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Data Sheet

August 13, 2026

KEITHLEY

Keithley KPCI-3108 PCI Bus Data Acquisition Board

The Keithley KPCI-3108 is a PCI bus data acquisition board designed for precision measurement and control applications. It features high-resolution analog inputs and outputs, digital I/O channels, and timing capabilities. This board is ideal for laboratory and industrial environments requiring reliable data acquisition.



MODEL

Keithley KPCI-3108

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

KPCI-3108

LISTING

<https://aumictechlabs.com/products/kpci-3108-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keithley KPCI-3108 is a PCI bus data acquisition board delivering 16-bit analog input and output with programmable gains, digital I/O, and counter/timer functionality. Engineered for precision measurement and control in laboratory and industrial environments, it combines high-resolution data acquisition with flexible triggering and multiple data transfer modes. Technical Specifications Analog Input 16-bit resolution, 16 single-ended or 8 differential channels Programmable gains: 1, 2, 4, 8, 10, 20, 40, 80, 100, 200, 400, 800 per channel 24 programmable ranges (12 unipolar, 12 bipolar) Maximum sample rate: 100 kSamples/s per single channel; aggregate 100 kSamples/s for multiple channels Separate 2K sample input FIFO Autozero capability eliminates measurement drift Factory-programmed calibration per range Offset

temperature coefficient: 310 $\mu\text{V}/^\circ\text{C}$ (typical) Gain temperature coefficient: 60 ppm/ $^\circ\text{C}$ (typical)
Slew rate: 5 V/ μs Analog Output 2 waveform-quality channels with 16-bit DACs Maximum update rate: 500 kSamples/s Output ranges: $\pm 10\text{ V}$, $\pm 5\text{ V}$, 0–10 V, 0–5 V Output current: $\pm 5\text{ mA}$ maximum
Separate 2K sample output FIFO Control modes: Target, Paced, and Burst Worst-case intra-burst skew: 2 μs (typical) Digital I/O & Counters 32-bit general-purpose I/O (8-bit register in/out) 6-bit multifunction inputs High-current digital outputs: 64 mA sink, 15 mA source Three 16-bit counters with 32-bit cascade option Software-selectable timebases: 5 MHz, 10 MHz, 1 MHz, 100 kHz
Timing & Control Triggering modes: Pre-trigger, Post-trigger, About-trigger, Start, Stop External hardware trigger and gate inputs Pacer clock: external or onboard, supporting 4.32 Samples/hour to 100 kSamples/s Data Transfer & Connectivity Transfer modes: PCI Bus Master (DMA), Interrupt, Polled Supports 1 to 255 data buffers per task with no single-buffer size limits Dual 36-pin MDR female connectors Key Features Per-channel range and gain configuration Separate input/output FIFOs reduce CPU overhead Hardware triggering for synchronized acquisition 32-bit cascade counter for extended timing resolution Typical Applications Precision data logging, real-time control systems, automated test environments, multi-channel signal acquisition, and industrial process monitoring. Compatibility & Integration 32-bit DriverLINX drivers with support for ExceLINX, VisualSCOPE, TestPoint, and LabVIEW. Expansion capability via EXP-1800 accessory.

KPCI3108 Characteristics / Specifications

PARAMETER	VALUE
Model	KPCI-3108
Manufacturer	Keithley Instruments
Instrument Type	PCI 16 bit multifunction data acquisition board
Alias	KPCI-3108; KPCI3108
Host Bus	PCI
Analog Inputs	16 single ended or 8 differential
ADC Resolution	16 bit
Sample Rate Class	100 kS/s
Analog Outputs	2
Trigger	analog trigger supported
Digital IO	multifunction digital ports family
Related 12 Bit	KPCI-3102 (225 kHz, 12 bit)
Related Sibling	KPCI-3107
DAS16 Adapter	STA-3108-A2
DAS16 Cable	CAB-1284CC-2 (2 m IEEE-1284 CC)
Software	DriverLINX
Connector Native	analog/digital header plus 1284 path to 37 pin
Form	PCI card
Gains	programmable family (confirm 3108 gain table)
Input Range Class	plus/minus 10 V / 0 to 10 V
DMA	PCI bus mastering class
FIFO	onboard A/D buffering family
Power	PCI slot OS: Windows DriverLINX (not DOS register-level DAS-16) Notes Identity from Keithley DAS-16 upgrade FAQ (KPCI-3108 or 3107 best PCI path; STA-3108-A2 with CAB-1284CC-2 for 37-pin DAS-16). Confirm 3108 versus 3107 and whether the STA/cable kit is present.

KPCI3108 Specifications

PARAMETER	VALUE
Applications	PCI replacement of DAS-16 / DAS-16F
Key Features	Documented DAS-16 PCI upgrade with STA-3108-A2 and CAB-1284CC-2
Analog trigger	DriverLINX portability from DAS-16
Technical Specifications	Model: KPCI-3108

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.

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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.