

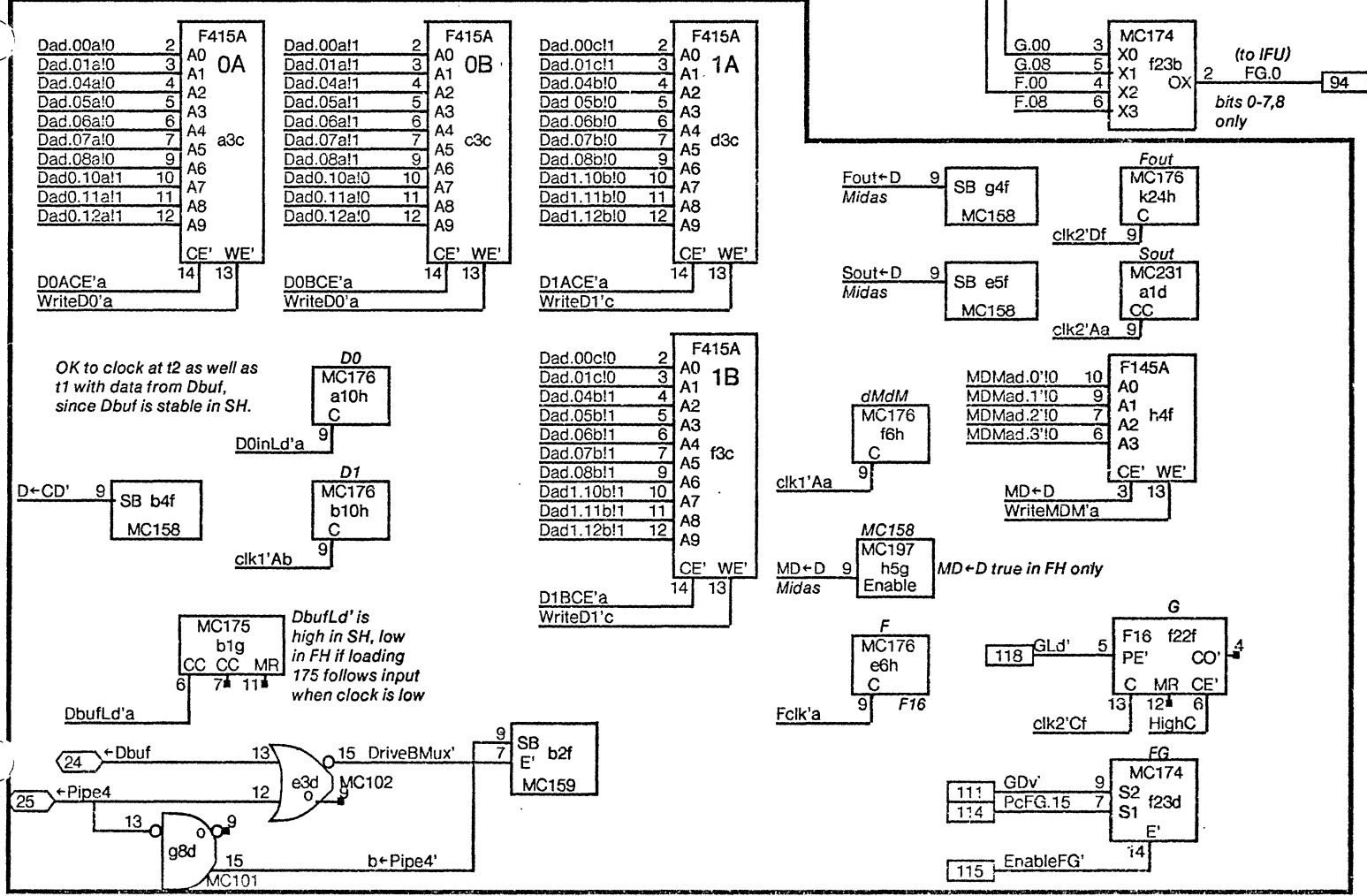
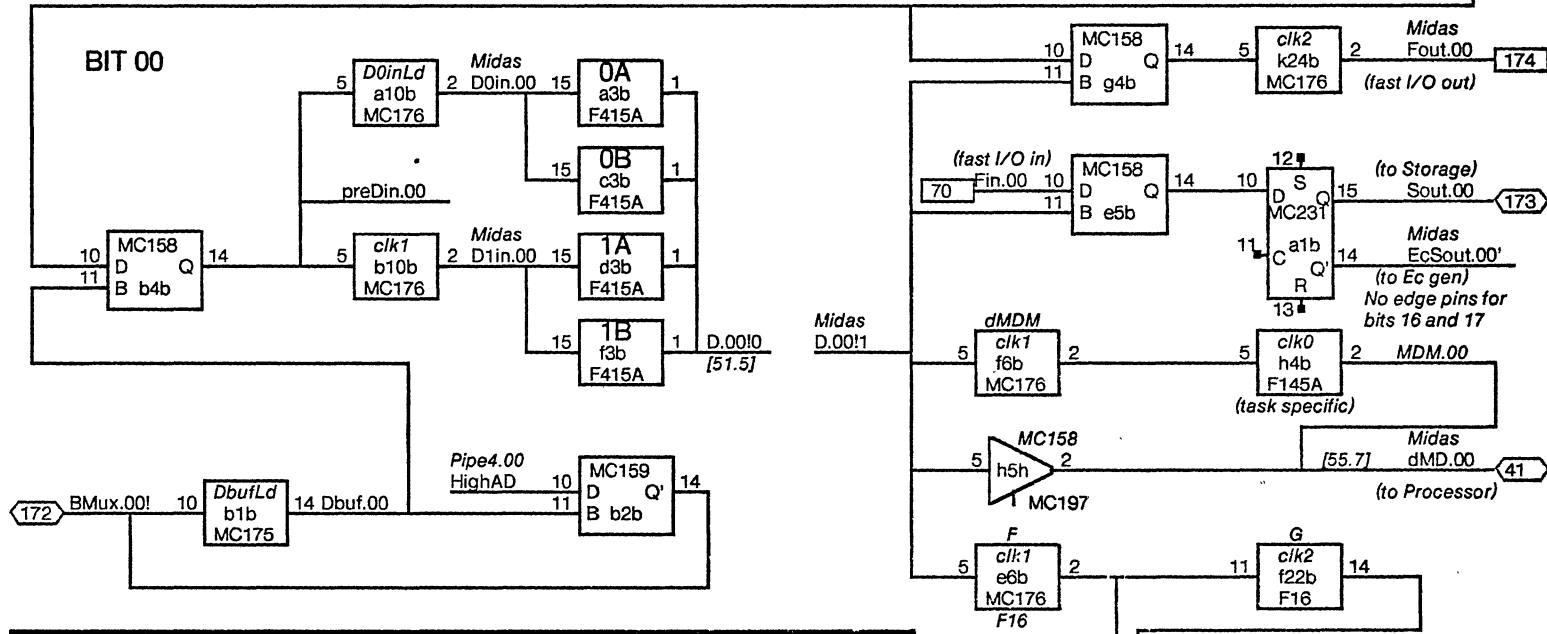
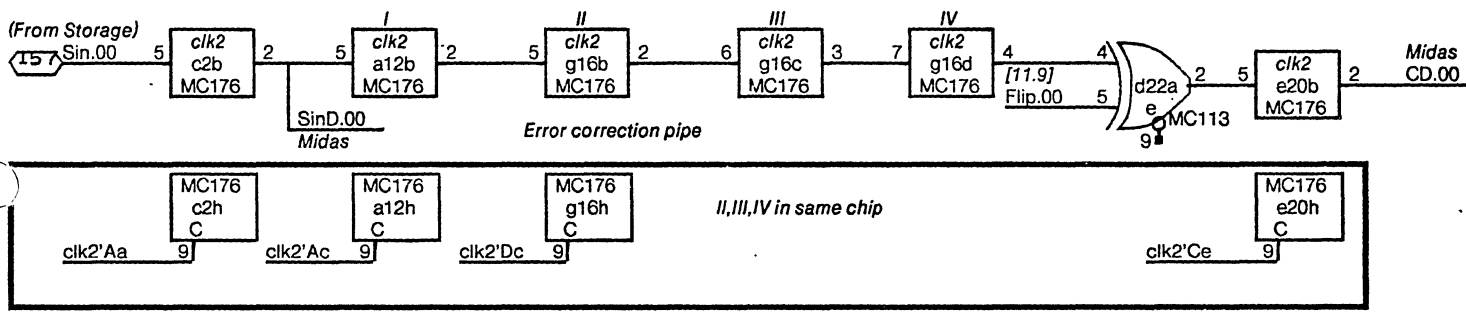
DORADO SCHEMATICS

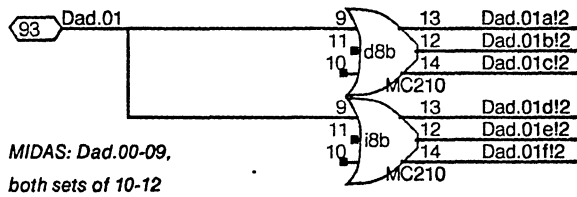
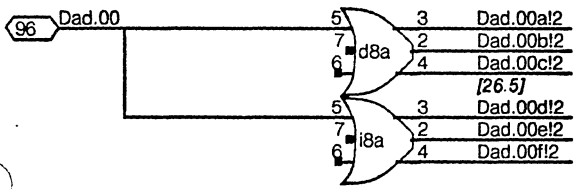
Memory Data Board

(1k chip version)

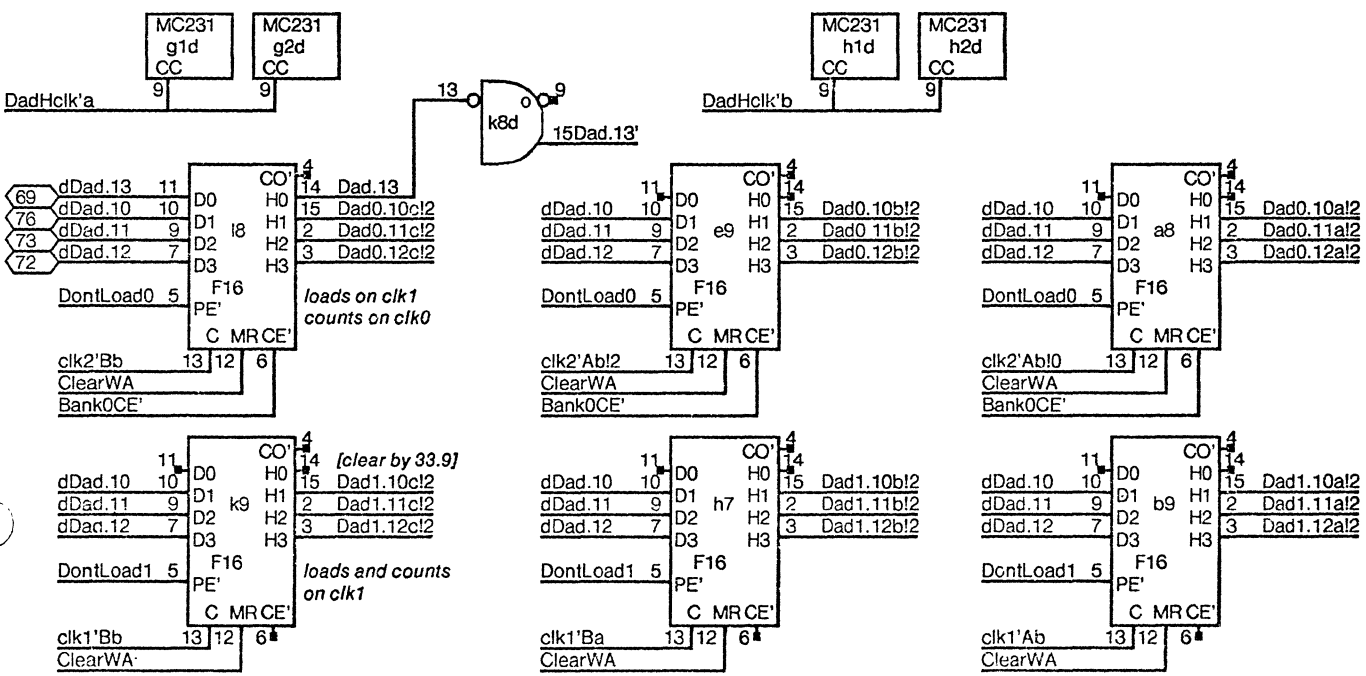
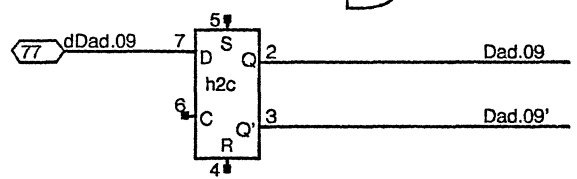
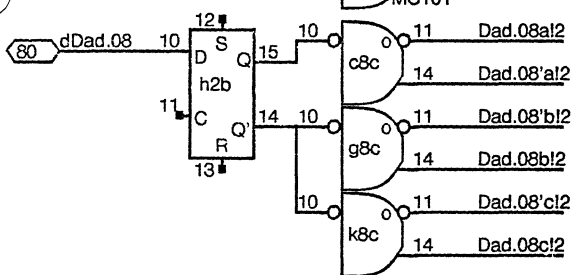
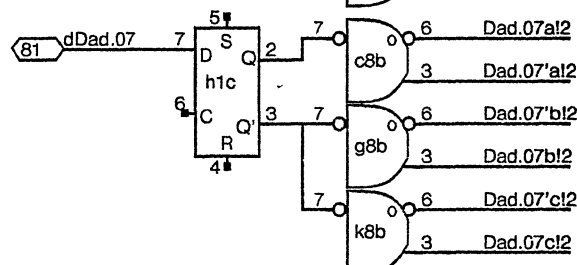
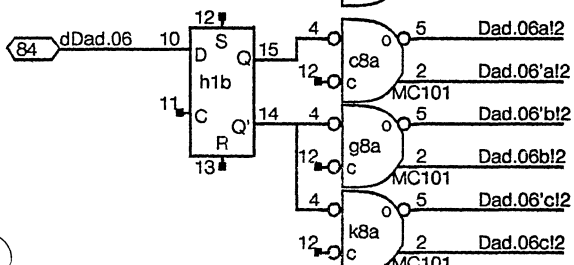
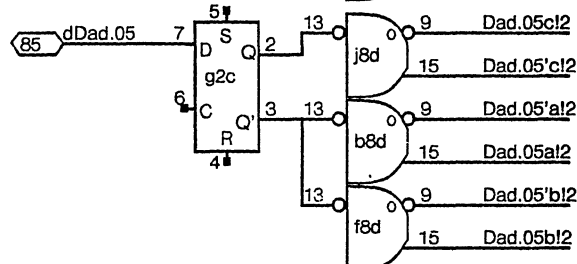
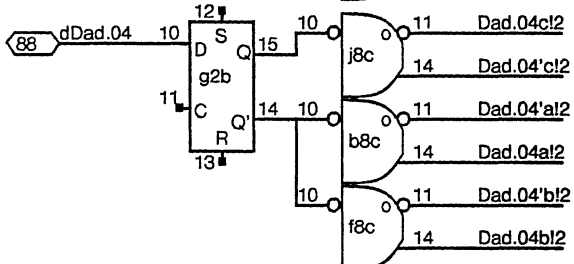
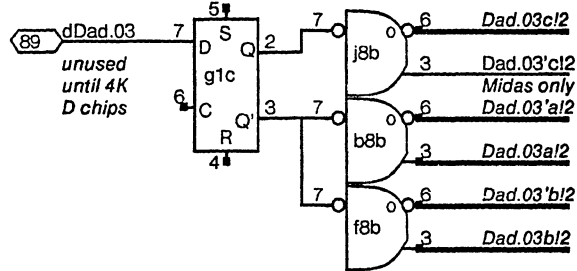
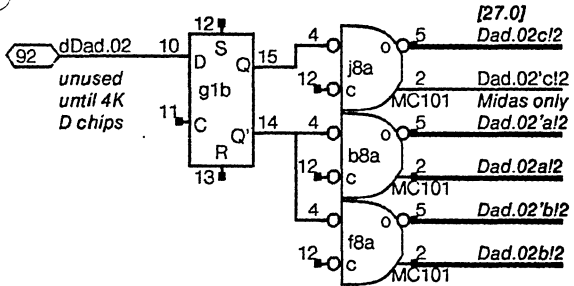
Table of contents

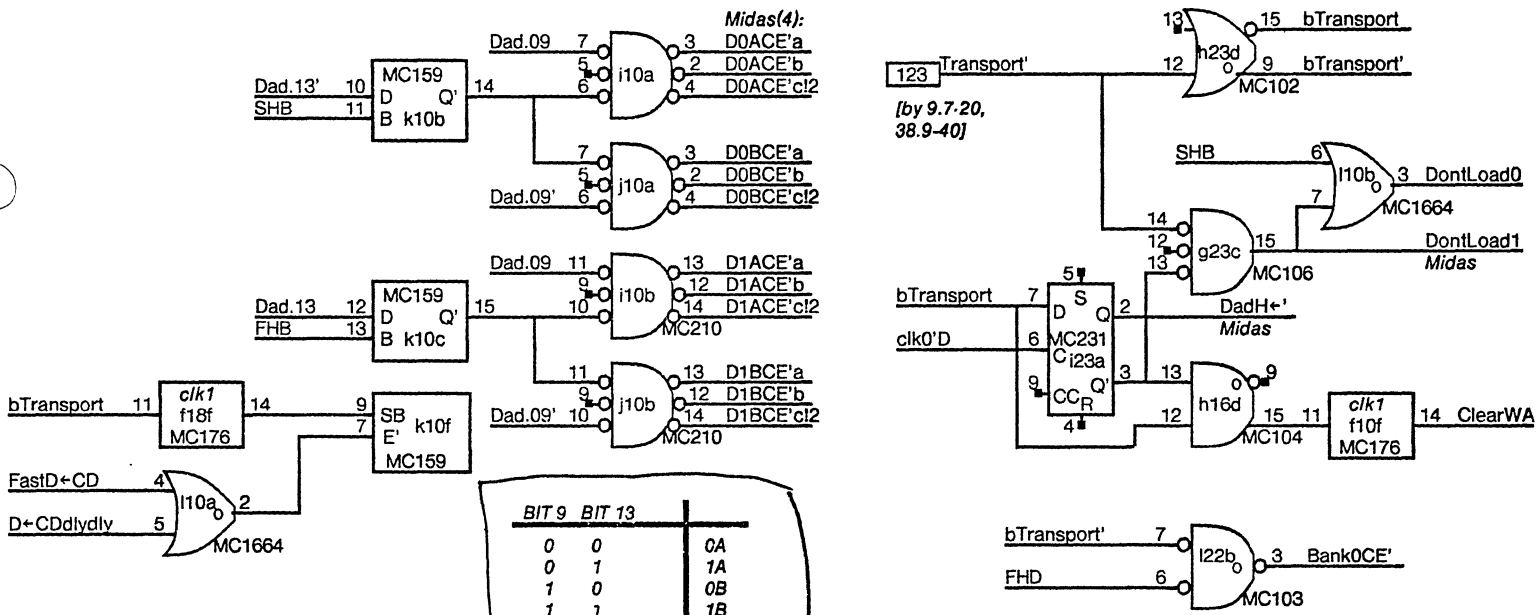
<u>TITLE</u>	<u>Page</u>
Bit slice 00 and its control _____	01
D memory addresses _____	02
Control, D memory CE's and Write's _____	03
Hamming code generator _____	04
Hamming code checker _____	05
Error corrector and Pipe4 _____	06
Bit slices 01 _____	07
02-03 _____	08
04-05 _____	09
06-07 _____	10
08-09 _____	11
10-11 _____	12
12-13 _____	13
14-15 _____	14
16-17 _____	15
D memory addressing, bits 01-05 _____	16
06-10 _____	17
11-15 _____	18
16-17 _____	19
Bit slice control, bits 01-17 _____	20
Midas control and multiplexors _____	21
Clock distribution _____	22
Layout _____	23





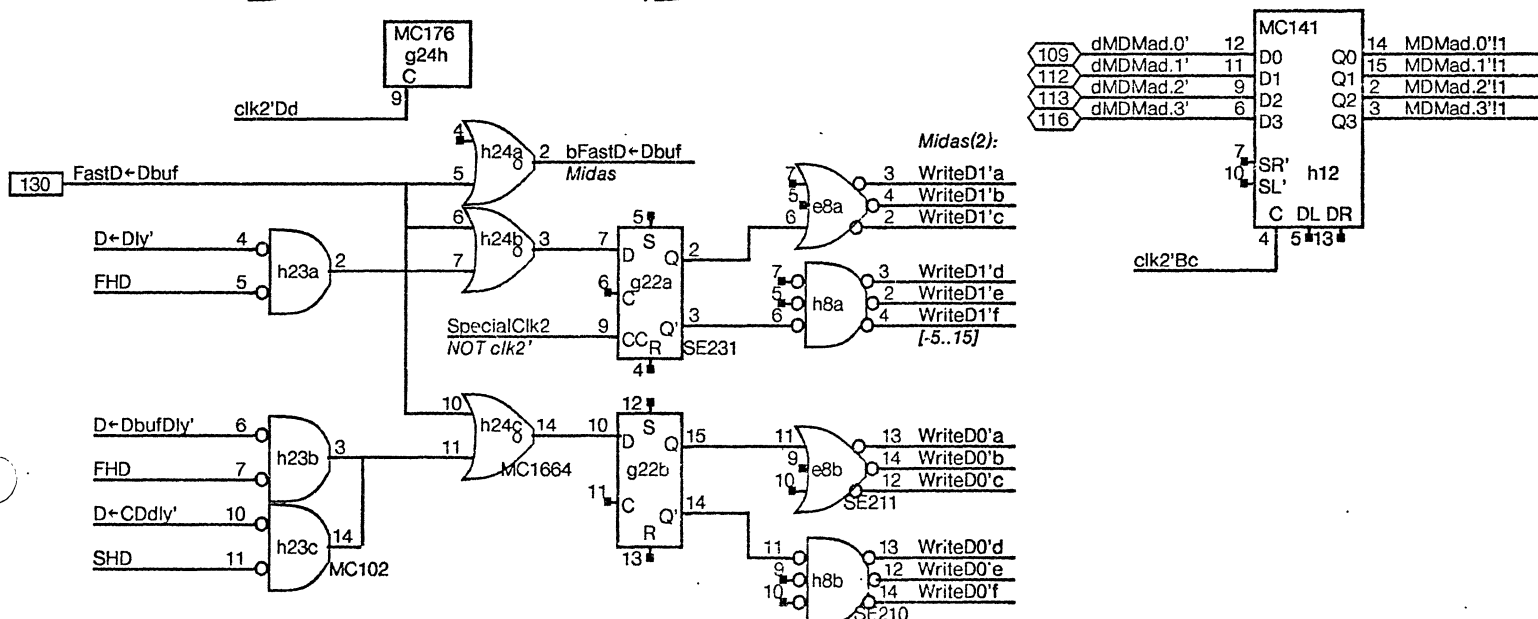
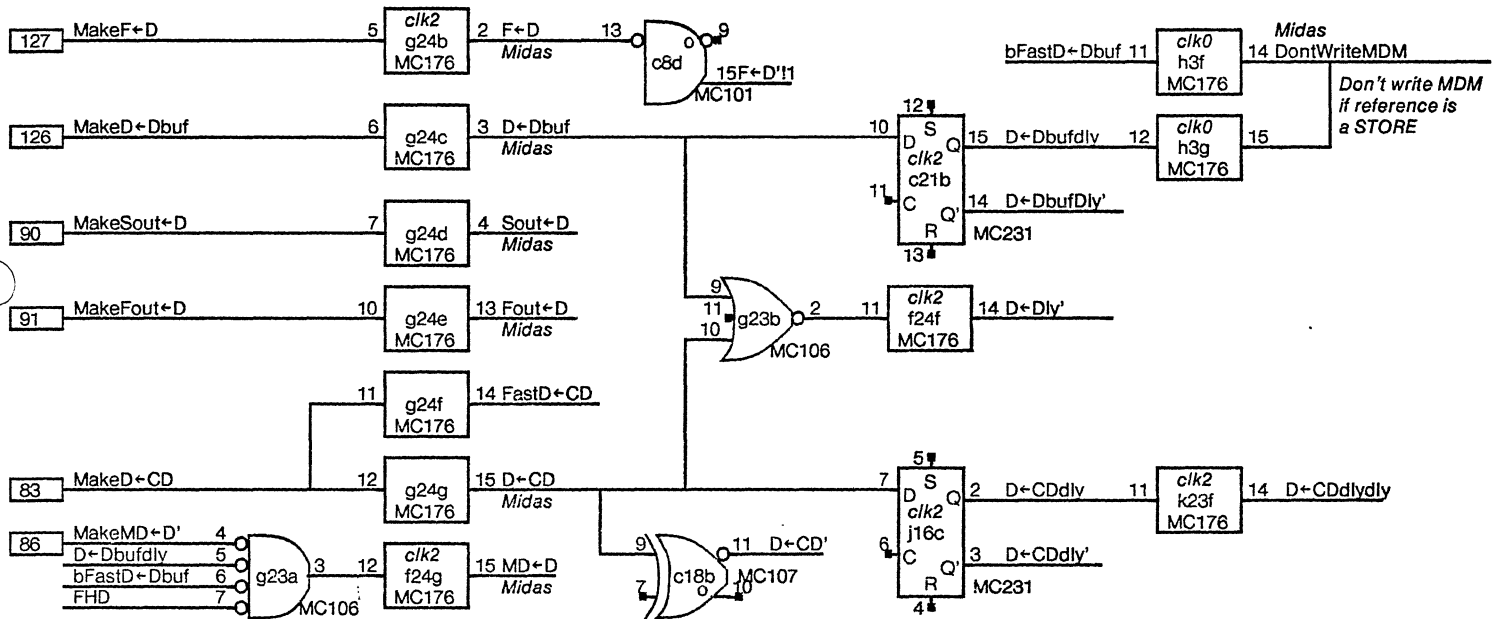
MIDAS: Dad.00-09,
both sets of 10-12



