACT	BEI - 65483-001						
J110A					P3							
Q111	00003.000	EA		0972709-0001	CONNECTOR, RS-232, 25 PIN MALE							
Q111A					P4 P5 P6							
Q112	00001.000	EA		2210188-0005	SOCKET, LOW PROFILE, DIP, 20 PINS	003612-DILB20P-108						
Q112A					XUV05							
J113	00034.000	EA		2210188-0003	SOCKET, LOW PROFILE, DIP, 16 CONT	003612-DILB16P-108						
Q113A					XUL02 THRU XUL05							
Q113B					XUL09 THRU XUL12							
Q113C					XUM02 THRU XUM05							
Q113D					XUM09 THRU XUM12							
Q113E					XUN02 THRU XUN05							
Q113F					XUP09 THRU XUP12							
Q113G					XUP02 THRU XUP05							
J113H					XUP09 THRU XUP12							
Q113I					XUR05 XUR09							
DRAFTSMAN		DATE	CRD. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE					
APPR. MFG.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.					
							990/5 CPU BOARD ASSY, W/64KB RAM					
							PART NUMBER LM 2261930-0002					
							REV K					

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 11/14/79		PAGE 5 of		PART NUMBER LM 2261930-0002		REV K		
PART NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
J114	00002.000	EA		2210188-0007	SOCKET, LOW PROFILE, DIP, 24 PINS	003612-DILB24P-108						
Q114A					XUNP06 XUNP07							
J115	00001.000	EA		0945244-0001	SOCKET, INTEGRATED CIRCUIT, 64 PIN							
Q115A					XUKM06							
Q115	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB							
J117	00002.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN							
Q118	00002.000	EA		0944954-0001	INSULATOR, PWB, 14IN							
J119	00006.000	EA		0406769-0001	SCREW, SPECIAL, CONNECTOR LOCKING	CIE - D20418-2						
Q120	00006.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG							
J122	00000.100	FT		0417177-0211	SLEEVE, PVC .170 DIA BLACK .012 WALL THK							
Q123	AR	EA		0996069-0003	ADM, SOLID, THRMPLSTC 25# BAG ANAEROBIC	PERSAL-917-6302						
Q125	00001.000	EA		0996063-0001	IC, SN74S241N, LINE DRIVERS	001295-SN74S241N						
Q125A					UT11							
J126	00000.010	TU		0417857-0001	ADHESIVE, SILICON THERMAL COND							
Q127	00001.000	EA		2210458-0001	HEAT SINK, DIP	013103-60108						
J128	00001.000	EA		2261930-5002	AUTO-INSERTED PARTS LIST FOR 2261930-2							
Q129	00001.000	EA		0972946-0035	RES FIX 56.0 OHM 5% .25 W. CARBON FILM	ROH - N-25						
Q129A					RDD5							
Q130	00001.000	EA		0972757-0013	CAP., FIXED, AXIAL LEAD, 1000 PF, 10%, 50V							
Q130A					CDD4A							
DRAFTSMAN		DATE	CRD. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE					
APPR. MFG.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.					
							990/5 CPU BOARD ASSY, W/64KB RAM					
							PART NUMBER LM 2261930-0002					
							REV K					

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 11/14/79		PAGE 6 of		PART NUMBER LM 2261930-0002		REV K		
PART NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
J131	00000.100	FT		0972434-0008	INSUL SLEEVING, TEFLON #18 .042ID .16 WALL	MLK - TFE-200C-UL-						
J132	00001.000	EA		0972975-0001	RES. FIXED, COMP (INS) 1/8W, 5% TOL.	SEE TI- DRAWING						
Q132A					RHM11							
DRAFTSMAN		DATE	CRD. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE					
APPR. MFG.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.					
							990/5 CPU BOARD ASSY, W/64KB RAM					
							PART NUMBER LM 2261930-0002					
							REV K					

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 11/14/79		PAGE 1 of		PART NUMBER LM 2261930-5001		REV K		
PART NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
J001	00001.000	EA		2261931-0001	PWB, 990/5 CPU							
J011	00001.000	EA		0222222-7400	NETWORK SN7400N	-SN7400N						
Q011A					US06							
J012	00001.000	EA		0222222-7403	NETWORK SN7403N							
Q012A					UC13							
J013	00001.000	EA		0222222-7407	NETWORK-SN7407N	TI- -SN7407N						
Q013A					UC06							
J014	00001.000	EA		0222222-7410	NETWORK SN7410N	-SN7410N						
Q014A					UF06							
J015	00001.000	EA		0222222-7425	NETWORK SN7425N							
Q015A					UR12							
J016	00001.000	EA		0222222-7432	NETWORK SN7432N	-SN7432N						
Q016A					UJ08							
Q017	00001.000	EA		0222222-7438	NETWORK SN7438N							
Q017A					UE09							
J018	00001.000	EA		0222222-7474	NETWORK SN7474N	-SN7474N						
Q018A					UJ12							
J019	00002.000	EA		0972120-0001	NETWORK, SN74259 8-BIT ADDRESSABLE LATCH	001295-74259						
Q019A					UJ04 UJ06							
J020	00002.000	EA		0219402-7400	NETWORK SN74500N							
DRAFTSMAN		DATE	CRD. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE					
APPR. MFG.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.					
							AUTO-INSERTED PARTS LIST FOR 2261930-1					
							PART NUMBER LM 2261930-5001					
							REV K					

TEXAS INSTRUMENTS INCORPORATED DATE 11/14/79 LIST OF MATERIAL PAGE 2 of PART NUMBER LM 2261930-5001 REV K

REF ID	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0J20A					UF01 UH01	
0J21	00003.000	EA		0219402-7404	NETWORK SN74S04N	
0J21A					UE01 UE02 UK04	
0J22	00001.000	EA		0219402-7405	NETWORK SN74S05N	
0J22A					U809	
0J23	00003.000	EA		0219402-7408	NETWORK SN74S08N	TI - SN74S08N
0J23A					UD03 UG06 UR01	
0J24	00001.000	EA		0996429-0001	IC, SN74S09N	001295-SN74S09N
0J24A					UC01	
0J25	00003.000	EA		0219402-7410	NETWORK SN74S10N	
0J25A					UG02 UH02 UP01	
0J26	00002.000	EA		0219402-7411	NETWORK SN74S11N	
0J26A					UD06 UH06	
0J27	00001.000	EA		0219402-7415	NETWORK, SN74S15N SN74S SERIES	001295- SN74S15N
0J27A					UD01	
0J28	00001.000	EA		0219402-7420	NETWORK SN74S20N	
0J28A					UH03	
0J29	00003.000	EA		0219402-7430	NETWORK SN74S30N	
0J29A					UJ01 UH01 UJ06	
0J30	00001.000	EA		0219402-7432	NETWORK SN74S32N	TI - SN74S32N

DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTED PARTS LIST FOR 2261930-1  
 APPR. MFG. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM 2261930-5001 REV K

TEXAS INSTRUMENTS INCORPORATED DATE 11/14/79 LIST OF MATERIAL PAGE 3 of PART NUMBER LM 2261930-5001 REV K

REF ID	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0J30A					UJ02	
0J31	00006.000	EA		0219402-7474	NETWORK SN74S74N	
0J31A					UE03 UG05 UJ03 UK02 UK03	
0J31B					UT06	
0J32	00001.000	EA		0972655-0001	NETWORK, SN74S132N	
0J32A					UF02	
0J33	00002.000	EA		0219402-7280	NETWORK SN74S280N	TI - SN74S280N
0J33A					UR08 UR11	
0J34	00004.000	EA		0972900-7400	NETWORK SN74LS00N	TI - SN74LS00N
0J34A					UH04 UJ04 UJ10 UK05	
0J35	00004.000	EA		0972900-7482	NETWORK SN74LS02N	
0J35A					UF09 UG12 UH12 UR13	
0J36	00008.000	EA		0972900-7404	NETWORK SN74LS04N	
0J36A					UD09 UH18 UJ05 UJ13	
0J36B					UR03 US09 UT09 UV09	
0J37	00005.000	EA		0972749-0001	NETWORK, SN74LS08N	
0J37A					UE07 UF11 UG08 UT03 UT13	
0J38	00003.000	EA		0972900-7410	NETWORK SN74LS10N	
0J38A					UF07 UH13 UJ11	
0J40	00001.000	EA		0972784-0002	NETWORK SN74LS14N	

DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTED PARTS LIST FOR 2261930-1  
 APPR. MFG. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM 2261930-5001 REV K

TEXAS INSTRUMENTS INCORPORATED DATE 11/14/79 LIST OF MATERIAL PAGE 4 of PART NUMBER LM 2261930-5001 REV K

REF ID	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0J40A					UL13	
0J41	00001.000	EA		0972900-7420	NETWORK SN74LS20N	
0J41A					UK13	
0J42	00002.000	EA		0972813-0001	NETWORK-SN74LS21N	
0J42A					UB11 UK09	
0J43	00001.000	EA		0972814-0001	NETWORK-SN74LS27N	
0J43A					UK10	
0J44	00004.000	EA		0972900-7430	NETWORK SN74LS30N	TI - SN74LS30N
0J44A					UE10 UK01 UK11 US10	
0J45	00003.000	EA		0972900-7432	NETWORK SN74LS32N	TI - SN74LS32N
0J45A					UT04 UV06 UM08	
0J46	00001.000	EA		0972822-0001	NETWORK-SN74LS37N	
0J46A					UH09	
0J47	00002.000	EA		0972900-7451	NETWORK SN74LS51N	TI - SN74LS51N
0J47A					UM01 UM01	
0J48	00016.000	EA		0972900-7474	NETWORK SN74LS74N	
0J48A					UC09 UE04 UE08 UE12 UF08	
0J48B					UF10 UF12 UF13 UH05 UK12	
0J48C					UH13 UR02 US02 US13 UT02	
0J48D					UT12	

DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTED PARTS LIST FOR 2261930-1  
 APPR. MFG. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM 2261930-5001 REV K

TEXAS INSTRUMENTS INCORPORATED DATE 11/14/79 LIST OF MATERIAL PAGE 5 of PART NUMBER LM 2261930-5001 REV K

REF ID	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0J49	00001.000	EA		0972815-0001	NETWORK-SN74LS85N	
0J49A					UC08	
0J50	00001.000	EA		0972751-0001	NETWORK, SN74LS86N	
0J50A					UR07	
0J51	00001.000	EA		0972793-0001	IC, MONOSTABLE MV SN74LS123N	
0J51A					UG11	
0J52	00001.000	EA		0222222-7125	NETWORK SN74125N	
0J52A					UD11	
0J53	00008.000	EA		0972900-7138	NETWORK SN74LS138N	TI - SN74LS138N
0J53A					UC12 UD02 UD12 UE11 UH11	
0J53B					UJ09 UH13 UP13	
0J54	00002.000	EA		0972900-7139	NETWORK SN74LS139N	TI - SN74LS139N
0J54A					UG10 UG13	
0J55	00002.000	EA		0996726-0002	IC, SN74LS148N PRIORITY ENCODER	001295-SN74LS148N
0J55A					US03 UT01	
0J56	00001.000	EA		0972900-7153	NETWORK SN74LS153N	TI - SN74LS153N
0J56A					UM02	
0J57	00001.000	EA		0972817-0002	IC, SN74LS193 + BIT-UP/DOWN COUNTERS	
0J57A					UG04	
0J59	00007.000	EA		0996588-0001	IC, SN74LS242N QUADRUPLE BUS RECEIVER	01295-SN74LS242N

DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTED PARTS LIST FOR 2261930-1  
 APPR. MFG. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM 2261930-5001 REV K

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 6 of		LM 2261930-5001		REV K	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0059A					UB03 UC03 UM08 UR04				
0059B					UR10 US08 US11				
0061	00004.000	EA		0972668-0001	NETWORK SN74LS251N				
0061A					UD13 UE13 US07 US12				
0062	00002.000	EA		0996136-0001	IC,SN74LS257N,DATA SELECTORS/MULTIPLEXER	TI	-SN74LS257N		
0062A					UF03 UG03				
0064	00002.000	EA		0998848-0001	IC,SN74S283N 4-BIT FULL ADDER	001295-SN74S283			
0064A					US05 UU05				
0067	00001.000	EA		0996508-0001	IC,74LS393N DUAL BINARY COUNTER	001295-74LS393N			
0067A					UU11				
0068	00001.000	EA		0972188-0001	NETWORK,NE555V,MONOLITHIC TIMING,LINEAR	ST	-NE555V		
0068A					UM68				
0069	00003.000	EA		0802023-0001	NETWORK SN75138N				
0069A					UB06 UM08 UC10				
0071	00004.000	EA		0972450-0002	NETWORK,SN75189AN/MC1489AL QUAD LINE AC	SEE	- TI DRAWING		
0071A					UV04 UV07 UM04 UM09				
0072	00005.000	EA		0996668-0001	IC,LINE DRIVER 9636TC	007263-9636TC			
0072A					UM5A UM5B UM6A UM7A UM7B				
0076	00001.000	EA		0972037-1680	NETWORK,RES 68 OHM 2% 16PIN BELEMENT				
0076A					UM11				
DRAFTSMAN DATE CRO. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE									
AUTO-INSERTED PARTS LIST FOR 2261930-1									
APPRO. MFG. DATE APPRO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV									
LM 2261930-5001 K									

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 7 of		LM 2261930-5001		REV K	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0077	00001.000	EA		0972037-2330	NETWORK,RES 330 OHM 2% 16PIN BELEMENT				
0077A					UM12				
0078	00002.000	EA		0972141-0033	NETWORK,RES. 470 OHM 2% 14 PIN DIP	BEC	- 899-1-R470		
0078A					UB05 UE05				
0079	00005.000	EA		0972141-0057	NETWORK,RES. 4.7 K OHM 2% 14 PIN DIP	BEC	- 899-1-R4.7K		
0079A					UD10 UR06 US04 UT07 UT08				
0083	00002.000	EA		0972753-0001	CAP., 27PF, 2%, 25VDC				
0083A					CHM18 CHM21				
0084	00001.000	EA		0972757-0009	CAP FIX CER 470PF 10% 50V				
0084A					CHM22				
0085	00003.000	EA		0972753-0018	CAP., 680 PF,2%,25VDC				
0085A					CAA09 CAC03 CAC06				
0086	00013.000	EA		0972757-0001	CAP, FIXED CERAMIC 100 PF 10% 50V	UC	-C51C101K		
0086A					CXX02 CXX16 CXX17 CXX18				
0086B					CYY02 CYY03 CYY04 CYY05				
0086C					CYY06 CYY07 CYY12 CYY13				
0086D					CYY15				
0087	00002.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V				
0087A					CHM14 CYY08				
0088	00001.000	EA		0972757-0033	CAP, FIX, CERAMIC, .047MF, 50V 10%				
DRAFTSMAN DATE CRO. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE									
AUTO-INSERTED PARTS LIST FOR 2261930-1									
APPRO. MFG. DATE APPRO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV									
LM 2261930-5001 K									

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 8 of		LM 2261930-5001		REV K	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0088A					CYY14				
0088B	00006.000	EA		0972763-0021	CAP.,FIXED,AXIAL LEAD,.047 UF,+80%,-20%				
0089A					CDD01 THRU CDD22				
0089B					CHM01 THRU CHM11 CJK13				
0089C					CMM01 CMM10 THRU CMM14				
0089D					CMM22 CMM01 CMM10 THRU				
0089E					CMM14 CMM22 CPP11 CPP13				
0089F					CSS01 THRU CSS07 CSS09 THRU				
0089G					CSS14 CSS16 THRU CSS22				
0089H					CXX03 CXX08 CXX09 CXX11				
0089I					CXX12 CXX19 THRU CXX22				
0089J					CYY16 THRU CYY22				
0090	00018.000	EA		0972763-0025	CAPACITOR,.10UF 50V FX,CERAMIC DIE	COR CA-C0325U1042050A			
0090A					CMM02 THRU CMM09				
0090B					CMM02 THRU CMM09				
0090C					CPP12 CSS08				
0091	00004.000	EA		0972946-0019	RES FIX 12.0 OHM 5% .25 W.CARBON FILM	RDH	- R-25		
0091A					RJK10 RJJ10 RJJ11 RJJ13				
0092	00001.000	EA		0972946-0041	RES FIX 100 OHM 5% .25 W CARBON FILM	RDH	- R-25		
0092A					RHM15				
DRAFTSMAN DATE CRO. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE									
AUTO-INSERTED PARTS LIST FOR 2261930-1									
APPRO. MFG. DATE APPRO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV									
LM 2261930-5001 K									

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 9 of		LM 2261930-5001		REV K	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0093	00001.000	EA		0972946-0049	RES FIX 220 OHM 5% .25 W CARBON FILM	RDH	- R-25		
0093A					RAC15				
0094	00001.000	EA		0972946-0053	RES FIX 330 OHM 5% .25 W CARBON FILM	RDH	- R-25		
0094A					RYY10				
0095	00003.000	EA		0539370-0343	RES FIX FILM 365 OHM 1% .25 WATT	COR	- NA55		
0095A					RAB06 RAC12 RJJ10				
0096	00001.000	EA		0972946-0055	RES FIX 390 OHM 5% .25 W CARBON FILM	RDH	- R-25		
0096A					RHM16				
0097	00003.000	EA		0972946-0061	RES FIX 680 OHM 5% .25 W CARBON FILM	RDH	- R-25		
0097A					RAB09 RYY09 RYY11				
0099	00003.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	RDH	- R-25		
0099A					RAA12 RAB18 RPP10				
0100	00004.000	EA		0972946-0081	RES FIX 4.7K OHM 5% .25 W CARBON FILM	RDH	- R-25		
0100A					RAB15 RAC18 RXX04 RXX15				
0101	00001.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	RDH	- R-25		
0101A					RAA15				
0102	00001.000	EA		0972946-0097	RES FIX 22 K OHM 5% .25 W CARBON FILM	RDH	- R-25		
0102A					RJJ13				
0103	00005.000	EA		0972946-0107	RES FIX 56 K OHM 5% .25 W CARBON FILM	RDH	- R-25		
0103A					RXX06 RXX07 RXX10 RXX13				
DRAFTSMAN DATE CRO. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE									
AUTO-INSERTED PARTS LIST FOR 2261930-1									
APPRO. MFG. DATE APPRO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV									
LM 2261930-5001 K									

TEXAS INSTRUMENTS INCORPORATED DATE 11/14/79 LIST OF MATERIAL PAGE 10 of PART NUMBER LM 2261930-5001 REV K

PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0103B					RXX14	
0104	00002.000	EA		0972946-0111	RES FIX 82 K OHM 5 % .25 W CARBON FILM	ROH - R-25
0104A					RHM19 RHM20	
0107	00001.000	EA		0538292-0010	COILS,RF,MLD FXD, LT10K070	015305-MS75084-10
0107A					LJJ11	
0121	00002.000	EA		0972753-0014	CAP., 330 PF,2%,25VDC,CERAMIC,AXIAL LEAD	
0121A					CAA18 CAC09	
0124	00001.000	EA		0972757-0003	CAP, FIXED CERAMIC 15Q-PF 10% 50V	UC -C51G151K
0124A					CHML7	

DRAFTSMAN DATE CTD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE  
 APPR. MGR. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. AUTO-INSERTED PARTS LIST FOR 2261930-1  
 LM 2261930-5001 REV K

TEXAS INSTRUMENTS INCORPORATED DATE 11/14/79 LIST OF MATERIAL PAGE 1 of PART NUMBER LM 2261930-5002 REV K

PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0101	00001.000	EA		2261931-0001	PWB, 990/5 CPU	
0111	00001.000	EA		0222222-7400	NETWORK SN7400N	-SN7400N
0111A					US06	
0112	00001.000	EA		0222222-7403	NETWORK SN7403N	
0112A					UC13	
0113	00001.000	EA		0222222-7407	NETWORK-SN7407N	TI- -SN7407N
0113A					UC06	
0114	00001.000	EA		0222222-7410	NETWORK SN7410N	-SN7410N
0114A					UF06	
0115	00001.000	EA		0222222-7425	NETWORK SN7425N	
0115A					UR12	
0116	00001.000	EA		0222222-7432	NETWORK SN7432N	-SN7432N
0116A					UJ08	
0117	00001.000	EA		0222222-7438	NETWORK SN7438N	
0117A					UE09	
0118	00001.000	EA		0222222-7474	NETWORK SN7474N	-SN7474N
0118A					UJ12	
0119	00002.000	EA		0972120-0001	NETWORK,SN74259 8-BIT ADDRESSABLE LATCH	001295-74259
0119A					UJ04 UJ09	
0120	00002.000	EA		0219402-7400	NETWORK SN74500N	

DRAFTSMAN DATE CTD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE  
 APPR. MGR. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. AUTO-INSERTED PARTS LIST FOR 2261930-2  
 LM 2261930-5002 REV K

TEXAS INSTRUMENTS INCORPORATED DATE 11/14/79 LIST OF MATERIAL PAGE 2 of PART NUMBER LM 2261930-5002 REV K

PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0120A					UF01 UH01	
0121	00003.000	EA		0219402-7404	NETWORK SN74504N	
0121A					UE01 UE02 UK04	
0122	00001.000	EA		0219402-7405	NETWORK SN74505N	
0122A					UB09	
0123	00003.000	EA		0219402-7408	NETWORK SN74508N	TI- -SN74508N
0123A					UD03 UG06 UK01	
0124	00001.000	EA		0996429-0001	IC,SN74509N	001295-SN74509N
0124A					UC01	
0125	00003.000	EA		0219402-7410	NETWORK SN74510N	
0125A					UG02 UH02 UP01	
0126	00002.000	EA		0219402-7411	NETWORK SN74511N	
0126A					UD06 UH06	
0127	00001.000	EA		0219402-7415	NETWORK,SN74515N SN745 SERIES	001295- SN74515N
0127A					UD01	
0128	00001.000	EA		0219402-7420	NETWORK SN74520N	
0128A					UH03	
0129	00003.000	EA		0219402-7430	NETWORK SN74530N	
0129A					UJ01 UL01 UU06	
0130	00001.000	EA		0219402-7432	NETWORK SN74532N	TI- -SN74532N

DRAFTSMAN DATE CTD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE  
 APPR. MGR. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. AUTO-INSERTED PARTS LIST FOR 2261930-2  
 LM 2261930-5002 REV K

TEXAS INSTRUMENTS INCORPORATED DATE 11/14/79 LIST OF MATERIAL PAGE 3 of PART NUMBER LM 2261930-5002 REV K

PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0130A					UJ02	
0131	00006.000	EA		0219402-7474	NETWORK SN74574N	
0131A					UE03 UG05 UJ03 UK02 UK03	
0131B					UT06	
0132	00001.000	EA		0972655-0001	NETWORK,SN745132N	
0132A					UF02	
0133	00002.000	EA		0219402-7280	NETWORK SN745280N	TI -SN745280N
0133A					UR08 UR11	
0134	00004.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N
0134A					UH04 UJ04 UJ10 UK05	
0135	00004.000	EA		0972900-7402	NETWORK SN74LS02N	
0135A					UF09 UG12 UH12 UR13	
0136	00008.000	EA		0972900-7404	NETWORK SN74LS04N	
0136A					UD09 UH10 UJ05 UJ13	
0136B					UR03 US09 UT09 UV09	
0137	00005.000	EA		0972749-0001	NETWORK, SN74LS08N	
0137A					UE07 UF11 UG08 UT03 UT13	
0138	00003.000	EA		0972900-7410	NETWORK SN74LS10N	
0138A					UF07 UH13 UJ11	
0139	00001.000	EA		0972784-0002	NETWORK SN74LS14N	

DRAFTSMAN DATE CTD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE  
 APPR. MGR. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. AUTO-INSERTED PARTS LIST FOR 2261930-2  
 LM 2261930-5002 REV K

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 4 of		LM 2261930-5002		REV K	
DATE 11/14/79									
PART NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0J40A					UL13				
0J41	00001.000	EA		0972900-7*20	NETWORK SN74LS20N				
0J41A					UK13				
0J42	00002.000	EA		0972813-0J01	NETWORK-SN74LS21N				
0J42A					UB11 UK09				
0J43	00001.000	EA		0972814-0001	NETWORK-SN74LS27N				
0J43A					UK10				
0J44	00004.000	EA		0972900-7430	NETWORK SN74LS30N	TI	-SN74LS30N		
0J44A					UE10 UK01 UK11 US10				
0J45	00003.000	EA		0972900-7432	NETWORK SN74LS32N	TI	-SN74LS32N		
0J45A					UT04 UV06 UH08				
0J46	00001.000	EA		0972822-0001	NETWORK-SN74LS37N				
0J46A					UH09				
0J47	00002.000	EA		0972900-7451	NETWORK SN74LS51N	TI	-SN74LS51N		
0J47A					UM01 UM01				
0J48	00016.000	EA		0972900-7474	NETWORK SN74LS74N				
0J48A					UC09 UE06 UE08 UE12 UF08				
0J48B					UF10 UF12 UF13 UH05 UK12				
0J48C					UN13 UR02 US02 US13 UT02				
0J48D					UT12				
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE									
AUTO-INSERTED PARTS LIST FOR 2261930-2									
APPROVED DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV									
LM 2261930-5002 K									

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 5 of		LM 2261930-5002		REV K	
DATE 11/14/79									
PART NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0J49	00001.000	EA		0972815-0001	NETWORK-SN74LS85N				
0J49A					UC08				
0J50	00001.000	EA		0972751-0001	NETWORK, SN74LS86N				
0J50A					UR07				
0J51	00001.000	EA		0972793-0001	IC, MONOSTABLE MV SN74LS123N				
0J51A					UG11				
0J52	00001.000	EA		0228222-7125	NETWORK SN74125N				
0J52A					UD11				
0J53	00008.000	EA		0972900-7138	NETWORK SN74LS138N	TI	-SN74LS138N		
0J53A					UC12 UD02 UD12 UE11 UM11				
0J53B					UJ09 UM13 UP13				
0J54	00002.000	EA		0972900-7139	NETWORK SN74LS139N	TI	-SN74LS139N		
0J54A					UG10 UG13				
0J55	00002.000	EA		0996726-0002	IC, SN74LS148N PRIORITY ENCODER	001295-SN74LS148N			
0J55A					US03 UT03				
0J56	00001.000	EA		0972900-7153	NETWORK SN74LS153N	TI	-SN74LS153N		
0J56A					UM02				
0J57	00001.000	EA		0972817-0002	IC, SN74LS193 4 BIT-UP/DOWN COUNTERS				
0J57A					UG04				
0J59	0J007.000	EA		0996588-0001	IC, SN74LS242N QUADRUPLE BUS RECEIVER	012955-N74LS242N			
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE									
AUTO-INSERTED PARTS LIST FOR 2261930-2									
APPROVED DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV									
LM 2261930-5002 K									

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 6 of		LM 2261930-5002		REV K	
DATE 11/14/79									
PART NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0J59A					UB03 UC03 UH08 UR04				
0J59B					UR10 US08 US11				
0J61	00004.000	EA		0972668-0001	NETWORK SN74LS251N				
0J61A					UD13 UE13 US07 US12				
0J62	00002.000	EA		0996136-0J01	IC, SN74LS257N, DATA SELECTORS/MULTIPLEXER	TI	-SN74LS257N		
0J62A					UF03 UG03				
0J64	00002.000	EA		0996848-0001	IC, SN74S283N 4-BIT FULL ADDER	001295-SN74S283			
0J64A					US05 UH05				
0J67	00001.000	EA		0996508-0001	IC, 74LS393N DUAL BINARY COUNTER	001295-74LS393N			
0J67A					UU11				
0J68	00001.000	EA		0972188-0001	NETWORK, NE555V, MONOLITHIC TIMING, LINEAR	ST	-NE555V		
0J68A					UM6B				
0J69	00003.000	EA		0802023-0001	NETWORK SN75138N				
0J69A					UB06 UB08 UC10				
0J71	00004.000	EA		0972450-0002	NETWORK, SN75189AN/MC1489AL QUAD LINE RCR	SEE	- TI DRAWING		
0J71A					UV04 UV07 UM04 UM09				
0J72	00005.000	EA		0996668-0001	IC, LINE DRIVER 9636TC	007263-9636TC			
0J72A					UM5A UM5B UM6A UM7A UM7B				
0J76	00001.000	EA		0972037-1680	NETWORK, RES 68 OHM 2% 16PIN BELEMENT				
0J76A					UM11				
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE									
AUTO-INSERTED PARTS LIST FOR 2261930-2									
APPROVED DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV									
LM 2261930-5002 K									

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 7 of		LM 2261930-5002		REV K	
DATE 11/14/79									
PART NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0J77	00001.000	EA		0972037-2330	NETWORK, RES 330 OHM 2% 16PIN BELEMENT				
0J77A					UM12				
0J78	00002.000	EA		0972141-0033	NETWORK, RES. 470 OHM 2% 14 PIN DIP	BEC	- 899-1-R470		
0J78A					UB05 UE05				
0J79	00005.000	EA		0972141-0057	NETWORK, RES. 4.7 K OHM 2% 14 PIN DIP	BEC	- 899-1-R4.7K		
0J79A					UD10 UR06 US04 UT07 UT08				
0J83	00002.000	EA		0972753-0001	CAP., 27PF, 2%, 25VDC				
0J83A					CHM18 CHM21				
0J84	00001.000	EA		0972753-0009	CAP FIX CER 470PF 10% 50V				
0J84A					CHM22				
0J85	00003.000	EA		0972753-0018	CAP., 680 PF, 2%, 25VDC				
0J85A					CAA09 CAC03 CAC06				
0J86	00013.000	EA		0972757-0001	CAP, FIXED CERAMIC 100 PF 10% 50V	UC	-CS1C101K		
0J86A					CXX02 CXX16 CXX17 CXX18				
0J86B					CYY02 CYY03 CYY04 CYY05				
0J86C					CYY06 CYY07 CYY12 CYY13				
0J86D					CYY15				
0J87	00002.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V				
0J87A					CHM14 CYY08				
0J88	00001.000	EA		0972757-0033	CAP, FIX, CERAMIC, .057MF, 50V 10%				
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE									
AUTO-INSERTED PARTS LIST FOR 2261930-2									
APPROVED DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV									
LM 2261930-5002 K									

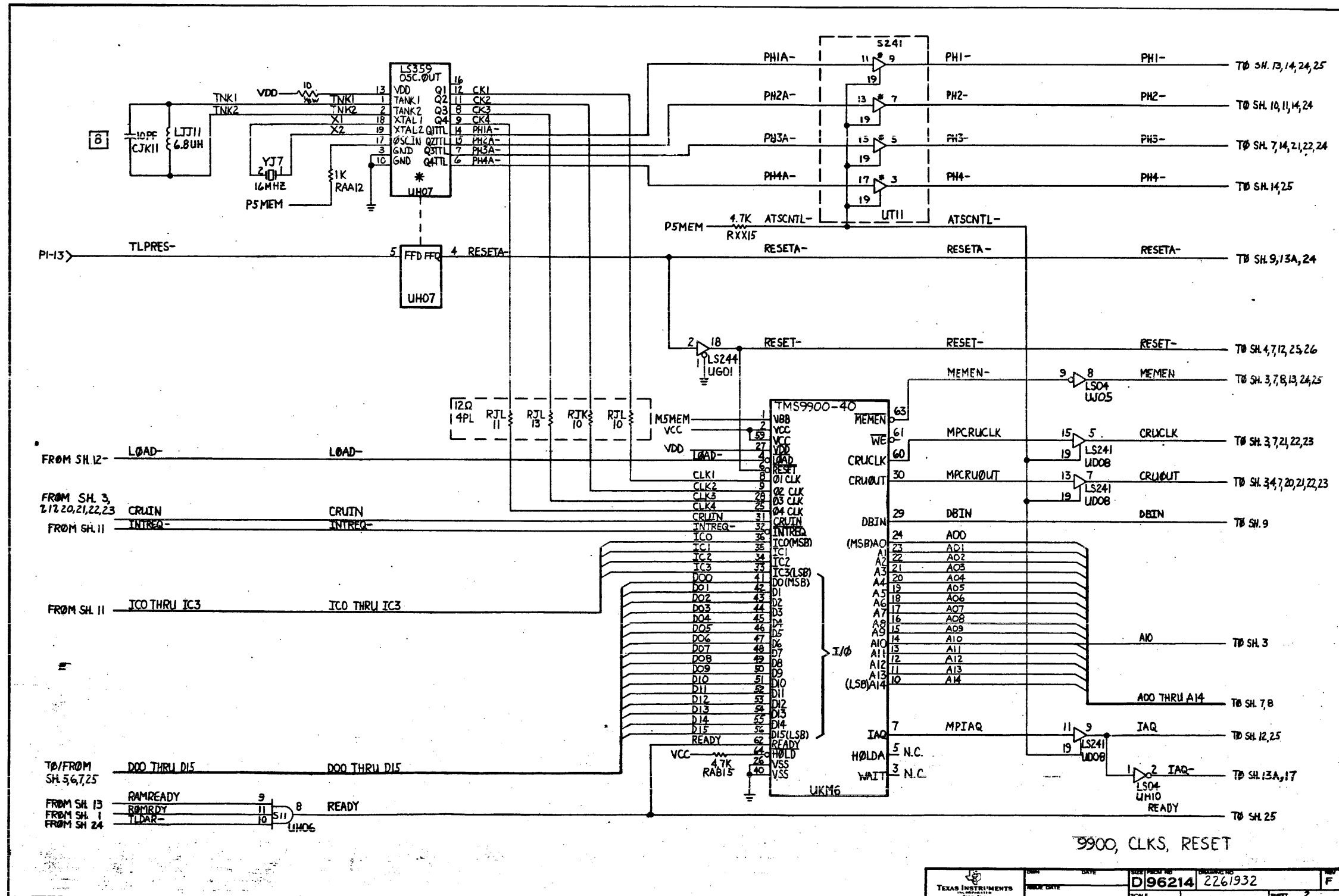
TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 8 of		PART NUMBER LM 2261930-5002		REV K		
PART NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0J88A					CYY14							
JJ89	00086.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80%, -20%							
0J89A					CDD01 THRU CDD22							
0J89B					CHM01 THRU CHM11 CJK13							
0J89C					CMN01 CMN10 THRU CMN14							
0J89D					CMN22 CMN01 CMN10 THRU							
0J89E					CMN14 CMN22 CPP11 CPP13							
0J89F					CSS01 THRU CSS07 CSS09 THRU							
0J89G					CSS14 CSS16 THRU CSS22							
0J89H					CXX03 CXX08 CXX09 CXX11							
0J89I					CXX12 CXX19 THRU CXX22							
0J89J					CVY16 THRU CVY22							
0J90	00033.000	EA		0972763-0025	CAPACITOR, .10UF 50V FX, CERAMIC DIELECTRIC	COR CA-C03Z5U104Z050A						
0J90A					CMN02 THRU CMN09							
0J90B					CMN15 THRU CMN21							
0J90C					CMN02 THRU CMN09							
0J90D					CMN15 THRU CMN21 CPP12							
0J90E					CSS08 CSS15							
0J91	00004.000	EA		0972946-0019	RES FIX 12.0 OHM 5% .25 W CARBON FILM	ROH - R-25						
0J91A					RJK10 RJK10 RJK11 RJK13							
AUTO-INSERTED PARTS LIST FOR 2261930-2												
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	PART NUMBER				REV
APPRO. MGR.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	LM 2261930-5002				K

TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 9 of		PART NUMBER LM 2261930-5002		REV K		
PART NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0J92	00001.000	EA		0972946-0041	RES FIX 100 OHM 5% .25 W CARBON FILM	ROH - R-25						
0J92A					RHM15							
0J93	00001.000	EA		0972946-0049	RES FIX 220 OHM 5% .25 W CARBON FILM	ROH - R-25						
0J93A					RAC15							
0J94	00001.000	EA		0972946-0053	RES FIX 330 OHM 5% .25 W CARBON FILM	ROH - R-25						
0J94A					RYY10							
0J95	00003.000	EA		0539370-0343	RES FIX FILM 365 OHM 1% .25 WATT	COR - NA55						
0J95A					RAB06 RAC12 RJJ10							
0J96	00001.000	EA		0972946-0055	RES FIX 390 OHM 5% .25 W CARBON FILM	ROH - R-25						
0J96A					RHM16							
0J97	00003.000	EA		0972946-0061	RES FIX 680 OHM 5% .25 W CARBON FILM	ROH - R-25						
0J97A					RAB09 RYY09 RYY11							
0J99	00003.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH - R-25						
0J99A					RAA12 RAB18 RPP10							
0J100	00004.000	EA		0972946-0081	RES FIX 4.7K OHM 5% .25 W CARBON FILM	ROH - R-25						
0J100A					RAB15 RAC18 RXX04 RXX15							
0J101	00001.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	ROH - R-25						
0J101A					RAA15							
0J102	00001.000	EA		0972946-0097	RES FIX 22 K OHM 5% .25 W CARBON FILM	ROH - R-25						
0J102A					RJJ13							
AUTO-INSERTED PARTS LIST FOR 2261930-2												
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	PART NUMBER				REV
APPRO. MGR.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	LM 2261930-5002				K

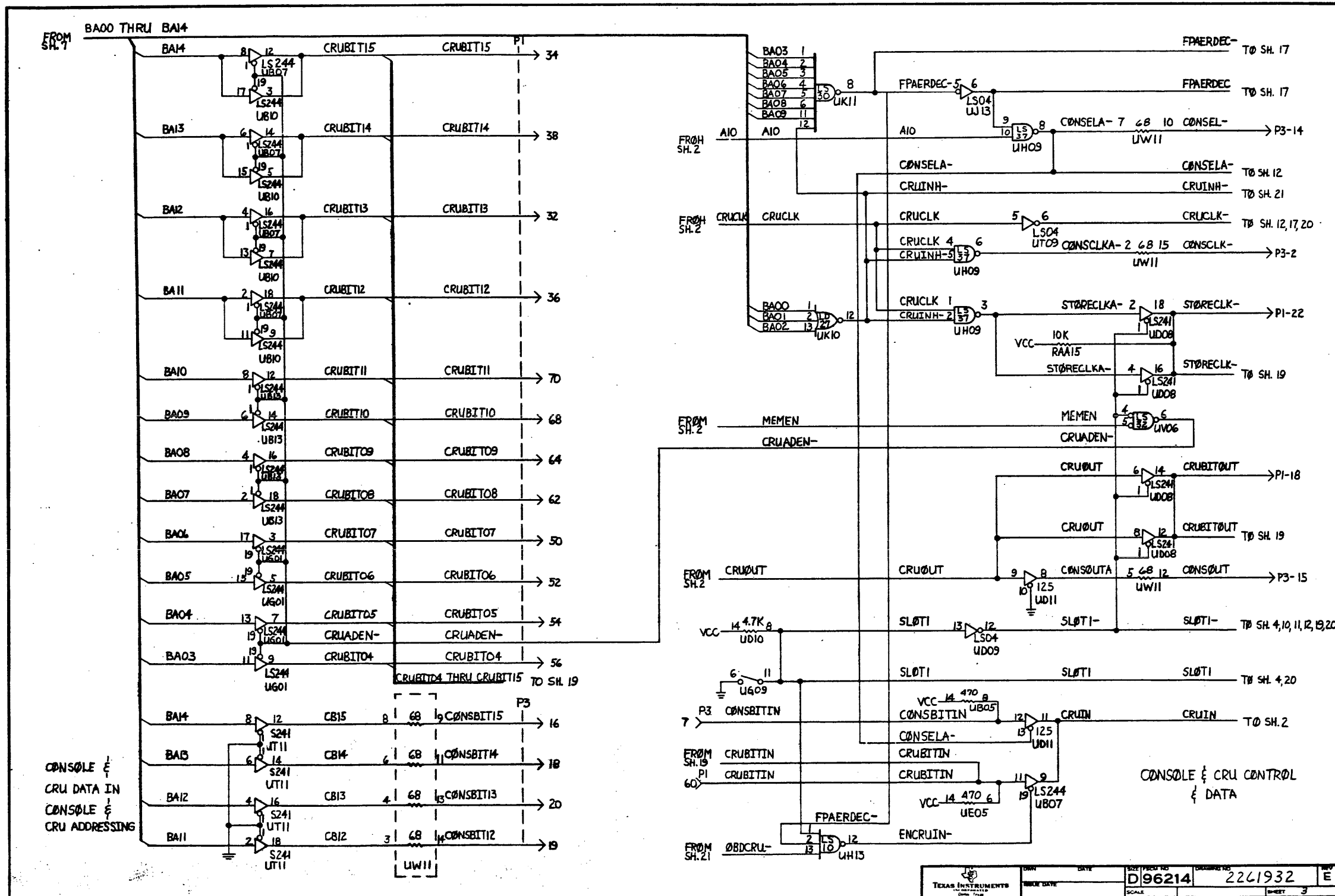
TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 10 of		PART NUMBER LM 2261930-5002		REV K		
PART NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0L03	00005.000	EA		0972946-0107	RES FIX 56 K OHM 5% .25 W CARBON FILM	ROH - R-25						
0L03A					RXX06 RXX07 RXX10 RXX13							
0L03B					RXX14							
0L04	00002.000	EA		0972946-0111	RES FIX 82 K OHM 5% .25 W CARBON FILM	ROH - R-25						
0L04A					RHM19 RHM20							
0L07	00001.000	EA		0538292-0010	COILS, RF, MLD FXD, LT10K070	015305-MS75084-10						
0L07A					LJJ11							
0L21	00002.000	EA		0972753-0014	CAP., 330 PF, 2%, 25VDC, CERAMIC, AXIAL LEAD							
0L21A					CAA18 CAC09							
0L24	00001.000	EA		0972757-0003	CAP, FIXED CERAMIC 150 PF 10% 50V	UC -C51C151K						
0L24A					CHM17							
AUTO-INSERTED PARTS LIST FOR 2261930-2												
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	PART NUMBER				REV
APPRO. MGR.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	LM 2261930-5002				K

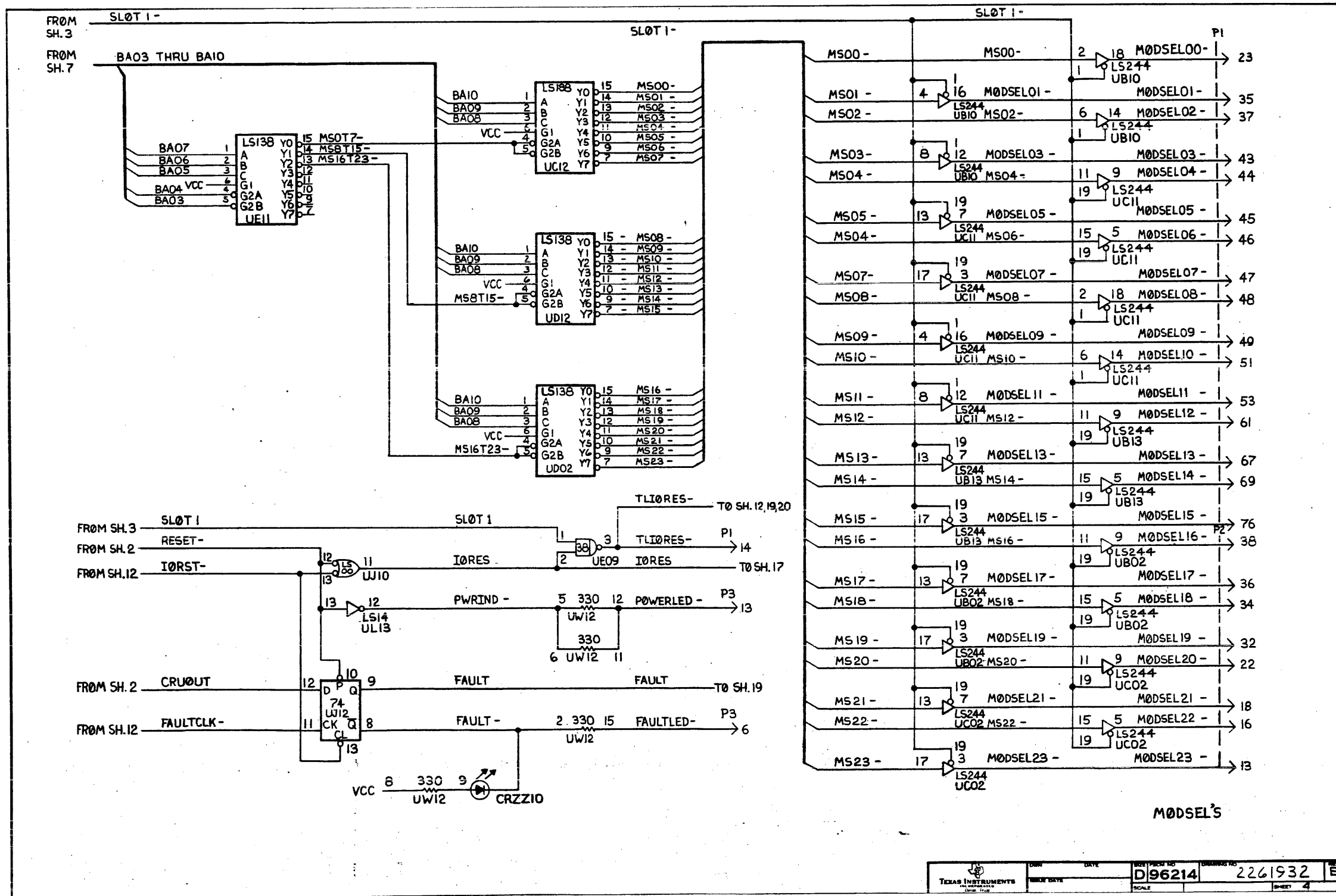


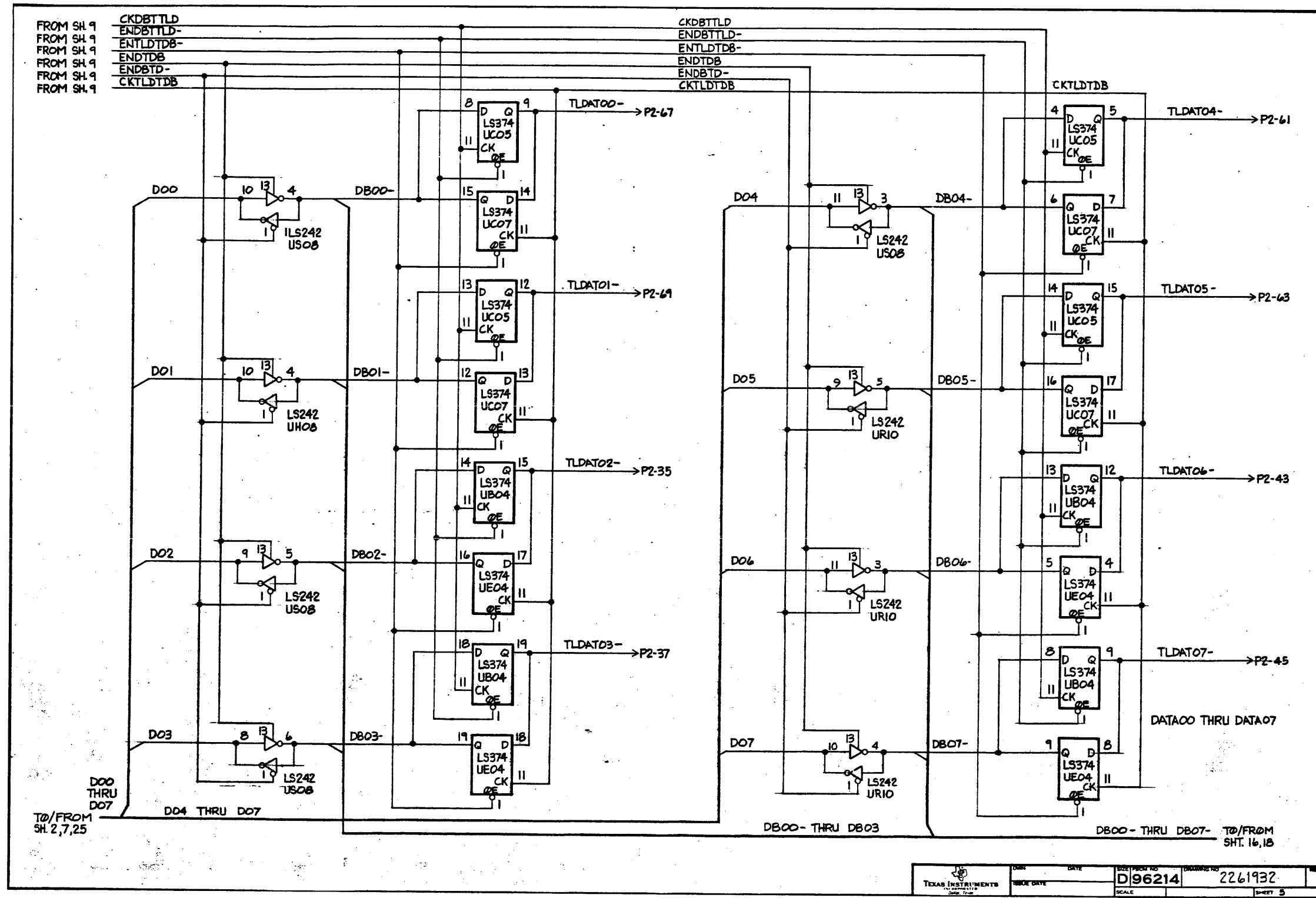




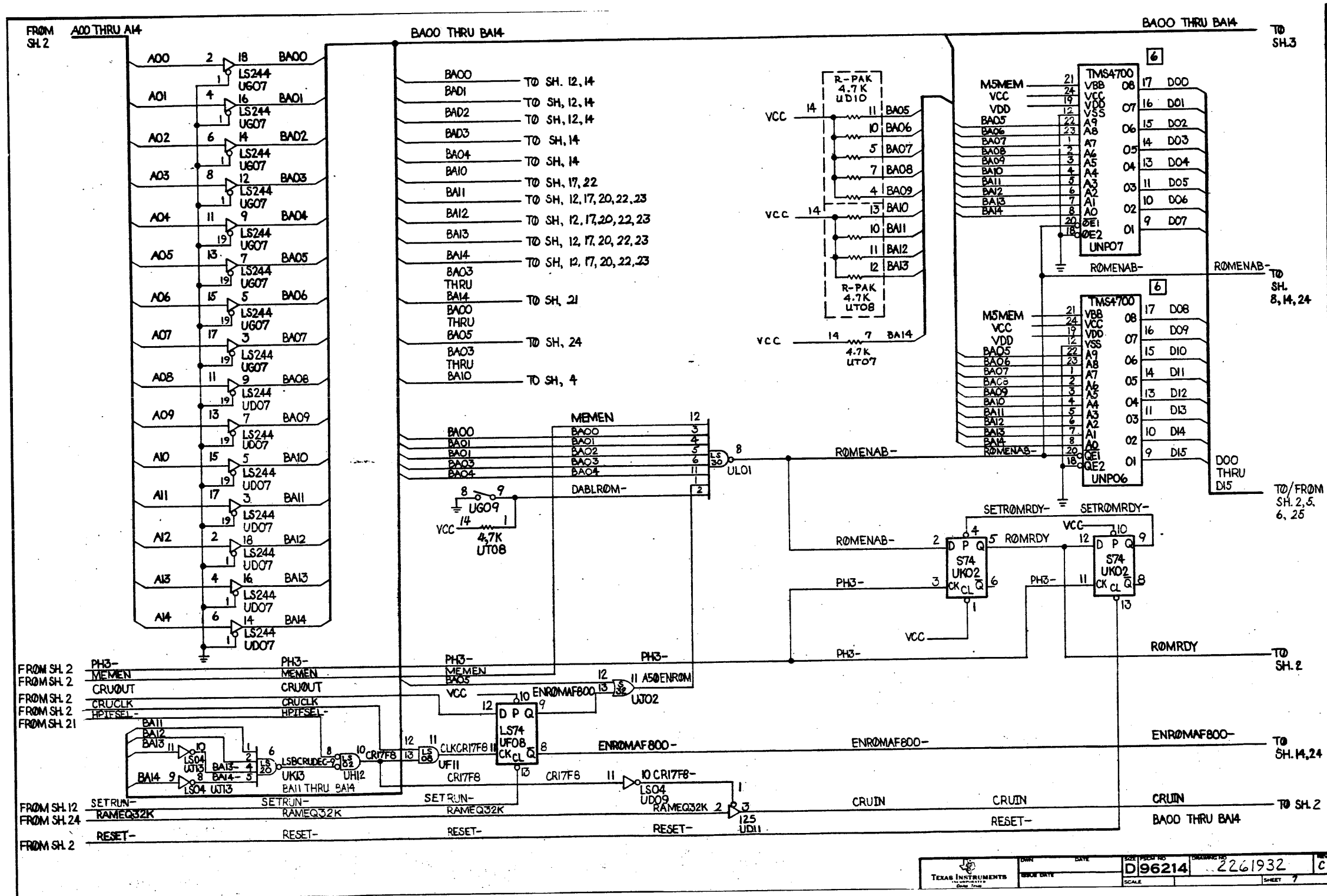
DATE	SCALE	DESIGN NO.	REV.
		D96214	2261932
DATE	SCALE	DESIGN NO.	REV.



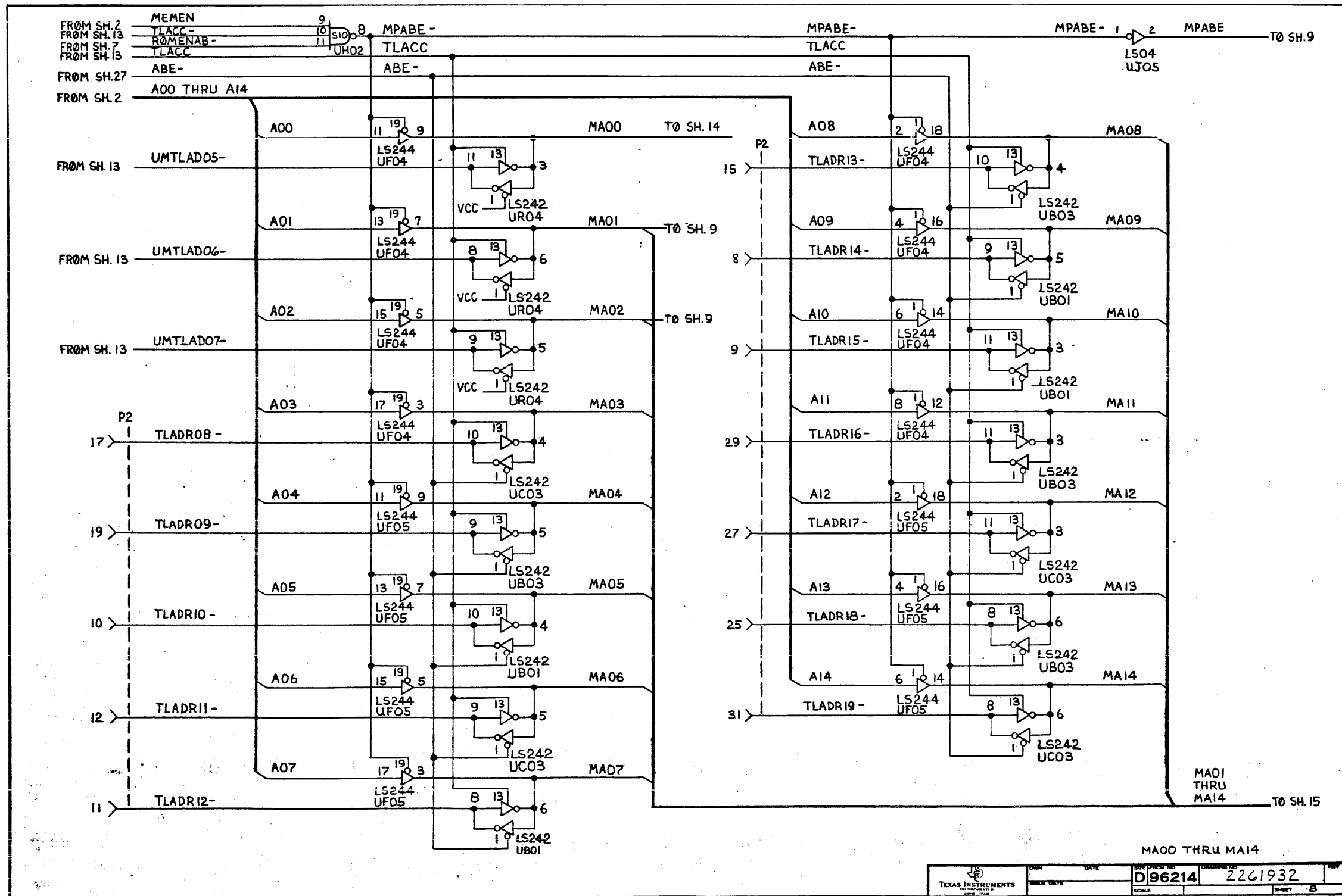






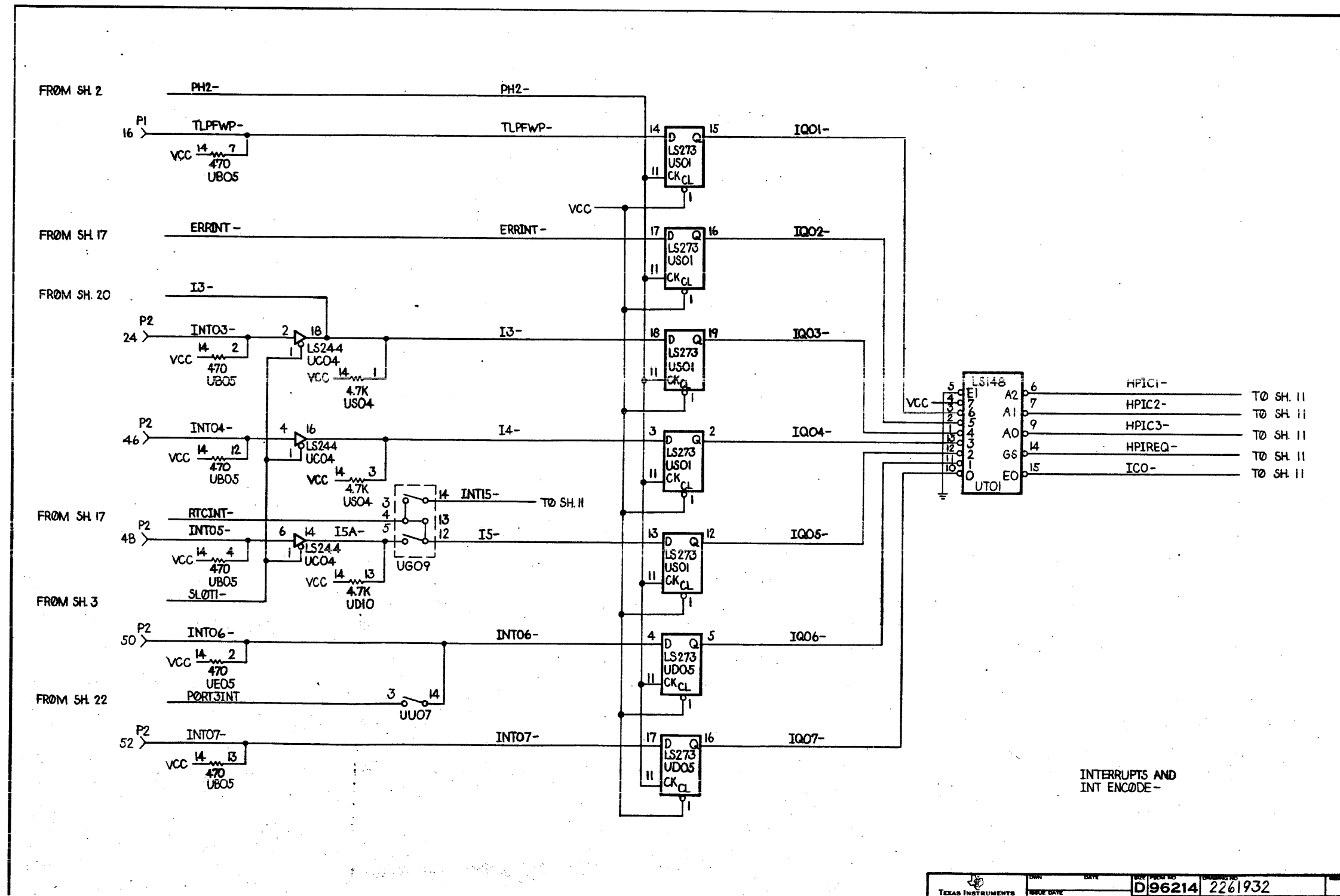


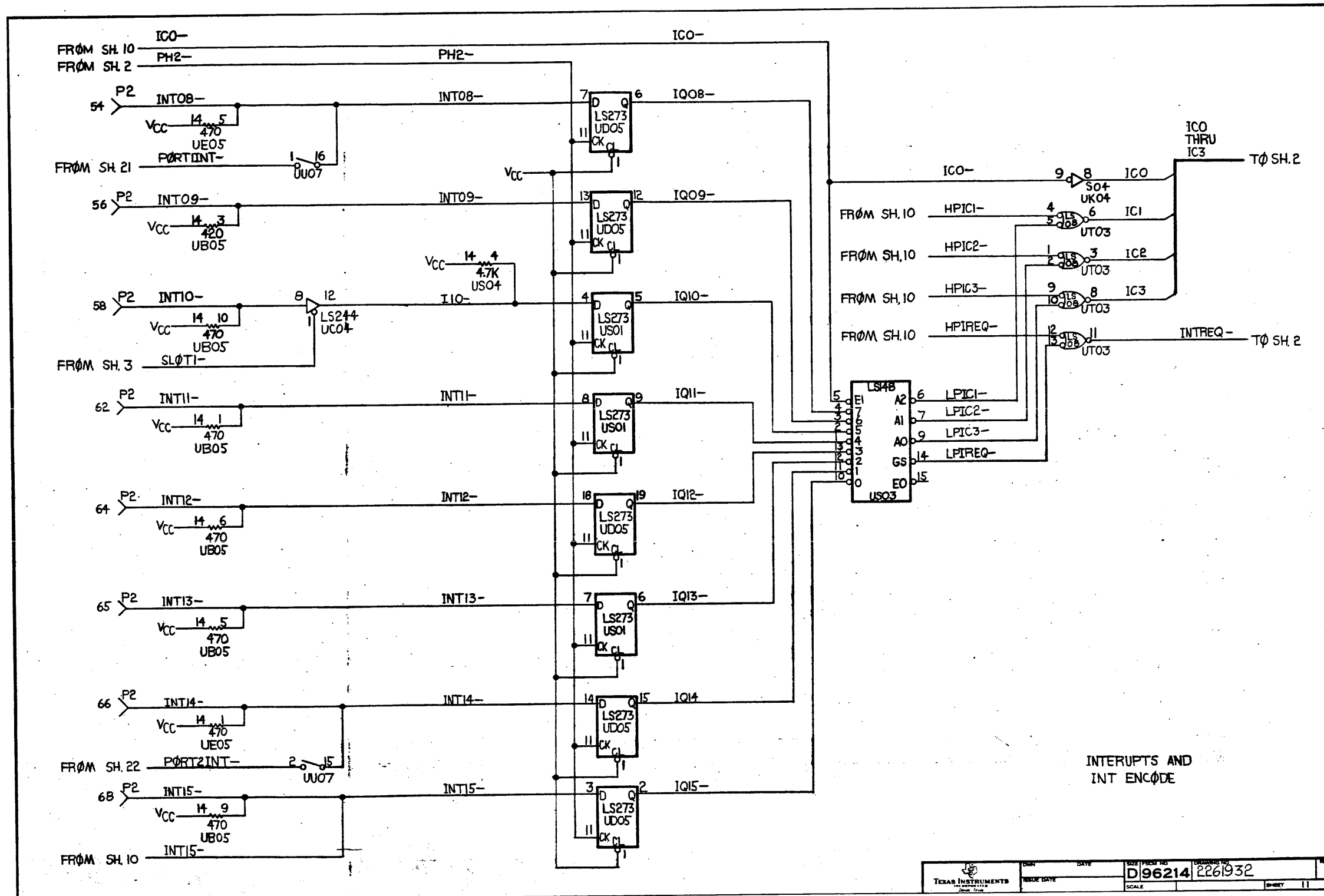
DATE	2261932	SCALE	SHEET 7
DESIGNER	D96214	SCALE	
DATE		SCALE	
DESIGNER		SCALE	

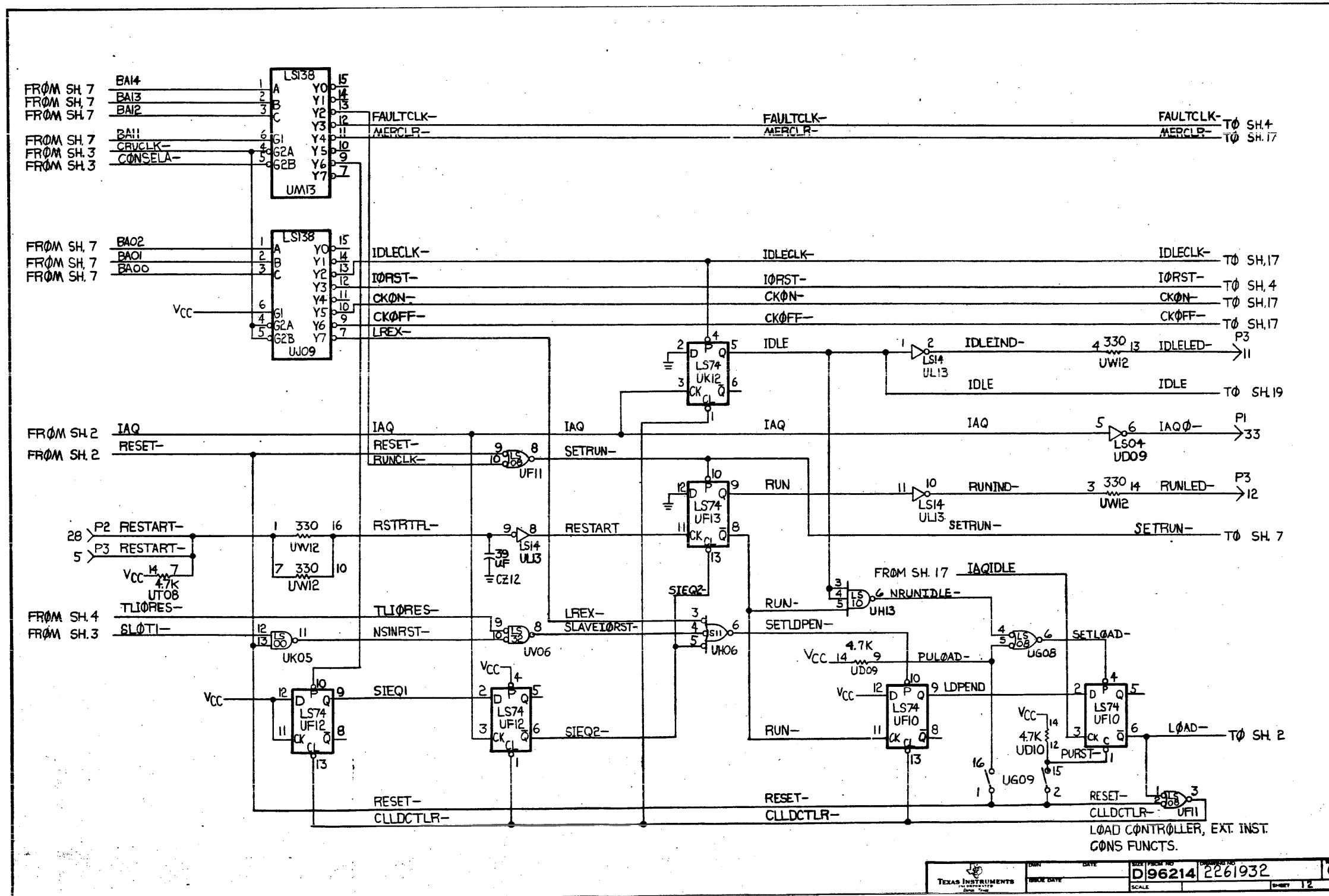




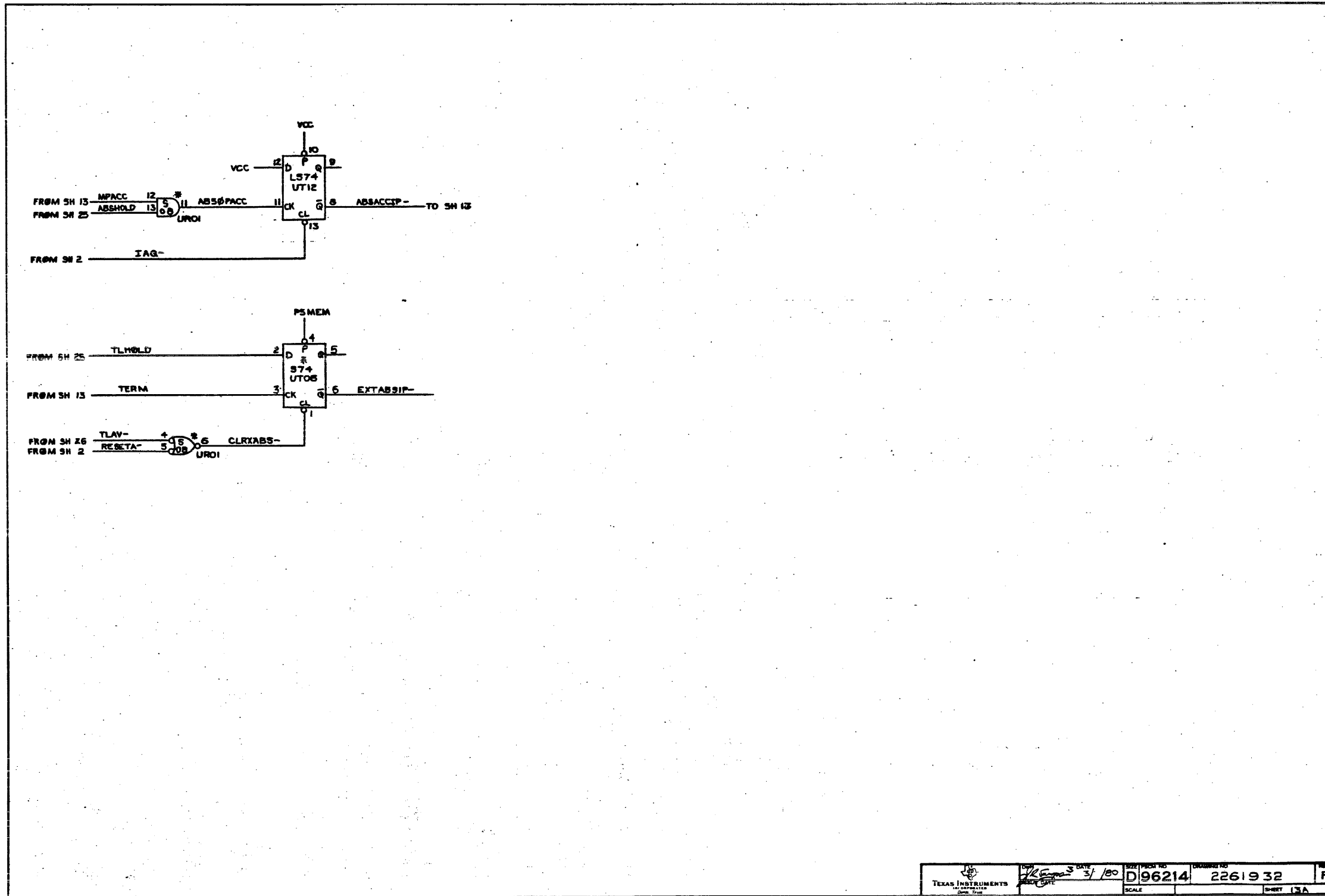


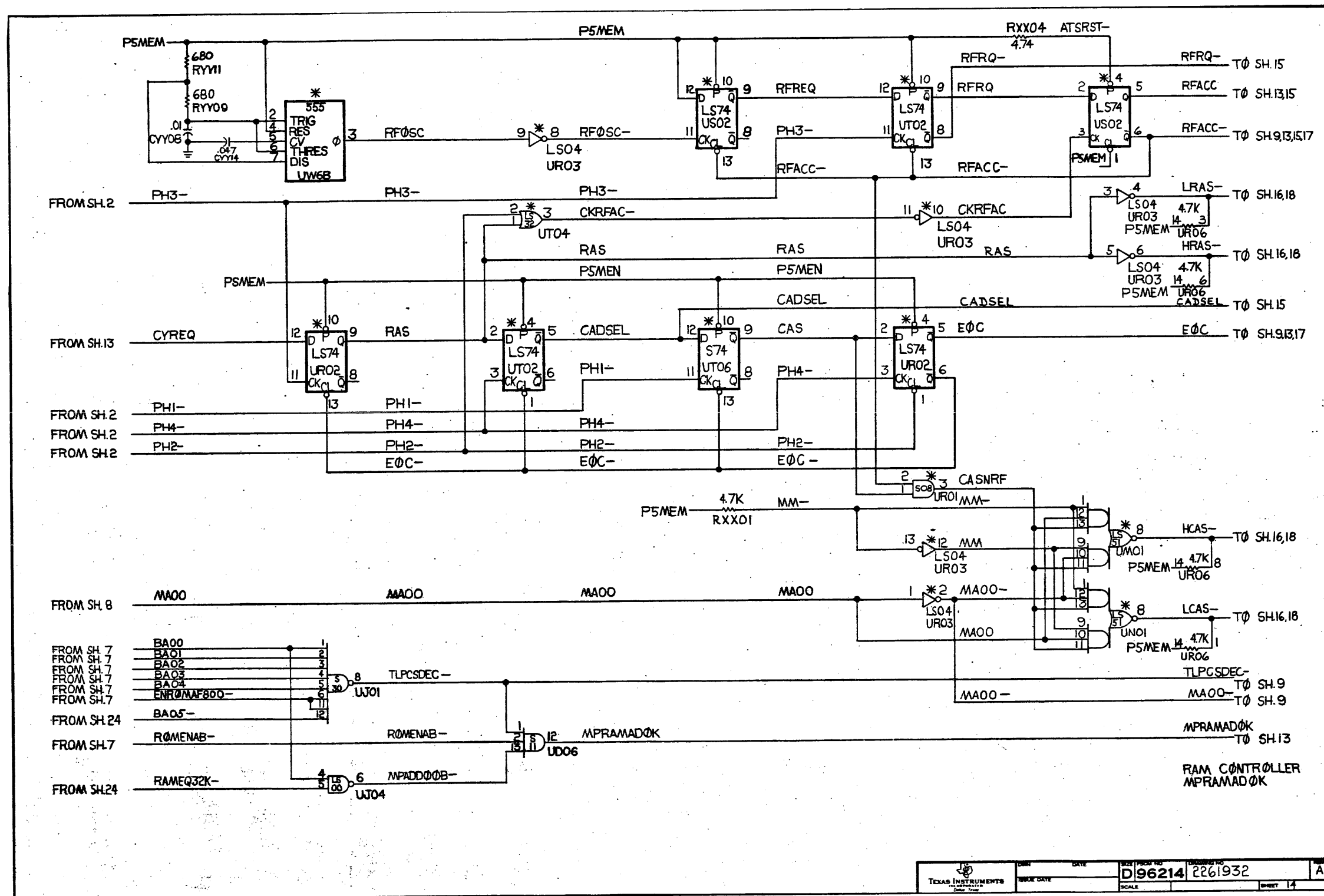




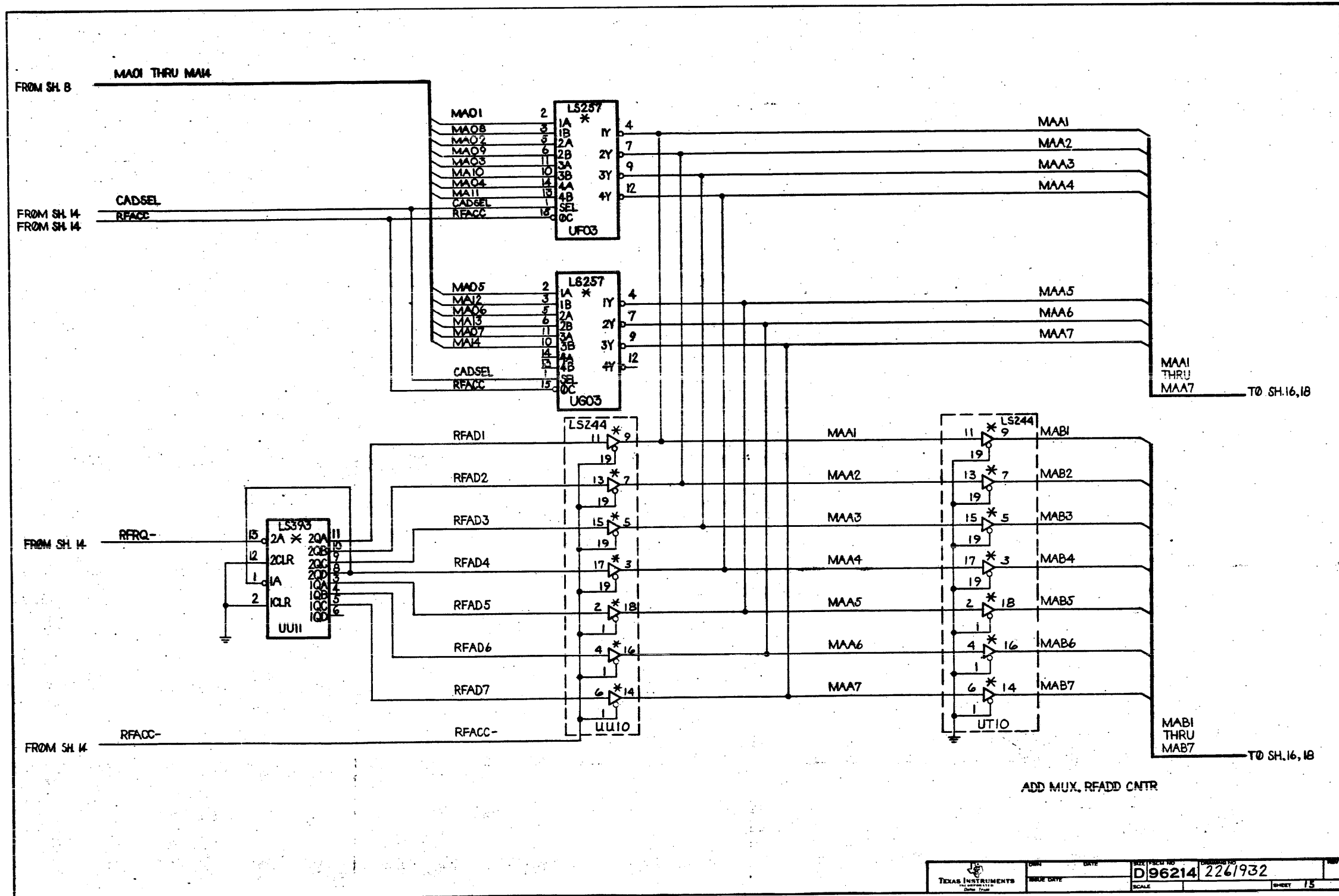






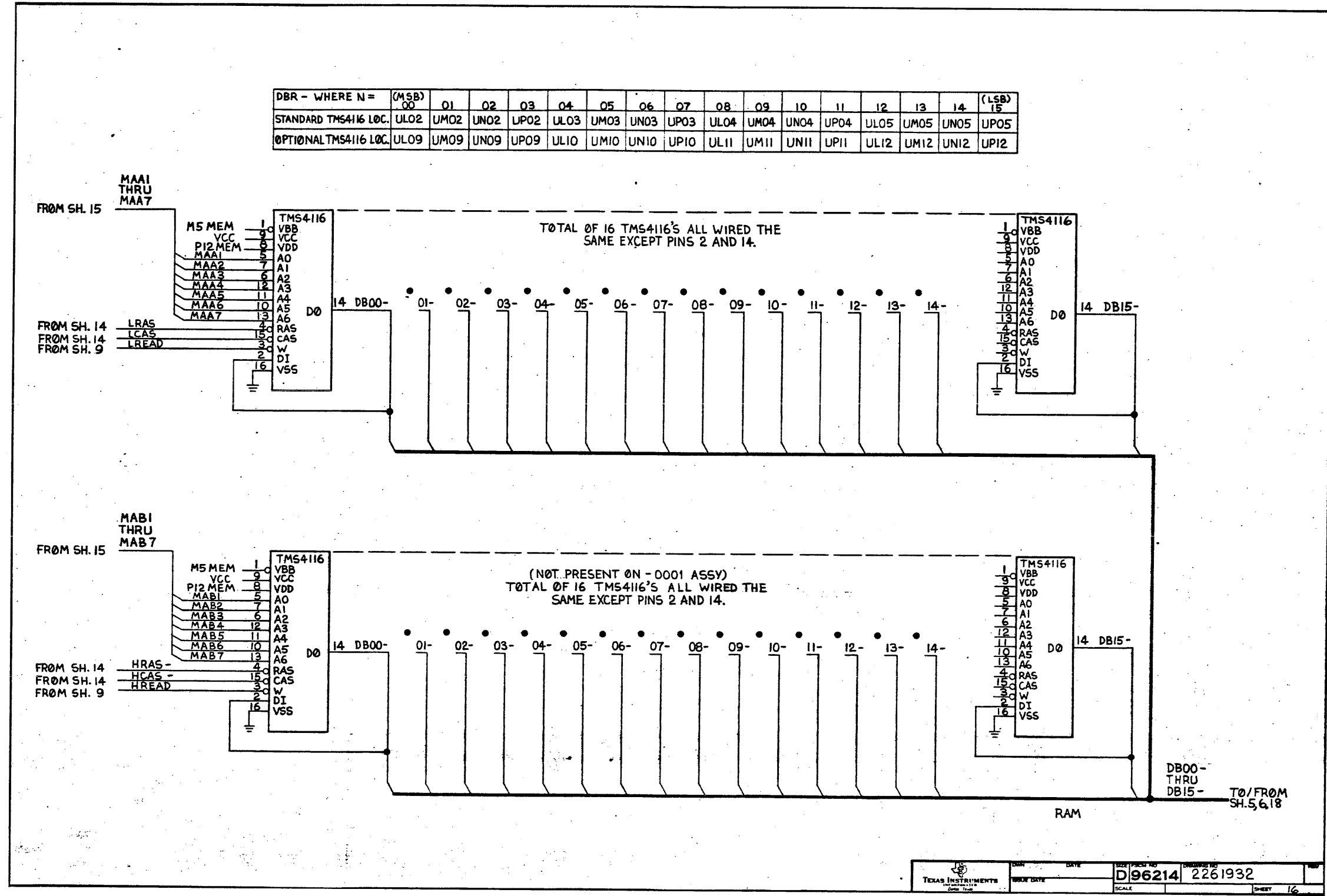


TEXAS INSTRUMENTS	DATE	DESIGN NO.	REV.
		D96214	2261932
			A

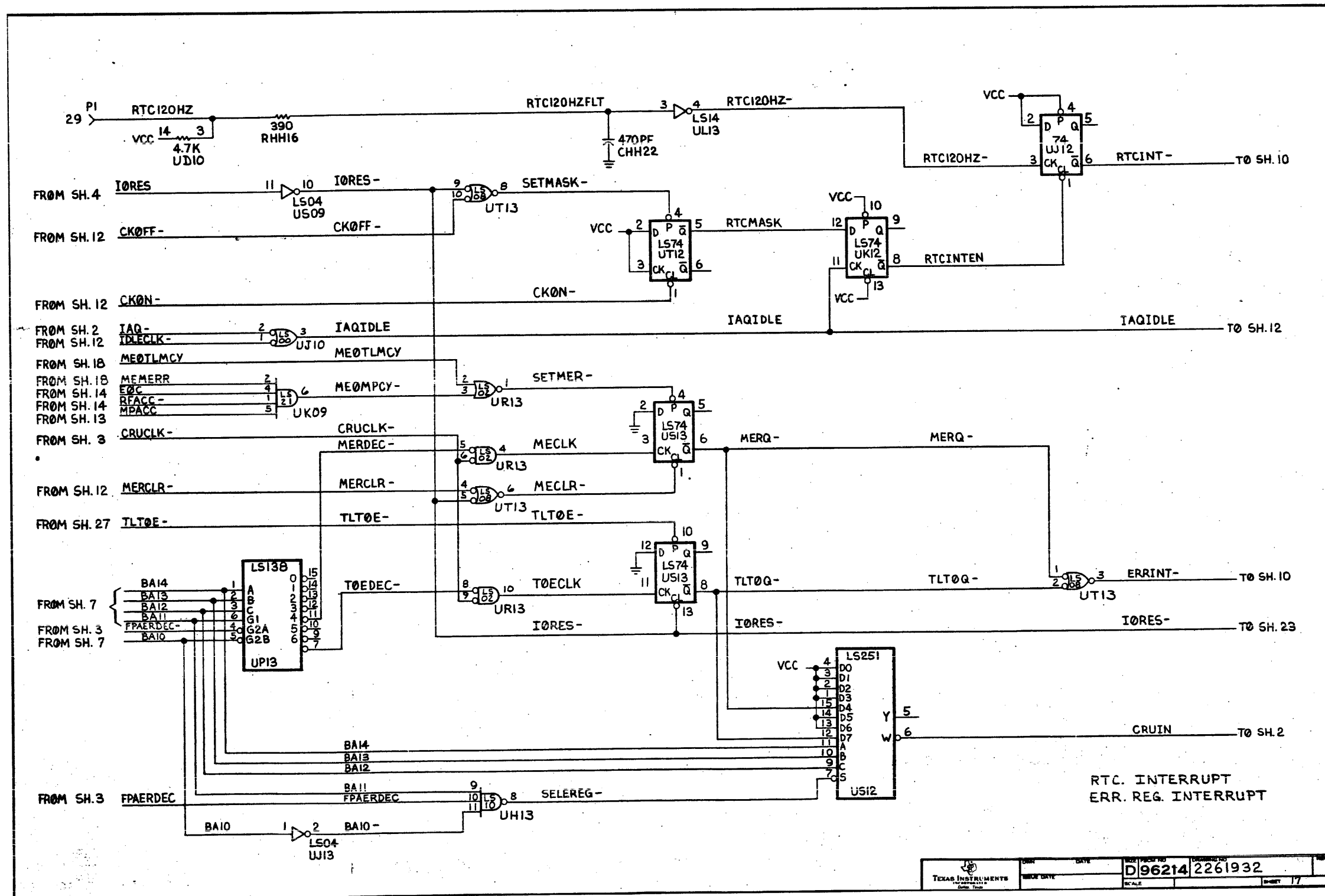


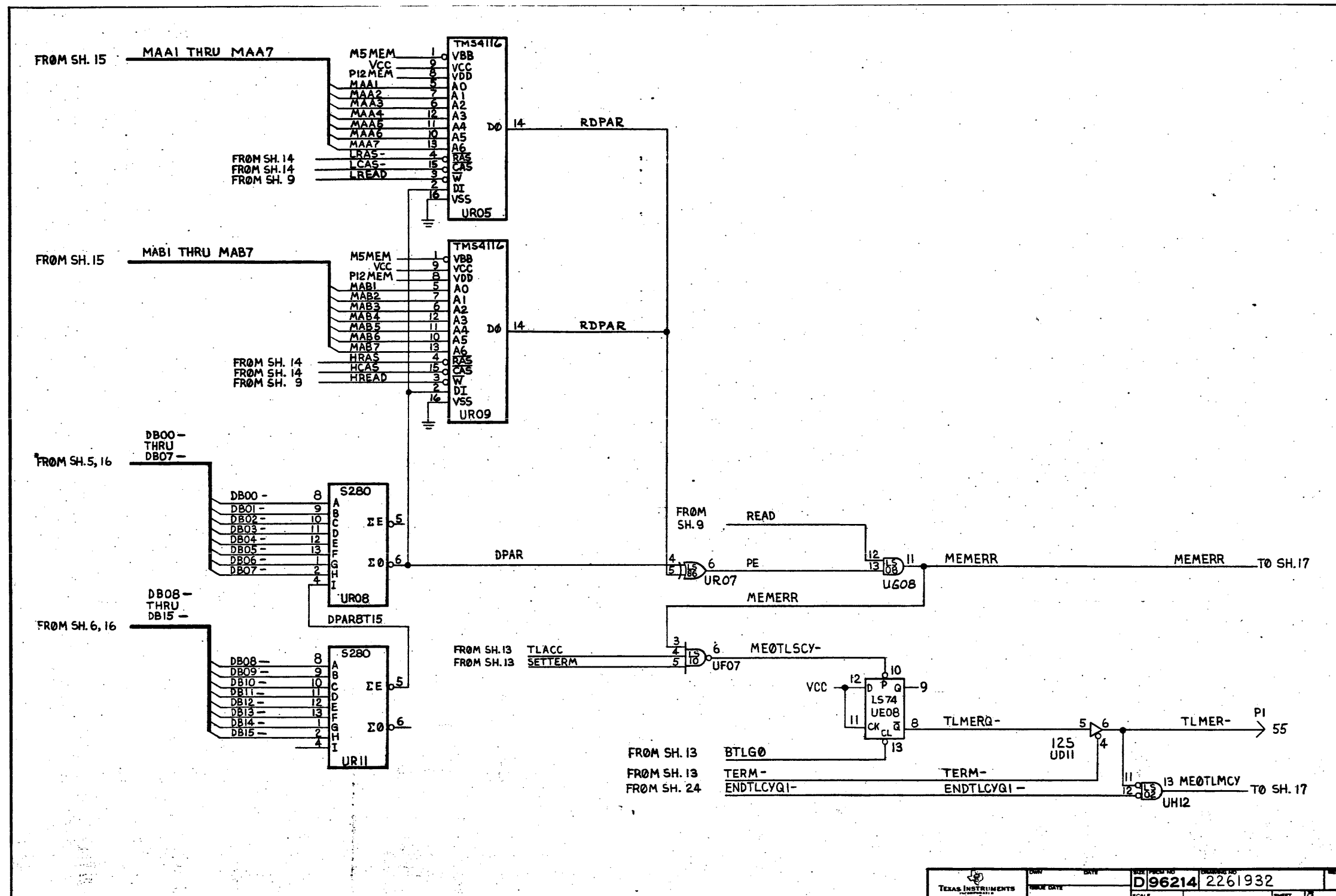


DBR - WHERE N =	(MSB)	01	02	03	04	05	06	07	08	09	10	11	12	13	14	(LSB)
STANDARD TMS4116 LOC.	00	U02	U02	U02	U03	U03	U03	U03	U04	U04	U04	U04	U05	U05	U05	U05
OPTIONAL TMS4116 LOC.		U09	U09	U09	U10	U10	U10	U10	U11	U11	U11	U11	U12	U12	U12	U12

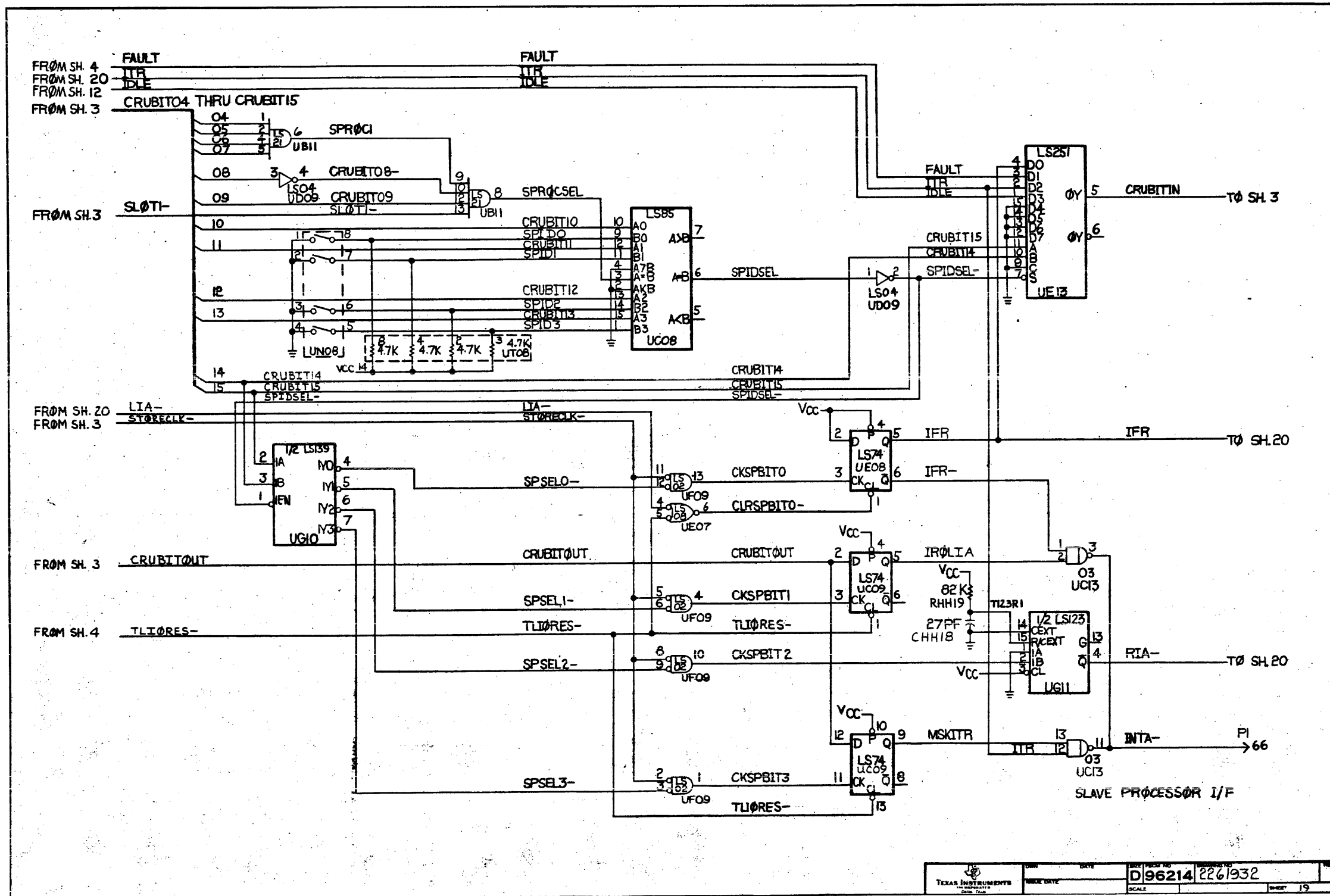


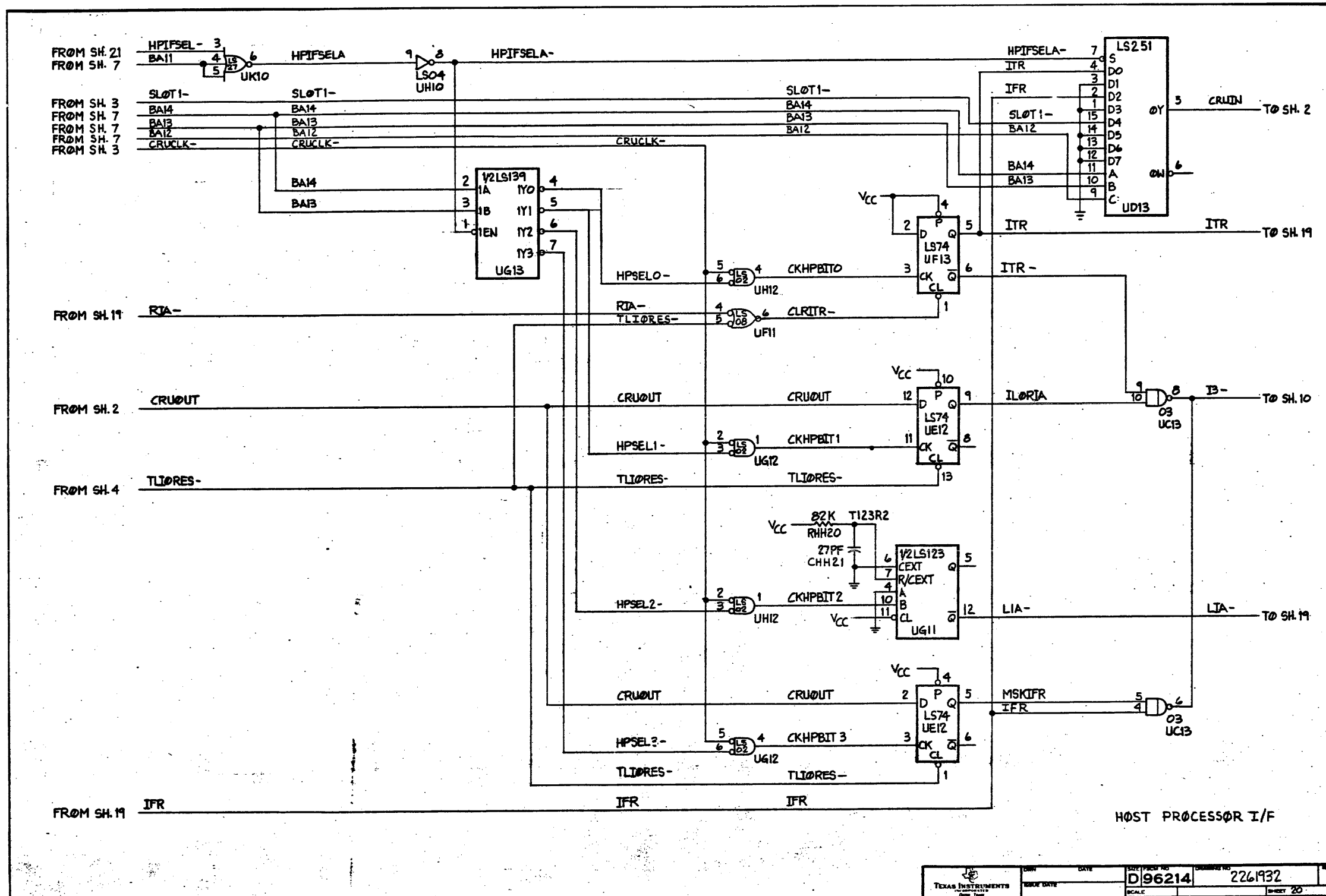
TEXAS INSTRUMENTS	DATE	SIZE	FRONT VIEW	NUMBER
		D	96214	2261932
	DATE	SCALE	SHEET	16

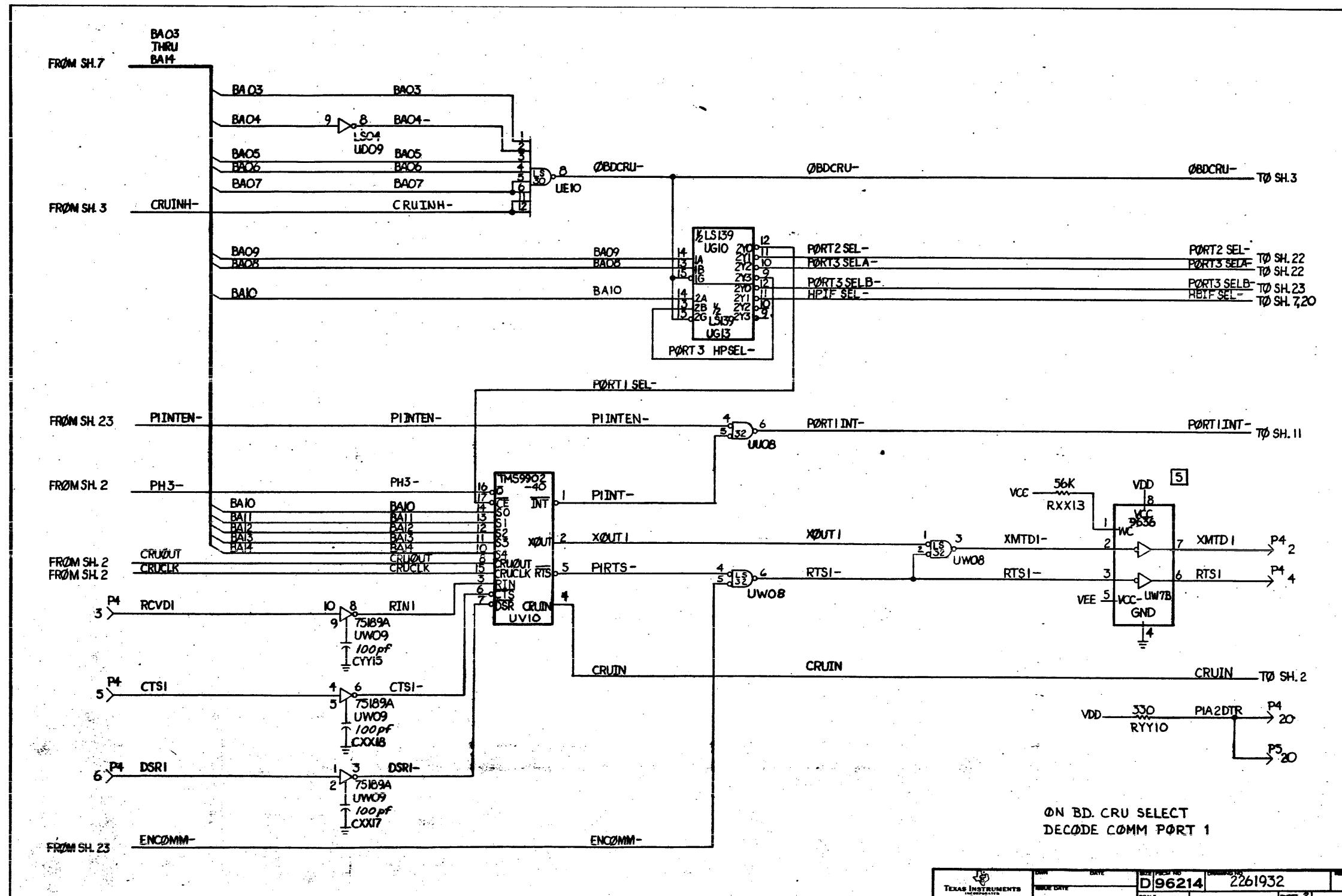


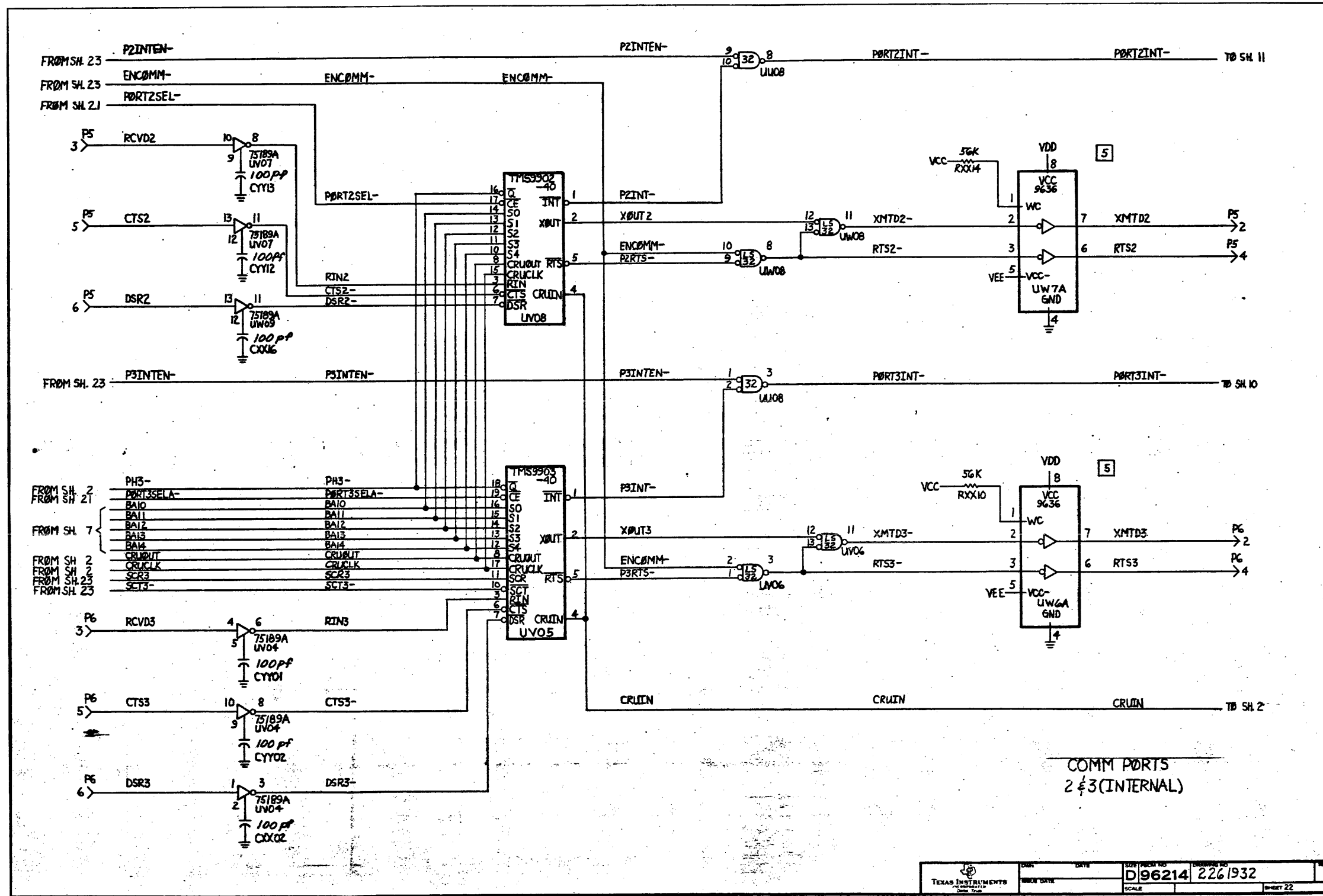


DESIGN NO.	DATE	SIZE	PROJ. NO.	ISSUE NO.
96214		D	2261932	
SCALE				SHEET 13

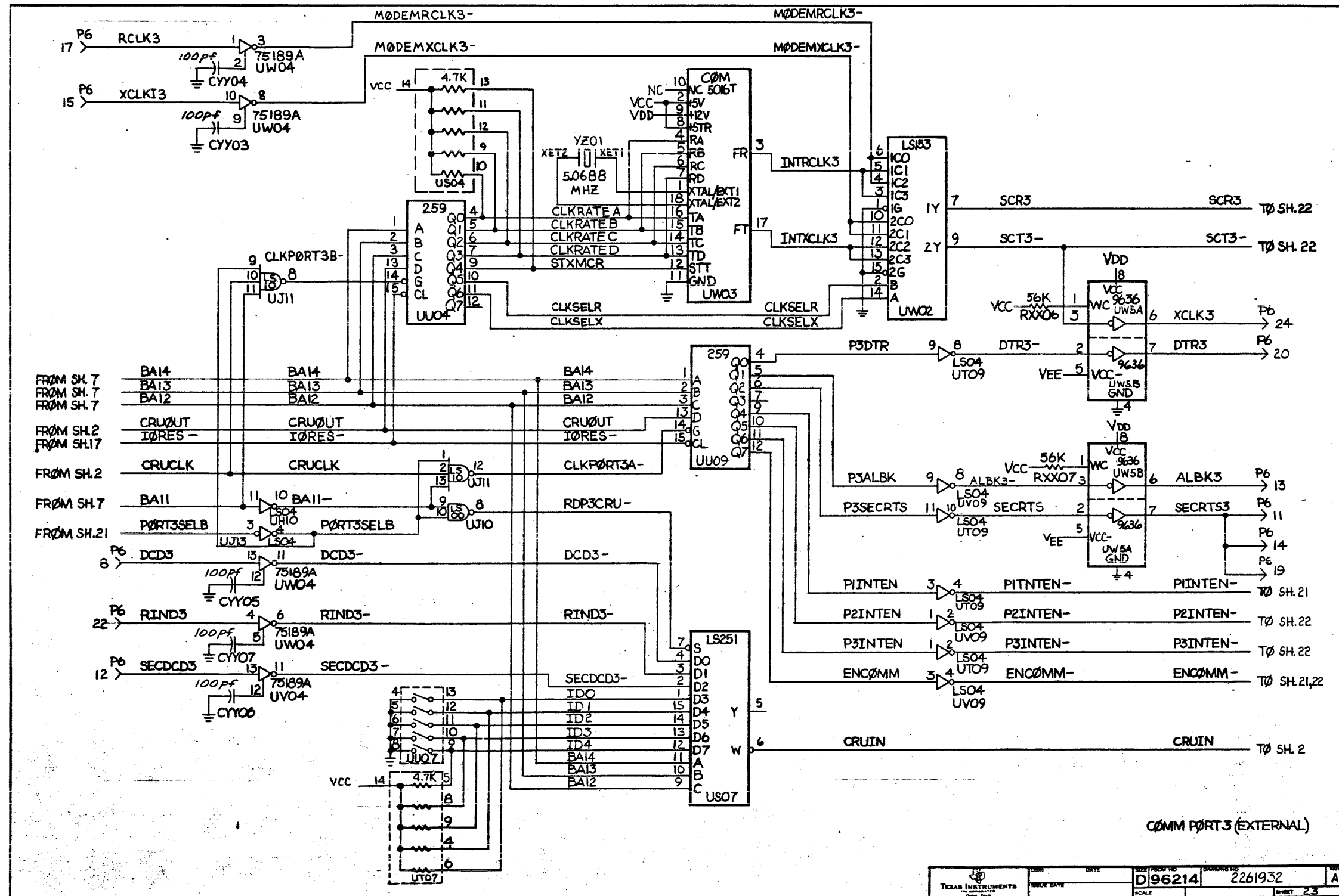








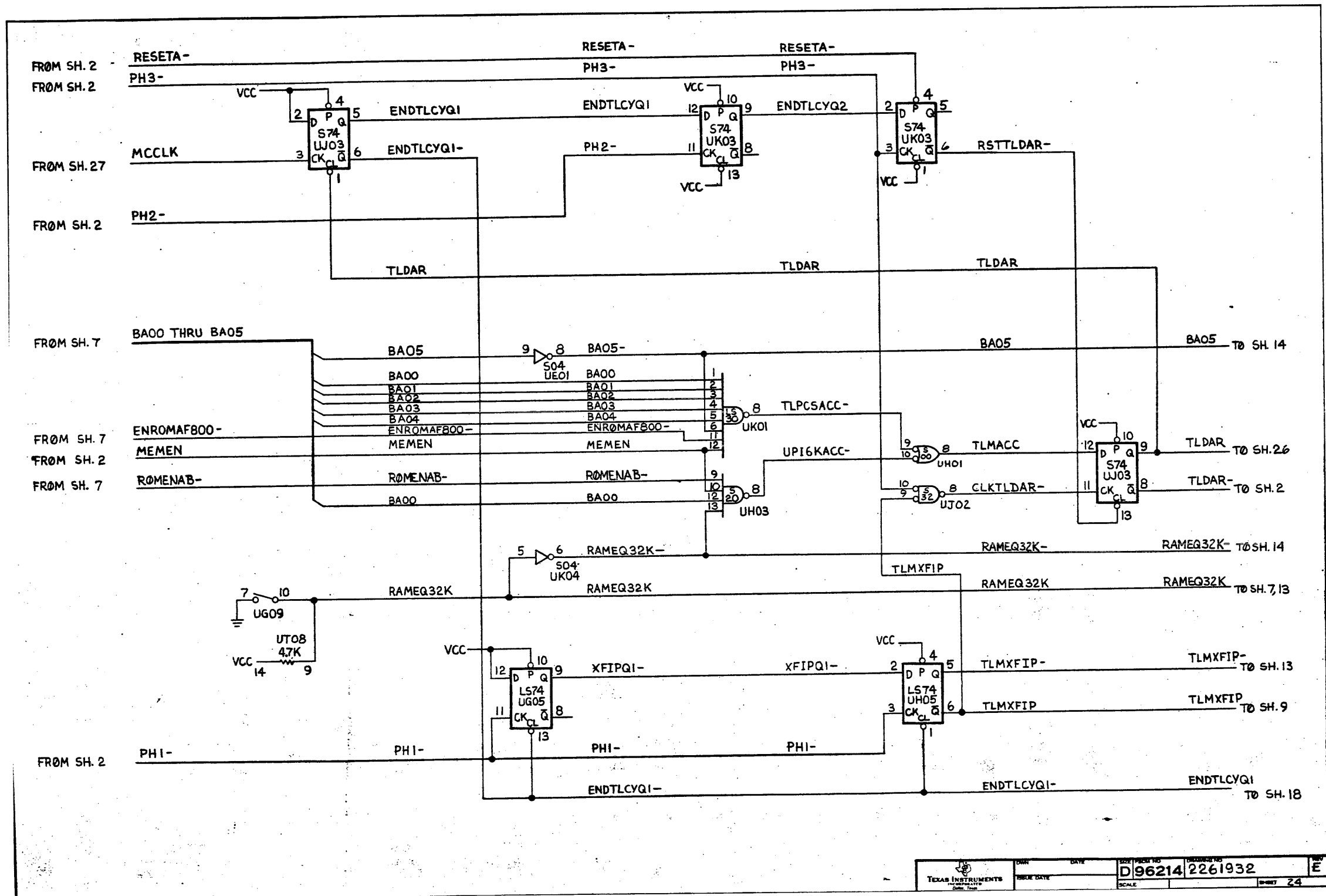
DATE	REV	BY	CHKD	APP'D	PROJ. NO.	REV. NO.
					D96214	2261932
TEXAS INSTRUMENTS		MICRO SYSTEMS		SCALE		
				SHEET 22		



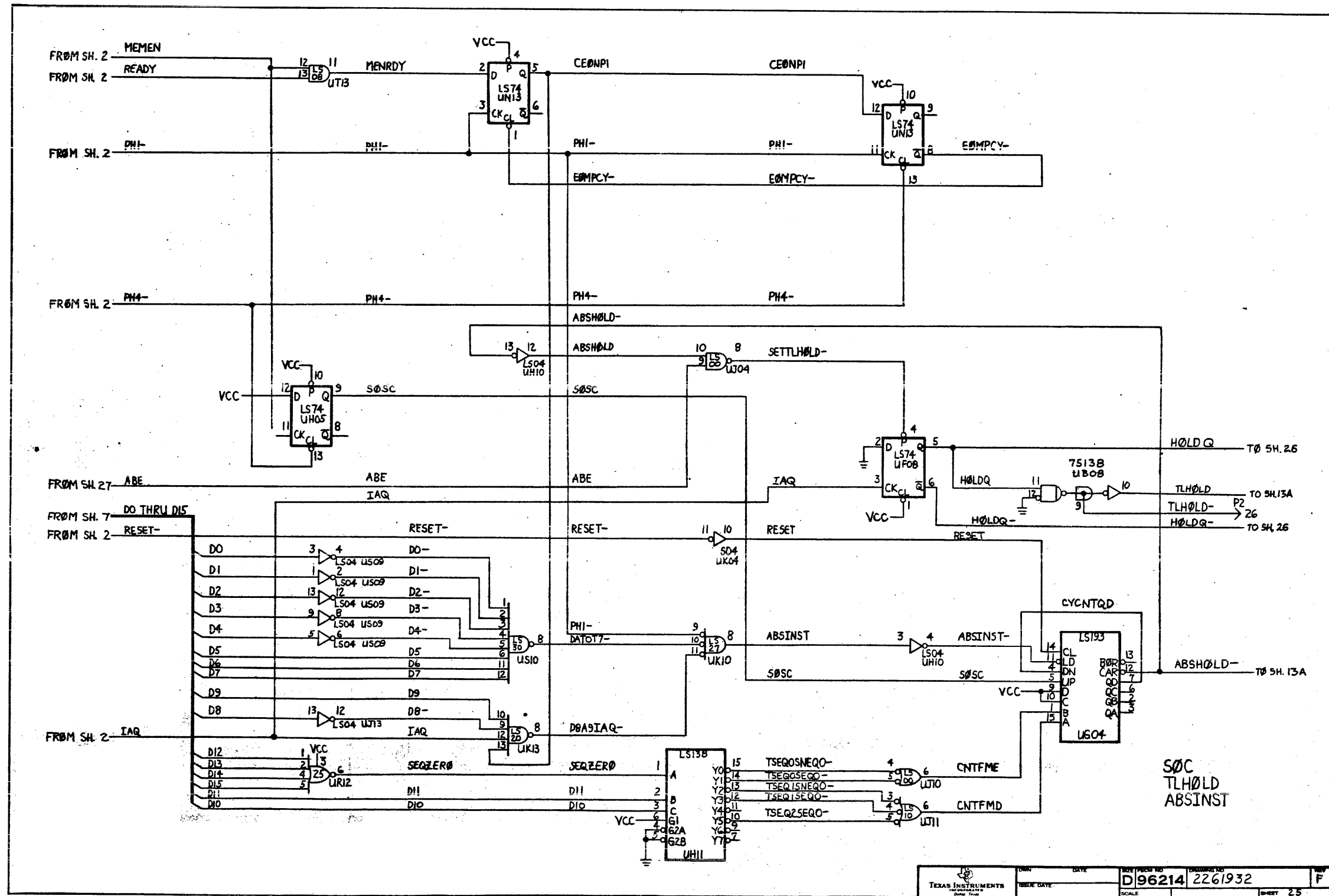
COMM PORT 3 (EXTERNAL)

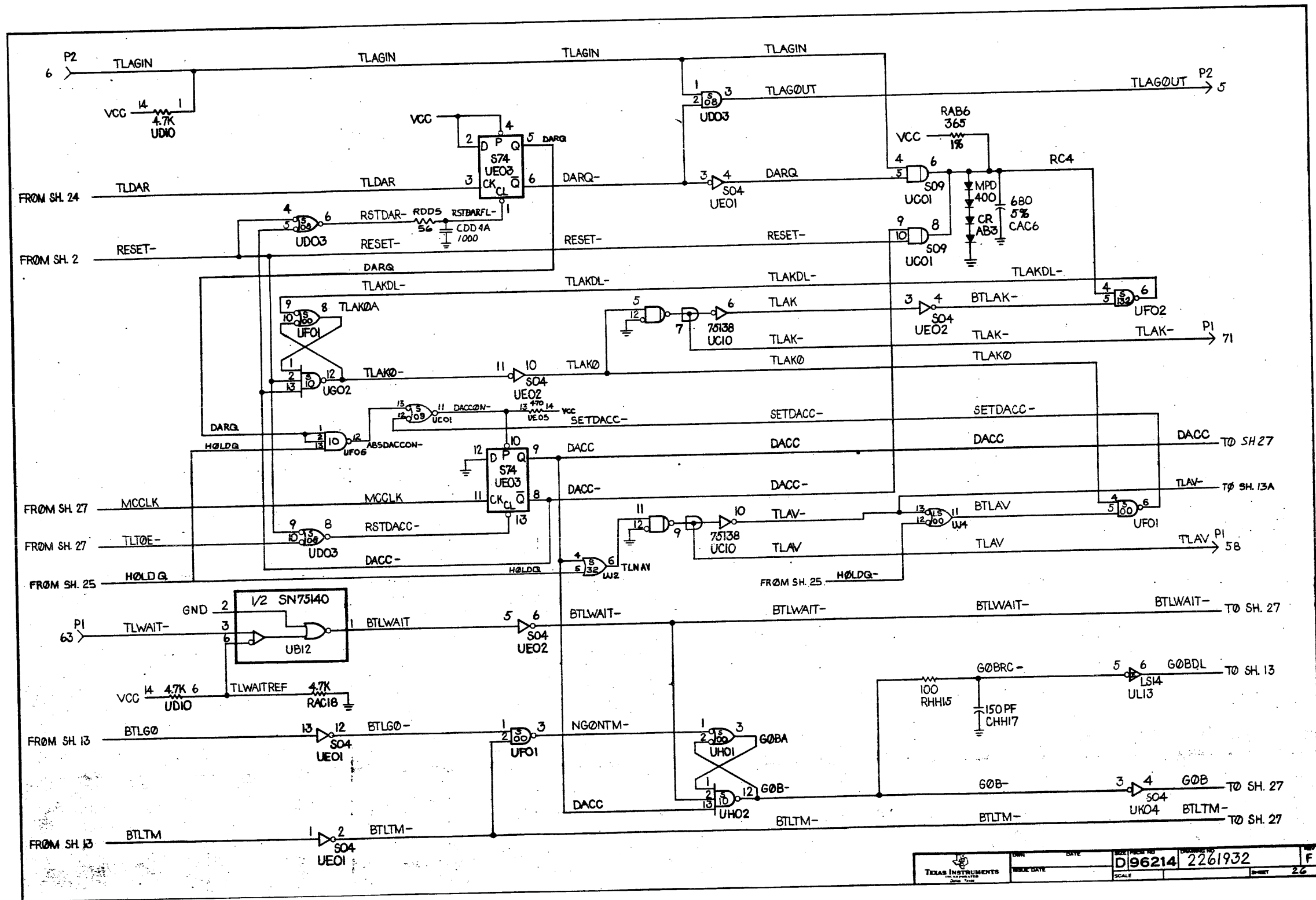
DATE	REV	PREP	NO	DRAWING NO	2261932	REV	A
SCALE	DATE	SCALE	DATE	SCALE	DATE	SCALE	DATE
				TXS	96214	SHEET 23	



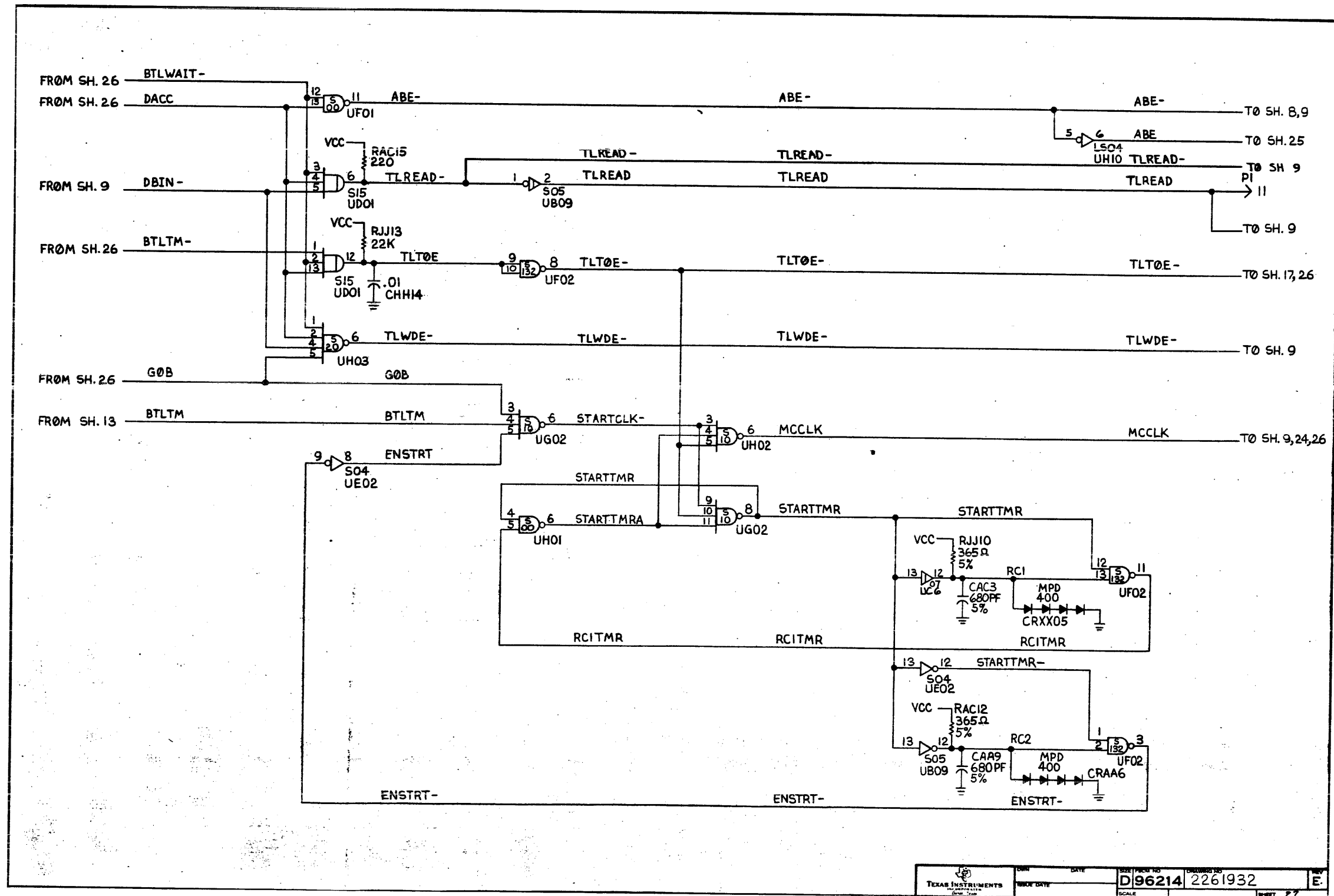


DESIGNED BY	DATE	SIZE	PACKED TO	REVISION NO.	REV
DATE	DATE		D96214	2261932	E
SCALE	SCALE	SCALE	SCALE	SCALE	SCALE
					24

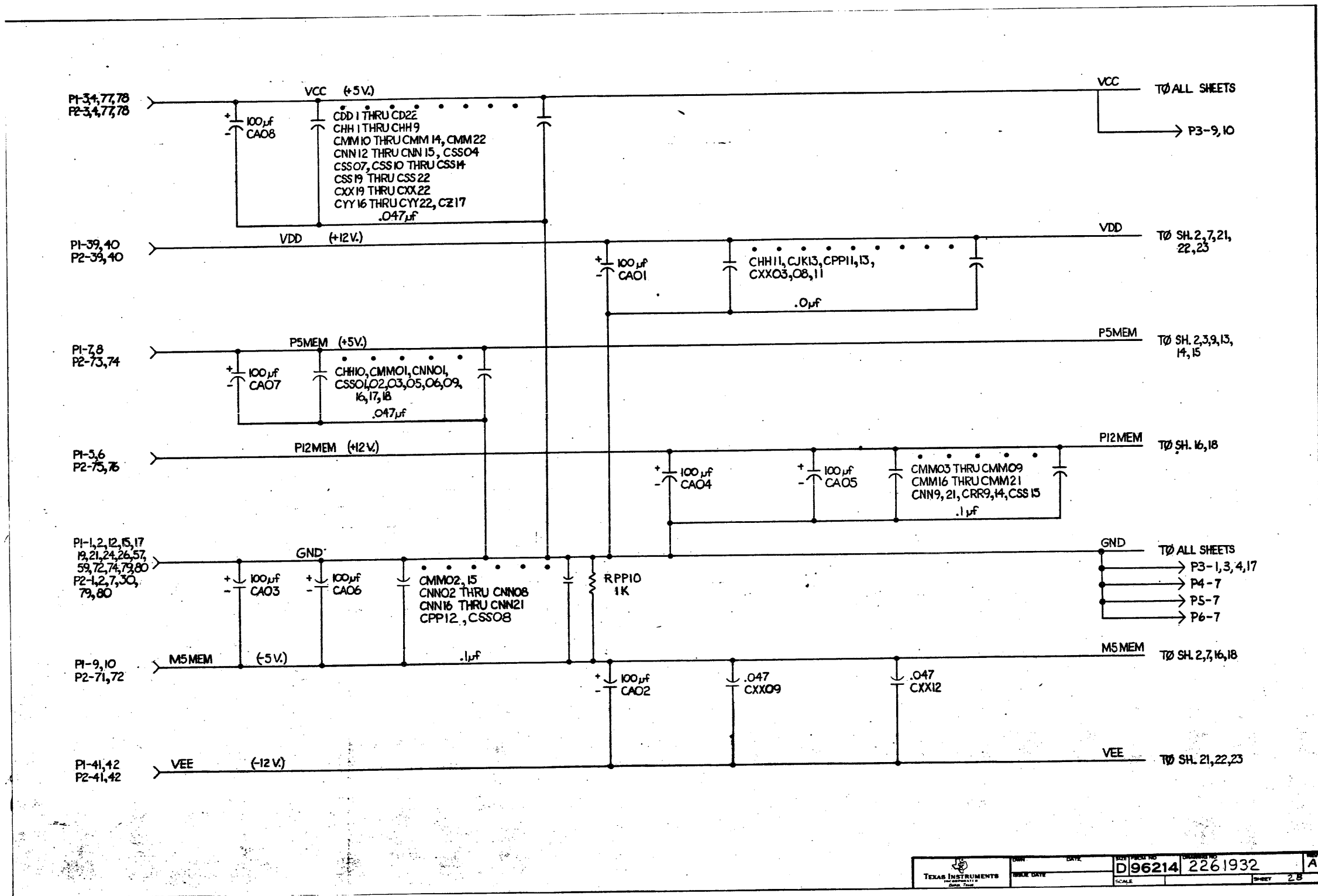




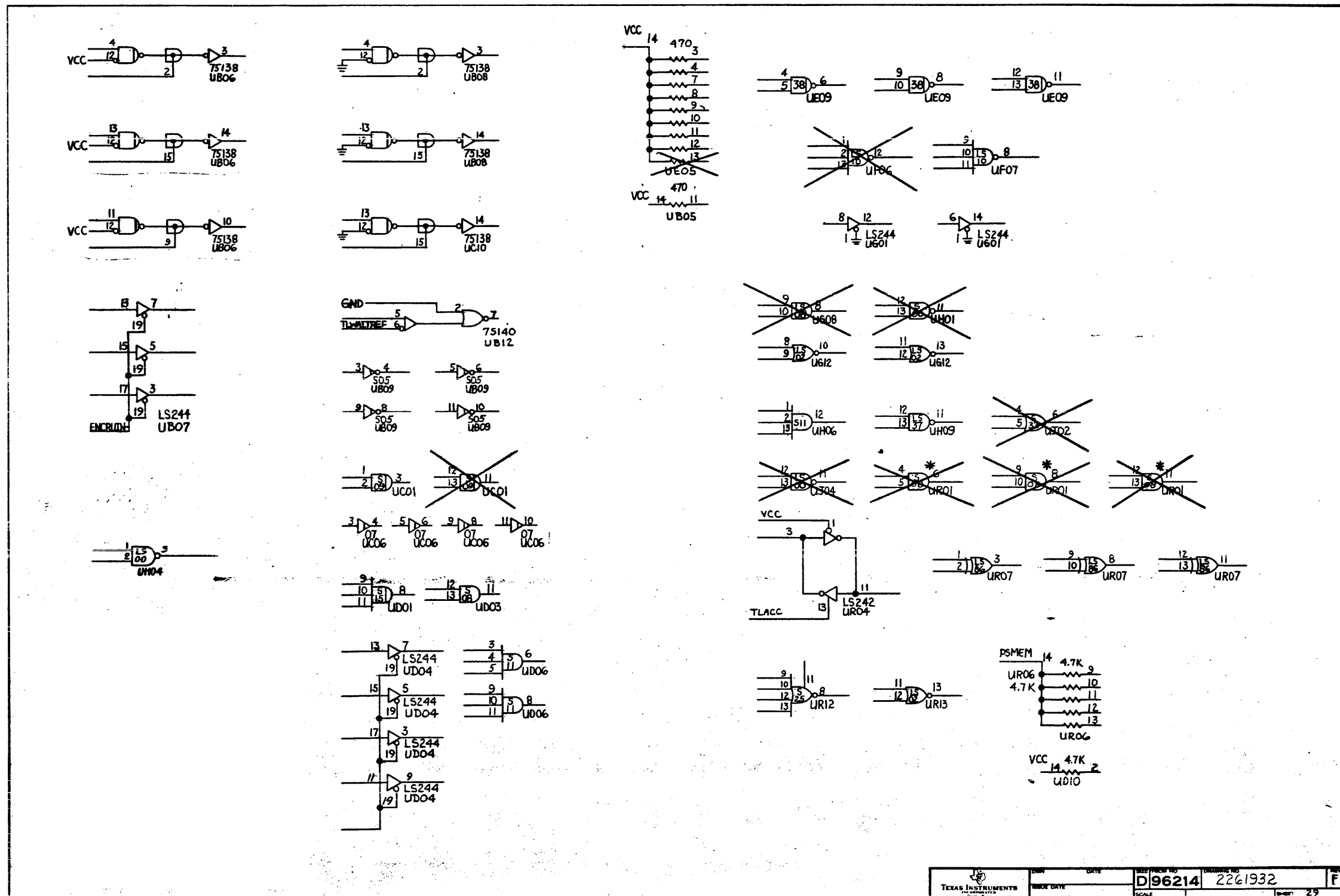
Logic Diagram, Circuit Board Assembly

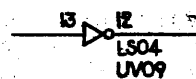
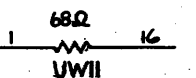
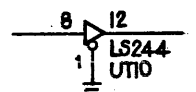
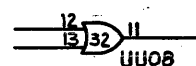
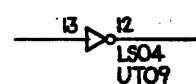
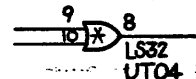
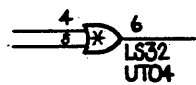
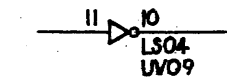
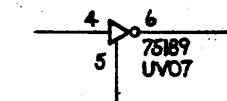
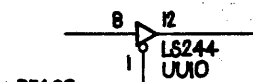
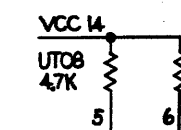
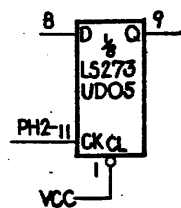
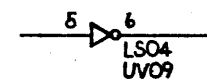
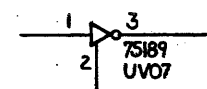
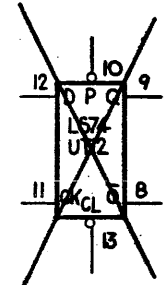
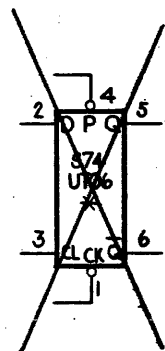
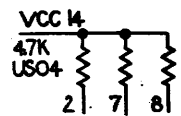


TEXAS INSTRUMENTS	DATE	SIZE / PART NO.	DESIGN NO.	REV.
	TRUCK DATE	D96214	2261932	E
		SCALE	SHEET 27	



 TEXAS INSTRUMENTS <small>PHILADELPHIA • DALLAS • HOUSTON • AUSTIN • SAN ANTONIO • McCOMBS • MIAMI • NEW YORK • CHICAGO • LOS ANGELES • SALT LAKE CITY • DENVER • PHOENIX • PORTLAND • SEATTLE • SAN FRANCISCO • SAN JOSE • SPOKANE</small>	DATE _____ DRAWN BY _____ CHECKED BY _____	SIZE: 1/2" X 1/2" NO. _____ <b>D 96214</b>	DRAWING NO. <b>2261932</b>	SHEET <b>A</b>
	SCALE _____ SHEET 28			





EXCEPTIONS TO TIBSD  
DATABASE REFERENCE DESIGNATORS

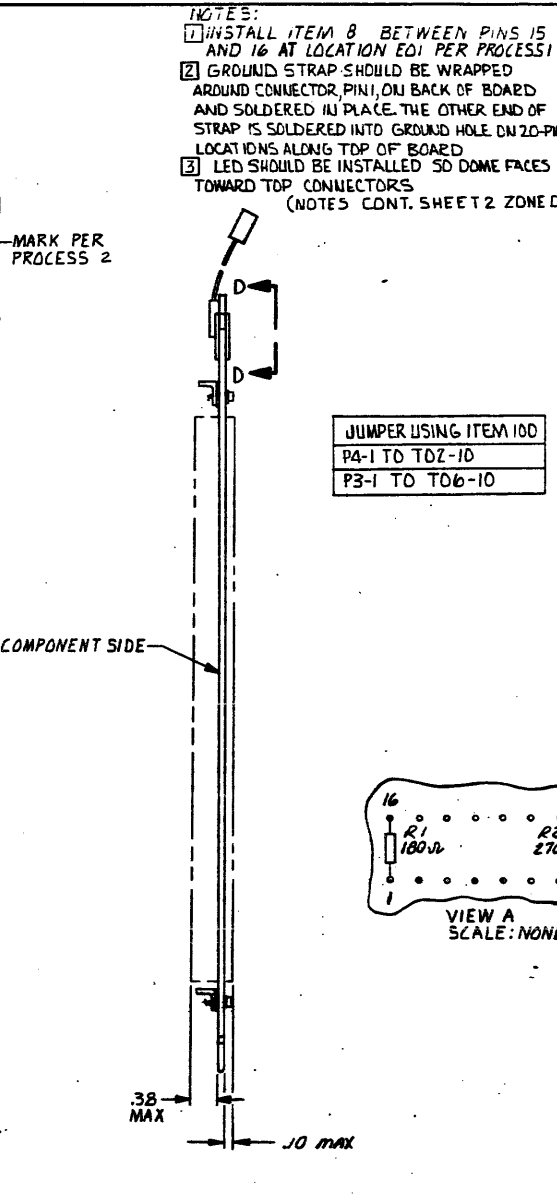
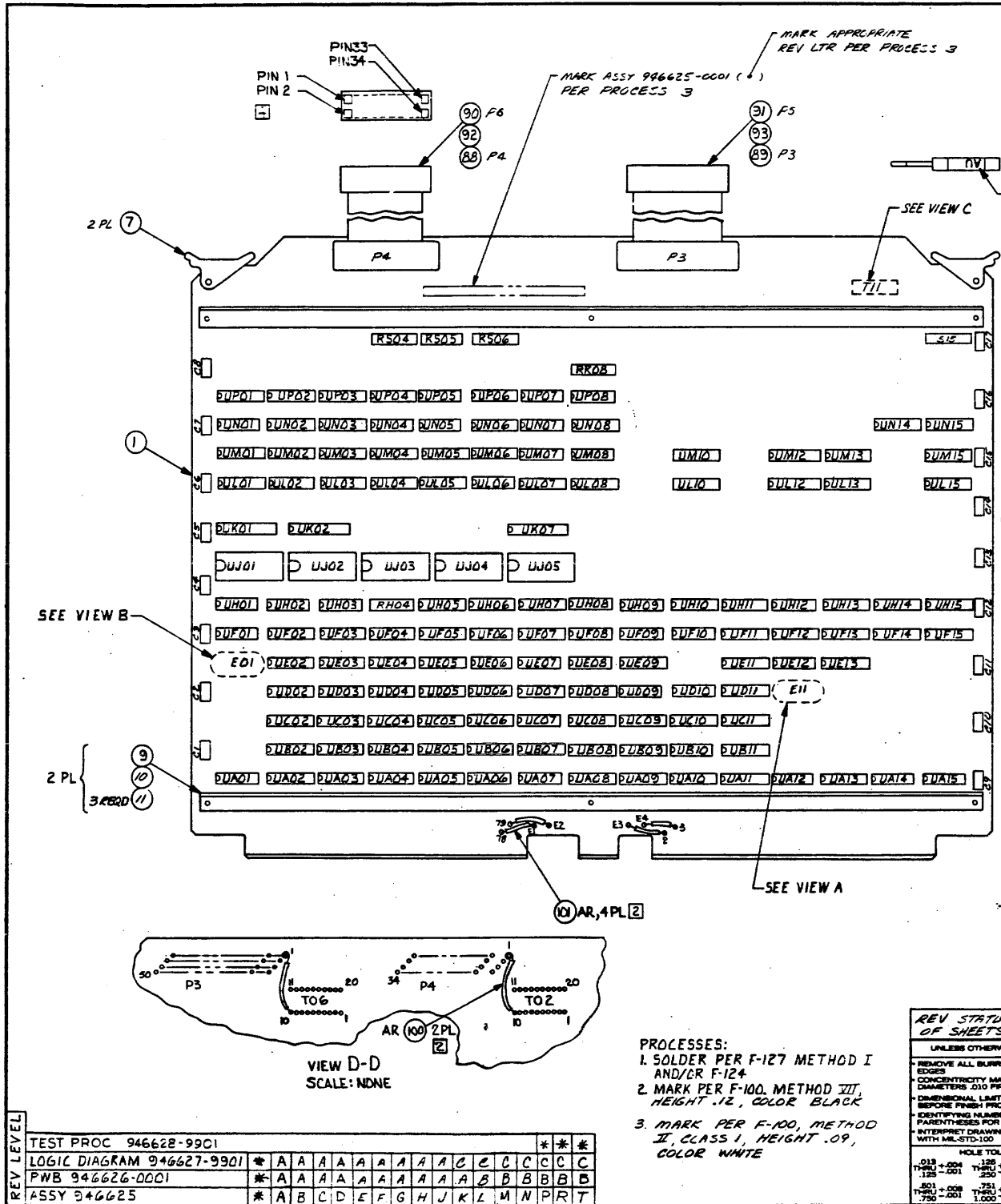
REF DES USED ON THIS DWG	LOCATION USED IN TIBSD DB
CDD01 - CDD11	DD01*
CDD12 - CDD22	DD12*
CHH01 - CHH11	HH01*
UJ09	J 09
RJ13	JK13A
CJK13	JK13A
RJL13	JL13A
CMM01 - CMM11	MM01*
CMM12 - CMM22	MM12*
CNN01 - CNN11	NN01
CNN12 - CNN22	NN12
URO6	RO6A
CRRO9	RR09A
GRR14	RR14A
USO6	SO6A
CSS01 - CSS11	SS01*
CSS12 - CSS22	SS12*
UWO4	WO4A
CRZ10	ZZ10
CZ12	ZZ12
CZ17	ZZ17

\* THESE LOCATIONS ARE CODED AS A SINGLE DEVICE HAVING 11 ELEMENTS EACH. THEY ARE ACTUALLY 11 DISCRETE CAPACITORS, USED FOR DECOUPLING ONLY.

DESIGNED BY	DATE	REV	NO
ISSUED BY	DATE	REV	NO
SCALE	PROJECT NO	ISSUED TO	REV
	D96214	2261932	F
			SHEET 30



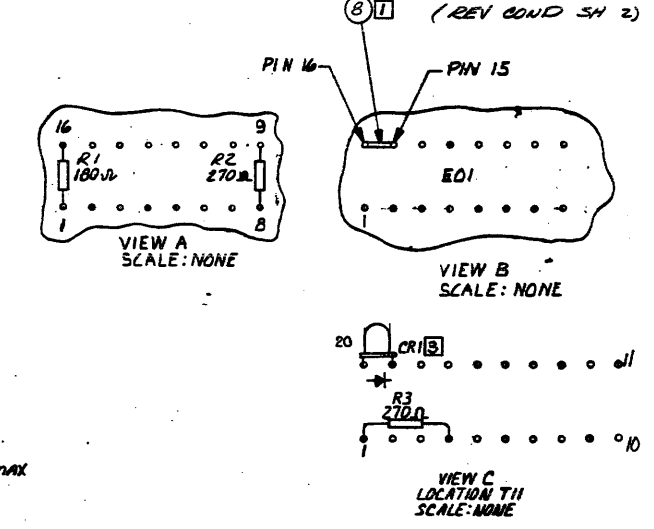




NOTES:  
 1. INSTALL ITEM 8 BETWEEN PINS 15 AND 16 AT LOCATION E01 PER PROCESS I  
 2. GROUND STRAP SHOULD BE WRAPPED AROUND CONNECTOR PIN 1 ON BACK OF BOARD AND SOLDERED IN PLACE. THE OTHER END OF STRAP IS SOLDERED INTO GROUND HOLE ON 20-PIN LOCATIONS ALONG TOP OF BOARD  
 3. LED SHOULD BE INSTALLED SO DOME FACES TOWARD TOP CONNECTORS  
 (NOTES CONT. SHEET 2 ZONE D4)

ZONE	LTR	DESCRIPTION	DATE	APPROVED
A		UPDATED REV STATUS BLOCK		
FORMAL RELEASE				
B		CN 406267 (1) REVISED L/M + REV LEVEL BLOCK	1/27/76	Rabjohn
C		CN 406267 (1) REVISED L/M + REV LEVEL BLOCK	2/17/76	Rabjohn
D		CN 406267 (1) REVISED L/M + REV LEVEL BLOCK	2/17/76	Rabjohn
E		CN 406267 (1) REVISED L/M + REV LEVEL BLOCK	2/17/76	Rabjohn
F		CN 406267 (1) REVISED L/M + REV LEVEL BLOCK	2/17/76	Rabjohn
G		CN 406267 (1) REVISED L/M + REV LEVEL BLOCK	4-14-76	Rabjohn

ZONE	LTR	DESCRIPTION	DATE	APPROVED
H		CN 406267 (1) REVISED L/M + REV LEVEL BLOCK	4-24-76	Rabjohn
J		CN 406267 (1) REVISED L/M + REV LEVEL BLOCK	4-24-76	Rabjohn
K		CN 406267 (1) REVISED L/M + REV LEVEL BLOCK	1/22/76	Rabjohn



PROCESSES:  
 1. SOLDER PER F-127 METHOD I AND/OR F-124  
 2. MARK PER F-100, METHOD III, HEIGHT .12, COLOR BLACK  
 3. MARK PER F-100, METHOD II, CLASS 1, HEIGHT .09, COLOR WHITE

REV LEVEL	TEST PROC	LOGIC DIAGRAM	PWB	ASSY	946622	9901	9902	9903	9904	9905	9906	9907	9908	9909	9910	9911	9912	9913	9914	9915	9916	9917	9918	9919	9920

REV STATUS OF SHEETS	REV	T	T	QTY REQD	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	DESCRIPTION OR DESCRIPTION	PROCURMENT SPECIFICATION

UNLESS OTHERWISE SPECIFIED	UNLESS OTHERWISE SPECIFIED	DATE
REMOVE ALL BURRS AND SHARP EDGES	DIMENSIONS ARE IN INCHES	12/12/75
CONCENTRICITY MACHINED DIAMETERS .010 PR	ANGLES 45°	1/1/76
DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING	3 PLACE DECIMALS 2.010	1/17/76
IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY	2 PLACE DECIMALS 2.002	1/17/76
INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100		1/21/76

DESIGN ACTIVITY RELEASE	DATE
	1/21/76

DESIGN ACTIVITY RELEASE	DATE
	1/21/76

SIZE	CODE IDENT NO	DRAWING NO
D	96214	946625

SCALE	SHEET
1/1	1 OF 2

NOTES:  
 ☐ DISREGARD PIN NUMBERS MOLDED  
 ON TO 34 PIN CONNECTOR IF ANY ARE  
 PRESENT

REVISIONS			
ZONE LTR	DESCRIPTION	DATE	APPROVED
L	CN 416536 (E) D.P. (1) UPDATED REV LEVEL BLOCK	11/24/76	Rodman
M	CN 419101 (B) Rev Level (1) UPDATED REVISION LEVEL BLOCK	10-18-76	Levin
N	418023 (B) R. Levinger (1) UPDATED REV. BLOCKS. 2) CHG: 17, 60, 70, 94, 94, 94- 0017. 3) CHG: 17, 5, 100, 1101 QTY. WAS "NA"	11-22-76	Debra
P	CN 417846 (B) D Campbell (1) UPDATED REV LEVEL BLK & ADDED TEST PROC. (2) IN REVISION DESCRIPTION OF REV W CHANGED CLASS OF CHANGE FROM (C)	1/29/77	Rodman
R	CN 421891 (D) G. Moore (1) ADDED TOP VIEW OF ITEM 90 & PIN ASSIGNMENT (2) ADDED NOTE 4 (3) UPDATED REV LEVEL BLOCK	2-22-77	R. Lane
T	CN 429470 (C) E. Brown (1) ITEM 20 WAS 9T2300-0001 (2) UPDATED REV LEVEL BLOCK	7-31-78	R. Lane

SIZE	CODE IDENT NO	DRAWING NO
D	96214	946625
SCALE NONE	T	SHEET 2

TEXAS INSTRUMENTS INCORPORATED DATE 07/13/78 LIST OF MATERIAL PAGE 1 of 4 PART NUMBER LM946625-0001 REV T

ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0001	00001.000	EA		0946626-0001	BOARD ASSY, AU, 990/10, MM	
0002	REF	EA		0946627-9901	LOGIC DIAGRAM, AU, 990/10, MM	
0003	REF	EA		0946628-9901	TEST PROCEDURE, AU, 990/10, MM	
0004	REF	EA		0946629-9901	SPECIFICATION, AU, 990/10, MM	
0005	REF	EA		0946626-9902	PIN LIST, AU, 990/10, MM	
0006	REF	EA		0946626-9903	LOAD LIST, AU, 990/10, MM	
0007	00002.000	EA		0413277-0001	EJECTOR, PCB, NON-LOCKING, WHITE	SCA -S-200(NATURAL)
0008	00000.010	FT		0411400-0024	WIRE, 24AWG ELECTRO TIN PLATED COPPER	
0009	00002.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN	
0010	00002.000	EA		0966486-0001	INSULATGR PWB STIFFENER	
0011	00006.000	EA		0972684-0002	SCREW, TND FRMG, HEX WSHK HD, 2-56X1/4 LG	
0012	00003.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N
0012A					UA12 UA15 UP08	
0013	00001.000	EA		0972900-7402	NETWORK SN74LS02N	
0013A					UC07	
0014	00002.000	EA		0972900-7404	NETWORK SN74LS04N	
0014A					UH02 UP05	
0015	00001.000	EA		0240000-7404	NETWORK SN74H04N	
0015A					UE12	
0016	00001.000	EA		0972749-0001	NETWORK, SN74LS08N	
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE						
APPRO. DATE APP. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV						
990/10 ARITHMETIC UNIT, MM 7506 LM946625-0001 T						

TEXAS INSTRUMENTS INCORPORATED DATE 07/13/78 LIST OF MATERIAL PAGE 2 of 4 PART NUMBER LM946625-0001 REV T

ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0016A					UD09	
0017	00001.000	EA		0240000-7410	NETWORK-SN74H10N	
0017A					UE07	
0018	00001.000	EA		0972788-0001	NETWORK, SN74LS11, POSITIVE AND GATE	
0018A					UF08	
0019	00001.000	EA		0972900-7420	NETWORK SN74LS20N	
0019A					UA07	
0020	00001.000	EA		0972813-0001	NETWORK-SN74LS21N	
0020A					UD10	
0021	00001.000	EA		0972814-0001	NETWORK-SN74LS27N	
0021A					UH03	
0022	00002.000	EA		0972900-7432	NETWORK SN74LS32N	TI -SN74LS32N
0022A					UA01 UD06	
0023	00001.000	EA		0222222-7437	NETWORK SN7437N	
0023A					UF04	
0024	00005.000	EA		0972783-0001	NETWORK, SN74LS42N BCD/DEC	
0024A					UD08 UE11 UM06 UN06 UP06	
0025	00001.000	EA		0219402-7451	NETWORK SN74S51N	
0025A					UH01	
0026	00001.000	EA		0240000-7452	NETWORK-SN74H52N	
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE						
APPRO. DATE APP. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV						
990/10 ARITHMETIC UNIT, MM LM946625-0001 T						

TEXAS INSTRUMENTS INCORPORATED DATE 07/13/78 LIST OF MATERIAL PAGE 3 of 4 PART NUMBER LM946625-0001 REV T

ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0026A					UA06	
0027	00001.000	EA		0972900-7474	NETWORK SN74LS74N	
0027A					UL06	
0028	00004.000	EA		0966116-0001	IC, SN74LS75N, 4-BIT BISTABLE LATCH	001295-SN74LS75N
0028A					UF02 UF03 UF04 UF05	
0029	00001.000	EA		0972815-0001	NETWORK-SN74LS85N	
0029A					UP04	
0030	00001.000	EA		0972751-0001	NETWORK, SN74LS86N	
0030A					UA08	
0031	00005.000	EA		0972900-7109	NETWORK SN74LS109N	TI -SN74LS109N
0031A					UA13 UB06 UC06 UD07 UN08	
0032	00001.000	EA		0219402-7114	NETWORK SN74S114N	
0032A					UA14	
0033	00001.000	EA		0222222-7125	NETWORK SN74125N	
0033A					UN05	
0034	00001.000	EA		0222222-7150	NETWORK SN74150N	
0034A					UJ05	
0035	00002.000	EA		0801383-0001	NETWORK SN74LS151N	
0035A					UB08 UC08	
0036	00011.000	EA		0972900-7153	NETWORK SN74LS153N	TI -SN74LS153N
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE						
APPRO. DATE APP. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV						
990/10 ARITHMETIC UNIT, MM LM946625-0001 T						

TEXAS INSTRUMENTS INCORPORATED DATE 07/13/78 LIST OF MATERIAL PAGE 4 of 4 PART NUMBER LM946625-0001 REV T

ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0036A					UB07 UC02 UC03 UC04 UC05	
0036B					UD02 UD03 UD04 UD05 UE09	
0036C					UL05	
0037	00003.000	EA		0972686-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N	
0037A					UA09 UH05 UH06	
0038	00002.000	EA		0219402-7163	NETWORK, SN74S163N	
0038A					UF11 UF12	
0039	00004.000	EA		0972654-0001	NETWORK, SN74LS670N	
0039A					UE02 UE03 UE04 UE05	
0040	00002.000	EA		0222222-7173	NETWORK SN74173N	
0040A					UA10 UP03	
0041	00001.000	EA		0972900-7174	NETWORK SN74LS174N	
0041A					UC09	
0042	00005.000	EA		0972900-7175	NETWORK SN74LS175N	
0042A					UA02 UA03 UA04 UA05 UB09	
0043	00001.000	EA		0222222-7180	NETWORK SN74180N	
0043A					UJ09	
0044	00004.000	EA		0972900-7181	NETWORK SN74LS181N	TI -SN74LS181N
0044A					UJ01 UJ02 UJ03 UJ04	
0045	00001.000	EA		0222222-7182	NETWORK SN74182N	
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE						
APPRO. DATE APP. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV						
990/10 ARITHMETIC UNIT, MM LM946625-0001 T						

TEXAS INSTRUMENTS INCORPORATED DATE 07/13/78 LIST OF MATERIAL PAGE 5 of PART NUMBER LM946625-0001 REV T

PART NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0045A				UM07		
0046	00004.000	EA		0972900-7194	NETWORK SN74LS194N	TI -SN74LS194N
0046A				UL01 UL02 UL03 UL04		
0047	00004.000	EA		0572668-0001	NETWORK SN74LS251N	
0047A				UA11 UB11 UC11 UD11		
0048	00002.000	EA		0972900-7253	NETWORK SN74LS253N	TI -SN74LS253N
0048A				UN02 UN03		
0049	00007.000	EA		0972665-0001	NETWORK SN74LS257N	
0049A				UM01 UM02 UM03 UM04 UM05		
0049B				UP01 UP02		
0050	00002.000	EA		0972637-0001	NETWORK,74S299 SERIAL/PARALLEL CONVERTER	
0050A				UK01 UK02		
0051	00002.000	EA		0972787-0003	NETWORK SN74LS367N	
0051A				UM14 UM15		
0052	00001.000	EA		0945246-0001	PROM*D ROM-CROM1(H12)	
0052A				UH12		
0053	00001.000	EA		0945246-0002	PROM*D ROM-CROM5(H13)	
0053A				UH13		
0054	00001.000	EA		0945246-0003	PROM*D ROM-CROM9(F14)	
0054A				UF14		

DRAFTSMAN DATE CED. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE 990/10 ARITHMETIC UNIT, MH  
 APPR. MFG. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM946625-0001 REV T

TEXAS INSTRUMENTS INCORPORATED DATE 07/13/78 LIST OF MATERIAL PAGE 6 of PART NUMBER LM946625-0001 REV T

PART NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0055	00001.000	EA		0945246-0004	PROM*D ROM-CROM13(H14)	
0055A				UH14		
0056	00001.000	EA		0945246-0005	PROM*D ROM-CROM17(F15)	
0056A				UF15		
0057	00001.000	EA		0945246-0006	PROM*D ROM-CROM21(H15)	
0057A				UH15		
0058	00001.000	EA		0945246-0007	PROM*D ROM-CROM25(L12)	
0058A				UL12		
0059	00001.000	EA		0945246-0022	PROM*D ROM-CROM29(M12)	
0059A				UM12		
0060	00001.000	EA		0945246-0009	PROM*D ROM-CROM33(L13)	
0060A				UL13		
0061	00001.000	EA		0945246-0010	PROM*D ROM-CROM37(M13)	
0061A				UM13		
0062	00001.000	EA		0945246-0011	PROM*D ROM-CROM41(L15)	
0062A				UL15		
0063	00001.000	EA		0945246-0012	PROM*D ROM-CROM45(M15)	
0063A				UM15		
0064	00001.000	EA		0945246-0013	PROM*D ROM-CROM49(L10)	
0064A				UL10		

DRAFTSMAN DATE CED. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE 990/10 ARITHMETIC UNIT, MH  
 APPR. MFG. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM946625-0001 REV T

TEXAS INSTRUMENTS INCORPORATED DATE 07/13/78 LIST OF MATERIAL PAGE 7 of PART NUMBER LM946625-0001 REV T

PART NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0065	00001.000	EA		0945246-0014	PROM*D ROM-CROM53(M10)	
0065A				UM10		
0066	00001.000	EA		0945246-0015	ROM, FORMAT LOC U65(PC) C10(MH) (S287N)	
0066A				UC10		
0067	00001.000	EA		0945246-0016	PROM*D ROM-SCAL MSB(L07)	
0067A				UL07		
0068	00001.000	EA		0945246-0023	PROM*D ROM-SCAL LSB (L08)	
0068A				UL08		
0069	00001.000	EA		0945246-0018	PROM*D ROM-DCAL MSB(H10)	
0069A				UH10		
0070	00001.000	EA		0945246-0019	PROM*D ROM-DCAL LSB(H11)	
0070A				UH11		
0071	00001.000	EA		0945246-0020	PROM*D ROM-CAMS8(E13)	
0071A				UE13		
0072	00001.000	EA		0945246-0021	PROM*D ROM-CALS8(F13)	
0072A				UF13		
0073	00001.000	EA		0946669-0001	PROGRAMMED ROM-DCAL*(H08)	
0073A				UM08		
0074	00001.000	EA		0946669-0002	PROGRAMMED ROM-GPCAL(M07)	
0074A				UM07		

DRAFTSMAN DATE CED. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE 990/10 ARITHMETIC UNIT, MH  
 APPR. MFG. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM946625-0001 REV T

TEXAS INSTRUMENTS INCORPORATED DATE 07/13/78 LIST OF MATERIAL PAGE 8 of PART NUMBER LM946625-0001 REV T

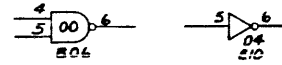
PART NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0075	00001.000	EA		0946669-0003	PROGRAMMED ROM-ID(B10)	
0075A				UB10		
0076	00001.000	EA		0946669-0004	PROGRAMMED ROM-BUSB(H01)	
0076A				UN01		
0077	00001.000	EA		0946669-0005	PROGRAMMED ROM-BCONS(H04)	
0077A				UN04		
0078	00001.000	EA		0946669-0006	PROGRAMMED ROM-STC#1(H09)	
0078A				UH09		
0079	00001.000	EA		0946669-0007	PROGRAMMED ROM-STC#2(H08)	
0079A				UH08		
0080	00001.000	EA		0946669-0010	PROGRAMMED ROM-SPC#1 (H07)	
0080A				UN07		
0081	00001.000	EA		0946669-0009	PROGRAMMED ROM-SPC#2(P07)	
0081A				UP07		
0082	00003.000	EA		0972007-1470	NETWORK,RES.,14 PIN,47 OHM,28,7 ELEMENT	
0082A				RS04 RS05 RS06		
0083	00002.000	EA		0972141-0041	NETWORK,RES., 1.0 K OHM 2 X 14 PIN DIP	BEC - 899-1-K1.0K
0083A				RH04 RH08		
0084	00002.000	EA		0972946-0051	RES FIX 270 OHM 5 X .25 W CARBON FILM	RUH - R-25
0084A				R2 R3		

DRAFTSMAN DATE CED. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE 990/10 ARITHMETIC UNIT, MH  
 APPR. MFG. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM946625-0001 REV T

TEXAS INSTRUMENTS INCORPORATED		DATE 07/13/78		LIST OF MATERIAL		PAGE 9 of		PART NUMBER LM946625-0001		REV T		
ITEM NO.	QUANTITY REQ.	UNIT OF MEAS.	DWG. NO.	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0085	0001.000	EA		0972946-0047	RES FIX 180 OHM 5 1/2 .25 W CARBON FILM	RDH - R-25						
0085A					R1							
0086	00017.000	EA		0230590-9000	CAP .05 MF 12 V 20. 2 CER TRANSCAP	ERI -5635-000-Y5F05						
0086A					C1 THRU C17							
0087	00033.000	EA		0539544-0002	SOCKET, 16PIN IC LOW PRGFILE SOLDER TAIL	TI -C93-16-02						
0087A					XUB10 XUC10 XUE13 XUF11							
0087B					XUF12 XUF13 XUF14 XUF15							
0087C					XUM08 XUM09 XUM10 XUM11							
0087D					XUM12 XUM13 XUM14 XUM15							
0087E					XUL07 XUL08 XUL10 XUL12							
0087F					XUL13 XUL15 XUM07 XUM08							
0087G					XUM10 XUM12 XUM13 XUM15							
0087H					XUM01 XUM04 XUM07 XUP07							
0087J					XS15							
0088	00001.000	EA		0972696-0002	CONNECTOR, PWB, 34P, FIXED, FLAT CABLE							
0088A					P4							
0089	00001.000	EA		0972696-0004	CONNECTOR, PWB, 50P, FIXED, FLAT CABLE							
0089A					P3							
0090	00001.000	EA		0972697-0004	CONNECTOR, FLTCBL, 34P, CBL MTG W/STR RLF							
0090A					P6							
DRAFTSMAN				DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE			
									990/10 ARITHMETIC UNIT, MM			
APP. MFG.				DATE	APP. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.			
									LM946625-0001 T			

TEXAS INSTRUMENTS INCORPORATED		DATE 07/13/78		LIST OF MATERIAL		PAGE 10 of		PART NUMBER LM946625-0001		REV T		
ITEM NO.	QUANTITY REQ.	UNIT OF MEAS.	DWG. NO.	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0091	00001.000	EA		0972697-0006	CONNECTOR, FLTCBL, 50P, CBL MTG W/STR RLF							
0091A					P5							
0092	00000.330	FT		0800693-0005	CABLE ELECTRICAL 34 CONDUCTORS 1.70 DIA	MMM - 3365-34						
0093	00000.330	FT		0800693-0007	CABLE, ELECTRICAL, FLAT-50 COND	MMM - 3365-50						
0095	00002.000	EA		0240000-7400	NETWORK-SN74H00N							
0095A					UE06 UE08							
0096	00001.000	EA		0240000-7420	NETWORK-SN74H20N							
0096A					UF10							
0097	00005.000	EA		0222222-7163	NETWORK SN74163N							
0097A					UB02 THRU UE05, UF07							
0098	00001.000	EA		0972123-0001	DIODE CM4-43-LIGHT EMITTING	CML - CM4-43						
0098A					CR1							
0099	00001.000	EA		0222222-7474	NETWORK SN7474N							
0099A					UF01							
0100	00000.020	FT		0538555-2999	WIRE 24 AWG HOOKUP UL-1609 WHITE	EFTE		GPL - M22759/18-24				
0101	00000.020	FT		0538589-4999	WIRE 18 AWG HOOKUP UL-1609 WHITE	EFTE		GPL - M22759/18-18				
DRAFTSMAN				DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE			
									990/10 ARITHMETIC UNIT, MM			
APP. MFG.				DATE	APP. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.			
									LM946625-0001 T			

- NOTES: UNLESS OTHERWISE SPECIFIED;
1. ALL DEVICE TYPES ARE PREFIXED WITH SMT4
  2. GROUND IS APPLIED TO PIN 7 OF ALL 14-PIN IC'S AND PIN 8 OF ALL 16-PIN IC'S.
  3. VCC IS APPLIED TO PIN 14 OF ALL 14-PIN IC'S AND PIN 16 OF ALL 16-PIN IC'S
  4. DEVICE TYPE PIN NUMBERS AND LOCATION OF IC IS SHOWN AS FOLLOWS:

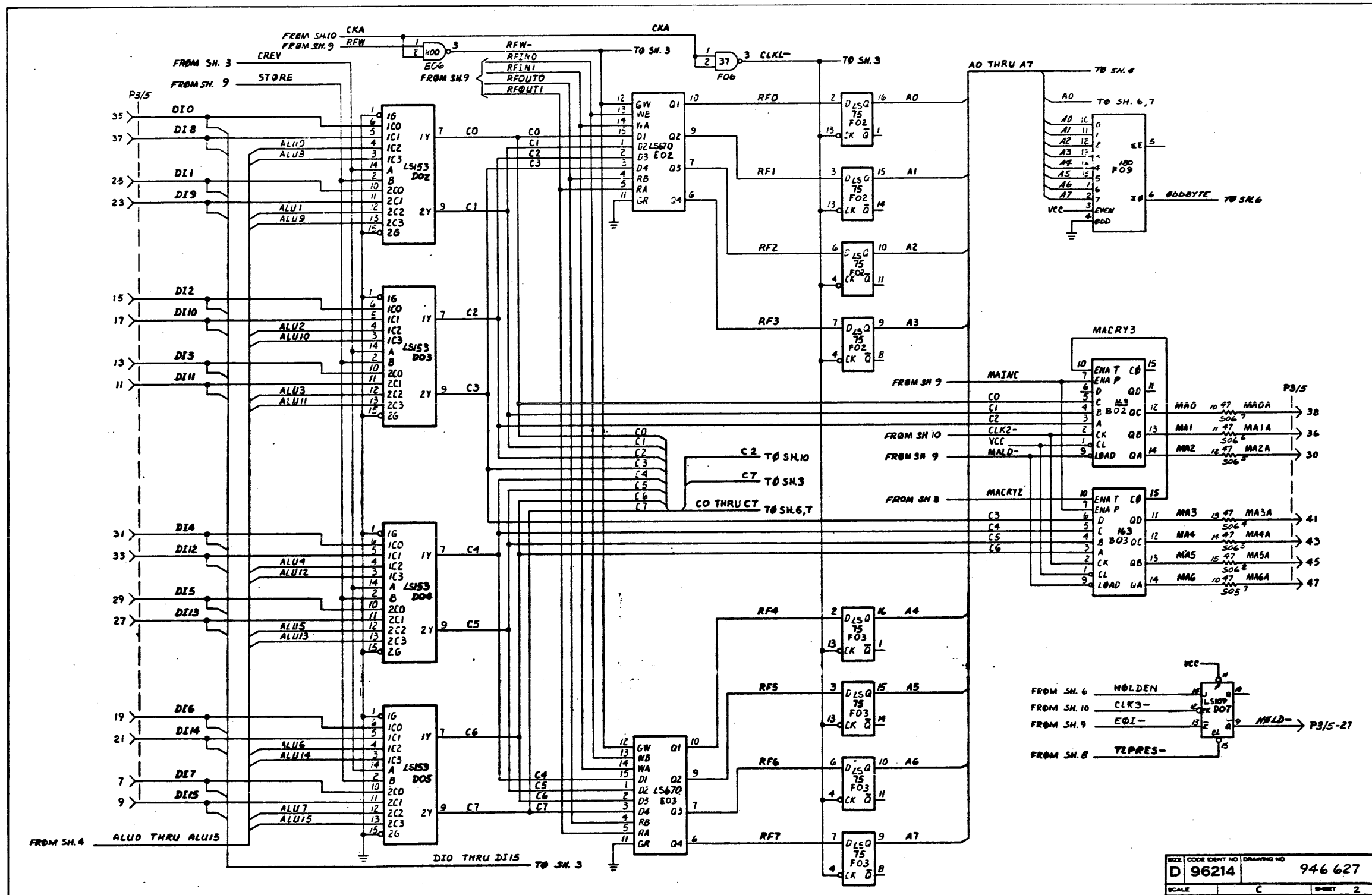


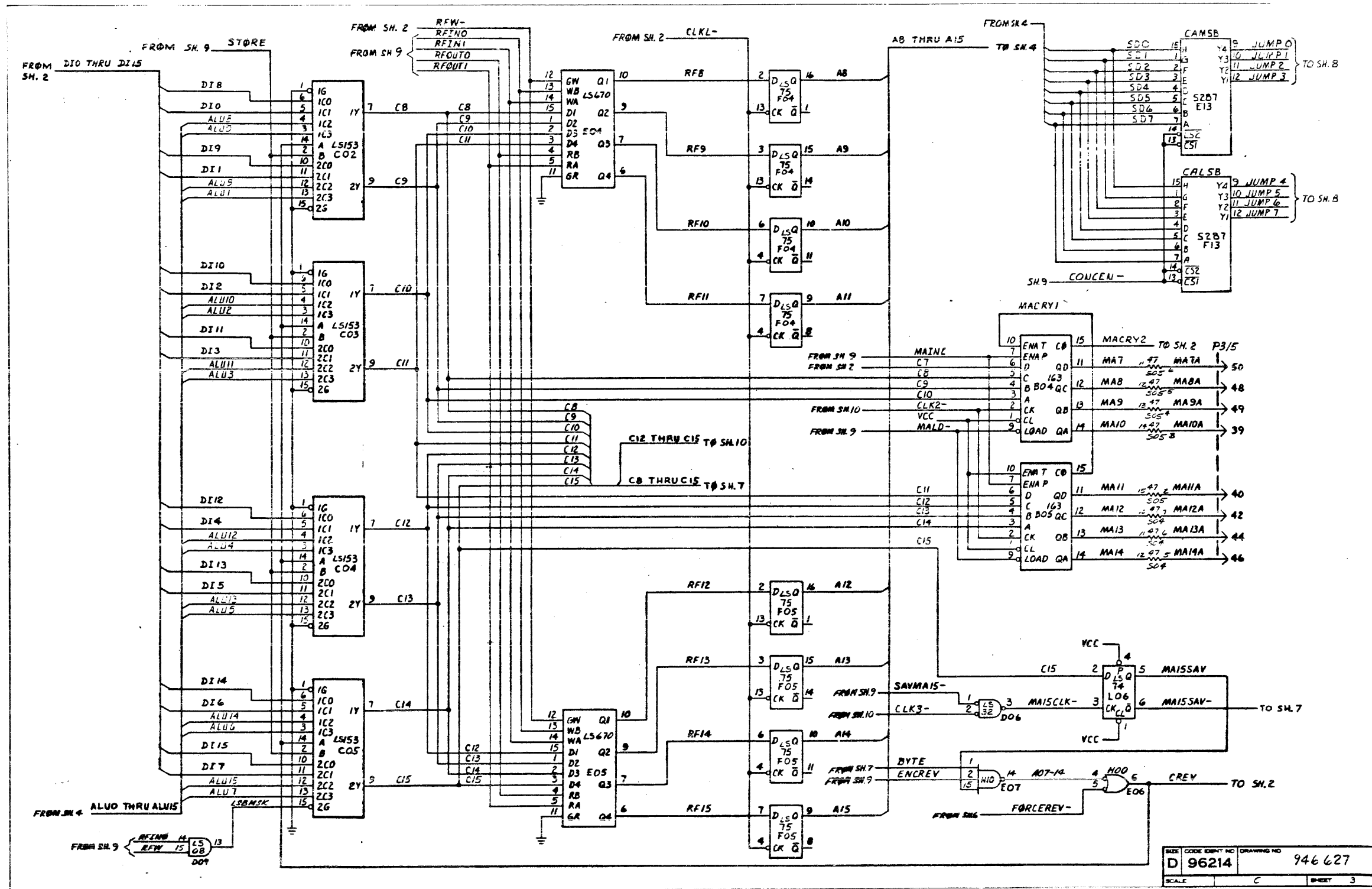
- 00 AND 04 = DEVICE TYPE  
 4, 5, AND 6 = PIN NUMBERS  
 B06 AND C10 = LOCATION; FIRST LETTER DENOTES ROW, SECOND AND THIRD DIGITS DENOTES COLUMN-IC IS LOCATED AT THE INTERSECTION OF ROW AND COLUMN.  
 5. ALL RESISTORS 1/4 WATT, 5%

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	CHG PER EXT ENGR CHGS		
	FORMAL RELEASE		
E	CHG 4-8823 S 2 W	11/11/76	
C	CHG 11986(C) A. O'CONNOR	2/1/76	

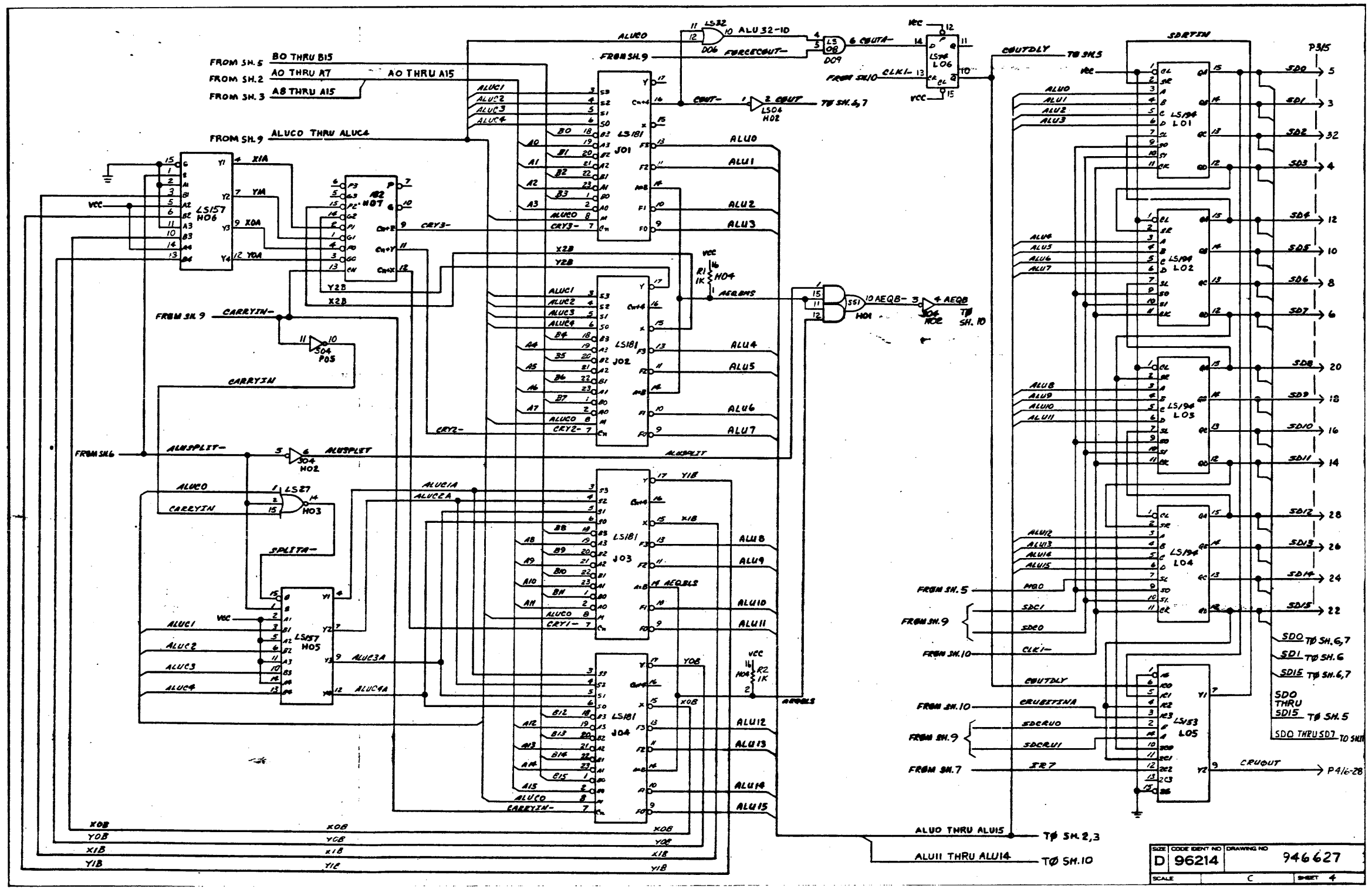
REV STATUS OF SHEETS	REV	1	2	3	4	5	6	7	8	9	10	11
	SH	V										

QTY	REQD	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
PARTS LIST						
UNLESS OTHERWISE SPECIFIED				UNLESS OTHERWISE SPECIFIED		
REMOVE ALL BURRS AND SHARP EDGES CONCENTRICITY MACHINED DIAMETERS ±0.005 DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100				DIMENSIONS ARE IN INCHES TOLERANCES ANGLES ±1° 3 PLACE DECIMALS ±.010 2 PLACE DECIMALS ±.02		
HOLE TOLERANCE .015 +.004 THRU -.001 .125 +.008 THRU -.001 .250 +.010 THRU -.001 .500 +.015 THRU -.001 1.000 +.020 THRU -.001 2.000 +.030 THRU -.001				MATERIAL: DESIGN ACTIVITY RELEASE DATE: 3/13/76 BY: [Signature]		
GAGE? [ ] NEXT ASSY USED ON [ ] APPLICATION [ ]				TEXAS INSTRUMENTS INCORPORATED Equipment Group Dallas, Texas <b>LOGIC DIAGRAM-                      AU #1, 990/10                      MULTIWIRES</b> SIZE: CODE IDENT NO DRAWING NO D 96214 946 627 SCALE: N.P.S. SHEET 1 OF 11		

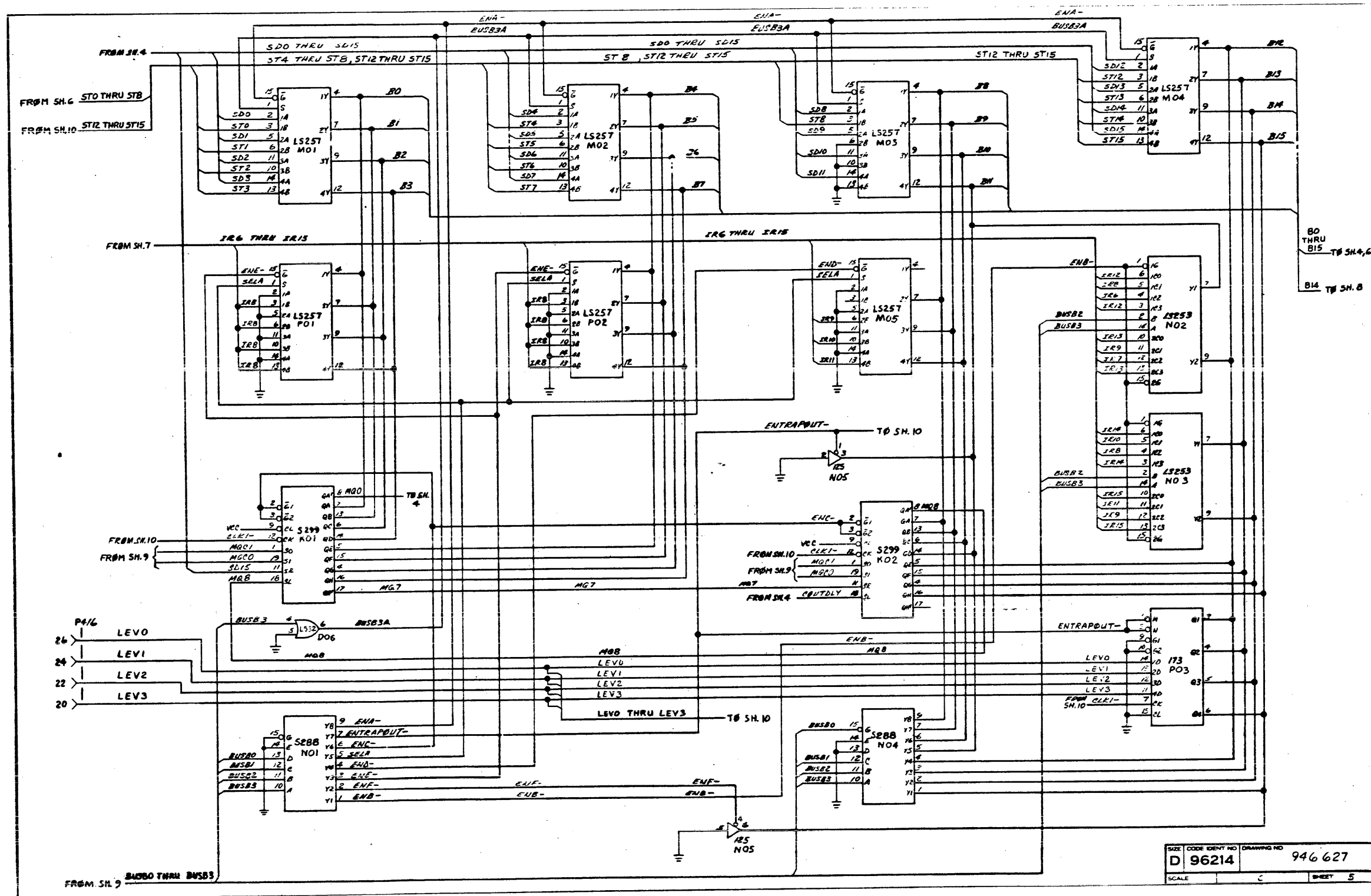






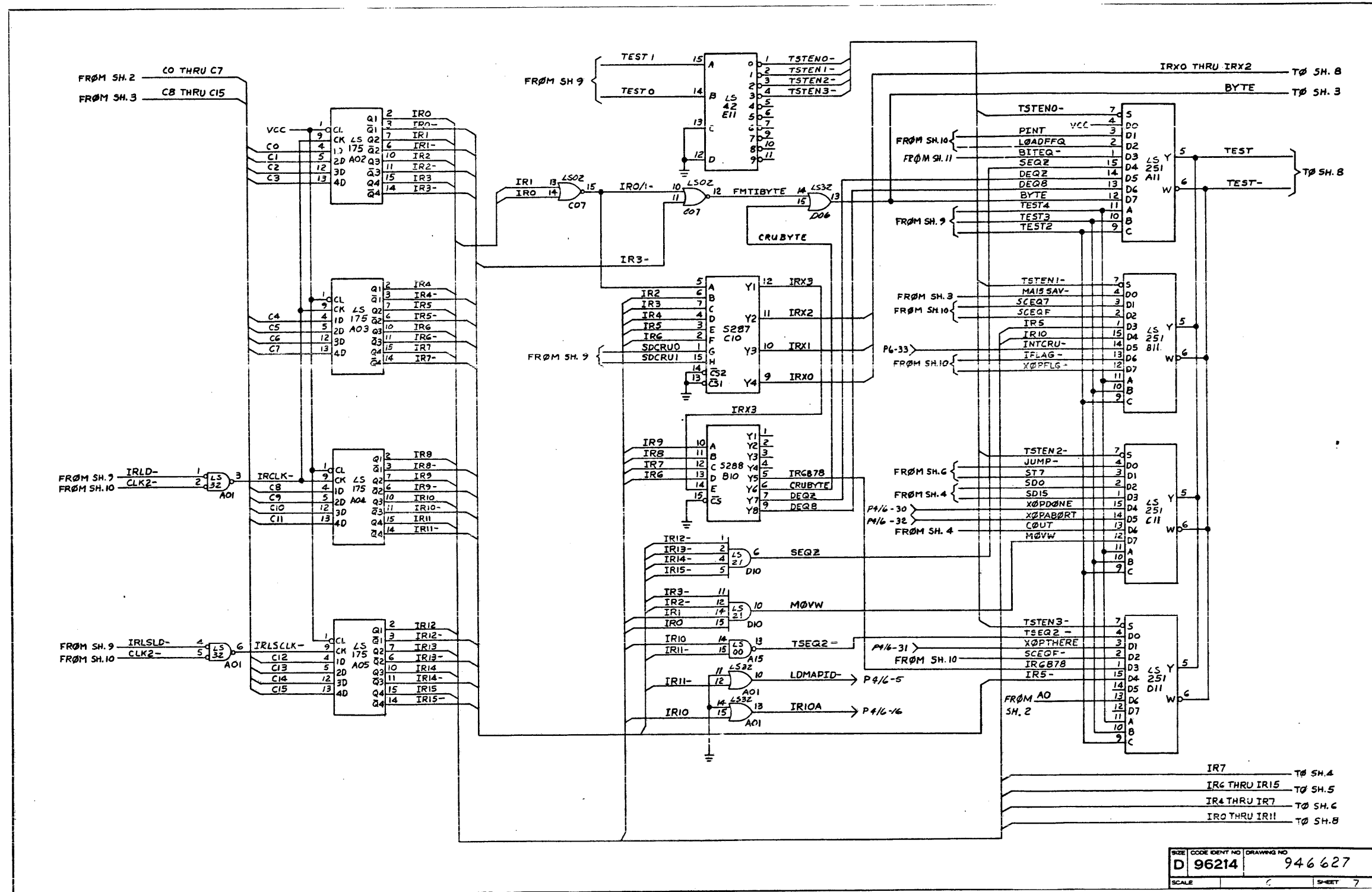


SIZE	CODE IDENT NO	DRAWING NO
D	96214	946627
SCALE	C	SHEET 4

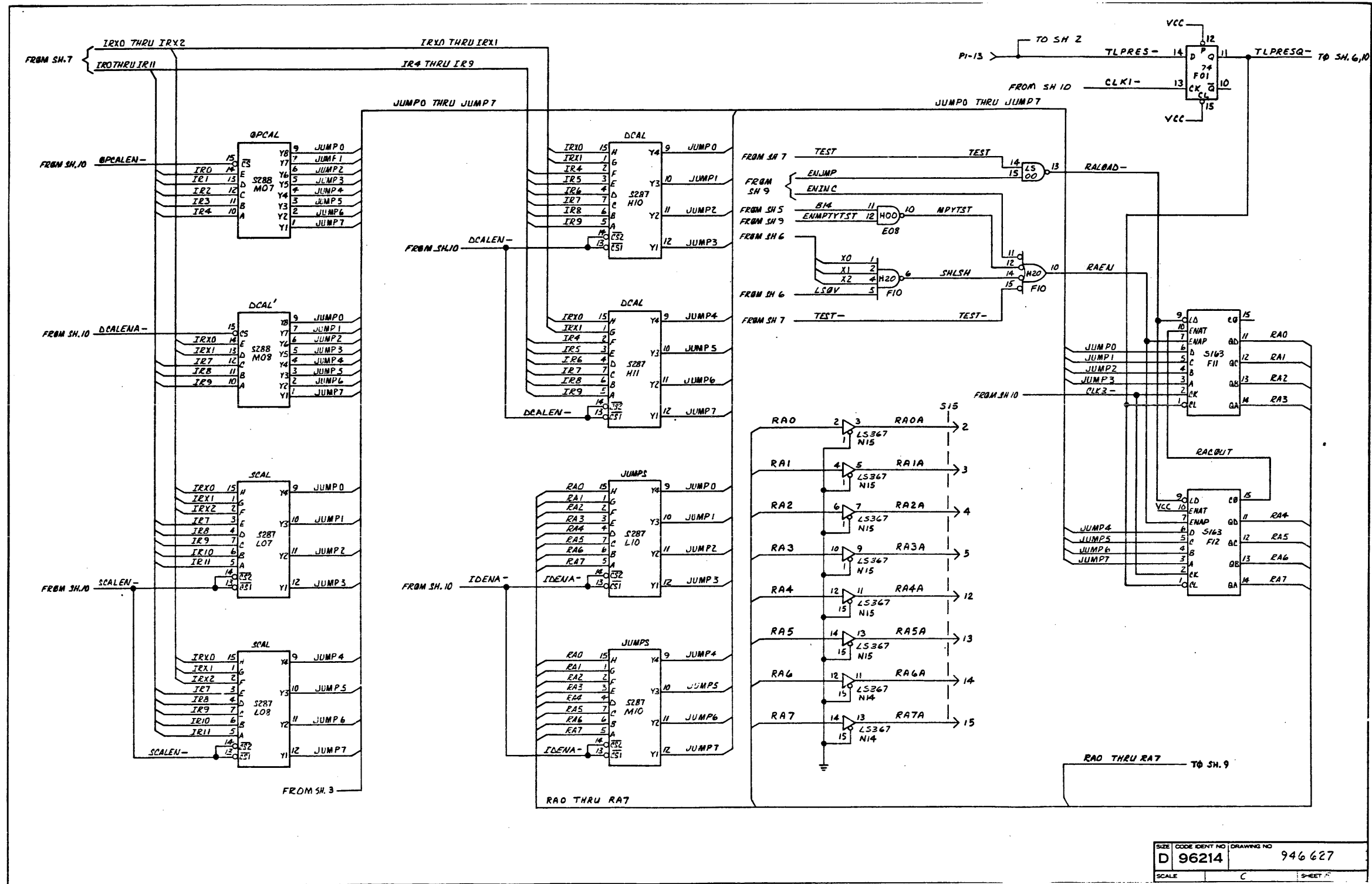


SIZE	CODE IDENT NO	DRAWING NO
D	96214	946 627
SCALE	C	SHEET 5

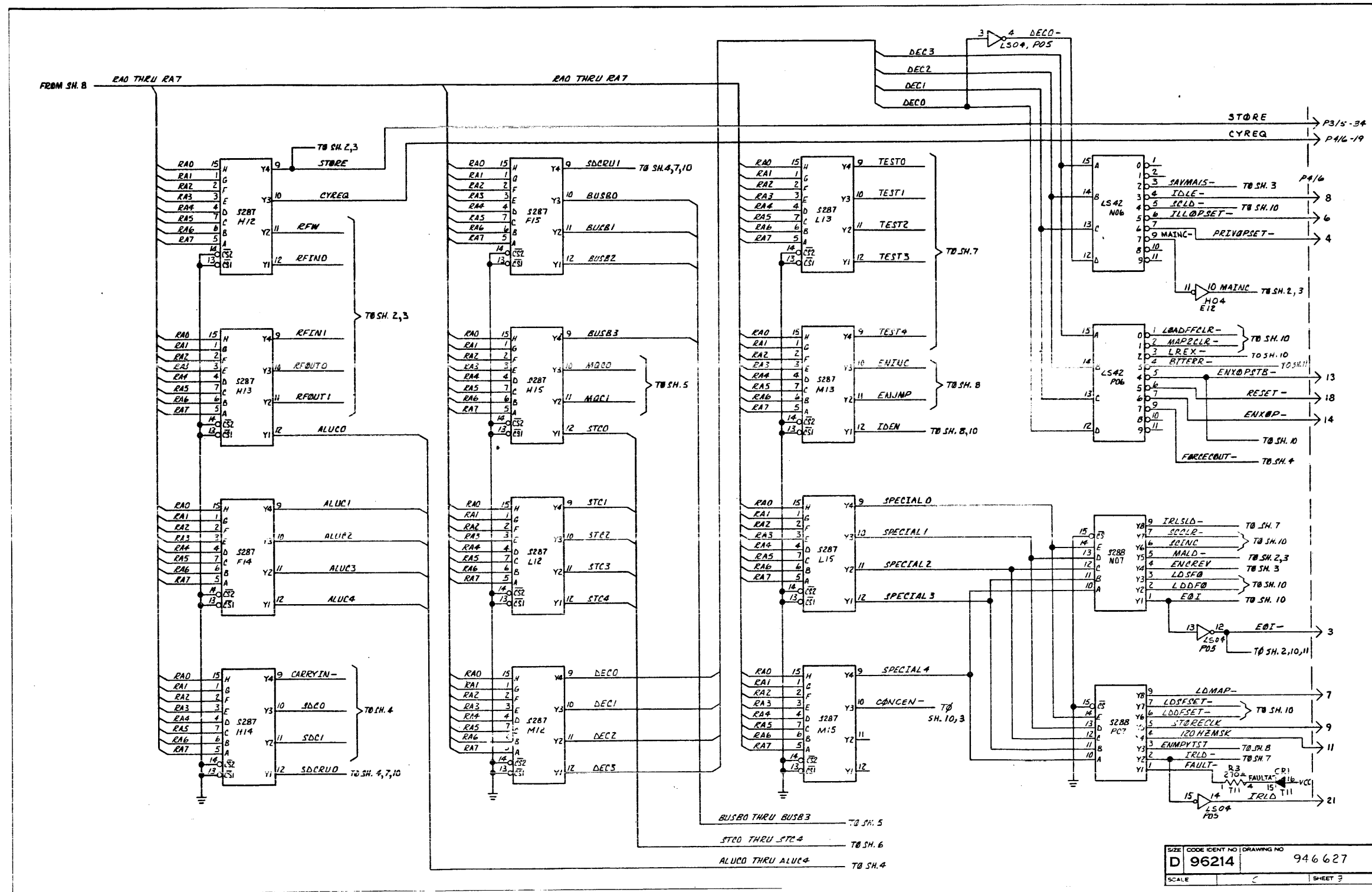




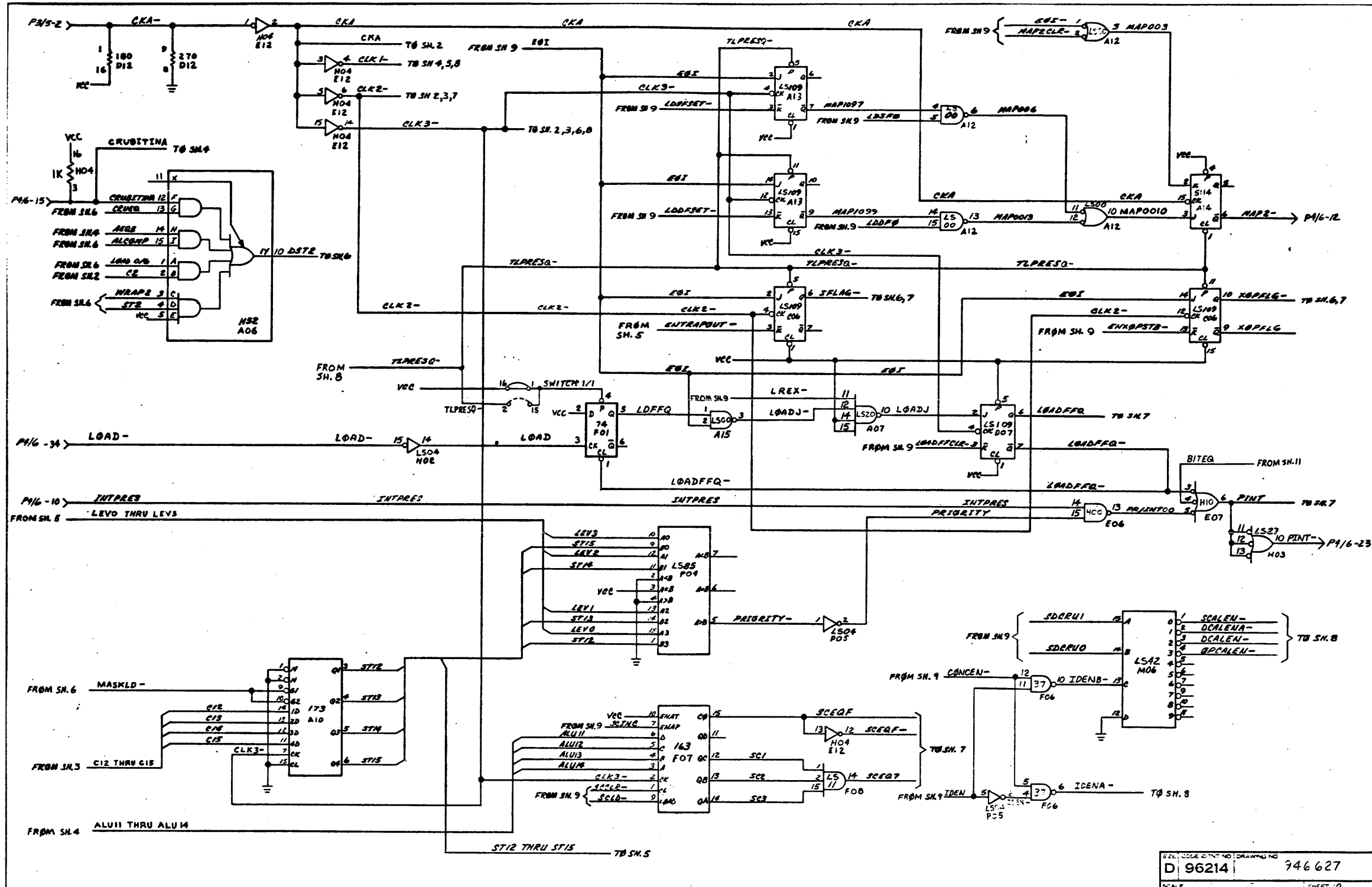
SIZE	CODE IDENT NO	DRAWING NO
D	96214	946627
SCALE	C	SHEET 7



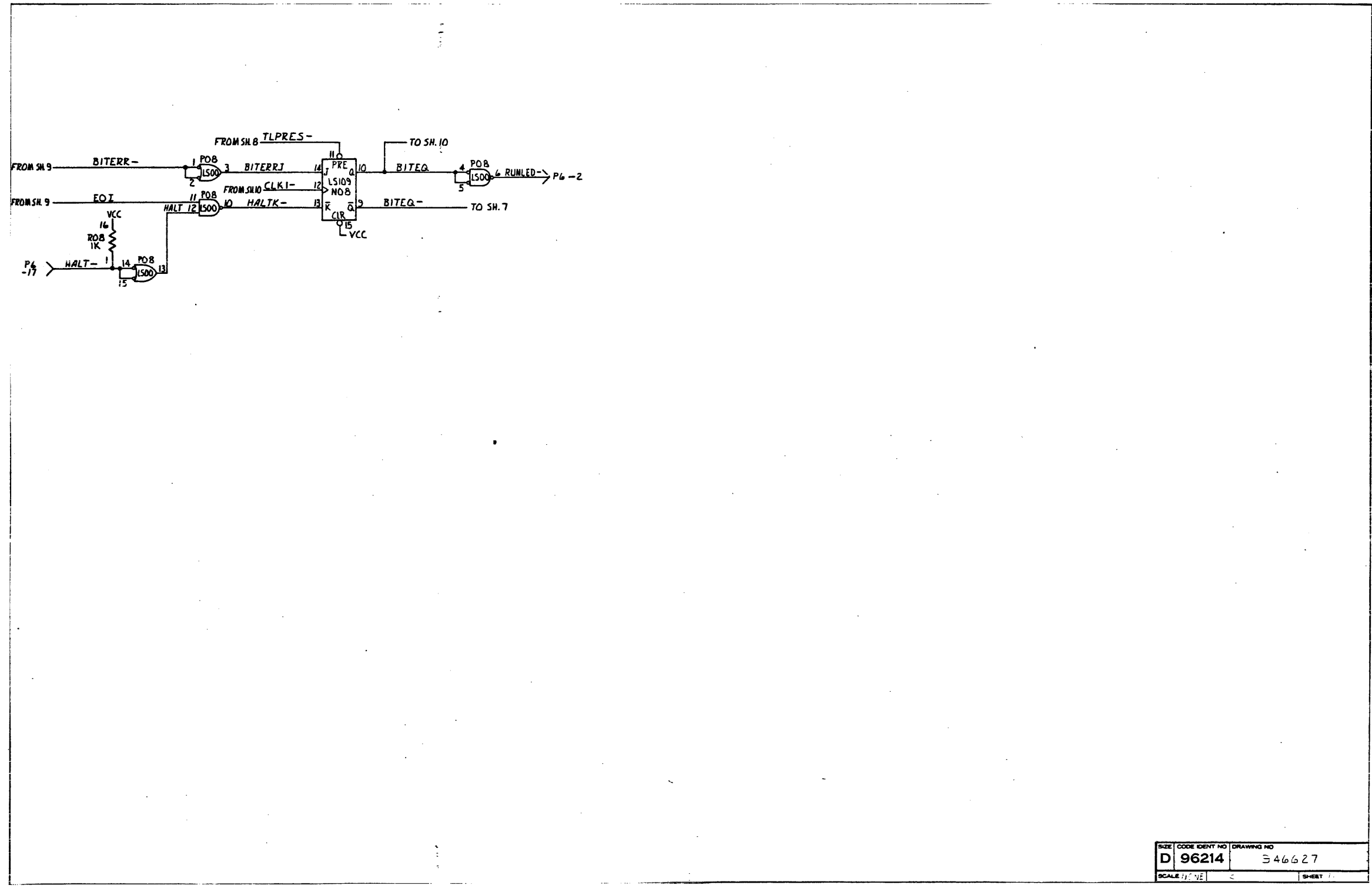
SIZE	CODE IDENT NO	DRAWING NO
D	96214	946 627
SCALE	C	SHEET 1



SIZE	CODE IDENT NO	DRAWING NO
D	946214	946627
SCALE	C	SHEET 3

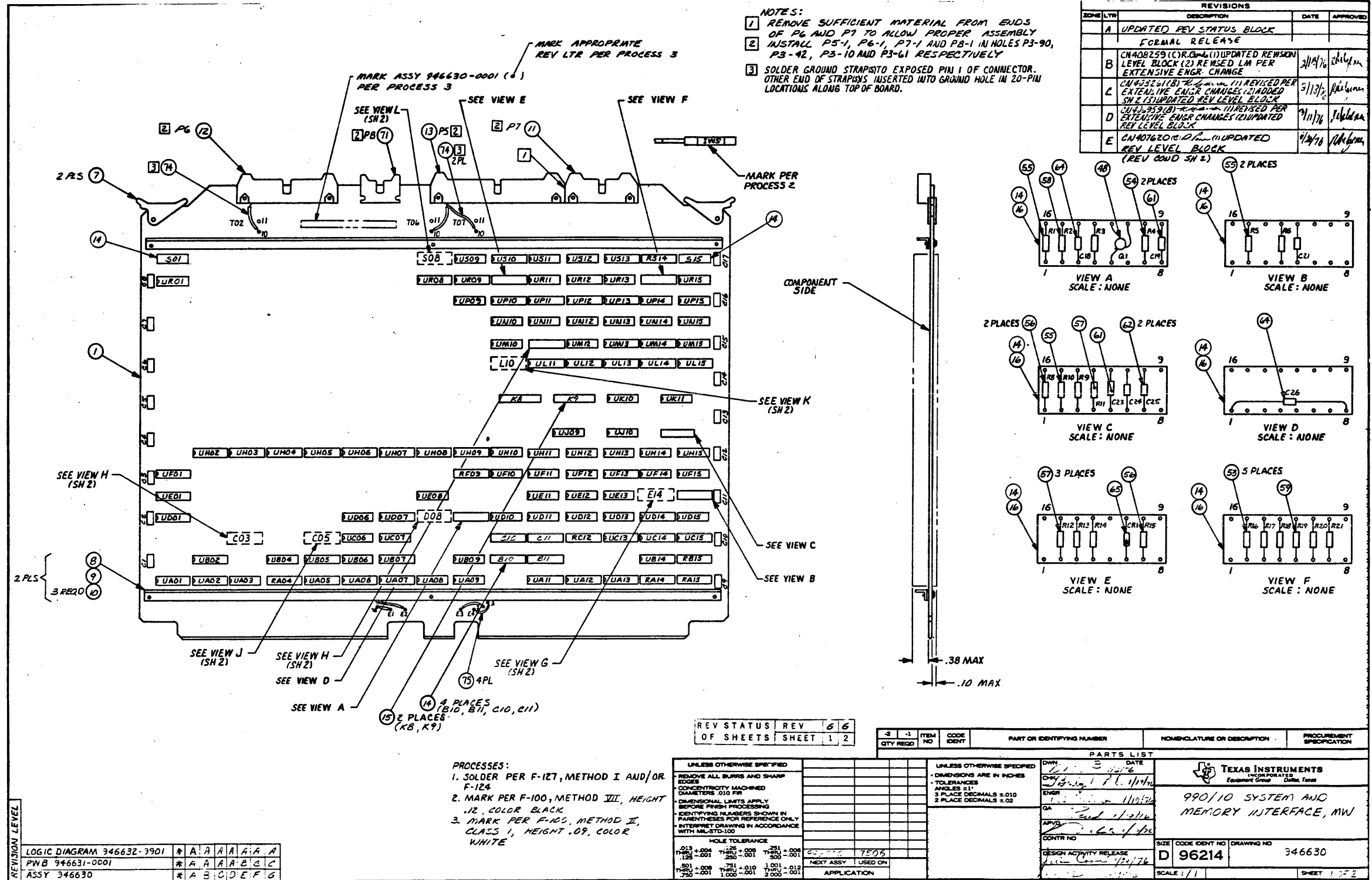


SIZE: 100mm x 150mm NO. DRAWING NO. **D 96214 746 627**  
 SCALE: 1:1 SHEET: 10

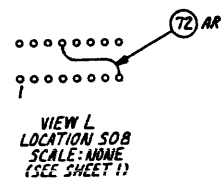
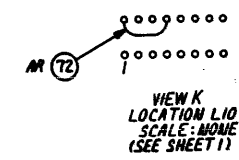
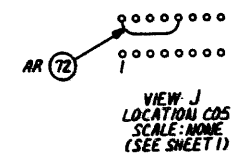
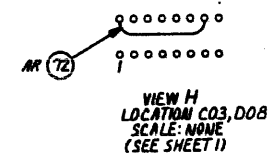
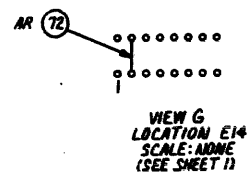


SIZE	CODE IDENT NO	DRAWING NO
D	96214	346627
SCALE	1/16"	SHEET 1





REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	F	ON 916536 (E1) D. Pinn (1) REVISED REV LEVEL BLOCK	8/24/76	<i>[Signature]</i>
	G	ON 916536 (E1) C. Ponce (1) ON LM ITEM 11 FN WAS 972698-0001, ITEM 12 FN WAS 972698-0003, ITEM 13 FN WAS 972698-0005 (2) UPDATED REV LEVEL BLOCK	8-24-76	<i>[Signature]</i>



SIZE	CODE IDENT NO	DRAWING NO
D	96214	946630
SCALE	1/1	SHEET 2

TEXAS INSTRUMENTS INCORPORATED		DATE 08/18/78		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LMP946630-0001		REV G		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0001	00001.000	EA		0946631-0001	BOARD-MULTIWIRE,SMI,990/10							
0002	REF	EA		0946632-9901	LOGIC DIAGRAM-MW SMI,990/10							
0003	REF	EA		0946633-9901	TEST PROCEDURE-MW SMI,990/10							
0004	FFF	EA		0946634-9901	SPECIFICATION-MW SMI,990/10							
0005	REF	EA		0946631-9902	PIN LIST-MW SMI,990/10							
0006	REF	EA		0946631-9903	LOAD LIST-MW SMI,990/10							
0007	00002.000	EA		0413277-0001	EJECTOR,PCB,NON-LOCKING,WHITE	SCA -S-200(NATURAL)						
0008	00002.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN							
0009	00002.000	EA		0966486-0001	INSULATOR PWB STIFFENER							
0010	00006.000	EA		0972684-0002	SCREW,THD FRMG,MEX WSHR HD,2-56X1/4 LG							
0011	00001.000	EA		0972137-0001	CONNECTOR,PC-HEADER 20 CONTACT	BEI - 65483-001						
0011A					P7							
0012	00001.000	EA		0972137-0003	CONNECTOR ONE AMP 500VDC 34 CONTACT	076381-3431-1002						
0012A					P6							
0013	00001.000	EA		0972137-0005	CONNECTOR,PC 50 PIN	BEI - 65483-005						
0013A					P5							
0014	00012.000	EA		0539544-0002	SOCKET,16PIN IC LOW PROFILE SOLDER TAIL	TI -C93-16-02						
0015	00002.000	EA		0539544-0010	SOCKET,20PIN IC LOW PROFILE SOLDER TAIL	TI -C93-20-02						
0016	00006.000	EA		0772312-0002	PLUG,IC DUAL IN-LINE 16 PIN .0165X.0165	SSW -3000-177						
0017	00003.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N						
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE					
APPR. MGR.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.					
							7506					
							LMP946630-0001					
							REV G					

TEXAS INSTRUMENTS INCORPORATED		DATE 08/18/78		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LMP946630-0001		REV G		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0017A					JD13 UM12 US09							
0018	00001.000	FA		0972900-7402	NETWORK SN74LS02N							
0018A					UH14							
0019	00005.000	EA		0972900-7404	NETWORK SN74LS04N							
0019A					JD12 UE08 UP09 UP15 UR15							
0020	00003.000	EA		0240000-7404	NETWORK SN74H04N							
0020A					UC06 UC07 UM10	TI - -SN7407N						
0021	00002.000	EA		0222222-7407	NETWORK-SN7407N							
0021A					UD10 UH15							
0022	00004.000	EA		0972749-0001	NETWORK, SN74LS08N							
0022A					UA08 UB06 UR13 US12							
0023	00001.000	EA		0240000-7410	NETWORK-SN74H10N							
0023A					UE13							
0024	00001.000	FA		0972788-0001	NETWORK,SN74LS11,POSITIVE AND GATE							
0024A					UB04							
0025	00001.000	FA		0222222-7413	NETWORK SN7413N							
0025A					UH13							
0026	00005.000	EA		0219402-7420	NETWORK SN74S20N							
0026A					UE12 UF10 UH11 UJ09 UK11							
0027	00001.000	EA		0240000-7421	NETWORK-SN74H21N							
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE					
APPR. MGR.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.					
							990/10 SYSTEM & MEMORY INTERFACE,MW					
							LMP946630-0001					
							REV G					

TEXAS INSTRUMENTS INCORPORATED		DATE 08/18/78		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LMP946630-0001		REV G		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0027A					JF12							
0028	00001.000	EA		0972814-0001	NETWORK-SN74LS27N							
0028A					UD11							
0029	00002.000	EA		0972900-7430	NETWORK SN74LS30N	TI -SN74LS30N						
0029A					UN12 UR01							
0030	00001.000	EA		0972900-7432	NETWORK SN74LS32N	TI -SN74LS32N						
0030A					UN10							
0031	00001.000	EA		0972822-0001	NETWORK-SN74LS37N							
0031A					UP14							
0032	00002.000	EA		0222222-7437	NETWORK SN7437N							
0032A					JA09 UB09							
0033	00002.000	EA		0972783-0001	NETWORK,SN74LS42N BCD/DEC							
0033A					UL11 UL12							
0034	00003.000	EA		0222222-7442	NETWORK-SN7442N							
0034A					UA01 UA02 UB02							
0035	00008.000	EA		0972900-7474	NETWORK SN74LS74N							
0035A					UD15 UE11 UF14 UM15 UN13							
0035B					UN14 UN15 US11							
0036	00002.000	FA		0972900-7109	NETWORK SN74LS109N	TI -SN74LS109N						
0036A					UP11 US10							
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE					
APPR. MGR.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.					
							990/10 SYSTEM & MEMORY INTERFACE,MW					
							LMP946630-0001					
							REV G					

TEXAS INSTRUMENTS INCORPORATED		DATE 08/18/78		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LMP946630-0001		REV G		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0037	00002.000	EA		0222222-7132	NETWORK SN74132N							
0037A					UA03 UH12							
0038	00001.000	EA		0219402-7139	NETWORK SN74S139N							
0038A					UD14							
0039	00003.000	EA		0222222-7148	NETWORK SN74148N							
0039A					UM13 UM14 UR08							
0040	00001.000	EA		0974674-0001	NETWORK SN75138N							
0040A					UD07							
0041	00003.000	EA		0972900-7174	NETWORK SN74LS174N							
0041A					UB14 UC14 UC15							
0042	00002.000	EA		0972900-7175	NETWORK SN74LS175N							
0042A					UP10 UR09							
0043	00008.000	EA		0972900-7253	NETWORK SN74LS253N	TI -SN74LS253N						
0043A					UH02 THRU UH09							
0044	00001.000	EA		0972159-7265	NETWORK, SN74265N							
0044A					UP13							
0045	00004.000	EA		0972787-0003	NETWORK SN74LS367N							
0045A					UC13 UL13 UL14 UL15							
0046	00014.000	EA		0972787-0004	NETWORK SN74LS368N							
0046A					UA05 UA07 UA11 UA12 UA13							
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE					
APPR. MGR.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.					
							990/10 SYSTEM & MEMORY INTERFACE,MW					
							LMP946630-0001					
							REV G					

System and Memory Interface (SMI) Assembly

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LM946630-0001		REV G		
DATE 08/18/78										
PART NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0046B					UB05 UB07 UF13 UP12 UR12					
0046C					US13 U001 UE01 UF01					
0047	00001.000	EA		0974674-0001	NETWORK SN75138N					
0047A					UA06					
0048	00001.000	EA		0972948-0002	TRANSISTOR, 2N2222A NPN GEN PURP SW TO-18	TI	-	2N2222A		
0048A					Q1					
0049	00001.000	EA		0972037-1680	NETWORK, RES. 16P 68					
0049A					RS14					
0050	00005.000	EA		0972141-0041	NETWORK, RES. 1.0 K OHM 2 % 14 PIN DIP	BEC	-	899-1-R1.0K		
0050A					PA04 RA14 RA15 RB15 RC12					
0051	00001.000	EA		0972141-0057	NETWORK, RES. 4.7 K OHM 2 % 14 PIN DIP	BEC	-	899-1-R4.7K		
0051A					RF09					
0051B	00004.000	EA		0972946-0037	RES FIX 68.0 OHM 5 % .25 W CARBON FILM	ROH	-	R-25		
0053	00004.000	EA		0972946-0049	RES FIX 220 OHM 5 % .25 W CARBON FILM	ROH	-	R-25		
0053A					R16 R18 R20 R21					
0054	00002.000	EA		0972946-0049	RES FIX 220 OHM 5 % .25 W CARBON FILM	ROH	-	R-25		
0054A					R3 R4					
0054B	00004.000	EA		0972946-0053	RES FIX 330 OHM 5 % .25 W CARBON FILM	ROH	-	R-25		
0055	00004.000	EA		0972946-0055	RES FIX 390 OHM 5 % .25 W CARBON FILM	ROH	-	R-25		
0055A					R1 R5 R6 R9					
0056	00004.000	EA		0972946-0055	RES FIX 390 OHM 5 % .25 W CARBON FILM	ROH	-	R-25		
0056A					R8 R10 R15 R17					
DRAFTSMAN		DATE	CHKD. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE			
							990/10 SYSTEM & MEMORY INTERFACE, MM			
APPRO. ENG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.			
							LM946630-0001			

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 6 of		PART NUMBER LM946630-0001		REV G		
DATE 08/18/78										
PART NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0057	00004.000	EA		0972946-0065	RES FIX 1.0K OHM 5 % .25 W CARBON FILM	ROH	-	R-25		
0057A					R11 R12 R13 R14					
0058	00001.000	EA		0972946-0076	RES FIX 3.0K OHM 5 % .25 W CARBON FILM	ROH	-	R-25		
0058A					R2					
0059	00001.000	EA		0972946-0081	RES FIX 4.7K OHM 5 % .25 W CARBON FILM	ROH	-	R-25		
0059A					R19					
0060	00017.000	EA		0230590-9000	CAP .05 MF 12 V 20. % CER TRANSCAP	ERI	-	5635-000-Y5F05		
0060A					C1 THRU C17					
0061	00002.000	EA		0539679-0004	CAPACITOR, 220 PF 2% 100V FX CER DIELECT	095275-VK20BA2216				
0061A					C19 C23					
0062	00003.000	EA		0539679-0008	CAPACITOR, 470 PF 2% 100V FX CER DIELECT	095275-VK20BA4716				
0062A					C22 C24 C25					
0064	00001.000	EA		0972929-0415	CAP FIX CERAMIC .010 UF 10 % 100 V	QPL	-	H39014/01-1415		
0064A					C26					
0065	00001.000	EA		0972123-0001	DIODE CM4-43-LIGHT EMITTING	CML	-	CM4-43		
0065A					CR1					
0066	00004.000	EA		0219402-7400	NETWORK SN74S00N					
0066A					UF11 UK10 UN11 UR11					
0067	00002.000	EA		0219402-7404	NETWORK SN74S04N					
0067A					UF15 UH10					
DRAFTSMAN		DATE	CHKD. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE			
							990/10 SYSTEM & MEMORY INTERFACE, MM			
APPRO. ENG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.			
							LM946630-0001			

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 7 of		PART NUMBER LM946630-0001		REV G		
DATE 08/18/78										
PART NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0069	00001.000	EA		0240000-7411	NETWORK-SN74H11N					
0069A					UJ10					
0070	00001.000	EA		0972929-0396	CAP FIX CERAMIC 820 PF 10 % 200 V	QPL	-	H39014/01-1396		
0070A					C21					
0071	00001.000	EA		0972706-0001	CONNECTOR, PWB, 10P, RT.A, SDRTL, HDR, FLTCBL	015912-609-1002N				
0071A					P8					
0072	AR	FT		0411400-0024	WIRE, 24AWG ELECTRO TIN PLATED COPPER					
0073	00001.000	EA		0972929-0409	CAP FIX CERAMIC 4700 PF 10 % 100 V	QPL	-	H39014/01-1409		
0073A					C18					
0074	AR	FT		0538555-2999	WIRE 24 AWG HOOKUP UL-1609 WHITE	EFTE	-	M22759/18-24-		
0075	AR	FT		0538589-5999	WIRE 16 AWG HOOKUP UL-1609 WHITE	EFTE	-	M22759/16-16-		
DRAFTSMAN		DATE	CHKD. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE			
							990/10 SYSTEM & MEMORY INTERFACE, MM			
APPRO. ENG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.			
							LM946630-0001			

NOTES: UNLESS OTHERWISE SPECIFIED;

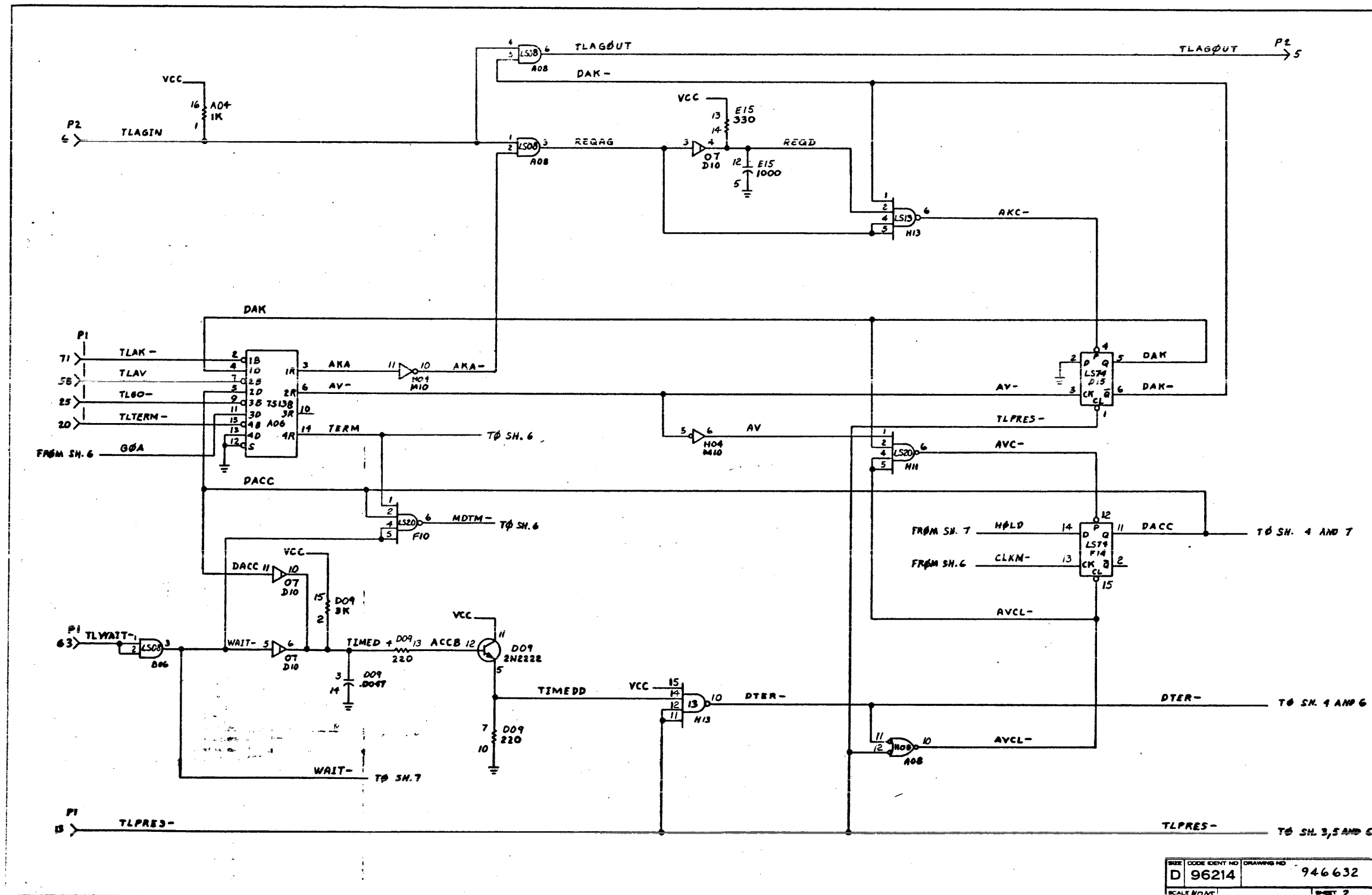
1. ALL DEVICE TYPES ARE PREFIXED WITH SN74
2. GROUND IS APPLIED TO PIN 7 OF ALL 14-PIN IC'S AND PIN 8 OF ALL 16-PIN IC'S.
3. VCC IS APPLIED TO PIN 14 OF ALL 14-PIN IC'S AND PIN 16 OF ALL 16-PIN IC'S.
4. DEVICE TYPE, PIN NUMBERS, AND LOCATION OF IC IS SHOWN AS FOLLOWS:



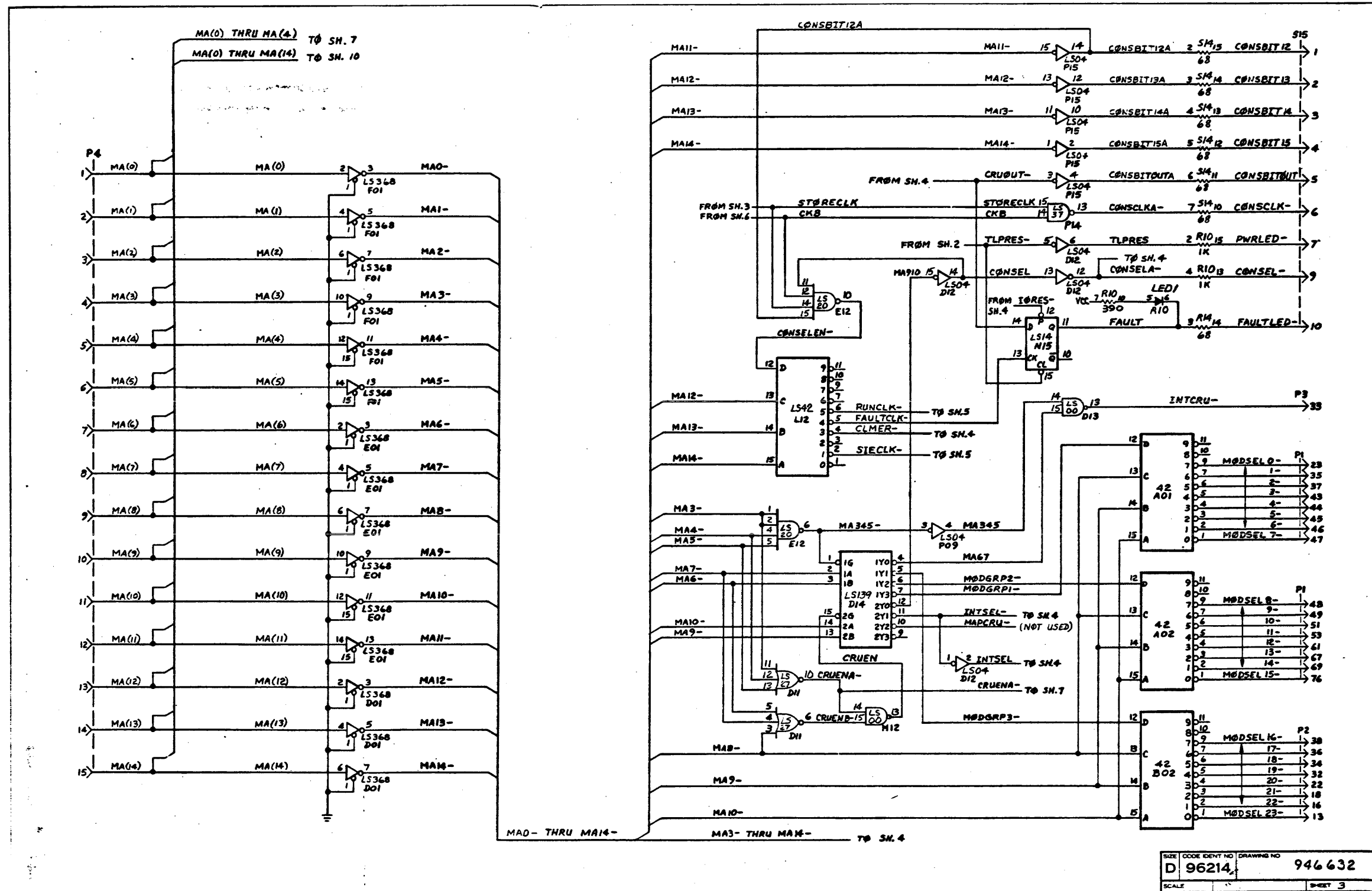
00 AND 04 = DEVICE TYPE  
 4, 5 AND 6 = PIN NUMBERS  
 B06 AND C10 = LOCATION; FIRST LETTER DENOTES ROW, SECOND AND THIRD DIGITS DENOTES COLUMN - IC IS LOCATED AT THE INTERSECTION OF ROW AND COLUMN.

