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Data Sheet
August 13, 2026

KEITHLEY

Keithley KPCI-1801HC PCI Bus Data Acquisition Board

Applications PCI millivolt/transducer acquisition at 64 channels ISA-to-PCI migration from DAS-1801HC Burst FIFO capture High-gain automated test analog I/O Key Features PCI plug and play 2048-sample FIFO High-gain 1/5/50/250 DriverLINX path from DAS-1801HC 64/32 analog density Technical Specifications Model: KPCI-1801HC Manufacturer: Keithley Instruments Instrument Type: PCI high gain high channel data acquisition board Alias: KPCI-1801HC; KPCI1801HC Host Bus: PCI Analog Inputs: 64 single ended or 32 differential ADC Resolution: 12 bit Input Gains: 1, 5, 50, 250 (high gain) Single Channel Throughput: about 333 kS/s Scanning Throughput: about 312.

MODEL Keithley KPCI-1801HC	CALIBRATION Available on request
CONDITION Used	STATUS In stock
RFQ / SKU KPCI-1801HC	LISTING https://aumictechlabs.com/products/kpci-1801hc-2/

NIST-traceable cal · SAM registered · 30-day returns · NAICS 423690 · 811210 · 541380

This unit

The Keithley KPCI-1801HC is a multifunction data acquisition board for PCI bus systems. It delivers 32 differential or 64 single-ended analog input channels, 2 analog output channels, and digital I/O capabilities. Engineered for demanding measurement and control applications, it combines high-speed sampling, flexible triggering, and bus-mastering DMA to support continuous acquisition of large data volumes with minimal CPU overhead. Technical

Specifications Analog Input Channels: 32 differential or 64 single-ended (software configurable) Resolution: 12 bits Throughput: 333 kS/s single channel; 312.5 kS/s aggregate multichannel Conversion rate range: 4.32 samples/hour to 333 kS/s Input range: Software selectable via channel gain queue Programmable gains: 1, 5, 50, 250 Input impedance: >100 MΩ || ≤90 pF (all gains) Input overvoltage protection: ±15 V continuous (powered or unpowered) Input bias current: ±40 nA @ 25°C; ±60 nA over operating range Linearity: ±1 LSB integral maximum A/D FIFO buffer: 2048 samples Channel gain queue: 64 entries Analog Output Channels: 2 Resolution: 12 bits Output range: ±10 V Accuracy: ±5 mV typical (high impedance) Output impedance: 4 Ω Output current: ±5 mA maximum Maximum capacitive load: 100 µF D/A FIFO buffer: 16 samples Data Acquisition Transfer modes: DMA (bus master), interrupt, polled Triggering: Pre-trigger, post-trigger, about-trigger; external hardware trigger and gate inputs Clocking: External pacer clock or onboard time base Burst mode: Programmable acquisition with configurable intervals Key Features 32-bit bus-mastering DMA for continuous large-volume data acquisition Multiple 37-pin D-type male connectors for external accessory integration High input impedance (>100 MΩ) minimizes loading effects Programmable gains support signal conditioning across wide dynamic ranges Flexible triggering and clocking enable synchronized multichannel measurements Typical Applications Process monitoring, transient capture, multichannel signal analysis, industrial control, and laboratory measurement systems requiring simultaneous analog sampling with digital synchronization. Compatibility & Integration PCI bus interface. Compatible with DriverLINX software; refer to DriverLINX documentation for KPCI-1800 Series configuration.

KPCI1801HC Characteristics / Specifications

PARAMETER	VALUE
Model	KPCI-1801HC
Manufacturer	Keithley Instruments
Instrument Type	PCI high gain high channel data acquisition board
Alias	KPCI-1801HC; KPCI1801HC
Host Bus	PCI
Analog Inputs	64 single ended or 32 differential
ADC Resolution	12 bit
Input Gains	1, 5, 50, 250 (high gain)
Single Channel Throughput	about 333 kS/s
Scanning Throughput	about 312.5 kS/s class
AD FIFO	2048 samples (KPCI class)
Channel Gain Queue	64 entries class
Analog Outputs	2 channels, 12 bit, plus/minus 10 V
Digital IO	digital inputs and outputs family
Trigger Gate	external
Software	DriverLINX
Related Low Gain	KPCI-1802HC gains 1, 2, 4, 8
Related ISA	DAS-1801HC (1024 FIFO)
Form	PCI card
Data Transfer	bus mastering/DMA class
SSH Option	simultaneous sample-and-hold accessory class
Input Range Gain	plus/minus 10 V / 0 to 10 V class Notes Specs from Keithley KPCI-1800HC / DAS-1800HC family. Confirm KPCI-1801HC high gain versus KPCI-1802HC low gain.

KPCI1801HC Specifications

PARAMETER	VALUE
Applications	PCI millivolt/transducer acquisition at 64 channels
PCI plug and play	2048-sample FIFO
Technical Specifications	Model: KPCI-1801HC
Notes	Specs from Keithley KPCI-1800HC / DAS-1800HC family. Confirm KPCI-1801HC high gain versus KPCI-1802HC low gain.

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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Instrument Type	PCI high gain high channel data acquisition board

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Scanning Throughput	about 312.5 kS/s class
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Digital IO	digital inputs and outputs family
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PARAMETER	VALUE
Form	PCI card
Data Transfer	bus mastering/DMA class
SSH Option	simultaneous sample-and-hold accessory class

Input Range Gain 1: plus/minus 10 V / 0 to 10 V class

Notes

Specs from Keithley KPCI-1800HC / DAS-1800HC family. Confirm KPCI-1801HC high gain versus KPCI-1802HC low gain.

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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