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Data Sheet

August 13, 2026

KEITHLEY

Keithley KPCI-PIO24 PCI-Bus 24-Channel Parallel Digital I/O Module

Key Features - PCI 32-bit Plug and Play (versus ISA PIO-24) - 8255A Mode 0 emulation with higher current - Ports A and B byte-wide; Port C splittable nibble-wide - AMCC S5933 PCI controller in target/passthrough mode - Eight consecutive memory-mapped locations at BADDR1 - DriverLINX, LabVIEW, and TestPoint UDO support Technical Specifications Model: KPCI-PIO24 Manufacturer: Keithley Instruments Instrument Type: PCI parallel digital I/O board Alias: KPCIPIO24 I/O lines: 24 bidirectional, non-isolated, TTL compatible I/O interface: emulates one 8255A configured for Mode 0 External connector: one 37-pin D-type Input high voltage min: 2.0 V Input low voltage max: 0.8 V Output high at 8 mA: 2.4 V min class (IOH = -8 mA) Output high at 15 mA: 2.0 V min class (IOH = -15 mA) Output low at 64 mA: 0.55 V max; 0.



MODEL

Keithley KPCI-PIO24

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

KPCI-PIO24

LISTING

<https://aumictechlabs.com/products/kpci-pio24-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keithley KPCI-PIO24 is a 32-bit PCI-bus digital I/O module that provides 24 TTL-level parallel I/O lines for industrial automation, data acquisition, and process control applications. The module organizes its I/O capability into three independent 8-bit ports (PA, PB, and PC), each independently configurable as input or output under software control. Port PC can be further

subdivided into two 4-bit half ports for enhanced application flexibility. Built around the AMCC S5933 PCI bus controller, the KPCI-PIO24 supports plug-and-play operation and leverages the PCI bus 32-bit architecture for reliable integration into host systems.

Technical Specifications

Digital I/O: 24 TTL-level lines organized into three 8-bit ports

Port Configuration: PA, PB, and PC independently configurable as input or output; PC subdivides into two 4-bit half ports

Output Drive: 15 mA source, 64 mA sink

Input Voltage Levels: VIH 2.0 V minimum, VIL 0.8 V maximum

Input Current: $\pm 1 \mu\text{A}$ maximum (IIH at VIN = 2.7 V)

PCI Bus Controller: AMCC S5933

Power Supply Access: +5V, +12V, -12V, and -5V externally accessible from host PC

Operating Temperature: 0°C to 50°C

Storage Temperature: 0°C to 70°C

Humidity: 0 to 95%, non-condensing

Key Features

All ports default to input configuration on power-up or reset

Port read/write access available regardless of current configuration without affecting external signal levels

Accessible interrupt configuration for customizable programmed I/O operations

DriverLINX software API included; supports Visual C/C++, Visual Basic, and Delphi application development

Complies with EN61010-1/IEC 1010 for Installation Categories I and II per IEC 60664

Typical Applications

Industrial automation systems requiring parallel digital I/O

Data acquisition and process control

Custom control and monitoring applications

Compatibility & Integration

The KPCI-PIO24 is compatible with ERB-24, SSIO-24, SRA-01, and ERA-01 accessories. DriverLINX software provides register-free configuration and eliminates the need for low-level register programming.

Features & description

From manufacturer datasheet

Features

- PCI 32-bit Plug and Play (versus ISA PIO-24)
- 8255A Mode 0 emulation with higher current
- PortsAandBbyte-wide; PortCsplittable nibble-wide
- AMCC S5933 PCI controller in target/passthrough mode
- Eight consecutive memory-mapped locations at BADDR1
- DriverLINX, LabVIEW, and TestPoint UDO support