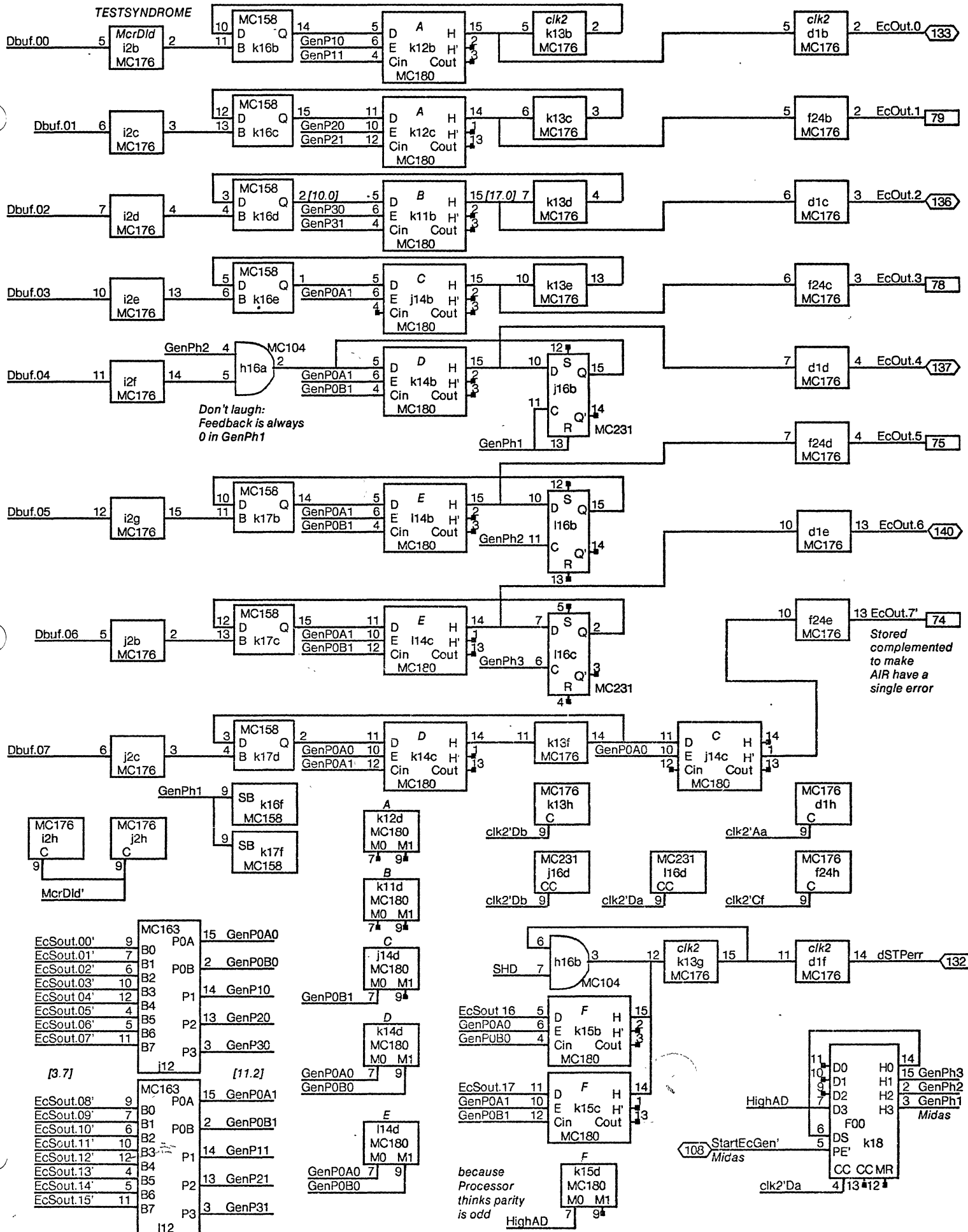


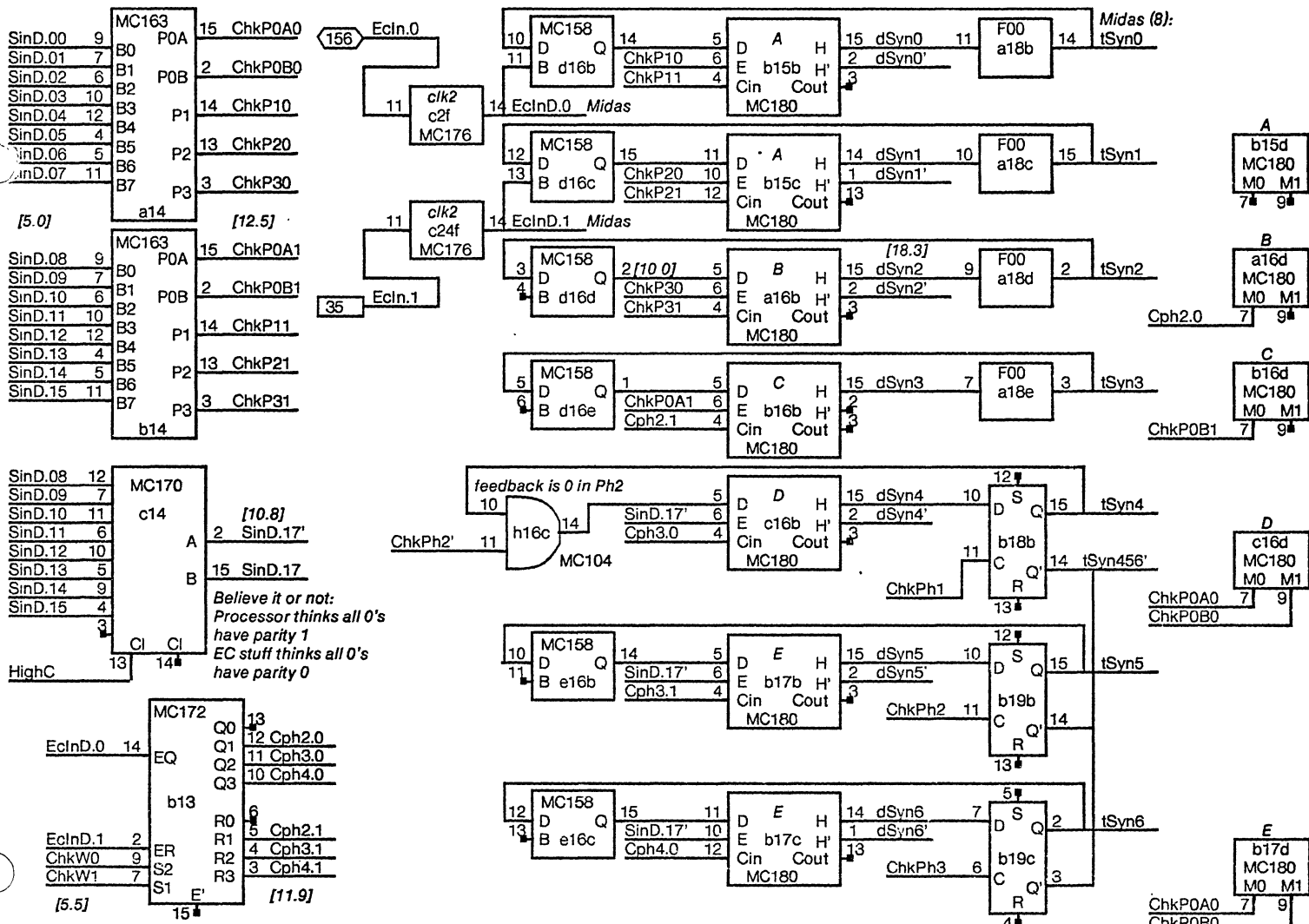
Midas
 MakeMDM+D'
 qualifies clock directly

BIT 9	BIT 13	
0	0	0A
0	1	1A
1	0	0B
1	1	1B



TESTSYNDROME





Note: the MC180 is a dual 5-input xor gate, in which the M0 and M1 inputs are common.

Stored Ci are retrieved two at a time, and xored into the syndrome as they arrive. The Cphi.0/1 signals are the arriving Ci in the proper phase, 0 otherwise

MC163 operation

	0	1	2	3	4	5	6	7
P1	x	x	x	x				
P2		x	x		x	x		
P3			x	x	x	x		
POA	x	x		x		x		
POB	x		x		x	x		

EC code being used:

	0	1	2	3	4	5	6	7
C0	x	x	x	x				
C1		x	x		x	x		
C2			x	x	x			
C3								
C4								
C5	x	x	x	x	x	x		
C6	x	x	x	x	x	x		
C7	x		x		x	x		

0 8 16 24 32 40 48 54
7 15 23 31 39 47 53 63

C0-2 the same in each byte

C3	x	x	x	x				
C4		x	x	x	x	x		
C5	x	x		x	x	x		
C6	x	x	x	x		x		
C7	+	-	+	-	-	-	+	

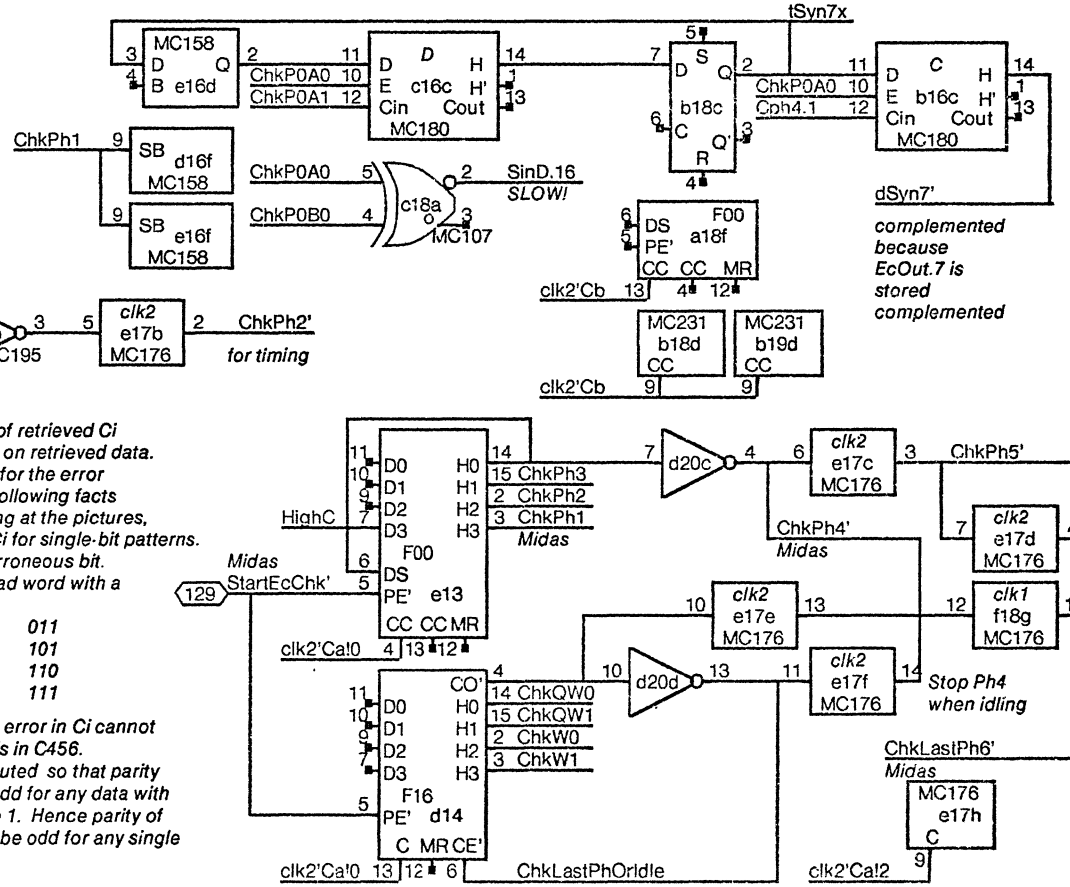
(+ repeats 0-7 - complements it)

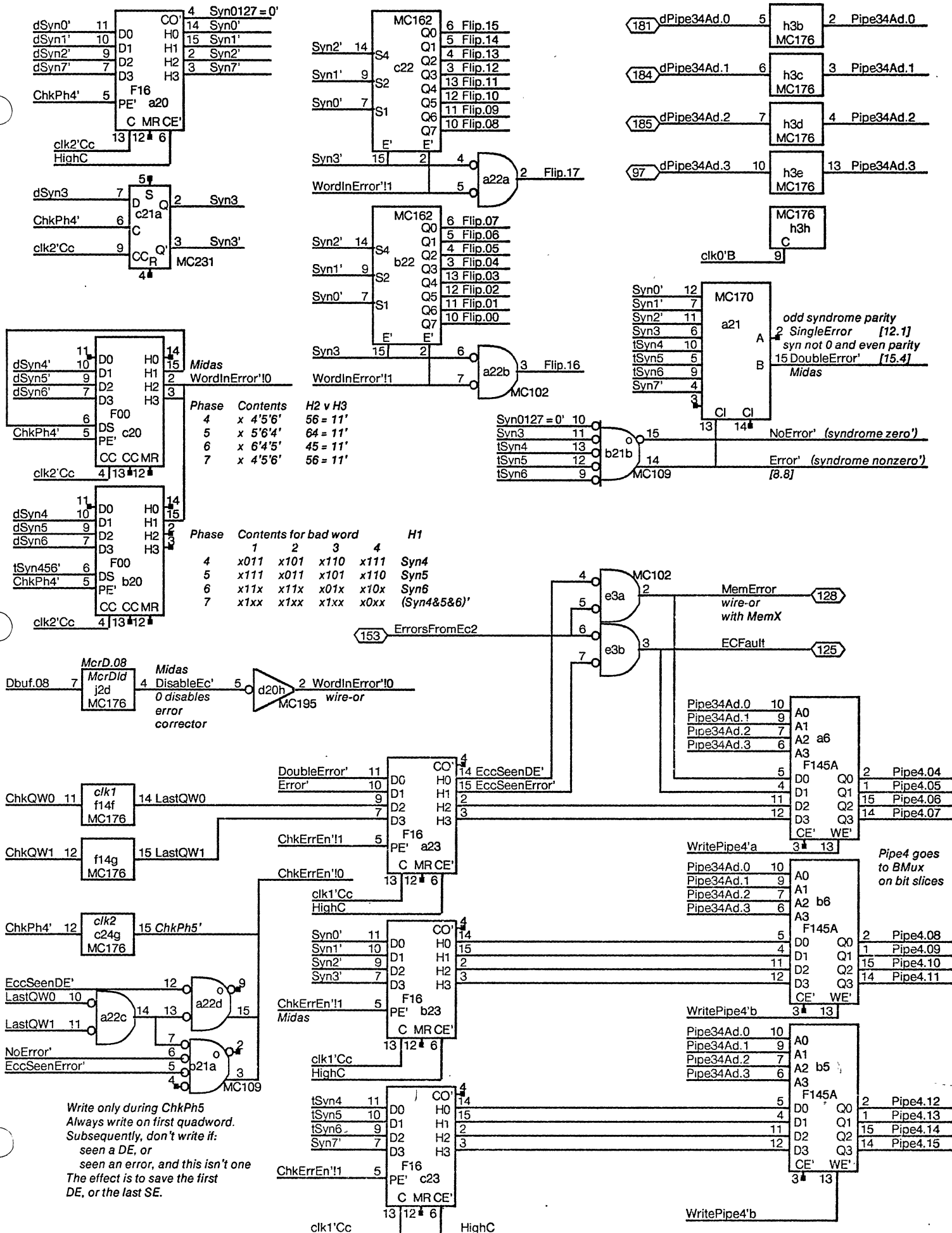
Syndrome is xor of retrieved Ci and Ci computed on retrieved data. Hence it is the Ci for the error pattern, and the following facts follow from looking at the pictures, which show the Ci for single-bit patterns.

- Syn0-3 point to erroneous bit.
- Syn4-6 point to bad word with a 2-out-of-3 code:

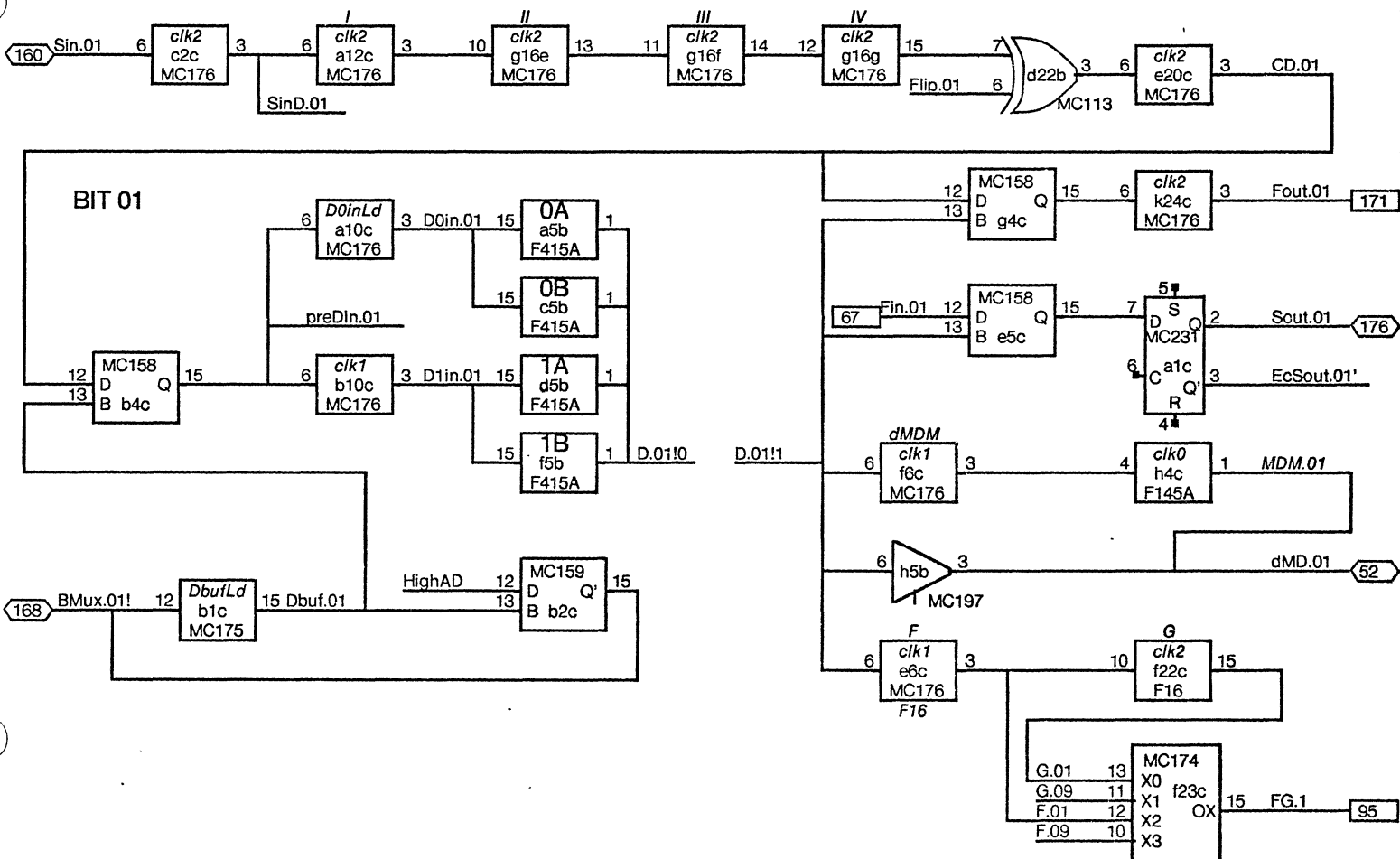
- word 1 011
- word 2 101
- word 3 110
- word 4 111

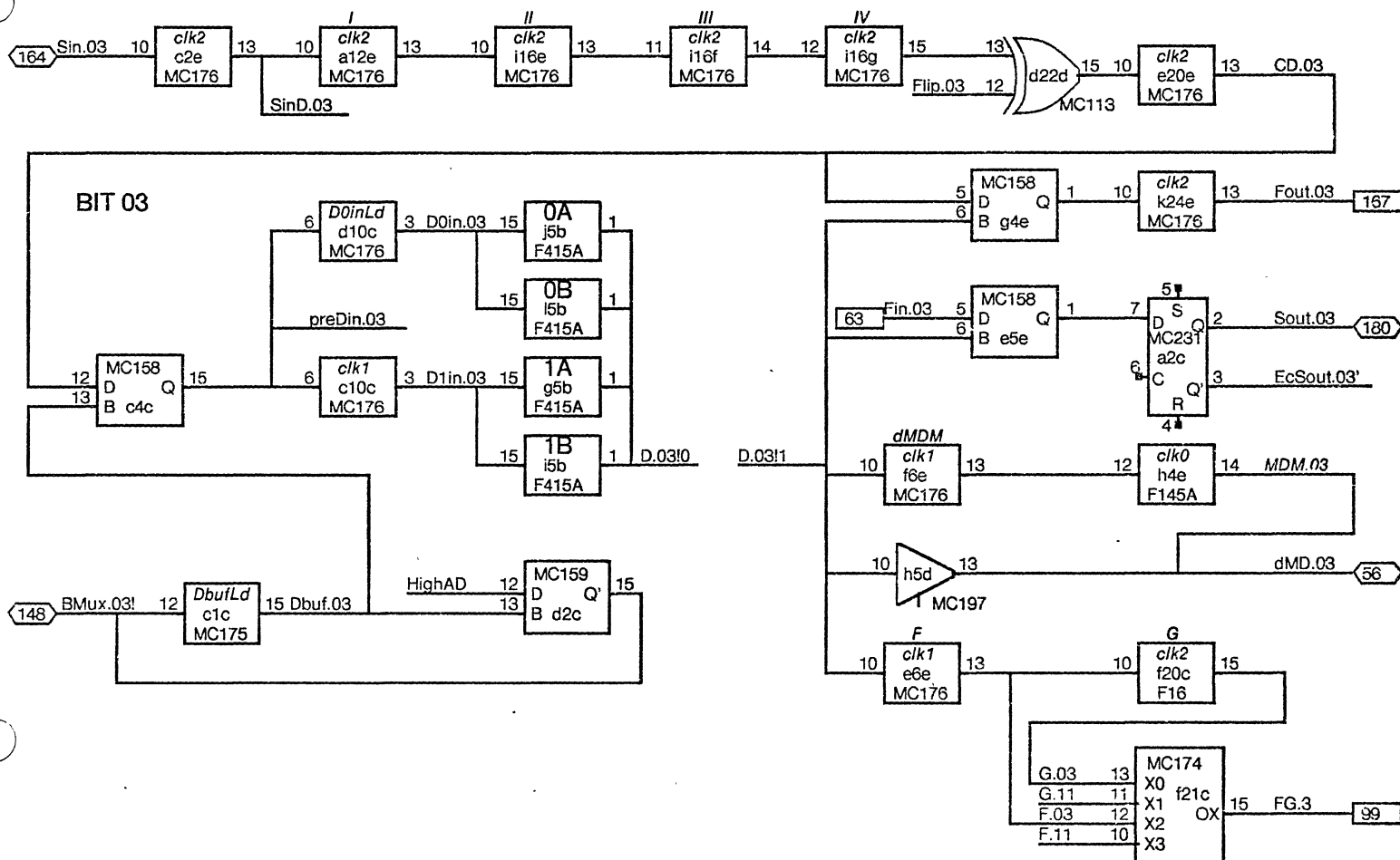
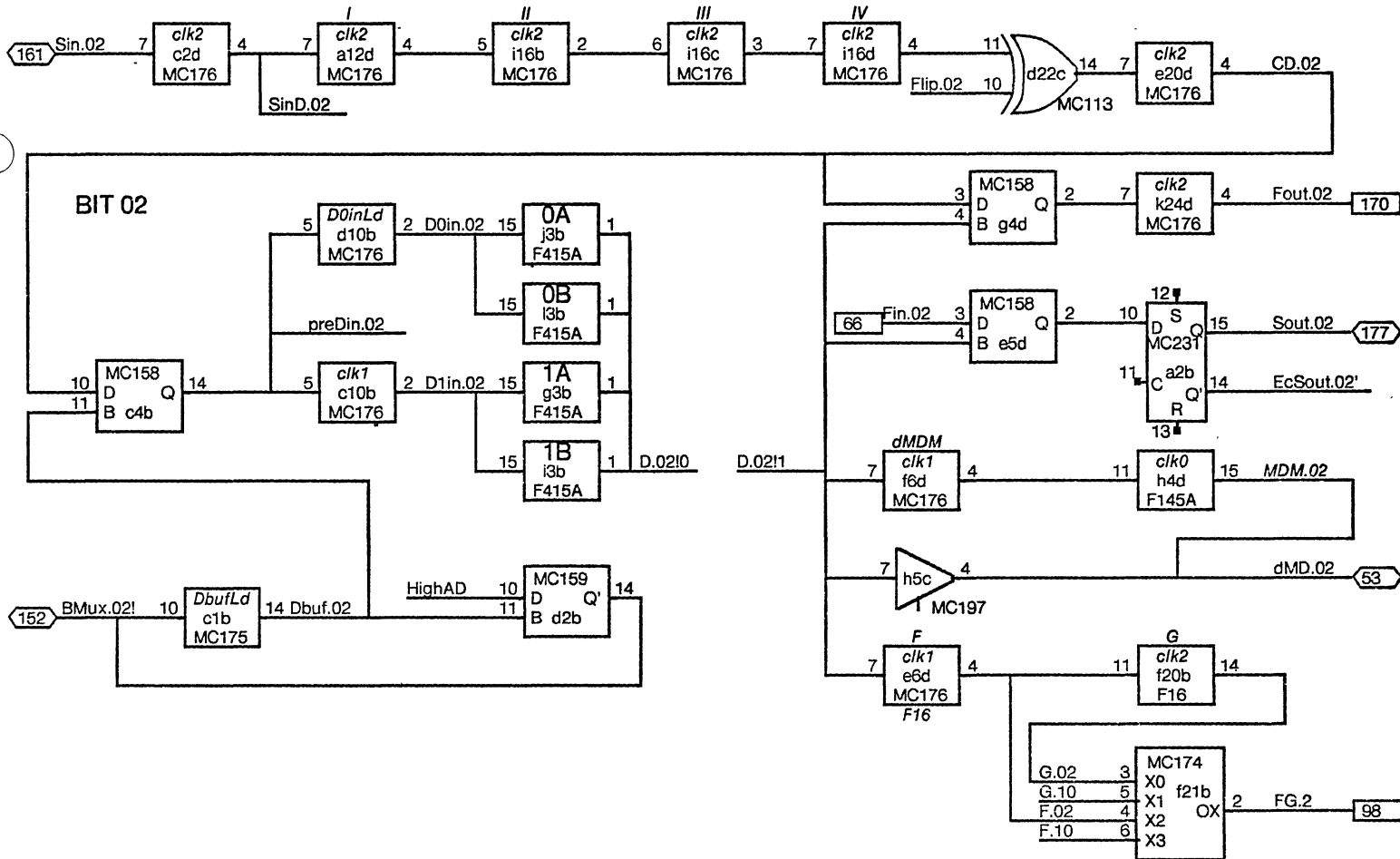
A single-bit error in Ci cannot yield two 1's in C456. C7 is computed so that parity of C0-7 is odd for any data with exactly one 1. Hence parity of Syn0-7 will be odd for any single bit error.