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	CHG PER EXT ENGR CHGS		
		FORMAL RELEASE		

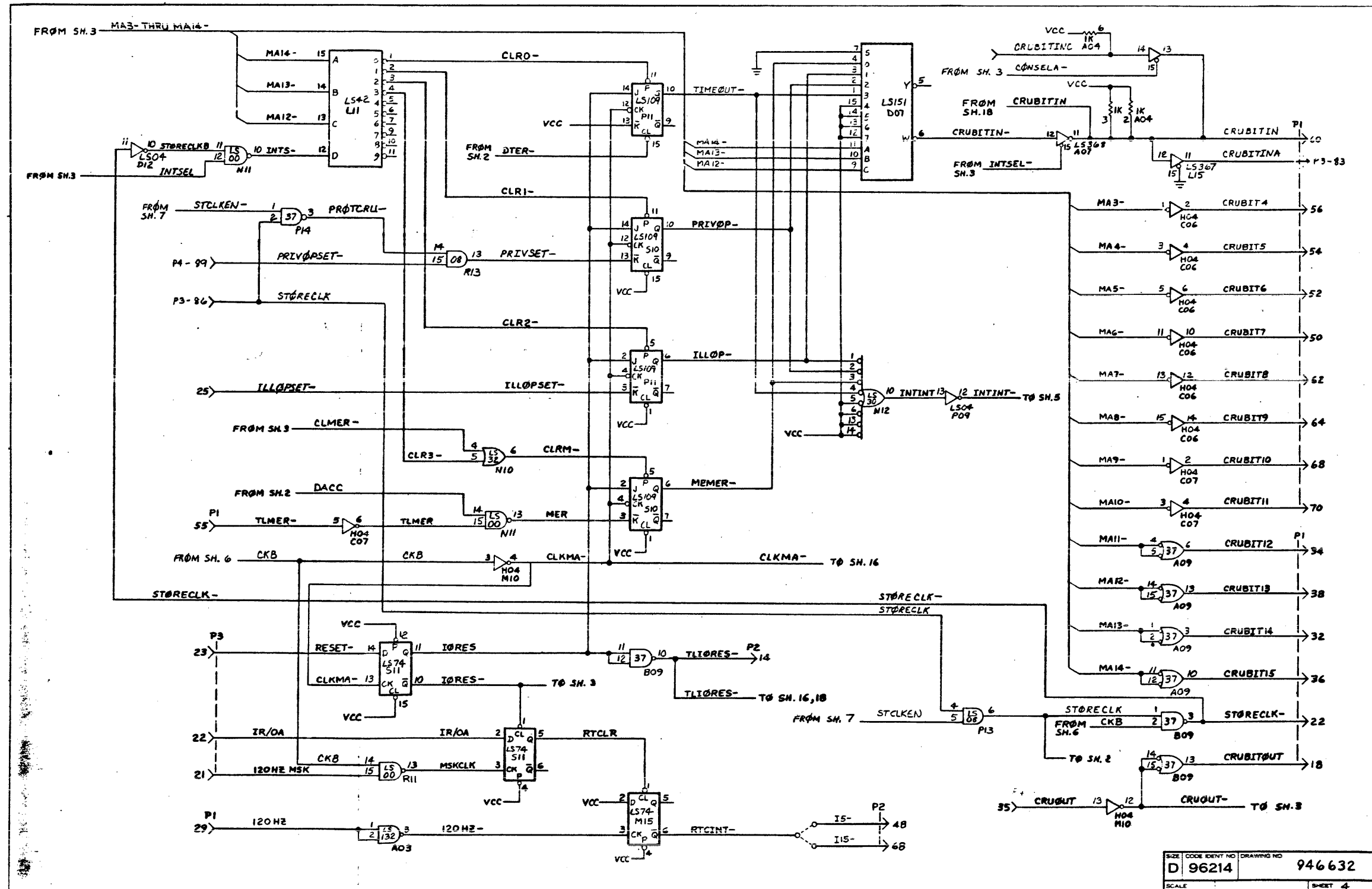
QTY	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROUREMENT SPECIFICATION
PARTS LIST					
UNLESS OTHERWISE SPECIFIED			UNLESS OTHERWISE SPECIFIED		
REMOVE ALL BURRS AND SHARP EDGES CONCENTRICITY MACHINED DIAMETERS 0.10 KR DIMENSIONAL PARTS APPLY BEFORE FINISH PROCESSING IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100			DIMENSIONS ARE IN INCHES TOLERANCES ANGLES 2° 3 PLACE DECIMALS ± 0.10 2 PLACE DECIMALS ± 0.2		
HOLE TOLERANCE HOLE - .004 HOLE - .005 HOLE - .006 HOLE - .007 HOLE - .008 HOLE - .009 HOLE - .010 HOLE - .011 HOLE - .012 HOLE - .013 HOLE - .014 HOLE - .015 HOLE - .016 HOLE - .017 HOLE - .018 HOLE - .019 HOLE - .020			DESIGN AUTHORITY RELEASE DATE 3/15/76 SCALE NONE SHEET 1 OF 10		
TEXAS INSTRUMENTS INCORPORATED Equipment Group Dallas, Texas			LOGIC DIAGRAM - SYSTEM & MEMORY INTER- FACE 990/10 MULTIWIRES		
D 96214 946 632			D 96214 946 632		



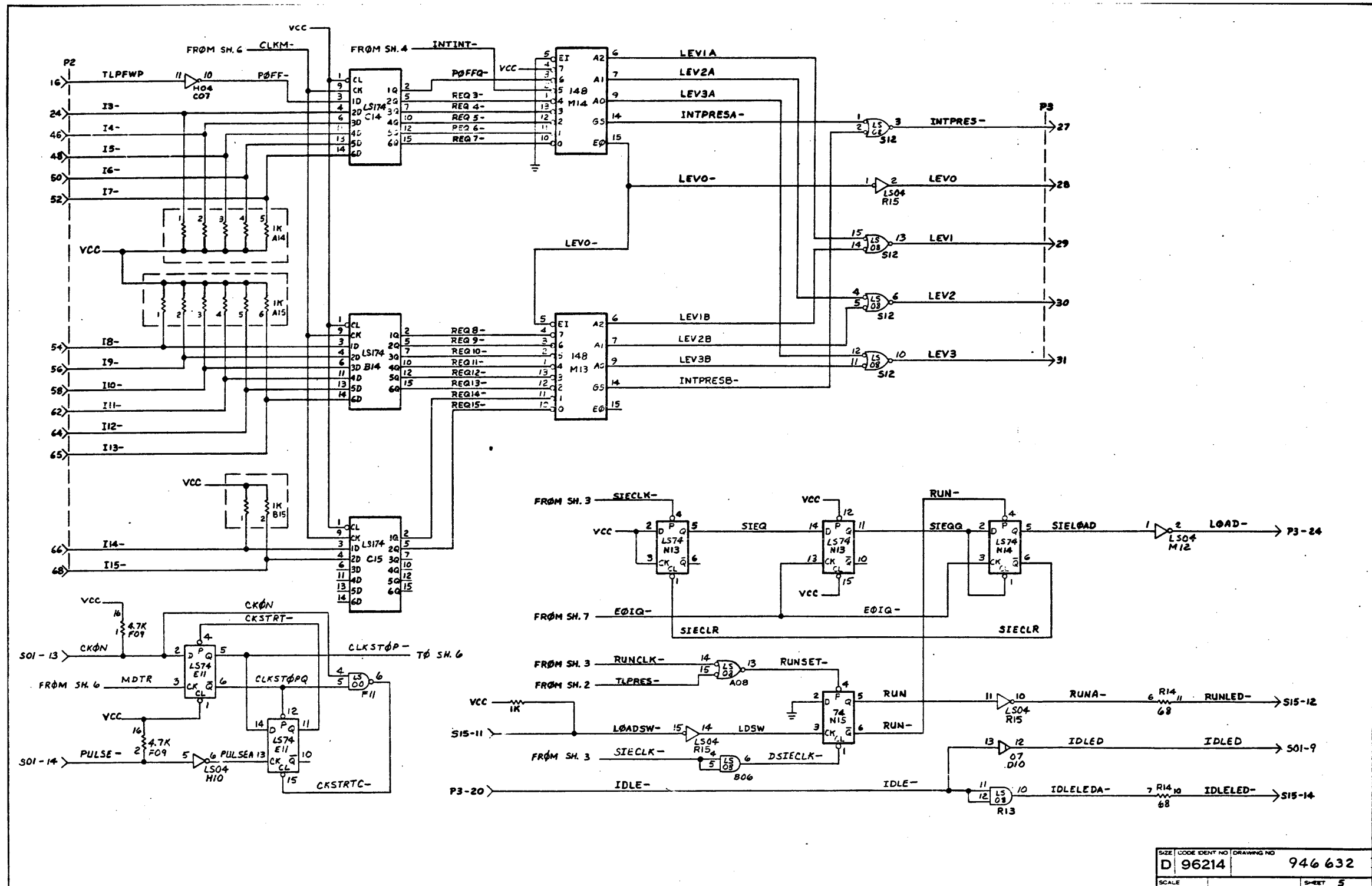
SIZE	CODE IDENT NO	DRAWING NO
D	96214	946632
SCALE	DATE	SHEET 2



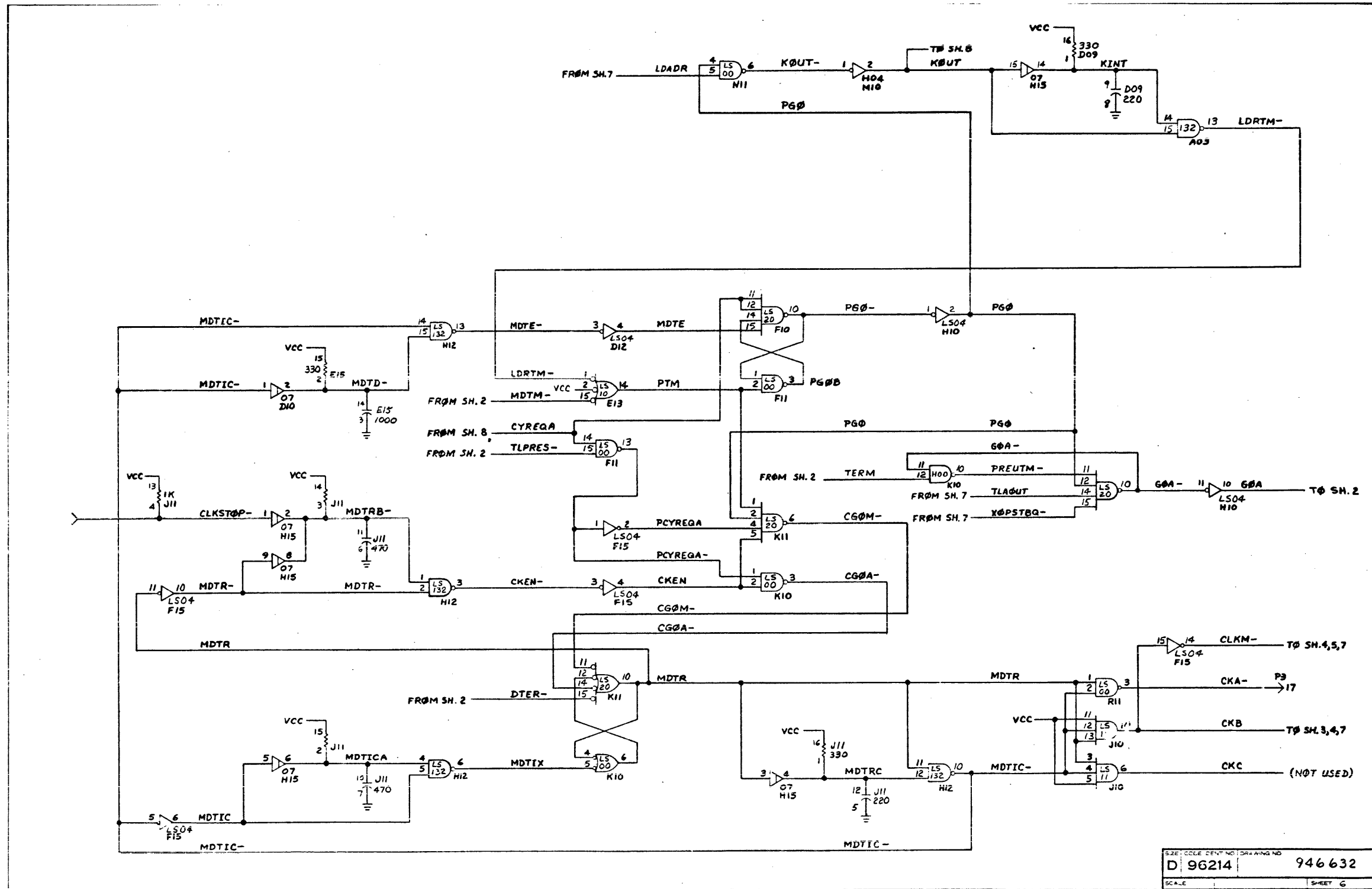
SIZE	CODE IDENT NO	DRAWING NO
D	96214	946632
SCALE		SHEET 3

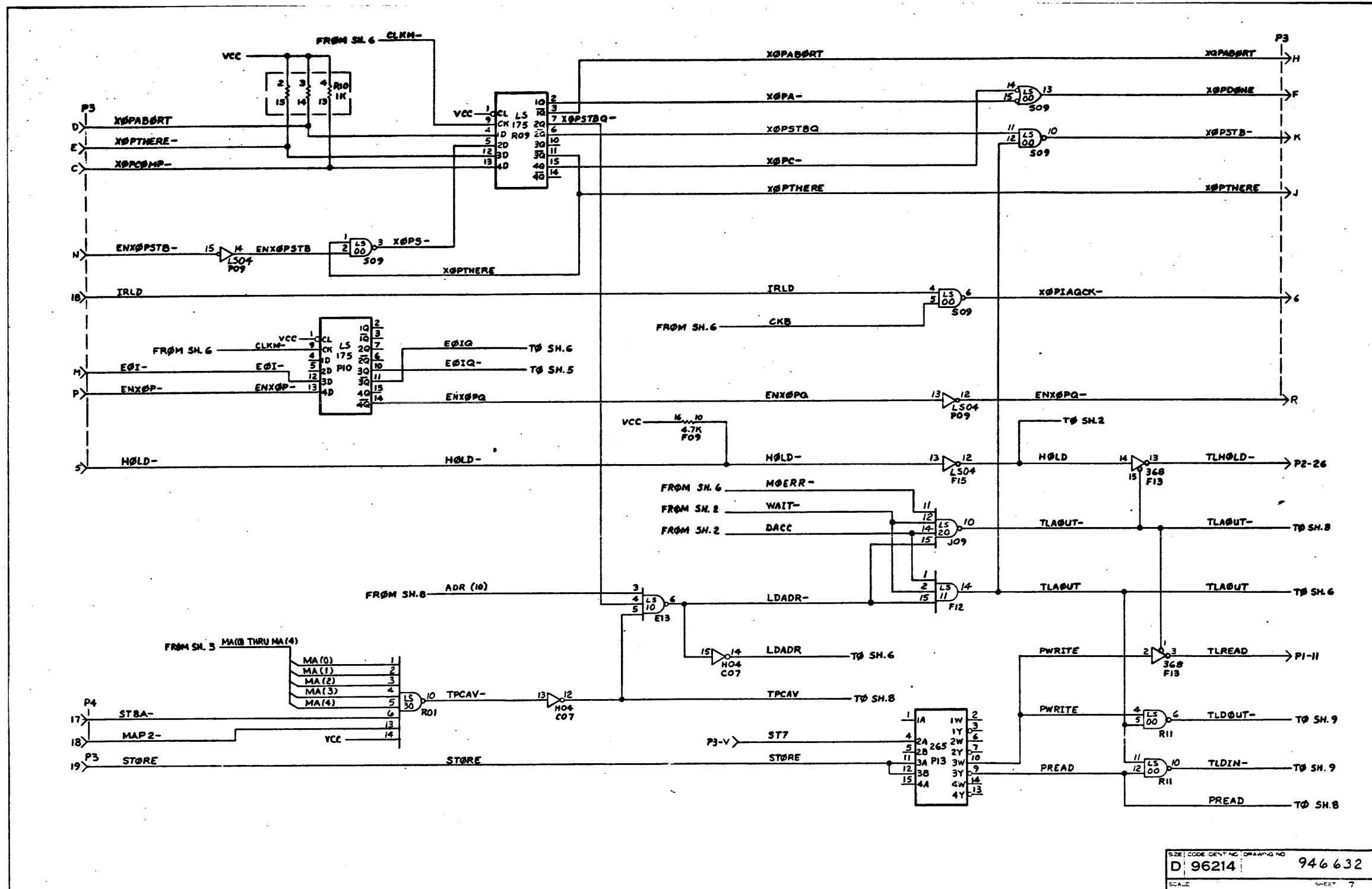




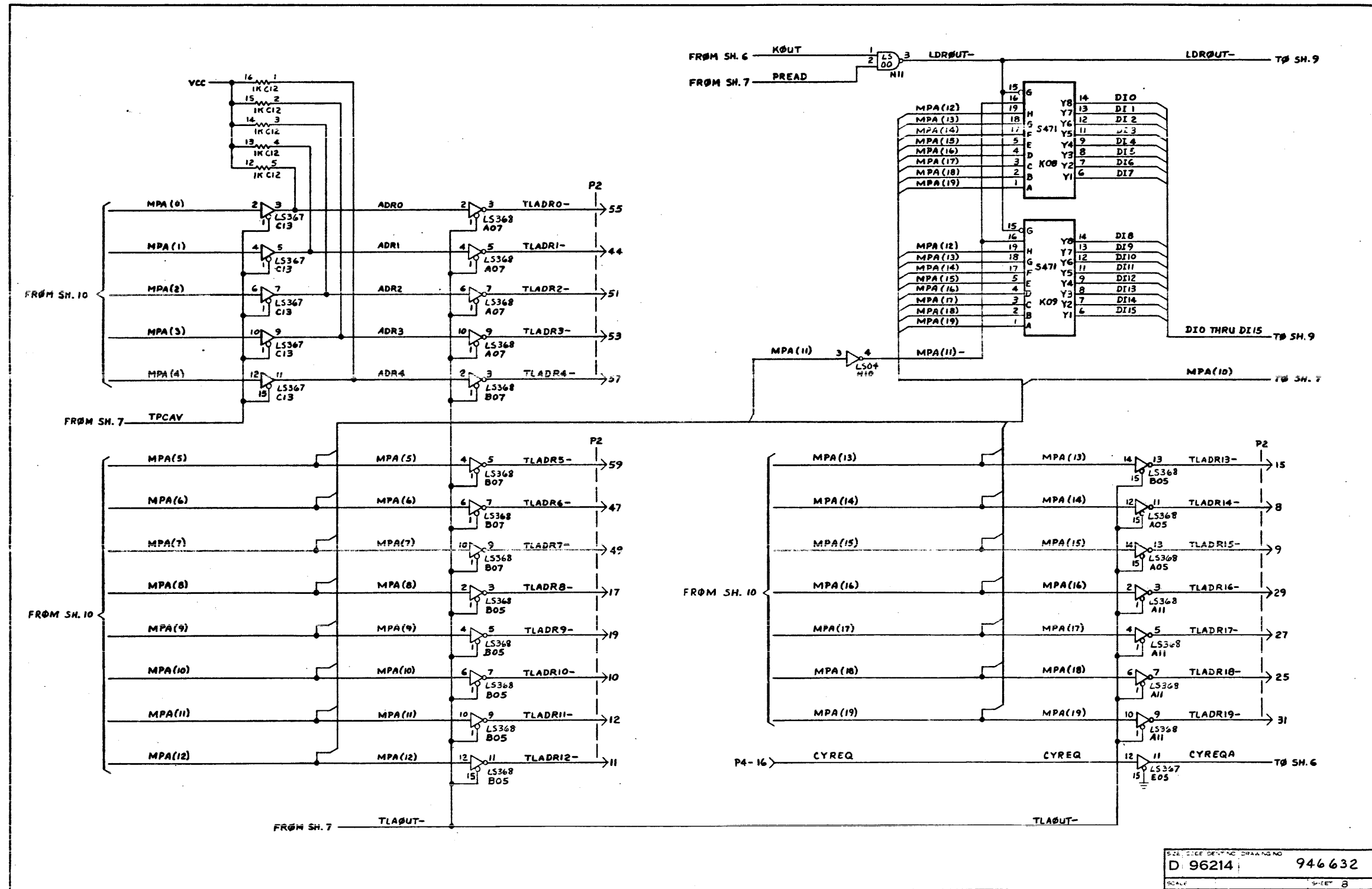


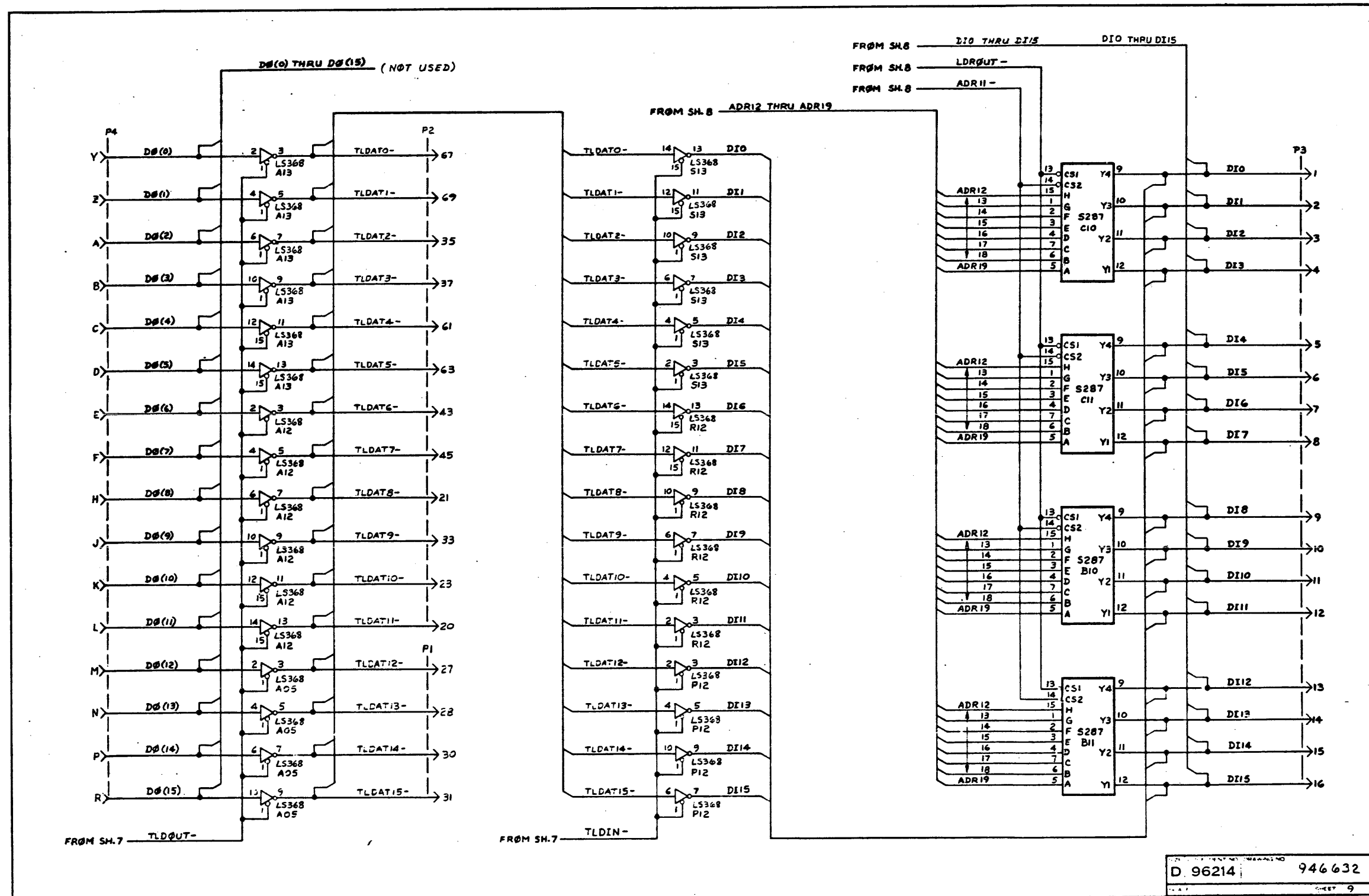
SIZE	CODE	IDENT NO	DRAWING NO
D	96214		946 632
SCALE			SHEET 5

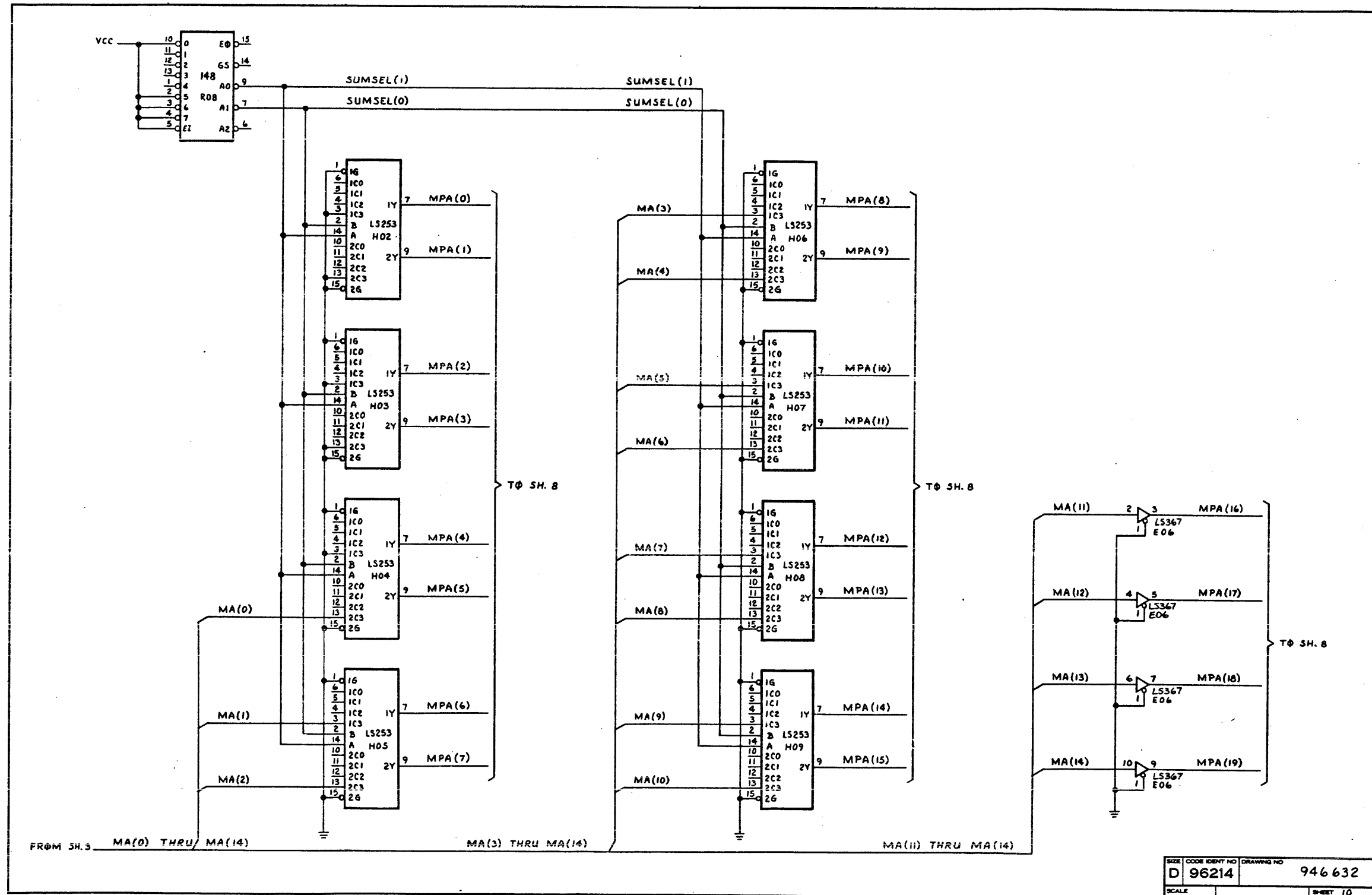




SIZE CODE DEVT NO. DRAWING NO.  
**D 96214** 946 632  
 SCALE SHEET 7



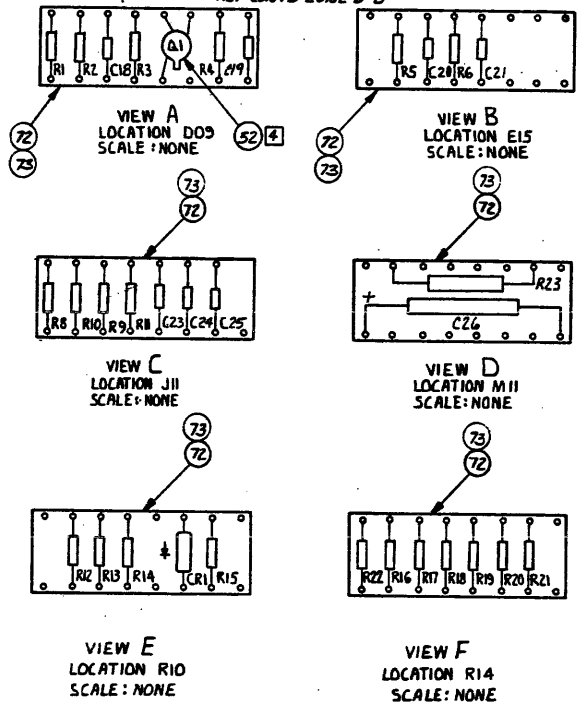
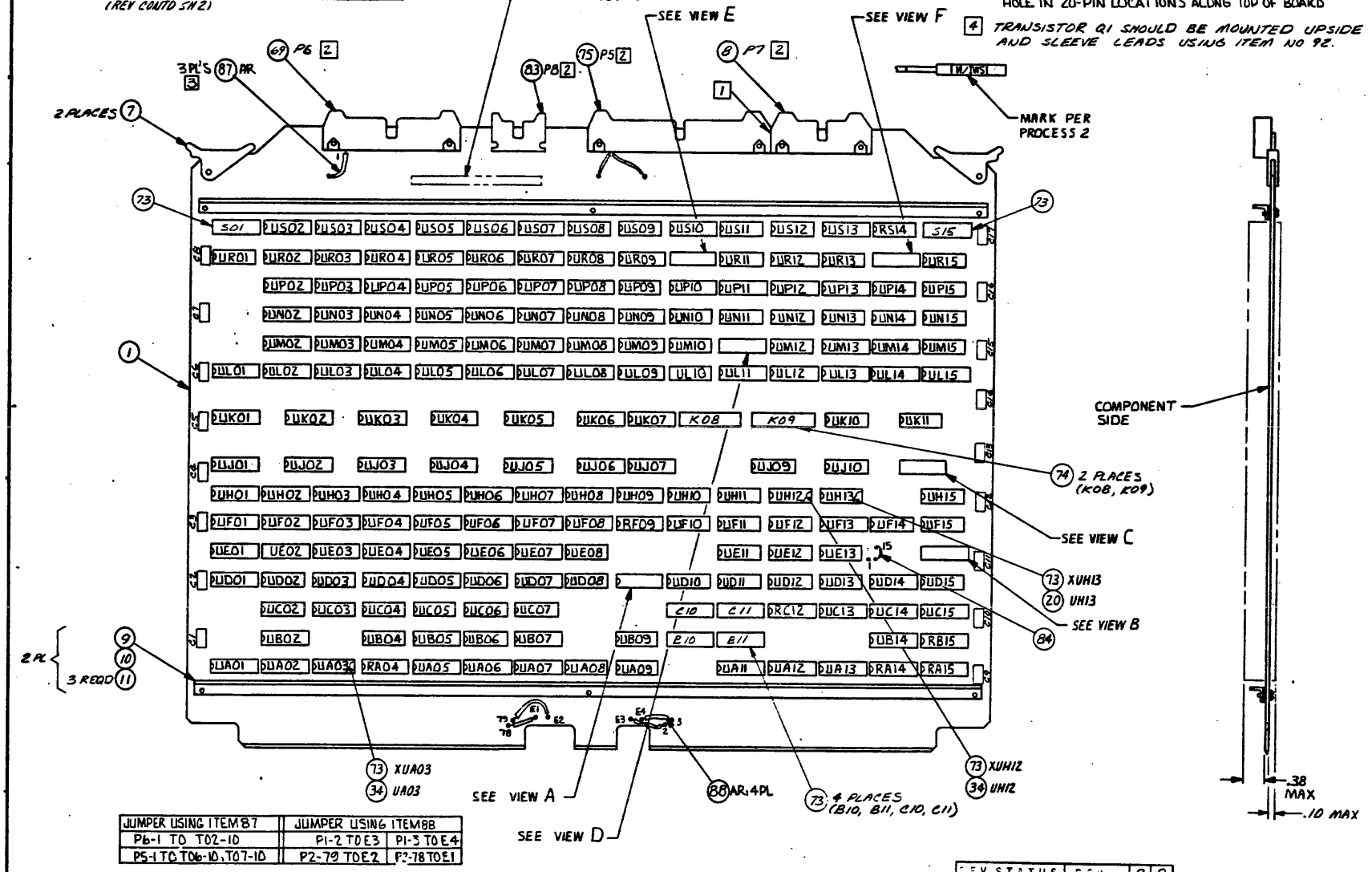




ZONE	LTR	DESCRIPTION	DATE	APPROVED
F		ON 4/26/76 (1) REVISED REV LEVEL BLOCK	4/26/76	
G		ON 4/26/76 (1) REVISED REV LEVEL BLOCK. QTY OF ITEM 89 WAS 18 DELETED UP3 FROM ITEM 99B. 2 ADDED ITEMS 91, 91A, 92 AND NOTE 4 UPDATED REV LEVEL (REV CONTD SHEET)	4/26/76	

ZONE	LTR	DESCRIPTION	DATE	APPROVED
A		UPDATED REV STATUS BLOCK FORMAL RELEASE		
B		CN41575 (C) R.O. (1) REVISED L.M PER EXTENSIVE ENGR. CHANGE (2) UPDATE REVISION LEVEL BLOCK	2/12/76	
C		CN43223 (B) R.O. (1) REVISED PER EXTENSIVE ENGINEERING CHANGES (2) UPDATED REV LEVEL BLOCK	2/10/76	
D		CN40690 (B) T.O. (1) REVISED L.M AND F/O PER EXTENSIVE CHANGES (2) UPDATED REV LEVEL BLOCK	2/10/76	
E		CN40700 (B) D.E. (1) L.M. ADDED ITEMS 89, 89A, 90, 90A (2) ITEM 39, 67 WAS 972669-0001, 539679-0008 (3) QTY OF ITEM 58, 59 WAS 4, 4 DELETED DES 85, 89-810 FROM ITEMS 58A-59A (REV CONTD ZONE D-B)	2/10/76	

- NOTES:
- REMOVE SUFFICIENT MATERIAL FROM ENDS OF P6 AND P7 TO ALLOW PROPER ASSEMBLY
  - INSTALL P6-1, P5-1, P7-1 AND P8-1 IN HOLES P3-90, P3-42, P3-10, P3-61 RESPECTIVELY
  - SOLDER GROUND STRAPS TO EXPOSED PIN OF CONNECTOR. THE OTHER END OF STRAP(S) IS INSERTED INTO GROUND HOLE IN 20-PIN LOCATIONS ALONG TOP OF BOARD
  - TRANSISTOR Q1 SHOULD BE MOUNTED UPSIDE DOWN AND SLEEVE LEADS USING ITEM NO 92.



JUMPER USING ITEM 87	JUMPER USING ITEM 88
P6-1 TO T02-1D	P1-2 TO E3
P5-1 TO T06-1D, T07-1D	P1-3 TO E4
	F2-78 TO E1

REV STATUS	REV	A	R
F	SHEETS	1	2

- PROCESSES:
- SOLDER PER F-127, METHOD I AND/OR F-124
  - MARK PER F-100, METHOD III, CLASS 1, HEIGHT .12, COLOR BLACK
  - MARK PER F-100, METHOD II, CLASS 1, HEIGHT .09, COLOR WHITE

REVISION LEVEL	LOGIC DIAGRAM	PNB	ASSY	*A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	R
	946647-9901	946621-0001	946645	*	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B
				*	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B
				*	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P

UNLESS OTHERWISE SPECIFIED	PARTS LIST	PROCUREMENT SPECIFICATION
REMOVE ALL BURRS AND SHARP EDGES	UNLESS OTHERWISE SPECIFIED	TEXAS INSTRUMENTS
CONCENTRICITY MACHINED DIAMETERS .010 MIN	DIMENSIONS ARE IN INCHES	990110 SYSTEM AND MEMORY I/F W/MAPPING, MW
DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING	TOLERANCES: ANGLES 9.11, 3 PLACE DECIMALS 0.010, 2 PLACE DECIMALS 0.02	DATE: 12-2-75
IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY	INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100	DATE: 7/6/76
HOLE TOLERANCE: .013 +.004, .015 +.001, .018 +.001, .020 +.001, .025 +.001	DATE: 11/2/76	DATE: 1/24/76
CONTR NO	DESIGN ACTIVITY RELEASE	DATE: 1/24/76
SIZE	CODE IDENT NO	DRAWING NO
	D	96214
	SCALE: 1/1	946645
		SHEET 1 OF 2

REVISIONS			
ZONE LTR	DESCRIPTION	DATE	APPROVED
H	CN 406703 (A) 7. <del>1</del> (1) REVISED PER EXTENSIVE ENGR CHANGES (2) UPDATED REV LEVEL BLOCK (3) ADDED SH 2	5-12-76	J.R.P.S.
J	CN 406963 (A) 7. <del>1</del> (1) UPDATED REV LEVEL BLOCK	5-12-76	J.R.P.S.
K	CN 406817 (A) 7. <del>1</del> (1) UPDATED REV LEVEL BLOCK	5-12-76	J.R.P.S.
L	CN 406538 (A) 7. <del>1</del> (1) REVISED L.M. PER EXTENSIVE ENGR CHANGES (2) UPDATED REV LEVEL BLOCK	5-12-76	J.R.P.S.
M	CN 415999 (C) 7. <del>1</del> (1) IN L.M. ADDED ITEMS 95 & 95A (2) DELETED ITEMS 13 & 13A (3) OTY ITEM 32 WAS 8 (4) ITEM 32 B DELETED UNIS FROM DESCRIPTION (5) UPDATED REV LEVEL BLOCK	5-12-76	J.R.P.S.
N	CN 407620 (C) 7. <del>1</del> (1) UPDATED REV LEVEL BLOCK	6/23/76	J.R.P.S.
P	CN 416536 (E) 7. <del>1</del> (1) UPDATED REV LEVEL BLOCK	8/14/76	J.R.P.S.
R	CN 417391 (F) 7. <del>1</del> (1) OTY OF ITEMS 84, 87, 88 & 92 WERE AR (2) ITEM 85 WAS 87 (2) 66A (3) UPDATED REV LEVEL	9-20-76	J.R.P.S.

SIZE	CODE IDENT NO	DRAWING NO
D	96214	946645
SCALE	1/1	SHEET 2



TEXAS INSTRUMENTS INCORPORATED		DATE 05/16/76		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LMB46645 -0001		REV R		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0001	0001.000	EA		946631 -0001	BOARD-MULTIWIRE,SMI,990/10							
0002	REF	EA		946647 -9901	LOGIC DIAGRAM-MW SMI W/MAP,990/10							
0003	REF	EA		946648 -9901	TEST PROCEDURE-MW SMI W/MAP,990/10							
0004	REF	EA		946649 -9901	SPECIFICATION-MW SMI W/MAP,990/10							
0005	REF	EA		946631 -9902	PIN LIST-MW SMI,990/10							
0006	REF	EA		946631 -9903	LOAD LIST-MW SMI,990/10							
0007	0002.000	EA		413277 -0001	EJECTOR,PCE,NON-LOCKING,WHITE	SCA -S-200(NATURAL)						
0008	0001.000	EA		972698 -0001	CONNECTOR,PMB,20P,RT.A,SDRTL,HDR,FLTCBL							
0008A					P7							
0009	0002.000	EA		945235 -0001	BRACKET-STIFFENER, PMB, 14IN							
0010	0002.000	EA		966486 -0001	INSULATOR PMB STIFFENER							
0011	0006.000	EA		972684 -0002	SCREW,TMD FRMG,HEX WSHR HD,2-56X1/4 LG							
0012	0005.000	EA		972900 -7400	NETWORK SN74LS0CN							
0012A					UC02 UD13 UM12 US09 UL10							
0014	0007.000	EA		972900 -7404	NETWORK SN74LS04N							
0014A					UC05 UD12 UE08 UP09 UP15 UR15							
0014B					UD06							
0015	0003.000	EA		240000 -7404	NETWCRK SN74H04N							
0015A					UC06 LC07 UM10							
0016	0002.000	EA		222222 -7407	NETWCRK-SN7407N	TI - -SN7407N						
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE					
APPR. MGR.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.					
							PART NUMBER LMB46645 -0001					
							REV R					

TEXAS INSTRUMENTS INCORPORATED		DATE 05/16/76		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LMB46645 -0001		REV R		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0016A					UD10 LH15							
0017	0004.000	EA		972745 -0001	NETWCRK, SN74LS38N							
0017A					UB06 UR13 LS12 UAC8							
0018	0001.000	EA		972900 -7410	NETWCRK SN74LS10N							
0018A					UC03							
0019	0001.000	EA		972788 -0001	NETWCRK SN74LS11N							
0019A					UB04							
0020	0001.000	EA		222222 -7413	NETWCRK SN7413N							
0020A					UM13							
0021	0002.000	EA		972900 -7420	NETWCRK SN74LS20N							
0021A					UD02 LC03							
0022	0001.000	EA		240000 -7421	NETWCRK-SN74H21N							
0022A					UF12							
0023	0001.000	EA		972814 -0001	NETWORK-SN74LS27N							
0023A					UD11							
0024	0002.000	EA		972900 -7430	NETWORK SN74LS30N	TI - -SN74LS30N						
0024A					UM12 LRC1							
0025	0001.000	EA		972900 -7432	NETWORK SN74LS32N	TI - -SN74LS32N						
0025A					UN10							
0026	0001.000	EA		972822 -0001	NETWCRK-SN74LS37N							
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE					
APPR. MGR.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.					
							PART NUMBER LMB46645 -0001					
							REV R					

TEXAS INSTRUMENTS INCORPORATED		DATE 05/16/76		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LMB46645 -0001		REV R		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0026A					UP14							
0027	0002.000	EA		222222 -7437	NETWCRK SN7437N							
0027A					UA05 LB05							
0028	0003.000	EA		222222 -7442	NETWCRK-SN7442N							
0028A					UA01 LA02 UB02							
0029	0002.000	EA		972783 -0001	NETWORK-BCC-TO-DEC DECODER,SN74LS42N							
0029A					UL11 UL12							
0030	0001.000	EA		972900 -7451	NETWCRK SN74LS51N	TI - -SN74LS51N						
0030A					UP08							
0031	0001.000	EA		972900 -7454	NETWCRK SN74LS54N	TI - -SN74LS54N						
0031A					UC04							
0032	0007.000	EA		972900 -7474	NETWCRK SN74LS74N							
0032A					UD15 LE11 UF14 UM15 UN13							
0032B					UM14 LS11							
0033	0003.000	EA		972900 -7109	NETWCRK SN74LS109N	TI - -SN74LS109N						
0033A					UP11 LS1C LE02							
0034	0002.000	EA		222222 -7132	NETWCRK SN74132N							
0034A					UA03 LM12							
0035	0001.000	EA		972900 -7138	NETWCRK SN74LS138N	TI - -SN74LS138N						
0035A					UD05							
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE					
APPR. MGR.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.					
							PART NUMBER LMB46645 -0001					
							REV R					

TEXAS INSTRUMENTS INCORPORATED		DATE 05/16/76		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LMB46645 -0001		REV R		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0036	0001.000	EA		219402 -7139	NETWCRK SN74LS139N							
0036A					UD14							
0037	0003.000	EA		222222 -7148	NETWCRK SN74148N							
0037A					UM13 UM14 UR08							
0038	00017.000	EA		801383 -0001	NETWCRK SN74LS151N							
0038A					UD07 UHC1, UJ01 THRU UJ07							
0038B					UK01 THRU UK07, UL01							
0039	0005.000	EA		222222 -7163	NETWCRK SN74163N							
0039A					UF02 THRU LF06							
0040	0003.000	EA		972900 -7174	NETWORK SN74LS174N							
0040A					UB14 UC14 UC15							
0041	0002.000	EA		972900 -7175	NETWCRK SN74LS175N							
0041A					UP10 UR09							
0042	0001.000	EA		972900 -7157	NETWORK SN74LS197N	TI - -SN74LS197N						
0042A					UD04							
0043	0002.000	EA		972668 -0001	NETWCRK SN74LS251N							
0043A					UF07 UF08							
0044	00008.000	EA		972900 -7253	NETWORK SN74LS253N	TI - -SN74LS253N						
0044A					UH02 THRU LHC9							
0045	0001.000	EA		972120 -0001	NETWORK TTL/MS1 9334	FCD - TTL/MS1 9334						
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE					
APPR. MGR.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.					
							PART NUMBER LMB46645 -0001					
							REV R					

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LMP46645 -0001		REV R		
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
C045A					UE07					
0046	00001.000	EA		972159 -7265	NETWCRK, SN74265N					
C046A					UP13					
0047	00021.000	EA		972652 -0001	NETWORK SN74LS283N					
0047A					UL02 UL04 UL06 UL08					
0047B					UM02 UM04 LM06 UM08					
C047C					UN02 UN04 UN06 UN08					
0047C					UP02 UP04 UP06					
0047E					UR02 UR04 UR06					
0047F					US02 LS04 US06					
0048	00008.000	EA		972787 -0003	NETWORK SN74LS367N					
0048A					UC13 UE03 THRU UE06 UL13 UL14					
0048B					UL15					
0049	00013.000	EA		972787 -0004	NETWORK SN74LS368N					
C049A					UA05 UAC7 UA11 UAL2 UA13 UB05					
0049B					UB07 UP12 UR12 US13 UD01					
C049C					UE01 UF01					
0050	00021.000	EA		972654 -0001	NETWCRK,SN74LS670N					
C050A					UL03 UL05 ULC7 UL09					
0050B					UM03 UNC5 UN07 UN09					
DRAFTSMAN					DATE	CHK. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE
										990/10 SYSTEM & MEMORY I/F W/MAPPING,MW
APP'D-MPC					DATE	APP'D. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.
										LMP46645 -0001
										R

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 6 of		PART NUMBER LMP46645 -0001		REV R		
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0050C					UN03 UN05 UN07 UN09					
0050D					UP03 UP05 UP07					
0050E					UR03 UR05 UR07					
0050F					US03 LSC5 LS07					
0051	00001.000	EA		974674 -0001	NETWCRK SN75138N					
0051A					UA06					
0052	00001.000	EA		972998 -0002	TRANSISTOR,2N2222A NPN GEN PURP SM TU-18	TI	- 2N2222A			
0052A					Q1					
0053	00001.000	EA		972037 -1680	NETWCRK, RES. 16P 68					
0053A					RS14					
0054	00005.000	EA		972141 -0041	NETWCRK,RES. 1.0 K OHM 2 X 14 PIN DIP	BEC	- 899-1-R1.0K			
0054A					RA04 RA14 RA15 RB15 RC12					
0056	00004.000	EA		972946 -0037	RES FIX 68.0 OHM 5 X .25 W,CARBON FILM	ROH	- R-25			
0056A					R16 R18 R20 R21					
0057	00002.000	EA		972946 -0049	RES FIX 220 OHM 5 X .25 W CARBON FILM	ROH	- R-25			
0057A					R3 R4					
0059	00002.000	EA		539370 -0339	RES FIX FILM 332 OHM 1X .25 WATT	COR	-NA55D-100PPM/C			
0059A					R1 R9					
0059B	00002.000	EA		539370 -0347	RES FIX FILM 402 OHM 1X .25 WATT	COR	- NA55			
0059C					RB R10					
DRAFTSMAN					DATE	CHK. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE
										990/10 SYSTEM & MEMORY I/F W/MAPPING,MW
APP'D-MPC					DATE	APP'D. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.
										LMP46645 -0001
										R

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 7 of		PART NUMBER LMP46645 -0001		REV R		
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0060	00005.000	EA		972946 -0065	RES FIX 1.0K OHM 5 X .25 W CARBON FILM	ROH	- R-25			
C060A					R11 THRU R14,R22					
0061	00001.000	EA		539370 -0435	RES FIX FILM 3.32K OHM 1X .25 WATT	COR	- NA55			
0061A					R2					
0062	00001.000	EA		972946 -0081	RES FIX 4.7K OHM 5 X .25 W CARBON FILM	ROH	- R-25			
0062A					R19					
0063	00017.000	EA		230590 -9000	CAP .05 MF 12 V 20. X CER TRANSCAP	ERI	-5635-000-Y5F05			
0063A					C1 THRU C17					
0065	00002.000	EA		539675 -0004	CAPACITOR 220.PF 200V 2.X	SE	-SEC05CN221GC			
0065A					C19 C23					
0066	00001.000	EA		972141 -0057	NETWCRK,RES. 4.7 K OHM 2 X 14 PIN DIP	BEC	- 899-1-R4.7K			
0066A					RF05					
0067	00002.000	EA		539675 -0003	CAPACITOR 680.PF 200V 2.X	SE	-SEC05CN681GC			
0067A					C20 C21					
0068	00002.000	EA		539675 -0008	CAPACITOR 470 PF 2X 200 V	SE	- SEC05CN471GC			
0068A					C24 C25					
0069	00001.000	EA		972698 -0003	CONNECTOR,PWB,34P,RT.A,SDRTL,HDR,FLTCBL					
0069A					P6					
0070	00001.000	EA		972924 -0006	CAP FIX TANT SOLID 39 MFD 10 X 10 VOLT	QPL	-M39003/1-2259			
C070A					C26					
DRAFTSMAN					DATE	CHK. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE
										990/10 SYSTEM & MEMORY I/F W/MAPPING,MW
APP'D-MPC					DATE	APP'D. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.
										LMP46645 -0001
										R

TEXAS INSTRUMENTS INCORPORATED		DATE 09/16/76		LIST OF MATERIAL		PAGE 8 of		PART NUMBER LM46645 -0001		REV R	
PART NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0071	0001.000	EA		972123 -0001	DIODE CP4-43-LIGHT EMITTING	CML - CR4-43					
0071A					CR1						
0072	00006.000	EA		772312 -0002	PLUG, IC CLAL IN-LINE 16 PIN .0165X.0165	SSM -3000-177					
0073	00015.000	EA		539544 -0002	SOCKET, 16PIN IC LOW PROFILE SOLDER TAIL	TI -C93-16-02					
0074	00002.000	EA		539544 -0010	SOCKET, 20PIN IC LOW PROFILE SOLDER TAIL	TI -C93-20-02					
0075	00001.000	EA		972698 -0005	CONNECTOR, PWB, 50P, RT. A, SDRTL, HDR, FLT CBL						
0075A					PS						
0076	00004.000	EA		219402 -7400	NETWORK SN74S00N						
0076A					UF11 UK10 UM11 US08						
0077	00002.000	EA		219402 -7404	NETWORK SN74S04N						
0077A					UF15 UM10						
0079	00001.000	EA		240000 -7410	NETWORK-SN74H10N						
0079A					UE13						
0080	00001.000	EA		240000 -7411	NETWORK-SN74H11N						
0080A					UJ10						
0081	00005.000	EA		219402 -7420	NETWORK SN74S20N						
0081A					UE12 UF10 UM11 UJ09 UK11						
0083	00001.000	EA		972706 -0001	CONNECTOR, PWB, 10P, RT. A, SDRTL, HDR, FLT CBL						
0083A					PS						
0084	00000.050	FT		411400 -0024	WIRE, 24AWG ELECTRO TIN PLATED COPPER						
990/10 SYSTEM & MEMORY I/F W/MAPPING, PW											
DRAFTER		DATE	CHK. DRAFTER	DATE	DESIGN ENGINEER	DATE	990/10 SYSTEM & MEMORY I/F W/MAPPING, PW				
APPR. MGR.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	LM46645 -0001 R				

TEXAS INSTRUMENTS INCORPORATED		DATE 09/16/76		LIST OF MATERIAL		PAGE 9 of		PART NUMBER LM46645 -0001		REV R	
PART NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
C0E5	00001.000	EA		240000 -7474	NETWORK-SN74H74N						
C0E5A					UD08						
0086	00001.000	EA		972929 -0409	CAP FIX CERAMIC 4700 PF 10 X 100 V	QPL -M39014/01-1409					
0086A					C18						
0087	00000.050	FT		538555 -2999	WIRE 24 AWG HOOKUP UL-1609 WHITE	EFT QPL - M22759/16-24					
0088	00000.050	FT		538585 -5999	WIRE 16 AWG HOOKUP UL-1609 WHITE	EFT QPL - M22759/16-16					
0089	00002.000	EA		539370 -0335	RES FIX FILM 301 OHM 1/8 .25 WATT	COR - NA55					
C089A					R5 R6						
C090	00002.000	EA		972946 -0055	RES FIX 390 OHM 5 X .25 W CARBON FILM	ROH - R-25					
C090A					R15 R17						
C091	00001.000	EA		972556 -0002	NETWORK SN74368N						
C091A					UF13						
C092	00000.050	FT		410499 -C005	SLEEVE, TEFLON #24 NATURAL	QPL - MIL-I-22129					
0093	00001.000	EA		240000 -7400	NETWORK-SN74H00N						
C093A					UR11						
C094	00001.000	EA		972946 -0045	RES FIX 150 OHM 5 X .25 W CARBON FILM	ROH - R-25					
C094A					R23						
0095	00001.000	EA		222222 -7474	NETWORK SN7474N	-SN7474N					
C095A					UN15						
990/10 SYSTEM & MEMORY I/F W/MAPPING, PW											
DRAFTER		DATE	CHK. DRAFTER	DATE	DESIGN ENGINEER	DATE	990/10 SYSTEM & MEMORY I/F W/MAPPING, PW				
APPR. MGR.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	LM46645 -0001 R				

- NOTES: UNLESS OTHERWISE SPECIFIED;
1. ALL DEVICE TYPES ARE PREFIXED WITH SMT4
  2. GROUND IS APPLIED TO PIN 7 OF ALL 14-PIN IC'S AND PIN 8 OF ALL 16-PIN IC'S.
  3. VCC IS APPLIED TO PIN 14 OF ALL 14-PIN IC'S AND PIN 16 OF ALL 16-PIN IC'S.
  4. DEVICE TYPE, PIN NUMBERS, AND LOCATION OF IC IS SHOWN AS FOLLOWS:



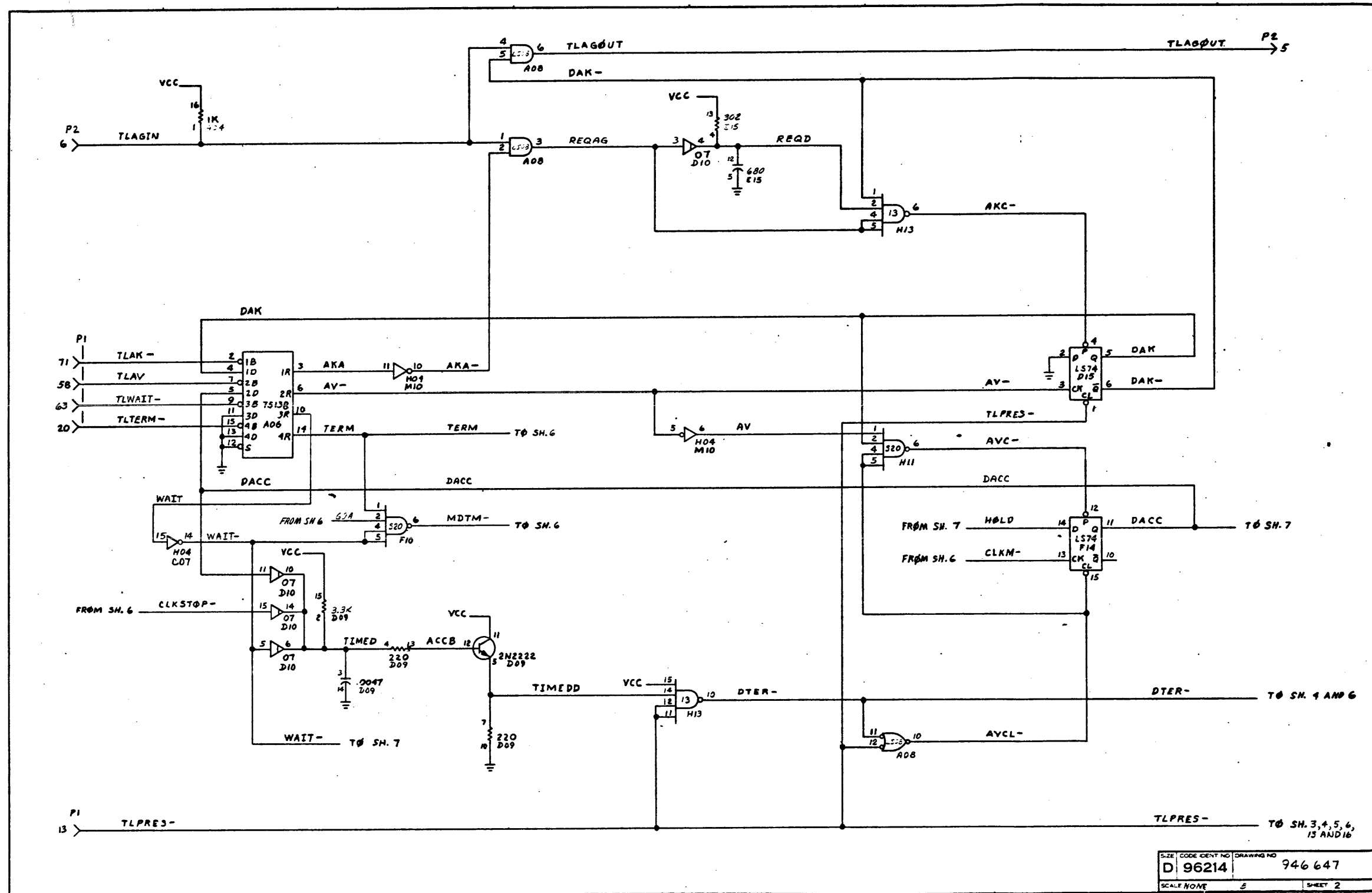
- 00 AND 04 = DEVICE TYPE  
 5, 5 AND 6 = PIN NUMBERS  
 B06 AND C10 = LOCATION: FIRST LETTER DENOTES ROW, SECOND AND THIRD DIGITS DENOTES COLUMN - IC IS LOCATED AT THE INTERSECTION OF ROW AND COLUMN.
5. ALL PIN NOS REFER TO 16 PIN LOCATIONS EVEN IF 14 PIN DEVICE IS PLUGGED INTO THAT LOCATION

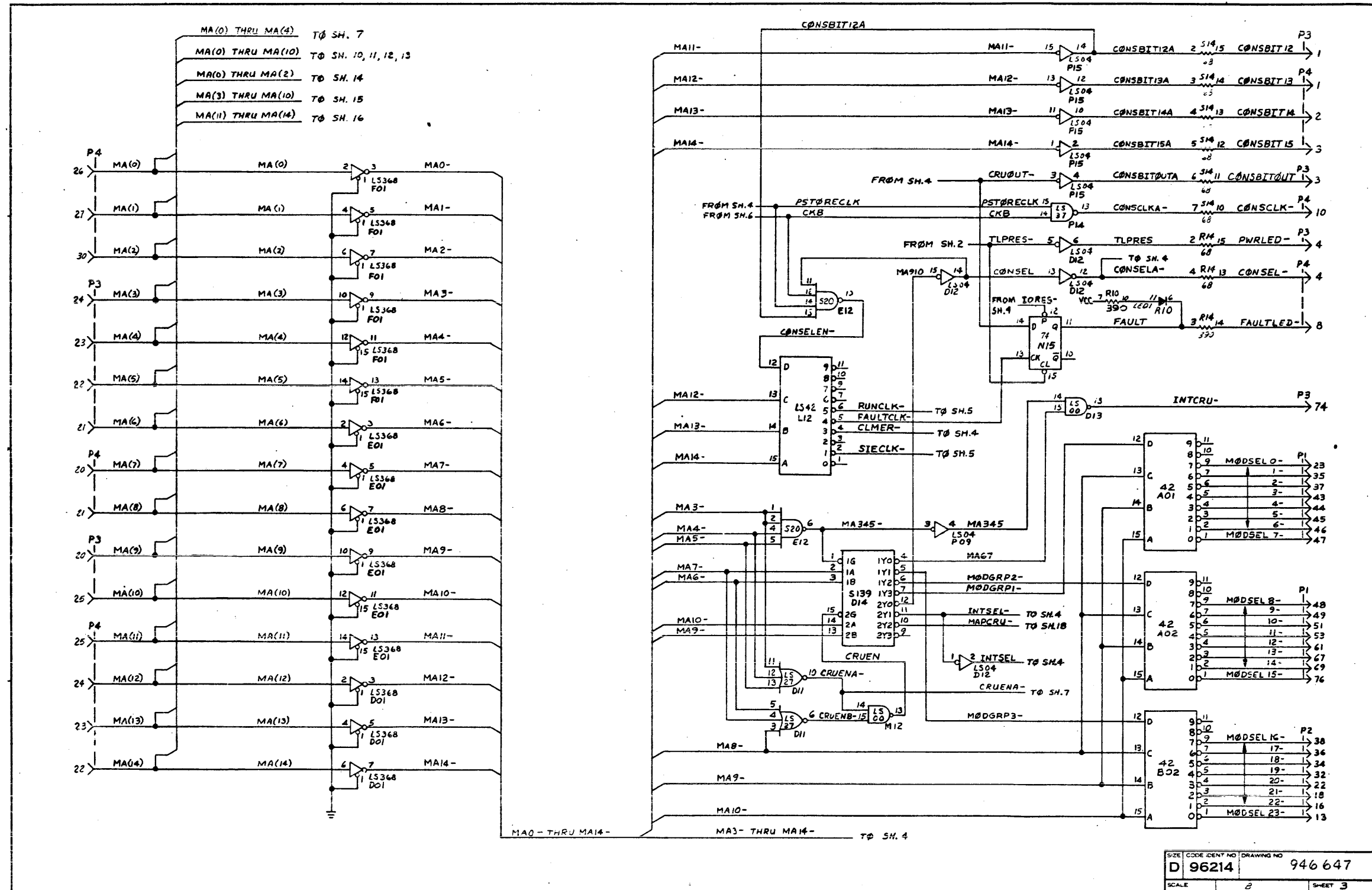
REVISIONS			
ZONE	LTR	DESCRIPTION	DATE APPROVED
A		CHG PER EXT. ENGR CHGS	
		FORMAL RELEASE	
B		CU#139791E) R. Homan	8-15-76 J.R. [initials]

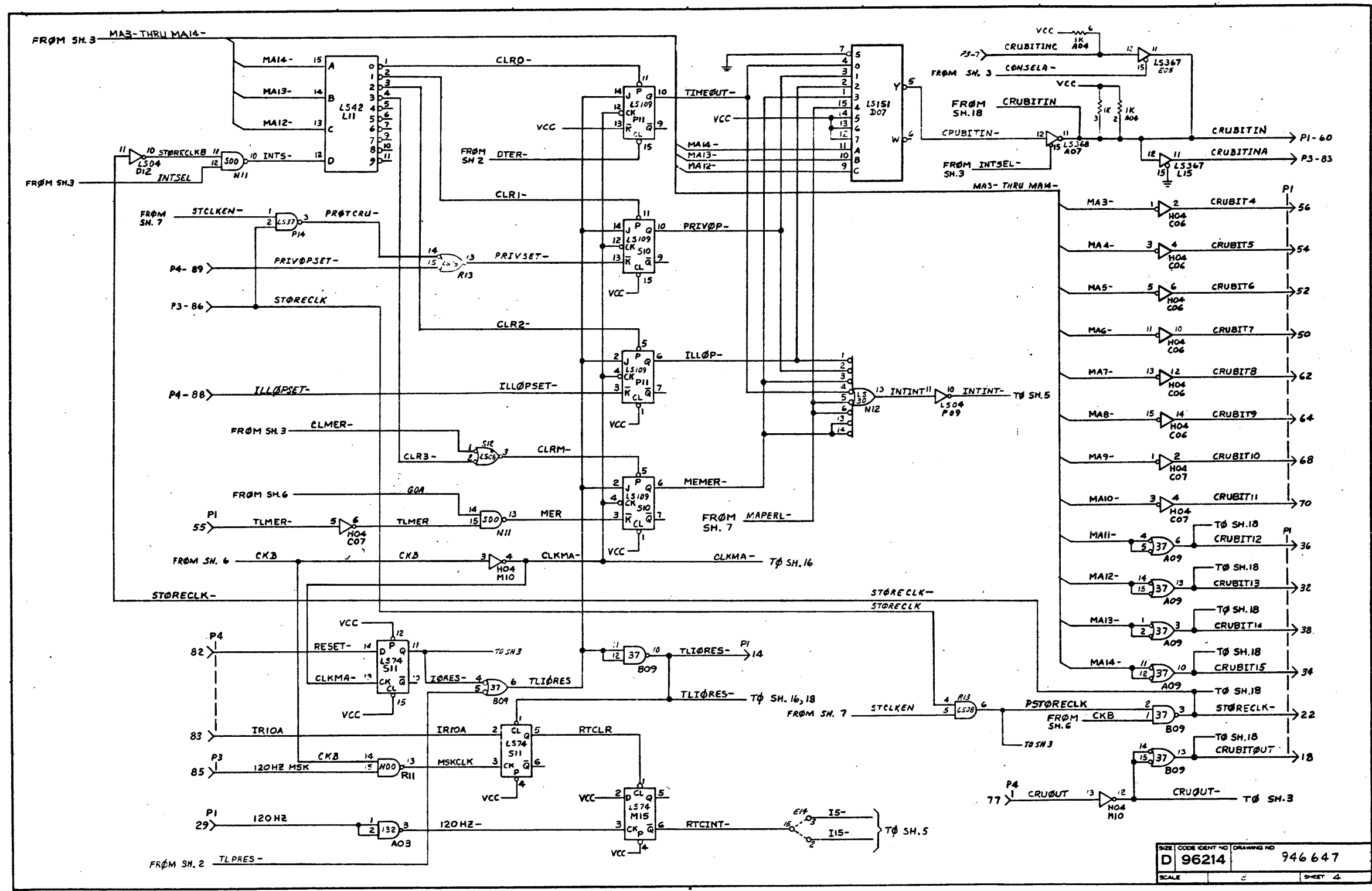
REV STATUS	REV	B	B	B	B	B	B	B	A	A	A	B	B	B	A	B
SP 5-2275	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

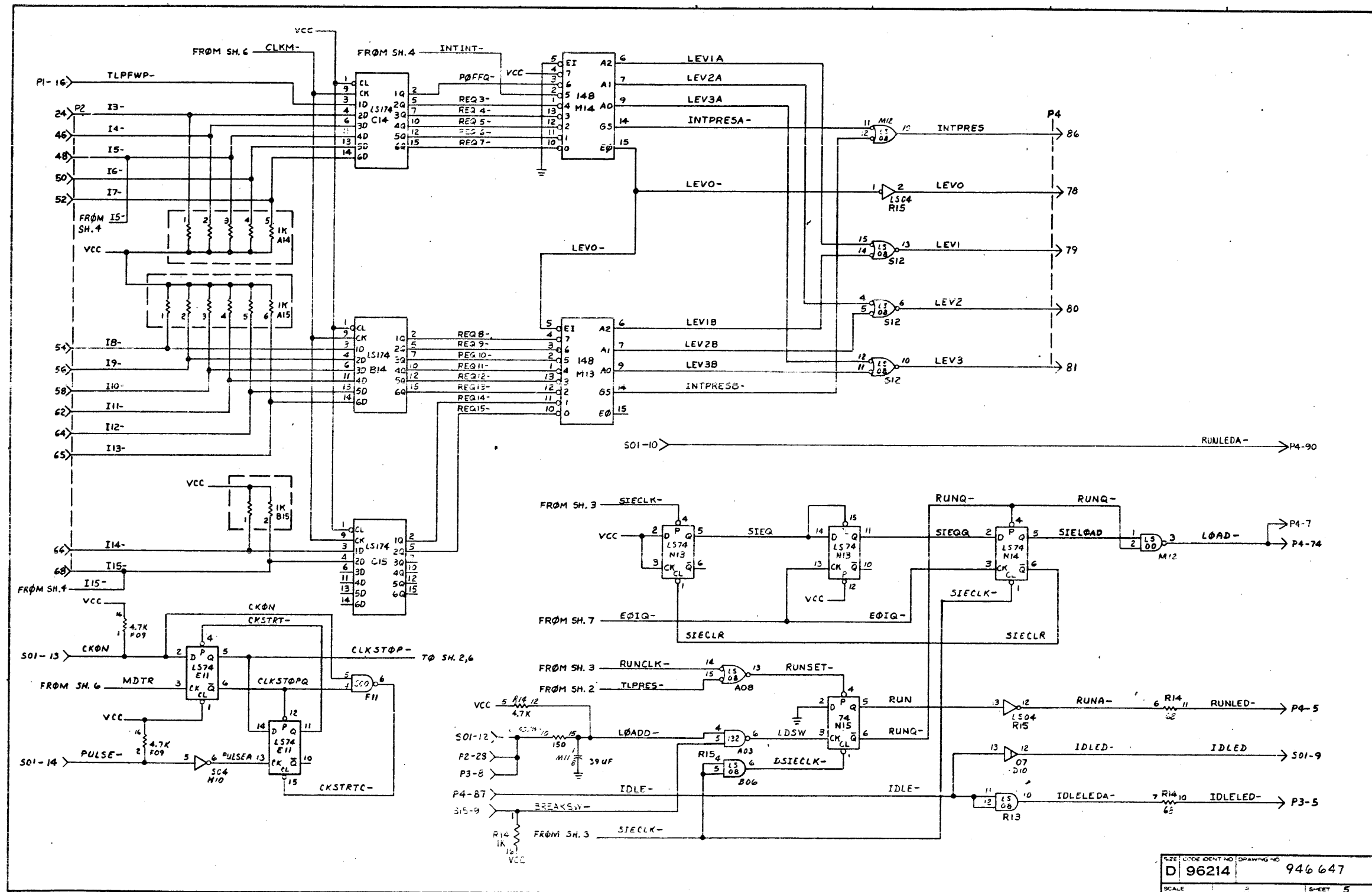
QTY REQD	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
----------	---------	------------	----------------------------	-----------------------------	---------------------------

UNLESS OTHERWISE SPECIFIED - REMOVE ALL BURRS AND SHARP EDGES - CONCENTRICITY MACHINED DIAMETERS ±0.005 - DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING - IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY - INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100	UNLESS OTHERWISE SPECIFIED - DIMENSIONS ARE IN INCHES - TOLERANCES ANGLES ±1° 3 PLACE DECIMALS ±0.002 2 PLACE DECIMALS ±0.005	DWN 10-23-75 CHK [initials] ENGR [initials] EPD [initials] CONTR NO [initials]	TEXAS INSTRUMENTS Equipment Group Dallas, Texas
		DESIGN ACTIVITY RELEASE [initials]	
HOLE TOLERANCE 013 - .004 125 - .001 135 - .008 145 - .001 155 - .001 165 - .001 175 - .001 185 - .001 195 - .001 205 - .001 215 - .001 225 - .001 235 - .001 245 - .001 255 - .001 265 - .001 275 - .001 285 - .001 295 - .001 305 - .001	APPLICATION	SIZE CODE IDENT NO DRAWING NO D 96214 946647	SCALE A:AE B SHEET 1 OF 18

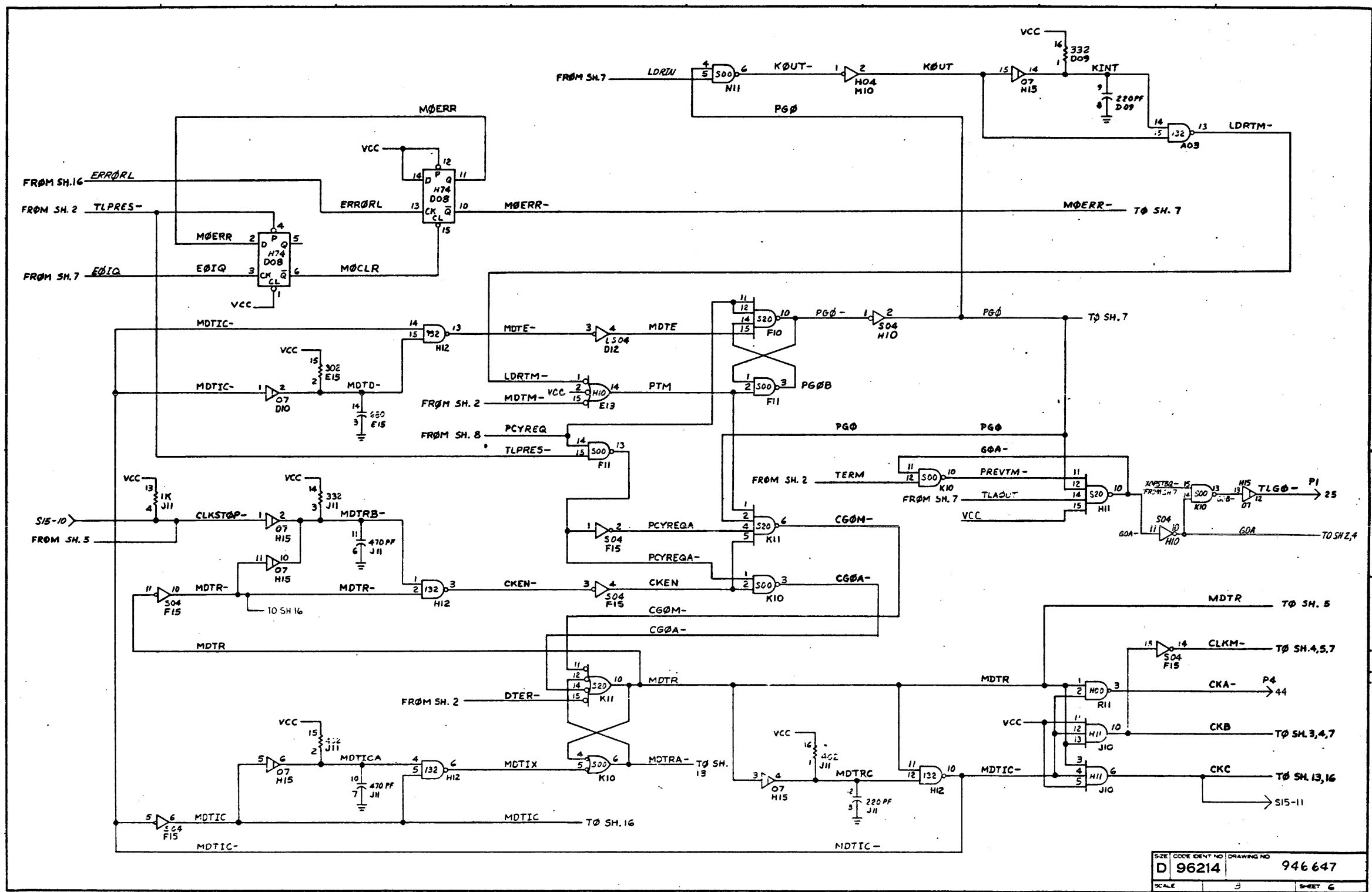




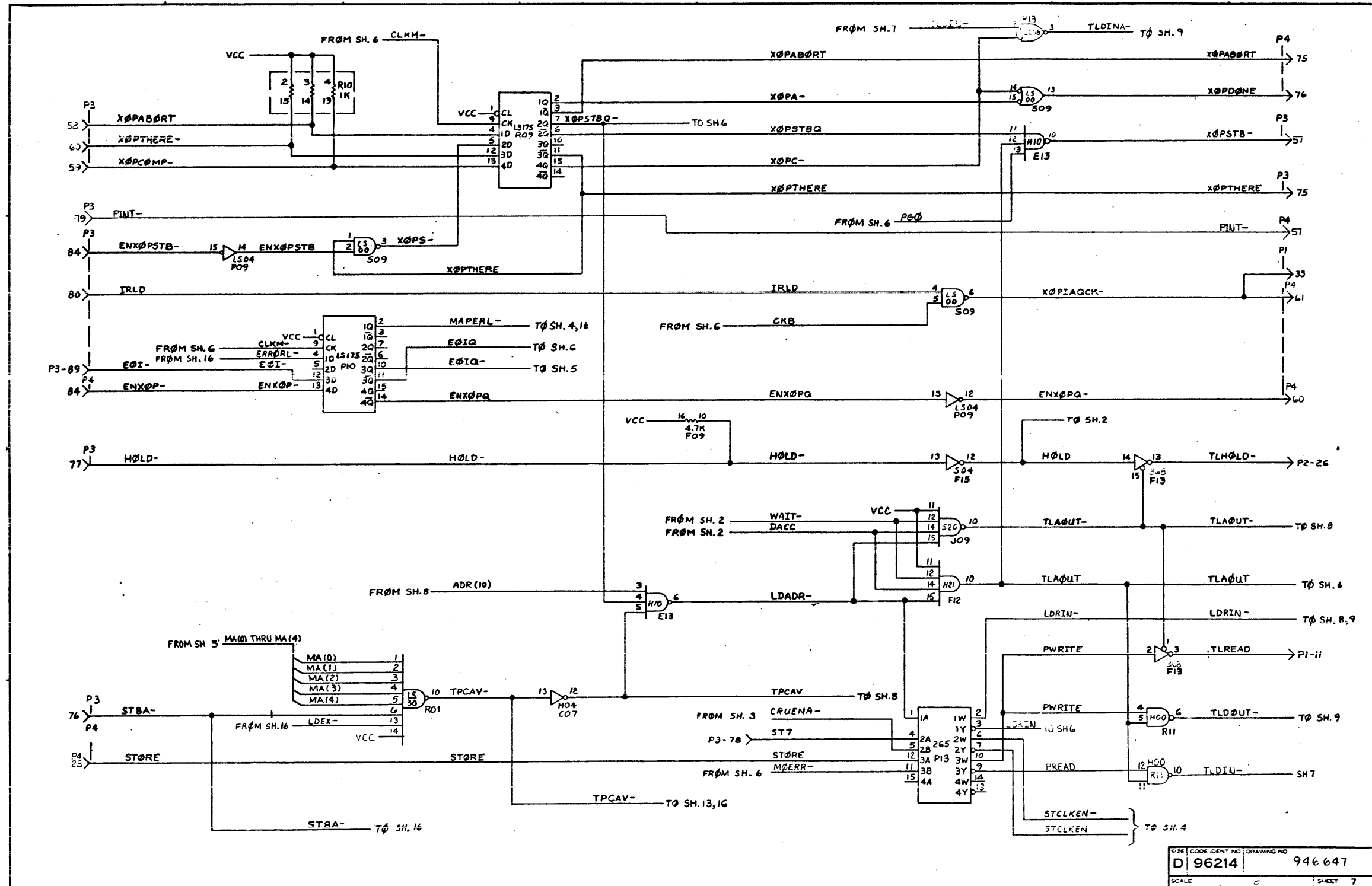


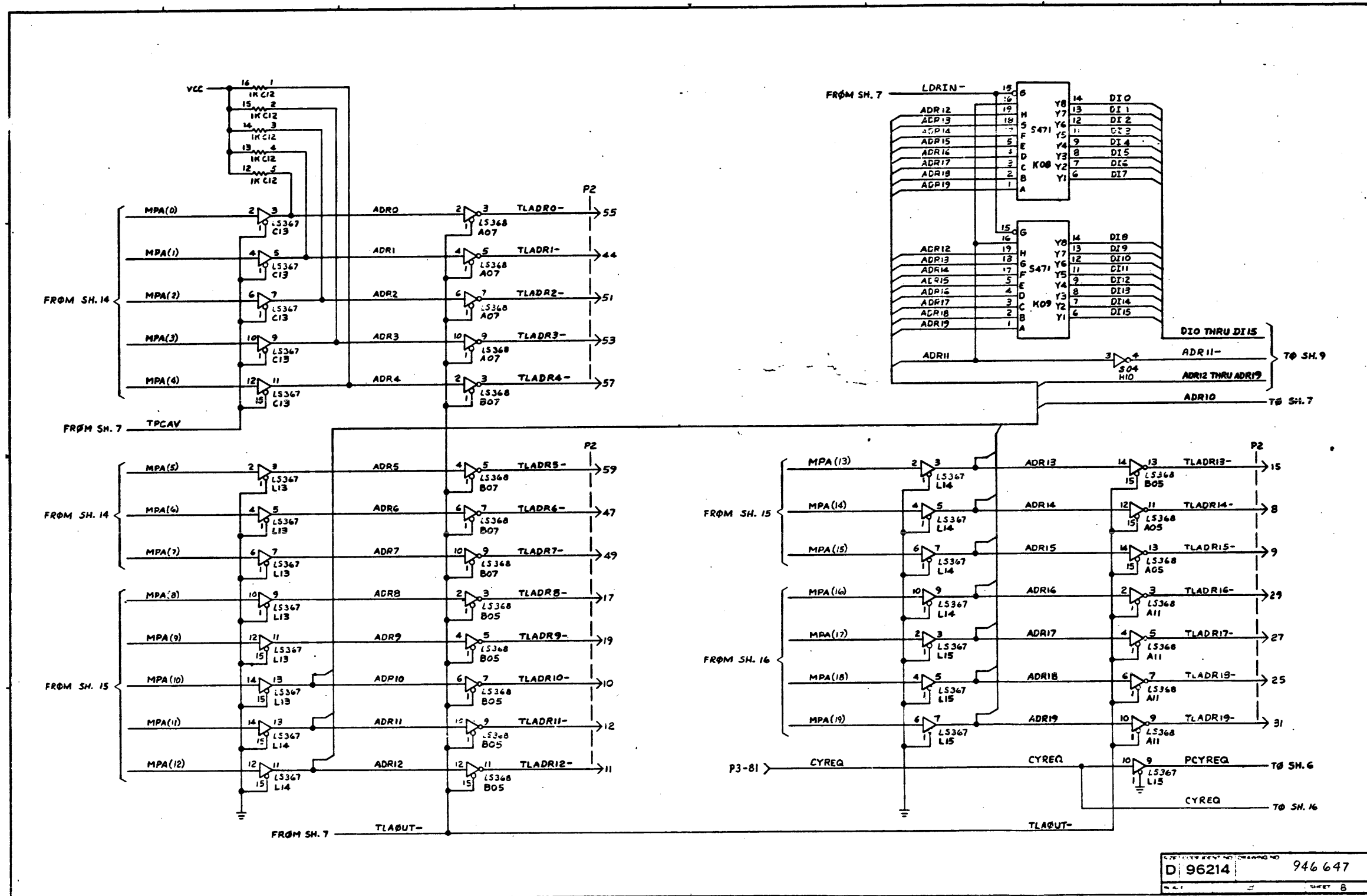




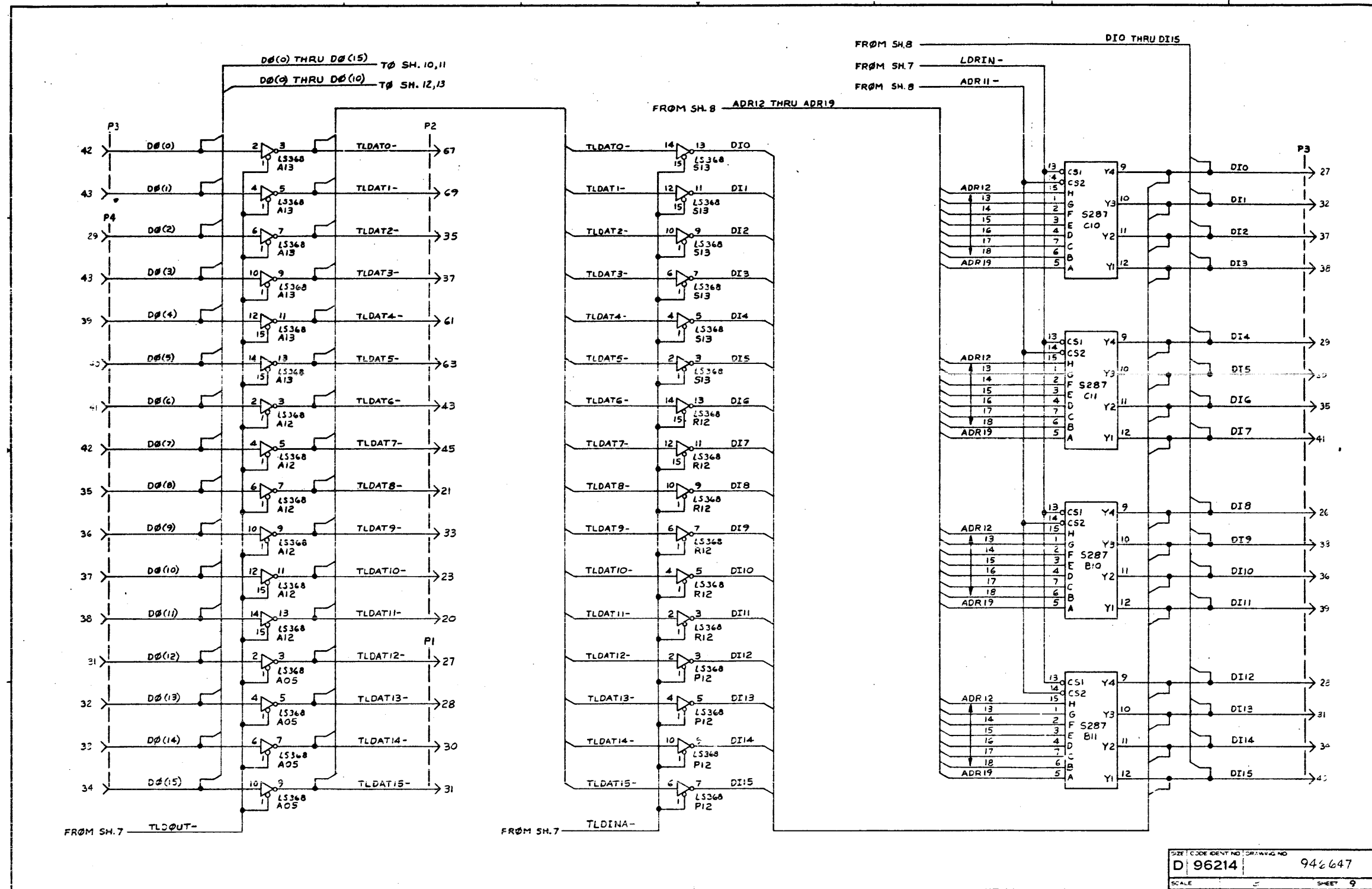


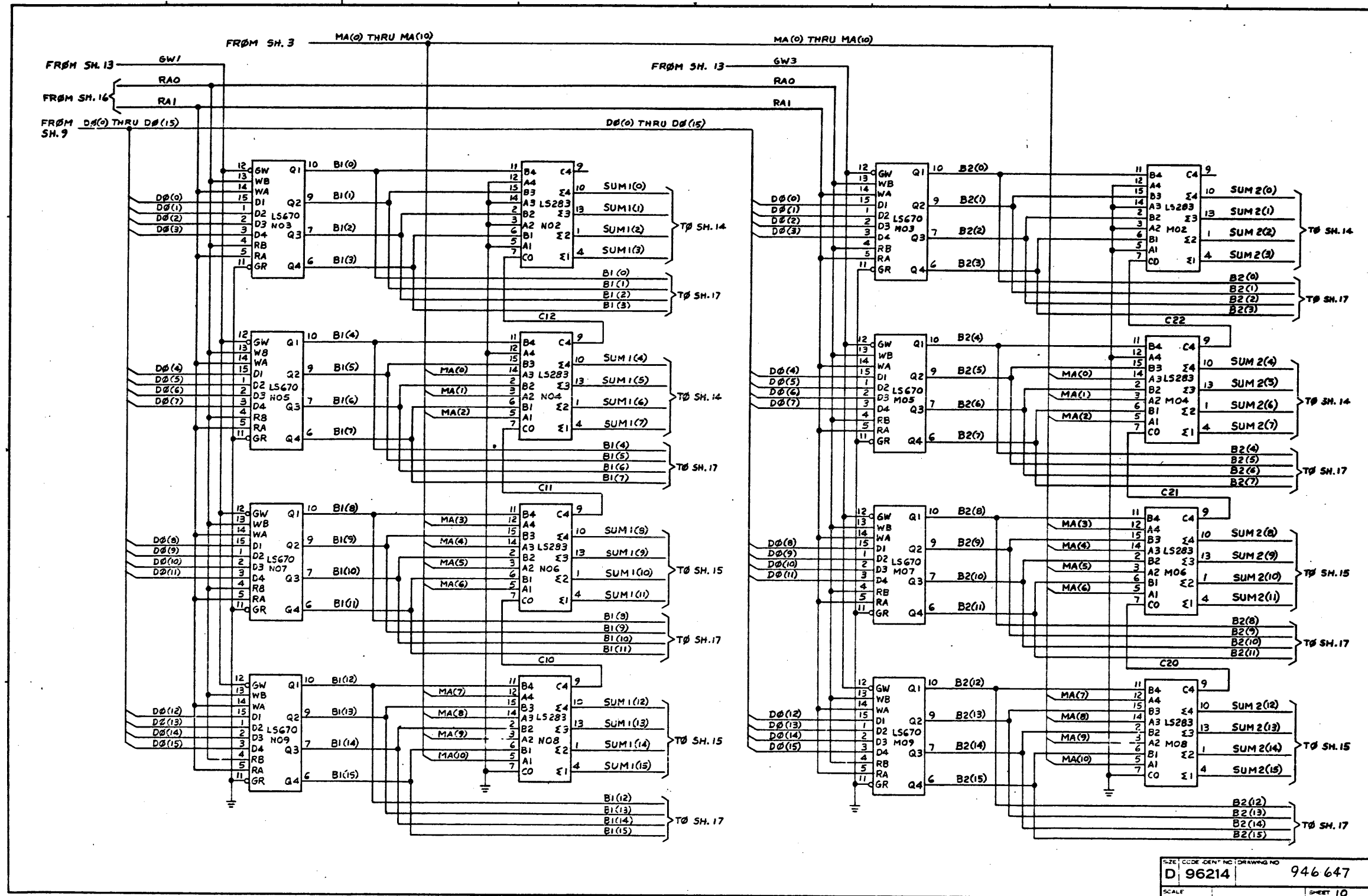
SIZE	CODE IDENT NO	DRAWING NO
D	96214	946 647
SCALE	3	SHEET 6

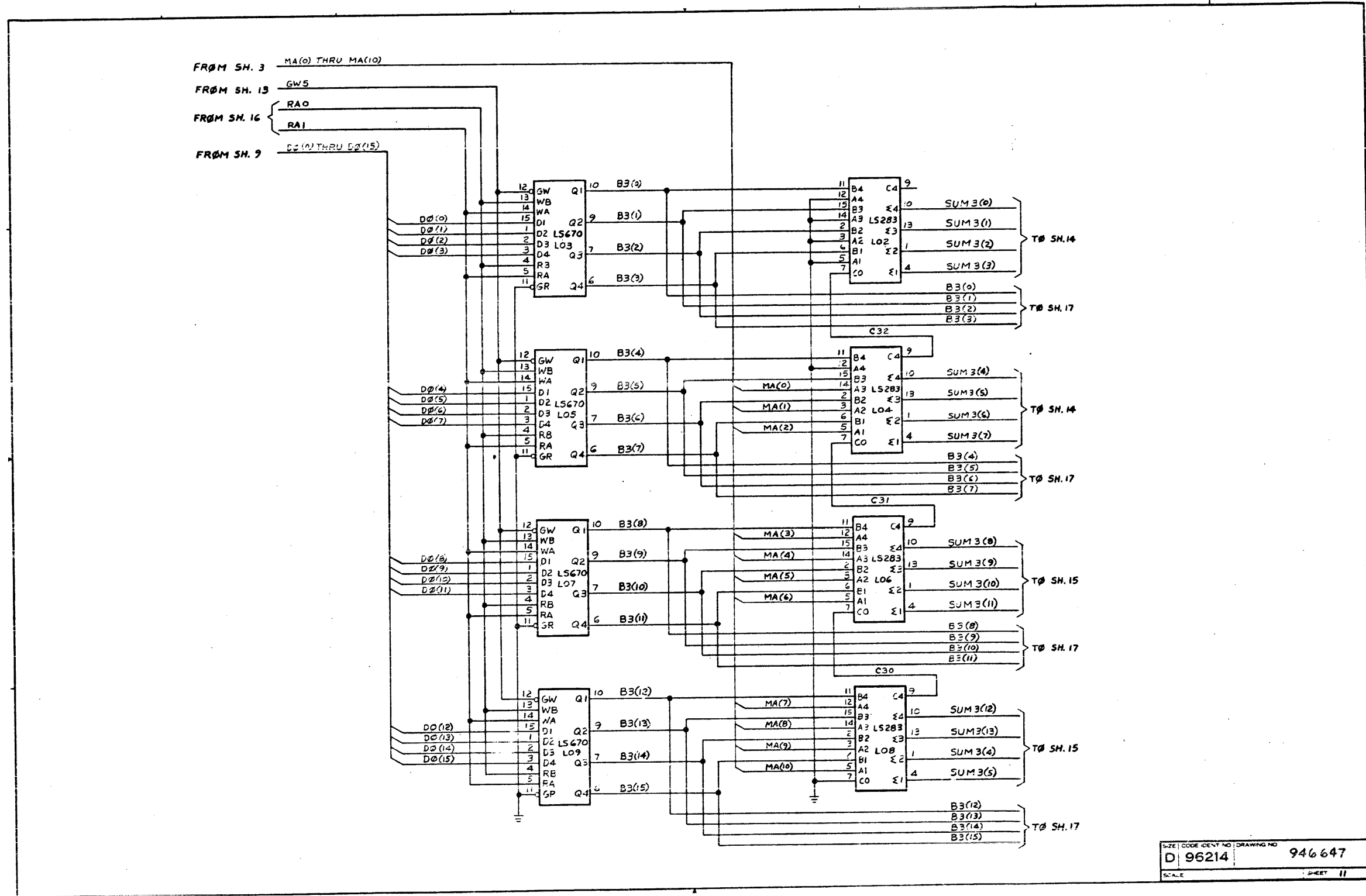




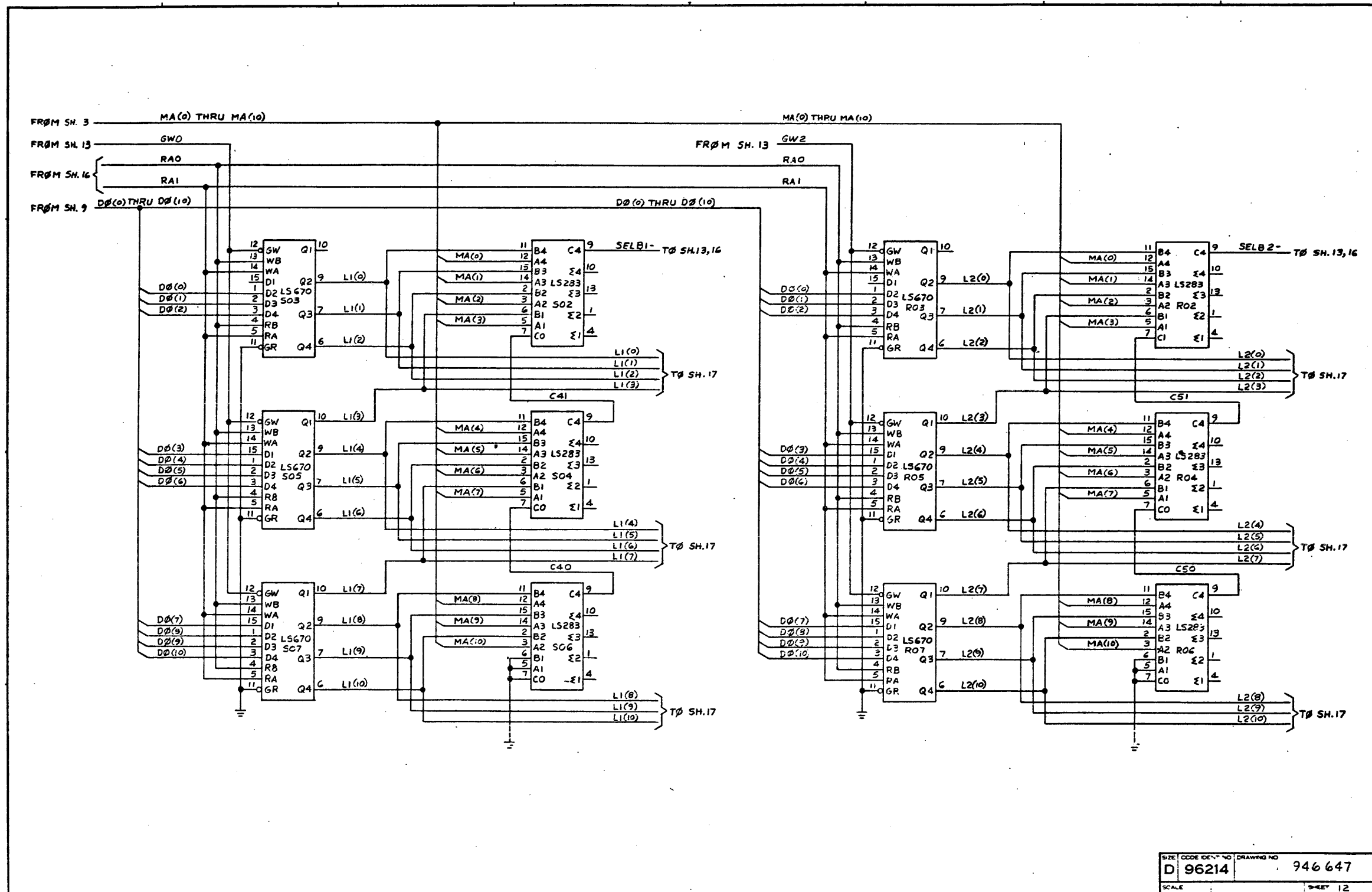
D 96214 946 647  
 SHEET 8

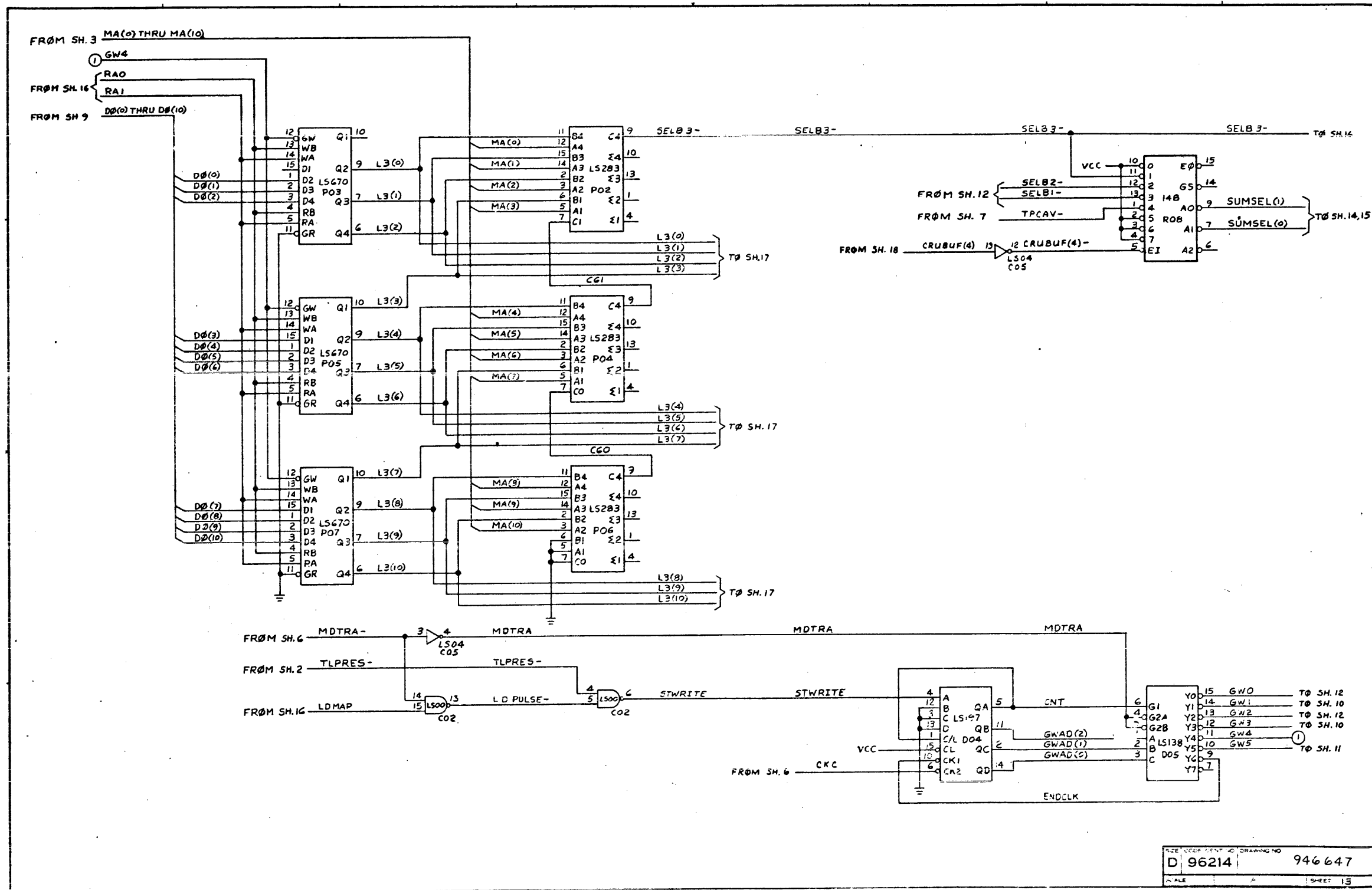




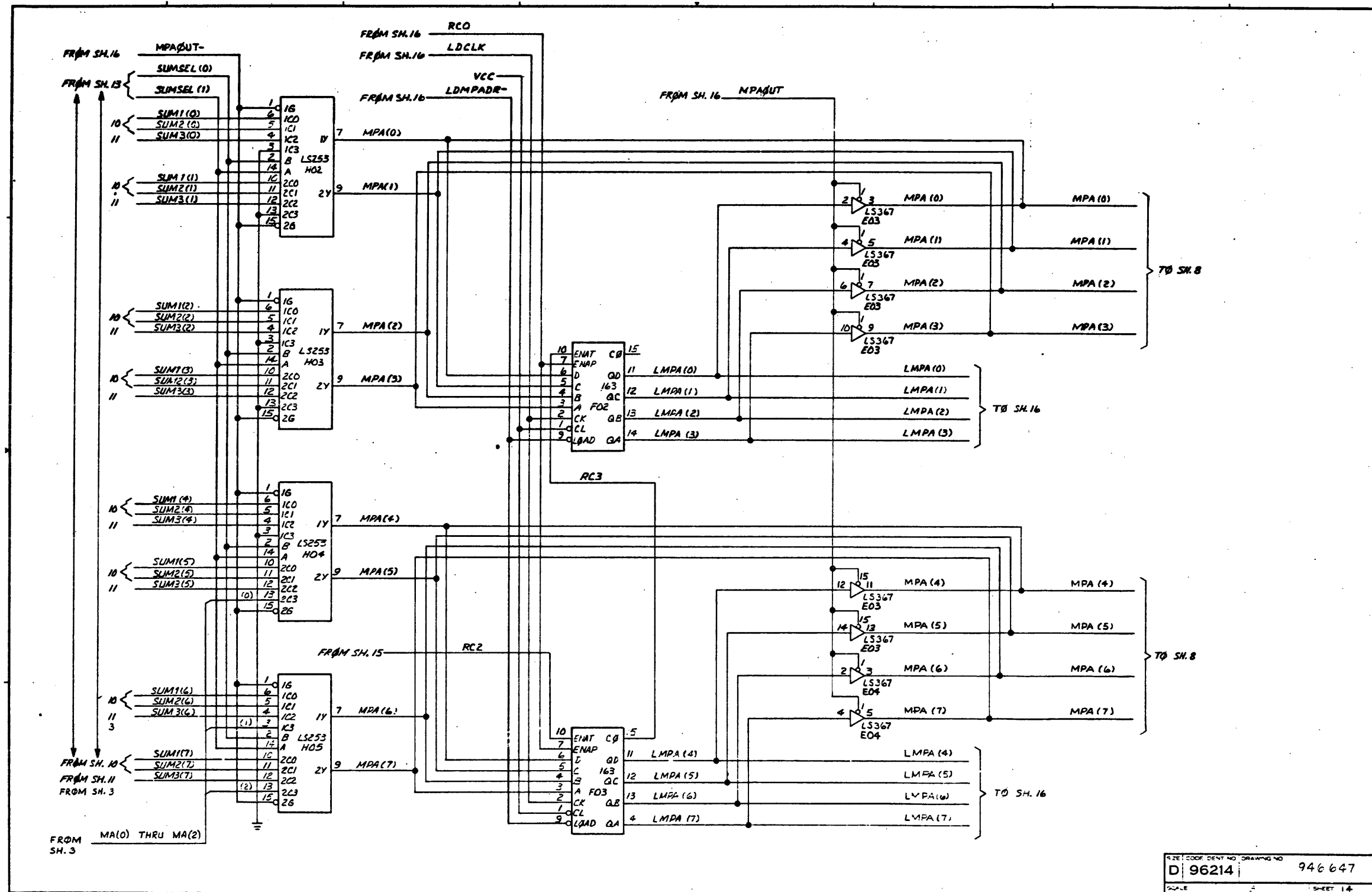


SIZE: CODE IDENT NO: DRAWING NO: 946647  
D: 96214  
SCALE: SHEET 11

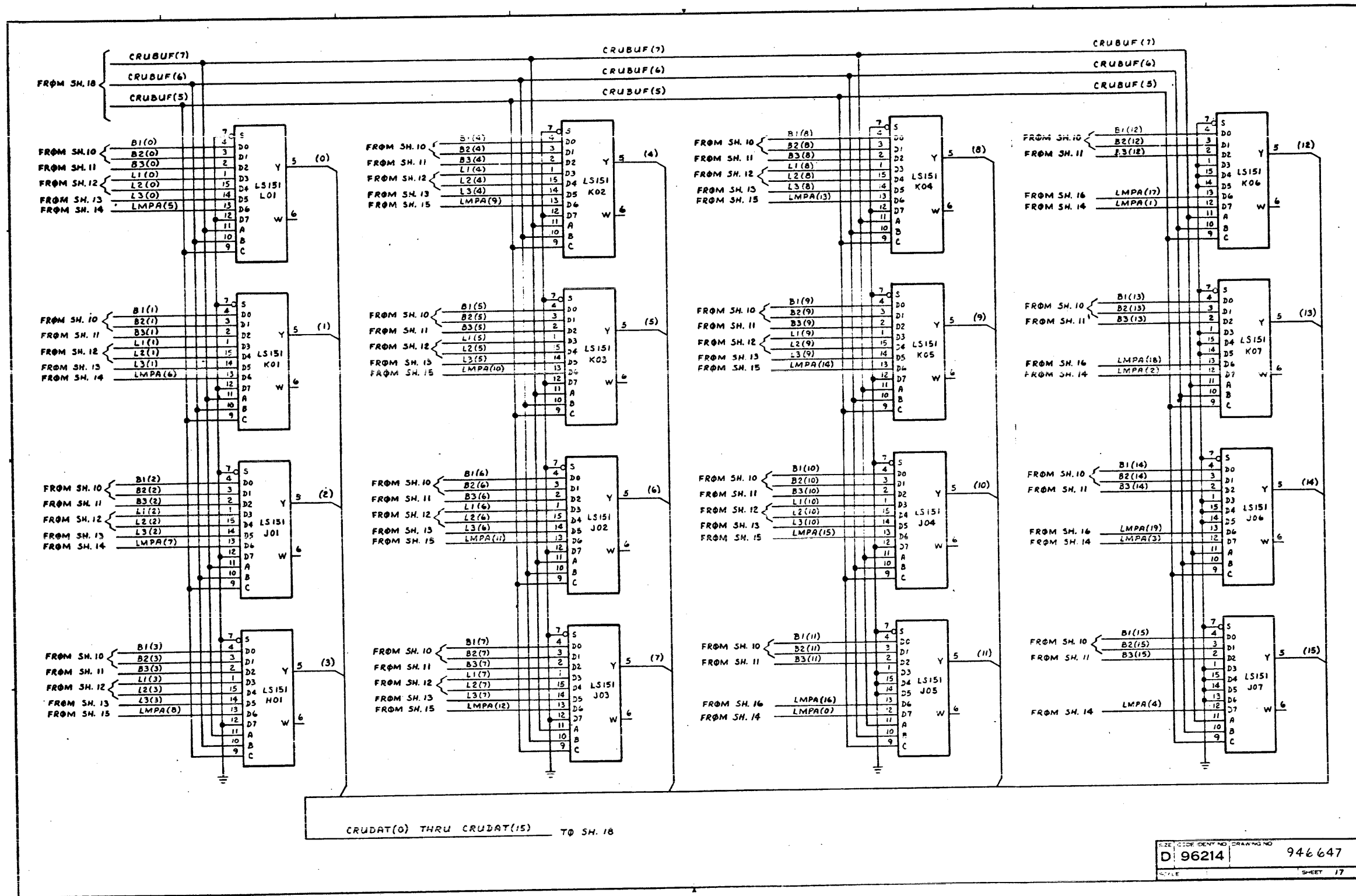
























TEXAS INSTRUMENTS INCORPORATED				DATE 11/28/79 LIST OF MATERIAL		PAGE 1 of	PART NUMBER LM 0944930-0001	REV AF	
PART ITEM NUMBER	QUANTITY OF ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
JJ02	REF	EA		0544932-5901	LOGIC DIAGRAM-AUI, 990/10				
JJ03	REF	EA		0944933-9901	TEST PROCEDURE-AUI, 990/10				
JJ04	REF	EA		0944921-9901	SPECIFICATION, CPU, 990/10				
JJ05	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB				
JJ07	00002.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN				
JJ08	00002.000	EA		0944954-0001	INSULATOR, PWB, 14IN				
JJ09	00006.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG				
JJ10	00006.000	EA		0418730-0101	WASHER, NYLON				
JJ13	00001.000	EA		0946758-0001	CABLE ASSY, AU, 34 CONDUCTOR				
JJ14	00001.000	EA		0946758-0002	CABLE ASSY, AU, 50 CONDUCTOR				
JJ15	00009.000	EA		2210188-0005	SOCKET, LOW PROFILE, DIP, 20 PINS	003612-DILB 20P-108			
JJ15A					XU1 XU2 XU3 XU4 XU5 XU32				
JJ15B					XU45 XU79 XU80				
JJ18	00002.000	EA		0219402-7163	NETWORK, SN74LS163N				
JJ18A					U16 U31				
JJ19	00001.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N			
JJ19A					U111				
JJ22	00001.000	EA		0972900-7404	NETWORK SN74LS04N				
JJ22A					U112				
JJ43	00001.000	EA		0222222-7150	NETWORK SN74LS0N				
DRAFTSMAN				DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE
									990/10 ARITHMETIC UNIT
APPRO. PROJ. ENGINEER				DATE	RELEASED	DATE	PROJECT NO.	DATE	PART NUMBER
							7506		LM 0944930-0001
									REV AF

TEXAS INSTRUMENTS INCORPORATED				DATE 11/28/79 LIST OF MATERIAL		PAGE 2 of	PART NUMBER LM 0944930-0001	REV AF	
PART ITEM NUMBER	QUANTITY OF ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
JJ43A					U21				
JJ52	00004.000	EA		0972900-7181	NETWORK SN74LS181N	TI -SN74LS181N			
JJ52A					U57 U73 U89 U106				
JJ58	00002.000	EA		0972637-0001	NETWORK, 74S299 SERIAL/PARALLEL CONVERTER				
JJ58A					U51 U100				
JJ59	00004.000	EA		0972654-0001	NETWORK, SN74LS670N				
JJ59A					U60 U76 U92 U109				
JJ60	00002.000	EA		0972037-1470	NETWORK, RES 47 OHM 2% 16PIN ELEMENT				
JJ60A					U118 U119				
JJ66	00001.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80%, -20%				
JJ66A					C75				
JJ67	00003.000	EA		0972924-0007	CAP FIX TANT SOLID 120 MFD 10% 10 VOLT	JPL -M39003/1-2263			
JJ67A					C1 C2 C3				
JJ68	00001.000	EA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING				
JJ68A					CR1				
JJ69	00016.000	EA		2210188-0003	SOCKET, LOW PROFILE, DIP, 16 CONT	003612-DILB16P-108			
JJ69A					XU11, XU12, XU16, XU30, XU31,				
JJ69B					XU46, XU48, XU60, XU64, XU65,				
JJ69C					XU67, XU76, XU81, XU92, XU101,				
JJ69D					XU109				
DRAFTSMAN				DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE
									990/10 ARITHMETIC UNIT
APPRO. PROJ. ENGINEER				DATE	RELEASED	DATE	PROJECT NO.	DATE	PART NUMBER
									LM 0944930-0001
									REV AF

TEXAS INSTRUMENTS INCORPORATED				DATE 11/28/79 LIST OF MATERIAL		PAGE 3 of	PART NUMBER LM 0944930-0001	REV AF	
PART ITEM NUMBER	QUANTITY OF ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
JJ70	00001.000	EA		0946672-0001	PROGRAMMED ROM-STC#1 (U11)				
JJ70A					U11				
JJ71	00001.000	EA		0946672-0002	PROGRAMMED ROM-STC#2 (U12)				
JJ71A					U12				
JJ72	00001.000	EA		0946672-0003	PROGRAMMED ROM-SP#2 (U30)				
JJ72A					U30				
JJ73	00001.000	EA		0946672-0004	PROGRAMMED ROM-SP#1 (U46)				
JJ73A					U46				
JJ74	00001.000	EA		0946672-0005	PROGRAMMED ROM-OPCAL (U48)				
JJ74A					U48				
JJ75	00001.000	EA		0946672-0006	PROGRAMMED ROM-DCAL* (U64)				
JJ75A					U64				
JJ76	00001.000	EA		0946672-0007	PROGRAMMED ROM-BUSB (U67)				
JJ76A					U67				
JJ77	00001.000	EA		0946672-0008	PROGRAMMED ROM-ID (U81)				
JJ77A					U81				
JJ78	00001.000	EA		0946672-0009	PROGRAMMED ROM-BCONS (U101)				
JJ78A					U101				
JJ79	00001.000	EA		0945246-0015	ROM, FORMAT LOL U65(PC) C10(MM) (5287N)				
JJ79A					U65				
DRAFTSMAN				DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE
									990/10 ARITHMETIC UNIT
APPRO. PROJ. ENGINEER				DATE	RELEASED	DATE	PROJECT NO.	DATE	PART NUMBER
									LM 0944930-0001
									REV AF

TEXAS INSTRUMENTS INCORPORATED				DATE 11/28/79 LIST OF MATERIAL		PAGE 4 of	PART NUMBER LM 0944930-0001	REV AF	
PART ITEM NUMBER	QUANTITY OF ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
JJ80	00001.000	EA		0946673-0018	PROGRAMMED ROM-CR#1 (U11)				
JJ80A					U1				
JJ81	00001.000	EA		0946673-0017	PROGRAMMED ROM-CR33 (U2)				
JJ81A					U2				
JJ82	00001.000	EA		0946673-0003	PROGRAMMED ROM-CK17 (U13)				
JJ82A					U13				
JJ83	00001.000	EA		0946673-0016	PROGRAMMED ROM-CK09 (U14)				
JJ83A					U14				
JJ84	00001.000	EA		0946673-0012	PROGRAMMED ROM-CR25 (U15)				
JJ84A					U15				
JJ85	00001.000	EA		0946673-0019	PROGRAMMED ROM-CR49 (U32)				
JJ85A					U32				
JJ86	00001.000	EA		0946673-0015	PROGRAMMED ROM-CR01 (U45)				
JJ86A					U45				
JJ87	00001.000	EA		0946673-0020	PROGRAMMED ROM-SCAL (U79)				
JJ87A					U79				
JJ88	00001.000	EA		0946673-0009	PROGRAMMED ROM-DCAL (U80)				
JJ88A					U80				
JJ91	00001.000	EA		0944930-5601	AUTO INSERTED PARTS FOR 944930-0001				
JJ92	00001.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	KOH - R-25			
DRAFTSMAN				DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE
									990/10 ARITHMETIC UNIT
APPRO. PROJ. ENGINEER				DATE	RELEASED	DATE	PROJECT NO.	DATE	PART NUMBER
									LM 0944930-0001
									REV AF

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL			PAGE 5 of		PART NUMBER LM 0944930-0001		REV AF		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
JJ92A					R7						
JJ93	00002.000	EA		0972456-0002	PIN, .025 SQUARE	BEI - 75481-002					
JJ93A					E1 E2						
JJ94	00001.000	EA		0972487-0001	JUMPER PLUG, CONNECTOR BLACK						
JJ94A					P7						
JJ95	KEF	EA		0945072-9901	990/10 MICROCODE						
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE 990/10 ARITHMETIC UNIT				
APP. MFG.		DATE	APP. PROJECT ENGINEER	DATE	RELEASED	DATE	PART NUMBER LM 0944930-0001				

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL			PAGE 1 of		PART NUMBER LM 0944930-5001		REV AF		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
JJ01	00001.000	EA		0944931-0001	P48-AU1, 990/10						
JJ17	00002.000	EA		0219402-7400	NETWORK SN74LS04N						
JJ17A					U29, U44						
JJ19	00002.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N					
JJ19A					U25, U78						
JJ20	00002.000	EA		0972900-7402	NETWORK SN74LS02N						
JJ20A					U20, U49						
JJ23	00001.000	EA		0972749-0001	NETWORK, SN74LS08N						
JJ23A					U27						
JJ24	00001.000	EA		0972900-7410	NETWORK SN74LS10N						
JJ24A					U18						
JJ26	00002.000	EA		0219402-7420	NETWORK SN74LS20N						
JJ26A					U8, U42						
JJ28	00002.000	EA		0972813-0001	NETWORK-SN74LS21N						
JJ28A					U34, U117						
JJ29	00001.000	EA		0972814-0001	NETWORK-SN74LS27N						
JJ29A					U43						
JJ30	00001.000	EA		0972900-7432	NETWORK SN74LS32N	TI -SN74LS32N					
JJ30A					U57						
JJ31	00001.000	EA		0972822-0001	NETWORK-SN74LS37N						
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE AUTO INSERTED PARTS FOR 944930-0001				
APP. MFG.		DATE	APP. PROJECT ENGINEER	DATE	RELEASED	DATE	PART NUMBER LM 0944930-5001				

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL			PAGE 2 of		PART NUMBER LM 0944930-5001		REV AF		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
JJ31A					U17						
JJ33	00005.000	EA		0972783-0001	NETWORK, SN74LS42N BCD/DEC						
JJ33A					U3, U41, U63, U93, U96						
JJ34	00001.000	EA		0972900-7451	NETWORK SN74LS51N	TI -SN74LS51N					
JJ34A					U26						
JJ35	00001.000	EA		0240000-7452	NETWORK-SN74H52N						
JJ35A					U24						
JJ36	00002.000	EA		0972900-7474	NETWORK SN74LS74N						
JJ36A					U19, U28						
JJ37	00004.000	EA		0996116-0001	IC, SN74LS75N, 4-BIT BISTABLE LATCH	001295-SN74LS75N					
JJ37A					U59, U75, U91, U108						
JJ38	00001.000	EA		0972815-0001	NETWORK-SN74LS85N						
JJ38A					U114						
JJ39	00001.000	EA		0972751-0001	NETWORK, SN74LS86N						
JJ39A					U36						
JJ40	00003.000	EA		0972900-7109	NETWORK SN74LS109N	TI -SN74LS109N					
JJ40A					U33, U35, U54						
JJ41	00001.000	EA		0219402-7114	NETWORK SN74LS114N						
JJ41A					U62						
JJ42	00001.000	EA		0222222-7125	NETWORK SN74LS25N						
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE AUTO INSEKTED PARTS FOR 944930-0001				
APP. MFG.		DATE	APP. PROJECT ENGINEER	DATE	RELEASED	DATE	PART NUMBER LM 0944930-5001				

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL			PAGE 3 of		PART NUMBER LM 0944930-5001		REV AF		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
JJ42A					U47						
JJ44	00002.000	EA		0801383-0001	NETWORK SN74LS151N						
JJ44A					U9, U10						
JJ45	00010.000	EA		0972900-7153	NETWORK SN74LS153N	TI -SN74LS153N					
JJ45A					U39, U40, U55, U56, U71, U72, U87						
JJ45B					U88, U104, U105						
JJ46	00002.000	EA		0972886-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N						
JJ46A					U38, U74						
JJ47	00005.000	EA		0222222-7163	NETWORK SN74LS163N						
JJ47A					U61, U77, U93, U110, U116						
JJ48	00002.000	EA		0222222-7173	NETWORK SN74LS173N						
JJ48A					U113, U115						
JJ49	00001.000	EA		0972900-7174	NETWORK SN74LS174N						
JJ49A					U23						
JJ50	00005.000	EA		0972900-7175	NETWORK SN74LS175N						
JJ50A					U22, U50, U66, U82, U98						
JJ51	00001.000	EA		0972811-0001	NETWORK-SN74LS280N						
JJ51A					U58						
JJ53	00001.000	EA		0222222-7182	NETWORK SN74LS82N						
JJ53A					U107						
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE AUTO INSEKTED PARTS FOR 944930-0001				
APP. MFG.		DATE	APP. PROJECT ENGINEER	DATE	RELEASED	DATE	PART NUMBER LM 0944930-5001				

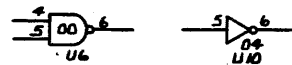
ITEM FROM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	QTY. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
JJ54	00004.000	EA		0972900-7194	NETWORK SN74LS194N	TI -SN74LS194N
JJ54A					U54,U70,U86,U103	
JJ55	00004.000	EA		0972608-0001	NETWORK SN74LS251N	
JJ55A					U4,U5,U6,U7	
JJ56	00002.000	EA		0972900-7253	NETWORK SN74LS253N	TI -SN74LS253N
JJ56A					U83,U99	
JJ57	00007.000	EA		0990130-0001	IC,SN74LS257N,DATA SELECTORS/MULTIPLEXER	TI -SN74LS257N
JJ57A					U92,U53,U68,U69,U84,U85,	
JJ57B					U102	
JJ61	00001.000	EA		0972946-0047	RES FIX 180 OHM 5 % .25 W CARBON FILM	ROH - R-25
JJ61A					R4	
JJ62	00001.000	EA		0972946-0051	RES FIX 270 OHM 5 % .25 W CARBON FILM	ROH - R-25
JJ62A					R5	
JJ63	00001.000	EA		0972946-0055	RES FIX 390 OHM 5 % .25 W CARBON FILM	ROH - R-25
JJ63A					R6	
JJ65	00002.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH - R-25
JJ65A					R1,R2	
JJ66	00071.000	EA		0972763-0021	CAP.,FIXED,AXIAL LEAD,.047 UF,+80%,-20%	
JJ66A					C4 THRU C16,C18 THRU C25	
JJ66B					C27 THRU C36, C38 THRU C72	
DRAFTSMAN DATE C.D. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED PARTS FOR 944930-0001						
APP'D. ENG. DATE APP'D. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM 0944930-5001 BY AF						

ITEM FROM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	QTY. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
JJ66L					C74,C76 THRU C79	
JJ89	00001.000	EA		0222222-7153	NETWORK SN74153N	-SN74153N
JJ89A					U37	
JJ90	00001.000	EA		0222222-7157	NETWORK SN74157N	
JJ90A					U90	
DRAFTSMAN DATE C.D. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED PARTS FOR 944930-0001						
APP'D. ENG. DATE APP'D. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM 0944930-5001 BY AF						

AU1 Logic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED:

- ALL DEVICE TYPES ARE PREFIXED WITH INT4
- GROUND IS APPLIED TO PIN 7 OF ALL 14-PIN IC'S AND PIN 8 OF ALL 16-PIN IC'S EXCEPT RESISTOR PACKAGES
- VCC IS APPLIED TO PIN 16 OF ALL 14-PIN IC'S AND PIN 16 OF ALL 16-PIN IC'S
- DEVICE TYPE, PIN NUMBERS, AND REFERENCE DESIGNATOR OF IC IS SHOWN AS FOLLOWS:



- 00 AND 04 = DEVICE TYPE
- 4, 5, AND 6 = PIN NUMBERS
- U6 AND U10 = REFERENCE DESIGNATOR
- ALL RESISTORS 1/4 WATT, 5%

REVISIONS			
REVISION	DESCRIPTION	DATE	APPROVED
A	CN408777(C) A. O. ...	7-16-77	[Signature]
B	...	8/11/77	[Signature]
C	CN422544(D) ...	10-9-77	[Signature]
D	CN420434(C) ...	1-2-78	[Signature]
E	CN429589(D) ...	7-5-78	[Signature]
F	CN450204(E) ...	9-6-79	[Signature]
G	CN473240(E) R. GUIDRY	3-31-80	[Signature]

INDEX OF SIGNALS IN LOGIC DIAGRAM 944932

SIGNAL	SH	SIGNAL	SH	SIGNAL	SH	SIGNAL	SH
ABALO-THRU ABAL6-	4	DEQ 2	7	LDMAP-	8	RAO THRU RA7	8
AEQB	4	DIO THRU DI15	2	LDMAPID-	7	RESET-	8
AEQB15	4	DST 0 THRU DST 8	8	LDSFSET-	8	XOPD0NE	8
AEQBMS	4	ENA- THRU ENF-	5	LDSFO	8	XOPTHRE	8
AGT	6	ENCREU	8	LEVO THRU LEV3	5	XO1 THRU X2	8
ALC0MP	4	ENINC	8	LOAD	9	XOPLLG	2
ALUC0 THRU ALU15	4	ENJMP	8	LOAD 0/6	6	YO, Y1	2
ALUC0 THRU ALUC4	4	ENMPY TST	8	LOAD 7/8	6	Y0A, Y1A	4
ALUC1A THRU ALUC4A	4	ENTRAP0UT-	5	LOADFFCLR-	8	12042MSK	8
ALUSPLIT-	4	ENX0P-	8	LOADFFQ	9		
ARITH	6	EQ1	8	LSBMSK	4		
ARITH/ADD	6	FAULT-	8	LSOV	4		
A0 THRU A7	2	FMTIBYTE	7	MAC THRU MAC6	8		
A8 THRU A15	3	F0RCE0UT-	8	MA7 THRU MA14	8		
B0 THRU B15	5	F0RCEREV-	6	MAIS CLK-	8		
BUS B0 THRU BUS B9	5	HALT	9	MAIS SAV	8		
BYTE	7	H0LDEN	6	MACRY 1	8		
CARRY IN	4	IDEN	8	MACRY 2	8		
CARRY IN- CREV	8	IDLE-	7	MACRY 3	8		
CRUBITINA	9	IFLAG-	8	MAINL	8		
CKA	9	INT0PSET-	9	MALD-	8		
CLKL-	9	INTCRU-	8	MAP003, 006, 0010, 0013	8		
CLKI-THRU CLK 3-	9	INTPRES	9	MAP 1097, 1099	9		
C0MP	6	IRLD	8	MAP 2	8		
C0UT	4	IRL5LD-	8	MAP2CLR-	8		
C0UTDLY	4	IRO THRU IRI5	7	MASKLD-	6		
CRUBYTE	7	TRO/1	7	MOVW	7		
CRU0Q	4	IR0B7B	7	MPY TST	8		
CRU0UT	4	IR10A	7	MQCO	8		
CYREQ	8	IRCLK-	7	MQC1	8		
C0 THRU C7	2	IRLSCLK-	7	H0D MQ7, MQ8	5		
C8 THRU C15	3	IRX0 THRU IRX3	3	ODD BYTE	2		
C6A	6	JUMP-	6	OPCALEN-	7		
DCALEN	7	JUMPO THRU JUMPT	7	PINT-	9		
DECO-DEC 3	8	LDDF0SET-	8	PRI0RITY	9		
DEQB	7	LDDFQ	9	PR/INT B0	9		
				PRIV 0PSET-	8		
				PRVLOAD	8		
				RAEN	8		
				RAL0AD-	8		

SPARES

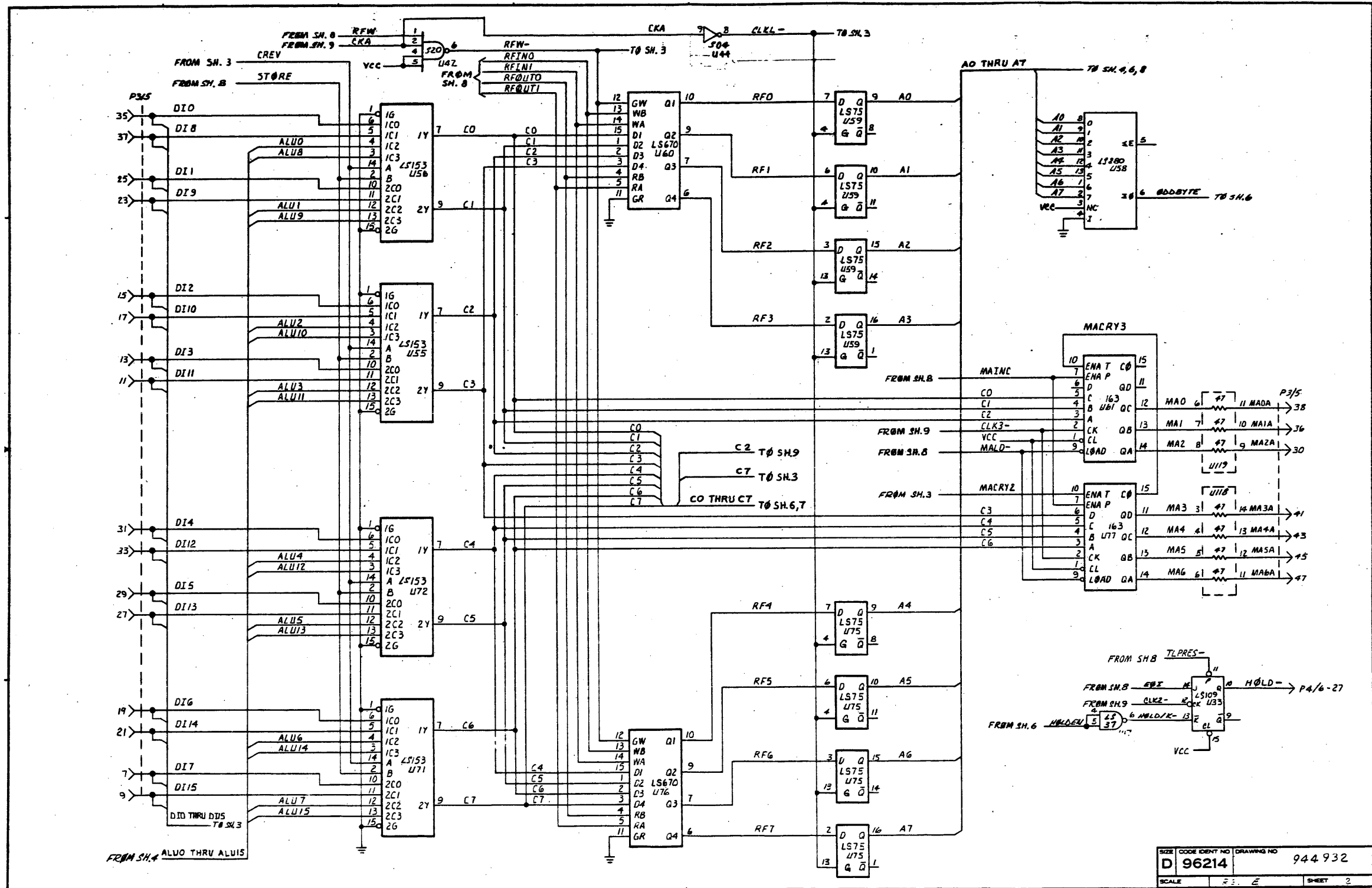
TYPE	LOCATION	PINS
LS00	U25	8, 9, 10
LS02	U49	4, 5, 6
S04	U44	5, 6, 10, 11
LS08	U27	8, 9, 10
LS27	U43	1, 2, 12, 13
LS51	U26	1, 8, 9, 10, 11, 12, 13
S114	U62	8, 9, 10, 11, 12, 13
LS5	U47	8, 9, 10, 11, 12, 13
175	U23	14, 15

REV	STATUS	REV	DATE	BY	CHKD	DATE	BY	CHKD
1	2	3	4	5	6	7	8	9

QTY	REQD	REV	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
PARTS LIST							
UNLESS OTHERWISE SPECIFIED: REMOVE ALL BURRS AND SHARP EDGES CONCENTRICITY MACHINED DIAMETERS 0.015 IN DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100						UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: ANGLES ±1° 3 PLACE DECIMALS ±0.010 2 PLACE DECIMALS ±0.005	
MATERIAL						DATE: 10/27/78 DWG: 513176 CHK: K. LEE 5/13/76 APPD: 5/13/76 CONTR NO:	
HOLE TOLERANCE 0.13 +.004 THRU +.004 1.25 - .001 THRU - .001 1.90 +.008 THRU +.010 1.76 - .001 THRU - .001 2.005 - .001						DESIGN ACTIVITY RELEASE DATE: 11/16	
NEXT ASSY USED ON						SIZE: CODE IDENT NO: DRAWING NO: D 96214 944932	
APPLICATION						SCALE: X.25 SHEET 1 OF 10	

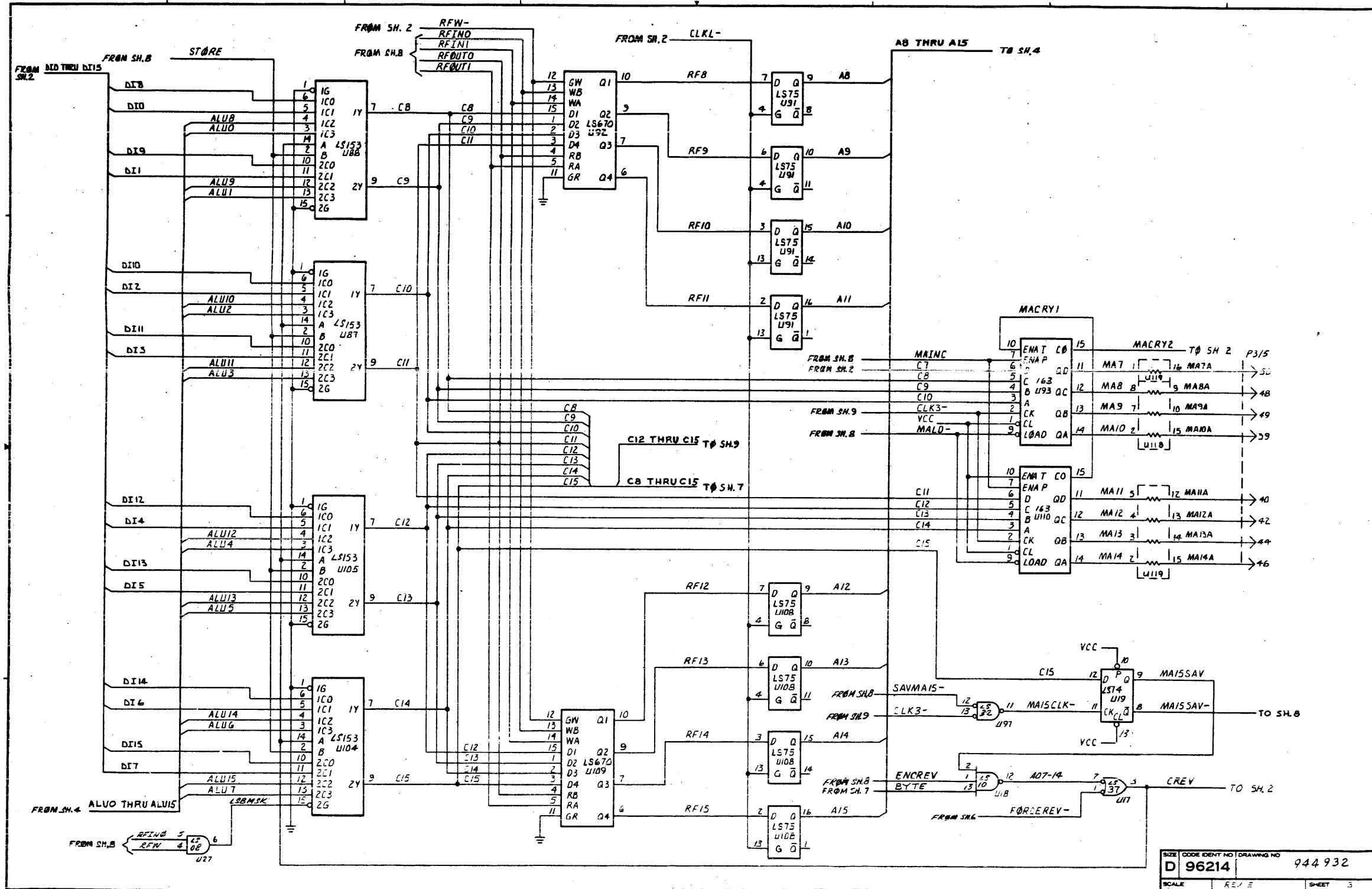
TEXAS INSTRUMENTS  
INCORPORATED  
Equipment Group  
Dallas, Texas

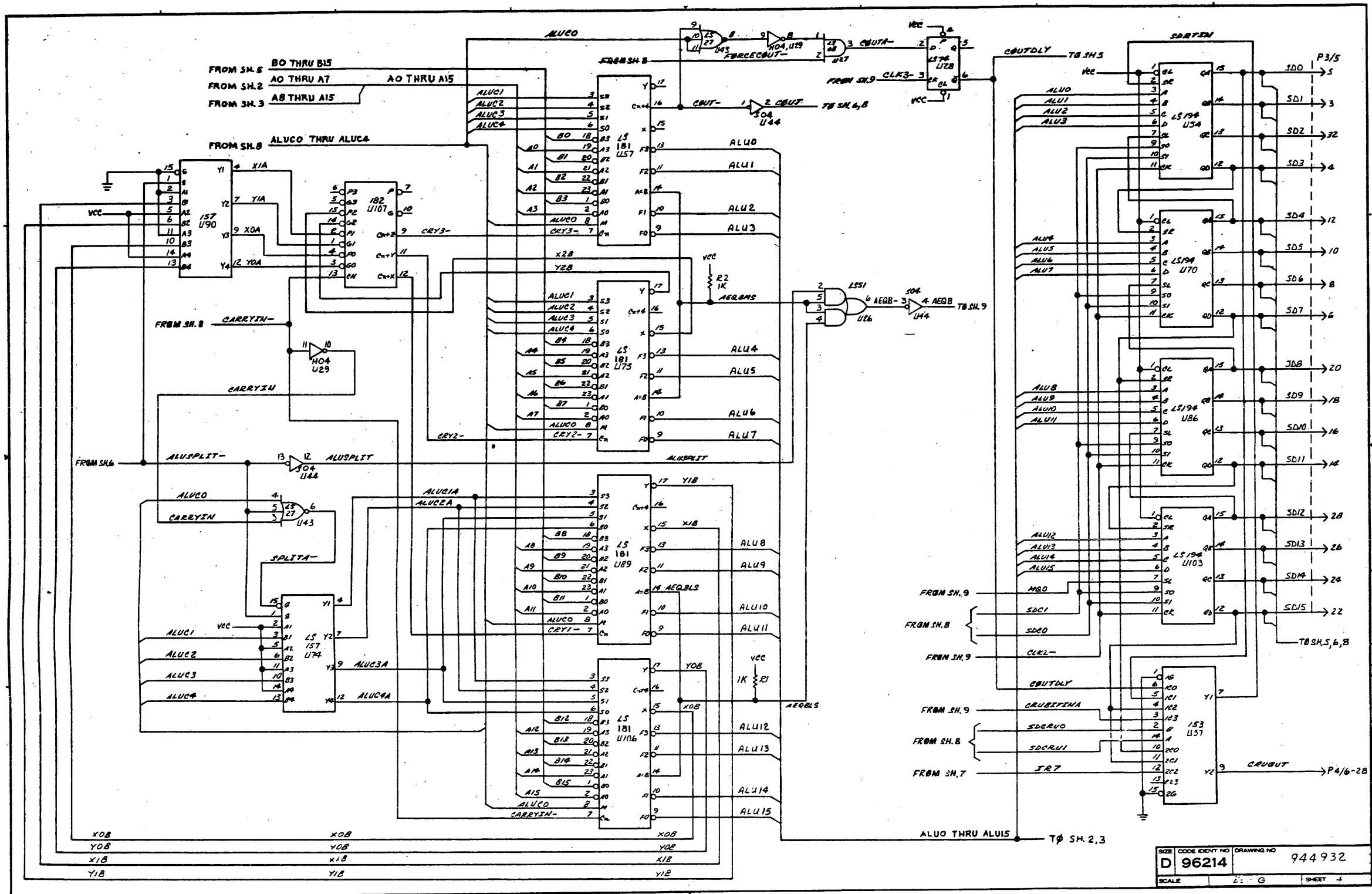
LOGIC DIAGRAM -  
AU #1, 990/10



SIZE	CODE IDENT NO	DRAWING NO
D	96214	944932
SCALE	F 3	SHEET 2

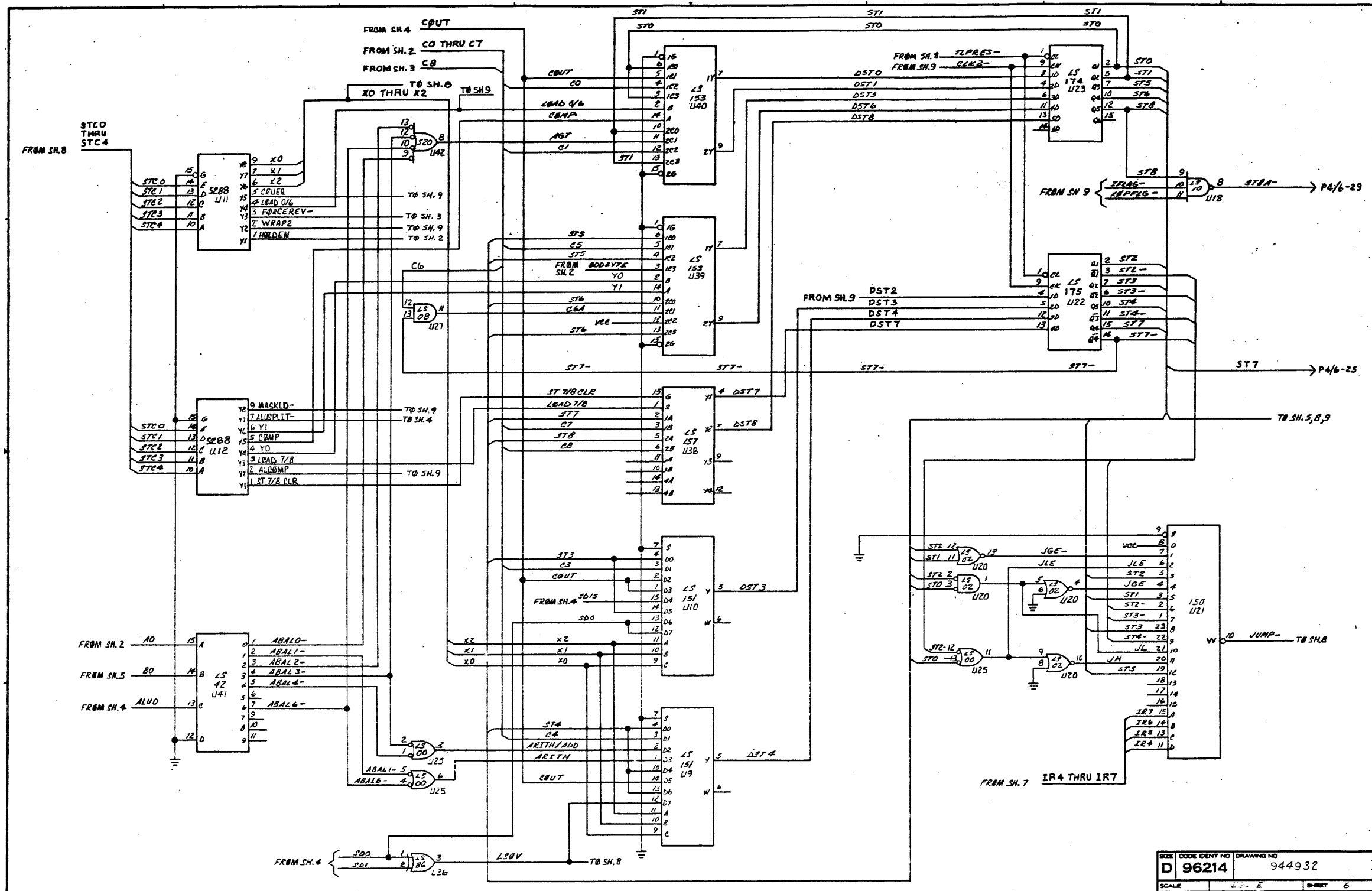
AU1 Logic Diagram



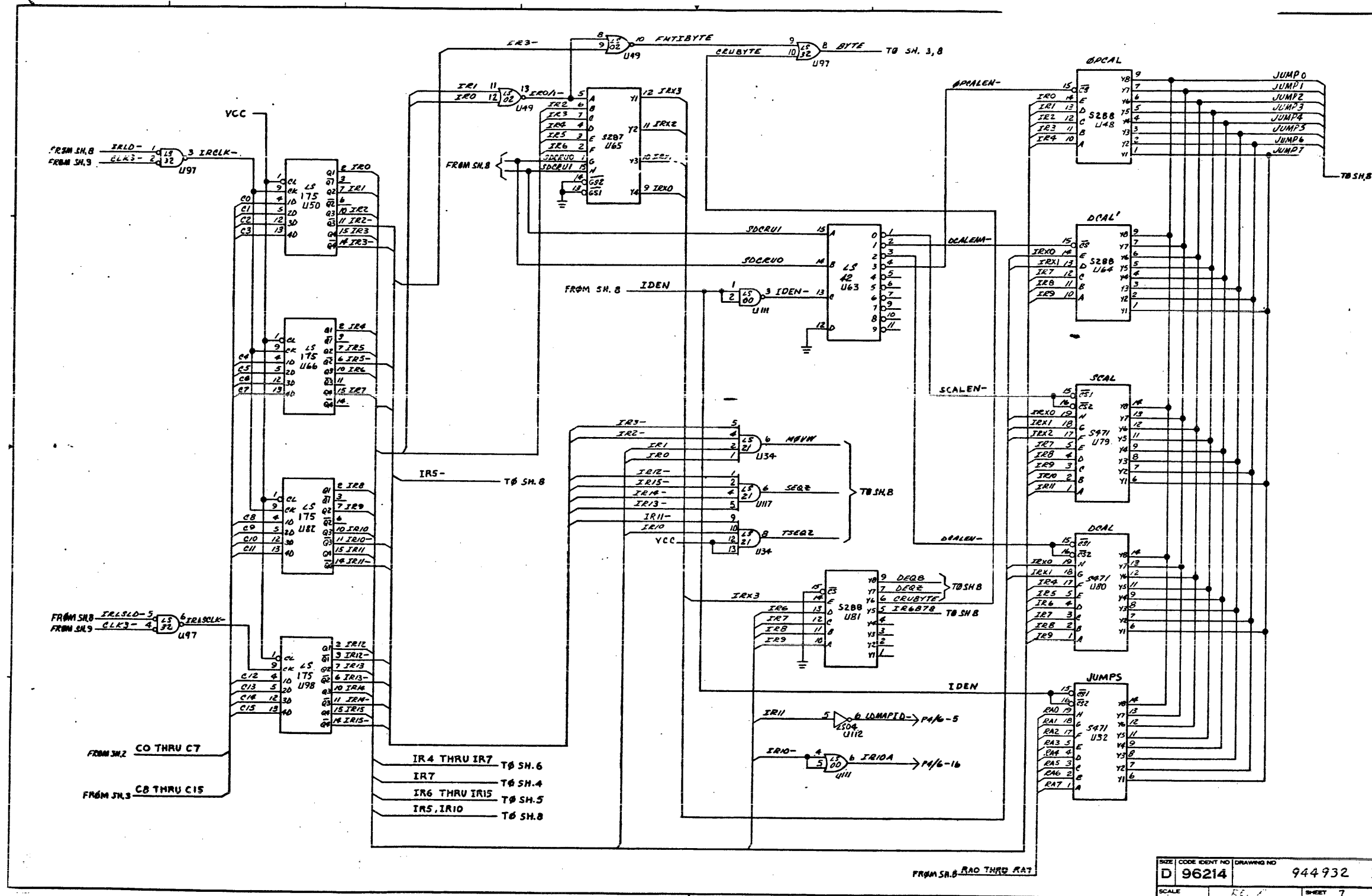




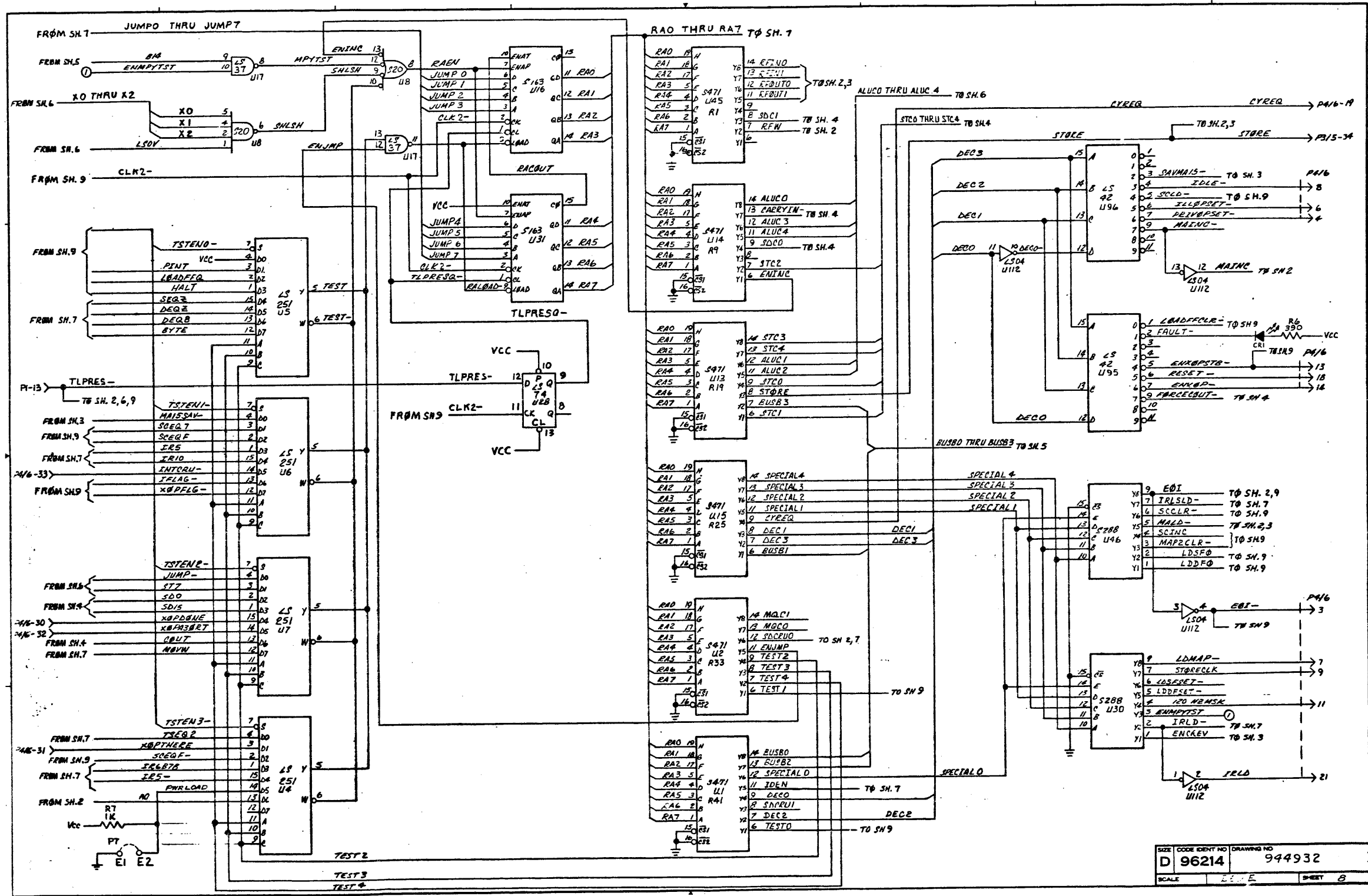




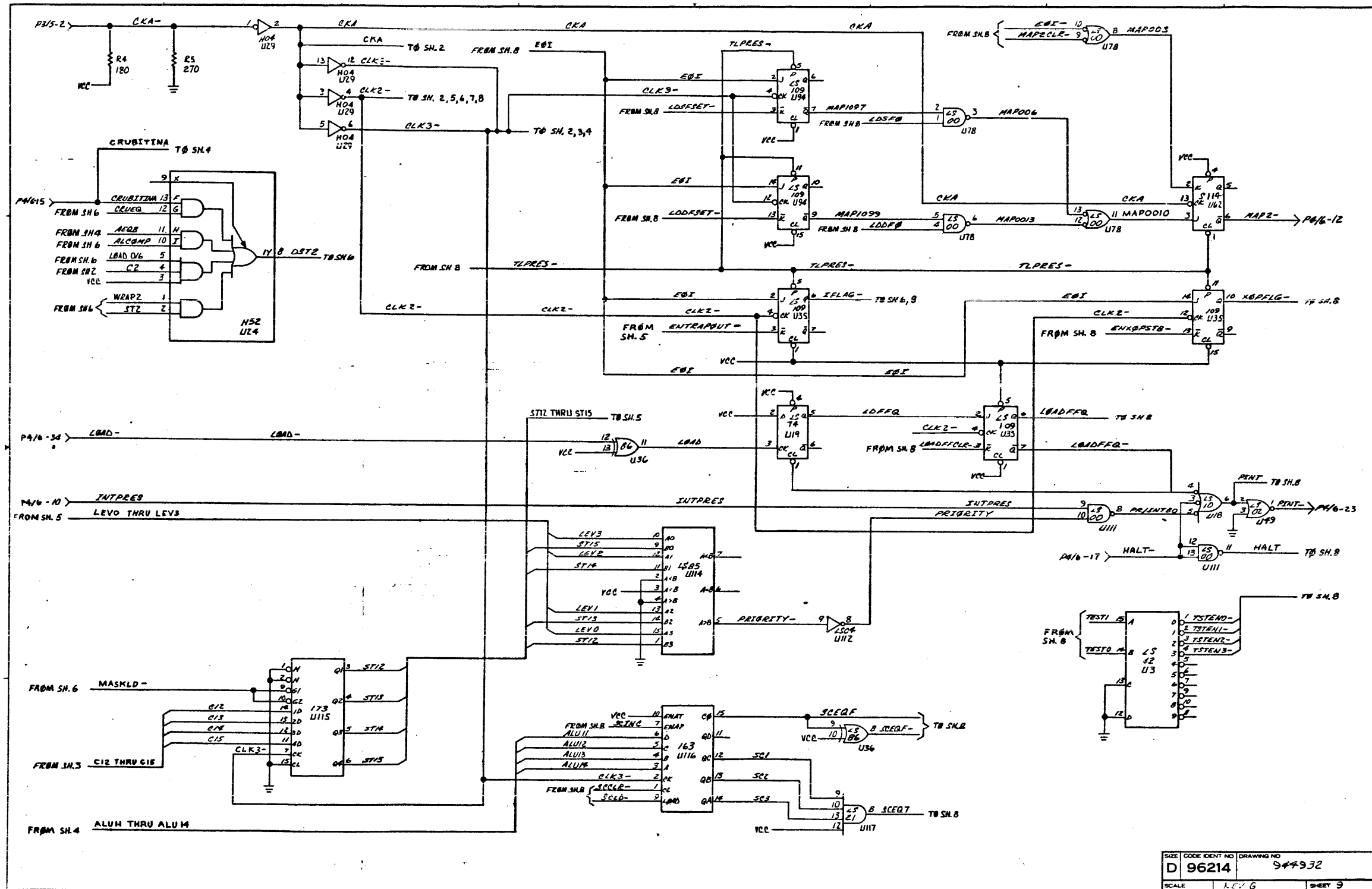
SIZE	CODE IDENT NO	DRAWING NO
D	96214	944932
SCALE	2.5	SHEET 6



SIZE	CODE IDENT NO	DRAWING NO
D	96214	944932
SCALE	REL	SHEET 7



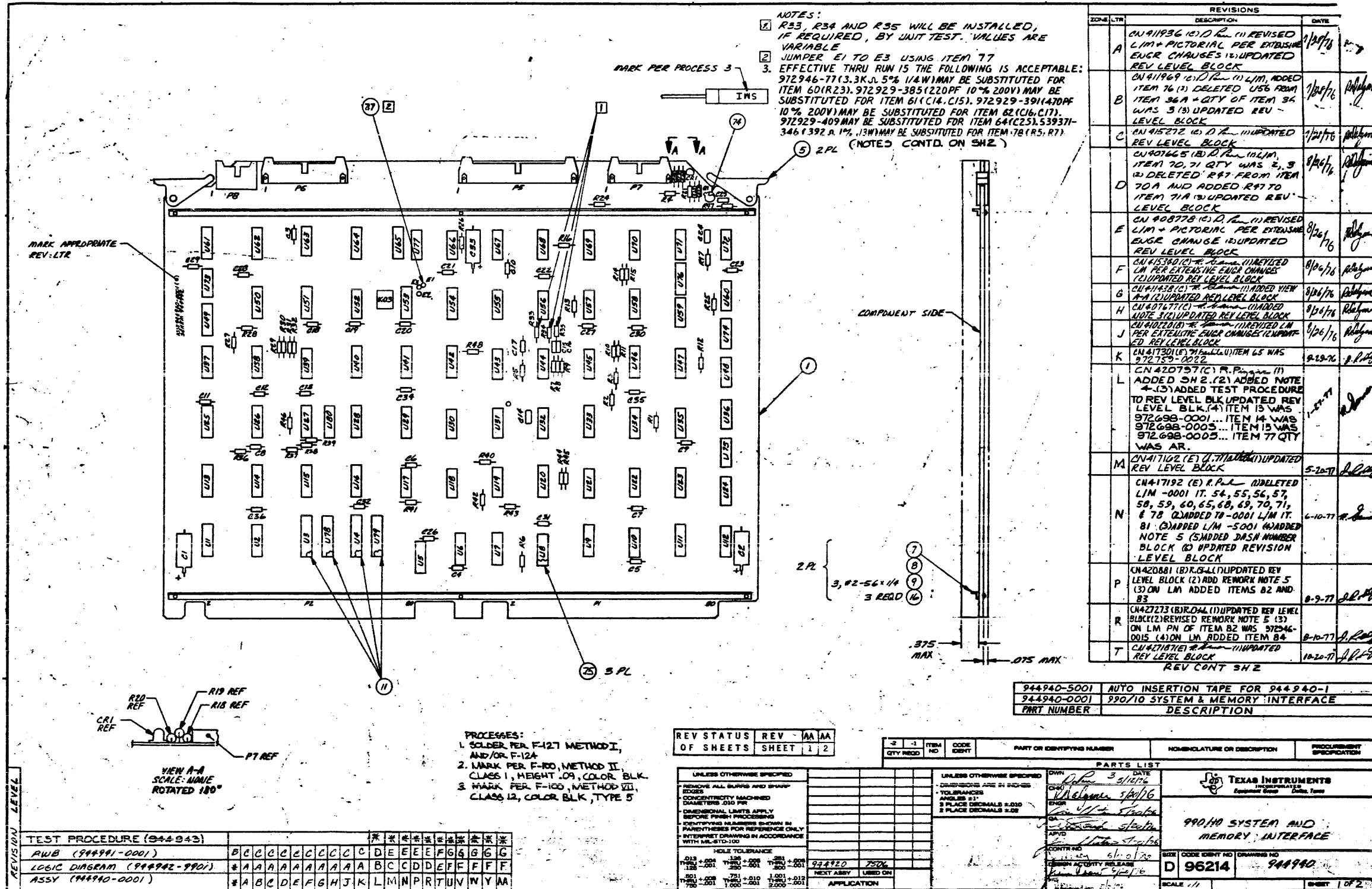
### AU1 Logic Diagram



SIZE	CODE IDENT NO	DRAWING NO
D	96214	944932
SCALE	1:1	SHEET 9

REF.	TYPE	PAGE(S)	REF.	TYPE	PAGE(S)
U1	S471	8	U64	S288	7
U2	S471	8	U65	S287	7
U3	LS42	9	U66	LS175	7
U4	LS251	8	U67	S288	5
U5	LS251	8	U68	LS257	5
U6	LS251	8	U69	LS257	5
U7	LS251	8	U70	LS194	4
U8	S20	8	U71	LS153	2
U9	LS151	6	U72	LS153	2
U10	LS151	6	U73	LS181	4
U11	S288	6	U74	LS157	4
U12	S288	6	U75	LS75	2
U13	S471	8	U76	LS670	2
U14	S471	8	U77	163	2
U15	S471	8	U78	LS00	9
U16	S163	8	U79	S471	7
U17	LS37	2,3,8	U80	S471	7
U18	LS10	3,4,9	U81	S288	7
U19	LS74	3,9	U82	LS175	7
U20	LS02	6	U83	LS253	5
U21	LS0	6	U84	LS257	5
U22	LS175	6	U85	LS257	5
U23	LS174	6	U86	LS194	4
U24	H52	9	U87	LS153	3
U25	LS00	6	U88	LS153	3
U26	LS51	4	U89	LS181	4
U27	LS08	3,4,6	U90	LS157	4
U28	LS74	4,8	U91	LS75	3
U29	H04	4,9	U92	LS670	3
U30	S288	8	U93	163	3
U31	S163	8	U94	LS109	9
U32	S471	7	U95	LS42	8
U33	LS109	2,9	U96	LS42	8
U34	LS21	7	U97	LS32	3,7
U35	LS109	9	U98	LS175	7
U36	LS86	5,6,9	U99	LS253	5
U37	153	4	U100	S299	5
U38	LS157	6	U101	S288	5
U39	LS153	6	U102	LS257	5
U40	LS153	6	U103	LS194	4
U41	LS42	6	U104	LS153	3
U42	S20	2,6	U105	LS153	3
U43	LS27	4	U106	LS181	4
U44	S04	2,4	U107	182	4
U45	S471	8	U108	LS75	3
U46	S288	8	U109	LS670	3
U47	125	5	U110	163	3
U48	S288	7	U111	LS00	7,9
U49	LS02	7,9	U112	LS04	7,8,9
U50	LS175	7	U113	173	5
U51	S299	5	U114	LS85	9
U52	LS257	5	U115	173	9
U53	LS257	5	U116	163	9
U54	LS194	4	U117	LS21	7,9
U55	LS153	2	U118	47a	2,3
U56	LS153	2	U119	47b	2,3
U57	LS181	4	R1	1K <sub>a</sub>	4
U58	LS280	2	R2	1K <sub>a</sub>	4
U59	LS75	2	R4	180 <sub>a</sub>	9
U60	LS670	2	R5	270 <sub>a</sub>	9
U61	163	2	R6	390	8
U62	S114	9	R8	CR1	8
U63	LS42	7	R7	1K <sub>a</sub>	8

SIZE	CODE IDENT NO	DRAWING NO
D	96214	944932
SCALE	REV 5	SHEET 10



NOTES:  
 1. R53, R54 AND R55 WILL BE INSTALLED, IF REQUIRED, BY UNIT TEST. VALUES ARE VARIABLE  
 2. JUMPER E1 TO E3 USING ITEM 77  
 3. EFFECTIVE THRU RUN 15 THE FOLLOWING IS ACCEPTABLE:  
 972946-77 (3.3K Ω, 5% 1/4W) MAY BE SUBSTITUTED FOR ITEM 60 (R23), 972929-385 (220PF 10% 200V) MAY BE SUBSTITUTED FOR ITEM 61 (C14, C15), 972929-391 (470PF 10% 200V) MAY BE SUBSTITUTED FOR ITEM 62 (C16, C17), 972929-409 MAY BE SUBSTITUTED FOR ITEM 64 (C25), 539371-346 (392 Ω, 1% 1/3W) MAY BE SUBSTITUTED FOR ITEM 76 (R5, R7)  
 4. 2 PL (NOTED CONTD. ON SHZ.)

ZONE	LTR	DESCRIPTION	DATE
A		CA 911936 (10) D R (1) REVISED LIM + PICTORIAL PER EXTENSIVE ENGR CHANGE'S (1) UPDATED REV LEVEL BLOCK	1/24/76
B		CA 911969 (10) D R (1) LIM, ADDED ITEM 76 (2) DELETED U56 FROM ITEM 36 A + QTY OF ITEM 34 WAS 3 (3) UPDATED REV LEVEL BLOCK	1/24/76
C		CA 915272 (10) D R (1) UPDATED REV LEVEL BLOCK	1/24/76
D		CA 907665 (10) D R (1) LIM, ITEM 70, 71 QTY WAS 2, 3 (2) DELETED R47 FROM ITEM 70 A AND ADDED R47 TO ITEM 71 A (3) UPDATED REV LEVEL BLOCK	8/26/76
E		CA 908778 (10) D R (1) REVISED LIM + PICTORIAL PER EXTENSIVE ENGR CHANGE (2) UPDATED REV LEVEL BLOCK	8/26/76
F		CA 915300 (10) D R (1) REVISED LIM PER EXTENSIVE ENGR CHANGES (1) UPDATED REV LEVEL BLOCK	8/26/76
G		CA 914383 (10) D R (1) ADDED VIEW A-A (2) UPDATED REV LEVEL BLOCK	8/26/76
H		CA 910767 (10) D R (1) ADDED NOTE 3 (1) UPDATED REV LEVEL BLOCK	8/26/76
J		CA 910768 (10) D R (1) REVISED LIM PER EXTENSIVE ENGR CHANGES (2) UPDATED REV LEVEL BLOCK	8/26/76
K		CA 917301 (10) D R (1) ITEM 65 WAS 972759-0022	8-29-76
L		CA 920757 (10) D R (1) ADDED SH 2 (2) ADDED NOTE 4 (3) ADDED TEST PROCEDURE TO REV LEVEL BLK (4) ITEM 13 WAS 972698-0001... ITEM 14 WAS 972698-0005... ITEM 15 WAS 972698-0005... ITEM 77 QTY WAS 4R.	10-11-77
M		CA 917192 (E) D R (1) ADDED (1) UPDATED REV LEVEL BLOCK	5-20-77
N		CA 917192 (E) D R (1) DELETED LIM -0001 IT. 54, 55, 56, 57, 58, 59, 60, 65, 68, 69, 70, 71, & 78 (2) ADDED 78-0001 LIM IT. 81 (3) ADDED LIM -5001 (4) ADDED NOTE 5 (5) ADDED DASH NUMBER BLOCK (6) ADDED REVISION LEVEL BLOCK	6-10-77
P		CA 920881 (10) D R (1) UPDATED REV LEVEL BLOCK (2) ADD REMARK NOTE 5 (3) ON LIM ADDED ITEMS 82 AND 83	8-9-77
R		CA 927273 (10) D R (1) UPDATED REV LEVEL BLOCK (2) REVISED REMARK NOTE 5 (3) ON LIM PN OF ITEM 82 WAS 572946-0015 (4) ON LIM ADDED ITEM 84	8-10-77
T		CA 947187 (10) D R (1) UPDATED REV LEVEL BLOCK REV CONT SH 2	10-20-77

944940-5001	AUTO INSERTION TAPE FOR 944940-1
944940-0001	990/10 SYSTEM & MEMORY INTERFACE
PART NUMBER	DESCRIPTION

REVISION	LEVEL	TEST PROCEDURE (944943)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	R	T	U	V	W	Y	AA
RWB	(944941-0001)		B	C	C	C	C	C	C	C	C	D	E	E	E	F	F	F	F	F	F	F	F	G
	LOGIC DIAGRAM (944942-9901)		A	A	A	A	A	A	A	A	A	B	C	C	D	D	E	F	F	F	F	F	F	F
	ASSY (944940-0001)		A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	T	U	V	W	Y	AA	

- PROCESSES:  
 1. SOLDER PER F-127 METHOD I, AND/OR F-124  
 2. MARK PER F-100, METHOD II, CLASS I, HEIGHT .09, COLOR BLK.  
 3. MARK PER F-100, METHOD VII, CLASS 12, COLOR BLK, TYPE 5

REV STATUS	REV	AA	AA
OF SHEETS	SHEET	1	2

UNLESS OTHERWISE SPECIFIED	
REMOVE ALL BURRS AND SHARP EDGES	
CONCENTRICITY MACHINED DIAMETERS .030 P/R	
DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING	
IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY	
INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100	

UNLESS OTHERWISE SPECIFIED	
DIMENSIONS ARE IN INCHES	
TOLERANCES	
ANGLES ±1°	
3 PLACE DECIMALS ±.030	
2 PLACE DECIMALS ±.02	

PARTS LIST

DATE: 3/10/76

DESIGNED BY: [Signature]

CHECKED BY: [Signature]

APPROVED BY: [Signature]

CONTRACT NO: 6110120

ISSUE DATE: 5/24/76

SCALE: 1/1

SHEET: 1 OF 2

TEXAS INSTRUMENTS  
Equipment Group

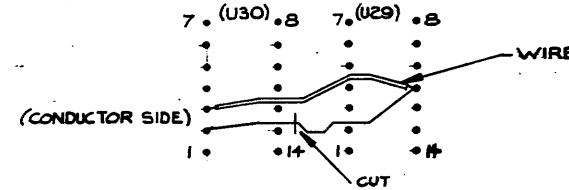
990/10 SYSTEM AND MEMORY INTERFACE

SIZE: CODE IDENT NO: DRAWING NO: D 96214 944940

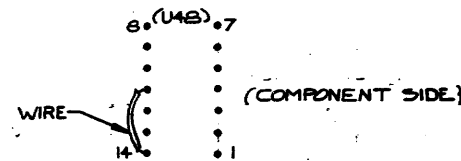
NOTES: CONT

4. REWORK PROCEDURE FOR PWB 944941 REV(C)

A. CUT ETCH BETWEEN U29-11 & U30-2. ADD WIRE CONDUCTOR SIDE (30 GA) INSULATED BETWEEN U29-11 & U30-3



D. ADD WIRE ON FRONT OF BOARD (COMPONENT SIDE) FROM U4B-11 TO U4B-14

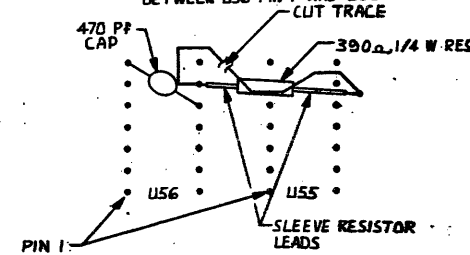


5. REWORK FOR PWB 944941 REV B THRU F.

A. ON CIRCUIT SIDE OF BOARD CUT TRACE CONNECTING U56 PIN 9 TO FEED THRU ADJACENT TO U55 PIN 9 AND 10.

B. INSTALL R49 (390  $\Omega$  1/4 W. 5%) ON CIRCUIT SIDE BETWEEN U56 PIN 9 AND ABOVE FEED THRU ADJACENT TO U55 PINS 9 AND 10. SLEEVE EXPOSED RESISTOR LEADS USING ITEM 84.

C. INSTALL C37 (470 Pp) ON CIRCUIT SIDE BETWEEN U56 PIN 7 AND U56 PIN 10.



6. REWORK FOR 944941 REV B THRU F PWB:

A. CUT I.C. PINS OF U66-4, 5, 6 AND 9. ISOLATE CUT PINS FROM ETCH.

B. ADD THE FOLLOWING WIRES (ITEM 77) TO ASSEMBLY:

- U59-8 TO U66-10 (I.C. PIN)
- U59-9 TO U57-3
- U59-10 TO U21-8
- U68-9 TO U66-9 (I.C. PIN)

REVISES		DATE	APPROVED
U	CN441077(B) REV (1) REV LEVEL OF PWB WAS E (2) UPDATED REV LEVEL BLK SH 2 (3) ADDED NOTE 6 (4) NOTE 5 REAR-944941 REV B,C,D AND E	1-27-78	<i>[Signature]</i>
V	CN 430758 (C) & B ADD (1) REVISED LM PER EXTENSIVE ENGR CHANGES (2) UPDATED REV LVL BLK	1-24-79	<i>[Signature]</i>
W	CN450507(E) REV (1) EN C-5 DELETE C34 (2) EN B-5 REF BALLOON WAS 60 (3) UPDATED REV LEVEL BLOCK	3-6-79	<i>[Signature]</i>
Y	CN450533 (D) REV (1) ADDED R33, R34, & R35 BETWEEN U44 & U56, ZONE C-5 (2) UPDATED REV LEVEL BLOCK	10 DEC 79	<i>[Signature]</i>
AA	CN454124 (C) REV (1) ON -0001 LM ADDED ITEMS 18, 21, 34, 36, 49 & 50 (2) UPDATED REV LEVEL BLOCK	2-11-80	<i>[Signature]</i>

SIZE	CODE IDENT NO	DRAWING NO
D	96214	944940
SCALE	NAME	SHEET
	REV AA	Z

TEXAS INSTRUMENTS INCORPORATED		DATE 02/05/80		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM 0944940-0001		REV AA	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0002	REF	EA		0944942-9901	LOGIC DIAGRAM-AU2, W/D MAPPING						
0003	REF	EA		0944943-9901	TEST PROCEDURE-AU2, W/D MAPPING						
0004	REF	EA		0944921-9901	SPECIFICATION, CPU, 990/10						
0005	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB						
0007	00002.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN						
0008	00002.000	EA		0944954-0001	INSULATOR, PWB, 14IN						
0009	00000.000	EA		0972684-0002	SCREW,TMD FRMG,HEX WSHR HD,2-56X1/4 LG						
0010	00001.000	EA		2210188-0001	SOCKET,LOW PROFILE,DIP, 3 CONT, 8 PINS	003612-DIL88P-108					
0010A					K03						
0011	00004.000	EA		2210188-0005	SOCKET, LOW PROFILE, DIP, 20 PINS	003612-DIL820P-108					
0011A					XU3 XU4 XU78 XU79						
0012	00001.000	EA		0972706-0001	CONNECTOR,PWB,10P,RT.A,SORTL,HDR,FLTCBL	015912-609-1002H					
0012A					P8						
0013	00001.000	EA		0972137-0001	CONNECTOR,PC-HEADER 20 CONTACT	BEI - 65483-001					
0013A					P7						
0014	00001.000	EA		0972137-0003	CONNECTOR ONE AMP 500VDC 34 CONTACT	076381-3431-1002					
0014A					P6						
0015	00001.000	EA		0972137-0005	CONNECTOR,PC 50 PIN	BEI - 65483-005					
0015A					P5						
0016	00000.000	EA		0418730-0101	WASHER,NYLON						
DRAFTSMAN		DATE		DESIGN ENGINEER		DATE		TITLE			
		2-6-80						990/10 SYSTEM & MEMORY INTERFACE			
APPROVED		DATE		RELEASED		DATE		PROJECT NO.		PART NUMBER	
								7506		LM 0944940-0001	

TEXAS INSTRUMENTS INCORPORATED		DATE 02/05/80		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM 0944940-0001		REV AA	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0018	00001.000	EA		0972900-7600	NETWORK SN74LS00N	TI -SN74LS00N					
0018A					U19						
0021	00001.000	EA		0972900-7404	NETWORK SN74LS04N						
0021A					U73						
0028	00001.000	EA		0972784-0001	NETWORK SN74LS13N						
0028A					U71						
0034	00001.000	EA		0972900-7430	NETWORK SN74LS30N	TI -SN74LS30N					
0034A					U17						
0036	00001.000	EA		0972782-0001	NETWORK SN74LS132N	TI -SN74LS132N					
0036A					U8						
0049	00001.000	EA		0972787-0003	NETWORK SN74LS367N						
0049A					U5						
0050	00001.000	EA		0972787-0004	NETWORK SN74LS368N						
0050A					U25						
0061	00001.000	EA		0539679-0004	CAPACITOR, 220 PF 2X 100V FX CER DIE	095275-VK208A221G					
0061A					C15						
0062	00002.000	EA		0539679-0008	CAPACITOR, 470 PF 2X 100V FX CER DIE	095275-VK208A471G					
0062A					C16 C17						
0063	00001.000	EA		0539679-0003	CAPACITOR, 680 PF 2X 100V FX CER DIE	095275-VK208A681G					
0063A					C24						
DRAFTSMAN		DATE		DESIGN ENGINEER		DATE		TITLE			
								990/10 SYSTEM & MEMORY INTERFACE			
APPROVED		DATE		RELEASED		DATE		PROJECT NO.		PART NUMBER	
										LM 0944940-0001	

TEXAS INSTRUMENTS INCORPORATED		DATE 02/05/80		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM 0944940-0001		REV AA	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0064	00001.000	EA		0972929-0409	CAP FIX CERAMIC 4700 PF 10 X 100 V	QPL -M39014/01-1409					
0064A					C25						
0066	00002.000	EA		0972924-0016	CAP FIX TANT SOLID 100 MFD 10 X 20 VOLT	QPL -M39003/1-2301					
0066A					C1 C2						
0067	00001.000	EA		0972948-0002	TRANSISTOR,2N2222A NPN GEN PURP SW TO-18	TI - 2N2222A					
0067A					Q1						
0072	00001.000	EA		0972924-0006	CAP FIX TANT SOLID 39 MFD 10 X 10 VOLT	QPL -M39003/1-2259					
0072A					C33						
0073	00001.000	EA		0226609-0001	DIODE,VISIBLE LIGHT EMITTING						
0073A					CR1						
0074	00001.000	EA		0972507-0001	INSULATOR DISC: TO-18	THR --7717-220					
0075	00003.000	EA		2210188-0002	SOCKET,LOW PROFILE,DIP, 14 PINS	003612-DIL814P-108					
0075A					XU8 XU56 XU71						
0076	00001.000	EA		0222222-7132	NETWORK SN74LS132N						
0076A					U56						
0077	00000.050	FT		0411400-0030	WIRE BARE TINNED COPPER 30 AWG ROUND BUS 1WP	- 30-630					
0080	00001.000	EA		0539679-0006	CAPACITOR, 330 PF 2X 100V FX CER DIE	095275-VK208A331G					
0080A					C14						
0081	00001.000	EA		0944940-5001	AUTO INSERTION TAPE FOR 944940-1						
0082	00001.000	EA		0972944-0055	RES FIX 390 OHM 5 X .25 W CARBON FILM	R0H - R-25					
DRAFTSMAN		DATE		DESIGN ENGINEER		DATE		TITLE			
								990/10 SYSTEM & MEMORY INTERFACE			
APPROVED		DATE		RELEASED		DATE		PROJECT NO.		PART NUMBER	
										LM 0944940-0001	

TEXAS INSTRUMENTS INCORPORATED		DATE 02/05/80		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM 0944940-0001		REV AA	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0082A					R49						
0083	00001.000	EA		0972757-0009	CAP FIX CER 470PF 10X 50V						
0083A					C37						
0084	00000.100	FT		0410499-0006	INSULATION SLEEVING,TEFLON #22 NATURAL	QPL -81349					
DRAFTSMAN		DATE		DESIGN ENGINEER		DATE		TITLE			
								990/10 SYSTEM & MEMORY INTERFACE			
APPROVED		DATE		RELEASED		DATE		PROJECT NO.		PART NUMBER	
										LM 0944940-0001	



TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM 0944940-5001		REV AA	
DATE 02/05/80		DATE 02/05/80		DATE 02/05/80		DATE 02/05/80		DATE 02/05/80	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0001	0001.000	EA		0944941-0001	PWB-AU2, W/O MAPPING				
0017	0002.000	EA		0219402-7404	NETWORK SN74S04N				
0017A					U67,U69				
0018	0001.000	EA		0972900-7400	NETWORK SN74LS00N	TI	-SN74LS00N		
0018A					U52				
0019	0002.000	EA		0219402-7400	NETWORK SN74S00N				
0019A					U47,U74				
0020	0002.000	EA		0240000-7404	NETWORK SN74H04N				
0020A					U10,U22				
0021	0002.000	EA		0972900-7404	NETWORK SN74LS04N				
0021A					U21,U34				
0022	0002.000	EA		0222222-7407	NETWORK-SN7407N	TI-	-SN7407N		
0022A					U44,U72				
0023	0001.000	EA		0972749-0001	NETWORK, SN74LS08N				
0023A					U39				
0024	0001.000	EA		0222222-7408	NETWORK-SN7408N				
0024A					U36				
0025	0002.000	EA		0996150-0001	OBsolete P/N REPLC BY 219402-7408	TI	-SN74S08N		
0025A					U57,U59				
0026	0000.000	EA		0219402-7410	NETWORK SN74LS10N				
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTION TAPE FOR 944940-1									
APPRO. MFG. DATE APPRO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 0944940-5001 AA									

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM 0944940-5001		REV AA	
DATE 02/05/80		DATE 02/05/80		DATE 02/05/80		DATE 02/05/80		DATE 02/05/80	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0026A					U12,U30,U50,U68				
0027	0001.000	EA		0240000-7411	NETWORK-SN74H11N				
0027A					U43				
0029	0001.000	EA		0972900-7410	NETWORK SN74LS10N				
0029A					U29				
0030	0002.000	EA		0219402-7420	NETWORK SN74S20N				
0030A					U45,U48				
0031	0001.000	EA		0972900-7420	NETWORK SN74LS20N				
0031A					U31				
0032	0001.000	EA		0219402-7474	NETWORK SN74S74N				
0032A					U70				
0033	0001.000	EA		0972814-0001	NETWORK-SN74LS27N				
0033A					U18				
0034	0001.000	EA		0972900-7430	NETWORK SN74LS30N	TI	-SN74LS30N		
0034A					U43				
0036	0001.000	EA		0972782-0001	NETWORK SN74LS132N	TI	-SN74LS132N		
0036A					U66				
0037	0002.000	EA		0222222-7437	NETWORK SN7437N				
0037A					U32,U75				
0038	0002.000	EA		0972783-0001	NETWORK,SN74LS42N RCD/DEC				
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTION TAPE FOR 944940-1									
APPRO. MFG. DATE APPRO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 0944940-5001 AA									

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM 0944940-5001		REV AA	
DATE 02/05/80		DATE 02/05/80		DATE 02/05/80		DATE 02/05/80		DATE 02/05/80	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0038A					U33,U65				
0039	0003.000	EA		0222222-7442	NETWORK-SN7442N				
0039A					U9,U11,U15				
0040	0003.000	EA		0972900-7474	NETWORK SN74LS74N				
0040A					U23,U24,U54				
0041	0001.000	EA		0222222-7474	NETWORK SN7474N		-SN7474N		
0041A					U35				
0042	0002.000	EA		0972900-7109	NETWORK SN74LS109N	TI	-SN74LS109N		
0042A					U61,U62				
0043	0001.000	EA		0222222-7125	NETWORK SN74125N				
0043A					U60				
0044	0001.000	EA		0972900-7139	NETWORK SN74LS139N	TI	-SN74LS139N		
0044A					U20				
0045	0002.000	EA		0222222-7148	NETWORK SN74148N				
0045A					U38,U40				
0046	0001.000	EA		0801383-0001	NETWORK SN74LS151N				
0046A					U64				
0047	0003.000	EA		0972900-7174	NETWORK SN74LS174N				
0047A					U37,U41,U42				
0048	0002.000	EA		0972900-7175	NETWORK SN74LS175N				
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTION TAPE FOR 944940-1									
APPRO. MFG. DATE APPRO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 0944940-5001 AA									

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM 0944940-5001		REV AA	
DATE 02/05/80		DATE 02/05/80		DATE 02/05/80		DATE 02/05/80		DATE 02/05/80	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0048A					U50,U51				
0049	0003.000	EA		0972787-0003	NETWORK SN74LS367N				
0049A					U1,U2,U16				
0050	0008.000	EA		0972787-0004	NETWORK SN74LS368N				
0050A					U6,U7,U13,U14,U26,U27,U28				
0050B					U80				
0051	0001.000	EA		0972556-0002	NETWORK SN74368N				
0051A					U76				
0052	0001.000	EA		0974674-0001	NETWORK SN75130N				
0052A					U46				
0053	0002.000	EA		0800118-0008	RESISTOR 1.0KOHMS DIL PULL UP 16 PINS	BEC	-8981R1.0K		
0053A					U49,U53				
0054	0008.000	EA		0972946-0033	RES FIX 47.0 OHM 5 % .25 W.CARBON FILM	ROH	- R-25		
0054A					R2 R3 R11 R14 R15 R18 R24				
0054B					R48				
0055	0003.000	EA		0972946-0047	RES FIX 180 OHM 5 % .25 W CARBON FILM	ROH	- R-25		
0055A					R1 R10 R19				
0056	0002.000	EA		0972946-0049	RES FIX 220 OHM 5 % .25 W CARBON FILM	ROH	- R-25		
0056A					R21 R22				
0057	0003.000	EA		0539370-0339	RES FIX FILM 332 OHM 1% .25 WATT	COR	-NA550-100PPM/C		
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTION TAPE FOR 944940-1									
APPRO. MFG. DATE APPRO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 0944940-5001 AA									

TEXAS INSTRUMENTS INCORPORATED		DATE 02/05/80		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LM 0944940-5001		REV AA	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0057A					R6 R8 R17						
0058	00002.000	EA		0972944-0055	RES FIX 390 OHM 5 1/2 .25 W CARBON FILM	ROH - R-25					
0058A					R12 R20						
0059	00002.000	EA		0972944-0065	RES FIX 1.0K OHM 5 1/2 .25 W CARBON FILM	ROH - R-25					
0059A					R9 R13						
0060	00001.000	EA		0539370-0437	RES FIX FILM 3.48K OHM 1 1/2 .25 WATT	COR -NA55D-100PPH/C					
0060A					R23						
0065	00027.000	EA		0972763-0022	CAP FIXED .056 UF 50 VOLTS	UC -C53C563Z					
0065A					C3 THRU C13 C18 THRU C23						
0065B					C26 THRU C32 C34 C35 C36						
0068	00016.000	EA		0972944-0051	RES FIX 270 OHM 5 1/2 .25 W CARBON FILM	ROH - R-25					
0068A					R27 THRU R32 R36 THRU R39						
0068B					R41 THRU R46						
0069	00001.000	EA		0972944-0065	RES FIX 150 OHM 5 1/2 .25 W CARBON FILM	ROH - R-25					
0069A					R26						
0070	00001.000	EA		0972944-0057	RES FIX 470 OHM 5 1/2 .25 W CARBON FILM	ROH - R-25					
0070A					R25						
0071	00004.000	EA		0972944-0081	RES FIX 4.7K OHM 5 1/2 .25 W CARBON FILM	ROH - R-25					
0071A					R4 R16 R40 R47						
0072	00002.000	EA		0539370-0344	RES FIX FILM 392 OHM 1 1/2 .25 WATT	COR - NA55					
DRAFTSMAN _____ DATE _____ CVD DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE AUTO INSERTION TAPE FOR 944940-1 APPO MFG. _____ DATE _____ APPO PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ PART NUMBER LM 0944940-5001 REV AA											

TEXAS INSTRUMENTS INCORPORATED		DATE 02/05/80		LIST OF MATERIAL		PAGE 6 of		PART NUMBER LM 0944940-5001		REV AA	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0078A					R5 R7						
0079	00001.000	EA		0240000-7400	NETWORK-SN74H00N						
0079A					U55						
DRAFTSMAN _____ DATE _____ CVD DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE AUTO INSERTION TAPE FOR 944940-1 APPO MFG. _____ DATE _____ APPO PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ PART NUMBER LM 0944940-5001 REV AA											

- NOTES: UNLESS OTHERWISE SPECIFIED,  
 1. ALL DEVICE TYPES ARE PREFIXED WITH SMT4  
 2. GROUND IS APPLIED TO PIN 7 OF ALL 14-PIN IC'S AND PIN 8 OF ALL 16-PIN IC'S.  
 3. VCC IS APPLIED TO PIN 14 OF ALL 14-PIN IC'S AND PIN 16 OF ALL 16-PIN IC'S.  
 4. DEVICE TYPE, PIN NUMBERS, AND REFERENCE DESIGNATOR OF IC IS SHOWN AS FOLLOWS



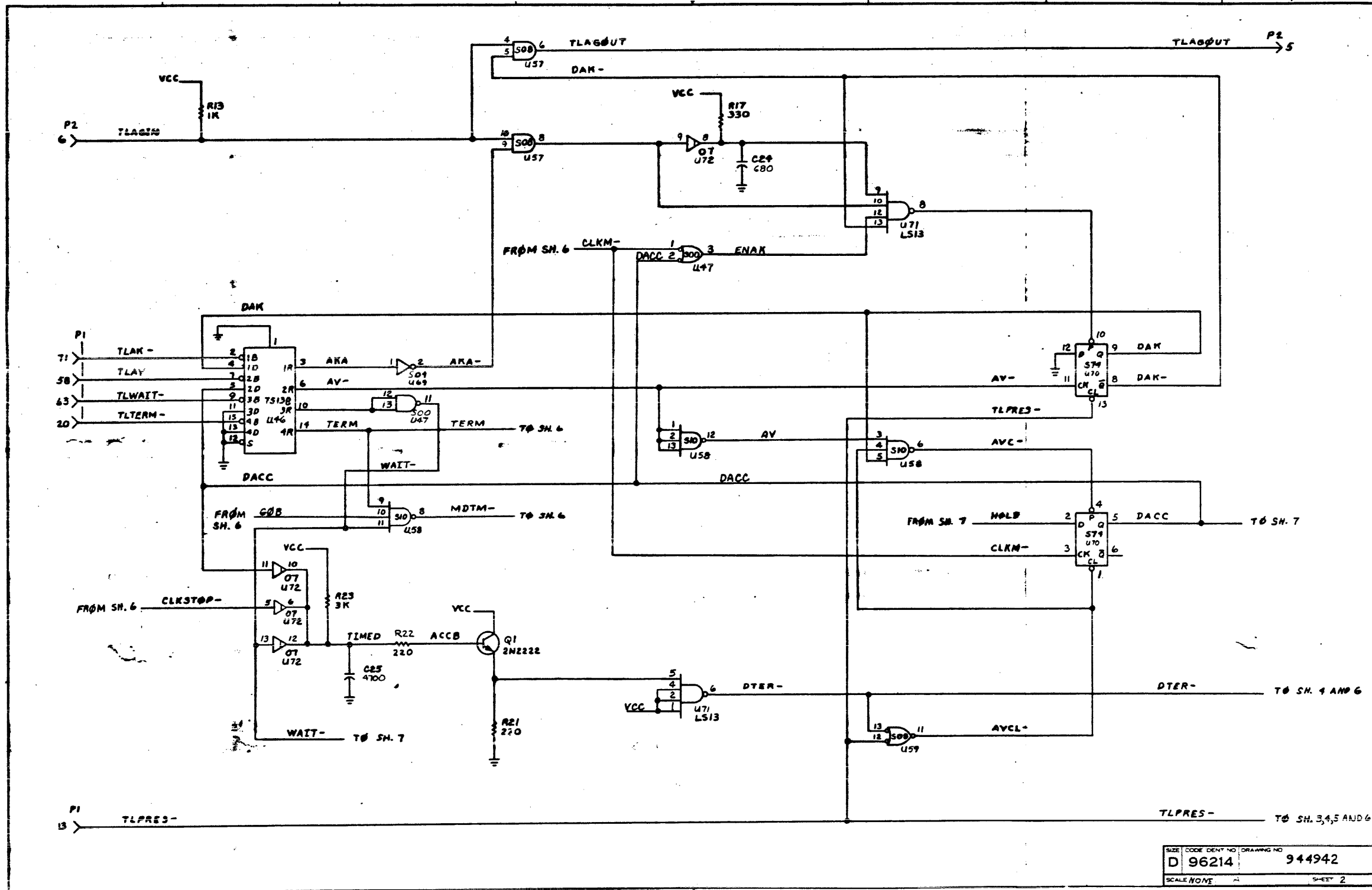
- 00 AND 04 = DEVICE TYPE  
 4, 5 AND 6 = PIN NUMBERS  
 U6 AND U10 = REFERENCE DESIGNATOR  
 5. ALL RESISTOR VALUES ARE IN OHMS  
 6. ALL CAPACITOR VALUES ARE IN PICOFARADS  
 7. R33, R34, AND R35 ARE TRIMMER RESISTORS AND MAY OR MAY NOT BE INSTALLED

REVISIONS				
ZONE	LTN	DESCRIPTION	DATE	APPROVED
A		CN411950 (C) J. Halley	9/25/76	J. Halley
B		CN420740 (D) D. Campbell	10/2/77	D. Campbell
C		CN417163 (E) L. Topp	5-20-77	L. Topp
D		CN420882 (C) J. Halley	7/10/77	J. Halley
E		CN427186 (D) J. Halley	10-20-77	J. Halley
F		CN441075 (C) R. D. ...	5-1-78	R. D. ...

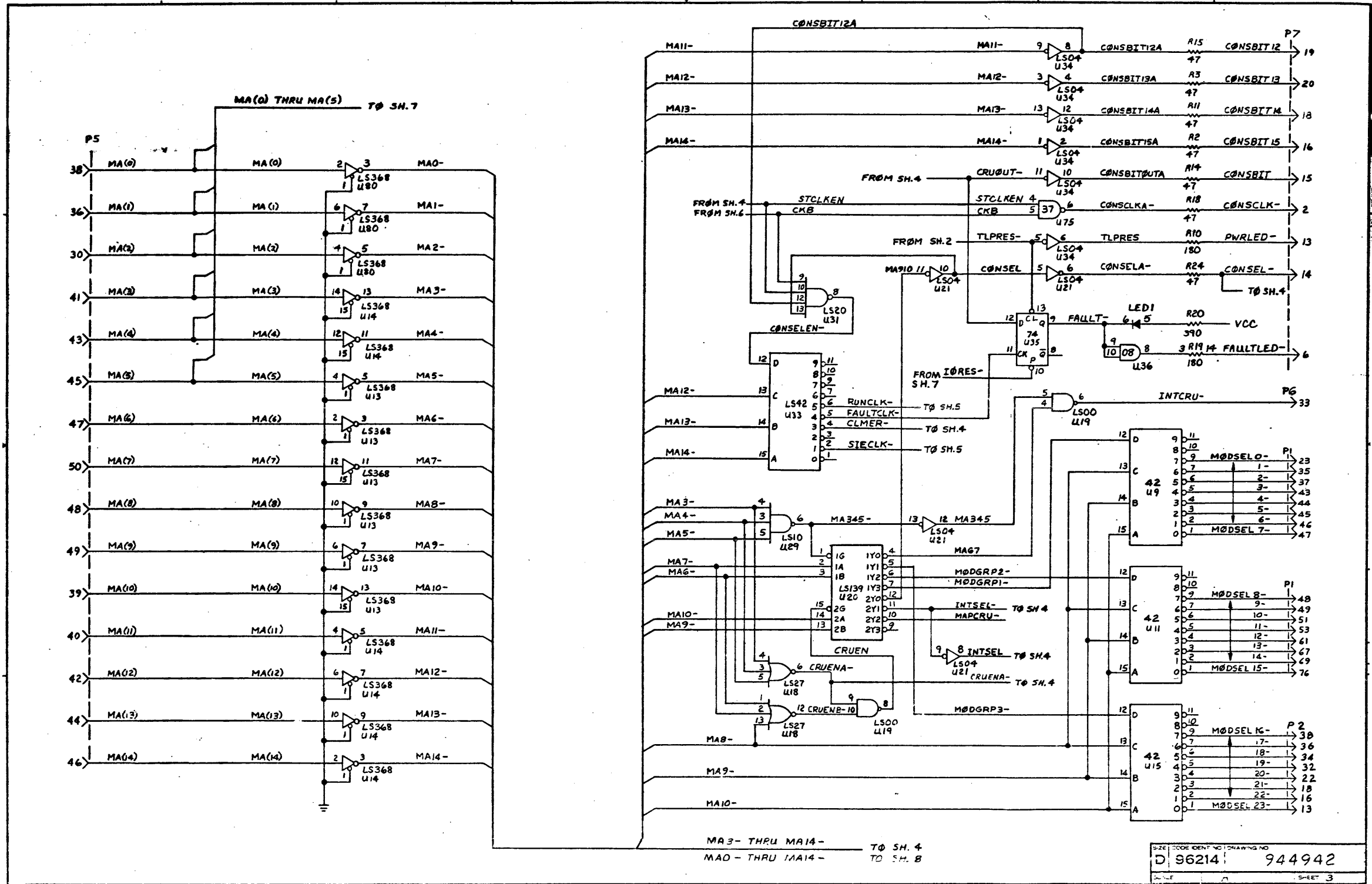
SPARES

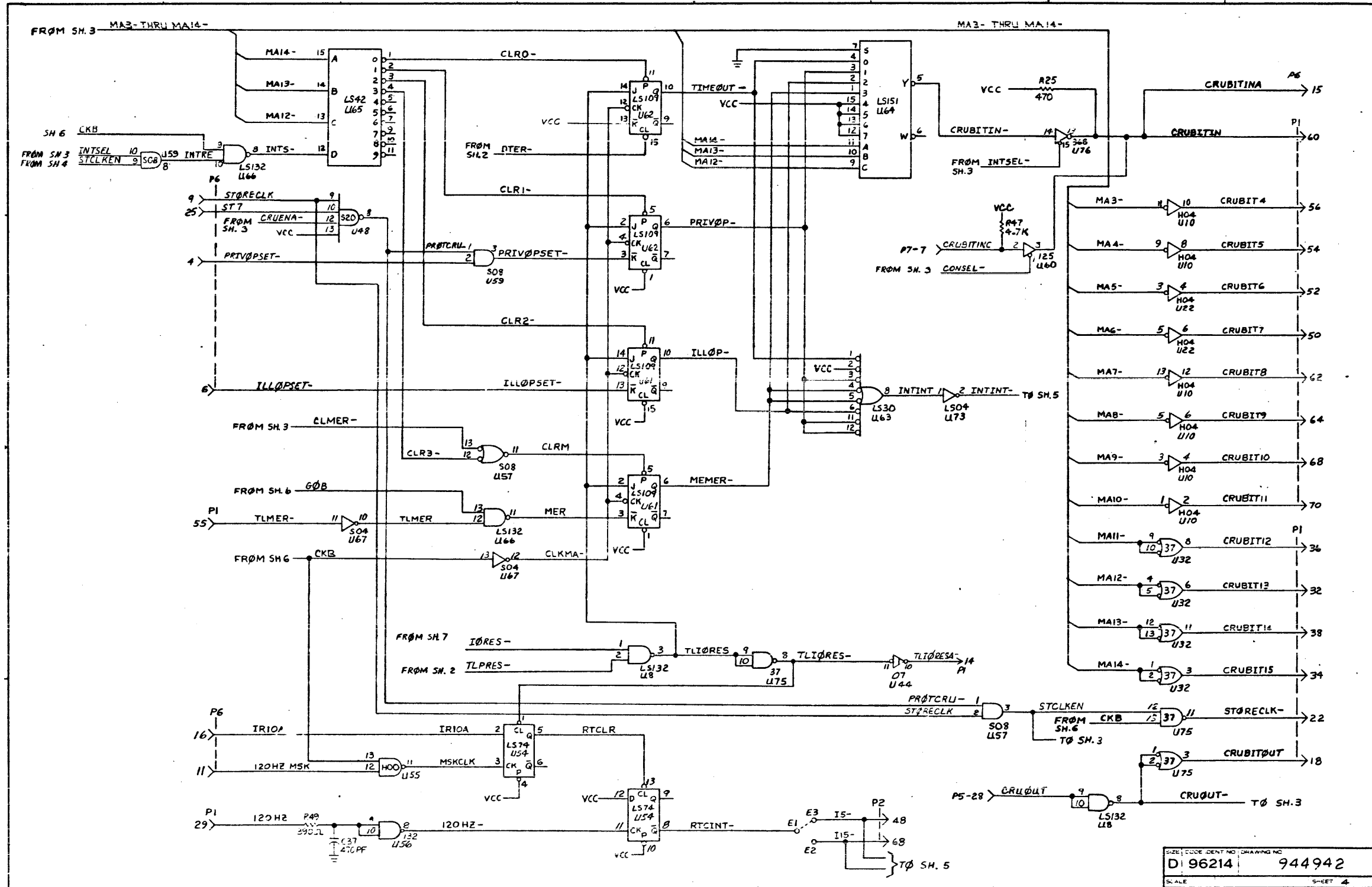
TYPE	LOCATION	PINS
300	U74	4, 5, 6
LS04	U73	3, 4
<del>304</del>	<del>U22</del>	<del>4, 5</del>
304	U69	3, 4
<del>07</del>	<del>U72</del>	<del>3, 4</del>
07	U72	3, 4
08	U36	8, 9, 10
308	U59	4, 5, 6
LS74	U24	8, 9, 10, 11, 12, 13
125	U60	4, 5, 6, 8, 9, 10, 11, 12, 13
<del>LS132</del>	<del>U66</del>	<del>4, 5, 6</del>
LS174	U42	4, 5, 6, 7, 10, 11, 12, 13
LS367	U16	11, 12, 13, 14, 15
LS368	U80	11, 12, 13, 14, 15
LS367	U5	11, 12, 13, 14, 15
LS368	U6	9, 10, 11, 12
LS368	U7	4, 5, 6, 7
368	U76	6, 7, 9, 10, 11, 12
LS132	U66	4, 5, 6

REV STATUS	SH	1	2	3	4	5	6	7	8	9	10	QTY REQD	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION						
OF SHEETS	REV	F	A	A	F	E	J	B	A	A	F												
UNLESS OTHERWISE SPECIFIED												UNLESS OTHERWISE SPECIFIED											
REMOVE ALL BURRS AND SHARP EDGES CONCENTRICITY MACHINED DIAMETERS .010 PIR DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100												DIMENSIONS ARE IN INCHES TOLERANCES ANGLES ±1° 3 PLACE DECIMALS ±.010 2 PLACE DECIMALS ±.02						DATE: 10-23-75 C. Keeler 5-25-76 5-27-76 4/27/76					
HOLE TOLERANCE .013 - .004    .128 - .008    .251 - .008 .118 - .001    .250 - .001    .300 - .001												944940    7506 NEXT ASSY    USED ON APPLICATION						DESIGN ACTIVITY RELEASE 5/27/76 SCALE: N/C/A/B SHEET 1 OF 10					
TEXAS INSTRUMENTS INCORPORATED Equipment Group    Dallas, Texas												LOGIC DIAGRAM - SMI ; 990/10						DRAWING NO: 944942					

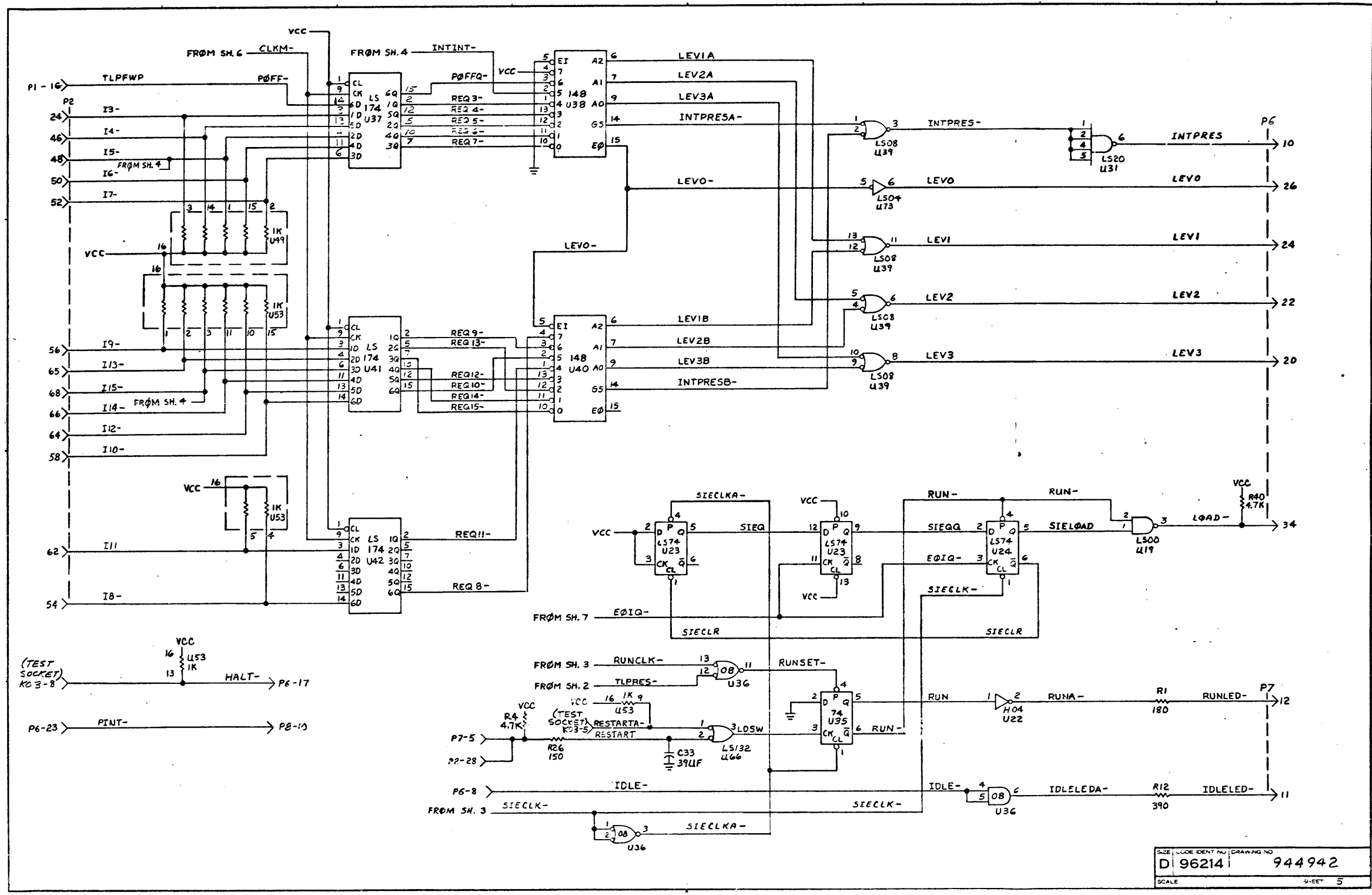


SIZE	CODE	DEPT. NO.	DRAWING NO.
D	96214		944942
SCALE	NONE		SHEET 2

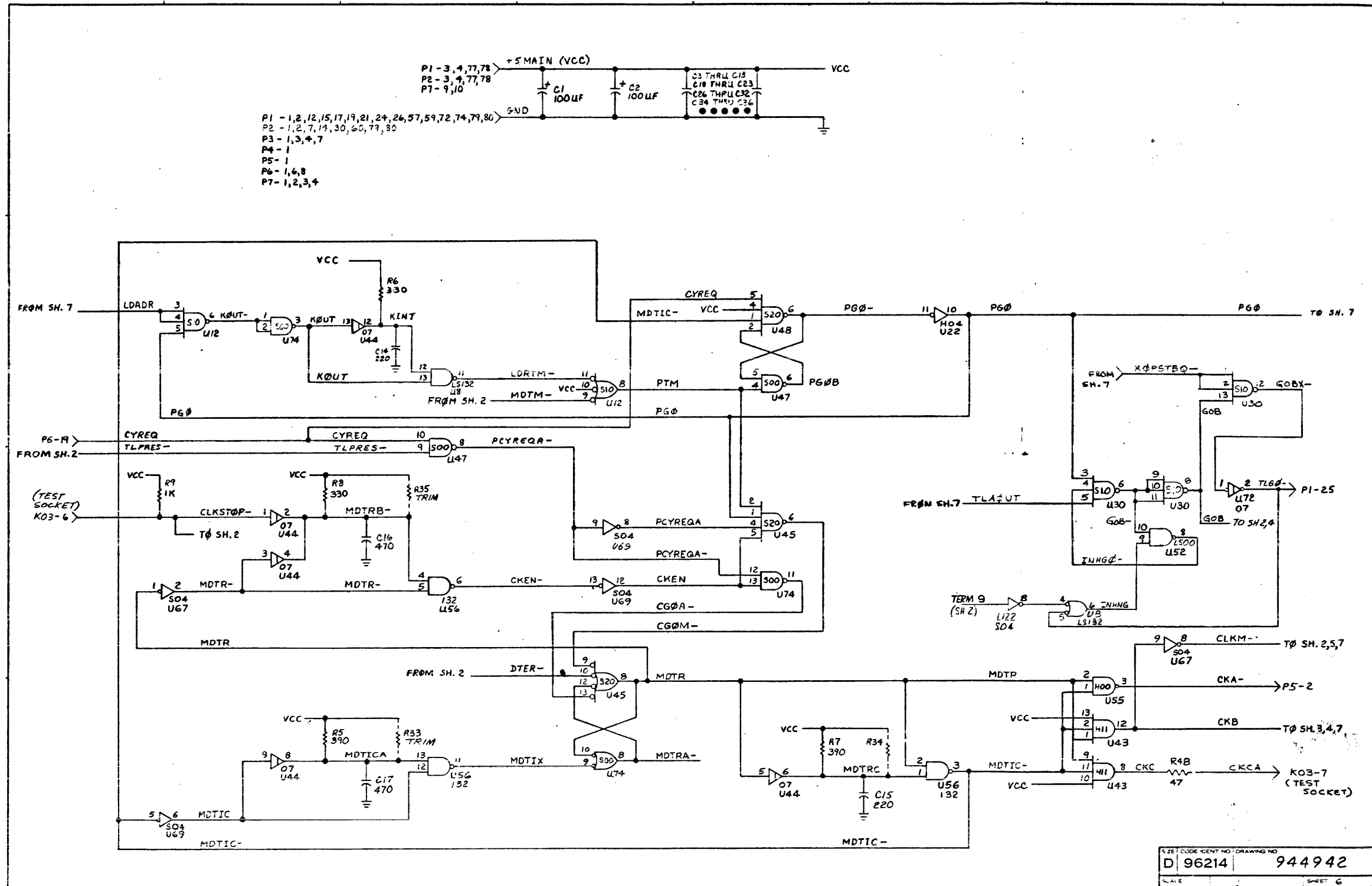




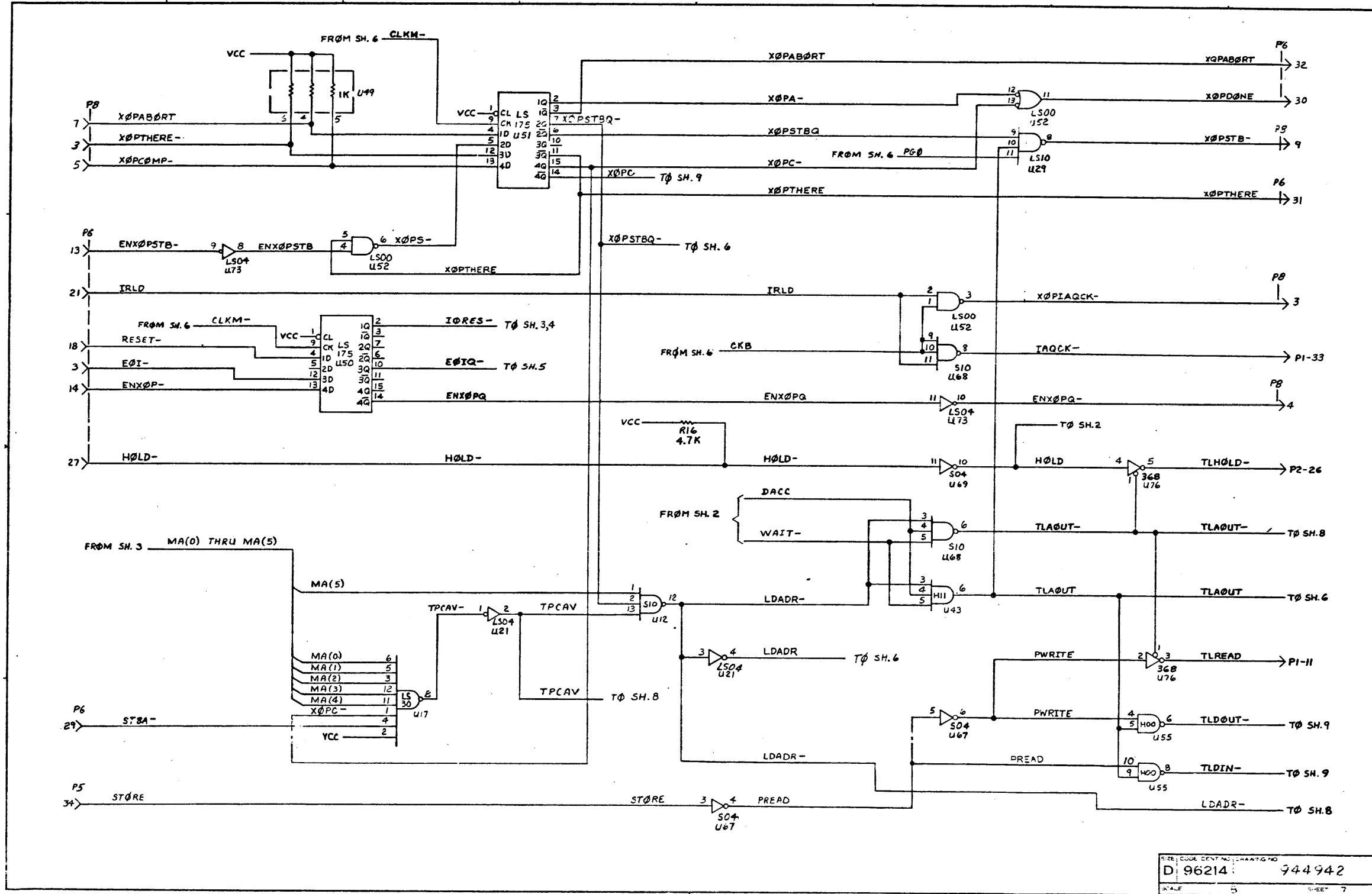
SIZE: CODE IDENT NO: DRAWING NO:  
**DI 96214 944942**  
 SCALE SHEET 4



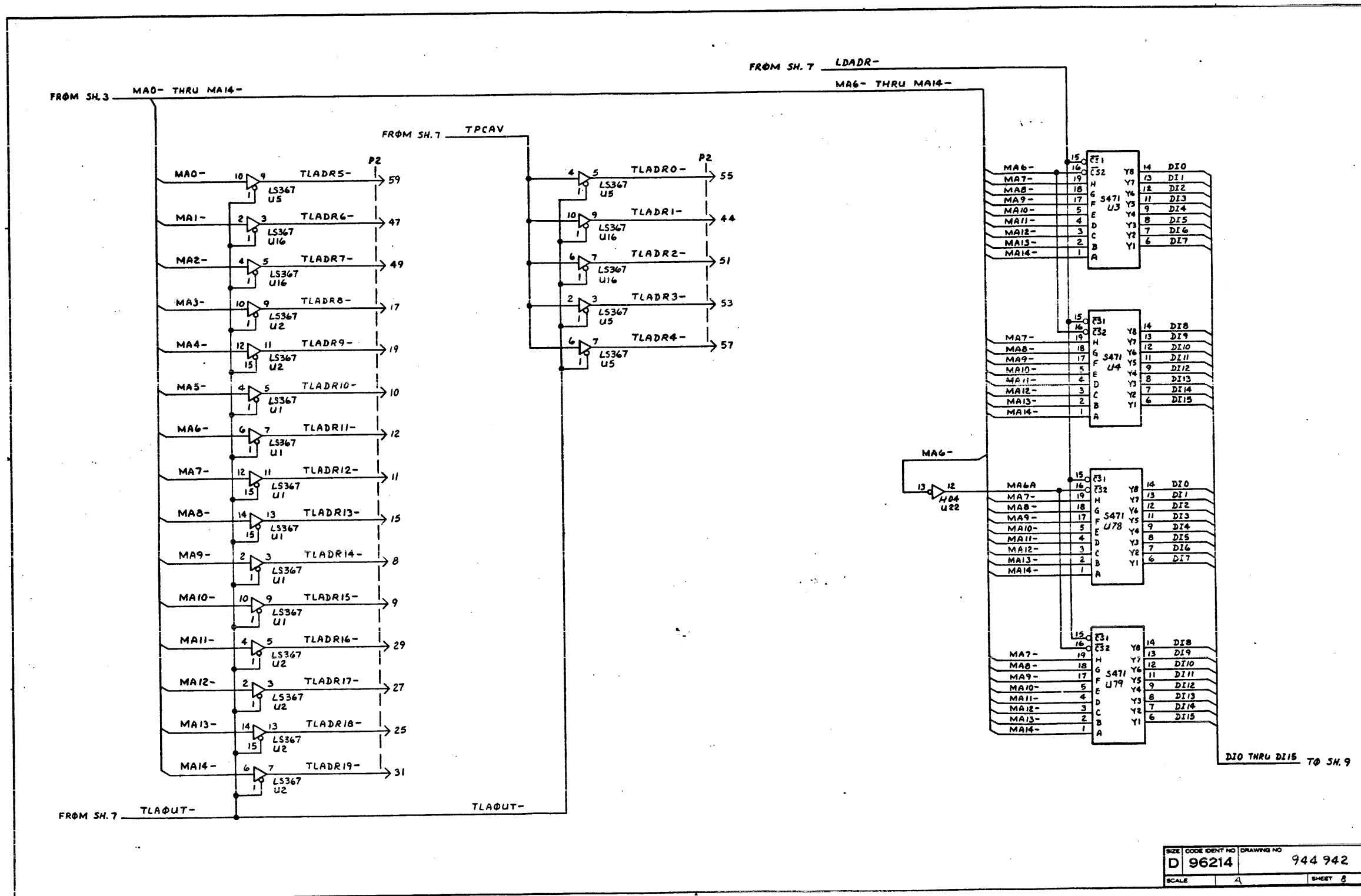
SIZE	LOC IDENT NO	DRAWING NO
D	96214	944942
SCALE		SHEET 5



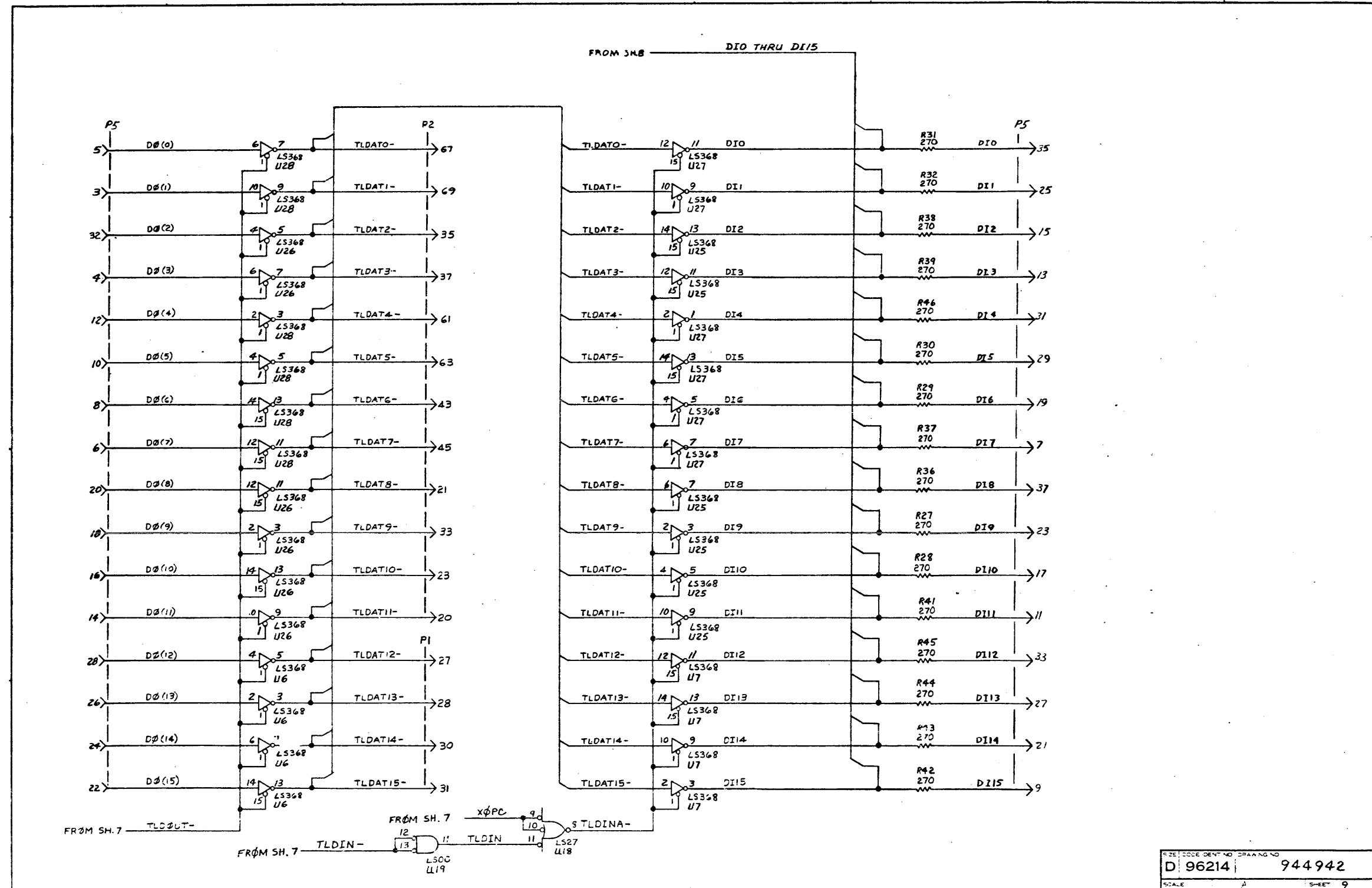




SIZE CODE CENT NO. CHART NO.  
 D 96214 944942  
 SCALE 5 SHEET 7



SMI Logic Diagram



SIZE	CODE	IDENT NO.	DRAWING NO.
D	96214		944942
SCALE	A	SHEET	9

U NO.	TYPE	PAGE(S)	LOCATIONS
1	LS367	8	C7, B7
2	LS367	8	C7, A7
3	S471	8	C2
4	S471	8	C2
5	LS367	8	D7, D5, C5
6	LS368	9	A7
7	LS368	9	A5
8	LS132	1,6 (ATS SOCKET)	B5, A2-C6, B2
9	42	3	B2
10	H04	4	C2, B2
11	42	3	B2
12	\$10	6,7	C7, C5-B5
13	LS368	3	D6, C6
14	LS368	3	C6, A6
15	42	3	A2
16	LS367	8	C7, C5
17	LS20	7	A6
18	LS27	3,9	A4, A6
19	LS00	3,5,9	A4, A6, B2
20	LS139	3	B4
21	LS04	3,7	C3, B3, C2-B6, B4
22	H04	1,5,6,8	C2-A3-C3, B3-B3
23	LS74	5	B4
24	LS74	5	B3
25	LS368	9	B5, C5
26	LS368	9	B7, C7
27	LS368	9	B5, C5, D5
28	LS368	9	B7, C7, D7
29	LS10	3,7	D4-D3
30	\$10	6	B2
31	LS20	3,5	C4-D2
32	37	4	B2
33	LS42	3	C4
34	LS04	3	C2, D2
35	74	3,5	C2-A4
36	08	3,5	C2-A5, A4, A3
37	LS174	5	D6
38	148	5	D5
39	LS08	5	D3, C3
40	148	5	C5
41	LS174	5	C6
42	LS174	5	B6
43	H11	6,7	A2-B3
44	07	6,4	C6, B7, A7, A4-B3
45	\$20	6	A5, B4
46	75138	2	C7
47	S00	2,6	C6, C5-C6, C4
48	\$20	4,6	C7-C4
49	1KRES	5,7	C7-D7
50	LS175	7	C6
51	LS175	7	D6
52	LS00	4,7,7	B2-C6, D3, C3
53	1KRES	5	C7, B7
54	LS74	4	A6, A5
55	H 00	4,6,7	A6-A2, A2
56	132	4,6 (ATS SOCKET)	A6-B6, A6, A3
57	\$08	2,4	D5, B6, A3
58	\$10	2	B6, B5, B3
59	\$08	2,4	A3, C6-D8
60	125	4	C3

U NO.	TYPE	PAGE(S)	LOCATIONS
61	LS109	4	C5, B5
62	LS109	4	C5, D5
63	LS30	4	C4
64	LS151	4	D3
65	LS42	4	D6
66	LS132	4,5	D8, D7, B6-A4
67	S04	4,6,7	B7-B7, A2, A4, A3
68	S10	7	C3, B3
69	S04	2,6,7	C6-A6, B5-B3
70	S74	2	B2, C2
71	LS13	2 (ATS SOCKET)	A5, C3
72	07	2,6	B7, D5-B2
73	LS04	4,5,7	C3-D3-C7, C3
74	S00	6	C7, A5, B4
75	37	3,4	C2-A2, A4
76	368	4,7	D2-B2
78	S471	8	B2
79	S471	8	A2
80	LS368	3	C6, D6

CAPACITOR	PAGE
C1 100 μF	6
C2 100 μF	6
C3 56 DECOUPLER	6
C4	6
C5	6
C6	6
C7	6
C8	6
C9	6
C10	6
C11	6
C12	6
C13 56 DECOUPLER	6
C14 220 LDRTM-	6
C15 220 MDTIC-	6
C16 470 MDTIC-	6
C17 470 MDTIC-	6
C18 56 DECOUPLER	6
C19	6
C20	6
C21	6
C22	6
C23 56 DECOUPLER	6
C24 680 TLAGIN	6
C25 4700 TIMEOUT	6
C26 56 DECOUPLER	6
C27	6
C28	6
C29	6
C30	6
C31	6
C32 56 DECOUPLER	6
C33 33 μF RESTART	6
C34 56 DECOUPLER	6
C35 56 DECOUPLER	6
C36 56 DECOUPLER	6

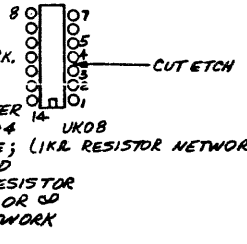
REF	VALUE	USE	PAGE
R1	180	RUNLED-	5
R2	47	CONSBIT15	3
R3	47	CONSBIT13	3
R4	4.7K	RESTART-	5
R5	390	MDTIX-	6
R6	330	LDRTM-	6
R7	390	MDTIC-	6
R8	330	MDTR-	6
R9	1K	CLKSTOP-	6
R10	180	PWRLED-	3
R11	47	CONSBIT11	3
R12	390	ILORLED-	5
R13	1K	TLAGIN	2
R14	47	CONSBITOUT	3
R15	47	CONSBIT12	3
R16	4.7K	HOLD-	7
R17	330	TLAGIN	2
R18	47	CONSKL-	2
R19	180	FAULT (CONSOLE)	3
R20	390	FAULT	3
R21	220	TIMEOUT	2
R22	220	TIMEOUT	2
R23	5K	TIMEOUT	2
R24	47	CONSEL-	3
R25	470	CRUBITIN-	4
R26	150	RESTART-	5
R27	270	DI9	9
R28	↑	DI10	↑
R29	↑	DI6	↑
R30	↑	DI5	↑
R31	↓	DI0	↓
R32	270	DI1	9
R33	TRIM	MDTIX-	6
R34	TRIM	MDTIC-	6
R35	TRIM	CKEN-	6
R36	270	DI8	9
R37	↑	DI7	↑
R38	↓	DI2	↓
R39	270	DI3	9
R40	4.7K	LOAD-	5
R41	270	DI11	9
R42	↑	DI15	↑
R43	↑	DI14	↑
R44	↓	DI13	↓
R45	↓	DI12	↓
R46	270	DI4	9
R47	47K	CONSOLE CRUBITIN-	4
R48	47	EXTERNAL CLACK	6
Q1	2N2222	TIMEOUT	2
LED	-	FAULT	3



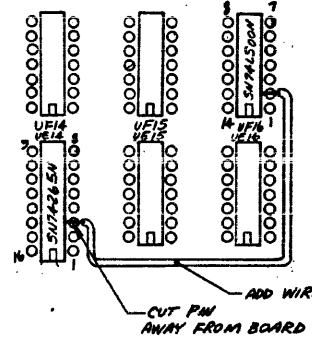
NOTES: CONTINUED

3. REWORK PROCEDURE FOR PWB 944951-0001 REV A & B

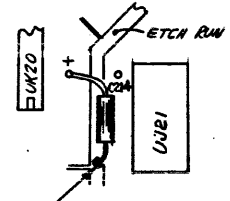
A) CUT ETCH ON TOP OF BOARD BETWEEN PINS 3 AND 4 OF UK08 RESISTOR NETWORK...



