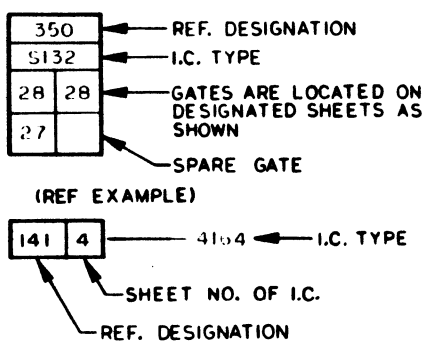


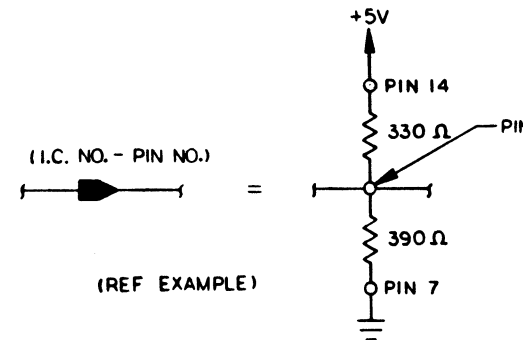
ISSUE	DESCRIPTION	DATE	APPROVED
1	PROTO REL		
2	PCN 425		

NOTES - UNLESS OTHERWISE SPECIFIED:

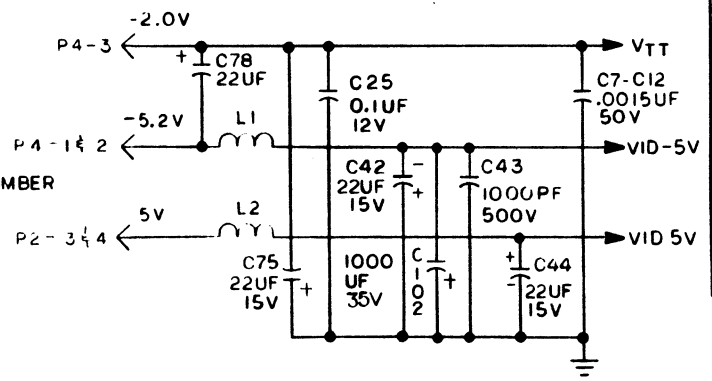
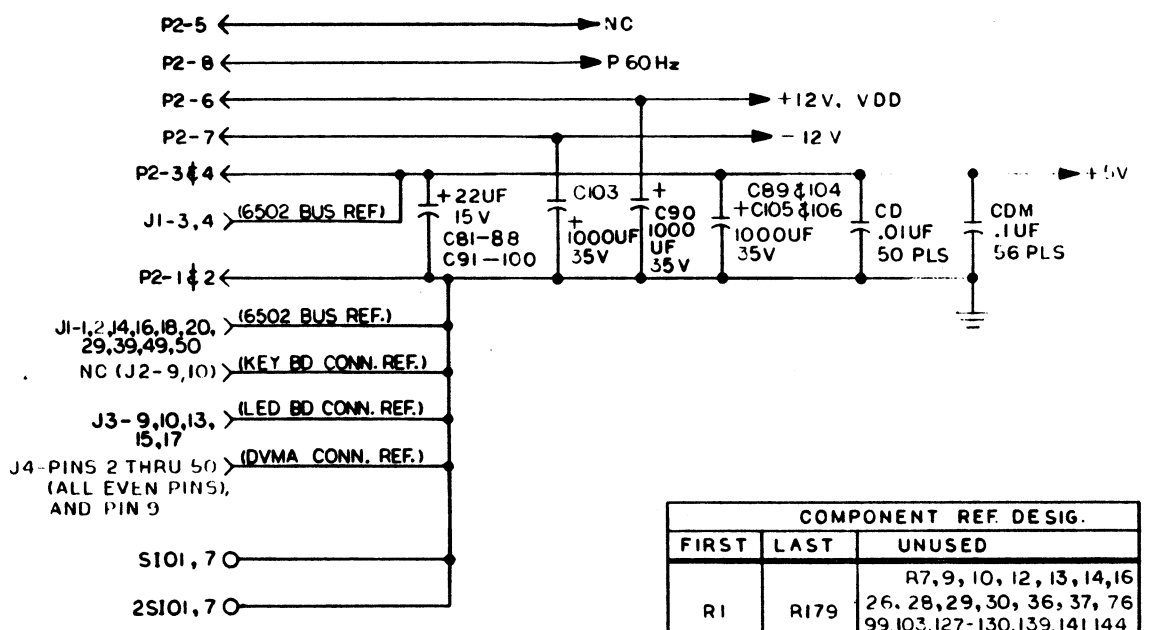
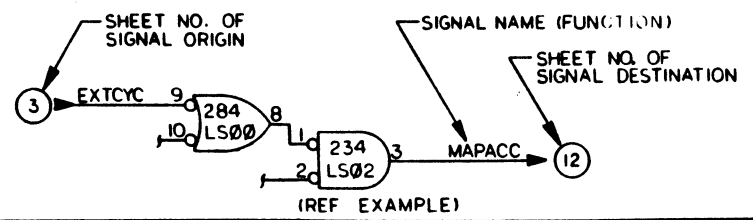
- CONNECTOR PIN DESIGNATIONS ARE PER SILK-SCREENED LED BOARD, NOT J1 CONNECTOR PIN DESIGNATOR.
- ALL RESISTORS ARE IN OHMS AND ARE 1/4 W UNLESS OTHERWISE SPECIFIED.
- FOR MODULE MAP, SEE SHEETS 29, 30 AND 31. GATES ARE IN ORDER OF OUTPUT PIN NUMBERS AND ARE DEPICTED FROM LEFT TO RIGHT, TOP TO BOTTOM ORDER.



- THIS SYMBOL DENOTES A PULL-UP AND PULL-DOWN RESISTOR, FOR I.C.'S 359 AND 364, THAT ARE LOCATED ON SHEETS 9, 10, 15 AND 21:

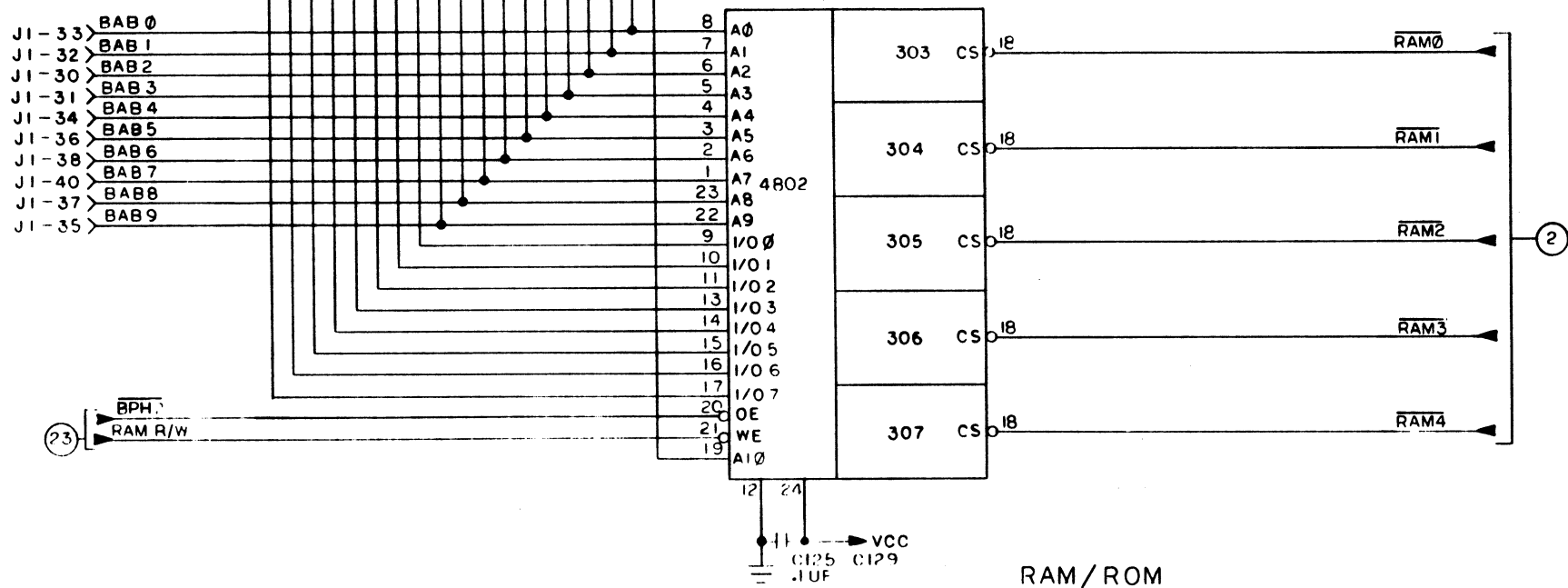
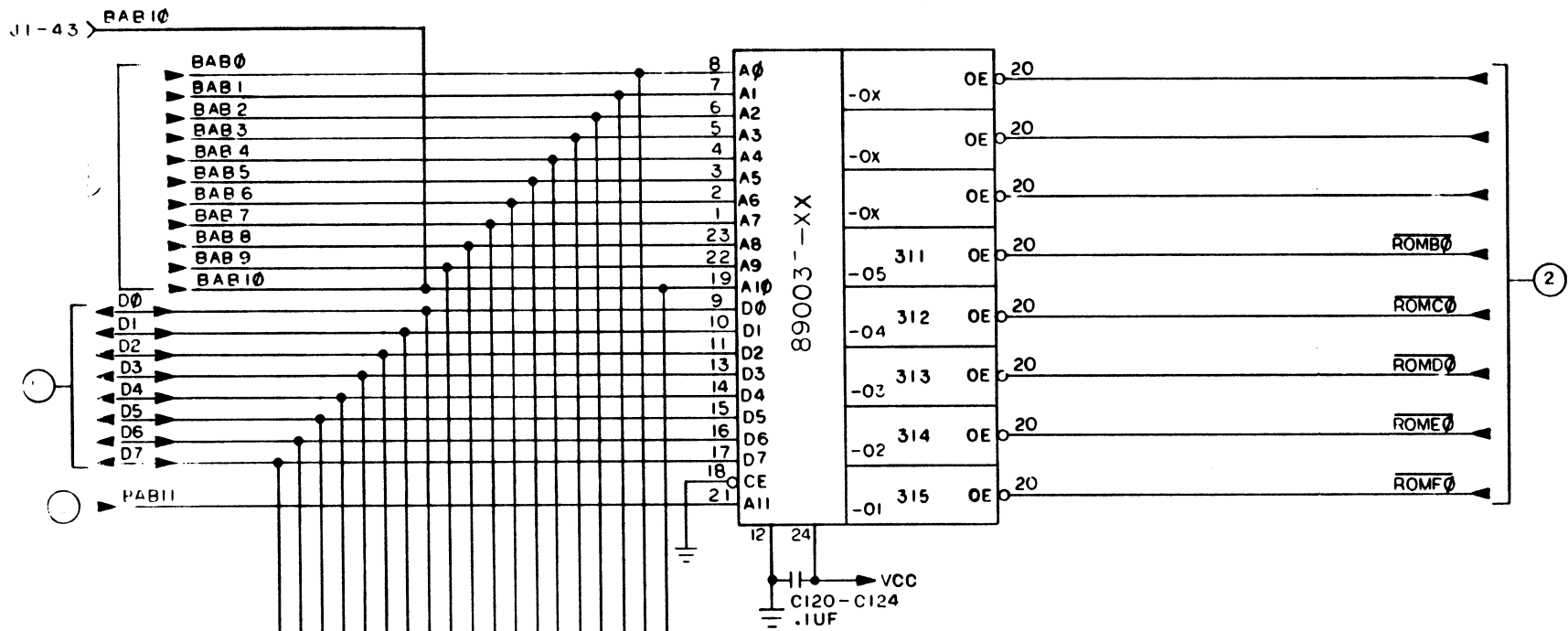


- INPUT AND OUTPUT SIGNALS ARE DEPICTED AS FOLLOWS:



COMPONENT REF. DESIG.		
FIRST	LAST	UNUSED
R1	R179	R7, 9, 10, 12, 13, 14, 16 26, 28, 29, 30, 36, 37, 76 99, 103, 127-130, 139, 141, 144, 145, 167, 168, 172
C1	C131	C3, 45-50, 58, 60, 63, 65-69, 71, 101.
A00	A375	
CR1	CR29	CR15-19
Q1	Q14	Q2, 3, 7.
REG 4	10	REG 1, 2, 3, 5, 6, 7.
P1	P7	
L1	L2	

-03 -02 -01		PART NUMBER	CODE IDENT	DESCRIPTION	ITEM NO.
STY RECD		MATERIAL			DWN.
TOLERANCE UNLESS OTHERWISE SPECIFIED		FINISH			CHK
.XX = ±		DRAWING TITLE			APP.
.XXX = ±		SCHEMATIC, 1024 BOARD			
ANGULAR SURFACE		ADVANCED ELECTRONICS DESIGN, INC.			
SCALE		SUNNYVALE, CALIF. 94088			
DASH NO.	NEXT ASSY	USED ON	DRAWING NUMBER		REV
01	120185-XX	1024	120186-01		2
APPLICATION					

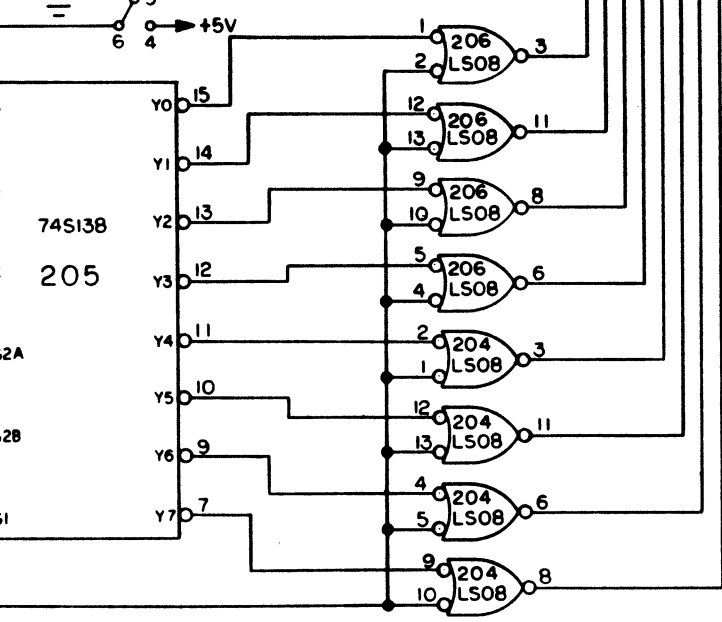
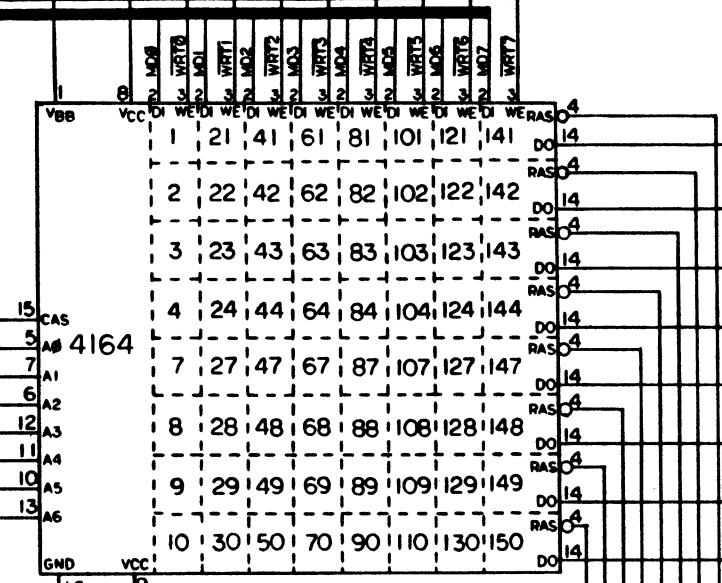
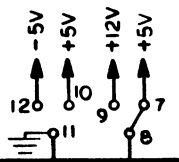
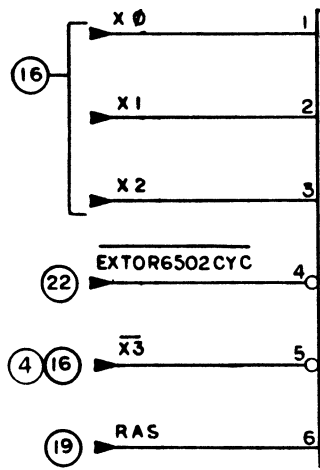
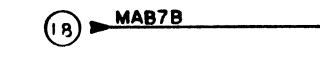
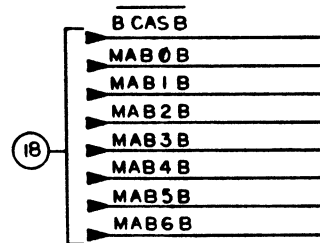
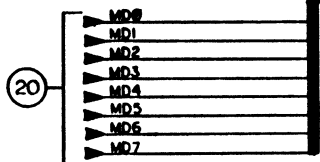
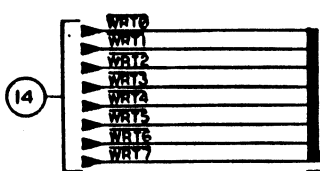


