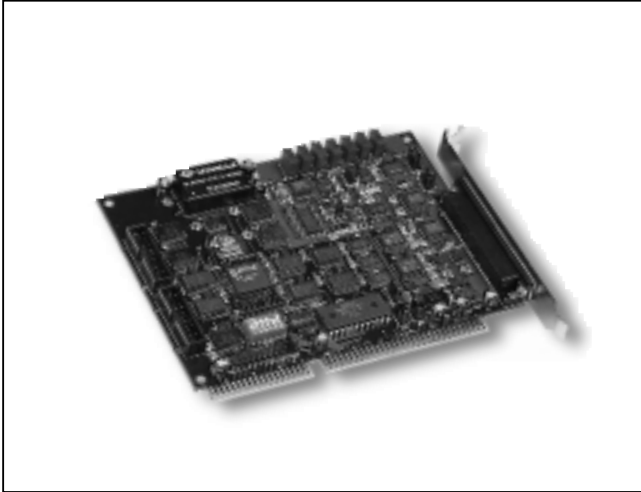




A-822PGH/A-822PGL, A-823PGH/A-823PGL

125 KS/s 16 Channel 12 Bit Analog Input, 2Channel 12 Bit Analog Output with 16 Digital Input/16 Digital Output



Functional Description

The A-822PGH/L, A-823PGH/L are 12 bit multi-function analog and digital I/O boards for the PC/AT compatible computer. The A-822PGH/L, A-823PGH/L offer 16 single-ended or 8 differential analog inputs, plus two channels of analog output with 12-bits resolution. In addition. The A-822PGH/PGL, A-823PGH/L has 16 digital input, 16 digital output, and one timer/counter channel. The A-822PGH Provides gain of 0.5, 1, 5, 10, 50, 100, 500, 1000, while the A-822PGL provides gains of 0.5, 1, 2, 4, 8. It has a maximum sampling rate of 125 K samples /s, the DMA operation is jumper selectable for levels 1 or 3. Interrupts are jumper selectable between 3 and 15. The A-823PGH/L provide un-ipolar and bi-polar D/A output, while the A-822PGH/L provide only un-ipolar D/A output.

Features

- 12-bit A/D converter
- 12-bit D/A converter
- 16 single-ended or 8 differential input channels
- 125 k/s sampling rates
- Two 12-bit analog output channels
A822PGH/PGL output range: 0~5V, 0~10V
A823PGH/PGL output range: 0~5V, ±5V, 0~10V, ±10V
- Software programmable gain :
PGH: 0.5, 1, 5, 10, 50, 100, 500, 1000
PGL: 0.5, 1, 2, 4, 8
- Interrupt handling
- A/D Trigger modes: Software Trigger, Pacer Trigger, External Trigger, Event Trigger
- A/D data transfer modes: polling, interrupt, DMA

- 16 digital inputs & 16 digital outputs
- 37 pin D-Sub connector

Applications

- Signal analysis
- Industrial automation
- Laboratory automation
- Sensor interface
- FFT & frequency analysis
- Transient analysis
- Production test
- Process control

Specifications

■ Analog Input Specifications

Channels: 16 single-ended/8 differential
Resolution: 12 bits
Conversion rate: 125KS/s max.
Input Impedance: 10,000 MΩ/16pF
Overvoltage Protection: +/-35V
A/D converter: +/-1LSB (max. INL)
On chip sample & hold
Zero drift: ±25ppm/°C of FS max.

■ PGH Input Range

Bipolar: ±10V, ±5V, ±1V, ±0.5V, ±0.1V, ±0.05V, ±0.01V, ±0.005V
Unipolar: 0~10V, 0~1V, 0~0.1V, 0.01V

Gain	Bipolar(V)	Unipolar(V)	Throughput
1/0.5	±5/±10	0~10/X	125K/s
10/5	±0.5/±1	0~1/X	80K/s
100/50	±0.05/±0.1	0~0.1/X	10K/s
1000/500	±0.005/±0.01	0~0.01/X	1K/s

■ PGL Input Range

Bipolar: ±10V, ±5V, ±2.5V, ±1.25V, ±0.625V
Unipolar: 0~10V, 0~5V, 0~2.5V, 0~1.25V