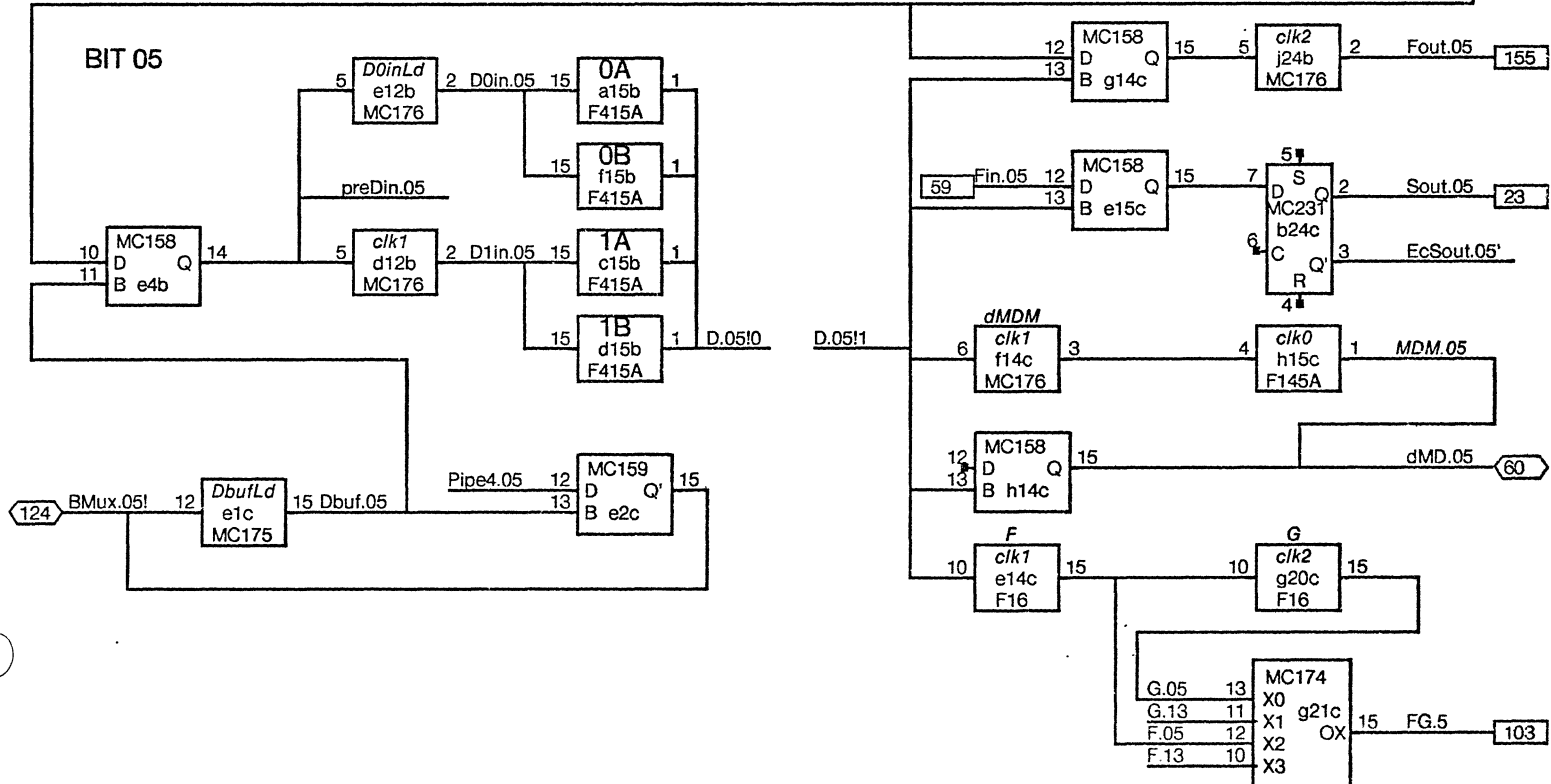
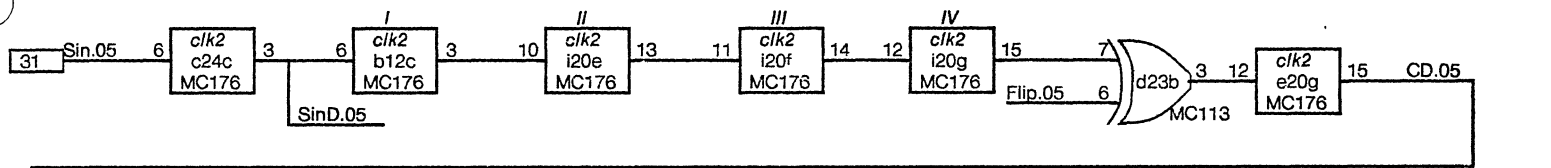
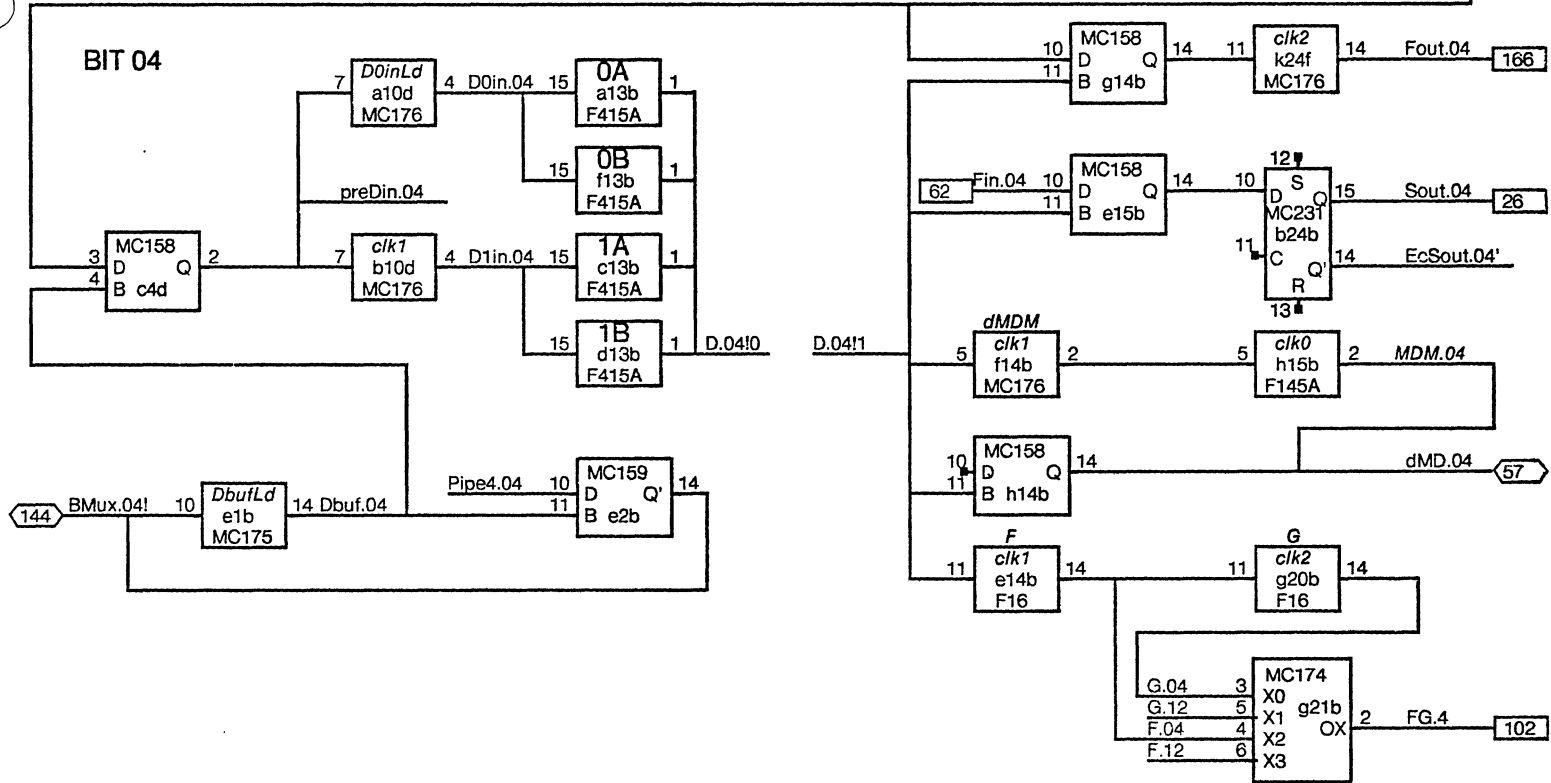
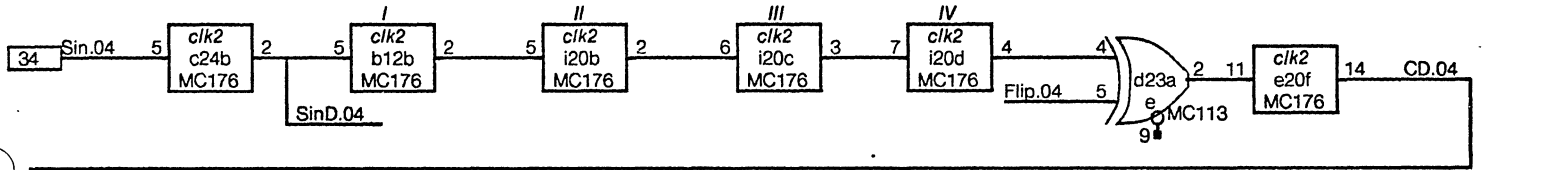


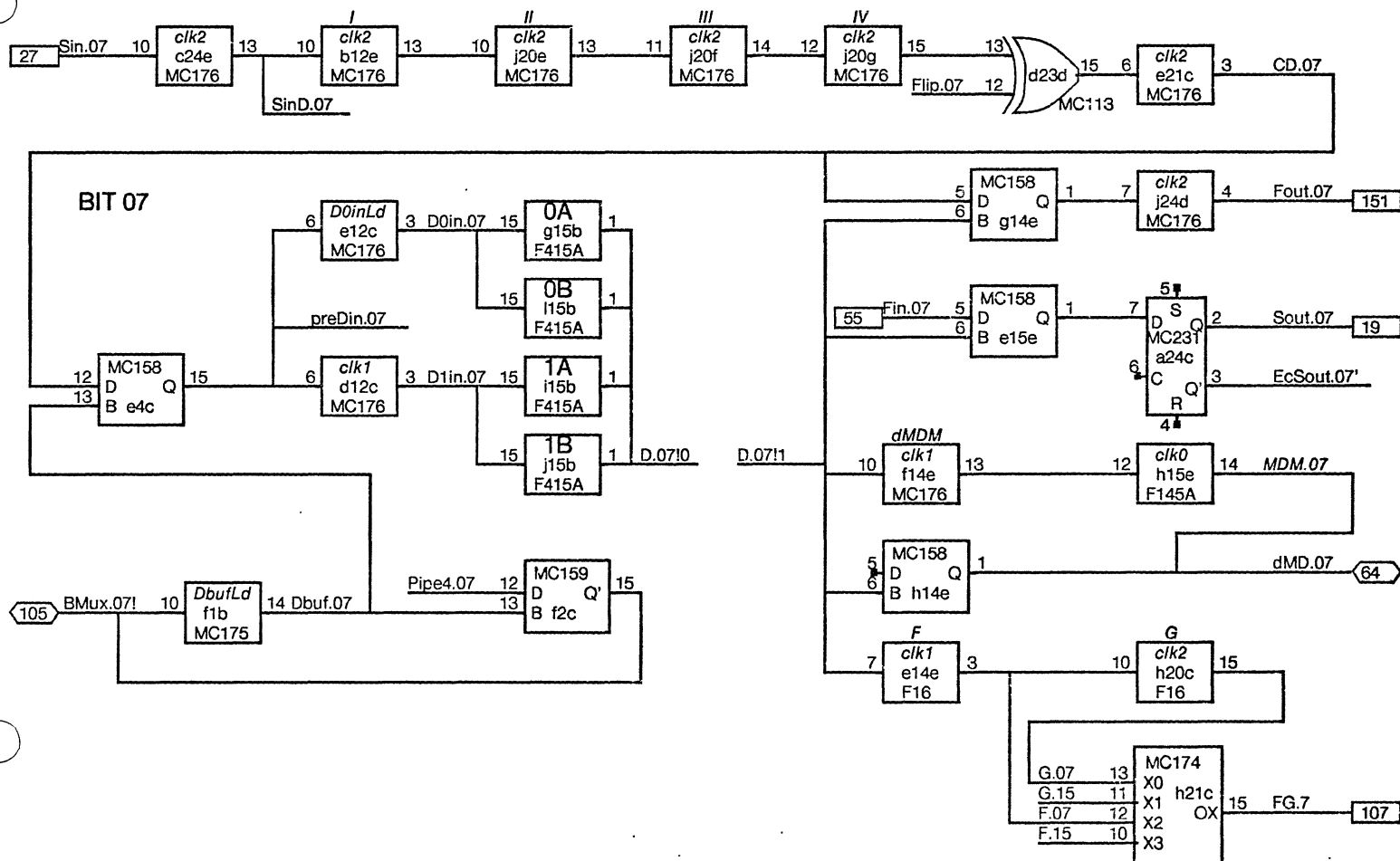
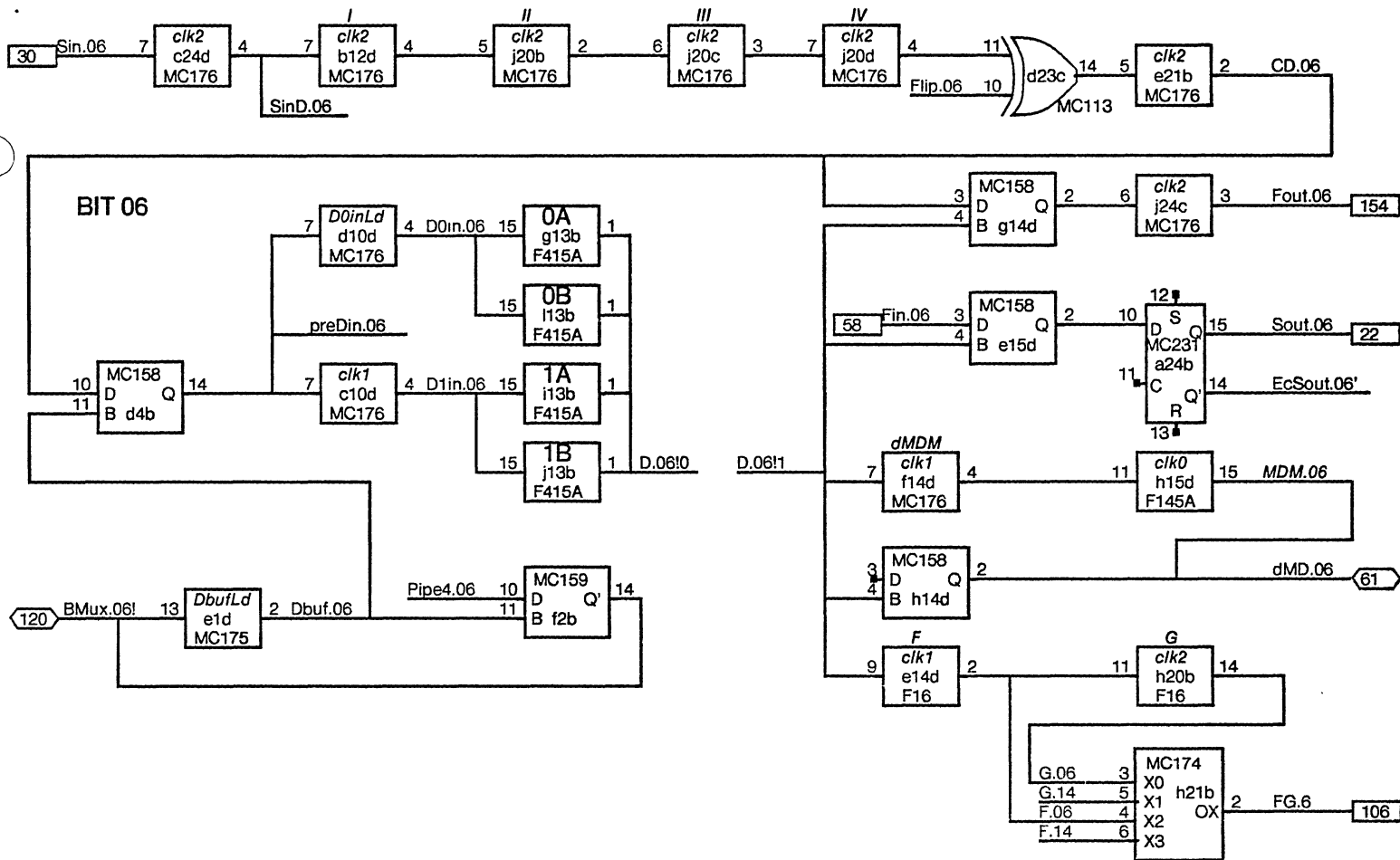


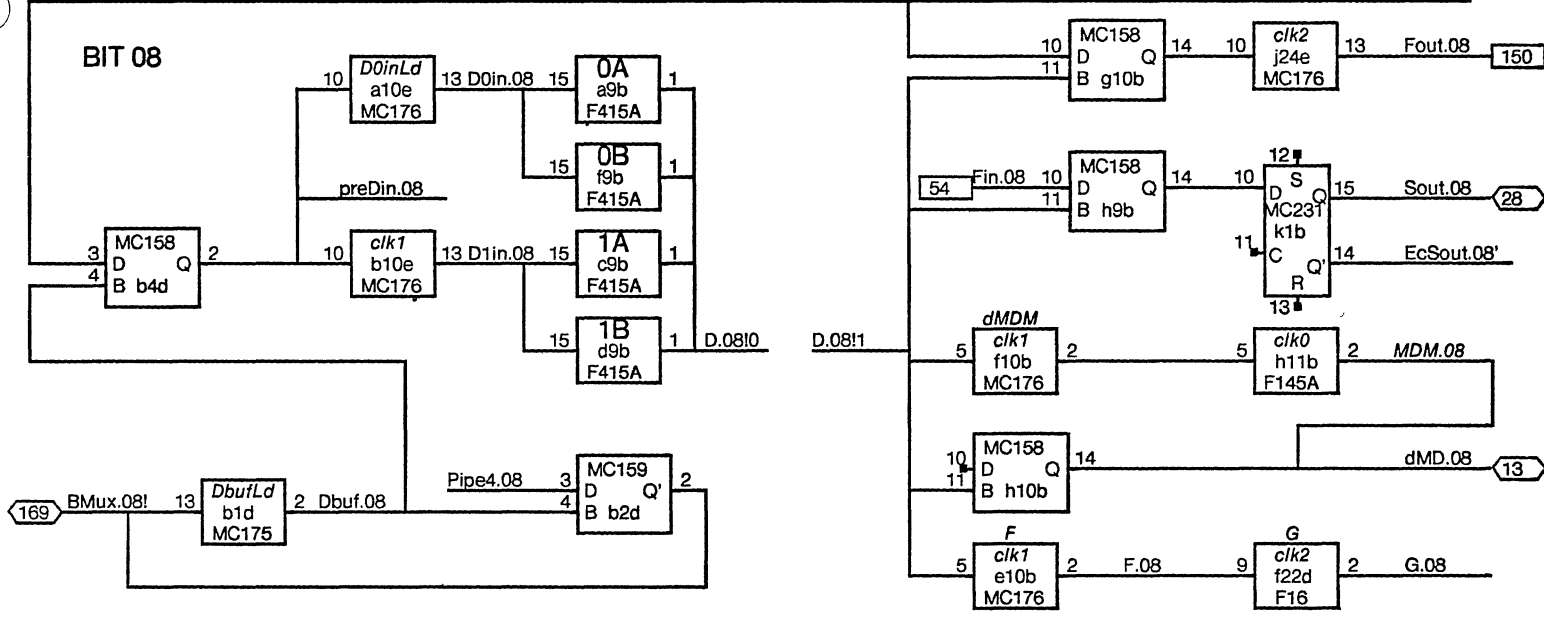
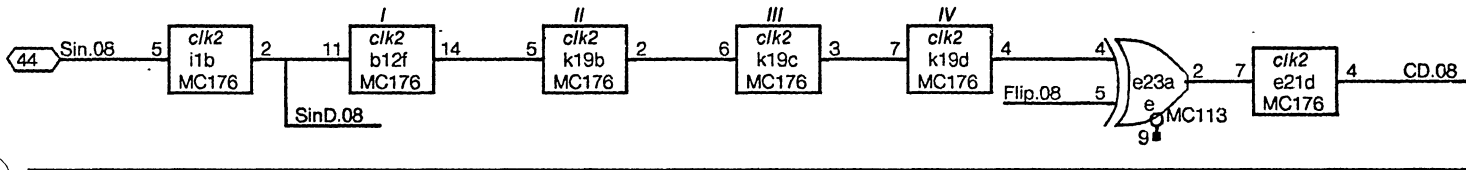
Bit 00 is on page 2



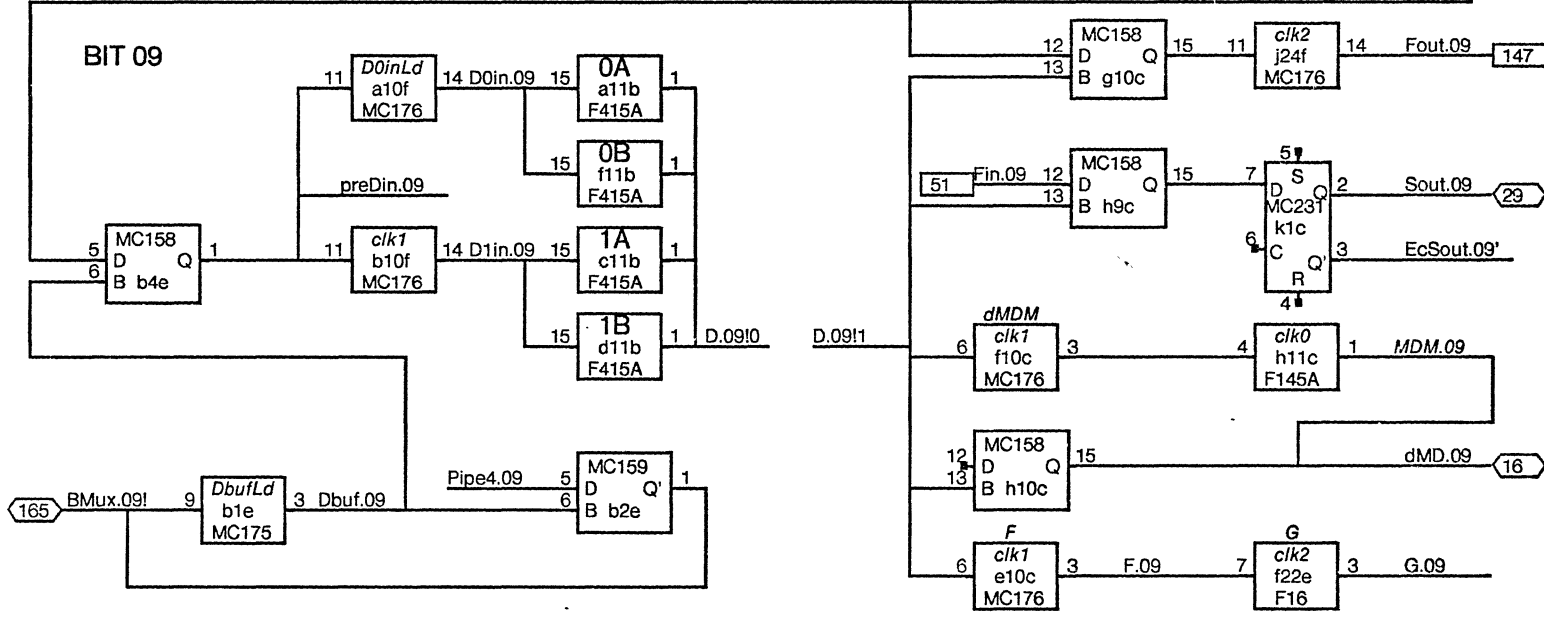
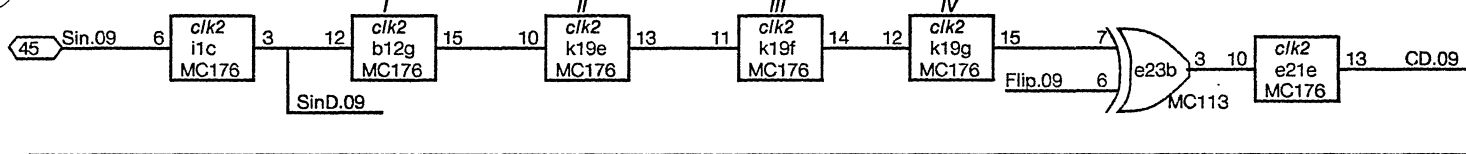


