PCLD-8712

User's manual

KOLBINGER - PCQT - +43 2239 3160
AT-2384 Breitenfurt/Vienna, Hauptstrasse 93, office@kolbinger.at , www.pcqt.at

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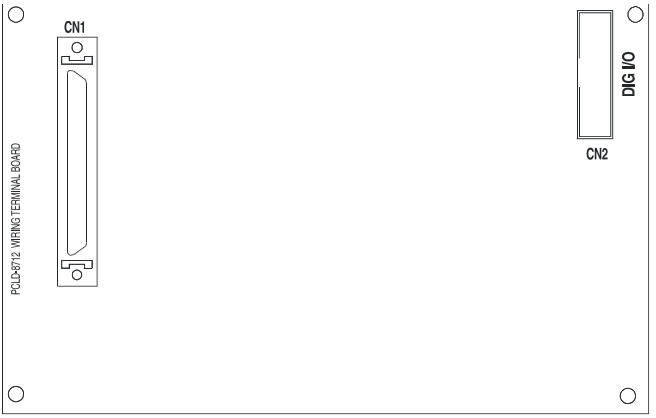
Introduction

The PCLD-8712 Screw-terminal Board provides convenient and reliable signal wiring for the PCI-1712/1732 of which has a 68-pin SCSI-II connector. Due to its special PCB layout you can install passive components to construct your own signal-conditioning circuits. The user can easily construct a low-pass filter, attenuator or current shunt converter by adding resistors and capacitors on board's circuit pads.

Features

- Low-cost screw-terminal board for the PCI-1712/1732 with 68-pin SCSI-II connector.
- Reserved space for signal-conditioning circuits such as low-pass filter, voltage attenuator and current shunt.
- Industrial-grade screw-clamp terminal blocks for heavy-duty and reliable connections.
- DIN-rail mounting case for easy mounting.
- Dimensions:169 mm (W) x 112mm (L) x 51mm (H) (6.7" x 4.4" x 2.0")



Board Layout

CN1: 68-pin SCSI-II connector for connection with the PCI-1712

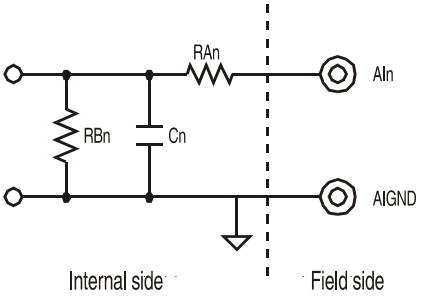
CN2: 20-pin connector for digital I/O

Pin Assignment

CN

DIO 0	1	2	DIO 1
DIO 2	3	4	DIO 3
DIO 4	5	6	DIO 5
DIO 6	7	8	DIO 7
DIO 8	9	10	DIO 9
DIO 10	11	12	DIO 11
DIO 12	13	14	DIO 13
DIO 14	15	16	DIO 15
DGND	17	18	DGND
+5 V	19	20	+12 V

Single-ended Connections



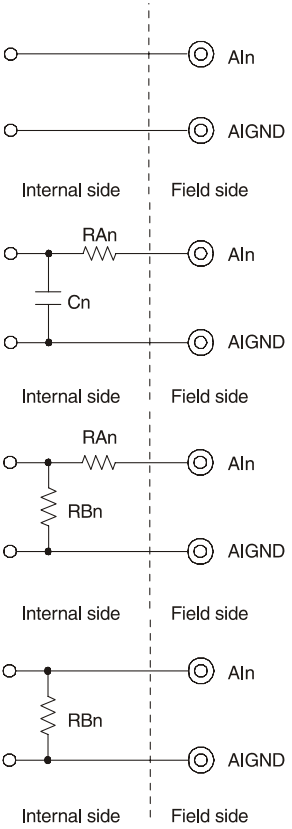
where n =0, 1, 2,.....15

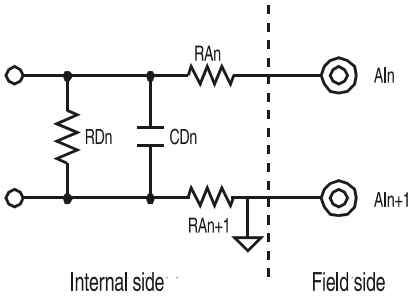
a) Straight-through connection (factory setting)
   RAn = 0 Ω (short)
   RBn = none
   Cn = none

b) 1.6 kHz (3dB) low pass filter
   RAn = 10 k Ω
   PBν = νονε
   Xν = 0.01 ∝Φ
   ϕ_{3dB} =

c) 10 : 1 voltage attenuator:
   RAn = 9 k Ω
   PBν = 1 κ Ω
   Xν = νονε
   Αττενυατιον =

d) 4 ~ 20 mA to 1 ~ 5 V_{DC} signal converter:
   RAn = 0 Ω (short)
   RBn = 250 Ω (0.1% precision resistor)
   Cn = none





where n =0, 2, 4,.....14

Differential Connections

a) Straight-through connection (factory setting):
   RAn = 0 Ω (short)
   RAn+1 = 0 Ω (short)
   RDn = none
   CDn = none

b) 1.6 kHz (3dB) low pass filter
   RAn = 5 kΩ $_{1}$
   RAn+1 = 5 kΩ
   RDn = none
   CDn = 0.01 µF
   f3dB =

c) 10 : 1 voltage attenuator:
   RAn = 4.5 k Ω $\frac{RDn}{RAn+RAn+1+RDn}$
   RAn+1 = 4.5 kΩ
   RDn = 1 kΩ
   Cn = none
   Attenuation =

d) 4 ~ 20 mA to 1 ~ 5 V_{DC} signal converter: