

PCLD-8810E/8810I

68-pin SCSI DIN-rail Wiring Board with CJC

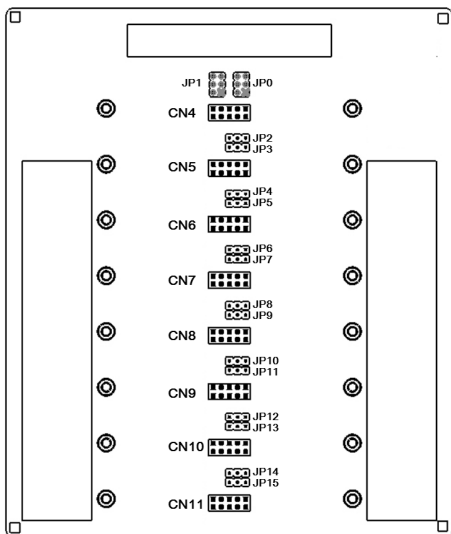
Overview

The PCLD-8810 Screw-terminal Board provides convenient and reliable signal wiring for PCIE-1810 series and PCI-1710 series with 68-pin SCSI-II connector.

Features

- 16 single-ended or 8 differential AI inputs, programmable
- On-board CJC circuits for direct thermocouple measurement
- Reserved space for signal-conditioning circuits such as PCLD-8811
- Industrial-grade screw-clamp terminal blocks for heavy-duty and reliable connections
- DIN-rail mounting case for easy mounting

Board Components



Notes

For more information on this and other Advantech products, please visit our websites at:

<http://www.advantech.com>

For technical support and service:

<http://www.advantech.com/support/>

This startup manual is for PCLD- 8810E/8810I

Part No: 2003881000

1st Edition

July 2015

Ordering Information

- PCLD-8810E-AE 68-pin SCSI DIN-rail Wiring Board for PCI-1710 series
- PCLD-8810I-AE 68-pin SCSI DIN-rail Wiring Board for PCI-1780 series

Accessories

Wiring Cables

- PCL-10168-1E 68-pin SCSI Shielded Cable, 1 m
- PCL-10168-2E 68-pin SCSI Shielded Cable, 2 m
- PCL-10168H-1E 68-pin SCSI Shielded Cable with Noise Rejecting, 1 m
- PCL-10168H-2E 68-pin SCSI Shielded Cable with Noise Rejecting, 2 m

Signal Conditioning Board

- PCLD-8811-AE Bandwidth-Configurable filter board

General Specifications

CJC Calculations	$V_t = 10 \text{ (mV/}^\circ\text{K)} \times T \text{ (}^\circ\text{K)}$
	V_t : the calibration voltage T : measured temperature in $^\circ\text{K}$, and $0^\circ\text{C} = 273^\circ\text{K}$
I/O Connector Type	68-pin SCSI female
Dimensions	167.7 x 100 mm (6.6" x 3.9")
Power Consumption	Typical +12V @ 20 mA (PCLD-8811 x 0 pcs)
	Max. +12V @ 390mA (PCLD-8811 x 8 pcs)
Temperature	Operating 0~60°C (32 ~ 140°C)
	Storage -20~70°C (-4 ~ 158°C)
Relative Humidity	Operating 5~85%RH non-condensing
	Storage 5~95%RH non-condensing

Component Descriptions and Settings

Note: The pin function is determined by the connected malfunction card.

SCSI Pin Assignment: PCLD-8810E

Product Support List

- PCIE-1810
- PCIE-1816
- PCIE-1816H

Function	Pin		Function
AI 0	68	34	AI 1
AI 2	67	33	AI 3
AI 4	66	32	AI 5
AI 6	65	31	AI 7
AI 8	64	30	AI 9
AI 10	63	29	AI 11
AI 12	62	28	AI 13
AI 14	61	27	AI 15
AGND	60	26	AGND
AO0 REF	59	25	AO1 REF
AO0 OUT	58	24	AO1 OUT
AGND	57	23	AGND
ATRG0	56	22	ATRG1
DTRG0	55	21	DTRG1
AI SCAN	54	20	AI CONV
NA	53	19	AO CONV
DIO 0	52	18	DIO 1
DIO 2	51	17	DIO 3
DIO 4	50	16	DIO 5
DIO 6	49	15	DIO 7
DGND	48	14	DGND
DIO 8	47	13	DIO 9
DIO 10	46	12	DIO 11
DIO 12	45	11	DIO 13
DIO 14	44	10	DIO 15
DIO 16	43	09	DIO 17
DIO 18	42	08	DIO 19
DIO 20	41	07	DIO 21
DIO 22	40	06	DIO 23
DGND	39	05	DGND
CNT0 CLK	38	04	CNT1 CLK
CNT0 OUT	37	03	CNT1 OUT
CNT0 GATE	36	02	CNT1 GATE
+12V	35	01	+5V

SCSI Pin Assignment: PCLD-8810I

Product Support List

- PCI-1710U/UL/HGU
- PCI-1711U/UL
- PCI-1716/L
- PCI-1741U/PCI-1742U

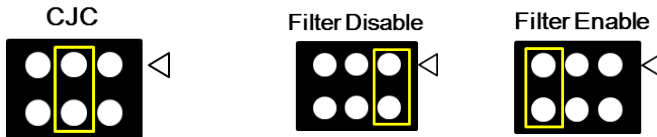
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AI 8	64	30	AI 9
AI 10	63	29	AI 11
AI 12	62	28	AI 13
AI 14	61	27	AI 15
AGND	60	26	AGND
AO0 REF	59	25	AO1 REF
AO0 OUT	58	24	AO1 OUT
AGND	57	23	AGND
DI 0	56	22	DI 1
DI 2	55	21	DI 3
DI 4	54	20	DI 5
DI 6	53	19	DI 7
DI 8	52	18	DI 9
DI 10	51	17	DI 11
DI 12	50	16	DI 13
DI 14	49	15	DI 15
DGND	48	14	DGND
DO 0	47	13	DO 1
DO 2	46	12	DO 3
DO 4	45	11	DO 5
DO 6	44	10	DO 7
DO 8	43	09	DO 9
DO 10	42	08	DO 11
DO 12	41	07	DO 13
DO 14	40	06	DO 15
DGND	39	05	DGND
CNT0 CLK	38	04	PACER OUT
CNT0 OUT	37	03	TRG GATE
CNT0 GATE	36	02	EXT TRG
+12V	35	01	+5V

CN4 to CN11: Pin Header for filter Board - PCLD-8811

Pin Header	Filter Board Mapping Table		
	AI Channel (single Ended)	AI Channel (Differential)	Jumper
CN4	AI0, AI1	AI0	JP0,1
CN5	AI2, AI3	AI1	JP2,3
CN6	AI4, AI5	AI2	JP4,5
CN7	AI6, AI7	AI3	JP6,7
CN8	AI8, AI9	AI4	JP8,9
CN9	AI10, AI11	AI5	JP10,11
CN10	AI12, AI13	AI6	JP12,13
CN11	AI14, AI15	AI7	JP14,15

JP0 and JP1: For CJC and Jumper Settings

The PCLD-8810 provides on-board CJC (Cold Junction Compensation) for thermocouple measurement. Through the setting of jumpers JP0 and JP1 you control switching of the CJC circuitry and filter circuitry. The jumper settings are as follows:



JP0 to JP15: Filter Setting

