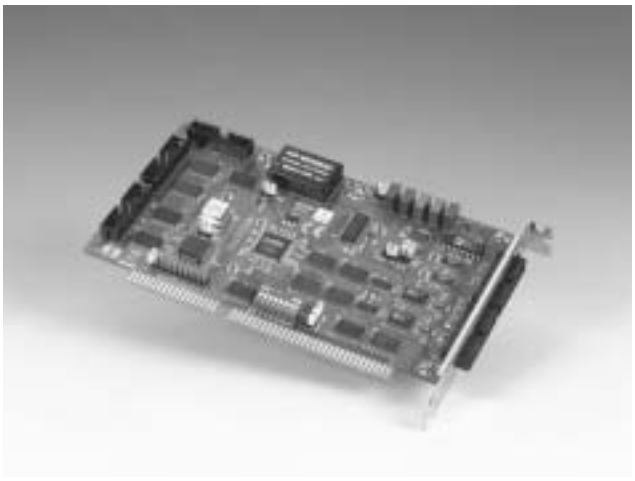
PCL-812PG

MultiLab Analog and Digital I/O Card



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Features

- 16 single-ended 12-bit analog input channels
- Two 12-bit analog output channels
- Programmable sampling rate of up to 30 kHz
- A/D with DMA or interrupt
- 16 digital input channels
- 16 digital output channels
- Programmable counter/timer
- Programmable A/D ranges (gains)
- Includes C/C++, Pascal and BASIC drivers as well as calibration, demo and example programs
- Comprehensive application software support

Introduction

PCL-812PG is a multifunction analog and digital I/O card that features the five most desired measurement and control functions for PC/AT and compatible systems: A/D conversion, D/A conversion, digital input, digital output and counter/timer. This half-size card neatly packages 16 12-bit analog input channels, two 12-bit analog output channels, 16 digital input channels, 16 digital output channels and a programmable counter/timer.

In addition to all the features listed above, PCL-812PG offers the convenience of programmable analog input ranges, where the analog input range can be switched by software commands instead of DIP switches. PCL-812PG also delivers convenience and maximum resolution for applications that need different gains for different channels or different gains for different stages of a process. Comprehensive software support, numerous I/O options and a wide range of available daughterboards make the PCL-812PG ideal for industrial applications that require a combination of analog and digital I/O.

Specifications

Analog Input

- **Channels** 16 single-ended
- **Resolution** 12 bits
- **Max. Sampling Rate** 30 kS/s
- **FIFO Size** 0
- **Overvoltage Protection** ±30 V_{DC}
- **Input Impedance** >10 MΩ
- **Sampling Modes** Software, pacer or external trigger
- **Input Range (V, software programmable)**
  ±10, ±5, ±2.5, ±1.25, ±0.625, ±0.3125
- **Accuracy** 0.01% of reading ±1 LSB

Analog Output

- **Channels** 2 double-buffered
- **Resolution** 12 bits
- **Output Rate** Software polling
- **Output Range** **(V, software programmable)**

Internal Reference	**Unipolar**	0 ~ 5, 0 ~ 10
External Reference		±10 max.

- **Driving Capability** 10 mA max.

Digital Input

- **Channels** 16
- **Compatibility** 5 V/TTL
- **Input Voltage** Logic 0: 0.8 V
  Logic 1: 2.0 V

Digital Output

- **Channels** 16
- **Compatibility** 5 V/TTL
- **Output Voltage** Logic 0: 0.5 V max., Logic 1: 2.4 V min.
- **Output Capacity** Sink: 8.0 mA, Source: 0.4 mA

Counter/Timer

- **Channels** 1
- **Resolution** 16 bits
- **Compatibility** 5 V/TTL
- **Max. Input Frequency** 500 kHz
- **Reference Clock** Internal: 2 MHz
  External Frequency: 10 MHz
  External Voltage Range: 5V/TTL

General

- **Bus Type** ISA
- **I/O Connectors** 2 x 20-pin flat cable connectors
- **Dimensions (L x H)** 185 x 100 mm (7.3" x 3.9")
- **Power Consumption** +5 V @ 500 mA typical, 1.0 A max.
  +12 V @ 50 mA typical, 100 mA max.
- **Operating Temperature** 0 ~ 50° C (32 ~ 122° F)
- **Storing Temperature** -20 ~ 65° C (-4 ~ 149° F)
- **Storing Humidity** 5 ~ 95% RH, non-condensing (refer to IEC 68-2-3)

Ordering Information

- **PCL-812PG** MultiLab Analog and Digital I/O Card, user's manual and driver CD-ROM. (cable not included)
- **PCL-10120-1** 20-pin flat cable, 1m
- **PCL-10120-2** 20-pin flat cable, 2m
- **PCLD-780** Screw terminal board