

PCIe/PXIe-9852

2-CH 14-Bit 200 MS/s High-Speed PCI Express/PXI Express Digitizers



Introduction

The ADLINK PCIe/PXIe-9852 is a 2-CH 14-bit 200 MS/s digitizer for high frequency and wide dynamic range signals with an input frequency up to 90 MHz. The 90 MHz bandwidth analog input with 50 Ω impedance is designed to receive ± 0.2 V, ± 2 V, or ± 10 V high speed signals. With a PCI Express bus interface and ample onboard acquisition memory up to 1 GB, the PCIe/PXIe-9852 easily manages simultaneous 2-CH data streaming. With high speed and high linearity 14-bit A/D converters and high stable onboard reference, the PCIe/PXIe-9852 provides both high accuracy and high dynamic performance, making it ideal for applications requiring high-speed data acquisition, such as optical fiber and LIDAR testing, and video signal analysis.

Highlights

Data Streaming Up to 800MB/s

Based on PCI Express Gen2 technology, the PCIe/PXIe-9852 can stream data on both channels at its maximum data rate (200 MS/s), and continuously stream data to the host PC at rates up to 800 MB/s. An 8 x 500 GB driver RAID system (4TB) extends capture sessions to more than one hour.

Onboard Signal Averaging Technology

Every PCIe/PXIe-9852 provides onboard Signal Averaging, allowing detection of small repetitive signals in noisy environments with no CPU loading, suitable for applications requiring extraction of small signals from background noise such as optical fiber testing.

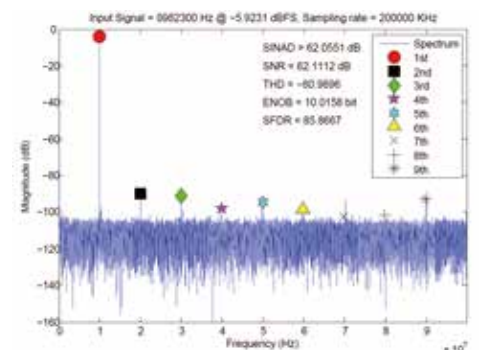
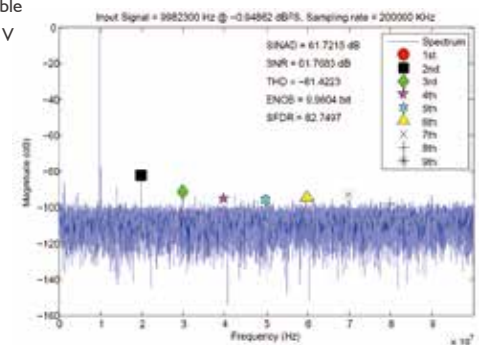
Features

- PCI Express specification Rev. 2.0 compliant (PCIe-9852)
- PXI Express specification Rev. 1.0 compliant (PXIe-9852)
- Up to 200 MS/s sampling rate
- 2 simultaneous analog inputs
- High resolution 14-bit ADC
- Up to 90 MHz bandwidth for analog input
- 1 GB onboard storage memory
- Programmable input voltage range of ± 0.2 V, ± 2 V, or ± 10 V
- Scatter-gather DMA data transfer for high speed data streaming
- One external digital trigger input and one external trigger output
- One external clock input
- Full auto-calibration
- Supports signal averaging
- Supported Operating System
 - Windows 7/8 x64/x86, Linux
- Driver and SDK
 - LabVIEW, MATLAB, C/C++, Visual Basic, Visual Studio.NET

Specifications

Analog Input

- Number of Channels: 2 single-ended
- Input Coupling: AC or DC, software selectable
- AC coupling cutoff frequency: 11 Hz
- -3 dB Bandwidth: 90MHz
- Input Impedance: 50 Ω or 1M Ω , software selectable
- Input Signal Range: Range: ± 0.2 V, ± 2 V, or ± 10 V
- Overvoltage Protection:
 - with 50 Ω : ± 10 V sine wave, 7Vrms
 - with 1M Ω : ± 10 V
- ADC Resolution: 14 bits, 1 in 16384
- Gain Error: $\pm 0.65\%$ of input
- Offset error: ± 1 mV
- Crosstalk: < -80 dB
- Spectral Characteristics
 - Input Range: ± 0.2 V
 - Sampling Rate: 200 MS/s
 - SINAD: 61.72 dBc
 - SNR: 61.77 dBc
 - THD: -81.42 dBc
 - ENOB: 9.96 bit
 - SFDR: 82.75 dBc
- Spectral Characteristics
 - Input Range: ± 2 V
 - Sampling Rate: 200 MS/s
 - SINAD: 62.06 dBc
 - SNR: 62.11 dBc
 - THD: -80.97 dBc
 - ENOB: 10.02 bit
 - SFDR: 85.87 dBc



