

Connector Board Addendum

A.1 INTRODUCTION

This document describes and documents the 4813 Connector Board (xx13 Connector Board). The 4813 Connector Board can also be used with the 2313 Serial-to-Parallel Interface Board and the 8013 Ethernet to Parallel Interface Board. While this description describes the Connector Board with respect to the 4813, it applies equally to the 2313 and 8013 unless they are specifically excluded.

A.2 DESCRIPTION

The 4813 Connector Board breaks out the 4813 Digital IO signals onto four 36-pin flat headers for easy mating to flat-ribbon cables. Each header contains four bytes or 32 IO lines. The 4813 handshake signals are brought to a pin strip so they can be jumpered to the unused signal in the flat-ribbon cable. The unused signal in each cable can be jumpered to any handshake signal. The 4813's LED drive signals are available on a separate 10-pin connector.

The Connector board plugs on top of a 4813 to make a two board assembly with the 4813's original footprint. The Connector Board requires no power.

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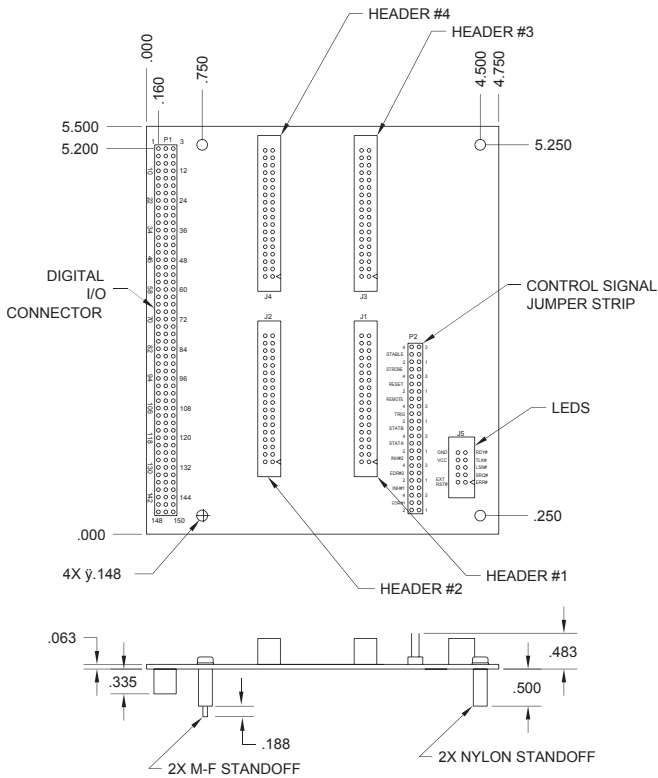


Figure A-1 4813 Connector Board Mounting Dimensions

A.3 SPECIFICATIONS

Size - 120.7 x 139.7 x 30.5 mm
(4.75 x 5.5 x 1.2 inches)

Weight - 0.25 lbs (0.115 kg)

Connectors

4813 - 150-pin, 3 row female connector

Digital Lines- Four 36-pin (18 pins x 2 row) headers,
Amp P/N 3-1761603-2; mate is Amp P/N 3-1658526-8

LED Signals - 10-pin (5 pins x 2 rows) connector,
Amp P/N 5103308-1; mate is Amp P/N 1658526-4

A.4 INSTALLATION

The Connector Board plugs down on top of the mating 4813, 2313 or 8013 board with a 0.5 inch space between the two boards. Two male-female standoffs and mounting hardware are included to fasten the boards together and to keep the original 4813 mounting method. If the 4813 is mounted from the circuit side with screws, use the female end of the standoff on the circuit side. If the 4813 is mounted from the component side, use the male end of the standoff as the mounting screw.

Install the two plastic standoffs in the front two holes on the connector board to keep it level. Mount the Connector Board on top of the 4813. Press the 150 pin connector firmly into the 4813. Use the appropriate hardware to fasten the Connector Board to the standoffs.