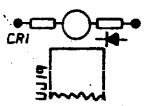
B) CUT PIN UE14-3 AWAY FROM BOARD. ADD INSULATED WIRE BETWEEN THE CUT PIN OF UE14 PACKAGE TO PIN UM16-2



4) IT IS ACCEPTABLE TO USE PN 972924-0006 (39 AWG, 10V SOLID TANT. AXIAL LEAD) FOR C214 (ITEM 77)...



5. FOR PWB 944950-0001 REV A, B INSTALLATION NOTE FOR CRI: INSULATE LEADS OF CRI AS REQUIRED WITH TEFLON SLEEVING...



6) ITEM 97 IN -0001 LM CONSISTS OF COMPONENTS WHICH ARE AUTO INSERTED AND CONTAINED IN THE -5001 LM

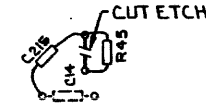
NOTES: CONTINUED

7. REWORK ASSEMBLY USING REV F AND EARLIER PWB AS FOLLOWS:

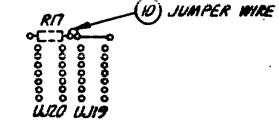
A. ON LEAD SIDE OF BOARD CUT ETCH NEAR FOLLOWING IC PINS: F20-3

B. USING ITEM 98 ADD FOLLOWING TWISTED PAIR: (BLUE) A05-8 F20-3 (BLUE) (WHITE) A05-7 F20-7 (WHITE)

8. REWORK FOR PWB A, B, C, D A. CUT ETCH AS SHOWN BELOW B. INSTALL R45 BETWEEN FEED THRU WHERE ETCH WAS CUT C. INSTALL C215 FROM THE TOP OF R45 TO THE LEFT OF C14



9. FOR PWB 944951-0001 REV C ONLY A. CUT PIN UE14-3 CLOSE TO PWB B. ADD WIRE FROM UE14-3 PACKAGE TO UF16-2 C. SECURE WIRE TO PWB WITH HOT MELT D. ON ETCH SIDE OF BOARD ADD WIRE TO JUMPER R17 LEAD TO ADJACENT PAD AS SHOWN BELOW

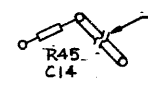


10) ITEM 79 SHOULD BE MACHINE PREPPED PRIOR TO INSERTION

11. FOR PWB 944951-0001 REV F ONLY A. CUT IC PINS UJ19-9, UE16-2, UB16-2, UB16-1 AND UB21-12 D. ADD WIRES:

Table with columns FROM, TO, and wire part numbers for UJ19-9, UE16-2, UB16-2, UB16-1, UB21-12, UJ14-12, UH14-12, and UE14-1.

12. ON PWB 944951 REV F BUILT BY T1 ONLY, CUT ETCH AND INSTALL R45 AS SHOWN ON COMPONENT SIDE OF BOARD



13. REWORK PROCEDURE FOR PWB 944951 REV F (F-1) A. CUT IC PIN UH15-14 B. CONNECT WIRE (ITEM 10) FROM UH15-14 (PKG) TO UH16-16 C. DO REWORK NOTE 7

14. REWORK FOR ASSY'S USING PWB 944951 REV F (F-2) A. DO REWORK NOTE 7 ONLY

Table of revisions for PWB 944951, including columns for ZONE, LTR, DESCRIPTION, DATE, and APPROVED. Revisions include updates to level blocks and component changes.

15. REWORK FOR PWB (944951) REV. F THRU H. A. CUT PIN 2 OF UB08 B. WIRE PIN 2 OF UB08 TO PIN 3 OF UB08. C. WIRE PINS 1 & 2 OF UB08 TO PIN 8 OF UA08.

16. REWORK FOR PWB (944951) REV. F THRU H USING ITEM 101, COVER THE ETCH RUNS INDICATED BETWEEN ARROWS. KEEP EPOXY OFF COMPONENTS. ITEM 101 MAY BE SUBSTITUTED BY 996639-0061.

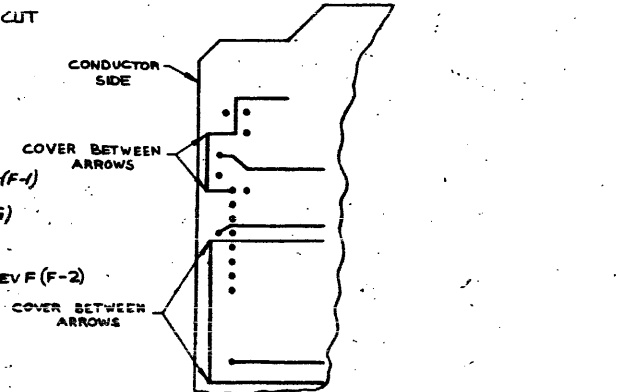
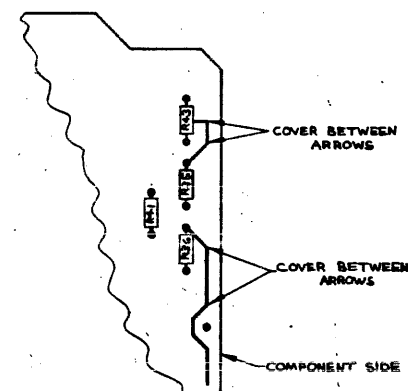
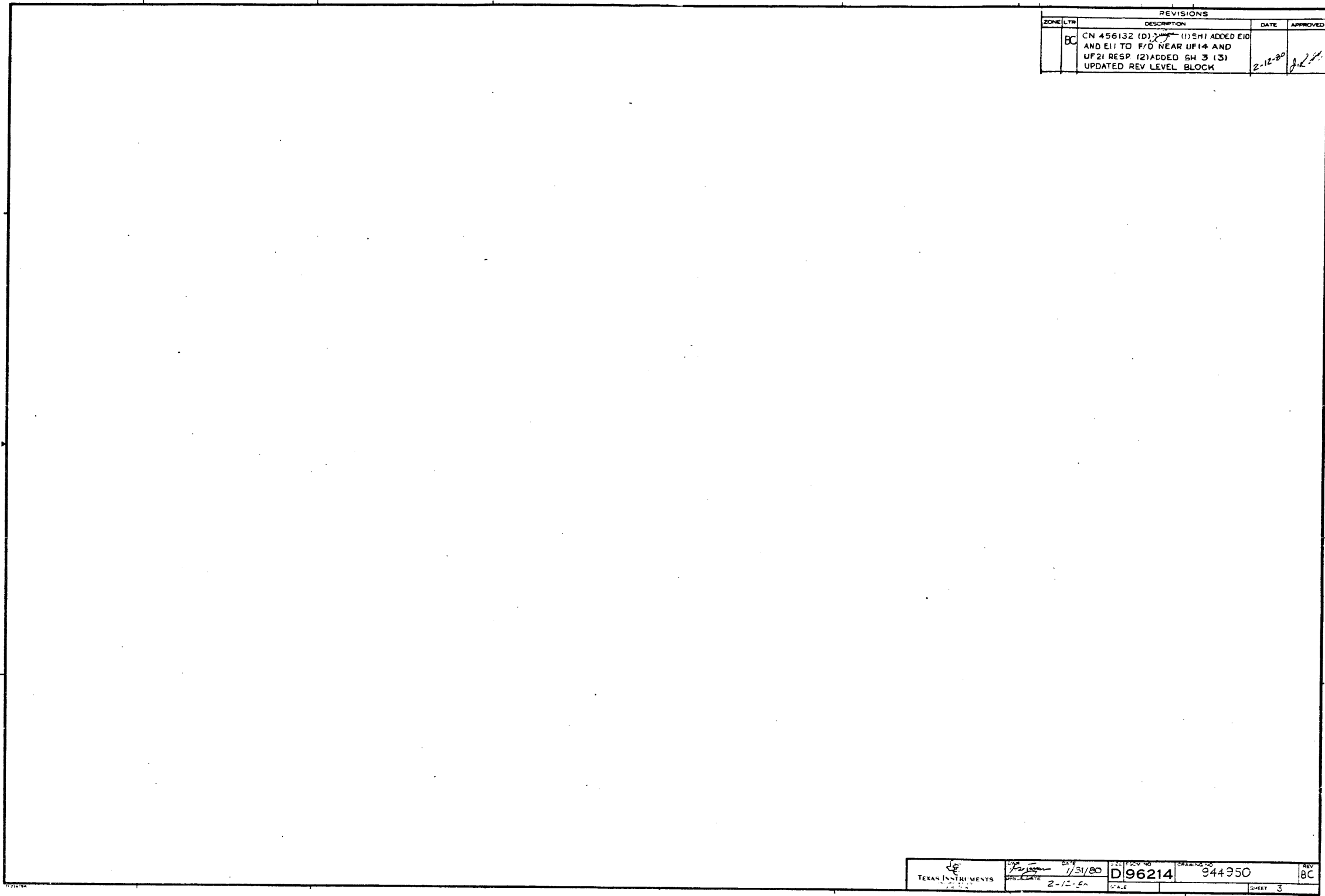


Table of revisions for PWB 944950, including columns for ZONE, LTR, DESCRIPTION, DATE, and APPROVED. Revisions include updates to level blocks and component changes.

REV CONT 2 C-4

Form containing drawing information: D 96214, 944950, SCALE, REV, SHEET 2.



REVISIONS			
ZONE	LTR	DESCRIPTION	DATE
	BC	CN 456132 (D) <del>1/31/80</del> (1) SH1 ADDED E10 AND E11 TO F/D NEAR UF14 AND UF21 RESP. (2) ADDED SH 3 (3) UPDATED REV LEVEL BLOCK	2-12-80

 TEXAS INSTRUMENTS	DATE 1/31/80	PROJECT NO. D96214	DRAWING NO. 944950	REV. BC
	DESIGNED BY DATE 2-12-80	SCALE	SHEET 3	

TEXAS INSTRUMENTS INCORPORATED DATE 12/11/79 LIST OF MATERIAL PAGE 1 of PART NUMBER LM0944950-0001 REV B8C

PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
JJ02	REF	EA		0944952-9901	LOGIC DIAGRAM-AJ2, W/ MAPPING	
JJ03	REF	EA		0944953-9901	TEST PROCEDURE-AU2, W/ MAPPING	
0,04	REF	EA		0944921-9901	SPECIFICATION, CPU, 990/10	
JJ05	30002.000	EA		0533844-0001	EJECTOR, NYLON, N3N-LOCKING, PWB	
0,07	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN	
JJ08	00001.000	EA		0944954-0001	INSULATOR, PWB, 14IN	
JJ09	00006.000	EA		0972684-0002	SCREW, THD FRNG, HEX WSHR HD, 2-56X1/4 LG	
JJ10	00000.090	FT		0457313-3006	WIRE 24 AWG SOLID, TEFLON, WHITE	QPL - MIL-W-16873/4
JJ11	00001.000	EA		2210188-0001	SOCKET, LOW PROFILE, DIP, 3 CONT, 8 PINS	003612-DIL88P-108
0,11A					XUK03	
JJ12	00004.000	EA		2210188-0005	SOCKET, LOW PROFILE, DIP, 20 PINS	003612-DIL820P-108
JJ12A					XUE21 XUF21 XUH21 XUJ21	
JJ13	00001.000	EA		0972706-0001	CONNECTOR, PWB, 10P, RT-A, SDRTL, HDR, FLTCBL	015912-609-1002M
JJ13A					P8	
JJ14	00001.000	EA		0972137-0001	CONNECTOR, PC-HEADER 20 CONTACT	BEI - 65483-001
JJ14A					P7	
JJ15	00001.000	EA		0972137-0003	CONNECTOR ONE AMP 500VDC 34 CONTACT	076381-3431-1002
JJ15A					P6	
JJ16	00001.000	EA		0972137-0005	CONNECTOR, PC 50 PIN	BEI - 65483-005
JJ16A					P5	

DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE 990/10 SYSTEM, MEMORY INTERFACE W/MAPPING  
 APPD. MFG DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. 7506 PART NUMBER LM0944950-0001 REV B8C

TEXAS INSTRUMENTS INCORPORATED DATE 12/11/79 LIST OF MATERIAL PAGE 2 of PART NUMBER LM0944950-0001 REV B8C

PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
JJ17	00001.000	EA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING	
JJ17A					CR1	
JJ29	00001.000	EA		0972784-0001	NETWORK SN74LS13N	
0,29A					UE19	
JJ40	00001.000	EA		0972900-7474	NETWORK SN74LS74N	
0,40A					UF20	
JJ44	00001.000	EA		0972782-0001	NETWORK SN74LS132N	TI -SN74LS132N
0,44A					UF14	
JJ52	00001.000	EA		0972900-7197	NETWORK SN74LS197N	TI -SN74LS197N
0,52A					UAD1	
JJ69	00001.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH - R-25
JJ69A					R27	
JJ71	00001.000	EA		0972946-0081	RES FIX 4.7K OHM 5% .25 W CARBON FILM	ROH - R-25
JJ71A					R28	
JJ72	00001.000	EA		0539679-0006	CAPACITOR, 330 PF 2% 100V FX CER DIE	095275-VK208A331G
JJ72A					C208	
JJ77	00001.000	EA		0972711-0012	CAP FIXED 33UF 10MVDC 10% ELCTLT AL	NAC - 10U-33
JJ77A					C214	
JJ78	00002.000	EA		0972944-0012	CAP FIX TANT SOLID 150 MFD 10% 15 VOLT	QPL -R39003/1-2277
JJ78A					C212 C213	

DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE 990/10 SYSTEM, MEMORY INTERFACE W/MAPPING  
 APPD. MFG DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM0944950-0001 REV B8C

TEXAS INSTRUMENTS INCORPORATED DATE 12/11/79 LIST OF MATERIAL PAGE 3 of PART NUMBER LM0944950-0001 REV B8C

PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
JJ79	00001.000	EA		0972948-0002	TRANSISTOR, 2N2222A NPN GEN PURP SW YD-18	TI - 2N2222A
JJ79A					Q1	
JJ82	00001.000	EA		0946737-0001	INSULATOR PWB SPECIAL SMI/M	
JJ83	00001.000	EA		0946733-0001	STIFFENER, PWB, SPECIAL SMI/M	
JJ84	00016.000	EA		0972975-0035	RES FIX COMP 270 OHMS 5% 1/8 WATT	QPL - RC05G271JS
JJ84A					R29 THRU R44	
JJ89	00001.000	EA		0539679-0004	CAPACITOR, 220 PF 2% 100V FX CER DIE	095275-VK208A221G
JJ89A					C205	
JJ91	00002.000	EA		0539679-0008	CAPACITOR, 470 PF 2% 100V FX CER DIE	095275-VK208A471G
JJ91A					C206 C207	
JJ92	00002.000	EA		0539679-0003	CAPACITOR, 680 PF 2% 100V FX CER DIE	095275-VK208A681G
JJ92A					C209 C210	
JJ93	00003.000	EA		2210188-0002	SOCKET, LOW PROFILE, DIP, 14 PINS	003612-DILB14P-108
JJ93A					XUF14, XUE19, XUJ18	
JJ94	00001.000	EA		3222222-7132	NETWORK SN74132N	
JJ94A					UJ18	
JJ96	00002.000	EA		3236369-0001	WASHER #2 NYLON FLAT BLK .090IDX.020 THK	NPG -101-BLK
JJ97	00001.000	EA		0944950-5J01	AUTO INSERTION TAPE FOR 944950-1	
JJ98	00001.000	FT		0966760-2896	WIRE, TWISTED PAIR #28 WHT/BLU IPVC	UL - 1472 7STR UL6
JJ99	00001.000	EA		0972946-0055	RES FIX 390 OHM 5% .25 W CARBON FILM	ROH - R-25

DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE 990/10 SYSTEM, MEMORY INTERFACE W/MAPPING  
 APPD. MFG DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM0944950-0001 REV B8C

TEXAS INSTRUMENTS INCORPORATED DATE 12/11/79 LIST OF MATERIAL PAGE 4 of PART NUMBER LM0944950-0001 REV B8C

PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
JJ99A					R45	
JJ100	00001.000	EA		0972757-0009	CAP FIX CER 470PF 10% 50V	
0,100A					C215	
JJ101	AR	EA		0417630-0001	ADHESIVE, EPOXY 0151	MYS -EPOXI-PATCH KIT

DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE 990/10 SYSTEM, MEMORY INTERFACE W/MAPPING  
 APPD. MFG DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM0944950-0001 REV B8C



TEXAS INSTRUMENTS INCORPORATED		DATE 12/11/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944950-5001		REV BBC	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
JJ21	00001.000	EA		0944951-0001	PWB-AU2, W/ MAPPING						
JJ18	00003.000	EA		0972900-7400	NETWORK SN74LS00N	TI	-SN74LS00N				
JJ18A					UB08 UK05 UF16						
JJ19	00005.000	EA		0219402-7400	NETWORK SN74S00N						
JJ19A					UA05 UA17 UB04 UF15 JJ16						
JJ20	00002.000	EA		0240000-7404	NETWORK SN74H04N						
JJ20A					UA21 UC21						
JJ21	00006.000	EA		0972900-7404	NETWORK SN74LS04N						
JJ21A					UA09 UB07 UB12 UD18 UK07						
JJ21B					UK20						
JJ22	00003.000	EA		0219402-7404	NETWORK SN74S04N						
JJ22A					UE16 UJ15 UJ19						
JJ23	00002.000	EA		0222222-7407	NETWORK-SN7407N	TI-	-SN7407N				
JJ23A					UF19 UJ20						
JJ24	00002.000	EA		0972749-0001	NETWORK, SN74LS08N						
JJ24A					UC19 UD19						
JJ25	00001.000	EA		0972900-7410	NETWORK SN74LS10N						
JJ25A					UA07						
JJ26	00001.000	EA		0219402-7410	NETWORK SN74S10N						
JJ26A					UJ14						
DRAFTSMAN _____ DATE _____ CDD. DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE AUTO INSERTION TAPE FOR 944950-1 APPD. MFG. _____ DATE _____ APPD. PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ PART NUMBER LM0944950-5001 REV BBC											

TEXAS INSTRUMENTS INCORPORATED		DATE 12/11/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944950-5001		REV BBC	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
JJ28	00003.000	EA		0972788-0001	NETWORK, SN74LS11, POSITIVE AND GATE						
JJ28A					UB06 UH15 UK15						
JJ30	00001.000	EA		0219402-7408	NETWORK SN74S08N	TI-	-SN74S08N				
JJ30A					UF18						
JJ31	00002.000	EA		0972900-7420	NETWORK SN74LS20N						
JJ31A					UB02 UD17						
JJ32	00004.000	EA		0219402-7420	NETWORK SN74S20N						
JJ32A					UA18 UB11 UH14 UJ17						
JJ33	00001.000	EA		0972814-0001	NETWORK-SN74LS27N						
JJ33A					UE17						
JJ34	00002.000	EA		0972900-7430	NETWORK SN74LS30N	TI	-SN74LS30N				
JJ34A					UB03 UH18						
JJ35	00003.000	EA		0222222-7437	NETWORK SN7437N						
JJ35A					UA16 UB16 UE20						
JJ36	00002.000	EA		0972783-0001	NETWORK, SN74LS42N BCD/DEC						
JJ36A					UF17 UH16						
JJ37	00003.000	EA		0222222-7442	NETWORK-SN7442N						
JJ37A					UA19 UA20 UA03						
JJ38	00001.000	EA		0972900-7451	NETWORK SN74LS51N	TI	-SN74LS51N				
JJ38A					UB05						
DRAFTSMAN _____ DATE _____ CDD. DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE AUTO INSERTION TAPE FOR 944950-1 APPD. MFG. _____ DATE _____ APPD. PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ PART NUMBER LM0944950-5001 REV BBC											

TEXAS INSTRUMENTS INCORPORATED		DATE 12/11/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM0944950-5001		REV BBC	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
JJ48D					UH09 UH17						
JJ49	00005.000	EA		0972669-0001	NETWORK, SN74LS163N						
JJ49A					UE06 UE09 UH07 UJ06 UJ08						
JJ50	00003.000	EA		0972900-7174	NETWORK SN74LS174N						
JJ50A					UB17 UB19 UB20						
JJ51	00002.000	EA		0972900-7175	NETWORK SN74LS175N						
JJ51A					UK06 UK14						
JJ53	00002.000	EA		0972668-0001	NETWORK SN74LS251N						
JJ53A					UC07 UF07						
JJ54	00008.000	EA		0972900-7253	NETWORK SN74LS253N	TI	-SN74LS253N				
JJ54A					UD04 UD10 UE04 UE10 UH04						
JJ54B					UH10 UJ04 UJ10						
JJ55	00001.000	EA		0972120-0001	NETWORK, SN74259 8-BIT ADDRESSABLE LATCH	001295-74259					
JJ55A					UB10						
JJ56	00001.000	EA		0972159-7265	NETWORK, SN74265N						
JJ56A					UE14						
JJ57	00021.000	EA		0972652-0001	NETWORK SN74LS283N						
JJ57A					UC03 UC04 UC10 UC11 UE01						
JJ57B					UE02 UE03 UE08 UE11 UE12						
JJ57C					UE13 UF03 UF04 UF10 UF11						
DRAFTSMAN _____ DATE _____ CDD. DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE AUTO INSERTION TAPE FOR 944950-1 APPD. MFG. _____ DATE _____ APPD. PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ PART NUMBER LM0944950-5001 REV BBC											

TEXAS INSTRUMENTS INCORPORATED		DATE 12/11/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944950-5001		REV BBC	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
JJ39	00001.000	EA		0972900-7454	NETWORK SN74LS54N	TI	-SN74LS54N				
JJ39A					UB09						
JJ40	00003.000	EA		0972900-7474	NETWORK SN74LS74N						
JJ40A					UD20 UK17 UK18						
JJ41	00002.000	EA		0222222-7474	NETWORK SN7474N		-SN7474N				
JJ41A					UA08 UB21						
JJ42	00001.000	EA		0972751-0001	NETWORK, SN74LS86N						
JJ42A					UB13						
JJ43	00003.000	EA		0972900-7109	NETWORK SN74LS109N	TI	-SN74LS109N				
JJ43A					UA06 UH19 UH20						
JJ45	00001.000	EA		0972900-7138	NETWORK SN74LS138N	TI	-SN74LS138N				
JJ45A					UB01						
JJ46	00001.000	EA		0972900-7139	NETWORK SN74LS139N	TI	-SN74LS139N				
JJ46A					UC17						
JJ47	00003.000	EA		0222222-7148	NETWORK SN74148N						
JJ47A					UC18 UC20 UD07						
JJ48	00017.000	EA		0001383-0001	NETWORK SN74LS151N						
JJ48A					UC05 UC06 UC08 UC09 UD05						
JJ48B					UD06 UD08 UD09 UF05 UF06						
JJ48C					UF08 UF09 UH05 UH06 UH08						
DRAFTSMAN _____ DATE _____ CDD. DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE AUTO INSERTION TAPE FOR 944950-1 APPD. MFG. _____ DATE _____ APPD. PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ PART NUMBER LM0944950-5001 REV BBC											

TEXAS INSTRUMENTS INCORPORATED		DATE 12/11/79		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LM0944950-5001		REV BBC		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
JJ57D					UJ01 UJ02 UJ03 UJ11 UJ12							
JJ57E					UJ13							
JJ58	00004.000	EA		0972787-0003	NETWORK SN74LS367N							
JJ58A					UE05 UJ05 UJ07 UJ09							
JJ59	00013.000	EA		0972787-0004	NETWORK SN74LS368N							
JJ59A					UA02 UA04 UB14 UB15 UC14							
JJ59B					UC15 UC16 UD14 UD15 UD16							
JJ59C					UE15 UK01 UK04							
JJ50	00021.000	EA		0972654-0001	NETWORK, SN74LS670N							
JJ50A					UC01 UC02 UC12 UC13 UD01							
JJ60B					UD02 UD03 UD11 UD12 UD13							
JJ60C					UE07 UF01 UF02 UF12 UF13							
JJ60D					UH01 UH02 UH03 UH11 UH12							
JJ60E					UH13							
JJ61	00001.000	EA		0802023-0001	NETWORK SN75138N							
JJ61A					UD21							
JJ62	00002.000	EA		0972141-0041	NETWORK, RES. 1.0 K OHM 2 x 14 PIN DIP	BEC	-	899-1-R1.0K				
JJ62A					UB10 UK08							
JJ63	00001.000	EA		0972007-1470	NETWORK, RES., 14 PIN, 47 OHM, 2x7 ELEMENT							
JJ63A					UK19							
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE					
							AUTO INSERTION TAPE FOR 944950-1					
APPD. MFG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.					
							PART NUMBER LM0944950-5001					
							REV BBC					

TEXAS INSTRUMENTS INCORPORATED		DATE 12/11/79		LIST OF MATERIAL		PAGE 6 of		PART NUMBER LM0944950-5001		REV BBC		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
JJ64	00001.000	EA		0972946-0033	RES FIX 47.0 OHM 5 x .25 W CARBON FILM	RDH	-	R-25				
JJ64A					R12							
JJ65	00001.000	EA		0972946-0045	RES FIX 150 OHM 5 x .25 W CARBON FILM	RDH	-	R-25				
JJ65A					R25							
JJ66	00002.000	EA		0972946-0049	RES FIX 220 OHM 5 x .25 W CARBON FILM	RDH	-	R-25				
JJ66A					R1 R2							
JJ67	00001.000	EA		0240000-7400	NETWORK-SN74H00N							
JJ67A					UK16							
JJ68	00003.000	EA		0972946-0055	RES FIX 390 OHM 5 x .25 W CARBON FILM	RDH	-	R-25				
JJ68A					R13 R15 R17							
JJ69	00002.000	EA		0972946-0065	RES FIX 1.0K OHM 5x .25 W CARBON FILM	RDH	-	R-25				
JJ69A					R4 R7							
JJ70	00001.000	EA		0539370-0436	RES FIX FILM 3.40K OHM 1x .25 WATT	COR	-	NA55				
JJ70A					R3							
JJ71	00002.000	EA		0972946-0081	RES FIX 4.7K OHM 5 x .25 W CARBON FILM	RDH	-	R-25				
JJ71A					R16 R19							
JJ73	00002.000	EA		0539370-0349	RES FIX FILM 422 OHM 1x .25 WATT	COR	-	NA55				
JJ73A					R9 R11							
JJ75	00001.000	EA		0972757-0021	CAP, FIX, CERAMIC, 470PF, 50V 10%							
JJ75A					C211							
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE					
							AUTO INSERTION TAPE FOR 944950-1					
APPD. MFG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.					
							PART NUMBER LM0944950-5001					
							REV BBC					

TEXAS INSTRUMENTS INCORPORATED		DATE 12/11/79		LIST OF MATERIAL		PAGE 7 of		PART NUMBER LM0944950-5001		REV BBC		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
JJ76	00102.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, 480V, -20%							
JJ76A					C1 THRU C203 ODD NO. ONLY							
JJ80	00001.000	EA		3219402-7474	NETWORK SN74S74N							
JJ80A					UE18							
JJ81	00001.000	EA		0972556-0002	NETWORK SN74368N							
JJ81A					UK02							
JJ85	00002.000	EA		0539374-0342	RES FIX FILM 357 OHM 1x .25 WATT	COR	-	NC5				
JJ85A					R5 R6							
JJ86	00001.000	EA		0539370-0339	RES FIX FILM 332 OHM 1x .25 WATT	COR	-	NA55D-100PPM/C				
JJ86A					R8							
JJ87	00001.000	EA		0539370-0340	RES FIX FILM 340 OHM 1x .25 WATT	COR	-	NA55				
JJ87A					R10							
JJ88	00002.000	EA		0972946-0047	RES FIX 180 OHM 5 x .25 W CARBON FILM	RDH	-	R-25				
JJ88A					R14 R18							
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE					
							AUTO INSERTION TAPE FOR 944950-1					
APPD. MFG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.					
							PART NUMBER LM0944950-5001					
							REV BBC					

- NOTES: UNLESS OTHERWISE SPECIFIED;
1. ALL DEVICE TYPES ARE PREFIXED WITH SN74
  2. GROUND IS APPLIED TO PIN 7 OF ALL 14-PIN IC'S AND PIN 8 OF ALL 16-PIN IC'S EXC RES PKGS
  3. VCC IS APPLIED TO PIN 14 OF ALL 14-PIN IC'S AND PIN 16 OF ALL 16-PIN IC'S.
  4. DEVICE TYPE, PIN NUMBERS, AND LOCATION OF IC IS SHOWN AS FOLLOWS:



100 AND 04 = DEVICE TYPE  
 4, 5 AND 06 = PIN NUMBERS  
 B06 AND C10 = LOCATION: FIRST LETTER DENOTES ROW, SECOND AND THIRD DIGITS DENOTES COLUMN - IC IS LOCATED AT THE INTERSECTION OF ROW AND COLUMN.

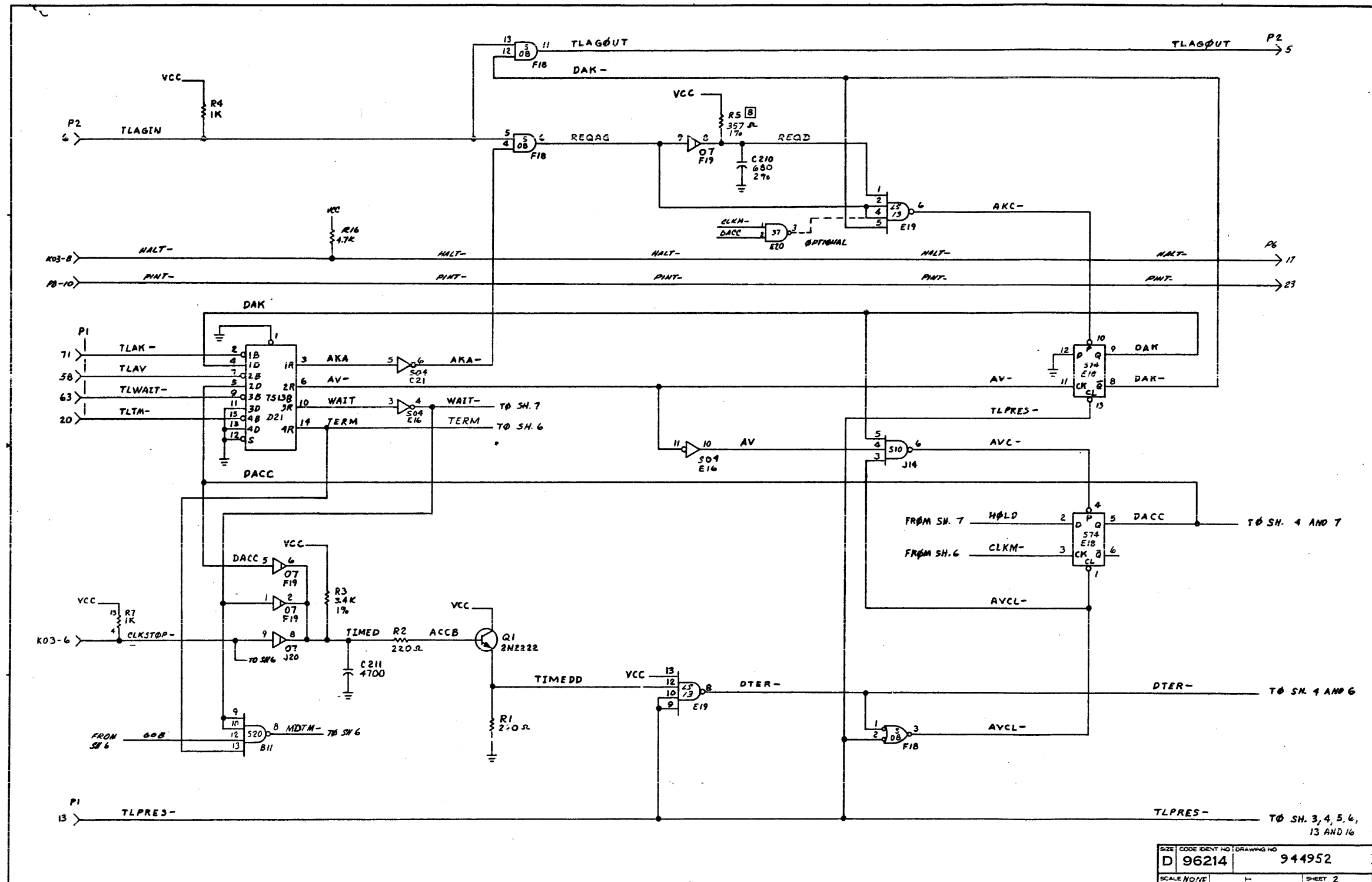
5. ALL RESISTOR VALUES ARE IN OHMS
  6. ALL CAPACITOR VALUES ARE IN PICO FARADS
  7. R20, R21, R23 AND R24 ARE TRIMMER RESISTORS AND MAY OR MAY NOT BE INSTALLED
- RE MAY BE CHANGED AT UNIT TEST TO MEET TIMING SPECS

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	CAUTION: TYPE 220 (U) REVISED PER EXTENSIVE ENGINEERING CHANGES (ADDED REV STATUS BLK)	7/17/76	J. Blum
	B	CN41946(C) (E) A. C. S. R. K.	4-11-76	J. Blum
	C	CN422136 (E) J. W. W. H. K.	5-22-77	J. Blum
	D	CN420884 (C. B. Wallace)	6-11-77	J. Blum
	E	CN425126(C) H. D. R. K.	8-17-77	J. Blum
	F	CN427188 (D) R. Parker	10-17-77	J. Blum
	G	CN446656 (C) B. B. K.	9-22-78	E. U. W.
	H	CN448469 (E) J. W. W. H. K.	5-2-79	J. Blum
	J	CN451995 (E) J. W. W. H. K.	5-2-79	J. Blum
	K	CN449711 (D) J. W. W. H. K.	5-25-79	E. U. W.
	L	CN450286 (C) J. W. W. H. K.	8-1-79	E. U. W.
	M	CN433366 (C) D. J. W.	8-9-79	E. U. W.
	N	CN450587 (D) J. W. W. H. K.	10-30-79	E. U. W.
	P	CN456200 (C) J. W. W. H. K.	1-3-80	J. Blum

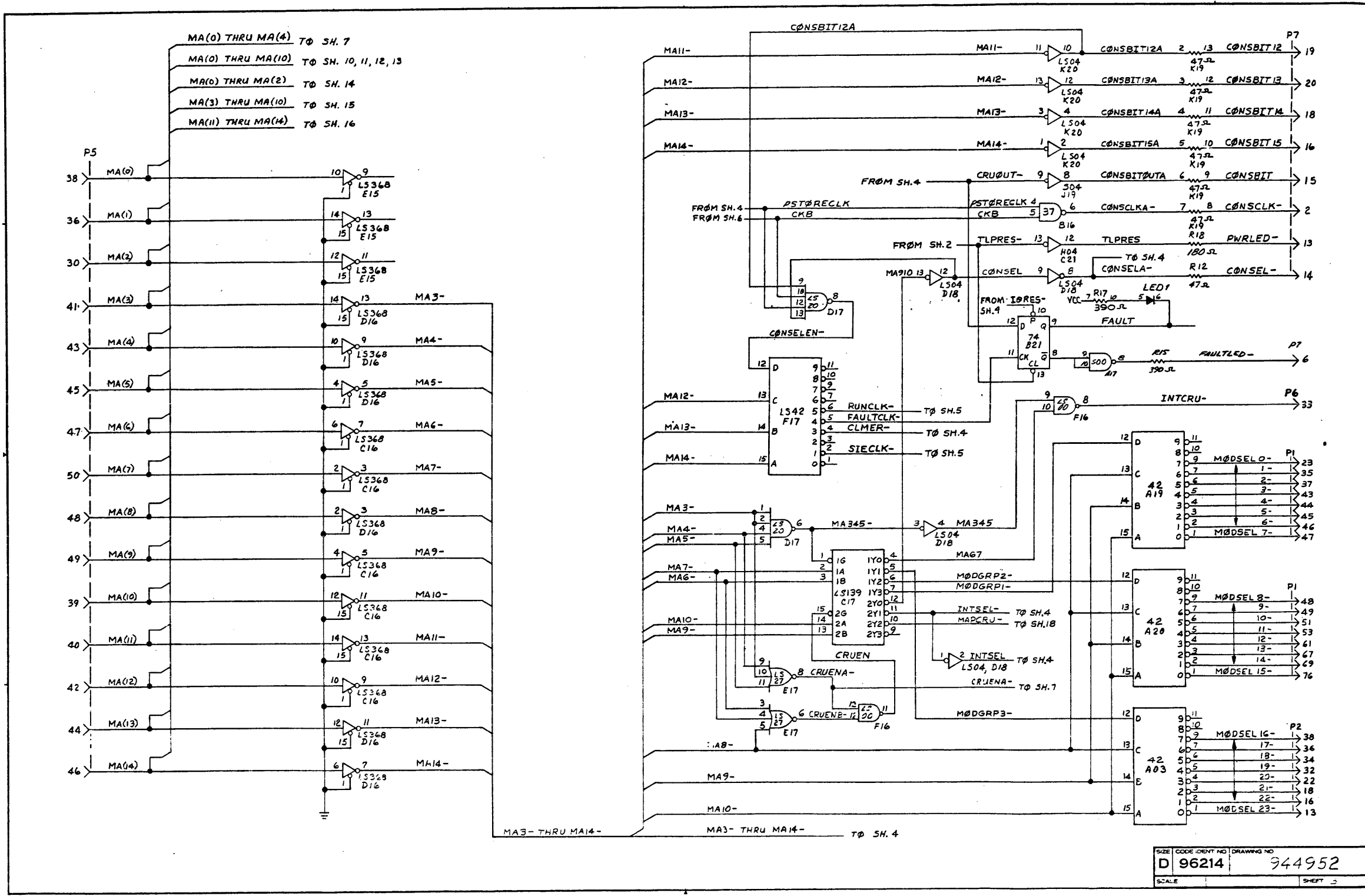
TYPE	LOCATION	PIN#
100	F15	4, 5, 6, 11, 12, 13
	J16	8, 9, 10
LS00	B08	4, 5, 6, 10
LS04	K07	10, 11, 12, 13
	B07	5, 6
	B12	12, 3, 4, 5, 6
	K20	5, 6
S04	J15	5, 6
	J19	10, 11
	<del>B16</del>	<del>4, 5, 6, 10</del>
S08	F18	8, 9, 10
LS11	K15	3, 4, 5, 6
LS27	E17	12, 12, 13
37	F20	1, 2, 3
LS84	B13	1, 2, 3, 4, 5, 6, 11, 12, 13
	<del>F14</del>	<del>10, 11, 12, 13</del>
LS175	B20	4, 7, 10, 11, 12, 13, 14, 15
LS368	E15	1, 2, 3, 4, 7

REV STATUS	REV	B	H	K	F	P	K	-	-	-	M	M	-	P	E						
OF SHEETS	5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

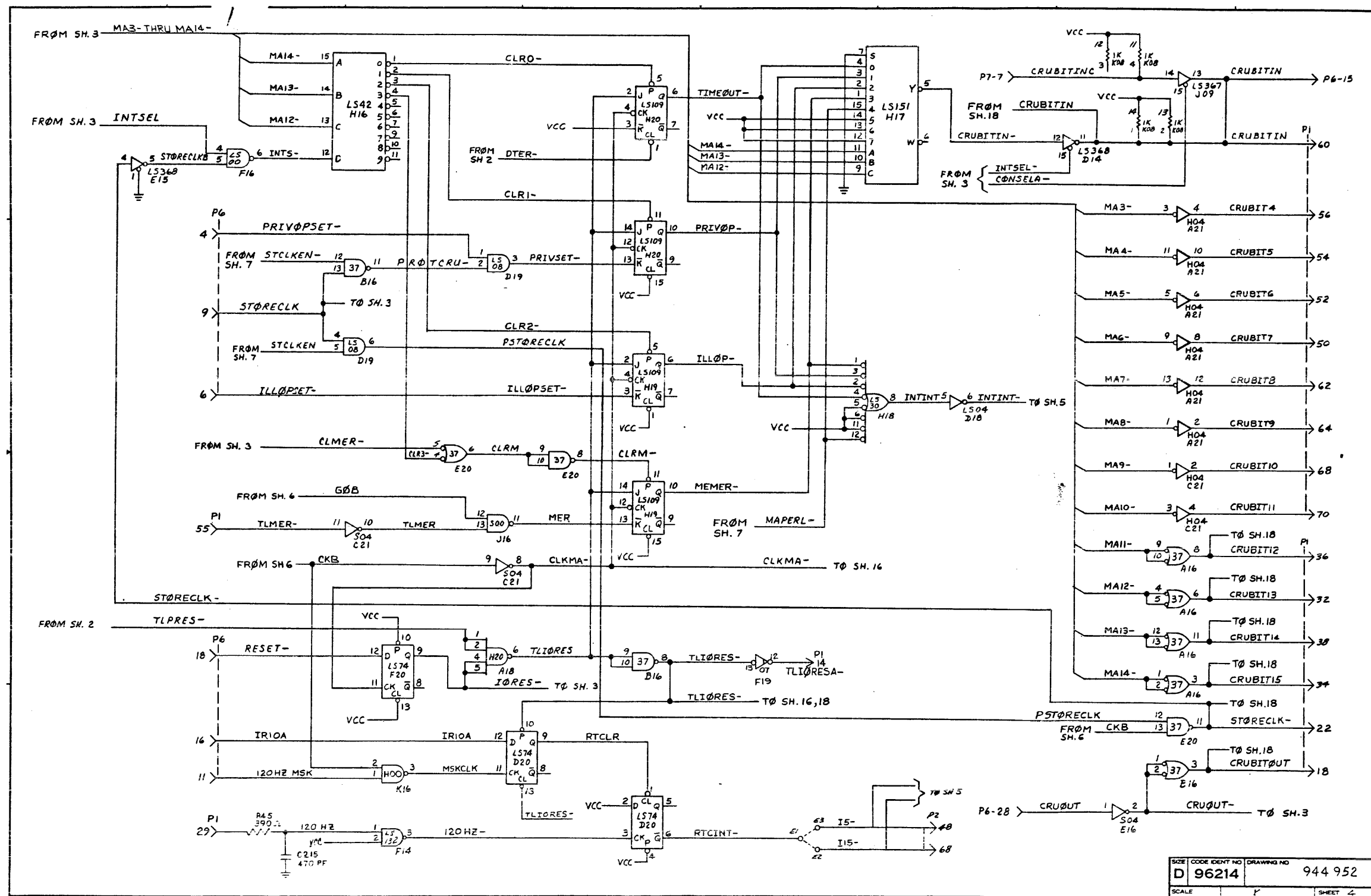
QTY REQD	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
PARTS LIST					
UNLESS OTHERWISE SPECIFIED			UNLESS OTHERWISE SPECIFIED		
REMOVE ALL BURRS AND SHARP EDGES CONCENTRICITY MACHINED DIAMETERS .010 FIR DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100			DIMENSIONS ARE IN INCHES TOLERANCES ANGLES 30° 3 PLACE DECIMALS ±.010 2 PLACE DECIMALS ±.02		
HOLE TOLERANCE .013 +.004 THRU +.001 .125 +.001 THRU +.001 .301 +.008 THRU +.010 THRU +.001 THRU 1.000			.001 THRU .001 .001 THRU .001 .001 THRU .001 .001 THRU .001 .001 THRU .001		
944950 7506 NEXT ASSY USED ON APPLICATION			DATE 10-23-75 BY J. W. W. H. K. CHECKED J. W. W. H. K. APPROVED J. W. W. H. K. CONTR NO DESIGN ACTIVITY RELEASE 5/1/76		
TEXAS INSTRUMENTS INCORPORATED Equipment Group Dallas, Texas			LOGIC DIAGRAM- AU #2 WITH MAP 990/10		
SIZE CODE IDENT NO DRAWING NO D 96214 944-952			SCALE N/A E SHEET 1 OF 20		



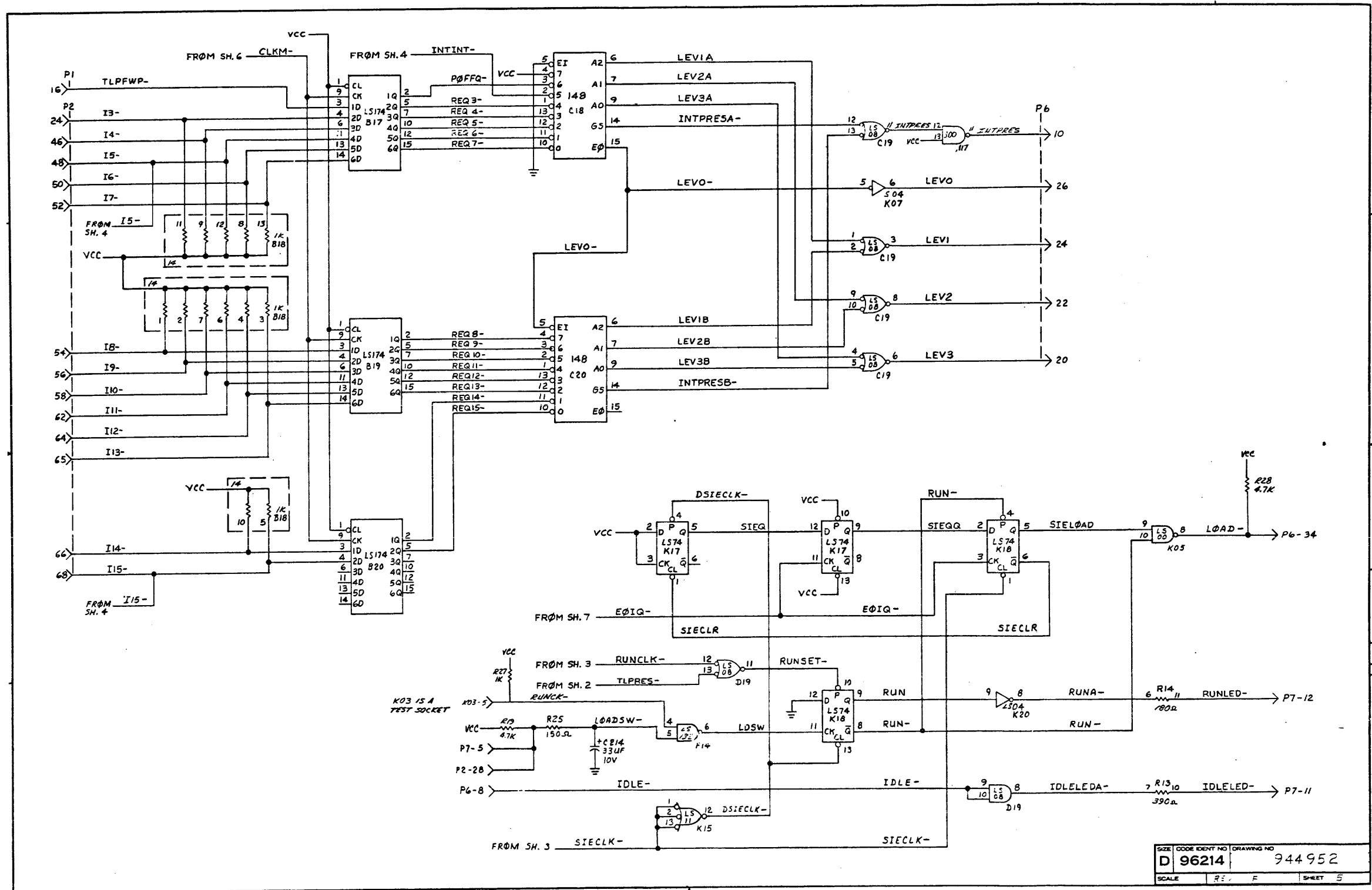
SIZE	CODE IDENT NO	DRAWING NO
D	96214	944952
SCALE	NONE	SHEET 2



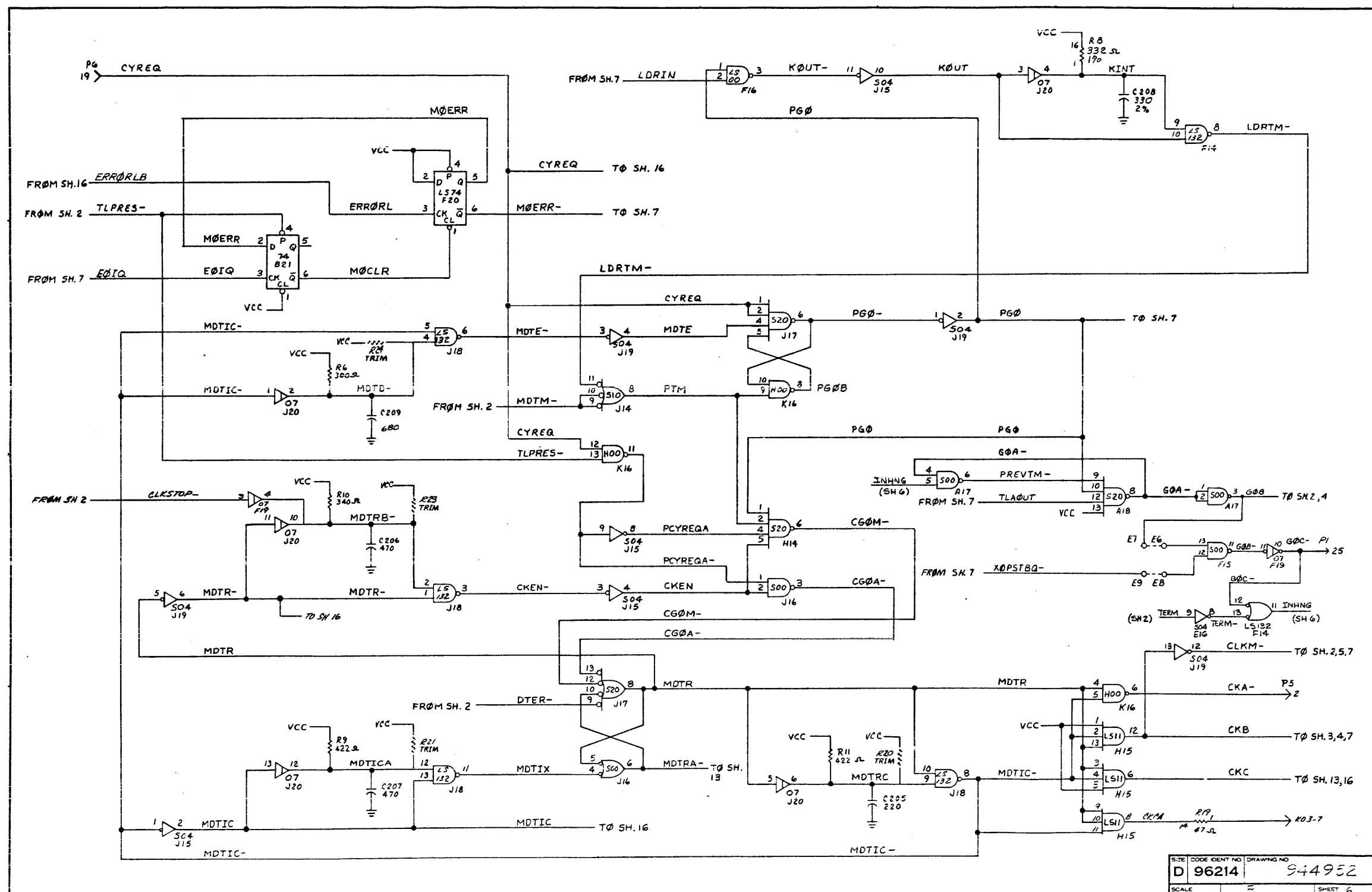
SMI (with mapping) Logic Diagram



SIZE	CODE IDENT NO	DRAWING NO
D	96214	944 952
SCALE	1"	SHEET 4

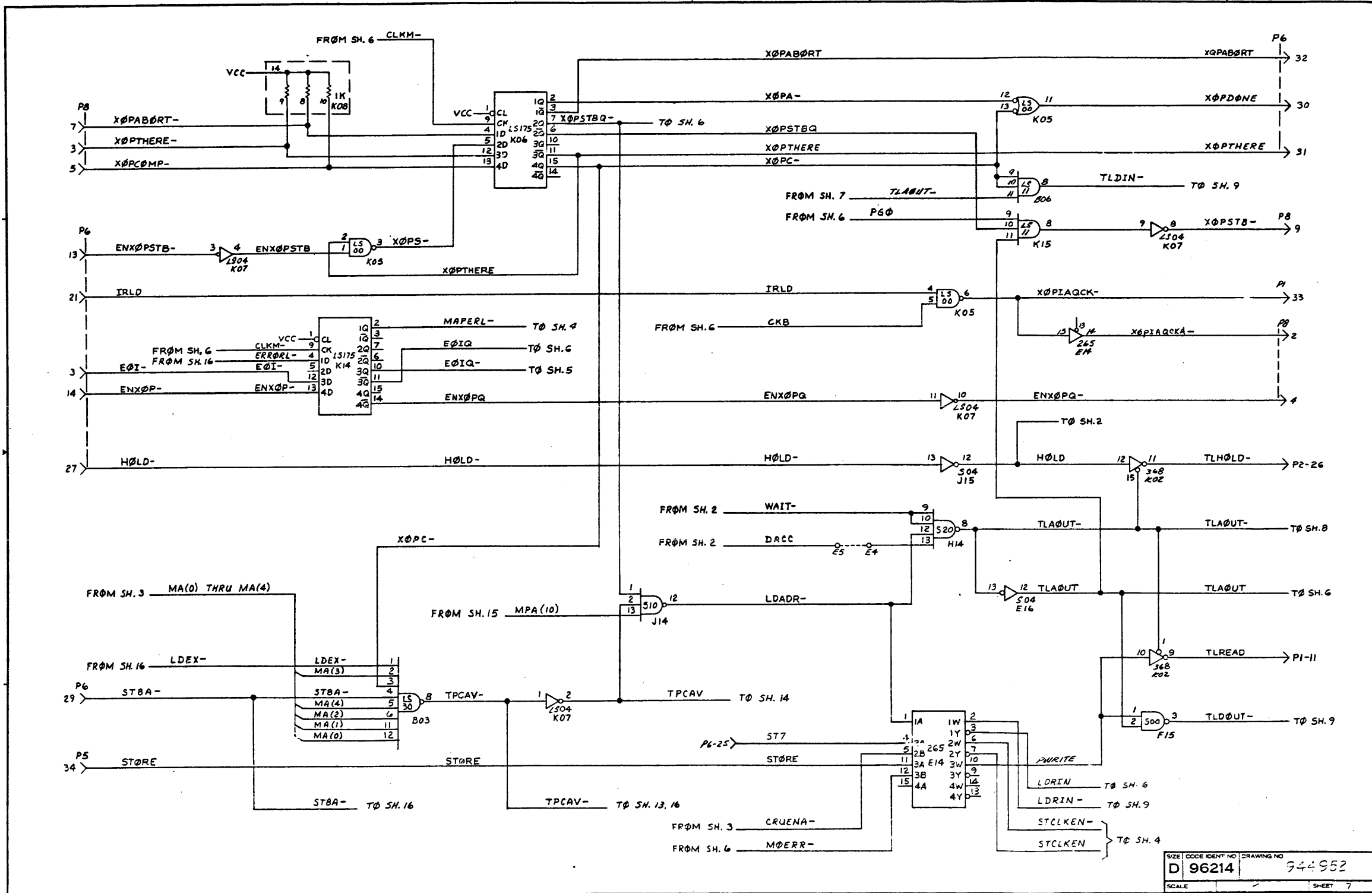


SIZE	CODE IDENT NO	DRAWING NO
D	96214	944952
SCALE	REV	SHEET 5

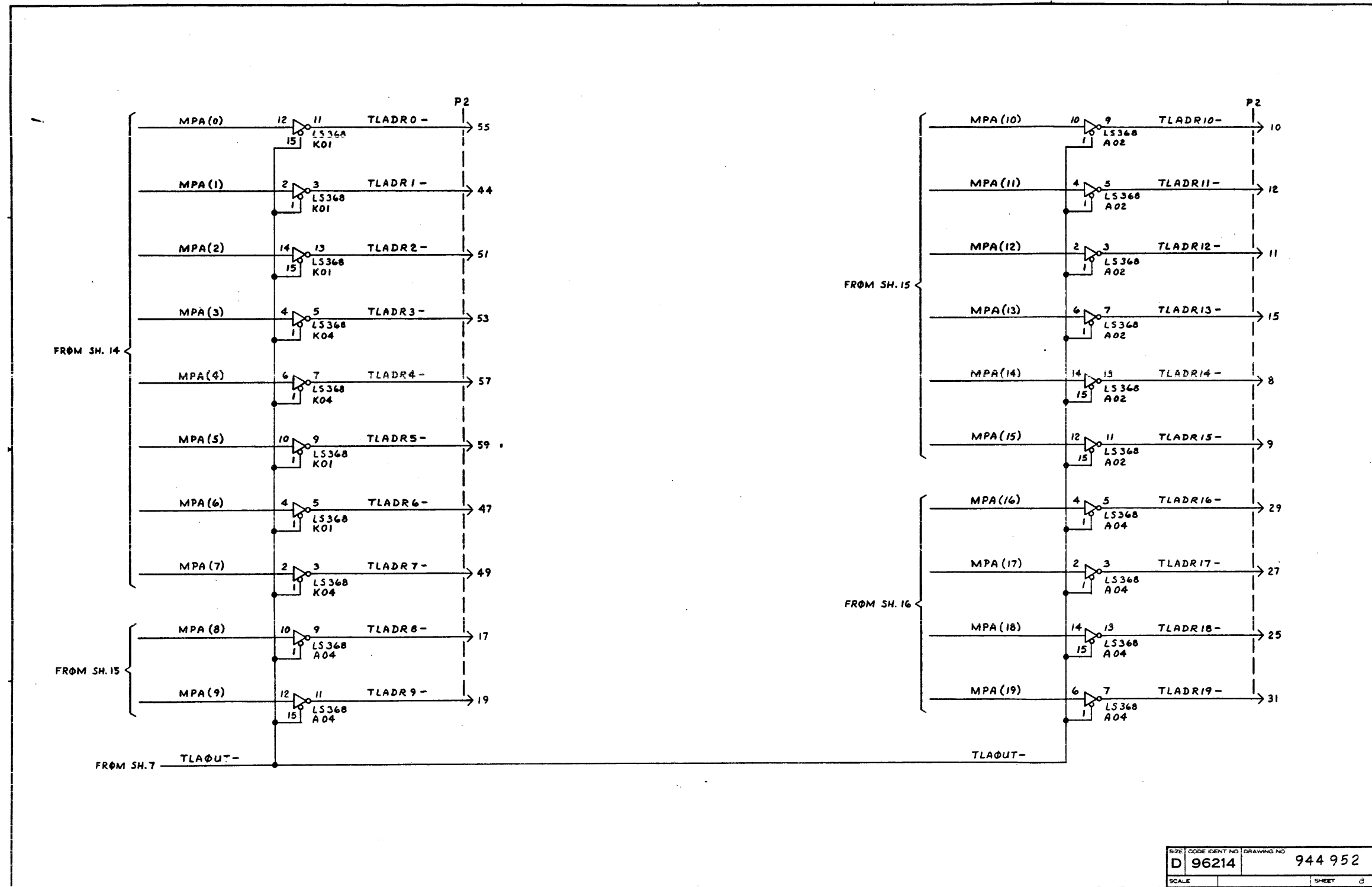


SIZE	CODE IDENT NO	DRAWING NO
D	96214	944952
SCALE		SHEET 6

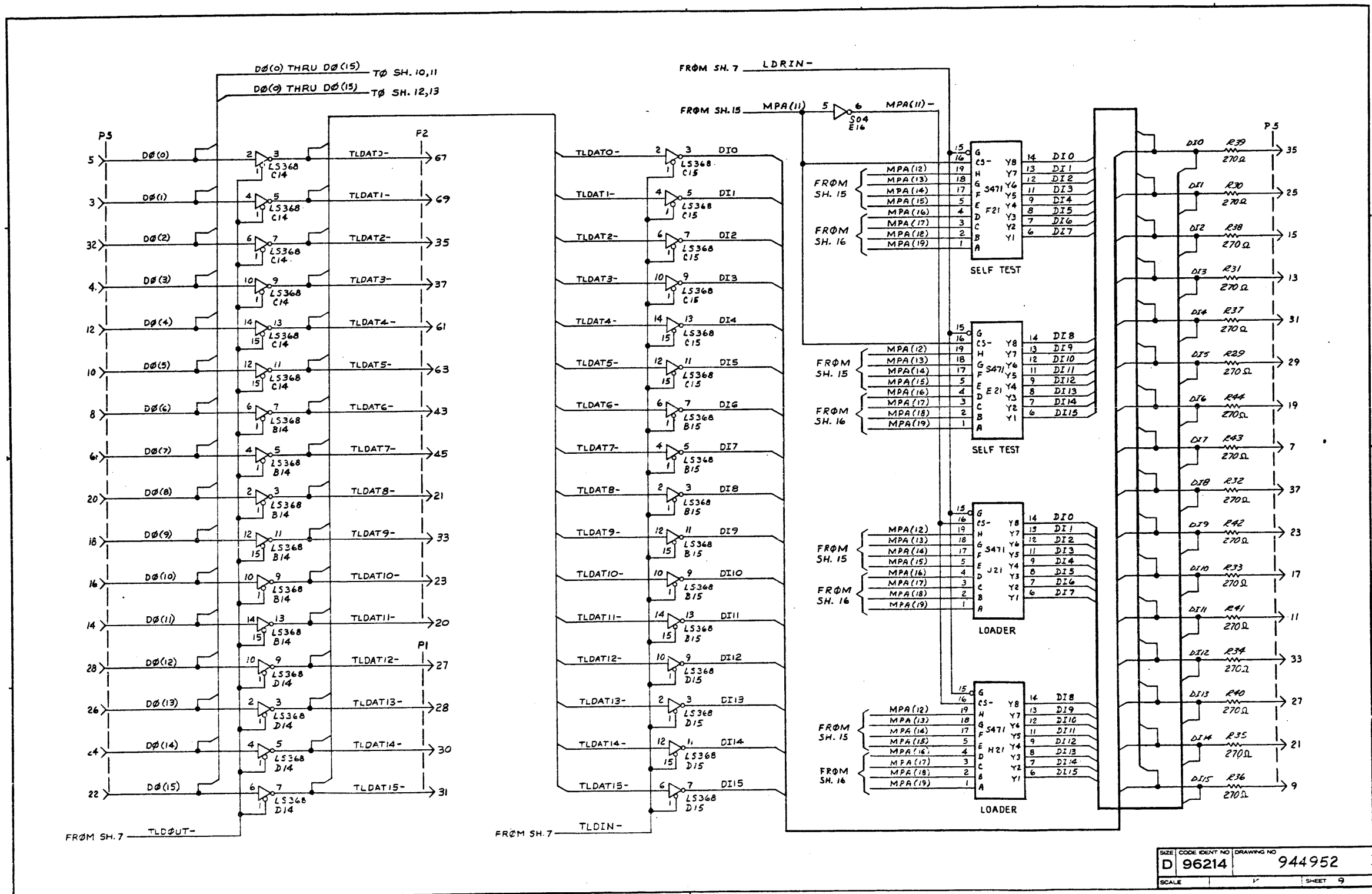




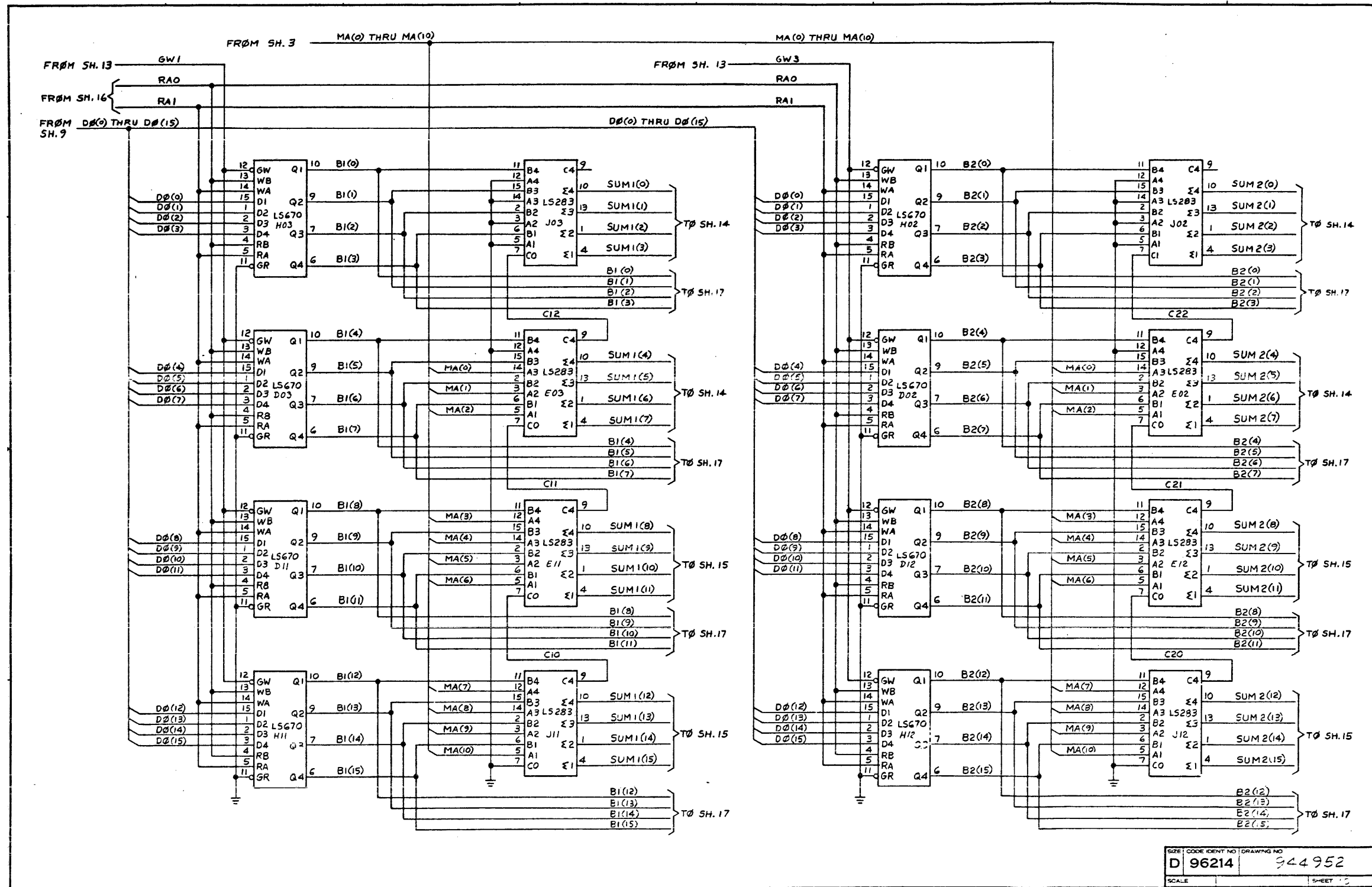
SIZE	CODE IDENT NO	DRAWING NO
D	96214	944952
SCALE		SHEET 7

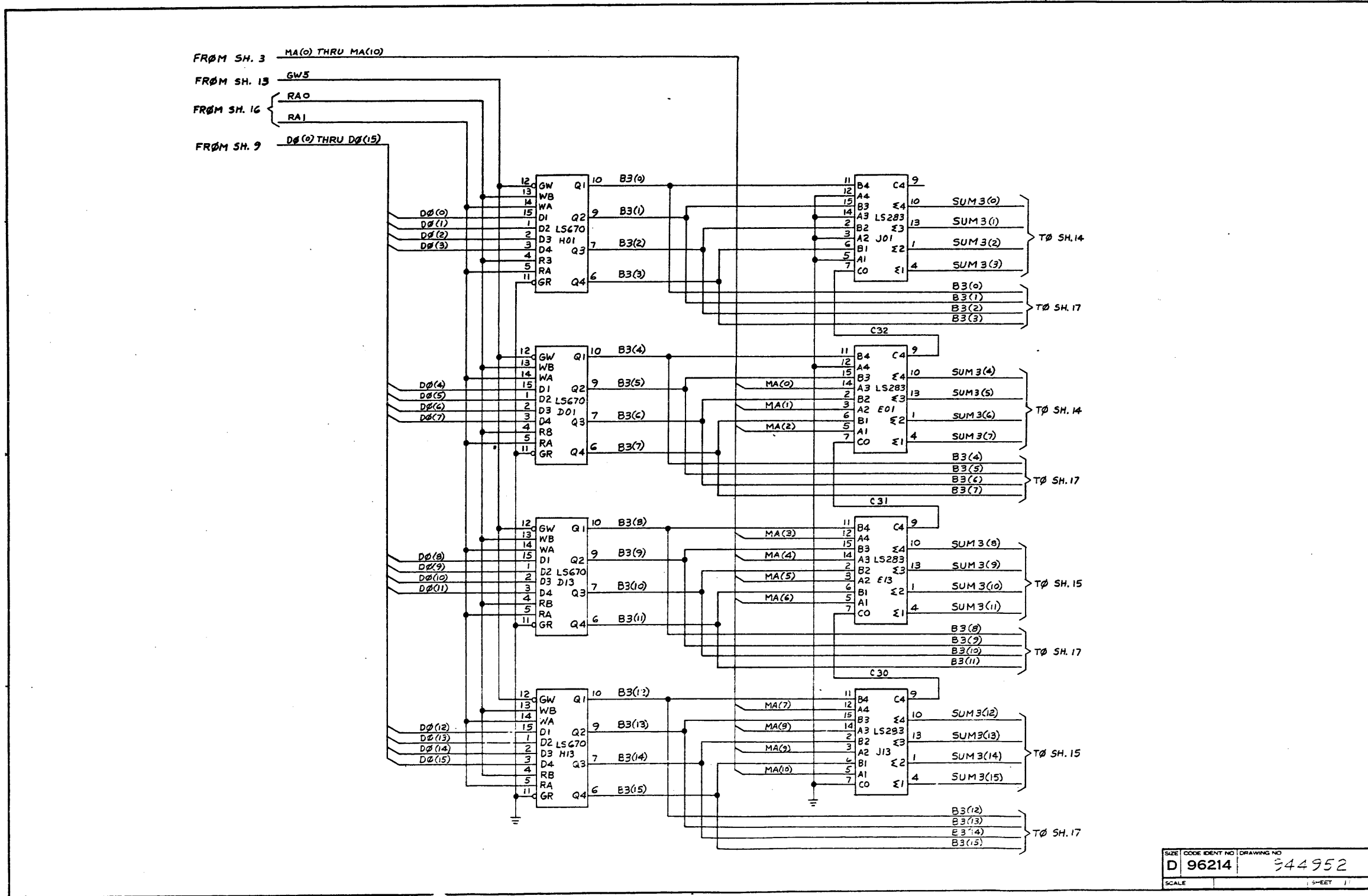


SIZE	CODE IDENT NO	DRAWING NO
D	96214	944 952
SCALE		SHEET c

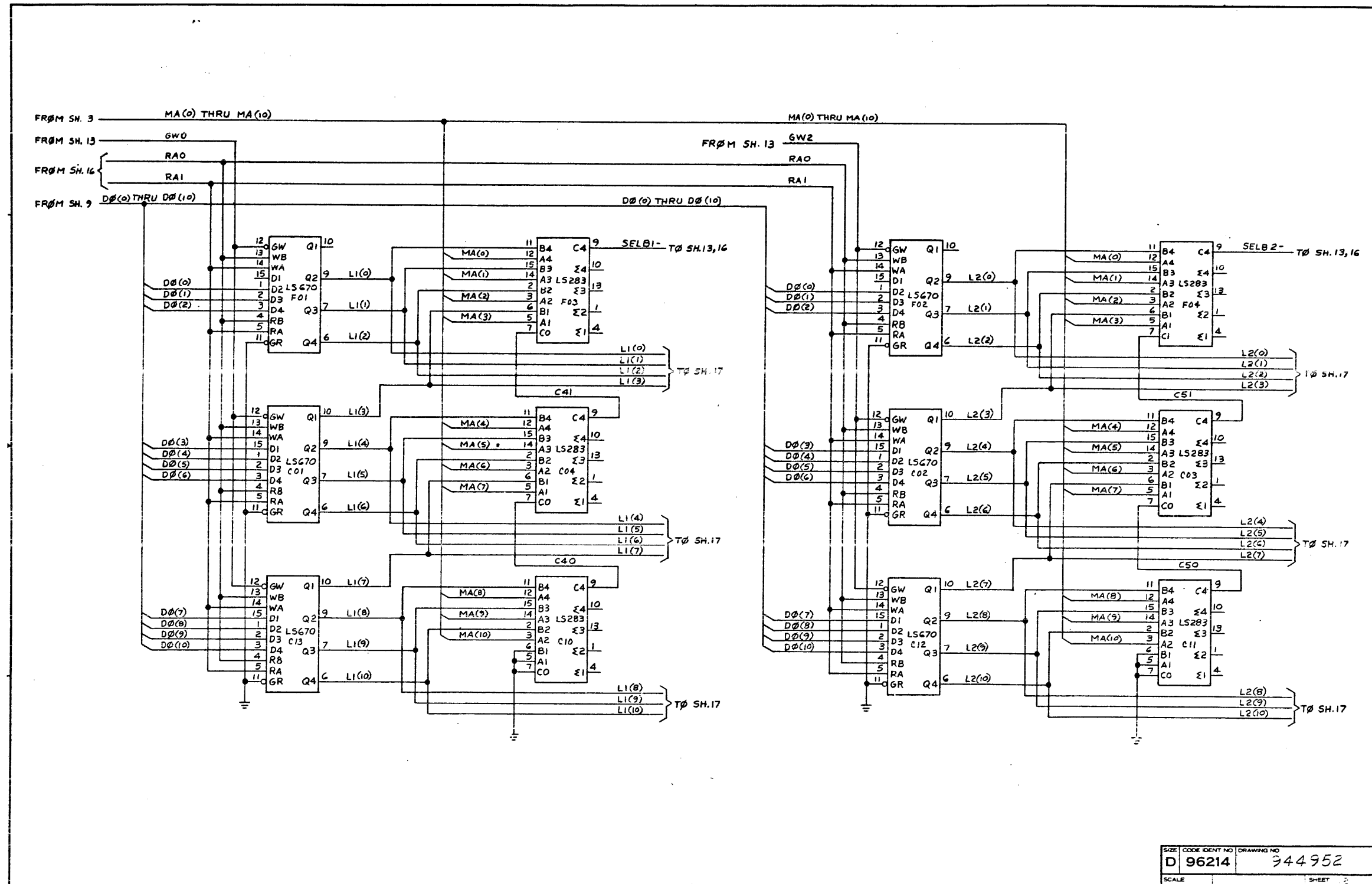


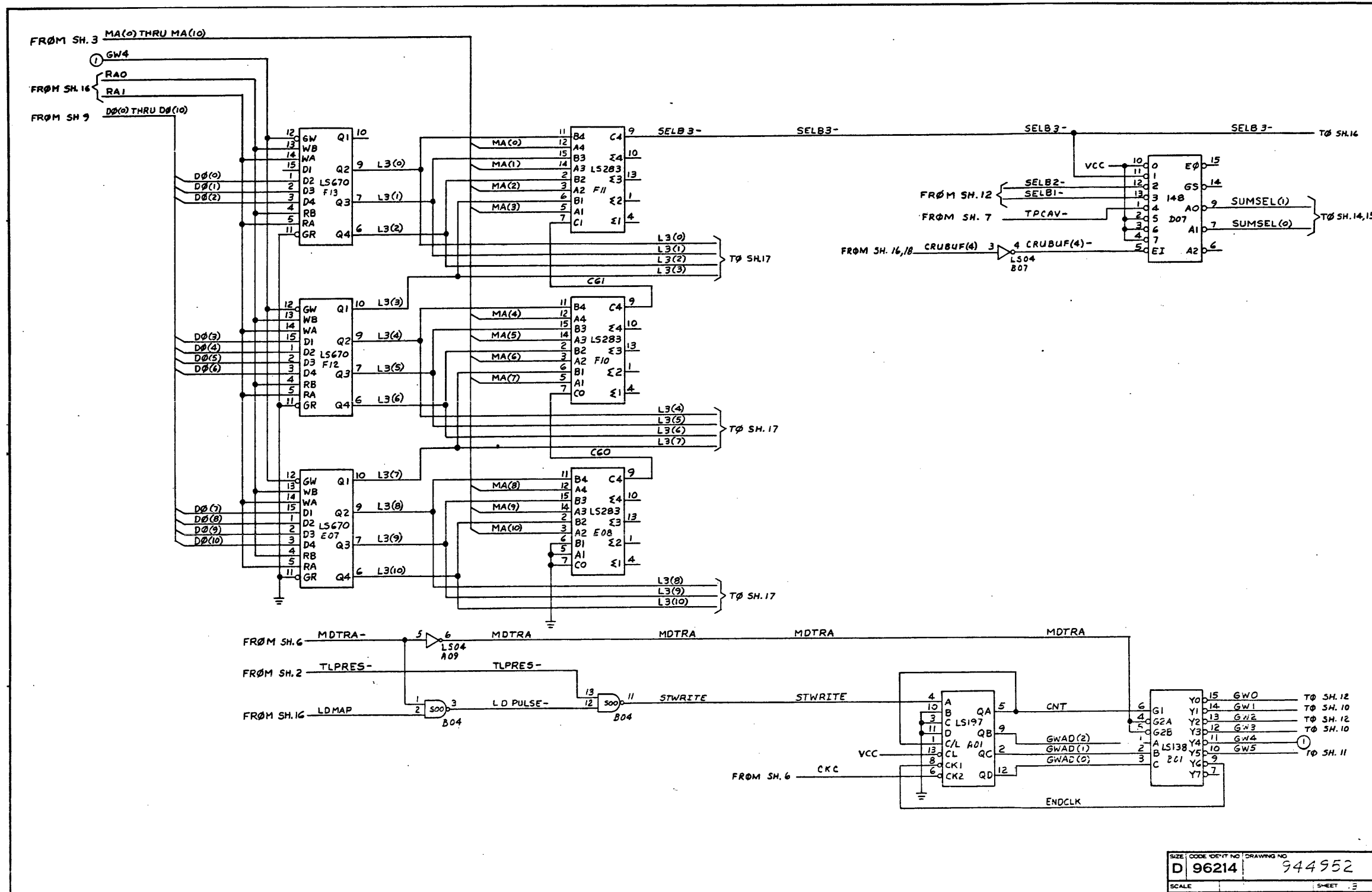
SIZE CODE IDENT NO DRAWING NO  
 D 96214 944952  
 SCALE 1" SHEET 9



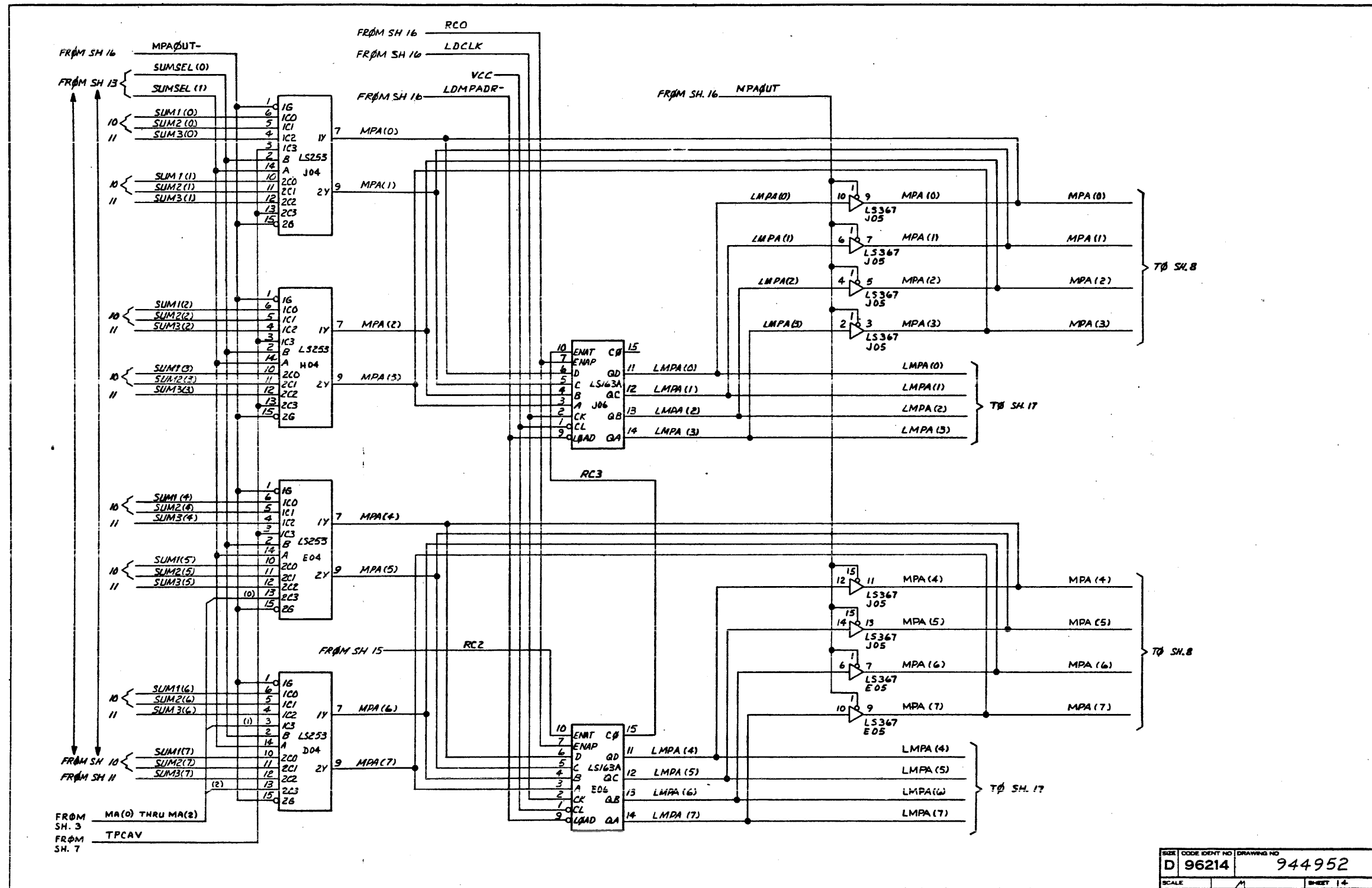


SIZE	CODE IDENT NO	DRAWING NO
D	96214	344952
SCALE	SHEET 1	

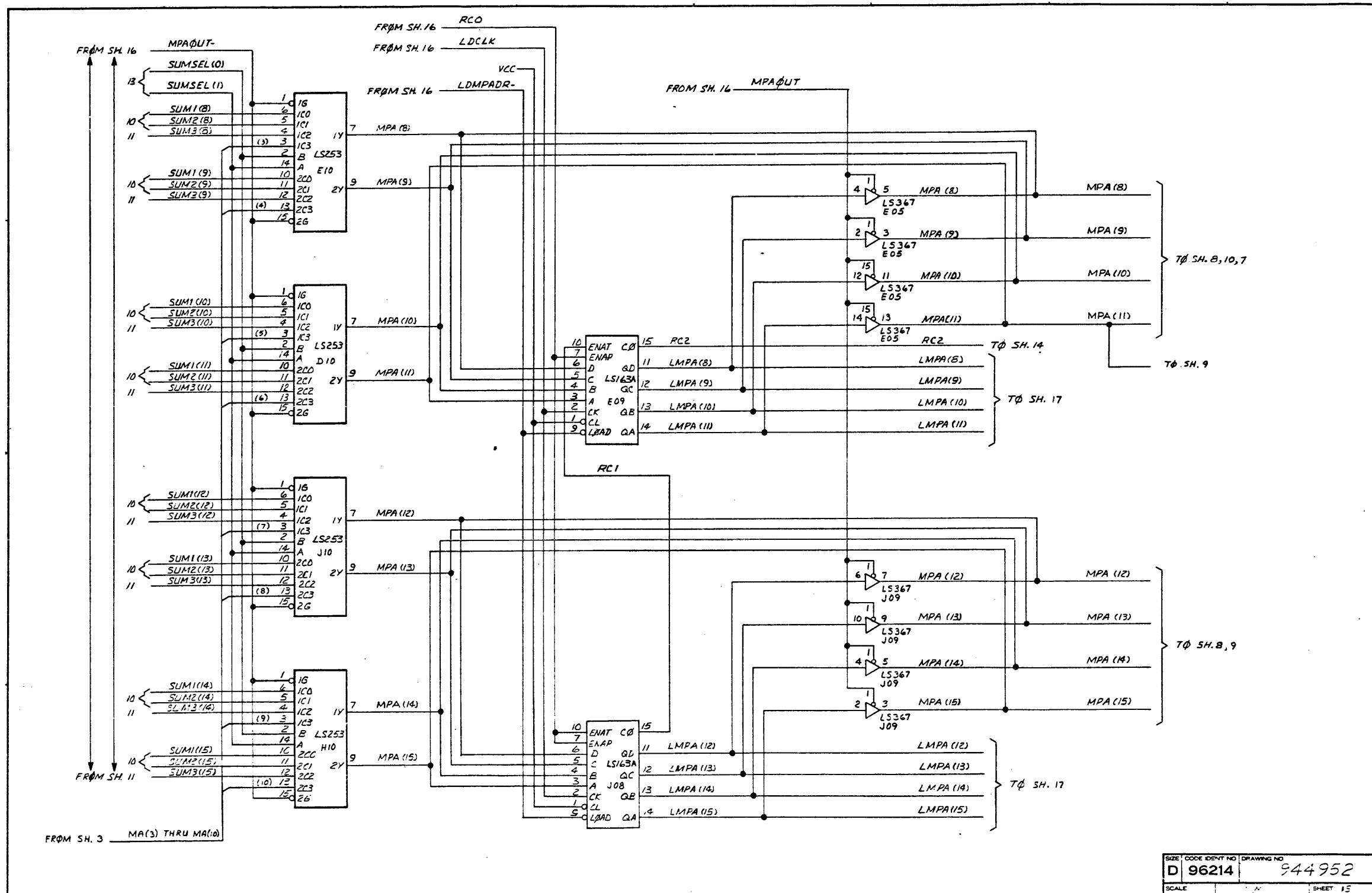




SIZE	CODE	REV. NO.	DRAWING NO.
D	96214		944952
SCALE			SHEET 3

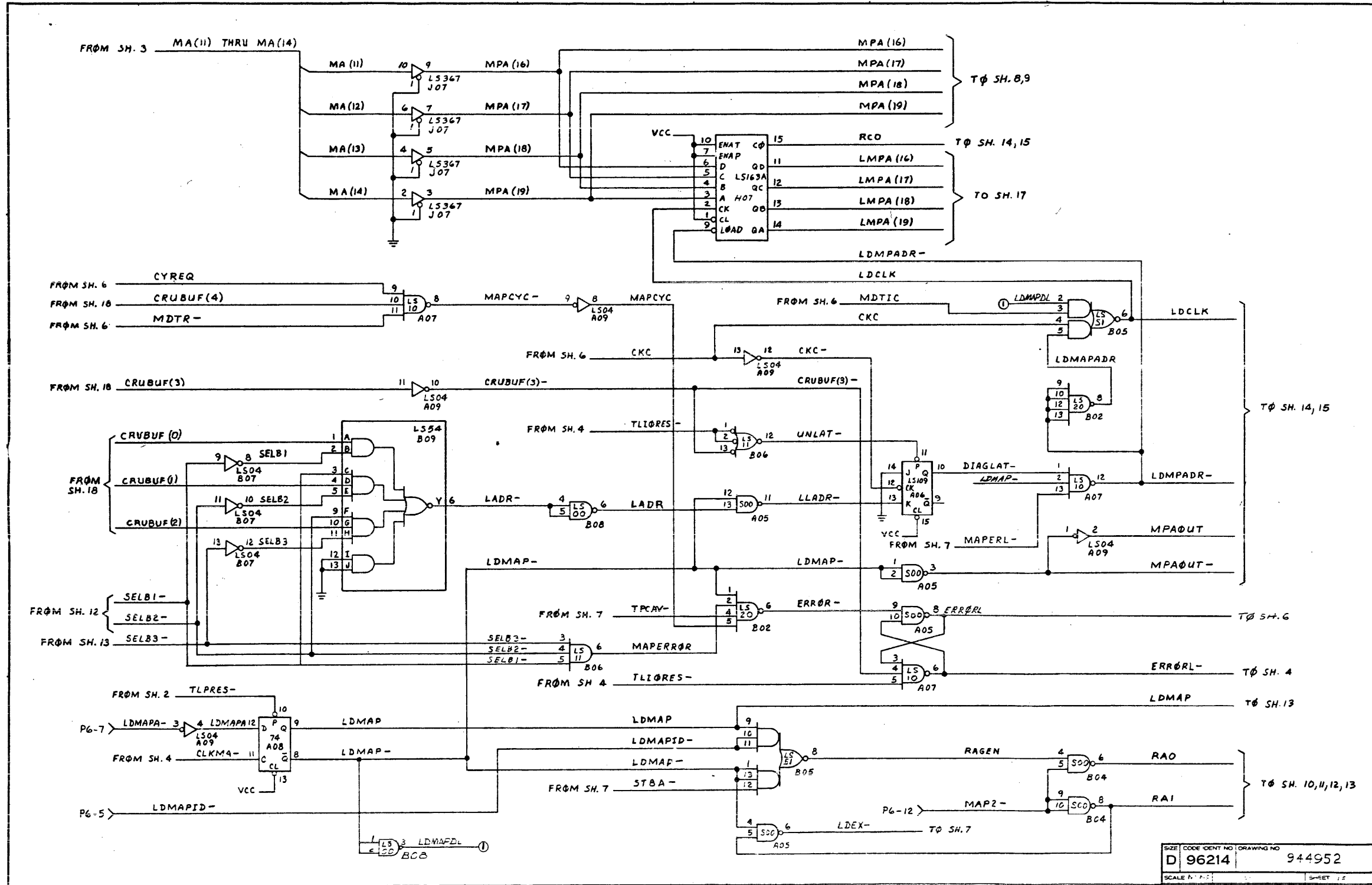


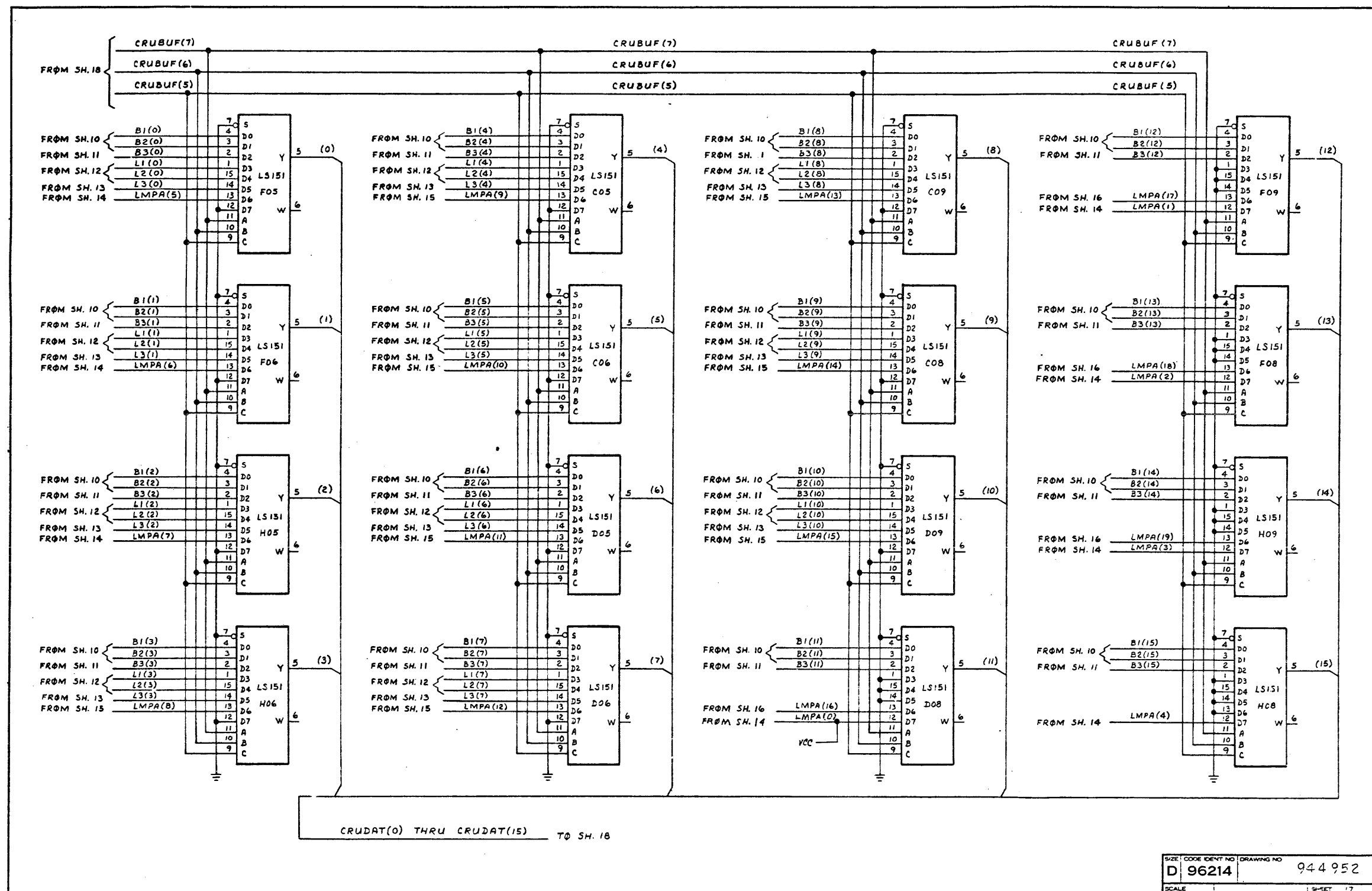


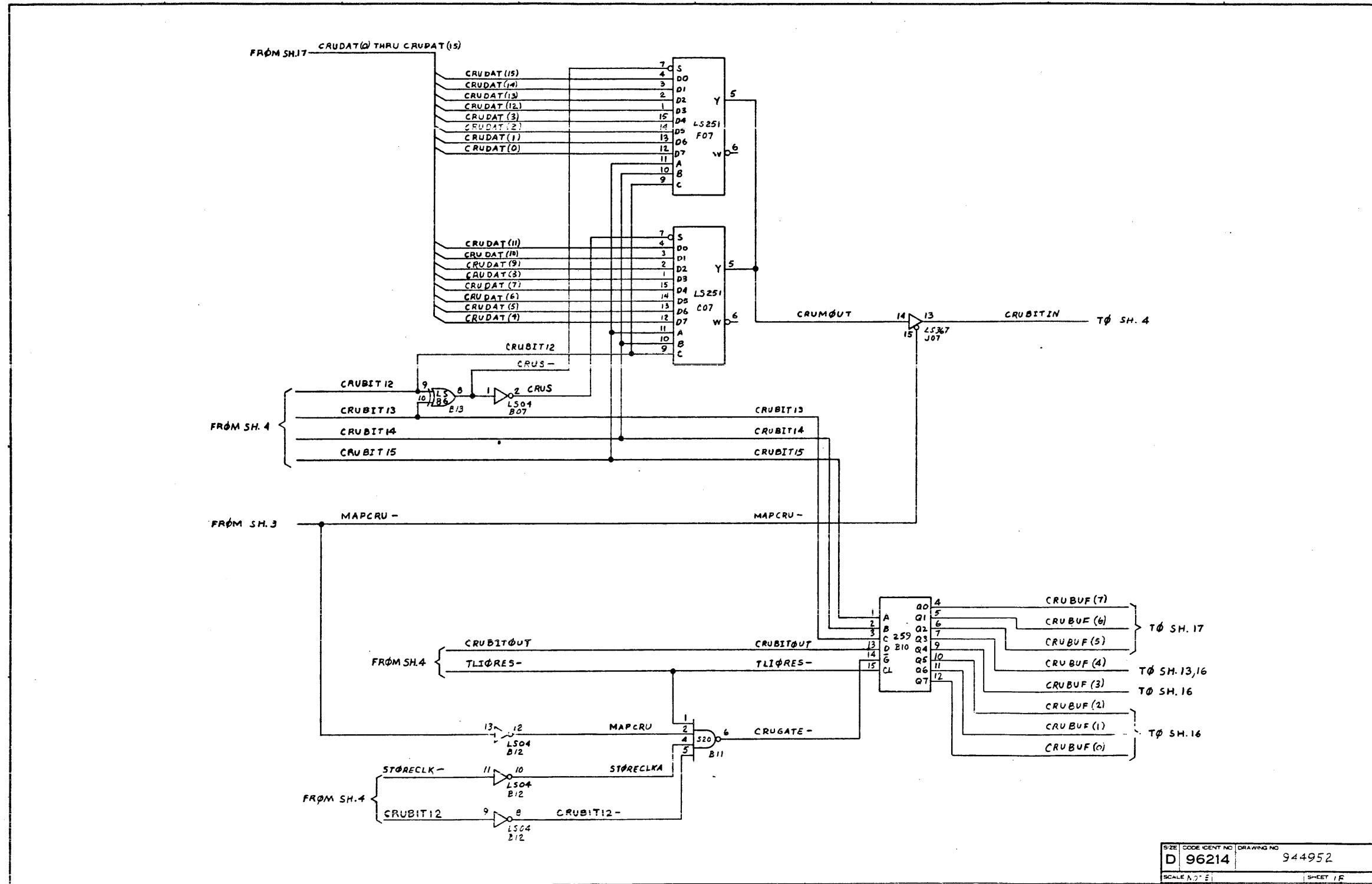


SIZE	CODE IDENT NO	DRAWING NO
D	96214	944952
SCALE		SHEET 15

SMI (with mapping) Logic Diagram





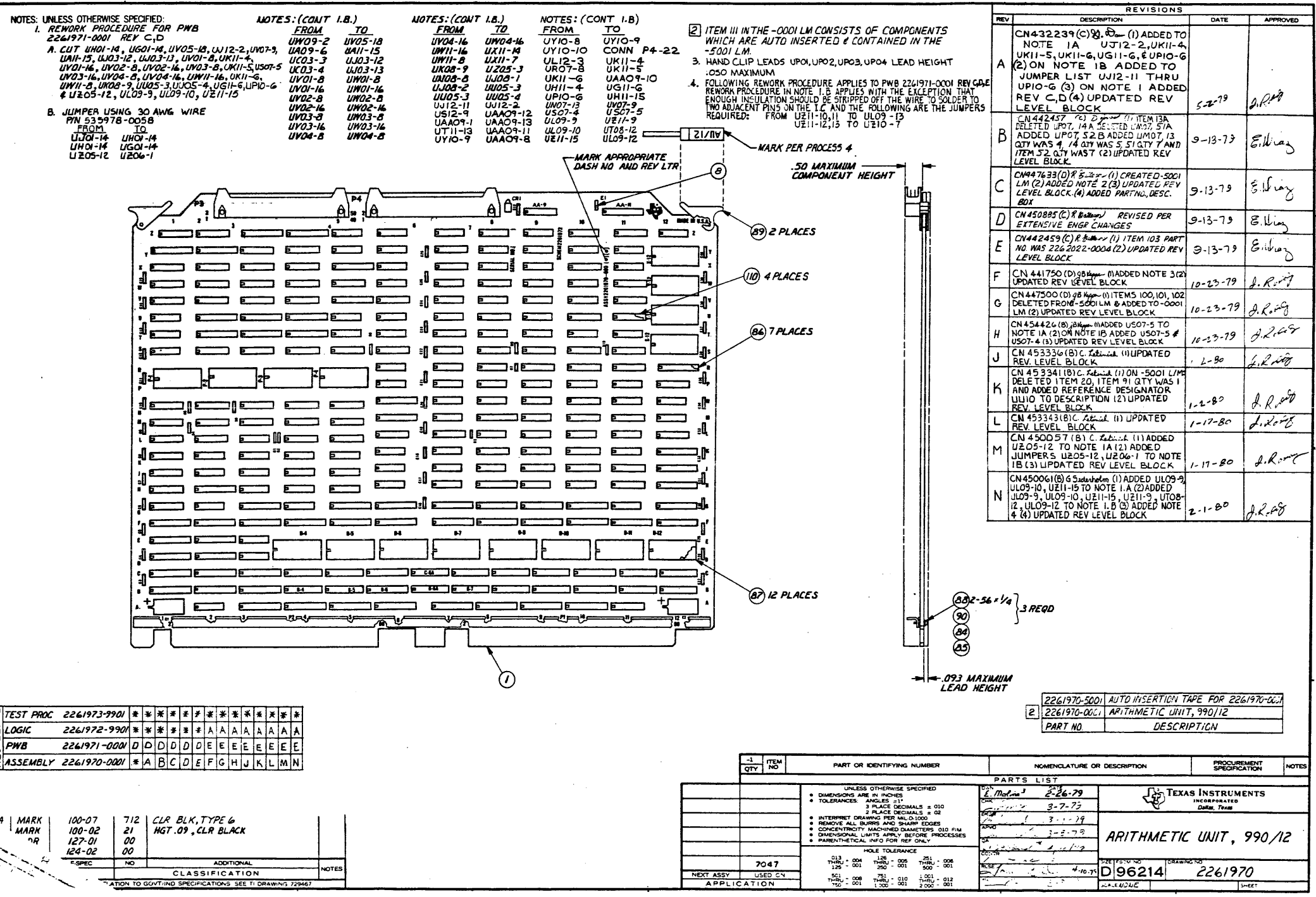


LOC.	TYPE	PAGE(S)	LOC.	TYPE	PAGE(S)	LOC.	TYPE	PAGE(S)	LOC.	TYPE	PAGE(S)
A01	LS197	-13	D01	LS670	-11	F15	S00	-7, 16	K08	1K	-4,7
A02	LS368	-8	D02	LS670	-10	F16	LS00	-3,4,6	K14	LS175	-7
A03	42	-3	D03	LS670	-10	F17	LS42	-3	K15	LS11	-5,7
A04	LS368	-8	D04	LS253	-14	F18	S08	-2	K16	S00	-4,6
A05	S00	-16	D05	LS151	-17	F19	07	-2,6,4	K17	LS74	-5
A06	LS109	-16	D06	LS151	-17	F20	LS74	-4,6	K18	LS74	-5
A07	LS10	-16	D07	148	-13	F21	S471	-9	K19	47a	-3
A08	74	-16	D08	LS151	-17	H01	LS670	-11	K20	LS04	-3,5
A09	LS04	-13,16	D09	LS151	-17	H02	LS670	-10			
A16	37	-4	D10	LS253	-15	H03	LS670	-10			
A17	S00	-5,6	D11	LS670	-10	H04	LS253	-14			
A18	S20	-4,6	D12	LS670	-10	H05	LS151	-17			
A19	H04	-3	D13	LS670	-11	H06	LS151	-17			
A20	42	-3	D14	LS368	-4,9	H07	LS163A	-16			
A21	W04	-4	D15	LS368	-9	H08	LS151	-17			
B01	LS138	-13	D16	LS368	-3	H09	LS151	-17			
B02	LS20	-16	D17	LS20	-3	H10	LS253	-15			
B03	LS30	-7	D18	LS04	-3,4,5	H11	LS670	-10			
B04	S00	-13,16	D19	LS08	-4,5	H12	LS670	-10			
B05	51	-16	D20	LS74	-4	H13	LS670	-11			
B06	LS11	-16	D21	LS138	-2	H14	S20	-6,7			
B07	LS04	-13,16,18	E01	LS283	-11	H15	LS11	-6			
B08	LS00	-16	E02	LS283	-10	H16	LS42	-4			
B09	LS54	-16	E03	LS283	-10	H17	LS151	-4			
B11	S20	-2,18	E04	LS253	-14	H18	LS30	-4			
B12	LS04	-18	E05	LS367	-14,15	H19	LS109	-4			
B13	LS36	-18	E06	LS163A	-14	H20	LS109	-4			
B14	LS368	-9	E07	LS670	-13	H21	S471	-9			
B15	LS368	-9	E08	LS283	-13	J01	LS283	-11			
B16	37	-3,4	E09	LS163A	-15	J02	LS283	-10			
B17	LS174	-5	E10	LS253	-15	J03	LS283	-10			
B18	1K	-5	E11	LS283	-10	J04	LS253	-14			
B19	LS174	-5	E12	LS283	-10	J05	LS367	-14			
B20	LS174	-5	E13	LS283	-11	J06	LS163A	-14			
B21	74	-3,6	E14	265	-7	J07	LS367	-16,18			
C01	LS670	-12	E15	LS368	-3,4	J08	LS163A	-15			
C02	LS670	-12	E16	S04	-2,4,7,9,6	J09	LS367	-4,15			
C03	LS283	-12	E17	LS27	-3	J10	LS253	-15			
C04	LS283	-12	E18	S74	-2	J11	LS283	-10			
C05	LS151	-17	E19	LS13	-2	J12	LS283	-10			
C06	LS151	-17	E20	37	-4	J13	LS283	-11			
C07	LS251	-18	E21	S471	-9	J14	S10	-2,6,7			
C08	LS151	-17	F01	LS670	-12	J15	S04	-6,7			
C09	LS151	-17	F02	LS670	-12	J16	S00	-4,6			
C10	LS283	-12	F03	LS283	-12	J17	S20	-6			
C11	LS283	-12	F04	LS283	-12	J18	LS132	-6			
C12	LS670	-12	F05	LS151	-17	J19	S04	-3,6			
C13	LS670	-12	F06	LS151	-17	J20	07	-2,6			
C14	LS368	-9	F07	LS251	-18	J21	S471	-9			
C15	LS368	-9	F08	LS151	-17	K01	LS368	-8			
C16	LS368	-3	F09	LS151	-17	K02	368	-7			
C17	LS139	-3	F10	LS283	-13	K03	SOCKET	-TEST SOCKET			
C18	148	-5	F11	LS283	-13	K04	LS368	-7,8			
C19	LS08	-5	F12	LS670	-13	K05	LS00	-5,7			
C20	148	-5	F13	LS670	-13	K06	LS175	-7			
C21	H04	-2,3,4	F14	LS132	-4,5,6	K07	LS04	-5,7			

SIZE	CODE IDENT NO	DRAWING NO
D	96214	944952
SCALE	P	SHEET 19

REF DES	VALUE	PAGE(S)		REF DES	VALUE	PAGE
R1	220 $\Omega$	2				
R2	220 $\Omega$	2				
R3	3.3K	2				
R4	1K	2				
R5	300 $\Omega$	2				
R6	300 $\Omega$	6		C205	220	6
R7	1K	2		C206	470	6
R8	330 $\Omega$	6		C207	470	6
R9	390 $\Omega$	6		C208	220	6
R10	330 $\Omega$	6		C209	100 $\mu$	6
R11	330 $\Omega$	6		C210	4.7 $\mu$	2
R12	47 $\Omega$	3		C211	.0047	2
R13	390 $\Omega$	5		C212	LARGE DECOUPLING	
R14	180 $\Omega$	5		C213	LARGE DECOUPLING	
R15	390 $\Omega$	3		C214	39 $\mu$	5
R16	4.7K	2		C215	470PF	4
R17	390 $\Omega$	3		LED		6
R18	180 $\Omega$	3		R45	390 $\Omega$	4
R19	4.7K	5				
R20		6	TRIM FOR R11			
R21		6	TRIM FOR R9			
R22			DELETED			
R23		6	TRIM FOR R10			
R24		6	TRIM FOR 6			
R25	150 $\Omega$	5				
R27	1K	5				
R28	4.7K	5				
R29	270 $\Omega$	9				
R30	270 $\Omega$	9				
R31	270 $\Omega$	9				
R32	270 $\Omega$	9				
R33	270 $\Omega$	9				
R34	270 $\Omega$	9				
R35	270 $\Omega$	9				
R36	270 $\Omega$	9				
R37	270 $\Omega$	9				
R38	270 $\Omega$	9				
R39	270 $\Omega$	9				
R40	270 $\Omega$	9				
R41	270 $\Omega$	9				
R42	270 $\Omega$	9				
R43	270 $\Omega$	9				
R44	270 $\Omega$	9				
QK19	47 $\Omega$	3,6				
QK08	1k	4,7				
Q1	2N2222	2				
Q28	1K	5				

SIZE	CODE	IDENTY NO	DRAWING NO
D	96214		944952
SCALE	E	5-DET	20



NOTES: UNLESS OTHERWISE SPECIFIED:  
 I. REWORK PROCEDURE FOR PWB 2261971-0001 REV C,D  
 A. CUT U101-14, U601-14, U105-18, U12-2, U107-3, U11-15, U103-12, U103-13, U101-8, UK11-4, U101-16, U102-8, U102-16, U103-8, UK11-5, U107-5, U103-16, U104-8, U104-16, U11-16, UK11-6, U11-8, UK11-9, U105-3, U105-4, U11-6, U110-6 & U105-12, U109-9, U109-10, U211-15  
 B. JUMPER USING 30 AWG WIRE P/N 535978-0058 FROM TO U101-14 U101-14 U101-14 U101-14 U205-12 U206-1

NOTES: (CONT I.B.) FROM TO U109-2 U105-18 U109-6 U11-15 U103-3 U103-12 U103-4 U103-13 U101-8 U101-8 U101-16 U102-8 U102-16 U103-8 U103-8 U104-8 U104-8

NOTES: (CONT I.B.) FROM TO U104-16 U104-16 U11-16 U11-16 U11-8 U11-7 U108-9 U205-3 U108-8 U108-1 U108-2 U105-3 U105-4 U112-11 U112-2 U512-9 U112-11 U112-2 UAA09-12 UAA09-13 UAA09-11 UAA09-8 U110-9 U110-9 UY10-8 UY10-9 UY10-10 UY10-10 U12-3 UK11-4 UK11-5 UK11-5 UAA09-10 UG11-6 UH11-15 U107-9 U507-5 U211-9 U211-9 U108-12 U109-12

2. ITEM III IN THE -0001 LM CONSISTS OF COMPONENTS WHICH ARE AUTO INSERTED & CONTAINED IN THE -5001 LM.  
 3. HAND CLIP LEADS U101, U102, U103, U104 LEAD HEIGHT .050 MAXIMUM.  
 4. FOLLOWING REWORK PROCEDURE APPLIES TO PWB 2261971-0001 REV C,D REWORK PROCEDURE IN NOTE I.B. APPLIES WITH THE EXCEPTION THAT ENOUGH INSULATION SHOULD BE STRIPPED OFF THE WIRE TO SOLDER TO TWO ADJACENT PINS ON THE I.C. AND THE FOLLOWING ARE THE JUMPERS REQUIRED: FROM U211-10, 11 TO U109-13 U211-12, 13 TO U210-7

REV	DESCRIPTION	DATE	APPROVED
A	CN432239(C) 8. (1) ADDED TO NOTE 1A U12-2, UK11-4, UK11-5, UK11-6, UG11-6, U1010-6 (2) ON NOTE 1B ADDED TO JUMPER LIST U12-11 THRU U1010-6 (3) ON NOTE 1 ADDED REV C,D (4) UPDATED REV LEVEL BLOCK	5-2-79	J.R.P.
B	CN442457 (C) 2. (1) ITEM 13A DELETED U107, 14 DELETED U107, 51A ADDED U107, 52B ADDED U107, 13 QTY WAS 4, 14 QTY WAS 5, 51 QTY 7 AND ITEM 52 QTY WAS 2 (2) UPDATED REV LEVEL BLOCK	9-13-79	E. King
C	CN447633(D) 8. (1) CREATED -5001 LM (2) ADDED NOTE 2 (3) UPDATED REV LEVEL BLOCK (4) ADDED PART NO, DESC. BOX	9-13-79	E. King
D	CN450885 (C) R. (1) REVISED PER EXTENSIVE ENGR CHANGES	9-13-79	E. King
E	CN442459 (C) R. (1) ITEM 103 PART NO WAS 2262022-0004 (2) UPDATED REV LEVEL BLOCK	9-13-79	E. King
F	CN 441750 (D) 9. (1) ADDED NOTE 3 (2) UPDATED REV LEVEL BLOCK	10-23-79	J.R.P.
G	CN 447500 (D) 9. (1) ITEMS 100, 101, 102 DELETED FROM -5001 LM & ADDED TO -0001 LM (2) UPDATED REV LEVEL BLOCK	10-23-79	J.R.P.
H	CN 454426 (B) 8. (1) ADDED U507-5 TO NOTE 1A (2) ON NOTE 1B ADDED U507-5 & U507-4 (3) UPDATED REV LEVEL BLOCK	10-23-79	J.R.P.
J	CN 453336 (B) C. (1) UPDATED REV LEVEL BLOCK	1-2-80	J.R.P.
K	CN 453541 (B) C. (1) ON -5001 LM DELETED ITEM 20, ITEM 91 QTY WAS 1 AND ADDED REFERENCE DESIGNATOR U110 TO DESCRIPTION (2) UPDATED REV LEVEL BLOCK	1-2-80	J.R.P.
L	CN 453343 (B) C. (1) UPDATED REV LEVEL BLOCK	1-17-80	J.R.P.
M	CN 450057 (B) C. (1) ADDED U205-12 TO NOTE 1A (2) ADDED JUMPER 5, U105-12, U106-1 TO NOTE 1B (3) UPDATED REV LEVEL BLOCK	1-17-80	J.R.P.
N	CN 450061 (B) C. (1) ADDED U109-9, U109-10, U211-15 TO NOTE 1A (2) ADDED U109-9, U109-10, U211-15, U211-9, U108-12, U109-12 TO NOTE 1.B (3) ADDED NOTE 4 (4) UPDATED REV LEVEL BLOCK	2-1-80	J.R.P.

REV LEVEL	TEST PROC	LOGIC	PWB	ASSEMBLY	2261973-9901	2261972-9901	2261971-0001	2261970-0001
					* * * * *	* * * * *	D D D D D E E E E E E E E E E	* A B C D E F G H J K L M N

MARK	NO	DATE	DESCRIPTION
4	100-07	712	CLR BLK, TYPE 6
	100-02	21	HGT .09, CLR BLACK
	127-01	00	
	124-02	00	

QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES
			2261970-5001 AUTO INSERTION TAPE FOR 2261970-001		
			2261970-001 ARITHMETIC UNIT, 990/12		

TEXAS INSTRUMENTS  
 INCORPORATED  
 DALLAS, TEXAS

ARITHMETIC UNIT, 990/12

DRAWING NO: D96214  
 DRAWING NO: 2261970

DATE: 3-7-79  
 DATE: 3-7-79  
 DATE: 3-7-79  
 DATE: 4-10-79

TEXAS INSTRUMENTS INCORPORATED		DATE 12/03/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM 2261970-0001		REV N		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0002	REF	EA		2261972-9901	LOGIC DIAGRAM, AU 990/12							
0003	REF	EA		2261973-9901	TEST PROCEDURE, AU 990/12							
0004	REF	EA		2261974-9901	SPEC, 990/12 CENTRAL PROCESSOR							
0005	00038.000	EA		0972763-0021	CAP., FIXEC, AXIAL LEAD, .047 UF, +80%, -20%							
0005A					C3 THRU C40							
0006	00002.000	EA		0972924-0012	CAP FIX TANT SOLID 150 MFD 10 X 15 VOLT	QPL	-M39003/1-2277					
0006A					C1 C2							
0007	00002.000	EA		0972137-0005	CONNECTOR, PC 50 PIN	BEI	- 65483-005					
0007A					P3 P4							
0008	00001.000	EA		0972713-0001	PLUG, JUMPER, I.C., 0.300 INCH							
0009	00002.000	EA		0996864-0001	CONNECTOR, SOCKET PCB	022526-75060-007						
0009A					E1							
0010	00001.000	EA		0972537-0001	DIODE, LED 550-0103 50 MA 3 V	DIA	-550-0103					
0010A					CR1							
0016	00001.000	EA		2261996-0801	PROM ASSY, 990/12 AU, 2KX8, CROM 00A							
0016A					UD04							
0027	00008.000	EA		0996089-0001	IC, SN74LS240N, LINE DRIVERS	001295-SN74LS240N						
0027A					UA05 UA07 UB01 UB02 UB03							
0027B					UC01 UM02 UM12							
0028	00001.000	EA		0996089-0002	IC, SN74LS241N, LINE DRIVERS	012955-N74LS241N						
DRAFTSMAN				DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE			
				12-7-79					ARITHMETIC UNIT, 990/12			
APP'D. MFG.				DATE	APP'D. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER	REV	
										LM 2261970-0001	N	

TEXAS INSTRUMENTS INCORPORATED		DATE 12/03/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM 2261970-0001		REV N		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0028A					UM06							
0029	00002.000	EA		0996089-0004	IC, SN74LS244N LINE DRIVER	-SN74LS244N						
0029A					UF03 UG03							
0030	00010.000	EA		0996755-0001	IC, SN74LS245N BUS XCVR TRANSITION	001295-SN74LS245N						
0030A					UF04 UF05 UF06 UF07 UF09							
0030B					UF10 UF11 UF12 UT02 UT03							
0034	00001.000	EA		0996029-0001	IC, SN74LS273N OCTAL D-TYPE FLIP/FLOP	TI	-SN74LS273N					
0034A					UX05							
0037	00001.000	EA		2261996-0002	PROM ASSY, 990/12 AU, 2KX8, CROM 08A							
0037A					UD05							
0039	00002.000	EA		0996420-0001	IC, SN74LS373N	001295-SN74LS373N						
0039A					UU02 UU03							
0040	00003.000	EA		0996420-0002	IC, SN74LS374N EDGE-TRIGGERED FLIP-FLOPS	001295-SN74LS374N						
0040A					UG06 UG10 UG12							
0041	00002.000	EA		0996769-0001	IC, SN74LS377N, OCTAL, D-TYPE FLIP-FLOP	001295-SN74LS377N						
0041A					UD01 UD02							
0045	00001.000	EA		2261996-0003	PROM ASSY, 990/12 AU, 2KX8, CROM 16A							
0045A					UD06							
0047	00001.000	EA		0972785-0001	NETWORK SN74S85N							
0047A					UZ01							
DRAFTSMAN				DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE			
									ARITHMETIC UNIT, 990/12			
APP'D. MFG.				DATE	APP'D. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER	REV	
										LM 2261970-0001	N	

TEXAS INSTRUMENTS INCORPORATED		DATE 12/03/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM 2261970-0001		REV N		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0076	00004.000	EA		0996768-0001	IC, SN74S481, A 4-BIT MICROCOMPUTER	001295-SN74S481						
0076A					UP01 UP02 UP03 UP04							
0077	00003.000	EA		0996102-0001	IC, SN74S482N MICRO-ADDRESS GENERATOR	TI	-SN74S482N					
0077A					UF08 UG08 UM08							
0082	00006.000	EA		0972975-0049	RES FIX COMP 1.0 K OHMS 5X 1/8 WATT	QPL	- RC056102J5					
0082A					R3 R4 R5 R6 R7 R10							
0083	00005.000	EA		0972975-0039	RES FIX COMP 390 OHMS 5 X 1/8 WATT	QPL	- RC056391J5					
0083A					R1 R2 R8 R9 R12							
0084	00001.000	EA		0944954-0001	INSULATOR, PWB, 14IN							
0085	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN							
0086	00007.000	EA		2210188-0005	SOCKET, LOW PROFILE, DIP, 20 PINS	003612-DIL820P-108						
0086A					XUR12 XUA11 XUY01 XUY02							
0086B					XUZ04 XUV05 XUM08							
0087	00012.000	EA		2210188-0007	SOCKET, LOW PROFILE, DIP, 24 PINS	003612-DIL824P-108						
0087A					XUD04 XUD05 XUD06 XUD07							
0087B					XUD08 XUD10 XUD11 XUD12							
0087C					XUS12 XUT12 XUV12 XUX12							
0088	00003.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG							
0089	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB							
0090	00003.000	EA		0418730-0101	WASHER, NYLON							
DRAFTSMAN				DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE			
									ARITHMETIC UNIT, 990/12			
APP'D. MFG.				DATE	APP'D. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER	REV	
										LM 2261970-0001	N	

TEXAS INSTRUMENTS INCORPORATED		DATE 12/03/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM 2261970-0001		REV N		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0051	00001.000	EA		0219402-7404	NETWORK SN74S04N							
0051A					UZ12							
0064	00007.000	EA		0996046-0001	IC, OCTAL BUFFER/DRIVER SN74S240	TI	-SN74S240					
0064A					UA03 UA04 UJ12 UK12 UT04							
0064B					UU04 UZ03							
0065	00002.000	EA		0996063-0001	IC, SN74S241N, LINE DRIVERS	001295-SN74S241N						
0065A					UA06 UA08							
0069	00001.000	EA		2261996-0004	PROM ASSY, 990/12 AU, 2KX8, CROM 24A							
0069A					UD07							
0070	00001.000	EA		2261996-0005	PROM ASSY, 990/12 AU, 2KX8, CROM 32A							
0070A					UD08							
0073	00016.000	EA		0996201-0001	IC, SN74S374N, EDGE-TRIGGERED FLIP-FLOPS	TI	-SN74S374N					
0073A					UA09 UA10 UB06 UB10 UC02							
0073B					UC03 UC06 UC10 UE01 UE02							
0073C					UF01 UF02 UG05 UG07 UG09							
0073D					UM06							
0074	00001.000	EA		2261996-0006	PROM ASSY, 990/12 AU, 2KX8, CROM 40A							
0074A					UD10							
0075	00001.000	EA		2261996-0007	PROM ASSY, 990/12 AU, 2KX8, CROM 48A							
0075A					UD11							
DRAFTSMAN				DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE			
									ARITHMETIC UNIT, 990/12			
APP'D. MFG.				DATE	APP'D. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER	REV	
										LM 2261970-0001	N	



TEXAS INSTRUMENTS INCORPORATED		DATE 12/03/79		LIST OF MATERIAL		PAGE 6 of		PART NUMBER LM 2261970-0001		REV N	
PART NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0104	00001.000	EA		2262019-0001	PROM,990/12 AU,DECCDE 1						
0104A					UM08						
0105	00001.000	EA		2262019-0005	PROM,990/12 AU,DECODE 2-A						
0105A					UV05						
0106	00001.000	EA		2262019-0003	PROM,990/12 AU,STATUS 1						
0106A					UY01						
0107	00001.000	EA		2262019-0004	PROM,990/12 AU,STATUS 2						
0107A					UY02						
0108	00001.000	EA		2262020-0003	PROM,990/12 AU,IR DECODE 4-A						
0108A					UR12						
0109	00001.000	EA		2262020-0002	PROM,990/12 AU,DECODE 3						
0109A					UZ04						
0110	00004.000	EA		2210188-0003	SOCKET,LOW PROFILE,DTP,16 CONT	003612-01L816P-108					
0110A					XU011 XUT07 XUL07 XUA11						
0111	00001.000	EA		2261970-5001	AUTO INSERTION TAPE FOR 2261970-0001						
DRAFTSMAN DATE CDD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE ARITHMETIC UNIT,990/12 APPR. MFG. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 2261970-0001 N											

TEXAS INSTRUMENTS INCORPORATED		DATE 12/03/79		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LM 2261970-0001		REV N	
PART NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0094	00001.000	EA		C956464-0001	IC,2114-2 1024X4-BIT STATIC RAM	001295-TMS4045-20NL					
0094A					U812						
0095	00001.000	EA		2261996-0008	PROM ASSY,990/12 AU,2KX8,CROM 56A						
0095A					UD12						
0096	00001.000	EA		2261996-0009	PROM ASSY,990/12 AU,2KX8,IROM 5A						
0096A					US12						
0097	00001.000	EA		2261996-0010	PROM ASSY,990/12 AU,2KX8,IROM 3A						
0097A					UT12						
0098	00001.000	EA		2261996-0011	PROM ASSY,990/12 AU,2KX8,IROM 1A						
0098A					UV12						
0099	00001.000	EA		2261996-0012	PROM ASSY,990/12 AU,2KX8,IROM 2A						
0099A					UX12						
0100	00001.000	EA		2262021-0001	PROM,990/12 AU,PREFETCH INHIBIT						
0100A					UA11						
0101	00001.000	EA		2262022-0001	PROM,990/12,A DESTINATION 1						
0101A					UL07						
0102	00001.000	EA		2262022-0002	PROM,990/12,A DESTINATION 2						
0102A					UT07						
0103	00001.000	EA		2262022-0006	PROM,990/12,IR DECODE 6-A						
0103A					UU11						
DRAFTSMAN DATE CDD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE ARITHMETIC UNIT,990/12 APPR. MFG. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 2261970-0001 N											

TEXAS INSTRUMENTS INCORPORATED		DATE 12/03/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM 2261970-5001		REV N	
PART NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	00001.000	EA		2261971-0001	PWB,AU12990						
0011	00004.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N					
0011A					UJ07 US07 UT08 UT11						
0012	00001.000	EA		0972900-7402	NETWORK SN74LS02N						
0012A					UN07						
0013	00003.000	EA		0972900-7404	NETWORK SN74LS04N						
0013A					UK03 UL08 UF07						
0014	00004.000	EA		0972749-0001	NETWORK, SN74LS08N						
0014A					UT06 UU01 UW06 UZ09						
0015	00003.000	EA		0972900-7410	NETWORK SN74LS10N						
0015A					UT09 UX08 UY08						
0017	00001.000	EA		0972900-7112	NETWORK SN74LS112N	TI -SN74LS112N					
0017A					UU08						
0018	00001.000	EA		0222222-7125	NETWORK SN74125N						
0018A					UR08						
0019	00001.000	EA		0972900-7138	NETWORK SN74LS138N	TI -SN74LS138N					
0019A					US06						
0021	00005.000	EA		0801383-0001	NETWORK SN74LS151N						
0021A					UL04 UM10 UX03 UY04 UZ02						
0022	00003.000	EA		0972900-7153	NETWORK SN74LS153N	TI -SN74LS153N					
DRAFTSMAN DATE CDD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTION TAPE FOR 2261970-0001 APPR. MFG. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 2261970-5001 N											

TEXAS INSTRUMENTS INCORPORATED		DATE 12/03/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM 2261970-5001		REV N	
PART NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0022A					US08 UX04 UV03						
0023	00001.000	EA		0219402-7175	NETWORK SN74S175H						
0023A					UK08						
0024	00002.000	EA		0972900-7420	NETWORK SN74LS20N						
0024A					UJ03 UN09						
0025	00001.000	EA		0972813-0001	NETWORK-SN74LS21N						
0025A					UM12						
0026	00004.000	EA		0996845-0001	IC,AM29701PC 16 X 4-BIT RAM	034335-AM29701PC					
0026A					UM01 UM02 UM03 UM04						
0031	00004.000	EA		0996136-0001	IC,SN74LS257N,DATA SELECTORS/MULTIPLEXER	TI -SN74LS257N					
0031A					UM01 THRU UM04						
0032	00001.000	EA		0996136-0002	IC,SN74LS258N,DATA SELECTORS/MULTIPLEXER	TI -SN74LS258N					
0032A					UK01						
0033	00002.000	EA		0972120-0001	NETWORK,SN74259 8-BIT ADDRESSABLE LATCH	001295-74259					
0033A					UM05 UM08						
0035	00001.000	EA		0972811-0001	NETWORK-SN74LS280N						
0035A					UJ02						
0036	00001.000	EA		0972900-7432	NETWORK SN74LS32N	TI -SN74LS32N					
0036A					UM10						
0038	00003.000	EA		0996852-0001	IC,SN74LS353N DUAL 4/1 LINE DATA SEL	001295-SN74LS353N					
DRAFTSMAN DATE CDD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTION TAPE FOR 2261970-0001 APPR. MFG. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 2261970-5001 N											

TEXAS INSTRUMENTS INCORPORATED		DATE 12/03/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM 2261970-5001		REV N	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0038A					UG01 UH01 UJ01						
0042	00001.000	EA		0996770-0001	IC, SN74LS378N, D-TYPE FLIP-FLOP	001295-SN74LS378N					
0042A					UX02						
0043	00001.000	EA		0996770-0002	IC, SN74LS379N D-TYPE FLIP-FLOP	001295-SN74LS379N					
0043A					UX01						
0044	00002.000	EA		0972900-7451	NETWORK SN74LS51N	TI -SN74LS51N					
0044A					UJ05 UX11						
0046	00002.000	EA		0972900-7474	NETWORK SN74LS74N						
0046A					UV08 UV09						
0048	00010.000	EA		0219402-7400	NETWORK SN74S00N						
0048A					UD03 UH03 UH10 UK09 UN11						
0048B					UP06 UT01 UT05 UV06 UZ05						
0049	00003.000	EA		0219402-7402	NETWORK SN74S02N	TI -SN74S02N					
0049A					UM09 UH07 UV10						
0050	00001.000	EA		0219402-7403	NETWORK SN74S03N						
0050A					UL03						
0051	00007.000	EA		0219402-7404	NETWORK SN74S04N						
0051A					UG02 UJ08 UP09 UP11 UZ06						
0051B					UZ10 UP07						
0052	00008.000	EA		0219402-7408	NETWORK SN74S08N	TI- -SN74S08N					
DRAFTSMAN: DATE: CRO. DRAFTSMAN: DATE: DESIGN ENGINEER: DATE: TITLE: AUTO INSERTION TAPE FOR 2261970-0001											
APPD. MFG: DATE: APPD. PROJECT ENGINEER: DATE: RELEASED: DATE: PROJECT NO.: PART NUMBER: LM 2261970-5001 REV: N											

TEXAS INSTRUMENTS INCORPORATED		DATE 12/03/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM 2261970-5001		REV N	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0052A					UJ04 UN08 UN12 UX06 UV09						
0052B					UZ07 UH04 UH07						
0053	00005.000	EA		0219402-7410	NETWORK SN74S10N						
0053A					UK04 UK05 UV06 UV05 UL12						
0054	00005.000	EA		0219402-7411	NETWORK SN74S11N						
0054A					UH09 UK07 UP08 UV07 UV05						
0055	00001.000	EA		0219402-7133	NETWORK SN74S133N						
0055A					UJ11						
0056	00004.000	EA		0219402-7138	NETWORK SN74S138N						
0056A					UH07 UH11 UX07 UV07						
0057	00005.000	EA		0219402-7153	NETWORK SN74S153N	TI -SN74S153N					
0057A					UM05 UN05 UN10 UX10 UZ11						
0058	00003.000	EA		0219402-7157	NETWORK SN74S157N						
0058A					UM11 UP12 UR11						
0059	00003.000	EA		0996305-0001	IC, SN74S169 UP/DOWN COUNTER, 4 BIT	001295-SN74S169					
0059A					UL01 UL02 UL05						
0060	00001.000	EA		0219402-7182	NETWORK SN74S182N	TI -SN74S182N					
0060A					US05						
0061	00005.000	EA		0996745-0001	IC, SN74S189N 16 X 4-BIT STATIC RAM	012955-SN74S189N					
0061A					UL06 UN01 UN02 UN03 UN04						
DRAFTSMAN: DATE: CRO. DRAFTSMAN: DATE: DESIGN ENGINEER: DATE: TITLE: AUTO INSERTION TAPE FOR 2261970-0001											
APPD. MFG: DATE: APPD. PROJECT ENGINEER: DATE: RELEASED: DATE: PROJECT NO.: PART NUMBER: LM 2261970-5001 REV: N											

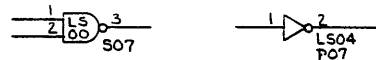
TEXAS INSTRUMENTS INCORPORATED		DATE 12/03/79		LIST OF MATERIAL		PAGE 6 of		PART NUMBER LM 2261970-5001		REV N	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0080A					UA02 UE03 UG04 UH06 UL10						
0080B					UAA09						
0081	00001.000	EA		0219402-7486	NETWORK SN74S86N						
0081A					UU09						
0091	00002.000	EA		0219402-7139	NETWORK SN74S139N						
0091A					UK10 UV10						
0092	00001.000	EA		0219402-7151	NETWORK SN74S151N						
0092A					UH11						
0093	00002.000	EA		2210147-0001	IC, 4/1 LINE DATA SELECTOR, MUX	012955-SN74LS352N					
0093A					UV11 UV06						
0094	00015.000	EA		0996464-0001	IC, 2114-2 1024X4-BIT STATIC RAM	001295-TMS4045-20NL					
0094A					UB04 UB05 UB07 UB08 UB09						
0094B					UB11 UB6A UC04 UC05 UC07						
0094C					UC08 UC09 UC11 UC12 UC6A						
DRAFTSMAN: DATE: CRO. DRAFTSMAN: DATE: DESIGN ENGINEER: DATE: TITLE: AUTO INSERTION TAPE FOR 2261970-0001											
APPD. MFG: DATE: APPD. PROJECT ENGINEER: DATE: RELEASED: DATE: PROJECT NO.: PART NUMBER: LM 2261970-5001 REV: N											

TEXAS INSTRUMENTS INCORPORATED		DATE 12/03/79		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LM 2261970-5001		REV N	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0062	00002.000	EA		0219402-7194	NETWORK SN74S194N						
0062A					UJ09 US11						
0063	00001.000	EA		0219402-7420	NETWORK SN74S20N						
0063A					UH05						
0066	00004.000	EA		0219402-7251	NETWORK SN74S251						
0066A					UR09 UR10 US09 US10						
0067	00001.000	EA		0219402-7257	NETWORK SN74S257N						
0067A					UJ10						
0068	00008.000	EA		0219402-7258	NETWORK SN74S258N						
0068A					UV01 UV02 UV03 UV04 US01						
0068B					US02 US03 US04						
0071	00003.000	EA		0219402-7430	NETWORK SN74S30N						
0071A					UG11 UP10 UX09						
0072	00005.000	EA		0219402-7432	NETWORK SN74S32N	TI- -SN74S32N					
0072A					UK06 UK11 UL11 UV10 UN09						
0078	00004.000	EA		0219402-7451	NETWORK SN74S51N						
0078A					UJ06 UK02 UR06 UV07						
0079	00004.000	EA		0219402-7464	NETWORK SN74S64N						
0079A					UL09 UT10 UV11 UZ08						
0080	00006.000	EA		0219402-7474	NETWORK SN74S74N						
DRAFTSMAN: DATE: CRO. DRAFTSMAN: DATE: DESIGN ENGINEER: DATE: TITLE: AUTO INSERTION TAPE FOR 2261970-0001											
APPD. MFG: DATE: APPD. PROJECT ENGINEER: DATE: RELEASED: DATE: PROJECT NO.: PART NUMBER: LM 2261970-5001 REV: N											

NOTES: UNLESS OTHERWISE SPECIFIED:

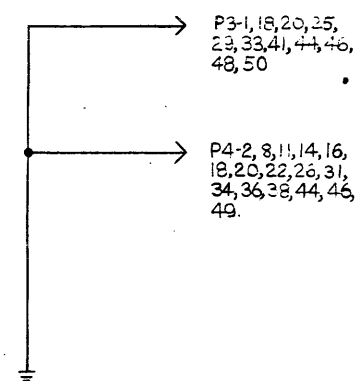
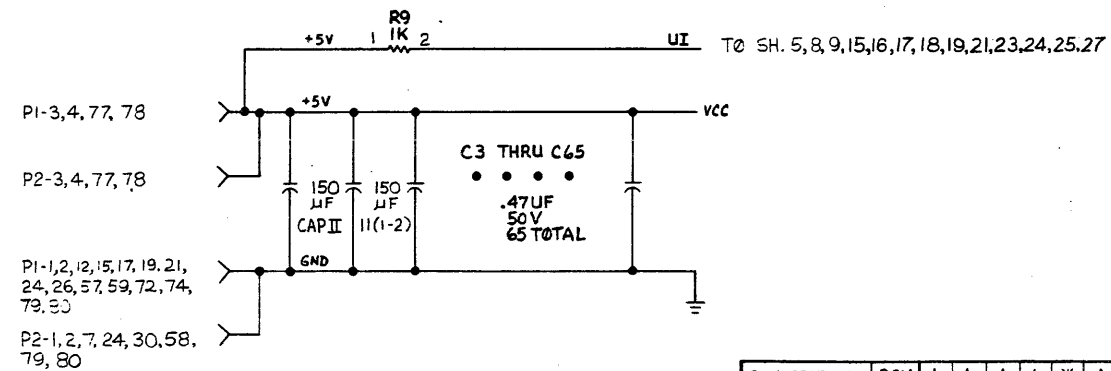
NOTES: UNLESS OTHERWISE SPECIFIED;

1. ALL DEVICE TYPES ARE PREFIXED WITH SN74.
2. GROUND IS APPLIED TO PIN 7 OF ALL 14-PIN IC'S, PIN 8 OF ALL 16-PIN IC'S, ETC.
3. VCC IS APPLIED TO PIN 14 OF ALL 14-PIN IC'S, PIN 16 OF ALL 16-PIN IC'S, ETC.
4. DEVICE TYPE, PIN NUMBERS AND LOCATION OF IC IS SHOWN AS FOLLOWS;



LS00 AND LS04 = DEVICE TYPE  
 1, 2 AND 3 = PIN NUMBERS  
 S07 AND P07 = LOCATION: LETTER DENOTES ROW, DIGITS DENOTE COLUMN. IC IS LOCATED AT INTERSECTION OF ROW AND COLUMN.

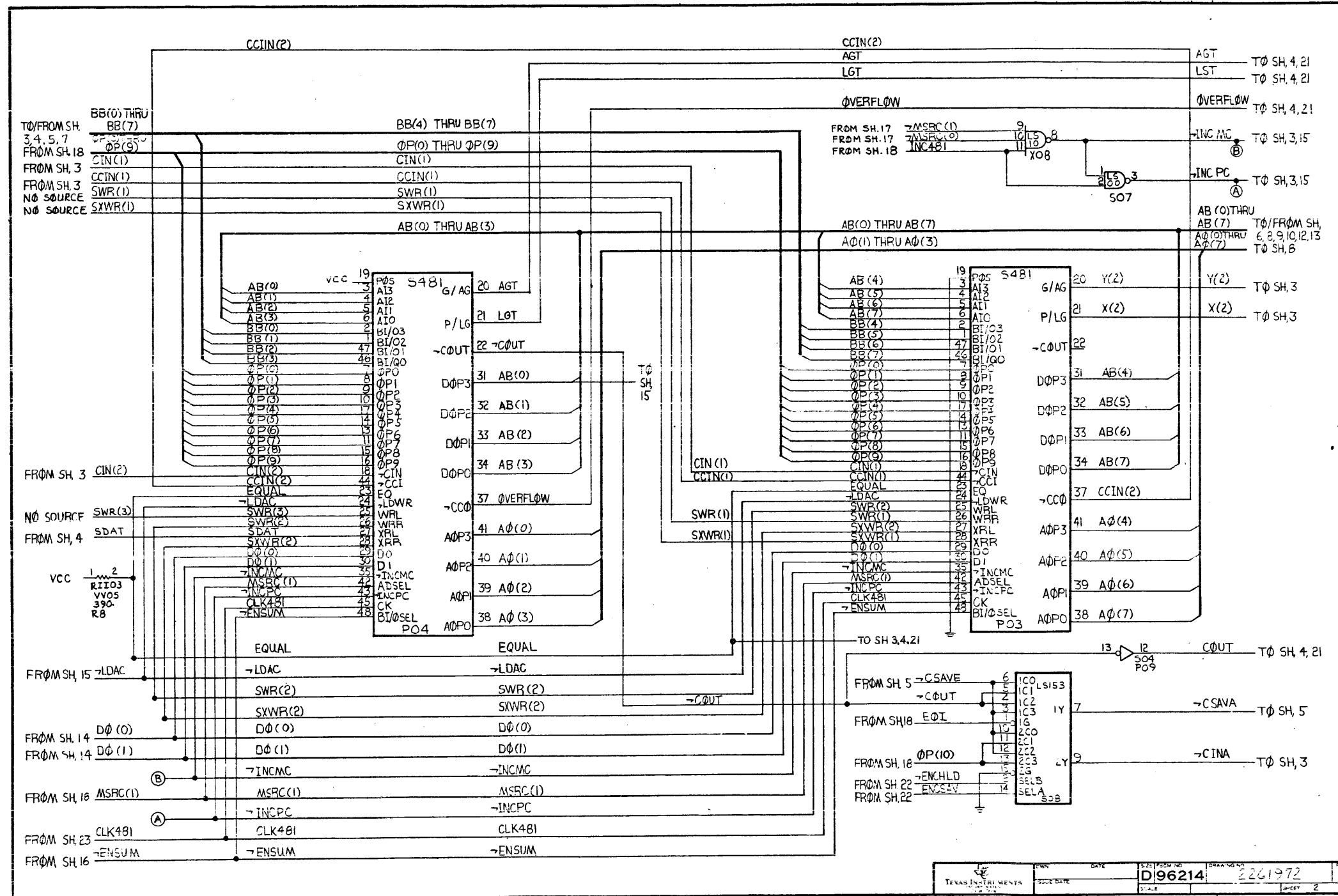
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	CN442458 (C) <i>Handwritten</i> ENGR/RESN CHG	6 Oct 79	<i>Handwritten</i>

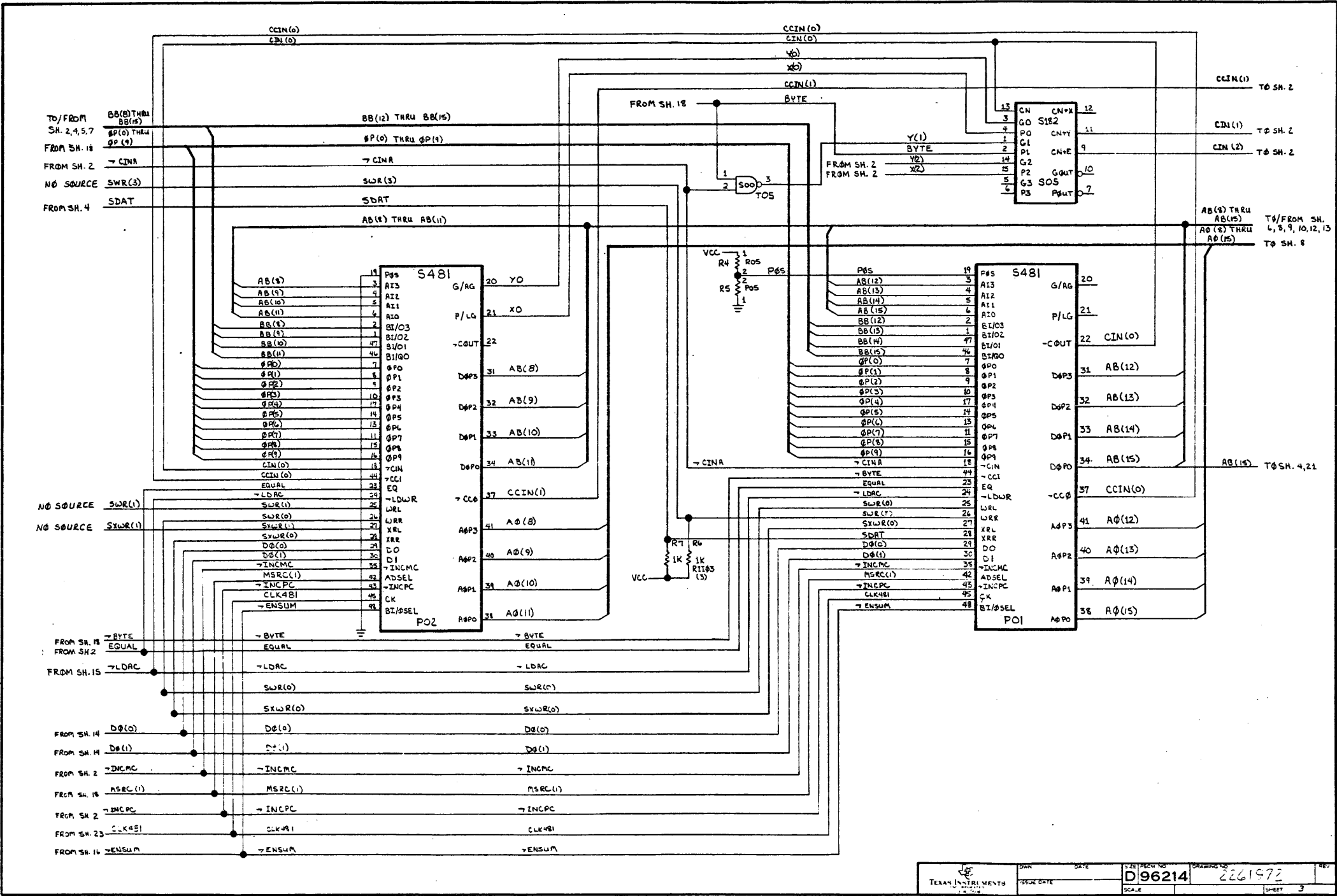


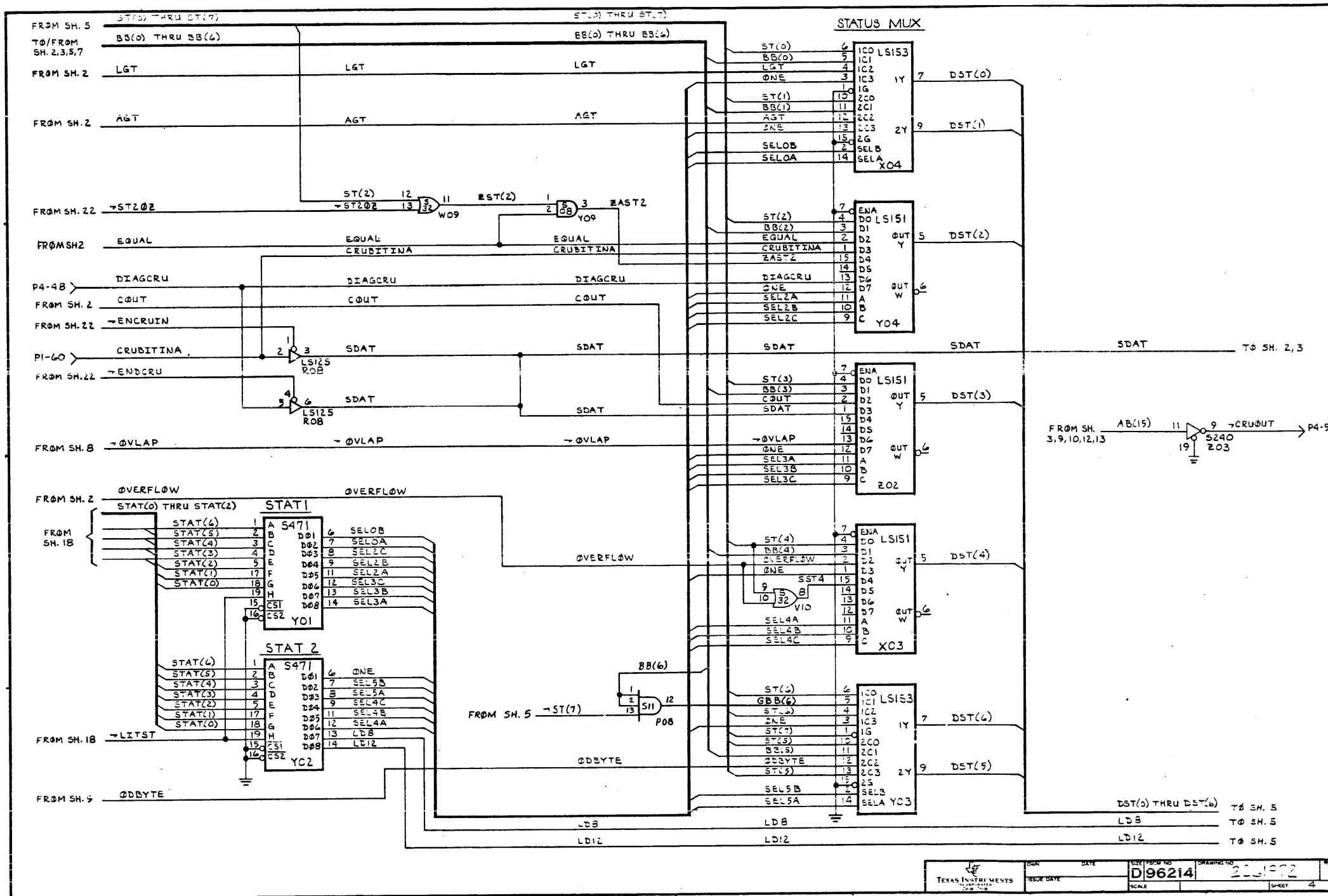
REV STATUS OF SHEETS	REV.	A	A	A	A	*	A	*	*	A	A	A	A	A	A	A	A	A	A	A	*	*	*	*					
SH.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29

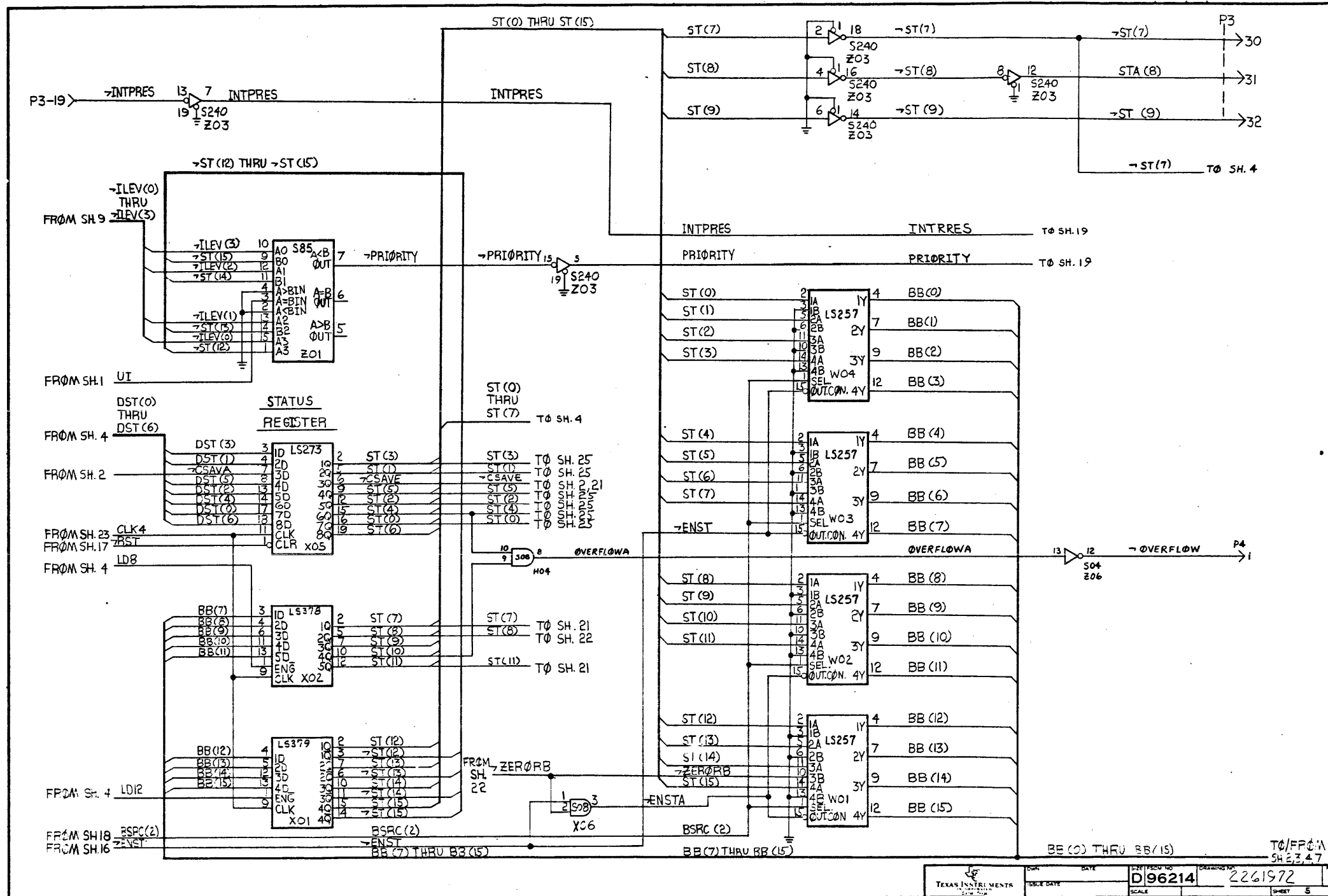
SEQ NO	IDENT	F.SPEC	NO	ADDITIONAL CLASSIFICATION	NOTES

QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES
			UNLESS OTHERWISE SPECIFIED: * DIMENSIONS ARE IN INCHES * TOLERANCES: ANGLES ±1° 3 PLACE DECIMALS = .010 2 PLACE DECIMALS = .02 * INTERPRET DRAWING PER MIL-D-1000 * REMOVE ALL BURRS AND SHARP EDGES * CONCENTRICITY MACHINED DIAMETERS .010 FIM * DIMENSIONAL LIMITS APPLY BEFORE PROCESSES * PARENTHEetical INFO FOR REF ONLY HOLE TOLERANCE: THRU - .008 THRU - .009 THRU - .008 125 - .001 250 - .001 500 - .001 501 - .008 751 - .010 1,001 - .012 THRU - .001 THRU - .001 THRU - .001		
		2261970 7047	LOGIC DIAGRAM, AU/12	D 96214	2261972

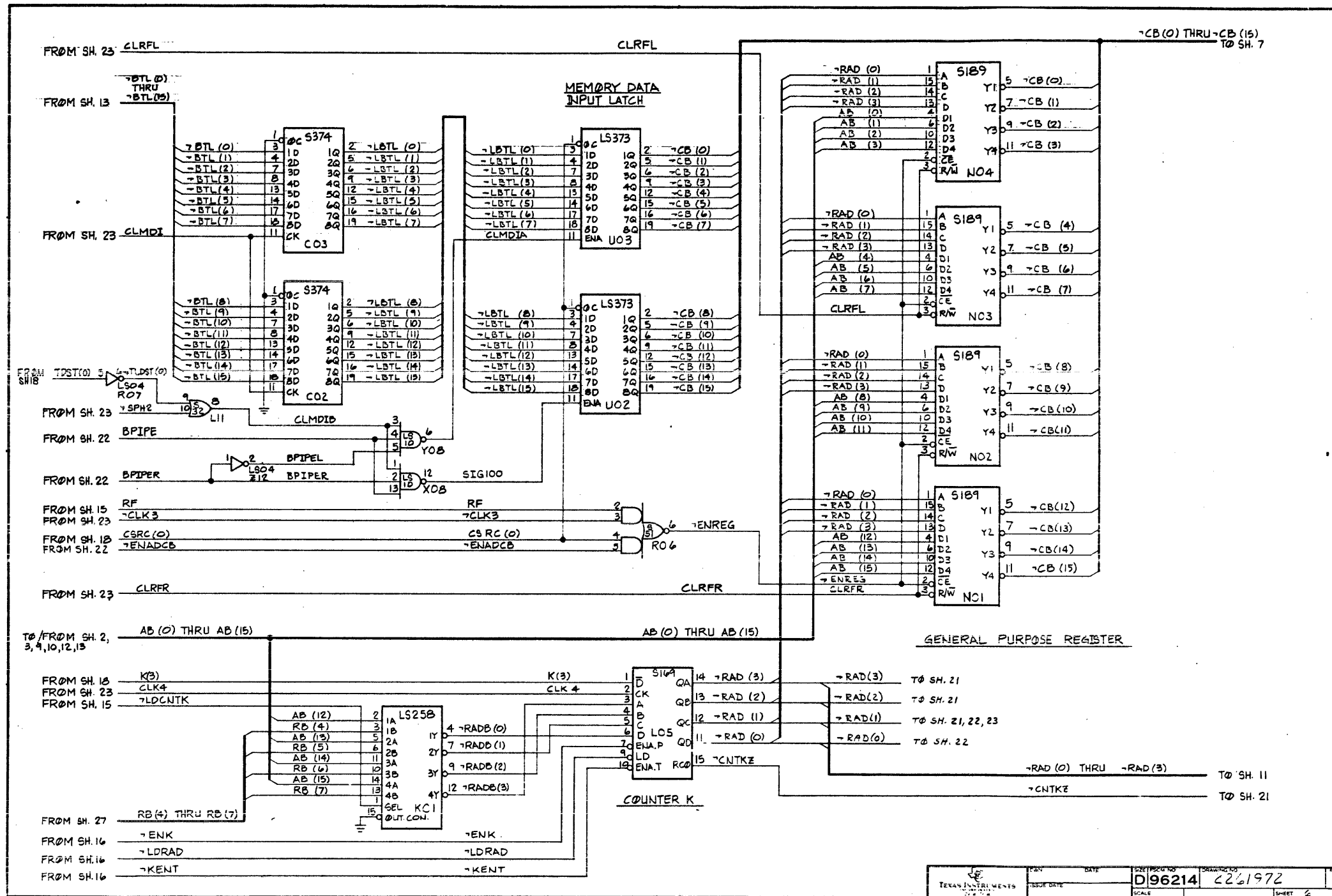




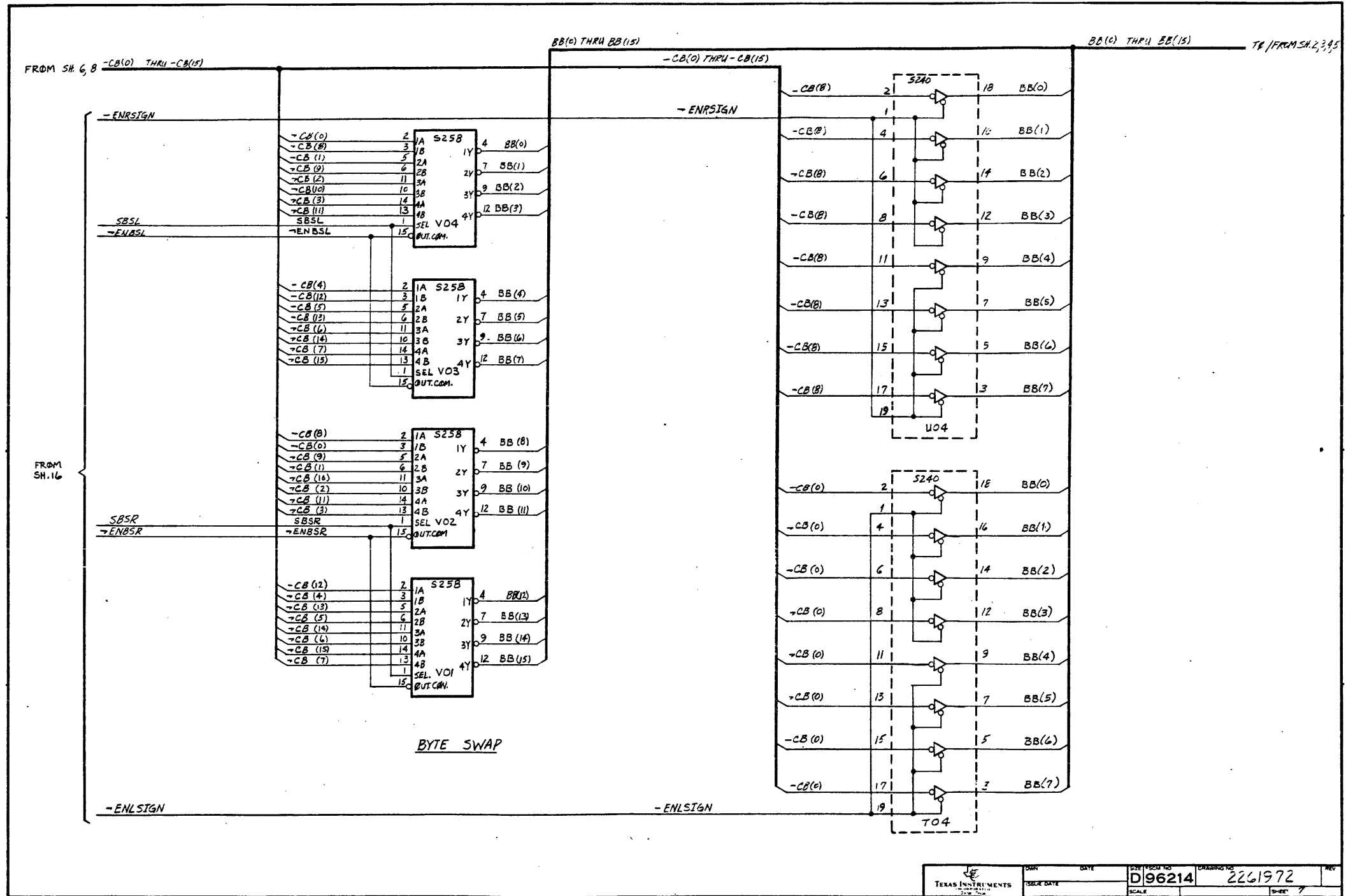


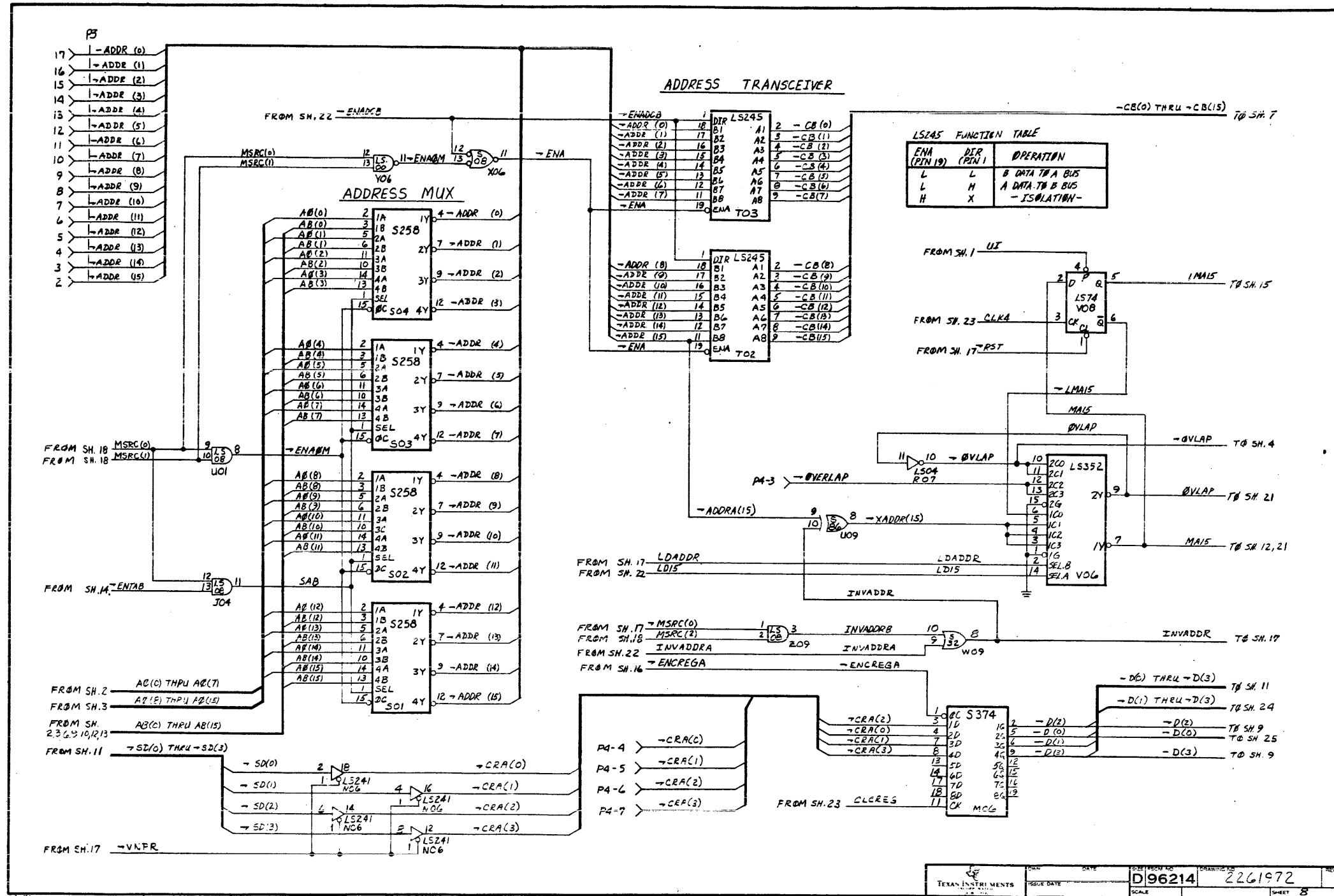


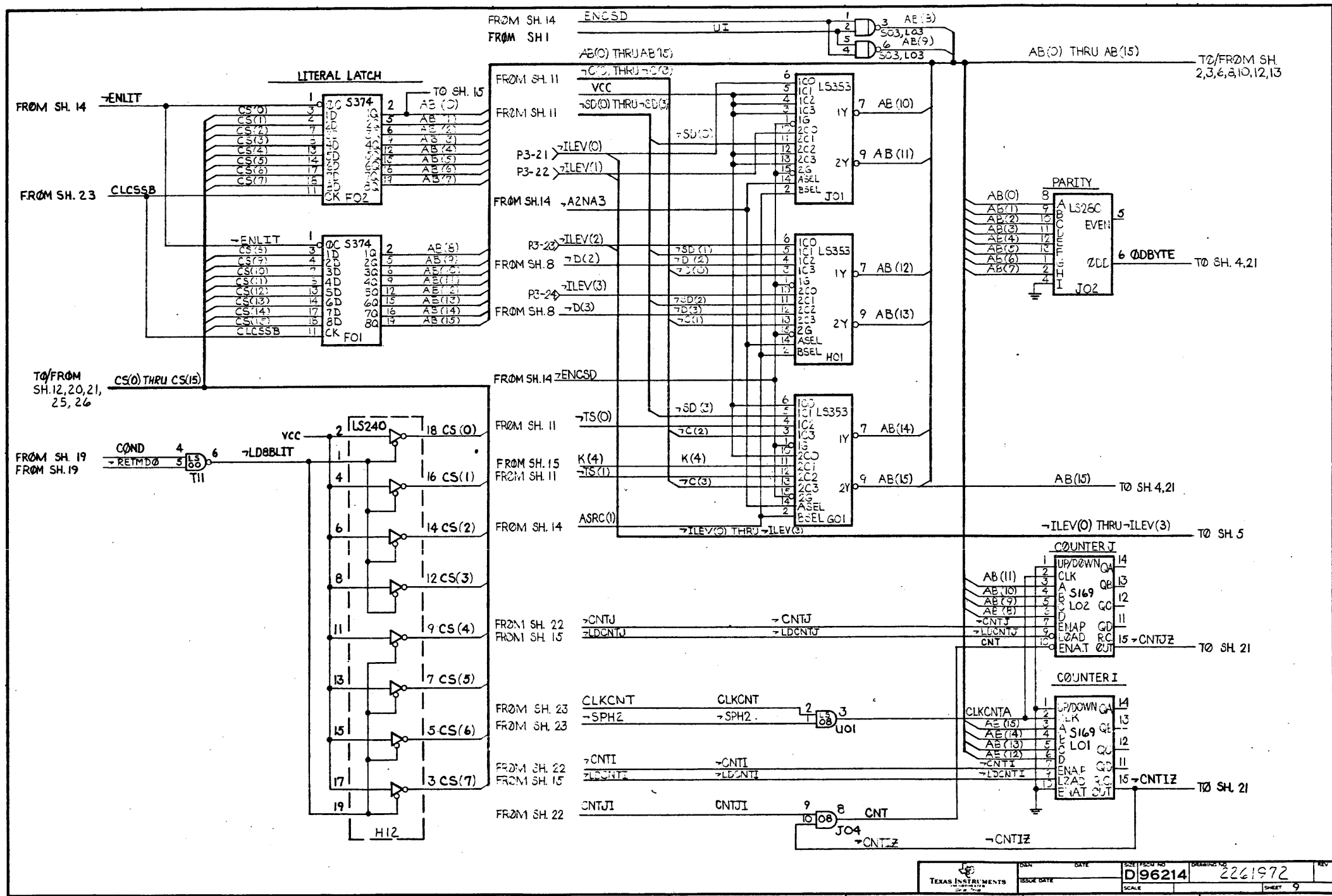
DATE	SCALE	DESIGN NO.	DRAWING NO.	REV.
		D 96214	2261972	5



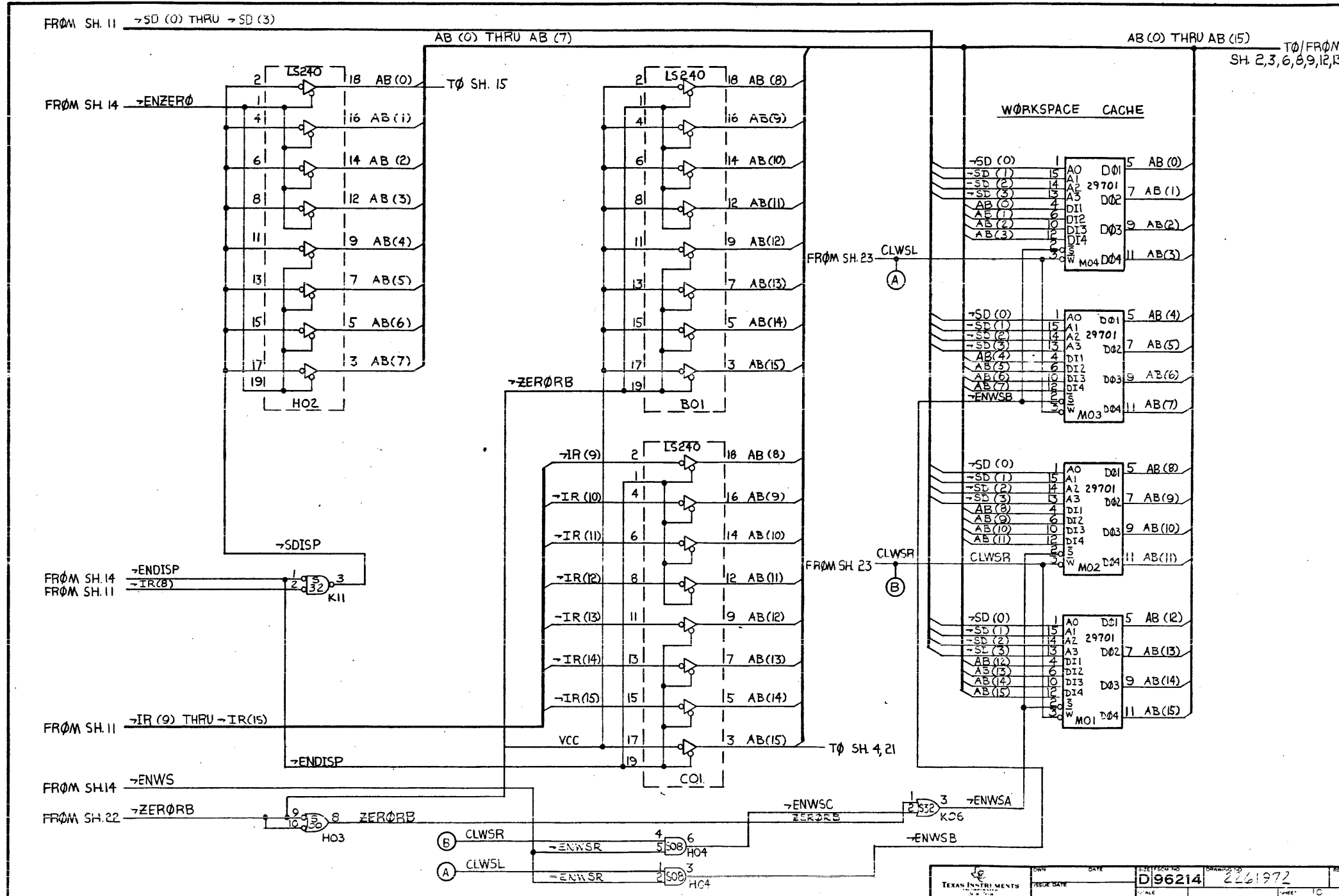


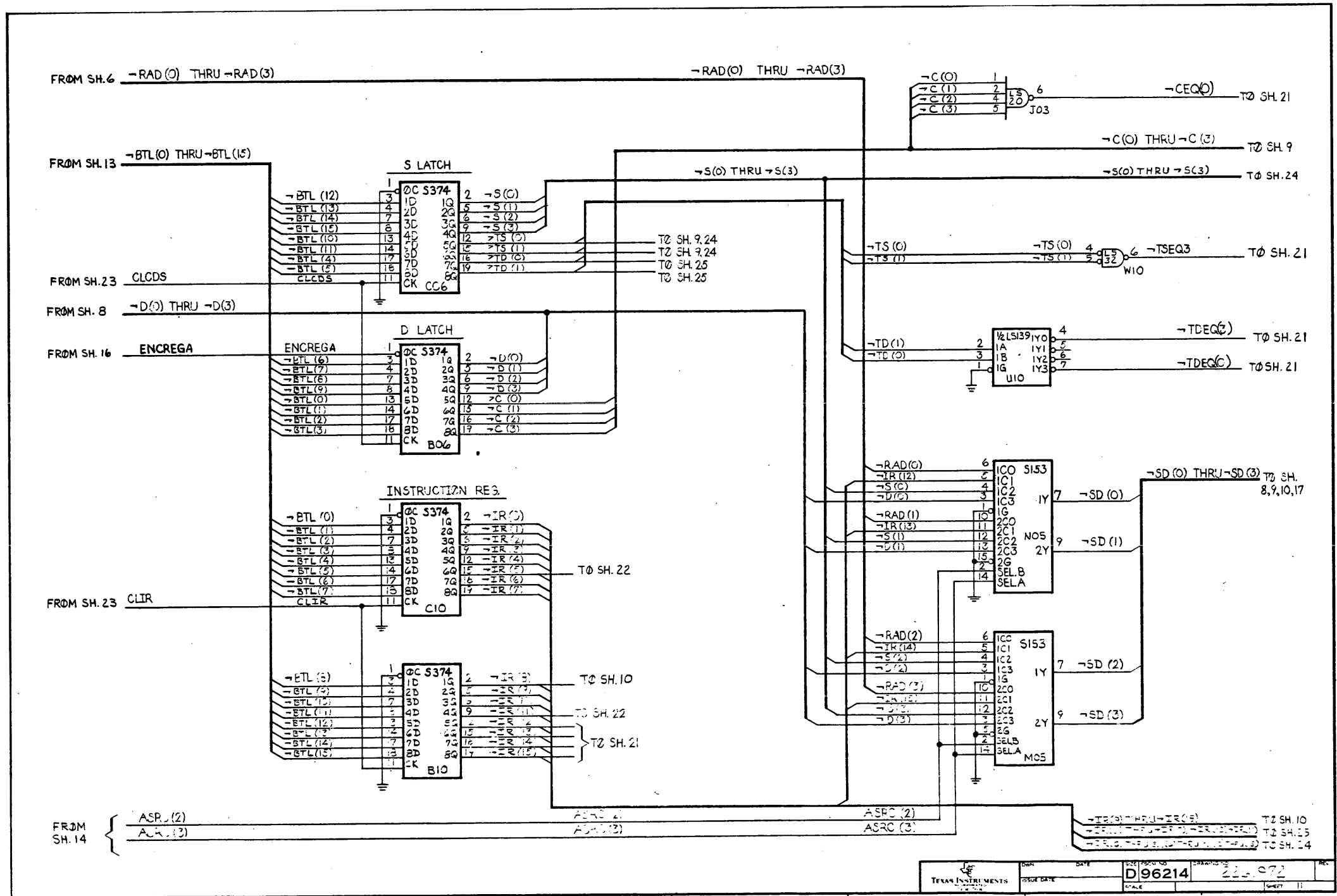




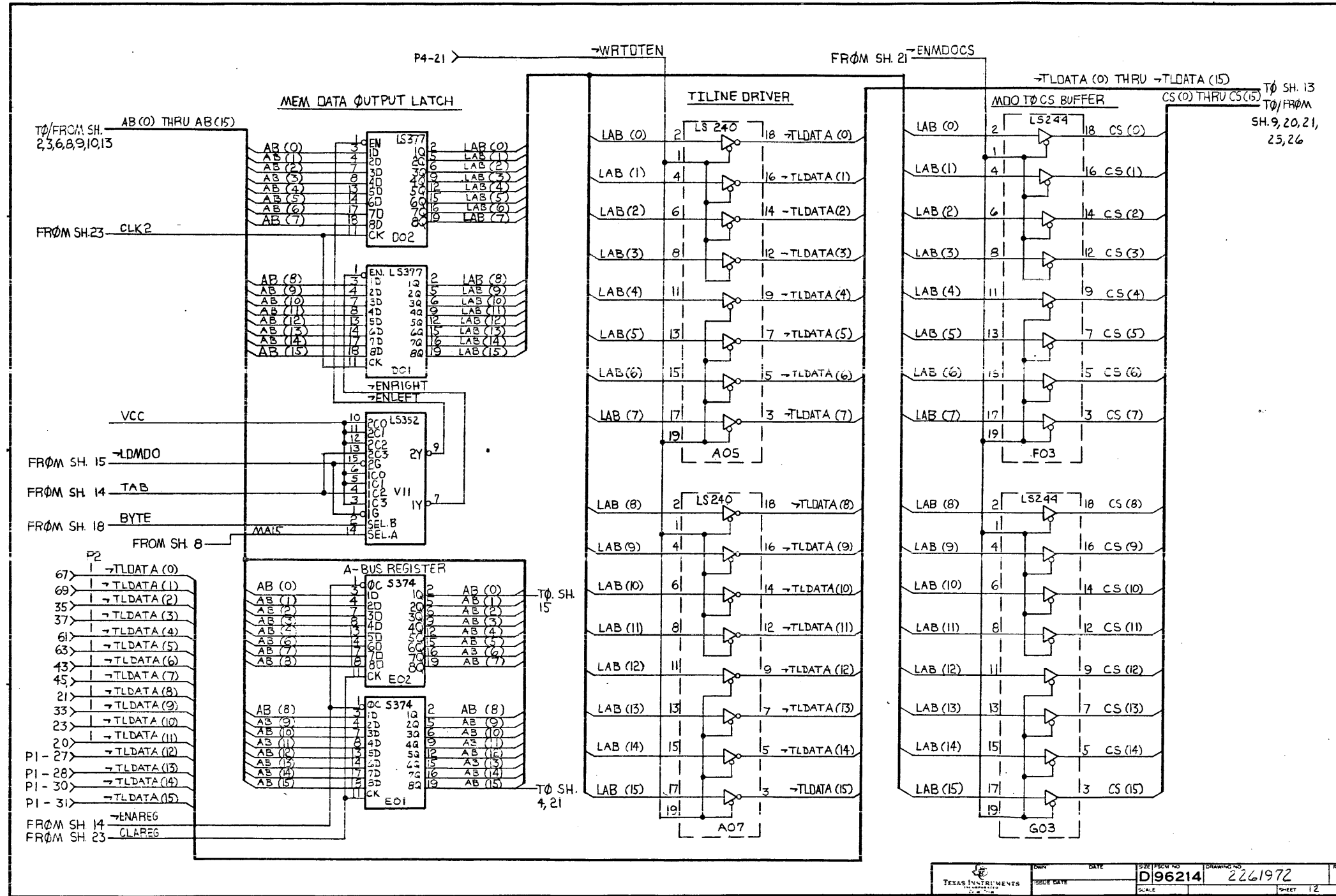


DATE	ISSUE DATE	SIZE	FIG. NO.	DESIGN NO.	REV.
			D96214	2261972	
SHEET			9		

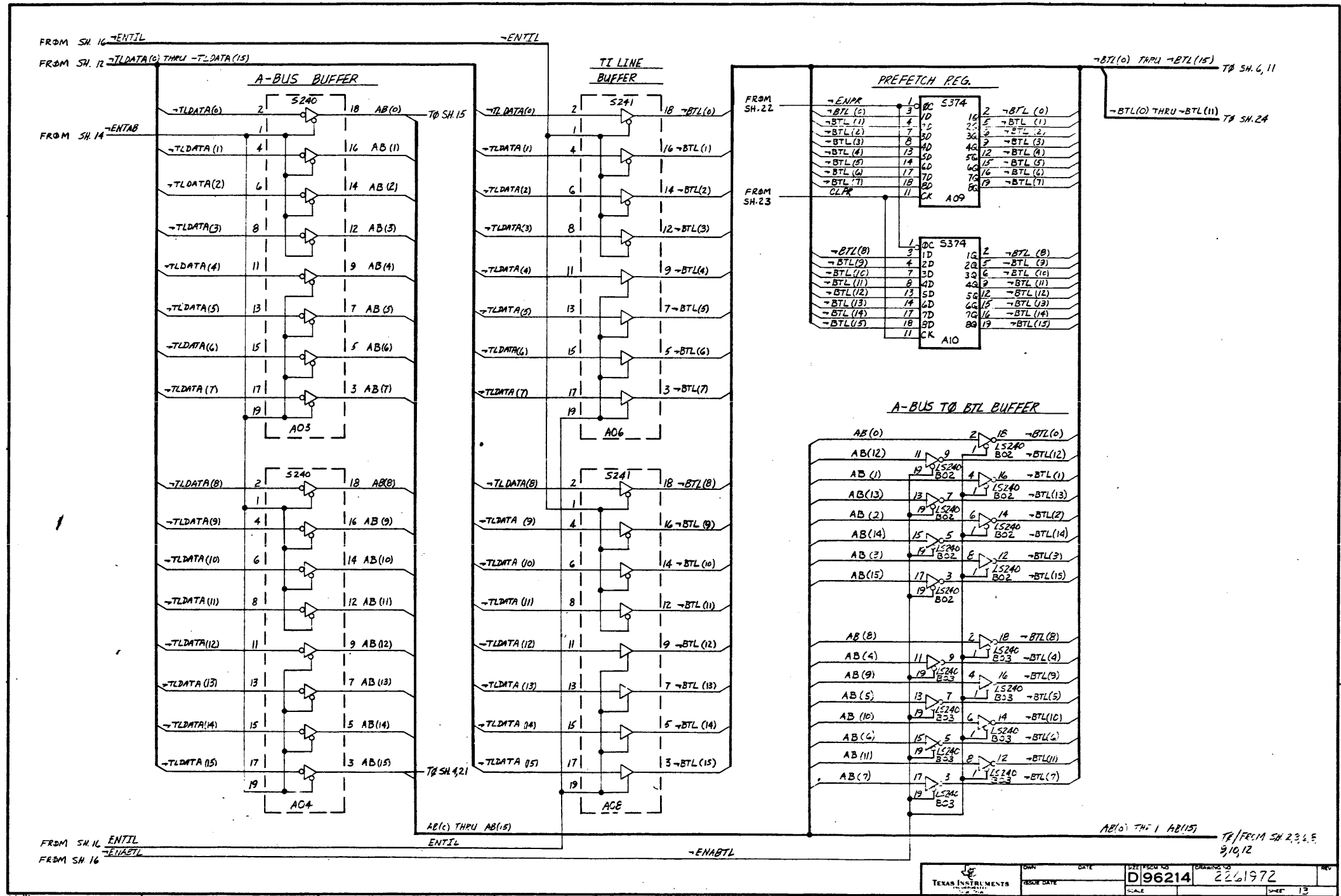




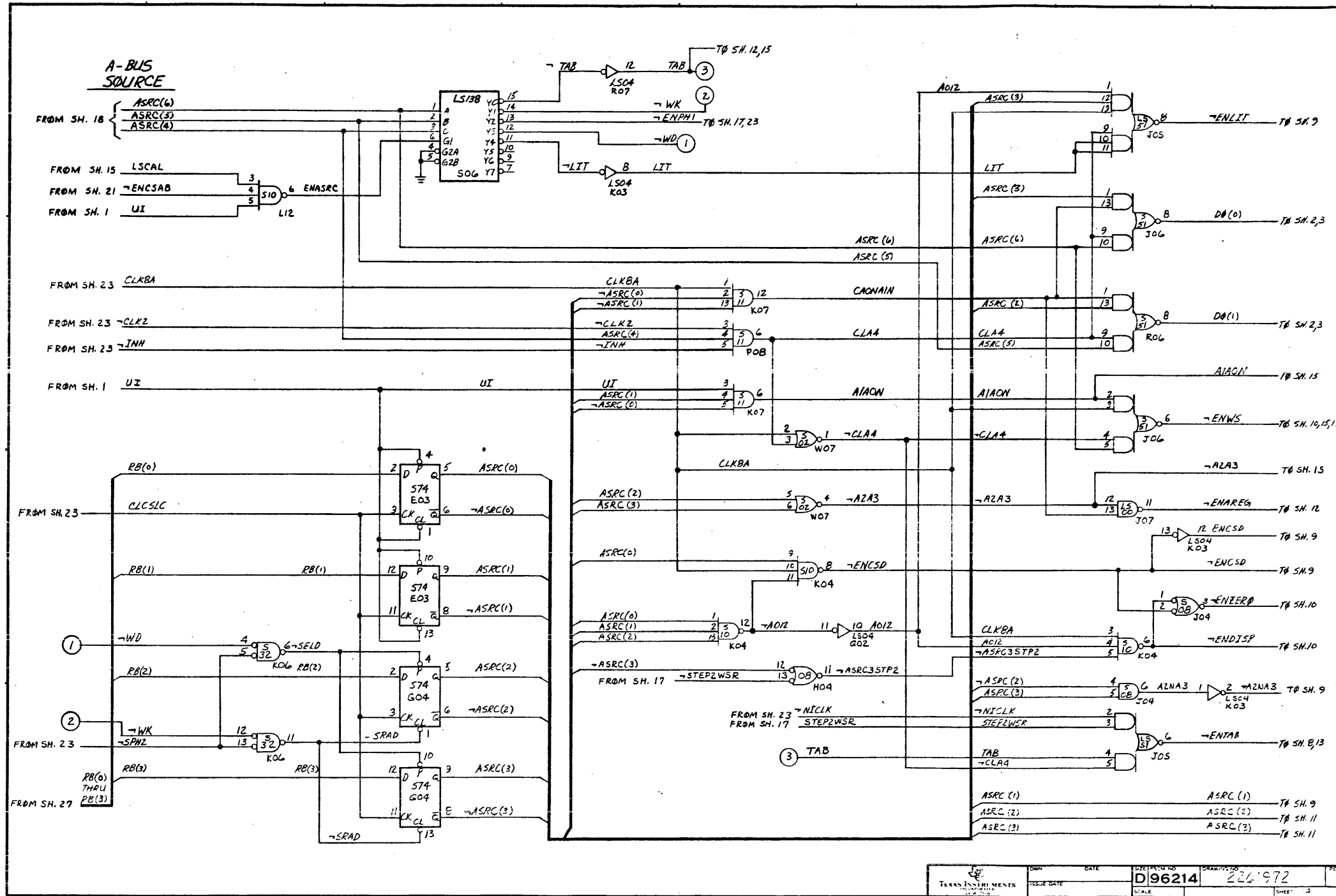
 TEXAS INSTRUMENTS DALLAS, TEXAS	DATE: _____ DESIGNED BY: _____ CHECKED BY: _____ DATE: _____	DRAWING NO.: <b>D96214</b> REV: <b>225-072</b> SHEET: <b>11</b>
--	---	---



DATE	SIZE FROM NO.	DRAWING NO.	REV.
ISSUE DATE	SCALE	2261972	SHEET 12
TEXAS INSTRUMENTS		D196214	



TEXAS INSTRUMENTS	DATE	DATE	SIZE	FIG. NO.	DRAWING NO.	REV.
	ISSUE DATE			D96214	2261972	
			SCALE		9/10/12	SHEET 13

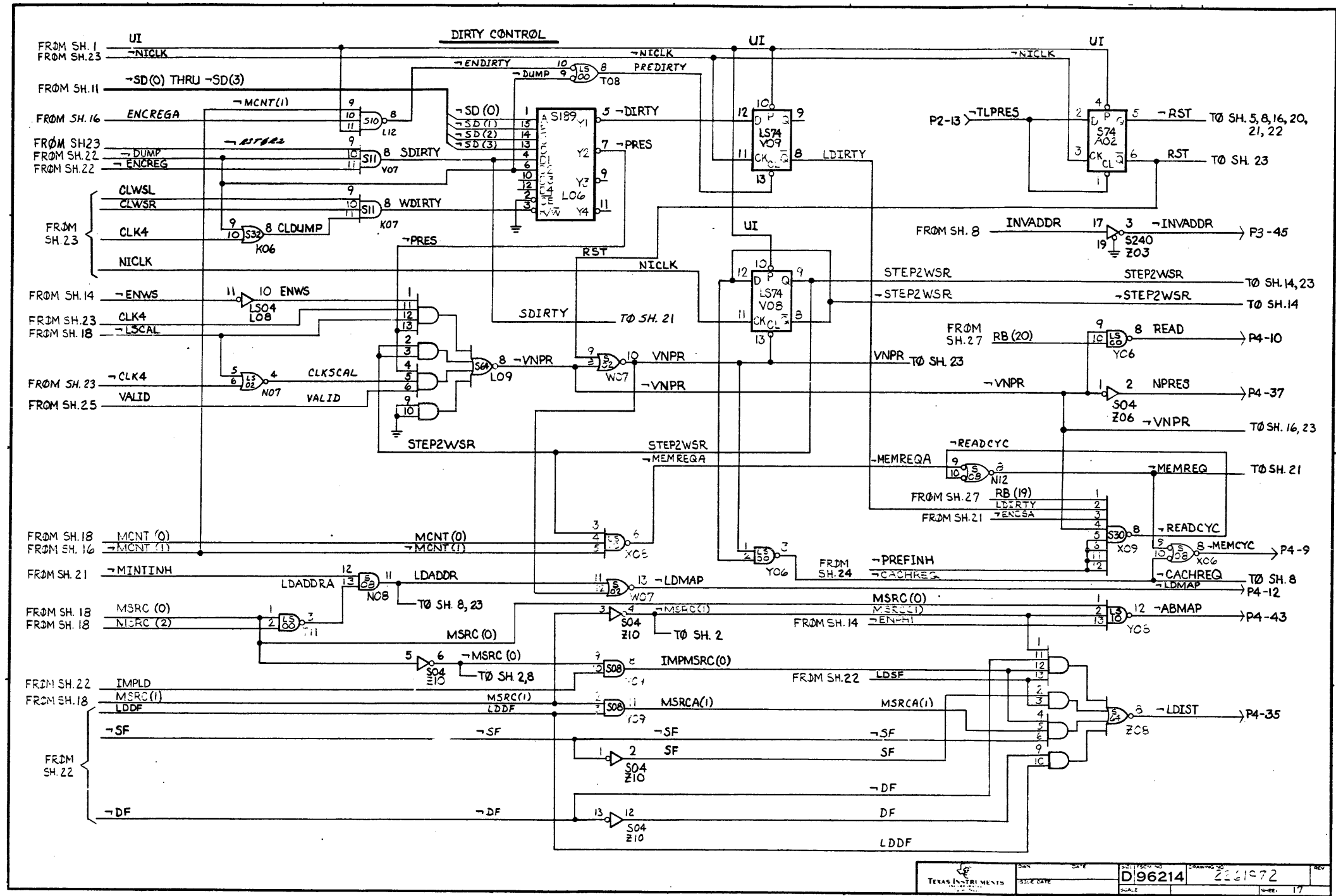


DATE	ISSUE DATE	SIZE (INCHES)	QUANTITY	DATE
		D196214	226	972
TXAS INSTRUMENTS		SCALE		SHEET 3

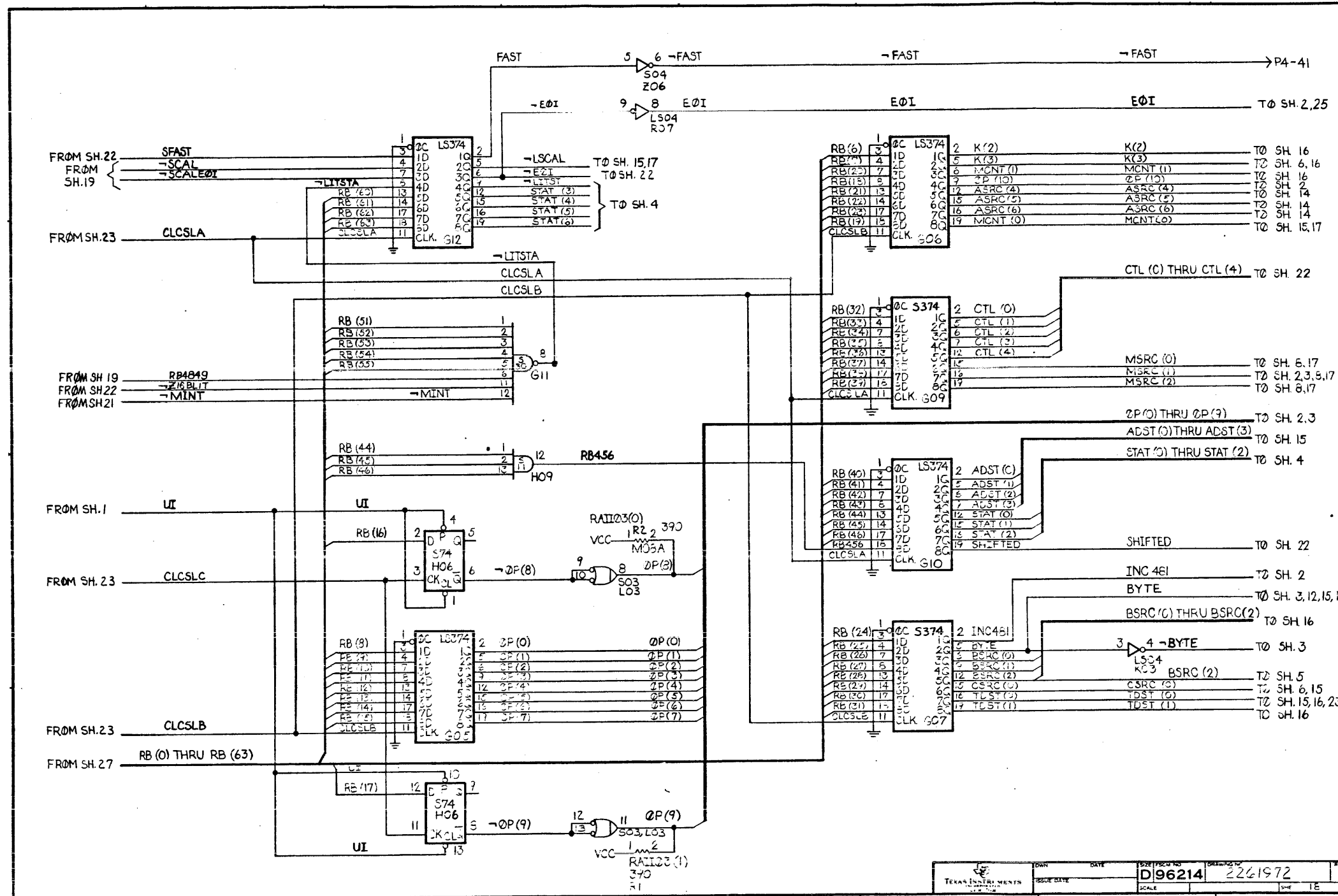


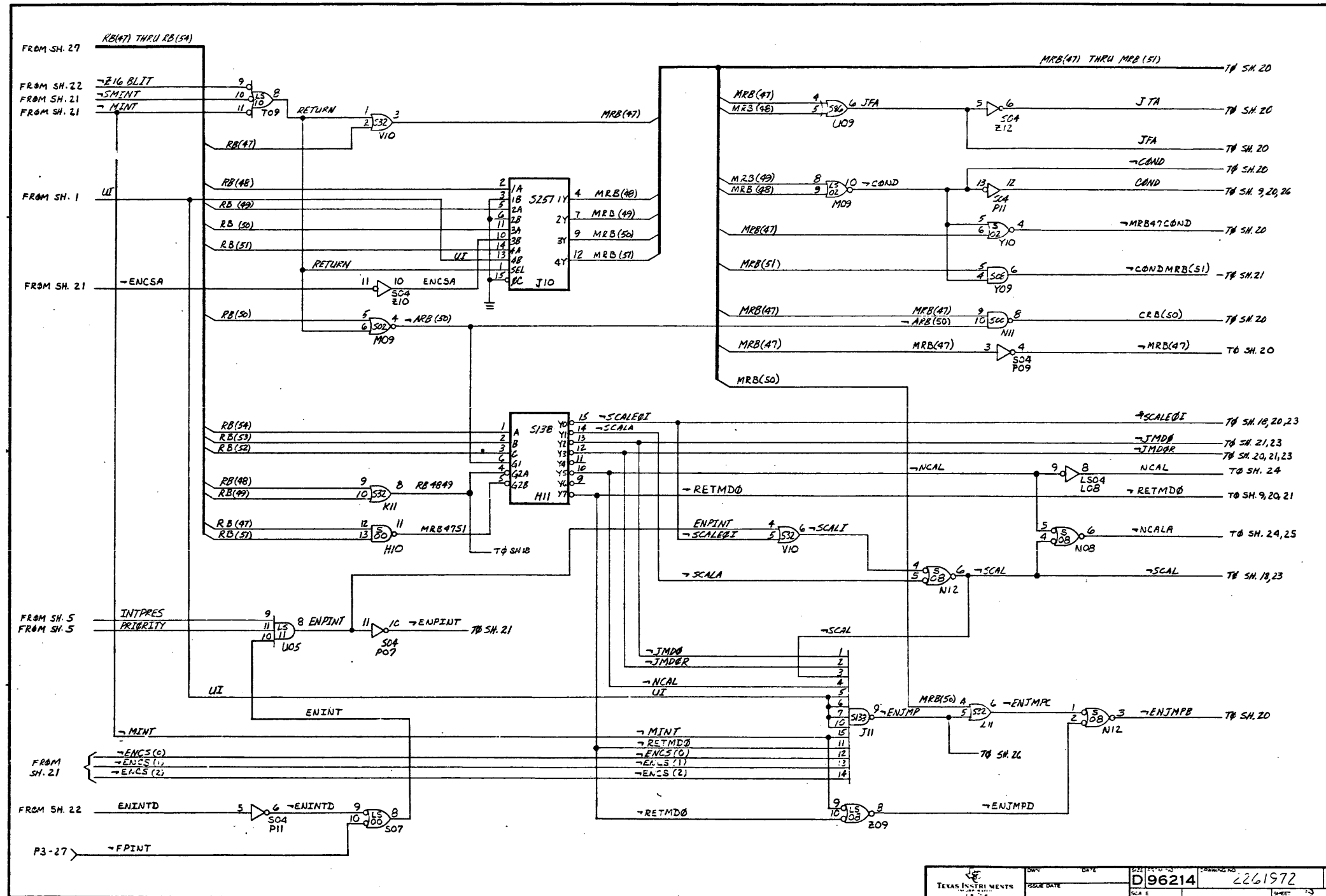






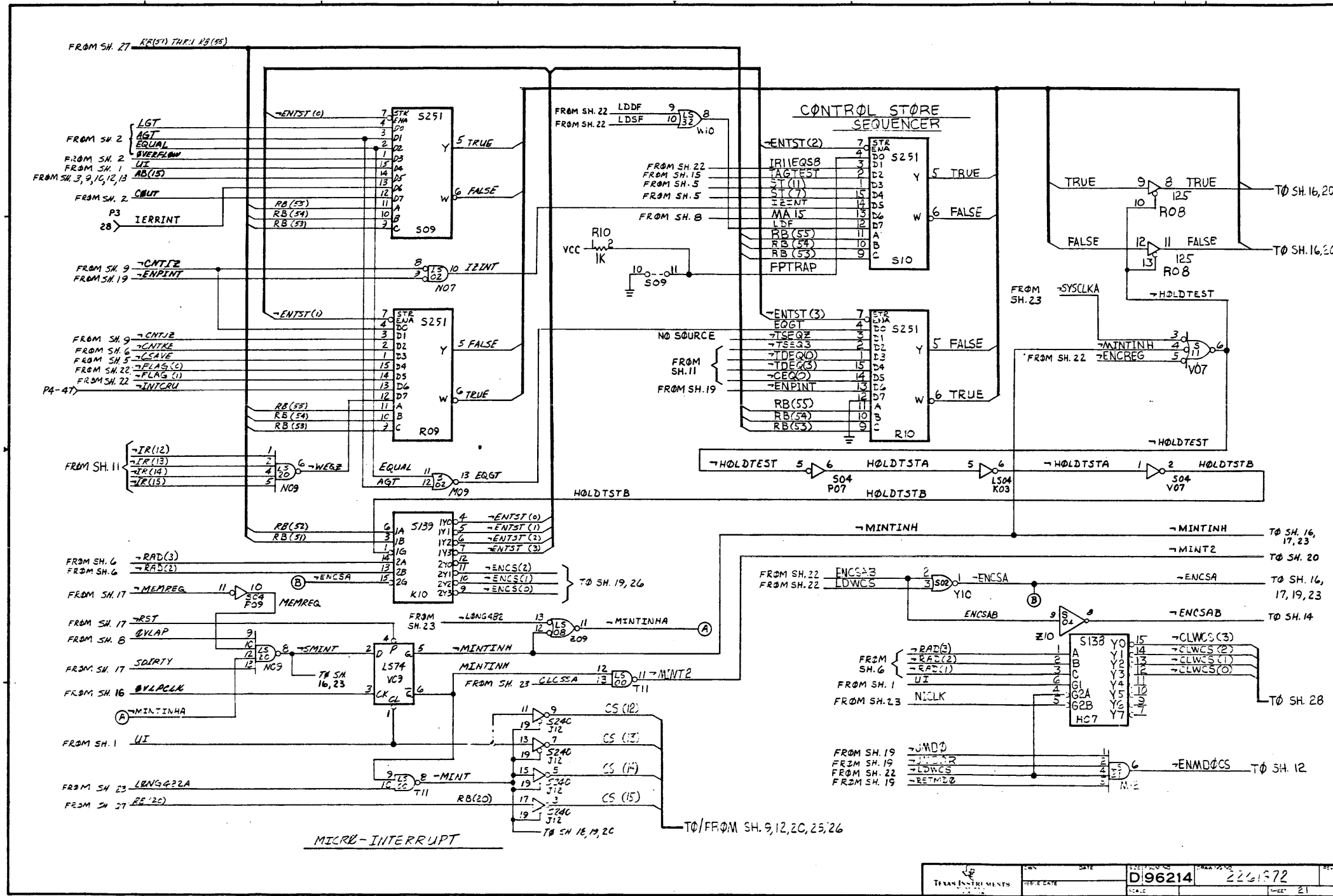
DESIGNED BY	DATE	DESIGN NO.	DRAWING NO.
TESTED BY	DATE	D96214	2221972
DATE	SCALE	SHEET	17



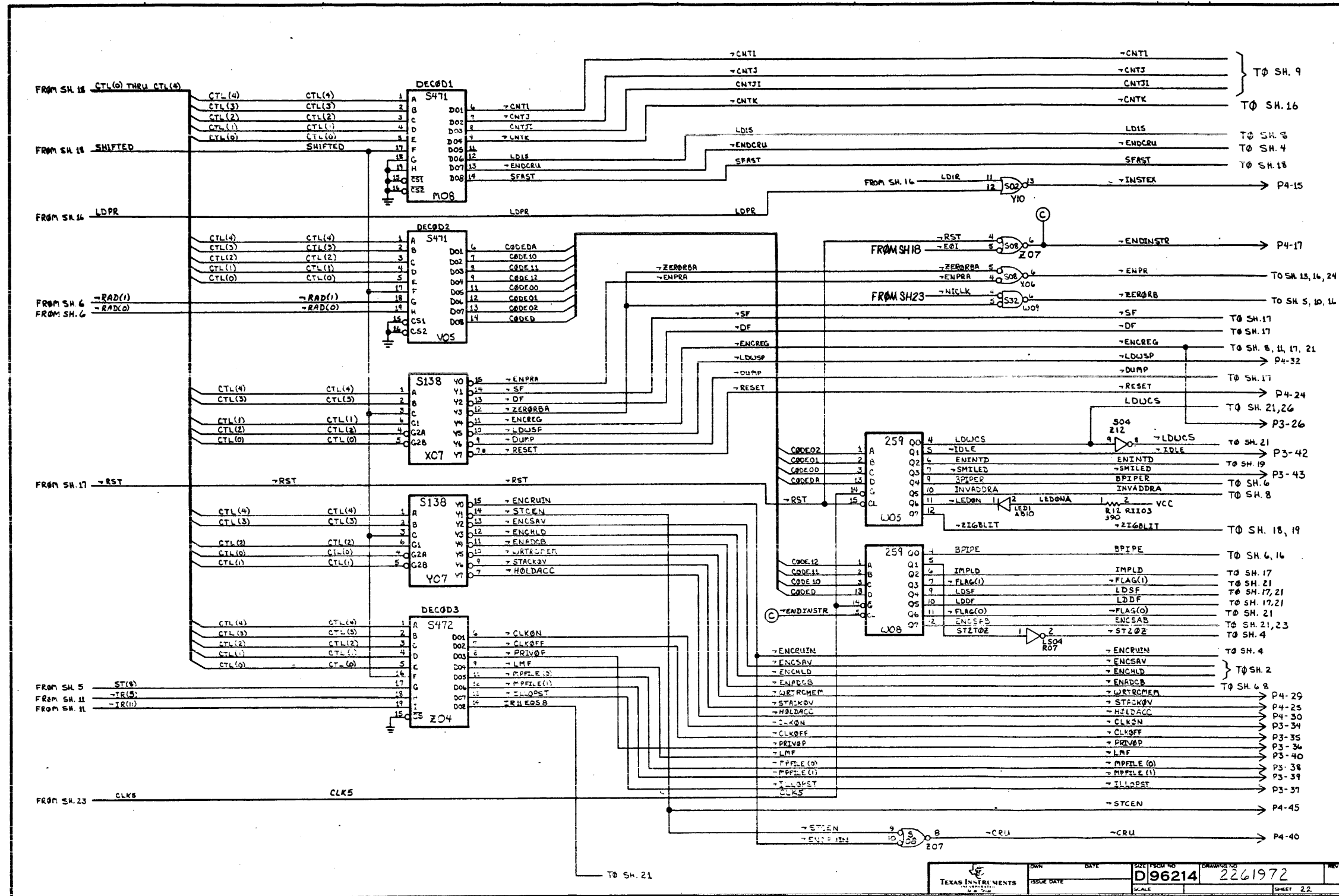


DESIGNED BY	DATE	SIZE	NO. OF SHEETS	ISSUE NO.	REV.
ISSUED BY	ISSUE DATE	D 96214	2261972		
TECHNICAL MANAGER		DESIGNER		DRAWER	



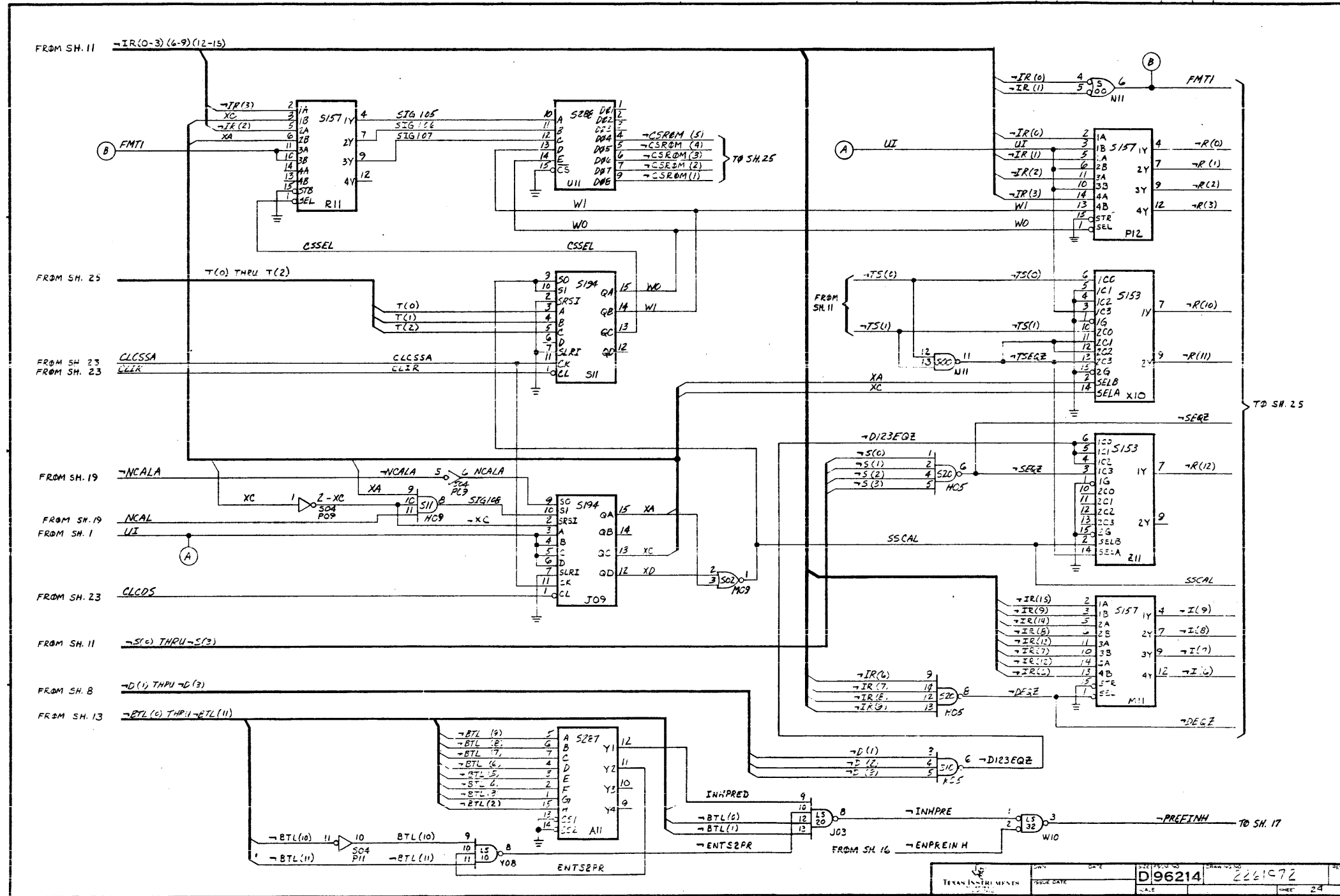


DATE	D96214	2261572
REV		21

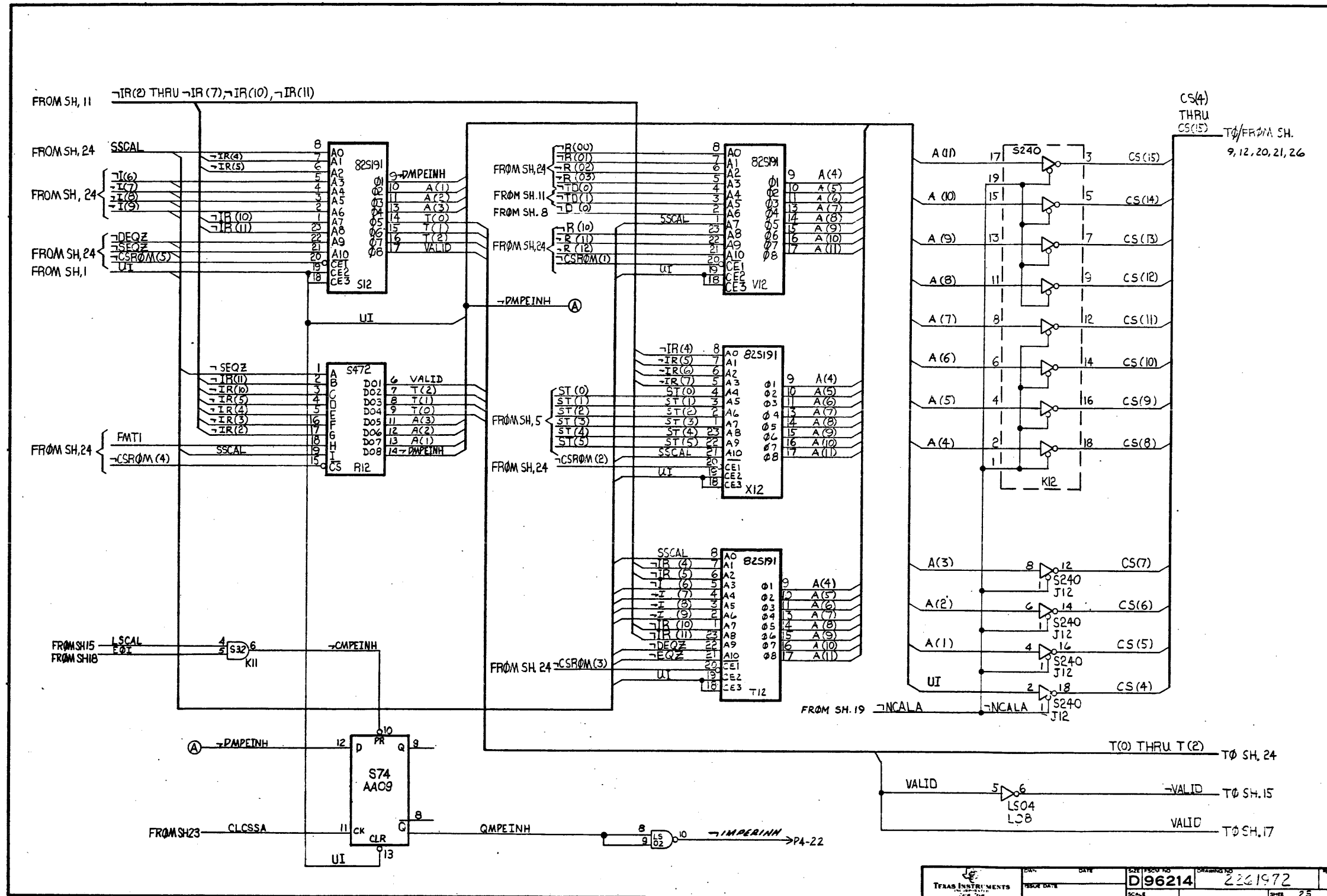




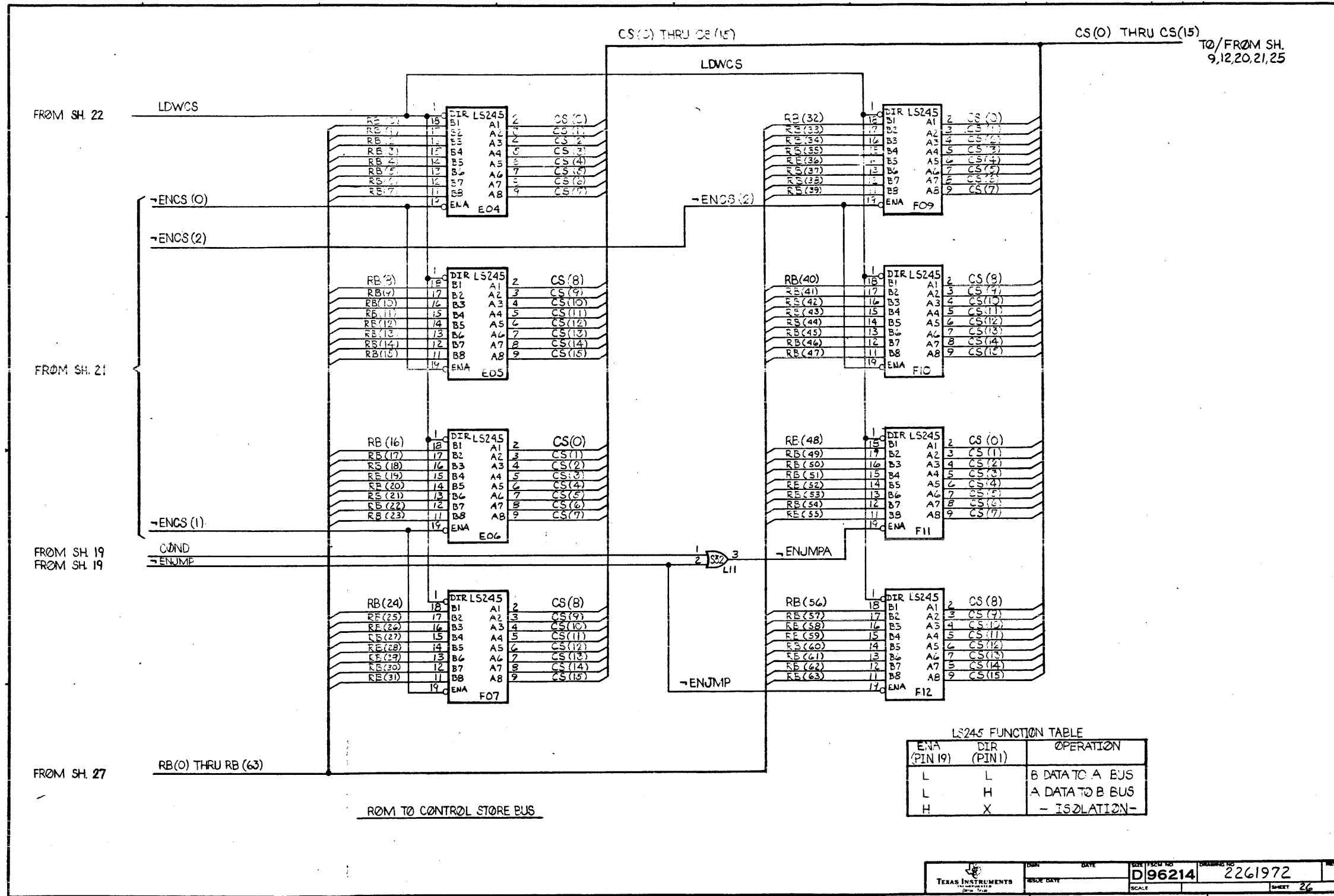




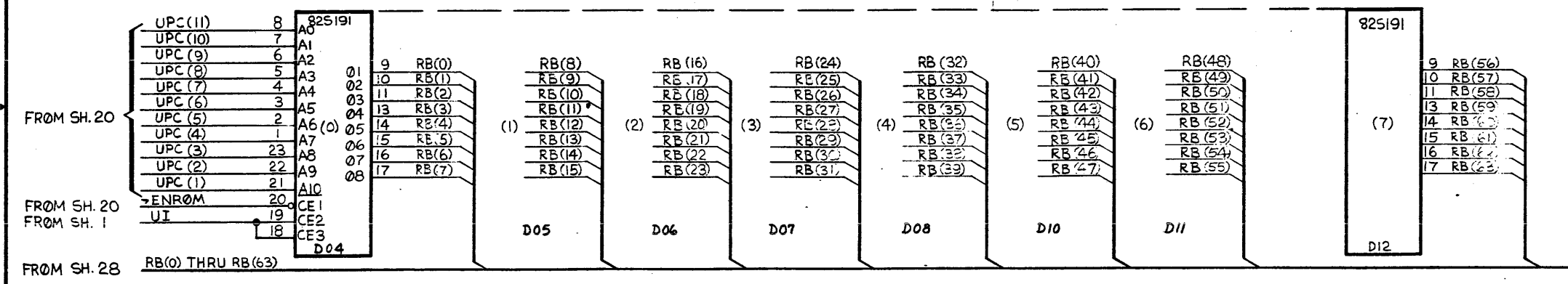
DATE	ISSUE DATE	SIZE	PROJ NO	DRW NO	REV
			D96214	2221972	
TEXAS INSTRUMENTS					
NAME		SHEET 24			



DATE	DATE	SN/TSCU NO	DRAWING NO
		D196214	2221972
SCALE			SHEET 25



TOTAL OF EIGHT 825191's ALL WIRED THE SAME EXCEPT AS SHOWN

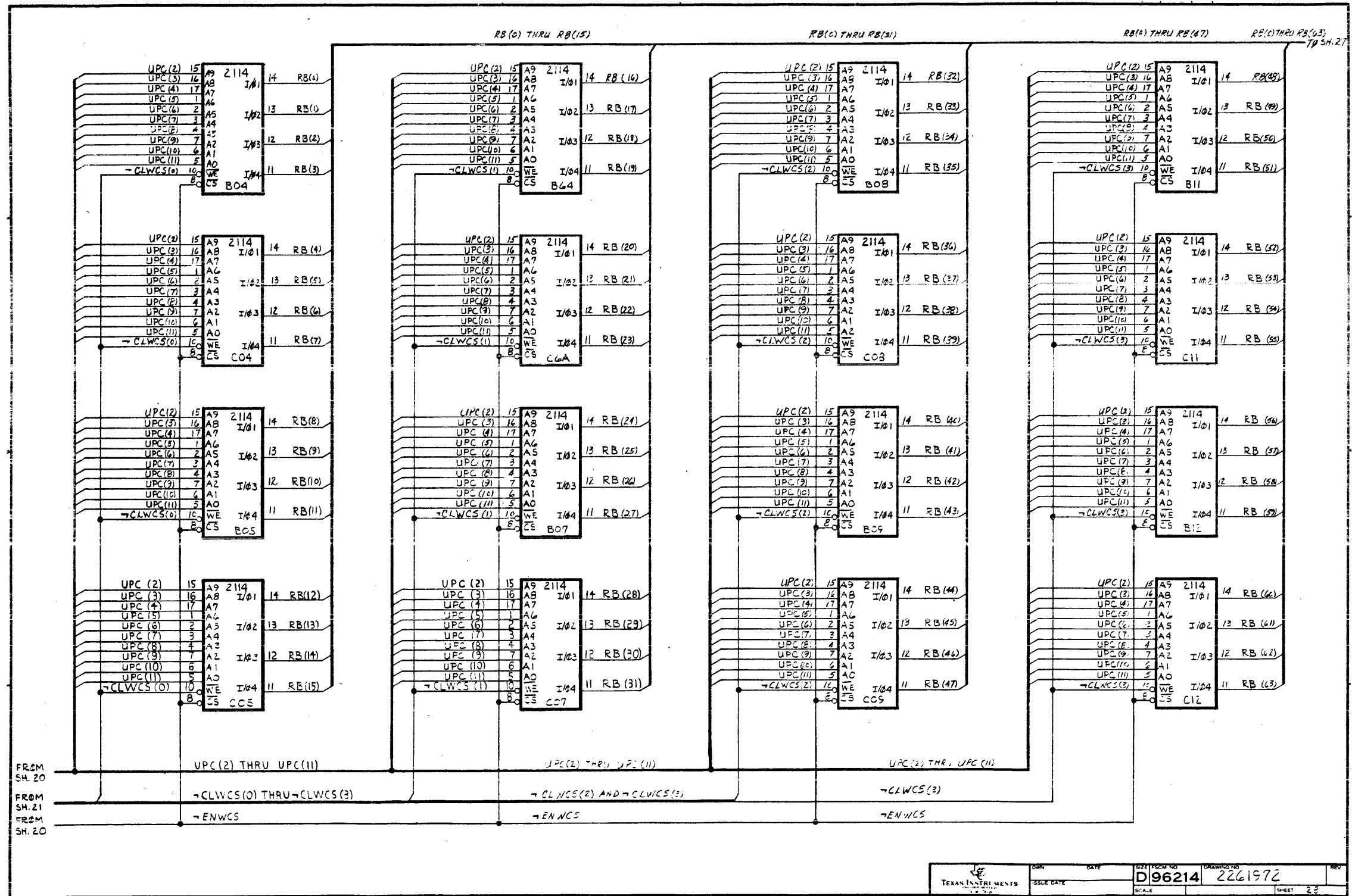


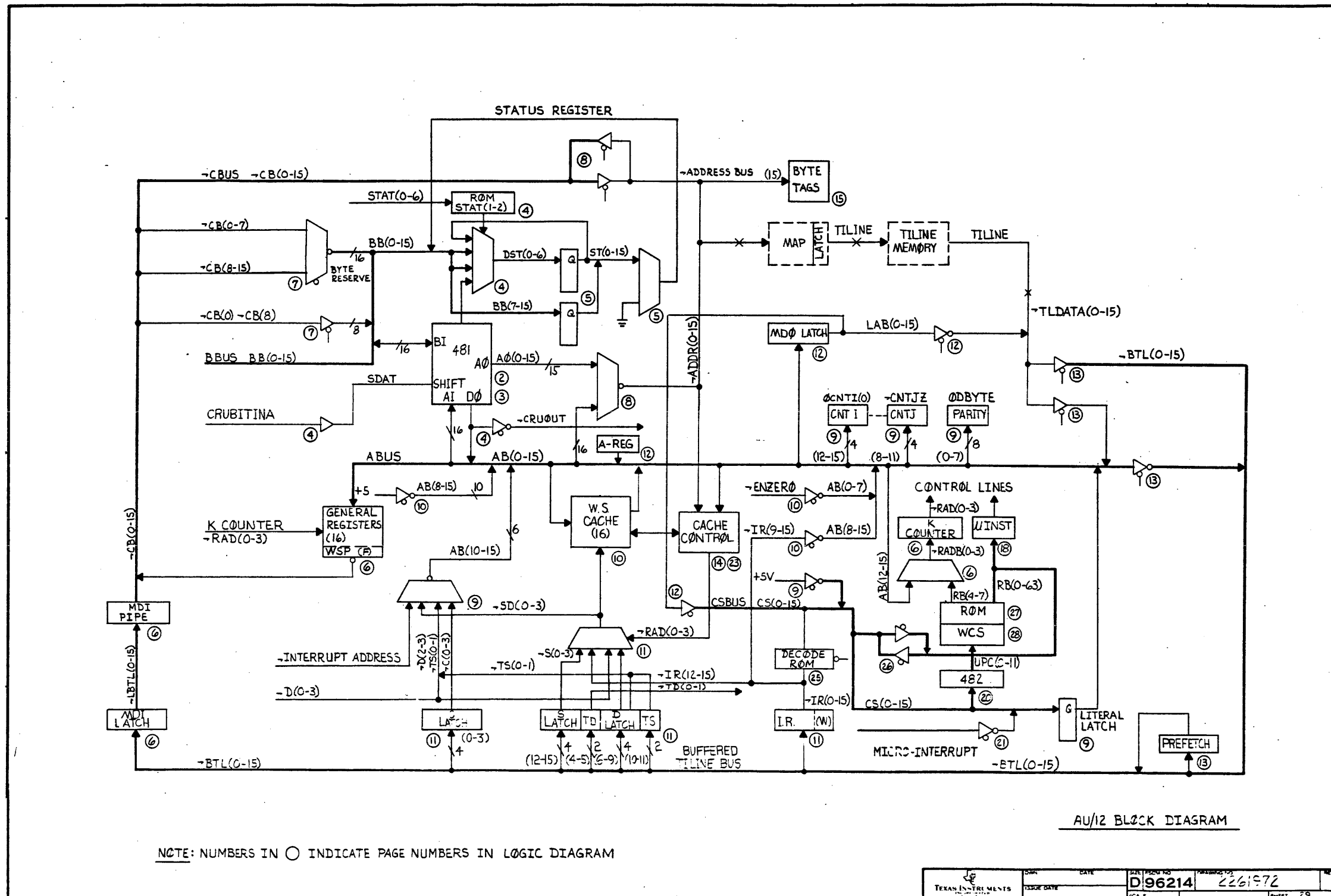
FROM SH. 20  
FROM SH. 20  
FROM SH. 1  
FROM SH. 28

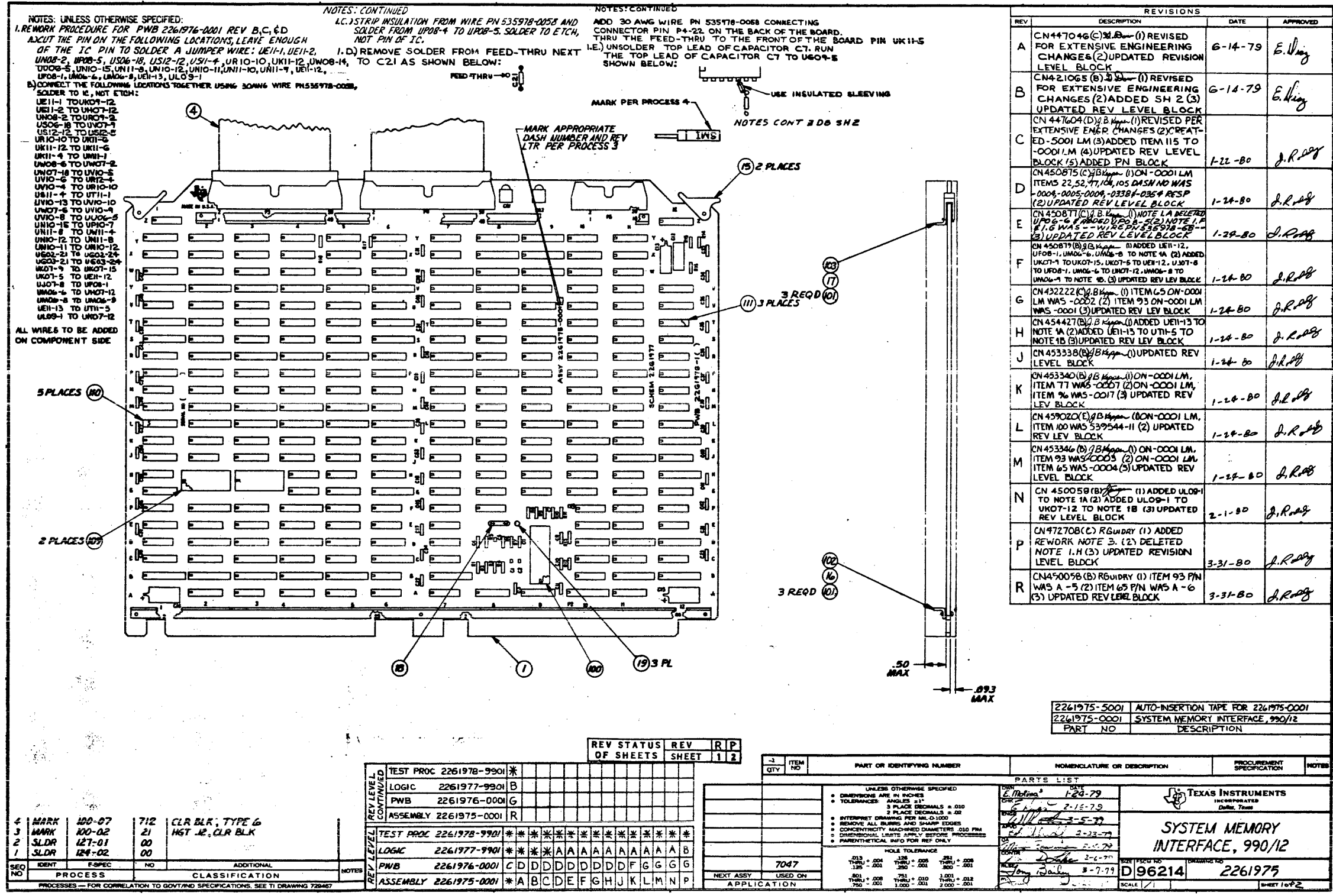
CONTROL STORE ROMS

RB(5)	TO	SH. 16
RB(0) THRU RB(3)	TO	SH. 14
RB(4)	TO	SH. 16
RB(4) THRU RB(7)	TO	SH. 6
RB(19)	TO	SH. 17
RB(20)	TO	SH. 17, 21
RB(23)	TO	SH. 15
RB(47) THRU RB(54)	TO	SH. 19
RB(51) THRU RB(55)	TO	SH. 21
RB(0) THRU RB(27)	TO	SH. 18, 26
RB(48)	TO	SH. 20

TEXAS INSTRUMENTS DALLAS, TEXAS	DATE	DATE	REV. FROM NO.	DESIGNING NO.
	SCALE	DATE	D96214	2261972
			SCALE	SHEET 27







REV	DESCRIPTION	DATE	APPROVED
A	CN447046(C) (1) REVISED FOR EXTENSIVE ENGINEERING CHANGES (2) UPDATED REVISION LEVEL BLOCK	6-14-79	E. King
B	CN421065 (B) (1) REVISED FOR EXTENSIVE ENGINEERING CHANGES (2) ADDED SH 2 (3) UPDATED REV LEVEL BLOCK	6-14-79	E. King
C	CN447604(D) (1) REVISED PER EXTENSIVE ENGR. CHANGES (2) CREATED -5001 LM (3) ADDED ITEM 115 TO -0001 LM (4) UPDATED REV LEVEL BLOCK (5) ADDED PN BLOCK	1-22-80	J. R. Roby
D	CN450875 (C) (1) ON -0001 LM ITEMS 22, 52, 77, 104, 105 DASH NO WAS -0004, -0005, -0008, -0338, -0354 RESP (2) UPDATED REV LEVEL BLOCK	1-24-80	J. R. Roby
E	CN450877 (C) (1) NOTE 1A DELETED UPOB-1, UMOG-6, UMOG-8 TO NOTE 1A (2) NOTE 1A WAS -1-16 (3) UPDATED REV LEVEL BLOCK	1-29-80	J. R. Roby
F	CN450879 (B) (1) ADDED ULOP-12, UPOB-1, UMOG-6, UMOG-8 TO NOTE 1A (2) ADDED UKOT-7 TO UKOT-15, UKOT-5 TO UEN-12, UJOI-8 TO UPOB-1, UMOG-6 TO UKOT-12, UMOG-8 TO UMOG-9 TO NOTE 1B (3) UPDATED REV LEVEL BLOCK	1-24-80	J. R. Roby
G	CN452222 (C) (1) ITEM 65 ON -0001 LM WAS -0002 (2) ITEM 93 ON -0001 LM WAS -0001 (3) UPDATED REV LEVEL BLOCK	1-24-80	J. R. Roby
H	CN454427 (B) (1) ADDED UEN-13 TO NOTE 1A (2) ADDED UEN-13 TO UTH-5 TO NOTE 1B (3) UPDATED REV LEVEL BLOCK	1-24-80	J. R. Roby
J	CN453338 (B) (1) UPDATED REV LEVEL BLOCK	1-24-80	J. R. Roby
K	CN453340 (B) (1) ON -0001 LM, ITEM 77 WAS -0007 (2) ON -0001 LM, ITEM 76 WAS -0017 (3) UPDATED REV LEVEL BLOCK	1-24-80	J. R. Roby
L	CN459020 (E) (1) ON -0001 LM, ITEM 100 WAS 539544-11 (2) UPDATED REV LEVEL BLOCK	1-24-80	J. R. Roby
M	CN453346 (B) (1) ON -0001 LM, ITEM 93 WAS -0003 (2) ON -0001 LM, ITEM 65 WAS -0004 (3) UPDATED REV LEVEL BLOCK	1-24-80	J. R. Roby
N	CN450059 (B) (1) ADDED ULOP-1 TO NOTE 1A (2) ADDED ULOP-1 TO UKOT-12 TO NOTE 1B (3) UPDATED REV LEVEL BLOCK	2-1-80	J. R. Roby
P	CN472708 (C) (1) ADDED REWORK NOTE 3. (2) DELETED NOTE 1.H (3) UPDATED REVISION LEVEL BLOCK	3-31-80	J. R. Roby
R	CN450058 (B) (1) ITEM 93 PN WAS A-5 (2) ITEM 62 PN WAS A-6 (3) UPDATED REV LEVEL BLOCK	3-31-80	J. R. Roby

2261975-5001	AUTO-INSERTION TAPE FOR 2261975-0001
2261975-0001	SYSTEM MEMORY INTERFACE, 990/12
PART NO	DESCRIPTION

REV	STATUS	REV	R	P
1		1		

REV LEVEL	TEST PROC	LOGIC	PWB	ASSEMBLY
CONTINUED	2261978-9901	2261977-9901	2261976-0001	2261975-0001
	*	B	G	R

ITEM NO	QTY	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES
7047					

UNLESS OTHERWISE SPECIFIED	DATE	TEXAS INSTRUMENTS
DIMENSIONS ARE IN INCHES	1-29-79	INCORPORATED
TOLERANCES ARE AS SHOWN	2-15-79	DELTA TAPES
3 PLACE DECIMALS = .030	3-5-79	
2 PLACE DECIMALS = .02	3-23-79	
INTERPRET DRAWING PER MIL-D-1000	3-6-79	
REMOVE ALL BURRS AND SHARP EDGES	3-7-79	
CONCENTRICITY MATCHED DIAMETERS .010 P/M		
DIMENSIONAL LIMITS APPLY BEFORE PROCESSING		
PARENTHEetical INFO FOR REF ONLY		
HOLE TOLERANCE		DRAWING NO
.013 + .004	.125 + .008	D96214
.125 - .001	.250 - .001	2261975
.500 + .008	.750 + .010	
.750 - .001	1.000 - .001	
	2.000 - .001	

4	MARK	100-07	712	CLR BLK, TYPE 6
3	MARK	100-02	21	HST .42, CLR BLK
2	SLDR	127-01	00	
1	SLDR	124-02	00	

SEQ NO	IDENT	ESPEC	NO	ADDITIONAL	NOTES
	PROCESS			CLASSIFICATION	

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729487



NOTES CONTINUED

1.F) STRIP INSULATION FROM WIRE B865 PN 53578-58 AND  
SOLDER FROM UN11-10 TO UN10-15. SOLDER TO  
ETCH OF UN10-15.

