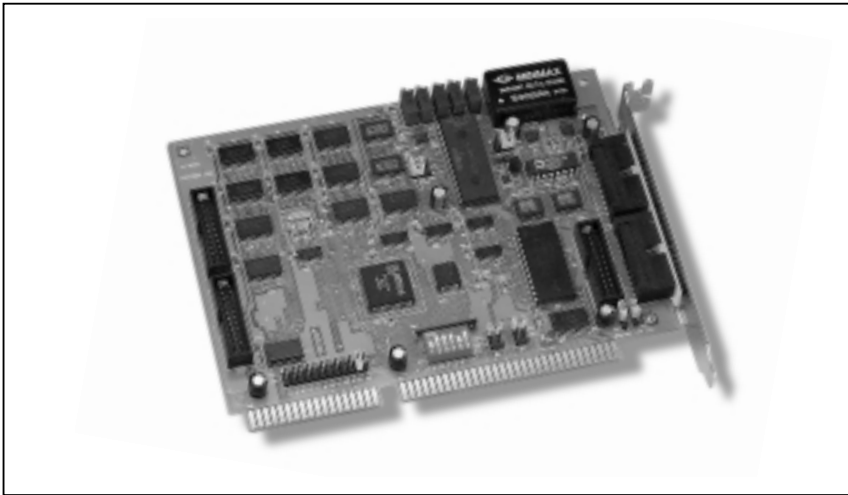


A-812PG

70 KS/s 12 bit Analog and Digital I/O Board



Functional Description

The A-812PG is a 12-bit multifunction analog and digital I/O board for the PC/AT compatible computer. The A-812PG offer 16 single-ended, plus two channel analog output with 12-bit resolution. In addition, the A-812PG has 16 digital input, 16 digital output, and one timer/counter channel. The sampling rate of A-812PG is 70K samples/s. It is fully compatible to PCL-812PG

Features

- 12-bit A/D converter
- 12-bit D/A converter
- 16 single-ended or 8 differential input channels
- 70KS/s sampling rate
- Bipolar analog input
- Two 12-bit analog output channels
- Interrupt handling
- A/D Trigger modes :
Software trigger, Pacer trigger ,
or external trigger
- A/D data transfer modes :
polling, interrupt.
- 16 digital inputs & 16 digital outputs
- register compatible to PCL-812PG

Applications

- Laboratory automation
- Sensor interface

Specifications

- **Analog Input Specifications**
 - Channels: 16 single-ended
 - Resolution: 12 bits
 - Conversion rate: 70KS/s max
 - Input Impedance: 10 M Ω 6pF
 - Over voltage Protection: +/-35V
 - Accuracy: 0.01% of reading
 - Linearity: +/- 1 bit
 - On chip sample & hold
 - Zero drift: +/-25ppm/ $^{\circ}$ C of FS max
- **Input Range**
 - Bipolar: +/- 10V, +/-5V, +/-2.5V, +/-1.25V, +/-0.625V, +/-0.3125V
- **D/A Outputs**
 - Channels: 2 independent
 - Type: 12-bit double buffered (AD-7541)
 - Linearity: \pm 1/2 bit
 - Output range: 0~5V or 0~10V jumper selected
 - +/-10V max. with external AC or DC reference
 - Output Driving: \pm 5mA
- **Digital I/O**
 - Inputs (LSTTL): 16
 - Input low VIL = 0.8 Vmax;
IIL = -0.4mAmax
 - Input high VIH = 2.0 Vmin;
IIH = 20 μ Amax
 - Outputs (LSTTL): 16
 - Output low VOL = 0.5 Vmax;
@IOL = 8 mA max.
 - Output high VOH = 2.7 Vmin;
@IOH = -400 μ A max.

- **Programmable Pacer Timer**
(0.00046Hz~0.5MHz)
Type: 82c54
A/D pacer: 32 bit (cascaded pacer timer)
- **Power Requirements:** +5V; @ 500 mA typical, 1.0A max
- **General Environmental**
Operating temp.: 0-50 $^{\circ}$ C
Storage temp.: -20 $^{\circ}$ C to 70 $^{\circ}$ C
Humidity: 0 to 90%; non-condensing
Dimensions: 163mm X 124mm

Software

- A-812 Development Toolkit for DOS
- A-812 Development Toolkit for Win95
- A-812 Development Toolkit for WinNT

Order Description

- A-812PG: 70KS/s 12-bit Analog and Digital I/O Board

Options

- DB-8025: Screw Terminal Board, two 1-m 20-pin flat cables
- DB-8125: Industrial Wiring Terminal Board, two 1-m 20-pin flat cables
- DB-889D: 16-Channel Multiplexer and Signal Conditioning Board
- DB-16P: 16 Channel isolated digital input Board
- DB-16R: 16 Channel SPDT Relay Board
- DN-20: I/O Connector Block with DIN Rail mounting and 20-PIN Header
- ADP-20: 20-pin Extender
- A-812 LabVIEW Development Toolkit for Win95
- A-812 LabVIEW Development Toolkit for WinNT