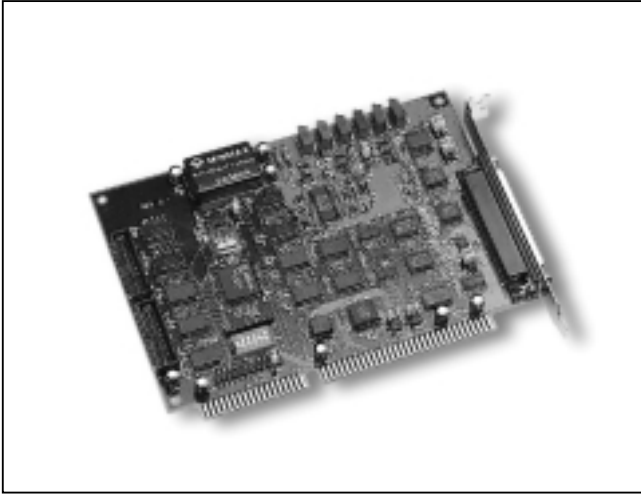




A-826PG

100KS/s 16-Channel 16-Bit Analog Input, 2-Channel 12-Bit Analog Output with 16 Digital Input/16 Digital Output



Functional Description

The A-826PG is a multi-function, 16-bit high resolution Analog and Digital I/O board for the PC/AT compatible computers. The A-826PG offers 16 single-ended or 8 differential analog inputs, plus two channels of analog output with 12-bit resolution. In addition, the A-826PG has 16 digital input, 16 digital output and one timer/counter channel. The A-826PG uses a B.B. ADS 7805 high performance 16-bit A/D converter. It provides maximum sampling rate of 100 K samples/s, software-programmable gains of 1, 2, 4, 8. DMA operation is jumper selectable for levels 1 or 3. Interrupts are jumper selectable between 3 and 15.

Features

- 16-bit A/D converter
- 12-bit D/A converter
- 16 single-ended or 8 differential input channels
- 100 kS/s sampling rate
- Two 12-bit analog output channels
- Software programmable gain: 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**
 - Channels: 16 single-ended/8 differential
 - Resolution: 16 bits
 - Conversion rate: 100KS/s max
 - Input Impedance: 10,000 MΩ/16pF
 - Overvoltage Protection: +/-35V
 - A/D converter: +/-1.5LSB (max INL)
 - +/-3 LSB (Integral linearity error)

■ A-826 PG Input Range

Gain	Bipolar	Throughput
1	±10V	100K/s
2	±5V	100K/s
4	±2.5V	100K/s
8	±1.25V	100K/s

■ D/A Outputs

- Channels: 2 independent
- Type: 12-bit double buffered
- Linearity: 0.006% FS
- Output range: Internal reference 0-5V or 0-10V
- External reference max +10V or -10V
- Output Driving: +/- 5mA

■ Digital I/O

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

■ Programmable Interval Timer (0.0045Hz-0.5MHz)

- Type: 82c54
- A/D pacer: 16 bit counter

■ Interrupt Channel: 3-15 jumper selectable

■ Power Requirements: +5V; 650mA max.

■ General Environment

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