1.G) STRIP INSULATION FROM WIRE B865 PN 53578-58 AND  
SOLDER FROM UN11-9 TO UN10-11 SOLDER TO ETCH  
OF UN10-11

~~THE PART NO 923577-0038 SOLDERED IN PARALLEL WITH  
PART NO 923577-0038 MAY BE SUBSTITUTED  
FOR ITEM 6 (PN 972943-18)~~

2. REWORK PROCEDURE FOR PWB 2261976-0001 REV B:  
ADD SERIAL NO, ASSEMBLY NO, PWB NO, AND SCHEMATIC  
NO AS PER REV D MARKING. REMOVE MARKING FOR  
C10. CHANGE MARKING C9 TO C10. ADD MARKING FOR  
C9 AS PER REV D MARKING.

REWORK PROCEDURE FOR PWB 2261976-0001 REV C:  
ADD ASSEMBLY NO, PWB NO, AND SCHEMATIC NO AS  
PER REV D MARKING. SWITCH MARKINGS FOR C9 AND  
C10.

3. REWORK PROCEDURE FOR PWB 2261976-0001 REV B,C,D:  
ITEM 6 (972943-18) MAY BE SUBSTITUTED BY TI P/N 972943-19  
(L0UP) IF NECESSARY TO BRING THE SIGNAL "TSTCLK" INTO  
ITS SPEC. OF 102-13.8 MSEC PERIOD

TEXAS INSTRUMENTS DALLAS, TEXAS	DATE	REV. NO.	DRAWING NO.	SHEET
	6-5-77	D96214	2261975	
SCALE		NONE		

TEXAS INSTRUMENTS INCORPORATED		DATE 03/07/80		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM2261975-0001		REV R	
QTY	REF	UNIT	DESCRIPTION	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0002	REF	EA	LOGIC DIAGRAM, SMI, 990/12	2261977-9901							
0003	REF	EA	TEST PROCEDURE, SMI, 990/12	2261978-9901							
0004	00002.000	EA	CABLE ASSY, MEM EXP, 1 ADD-ON MODULE	0936401-0001							
0005	00045.000	EA	CAP., FIXED, AXIAL LEAD, .047 UF, +80%, -20%	0972763-0021							
0005A			C3 C4 C6 C7 C9 C11								
0005B			C16 THRU C54								
0006	00001.000	EA	CAP FIX .820 MF 5% 50V NYLAR METALIZED TRW - X663F	0972943-0018							
0006A			C12								
0007	00002.000	EA	CAP FIX TANT SOLID 150 MFD 10% 15 VOLT QPL -M39003/1-2277	0972924-0012							
0007A			C14 C15								
0008	00001.000	EA	CAP FIX TANT SOLID 39 MFD 10% 10 VOLT QPL -M39003/1-2259	0972924-0006							
0008A			C13								
0009	00002.000	EA	CAPACITOR, 220 PF 2% 100V FX CER DIELECTRIC 095275-VK208A221G	0539679-0004							
0009A			C1 C2								
0010	00001.000	EA	CAPACITOR, 220 PF 2% 100V FX CER DIELECTRIC 095275-VK208A221G	0539679-0004							
0010A			C8								
0011	00001.000	EA	CAP FIX MICA 300V 750 PF 5% QPL -CM05F751JOC	0972927-0048							
0011A			C5								
0012	00001.000	EA	CAP, FIX, CERAMIC, 4700PF, 50V 10%	0972757-0021							
0012A			C10								
DRAFTSMAN: [Signature] DATE: 3-11-80 TITLE: SYSTEM MEMORY INTERFACE, 990/12 APP'D: [Signature] DATE: [Blank] PROJECT ENGINEER: [Blank] DATE: [Blank] RELEASED: [Blank] PROJECT NO: 7097 PART NUMBER: LM2261975-0001 REV: R											

TEXAS INSTRUMENTS INCORPORATED		DATE 03/07/80		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM2261975-0001		REV R	
QTY	REF	UNIT	DESCRIPTION	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0013	00001.000	EA	CONNECTOR, PWB, 20P, RT. A, SDRTL, HDR, FLYCBL	0972698-0001							
0013A			P5								
0014	00002.000	EA	CONNECTOR, PC 50 PIN	0972137-0005		BEI - 65483-005					
0014A			P3 P4								
0015	00002.000	EA	EJECTOR, NYLON, NON-LOCKING, PWB	0533844-0001							
0016	00001.000	EA	INSULATOR, PWB, 14IN	0944954-0001							
0017	00001.000	EA	INSULATOR, STIFFENER, PWB, 11 INCH	0946708-0001							
0018	00001.000	EA	PLUG, JUMPER, I.C., 0.300 INCH	0972713-0001							
0019	00003.000	EA	CONNECTOR, SOCKET PCB	0996864-0001		022526-75060-007					
0020	00002.000	EA	DIODE, LED 550-0103 50 MA 3 V	0972537-0001		DIA --550-0103					
0020A			CR1 CR2								
0022	00001.000	EA	DELAY MODULE, TAPPED, 40 4NS	2210293-0005		019612-1213					
0022A			UG07								
0023	00001.000	EA	DELAY MODULE, TAPPED, 50 +/- 3NS	2210293-0002		001961-21190					
0023A			UF07								
0025	00004.000	EA	INTERGRATED CIRCUIT, QUAD J-K FLIP-FLOP	0996017-0001		TI -SN74276N					
0026A			UH12 UK12 UM09 UX09								
0041	00014.000	EA	IC, SN74LS240N, LINE DRIVERS	0996089-0001		001295-SN74LS240N					
0041A			UB03 UB07 UB12 UC03 UD02								
0041B			UD04 UM10 UV01 UV06 UV07								
DRAFTSMAN: [Signature] DATE: [Blank] TITLE: SYSTEM MEMORY INTERFACE, 990/12 APP'D: [Signature] DATE: [Blank] PROJECT ENGINEER: [Blank] DATE: [Blank] RELEASED: [Blank] PROJECT NO: [Blank] PART NUMBER: LM2261975-0001 REV: R											

TEXAS INSTRUMENTS INCORPORATED		DATE 03/07/80		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM2261975-0001		REV R	
QTY	REF	UNIT	DESCRIPTION	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0041C			UV08 UY09 UT01 UT06								
0042	00002.000	EA	IC, SN74LS241N, LINE DRIVERS	0996089-0002		012955-N74LS241N					
0042A			UT07 UM08								
0045	00001.000	EA	NETWORK, SN74LS279N	0972667-0001							
0045A			UL01								
0047	00012.000	EA	IC, SN74LS299N	0996425-0001		001295-SN74LS299N					
0047A			UA10 UB01 UB02 UB04 UB11								
0047B			UD11 UD12 UG06 UJ11 UL09								
0047C			UR03 UR05								
0049	00001.000	EA	IC, OSCILLATOR, VOLTAGE-CONT SN74LS324N	0996032-0001		TI -SN74LS324N					
0049A			UT12								
0050	00002.000	EA	IC, SN74LS374N EDGE-TRIGGERED FLIP-FLOPS	0996420-0002		001295-SN74LS374N					
0050A			UB05 UC06								
0051	00003.000	EA	IC, SN74LS377N, OCTAL D-TYPE FLIP-FLOP	0996769-0001		001295-SN74LS377N					
0051A			UP07 US01 US06								
0052	00001.000	EA	PROM, 990/12, CLOCK CNTL 2-A	2262022-0008							
0052A			UL07								
0054	00001.000	EA	NETWORK, SN74LS670N	0972654-0001							
0054A			UY01								
0063	00002.000	EA	NETWORK SN74S11N	0219402-7411							
DRAFTSMAN: [Signature] DATE: [Blank] TITLE: SYSTEM MEMORY INTERFACE, 990/12 APP'D: [Signature] DATE: [Blank] PROJECT ENGINEER: [Blank] DATE: [Blank] RELEASED: [Blank] PROJECT NO: [Blank] PART NUMBER: LM2261975-0001 REV: R											

TEXAS INSTRUMENTS INCORPORATED		DATE 03/07/80		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM2261975-0001		REV R	
QTY	REF	UNIT	DESCRIPTION	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0063A			UL11 UZ1A								
0065	00001.000	EA	EPROM, 990/12, LDR/SLF TEST C LSB	2262025-0008							
0065A			UG02								
0070	00009.000	EA	IC, SN74S189N 16 X 4-BIT STATIC RAM	0996795-0001		012955-N74S189N					
0070A			UC02 UC04 UE02 UE03 UE04								
0070B			UE05 UF03 UF05 UU09								
0072	00006.000	EA	IC, OCTAL BUFFER/DRIVER SN74S240	0996046-0001		TI -SN74S240					
0072A			UK07 UV02 UV04 UM07 UY08								
0072B			UR07								
0073	00004.000	EA	IC, SN74S241N, LINE DRIVERS	0996063-0001		001295-SN74S241N					
0073A			UM03 UM05 UV03 UV05								
0077	00001.000	EA	PROM, 990/12, CLOCK CONTROL 1-B	2262022-0009							
0077A			UM07								
0078	00004.000	EA	NETWORK, 74S299 SERIAL/PARALLEL CONVERTER	0972637-0001							
0078A			UL02 UL03 UL04 UL05								
0081	00002.000	EA	IC, SN74S373, OCTAL D, FLIPFLOP	0996307-0001		TI -SN74S373					
0081A			UP08 UX08								
0082	00008.000	EA	IC, SN74S374N, EDGE-TRIGGERED FLIP-FLOPS	0996201-0001		TI -SN74S374N					
0082A			UF02 UF04 UK10 UL06 UM02								
0082B			UM04 UR02 UR04								
DRAFTSMAN: [Signature] DATE: [Blank] TITLE: SYSTEM MEMORY INTERFACE, 990/12 APP'D: [Signature] DATE: [Blank] PROJECT ENGINEER: [Blank] DATE: [Blank] RELEASED: [Blank] PROJECT NO: [Blank] PART NUMBER: LM2261975-0001 REV: R											

TEXAS INSTRUMENTS INCORPORATED		DATE 03/07/80		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LM261975-0001		REV R		
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0090	00001.000	EA		0972037-2390	NETWORK, RES 390 OHM 2% 16PIN BELENENT	073138-898-3-R390						
0090A					U212							
0092	00001.000	EA		0996896-0001	IC, CONTROLLER, SN58220N	001295-SN58220N						
0092A					UB09							
0093	00001.000	EA		2262025-0007	EPROM, 990/12, LDR/SLF TEST C MSB							
0093A					UG03							
0094	00002.000	EA		0972975-0009	RESISTOR, FIXED, COMP 22 OHMS, 1/8W, 5%	039008-RCR05G220JS						
0094A					R17 R18							
0095	00003.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	RDH - R-25						
0095A					R6 R7 R9							
0096	00001.000	EA		0972946-0003	RES FIX 2.7 OHM 5% .25 W CARBON FILM	RDH - R-25						
0096A					R12							
0097	00001.000	EA		0972946-0045	RES FIX 150 OHM 5% .25 W CARBON FILM	RDH - R-25						
0097A					R15							
0098	00001.000	EA		0972946-0081	RES FIX 4.7K OHM 5% .25 W CARBON FILM	RDH - R-25						
0098A					R14							
0100	00001.000	EA		2210188-0008	SOCKET, LOW PROFILE, DIP, 28 CONT	003612-DILB28P-108						
0100A					XUB09							
0101	00006.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG							
0102	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN							
DRAFTSMAN				DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE SYSTEM MEMORY INTERFACE, 990/12			
APPD. MFG.				DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM261975-0001	REV R	

TEXAS INSTRUMENTS INCORPORATED		DATE 03/07/80		LIST OF MATERIAL		PAGE 6 of		PART NUMBER LM261975-0001		REV R		
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0103	00001.000	EA		0946707-0001	STIFFENER, PWB, 11 INCH							
0104	00001.000	EA		0539370-0334	RES FIX FILM 294 OHM 1% .25 WATT	CDR - NA55						
0104A					R1							
0105	00001.000	EA		0539370-0347	RES FIX FILM 402 OHM 1% .25 WATT	CDR - NA55						
0105A					R3							
0106	00001.000	EA		0539374-0414	RES FIX FILM 2.00K OHM 1% .25 WATT	CDR - NC5						
0106A					R5							
0107	00001.000	EA		0539374-0391	RESISTOR, FXD, FILM, 1.15 K OHMS, 1/4W, 1%	024546-						
0107A					R10							
0108	00001.000	EA		0539370-0471	RES FIX FILM 7.87K OHM 1% .25 WATT	CDR - NA55						
0108A					R13							
0109	00002.000	EA		2210188-0007	SOCKET, LOW PROFILE, DIP, 24 PINS	003612-DILB24P-108						
0109A					XUG02, XUG03							
0110	00005.000	EA		2210188-0003	SOCKET, LOW PROFILE, DIP, 16 CONT	003612-DILB16P-108						
0110A					XUL01, XUL07, XUM07, XUS07,							
0110B					XUY11							
0111	00003.000	EA		2210188-0002	SOCKET, LOW PROFILE, DIP, 14 PINS	003612-DILB14P-108						
0111A					XUT12, XUG07, XUF07							
0113	00001.000	EA		0972946-0041	RES FIX 100 OHM 5% .25 W CARBON FILM	RDH - R-25						
0113A					R16							
DRAFTSMAN				DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE SYSTEM MEMORY INTERFACE, 990/12			
APPD. MFG.				DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM261975-0001	REV R	

TEXAS INSTRUMENTS INCORPORATED		DATE 03/07/80		LIST OF MATERIAL		PAGE 7 of		PART NUMBER LM261975-0001		REV R		
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0114	00001.000	EA		0219402-7138	NETWORK SN74S138N							
0114A					UUG06							
0115	00001.000	EA		2261975-5001	AUTO-INSERTION TAPE FOR 2261975-0001							
DRAFTSMAN				DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE SYSTEM MEMORY INTERFACE, 990/12			
APPD. MFG.				DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM261975-0001	REV R	

TEXAS INSTRUMENTS INCORPORATED		DATE 03/07/80		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM261975-5001		REV R		
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0001	00001.000	EA		2261976-0001	PWB, SMI 12990							
0021	00001.000	EA		0222222-7407	NETWORK-SN7407N	TI - -SN7407N						
0021A					UF10							
0024	00002.000	EA		0222222-7125	NETWORK SN74125N							
0024A					UJ08 UN11							
0025	00002.000	EA		0222222-7148	NETWORK SN74148N							
0025A					UD05 UD06							
0027	00002.000	EA		0222222-7437	NETWORK SN7437N							
0027A					UA07 UB10							
0028	00003.000	EA		0222222-7442	NETWORK-SN7442N							
0028A					UA02 UA09 UA11							
0029	00003.000	EA		0972900-7400	NETWORK SN74LS00N	TI - -SN74LS00N						
0029A					UF12 UR10 UT08							
0030	00004.000	EA		0972900-7401	IC, SN74LS01N	TI - -SN74LS01N						
0030A					UA05 UA06 UB06 UF11							
0031	00001.000	EA		0972900-7402	NETWORK, SN74LS02N							
0031A					UK01							
0032	00005.000	EA		0972900-7404	NETWORK SN74LS04N							
0032A					UA03 UM10 UL10 UP12 US10							
0033	00004.000	EA		0972749-0001	NETWORK, SN74LS08N							
DRAFTSMAN				DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE AUTO-INSERTION TAPE FOR 2261975-0001			
APPD. MFG.				DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM261975-5001	REV R	

TEXAS INSTRUMENTS INCORPORATED		DATE 03/07/80		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM2261975-5001		REV R	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0033A					UF01 UK11 UM11 US08						
0034	00002.000	EA		0972900-7410	NETWORK SN74LS10N						
0034A					UH11 UR11						
0035	00001.000	EA		0972900-7112	NETWORK SN74LS112N	TI	-SN74LS112N				
0035A					UU12						
0035	00002.000	EA		0972782-0001	NETWORK SN74LS132N	TI	-SN74LS132N				
0036A					UG09 UM01						
0037	00003.000	EA		0972900-7138	NETWORK SN74LS138N	TI	-SN74LS138N				
0037A					UA04 UG11 UG12						
0038	00001.000	EA		0801383-0001	NETWORK SN74LS151N						
0038A					UA08						
0039	00001.000	EA		0972669-0001	NETWORK, SN74LS163N						
0039A					UC01						
0040	00004.000	EA		0972900-7175	NETWORK SN74LS175N						
0040A					UC10 UD10 UE10 UG01						
0043	00004.000	EA		0972668-0001	NETWORK SN74LS251N						
0043A					UD03 UG05 UL12 US12						
0044	00006.000	EA		0996023-0001	IC, LOW POWER SCHOTTKY 8 BIT SN74LS259N	TI	-SN74LS259N				
0044A					UH06 UJ12 UK06 UP11 UV12						
0044B					UM10						
DRAFTSMAN DATE CKD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 2261975-0001											
APPD. MFG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM2261975-5001 REV R											

TEXAS INSTRUMENTS INCORPORATED		DATE 03/07/80		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM2261975-5001		REV R	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0045	00015.000	EA		0972652-0001	NETWORK SN74LS283N						
0046A					UP02 UP04 UP05 UT02						
0046B					UT04 UT05 UM03 UM04 UM05						
0046C					UX03 UX04 UX05 UY03 UY04						
0046D					UY05						
0048	00001.000	EA		0972900-7430	NETWORK SN74LS30N	TI	-SN74LS30N				
0048A					UJ09						
0053	00002.000	EA		0996765-0002	IC, SN74LS669AN, 4-BIT UP/DOWN COUNTERS			001295-SN74LS669AN			
0053A					UE01 US09						
0054	00020.000	EA		0972654-0001	NETWORK, SN74LS670N						
0054A					UM02 UM03 UM04 UM05 US02						
0054B					US03 US04 US05 UU02 UU03						
0054C					UU04 UU05 UM01 UM02 UM06						
0054D					UX01 UX02 UX06 UY02 UY06						
0055	00002.000	EA		0972900-7474	NETWORK SN74LS74N						
0055A					UD01 UG10						
0056	00004.000	EA		0972815-0001	NETWORK-SN74LS85N						
0056A					UJ03 UJ04 UJ05 UJ06						
0057	00001.000	EA		0972751-0001	NETWORK, SN74LS86N						
0057A					UN01						
DRAFTSMAN DATE CKD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 2261975-0001											
APPD. MFG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM2261975-5001 REV R											

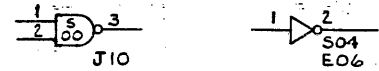
TEXAS INSTRUMENTS INCORPORATED		DATE 03/07/80		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM2261975-5001		REV R	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0058	00010.000	EA		0219402-7400	NETWORK SN74S00N						
0058A					UH01 UM05 UJ10 UN08 UP09						
0058B					UT11 UU11 UV09 UV10 UG08						
0059	00002.000	EA		0219402-7402	NETWORK SN74S02N	TI	-SN74S02N				
0059A					UM06 UU10						
0060	00002.000	EA		0219402-7404	NETWORK SN74S04N						
0060A					UE06 UR09						
0061	00005.000	EA		0219402-7408	NETWORK SN74S08N	TI	-SN74S08N				
0061A					UE11 UJ07 UK09 UL08 UN09						
0062	00003.000	EA		0219402-7410	NETWORK SN74S10N						
0062A					UE12 UH4A UT10						
0064	00001.000	EA		0219402-7112	NETWORK SN74S112N	TI	-SN74S112N				
0064A					UJ01						
0066	00001.000	EA		0996849-0001	IC, POSITIVE-MAND GATE, SN74S134N			001295-SN74S134N			
0066A					UN10						
0067	00001.000	EA		0219402-7139	NETWORK SN74S139N						
0067A					UC11						
0068	00001.000	EA		0219402-7415	NETWORK, SN74S15N SN74S SERIES			001295-SN74S15N			
0068A					UF08						
0069	00001.000	EA		0219402-7175	NETWORK SN74S175N						
DRAFTSMAN DATE CKD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 2261975-0001											
APPD. MFG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM2261975-5001 REV R											

TEXAS INSTRUMENTS INCORPORATED		DATE 03/07/80		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LM2261975-5001		REV R		
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0069A					UU08							
0071	00003.000	EA		0219402-7420	NETWORK SN74S20N							
0071A					UG4A UR08 UR12							
0074	00001.000	EA		0219402-7258	NETWORK SN74S258N							
0074A					UT09							
0075	00002.000	EA		0219402-7260	NETWORK SN74S260N							
0075A					UC12 UU01							
0076	00011.000	EA		0996848-0001	IC, SN74S283N 4-BIT FULL ADDER	001295-SN74S283						
0076A					UK02 UK03 UK04 UK05 UN07							
0076B					UP01 UP03 UP06 UR01 UR06							
0076C					UT03							
0079	00002.000	EA		0219402-7430	NETWORK SN74S30N							
0079A					UJ02 UM12							
0080	00002.000	EA		0219402-7432	NETWORK SN74S32N	TI- -SN74S32N						
0080A					UH07 UH09							
0083	00001.000	EA		0996851-0001	IC, QUAD POSITIVE-NAND, SN74S38N	-SN74S38N						
0083A					UC07							
0084	00003.000	EA		0219402-7451	NETWORK SN74S51N							
0084A					UM08 US11 UU07							
0085	00002.000	EA		0219402-7464	NETWORK SN74S64N							
DRAFTSMAN		DATE	CHK. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE AUTO-INSERTION TAPE FOR 2261975-0001					
APPROV. ENG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.					
							PART NUMBER LM2261975-5001					
							REV R					

TEXAS INSTRUMENTS INCORPORATED		DATE 03/07/80		LIST OF MATERIAL		PAGE 6 of		PART NUMBER LM2261975-5001		REV R		
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0085A					UK08 UN12							
0086	00002.000	EA		0219402-7465	NETWORK SN74S65N							
0086A					UD07 UE07							
0087	00006.000	EA		0219402-7474	NETWORK SN74S74N							
0087A					UF06 UH08 UM09 UN06 UV11							
0087B					UP10							
0088	00002.000	EA		0972141-0041	NETWORK, RES. 1.0 K OHM 2 x 14 PIN DIP	BEC - 899-1-R1.0K						
0088A					UC05 UY10							
0089	00001.000	EA		2210162-0001	NETWORK, RES LINE TERMINATION 5x, 330/4700	073138-899-5-R330/4700						
0089A					UX07							
0091	00002.000	EA		0972007-1470	NETWORK, RES., 14 PIN, 47 OHM, 2%, 7 ELEMENT							
0091A					UX10 UY07							
0099	00001.000	EA		0219402-7158	NETWORK SN74S158N							
0099A					XU11							
0112	00001.000	EA		0972141-0029	NETWORK, RES. 330 OHM 2 x 14 PIN DIP	BEC - 899-1-R330						
0112A					UW11							
DRAFTSMAN		DATE	CHK. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE AUTO-INSERTION TAPE FOR 2261975-0001					
APPROV. ENG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.					
							PART NUMBER LM2261975-5001					
							REV R					

NOTES: UNLESS OTHERWISE SPECIFIED;

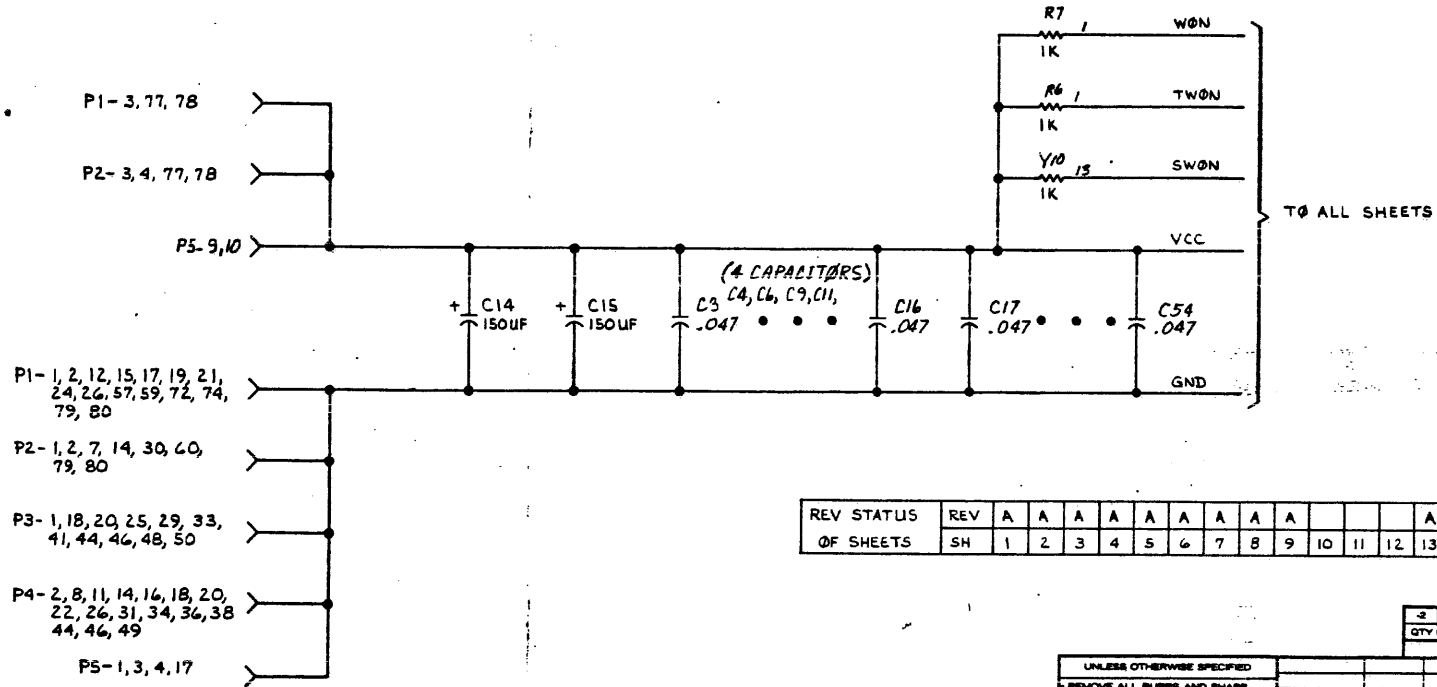
1. ALL DEVICE TYPES ARE PREFIXED WITH SN74.
2. GND IS APPLIED TO PIN 7 OF ALL 14-PIN IC'S, PIN 8 OF ALL 16-PIN IC'S AND PIN 10 OFF ALL 20-PIN IC'S.
3. VCC IS APPLIED TO PIN 14 OF ALL 14-PIN IC'S, PIN 16 OF ALL 16-PIN IC'S AND PIN 20 OFF ALL 20-PIN IC'S.
4. DEVICE TYPE, PIN NUMBERS AND LOCATION OF IC IS SHOWN AS FOLLOWS:



S00 AND S04 = DEVICE TYPE  
 1, 2 AND 3 = PIN NUMBERS  
 J10 AND E06 = LOCATION; LETTER DENOTES ROW, DIGITS DENOTE COLUMN.  
 IC IS LOCATED AT INTERSECTION OF ROW AND COLUMN.

5. 0 DENOTES THAT PAGE NO. OF ASSOCIATED LOGIC LIES WITHIN CIRCLE.

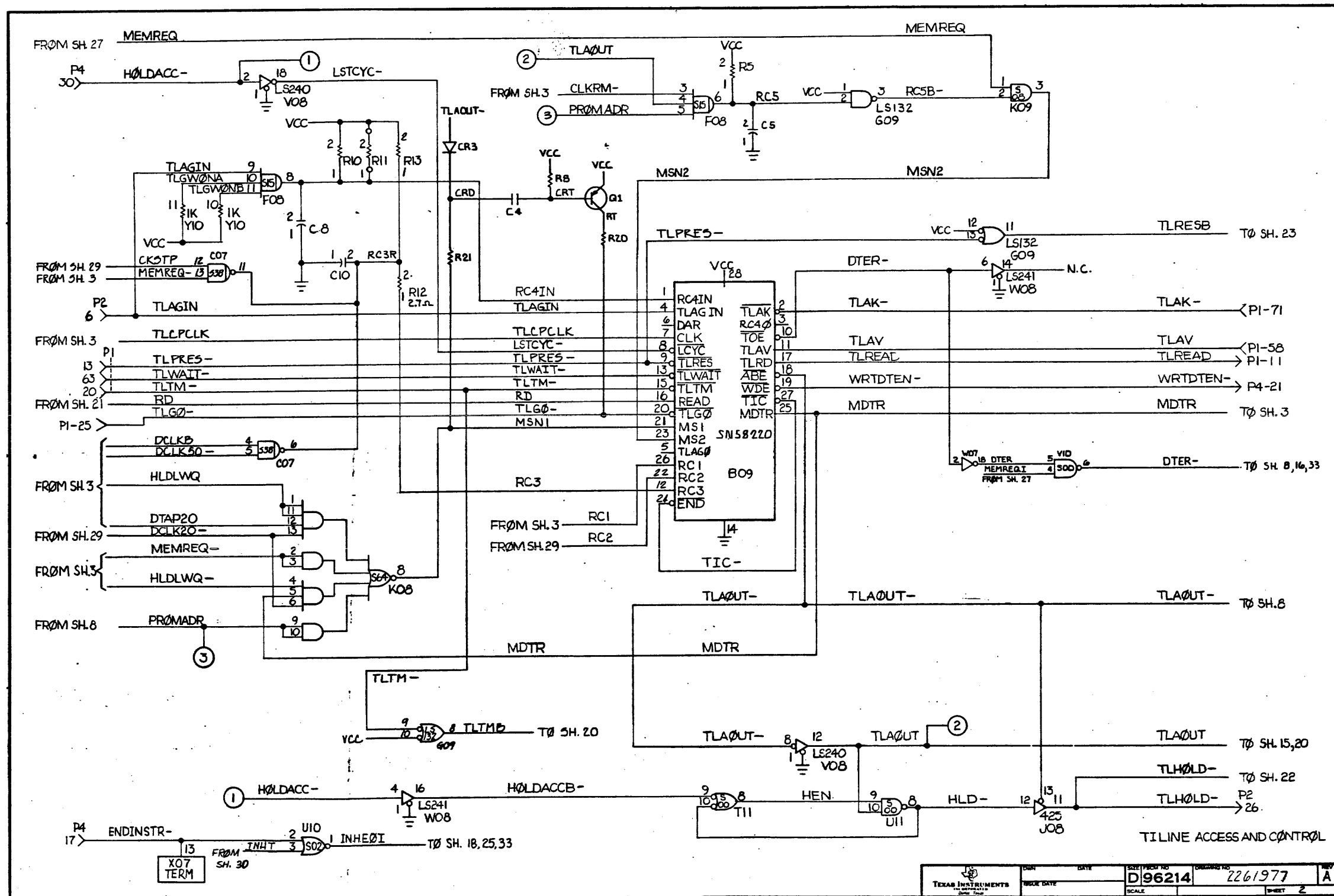
REVISIONS			
ZONE/LTR	DESCRIPTION	DATE	APPROVED
A	CN450041(E) C. Kozlowski (I) ADDED SHEET 34		

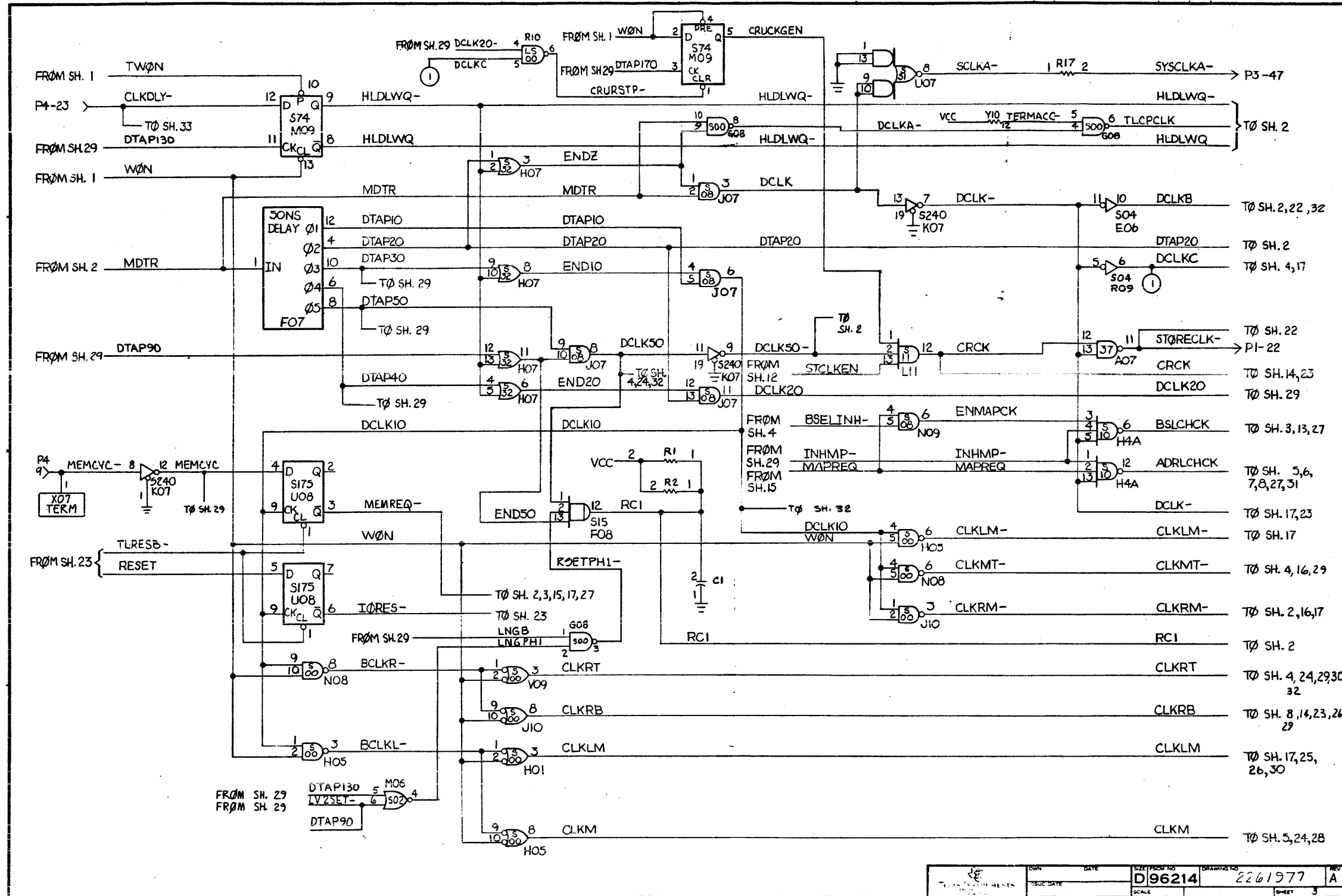


REV STATUS	REV	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
OF SHEETS	SH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34

QTY	REV	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
PARTS LIST						
					TEXAS INSTRUMENTS	
					LOGIC DIAGRAM,	
					990/12 SMI	
					SIZE CODE IDENT NO DRAWING NO	
					D 96214 2261977	
					SCALE 1:1	
					SHEET 1 OF 34	

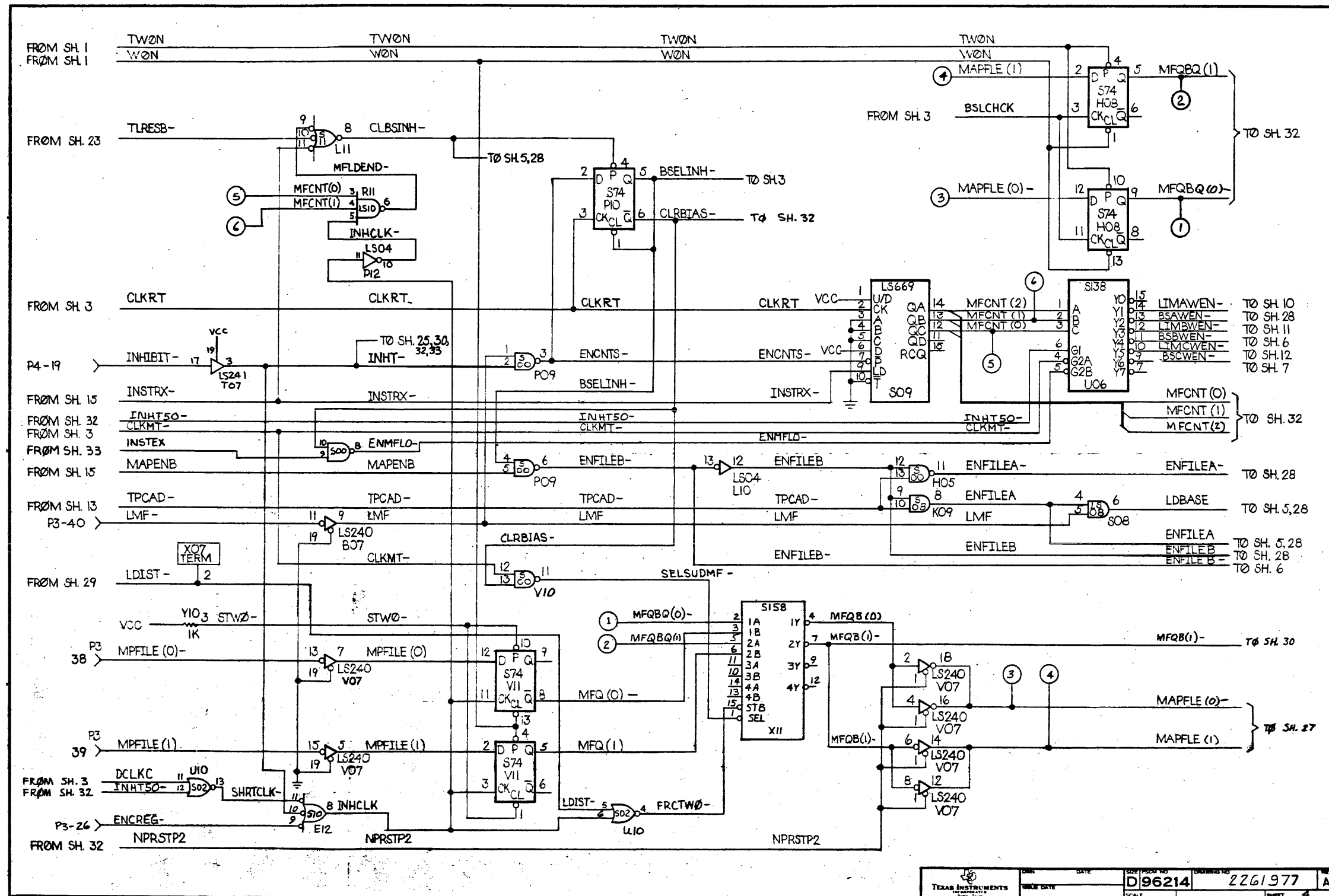
UNLESS OTHERWISE SPECIFIED			
REMOVE ALL BURRS AND SHARP EDGES			
CONCENTRICITY MACHINED DIAMETERS .010 P/R			
DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING			
IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY			
INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100			
HOLE TOLERANCE			
.015	THRU + .004	.250	THRU + .008
.125	THRU + .001	.500	THRU + .010
.250	THRU + .008	1.000	THRU + .015
.500	THRU + .010	2.000	THRU + .020
.750	THRU + .015		



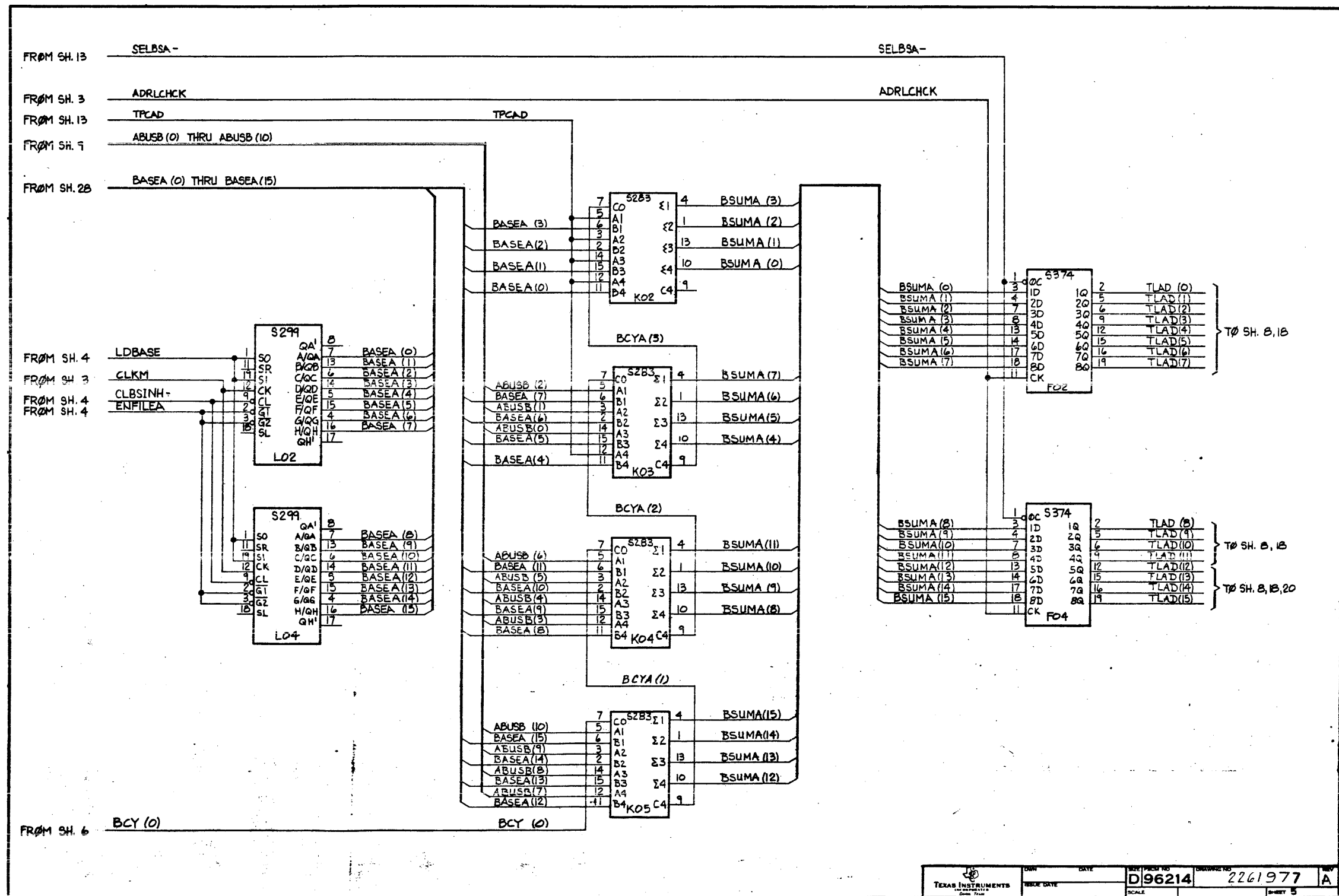


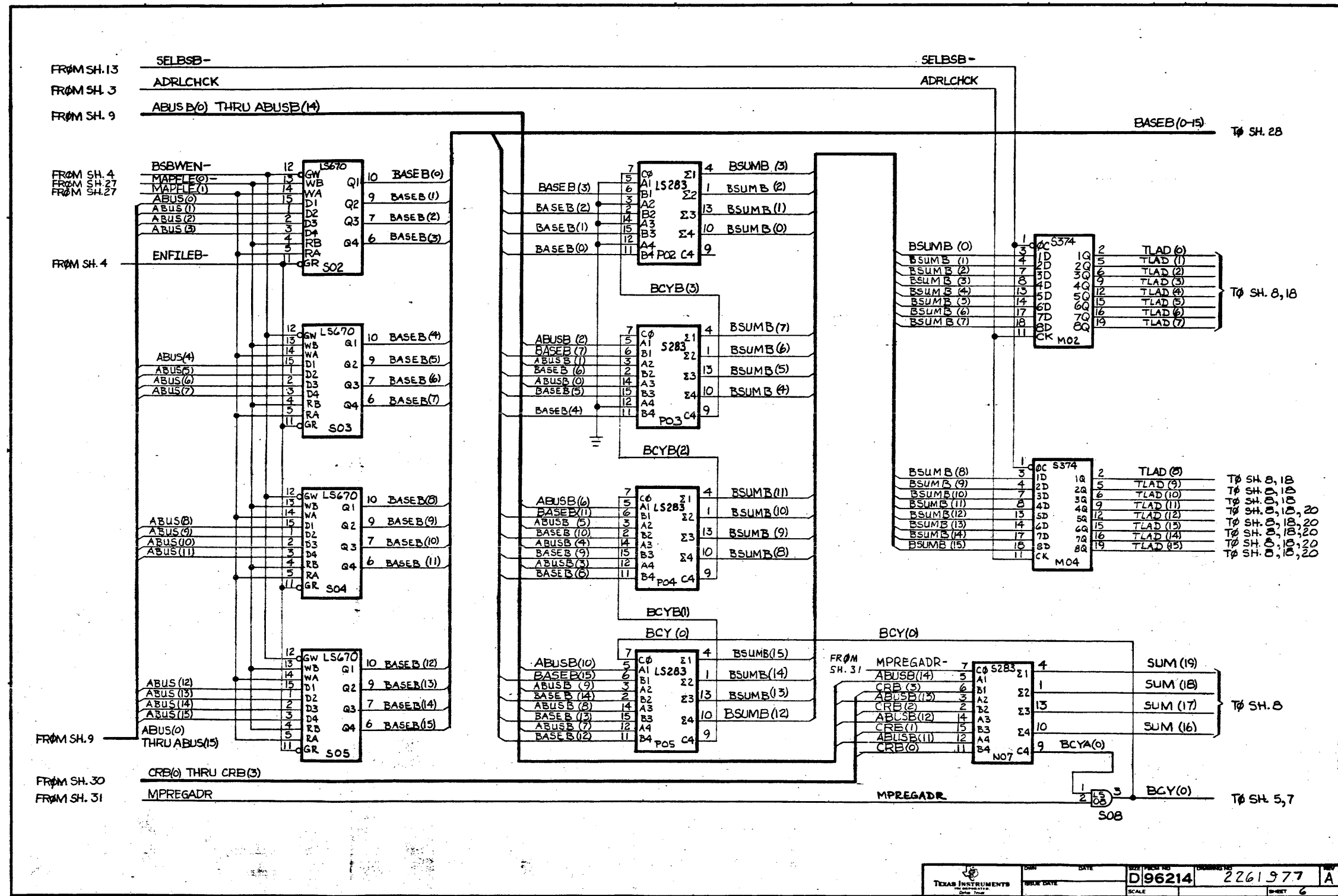
DATE	DATE	SHEET NO.	DRAWING NO.	REV.
		D 96214	2261977	A
SCALE				SHEET 3



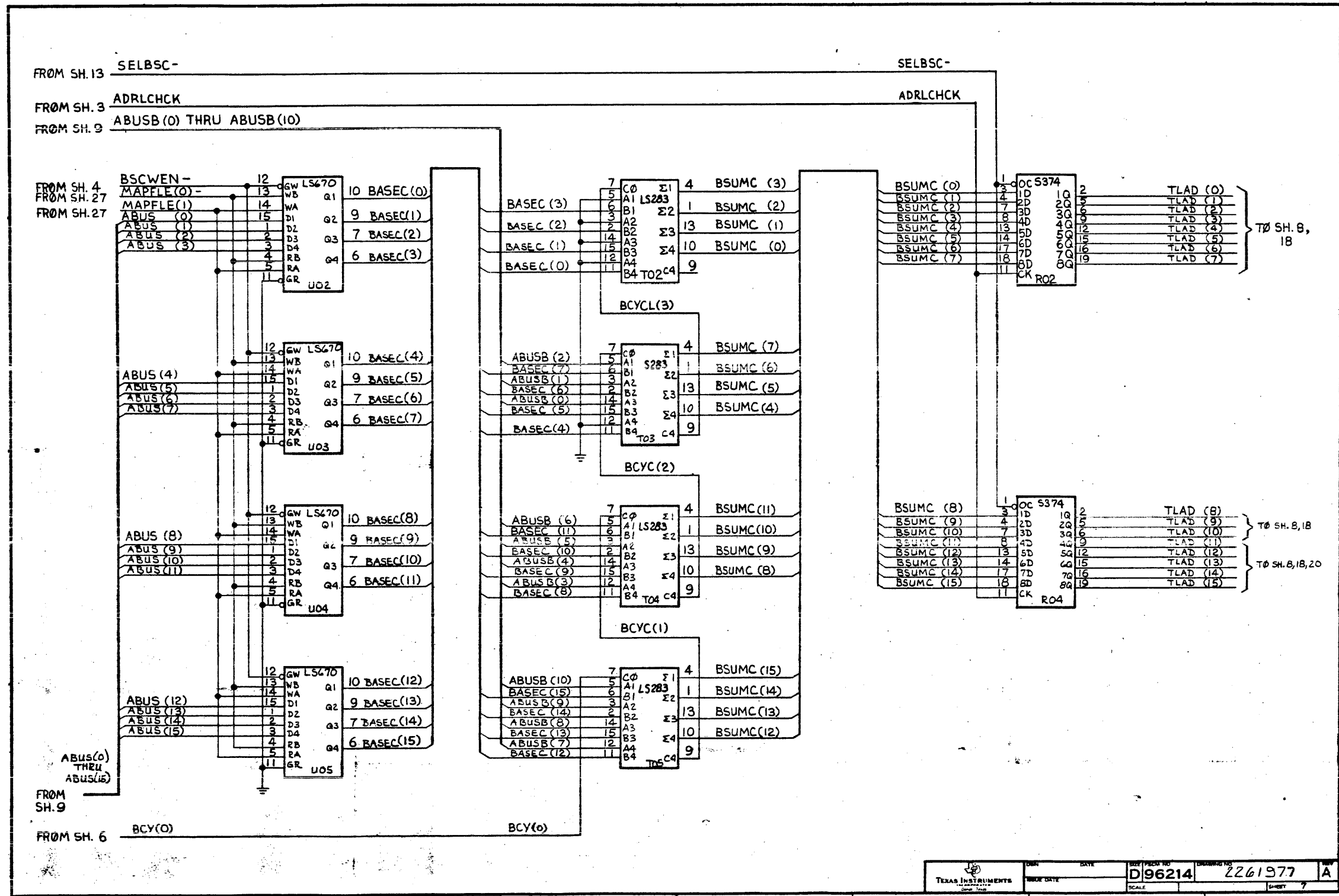


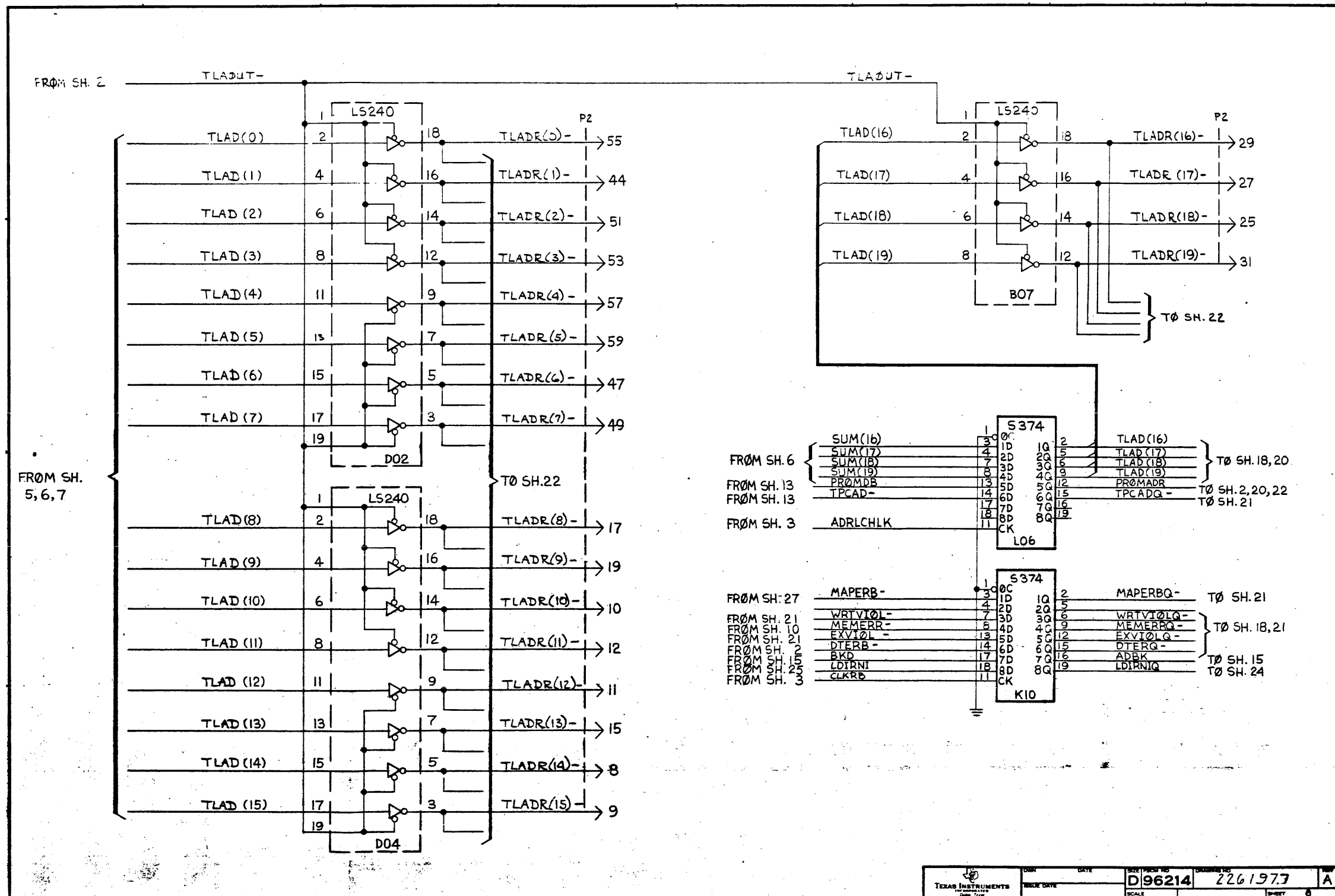
DATE	DATE	REV	NO
DESIGNED BY	DRAWN BY	SCALE	SHEET
D96214		2261977	A
TEXAS INSTRUMENTS		DALLAS, TEXAS	



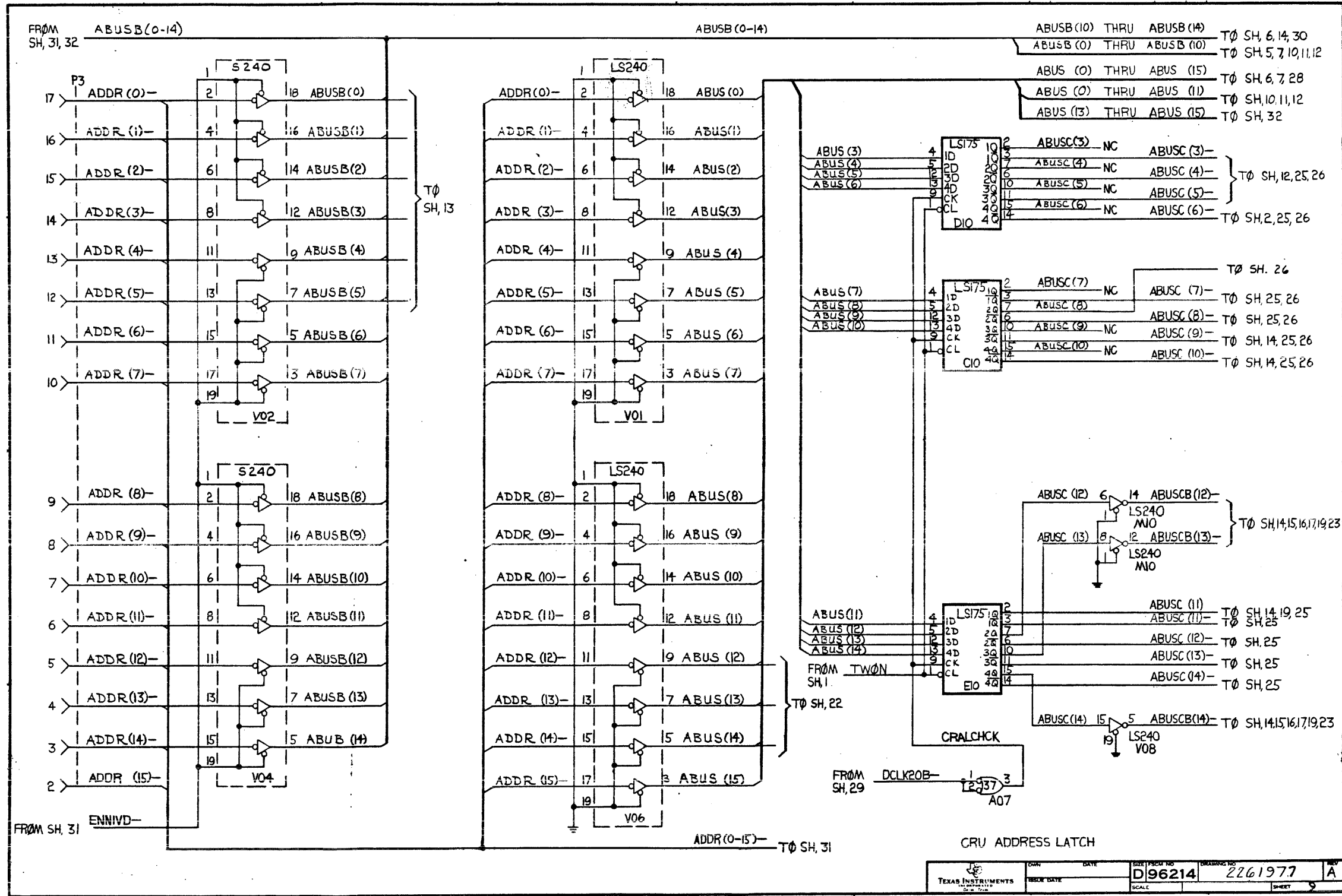


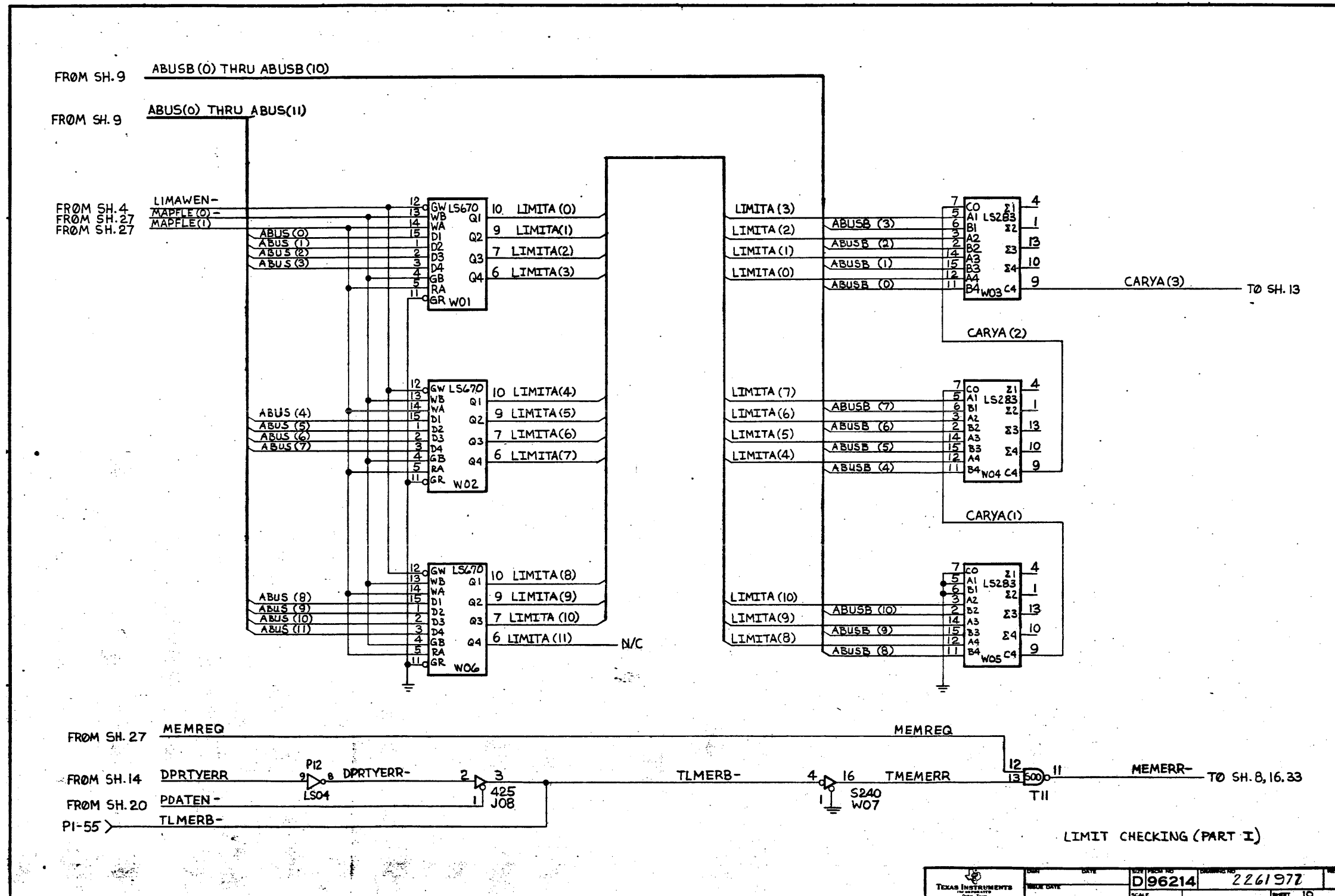
TEXAS INSTRUMENTS	DATE	SIZE	PAPER	FILE	DATE	NO.	REV.
				D96214	2261977	A	



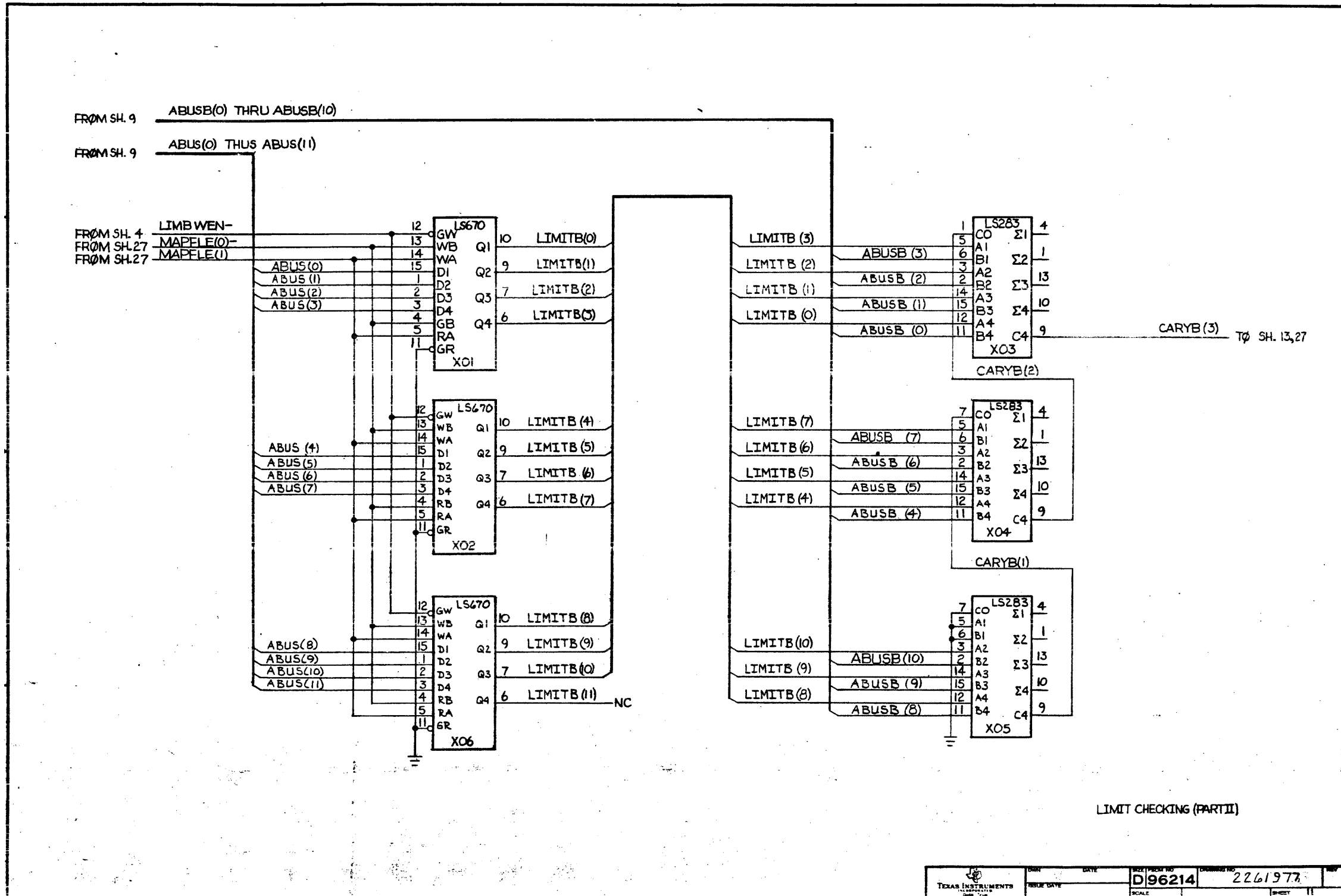


TEXAS INSTRUMENTS DALLAS, TEXAS	DATE	REV. NO.	DATE	REV. NO.	DATE	REV. NO.
		D96214	2261973			A

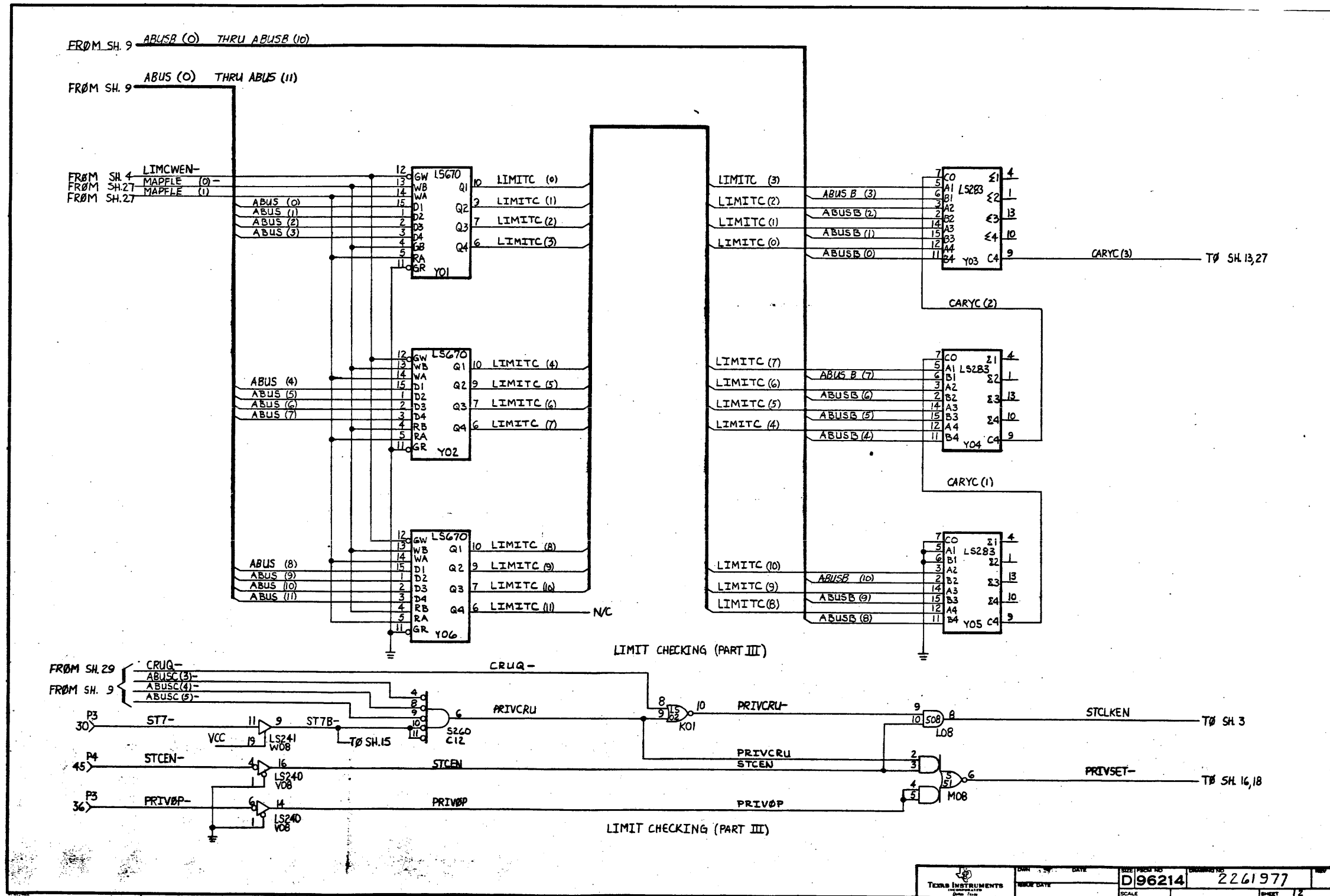




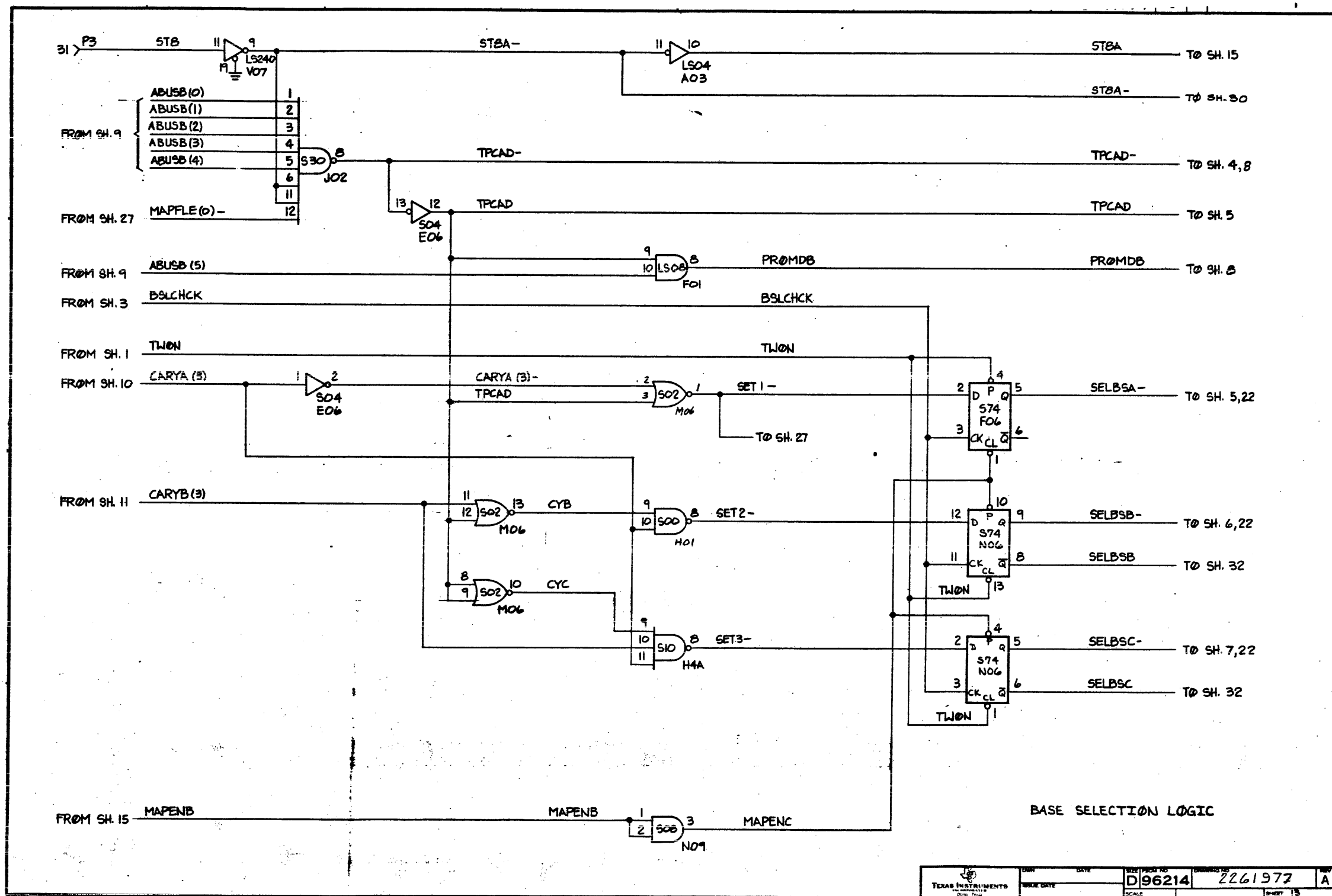
DATE	DATE	SIZE	FRONT NO.	DISBURS. NO.
			D96214	2261977
SCALE				SHEET 10

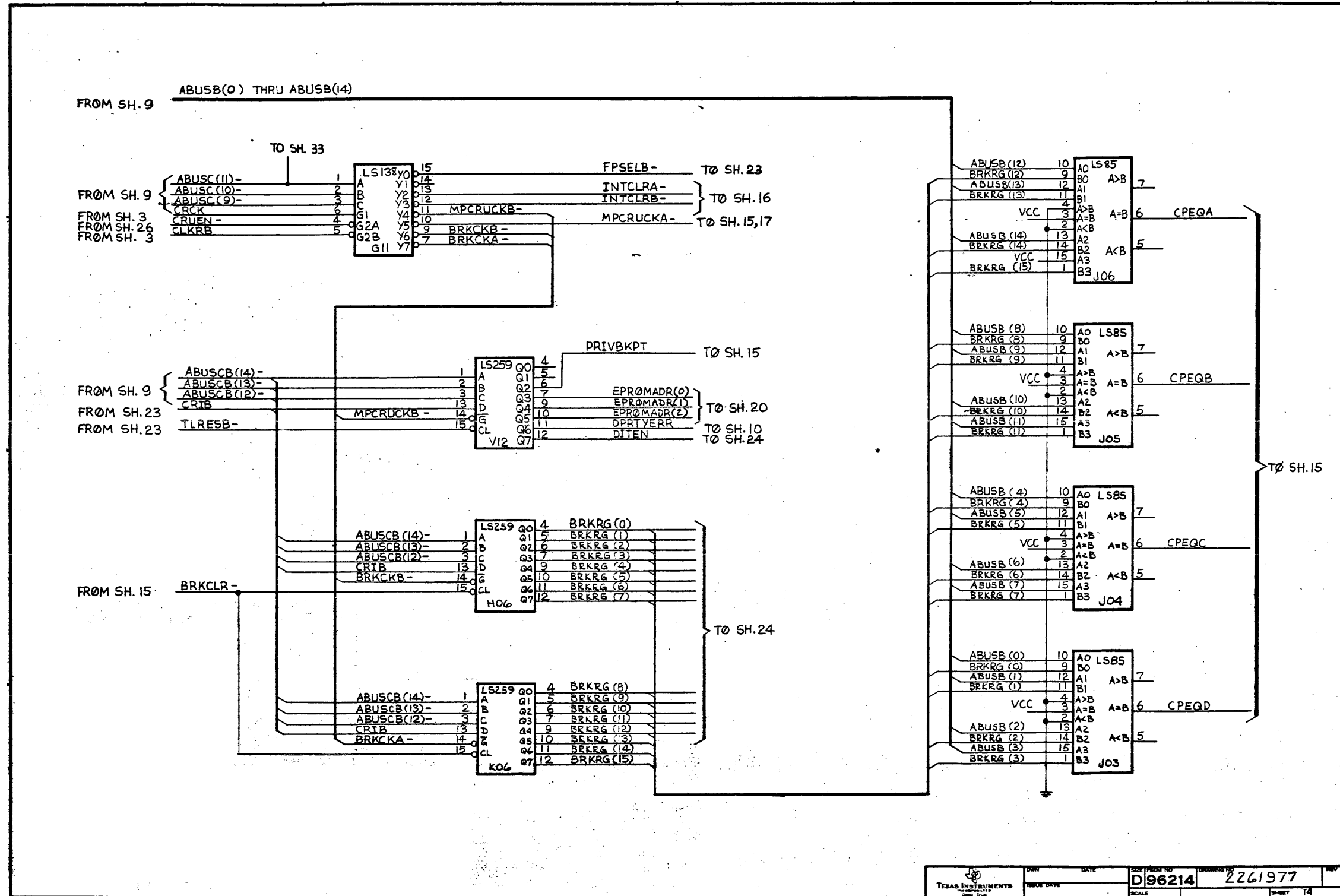




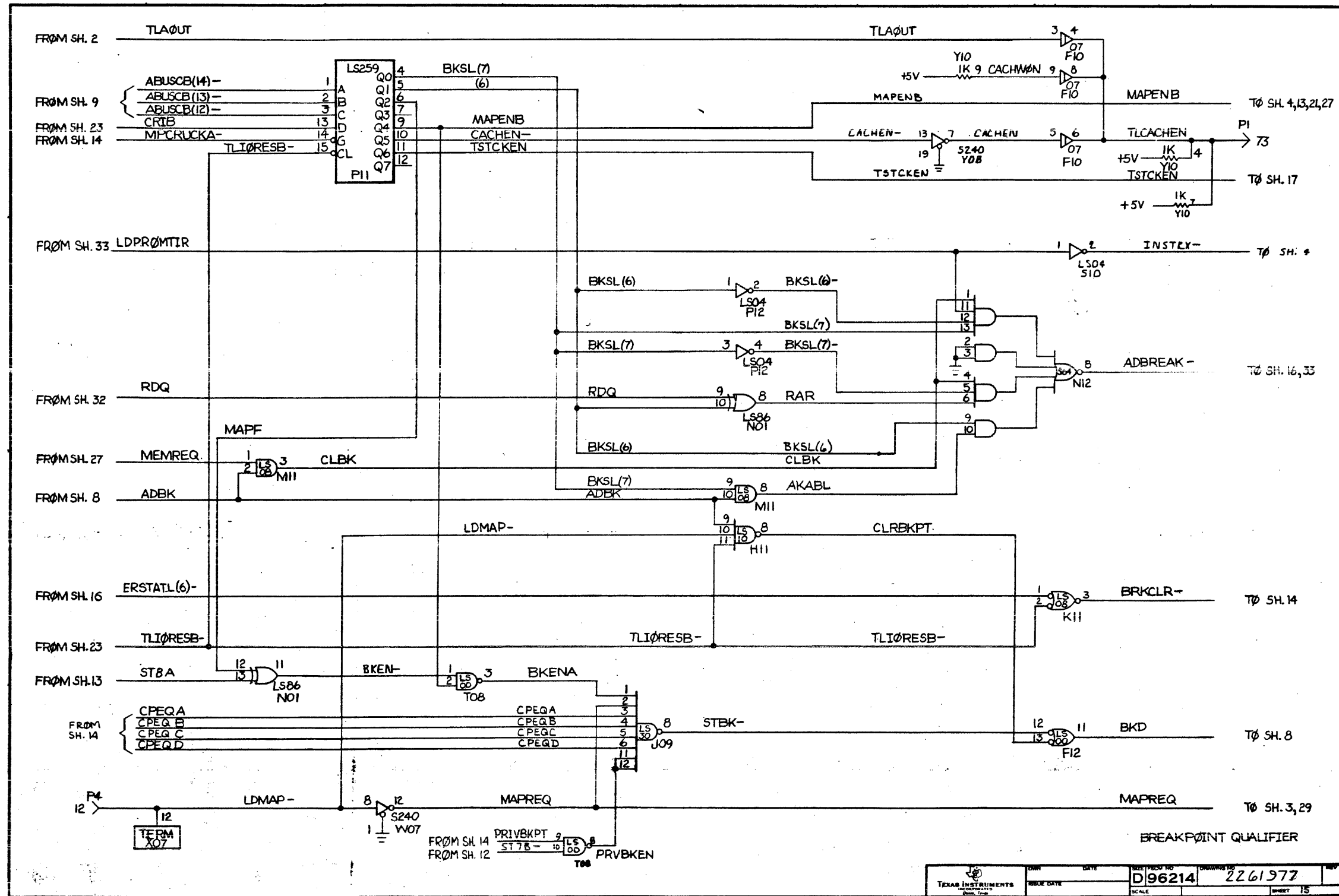


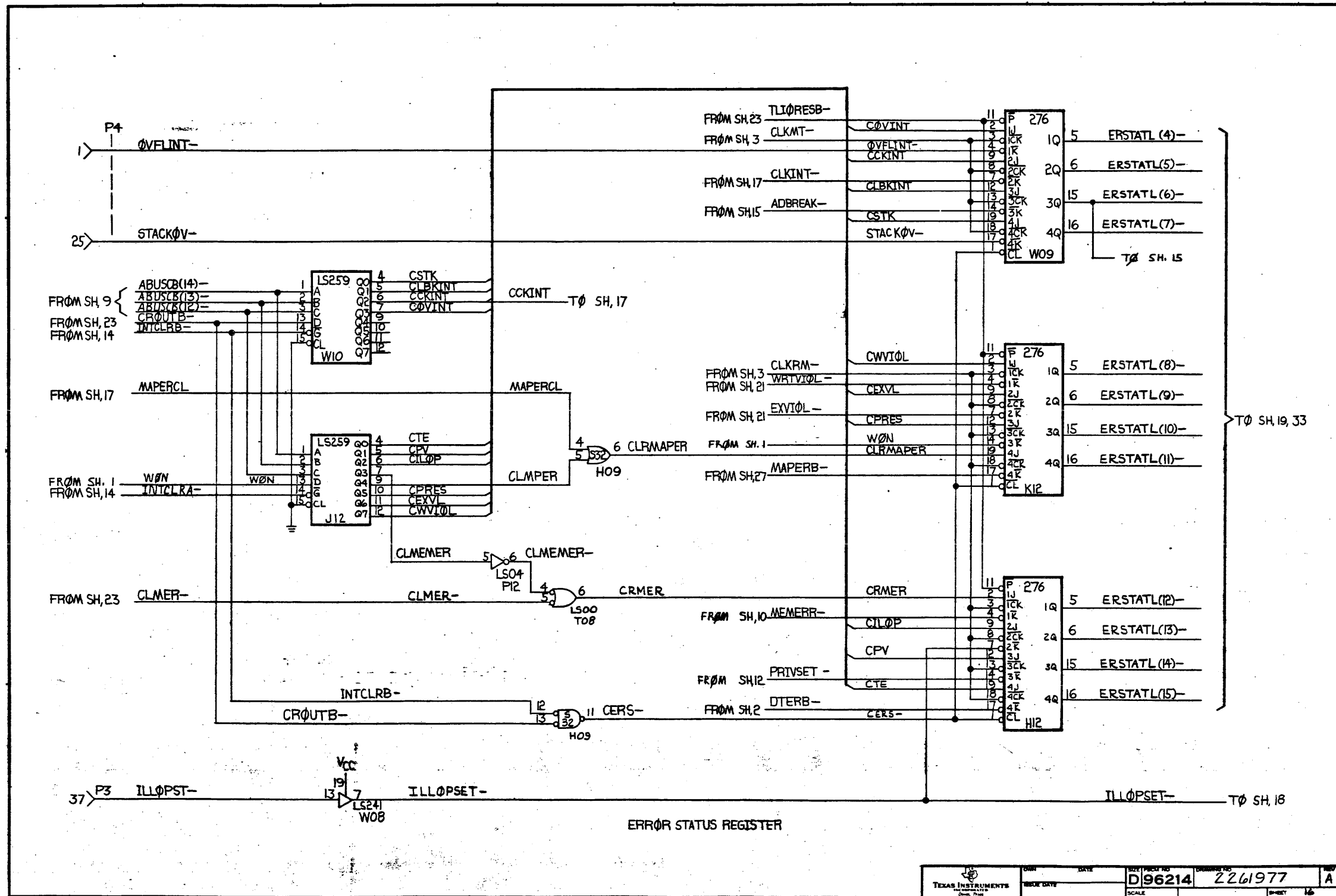
TEXAS INSTRUMENTS	DATE	SIZE PROJECT NO.	DRAWING NO.
		D 96214	2261977
	SCALE		SHEET 12



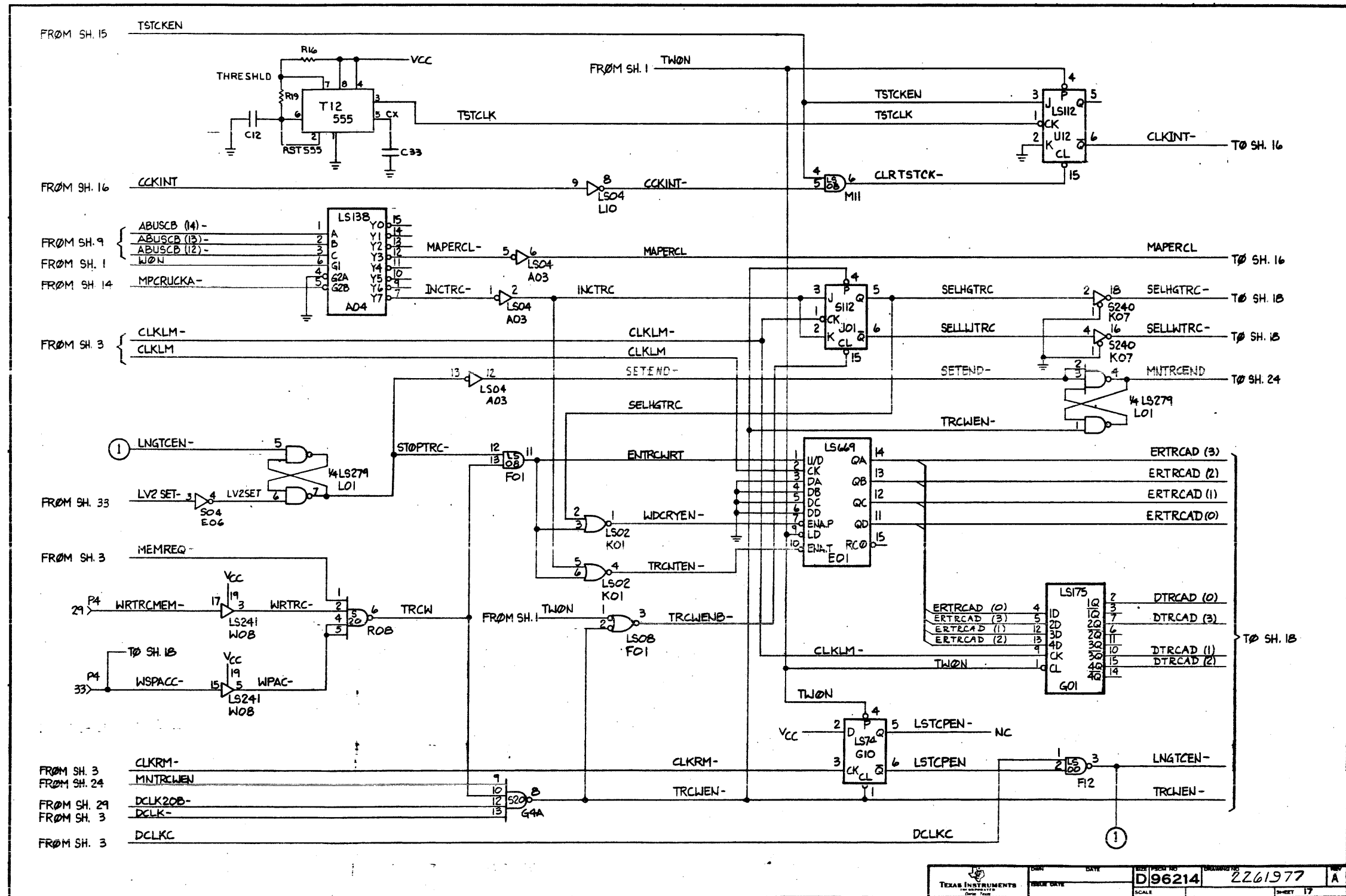


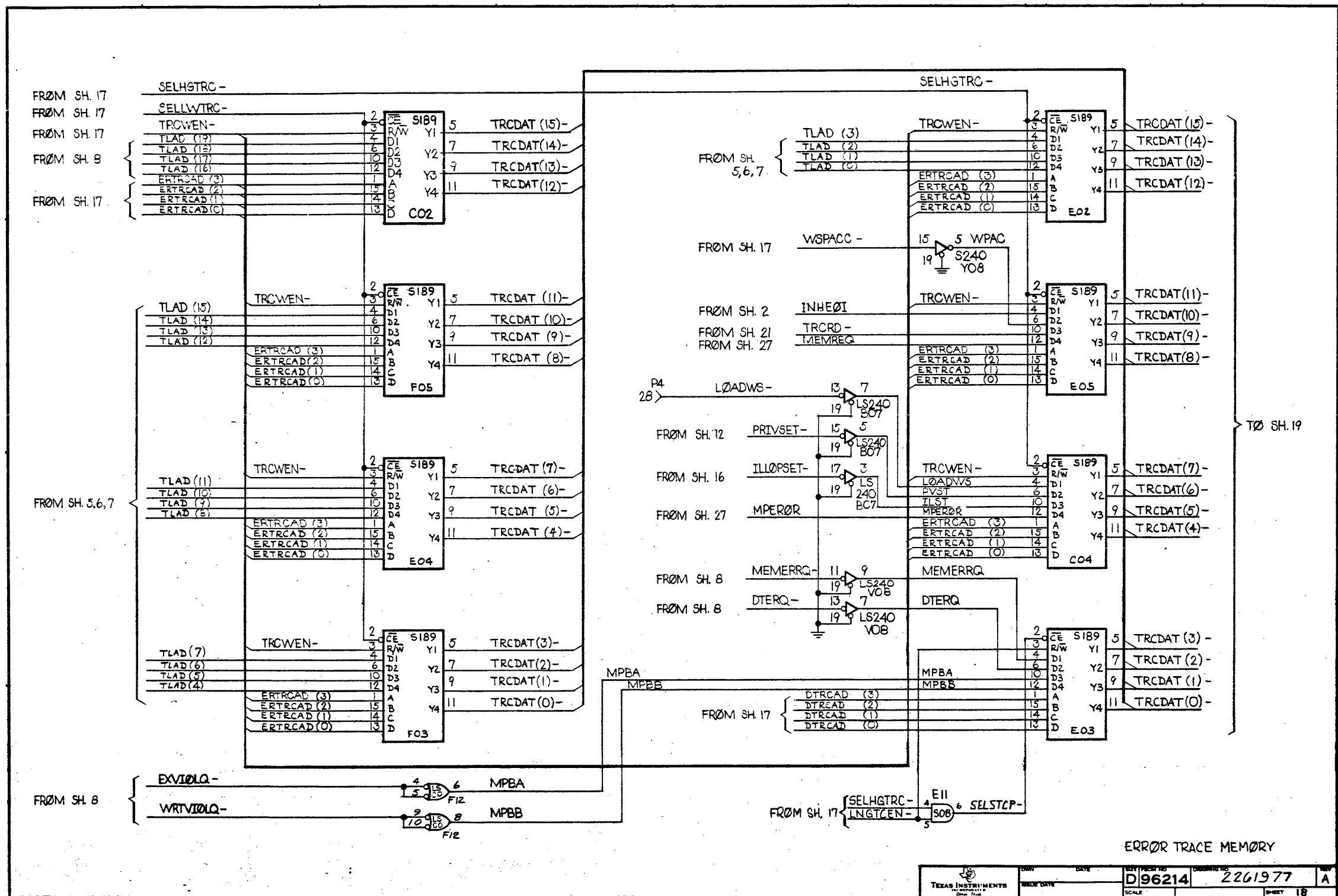
DATE	DATE	SIZE	PRICE NO.	DESIGNED BY
DATE	DATE	D	96214	2261977
SCALE	SCALE			
				SHEET 14

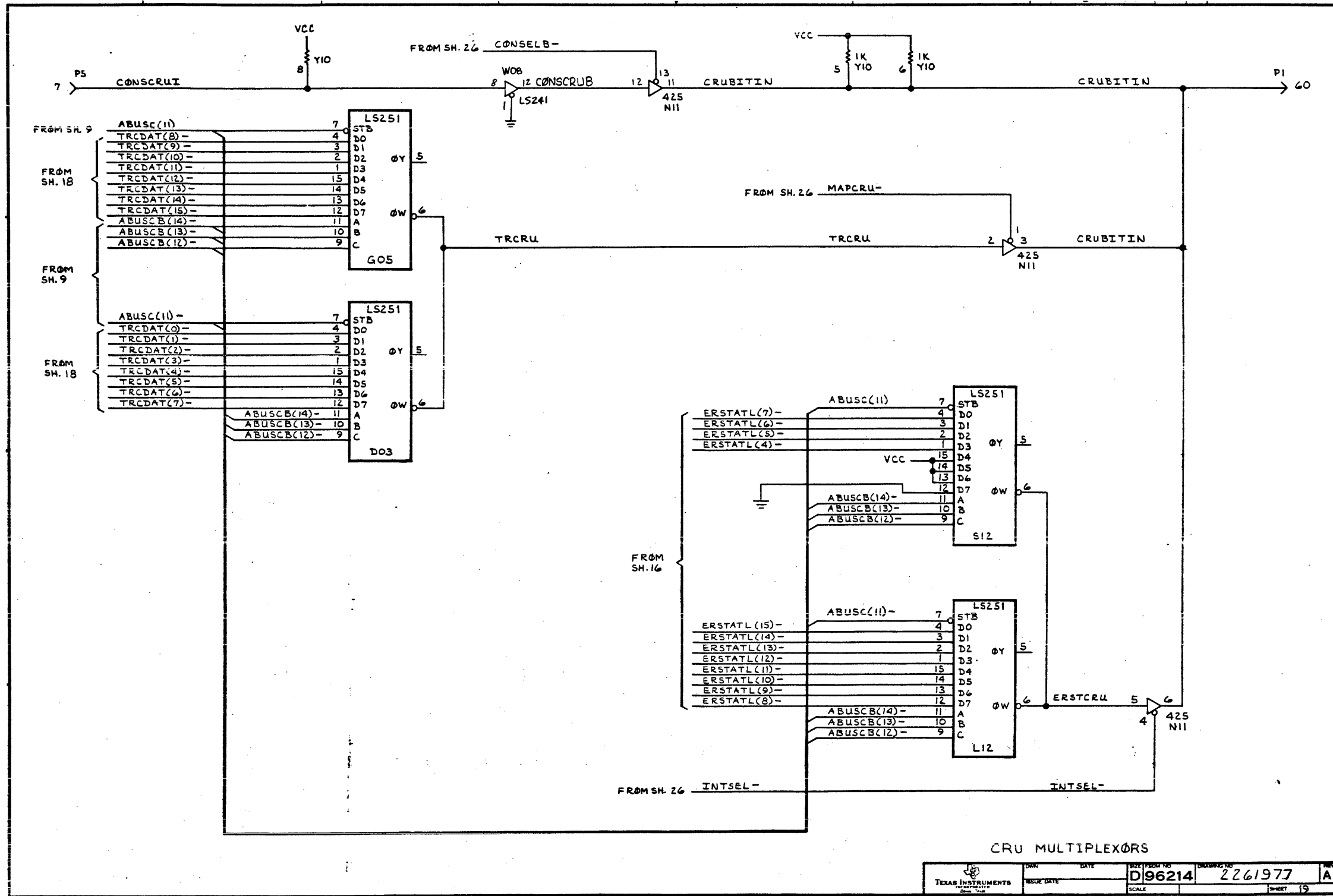




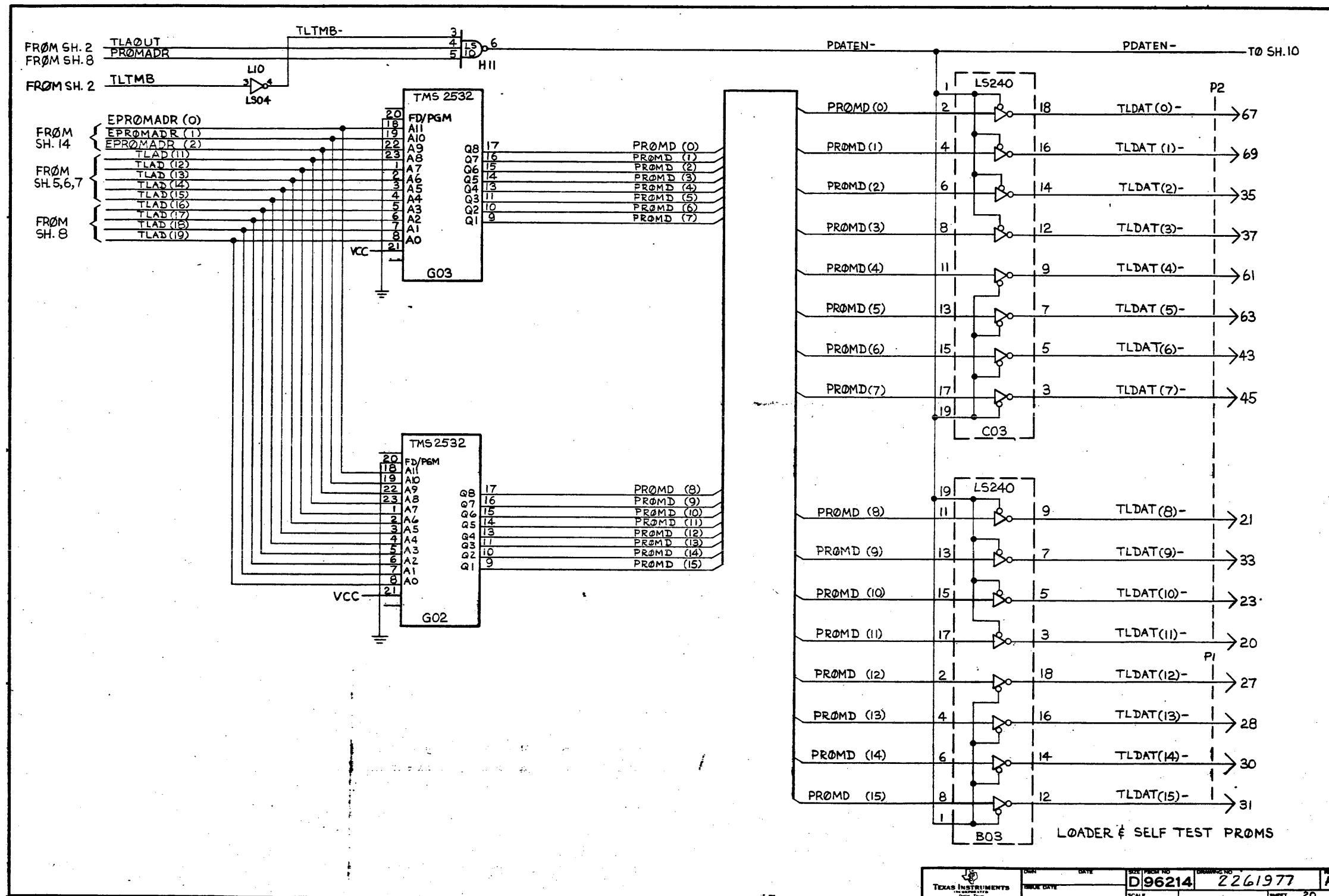
DATE	2261977	REV	A
DESIGNER	D96214	SCALE	1:1
CHECKED		DATE	
DATE		SCALE	

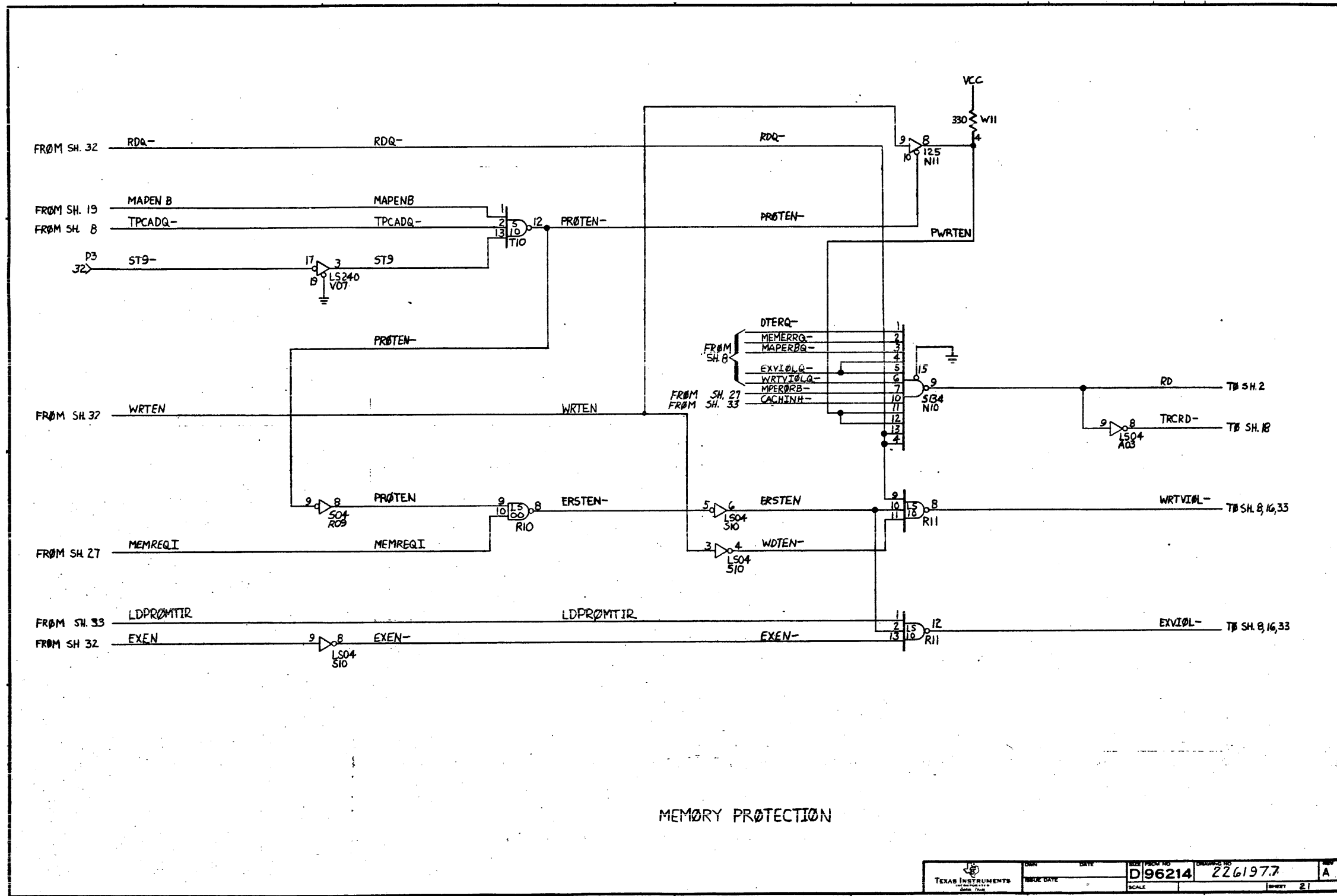


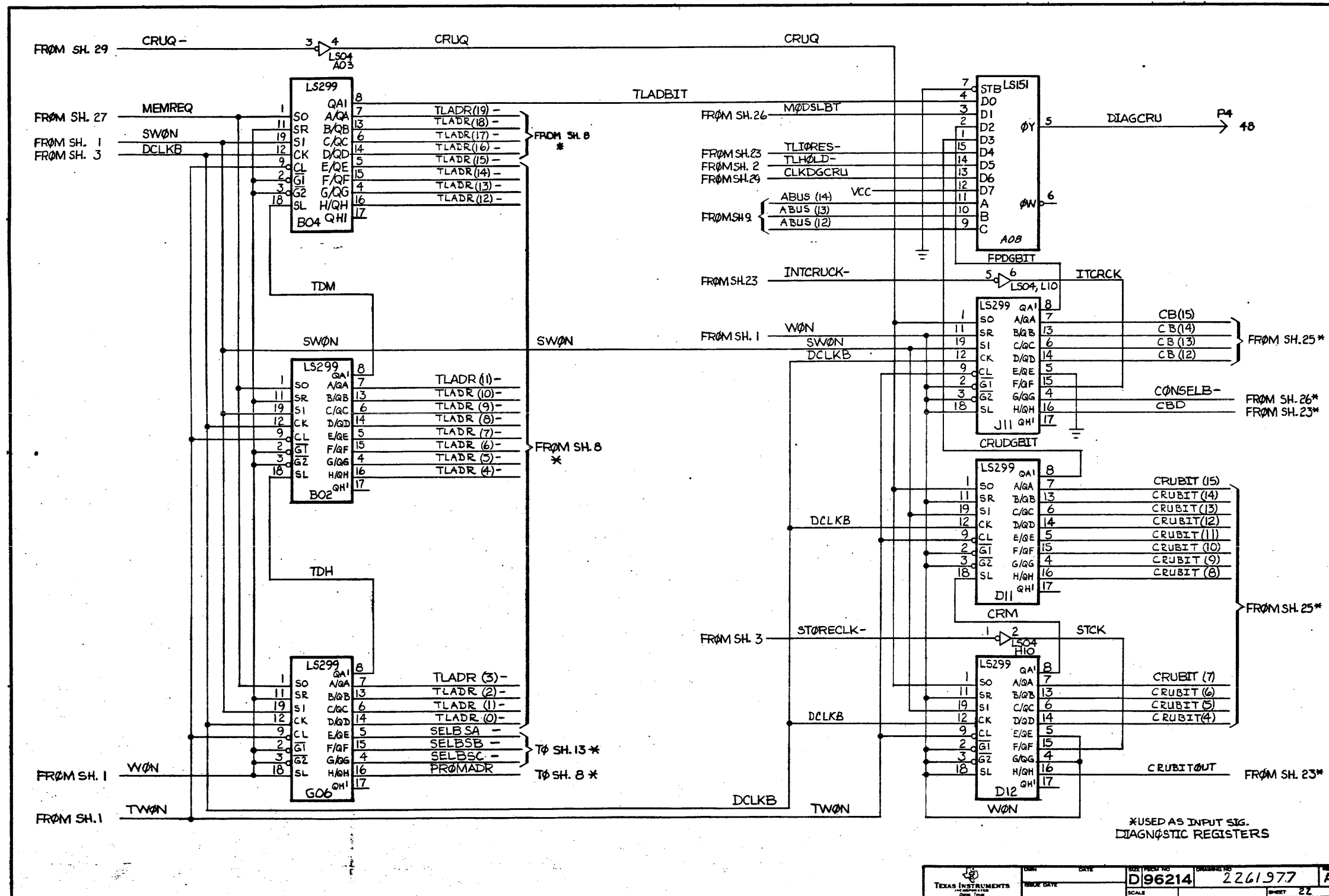






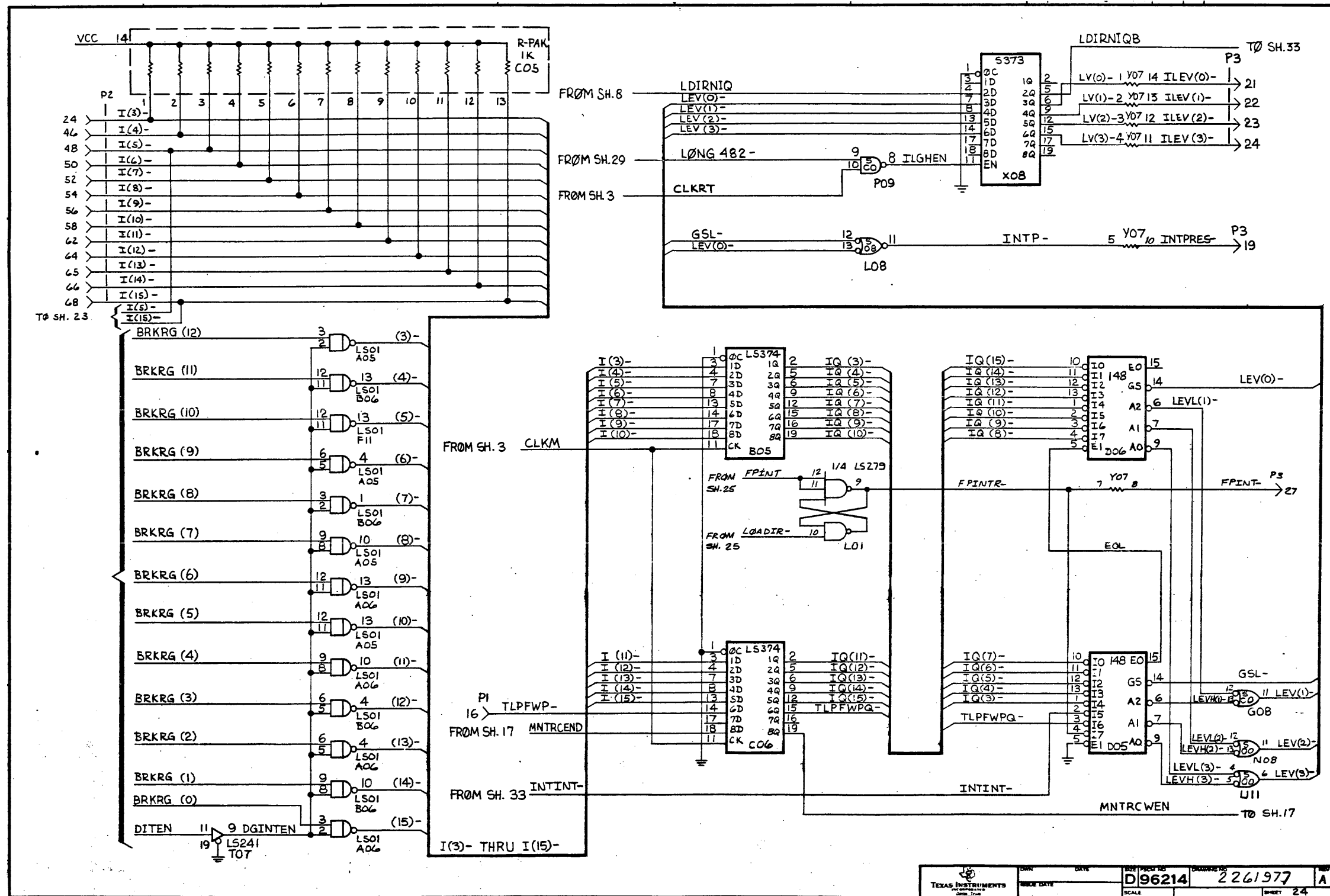




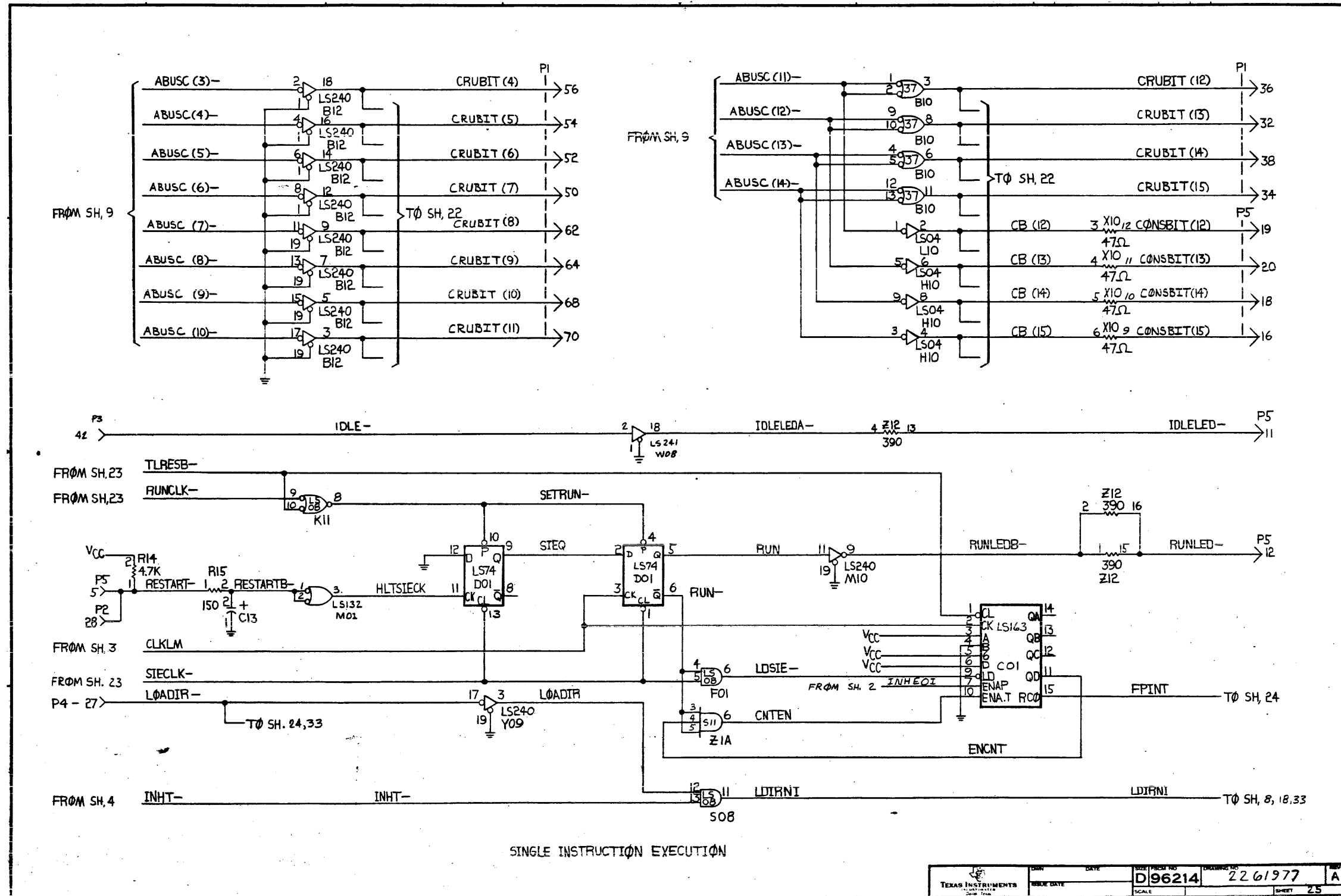


TEXAS INSTRUMENTS	DATE	REV. NO.	2261977	A
DATE	SCALE	SHEET	22	



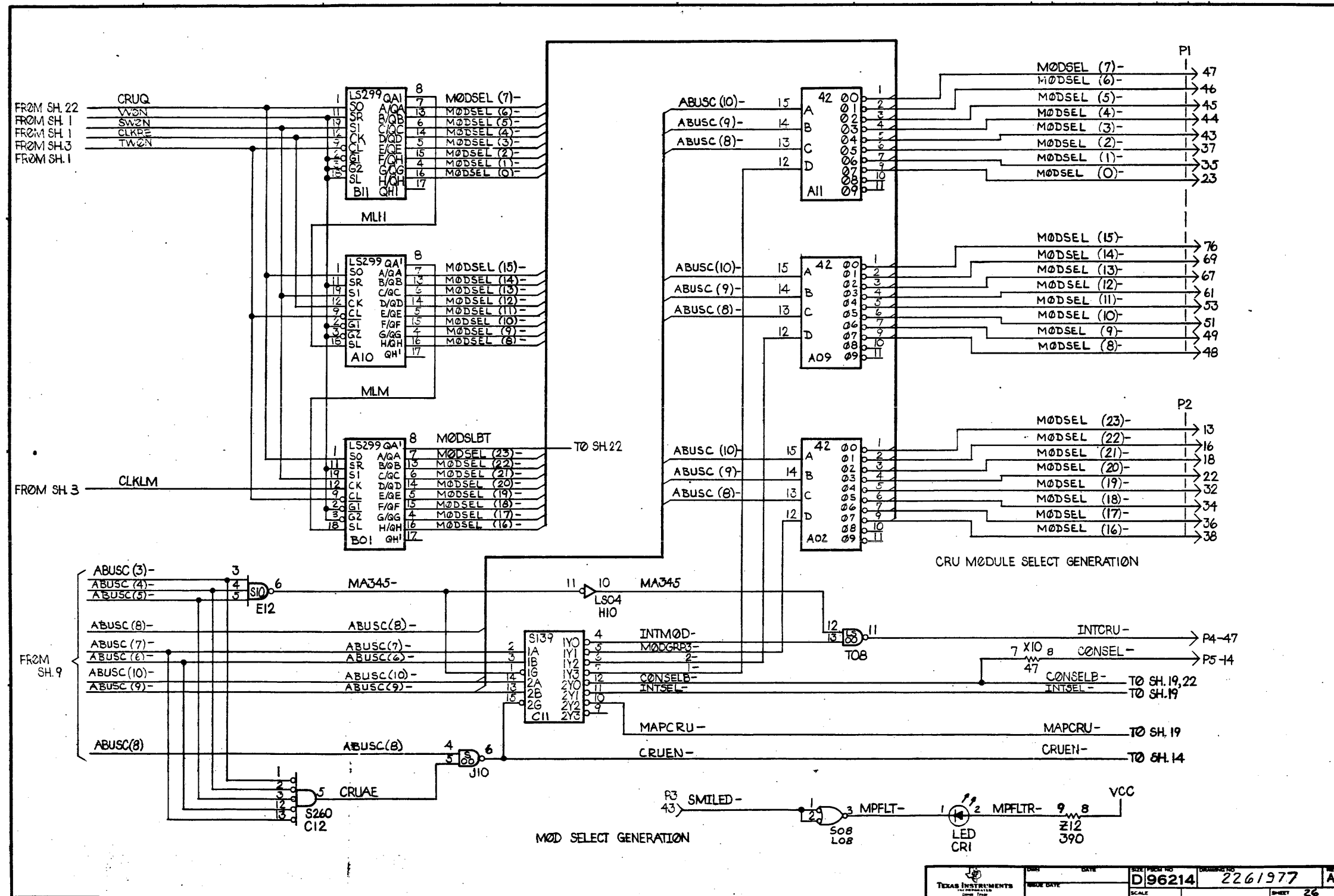


DATE	DATE	SIZE (PCB) NO.	DRAWING NO.	REV.
		D 96214	2261977	A
DESIGNED BY	SCALE			SHEET 24

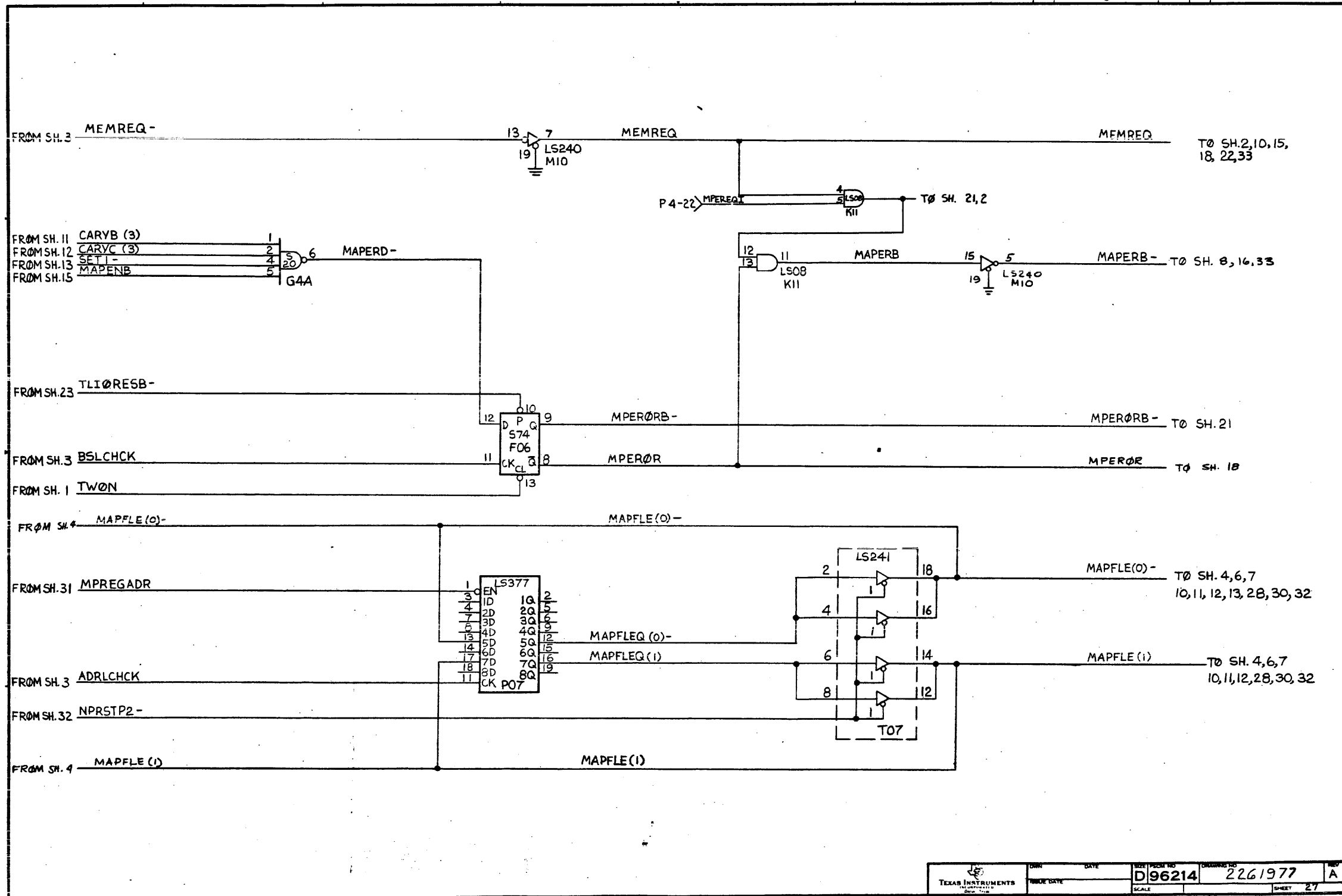


SINGLE INSTRUCTION EXECUTION

DATE	ISSUE DATE	SIZE (PAGES) NO	DRAWING NO	REV
		D 96214	22 61977	A
SCALE				SHEET 25

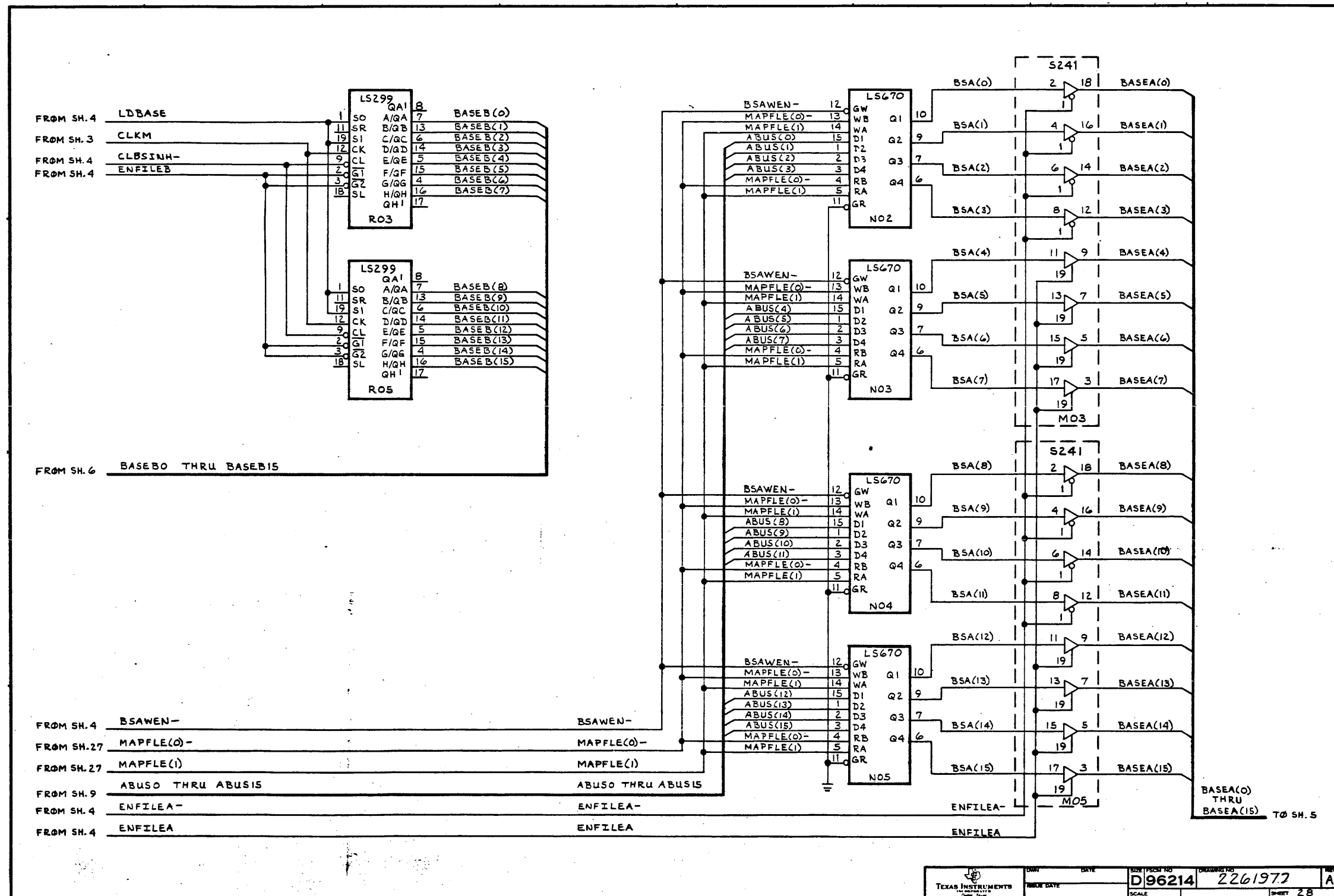


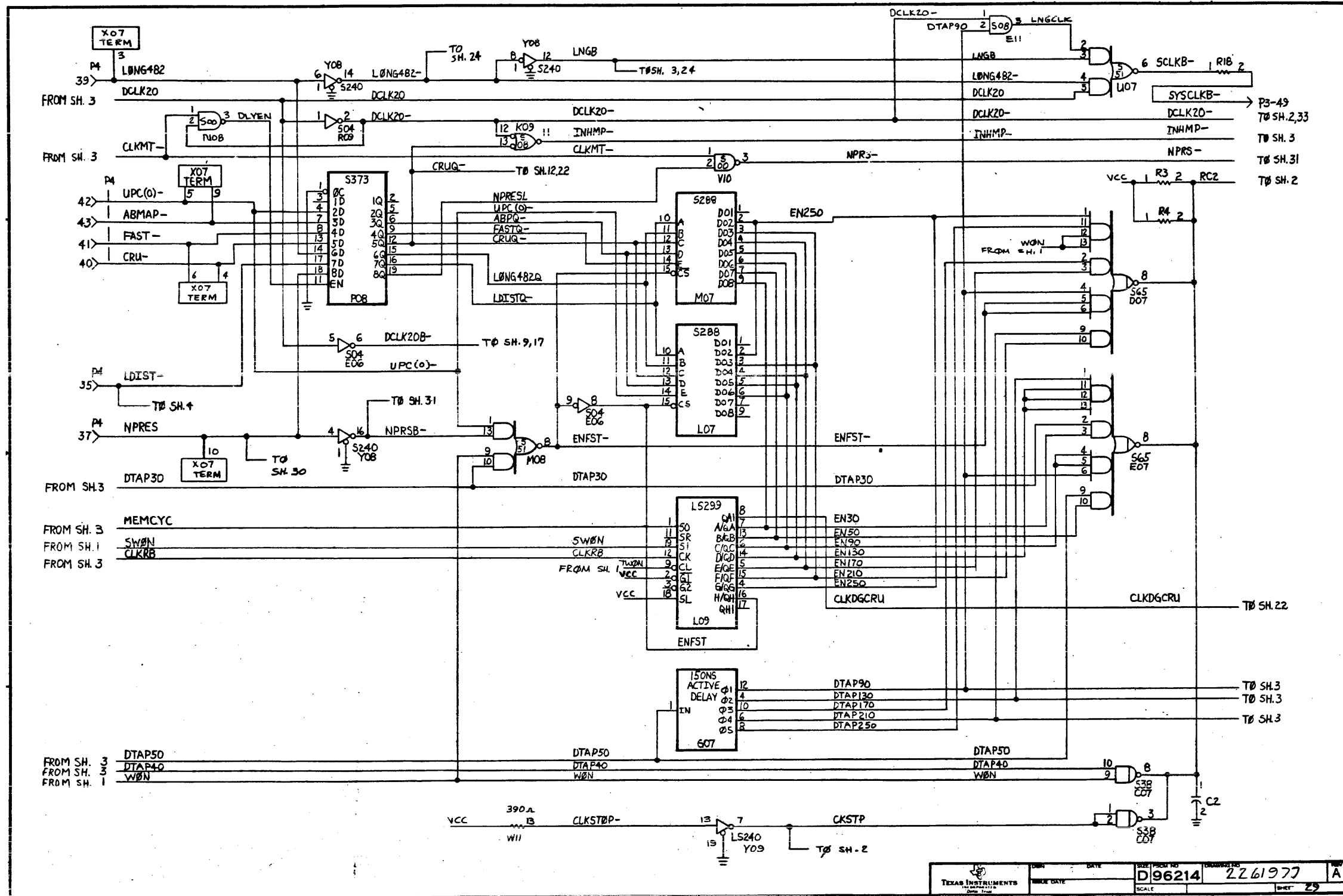
DATE	22/6/1977	SCALE	1:1
DESIGNER	D 96214	CHECKED	2261977
DATE		SCALE	
DESIGNER		CHECKED	

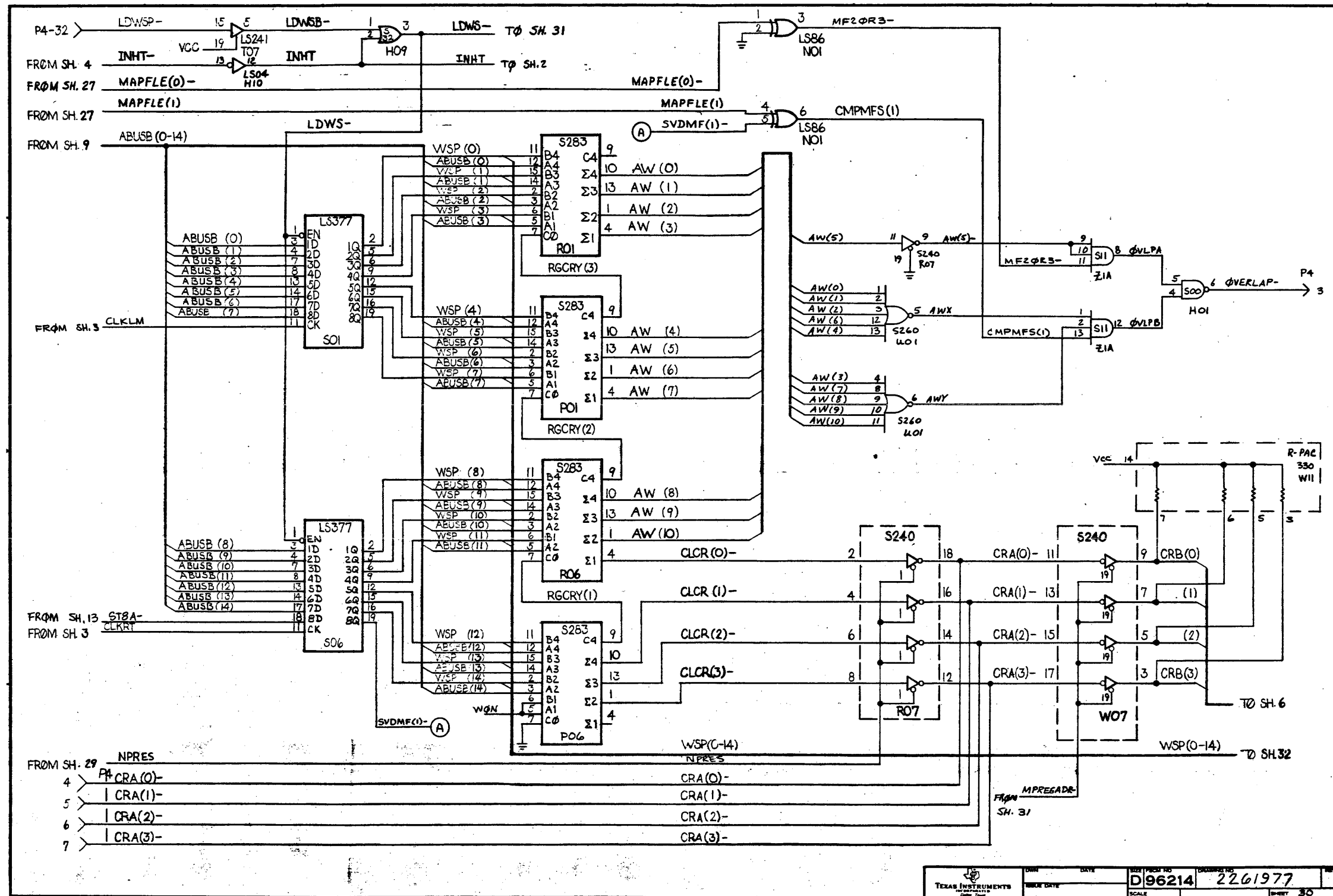


TEXAS INSTRUMENTS	DATE	REV	ISSUE DATE	SCALE	DESIGN NO	DATE	REV
					D96214	2261977	A
							27

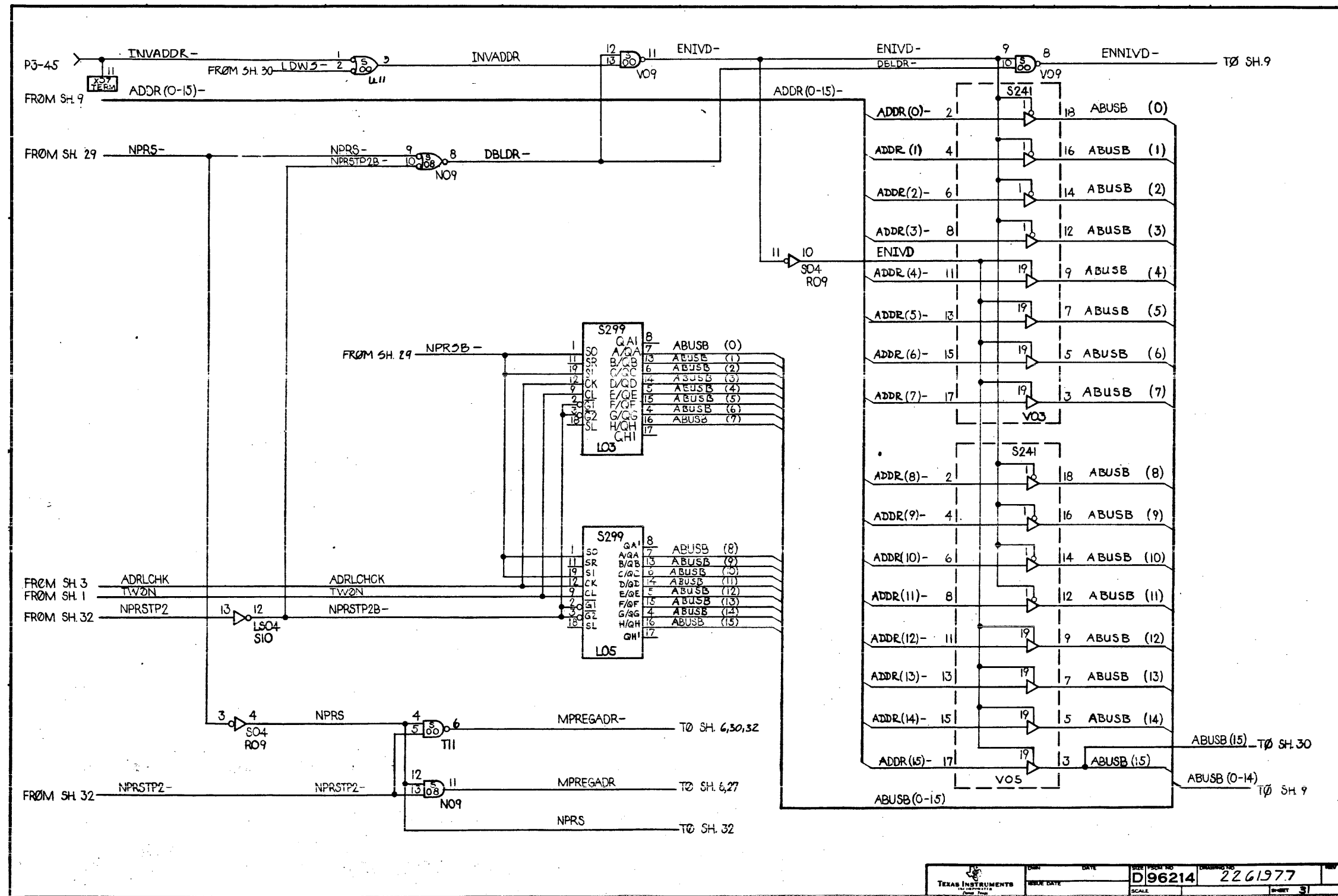


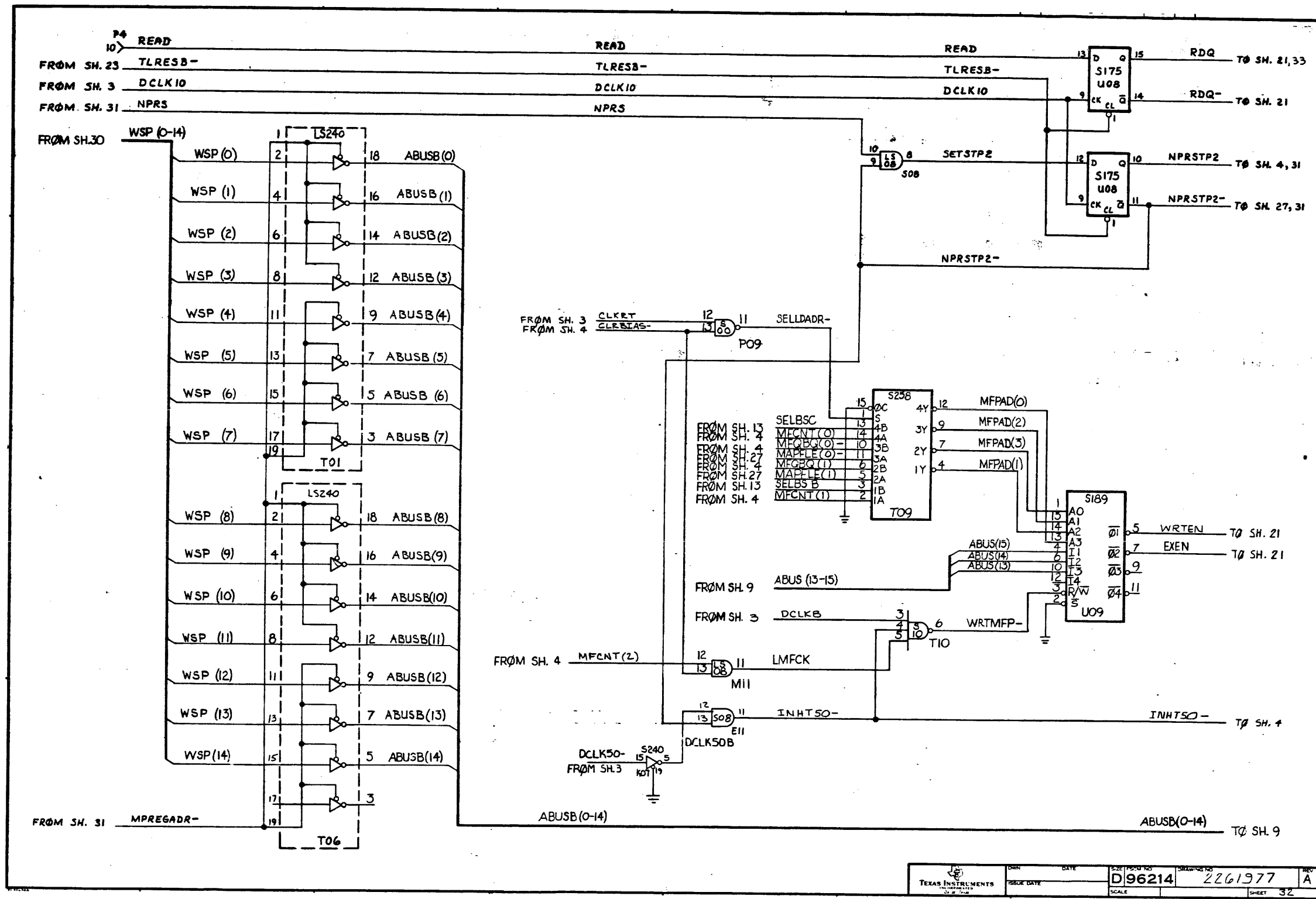




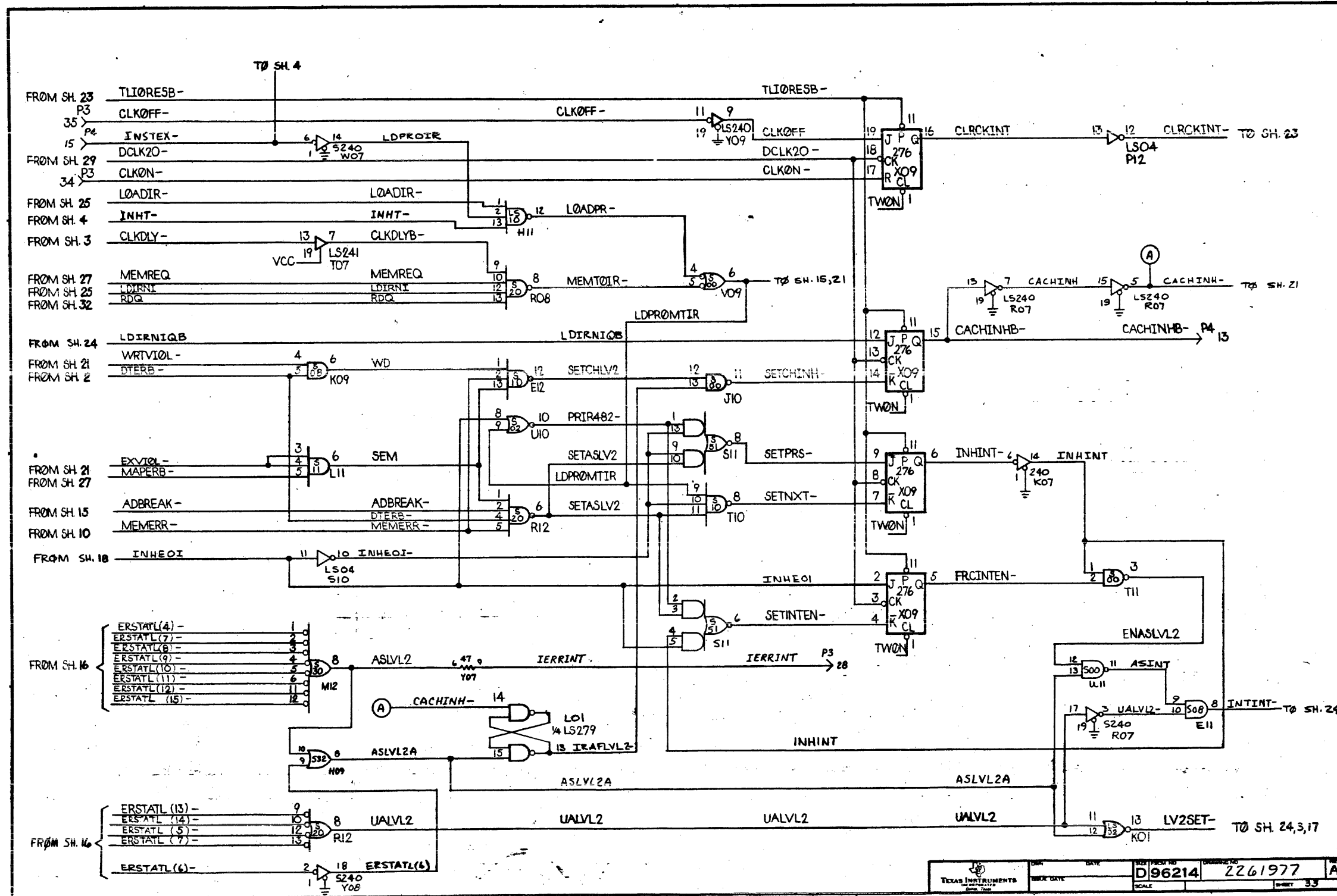


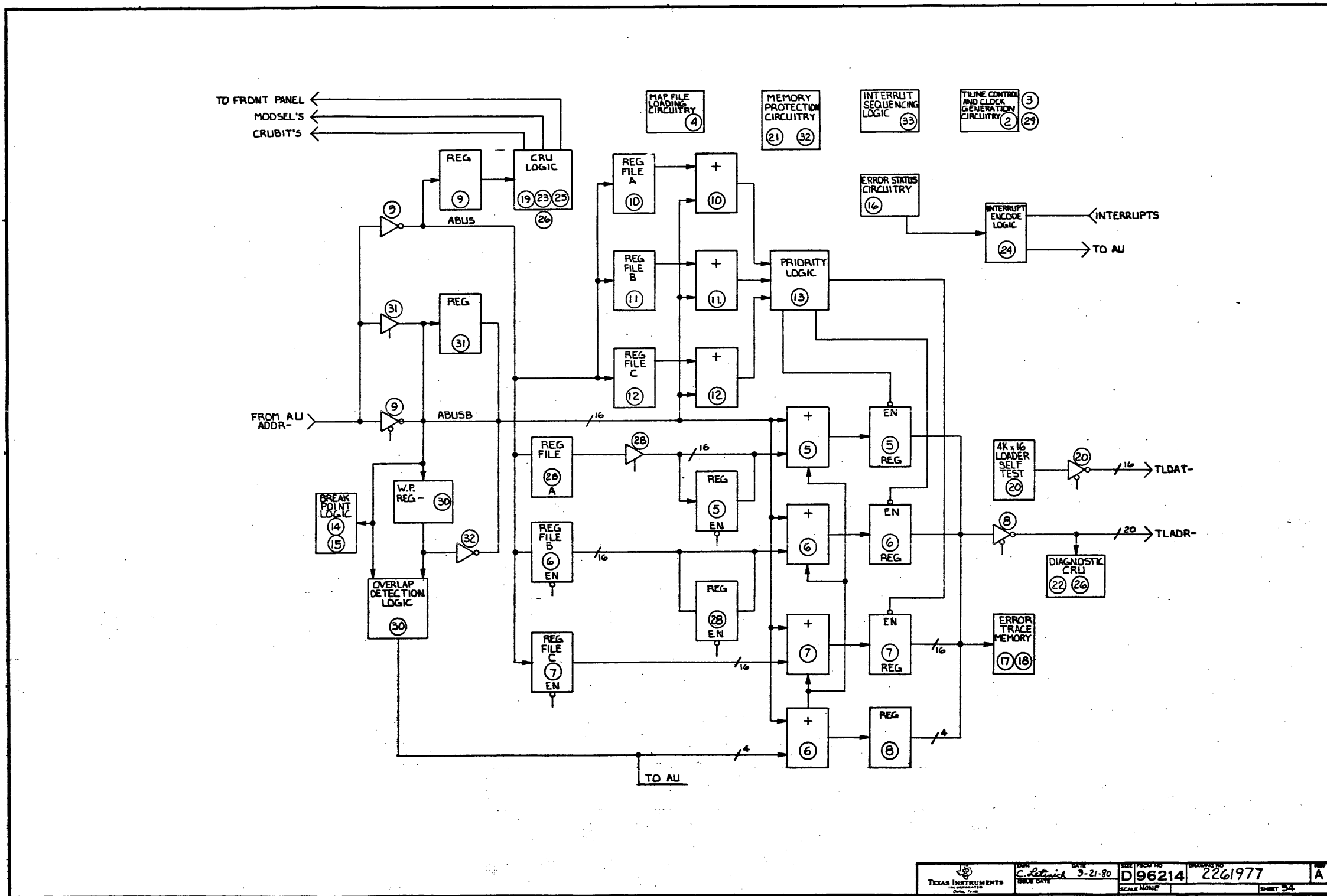
DATE	DATE	SIZE	PRICE NO.	DRAWING NO.	REV.
			D 96214	2261977	
SCALE					SHEET 30





TEXAS INSTRUMENTS	DATE	SIZE	FORM NO.	DRAWING NO.	REV.
			D96214	2261977	A
					SHEET 32

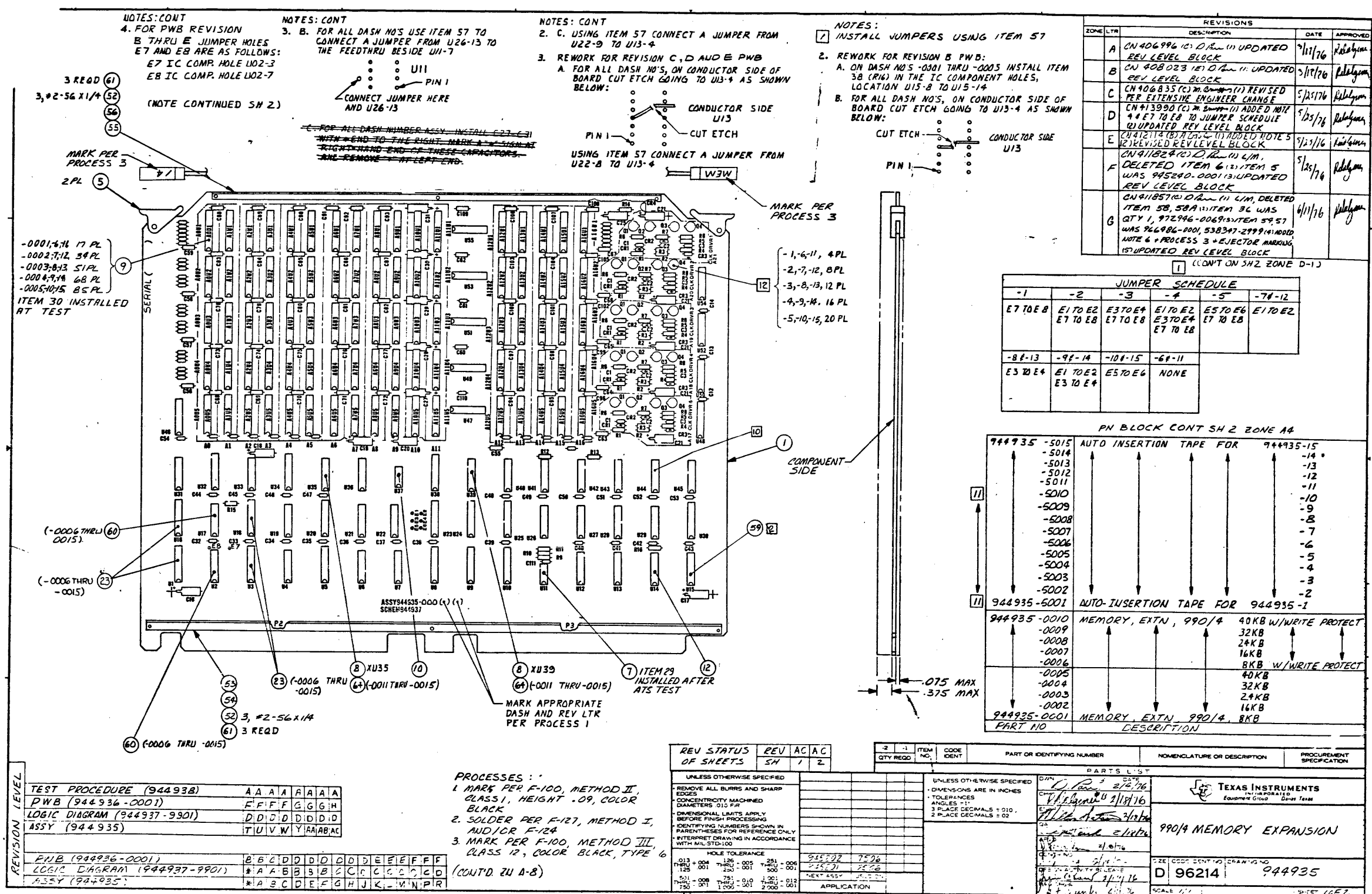




DESIGNED BY C. L. ...	DATE 3-21-80	SIZE / SHEET NO. D96214	DESIGNED BY 2261977	REV A
TEXAS INSTRUMENTS DALLAS, TEXAS		SCALE NONE	SHEET 54	







NOTES: CONT  
 4. FOR PWB REVISION  
 B THRU E JUMPER HOLES  
 E7 AND E8 ARE AS FOLLOWS:  
 E7 IC COMP. HOLE U02-3  
 E8 IC COMP. HOLE U02-7

NOTES: CONT  
 3. B. FOR ALL DASH NO'S USE ITEM 57 TO  
 CONNECT A JUMPER FROM U26-13 TO  
 THE FEEDTHRU BESIDE U11-7

NOTES: CONT  
 2. C. USING ITEM 57 CONNECT A JUMPER FROM  
 U22-9 TO U13-4

NOTES:  
 1. INSTALL JUMPERS USING ITEM 57  
 2. REWORK FOR REVISION B PWB:  
 A. ON DASH NO'S -0001 THRU -0005 INSTALL ITEM  
 38 (R14) IN THE IC COMPONENT HOLES,  
 LOCATION U15-8 TO U15-14  
 B. FOR ALL DASH NO'S, ON CONDUCTOR SIDE OF  
 BOARD CUT ETCH GOING TO U13-4 AS SHOWN  
 BELOW:

ZONE LTR	DESCRIPTION	DATE	APPROVED
A	CN 406996 (C) DASH (1) UPDATED REV LEVEL BLOCK	7/17/76	Reddyman
B	CN 408023 (E) DASH (1) UPDATED REV LEVEL BLOCK	7/17/76	Reddyman
C	CN 406835 (C) DASH (1) REVISED PER EXTENSIVE ENGINEER CHANGE	5/25/76	Reddyman
D	CN 413990 (C) DASH (1) ADDED NOTE 44 E7 TO E8 TO JUMPER SCHEDULE U1 UPDATED REV LEVEL BLOCK	5/25/76	Reddyman
E	CN 412174 (B) DASH (1) ADDED NOTE 5 REVISED REV LEVEL BLOCK	7/23/76	Reddyman
F	CN 411824 (C) DASH (1) L.M., DELETED ITEM 6 (2) ITEM 5 WAS 945240-0001 (3) UPDATED REV LEVEL BLOCK	5/25/76	Reddyman
G	CN 418570 (C) DASH (1) L.M., DELETED ITEM 58, 58A (1) ITEM 5C WAS QTY 1, 972946-0069 (1) ITEM 59, 57 WAS 946986-0001, 538347-2999 (1) ADDED NOTE 6 + PROCESS 3 + EJECTOR MARKING 15) UPDATED REV LEVEL BLOCK	6/11/76	Reddyman

JUMPER SCHEDULE					
-1	-2	-3	-4	-5	-7A-12
E7 TO E8	E1 TO E2 E7 TO E8	E3 TO E4 E7 TO E8	E1 TO E2 E3 TO E4 E7 TO E8	E5 TO E6 E7 TO E8	E1 TO E2
-8F-13	-9F-14	-10F-15	-6F-11		
E3 TO E4	E1 TO E2 E3 TO E4	E5 TO E6	NONE		

PN BLOCK CONT SH 2 ZONE A4		
944935-5015	AUTO INSERTION TAPE FOR	944935-15
-5014		-14
-5013		-13
-5012		-12
-5011		-11
-5010		-10
-5009		-9
-5008		-8
-5007		-7
-5006		-6
-5005		-5
-5004		-4
-5003		-3
-5002		-2
944935-5001	AUTO-INSERTION TAPE FOR	944935-1
944935-0010	MEMORY, EXTN, 990/4	40KB W/WRITE PROTECT
-0009		32KB
-0008		24KB
-0007		16KB
-0006		8KB W/WRITE PROTECT
-0005		40KB
-0004		32KB
-0003		24KB
-0002		16KB
944935-0001	MEMORY, EXTN, 990/4,	8KB
PART NO	DESCRIPTION	

3 REQD (61)  
 3, #2-56 X1/4 (52)  
 2 PL (5)  
 MARK PER PROCESS 3  
 (-0001 THRU -0015) 17 PL  
 (-0002 THRU -0015) 34 PL  
 (-0003 THRU -0015) 51 PL  
 (-0004 THRU -0015) 68 PL  
 (-0005 THRU -0015) 85 PL  
 ITEM 30 INSTALLED AT TEST  
 SERIAL ( )  
 (-0006 THRU -0015) (60)  
 (-0006 THRU -0015) (23)  
 (60) (-0006 THRU -0015)  
 (53) 3, #2-56 X1/4  
 (54) 3 REQD  
 (55) 3 REQD

U11  
 PIN 1  
 CONNECT JUMPER HERE AND U26-13  
 FOR ALL DASH NUMBER ASSY INSTALL C27-C31 WITH W END TO THE RIGHT MARK & W SIGN AS RIGHT HAND END OF THESE CAPACITORS AND REMOVE AT LEFT END.  
 CONDUCTOR SIDE U13  
 CUT ETCH  
 PIN 1  
 USING ITEM 57 CONNECT A JUMPER FROM U22-8 TO U13-4  
 MARK PER PROCESS 3  
 -1, -6, -11, 4 PL  
 -2, -7, -12, 8 PL  
 -3, -8, -13, 12 PL  
 -4, -9, -14, 16 PL  
 -5, -10, -15, 20 PL  
 COMPONENT SIDE  
 (59) (12)  
 (59) (12)  
 ASSY 944935-000 (1) (1) SCHEN 944933  
 XJ35 (10)  
 XJ39 (8)  
 ITEM 29 INSTALLED AFTER AT TEST (7)  
 MARK APPROPRIATE DASH AND REV LTR PER PROCESS 1

NOTES:  
 1. INSTALL JUMPERS USING ITEM 57  
 2. REWORK FOR REVISION B PWB:  
 A. ON DASH NO'S -0001 THRU -0005 INSTALL ITEM 38 (R14) IN THE IC COMPONENT HOLES, LOCATION U15-8 TO U15-14  
 B. FOR ALL DASH NO'S, ON CONDUCTOR SIDE OF BOARD CUT ETCH GOING TO U13-4 AS SHOWN BELOW:  
 CUT ETCH  
 CONDUCTOR SIDE U13  
 PIN 1  
 USING ITEM 57 CONNECT A JUMPER FROM U22-8 TO U13-4  
 MARK PER PROCESS 3  
 -1, -6, -11, 4 PL  
 -2, -7, -12, 8 PL  
 -3, -8, -13, 12 PL  
 -4, -9, -14, 16 PL  
 -5, -10, -15, 20 PL  
 COMPONENT SIDE  
 (59) (12)  
 (59) (12)  
 ASSY 944935-000 (1) (1) SCHEN 944933  
 XJ35 (10)  
 XJ39 (8)  
 ITEM 29 INSTALLED AFTER AT TEST (7)  
 MARK APPROPRIATE DASH AND REV LTR PER PROCESS 1

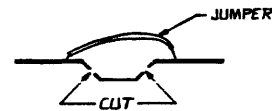
REVISION LEVEL	TEST PROCEDURE (944938)	A	A	A	A	A	A	A	A
PWB (944936-0001)		A	A	A	A	A	A	A	A
LOGIC DIAGRAM (944937-9901)		F	F	F	F	G	G	G	H
ASSY (944935)		T	U	V	W	Y	A	A	B

PROCESSES:  
 1. MARK PER F-100, METHOD II, CLASS 1, HEIGHT .09, COLOR BLACK  
 2. SOLDER PER F-127, METHOD I, AND ICR F-124  
 3. MARK PER F-100, METHOD III, CLASS 12, COLOR BLACK, TYPE 6  
 (CONT'D ON A-B)

REV STATUS OF SHEETS	REV	AC	AC	AC
	SH	1	2	
UNLESS OTHERWISE SPECIFIED				
REMOVE ALL BURRS AND SHARP EDGES				
CONCENTRICITY MACHINED DIAMETERS .015 P/R				
DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING				
IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY				
INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100				
HOLE TOLERANCE				
.013 - .004	1.25	.005	.251	.006
1.25 - .001	.251	.001	.500	.001
.001 - .008	.751	.010	1.261	.012
.008 - .021	1.005	.201	2.000	.021
UNLESS OTHERWISE SPECIFIED				
DIMENSIONS ARE IN INCHES				
TOLERANCES				
ANGLES .15				
3 PLACE DECIMALS ± 0.10				
2 PLACE DECIMALS ± 0.2				
PARTS LIST				
QTY	1			
ITEM NO.				
CODE IDENT				
PART OR IDENTIFYING NUMBER				
NOMENCLATURE OR DESCRIPTION				
PROCUREMENT SPECIFICATION				
TEXAS INSTRUMENTS Equipment Group Dallas Texas				
990/4 MEMORY EXPANSION				
D 96214 944935				
SCALE 1:1 SHEET 1662				

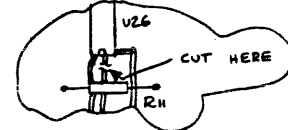
NOTES: (CONT FROM SM. 1)

- 5. REWORK FOR REVISION B, C, D AND E PWB  
A. ON CONDUCTOR SIDE OF BOARD CUT THE ETCH ON THE BOTTOM CENTER TAB AND ADD A JUMPER AS SHOWN

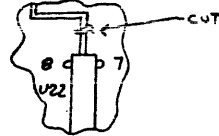


- 6. INSULATOR PN 966486-0001 MAY BE SUBSTITUTED FOR ITEM 54 PN 944954-0001

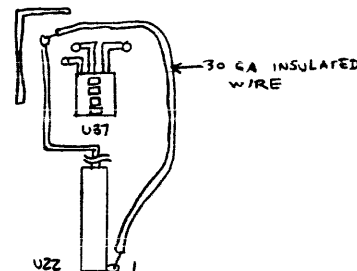
- 7. REWORK FOR PWB REVISIONS C, D AND E.  
A. CUT ETCH ON COMPONENT SIDE BETWEEN U26 AND R11 AS SHOWN



- B. CUT PIN 1 OF U22
- C. CUT ETCH ON COMPONENT SIDE ABOVE U22 AS SHOWN



- D. WIRE PIN 1 OF U22 TO FEED-THRU ABOVE U27 AS SHOWN USING INSULATED WIRE

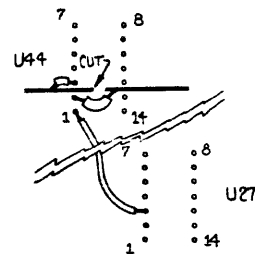


- 8. IF ITEM 45 IS SUBSTITUTED BY RADIAL LEAD DEVICES, THE SUBSTITUTE PARTS MUST BE INSTALLED UPSIDE DOWN WITH TEFLON SLEEVING ON LEADS.

- 9. REWORK FOR REVISION C AND D PWB FOR ALL DASH NUMBER ASSY. INSTALL C27 - C31 WITH "+" END TO THE RIGHT. MARK A "+" SIGN AT RIGHT HAND END OF THESE CAPACITORS AND REMOVE "+" AT LEFT END.

- 10. REWORK FOR PWB REVISIONS B, C, D, E, & F.  
A. CUT ETCH ON CONDUCTOR SIDE OF BOARD WHICH PINS BETWEEN U44-2 AND U44-3  
B. ADD WIRE BETWEEN U44-3 AND LEFT PART OF CUT ETCH AS VIEWED FROM BACK  
C. ADD WIRE BETWEEN U44-2 AND RIGHT PART OF CUT ETCH AS VIEWED FROM BACK  
D. ADD WIRE BETWEEN U44-1 AND U21-3

10 CONT



CONDUCTOR SIDE OF BOARD

- 11. ITEM 63 IN-0001 THRU -0015 L/M'S CONSISTS OF COMPONENTS WHICH ARE AUTO-INSERTED AND CONTAINED IN -5001 THRU -5015
- 12. ITEMS 49 AND 50 SHOULD BE MECHANICALLY MACHINE PREPPED PRIOR TO INSERTION

REV#	DATE	DESCRIPTION	APPROVED
CB	4/17/76	CH41538Z (B) A. VALLBO (1) ADDED PART C TO NOTE 3 (2) ADDED ITEM 33 INSTALLED AT TEST TO ITEM 9 CALLOUT (3) CORRECTED PICTORIAL ON CAPACITORS (4) UPDATED REV LEVEL BLOCK	J. R. R.
J	4/17/76	CN41538Z (B) A. VALLBO (1) ADDED NOTE 7 (2) REVISED NOTE 3 (3) UPDATED REV LEVEL BLOCK	J. R. R.
K	6/11/76	CN41529B (C) J. VALLBO (1) NOTE 2-C WAS 2-B (2) ADDED NOTE 8 (3) ADDED "R10" TO ITEM 36A IN L/M (4) UPDATED REVISION LEVEL BLOCK	J. R. R.
L	10-8-76	CN415400 (E) J. VALLBO (1) ITEM 12 WAS 972759-001 (2) ITEM 45 WAS 972759-002 (3) UPDATED REV LEVEL BLOCK	J. R. R.
M	10-8-76	CN417501 (C) J. VALLBO (1) ITEM 44 WAS 972759-002 (2) ITEM 45 WAS 972759-002 (3) UPDATED REV LEVEL BLOCK	J. R. R.
B-7 D-5	11/5/76	CN432191 (D) J. VALLBO (1) ADDED 52 IN REV LEVEL BLOCK (2) ADDED 52 IN REV LEVEL BLOCK (3) REVISED L/M -1 THRU -10	J. R. R.
P	5-26-77	CN420472 (C) J. VALLBO (1) CHG NOTE 3 TO INCLUDE REV E ON BOB. (2) DELETED C PART OF NOTE 3 (3) CHG NOTE 4 TO INCLUDE REV E (4) CHG NOTE 5 TO INCLUDE REV E (5) ADDED NOTE 9 (6) UPDATED REV LEVEL BLOCK	J. R. R.
R	6-7-77	CN417180 (B) C. R. R. (1) UPDATED REV LEVEL BLOCK (2) ON LM FOR -1, -2, -3, -4 AND -5 ITEM 12 QTY WAS 4 ALSO ADDED ITEMS 59 AND 62 (3) ON LM FOR -6, -7, -8, -9, AND -10 ITEM 12 QTY WAS 5 ALSO ADDED ITEM 62 (4) ON SH. 1 ADDED BALLOON 23 REF UJK AND UJ ALSO DELETED -000L THRU -001L FROM (5) AND (6) ADDED NOTE 10.	J. R. R.
T	8-11-77	CN427109 (C) L. T. H. (1) NOTE 7 WAS "REVISION C" (2) UPDATED REV LEVEL BLOCK	J. R. R.
U	8-11-77	CN426261 (C) L. T. H. (1) REVISED PER EXTENSIVE ENGR CHANGES (2) UPDATED REV LEVEL BLOCK	J. R. R.
V	11-3-77	CN425134 (C) R. J. H. (1) REVISED PER EXTENSIVE ENGR CHANGES	J. R. R.
W	7-14-78	CN429498 (D) J. VALLBO (1) ADDED WIRE TO BALLOON 7 (2) UPDATED REV LEVEL BLOCK	J. R. R.
Y	8-10-78	CU442608 (C) J. VALLBO (1) ON L/M DELETED ITEM 51 -1 THRU -15 (2) U.C. 4 FLAG 12 WAS BALLOON 5 (3) ADDED NOTE 12 (4) UPDATED REV LEVEL BLOCK	J. R. R.
AA	3-13-79	CN430757 (C) J. VALLBO (1) REVISED PER EXTENSIVE ENGR CHANGE	E. H. H.
AB	3-13-79	CN430773 (C) J. VALLBO (1) REVISED PER EXTENSIVE ENGR CHANGE	E. H. H.
AC	5-23-79	CN451949 (D) J. VALLBO (1) -1 THRU -15 ITEM 49 WAS 539544-1, 539544-1 AND 539544-5 RESP (2) UPDATED REV LEVEL BLOCK	J. R. R.