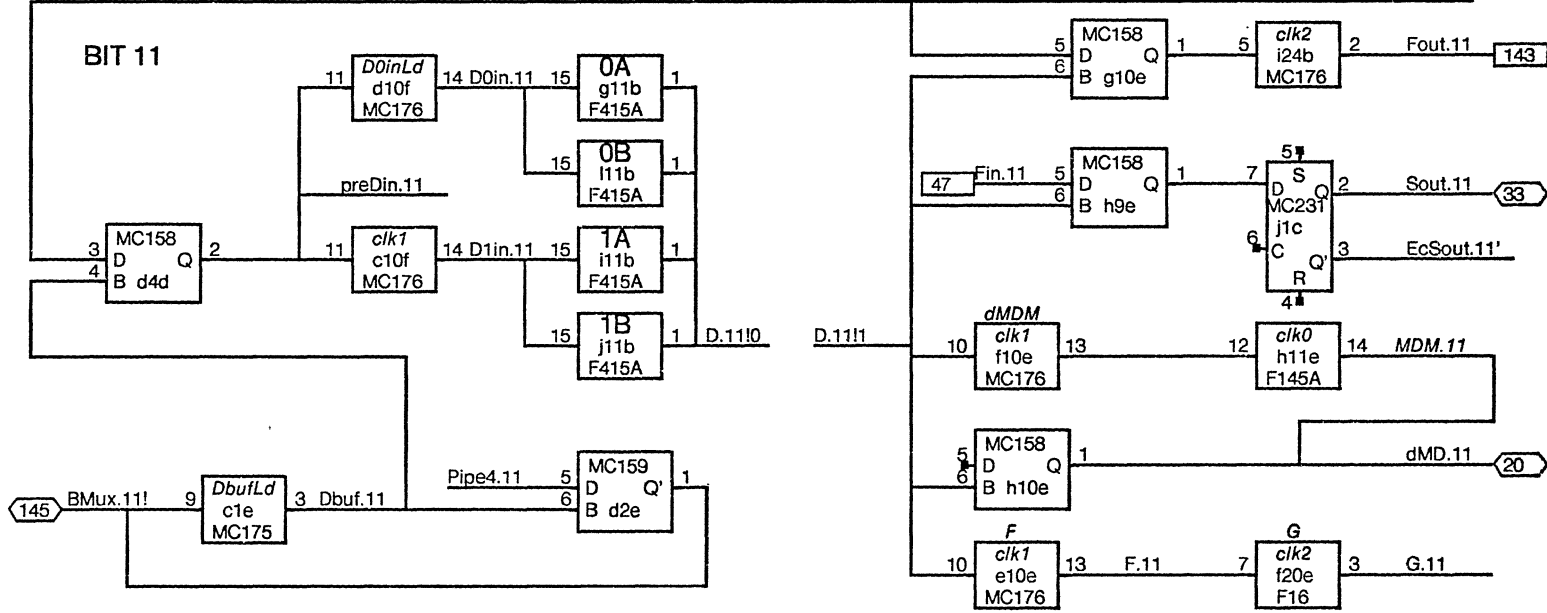
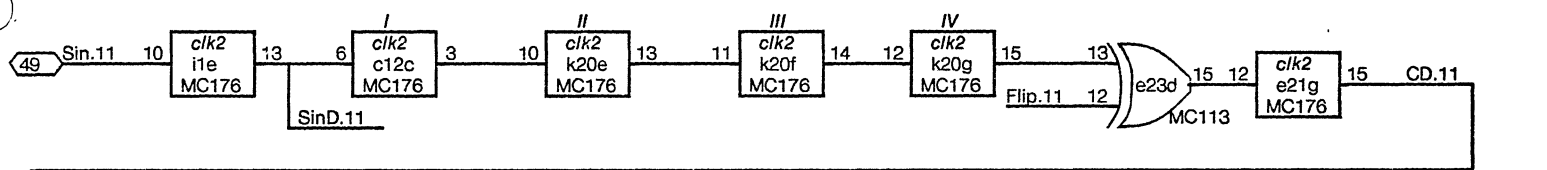
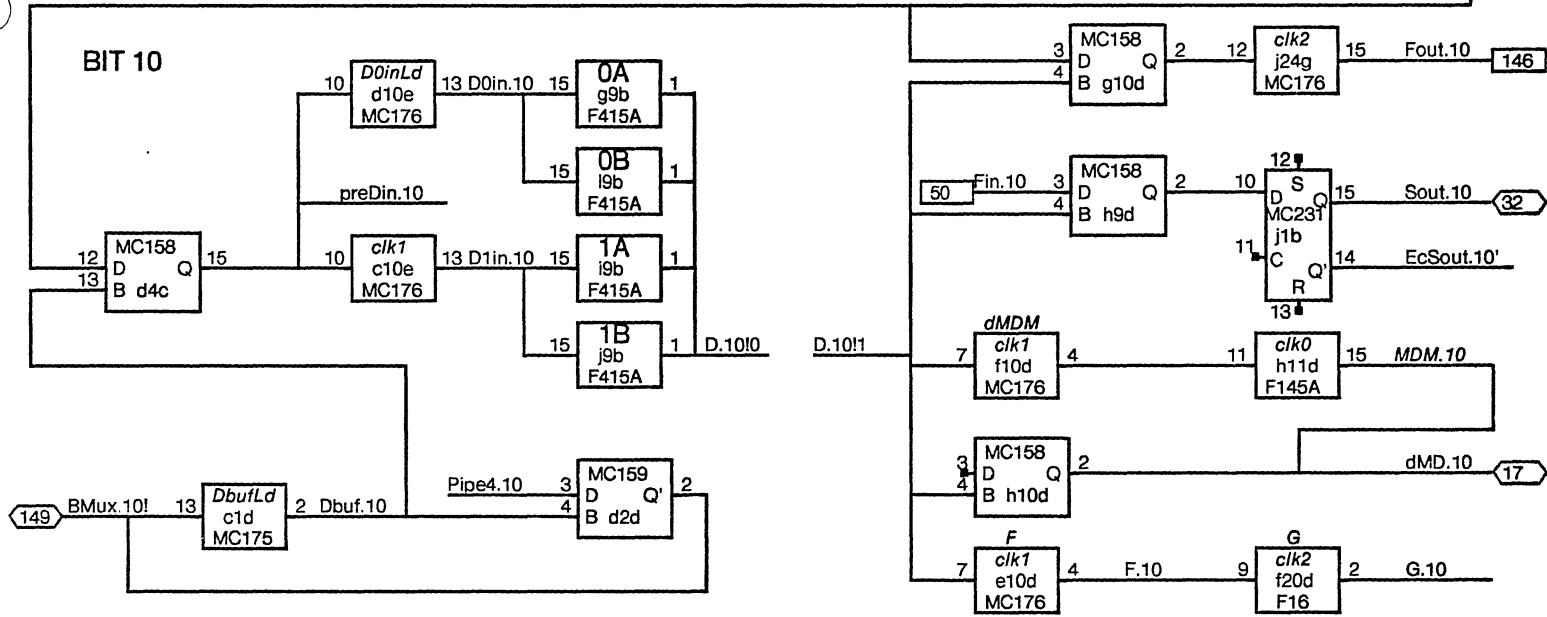
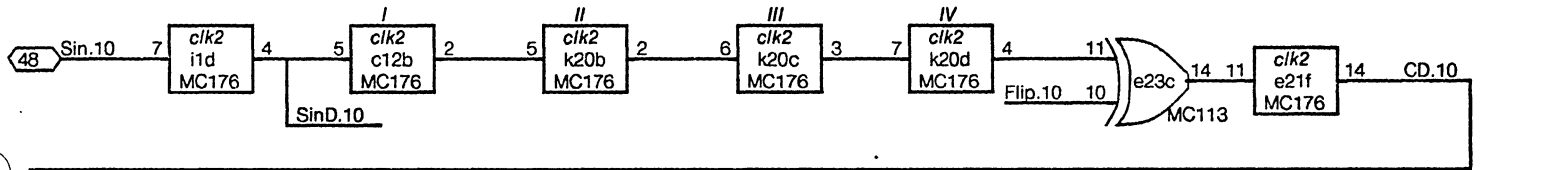


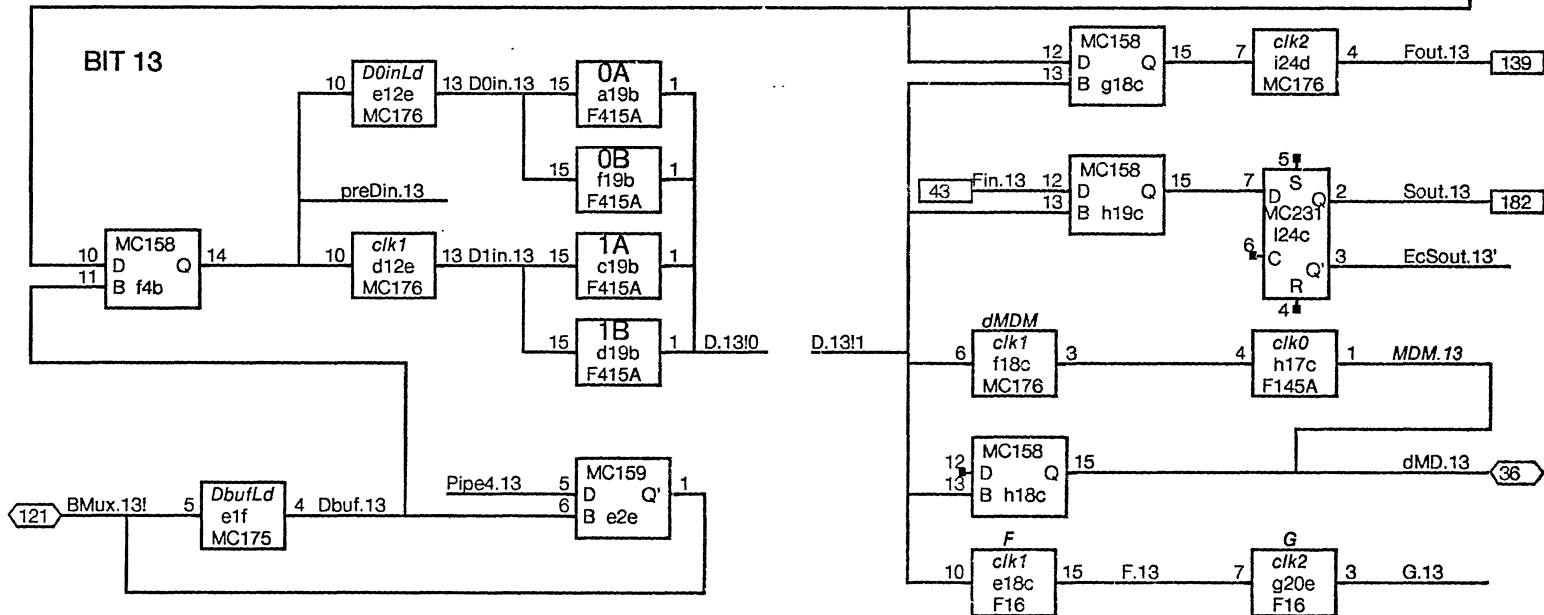
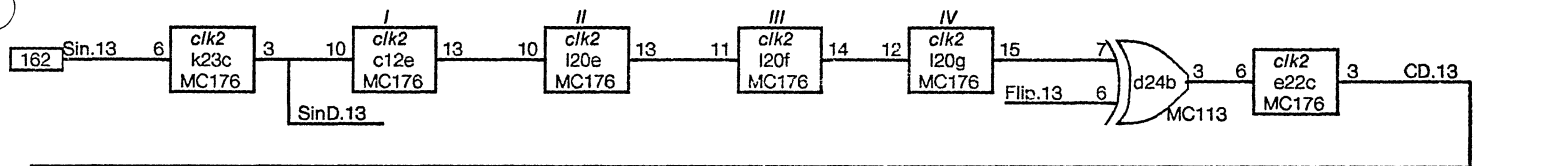
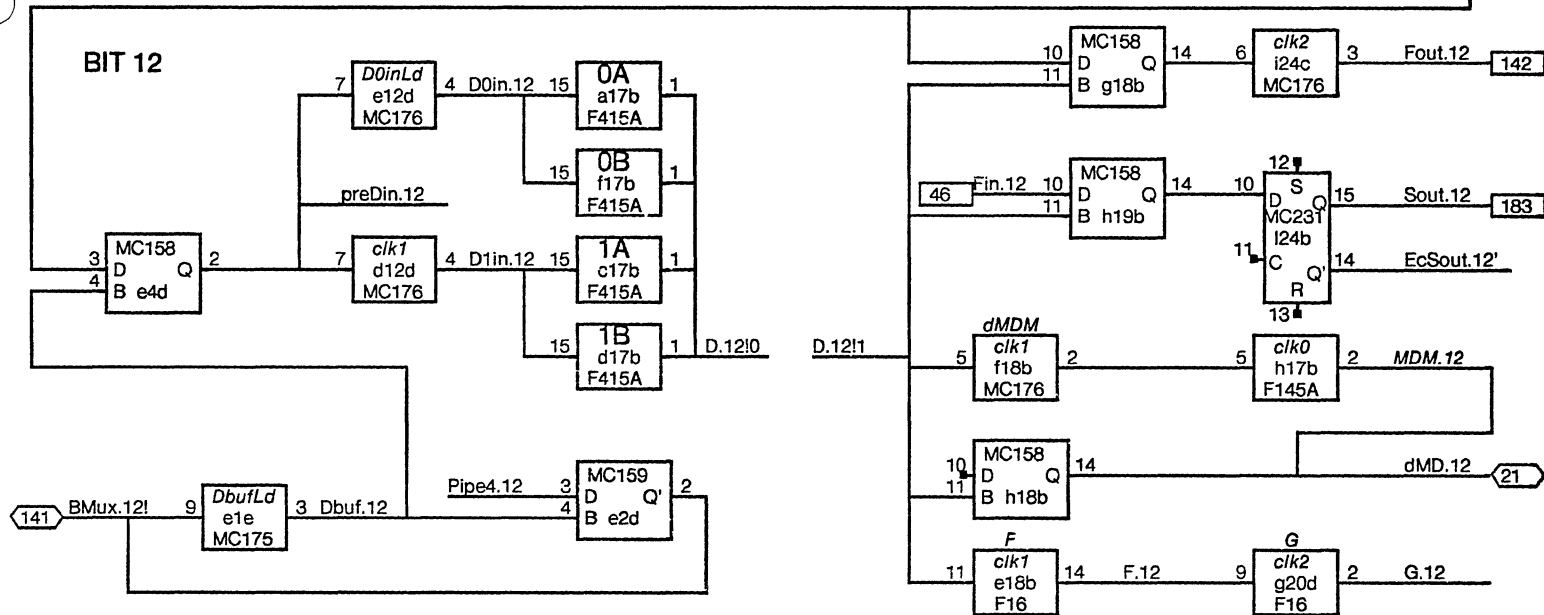
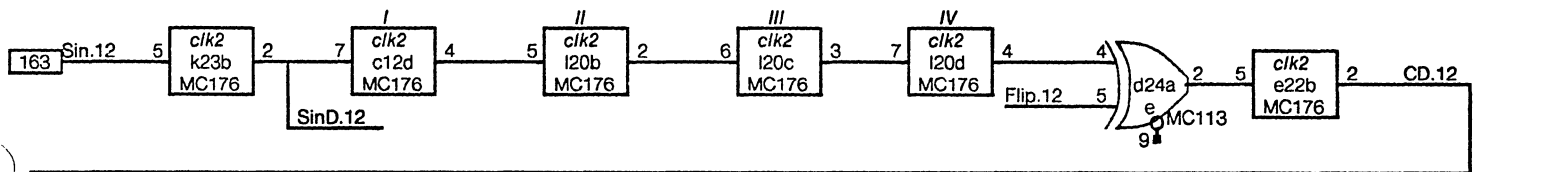


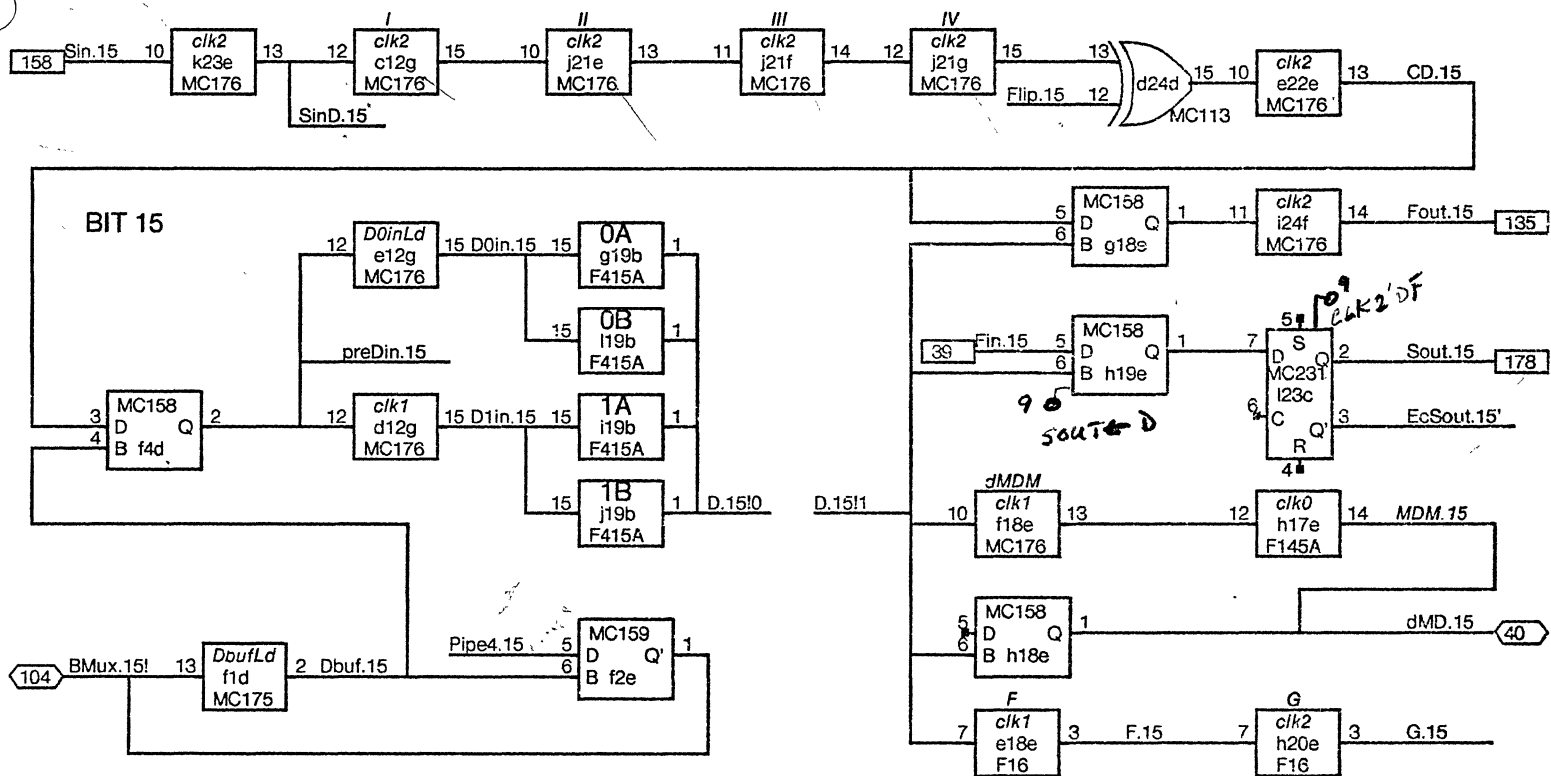
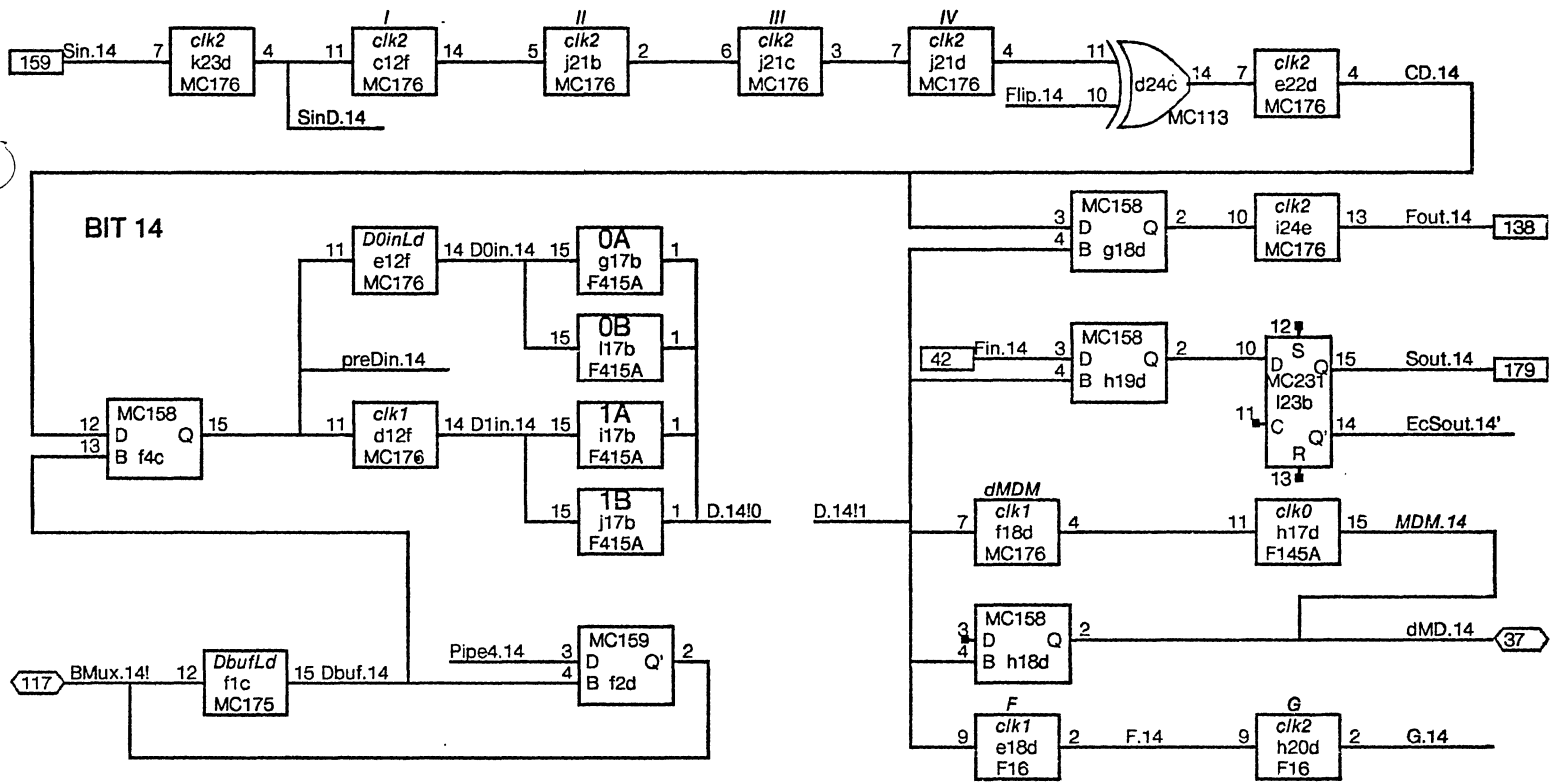