A.5 CONNECTOR CONNECTIONS

Tables 1 through 4 list the signals on each header along with the 4813 Byte and Bit identification. The Tables have blank Pin and Signal name columns so the user can fill in his signal identification and/or wiring information. Figure A-2 shows the header pin orientation.

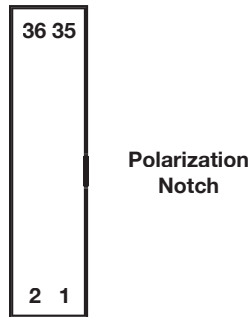


Figure A-2 Header Pin Orientation

Suggested cable designs are shown in Figures A-3 and A-4



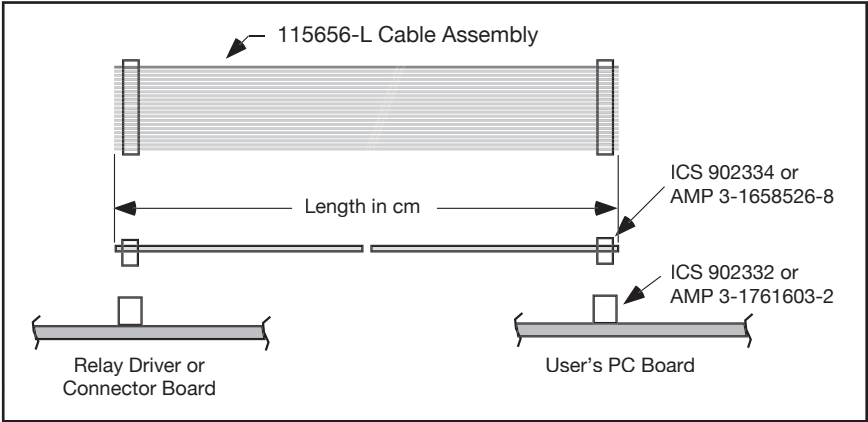


Figure A-3 Signal Cable Design

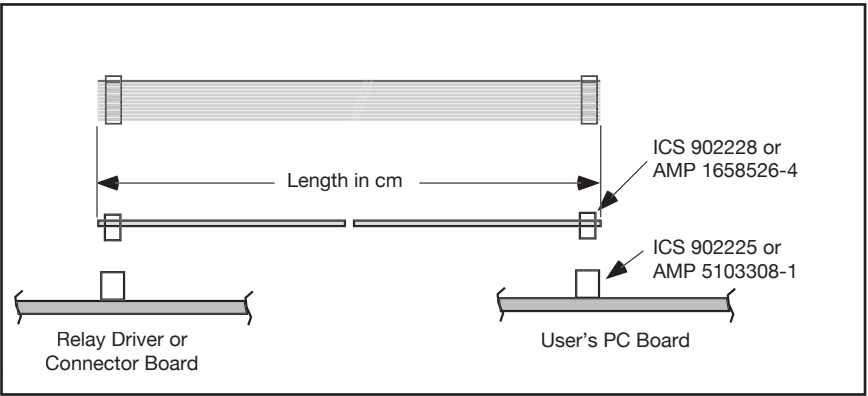


Figure A-4 LED Drive Signal Cable Design

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A.6 USER DEFINED SIGNAL CONNECTIONS

Each header has an unused signal (Sig#1 - Sig #4) that lets the user route any 4813 handshake or control line out to his external circuits. Each unused signal connects to numbered pins on the pin strip. The pin strip is arranged so that each numbered pin (unused signal) can connect to any 4813 handshake or control signal. The signals are labeled on the PC board. Refer to the 4813 Manual for the signal definitions and their use.

Figure A-5 shows a portion of the pin strip. User defined signals are identified by the signal number which corresponds to the header and SIG# number. To connect a user signal to a 4813 signal, just locate your signal number adjacent to the desired 4813 signal and use a shorting jumper to connect them. Park spare shorting jumpers on an unused 4813 signal name as shown below.