PART NO	DESCRIPTION
944935 - 0015	MEMORY, EXTN, 990/4, 40KB W/WRITE PROTECT & PARITY
- 0014	32KB
- 0013	24KB
- 0012	16KB
944935 - 0011	MEMORY, EXTN, 990/4, 8KB W/WRITE PROTECT & PARITY

SIZE	CODE IDENT NO	DRAWING NO
D	96214	944935
SCALE	1/16" = 1"	SHEET 2

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944935-0001		REV AC		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0002	REF	EA		0944937-9901	LOGIC DIAGRAM-MEMORY EXTN, 990/4							
0003	RFF	EA		0944938-9901	TEST PROCEDURE-MEMORY EXTN, 990/4							
0004	REF	EA		0944939-9901	SPECIFICATION-MEMORY EXTN, 990/4							
0005	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB							
0007	00001.000	EA		2210188-0001	SOCKET, LOW PROFILE, DIP, 3 CONT, 8 PINS	003612-DIL88P-108						
0008	00002.000	EA		2210188-0002	SOCKET, LOW PROFILE, DIP, 14 PINS	003612-DIL814P-108						
0009	00017.000	EA		2210188-0004	SOCKET, LOW PROFILE, DIP, 8 CONT, 18 PINS	003612-DIL818P-108						
0010	00001.000	EA		0972594-0001	SWITCH, ROCKER-PWB MOUNTED	023880-900124						
0010A					U37							
0012	00002.000	EA		0972900-7404	NETWORK SN74LS04N							
0012A					U14 U42							
0016	00001.000	EA		0222222-7440	NETWORK SN7440N	-SN7440N						
0016A					U41							
0018	00002.000	EA		0972900-7474	NETWORK SN74LS74N							
0018A					U50 U52							
0020	00001.000	EA		0972900-7138	NETWORK SN74LS138N	TI -SN74LS138N						
0020A					U48							
0022	00001.000	EA		0972159-7265	NETWORK, SN74265N							
0022A					U30							
0024	00001.000	EA		0972653-0001	NETWORK, SN74LS293N							
DRAFTSMAN	DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, EXTN, 990/4, 8KB						
APPRO. ENG.	DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-0001					REV AC

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944935-0001		REV AC		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0024A					U33							
0025	00001.000	EA		0972556-0001	NETWORK SN74367N	TI- -SN74367N						
0025A					U55							
0026	00001.000	EA		0972787-0003	NETWORK SN74LS367N							
0026A					U5							
0028	00001.000	EA		0974674-0001	NETWORK SN75138N							
0028A					U8							
0029	00001.000	EA		0972188-0001	NETWORK, NE555V, MONOLITHIC TIMING, LINEAR	ST -NE555V						
0029A					U11							
0030	00016.000	EA		0972659-0001	NETWORK, TMS4050NL							
0030A					A0U1 THR A15U1							
0041	00001.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10 X 200 V	QPL -M39014/01-1369						
0041A					A21C3							
0047	00001.000	EA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING							
0047A					CR4							
0049	00003.000	EA		0972955-0001	XSTR 2N2369A, NPN, HIGH SPEED SW, TO-18	MOT - 2N2369A						
0049A					A21Q1 A21Q3 A21Q4							
0050	00001.000	EA		0236081-0000	X-XST 2N2894	TI -2N2894						
0050A					A21Q2							
0052	00006.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG							
DRAFTSMAN	DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, EXTN, 990/4, 8KB						
APPRO. ENG.	DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-0001					REV AC

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944935-0001		REV AC		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0053	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN							
0054	00001.000	EA		0944954-0001	INSULATOR, PWB, 14IN							
0055	00001.000	EA		0946707-0001	STIFFENER, PWB, 11 INCH							
0056	00001.000	EA		0946708-0001	INSULATOR, STIFFENER, PWB, 11 INCH							
0057	00000.050	FT		0535978-0058	WIRE ELEC., SOLID, "KYNAR" INSUL #30 AWG							
0061	00006.000	EA		0236369-0001	WASHER #2 NYLON FLAT BLK .090IDX.020 THK NPG	-101-BLK						
0063	00001.000	EA		0944935-5001	AUTO-INSERTION TAPE FOR 944935-1							
DRAFTSMAN	DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, EXTN, 990/4, 8KB						
APPRO. ENG.	DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-0001					REV AC

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944935-0002		REV AC		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0002	REF	EA		0944937-9901	LOGIC DIAGRAM-MEMORY EXTN, 990/4							
0003	REF	EA		0944938-9901	TEST PROCEDURE-MEMORY EXTN, 990/4							
0004	REF	EA		0944939-9901	SPECIFICATION-MEMORY EXTN, 990/4							
0005	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB							
0007	00001.000	EA		2210188-0001	SOCKET, LOW PROFILE, DIP, 3 CONT, 8 PINS	003612-DIL88P-108						
0008	00002.000	EA		2210188-0002	SOCKET, LOW PROFILE, DIP, 14 PINS	003612-DIL814P-108						
0009	00034.000	EA		2210188-0004	SOCKET, LOW PROFILE, DIP, 8 CONT, 18 PINS	003612-DIL818P-108						
0010	00001.000	EA		0972594-0001	SWITCH, ROCKER-PWB MOUNTED	023880-900124						
0010A					U37							
0012	00002.000	EA		0972900-7404	NETWORK SN74LS04N							
0012A					U14 U42							
0016	00001.000	EA		0222222-7440	NETWORK SN7440N	-SN7440N						
0016A					U41							
0018	00002.000	EA		0972900-7474	NETWORK SN74LS74N							
0018A					U50 U52							
0020	00001.000	EA		0972900-7138	NETWORK SN74LS138N	TI -SN74LS138N						
0020A					U48							
0022	00001.000	EA		0972159-7265	NETWORK, SN74265N							
0022A					U30							
0024	00001.000	EA		0972653-0001	NETWORK, SN74LS293N							
DRAFTSMAN	DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, EXTN, 990/4, 16KB						
APPRO. ENG.	DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-0002					REV AC

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944935-0002		REV AC	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0024A					U33						
0025	00002.000	EA		0972556-0001	NETWORK SN74367N	TI- -SN74367N					
0025A					U53 U55						
0026	00001.000	EA		0972787-0003	NETWORK SN74LS367N						
0026A					U5						
0028	00001.000	EA		0974674-0001	NETWORK SN75138N						
0028A					U8						
0029	00001.000	EA		0972188-0001	NETWORK, NE555V, MONOLITHIC TIMING, LINEAR	ST -NE555V					
0029A					U11						
0030	00032.000	EA		0972659-0001	NETWORK, TMS4050NL						
0030A					A0U1 THRU A15U1, A0U2 THRU						
0030B					A15U2						
0041	00002.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10 X 200 V	QPL -M39014/01-1369					
0041A					A21C3 A20C3						
0047	00001.000	EA		0226609-0001	DIDDE, VISIBLE LIGHT EMITTING						
0047A					CR4						
0049	00006.000	EA		0972955-0001	XSTR 2N2369A, NPN, HIGH SPEED SW, TO-18	MOT - 2N2369A					
0049A					A21Q1 A21Q3 A21Q4						
0049B					A20Q1 A20Q3 A20Q4						
0050	00002.000	EA		0236081-0000	X-XST 2N2894	TI -2N2894					
DRAFTSMAN: _____ DATE: _____ CED DRAFTSMAN: _____ DATE: _____ DESIGN ENGINEER: _____ DATE: _____ TITLE: _____ APP'D: _____ DATE: _____ APP'D PROJECT ENGINEER: _____ DATE: _____ RELEASED: _____ DATE: _____ PROJECT NO.: _____ PART NUMBER: LM0944935-0002 REV: AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944935-0002		REV AC	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0050A					A21Q2 A20Q2						
0052	00006.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG						
0053	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN						
0054	00001.000	EA		0944954-0001	INSULATOR, PWB, 14IN						
0055	00001.000	EA		0946707-0001	STIFFENER, PWB, 11 INCH						
0056	00001.000	EA		0946708-0001	INSULATOR, STIFFENER, PWB, 11 INCH						
0057	00000.050	FT		0535978-0058	WIRE ELEC., SOLID, "KYNAR" INSUL #30 AWG						
0061	00006.000	EA		0236369-0001	WASHER #2 NYLON FLAT BLK .0901DX.020 THK	MFG -101-BLK					
0063	00001.000	EA		0944935-5002	AUTO-INSERTION TAPE FOR 944935-2						
DRAFTSMAN: _____ DATE: _____ CED DRAFTSMAN: _____ DATE: _____ DESIGN ENGINEER: _____ DATE: _____ TITLE: _____ APP'D: _____ DATE: _____ APP'D PROJECT ENGINEER: _____ DATE: _____ RELEASED: _____ DATE: _____ PROJECT NO.: _____ PART NUMBER: LM0944935-0002 REV: AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944935-0003		REV AC	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0002	REF	EA		0944937-9901	LOGIC DIAGRAM-MEMORY EXTN, 990/4						
0003	REF	EA		0944938-9901	TEST PROCEDURE-MEMORY EXTN, 990/4						
0004	REF	EA		0944939-9901	SPECIFICATION-MEMORY EXTN, 990/4						
0005	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB						
0007	00001.000	EA		2210188-0001	SOCKET, LOW PROFILE, DIP, 3 CONT, 8 PINS	003612-D1L88P-108					
0008	00002.000	EA		2210188-0002	SOCKET, LOW PROFILE, DIP, 14 PINS	003612-D1L814P-108					
0009	00051.000	EA		2210188-0004	SOCKET, LOW PROFILE, DIP, 8 CONT, 18 PINS	003612-D1L818P-108					
0010	00001.000	EA		0972994-0001	SWITCH, ROCKER-PWB MOUNTED	023880-900124					
0010A					U37						
0012	00002.000	EA		0972900-7406	NETWORK SN74LS04N						
0012A					U14 U42						
0016	00001.000	EA		0222222-7440	NETWORK SN7440N	-SN7440N					
0016A					U41						
0018	00002.000	EA		0972900-7474	NETWORK SN74LS74N						
0018A					U50 U52						
0020	00001.000	EA		0972900-7138	NETWORK SN74LS138N	TI -SN74LS138N					
0020A					U48						
0022	00001.000	EA		0972159-7265	NETWORK, SN74265H						
0022A					U30						
0024	00001.000	EA		0972653-0001	NETWORK, SN74LS293N						
DRAFTSMAN: _____ DATE: _____ CED DRAFTSMAN: _____ DATE: _____ DESIGN ENGINEER: _____ DATE: _____ TITLE: _____ APP'D: _____ DATE: _____ APP'D PROJECT ENGINEER: _____ DATE: _____ RELEASED: _____ DATE: _____ PROJECT NO.: _____ PART NUMBER: LM0944935-0003 REV: AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944935-0003		REV AC	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0024A					U33						
0025	00005.000	EA		0972556-0001	NETWORK SN74367N	TI- -SN74367N					
0025A					U51 U53 U55						
0026	00001.000	EA		0972787-0003	NETWORK SN74LS367N						
0026A					U5						
0028	00001.000	EA		0974674-0001	NETWORK SN75138N						
0028A					U8						
0029	00001.000	EA		0972188-0001	NETWORK, NE555V, MONOLITHIC TIMING, LINEAR	ST -NE555V					
0029A					U11						
0030	00006.000	EA		0972659-0001	NETWORK, TMS4050NL						
0030A					A0U1 THRU A15U1, A0U2 THRU						
0030B					A15U2, A0U3 THRU A15U3						
0041	00003.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10 X 200 V	QPL -M39014/01-1369					
0041A					A21C3 A20C3 A19C3						
0047	00001.000	EA		0226609-0001	DIDDE, VISIBLE LIGHT EMITTING						
0047A					CR4						
0049	00009.000	EA		0972955-0001	XSTR 2N2369A, NPN, HIGH SPEED SW, TO-18	MOT - 2N2369A					
0049A					A21Q1 A21Q3 A21Q4						
0049B					A20Q1 A20Q3 A20Q4						
0049C					A19Q1 A19Q3 A19Q4						
DRAFTSMAN: _____ DATE: _____ CED DRAFTSMAN: _____ DATE: _____ DESIGN ENGINEER: _____ DATE: _____ TITLE: _____ APP'D: _____ DATE: _____ APP'D PROJECT ENGINEER: _____ DATE: _____ RELEASED: _____ DATE: _____ PROJECT NO.: _____ PART NUMBER: LM0944935-0003 REV: AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944935-0003		REV AC		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0050	00003.000	EA		0236081-0000	X-XST 2N2894	TI -2N2894						
0050A					A21Q2 A20Q2 A19Q2							
0052	00006.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG							
0053	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN							
0054	00001.000	EA		0944954-0001	INSULATOR, PWB, 14IN							
0055	00001.000	EA		0946707-0001	STIFFENER, PWB, 11 INCH							
0056	00001.000	EA		0946708-0001	INSULATOR, STIFFENER, PWB, 11 INCH							
0057	00000.050	FT		0535978-0058	WIRE ELEC., SOLID, "KYNAR" INSUL #30 AWG							
0061	00006.000	EA		0236369-0001	WASHER #2 NYLON FLAT BLK .090IDX.020 THK NPG	-101-BLK						
0063	00001.000	EA		0944935-5003	AUTO-INSERTION TAPE FOR 944935-3							
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, EXTN, 990/4, 24KB					
APPR. MFG.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-0003		REV AC		

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944935-0004		REV AC		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0002	REF	EA		0944937-9901	LOGIC DIAGRAM-MEMORY EXTN, 990/4							
0003	REF	EA		0944938-9901	TEST PROCEDURE-MEMORY EXTN, 990/4							
0004	REF	EA		0944939-9901	SPECIFICATION-MEMORY EXTN, 990/4							
0005	00002.000	EA		053844-0001	EJECTOR, NYLON, NON-LOCKING, PWB							
0007	00001.000	EA		2210188-0001	SOCKET, LOW PROFILE, DIP, 3 CONT, 8 PINS	003612-DIL88P-108						
0008	00002.000	EA		2210188-0002	SOCKET, LOW PROFILE, DIP, 14 PINS	003612-DIL814P-108						
0009	00068.000	EA		2210188-0004	SOCKET, LOW PROFILE, DIP, 8 CONT, 18 PINS	003612-DIL818P-108						
0010	00001.000	EA		0972594-0001	SWITCH, ROCKER-PWB MOUNTED	023880-900124						
0010A					U37							
0012	00002.000	EA		0972900-7404	NETWORK SN74LS04N							
0012A					U14 U42							
0016	00001.000	EA		0222222-7440	NETWORK SN7440N	-SN7440N						
0016A					U41							
0018	00002.000	EA		0972900-7474	NETWORK SN74LS74N							
0018A					U50 U52							
0020	00001.000	EA		0972900-7138	NETWORK SN74LS138N	TI -SN74LS138N						
0020A					U48							
0022	00001.000	EA		0972159-7265	NETWORK, SN74265N							
0022A					U30							
0024	00001.000	EA		0972653-0001	NETWORK, SN74LS293N							
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, EXTN, 990/4, 32KB					
APPR. MFG.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-0004		REV AC		

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944935-0004		REV AC		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0024A					U33							
0025	00004.000	EA		0972556-0001	NETWORK SN74367N	TI -SN74367N						
0025A					U49 U51 U53 U55							
0026	00001.000	EA		0972787-0003	NETWORK SN74LS367N							
0026A					U5							
0028	00001.000	EA		0974674-0001	NETWORK SN75138N							
0028A					U8							
0029	00001.000	EA		0972188-0001	NETWORK, NE555V, MONOLITHIC TIMING, LINEAR	ST -NE555V						
0029A					U11							
0030	00064.000	EA		0972659-0001	NETWORK, TMS4050NL							
0030A					A0U1 THRU A15U1, A0U2 THRU							
0030B					A15U2 A0U3 THRU A15U3, A0U4							
0030C					THRU A15U4							
0041	00004.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10 % 200 V	QPL -M39014/01-1369						
0041A					A21C3 A20C3 A19C3 A18C3							
0047	00001.000	EA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING							
0047A					CR4							
0049	00012.000	EA		0972955-0001	XSTR 2N2369A, NPN, HIGH SPEED SW, TO-18	MOT - 2N2369A						
0049A					A21Q1 A21Q3 A21Q4							
0049B					A20Q1 A20Q3 A20Q4							
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, EXTN, 990/4, 32KB					
APPR. MFG.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-0004		REV AC		

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944935-0004		REV AC		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0049C					A19Q1 A19Q3 A19Q4							
0049D					A18Q1 A18Q3 A18Q4							
0050	00004.000	EA		0236081-0000	X-XST 2N2894	TI -2N2894						
0050A					A21Q2 A20Q2 A19Q2 A18Q2							
0052	00006.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG							
0053	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN							
0054	00001.000	EA		0944954-0001	INSULATOR, PWB, 14IN							
0055	00001.000	EA		0946707-0001	STIFFENER, PWB, 11 INCH							
0056	00001.000	EA		0946708-0001	INSULATOR, STIFFENER, PWB, 11 INCH							
0057	00000.050	FT		0535978-0058	WIRE ELEC., SOLID, "KYNAR" INSUL #30 AWG							
0061	00006.000	EA		0236369-0001	WASHER #2 NYLON FLAT BLK .090IDX.020 THK NPG	-101-BLK						
0063	00001.000	EA		0944935-5004	AUTO-INSERTION TAPE FOR 944935-4							
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, EXTN, 990/4, 32KB					
APPR. MFG.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-0004		REV AC		

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944935-0005		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0002	FEF	EA		0944937-9901	LOGIC DIAGRAM-MEMORY EXTN, 990/4						
0003	REF	EA		0944938-9901	TEST PROCEDURE-MEMORY EXTN, 990/4						
0004	RFF	EA		0944939-9901	SPECIFICATION-MEMORY EXTN, 990/4						
0005	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB						
0007	00001.000	EA		2210188-0001	SOCKET,LOW PROFILE,DIP, 3 CONT, 8 PINS	003612-DIL88P-108					
0008	00002.000	EA		2210188-0002	SOCKET,LOW PROFILE,DIP, 14 PINS	003612-DIL814P-108					
0009	00085.000	EA		2210188-0004	SOCKET,LOW PROFILE,DIP, 8 CONT, 18 PINS	003612-DIL818P-108					
0010	00001.000	EA		0972594-0001	SWITCH,ROCKER-PWB MOUNTED	023880-900124					
0010A					U37						
0012	00002.000	EA		0972900-7404	NETWORK SN74LS04N						
0012A					U14 U42						
0016	00001.000	EA		0222222-7440	NETWORK SN7440N	-SN7440N					
0016A					U41						
0018	00002.000	EA		0972900-7474	NETWORK SN74LS74N						
0018A					U50 U52						
0020	00001.000	EA		0972900-7138	NETWORK SN74LS138N	TI -SN74LS138N					
0020A					U48						
0022	00001.000	EA		0972159-7265	NETWORK, SN74265N						
0022A					U30						
0024	00001.000	EA		0972653-0001	NETWORK,SN74LS293N						
DRAFTSMAN: DATE: CDD DRAFTSMAN: DATE: DESIGN ENGINEER: DATE: TITLE: MEMORY, EXTN, 990/4, 40KB											
APPD. MFG: DATE: APPD. PROJECT ENGINEER: DATE: RELEASED: DATE: PROJECT NO: PART NUMBER: LM0944935-0005 REV: AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944935-0005		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0024A					U33						
0025	00005.000	EA		0972556-0001	NETWORK SN74367N	TI -SN74367N					
0025A					U47 U49 U51 U53 U55						
0026	00001.000	EA		0972787-0003	NETWORK SN74LS367N						
0026A					U5						
0028	00001.000	EA		0974674-0001	NETWORK SN75138N						
0028A					U8						
0029	00001.000	EA		0972188-0001	NETWORK,NE555V,MONOLITHIC TIMING,LINEAR	ST -NE555V					
0029A					U11						
0030	00080.000	EA		0972659-0001	NETWORK,TMS4050ML						
0030A					A0U1 THRU A15U1,A0U2 THRU						
0030B					A15U2 A0U3 THRU A15U3,A0U4						
0030C					THRU A15U4,A0U5 THRU A15U5						
0041	00005.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10 X 200 V	QPL -M39014/01-1369					
0041A					A21C3 A20C3 A19C3 A18C3						
0041B					A17C3						
0047	00001.000	EA		0226609-0001	DIODE,VISIBL LIGHT EMITTING						
0047A					CR4						
0049	00015.000	EA		0972955-0001	XSTR 2N2369A,NPN,HIGH SPEED SW.TD-18	MOT - 2N2369A					
0049A					A21Q1 A21Q3 A21Q4						
DRAFTSMAN: DATE: CDD DRAFTSMAN: DATE: DESIGN ENGINEER: DATE: TITLE: MEMORY, EXTN, 990/4, 40KB											
APPD. MFG: DATE: APPD. PROJECT ENGINEER: DATE: RELEASED: DATE: PROJECT NO: PART NUMBER: LM0944935-0005 REV: AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944935-0005		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0049B					A20Q1 A20Q3 A20Q4						
0049C					A19Q1 A19Q3 A19Q4						
0049D					A18Q1 A18Q3 A18Q4						
0049E					A17Q1 A17Q3 A17Q4						
0050	00005.000	EA		0236081-0000	X-XST 2N2894	TI -2N2894					
0050A					A21Q2 A20Q2 A19Q2 A18Q2						
0050B					A17Q2						
0052	00006.000	EA		0972684-0002	SCREW,THD FRMG,HEX WSHR HD,2-56X1/4 LG						
0053	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN						
0054	00001.000	EA		0944954-0001	INSULATOR, PWB, 14IN						
0055	00001.000	EA		0946707-0001	STIFFENER,PWB,11 INCH						
0056	00001.000	EA		0946708-0001	INSULATOR,STIFFENER,PWB,11 INCH						
0057	00000.050	FT		0535978-0058	WIRE ELEC.,SOLID,"KYNAP" INSUL #30 AWG						
0061	00006.000	EA		0236369-0001	WASHER #2 NYLON FLAT BLK .090IDX.020 THK	NPG -101-BLK					
0063	00001.000	EA		0944935-5005	AUTO-INSERTION TAPE FOR 944935-5						
DRAFTSMAN: DATE: CDD DRAFTSMAN: DATE: DESIGN ENGINEER: DATE: TITLE: MEMORY, EXTN, 990/4, 40KB											
APPD. MFG: DATE: APPD. PROJECT ENGINEER: DATE: RELEASED: DATE: PROJECT NO: PART NUMBER: LM0944935-0005 REV: AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944935-0006		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0002	FEF	EA		0944937-9901	LOGIC DIAGRAM-MEMORY EXTN, 990/4						
0003	REF	EA		0944938-9901	TEST PROCEDURE-MEMORY EXTN, 990/4						
0004	REF	EA		0944939-9901	SPECIFICATION-MEMORY EXTN, 990/4						
0005	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB						
0007	00001.000	EA		2210188-0001	SOCKET,LOW PROFILE,DIP, 3 CONT, 8 PINS	003612-DIL88P-108					
0008	00002.000	EA		2210188-0002	SOCKET,LOW PROFILE,DIP, 14 PINS	003612-DIL814P-108					
0009	00017.000	EA		2210188-0004	SOCKET,LOW PROFILE,DIP, 8 CONT, 18 PINS	003612-DIL818P-108					
0010	00001.000	EA		0972594-0001	SWITCH,ROCKER-PWB MOUNTED	023880-900124					
0010A					U37						
0012	00002.000	EA		0972900-7404	NETWORK SN74LS04N						
0012A					U14 U42						
0016	00001.000	EA		0222222-7440	NETWORK SN7440N	-SN7440N					
0016A					U41						
0018	00002.000	EA		0972900-7474	NETWORK SN74LS74N						
0018A					U50 U52						
0020	00001.000	EA		0972900-7138	NETWORK SN74LS138N	TI -SN74LS138N					
0020A					U48						
0022	00001.000	EA		0972159-7265	NETWORK, SN74265N						
0022A					U30						
0023	00002.000	EA		0972652-0001	NETWORK SN74LS283N						
DRAFTSMAN: DATE: CDD DRAFTSMAN: DATE: DESIGN ENGINEER: DATE: TITLE: MEMORY, EXTN, 990/4, 8KB W/WRITE PROTECT											
APPD. MFG: DATE: APPD. PROJECT ENGINEER: DATE: RELEASED: DATE: PROJECT NO: PART NUMBER: LM0944935-0006 REV: AC											

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 04/18/79		PAGE 2 of		PART NUMBER LM0944935-0006		REV AC		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0023A					U3 U18							
0024	00001.000	FA		0972653-0001	NETWORK,SN74LS293N							
0024A					U33							
0025	00001.000	EA		0972556-0001	NETWORK SN74367N	TI-	-SN74367N					
0025A					U55							
0026	00001.000	EA		0972787-0003	NETWORK SN74LS367N							
0026A					U5							
0028	00001.000	EA		0974674-0001	NETWORK SN75138N							
0028A					U8							
0029	00001.000	EA		0972188-0001	NETWORK,NE555V,MONOLITHIC TIMING,LINEAR	ST	-NE555V					
0029A					U11							
0030	00016.000	EA		0972659-0001	NETWORK,TMS4050NL							
0030A					AOU1 THR A15U1							
0041	00001.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10 % 200 V	QPL	-M39014/01-1369					
0041A					A21C3							
0047	00001.000	EA		0226609-0001	DIODE,VISIBLE LIGHT EMITTING							
0047A					CR4							
0049	00003.000	EA		0972955-0001	XSTR 2N2369A,NPN,HIGH SPEED SW,TO-18	MOT	- 2N2369A					
0049A					A21Q1 A21Q3 A21Q4							
0050	00001.000	EA		0236081-0000	X-XST 2N2894	TI	-2N2894					
DRAFTSMAN		DATE	CAD DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE					
							MEMORY,EXTN,990/4,8KB W/WRITE PROTECT					
APPRO. MFG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER		REV		
								LM0944935-0006		AC		

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 04/18/79		PAGE 3 of		PART NUMBER LM0944935-0006		REV AC		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0050A					A21Q2							
0052	00006.000	EA		0972684-0002	SCREW,THD FRMG,HEX WSHR HD,2-56X1/4 LG							
0053	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PMB, 14IN							
0054	00001.000	EA		0944954-0001	INSULATOR, PMB, 14IN							
0055	00001.000	FA		0946707-0001	STIFFENER,PMB,11 INCH							
0056	00001.000	EA		0946708-0001	INSULATOR,STIFFENER,PMB,11 INCH							
0057	00000.050	FT		0535978-0058	WIRE ELEC.,SOLID,"KYNAR" INSUL #30 AWG							
0060	00001.000	EA		0972688-0001	NETWORK SN74LS164N							
0060A					U17							
0061	00006.000	EA		0236369-0001	WASHER #2 NYLON FLAT BLK .090IDX.020 THK NPG	-101-BLK						
0063	00001.000	EA		0944935-5006	AUTO-INSERTION TAPE FOR 944935-6							
DRAFTSMAN		DATE	CAD DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE					
							MEMORY,EXTN,990/4,8KB W/WRITE PROTECT					
APPRO. MFG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER		REV		
								LM0944935-0006		AC		

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 04/18/79		PAGE 1 of		PART NUMBER LM0944935-0007		REV AC		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0002	REF	EA		0944937-9901	LOGIC DIAGRAM-MEMORY EXTN, 990/4							
0003	REF	EA		0944938-9901	TEST PROCEDURE-MEMORY EXTN, 990/4							
0004	REF	EA		0944939-9901	SPECIFICATION-MEMORY EXTN, 990/4							
0005	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PMB							
0007	00001.000	EA		2210188-0001	SOCKET,LOW PROFILE,DIP, 3 CONT, 8 PINS	003612-DIL88P-108						
0008	00002.000	EA		2210188-0002	SOCKET,LOW PROFILE,DIP, 14 PINS	003612-DIL814P-108						
0009	00034.000	EA		2210188-0004	SOCKET,LOW PROFILE,DIP, 8 CONT, 18 PINS	003612-DIL818P-108						
0010	00001.000	EA		0972594-0001	SWITCH,ROCKER-PMB MOUNTED	023880-900124						
0010A					U37							
0012	00002.000	EA		0972900-7404	NETWORK SN74LS04N							
0012A					U14 U42							
0016	00001.000	EA		0222222-7440	NETWORK SN7440N	-SN7440N						
0016A					U41							
0018	00002.000	EA		0972900-7474	NETWORK SN74LS74N							
0018A					U50 U52							
0020	00001.000	EA		0972900-7138	NETWORK SN74LS138N	TI	-SN74LS138N					
0020A					U48							
0022	00001.000	FA		0972159-7265	NETWORK, SN74265N							
0022A					U30							
0023	00002.000	EA		0972652-0001	NETWORK SN74LS283N							
DRAFTSMAN		DATE	CAD DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE					
							MEMORY,EXTN,990/4,16KB W/WRITE PROTECT					
APPRO. MFG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER		REV		
								LM0944935-0007		AC		

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 04/18/79		PAGE 2 of		PART NUMBER LM0944935-0007		REV AC		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0023A					U3 U18							
0024	00001.000	EA		0972653-0001	NETWORK,SN74LS293N							
0024A					U33							
0025	00002.000	EA		0972556-0001	NETWORK SN74367N	TI-	-SN74367N					
0025A					U53 U55							
0026	00001.000	EA		0972787-0003	NETWORK SN74LS367N							
0026A					U5							
0028	00001.000	EA		0974674-0001	NETWORK SN75138N							
0028A					U8							
0029	00001.000	EA		0972188-0001	NETWORK,NE555V,MONOLITHIC TIMING,LINEAR	ST	-NE555V					
0029A					U11							
0030	00032.000	EA		0972659-0001	NETWORK,TMS4050NL							
0030A					AOU1 THRU A15U1,AOU2 THRU							
0030B					A15U2							
0041	00002.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10 % 200 V	QPL	-M39014/01-1369					
0041A					A21C3 A20C3							
0047	00001.000	EA		0226609-0001	DIODE,VISIBLE LIGHT EMITTING							
0047A					CR4							
0049	00006.000	EA		0972955-0001	XSTR 2N2369A,NPN,HIGH SPEED SW,TO-18	MOT	- 2N2369A					
0049A					A21Q1 A21Q3 A21Q4							
DRAFTSMAN		DATE	CAD DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE					
							MEMORY,EXTN,990/4,16KB W/WRITE PROTECT					
APPRO. MFG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER		REV		
								LM0944935-0007		AC		

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944935-0007		REV AC		
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0049B					A20Q1 A20Q3 A20Q4	TI -2N2894						
0050	00002.000	EA		0236081-0000	X-XST 2N2894							
0050A					A21Q2 A20Q2							
0052	00006.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG							
0053	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PMB, 14IN							
0054	00001.000	EA		0944954-0001	INSULATOR, PMB, 14IN							
0055	00001.000	EA		0946707-0001	STIFFENER, PMB, 11 INCH							
0056	00001.000	EA		0946708-0001	INSULATOR, STIFFENER, PMB, 11 INCH							
0057	00000.050	FT		0535978-0058	WIRE ELEC., SOLID, "KYNAR" INSUL #30 AWG							
0060	00001.000	EA		0972688-0001	NETWORK SN74LS164N							
0060A					U17							
0061	00006.000	EA		0236369-0001	WASHER #2 NYLON FLAT BLK .090IDX.020 THK NPG	-101-BLK						
0063	00001.000	EA		0944935-5007	AUTO-INSERTION TAPE FOR 944935-7							
DRAFTSMAN				DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, EXTN, 990/4, 16KB W/WRITE PROTECT			
APPD. MFG.				DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.			
								PART NUMBER LM0944935-0007				REV AC

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944935-0008		REV AC		
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0002	REF	EA		0944937-9901	LOGIC DIAGRAM-MEMORY EXTN, 990/4							
0003	REF	EA		0944938-9901	TEST PROCEDURE-MEMORY EXTN, 990/4							
0004	REF	EA		0944939-9901	SPECIFICATION-MEMORY EXTN, 990/4							
0005	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PMB							
0007	00001.000	EA		2210188-0001	SOCKET, LOW PROFILE, DIP, 3 CONT, 8 PINS	003612-D1LB8P-108						
0008	00002.000	EA		2210188-0002	SOCKET, LOW PROFILE, DIP, 14 PINS	003612-D1LB14P-108						
0009	00051.000	EA		2210188-0004	SOCKET, LOW PROFILE, DIP, 8 CONT, 18 PINS	003612-D1LB18P-108						
0010	00001.000	EA		0972594-0001	SWITCH, ROCKER-PMB MOUNTED	023880-900124						
0010A					U37							
0012	00002.000	EA		0972900-7404	NETWORK SN74LS04N							
0012A					U14 U42							
0016	00001.000	EA		0222222-7440	NETWORK SN7440N	-SN7440N						
0016A					U41							
0018	00002.000	EA		0972900-7474	NETWORK SN74LS74N							
0018A					U50 U52							
0020	00001.000	EA		0972900-7138	NETWORK SN74LS138N	TI -SN74LS138N						
0020A					U48							
0022	00001.000	EA		0972159-7265	NETWORK, SN74265N							
0022A					U30							
0023	00002.000	EA		0972652-0001	NETWORK SN74LS283N							
DRAFTSMAN				DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, EXTN, 990/4, 24KB W/WRITE PROTECT			
APPD. MFG.				DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.			
								PART NUMBER LM0944935-0008				REV AC

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944935-0008		REV AC		
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0023A					U3 U18							
0024	00001.000	EA		0972653-0001	NETWORK, SN74LS293N							
0024A					U33							
0025	00003.000	EA		0972556-0001	NETWORK SN74367N	TI- -SN74367N						
0025A					U51 U53 U55							
0026	00001.000	EA		0972787-0003	NETWORK SN74LS367N							
0026A					U5							
0028	00001.000	EA		0974674-0001	NETWORK SN75138N							
0028A					U8							
0029	00001.000	EA		0972188-0001	NETWORK, NE555V, MONOLITHIC TIMING, LINEAR	ST -NE555V						
0029A					U11							
0030	00048.000	EA		0972659-0001	NETWORK, TMS4050NL							
0030A					A0U1 THRU A15U1, A0U2 THRU							
0030B					A15U2 A0U3 THRU A15U3							
0041	00003.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10 X 200 V	QPL -M39014/01-1369						
0041A					A21C3 A20C3 A19C3							
0047	00001.000	FA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING							
0047A					CR4							
0049	00009.000	EA		0972955-0001	XSTR 2N2369A, NPN, HIGH SPEED SW, TO-18	MDT - 2N2369A						
0049A					A21Q1 A21Q3 A21Q4							
DRAFTSMAN				DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, EXTN, 990/4, 24KB W/WRITE PROTECT			
APPD. MFG.				DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.			
								PART NUMBER LM0944935-0008				REV AC

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944935-0008		REV AC		
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0049B					A20Q1 A20Q3 A20Q4	TI -2N2894						
0049C					A19Q1 A19Q3 A19Q4							
0050	00003.000	EA		0236081-0000	X-XST 2N2894							
0050A					A21Q2 A20Q2 A19Q2							
0052	00006.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG							
0053	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PMB, 14IN							
0054	00001.000	EA		0944954-0001	INSULATOR, PMB, 14IN							
0055	00001.000	EA		0946707-0001	STIFFENER, PMB, 11 INCH							
0056	00001.000	EA		0946708-0001	INSULATOR, STIFFENER, PMB, 11 INCH							
0057	00000.050	FT		0535978-0058	WIRE ELEC., SOLID, "KYNAR" INSUL #30 AWG							
0060	00001.000	EA		0972688-0001	NETWORK SN74LS164N							
0060A					U17							
0061	00006.000	EA		0236369-0001	WASHER #2 NYLON FLAT BLK .090IDX.020 THK NPG	-101-BLK						
0063	00001.000	EA		0944935-5008	AUTO-INSERTION TAPE FOR 944935-8							
DRAFTSMAN				DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, EXTN, 990/4, 24KB W/WRITE PROTECT			
APPD. MFG.				DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.			
								PART NUMBER LM0944935-0008				REV AC



TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 04/18/79		PAGE 1 of		PART NUMBER LM0944935-0009		REV AC		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0002	PFF	EA		0944937-9901	LOGIC DIAGRAM-MEMORY EXTN, 990/4							
0003	REF	FA		0944938-9901	TEST PROCEDURE-MEMORY EXTN, 990/4							
0004	REF	EA		0944939-9901	SPECIFICATION-MEMORY EXTN, 990/4							
0005	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB							
0007	00001.000	EA		2210188-0001	SOCKET, LOW PROFILE, DIP, 3 CONT, 8 PINS	003612-DIL88P-108						
0008	00002.000	EA		2210188-0002	SOCKET, LOW PROFILE, DIP, 14 PINS	003612-DIL814P-108						
0009	00068.000	EA		2210188-0004	SOCKET, LOW PROFILE, DIP, 8 CONT, 18 PINS	003612-DIL818P-108						
0010	00001.000	EA		0972594-0001	SWITCH,ROCKER-PWB MOUNTED	023880-900124						
0010A					U37							
0012	00002.000	EA		0972900-7404	NETWORK SN74LS04N							
0012A					U14 U42							
0016	00001.000	EA		0222222-7440	NETWORK SN7440N	-SN7440N						
0016A					U41							
0018	00002.000	EA		0972900-7474	NETWORK SN74LS74N							
0018A					U50 U52							
0020	00001.000	EA		0972900-7138	NETWORK SN74LS138N	TI -SN74LS138N						
0020A					U48							
0022	00001.000	EA		0972159-7265	NETWORK, SN74265N							
0022A					U30							
0023	00002.000	EA		0972652-0001	NETWORK SN74LS283N							
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, EXTN, 990/4, 32KB W/WRITE PROTECT					
APPD. MFG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-0009		REV AC		

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 04/18/79		PAGE 2 of		PART NUMBER LM0944935-0009		REV AC		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0023A					U3 U18							
0024	00001.000	EA		0972653-0001	NETWORK, SN74LS293N							
0024A					U33							
0025	00004.000	EA		0972556-0001	NETWORK SN74367N	TI- -SN74367N						
0025A					U49 U51 U53 U55							
0026	00001.000	EA		0972787-0003	NETWORK SN74LS367N							
0026A					U5							
0028	00001.000	EA		0974674-0001	NETWORK SN75138N							
0028A					U8							
0029	00001.000	EA		0972188-0001	NETWORK, NE555V, MONOLITHIC TIMING, LINEAR	ST -NE555V						
0029A					U11							
0030	00064.000	EA		0972659-0001	NETWORK, TMS4050NL							
0030A					A0U1 THRU A15U1, A0U2 THRU							
0030B					A15U2, A0U3 THRU A15U3,							
0030C					A0U4 THRU A15U4							
0041	00004.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10 % 200 V	QPL -M39014/01-1369						
0041A					A21C3 A20C3 A19C3 A18C3							
0047	00001.000	EA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING							
0047A					CR4							
0049	00012.000	EA		0972955-0001	XSTR 2N2369A, NPN, HIGH SPEED SM, TO-18	MOT - 2N2369A						
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, EXTN, 990/4, 32KB W/WRITE PROTECT					
APPD. MFG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-0009		REV AC		

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 04/18/79		PAGE 3 of		PART NUMBER LM0944935-0009		REV AC		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0049A					A21Q1 A21Q3 A21Q4							
0049B					A20Q1 A20Q3 A20Q4							
0049C					A19Q1 A19Q3 A19Q4							
0049D					A18Q1 A18Q3 A18Q4							
0050	00004.000	EA		0236081-0000	X-XST 2N2894	TI -2N2894						
0050A					A21Q2 A20Q2 A19Q2 A18Q2							
0052	00006.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG							
0053	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN							
0054	00001.000	EA		0944954-0001	INSULATOR, PWB, 14IN							
0055	00001.000	EA		0946707-0001	STIFFENER, PWB, 11 INCH							
0056	00001.000	EA		0946708-0001	INSULATOR, STIFFENER, PWB, 11 INCH							
0057	00000.050	FT		0535978-0058	WIRE ELEC., SOLID, "KYNAR" INSUL #30 ANG							
0060	00001.000	EA		0972688-0001	NETWORK SN74LS164N							
0060A					U17							
0061	00006.000	EA		0236369-0001	WASHER #2 NYLON FLAT BLK .090IDX-.020 THK NPG	-101-BLK						
0063	00001.000	EA		0944935-5009	AUTO-INSERTION TAPE FOR 944935-9							
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, EXTN, 990/4, 32KB W/WRITE PROTECT					
APPD. MFG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-0009		REV AC		

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 04/18/79		PAGE 1 of		PART NUMBER LM0944935-0010		REV AC		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0002	REF	EA		0944937-9901	LOGIC DIAGRAM-MEMORY EXTN, 990/4							
0003	REF	EA		0944938-9901	TEST PROCEDURE-MEMORY EXTN, 990/4							
0004	REF	FA		0944939-9901	SPECIFICATION-MEMORY EXTN, 990/4							
0005	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB							
0007	00001.000	EA		2210188-0001	SOCKET, LOW PROFILE, DIP, 3 CONT, 8 PINS	003612-DIL88P-108						
0008	00002.000	EA		2210188-0002	SOCKET, LOW PROFILE, DIP, 14 PINS	003612-DIL814P-108						
0009	00085.000	EA		2210188-0004	SOCKET, LOW PROFILE, DIP, 8 CONT, 18 PINS	003612-DIL818P-108						
0010	00001.000	EA		0972594-0001	SWITCH,ROCKER-PWB MOUNTED	023880-900124						
0010A					U37							
0012	00002.000	EA		0972900-7404	NETWORK SN74LS04N							
0012A					U14 U42							
0016	00001.000	EA		0222222-7440	NETWORK SN7440N	-SN7440N						
0016A					U41							
0018	00002.000	EA		0972900-7474	NETWORK SN74LS74N							
0018A					U50 U52							
0020	00001.000	EA		0972900-7138	NETWORK SN74LS138N	TI -SN74LS138N						
0020A					U48							
0022	00001.000	EA		0972159-7265	NETWORK, SN74265N							
0022A					U30							
0023	00002.000	EA		0972652-0001	NETWORK SN74LS283N							
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, EXTN, 990/4, 40KB W/WRITE PROTECT					
APPD. MFG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-0010		REV AC		

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944935-0010		REV AC		
REV. ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0023A					U3 U18							
0024	00001.000	EA		0972653-0001	NETWORK, SN74LS293N							
0024A					U33							
0025	00005.000	EA		0972556-0001	NETWORK SN74367N	TI- -SN74367N						
0025A					U47 U49 U51 U53 U55							
0026	00001.000	EA		0972787-0003	NETWORK SN74LS367N							
0026A					U5							
0028	00001.000	EA		0974674-0001	NETWORK SN75138N							
0028A					U8							
0029	00001.000	EA		0972188-0001	NETWORK, NE555V, MONOLITHIC TIMING, LINEAR	ST -NE555V						
0029A					U11							
0030	00006.000	EA		0972659-0001	NETWORK, TMS4050NL							
0030A					A0U1 THRU A15U1, A0U2 THRU							
0030B					A15U2 A0U3 THRU A15U3, A0U4							
0030C					THRU A15U4 A0U5 THRU A15U5							
0041	00005.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10 X 200 V	QPL -M39014/01-1369						
0041A					AZ1C3 A20C3 A19C3 A18C3							
0041B					A17C3							
0047	00001.000	EA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING							
0047A					CR4							
DRAFTSMAN				DATE	CDR DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY, EXTN, 990/4, 40KB W/WRITE PROTECT		
APPRO. ENG.				DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	LM0944935-0010 AC		

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944935-0010		REV AC		
REV. ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0049	00015.000	EA		0972955-0001	XSTR 2N2369A, NPN, HIGH SPEED SW, TO-18	MOT - 2N2369A						
0049A					A21Q1 A21Q3 A21Q4							
0049B					A20Q1 A20Q3 A20Q4							
0049C					A19Q1 A19Q3 A19Q4							
0049D					A18Q1 A18Q3 A18Q4							
0049E					A17Q1 A17Q3 A17Q4							
0050	00005.000	EA		0236081-0000	X-XST 2N2894	TI -2N2894						
0050A					A21Q2 A20Q2 A19Q2 A18Q2							
0050B					A17Q2							
0052	00006.000	EA		0972684-0002	SCREW, THD FRNG, HEX WSHR HD, 2-56X1/4 LG							
0053	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PMB, 14IN							
0054	00001.000	EA		0944954-0001	INSULATOR, PMB, 14IN							
0055	00001.000	EA		0946707-0001	STIFFENER, PMB, 11 INCH							
0056	00001.000	EA		0946708-0001	INSULATOR, STIFFENER, PMB, 11 INCH							
0057	00000.050	FT		0535978-0058	WIRE ELEC., SOLID, "KYNAR" INSUL #30 AWG							
0060	00001.000	EA		0972688-0001	NETWORK SN74LS164N							
0060A					U17							
0061	00006.000	EA		0236369-0001	WASHER #2 NYLON FLAT BLK .09010X.020 THK	MPC -101-BLK						
0063	00001.000	EA		0944935-5010	AUTO-INSERTION TAPE FOR 944935-10							
DRAFTSMAN				DATE	CDR DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY, EXTN, 990/4, 40KB W/WRITE PROTECT		
APPRO. ENG.				DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	LM0944935-0010 AC		

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944935-0011		REV AC		
REV. ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0002	REF	EA		0944937-9901	LOGIC DIAGRAM-MEMORY EXTN, 990/4							
0003	REF	EA		0944938-9901	TEST PROCEDURE-MEMORY EXTN, 990/4							
0004	REF	EA		0944939-9901	SPECIFICATION-MEMORY EXTN, 990/4							
0005	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PMB							
0007	00001.000	EA		2210188-0001	SOCKET, LOW PROFILE, DIP, 3 CONT, 8 PINS	003612-DIL88P-108						
0008	00002.000	EA		2210188-0002	SOCKET, LOW PROFILE, DIP, 14 PINS	003612-DIL814P-108						
0009	00017.000	EA		2210188-0004	SOCKET, LOW PROFILE, DIP, 8 CONT, 18 PINS	003612-DIL818P-108						
0010	00001.000	EA		0972594-0001	SWITCH, ROCKER-PMB MOUNTED	023880-900124						
0010A					U37							
0012	00002.000	EA		0972900-7404	NETWORK SN74LS04N							
0012A					U14 U42							
0016	00001.000	EA		0222222-7440	NETWORK SN7440N	-SN7440N						
0016A					U41							
0018	00002.000	EA		0972900-7474	NETWORK SN74LS74N							
0018A					U50 U52							
0020	00001.000	EA		0972900-7138	NETWORK SN74LS138N	TI -SN74LS138N						
0020A					U48							
0022	00001.000	EA		0972159-7265	NETWORK, SN74265N							
0022A					U30							
0023	00002.000	EA		0972652-0001	NETWORK SN74LS283N							
DRAFTSMAN				DATE	CDR DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY, EXTN, 990/4, 8KB W/WRITE PRO & PAR		
APPRO. ENG.				DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	LM0944935-0011 AC		

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944935-0011		REV AC		
REV. ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0023A					U3 U18							
0024	00001.000	EA		0972653-0001	NETWORK, SN74LS293N							
0024A					U33							
0025	00001.000	EA		0972556-0001	NETWORK SN74367N	TI- -SN74367N						
0025A					U55							
0026	00001.000	EA		0972787-0003	NETWORK SN74LS367N							
0026A					U5							
0028	00001.000	EA		0974674-0001	NETWORK SN75138N							
0028A					U8							
0029	00001.000	EA		0972188-0001	NETWORK, NE555V, MONOLITHIC TIMING, LINEAR	ST -NE555V						
0029A					U11							
0030	00017.000	EA		0972659-0001	NETWORK, TMS4050NL							
0030A					A0U1 THRU A16U1							
0041	00001.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10 X 200 V	QPL -M39014/01-1369						
0041A					AZ1C3							
0047	00001.000	EA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING							
0047A					CR4							
0049	00003.000	EA		0972955-0001	XSTR 2N2369A, NPN, HIGH SPEED SW, TO-18	MOT - 2N2369A						
0049A					A21Q1 A21Q3 A21Q4							
0050	00001.000	EA		0236081-0000	X-XST 2N2894	TI -2N2894						
DRAFTSMAN				DATE	CDR DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY, EXTN, 990/4, 8KB W/WRITE PRO & PAR		
APPRO. ENG.				DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	LM0944935-0011 AC		

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944935-0011		REV AC	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0050A					A21Q2						
0052	00006.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG						
0053	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN						
0054	00001.000	EA		0944954-0001	INSULATOR, PWB, 14IN						
0055	00001.000	EA		0946707-0001	STIFFENER, PWB, 11 INCH						
0056	00001.000	EA		0946708-0001	INSULATOR, STIFFENER, PWB, 11 INCH						
0057	00000.050	FT		0535978-0058	WIRE ELEC., SOLID, "KYNAR" INSUL #30 AWG						
0060	00001.000	EA		0972688-0001	NETWORK SN74LS164N						
0060A					U17						
0061	00006.000	EA		0236369-0001	WASHER #2 NYLON FLAT BLK .090IDX.020 THK NPG -101-BLK						
0063	00001.000	EA		0944935-5011	AUTO-INSERTION TAPE FOR 944935-11						
0064	00002.000	EA		0222222-7180	NETWORK SN74180N						
0064A					U35 U39						
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY, EXTN, 990/4, 8KB W/WRITE PRO & PAR			
APPR. MFG.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-0011		REV AC	

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944935-0012		REV AC	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0002	REF	EA		0944937-9901	LOGIC DIAGRAM-MEMORY EXTN, 990/4						
0003	REF	EA		0944938-9901	TEST PROCEDURE-MEMORY EXTN, 990/4						
0004	REF	EA		0944939-9901	SPECIFICATION-MEMORY EXTN, 990/4						
0005	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB						
0007	00001.000	EA		2210188-0001	SOCKET, LOW PROFILE, DIP, 3 CONT, 8 PINS	003612-DIL88P-108					
0008	00002.000	EA		2210188-0002	SOCKET, LOW PROFILE, DIP, 14 PINS	003612-DIL814P-108					
0009	00034.000	EA		2210188-0004	SOCKET, LOW PROFILE, DIP, 8 CONT, 18 PINS	003612-DIL818P-108					
0010	00001.000	EA		0972594-0001	SWITCH, ROCKER-PWB MOUNTED	023880-900124					
0010A					U37						
0012	00002.000	EA		0972900-7404	NETWORK SN74LS04N						
0012A					U14 U42						
0016	00001.000	EA		0222222-7440	NETWORK SN7440N	-SN7440N					
0016A					U41						
0018	00002.000	EA		0972900-7474	NETWORK SN74LS74N						
0018A					U50 U52						
0020	00001.000	EA		0972900-7138	NETWORK SN74LS138N	TI -SN74LS138N					
0020A					U48						
0022	00001.000	EA		0972159-7265	NETWORK, SN74265N						
0022A					U30						
0023	00002.000	EA		0972652-0001	NETWORK SN74LS283N						
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY, EXTN, 990/4, 16KB W/WRITE PRO & PAR			
APPR. MFG.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-0012		REV AC	

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944935-0012		REV AC	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0023A					U3 U18						
0024	00001.000	EA		0972653-0001	NETWORK, SN74LS293N						
0024A					U33						
0025	00002.000	EA		0972556-0001	NETWORK SN74367N	TI- -SN74367N					
0025A					U53 U55						
0026	00001.000	EA		0972787-0003	NETWORK SN74LS367N						
0026A					U5						
0028	00001.000	EA		0974674-0001	NETWORK SN75138N						
0028A					U8						
0029	00001.000	EA		0972188-0001	NETWORK, NES555V, MONOLITHIC TIMING, LINEAR	ST -NE555V					
0029A					U11						
0030	00034.000	EA		0972659-0001	NETWORK, TMS4050NL						
0030A					A0U1 THRU A16U1						
0030B					A0U2 THRU A16U2						
0041	00002.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10 ± 200 V	QPL -M39014/01-1369					
0041A					A21C3 A20C3						
0047	00001.000	EA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING						
0047A					CR4						
0049	00006.000	EA		0972955-0001	XSTR 2N2369A, NPN, HIGH SPEED SW, TD-18	MOT - 2N2369A					
0049A					A21Q1 A21Q3 A21Q4						
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY, EXTN, 990/4, 16KB W/WRITE PRO & PAR			
APPR. MFG.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-0012		REV AC	

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944935-0012		REV AC	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0049B					A20Q1 A20Q3 A20Q4						
0050	00002.000	EA		0236081-0000	X-XST 2N2894	TI -2N2894					
0050A					A21Q2 A20Q2						
0052	00006.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG						
0053	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN						
0054	00001.000	EA		0944954-0001	INSULATOR, PWB, 14IN						
0055	00001.000	EA		0946707-0001	STIFFENER, PWB, 11 INCH						
0056	00001.000	EA		0946708-0001	INSULATOR, STIFFENER, PWB, 11 INCH						
0057	00000.050	FT		0535978-0058	WIRE ELEC., SOLID, "KYNAR" INSUL #30 AWG						
0060	00001.000	EA		0972688-0001	NETWORK SN74LS164N						
0060A					U17						
0061	00006.000	EA		0236369-0001	WASHER #2 NYLON FLAT BLK .090IDX.020 THK NPG -101-BLK						
0063	00001.000	EA		0944935-5012	AUTO-INSERTION TAPE FOR 944935-12						
0064	00002.000	EA		0222222-7180	NETWORK SN74180N						
0064A					U35 U39						
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY, EXTN, 990/4, 16KB W/WRITE PRO & PAR			
APPR. MFG.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-0012		REV AC	

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944935-0013		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0002	REF	EA		0944937-9901	LOGIC DIAGRAM-MEMORY EXTN, 990/4						
0003	REF	EA		0944938-9901	TEST PROCEDURE-MEMORY EXTN, 990/4						
0004	REF	EA		0944939-9901	SPECIFICATION-MEMORY EXTN, 990/4						
0005	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB						
0007	00001.000	EA		2210188-0001	SOCKET, LOW PROFILE, DIP, 3 CONT, 8 PINS	003612-DIL88P-108					
0008	00002.000	EA		2210188-0002	SOCKET, LOW PROFILE, DIP, 14 PINS	003612-DIL814P-108					
0009	00051.000	EA		2210188-0004	SOCKET, LOW PROFILE, DIP, 8 CONT, 18 PINS	003612-DIL818P-108					
0010	00001.000	EA		0972594-0001	SWITCH, ROCKER-PWB MOUNTED	023880-900124					
0010A					U37						
0012	00002.000	EA		0972900-7404	NETWORK SN74LS04N						
0012A					U14 U42						
0016	00001.000	EA		0222222-7440	NETWORK SN7440N	-SN7440N					
0016A					U41						
0018	00002.000	EA		0972900-7474	NETWORK SN74LS74N						
0018A					U50 U52						
0020	00001.000	EA		0972900-7138	NETWORK SN74LS138N	TI -SN74LS138N					
0020A					U48						
0022	00001.000	EA		0972159-7265	NETWORK, SN74265N						
0022A					U30						
0023	00002.000	EA		0972652-0001	NETWORK SN74LS283N						
DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY, EXTN, 990/4, 24KB W/WRITE PRO & PAR APPD. MFG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944935-0013 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944935-0013		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0023A					U3 U18						
0024	00001.000	EA		0972653-0001	NETWORK, SN74LS293N						
0024A					U33						
0025	00003.000	EA		0972556-0001	NETWORK SN74367N	TI- -SN74367N					
0025A					U51 U53 U55						
0026	00001.000	EA		0972787-0003	NETWORK SN74LS367N						
0026A					U5						
0028	00001.000	EA		0974674-0001	NETWORK SN75138N						
0028A					U8						
0029	00001.000	EA		0972188-0001	NETWORK, NE555V, MONOLITHIC TIMING, LINEAR	ST -NE555V					
0029A					U11						
0030	00051.000	EA		0972659-0001	NETWORK, TMS4050NL						
0030A					A0U1 THRU A16U1						
0030B					A0U2 THRU A16U2						
0030C					A0U3 THRU A16U3						
0041	00003.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10 X 200 V	QPL -M39014/01-1369					
0041A					A21C3 A20C3 A19C3						
0047	00001.000	EA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING						
0047A					CR4						
0049	00009.000	EA		0972955-0001	XSTR 2N2369A, NPN, HIGH SPEED SW, TO-18	MOT - 2N2369A					
DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY, EXTN, 990/4, 24KB W/WRITE PRO & PAR APPD. MFG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944935-0013 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944935-0013		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0049A					A21Q1 A21Q3 A21Q4						
0049B					A20Q1 A20Q3 A20Q4						
0049C					A19Q1 A19Q3 A19Q4						
0050	00003.000	EA		0236081-0000	X-KST 2N2894	TI -2N2894					
0050A					A21Q2 A20Q2 A19Q2						
0052	00006.000	EA		0972684-0002	SCREW, THD FPMG, HEX WSHR HD, 2-56X1/4 LG						
0053	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN						
0054	00001.000	EA		0944954-0001	INSULATOR, PWB, 14IN						
0055	00001.000	EA		0946707-0001	STIFFENER, PWB, 11 INCH						
0056	00001.000	EA		0946708-0001	INSULATOR, STIFFENER, PWB, 11 INCH						
0057	00000.050	FT		0535978-0058	WIRE ELEC., SOLID, "KYNAR" INSUL #30 AWG						
0060	00001.000	EA		0972688-0001	NETWORK SN74LS164N						
0060A					U17						
0061	00006.000	EA		0236369-0001	WASHER #2 NYLON FLAT BLK .090IDX.020 THK NPG	-101-BLK					
0063	00001.000	EA		0944935-5013	AUTO-INSERTION TAPE FOR 944935-13						
0064	00002.000	EA		0222222-7180	NETWORK SN74180N						
0064A					U35 U39						
DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY, EXTN, 990/4, 24KB W/WRITE PRO & PAR APPD. MFG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944935-0013 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944935-0014		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0002	REF	EA		0944937-9901	LOGIC DIAGRAM-MEMORY EXTN, 990/4						
0003	REF	EA		0944938-9901	TEST PROCEDURE-MEMORY EXTN, 990/4						
0004	REF	EA		0944939-9901	SPECIFICATION-MEMORY EXTN, 990/4						
0005	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB						
0007	00001.000	EA		2210188-0001	SOCKET, LOW PROFILE, DIP, 3 CONT, 8 PINS	003612-DIL88P-108					
0008	00002.000	EA		2210188-0002	SOCKET, LOW PROFILE, DIP, 14 PINS	003612-DIL814P-108					
0009	00068.000	EA		2210188-0004	SOCKET, LOW PROFILE, DIP, 8 CONT, 18 PINS	003612-DIL818P-108					
0010	00001.000	EA		0972594-0001	SWITCH, ROCKER-PWB MOUNTED	023880-900124					
0010A					U37						
0012	00002.000	EA		0972900-7404	NETWORK SN74LS04N						
0012A					U14 U42						
0016	00001.000	EA		0222222-7440	NETWORK SN7440N	-SN7440N					
0016A					U41						
0018	00002.000	EA		0972900-7474	NETWORK SN74LS74N						
0018A					U50 U52						
0020	00001.000	EA		0972900-7138	NETWORK SN74LS138N	TI -SN74LS138N					
0020A					U48						
0022	00001.000	EA		0972159-7265	NETWORK, SN74265N						
0022A					U30						
0023	00002.000	EA		0972652-0001	NETWORK SN74LS283N						
DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY, EXTN, 990/4, 32KB W/WRITE PRO & PAR APPD. MFG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944935-0014 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944935-0014		REV AC			
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER							
0023A					U3 U18								
0024	00001.000	EA		0972653-0001	NETWORK, SN74LS293N								
0024A					U33								
0025	00004.000	EA		0972556-0001	NETWORK SN74367N	TI- -SN74367N							
0025A					U49 U51 U53 U55								
0026	00001.000	EA		0972787-0003	NETWORK SN74LS367N								
0026A					U5								
0028	00001.000	EA		0974674-0001	NETWORK SN75138N								
0028A					U8								
0029	00001.000	EA		0972188-0001	NETWORK, NE555V, MONOLITHIC TIMING, LINEAR	ST -NE555V							
0029A					U11								
0030	00068.000	EA		0972659-0001	NETWORK, TMS4050NL								
0030A					A0U1 THRU A16U1								
0030B					A0U2 THRU A16U2								
0030C					A0U3 THRU A16U3								
0030D					A0U4 THRU A16U4								
0041	00004.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10 % 200 V	QPL -M39014/01-1369							
0041A					A21C3 A20C3 A19C3 A18C3								
0047	00001.000	EA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING								
0047A					CR4								
DRAFTSMAN		DATE	CHK. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, EXTN, 990/4, 32KB W/WRITE PRO & PAR						
APPRO. MFG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-0014					REV AC

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944935-0014		REV AC			
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER							
0049	00012.000	EA		0972955-0001	XSTR 2N2369A, NPN, HIGH SPEED SW, TO-18	MOT - 2N2369A							
0049A					A21Q1 A21Q3 A21Q4								
0049B					A20Q1 A20Q3 A20Q4								
0049C					A19Q1 A19Q3 A19Q4								
0049D					A18Q1 A18Q3 A18Q4								
0050	00004.000	EA		0236081-0000	X-XST 2N2894	TI -2N2894							
0050A					A21Q2 A20Q2 A19Q2 A18Q2								
0052	00006.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG								
0053	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN								
0054	00001.000	EA		0944954-0001	INSULATOR, PWB, 14IN								
0055	00001.000	EA		0946707-0001	STIFFENER, PWB, 11 INCH								
0056	00001.000	EA		0946708-0001	INSULATOR, STIFFENER, PWB, 11 INCH								
0057	00000.050	FT		0535978-0058	WIRE ELEC., SOLID, "KYNAR" INSUL #30 AWG								
0060	00001.000	EA		0972688-0001	NETWORK SN74LS164N								
0060A					U17								
0061	00006.000	EA		0236369-0001	WASHER #2 NYLON FLAT BLK .090IDX.020 THK NPG	-101-BLK							
0063	00001.000	EA		0944935-5014	AUTO-INSERTION TAPE FOR 944935-14								
0064	00002.000	EA		0222222-7180	NETWORK SN74180N								
0064A					U35 U39								
DRAFTSMAN		DATE	CHK. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, EXTN, 990/4, 32KB W/WRITE PRO & PAR						
APPRO. MFG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-0014					REV AC

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944935-0015		REV AC			
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER							
0002	REF	EA		0944937-9901	LOGIC DIAGRAM-MEMORY EXTN, 990/4								
0003	REF	EA		0944938-9901	TEST PROCEDURE-MEMORY EXTN, 990/4								
0004	REF	EA		0944939-9901	SPECIFICATION-MEMORY EXTN, 990/4								
0005	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB								
0007	00001.000	EA		2210188-0001	SOCKET, LOW PROFILE, DIP, 3 CONT, 8 PINS	003612-DIL88P-108							
0008	00002.000	FA		2210188-0002	SOCKET, LOW PROFILE, DIP, 14 PINS	003612-DIL814P-108							
0009	00085.000	EA		2210188-0004	SOCKET, LOW PROFILE, DIP, 8 CONT, 18 PINS	003612-DIL818P-108							
0010	00001.000	FA		0972594-0001	SWITCH, ROCKER-PWB MOUNTED	023880-900124							
0010A					U37								
0012	00002.000	EA		0972900-7404	NETWORK SN74LS04N								
0012A					U14 U42								
0016	00001.000	EA		0222222-7440	NETWORK SN7440N	-SN7440N							
0016A					U41								
0018	00002.000	EA		0972900-7474	NETWORK SN74LS74N								
0018A					U50 U52								
0020	00001.000	EA		0972900-7138	NETWORK SN74LS138N	TI -SN74LS138N							
0020A					U48								
0022	00001.000	EA		0972159-7265	NETWORK, SN74265N								
0022A					U30								
0023	00002.000	EA		0972652-0001	NETWORK SN74LS293N								
DRAFTSMAN		DATE	CHK. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, EXTN, 990/4, 40KB W/WRITE PRO & PAR						
APPRO. MFG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-0015					REV AC

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944935-0015		REV AC			
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER							
0023A					U3 U18								
0024	00001.000	EA		0972653-0001	NETWORK, SN74LS293N								
0024A					U33								
0025	00005.000	EA		0972556-0001	NETWORK SN74367N	TI- -SN74367N							
0025A					U47 U49 U51 U53 U55								
0026	00001.000	EA		0972787-0003	NETWORK SN74LS367N								
0026A					U5								
0028	00001.000	EA		0974674-0001	NETWORK SN75138N								
0028A					U8								
0029	00001.000	EA		0972188-0001	NETWORK, NE555V, MONOLITHIC TIMING, LINEAR	ST -NE555V							
0029A					U11								
0030	00085.000	EA		0972659-0001	NETWORK, TMS4050NL								
0030A					A0U1 THRU A16U1								
0030B					A0U2 THRU A16U2								
0030C					A0U3 THRU A16U3								
0030D					A0U4 THRU A16U4								
0030E					A0U5 THRU A16U5								
0041	00005.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10 % 200 V	QPL -M39014/01-1369							
0041A					A21C3 A20C3 A19C3 A18C3								
0041B					A17C3								
DRAFTSMAN		DATE	CHK. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, EXTN, 990/4, 40KB W/WRITE PRO & PAR						
APPRO. MFG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-0015					REV AC

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944935-0015		REV AC	
PRINT ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0047	0001.000	EA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING						
0047A					CR4						
0049	00015.000	EA		0972955-0001	XSTR 2N2369A, NPN, HIGH SPEED SW, TO-18	HOT - 2N2369A					
0049A					A21Q1 A21Q3 A21Q4						
0049B					A20Q1 A20Q3 A20Q4						
0049C					A19Q1 A19Q3 A19Q4						
0049D					A18Q1 A18Q3 A18Q4						
0049E					A17Q1 A17Q3 A17Q4						
0050	00005.000	EA		0236081-0000	X-XST 2N2894	TI -2N2894					
0050A					A21Q2 A20Q2 A19Q2 A18Q2						
0050B					A17Q2						
0052	00006.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG						
0053	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN						
0054	00001.000	EA		0944954-0001	INSULATOR, PWB, 14IN						
0055	00001.000	EA		0946707-0001	STIFFENER, PWB, 11 INCH						
0056	00001.000	EA		0946708-0001	INSULATOR, STIFFENER, PWB, 11 INCH						
0057	00000.050	FT		0535978-0058	WIRE ELEC., SOLID, "KYNAR" INSUL #30 AWG						
0060	00001.000	EA		0972688-0001	NETWORK SN74LS164N						
0060A					U17						
0061	00006.000	EA		0236369-0001	WASHER #2 NYLON FLAT BLK .090IDX.020 THK NPG	-101-BLK					
DRAFTSMAN: _____ DATE: _____ CDD: DRAFTSMAN: _____ DATE: _____ DESIGN ENGINEER: _____ DATE: _____ TITLE: _____ MEMORY, EXTN, 990/4, 40KB W/WRITE PRO & PAR APPD: MFC: _____ DATE: _____ APPD: PROJECT ENGINEER: _____ DATE: _____ RELEASED: _____ DATE: _____ PROJECT NO: _____ PART NUMBER: LM0944935-0015 REV: AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM0944935-0015		REV AC	
PRINT ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0063	00001.000	EA		0944935-5015	AUTO-INSERTION TAPE FOR 944935-15						
0064	00002.000	EA		0222222-7180	NETWORK SN74180N						
0064A					U35 U39						
DRAFTSMAN: _____ DATE: _____ CDD: DRAFTSMAN: _____ DATE: _____ DESIGN ENGINEER: _____ DATE: _____ TITLE: _____ MEMORY, EXTN, 990/4, 40KB W/WRITE PRO & PAR APPD: MFC: _____ DATE: _____ APPD: PROJECT ENGINEER: _____ DATE: _____ RELEASED: _____ DATE: _____ PROJECT NO: _____ PART NUMBER: LM0944935-0015 REV: AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944935-5001		REV AC	
PRINT ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	00001.000	EA		0944936-0001	PWB-MEMORY EXTN, 990/4						
0011	00002.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N					
0011A					U28 U29						
0012	00001.000	EA		0972900-7404	NETWORK SN74LS04N						
0012A					U21						
0013	00002.000	EA		0972749-0001	NETWORK, SN74LS08N						
0013A					U6 U44						
0014	00001.000	EA		0972900-7410	NETWORK SN74LS10N						
0014A					U7						
0015	00001.000	EA		0972788-0001	NETWORK, SN74LS11, POSITIVE AND GATE						
0015A					U27						
0017	00001.000	EA		0972900-7451	NETWORK SN74LS51N	TI -SN74LS51N					
0017A					U45						
0018	00005.000	EA		0972900-7474	NETWORK SN74LS74N						
0018A					U12 U22 U26 U43 U54						
0019	00001.000	EA		0222222-7125	NETWORK SN74125N						
0019A					U13						
0021	00002.000	EA		0972686-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157M						
0021A					U32 U34						
0023	00002.000	EA		0972652-0001	NETWORK SN74LS283N						
DRAFTSMAN: _____ DATE: _____ CDD: DRAFTSMAN: _____ DATE: _____ DESIGN ENGINEER: _____ DATE: _____ TITLE: _____ AUTO-INSERTION TAPE FOR 944935-1 APPD: MFC: _____ DATE: _____ APPD: PROJECT ENGINEER: _____ DATE: _____ RELEASED: _____ DATE: _____ PROJECT NO: _____ PART NUMBER: LM0944935-5001 REV: AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944935-5001		REV AC	
PRINT ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0023A					U23 U38						
0024	00001.000	EA		0972653-0001	NETWORK, SN74LS293N						
0024A					U19						
0026	00005.000	EA		0972787-0003	NETWORK SN74LS367N						
0026A					U9 U10 U20 U24 U25						
0027	00001.000	EA		0972787-0006	NETWORK SN74LS368N						
0027A					U46						
0031	00002.000	EA		0972141-0057	NETWORK, RES. 4.7 K OHM 2 X 14 PIN DIP	BEC - 899-1-R4.7K					
0031A					U36 U40						
0032	00001.000	EA		0972946-0017	RES FIX 10.0 OHM 5 X .25 W CARBON FILM	ROH - R-25					
0032A					A21R6						
0033	00001.000	EA		0972946-0029	RES FIX 33.0 OHM 5 X .25 W CARBON FILM	ROH - R-25					
0033A					R12						
0034	00001.000	EA		0972946-0055	RES FIX 390 OHM 5 X .25 W CARBON FILM	ROH - R-25					
0034A					R14						
0035	00002.000	EA		0972946-0065	RES FIX 1.0K OHM 5 X .25 W CARBON FILM	ROH - R-25					
0035A					A21R4 A21R8						
0036	00002.000	EA		0972946-0067	RES FIX 1.2K OHM 5 X .25 W CARBON FILM	ROH - R-25					
0036A					R9 R10						
0037	00001.000	EA		0972946-0075	RES FIX 2.7K OHM 5 X .25 W CARBON FILM	ROH - R-25					
DRAFTSMAN: _____ DATE: _____ CDD: DRAFTSMAN: _____ DATE: _____ DESIGN ENGINEER: _____ DATE: _____ TITLE: _____ AUTO-INSERTION TAPE FOR 944935-1 APPD: MFC: _____ DATE: _____ APPD: PROJECT ENGINEER: _____ DATE: _____ RELEASED: _____ DATE: _____ PROJECT NO: _____ PART NUMBER: LM0944935-5001 REV: AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944935-5001		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0037A					A21R5						
0038	00004.000	EA		0972946-0081	RES FIX 4.7K OHM 5 % .25 W CARBON FILM	ROH - R-25					
0038A					R11 R13 R15 P16						
0039	00002.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	ROH - R-25					
0039A					A21R1 A21R7						
0040	00002.000	EA		0972946-0112	RES FIX 91 K OHM 5 % .25 W CARBON FILM	ROH - R-25					
0040A					A21R2 A21R3						
0042	00002.000	EA		0972757-0001	CAP, FIXED CERAMIC 100 PF 10% 50V	UC -C51C101K					
0042A					A21C1 A21C2						
0043	00001.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V						
0043A					C111						
0044	00030.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80%, -20%						
0044A					C12 C13 C14 C32 THRU C55						
0044B					C59 C62 C67						
0045	00010.000	EA		0972763-0032	CAP FIXED .39 UF 50 VOLTS	UC -C53C394Z					
0045A					C88 THRU C93 C106 THRU C109						
0046	00008.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10 % 15 VOL	QPL -M39003/1-2271					
0046A					C16 THRU C20, C25, C31, A21C21						
0048	00003.000	EA		0972932-0001	DIODE, IN914B SWITCHING 75V PIV 75MA 4NS	TI - IN914B					
0048A					A21CR1 A21CR2 A21CR3						
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-1											
APPD. MFG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV AC LM0944935-5001 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM0944935-5001		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0059	00001.000	EA		0972900-7430	NETWORK SN74LS30N	TI -SN74LS30N					
0059A					U15						
0062	00002.000	EA		0972784-0002	NETWORK SN74LS14N						
0062A					U4 U31						
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-1											
APPD. MFG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV AC LM0944935-5001 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944935-5002		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	00001.000	EA		0944936-0001	PWB-MEMORY EXTN, 990/4						
0011	00002.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N					
0011A					U28 U29						
0012	00001.000	EA		0972900-7404	NETWORK SN74LS04N						
0012A					U21						
0013	00002.000	EA		0972749-0001	NETWORK, SN74LS08N						
0013A					U6 U44						
0014	00001.000	EA		0972900-7410	NETWORK SN74LS10N						
0014A					U7						
0015	00001.000	EA		0972788-0001	NETWORK, SN74LS11, POSITIVE AND GATE						
0015A					U27						
0017	00001.000	EA		0972900-7451	NETWORK SN74LS51N	TI -SN74LS51N					
0017A					U45						
0018	00005.000	EA		0972900-7474	NETWORK SN74LS74N						
0018A					U12 U22 U26 U43 U54						
0019	00001.000	EA		0222222-7125	NETWORK SN74125N						
0019A					U13						
0021	00002.000	EA		0972686-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N						
0021A					U32 U34						
0023	00002.000	EA		0972652-0001	NETWORK SN74LS283N						
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-2											
APPD. MFG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV AC LM0944935-5002 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944935-5002		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0023A					U23 U38						
0024	00001.000	EA		0972653-0001	NETWORK, SN74LS293N						
0024A					U19						
0026	00005.000	EA		0972787-0003	NETWORK SN74LS367N						
0026A					U9 U10 U20 U24 U25						
0027	00001.000	EA		0972787-0004	NETWORK SN74LS368N						
0027A					U46						
0031	00002.000	EA		0972141-0057	NETWORK, RES. 4.7 K OHM 2 % 14 PIN DIP	BEC - 899-1-R4.7K					
0031A					U36 U40						
0032	00002.000	EA		0972946-0017	RES FIX 10.0 OHM 5 % .25 W CARBON FILM	ROH - R-25					
0032A					A21R6 A20R6						
0033	00001.000	EA		0972946-0029	RES FIX 33.0 OHM 5 % .25 W CARBON FILM	ROH - R-25					
0033A					R12						
0034	00001.000	EA		0972946-0055	RES FIX 390 OHM 5 % .25 W CARBON FILM	ROH - R-25					
0034A					R14						
0035	00004.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH - R-25					
0035A					A21P4 A21R8 A20R4 A20R8						
0036	00002.000	EA		0972946-0067	RES FIX 1.2K OHM 5% .25 W CARBON FILM	ROH - R-25					
0036A					R9 R10						
0037	00002.000	EA		0972946-0075	RES FIX 2.7K OHM 5 % .25 W CARBON FILM	ROH - R-25					
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-2											
APPD. MFG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV AC LM0944935-5002 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944935-5002		REV AC	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0037A					A21R5 A20R5						
0038	00004.000	EA		0972946-0081	RES FIX 4.7K OHM 5% .25 W CARBON FILM	ROH - R-25					
0038A					R11 R13 R15 R16						
0039	00004.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	ROH - R-25					
0039A					A21R1 A21R7 A20R1 A20R7						
0040	00004.000	EA		0972946-0112	RES FIX 91 K OHM 5% .25 W CARBON FILM	ROH - R-25					
0040A					A21R2 A21R3 A20R2 A20R3						
0042	00004.000	EA		0972757-0001	CAP, FIXED CERAMIC 100 PF 10% 50V	UC -C51C101K					
0042A					A21C1 A21C2 A20C1 A20C2						
0043	00001.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V						
0043A					C111						
0044	00033.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80%, -20%						
0044A					C12 C13 C14 C32 THRU C55						
0044B					C59 C62 C67 C58 C61 C66						
0045	00018.000	EA		0972763-0032	CAP FIXED .39 UF 50 VOLTS	UC -C53C394Z					
0045A					C83 THRU C93 C103 THRU C109						
0046	00010.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10% 15 VOLT	QPL -M39003/1-2271					
0046A					C16 THRU C20, C25, C31, A21C21						
0046B					C30 A20C21						
0048	00006.000	EA		0972932-0001	DIODE, 1N914B SWITCHING 75V PIV 75MA 4NS	TI - IN914B					
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-2 APPD. MFG DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944935-5002 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM0944935-5002		REV AC	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0048A					A21C1 A21C2 A21C3						
0048B					A20C1 A20C2 A20C3						
0059	00001.000	EA		0972900-7430	NETWORK SN74LS30N	TI -SN74LS30N					
0059A					U15						
0062	00002.000	EA		0972784-0002	NETWORK SN74LS14N						
0062A					U4 U31						
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-2 APPD. MFG DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944935-5002 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944935-5003		REV AC	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	00001.000	EA		0944936-0001	PMB-MEMORY EXTN, 990/4						
0011	00002.000	FA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N					
0011A					U28 U29						
0012	00001.000	EA		0972900-7404	NETWORK SN74LS04N						
0012A					U21						
0013	00002.000	FA		0972749-0001	NETWORK, SN74LS08N						
0013A					U6 U44						
0014	00001.000	EA		0972900-7410	NETWORK SN74LS10N						
0014A					U7						
0015	00001.000	FA		0972788-0001	NETWORK, SN74LS11, POSITIVE AND GATE						
0015A					U27						
0017	00001.000	EA		0972900-7451	NETWORK SN74LS51N	TI -SN74LS51N					
0017A					U45						
0018	00005.000	EA		0972900-7474	NETWORK SN74LS74N						
0018A					U12 U22 U26 U43 U54						
0019	00001.000	EA		0222222-7125	NETWORK SN74125N						
0019A					U13						
0021	00002.000	EA		0972686-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N						
0021A					U32 U34						
0023	00002.000	EA		0972652-0001	NETWORK SN74LS283N						
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-3 APPD. MFG DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944935-5003 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944935-5003		REV AC	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0023A					U23 U38						
0024	00001.000	EA		0972653-0001	NETWORK, SN74LS293N						
0024A					U19						
0026	00005.000	EA		0972787-0003	NETWORK SN74LS367N						
0026A					U9 U10 U20 U24 U25						
0027	00001.000	EA		0972787-0004	NETWORK SN74LS368N						
0027A					U46						
0031	00002.000	EA		0972141-0057	NETWORK, RES. 4.7 K OHM 2% 14 PIN DIP	BEC - 899-1-R4.7K					
0031A					U36 U40						
0032	00003.000	EA		0972946-0017	RES FIX 10.0 OHM 5% .25 W CARBON FILM	ROH - R-25					
0032A					A21R6 A20R6 A19R6						
0033	00001.000	EA		0972946-0029	RES FIX 33.0 OHM 5% .25 W CARBON FILM	ROH - R-25					
0033A					R12						
0034	00001.000	EA		0972946-0055	RES FIX 390 OHM 5% .25 W CARBON FILM	ROH - R-25					
0034A					R14						
0035	00006.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH - R-25					
0035A					A21R4 A21R8 A20R4 A20R8						
0035B					A19R4 A19R8						
0036	00002.000	EA		0972946-0067	RES FIX 1.2K OHM 5% .25 W CARBON FILM	ROH - R-25					
0036A					R9 R10						
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-3 APPD. MFG DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944935-5003 AC											



TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944935-5003		REV AC		
DATE 04/18/79		DATE 04/18/79		DATE 04/18/79		DATE 04/18/79		DATE 04/18/79		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0037	00003.000	EA		0972946-0075	RES FIX 2.7K OHM 5% .25 W CARBON FILM	ROH - R-25				
0037A					A21R5 A20R5 A19R5					
0038	00004.000	EA		0972946-0081	RES FIX 4.7K OHM 5% .25 W CARBON FILM	ROH - R-25				
0038A					R11 R13 R15 R16					
0039	00006.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	ROH - R-25				
0039A					A21R1 A21R7 A20R1 A20R7					
0039B					A19R1 A19R7					
0040	00006.000	EA		0972946-0112	RES FIX 91 K OHM 5% .25 W CARBON FILM	ROH - R-25				
0040A					A21R2 A21R3 A20R2 A20R3					
0040B					A19R2 A19R3					
0042	00006.000	EA		0972757-0001	CAP, FIXED CERAMIC 100 PF 10% 50V	UC -C51C101K				
0042A					A21C1 A21C2 A20C1 A20C2					
0042B					A19C1 A19C2					
0043	00001.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V					
0043A					C111					
0044	00036.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80%, -20%					
0044A					C12 C13 C14 C32 THRU C55					
0044B					C57 C58 THRU C62 C65 C66					
0044C					C67					
0045	00026.000	EA		0972763-0032	CAP FIXED .39 UF 50 VOLTS	UC -C53C394Z				
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE			
					AUTO-INSERTION TAPE FOR 944935-3					
APP'D. MFG.		DATE	APP'D. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER		REV
								LM0944935-5003		AC

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM0944935-5003		REV AC		
DATE 04/18/79		DATE 04/18/79		DATE 04/18/79		DATE 04/18/79		DATE 04/18/79		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0045A					C78 THRU C93 C100 THRU C109					
0046	00012.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10% 15 VOLT	QPL -M39003/1-2271				
0046A					C16 THRU C20, C25, C31, A21C21					
0046B					C30 A20C21 C29 A19C21					
0048	00009.000	EA		0972932-0001	DIODE, 1N914B SWITCHING 75V PIV 75MA 4NS	TI - IN914B				
0048A					A21CR1 A21CR2 A21CR3					
0048B					A20CR1 A20CR2 A20CR3					
0048C					A19CR1 A19CR2 A19CR3					
0059	00001.000	EA		0972900-7430	NETWORK SN74LS30N	TI -SN74LS30N				
0059A					U15					
0062	00002.000	EA		0972784-0002	NETWORK SN74LS14N					
0062A					U4 U31					
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE			
					AUTO-INSERTION TAPE FOR 944935-3					
APP'D. MFG.		DATE	APP'D. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER		REV
								LM0944935-5003		AC

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944935-5004		REV AC		
DATE 04/18/79		DATE 04/18/79		DATE 04/18/79		DATE 04/18/79		DATE 04/18/79		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0001	00001.000	EA		0944936-0001	PWB-MEMORY EXTN, 990/4					
0011	00002.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N				
0011A					U28 U29					
0012	00001.000	EA		0972900-7404	NETWORK SN74LS04N					
0012A					U21					
0013	00002.000	EA		0972749-0001	NETWORK, SN74LS08N					
0013A					U6 U44					
0014	00001.000	EA		0972900-7410	NETWORK SN74LS10N					
0014A					U7					
0015	00001.000	EA		0972788-0001	NETWORK, SN74LS11, POSITIVE AND GATE					
0015A					U27					
0017	00001.000	EA		0972900-7451	NETWORK SN74LS51N	TI -SN74LS51N				
0017A					U45					
0018	00005.000	EA		0972900-7474	NETWORK SN74LS74N					
0018A					U12 U22 U26 U43 U54					
0019	00001.000	EA		0222222-7125	NETWORK SN74125N					
0019A					U13					
0021	00002.000	EA		0972686-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N					
0021A					U32 U34					
0023	00002.000	EA		0972652-0001	NETWORK SN74LS283N					
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE			
					AUTO-INSERTION TAPE FOR 944935-4					
APP'D. MFG.		DATE	APP'D. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER		REV
								LM0944935-5004		AC

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944935-5004		REV AC		
DATE 04/18/79		DATE 04/18/79		DATE 04/18/79		DATE 04/18/79		DATE 04/18/79		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0023A					U23 U38					
0024	00001.000	EA		0972653-0001	NETWORK, SN74LS293H					
0024A					U19					
0026	00005.000	EA		0972787-0003	NETWORK SN74LS367N					
0026A					U9 U10 U20 U24 U25					
0027	00001.000	EA		0972787-0004	NETWORK SN74LS368N					
0027A					U46					
0031	00002.000	EA		0972141-0057	NETWORK, RES. 4.7 K OHM 2% 14 PIN DIP	BEC - 899-1-R4.7K				
0031A					U36 U40					
0032	00004.000	EA		0972946-0017	RES FIX 10.0 OHM 5% .25 W CARBON FILM	ROH - R-25				
0032A					A21R6 A20R6 A19R6 A18R6					
0033	00001.000	EA		0972946-0029	RES FIX 33.0 OHM 5% .25 W CARBON FILM	ROH - R-25				
0033A					R12					
0034	00001.000	EA		0972946-0055	RES FIX 390 OHM 5% .25 W CARBON FILM	ROH - R-25				
0034A					R14					
0035	00008.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH - R-25				
0035A					A21R4 A21R8 A20R4 A20R8					
0035B					A19R4 A19R8 A18R4 A18R8					
0036	00002.000	EA		0972946-0067	RES FIX 1.2K OHM 5% .25 W CARBON FILM	ROH - R-25				
0036A					R9 R10					
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE			
					AUTO-INSERTION TAPE FOR 944935-4					
APP'D. MFG.		DATE	APP'D. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER		REV
								LM0944935-5004		AC

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944935-5004		REV AC		
PART NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0037	00004.000	EA		0972946-0075	RES FIX 2.7K OHM 5% .25 W CARBON FILM	ROH - R-25						
0037A					A21P5 A20P5 A19P5 A18P5							
0038	00004.000	EA		0972946-0081	RES FIX 4.7K OHM 5% .25 W CARBON FILM	ROH - R-25						
0038A					R11 R13 R15 R16							
0039	00008.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	ROH - R-25						
0039A					A21R1 A21R7 A20R1 A20R7							
0039B					A19P1 A19P7 A18P1 A18P7							
0040	00008.000	EA		0972946-0112	RES FIX 91 K OHM 5% .25 W CARBON FILM	ROH - R-25						
0040A					A21R2 A21F3 A20F2 A20R3							
0040B					A19R2 A19R3 A18R2 A18R3							
0042	00008.000	EA		0972757-0001	CAP, FIXED CERAMIC 100 PF 10% 50V	UC -C51C101K						
0042A					A21C1 A21C2 A20C1 A20C2							
0042B					A18C1 A18C2 A19C1 A19C2							
0043	00001.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V							
0043A					C111							
0044	00039.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80%, -20%							
0044A					C12 C13 C14 C32 THRU C62							
0044B					C64 THRU C67 C110							
0045	00034.000	EA		0972763-0032	CAP FIXED .39 UF 50 VOLTS	UC -C53C394Z						
0045A					C73 THRU C93 C97 THRU C109							
DRAFTSMAN		DATE	CED DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	AUTO-INSERTION TAPE FOR 944935-4				
APPROVING		DATE	APPROVING PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-5004				

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM0944935-5004		REV AC		
PART NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0046	00014.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10% 15 VOLT	QPL -M39003/1-2271						
0046A					C16 THRU C20, C25, C31, A21C21							
0046B					C30 A20C21 C29 A19C21							
0046C					C28 A18C21							
0048	00012.000	EA		0972932-0001	DIODE, 1N914B SWITCHING 75V PIV 75MA 4MS	TI - IN914B						
0048A					A21CR1 A21CR2 A21CR3							
0048B					A20CR1 A20CR2 A20CR3							
0048C					A19CR1 A19CR2 A19CR3							
0048D					A18CR1 A18CR2 A18CR3							
0059	00001.000	EA		0972900-7430	NETWORK SN74LS30N	TI -SN74LS30N						
0059A					U15							
0062	00002.000	EA		0972784-0002	NETWORK SN74LS14N							
0062A					U4 U31							
DRAFTSMAN		DATE	CED DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	AUTO-INSERTION TAPE FOR 944935-4				
APPROVING		DATE	APPROVING PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-5004				

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944935-5005		REV AC		
PART NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0001	00001.000	EA		0944936-0001	PWB-MEMORY EXTN, 990/4							
0011	00002.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N						
0011A					U28 U29							
0012	00001.000	EA		0972900-7404	NETWORK SN74LS04N							
0012A					U21							
0013	00002.000	EA		0972749-0001	NETWORK, SN74LS08N							
0013A					U6 U44							
0014	00001.000	EA		0972900-7410	NETWORK SN74LS10N							
0014A					U7							
0015	00001.000	EA		0972788-0001	NETWORK, SN74LS11, POSITIVE AND GATE							
0015A					U27							
0017	00001.000	EA		0972900-7451	NETWORK SN74LS51N	TI -SN74LS51N						
0017A					U45							
0018	00005.000	EA		0972900-7474	NETWORK SN74LS74N							
0018A					U12 U22 U26 U43 U54							
0019	00001.000	EA		0222222-7125	NETWORK SN74125N							
0019A					U13							
0021	00002.000	EA		0972686-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N							
0021A					U32 U34							
0023	00002.000	EA		0972652-0001	NETWORK SN74LS283N							
DRAFTSMAN		DATE	CED DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	AUTO-INSERTION TAPE FOR 944935-5				
APPROVING		DATE	APPROVING PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-5005				

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944935-5005		REV AC		
PART NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0023A					U23 U38							
0024	00001.000	EA		0972653-0001	NETWORK, SN74LS293N							
0024A					U19							
0026	00005.000	EA		0972787-0003	NETWORK SN74LS367N							
0026A					U9 U10 U20 U24 U25							
0027	00001.000	EA		0972787-0004	NETWORK SN74LS368N							
0027A					U46							
0031	00002.000	EA		0972141-0057	NETWORK, RES. 4.7 K OHM 2% 14 PIN DIP	BEC - 899-1-R4.7K						
0031A					U36 U40							
0032	00005.000	EA		0972946-0017	RES FIX 10.0 OHM 5% .25 W CARBON FILM	ROH - R-25						
0032A					A21R6 A20R6 A19R6 A18R6							
0032B					A17R6							
0033	00001.000	EA		0972946-0029	RES FIX 33.0 OHM 5% .25 W CARBON FILM	ROH - R-25						
0033A					R12							
0034	00001.000	EA		0972946-0055	RES FIX 390 OHM 5% .25 W CARBON FILM	ROH - R-25						
0034A					R14							
0035	00010.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH - R-25						
0035A					A21R4 A21R8 A20R4 A20R8							
0035B					A19R4 A19R8 A18R4 A18R8							
0035C					A17R4 A17R8							
DRAFTSMAN		DATE	CED DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	AUTO-INSERTION TAPE FOR 944935-5				
APPROVING		DATE	APPROVING PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-5005				

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944935-5005		REV AC	
PRINT ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0036	00002.000	EA		0972946-0067	RES FIX 1.2K OHM 5% .25 W CARBON FILM R9 R10	ROH - R-25					
0037	00005.000	EA		0972946-0075	RES FIX 2.7K OHM 5% .25 W CARBON FILM A21R5 A20R5 A19R5 A18R5 A17R5	ROH - R-25					
0038	00004.000	EA		0972946-0081	RES FIX 4.7K OHM 5% .25 W CARBON FILM R11 R13 R15 R16	ROH - R-25					
0039	00010.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM A21R1 A21R7 A20R1 A20R7 A19R1 A19R7 A18R1 A18R7 A17R1 A17R7	ROH - R-25					
0040	00010.000	EA		0972946-0112	RES FIX 91 K OHM 5% .25 W CARBON FILM A21R2 A21R3 A20R2 A20R3 A19R2 A19R3 A18R2 A18R3 A17R2 A17R3	ROH - R-25					
0042	00010.000	EA		0972757-0001	CAP, FIXED CERAMIC 100 PF 10% 50V	UC -C51C101K					
0042A					A21C1 A21C2 A20C1 A20C2						
0042B					A19C1 A19C2 A18C1 A18C2						
0042C					A17C1 A17C2						
0043	00001.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V						
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE											
APPRO. MFG. DATE APPL. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO.											
AUTO-INSERTION TAPE FOR 944935-5											
PART NUMBER LM0944935-5005											
REV AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM0944935-5005		REV AC	
PRINT ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0043A					C111						
0044	00040.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80%, -20%						
0044A					C32 THRU C67 C110 C12 C13						
0044B					C14						
0045	00042.000	EA		0972763-0032	CAP FIXED .39 UF 50 VOLTS	UC -C53C394Z					
0045A					C68 THRU C93 C94 THRU C109						
0046	00016.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10% 15 VOLT	QPL -M39003/1-2271					
0046A					C16 THRU C20, C25, C31, A21C21						
0046B					C30 A20C21 C29 A19C21						
0046C					C28 A18C21 C27 A17C21						
0048	00015.000	EA		0972932-0001	DIODE, 1N914B SWITCHING 75V PIV 75MA 4MS	TI - IN914B					
0048A					A21CR1 A21CR2 A21CR3						
0048B					A20CR1 A20CR2 A20CR3						
0048C					A19CR1 A19CR2 A19CR3						
0048D					A18CR1 A18CR2 A18CR3						
0048E					A17CR1 A17CR2 A17CR3						
0059	00001.000	EA		0972900-7430	NETWORK SN74LS30N	TI - SN74LS30N					
0059A					U15						
0062	00002.000	EA		0972784-0002	NETWORK SN74LS14N						
0062A					U4 U31						
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE											
APPRO. MFG. DATE APPL. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO.											
AUTO-INSERTION TAPE FOR 944935-5											
PART NUMBER LM0944935-5005											
REV AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944935-5006		REV AC	
PRINT ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	00001.000	EA		0944936-0001	PWB-MEMORY EXTN, 990/4						
0011	00002.000	EA		0972900-7400	NETWORK SN74LS00N	TI - SN74LS00N					
0011A					U28 U29						
0012	00001.000	EA		0972900-7404	NETWORK SN74LS04N						
0012A					U21						
0013	00002.000	EA		0972749-0001	NETWORK, SN74LS08N						
0013A					U6 U44						
0014	00001.000	EA		0972900-7410	NETWORK SN74LS10N						
0014A					U7						
0015	00001.000	EA		0972788-0001	NETWORK, SN74LS11, POSITIVE AND GATE						
0015A					U27						
0017	00001.000	EA		0972900-7451	NETWORK SN74LS51N	TI - SN74LS51N					
0017A					U45						
0018	00005.000	EA		0972900-7474	NETWORK SN74LS74N						
0018A					U12 U22 U26 U43 U54						
0019	00001.000	EA		0222222-7125	NETWORK SN74LS125N						
0019A					U13						
0021	00002.000	EA		0972686-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N						
0021A					U32 U34						
0023	00004.000	EA		0972652-0001	NETWORK SN74LS203N						
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE											
APPRO. MFG. DATE APPL. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO.											
AUTO-INSERTION TAPE FOR 944935-6											
PART NUMBER LM0944935-5006											
REV AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944935-5006		REV AC	
PRINT ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0023A					U1 U16 U23 U38						
0024	00001.000	EA		0972653-0001	NETWORK, SN74LS293N						
0024A					U19						
0026	00005.000	EA		0972787-0003	NETWORK SN74LS367N						
0026A					U9 U10 U20 U24 U25						
0027	00001.000	EA		0972787-0004	NETWORK SN74LS368N						
0027A					U46						
0031	00002.000	EA		0972141-0057	NETWORK, RES. 4.7 K OHM 2% 14 PIN DIP	BEC - 899-1-R4.7K					
0031A					U36 U40						
0032	00001.000	EA		0972946-0017	RES FIX 10.0 OHM 5% .25 W CARBON FILM	ROH - R-25					
0032A					A21R6						
0033	00001.000	EA		0972946-0029	RES FIX 33.0 OHM 5% .25 W CARBON FILM	ROH - R-25					
0033A					R12						
0034	00001.000	EA		0972946-0055	RES FIX 390 OHM 5% .25 W CARBON FILM	ROH - R-25					
0034A					R14						
0035	00002.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH - R-25					
0035A					A21R4 A21R8						
0036	00002.000	EA		0972946-0067	RES FIX 1.2K OHM 5% .25 W CARBON FILM	ROH - R-25					
0036A					R9 R10						
0037	00001.000	EA		0972946-0075	RES FIX 2.7K OHM 5% .25 W CARBON FILM	ROH - R-25					
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE											
APPRO. MFG. DATE APPL. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO.											
AUTO-INSERTION TAPE FOR 944935-6											
PART NUMBER LM0944935-5006											
REV AC											

TEXAS INSTRUMENTS INCORPORATED DATE 04/18/79 LIST OF MATERIAL PAGE 3 of PART NUMBER LM0944935-5006 REV AC

ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0037A					A21R5	
0038	00003.000	EA		0972946-0081	RES FIX 4.7K OHM 5 % .25 W CARBON FILM	ROH - R-25
0038A					R11 R13 R15	
0039	00002.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	ROH - R-25
0039A					A21R1 A21R7	
0040	00002.000	EA		0972946-0112	RES FIX 91 K OHM 5 % .25 W CARBON FILM	ROH - R-25
0040A					A21R2 A21R3	
0042	00002.000	EA		0972757-0001	CAP, FIXED CERAMIC 100 PF 10% 50V	UC -C51C101K
0042A					A21C1 A21C2	
0043	00001.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V	
0043A					C111	
0044	00030.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80%, -20%	
0044A					C12 C13 C14 C32 THRU C55	
0044B					C59 C62 C67	
0045	00010.000	EA		0972763-0032	CAP FIXED .39 UF 50 VOLTS	UC -C59C394E
0045A					C08 THRU C93 C106 THRU C109	
0046	00008.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10 % 15 VOLT	QPL -H39002/1-2271
0046A					C16 THRU C20, C25, C31, A21C21	
0048	00003.000	EA		0972932-0001	DIODE, 1N914B SWITCHING 75V PIV 75MA 4MS	TI - 1N914B
0048A					A21CR1 A21CR2 A21CR3	
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-6						
APP'D. MFG. DATE APP'D. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM0944935-5006 REV AC						

TEXAS INSTRUMENTS INCORPORATED DATE 04/18/79 LIST OF MATERIAL PAGE 4 of PART NUMBER LM0944935-5006 REV AC

ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0059	00001.000	EA		0972900-7430	NETWORK SN74LS30N	TI -SN74LS30N
0059A					U15	
0060	00001.000	EA		0972688-0001	NETWORK SN74LS164N	
0060A					U2	
0062	00002.000	EA		0972784-0002	NETWORK SN74LS14N	
0062A					U4 U31	
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-6						
APP'D. MFG. DATE APP'D. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM0944935-5006 REV AC						

TEXAS INSTRUMENTS INCORPORATED DATE 04/18/79 LIST OF MATERIAL PAGE 1 of PART NUMBER LM0944935-5007 REV AC

ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0001	00001.000	EA		0944936-0001	PWB-MEMORY EXTN, 990/4	
0011	00002.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N
0011A					U28 U29	
0012	00001.000	EA		0972900-7404	NETWORK SN74LS04N	
0012A					U21	
0013	00002.000	EA		0972749-0001	NETWORK, SN74LS08N	
0013A					U6 U44	
0014	00001.000	EA		0972900-7410	NETWORK SN74LS10N	
0014A					U7	
0015	00001.000	EA		0972788-0001	NETWORK, SN74LS11, POSITIVE AND GATE	
0015A					U27	
0017	00001.000	EA		0972900-7451	NETWORK SN74LS51N	TI -SN74LS51N
0017A					U45	
0018	00005.000	EA		0972900-7474	NETWORK SN74LS74N	
0018A					U12 U22 U26 U43 U54	
0019	00001.000	EA		0222222-7125	NETWORK SN74125N	
0019A					U13	
0021	00002.000	EA		0972686-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N	
0021A					U32 U34	
0023	00004.000	EA		0972652-0001	NETWORK SN74LS283N	
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-7						
APP'D. MFG. DATE APP'D. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM0944935-5007 REV AC						

TEXAS INSTRUMENTS INCORPORATED DATE 04/18/79 LIST OF MATERIAL PAGE 2 of PART NUMBER LM0944935-5007 REV AC

ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0023A					U1 U16 U23 U38	
0024	00001.000	EA		0972653-0001	NETWORK, SN74LS293N	
0024A					U19	
0026	00005.000	EA		0972787-0003	NETWORK SN74LS367N	
0026A					U9 U10 U20 U24 U25	
0027	00001.000	EA		0972787-0004	NETWORK SN74LS368N	
0027A					U46	
0031	00002.000	EA		0972141-0057	NETWORK, RES. 4.7 K OHM 2 % 14 PIN DIP	BEC - 899-1-R4.7K
0031A					U36 U40	
0032	00002.000	EA		0972946-0017	RES FIX 10.0 OHM 5 % .25 W. CARBON FILM	ROH - R-25
0032A					A21R6 A20R6	
0033	00001.000	EA		0972946-0029	RES FIX 33.0 OHM 5 % .25 W. CARBON FILM	ROH - R-25
0033A					R12	
0034	00001.000	EA		0972946-0055	RES FIX 390 OHM 5 % .25 W CARBON FILM	ROH - R-25
0034A					R14	
0035	00004.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH - R-25
0035A					A21R4 A21R8 A20R4 A20R8	
0036	00002.000	EA		0972946-0067	RES FIX 1.2K OHM 5% .25 W CARBON FILM	ROH - R-25
0036A					R9 R10	
0037	00002.000	EA		0972946-0075	RES FIX 2.7K OHM 5 % .25 W CARBON FILM	ROH - R-25
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-7						
APP'D. MFG. DATE APP'D. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM0944935-5007 REV AC						

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944935-5007		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	DWG. NO.	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0037A					A21P5 A20R5						
0038	00003.000	EA		0972946-0081	RES FIX 4.7K OHM 5% .25 W CARBON FILM	ROH - R-25					
0038A					R11 R13 R15						
0039	00004.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	ROH - R-25					
0039A					A21R1 A21R7 A20R1 A20R7						
0040	00004.000	EA		0972946-0112	RES FIX 91 K OHM 5% .25 W CARBON FILM	ROH - R-25					
0040A					A21R2 A21R3 A20R2 A20R3						
0042	00004.000	EA		0972757-0001	CAP, FIXED CERAMIC 100 PF 10% 50V	UC -C51C101K					
0042A					A21C1 A21C2 A20C1 A20C2						
0043	00001.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V						
0043A					C111						
0044	00033.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80%, -20%						
0044A					C12 C13 C14 C32 THRU C55						
0044B					C59 C62 C67 C58 C61 C66						
0045	00018.000	EA		0972763-0032	CAP FIXED .39 UF 50 VOLTS	UC -C53C394Z					
0045A					C83 THRU C93 C103 THRU C109						
0046	00010.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10% 15 VOLT QPL	-M39003/1-2271					
0046A					C16 THRU C20, C25, C31, A21C21						
0046B					C30 A20C21						
0048	00006.000	EA		0972932-0001	DIODE, IN914B SWITCHING 75V PIV 75MA 4NS	TI - IN914B					
DRAFTSMAN DATE CRO. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-7											
APPRO. DATE APPO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944935-5007 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM0944935-5007		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	DWG. NO.	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0048A					A21CR1 A21CR2 A21CR3						
0048B					A20CR1 A20CR2 A20CR3						
0059	00001.000	EA		0972900-7430	NETWORK SN74LS30N	TI -SN74LS30N					
0059A					U15						
0060	00001.000	EA		0972688-0001	NETWORK SN74LS164N						
0060A					U2						
0062	00002.000	EA		0972784-0002	NETWORK SN74LS14N						
0062A					U4 U31						
DRAFTSMAN DATE CRO. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-7											
APPRO. DATE APPO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944935-5007 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944935-5008		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	DWG. NO.	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	00001.000	EA		0944936-0001	PWB-MEMORY EXTN, 990/4						
0011	00002.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N					
0011A					U28 U29						
0012	00001.000	EA		0972900-7404	NETWORK SN74LS04N						
0012A					U21						
0013	00002.000	EA		0972749-0001	NETWORK, SN74LS08N						
0013A					U6 U44						
0014	00001.000	EA		0972900-7410	NETWORK SN74LS10N						
0014A					U7						
0015	00001.000	EA		0972788-0001	NETWORK, SN74LS11, POSITIVE AND GATE						
0015A					U27						
0017	00001.000	EA		0972900-7451	NETWORK SN74LS51N	TI -SN74LS51N					
0017A					U45						
0018	00005.000	EA		0972900-7474	NETWORK SN74LS74N						
0018A					U12 U22 U26 U43 U54						
0019	00001.000	EA		0222222-7125	NETWORK SN74LS25N						
0019A					U13						
0021	00002.000	EA		0972686-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N						
0021A					U32 U34						
0023	00004.000	EA		0972652-0001	NETWORK SN74LS283N						
DRAFTSMAN DATE CRO. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-8											
APPRO. DATE APPO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944935-5008 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944935-5008		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	DWG. NO.	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0023A					U1 U16 U23 U38						
0024	00001.000	EA		0972653-0001	NETWORK, SN74LS293N						
0024A					U19						
0026	00005.000	EA		0972787-0003	NETWORK SN74LS367N						
0026A					U9 U10 U20 U24 U25						
0027	00001.000	EA		0972787-0004	NETWORK SN74LS368N						
0027A					U46						
0031	00002.000	EA		0972141-0057	NETWORK, RES. 4.7 K OHM 2% 14 PIN DIP	BEC - 899-1-R4.7K					
0031A					U36 U40						
0032	00003.000	EA		0972946-0017	RES FIX 10.0 OHM 5% .25 W CARBON FILM	ROH - R-25					
0032A					A21R6 A20R6 A19R6						
0033	00001.000	EA		0972946-0029	RES FIX 33.0 OHM 5% .25 W CARBON FILM	ROH - R-25					
0033A					R12						
0034	00001.000	EA		0972946-0055	RES FIX 390 OHM 5% .25 W CARBON FILM	ROH - R-25					
0034A					R14						
0035	00006.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH - R-25					
0035A					A21R4 A21R8 A20R4 A20R8						
0035B					A19R4 A19R8						
0036	00002.000	EA		0972946-0067	RES FIX 1.2K OHM 5% .25 W CARBON FILM	ROH - R-25					
0036A					R9 R10						
DRAFTSMAN DATE CRO. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-8											
APPRO. DATE APPO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944935-5008 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM 0944935-5008		REV AC	
PNLT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0037	0003.000	EA		0972946-0075	PES FIX 2.7K OHM 5 % .25 W CARBON FILM	ROH - R-25					
0037A					A21R5 A20R5 A19R5						
0038	0003.000	EA		0972946-0081	RES FIX 4.7K OHM 5 % .25 W CARBON FILM	ROH - R-25					
0038A					R11 R13 R15						
0039	0006.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	ROH - R-25					
0039A					A21R1 A21R7 A20R1 A20R7						
0039B					A19R1 A19R7						
0040	0006.000	EA		0972946-0112	RES FIX 91 K OHM 5 % .25 W CARBON FILM	ROH - R-25					
0040A					A21R2 A21R3 A20R2 A20R3						
0040B					A19R2 A19R3						
0042	0006.000	EA		0972757-0001	CAP, FIXED CERAMIC 100 PF 10% 50V	UC -C51C101K					
0042A					A21C1 A21C2 A20C1 A20C2						
0042B					A19C1 A19C2						
0043	0001.000	EA		0972757-0025	CAP FIX CER .01UF 10% 50V						
0043A					C111						
0044	00036.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD. .047 UF, +80%, -20%						
0044A					C12 C13 C14 C32 THRU C55						
0044B					C57 C58 THRU C62 C65 C66						
0044C					C67						
0045	00026.000	EA		0972763-0032	CAP FIXED .39 UF 50 VOLTS	UC -C53C94Z					
DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-8											
APPRO. MFG DATE APPRO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV. AC LM 0944935-5008											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM 0944935-5008		REV AC	
PNLT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0045A					C78 THRU C93 C100 THRU C109						
0046	00012.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10 % 15 VOLT	QPL -M39003/1-2271					
0046A					C16 THRU C20, C25, C31, A21C21						
0046B					C30 A20C21 C29 A19C21						
0048	00009.000	EA		0972932-0001	DIODE, 1N914B SWITCHING 75V PIV 75MA 4NS	TI - IN914B					
0048A					A21CR1 A21CR2 A21CR3						
0048B					A20CR1 A20CR2 A20CR3						
0048C					A19CR1 A19CR2 A19CR3						
0059	00001.000	EA		0972900-7430	NETWORK SN74LS30N	TI -SN74LS30N					
0059A					U15						
0060	00001.000	EA		0972688-0001	NETWORK SN74LS164N						
0060A					U2						
0062	00002.000	EA		0972784-0002	NETWORK SN74LS14N						
0062A					U4 U31						
DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-8											
APPRO. MFG DATE APPRO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV. AC LM 0944935-5008											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM 0944935-5009		REV AC	
PNLT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	0001.000	EA		0944936-0001	PWB-MEMORY EXTN. 990/4						
0011	00002.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N					
0011A					U28 U29						
0012	00001.000	EA		0972900-7404	NETWORK SN74LS04N						
0012A					U21						
0013	00002.000	EA		0972749-0001	NETWORK, SN74LS09N						
0013A					U6 U44						
0014	00001.000	EA		0972900-7410	NETWORK SN74LS10N						
0014A					U7						
0015	00001.000	EA		0972788-0001	NETWORK, SN74LS11, POSITIVE AND GATE						
0015A					U27						
0017	00001.000	EA		0972900-7451	NETWORK SN74LS51N	TI -SN74LS51N					
0017A					U45						
0018	00005.000	EA		0972900-7474	NETWORK SN74LS74N						
0018A					U12 U22 U26 U43 U54						
0019	00001.000	EA		0222222-7125	NETWORK SN74125N						
0019A					U13						
0021	00002.000	EA		0972686-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N						
0021A					U32 U34						
0023	00004.000	EA		0972652-0001	NETWORK SN74LS283N						
DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-9											
APPRO. MFG DATE APPRO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV. AC LM 0944935-5009											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM 0944935-5009		REV AC	
PNLT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0023A					U1 U16 U23 U38						
0024	00001.000	EA		0972653-0001	NETWORK, SN74LS293N						
0024A					U19						
0026	00005.000	EA		0972787-0003	NETWORK SN74LS367N						
0026A					U9 U10 U20 U24 U25						
0027	00001.000	EA		0972787-0004	NETWORK SN74LS368N						
0027A					U46						
0031	00002.000	EA		0972141-0057	NETWORK, RES. 4.7 K OHM 2 % 14 PIN DIP	BEC - 899-1-R4.7K					
0031A					U36 U40						
0032	00004.000	EA		0972946-0017	RES FIX 10.0 OHM 5 % .25 W CARBON FILM	ROH - R-25					
0032A					A21R6 A20R6 A19R6 A18R6						
0033	00001.000	EA		0972946-0029	RES FIX 33.0 OHM 5 % .25 W CARBON FILM	ROH - R-25					
0033A					R12						
0034	00001.000	EA		0972946-0055	RES FIX 390 OHM 5 % .25 W CARBON FILM	ROH - R-25					
0034A					R14						
0035	00008.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH - R-25					
0035A					A21R4 A21R8 A20R4 A20R8						
0035B					A19R4 A19R8 A18R4 A18R8						
0036	00002.000	EA		0972946-0067	RES FIX 1.2K OHM 5% .25 W CARBON FILM	ROH - R-25					
0036A					R9 R10						
DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-9											
APPRO. MFG DATE APPRO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV. AC LM 0944935-5009											

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944935-5009		REV AC		
DATE 04/18/79										
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0037	00004.000	EA		0972946-0075	RES FIX 2.7K OHM 5% .25 W CARBON FILM	ROH - R-25				
0037A					A21R5 A20R5 A19R5 A18R5					
0038	00003.000	EA		0972946-0081	RES FIX 4.7K OHM 5% .25 W CARBON FILM	ROH - R-25				
0038A					R11 R13 R15					
0039	00008.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	ROH - R-25				
0039A					A21R1 A21R7 A20R1 A20R7					
0039B					A19R1 A19R7 A18R1 A18R7					
0040	00008.000	EA		0972946-0112	RES FIX 91 K OHM 5% .25 W CARBON FILM	ROH - R-25				
0040A					A21R2 A21R3 A20R2 A20R3					
0040B					A19R2 A19R3 A18R2 A18R3					
0042	00008.000	EA		0972757-0001	CAP, FIXED CERAMIC 100 PF 10% 50V	UC -C51C101K				
0042A					A21C1 A21C2 A20C1 A20C2					
0042B					A19C1 A19C2 A18C1 A18C2					
0043	00001.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V					
0043A					C111					
0044	00039.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80%, -20%					
0044A					C12 C13 C14 C32 THRU C62					
0044B					C64 THRU C67 C110					
0045	00034.000	EA		0972763-0032	CAP FIXED .39 UF 50 VOLTS	UC -C53C394Z				
0045A					C73 THRU C93 C97 THRU C109					
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	AUTO-INSERTION TAPE FOR 944935-9		
APPR. MGR.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-5009		REV AC

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM0944935-5009		REV AC		
DATE 04/18/79										
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0046	00014.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10% 15 VOLT	QPL -M39003/1-2271				
0046A					C16 THRU C20, C25, C31, A21C21					
0046B					C30 A20C21 C29 A19C21					
0046C					C28 A18C21					
0048	00012.000	EA		0972932-0001	DIODE, 1N914B SWITCHING 75V PIV 75MA 4MS	TI - IN914B				
0048A					A21CR1 A21CR2 A21CR3					
0048B					A20CR1 A20CR2 A20CR3					
0048C					A19CR1 A19CR2 A19CR3					
0048D					A18CR1 A18CR2 A18CR3					
0059	00001.000	EA		0972900-7430	NETWORK SN74LS30N	TI -SN74LS30N				
0059A					U15					
0060	00001.000	EA		0972688-0001	NETWORK SN74LS164N					
0060A					U2					
0062	00002.000	EA		0972784-0002	NETWORK SN74LS14N					
0062A					U4 U31					
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	AUTO-INSERTION TAPE FOR 944935-9		
APPR. MGR.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-5009		REV AC

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944935-5010		REV AC		
DATE 04/18/79										
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0001	00001.000	EA		0944936-0001	PWB-MEMORY EXTM. 990/4					
0011	00002.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N				
0011A					U28 U29					
0012	00001.000	EA		0972900-7404	NETWORK SN74LS04N					
0012A					U21					
0013	00002.000	EA		0972749-0001	NETWORK, SN74LS08N					
0013A					U6 U44					
0014	00001.000	EA		0972900-7410	NETWORK SN74LS10N					
0014A					U7					
0015	00001.000	EA		0972788-0001	NETWORK, SN74LS11, POSITIVE AND GATE					
0015A					U27					
0017	00001.000	EA		0972900-7451	NETWORK SN74LS51N	TI -SN74LS51N				
0017A					U45					
0018	00005.000	EA		0972900-7474	NETWORK SN74LS74N					
0018A					U12 U22 U26 U43 U54					
0019	00001.000	EA		0222222-7125	NETWORK SN74LS25N					
0019A					U13					
0021	00002.000	EA		0972686-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N					
0021A					U32 U34					
0023	00004.000	EA		0972652-0001	NETWORK SN74LS283N					
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	AUTO-INSERTION TAPE FOR 944935-10		
APPR. MGR.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-5010		REV AC

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944935-5010		REV AC		
DATE 04/18/79										
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0023A					U1 U16 U23 U38					
0024	00001.000	EA		0972653-0001	NETWORK, SN74LS293N					
0024A					U19					
0026	00005.000	EA		0972787-0003	NETWORK SN74LS367N					
0026A					U9 U10 U20 U24 U25					
0027	00001.000	EA		0972787-0004	NETWORK SN74LS368N					
0027A					U46					
0031	00002.000	EA		0972141-0057	NETWORK, RES. 4.7 K OHM 2% 14 PIN DIP	BEC - 899-1-R4-7K				
0031A					U36 U40					
0032	00005.000	EA		0972946-0017	RES FIX 10.0 OHM 5% .25 W CARBON FILM	ROH - R-25				
0032A					A21R6 A20R6 A19R6 A18R6					
0032B					A17					
0033	00001.000	EA		0972946-0029	RES FIX 33.0 OHM 5% .25 W CARBON FILM	ROH - R-25				
0033A					R12					
0034	00001.000	EA		0972946-0055	RES FIX 350 OHM 5% .25 W CARBON FILM	ROH - R-25				
0034A					R14					
0035	00010.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH - R-25				
0035A					A21R4 A21R8 A20R4 A20R8					
0035B					A19R4 A19R8 A18R4 A18R8					
0035C					A17R4 A17R8					
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	AUTO-INSERTION TAPE FOR 944935-10		
APPR. MGR.		DATE	APPR. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-5010		REV AC

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944935-5010		REV AC		
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0036	00002.000	EA		0972946-0067	RES FIX 1.2K OHM 5% .25 W CARBON FILM	R0H - R-25				
0036A					R9 R10					
0037	00005.000	EA		0972946-0075	RES FIX 2.7K OHM 5% .25 W CARBON FILM	R0H - R-25				
0037A					A21R5 A20R5 A19R5 A18R5					
0037B					A17R5					
0038	00003.000	EA		0972946-0081	RES FIX 4.7K OHM 5% .25 W CARBON FILM	R0H - R-25				
0038A					R11 R13 R15					
0039	00010.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	R0H - R-25				
0039A					A21R1 A21R7 A20R1 A20R7					
0039B					A19R1 A19R7 A18R1 A18R7					
0039C					A17R1 A17R7					
0040	00010.000	EA		0972946-0112	RES FIX 91 K OHM 5% .25 W CARBON FILM	R0H - R-25				
0040A					A21R2 A21R3 A20R2 A20R3					
0040B					A19R2 A19R3 A18R2 A18R3					
0040C					A17R2 A17R3					
0042	00010.000	EA		0972757-0001	CAP, FIXED CERAMIC 100 PF 10% 50V	UC -C51C101K				
0042A					A21C1 A21C2 A20C1 A20C2					
0042B					A19C1 A19C2 A18C1 A18C2					
0042C					A17C1 A17C2					
0043	00001.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V	UC -C51C101K				
DRAFTSMAN		DATE	CDR DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE			
					AUTO-INSERTION TAPE FOR 944935-10					
APPROVED	DATE	APPRO PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-5010			
							REV AC			

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM0944935-5010		REV AC		
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0043A					C111					
0044	00040.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80%, -20%					
0044A					C32 THRU C67 C110 C12 C13					
0044B					C14					
0045	00042.000	EA		0972763-0032	CAP FIXED .39 UF 50 VOLTS	UC -C53C394Z				
0045A					C68 THRU C93 C94 THRU C109					
0046	00016.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10% 15 VOLT	QPL -M39003/1-2271				
0046A					C16 THRU C20, C25, C31, A21C21					
0046B					C30 A20C21 C29 A19C21					
0046C					C28 A18C21 C27 A17C21					
0048	00015.000	EA		0972932-0001	DIODE, IN914B SWITCHING 75V PIV 75MA 4MS	TI - IN914B				
0048A					A21CR1 A21CR2 A21CR3					
0048B					A20CR1 A20CR2 A20CR3					
0048C					A19CR1 A19CR2 A19CR3					
0048D					A18CR1 A18CR2 A18CR3					
0048E					A17CR1 A17CR2 A17CR3					
0059	00001.000	EA		0972900-7430	NETWORK SN74LS30N	TI -SN74LS30N				
0059A					U15					
0060	00001.000	EA		0972688-0001	NETWORK SN74LS164N					
0060A					U2					
DRAFTSMAN		DATE	CDR DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE			
					AUTO-INSERTION TAPE FOR 944935-10					
APPROVED	DATE	APPRO PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-5010			
							REV AC			

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LM0944935-5010		REV AC		
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0062	00002.000	EA		0972784-0002	NETWORK SN74LS14N					
0062A					U4 U31					
DRAFTSMAN		DATE	CDR DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE			
					AUTO-INSERTION TAPE FOR 944935-10					
APPROVED	DATE	APPRO PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-5010			
							REV AC			

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944935-5011		REV AC		
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0001	00001.000	EA		0944936-0001	PMB-MEMORY EXTN, 990/4					
0011	00002.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N				
0011A					U28 U29					
0012	00001.000	EA		0972900-7404	NETWORK SN74LS04N					
0012A					U21					
0013	00002.000	EA		0972749-0001	NETWORK, SN74LS08N					
0013A					U6 U44					
0014	00001.000	EA		0972900-7410	NETWORK SN74LS10N					
0014A					U7					
0015	00001.000	EA		0972788-0001	NETWORK, SN74LS11, POSITIVE AND GATE					
0015A					U27					
0017	00001.000	EA		0972900-7451	NETWORK SN74LS51N	TI -SN74LS51N				
0017A					U45					
0018	00005.000	EA		0972900-7474	NETWORK SN74LS74N					
0018A					U12 U22 U26 U43 U54					
0019	00001.000	EA		0222222-7125	NETWORK SN74125N					
0019A					U13					
0021	00002.000	EA		0972686-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N					
0021A					U32 U34					
0023	00004.000	EA		0972652-0001	NETWORK SN74LS283N					
DRAFTSMAN		DATE	CDR DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE			
					AUTO-INSERTION TAPE FOR 944935-11					
APPROVED	DATE	APPRO PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM0944935-5011			
							REV AC			



TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944935-5011		REV AC	
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0023A					U1 U16 U23 U38						
0024	00081.000	EA		0972653-0001	NETWORK, SN74LS293N						
0024A					U19						
0026	00005.000	EA		0972787-0003	NETWORK SN74LS367N						
0026A					U9 U10 U20 U24 U25						
0027	00001.000	EA		0972787-0004	NETWORK SN74LS368N						
0027A					U46						
0031	00002.000	EA		0972141-0057	NETWORK, RES. 4.7 K OHM 2 % 14 PIN DIP	BEC	-	899-1-R4.7K			
0031A					U36 U40						
0032	00001.000	EA		0972946-0017	RES FIX 10.0 OHM 5 % .25 W CARBON FILM	ROH	-	R-25			
0032A					A21R6						
0033	00001.000	EA		0972946-0029	RES FIX 33.0 OHM 5 % .25 W CARBON FILM	ROH	-	R-25			
0033A					R12						
0034	00001.000	EA		0972946-0055	RES FIX 390 OHM 5 % .25 W CARBON FILM	ROH	-	R-25			
0034A					R14						
0035	00002.000	EA		0972946-0065	RES FIX 1.0K OHM 5 % .25 W CARBON FILM	ROH	-	R-25			
0035A					A21R4 A21R8						
0036	00002.000	EA		0972946-0067	RES FIX 1.2K OHM 5 % .25 W CARBON FILM	ROH	-	R-25			
0036A					R9 R10						
0037	00001.000	EA		0972946-0075	RES FIX 2.7K OHM 5 % .25 W CARBON FILM	ROH	-	R-25			
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-11											
APP. MGR. DATE APP. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944935-5011 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944935-5011		REV AC	
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0037A					A21R5						
0038	00003.000	EA		0972946-0081	RES FIX 4.7K OHM 5 % .25 W CARBON FILM	ROH	-	R-25			
0038A					R11 R13 R15						
0039	00002.000	EA		0972946-0089	RES FIX 10K OHM 5 % .25 W CARBON FILM	ROH	-	R-25			
0039A					A21R1 A21R7						
0040	00002.000	EA		0972946-0112	RES FIX 91 K OHM 5 % .25 W CARBON FILM	ROH	-	R-25			
0040A					A21R2 A21R3						
0042	00002.000	EA		0972757-0001	CAP, FIXED CERAMIC 100 PF 10% 50V	UC	-	C51C101K			
0042A					A21C1 A21C2						
0043	00001.000	EA		0972757-0025	CAP FIX CEP .01MF 10% 50V						
0043A					C111						
0044	00030.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80%, -20%						
0044A					C12 C13 C14 C32 THRU C55						
0044B					C59 C62 C67						
0045	00010.000	EA		0972763-0032	CAP FIXED .39 UF 50 VOLTS	UC	-	C53C394Z			
0045A					C88 THRU C93						
0045B					C106 THRU C109						
0046	00008.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10 % 15 VOLT	QPL	-	M39003/1-2271			
0046A					C16 THRU C20, C25, C31, A21C21						
0048	00003.000	EA		0972932-0001	DIODE, 1N914B SWITCHING 75V PIV 75MA 4NS	TI	-	1N914B			
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-11											
APP. MGR. DATE APP. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944935-5011 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM0944935-5011		REV AC	
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0048A					A21C1 A21C2 A21C3						
0059	00001.000	EA		0972900-7430	NETWORK SN74LS30N	TI	-	SN74LS30N			
0059A					U15						
0060	00001.000	EA		0972688-0001	NETWORK SN74LS164N						
0060A					U2						
0062	00002.000	EA		0972784-0002	NETWORK SN74LS14N						
0062A					U4 U31						
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-11											
APP. MGR. DATE APP. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944935-5011 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944935-5012		REV AC	
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	00001.000	EA		0944936-0001	PMB-MEMORY EXTN, 990/4						
0011	00002.000	EA		0972900-7400	NETWORK SN74LS00N	TI	-	SN74LS00N			
0011A					U28 U29						
0012	00001.000	EA		0972900-7404	NETWORK SN74LS04N						
0012A					U21						
0013	00002.000	EA		0972749-0001	NETWORK, SN74LS08N						
0013A					U6 U44						
0014	00001.000	EA		0972900-7410	NETWORK SN74LS10N						
0014A					U7						
0015	00001.000	EA		0972788-0001	NETWORK, SN74LS11, POSITIVE AND GATE						
0015A					U27						
0017	00001.000	EA		0972900-7451	NETWORK SN74LS51N	TI	-	SN74LS51N			
0017A					U45						
0018	00005.000	EA		0972900-7474	NETWORK SN74LS74N						
0018A					U12 U22 U26 U43 U54						
0019	00001.000	EA		022222-7125	NETWORK SN74L25N						
0019A					U13						
0021	00002.000	EA		0972686-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N						
0021A					U32 U34						
0023	00004.000	EA		0972652-0001	NETWORK SN74LS283N						
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-12											
APP. MGR. DATE APP. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944935-5012 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944935-5012		REV AC	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0023A					U1 U16 U23 U38						
0024	00001.000	EA		0972653-0001	NETWORK, SN74LS293N						
0024A					U19						
0026	00005.000	EA		0972787-0003	NETWORK SN74LS367N						
0026A					U9 U10 U20 U24 U25						
0027	00001.000	EA		0972787-0004	NETWORK SN74LS368N						
0027A					U46						
0031	00002.000	EA		0972141-0057	NETWORK, RES. 4.7 K OHM 2 % 14 PIN DIP	BEC - 899-1-R4.7K					
0031A					U36 U40						
0032	00002.000	EA		0972946-0017	RES FIX 10.0 OHM 5 % .25 W CARBON FILM	ROH - R-25					
0032A					A21R6 A20R6						
0033	00001.000	EA		0972946-0029	RES FIX 33.0 OHM 5 % .25 W CARBON FILM	ROH - R-25					
0033A					R12						
0034	00001.000	EA		0972946-0055	RES FIX 390 OHM 5 % .25 W CARBON FILM	ROH - R-25					
0034A					R14						
0035	00004.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH - R-25					
0035A					A21R4 A21R8 A20R4 A20R8						
0036	00002.000	EA		0972946-0067	RES FIX 1.2K OHM 5% .25 W CARBON FILM	ROH - R-25					
0036A					R9 R10						
0037	00002.000	EA		0972946-0075	RES FIX 2.7K OHM 5 % .25 W CARBON FILM	ROH - R-25					
DRAFTSMAN _____ DATE _____ CDD DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE _____ AUTO-INSERTION TAPE FOR 944935-12 APPD. MFG. _____ DATE _____ APPD. PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ PART NUMBER LM0944935-5012 REV AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944935-5012		REV AC	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0037A					A21R5 A20R5						
0038	00003.000	EA		0972946-0081	RES FIX 4.7K OHM 5 % .25 W CARBON FILM	ROH - R-25					
0038A					R11 R13 R15						
0039	00004.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	ROH - R-25					
0039A					A21R1 A21R7 A20R1 A20R7						
0040	00004.000	EA		0972946-0112	RES FIX 91 K OHM 5 % .25 W CARBON FILM	ROH - R-25					
0040A					A21R2 A21R3 A20R2 A20R3						
0042	00004.000	EA		0972757-0001	CAP, FIXED CERAMIC 100 PF 10% 50V	UC -C51C100K					
0042A					A21C1 A21C2 A20C1 A20C2						
0043	00001.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V						
0043A					C111						
0044	00033.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80%, -20%						
0044A					C12 C13 C14 C32 THRU C55						
0044B					C59 C62 C67 C58 C61 C66						
0045	00018.000	EA		0972763-0032	CAP FIXED .39 UF 50 VOLTS	UC -C53C394Z					
0045A					C83 THRU C93						
0045B					C103 THRU C109						
0046	00010.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10 % 15 VOLT	GPL -H99083/1-2271					
0046A					C16 THRU C20, C25, C31, A21C21						
0046B					C30 A20C21						
DRAFTSMAN _____ DATE _____ CDD DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE _____ AUTO-INSERTION TAPE FOR 944935-12 APPD. MFG. _____ DATE _____ APPD. PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ PART NUMBER LM0944935-5012 REV AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM0944935-5012		REV AC	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0048	00006.000	EA		0972932-0001	DIODE, 1N914B SWITCHING 75V PIV 75MA 4MS	TI - 1N914B					
0048A					A21CR1 A21CR2 A21CR3						
0048B					A20CR1 A20CR2 A20CR3						
0059	00001.000	EA		0972900-7430	NETWORK SN74LS30N	TI -SN74LS30N					
0059A					U15						
0060	00001.000	EA		0972688-0001	NETWORK SN74LS164N						
0060A					U2						
0062	00002.000	EA		0972784-0002	NETWORK SN74LS14N						
0062A					U4 U31						
DRAFTSMAN _____ DATE _____ CDD DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE _____ AUTO-INSERTION TAPE FOR 944935-12 APPD. MFG. _____ DATE _____ APPD. PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ PART NUMBER LM0944935-5012 REV AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944935-5013		REV AC	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	00001.000	EA		0944936-0001	PWB-MEMORY EXTN, 990/4						
0011	00002.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N					
0011A					U28 U29						
0012	00001.000	EA		0972900-7404	NETWORK SN74LS04N						
0012A					U21						
0013	00002.000	EA		0972749-0001	NETWORK, SN74LS08N						
0013A					U6 U44						
0014	00001.000	EA		0972900-7410	NETWORK SN74LS10N						
0014A					U7						
0015	00001.000	EA		0972788-0001	NETWORK, SN74LS11, POSITIVE AND GATE						
0015A					U27						
0017	00001.000	EA		0972900-7451	NETWORK SN74LS51N	TI -SN74LS51N					
0017A					U45						
0018	00005.000	EA		0972900-7474	NETWORK SN74LS74N						
0018A					U12 U22 U26 U43 U54						
0019	00001.000	EA		0222222-7125	NETWORK SN74LS25N						
0019A					U13						
0021	00002.000	EA		0972686-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N						
0021A					U32 U34						
0023	00004.000	EA		0972652-0001	NETWORK SN74LS283N						
DRAFTSMAN _____ DATE _____ CDD DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE _____ AUTO-INSERTION TAPE FOR 944935-13 APPD. MFG. _____ DATE _____ APPD. PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ PART NUMBER LM0944935-5013 REV AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944935-5013		REV AC	
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0023A					U1 U16 U23 U38						
0024	00001.000	EA		0972653-0001	NETWORK,SN74LS293N						
0024A					U19						
0026	00005.000	EA		0972787-0003	NETWORK SN74LS367N						
0026A					U9 U10 U20 U24 U25						
0027	00001.000	EA		0972787-0004	NETWORK SN74LS368N						
0027A					U46						
0031	00002.000	EA		0972141-0057	NETWORK,RES. 4.7 K OHM 2 % 14 PIN DIP	BEC	-	899-1-R4.7K			
0031A					U36 U40						
0032	00003.000	EA		0972946-0017	RES FIX 10.0 OHM 5 % .25 W.CARBON FILM	ROH	-	R-25			
0032A					A21R6 A20R6 A19R6						
0033	00001.000	EA		0972946-0029	RES FIX 33.0 OHM 5 % .25 W.CARBON FILM	ROH	-	R-25			
0033A					R12						
0034	00001.000	EA		0972946-0055	RES FIX 390 OHM 5 % .25 W CARBON FILM	ROH	-	R-25			
0034A					R14						
0035	00006.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH	-	R-25			
0035A					A21R4 A21R8 A20R4 A20R8						
0035B					A19R4 A19R8						
0036	00002.000	EA		0972946-0067	RES FIX 1.2K OHM 5% .25 W CARBON FILM	ROH	-	R-25			
0036A					R9 R10						
DRAFTSMAN DATE CRO. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-13											
APP. MFG. DATE APP. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944935-5013 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944935-5013		REV AC	
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0037	00003.000	EA		0972946-0075	RES FIX 2.7K OHM 5 % .25 W CARBON FILM	ROH	-	R-25			
0037A					A21R5 A20R5 A19R5						
0038	00003.000	EA		0972946-0081	RES FIX 4.7K OHM 5 % .25 W CARBON FILM	ROH	-	R-25			
0038A					R11 R13 R15						
0039	00006.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	ROH	-	R-25			
0039A					A21R1 A21R7 A20R1 A20R7						
0039B					A19R1 A19R7						
0040	00006.000	EA		0972946-0112	RES FIX 91 K OHM 5 % .25 W CARBON FILM	ROH	-	R-25			
0040A					A21R2 A21R3 A20R2 A20R3						
0040B					A19R2 A19R3						
0042	00006.000	EA		0972757-0001	CAP, FIXED CERAMIC 100 PF 10% 50V	UC	-	C51C101K			
0042A					A21C1 A21C2 A20C1 A20C2						
0042B					A19C1 A19C2						
0043	00001.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V						
0043A					C111						
0044	00036.000	EA		0972763-0021	CAP.,FIXED,AXIAL LEAD,.047 UF,+80%, -20%						
0044A					C12 C13 C14 C32 THRU C55						
0044B					C57 C58 THRU C62 C65 C66						
0044C					C67						
0045	00026.000	EA		0972763-0032	CAP FIXED .39 UF 50 VOLTS	UC	-	C52C200K			
DRAFTSMAN DATE CRO. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-13											
APP. MFG. DATE APP. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944935-5013 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM0944935-5013		REV AC	
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0045A					C78 THRU C93 C100 THRU C109						
0046	00012.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10 % 15 VOLT	OPL	-	R39003/1-2271			
0046A					C16 THRU C20,C25,C31,A21C21						
0046B					C30 A20C21 C29 A19C21						
0048	00009.000	EA		0972932-0001	DIODE,1N914B SWITCHING 75V PIV 75MA 4NS	TI	-	IN914B			
0048A					A21CR1 A21CR2 A21CR3						
0048B					A20CR1 A20CR2 A20CR3						
0048C					A19CR1 A19CR2 A19CR3						
0059	00001.000	EA		0972900-7430	NETWORK SN74LS30N	TI	-	SN74LS30N			
0059A					U15						
0060	00001.000	EA		0972688-0001	NETWORK SN74LS164N						
0060A					U2						
0062	00002.000	EA		0972784-0002	NETWORK SN74LS14N						
0062A					U4 U31						
DRAFTSMAN DATE CRO. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-13											
APP. MFG. DATE APP. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944935-5013 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944935-5014		REV AC	
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	00001.000	EA		0944936-0001	PWB-MEMORY EXTN, 99074						
0011	00002.000	EA		0972900-7400	NETWORK SN74LS00N	TI	-	SN74LS00N			
0011A					U28 U29						
0012	00001.000	EA		0972900-7404	NETWORK SN74LS04N						
0012A					U21						
0013	00002.000	EA		0972749-0001	NETWORK, SN74LS08N						
0013A					U6 U44						
0014	00001.000	EA		0972900-7410	NETWORK SN74LS10N						
0014A					U7						
0015	00001.000	EA		0972788-0001	NETWORK,SN74LS11,POSITIVE AND GATE						
0015A					U27						
0017	00001.000	EA		0972900-7451	NETWORK SN74LS51N	TI	-	SN74LS51N			
0017A					U45						
0018	00005.000	EA		0972900-7474	NETWORK SN74LS74N						
0018A					U12 U22 U26 U43 U54						
0019	00001.000	EA		0222222-7125	NETWORK SN74125N						
0019A					U13						
0021	00002.000	EA		0972686-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N						
0021A					U32 U34						
0023	00004.000	EA		0972652-0001	NETWORK SN74LS283N						
DRAFTSMAN DATE CRO. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-14											
APP. MFG. DATE APP. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944935-5014 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM 0944935-5014		REV AC	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0023A					U1 U16 U23 U38						
0024	00001.000	EA		0972653-0001	NETWORK, SN74LS293N						
0024A					U19						
0026	00005.000	EA		0972787-0003	NETWORK SN74LS367N						
0026A					U9 U10 U20 U24 U25						
0027	00001.000	EA		0972787-0004	NETWORK SN74LS368N						
0027A					U46						
0031	00002.000	EA		0972141-0057	NETWORK, RES. 4.7 K OHM 2 x 14 PIN DIP	BEC - 899-1-R4.7K					
0031A					U36 U40						
0032	00004.000	EA		0972946-0017	RES FIX 10.0 OHM 5 x .25 W CARBON FILM	ROH - R-25					
0032A					A21R6 A20R6 A19R6 A18R6						
0033	00001.000	EA		0972946-0029	RES FIX 33.0 OHM 5 x .25 W CARBON FILM	ROH - R-25					
0033A					R12						
0034	00001.000	EA		0972946-0055	RES FIX 390 OHM 5 x .25 W CARBON FILM	ROH - R-25					
0034A					R14						
0035	00008.000	EA		0972946-0065	RES FIX 1.0K OHM 5 x .25 W CARBON FILM	ROH - R-25					
0035A					A21R4 A21R8 A20R4 A20R8						
0035B					A19R4 A19R8 A18R4 A18R8						
0036	00002.000	EA		0972946-0067	RES FIX 1.2K OHM 5 x .25 W CARBON FILM	ROH - R-25					
0036A					R9 R10						
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-14 DATE PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 0944935-5014 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM 0944935-5014		REV AC	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0037	00004.000	EA		0972946-0075	RES FIX 2.7K OHM 5 x .25 W CARBON FILM	ROH - R-25					
0037A					A21R5 A20R5 A19R5 A18R5						
0038	00003.000	EA		0972946-0081	RES FIX 4.7K OHM 5 x .25 W CARBON FILM	ROH - R-25					
0038A					R11 R13 R15						
0039	00008.000	EA		0972946-0089	RES FIX 10K OHM 5 x .25 W CARBON FILM	ROH - R-25					
0039A					A21R1 A21R7 A20R1 A20R7						
0039B					A19R1 A19R7 A18R1 A18R7						
0040	00008.000	EA		0972946-0112	RES FIX 91 K OHM 5 x .25 W CARBON FILM	ROH - R-25					
0040A					A21R2 A21R3 A20R2 A20R3						
0040B					A19R2 A19R3 A18R2 A18R3						
0042	00008.000	EA		0972757-0001	CAP, FIXED CERAMIC 100 PF 10% 50V	UC -C51C101K					
0042A					A21C1 A21C2 A20C1 A20C2						
0042B					A19C1 A19C2 A18C1 A18C2						
0043	00001.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V						
0043A					C111						
0044	00039.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80%,-20%						
0044A					C12 C13 C14 C32 THRU C62						
0044B					C64 THRU C67 C110						
0045	00034.000	EA		0972763-0032	CAP FIXED .39 UF 50 VOLTS	UC -L53C394Z					
0045A					C73 THRU C93 C97 THRU C109						
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-14 DATE PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 0944935-5014 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM 0944935-5014		REV AC	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0046	00014.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10 x 15 VOL	QPL -M39003/1-2271					
0046A					C16 THRU C20, C25, C31, A21C21						
0046B					C30 A20C21 C29 A19C21						
0046C					C28 A18C21						
0048	00012.000	EA		0972932-0001	DIODE, 1N914B SWITCHING 75V PIV 75MA 4MS	TI - 1N914B					
0048A					A21CR1 A21CR2 A21CR3						
0048B					A20CR1 A20CR2 A20CR3						
0048C					A19CR1 A19CR2 A19CR3						
0048D					A18CR1 A18CR2 A18CR3						
0059	00001.000	EA		0972900-7430	NETWORK SN74LS30N	TI -SN74LS30N					
0059A					U15						
0060	00001.000	EA		0972688-0001	NETWORK SN74LS164N						
0060A					U2						
0062	00002.000	EA		0972784-0002	NETWORK SN74LS14N						
0062A					U4 U31						
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-14 DATE PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 0944935-5014 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM 0944935-5015		REV AC	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	00001.000	EA		0944936-0001	PWB-MEMORY EXTN, 990/4						
0011	00002.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N					
0011A					U28 U29						
0012	00001.000	EA		0972900-7404	NETWORK SN74LS04N						
0012A					U21						
0013	00002.000	EA		0972749-0001	NETWORK, SN74LS08N						
0013A					U6 U44						
0014	00001.000	EA		0972900-7410	NETWORK SN74LS10N						
0014A					U7						
0015	00001.000	EA		0972788-0001	NETWORK, SN74LS11, POSITIVE AND GATE						
0015A					U27						
0017	00001.000	EA		0972900-7451	NETWORK SN74LS51N	TI -SN74LS51N					
0017A					U45						
0018	00005.000	EA		0972900-7474	NETWORK SN74LS74N						
0018A					U12 U22 U26 U43 U54						
0019	00001.000	EA		0222222-7125	NETWORK SN74125N						
0019A					U13						
0021	00002.000	EA		0972686-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N						
0021A					U32 U34						
0023	00004.000	EA		0972652-0001	NETWORK SN74LS283N						
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTION TAPE FOR 944935-15 DATE PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 0944935-5015 AC											

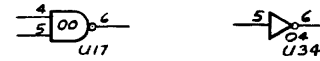
TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM 0944935-5015		REV AC		
PART ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0023A					U1 U16 U23 U38							
0024	00001.000	EA		0972653-0001	NETWORK,SN74LS293N							
0024A					U19							
0026	00005.000	EA		0972787-0003	NETWORK SN74LS367N							
0026A					U9 U10 U20 U24 U25							
0027	00001.000	EA		0972787-0004	NETWORK SN74LS368N							
0027A					U46							
0031	00002.000	EA		0972141-0057	NETWORK,RES. 4.7 K OHM 2 % 14 PIN DIP	BEC	-	899-1-R4-7K				
0031A					U36 U40							
0032	00005.000	EA		0972946-0017	RES FIX 10.0 OHM 5 % .25 W.CARBON FILM	ROH	-	R-25				
0032A					A21R6 A20R6 A19R6 A18R6							
0032B					A17							
0033	00001.000	EA		0972946-0029	RES FIX 33.0 OHM 5 % .25 W.CARBON FILM	ROH	-	R-25				
0033A					R12							
0034	00001.000	EA		0972946-0055	RES FIX 390 OHM 5 % .25 W CARBON FILM	ROH	-	R-25				
0034A					R14							
0035	00010.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH	-	R-25				
0035A					A21R4 A21R8 A20R4 A20R8							
0035B					A19R4 A19R8 A18R4 A18R8							
0035C					A17R4 A17R8							
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE AUTO-INSERTION TAPE FOR 944935-15					
APPRO. MFG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO. LM 0944935-5015					

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM 0944935-5015		REV AC		
PART ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0036	00002.000	EA		0972946-0067	RES FIX 1.2K OHM 5% .25 W CARBON FILM	ROH	-	R-25				
0036A					R9 R10							
0037	00005.000	EA		0972946-0075	RES FIX 2.7K OHM 5 % .25 W CARBON FILM	ROH	-	R-25				
0037A					A21R5 A20R5 A19R5 A18R5							
0037B					A17R5							
0038	00003.000	EA		0972946-0081	RES FIX 4.7K OHM 5 % .25 W CARBON FILM	ROH	-	R-25				
0038A					R11 R13 R15							
0039	00010.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	ROH	-	R-25				
0039A					A21R1 A21R7 A20R1 A20R7							
0039B					A19R1 A19R7 A18R1 A18R7							
0039C					A17R1 A17R7							
0040	00010.000	EA		0972946-0112	RES FIX 91 K OHM 5 % .25 W CARBON FILM	ROH	-	R-25				
0040A					A21R2 A21R3 A20R2 A20R3							
0040B					A19R2 A19R3 A18R2 A18R3							
0040C					A17R2 A17R3							
0042	00010.000	EA		0972757-0001	CAP, FIXED CERAMIC 100 PF 10% 50V	UC	-	CS1C100R				
0042A					A21C1 A21C2 A20C1 A20C2							
0042B					A19C1 A19C2 A18C1 A18C2							
0042C					A17C1 A17C2							
0043	00001.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V							
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE AUTO-INSERTION TAPE FOR 944935-15					
APPRO. MFG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO. LM 0944935-5015					

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM 0944935-5015		REV AC		
PART ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0043A					C111							
0044	00040.000	EA		0972763-0021	CAP.,FIXED, AXIAL LEAD,.047 UF,+80%,-20%							
0044A					C32 THRU C67 C110 C12 C13							
0044B					C14							
0045	00042.000	EA		0972763-0032	CAP FIXED .39 UF 50 VOLTS	UC	-	CS3C394Z				
0045A					C68 THRU C93 C94 THRU C109							
0046	00016.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10 % 15 VOLT	OPL	-	H39003/1-2271				
0046A					C16 THRU C20,C25,C31,A21C21							
0046B					C30 A20C21 C29 A19C21							
0046C					C28 A18C21 C27 A17C21							
0048	00015.000	EA		0972932-0001	DIODE,1N914B SWITCHING 75V PIV 75MA 4MS	TI	-	IN914B				
0048A					A21CR1 A21CR2 A21CR3							
0048B					A20CR1 A20CR2 A20CR3							
0048C					A19CR1 A19CR2 A19CR3							
0048D					A18CR1 A18CR2 A18CR3							
0048E					A17CR1 A17CR2 A17CR3							
0059	00001.000	EA		0972900-7430	NETWORK SN74LS30N	TI	-	SN74LS30N				
0059A					U15							
0060	00001.000	EA		0972688-0001	NETWORK SN74LS164N							
0060A					U2							
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE AUTO-INSERTION TAPE FOR 944935-15					
APPRO. MFG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO. LM 0944935-5015					

TEXAS INSTRUMENTS INCORPORATED		DATE 04/18/79		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LM 0944935-5015		REV AC		
PART ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0062	00002.000	EA		0972784-0002	NETWORK SN74LS14N							
0062A					U4 U31							
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE AUTO-INSERTION TAPE FOR 944935-15					
APPRO. MFG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO. LM 0944935-5015					

- NOTES: UNLESS OTHERWISE SPECIFIED
1. ALL DEVICE TYPES ARE PREFIXED WITH SN74
  2. GROUND IS APPLIED TO PIN 7 OF ALL 14-PIN IC'S AND PIN 8 OF ALL 16-PIN IC'S
  3. VCC IS APPLIED TO PIN 14 OF ALL 14-PIN IC'S AND PIN 16 OF ALL 16-PIN IC'S
  4. DEVICE TYPE, PIN NUMBERS, AND LOCATION OF IC IS SHOWN AS FOLLOWS:



00 AND 04 = DEVICE TYPE  
 4, 5 AND 6 = PIN NUMBERS  
 U17 AND U34 = REFERENCE DESIGNATOR

5. \* - INDICATES PACKAGES POWERED BY +5 MEM.
6. ALL RESISTORS 1/4 WATT, 5%
7. \*\* - INDICATES 14 PIN RESISTOR PACKAGE WITH 13 4.7K RESISTORS
8. CAPACITORS NOTED WITH T1, T2, T3 DESCRIPTORS INDICATE:  
 T1 - BME AXIAL CERAMIC SERIES 53, LMAX = .200, DMAX = .100  
 T2 - BME AXIAL CERAMIC SERIES 53, LMAX = .200, DMAX = .100  
 T3 - BME AXIAL CERAMIC SERIES 53, LMAX = .200, DMAX = .100
9. \*\*\* 180'S USED FOR PARITY OPTION ONLY
10. # INDICATES A DEVICE THAT IS PRESENT ONLY ON ASSEMBLIES WHICH HAVE WRITE PROTECTION

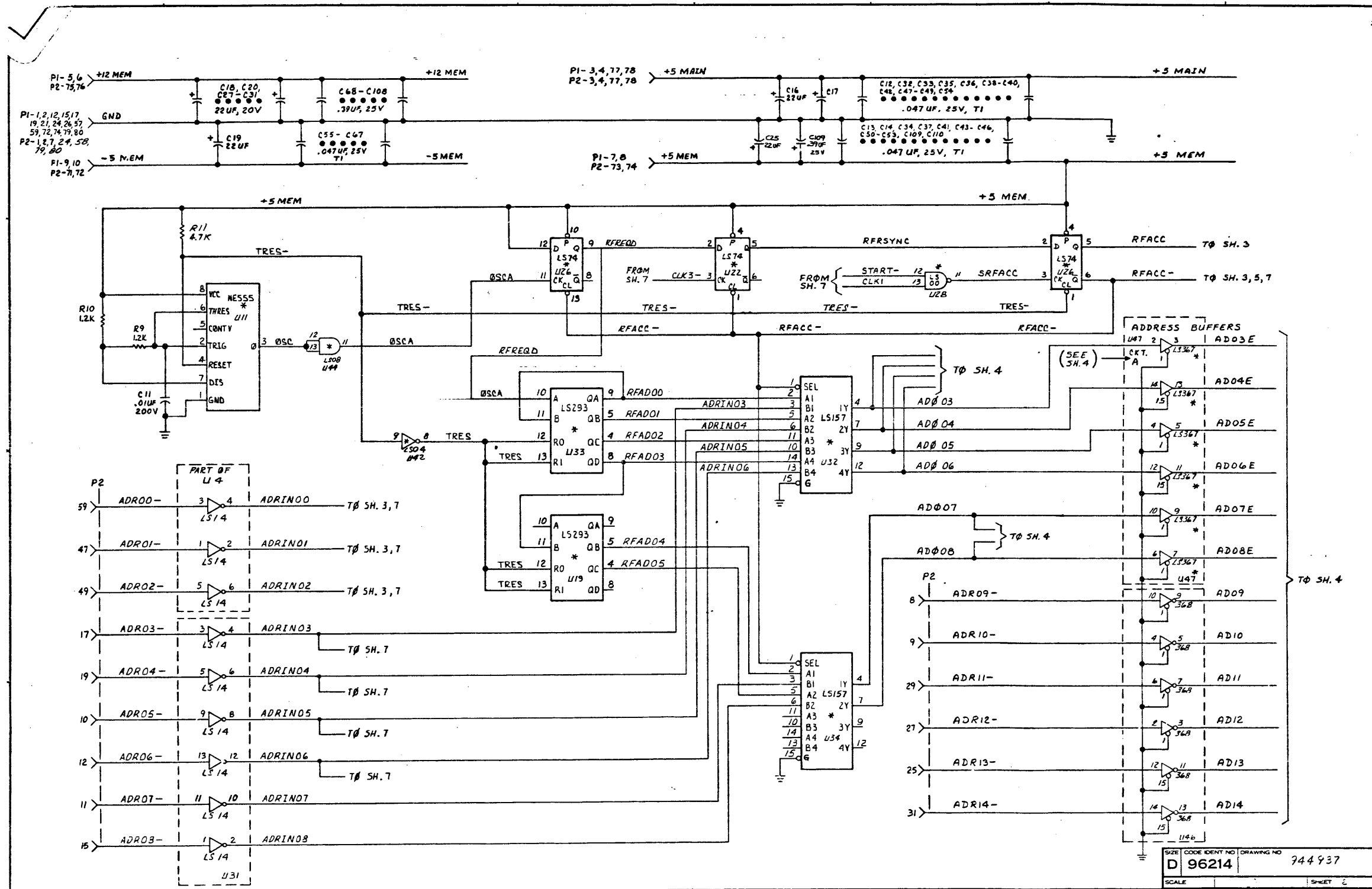
REVISIONS			
ZONE	LTR	DESCRIPTION	DATE

REV STATUS OF SHEET	REV	DATE	BY	QTY REQ	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
UNLESS OTHERWISE SPECIFIED				UNLESS OTHERWISE SPECIFIED					
REMOVE ALL BURRS AND SHARP EDGES				DIMENSIONS ARE IN INCHES					
CONCENTRICITY MACHINED DIAMETERS .010 MIN				TOLERANCES					
DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING				ANGLES 11					
IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY				3 PLACE DECIMALS = .010					
INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100				2 PLACE DECIMALS = .02					
HOLE TOLERANCE				DATE					
.015 + .004 THRU .001				CHK					
.125 + .004 THRU .001				DATE					
.250 + .004 THRU .001				CHK					
.500 + .004 THRU .001				DATE					
1.000 + .004 THRU .001				CHK					
2.000 + .004 THRU .001				DATE					
NEXT ASSY USED ON				CONTR NO					
APPLICATION				DESIGN ACTIVITY RELEASE					
				SCALE					
				SHEET					

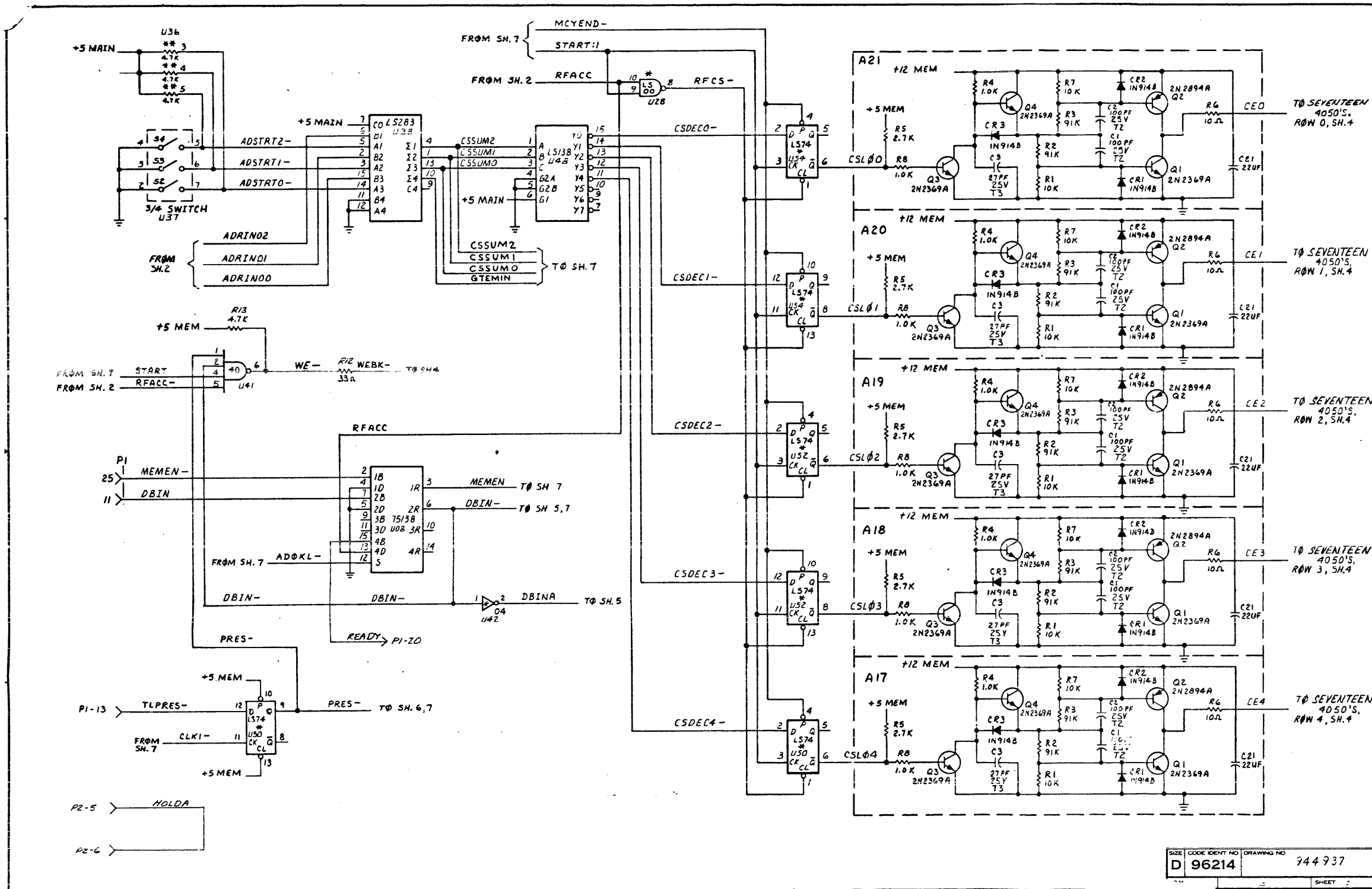
TEXAS INSTRUMENTS  
 INCORPORATED  
 Equipment Group  
 Dallas, Texas

LOGIC DIAGRAM  
 MEMORY EXTENSION  
 990/4

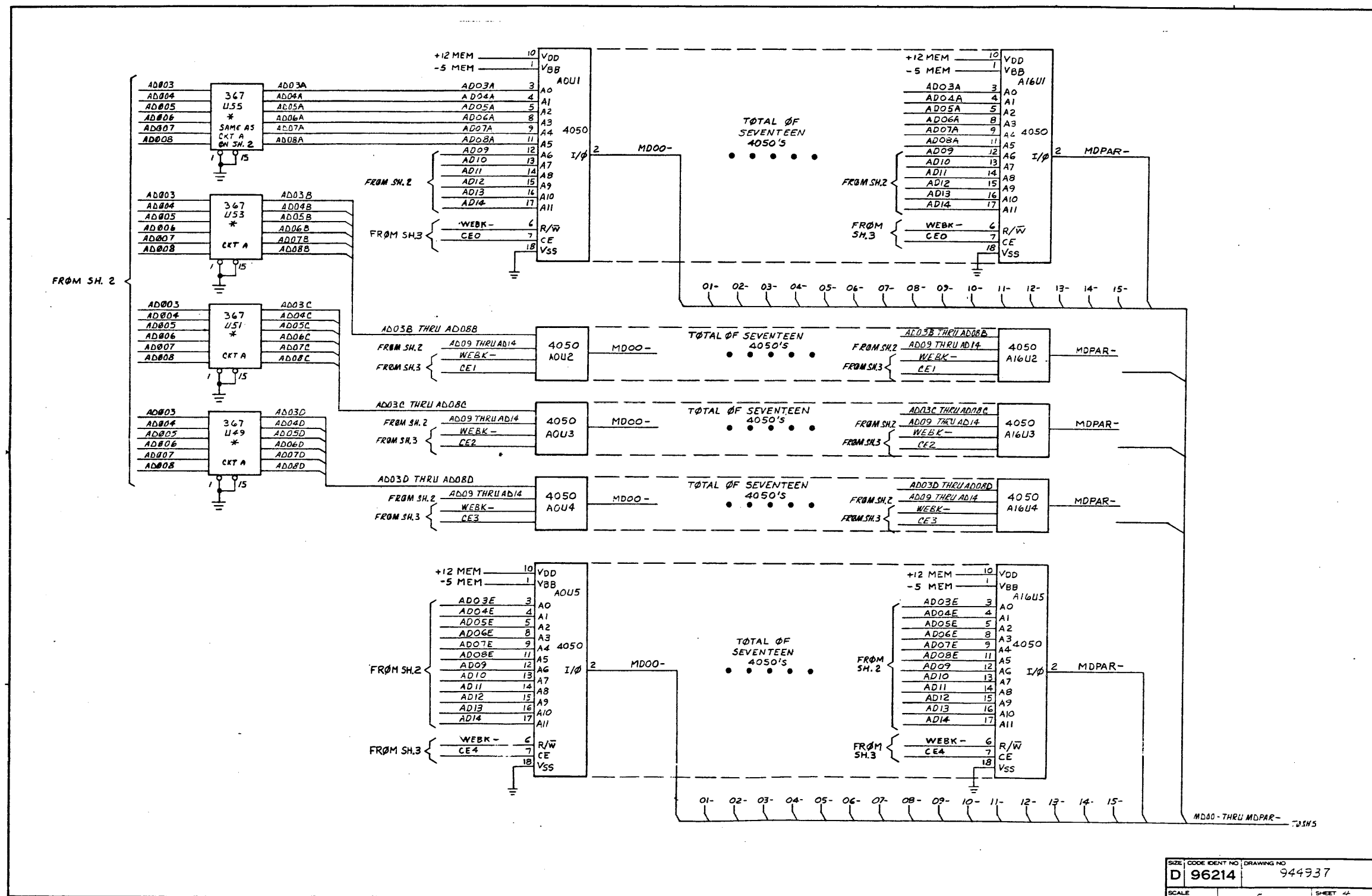
SIZE CODE IDENT NO (DRAWING NO)  
 D 96214 944937



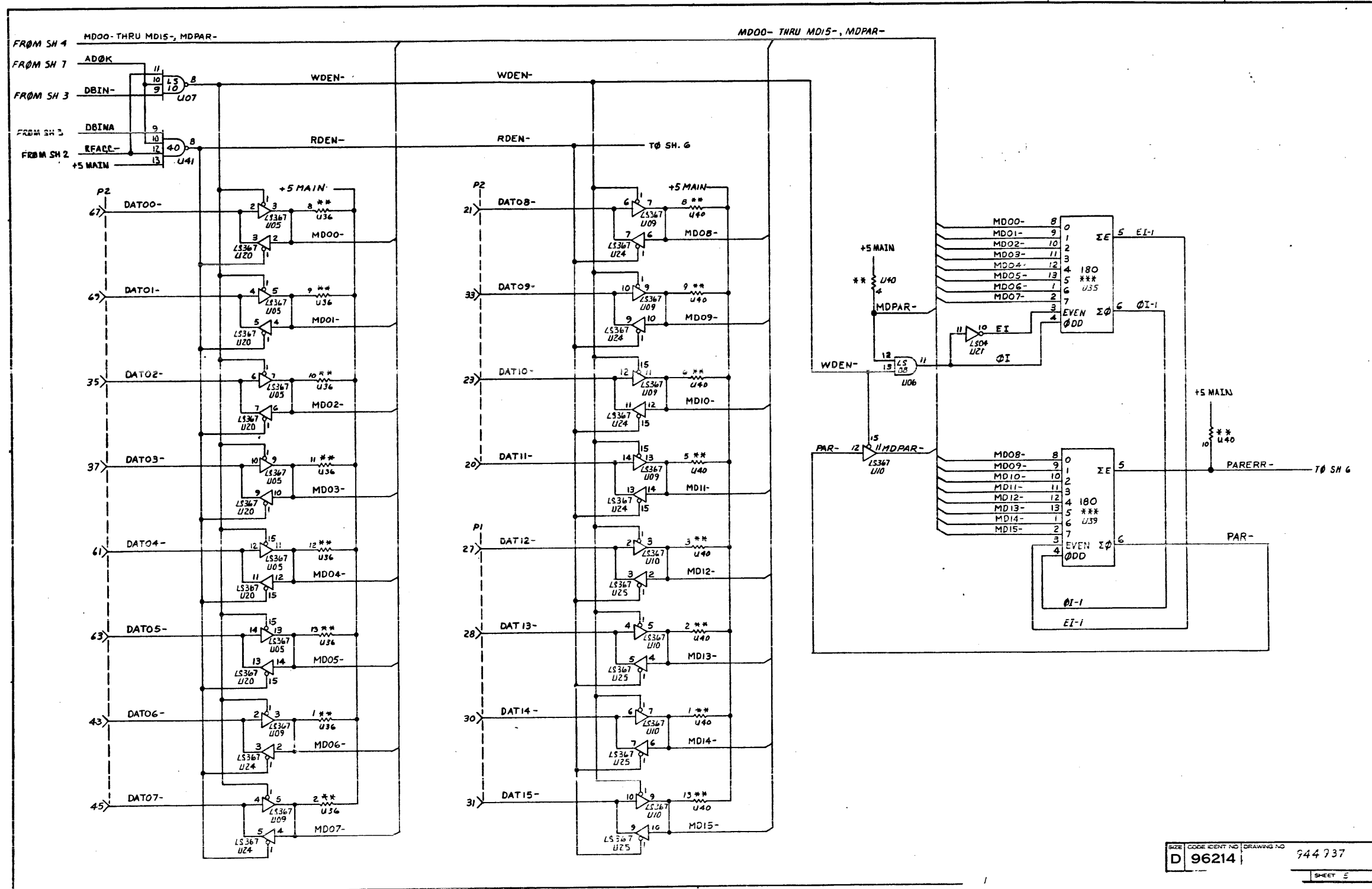
SIZE	CODE IDENT NO	DRAWING NO
D	96214	944937
SCALE		SHEET 2

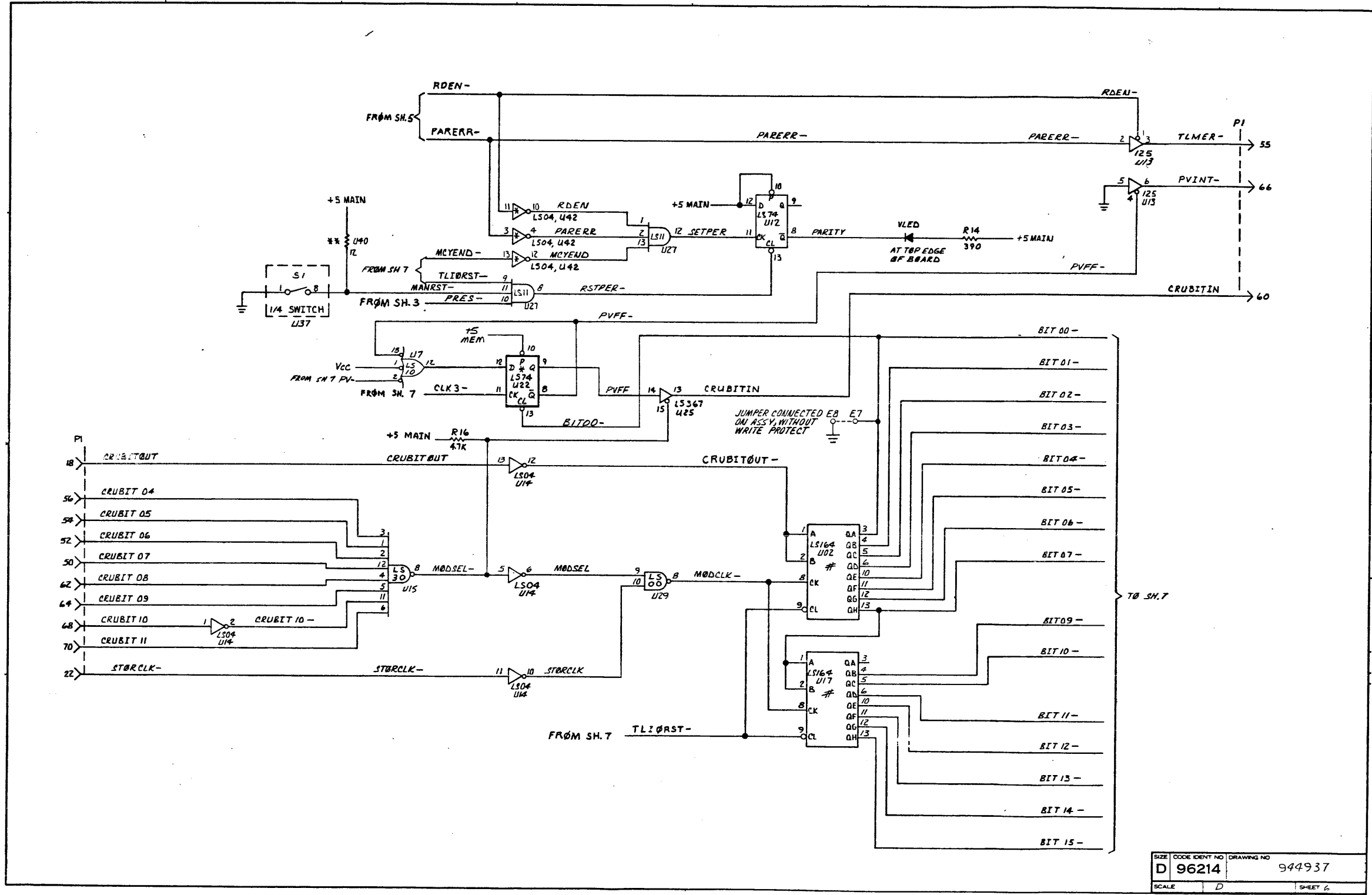


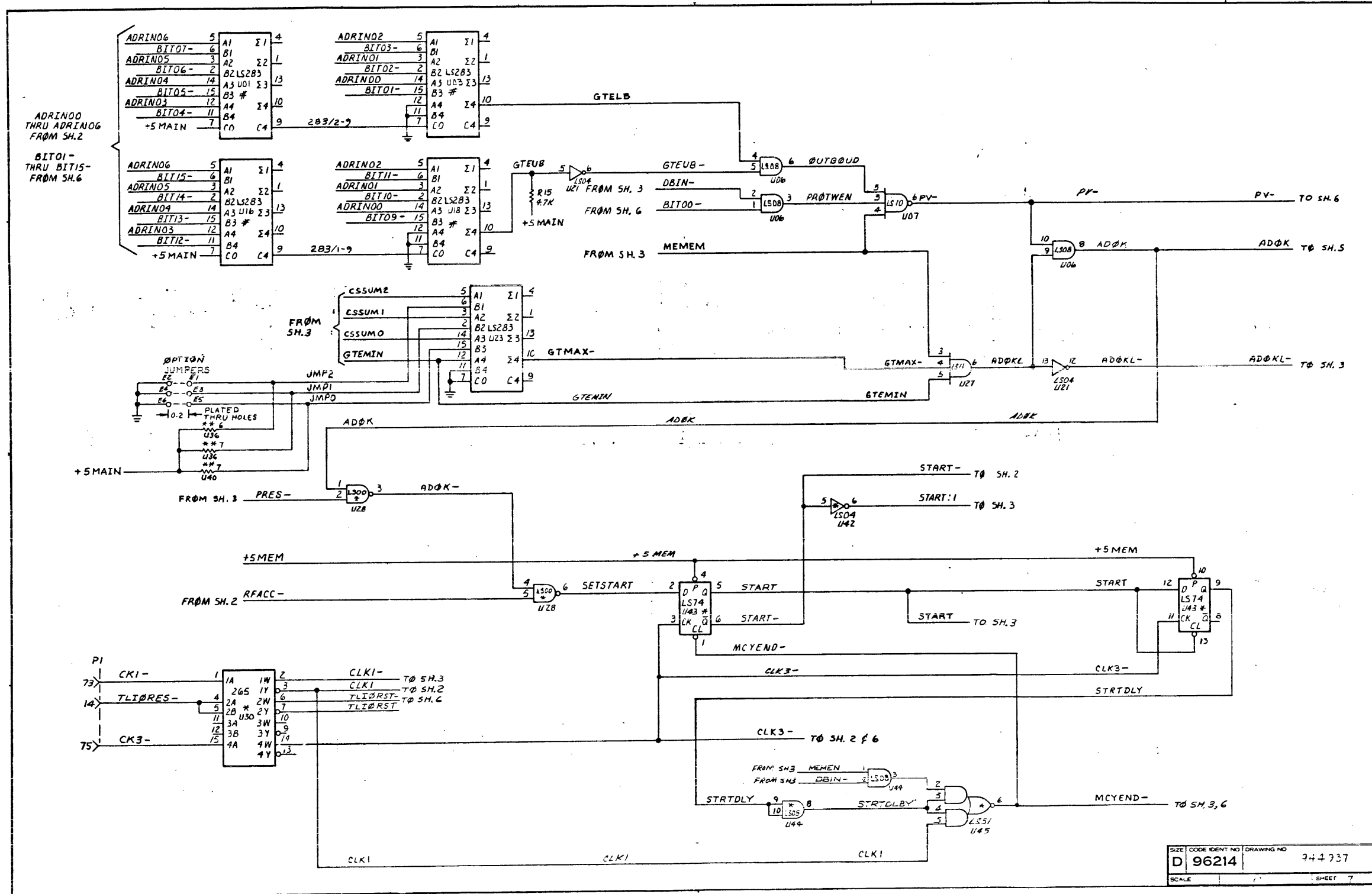




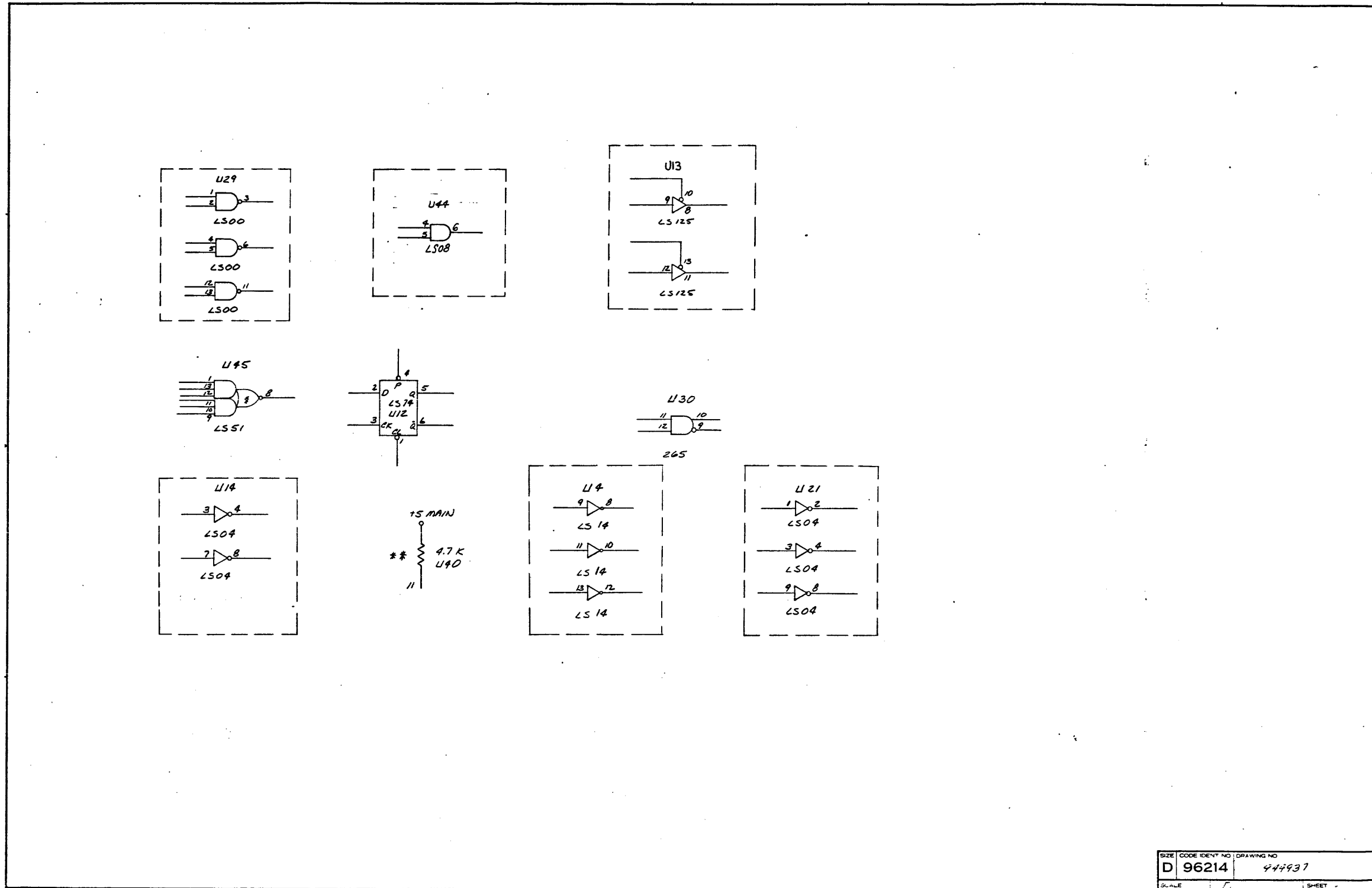
SIZE	CODE IDENT NO	DRAWING NO
D	96214	944937
SCALE		SHEET 44







SIZE	CODE IDENT NO	DRAWING NO
D	96214	944737
SCALE		SHEET 7



SIZE	CODE IDENT NO	DRAWING NO
D	96214	444937
SCALE		SHEET



PARITY OPTION PN	USED ON ASSEMBLY	DEVICE TYPES	DEVICE PART NUMBER	DEVICE(S) LOCATION(S)
945120-0001	944935-0001	74180	222222-7180	U35
	944935-0006	74180 TMS4050	222222-7180 972659-0001	U39 A1U16
945120-0002	944935-0002	74180	222222-7180	U35
	944935-0007	74180 TMS4050	222222-7180 972659-0001	U39 A1U16 A2U16
945120-0003	944945-0002	74180	222222-7180	U39
	944935-0003 944935-0008	74180 TMS4050 TMS4050	222222-7180 972659-0001 972659-0001	U40 A1U16 A2U16
945120-0003	944935-0003	74180	222222-7180	U35
	944935-0008	74180 TMS4050 TMS4050	222222-7180 972659-0001 972659-0001	U39 A1U16 A2U16 A3U16

SIZE	CODE IDENT NO	DRAWING NO
A	96214	945120
SCALE	REV	SHEET
	A	3

PARITY OPTION PN	USED ON ASSEMBLY	DEVICE TYPES	DEVICE PART NUMBER	DEVICE(S) LOCATION(S)
945120-0003	944945-0003	74180	222222-7180	U39
	944935-0004 944935-0009	74180 TMS4050 TMS4050 TMS4050	222222-7180 972659-0001 972659-0001 972659-0001	U40 A1U16 A2U16 A3U16
945120-0004	944935-0004	74180	222222-7180	U35
	944935-0009	74180 TMS4050 TMS4050 TMS4050	222222-7180 972659-0001 972659-0001 972659-0001	U39 A1U16 A2U16 A3U16 A4U16
945120-0005	944945-0004	74180	222222-7180	U39
	944935-0005 944935-0010	74180 TMS4050 TMS4050 TMS4050 TMS4050	222222-7180 972659-0001 972659-0001 972659-0001 972659-0001	U40 A1U16 A2U16 A3U16 A4U16
945120-0005	944935-0005	74180	222222-7180	U35
	944935-0010	74180 TMS4050 TMS4050 TMS4050 TMS4050	222222-7180 972659-0001 972659-0001 972659-0001 972659-0001	U39 A1U16 A2U16 A3U16 A4U16 A5U16

SIZE	CODE IDENT NO	DRAWING NO
A	96214	945120
SCALE	REV	SHEET
	A	4

PARITY OPTION PN	USED ON ASSEMBLY	DEVICE TYPES	DEVICE PART NUMBER	DEVICE(S) LOCATION(S)
945120-0005	944945-0005	74180	222222-7180	U39
		74180	222222-7180	U40
		TMS4050	972659-0001	A1U16
		TMS4050	972659-0001	A2U16
		TMS4050	972659-0001	A3U16
		TMS4050	972659-0001	A4U16
945120-0006	944910-0002 944910-0003	74180	222222-7180	U43
		74180	222222-7180	U81
		TMS4051	972660-0001	U74

SIZE	CODE IDENT NO	DRAWING NO
A	96214	945120
SCALE	REV	SHEET
	A	5



TEXAS INSTRUMENTS INCORPORATED		DATE 01/22/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0945120-0001		REV C		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0001	00002.000	EA		022222-7180	NETWORK 5N74180N							
0002	00001.000	EA		0972659-0001	NETWORK,TMS4050NL							
0003	00001.000	EA		0399999-9711	COPY OF DWG(S) BELOW	-803JS P/N,NO D						
0003A					945120-1 PARITY OPTION							
0003B					(SHIP A COPY OF DWG(S) ONLY							
0003C					IF KIT IS NOT FACTORY							
0003D					INSTALLED)							
0004	REF	EA		0948952-9901	T.P.,SYS TEST,990 CMPT AND ASSOC PRPHLS							
DRAFTSMAN		DATE	CRD. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE DYNAMIC RAM PARITY OPTION, 4K MEMORY					
APPRO. MFG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	7506	PART NUMBER LM0945120-0001	REV C		

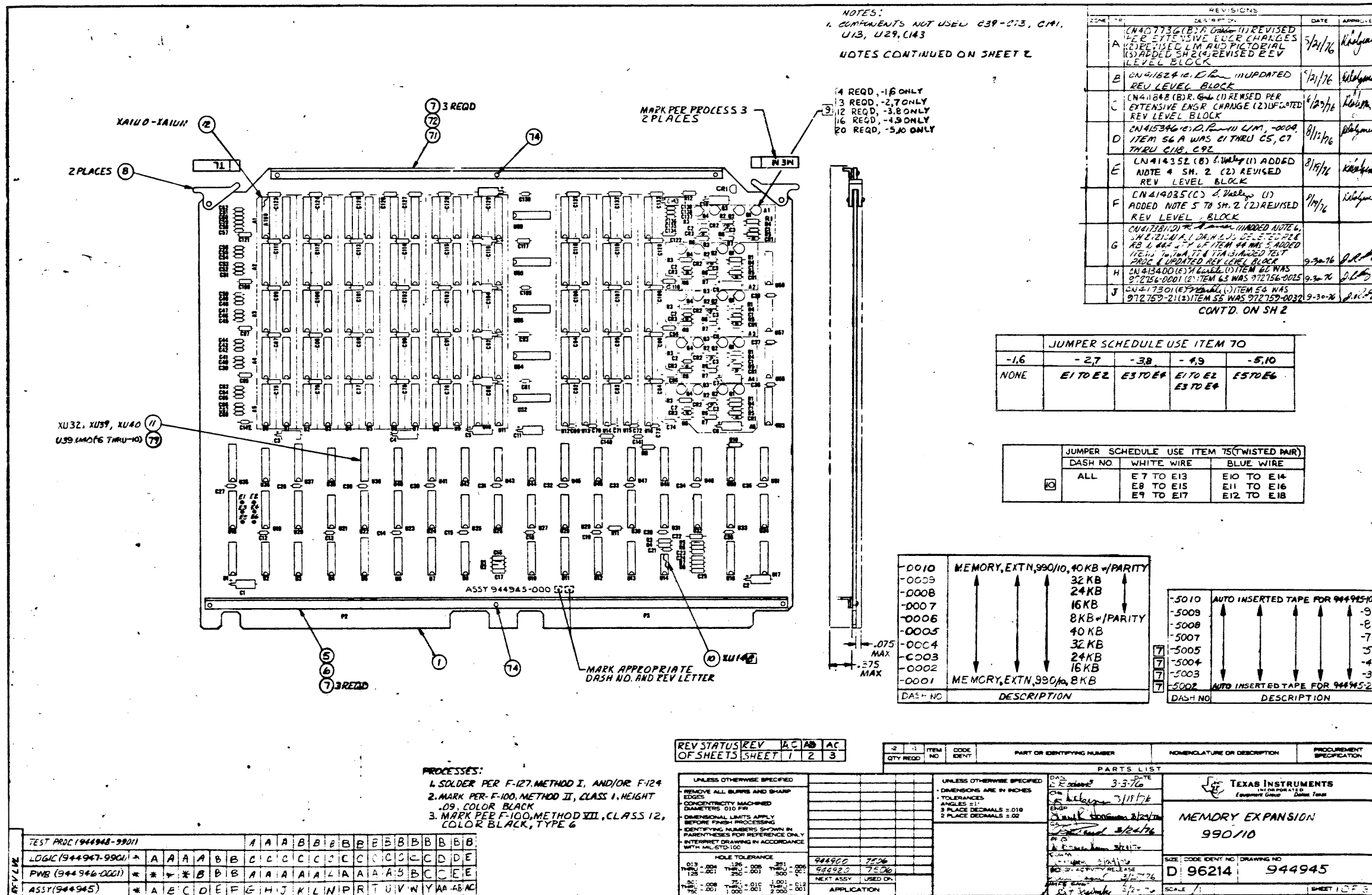
TEXAS INSTRUMENTS INCORPORATED		DATE 01/22/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0945120-0002		REV C		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0001	00002.000	EA		022222-7180	NETWORK 5N74180N							
0002	00002.000	EA		0972659-0001	NETWORK,TMS4050NL							
0003	00001.000	EA		0399999-9711	COPY OF DWG(S) BELOW	-803JS P/N,NO D						
0003A					945120-2 PARITY OPTION							
0003B					(SHIP A COPY OF DWG(S) ONLY							
0003C					IF KIT IS NOT FACTORY							
0003D					INSTALLED)							
0004	REF	EA		0948952-9901	T.P.,SYS TEST,990 CMPT AND ASSOC PRPHLS							
DRAFTSMAN		DATE	CRD. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE DYNAMIC RAM PARITY OPTION, 8K MEMORY					
APPRO. MFG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.		PART NUMBER LM0945120-0002	REV C		

TEXAS INSTRUMENTS INCORPORATED		DATE 01/22/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0945120-0003		REV C		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0001	00002.000	EA		022222-7180	NETWORK 5N74180N							
0002	00003.000	EA		0972659-0001	NETWORK,TMS4050NL							
0003	00001.000	EA		0399999-9711	COPY OF DWG(S) BELOW	-803JS P/N,NO D						
0003A					945120-3 PARITY OPTION							
0003B					(SHIP A COPY OF DWG(S) ONLY							
0003C					IF KIT IS NOT FACTORY							
0003D					INSTALLED)							
0004	REF	EA		0948952-9901	T.P.,SYS TEST,990 CMPT AND ASSOC PRPHLS							
DRAFTSMAN		DATE	CRD. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE DYNAMIC RAM PARITY OPTION, 12K MEMORY					
APPRO. MFG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.		PART NUMBER LM0945120-0003	REV C		

TEXAS INSTRUMENTS INCORPORATED		DATE 01/22/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0945120-0004		REV C		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0001	00002.000	EA		022222-7180	NETWORK 5N74180N							
0002	00004.000	EA		0972659-0001	NETWORK,TMS4050NL							
0003	00001.000	EA		0399999-9711	COPY OF DWG(S) BELOW	-803JS P/N,NO D						
0003A					945120-4 PARITY OPTION							
0003B					(SHIP A COPY OF DWG(S) ONLY							
0003C					IF KIT IS NOT FACTORY							
0003D					INSTALLED)							
0004	REF	EA		0948952-9901	T.P.,SYS TEST,990 CMPT AND ASSOC PRPHLS							
DRAFTSMAN		DATE	CRD. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE DYNAMIC RAM PARITY OPTION, 16K MEMORY					
APPRO. MFG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.		PART NUMBER LM0945120-0004	REV C		

TEXAS INSTRUMENTS INCORPORATED		DATE 01/22/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM945123-0005		REV C		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0001	00002.000	EA		0222222-7180	NETWORK SM74180M							
0002	00005.000	EA		0972659-0001	NETWORK,TMS4050NL							
0003	00001.000	EA		0399999-9711	COPY OF DWG(S) BELOW	-833JS P/N,NO B						
0003A					945120-5 PARITY OPTION							
0003B					(SHIP A COPY OF DWG(S) ONLY							
0003C					IF KIT IS NOT FACTORY							
0003D					INSTALLED)							
0004	REF	EA		0948952-9901	T.P.,SYS TEST,990 CMPT AND ASSOC PRPHLS							
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE DYNAMIC RAM PARITY OPTION, 20K MEMORY					
APPD. MGR		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.					
							PART NUMBER LM945123-0005					
							REV C					

TEXAS INSTRUMENTS INCORPORATED		DATE 01/22/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM945123-0006		REV C		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0001	00002.000	EA		0222222-7180	NETWORK SM74180M							
0002	00001.000	EA		0972660-0001	NETWORK,TMS4051NL							
0003	00001.000	EA		0399999-9711	COPY OF DWG(S) BELOW	-833JS P/N,NO B						
0003A					945120-6 PARITY OPTION							
0003B					(SHIP A COPY OF DWG(S) ONLY							
0003C					IF KIT IS NOT FACTORY							
0003D					INSTALLED)							
0004	REF	EA		0948952-9901	T.P.,SYS TEST,990 CMPT AND ASSOC PRPHLS							
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE DYNAMIC RAM PARITY OPTION, 990/4 CPU					
APPD. MGR		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.					
							PART NUMBER LM945123-0006					
							REV C					



NOTES:  
 1. COMPONENTS NOT USED 639-213, CMI, U13, U29, U143  
 NOTES CONTINUED ON SHEET 2

4 REQD, -1.6 ONLY  
 3 REQD, -2.7 ONLY  
 12 REQD, -3.8 ONLY  
 16 REQD, -4.9 ONLY  
 20 REQD, -5.10 ONLY

REV	DATE	APPROVED
A	7/21/76	[Signature]
B	7/21/76	[Signature]
C	6/12/76	[Signature]
D	8/11/76	[Signature]
E	8/19/76	[Signature]
F	9/17/76	[Signature]
G	9-30-76	[Signature]
H	9-30-76	[Signature]
J	9-30-76	[Signature]

JUMPER SCHEDULE USE ITEM 70				
-1.6	-2.7	-3.8	-4.9	-5.10
NONE	E1 TO E2	E3 TO E4	E1 TO E2 E3 TO E4	E5 TO E6

JUMPER SCHEDULE USE ITEM 75 (TWISTED PAIR)		
DASH NO	WHITE WIRE	BLUE WIRE
ALL	E7 TO E13 E8 TO E15 E9 TO E17	E10 TO E14 E11 TO E16 E12 TO E18

DASH NO	DESCRIPTION
-0010	MEMORY, EXTN, 990/10, 40 KB w/PARITY
-0009	32 KB
-0008	24 KB
-0007	16 KB
-0006	8 KB w/PARITY
-0005	40 KB
-0004	32 KB
-0003	24 KB
-0002	16 KB
-0001	MEMORY, EXTN, 990/10, 8 KB

DASH NO	DESCRIPTION
-5010	AUTO INSERTED TAPE FOR 944945-10
-5009	
-5008	
-5007	
-5005	
-5004	
-5003	
-5002	AUTO INSERTED TAPE FOR 944945-2

PROCESSES:  
 1. SOLDER PER F-127, METHOD I, AND/OR F-124  
 2. MARK PER F-100, METHOD II, CLASS 1, HEIGHT .09, COLOR BLACK  
 3. MARK PER F-100, METHOD VII, CLASS 12, COLOR BLACK, TYPE 6

TEST PROC (944948-9901)	A	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
LOGIC (944947-9901)	A	A	A	B	C	C	C	C	C	C	C	C	D	D	D	D	D	D
PWB (944946-0001)	*	*	*	B	B	A	A	A	A	A	A	A	B	C	C	E	E	E
ASSY (944945)	A	B	C	D	E	F	G	H	J	K	L	N	P	R	T	U	V	W

REV	STATUS	REV	AC	AB	AC
1	OF SHEETS	1	2	3	

QTY	REQD	ITEM NO	CODE	IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION

PARTS LIST	
UNLESS OTHERWISE SPECIFIED	UNLESS OTHERWISE SPECIFIED
REMOVE ALL BURRS AND SHARP EDGES	DIMENSIONS ARE IN INCHES
CONCENTRICITY MACHINED DIAMETERS 0.10 FIR	TOLERANCES
DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING	ANGLES 311
IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY	3 PLACE DECIMALS = 0.10
INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100	2 PLACE DECIMALS = 0.02
HOLE TOLERANCE	
THRU - .001	THRU - .005
1.25 - .001	1.001 - .005
1.50 - .001	1.001 - .005
1.75 - .001	1.001 - .005
2.00 - .001	1.001 - .005

TEXAS INSTRUMENTS	
INTEGRATED EQUIPMENT GROUP	Dallas, Texas
MEMORY EXPANSION 990/10	
SIZE: CODE IDENT NO: DRAWING NO	D 96214 944945
SCALE: 1/1	SHEET 1 OF 3

**NOTES CONT:**

7. ITEM 78 IN -0002, -0003, -0004 AND -0005 LMS CONSISTS OF COMPONENTS WHICH ARE AUTO INSERTED AND CONTAINED IN THE -5002, -5003, -5004, AND -5005 LMS. -0002 = -5002, -0003 = -5003, -0004 = -5004 AND -0005 = -5005.

8. ITEM #1 INSTALLED AFTER AT5 TEST

9. ITEMS 16, 17 SHOULD BE MECHANICALLY MACHINE PREPPED PRIOR TO INSERTION

10. JUMPERING ACCOMPLISHED ON PWB'S REV #A VIA REWORK NOTE 2.

11. REWORK ASSY'S USING PWB 944946 REV #A & B.

(a) ON CONDUCTOR SIDE, CUT ETCH GOING TO U32 - PINS 5 AND 12, AND ADD A JUMPER USING ITEM 70 FROM U32-9 TO FEEDTHRU OF ETCH CUT AS SHOWN:

(b) AT U7, CUT PINS 2, 4, 6, 10, AND 12 ON COMPONENT SIDE USING ITEM 70 TO ADD JUMPERS ACCORDING TO LIST AND DWG. AS SHOWN:

FROM:	TO:
U7-2 PKG	U13-8
U7-4 PKG	U13-11
U7-6 PKG	U13-3
U7-10 PKG	U13-6
U7-12 PKG	U24-12
U7-9	U13-10
U13-10	PI-27 FEEDTHRU
U13-12	U13-13
U13-13	PI-28 FEEDTHRU
U13-2	U13-1
U13-1	PI-30 FEEDTHRU
U13-5	U13-4
U13-4	PI-31 FEEDTHRU

(c) ADD JUMPER USING 30AWG WIRE (ITEM 70) FROM U10-10 TO U16-4 ON COMPONENT SIDE.

**NOTES: CONTINUED**

(m) ON CONDUCTOR SIDE OF THE BOARD CUT THE ETCH GOING TO U148-1 AS SHOWN

USE ITEM 70 TO CONNECT A JUMPER FROM U148-1 TO U16-3

(n) CUT THE 3 LINES AT U53-1, 2, 3 ON CONDUCTOR SIDE OF BOARD AND AT THE 3 FEED THRU ABOVE U36 ON CONDUCTOR SIDE OF BOARD AS SHOWN

**NOTES: CONTINUED**

(p) ON THE COMPONENT SIDE CUT THE FOUR LINES RUNNING FROM U20 TO U37

USE ITEM 70 TO CONNECT THE FOLLOWING PINS: U20-3 TO U37-11  
U20-5 TO U37-12  
U20-12 TO U37-9  
U20-14 TO U37-10

(q) INSTALL THE FOLLOWING CAPACITORS IN THE OPPOSITE DIRECTION TO THE BOARD SYMBOLIZATION, I.E. PLUS SIDE TO THE RIGHT (C80, C92, C104, C116 AND C129) CLINCH THE LEFT (-) LEAD OF C129 AND CONNECT IT TO THE HORIZONTAL ETCH ABOVE THE HOLE ON THE CONDUCTOR SIDE. MARK A + SIGN ON THE RIGHT HAND SIDE OF THESE CAPACITORS BETWEEN THE INTEGRATED CIRCUITS IN COLUMN III

(r) INSTALL L1 WITH THE CATHODE ON THE RIGHT AS SHOWN BELOW

(s) ON THE CONDUCTOR SIDE OF BOARD CUT THE ETCH ON THE BOTTOM CENTER TAB AND ADD A JUMPER AS SHOWN

(t) ON CONDUCTOR SIDE OF BOARD CUT THE ETCH GOING TO U18-3 AS SHOWN

USE ITEM 70 TO CONNECT A JUMPER FROM U18-3 TO U27-4

(u) USING ITEM 75, TWISTED PAIR WIRE, ON THE COMPONENT SIDE OF THE BOARD CONNECT THE FOLLOWING POINTS WITH THE WHITE WIRE:

ETCH "D" NEAR THE FEED THRU AND TO THE ETCH WHICH GOES TO U53-4.5

CONNECT ALL OF THE BLUE WIRES TO THE ETCH "D" NEAR THE FEED THRU AND TO THE ETCH WHICH GOES TO U53-4.5

**NOTES: CONTINUED**

2. REWORK FOR ASSEMBLIES USING REV #A AND PWB. UNLESS OTHERWISE STATED, REWORK APPLIES TO ALL DASH NUMBER ASSEMBLIES

(a) DRILL .04 INCH DIAMETER HOLE FOR C129 AS SHOWN (EXISTING HOLES ARE TOO CLOSE)

(b) ENLARGE UNPLATED HOLE IN CENTER OF PWB FROM .116 TO .191 INCH DIAMETER

(c) ENLARGE & STIFFENER HOLES (3 TOP, 3 BOTTOM) FROM .078 TO .125 INCH DIAMETER

(d) ON THE COMPONENT SIDE JUMPER THE FOLLOWING PINS TO THE ETCH BESIDE THEM AS FOLLOWS:

(1) U8-9 TO THE ETCH WHICH GOES TO U8-14  
(2) U12-1 TO THE ETCH WHICH GOES TO U12-B

(e) ON COMPONENT SIDE OF BOARD CUT THE TWO ETCHES GOING TO U1-B AND U1-2 AS SHOWN

ON CONDUCTOR SIDE OF BOARD ADD JUMPERS USING ITEM 70 FROM FEED THRU "A" TO U1-B AND FROM FEED THRU "B" TO U1-2 AS SHOWN

(NOTE 2 CONTD. EN D-5)

3. ITEM #2 INSTALLED AT UNIT TEST

4. REWORK FOR ASSEMBLIES USING REV #A PWB'S (NOTE: REWORK DONE ON COMPLETED ASSY)

(a) CUT PIN 2 OF U48 AND LEAVE ENOUGH OF PIN ON PACKAGE SIDE TO SOLDER TO.

(b) ADD JUMPER FROM U48-6 TO U48-2 PKG USING ITEM 70.

5. TMS 40SONL DEVICES, 972459-1, TO BE ADDED TO THE ASSEMBLY AFTER AT5 TEST

6. R2, R4, R7 AND R8 ARE SELECTED TO THE REQUIREMENTS OF UNIT TEST PROCEDURE, 944946-9901

(NOTES CONTD. EN D-6)

**REVISIONS**

ZONE	LTR	DESCRIPTION	DATE	APPROVED
K		CN 420469 (E) 7. Update (1) REVISED LM PER EXTENSIVE ENGRG CHANGES (2) UPDATED REV. LEVEL BLOCK.	6-10-77	J. R. R. 2
L		CN 424395 (C) 7. Update (1) SH1, CHANGED CAPS. C80, C92, C104, C116, & C129 TO HAVE POSITIVE TERMINAL ON RIGHT (2) SH 2, NOTE 4, OMITTED "AND B" (3) SH 2, NOTE 2 (P) HAD PIN 1 ON LOWER LEFT. (4) UPDATED REV. LEVEL BLOCK.	6-10-77	J. R. R. 2
M		CN 427111 (C) 1. TO THE (1) NOTE 2 WAS --- REV. # PWB. (2) UPDATED REV. LEVEL BLOCK.	8-25-77	J. R. R. 2
N		CN 426866 (E) 1. Update (1) REVISED LM PER EXTENSIVE ENGRG CHANGES (2) UPDATED REV. LEVEL BLOCK.	8-25-77	J. R. R. 2
P		CN 426879 (C) 7. Update (1) LM, -5002, -5003, -5004 & -5005 DELETED ITEMS 15, 16 (2) LM -2, -3, -4, -5 ADDED ITEMS 16, 15, & 16 (3) UPDATED REV. LEVEL BLDCK.	10-12-77	J. R. R. 2
Q3	R	CN 425140 (C) 2. Update (1) SH1, DASH NO. DESCS. WERE 4, 5, 8, 12, 16, 20, 24, -0006 THRU -0010 DESCS ADDED (2) JUMPER SCHED. WAS -1-2-3-4-5 (3) AT ITEM 75, DASH NO'S WERE -1 ONLY THRU -5 ONLY (4) ZN B-8 ADDED ITEM 79 (5) ADDED -0006 THRU -0010 LMS. (6) ADDED -5007 THRU -5010 LMS (7) ADDED -5007 THRU -5010 DASHING TO DESC. BLOCK (8) UPDATED REV. LEVEL BLOCK.	11-9-77	J. R. R. 2
T		CN 429451 (C) 2. Update (1) ON -001, -0006, AND -5002 THRU -5010 QTY ITEM 63 WAS 2 (2) ON -0001 THRU -0010 LMS ADDED ITEM 60 (3) UPDATED REV. LEVEL BLOCK.	3-13-78	J. R. R. 2
U		CN 429497 (C) 2. Update (1) ADDED NOTE 8 (2) UPDATED REVISION LEVEL BLOCK.	8-3-78	J. R. R. 2
V		CN 442604 (C) 2. Update (1) -1 THRU -10 LM DELETED ITEM 73 (2) ADDED NOTE 9 (3) UPDATED REV. LEVEL BLK.	8-7-78	J. R. R. 2
W		CN 430772 (C) 2. Update (1) REVISED LMS -0002 THRU -0010 AND -5002 THRU -5010 PER EXTENSIVE ENGINEERING CHANGES (2) UPDATED REV. LVL BLK.	3-26-79	J. R. R. 2
Y		CN 442368 (C) 2. Update (1) IN ZONE D-4, CRI WAS L1, REVISED PICTORIAL (2) ADDED JUMPER SCHEDULE CHART (3) UPDATED REV. LVL BLK (4) ADDED NOTE 10.	9-30-79	J. R. R. 2
AA		CN 448307 (B) 2. Update (1) ADDED NOTE 11 & 12 TO SH. 2 (2) DELETED REWORK NOTE 2 (2) ENTIRELY. (3) UPDATED REV. LVL BLK (4) ON -5002 THRU -5010 ITEM 37 QTY WAS 6 AND DELETED U7, ITEM 30 QTY WAS 2 & ADDED U13 TO DESC. ADDED ITEM 81.	3-30-79	J. R. R. 2
AB		CN 451925 (D) 2. Update (1) LM'S -1 THRU -10 ITEM 10 P/N WAS 539544-6, ITEM 11 P/N WAS 539544-1 AND ITEM 12 P/N WAS 539544-5 (2) UPDATED REV. LEVEL BLK.	3-30-79	J. R. R. 2

REVISIONS CONT'D ON SH 3

**PARTS LIST**

QTY	REQD	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION

UNLESS OTHERWISE SPECIFIED

REMOVE ALL BURRS AND SHARP EDGES

CONCENTRICITY MACHINED DIAMETERS .010 P/P

DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING

IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY

INTERPRET DRAWINGS IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

.013	-.004	.125	+.008	.251	-.008
.125	-.001	.250	+.001	.500	-.001
.501	-.001	.751	+.001	1.001	-.001
THRU .008	THRU .010	THRU .011	THRU .012	THRU .013	THRU .014
.750	-.001	1.000	-.001	2.000	-.001

UNLESS OTHERWISE SPECIFIED

DIMENSIONS ARE IN INCHES

TOLERANCES

ANGLES ±1°

3 PLACE DECIMALS ±0.10

2 PLACE DECIMALS ±0.02

DATE: 5-11-76

DESIGNER: A. CRILE

ENGR: [ ]

QA: [ ]

APVD: [ ]

CONTR NO: [ ]

DESIGN ACTIVITY RELEASE: [ ]

SCALE: 1/1

SIZE: D

CODE IDENT NO: 944945

DRAWING NO: 944945

MEMORY EXPANSION 990/10


TEXAS INSTRUMENTS Equipment Group Dallas, Texas

SCALE: 1/1

AE

SHEET: 2

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	AC	CN 448732 (C) P. (A) U) LN 0001 THRU 0010 DELETED ITEM 77 539370- 0334**R8* (C) LN 0001 THRU 0010 LINE 44A WAS R1, R6, R7(S) ADDED. TEM #2 TO LN 0001 THRU 0010(S) UPDATE REV LEVEL BLOCK(S) ADDED SH 3	8-11-79	<i>G. W. [Signature]</i>

 TEXAS INSTRUMENTS <small>DAVIDSON, TEXAS</small>	DATE 5-22-79	PART NO D96214	DRAWING NO 944945	REV AC
	ISSUE DATE	SCALE	SHEET 3	

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944945-0001		REV AC		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0001	0001.000	EA		0944946-0001	PWB-MEMORY, EXTN, 990/10							
0002	REF	EA		0944947-9901	LOGIC DIAGRAM-MEMORY, EXTN, 990/10							
0003	REF	EA		0944948-9901	TEST PROCEDURE-MEMORY, EXTN, 990/10							
0004	REF	EA		0944949-9901	SPECIFICATION-MEMORY, EXTN, 990/10							
0005	0001.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN							
0006	0001.000	EA		0944954-0001	INSULATOR, PWB, 14IN							
0007	00006.000	EA		0972684-0002	SCREW, THD FRNG, HEX WSHR HD, 2-56X1/4 LG							
0008	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB							
0010	00001.000	EA		2210188-0001	SOCKET, LOW PROFILE, DIP, 3 CONT, 8 PINS	003612-DIL88P-108						
0010A					XU14							
0011	00003.000	EA		2210188-0002	SOCKET, LOW PROFILE, DIP, 14 PINS	003612-DIL814P-108						
0011A					XU32 XU39 XU40							
0012	00017.000	EA		2210188-0004	SOCKET, LOW PROFILE, DIP, 8 CONT, 18 PINS	003612-DIL818P-108						
0012A					XAIU00 THRU XAIU16							
0013	00001.000	EA		0972594-0005	SWITCH, ROCKER-PWB MOUNTED	023880-900128						
0013A					U37							
0014	00001.000	EA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING							
0014A					CR1							
0015	00003.000	EA		0972932-0001	DIODE, IN914B SWITCHING 75V PIV 75MA 4MS	TI - IN914B						
0015A					AICR1 THRU AICR3							
DRAFTSMAN		DATE	CED DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY, EXPANSION, 990/10, 8KB				
APPROVING		DATE	APPROVING PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO	7506				
								PART NUMBER		REV		
								LM0944945-0001		AC		

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944945-0001		REV AC		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0016	00003.000	EA		0972955-0001	XSTR 2N2369A, NPN, HIGH SPEED SW, TO-18	MOT - 2N2369A						
0016A					A1Q1 A1Q2 A1Q4							
0017	00001.000	EA		0236081-0000	X-XST 2N2894	TI - 2N2894						
0017A					A1Q3							
0018	00002.000	EA		0972900-7400	NETWORK SN74LS00N	TI - SN74LS00N						
0018A					U34 U50							
0019	00001.000	EA		0240000-7474	NETWORK-SN7407N							
0019A					U32							
0020	00005.000	EA		0972900-7404	NETWORK SN74LS04N							
0020A					U1 U2 U3 U17 U43							
0021	00002.000	EA		0222222-7407	NETWORK-SN7407N	TI - SN7407N						
0021A					U25 U33							
0022	00002.000	EA		0972749-0001	NETWORK, SN74LS08N							
0022A					U42 U51							
0023	00003.000	EA		0972900-7410	NETWORK SN74LS10N							
0023A					U4 U8 U49							
0024	00001.000	EA		0972788-0001	NETWORK, SN74LS11, POSITIVE AND GATE							
0024A					U31							
0025	00001.000	EA		0222222-7440	NETWORK SN7440N	-SN7440N						
0025A					U10							
DRAFTSMAN		DATE	CED DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY, EXPANSION, 990/10, 8KB				
APPROVING		DATE	APPROVING PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO					
								PART NUMBER		REV		
								LM0944945-0001		AC		

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944945-0001		REV AC		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0026	00001.000	EA		0972813-0001	NETWORK-SN74LS21N							
0026A					U27							
0027	00005.000	EA		0972900-7474	NETWORK SN74LS74N							
0027A					U28 U48 U55 U57 U59							
0028	00001.000	EA		0222222-7474	NETWORK SN7474N	-SN7474N						
0028A					U44							
0029	00001.000	EA		0222222-7475	NETWORK-SN7475N							
0029A					U11							
0030	00003.000	EA		0972782-0001	NETWORK SN74LS132N	TI - SN74LS132N						
0030A					U13 U16 U26							
0031	00001.000	EA		0972900-7138	NETWORK SN74LS138N	TI - SN74LS138N						
0031A					U53							
0032	00002.000	EA		0972686-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N							
0032A					U30 U45							
0033	00001.000	EA		0219402-7260	NETWORK SN74S260N							
0033A					U21							
0035	00003.000	EA		0972652-0001	NETWORK SN74LS283N							
0035A					U18 U19 U20							
0036	00002.000	EA		0972653-0001	NETWORK, SN74LS293N							
0036A					U46 U47							
DRAFTSMAN		DATE	CED DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY, EXPANSION, 990/10, 8KB				
APPROVING		DATE	APPROVING PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO					
								PART NUMBER		REV		
								LM0944945-0001		AC		

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM0944945-0001		REV AC		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0037	00005.000	EA		0972787-0003	NETWORK SN74LS367N							
0037A					U5 U6 U22 U23 U24							
0038	00001.000	EA		0972556-0001	NETWORK SN74367N	TI - SN74367N						
0038A					U60							
0039	00001.000	EA		0972556-0002	NETWORK SN74368N							
0039A					U35							
0040	00001.000	EA		0974674-0001	NETWORK SN75138N							
0040A					U12							
0041	00001.000	EA		0972188-0001	NETWORK, NE555V, MONOLITHIC TIMING, LINEAR	ST - NE555V						
0041A					U14							
0042	00016.000	EA		0972659-0001	NETWORK, TMS4050NL							
0042A					A1U00 THRU A1U15							
0043	00003.000	EA		0972141-0057	NETWORK, RES. 4.7 K OHM 2 % 14 PIN DIP	BEC - 899-1-R4.7K						
0043A					U36 U38 U41							
0044	00003.000	EA		0539370-0339	RES FIX FILM 332 OHM 1% .25 WATT	COR - NA55D-100PPM/C						
0044A					R1 R7 R8							
0045	00001.000	EA		0972946-0017	RES FIX 10.0 OHM 5 % .25 W. CARBON FILM	ROH - R-25						
0045A					A1R3							
0046	00001.000	EA		0972946-0055	RES FIX 390 OHM 5 % .25 W CARBON FILM	ROH - R-25						
0046A					R12							
DRAFTSMAN		DATE	CED DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY, EXPANSION, 990/10, 8KB				
APPROVING		DATE	APPROVING PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO					
								PART NUMBER		REV		
								LM0944945-0001		AC		

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LM0944945-0001		REV AC		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0047	00002.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH - R-25						
0047A					A1R1 A1R5							
0048	00002.000	EA		0972946-0067	RES FIX 1.2K OHM 5% .25 W CARBON FILM	ROH - R-25						
0048A					R3 R4							
0050	00001.000	EA		0972946-0075	RES FIX 2.7K OHM 5% .25 W CARBON FILM	ROH - R-25						
0050A					A1R4							
0051	00002.000	EA		0972946-0081	RES FIX 4.7K OHM 5% .25 W CARBON FILM	ROH - R-25						
0051A					R10 R11							
0052	00002.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	ROH - R-25						
0052A					A1R2 A1R8							
0053	00002.000	EA		0972946-0112	RES FIX 91 K OHM 5% .25 W CARBON FILM	ROH - R-25						
0053A					A1R6 A1R7							
0054	00033.000	EA		0972763-0021	CAP.,FIXED,AXIAL LEAD,.047 UF,+80%,-20%							
0054A					C12 THRU C15,C18 THRU C20,							
0054B					C26 THRU C38,C74 C81 C85							
0054C					C97 C98 C105 C109 C110 C121							
0054D					C86 C122 C130 C142							
0055	00012.000	EA		0972763-0032	CAP FIXED .39 UF 50 VOLTS	UC -C53C394Z						
0055A					C93 C117 C140							
0055B					C123 THRU C128,C131 THRU							
DRAFTSMAN					DATE	CKD DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE		
										MEMORY, EXPANSION, 990/10, 8KB		
APPD. MFG					DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER	REV
											LM0944945-0001	AC

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 6 of		PART NUMBER LM0944945-0001		REV AC		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0055C					C133							
0056	00008.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10% 15 VOLT	QPL -M39003/1-2271						
0056A					C1 THRU C5,C10 C11 C129							
0057	00001.000	EA		0972946-0029	RES FIX 33.0 OHM 5% .25 W.CARBON FILM	POH - R-25						
0057A					R9							
0059	00001.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10% 200 V	QPL -M39014/01-1369						
0059A					A1C1							
0060	00002.000	EA		0972757-0001	CAP, FIXED CERAMIC 100 PF 10% 50V	UC -C51C101K						
0060A					A1C2 A1C3							
0062	00001.000	EA		0539370-0387	RES FIX FILM 1.05K OHM 1% .25 WATT	COR - NA55						
0062A					R5							
0063	00001.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V							
0063A					C21							
0065	00002.000	EA		0972753-0016	CAP., 470 PF, 2%, 25VDC							
0065A					C17 C24							
0066	00001.000	EA		0972753-0015	CAP, 390 PF .2% 25VDC, CERAMIC, AXIAL LEAD	UC -C50D391G						
0066A					C16							
0067	00001.000	EA		0972753-0021	CAP., 1200PF, 2%, 25V, CERAMIC, AX. LEAD							
0067A					C25							
0068	00001.000	EA		0972753-0024	CAP., 2200 PF, 2%, 25VDC							
DRAFTSMAN					DATE	CKD DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE		
										MEMORY, EXPANSION, 990/10, 8KB		
APPD. MFG					DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER	REV
											LM0944945-0001	AC

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 7 of		PART NUMBER LM0944945-0001		REV AC		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0068A					C23							
0070	AR	FT		0535978-0058	WIRE ELEC., SOLID, "KYNAR" INSUL #30 AWG							
0071	00001.000	EA		0946707-0001	STIFFENER, PWB, 11 INCH							
0072	00001.000	EA		0946708-0001	INSULATOR, STIFFENER, PWB, 11 INCH							
0074	00002.000	EA		0236369-0001	WASHER #2 NYLON FLAT BLK .090IDX.020 THK	NPG -101-BLK						
0075	AR	FT		0966760-2896	WIRE, TWISTED PAIR #28 WHT/BLU IPVC	UL - 1472 7STR ULG						
0076	00001.000	EA		0539370-0345	RES FIX FILM 383 OHM 1% .25 WATT	COR - NA55						
0076A					R2							
0080	00001.000	EA		0972929-0415	CAP FIX CERAMIC .010 UF 10% 100 V	QPL -M39014/01-1415						
0080A					C22							
0081	00001.000	EA		0972787-0004	NETWORK SN74LS368N							
0081A					U7							
0082	00001.000	EA		0539370-0340	RES FIX FILM 340 OHM 1% .25 WATT	COR - NA55						
0082A					R6							
DRAFTSMAN					DATE	CKD DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE		
										MEMORY, EXPANSION, 990/10, 8KB		
APPD. MFG					DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER	REV
											LM0944945-0001	AC

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944945-0002		REV AC		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0002	REF	EA		0944947-9901	LOGIC DIAGRAM-MEMORY, EXTN, 990/10							
0003	REF	EA		0944948-9901	TEST PROCEDURE-MEMORY, EXTN, 990/10							
0004	REF	EA		0944949-9901	SPECIFICATION-MEMORY, EXTN, 990/10							
0005	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN							
0006	00001.000	EA		0944954-0001	INSULATOR, PWB, 14IN							
0007	00006.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG							
0008	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB							
0010	00001.000	EA		2210188-0001	SOCKET, LOW PROFILE, DIP, 3 CONT, 8 PINS	003612-D1LB8P-108						
0010A					XU14							
0011	00003.000	EA		2210188-0002	SOCKET, LOW PROFILE, DIP, 14 PINS	003612-D1LB14P-108						
0011A					XU32 XU39 XU40							
0012	00034.000	EA		2210188-0004	SOCKET, LOW PROFILE, DIP, 8 CONT, 18 PINS	003612-D1LB18P-108						
0012A					XA1U00 THRU XA1U16							
0012B					XA2U00 THRU XA2U16							
0013	00001.000	EA		0972594-0005	SWITCH, ROCKER-PWB MOUNTED	023880-900128						
0013A					U37							
0014	00001.000	EA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING							
0014A					CR1							
0016	00006.000	EA		0972955-0001	XSTR 2N2369A, NPN, HIGH SPEED SW, TO-18	N0T - 2N2369A						
0016A					A1Q1 A1Q2 A1Q4 A2Q1 A2Q2							
DRAFTSMAN					DATE	CKD DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE		
										MEMORY, EXPANSION, 990/10, 16KB		
APPD. MFG					DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER	REV
											LM0944945-0002	AC

TEXAS INSTRUMENTS INCORPORATED DATE 04/17/79 LIST OF MATERIAL PAGE 2 of PART NUMBER LMO944945-0002 REV AC

PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0016B				A2Q4		
0017	00002.000	EA		0236081-0000	X-XST 2N2894	TI -2N2894
0017A				A1Q3 A2Q3		
0018	00001.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N
0018A				U50		
0019	00001.000	EA		0240000-7474	NETWORK-SN74H74N	
0019A				U32		
0027	00003.000	EA		0972900-7474	NETWORK SN74LS74N	
0027A				U48 U55 U57		
0031	00001.000	EA		0972900-7138	NETWORK SN74LS138N	TI -SN74LS138N
0031A				U53		
0036	00001.000	EA		0972653-0001	NETWORK,SN74LS293N	
0036A				U47		
0038	00002.000	EA		0972556-0001	NETWORK SN74367N	TI- -SN74367N
0038A				U60 U58		
0041	00001.000	EA		0972188-0001	NETWORK,NE555V,MONOLITHIC TIMING,LINEAR	ST -NE555V
0041A				U14		
0042	00032.000	EA		0972659-0001	NETWORK,TMS4050NL	
0042A				A1U00 THRU A1U15		
0042B				A2U00 THRU A2U15		

DRAFTSMAN DATE CRO DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY, EXPANSION, 990/10, 16KB  
 APPD -MFG DATE APPD PROJECT ENGINEER DATE RELEASED DATE PROJECT NO PART NUMBER LMO944945-0002 REV AC

TEXAS INSTRUMENTS INCORPORATED DATE 04/17/79 LIST OF MATERIAL PAGE 3 of PART NUMBER LMO944945-0002 REV AC

PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0044	00002.000	EA		0539370-0339	RES FIX FILM 332 OHM 1% .25 WATT	COR -NA550-100PPM/C
0044A				R7 R8		
0056	00001.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10 % 15 VOLT	QPL -M39003/1-2271
0056A				C129		
0059	00002.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10 % 200 V	QPL -M39014/01-1369
0059A				A1C1 A2C1		
0065	00002.000	EA		0972753-0016	CAP., 470 PF, 2%, 25VDC	
0065A				C17 C24		
0066	00001.000	EA		0972753-0015	CAP, 390 PF .2% 25VDC, CERAMIC, AXIAL LEAD	UC -C500391G
0066A				C16		
0067	00001.000	EA		0972753-0021	CAP., 1200PF, 2%, 25V, CERAMIC, AX. LEAD	
0067A				C25		
0068	00001.000	EA		0972753-0024	CAP., 2200 PF, 2%, 25VDC	
0068A				C23		
0070	AR	FT		0535978-0058	WIRE ELEC., SOLID, "KYNAR" INSUL #30 AWG	
0071	00001.000	EA		0946707-0001	STIFFENER, PWB, 11 INCH	
0072	00001.000	EA		0946708-0001	INSULATOR, STIFFENER, PWB, 11 INCH	
0074	00002.000	EA		0236369-0001	WASHER #2 NYLON FLAT BLK .090IDX.020 THK	NPG -101-BLK
0075	AR	FY		0966760-2896	WIRE, TWISTED PAIR #28 WHT/BLU IPVC	UL - 1472 75TR UL6
0076	00001.000	EA		0539370-0345	RES FIX FILM 383 OHM 1% .25 WATT	COR - NA55

DRAFTSMAN DATE CRO DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY, EXPANSION, 990/10, 16KB  
 APPD -MFG DATE APPD PROJECT ENGINEER DATE RELEASED DATE PROJECT NO PART NUMBER LMO944945-0002 REV AC

TEXAS INSTRUMENTS INCORPORATED DATE 04/17/79 LIST OF MATERIAL PAGE 4 of PART NUMBER LMO944945-0002 REV AC

PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0076A				R2		
0078	00001.000	EA		0944945-5002	AUTO INSERTED TAPE FOR 944945-2	
0080	00001.000	EA		0972929-0415	CAP FIX CERAMIC .010 UF 10 % 100 V	QPL -M39014/01-1415
0080A				C22		
0082	00001.000	EA		0539370-0340	RES FIX FILM 340 OHM 1% .25 WATT	COR - NA55
0082A				R6		

DRAFTSMAN DATE CRO DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY, EXPANSION, 990/10, 16KB  
 APPD -MFG DATE APPD PROJECT ENGINEER DATE RELEASED DATE PROJECT NO PART NUMBER LMO944945-0002 REV AC

TEXAS INSTRUMENTS INCORPORATED DATE 04/17/79 LIST OF MATERIAL PAGE 1 of PART NUMBER LMO944945-0003 REV AC

PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0002	REF	EA		0944947-9901	LOGIC DIAGRAM-MEMORY, EXTN, 990/10	
0003	REF	EA		0944948-9901	TEST PROCEDURE-MEMORY, EXTN, 990/10	
0004	REF	EA		0944949-9901	SPECIFICATION-MEMORY, EXTN, 990/10	
0005	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN	
0006	00001.000	EA		0944954-0001	INSULATOR, PWB, 14IN	
0007	00006.000	EA		0972684-0002	SCREW, TMD FRMG, HEX WSHR HD, 2-56X1/4 LG	
0008	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB	
0010	00001.000	FA		2210188-0001	SOCKET, LOW PROFILE, DIP, 3 CONT, 8 PINS	003612-D1L88P-108
0010A				XU14		
0011	00003.000	EA		2210188-0002	SOCKET, LOW PROFILE, DIP, 14 PINS	003612-D1L814P-108
0011A				XU32 XU39 XU40		
0012	00051.000	EA		2210188-0004	SOCKET, LOW PROFILE, DIP, 8 CONT, 18 PINS	003612-D1L818P-108
0012A				XA1U00 THRU XA1U16		
0012B				XA2U00 THRU XA2U16		
0012C				XA3U00 THRU XA3U16		
0013	00001.000	EA		0972594-0005	SWITCH, ROCKER-PWB MOUNTED	023880-900128
0013A				U37		
0014	00001.000	EA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING	
0014A				CRI		
0016	00009.000	EA		0972955-0001	XSTR 2N2369A, NPN, HIGH SPEED SW, TD-18	MOT - 2N2369A

DRAFTSMAN DATE CRO DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY, EXPANSION, 990/10, 24KB  
 APPD -MFG DATE APPD PROJECT ENGINEER DATE RELEASED DATE PROJECT NO PART NUMBER LMO944945-0003 REV AC



TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944945-0003		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0016A					A1Q1 A1Q2 A1Q4 A2Q1 A2Q2						
0016B					A2Q4 A3Q1 A3Q2 A3Q4						
0017	00003.000	EA		0236081-0000	X-XST 2N2894	TI	-2N2894				
0017A					A1Q3 A2Q3 A3Q3						
0018	00001.000	EA		0972900-7400	NETWORK SN74LS00N	TI	-SN74LS00N				
0018A					U50						
0019	00001.000	EA		0240000-7474	NETWORK-SN74H74N						
0019A					U32						
0027	00003.000	EA		0972900-7474	NETWORK SN74LS74N						
0027A					U48 U55 U57						
0031	00001.000	EA		0972900-7138	NETWORK SN74LS138N	TI	-SN74LS138N				
0031A					U53						
0036	00001.000	EA		0972653-0001	NETWORK,SN74LS293N						
0036A					U47						
0038	00003.000	EA		0972556-0001	NETWORK SN74367N	TI-	-SN74367N				
0038A					U60 U58 U56						
0041	00001.000	EA		0972188-0001	NETWORK,NE555V,MONOLITHIC TIMING,LINEAR	ST	-NE555V				
0041A					U14						
0042	00048.000	EA		0972659-0001	NETWORK,TMS4050NL						
0042A					A1U00 THRU A1U15						
DRAFTSMAN		DATE	CDR DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE				
							MEMORY, EXPANSION, 990/10, 24KB				
APPROV. MFG.		DATE	APPROV. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER		REV	
								LM0944945-0003		AC	

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944945-0003		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0042B					A2U00 THRU 2U15						
0042C					A3U00 THRU A3U15						
0044	00002.000	EA		0539370-0339	RES FIX FILM 332 OHM 1% .25 WATT	COR	-NA550-100PPM/C				
0044A					R7 R8						
0056	00001.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10 % 15 VOLT	QPL	-M39003/1-2271				
0056A					C129						
0059	00003.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10 % 200 V	QPL	-M39014/01-1369				
0059A					A1C1 A2C1 A3C1						
0065	00002.000	EA		0972753-0016	CAP., 470 PF, 2%, 25VDC						
0065A					C17 C24						
0066	00001.000	EA		0972753-0015	CAP., 390 PF .2% 25VDC, CERAMIC, AXIAL LEAD	UC	-C50D391G				
0066A					C16						
0067	00001.000	EA		0972753-0021	CAP., 1200PF, 2%, 25V, CERAMIC, AX-LEAD						
0067A					C25						
0068	00001.000	EA		0972753-0024	CAP., 2200 PF, 2%, 25VDC						
0068A					C23						
0070	AR	FT		0535978-0058	WIRE ELEC., SOLID, "KYNAR" INSUL #30 AWG						
0071	00001.000	EA		0946707-0001	STIFFENER, PWB, 11 INCH						
0072	00001.000	EA		0946708-0001	INSULATOR, STIFFENER, PWB, 11 INCH						
0074	00002.000	EA		0236369-0001	WASHER #2 NYLON FLAT BLK .090IDX.020 THK	NPG	-101-BLK				
DRAFTSMAN		DATE	CDR DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE				
							MEMORY, EXPANSION, 990/10, 24KB				
APPROV. MFG.		DATE	APPROV. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER		REV	
								LM0944945-0003		AC	

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM0944945-0003		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0075	AR	FT		0966760-2896	WIRE, TWISTED PAIR #28 WHT/BLU IPVC	UL	- 1472 7STR UL6				
0076	00001.000	EA		0539370-0345	RES FIX FILM 383 OHM 1% .25 WATT	COR	- NA55				
0076A					R2						
0078	00001.000	EA		0944945-5003	AUTO INSERTED TAPE FOR 944945-3						
0080	00001.000	EA		0972929-0415	CAP FIX CERAMIC .010 UF 10 % 100 V	QPL	-M39014/01-1415				
0080A					C22						
0082	00001.000	EA		0539370-0340	RES FIX FILM 340 OHM 1% .25 WATT	COR	- NA55				
0082A					R6						
DRAFTSMAN		DATE	CDR DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE				
							MEMORY, EXPANSION, 990/10, 24KB				
APPROV. MFG.		DATE	APPROV. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER		REV	
								LM0944945-0003		AC	

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944945-0004		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0002	REF	EA		0944947-9901	LOGIC DIAGRAM-MEMORY, EXTN, 990/10						
0003	REF	EA		0944948-9901	TEST PROCEDURE-MEMORY, EXTN, 990/10						
0004	REF	EA		0944949-9901	SPECIFICATION-MEMORY, EXTN, 990/10						
0005	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN						
0006	00001.000	EA		0944954-0001	INSULATOR, PWB, 14IN						
0007	00006.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG						
0008	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB						
0010	00001.000	FA		2210188-0001	SOCKET, LOW PROFILE, DIP, 3 CONT, 8 PINS	003612-D1L88P-108					
0010A					XU14						
0011	00003.000	EA		2210188-0002	SOCKET, LOW PROFILE, DIP, 14 PINS	003612-D1L814P-108					
0011A					XU32 XU39 XU40						
0012	00068.000	EA		2210188-0004	SOCKET, LOW PROFILE, DIP, 8 CONT, 18 PINS	003612-D1L818P-108					
0012A					XA1U00 THRU XA1U16						
0012B					XA2U00 THRU XA2U16						
0012C					XA3U00 THRU XA3U16						
0012D					XA4U00 THRU XA4U16						
0013	00001.000	EA		0972594-0005	SWITCH, ROCKER-PWB MOUNTED	023880-900128					
0013A					U37						
0014	00001.000	EA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING						
0014A					CR1						
DRAFTSMAN		DATE	CDR DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE				
							MEMORY, EXPANSION, 990/10, 32KB				
APPROV. MFG.		DATE	APPROV. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER		REV	
								LM0944945-0004		AC	

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944945-0004		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0016	00012.000	EA		0972955-0001	XSTR 2N2369A,NPN,HIGH SPEED SW,TD-18	MOT - 2N2369A			
0016A					A1Q1 A1Q2 A1Q4 A2Q1 A2Q2				
0016B					A2Q4 A3Q1 A3Q2 A3Q4 A4Q1				
0016C					A4Q2 A4Q4				
0017	00004.000	EA		0236081-0000	X-XST 2N2894	TI -2N2894			
0017A					A1Q3 A2Q3 A3Q3 A4Q3				
0018	00001.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N			
0018A					U50				
0019	00001.000	EA		0240000-7474	NETWORK-SN74H74N				
0019A					U32				
0027	00003.000	EA		0972900-7474	NETWORK SN74LS74N				
0027A					U48 U55 U57				
0031	00001.000	EA		0972900-7138	NETWORK SN74LS138N	TI -SN74LS138N			
0031A					U53				
0036	00001.000	EA		0972653-0001	NETWORK,SN74LS293N				
0036A					U47				
0038	00004.000	EA		0972556-0001	NETWORK SN74367N	TI- -SN74367N			
0038A					U60 U58 U56 U54				
0041	00001.000	EA		0972188-0001	NETWORK,NE555V,MONOLITHIC TIMING,LINEAR	ST -NE555V			
0041A					U14				
DRAFTSMAN DATE CKD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY, EXPANSION, 990/10, 32KB									
APPD. MFG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944945-0004 AC									

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944945-0004		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0042	00064.000	EA		0972659-0001	NETWORK,TMS4050NL				
0042A					A1U00 THRU A1U15				
0042B					A2U00 THRU 2U15				
0042C					A3U00 THRU A3U15				
0042D					A4U00 THRU A4U15				
0044	00002.000	EA		0539370-0339	RES FIX FILM 332 OHM 1% .25 WATT	COR -NA550-100PPH/C			
0044A					R7 R8				
0056	00001.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10 % 15 VOLT	QPL -H39003/1-2271			
0056A					C129				
0059	00004.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10 % 200 V	QPL -H39014/01-1369			
0059A					A1C1 A2C1 A3C1 A4C1				
0065	00002.000	EA		0972753-0016	CAP., 470 PF,2%,25VDC				
0065A					C17 C24				
0066	00001.000	EA		0972753-0015	CAP,390 PF .2% 25VDC,CERAMIC,AXIAL LEAD	UC -C50D391G			
0066A					C16				
0067	00001.000	EA		0972753-0021	CAP.,1200PF, 2%, 25V, CERAMIC, AX.LEAD				
0067A					C25				
0068	00001.000	EA		0972753-0024	CAP.,2200 PF,2%,25VDC				
0068A					C23				
0070	AR	FT		0535978-0058	WIRE ELEC., SOLID, "KYNAR" INSUL #30 AWG				
DRAFTSMAN DATE CKD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY, EXPANSION, 990/10, 32KB									
APPD. MFG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944945-0004 AC									

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM0944945-0004		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0071	00001.000	EA		0946707-0001	STIFFENER,PWB,11 INCH				
0072	00001.000	EA		0946708-0001	INSULATOR,STIFFENER,PWB,11 INCH				
0074	00002.000	EA		0236369-0001	WASHER #2 NYLON FLAT BLK .090IDX.020 THK	NPG -101-BLK			
0075	AR	FT		0966760-2896	WIRE,TWISTED PAIR #28 WHT/BLU IPVC	UL - 1472 7STR UL			
0076	00001.000	EA		0539370-0345	RES FIX FILM 383 OHM 1% .25 WATT	COR - NA55			
0076A					R2				
0078	00001.000	EA		0944945-5004	AUTO INSERTED TAPE FOR 944945-4				
0080	00001.000	EA		0972929-0415	CAP FIX CERAMIC .010 UF 10 % 100 V	QPL -H39014/01-1415			
0080A					C22				
0082	00001.000	EA		0539370-0340	RES FIX FILM 340 OHM 1% .25 WATT	COR - NA55			
0082A					R6				
DRAFTSMAN DATE CKD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY, EXPANSION, 990/10, 32KB									
APPD. MFG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944945-0004 AC									

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944945-0005		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0002	REF	EA		0944947-9901	LOGIC DIAGRAM-MEMORY, EXTN, 990/10				
0003	REF	EA		0944948-9901	TEST PROCEDURE-MEMORY, EXTN, 990/10				
0004	REF	EA		0944949-9901	SPECIFICATION-MEMORY, EXTN, 990/10				
0005	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN				
0006	00001.000	EA		0944954-0001	INSULATOR, PWB, 14IN				
0007	00006.000	EA		0972684-0002	SCREW,TMD FRMG,HEX WSHR HD,2-56X1/4 LG				
0008	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB				
0010	00001.000	EA		2210188-0001	SOCKET,LOW PROFILE,DIP, 3 CONT, 8 PINS	003612-DIL88P-108			
0010A					XU14				
0011	00003.000	EA		2210188-0002	SOCKET,LOW PROFILE,DIP, 14 PINS	003612-DIL814P-108			
0011A					KU32 XU39 XU40				
0012	00085.000	EA		2210188-0004	SOCKET,LOW PROFILE,DIP, 8 CONT, 18 PINS	003612-DIL818P-108			
0012A					XA1U00 THRU XA1U16				
0012B					XA2U00 THRU XA2U16				
0012C					XA3U00 THRU XA3U16				
0012D					XA4U00 THRU XA4U16				
0012E					XA5U00 THRU XA5U16				
0013	00001.000	EA		0972994-0005	SWITCH,ROCKER-PWB MOUNTED	023880-900128			
0013A					U37				
0014	00001.000	EA		0226609-0001	DIODE,VISIBLE LIGHT EMITTING				
DRAFTSMAN DATE CKD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY, EXPANSION, 990/10, 40KB									
APPD. MFG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944945-0005 AC									

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 04/17/79		PAGE 2 of		PART NUMBER LM0944945-0005		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0014A					CR1						
0016	00015.000	EA		0972955-0001	XSTR 2N2369A,NPN,HIGH SPEED SW,TD-18	MOT - 2N2369A					
0016A					A1Q1 A1Q2 A1Q4 A2Q1 A2Q2						
0016B					A2Q4 A3Q1 A3Q2 A3Q4 A4Q1						
0016C					A4Q2 A4Q4 A5Q1 A5Q2 A5Q4						
0017	00005.000	EA		0236081-0000	X-XST 2N2894	TI -2N2894					
0017A					A1Q3 A2Q3 A3Q3 A4Q3 A5Q3						
0018	00001.000	EA		0972900-7400	NETWORK SN74LS00M	TI -SN74LS00M					
0018A					U50						
0019	00001.000	EA		0240000-7474	NETWORK-SN74H74N						
0019A					U32						
0027	00003.000	EA		0972900-7474	NETWORK SN74LS74N						
0027A					U48 U55 U57						
0031	00001.000	EA		0972900-7138	NETWORK SN74LS138N	TI -SN74LS138N					
0031A					U53						
0036	00001.000	EA		0972653-0001	NETWORK,SN74LS293N						
0036A					U47						
0038	00005.000	EA		0972556-0001	NETWORK SN74367N	TI- -SN74367N					
0038A					U60 U58 U56 U54 U52						
0041	00001.000	EA		0972188-0001	NETWORK,NE555V,MONOLITHIC TIMING,LINEAR	ST -NE555V					
DRAFTSMAN DATE CKD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY, EXPANSION, 990/10, 40KB											
APPRO. ENG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944945-0005 AC											

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 04/17/79		PAGE 3 of		PART NUMBER LM0944945-0005		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0041A					U14						
0042	00080.000	EA		0972659-0001	NETWORK, TMS4050NL						
0042A					A1U00 THRU A1U15						
0042B					A2U00 THRU 2U15						
0042C					A3U00 THRU A3U15						
0042D					A4U00 THRU A4U15						
0042E					A5U00 THRU A5U15						
0044	00002.000	EA		0539370-0339	RES FIX FILM 332 OHM 1% .25 WATT	COR -NA55D-100PPM/C					
0044A					R7 R8						
0056	00001.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10 % 15 VOLT	QPL -M39003/1-2271					
0056A					C129						
0059	00005.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10 % 200 V	QPL -M39014/01-1369					
0059A					A1C1 A2C1 A3C1 A4C1 A5C1						
0065	00002.000	EA		0972753-0016	CAP., 470 PF, 2%, 25VDC						
0065A					C17 C24						
0066	00001.000	EA		0972753-0015	CAP, 390 PF .2% 25VDC, CERAMIC, AXIAL LEAD	UC -C5003916					
0066A					C16						
0067	00001.000	EA		0972753-0021	CAP., 1200PF, 2%, 25V, CERAMIC, AX. LEAD						
0067A					C25						
0068	00001.000	EA		0972753-0024	CAP., 2200 PF, 2%, 25VDC						
DRAFTSMAN DATE CKD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY, EXPANSION, 990/10, 40KB											
APPRO. ENG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944945-0005 AC											

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 04/17/79		PAGE 4 of		PART NUMBER LM0944945-0005		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0068A					C23						
0070	AR	FT		0535978-0058	WIRE ELEC., SOLID, "KYNAR" INSUL #30 AWG						
0071	00001.000	EA		0946707-0001	STIFFENER, PWB, 11 INCH						
0072	00001.000	EA		0946708-0001	INSULATOR, STIFFENER, PWB, 11 INCH						
0074	00002.000	EA		0236369-0001	WASHER #2 NYLON FLAT BLK .090IDX.020 THK	NPG -101-BLK					
0075	AR	FT		0966760-2896	WIRE, TWISTED PAIR #28 WHT/BLU IPVC	UL - 1472 7STR ULG					
0076	00001.000	EA		0539370-0345	RES FIX FILM 383 OHM 1% .25 WATT	COR - NA55					
0076A					R2						
0078	00001.000	EA		0944945-5005	AUTO INSERTED TAPE FOR 944945-5						
0080	00001.000	EA		0972929-0415	CAP FIX CERAMIC .010 UF 10 % 100 V	QPL -M39014/01-1415					
0080A					C22						
0082	00001.000	EA		0539370-0340	RES FIX FILM 340 OHM 1% .25 WATT	COR - NA55					
0082A					R6						
DRAFTSMAN DATE CKD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY, EXPANSION, 990/10, 40KB											
APPRO. ENG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944945-0005 AC											

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 04/17/79		PAGE 1 of		PART NUMBER LM0944945-0006		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0002	REF	EA		0944947-9901	LOGIC DIAGRAM-MEMORY, EXTN, 990/10						
0003	REF	EA		0944948-9901	TEST PROCEDURE-MEMORY, EXTN, 990/10						
0004	REF	EA		0944949-9901	SPECIFICATION-MEMORY, EXTN, 990/10						
0005	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN						
0006	00001.000	EA		0944954-0001	INSULATOR, PWB, 14IN						
0007	00006.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG						
0008	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB						
0010	00001.000	EA		2210188-0001	SOCKET, LOW PROFILE, DIP, 3 CONT, 8 PINS	003612-DIL88P-108					
0010A					XU14						
0011	00003.000	EA		2210188-0002	SOCKET, LOW PROFILE, DIP, 14 PINS	003612-DIL14P-108					
0011A					XU32 XU39 XU40						
0012	00017.000	EA		2210188-0004	SOCKET, LOW PROFILE, DIP, 8 CONT, 18 PINS	003612-DIL18P-108					
0012A					XA1U00 THRU XA1U16						
0013	00001.000	EA		0972594-0005	SWITCH, ROCKER-PWB MOUNTED	023880-900128					
0013A					U37						
0014	00001.000	EA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING						
0014A					CR1						
0015	00003.000	EA		0972932-0001	DIODE, 1M914B SWITCHING 75V PIV 75MA 4MS	TI - IN914B					
0015A					A1CR1 THRU A1CR3						
0016	00003.000	EA		0972955-0001	XSTR 2N2369A,NPN,HIGH SPEED SW,TD-18	MOT - 2N2369A					
DRAFTSMAN DATE CKD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY, EXTN, 990/10, 8KB W/PARITY											
APPRO. ENG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944945-0006 AC											

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 04/17/79		PAGE 2 of		PART NUMBER LM0944945-0006		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0016A				A1Q1 A1Q2 A1Q4							
0017	0001.000	EA		0236081-0000	X-XST 2N2894	TI	-2N2894				
0017A				A1Q3							
0018	0001.000	EA		0972900-7400	NETWORK SN74LS00N	TI	-SN74LS00N				
0018A				U50							
0019	0001.000	EA		0240000-7474	NETWORK-SN74H74N						
0019A				U37							
0027	00003.000	EA		0972900-7474	NETWORK SN74LS74N						
0027A				U48 U55 U57							
0031	0001.000	EA		0972900-7138	NETWORK SN74LS138N	TI	-SN74LS138N				
0031A				U53							
0036	0001.000	EA		0972653-0001	NETWORK,SN74LS293N						
0036A				U47							
0038	0001.000	EA		0972556-0001	NETWORK SN74367N	TI-	-SN74367N				
0038A				U60							
0041	0001.000	EA		0972188-0001	NETWORK,NE555V,MONOLITHIC TIMING,LINER	ST	-NE555V				
0041A				U14							
0042	00017.000	EA		0972659-0001	NETWORK,TMS4050ML						
0042A				A1U00 THRU A1U16							
0044	00003.000	EA		0539370-0339	RES FIX FILM 332 OHM 1% .25 WATT	COR	-NA55D-100PPM/C				
DRAFTSMAN DATE C/D DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY,EXTN,990/10,8KB W/PARITY APP'D-MFG DATE APP'D PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944945-0006 AC											

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 04/17/79		PAGE 3 of		PART NUMBER LM0944945-0006		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0044A				R1 R7 R8							
0045	00001.000	EA		0972946-0017	RES FIX 10.0 OHM 5% .25 W.CARBON FILM	ROH	- R-25				
0045A				AIR3							
0046	00001.000	EA		0972946-0055	RES FIX 390 OHM 5% .25 W CARBON FILM	ROH	- R-25				
0046A				R12							
0047	00002.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH	- R-25				
0047A				AIR1 AIR5							
0048	00002.000	EA		0972946-0067	RES FIX 1.2K OHM 5% .25 W CARBON FILM	ROH	- R-25				
0048A				R3 R4							
0050	00001.000	EA		0972946-0075	RES FIX 2.7K OHM 5% .25 W CARBON FILM	ROH	- R-25				
0050A				AIR4							
0051	00002.000	EA		0972946-0081	RES FIX 4.7K OHM 5% .25 W CARBON FILM	ROH	- R-25				
0051A				R10 R11							
0052	00002.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	ROH	- R-25				
0052A				AIR2 AIR8							
0053	00002.000	EA		0972946-0112	RES FIX 91 K OHM 5% .25 W CARBON FILM	ROH	- R-25				
0053A				AIR6 AIR7							
0054	00033.000	EA		0972763-0021	CAP.,FIXED,AXIAL LEAD,.047 UF,+80%,-20%						
0054A				C12 THRU C15,C18 THRU C20,							
0054B				C26 THRU C38,C74 C81 C85							
DRAFTSMAN DATE C/D DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY,EXTN,990/10,8KB W/PARITY APP'D-MFG DATE APP'D PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944945-0006 AC											

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 04/17/79		PAGE 4 of		PART NUMBER LM0944945-0006		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0054C				C97 C98 C105 C109 C110 C121							
0054D				C86 C122 C130 C142							
0055	00012.000	EA		0972763-0032	CAP FIXED .39 UF 50 VOLTS	UC	-C53C394Z				
0055A				C93 C117 C140							
0055B				C123 THRU C128,C131 THRU							
0055C				C133							
0056	00008.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10% 15 VOLT	QPL	-M39003/1-2271				
0056A				C1 THRU C5,C10 C11 C129							
0057	00001.000	EA		0972946-0029	RES FIX 33.0 OHM 5% .25 W.CARBON FILM	ROH	- R-25				
0057A				R9							
0059	00001.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10% 200 V	QPL	-M39014/01-1369				
0059A				A1C1							
0060	00002.000	EA		0972757-0001	CAP, FIXED CERAMIC 100 PF 10% 50V	UC	-C51C101K				
0060A				A1C2 A1C3							
0062	00001.000	EA		0539370-0387	RES FIX FILM 1.05K OHM 1% .25 WATT	COR	- NA55				
0062A				R5							
0063	00001.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V						
0063A				C21							
0065	00002.000	EA		0972753-0016	CAP., 470 PF,2%,25VDC						
0065A				C17 C24							
DRAFTSMAN DATE C/D DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY,EXTN,990/10,8KB W/PARITY APP'D-MFG DATE APP'D PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944945-0006 AC											

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 04/17/79		PAGE 5 of		PART NUMBER LM0944945-0006		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0066	00001.000	EA		0972753-0015	CAP,390 PF .2% 25VDC,CERAMIC,AXIAL LEAD	UC	-C50D391G				
0066A				C16							
0067	00001.000	EA		0972753-0021	CAP.,1200PF, 2%, 25V, CERAMIC, AX. LEAD						
0067A				C25							
0068	00001.000	EA		0972753-0024	CAP.,2200 PF,2%,25VDC						
0068A				C23							
0070		AR	FT	0535978-0058	WIRE ELEC.,SOLID,"KYNAR" INSUL #30 AWG						
0071	00001.000	EA		0946707-0001	STIFFENER,PWB,11 INCH						
0072	00001.000	EA		0946708-0001	INSULATOR,STIFFENER,PWB,11 INCH						
0074	00002.000	EA		0236369-0001	WASHER #2 NYLON FLAT BLK .090IDX.020 THK	NPG	-101-BLK				
0075		AR	FT	0966760-2896	WIRE,TWISTED PAIR #28 WHT/BLU IPVC	UL	- 1472 TSTR UL6				
0076	00001.000	EA		0539370-0345	RES FIX FILM 383 OHM 1% .25 WATT	COR	- NA55				
0076A				R2							
0078	00001.000	EA		0944945-5006	AUTO INSERTED TAPE FOR 944945-6						
0079	00002.000	EA		0222222-7180	NETWORK SN74180N						
0079A				U39 U40							
0080	00001.000	EA		0972929-0415	CAP FIX CERAMIC .010 UF 10% 100 V	QPL	-M39014/01-1415				
0080A				C22							
0082	00001.000	EA		0539370-0340	RES FIX FILM 340 OHM 1% .25 WATT	COR	- NA55				
0082A				R6							
DRAFTSMAN DATE C/D DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY,EXTN,990/10,8KB W/PARITY APP'D-MFG DATE APP'D PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944945-0006 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944945-0007		REV AC			
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER							
0002	REF	EA		0944947-9901	LOGIC DIAGRAM-MEMORY, EXTN, 990/10								
0003	REF	EA		0944948-9901	TEST PROCEDURE-MEMORY, EXTN, 990/10								
0004	REF	EA		0944949-9901	SPECIFICATION-MEMORY, EXTN, 990/10								
0005	0001.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN								
0006	0001.000	EA		0944954-0001	INSULATOR, PWB, 14IN								
0007	0006.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG								
0008	0002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB								
0010	0001.000	EA		2210188-0001	SOCKET, LOW PROFILE, DIP, 3 CONT, 8 PINS	003612-DIL88P-108							
0010A					XU14								
0011	0003.000	EA		2210188-0002	SOCKET, LOW PROFILE, DIP, 14 PINS	003612-DIL814P-108							
0011A					XU32 XU39 XU40								
0012	00034.000	EA		2210188-0004	SOCKET, LOW PROFILE, DIP, 8 CONT, 18 PINS	003612-DIL818P-108							
0012A					XA1U00 THRU XA1U16								
0012B					XA2U00 THRU XA2U16								
0013	0001.000	EA		0972594-0005	SWITCH, ROCKER-PWB MOUNTED	023880-900128							
0013A					U37								
0014	0001.000	EA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING								
0014A					CR1								
0016	0006.000	EA		0972955-0001	XSTR 2N2369A, NPN, HIGH SPEED SW, TO-18	MOT - 2N2369A							
0016A					A1Q1 A1Q2 A1Q6 A2Q1 A2Q2								
DRAFTSMAN		DATE		CRO. DRAFTSMAN		DATE		DESIGN ENGINEER		DATE		TITLE	
												MEMORY, EXTN, 990/10, 16KB W/PARITY	
APPRO. MFG.		DATE		APPRO. PROJECT ENGINEER		DATE		RELEASED		DATE		PROJECT NO.	
												PART NUMBER LM0944945-0007	
												REV AC	

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944945-0007		REV AC			
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER							
0016B					A2Q4								
0017	00002.000	EA		0236081-0000	X-XST 2N2894	TI -2N2894							
0017A					A1Q3 A2Q3								
0018	00001.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N							
0018A					U50								
0019	00001.000	EA		0240000-7474	NETWORK-SN74H74N								
0019A					U32								
0027	00003.000	EA		0972900-7474	NETWORK SN74LS74N								
0027A					U48 U55 U57								
0031	00001.000	EA		0972900-7138	NETWORK SN74LS138N	TI -SN74LS138N							
0031A					U53								
0036	00001.000	EA		0972653-0001	NETWORK, SN74LS293N								
0036A					U47								
0038	00002.000	EA		0972556-0001	NETWORK SN74367N	TI -SN74367N							
0038A					U58 U60								
0041	00001.000	EA		0972188-0001	NETWORK, NE555V, MONOLITHIC TIMING, LINEAR	ST -NE555V							
0041A					U14								
0042	00034.000	EA		0972659-0001	NETWORK, TMS4050NL								
0042A					A1U00 THRU A1U16								
0042B					A2U00 THRU A2U16								
DRAFTSMAN		DATE		CRO. DRAFTSMAN		DATE		DESIGN ENGINEER		DATE		TITLE	
												MEMORY, EXTN, 990/10, 16KB W/PARITY	
APPRO. MFG.		DATE		APPRO. PROJECT ENGINEER		DATE		RELEASED		DATE		PROJECT NO.	
												PART NUMBER LM0944945-0007	
												REV AC	

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944945-0007		REV AC			
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER							
0044	00002.000	EA		0539370-0339	RES FIX FILM 332 OHM 1% .25 WATT	COR -NA55D-100PPH/C							
0044A					R7 R8								
0056	00001.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10% 15 VOLT	QPL -N39003/1-2271							
0056A					C129								
0059	00002.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10% 200 V	QPL -N39014/01-1369							
0059A					A1C1 A2C1								
0065	00002.000	EA		0972753-0016	CAP., 470 PF, 2%, 25VDC								
0065A					C17 C24								
0066	00001.000	EA		0972753-0015	CAP, 390 PF .2% 25VDC, CERAMIC, AXIAL LEAD	UC -C50D391G							
0066A					C16								
0067	00001.000	EA		0972753-0021	CAP., 1200PF, 2%, 25V, CERAMIC, AX. LEAD								
0067A					C25								
0068	00001.000	EA		0972753-0024	CAP., 2200 PF, 2%, 25VDC								
0068A					C23								
0070	AR	FT		0535978-0058	WIRE ELEC., SOLID, "KYNAR" INSUL #30 AWG								
0071	00001.000	EA		0946707-0001	STIFFENER, PWB, 11 INCH								
0072	00001.000	EA		0946708-0001	INSULATOR, STIFFENER, PWB, 11 INCH								
0074	00002.000	EA		0236369-0001	WASHER #2 NYLON FLAT BLK .090IDX.020 THK	NPG -101-BLK							
0075	AR	FT		0966760-2896	WIRE, TWISTED PAIR #28 WHT/BLU IPVC	UL - 1472 7STR UL							
0076	00001.000	EA		0539370-0345	RES FIX FILM 383 OHM 1% .25 WATT	COR - NA55							
DRAFTSMAN		DATE		CRO. DRAFTSMAN		DATE		DESIGN ENGINEER		DATE		TITLE	
												MEMORY, EXTN, 990/10, 16KB W/PARITY	
APPRO. MFG.		DATE		APPRO. PROJECT ENGINEER		DATE		RELEASED		DATE		PROJECT NO.	
												PART NUMBER LM0944945-0007	
												REV AC	

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM0944945-0007		REV AC			
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER							
0076A					R2								
0078	00001.000	EA		0944945-5007	AUTO INSERTED TAPE FOR 944945-7								
0079	00002.000	EA		0222222-7180	NETWORK SN74180N								
0079A					U39 U40								
0080	00001.000	EA		0972929-0415	CAP FIX CERAMIC .010 UF 10% 100 V	QPL -N39014/01-1415							
0080A					C22								
0082	00001.000	EA		0539370-0340	RES FIX FILM 340 OHM 1% .25 WATT	COR - NA55							
0082A					R6								
DRAFTSMAN		DATE		CRO. DRAFTSMAN		DATE		DESIGN ENGINEER		DATE		TITLE	
												MEMORY, EXTN, 990/10, 16KB W/PARITY	
APPRO. MFG.		DATE		APPRO. PROJECT ENGINEER		DATE		RELEASED		DATE		PROJECT NO.	
												PART NUMBER LM0944945-0007	
												REV AC	



TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL				PART NUMBER	REV
DATE 04/17/79		PAGE 1 of				LM0944945-0009	AC
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER	
0002	REF	EA		0944947-9901	LDGIC DIAGRAM-MEMORY, EXTN, 990/10		
0003	REF	EA		0944948-9901	TEST PROCEDURE-MEMORY, EXTN, 990/10		
0004	REF	EA		0944949-9901	SPECIFICATION-MEMORY, EXTN, 990/10		
0005	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PMB, 14IN		
0006	00001.000	EA		0944954-0001	INSULATOR, PMB, 14IN		
0007	00006.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG		
0008	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PMB		
0010	00001.000	EA		2210188-0001	SOCKET, LOW PROFILE, DIP, 3 CONT, 8 PINS	003612-DIL88P-108	
0010A					XU14		
0011	00003.000	EA		2210188-0002	SOCKET, LOW PROFILE, DIP, 14 PINS	003612-DIL814P-108	
0011A					XU32 XU39 XU40		
0012	00068.000	EA		2210188-0004	SOCKET, LOW PROFILE, DIP, 8 CONT, 18 PINS	003612-DIL818P-108	
0012A					XA1U00 THRU XA1U16		
0012B					XA2U00 THRU XA2U16		
0012C					XA3U00 THRU XA3U16		
0012D					XA4U00 THRU XA4U16		
0013	00001.000	EA		0972594-0005	SWITCH, ROCKER-PMB MOUNTED	023880-900128	
0013A					U37		
0014	00001.000	EA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING		
0014A					CR1		
DRAFTSMAN	DATE	CDR DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	
						MEMORY, EXTN, 990/10, 32KB W/PARITY	
APPROV. MFG	DATE	APPROV. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	
							LM0944945-0009 AC