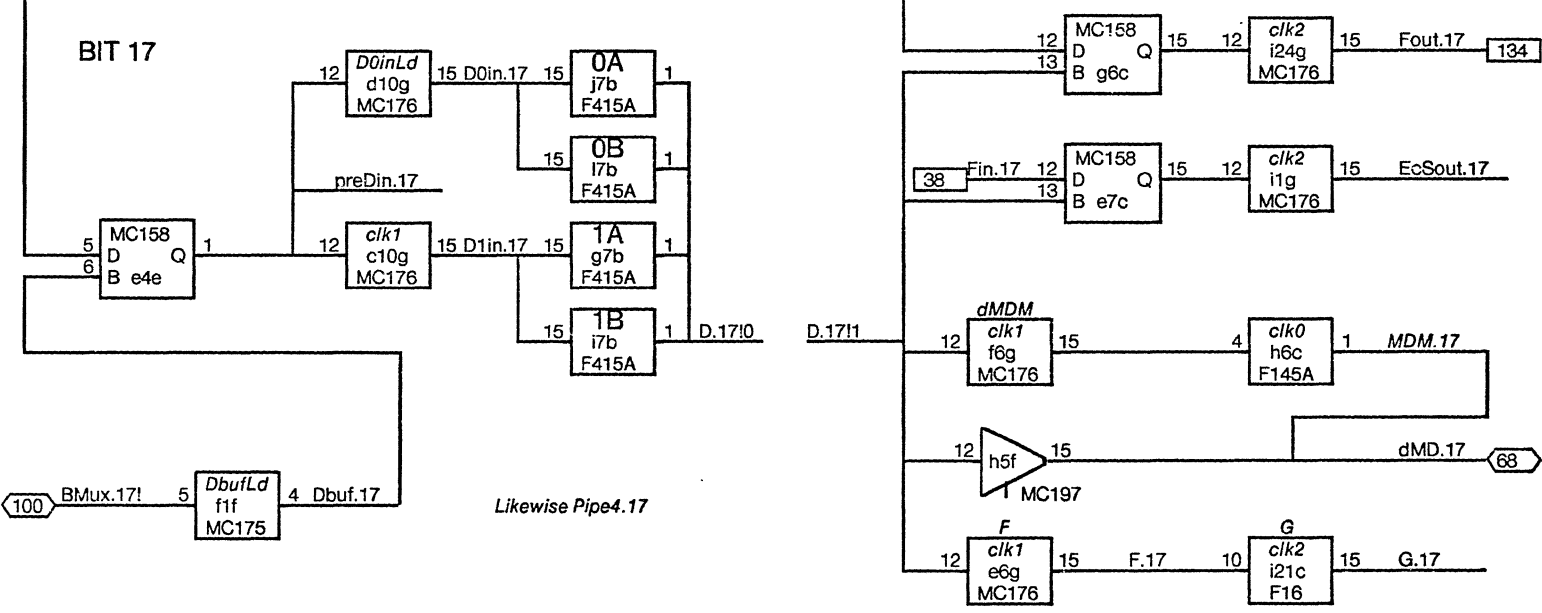
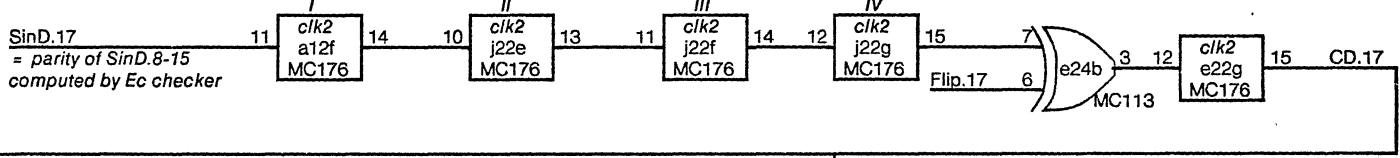
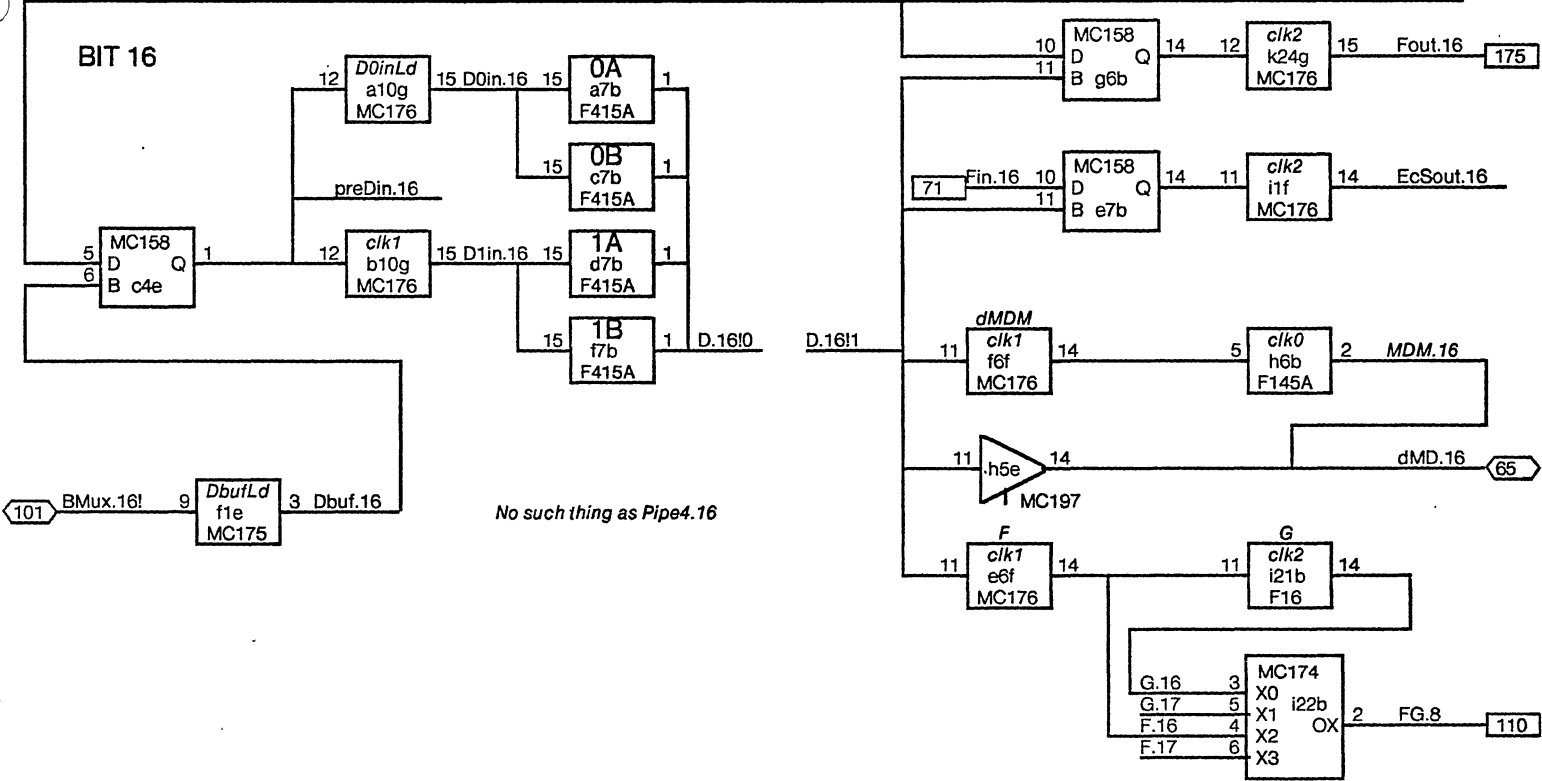
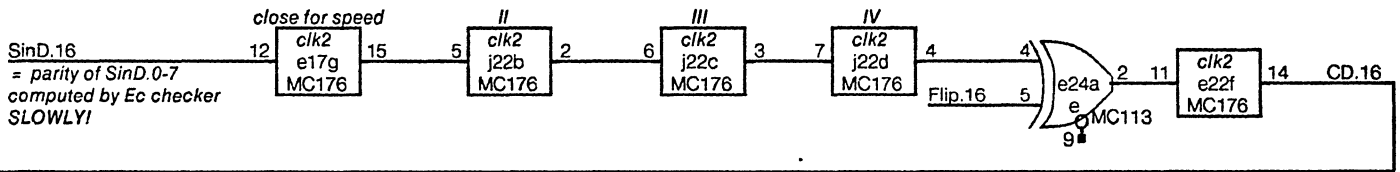
SURPRISE!
FG.8 is on bit slice 16

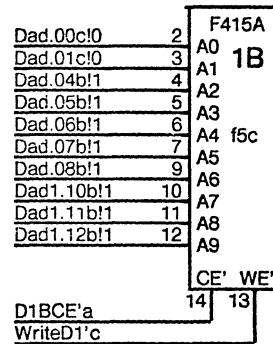
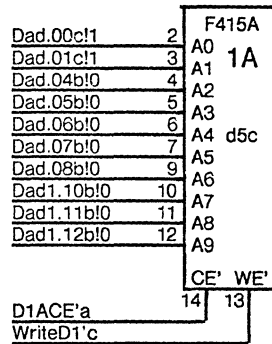
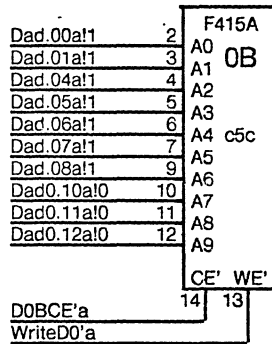
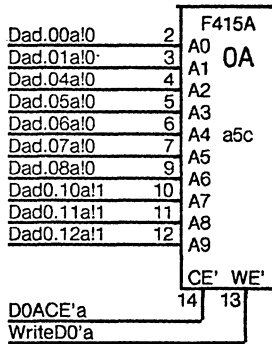




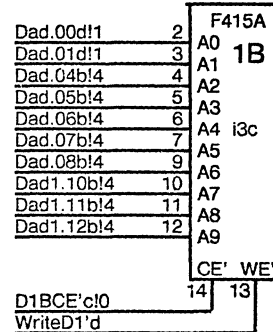
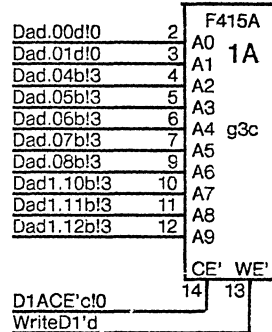
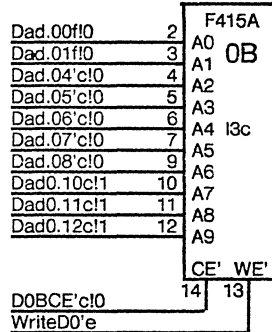
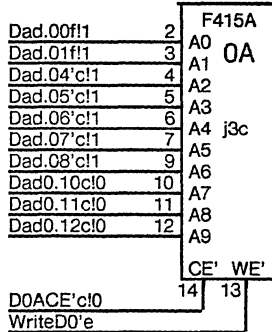




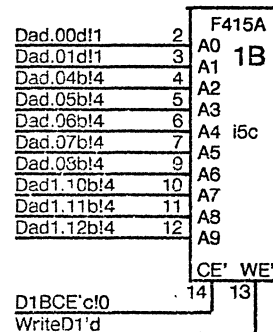
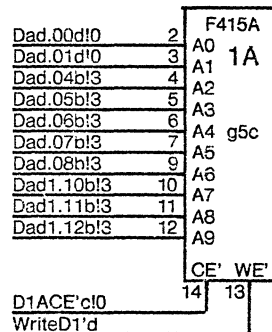
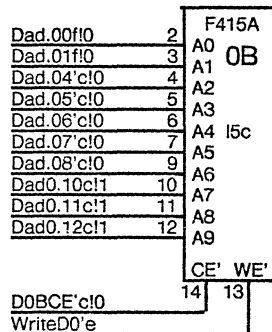
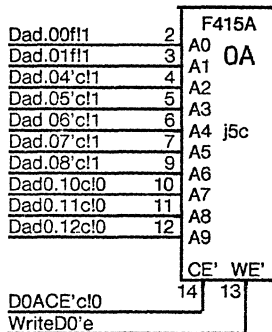




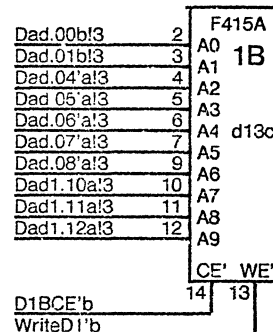
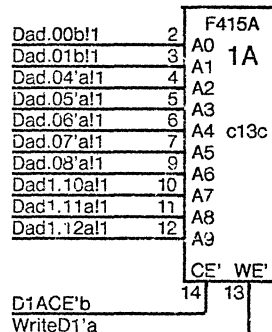
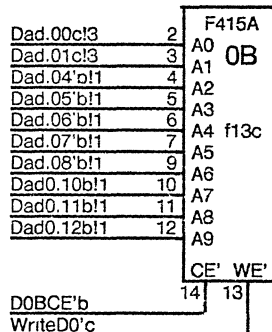
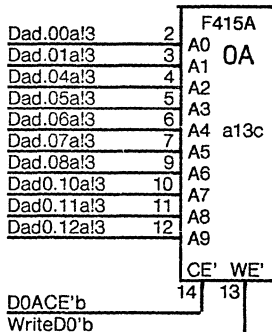
BIT 01



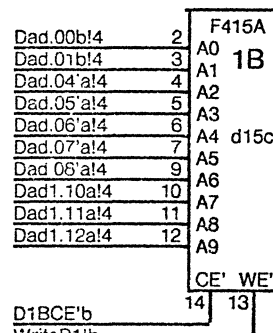
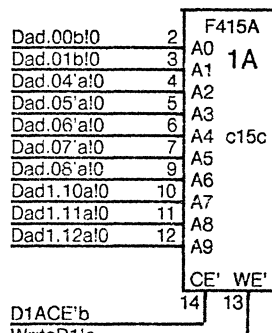
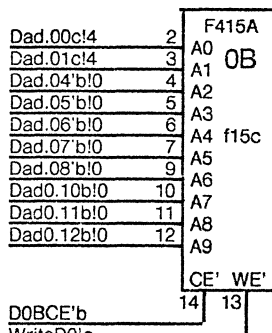
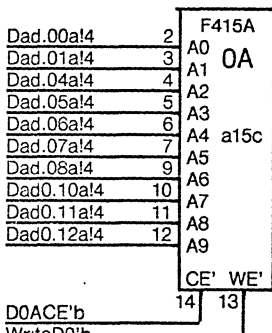
BIT 02



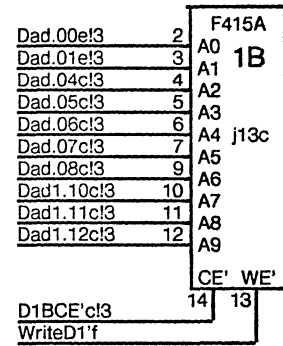
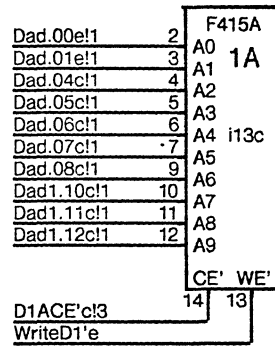
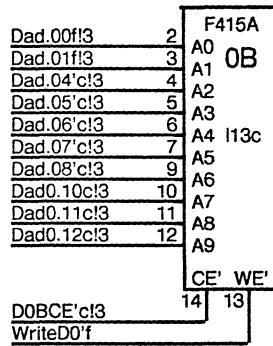
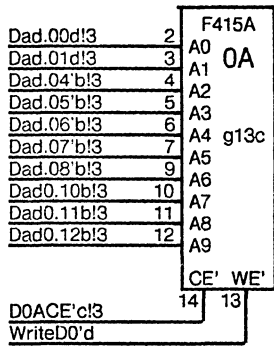
BIT 03



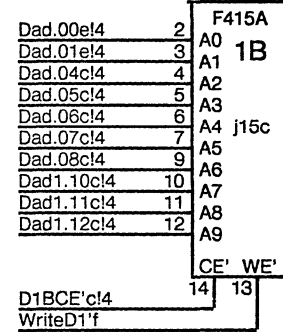
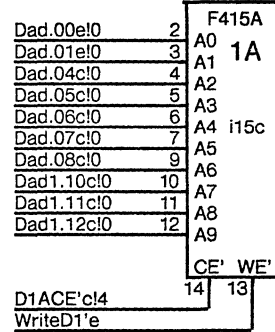
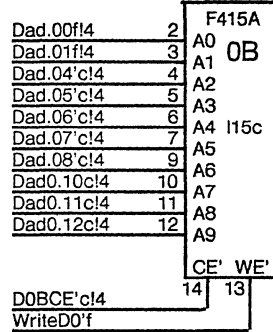
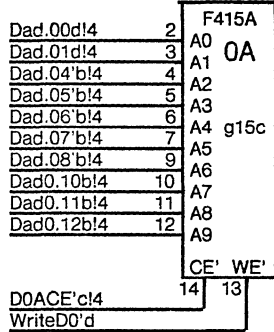
BIT 04



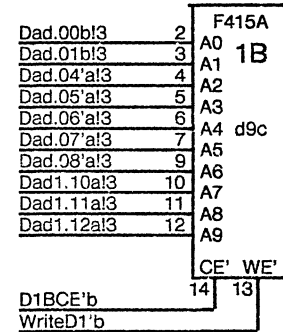
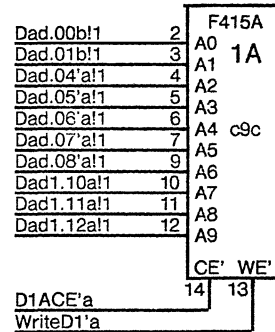
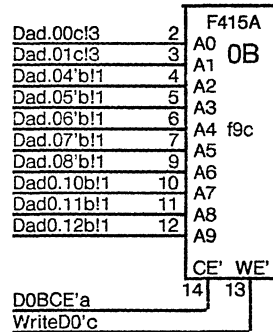
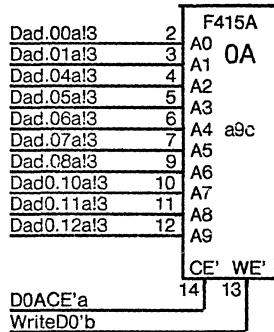
BIT 05



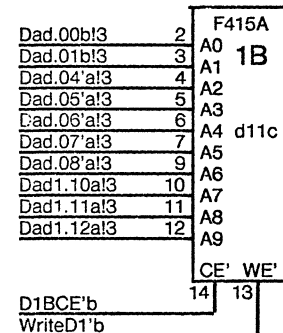
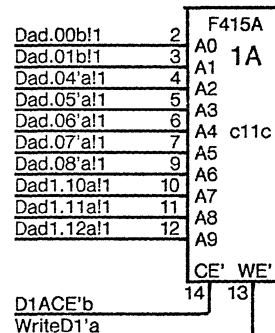
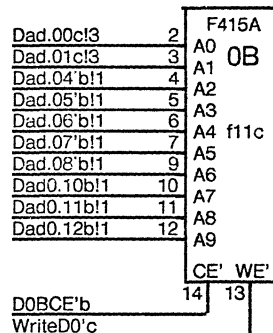
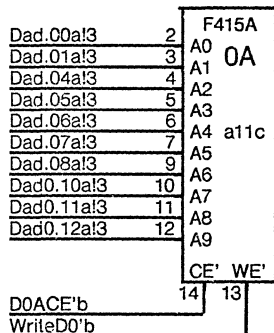
BIT 06



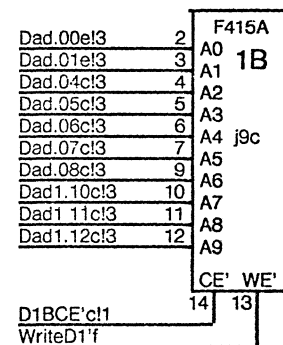
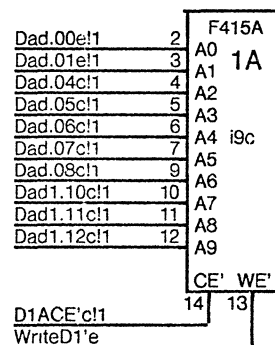
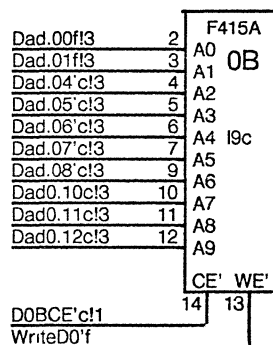
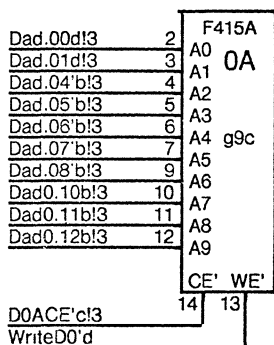
BIT 07



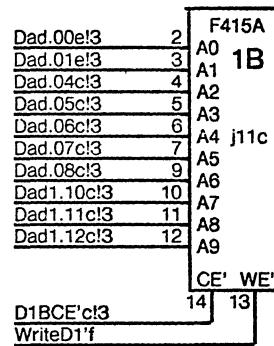
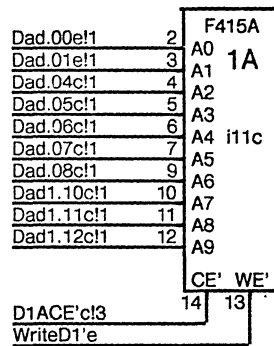
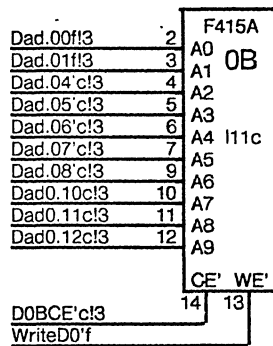
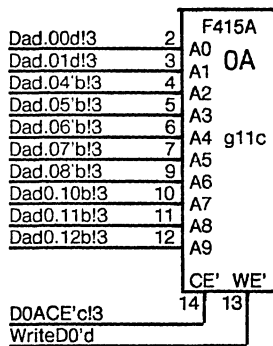
BIT 08



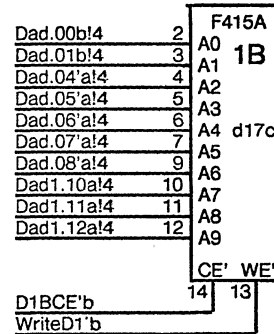
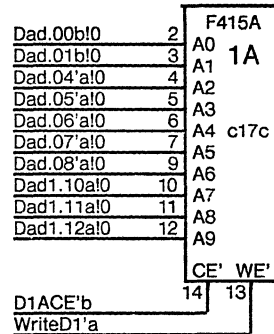
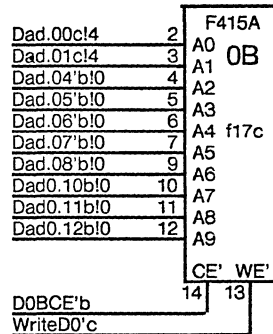
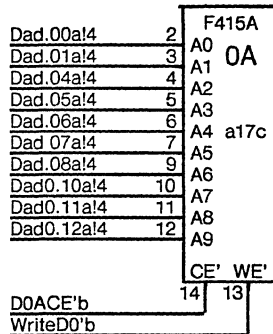
BIT 09



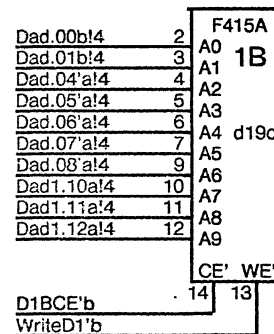
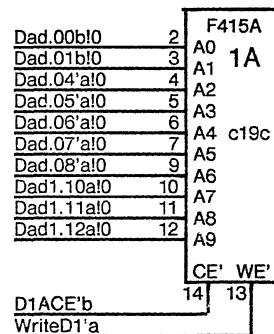
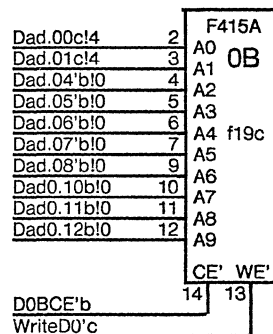
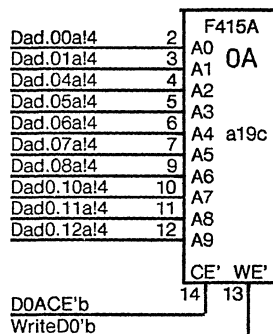
BIT 10



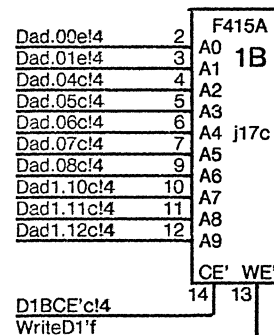
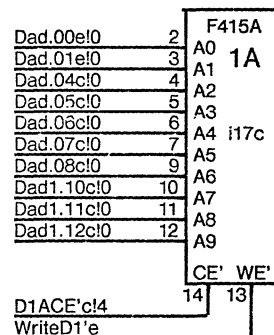
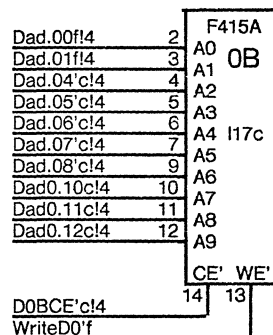
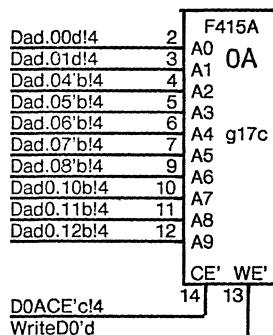
BIT 11