RAM/ROM

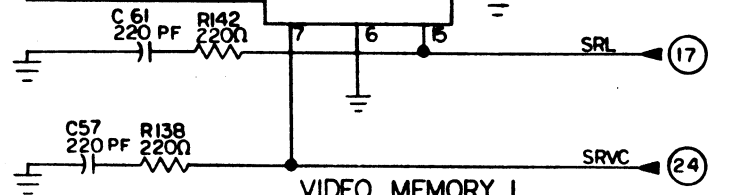
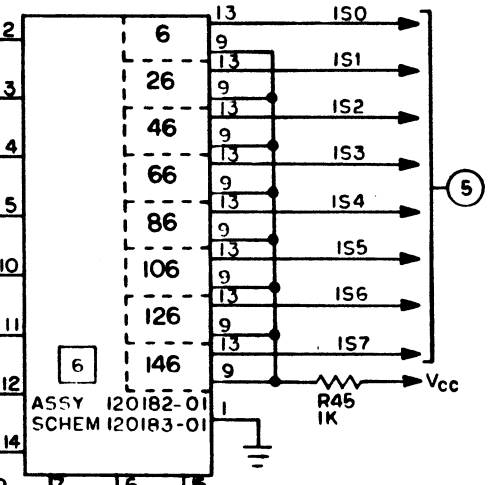
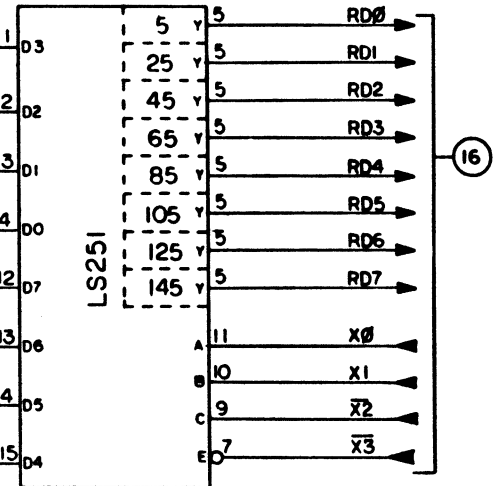
SHT-3