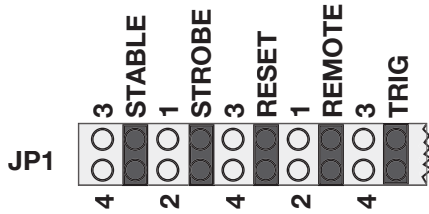


Figure A-5 Portion of the Pin Strip

TABLE 1 CONNECTOR PIN ASSIGNMENTS (J1)

4813 Signal	Signal Weighting			Pin	User Signals	
	Binary	BCD/HEX			Pin	Signal
CH 4	Byte 1 Bit 7	MSN	Bit 8	3		
CH 3	Byte 1 Bit 6	MSN	Bit 4	4		
CH 2	Byte 1 Bit 5	MSN	Bit 2	5		
CH 1	Byte 1 Bit 4	MSN	Bit 1	6		
CH 8	Byte 1 Bit 3	MSN-1	Bit 8	7		
CH 7	Byte 1 Bit 2	MSN-1	Bit 4	8		
CH 6	Byte 1 Bit 1	MSN-1	Bit 2	9		
CH 5	Byte 1 Bit 0	MSN-1	Bit 1	10		
CH 12	Byte 2 Bit 7	MSN-2	Bit 8	11		
CH 11	Byte 2 Bit 6	MSN-2	Bit 4	12		
CH 10	Byte 2 Bit 5	MSN-2	Bit 2	13		
CH 9	Byte 2 Bit 4	MSN-2	Bit 1	14		
CH 16	Byte 2 Bit 3	MSN-3	Bit 8	15		
CH 15	Byte 2 Bit 2	MSN-3	Bit 4	16		
CH 14	Byte 2 Bit 1	MSN-3	Bit 2	17		
CH 13	Byte 2 Bit 0	MSN-3	Bit 1	18		
CH 20	Byte 3 Bit 7	MSN-4	Bit 8	21		
CH 19	Byte 3 Bit 6	MSN-4	Bit 4	22		
CH 18	Byte 3 Bit 5	MSN-4	Bit 2	23		
CH 17	Byte 3 Bit 4	MSN-4	Bit 1	24		
CH 24	Byte 3 Bit 3	MSN-5	Bit 8	25		
CH 23	Byte 3 Bit 2	MSN-5	Bit 4	26		
CH 22	Byte 3 Bit 1	MSN-5	Bit 2	27		
CH 21	Byte 3 Bit 0	MSN-5	Bit 1	28		
CH 28	Byte 4-bit 7	MSN-6	Bit 8	29		
CH 27	Byte 4-bit 6	MSN-6	Bit 4	30		
CH 26	Byte 4-bit 5	MSN-6	Bit 2	31		
CH 25	Byte 4-bit 4	MSN-6	Bit 1	32		
CH 32	Byte 4-bit 3	MSN-7	Bit 8	33		
CH 31	Byte 4-bit 2	MSN-7	Bit 4	34		
CH 30	Byte 4-bit 1	MSN-7	Bit 2	35		
CH 29	Byte 4-bit 0	MSN-7	Bit 1	36		
-	Not used			1		
Sig#1	User defined signal			2		
-	Signal Ground			19,20		

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TABLE 2 CONNECTOR-PIN ASSIGNMENTS (J2)

