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1  File:          2SER2B1.PLD                      Date:    8/29/92
2
3  This file contains the logic necessary for a GAL16V8 to perform I/O
4  Decoding for the Micro Innovations Dual Serial I/O board (2SER2B).
5
6  Address map:
7
8  2681 Serial I/O chip:      10H - 1FH
9  SIO chip RESET line:      1CH (Output)
10
11 I/O Pin Definitions:
12
13 | GAL16V8A  1: A7,           2: A3,           4: WR,           5: A6,
14 |           6: A5,           7: A4,           8: A0,           9: A1,
15 |           11: IORQ,        12: RESET,        13: A2,          18: SIOEN
16
17 Acronyms:
18
19   Inputs -
20
21   A0-A7   = Z80 Address Lines A0 - A7
22   WR      = Z80 Write Pulse
23   RD      = Z80 Read Pulse
24   IORQ    = Z80 I/O Request Pulse
25
26   Outputs:
27
28   SIOEN   = Serial I/O Chip Enable
29   RESET   = Serial I/O Chip reset
30
31   | High: A[0..7], RESET
32
33   | SIOEN   = IORQ & A[7..4]==01H
34   | RESET   = IORQ & WR & A[7..0]==1CH
35
36   | Signature: "2SER2Br1"
1289 Complex GAL architecture selected.

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RESOLVED EXPRESSIONS (Reduction 2)

Signal name	Row	Terms
SIOEN	9	A7' A6' A5' A4 IORQ
RESET	57	A7' A3 WR A6' A5' A4 A0' A1' IORQ A2

♀ SIGNAL ASSIGNMENT

Pin	Signal name	Column	Rows			Activity
			Beg	Avail	Used	
1.	A7	2	-	-	-	High (Clock)
2.	A3	0	-	-	-	
3.	-	4	-	-	-	
4.	WR	9	-	-	-	Low
5.	A6	12	-	-	-	High

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2SER2B1. LST						
6.	A5	16	-	-	-	Hi gh
7.	A4	20	-	-	-	Hi gh
8.	A0	24	-	-	-	Hi gh
9.	A1	28	-	-	-	Hi gh
11.	I ORQ	31	-	-	-	Low (Enabl e)
12.	RESET	0	56	8	1	Hi gh (Three-state)
13.	A2	26	48	8	0	Hi gh (Three-state)
14.	-	22	40	8	0	(Three-state)
15.	-	18	32	8	0	(Three-state)
16.	-	14	24	8	0	(Three-state)
17.	-	10	16	8	0	(Three-state)
18.	SI OEN	7	8	8	1	Low (Three-state)
19.	-	-	0	8	0	(Three-state)
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			64	2	(3%)	

I 200 No fatal errors found in source code.
I 201 No warnings.

OrCAD PLD-386
Type: GAL16V8A

*
QP20* QF2194* QV1024*
F0*
L0256 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 *
L0288 11 10 11 11 11 11 10 11 10 11 01 11 11 11 11 10 *
L1792 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 *
L1824 01 10 11 11 10 11 10 11 10 11 01 11 10 01 10 10 *
L2048 10 11 11 11 00 11 00 10 01 01 00 11 01 00 01 01 *
L2080 01 01 00 10 00 11 00 10 01 00 00 10 01 11 00 10 *
L2112 00 11 00 01 11 11 11 11 11 11 11 11 11 11 11 11 *
L2144 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 11 *
L2176 11 11 11 11 11 11 11 11 11 11 *
C1BB4*

I 202 8/29/92 4: 48 pm (Saturday)
I 203 Memory usage 13K
I 204 El apsed time 1 second

♀