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Data Sheet

August 13, 2026

KEITHLEY

Keithley KPCI-3116A

The Keithley KPCI-3116A is a multifunction data acquisition board for PCI bus systems, delivering 16-bit analog input and output capabilities alongside digital I/O and counter/timer functionality. This board integrates high-speed analog acquisition, precision waveform generation, and real-time digital control in a single PCI form factor, enabling demanding measurement and control applications across engineering and laboratory environments. Up to 256 re-triggers per scan; 262,144 samples maximum per trigger Analog Output High-speed simultaneous sampling via triggered scan mode with sample-and-hold emulation Aumictech offers NIST-traceable calibration and repair for the Keithley KPCI-3116A. All calibrations are performed to NIST-traceable standards and ship with a certificate. Turnaround is typically 1–3 business days after receipt.



MODEL

Keithley KPCI-3116A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

KPCI-3116A

LISTING

<https://aumictechlabs.com/products/kpci-3116a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keithley KPCI-3116A is a multifunction data acquisition board for PCI bus systems, delivering 16-bit analog input and output capabilities alongside digital I/O and counter/timer functionality. This board integrates high-speed analog acquisition, precision waveform generation, and real-time digital control in a single PCI form factor, enabling demanding measurement and control applications across engineering and laboratory environments. Technical Specifications Analog

Input 16-bit resolution 32 single-ended or 16 differential input channels Sampling speed: Up to 250 kS/s Input range: -10 V to +10 V Programmable gains: 1, 2, 4, 8 1024-location channel-gain queue Triggered and continuously-paced scan modes Pre-trigger, post-trigger, and about-trigger capability Analog or digital trigger sources Up to 256 re-triggers per scan; 262,144 samples maximum per trigger Analog Output 2 high-resolution DAC outputs Output speed: Up to 200 kS/s 16-bit resolution (0 to 65535 code range for 10 V output) 20 kHz configurable output filters Digital I/O 16 programmable lines (two 8-line banks) Scanning speed: Up to 3 MHz Dynamic digital input integration with analog channel-gain queue 2 auxiliary digital outputs for analog-triggered synchronization Counter/Timers 4 user-accessible 16-bit counter/timers Event counting, frequency measurement, one-shot and frequency output modes Configurable duty cycle and output polarity Bus Interface PCI bus with bus mastering support Key Features High-speed simultaneous sampling via triggered scan mode with sample-and-hold emulation Integrated analog and digital measurement in single acquisition queue Time-stamped digital input relative to analog channels 32-bit DriverLINX software drivers with Windows OS support Typical Applications Multichannel data logging, real-time process control, waveform synthesis and analysis, event timing, and synchronized analog-digital measurement systems. Compatibility & Integration Supports LabVIEW, ExceLINX, VisualSCOPE, and TestPoint environments. Includes bundled application software and startup utilities.

Features & description

From manufacturer datasheet

Features

- 16-bit ADC at 250 kS/s (not the 12-bit 1.25 MS/s KPCI-3110)

KPCI3116A Characteristics / Specifications

PARAMETER	VALUE
Model	KPCI-3116A
Manufacturer	Keithley Instruments
Instrument Type	16 bit multifunction PCI data acquisition board
Alias	KPCI-3116A; KPCI3116A
ADC resolution	16 bit
Throughput	250 kS/s
Channel gain queue	1024 locations
Analog input coupling	software single ended or differential
Analog input polarity	software bipolar or unipolar
Gains	1, 2, 4, 8
Analog outputs	two high resolution DACs
Counter timers	four user accessible
Digital I/O	onboard digital input/output
Bus	PCI
Drivers	32 bit DriverLINX
LabVIEW	VIs included
Start up software	included
Screw terminal accessory	STP-3110 (KPCI-3110/3116 family)
Related 31	KPCI-3110 12 bit higher sample-rate sibling
Use	demanding measurements, product development, physical phenomena
Form	PCI plug-in
Input range class	gain 1/2/4/8 on the selected unipolar or bipolar span
Queue	per-sample gain and channel at 250 kS/s OS: 32-bit DriverLINX host
Not USB	PCI board (contrast KUSB-3116)
Not 31	16 bit / 250 kS/s versus 12 bit faster 3110

PARAMETER	VALUE
Calibration	analog input/output per DriverLINX/board EEPROM class
Interrupts DMA	PCI plug-and-play resources
Documentation	KPCI-3116A 250 kHz 16-bit high resolution multifunction board literature Notes Specs from Keithley KPCI-3116A product literature. Full-scale volts at each gain are in the KPCI-3116A specification table; confirm SE versus DIFF channel count on that table before quoting 16 SE / 8 DIFF class. Use STP-3110 for screw-terminal access.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Specifications

PARAMETER	VALUE
LabVIEW	VIs included
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Screw terminal accessory	STP-3110 (KPCI-3110/3116 family)

Specifications

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Specifications

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OS	32-bit DriverLINX host

Specifications

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Not 3110	16 bit / 250 kS/s versus 12 bit faster 3110
Calibration	analog input/output per DriverLINX/board EEPROM class

Interrupts DMA: PCI plug-and-play resources

Documentation: KPCI-3116A 250 kHz 16-bit high resolution multifunction board literature

Notes

Specs from Keithley KPCI-3116A product literature. Full-scale volts at each gain are in the KPCI-3116A specification table; confirm SE versus DIFF channel count on that table before quoting 16 SE / 8 DIFF class. Use STP-3110 for screw-terminal access.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.