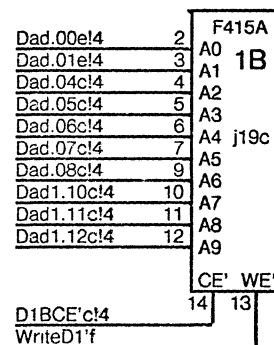
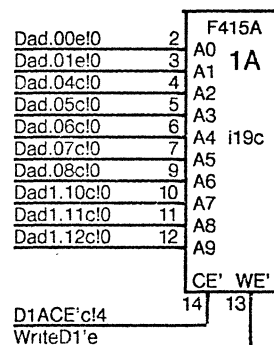
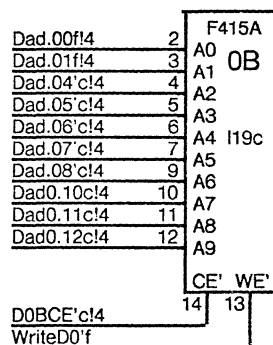
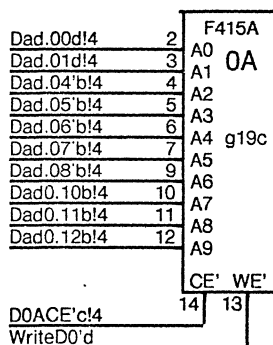
BIT 12



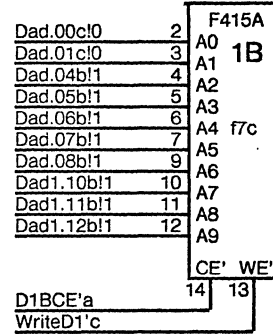
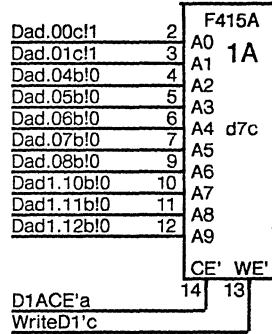
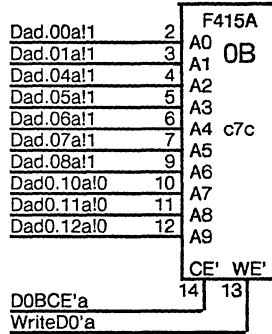
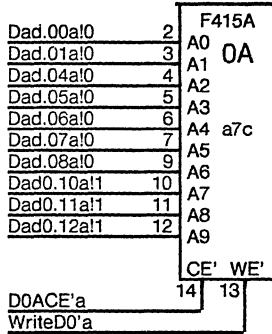
BIT 13



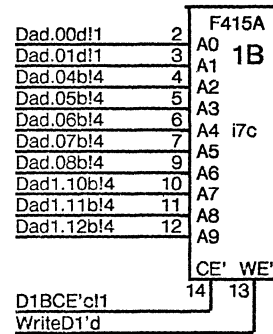
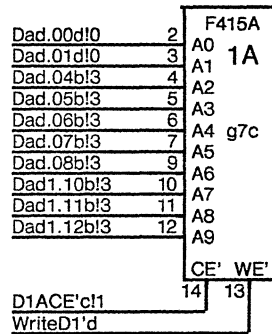
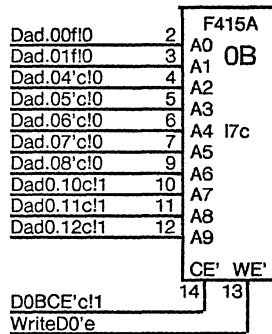
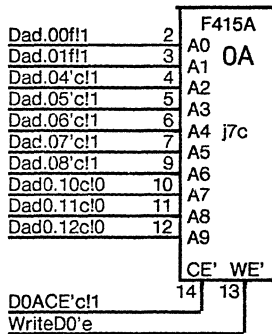
BIT 14



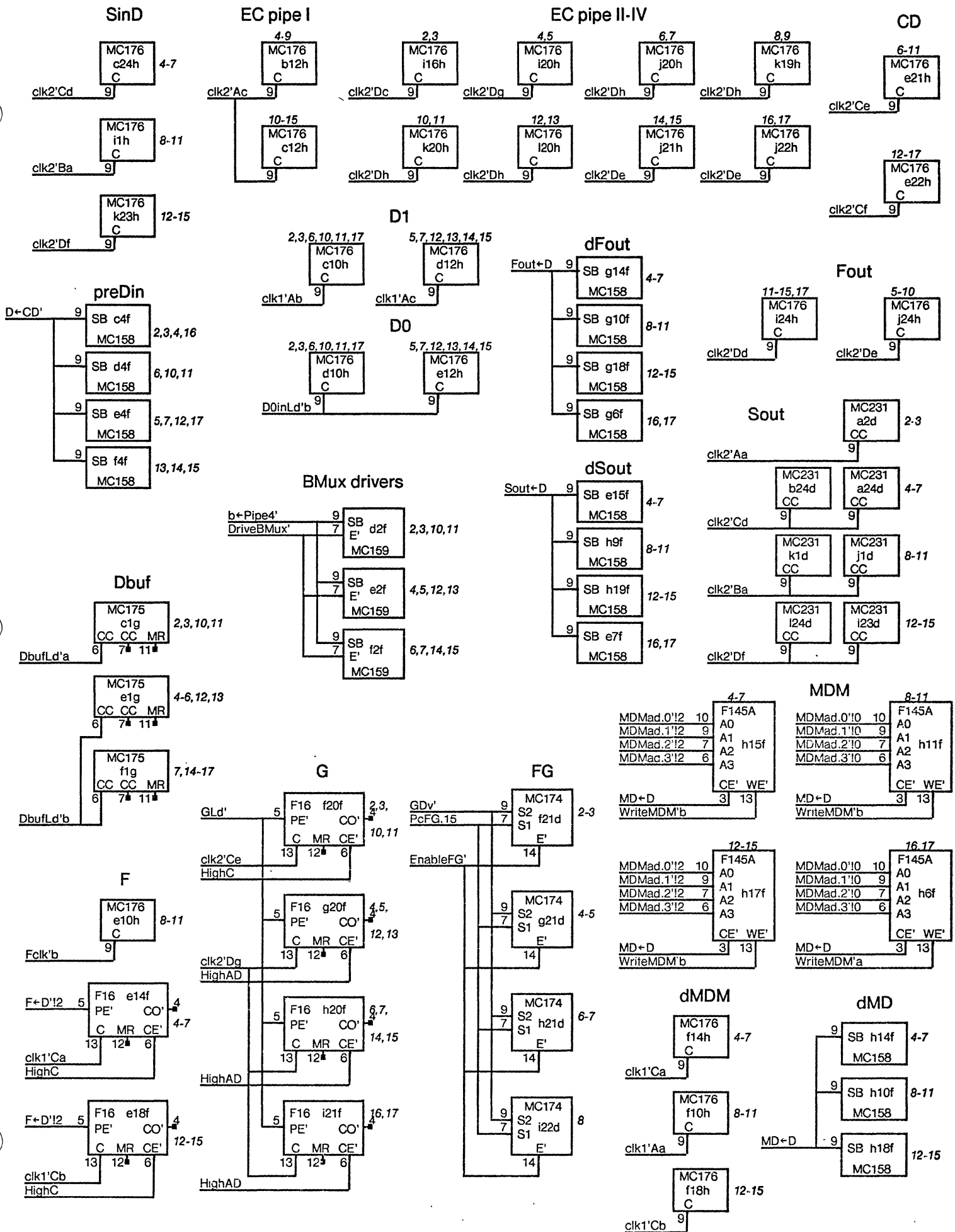
BIT 15

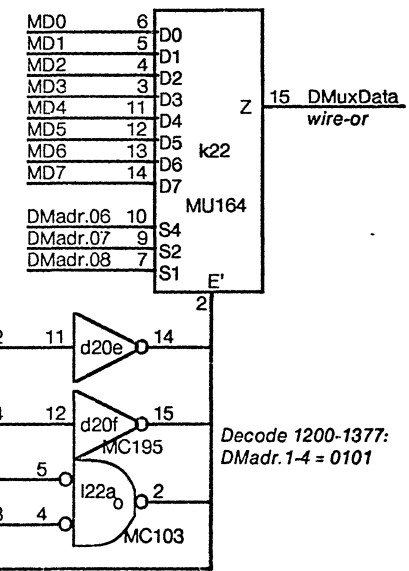
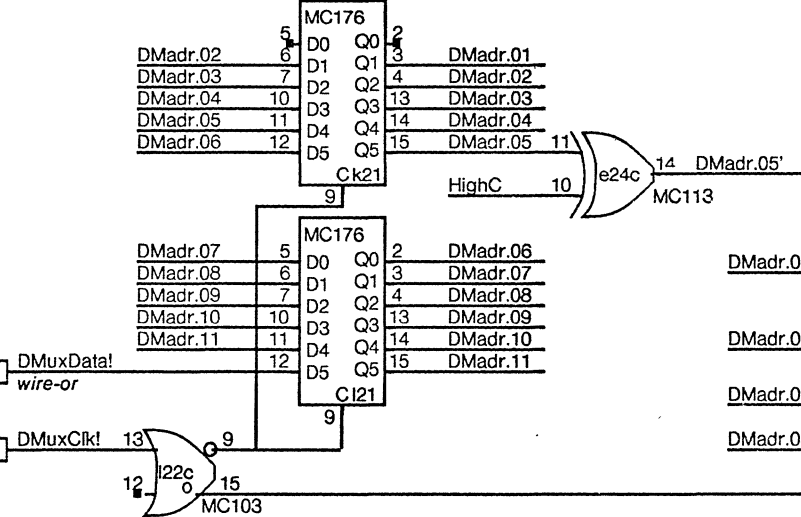
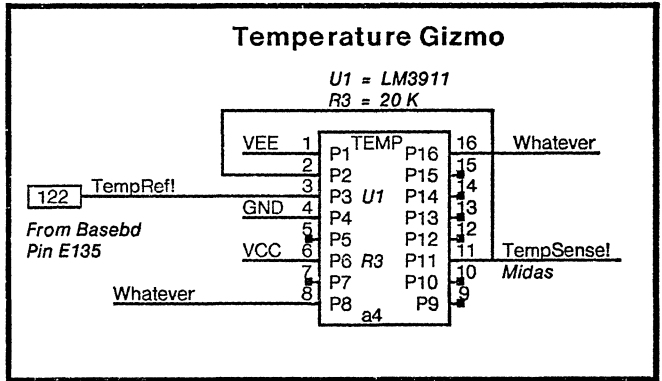
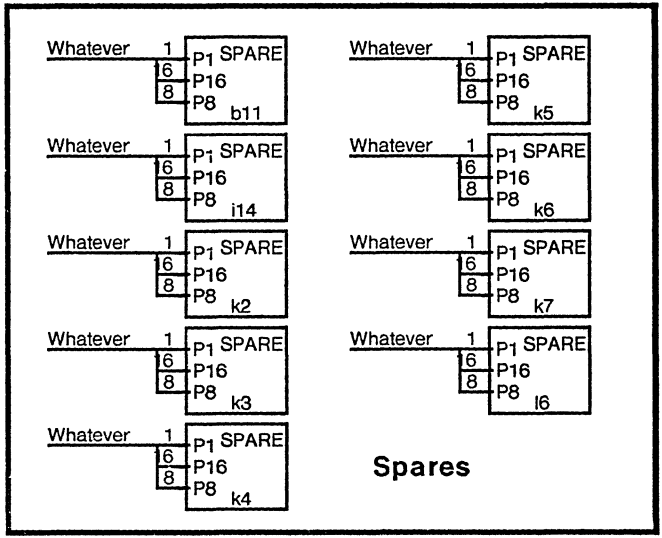
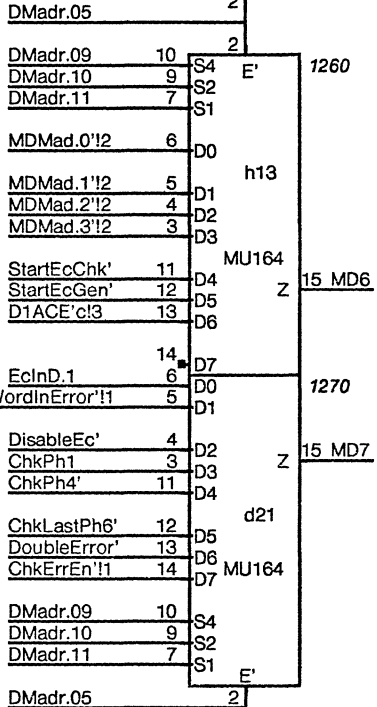
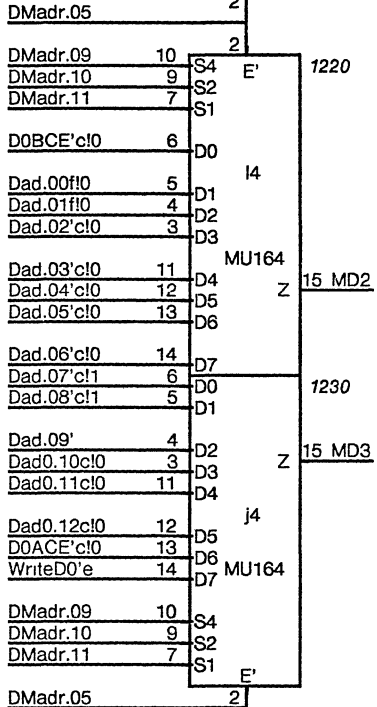
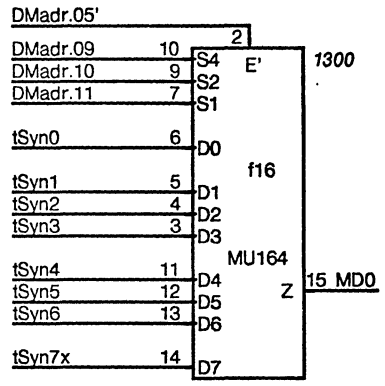
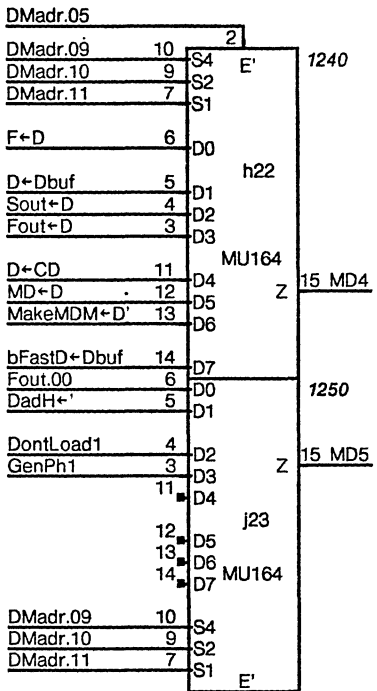
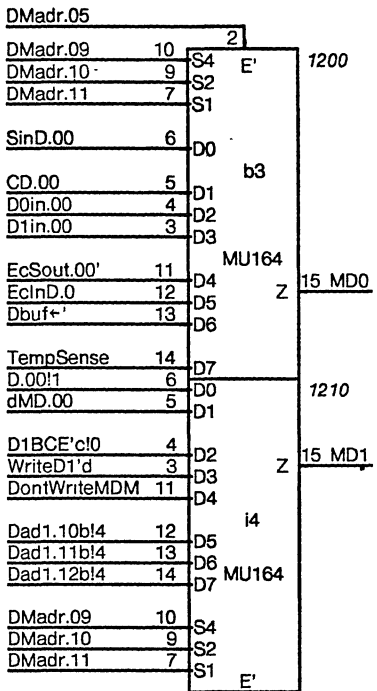


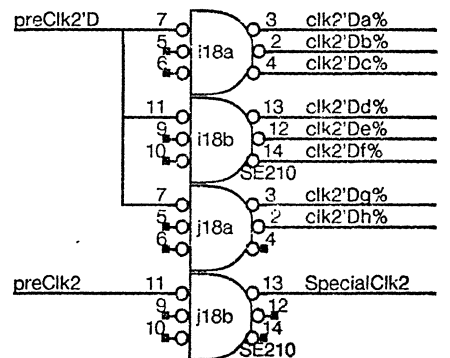
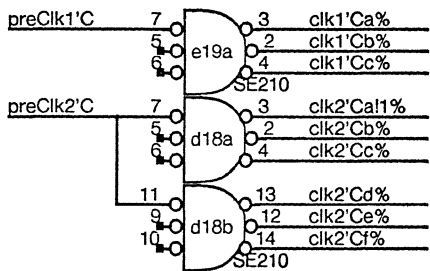
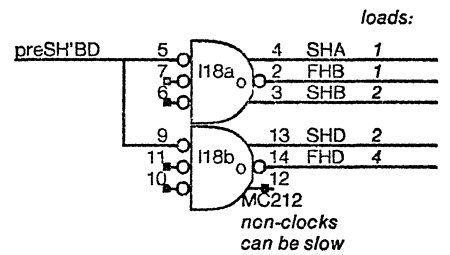
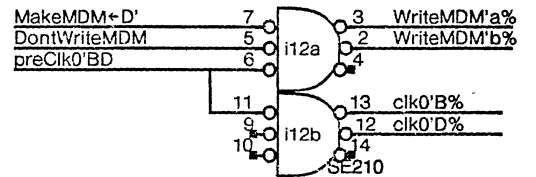
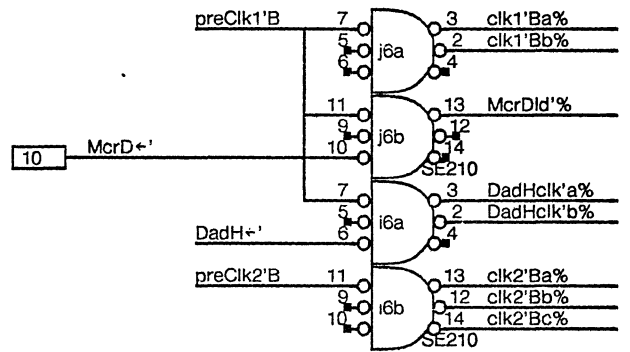
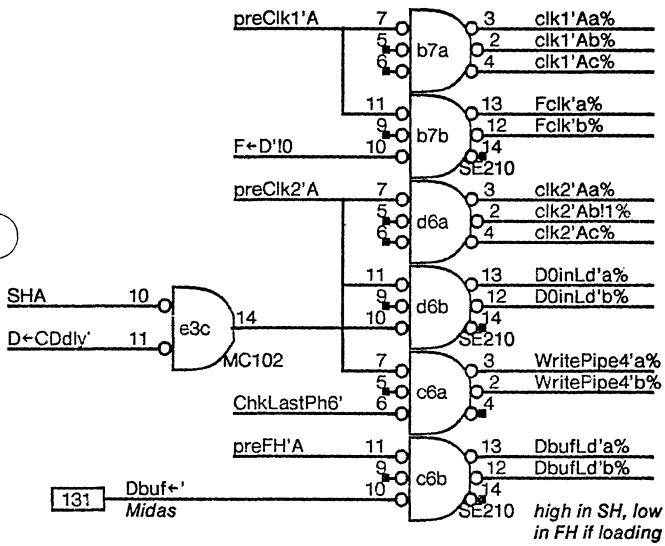
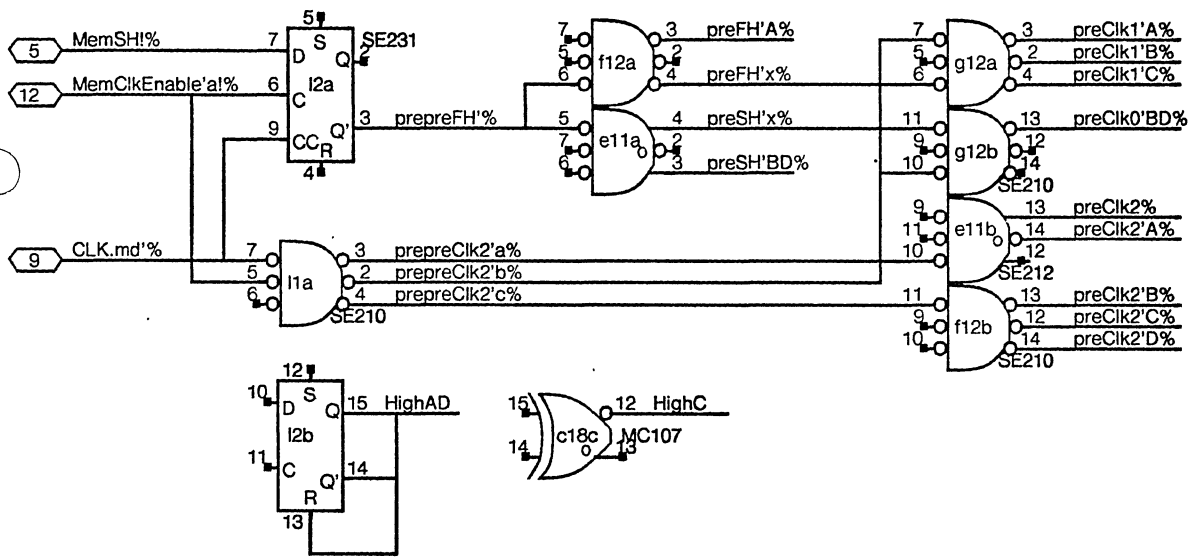
BIT 16