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL				PART NUMBER	REV
DATE 04/17/79		PAGE 2 of				LM0944945-0009	AC
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER	
0016	00012.000	EA		0972955-0001	XSTR 2N2369A, NPN, HIGH SPEED SW, TO-18	MOT - 2N2369A	
0016A					A1Q1 A1Q2 A1Q4 A2Q1 A2Q2		
0016B					A2Q4 A3Q1 A3Q2 A3Q4 A4Q1		
0016C					A4Q2 A4Q4		
0017	00004.000	EA		0236081-0000	X-XST 2N2894	TI -2N2894	
0017A					A1Q3 A2Q3 A3Q3 A4Q3		
0018	00001.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N	
0018A					U50		
0019	00001.000	EA		0240000-7474	NETWORK-SN74H74N		
0019A					U32		
0027	00003.000	EA		0972900-7474	NETWORK SN74LS74N		
0027A					U48 U55 U57		
0031	00001.000	EA		0972900-7138	NETWORK SN74LS138N	TI -SN74LS138N	
0031A					U53		
0036	00001.000	EA		0972653-0001	NETWORK, SN74LS293N		
0036A					U47		
0038	00004.000	EA		0972556-0001	NETWORK SN74367N	TI -SN74367N	
0038A					U60 U58 U56 U54		
0041	00001.000	EA		0972188-0001	NETWORK, NE555V, MONOLITHIC TIMING, LINEAR	ST -NE555V	
0041A					U14		
DRAFTSMAN	DATE	CDR DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	
						MEMORY, EXTN, 990/10, 32KB W/PARITY	
APPROV. MFG	DATE	APPROV. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	
							LM0944945-0009 AC

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL				PART NUMBER	REV
DATE 04/17/79		PAGE 3 of				LM0944945-0009	AC
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER	
0042	00068.000	EA		0972659-0001	NETWORK, TMS4050NL		
0042A					A1U00 THRU A1U16		
0042B					A2U00 THRU A2U16		
0042C					A3U00 THRU A3U16		
0042D					A4U00 THRU A4U16		
0044	00002.000	EA		0539370-0339	RES FIX FILM 332 OHM 1% .25 WATT	COR -NA550-100PPH/C	
0044A					R7 R8		
0056	00001.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10 % 15 VOLT	QPL -M39003/1-2271	
0056A					C129		
0059	00004.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10 % 200 V	QPL -M39014/01-1369	
0059A					A1C1 A2C1 A3C1 A4C1		
0065	00002.000	EA		0972753-0016	CAP., 470 PF, 2%, 25VDC		
0065A					C17 C24		
0066	00001.000	EA		0972753-0015	CAP., 390 PF .2% 25VDC, CERAMIC, AXIAL LEAD	UC -C50D391G	
0066A					C16		
0067	00001.000	EA		0972753-0021	CAP., 1200PF, 2%, 25V, CERAMIC, AX. LEAD		
0067A					C25		
0068	00001.000	EA		0972753-0024	CAP., 2200 PF, 2%, 25VDC		
0068A					C23		
0070	AR	FT		0535978-0058	WIRE ELEC., SOLID, "KYNAR" INSUL #30 AWG		
DRAFTSMAN	DATE	CDR DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	
						MEMORY, EXTN, 990/10, 32KB W/PARITY	
APPROV. MFG	DATE	APPROV. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	
							LM0944945-0009 AC

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL				PART NUMBER	REV
DATE 04/17/79		PAGE 4 of				LM0944945-0009	AC
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER	
0071	00001.000	EA		0946707-0001	STIFFENER, PMB, 11 INCH		
0072	00001.000	EA		0946708-0001	INSULATOR, STIFFENER, PMB, 11 INCH		
0074	00002.000	EA		0236369-0001	WASHER #2 NYLON FLAT BLK .090IDX.020 THK	NPG -101-BLK	
0075	AR	FT		0966760-2896	WIRE, TWISTED PAIR #28 WHT/BLU IPVC	UL - 1472 TSTR ULG	
0076	00001.000	EA		0539370-0345	RES FIX FILM 383 OHM 1% .25 WATT	COR - NA55	
0076A					R2		
0078	00001.000	EA		0944945-5009	AUTO INSERTED TAPE FOR 944945-9		
0079	00002.000	EA		0222222-7180	NETWORK SN74180N		
0079A					U39 U40		
0080	00001.000	EA		0972929-0415	CAP FIX CERAMIC .010 UF 10 % 100 V	QPL -M39014/01-1415	
0080A					C22		
0082	00001.000	EA		0539370-0340	RES FIX FILM 340 OHM 1% .25 WATT	COR - NA55	
0082A					R6		
DRAFTSMAN	DATE	CDR DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	
						MEMORY, EXTN, 990/10, 32KB W/PARITY	
APPROV. MFG	DATE	APPROV. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	
							LM0944945-0009 AC

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944945-0010		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0002	REF	EA		0944947-9901	LOGIC DIAGRAM-MEMORY, EXTN, 990/10						
0003	REF	EA		0944948-9901	TEST PROCEDURE-MEMORY, EXTN, 990/10						
0004	REF	EA		0944949-9901	SPECIFICATION-MEMORY, EXTN, 990/10						
0005	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN						
0006	00001.000	EA		0944954-0001	INSULATOR, PWB, 14IN						
0007	00006.000	EA		0972684-0002	SCREW, THD FRNG, HEX WSHR HD, 2-56X1/4 LG						
0008	00002.000	EA		0533844-0001	EJECTOR, NYLON, NDM-LOCKING, PWB						
0010	00001.000	EA		2210188-0001	SOCKET, LOW PROFILE, DIP, 3 CONT, 8 PINS	003612-DIL88P-108					
0010A					XU14						
0011	00003.000	EA		2210188-0002	SOCKET, LOW PROFILE, DIP, 14 PINS	003612-DIL814P-108					
0011A					XU32 XU37 XU40						
0012	00085.000	EA		2210188-0004	SOCKET, LOW PROFILE, DIP, 8 CONT, 18 PINS	003612-DIL818P-108					
0012A					XA1U00 THRU XA1U16						
0012B					XA2U00 THRU XA2U16						
0012C					XA3U00 THRU XA3U16						
0012D					XA4U00 THRU XA4U16						
0012E					XA5U00 THRU XA5U16						
0013	00001.000	EA		0972594-0005	SWITCH, ROCKER-PWB MOUNTED	023880-900128					
0013A					U37						
0014	00001.000	EA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING						
DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY, EXTN, 990/10, 40KB W/PARITY											
APPROV: MFG DATE APPO PROJECT ENGINEER DATE RELEASED DATE PROJECT NO PART NUMBER REV LM0944945-0010 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944945-0010		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0014A					CR1						
0016	00015.000	EA		0972955-0001	XSTR 2N2369A, MPN, HIGH SPEED SW, TD-18	MOT - 2N2369A					
0016A					A1Q1 A1Q2 A1Q4 A2Q1 A2Q2						
0016B					A2Q4 A3Q1 A3Q2 A3Q4 A4Q1						
0016C					A4Q2 A4Q4 A5Q1 A5Q2 A5Q4						
0017	00005.000	EA		0236081-0000	X-XST 2N2894	TI -2N2894					
0017A					A1Q3 A2Q3 A3Q3 A4Q3 A5Q3						
0018	00001.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N					
0018A					U50						
0019	00001.000	EA		0240000-7474	NETWORK-SN74H74N						
0019A					U32						
0027	00003.000	EA		0972900-7474	NETWORK SN74LS74N						
0027A					U48 U55 U57						
0031	00001.000	EA		0972900-7138	NETWORK SN74LS138N	TI -SN74LS138N					
0031A					U53						
0036	00001.000	EA		0972653-0001	NETWORK, SN74LS293N						
0036A					U47						
0038	00005.000	EA		0972556-0001	NETWORK SN74367N	TI -SN74367N					
0038A					U60 U58 U56 U54 U52						
0041	00001.000	EA		0972188-0001	NETWORK, NE555V, MONOLITHIC TIMING, LINEAR	ST -NE555V					
DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY, EXTN, 990/10, 40KB W/PARITY											
APPROV: MFG DATE APPO PROJECT ENGINEER DATE RELEASED DATE PROJECT NO PART NUMBER REV LM0944945-0010 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944945-0010		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0041A					U14						
0042	00085.000	EA		0972659-0001	NETWORK, TMS4050ML						
0042A					A1U00 THRU A1U16						
0042B					A2U00 THRU A2U16						
0042C					A3U00 THRU A3U16						
0042D					A4U00 THRU A4U16						
0042E					A5U00 THRU A5U16						
0044	00002.000	EA		0539370-0339	RES FIX FILM 332 OHM 1% .25 WATT	COR -NA55D-100PPH/C					
0044A					R7 R8						
0056	00001.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10 % 15 VOLT	QPL -M39003/1-2271					
0056A					C129						
0059	00005.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10 % 200 V	QPL -M39014/01-1369					
0059A					A1C1 A2C1 A3C1 A4C1 A5C1						
0065	00002.000	EA		0972753-0016	CAP., 470 PF, 2%, 25VDC						
0065A					C17 C24						
0066	00001.000	EA		0972753-0015	CAP, 390 PF .2% 25VDC, CERAMIC, AXIAL LEAD	UC -C50D391G					
0066A					C16						
0067	00001.000	EA		0972753-0021	CAP., 1200PF, 2%, 25V, CERAMIC, AX. LEAD						
0067A					C25						
0068	00001.000	EA		0972753-0024	CAP., 2200 PF, 2%, 25VDC						
DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY, EXTN, 990/10, 40KB W/PARITY											
APPROV: MFG DATE APPO PROJECT ENGINEER DATE RELEASED DATE PROJECT NO PART NUMBER REV LM0944945-0010 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM0944945-0010		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0068A					C23						
0070	AR	FT		0535978-0058	WIRE ELEC., SOLID, "KYNAR" INSUL #30 AWG						
0071	00001.000	EA		0946707-0001	STIFFENER, PWB, 11 INCH						
0072	00001.000	EA		0946708-0001	INSULATOR, STIFFENER, PWB, 11 INCH						
0074	00002.000	EA		0236369-0001	WASHER #2 NYLON FLAT BLK .0901DX.020 THK	NPG -101-BLK					
0075	AR	FT		0966760-2896	WIRE, TWISTED PAIR #28 WH/BLU IPVC	UL - 1472 T5TR ULG					
0076	00001.000	EA		0539370-0345	RES FIX FILM 303 OHM 1% .25 WATT	COR - NA55					
0076A					R2						
0078	00001.000	EA		0944945-5010	AUTO INSERTED TAPE FOR 944945-10						
0079	00002.000	EA		0222222-7180	NETWORK SN74180N						
0079A					U39 U40						
0080	00001.000	EA		0972929-0415	CAP FIX CERAMIC .010 UF 10 % 100 V	QPL -M39014/01-1415					
0080A					C22						
0082	00001.000	EA		0539370-0340	RES FIX FILM 340 OHM 1% .25 WATT	COR - NA55					
0082A					R6						
DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY, EXTN, 990/10, 40KB W/PARITY											
APPROV: MFG DATE APPO PROJECT ENGINEER DATE RELEASED DATE PROJECT NO PART NUMBER REV LM0944945-0010 AC											



TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944945-5002		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	00001.000	EA		0944946-0001	PWB-MEMORY, EXTN, 990/10						
0015	00006.000	EA		0972932-0001	DIODE, IN9148 SWITCHING 75V PIV 75MA 4NS	TI	- IN9148				
0015A					A1CR1 THRU A1CR3						
0015B					A2CR1 THRU A2CR3						
0018	00001.000	EA		0972900-7400	NETWORK SN74LS00N	TI	-SN74LS00N				
0018A					U34						
0020	00005.000	EA		0972900-7404	NETWORK SN74LS04N						
0020A					U1, U2, U3, U17, U43						
0021	00002.000	EA		0222222-7407	NETWORK-SN7407N	TI-	-SN7407N				
0021A					U25, U33						
0022	00002.000	EA		0972749-0001	NETWORK, SN74LS08N						
0022A					U42, U51						
0023	00003.000	EA		0972900-7410	NETWORK SN74LS10N						
0023A					U4, U8, U49						
0024	00001.000	EA		0972788-0001	NETWORK, SN74LS11, POSITIVE AND GATE						
0024A					U31						
0025	00001.000	EA		0222222-7440	NETWORK SN7440N			-SN7440N			
0025A					U10						
0026	00001.000	EA		0972813-0001	NETWORK-SN74LS21N						
0026A					U27						
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-2											
APPD. MFG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM0944945-5002 REV AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944945-5002		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0027	00002.000	EA		0972900-7474	NETWORK SN74LS74N						
0027A					U28, U59						
0028	00001.000	EA		0222222-7474	NETWORK SN7474N			-SN7474N			
0028A					U44						
0029	00001.000	EA		0222222-7475	NETWORK-SN7475N						
0029A					U11						
0030	00003.000	EA		0972782-0001	NETWORK SN74LS132N	TI	-SN74LS132N				
0030A					U13 U16 U26						
0032	00002.000	EA		0972686-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N						
0032A					U30, U45						
0033	00001.000	EA		0219402-7260	NETWORK SN74S260N						
0033A					U21						
0035	00003.000	EA		0972652-0001	NETWORK SN74LS283N						
0035A					U18, U19, U20						
0036	00001.000	EA		0972653-0001	NETWORK, SN74LS293N						
0036A					U46						
0037	00005.000	EA		0972787-0003	NETWORK SN74LS367N						
0037A					U5 U6 U22 U23 U24						
0039	00001.000	EA		0972556-0002	NETWORK SN74368N						
0039A					U35						
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-2											
APPD. MFG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM0944945-5002 REV AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944945-5002		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0040	00001.000	EA		0974674-0001	NETWORK SN75138N						
0040A					U12						
0043	00003.000	EA		0972141-0057	NETWORK, RES. 4.7 K OHM 2 X 14 PIN DIP	BEK	- 899-1-R4.7K				
0043A					U36, U38, U41						
0044	00001.000	EA		0539370-0339	RES FIX FILM 332 OHM 1% .25 WATT	COR	-NA550-100PPM/C				
0044A					R1						
0045	00002.000	EA		0972946-0017	RES FIX 10.0 OHM 5% .25 W. CARBON FILM	ROH	- R-25				
0045A					A1R3 A2R3						
0046	00001.000	EA		0972946-0055	RES FIX 390 OHM 5% .25 W CARBON FILM	ROH	- R-25				
0046A					R12						
0047	00004.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH	- R-25				
0047A					A1R1 A1R5 A2R1 A2R5						
0048	00002.000	EA		0972946-0067	RES FIX 1.2K OHM 5% .25 W CARBON FILM	ROH	- R-25				
0048A					R3 R4						
0050	00002.000	EA		0972946-0075	RES FIX 2.7K OHM 5% .25 W CARBON FILM	ROH	- R-25				
0050A					A1R4 A2R4						
0051	00002.000	EA		0972946-0081	RES FIX 4.7K OHM 5% .25 W CARBON FILM	ROH	- R-25				
0051A					R10 R11						
0052	00004.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	ROH	- R-25				
0052A					A1R2 A1R8 A2R2 A2R8						
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-2											
APPD. MFG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM0944945-5002 REV AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM0944945-5002		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0053	00004.000	EA		0972946-0112	RES FIX 91 K OHM 5% .25 W CARBON FILM	ROH	- R-25				
0053A					A1R6 A1R7 A2R6 A2R7						
0054	00003.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80%, -20%						
0054A					C12 THRU C15, C18 THRU C20,						
0054B					C26 THRU C38, C74, C81, C85,						
0054C					C86, C97, C98, C105, C109, C110,						
0054D					C121, C122, C130, C142						
0055	00020.000	EA		0972763-0032	CAP FIXED .39 UF 50 VOLTS	UC	-C53C394Z				
0055A					C93, C117, C140, C123 THRU						
0055B					C128, C131 THRU C133, C111						
0055C					THRU C115, C118 THRU C120						
0056	00009.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10 X 15 VOLT	QPL	-M39003/1-2271				
0056A					C1 THRU C5, C9 THRU C11,						
0056B					C116						
0057	00001.000	EA		0972946-0029	RES FIX 33.0 OHM 5% .25 W. CARBON FILM	ROH	- R-25				
0057A					R9						
0060	00004.000	EA		0972757-0001	CAP, FIXED CERAMIC 100 PF 10% 50V	UC	-C51C101K				
0060A					A1C2 A1C3 A2C2 A2C3						
0062	00001.000	EA		0539370-0387	RES FIX FILM 1.05K OHM 1% .25 WATT	COR	- NA55				
0062A					R5						
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-2											
APPD. MFG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM0944945-5002 REV AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LM0944945-5002		REV. AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0063	00001.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V						
0063A					C21						
0081	00001.000	EA		0972787-0004	NETWORK SN74LS368N						
0081A					U7						
DRAFTSMAN: DATE: CKD DRAFTSMAN: DATE: DESIGN ENGINEER: DATE: TITLE: AUTO INSERTED TAPE FOR 944945-2 APPD. MFG: DATE: APPD. PROJECT ENGINEER: DATE: RELEASED: DATE: PROJECT NO: PART NUMBER: REV.: LM0944945-5002 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944945-5003		REV. AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	00001.000	EA		0944946-0001	PWB-MEMORY, EXTN, 990/10						
0015	00009.000	EA		0972932-0001	DIODE, IN914B SWITCHING 75V PIV 75MA 4NS	TI	- IN914B				
0015A					A1CR1 THRU A1CR3,						
0015B					A2CR1 THRU A2CR3,						
0015C					A3CR1 THRU A3CR3						
0018	00001.000	EA		0972900-7400	NETWORK SN74LS00N	TI	-SN74LS00N				
0018A					U34						
0020	00005.000	EA		0972900-7404	NETWORK SN74LS04N						
0020A					U1, U2, U3, U17, U43						
0021	00002.000	EA		0222222-7407	NETWORK-SN7407N	TI-	-SN7407N				
0021A					U25, U33						
0022	00002.000	EA		0972749-0001	NETWORK, SN74LS08N						
0022A					U42, U51						
0023	00003.000	EA		0972900-7410	NETWORK SN74LS10N						
0023A					U4, U8, U49						
0024	00001.000	EA		0972788-0001	NETWORK, SN74LS11, POSITIVE AND GATE						
0024A					U31						
0025	00001.000	EA		0222222-7440	NETWORK SN7440N	-SN7440N					
0025A					U10						
0026	00001.000	EA		0972813-0001	NETWORK-SN74LS21N						
DRAFTSMAN: DATE: CKD DRAFTSMAN: DATE: DESIGN ENGINEER: DATE: TITLE: AUTO INSERTED TAPE FOR 944945-3 APPD. MFG: DATE: APPD. PROJECT ENGINEER: DATE: RELEASED: DATE: PROJECT NO: PART NUMBER: REV.: LM0944945-5003 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944945-5003		REV. AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0026A					U27						
0027	00002.000	EA		0972900-7474	NETWORK SN74LS74N						
0027A					U28, U59						
0028	00001.000	EA		0222222-7474	NETWORK SN7474N	-SN7474N					
0028A					U44						
0029	00001.000	EA		0222222-7475	NETWORK-SN7475N						
0029A					U11						
0030	00003.000	EA		0972782-0001	NETWORK SN74LS132N	TI	-SN74LS132N				
0030A					U13 U16 U26						
0032	00002.000	EA		0972686-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N						
0032A					U30, U45						
0033	00001.000	EA		0219402-7260	NETWORK SN74S260N						
0033A					U21						
0035	00003.000	EA		0972652-0001	NETWORK SN74LS283N						
0035A					U18, U19, U20						
0036	00001.000	EA		0972653-0001	NETWORK, SN74LS293N						
0036A					U46						
0037	00005.000	EA		0972787-0003	NETWORK SN74LS367N						
0037A					U5 U6 U22 U23 U24						
0039	00001.000	EA		0972556-0002	NETWORK SN74368N						
DRAFTSMAN: DATE: CKD DRAFTSMAN: DATE: DESIGN ENGINEER: DATE: TITLE: AUTO INSERTED TAPE FOR 944945-3 APPD. MFG: DATE: APPD. PROJECT ENGINEER: DATE: RELEASED: DATE: PROJECT NO: PART NUMBER: REV.: LM0944945-5003 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944945-5003		REV. AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0039A					U35						
0040	00001.000	EA		0974674-0001	NETWORK SN75138N						
0040A					U12						
0043	00003.000	EA		0972141-0057	NETWORK, RES. 4.7 K OHM 2 % 14 PIN DIP	BEC	- 899-1-R4.7K				
0043A					U36, U38, U41						
0044	00001.000	EA		0539370-0339	RES FIX FILM 332 OHM 1% .25 WATT	CDR	-NA550-100PPH/C				
0044A					R1						
0045	00003.000	EA		0972946-0017	RES FIX 10.0 OHM 5 % .25 W CARBON FILM	ROH	- R-25				
0045A					A1R3 A2R3 A3R3						
0046	00001.000	EA		0972946-0055	RES FIX 390 OHM 5 % .25 W CARBON FILM	ROH	- R-25				
0046A					R12						
0047	00006.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH	- R-25				
0047A					A1R1 A1R5 A2R1 A2R5 A3R1,						
0047B					A3R5						
0048	00002.000	EA		0972946-0067	RES FIX 1.2K OHM 5% .25 W CARBON FILM	ROH	- R-25				
0048A					R3 R4						
0050	00003.000	EA		0972946-0075	RES FIX 2.7K OHM 5 % .25 W CARBON FILM	ROH	- R-25				
0050A					A1R4 A2R4 A3R4						
0051	00002.000	EA		0972946-0081	RES FIX 4.7K OHM 5 % .25 W CARBON FILM	ROH	- R-25				
0051A					R10 R11						
DRAFTSMAN: DATE: CKD DRAFTSMAN: DATE: DESIGN ENGINEER: DATE: TITLE: AUTO INSERTED TAPE FOR 944945-3 APPD. MFG: DATE: APPD. PROJECT ENGINEER: DATE: RELEASED: DATE: PROJECT NO: PART NUMBER: REV.: LM0944945-5003 AC											

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM0944945-5003		REV AC		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0052	00006.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	ROH - R-25				
0052A					A1R2 A1R8 A2R2 A2R8 A3R2,					
0052B					A3R8					
0053	00006.000	EA		0972946-0112	RES FIX 91 K OHM 5% .25 W CARBON FILM	ROH - R-25				
0053A					A1R6 A1R7 A2R7 A2R6 A3R6,					
0053B					A3R7					
0054	00033.000	EA		0972763-0021	CAP.,FIXED,AXIAL LEAD,.047 UF,+80%,-20%					
0054A					C12 THRU C15,C18 THRU C20,					
0054B					C26 THRU C38,C74,C81,C85,					
0054C					C86,C97,C98,C105,C109,C110,					
0054D					C121,C122,C130,C142					
0055	00028.000	EA		0972763-0032	CAP FIXED .39 UF 50 VOLTS	UC -C53C3942				
0055A					C123 THRU C128,C131 THRU					
0055B					C133,C111 THRU C115,C118					
0055C					THRU C120,C99 THRU C103,					
0055D					C106 THRU C108,C93,C117,					
0055E					C140					
0056	00011.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10% 15 VOLT	QPL -M39003/1-2271				
0056A					C1 THRU C5,C8 THRU C11,					
0056B					C104,C116					
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE			
							AUTO INSERTED TAPE FOR 944945-3			
APPD. MFG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER		REV
								LM0944945-5003		AC

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LM0944945-5003		REV AC		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0057	00001.000	EA		0972946-0029	RES FIX 33.0 OHM 5% .25 W CARBON FILM	ROH - R-25				
0057A					R9					
0060	00006.000	EA		0972757-0001	CAP, FIXED CERAMIC 100 PF 10% 50V	UC -C51C101K				
0060A					A1C2 A1C3 A2C2 A2C3 A3C3,					
0060B					A3C2					
0062	00001.000	EA		0539370-0387	RES FIX FILM 1.05K OHM 1% .25 WATT	COR - NA55				
0062A					R5					
0063	00001.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V					
0063A					C21					
0081	00001.000	EA		0972787-0004	NETWORK SN74LS368N					
0081A					U7					
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE			
							AUTO INSERTED TAPE FOR 944945-3			
APPD. MFG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER		REV
								LM0944945-5003		AC

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944945-5004		REV AC		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0001	00001.000	EA		0944946-0001	PWB-MEMORY, EXTN, 990/10					
0015	00012.000	EA		0972932-0001	DIODE, 1N914B SWITCHING 75V PIV 75MA 4NS	TI - IN914B				
0015A					A1C1 THRU A1C3,					
0015B					A2C1 THRU A2C3,					
0015C					A3C1 THRU A3C3,					
0015D					A4C1 THRU A4C3					
0018	00001.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N				
0018A					U34					
0020	00005.000	EA		0972900-7404	NETWORK SN74LS04N					
0020A					U1,U2,U3,U17,U43					
0021	00002.000	EA		0222222-7407	NETWORK-SN7407N	TI- -SN7407N				
0021A					U25,U33					
0022	00002.000	EA		0972749-0001	NETWORK, SN74LS08N					
0022A					U42,U51					
0023	00003.000	EA		0972900-7410	NETWORK SN74LS10N					
0023A					U4,U8,U49					
0024	00001.000	EA		0972788-0001	NETWORK,SN74LS11, POSITIVE AND GATE					
0024A					U31					
0025	00001.000	EA		0222222-7440	NETWORK SN7440N	-SN7440N				
0025A					U10					
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE			
							AUTO INSERTED TAPE FOR 944945-4			
APPD. MFG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER		REV
								LM0944945-5004		AC

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944945-5004		REV AC		
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0026	00001.000	EA		0972813-0001	NETWORK-SN74LS21N					
0026A					U27					
0027	00002.000	EA		0972900-7474	NETWORK SN74LS74N					
0027A					U28,U59					
0028	00001.000	EA		0222222-7474	NETWORK SN7474N	-SN7474N				
0028A					U44					
0029	00001.000	EA		0222222-7475	NETWORK-SN7475N					
0029A					U11					
0030	00003.000	EA		0972782-0001	NETWORK SN74LS132N	TI -SN74LS132N				
0030A					U13 U16 U26					
0032	00002.000	EA		0972686-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N					
0032A					U30,U45					
0033	00001.000	EA		0219402-7260	NETWORK SN74S260N					
0033A					U21					
0035	00003.000	EA		0972652-0001	NETWORK SN74LS283N					
0035A					U18,U19,U20					
0036	00001.000	EA		0972653-0001	NETWORK,SN74LS293N					
0036A					U46					
0037	00005.000	EA		0972787-0003	NETWORK SN74LS367N					
0037A					U5 U6 U22 U23 U24					
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE			
							AUTO INSERTED TAPE FOR 944945-4			
APPD. MFG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER		REV
								LM0944945-5004		AC

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944945-5004		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0039	00001.000	EA		0972556-0002	NETWORK SN74368N						
0039A					U35						
0040	00001.000	EA		0974674-0001	NETWORK SN75138N						
0040A					U12						
0043	00003.000	EA		0972141-0057	NETWORK, RES. 4.7 K OHM 2 % 14 PIN DIP	BEC - 899-1-R4.7K					
0043A					U36, U38, U41						
0044	00001.000	EA		0539370-0339	RES FIX FILM 332 OHM 1% .25 WATT	COR -NA55D-100PPM/C					
0044A					R1						
0045	00004.000	EA		0972946-0017	RES FIX 10.0 OHM 5 % .25 W. CARBON FILM	ROH - R-25					
0045A					A1R3 A2R3 A3R3 A4R3						
0046	00001.000	EA		0972946-0055	RES FIX 390 OHM 5 % .25 W CARBON FILM	ROH - R-25					
0046A					R12						
0047	00008.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH - R-25					
0047A					A1R1 A1R5 A2R1 A2R5 A3R1						
0047B					A3R5 A4R1 A4R5						
0048	00002.000	EA		0972946-0067	RES FIX 1.2K OHM 5% .25 W CARBON FILM	ROH - R-25					
0048A					R3 R4						
0050	00004.000	EA		0972946-0075	RES FIX 2.7K OHM 5 % .25 W CARBON FILM	ROH - R-25					
0050A					A1R4 A2R4 A3R4 A4R4						
0051	00002.000	EA		0972946-0081	RES FIX 4.7K OHM 5 % .25 W CARBON FILM	ROH - R-25					
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-4											
APPROVING DATE APPO PROJECT ENGINEER DATE RELEASED DATE PROJECT NO PART NUMBER REV LM0944945-5004 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM0944945-5004		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0051A					R10 R11						
0052	00008.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	ROH - R-25					
0052A					A1R2 A1R8 A2R2 A2R8 A3R2,						
0052B					A3R8 A4R2 A4R8						
0053	00008.000	EA		0972946-0112	RES FIX 91 K OHM 5 % .25 W CARBON FILM	ROH - R-25					
0053A					A1R6 A1R7 A2R7 A2R6 A3R6,						
0053B					A3R7 A4R6 A4R7						
0054	00033.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80%, -20%						
0054A					C12 THRU C15, C18 THRU C20,						
0054B					C26 THRU C38, C74, C81, C85,						
0054C					C86, C97, C98, C105, C109,						
0054D					C110, C121, C122, C130, C142						
0055	00036.000	EA		0972763-0032	CAP FIXED .39 UF 50 VOLTS	UC -C53C394Z					
0055A					C123 THRU C128, C131 THRU						
0055B					C133, C111 THRU C115, C118						
0055C					THRU C120, C99 THRU C103,						
0055D					C106 THRU C108, C93, C117,						
0055E					C140, C87 THRU C91, C94 THRU						
0055F					C96						
0056	00013.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10 % 15 VOLT QPL	-M39003/1-2271					
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-4											
APPROVING DATE APPO PROJECT ENGINEER DATE RELEASED DATE PROJECT NO PART NUMBER REV LM0944945-5004 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LM0944945-5004		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0056A					C1 THRU C5, C8 THRU C11						
0056B					C10, C116, C92, C7						
0057	00001.000	EA		0972946-0029	RES FIX 33.0 OHM 5 % .25 W. CARBON FILM	ROH - R-25					
0057A					R9						
0060	00008.000	EA		0972757-0001	CAP, FIXED CERAMIC 100 PF 10% 50V	UC -C51C101K					
0060A					A1C2 A1C3 A2C2 A2C3 A3C3,						
0060B					A3C2 A4C2 A4C3						
0062	00001.000	EA		0539370-0387	RES FIX FILM 1.05K OHM 1% .25 WATT	COR - NA55					
0062A					R5						
0063	00001.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V						
0063A					C21						
0081	00001.000	EA		0972787-0004	NETWORK SN74LS368N						
0081A					U7						
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-4											
APPROVING DATE APPO PROJECT ENGINEER DATE RELEASED DATE PROJECT NO PART NUMBER REV LM0944945-5004 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944945-5005		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	00001.000	EA		0944946-0001	PWB-MEMORY, EXTN, 990/10						
0015	00015.000	EA		0972932-0001	DIODE, 1M914B SWITCHING 75V PIV 75MA 4MS	TI - IN914B					
0015A					A1CR1 THRU A1CR3,						
0015B					A2CR1 THRU A2CR3,						
0015C					A3CR1 THRU A3CR3,						
0015D					A4CR1 THRU A4CR3,						
0015E					A5CR1 THRU A5CR3						
0018	00001.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N					
0018A					U34						
0020	00005.000	EA		0972900-7404	NETWORK SN74LS04N						
0020A					U1, U2, U3, U17, U43						
0021	00002.000	EA		0222222-7407	NETWORK-SN7407N	TI - -SN7407N					
0021A					U25, U33						
0022	00002.000	EA		0972749-0001	NETWORK, SN74LS08N						
0022A					U42, U51						
0023	00003.000	EA		0972900-7410	NETWORK SN74LS10N						
0023A					U4, U8, U49						
0024	00001.000	EA		0972788-0001	NETWORK, SN74LS11, POSITIVE AND GATE						
0024A					U31						
0025	00001.000	EA		0222222-7440	NETWORK SN7440N	-SN7440N					
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-5											
APPROVING DATE APPO PROJECT ENGINEER DATE RELEASED DATE PROJECT NO PART NUMBER REV LM0944945-5005 AC											

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944945-5005		REV AC	
DATE 04/17/79									
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0025A					U10				
0026	00001.000	EA		0972813-0001	NETWORK-SN74LS21N				
0026A					U27				
0027	00002.000	EA		0972900-7474	NETWORK SN74LS74N				
0027A					U28,U59				
0028	00001.000	EA		0222222-7474	NETWORK SN7474N	-SN7474N			
0028A					U44				
0029	00001.000	EA		0222222-7475	NETWORK-SN7475N				
0029A					U11				
0030	00003.000	EA		0972782-0001	NETWORK SN74LS132N	TI -SN74LS132N			
0030A					U13 U16 U26				
0032	00002.000	EA		0972686-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N				
0032A					U30,U45				
0033	00001.000	EA		0219402-7260	NETWORK SN74S260N				
0033A					U21				
0035	00003.000	EA		0972652-0001	NETWORK SN74LS283N				
0035A					U18,U19,U20				
0036	00001.000	EA		0972653-0001	NETWORK,SN74LS293N				
0036A					U46				
0037	00005.000	EA		0972787-0003	NETWORK SN74LS367N				
DRAFTSMAN DATE CKD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-5									
APPROV. DATE APPO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944945-5005 AC									

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944945-5005		REV AC	
DATE 04/17/79									
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0037A					U5 U6 U22 U23 U24				
0039	00001.000	EA		0972556-0002	NETWORK SN74368N				
0039A					U35				
0040	00001.000	FA		0974674-0001	NETWORK SN75138N				
0040A					U12				
0043	00003.000	EA		0972141-0057	NETWORK,RES. 4.7 K OHM 2 % 14 PIN DIP	BEC - 899-1-R4.7K			
0043A					U36,U38,U41				
0044	00001.000	EA		0539370-0339	RES FIX FILM 332 OHM 1% .25 WATT	COR -NA550-100PPN/C			
0044A					R1				
0045	00005.000	EA		0972946-0017	RES FIX 10.0 OHM 5 % .25 W.CARBON FILM	ROH - R-25			
0045A					A1R3 A2R3 A3R3 A4R3 A5R3				
0046	00001.000	EA		0972946-0055	RES FIX 390 OHM 5 % .25 W CARBON FILM	ROH - R-25			
0046A					R12				
0047	00010.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH - R-25			
0047A					A1R1 A1R5 A2R1 A2R5 A3R1,				
0047B					A3P5 A4R1 A4R5 A5R1 A5R5				
0048	00002.000	EA		0972946-0067	RES FIX 1.2K OHM 5% .25 W CARBON FILM	RDH - R-25			
0048A					R3 R4				
0050	00005.000	EA		0972946-0075	RES FIX 2.7K OHM 5 % .25 W CARBON FILM	RDH - R-25			
0050A					A1R4 A2R4 A3R4 A4R4 A5R4				
DRAFTSMAN DATE CKD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-5									
APPROV. DATE APPO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944945-5005 AC									

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM0944945-5005		REV AC	
DATE 04/17/79									
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0051	00002.000	EA		0972946-0081	RES FIX 4.7K OHM 5 % .25 W CARBON FILM	ROH - R-25			
0051A					R10 R11				
0052	00010.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	ROH - R-25			
0052A					A1R2 A1R8 A2R2 A2R8 A3R2,				
0052B					A3R8 A4R2 A4R8 A5R2 A5R8				
0053	00010.000	EA		0972946-0112	RES FIX 91 K OHM 5 % .25 W CARBON FILM	ROH - R-25			
0053A					A1R6 A1R7 A2R7 A2R6 A3R6,				
0053B					A3R7 A4R6 A4R7 A5R6 A5R7				
0054	00033.000	EA		0972763-0021	CAP.,FIXED,AXIAL LEAD,.047 UF,+80%,-20%				
0054A					C12 THRU C15,C18 THRU C20,				
0054B					C26 THRU C38,C74,C81,C85,				
0054C					C86,C97,C98,C105,C109,C110,				
0054D					C121,C122,C130,C142				
0055	00044.000	EA		0972763-0032	CAP FIXED .39 UF 50 VOLTS	UC -C53C394Z			
0055A					C123 THRU C128,C131 THRU				
0055B					C133,C111 THRU C115,C118				
0055C					THRU C120,C99 THRU C103,				
0055D					C106 THRU C108,C93,C117,				
0055E					C140,C87 THRU C91,C82 THRU				
0055F					C84,C75 THRU C79				
DRAFTSMAN DATE CKD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-5									
APPROV. DATE APPO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944945-5005 AC									

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LM0944945-5005		REV AC	
DATE 04/17/79									
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0056	00015.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10 % 15 VOLT	QPL -M39003/1-2271			
0056A					C1 THRU C5,C8 THRU C11,				
0056B					C104,C116,C80,C92,C6				
0056C					C7				
0057	00001.000	EA		0972946-0029	RES FIX 33.0 OHM 5 % .25 W.CARBON FILM	ROH - R-25			
0057A					R9				
0060	00010.000	EA		0972757-0001	CAP,FIXED CERAMIC 100 PF 10% 50V	UC -C51C101K			
0060A					A1C2 A1C3 A2C2 A2C3 A3C3,				
0060B					A3C2 A4C2 A4C3 A5C2 A5C3				
0062	00001.000	EA		0539370-0387	RES FIX FILM 1.05K OHM 1% .25 WATT	COR - NA55			
0062A					R5				
0063	00001.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V				
0063A					C21				
0081	00001.000	EA		0972787-0004	NETWORK SN74LS368N				
0081A					U7				
DRAFTSMAN DATE CKD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-5									
APPROV. DATE APPO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944945-5005 AC									

TEXAS INSTRUMENTS INCORPORATED DATE 04/17/79 LIST OF MATERIAL PAGE 1 of PART NUMBER LM0944945-5006 REV AC

PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0001	0001.000	EA		0944946-0001	PWB-MEMORY, EXTN, 990/10	
0018	0001.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N
0018A					U34	
0020	00005.000	EA		0972900-7404	NETWORK SN74LS04N	
0020A					U1,U2,U3,U17,U43	
0021	00002.000	EA		0222222-7407	NETWORK-SN7407N	TI- -SN7407N
0021A					U25,U33	
0022	00002.000	EA		0972749-0001	NETWORK, SN74LS08N	
0022A					U42,U51	
0023	00003.000	EA		0972900-7410	NETWORK SN74LS10N	
0023A					U4,U8,U49	
0024	00001.000	EA		0972788-0001	NETWORK,SN74LS11,POSITIVE AND GATE	
0024A					U31	
0025	00001.000	EA		0222222-7440	NETWORK SN7440N	-SN7440N
0025A					U10	
0026	00001.000	EA		0972813-0001	NETWORK-SN74LS21N	
0026A					U27	
0027	00002.000	EA		0972900-7474	NETWORK SN74LS74N	
0027A					U28,U59	
0028	00001.000	EA		0222222-7474	NETWORK SN7474N	-SN7474N
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-6						
APPRO. MFG DATE APPD PROJECT ENGINEER DATE RELEASED DATE PROJECT NO PART NUMBER REV LM0944945-5006 AC						

TEXAS INSTRUMENTS INCORPORATED DATE 04/17/79 LIST OF MATERIAL PAGE 2 of PART NUMBER LM0944945-5006 REV AC

PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0028A					U44	
0029	00001.000	EA		0222222-7475	NETWORK-SN7475N	
0029A					U11	
0030	00003.000	EA		0972782-0001	NETWORK SN74LS132N	TI -SN74LS132N
0030A					U13 U16 U26	
0032	00002.000	EA		0972686-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N	
0032A					U30,U45	
0033	00001.000	EA		0219402-7260	NETWORK SN74S260N	
0033A					U21	
0035	00003.000	EA		0972652-0001	NETWORK SN74LS283N	
0035A					U18,U19,U20	
0036	00001.000	EA		0972653-0001	NETWORK,SN74LS293N	
0036A					U46	
0037	00005.000	EA		0972787-0003	NETWORK SN74LS367N	
0037A					U5 U6 U22 U23 U24	
0039	00001.000	EA		0972556-0002	NETWORK SN74368N	
0039A					U35	
0040	00001.000	EA		0974674-0001	NETWORK SN75138N	
0040A					U12	
0043	00003.000	EA		0972141-0057	NETWORK,RES. 4.7 K OHM 2 1/4 PIN DIP	DEC - 899-1-R4-7R
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-6						
APPRO. MFG DATE APPD PROJECT ENGINEER DATE RELEASED DATE PROJECT NO PART NUMBER REV LM0944945-5006 AC						

TEXAS INSTRUMENTS INCORPORATED DATE 04/17/79 LIST OF MATERIAL PAGE 3 of PART NUMBER LM0944945-5006 REV AC

PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0043A					U36,U38,U41	
0081	00001.000	EA		0972787-0004	NETWORK SN74LS368N	
0081A					U7	
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-6						
APPRO. MFG DATE APPD PROJECT ENGINEER DATE RELEASED DATE PROJECT NO PART NUMBER REV LM0944945-5006 AC						

TEXAS INSTRUMENTS INCORPORATED DATE 04/17/79 LIST OF MATERIAL PAGE 1 of PART NUMBER LM0944945-5007 REV AC

PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0001	00001.000	EA		0944946-0001	PWB-MEMORY, EXTN, 990/10	
0015	00006.000	EA		0972937-0001	DIODE,1N914B SWITCHING 75V PIV 75MA 4NS	TI - 1N914B
0015A					A1CR1 THRU A1CR3	
0015B					A2CR1 THRU A2CR3	
0018	00001.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N
0018A					U34	
0020	00005.000	EA		0972900-7404	NETWORK SN74LS04N	
0020A					U1,U2,U3,U17,U43	
0021	00002.000	EA		0222222-7407	NETWORK-SN7407N	TI- -SN7407N
0021A					U25,U33	
0022	00002.000	EA		0972749-0001	NETWORK, SN74LS08N	
0022A					U42,U51	
0023	00003.000	EA		0972900-7410	NETWORK SN74LS10N	
0023A					U4,U8,U49	
0024	00001.000	EA		0972788-0001	NETWORK,SN74LS11,POSITIVE AND GATE	
0024A					U31	
0025	00001.000	EA		0222222-7440	NETWORK SN7440N	-SN7440N
0025A					U10	
0026	00001.000	EA		0972813-0001	NETWORK-SN74LS21N	
0026A					U27	
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-7						
APPRO. MFG DATE APPD PROJECT ENGINEER DATE RELEASED DATE PROJECT NO PART NUMBER REV LM0944945-5007 AC						

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944945-5007		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0027	00002.000	EA		0972900-7474	NETWORK SN74LS74N U28,U59						
0027A						-SN7474N					
0028	00001.000	FA		0222222-7474	NETWORK SN7474N U44						
0028A											
0029	00001.000	EA		0222222-7475	NETWORK-SN7475N U11						
0029A											
0030	00003.000	EA		0972782-0001	NETWORK SN74LS132N U13 U16 U26	TI		-SN74LS132N			
0030A											
0032	00002.000	EA		0972686-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N U30,U45						
0032A											
0033	00001.000	FA		0219402-7260	NETWORK SN74S260N U21						
0033A											
0035	00003.000	EA		0972652-0001	NETWORK SN74LS283N U18,U19,U20						
0035A											
0036	00001.000	EA		0972653-0001	NETWORK,SN74LS293N U46						
0036A											
0037	00005.000	FA		0972787-0003	NETWORK SN74LS367N U5 U6 U22 U23 U24						
0037A											
0039	00001.000	EA		0972556-0002	NETWORK SN74368N U35						
0039A											
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-7											
APP'D MFG DATE APP'D PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944945-5007 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944945-5007		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0040	00001.000	EA		0974674-0001	NETWORK SN75138N U12						
0040A											
0043	00003.000	FA		0972141-0057	NETWORK,RES. 4.7 K OHM 2 % 14 PIN DIP U36,U38,U41	BEC		- 899-1-R4.7K			
0043A											
0044	00001.000	EA		0539370-0339	RES FIX FILM 332 OHM 1% .25 WATT R1	COR		-NA550-100PPH/C			
0044A											
0045	00002.000	EA		0972946-0017	RES FIX 10.0 OHM 5 % .25 W.CARBON FILM A1R3 A2R3	ROH		- R-25			
0045A											
0046	00001.000	FA		0972946-0055	RES FIX 390 OHM 5 % .25 W CARBON FILM R12	ROH		- R-25			
0046A											
0047	00004.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM A1R1 A1R5 A2R1 A2R5	ROH		- R-25			
0047A											
0048	00002.000	EA		0972946-0067	RES FIX 1.2K OHM 5% .25 W CARBON FILM R3 R4	ROH		- R-25			
0048A											
0050	00002.000	EA		0972946-0075	RES FIX 2.7K OHM 5 % .25 W CARBON FILM A1R4 A2R4	ROH		- R-25			
0050A											
0051	00002.000	EA		0972946-0081	RES FIX 4.7K OHM 5 % .25 W CARBON FILM R10 R11	ROH		- R-25			
0051A											
0052	00004.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM A1R2 A1R8 A2R2 A2R8	ROH		- R-25			
0052A											
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-7											
APP'D MFG DATE APP'D PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944945-5007 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM0944945-5007		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0053	00004.000	EA		0972946-0112	RES FIX 91 K OHM 5 % .25 W CARBON FILM A1R6 A1R7 A2R6 A2R7	ROH		- R-25			
0053A											
0054	00033.000	FA		0972763-0021	CAP.,FIXED,AXIAL LEAD,.047 UF,+80%,-20% C12 THRU C15,C18 THRU C20, C26 THRU C38,C74,C81,C85, C86,C97,C98,C105,C109,C110, C121,C122,C130,C142						
0054A											
0054B											
0054C											
0054D											
0055	00020.000	EA		0972763-0032	CAP FIXED .39 UF 50 VOLTS C93,C117,C140,C123 THRU C128,C131 THRU C133,C111 THRU C115,C118 THRU C120	UC		-C53C394Z			
0055A											
0055B											
0055C											
0056	00009.000	FA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10 % 15 VOLT C1 THRU C5,C9 THRU C11, C116	QPL		-M39003/1-2271			
0056A											
0056B											
0057	00001.000	FA		0972946-0029	RES FIX 33.0 OHM 5 % .25 W.CARBON FILM R9	ROH		- R-25			
0057A											
0060	00004.000	EA		0972757-0001	CAP,FIXED CERAMIC 100 PF 10% 50V A1C2 A1C3 A2C2 A2C3	UC		-C51C101K			
0060A											
0062	00001.000	EA		0539370-0387	RES FIX FILM 1.05K OHM 1% .25 WATT R5	COR		- NA55			
0062A											
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-7											
APP'D MFG DATE APP'D PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944945-5007 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LM0944945-5007		REV AC	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0063	00001.000	FA		0972757-0025	CAP FIX CER .01MF 10% 50V C21						
0063A											
0081	00001.000	EA		0972787-0004	NETWORK SN74LS368N U7						
0081A											
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-7											
APP'D MFG DATE APP'D PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM0944945-5007 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM944945-5008		REV AC	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	0001.000	EA		0944946-0001	PMB-MEMORY, EXTN, 990/10						
0015	00009.000	EA		0972932-0001	DIDDE, IN9148 SWITCHING 75V PIV 75MA 4NS	TI - IN9148					
0015A					A1CR1 THRU A1CR3,						
0015B					A2CR1 THRU A2CR3,						
0015C					A3CR1 THRU A3CR3						
0018	00001.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N					
0018A					U34						
0020	00005.000	EA		0972900-7404	NETWORK SN74LS04N						
0020A					U1,U2,U3,U17,U43						
0021	00002.000	EA		0222222-7407	NETWORK-SN7407N	TI- -SN7407N					
0021A					U25,U33						
0022	00002.000	EA		0972749-0001	NETWORK, SN74LS00N						
0022A					U42,U51						
0023	00003.000	EA		0972900-7410	NETWORK SN74LS10N						
0023A					U4,U8,U49						
0024	00001.000	EA		0972788-0001	NETWORK, SN74LS11, POSITIVE AND GATE						
0024A					U31						
0025	00001.000	EA		0222222-7440	NETWORK SN7440N	-SN7440N					
0025A					U10						
0026	00001.000	EA		0972813-0001	NETWORK-SN74LS21N						
DRAFTSMAN DATE CRO DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-8											
APPRO. DATE APPRO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM944945-5008 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM944945-5008		REV AC	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0026A					U27						
0027	00002.000	EA		0972900-7474	NETWORK SN74LS74N						
0027A					U28,U59						
0028	00001.000	EA		0222222-7474	NETWORK SN7474N	-SN7474N					
0028A					U44						
0029	00001.000	EA		0222222-7475	NETWORK-SN7475N						
0029A					U11						
0030	00003.000	EA		0972782-0001	NETWORK SN74LS132N	TI -SN74LS132N					
0030A					U13 U16 U26						
0032	00002.000	EA		0972686-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N						
0032A					U30,U45						
0033	00001.000	EA		0219402-7260	NETWORK SN74S260N						
0033A					U21						
0035	00003.000	EA		0972652-0001	NETWORK SN74LS283N						
0035A					U18,U19,U20						
0036	00001.000	EA		0972653-0001	NETWORK, SN74LS293N						
0036A					U46						
0037	00003.000	EA		0972787-0003	NETWORK SN74LS367N						
0037A					U5 U6 U22 U23 U24						
0038	00001.000	EA		0972356-0002	NETWORK SN74368N						
DRAFTSMAN DATE CRO DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-8											
APPRO. DATE APPRO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM944945-5008 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM944945-5008		REV AC	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0039A					U35						
0040	00001.000	EA		0974674-0001	NETWORK SN75138N						
0040A					U12						
0043	00003.000	EA		0972141-0057	NETWORK, RES. 4.7 K OHM 2 X 14 PIN DIP	BEC - 899-1-R4.7K					
0043A					U36,U38,U41						
0044	00001.000	EA		0539370-0339	RES FIX FILM 332 OHM 1/8 .25 WATT	COR -NA55D-100PPM/C					
0044A					R1						
0045	00003.000	EA		0972946-0017	RES FIX 10.0 OHM 5 X .25 W CARBON FILM	ROH - R-25					
0045A					A1R3 A2R3 A3R3						
0046	00001.000	EA		0972946-0055	RES FIX 390 OHM 5 X .25 W CARBON FILM	ROH - R-25					
0046A					R12						
0047	00006.000	EA		0972946-0065	RES FIX 1.0K OHM 5 X .25 W CARBON FILM	ROH - R-25					
0047A					A1R1 A1R5 A2R1 A2R5 A3R1,						
0047B					A3R5						
0048	00002.000	EA		0972946-0067	RES FIX 1.2K OHM 5 X .25 W CARBON FILM	ROH - R-25					
0048A					R3 R4						
0050	00003.000	EA		0972946-0075	RES FIX 2.7K OHM 5 X .25 W CARBON FILM	ROH - R-25					
0050A					A1R4 A2R4 A3R4						
0051	00002.000	EA		0972946-0081	RES FIX 4.7K OHM 5 X .25 W CARBON FILM	ROH - R-25					
0051A					R10 R11						
DRAFTSMAN DATE CRO DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-8											
APPRO. DATE APPRO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM944945-5008 AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM944945-5008		REV AC	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0052	00006.000	EA		0972946-0089	RES FIX 10K OHM 5 X .25 W CARBON FILM	ROH - R-25					
0052A					A1R2 A1R8 A2R2 A2R8 A3R2,						
0052B					A3R8						
0053	00006.000	EA		0972946-0112	RES FIX 91 K OHM 5 X .25 W CARBON FILM	ROH - R-25					
0053A					A1R6 A1R7 A2R7 A2R6 A3R6,						
0053B					A3R7						
0054	00003.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80%, -20%						
0054A					C12 THRU C19, C18 THRU C20,						
0054B					C26 THRU C30, C74, C61, C85,						
0054C					C86, C97, C98, C105, C109, C110,						
0054D					C121, C122, C130, C142						
0055	00028.000	EA		0972763-0032	CAP FIXED .39 UF 50 VOLTS	UC -C53C394Z					
0055A					C123 THRU C128, C131 THRU						
0055B					C133, C111 THRU C115, C118						
0055C					THRU C120, C99 THRU C103,						
0055D					C106 THRU C108, C93, C117,						
0055E					C140						
0056	00011.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10 X 15 VOLT	QPL -R39083/1-2271					
0056A					C1 THRU C5, C8 THRU C11,						
0056B					C104, C116						
DRAFTSMAN DATE CRO DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-8											
APPRO. DATE APPRO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM944945-5008 AC											



TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LM0944945-5008		REV AC	
PRINT ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0057	00001.000	EA		0972946-0029	RES FIX 33.0 OHM 5 % .25 M.CARBON FILM	R0H - R-25					
0057A					R9						
0060	00006.000	EA		0972757-0001	CAP, FIXED CERAMIC 100 PF 10% 50V	UC -C51C101K					
0060A					A1C2 A1C3 A2C2 A2C3 A3C3,						
0060B					A3C2						
0062	00001.000	EA		0539370-0387	RES FIX FILM 1.05K OHM 1% .25 WATT	COR - NA55					
0062A					R5						
0063	00001.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V						
0063A					C21						
0081	00001.000	EA		0972787-0004	NETWORK SN74LS368N						
0081A					U7						
DRAFTSMAN DATE CRO. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-8											
APPRO. MFG. DATE APPO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM0944945-5008 REV AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0944945-5009		REV AC	
PRINT ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	00001.000	EA		0944946-0001	PWB-MEMORY, EXTN, 990/10						
0015	00012.000	EA		0972932-0001	DIODE, IN9148 SWITCHING 75V PIV 75MA 4NS	TI - IN9148					
0015A					A1CR1 THRU A1CR3,						
0015B					A2CR1 THRU A2CR3,						
0015C					A3CR1 THRU A3CR3,						
0015D					A4CR1 THRU A4CR3						
0018	00001.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N					
0018A					U34						
0020	00005.000	EA		0972900-7404	NETWORK SN74LS04H						
0020A					U1, U2, U3, U17, U43						
0021	00002.000	EA		0222222-7407	NETWORK-SN7407N	TI- -SN7407N					
0021A					U25, U33						
0022	00002.000	EA		0972749-0001	NETWORK, SN74LS08N						
0022A					U42, U51						
0023	00003.000	EA		0972900-7410	NETWORK SN74LS10N						
0023A					U4, U8, U49						
0024	00001.000	EA		0972788-0001	NETWORK, SN74LS11, POSITIVE AND GATE						
0024A					U31						
0025	00001.000	EA		0222222-7440	NETWORK SN7440N	-SN7440N					
0025A					U10						
DRAFTSMAN DATE CRO. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-9											
APPRO. MFG. DATE APPO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM0944945-5009 REV AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0944945-5009		REV AC	
PRINT ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0026	00001.000	EA		0972813-0001	NETWORK-SN74LS21N						
0026A					U27						
0027	00002.000	EA		0972900-7474	NETWORK SN74LS74N						
0027A					U28, U59	-SN7474N					
0028	00001.000	EA		0222222-7474	NETWORK SN7474N						
0028A					U44						
0029	00001.000	EA		0222222-7475	NETWORK-SN7475N						
0029A					U11						
0030	00003.000	EA		0972782-0001	NETWORK SN74LS132N	TI -SN74LS132N					
0030A					U13 U16 U26						
0032	00002.000	EA		0972686-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N						
0032A					U30, U45						
0033	00001.000	EA		0219402-7260	NETWORK SN74S240N						
0033A					U21						
0035	00003.000	EA		0972652-0001	NETWORK SN74LS283N						
0035A					U18, U19, U20						
0036	00001.000	EA		0972653-0001	NETWORK, SN74LS293N						
0036A					U44						
0037	00005.000	EA		0972787-0003	NETWORK SN74LS367N						
0037A					U5 U6 U22 U23 U24						
DRAFTSMAN DATE CRO. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-9											
APPRO. MFG. DATE APPO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM0944945-5009 REV AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0944945-5009		REV AC	
PRINT ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0039	00001.000	EA		0972556-0002	NETWORK SN74368N						
0039A					U35						
0040	00001.000	EA		0974674-0001	NETWORK SN75130N						
0040A					U12						
0043	00003.000	EA		0972141-0057	NETWORK, RES. 4.7 K OHM 2 % 14 PIN DIP	BEC - 899-1-R4, TR					
0043A					U36, U38, U41						
0044	00001.000	EA		0539370-0339	RES FIX FILM 332 OHM 1% .25 WATT	COR -NA550-100PPW/C					
0044A					R1						
0045	00004.000	EA		0972946-0017	RES FIX 10.0 OHM 5 % .25 M.CARBON FILM	R0H - R-25					
0045A					A1R3 A2R3 A3R3 A4R3						
0046	00001.000	EA		0972946-0055	RES FIX 390 OHM 5 % .25 M CARBON FILM	R0H - R-25					
0046A					R12						
0047	00006.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 M CARBON FILM	R0H - R-25					
0047A					A1R1 A1R5 A2R1 A2R5 A3R1						
0047B					A3R5 A4R1 A4R5						
0048	00002.000	EA		0972946-0067	RES FIX 1.2K OHM 5% .25 M CARBON FILM	R0H - R-25					
0048A					R3 R4						
0050	00004.000	EA		0972946-0075	RES FIX 2.7K OHM 5 % .25 M CARBON FILM	R0H - R-25					
0050A					A1R4 A2R4 A3R4 A4R4						
0051	00002.000	EA		0972946-0081	RES FIX 4.7K OHM 5 % .25 M CARBON FILM	R0H - R-25					
DRAFTSMAN DATE CRO. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-9											
APPRO. MFG. DATE APPO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM0944945-5009 REV AC											

TEXAS INSTRUMENTS INCORPORATED DATE 04/17/79 LIST OF MATERIAL PAGE 4 of PART NUMBER LM0944945-5009 REV AC

PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0051A					R10 R11	
0052	00008.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	ROH - R-25
0052A					A1R2 A1R8 A2R2 A2R8 A3R2,	
0052B					A3R8 A4R2 A4R8	
0053	00008.000	EA		0972946-0112	RES FIX 91 K OHM 5% .25 W CARBON FILM	ROH - R-25
0053A					A1R6 A1R7 A2R7 A2R6 A3R6,	
0053B					A3R7 A4R6 A4R7	
0054	00033.000	EA		0972763-0021	CAP.,FIXED,AXIAL LEAD,.047 UF,+80%,-20%	
0054A					C12 THRU C15,C18 THRU C20,	
0054B					C26 THRU C38,C74,C81,C85,	
0054C					C86,C97,C98,C105,C109,	
0054D					C110,C121,C122,C130,C142	
0055	00036.000	EA		0972763-0032	CAP FIXED .39 UF 50 VOLTS	UC -C53C394Z
0055A					C123 THRU C128,C131 THRU	
0055B					C133,C111 THRU C115,C118	
0055C					THRU C120,C99 THRU C103,	
0055D					C106 THRU C108,C93,C117,	
0055E					C140,C87 THRU C91,C94 THRU	
0055F					C96	
0056	00012.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10 X 15 VOLTS	QPL -R39003/1-2271
DRAFTSMAN DATE C.D. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-9						
APPRO. ENG. DATE APPRO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM0944945-5009 REV AC						

TEXAS INSTRUMENTS INCORPORATED DATE 04/17/79 LIST OF MATERIAL PAGE 5 of PART NUMBER LM0944945-5009 REV AC

PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0056A					C1 THRU C5,C8 THRU C11	
0056B					C104,C116,C92,C7	
0057	00001.000	EA		0972946-0029	RES FIX 33.0 OHM 5% .25 W.CARBON FILM	ROH - R-25
0057A					R9	
0060	00008.000	EA		0972757-0001	CAP.,FIXED CERAMIC 100 PF 10% 50V	UC -C516401R
0060A					A1C2 A1C3 A2C2 A2C3 A3C3,	
0060B					A3C2 A4C2 A4C3	
0062	00001.000	EA		0539370-0387	RES FIX FILM 1.05K OHM 1% .25 WATT	COR - NA95
0062A					R5	
0063	00001.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V	
0063A					C21	
0081	00001.000	EA		0972787-0004	NETWORK SN74LS368N	
0081A					U7	
DRAFTSMAN DATE C.D. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-9						
APPRO. ENG. DATE APPRO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM0944945-5009 REV AC						

TEXAS INSTRUMENTS INCORPORATED DATE 04/17/79 LIST OF MATERIAL PAGE 1 of PART NUMBER LM0944945-5010 REV AC

PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0001	00001.000	EA		0944946-0001	PMB-MEMORY, EXTN, 990/10	
0015	00015.000	EA		0972932-0001	DIODE,1N914B SWITCHING 75V PIV 75MA 4NS	TI - IN914B
0015A					A1CR1 THRU A1CR3,	
0015B					A2CR1 THRU A2CR3,	
0015C					A3CR1 THRU A3CR3,	
0015D					A4CR1 THRU A4CR3,	
0015E					A5CR1 THRU A5CR3	
0018	00001.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N
0018A					U34	
0020	00005.000	EA		0972900-7404	NETWORK SN74LS04N	
0020A					U1,U2,U3,U17,U43	
0021	00002.000	EA		0222222-7407	NETWORK-SN7407N	TI- -SN7407N
0021A					U25,U33	
0022	00002.000	EA		0972749-0001	NETWORK, SN74LS08N	
0022A					U42,U51	
0023	00003.000	EA		0972900-7410	NETWORK SN74LS10N	
0023A					U4,U8,U49	
0024	00001.000	EA		0972788-0001	NETWORK,SN74LS11, POSITIVE AND GATE	
0024A					U31	
0025	00001.000	EA		0222222-7440	NETWORK SN7440N	-SN7440N
DRAFTSMAN DATE C.D. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-10						
APPRO. ENG. DATE APPRO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM0944945-5010 REV AC						

TEXAS INSTRUMENTS INCORPORATED DATE 04/17/79 LIST OF MATERIAL PAGE 2 of PART NUMBER LM0944945-5010 REV AC

PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0025A					U10	
0026	00001.000	EA		0972813-0001	NETWORK-SN74LS21N	
0026A					U27	
0027	00002.000	EA		0972900-7474	NETWORK SN74LS74N	
0027A					U28,U59	
0028	00001.000	EA		0222222-7474	NETWORK SN7474N	-SN7474N
0028A					U44	
0029	00001.000	EA		0222222-7475	NETWORK-SN7475N	
0029A					U11	
0030	00003.000	EA		0972782-0001	NETWORK SN74LS132N	TI -SN74LS132N
0030A					U13 U16 U26	
0032	00002.000	EA		0972686-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N	
0032A					U30,U45	
0033	00001.000	EA		0219402-7260	NETWORK SN74S260N	
0033A					U21	
0035	00003.000	EA		0972652-0001	NETWORK SN74LS283N	
0035A					U18,U19,U20	
0036	00001.000	EA		0972653-0001	NETWORK,SN74LS293N	
0036A					U46	
0037	00002.000	EA		0972787-0003	NETWORK SN74LS367N	
DRAFTSMAN DATE C.D. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-10						
APPRO. ENG. DATE APPRO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM0944945-5010 REV AC						

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM944945-5010		REV AC	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0037A					U5 U6 U22 U23 U24						
0039	0001.000	EA		0972556-0002	NETWORK SN74368N						
0039A					U35						
0040	0001.000	EA		0974674-0001	NETWORK SN75138N						
0040A					U12						
0043	00003.000	EA		0972141-0057	NETWORK, RES. 4.7 K OHM 2 % 14 PIN DIP	SEC - 899-1-84.7K					
0043A					U36, U38, U41						
0044	00001.000	EA		0539370-0339	RES FIX FILM 332 OHM 1% .25 WATT	COR -NASSO-100PPM/C					
0044A					R1						
0045	00005.000	EA		0972946-0017	RES FIX 10.0 OHM 5 % .25 W. CARBON FILM	ROH - R-25					
0045A					A1R3 A2R3 A3R3 A4R3 A5R3						
0046	00001.000	EA		0972946-0055	RES FIX 390 OHM 5 % .25 W CARBON FILM	ROH - R-25					
0046A					R12						
0047	00010.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH - R-25					
0047A					A1R1 A1R5 A2R1 A2R5 A3R1,						
0047B					A3R5 A4R1 A4R5 A5R1 A5R5						
0048	00002.000	EA		0972946-0067	RES FIX 1.2K OHM 5% .25 W CARBON FILM	ROH - R-25					
0048A					R3 R4						
0050	00005.000	EA		0972946-0075	RES FIX 2.7K OHM 5 % .25 W CARBON FILM	ROH - R-25					
0050A					A1R4 A2R4 A3R4 A4R4 A5R4						
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-10											
APPRO. MFG. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM944945-5010 REV AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM944945-5010		REV AC	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0051	00002.000	EA		0972946-0081	RES FIX 4.7K OHM 5 % .25 W CARBON FILM	ROH - R-25					
0051A					R10 R11						
0052	00010.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	ROH - R-25					
0052A					A1R2 A1R8 A2R2 A2R8 A3R2,						
0052B					A3R8 A4R2 A4R8 A5R2 A5R8,						
0053	00010.000	EA		0972946-0112	RES FIX 91 K OHM 5 % .25 W CARBON FILM	ROH - R-25					
0053A					A1R6 A1R7 A2R7 A2R6 A3R6,						
0053B					A3R7 A4R6 A4R7 A5R6 A5R7						
0054	00033.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +50%, -20%						
0054A					C12 THRU C15, C18 THRU C20,						
0054B					C26 THRU C38, C74, C81, C85,						
0054C					C86, C97, C98, C105, C109, C110,						
0054D					C121, C122, C130, C142						
0055	00044.000	EA		0972763-0032	CAP FIXED .39 UF 50 VOLTS	UC -C53C394Z					
0055A					C123 THRU C128, C131 THRU						
0055B					C133, C111 THRU C115, C118						
0055C					THRU C120, C99 THRU C103,						
0055D					C106 THRU C108, C93, C117,						
0055E					C140, C87 THRU C91, C82 THRU						
0055F					C84, C75 THRU C79						
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-10											
APPRO. MFG. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM944945-5010 REV AC											

TEXAS INSTRUMENTS INCORPORATED		DATE 04/17/79		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LM944945-5010		REV AC	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0056	00015.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10 % 15 VOLT	QPL -H39003/1-2271					
0056A					C1 THRU C5, C8 THRU C11,						
0056B					C104, C116, C80, C92, C6, C7						
0057	00001.000	EA		0972946-0029	RES FIX 33.0 OHM 5 % .25 W. CARBON FILM	ROH - R-25					
0057A					R9						
0060	00010.000	EA		0972757-0001	CAP, FIXED CERAMIC 100 PF 10% 50V	UC -C51C101K					
0060A					A1C2 A1C3 A2C2 A2C3 A3C3,						
0060B					A3C2 A4C2 A4C3 A5C2 A5C3						
0062	00001.000	EA		0539370-0387	RES FIX FILM 1.05K OHM 1% .25 WATT	COR - NASS					
0062A					R5						
0063	00001.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V						
0063A					C21						
0081	00001.000	EA		0972787-0004	NETWORK SN74LS368N						
0081A					U7						
DRAFTSMAN DATE CED DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTED TAPE FOR 944945-10											
APPRO. MFG. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM944945-5010 REV AC											

- NOTES: UNLESS OTHERWISE SPECIFIED:
1. ALL DEVICE TYPES ARE PREFIXED WITH SN74
  2. GROUND IS APPLIED TO PIN 7 OF ALL 14-PIN IC'S AND PIN 8 OF ALL 16-PIN IC'S.
  3. VCC IS APPLIED TO PIN 14 OF ALL 14-PIN IC'S AND PIN 16 OF ALL 16-PIN IC'S.
  4. DEVICE TYPE, PIN NUMBERS, AND REFERENCE DESIGNATOR OF IC IS SHOWN AS FOLLOWS:



00 AND 04 = DEVICE TYPE  
 4, 5, AND 6 = PIN NUMBERS  
 U8 AND U34 = REFERENCE DESIGNATOR

5. DEVICES SUPPLIED WITH +5 MEMI ARE DENOTED BY A \*.
- R2, R6, R7, RB ARE SELECTED TO THE REQUIREMENTS OF UNIT TEST PROCEDURE 944948-9901.

REVISIONS			
ZONE	DATE	DESCRIPTION	APPROVED
A	5/7/76	EN40735 (C) Plan	JLH/MA
B	5/11/76	EN44353 (C) B...	
C	5/11/76	EN417392 (D) X...	
D	5-24-79	EN44K305 (C) R...	
E	4-3-79	EN448731 (E) 76 & 76	
F	7-31-79	EN450505 (E) R...	

SPARES

TYPE	LOCATION	PINS
LS00	U50	4, 5, 6
D7	U25	3, 4 8, 9 10, 11 12, 13
LS04	U2	1, 2 8, 9 10, 11 12, 13
	U43	10, 11 12, 13
D7	U33 *	1, 2 5, 6
LS08	U42	8, 9, 10
LS10	U4	1, 2, 12, 13 8, 9, 10, 11
	U49 *	3, 4, 5, 6
LS11	U31 *	3, 4, 5, 6 8, 9, 10, 11
40	U10	1, 2, 4, 5, 6
74	U44	1, 2, 3, 4, 5, 6
LS74	U48 *	8, 9, 10, 11, 12, 13
75	U11	1, 2, 13, 14 3, 13, 14, 15
LS132	U26	8, 9, 10 11, 12, 13
S260	U21	1, 2, 3, 5, 12, 13
RESISTOR PAKS	U36	9, 10
	U38	8, 9, 10, 11, 12
	U41	5, 9, 12

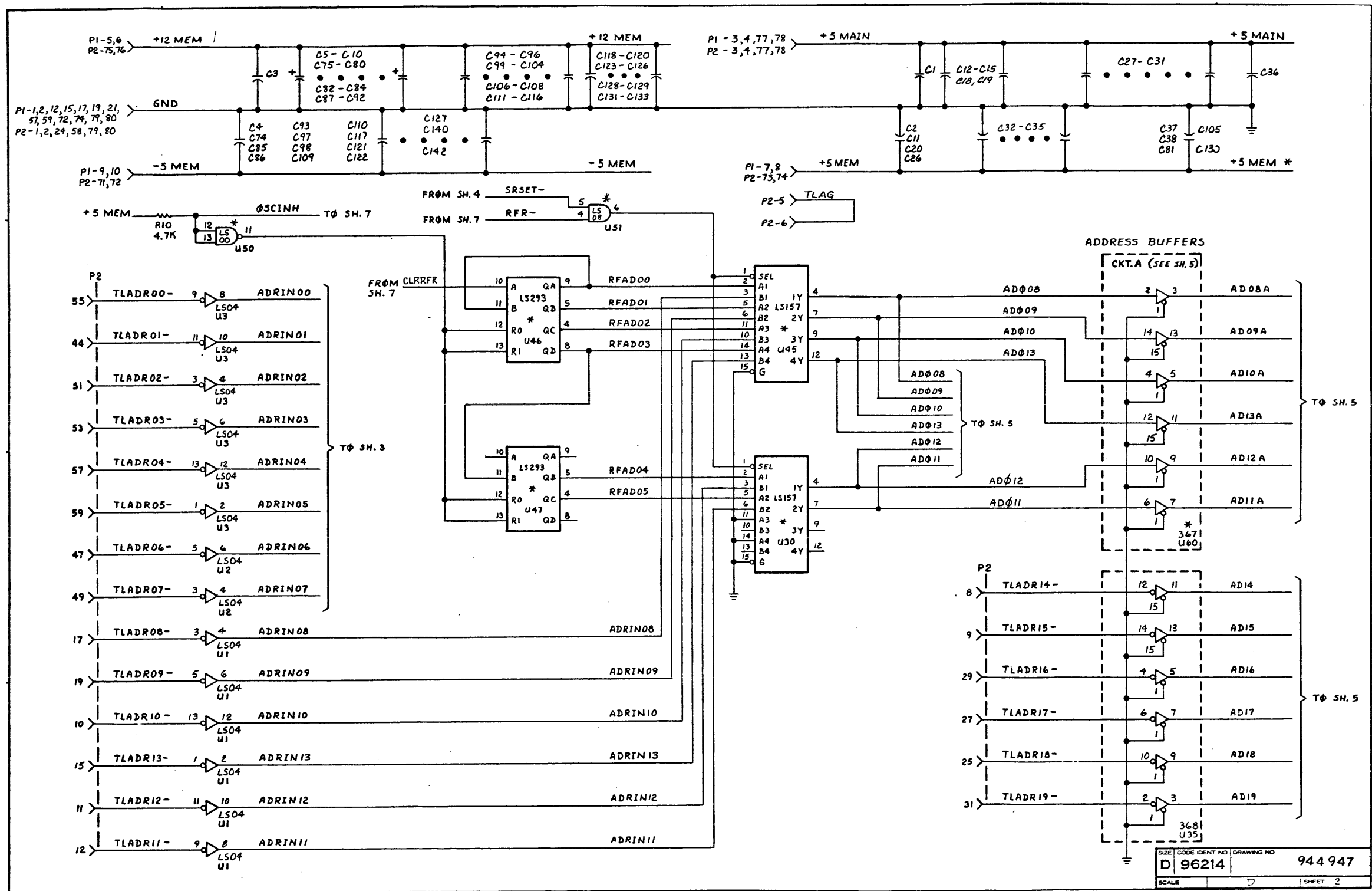
REV STATUS OF SHEETS	REV	DATE	BY	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
	1	11/23/76	JLH					
	2	11/23/76	JLH					
	3	11/23/76	JLH					
	4	11/23/76	JLH					
	5	11/23/76	JLH					
	6	11/23/76	JLH					
	7	11/23/76	JLH					
	8	11/23/76	JLH					
	9	11/23/76	JLH					
	10	11/23/76	JLH					
	11	11/23/76	JLH					
	12	11/23/76	JLH					
	13	11/23/76	JLH					
	14	11/23/76	JLH					
	15	11/23/76	JLH					
	16	11/23/76	JLH					
	17	11/23/76	JLH					
	18	11/23/76	JLH					
	19	11/23/76	JLH					
	20	11/23/76	JLH					
	21	11/23/76	JLH					
	22	11/23/76	JLH					
	23	11/23/76	JLH					
	24	11/23/76	JLH					
	25	11/23/76	JLH					
	26	11/23/76	JLH					
	27	11/23/76	JLH					
	28	11/23/76	JLH					
	29	11/23/76	JLH					
	30	11/23/76	JLH					
	31	11/23/76	JLH					
	32	11/23/76	JLH					
	33	11/23/76	JLH					
	34	11/23/76	JLH					
	35	11/23/76	JLH					
	36	11/23/76	JLH					
	37	11/23/76	JLH					
	38	11/23/76	JLH					
	39	11/23/76	JLH					
	40	11/23/76	JLH					
	41	11/23/76	JLH					
	42	11/23/76	JLH					
	43	11/23/76	JLH					
	44	11/23/76	JLH					
	45	11/23/76	JLH					
	46	11/23/76	JLH					
	47	11/23/76	JLH					
	48	11/23/76	JLH					
	49	11/23/76	JLH					
	50	11/23/76	JLH					
	51	11/23/76	JLH					
	52	11/23/76	JLH					
	53	11/23/76	JLH					
	54	11/23/76	JLH					
	55	11/23/76	JLH					
	56	11/23/76	JLH					
	57	11/23/76	JLH					
	58	11/23/76	JLH					
	59	11/23/76	JLH					
	60	11/23/76	JLH					
	61	11/23/76	JLH					
	62	11/23/76	JLH					
	63	11/23/76	JLH					
	64	11/23/76	JLH					
	65	11/23/76	JLH					
	66	11/23/76	JLH					
	67	11/23/76	JLH					
	68	11/23/76	JLH					
	69	11/23/76	JLH					
	70	11/23/76	JLH					
	71	11/23/76	JLH					
	72	11/23/76	JLH					
	73	11/23/76	JLH					
	74	11/23/76	JLH					
	75	11/23/76	JLH					
	76	11/23/76	JLH					
	77	11/23/76	JLH					
	78	11/23/76	JLH					
	79	11/23/76	JLH					
	80	11/23/76	JLH					
	81	11/23/76	JLH					
	82	11/23/76	JLH					
	83	11/23/76	JLH					
	84	11/23/76	JLH					
	85	11/23/76	JLH					
	86	11/23/76	JLH					
	87	11/23/76	JLH					
	88	11/23/76	JLH					
	89	11/23/76	JLH					
	90	11/23/76	JLH					
	91	11/23/76	JLH					
	92	11/23/76	JLH					
	93	11/23/76	JLH					
	94	11/23/76	JLH					
	95	11/23/76	JLH					
	96	11/23/76	JLH					
	97	11/23/76	JLH					
	98	11/23/76	JLH					
	99	11/23/76	JLH					
	100	11/23/76	JLH					

TEXAS INSTRUMENTS  
 INCORPORATED  
 Equipment Group Dallas, Texas

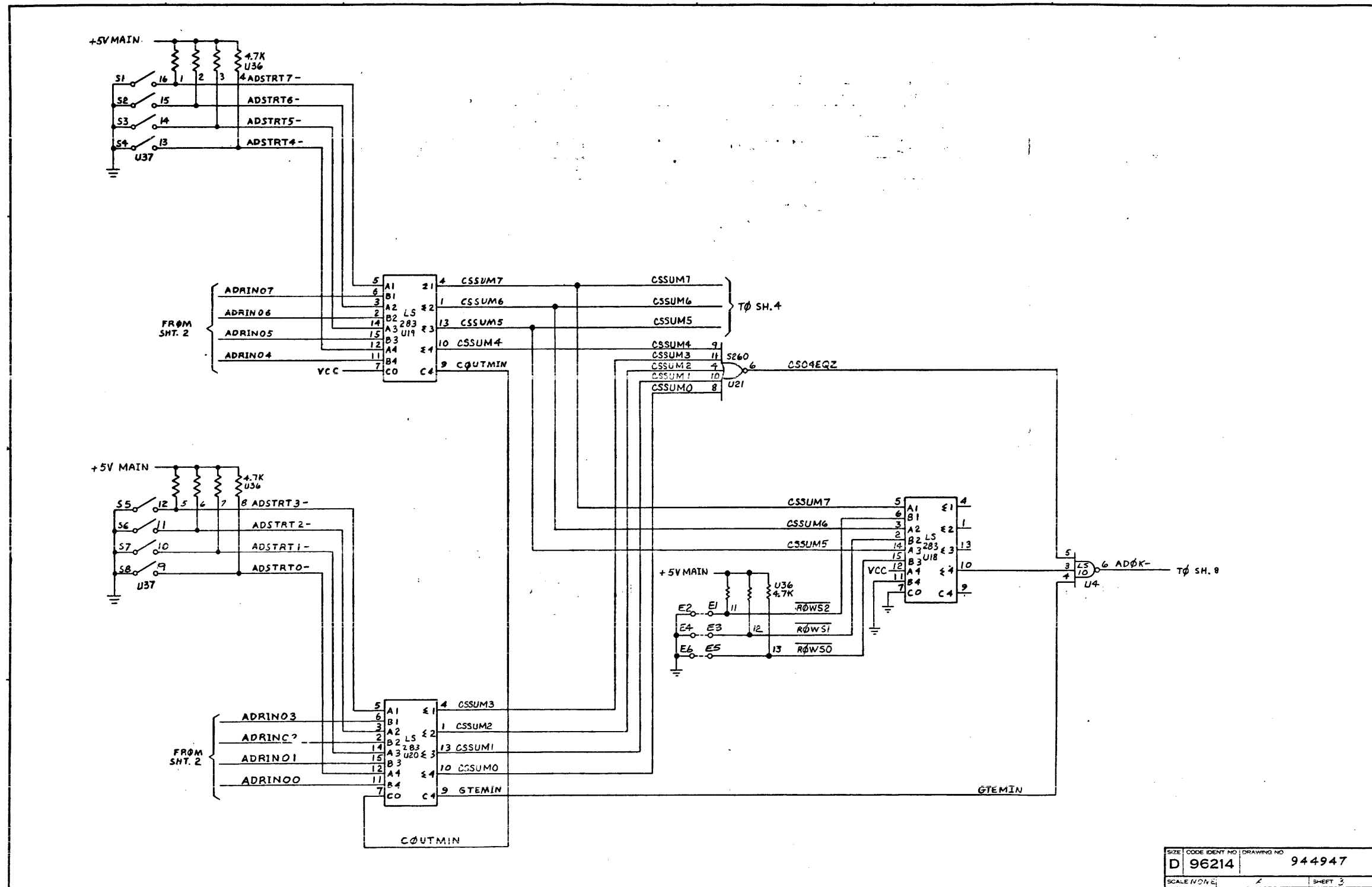
LOGIC DIAGRAM -  
 MEMORY EXPANSION  
 990/10

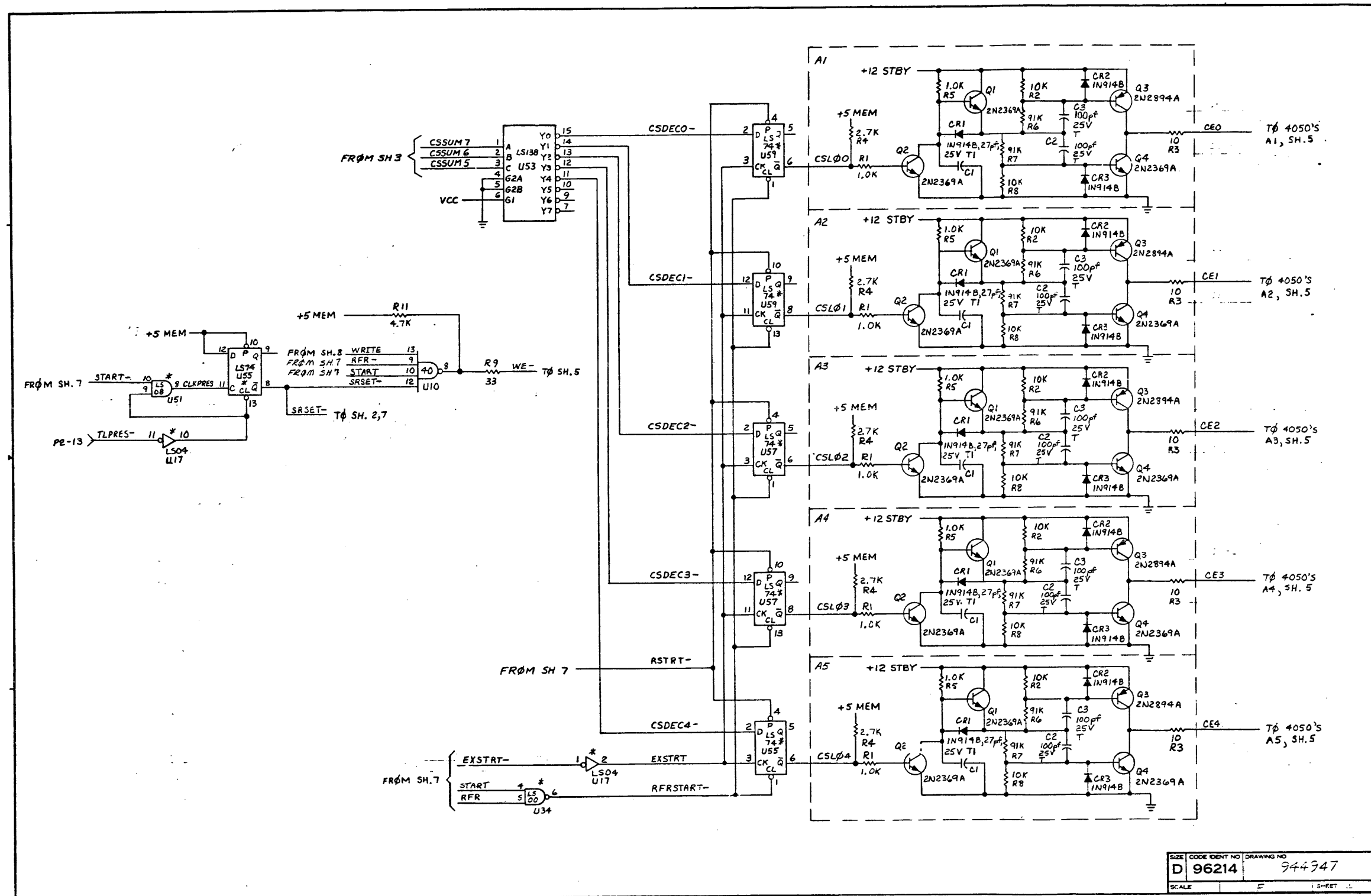
SIZE CODE IDENT NO DRAWING NO  
 D 96214 944947

SCALE SHEET 1 OF 6

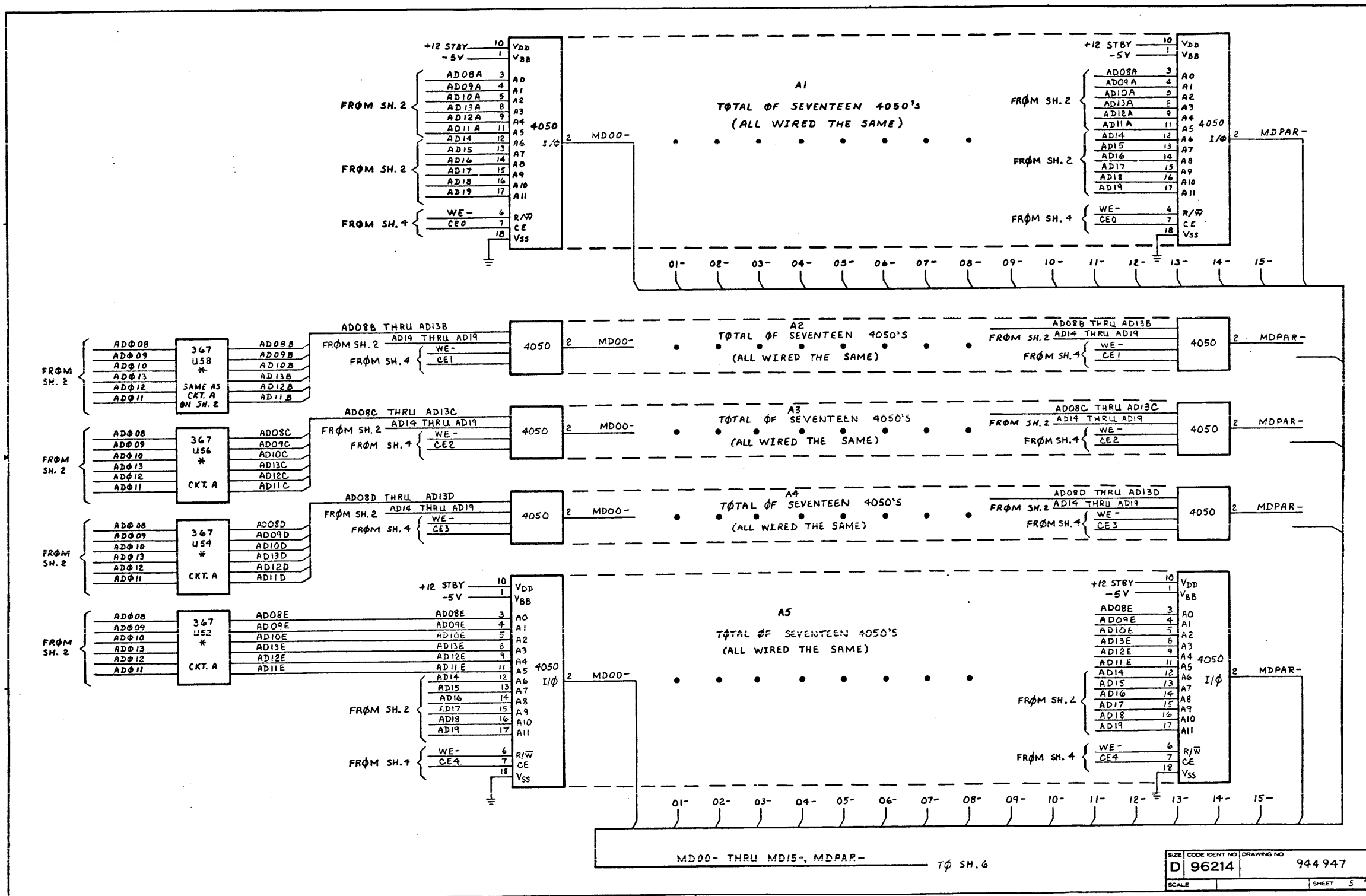


SIZE CODE IDENT NO DRAWING NO  
 D 96214 944 947  
 SCALE 1 SHEET 2

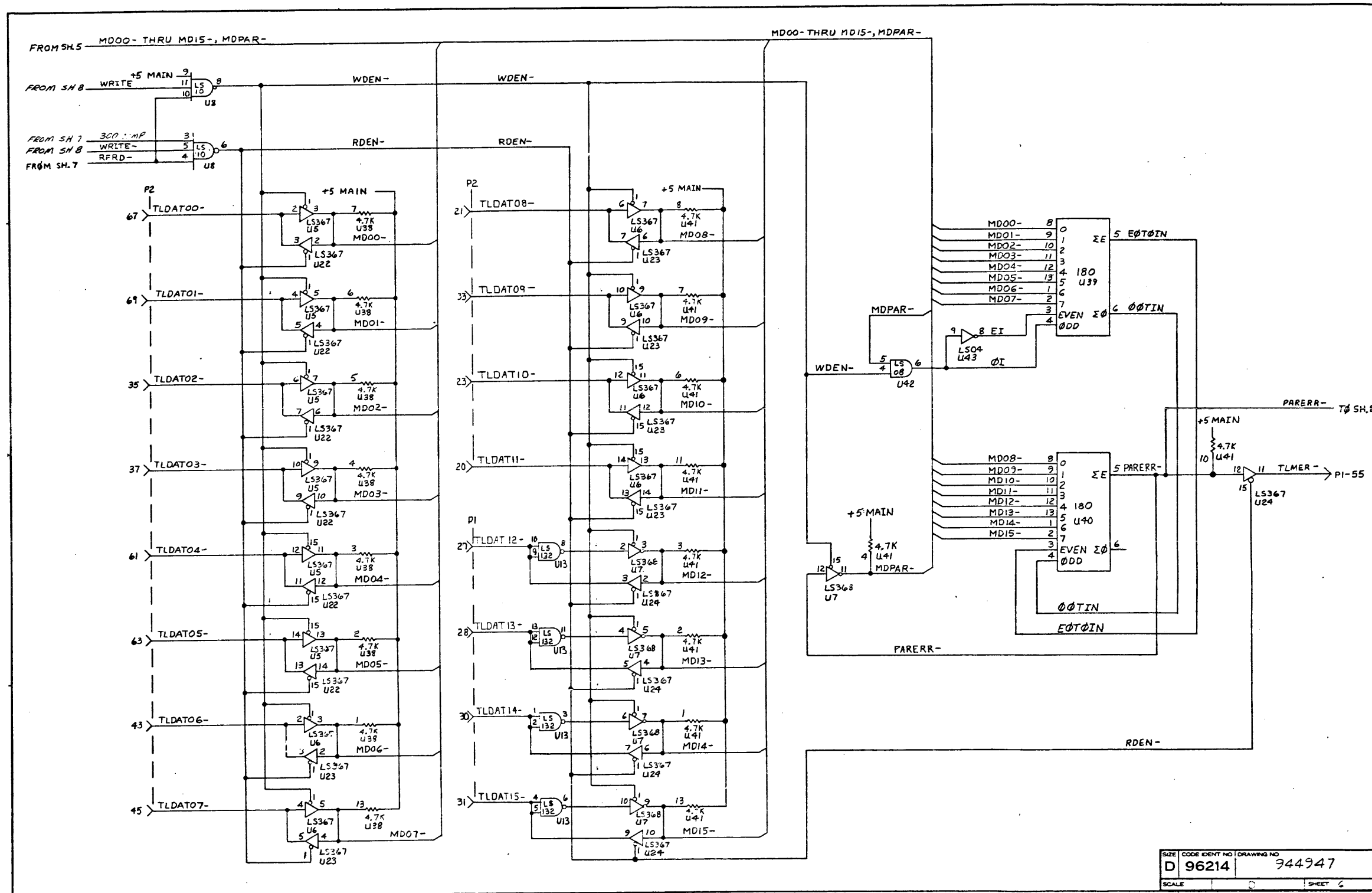




SIZE	CODE IDENT NO	DRAWING NO
D	96214	944947
SCALE	F	1 SHEET

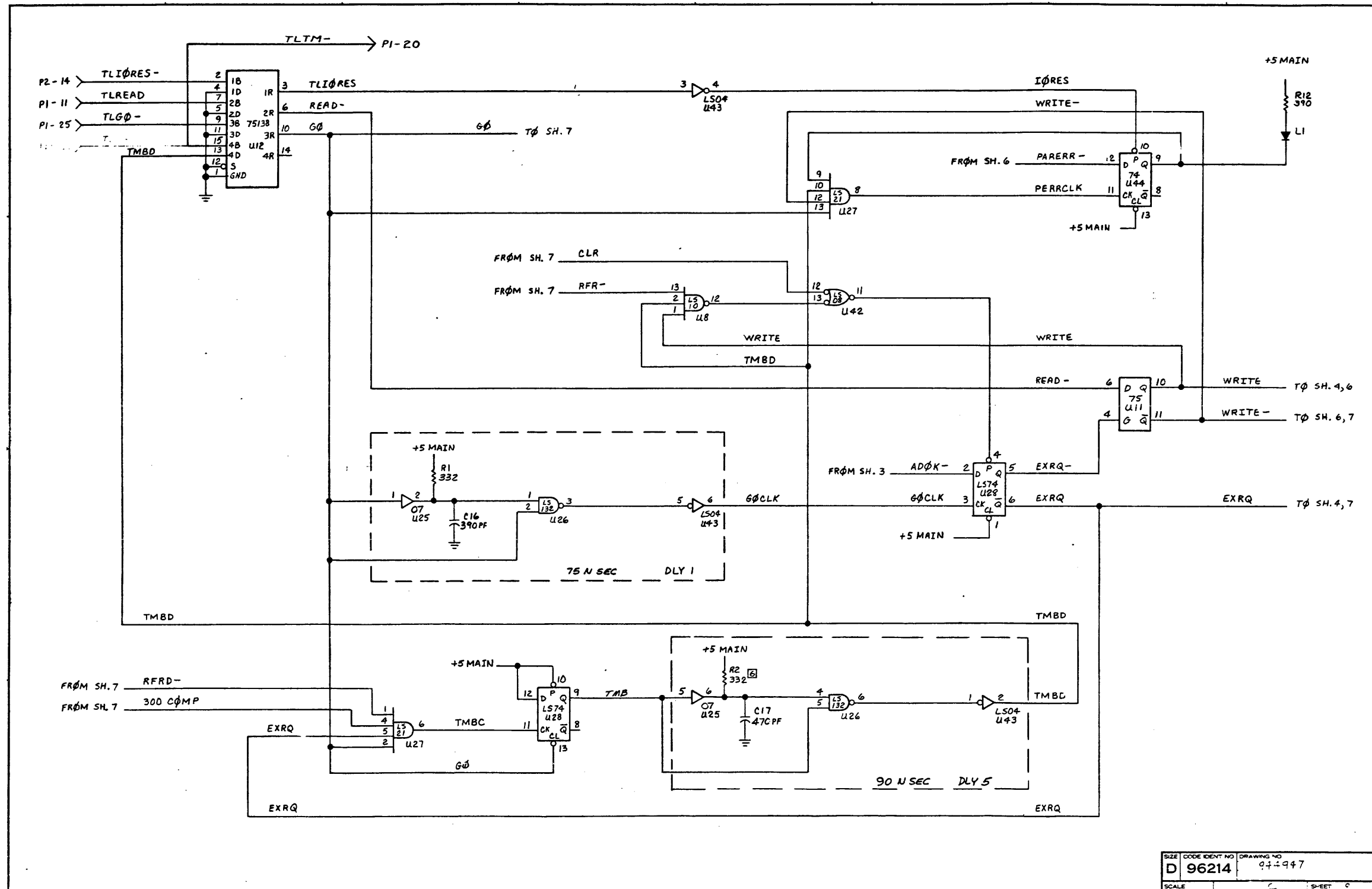




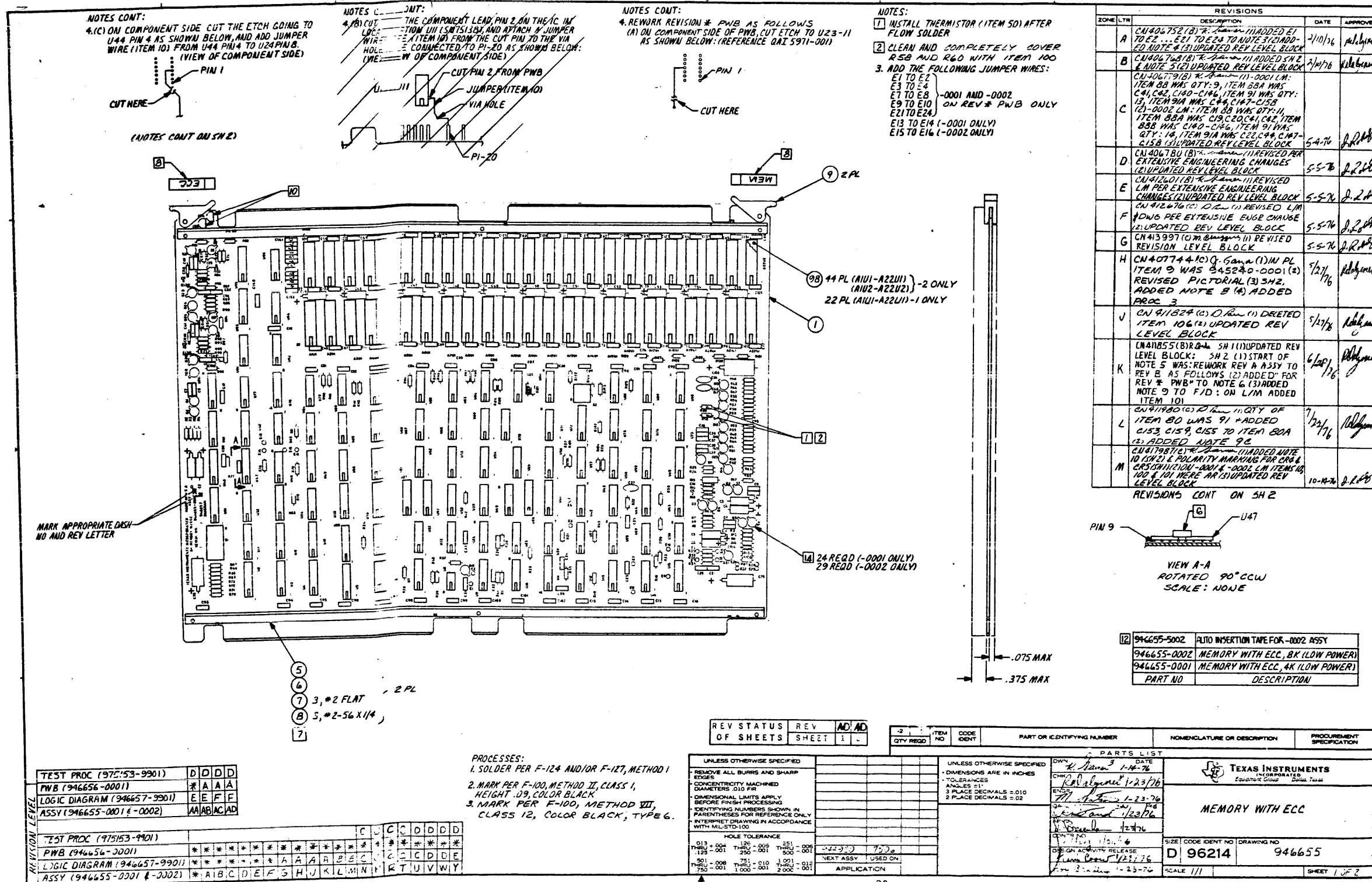


SIZE CODE IDENT NO DRAWING NO  
 D 96214 944947  
 SCALE SHEET 6





SIZE	CODE IDENT NO	DRAWING NO
D	96214	94-947
SCALE		SHEET 9



ZONE	LTR	DESCRIPTION	DATE	APPROVED
A		CN406752(B) R. (1) ADDED E1 TO E2... E21 TO E24 TO NOTE 3 (C) ADDED NOTE 4 (2) UPDATED REV LEVEL BLOCK	2/10/76	Reddy
B		CN406752(B) R. (1) ADDED E12 & NOTE 5 (2) UPDATED REV LEVEL BLOCK	2/10/76	Reddy
C		CN406752(B) R. (1) ADDED E12... ITEM 88 WAS QTY: 9, ITEM 88A WAS C41, C42, C140-C146, ITEM 91 WAS QTY: 13, ITEM 91A WAS C44, C47-C158 (2) -0002 LM: ITEM 88 WAS QTY: 11, ITEM 88A WAS C19, C20, C41, C42, ITEM 88B WAS C140-C146, ITEM 91 WAS QTY: 14, ITEM 91A WAS C22, C44, C47-C158 (3) UPDATED REV LEVEL BLOCK	5-4-76	Reddy
D		CN406780 (B) R. (1) REVISED PER EXTENSIVE ENGINEERING CHANGES (2) UPDATED REV LEVEL BLOCK	5-5-76	J. R. P.
E		CN412601 (B) R. (1) REVISED L/M PER EXTENSIVE ENGINEERING CHANGES (2) UPDATED REV LEVEL BLOCK	5-5-76	J. R. P.
F		CN412676 (C) R. (1) REVISED L/M PER EXTENSIVE ENGINEERING CHANGES (2) UPDATED REV LEVEL BLOCK	5-5-76	J. R. P.
G		CN413997 (C) R. (1) REVISED REVISION LEVEL BLOCK	5-5-76	J. R. P.
H		CN407744 (C) Q. Same (1) IN PL ITEM 9 WAS 845240-0001 (2) REVISED PICTORIAL (3) SH2, ADDED NOTE B (4) ADDED PROC 3	7/27/76	Reddy
J		CN41824 (C) O. Rev (1) DELETED ITEM 106 (2) UPDATED REV LEVEL BLOCK	7/27/76	Reddy
K		CN41855 (B) R. SH 1 (1) UPDATED REV LEVEL BLOCK: SH 2 (1) START OF NOTE 5 WAS: REWORK REV A ASSY TO REV B AS FOLLOWS (2) ADDED FOR REV # PWB TO NOTE 6 (3) ADDED NOTE 9 TO F/D: ON L/M ADDED ITEM 101	6/24/76	Reddy
L		CN41880 (C) R. (1) QTY OF ITEM 80 WAS 91 + ADDED C153, C159, C155 TO ITEM 80A (2) ADDED NOTE 9 C	7/27/76	Reddy
M		CN41880 (C) R. (1) ADDED NOTE 10 SH 2 & POLARITY MARKING FOR Q1 & Q2 (2) ADDED NOTE 100 & 101 WERE AN (3) UPDATED REV LEVEL BLOCK	10-14-76	J. R. P.

REV	DESCRIPTION	DATE	APPROVED
12	946655-5002 AUTO INSERTION TAPE FOR -0002 ASSY		
	946655-0002 MEMORY WITH ECC, BK (LOW POWER)		
	946655-0001 MEMORY WITH ECC, 4K (LOW POWER)		
PART NO	DESCRIPTION		

TEST PROC (975153-9901)	D	D	D	D
PWB (946656-0001)	A	A	A	A
LOGIC DIAGRAM (946657-9901)	E	E	F	F
ASSY (946655-0001 & -0002)	A	A	B	C

TEST PROC (975153-9901)	C	C	C	D	D	D	D	D
PWB (946656-0001)	*	*	*	*	*	*	*	*
LOGIC DIAGRAM (946657-9901)	*	*	*	*	A	A	A	B
ASSY (946655-0001 & -0002)	*	A	B	C	D	E	F	G

REV STATUS OF SHEETS	REV SHEET	AD	AD
2	1		

ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
100				

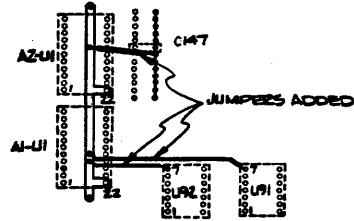
UNLESS OTHERWISE SPECIFIED	UNLESS OTHERWISE SPECIFIED
REMOVE ALL BURRS AND SHARP EDGES	DIMENSIONS ARE IN INCHES
CONCENTRICITY MACHINED DIAMETERS .010 FIR	TOLERANCES
DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING	ANGLES ±1°
IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY	3 PLACE DECIMALS = .010
INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100	2 PLACE DECIMALS = .02

DATE	DESIGNER	CHECKED	DATE
1-14-76	R. H. HARRIS	R. H. HARRIS	1-23-76
1-23-76	R. H. HARRIS	R. H. HARRIS	1-23-76
1-23-76	R. H. HARRIS	R. H. HARRIS	1-23-76

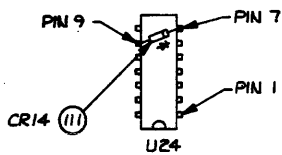
DESIGN AUTHORITY RELEASE	SCALE	SHEET
1-23-76	1/1	1 OF 2

NOTES CONT:

12. CATHODE IDENTIFIED BY FLAT SURFACE ON BASE OF ITEM 95
11. ADDITIONAL REWORK FOR REV # PWB:  
 ADD JUMPERS U814, ITEM 10 FROM GND BUS OF A1-U1 & A2-U1 TO U91-7, U92-7 & GND SIDE OF C147 AS SHOWN



13. ADDITIONAL REWORK FOR REV # PWB:  
 (A) INSTALL CR14 BETWEEN U24 PIN 7 (CATHODE) AND PIN 9 AS SHOWN:



- (B) CUT IC PINS U9-1 AND U9-2. ADD JUMPER WIRE FROM U9-1 (CHIP) AND U9-2 (CHIP) TO U38-6
- (C) CUT IC PIN U25-13. ADD THE FOLLOWING JUMPERS:  
 U25-8 TO U25-13 (CHIP)  
 U25-9 TO U9-10  
 U25-10 TO U11-12

14. ITEMS 44, 45, 46, 47, 48 AND 49 ARE TO BE MACHINE PREPPED PRIOR TO INSERTION

15. ADDITIONAL REWORK FOR REV # PWB  
 A. CUT IC PIN U51-5 AND U60-12  
 B. ADD A TWISTED PAIR WIRE (ITEM 10) TO THE FOLLOWING IC PINS

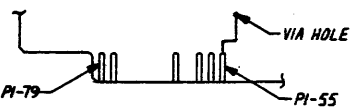


16. ADDITIONAL REWORK FOR REV # PWB  
 A. CUT IC PIN U7-11 AND U14-10  
 B. ADD THE FOLLOWING WIRE JUMPERS (ITEM 10)  
 U7-5 TO U7-11 (IC PIN)  
 U88-6 TO U14-10 (IC PIN)  
 U88-3 TO U88-4  
 U88-4 TO U42-5  
 U88-5 TO U57-4  
 C. ADD A TWISTED PAIR WIRE (ITEM 10) TO THE FOLLOWING IC PINS  
 WHT U14-8 U61-2 WHT  
 BLU U14-7 U61-8 BLU

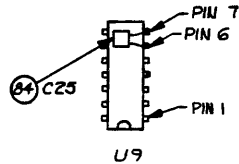
17. RESISTORS R28, R20, R18, R19, R42, R36 & R32 MAY BE CHANGED AT UNIT TEST TO MEET TIMING SPECS

NOTES CONT:

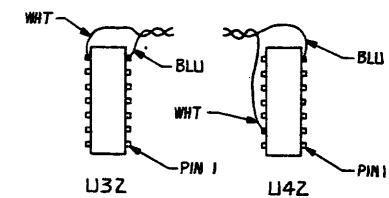
5. ADDITIONAL REWORK FOR REV # PWB:  
 (A) AT NETWORK U10 CUT PIN 3 FROM BOARD (REFERENCE QAI 5971-001)  
 (B) INSTALL A JUMPER (ITEM 10) FROM U32-11 TO U36-12  
 (C) INSTALL A JUMPER (ITEM 10) FROM U36-15 TO U36-01  
 (D) INSTALL A JUMPER (ITEM 10) FROM U36-11 TO THE VIA HOLE CONNECTING TO PI-55 AS SHOWN BELOW: (CONDUCTOR SIDE)



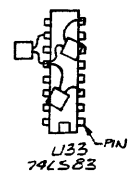
6. SOLDER 100 PF CAPACITOR 97299-0379 FROM U47-12 TO U47-13 PER VIEW A-A, FOR REV # PWB
7. ITEM 5 MAY BE SUBSTITUTED WITH PART NUMBER 226868-0002. IF THE SUBSTITUTE IS USED, DELETE ITEMS 6 AND 8 AND ADD SCREWS 418293-0003 QTY 6 AND LOCTITE 235182-0002 QTY AR
8. MARK PER PROCESS 3
9. ADDITIONAL REWORK FOR REV # PWB:  
 (A) C25 IS NOT TO BE INSTALLED PER SILK SCREEN. SOLDER C25 BETWEEN U9 PIN 6 AND PIN 7 AS SHOWN BELOW:



- (B) CUT IC PINS U32-8 AND U42-13 AS CLOSE TO THE BOARD AS POSSIBLE ON COMPONENT SIDE. USING ITEM 10, TWISTED PAIR WIRE. CONNECT U32-8 AND U42-13 WITH THE WHITE WIRE. CONNECT U32-7 AND U42-7 WITH THE BLUE WIRE.



- (C) SOLDER ITEM 80 C153, U59, C55 TO U33 AS FOLLOWS:
- |      |        |
|------|--------|
| C153 | 3, 12  |
| C154 | 8, 12  |
| C155 | 10, 12 |



ZONE	LT#	DESCRIPTION	DATE	APPROVED
N		CN41326 (B) C. SHIP (A) ON -0001-0002 LM. ITEM 32 WAS 972000-7883, ITEM 96 712923-0001, ITEM 97 WAS 712923-0005. (5) ADDED TEST PROC AND UPDATED REV LEVEL BLOCK	2-6-77	J. R. Rob
P		CN417327 (B) C. SHIP (A) ON -0001-0002 LM. ITEM 80 QTY WAS 94. DELETED ITEM 80B. ADDED ITEM 102B AND 102A (2). UPDATED REV LEVEL BLK	2-6-77	J. R. Rob
R		CN424597 (B) SHIP (A) ON (1) ADDED NOTE 11 (2) UPDATED REV LEVEL BLOCK	5-13-77	J. R. Rob
T		CN42368 (C) C. SHIP (A) ON DELETED ITEMS 52 THRU 76 AND 79 AND 94 ON -0002 LM (2) ADDED ITEM 94 TO -2 LM (3) SHIP IN AEB-1 ADDED -5002 BLOCK (4) ADDED FLAG NOTE 12 (5) CREATED -5002 LM (6) UPDATED REV LEVEL BLOCK	8-19-77	J. R. Rob
U		CN429524 (A) SHIP (A) ON (1) U11 LM PIN OF ITEM 51 WAS 339399-9701 DESC WAS RESISTOR SELECTED AT U11R30, R32 (2) ADDED ITEM 110 AND 110A (3) UPDATED REV LEVEL BLOCK	5-16-78	J. R. Rob
V		CN446289 (B) SHIP (A) ON (1) NOTE 9A WAS C25... U24 PIN 7 AND PIN 9... (2) REVISED NOTE 9A PICTORIAL (3) ADDED NOTE 13 (A) AND (B) ON -0001-5002 LMS ITEM 73 WAS 539370-0338 (5) ON -0001-5002 LMS ADDED ITEM 111 & 111A; ITEM 84 WAS 539679-0003 (6) UPDATED REV LEVEL BLK	8-2-78	J. R. Rob
W		CN442606 (C) SHIP (A) ON (1) ON LM FOR -14-2 DELETED ITEM 93 (2) ZN 9-4 FLAG 14 WAS BALLOON 93 (3) ADDED NOTE 14 (4) UPDATED REV LEVEL BLOCK	8-10-78	J. R. Rob
Y		CN446474 (B) SHIP (A) ON -0001 AND -0002 LM. ITEM 14 WAS 222222-7404 (2) ADDED NOTE 15 (3) UPDATED REV LEVEL BLOCK	8-22-78	J. R. Rob
AA		CN430770 (C) SHIP (A) ON (1) REVISED -0002 AND -0005 LMS PER EXTENSIVE ENGR. CHANGES (2) UPDATED REV LEVEL BLOCK	12-2-78	J. R. Rob
AB		CN451921 (D) SHIP (A) ON LM-1 4-0002 ITEM 98 WAS 972100-2 (2) UPDATED REV LEVEL BLOCK	3-24-79	H. B. Rob
AC		CN448792 (B) SHIP (A) ON -14-5002 LM ITEM 62 QTY WAS 3. ITEM 62A DELETE R39 & R40. ITEM 53A ADDED R40. ADD ITEM 112 + 112A ON -1 ONLY ITEM 53 QTY WAS 1. ON -5002 ONLY ITEM 53 QTY WAS 2. ITEM 14 WAS 222222-7404 (2) ADDED REWORK NOTE NO. 16 (3) UPDATED REV LEVEL BLOCK	3-24-79	H. B. Rob
AD		CN450540 (C) SHIP (A) ON -0001 & -5002 LM ITEM 51 DASH NO WAS -0372. ITEM 75 QTY WAS 4. ITEM 110 DASH NO WAS -D+R3 & ADDED ITEM 113 (2) ADDED NOTE 17 (3) UPDATED REV LEVEL BLOCK	1-20-80	J. R. Rob

SIZE	CODE IDENT NO	DRAWING NO
D	96214	946655
SCALE	REV	SHEET
1/1	REV	2

TEXAS INSTRUMENTS INCORPORATED DATE 11/14/79 LIST OF MATERIAL PAGE 1 of LM 0946655-0001 REV AD

PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
JJ01	00001.000	EA		0946656-0001	PMB-MEMORY,ECC	
JJ02	REF	EA		0946657-9901	LOGIC DIAGRAM-MEMORY,ECC	
JJ03	REF	EA		0975153-9901	TEST PROCEDURE,8K MEMORY w/ECC	
JJ04	REF	EA		0946659-9901	SPECIFICATION-MEMORY,ECC	
JJ05	00002.000	EA		0945239-0001	BRACKET-STIFFENER, PMB, 14IN	
JJ06	00002.000	EA		0944954-0001	INSULATOR, PMB, 14IN	
JJ07	00006.000	EA		0236369-0001	WASHER #2 NYLON FLAT BLK .09010X.020 THK NPG -101-BLK	
JJ08	00006.000	EA		0972684-0002	SCREW,THD FRMG,HEX WSHR HD,2-56X1/4 LG	
JJ09	00002.000	EA		0533844-0001	EJECTOR, NYLON, NUN-LCKING, PMB	
JJ10	00000.020	FT		2210083-0003	WIRE,ELEC,COND U/L STYLE 1213,24 AWG	090484-WTE24A
JJ11	00002.000	EA		022222-7400	NETWORK SN7400N	-SN7400N
JJ11A					U29 U44	
JJ12	00003.000	EA		024000-7400	NETWORK-SN74H00N	
JJ12A					U23 U43 U57	
JJ13	00001.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N
JJ13A					U49	
JJ14	00001.000	EA		022222-7414	NETWORK SN7414N	
0014A					U45	
JJ15	00010.000	EA		024000-7404	NETWORK SN74H04N	
JJ15A					U28 U32 U39 U45 U69 U86 U90	

DRAFTSMAN DATE 11-16-79 DESIGN ENGINEER TITLE MEMORY-ECC,4K (LOW POWER)  
 APP'D: MFC DATE PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV AD  
 LM 0946655-0001

TEXAS INSTRUMENTS INCORPORATED DATE 11/14/79 LIST OF MATERIAL PAGE 2 of LM 0946655-0001 REV AD

PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
JJ15B					U91 U92 U96	
JJ16	00002.000	EA		0972900-7404	NETWORK SN74LS04N	
JJ16A					U6 U79	
JJ17	00002.000	EA		024000-7410	NETWORK-SN74H10N	
JJ17A					U21 U26	
JJ18	00002.000	EA		0972900-7410	NETWORK SN74LS10N	
0018A					U22 U48	
JJ19	00002.000	EA		024000-7411	NETWORK-SN74H11N	
0019A					U42 U88	
JJ20	00001.000	EA		022222-7413	NETWORK SN7413N	
JJ20A					U30	
JJ21	00001.000	EA		024000-7420	NETWORK-SN74H20N	
JJ21A					U89	
JJ22	00001.000	EA		0972900-7420	NETWORK SN74LS20N	
JJ22A					U34	
JJ23	00001.000	EA		022222-7430	NETWORK SN7430N	-SN7430N
JJ23A					U77	
JJ24	00001.000	EA		024000-7430	NETWORK-SN74H30N	
JJ24A					U73	
JJ25	00001.000	EA		022222-7432	NETWORK SN7432N	-SN7432N

DRAFTSMAN DATE 11-16-79 DESIGN ENGINEER TITLE MEMORY-ECC,4K (LOW POWER)  
 APP'D: MFC DATE PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV AD  
 LM 0946655-0001

TEXAS INSTRUMENTS INCORPORATED DATE 11/14/79 LIST OF MATERIAL PAGE 3 of LM 0946655-0001 REV AD

PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
JJ25A					U25	
JJ26	00003.000	EA		022222-7438	NETWORK SN7438N	
0026A					U9 U10 U13	
JJ27	00001.000	EA		024000-7440	NETWORK-SN74H40N	
0027A					U27	
JJ28	00001.000	EA		022222-7451	NETWORK SN7451N	-SN7451N
JJ28A					U14	
JJ29	00003.000	EA		024000-7474	NETWORK-SN74H74N	
JJ29A					U7 U40 U58	
JJ30	00002.000	EA		0972900-7474	NETWORK SN74LS74N	
0030A					U63 U64	
JJ31	00001.000	EA		022222-7475	NETWORK-SN7475N	
0031A					U47	
JJ32	00008.000	EA		022222-7483	NETWORK-SN7483N	
JJ32A					U2,U3,U4,U17,U18,U19,U33,	
JJ32B					U78	
JJ33	00007.000	EA		0239402-7486	NETWORK SN74S86N	
JJ33A					U59 U60 U66 U67 U70 U71 U74	
JJ34	00002.000	EA		022222-7132	NETWORK SN74132N	
JJ34A					U12 U15	

DRAFTSMAN DATE 11-16-79 DESIGN ENGINEER TITLE MEMORY-ECC,4K (LOW POWER)  
 APP'D: MFC DATE PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV AD  
 LM 0946655-0001

TEXAS INSTRUMENTS INCORPORATED DATE 11/14/79 LIST OF MATERIAL PAGE 4 of LM 0946655-0001 REV AD

PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
JJ35	00001.000	EA		0972782-0001	NETWORK SN74LS132N	TI -SN74LS132N
0035A					U24	
JJ36	00002.000	EA		0219402-7138	NETWORK SN74S138N	
0036A					U68 U72	
JJ37	00002.000	EA		022222-7157	NETWORK SN74157N	
0037A					U93 U95	
JJ38	00002.000	EA		022222-7161	NETWORK SN74161N	-SN74161N
0038A					U61 U76	
JJ39	00014.000	EA		0219402-7280	NETWORK SN74S280N	TI -SN74S280N
0039A					U50 THRU U56,U75,U80 THRU	
JJ39B					U85	
JJ40	00009.000	EA		0972787-0004	NETWORK SN74LS368N	
0040A					U5 U31 U35 U36 U37 U41	
0040B					U46 U97 U98	
JJ41	00001.000	EA		0974674-0001	NETWORK SN75138N	
0041A					U11	
JJ42	00001.000	EA		0972188-0001	NETWORK,NE555V,MONOLITHIC TIMING,LINEAR	ST -NE555V
JJ42A					U8	
JJ43	00002.000	EA		0974679-0001	NETWORK, TMS4060	
JJ43A					A1U1 THRU A22U1	

DRAFTSMAN DATE 11-16-79 DESIGN ENGINEER TITLE MEMORY-ECC,4K (LOW POWER)  
 APP'D: MFC DATE PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV AD  
 LM 0946655-0001

TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LM 0946655-0001		REV AD		
DRAFTSMAN	DATE	CEO DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY-ECC, 4K (LOW POWER)					
APPROV. MFG.	DATE	APPROV. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM 0946655-0001					REV AD
JJ44	0001.000	EA	0972957-0001	TRANSISTOR, 2N930A NPN LOW CUR AMP, TO-18	MOT	- 2N930A						
JJ44A				Q19								
JJ45	00007.000	EA	0972948-0002	TRANSISTOR, 2N2222A NPN GEN PURP SW TO-18	TI	- 2N2222A						
JJ45A				Q7 Q8 Q10 Q11 Q12 Q17 Q20								
JJ46	00004.000	EA	0972955-0001	XSTR 2N2369A, NPN, HIGH SPEED SW, TO-18	MOT	- 2N2369A						
JJ46A				Q26 Q28 Q29 Q30								
JJ47	00001.000	EA	0418600-0002	TRANSISTOR, 2N2605	QPL	- 2N2605						
JJ47A				Q14								
JJ48	00001.000	EA	0236081-0000	X-XST 2M2894	TI	-2M2894						
JJ48A				Q27								
JJ49	00010.000	EA	0972958-0002	TRANSISTOR, 2N2907A PNP GEN PURP SW TO-18	TI	- 2N2907A						
JJ49A				Q1 THRU Q6, Q13 Q15 Q16 Q18								
JJ50	00002.000	EA	0239866-8000	THERMISTOR 100K .050 DIA. 25C ROD	GE	-1R051						
JJ50A				R58 R60								
JJ51	00001.000	EA	0539370-0384	RES FIX FILM 976 OHM 1% .25 WATT	CDR	- NA55						
JJ51A				R30								
JJ52	00001.000	EA	0972947-0017	RES FIX 10 OHM 5% .5 W CARBON FILM	ROH	- R-50						
JJ52A				R15								
JJ53	00002.000	EA	0972946-0025	RES FIX 22.0 OHM 5% .25 W CARBON FILM	ROH	- R-25						
JJ53A				R40 R94								

TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 6 of		PART NUMBER LM 0946655-0001		REV AD		
DRAFTSMAN	DATE	CEO DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY-ECC, 4K (LOW POWER)					
APPROV. MFG.	DATE	APPROV. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM 0946655-0001					REV AD
JJ54	00002.000	EA	0972946-0031	RES FIX 39.0 OHM 5% .25 W CARBON FILM	ROH	- R-25						
JJ54A				R104 R105								
JJ55	00022.000	EA	0972946-0041	RES FIX 100 OHM 5% .25 W CARBON FILM	ROH	- R-25						
JJ55A				R110 THRU R131								
JJ56	00001.000	EA	0972946-0043	RES FIX 120 OHM 5% .25 W CARBON FILM	ROH	- R-25						
JJ56A				R35								
JJ57	00012.000	EA	0972946-0049	RES FIX 220 OHM 5% .25 W CARBON FILM	ROH	- R-25						
JJ57A				R3 R5 R7 R9 R11 R13 R24 R25								
JJ57B				R43 R46 R74 R75								
JJ58	00004.000	EA	0972946-0051	RES FIX 270 OHM 5% .25 W CARBON FILM	ROH	- R-25						
JJ58A				R49 R55 R61 R62								
JJ59	00006.000	EA	0972946-0058	RES FIX 510 OHM 5% .25 W CARBON FILM	ROH	- R-25						
JJ59A				R2 R4 R6 R8 R10 R12								
JJ60	00007.000	EA	0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH	- R-25						
JJ60A				R22 R26 R27 R44 R90 R96 R97								
JJ61	00001.000	EA	0972946-0067	RES FIX 1.2K OHM 5% .25 W CARBON FILM	ROH	- R-25						
JJ61A				R17								
JJ62	00001.000	EA	0972946-0069	RES FIX 1.5K OHM 5% .25 W CARBON FILM	ROH	- R-25						
JJ62A				R38								
JJ63	00002.000	EA	0972946-0071	RES FIX 1.8K OHM 5% .25 W CARBON FILM	ROH	- R-25						

TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 7 of		PART NUMBER LM 0946655-0001		REV AD		
DRAFTSMAN	DATE	CEO DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY-ECC, 4K (LOW POWER)					
APPROV. MFG.	DATE	APPROV. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM 0946655-0001					REV AD
JJ63A				R14 R37								
JJ64	00003.000	EA	0972946-0073	RES FIX 2.2K OHM 5% .25 W CARBON FILM	ROH	- R-25						
JJ64A				R50 R52 R65								
JJ65	00001.000	EA	0972946-0075	RES FIX 2.7K OHM 5% .25 W CARBON FILM	ROH	- R-25						
JJ65A				R98								
JJ66	00026.000	EA	0972946-0081	RES FIX 4.7K OHM 5% .25 W CARBON FILM	ROH	- R-25						
JJ66A				R1 R16 R21 R23 R29 R34 R36								
JJ66B				R45 R48 R54 R56 R102 R103								
JJ66C				R66 THRU R73								
JJ66D				R76 THRU R80								
JJ67	00001.000	EA	0972946-0083	RES FIX 5.6K OHM 5% .25 W CARBON FILM	ROH	- R-25						
JJ67A				R41								
JJ68	00004.000	EA	0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	ROH	- R-25						
JJ68A				R53 R57 R91 R95								
JJ69	00001.000	EA	0972946-0097	RES FIX 22 K OHM 5% .25 W CARBON FILM	ROH	- R-25						
JJ69A				R63								
JJ70	00002.000	EA	0972946-0105	RES FIX 47 K OHM 5% .25 W CARBON FILM	ROH	- R-25						
JJ70A				R47 R59								
JJ71	00002.000	EA	0972946-0112	RES FIX 91 K OHM 5% .25 W CARBON FILM	ROH	- R-25						
JJ71A				R92 R93								

TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 8 of		PART NUMBER LM 0946655-0001		REV AD		
DRAFTSMAN	DATE	CEO DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY-ECC, 4K (LOW POWER)					
APPROV. MFG.	DATE	APPROV. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM 0946655-0001					REV AD
JJ72	00002.000	EA	0972946-0121	RES FIX 220K OHM 5% .25 W CARBON FILM	ROH	- R-25						
JJ72A				R51 R64								
JJ73	00001.000	EA	0539370-0369	RES FIX FILM 681 OHM 1% .25 WATT	CDR	- NA55						
JJ73A				R20								
JJ74	00002.000	EA	0539370-0349	RES FIX FILM 422 OHM 1% .25 WATT	CDR	- NA55						
JJ74A				R31 R33								
JJ75	00003.000	EA	0233592-0000	RES 309.00 OHM .125W 1.	TI	-CR-1/8-309.						
JJ75A				R18 R19 R42								
JJ76	00006.000	EA	0972924-0006	CAP FIX TANT SOLID 39 MFD 10% 10 VOLT	QPL	-H39003/1-2259						
JJ76A				C1 THRU C6								
JJ77	00001.000	EA	0972924-0007	CAP FIX TANT SOLID 120 MFD 10% 10 VOLT	QPL	-H39003/1-2263						
JJ77A				C103								
JJ78	00002.000	EA	0972924-0011	CAP FIX TANT SOLID 68 MFD 10% 15 VOLT	QPL	-H39003/1-2274						
JJ78A				C78 C79								
JJ79	00011.000	EA	0972924-0014	CAP FIX TANT SOLID 15 MFD 10% 20 VOLT	QPL	-H39003/1-2289						
JJ79A				C45 THRU C55								
JJ80	00008.000	EA	0972627-0003	CAP, CERAMIC, .047 MF 16V		-B37449-T64735B						
JJ80A				C7 THRU C12								
JJ80C				C56 THRU C77								
JJ80D				C80 THRU C102								

TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 9 of		PART NUMBER LM 0946655-0001		REV AD	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0J80E					C104 THRU C137						
0J80F					C153 THRU C155						
0J81	00002.000	EA		0230590-9000	CAP .05 MF 12 V 20% CER TRANSCAP	ER1	-5635-000-Y5F05				
0J81A					C27 C34						
0J82	00001.000	EA		0532736-0002	CAP FIX CERAMIC .02 MF 20/80% 25 VOLT	CRL	- 2DDU60E203ZAC				
0J82A					C40						
0J83	00001.000	EA		0539679-0008	CAPACITOR, 470 PF 2% 100V FX CER DIEI	095275-VK208A471G					
0J83A					C26						
0J84	00001.000	EA		0539679-0006	CAPACITOR, 330 PF 2% 100V FX CER DIEI	095275-VK208A331G					
0J84A					C25						
0J85	00001.000	EA		0539679-0002	CAPACITOR, .001 UF 2% 100V FX CER DIEI	095275-VK208A102G					
0J85A					C23						
0J86	00002.000	EA		0539679-0011	CAPACITOR, .0027 UF 2% 100V FX CER DIEI	095275-VK308A272G					
0J86A					C28 C29						
0J87	00001.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10% 200 V	QPL	-M39014/01-1369				
0J87A					C138						
0J88	00015.000	EA		0972929-0379	CAP FIX CERAMIC 100 PF 10% 200 V	QPL	-M39014/01-1379				
0J88A					C41 C42 C140 THRU C152						
0J89	00001.000	EA		0972929-0384	CAP FIX CERAMIC 180 PF 10% 200 V	QPL	-M39014/01-1384				
0J89A					C33						
DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY-ECC,4K (LOW POWER)											
APPRO. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 0946655-0001 AD											

TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 10 of		PART NUMBER LM 0946655-0001		REV AD	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0J90	00001.000	EA		0972929-0388	CAP FIX CERAMIC 330 PF 10% 200 V	QPL	-M39014/01-1388				
0J90A					C24						
0J91	00001.000	EA		0972929-0397	CAP FIX CERAMIC .001 UF 10% 200V	QPL	-M39014/01-1397				
0J91A					C44						
0J92	00007.000	EA		0972965-0008	CAP FIX CERAMIC .0047 MF 10% 200 V	QPL	- CK068X472K				
0J92A					C13 THRU C18, C32						
0J93	00001.000	EA		0972965-0012	CAP FIX CERAMIC .010 MF 10% 200V	QPL	- CK068X103K				
0J93A					C31						
0J94	00007.000	EA		0972932-0001	DIODE IN014B	SEE TI- DRAWING					
0J94A					CR1 CR2 CR3 CR10 THRU CR13						
0J95	00002.000	EA		0226609-0001	DIODE,VISIBLE LIGHT EMITTING						
0J95A					CR4 CR5						
0J96	00001.000	EA		0972594-0001	SWITCH,ROCKER-PWB MOUNTED	023880-900124					
0J96A					S2,772923-0001MAY BE SUB.						
0J97	00001.000	EA		0972594-0005	SWITCH,ROCKER-PWB MOUNTED	023880-900128					
0J97A					S1,772923-0005 MAY BE SUB.						
0J98	00022.000	EA		2210180-0006	SOCKET,LOW PROFILE,QIP, 22 PINS, 10 CONT	003612-DIL822P-108					
0I00	00000.010	EA		0996069-0003	ADM,SOLID,THRMPLSTC 25# BAG ANAEROBIC	PERSAL-917-6302					
0I01	00000.020	FT		0944760-2896	WIRE,TWISTED PAIR #28, WHT/BLU IPVC	UL - 1472 7STR UL					
0I07	00001.000	EA		0222222-7474	NETWORK SNT474N	-SNT474N					
DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY-ECC,4K (LOW POWER)											
APPRO. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 0946655-0001 AD											

TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 11 of		PART NUMBER LM 0946655-0001		REV AD	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0I07A					U38						
0I08	00006.000	EA		0972965-0024	CAP FIX CERAMIC .100 MF 10% 100V	QPL	- CK068X104K				
0I08A					C30,C35 THRU C39						
0I10	00001.000	EA		0539370-0411	RES FIX FILM 1.87K OHM 1% .25 WATT	CDK	- NA55				
0I10A					R32						
0I11	00001.000	EA		0231784-6002	DIODE- 4 PELLETS, SILICON,MULTI	GE	-MPD400				
0I11A					CR14						
0I12	00001.000	EA		0972946-0077	RES FIX 3.3K OHM 5% .25 W CARBON FILM	ROH	- R-25				
0I12A					R39						
0I13	00001.000	EA		0539370-0345	RES FIX FILM 383 OHM 1% .25 WATT	CDK	- NA55				
0I13A					R28						
DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY-ECC,4K (LOW POWER)											
APPRO. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 0946655-0001 AD											

TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM 0946655-0002		REV AD	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0J02	REF	EA		0946657-9901	LOGIC DIAGRAM-MEMORY,ECC						
0J03	REF	EA		0975153-9901	TEST PROCEDURE,8K MEMORY W/ECC						
0J04	REF	EA		0946659-9901	SPECIFICATION-MEMORY,ECC						
0J05	00002.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN						
0J06	00002.000	EA		0944954-0001	INSULATOR, PWB, 14IN						
0J07	00006.000	EA		0236369-0001	WASHER #2 NYLON FLAT BLK .090IDX.020 THK	NPG	-101-BLK				
0J08	00006.000	EA		0972684-0002	SCREW,THD FRMG,HEX WSHR HD,2-56X1/4 LG						
0J09	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB						
0J10	00000.020	FT		2210083-0003	WIRE,ELEC,COND U/L STYLE 1213,24 AWG	090484-MTE24A					
0J42	00001.000	EA		0972180-0001	NETWORK,NE555V,MONOM,THIC TIMING,LINEAR	ST	-NE555V				
0J42A					U8						
0J43	00044.000	EA		0974679-0001	NETWORK, TMS4060						
0J43A					A1U1 THRU A22U1						
0J43B					A1U2 THRU A22U2						
0J44	00001.000	EA		0972957-0301	TRANSISTOR,2N930A NPN LOW CUR AMP,TO-18	MOT	- 2N930A				
0J44A					Q19						
0J45	00007.000	EA		0972948-0002	TRANSISTOR,2N2222A NPN GEN PURP SW TO-18	TI	- 2N2222A				
0J45A					Q7 Q8 Q10 Q11 Q12 Q17 Q20						
0J46	00008.000	EA		0972955-0001	XSTR 2N2369A,NPN,HIGH SPEED SW,TO-18	MOT	- 2N2369A				
0J46A					Q21 Q23 Q24 Q25						
DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY-ECC,8K (LOW POWER)											
APPRO. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 0946655-0002 AD											



TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM 0946655-0002		REV AD	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
QJ468					Q26 Q28 Q29 Q30						
JJ47	00001.000	EA		0418600-0002	TRANSISTOR, 2N2605	QPL - 2N2605					
QJ47A					Q14						
QJ48	00002.000	EA		0236081-0000	X-XST 2N2894	TI - 2N2894					
QJ48A					Q22 Q27						
QJ49	00010.000	EA		J672958-0002	TRANSISTOR, 2N2937A PNP GEM PUPP SW TO-18	TI - 2N2907A					
QJ49A					Q1 THRU Q6, Q13 Q15 Q16 Q18						
QJ50	00002.000	EA		0235866-8000	THERMISTOR 100K .050 DIA. 25C ROD	GE - 1R051					
QJ50A					R58 R60						
QJ77	00001.000	EA		0972924-0007	CAP FIX TANT SOLID 120 MFD 10 % 10 VOLT	QPL - M39003/1-2263					
QJ77A					C103						
JJ78	00002.000	EA		0972924-0011	CAP FIX TANT SOLID 68 MFD 10 % 15 VOLT	QPL - M39003/1-2274					
QJ78A					C78 C79						
QJ80	00088.000	EA		0972627-0003	CAP, CERAMIC, .047 MF 16V	-837449-164735					
QJ80A					C7 THRU C12						
QJ80C					C56 THRU C77						
QJ80D					C80 THRU C102						
QJ80E					C104 THRU C137						
QJ80F					C153 THRU C155						
QJ81	00002.000	EA		0230590-9000	CAP .05 MF 12 V 20 % CER TRANSCAP	ERI - 5635-000-1328					
DRAFTSMAN DATE CAD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY-ECC, 8K (LOW POWER)											
APP. MFG. DATE APP. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 0946655-0002 AD											

TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM 0946655-0002		REV AD	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
QJ81A					C27 C34						
JJ82	00001.000	EA		0532736-0002	CAP FIX CERAMIC .02 MF 20/80% 25 VOLT	CRL - 2DDU60E203ZAC					
QJ82A					C40						
JJ83	00001.000	EA		0539679-0008	CAPACITOR, 470 PF 2% 100V FX CER DIE	095275-VK208A471G					
QJ83A					C26						
JJ84	00001.000	EA		0539679-0006	CAPACITOR, 330 PF 2% 100V FX CER DIE	095275-VK208A331G					
QJ84A					C25						
JJ85	00001.000	EA		0539679-0002	CAPACITOR, .001 UF 2% 100V FX CER DIE	095275-VK208A102G					
QJ85A					C23						
JJ86	00002.000	EA		0539679-0011	CAPACITOR, .0027 UF 2% 100V FX CER DIE	095275-VK308A272G					
QJ86A					C28 C29						
JJ87	00002.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10 % 200 V	QPL - M39014/01-1369					
QJ87A					C138 C139						
JJ88	00017.000	EA		0972929-0379	CAP FIX CERAMIC 100 PF 10 % 200 V	QPL - M39014/01-1379					
QJ88A					C19 C20 C41 C42						
JJ88B					C140 THRU C152						
JJ89	00001.000	EA		0972929-0384	CAP FIX CERAMIC 180 PF 10 % 200 V	QPL - M39014/01-1384					
QJ89A					C33						
QJ90	00001.000	EA		0972929-0388	CAP FIX CERAMIC 330 PF 10 % 200 V	QPL - M39014/01-1388					
QJ90A					C24						
DRAFTSMAN DATE CAD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY-ECC, 8K (LOW POWER)											
APP. MFG. DATE APP. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 0946655-0002 AD											

TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM 0946655-0002		REV AD	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
QJ91	00002.000	EA		0972929-0397	CAP FIX CERAMIC .001 UF 10% 200V	QPL - M39014/01-1397					
QJ91A					C22 C44						
QJ92	00007.000	EA		0972965-0008	CAP FIX CERAMIC .0047 MF 10% 200 V	QPL - CK068X472K					
QJ92A					C13 THRU C18, C32						
QJ93	00001.000	EA		0972965-0012	CAP FIX CERAMIC .010 MF 10% 200V	QPL - CK068X103K					
QJ93A					C31						
QJ95	00002.000	EA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING						
QJ95A					CR4 CR5						
QJ96	00001.000	EA		0972594-0001	SWITCH, ROCKER-PWB MOUNTED	023880-900124					
QJ96A					S2, 772923-0001 MAY BE SUB.						
QJ97	00001.000	EA		0972594-0005	SWITCH, ROCKER-PWB MOUNTED	023880-900128					
QJ97A					S1, 772923-0005 MAY BE SUB.						
QJ98	00044.000	EA		2210188-3006	SOCKET, LOW PROFILE, DIP, 22 PINS, 10 COM	003612-D1L822P-108					
QJ98A					ADN, SOLID, THRMPLSTC 258 BAG ANAEROBIC	PERSAL-917-6302					
QJ98B	00000.010	EA		0996049-0003							
QJ98C	00000.020	FT		0966760-2896	WIRE, TWISTED PAIR #28 WHT/BLU IPVC	UL - 1472 TSTR UL					
QJ98D	00006.000	EA		0972965-0024	CAP FIX CERAMIC .100 MF 10% 100V	QPL - CK068X104K					
QJ98E					C30, C35 THRU C39						
QJ99	00001.000	EA		0946655-5002	AUTO INSERTION TAPE FQB, -0002 ASSY						
QJ11	00001.000	EA		0231784-6002	DIODE- 4 PELLET, SILICON, MULTI	GE - HPD400					
QJ11A					CR14						
DRAFTSMAN DATE CAD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY-ECC, 8K (LOW POWER)											
APP. MFG. DATE APP. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 0946655-0002 AD											

TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM 0946655-5002		REV AD	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
JJ01	00001.000	EA		0946656-0001	PWB-MEMORY, ECC						
JJ11	00002.000	EA		0222222-7400	NETWORK SN7400N	-SN7400N					
JJ11A					U29, U44						
JJ12	00003.000	EA		0240000-7400	NETWORK-SN7400N						
JJ12A					U23, U43, U57						
JJ13	00001.000	EA		0972900-7400	NETWORK SN74LS00N	TI - SN74LS00N					
JJ13A					U49						
JJ14	00001.000	EA		0222222-7414	NETWORK SN7414N						
JJ14A					U45						
JJ15	00010.000	EA		0240000-7404	NETWORK SN74H04N						
JJ15A					U28, U32, U39, U45, U49, U86, U90						
JJ15B					U91, U92, U96						
JJ16	00002.000	EA		0972900-7404	NETWORK SN74LS04N						
JJ16A					U6, U79						
JJ17	00002.000	EA		0240000-7410	NETWORK-SN74H10N						
JJ17A					U21, U26						
JJ18	00002.000	EA		0972900-7410	NETWORK SN74LS10N						
JJ18A					U22, U48						
JJ19	00002.000	EA		0240000-7411	NETWORK-SN74H11N						
JJ19A					U42, U88						
DRAFTSMAN DATE CAD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTION TAPE FOR -0002 ASSY											
APP. MFG. DATE APP. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 0946655-5002 AD											

TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM 0946655-5002		REV AD	
PART NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0020	00001.000	EA		022222-7413	NETWORK SN7413N						
0020A					U30						
0021	00001.000	EA		024000-7420	NETWORK-SN74H20N						
0021A					U89						
0022	00001.000	EA		0972900-7420	NETWORK SN74LS20N						
0022A					U34						
0023	00001.000	EA		022222-7430	NETWORK SN7430N	-SN7430N					
0023A					U77						
0024	00001.000	EA		024000-7430	NETWORK-SN74H30N						
0024A					U73	-SN7432N					
0025	00001.000	EA		022222-7432	NETWORK SN7432N						
0025A					U25						
0026	00003.000	EA		022222-7438	NETWORK SN7438N						
0026A					U9, U10, U13						
0027	00001.000	EA		024000-744J	NETWORK-SN74H40N						
0027A					U27						
0028	00001.000	EA		022222-7451	NETWORK SN7451N	-SN7451N					
0028A					U14						
0029	00003.000	EA		024000-7474	NETWORK-SN74H74N						
0029A					U7, U40, U58						
DRAFTSMAN DATE CED. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTION TAPE FOR -0002 ASSY											
APPR. MFG. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 0946655-5002 AD											

TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM 0946655-5002		REV AD	
PART NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0030	00002.000	EA		0972900-7474	NETWORK SN74LS74N						
0030A					U63, U64						
0031	00001.000	EA		022222-7475	NETWORK-SN7475N						
0031A					U47						
0032	00008.000	EA		022222-7483	NETWORK-SN7483N						
0032A					U2, U3, U4, U17, U18, U19, U33						
0032B					U78						
0033	00007.000	EA		0219402-7486	NETWORK SN74S86N						
0033A					U59, U60, U66, U67, U70, U71, U74						
0034	00002.000	EA		022222-7132	NETWORK SN74132N	TI -SN74LS132N					
0034A					U12, U15						
0035	00001.000	EA		0972782-0001	NETWORK SN74LS132N	TI -SN74LS132N					
0035A					U24						
0036	00002.000	EA		0219402-7138	NETWORK SN74S138N						
0036A					U48, U72						
0037	00002.000	EA		022222-7157	NETWORK SN74157N						
0037A					U93, U95						
0038	00002.000	EA		022222-7161	NETWORK SN74161N	-SN74161N					
0038A					U61, U76						
0039	00014.000	EA		0219402-7280	NETWORK SN74S280N	TI -SN74S280N					
DRAFTSMAN DATE CED. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTION TAPE FOR -0002 ASSY											
APPR. MFG. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 0946655-5002 AD											

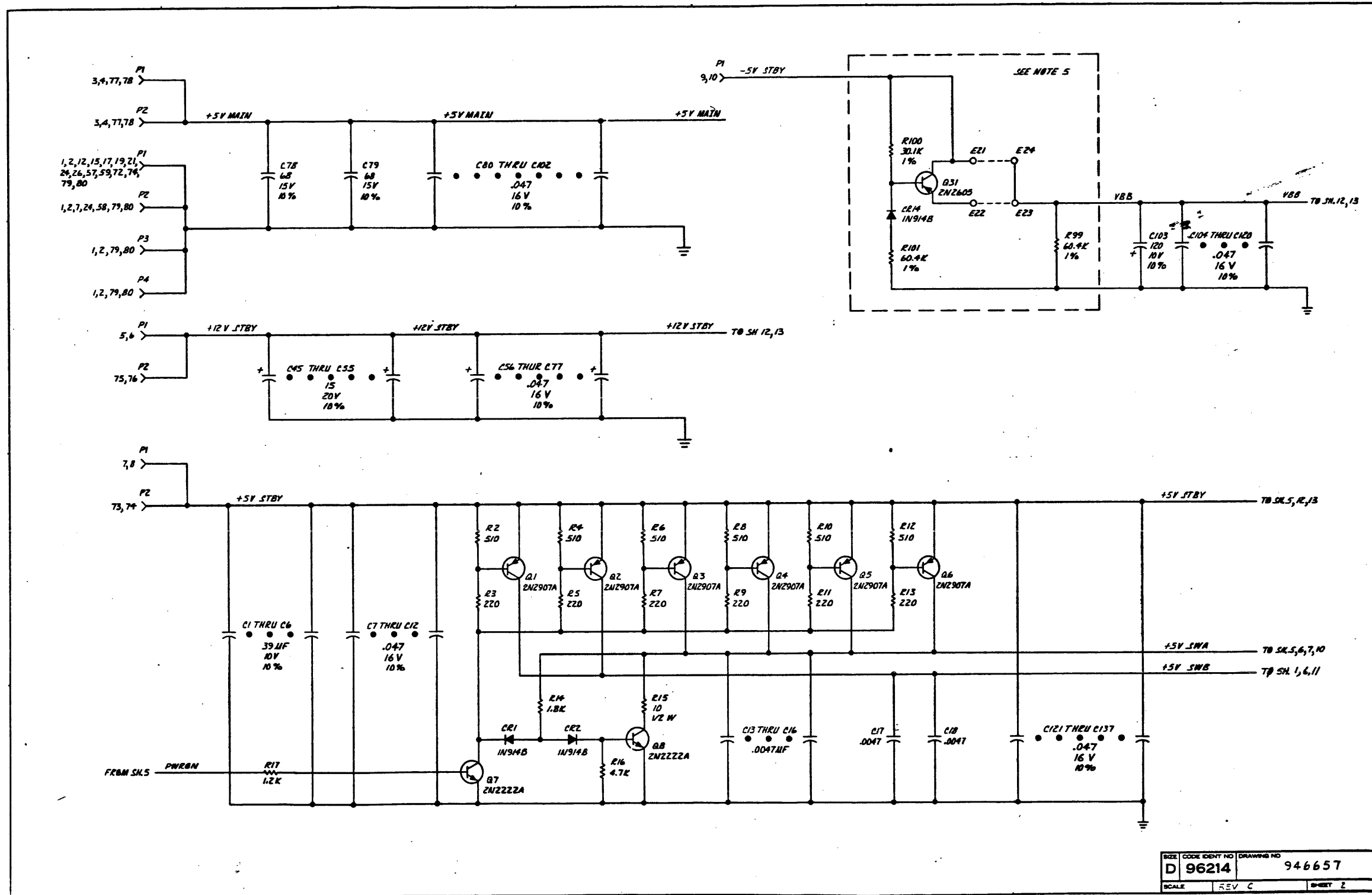
TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM 0946655-5002		REV AD	
PART NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0039A					U50 THRU U56, U75, U80 THRU						
0039B					U85						
0040	00009.000	EA		0972787-0004	NETWORK SN74LS368N						
0040A					U5, U31, U35, U36, U37, U41, U46,						
0040B					U97, U98						
0041	00001.000	EA		0974674-0001	NETWORK SN75138N						
0041A					U11						
0051	00001.000	EA		0539370-0384	RES FIX FILM 976 OHM 1% .25 WATT	COR - NA55					
0051A					R30						
0052	00001.000	EA		0972947-0017	RES FIX 10 OHM 5% .5 W CARBON FILM	ROH - R-50					
0052A					R15						
0053	00003.000	EA		0972946-0025	RES FIX 22.0 OHM 5% .25 W CARBON FILM	ROH - R-25					
0053A					R40 R85 R94						
0054	00002.000	EA		0972946-0031	RES FIX 39.0 OHM 5% .25 W CARBON FILM	ROH - R-25					
0054A					R104 R105						
0055	00022.000	EA		0972946-0041	RES FIX 100 OHM 5% .25 W CARBON FILM	ROH - R-25					
0055A					R110 THRU R131						
0056	00001.000	EA		0972946-0043	RES FIX 120 OHM 5% .25 W CARBON FILM	ROH - R-25					
0056A					R35						
0057	00012.000	EA		0972946-0049	RES FIX 220 OHM 5% .25 W CARBON FILM	ROH - R-25					
DRAFTSMAN DATE CED. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTION TAPE FOR -0002 ASSY											
APPR. MFG. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 0946655-5002 AD											

TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LM 0946655-5002		REV AD	
PART NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0057A					R3 R5 R7 R9 R11 R13 R24 R25						
0057B					R43 R46 R74 R75						
0058	00004.000	EA		0972946-0051	RES FIX 270 OHM 5% .25 W CARBON FILM	ROH - R-25					
0058A					R49 R55 R61 R62						
0059	00006.000	EA		0972946-0058	RES FIX 810 OHM 5% .25 W CARBON FILM	ROH - R-25					
0059A					R2 R4 R6 R8 R10 R12						
0060	00010.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH - R-25					
0060A					R22 R26 R27 R44 R81 R87 R88						
0060B					R90 R96 R97						
0061	00001.000	EA		0972946-0067	RES FIX 1.2K OHM 5% .25 W CARBON FILM	ROH - R-25					
0061A					R17						
0062	00001.000	EA		0972946-0069	RES FIX 1.5K OHM 5% .25 W CARBON FILM	ROH - R-25					
0062A					R38						
0063	00002.000	EA		0972946-0071	RES FIX 1.8K OHM 5% .25 W CARBON FILM	ROH - R-25					
0063A					R14 R37						
0064	00003.000	EA		0972946-0073	RES FIX 2.2K OHM 5% .25 W CARBON FILM	ROH - R-25					
0064A					R50 R52 R65						
0065	00002.000	EA		0972946-0075	RES FIX 2.7K OHM 5% .25 W CARBON FILM	ROH - R-25					
0065A					R89 R98						
0066	00026.000	EA		0972946-0081	RES FIX 4.7K OHM 5% .25 W CARBON FILM	ROH - R-25					
DRAFTSMAN DATE CED. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTION TAPE FOR -0002 ASSY											
APPR. MFG. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM 0946655-5002 AD											

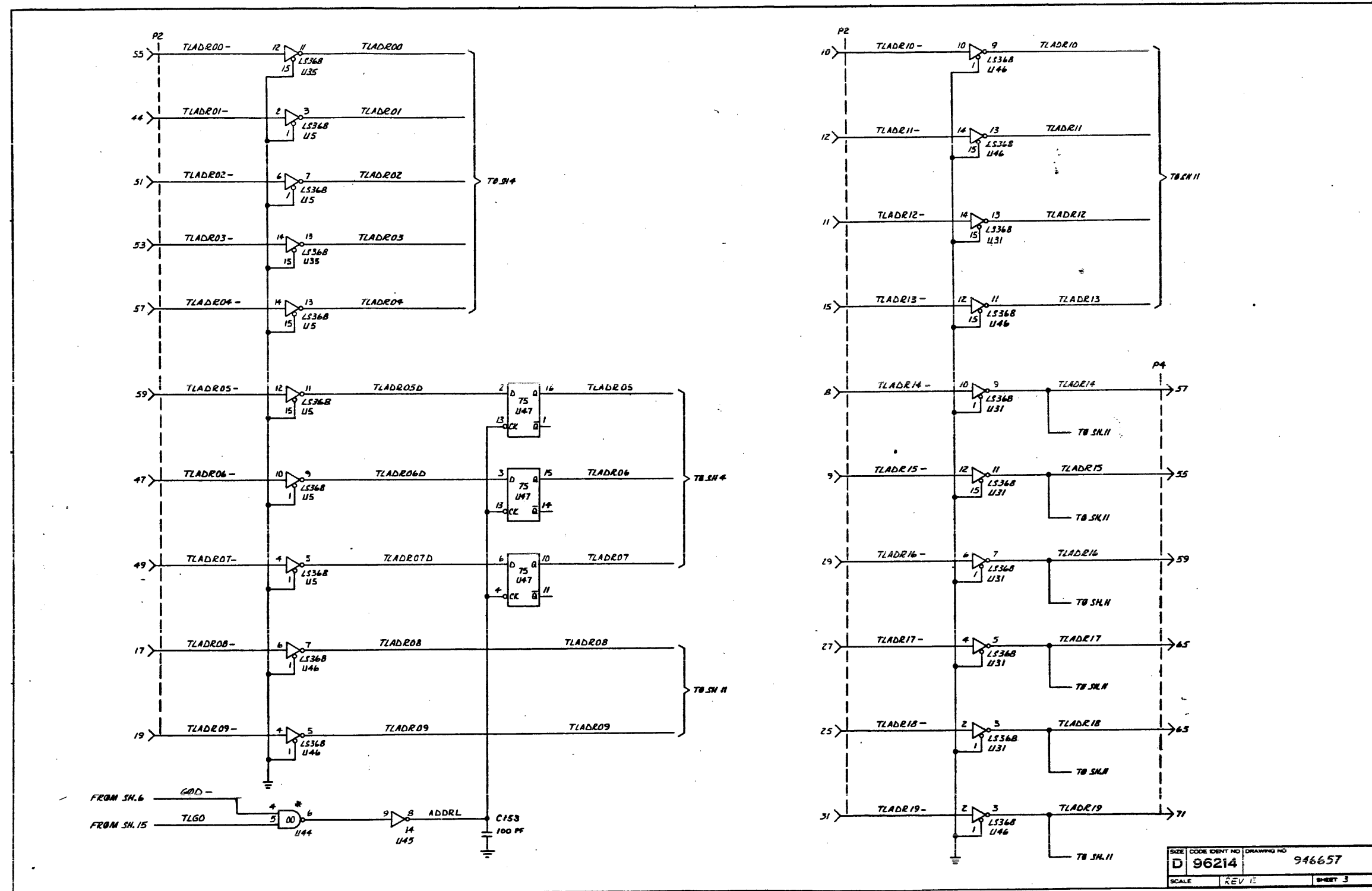
TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 6 of		PART NUMBER LM 0946655-5002		REV AD		
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	QTY. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
JU66A					R1 R16 R21 R23 R29 R34 R36							
JU66B					R45 R48 R54 R56 R102 R103							
JU66C					R66 THRU R73							
JU66D					K76 THRU R80							
JJ67	00001.000	EA		0972946-0083	RES FIX 5.6K OHM 5 % .25 W CARBON FILM	RUH - R-25						
JJ67A					R41							
JJ68	00006.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	RUH - R-25						
JJ68A					R53 R57 R82 R86 R91 R95							
JJ69	00001.000	EA		0972946-0097	RES FIX 22 K OHM 5 % .25 W CARBON FILM	RUH - R-25						
JJ69A					R63							
JJ70	00002.000	EA		0972946-0105	RES FIX 47 K OHM 5 % .25 W CARBON FILM	ROH - R-25						
JJ70A					R47 R59							
JJ71	00004.000	EA		0972946-0112	RES FIX 91 K OHM 5 % .25 W CARBON FILM	RUH - R-25						
JJ71A					R83 R84 R92 R93							
JJ72	00002.000	EA		0972946-0121	RES FIX 220K OHM 5 % .25 W CARBON FILM	ROH - R-25						
JJ72A					R51 R64							
JJ73	00001.000	EA		0539370-0369	RES FIX FILM 681 OHM 1% .25 WATT	CUR - NA55						
JJ73A					R20							
JJ74	00002.000	EA		0539370-0349	RES FIX FILM 422 OHM 1% .25 WATT	CUR - NA55						
JJ74A					R31 R33							
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE					
							AUTO INSERTION TAPE FOR -0002 ASSY					
APPD. MFG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.					
							LM 0946655-5002					

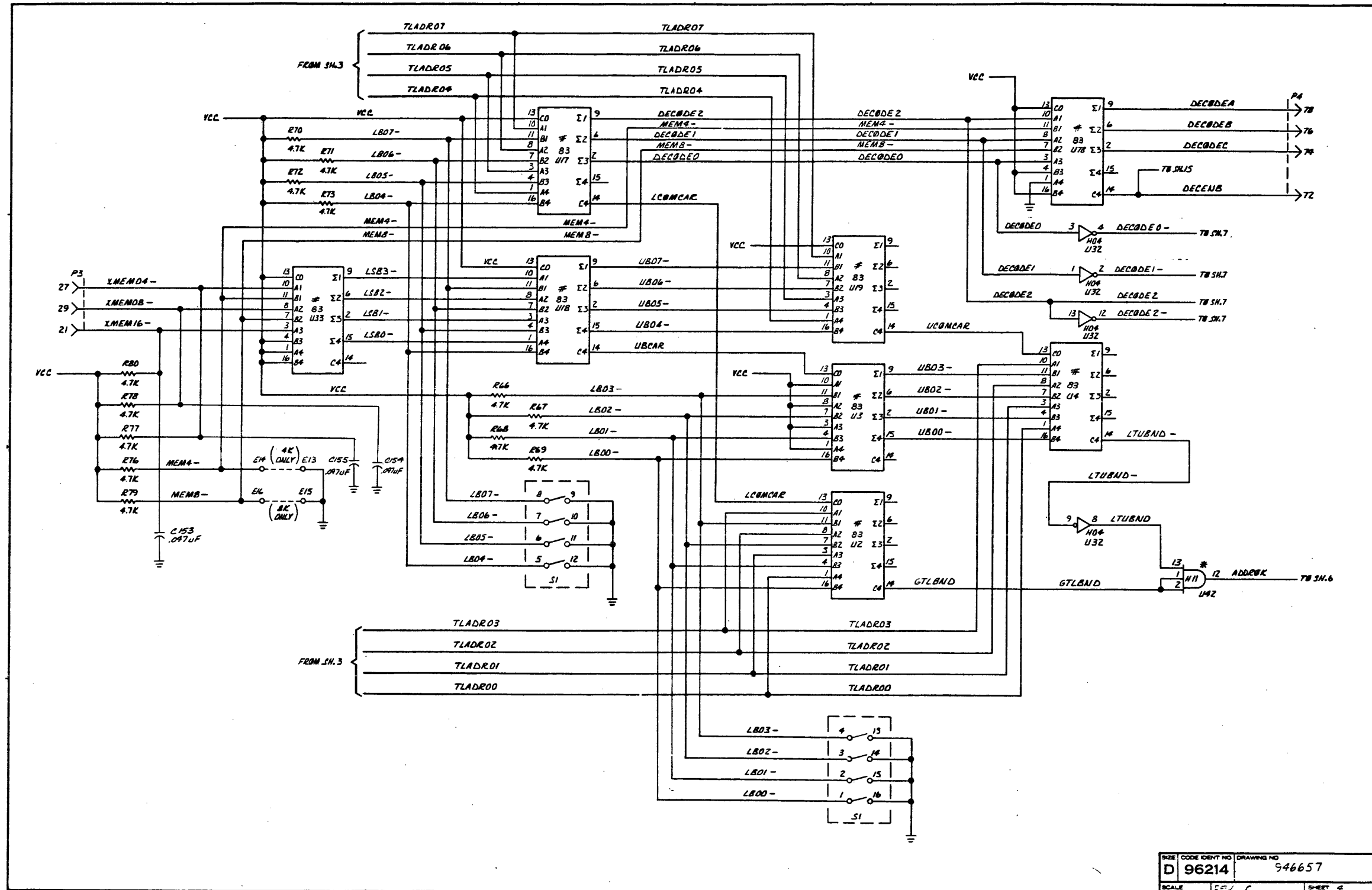
TEXAS INSTRUMENTS INCORPORATED		DATE 11/14/79		LIST OF MATERIAL		PAGE 7 of		PART NUMBER LM 0946655-5002		REV AD		
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	QTY. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
JJ75	00003.000	EA		0233592-0000	RES 309.00 OHM .125W 1.	TI -CR-1/8-309.						
JJ75A					R18 R19 R42							
JJ76	00006.000	EA		0972924-0006	CAP FIX TANT SOLID 39 MFD 10 % 10 VOLT	QPL -M39003/1-2259						
JJ76A					C1 THRU C6							
JJ79	00011.000	EA		0972924-0014	CAP FIX TANT SOLID 15. MFD 10 % 20 VOLT	QPL -M39003/1-2289						
JJ79A					C45 THRU C55							
JJ94	00011.000	EA		0972932-0001	DIODE 1N9148	SEE TI- DRAWING						
JJ94A					CR1 CR2 CR3,CR6 THRU 6R13							
JL07	00001.000	EA		3222222-7474	NETWORK SN7474N	-SN7474N						
JL07A					U38							
JL10	00001.000	EA		0539370-0411	RES FIX FILM 1.87K OHM 1% .25 WATT	COR - NA55						
JL10A					R32							
JL12	00001.000	EA		0972946-0077	RES FIX 3.3K OHM 5 % .25 W CARBON FILM	ROH - R-25						
JL12A					R39							
JL13	00001.000	EA		0539370-0345	RES FIX FILM 383 OHM 1% .25 WATT	COR - NA55						
JL13A					R28							
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE					
							AUTO INSERTION TAPE FOR -0002 ASSY					
APPD. MFG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.					
							LM 0946655-5002					



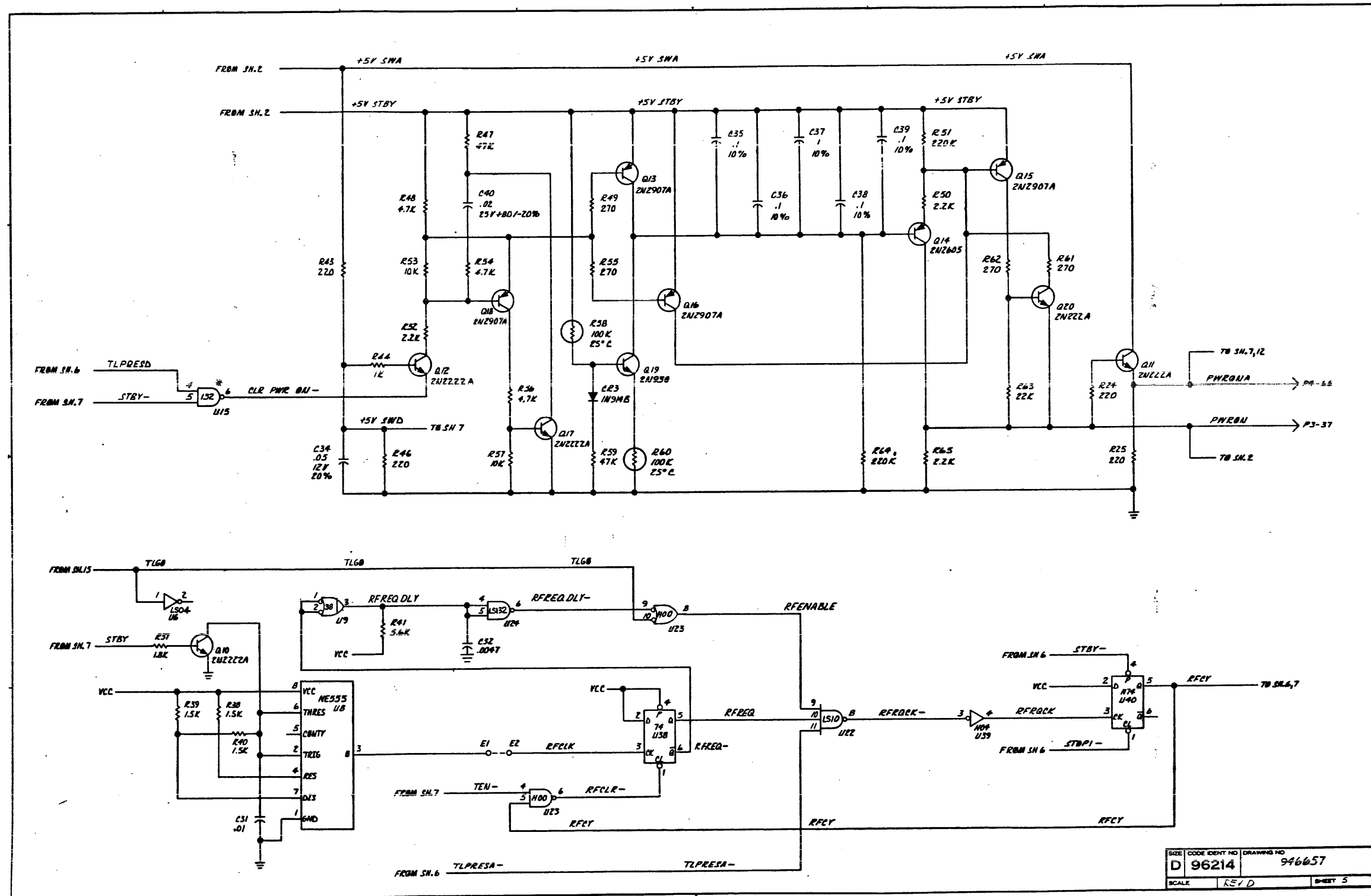


SIZE	CODE IDENT NO	DRAWING NO
D	96214	946657
SCALE	REV C	SHEET 2

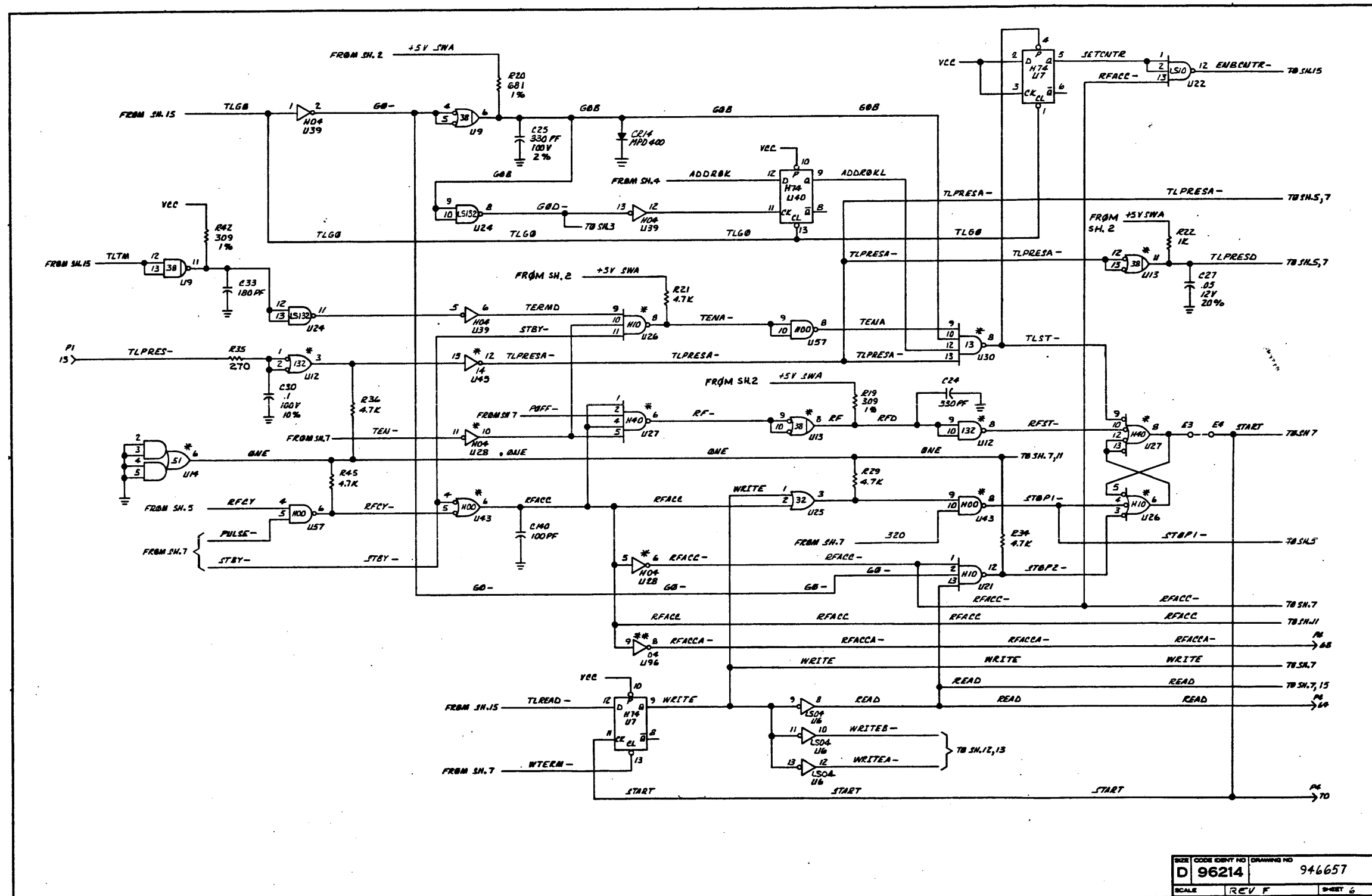


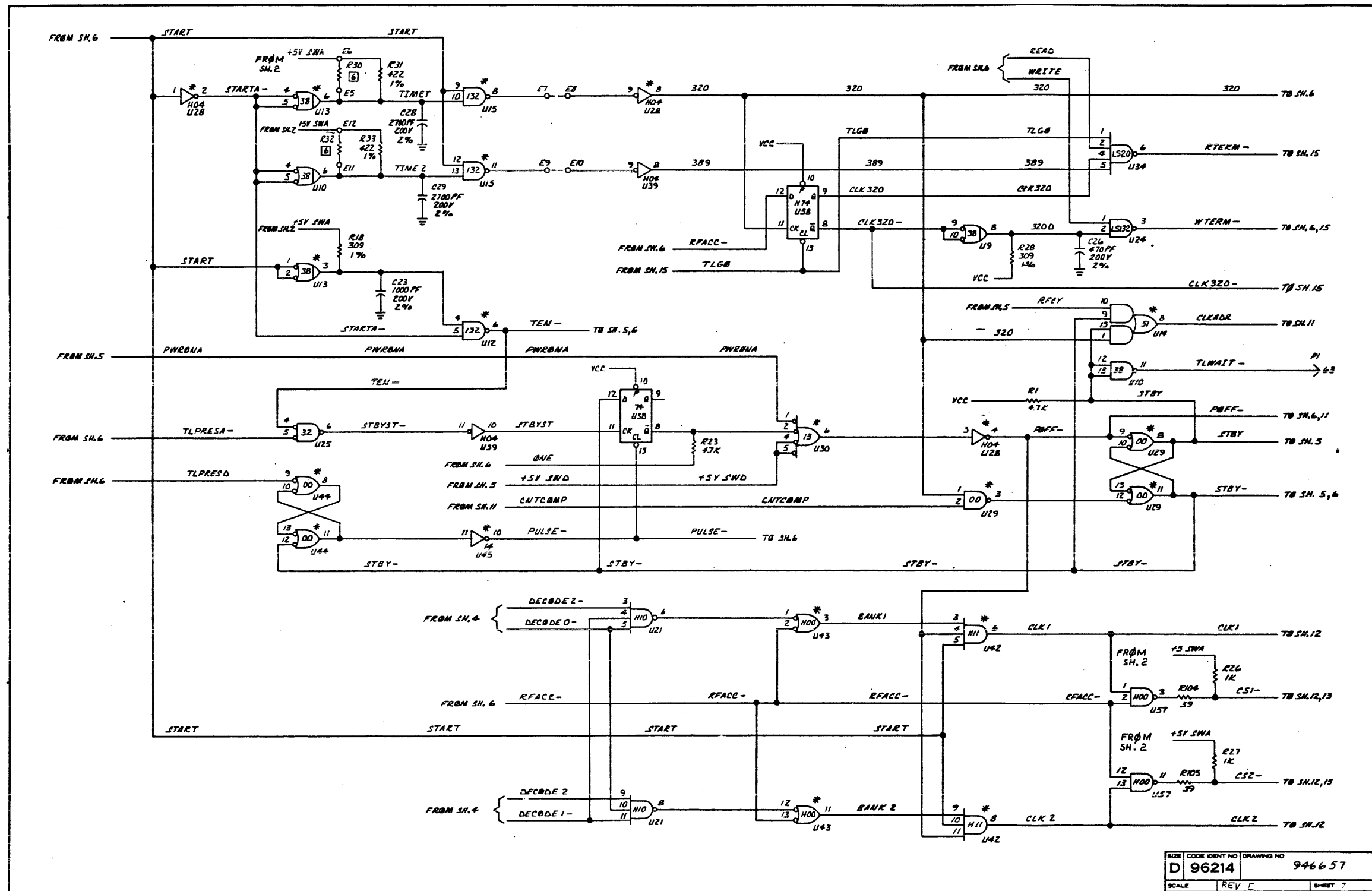


SIZE	CODE IDENT NO	DRAWING NO
D	96214	946657
SCALE	REV	C
		SHEET 4

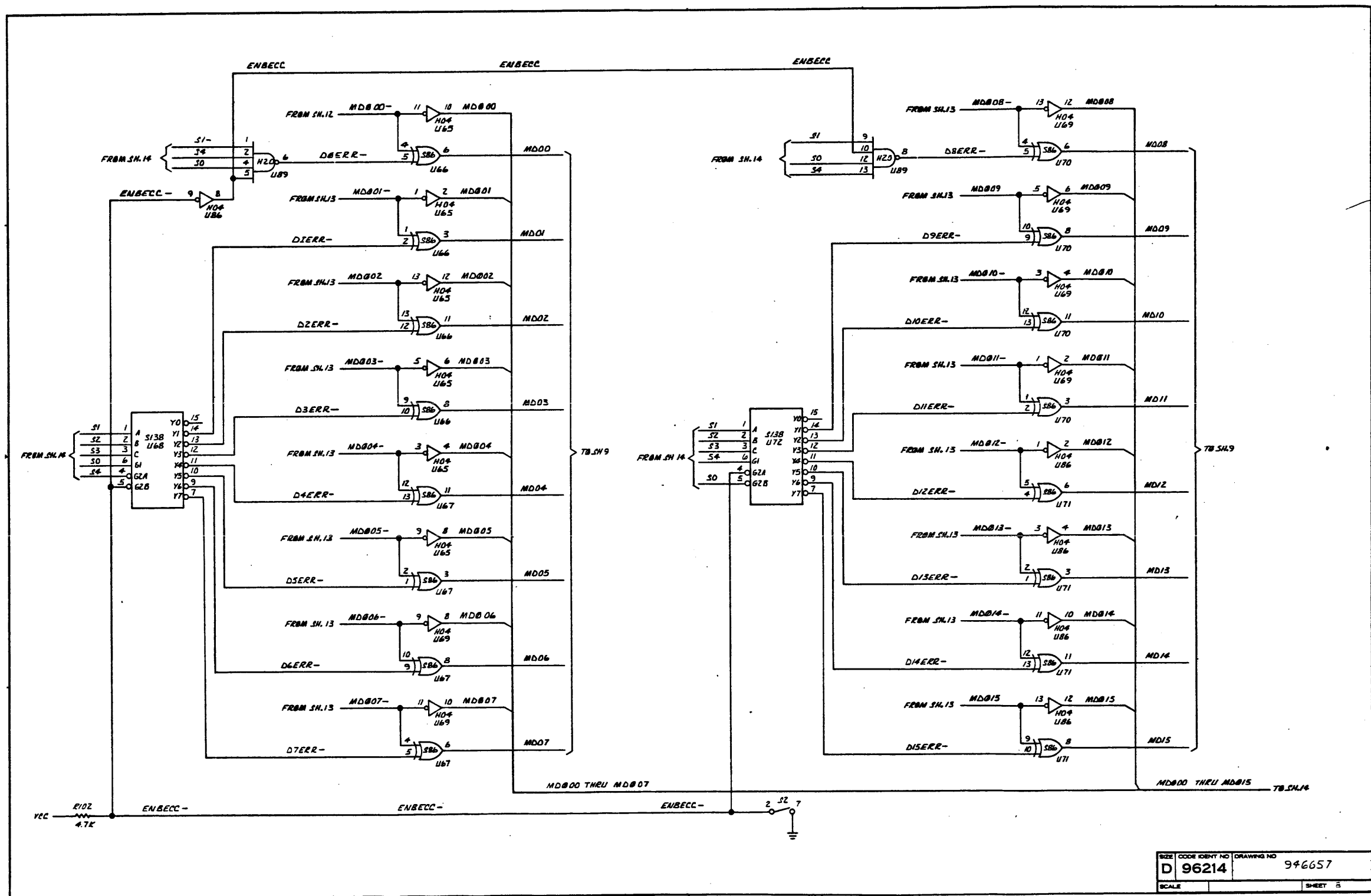




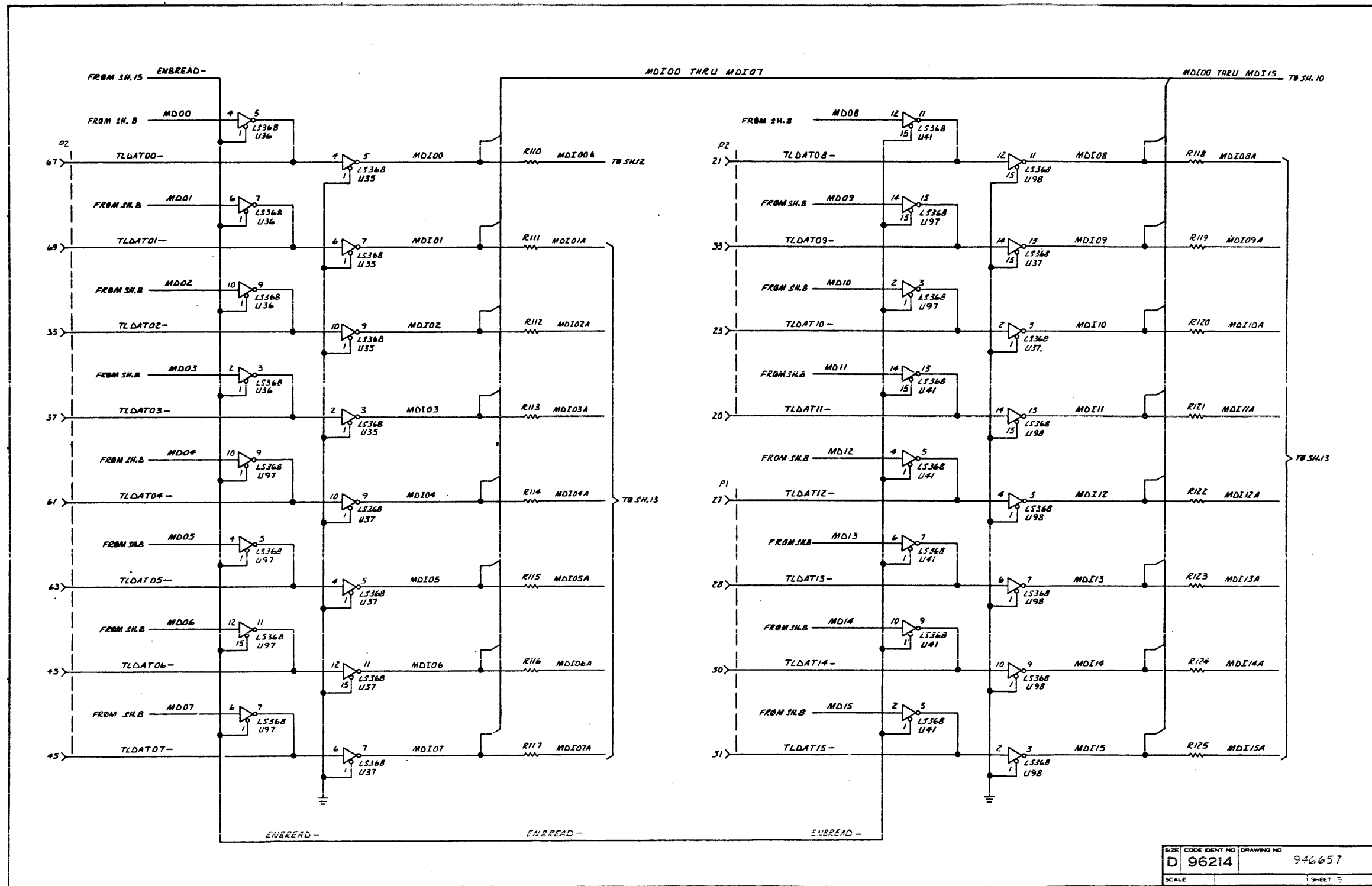




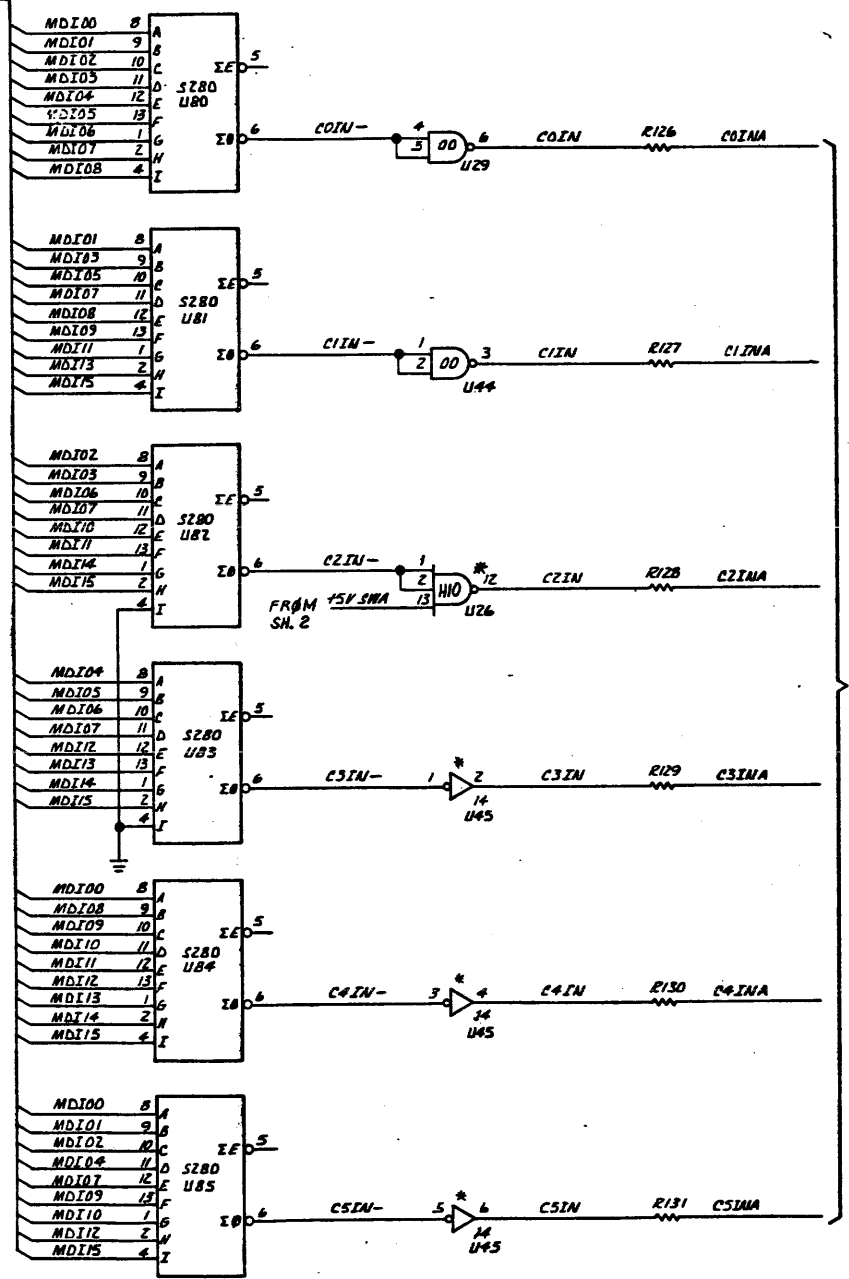
SIZE	CODE IDENT NO	DRAWING NO
D	96214	946657
SCALE	REV E	SHEET 7



SIZE	CODE IDENT NO	DRAWING NO
D	96214	946657
SCALE		SHEET 5

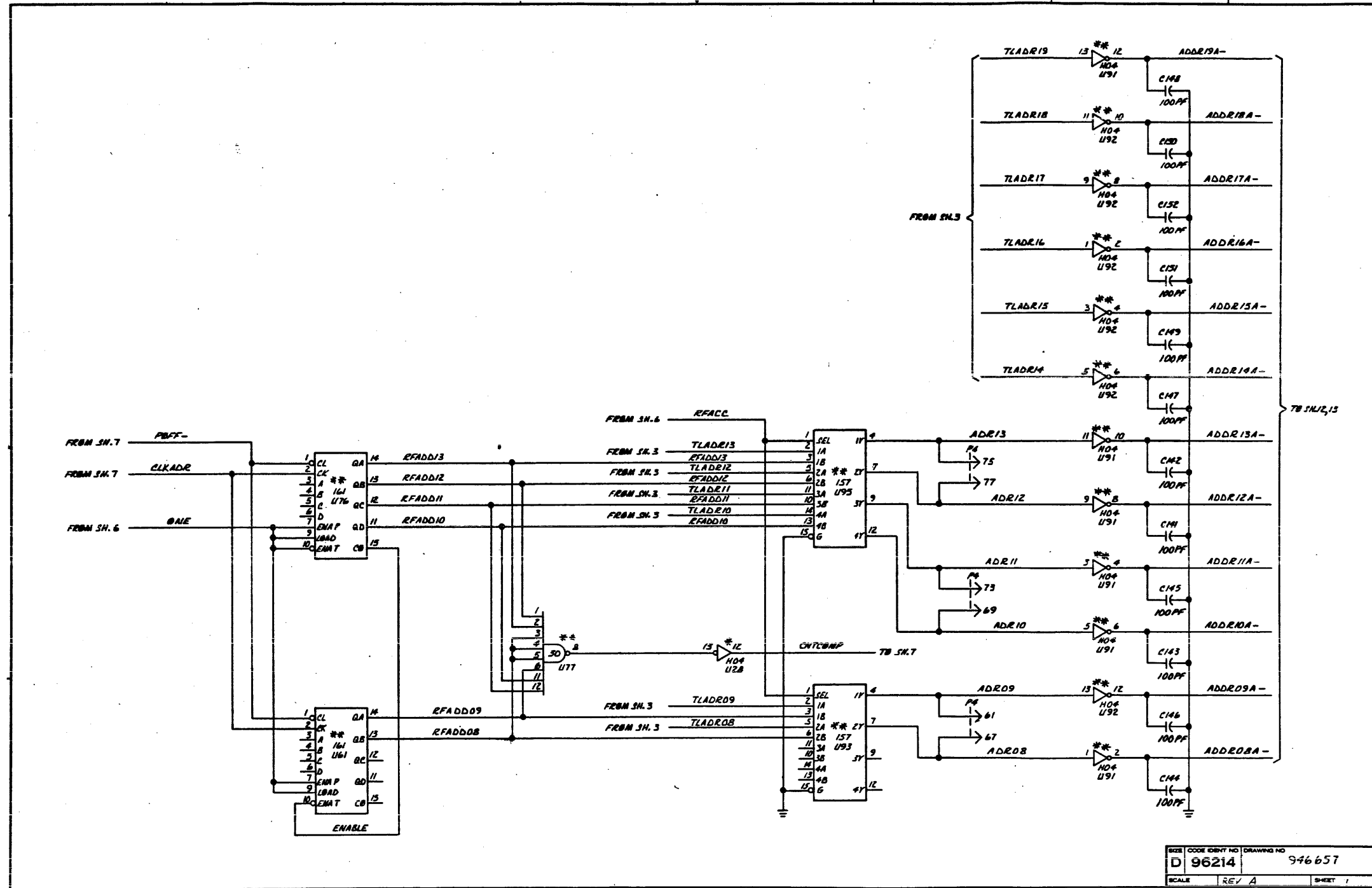


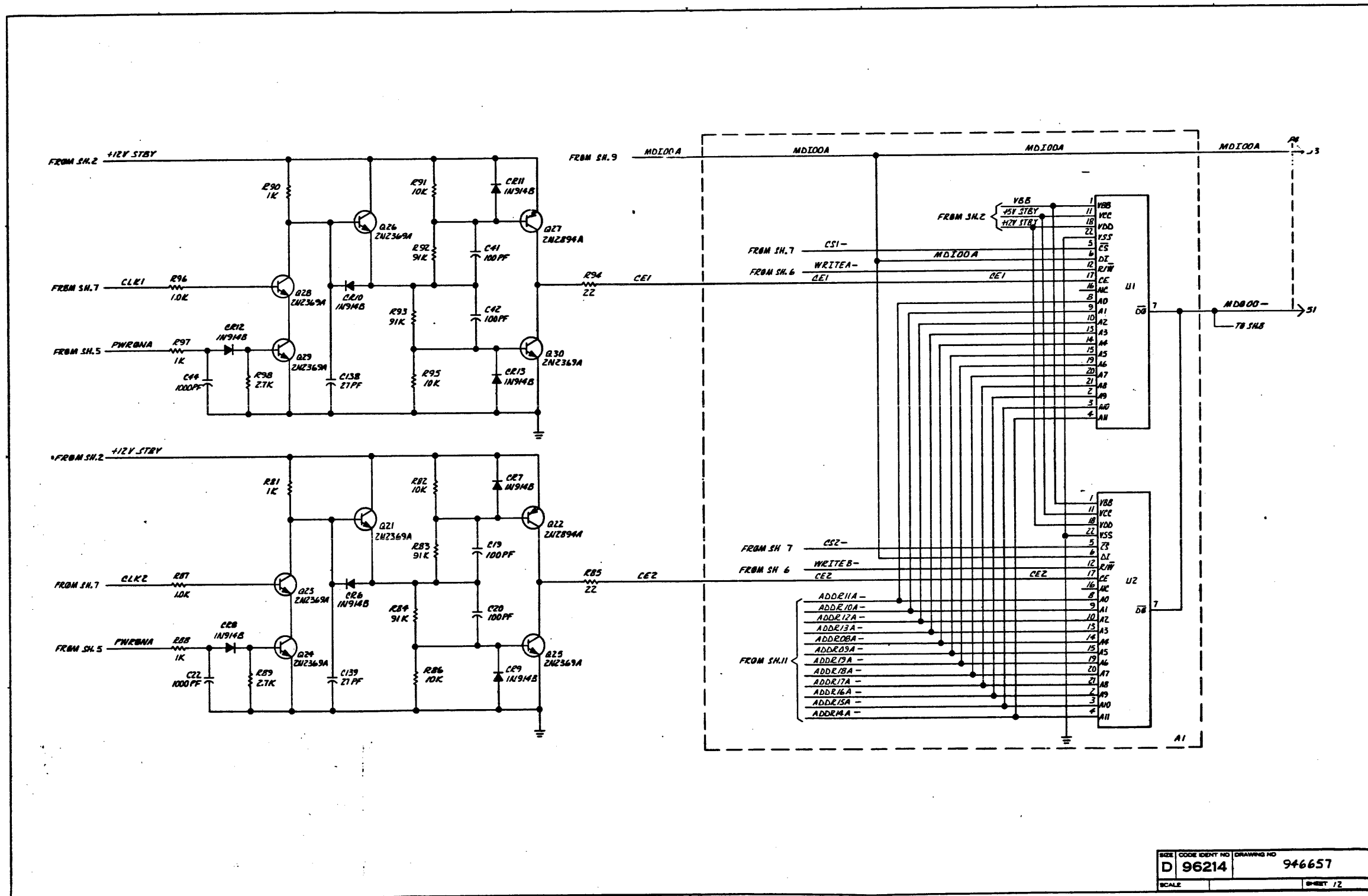
FROM SH. 9 MDI00 THRU MDI15



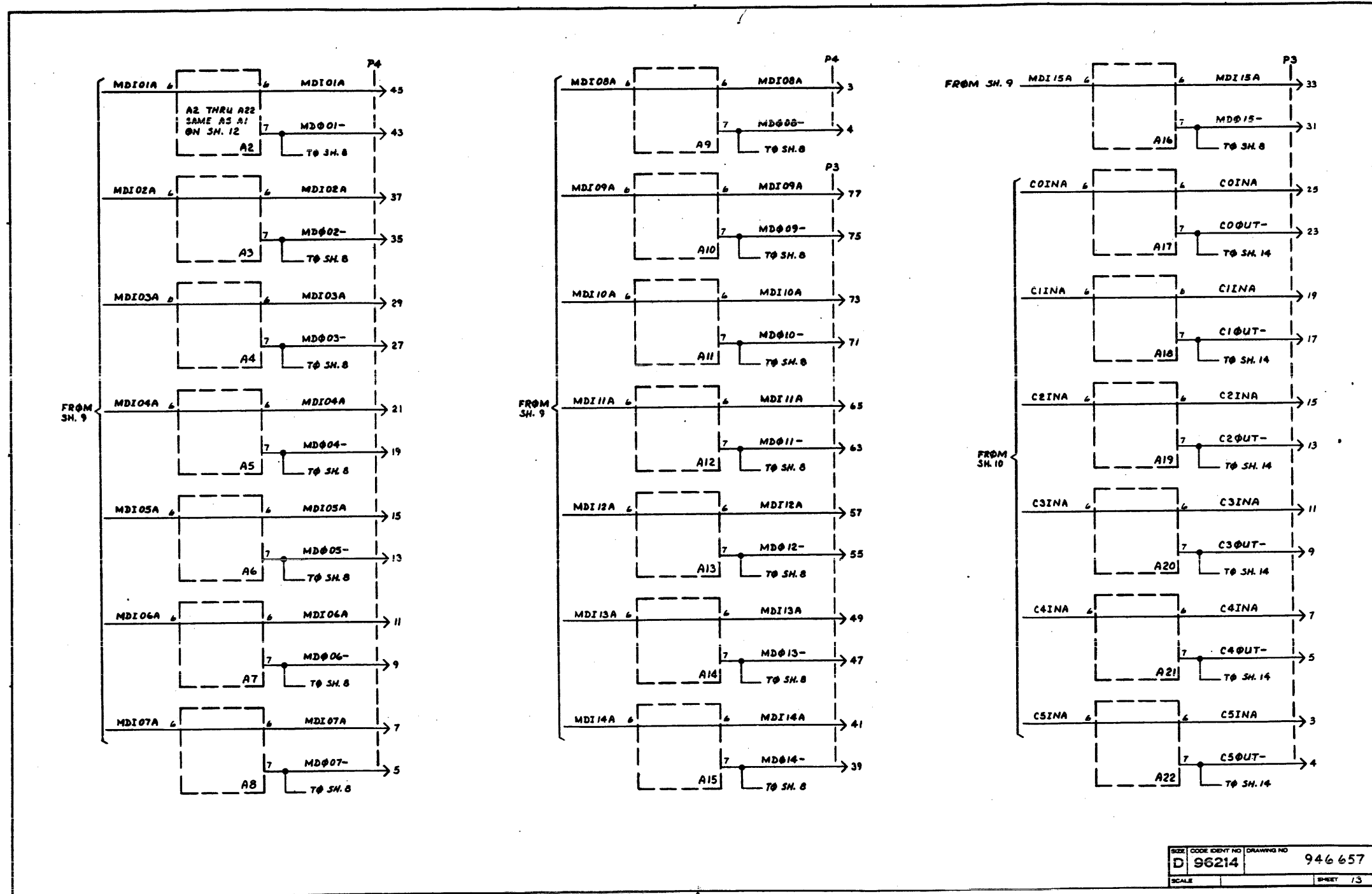
TO SH. 15

SIZE	CODE IDENT NO	DRAWING NO
D	96214	946657
SCALE	REV E	SHEET 10

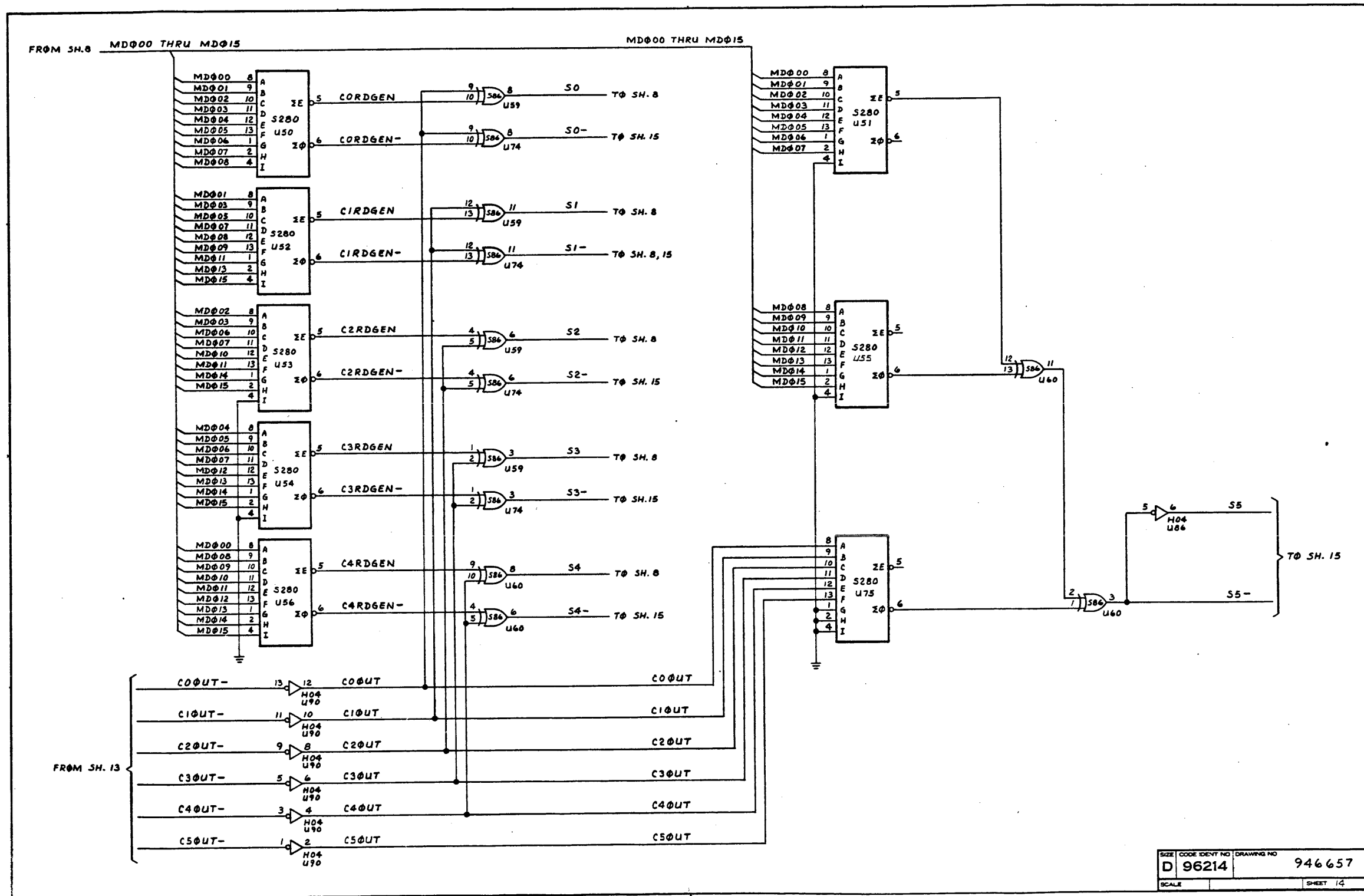




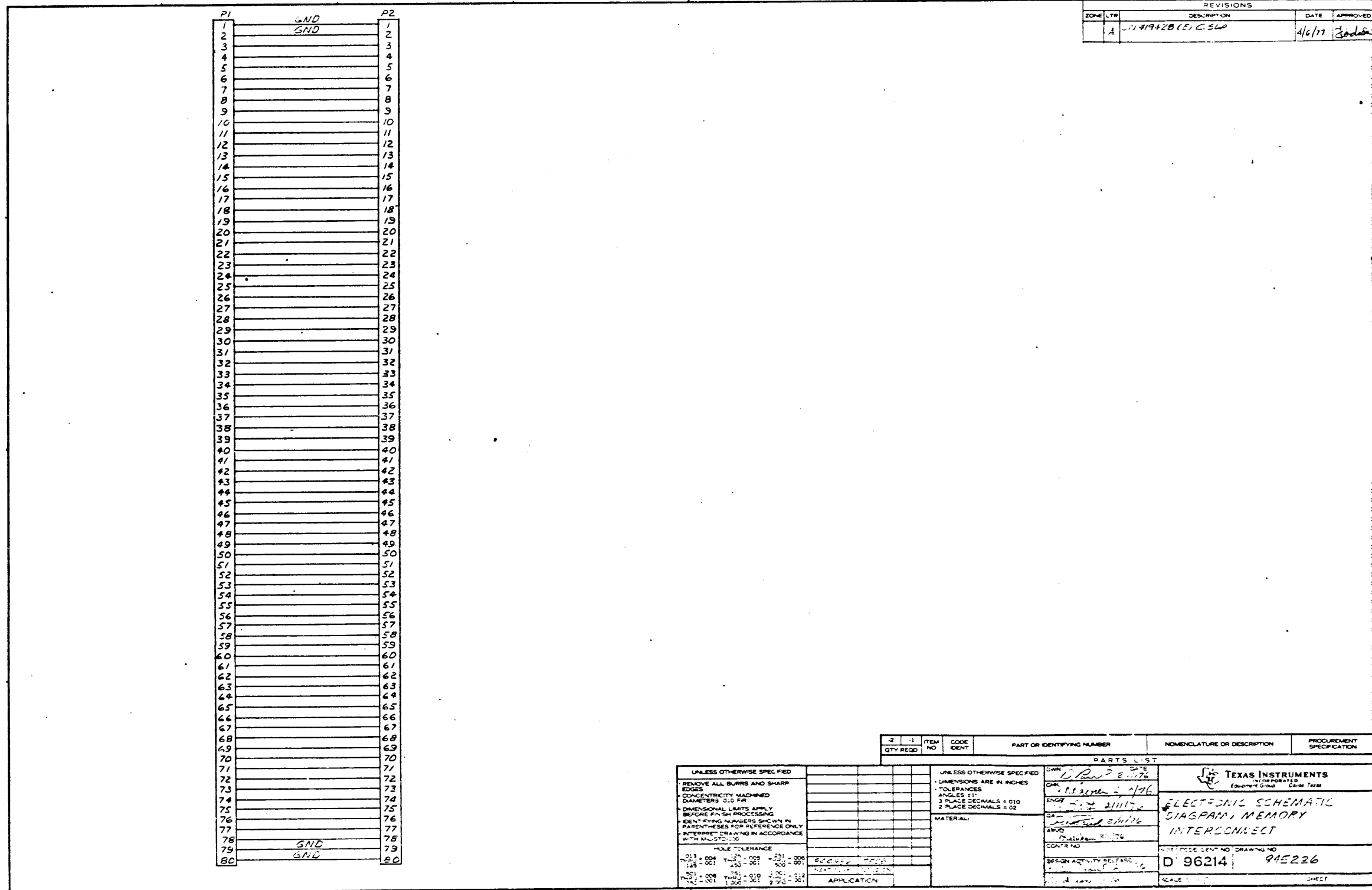
SIZE	CODE IDENT NO	DRAWING NO
D	96214	946657
SCALE	SHEET 12	







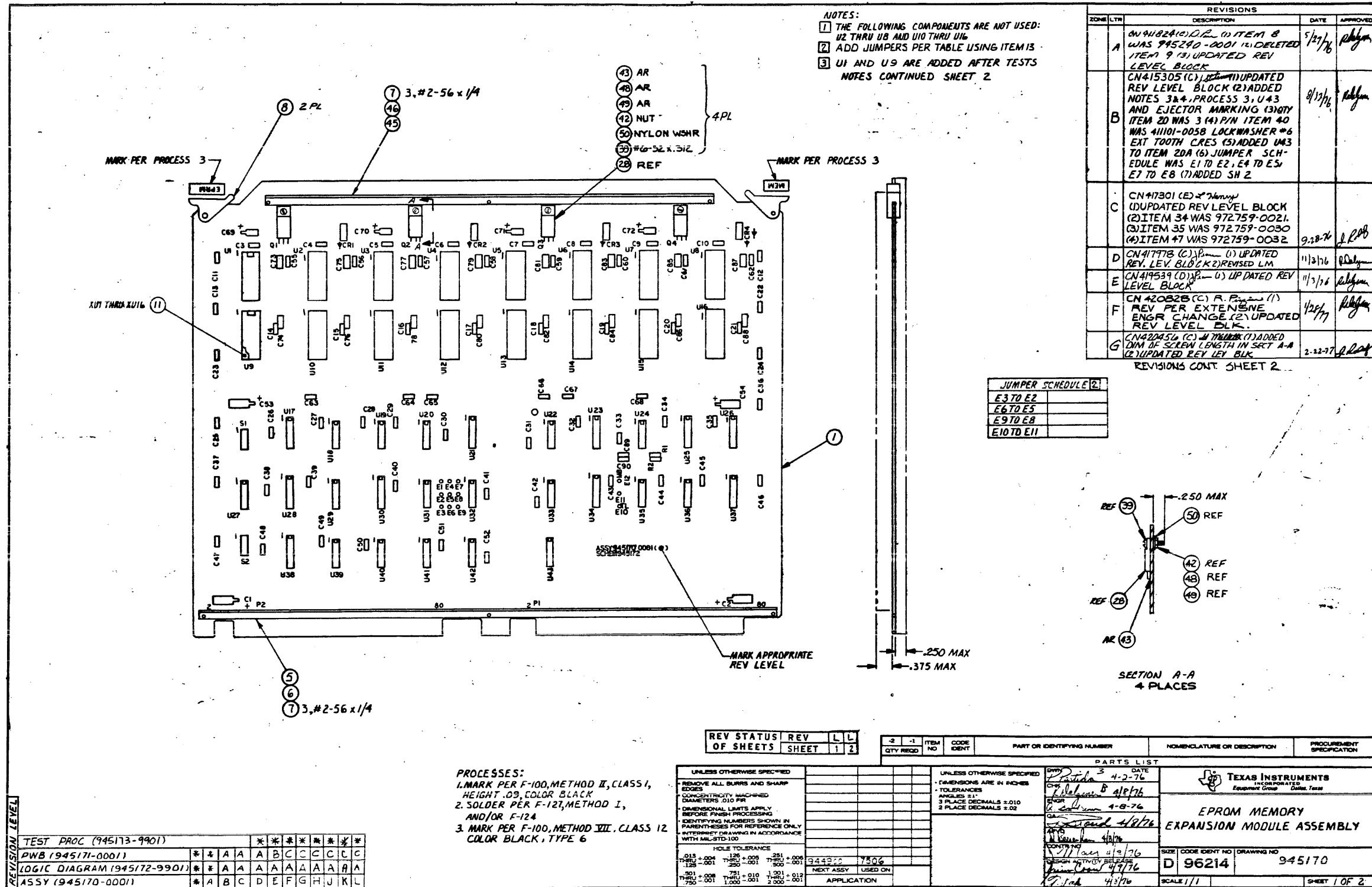




REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	114942B (E) C. SLO	4/6/77	[Signature]

P1		P2
1	GND	1
2	GND	2
3		3
4		4
5		5
6		6
7		7
8		8
9		9
10		10
11		11
12		12
13		13
14		14
15		15
16		16
17		17
18		18
19		19
20		20
21		21
22		22
23		23
24		24
25		25
26		26
27		27
28		28
29		29
30		30
31		31
32		32
33		33
34		34
35		35
36		36
37		37
38		38
39		39
40		40
41		41
42		42
43		43
44		44
45		45
46		46
47		47
48		48
49		49
50		50
51		51
52		52
53		53
54		54
55		55
56		56
57		57
58		58
59		59
60		60
61		61
62		62
63		63
64		64
65		65
66		66
67		67
68		68
69		69
70		70
71		71
72		72
73		73
74		74
75		75
76		76
77		77
78	GND	78
79	GND	79
80		80

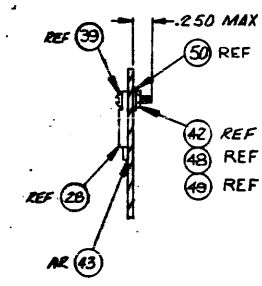
QTY REQD	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
PARTS LIST					
				<b>TEXAS INSTRUMENTS</b> <small>INCORPORATED</small> <small>Equipment Group - Dallas, Texas</small>	
				<b>ELECTRONIC SCHEMATIC</b> <b>DIAGRAM, MEMORY</b> <b>INTERCONNECT</b>	
				DWN: [Signature] 2/1/76 ENGR: [Signature] 2/1/76 DCA: [Signature] 2/1/76 ARVD: [Signature] 2/1/76 CONTR NO: [Signature] 2/1/76 DESIGN ACTIVITY RELEASE: [Signature] 2/1/76	PART CODE IDENT NO: [Signature] DRAWING NO: <b>D 96214</b> <b>945226</b>
				SCALE: [Signature]	SHEET: [Signature]



NOTES:  
 1 THE FOLLOWING COMPONENTS ARE NOT USED:  
 U2 THRU U8 AND U10 THRU U16  
 2 ADD JUMPERS PER TABLE USING ITEM 13  
 3 U1 AND U9 ARE ADDED AFTER TESTS  
 NOTES CONTINUED SHEET 2

ZONE	LTN	DESCRIPTION	DATE	APPROVED
A		CN 945240 (C) (1) ITEM 8 WAS 945240-0001 (1) DELETED ITEM 9 (3) UPDATED REV LEVEL BLOCK	5/27/76	<i>[Signature]</i>
B		CN 415305 (C) (1) UPDATED REV LEVEL BLOCK (2) ADDED NOTES 3 & 4, PROCESS 3, U43 AND EJECTOR MARKING (3) UTY ITEM 20 WAS 3 (4) P/N ITEM 40 WAS 41101-0058 LOCK WASHER #6 EXT TOOTH CRES (5) ADDED U43 TO ITEM 20A (6) JUMPER SCHEDULE WAS E1 TO E2, E4 TO E5, E7 TO E8 (7) ADDED SH 2	8/13/76	<i>[Signature]</i>
C		CN 417301 (C) (1) Updated Rev Level Block (2) Item 34 was 972759-0021 (3) Item 35 was 972759-0030 (4) Item 47 was 972759-0032	9-28-76	<i>[Signature]</i>
D		CN 417978 (C) (1) Updated Rev. Lev. Block (2) Revised LM	11/21/76	<i>[Signature]</i>
E		CN 419539 (D) (1) Updated Rev Level Block	11/21/76	<i>[Signature]</i>
F		CN 420828 (C) (1) Rev Per Extensive Engr Change (2) Updated Rev Level Blk	1/28/77	<i>[Signature]</i>
G		CN 420454 (C) (1) Added Dim of Screw Length in Sect A-A (2) Updated Rev Lev Blk	2-22-77	<i>[Signature]</i>

JUMPER SCHEDULE	QTY
E3 TO E2	
E6 TO E5	
E9 TO E8	
E10 TO E11	



REVISION LEVEL	TEST PROC (945173-9901)	PWB (945171-0001)	LOGIC DIAGRAM (945172-9901)	ASSY (945170-0001)
*	* * A A A B C C C C C C	* * A A A A A A A A A A	* * A A A A A A A A A A	* A B C D E F G H J K L

PROCESSES:  
 1. MARK PER F-100, METHOD II, CLASS I, HEIGHT .03, COLOR BLACK  
 2. SOLDER PER F-121, METHOD I, AND/OR F-124  
 3. MARK PER F-100, METHOD III, CLASS 12, COLOR BLACK, TYPE 6

REV STATUS OF SHEETS	REV SHEET	REV	LL	QTY REQD	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
	1	2							

UNLESS OTHERWISE SPECIFIED	UNLESS OTHERWISE SPECIFIED
REMOVE ALL BURRS AND SHARP EDGES	DIMENSIONS ARE IN INCHES
DIMENSIONS MACHINED	TOLERANCES
DIAMETERS .010 P/R	ANGLES 1:1
DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING	3 PLACE DECIMALS ±.010
IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY	2 PLACE DECIMALS ±.02
INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100	

DATE	BY	DESCRIPTION
4-2-76	<i>[Signature]</i>	DESIGN
4/8/76	<i>[Signature]</i>	ENGR
4-8-76	<i>[Signature]</i>	CHKD
4/9/76	<i>[Signature]</i>	APPD
4/9/76	<i>[Signature]</i>	DESIGN METHOD RELEASE
4/9/76	<i>[Signature]</i>	PRINTED
4/9/76	<i>[Signature]</i>	APPD

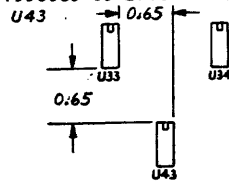
34430	7506
NEXT ASSY	USED ON
APPLICATION	

TXI INSTRUMENTS INCORPORATED Equipment Group Dallas, Texas	
EPROM MEMORY EXPANSION MODULE ASSEMBLY	
SIZE CODE IDENT NO DRAWING NO	
D 96214 945170	
SCALE 1/1	SHEET 1 OF 2

NOTES: CONTINUED

4. (A) REWORK FOR PWB REV \*- REMOVE ETCH BETWEEN PAD AND CONDUCTOR ON COMPONENT SIDE BETWEEN U29 AND U30. USING A 14-PIN SOCKET (539544-1), CUT LEADS FLUSH WITH BOTTOM OF SOCKET AND REMOVE PLASTIC INSULATOR. ATTACH WITH HOT MELT (996069-0003) TO COMPONENT SIDE. RUBBER STAMP



(B) CUT IC PINS U32-2, U32-3, U33-13, U42-11, U42-12, U42-13, U40-1 AND U40-2.

(C) ADD WIRES

FROM	TO
U32-2	U22-2
U32-3	U42-10
U43-1	U43-2
U43-2	U43-9
U43-3	U36-6
U43-4	U43-10
U43-10	U43-14
U43-14	U33-14
U43-6	U31-9
U43-7	U33-7
U43-11	U33-11
U43-12	U43-13
U43-13	U33-9
U31-10	U33-1
U31-8	U33-13
U36-4	U36-14
U36-5	P1-73
U23-15	U23-8
U32-4	U32-6

5. REWORK FOR PWB REV A.D: CONNECT U32-3 TO ETCH COMING FROM U21-6 USING BUSS WIRE  
 6. SWITCH, PN 72923-0002 MAY BE SUBSTITUTED FOR ITEM 10, PN 972594-0002.