4813 Signal	Signal Weighting			Pin	User Signals	
	Binary	BCD/HEX			Pin	Signal
CH 36	Byte 5 Bit 7	MSN-8	Bit 8	3		
CH 35	Byte 5 Bit 6	MSN-8	Bit 4	4		
CH 34	Byte 5 Bit 5	MSN-8	Bit 2	5		
CH 33	Byte 5 Bit 4	MSN-8	Bit 1	6		
CH 40	Byte 5 Bit 3	MSN-9	Bit 8	7		
CH 39	Byte 5 Bit 2	MSN-9	Bit 4	8		
CH 38	Byte 5 Bit 1	MSN-9	Bit 2	9		
CH 37	Byte 5 Bit 0	MSN-9	Bit 1	10		
CH 44	Byte 6 Bit 7	MSN-10	Bit 8	11		
CH 43	Byte 6 Bit 6	MSN-10	Bit 4	12		
CH 42	Byte 6 Bit 5	MSN-10	Bit 2	13		
CH 41	Byte 6 Bit 4	MSN-10	Bit 1	14		
CH 48	Byte 6 Bit 3	MSN-11	Bit 8	15		
CH 47	Byte 6 Bit 2	MSN-11	Bit 4	16		
CH 46	Byte 6 Bit 1	MSN-11	Bit 2	17		
CH 45	Byte 6 Bit 0	MSN-11	Bit 1	18		
CH 52	Byte 7 Bit 7	MSN-12	Bit 8	21		
CH 51	Byte 7 Bit 6	MSN-12	Bit 4	22		
CH 50	Byte 7 Bit 5	MSN-12	Bit 2	23		
CH 49	Byte 7 Bit 4	MSN-12	Bit 1	24		
CH 56	Byte 7 Bit 3	MSN-13	Bit 8	25		
CH 55	Byte 7 Bit 2	MSN-13	Bit 4	26		
CH 54	Byte 7 Bit 1	MSN-13	Bit 2	27		
CH 53	Byte 7 Bit 0	MSN-13	Bit 1	28		
CH 60	Byte 8 Bit 7	MSN-14	Bit 8	28		
CH 59	Byte 8 Bit 6	MSN-14	Bit 4	30		
CH 58	Byte 8 Bit 5	MSN-14	Bit 2	31		
CH 57	Byte 8 Bit 4	MSN-14	Bit 1	32		
CH 64	Byte 8 Bit 3	MSN-15	Bit 8	33		
CH 63	Byte 8 Bit 2	MSN-15	Bit 4	34		
CH 62	Byte 8 Bit 1	MSN-15	Bit 2	35		
CH 61	Byte 8 Bit 0	MSN-15	Bit 1	36		
-	Not used			1		
Sig#2	User defined signal			2		
-	Signal Ground			19,20		



TABLE 3 CONNECTOR-PIN ASSIGNMENTS (J3)

4813 Signal	Signal Weighting		Pin	User Signals	
	Binary	BCD/HEX		Pin	Signal
CH 68	Byte 9 Bit 7	MSN-16 Bit 8	3		
CH 67	Byte 9 Bit 6	MSN-16 Bit 4	4		
CH 66	Byte 9 Bit 5	MSN-16 Bit 2	5		
CH 65	Byte 9 Bit 4	MSN-16 Bit 1	6		
CH 72	Byte 9 Bit 3	MSN-17 Bit 8	7		
CH 71	Byte 9 Bit 2	MSN-17 Bit 4	8		
CH 70	Byte 9 Bit 1	MSN-17 Bit 2	9		
CH 69	Byte 9 Bit 0	MSN-17 Bit 1	10		
CH 76	Byte 10 Bit 7	MSN-18 Bit 8	11		
CH 75	Byte 10 Bit 6	MSN-18 Bit 4	12		
CH 74	Byte 10 Bit 5	MSN-18 Bit 2	13		
CH 73	Byte 10 Bit 4	MSN-18 Bit 1	14		
CH 80	Byte 10 Bit 3	MSN-19 Bit 8	15		
CH 79	Byte 10 Bit 2	MSN-19 Bit 4	16		
CH 78	Byte 10 Bit 1	MSN-19 Bit 2	17		
CH 77	Byte 10 Bit 0	MSN-19 Bit 1	18		
CH 84	Byte 11 Bit 7	MSN-20 Bit 8	21		
CH 83	Byte 11 Bit 6	MSN-20 Bit 4	22		
CH 82	Byte 11 Bit 5	MSN-20 Bit 2	23		
CH 81	Byte 11 Bit 4	MSN-20 Bit 1	24		
CH 88	Byte 11 Bit 3	MSN-21 Bit 8	25		
CH 87	Byte 11 Bit 2	MSN-21 Bit 4	26		
CH 86	Byte 11 Bit 1	MSN-21 Bit 2	27		
CH 85	Byte 11 Bit 0	MSN-21 Bit 1	28		
CH 92	Byte 12 Bit 7	MSN-22 Bit 8	29		
CH 91	Byte 12 Bit 6	MSN-22 Bit 4	30		
CH 90	Byte 12 Bit 5	MSN-22 Bit 2	31		
CH 89	Byte 12 Bit 4	MSN-22 Bit 1	32		
CH 96	Byte 12 Bit 3	MSN-23 Bit 8	33		
CH 95	Byte 12 Bit 2	MSN-23 Bit 4	34		
CH 94	Byte 12 Bit 1	MSN-23 Bit 2	35		
CH 93	Byte 12 Bit 0	MSN-23 Bit 1	36		
-	Not used		1		
Sig#3	User defined signal		2		
-	Signal Ground		19,20		

