

PXIe-9848

8-CH 14-bit 100 MS/s High-Speed PXI Express Digitizer

PXIExpress™

NEW



Introduction

The ADLINK PXIe-9848 is a 8-CH 14-bit 100 MS/s digitizer for high frequency and wide dynamic range signals with an input frequency up to 100 MHz. The 100 MHz bandwidth analog input with 50Ω impedance receives ± 0.2 V or ± 2 V high speed signals. With a PCI Express bus interface and ample onboard acquisition memory up to 512 MB, the PXIe-9848 easily manages simultaneous 8-CH data streaming.

Equipped with high speed and high linearity 14-bit A/D converters, the PXIe-9848 is ideal for applications requiring high-speed data acquisition, such as PSU (power supply unit) testing, LIDAR testing, and radar signal acquisition.

Features

- PXI Express specification Rev. 1.0 compliant
- Up to 100 MS/s sampling rate
- High resolution 14-bit ADC
- Up to 100 MHz bandwidth for analog input
- 512 MB onboard storage memory
- Programmable input voltage range of ± 0.2 V or ± 2 V
- Scatter-Gather DMA data transfer for high speed data streaming
- One external digital trigger input
- Full auto-calibration

Software Support

Operating Systems

- Windows® 2000/XP/Vista/7

Recommended Application Environments

- VB.NET/VC.NET/VB/VC++/BCB/Delphi

Driver Support

- WD-DASK for Windows®
- DAQPilot for LabVIEW™
- DAQPilot for Windows®
- DAQ-MTLB for MATLAB®

Specifications

Analog Input

- Number of Channels: 8 single-ended channel
- Input Coupling: AC or DC, software selectable
- Overvoltage Protection: ± 5 V
- Offset Error: ± 1 mV
- -3 dB Bandwidth: 100MHz
- Input Impedance: 50Ω or 1MΩ, software selectable
- Input Signal Range: ± 0.2 V or ± 2 V
- ADC Resolution: 14 bits, 1 in 16384
- Gain Error: $\pm 0.5\%$ of input
- Input Impedance: 50Ω or 1MΩ, software selectable

Trigger

- Trigger Source
 - Software
 - External digital
 - PXI STAR
 - PXI trigger bus [0..7]
- Trigger Modes
 - Post-trigger
 - Pre-trigger
 - Middle trigger
 - Delay trigger
- External Digital Trigger Input
 - 5 V, 3.3 V TTL compatibility
 - Rising edge or falling edge trigger condition, software programmable
 - 20 ns minimum pulse width

Timebase

- Onboard oscillator sample clock source
- 100 MHz timebase frequency

Data Storage and Transfer

- 512 MB onboard memory, shared among the eight analog inputs
- Scatter-Gather DMA data transfer

Onboard Reference

- +2.000 V onboard reference voltage
- < 3.0 ppm/°C reference temperature drift
- 15 minutes recommended warmup

General Specifications

- I/O Connector
 - Analog Inputs: SMB
 - External Digital Input: SMB
- Dimensions (not including connectors): 160 W x 100 H mm
- Bus Interface: PCI Express Gen I x4
- Ambient Temperature (Operational): 0°C to 55°C
- Ambient Temperature (Storage): -20°C to 80°C
- Relative Humidity: 10% to 90%, non-condensing

Certifications

- EMC/EMI: CE, FCC Class A

Ordering Information

- **PXIe-9848**
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