BIT 17







Cxxx												B	
A	a 181	b 168	c 153	d 137	e 124	f 109	93 g	80 h	64 i	48 j	33 k	20 l	B
1	Sout drvvr 0-1 231 2a	BMux rcvvr 0,1,8,9 175 *a	BMux rcvvr 2,3,10,11 175 *a	EcOut 0,2,4,6 dSTPerr 176 2a	BMux rcvvr 4-6,12,13 175 *b	BMux rcvvr 7,14-17 175 *b	Dad rcvvr 2,3 231 *a	6,7 231 *b	SinD.8-11 EcSt.16,17 176 2a	Sout drvvr 10-11 231 2a	Sout drvvr 8-9 231 2a	Clock 210	1
2	Sout drvvr 2-3 231 2a	BMux drvvr 0,1,8,9 159	SinD.0-3 EclnD.0 176 2a	BMux drvvr 2,3,10,11 159	BMux drvvr 4,5,12,13 159	BMux drvvr 6,7,14,15 159	4,5 231 *a	8,9 231 *b	0-5 TestSyn 176 *	6-8 176 *	+	231	2
3	DOA.00 a,a,a,a,a 415A	SinD.0 CD.0 Dbuf+ CD.0 EclnD.0	DOB.00 a,a,a,a,a 415A	D1A.00 c,b,b,a,c 415A	MemError ECFault preDntLd DriveBMux 102	D1B.00 c,b,b,a,c 415A	D1A.02 d,b,b,c,d 415A	Pipe34Ad DntWrtMDM 176 0	D1B.02 d,b,b,c,d 415A	DOA.02 f,'c,c,c,e 415A	+	DOB.02 f,'c,c,c,e 415A	3
4	TempSense Gizmo PLAT	0,1,8,9 158	2,3,4,16 158	preDin 6,10,11 158	5,7,12,17 158	13,14,15 158	dFout 0-3 158	MdM 0-3 145 *a	CE1B.D.0 10-12(1) Write DWRMDM dMD.0	Dad.7-9 CE0A. 10-12(0) Write0	+	Dad.0-6 CE0B MU164	4
5	DOA.01 a,a,a,a,a 415A	12-15 145	DOB.01 a,a,a,a,a 415A	D1A.01 c,b,b,a,c 415A	dSout 0-3 158	D1B.01 c,b,b,a,c 415A	D1A.03 d,b,b,c,d 415A	dMd 0-3,16,17 197	D1B.03 d,b,b,c,d 415A	DOA.03 f,'c,c,c,e 415A	+	DOB.03 f,'c,c,c,e 415A	5
6	4-7 Pipe4 145	8-11 145	clks 210	clks 210	F 0-3,16,17 176 *a	dMdM 0-3,16,17 176 1a	dFout 16,17 158	MdM 16,17 145 *a	clks 210	clks 210	+	+	6
7	DOA.16 a,a,a,a,a 415A	clks 210	DOB.16 a,a,a,a,a 415A	D1A.16 c,b,b,a,c 415A	dSout 16,17 158	D1B.16 c,b,b,a,c 415A	D1A.17 d,b,b,c,d 415A	Dad1 10-12 b F16 1a	D1B.17 d,b,b,c,d 415A	DOA.17 f,'c,c,c,e 415A	+	DOB.17 f,'c,c,c,e 415A	7
8	Dad0 10-12 a F16 2b0	Dad.2-5 a, 'a 101	Dad.6-8 a, 'a F+D' 101	Dad.0-1 a,b,c 210	Writes a,b,c 211	Dad.2-5 b, 'b 101	Dad.6-8 b, 'b b+Pipe4' 101	Writes d,e,f 210	Dad.0-1 d,e,f 210	Dad.2-5 c, 'c 101	Dad.6-8 c, 'c Dad.13' 101	Dad0 13 10-12 c F16 2b	8
9	DOA.08 a,a,a,a,b 415A	Dad1 10-12 a F16 1b	D1A.08 b,'a,a,b 415A	D1B.08 b,'a,a,b 415A	Dad0 10-12 b F16 2b2	DOB.08 c,'b,b,a,c 415A	DOA.10 d,'b,b,c,d 415A	dSout 8-11 158	D1A.10 e,c,c,c,e 415A	D1B.10 e,c,c,c,f 415A	Dad1 10-12 c F16 1b	DOB.10 f,'c,c,c,f 415A	9
10	D0in 0,1,4, 8,9,16 176 *a	D1in 0,1,4, 8,9,16 176 1b	D1in 2,3,6, 10,11,17 176 1b	D0in 2,3,6, 10,11,17 176 *b	F 8-11 176 *b	dMdM 8-11 ClearWA 176 1a	dFout 8-11 158	dMd 8-11 158	CE's 0A, 1A 210	CE's 0B, 1B 210	preCE 159	preCE DntLoad0 1664	10
11	DOA.09 a,a,a,b,b 415A	+	D1A.09 b,'a,a,b 415A	D1B.09 b,'a,a,b 415A	preclks 212	DOB.09 c,'b,b,b,c 415A	DOA.11 d,'b,b,c,d 415A	MdM 8-11 145 *b	D1A.11 e,c,c,c,e 415A	D1B.11 e,c,c,c,f 415A	B 180	DOB.11 f,'c,c,c,f 415A	11
12	0-3,17 176 2c	Ec pipe l 4-9 176 2c	10-15 176 2c	D1in 5,7,12 13,14,15 176 1c	D0in 5,7,12 13,14,15 176 *b	preclks 210	preclks 210	MDMad 141 2c	WriteMDM clk0'B,D 210	163	Generator A 180	163	12
13	DOA.04 a,a,a,b,b 415A	Cphi 172	D1A.04 b,'a,a,b 415A	D1B.04 b,'a,a,b 415A	ChkPhi F00 2a0	DOB.04 c,'b,b,b,c 415A	DOA.06 d,'b,b,c,d 415A	MDMad(4) CE1A SirtEcChk SirtEcGen	D1A.06 e,c,c,c,e 415A	D1B.06 e,c,c,c,f 415A	176 2b	DOB.06 f,'c,c,c,f 415A	13
14	0-7 163	8-15 163	SinD.17 170	ChkQWi ChkWi F16 2a0	F 4-7 F16 1a	dMDM.4-7 LastQWi 176 1a	dFout 4-7 158	dMd 4-7 158	+	C 180	D 180	E 180	14
15	DOA.05 a,a,a,b,b 415A	A 180	D1A.05 b,'a,a,b 415A	D1B.05 b,'a,a,b 415A	dSout 4-7 158	DOB.05 c,'b,b,b,c 415A	DOA.07 d,'b,b,c,d 415A	MdM 4-7 145 *b	D1A.07 e,c,c,c,e 415A	D1B.07 e,c,c,c,f 415A	F 180	DOB.07 f,'c,c,c,f 415A	15
16	B 180	Checker C 180	D 180	A-C 158	D-E 158	tSyni MU164	Pipell-IV 0,1 176 2c	Chk/Gen 3 dClearWA 104	Pipell-IV 2,3 176 2c	(D) D+CDdly 231 2b	A-C 158	(E) 231 2a	16
17	DOA.12 a,a,a,b,b 415A	E 180	D1A.12 b,'a,a,b 415A	D1B.12 b,'a,a,b 415A	ChkPh.etc. SinD.16dly 176 2a2	DOB.12 c,'b,b,b,c 415A	DOA.14 d,'b,b,c,d 415A	MdM 12-15 145 *b	D1A.14 e,c,c,c,e 415A	D1B.14 e,c,c,c,f 415A	D-E 158	DOB.14 f,'c,c,c,f 415A	17
18	tSyn0-3 F00 2b	tSyn4,7 231 2b	SinD.16 D+CD' HighC 107	clks 210	F 12-15 F16 1b	dMdM12-15 TickTockCE ChkLstPh6 176 1b	dFout 12-15 158	dMd 12-15 158	clks 210	clks 210	GenPhi F00 2a	FH, SH 212	18
19	DOA.13 a,a,a,b,b 415A	tSyn5,6 231 2b	D1A.13 b,'a,a,b 415A	D1B.13 b,'a,a,b 415A	clks 210	DOB.13 c,'b,b,b,c 415A	DOA.15 d,'b,b,c,d 415A	dSout 12-15 158	D1A.15 e,c,c,c,e 415A	D1B.15 e,c,c,c,f 415A	Pipell-IV 8,9 176 2h	DOB.15 f,'c,c,c,f 415A	19
20	Syni F16 2c	Corrector WordnError F00 2c	Syn3 D+Dbufdly 231 2c	WdlnError ChkPh.etc. DMadr' 195	CD 0-5 176 2e	G 2,3,10,11 F16 2e	G 4,5,12,13 F16 2g	G 6,7,14,15 F16 2g	Pipell-IV 4,5 176 2g	Pipell-IV 6,7 176 2h	Pipell-IV 10,11 176 2h	Pipell-IV 12,13 176 2h	20
21	DblError 170	Error ChkErrEn' 109	Syn3 D+Dbufdly 231 2c	EcCheck stuff MU164	6-11 176 2e	FG 2,3 174	FG 4,5 174	FG 6,7 174	G 16,17 F16 2g	Pipell-IV 14,15 176 2e	1-5 Midas 176	6-11 176	21
22	Flips16,17 ChkErrEn' 102	Flips 0-7 162	Flips 8-15 162	dCD 0-3 113	12-17 176 2f	G 0,1,8,9 F16 2f	preWrite 231 *	X+Ys MU164	FG 8 174	Pipell-IV 16,17 176 2e	DMuxData 164	Midas 2 Bank0CE 103	22
23	4-7 F16 1c	dPipe4 8-11 F16 1c	12-15 F16 1c	4-7 113	8-11 113	FG 0,1 174	dMD+D DntLoad1 dD+Dly 106	preWrite bTransport 102	DadH+' 231 0	Fout.0 DntLd1 DadH+' GenPh1	SinD.12-15 D+CDdlydly 176 2f	Sout drvvr 14-15 231 2f	23
24	Sout drvvr 6-7 231 2d	Sout drvvr 4-5 231 2d	SinD.4-7 EclnD.1 ChkPh5w.o. 176 2d	12-15 113	16,17 DMadr 05' 113	EcOut 1,3,5,7 D-dly' 176 2f	MakeX rcvvr 176 2d	bFastD+Dbf preWrite 1664	Fout drivers 11-15,17 176 2d	5-10 176 2e	0-4,16 176 2f	Sout drvvr 12-13 231 2f	24

C a 11 b 26 c 39 d 55 e 70 f 86 99 g 114 h 129 i 143 j 159 k 174 l D
D chip code: Dad.0-1,2-8,10-12,CE,Write

Page Numbers: Yes First Page: 1
 Columns: 2 Edge Margin: .8" Between Columns: .0"
 Heading:
 MemD-Rev-Be.ps
 COMPONENTS:

F00:	4	5	6			
F145A:	1	6	7	8	9	10
	11	12	13	14	15	20
F16:	1	2	5	6	7	8
	9	10	11	12	13	14
	15	20				
F415A:	1	7	8	9	10	11
	12	13	14	15	16	17
	18	19				
MC101:	1	2	3			
MC102:	1	3	6	22		
MC103:	3	21				
MC104:	3	4	5			
MC106:	3					
MC107:	3	5	22			
MC109:	6					
MC113:	1	7	8	9	10	11
	12	13	14	15	21	
MC141:	3					
MC158:	1	4	5	7	8	9
	10	11	12	13	14	15
	20					
MC159:	1	3	7	8	9	10
	11	12	13	14	20	
MC162:	6					
MC163:	4	5				
MC1664:	3					
MC170:	5	6				
MC172:	5					
MC174:	1	7	8	9	10	15
	20					
MC175:	1	7	8	9	10	11
	12	13	14	15	20	
MC176:	1	3	4	5	6	7
	8	9	10	11	12	13
	14	15	20	21		
MC180:	4	5				
MC195:	5	6	21			
MC197:	1	7	8	15		
MC210:	2	3				
MC212:	22					
MC231:	1	2	3	4	5	6
	7	8	9	10	11	12
	13	14	20			
MU164:	21					
SE210:	3	22				
SE211:	3					
SE212:	22					
SE231:	3	22				
SPARE:	21					
TEMP:	21					

SIGNAL NAMES:

+:	1(1)	2(1)	3(1)	4(1)	5(1)	6(1)
	7(1)	8(1)	9(1)	10(1)	11(1)	12(1)
	13(1)	14(1)	15(1)	16(1)	17(1)	18(1)
	19(1)	20(1)	21(1)	22(1)		
BankOCE':	2(3)	3(1)				
bFastD+Dbuf:	3(3)	21(1)				
BMux.00!:	1(1)					
BMux.01!:	7(1)					
BMux.02!:	8(1)					
BMux.03!:	8(1)					
BMux.04!:	9(1)					
BMux.05!:	9(1)					
BMux.06!:	10(1)					
BMux.07!:	10(1)					
BMux.08!:	11(1)					

BMux.09!:	11(1)		
BMux.10!:	12(1)		
BMux.11!:	12(1)		
BMux.12!:	13(1)		
BMux.13!:	13(1)		
BMux.14!:	14(1)		
BMux.15!:	14(1)		
BMux.16!:	15(1)		
BMux.17!:	15(1)		
bTransport:	3(3)		
bTransport':	3(2)		
b+Pipe4':	1(1)	20(1)	
CD.00:	1(1)	21(1)	
CD.01:	7(1)		
CD.02:	8(1)		
CD.03:	8(1)		
CD.04:	9(1)		
CD.05:	9(1)		
CD.06:	10(1)		
CD.07:	10(1)		
CD.08:	11(1)		
CD.09:	11(1)		
CD.10:	12(1)		
CD.11:	12(1)		
CD.12:	13(1)		
CD.13:	13(1)		
CD.14:	14(1)		
CD.15:	14(1)		
CD.16:	15(1)		
CD.17:	15(1)		
ChkErrEn'!0:	6(1)		
ChkErrEn'!1:	6(3)	21(1)	
ChkLastPh6':	5(1)	21(1)	22(1)
ChkLastPhOrIdle:		5(1)	
ChkPOA0:	5(6)		
ChkPOA1:	5(3)		
ChkPOB0:	5(4)		
ChkPOB1:	5(2)		
ChkP10:	5(2)		
ChkP11:	5(2)		
ChkP20:	5(2)		
ChkP21:	5(2)		
ChkP30:	5(2)		
ChkP31:	5(2)		
ChkPh1:	5(4)	21(1)	
ChkPh2:	5(2)		
ChkPh2':	5(2)		
ChkPh3:	5(2)		
ChkPh4':	5(1)	6(5)	21(1)
ChkPh5':	5(1)		
ChkQW0:	5(1)	6(1)	
ChkQW1:	5(1)	6(1)	
ChkW0:	5(2)		
ChkW1:	5(2)		
CTearWA:	2(6)	3(1)	
CLK.md'%:	22(1)		
clk0'B:	6(1)		
clk0'B%:	22(1)		
clk0'D:	3(1)		
clk0'D%:	22(1)		
clk1'Aa:	1(1)	20(1)	
clk1'Aa%:	22(1)		
clk1'Ab:	1(1)	2(1)	20(1)
clk1'Ab%:	22(1)		
clk1'Ac:	20(1)		
clk1'Ac%:	22(1)		
clk1'Ba:	2(1)		
clk1'Ba%:	22(1)		
clk1'Bb:	2(1)		
clk1'Bb%:	22(1)		
clk1'Ca:	20(2)		
clk1'Ca%:	22(1)		
clk1'Cb:	20(2)		
clk1'Cb%:	22(1)		
clk1'Cc:	6(3)		
clk1'Cc%:	22(1)		

c1k2'Aa:	1(2)	4(1)	20(1)
c1k2'Aa%:	22(1)		
c1k2'Ab!0:	2(1)		
c1k2'Ab!1%:	22(1)		
c1k2'Ab!2:	2(1)		
c1k2'Ac:	1(1)	20(1)	
c1k2'Ac%:	22(1)		
c1k2'Ba:	20(2)		
c1k2'Ba%:	22(1)		
c1k2'Bb:	2(1)		
c1k2'Bb%:	22(1)		
c1k2'Bc:	3(1)		
c1k2'Bc%:	22(1)		
c1k2'Ca!0:	5(2)		
c1k2'Ca!1%:	22(1)		
c1k2'Ca!2:	5(1)		
c1k2'Cb:	5(2)		
c1k2'Cb%:	22(1)		
c1k2'Cc:	6(4)		
c1k2'Cc%:	22(1)		
c1k2'Cd:	20(2)		
c1k2'Cd%:	22(1)		
c1k2'Ce:	1(1)	20(2)	
c1k2'Ce%:	22(1)		
c1k2'Cf:	1(1)	4(1)	20(1)
c1k2'Cf%:	22(1)		
c1k2'Da:	4(2)		
c1k2'Da%:	22(1)		
c1k2'Db:	4(2)		
c1k2'Db%:	22(1)		
c1k2'Dc:	1(1)	20(1)	
c1k2'Dc%:	22(1)		
c1k2'Dd:	3(1)	20(1)	
c1k2'Dd%:	22(1)		
c1k2'De:	20(3)		
c1k2'De%:	22(1)		
c1k2'Df:	1(1)	20(2)	
c1k2'Df%:	22(1)		
c1k2'Dg:	20(2)		
c1k2'Dg%:	22(1)		
c1k2'Dh:	20(4)		
c1k2'Dh%:	22(1)		
Cph2.0:	5(2)		
Cph2.1:	5(2)		
Cph3.0:	5(2)		
Cph3.1:	5(2)		
Cph4.0:	5(2)		
Cph4.1:	5(2)		
D.00!0:	1(1)		
D.00!1:	1(1)	21(1)	
D.01!0:	7(1)		
D.01!1:	7(1)		
D.02!0:	8(1)		
D.02!1:	8(1)		
D.03!0:	8(1)		
D.03!1:	8(1)		
D.04!0:	9(1)		
D.04!1:	9(1)		
D.05!0:	9(1)		
D.05!1:	9(1)		
D.06!0:	10(1)		
D.06!1:	10(1)		
D.07!0:	10(1)		
D.07!1:	10(1)		
D.08!0:	11(1)		
D.08!1:	11(1)		
D.09!0:	11(1)		
D.09!1:	11(1)		
D.10!0:	12(1)		
D.10!1:	12(1)		
D.11!0:	12(1)		
D.11!1:	12(1)		
D.12!0:	13(1)		
D.12!1:	13(1)		
D.13!0:	13(1)		
D.13!1:	13(1)		

D.14!0:	14(1)				
D.14!1:	14(1)				
D.15!0:	14(1)				
D.15!1:	14(1)				
D.16!0:	15(1)				
D.16!1:	15(1)				
D.17!0:	15(1)				
D.17!1:	15(1)				
DOACE'a:	1(1)	3(1)	16(1)	17(1)	19(1)
DOACE'b:	3(1)	16(2)	17(1)	18(2)	
DOACE'c!0:	16(2)	21(1)			
DOACE'c!1:	19(1)				
DOACE'c!2:	3(1)				
DOACE'c!3:	17(2)	18(1)			
DOACE'c!4:	17(1)	18(2)			
DOBCE'a:	1(1)	3(1)	16(1)	17(1)	19(1)
DOBCE'b:	3(1)	16(2)	17(1)	18(2)	
DOBCE'c!0:	16(2)	21(1)			
DOBCE'c!1:	17(1)	19(1)			
DOBCE'c!2:	3(1)				
DOBCE'c!3:	17(1)	18(1)			
DOBCE'c!4:	17(1)	18(2)			
D0in.00:	1(1)	21(1)			
D0in.01:	7(1)				
D0in.02:	8(1)				
D0in.03:	8(1)				
D0in.04:	9(1)				
D0in.05:	9(1)				
D0in.06:	10(1)				
D0in.07:	10(1)				
D0in.08:	11(1)				
D0in.09:	11(1)				
D0in.10:	12(1)				
D0in.11:	12(1)				
D0in.12:	13(1)				
D0in.13:	13(1)				
D0in.14:	14(1)				
D0in.15:	14(1)				
D0in.16:	15(1)				
D0in.17:	15(1)				
D0inLd'a:	1(1)				
D0inLd'a%:	22(1)				
D0inLd'b:	20(1)				
D0inLd'b%:	22(1)				
D1ACE'a:	1(1)	3(1)	16(1)	17(1)	19(1)
D1ACE'b:	3(1)	16(2)	17(1)	18(2)	
D1ACE'c!0:	16(2)				
D1ACE'c!1:	17(1)	19(1)			
D1ACE'c!2:	3(1)				
D1ACE'c!3:	17(1)	18(1)	21(1)		
D1ACE'c!4:	17(1)	18(2)			
D1BCE'a:	1(1)	3(1)	16(1)	19(1)	
D1BCE'b:	3(1)	16(2)	17(2)	18(2)	
D1BCE'c!0:	16(2)	21(1)			
D1BCE'c!1:	17(1)	19(1)			
D1BCE'c!2:	3(1)				
D1BCE'c!3:	17(1)	18(1)			
D1BCE'c!4:	17(1)	18(2)			
D1in.00:	1(1)	21(1)			
D1in.01:	7(1)				
D1in.02:	8(1)				
D1in.03:	8(1)				
D1in.04:	9(1)				
D1in.05:	9(1)				
D1in.06:	10(1)				
D1in.07:	10(1)				
D1in.08:	11(1)				
D1in.09:	11(1)				
D1in.10:	12(1)				
D1in.11:	12(1)				
D1in.12:	13(1)				
D1in.13:	13(1)				
D1in.14:	14(1)				
D1in.15:	14(1)				
D1in.16:	15(1)				
D1in.17:	15(1)				

Dad.00:	2(1)		
Dad.00a!0:	1(1)	16(1)	19(1)
Dad.00a!1:	1(1)	16(1)	19(1)
Dad.00a!2:	2(1)		
Dad.00a!3:	16(1)	17(2)	
Dad.00a!4:	16(1)	18(2)	
Dad.00b!0:	16(1)	18(2)	
Dad.00b!1:	16(1)	17(2)	
Dad.00b!2:	2(1)		
Dad.00b!3:	16(1)	17(2)	
Dad.00b!4:	16(1)	18(2)	
Dad.00c!0:	1(1)	16(1)	19(1)
Dad.00c!1:	1(1)	16(1)	19(1)
Dad.00c!2:	2(1)		
Dad.00c!3:	16(1)	17(2)	
Dad.00c!4:	16(1)	18(2)	
Dad.00d!0:	16(2)	19(1)	
Dad.00d!1:	16(2)	19(1)	
Dad.00d!2:	2(1)		
Dad.00d!3:	17(2)	18(1)	
Dad.00d!4:	17(1)	18(2)	
Dad.00e!0:	17(1)	18(2)	
Dad.00e!1:	17(2)	18(1)	
Dad.00e!2:	2(1)		
Dad.00e!3:	17(2)	18(1)	
Dad.00e!4:	17(1)	18(2)	
Dad.00f!0:	16(2)	19(1)	21(1)
Dad.00f!1:	16(2)	19(1)	
Dad.00f!2:	2(1)		
Dad.00f!3:	17(2)	18(1)	
Dad.00f!4:	17(1)	18(2)	
Dad.01:	2(1)		
Dad.01a!0:	1(1)	16(1)	19(1)
Dad.01a!1:	1(1)	16(1)	19(1)
Dad.01a!2:	2(1)		
Dad.01a!3:	16(1)	17(2)	
Dad.01a!4:	16(1)	18(2)	
Dad.01b!0:	16(1)	18(2)	
Dad.01b!1:	16(1)	17(2)	
Dad.01b!2:	2(1)		
Dad.01b!3:	16(1)	17(2)	
Dad.01b!4:	16(1)	18(2)	
Dad.01c!0:	1(1)	16(1)	19(1)
Dad.01c!1:	1(1)	16(1)	19(1)
Dad.01c!2:	2(1)		
Dad.01c!3:	16(1)	17(2)	
Dad.01c!4:	16(1)	18(2)	
Dad.01d!0:	16(2)	19(1)	
Dad.01d!1:	16(2)	19(1)	
Dad.01d!2:	2(1)		
Dad.01d!3:	17(2)	18(1)	
Dad.01d!4:	17(1)	18(2)	
Dad.01e!0:	17(1)	18(2)	
Dad.01e!1:	17(2)	18(1)	
Dad.01e!2:	2(1)		
Dad.01e!3:	17(2)	18(1)	
Dad.01e!4:	17(1)	18(2)	
Dad.01f!0:	16(2)	19(1)	21(1)
Dad.01f!1:	16(2)	19(1)	
Dad.01f!2:	2(1)		
Dad.01f!3:	17(2)	18(1)	
Dad.01f!4:	17(1)	18(2)	
Dad.02'c!0:	21(1)		
Dad.02'c!2:	2(1)		
Dad.03'c!0:	21(1)		
Dad.03'c!2:	2(1)		
Dad.04'a!0:	16(1)	18(2)	
Dad.04'a!1:	16(1)	17(2)	
Dad.04'a!2:	2(1)		
Dad.04'a!3:	16(1)	17(2)	
Dad.04'a!4:	16(1)	18(2)	
Dad.04'b!0:	16(1)	18(2)	
Dad.04'b!1:	16(1)	17(2)	
Dad.04'b!2:	2(1)		
Dad.04'b!3:	17(2)	18(1)	
Dad.04'b!4:	17(1)	18(2)	

Dad.04'c!0:	16(2)	19(1)	21(1)
Dad.04'c!1:	16(2)	19(1)	
Dad.04'c!2:	2(1)		
Dad.04'c!3:	17(2)	18(1)	
Dad.04'c!4:	17(1)	18(2)	
Dad.04a!0:	1(1)	16(1)	19(1)
Dad.04a!1:	1(1)	16(1)	19(1)
Dad.04a!2:	2(1)		
Dad.04a!3:	16(1)	17(2)	
Dad.04a!4:	16(1)	18(2)	
Dad.04b!0:	1(1)	16(1)	19(1)
Dad.04b!1:	1(1)	16(1)	19(1)
Dad.04b!2:	2(1)		
Dad.04b!3:	16(2)	19(1)	
Dad.04b!4:	16(2)	19(1)	
Dad.04c!0:	17(1)	18(2)	
Dad.04c!1:	17(2)	18(1)	
Dad.04c!2:	2(1)		
Dad.04c!3:	17(2)	18(1)	
Dad.04c!4:	17(1)	18(2)	
Dad.05'a!0:	16(1)	18(2)	
Dad.05'a!1:	16(1)	17(2)	
Dad.05'a!2:	2(1)		
Dad.05'a!3:	16(1)	17(2)	
Dad.05'a!4:	16(1)	18(2)	
Dad.05'b!0:	16(1)	18(2)	
Dad.05'b!1:	16(1)	17(2)	
Dad.05'b!2:	2(1)		
Dad.05'b!3:	17(2)	18(1)	
Dad.05'b!4:	17(1)	18(2)	
Dad.05'c!0:	16(2)	19(1)	21(1)
Dad.05'c!1:	16(2)	19(1)	
Dad.05'c!2:	2(1)		
Dad.05'c!3:	17(2)	18(1)	
Dad.05'c!4:	17(1)	18(2)	
Dad.05a!0:	1(1)	16(1)	19(1)
Dad.05a!1:	1(1)	16(1)	19(1)
Dad.05a!2:	2(1)		
Dad.05a!3:	16(1)	17(2)	
Dad.05a!4:	16(1)	18(2)	
Dad.05b!0:	1(1)	16(1)	19(1)
Dad.05b!1:	1(1)	16(1)	19(1)
Dad.05b!2:	2(1)		
Dad.05b!3:	16(2)	19(1)	
Dad.05b!4:	16(2)	19(1)	
Dad.05c!0:	17(1)	18(2)	
Dad.05c!1:	17(2)	18(1)	
Dad.05c!2:	2(1)		
Dad.05c!3:	17(2)	18(1)	
Dad.05c!4:	17(1)	18(2)	
Dad.06'a!0:	16(1)	18(2)	
Dad.06'a!1:	16(1)	17(2)	
Dad.06'a!2:	2(1)		
Dad.06'a!3:	16(1)	17(2)	
Dad.06'a!4:	16(1)	18(2)	
Dad.06'b!0:	16(1)	18(2)	
Dad.06'b!1:	16(1)	17(2)	
Dad.06'b!2:	2(1)		
Dad.06'b!3:	17(2)	18(1)	
Dad.06'b!4:	17(1)	18(2)	
Dad.06'c!0:	16(2)	19(1)	21(1)
Dad.06'c!1:	16(2)	19(1)	
Dad.06'c!2:	2(1)		
Dad.06'c!3:	17(2)	18(1)	
Dad.06'c!4:	17(1)	18(2)	
Dad.06a!0:	1(1)	16(1)	19(1)
Dad.06a!1:	1(1)	16(1)	19(1)
Dad.06a!2:	2(1)		
Dad.06a!3:	16(1)	17(2)	
Dad.06a!4:	16(1)	18(2)	
Dad.06b!0:	1(1)	16(1)	19(1)
Dad.06b!1:	1(1)	16(1)	19(1)
Dad.06b!2:	2(1)		
Dad.06b!3:	16(2)	19(1)	
Dad.06b!4:	16(2)	19(1)	
Dad.06c!0:	17(1)	18(2)	

