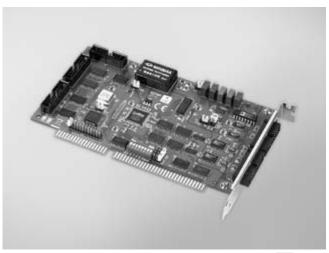
PCL-812PG

30 kS/s, 12-bit, 16-ch ISA **Multifunction Card**



Features

- 16-ch single-ended analog input
- 12-bit A/D converter, with up to 30 kHz sampling rate
- Programmable gain
- Two 12-bit analog output channels
- 16-ch digital input and 16-ch digital output
- Onboard programmable counter
- A/D with DMA or interrupt





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 Overvoltage Protection 30 Vp-p

 Input Impedance $>10 M\Omega$ Sampling Modes Software, pacer or external trigger

 Input Range (V, software programmable) ±10, ±5, ±2.5, ±1.25, ±0.625, ±0.3125

Accuracy 0.4% 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 5 mA

Digital Input

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

Digital Output

Channels 16 5 V/TTL Compatibility

Logic 0: 0.5 V max., Logic 1: 2.4 V min. **Output Voltage Output Capacity** Sink: 8.0 mA, Source: 0.4 mA

Counter/Timer

Channels 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 5 x 20-pin box header 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 $0 \sim 50^{\circ} \text{ C} (32 \sim 122^{\circ} \text{ F})$ Storage Temperature -20 ~ 65° C (-4 ~ 149° F)

 Storage Humidity 5 ~ 95% RH, non-condensing (refer to IEC 68-2-3)

Ordering Information

 PCL-812PG 30 kS/s, 12-bit, 16-ch ISA Multifunction Card

PCL-10120-1 20-pin Flat Cable, 1 m PCL-10120-2 20-pin Flat Cable, 2 m

PCLD-780 Screw Terminal Board w/ Two 20-pin Flat Cables