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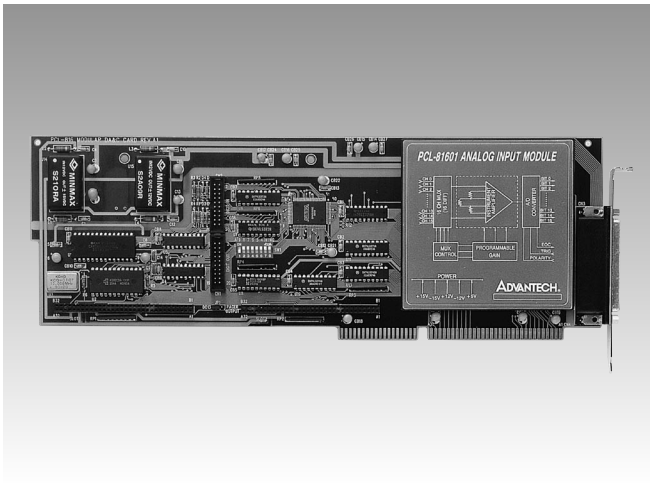
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Find the *Advantech PCL-81601* at our website: *Click HERE*

PCL-816/816-DA

Modular High-resolution Multifunction Card



Features

- 16-bit resolution A/D converter
- High-performance 100 KHz sampling rate
- Accepts 16 differential analog inputs with separately programmable gains (x 1, 2, 4 or 8)
- Programmable DMA channel
- Programmable IRQ level
- Metal-shielded A/D module for noise reduction
- Auto channel scanning circuit
- Versatile language drivers for C/C++, Pascal and BASIC
- Optional 16-bit D/A output module

CE

Introduction

The PCL-816 modular DAS card allows you to choose your own customized data acquisition configuration. Its 100 KHz A/D module offers 16-bit resolution with 16 channels of differential analog input measurement. The A/D module has its own protective cover, ensuring excellent signal shielding and noise immunity. A DB-37 cable connector provides fully-shielded signal connections to the A/D module. In addition to the standard A/D module, the carrier board has two 64-pin piggyback connectors for additional function expansion modules. Accepting most sub-modules, this modular system makes customizing and upgrading easy.

Specifications

Analog Input

- **Channels** 16, differential
- **Resolution** 16 bits
- **Conversion Time** 8.5 µsec.
- **Max. Sampling Rate** 100 KHz
- **Software Programmable Input Range (V)**
  Bipolar: ±10, ±5, ±2.5, ±1.25
  Unipolar: 0 ~ 10, 0 ~ 5, 0 ~ 2.5, 0 ~ 1.25
- **Trigger Mode** software, pacer or external trigger
- **Data Transfer** software, interrupt (IRQ 2-7, S/W select) or DMA (channel 1 or 3, S/W select)
- **Accuracy** 0.003% ±1 LSB
- **Input Impedance** > 10 MΩ
- **Input Overvoltage** ±15 V
- **Connector** Female DB-37

Digital Input

- **Channels** 16
- **Logic Level** TTL-compatible
  Logic level 0: 0.8 V max.
  Logic level 1: 2.0 V min.
- **Connector** 20-pin flat cable

Digital Output

- **Channels** 16
- **Logic Level** TTL-compatible
  Logic level 0: 0.4 V max. @ 16 mA (sink)
  Logic level 1: 2.4 V min. @ 800 mA (source)
- **Connector** 20-pin flat cable

General

- **Programmable Pacer Clock**
  Device: Intel 8254 or equivalent
  Time base: 10 MHz
  Max. rate: 2.5 MHz
  Min. rate: 0.00023 Hz
- **I/O Ports** each card occupies 16 consecutive I/O addresses
- **Expansion** the PCL-816 accepts one PCL-816-DA D/A module, providing 2 channels of 16-bit analog output
- **Power Consumption** +5 V @ 430 mA typical
  +5 V @ 500 mA max.
  +12 V @ 260 mA typical
  +12 V @ 280 mA max.
- **Dimensions (L x H)** 337 x 112 mm (13.3" x 4.4")

PCL-816-DA 2-channel 16-bit D/A module

- **Channels** 2
- **Resolution** 16 bits, double-buffered
- **Output Ranges** bipolar ±10 V
- **Output Current** ±5 mA max.
- **Settling Time** 5 µsec.
- **Data Transfer** software, DMA
- **Accuracy** ±0.003% full scale range
- **Linearity** ±2 LSB typical, ±4 LSB max.
- **Reset (power-on) Status** All D/A channels will be at 0 V after reset or power-on
- **Temperature Drift** 15 PPM/° C of full span (0 ~ 50° C)

Ordering Information

- **PCL-816** Modular High-Resolution Multifunction card. Includes on-board 16-bit A/D module, user's manual and driver CD-ROM. (cable not included)
- **PCL-816-DA** 2-channel 16-bit D/A Module

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Accessories

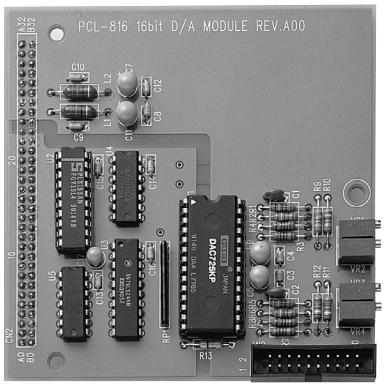
- **PCLD-10120-1** 20-pin flat cable, 1 m
- **PCLD-10120-2** 20-pin flat cable, 2 m
- **PCL-10137-1** DB-37 cable assembly, 1 m
- **PCL-10137-2** DB-37 cable assembly, 2 m
- **PCL-10137-3** DB-37 cable assembly, 3 m
- **PCLD-782** 16-channl opto-isolated digital input board
- **PCLD-782B** 24-channl opto-isolated digital input board
- **PCLD-785** 16-channl relay output board
- **PCLD-785B** 24-channl relay output board
- **PCLD-788** Relay Scanner/Multiplexer board
- **PCLD-789D** Amplifier & Multiplexer board with DB-37 connector
- **PCLD-8115** Wiring terminal board
- **PCLD-880** Wiring terminal board

Applications

- Transducer and sensor measurements
- Waveform acquisition and analysis
- Process control and monitoring
- Vibration and transient analysis

Software and Drivers

- **Windows DLL Driver** The PCL-816's Windows 95/98/ME/NT/XP/2000 dynamic link library (DLL) driver lets you write Microsoft Windows programs using tools such as Visual BASIC, Microsoft Visual C++, Borland C++ and Delphi
- **ActiveX Control** Advantech ActiveDAQ provides ActiveX Control for Visual Basic programming.
- **Application Packages** The PCL-816 is supported by a wide range of data acquisition software packages, including LabVIEW and Advantech Data Acquisition Software



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