

cPCI-9116

64-CH 16-Bit 250 kS/s Multi-Function DAQ Card

CompactPCI



Features

- 3U/6U Eurocard form factor, CompactPCI compliant (PICMG 2.0 R2.1)
- 16-Bit A/D resolution, up to 250 kS/s sampling rate
- Up to 250 kS/s sampling rate
- 64-CH single-ended or 32-CH differential inputs
- Onboard 1 k-sample A/D FIFO
- Bipolar or unipolar analog input ranges
- Programmable gains of x1, x2, x4, x8
- 512-configuration channel-gain queue
- Bus-mastering DMA for analog inputs
- 8-CH TTL digital inputs and 8-CH TTL digital outputs
- 1-CH 16-Bit general purpose timer/counter

Supported Operating System

- Windows 7/8 x64/x86, Linux

Driver and SDK

- LabVIEW, MATLAB, C/C++, Visual Basic, Visual Studio.NET

Software Utility

- AD-Logger

Specifications

Analog Input

- Number of channels: 64 single-ended or 32 differential (software selectable per channel)
- Resolution: 16 Bit
- Maximum sampling rate: 250 kS/s
- Input signal ranges (software programmable)

Gain	Input Range	
	Bipolar	Unipolar
1	± 5 V	0 to 10 V
2	± 2.5 V	0 to 5 V
4	± 1.25 V	0 to 2.5 V
8	± 0.625 V	0 to 1.25 V

Accuracy

Gain	Accuracy
1	0.01% of FSR \pm 1 LSB
2, 4	0.02% of FSR \pm 1 LSB
8	0.04% of FSR \pm 1 LSB

- Input coupling: DC
- Overvoltage protection: Continuous ± 35 V
- Input impedance: 1 G Ω
- Trigger modes: Software, pre-trigger, post-trigger, middle trigger, delay trigger, and repeated trigger
- Channel-gain queue size: 512 configurations
- FIFO buffer size: 1 k samples
- Data transfers: polling, interrupt, bus-mastering DMA

Digital I/O

- Number of channels: 8 inputs and 8 outputs
- Compatibility: 5 V/TTL
- Data transfers: programmed I/O

General-Purpose timer/counter

- Number of channels: 1
- Resolution: 16 Bit
- Compatibility: 5 V/TTL
- Base clock available: 24 MHz, external clock up to 24 MHz

General Specifications

- I/O connector: 100-pin SCSI-II female
- Operating temperature: 0°C to 55°C (32°F to 131°F)
- Storage temperature: -20°C to 80°C (-4°F to 176°F)
- Relative humidity: 5% to 95%, non-condensing
- Power requirements

+5 V	+12 V
560 mA typical	100 mA typical

- Dimensions (not including connectors)
 - 160 mm x 100 mm (6.24" x 3.9") (3U)

Terminal Boards & Cables

DIN-100S-01

Terminal Board with One 100-pin SCSI-II Connector and DIN-Rail Mounting (cables are not included.)

ACL-102100-1

100-pin SCSI-II cable (mating with AMP-787082-9), 1 M

Ordering Information

■ cPCI-9116

64-CH 16-Bit 250 kS/s Multi-Function DAQ Card