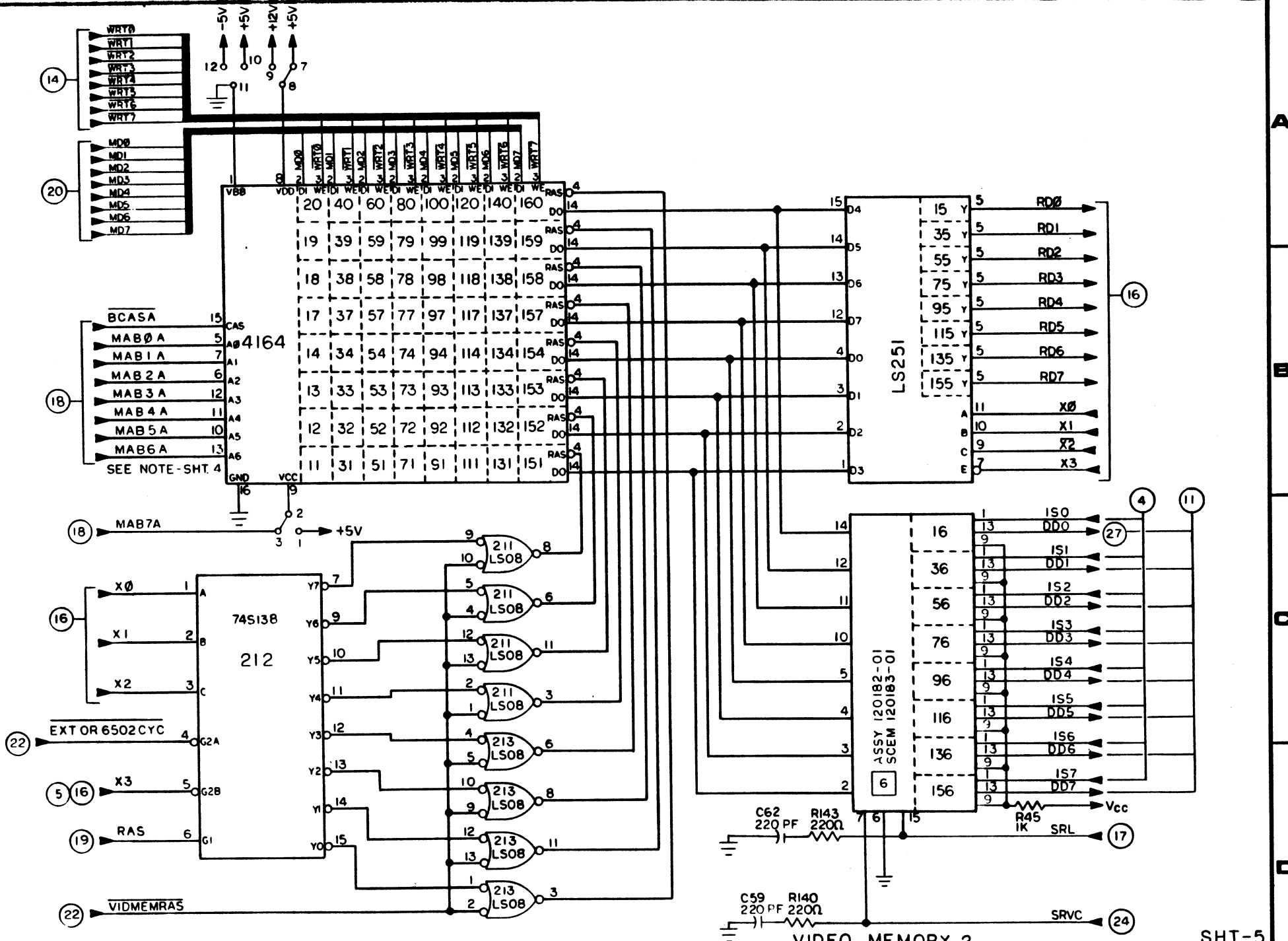
ADVANCED ELECTRONICS DESIGN, INC. SUNNYVALE, CALIF. 94086

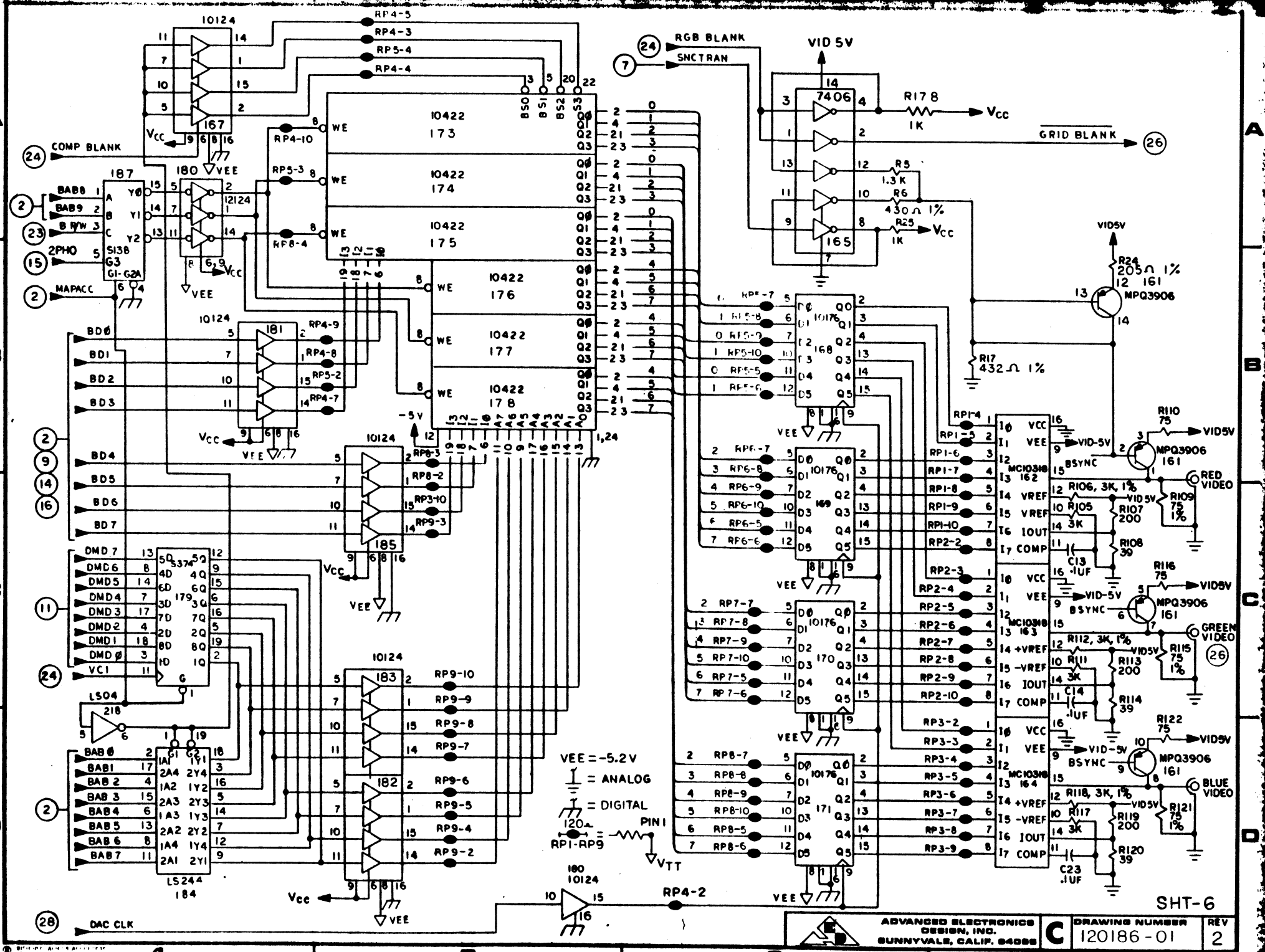
C	DRAWING NUMBER	REV
	120186-01	2

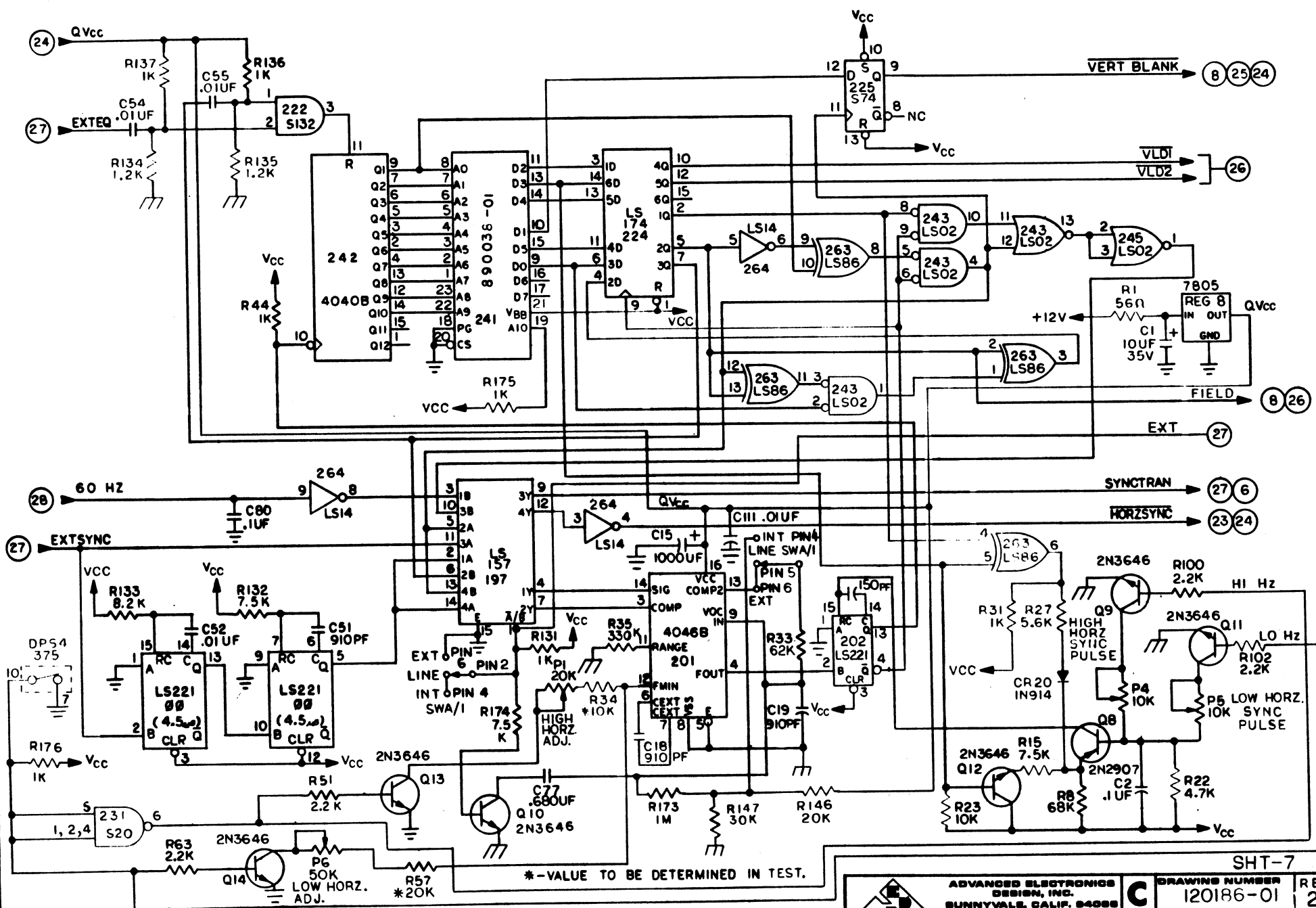


6 SERIAL CONVERTER BOARDS I20182-01 ARE PLUGGED INTO SOCKETS (ITEM 223) AT THESE POSITIONS.





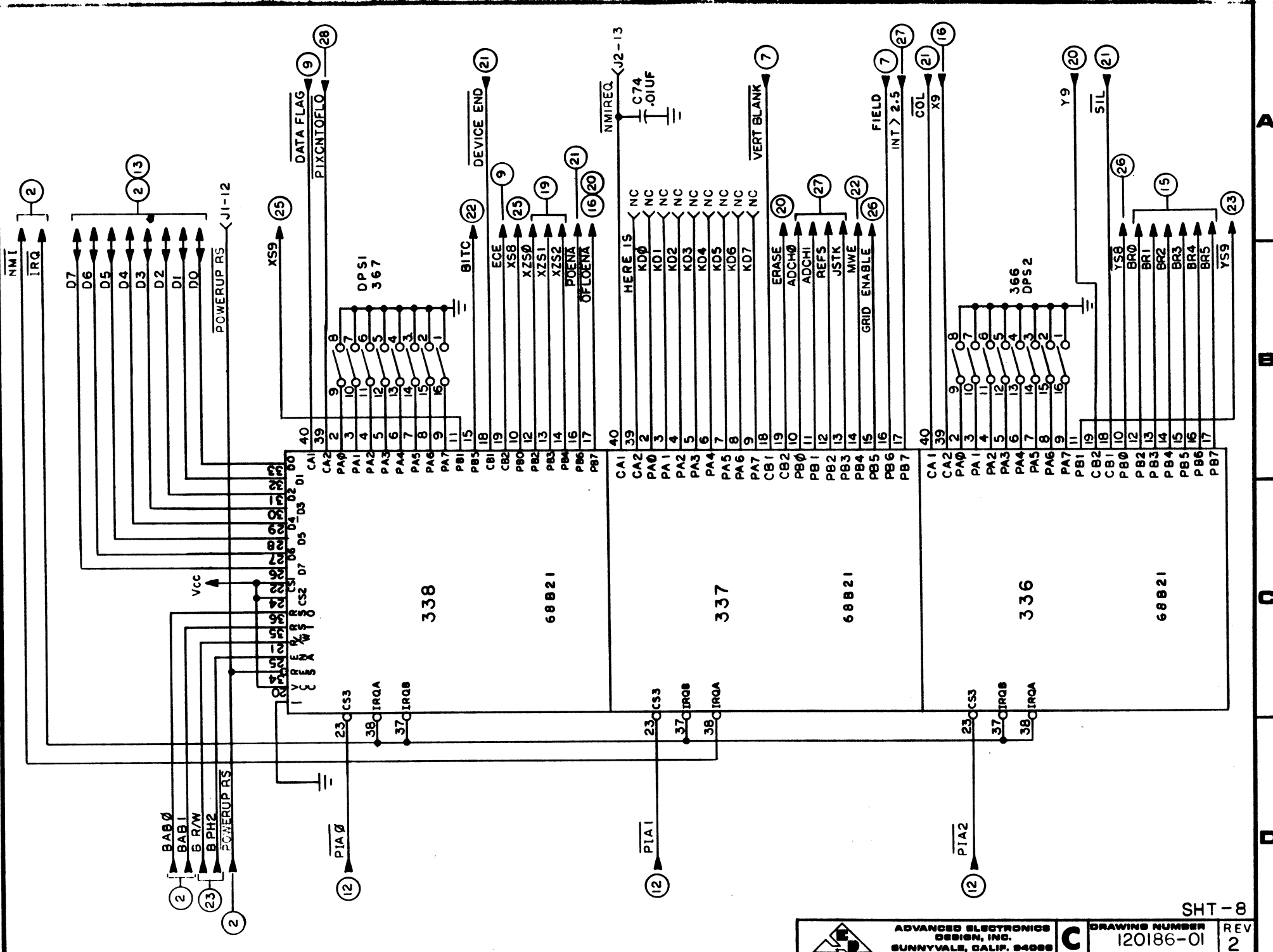




*-VALUE TO BE DETERMINED IN TEST.

SHT-7	
ADVANCED ELECTRONICS DESIGN, INC. SUNNYVALE, CALIF. 94088	DRAWING NUMBER 120186-01
REV 2	SHEET 7 OF 31

A
U
Q
Q
Q
Q

