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SCB 9308 Digital Output Signal Conditioning Board

Product Specification

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Revision History

The following table shows the revision history for this document.

Date	Version	Change Notes
21/09/2009	2.0	PCB Issue 2
30/12/2019	2.1	Change from Hytec to Newwood Solutions for contact details

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1. INTRODUCTION

The SCB 9308 is a small optically isolated 32-channel signal conditioning board used to route signals to front panel SCSI connectors from one group of I/O in the VDIO8005 when mounted on a VME64X VTB 8308 Transition Board. Thirty two pairs of circuits provided isolated MOSFET transistor switch outputs. All circuits are current limited to 2A. A logic 1 is asserted in each circuit when current is switched to isolated ground. The output clamp voltage is 50V. Transition rise times are 1.5us.

2. PRODUCT SPECIFICATIONS

2.1 Power Requirements

+24V isolated power from an external power supply via the transition board SCSI inputs. Pins 48 and 50 +24V, pins 33-47 0V.

2.2 Operating Temperature Range

0 to +45 deg Celsius ambient.

2.3 Mechanical

Printed circuit board with two 50-way sockets PL1, PL2 and 6 way power plug PL3 (+5V and GND)
Board Dimensions: 2.55 x 1.80 inches

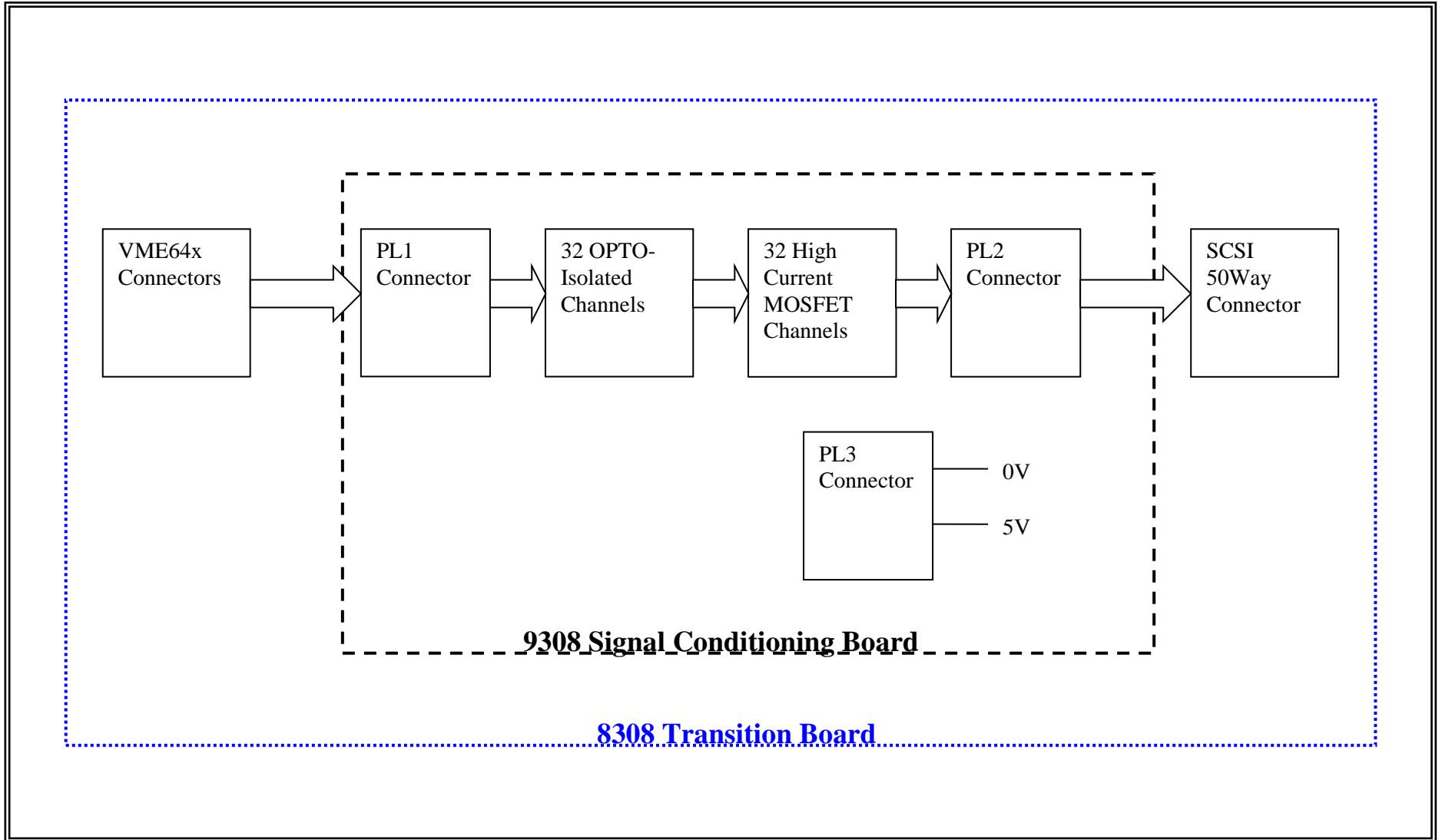
2.4 Signal Specifications

Digital Inputs (32)

PL2/1 to PL2/32 provides the digital outputs consisting of a protected MOSFET switch to isolated ground for a logic 1.