Trigger

- Trigger Source
 - Software
 - External digital
 - Analog inputs
 - SSI (PCIe-9852)
 - PXI_STAR (PXIe-9852)
 - PXI_trigger bus [0..7] (PXIe-9852)
 - PXIe_DSTARB (PXIe-9852)
- Trigger Modes
 - Post-trigger
 - Pre-trigger
 - Middle trigger
 - Delay trigger
- External Digital Trigger Input
 - Source: Front panel SMA connector
 - Compatibility: 3.3V TTL, 5V tolerance
 - Input high threshold: 2.0 V
 - Input low threshold: 0.8V
 - Maximum input overload: -0.5V ~ +5.5V
 - Trigger polarity: Rising or falling edge, software programmable
 - Pulse width: 20 ns minimum
- External Digital Trigger Output
 - Compatibility: 5V TTL
 - Output high threshold: 2.4V
 - Output low threshold: 0.2V
 - Trigger polarity: Positive or negative
 - Pulse width: 50 ns, 100 ns, 150 ns, 200 ns, 1 μ s, 2 μ s, 7.5 μ s, and 10 μ s
 - Driving capacity: Capable of driving 50 Ω load

Timebase

- Timebase options
 - Internal: onboard synthesizer
 - External: CLK IN (front panel)
- Sampling clock frequency
 - Internal: 200M Hz
 - External: 40M Hz ~ 200M Hz (CLK IN)
 - Timebase accuracy: $< \pm 25$ ppm
- External reference clock source: Front panel, SSI (PCIe-9852), PXI_CLKI0 or PXIe_CLKI00 (PXIe-9852)
- External reference clock: 10M Hz or 100M Hz
- External reference clock input range: 500mVpp ~ 5Vpp (AC/DC compliant)
- External sampling clock input range: 1Vpp ~ 5Vpp (AC/DC compliant)

Data Storage and Transfer

- 1 GB onboard memory, shared among the two analog inputs
- Scatter-Gather DMA data transfer

Onboard Reference

- +5V and +2.5V onboard reference voltage
- < 3.0 ppm/ $^{\circ}$ C reference temperature drift
- 15 minutes recommended warmup

Ordering Information

■ **PCIe-9852**
2-CH 14-Bit 200 MS/s High-Speed PCI Express Digitizer

■ **PXIe-9852**
2-CH 14-Bit 200 MS/s High-Speed PXI Express Digitizer

General Specifications

- I/O Connector
 - SMA x 2 for analog inputs
 - SMA x 1 for external trigger input
 - SMA x 1 for external trigger output
 - SMA x 1 for external clock input
- Dimensions (not including connectors):
 - PCIe-9852 : 167.64 (W) x 106.68 (H) mm (6.53" x 4.16")
 - PXIe-9852 : 160 (W) x 100 (H) mm (6.24" x 3.9")
- Bus Interface: PCI Express Gen 2 x4
- Ambient Temperature (Operating):
 - PCIe-9852 : 0 $^{\circ}$ C to 50 $^{\circ}$ C (32 $^{\circ}$ F to 122 $^{\circ}$ F)
 - PXIe-9852 : 0 $^{\circ}$ C to 55 $^{\circ}$ C (32 $^{\circ}$ F to 131 $^{\circ}$ F)
- Ambient Temperature (Storage): -20 $^{\circ}$ C to 80 $^{\circ}$ C (-4 $^{\circ}$ F to 176 $^{\circ}$ F)
- Relative Humidity: 10% to 90%, non-condensing
- Power consumption:

Power Rail	Standby current (mA)	Full load (mA)
+3.3 V	102	102.2
+12 V	20	20
+5 V	1920	2010

Certifications

- EMC/EMI: CE, FCC Class A

IO connector definition

CLK IN
TRG IN
TRG OUT
CH0
CH1



SSI Bus Cables (for multiple card synchronization)

■ ACL-eSSI-2/3/4

SSI bus cable for two, three, and four devices



Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный)

Email: org@lifeelectronics.ru