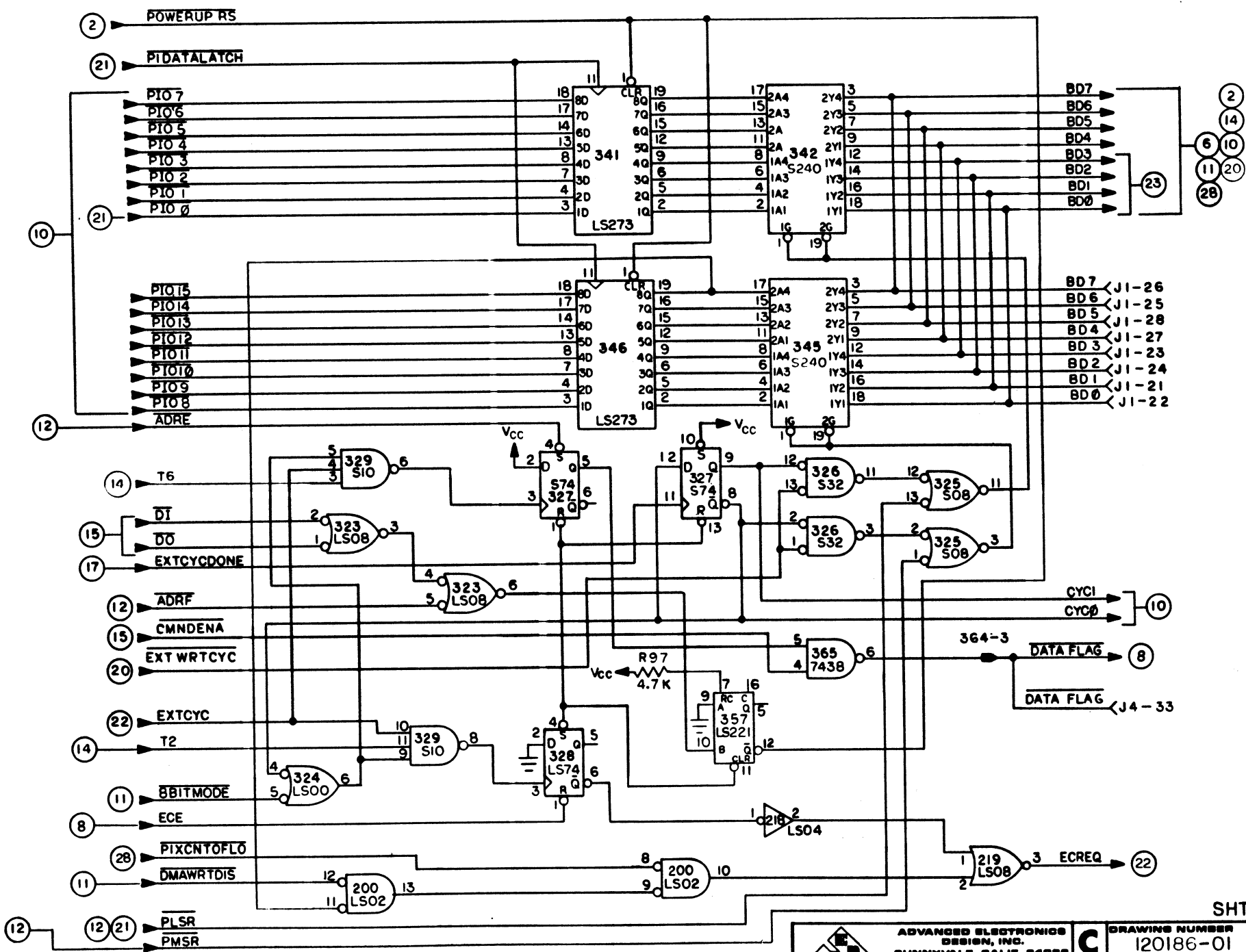


SHT-8

ADVANCED ELECTRONICS DESIGN, INC. SUNNYVALE, CALIF. 94088

DRAWING NUMBER 120186-01 REV 2

SHEET 8 OF 31

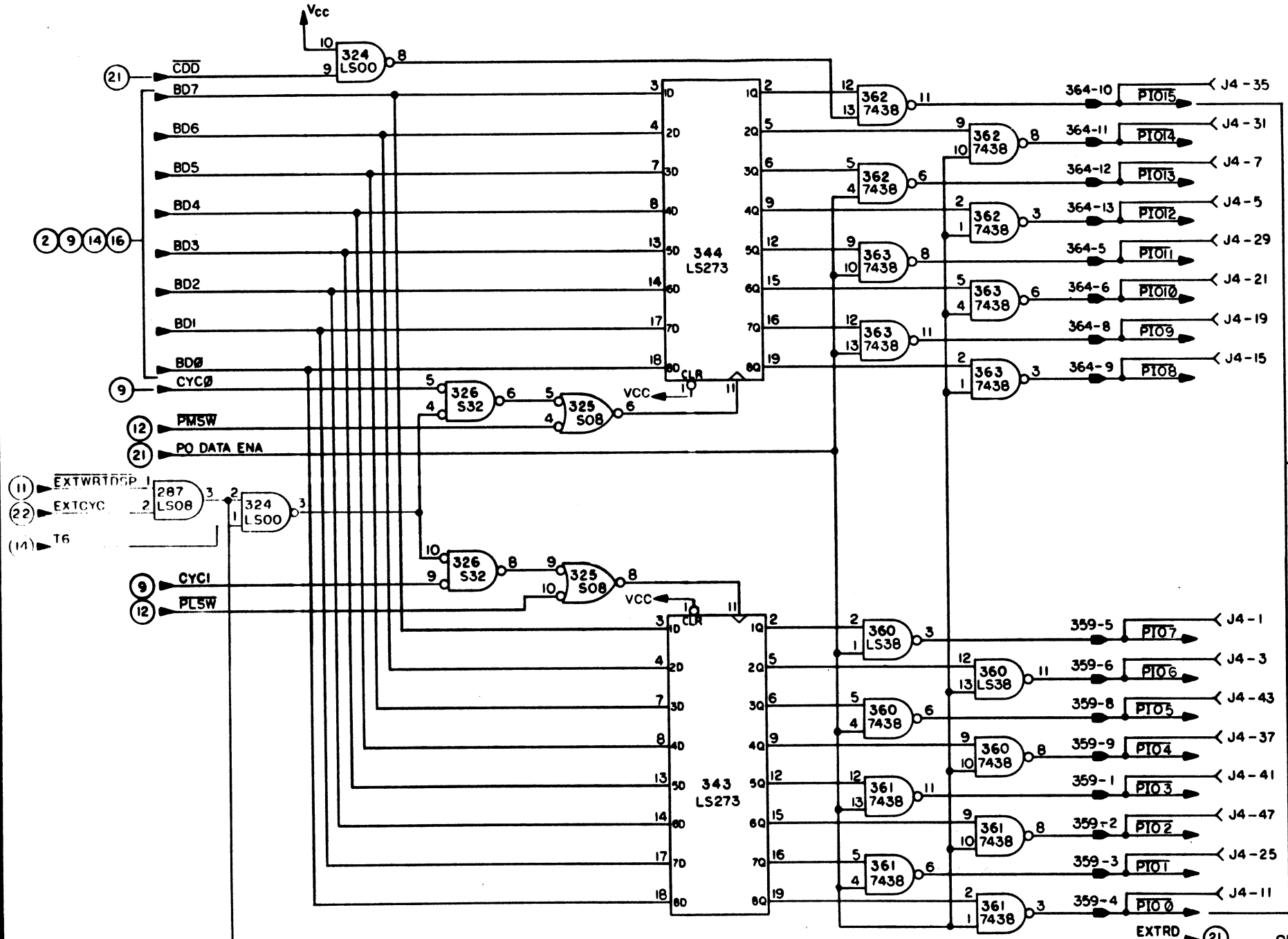


SHT-9

ADVANCED ELECTRONICS
DESIGN, INC.
SUNNYVALE, CALIF. 94088

DRAWING NUMBER
120186-01
REV
2

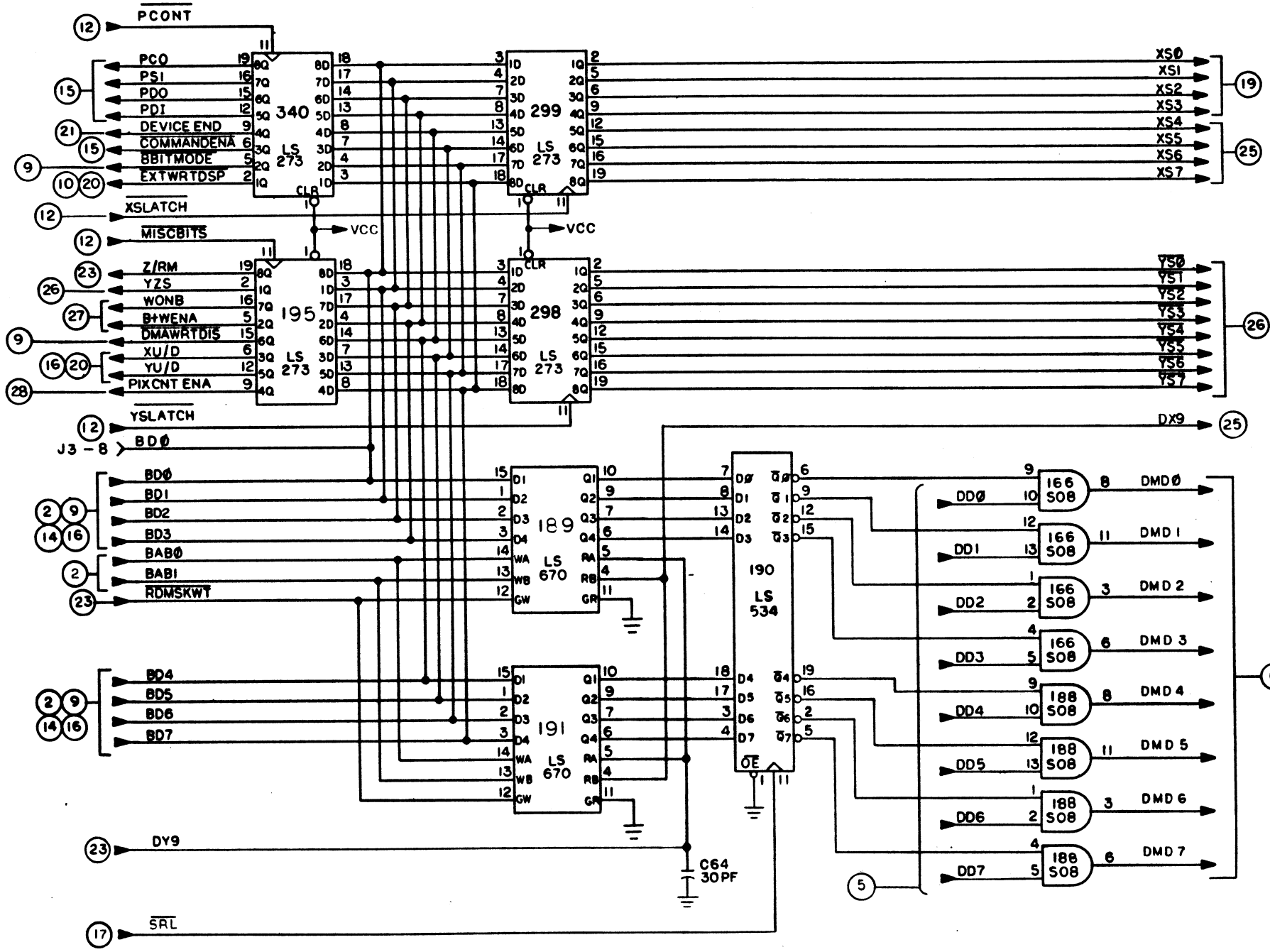
SHEET 2 OF 31



- (21) CDD
- BD7
- BD6
- BD5
- BD4
- (2) (9) (14) (16) BD3
- BD2
- BD1
- BD0
- (9) CYC0
- (12) PMSW
- (21) PO DATA ENA
- (11) EXTWRDSP I
- (22) EXTCYC
- (14) T6
- (9) CYC1
- (12) PLSW