PL1/1 to PL1/32 connects to the photo diode inputs and are driven high for a logic 1 with 680 ohms resistor in series.

When sufficient current flows in the input circuit (3mA), the output transistor saturates to provide a logic low signal.



Block Diagram of connections between the 8308 transition card and 9308 SCB module

Table of Signal Allocation PL1 on 9308 SCB

Pin	Signal	Pin	Signal
1	VME output channel 1	26	VME output channel 26
2	VME output channel 2	27	VME output channel 27
3	VME output channel 3	28	VME output channel 28
4	VME output channel 4	29	VME output channel 29
5	VME output channel 5	30	VME output channel 30
6	VME output channel 6	31	VME output channel 31
7	VME output channel 7	32	VME output channel 32
8	VME output channel 8	33	Not Connected
9	VME output channel 9	34	Not Connected
10	VME output channel 10	35	Not Connected
11	VME output channel 11	36	Not Connected
12	VME output channel 12	37	Not Connected
13	VME output channel 13	38	Not Connected
14	VME output channel 14	39	Not Connected
15	VME output channel 15	40	Not Connected
16	VME output channel 16	41	Not Connected
17	VME output channel 17	42	Not Connected
18	VME output channel 18	43	Not Connected
19	VME output channel 19	44	Not Connected
20	VME output channel 20	45	Not Connected
21	VME output channel 21	46	Not Connected
22	VME output channel 22	47	Not Connected
23	VME output channel 23	48	Not Connected
24	VME output channel 24	49	Not Connected
25	VME output channel 25	50	Not Connected

Table of Signal Allocation PL2 on 9308 SCB

Pin	Signal	Pin	Signal
1	Isolated High Current Output 1	26	Isolated High Current Output 26
2	Isolated High Current Output 2	27	Isolated High Current Output 27
3	Isolated High Current Output 3	28	Isolated High Current Output 28
4	Isolated High Current Output 4	29	Isolated High Current Output 29
5	Isolated High Current Output 5	30	Isolated High Current Output 30
6	Isolated High Current Output 6	31	Isolated High Current Output 31
7	Isolated High Current Output 7	32	Isolated High Current Output 32
8	Isolated High Current Output 8	33	Isolated GND
9	Isolated High Current Output 9	34	Isolated GND
10	Isolated High Current Output 10	35	Isolated GND
11	Isolated High Current Output 11	36	Isolated GND
12	Isolated High Current Output 12	37	Isolated GND
13	Isolated High Current Output 13	38	Isolated GND
14	Isolated High Current Output 14	39	Isolated GND
15	Isolated High Current Output 15	40	Isolated GND
16	Isolated High Current Output 16	41	Isolated GND
17	Isolated High Current Output 17	42	Isolated GND
18	Isolated High Current Output 18	43	Isolated GND
19	Isolated High Current Output 19	44	Isolated GND
20	Isolated High Current Output 20	45	Isolated GND
21	Isolated High Current Output 21	46	Isolated GND
22	Isolated High Current Output 22	47	Isolated GND
23	Isolated High Current Output 23	48	Isolated 24V supply
24	Isolated High Current Output 24	49	Isolated GND
25	Isolated High Current Output 25	50	Isolated 24V supply

PL3 9308 SCB Connections

Pins 1,2 +5V (not used)

Pins 3 GND

Pin 4 Not Connected

Pin 5 Not Connected

Pin 6 Not Connected

8308 50Way SCSI Pin Allocation

Pin	Signal	Pin	Signal
1	Isolated High Current Output 2	26	Isolated High Current Output 1
2	Isolated High Current Output 4	27	Isolated High Current Output 3
3	Isolated High Current Output 6	28	Isolated High Current Output 5
4	Isolated High Current Output 8	29	Isolated High Current Output 7
5	Isolated High Current Output 10	30	Isolated High Current Output 9
6	Isolated High Current Output 12	31	Isolated High Current Output 11
7	Isolated High Current Output 14	32	Isolated High Current Output 13
8	Isolated High Current Output 16	33	Isolated High Current Output 15
9	Isolated High Current Output 18	34	Isolated High Current Output 17
10	Isolated High Current Output 20	35	Isolated High Current Output 19
11	Isolated High Current Output 22	36	Isolated High Current Output 21
12	Isolated High Current Output 24	37	Isolated High Current Output 23
13	Isolated High Current Output 26	38	Isolated High Current Output 25
14	Isolated High Current Output 28	39	Isolated High Current Output 27
15	Isolated High Current Output 30	40	Isolated High Current Output 29
16	Isolated High Current Output 32	41	Isolated High Current Output 31
17	Isolated GND	42	Isolated GND
18	Isolated GND	43	Isolated GND
19	Isolated GND	44	Isolated GND
20	Isolated GND	45	Isolated GND
21	Isolated GND	46	Isolated GND
22	Isolated GND	47	Isolated GND
23	Isolated GND	48	Isolated GND
24	Isolated +24V supply input	49	Isolated GND
25	Isolated +24V supply input	50	Isolated GND