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Data Sheet
August 13, 2026

KEITHLEY

Keithley KPCI-3107 PCI Bus Data Acquisition Board

Keithley Data Acquisition Systems (DAQ). Current: ±1nA typical @ 25°C, Accuracy: 0.021% of reading ± 1.540mV @ 23°C.

MODEL **Keithley KPCI-3107**	CALIBRATION **Available on request**
CONDITION **Used**	STATUS **In stock**
RFQ / SKU **KPCI-3107**	LISTING **https://aumictechlabs.com/products/kpci-3107-2/**

NIST-traceable cal · SAM registered · 30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keithley KPCI-3107 is a PCI bus data acquisition board delivering 16-bit analog input, 32-line digital I/O, and counter/timer functionality for industrial measurement and control systems. Built for demanding applications, it configures channels individually to match diverse sensor types and measurement ranges, supporting temperature, voltage, vibration, pressure, and strain analysis alongside analog stimulus-response testing and relay control. Technical Specifications Analog Inputs 16-bit resolution 16 single-ended or 8 differential channels (software-configurable; mixed modes supported) 12 programmable gains (1, 2, 4, 8, 10, 20, 40, 80, 100, 200, 400, 800) per channel 24 total software ranges (12 unipolar, 12 bipolar) Input overvoltage protection: ±35V continuous (powered), ±15V continuous (unpowered) Input impedance: >1GΩ parallel with ≤200pF Input bias current: ±1nA typical @ 25°C Accuracy: 0.021% of reading ± 1.540mV @ 23°C Offset temperature coefficient: 310µV/°C typical Gain temperature coefficient: 60ppm/°C typical

Integral nonlinearity: ±1.5 LSB max; Differential: ±1 LSB max Monotonicity: 16-bit guaranteed Per-range factory calibration with NIST traceability; onboard memory stores offset and gain correction values Autozero function eliminates measurement drift Digital I/O 32 lines High-current outputs: 64mA sink, 15mA source; capable of driving indicators and relays directly Counter/Timers Three 16-bit counters (CT0, CT1, CT2) based on 82C54 architecture Key Features Individual per-channel range and gain programming Mixed differential and single-ended input configuration Automatic calibration correction applied during range changes Direct relay and indicator drive capability from digital outputs Typical Applications Temperature and voltage measurement Vibration, pressure, and strain analysis Analog stimulus-response testing Relay control and automation Compatibility & Integration Standard PCI bus architecture for direct integration into PC-based test systems.

Features & description

From manufacturer datasheet

Features

• Per-channel SE/DIFF, bipolar/unipolar, and gain inahardware scan queue • Autozero offset correction in DriverLINX • Pre-trigger, post-trigger, and about-trigger including analog about-trigger • Burst mode emulates simultaneous sample-and-hold at lower rates • PCI bus-master DMA, interrupt, or polled transfers • No DACs (use KPCI-3108 if two 16-bit analog outputs are required)

KPCI3107 Characteristics / Specifications

PARAMETER	VALUE
Model	KPCI-3107
Manufacturer	Keithley Instruments
Instrument Type	PCI 16 bit wide gain multifunction data acquisition board
Alias	KPCI-3107; KPCI3107
Host Bus	PCI
Analog Inputs	16 single ended or 8 differential, mixable in gain queue
ADC Resolution	16 bit
Sample Rate	100 kS/s single channel and aggregate
Gains	1, 2, 4, 8, 10, 20, 40, 80, 100, 200, 400, 800
Range Count	24 (12 bipolar plus 12 unipolar)
FIFO Depth	2048 samples analog input
Gain Queue Length	256 entries
Pacer Span	4.32 samples per hour to 100 kS/s
Input Impedance	greater than 1 Gohm parallel 200 pF or less, all gains
Input Bias Current	plus/minus 1 nA typical per channel at 25 C
Input Overvoltage Powered	plus/minus 35 V continuous
Input Overvoltage Unpowered	plus/minus 15 V continuous
Linearity Integral	plus/minus 1.5 LSB maximum
Linearity Differential	plus/minus 1 LSB maximum
CMRR Gain	82 dB typical at 60 Hz
CMRR Gain 8	110 dB typical at 60 Hz
Accuracy Bipolar 10 V	0.0125 percent of reading plus/minus 500 uV (25 C, autozero on, 1 year)
Accuracy Bipolar 12.5 mV	0.020 percent of reading plus/minus 10 uV
Digital IO Bits	32 in four bidirectional 8 bit registers
Digital Sink	64 mA maximum at 0.55 V

PARAMETER	VALUE
Digital Source	15 mA maximum at 2.0 V
Analog Outputs	none (KPCI-3108 has two 16 bit DACs)
CJC Accessory	STP-36CJC, 10 mV per C, plus/minus 0.5 C at 25 C
Power Plus 5 V	430 mA typical, 870 mA maximum
Power Plus 12 V	400 mA typical, 500 mA maximum
Power Output 5 V	1.0 A maximum (host limited)
Operating Temperature	0 C to 50 C
Storage Temperature	minus 20 C to 70 C
Humidity	0 to 90 percent RH noncondensing
Dimensions	PCI short card, 175 mm by 108 mm by 19 mm
Related Sibling	KPCI-3108 (adds two 16 bit analog outputs)
DAS16 Adapter	STA-3108-A2 plus CAB-1284CC-2
Software	DriverLINX

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	minus 20 C to 70 C
Operating temperature	0 C to 50 C
Operating Temperature	0 C to 50 C
Humidity	0 to 90 percent RH noncondensing
Dimensions	PCI short card, 175 mm by 108 mm by 19 mm
Related Sibling	KPCI-3108 (adds two 16 bit analog outputs)
DAS16 Adapter	STA-3108-A2 plus CAB-1284CC-2
Software	DriverLINX Notes Specs from Keithley KPCI-3107/3108 datasheet. KPCI-3107 has no analog outputs; do not quote 3108 DAC rows against a 3107 board. Confirm STP-36CJC if thermocouples are required.

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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PARAMETER	VALUE
Digital Source	15 mA maximum at 2.0 V
Analog Outputs	none (KPCI-3108 has two 16 bit DACs)
CJC Accessory	STP-36CJC, 10 mV per C, plus/minus 0.5 C at 25 C
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Power Plus 12 V	400 mA typical, 500 mA maximum
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Notes
Specs from Keithley KPCI-3107/3108 datasheet. KPCI-3107 has no analog outputs; do not quote 3108 DAC rows against a 3107 board. Confirm STP-36CJC if thermocouples are required.

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

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