Dad.06c!1:	17(2)	18(1)	
Dad.06c!2:	2(1)		
Dad.06c!3:	17(2)	18(1)	
Dad.06c!4:	17(1)	18(2)	
Dad.07'a!0:	16(1)	18(2)	
Dad.07'a!1:	16(1)	17(2)	
Dad.07'a!2:	2(1)		
Dad.07'a!3:	16(1)	17(2)	
Dad.07'a!4:	16(1)	18(2)	
Dad.07'b!0:	16(1)	18(2)	
Dad.07'b!1:	16(1)	17(2)	
Dad.07'b!2:	2(1)		
Dad.07'b!3:	17(2)	18(1)	
Dad.07'b!4:	17(1)	18(2)	
Dad.07'c!0:	16(2)	19(1)	
Dad.07'c!1:	16(2)	19(1)	21(1)
Dad.07'c!2:	2(1)		
Dad.07'c!3:	17(2)	18(1)	
Dad.07'c!4:	17(1)	18(2)	
Dad.07a!0:	1(1)	16(1)	19(1)
Dad.07a!1:	1(1)	16(1)	19(1)
Dad.07a!2:	2(1)		
Dad.07a!3:	16(1)	17(2)	
Dad.07a!4:	16(1)	18(2)	
Dad.07b!0:	1(1)	16(1)	19(1)
Dad.07b!1:	1(1)	16(1)	19(1)
Dad.07b!2:	2(1)		
Dad.07b!3:	16(2)	19(1)	
Dad.07b!4:	16(2)	19(1)	
Dad.07c!0:	17(1)	18(2)	
Dad.07c!1:	17(2)	18(1)	
Dad.07c!2:	2(1)		
Dad.07c!3:	17(2)	18(1)	
Dad.07c!4:	17(1)	18(2)	
Dad.08'a!0:	16(1)	18(2)	
Dad.08'a!1:	16(1)	17(2)	
Dad.08'a!2:	2(1)		
Dad.08'a!3:	16(1)	17(2)	
Dad.08'a!4:	16(1)	18(2)	
Dad.08'b!0:	16(1)	18(2)	
Dad.08'b!1:	16(1)	17(2)	
Dad.08'b!2:	2(1)		
Dad.08'b!3:	17(2)	18(1)	
Dad.08'b!4:	17(1)	18(2)	
Dad.08'c!0:	16(2)	19(1)	
Dad.08'c!1:	16(2)	19(1)	21(1)
Dad.08'c!2:	2(1)		
Dad.08'c!3:	17(2)	18(1)	
Dad.08'c!4:	17(1)	18(2)	
Dad.08a!0:	1(1)	16(1)	19(1)
Dad.08a!1:	1(1)	16(1)	19(1)
Dad.08a!2:	2(1)		
Dad.08a!3:	16(1)	17(2)	
Dad.08a!4:	16(1)	18(2)	
Dad.08b!0:	1(1)	16(1)	19(1)
Dad.08b!1:	1(1)	16(1)	19(1)
Dad.08b!2:	2(1)		
Dad.08b!3:	16(2)	19(1)	
Dad.08b!4:	16(2)	19(1)	
Dad.08c!0:	17(1)	18(2)	
Dad.08c!1:	17(2)	18(1)	
Dad.08c!2:	2(1)		
Dad.08c!3:	17(2)	18(1)	
Dad.08c!4:	17(1)	18(2)	
Dad.09:	2(1)	3(2)	
Dad.09':	2(1)	3(2)	21(1)
Dad.13:	2(1)	3(1)	
Dad.13':	2(1)	3(1)	
Dad0.10a!0:	1(1)	16(1)	19(1)
Dad0.10a!1:	1(1)	16(1)	19(1)
Dad0.10a!2:	2(1)		
Dad0.10a!3:	16(1)	17(2)	
Dad0.10a!4:	16(1)	18(2)	
Dad0.10b!0:	16(1)	18(2)	
Dad0.10b!1:	16(1)	17(2)	
Dad0.10b!2:	2(1)		

Dad0.10b!3:	17(2)	18(1)	
Dad0.10b!4:	17(1)	18(2)	
Dad0.10c!0:	16(2)	19(1)	21(1)
Dad0.10c!1:	16(2)	19(1)	
Dad0.10c!2:	2(1)		
Dad0.10c!3:	17(2)	18(1)	
Dad0.10c!4:	17(1)	18(2)	
Dad0.11a!0:	1(1)	16(1)	19(1)
Dad0.11a!1:	1(1)	16(1)	19(1)
Dad0.11a!2:	2(1)		
Dad0.11a!3:	16(1)	17(2)	
Dad0.11a!4:	16(1)	18(2)	
Dad0.11b!0:	16(1)	18(2)	
Dad0.11b!1:	16(1)	17(2)	
Dad0.11b!2:	2(1)		
Dad0.11b!3:	17(2)	18(1)	
Dad0.11b!4:	17(1)	18(2)	
Dad0.11c!0:	16(2)	19(1)	21(1)
Dad0.11c!1:	16(2)	19(1)	
Dad0.11c!2:	2(1)		
Dad0.11c!3:	17(2)	18(1)	
Dad0.11c!4:	17(1)	18(2)	
Dad0.12a!0:	1(1)	16(1)	19(1)
Dad0.12a!1:	1(1)	16(1)	19(1)
Dad0.12a!2:	2(1)		
Dad0.12a!3:	16(1)	17(2)	
Dad0.12a!4:	16(1)	18(2)	
Dad0.12b!0:	16(1)	18(2)	
Dad0.12b!1:	16(1)	17(2)	
Dad0.12b!2:	2(1)		
Dad0.12b!3:	17(2)	18(1)	
Dad0.12b!4:	17(1)	18(2)	
Dad0.12c!0:	16(2)	19(1)	21(1)
Dad0.12c!1:	16(2)	19(1)	
Dad0.12c!2:	2(1)		
Dad0.12c!3:	17(2)	18(1)	
Dad0.12c!4:	17(1)	18(2)	
Dad1.10a!0:	16(1)	18(2)	
Dad1.10a!1:	16(1)	17(2)	
Dad1.10a!2:	2(1)		
Dad1.10a!3:	16(1)	17(2)	
Dad1.10a!4:	16(1)	18(2)	
Dad1.10b!0:	1(1)	16(1)	19(1)
Dad1.10b!1:	1(1)	16(1)	19(1)
Dad1.10b!2:	2(1)		
Dad1.10b!3:	16(2)	19(1)	
Dad1.10b!4:	16(2)	19(1)	21(1)
Dad1.10c!0:	17(1)	18(2)	
Dad1.10c!1:	17(2)	18(1)	
Dad1.10c!2:	2(1)		
Dad1.10c!3:	17(2)	18(1)	
Dad1.10c!4:	17(1)	18(2)	
Dad1.11a!0:	16(1)	18(2)	
Dad1.11a!1:	16(1)	17(2)	
Dad1.11a!2:	2(1)		
Dad1.11a!3:	16(1)	17(2)	
Dad1.11a!4:	16(1)	18(2)	
Dad1.11b!0:	1(1)	16(1)	19(1)
Dad1.11b!1:	1(1)	16(1)	19(1)
Dad1.11b!2:	2(1)		
Dad1.11b!3:	16(2)	19(1)	
Dad1.11b!4:	16(2)	19(1)	21(1)
Dad1.11c!0:	17(1)	18(2)	
Dad1.11c!1:	17(2)	18(1)	
Dad1.11c!2:	2(1)		
Dad1.11c!3:	17(2)	18(1)	
Dad1.11c!4:	17(1)	18(2)	
Dad1.12a!0:	16(1)	18(2)	
Dad1.12a!1:	16(1)	17(2)	
Dad1.12a!2:	2(1)		
Dad1.12a!3:	16(1)	17(2)	
Dad1.12a!4:	16(1)	18(2)	
Dad1.12b!0:	1(1)	16(1)	19(1)
Dad1.12b!1:	1(1)	16(1)	19(1)
Dad1.12b!2:	2(1)		
Dad1.12b!3:	16(2)	19(1)	

Dad1.12b!4:	16(2)	19(1)	21(1)
Dad1.12c!0:	17(1)	18(2)	
Dad1.12c!1:	17(2)	18(1)	
Dad1.12c!2:	2(1)		
Dad1.12c!3:	17(2)	18(1)	
Dad1.12c!4:	17(1)	18(2)	
DadHc!k'a:	2(1)		
DadHc!k'a%:	22(1)		
DadHc!k'b:	2(1)		
DadHc!k'b%:	22(1)		
DadH←':	3(1)	21(1)	22(1).
Dbuf.00:	1(1)	4(1)	
Dbuf.01:	4(1)	7(1)	
Dbuf.02:	4(1)	8(1)	
Dbuf.03:	4(1)	8(1)	
Dbuf.04:	4(1)	9(1)	
Dbuf.05:	4(1)	9(1)	
Dbuf.06:	4(1)	10(1)	
Dbuf.07:	4(1)	10(1)	
Dbuf.08:	6(1)	11(1)	
Dbuf.09:	11(1)		
Dbuf.10:	12(1)		
Dbuf.11:	12(1)		
Dbuf.12:	13(1)		
Dbuf.13:	13(1)		
Dbuf.14:	14(1)		
Dbuf.15:	14(1)		
Dbuf.16:	15(1)		
Dbuf.17:	15(1)		
DbufLd'a:	1(1)	20(1)	
DbufLd'a%:	22(1)		
DbufLd'b:	20(1)		
DbufLd'b%:	22(1)		
Dbuf←':	21(1)	22(1)	
dDad.02:	2(1)		
dDad.03:	2(1)		
dDad.04:	2(1)		
dDad.05:	2(1)		
dDad.06:	2(1)		
dDad.07:	2(1)		
dDad.08:	2(1)		
dDad.09:	2(1)		
dDad.10:	2(6)		
dDad.11:	2(6)		
dDad.12:	2(6)		
dDad.13:	2(1)		
DisableEc':	6(1)	21(1)	
DMadr.01:	21(2)		
DMadr.02:	21(3)		
DMadr.03:	21(3)		
DMadr.04:	21(3)		
DMadr.05:	21(8)		
DMadr.05':	21(2)		
DMadr.06:	21(3)		
DMadr.07:	21(3)		
DMadr.08:	21(3)		
DMadr.09:	21(11)		
DMadr.10:	21(11)		
DMadr.11:	21(11)		
dMD.00:	1(1)	21(1)	
dMD.01:	7(1)		
dMD.02:	8(1)		
dMD.03:	8(1)		
dMD.04:	9(1)		
dMD.05:	9(1)		
dMD.06:	10(1)		
dMD.07:	10(1)		
dMD.08:	11(1)		
dMD.09:	11(1)		
dMD.10:	12(1)		
dMD.11:	12(1)		
dMD.12:	13(1)		
dMD.13:	13(1)		
dMD.14:	14(1)		
dMD.15:	14(1)		
dMD.16:	15(1)		

dMD.17:	15(1)		
dMDMad.0':	3(1)		
dMDMad.1':	3(1)		
dMDMad.2':	3(1)		
dMDMad.3':	3(1)		
DMuxClk!:	21(1)		
DMuxData:	21(1)		
DMuxData!:	21(1)		
DontLoad0:	2(3)	3(1)	
DontLoad1:	2(3)	3(1)	21(1)
DontWriteMDM:	3(1)	21(1)	22(1)
DoubleError':	6(2)	21(1)	
dPipe34Ad.0:	6(1)		
dPipe34Ad.1:	6(1)		
dPipe34Ad.2:	6(1)		
dPipe34Ad.3:	6(1)		
DriveBMux':	1(1)	20(1)	
dSTPerr:	4(1)		
dSyn0:	5(1)		
dSyn0':	5(1)	6(1)	
dSyn1:	5(1)		
dSyn1':	5(1)	6(1)	
dSyn2:	5(1)		
dSyn2':	5(1)	6(1)	
dSyn3:	5(1)	6(1)	
dSyn4:	5(1)	6(1)	
dSyn4':	5(1)	6(1)	
dSyn5:	5(1)	6(1)	
dSyn5':	5(1)	6(1)	
dSyn6:	5(1)	6(1)	
dSyn6':	5(1)	6(1)	
dSyn7':	5(1)	6(1)	
D+CD:	3(1)	21(1)	
D+CD':	1(1)	3(1)	20(1)
D+CDdly:	3(1)		
D+CDdly':	3(2)	22(1)	
D+CDdlydly:	3(2)		
D+Dbuf:	3(1)	21(1)	
D+Dbufdly:	3(2)		
D+Dbufdly':	3(2)		
D+dly':	3(2)		
EccSeenDE':	6(2)		
EccSeenError':	6(2)		
ECFault:	6(1)		
EcIn.0:	5(1)		
EcIn.1:	5(1)		
EcInD.0:	5(2)	21(1)	
EcInD.1:	5(2)	21(1)	
EcOut.0:	4(1)		
EcOut.1:	4(1)		
EcOut.2:	4(1)		
EcOut.3:	4(1)		
EcOut.4:	4(1)		
EcOut.5:	4(1)		
EcOut.6:	4(1)		
EcOut.7':	4(1)		
EcSout.00':	1(1)	4(1)	21(1)
EcSout.01':	4(1)	7(1)	
EcSout.02':	4(1)	8(1)	
EcSout.03':	4(1)	8(1)	
EcSout.04':	4(1)	9(1)	
EcSout.05':	4(1)	9(1)	
EcSout.06':	4(1)	10(1)	
EcSout.07':	4(1)	10(1)	
EcSout.08':	4(1)	11(1)	
EcSout.09':	4(1)	11(1)	
EcSout.10':	4(1)	12(1)	
EcSout.11':	4(1)	12(1)	
EcSout.12':	4(1)	13(1)	
EcSout.13':	4(1)	13(1)	
EcSout.14':	4(1)	14(1)	
EcSout.15':	4(1)	14(1)	
EcSout.16:	4(1)	15(1)	
EcSout.17:	4(1)	15(1)	
EnableFG':	1(1)	20(1)	
Error':	6(2)		

ErrorsFromEc2:	6(1)	
F.00:	1(1)	
F.01:	7(1)	
F.02:	8(1)	
F.03:	8(1)	
F.04:	9(1)	
F.05:	9(1)	
F.06:	10(1)	
F.07:	10(1)	
F.08:	1(1)	11(1)
F.09:	7(1)	11(1)
F.10:	8(1)	12(1)
F.11:	8(1)	12(1)
F.12:	9(1)	13(1)
F.13:	9(1)	13(1)
F.14:	10(1)	14(1)
F.15:	10(1)	14(1)
F.16:	15(1)	
F.17:	15(2)	
FastD+CD:	3(2)	
FastD+Dbuf:	3(1)	
Fclk'a:	1(1)	
Fclk'a%:	22(1)	
Fclk'b:	20(1)	
Fclk'b%:	22(1)	
FG.0:	1(1)	
FG.1:	7(1)	
FG.2:	8(1)	
FG.3:	8(1)	
FG.4:	9(1)	
FG.5:	9(1)	
FG.6:	10(1)	
FG.7:	10(1)	
FG.8:	15(1)	
FHB:	3(1)	22(1)
FHD:	3(4)	22(1)
Fin.00:	1(1)	
Fin.01:	7(1)	
Fin.02:	8(1)	
Fin.03:	8(1)	
Fin.04:	9(1)	
Fin.05:	9(1)	
Fin.06:	10(1)	
Fin.07:	10(1)	
Fin.08:	11(1)	
Fin.09:	11(1)	
Fin.10:	12(1)	
Fin.11:	12(1)	
Fin.12:	13(1)	
Fin.13:	13(1)	
Fin.14:	14(1)	
Fin.15:	14(1)	
Fin.16:	15(1)	
Fin.17:	15(1)	
Flip.00:	1(1)	6(1)
Flip.01:	6(1)	7(1)
Flip.02:	6(1)	8(1)
Flip.03:	6(1)	8(1)
Flip.04:	6(1)	9(1)
Flip.05:	6(1)	9(1)
Flip.06:	6(1)	10(1)
Flip.07:	6(1)	10(1)
Flip.08:	6(1)	11(1)
Flip.09:	6(1)	11(1)
Flip.10:	6(1)	12(1)
Flip.11:	6(1)	12(1)
Flip.12:	6(1)	13(1)
Flip.13:	6(1)	13(1)
Flip.14:	6(1)	14(1)
Flip.15:	6(1)	14(1)
Flip.16:	6(1)	15(1)
Flip.17:	6(1)	15(1)
Fout.00:	1(1)	21(1)
Fout.01:	7(1)	
Fout.02:	8(1)	
Fout.03:	8(1)	

Fout.04:	9(1)					
Fout.05:	9(1)					
Fout.06:	10(1)					
Fout.07:	10(1)					
Fout.08:	11(1)					
Fout.09:	11(1)					
Fout.10:	12(1)					
Fout.11:	12(1)					
Fout.12:	13(1)					
Fout.13:	13(1)					
Fout.14:	14(1)					
Fout.15:	14(1)					
Fout.16:	15(1)					
Fout.17:	15(1)					
Fout+D:	1(1)	3(1)	20(1)	21(1)		
F+D:	3(1)	21(1)				
F+D'!0:	22(1)					
F+D'!1:	3(1)					
F+D'!2:	20(2)					
G.00:	1(1)					
G.01:	7(1)					
G.02:	8(1)					
G.03:	8(1)					
G.04:	9(1)					
G.05:	9(1)					
G.06:	10(1)					
G.07:	10(1)					
G.08:	1(1)	11(1)				
G.09:	7(1)	11(1)				
G.10:	8(1)	12(1)				
G.11:	8(1)	12(1)				
G.12:	9(1)	13(1)				
G.13:	9(1)	13(1)				
G.14:	10(1)	14(1)				
G.15:	10(1)	14(1)				
G.16:	15(1)					
G.17:	15(2)					
GDv':	1(1)	20(1)				
GenPOA0:	4(6)					
GenPOA1:	4(7)					
GenPOB0:	4(4)					
GenPOB1:	4(6)					
GenP10:	4(2)					
GenP11:	4(2)					
GenP20:	4(2)					
GenP21:	4(2)					
GenP30:	4(2)					
GenP31:	4(2)					
GenPh1:	4(3)	21(1)				
GenPh2:	4(3)					
GenPh3:	4(2)					
GLd':	1(1)	20(1)				
Gnd:	1(1)	2(1)	3(1)	4(1)	5(1)	6(1)
	7(1)	8(1)	9(1)	10(1)	11(1)	12(1)
	13(1)	14(1)	15(1)	16(1)	17(1)	18(1)
	19(1)	20(1)	21(1)	22(1)		
GND:	21(1)					
HighAD:	1(1)	4(2)	7(1)	8(2)	20(3)	22(1)
HighC:	1(1)	5(2)	6(4)	20(3)	21(1)	22(1)
LastQW0:	6(2)					
LastQW1:	6(2)					
MakeD+CD:	3(1)					
MakeD+Dbuf:	3(1)					
MakeFout+D:	3(1)					
MakeF+D:	3(1)					
MakeMDM+D':	3(1)	21(1)	22(1)			
MakeMD+D':	3(1)					
MakeSout+D:	3(1)					
McrDld':	4(1)					
McrDld'%:	22(1)					
McrD+':	22(1)					
MD0:	21(3)					
MD1:	21(2)					
MD2:	21(2)					
MD3:	21(2)					
MD4:	21(2)					

MD5:	21(2)		
MD6:	21(2)		
MD7:	21(2)		
MDMad.0'10:	1(1)	20(2)	
MDMad.0'11:	3(1)		
MDMad.0'12:	20(2)	21(1)	
MDMad.1'10:	1(1)	20(2)	
MDMad.1'11:	3(1)		
MDMad.1'12:	20(2)	21(1)	
MDMad.2'10:	1(1)	20(2)	
MDMad.2'11:	3(1)		
MDMad.2'12:	20(2)	21(1)	
MDMad.3'10:	1(1)	20(2)	
MDMad.3'11:	3(1)		
MDMad.3'12:	20(2)	21(1)	
MD+D:	1(2)	3(1)	20(5) 21(1)
MemC1kEnable'a!%:	22(1)		
MemError:	6(1)		
MemSH!%:	22(1)		
NoError':	6(2)		
PcFG.15:	1(1)	20(1)	
Pipe34Ad.0:	6(4)		
Pipe34Ad.1:	6(4)		
Pipe34Ad.2:	6(4)		
Pipe34Ad.3:	6(4)		
Pipe4.04:	6(1)	9(1)	
Pipe4.05:	6(1)	9(1)	
Pipe4.06:	6(1)	10(1)	
Pipe4.07:	6(1)	10(1)	
Pipe4.08:	6(1)	11(1)	
Pipe4.09:	6(1)	11(1)	
Pipe4.10:	6(1)	12(1)	
Pipe4.11:	6(1)	12(1)	
Pipe4.12:	6(1)	13(1)	
Pipe4.13:	6(1)	13(1)	
Pipe4.14:	6(1)	14(1)	
Pipe4.15:	6(1)	14(1)	
preC1k0'BD:	22(1)		
preC1k0'BD%:	22(1)		
preC1k1'A:	22(1)		
preC1k1'A%:	22(1)		
preC1k1'B:	22(1)		
preC1k1'B%:	22(1)		
preC1k1'C:	22(1)		
preC1k1'C%:	22(1)		
preC1k2:	22(1)		
preC1k2%:	22(1)		
preC1k2'A:	22(1)		
preC1k2'A%:	22(1)		
preC1k2'B:	22(1)		
preC1k2'B%:	22(1)		
preC1k2'C:	22(1)		
preC1k2'C%:	22(1)		
preC1k2'D:	22(1)		
preC1k2'D%:	22(1)		
preDin.00:	1(1)		
preDin.01:	7(1)		
preDin.02:	8(1)		
preDin.03:	8(1)		
preDin.04:	9(1)		
preDin.05:	9(1)		
preDin.06:	10(1)		
preDin.07:	10(1)		
preDin.08:	11(1)		
preDin.09:	11(1)		
preDin.10:	12(1)		
preDin.11:	12(1)		
preDin.12:	13(1)		
preDin.13:	13(1)		
preDin.14:	14(1)		
preDin.15:	14(1)		
preDin.16:	15(1)		
preDin.17:	15(1)		
preFH'A:	22(1)		
preFH'A%:	22(1)		
preFH'x%:	22(1)		

prepreC1k2'a%:	22(1)			
prepreC1k2'b%:	22(1)			
prepreC1k2'c%:	22(1)			
prepreFH'%:	22(1)			
preSH'BD:	22(1)			
preSH'BD%:	22(1)			
preSH'x%:	22(1)			
SHA:	22(2)			
SHB:	3(2)	22(1)		
SHD:	3(1)	4(1)	22(1)	
Sin.00:	1(1)			
Sin.01:	7(1)			
Sin.02:	8(1)			
Sin.03:	8(1)			
Sin.04:	9(1)			
Sin.05:	9(1)			
Sin.06:	10(1)			
Sin.07:	10(1)			
Sin.08:	11(1)			
Sin.09:	11(1)			
Sin.10:	12(1)			
Sin.11:	12(1)			
Sin.12:	13(1)			
Sin.13:	13(1)			
Sin.14:	14(1)			
Sin.15:	14(1)			
SinD.00:	1(1)	5(1)	21(1)	
SinD.01:	5(1)	7(1)		
SinD.02:	5(1)	8(1)		
SinD.03:	5(1)	8(1)		
SinD.04:	5(1)	9(1)		
SinD.05:	5(1)	9(1)		
SinD.06:	5(1)	10(1)		
SinD.07:	5(1)	10(1)		
SinD.08:	5(2)	11(1)		
SinD.09:	5(2)	11(1)		
SinD.10:	5(2)	12(1)		
SinD.11:	5(2)	12(1)		
SinD.12:	5(2)	13(1)		
SinD.13:	5(2)	13(1)		
SinD.14:	5(2)	14(1)		
SinD.15:	5(2)	14(1)		
SinD.16:	5(1)	15(1)		
SinD.17:	5(1)	15(1)		
SinD.17' :	5(4)			
Sout.00:	1(1)			
Sout.01:	7(1)			
Sout.02:	8(1)			
Sout.03:	8(1)			
Sout.04:	9(1)			
Sout.05:	9(1)			
Sout.06:	10(1)			
Sout.07:	10(1)			
Sout.08:	11(1)			
Sout.09:	11(1)			
Sout.10:	12(1)			
Sout.11:	12(1)			
Sout.12:	13(1)			
Sout.13:	13(1)			
Sout.14:	14(1)			
Sout.15:	14(1)			
Sout+D:	1(1)	3(1)	20(1)	21(1)
SpecialC1k2:	3(1)	22(1)		
StartEcChk':	5(1)	21(1)		
StartEcGen':	4(1)	21(1)		
Syn0':	6(5)			
Syn0127=0':	6(2)			
Syn1':	6(5)			
Syn2':	6(5)			
Syn3:	6(4)			
Syn3':	6(3)			
Syn7':	6(3)			
TempRef!:	21(1)			
TempSense:	21(1)			
TempSense!:	21(1)			
Transport':	3(1)			

tSyn0:	5(1)	21(1)		
tSyn1:	5(1)	21(1)		
tSyn2:	5(1)	21(1)		
tSyn3:	5(1)	21(1)		
tSyn4:	5(1)	6(3)	21(1)	
tSyn456':	5(1)	6(1)		
tSyn5:	5(1)	6(3)	21(1)	
tSyn6:	5(1)	6(3)	21(1)	
tSyn7x:	5(1)	21(1)		
VCC:	21(1)			
VEE:	21(1)			
Whatever:	21(11)			
WordInError'!0:	6(2)			
WordInError'!1:	6(2)	21(1)		
WriteD0'a:	1(2)	3(1)	16(2)	19(2)
WriteD0'b:	3(1)	16(2)	17(2)	18(2)
WriteD0'c:	3(1)	16(2)	17(2)	18(2)
WriteD0'd:	3(1)	17(3)	18(3)	
WriteD0'e:	3(1)	16(4)	19(2)	21(1)
WriteD0'f:	3(1)	17(3)	18(3)	
WriteD1'a:	3(1)	16(2)	17(2)	18(2)
WriteD1'b:	3(1)	16(2)	17(2)	18(2)
WriteD1'c:	1(2)	3(1)	16(2)	19(2)
WriteD1'd:	3(1)	16(4)	19(2)	21(1)
WriteD1'e:	3(1)	17(3)	18(3)	
WriteD1'f:	3(1)	17(3)	18(3)	
WriteMDM'a:	1(1)	20(1)		
WriteMDM'a%:	22(1)			
WriteMDM'b:	20(3)			
WriteMDM'b%:	22(1)			
WritePipe4'a:	6(1)			
WritePipe4'a%:	22(1)			
WritePipe4'b:	6(2)			
WritePipe4'b%:	22(1)			
+Dbuf:	1(1)			
+Pipe4:	1(1)			