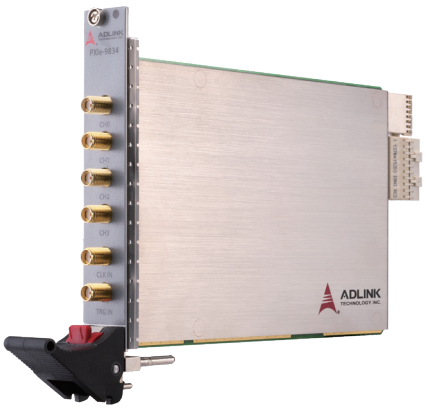
PXIe-9834

4-ch 16-bit 80 MS/s PXI Express Digitizer

Features

- Up to 80 MS/s sampling rate
- 4 simultaneous analog inputs
- High resolution 16-bit ADC
- Up to 40 MHz bandwidth for analog input
- 1 GB onboard storage memory
- Programmable input voltage range of ±0.5V, ±1V, ±5V, or ±10V
- Scatter-Gather DMA data transfer for high speed data streaming
- Provide PLL module for precise synchronization
- Full auto-calibration



Introduction

The ADLINK PXIe-9834 PXI Express digitizer provides high speed, high quality data acquisition. Each of four input channels supports up to 80MS/s sampling, with a 16-bit resolution A/D converter. This allows simultaneous recording of signals on all channels with no inter-channel phase delay. The extremely large onboard memory enables long recording times even at the highest sampling rates.

The PXIe-9834 features flexible input ranges of ±10V (only for 1MΩ), ±5V, ±1V, and ±0.5V along with software selectable 50Ω or 1MΩ input impedance. Four high resolution 16-bit A/D converters combine with a low-noise/high bandwidth analog front-end to make the PXIe-9834 perfect for applications like radar signal acquisition, fiber optic sensing, and many others.

Ordering Information

PN	Description
PXIe-9834	4-ch 16-bit 80 MS/s PXI Express digitizer

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Supported Operating Systems

- Windows 10/11, Linux

Driver and SDK

- C/C++, C#, LabVIEW

Specifications

Model Name	PCIe-9834	
Analog Input		
Number of Channels	4 single-ended	
Input Impedance	50Ω or 1MΩ, software selectable	
Input Coupling	DC or AC, software selectable	
Input Range	±0.5V, ±1V, ±5V, ±10V (±10V only supports 1MΩ input impedance)	
ADC Resolution	16-bit	
Analog Input Bandwidth	40MHz	
Digital Filter	10MHz/20MHz, software selectable	
Offset Error	±0.5V	±0.8 mVrms
	±1V	1.2 mVrms
	±5V	4.0 mVrms
	±10V	8 mVrms
Gain Error	±0.6% of reading	
System Noise	±0.5V	0.1 mVrms
	±1V	0.15 mVrms
	±5V	1 mVrms
	±10V	1.5 mVrms
Crosstalk	±0.5V	80 dB
	±1V, ±5V, ±10V	90 dB
Spectral Characteristics	SINAD	65 dB
	THD	-78 dB
	SFDR	78 dB
	SNR	65 dB
Triggering		
Trigger Sources	Software External digital trigger Analog trigger from CH0 to CH3 PXI Trigger Bus [0..7] PXI STAR Trigger PXIe_DSTARB	
Trigger Modes	Post trigger Pre-trigger Middle trigger Delay trigger Re-trigger for post-trigger and delay-trigger modes	

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Specifications

Timebase	
Sample Clock Source	Internal clock (onboard oscillator) External clock (front panel CLK IN)
Sample Clock Frequency	Internal clock: 1.22K Hz ~ 80M Hz (accuracy: < ±25 ppm) External clock: 20M Hz ~ 80M Hz
External Sample Clock Input Range	0.45Vpp ~ 5Vpp
External Sample Clock Input Impedance	50Ω
External Sample Clock Input Coupling	AC
External Reference Clock Sources	Front panel CLK IN PXI 10MHz from PXI/PXIe chassis
External Reference Clock Frequency	10MHz ± 2KHz
General Specifications	
I/O Connector	SMA x 4 for analog input (CH0, CH1, CH2, CH3) SMA x 1 for external sampling clock and reference clock (CLK IN) SMA x 1 for external trigger input (TRG IN)
Dimensions	3U, one-slot, PXI Express, 165 (W) x 100 (H) mm
Bus Interface	PCI Express x4
Ambient Temperature (operating)	0°C to 50°C (32°F to 122°F)
Ambient Temperature (storage)	-20°C to 80°C (-4°F to 176°F)
Relative Humidity	5% to 95%, non-condensing
Certifications	
EMC/EMI	EN 55022:2010/AC: 2011: Class A EN 55024: Immunity FCC 47 CFR Part 15B: Class A ICES-003 Issue 6-2016: Class A ANSI C63.4-2014: Class A

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