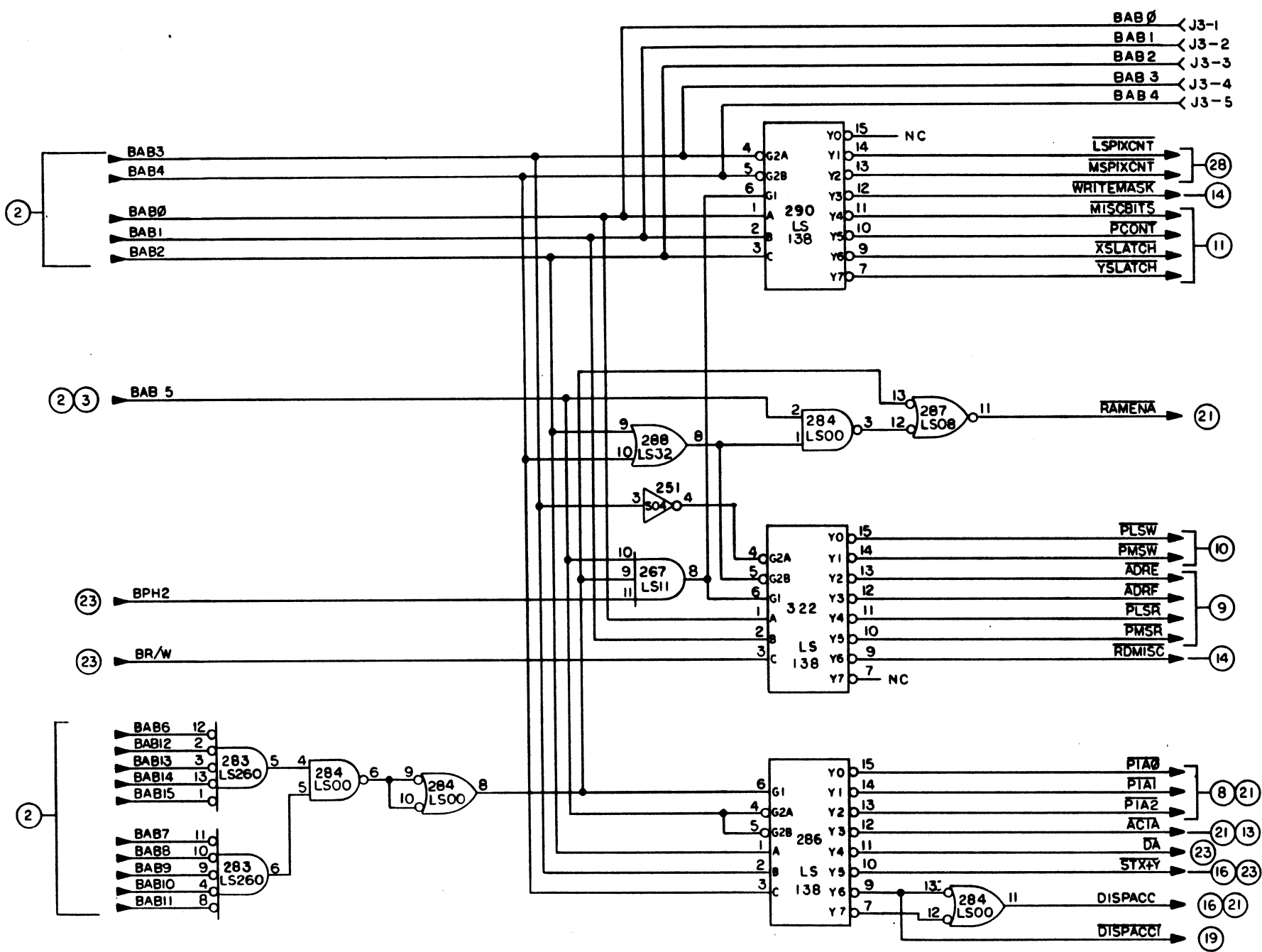
- 364-10 PTO15 < J4-35
- 364-11 PTO14 < J4-31
- 364-12 PTO13 < J4-7
- 364-13 PTO12 < J4-5
- 364-5 PTO11 < J4-29
- 364-6 PTO10 < J4-21
- 364-8 PTO9 < J4-19
- 364-9 PTO8 < J4-15
- 359-5 PTO7 < J4-1
- 359-6 PTO6 < J4-3
- 359-8 PTO5 < J4-43
- 359-9 PTO4 < J4-37
- 359-1 PTO3 < J4-41
- 359-2 PTO2 < J4-47
- 359-3 PTO1 < J4-25
- 359-4 PTO0 < J4-11

A
B
C
D

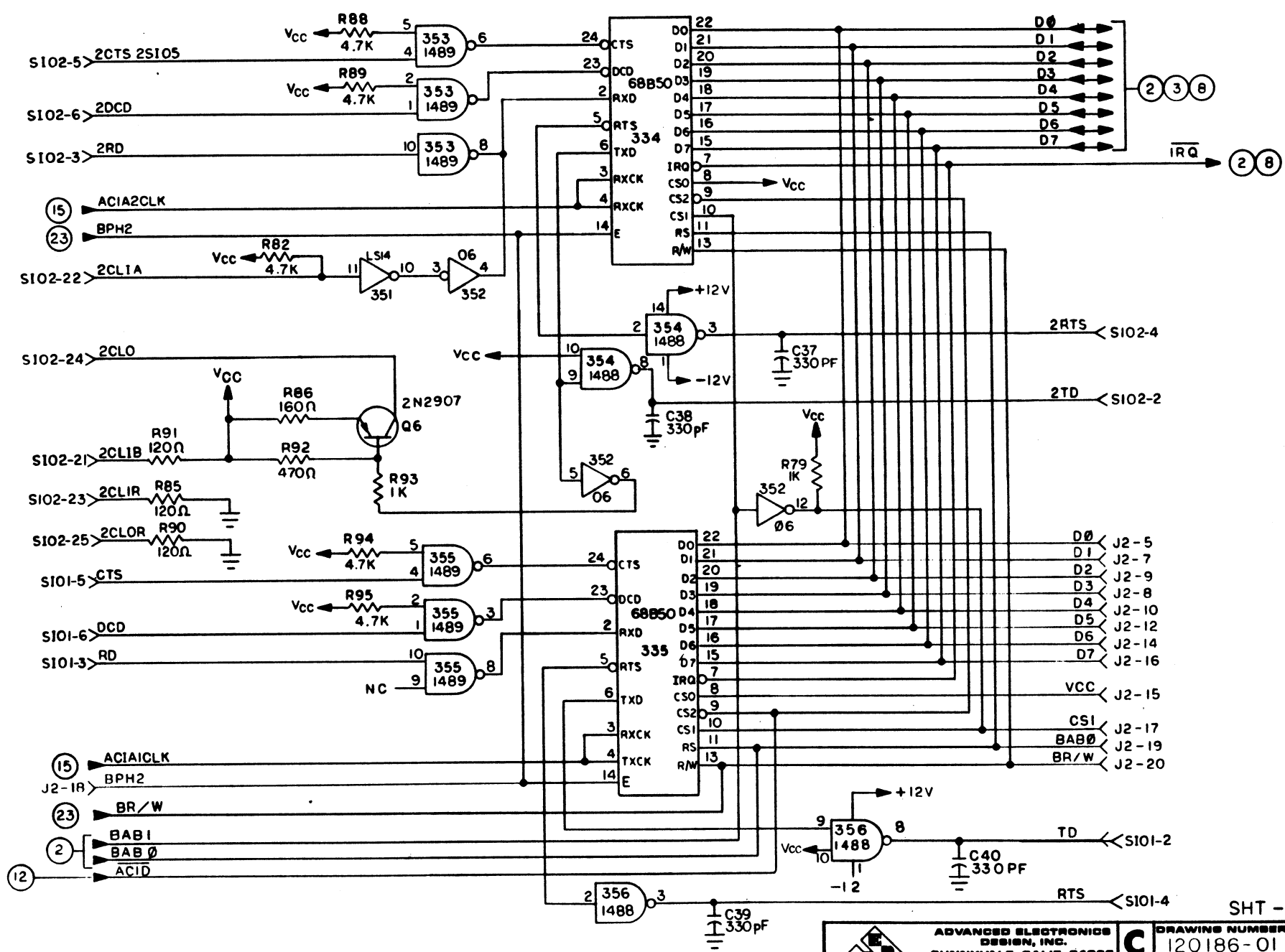


SHT-11

	ADVANCED ELECTRONICS DESIGN, INC. SUNNYVALE, CALIF. 94088	C DRAWING NUMBER 120186-01	REV 2
	SHEET 11 OF 31		



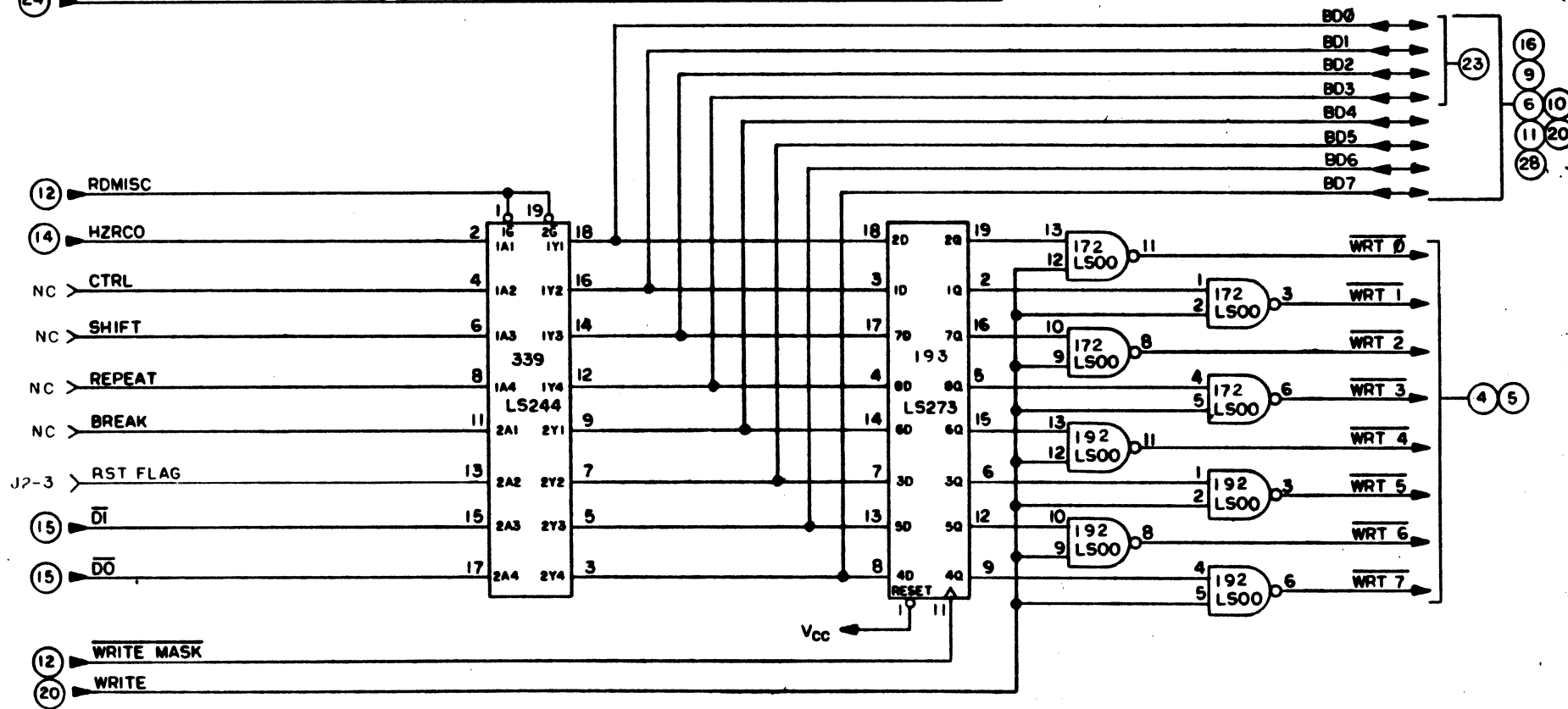
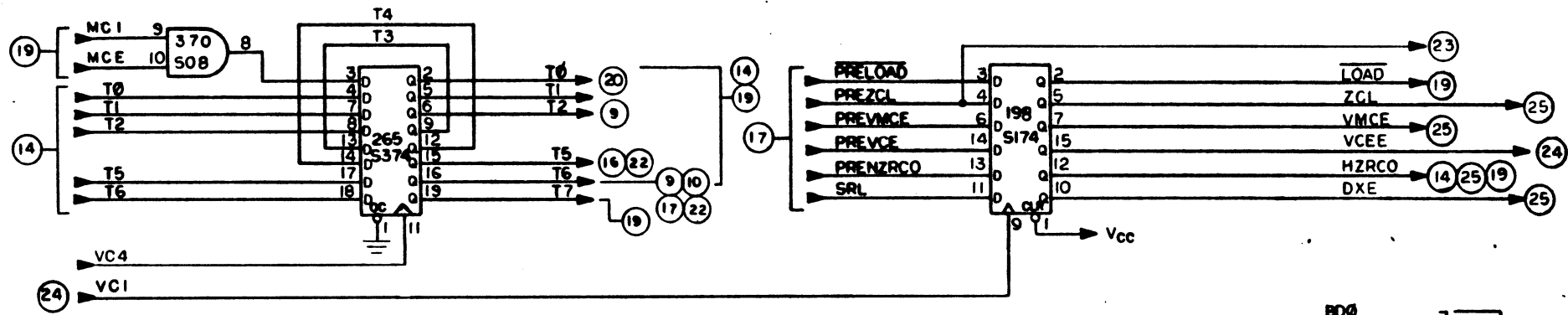
SHT-12



