PCI-9111 Series
16-CH 12/16-Bit 100 kS/s Low-Cost Multi-Function DAQ Cards

Features
- Supports a 32-bit 5 V PCI bus
- 12-bit A/D resolution (PCI-9111DG)
- 16-bit A/D resolution (PCI-9111HR)
- 16-CH single-ended analog inputs
- Up to 100 kS/s sampling rate
- Onboard 1 k-sample A/D FIFO
- Programmable gains of x1, x2, x4, x8, x16
- Bipolar analog input ranges
- Onboard low-pass filtering capability for analog inputs
- Automatic analog inputs scanning
- One 12-bit multiplying analog outputs
- 16-CH TTL digital inputs and 16-CH TTL digital outputs
- 4-CH TTL extended digital inputs and 4-CH TTL extended digital outputs
- Compact, half-size PCB
- Operating Systems
  - Linux

Recommended Software
- VB.NET/VC.NET/VB/VC++/BCB/Delphi
- DAQbench

Driver Support
- DAQPiB for Windows
- DAQ-LVIEW PnP for LabVIEW™
- DAQ-MTLB for MATLAB®
- PCIS-DASK for Windows
- PCIS-DASKX for Linux

Introduction
ADLINK PCI-9111 series are 16-CH, 100 kS/s low-cost multi-function DAQ card. The PCI-9111 series feature flexible configurations on analog inputs. A RC filter is implemented on each A/D input channel for user to attenuate or filter input signal. The PCI-9111 series provide analog inputs with 5 programmable input ranges for bipolar inputs. The PCI-9111 series also support automatic analog input scanning. PCI-9111DG provides 12-bit A/D resolution while PCI-9111HR provides 16-bit A/D resolution. The PCI-9111 series also feature 1-CH 12-bit analog output, 16-CH TTL digital inputs and 16-CH TTL digital outputs. ADLINK PCI-9111 series deliver cost-effective and reliable data acquisition capabilities, and is ideal for a broad variety of applications.

Specifications
Analog Input
- Number of channels: 16 single-ended
- Resolution
  - 12 bits (PCI-9111DG)
  - 16 bits (PCI-9111HR)
- Conversion time: 5 µs
- Maximum sampling rate: 100 kS/s
- Input signal ranges (software programmable)
  - Gain 16: ±0.025 V
  - Gain 8: ±0.125 V
  - Gain 4: ±0.25 V
  - Gain 2: ±0.5 V
  - Gain 1: ±1 V

Accuracy
- Gain Accuracy
  - 1, 2: 0.01 % of FSR ± 1 LSB
  - 4, 8, 16: 0.02 % of FSR ± 1 LSB
- Input voltage: DC
- Overvoltage protection: continuous ±35 V
- Input impedance: 10 MΩ
- Trigger modes: software, pacer, and external trigger (5 V TTL compatible)
- FIFO buffer size: 1 k samples
- Data transfers: polling, interrupt

Analog Output
- Number of channels: 1 voltage output (NO s)
- Resolution: 12 bits
- Output ranges (jumper selectable)

Termination Boards
- DIN-37D-01™ Termination Board with one 37-pin D-sub Connector and DIN-Rail Mounting
- DIN-20P-01™ Termination Board with one 20-pin Ribbon Connector and DIN-Rail Mounting
- ACDL-9137-01 General-Purpose Termination Board with one 37-pin D-sub Male Connector
- ACDL-9168-01™ General-Purpose Termination Board with Two 20-pin Ribbon Connectors and One 37-pin D-sub Connector
- ACDL-9182A-01™ Termination Board with 16-CH isolated Digital Inputs
- ACDL-9185-01™ Termination Board with 16-CH Relay Outputs
- ACDL-8125-01™ Termination Board with one 37-pin D-sub Connector and One Cold Junction Temperature Sensor

Driver Support
- DAQPiB for Windows
- DAQ-LVIEW PnP for LabVIEW™
- DAQ-MTLB for MATLAB®
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- PCIS-DASKX for Linux

Ordering Information
- PCI-9111DG 16-CH 12/16-Bit 100 kS/s Low-Cost Multi-Function DAQ Card
- PCI-9111HR 16-CH 12/16-Bit 100 kS/s Low-Cost Multi-Function DAQ Card

Recommended Software
- VB.NET/VC.NET/VB/VC++/BCB/Delphi
- DAQbench

Driver Support
- DAQPiB for Windows
- DAQ-LVIEW PnP for LabVIEW™
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Ordering Information
- PCI-9111DG 16-CH 12/16-Bit 100 kS/s Low-Cost Multi-Function DAQ Card
- PCI-9111HR 16-CH 12/16-Bit 100 kS/s Low-Cost Multi-Function DAQ Card

Data transfers: software programmable on analog inputs. A RC filter is implemented on each A/D input channel for user to attenuate or filter input signal. The PCI-9111 series provide analog inputs with 5 programmable input ranges for bipolar inputs. The PCI-9111 series also support automatic analog input scanning. PCI-9111DG provides 12-bit A/D resolution while PCI-9111HR provides 16-bit A/D resolution. The PCI-9111 series also feature 1-CH 12-bit analog output, 16-CH TTL digital inputs and 16-CH TTL digital outputs. ADLINK PCI-9111 series deliver cost-effective and reliable data acquisition capabilities, and is ideal for a broad variety of applications.