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 ± 1 LSB
2, 4	0.02% of FSR ± 1 LSB
8	0.04% of FSR ± 1 LSB

- Input coupling: DC
- Overvoltage protection: Continuous ±35 V
- Input impedance: 1 GΩ
- 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

* **For more information on mating cables, please refer to P3-48/49.**

Ordering Information

cPCI-9116
64-CH 16-Bit 250 kS/s Multi-Function DAQ Card

LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Updated September 23, 2014. ©2014 ADLINK Technology, Inc. All Rights Reserved. All specifications are subject to change without further notice.