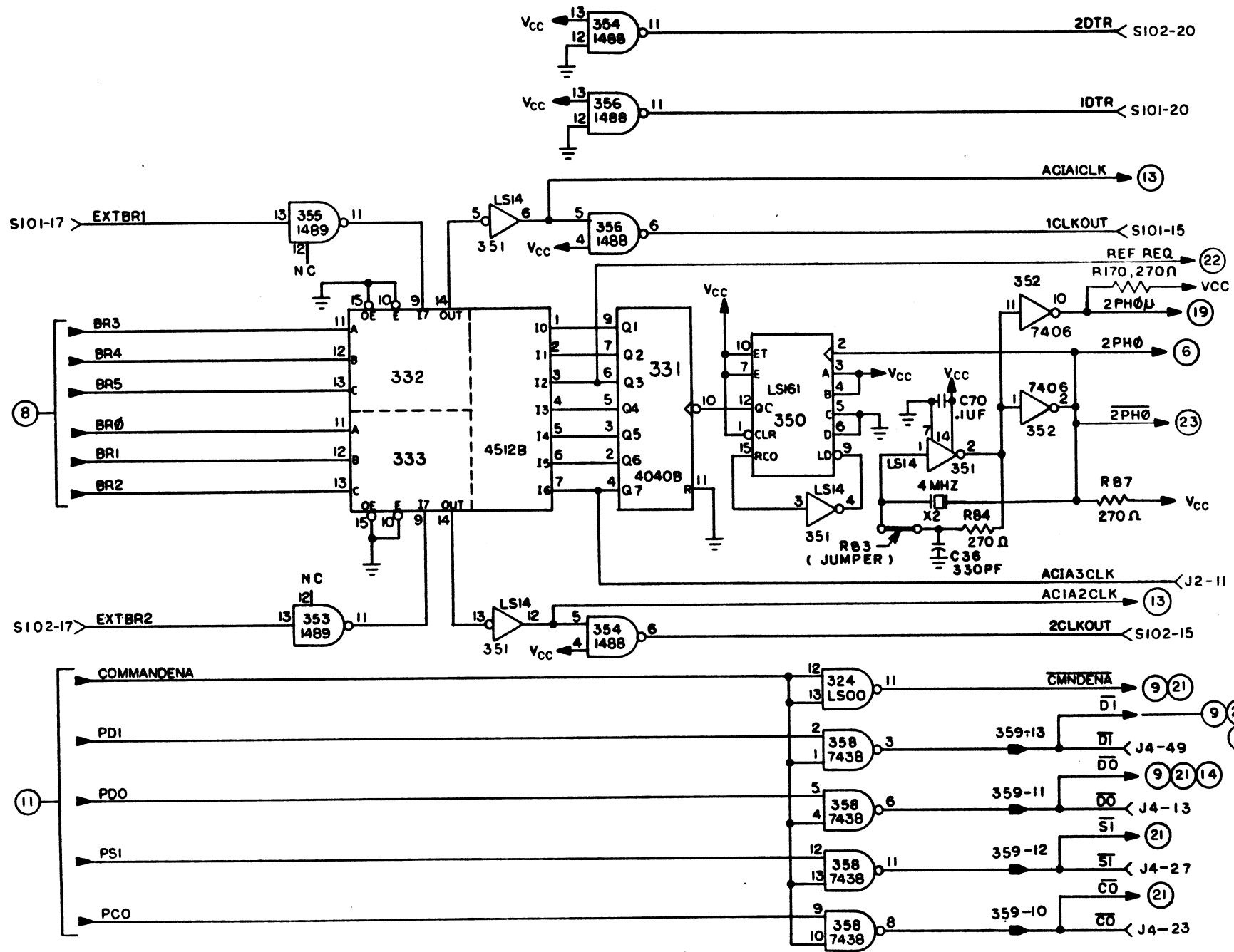
SHT - 13

ADVANCED ELECTRONICS DESIGN, INC. SUNNYVALE, CALIF. 94088

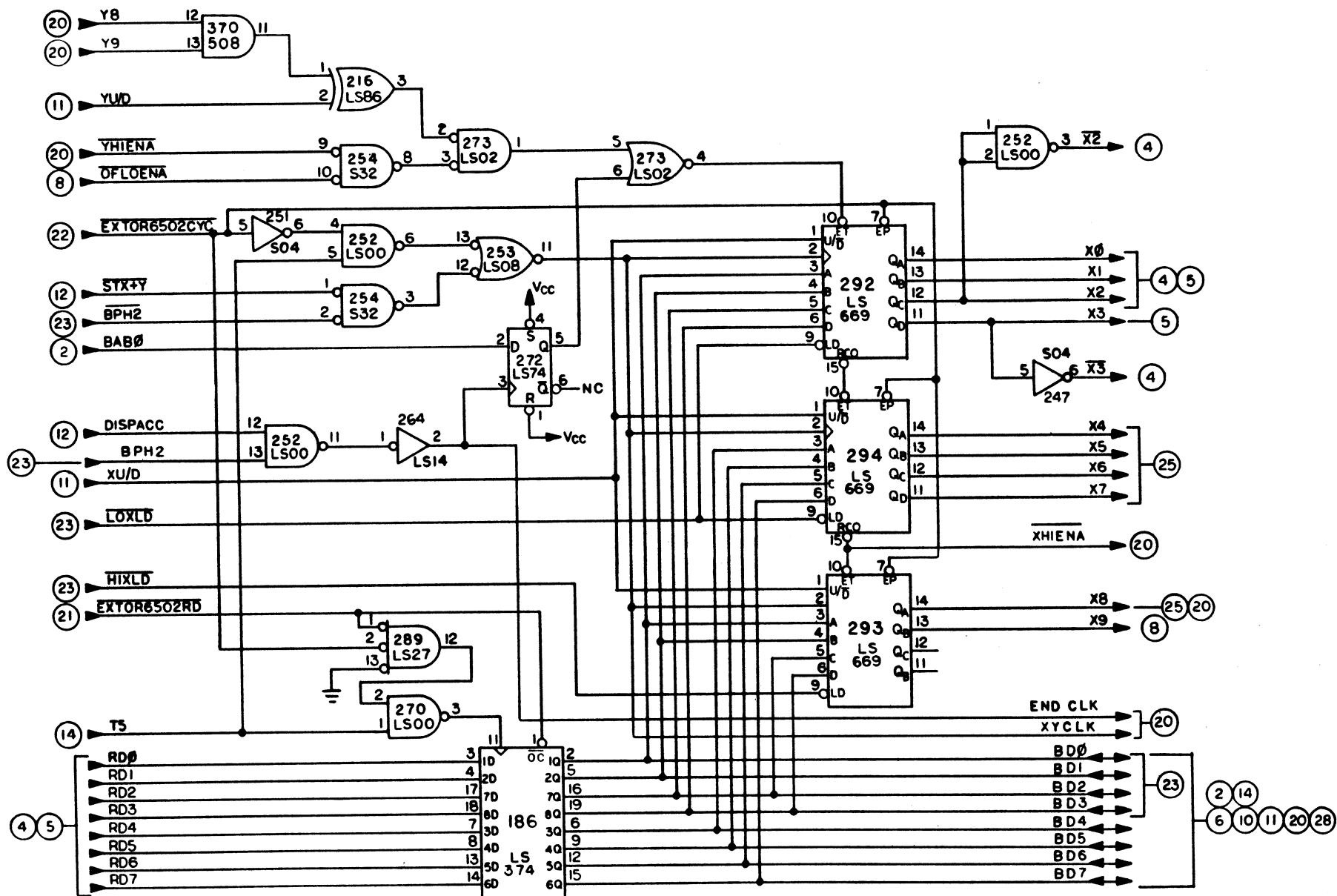
DRAWING NUMBER 120186-01 REV 2



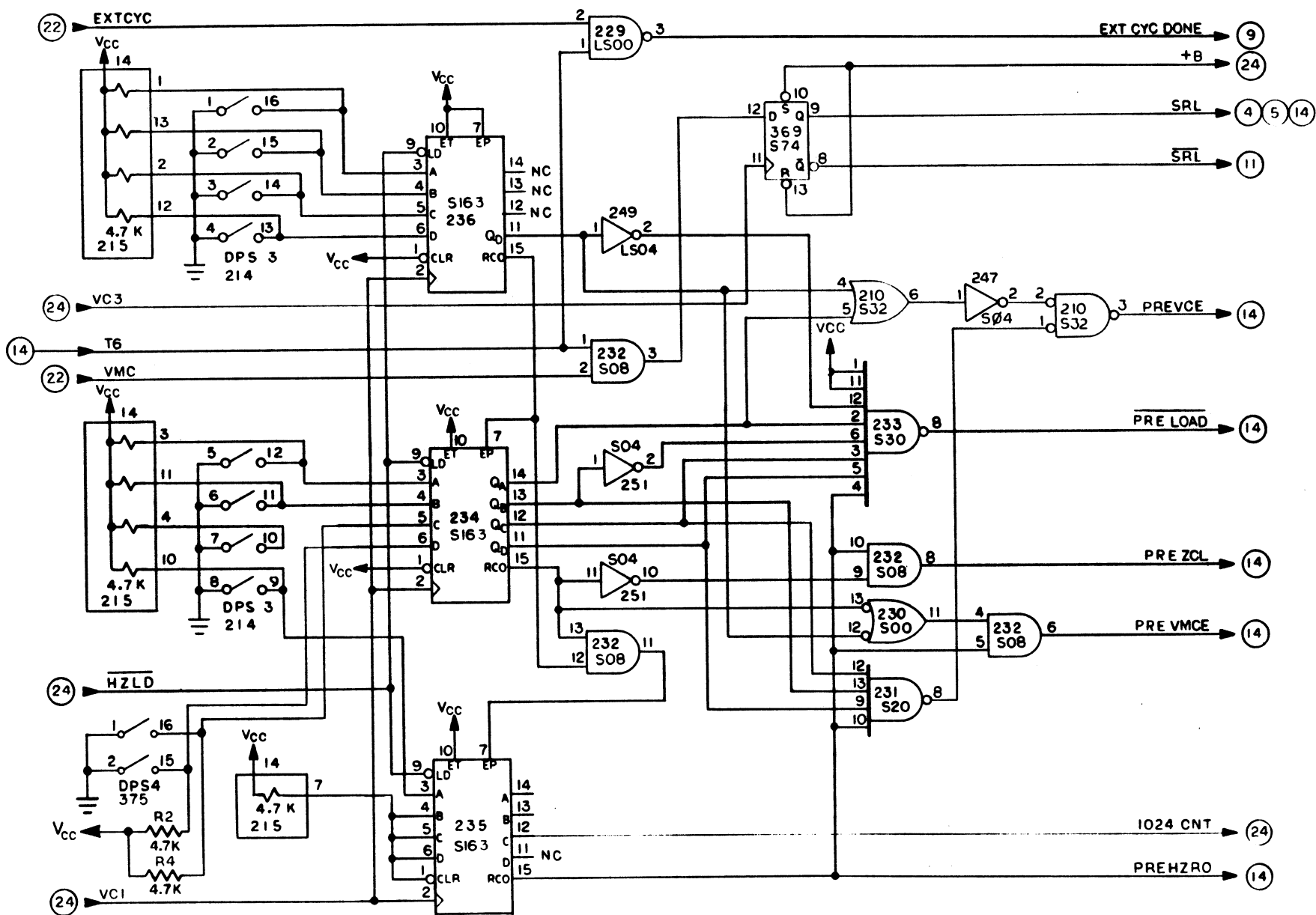
SHT-14



SHT-15

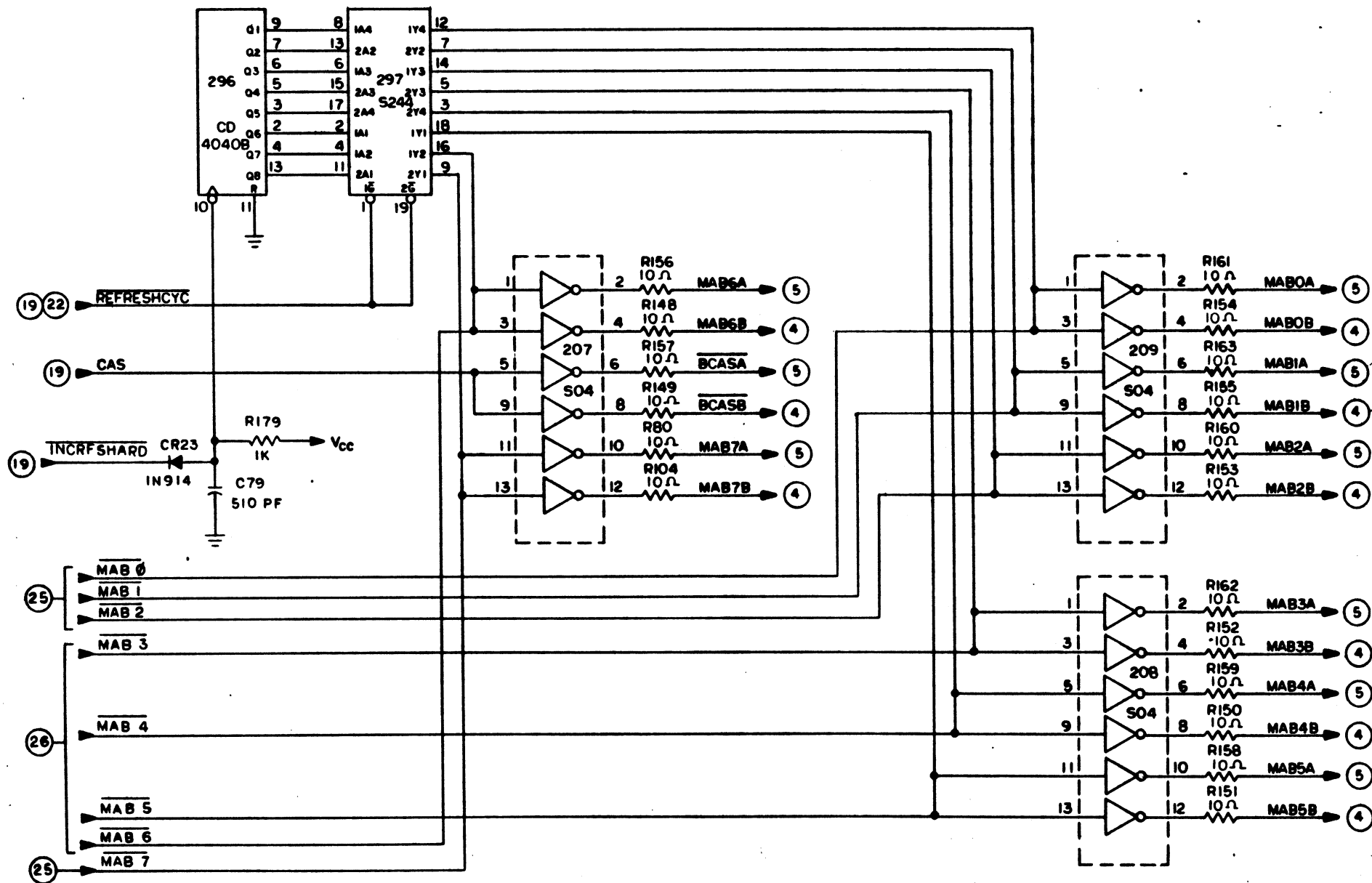


SHT-16



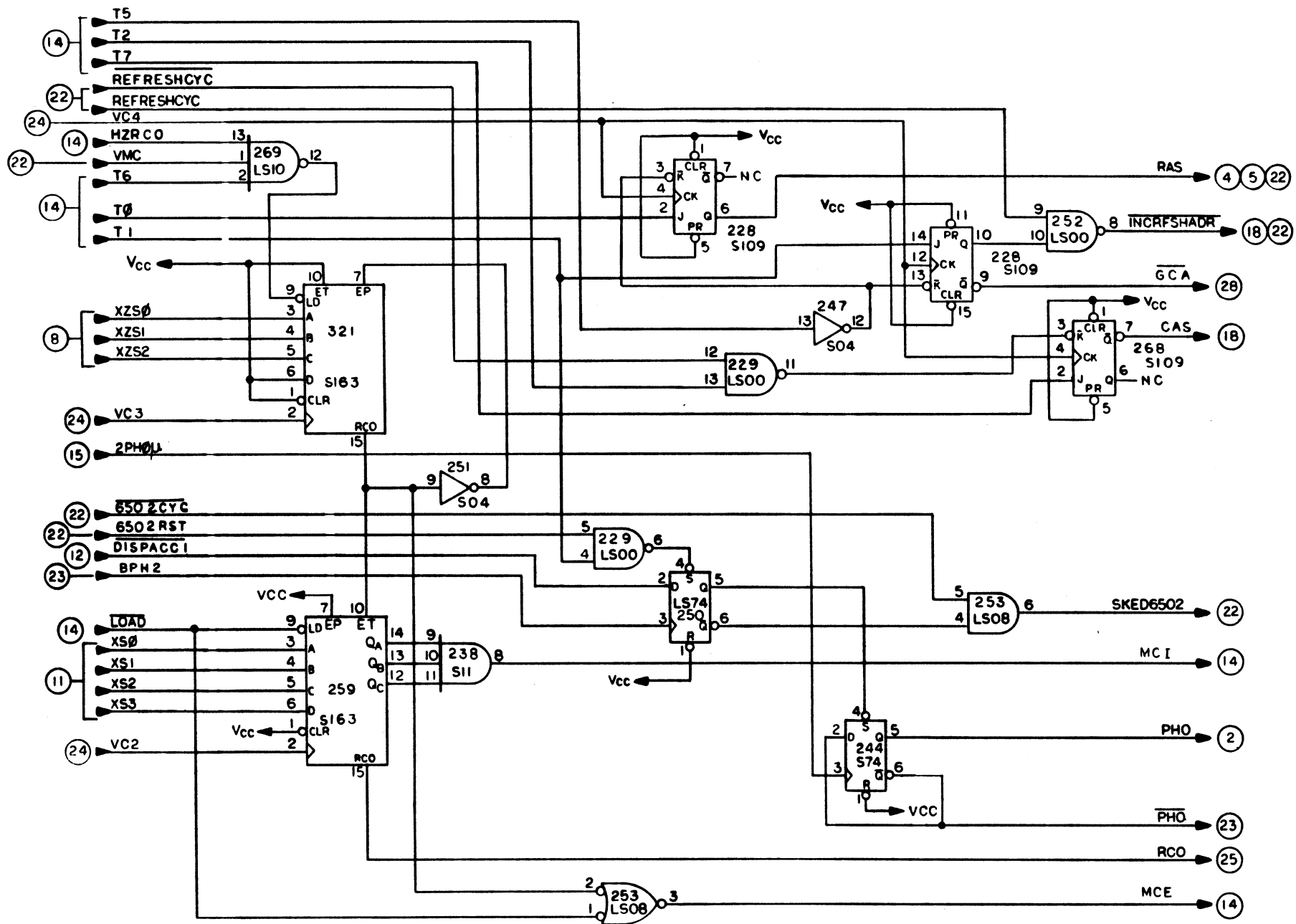
SHT-17

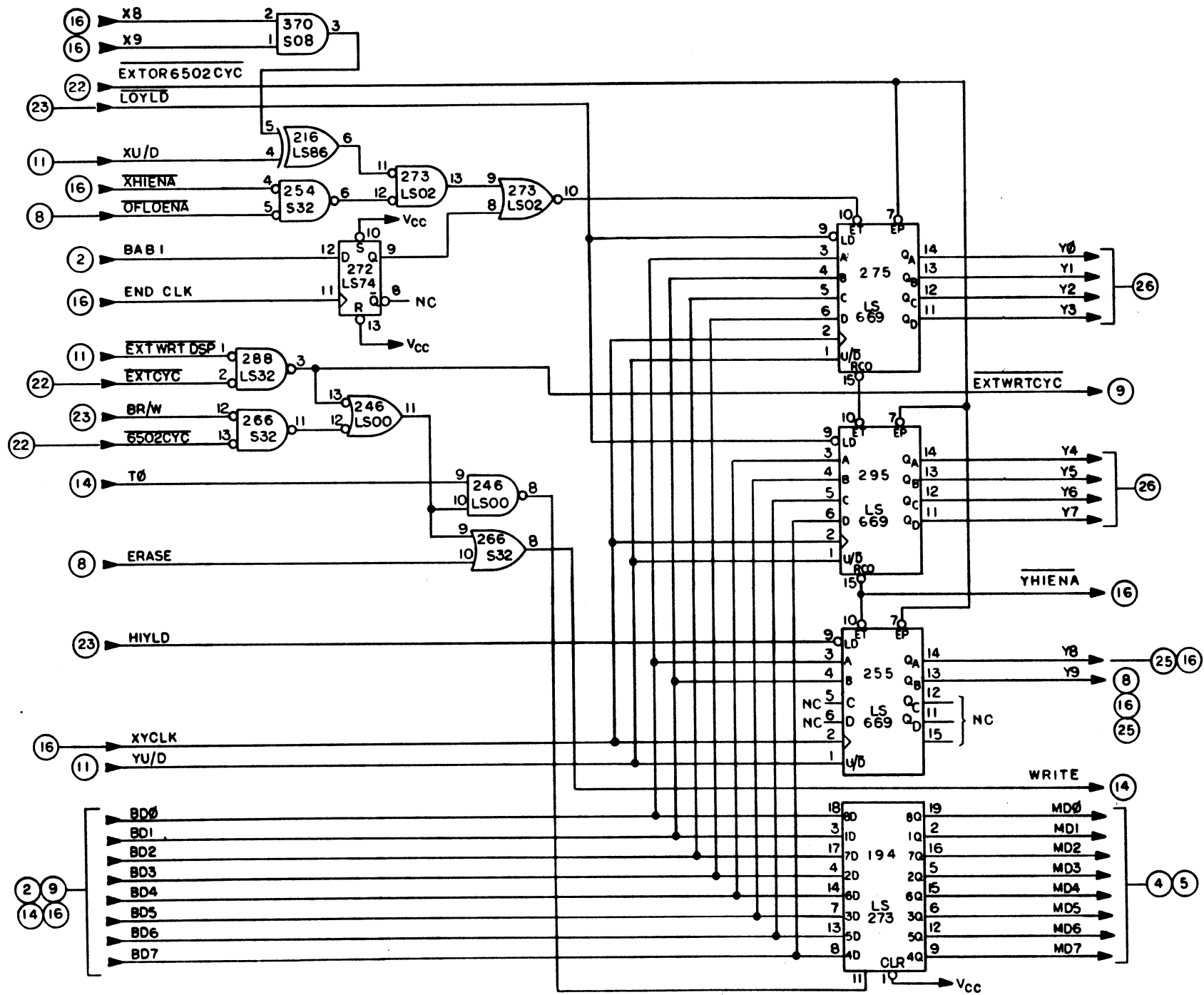
	ADVANCED ELECTRONICS DESIGN, INC. SUNNYVALE, CALIF. 94088			DRAWING NUMBER	REV
				120186-01	2



SHT-18

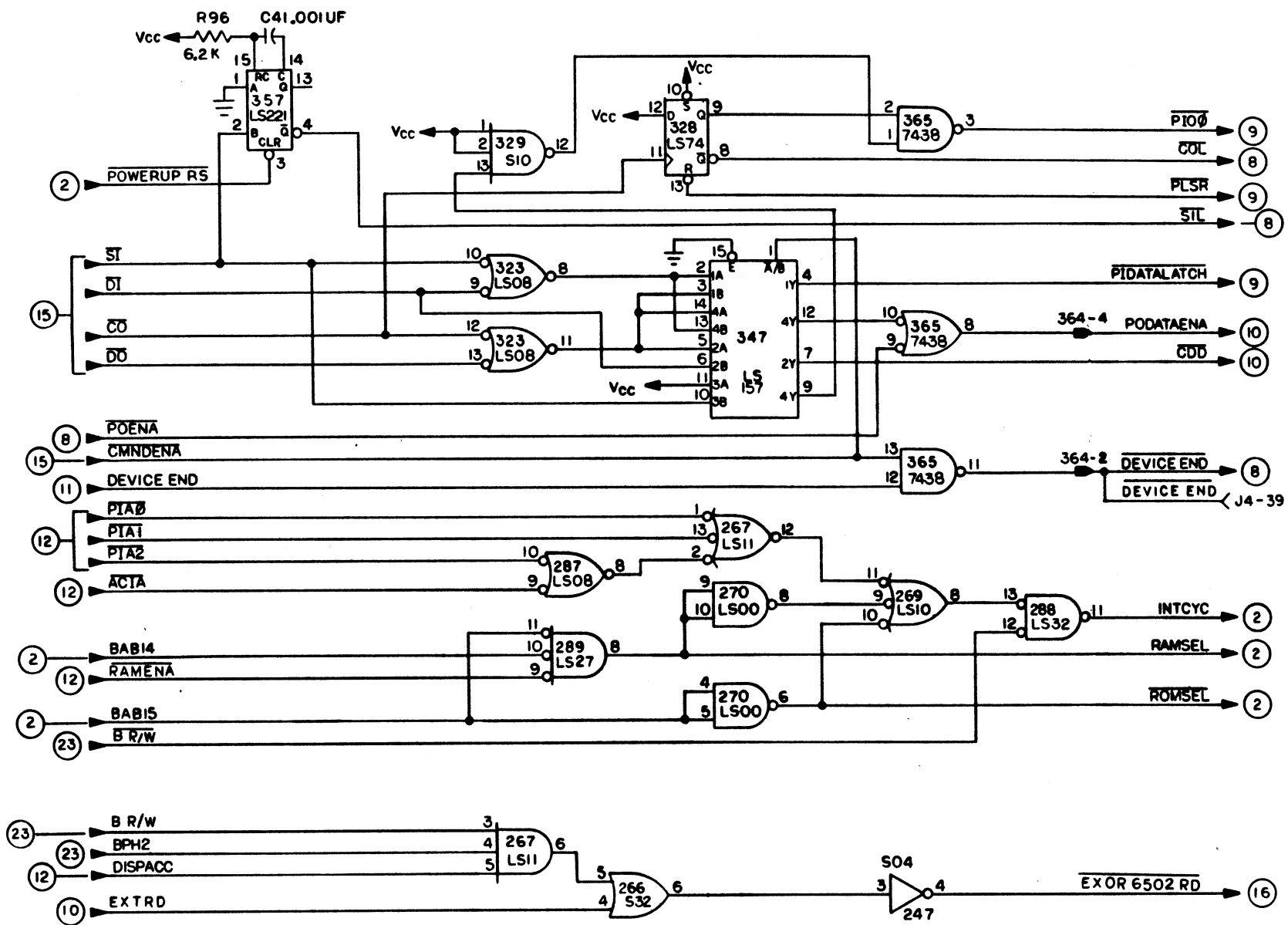
	ADVANCED ELECTRONICS DESIGN, INC. SUNNYVALE, CALIF. 94088	C DRAWING NUMBER 120186-01	REV 2
	SHEET 18 OF 31		





