



Introduction

The PCLD-774 Analog Expansion Board is designed to allow Advantech's PCL-series DA&C cards to accommodate multiple external signal-conditioning daughterboards, such as the PCLD-770, PCLD-789, PCLD-889 and especially the PCLD-779. You can expand the PCLD-779's isolated thermocouple measurement capacity from eight channels to a maximum of 32 channels by connecting four PCLD-779s to the PCLD-774.

The PCLD-774 features five sets of on-board 20-pin header connectors in a new star-type architecture. This allows cascading of multiple signal-conditioning daughterboards without the signal-attenuation and current-loading problems of normal cascading.

The PCLD-774's DB-37 connector serves as the bridge between your existing signal-conditioning boards and the most recent Advantech high-performance DA&C cards, such as the PCL-816, PCL-818HG and other DA&C products with a DB-37 connector.

Applications

- Star-type cascading for multiple signal-conditioning boards
- DB-37 connector conversion to 20-pin header connector

Features

- Supports all PCL-series DA&C cards
- Supports all PCLD-series signal-conditioning daughterboards
- Up to four PCLD-779s can be connected at the same time to maximize temperature measurement capacity
- DB-37 connector allows the PCL-816 to interface with the PCLD-series signal-conditioning boards
- Additional screw-terminal block for signal wiring and monitoring
- Auto-lock 20-pin header connectors for reliable connections
- LED power-on indicators
- Accepts external power

Specifications

- **Analog connectors:**
Channels: 8 differential
Connector types: One DB-37 connector, 5 female 20-pin header connectors (with locks) and 16 screw terminals
- **Digital connectors:**
Channels: 16
Connector types: 5 20-pin header connectors with locks
- **Dimensions:** 205 mm (L) x 115 mm (W) (8.1" x 4.5")

Pin Assignment

Analog Connector

H0	1	2	L0
H1	3	4	L1
H2	5	6	L2
H3	7	8	L3
H4	9	10	L4
H5	11	12	L5
H6	13	14	L6
H7	15	16	L7
NC	17	18	A.GND
NC	19	20	A.GND

Digital Connector

D0	1	2	D1
D2	3	4	D3
D4	5	6	D5
D6	7	8	D7
D8	9	10	D9
D10	11	12	D11
D12	13	14	D13
D14	15	16	D15
D.GND	17	18	D.GND
+5 V	19	20	+12 V

Ordering Information

- PCLD-774:**
Analog Expansion Board
- PCL-10120-1:**
20-pin flat-cable assembly, 1 m
- PCL-10137:**
DB-37 cable assembly