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TABLE 4 CONNECTOR-PIN ASSIGNMENTS (J4)

4813 Signal	Signal Weighting		Pin	User Signals	
	Binary	BCD/HEX		Pin	Signal
CH 100	Byte 13 Bit 7	MSN-24 Bit 8	3		
CH 99	Byte 13 Bit 6	MSN-24 Bit 4	4		
CH 98	Byte 13 Bit 5	MSN-24 Bit 2	5		
CH 97	Byte 13 Bit 4	MSN-24 Bit 1	6		
CH 104	Byte 13 Bit 3	MSN-25 Bit 8	7		
CH 103	Byte 13 Bit 2	MSN-25 Bit 4	8		
CH 102	Byte 13 Bit 1	MSN-25 Bit 2	9		
CH 101	Byte 13 Bit 0	MSN-25 Bit 1	10		
CH 108	Byte 14 Bit 7	MSN-26 Bit 8	11		
CH 107	Byte 14 Bit 6	MSN-26 Bit 4	12		
CH 106	Byte 14 Bit 5	MSN-26 Bit 2	13		
CH 105	Byte 14 Bit 4	MSN-26 Bit 1	14		
CH 112	Byte 14 Bit 3	MSN-27 Bit 8	15		
CH 111	Byte 14 Bit 2	MSN-27 Bit 4	16		
CH 110	Byte 14 Bit 1	MSN-27 Bit 2	17		
CH 109	Byte 14 Bit 0	MSN-27 Bit 1	18		
CH 116	Byte 15 Bit 7	MSN-28 Bit 8	21		
CH 115	Byte 15 Bit 6	MSN-28 Bit 4	22		
CH 114	Byte 15 Bit 5	MSN-28 Bit 2	23		
CH 113	Byte 15 Bit 4	MSN-28 Bit 1	24		
CH 120	Byte 15 Bit 3	MSN-29 Bit 8	25		
CH 119	Byte 15 Bit 2	MSN-29 Bit 4	26		
CH 118	Byte 15 Bit 1	MSN-29 Bit 2	27		
CH 117	Byte 15 Bit 0	MSN-29 Bit 1	28		
CH 124	Byte 16 Bit 7	MSN-30 Bit 8	29		
CH 123	Byte 16 Bit 6	MSN-30 Bit 4	30		
CH 122	Byte 16 Bit 5	MSN-30 Bit 2	31		
CH 121	Byte 16 Bit 4	MSN-30 Bit 1	32		
CH 128	Byte 16 Bit 3	MSN-31 Bit 8	33		
CH 127	Byte 16 Bit 2	MSN-31 Bit 4	34		
CH 126	Byte 16 Bit 1	MSN-31 Bit 2	35		
CH 125	Byte 16 Bit 0	MSN-31 Bit 1	36		
-	Not used		1		
Sig#4	User defined signal		2		
-	Signal Ground		19,20		