REVISIONS CONTINUED				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	H	CN 440550(D) B.13-2 (1) ON LM ITEM 12 PN WAS 972742-1 (2) UPDATED REVISION LEVEL BLOCK (3) NOTE 3 WAS U1 THRU U16...	10-2-78	[Signature]
	J	CN 44136(C) R.1.4 (1) ADDED LM-5001 (2) ADDED ITEM 51 ON LM-1 (3) UPDATED REV LEVEL BLOCK	11-1-78	[Signature]
	K	CN 44173(C) R.1.4 (1) ON LM-5001 ITEM 37 DELETED C1 (2) ON LM-5001 ITEM 37 ADDED C1 (3) UPDATED REV LEVEL BLOCK	1-22-79	[Signature]
	L	CN 451937(D) R.1.4 (1) LM ITEM 6 P/N WAS 966486-0001 (2) UPDATED REV LEVEL BLOCK	5-14-79	E. Wang

SIZE	CODE IDENT NO	DRAWING NO
D	96214	945170
SCALE	L	SHEET 2

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0945170-0001		REV L			
QTY	UNIT	DESCRIPTION	PART NUMBER	DATE	04/05/79	VENDOR PART NUMBER					
0002	REF	EA	0945172-9901	LOGIC DIAGRAM, EPROM MEMORY MODULE							
0003	REF	EA	0945173-9901	TEST PROCEDURE, EPROM MEMORY MODULE							
0004	REF	EA	0945174-9901	SPECIFICATIONS, EPROM MEMORY MODULE							
0005	00001.000	EA	0945239-0001	BRACKET-STIFFENER, PWB, 14IN							
0006	00001.000	EA	0944954-0001	INSULATOR, PWB, 14IN							
0007	00006.000	EA	0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG							
0008	00002.000	EA	0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB							
0010	00002.000	EA	0972994-0002	SWITCH,ROCKER-PWB MOUNTED		023880-900125					
0010A				S1,S2							
0011	00016.000	EA	0539544-0007	SOCKET,24PIN IC LOW PROFILE SOLDER TAIL		TI -C93-24-02					
0011A				XU1 THRU XU16							
0012	00012.000	EA	0996864-0001	CONNECTOR, SOCKET PCB		022526-75060-007					
0012A				E1 THRU E12							
0013	00004.000	EA	0972713-0001	PLUG, JUMPER, I.C., 0.300 INCH							
0020	00001.000	EA	0972900-7474	NETWORK SN74LS74N							
0020A				U43							
0028	00004.000	EA	0972499-0001	NETWORK, LM320T-5.0/MC7905CP, -5 VOLT		SEE - TI DRAWING					
0028A				Q1 Q2 Q3 Q4							
0029	00002.000	EA	0996019-0001	IC, EPROM 1024 BY 8 BIT							
0029A				U1 U9							
DATE	04/05/79	DESIGN ENGINEER		TITLE	EPROM MEMORY EXPANSION MODULE	PROJECT NO.	7506	PART NUMBER	LM0945170-0001	REV	L


TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0945170-0001		REV L			
QTY	UNIT	DESCRIPTION	PART NUMBER	DATE	04/05/79	VENDOR PART NUMBER					
0037	00001.000	EA	0972924-0010	CAP FIX TANT SOLID 22 MFD 10 % 15 VOLT		QPL -M39003/1-2271					
0037A				C1							
0039	00004.000	EA	0972988-0027	SCREW 6-32 X .312 PAN HEAD CRES							
0042	00004.000	EA	0416453-0022	NUT, PLAIN 6-32 UNC-2B HEX CRES, SMALL		QPL - NAS671C6					
0043	00000.010	TU	0415886-0003	GREASE, SILICONE, HEAT COND.		COR - DC 340					
0045	00001.000	EA	0946707-0001	STIFFENER, PWB, 11 INCH							
0046	00001.000	EA	0946708-0001	INSULATOR, STIFFENER, PWB, 11 INCH							
0048	AR	QT	0415804-0010	PRIMER, SEALING COMPOUND, ANAEROBIC							
0049	AR	QT	0415804-0005	SEALING COMPOUND, ANAEROBIC-BLUE GRADE C							
0050	00004.000	EA	0418730-0105	WASHER # 6 FLAT TEFLON		QPL - NAS1515-06L					
0051	00001.000	EA	0945170-5001	AUTO-INSERTED PARTS LIST FOR 945170-0001							
DATE	04/05/79	DESIGN ENGINEER		TITLE	EPROM MEMORY EXPANSION MODULE	PROJECT NO.		PART NUMBER	LM0945170-0001	REV	L

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0945170-5001		REV L			
QTY	UNIT	DESCRIPTION	PART NUMBER	DATE	04/05/79	VENDOR PART NUMBER					
0001	00001.000	EA	0945171-0001	PWB, EPROM MEMORY EXPANSION MODULE							
0014	00001.000	EA	0972900-7400	NETWORK SN74LS00N		TI -SN74LS00N					
0014A				U42							
0015	00004.000	EA	0972900-7404	NETWORK SN74LS04N							
0015A				U18, U29, U39, U40							
0016	00001.000	EA	0222222-7407	NETWORK-SN7407N		TI- -SN7407N					
0016A				U24							
0017	00002.000	EA	0972749-0001	NETWORK, SN74LS08N							
0017A				U31, U36							
0018	00001.000	EA	0972788-0001	NETWORK, SN74LS11, POSITIVE AND GATE							
0018A				U41							
0019	00001.000	EA	0972814-0001	NETWORK-SN74LS27N							
0019A				U20							
0020	00003.000	EA	0972900-7474	NETWORK SN74LS74N							
0020A				U22, U32, U33							
0021	00001.000	EA	0972782-0001	NETWORK SN74LS132N		TI -SN74LS132N					
0021A				U35							
0022	00001.000	EA	0972900-7138	NETWORK SN74LS138N		TI -SN74LS138N					
0022A				U21							
0023	00001.000	EA	0972686-0001	NETWORK-QUAD MULTIPLEXER, SN74LS157N							
DATE	04/05/79	DESIGN ENGINEER		TITLE	AUTO-INSERTED PARTS LIST FOR 945170-0001	PROJECT NO.		PART NUMBER	LM0945170-5001	REV	L

TEXAS INSTRUMENTS INCORPORATED		DATE 04/05/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0945170-5001		REV L	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0023A					U23						
0024	00001.000	EA		0219402-7260	NETWORK SN74S260N						
0024A					U19						
0025	00004.000	EA		0972652-0001	NETWORK SN74LS283N						
0025A					U17,U26,U30,U38						
0026	00003.000	EA		0972767-0004	NETWORK SN74LS368N						
0026A					U25,U26,U37						
0027	00001.000	EA		0974474-0001	NETWORK SN75130N						
0027A					U34						
0030	00001.000	EA		0972141-0057	NETWORK,RES. 4.7 K OHM 2 % 14 PIN DIP	BEC	-	899-1-R4-7K			
0030A					U27						
0031	00001.000	EA		0539370-0371	RES FIX FILM 715 OHM 1% .25 WATT	COR	-	NA55			
0031A					R1						
0032	00001.000	EA		0972753-0013	CAP, FIXED 270PF 25V 2% CERAMIC DIEL	UC	-	C5002716			
0032A					C89						
0033	00001.000	EA		0972753-0021	CAP., 1200PF, 2%, 25V, CERAMIC, AX-LEAD						
0033A					C90						
0034	00058.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80%, -20%						
0034A					C3 THRU C52, C55 THRU C62						
0035	00014.000	EA		0972763-0030	CAP FIXED .27 UF 50 VOLTS	UC	-	C53C274Z			
AUTO-INSERTED PARTS LIST FOR 945170-0001											
DRAFTSMAN		DATE	CRD. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE				
APP. MGR.		DATE	APP. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.				
							PART NUMBER		REV		
							LM0945170-5001		L		

TEXAS INSTRUMENTS INCORPORATED		DATE 04/05/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0945170-5001		REV L	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0035A					C73 THRU C88						
0036	00004.000	EA		0972924-0013	CAP FIX TANT SOLID 2.2 MFD 10 % 20 VOLT	QPL	-	M39003/1-2283			
0036A					C69 THRU C72						
0037	00003.000	EA		0972924-0010	CAP FIX TANT SOLID 22 MFD 10 % 15 VOLT	QPL	-	M39003/1-2271			
0037A					C2,C53,C54						
0038	00004.000	EA		0539468-0007	DIODE, 1N4007 1AMP 1000PIV RECTIFIER	TI	-	1N4007			
0038A					CR1,CR2,CR3,CR4						
0044	00001.000	EA		0539370-0380	RES FIX FILM 887 OHM 1% .25 WATT	COR	-	NA550-100PPM/C			
0044A					R2						
0047	00006.000	EA		0972763-0032	CAP FIXED .39 UF 50 VOLTS	UC	-	C53C394Z			
0047A					C63 THRU C68						
AUTO-INSERTED PARTS LIST FOR 945170-0001											
DRAFTSMAN		DATE	CRD. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE				
APP. MGR.		DATE	APP. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.				
							PART NUMBER		REV		
							LM0945170-5001		L		

NOTES: UNLESS OTHERWISE SPECIFIED;

1. ALL DEVICE TYPES ARE PREFIXED WITH SN74
2. GROUND IS APPLIED TO PIN 7 OF ALL 14-PIN IC'S AND PIN 8 OF ALL 16-PIN IC'S.
3. VCC IS APPLIED TO PIN 14 OF ALL 14-PIN IC'S AND PIN 16 OF ALL 16-PIN IC'S.
4. DEVICE TYPE, PIN NUMBERS, AND REFERENCE DESIGNATOR OF IC IS SHOWN AS FOLLOWS:  

5. ALL RESISTORS 1/4 WATT, 5%.
6. \* INDICATES A 14 PIN RESISTOR PACK WITH 13 4.7K PULL UPS.

REVISIONS			
ZONE	LTR	DESCRIPTION	DATE
A		SN 74306 (C) D 16	3/21/76

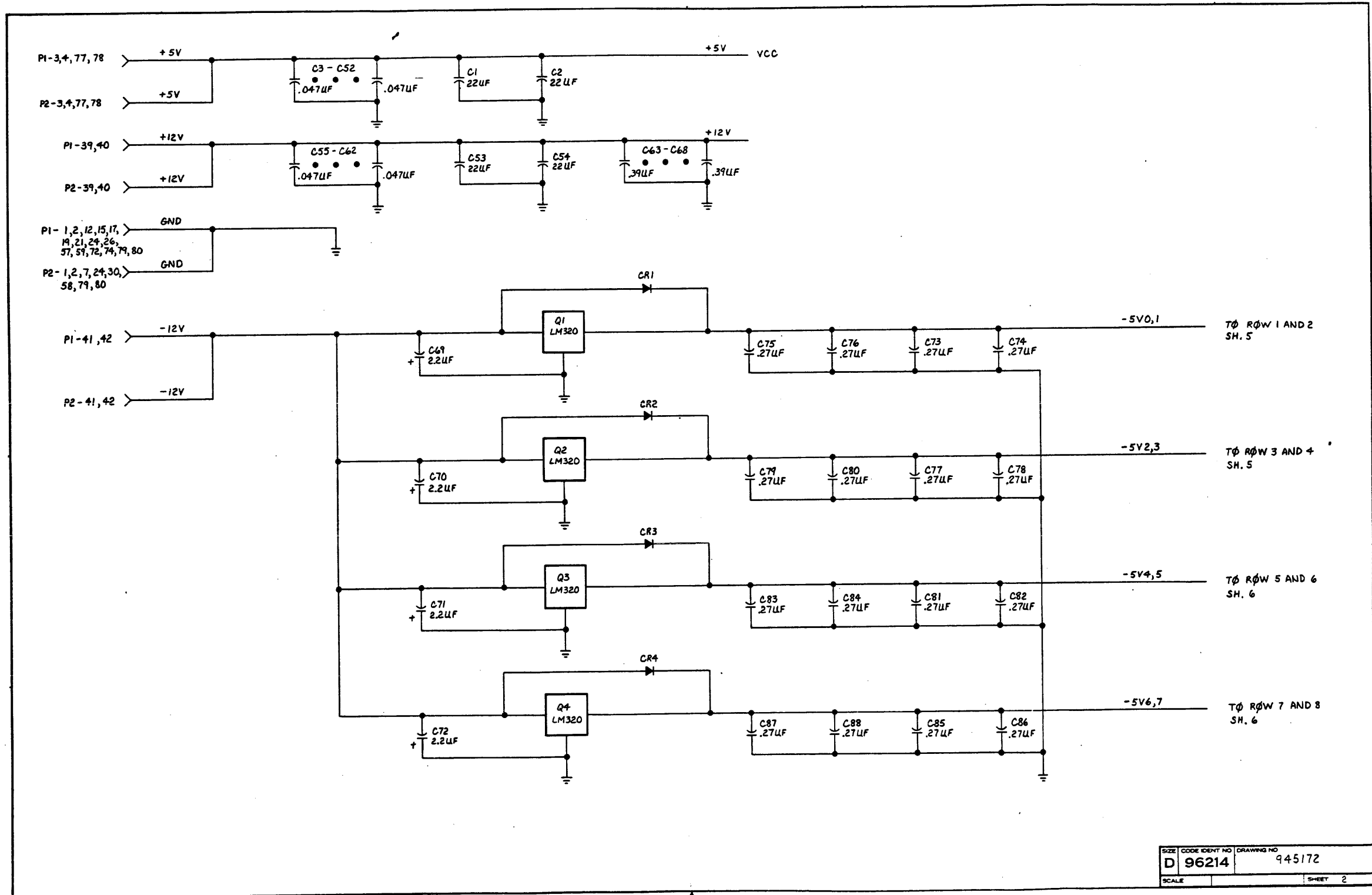
SPARES

TYPE	LOCATION	PINS
LS00	U42	1,2,3,4,5,6,11,12,13
LS04	U40	1,2
07	U24	1,2,10,11,12,13
LS08	U31	4,5,6,11,12,13
	U36	8,9,10,11,12,13
LS11	U41	3,4,5,6,8,9,10,11
LS27	U20	3,4,5,6,8,9,10,11
LS74	U32	8,9,10,11,12,13
LS132	U35	8,9,10,11,12,13
LS368	U37	11,12,13,14,15
RESISTOR NETWORK *	U27	4,10,13

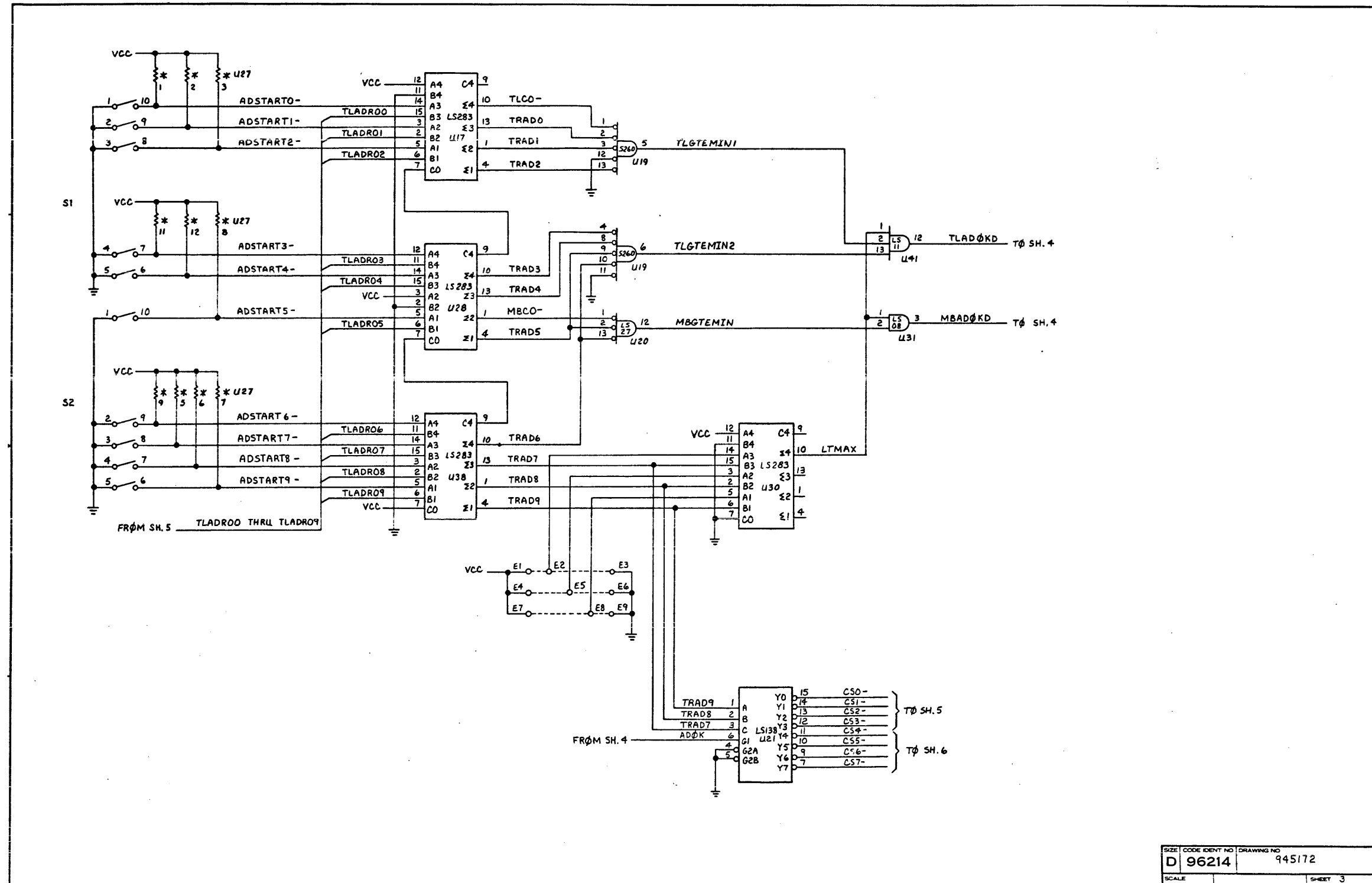
REV STATUS	REV. A	A	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
OF SHEETS	SH	1	2	3	4	5	6															
UNLESS OTHERWISE SPECIFIED										UNLESS OTHERWISE SPECIFIED												
REMOVE ALL BURRS AND SHARP EDGES										DIMENSIONS ARE IN INCHES												
CONCENTRICITY MACHINED										TOLERANCES												
DIAMETERS .010 F91										ANGLES ±1°												
DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING										3 PLACE DECIMALS ±.010												
IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY										2 PLACE DECIMALS ±.02												
INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100										MATERIAL												
HOLE TOLERANCE										DATE												
.013 +.004										1-6-76												
THRU -.001										CHK												
1.25 +.005										ENGR												
THRU -.001										5-9-76												
501 +.006										GA												
THRU -.001										APRD												
750 +.010										CONTR NO												
THRU -.001										DESIGN ACTIVITY RELEASE												
1.005 +.001										SCALE												
THRU -.001										SHEET												
2.000 - .001										DRAWING NO												
										D 96214 945172												

TEXAS INSTRUMENTS  
INCORPORATED  
Equipment Group Dallas, Texas  
**LOGIC DIAGRAM -  
EPR0M MEMORY  
MODULE**

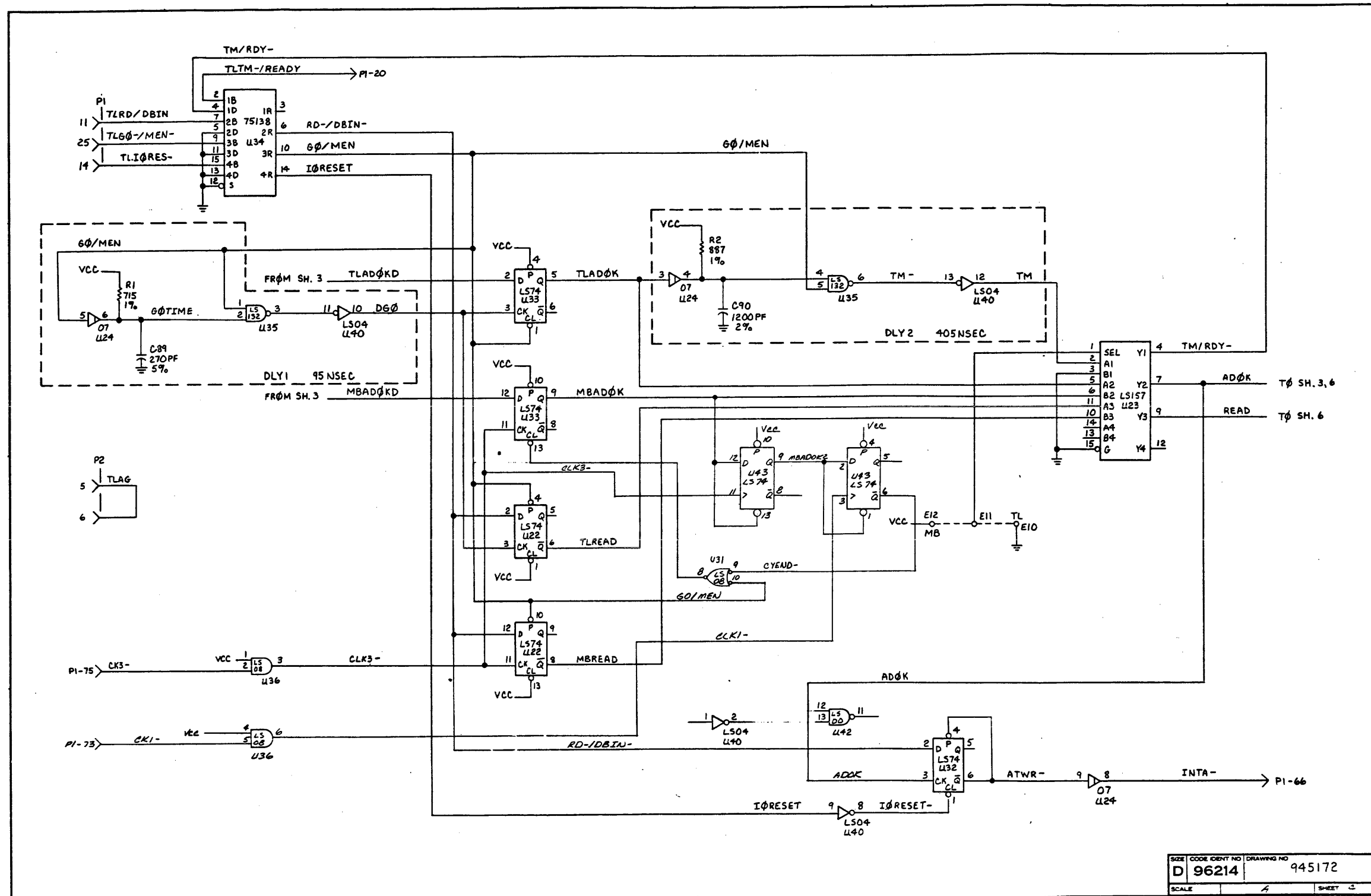




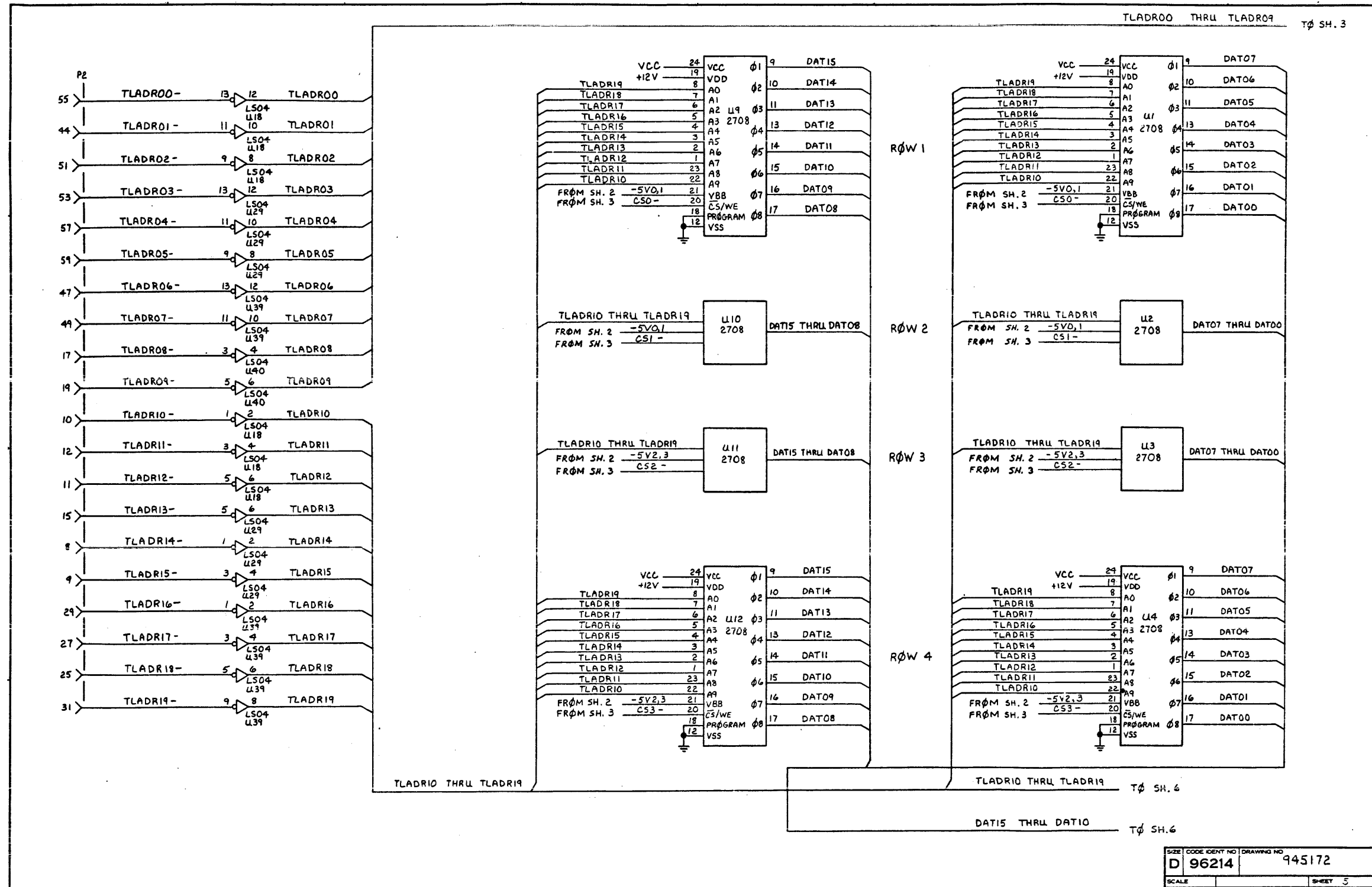
SIZE	CODE IDENT NO	DRAWING NO
D	96214	945172
SCALE	SHEET 2	

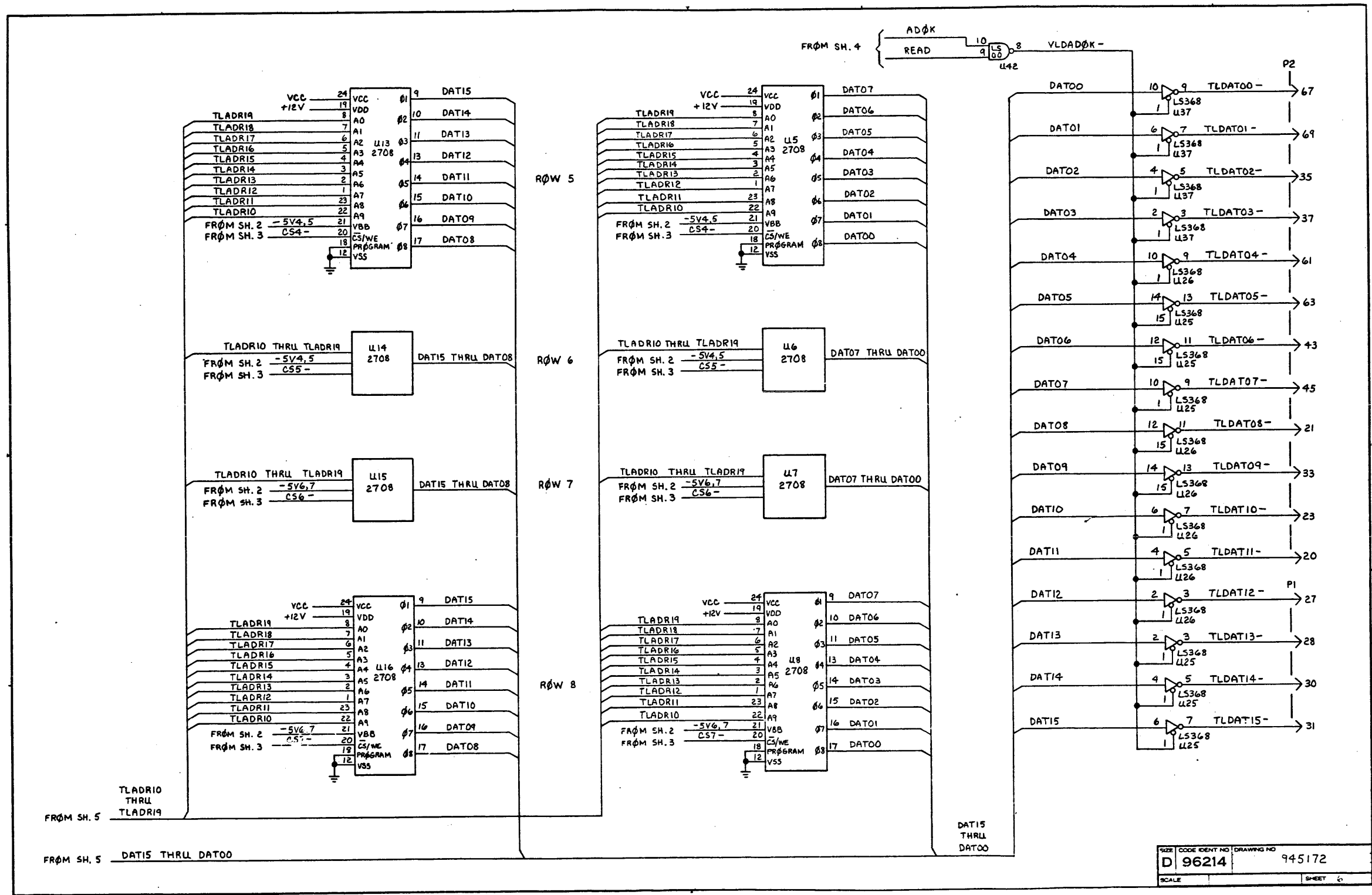


SIZE	CODE IDENT NO	DRAWING NO
D	96214	945172
SCALE		SHEET 3

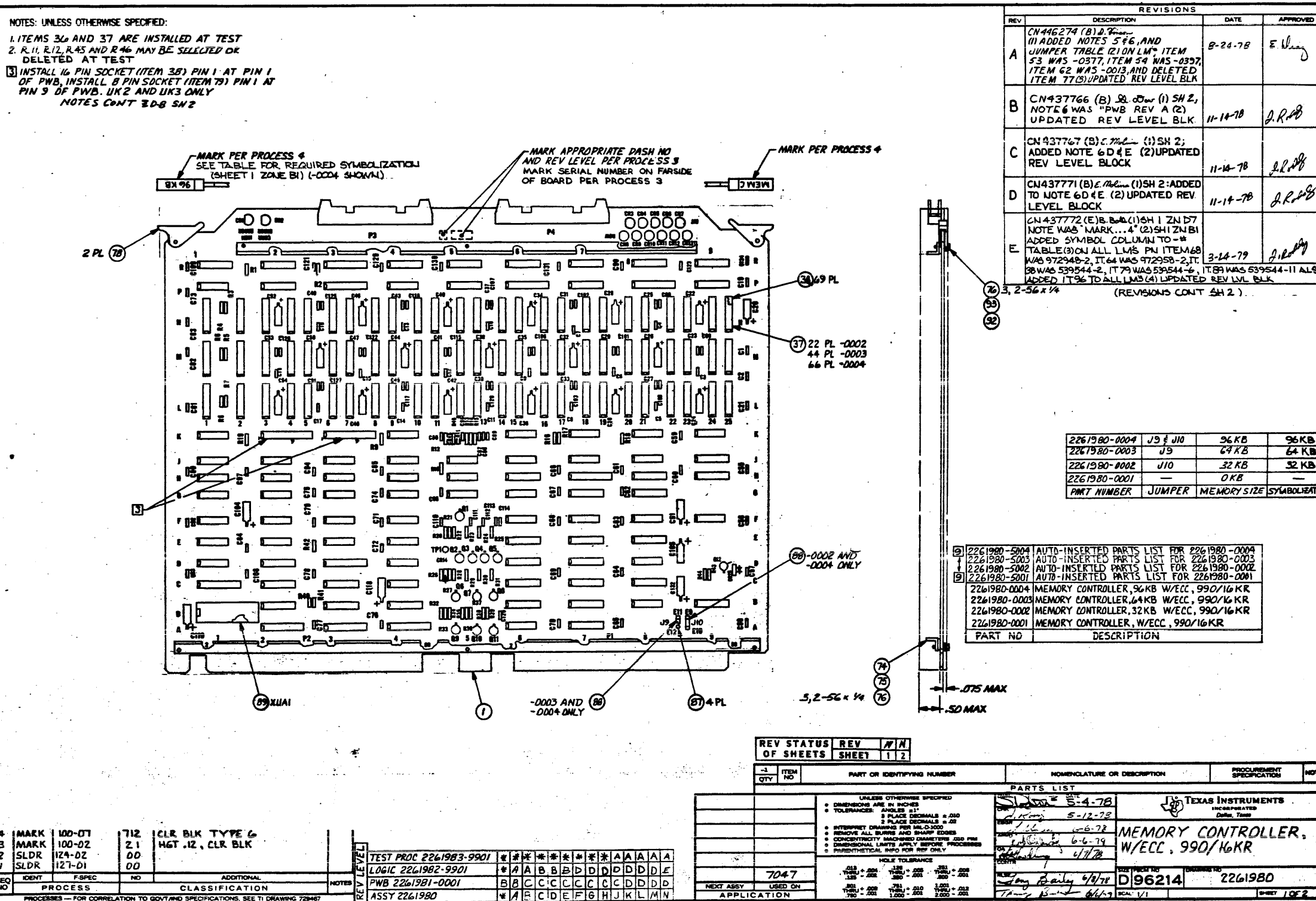


SIZE	CODE IDENT NO	DRAWING NO
D	96214	945172
SCALE	A	SHEET 2



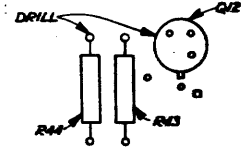


9222	CODE IDENT NO	DRAWING NO
D	96214	945172
SCALE	SHEET 4	

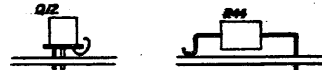


**NOTES (CON'T)**

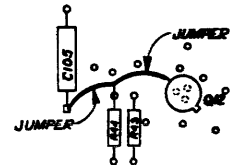
4. REWORK PROCEDURE FOR PWB 2261981 REV A:  
 (A) DRILL 2 HOLES AS SHOWN TO .055" (DRILL #54) TO CLEAR SHORT BETWEEN +5V AND -5V MEM (COLLECTOR OF Q12 AND TOP HOLE OF R44)



(B) FILL DRILLED HOLES WITH THERMOPLASTIC ADHESIVE  
 (C) MOUNT COMPONENTS Q12 AND R44 AS SHOWN. SOLDER LEADS TO PND OF MODIFIED HOLES.



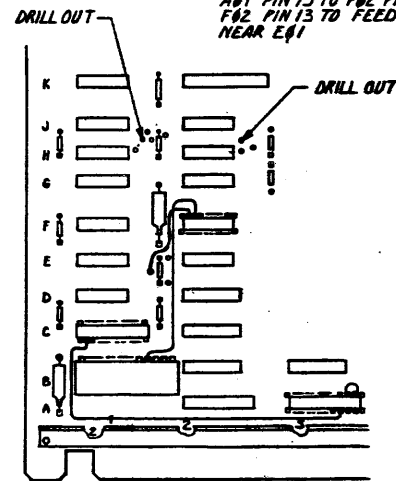
(D) SOLDER 24 AWG SOLID CONDUCTOR JUMPER WIRE ON COMPONENT SIDE AS SHOWN.



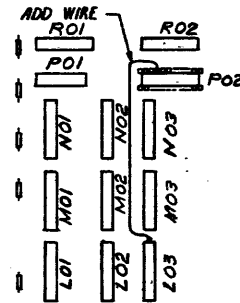
(E) SECURE Q12, R44, AND JUMPER WIRE WITH THERMOPLASTIC ADHESIVE

5. REWORK PROCEDURE FOR PWB REV A:  
 A. REMOVE MARKING 'J5' AND 'U10' ON PWB 'J5' NEAR TEST  
 B. MARK PER PROCESS PRINTS E11 AND E12  
 MARK PER PROCESS PRINTS E3 AND E10 'U10' NEAR TEST

6. REWORK PROCEDURE FOR PWB REV A AND REV B:  
 A. DRILL OUT FEED THROUGH HOLES  
 B. ON COMPONENT SIDE ADD 24 AWG SOLID CONDUCTOR WIRE AS SHOWN BELOW  
 ADD WIRE BETWEEN A03 PIN 12 TO A03 PIN 13  
 A03 PIN 7 TO C01 PIN 2  
 A01 PIN 13 TO F02 PIN 12  
 F02 PIN 13 TO FEED THROUGH NEAR E01



C. ON COMPONENT SIDE 24 AWG SOLID CONDUCTOR WIRE AS SHOWN BELOW  
 ADD WIRE FROM U02 PIN 13 TO FEED THROUGH NEAR U L03



D. CUT PINS J7-12, H4-9, J1-1, AND J1-3  
 E. ON COMPONENT SIDE ADD THE FOLLOWING WIRES:  
 FROM TO  
 J5-4 J7-12 (DEVICE)  
 H7-8 G6-9  
 K4-6 G6-10  
 G6-8 H4-9 (DEVICE)  
 H2-8 J1-3 (DEVICE)  
 H2-10 J1-1 (DEVICE)

7. REWORK PROCEDURE FOR PWB REV A THRU C:  
 A. REPLACE DEVICE IN LOCATIONS U01 AND U02 WITH ITEM 97 (745258)  
 B. REWORK PROCEDURE FOR PWB REV A THRU C:  
 A. CUT PIN F02-14  
 B. ADD JUMPER FROM F02-14 TO G02-14  
 C. ITEM 98 IN -0001, -0002, -0003, AND -0004 LM\* CONSISTS OF COMPONENTS WHICH ARE AUTO-INSERTED AND CONTAINED IN THE -5001 -5002 -5003 AND -5004 LM\*  
 D. REWORK NOTE FOR PWB REV A THRU C:  
 A. CUT PIN G04-13  
 B. ADD JUMPER FROM G03-B TO G04-B (DEVICE)

REVISIONS				
ZONE	LTW	DESCRIPTION	DATE	APPROVED
F		CN 448385 (B) B. B. (1) ON -1, -2, -3, -4 LMS QTY ITEM 26 WAS 4 (2) ADDED ITEM 97 P/N 219402-7258 TO -1, -2, -3, & 4 (3) ADDED NOTE 7 ON AN 2 (4) UPDATED REV LVL BLK	3-24-79	A. Kelly
G		CN 441710 (C) B. B. (1) ON LM* CREATED -5001, -5002, -5003, & -5004 (2) ON -0001, -0002, -0003, & -0004 LM* ADDED ITEM 98, ITEM 53 WAS -385 ITEM 54 WAS -402 (3) UPDATED REV LVL BLOCK (5) ADDED NOTE 9	3-24-79	A. Kelly
H		CN 448438 (B) B. B. (1) ON SH2 ADDED NOTE 8 (2) UPDATED REV LVL BLOCK	3-24-79	A. Kelly
J		CN 442476 (C) B. B. (1) NOTE 6, E. "K4-6" WAS K4-8 (2) UPDATE REV LVL BLOCK	5-25-79	E. King
K		CN 436829 (C) B. B. (1) SH 1 IN D-5 UNDER "MARK APPROPRIATE ... PROCESS 3" ADDED "MARK SERIAL NO ... PROCESS 3" (2) ON LM -1, -2, -3, -4 ITEM 53 WAS P/N 531370-381 & ADDED ITEMS 99 & 100 (3) END-8 NOTE 2 READ "R44 & R46 VALUES ARE SELETED AT TEST" (4) UPDATED REV LVL BLOCK	7-27-79	E. King
L		CN 435041 (C) B. B. (1) ON -1, -2, -3, -4 ON ITEM 99 P/N WAS 531370-444 & ITEM 100 WAS 531370-430 (2) UPDATED REV LVL BLOCK	7-27-79	E. King
M		CN 435044 (C) B. B. (1) ADDED R11 AND R12 TO NOTE 2 (2) UPDATED REV LVL BLOCK	7-27-79	E. King
N		CN 449782 (C) B. B. (1) ADDED NOTE 10 (2) UPDATED REV LVL BLOCK	10-27-79	J. ...

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM2261980-0001		REV N/B		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0002	REF	EA		2261982-9901	LOGIC, MEMORY CONTROLLER, W/ECC, 990/12					
0003	REF	EA		2261983-9901	TEST PROCEDURE, MEMORY CONTROLLER, 990/12					
0004	REF	EA		2261984-9901	SPECIFICATION, MEM CONT W/ECC, 16KR					
0025	00002.000	EA		0996089-0002	IC, SN74LS241N, LINE DRIVERS	012955-N74LS241N				
0025A					UA2 UA4					
0027	00001.000	EA		0996029-0001	IC, SN74LS273N OCTAL D-TYPE FLIP/FLOP	TI -SN74LS273N				
0027A					UD3					
0030	00001.000	EA		2261985-0001	FPLA, ADDRESS DECODE, 16KP MEMORY CONT					
0030A					UA1					
0032	00003.000	EA		0996307-0001	IC, SN74S373, OCTAL D, FLIPFLOP	TI -SN74S373				
0032A					UP3 UP6 UP8					
0033	00001.000	EA		0996420-0001	IC, SN74LS373N	001295-SN74LS373N				
0033A					UC1					
0035	00006.000	EA		0972583-0001	NETWORK, SN75365	TI- -SN75365				
0035A					UL1 UM1 UN1 UL2 UM2 UN2					
0036	00002.000	EA		0996462-0001	DELAY LINE, TAPPED	097722-EP-7111				
0036A					UK2 UK3					
0038	00069.000	EA		2210188-0003	SOCKET, LOW PROFILE, DIP, 7 CONT, 16 PINS	003612-D1L816P-108				
0038A					XUL4 THRU XUL25 XUK02					
0038B					XUM4 THRU XUM25 XUK03					
DRAFTSMAN		DATE	CDR DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY CONTROLLER, W/ECC, 990/16KR		
APPD. MFG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	LM2261980-0001 N/B		

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM2261980-0001		REV N/B		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0038C					XUN4 THRU XUN25 XUD2					
0042	00003.000	EA		0972037-1220	NETWORK, RES 16 PIN, 8 ELEMENT 22 OHMS +2%	073138-898-3-R22				
0042A					UL3 UM3 UN3					
0043	00001.000	EA		0972946-0041	RES FIX 100 OHM 5% .25 W CARBON FILM	ROH - R-25				
0043A					R9					
0044	00005.000	EA		0972946-0049	RES FIX 220 OHM 5% .25 W CARBON FILM	ROH - R-25				
0044A					R1 R2 R29 R30 R31					
0045	00001.000	EA		0972946-0053	RES FIX 330 OHM 5% .25 W CARBON FILM	ROH - R-25				
0045A					R22					
0046	00001.000	EA		0972946-0061	RES FIX 680 OHM 5% .25 W CARBON FILM	ROH - R-25				
0046A					R21					
0047	00008.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH - R-25				
0047A					R10 R19 R20 R23 R24 R25 R37					
0047B					R38					
0048	00004.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	ROH - R-25				
0048A					R32 R33 R34 R35					
0049	00001.000	EA		0972946-0095	RES FIX 18K OHM 5% .25 W CARBON FILM	ROH - R-25				
0049A					R36					
0050	00001.000	EA		0972946-0105	RES FIX 47 K OHM 5% .25 W CARBON FILM	ROH - R-25				
0050A					R26					
DRAFTSMAN		DATE	CDR DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY CONTROLLER, W/ECC, 990/16KR		
APPD. MFG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	LM2261980-0001 N/B		

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM2261980-0001		REV N/B		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0051	00001.000	EA		0972946-0121	RES FIX 220K OHM 5% .25 W CARBON FILM	ROH - R-25				
0051A					R39					
0052	00002.000	EA		0972946-0093	RES FIX 15K OHM 5% .25 W CARBON FILM	ROH - R-25				
0052A					R27 R28					
0053	00001.000	EA		0539370-0385	RES FIX FILM 1.00K OHM 1% .25 WATT	COR - NA55				
0053A					R11					
0054	00001.000	EA		0539370-0404	RES FIX FILM 1.58K OHM 1% .25 WATT	COR - NA55				
0054A					R12					
0055	00002.000	EA		0972753-0012	CAP, FIXED 220PF 25 MVDC 2.0%	UC -C50D221G				
0055A					C86 C96					
0056	00001.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V					
0056A					C95					
0057	00001.000	EA		0972757-0016	CAP, FIXED CER 1800PF 50MRDC +10%	007115-C4C02X7R391K10				
0057A					C110					
0058	00012.000	EA		0972763-0009	CAP, FIXED .0047MF 50 VOLTS	004222-MC105E47Z2				
0058A					C74 C75 C80 C81 C82 C83 C85					
0058B					C94 C97 C108 C109 C121					
0059	00091.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80%, -20%					
0059A					C1 THRU C19 C21 C23 C25 C27					
0059B					C29 C31 C33 C35 C37 C39 C41					
DRAFTSMAN		DATE	CDR DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY CONTROLLER, W/ECC, 990/16KR		
APPD. MFG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	LM2261980-0001 N/B		

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM2261980-0001		REV N/B		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER				
0059C					C43 C45 C47 C49 C51 C53					
0059D					C55 THRU C73 C76 THRU C79					
0059E					C84 C87 THRU C90 C92 C93					
0059F					C98 THRU C103 C106 C107					
0059G					C111 THRU C117 C120					
0059H					C122 THRU C125 C127 C128					
0059I					C129 C130 C131					
0060	00020.000	EA		0972924-0014	CAP FIX TANT SOLID 15 MFD 10% 20 VOLT	QPL -M39003/1-2289				
0060A					C20 C22 C24 C26 C28 C30 C32					
0060B					C34 C36 C38 C40 C42 C44 C46					
0060C					C48 C50 C52 C54 C91 C104					
0063	00004.000	EA		0972924-0006	CAP FIX TANT SOLID 39 MFD 10% 10 VOLT	QPL -M39003/1-2259				
0063A					C105 C118 C119 C132					
0064	00006.000	EA		0800523-0001	TRANSISTOR AST2907 PNP SILICON	TI- -AST2907				
0064A					Q3 Q4 Q5 Q6 Q7 Q8					
0065	00001.000	EA		0972957-0001	TRANSISTOR, 2N930A NPN LOW CUR AMP, TO-18	MOT - 2N930A				
0065A					Q2					
0066	00001.000	EA		0972949-0001	TRANSISTOR 2N2605 LOW-LEVEL, LOW-NOISE	TI -2N2605				
0066A					Q10					
0067	00002.000	EA		0972955-0001	XSTR 2N2369A, NPN, HIGH SPEED SW, TO-18	MOT - 2N2369A				
DRAFTSMAN		DATE	CDR DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY CONTROLLER, W/ECC, 990/16KR		
APPD. MFG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	LM2261980-0001 N/B		



TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LM2261980-0001		REV N 8	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0067A					Q1 Q11						
0068	00002.000	EA		0972057-0001	TRANSISTOR-A5T2222 NPN SILICON	TI-	-A5T2222				
0068A					Q9 Q12						
0069	00001.000	EA		0972932-0001	DIODE,IN9148 SWITCHING 75V PIV 75MA 4MS	TI	- IN9148				
0069A					CR14						
0070	00002.000	EA		0972537-0001	DIODE,LED 550-0103 50 MA 3 V	DIA	--550-0103				
0070A					CR1 CR2						
0071	00011.000	EA		0226609-0001	DIODE,VISIBLE LIGHT EMITTING						
0071A					CR3 THRU CR13						
0072	00002.000	EA		0972547-0008	SWITCH, SLIDE-SPST,DIP 8 SWITCHES						
0072A					UC7 UB9						
0073	00002.000	EA		0972137-0005	CONNECTOR,PC 50 PIN	BEI	- 65483-005				
0073A					P3 P4						
0074	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PMB, 14IN						
0075	00001.000	EA		0944954-0001	INSULATOR, PMB, 14IN						
0076	00006.000	EA		0972684-0002	SCREW,THD FRMG,HEX WSHR HD,2-56X1/4 LG						
0078	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PMB						
0079	00002.000	EA		2210188-0001	SOCKET,LOW PROFILE,DIP, 3 CONT, 8 PINS	003612-DIL88P-108					
0080	00001.000	EA		0996089-0004	IC,SN74LS244N LINE DRIVER		-SN74LS244N				
0080A					UA3						
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY CONTROLLER,W/ECC,990/16KR			
APPD. MFG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER		REV	
								LM2261980-0001		N 8	

TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 6 of		PART NUMBER LM2261980-0001		REV N 8	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0083	00001.000	EA		0996089-0001	IC,SN74LS240N,LINE DRIVERS		001295-SN74LS240N				
0083A					UR3						
0084	00001.000	EA		0946693-0067	ROM #1,16K ECC DECODE,990/10						
0084A					UM7						
0085	00011.000	EA		0972946-0081	RES FIX 4.7K OHM 5 % .25 W CARBON FILM	ROM	- R-25				
0085A					R13 THRU R18 R40 R41 R42						
0085B					R43 R44						
0086	00006.000	EA		0972946-0025	RES FIX 22.0 OHM 5 % .25 W.CARBON FILM	ROM	- R-25				
0086A					R3 R4 R5 R6 R7 R8						
0087	00004.000	EA		0972742-0001	SOCKET, SINGLE LEAD, PMB MTG.						
0087A					E9 THRU E12						
0089	00001.000	EA		2210188-0008	SOCKET,LOW PROFILE,DIP,13 CONT, 28 PINS	003612-DIL828P-108					
0089A					XUA1						
0090	00001.000	EA		0972757-0021	CAP, FIX, CERAMIC, 4700PF, 50V 10%						
0090A					C126						
0091	00001.000	EA		0411226-0002	TERMINAL,STUD						
0091A					TP1						
0092	00001.000	EA		0946707-0001	STIFFENER,PMB,11 INCH						
0093	00001.000	EA		0946708-0001	INSULATOR,STIFFENER,PMB,11 INCH						
0095	00001.000	EA		0539468-0002	DIODE,IN4002 1AMP 100PIV RECTIFIER	TI	- IN4002				
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY CONTROLLER,W/ECC,990/16KR			
APPD. MFG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER		REV	
								LM2261980-0001		N 8	

TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 7 of		PART NUMBER LM2261980-0001		REV N 8	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0095A					CR15						
0096	00001.000	EA		2210188-0005	SOCKET, LOW PROFILE, DIP, 20 PINS	003612-DIL820P-108					
0096A					XUH7						
0098	00001.000	EA		2261980-5001	AUTO-INSERTED PARTS LIST FOR 2261980-1						
0099	00001.000	EA		0539370-0510	RES FIX FILM 20.0K OHM 1% .25 WATT	COR	-NA55D-100PPM/C				
0099A					R46						
0100	00001.000	EA		0539370-0525	RES FIX FILM 28.7K OHM 1% .25 WATT	COR	- NA55				
0100A					R45						
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY CONTROLLER,W/ECC,990/16KR			
APPD. MFG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER		REV	
								LM2261980-0001		N 8	

TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM2261980-0002		REV N 8	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0002	REF	EA		2261982-9901	LOGIC, MEMORY CONTROLLER, W/ECC, 990/12						
0003	REF	EA		2261983-9901	TEST PROCEDURE, MEMORY CONTROLLER, 990/12						
0004	REF	EA		2261984-9901	SPECIFICATION, MEM CONT W/ECC, 16KR						
0025	00002.000	EA		0996089-0002	IC,SN74LS241N,LINE DRIVERS		012955-N74LS241N				
0025A					UA2 UA4						
0027	00001.000	EA		0996029-0001	IC,SN74LS273N OCTAL D-TYPE FLIP/FLOP	TI	-SN74LS273N				
0027A					UD3						
0030	00001.000	EA		2261985-0001	FPLA, ADDRESS DECODE, 16KR MEMORY CONT						
0030A					UA1						
0032	00003.000	EA		0996307-0001	IC,SN74S373,OCTAL D, FLIPFLOP	TI	-SN74S373				
0032A					UP3 UP6 UP8						
0033	00001.000	EA		0996420-0001	IC, SN74LS373N		001295-SN74LS373N				
0033A					UC1						
0035	00006.000	EA		0972583-0001	NETWORK,SN75365	TI-	-SN75365				
0035A					UL1 UM1 UN1 UL2 UM2 UN2						
0036	00002.000	EA		0996462-0001	DELAY LINE,TAPPED		097722-EP-7111				
0036A					UK2 UK3						
0037	00022.000	EA		0996680-0001	IC, 16K RAM, (ISEL)		001295-TMS4116/ZA0727				
0037A					UN4 THRU UN25						
0038	00009.000	EA		2210188-0003	SOCKET,LOW PROFILE,DIP, 7 CONT, 16 PINS	003612-DIL816P-108					
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY CONTROLLER,32KB W/ECC,16KR			
APPD. MFG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER		REV	
								LM2261980-0002		N 8	

TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM2261980-0002		REV N 5	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0038A					XUL4 THRU XUL25 XUK02						
0038B					XUM4 THRU XUM25 XUK03						
0038C					XUN4 THRU XUN25 XUD2						
0042	00003.000	EA		0972037-1220	NETWORK,RES 16 PIN,8 ELEMENT 22 OHMS +2%	073138-898-3-R22					
0042A					UL3 UM3 UN3						
0043	00001.000	EA		0972946-0041	RES FIX 100 OHM 5% .25 W CARBON FILM	ROH - R-25					
0043A					R9						
0044	00005.000	EA		0972946-0049	RES FIX 220 OHM 5% .25 W CARBON FILM	ROH - R-25					
0044A					R1 R2 R29 R30 R31						
0045	00001.000	EA		0972946-0053	RES FIX 330 OHM 5% .25 W CARBON FILM	ROH - R-25					
0045A					R22						
0046	00001.000	EA		0972946-0061	RES FIX 680 OHM 5% .25 W CARBON FILM	ROH - R-25					
0046A					R21						
0047	00008.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH - R-25					
0047A					R10 R19 R20 R23 R24 R25 R37						
0047B					R38						
0048	00004.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	ROH - R-25					
0048A					R32 R33 R34 R35						
0049	00001.000	EA		0972946-0095	RES FIX 18K OHM 5% .25 W CARBON FILM	ROH - R-25					
0049A					R36						
DRAFTSMAN _____ DATE _____ CDD DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE MEMORY CONTROLLER,32KB W/ECC,16KR APP'D-MFG _____ DATE _____ APP'D PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ PART NUMBER LM2261980-0002 REV N 5											

TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM2261980-0002		REV N 5	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0050	00001.000	EA		0972946-0105	RES FIX 47 K OHM 5% .25 W CARBON FILM	ROH - R-25					
0050A					R26						
0051	00001.000	EA		0972946-0121	RES FIX 220K OHM 5% .25 W CARBON FILM	ROH - R-25					
0051A					R39						
0052	00002.000	EA		0972946-0093	RES FIX 15K OHM 5% .25 W CARBON FILM	ROH - R-25					
0052A					R27 R28						
0053	00001.000	EA		0539370-0385	RES FIX FILM 1.00K OHM 1% .25 WATT	COR - NA55					
0053A					R11						
0054	00001.000	EA		0539370-0404	RES FIX FILM 1.58K OHM 1% .25 WATT	COR - NA55					
0054A					R12						
0055	00002.000	EA		0972753-0012	CAP,FIXED 220PF 25 WVDC 2.0%	UC -C50D2216					
0055A					C86 C96						
0056	00001.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V						
0056A					C95						
0057	00001.000	EA		0972757-0016	CAP,FIXED CER 1800PF 50WVDC +10%	007115-CAC02X7R391K10					
0057A					C110						
0058	00012.000	EA		0972763-0009	CAP,FIXED .0047MF 50 VOLTS	004222-MC105E472Z					
0058A					C74 C75 C80 C81 C82 C83 C85						
0058B					C94 C97 C108 C109 C121						
0059	00001.000	EA		0972763-0021	CAP, FIXED, AXIAL LEAD, .047 UF, +80%, -20%						
DRAFTSMAN _____ DATE _____ CDD DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE MEMORY CONTROLLER,32KB W/ECC,16KR APP'D-MFG _____ DATE _____ APP'D PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ PART NUMBER LM2261980-0002 REV N 5											

TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM2261980-0002		REV N 5	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0059A					C1 THRU C19 C21 C23 C25						
0059B					C27 C29 C31 C33 C35 C37 C39						
0059C					C41 C43 C45 C47 C49 C51 C53						
0059D					C55 THRU C73 C76 THRU C79						
0059E					C84 C87 THRU C90 C92 C93						
0059F					C98 THRU C103 C106 C107						
0059G					C111 THRU C117 C120						
0059H					C122 THRU C125 C127 C128						
0059I					C129 C130 C131						
0060	00020.000	EA		0972924-0014	CAP FIX TANT SOLID 15 MFD 10% 20 VOLT	QPL -M39003/1-2289					
0060A					C20 C22 C24 C26 C28 C30 C32						
0060B					C34 C36 C38 C40 C42 C44 C46						
0060C					C48 C50 C52 C54 C91 C104						
0063	00004.000	EA		0972924-0006	CAP FIX TANT SOLID 39 MFD 10% 10 VOLT	QPL -M39003/1-2259					
0063A					C105 C118 C119 C132						
0064	00006.000	EA		0800523-0001	TRANSISTOR A5T2907 PNP SILICON	TI- -A5T2907					
0064A					Q3 Q4 Q5 Q6 Q7 Q8						
0065	00001.000	EA		0972957-0001	TRANSISTOR,2N930A NPN LOW CUR AMP,TO-18	MOT - 2N930A					
0065A					Q2						
0066	00001.000	EA		0972949-0001	TRANSISTOR 2N2605 LOW-LEVEL,LOW-NOISE	TI -2N2605					
DRAFTSMAN _____ DATE _____ CDD DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE MEMORY CONTROLLER,32KB W/ECC,16KR APP'D-MFG _____ DATE _____ APP'D PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ PART NUMBER LM2261980-0002 REV N 5											

TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LM2261980-0002		REV N 5	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0066A					Q10						
0067	00002.000	EA		0972955-0001	XSTR 2N2369A,NPN,HIGH SPEED SW,TO-18	MOT - 2N2369A					
0067A					Q1 Q11						
0068	00002.000	EA		0972057-0001	TRANSISTOR-A5T2222 MPN SILICON	TI- -A5T2222					
0068A					Q9 Q12						
0069	00001.000	EA		0972932-0001	DIODE,1N914B SWITCHING 75V PIV 75MA 4MS	TI - 1N914B					
0069A					CR14						
0070	00002.000	EA		0972537-0001	DIODE,LED 550-0103 50 MA 3 V	DIA ---550-0103					
0070A					CR1 CR2						
0071	0001.000	EA		0226609-0001	DIODE,VISIBLE LIGHT EMITTING						
0071A					CR3 THRU CR13						
0072	00002.000	EA		0972547-0008	SWITCH, SLIDE-SPST,DIP 8 SWITCHES						
0072A					UC7 U89						
0073	00002.000	EA		0972137-0005	CONNECTOR,PC 50 PIN	BEI - 65483-005					
0073A					P3 P4						
0074	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN						
0075	00001.000	EA		0944954-0001	INSULATOR, PWB, 14IN						
0076	00006.000	EA		0972684-0002	SCREW,THD FRMG,HEX WSHR HD,2-56X1/4 LG						
0078	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB						
0079	00002.000	EA		2210188-0001	SOCKET,LOW PROFILE,DIP, 3 CONT, 8 PINS	003612-DIL88P-108					
DRAFTSMAN _____ DATE _____ CDD DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE MEMORY CONTROLLER,32KB W/ECC,16KR APP'D-MFG _____ DATE _____ APP'D PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ PART NUMBER LM2261980-0002 REV N 5											

TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 6 of		PART NUMBER LM2261980-0002		REV N 6		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0080	00001.000	EA		0996089-0004	IC, SN74LS244N LINE DRIVER	-SN74LS244N						
0080A					UA3	001295-SN74LS240N						
0083	00001.000	EA		0996089-0001	IC, SN74LS240N, LINE DRIVERS	001295-SN74LS240N						
0083A					UR3							
0084	00001.000	EA		0946693-0067	ROM #1, 16K ECC DECODE, 990/10							
0084A					UH7							
0085	00011.000	EA		0972946-0081	RES FIX 4.7K OHM 5% .25 W CARBON FILM	ROH - R-25						
0085A					R13 THRU R18 R40 R41 R42							
0085B					R43 R44							
0086	00006.000	EA		0972946-0025	RES FIX 22.0 OHM 5% .25 W CARBON FILM	ROH - R-25						
0086A					R3 R4 R5 R6 R7 R8							
0087	00004.000	EA		0972742-0001	SOCKET, SINGLE LEAD, PWB MTG.							
0087A					E9 THRU E12							
0088	00001.000	EA		0972713-0001	PLUG, JUMPER, I.C., 0.300 INCH							
0088A					J10							
0089	00001.000	EA		2210188-0008	SOCKET, LOW PROFILE, DIP, 13 CONT, 28 PINS	003612-DIL828P-108						
0089A					XUA1							
0090	00001.000	EA		0972757-0021	CAP, FIX, CERAMIC, 4700PF, 50V 10%							
0090A					C126							
0091	00001.000	EA		0411226-0002	TERMINAL, STUD							
DRAFTSMAN				DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY CONTROLLER, 32KB W/ECC, 16KR		
APPD. MFG.				DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM2261980-0002		

TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 7 of		PART NUMBER LM2261980-0002		REV N 6		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0091A					TP1							
0092	00001.000	EA		0946707-0001	STIFFENER, PWB, 11 INCH							
0093	00001.000	EA		0946708-0001	INSULATOR, STIFFENER, PWB, 11 INCH							
0095	00001.000	EA		0539468-0002	DIODE, IN4002 1AMP 100PIV RECTIFIER	TI - IN4002						
0095A					CR15							
0096	00001.000	EA		2210188-0005	SOCKET, LOW PROFILE, DIP, 20 PINS	003612-DIL820P-108						
0096A					XUH7							
0098	00001.000	EA		2261980-5002	AUTO-INSERTED PARTS LIST FOR 2261980-2							
0099	00001.000	EA		0539370-0510	RES FIX FILM 20.0K OHM 1% .25 WATT	COR -NA55D-100PPH/C						
0099A					R46							
0100	00001.000	EA		0539370-0525	RES FIX FILM 28.7K OHM 1% .25 WATT	COR - NA55						
0100A					R45							
DRAFTSMAN				DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY CONTROLLER, 32KB W/ECC, 16KR		
APPD. MFG.				DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM2261980-0002		

TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM2261980-0003		REV N 6		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0002	REF	EA		2261982-9901	LOGIC, MEMORY CONTROLLER, W/ECC, 990/12							
0003	REF	EA		2261983-9901	TEST PROCEDURE, MEMORY CONTROLLER, 990/12							
0004	REF	EA		2261984-9901	SPECIFICATION, MEM CONT W/ECC, 16KR							
0025	00002.000	EA		0996089-0002	IC, SN74LS241N, LINE DRIVERS	012955-N74LS241N						
0025A					UA2 UA4							
0027	00001.000	EA		0996029-0001	IC, SN74LS273N OCTAL D-TYPE FLIP/FLOP	TI -SN74LS273N						
0027A					UD3							
0030	00001.000	EA		2261985-0001	FPLA, ADDRESS DECODE, 16KR MEMORY CONT							
0030A					UA1							
0032	00003.000	EA		0996307-0001	IC, SN74S373, OCTAL D, FLIPFLOP	TI -SN74S373						
0032A					UP3 UP6 UP8							
0033	00001.000	EA		0996420-0001	IC, SN74LS373N	001295-SN74LS373N						
0033A					UC1							
0035	00006.000	EA		0972583-0001	NETWORK, SN75365	TI -SN75365						
0035A					UL1 UM1 UM1 UL2 UM2 UN2							
0036	00002.000	EA		0996442-0001	DELAY LINE, TAPPED	097722-EP-7111						
0036A					UK2 UK3							
0037	00004.000	EA		0996680-0001	IC, 16K RAM, (SEL)	001295-TMS4116/JA0727						
0037A					UN4 THRU UN25 UM4 THRU UM25							
0038	00009.000	EA		2210188-0003	SOCKET, LOW PROFILE, DIP, 7 CONT, 16 PINS	003612-DIL816P-108						
DRAFTSMAN				DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY CONTROLLER, 64KB W/ECC, 16KR		
APPD. MFG.				DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM2261980-0003		

TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM2261980-0003		REV N 6		
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0038A					XUL4 THRU XUL25 XUK02							
0038B					XUM4 THRU XUM25 XUK03							
0038C					XUN4 THRU XUN25 XUD2							
0042	00003.000	EA		0972037-1220	NETWORK, RES 16 PIN, 8 ELEMENT 22 OHMS +2%	073138-898-3-R22						
0042A					UL3 UM3 UN3							
0043	00001.000	EA		0972946-0041	RES FIX 100 OHM 5% .25 W CARBON FILM	ROH - R-25						
0043A					R9							
0044	00005.000	EA		0972946-0049	RES FIX 220 OHM 5% .25 W CARBON FILM	ROH - R-25						
0044A					R1 R2 R29 R30 R31							
0045	00001.000	EA		0972946-0053	RES FIX 330 OHM 5% .25 W CARBON FILM	ROH - R-25						
0045A					R22							
0046	00001.000	EA		0972946-0061	RES FIX 680 OHM 5% .25 W CARBON FILM	ROH - R-25						
0046A					R21							
0047	00008.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH - R-25						
0047A					R10 R19 R20 R23 R24 R25 R37							
0047B					R38							
0048	00004.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	ROH - R-25						
0048A					R32 R33 R34 R35							
0049	00001.000	EA		0972946-0095	RES FIX 18K OHM 5% .25 W CARBON FILM	ROH - R-25						
0049A					R36							
DRAFTSMAN				DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY CONTROLLER, 64KB W/ECC, 16KR		
APPD. MFG.				DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM2261980-0003		

TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM2261980-0003		REV N4	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0050	0001.000	EA		0972946-0105	RES FIX 47 K OHM 5 % .25 W CARBON FILM	ROH - R-25					
0050A					R26						
0051	0001.000	EA		0972946-0121	RES FIX 220K OHM 5 % .25 W CARBON FILM	ROH - R-25					
0051A					R39						
0052	0002.000	EA		0972946-0093	RES FIX 15K OHM 5 % .25 W CARBON FILM	ROH - R-25					
0052A					R27 R28						
0053	0001.000	EA		0539370-0385	RES FIX FILM 1.00K OHM 1 % .25 WATT	COR - NA55					
0053A					R11						
0054	0001.000	EA		0539370-0404	RES FIX FILM 1.50K OHM 1 % .25 WATT	COR - NA55					
0054A					R12						
0055	0002.000	EA		0972753-0012	CAP, FIXED 220PF 25 MVDC 2.0%	UC -C500221G					
0055A					C86 C96						
0056	0001.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V						
0056A					C95						
0057	0001.000	EA		0972757-0016	CAP, FIXED CER 1800PF 50MRDC +10%	007115-CAC02X7R391K10					
0057A					C110						
0058	00012.000	EA		0972763-0009	CAP, FIXED .0047MF 50 VOLTS	004222-MC105E4T2Z					
0058A					C74 C75 C80 C81 C82 C83 C85						
0058B					C94 C97 C108 C109 C121						
0059	00091.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80%, -20%						
DRAFTSMAN: _____ DATE: _____ CEO DRAFTSMAN: _____ DATE: _____ DESIGN ENGINEER: _____ DATE: _____ TITLE: MEMORY CONTROLLER, 64KB W/ECC, 16KR APP'D. MFG: _____ DATE: _____ APP'D. PROJECT ENGINEER: _____ DATE: _____ RELEASED: _____ DATE: _____ PROJECT NO.: _____ PART NUMBER: LM2261980-0003 REV: N4											

TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM2261980-0003		REV N4	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0059A					C1 THRU C19 C21 C23 C25 C27						
0059B					C29 C31 C33 C35 C37 C39 C41						
0059C					C43 C45 C47 C49 C51 C53						
0059D					C55 THRU C73 C76 THRU C79						
0059E					C84 C87 THRU C90 C92 C93						
0059F					C98 THRU C103 C106 C107						
0059G					C111 THRU C117 C120						
0059H					C122 THRU C125 C127 C128						
0059I					C129 C130 C131						
0060	00020.000	EA		0972924-0014	CAP FIX TANT SOLID 15 MFD 10 % 20 VOLT	QPL -M39003/1-2289					
0060A					C20 C22 C24 C26 C28 C30 C32						
0060B					C34 C36 C38 C40 C42 C44 C46						
0060C					C48 C50 C52 C54 C91 C104						
0063	00004.000	EA		0972924-0006	CAP FIX TANT SOLID 39 MFD 10 % 10 VOLT	QPL -M39003/1-2259					
0063A					C105 C118 C119 C132						
0064	00006.000	EA		0800523-0001	TRANSISTOR AST2907 PNP SILICON	TI- -AST2907					
0064A					Q3 Q4 Q5 Q6 Q7 Q8						
0065	00001.000	EA		0972957-0001	TRANSISTOR, 2N930A NPN LOW CUR AMP, TO-18	MOT - 2N930A					
0065A					Q2						
0066	00001.000	EA		0972949-0001	TRANSISTOR 2N2605 LOW-LEVEL, LOW-NOISE	TI -2N2605					
DRAFTSMAN: _____ DATE: _____ CEO DRAFTSMAN: _____ DATE: _____ DESIGN ENGINEER: _____ DATE: _____ TITLE: MEMORY CONTROLLER, 64KB W/ECC, 16KR APP'D. MFG: _____ DATE: _____ APP'D. PROJECT ENGINEER: _____ DATE: _____ RELEASED: _____ DATE: _____ PROJECT NO.: _____ PART NUMBER: LM2261980-0003 REV: N4											

TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LM2261980-0003		REV N4	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0066A					Q10						
0067	00002.000	EA		0972955-0001	XSTR 2N2369A, NPN, HIGH SPEED SW, TO-18	MOT - 2N2369A					
0067A					Q1 Q11						
0068	00002.000	EA		0972057-0001	TRANSISTOR-AST2222 NPN SILICON	TI- -AST2222					
0068A					Q9 Q12						
0069	00001.000	EA		0972932-0001	DIODE, 1N914B SWITCHING 75V PIV 75MA 4WS	TI - 1N914B					
0069A					CR14						
0070	00002.000	EA		0972537-0001	DIODE, LED 550-0103 50 MA 3 V	DIA --550-0103					
0070A					CR1 CR2						
0071	00011.000	EA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING						
0071A					CR3 THRU CR13						
0072	00002.000	EA		0972547-0008	SWITCH, SLIDE-SPST, DIP 8 SWITCHES						
0072A					UC7 UB9						
0073	00002.000	EA		0972137-0005	CONNECTOR, PC 50 PIN	BEI - 65483-005					
0073A					P3 P4						
0074	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN						
0075	00001.000	EA		0944954-0001	INSULATOR, PWB, 14IN						
0076	00006.000	EA		0972684-0002	SCREW, THD FRNG, HEX MSHR HD, 2-56X1/4 LG						
0078	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB						
0079	00002.000	EA		2210188-0001	SOCKET, LOW PROFILE, DIP, 3 CONT, 8 PINS	003612-DIL88P-108					
DRAFTSMAN: _____ DATE: _____ CEO DRAFTSMAN: _____ DATE: _____ DESIGN ENGINEER: _____ DATE: _____ TITLE: MEMORY CONTROLLER, 64KB W/ECC, 16KR APP'D. MFG: _____ DATE: _____ APP'D. PROJECT ENGINEER: _____ DATE: _____ RELEASED: _____ DATE: _____ PROJECT NO.: _____ PART NUMBER: LM2261980-0003 REV: N4											

TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 6 of		PART NUMBER LM2261980-0003		REV N4	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEASURE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0080	00001.000	EA		0996089-0004	IC, SN74LS244N LINE DRIVER	-SN74LS244N					
0080A					UA3						
0083	00001.000	EA		0996089-0001	IC, SN74LS240N, LINE DRIVERS	001295-SN74LS240N					
0083A					UR3						
0084	00001.000	EA		0946693-0067	ROM #1, 16K ECC DECODE, 990/10						
0084A					UH7						
0085	00011.000	EA		0972946-0081	RES FIX 4.7K OHM 5 % .25 W CARBON FILM	ROH - R-25					
0085A					R13 THRU R18 R40 R41 R42						
0085B					R43 R44						
0086	00006.000	EA		0972946-0025	RES FIX 22.0 OHM 5 % .25 W CARBON FILM	ROH - R-25					
0086A					R3 R4 R5 R6 R7 R8						
0087	00004.000	EA		0972742-0001	SOCKET, SINGLE LEAD, PWB MTG.						
0087A					E9 THRU E12						
0088	00001.000	EA		0972713-0001	PLUG, JUMPER, I.C., 0.300 INCH						
0088A					J9						
0089	00001.000	EA		2210188-0008	SOCKET, LOW PROFILE, DIP, 13 CONT, 28 PINS	003612-DIL88P-108					
0089A					XUA1						
0090	00001.000	EA		0972757-0021	CAP, FIX, CERAMIC, 4700PF, 50V 10%						
0090A					C126						
0091	00001.000	EA		0411226-0002	TERMINAL, STUD						
DRAFTSMAN: _____ DATE: _____ CEO DRAFTSMAN: _____ DATE: _____ DESIGN ENGINEER: _____ DATE: _____ TITLE: MEMORY CONTROLLER, 64KB W/ECC, 16KR APP'D. MFG: _____ DATE: _____ APP'D. PROJECT ENGINEER: _____ DATE: _____ RELEASED: _____ DATE: _____ PROJECT NO.: _____ PART NUMBER: LM2261980-0003 REV: N4											

TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 7 of		PART NUMBER LM2261980-0003		REV N	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0091A					TP1						
0092	00001.000	EA		0946707-0001	STIFFENER,PWB,11 INCH						
0093	00001.000	EA		0946708-0001	INSULATOR,STIFFENER,PWB,11 INCH						
0095	00001.000	EA		0539468-0002	DIODE,1N4002 1AMP 100PIV RECTIFIER	TI - IN4002					
0095A					CR15						
0096	00001.000	EA		2210188-0005	SOCKET, LOW PROFILE, DIP, 20 PINS	003612-DILB20P-108					
0096A					XUH7						
0098	00001.000	EA		2261980-5003	AUTO-INSERTED PARTS LIST FOR 2261980-3						
0099	00001.000	EA		0539370-0510	RES FIX FILM 20.0K OHM 1% .25 WATT	COR -NA550-100PPH/C					
0099A					R46						
0100	00001.000	EA		0539370-0525	RES FIX FILM 28.7K OHM 1% .25 WATT	COR - NA55					
0100A					R45						
DRAFTSMAN DATE C.D. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY CONTROLLER,64KB W/ECC,16KR											
APP'D. ENG. DATE APP'D. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM2261980-0003											

TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM2261980-0004		REV N	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0002	REF	EA		2261982-9901	LOGIC, MEMORY CONTROLLER, W/ECC, 990/12						
0003	REF	EA		2261983-9901	TEST PROCEDURE, MEMORY CONTROLLER, 990/12						
0004	REF	EA		2261984-9901	SPECIFICATION, MEM CONT W/ECC, 16KR						
0025	00002.000	EA		0996089-0002	IC, SN74LS241N, LINE DRIVERS	012955-N74LS241N					
0025A					UA4 UA4						
0027	00001.000	EA		0996029-0001	IC, SN74LS273N OCTAL D-TYPE FLIP/FLOP	TI -SN74LS273N					
0027A					UD3						
0030	00001.000	EA		2261985-0001	FPLA, ADDRESS DECODE, 16KR MEMORY CONT						
0030A					UA1						
0032	00003.000	EA		0996307-0001	IC, SN74S373, OCTAL D, FLIPFLOP	TI -SN74S373					
0032A					UP3 UP6 UP8						
0033	00001.000	EA		0996420-0001	IC, SN74LS373N	001295-SN74LS373N					
0033A					UC1						
0035	00006.000	EA		0972583-0001	NETWORK, SN75365	TI- -SN75365					
0035A					UL1 UM1 UN1 UL2 UM2 UN2						
0036	00002.000	EA		0996462-0001	DELAY LINE, TAPPED	097722-EP-7111					
0036A					UK2 UK3						
0037	00066.000	EA		0996680-0001	IC, 16K RAM, (SEL)	001295-TMS4116/ZA0727					
0037A					UM4 THRU UM25 UM4 THRU UM25						
0037B					UL4 THRU UL25						
DRAFTSMAN DATE C.D. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY CONTROLLER,96KB W/ECC,16KR											
APP'D. ENG. DATE APP'D. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM2261980-0004											

TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM2261980-0004		REV N	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0038	00009.000	EA		2210188-0003	SOCKET, LOW PROFILE, DIP, 7 CONT, 16 PINS	003612-DILB16P-108					
0038A					XUL4 THRU XUL25 XUK02						
0038B					XUM4 THRU XUM25 XUK03						
0038C					XUN4 THRU XUN25 XUD2						
0042	00003.000	EA		0972037-1220	NETWORK, RES 16 PIN, 8 ELEMENT 22 OHMS +2%	073138-898-3-R22					
0042A					UL3 UM3 UN3						
0043	00001.000	EA		0972946-0041	RES FIX 100 OHM 5% .25 W CARBON FILM	ROH - R-25					
0043A					R9						
0044	00005.000	EA		0972946-0049	RES FIX 220 OHM 5% .25 W CARBON FILM	ROH - R-25					
0044A					R1 R2 R29 R30 R31						
0045	00001.000	EA		0972946-0053	RES FIX 330 OHM 5% .25 W CARBON FILM	ROH - R-25					
0045A					R22						
0046	00001.000	EA		0972946-0061	RES FIX 680 OHM 5% .25 W CARBON FILM	ROH - R-25					
0046A					R21						
0047	00008.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH - R-25					
0047A					R10 R19 R20 R23 R24 R25 R37						
0047B					R38						
0048	00004.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	ROH - R-25					
0048A					R32 R33 R34 R35						
0049	00001.000	EA		0972946-0095	RES FIX 18K OHM 5% .25 W CARBON FILM	ROH - R-25					
DRAFTSMAN DATE C.D. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY CONTROLLER,96KB W/ECC,16KR											
APP'D. ENG. DATE APP'D. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM2261980-0004											

TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM2261980-0004		REV N	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0049A					R36						
0050	00001.000	EA		0972946-0105	RES FIX 47 K OHM 5% .25 W CARBON FILM	ROH - R-25					
0050A					R26						
0051	00001.000	EA		0972946-0121	RES FIX 220K OHM 5% .25 W CARBON FILM	ROH - R-25					
0051A					R39						
0052	00002.000	EA		0972946-0093	RES FIX 15K OHM 5% .25 W CARBON FILM	ROH - R-25					
0052A					R27 R28						
0053	00001.000	EA		0539370-0385	RES FIX FILM 1.00K OHM 1% .25 WATT	COR - NA55					
0053A					R11						
0054	00001.000	EA		0539370-0404	RES FIX FILM 1.58K OHM 1% .25 WATT	COR - NA55					
0054A					R12						
0055	00002.000	EA		0972753-0012	CAP, FIXED 220PF 25 WVDC 2.0%	UC -C500221G					
0055A					C86 C96						
0056	00001.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V						
0056A					C95						
0057	00001.000	EA		0972757-0016	CAP, FIXED CER 1800PF 50VDC +10%	007115-CAC02X7R391K10					
0057A					C110						
0058	00012.000	EA		0972763-0009	CAP, FIXED .0047MF 50 VOLTS	004222-MC105E47Z2					
0058A					C74 C75 C80 C81 C82 C83 C85						
0058B					C94 C97 C108 C109 C121						
DRAFTSMAN DATE C.D. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY CONTROLLER,96KB W/ECC,16KR											
APP'D. ENG. DATE APP'D. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM2261980-0004											

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 07/16/79		PAGE 4 of		PART NUMBER LM2261980-0004		REV N 6	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0059	00091.000	EA		0972763-0021	CAP.,FIXED,AXIAL LEAD,.047 UF,+80%,-20%						
0059A					C1 THRU C19 C21 C23 C25 C27						
0059B					C29 C31 C33 C35 C37 C39 C41						
0059C					C43 C45 C47 C49 C51 C53						
0059D					C55 THRU C73 C76 THRU C79						
0059E					C84 C87 THRU C90 C92 C93						
0059F					C98 THRU C103 C106 C107						
0059G					C111 THRU C117 C120						
0059H					C122 THRU C125 C127 C128						
0059I					C129 C130 C131						
0060	00020.000	EA		0972924-0014	CAP FIX TANT SOLID 15 MFD 10 % 20 VOLT	QPL	-M39003/1-2289				
0060A					C20 C22 C24 C26 C28 C30 C32						
0060B					C34 C36 C38 C40 C42 C44 C46						
0060C					C48 C50 C52 C54 C91 C104						
0063	00004.000	EA		0972924-0006	CAP FIX TANT SOLID 39 MFD 10 % 10 VOLT	QPL	-M39003/1-2259				
0063A					C105 C118 C119 C132						
0064	00006.000	EA		0800523-0001	TRANSISTOR AST2907 PNP SILICON	TI-	-AST2907				
0064A					Q3 Q4 Q5 Q6 Q7 Q8						
0065	00001.000	EA		0972957-0001	TRANSISTOR,2N930A NPN LOW CUR AMP,TO-18	MOT	- 2N930A				
0065A					Q2						
DRAFTSMAN _____ DATE _____ CED DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE _____ APPR. ENG. _____ DATE _____ APPR. PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ MEMORY CONTROLLER,96KB W/ECC,16KR PART NUMBER: LM2261980-0004 REV: N 6											

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 07/16/79		PAGE 5 of		PART NUMBER LM2261980-0004		REV N 6	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0066	00001.000	EA		0972949-0001	TRANSISTOR 2N2605 LOW-LEVEL,LOW-NOISE	TI	-2N2605				
0066A					Q10						
0067	00002.000	EA		0972955-0001	XSTR 2N2369A,NPN,HIGH SPEED SW,TO-18	MOT	- 2N2369A				
0067A					Q1 Q11						
0068	00002.000	EA		0972057-0001	TRANSISTOR-AST2222 NPN SILICON	TI-	-AST2222				
0068A					Q9 Q12						
0069	00001.000	EA		0972932-0001	DIODE,1N914B SWITCHING 75V PIV 75MA 4MS	TI	- 1N914B				
0069A					CR14						
0070	00002.000	EA		0972537-0001	DIODE,LED 550-0103 50 MA 3 V	DIA	-550-0103				
0070A					CR1 CR2						
0071	00011.000	EA		0226609-0001	DIODE,VISIBLE LIGHT EMITTING						
0071A					CR3 THRU CR13						
0072	00002.000	EA		0972947-0008	SWITCH, SLIDE-SPST,DIP 8 SWITCHES						
0072A					UCT U89						
0073	00002.000	EA		0972137-0005	CONNECTOR,PC 50 PIN	BEI	- 65483-005				
0073A					P3 P4						
0074	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PMB, 14IN						
0075	00001.000	EA		0944954-0001	INSULATOR, PMB, 14IN						
0076	00006.000	EA		0972684-0002	SCREW,THD FRMG,HEX WSHR HD,2-56X1/4 LG						
0078	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PMB						
DRAFTSMAN _____ DATE _____ CED DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE _____ APPR. ENG. _____ DATE _____ APPR. PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ MEMORY CONTROLLER,96KB W/ECC,16KR PART NUMBER: LM2261980-0004 REV: N 6											

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 07/16/79		PAGE 6 of		PART NUMBER LM2261980-0004		REV N 6	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0079	00002.000	EA		2210188-0001	SOCKET,LOW PROFILE,DIP, 3 CONT, 8 PINS	003612-DIL88P-108					
0080	00001.000	EA		0996089-0004	IC,SN74LS244N LINE DRIVER	-SN74LS244N					
0080A					UA3						
0083	00001.000	EA		0996089-0001	IC,SN74LS240N,LINE DRIVERS	001295-SN74LS240N					
0083A					UR3						
0084	00001.000	EA		0946693-0067	ROM #1,16K ECC DECODE,990/10						
0084A					UH7						
0085	00011.000	EA		0972946-0081	RES FIX 4.7K OHM 5 % .25 W CARBON FILM	ROH	- R-25				
0085A					R13 THRU R18 R40 R41 R42						
0085B					R43 R44						
0086	00006.000	EA		0972946-0025	RES FIX 22.0 OHM 5 % .25 W.CARBON FILM	ROH	- R-25				
0086A					R3 R4 R5 R6 R7 R8						
0087	00004.000	EA		0972742-0001	SOCKET, SINGLE LEAD, PMB MTG.						
0087A					E9 THRU E12						
0088	00002.000	EA		0972713-0001	PLUG, JUMPER, I.C., 0.300 INCH						
0088A					J9 J10						
0089	00001.000	EA		2210188-0008	SOCKET,LOW PROFILE,DIP,13 CONT, 28 PINS	003612-DIL820P-108					
0089A					XUA1						
0090	00001.000	EA		0972757-0021	CAP, FIX, CERAMIC, 4700PF, 50V 10%						
0090A					C126						
DRAFTSMAN _____ DATE _____ CED DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE _____ APPR. ENG. _____ DATE _____ APPR. PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ MEMORY CONTROLLER,96KB W/ECC,16KR PART NUMBER: LM2261980-0004 REV: N 6											

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 07/16/79		PAGE 7 of		PART NUMBER LM2261980-0004		REV N 6	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0091	00001.000	EA		0411226-0002	TERMINAL,STUD						
0091A					TP1						
0092	00001.000	EA		0946707-0001	STIFFENER,PMB,11 INCH						
0093	00001.000	EA		0946708-0001	INSULATOR,STIFFENER,PMB,11 INCH						
0095	00001.000	EA		0539468-0002	DIODE,1N4002 LAMP 100PIV RECTIFIER	TI	- 1N4002				
0095A					CR15						
0096	00001.000	EA		2210188-0005	SOCKET, LOW PROFILE, DIP, 20 PINS	003612-DIL820P-108					
0096A					XUH7						
0098	00001.000	EA		2261980-5004	AUTO-INSERTED PARTS LIST FOR 2261980-4						
0099	00001.000	EA		0539370-0510	RES FIX FILM 20.0K OHM 1% .25 WATT	COR	-NA550-100PPH/C				
0099A					R46						
0100	00001.000	EA		0539370-0525	RES FIX FILM 28.7K OHM 1% .25 WATT	COR	- NA55				
0100A					R45						
DRAFTSMAN _____ DATE _____ CED DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE _____ APPR. ENG. _____ DATE _____ APPR. PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ MEMORY CONTROLLER,96KB W/ECC,16KR PART NUMBER: LM2261980-0004 REV: N 6											

TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM2261980-5001		REV N 4	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	00001.000	EA		2261981-0001	PMB, MEMORY CONTROLLER, M/ECC, 990/12						
0005	00001.000	EA		0219402-7400	NETWORK SN74S00N						
0005A					UK1						
0006	00002.000	EA		0972900-7400	NETWORK SN74LS00N	TI	-SN74LS00N				
0006A					UG2 UP4						
0007	00001.000	EA		0972900-7402	NETWORK SN74LS02N						
0007A					UE4						
0008	00001.000	EA		0219402-7403	NETWORK SN74S03N						
0008A					UH5						
0009	00001.000	EA		0219402-7404	NETWORK SN74S04N						
0009A					UH3						
0010	00002.000	EA		0972900-7404	NETWORK SN74LS04N						
0010A					UJ3 UF2						
0011	00001.000	EA		0972749-0001	NETWORK, SN74LS08N						
0011A					UC4						
0012	00001.000	EA		0972900-7410	NETWORK SN74LS10N						
0012A					UD4						
0013	00001.000	EA		0219402-7430	NETWORK SN74S30N						
0013A					UJ7						
0014	00002.000	EA		0996136-0001	IC, SN74LS257N, DATA SELECTORS/MULTIPLEXER	TI	-SN74LS257N				
DRAFTSMAN DATE CDD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE											
AUTO-INSERTED PARTS LIST FOR 2261980-1											
APPRO. MFG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV											
LM2261980-5001 N 4											

TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM2261980-5001		REV N 4	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0014A					UP9 UE6						
0015	00002.000	EA		0972900-7432	NETWORK SN74LS32N	TI	-SN74LS32N				
0015A					UG6 UH4						
0016	00001.000	EA		0972900-7451	NETWORK SN74LS51N	TI	-SN74LS51N				
0016A					UG3						
0017	00002.000	EA		0972900-7454	NETWORK SN74LS54N	TI	-SN74LS54N				
0017A					UH1 UD1						
0018	00005.000	EA		0219402-7474	NETWORK SN74S74N						
0018A					UJ1 UJ2 UK4 UH2 UJ4						
0019	00005.000	EA		0972900-7474	NETWORK SN74LS74N						
0019A					UG4 UF1 UF4 UG5 UE3						
0020	00004.000	EA		0219402-7486	NETWORK SN74S86N						
0020A					UF9 UF7 UF8 UF6						
0021	00001.000	EA		0972782-0001	NETWORK SN74LS132N	TI	-SN74LS132N				
0021A					UJ5						
0022	00002.000	EA		0219402-7138	NETWORK SN74S138N						
0022A					UG8 UG7						
0023	00002.000	EA		0996305-0001	IC, SN74S169 UP/DOWN COUNTER, 4 BIT	001295-SN74S169					
0023A					UD6 UC3						
0024	00001.000	EA		0972900-7175	NETWORK SN74LS175N						
DRAFTSMAN DATE CDD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE											
AUTO-INSERTED PARTS LIST FOR 2261980-1											
APPRO. MFG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV											
LM2261980-5001 N 4											

TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM2261980-5001		REV N 4	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0024A					UE8						
0026	00002.000	EA		0996136-0002	IC, SN74LS258N, DATA SELECTORS/MULTIPLEXER	TI	-SN74LS258N				
0026A					UH8 UJ9						
0028	00006.000	EA		0219402-7280	NETWORK SN74S280N	TI	-SN74S280N				
0028A					UK6 UK7 UK8 UK9 UJ6 UJ8						
0029	00002.000	EA		0972652-0001	NETWORK SN74LS283N						
0029A					UB6 UC6						
0031	00018.000	EA		0972787-0004	NETWORK SN74LS368N						
0031A					UR1 UR2 UP2 UR6 UR7 UH6 UP7						
0031B					UR8 UR9 UC2 UB4 UA7 UR4 UR5						
0031C					UE7 UP5 UB3 UB2						
0034	00001.000	EA		0974674-0001	NETWORK SN75138N						
0034A					UB7						
0039	00002.000	EA		0996138-0001	IC, SN74LS266N 2-INPUT EXCLUSIVE-NOR GATE	TI	-SN74LS266N				
0039A					UD8 UB8						
0040	00001.000	EA		0972037-2680	NETWORK RESISTOR 680 OHMS 2%	073138-898-3-R680					
0040A					UD7						
0041	00001.000	EA		0800118-0004	RESISTOR 220 OHMS DIL PULL UP 16 PINS	BEI	-8981R220				
0041A					UH9						
0041	00001.000	EA		0222222-7470	NETWORK SN7470N	-SN7470N					
DRAFTSMAN DATE CDD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE											
AUTO-INSERTED PARTS LIST FOR 2261980-1											
APPRO. MFG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV											
LM2261980-5001 N 4											

TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM2261980-5001		REV N 4	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0061A					UF3						
0062	00001.000	EA		0800118-0008	RESISTOR 1.0K OHMS DIL PULL UP 16 PINS	BEI	-8981R1.0K				
0062A					UC8						
0081	00001.000	EA		0996508-0001	IC, 74LS393N DUAL BINARY COUNTER	001295-74LS393N					
0081A					UP1						
0082	00001.000	EA		0222222-7408	NETWORK-SN7408N						
0082A					UG1						
0094	00001.000	EA		0996780-0001	IC, SN74LS33N QUAD POSITIVE-NOR BUFFER	001295-SN74LS33N					
0094A					UA6						
0097	00002.000	EA		0219402-7258	NETWORK SN74S258N						
0097A					UE1 UE2						
DRAFTSMAN DATE CDD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE											
AUTO-INSERTED PARTS LIST FOR 2261980-1											
APPRO. MFG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV											
LM2261980-5001 N 4											

TEXAS INSTRUMENTS INCORPORATED  
 DATE 07/16/79 LIST OF MATERIAL PAGE 1 of  
 PART NUMBER LM2261980-5002 REV N 8

ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0001	00001.000	EA		2261981-0001	PWB, MEMORY CONTROLLER, W/ECC, 990/12	
0005	00001.000	EA		0219402-7400	NETWORK SN74500N	
0005A					UK1	
0006	00002.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N
0006A					UG2 UP4	
0007	00001.000	EA		0972900-7402	NETWORK SN74LS02N	
0007A					UE4	
0008	00001.000	EA		0219402-7403	NETWORK SN74S03N	
0008A					UH5	
0009	00001.000	EA		0219402-7404	NETWORK SN74S04N	
0009A					UH3	
0010	00002.000	EA		0972900-7404	NETWORK SN74LS04N	
0010A					UJ3 UF2	
0011	00001.000	EA		0972749-0001	NETWORK, SN74LS08N	
0011A					UC4	
0012	00001.000	EA		0972900-7410	NETWORK SN74LS10N	
0012A					UD4	
0013	00001.000	EA		0219402-7430	NETWORK SN74S30N	
0013A					UJ7	
0014	00002.000	EA		0996136-0001	IC, SN74LS257N, DATA SELECTORS/MULTIPLEXER	TI -SN74LS257N

DRFTSMAN DATE CED. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE  
 AUTO-INSERTED PARTS LIST FOR 2261980-2  
 APPD. MFG DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM2261980-5002 REV N 8

TEXAS INSTRUMENTS INCORPORATED  
 DATE 07/16/79 LIST OF MATERIAL PAGE 2 of  
 PART NUMBER LM2261980-5002 REV N 8

ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0014A					UP9 UE6	
0015	00002.000	EA		0972900-7432	NETWORK SN74LS32N	TI -SN74LS32N
0015A					UG6 UH4	
0016	00001.000	EA		0972900-7451	NETWORK SN74LS51N	TI -SN74LS51N
0016A					UG3	
0017	00002.000	EA		0972900-7454	NETWORK SN74LS54N	TI -SN74LS54N
0017A					UH1 UD1	
0018	00005.000	EA		0219402-7474	NETWORK SN74S74N	
0018A					UJ1 UJ2 UK4 UH2 UJ4	
0019	00005.000	EA		0972900-7474	NETWORK SN74S74N	
0019A					UG4 UF1 UF4 UG5 UE3	
0020	00004.000	EA		0219402-7486	NETWORK SN74S86N	
0020A					UF9 UF7 UF8 UF6	
0021	00001.000	EA		0972782-0001	NETWORK SN74LS132N	TI -SN74LS132N
0021A					UJ5	
0022	00002.000	EA		0219402-7138	NETWORK SN74S138N	
0022A					UG8 UG7	
0023	00002.000	EA		0996305-0001	IC, SN74S169 UP/DOWN COUNTER, 4 BIT	001295-SN74S169
0023A					UD6 UC3	
0024	00001.000	EA		0972900-7175	NETWORK SN74LS175N	

DRFTSMAN DATE CED. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE  
 AUTO-INSERTED PARTS LIST FOR 2261980-2  
 APPD. MFG DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM2261980-5002 REV N 8

TEXAS INSTRUMENTS INCORPORATED  
 DATE 07/16/79 LIST OF MATERIAL PAGE 3 of  
 PART NUMBER LM2261980-5002 REV N 8

ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0024A					UE8	
0025	00002.000	EA		0996136-0002	IC, SN74LS258N, DATA SELECTORS/MULTIPLEXER	TI -SN74LS258N
0026A					UH8 UJ9	
0028	00006.000	EA		0219402-7280	NETWORK SN74S280N	TI -SN74S280N
0028A					UK6 UK7 UK8 UK9 UJ6 UJ8	
0029	00002.000	EA		0972652-0001	NETWORK SN74LS283N	
0029A					UB6 UC6	
0031	00018.000	EA		0972787-0004	NETWORK SN74LS368N	
0031A					UR1 UR2 UP2 UR6 UR7 UH6 UP7	
0031B					UR8 UR9 UC2 UB4 UA7 UR4 UR5	
0031C					UE7 UP5 UB3 UB2	
0034	00001.000	EA		0974674-0001	NETWORK SN75138N	
0034A					UB7	
0039	00002.000	EA		0996138-0001	IC, SN74LS266N 2-INPUT EXCLUSIVE-NOR GATE	TI -SN74LS266N
0039A					UD8 UB8	
0040	00001.000	EA		0972037-2680	NETWORK RESISTOR 680 OHMS 2%	073138-898-3-R680
0040A					UD7	
0041	00001.000	EA		0800118-0004	RESISTOR 220 OHMS DIL PULL UP 16 PINS	BEC -8981R220
0041A					UH9	
0061	00001.000	EA		022222-7470	NETWORK SN7470N	-SN7470N

DRFTSMAN DATE CED. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE  
 AUTO-INSERTED PARTS LIST FOR 2261980-2  
 APPD. MFG DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM2261980-5002 REV N 8

TEXAS INSTRUMENTS INCORPORATED  
 DATE 07/16/79 LIST OF MATERIAL PAGE 4 of  
 PART NUMBER LM2261980-5002 REV N 8

ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0061A					UF3	
0062	00001.000	EA		0800118-0008	RESISTOR 1.0KOHMS DIL PULL UP 16 PINS	BEC -8981R1.0K
0062A					UC8	
0081	00001.000	EA		0996508-0001	IC, 74LS393N DUAL BINARY COUNTER	001295-74LS393N
0081A					UP1	
0082	00001.000	EA		022222-7408	NETWORK-SN7408N	
0082A					UG1	
0094	00001.000	EA		0996780-0001	IC, SN74LS33N QUAD POSITIVE-NOR BUFFER	001295-SN74LS33N
0094A					UA6	
0097	00002.000	EA		0219402-7258	NETWORK SN74S258N	
0097A					UE1 UE2	

DRFTSMAN DATE CED. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE  
 AUTO-INSERTED PARTS LIST FOR 2261980-2  
 APPD. MFG DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM2261980-5002 REV N 8



TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM2261980-5003		REV NA	
PRINT ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	00001.000	EA		2261981-0001	PMB, MEMORY CONTROLLER, W/ECC, 990/12						
0005	00001.000	EA		0219402-7400	NETWORK SN74S00N						
0005A					UK1						
0006	00002.000	EA		0972900-7400	NETWORK SN74LS00N	TI	-SN74LS00N				
0006A					UG2 UP4						
0007	00001.000	EA		0972900-7402	NETWORK SN74LS02N						
0007A					UE4						
0008	00001.000	EA		0219402-7403	NETWORK SN74S03N						
0008A					UH5						
0009	00001.000	EA		0219402-7404	NETWORK SN74S04N						
0009A					UH3						
0010	00002.000	EA		0972900-7404	NETWORK SN74LS04N						
0010A					UJ3 UF2						
0011	00001.000	EA		0972749-0001	NETWORK, SN74LS08N						
0011A					UC4						
0012	00001.000	EA		0972900-7410	NETWORK SN74LS10N						
0012A					UD4						
0013	00001.000	EA		0219402-7430	NETWORK SN74S30N						
0013A					UJ7						
0014	00002.000	EA		0996136-0001	IC, SN74LS257N, DATA SELECTORS/MULTIPLEXER	TI	-SN74LS257N				
DRAFTSMAN DATE CED. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTED PARTS LIST FOR 2261980-3											
APPRO. ENG. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM2261980-5003 NA											

TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM2261980-5003		REV NA	
PRINT ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0014A					UP9 UE6						
0015	00002.000	EA		0972900-7432	NETWORK SN74LS32N	TI	-SN74LS32N				
0015A					UG6 UH4						
0016	00001.000	EA		0972900-7451	NETWORK SN74LS51N	TI	-SN74LS51N				
0016A					UG3						
0017	00002.000	EA		0972900-7454	NETWORK SN74LS54N	TI	-SN74LS54N				
0017A					UH1 U01						
0018	00005.000	EA		0219402-7474	NETWORK SN74S74N						
0018A					UJ1 UJ2 UK4 UH2 UJ4						
0019	00005.000	EA		0972900-7474	NETWORK SN74LS74N						
0019A					UG4 UF1 UF4 UG5 UE3						
0020	00004.000	EA		0219402-7486	NETWORK SN74S86N						
0020A					UF9 UF7 UF8 UF6						
0021	00001.000	EA		0972782-0001	NETWORK SN74LS132N	TI	-SN74LS132N				
0021A					UJ5						
0022	00002.000	EA		0219402-7138	NETWORK SN74S138N						
0022A					UG8 UG7						
0023	00002.000	EA		0996305-0001	IC, SN74S169 UP/DOWN COUNTER, 4 BIT	001295-SN74S169					
0023A					UD6 UC3						
0024	00001.000	EA		0972900-7175	NETWORK SN74LS175N						
DRAFTSMAN DATE CED. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTED PARTS LIST FOR 2261980-3											
APPRO. ENG. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM2261980-5003 NA											

TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM2261980-5003		REV NA	
PRINT ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0024A					UE8						
0026	00002.000	EA		0996136-0002	IC, SN74LS258N, DATA SELECTORS/MULTIPLEXER	TI	-SN74LS258N				
0026A					UH8 UJ9						
0028	00006.000	EA		0219402-7280	NETWORK SN74S280N	TI	-SN74S280N				
0028A					UK6 UK7 UK8 UK9 UJ6 UJ8						
0029	00002.000	EA		0972652-0001	NETWORK SN74LS283N						
0029A					UB6 UC6						
0031	00018.000	EA		0972787-0004	NETWORK SN74LS368N						
0031A					UR1 UR2 UP2 UR6 UR7 UH6 UP7						
0031B					UR8 UR9 UC2 UB4 UA7 UR4 UR5						
0031C					UE7 UP5 UB3 UB2						
0034	00001.000	EA		0974674-0001	NETWORK SN75138N						
0034A					UB7						
0039	00002.000	EA		0996138-0001	IC, SN74LS266N 2-INPUT EXCLUSIVE-NOR GATE	TI	-SN74LS266N				
0039A					UD8 U88						
0040	00001.000	EA		0972037-2680	NETWORK RESISTOR 680 OHMS 2%	073138-898-3-R680					
0040A					UD7						
0041	00001.000	EA		0800118-0004	RESISTOR 220 OHMS DIL PULL UP 16 PINS	BEI	-8981R220				
0041A					UH9						
0041B						-SN7470N					
0041C	00001.000	EA		0222222-7470	NETWORK SN7470N						
DRAFTSMAN DATE CED. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTED PARTS LIST FOR 2261980-3											
APPRO. ENG. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM2261980-5003 NA											

TEXAS INSTRUMENTS INCORPORATED		DATE 07/16/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM2261980-5003		REV NA	
PRINT ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0061A					UF3						
0062	00001.000	EA		0800118-0008	RESISTOR 1.0K OHMS DIL PULL UP 16 PINS	BEI	-8981R1.0K				
0062A					UC8						
0081	00001.000	EA		0996508-0001	IC, 74LS393N DUAL BINARY COUNTER	001295-74LS393N					
0081A					UP1						
0082	00001.000	EA		0222222-7408	NETWORK-SN7408N						
0082A					UG1						
0094	00001.000	EA		0996780-0001	IC, SN74LS33N QUAD POSITIVE-NGR BUFFER	001295-SN74LS33N					
0094A					UA6						
0097	00002.000	EA		0219402-7258	NETWORK SN74S258N						
0097A					UE1 UE2						
DRAFTSMAN DATE CED. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO-INSERTED PARTS LIST FOR 2261980-3											
APPRO. ENG. DATE APPR. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV LM2261980-5003 NA											

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 07/16/79		PAGE 1 of		PART NUMBER LM2261980-5004		REV N4	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	0001.000	EA		2261981-0001	PWB, MEMORY CONTROLLER, W/ECC, 990/12						
0005	0001.000	EA		0219402-7400	NETWORK SN74S00N						
0005A					UK 1						
0006	0002.000	EA		0972900-7400	NETWORK SN74LS00N	TI	-SN74LS00N				
0006A					UG2 UP4						
0007	0001.000	EA		0972900-7402	NETWORK SN74LS02N						
0007A					UE4						
0008	0001.000	EA		0219402-7403	NETWORK SN74S03N						
0008A					UH5						
0009	0001.000	EA		0219402-7404	NETWORK SN74S04N						
0009A					UH3						
0010	0002.000	EA		0972900-7404	NETWORK SN74LS04N						
0010A					UJ3 UF2						
0011	0001.000	EA		0972749-0001	NETWORK, SN74LS08N						
0011A					UC4						
0012	0001.000	EA		0972900-7410	NETWORK SN74LS10N						
0012A					UD4						
0013	0001.000	EA		0219402-7430	NETWORK SN74S30N						
0013A					UJ7						
0014	0002.000	EA		0996136-0001	IC, SN74LS257N, DATA SELECTORS/MULTIPLEXER	TI	-SN74LS257N				
DRAFTSMAN _____ DATE _____ CKD. DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE _____											
APPRO. MFG. _____ DATE _____ APPD. PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____											
AUTO-INSERTED PARTS LIST FOR 2261980-4											
PART NUMBER LM2261980-5004 REV N4											

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 07/16/79		PAGE 2 of		PART NUMBER LM2261980-5004		REV N4	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0014A					UP9 UE6						
0015	0002.000	EA		0972900-7432	NETWORK SN74LS32N	TI	-SN74LS32N				
0015A					UG6 UH4						
0016	0001.000	EA		0972900-7451	NETWORK SN74LS51N	TI	-SN74LS51N				
0016A					UG3						
0017	0002.000	EA		0972900-7454	NETWORK SN74LS54N	TI	-SN74LS54N				
0017A					UH1 UD1						
0018	0005.000	EA		0219402-7474	NETWORK SN74S74N						
0018A					UJ1 UJ2 UK4 UH2 UJ4						
0019	0005.000	EA		0972900-7474	NETWORK SN74LS74N						
0019A					UG4 UF1 UF4 UG5 UE3						
0020	0004.000	EA		0219402-7486	NETWORK SN74S86N						
0020A					UF9 UF7 UF8 UF6						
0021	0001.000	EA		0972782-0001	NETWORK SN74LS132N	TI	-SN74LS132N				
0021A					UJ5						
0022	0002.000	EA		0219402-7138	NETWORK SN74S138N						
0022A					UG8 UG7						
0023	0002.000	EA		0996305-0001	IC, SN74S169 UP/DOWN COUNTER, 4 BIT	001295-SN74S169					
0023A					UD6 UC3						
0024	0001.000	EA		0972900-7175	NETWORK SN74LS175N						
DRAFTSMAN _____ DATE _____ CKD. DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE _____											
APPRO. MFG. _____ DATE _____ APPD. PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____											
AUTO-INSERTED PARTS LIST FOR 2261980-4											
PART NUMBER LM2261980-5004 REV N4											

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 07/16/79		PAGE 3 of		PART NUMBER LM2261980-5004		REV N4	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0024A					UE8						
0026	0002.000	EA		0996136-0002	IC, SN74LS258N, DATA SELECTORS/MULTIPLEXER	TI	-SN74LS258N				
0026A					UH8 UJ9						
0028	0006.000	EA		0219402-7280	NETWORK SN74S280N	TI	-SN74S280N				
0028A					UK6 UK7 UK8 UK9 UJ6 UJ8						
0029	0002.000	EA		0972652-0001	NETWORK SN74LS283N						
0029A					U86 UC6						
0031	0018.000	EA		0972787-0004	NETWORK SN74LS368N						
0031A					UR1 UR2 UP2 UR6 UR7 UH6 UP7						
0031B					UR8 UR9 UC2 UB4 UA7 UR4 UR5						
0031C					UE7 UP5 UB3 UB2						
0034	0001.000	EA		0974674-0001	NETWORK SN75138N						
0034A					UB7						
0039	0002.000	EA		0996138-0001	IC, SN74LS266N 2-INPUT EXCLUSIVE-NOR GATE	TI	-SN74LS266N				
0039A					UD8 UB8						
0040	0001.000	EA		0972037-2680	NETWORK RESISTOR 680 OHMS 2%	073138-898-3-R680					
0040A					UD7						
0041	0001.000	EA		0800118-0004	RESISTOR 220 OHMS DIL PULL UP 16 PINS	BEC	-8981R220				
0041A					UH9						
0061	0001.000	EA		0222222-7470	NETWORK SN7470N	-SN7470N					
DRAFTSMAN _____ DATE _____ CKD. DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE _____											
APPRO. MFG. _____ DATE _____ APPD. PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____											
AUTO-INSERTED PARTS LIST FOR 2261980-4											
PART NUMBER LM2261980-5004 REV N4											

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 07/16/79		PAGE 4 of		PART NUMBER LM2261980-5004		REV N4	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0061A					UF3						
0062	0001.000	EA		0800118-0008	RESISTOR 1.0KOHMS DIL PULL UP 16 PINS	BEC	-8981R1.0K				
0062A					UC8						
0081	0001.000	EA		0996508-0001	IC, 74LS393N DUAL BINARY COUNTER	001295-74LS393N					
0081A					UP1						
0082	0001.000	EA		0222222-7408	NETWORK-SN7488N						
0082A					UG1						
0094	0001.000	EA		0996780-0001	IC, SN74LS33N QUAD POSITIVE-NOR BUFFER	001295-SN74LS33N					
0094A					UA6						
0097	0002.000	EA		0219402-7258	NETWORK SN74S258N						
0097A					UE1 UE2						
DRAFTSMAN _____ DATE _____ CKD. DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE _____											
APPRO. MFG. _____ DATE _____ APPD. PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____											
AUTO-INSERTED PARTS LIST FOR 2261980-4											
PART NUMBER LM2261980-5004 REV N4											

- NOTES: UNLESS OTHERWISE SPECIFIED
1. ALL DEVICE TYPES ARE PREFIXED WITH SN 74
  2. GROUND IS APPLIED TO PIN 7 OF ALL 14-PIN IC'S AND PIN 6 OF ALL 16-PIN IC'S
  3. VCC IS APPLIED TO PIN 14 OF ALL 14-PIN IC'S AND PIN 16 OF ALL 16-PIN IC'S
  4. DEVICE TYPE, PIN NUMBERS, AND LOCATION OF IC IS SHOWN AS FOLLOWS:

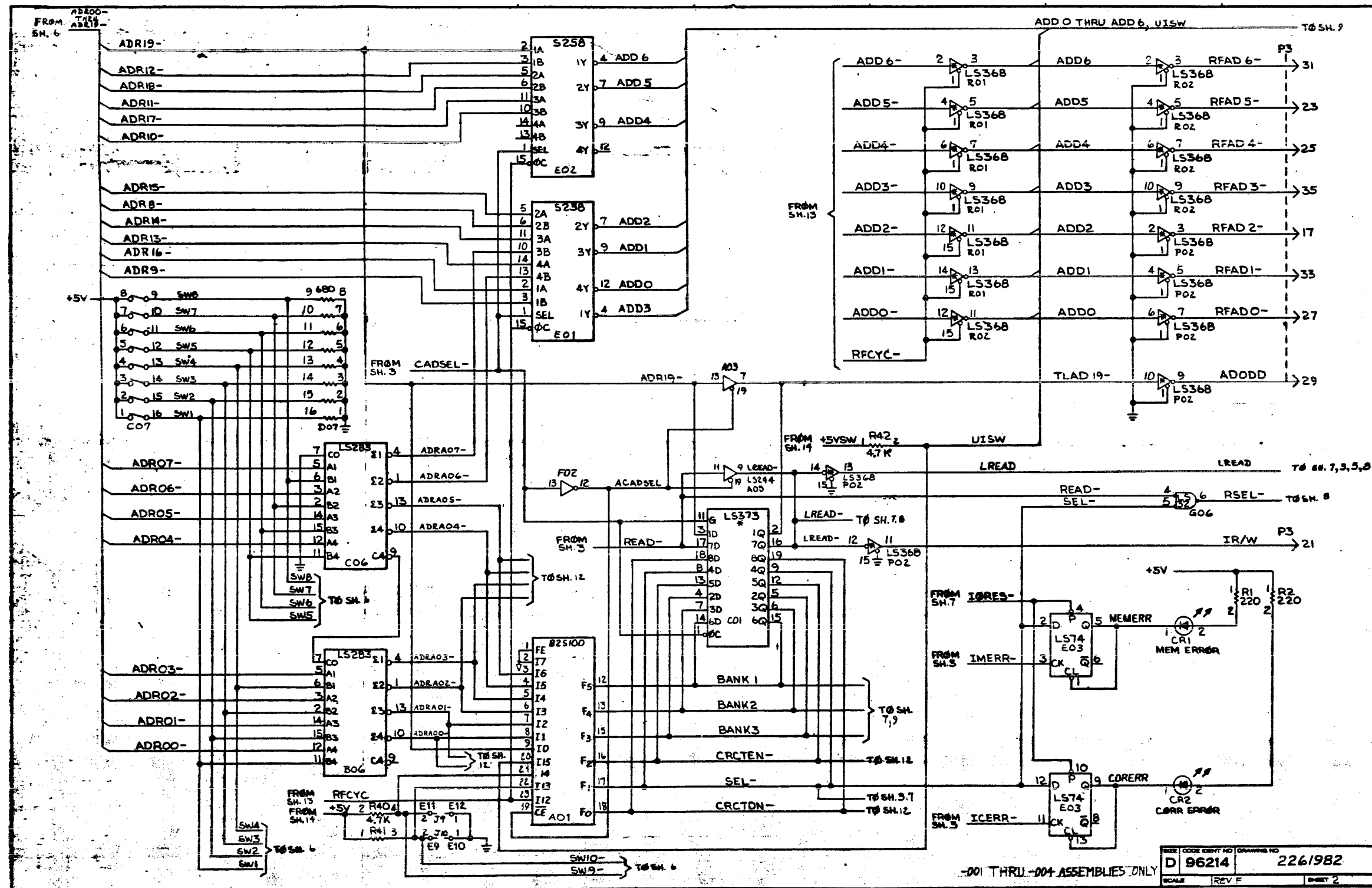


- OO AND O4 = DEVICE TYPE
- 4, 5, AND 6 = PIN NUMBERS
- UI7 AND U34 = REFERENCE DESIGNATOR
- 5. WHEN REQUIRED R45 AND R46 WILL BE SELECTED AT UNIT TEST.
- 6. UNLESS NOTED THIS SCHEMATIC APPLIES TO ALL DASH NUMBERED ASSEMBLIES. DASH 1 THRU DASH 4 ASSEMBLIES USE 2261901 PWBS. DASH 5 THRU DASH 8 ASSEMBLIES USE 2262031 PWBS.

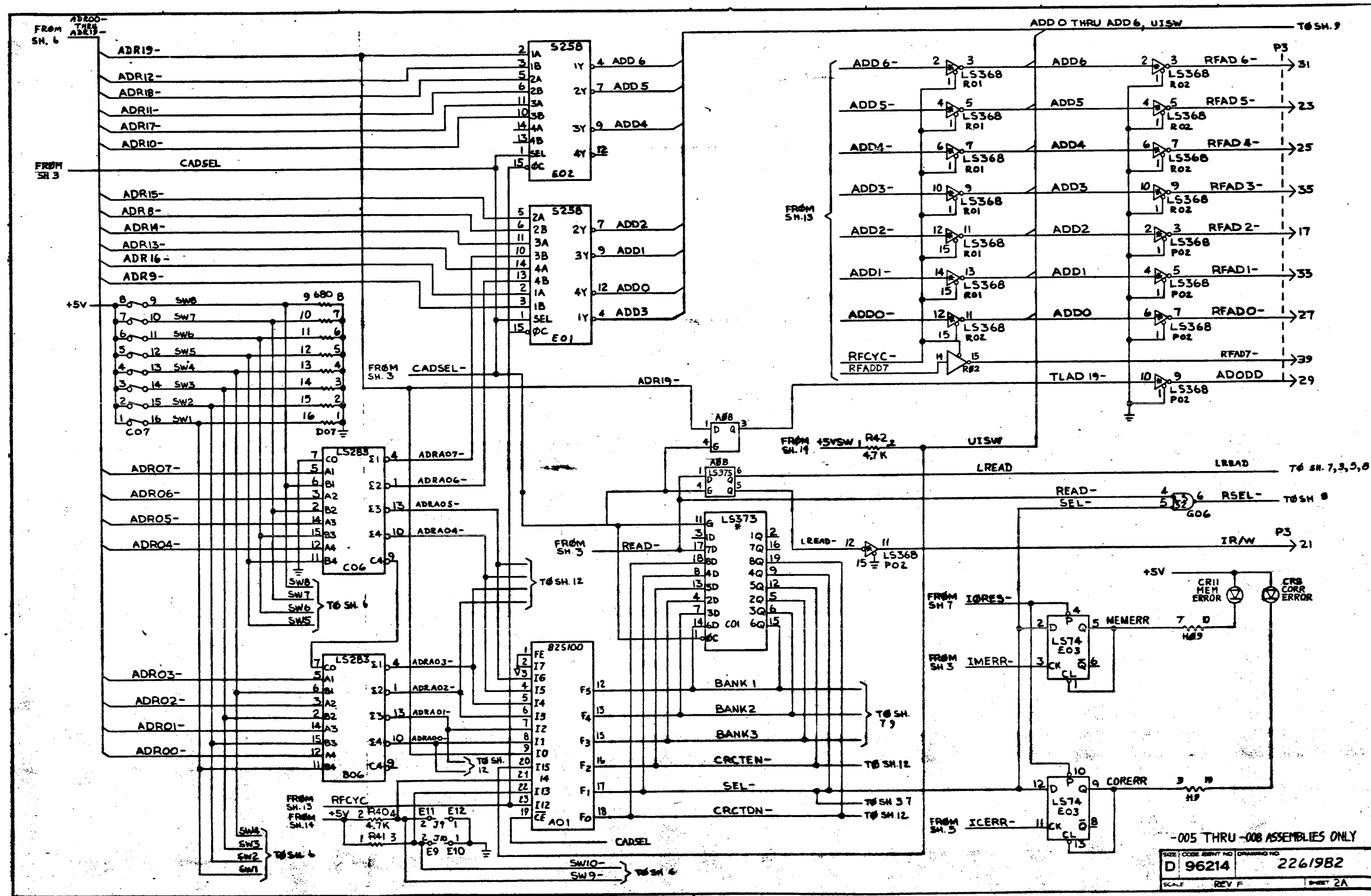
REVISIONS			
ZONE LTR	DESCRIPTION	DATE	APPROVED
A	CN45140(B) RCHAPA	8-31-78	J.R. [Signature]
B	CN447073(C) R. [Signature]	12-3-78	[Signature]
C	CN 43777B (C) E. [Signature]	3-24-79	J.R. [Signature]
D	CN 449780 (C) [Signature]	7-30-79	E. [Signature]
E	CN 433600 (C) A. [Signature]	11-24-79	J.R. [Signature]
F	CN 453422 (D) [Signature] (D) ADDED SHEETS 2A, 3A, 4A, 12A AND 13A.		

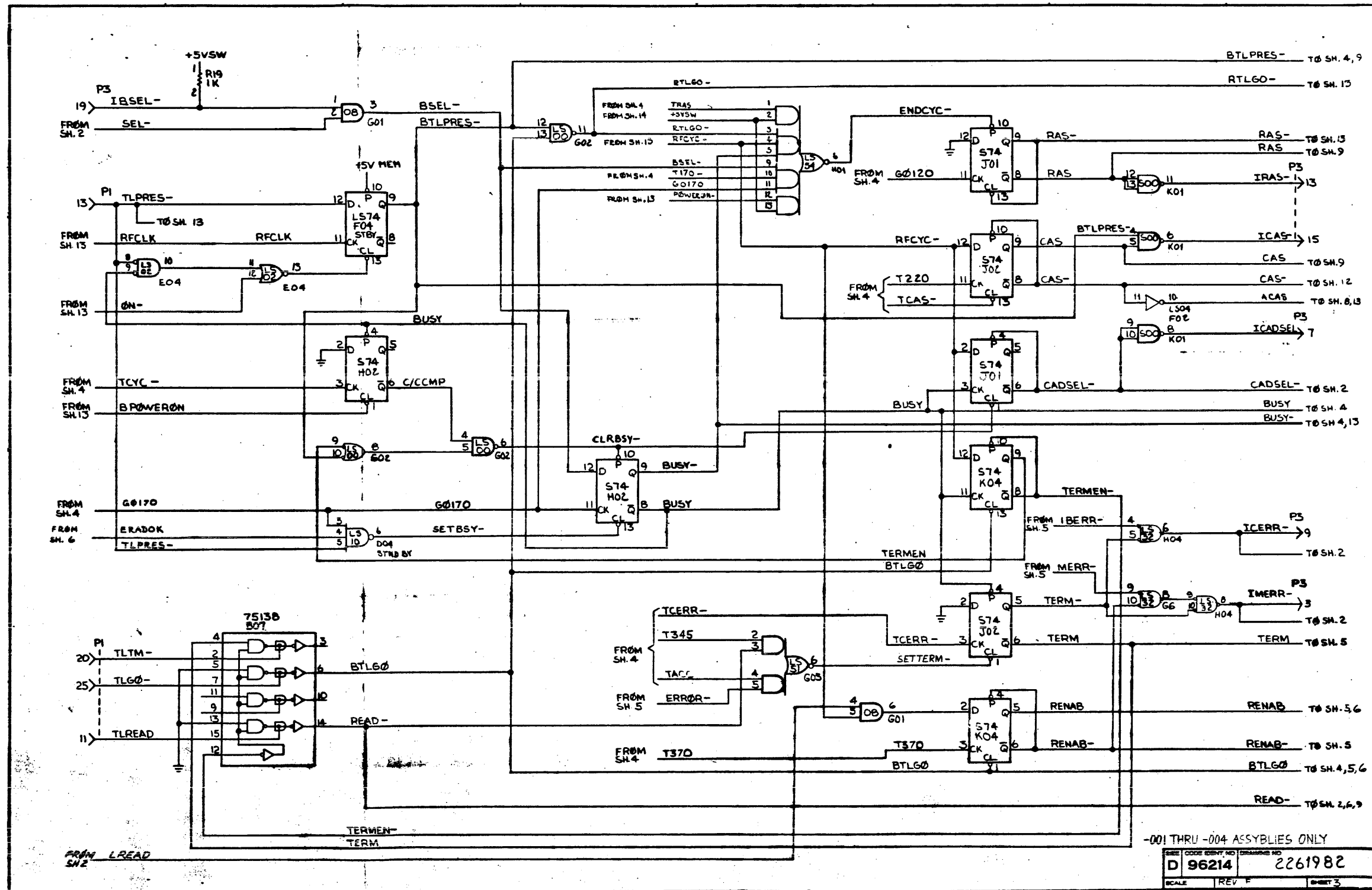
REV STATUS OF SHEETS	REV	C	F	F	F	F	F	B	B	B	B	F	*	*	F	F	F	F	F	#
SH	1	2	2A	3	3A	4	4A	5	6	7	8	9	10	11	12	12A	13	13A	14	

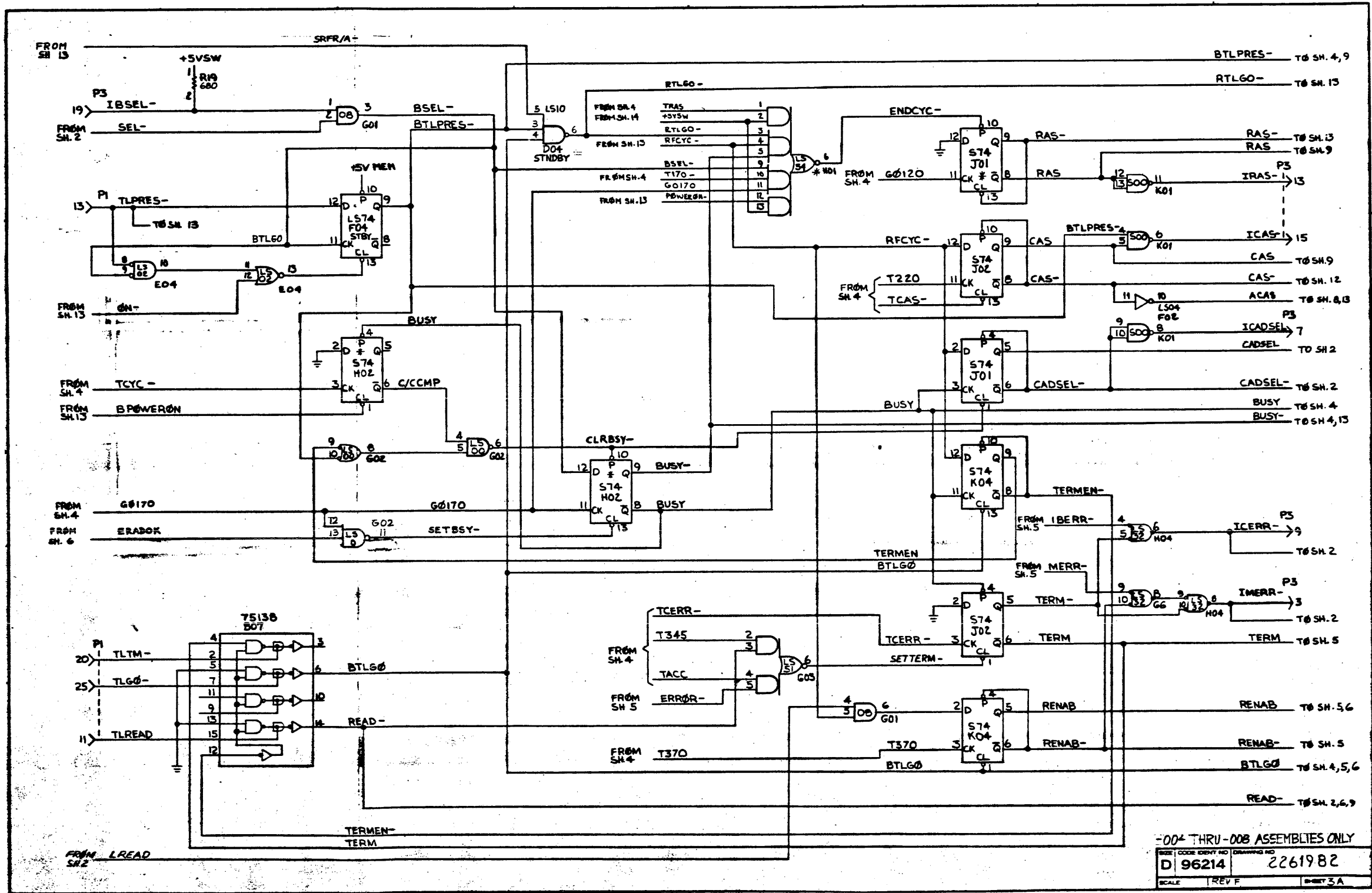
QTY REQD	-2	-1	ITEM NO	CODE	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROUREMENT SPECIFICATION
PARTS LIST							
UNLESS OTHERWISE SPECIFIED				UNLESS OTHERWISE SPECIFIED			
REMOVE ALL BURRS AND SHARP EDGES				DIMENSIONS ARE IN INCHES			
CONCENTRICITY MACHINED DIAMETERS .010 PER				TOLERANCES			
DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING				ANGLES ±1°			
IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY				3 PLACE DECIMALS ±.010			
INTERPRET DRAWINGS IN ACCORDANCE WITH MIL-STD-100				2 PLACE DECIMALS ±.02			
HOLE TOLERANCE				MATERIAL			
.015 ±.001				2261980 7047			
.030 ±.001				NEXT ASSY USED ON			
.045 ±.001				APPLICATION			
.070 ±.001				DATE			
.100 ±.001				DRAWN			
.150 ±.001				DATE			
.200 ±.001				CHK			
.250 ±.001				DATE			
.300 ±.001				APP			
.400 ±.001				DATE			
.500 ±.001				MATERIAL			
.750 ±.001				CONTR NO			
1.000 ±.001				APPROVED BY			
1.500 ±.001				DATE			
2.000 ±.001				MATERIAL			
2.500 ±.001				CONTR NO			
3.000 ±.001				APPROVED BY			
3.500 ±.001				DATE			
4.000 ±.001				MATERIAL			
4.500 ±.001				CONTR NO			
5.000 ±.001				APPROVED BY			
5.500 ±.001				DATE			
6.000 ±.001				MATERIAL			
6.500 ±.001				CONTR NO			
7.000 ±.001				APPROVED BY			
7.500 ±.001				DATE			
8.000 ±.001				MATERIAL			
8.500 ±.001				CONTR NO			
9.000 ±.001				APPROVED BY			
9.500 ±.001				DATE			
10.000 ±.001				MATERIAL			
10.500 ±.001				CONTR NO			
11.000 ±.001				APPROVED BY			
11.500 ±.001				DATE			
12.000 ±.001				MATERIAL			
12.500 ±.001				CONTR NO			
13.000 ±.001				APPROVED BY			
13.500 ±.001				DATE			
14.000 ±.001				MATERIAL			
14.500 ±.001				CONTR NO			
15.000 ±.001				APPROVED BY			
15.500 ±.001				DATE			
16.000 ±.001				MATERIAL			
16.500 ±.001				CONTR NO			
17.000 ±.001				APPROVED BY			
17.500 ±.001				DATE			
18.000 ±.001				MATERIAL			
18.500 ±.001				CONTR NO			
19.000 ±.001				APPROVED BY			
19.500 ±.001				DATE			
20.000 ±.001				MATERIAL			
20.500 ±.001				CONTR NO			
21.000 ±.001				APPROVED BY			
21.500 ±.001				DATE			
22.000 ±.001				MATERIAL			
22.500 ±.001				CONTR NO			
23.000 ±.001				APPROVED BY			
23.500 ±.001				DATE			
24.000 ±.001				MATERIAL			
24.500 ±.001				CONTR NO			
25.000 ±.001				APPROVED BY			
25.500 ±.001				DATE			
26.000 ±.001				MATERIAL			
26.500 ±.001				CONTR NO			
27.000 ±.001				APPROVED BY			
27.500 ±.001				DATE			
28.000 ±.001				MATERIAL			
28.500 ±.001				CONTR NO			
29.000 ±.001				APPROVED BY			
29.500 ±.001				DATE			
30.000 ±.001				MATERIAL			
30.500 ±.001				CONTR NO			
31.000 ±.001				APPROVED BY			
31.500 ±.001				DATE			
32.000 ±.001				MATERIAL			
32.500 ±.001				CONTR NO			
33.000 ±.001				APPROVED BY			
33.500 ±.001				DATE			
34.000 ±.001				MATERIAL			
34.500 ±.001				CONTR NO			
35.000 ±.001				APPROVED BY			
35.500 ±.001				DATE			
36.000 ±.001				MATERIAL			
36.500 ±.001				CONTR NO			
37.000 ±.001				APPROVED BY			
37.500 ±.001				DATE			
38.000 ±.001				MATERIAL			
38.500 ±.001				CONTR NO			
39.000 ±.001				APPROVED BY			
39.500 ±.001				DATE			
40.000 ±.001				MATERIAL			
40.500 ±.001				CONTR NO			
41.000 ±.001				APPROVED BY			
41.500 ±.001				DATE			
42.000 ±.001				MATERIAL			
42.500 ±.001				CONTR NO			
43.000 ±.001				APPROVED BY			
43.500 ±.001				DATE			
44.000 ±.001				MATERIAL			
44.500 ±.001				CONTR NO			
45.000 ±.001				APPROVED BY			
45.500 ±.001				DATE			
46.000 ±.001				MATERIAL			
46.500 ±.001				CONTR NO			
47.000 ±.001				APPROVED BY			
47.500 ±.001				DATE			
48.000 ±.001				MATERIAL			
48.500 ±.001				CONTR NO			
49.000 ±.001				APPROVED BY			
49.500 ±.001				DATE			
50.000 ±.001				MATERIAL			
50.500 ±.001				CONTR NO			
51.000 ±.001				APPROVED BY			
51.500 ±.001				DATE			
52.000 ±.001				MATERIAL			
52.500 ±.001				CONTR NO			
53.000 ±.001				APPROVED BY			
53.500 ±.001				DATE			
54.000 ±.001				MATERIAL			
54.500 ±.001				CONTR NO			
55.000 ±.001				APPROVED BY			
55.500 ±.001				DATE			
56.000 ±.001				MATERIAL			
56.500 ±.001				CONTR NO			
57.000 ±.001				APPROVED BY			
57.500 ±.001				DATE			
58.000 ±.001				MATERIAL			
58.500 ±.001				CONTR NO			
59.000 ±.001				APPROVED BY			
59.500 ±.001				DATE			
60.000 ±.001				MATERIAL			
60.500 ±.001				CONTR NO			
61.000 ±.001				APPROVED BY			
61.500 ±.001				DATE			
62.000 ±.001				MATERIAL			
62.500 ±.001				CONTR NO			
63.000 ±.001				APPROVED BY			
63.500 ±.001				DATE			
64.000 ±.001				MATERIAL			
64.500 ±.001				CONTR NO			
65.000 ±.001				APPROVED BY			
65.500 ±.001				DATE			
66.000 ±.001				MATERIAL			
66.500 ±.001				CONTR NO			
67.000 ±.001				APPROVED BY			
67.500 ±.001				DATE			
68.000 ±.001				MATERIAL			
68.500 ±.001				CONTR NO			
69.000 ±.001				APPROVED BY			
69.500 ±.001				DATE			
70.000 ±.001				MATERIAL			
70.500 ±.001				CONTR NO			
71.000 ±.001				APPROVED BY			
71.500 ±.001				DATE			
72.000 ±.001				MATERIAL			
72.500 ±.001				CONTR NO			
73.000 ±.001				APPROVED BY			
73.500 ±.001				DATE			
74.000 ±.001				MATERIAL			
74.500 ±.001				CONTR NO			
75.000 ±.001				APPROVED BY			
75.500 ±.001				DATE			
76.000 ±.001				MATERIAL			
76.500 ±.001				CONTR NO			
77.000 ±.001				APPROVED BY			
77.500 ±.001				DATE			
78.000 ±.001				MATERIAL			
78.500 ±.001				CONTR NO			
79.000 ±.001				APPROVED BY			
79.500 ±.001				DATE			
80.000 ±.001				MATERIAL			
80.500 ±.001				CONTR NO			
81.000 ±.001				APPROVED BY			
81.500 ±.001				DATE			
82.000 ±.001				MATERIAL			
82.500 ±.001				CONTR NO			
83.000 ±.001				APPROVED BY			
83.500 ±.001				DATE			
84.000 ±.001				MATERIAL			
84.500 ±.001				CONTR NO			
85.000 ±.001				APPROVED BY			
85.500 ±.001				DATE			
86.000 ±.001				MATERIAL			
86.500 ±.001				CONTR NO			
87.000 ±.001				APPROVED BY			
87.500 ±.001				DATE			
88.000 ±.001				MATERIAL			
88.500 ±.001				CONTR NO			
89.000 ±.001				APPROVED BY			
89.500 ±.001				DATE			
90.000 ±.001				MATERIAL			
90.500 ±.001				CONTR NO			
91.000 ±.001				APPROVED BY			
91.500 ±.001				DATE			
92.000 ±.001				MATERIAL			
92.500 ±.001				CONTR NO			
93.000 ±.001				APPROVED BY			
93.500 ±.001				DATE			
94.000 ±.001				MATERIAL			
94.500 ±.001				CONTR NO			
95.000 ±.001				APPROVED BY			
95.500 ±.001				DATE			
96.000 ±.001				MATERIAL			
96.500 ±.001				CONTR NO			
97.000 ±.001				APPROVED BY			
97.500 ±.001				DATE			
98.000 ±.001				MATERIAL			
98.500 ±.001				CONTR NO			
99.000 ±.001				APPROVED BY			
99.500 ±.001				DATE			
100.000 ±.001				MATERIAL			
100.500 ±.001				CONTR NO			
101.000 ±.001				APPROVED BY			
101.500 ±.001				DATE			
102.000 ±.001				MATERIAL			
102.500 ±.001				CONTR NO			
103.000 ±.001				APPROVED BY			
103.500 ±.001				DATE			
104.000 ±.001				MATERIAL			
104.500 ±.001				CONTR NO			
105.000 ±.001				APPROVED BY			
105.500 ±.001				DATE			
106.000 ±.001				MATERIAL			
106.500 ±.001				CONTR NO			
107.000 ±.001				APPROVED BY			
107.500 ±.001				DATE			
108.000 ±.001				MATERIAL			
108.500 ±.001				CONTR NO			
109.000 ±.001				APPROVED BY			
109.500 ±.001				DATE			
110.000 ±.001				MATERIAL			
110.500 ±.001				CONTR NO			
111.000 ±.001				APPROVED BY			
111.500 ±.001				DATE			
112.000 ±.001				MATERIAL			
112.500 ±.001				CONTR NO			
113.000 ±.001				APPROVED BY			
113.500 ±.001				DATE			
114.000 ±.001				MATERIAL			
114.500 ±.001				CONTR NO			
115.000 ±.001				APPROVED BY			
115.500 ±.001				DATE			
116.000 ±.001				MATERIAL			
116.500 ±.001				CONTR NO			
117.000 ±.001				APPROVED BY			
117.500 ±.001				DATE			
118.000 ±.001				MATERIAL			
118.500 ±.001				CONTR NO			
119.000 ±.001				APPROVED BY			
119.500 ±.001				DATE			
120.000 ±.001				MATERIAL			
120.500 ±.001				CONTR NO			
121.000 ±.001				APPROVED BY			
121.500 ±.001				DATE			
122.000 ±.001				MATERIAL			
122.500 ±.001				CONTR NO			
123.000 ±.001				APPROVED BY			
123.500 ±.001				DATE			
124.000 ±.001				MATERIAL			
124.500 ±.001				CONTR NO			
125.000 ±.001				APPROVED BY			
125.500 ±.001				DATE			
126.000 ±.001				MATERIAL			
126.500 ±.001				CONTR NO			
127.000 ±.001				APPROVED BY			
127.500 ±.001				DATE			
128.000 ±.001				MATERIAL			
128.500 ±.001				CONTR NO			
129.000 ±.001				APPROVED BY			
129.500 ±.001				DATE			
130.000 ±.001				MATERIAL			
130.500 ±.001				CONTR NO			
131.000 ±.001				APPROVED BY			
131.500 ±.001				DATE			
132.000 ±.001				MATERIAL			
132.500 ±.001				CONTR NO			

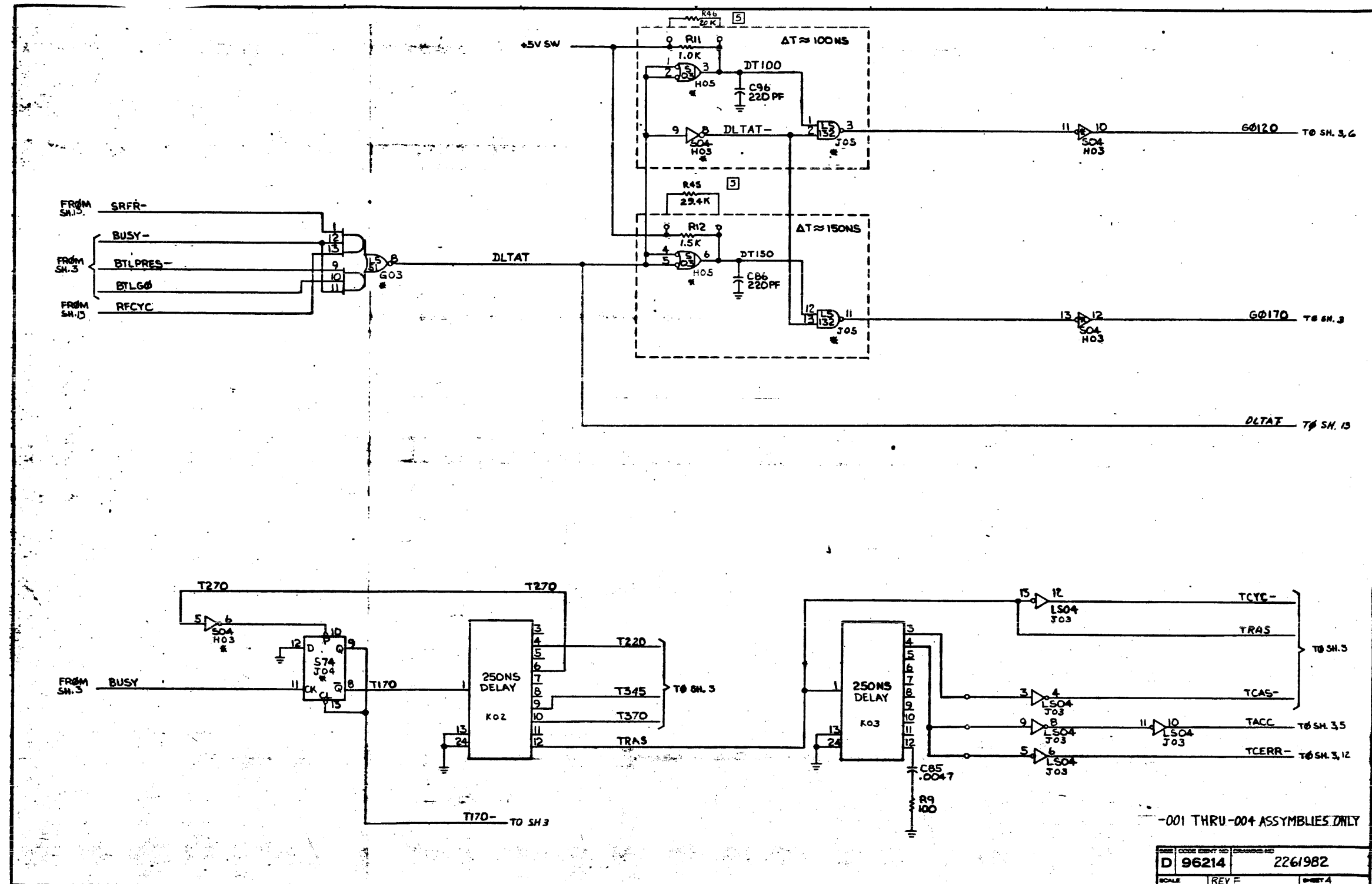


990/16KR Memory Controller w/ECC Logic Diagram  
 DRAWING NO. 2261982  
 REV. F  
 SHEET 2

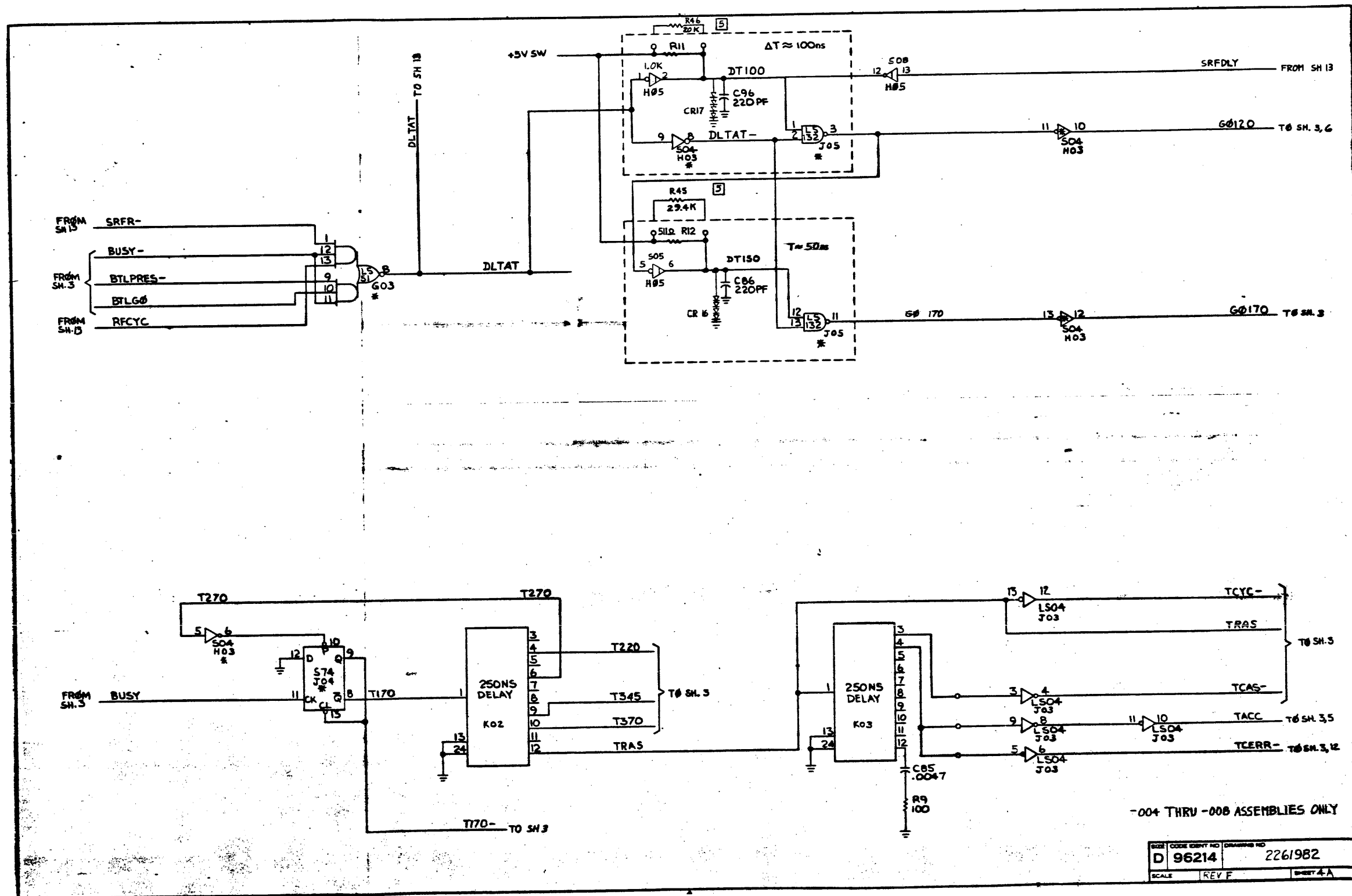


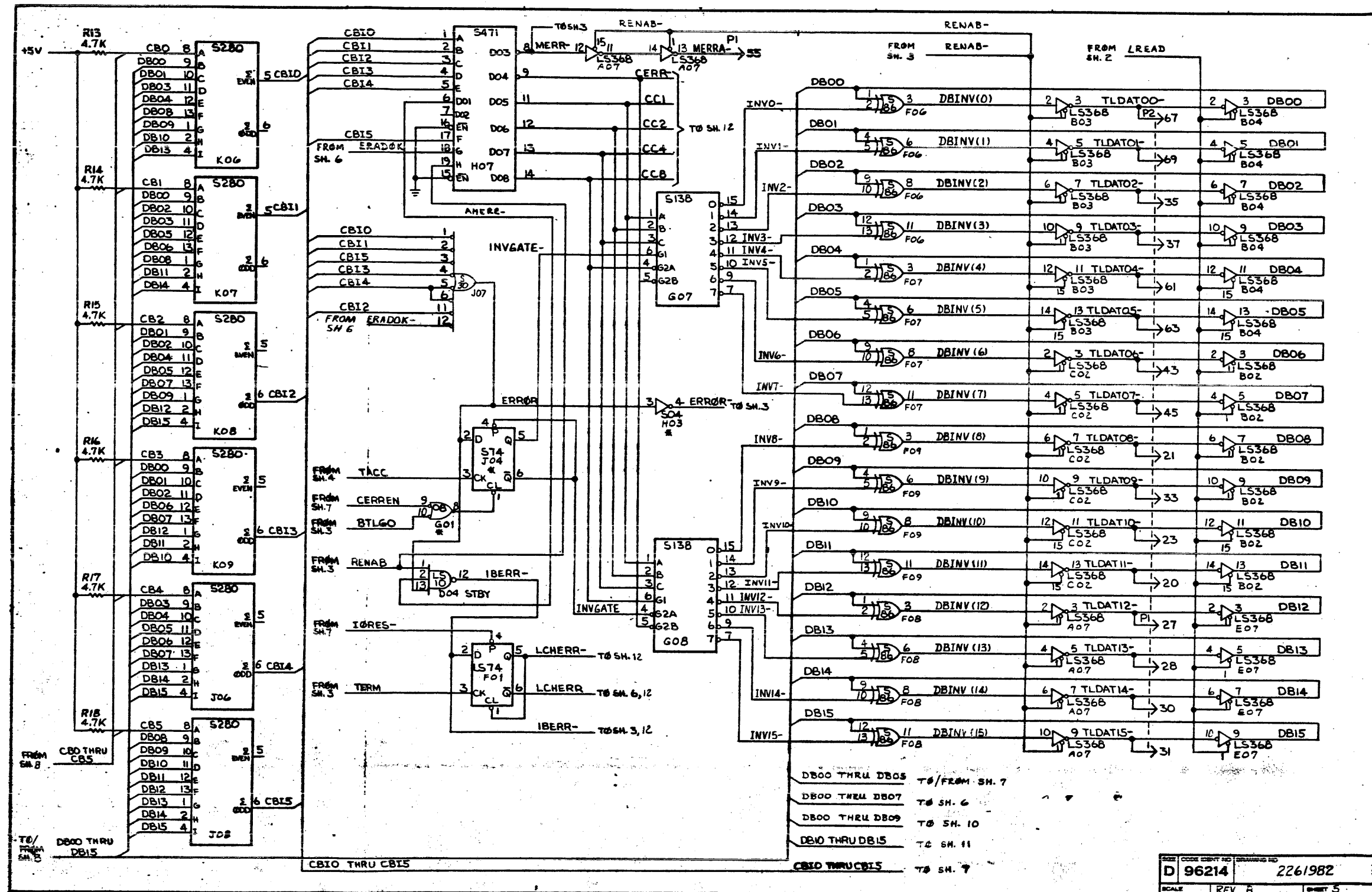




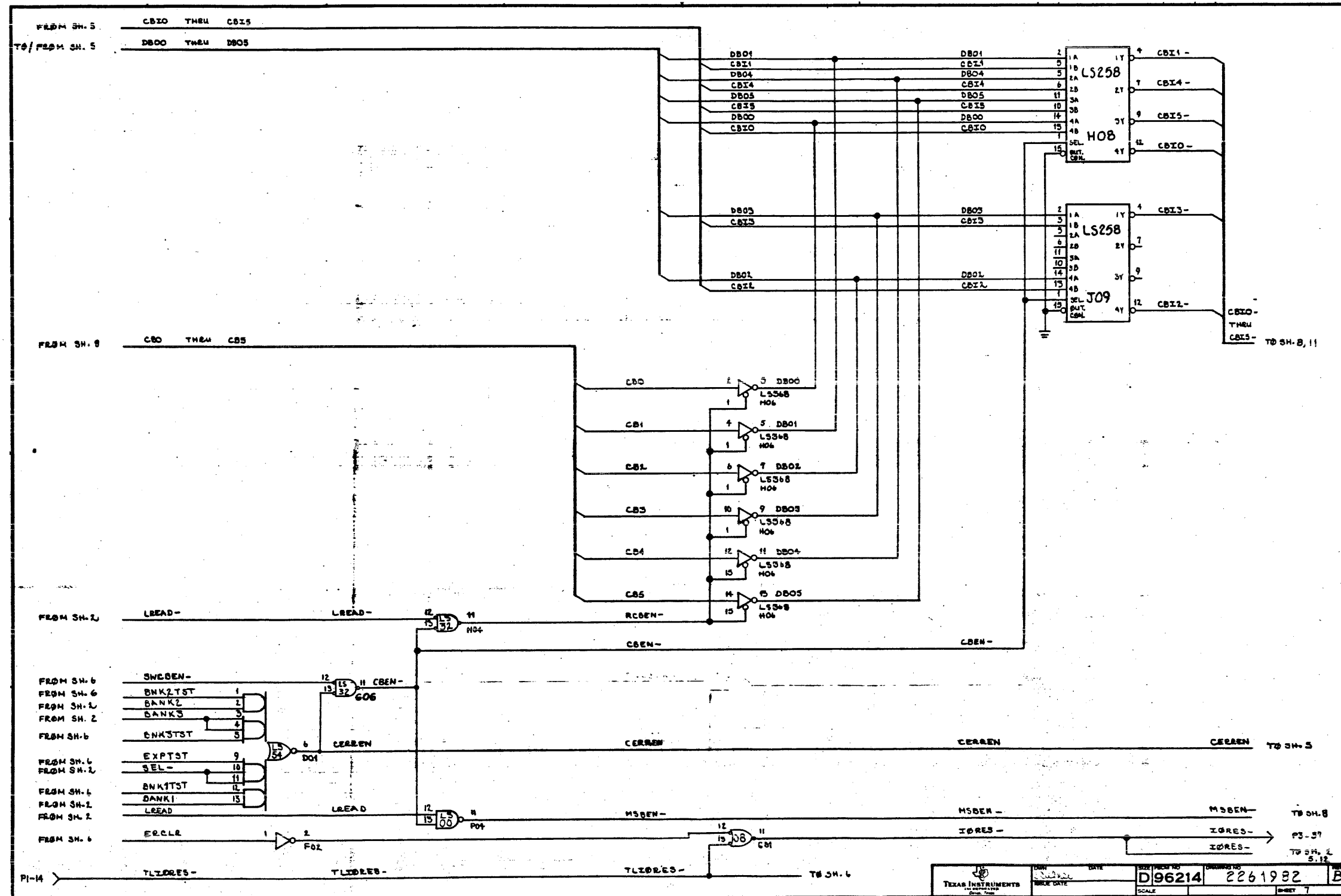


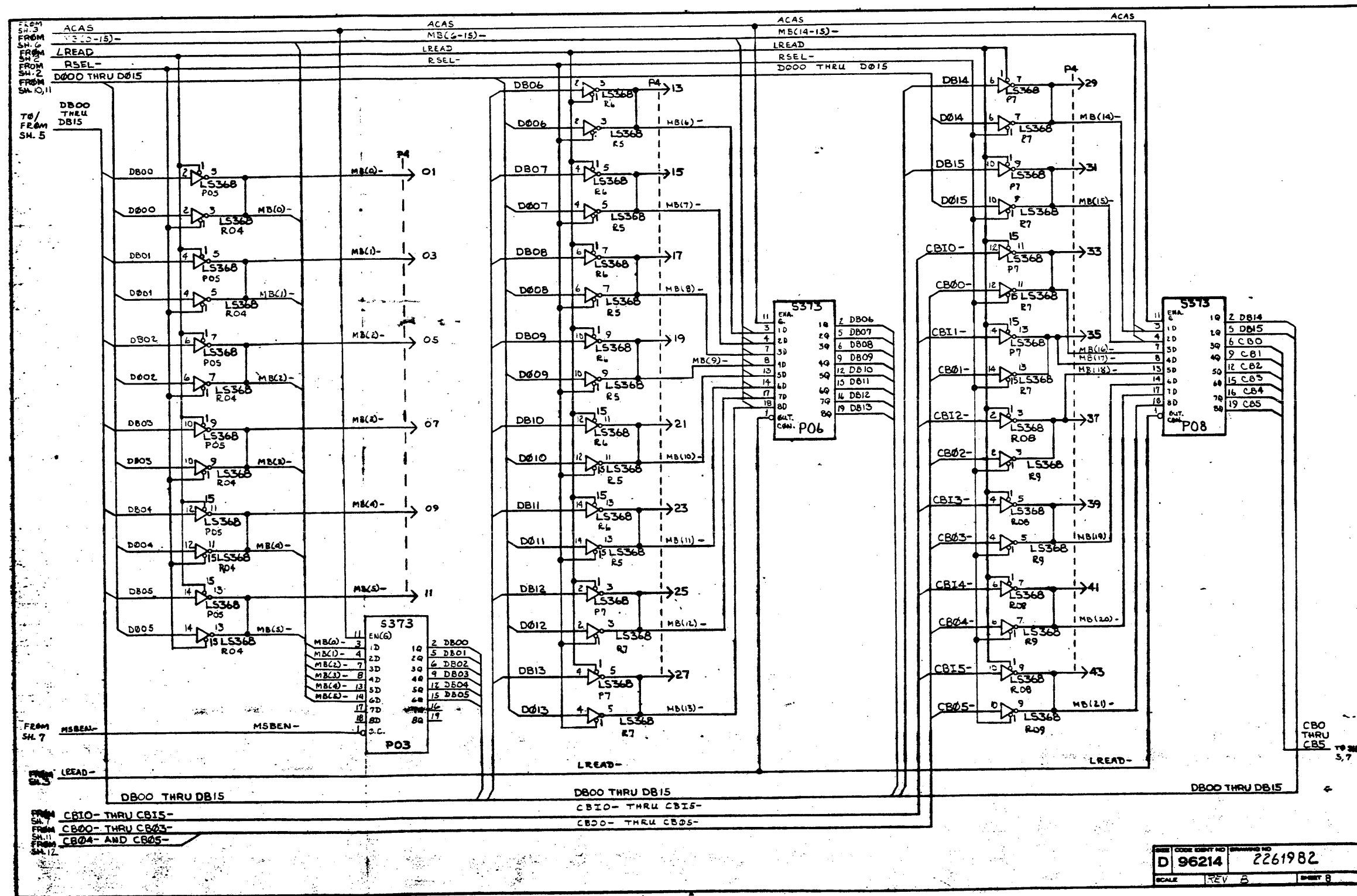


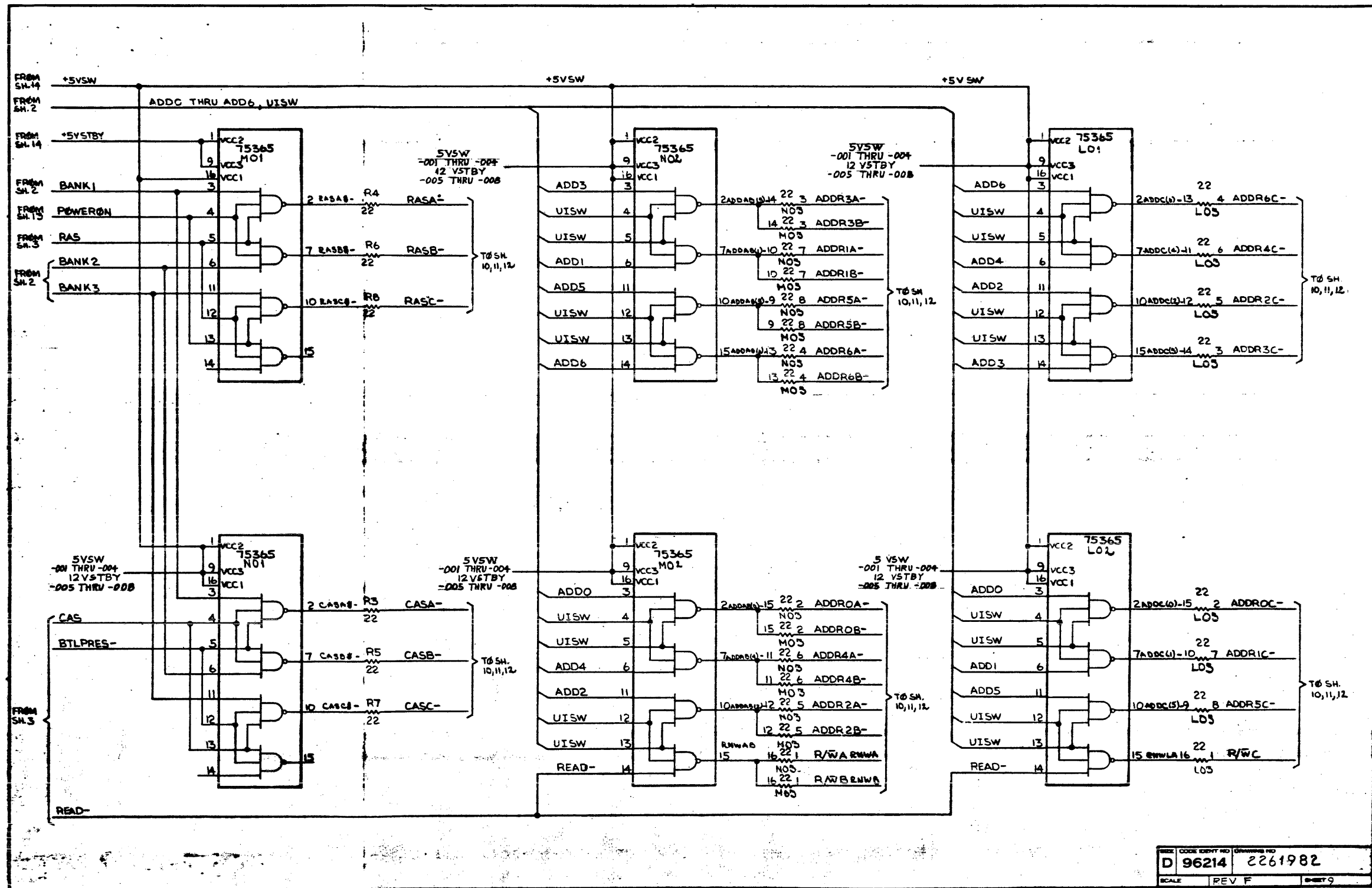


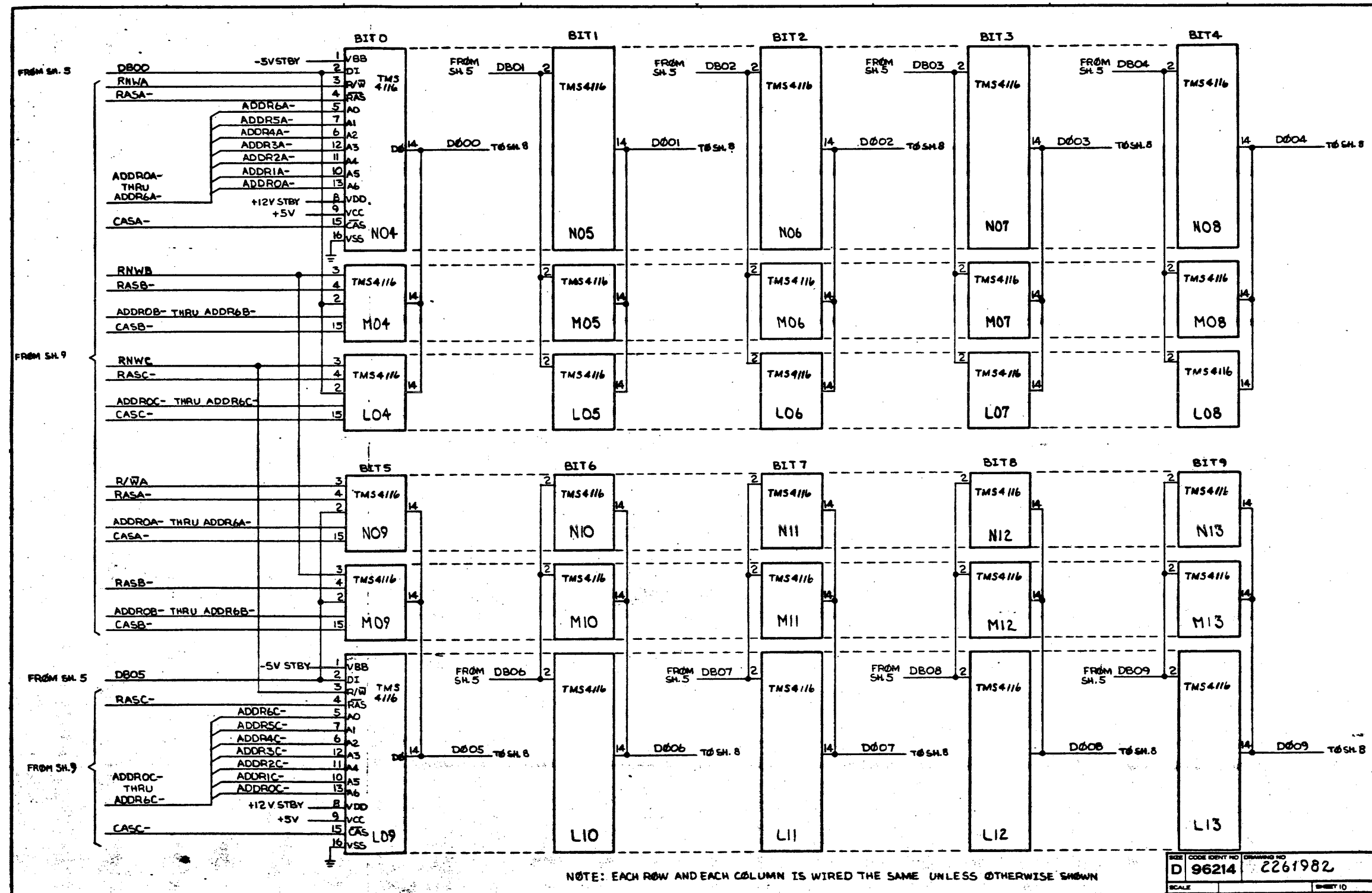


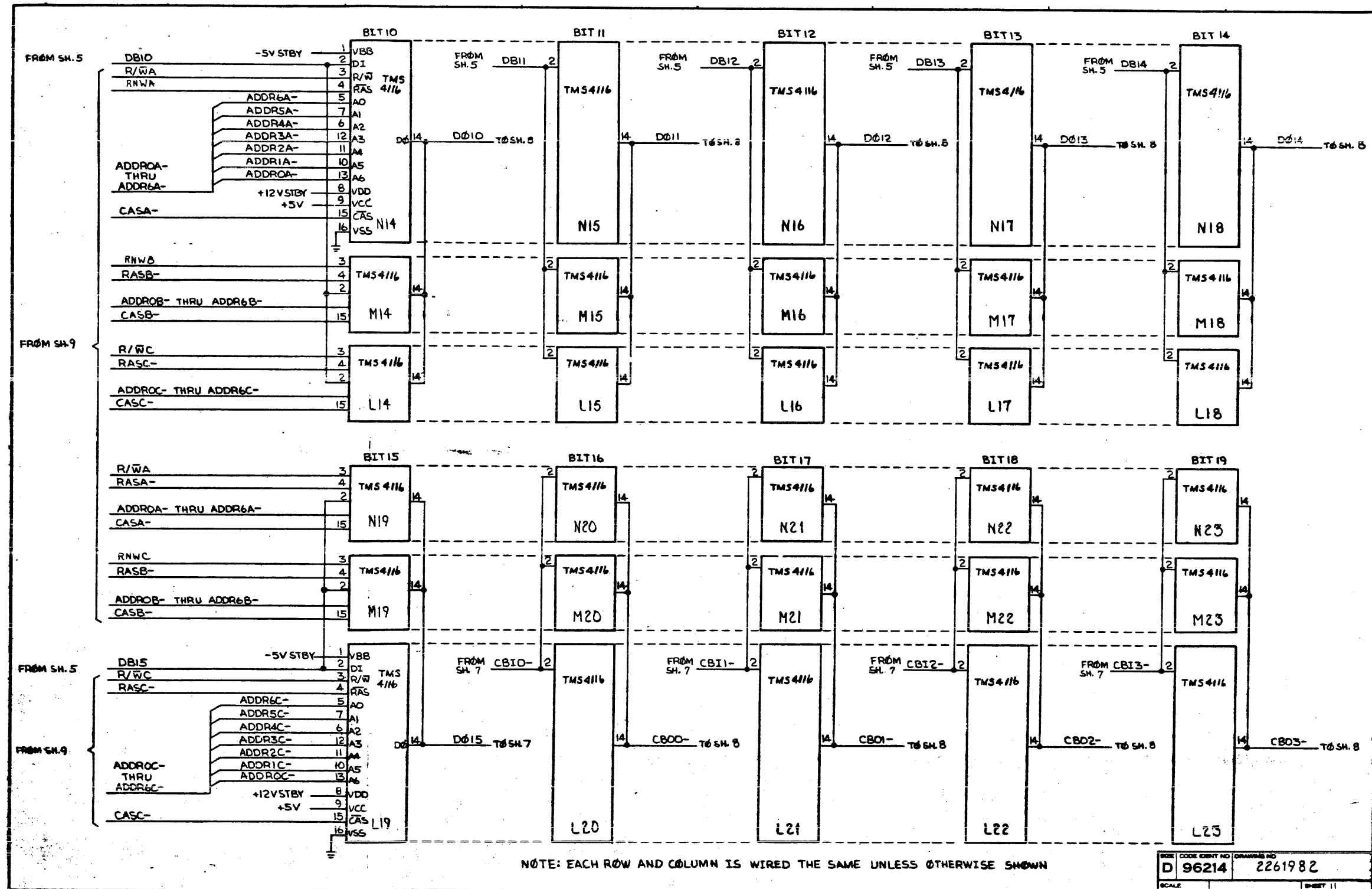








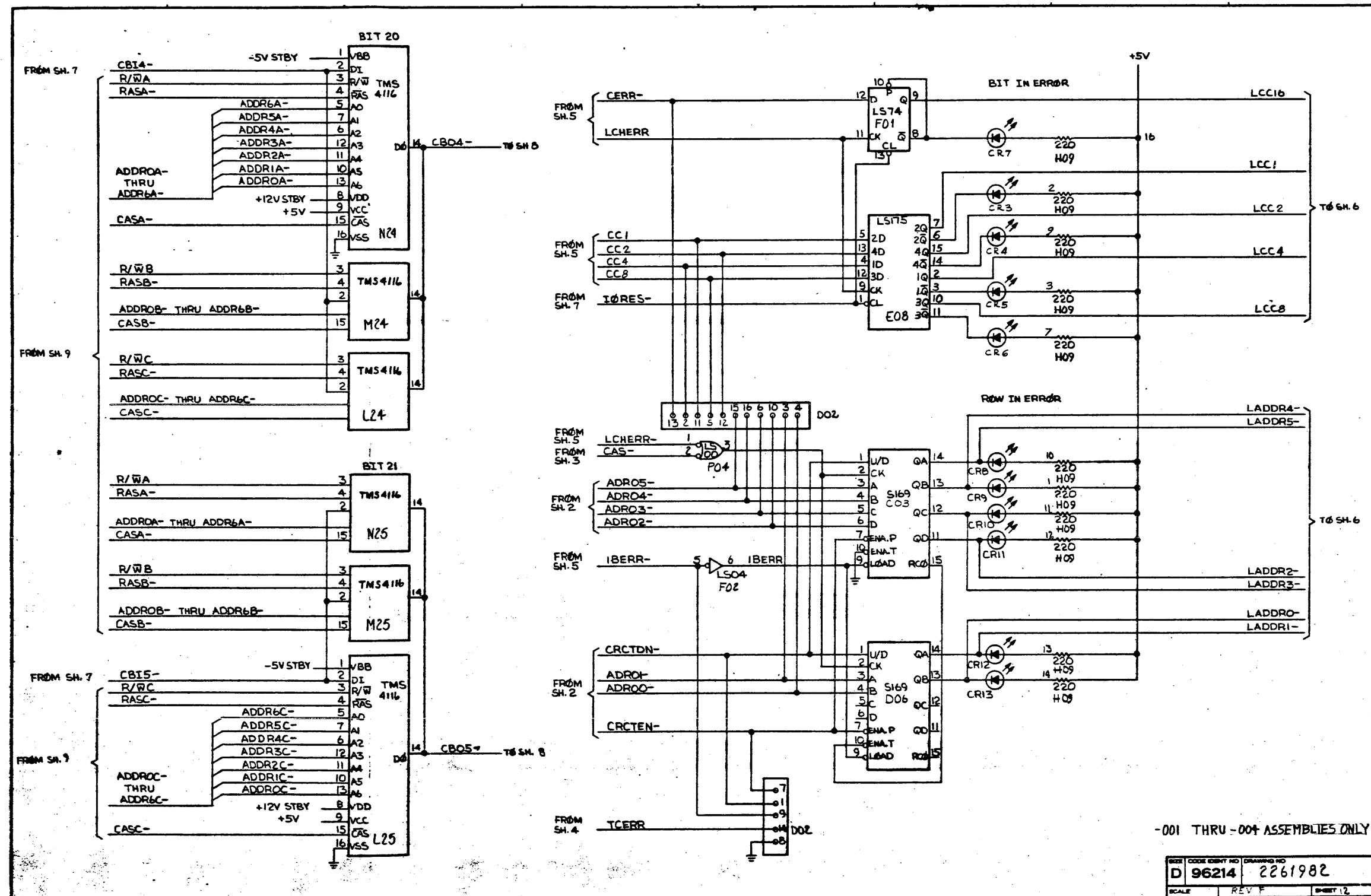




NOTE: EACH ROW AND COLUMN IS WIRED THE SAME UNLESS OTHERWISE SHOWN

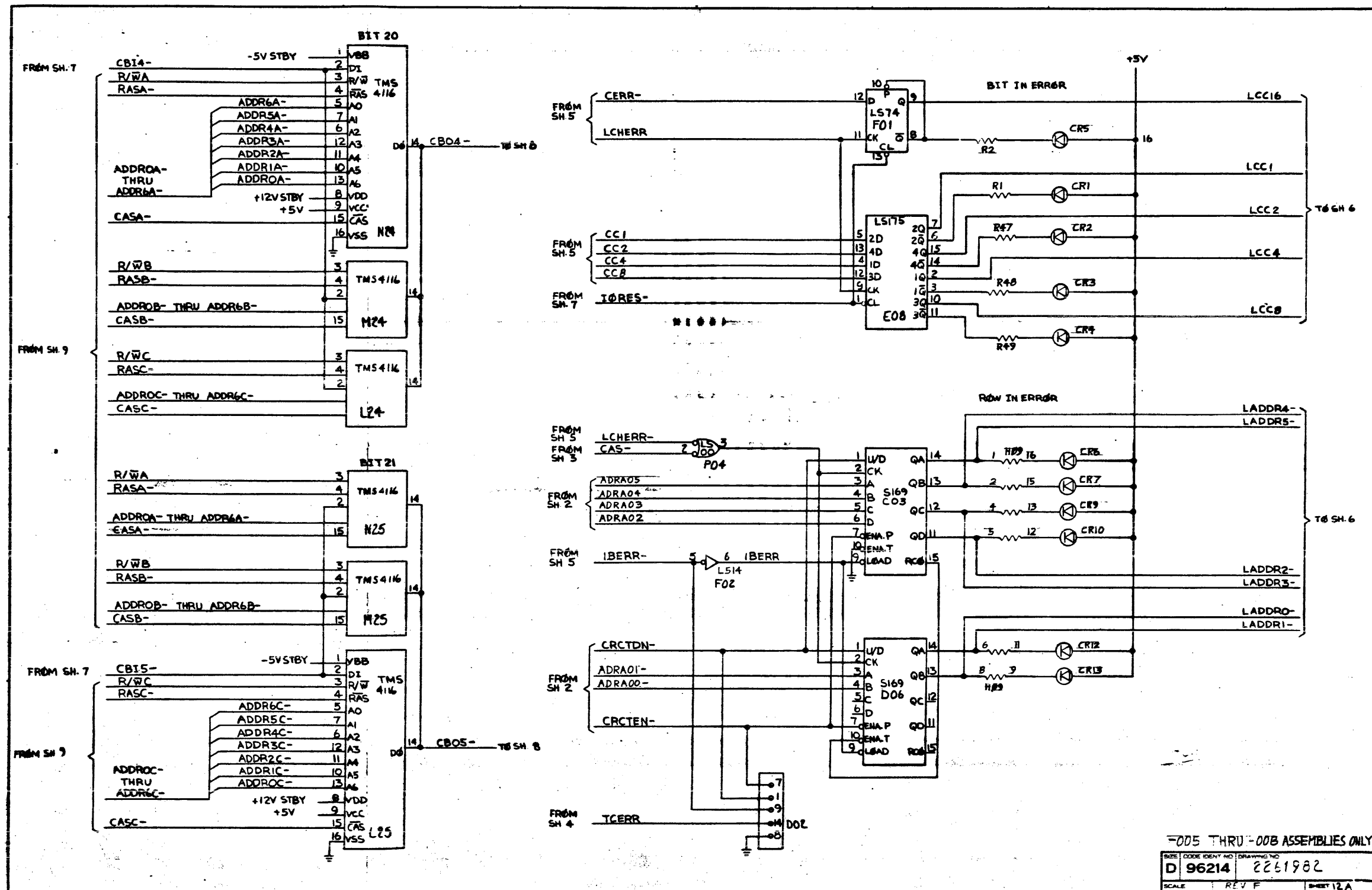
SIZE	CODE	IDENT NO.	DRAWING NO.
D	96214		2261982
SCALE			SHEET 11



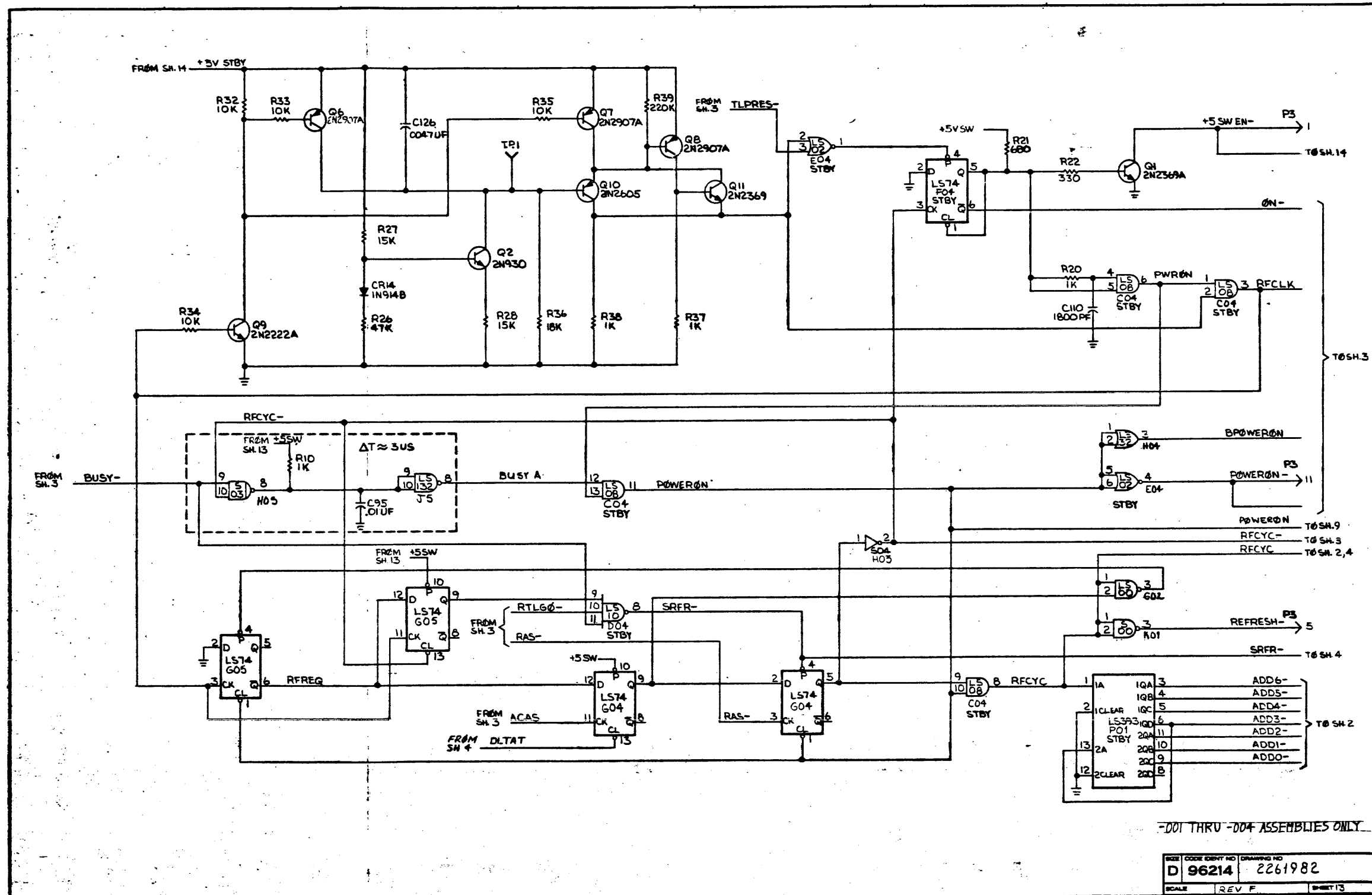


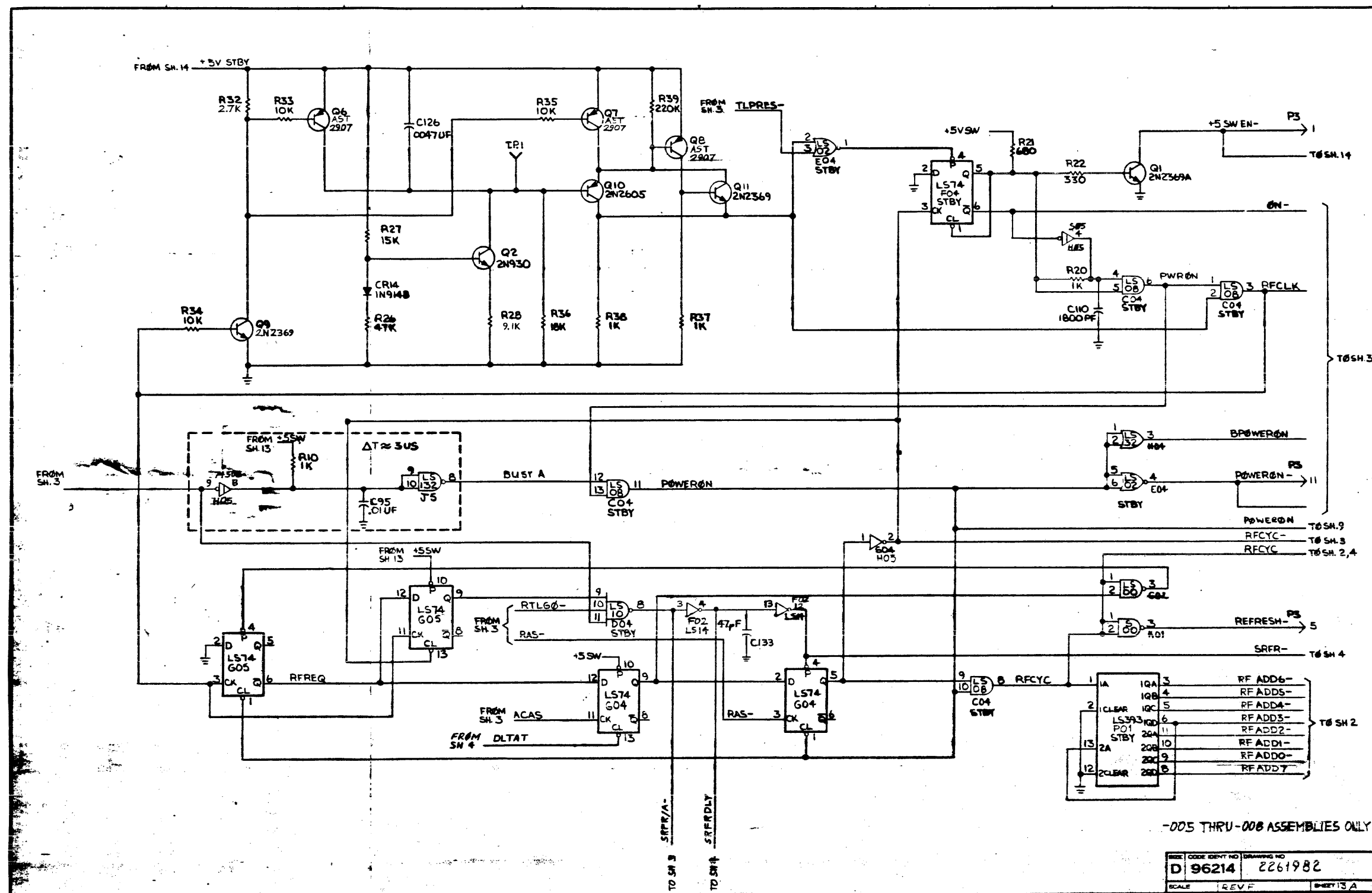
-001 THRU -004 ASSEMBLIES ONLY

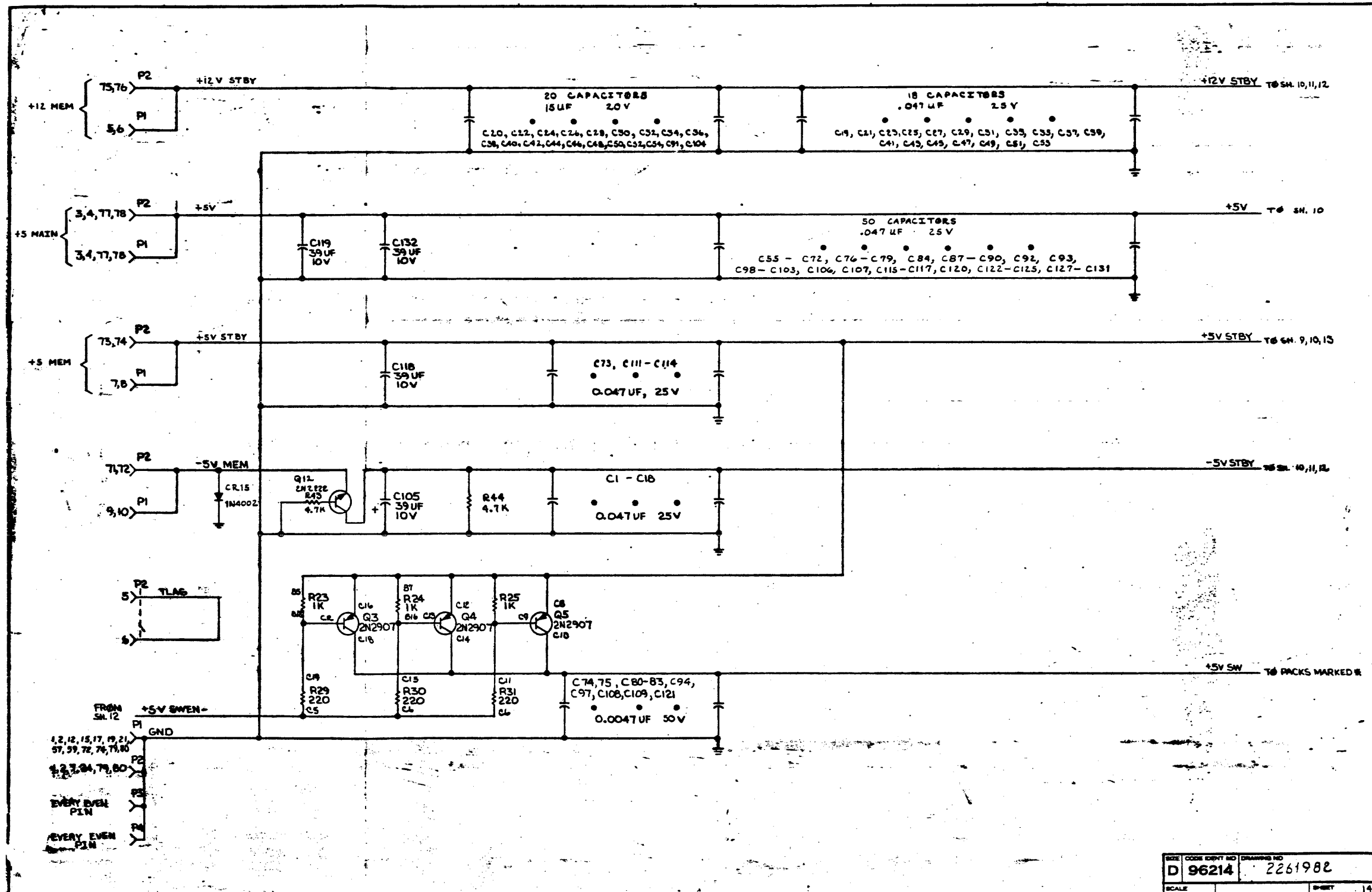
SIZE	CODE	REV	DRAWING NO
D	96214	F	2261982
SCALE	REV	SHEET 12	



7005 THRU 7008 ASSEMBLIES ONLY  
 SIZE: CODE IDENT. NO. DRAWING NO.  
 D 96214 2261982  
 SCALE: REV F SHEET 12A







SIZE	CODE IDENT NO	DRAWING NO
D	96214	2261982
SCALE		SHEET 14



NOTES (CONT.)

3. REWORK PROCEDURE FOR REV. B PWB (22-11991):

- A. CUT UE6 PIN 9  
 CUT US09 PIN 2  
 CUT UG1 PIN 3  
 CUT UL9 PIN 4  
 CUT UM09 PIN 1

- B. ADD 74500 AT LOCATION F-6 WITH PIN 14  
 CUT (INSERT PIN 1 OF I.C. INTO PIN 1 OF LOCATION).

C. ADD WIRES BETWEEN THE FOLLOWING POINTS AS SHOWN:

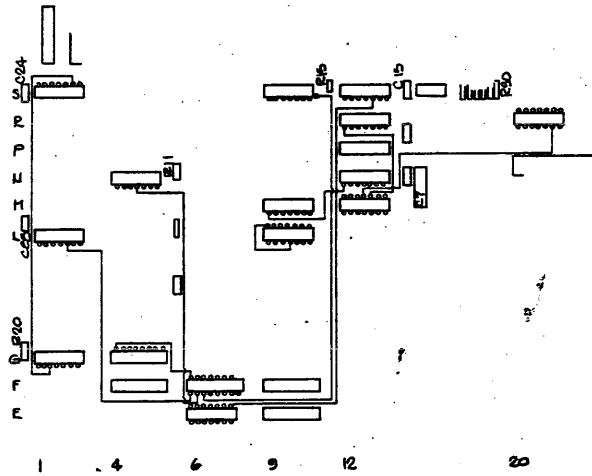
- US12 PIN 5 TO UE6 PIN 9 (ON I.C.)  
 US04 PIN 16 TO UF06 PIN 14 (ON I.C.)  
 UL01 PIN 5 TO UF06 PIN 1  
 UL04 PIN 4 TO UF06 PIN 2  
 UF06 PIN 7 TO PIN 8 OF LOCATION FO-5 (EMPTY PAD)  
 UF06 PIN 8 TO FEEDTHROUGH NEAR S9 PIN 7  
 UM12 PIN 11 TO UP20 PIN 6  
 UM12 PIN 10 TO UP12 PIN 1  
 US01 PIN 9 TO UG01 PIN 3 (ON I.C.)  
 UL09 PIN 14 TO UL09 PIN 4 (ON I.C.)  
 UM09 PIN 1 TO UM12 PIN 1

5. REWORK PROCEDURE FOR REV B & C PWB (2261991)

- A. CUT UP23 PIN 1  
 B. ADD WIRE UP12 PIN 11 TO UP23-1 (ON I.C.)

6. REWORK PROCEDURE FOR REV B, C, D, E, AND F PWBs

- A. CUT PIN UE06 PIN 8  
 B. REMOVE WIRE FROM US12 PINS TO UE6 PIN 9  
 C. ADD WIRES BETWEEN THE FOLLOWING POINTS  
 FROM US12 PIN 5 TO UF6 PIN 5  
 FROM UE6 PIN 10 TO UF6 PIN 4  
 FROM UF6 PIN 6 TO UF6 PIN 9  
 FROM UF6 PIN 9 TO UF6 PIN 10  
 FROM UF6 PIN 8 TO UF6 PIN 12  
 FROM UK4 PIN 12 TO UF6 PIN 13  
 FROM UF6 PIN 11 TO UF12 PIN 13  
 FROM UF12 PIN 7 TO I.C. PAD UE6 PIN 8



ITEM 107 IN -0001 LM CONSISTS OF COMPONENTS WHICH ARE AUTO INSERTED & CONTAINED IN THE -5001 LM

 TEXAS INSTRUMENTS DALLAS, TEXAS U.S.A.	DRAWN J. Hill	DATE 8-20-79	CASE PROJECT NO. D96214	DRAWING NO. 2261990	REV. 6
	ISSUE DATE	SCALE 1/1	SHEET 12 OF 12		

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM 2261990-0001		REV H	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0002	REF	EA		2261992-9901	LOGIC DIAGRAM, CACHE MEMORY CONTROLLER				
0003	REF	EA		2261993-9901	TEST PROCEDURE, CACHE MEMORY CONTROLLER				
0004	REF	EA		2261994-9901	SPECIFICATION, CACHE MEMORY CONTROLLER				
0019	00001.000	EA		0219402-7201	NETWORK SN74S201N				
0019A					UAI				
0020	00017.000	EA		0996089-0001	IC, SN74LS240N, LINE DRIVERS	001295-SN74LS240N			
0020A					UA23, UA27, UB23, UC23, UM27,				
0020B					UJ27, UV12, UV15, UV18, UV22,				
0020C					UV24, UV26, UV28, UV30, UV9,				
0020D					UM9, UM6				
0021	00001.000	EA		0996089-0002	IC, SN74LS241N, LINE DRIVERS	012955-SN74LS241N			
0021A					UP6				
0022	00004.000	EA		0996089-0004	IC, SN74LS244N LINE DRIVER	-SN74LS244N			
0022A					UB12, UC12, UF12, UV1				
0024	00001.000	EA		0996138-0001	IC, SN74LS266N 2-INPUT EXCLUSIVE-NOR GATE	TI -SN74LS266N			
0024A					UB1				
0025	00002.000	EA		0996029-0001	IC, SN74LS273N OCTAL D-TYPE FLIP/FLOP	TI -SN74LS273N			
0025A					UV6, UM30				
0029	00007.000	EA		0996420-0001	IC, SN74LS373N	001295-SN74LS373N			
0029A					UB27, UC27, UD23, UE23,				
DRAFTSMAN: <i>J. R. ...</i> DATE: 02/21/80 DESIGN ENGINEER: DATE: TITLE: <b>CACHE MEMORY CONTROLLER</b> APP'D: MFG: DATE: APP'D: PROJECT ENGINEER: DATE: RELEASED: DATE: PROJECT NO: <b>7047</b> PART NUMBER: <b>LM 2261990-0001</b> REV: <b>H</b>									

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM 2261990-0001		REV H	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0029B					UE27, UG6				
0032	00001.000	EA		0219402-7400	NETWORK SN74S00N				
0032A					UF06				
0048	00003.000	EA		0996063-0001	IC, SN74S241N, LINE DRIVERS	001295-SN74S241N			
0048A					UA4, UA6, UA9				
0051	00004.000	EA		0996307-0001	IC, SN74S373, OCTAL D, FLIP/FLOP	TI -SN74S373			
0051A					UA20, UM12, UM22, UM26				
0052	00004.000	EA		0996680-0001	IC, 16K RAM, (SEL)	001295-TMS4116/LA07Z7			
0052A					UT10, UT11, UT13, UT14, UT16,				
0052B					UT17, UT19, UT21, UT22, UT23,				
0052C					UT24, UT25, UT26, UT27, UT28,				
0052D					UT29, UT30, UT31A, UT5, UT6,				
0052E					UT8, UT9, UW10, UU11, UU13,				
0052F					UU14, UU16, UU17, UU19, UU21,				
0052G					UU22, UU23, UU24, UU25, UU26,				
0052H					UU27, UU28, UU29, UU30, UU31A,				
0052J					UU5, UU6, UU8, UU9				
0053	00001.000	EA		0946693-0067	ROM #1, 16K ECC DECODE, 990/10				
0053A					UM23				
0054	00002.000	EA		0996442-0001	DELAY LINE, TAPPED	097722-EP-7111			
DRAFTSMAN: DATE: 02/21/80 DESIGN ENGINEER: DATE: TITLE: <b>CACHE MEMORY CONTROLLER</b> APP'D: MFG: DATE: APP'D: PROJECT ENGINEER: DATE: RELEASED: DATE: PROJECT NO: PART NUMBER: <b>LM 2261990-0001</b> REV: <b>H</b>									

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM 2261990-0001		REV H	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0054A					UR4, UR7				
0055	00001.000	EA		0996850-0004	DELAY LINE, TAPPED, .09 UHMS, 20 NSEC	016714-TZA4-10			
0055A					UH1				
0056	00001.000	EA		0996850-0006	DELAY LINE, TAPPED, 1.1 UHMS, 30 NSEC	016714-TZA6-10			
0056A					UR10				
0057	00004.000	EA		0972583-0001	NETWORK, SN75365	TI -SN75365			
0057A					UF2, UT3, UM2, UU3				
0062	00002.000	EA		0972037-1220	NETWORK, RES 22 OHM 2% 16PIN BELEMENT	073138-898-3-R22			
0062A					UF4, UU4				
0064	00001.000	EA		2210025-0001	NETWORK, RES 220 OHM 2% 8-PIN FILM FIX	080294-4308K-101-221			
0064A					UH1				
0065	00002.000	EA		0972547-0008	SWITCH, SLIDE-SPST, DIP 8 SWITCHES				
0065A					UC31, UD1				
0066	00000.500	FT		0457313-0006	WIRE 24 AWG SOLID, TEFLON, WHITE	QPL - MIL-W-16878/4			
0067	00004.000	EA		2210188-0003	SOCKET, LOW PROFILE, DIP, 16 CONT	003612-D1L816P-108			
0067A					XUZ5, XUZA31A, XUZO30, XUZO29				
0067B					XUZ6, XUZ7B, XUZ9, XUZ10,				
0067C					XUZ11, XUZ13, XUZ14				
0067D					XUZ16, XUZ17, XUZ19, XUZ21				
0067E					XUZ22, XUZA23, XUZ24, XUZ25				
DRAFTSMAN: DATE: 02/21/80 DESIGN ENGINEER: DATE: TITLE: <b>CACHE MEMORY CONTROLLER</b> APP'D: MFG: DATE: APP'D: PROJECT ENGINEER: DATE: RELEASED: DATE: PROJECT NO: PART NUMBER: <b>LM 2261990-0001</b> REV: <b>H</b>									

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM 2261990-0001		REV H	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0067F					XUZ26, XUZA27, XUZA28, XUZA29				
0067G					XUZ30, XUZA31A, XUZA35, XUZA36				
0067H					XUZ38, XUZA39, XUZA40, XUZA41				
0067J					XUZ43, XUZA44, XUZA46, XUZA47				
0067K					XUZ49, XUZA21, XUZA22, XUZA23				
0067L					XUZ24, XUZA25, XUZA26, XUZA27				
0067M					XUZ28				
0068	00001.000	EA		2210188-0005	SOCKET, LOW PROFILE, DIP, 20 PINS	003612-D1L82UP-108			
0068A					XUZ23				
0069	00002.000	EA		2210188-0006	SOCKET, LOW PROFILE, DIP, 22 PINS, 10 CONT	003612-D1L822P-108			
0069A					XUZ16, XUZA16, XUZA16, XUZA16				
0069B					XUZ16, XUZA16, XUZA16, XUZA16				
0069C					XUZ20, XUZA20, XUZA20, XUZA20				
0069D					XUZ20, XUZA20, XUZA20, XUZA20				
0069E					XUZ20, XUZA25, XUZA25, XUZA25				
0069F					XUZ25, XUZA25, XUZA25, XUZA25				
0069G					XUZ25, XUZA25, XUZA25, XUZA20				
0077	00002.000	EA		0972946-0081	RES FIX 47K OHM 5% .25 W CARBON FILM	RUM - R-25			
0077A					R9, R10				
0078	00002.000	EA		0972753-0012	CAP, FIXED 220PF 25 MVDC 2.0%	UC -C5002216			
DRAFTSMAN: DATE: 02/21/80 DESIGN ENGINEER: DATE: TITLE: <b>CACHE MEMORY CONTROLLER</b> APP'D: MFG: DATE: APP'D: PROJECT ENGINEER: DATE: RELEASED: DATE: PROJECT NO: PART NUMBER: <b>LM 2261990-0001</b> REV: <b>H</b>									



TEXAS INSTRUMENTS INCORPORATED		DATE 02/21/80		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LM 2261990-0001		REV H	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0081A					C3,C4						
0083	00001.000	EA		0972753-0008	CAPACITOR, 100PF 25V 2% CERAMIC DIELECT						
0083A					C1						
0085	00001.000	EA		0972757-0016	CAP, FIXED CER 1800PF 50VDRG +10%	007115-LACJ2X7K391K10					
0085A					C6						
0088	00010.000	EA		0972763-0021	CAP, FIXED, AXIAL LEAD, .047 UF, +80%, -20%						
0088A					C33,C35,C38,C40,C42,C46,						
0088B					C47,C49,C51,C54						
0090	00002.000	EA		0972924-0006	CAP FIX TANT SOLID 39 MFD 10 & 10 VGL	WPL -M39003/L-2259					
0090A					C11,C12						
0091	00001.000	EA		0972057-0001	TRANSISTOR-A5T2222 NPN SILICON	TI- -A5T2222					
0091A					Q6						
0092	00004.000	EA		0972958-0002	TRANSISTOR, 2N2907A PNP GEN PURP SW TU-18	TI - 2N2907A					
0092A					Q2,Q3,Q4,Q5						
0093	00001.000	EA		0972955-0001	ASTR 2N2369A, NPN, HIGH SPEED SW, TU-18	MUT - 2N2369A					
0093A					Q1						
0094	00001.000	EA		053968-0002	DIODE, 1N4002 1AMP 100VIV RECTIFIER	TI - 1N4002					
0094A					CR16						
0095	00002.000	EA		0972537-0001	DIODE, LED 550-0103 50 MA 3 V	DIA --550-0103					
0095A					CR1, CR2						
DRAFTSMAN		DATE	CED DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	CACHE MEMORY CONTROLLER			
APPRO. MFG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER		REV	
								LM 2261990-0001		H	

TEXAS INSTRUMENTS INCORPORATED		DATE 02/21/80		LIST OF MATERIAL		PAGE 6 of		PART NUMBER LM 2261990-0001		REV H	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0096	00013.000	EA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING						
0096A					CR3, CR4, CR5, CR6, CR7, CR8, CR9						
0096B					CR10, CR11, CR12, CR13, CR14						
0096C					CR15						
0097	00002.000	EA		0972137-0005	CONNECTOR, PG 50 PIN	BEI - 65483-005					
0097A					P3, P4						
0098	00001.000	EA		0945239-0001	BRAKLET-STIFFENER, PWB, 14IN						
0099	00001.000	EA		0944954-0001	INSULATOR, PWB, 14IN						
0100	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB						
0101	00003.000	EA		0972684-0002	SCREW, TMD FMMG, HEX MSHR HD, 2-56X1/4 LG						
0102	00028.000	EA		2210338-0001	IC, RANDOM ACCESS MEM, TTL	007263-93422PC					
0102A					UA16 UA25 UB16 UB20 UB25						
0102B					UC16 UC20 UC25 UD16 UD20						
0102C					UE25 UF16 UE20 UF25 UG16						
0102D					UG20 UG25 UH16 UH20 UH25						
0102E					UJ16 UJ20 UJ25 UK20 UK25						
0102F					UM20 UM25 UN20						
0103	00001.000	EA		0539371-0557	RES FIX FILM 61.9K OHM 1% .15 WATT	GDR - NC4					
0103A					R2						
0104	00001.000	EA		0972757-0001	CAP, FIXED CERAMIC 100 PF 10% 50V	UC -C51C10K					
DRAFTSMAN		DATE	CED DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	CACHE MEMORY CONTROLLER			
APPRO. MFG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER		REV	
								LM 2261990-0001		H	

TEXAS INSTRUMENTS INCORPORATED		DATE 02/21/80		LIST OF MATERIAL		PAGE 7 of		PART NUMBER LM 2261990-0001		REV H	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0104A					C22						
0106	00001.000	EA		0972946-0045	RES FIX 150 OHM 5% .25 W CARBON FILM	ROH - R-25					
0106A					R19						
0107	00001.000	EA		2261990-5001	AUTO INSERTED PARTS LIST FOR 2261990-1						
DRAFTSMAN		DATE	CED DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	CACHE MEMORY CONTROLLER			
APPRO. MFG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER		REV	
								LM 2261990-0001		H	

TEXAS INSTRUMENTS INCORPORATED		DATE 02/21/80		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM 2261990-5001		REV H	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	00001.000	EA		2261991-0001	PWB, CACHE MEMORY CONTROLLER						
0005	00003.000	EA		0972900-7400	NETWORK SN74LS00N	TI -SN74LS00N					
0005A					UN4, UK6, UK29						
0006	00002.000	EA		0972900-7402	NETWORK, SN74LS02N						
0006A					US20, UJ29						
0007	00004.000	EA		0972900-7404	NETWORK SN74LS04N						
0007A					UM6, UE4, UM31, US4						
0008	00004.000	EA		0972749-0001	NETWORK, SN74LS08N						
0008A					UN1, UR1, UR12, UM29						
0009	00002.000	EA		0972900-7410	NETWORK SN74LS10N						
0009A					US12, UL6						
0010	00002.000	EA		0972788-0001	NETWORK, SN74LS11, POSITIVE AND GATE						
0010A					UC6, UJ4						
0011	00004.000	EA		0972900-7432	NETWORK SN74LS32N	TI -SN74LS32N					
0011A					UN1, UM27, UM18, UK29						
0012	00001.000	EA		0996780-0001	IC, SN74LS33N QUAD POSITIVE-NUM BUFFER	001295-SN74LS33N					
0012A					UA12						
0013	00004.000	EA		0972900-7451	NETWORK SN74LS51N	TI -SN74LS51N					
0013A					UP12, UF1, US6, UK27						
0014	00001.000	EA		0972900-7454	NETWORK SN74LS54N	TI -SN74LS54N					
DRAFTSMAN		DATE	CED DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	AUTO INSERTED PARTS LIST FOR 2261990-1			
APPRO. MFG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER		REV	
								LM 2261990-5001		H	

TEXAS INSTRUMENTS INCORPORATED		DATE 02/21/80		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM 2261990-5001		REV H	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0014A					UP9						
0015	00006.000	EA		0972900-7474	NETWORK SN74LS74N						
0015A					UG1,UG31,UN31,UL9,UM9,UR20						
0016	00001.000	EA		0996116-0001	IC, SN74LS75N, 4-BIT BISTABLE LATCH	001295-SN74LS75N					
0016A					UL29						
0017	00001.000	EA		0972782-0001	NETWORK SN74LS132N	TI -SN74LS132N					
0017A					UL12						
0018	00002.000	EA		0972900-7175	NETWORK SN74LS175N						
0018A					UM23,UP29						
0023	00006.000	EA		0996136-0002	IC, SN74LS258N, DATA SELECTORS/MULTIPLEXER	TI -SN74LS258N					
0023A					UB4,UC4,UM15,UM9,UK23,UN27						
0024	00001.000	EA		0996138-0001	IC, SN74LS266N 2-INPUT EXCLUSIVE-NOR GATE	TI -SN74LS266N					
0024A					UC1						
0026	00002.000	EA		0972652-0001	NETWORK SN74LS283N						
0026A					UB6,UB9						
0027	00004.000	EA		0972653-0001	NETWORK, SN74LS293N						
0027A					UF31						
0028	00002.000	EA		0972787-0004	NETWORK SN74LS368N						
0028A					UM29,UM24						
0030	00001.000	EA		0996424-0001	IC, SN74LS275N 4 BIT BISTABLE LATCHES	001295-SN74LS275N					
DRAFTSMAN DATE CKD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE											
AUTO INSERTED PARTS LIST FOR 2261990-1											
APPRO. MFG. DATE APPO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV											
LM 2261990-5001 H											

TEXAS INSTRUMENTS INCORPORATED		DATE 02/21/80		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM 2261990-5001		REV H	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0030A					UG4						
0031	00001.000	EA		0996508-0001	IC, 74LS393N DUAL BINARY COUNTER	001295-74LS393N					
0031A					UV4						
0032	00002.000	EA		0219402-7400	NETWORK SN74S00N						
0032A					UH23, UJ12						
0033	00002.000	EA		0219402-7404	NETWORK SN74S04N						
0033A					UN12, US9						
0034	00001.000	EA		0219402-7405	NETWORK SN74S05N						
0034A					UM12						
0035	00002.000	EA		0219402-7408	NETWORK SN74S08N	TI -SN74S08N					
0035A					UD4, UL4						
0036	00003.000	EA		0219402-7410	NETWORK SN74S10N						
0036A					UJ6, UK12, UL23						
0037	00002.000	EA		0219402-7411	NETWORK SN74S11N						
0037A					UF4, UP1						
0038	00001.000	EA		0219402-7420	NETWORK SN74S20N						
0038A					UN29						
0039	00001.000	EA		0219402-7430	NETWORK SN74S30N						
0039A					UP25						
0040	00002.000	EA		0219402-7432	NETWORK SN74S32N	TI -SN74S32N					
DRAFTSMAN DATE CKD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE											
AUTO INSERTED PARTS LIST FOR 2261990-1											
APPRO. MFG. DATE APPO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV											
LM 2261990-5001 H											

TEXAS INSTRUMENTS INCORPORATED		DATE 02/21/80		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM 2261990-5001		REV H	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0040A					UD6, UN9						
0041	00001.000	EA		0996851-0001	IC, QUAD POSITIVE-NAND, SN74S38N	-SN74S38N					
0041A					UE6						
0042	00001.000	EA		0219402-7464	NETWORK SN74S64N						
0042A					UH4						
0043	00010.000	EA		0219402-7474	NETWORK SN74S74N						
0043A					UJ1, UK1, UK4, UL1, UR23, UN6,						
0043B					UP4, US1, UM4, UP23						
0044	00001.000	EA		0219402-7486	NETWORK SN74S86N						
0044A					US23						
0045	00002.000	EA		0219402-7133	NETWORK SN74S133N						
0045A					UF9, UK9						
0046	00014.000	EA		2210136-0001	IC-EXCLUSIVE-OR/NOR GATE	001295-SN74S135N					
0046A					UB29, UC29, UC9, UD29, UD9,						
0046B					UE29, UE9, UG9, UH9, UJ9						
0047	00002.000	EA		0219402-7138	NETWORK SN74S138N						
0047A					UE31, UF29						
0049	00001.000	EA		0219402-7260	NETWORK SN74S260N						
0049A					UH6						
0050	00014.000	EA		0219402-7280	NETWORK SN74S280N	TI -SN74S280N					
DRAFTSMAN DATE CKD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE											
AUTO INSERTED PARTS LIST FOR 2261990-1											
APPRO. MFG. DATE APPO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV											
LM 2261990-5001 H											

TEXAS INSTRUMENTS INCORPORATED		DATE 02/21/80		LIST OF MATERIAL		PAGE 5 of		PART NUMBER LM 2261990-5001		REV H	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0050A					UD12, UE12, UF23, UF27, UG12,						
0050B					UG23, UG27, UH12, UR25, UR27,						
0050C					UR29, US25, US27, US29						
0058	00001.000	EA		0802023-0001	NETWORK SN75138N						
0058A					UA29						
0059	00001.000	EA		0972810-0001	NETWORK-SN74LS221N						
0059A					US15						
0060	00001.000	EA		0972037-2480	NETWORK, RES 680 OHM 2% 16PIN BELEMENT	073138-898-3-R680					
0060A					UD31						
0061	00001.000	EA		0800118-0004	RESISTOR 220 OHMS 01L PULL UP 16 PINS	BEC -8981R220					
0061A					UM28						
0063	00002.000	EA		0800118-0013	RESISTOR, FIXED-ARRAY, 4-7K						
0063A					UP27, UE1						
0070	00004.000	EA		0972946-0025	RES FIX 22.0 OHM 5% .25 W CARBON FILM	ROH - R-25					
0070A					R23, R26, R27, R28						
0071	00003.000	EA		0972946-0041	RES FIX 100 OHM 5% .25 W CARBON FILM	MUH - R-25					
0071A					R11, R15, R20						
0072	00004.000	EA		0972946-0049	RES FIX 220 OHM 5% .25 W CARBON FILM	ROH - R-25					
0072A					R37, R38, R39, R40						
0073	00001.000	EA		0972946-0053	RES FIX 330 OHM 5% .25 W CARBON FILM	ROH - R-25					
DRAFTSMAN DATE CKD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE											
AUTO INSERTED PARTS LIST FOR 2261990-1											
APPRO. MFG. DATE APPO. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER REV											
LM 2261990-5001 H											

TEXAS INSTRUMENTS INCORPORATED		DATE 02/21/80		LIST OF MATERIAL		PAGE 6 of		PART NUMBER LM 2261990-5001		REV H	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0073A					R31						
0074	00001.000	EA		0972946-0038	RES FIX 75.0 OHM 5 % .25 W CARBUN FILM	RUH - R-25					
0074A					R14						
0075	00001.000	EA		0972946-0061	RES FIX 680 OHM 5 % .25 W CARBUN FILM	RUH - R-25					
0075A					R30						
0076	00007.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBUN FILM	ROH - R-25					
0076A					R6, R29, R32, R33, R34, R35, R36						
0077	00007.000	EA		0972946-0081	RES FIX 4.7K OHM 5 % .25 W CARBUN FILM	ROH - R-25					
0077A					R5, R7, R8, R21, R22, R23, R24						
0078	00001.000	EA		0539370-0377	RES FIX FILM 825 OHM 1% .25 WATT	GUR - NA35					
0078A					R17						
0079	00001.000	EA		0539371-0478	RES FIX FILM 9.31K OHM 1% .13 WATT	GUR - NC4					
0079A					R18						
0080	00001.000	EA		0539371-0453	RES FIX FILM 5.11K OHMS 1% .13WATT	GUR - NC4					
0080A					R1						
0082	00001.000	EA		0972757-0025	CAP FIX CER .01MF 10% 50V						
0082A					C5						
0084	00001.000	EA		0972753-0016	CAP., 420 PF, 2%, 25VDC						
0084A					C2						
0086	00001.000	EA		0972757-0021	CAP, FIX, CERAMIC, 4700PF, 50V 10%						
DRAFTSMAN: _____ DATE: _____ C.D. DRAFTSMAN: _____ DATE: _____ DESIGN ENGINEER: _____ DATE: _____ TITLE: AUTO INSERTED PARTS LIST FOR 2261990-1 APPD. MFG: _____ DATE: _____ APPD. PROJECT ENGINEER: _____ DATE: _____ RELEASED: _____ DATE: _____ PROJECT NO.: _____ PART NUMBER: LM 2261990-5001 REV: H											

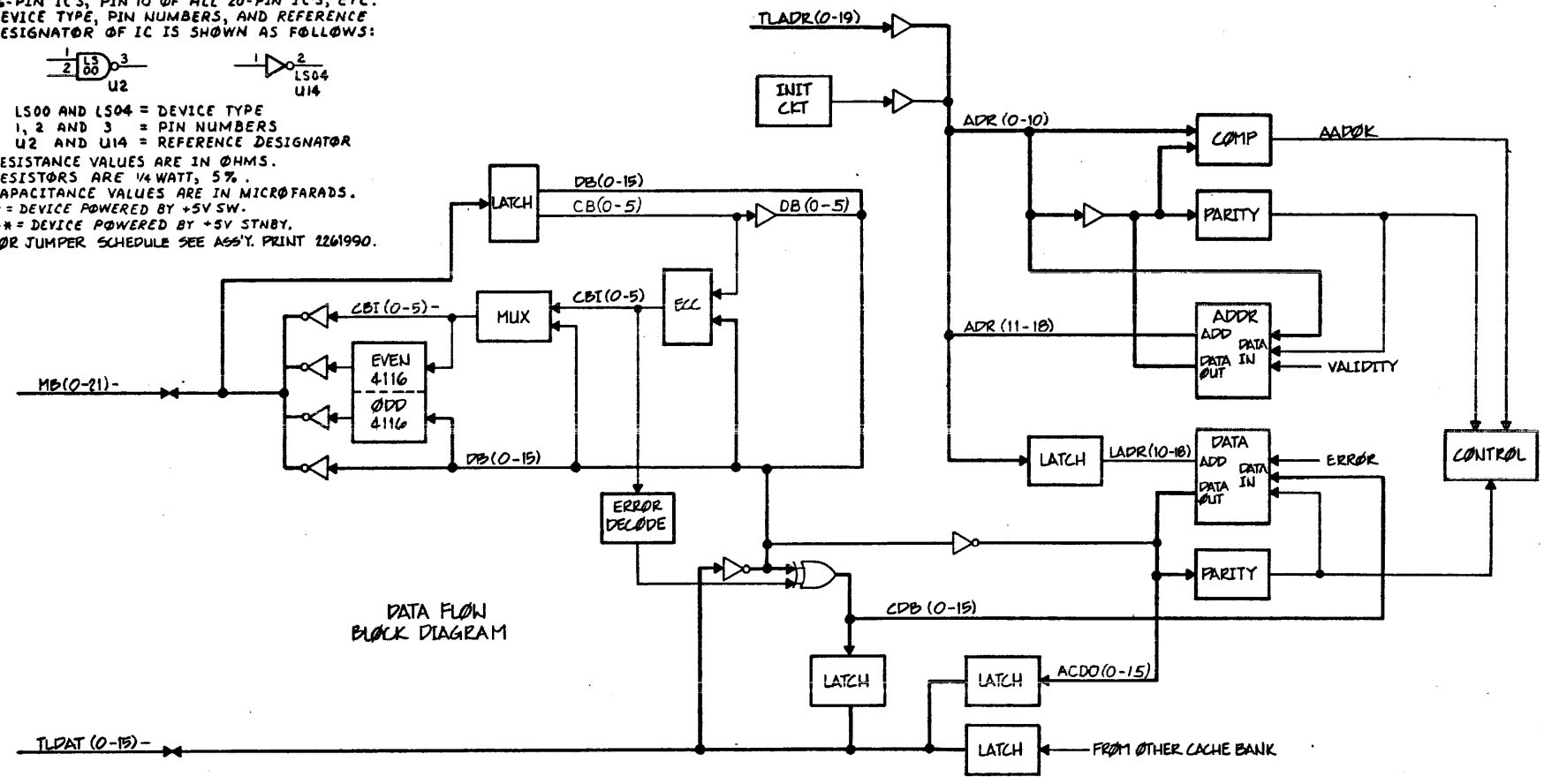
TEXAS INSTRUMENTS INCORPORATED		DATE 02/21/80		LIST OF MATERIAL		PAGE 7 of		PART NUMBER LM 2261990-5001		REV H	
PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0086A					C9						
0087	00007.000	EA		0972763-0009	CAP, FIXED .0047MF 50 VOLTS	004222-MC105E4724					
0087A					C18, C19, C20, C21, C23, C24, C25						
0088	00055.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80%, -20%						
0088A					C10, C15, C16, C17, C26, C27, C28						
0088B					C29, C30, C31, C32, C34, C36,						
0088C					C37, C39, C41, C43, C44, C45,						
0088D					C48, C50, C52, C53, C55, C66,						
0088E					C67, C68, C69, C70, C71, C72,						
0088F					C73, C74, C75, C76, C77, C78,						
0088G					C79, C80, C81, C82, C83, C84,						
0088H					C85, C86, C87, C88, C89, C90,						
0088J					C91, C92, C93, C94, C95, C96						
0089	00011.000	EA		0972924-0014	CAP FIX TANT SOLID 15 MFD 10 % 20 VOLT QPL	-M39003/1-2289					
0089A					C14, C56, C57, C58, C59, C60, C61						
0089B					C62, C63, C64, C65						
0090	00004.000	EA		0972924-0006	CAP FIX TANT SOLID 39 MFD 10 % 10 VOLT QPL	-M39003/1-2259					
0090A					C7, C8, C13, C57						
0105	00002.000	EA		0996136-0001	IC, SN74LS257N, DATA SELECTORS/MULTIPLEXER TI	-SN74LS257N					
0105A					UJ23, UL27						
DRAFTSMAN: _____ DATE: _____ C.D. DRAFTSMAN: _____ DATE: _____ DESIGN ENGINEER: _____ DATE: _____ TITLE: AUTO INSERTED PARTS LIST FOR 2261990-1 APPD. MFG: _____ DATE: _____ APPD. PROJECT ENGINEER: _____ DATE: _____ RELEASED: _____ DATE: _____ PROJECT NO.: _____ PART NUMBER: LM 2261990-5001 REV: H											

- NOTES: UNLESS OTHERWISE SPECIFIED:
1. ALL DEVICE TYPES ARE PREFIXED WITH SN74.
  2. VCC IS APPLIED TO PIN 8 OF ALL 8-PIN IC'S, PIN 14 OF ALL 14-PIN IC'S, PIN 16 OF ALL 16-PIN IC'S, PIN 20 OF ALL 20-PIN IC'S, ETC.
  3. GROUND IS APPLIED TO PIN 4 OF ALL 8-PIN IC'S, PIN 7 OF ALL 14-PIN IC'S, PIN 8 OF ALL 16-PIN IC'S, PIN 10 OF ALL 20-PIN IC'S, ETC.
  4. DEVICE TYPE, PIN NUMBERS, AND REFERENCE DESIGNATOR OF IC IS SHOWN AS FOLLOWS:



- LS00 AND LS04 = DEVICE TYPE  
 1, 2 AND 3 = PIN NUMBERS  
 U2 AND U14 = REFERENCE DESIGNATOR
5. RESISTANCE VALUES ARE IN OHMS.
  6. RESISTORS ARE 1/4 WATT, 5%.
  7. CAPACITANCE VALUES ARE IN MICROFARADS.
  8. \* = DEVICE POWERED BY +5V SW.
  9. \*\* = DEVICE POWERED BY +5V STBY.
  10. FOR JUMPER SCHEDULE SEE ASSY. PRINT 2261990.