Gain	Bipolar(V)	Unipolar(V)	Throughput
0.5	±10	X	125K/s
1	±5	0~10	125K/s
2	±0.25	0~5	125K/s
4	±1.25	0~2.5	125K/s
8	±0.625	0~1.25	100K/s



A-822PGH/A-822PGL, A-823PGH/A-823PGL

125 KS/s 16 Channel 12 Bit Analog Input, 2Channel 12 Bit Analog Output with 16 Digital Input/16 Digital Output

Bi-polar / Uni-polar Analog Output

D/A Outputs

Channels: 2 independent
 Type: 12-bit double buffered
 Linearity: 0.006% FS
 Output range: Internal reference
 A-822 series: 0~5V or 0~10V
 A-823 series 0~5V, 0~10V, ±5V, ±10V
 External reference max +10V or -10V
 Output Driving: ±5mA

Digital I/O

Inputs (LSTTL): 16
 Input low: VIL = 0.8V max.; IIL = -0.4mA max.
 Input high: VIH = 2.0V min.; IIH = 20µA max.
 Outputs(LSTTL): 16
 Output low VOL = 0.5V max. @IOL = 8mA max.
 Output high VOH = 2.7V min; @IOH = -400µA max.

Programmable Interval Timer (0.0045Hz~0.5MHz)

Type: 82c54
 A/D pacer: 32 bit counter (A-822PGH/L)
 A/D pacer: 16 bit counter (A-823PGH/L)

Interrupt channel: 3-15 jumper selectable

Power Requirements: +5V @350mA max.

General Environment

Operating temp: 0-50°C
 Storage temp: -20 to 70°C
 Humidity: 0 to 90%
 Dimensions: 170mm x 122 mm

Software

- A-822 Development Toolkit for DOS
- A-822 Development Toolkit for Win95
- A-822 Development Toolkit for WinNT
- A-823 Development Toolkit for DOS
- A-823 Development Toolkit for Win95
- A-823 Development Toolkit for WinNT

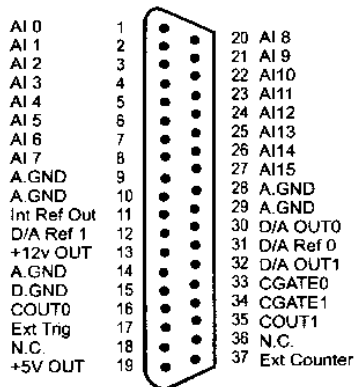
Order Description

- A-822PGH: 125KS/s High Gain 12-bit A/D, two 12-bit uni-polar analog output and Digital I/O Board
- A-822PGL: 125KS/s Low Gain 12-bit A/D, two 12-bit uni-polar analog output and Digital I/O Board
- A-823PGH: 125KS/s High Gain 12-bit A/D, two 12-bit bi-polar/un-ipolar analog output and Digital I/O Board
- A-823PGL: 125KS/s Low Gain 12-bit A/D, two 12-bit bi-polar/un-ipolar analog output and Digital I/O Board

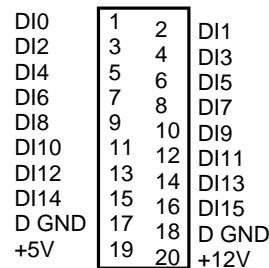
Options

- DB-8225: Screw Terminal Board, Filter Circuitry can be added
- DB-889D: 16-Channel Multiplexer and Signal Conditioning Board
- DB-16P: 16 Channel isolated digital input Board
- DB-16R: 16 Channel SPDT Relay Board
- DB-37: Directly connect signals to the back of A-822, A-823
- DN-37: I/O Connector Block with DIN Rail Mounting and 37-PIN D-SUB Connector
- DN-20: I/O Connector Block with DIN Rail Mounting and 20-PIN Header
- ADP-20: 20-pin Extender
- A-822 LabVIEW Development Toolkit for Win95
- A-822 LabVIEW Development Toolkit for WinNT
- A-823 LabVIEW Development Toolkit for Win95
- A-823 LabVIEW Development Toolkit for WinNT

Pin Assignment of A-822 and A-823



Digital input connector



Digital output connector