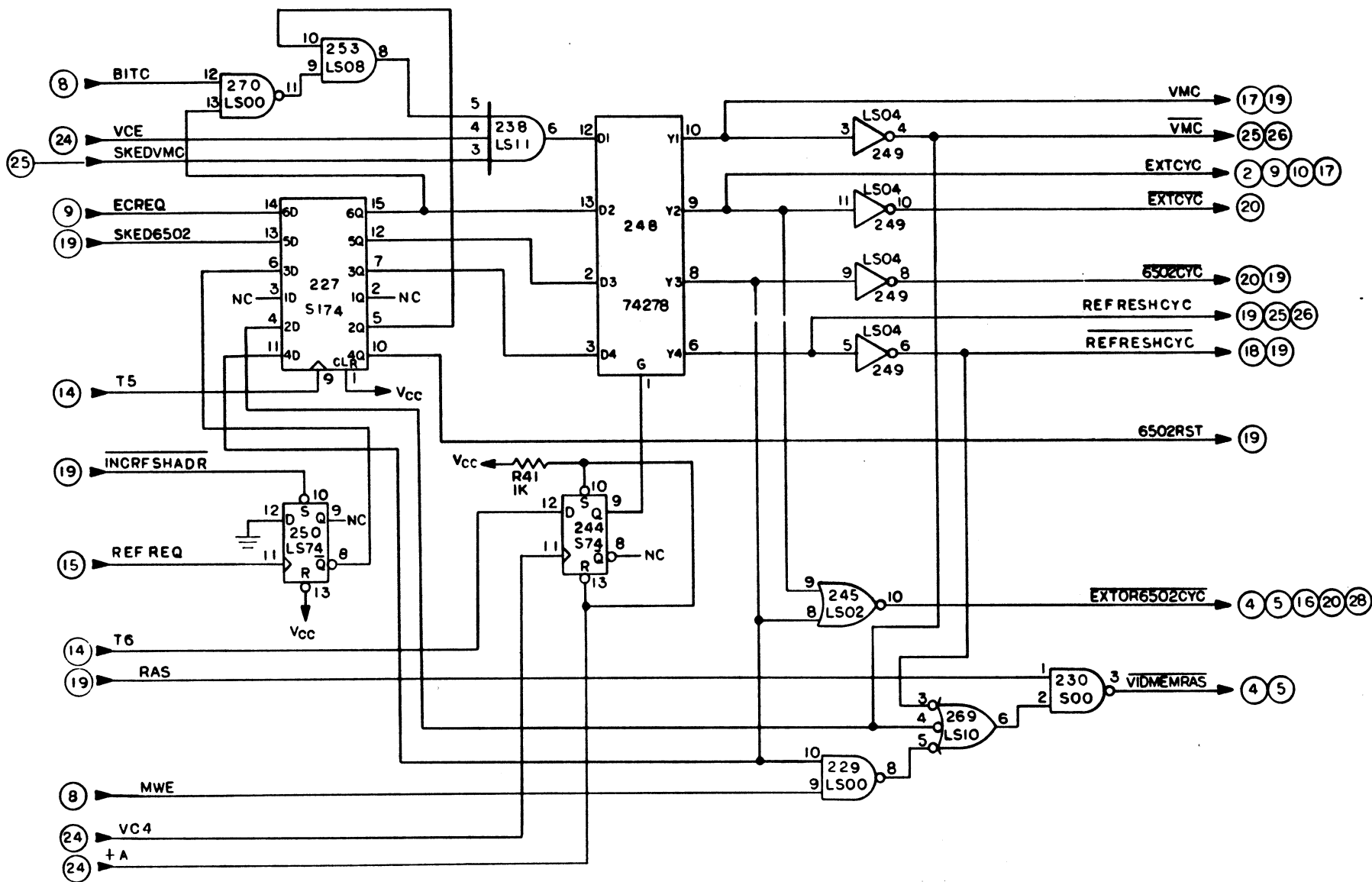
SHT-20

	ADVANCED ELECTRONICS DESIGN, INC.		DRAWING NUMBER	REV
	SUNNYVALE, CALIF. 94088		120186-01	2

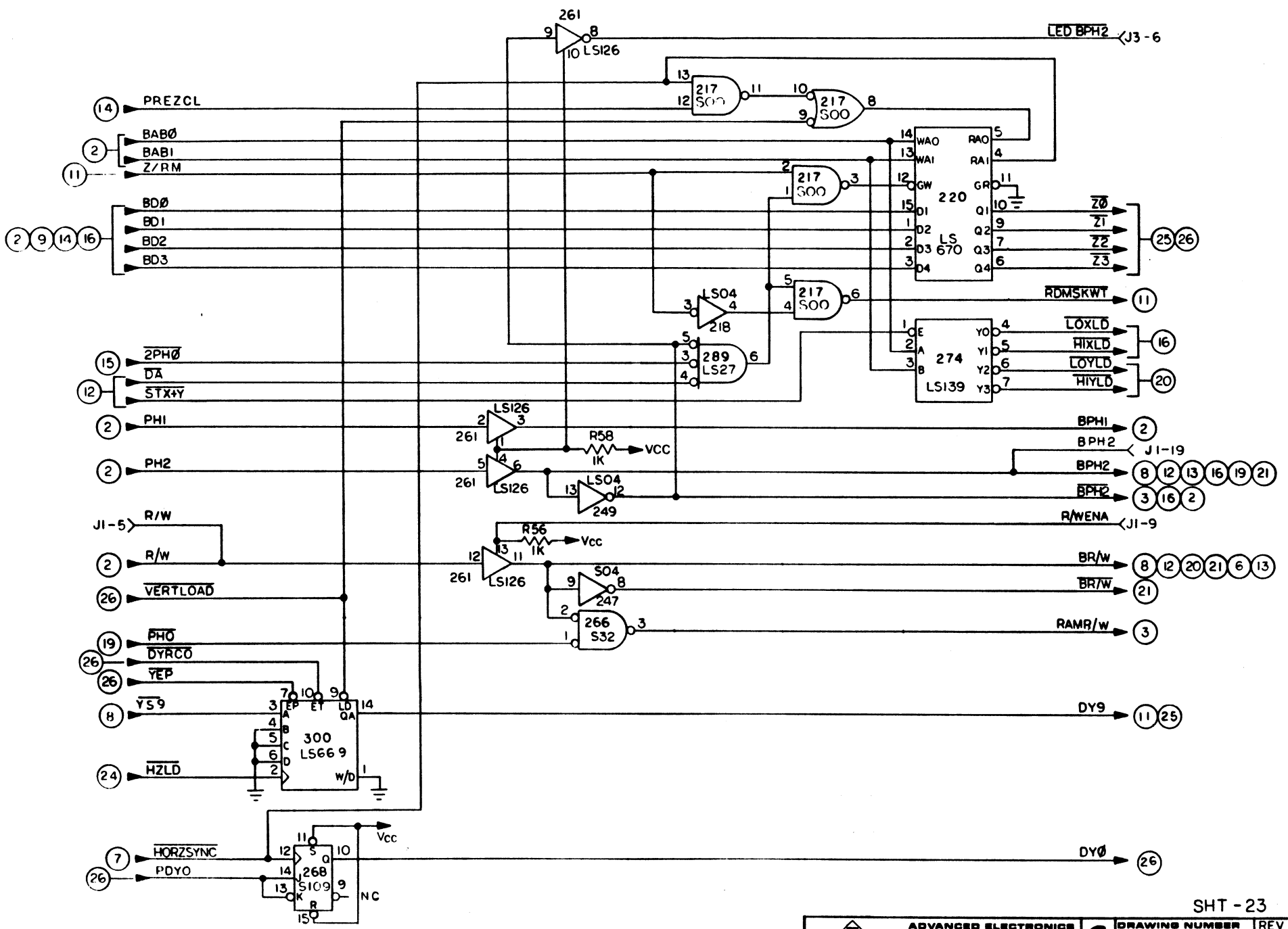


SHT - 21

	ADVANCED ELECTRONICS DESIGN, INC. SUNNYVALE, CALIF. 94088	C DRAWING NUMBER 120186-01	REV 2
	SHEET 01 OF 01		



SHT-22

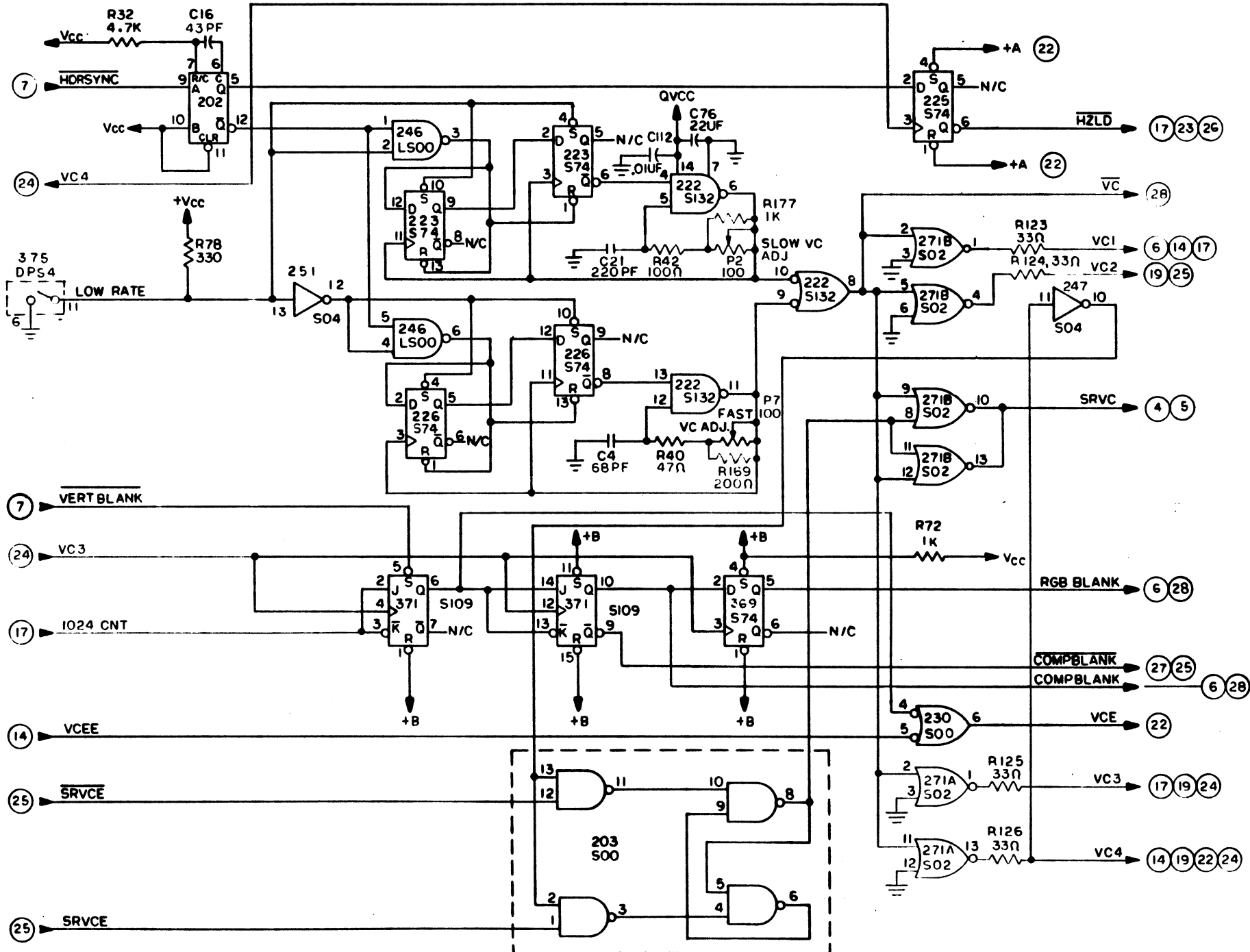


SHT - 23

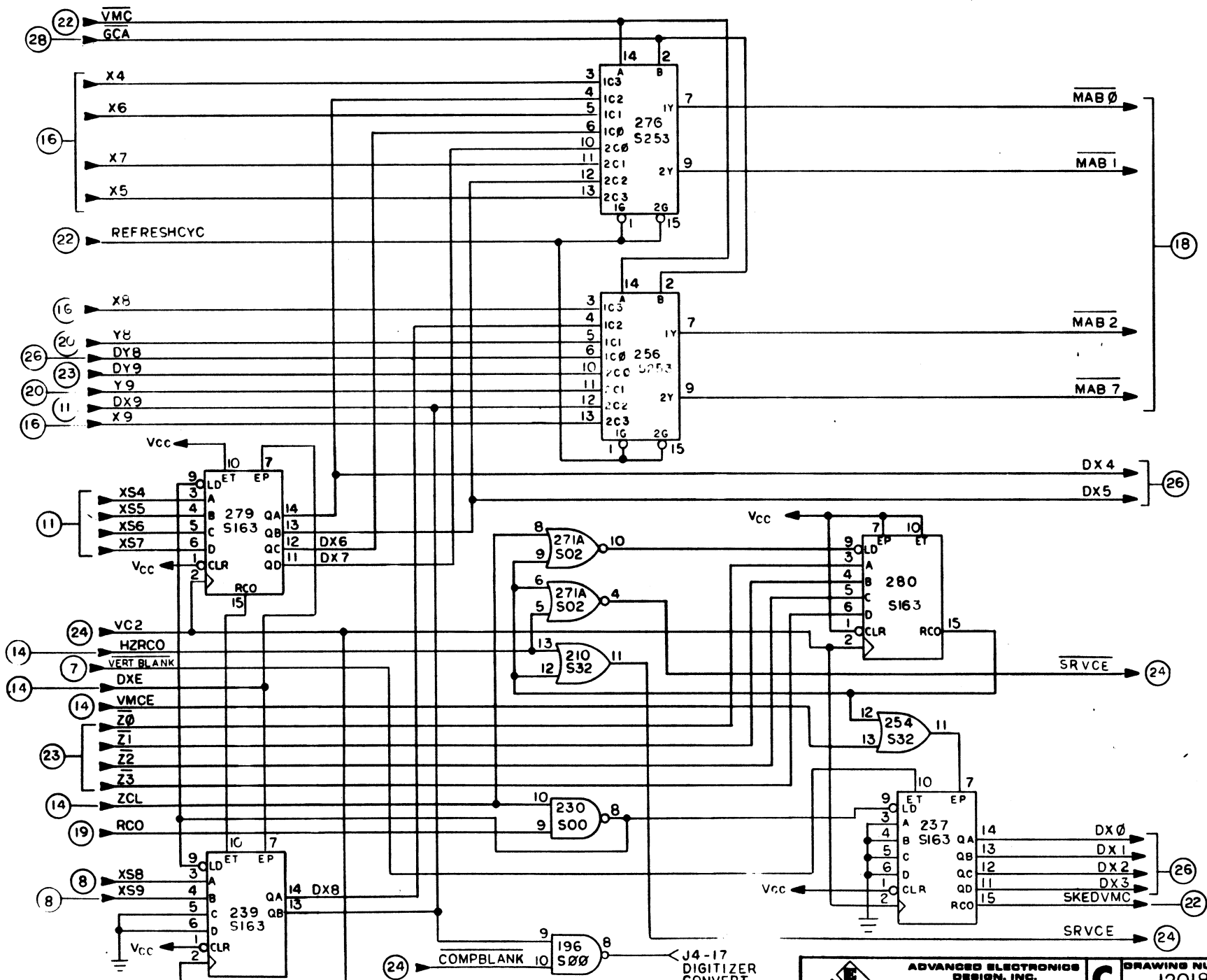
ADVANCED ELECTRONICS
DESIGN, INC.
SUNNYVALE, CALIF. 94088

DRAWING NUMBER
120186-01
REV
2

SHEET 23 OF 31



SHT-24

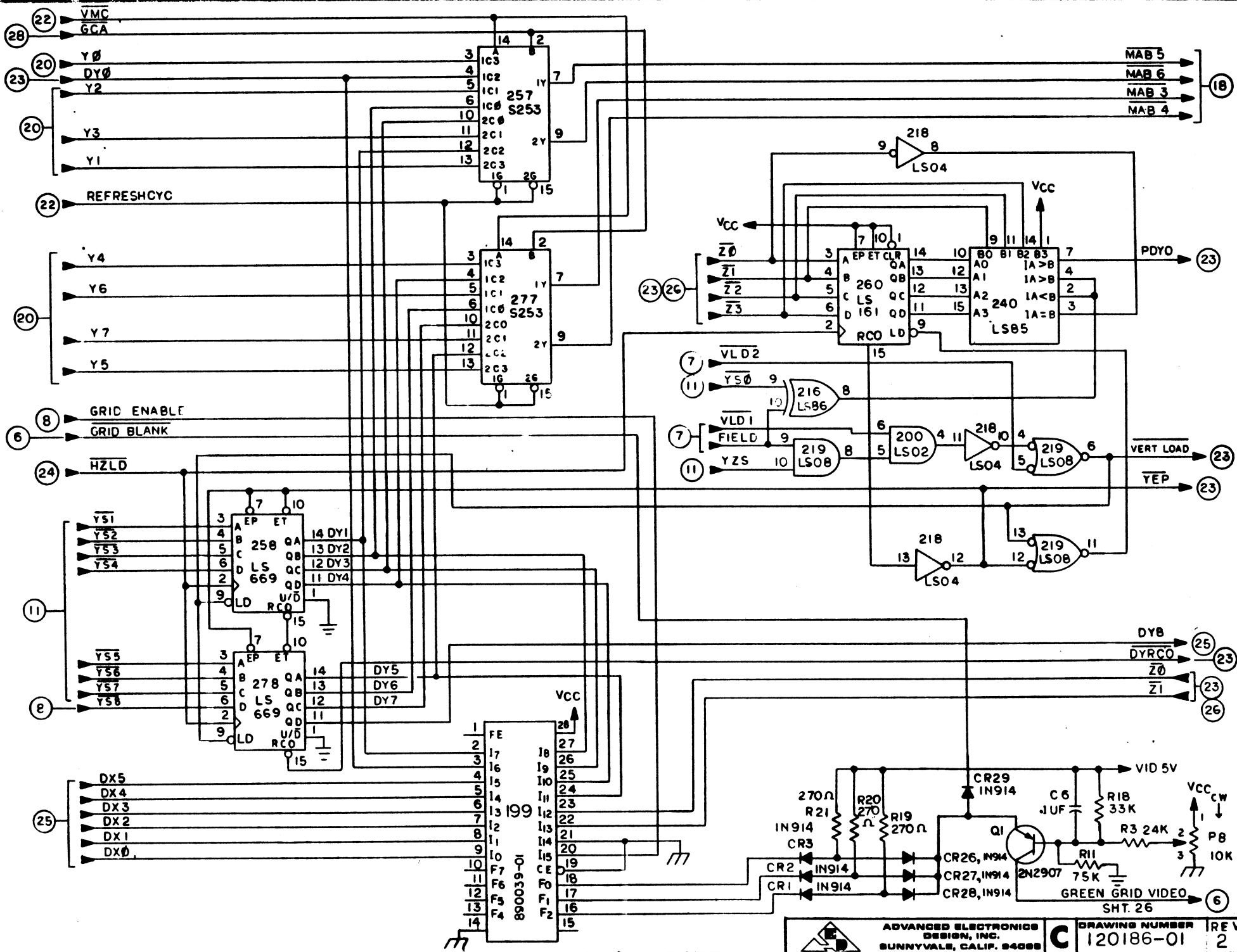


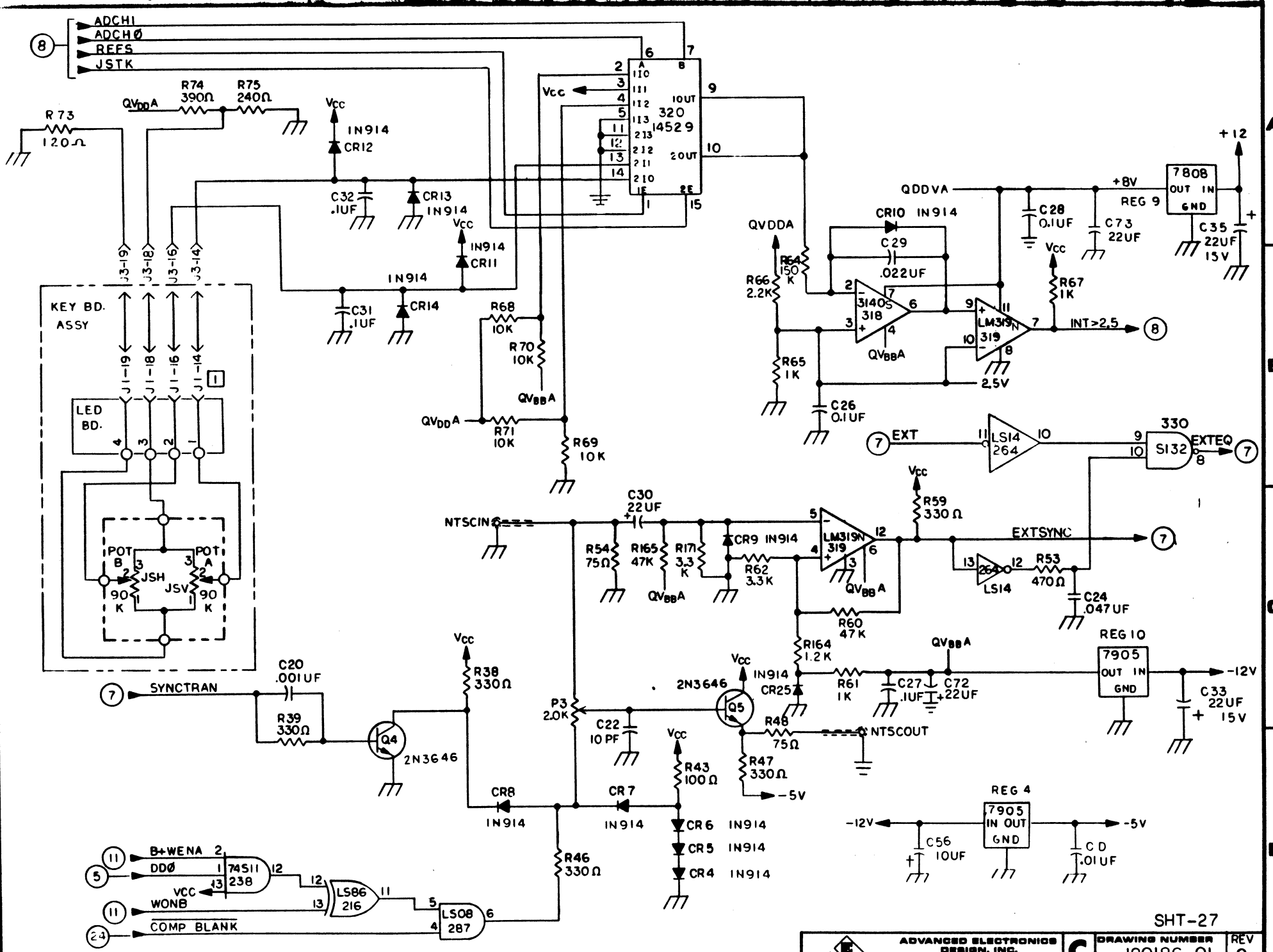
SHT-25



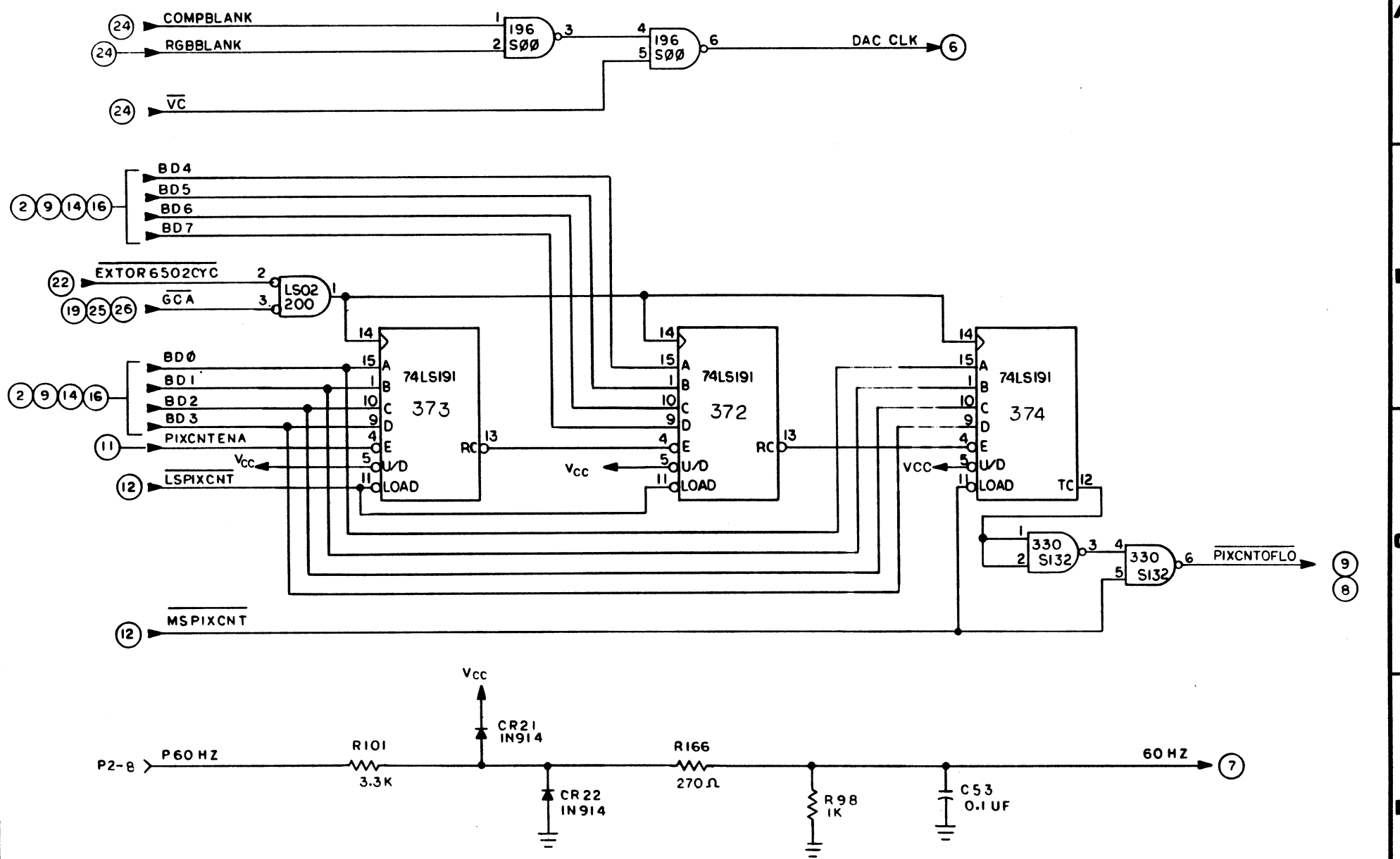
ADVANCED ELECTRONICS
DESIGN, INC.
SUNNYVALE, CALIF. 94088

DRAWING NUMBER
120186-01
REV
2






SHT-27



SHT-28

	ADVANCED ELECTRONICS DESIGN, INC. SUNNYVALE, CALIF. 94088	C DRAWING NUMBER 120186-01	REV 2
	SHEET 28 OF 31		

00	141	4	121	4	101	4	81	4	61	4	41	4	21	4	1	4
LS221	142	4	122	4	102	4	82	4	62	4	42	4	22	4	2	4
7	143	4	123	4	103	4	83	4	63	4	43	4	23	4	3	4
	144	4	124	4	104	4	84	4	64	4	44	4	24	4	4	4
	145	4	125	4	105	4	85	4	65	4	45	4	25	4	5	4
	146	4	126	4	106	4	86	4	66	4	46	4	26	4	6	4
	147	4	127	4	107	4	87	4	67	4	47	4	27	4	7	4
	148	4	128	4	108	4	88	4	68	4	48	4	28	4	8	4
	149	4	129	4	109	4	89	4	69	4	49	4	29	4	9	4
	150	4	130	4	110	4	90	4	70	4	50	4	30	4	10	4
	151	5	131	5	111	5	91	5	71	5	51	5	31	5	11	5
	152	5	132	5	112	5	92	5	72	5	52	5	32	5	12	5
	153	5	133	5	113	5	93	5	73	5	53	5	33	5	13	5
	154	5	134	5	114	5	94	5	74	5	54	5	34	5	14	5
	155	5	135	5	115	5	95	5	75	5	55	5	35	5	15	5
	156	5	136	5	116	5	96	5	76	5	56	5	36	5	16	5
	157	5	137	5	117	5	97	5	77	5	57	5	37	5	17	5
	158	5	138	5	118	5	98	5	78	5	58	5	38	5	18	5
	159	5	139	5	119	5	99	5	79	5	59	5	39	5	19	5
	160	5	140	5	120	5	100	5	80	5	60	5	40	5	20	5
	192	LS00	186	LS374	179	S374	172	LS00	166	S08	165	06				
	14	14	16		6	14		14	11	11	6					
	14	14	16		6	14		14	11	11	6					
	193	LS273	187	S138	180	10124	173	10422	167	10124	162					
	14	6		6	6	6		6		MC10318						
	194	LS273	188	S08	181	10124	174	10422	168	10176	6					
	20	11	11	6		6	6		6		6					
		189	LS670	182	10124	175	10422	169	10176	163						
		11		6	6	6		6		MC10318						
	195	LS273	190	LS534	183	10124	176	10422	170	10176	6					
	11	11		6	6	6		6		6						
	196	S08	191	LS670	184	LS244	177	10422	171	10176	164					
	28	28	11		6	6	6		6		MC10318					
	25	13	11		6	6	6		6		6					
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					6	6	6		6		6					

4164

74LS251

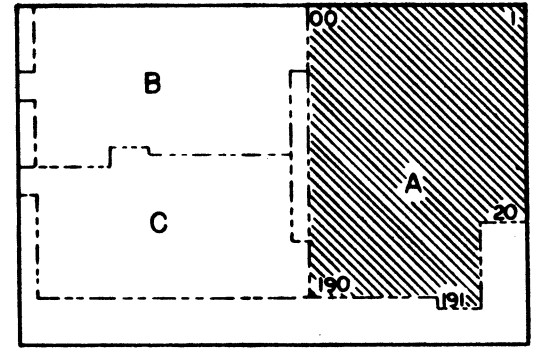
74LS166

4164

74LS251

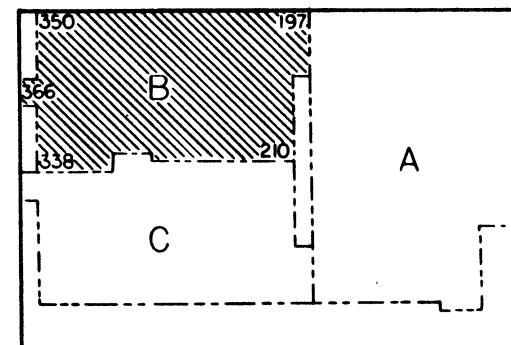
74166

4164



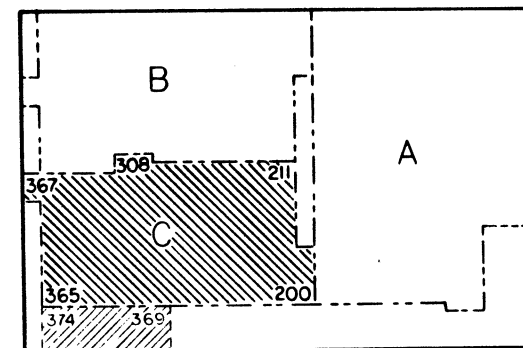
161	
MPQ3906	
6	6
6	6

368 11E555	350 LS161	330 SI32			261 LS126			201 4046B	197 LS157	
2	15	28 28 27			23 23 23 23			7	7	
	351 LS14	331 4040B			262 6502A	241 89003c-01	222 SI32	202 LS221		