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED	1-25-79	[Signature]
B	REVISED	1-25-79	[Signature]
C	REVISED	2-5-80	[Signature]



DATA FLOW BLOCK DIAGRAM

REV STATUS OF SHEETS	REV	C	B	B	B	B	B	B	B	B	B	B	B	B	B	B	C	B	B	B	B				
SH.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25

SEQ NO	IDENT	F SPEC	NO	ADDITIONAL CLASSIFICATION	NOTES

QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

UNLESS OTHERWISE SPECIFIED:

- DIMENSIONS ARE IN INCHES
- TOLERANCES - ANGLES ±1°
- 3 PLACE DECIMALS = 0.001
- 2 PLACE DECIMALS = 0.02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS 0.10 P.M.
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHEetical INFO FOR REF ONLY

HOLE TOLERANCE

0.125 - 0.004	0.125 - 0.001	0.125 - 0.001	0.125 - 0.001
0.125 - 0.001	0.125 - 0.001	0.125 - 0.001	0.125 - 0.001

2261990 7047

APPROVED: [Signature]

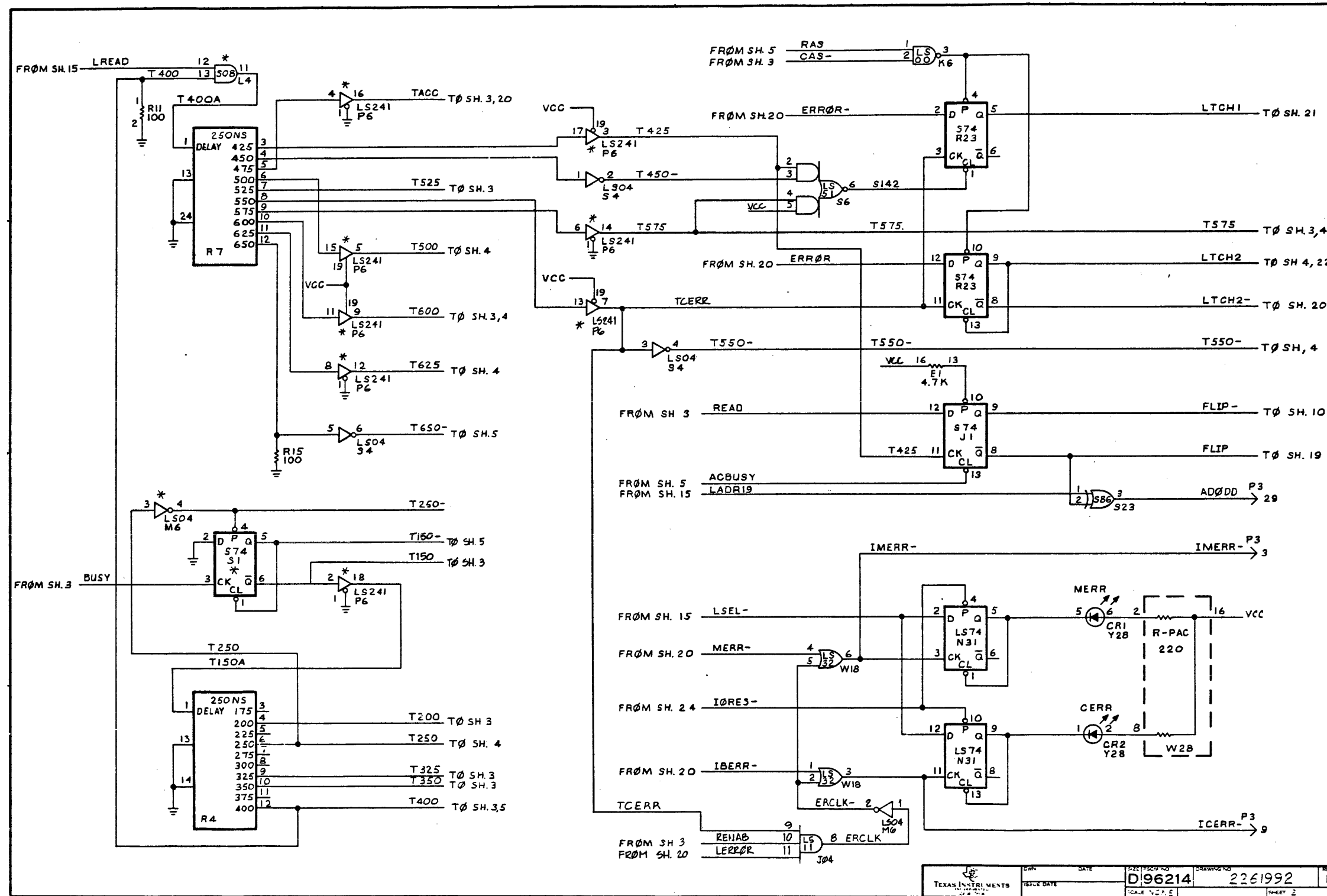
DATE: 1-25-79

SCALE: 1:1

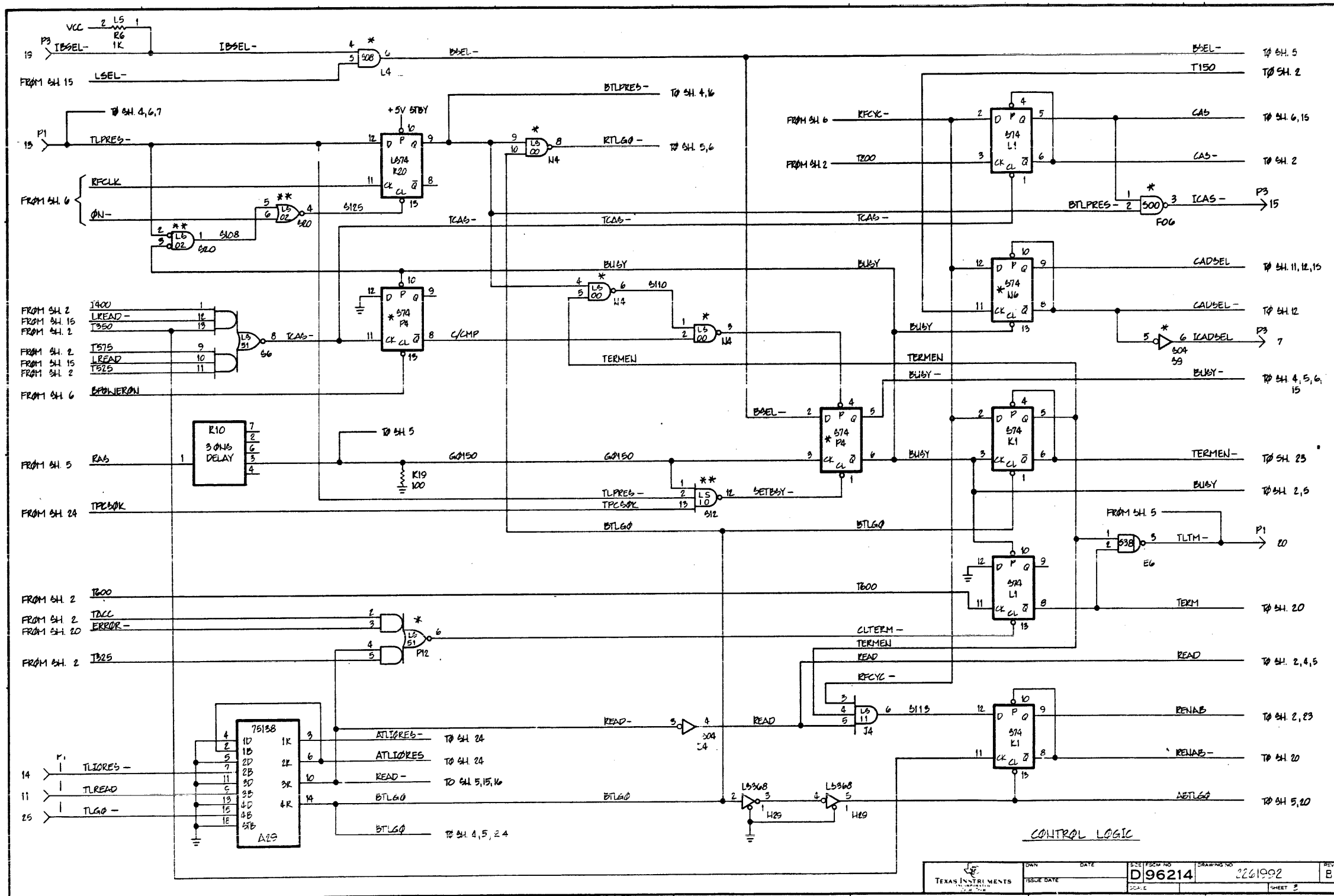
TEXAS INSTRUMENTS INCORPORATED Dallas, Texas

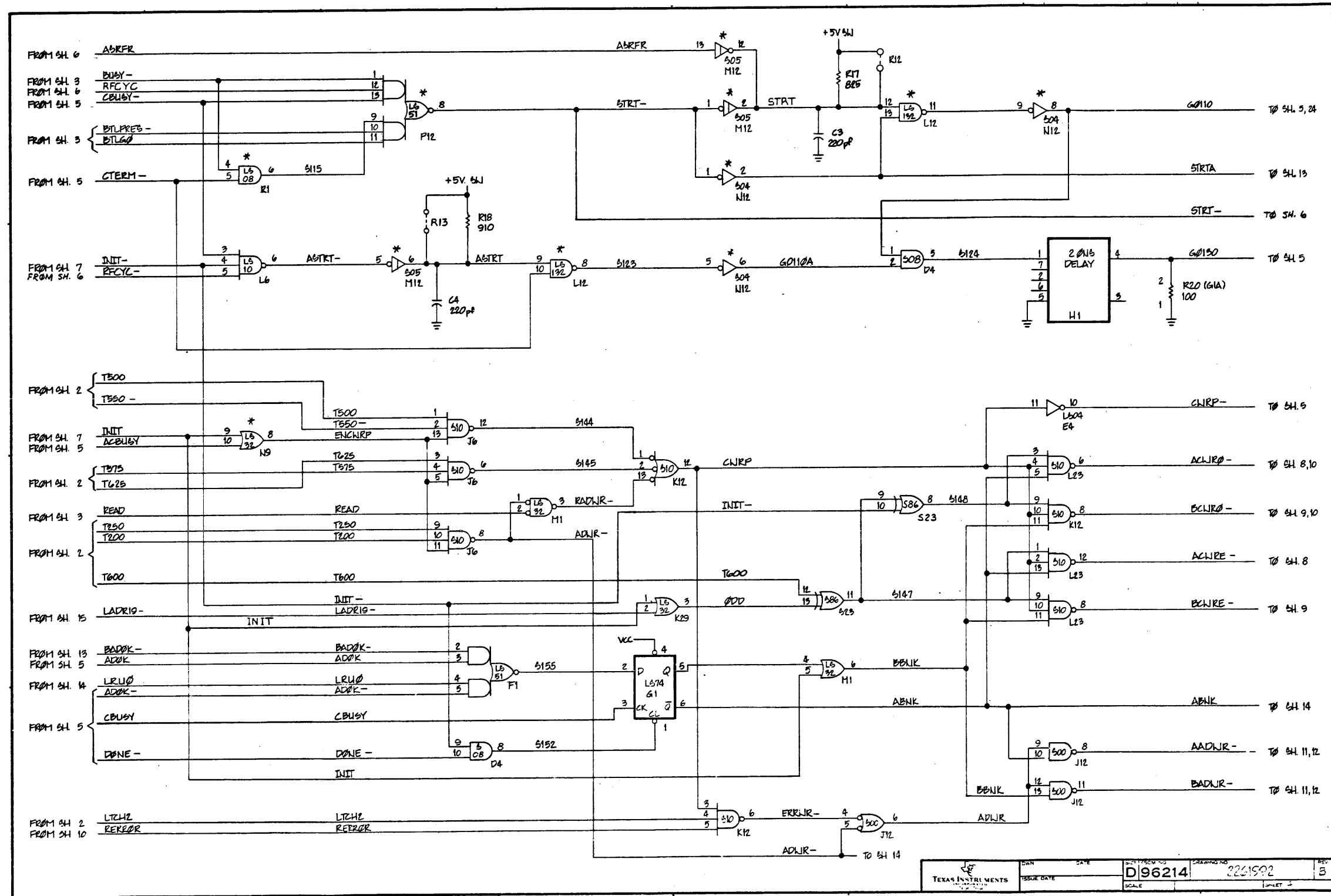
LOGIC DIAGRAM, CACHE MEMORY CONTROLLER

D96214 2261992

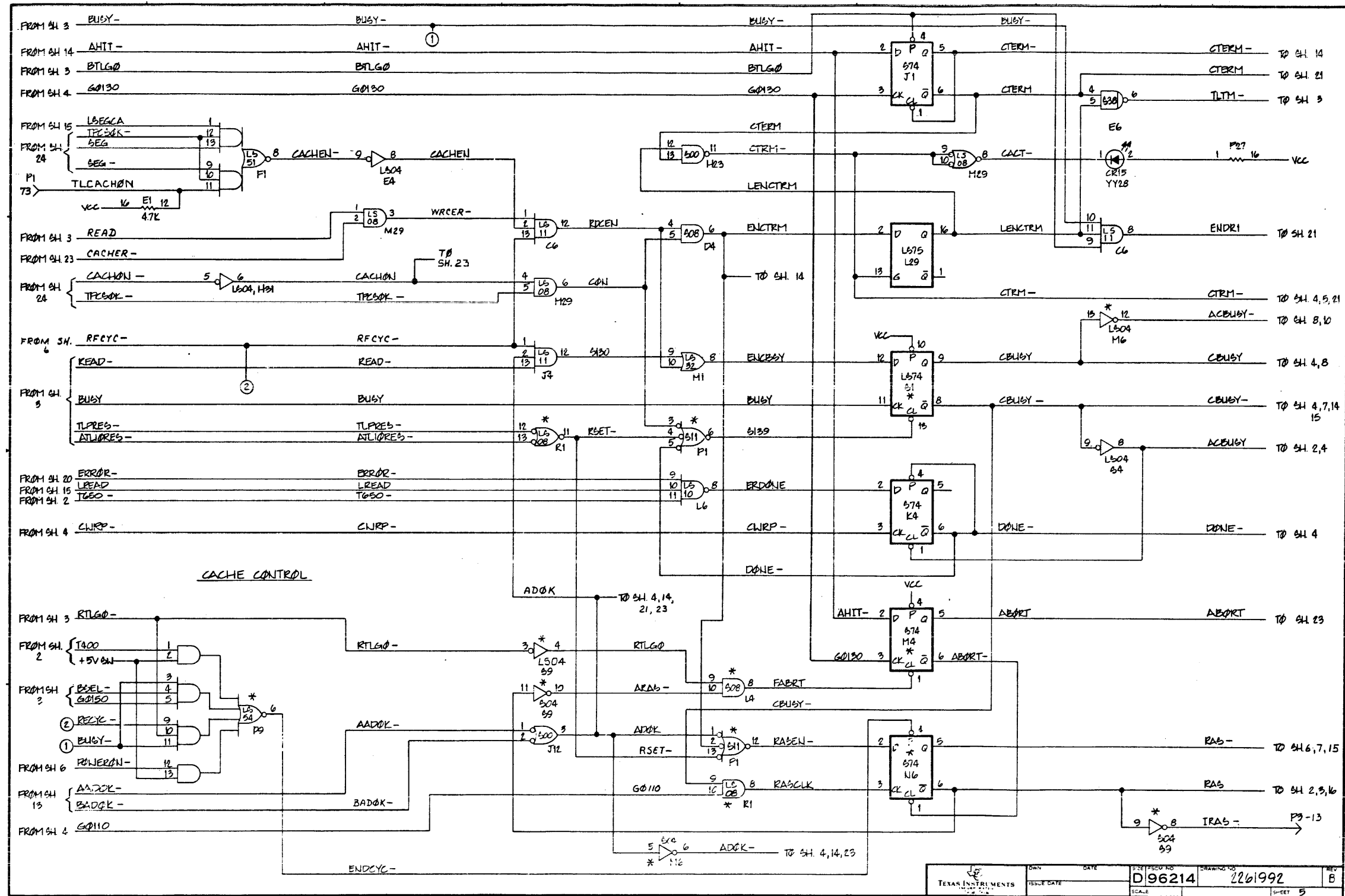


TEXAS INSTRUMENTS	DATE	SIZE (PCB) NO.	DRAWING NO.	REV.
	ISSUE DATE	D:96214	2261992	B
		SCALE: N.P.E.	SHEET 2	

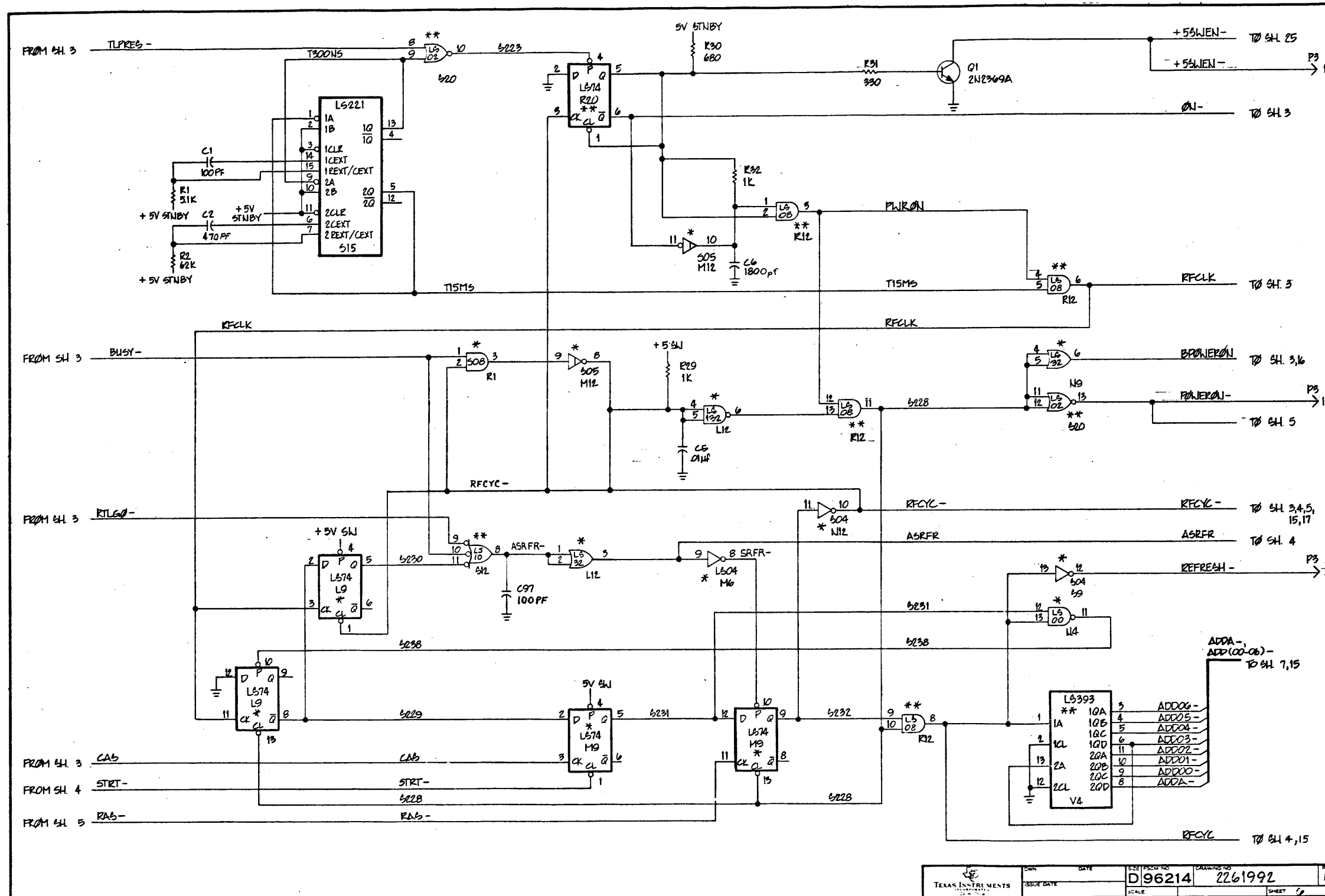




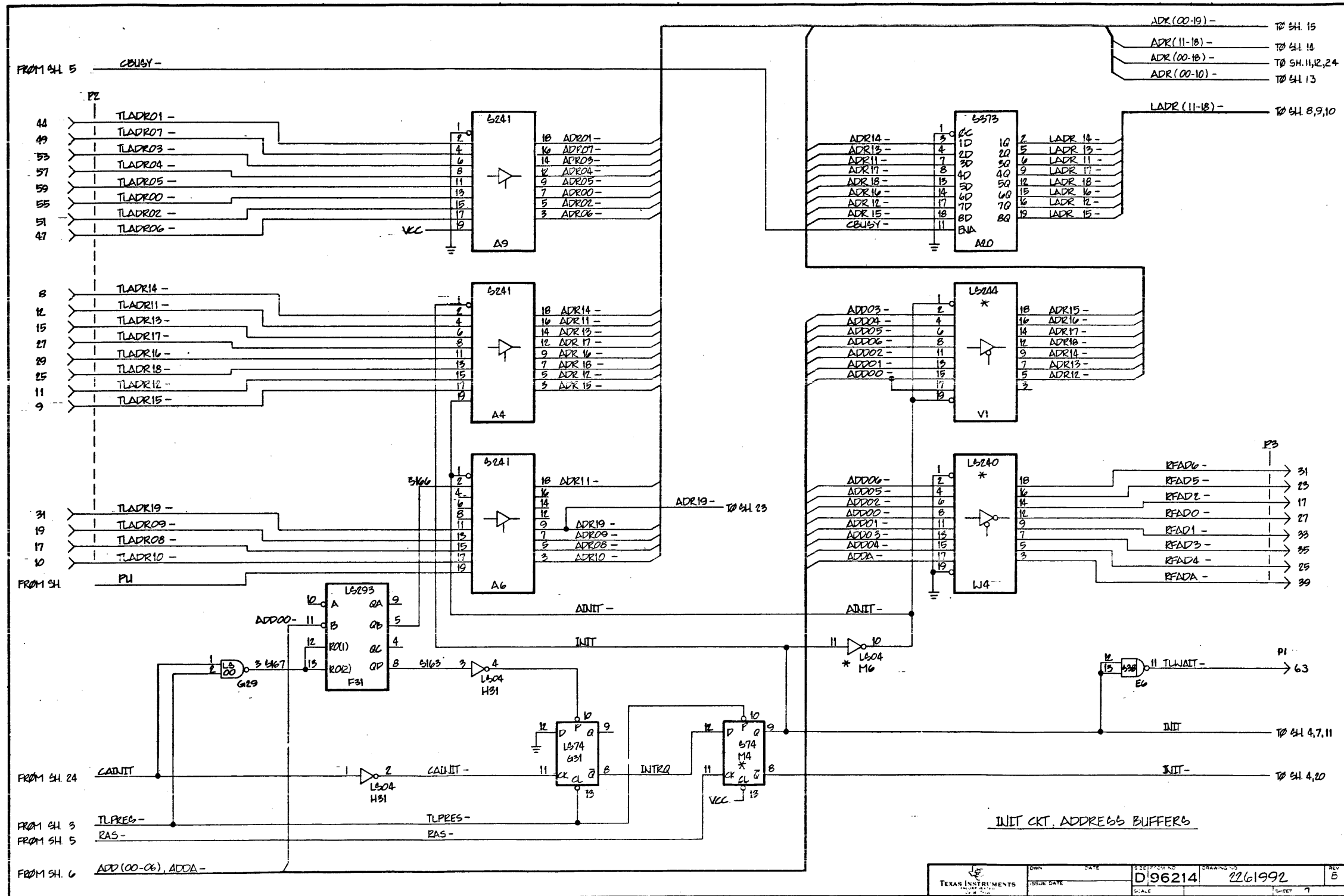
TEXAS INSTRUMENTS	ISSUE DATE	SCALE	DESIGN NO. D196214	REVISION NO. 2221592	REV. 5
-------------------	------------	-------	--------------------	----------------------	--------

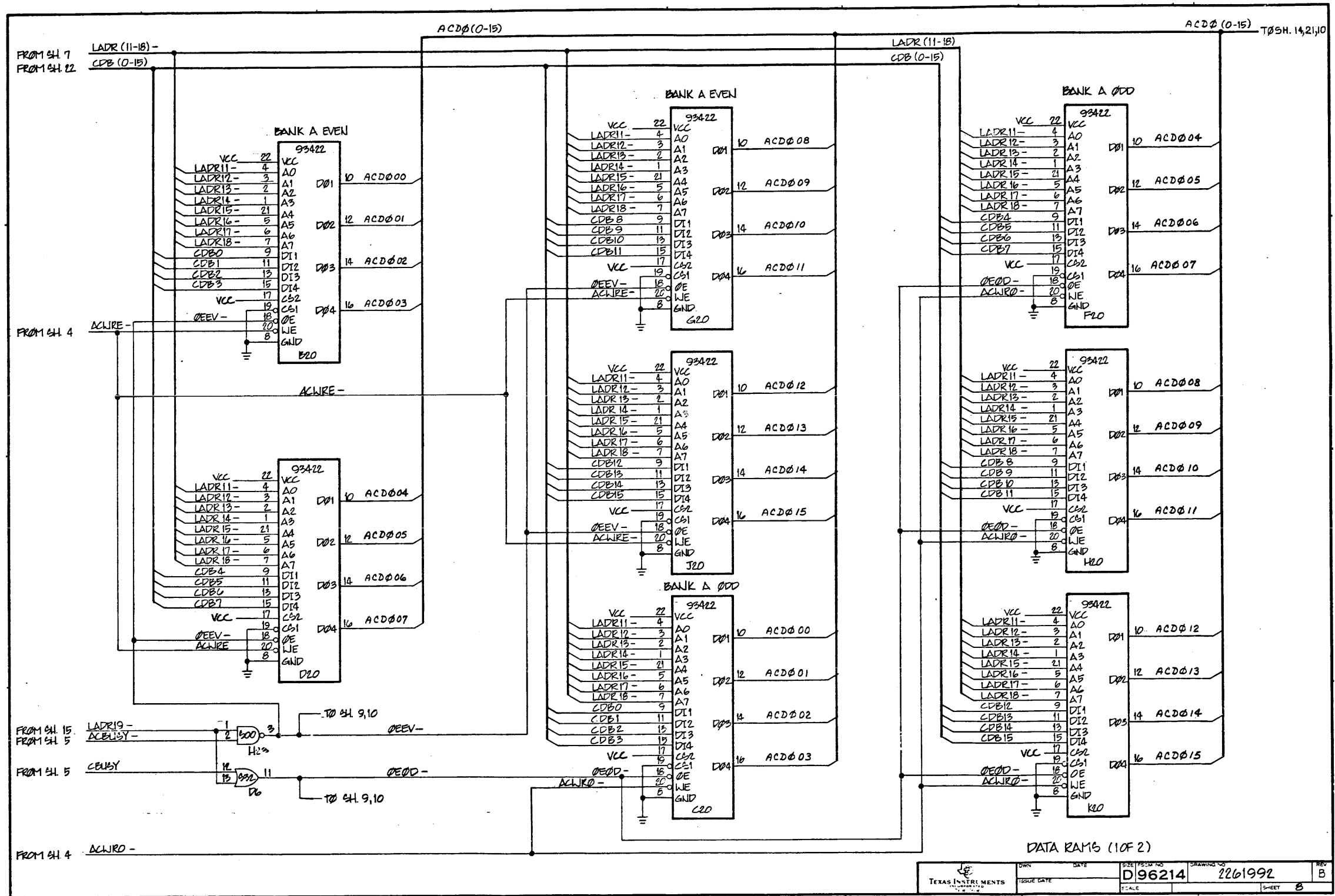




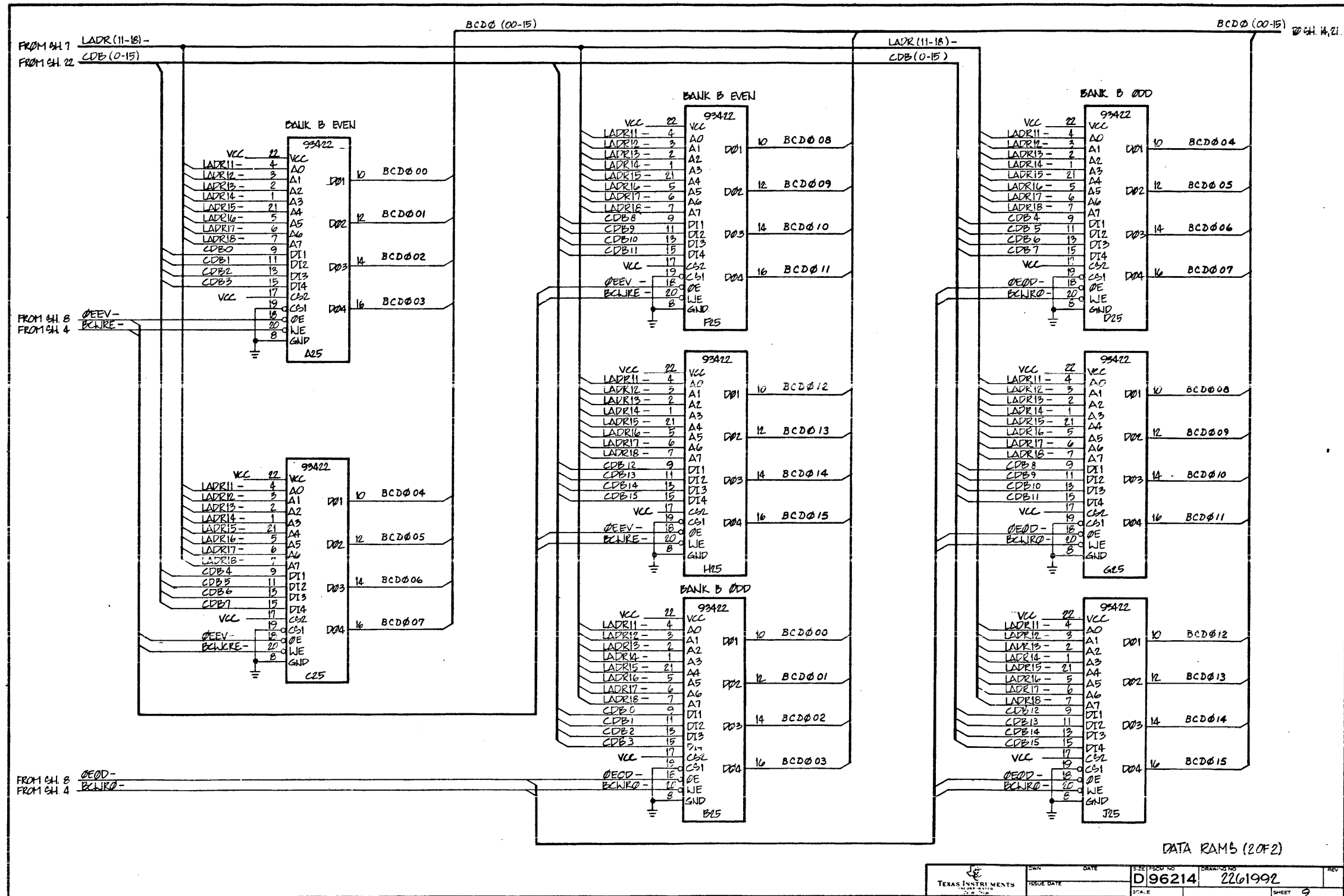


DATE	ISSUE DATE	SCALE	SIZE (FIG. NO.)	DRAWING NO.	REV.
			D 96214	2261992	B
TEXAS INSTRUMENTS			SHEET 5		



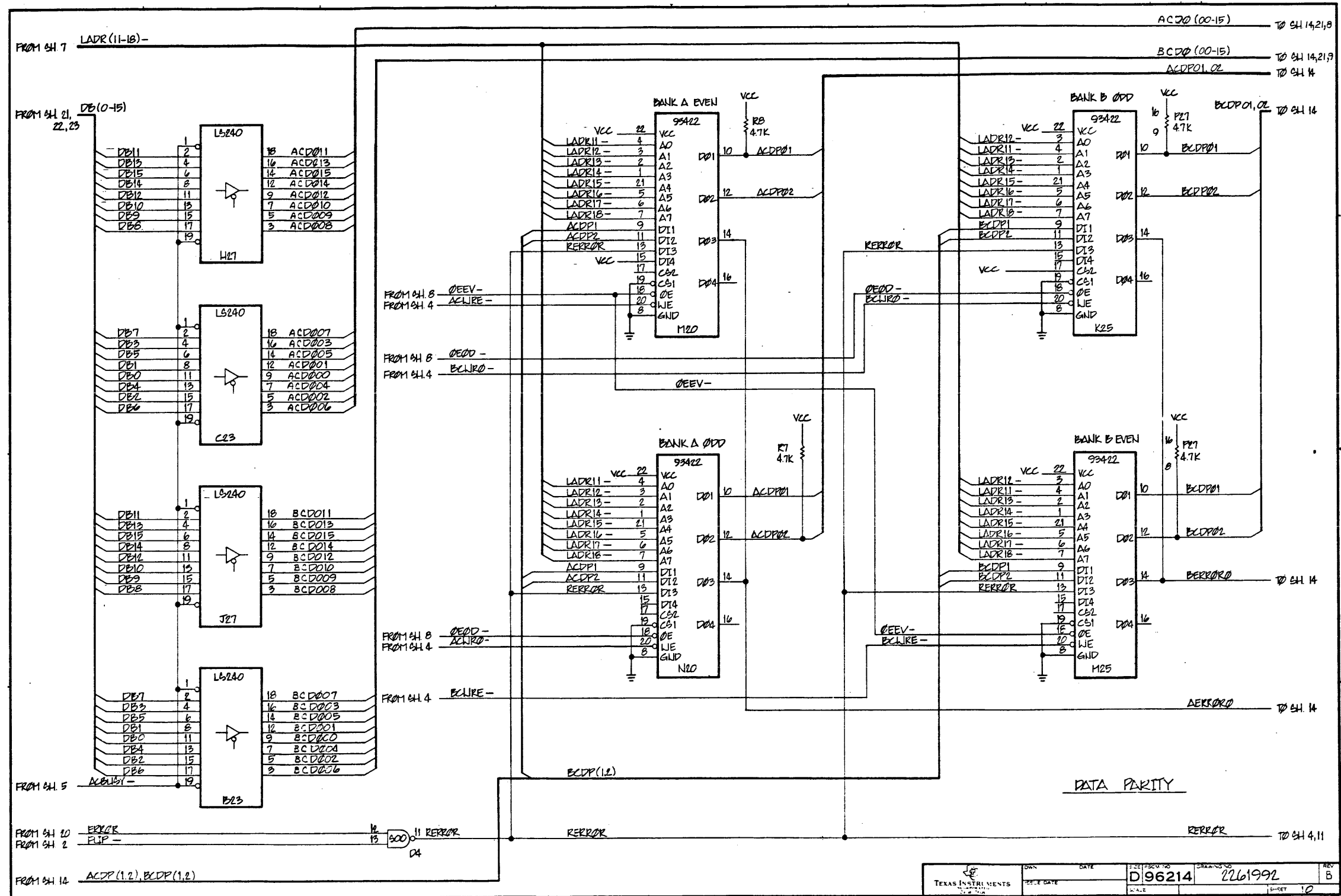


TXI INSTRUMENTS	DATE	ISSUE DATE	D96214	2261992	REV B
					SHEET 5

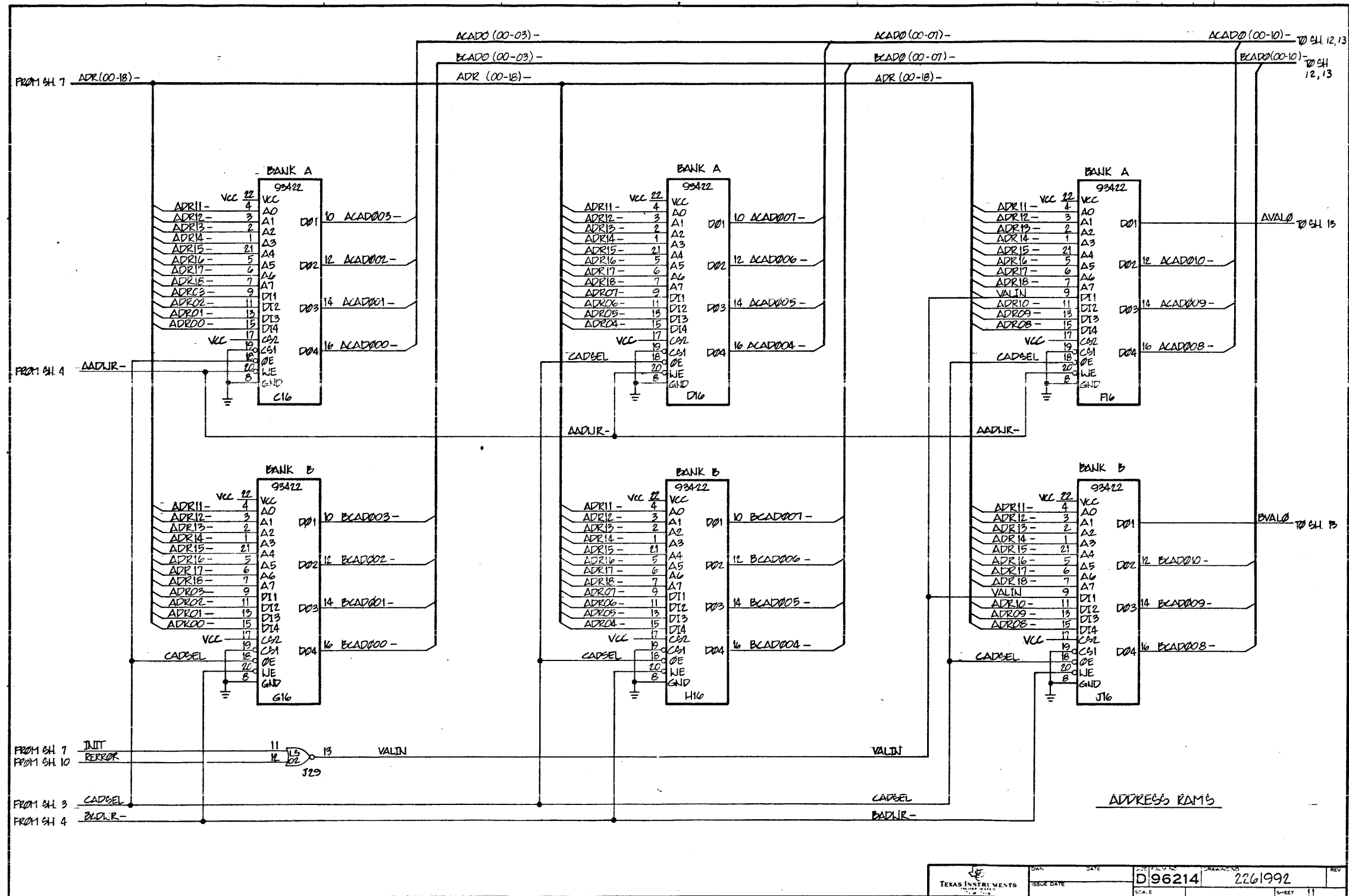


DATA RAMS (2OF2)

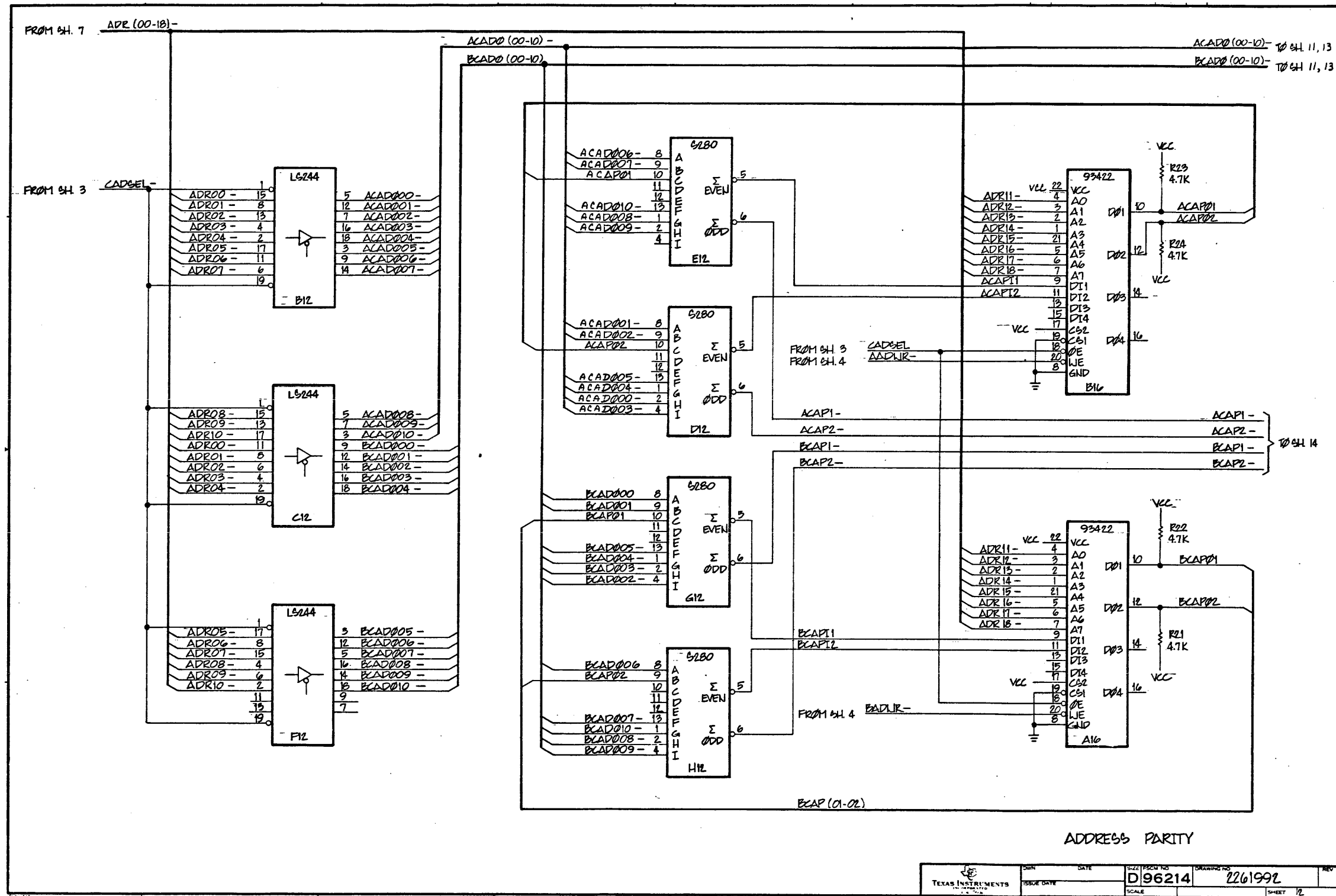
DESIGN	DATE	SHEET NO.	DRAWING NO.	REV.
ISSUE DATE		D96214	2261992	
TEXAS INSTRUMENTS		SHEET 9		

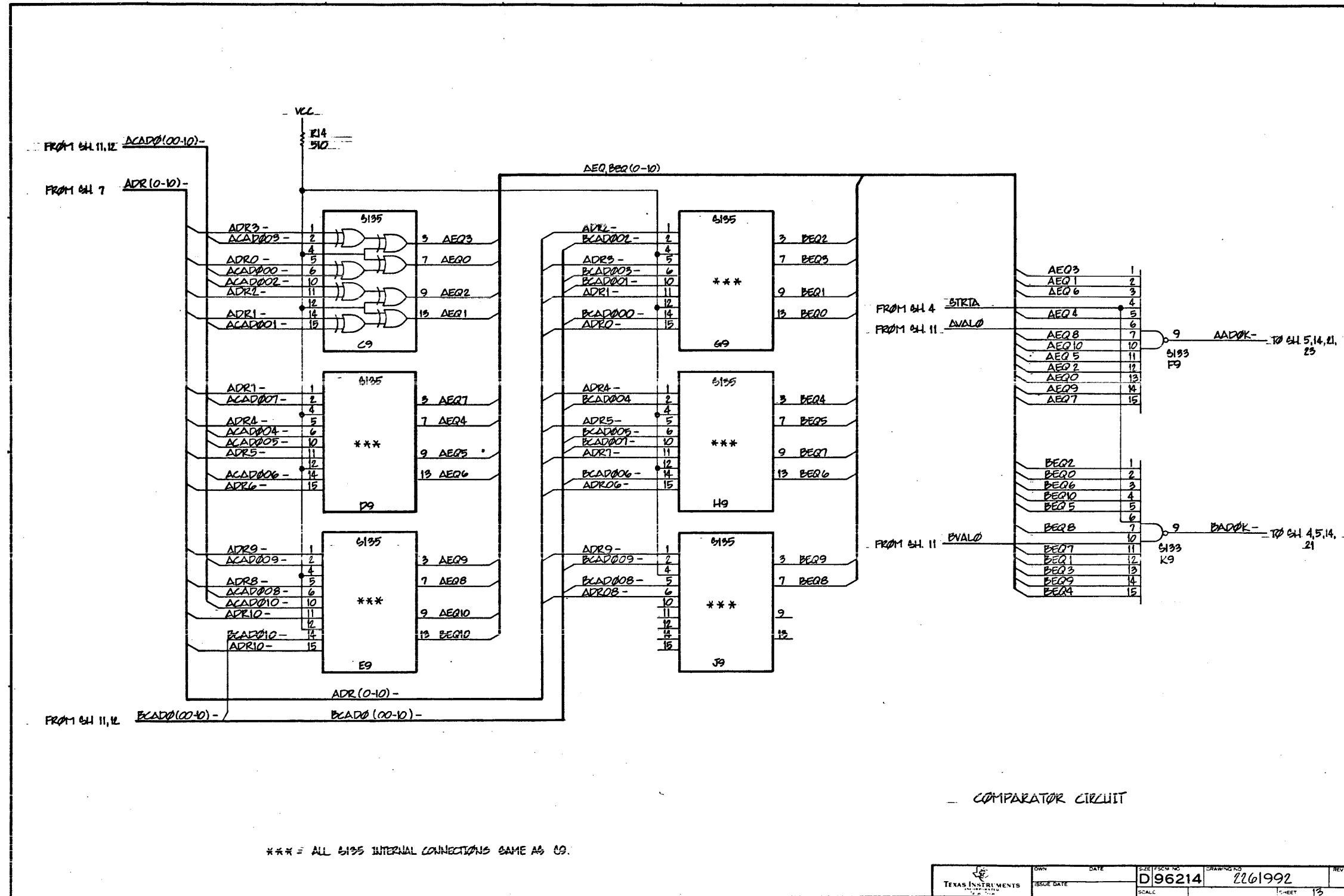


TEXAS INSTRUMENTS	DATE	REV	D 96214	2261992	B
ISSUE DATE	DATE	DATE	DATE	DATE	DATE

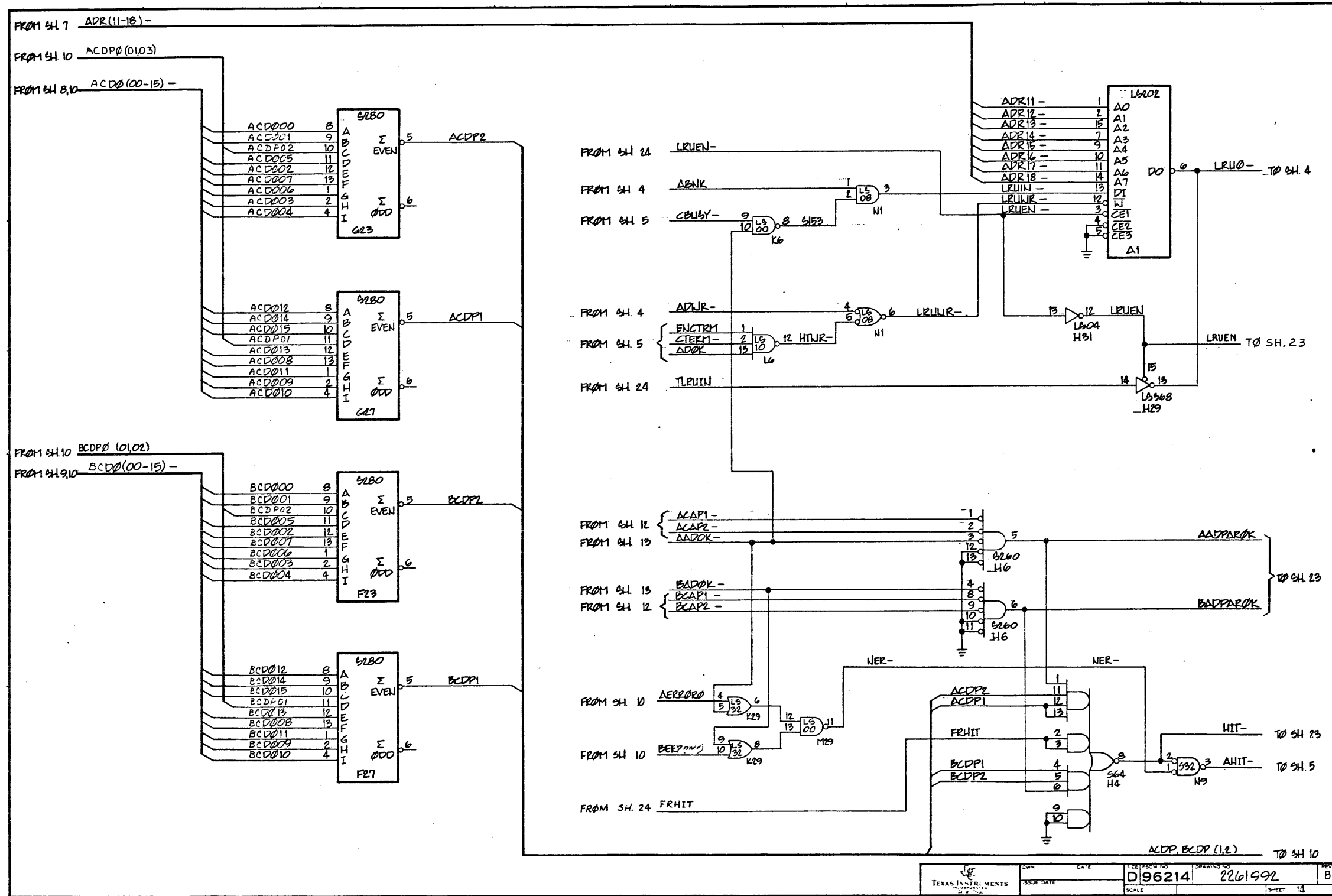


TEXAS INSTRUMENTS	DATE	ISSUE DATE	D 96214	2261992	REV
					11

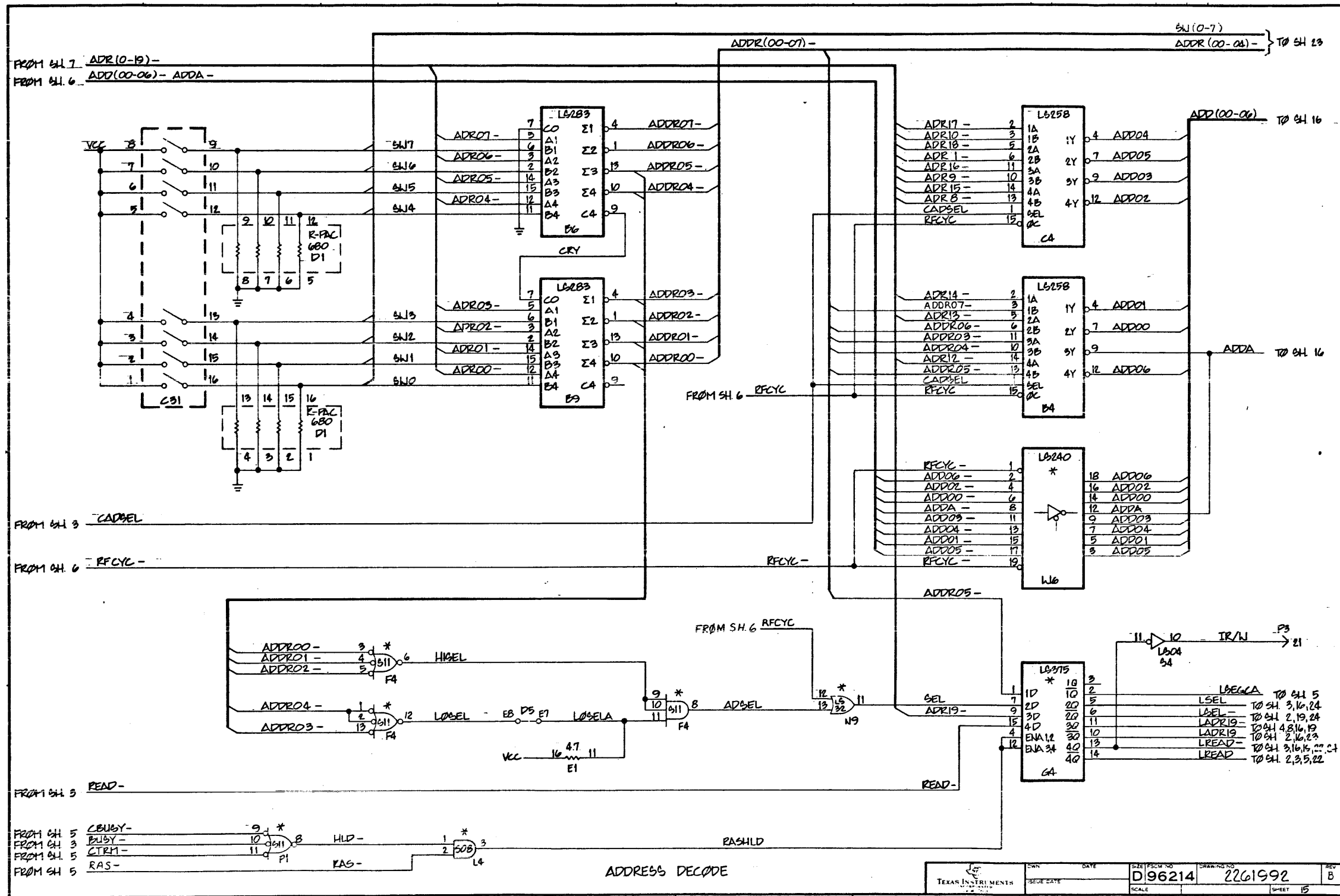


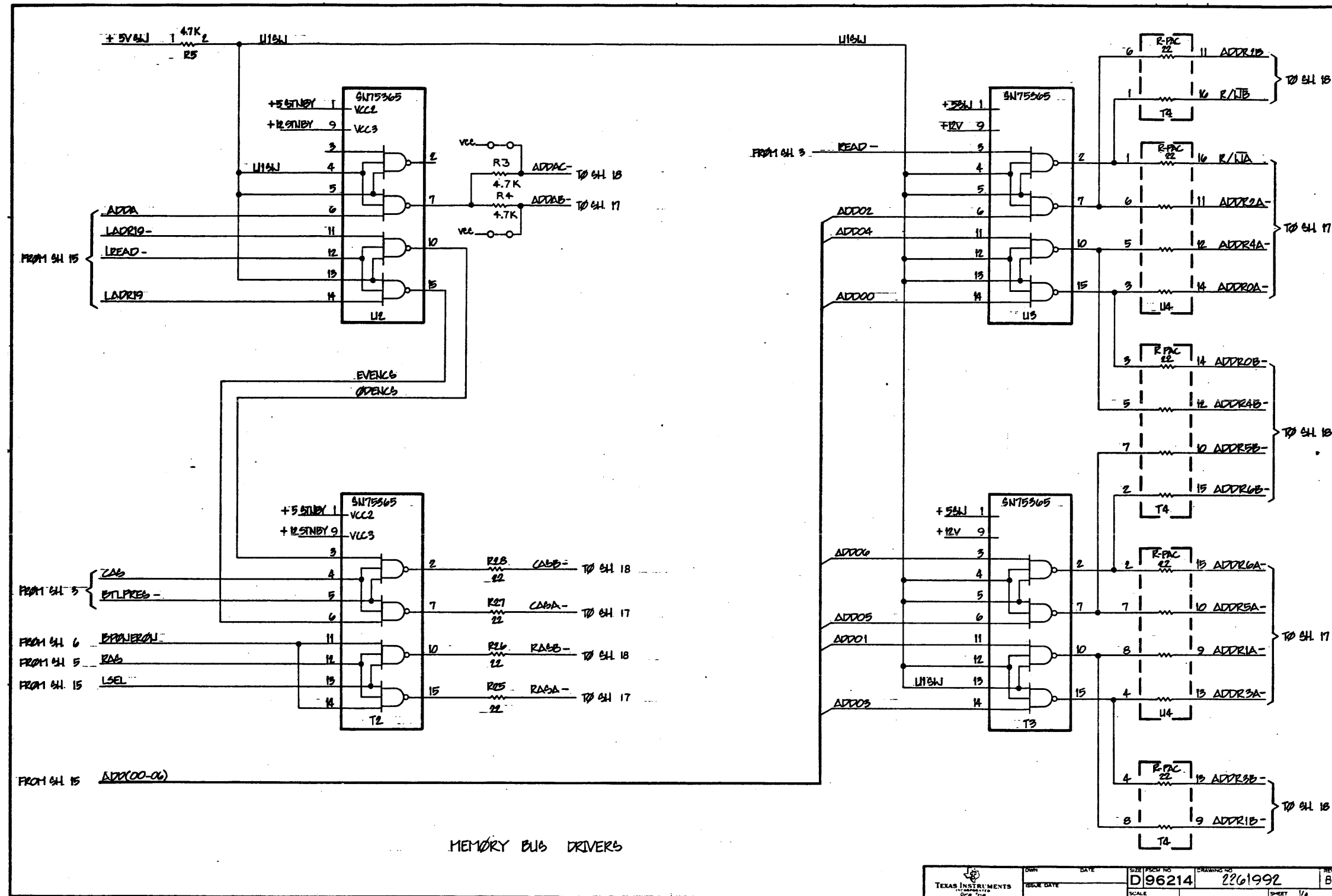


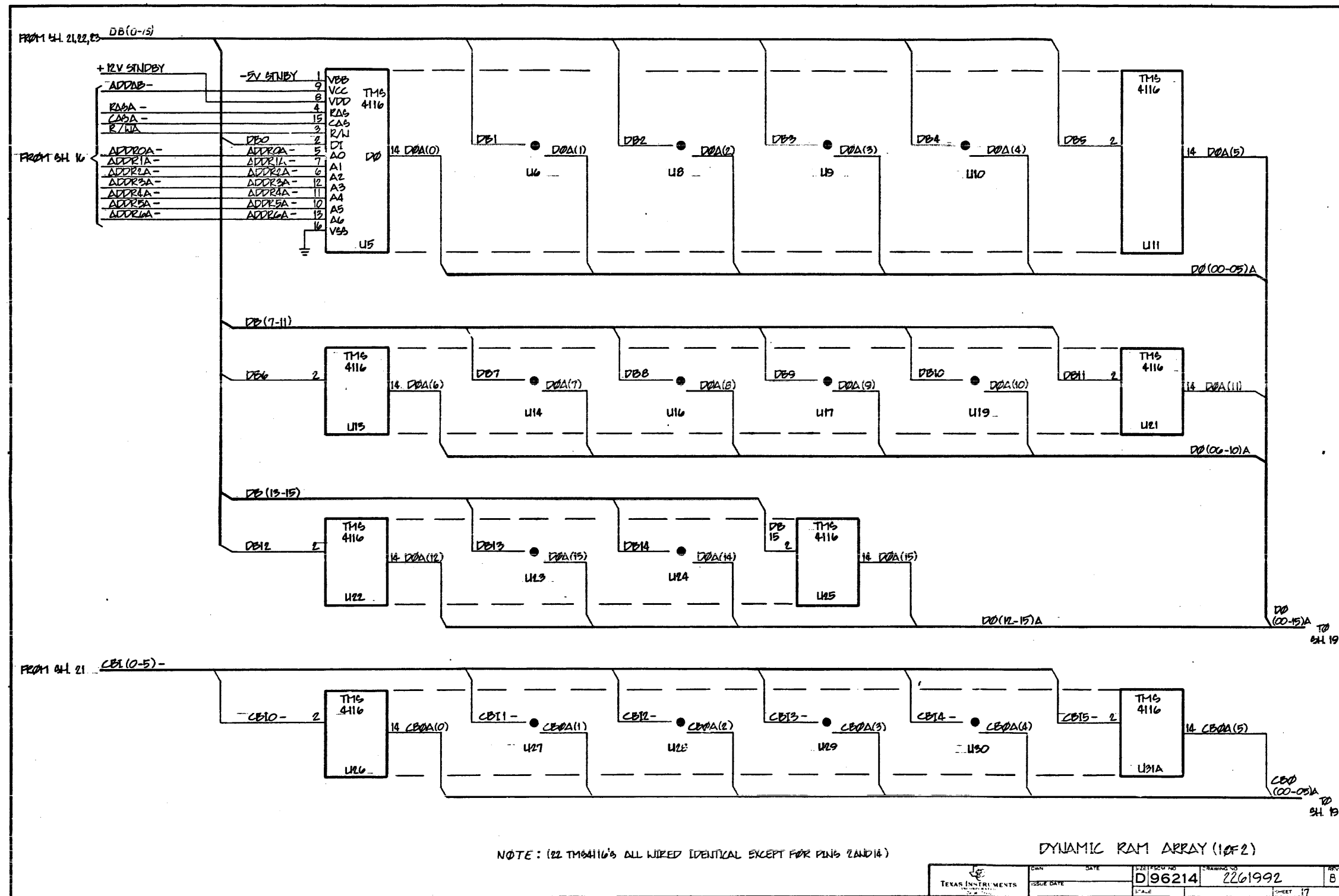


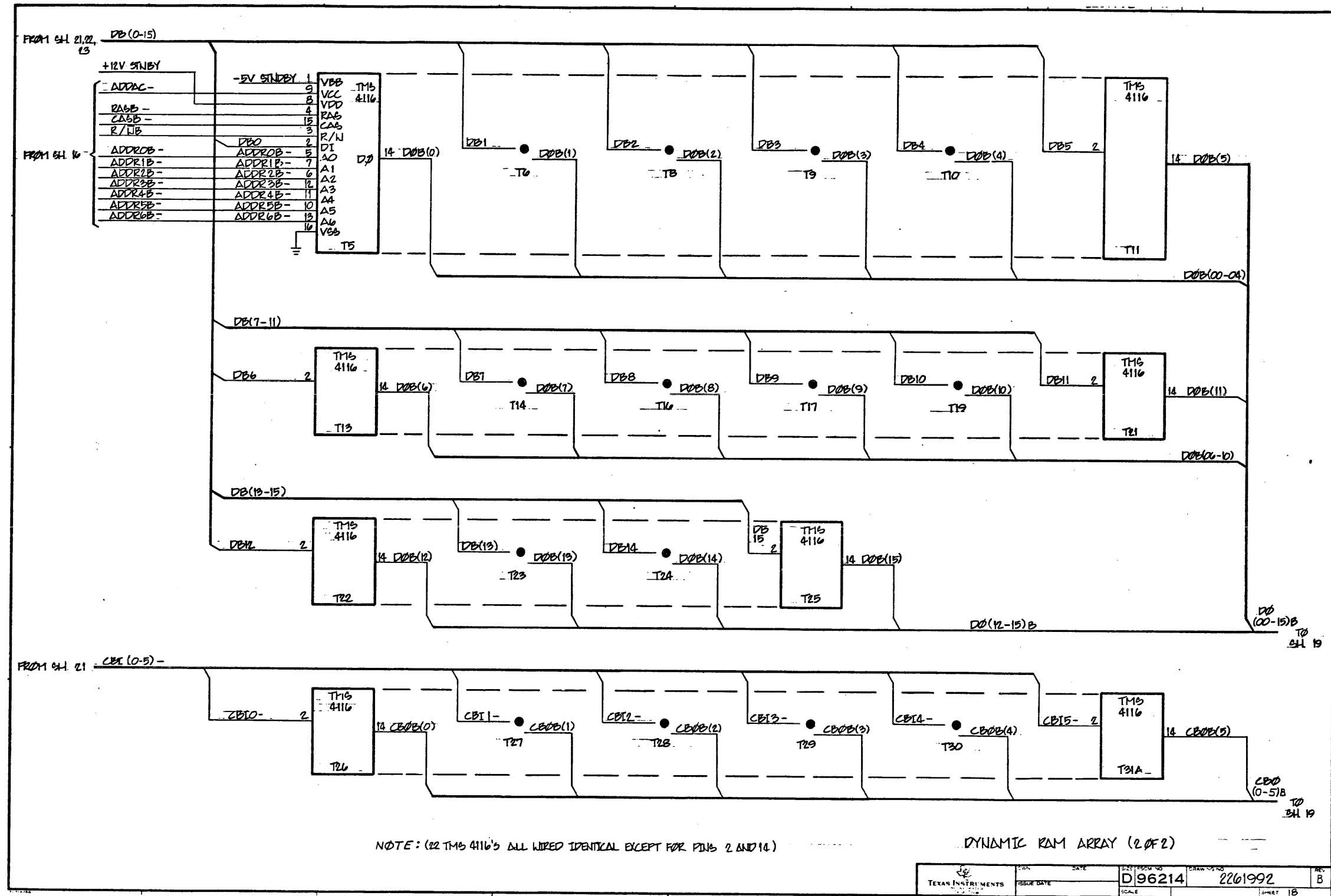


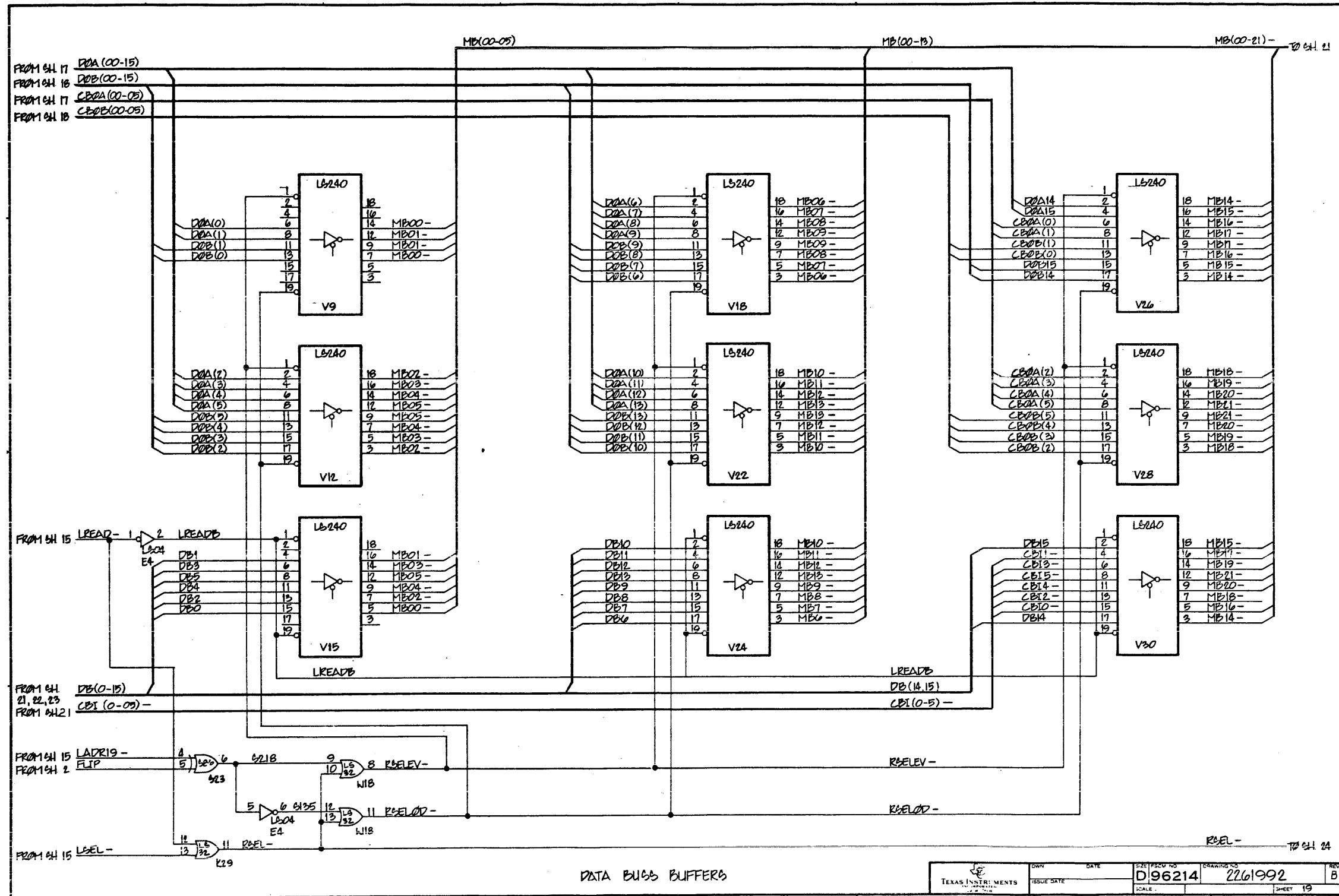
TEXAS INSTRUMENTS	ISSUE DATE	DATE	DESIGN NO.	DRAWING NO.	REV.
			D 96214	2261592	B
			SCALE	SHEET	13

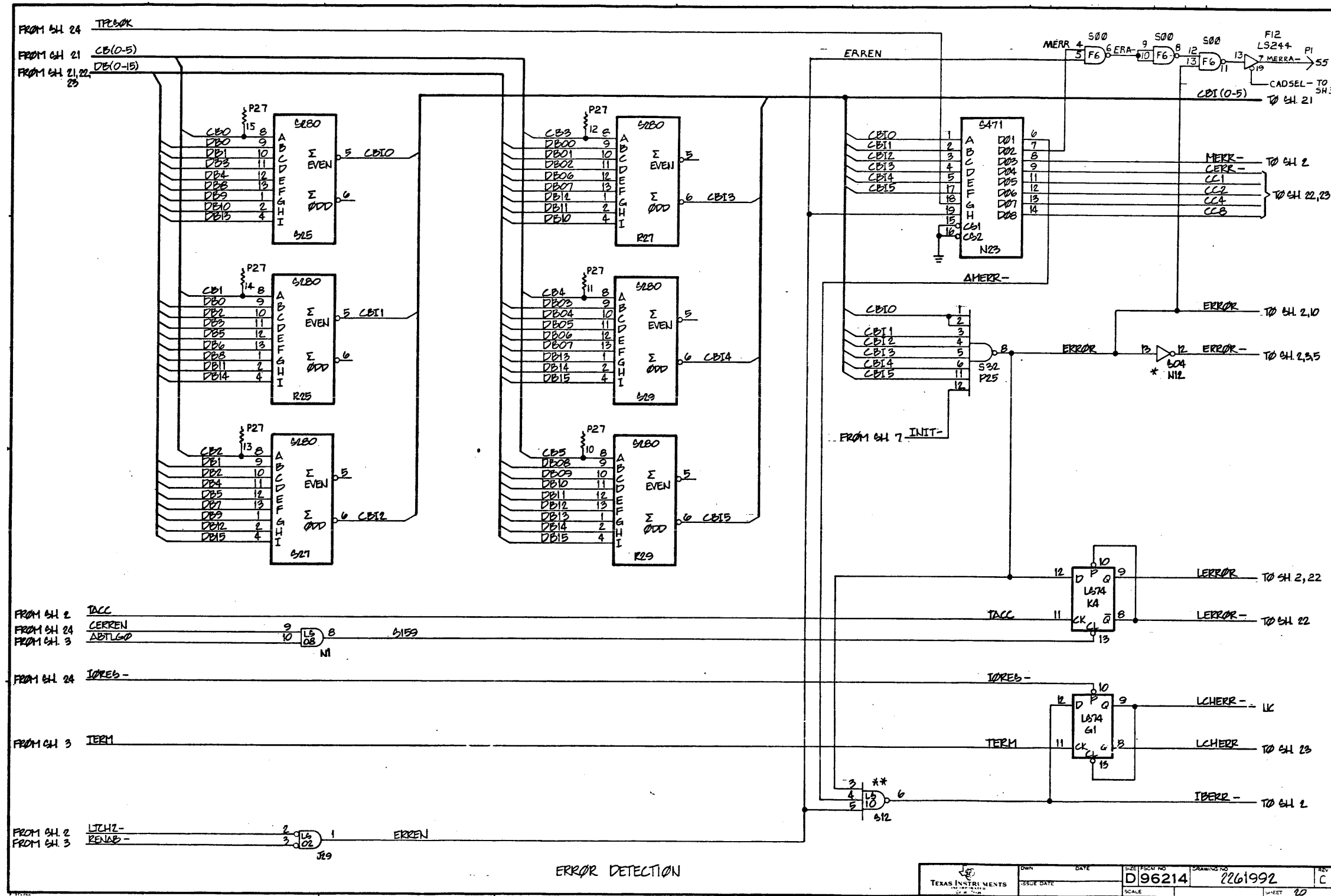


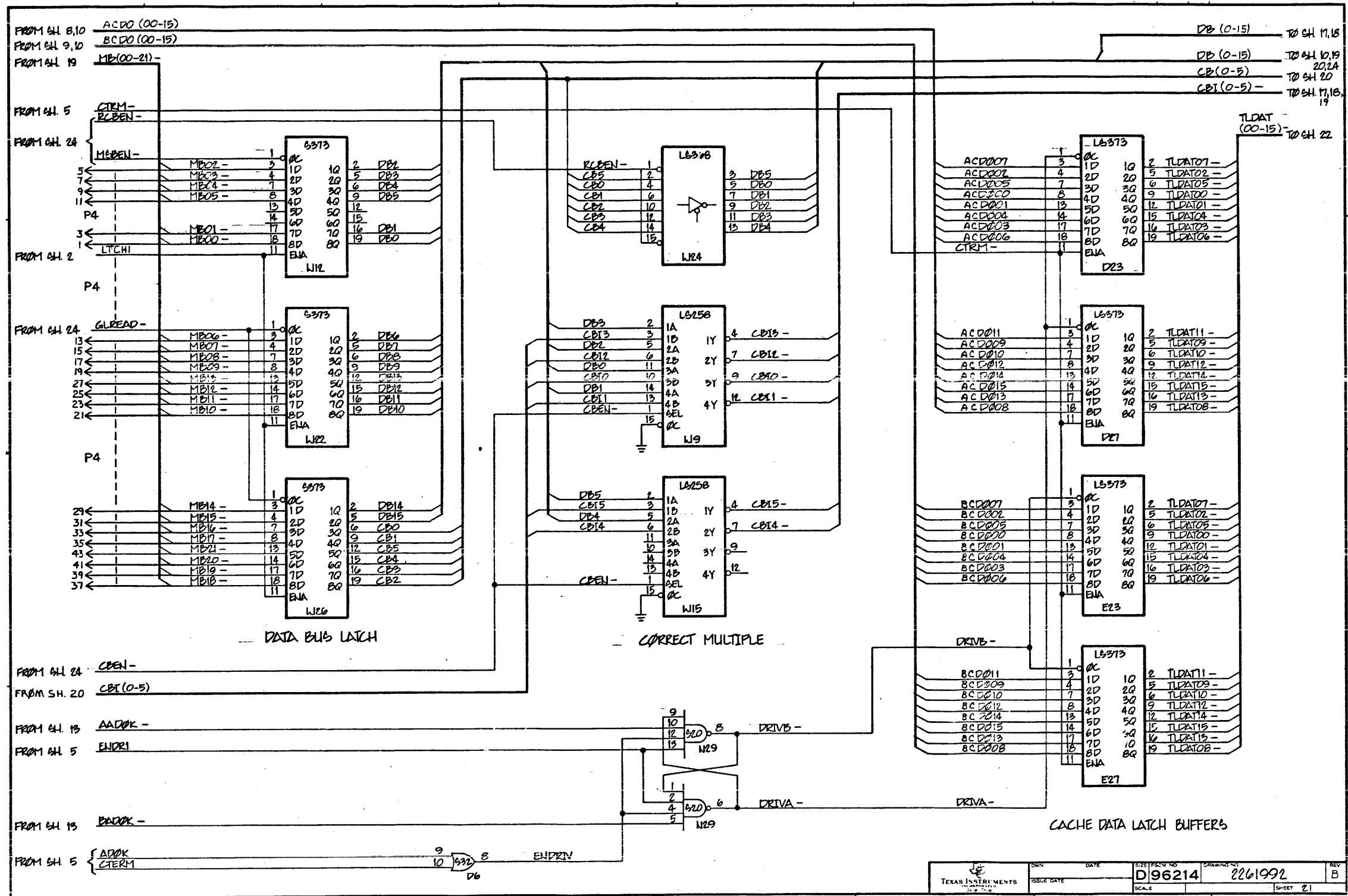




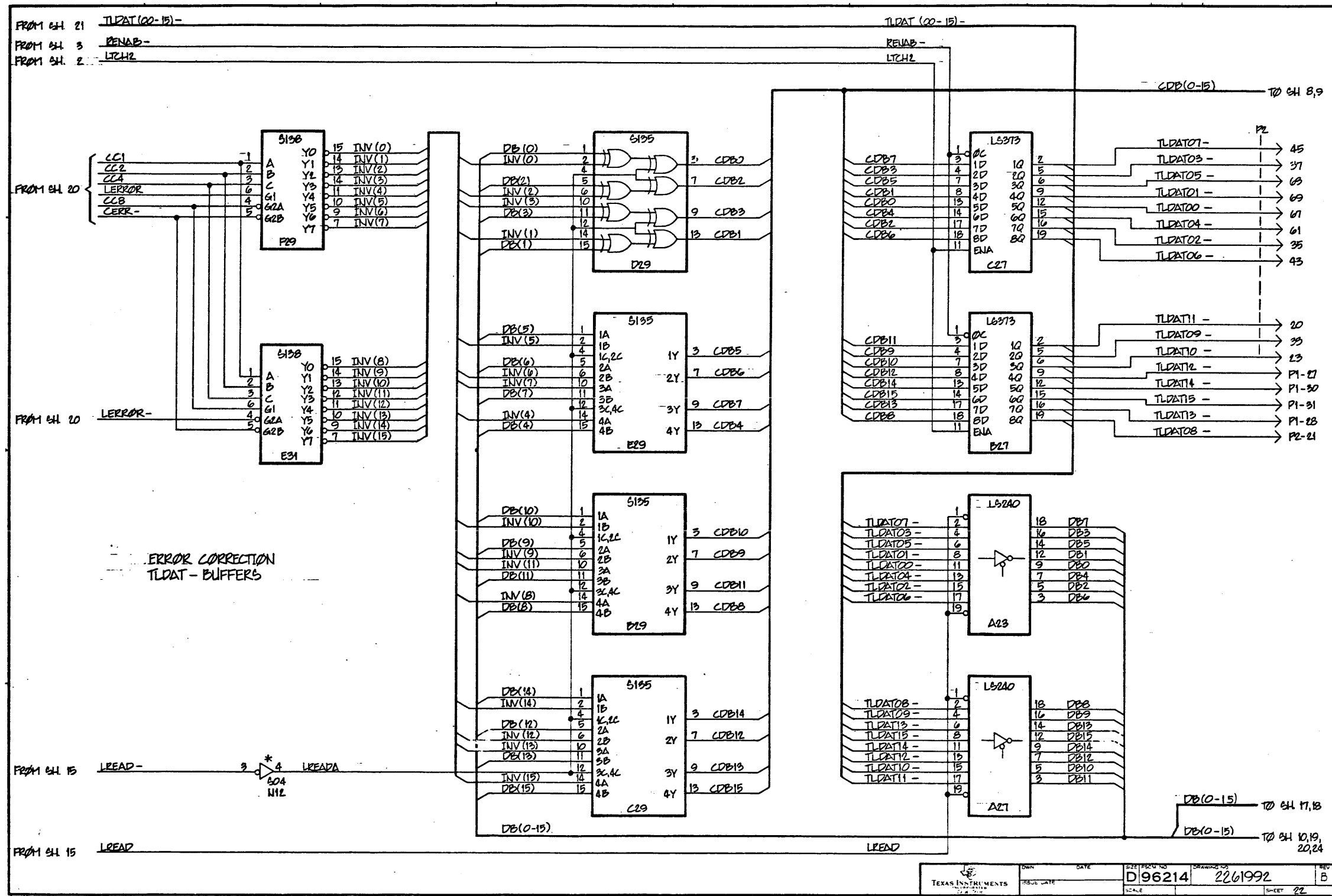


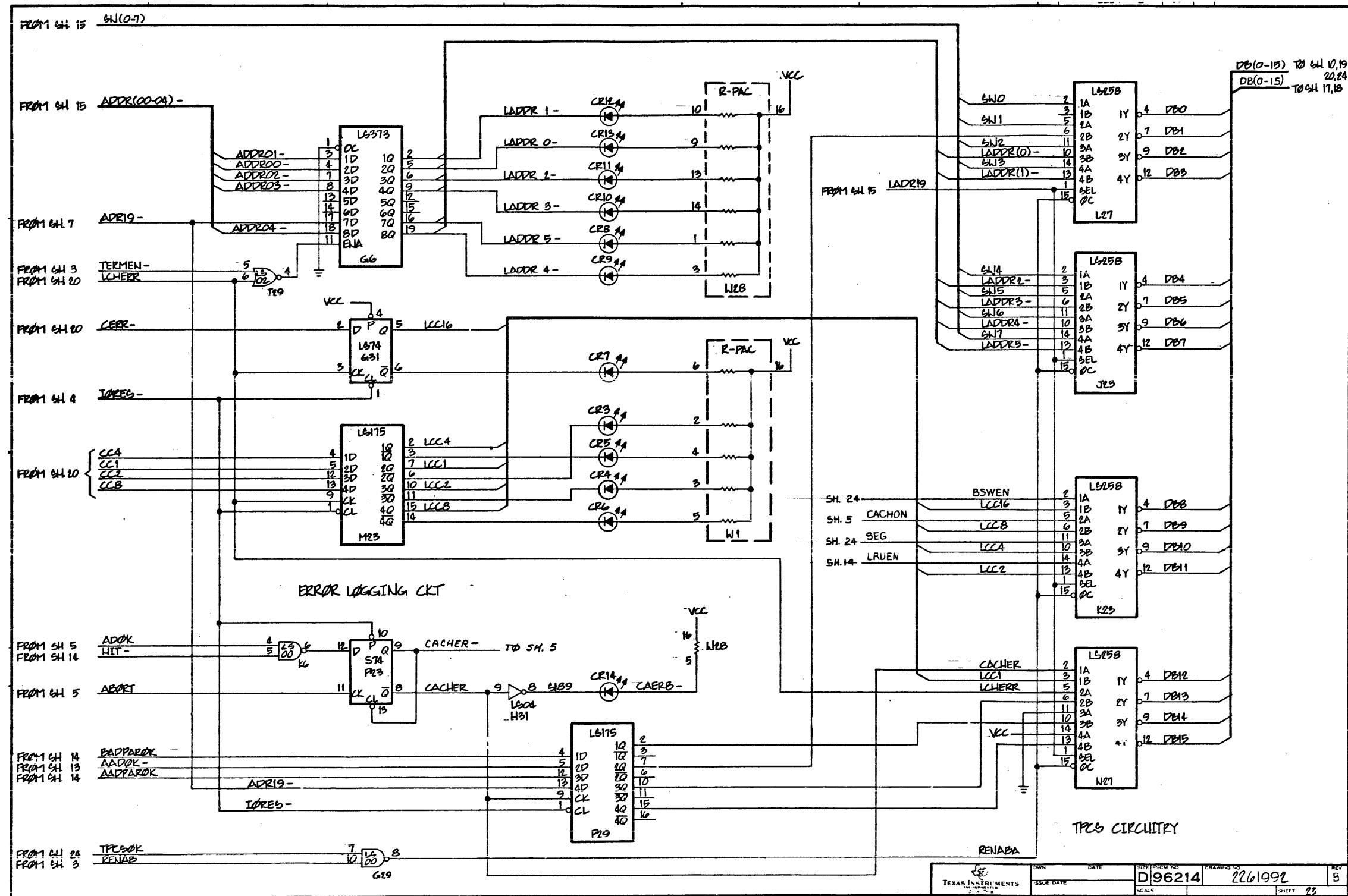






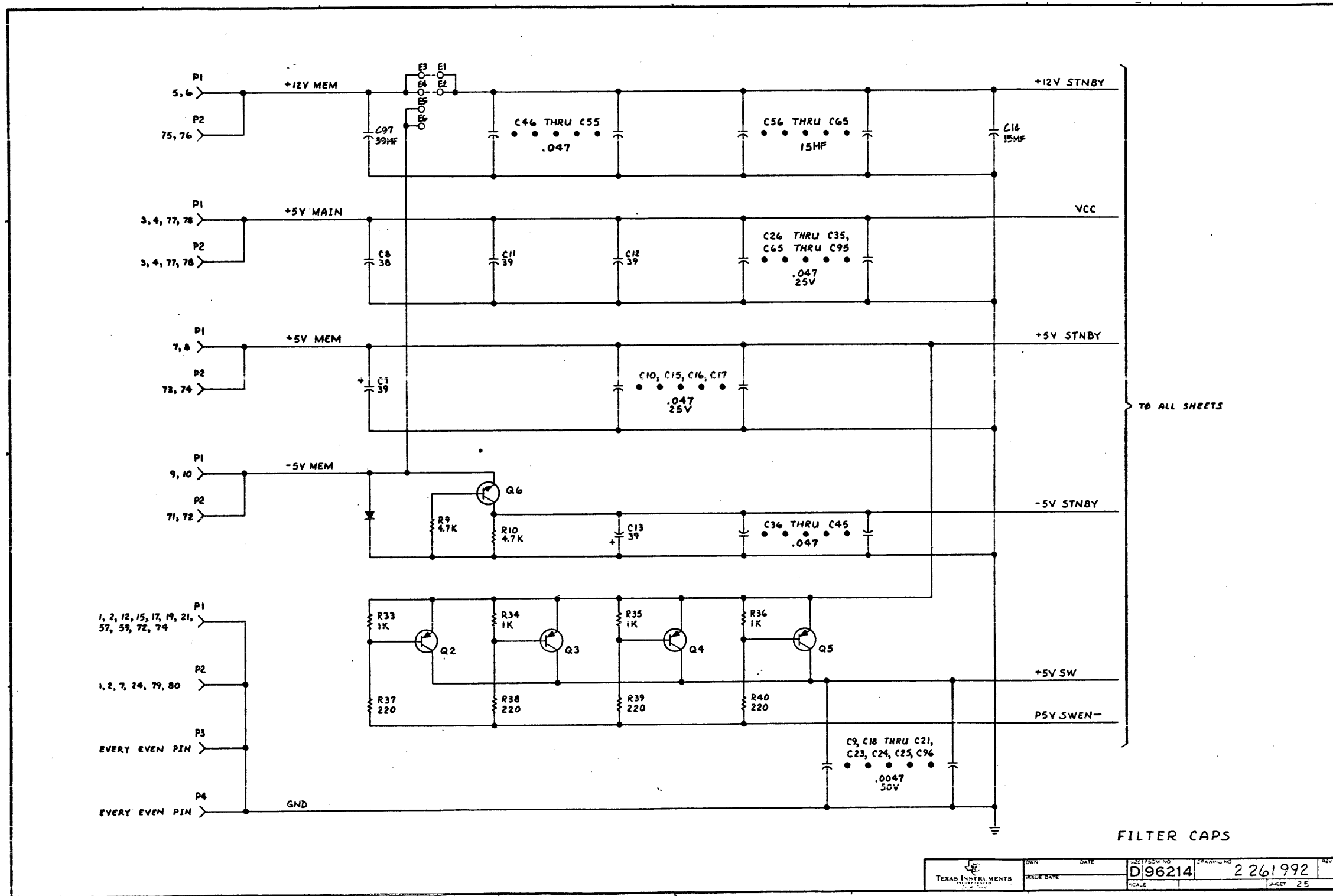


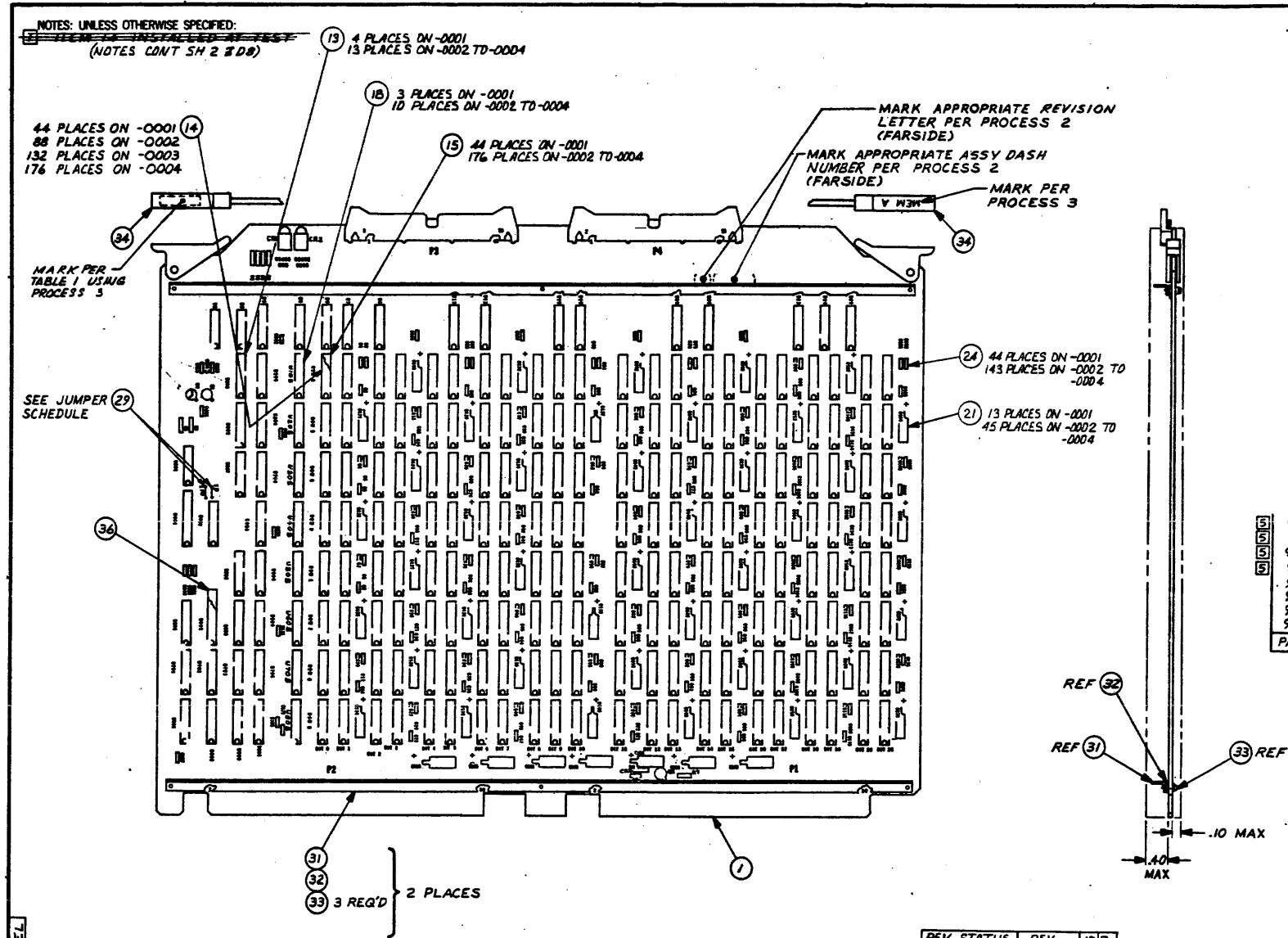




TEXAS INSTRUMENTS	DATE	SIZE FROM NO	DRAWING NO	REV
	ISSUE DATE	D 96214	2261992	5
	SCALE			SHEET 23







REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	CU#28573(D) # 11/01-0001 TRHU-0004 LMS ADDED ITEMS 37,38 & 39 (UPDATED REV LEVEL BLOCK)	5-16-78	J. Kelly
B	CN 446280(C) (1) REVISED LM PER EXTENSIVE CHANGE (2) ADDED SH 2, NOTE 2; LM SH 1 ADDED ITEMS 13, 18, 21 (24) SH 1, ITEM 15 WAS 17(L.P.M.) IN BLOCK DESC FOR -0001 THRU -0004 WAS 32K, 990/16K, 64K, 990/16K, 96K, 990/16K, 128K, 990/16K, RESR (5) UPDATED REV LEVEL BLOC	8-23-78	J. Kelly
C	CU#447072(B) # 11/01-0001 (1) REVISED NOTE 3 ON SH 2 (2) UPDATED REV LEVEL BLOCK	8-23-78	J. Kelly
D	CN 447072(B) B.B. (1) CAL LM PN ITEM 37 WAS 972948-0002 (2) UPDATED REV LEVEL BLOCK	10-9-78	J. Kelly
E	CN 451178(D) B.B. (1) LM ITEMS 26 & 35 DELETED ON ALL DASH NOS (2) LM ITEM 12 VENDOR PN WAS SN74LS375 ALL DASH NOS (3) ADDED -0004 NOTE TO JUMPER SCHEDULE (4) 2 B-3 DIM .10 MAX WAS 18 MAX (5) DELETED NOTE 1 (6) UPDATE REV LEVEL BLOCK (7) B-6 CHGD CR1 MARKING TO CR3 (8) B-6 MOVED Q3 & R7 MARKING UP FROM UNDER STIFFENER	12-1-78	J. Kelly
F	CN 448384(B) B.B. (1) ADDED NOTE 4 ON SH 2 (2) UPDATE REVISION LEVEL BLOCK	1-16-79	E. Wing
G	CN 441888 (C) J. TOM (1) CREATED -5001, -5002, -5003 AND -5004 LMS (2) DELETED NOTE 1 (3) ADDED NOTE 5 (4) ADDED TABLE 1 IN B-4 (5) UPDATED REV LEVEL BLOCK	4-5-79	E. Wing
H	CN 451715 (D) B.B. (1) UPDATED REV LEVEL BLOCK (2) ON -1, 2, & 3 #4 LM ITEM 15 WAS 539544-2 ITEM 36 WAS 539544-10	4-5-79	E. Wing

948955-5004	AUTO-INSERTED PARTS LIST FOR 948955-0004
948955-5003	AUTO-INSERTED PARTS LIST FOR 948955-0003
948955-5002	AUTO-INSERTED PARTS LIST FOR 948955-0002
948955-5001	AUTO-INSERTED PARTS LIST FOR 948955-0001
948955-0004	MEMORY ADD-ON MODULE, 256KB, 990/16KR
948955-0003	MEMORY ADD-ON MODULE, 192KB, 990/16KR
948955-0002	MEMORY ADD-ON MODULE, 128KB, 990/16KR
948955-0001	MEMORY ADD-ON MODULE, 64KB, 990/16KR

DASH NO	SYMBOLIZATION
-0001	64KB
-0002	128KB
-0003	192KB
-0004	256KB

DASH NO.	INSTALL AT
-0001	E10
-0002	E9
-0003	E9 & E10
-0004	NONE

REV	STATUS	REV	REV
1	REVISED	1	REVISED
2	REVISED	2	REVISED

TEST PROCEDURE	948958-9901	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
LOGIC	948957-9901	*	A	A	A	A	B	B	B	B	B	C	C	C	C	C	C	C
PWB	948956-0001	B	C	C	C	D	D	D	E	E	E	E	F	F	F	G	G	G
ASSEMBLY	948955	*	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	

REV NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
	PROCESS			CLASSIFICATION	

- PROCESSES:
- SOLDER PER F-127, METHOD I AND/OR F-124, METHOD 2
  - MARK PER F-100, METHOD II, CLASS I, HEIGHT .12, COLOR BLACK
  - MARK PER F-100, METHOD VII, CLASS B, COLOR BLACK, TYPE 6

REV STATUS	REV	REV
1	REVISED	1
2	REVISED	2

ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROUREMENT SPECIFICATION	NOTES
1	7506	MEMORY ADD-ON MODULE, 990/16KR		

DATE	BY	DESCRIPTION
3/29/77	J. Kelly	REVISED
5-2-77	J. Kelly	REVISED
5-11-77	J. Kelly	REVISED
11-23-77	J. Kelly	REVISED
12/1/77	J. Kelly	REVISED

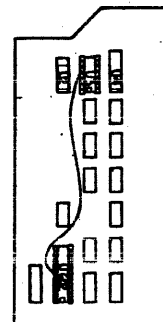
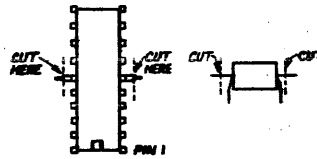
DATE	BY	DESCRIPTION
3/29/77	J. Kelly	REVISED
5-2-77	J. Kelly	REVISED
5-11-77	J. Kelly	REVISED
11-23-77	J. Kelly	REVISED
12/1/77	J. Kelly	REVISED

SIZE	FIGURE NO	DESCRIPTION
D	96214	948955

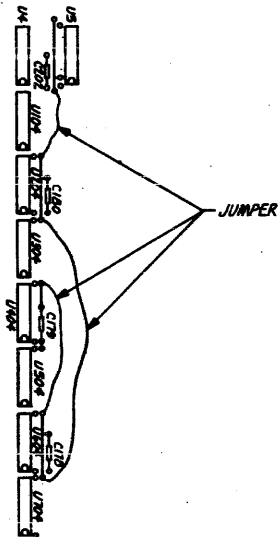
NOTES CONT.

2. REWORK FOR PWB 948956 REV B AND GREATER  
~~IF ITEM 10 IS UNAVAILABLE SUBSTITUTE PART 226-987-0001 IN~~  
~~LOCATION U602 REWORK PWB AS FOLLOWS:~~  
 A. BEND AND CLIP LEADS ON ITEM 10 AS SHOWN BELOW



- B. INSTALL ITEM 10 IN LOCATION U602 AND ADD JUMPER WIRE (30 AWG INSULATED) BETWEEN U602 PIN 1 AND U3 PIN 11 AS SHOWN.  
 C. SECURE JUMPER WIRE WITH THERMOPLASTIC ADHESIVE.

3. REWORK PROCEDURE FOR PWB 948956 UP TO REV C  
 A. SOLDER 28AWG SOLID CONDUCTOR JUMPER WIRE ON COMPONENT SIDE AS SHOWN:



4. REWORK PROCEDURE FOR ALL REVISION LEVEL PWB'S;  
 A. CUT PIN 9 AT THE FOLLOWING LOCATIONS:  
 U104, U204  
 U304, U404 (-2, -3, -4 ONLY)  
 U504, U604 (-2, -3, -4 ONLY)  
 U704, U804 (-2, -3, -4 ONLY)

B. ADD JUMPER WIRES AS FOLLOWS:

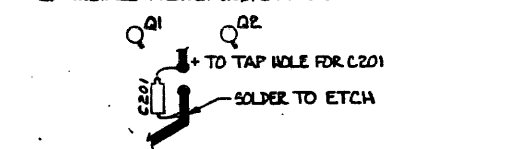
FROM	TO
U104-9 (DEVICE)	U204-9 (DEVICE)
U204-9 (DEVICE)	C121+
U304-9 (DEVICE)	U404-9 (DEVICE) (-2, -3, -4 ONLY)
U404-9 (DEVICE)	C122+
U504-9 (DEVICE)	U604-9 (DEVICE) (-2, -3, -4 ONLY)
U604-9 (DEVICE)	C123+
U704-9 (DEVICE)	U804-9 (DEVICE) (-2, -3, -4 ONLY)
U804-9 (DEVICE)	C124+

- C. VERIFY IC ADDRESS TO COLUMN ADDRESS AT MEMORY DEVICE PROPAGATION TIME TO BE LESS THAN 55ns FOR EACH ROW. THIS MAY BE ACCOMPLISHED BY RUNNING PRODUCTION ADAR TEST.

5. ITEM 40 IN -0001, -0002, -0003 AND -0004 LM'S CONSISTS OF COMPONENTS WHICH ARE AUTO-INSERTED AND CONTAINED IN THE -5001, -5002, -5003 AND -5004 LM'S

6. REWORK PROCEDURE FOR ALL REVISION LEVEL PWB'S:  
 A. ADD ITEM 23 (200+746 AXIAL CAP) IN THE FOLLOWING LOCATIONS:
- | FROM   | TO   |
|--------|--|
| U104-1 | C180 (END NEAR U104) (-1, -2, -3, -4 ONLY) |
| U304-1 | C179 (END NEAR U304) (-2, -3, -4 ONLY)     |
| U504-1 | C178 (END NEAR U504) (-2, -3, -4 ONLY)     |
| U704-1 | C198 (END NEAR U704) (-2, -3, -4 ONLY)     |

- B. USING 24-AWG SOLID CONDUCTOR JUMPER WIRE, ADD JUMPERS AS FOLLOWS:
- | FROM   | TO                                    |
|--------|---------------------------------------|
| C121-  | C180 (END NEAR U104) (-1, -2, -3, -4) |
| C122-  | C179 (END NEAR U304) (-2, -3, -4)     |
| C124-  | C198 (END NEAR U704) (-2, -3, -4)     |
| U802-B | U702-7 (-1, -2, -3, -4)               |
| U702-B | C123- (-1, -2, -3, -4)                |



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
J	CN 441740 (C) 2L 8- (1) ON -5001, 5002, 5003 & 5004 LM DELETED ITEM 21 (C17) & C193 ONLY & ITEM 24, C197 ONLY AND ADDED TO -1, 2, 3, & 4 LM (2) UPDATED REV LEVEL BLOCK	4-5-79	E. Wang
K	CN 436830 (B) 2L 8- (1) REWORK NOTE 4A U304/U604 WAS (-3, -4 ONLY); U704/U804 WAS (-4 ONLY) (2) REWORK NOTE 4B, U504-9 AND U604-9 WERE (-3, -4 ONLY); U704-9 AND U804-9 WERE (-4 ONLY) (3) ADDED REWORK NOTE 6 (4) UPDATED REV LEVEL BLOCK (5) -1 LM ITEM 24 QTY WAS 1 (6) -2, -3, -4 LM ITEM 24 QTY WAS 1	5-23-79	J. R. P.
L	CN 448725 (D) 2L 8- (1) Q1 SH 2 NOTE 6A WAS "ADD ITEM 24..." (2) ON LM -1, -2, -3 & -4 ITEM 23 QTY WAS 7, DESC WAS C177-C180, C185, C199 & C202 (3) ON LM -2, -3 & -4 QTY ITEM 24 WAS 5, C205-C206 DELETED FROM DESC, ON -1 QTY WAS 2, C205 DELETED FROM DESC (4) ON LM -501 THRU -5004 ITEM 21 QTY WAS 43, 142, 142, 142, RESP, C201 DELETED FROM DESC (5) ON LM THRU -4 QTY ITEM 21 WAS 2, ADDED C201 TO DESC (6) ADDED NOTE 6C TO SH 2 (6) UPDATED REV LVL BLK	8-8-79	J. R. P.
M	CN 435043 (E) D. Jones (1) LM 1-2-3&4 ITEM 10 PIN WAS 2.2.6/1986-0001 (2) UPDATED REV LEVEL BLOCK	8-8-79	J. R. P.
N	CN 433564 (C) 2L 8- (1) UPDATED REV LEVEL BLOCK (2) ON SH 2, NOTE 2, DELETED 2nd & 3rd LINES & IN NOTES 2A & 2B ITEM 10 WAS 226/1987-0001	11-14-79	J. R. P.
P	CN 451307 (D) 2L 8- (1) DELETED FROM -5001, -5002, 5003 & -5004 LM'S ITEM 11, U23 & ADDED TO -0001, -0002, -0003, -0004 LM'S (2) UPDATED REV LEVEL BLOCK	11-14-79	J. R. P.
R	CN 450535 (D) C. Z. (1) ON SHT 1, DELETED BALLOON ITEMS 26 (2) ON C-814 35 (2) ON A-14B-3 (2) UPDATED REV LEVEL BLOCK	acc. 11-14-79	J. R. P.

TEXAS INSTRUMENTS INCORPORATED		DATE 10/18/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0948955-0001		REV R		
PART NUMBER	QUANTITY OF ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0002	REF	EA		0948957-9901	LOGIC, MEMORY ADD-ON MODULE, 990/10							
0003	REF	EA		0948958-9901	TEST PROCEDURE, MEM ADD-ON MODULE, 990/10							
0004	REF	EA		0948959-9901	SPECIFICATION, MEM ADD-ON MODULE, 990/10							
0010	00001.000	EA		2261987-0001	ROM, ADDRESS DECODE, 16KR MEMORY EXPANSION							
0010A					U602							
0011	00001.000	EA		0972787-0004	NETWORK SN74LS368N							
0011A					U23							
0012	00001.000	EA		0996420-0001	IC, SN74LS373N	001295-SN74LS373N						
0012A					U401							
0014	00044.000	EA		0996680-0001	IC, 16K RAM, (SEL)	001295-TMS4116/ZA0727						
0014A					U40 THRU U421							
0014B					U80 THRU U821							
0015	00044.000	EA		2210188-0003	SOCKET, LOW PROFILE, DIP, 16 CONT	003612-DIL816P-108						
0015A					XU40 THRU XU421							
0015B					XU80 THRU XU821							
0021	00003.000	EA		0972924-0014	CAP FIX TANT SOLID 15 MFD 10 X 20 VOLT QPL -M39003/1-2289							
0021A					C191 C193 C201							
0022	00005.000	EA		0972924-0006	CAP FIX TANT SOLID 39 MFD 10 X 10 VOLT QPL -M39003/1-2259							
0022A					C190 C192 C194 C195 C196							
0023	00011.000	EA		0972763-0009	CAP, FIXED, 0047MF 50 VOLTS	004222-NC105E47Z						
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY ADD-ON MODULE, 64KB, 990/16KR				
APP. MFG.		DATE	APP. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	7506				
								PART NUMBER LM0948955-0001				
								REV R				

TEXAS INSTRUMENTS INCORPORATED		DATE 10/18/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0948955-0001		REV R		
PART NUMBER	QUANTITY OF ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0023A					C177 C178 C179 C180 C185							
0023B					C199 C202 C203 C204 C205							
0023C					C206							
0024	00001.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80%, -20%							
0024A					C197							
0025	00002.000	EA		0972958-0002	TRANSISTOR, 2N2907A PNP GEN PURP Sm TO-18 TI - 2N2907A							
0025A					Q1 Q2							
0027	00001.000	EA		0972547-0008	SWITCH, SLIDE-SPST, DIP 8 SWITCHES							
0027A					U601							
0028	00002.000	EA		0972537-0001	DIODE, LED 550-0103 50 MA 3 V	DIA - 550-0103						
0028A					CR1 CR2							
0029	00000.100	FT		0411400-0022	WIRE 22AWG ELETRO-TIN-PLATED, COPPER							
0030	00002.000	EA		0972137-0005	CONNECTOR, PC 50 PIN	BEI - 65483-005						
0030A					P3 P4							
0031	00002.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN							
0032	00002.000	EA		0944954-0001	INSULATOR, PWB, 14IN							
0033	00006.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG							
0034	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB							
0036	00001.000	EA		2210188-0005	SOCKET, LOW PROFILE, DIP, 20 PINS	003612-DIL820P-108						
0036A					XU602							
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY ADD-ON MODULE, 64KB, 990/16KR				
APP. MFG.		DATE	APP. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	LM0948955-0001				
								PART NUMBER LM0948955-0001				
								REV R				

TEXAS INSTRUMENTS INCORPORATED		DATE 10/18/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0948955-0001		REV R		
PART NUMBER	QUANTITY OF ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0037	00001.000	EA		0972897-0001	TRANSISTOR-A5T2222 NPN SILICON	TI - A5T2222						
0037A					Q3							
0038	00002.000	EA		0972946-0001	RES FIX 4.7K OHM 5 X .25 W CARBON FILM	ROH - R-25						
0038A					R7 R8							
0039	00001.000	EA		0539468-0002	DIODE, 1N4002 1AMP 100PIV RECTIFIER	TI - 1N4002						
0039A					CR3							
0040	00001.000	EA		0948955-5001	AUTO-INSERTED PARTS LIST FOR 948955-0001							
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY ADD-ON MODULE, 64KB, 990/16KR				
APP. MFG.		DATE	APP. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	LM0948955-0001				
								PART NUMBER LM0948955-0001				
								REV R				

TEXAS INSTRUMENTS INCORPORATED		DATE 10/18/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0948955-0002		REV R		
PART NUMBER	QUANTITY OF ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0002	REF	EA		0948957-9901	LOGIC, MEMORY ADD-ON MODULE, 990/10							
0003	REF	EA		0948958-9901	TEST PROCEDURE, MEM ADD-ON MODULE, 990/10							
0004	REF	EA		0948959-9901	SPECIFICATION, MEM ADD-ON MODULE, 990/10							
0010	00001.000	EA		2261987-0001	ROM, ADDRESS DECODE, 16KR MEMORY EXPANSION							
0010A					U602							
0011	00001.000	EA		0972787-0004	NETWORK SN74LS368N							
0011A					U23							
0012	00001.000	EA		0996420-0001	IC, SN74LS373N	001295-SN74LS373N						
0012A					U401							
0014	00006.000	EA		0996680-0001	IC, 16K RAM, (SEL)	001295-TMS4116/ZA0727						
0014A					U40 THRU U421							
0014B					U80 THRU U821							
0014C					U40 THRU U421							
0014D					U80 THRU U821							
0015	00176.000	EA		2210188-0003	SOCKET, LOW PROFILE, DIP, 16 CONT	003612-DIL816P-108						
0015A					XU40 THRU XU421							
0015B					XU80 THRU XU821							
0015C					XU40 THRU XU421							
0015D					XU80 THRU XU821							
0015E					XU60 THRU XU621							
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY ADD-ON MODULE, 128KB, 990/16KR				
APP. MFG.		DATE	APP. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	LM0948955-0002				
								PART NUMBER LM0948955-0002				
								REV R				

TEXAS INSTRUMENTS INCORPORATED DATE 10/18/79 LIST OF MATERIAL PAGE 2 of PART NUMBER LM0948955-0002 REV R

PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0015F					XUFO THRU XUF21	
0015G					XUGO THRU XUG21	
0015H					XUHO THRU XUHZ1	
0021	00003.000	EA		0972924-0014	CAP FIX TANT SOLID 15 MFD 10 X 20 VOLT QPL -M39003/1-2289	
0021A					C191 C193 C201	
0022	00005.000	EA		0972924-0006	CAP FIX TANT SOLID 39 MFD 10 X 10 VOLT QPL -M39003/1-2259	
0022A					C190 C192 C194 C195 C196	
0023	00011.000	EA		0972763-0009	CAP, FIXED .0047MF 50 VOLTS	004222-MC105E472Z
0023A					C177 C178 C179 C180 C185	
0023B					C199 C202 C203 C204 C205	
0023C					C206	
0024	00001.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80V, -20%	
0024A					C197	
0025	00002.000	EA		0972958-0002	TRANSISTOR, 2N2907A PNP GEN PURP SW TO-18 TI - 2N2907A	
0025A					Q1 Q2	
0027	00001.000	EA		0972547-0008	SWITCH, SLIDE-SPST, DIP 8 SWITCHES	
0027A					U601	
0028	00002.000	EA		0972537-0001	DIODE, LED 550-0103 50 MA 3 V	DIA --550-0103
0028A					CR1 CR2	
0029	00000.100	FT		0411400-0022	WIRE 22AWG ELETRO-TIN-PLATED, COPPER	
DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY ADD-ON MODULE, 128KB, 990/16KR						
APPD. ENG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM0948955-0002 REV R						

TEXAS INSTRUMENTS INCORPORATED DATE 10/18/79 LIST OF MATERIAL PAGE 3 of PART NUMBER LM0948955-0002 REV R

PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0030	00002.000	EA		0972137-0005	CONNECTOR, PC 50 PIN	BEI - 65483-005
0030A					P3 P4	
0031	00002.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN	
0032	00002.000	EA		0944954-0001	INSULATOR, PWB, 14IN	
0033	00006.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG	
0034	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB	
0036	00001.000	EA		2210180-0005	SOCKET, LOW PROFILE, DIP, 20 PINS	003612-DILB20P-108
0036A					XU602	
0037	00001.000	EA		0972057-0001	TRANSISTOR-AST2222 NPN SILICON	TI- -AST2222
0037A					Q3	
0038	00002.000	EA		0972946-0081	RES FIX 4.7K OHM 5 X .25 W CARBON FILM	ROH - R-25
0038A					R7 R8	
0039	00001.000	EA		0539468-0002	DIODE, 1N4002 1AMP 100PIV RECTIFIER	TI - 1N4002
0039A					CR3	
0040	00001.000	EA		0948955-5002	AUTO-INSERTED PARTS LIST FOR 948955-0002	
DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY ADD-ON MODULE, 128KB, 990/16KR						
APPD. ENG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM0948955-0002 REV R						

TEXAS INSTRUMENTS INCORPORATED DATE 10/18/79 LIST OF MATERIAL PAGE 1 of PART NUMBER LM0948955-0003 REV R

PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0002	REF	EA		0948957-9901	LOGIC, MEMORY ADD-ON MODULE, 990/10	
0003	REF	EA		0948958-9901	TEST PROCEDURE, MEM ADD-ON MODULE, 990/10	
0004	REF	EA		0948959-9901	SPECIFICATION, MEM ADD-ON MODULE, 990/10	
0010	00001.000	EA		2261987-0001	ROM, ADDRESS DECODE, 16KR MEMORY EXPANSION	
0010A					U602	
0011	00001.000	EA		0972787-0004	NETWORK SN74LS368N	
0011A					U23	
0012	00001.000	EA		0996420-0001	IC, SN74LS373N	001295-SN74LS373N
0012A					U401	
0014	00132.000	EA		0996680-0001	IC, 16K RAM, (SEL)	001295-TMS4116/LA072Z
0014A					UA0 THRU UA21	
0014B					UB0 THRU UB21	
0014C					UC0 THRU UC21	
0014D					UD0 THRU UD21	
0014E					UE0 THRU UE21	
0014F					UF0 THRU UF21	
0015	00176.000	EA		2210180-0003	SOCKET, LOW PROFILE, DIP, 16 CONT	003612-DIL16P-108
0015A					XUA0 THRU XUA21	
0015B					XUB0 THRU XUB21	
0015C					XUC0 THRU XUC21	
DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY ADD-ON MODULE, 192KB, 990/16KR						
APPD. ENG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM0948955-0003 REV R						

TEXAS INSTRUMENTS INCORPORATED DATE 10/18/79 LIST OF MATERIAL PAGE 2 of PART NUMBER LM0948955-0003 REV R

PRINT ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER
0015D					XUD0 THRU XUD21	
0015E					XUE0 THRU XUE21	
0015F					XUF0 THRU XUF21	
0015G					XUG0 THRU XUG21	
0015H					XUHO THRU XUHZ1	
0021	00003.000	EA		0972924-0014	CAP FIX TANT SOLID 15 MFD 10 X 20 VOLT QPL -M39003/1-2289	
0021A					C191 C193 C201	
0022	00005.000	EA		0972924-0006	CAP FIX TANT SOLID 39 MFD 10 X 10 VOLT QPL -M39003/1-2259	
0022A					C190 C192 C194 C195 C196	
0023	00011.000	EA		0972763-0009	CAP, FIXED .0047MF 50 VOLTS	004222-MC105E472Z
0023A					C177 C178 C179 C180 C185	
0023B					C199 C202 C203 C204 C205	
0023C					C206	
0024	00001.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80V, -20%	
0024A					C197	
0025	00002.000	EA		0972958-0002	TRANSISTOR, 2N2907A PNP GEN PURP SW TO-18 TI - 2N2907A	
0025A					Q1 Q2	
0027	00001.000	EA		0972547-0008	SWITCH, SLIDE-SPST, DIP 8 SWITCHES	
0027A					U601	
0028	00002.000	EA		0972537-0001	DIODE, LED 550-0103 50 MA 3 V	DIA --550-0103
DRAFTSMAN DATE CDD DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE MEMORY ADD-ON MODULE, 192KB, 990/16KR						
APPD. ENG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM0948955-0003 REV R						



TEXAS INSTRUMENTS INCORPORATED		DATE 10/18/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0948955-0003		REV R	
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0028A					CR1 CR2						
0029	00000.100	FT		0411400-0022	WIRE 22AWG ELETRO-TIN-PLATED,COPPER						
0030	00002.000	EA		0972137-0005	CONNECTOR,PC 50 PIN	BEI - 65483-005					
0030A					P3 P4						
0031	00002.000	EA		0945239-0001	BRACKET-STIFFENER, PMB, 14IN						
0032	00002.000	EA		0944954-0001	INSULATOR, PMB, 14IN						
0033	00006.000	EA		0972684-0002	SCREW,THD FRNG,HEX WSHR HD,2-56X1/4 LG						
0034	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PMB						
0036	00001.000	EA		2210188-0005	SOCKET, LOW PROFILE, DIP, 20 PINS	003612-DIL820P-108					
0036A					XU602						
0037	00001.000	EA		0972057-0001	TRANSISTOR-A5T2222 NPN SILICON	TI- -A5T2222					
0037A					Q3						
0038	00002.000	EA		0972946-0001	RES FIX 4.7K OHM 5 % .25 W CARBON FILM	ROH - R-25					
0038A					R7 R8						
0039	00001.000	EA		0539468-0002	DIODE,1N4002 1AMP 100PIV RECTIFIER	TI - IN4002					
0039A					CR3						
0040	00001.000	EA		0948955-5003	AUTO-INSERTED PARTS LIST FOR 948955-0003						
DRAFTSMAN _____ DATE _____ CED. DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE _____ MEMORY ADD-ON MODULE,192KB,990/16KR UPG. MFG. _____ DATE _____ APPR. PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ PART NUMBER LM0948955-0003 REV R											

TEXAS INSTRUMENTS INCORPORATED		DATE 10/18/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0948955-0004		REV R	
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0002	REF	EA		0948957-9901	LOGIC, MEMORY ADD-ON MODULE, 990/10						
0003	REF	EA		0948958-9901	TEST PROCEDURE, MEM ADD-ON MODULE, 990/10						
0004	REF	EA		0948959-9901	SPECIFICATION, MEM ADD-ON MODULE, 990/10						
0010	00001.000	EA		2261987-0001	ROM, ADDRESS DECODE, 16KB MEMORY EXPANSION						
0010A					U602						
0011	00001.000	EA		0972787-0004	NETWORK SN74LS368N						
0011A					U23						
0012	00001.000	EA		0996420-0001	IC, SN74LS373M	001295-SN74LS373M					
0012A					U401						
0014	00176.000	EA		0996680-0001	IC, 16K RAM, (SEL)	001295-TMS4116/LA0727					
0014A					UA0 THRU UA21						
0014B					UB0 THRU UB21						
0014C					UC0 THRU UC21						
0014D					UD0 THRU UD21						
0014E					UE0 THRU UE21						
0014F					UF0 THRU UF21						
0014G					UG0 THRU UG21						
0014H					UH0 THRU UH21						
0015	00176.000	EA		2210188-0003	SOCKET, LOW PROFILE, DIP, 16 CONT	003612-DIL816P-108					
0015A					XUA0 THRU XUA21						
DRAFTSMAN _____ DATE _____ CED. DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE _____ MEMORY ADD-ON MODULE, 256KB, 990/16KR UPG. MFG. _____ DATE _____ APPR. PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ PART NUMBER LM0948955-0004 REV R											

TEXAS INSTRUMENTS INCORPORATED		DATE 10/18/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0948955-0004		REV R	
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0015B					XUB0 THRU XUB21						
0015C					XUC0 THRU XUC21						
0015D					XUD0 THRU XUD21						
0015E					XUE0 THRU XUE21						
0015F					XUF0 THRU XUF21						
0015G					XUG0 THRU XUG21						
0015H					XUH0 THRU XUH21						
0021	00003.000	EA		0972924-0014	CAP FIX TANT SOLID 15 MFD 10 X 20 VOLT	QPL -H39003/1-2289					
0021A					C191 C193 C201						
0022	00005.000	EA		0972924-0006	CAP FIX TANT SOLID 39 MFD 10 X 10 VOLT	QPL -H39003/1-2259					
0022A					C190 C192 C194 C195 C196						
0023	00011.000	EA		0972763-0009	CAP, FIXED .0047MF 50 VOLTS	004222-RC105E472Z					
0023A					C177 C178 C179 C180 C185						
0023B					C199 C202 C203 C204 C205						
0023C					C206						
0024	00001.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80%, -20%						
0024A					C197						
0025	00002.000	EA		0972958-0002	TRANSISTOR, 2N2907A PNP GEN PURP SW TO-18	TI - 2N2907A					
0025A					Q1 Q2						
0027	00001.000	EA		0972547-0008	SWITCH, SLIDE-SPST, DIP 8 SWITCHES						
DRAFTSMAN _____ DATE _____ CED. DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE _____ MEMORY ADD-ON MODULE, 256KB, 990/16KR UPG. MFG. _____ DATE _____ APPR. PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ PART NUMBER LM0948955-0004 REV R											

TEXAS INSTRUMENTS INCORPORATED		DATE 10/18/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0948955-0004		REV R	
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0027A					U601						
0028	00002.000	EA		0972537-0001	DIODE, LED 550-0103 50 MA 3 V	DIA --550-0103					
0028A					CR1 CR2						
0029	00000.100	FT		0411400-0022	WIRE 22AWG ELETRO-TIN-PLATED,COPPER						
0030	00002.000	EA		0972137-0005	CONNECTOR,PC 50 PIN	BEI - 65483-005					
0030A					P3 P4						
0031	00002.000	EA		0945239-0001	BRACKET-STIFFENER, PMB, 14IN						
0032	00002.000	EA		0944954-0001	INSULATOR, PMB, 14IN						
0033	00006.000	EA		0972684-0002	SCREW,THD FRNG,HEX WSHR HD,2-56X1/4 LG						
0034	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PMB						
0036	00001.000	EA		2210188-0005	SOCKET, LOW PROFILE, DIP, 20 PINS	003612-DIL820P-108					
0036A					XU602						
0037	00001.000	EA		0972057-0001	TRANSISTOR-A5T2222 NPN SILICON	TI- -A5T2222					
0037A					Q3						
0038	00002.000	EA		0972946-0001	RES FIX 4.7K OHM 5 % .25 W CARBON FILM	ROH - R-25					
0038A					R7 R8						
0039	00001.000	EA		0539468-0002	DIODE, 1N4002 1AMP 100PIV RECTIFIER	TI - IN4002					
0039A					CR3						
0040	00001.000	EA		0948955-5004	AUTO-INSERTED PARTS LIST FOR 948955-0004						
DRAFTSMAN _____ DATE _____ CED. DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE _____ MEMORY ADD-ON MODULE, 256KB, 990/16KR UPG. MFG. _____ DATE _____ APPR. PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ PART NUMBER LM0948955-0004 REV R											

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0948955-5001		REV R-1	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0001	0001.000	EA		0948956-0001	PWB, MEMORY ADD-ON MODULE, 990/10				
0005	0001.000	EA		0219402-7404	NETWORK SN74504N				
0005A					U3				
0006	0001.000	EA		0222222-7430	NETWORK SN7430N	-SN7430N			
0006A					U301				
0007	0001.000	EA		0972900-7474	NETWORK SN74LS74N				
0007A					U2				
0008	0002.000	EA		0996136-0002	IC, SN74LS258N, DATA SELECTORS/MULTIPLEXER	TI	-SN74LS258N		
0008A					U802 U803				
0009	0002.000	EA		0972652-0001	NETWORK SN74LS203N				
0009A					U701 U702				
0011	0001.000	EA		0972787-0004	NETWORK SN74LS368N				
0011A					U4 U5 U7 U8 U11 U12 U15 U16				
0011B					U19 U20 U24 U25				
0013	0004.000	EA		0972583-0001	NETWORK, SN75365	TI-	-SN75365		
0013A					U6 U103 U104 U204				
0016	0001.000	EA		0972037-3470	RES. NETWORK, 4.7K OHM 2%				
0016A					U402				
0017	0001.000	EA		0972037-2680	NETWORK RESISTOR 600 OHMS 2%	073138-898-3-R680			
0017A					U801				
DRAFTSMAN: DATE: CDD DRAFTSMAN: DATE: DESIGN ENGINEER: DATE: TITLE: AUTO-INSERTED PARTS LIST FOR 948955-0001 APPR. ENG: DATE: APPR. PROJECT ENGINEER: DATE: RELEASED: DATE: PROJECT NO.: PART NUMBER: LM0948955-5001 REV: R-1									

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0948955-5001		REV R-1	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0018	0003.000	EA		0972037-1220	NETWORK, RES 16 PIN, 8 ELEMENT 22 OHMS ±2%	073138-898-3-R22			
0018A					U105 U205 U203				
0019	0004.000	EA		0972946-0049	RES FIX 220 OHM 5% ±.25 W CARBON FILM	ROH	-R-25		
0019A					R1 R2 R3 R6				
0020	0002.000	EA		0972946-0065	RES FIX 1.0K OHM 5% ±.25 W CARBON FILM	ROH	-R-25		
0020A					R4 R5				
0021	0001.000	EA		0972924-0014	CAP FIX TANT SOLID 15 MFD 10% ± 20 VOLT	QPL	-M39003/1-2289		
0021A					C121 C125 C129 C133 C137				
0021B					C141 C145 C149 C153 C157				
0021C					C164				
0024	0004.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80%, -20%				
0024A					C1 C2 C3 C13 C14 C15 C25				
0024B					C26 C27 C37 C38 C39 C49 C50				
0024C					C51 C61 C62 C63 C73 C74 C75				
0024D					C85 C86 C87 C97 C98 C99				
0024E					C109 C110 C111 C161 C162				
0024F					C163 C181 THRU C184				
0024G					C186 THRU C189 C198				
DRAFTSMAN: DATE: CDD DRAFTSMAN: DATE: DESIGN ENGINEER: DATE: TITLE: AUTO-INSERTED PARTS LIST FOR 948955-0001 APPR. ENG: DATE: APPR. PROJECT ENGINEER: DATE: RELEASED: DATE: PROJECT NO.: PART NUMBER: LM0948955-5001 REV: R-1									

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0948955-5002		REV R-1	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0001	0001.000	EA		0948956-0001	PWB, MEMORY ADD-ON MODULE, 990/10				
0005	0001.000	EA		0219402-7404	NETWORK SN74504N				
0005A					U3				
0006	0001.000	EA		0222222-7430	NETWORK SN7430N	-SN7430N			
0006A					U301				
0007	0001.000	EA		0972900-7474	NETWORK SN74LS74N				
0007A					U2				
0008	0002.000	EA		0996136-0002	IC, SN74LS258N, DATA SELECTORS/MULTIPLEXER	TI	-SN74LS258N		
0008A					U802 U803				
0009	0002.000	EA		0972652-0001	NETWORK SN74LS203N				
0009A					U701 U702				
0011	0001.000	EA		0972787-0004	NETWORK SN74LS368N				
0011A					U4 U5 U7 U8 U11 U12 U15 U16				
0011B					U19 U20 U24 U25				
0013	0003.000	EA		0972583-0001	NETWORK, SN75365	TI-	-SN75365		
0013A					U104 U204 U304 U404 U504				
0013B					U604 U704 U804 U6 U103 U303				
0013C					U503 U703				
0016	0001.000	EA		0972037-3470	RES. NETWORK, 4.7K OHM 2%				
0016A					U402				
DRAFTSMAN: DATE: CDD DRAFTSMAN: DATE: DESIGN ENGINEER: DATE: TITLE: AUTO-INSERTED PARTS LIST FOR 948955-0002 APPR. ENG: DATE: APPR. PROJECT ENGINEER: DATE: RELEASED: DATE: PROJECT NO.: PART NUMBER: LM0948955-5002 REV: R-1									

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0948955-5002		REV R-1	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0017	0001.000	EA		0972037-2680	NETWORK RESISTOR 600 OHMS 2%	073138-898-3-R680			
0017A					U801				
0018	0001.000	EA		0972037-1220	NETWORK, RES 16 PIN, 8 ELEMENT 22 OHMS ±2%	073138-898-3-R22			
0018A					U105 U205 U305 U405 U505				
0018B					U605 U705 U805 U203 U603				
0019	0004.000	EA		0972946-0049	RES FIX 220 OHM 5% ±.25 W CARBON FILM	ROH	-R-25		
0019A					R1 R2 R3 R6				
0020	0002.000	EA		0972946-0065	RES FIX 1.0K OHM 5% ±.25 W CARBON FILM	ROH	-R-25		
0020A					R4 R5				
0021	0004.000	EA		0972924-0014	CAP FIX TANT SOLID 15 MFD 10% ± 20 VOLT	QPL	-M39003/1-2289		
0021A					C121 THRU C137				
0021B					C139 THRU C160				
0021C					C164 C168 C172 C176				
0024	0014.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80%, -20%				
0024A					C1 THRU C120 C161 THRU C163				
0024B					C165 THRU C167				
0024C					C169 THRU C171				
0024D					C173 THRU C175				
0024E					C181 THRU C184				
0024F					C186 THRU C189 C198				
DRAFTSMAN: DATE: CDD DRAFTSMAN: DATE: DESIGN ENGINEER: DATE: TITLE: AUTO-INSERTED PARTS LIST FOR 948955-0002 APPR. ENG: DATE: APPR. PROJECT ENGINEER: DATE: RELEASED: DATE: PROJECT NO.: PART NUMBER: LM0948955-5002 REV: R-1									

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 10/18/79		PAGE 1 of		PART NUMBER LM0948955-5003		REV R	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	00001.000	EA		0948956-0001	PMB, MEMORY ADD-ON MODULE, 990/10						
0005	00001.000	EA		0219402-7404	NETWORK SN74S04N						
0005A					U3						
0006	00001.000	EA		0222222-7430	NETWORK SN7430N	-SN7430N					
0006A					U301						
0007	00001.000	EA		0972900-7474	NETWORK SN74LS74N						
0007A					U2						
0008	00002.000	EA		0996136-0002	IC, SN74LS258N, DATA SELECTORS/MULTIPLEXER	TI	-SN74LS258N				
0008A					U802 U803						
0009	00002.000	EA		0972652-0001	NETWORK SN74LS283N						
0009A					U701 U702						
0011	00012.000	EA		0972787-0004	NETWORK SN74LS368N						
0011A					U4 U5 U7 U8 U11 U12 U15 U16						
0011B					U19 U20 U24 U25						
0013	00013.000	EA		0972583-0001	NETWORK, SN75365	TI-	-SN75365				
0013A					U104 U204 U304 U404 U504						
0013B					U604 U704 U804 U6 U103 U303						
0013C					U503 U703						
0016	00001.000	EA		0972037-3470	RES. NETWORK, 4.7K OHM 2%						
0016A					U402						
DRAFTSMAN _____ DATE _____ CDD. DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE _____ AUTO-INSERTED PARTS LIST FOR 948955-0003 APP. MFG. _____ DATE _____ APPD. PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ PART NUMBER LM0948955-5003 REV R											

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 10/18/79		PAGE 2 of		PART NUMBER LM0948955-5003		REV R	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0017	00001.000	EA		0972037-2680	NETWORK RESISTOR 680 OHMS 2%	073138-898-3-R680					
0017A					U801						
0018	00010.000	EA		0972037-1220	NETWORK, RES 16 PIN, 8 ELEMENT 22 OHMS +2%	073138-898-3-R22					
0018A					U105 U205 U305 U405 U505						
0018B					U605 U705 U805 U203 U603						
0019	00004.000	EA		0972946-0049	RES FIX 220 OHM 5% .25 W CARBON FILM	ROH	-R-25				
0019A					R1 R2 R3 R6						
0020	00002.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH	-R-25				
0020A					R4 R5						
0021	00043.000	EA		0972924-0014	CAP FIX TANT SOLID 15 MFD 10% 20 VOLT	QPL	-H39003/1-2289				
0021A					C121 THRU C137						
0021B					C139 THRU C160						
0021C					C164 C168 C172 C176						
0024	00141.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80%, -20%						
0024A					C1 THRU C120 C161 THRU C163						
0024B					C165 THRU C167						
0024C					C169 THRU C171						
0024D					C173 THRU C175						
0024E					C181 THRU C184						
0024F					C186 THRU C189 C198						
DRAFTSMAN _____ DATE _____ CDD. DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE _____ AUTO-INSERTED PARTS LIST FOR 948955-0003 APP. MFG. _____ DATE _____ APPD. PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ PART NUMBER LM0948955-5003 REV R											

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 10/18/79		PAGE 1 of		PART NUMBER LM0948955-5004		REV R	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	00001.000	EA		0948956-0001	PMB, MEMORY ADD-ON MODULE, 990/10						
0005	00001.000	EA		0219402-7404	NETWORK SN74S04N						
0005A					U3						
0006	00001.000	EA		0222222-7430	NETWORK SN7430N	-SN7430N					
0006A					U301						
0007	00001.000	EA		0972900-7474	NETWORK SN74LS74N						
0007A					U2						
0008	00002.000	EA		0996136-0002	IC, SN74LS258N, DATA SELECTORS/MULTIPLEXER	TI	-SN74LS258N				
0008A					U802 U803						
0009	00002.000	EA		0972652-0001	NETWORK SN74LS283N						
0009A					U701 U702						
0011	00012.000	EA		0972787-0004	NETWORK SN74LS368N						
0011A					U4 U5 U7 U8 U11 U12 U15 U16						
0011B					U19 U20 U24 U25						
0013	00013.000	EA		0972583-0001	NETWORK, SN75365	TI-	-SN75365				
0013A					U104 U204 U304 U404 U504						
0013B					U604 U704 U804 U6 U103 U303						
0013C					U503 U703						
0016	00001.000	EA		0972037-3470	RES. NETWORK, 4.7K OHM 2%						
0016A					U402						
DRAFTSMAN _____ DATE _____ CDD. DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE _____ AUTO-INSERTED PARTS LIST FOR 948955-0004 APP. MFG. _____ DATE _____ APPD. PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ PART NUMBER LM0948955-5004 REV R											

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 10/18/79		PAGE 2 of		PART NUMBER LM0948955-5004		REV R	
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0017	00001.000	EA		0972037-2680	NETWORK RESISTOR 680 OHMS 2%	073138-898-3-R680					
0017A					U801						
0018	00010.000	EA		0972037-1220	NETWORK, RES 16 PIN, 8 ELEMENT 22 OHMS +2%	073138-898-3-R22					
0018A					U105 U205 U305 U405 U505						
0018B					U605 U705 U805 U203 U603						
0019	00004.000	EA		0972946-0049	RES FIX 220 OHM 5% .25 W CARBON FILM	ROH	-R-25				
0019A					R1 R2 R3 R6						
0020	00002.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROH	-R-25				
0020A					R4 R5						
0021	00043.000	EA		0972924-0014	CAP FIX TANT SOLID 15 MFD 10% 20 VOLT	QPL	-H39003/1-2289				
0021A					C121 THRU C137						
0021B					C139 THRU C160						
0021C					C164 C168 C172 C176						
0024	00141.000	EA		0972763-0021	CAP., FIXED, AXIAL LEAD, .047 UF, +80%, -20%						
0024A					C1 THRU C120 C161 THRU C163						
0024B					C165 THRU C167						
0024C					C169 THRU C171						
0024D					C173 THRU C175						
0024E					C181 THRU C184						
0024F					C186 THRU C189 C198						
DRAFTSMAN _____ DATE _____ CDD. DRAFTSMAN _____ DATE _____ DESIGN ENGINEER _____ DATE _____ TITLE _____ AUTO-INSERTED PARTS LIST FOR 948955-0004 APP. MFG. _____ DATE _____ APPD. PROJECT ENGINEER _____ DATE _____ RELEASED _____ DATE _____ PROJECT NO. _____ PART NUMBER LM0948955-5004 REV R											

NOTES: UNLESS OTHERWISE SPECIFIED;

1. ALL DEVICE TYPES ARE PREFIXED WITH SM74.
2. GROUND IS APPLIED TO PIN 7 OF ALL 14-PIN IC'S AND PIN 8 OF ALL 16-PIN IC'S.
3. VCC IS APPLIED TO PIN 14 OF ALL 14-PIN IC'S AND PIN 16 OF ALL 16-PIN IC'S.
4. DEVICE TYPE, PIN NUMBERS, AND REFERENCE DESIGNATOR OF IC IS SHOWN AS FOLLOWS:



- OO AND O4 = DEVICE TYPE
- 4, 5 AND 6 = PIN NUMBERS
- UB AND U14 = REFERENCE DESIGNATOR
5. \* INDICATES DEVICES POWERED BY +5 SW.

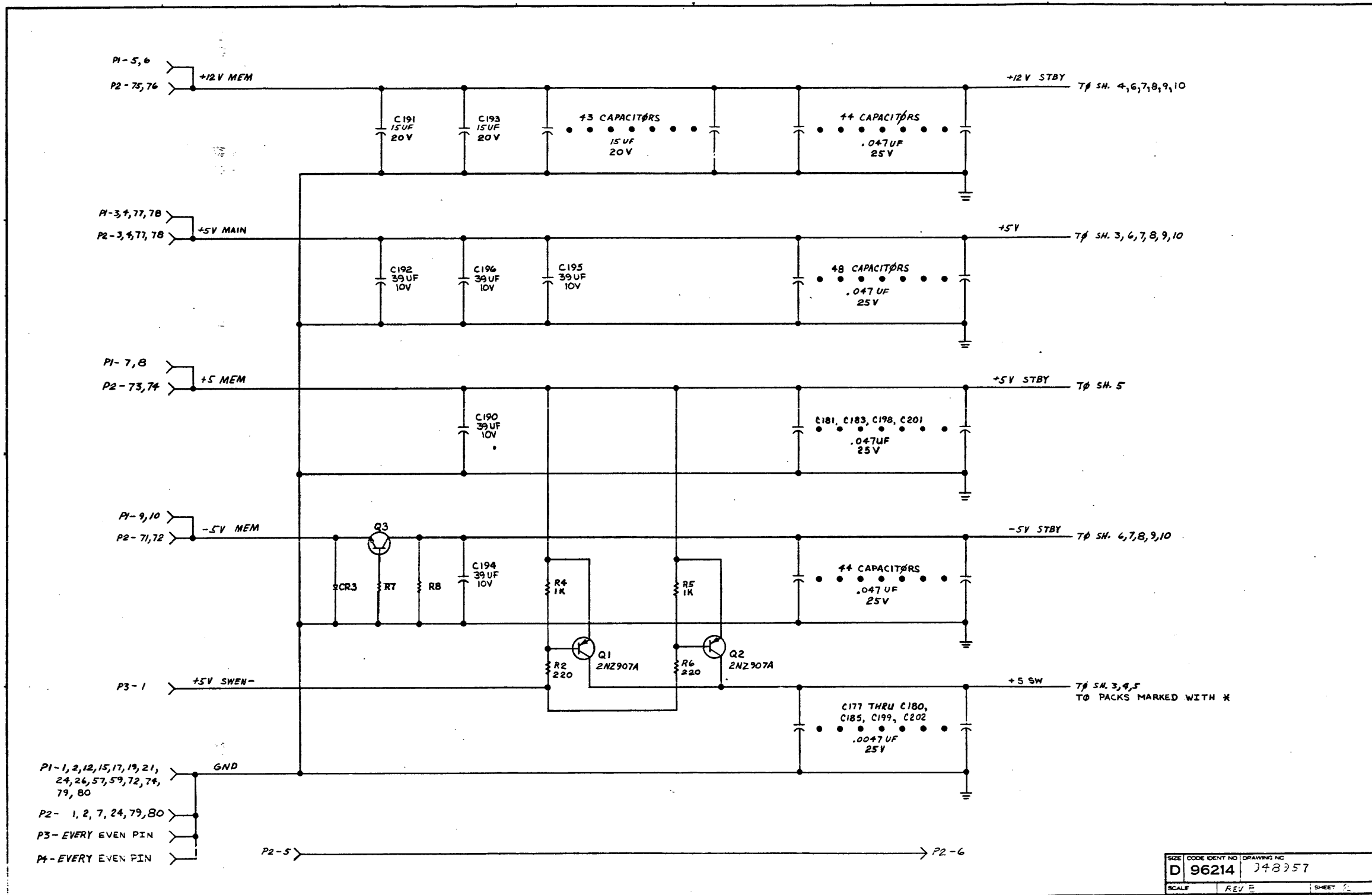
REVISIONS			
ZONE	LT#	DESCRIPTION	DATE
A		CN428577(D) V	6-7-78
B		CN437777(C) 3L. SW (1) SH. 4 ALL 74365 PKGS PIN 7 WASTIED TO +5V SW (2) IN ZONE D2 WAS SH. 6, 7, 8, 9, 10	2-7-79
C		CN433565(C) M. Fladen	11-1-79

REV STATUS	REV	E	B	C	B						
OF SHEETS	SHEET	1	2	3	4	5	6	7	8	9	10

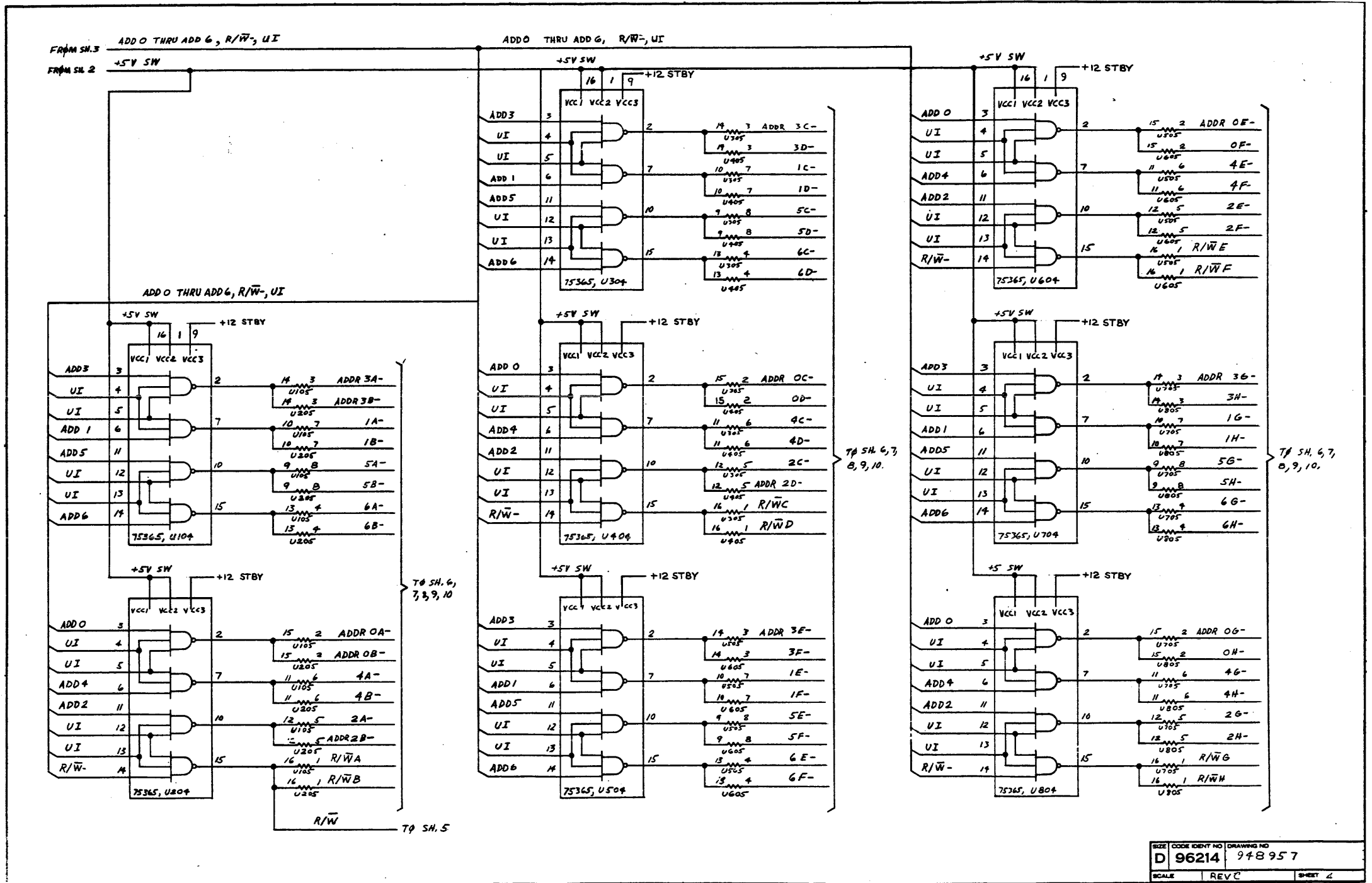
QTY	REQD	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
PARTS LIST						
UNLESS OTHERWISE SPECIFIED				UNLESS OTHERWISE SPECIFIED		
REMOVE ALL BURRS AND SHARP EDGES				DIMENSIONS ARE IN INCHES		
CONCENTRICITY MACHINED				TOLERANCES		
DIAMETERS .010 PIR				ANGLES 90°		
DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING				3 PLACE DECIMALS ±.010		
IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY				2 PLACE DECIMALS ±.02		
INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100				MATERIAL		
HOLE TOLERANCE				DATE		
.018 ± .004				12/8/76		
.128 ± .001				CHK		
.001				12-13-76		
.002 ± .001				ENGR		
.003 ± .001				11-21-77		
.004 ± .001				SA		
.005 ± .001				11-21-77		
.006 ± .001				APPRO		
.007 ± .001				11-21-77		
.008 ± .001				CONTR NO		
.009 ± .001				DESIGN ACTIVITY RELEASE		
.010 ± .001				11-21-77		
.011 ± .001				SIZE CODE IDENT NO DRAWING NO		
.012 ± .001				D 96214 343957		
.013 ± .001				SCALE: 1:1		
.014 ± .001				SHEET 1 OF 11		

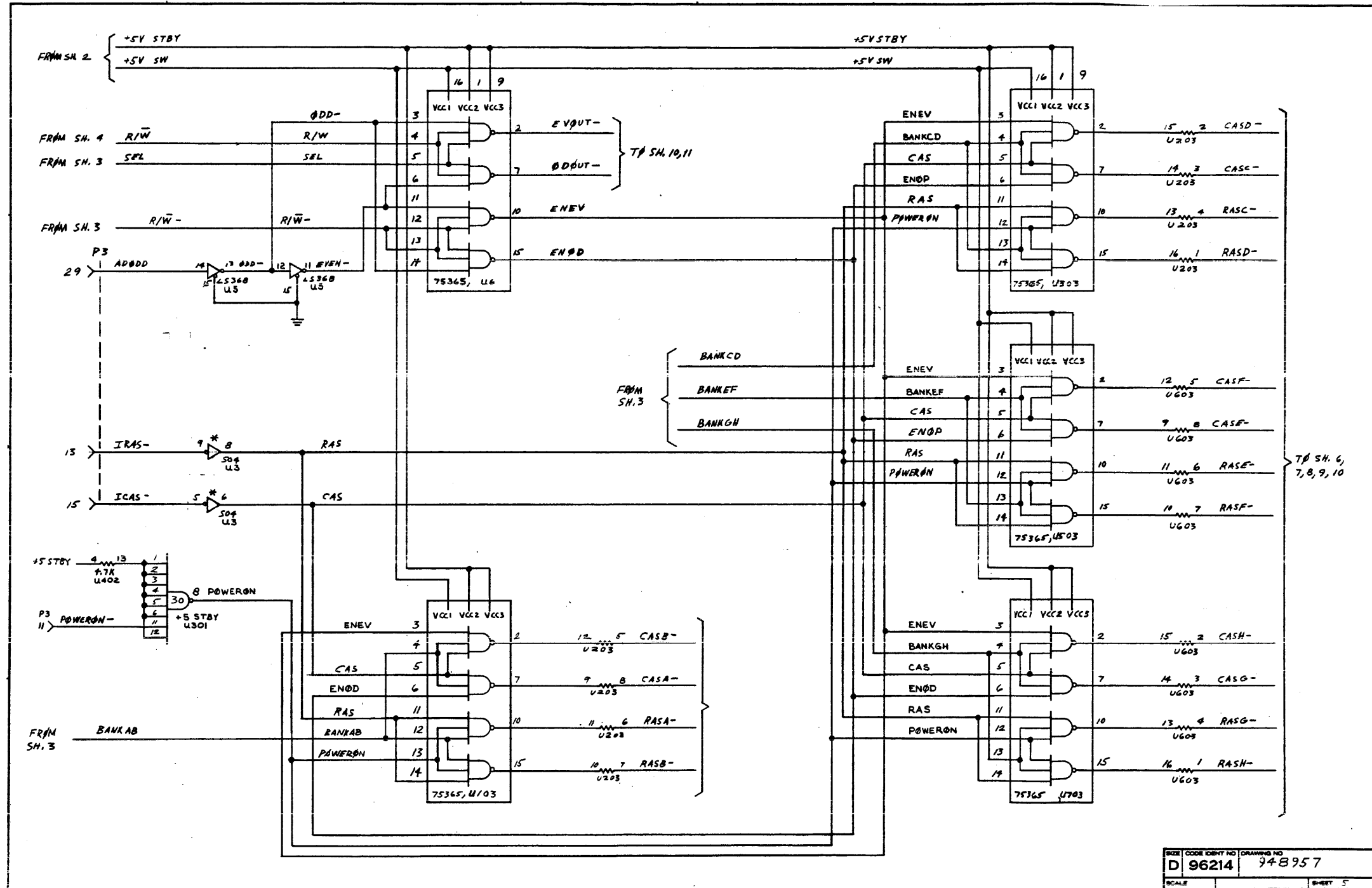
**TEXAS INSTRUMENTS**  
 INCORPORATED  
 Equipment Group Dallas, Texas

**LOGIC DIAGRAM**  
**MEMORY ADD-ON MODULE**  
**123K, 990/10**

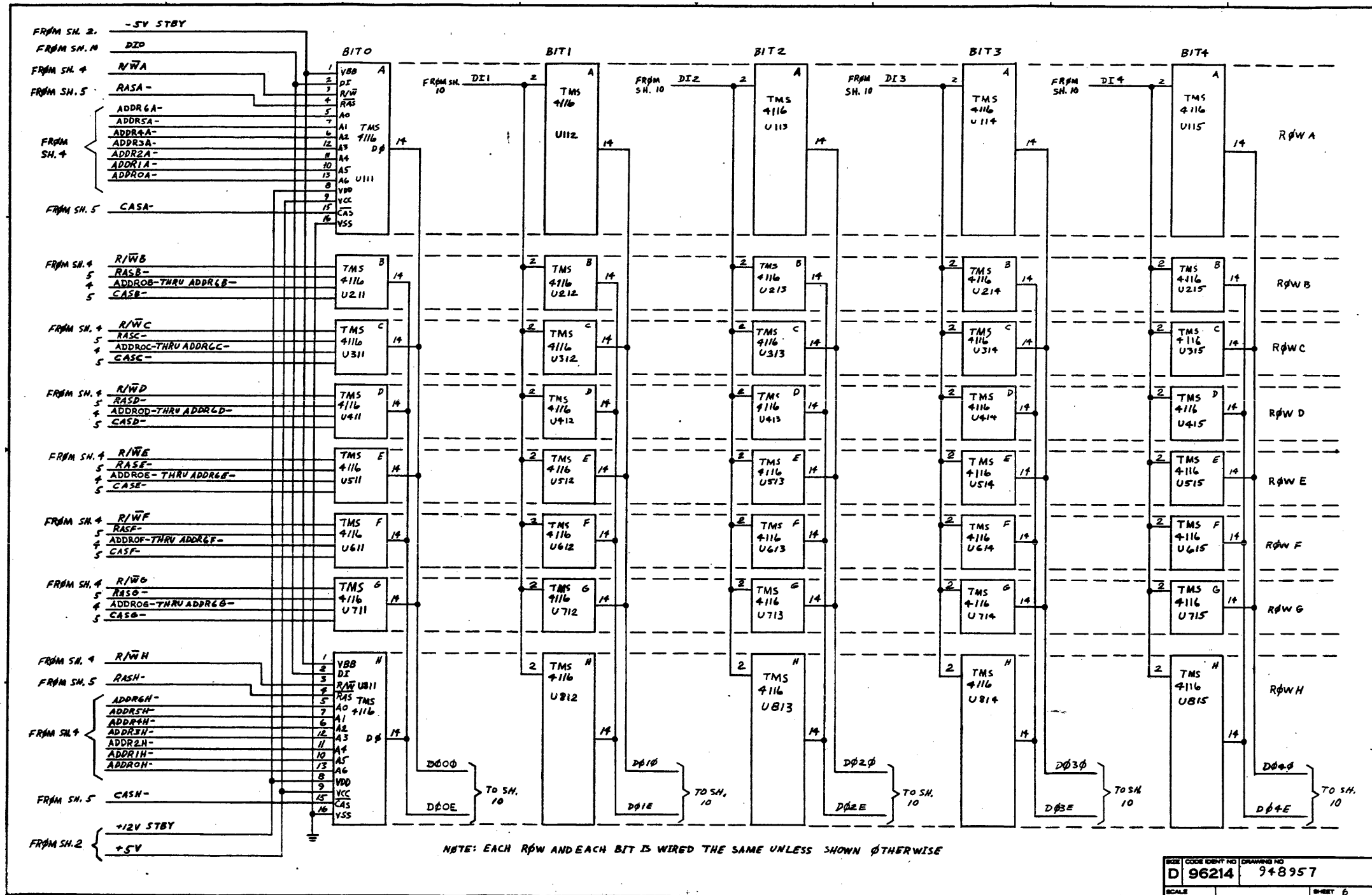


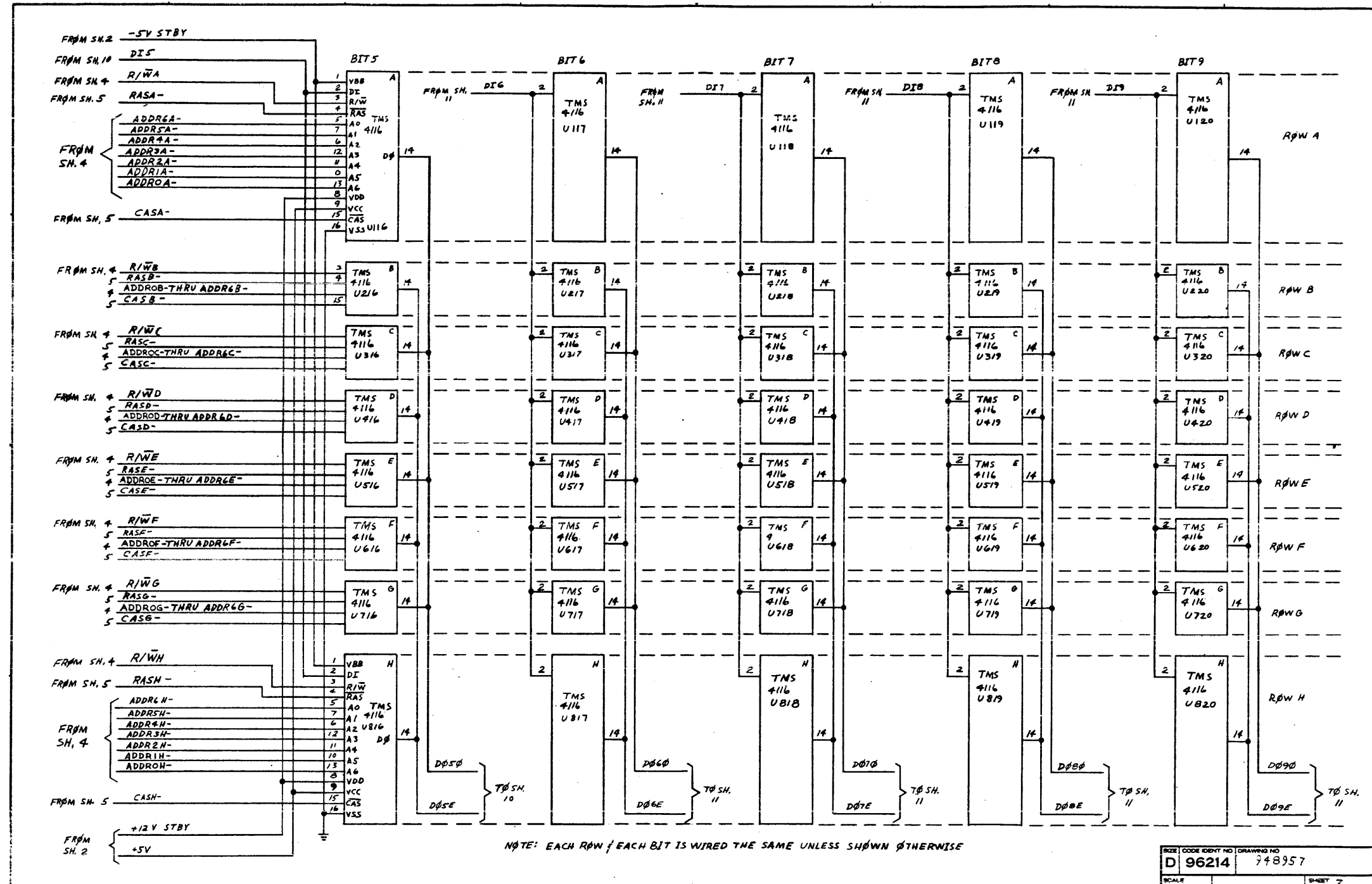


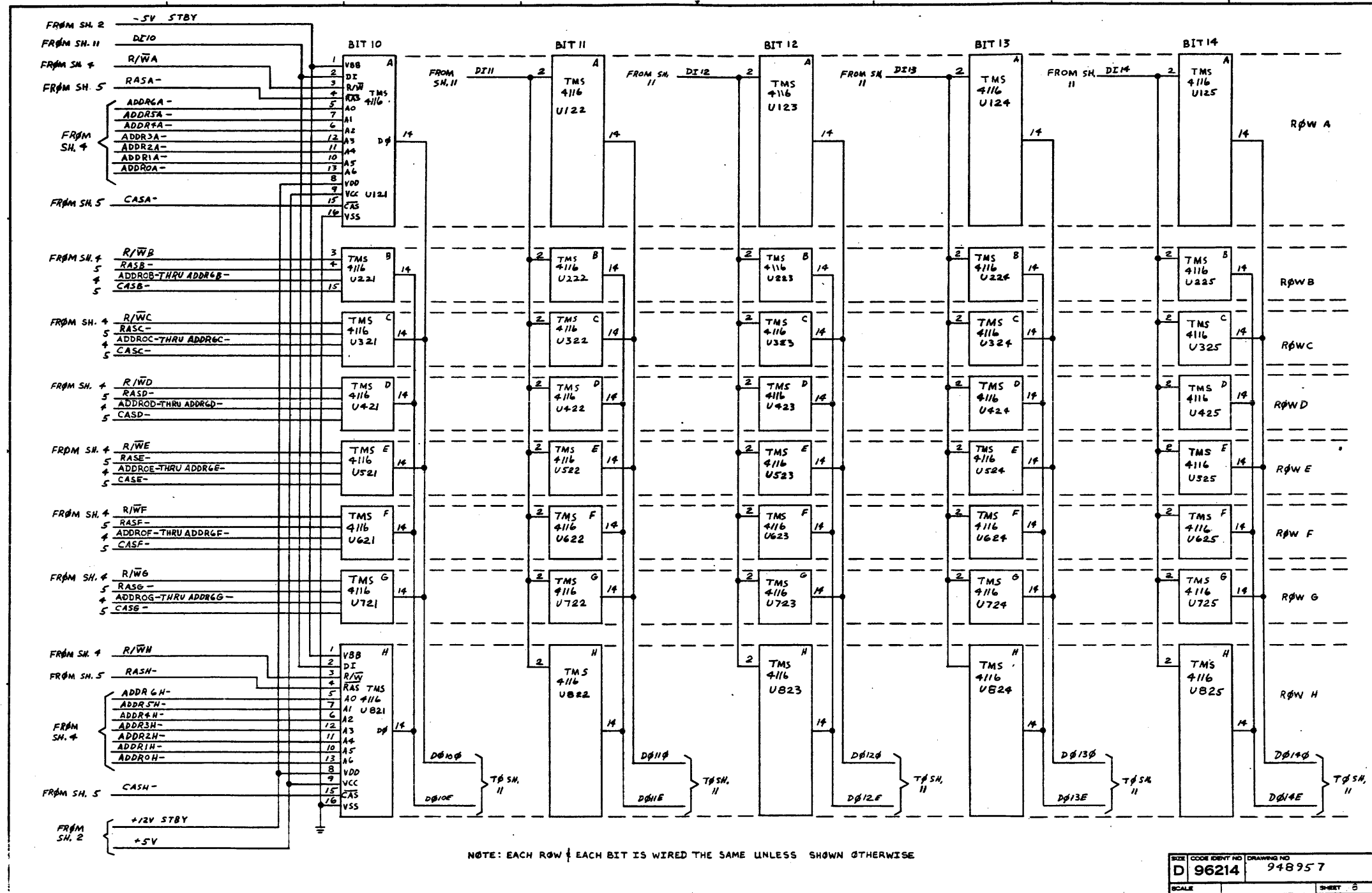


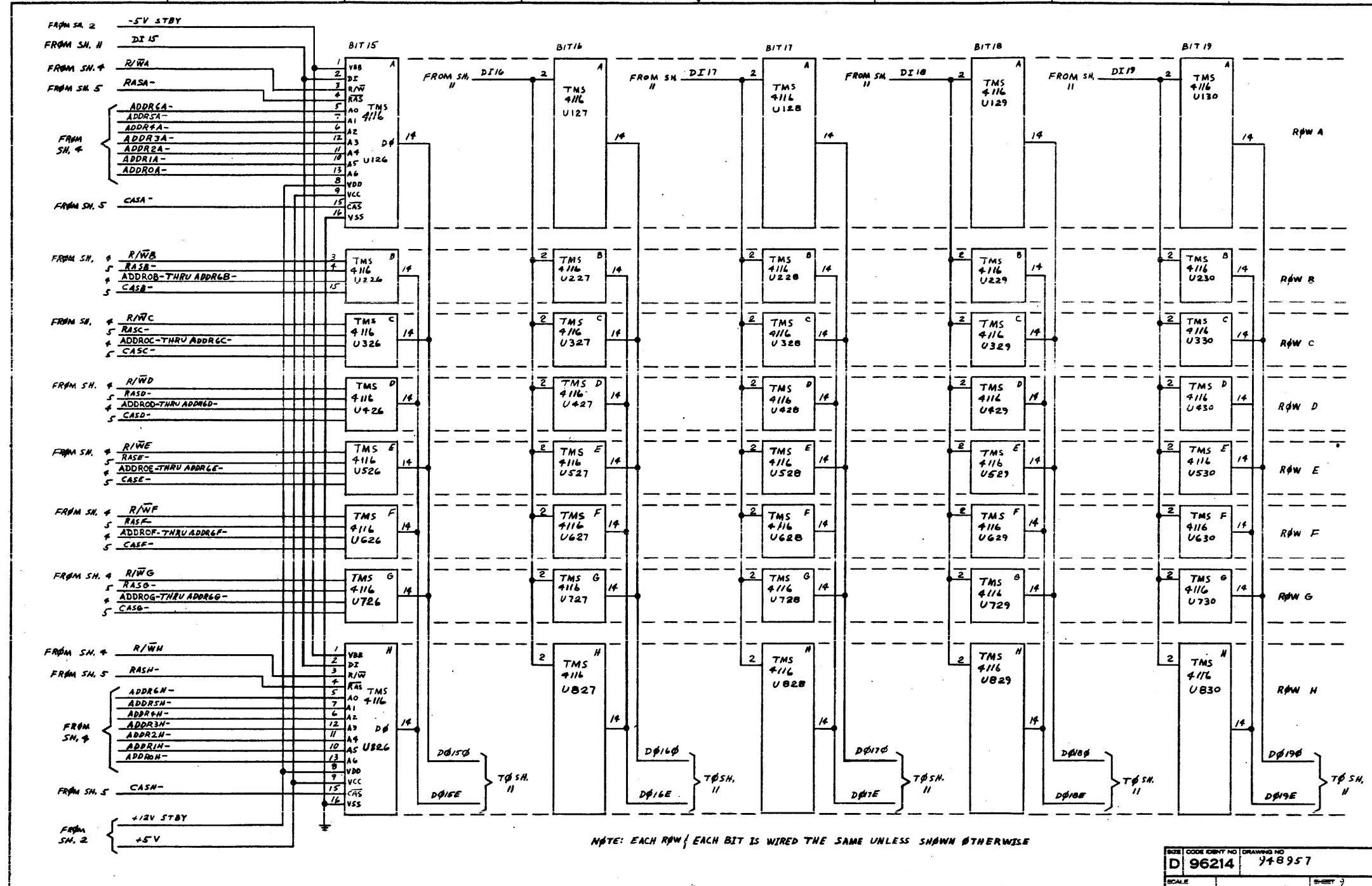


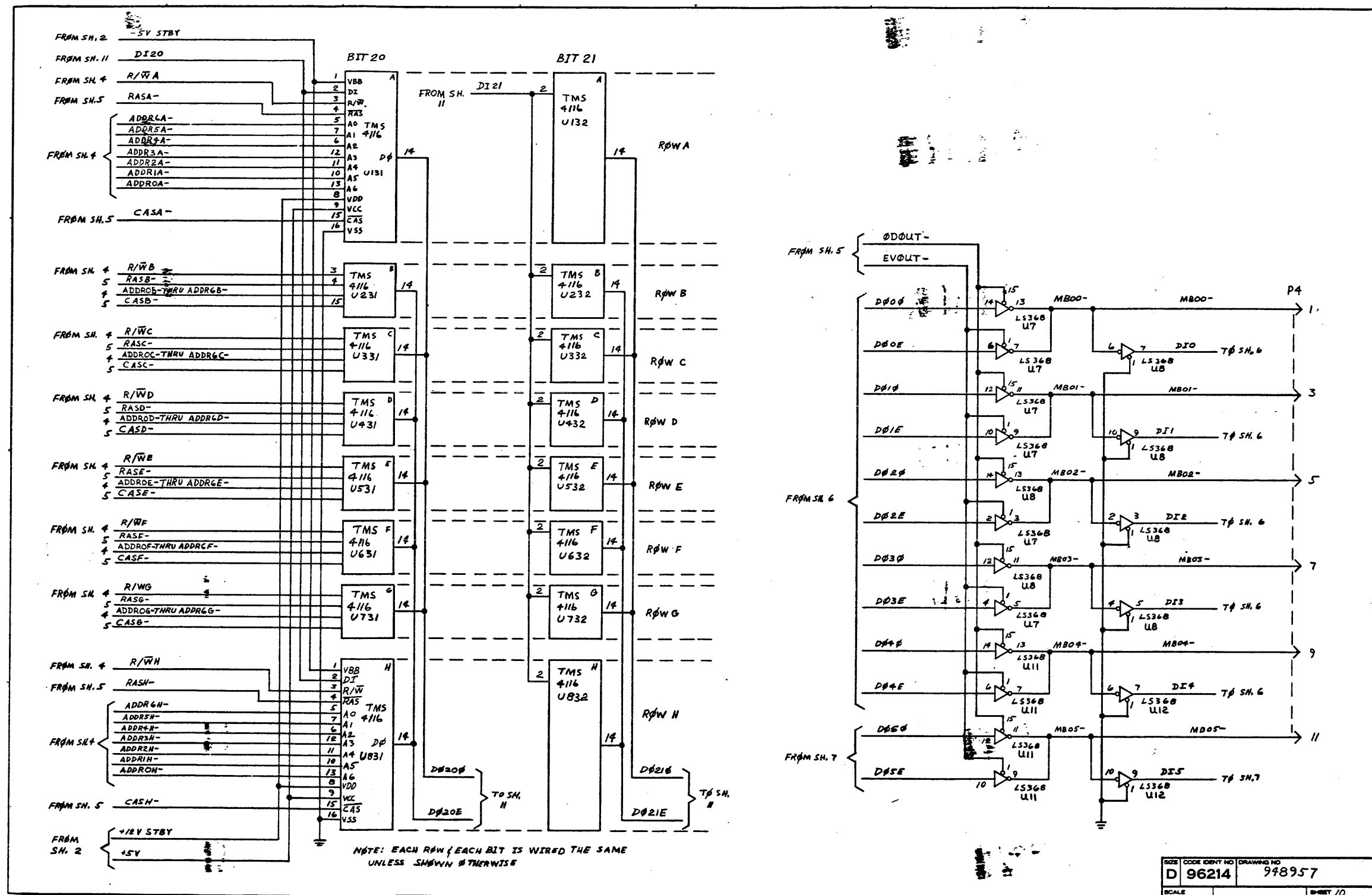


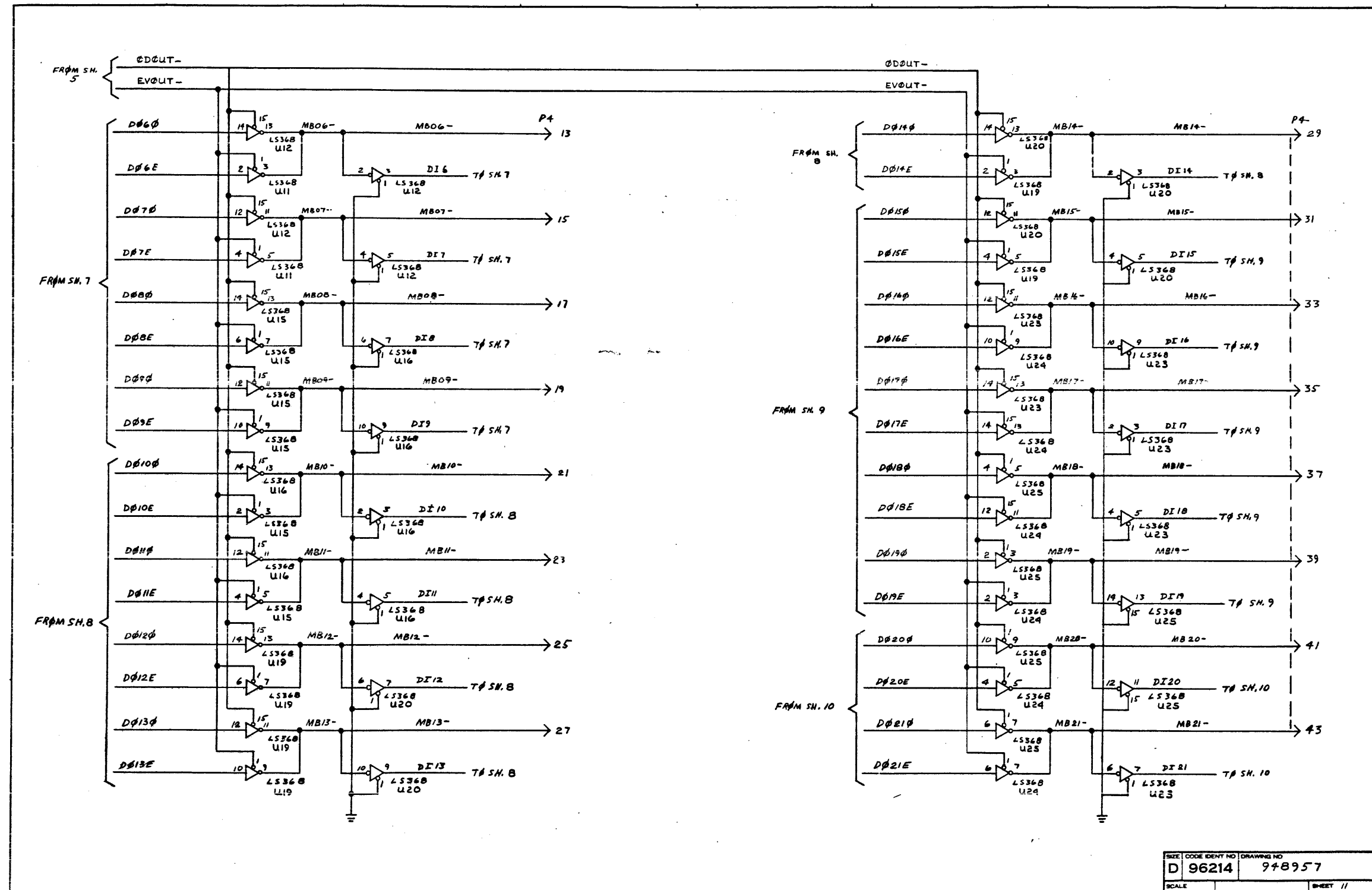


















TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM975155-0001		REV A U	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0001	0001.000	EA		0975155-0002	MEMORY, 8K				
0002	REF	EA		0975157-9901	DIAGRAM, LOGIC, DETAIL, 24K MEMORY				
0003	REF	EA		0975158-9901	TEST PROCEDURE, 24K MEMORY				
0004	REF	EA		0975159-9901	SPECIFICATION 24K MCS EXP MEM				
0005	REF	EA		0943802-9901	MOD. PROCEDURE 8K MEMORY TO 4K				
DRAFTSMAN DATE				CDR. DRAFTSMAN DATE	DESIGN ENGINEER DATE	TITLE			
				J. Rogers 10-1-79		MEMORY, 4K			
APPRO. ENG. DATE				APPRO. PROJECT ENGINEER DATE	RELEASED DATE	PROJECT NO.	PART NUMBER		REV
						7502	LM975155-0001		A U

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM975155-0002		REV A U	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0002	REF	EA		0975157-9901	DIAGRAM, LOGIC, DETAIL, 24K MEMORY				
0003	REF	EA		0975158-9901	TEST PROCEDURE, 24K MEMORY				
0004	REF	EA		0975159-9901	SPECIFICATION 24K MCS EXP MEM				
0005	0002.000	EA		0972924-0006	CAP FIX TANT SOLID 39 MFD 10 % 10 VOLT	QPL -M39003/1-2259			
0005A					C1 C2				
0006	0001.000	EA		0972924-0011	CAP FIX TANT SOLID 68 MFD 10 % 15 VOLT	QPL -M39003/1-2274			
0006A					C5				
0007	0002.000	EA		0972924-0016	CAP FIX TANT SOLID 100 MFD 10 % 20 VOLT	QPL -M39003/1-2301			
0007A					C6 C7				
0008	0001.000	EA		0972924-0007	CAP FIX TANT SOLID 120 MFD 10 % 10 VOLT	QPL -M39003/1-2263			
0008A					C8				
0009	0005.000	EA		0972965-0008	CAP FIX CERAMIC .0047 MF 10% 200 V	QPL - CK068X472X			
0009A					C74 THRU C78				
0010	0002.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10 % 200 V	QPL -M39014/01-1369			
0010A					A23C1 THRU A24C1				
0011	0004.000	EA		0972929-0379	CAP FIX CERAMIC 100 PF 10 % 200 V	QPL -M39014/01-1379			
0011A					A23C2 THRU A24C2				
0011B					A23C3 THRU A24C3				
0013	00051.000	EA		0972627-0003	CAP, CERAMIC, .047 MF 16V	-B37449-T647353			
0013A					C34 THRU C43, C56 THRU C67				
DRAFTSMAN DATE				CDR. DRAFTSMAN DATE	DESIGN ENGINEER DATE	TITLE			
						MEMORY, 8K			
APPRO. ENG. DATE				APPRO. PROJECT ENGINEER DATE	RELEASED DATE	PROJECT NO.	PART NUMBER		REV
							LM975155-0002		A U

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM975155-0002		REV A U	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0013B					C69 THRU C73, C79 THRU C89				
0013C					C96 THRU C105				
0013D					C3, C4, A24C4				
0014	0002.000	EA		0972929-0397	CAP FIX CERAMIC .001 UF 10% 200V	QPL -M39014/01-1397			
0014A					A23C5 THRU A24C5				
0015	0004.000	EA		0972932-0001	SEMICONDUCTOR DEVICE, DIODE, IN9148	TI - IN9148			
0015A					A23CR3, A23CR5, A24CR3, A24CR5				
0016	0002.000	EA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING				
0016A					CR6 CR7				
0020	0001.000	EA		0240000-7411	NETWORK-SN74H11N				
0020A					U21				
0022	0004.000	EA		0974679-0002	NETWORK, 4096 BIT, AM9060CPC OR MM5280M-5				
0022A					A1U1 THRU A22U1				
0022B					A1U2 THRU A22U2				
0022C					MAY BE SUBSTITUTED BY				
0022D					974679-1.				
0037	0001.000	EA		0972946-0071	RES FIX 1.8K OHM 5 % .25 W CARBON FILM	ROH - R-25			
0037A					R10				
0041	0002.000	EA		0234081-0000	X-XST 2N2894	TI -2N2894			
0041A					A23Q4 THRU A24Q4				
DRAFTSMAN DATE				CDR. DRAFTSMAN DATE	DESIGN ENGINEER DATE	TITLE			
						MEMORY, 8K			
APPRO. ENG. DATE				APPRO. PROJECT ENGINEER DATE	RELEASED DATE	PROJECT NO.	PART NUMBER		REV
							LM975155-0002		A U

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM975155-0002		REV A U	
ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0042	0008.000	EA		0972955-0001	XSTR 2N2369A, NPN, HIGH SPEED SW, TO-18	MOT - 2N2369A			
0042A					A23Q1 THRU A24Q1				
0042B					A23Q2 THRU A24Q2				
0042C					A23Q3 THRU A24Q3				
0042D					A23Q5 THRU A24Q5				
0044	0003.000	EA		0972958-0002	TRANSISTOR, 2N2907A PNP GEN PURP SW TO-18	TI - 2N2907A			
0044A					Q1 Q2 Q3				
0045	0002.000	EA		0972948-0002	TRANSISTOR, 2N2222A NPN GEN PURP SW TO-18	TI - 2N2222A			
0045A					Q4 C5				
0052	0002.000	EA		0945239-0001	BRACKET-STIFFENER, PHB, 14IN				
0053	0001.000	EA		0944954-0001	INSULATOR, PHB, 14IN				
0056	0006.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG				
0058	0004.000	EA		2210180-0006	SOCKET, LOW PROFILE, DIP, 22 PINS, 10 CONT	003612-DILB22P-108			
0058A					A1U1 THRU A22U1				
0058B					A1U2 THRU A22U2				
0059	0001.000	EA		0943704-0001	INSULATOR, PHB STIFFENER				
0060	0002.000	EA		0153733-0001	DIODE GTD-132 / CGD-949				
0060A					CR15 CR16				
0062	AR	FT		0411400-0024	WIRE, 24AWG ELECTRO TIN PLATED COPPER				
0064	0002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PHB				
DRAFTSMAN DATE				CDR. DRAFTSMAN DATE	DESIGN ENGINEER DATE	TITLE			
						MEMORY, 8K			
APPRO. ENG. DATE				APPRO. PROJECT ENGINEER DATE	RELEASED DATE	PROJECT NO.	PART NUMBER		REV
							LM975155-0002		A U

TEXAS INSTRUMENTS INCORPORATED		DATE 09/28/79		LIST OF MATERIAL		PAGE 4 of		PART NUMBER LM0975155-0002		REV A		
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0066	00001.000	FT		0966760-2896	WIRE, TWISTED PAIR #28 WHT/BLU IPVC	UL - 1472 7STR UL6						
0067	00001.000	EA		0975159-5002	AUTO INSERTION PARTS LIST FOR -0002 ASSY							
0068	00001.000	EA		0996420-0001	IC, SN74LS373N	001295-SN74LS373N						
0068A					U22							
DRAFTSMAN				DATE	CHKD. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY, 8K		
APPV. ENG.				DATE	APPV. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	LM0975155-0002		

TEXAS INSTRUMENTS INCORPORATED		DATE 09/28/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM0975155-0004		REV A		
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0002	REF	EA		0975157-9901	DIAGRAM, LOGIC, DETAIL, 24K MEMORY							
0003	REF	EA		0975158-9901	TEST PROCEDURE, 24K MEMORY							
0004	REF	EA		0975159-9901	SPECIFICATION 24K MOS EXP MEM							
0005	00002.000	EA		0972924-0006	CAP FIX TANT SOLID 39 MFD 10 X 10 VOLT	QPL -H39003/1-2259						
0005A					C1 C2							
0006	00001.000	EA		0972924-0011	CAP FIX TANT SOLID 68 MFD 10 X 15 VOLT	QPL -H39003/1-2274						
0006A					C3							
0007	00002.000	EA		0972924-0016	CAP FIX TANT SOLID 100 MFD 10 X 20 VOLT	QPL -H39003/1-2301						
0007A					C6 C7							
0008	00001.000	EA		0972924-0007	CAP FIX TANT SOLID 120 MFD 10 X 10 VOLT	QPL -H39003/1-2263						
0008A					C8							
0009	00005.000	EA		0972969-0008	CAP FIX CERAMIC .0047 MF 10X 200 V	QPL - CK068X472K						
0009A					C74 THRU C78							
0010	00004.000	EA		0972929-0365	CAP FIX CERAMIC 27.0 PF 10 X 200 V	QPL -H39014/01-1369						
0010A					A23C1 THRU A26C1							
0011	00006.000	EA		0972929-0379	CAP FIX CERAMIC 100 PF 10 X 200 V	QPL -H39014/01-1379						
0011A					A23C2 THRU A26C2							
0011B					A23C3 THRU A26C3							
0013	00085.000	EA		0972627-0003	CAP, CERAMIC, .047 MF 16V	-837449-T647353						
0013A					C25 THRU C43, C50 THRU C67							
DRAFTSMAN				DATE	CHKD. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY, 16K		
APPV. ENG.				DATE	APPV. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	LM0975155-0004		

TEXAS INSTRUMENTS INCORPORATED		DATE 09/28/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0975155-0004		REV A		
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0013B					C69 THRU C73, C79 THRU C116							
0013C					C3, C4, C160, A24C4, A26C4							
0014	00004.000	EA		0972929-0397	CAP FIX CERAMIC .001 UF 10X 200V	QPL -H39014/01-1397						
0014A					A23C5 THRU A26C5							
0015	00006.000	EA		0972932-0001	SEMICONDUCTOR DEVICE, DIODE, IN9148	TI - IN9148						
0015A					A23CR3, A24CR3, A25CR3, A26CR3							
0015B					A23CR5 THRU A26CR5							
0016	00002.000	EA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING							
0016A					CR6 CR7							
0020	00001.000	EA		0240000-7411	NETWORK-SN74H11N							
0020A					U21							
0022	00088.000	EA		0974679-0002	NETWORK, 4096 BIT, AM9060CPC OR MM5280N-5							
0022A					A1U1 THRU A22U1							
0022B					A1U2 THRU A22U2							
0022C					A1U3 THRU A22U3							
0022D					A1U4 THRU A22U4							
0022E					MAY BE SUBSTITUTED BY							
0022F					974679-1.							
0024	00003.000	EA		0240000-7404	NETWORK SN74H04N							
0024A					U3 U4 U5							
DRAFTSMAN				DATE	CHKD. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY, 16K		
APPV. ENG.				DATE	APPV. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	LM0975155-0004		

TEXAS INSTRUMENTS INCORPORATED		DATE 09/28/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0975155-0004		REV A		
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF MEAS	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0037	00001.000	EA		0972946-0071	RES FIX 1.8K OHM 5 X .25 W CARBON FILM	ROH - R-25						
0037A					R10							
0041	00004.000	EA		0236881-0000	X-XT 2N2894	TI - 2N2894						
0041A					A23Q4 THRU A26Q4							
0042	00016.000	EA		0972955-0001	XSTR 2N2369A, MPN, HIGH SPEED SW, TO-18	MOT - 2N2369A						
0042A					A23Q1 THRU A26Q1							
0042B					A23Q2 THRU A26Q2							
0042C					A23Q3 THRU A26Q3							
0042D					A23Q5 THRU A26Q5							
0044	00003.000	EA		0972958-0002	TRANSISTOR, 2N2907A PNP GEN PURP SW TO-18	TI - 2N2907A						
0044A					Q1 Q2 Q3							
0045	00002.000	EA		0972948-0002	TRANSISTOR, 2N2222A NPN GEN PURP SW TO-18	TI - 2N2222A						
0045A					Q4 Q5							
0052	00001.000	EA		0945239-0001	BRACKET-STIFFENER, PHB, 14IN							
0053	00001.000	EA		0944954-0001	INSULATOR, PHB, 141A							
0056	00006.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG							
0058	00088.000	EA		2210188-0006	SOCKET, LDH PROFILE, DIP, 22 PINS, 10 CCNT	003612-DIL822P-108						
0058A					A1U1 THRU A22U1							
0058B					A1U2 THRU A22U2							
0058C					A1U3 THRU A22U3							
DRAFTSMAN				DATE	CHKD. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE	MEMORY, 16K		
APPV. ENG.				DATE	APPV. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	LM0975155-0004		

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 09/28/79		PAGE 4 of		PART NUMBER LM0975155-0004		REV AT		
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DRWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0058D					A1U6 THRU A22U4							
0059	00001.000	EA		0943704-0001	INSULATOR, PWB STIFFENER							
0060	00004.000	EA		0153733-0001	DIODE GTO-132 / CGD-949							
0060A					CR13 THRU CR16							
0062	AR	FT		0411400-0024	WIRE, 24AWG ELECTRO TIN PLATED COPPER							
0064	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB							
0066	00001.000	FT		0966760-2896	WIRE, TWISTED PAIR #28 WMT/BLU IPVC	UL - 1472 75TR ULG						
0067	00001.000	EA		0975155-5004	AUTO INSERTION PARTS LIST FOR -0004 ASSY							
0068	00001.000	EA		0996420-0001	IC, SN74LS373N	001295-SN74LS373N						
0068A					U22							
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, 16K					
APPD. ENG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO. LM0975155-0004					

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 09/28/79		PAGE 1 of		PART NUMBER LM0975155-0004		REV AT		
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DRWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0002	REF	EA		0975157-9901	DIAGRAM, LOGIC, DETAIL, 24K MEMORY							
0003	REF	EA		0975158-9901	TEST PROCEDURE, 24K MEMORY							
0004	REF	EA		0975159-9901	SPECIFICATION 24K MOS EXP MEM							
0005	00002.000	EA		0972924-0006	CAP FIX TANT SOLID 39 MFD 10 X 10 VOLT	QPL -H39003/1-2259						
0005A					C1 C2							
0006	00001.000	EA		0972924-0011	CAP FIX TANT SOLID 68 MFD 10 X 15 VOLT	QPL -H39003/1-2274						
0006A					C5							
0007	00002.000	EA		0972924-0016	CAP FIX TANT SOLID 100 MFD 10 X 20 VOLT	QPL -H39003/1-2301						
0007A					C6 C7							
0008	00001.000	EA		0972924-0007	CAP FIX TANT SOLID 120 MFD 10 X 10 VOLT	QPL -H39003/1-2263						
0008A					C8							
0009	00005.000	EA		0972965-0008	CAP FIX CERAMIC .0047 MF 10X 200 V	QPL - CK068X472K						
0009A					C74 THRU C78							
0010	00006.000	EA		0972929-0369	CAP FIX CERAMIC 27.0 PF 10 X 200 V	QPL -H39014/01-1369						
0010A					A23C1 THRU A28C1							
0011	00012.000	EA		0972929-0379	CAP FIX CERAMIC 100 PF 10 X 200 V	QPL -H39014/01-1379						
0011A					A23C2 THRU A28C2							
0011B					A23C3 THRU A28C3							
0013	00118.000	EA		0972627-0003	CAP, CERAMIC, .047 MF 16V	-837449-T647353						
0013A					C9 THRU C67, C69 THRU C73							
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, 24K					
APPD. ENG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO. LM0975155-0004					

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 09/28/79		PAGE 2 of		PART NUMBER LM0975155-0004		REV AT		
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DRWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0013B					C79 THRU C127, C3, C4, C160							
0013C					A26C4, A24C4, A28C4							
0014	00006.000	EA		0972929-0397	CAP FIX CERAMIC .001 UF 10X 200V	QPL -H39014/01-1397						
0014A					A23C5 THRU A28C5							
0015	00012.000	EA		0972932-0001	SEMICONDUCTOR DEVICE, DIODE, IN914B	TI - IN914B						
0015A					A23CR3, A24CR3, A25CR3, A26CR3							
0015B					A27CR3, A28CR3, A23CR5 THRU							
0015C					A28CR5							
0016	00002.000	EA		0226609-0001	DIODE, VISIBLE LIGHT EMITTING							
0016A					CR6 CR7							
0020	00001.000	EA		0240000-7411	NETWORK-SA74H11N							
0020A					U21							
0021	00006.000	EA		0222222-7404	NETWORK SN7404N							
0021A					U1 THRU U6							
0022	00132.000	EA		0974679-0002	NETWORK, 4096 BIT, AM9060CPC OR MM5280N-5							
0022A					A1U1 THRU A22U1							
0022B					A1U2 THRU A22U2							
0022C					A1U3 THRU A22U3							
0022D					A1U4 THRU A22U4							
0022E					A1U5 THRU A22U5							
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, 24K					
APPD. ENG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO. LM0975155-0004					

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 09/28/79		PAGE 3 of		PART NUMBER LM0975155-0004		REV AT		
ITEM NUMBER	QUANTITY FOR ASSEMBLY	UNIT OF ISSUE	DRWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0022F					A1U6 THRU A22U6							
0022G					MAY BE SUBSTITUTED BY							
0022H					974679-1.							
0023	00001.000	EA		0240000-7400	NETWORK-SN74H00N							
0023A					U19							
0037	00001.000	EA		0972946-0071	RES FIX 1.0K OHM 5 X .25 W CARBON FILM	ROH - R-25						
0037A					R10							
0041	00006.000	EA		0236081-0000	X-RST 2N2894	TI - 2N2894						
0041A					A23Q4 THRU A28Q4							
0042	00024.000	EA		0972955-0001	XSTR 2N2369A, NPN, HIGH SPEED SM, TO-18	MOT - 2N2369A						
0042A					A23Q1 THRU A28Q1							
0042B					A23Q2 THRU A28Q2							
0042C					A23Q3 THRU A28Q3							
0042D					A23Q5 THRU A28Q5							
0044	00003.000	EA		0972958-0002	TRANSISTOR, 2N2907A PNP GEN PURP SM TO-18	TI - 2N2907A						
0044A					Q1 Q2 Q3							
0045	00002.000	EA		0972948-0002	TRANSISTOR, 2N2222A NPN GEN PURP SM TO-18	TI - 2N2222A						
0045A					Q4 Q5							
0052	00002.000	EA		0945239-0001	BRACKET-STIFFENER, PWB, 14IN							
0053	00001.000	EA		0944954-0001	INSULATOR, PWB, 14IN							
DRAFTSMAN		DATE	CDR. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, 24K					
APPD. ENG.		DATE	APPD. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO. LM0975155-0004					

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 09/28/79		PAGE 4 of		PART NUMBER LM975155-0006		REV AT		
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0056	00006.000	EA		0972684-0002	SCREW, THD FRMG, HEX WSHR HD, 2-56X1/4 LG							
0058	00132.000	EA		2210180-0006	SOCKET, LOW PROFILE, DIP, 22 PINS, 10 CONT	003612-DIL822P-108						
0058A					A1U1 THRU A22U1							
0058B					A1U2 THRU A22U2							
0058C					A1U3 THRU A22U3							
0058D					A1U4 THRU A22U4							
0058E					A1U5 THRU A22U5							
0058F					A1U6 THRU A22U6							
0059	00001.000	EA		0943704-0001	INSULATOR, PWB STIFFENER							
0060	00004.000	EA		0153733-0001	DIODE GTO-132 / CGD-949							
0060A					CR13 THRU CR16							
0062	AR	FT		0411400-0024	WIRE, 24AWG ELECTRO TIN PLATED COPPER							
0064	00002.000	EA		0533844-0001	EJECTOR, NYLON, NON-LOCKING, PWB							
0066	00001.000	FT		0966760-2896	WIRE, TWISTEC PAIR #28 WHT/BLU IPVC	UL - 1472 7STR UL4						
0067	00001.000	EA		0975155-5006	AUTO INSERTION PARTS LIST FOR -0006 ASSY							
0068	00001.000	EA		0996420-0001	IC, SN74LS373N	001295-SN74LS373N						
0068A					U22							
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, 24K					
APPRO. MFG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM975155-0006		REV AT		

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 09/28/79		PAGE 1 of		PART NUMBER LM975155-0102		REV AT		
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0001	00001.000	EA		0975155-0002	MEMORY, 8K							
0002	REF	EA		0943741-9901	DRAWING CLARIFICATION, MEMORY EXPANSION							
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, 8K EXPANSION					
APPRO. MFG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM975155-0102		REV AT		

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 09/28/79		PAGE 1 of		PART NUMBER LM975155-0104		REV AT		
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0001	00001.000	EA		0975155-0004	MEMORY, 16K							
0002	REF	EA		0943741-9901	DRAWING CLARIFICATION, MEMORY EXPANSION							
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, 8K TO 16K EXPANSION					
APPRO. MFG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM975155-0104		REV AT		

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		DATE 09/28/79		PAGE 1 of		PART NUMBER LM975155-0106		REV AT		
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER						
0001	00001.000	EA		0975155-0006	MEMORY, 24K							
0002	REF	EA		0943741-9901	DRAWING CLARIFICATION, MEMORY EXPANSION							
DRAFTSMAN		DATE	CED. DRAFTSMAN	DATE	DESIGN ENGINEER	DATE	TITLE MEMORY, 8K TO 24K EXPANSION					
APPRO. MFG.		DATE	APPRO. PROJECT ENGINEER	DATE	RELEASED	DATE	PROJECT NO.	PART NUMBER LM975155-0106		REV AT		

TEXAS INSTRUMENTS INCORPORATED		DATE 09/28/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LMD975155-5002		REV ATJ	
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	00001.000	EA		0975156-0001	PRINTED WIRING BOARD, 24K MEMORY						
0012	00011.000	EA		0972924-0014	CAP FIX TANT SOLID 15 MFD 10 S 20 VOLT	OPL -H39003/1-2289					
0012A					C128 THRU C138						
0015	00006.000	EA		0972932-0001	SEMICONDUCTOR DEVICE, DIODE, IN9148	TI - IN9148					
0015A					A23CR1, A23CR2, A24CR1, A24CR2						
0015B					CR1, CR2						
0018	00001.000	EA		0219402-7138	NETWORK SN74S138N						
0018A					U20						
0019	00002.000	EA		0222222-7400	NETWORK SN7400N	-SN7400N					
0019A					U13 U16						
0020	00001.000	EA		0240000-7411	NETWORK-SN74H11N						
0020A					U17						
0021	00001.000	EA		0222222-7404	NETWORK SN7404N						
0021A					U15						
0023	00002.000	EA		0240000-7400	NETWORK-SN74H00N						
0023A					U18 U19						
0024	00004.000	EA		0240000-7404	NETWORK SN74H04N						
0024A					U5 U6 U11 U12						
0027	00001.000	EA		0972947-0017	RES FIX 10 OHM 5 S .5 M CARBON FILM	ROH - R-50					
0027A					R9						
DRAFTSMAN DATE C.D. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTION PARTS LIST FOR -0002 ASSY											
APPD. ENG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LMD975155-5002 REV ATJ											

TEXAS INSTRUMENTS INCORPORATED		DATE 09/28/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LMD975155-5002		REV ATJ	
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0028	00005.000	EA		0972946-0049	RES FIX 220 OHM 5 S .25 M CARBON FILM	ROH - R-25					
0028A					R2 R4 R6 R23 R24						
0029	00004.000	EA		0972976-0080	RES FIX, 510 OHM 5S, 0.25 M CARBON COMP						
0029A					R1 R3 R5 R32						
0030	00010.000	EA		0972946-0065	RES FIX 1.0K OHM 5 S .25 M CARBON FILM	ROH - R-25					
0030A					A23R1, A24R1, R33 THRU R36,						
0030B					A23R2, A24R2						
0030C					A23R3, A24R3						
0032	00003.000	EA		0972946-0081	RES FIX 4.7K OHM 5 S .25 M CARBON FILM	ROH - R-25					
0032A					R8, A23R9, A24R9						
0033	00004.000	EA		0972946-0089	RES FIX 10K OHM 5 S .25 M CARBON FILM	ROH - R-25					
0033A					A23R4, A24R4, A23R7, A24R7						
0036	00004.000	EA		0972946-0112	RES FIX 91 K OHM 5 S .25 M CARBON FILM	ROH - R-25					
0036A					A23R5, A24R5, A23R6, A24R6						
0037	00001.000	EA		0972946-0071	RES FIX 1.8K OHM 5 S .25 M CARBON FILM	ROH - R-25					
0037A					R7						
0038	00002.000	EA		0972946-0025	RES FIX 22.0 OHM 5 S .25 M CARBON FILM	ROH - R-25					
0038A					A23R8, A24R8						
0039	00002.000	EA		0972946-0075	RES FIX 2.7K OHM 5 S .25 M CARBON FILM	ROH - R-25					
0039A					A23R10, A24R10						
DRAFTSMAN DATE C.D. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTION PARTS LIST FOR -0002 ASSY											
APPD. ENG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LMD975155-5002 REV ATJ											

TEXAS INSTRUMENTS INCORPORATED		DATE 09/28/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LMD975155-5002		REV ATJ	
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0040	00004.000	EA		0972946-0031	RES FIX 39.0 OHM 5 S .25 M CARBON FILM	ROH - R-25					
0040A					A23R11, A24R11, R25, R26						
0061	00001.000	EA		0972946-0051	RES FIX 270 OHM 5 S .25 M CARBON FILM	ROH - R-25					
0061A					R31						
DRAFTSMAN DATE C.D. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTION PARTS LIST FOR -0002 ASSY											
APPD. ENG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LMD975155-5002 REV ATJ											

TEXAS INSTRUMENTS INCORPORATED		DATE 09/28/79		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LMD975155-5004		REV ATJ	
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0001	00001.000	EA		0975156-0001	PRINTED WIRING BOARD, 24K MEMORY						
0012	00021.000	EA		0972924-0014	CAP FIX TANT SOLID 15 MFD 10 S 20 VOLT	OPL -H39003/1-2289					
0012A					C128 THRU C148						
0015	00010.000	EA		0972932-0001	SEMICONDUCTOR DEVICE, DIODE, IN9148	TI - IN9148					
0015A					A23CR1, A23CR2, A24CR1, A24CR2						
0015B					A25CR1, A25CR2, A26CR1, A26CR2						
0015C					CR1, CR2						
0018	00001.000	EA		0219402-7138	NETWORK SN74S138N						
0018A					U20						
0019	00002.000	EA		0222222-7400	NETWORK SN7400N	-SN7400N					
0019A					U13 U16						
0020	00002.000	EA		0240000-7411	NETWORK-SN74H11N						
0020A					U14 U17						
0021	00001.000	EA		0222222-7404	NETWORK SN7404N						
0021A					U15						
0023	00002.000	EA		0240000-7400	NETWORK-SN74H00N						
0023A					U18 U19						
0024	00005.000	EA		0240000-7404	NETWORK SN74H04N						
0024A					U6 U9 THRU U12						
0027	00001.000	EA		0972947-0017	RES FIX 10 OHM 5 S .5 M CARBON FILM	ROH - R-50					
DRAFTSMAN DATE C.D. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTION PARTS LIST FOR -0004 ASSY											
APPD. ENG. DATE APPD. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LMD975155-5004 REV ATJ											

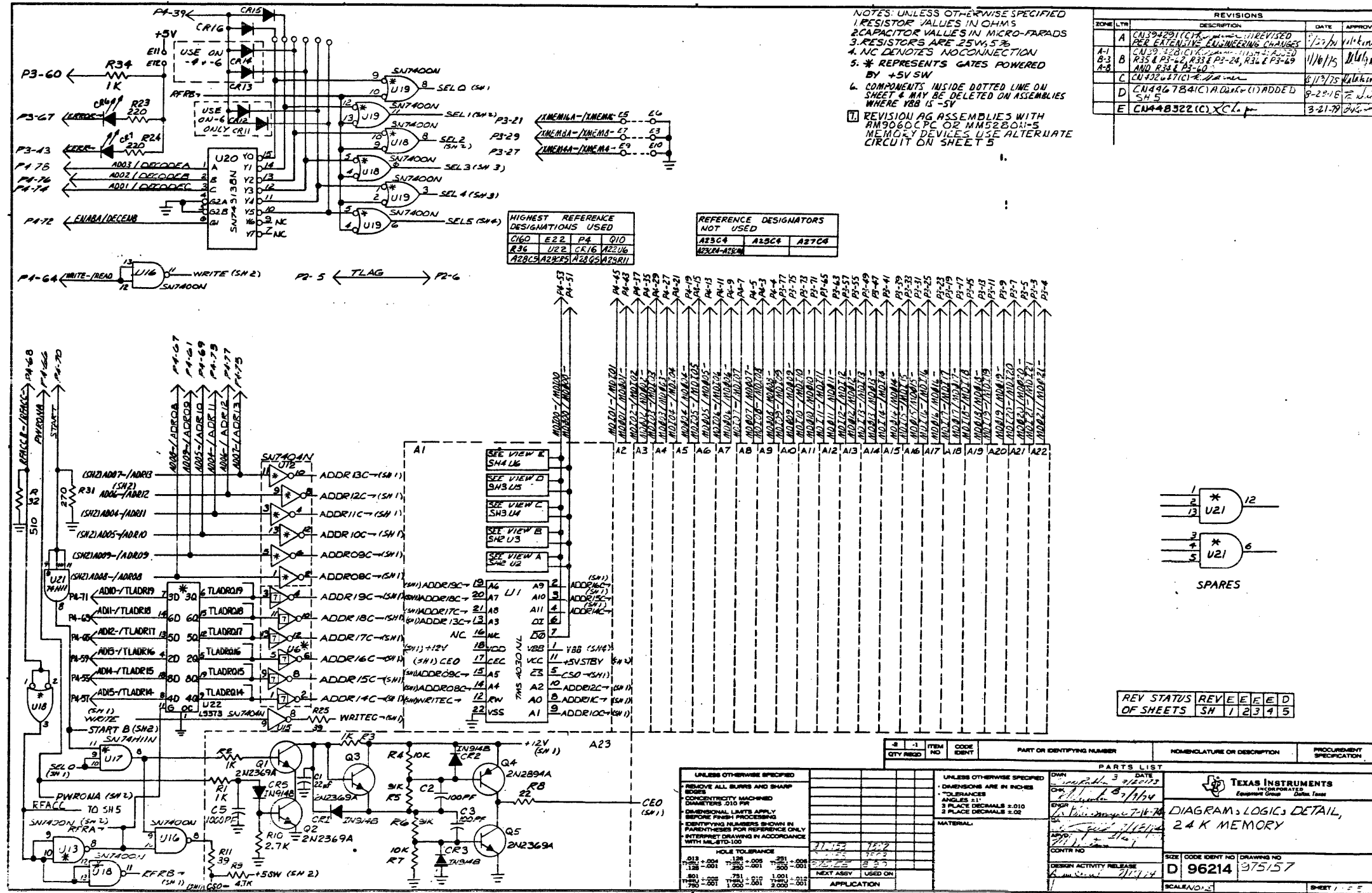
TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM975155-5004		REV AV	
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0027A					R9				
0028	00005.000	EA		0972946-0049	RES FIX 220 OHM 5 % .25 W CARBON FILM	ROM	- R-25		
0028A					R2 R4 R6 R23 R24				
0029	00004.000	EA		0972976-0080	RES FIX,510 OHM 5%,0.25 W CARBON COMP				
0029A					R1 R3 R5 R32				
0030	00016.000	EA		0972946-0065	RES FIX 1.0K OHM 5% .25 W CARBON FILM	ROM	- R-25		
0030A					A23R1 THRU A26R1,				
0030B					R33 THRU R36,				
0030C					A23R3 THRU A26R3,				
0030D					A23R2 THRU A26R2				
0032	00005.000	EA		0972946-0081	RES FIX 4.7K OHM 5 % .25 W CARBON FILM	ROM	- R-25		
0032A					R8,A23R9 THRU A26R9				
0033	00008.000	EA		0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM	ROM	- R-25		
0033A					A23R4 THRU A26R4				
0033B					A23R7 THRU A26R7				
0036	00008.000	EA		0972946-0112	RES FIX 91 K OHM 5 % .25 W CARBON FILM	ROM	- R-25		
0036A					A23R5 THRU A26R5				
0036B					A23R6 THRU A26R6				
0037	00001.000	EA		0972946-0071	RES FIX 1.0K OHM 5 % .25 W CARBON FILM	ROM	- R-25		
0037A					R7				
DRAFTSMAN: DATE: CDR. DRAFTSMAN: DATE: DESIGN ENGINEER: DATE: TITLE: AUTO INSERTION PARTS LIST FOR -0004 ASSY APPR. MGR.: DATE: APPR. PROJECT ENGINEER: DATE: RELEASED: DATE: PROJECT NO.: PART NUMBER: LM975155-5004 REV: AV									

TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM975155-5004		REV AV	
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0038	00004.000	EA		0972946-0025	RES FIX 22.0 OHM 5 % .25 W CARBON FILM	ROM	- R-25		
0038A					A23R8 THRU A26R8				
0039	00004.000	EA		0972946-0075	RES FIX 2.7K OHM 5 % .25 W CARBON FILM	ROM	- R-25		
0039A					A23R10 THRU A26R10				
0040	00008.000	EA		0972946-0051	RES FIX 39.0 OHM 5 % .25 W CARBON FILM	ROM	- R-25		
0040A					A23R11 THRU A26R11				
0040B					R25 THRU R28				
0061	00001.000	EA		0972946-0051	RES FIX 270 OHM 5 % .25 W CARBON FILM	ROM	- R-25		
0061A					R31				
DRAFTSMAN: DATE: CDR. DRAFTSMAN: DATE: DESIGN ENGINEER: DATE: TITLE: AUTO INSERTION PARTS LIST FOR -0004 ASSY APPR. MGR.: DATE: APPR. PROJECT ENGINEER: DATE: RELEASED: DATE: PROJECT NO.: PART NUMBER: LM975155-5004 REV: AV									

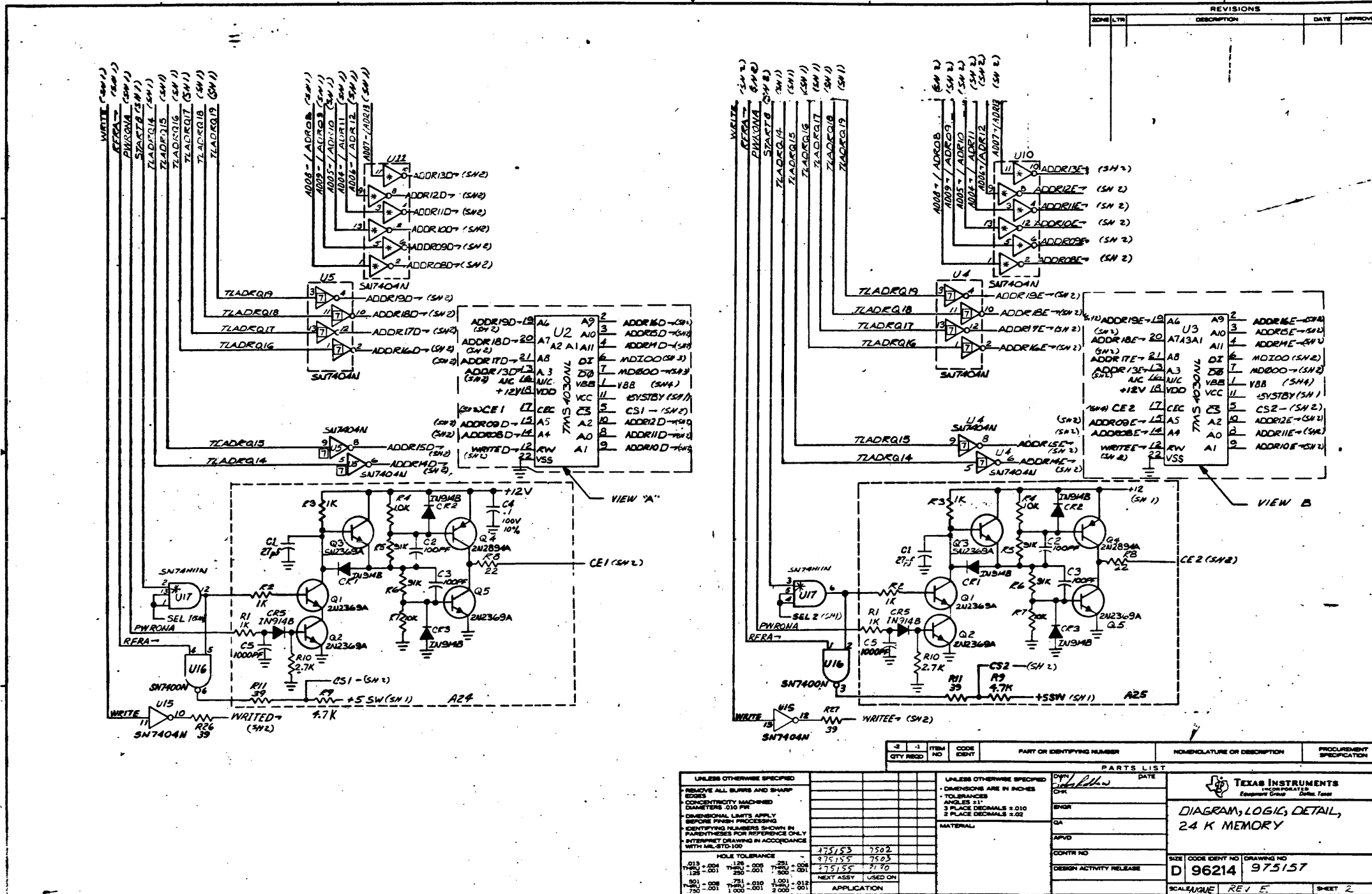
TEXAS INSTRUMENTS INCORPORATED		LIST OF MATERIAL		PAGE 1 of		PART NUMBER LM975155-5004		REV AV	
PART ITEM NUMBER	QUANTITY PER ASSEMBLY	UNIT OF MEAS.	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER			
0001	00001.000	EA		0975156-0001	PRINTED WIRING BOARD, 24K MEMORY				
0012	00022.000	EA		0972924-0014	CAP FIX TANT SOLID 15 MFD 10 % 20 VOLT	OPL	-H39003/1-2209		
0012A					C128 THRU C138				
0012B					C149 THRU C159				
0015	00014.000	EA		0972932-0001	SEMICONDUCTOR DEVICE, DIODE, IN9148	TI	- IN9148		
0015A					A23CR1,A23CR2,A24CR1,A24CR2				
0015B					A25CR1,A25CR2,A26CR1,A26CR2				
0015C					A27CR1,A27CR2,A28CR1,A28CR2				
0015D					CR1,CR2				
0018	00001.000	EA		0219402-7138	NETWORK SN74S138N				
0018A					U20				
0019	00002.000	EA		0222222-7400	NETWORK SN7400N	-SN7400N			
0019A					U13 U16				
0020	00002.000	EA		0240000-7411	NETWORK-SN74H11N				
0020A					U14 U17				
0021	00007.000	EA		0222222-7404	NETWORK SN7404N				
0021A					U7 THRU U12,U15				
0023	00001.000	EA		0240000-7400	NETWORK-SN74H00N				
0023A					U18				
0027	00001.000	EA		0972947-0017	RES FIX 10 OHM 5 % .5 W CARBON FILM	ROM	- R-50		
DRAFTSMAN: DATE: CDR. DRAFTSMAN: DATE: DESIGN ENGINEER: DATE: TITLE: AUTO INSERTION PARTS LIST FOR -0004 ASSY APPR. MGR.: DATE: APPR. PROJECT ENGINEER: DATE: RELEASED: DATE: PROJECT NO.: PART NUMBER: LM975155-5004 REV: AV									

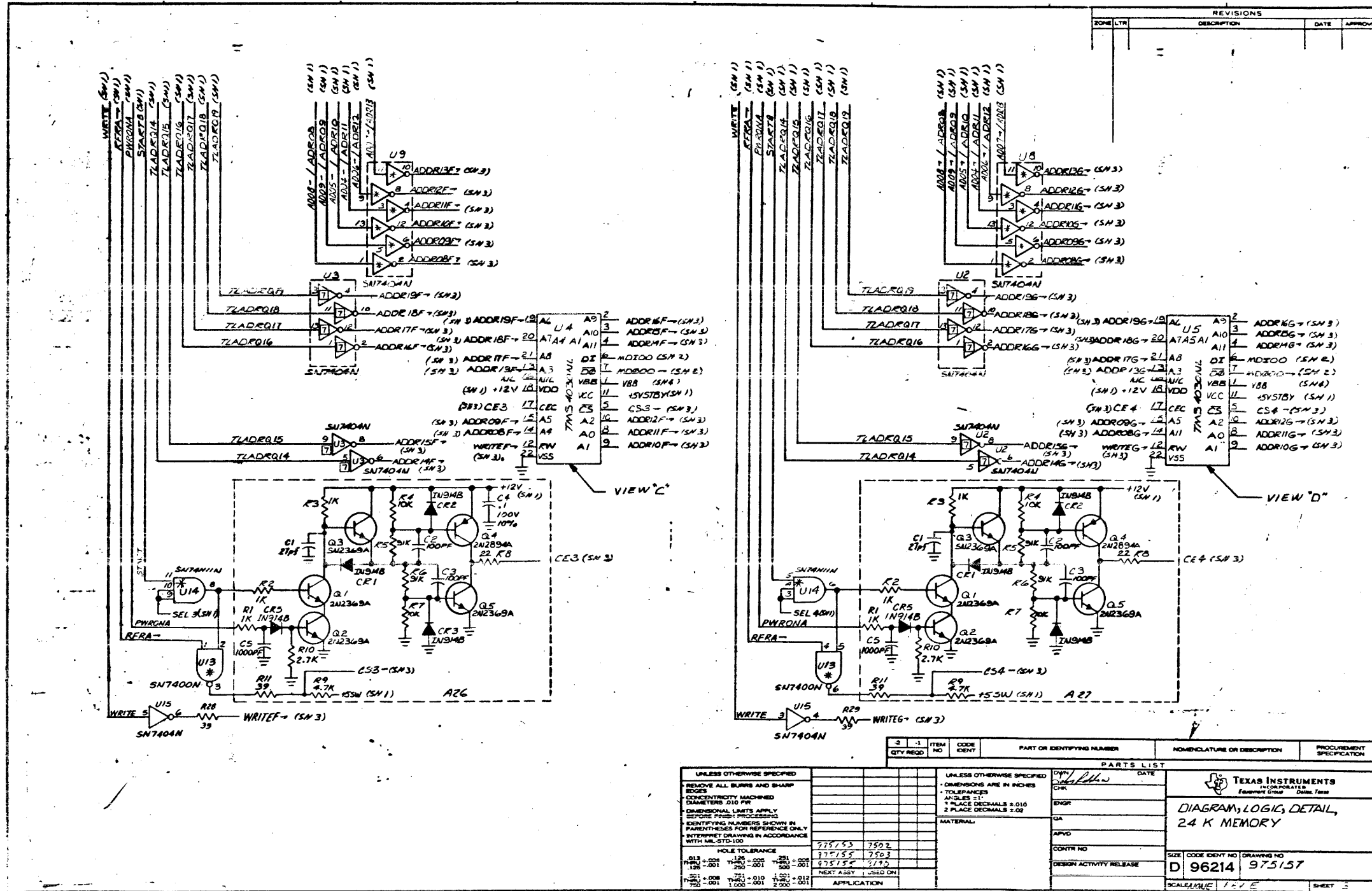
TEXAS INSTRUMENTS INCORPORATED		DATE 09/28/79		LIST OF MATERIAL		PAGE 2 of		PART NUMBER LM0975155-5006		REV ATU	
PART NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0027A					R9						
0028	00005.000	EA		0972946-0049	RES FIX 280 OHM 5 ± .25 W CARBON FILM	RDH - R-25					
0028A					R2 R4 R6 R23 R24						
0029	00004.000	EA		0972976-0080	RES FIX,510 OHM 5±,0.25 W CARBON COMP						
0029A					R1 R3 R5 R32						
0030	00022.000	EA		0972946-0065	RES FIX 1.0K OHM 5± .25 W CARBON FILM	RDH - R-25					
0030A					A23R1 THRU A28R1,						
0030B					R33 THRU R36						
0030C					A23R3 THRU A28R3,						
00300					A23R2 THRU A28R2						
0032	00007.000	EA		0972946-0081	RES FIX 4.7K OHM 5 ± .25 W CARBON FILM	RDH - R-25					
0032A					R8, A23R9 THRU A28R9						
0033	00012.000	EA		0972946-0089	RES FIX 10K OHM 5± .25 W CARBON FILM	RDH - R-25					
0033A					A23R4 THRU A28R4						
0033B					A23R7 THRU A28R7						
0036	00012.000	EA		0972946-0112	RES FIX 91 K OHM 5 ± .25 W CARBON FILM	RDH - R-25					
0036A					A23R5 THRU A28R5						
0036B					A23R6 THRU A28R6						
0037	00001.000	EA		0972946-0071	RES FIX 1.0K OHM 5 ± .25 W CARBON FILM	RDH - R-25					
0037A					R7						
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTION PARTS LIST FOR -0006 ASSY											
APP. MFG. DATE APP. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM0975155-5006 ATU											

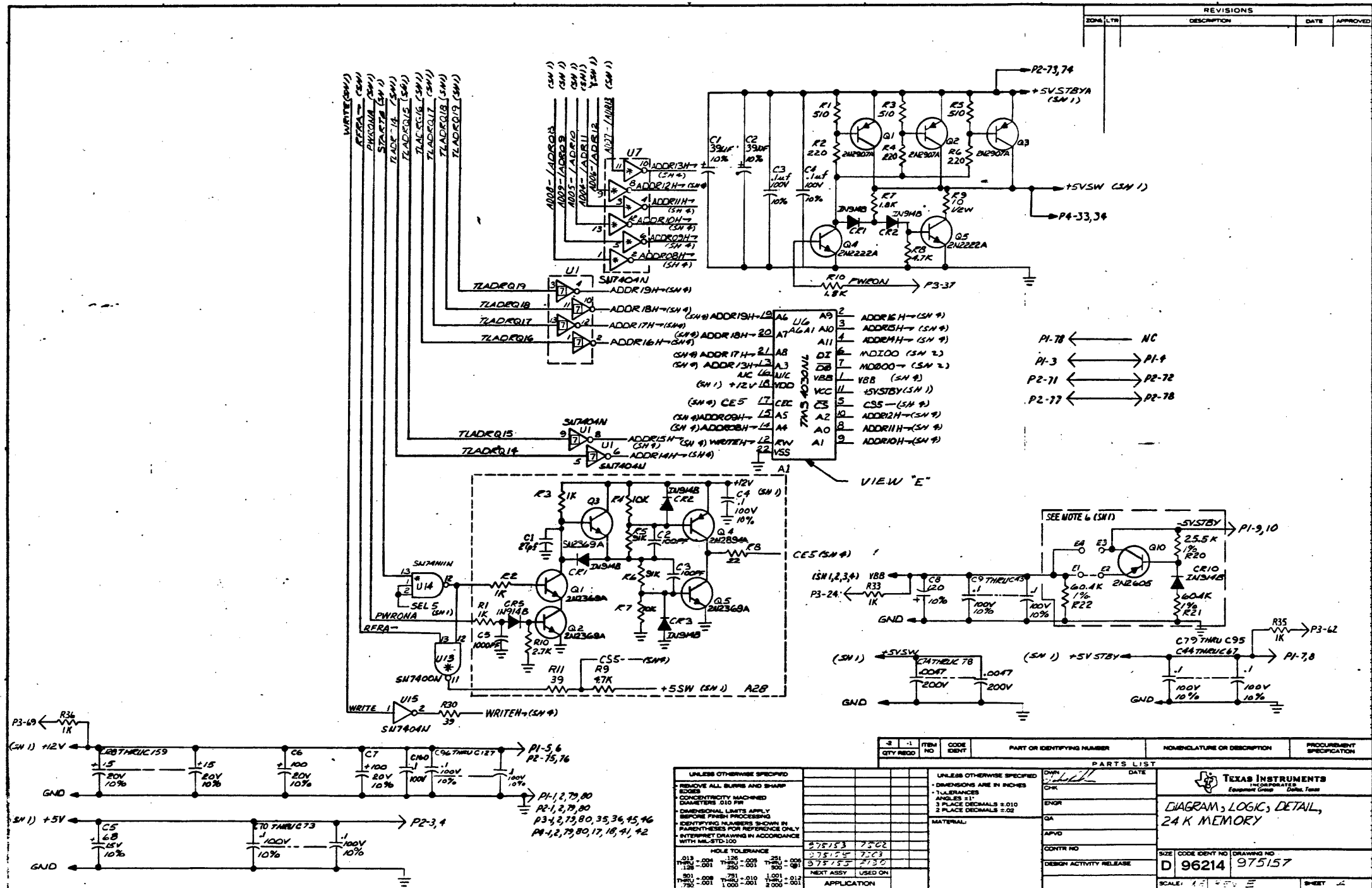
TEXAS INSTRUMENTS INCORPORATED		DATE 09/28/79		LIST OF MATERIAL		PAGE 3 of		PART NUMBER LM0975155-5006		REV ATU	
PART NUMBER	QUANTITY PER ASSEMBLY	UNIT OF ISSUE	DWG. SIZE	PART NUMBER	DESCRIPTION	VENDOR PART NUMBER					
0038	00006.000	EA		0972946-0025	RES FIX 32.0 OHM 5 ± .25 W CARBON FILM	RDH - R-25					
0038A					A23R8 THRU A28R8						
0039	00006.000	EA		0972946-0075	RES FIX 2.7K OHM 5 ± .25 W CARBON FILM	RDH - R-25					
0039A					A23R10 THRU A28R10						
0040	00012.000	EA		0972946-0031	RES FIX 39.0 OHM 5 ± .25 W CARBON FILM	RDH - R-25					
0040A					A23R11 THRU A28R11						
0040B					R25 THRU R30						
0060	00002.000	EA		0193733-0001	DIODE GTD-132 / CGO-949						
0060A					CR11 CR12						
0061	00001.000	EA		0972946-0051	RES FIX 270 OHM 5 ± .25 W CARBON FILM	RDH - R-25					
0061A					R31						
DRAFTSMAN DATE CD. DRAFTSMAN DATE DESIGN ENGINEER DATE TITLE AUTO INSERTION PARTS LIST FOR -0006 ASSY											
APP. MFG. DATE APP. PROJECT ENGINEER DATE RELEASED DATE PROJECT NO. PART NUMBER LM0975155-5006 ATU											

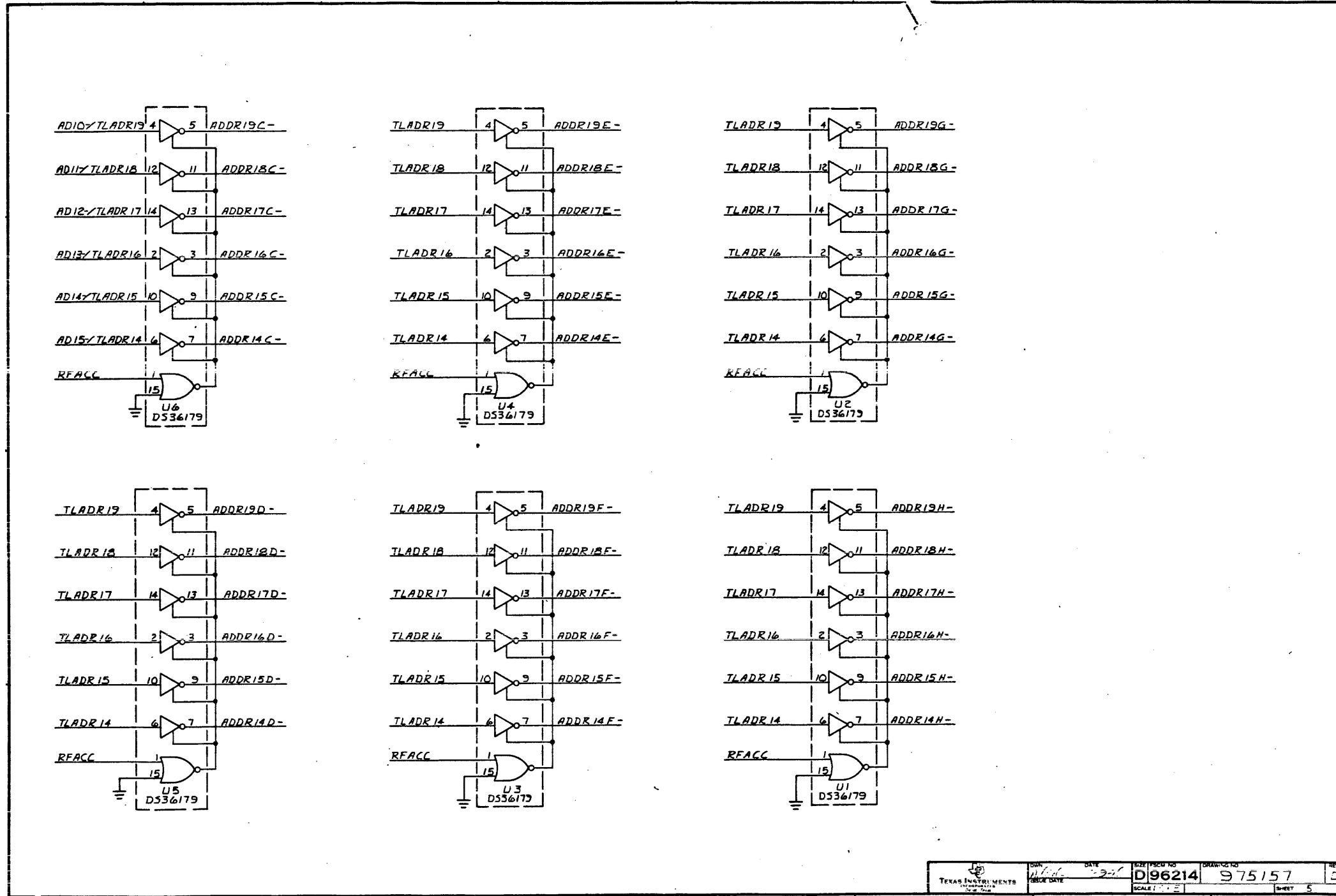












DATE	11/6/01	SIZE	PSOM NO	DRAWING NO	REV
DESIGNED BY		SCALE	D96214	975157	0
CHECKED BY					5



FOLD



NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES

**BUSINESS REPLY MAIL**  
FIRST CLASS PERMIT NO. 7284 DALLAS, TX

POSTAGE WILL BE PAID BY ADDRESSEE

**TEXAS INSTRUMENTS INCORPORATED**  
DIGITAL SYSTEMS GROUP

ATTN: TECHNICAL PUBLICATIONS  
P.O. Box 2909 M/S 2146  
Austin, Texas 78769



FOLD

**Texas Instruments U.S. District Sales and Service Offices**

(A complete listing of U.S. offices is available from the district office nearest your location)

**California**

831 S. Douglas Street  
El Segundo, California 90245  
(213) 973-2571

100 California Street  
Suite 480  
San Francisco, California 94111  
(415) 781-9470

776 Palomar Avenue  
P.O. Box 9064  
Sunnyvale, California 94086  
(408) 732-1840\*

3186 J Airway  
Costa Mesa, California 92626  
(714) 540-7311

**Colorado**

9725 East Hampden Avenue  
Suite 301  
Denver, Colorado 80231  
(303) 751-1780

**Florida**

1850 Lee Road  
Suite 115  
Winter Park, Florida 32789  
(305) 644-3535

**Georgia**

3300 Northeast Expressway  
Building 9  
Atlanta, Georgia 30341  
(404) 458-7791

**Illinois**

515 West Algonquin Road  
Arlington Heights, Illinois 60005  
(312) 640-2900  
(800) 942-0609\*

**Massachusetts**

504 Totten Pond Road  
Waltham, Massachusetts 02154  
(617) 890-7400

**Michigan**

24293 Telegraph Road  
Southfield, Michigan 48034  
(313) 353-0830  
(800) 572-8740\*

**Minnesota**

7625 Parklawn Avenue  
Minneapolis, Minnesota 55435  
(612) 830-1600

**Missouri**

2368 Schuetz  
St. Louis, Missouri 63141  
(800) 392-4225\*

**New Jersey**

1245 Westfield Avenue  
Clark, New Jersey 07066  
(201) 574-9800

**Ohio**

4124 Linden Avenue  
Dayton, Ohio 45432  
(513) 258-3877

**Pennsylvania**

420 Rouser Road  
Coraopolis, Pennsylvania 15108  
(412) 771-8550

**Texas**

8001 Stemmons Expressway  
P.O. Box 226080  
M/S 3108  
Dallas, Texas 75266  
(214) 689-4460

13536 North Central Expressway  
P.O. Box 5012  
M/S 917  
Dallas, Texas 75222  
(214) 238-3881

9000 Southwest Freeway  
P.O. Box 1444  
M/S 6500  
Houston, Texas 77001  
(713) 776-6577

8585 Commerce Drive, Suite 518  
Houston, Texas 77036  
(713) 776-6511

**Virginia**

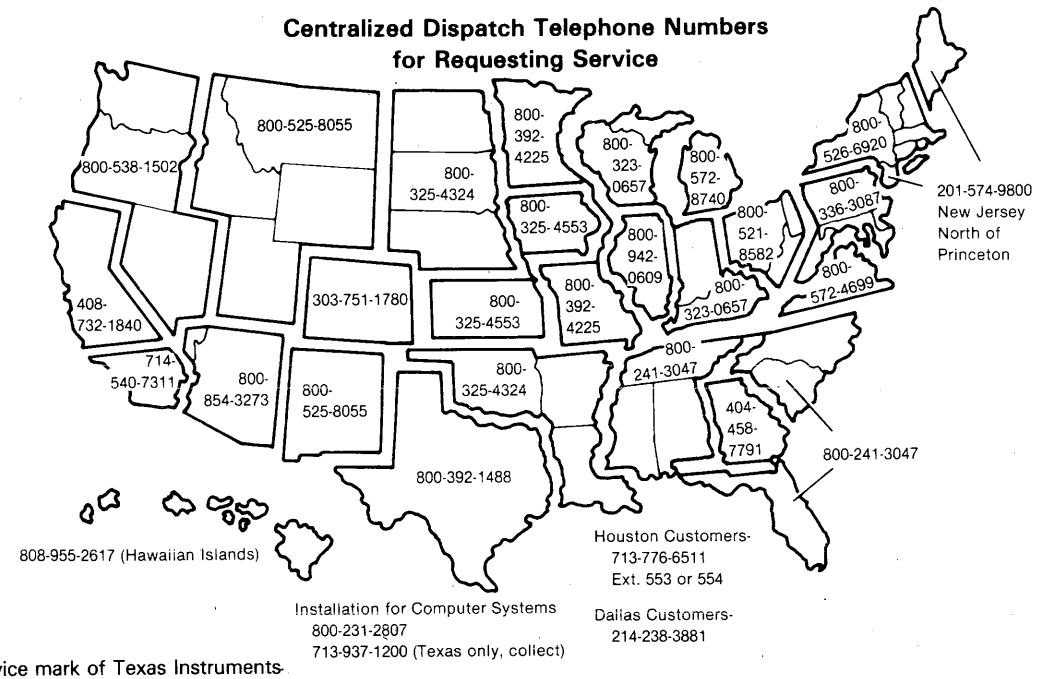
1745 Jefferson Davis Highway  
Crystal Square 4, Suite 600  
Arlington, Virginia 22202  
(703) 553-2200

**Wisconsin**

205 Bishops Way  
Suite 214  
Brookfield, Wisconsin 53005  
(414) 784-1323

\*Service telephone number

**TI-CARE\***  
**Centralized Dispatch Telephone Numbers  
for Requesting Service**



The TI Customer Support Line is available to answer our customers' complex technical questions. The extensive experience of a selected group of TI senior engineers and systems analysts is made available directly to our customers. The TI Customer Support Line telephone number is (512) 250-7407.

 TEXAS INSTRUMENTS  
INCORPORATED  
DATA SYSTEMS GROUP  
P.O. BOX 100000 AUSTIN, TEXAS