	15 15 15 2 13 15	15			2	7	7 2 24 24	7 24		
	352 7406	332 4512B			301 S244	283 LS260	263 LS86	242 4040B	223 74574	203 74570
	15 13 13 2 15 13	15			2	12 7 7 12 7 7	7	24 24 24 24	24 24	
	353 1489	333 4512B	317 8304	302 S244	284 LS00	264 LS14	243 LS02	224 LS174	204 LS08	244 S74
	13 13 13 15	15	2	2	12 12 12 12	16 7 7 7	7 7 7 7	7	4 4 4 4	19 22
	354 1488	334 68B50	318 3140	303 4802	285 LS138	265 S374	245 LS02	225 S74	205 S138	
	13 15 13 15	13	27	3	2	14	7 2 22 19	24 7	4	
366 DPS2	355 1489	335 68B50	LM319	304 4802	LS138	S32	LS00	S74	LS08	
8	13 13 13 15	13	27	3	12	23 21 20 20	24 24 20 20	24 24	4 4 4 4	
	356 1488	336 68B21			287 LS08	267 LS11	247 S04	227 S174	207 74504	
	13 15 13 15	8			305 4802	10 27 21 12	21 17 21 12 16 23	22	18 18 18 18	
		320 14529		3	288 LS32	268 S109	248 74278	228 S109	208 74504	
		337 68B21	27		20 21 12 21	19	22	19	18 18 18 18	
		8		3	289 LS27	269 LS10	249 LS04	229 LS00	209 74504	
		338 68B21			23 21 21 21	17 22 22 22	17 19	18 18 18 18		
				307 4802	16 19 12 21	22 23	22 19	18 18		
		8		3	290 LS138	270 LS00	250 LS74	230 S00	210 74532	
					12	16 21 21 22	19	22 24 25 17	17 17 25	



374	373	372	371	370	369
LS191	LS191	LS191	S109	S08	S74
			24	20	24
28	28	28	24	14	16
					17

				291	271A	251	231	211	271B
				S138	74S02	74S04	S20	LS08	74S02
				308	2	24 25	17 12	7	5 5
						16 19			24 24
						17 24	17	5 5	24 24
367	357	339	321	292	272	252	232	212	
DPS1	LS221	LS244	SI63	LS669	LS74	LS00	S08	SI38	
8	21	14	19	309	16	16 16	17 17	5	
	9					20 19	16 17		
358	340	322		293	273	253	233	213	
7438	LS273	LS138		LS669	LS02	LS08	74S30	LS08	
15 15		11	12	310	16	16 16	19 19	17	5 5
15 15						20 20	22 16		5 5
359	341	323		294	274	254	234	214	
330/390	LS273	LS08		LS669	LS139	74S32	SI63	DPS3	
10 10 10 10		9 9		311	295	275	255	235	215
10 10 10 10	9	21 21			LS669	LS669	LS669	SI63	4.7K RN
15 15 15 15									17 17 17 17
360	342	324	311	296	276	256	236	216	
7438	S240	LS00	89002 7-05	40408	S253	S253	SI63	LS86	
10 10		9 9	3	18	25	25	17	16 20	
10 10	9	10 15						26 27	
361	343	325		297	277	257	237	217	
7438	LS273	S08	89003 7-04	S244	S253	S253	SI63	S00	
10 10		9 10	3	18	26	26	25	23 23	
10 10	10	10 9						23 23	
362	344	326		298	278	258	238	218	198
7438	LS273	S32	89003 03	LS273	LS669	LS669	74S11	LS04	SI74
10 10		9 10	3	11	26	26	22	9 23	14
10 10	10	10 9					19	6 26	
363	345	327		299	279	259	239	219	199
7438	S240	S74	89002 C2	LS273	SI63	SI63	SI63	LS08	89003 01
10 10		9	3	11	25	19	25	9 26	26
10 10	9	9						26 26	
364	346	328		300	280	260	240	220	200
330/390	LS273	LS74	89002 01	LS669	SI63	LS161	LS85	LS670	LS02
21 9 21		9	3	23	25	26	26	23	28 26
10 10 10 10	9	21							9 9
10 10 10 10									
375	365	347	329	300	280	260	240	220	200
DPS4	7438	LS157	SI0	LS669	SI63	LS161	LS85	LS670	LS02
	21 9	21	9	23	25	26	26	23	28 26
			9						9 9
24 24 7 7			21						



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