KPCIPIO24 Characteristics / Specifications

PARAMETER	VALUE
Model	KPCI-PIO24
Manufacturer	Keithley Instruments
Instrument Type	PCI parallel digital I/O board
Alias	KPCIPIO24
I/O lines	24 bidirectional, non-isolated, TTL compatible
I/O interface	emulates one 8255A configured for Mode 0
External connector	one 37-pinDtype
Input high voltage min	2.0 V
Input low voltage max	0.8 V
Output high at 8 mA	2.4 V min class (IOH = -8 mA)
Output high at 15 mA	2.0 V min class (IOH = -15 mA)
Output low at 64 mA	0.55 V max; 0.3 V typical (IOL = 64 mA)
Source current	15 mA (IOH)
Sink current	64 mA (IOL)
Power requirements	+5 VDC, 25 W maximum
External circuit power	+5 VDC, 1 A maximum total
Operating temperature	0 C to 50 C
Storage temperature	0 C to 70 C
Relative humidity	20 to 90% noncondensing
Dimensions	175 mm long x 107 mm wide x 19 mm high (6.88 in x 4.2 in x 0.75 in)
Weight	116 g (4.1 oz)
Bus	PCI Plug and Play
PCI controller	AMCC S5933 target/passthrough (default)
Register block	8 consecutive memory-mapped locations at BADDR1
Ports	PA, PB byte-wide; PC lower/upper independently programmable

PARAMETER	VALUE
Power rails on connector	+5 V, +12 V, -12 V, DIG COM
Software	DriverLINX included
Host OS	Windows 95/98/NT class per manual
Interrupt	easily accessible interrupt configuration
Data transfer default	target passthrough after reset
Accessory SSIO	solid-state relay board listed for this I/O family
Accessory ERB	mechanical relay board listed for this I/O family
Accessory STA U	screw terminal panel
Document	Keithley 98230 Rev. C (September 2002)
Humidity	20 to 90% noncondensing

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	0 C to 70 C
Operating temperature	0 C to 50 C
Operating Temperature	0 C to 50 C
Humidity	20 to 90% noncondensing
Relative humidity	20 to 90% noncondensing
Dimensions	175 mm long x 107 mm wide x 19 mm high (6.88 in x 4.2 in x 0.75 in)
Weight	116 g (4.1 oz)
Bus	PCI Plug and Play
PCI controller	AMCC S5933 target/passthrough (default)
Register block	8 consecutive memory-mapped locations at BADDR1
Ports	PA, PB byte-wide; PC lower/upper independently programmable
Power rails on connector	+5 V, +12 V, -12 V, DIG COM
Software	DriverLINX included
Host OS	Windows 95/98/NT class per manual
Interrupt	easily accessible interrupt configuration
Data transfer default	target passthrough after reset
Accessory SSIO	solid-state relay board listed for this I/O family
Accessory ERB	mechanical relay board listed for this I/O family
Accessory STA U	screw terminal panel
Document	Keithley 98230 Rev. C (September 2002) Notes Specs from Keithley KPCI-PIO24 User's Manual Table A-1. Do not treat SSIO-24 as this board. Confirm PCI slot 5 V signaling compatibility on the host.

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	
Specifications	
PARAMETER	VALUE
Model	KPCI-PI024
Manufacturer	Keithley Instruments
Instrument Type	PCI parallel digital I/O board
Alias	KPCIPI024
I/O lines	24 bidirectional, non-isolated, TTL compatible
I/O interface	emulates one 8255A configured for Mode 0
External connector	one 37-pinDtype
Input high voltage min	2.0 V
Input low voltage max	0.8 V
Output high at 8 mA	2.4 V min class (IOH = -8 mA)
Output high at 15 mA	2.0 V min class (IOH = -15 mA)
Output low at 64 mA	0.55 V max; 0.3 V typical (IOL = 64 mA)
Source current	15 mA (IOH)
Sink current	64 mA (IOL)
Power requirements	+5 VDC, 25 W maximum
External circuit power	+5 VDC, 1 A maximum total
Operating temperature	0 C to 50 C
Storage temperature	0 C to 70 C
Relative humidity	20 to 90% noncondensing
Dimensions	175 mm long x 107 mm wide x 19 mm high (6.88 in x 4.2 in x 0.75 in)
Weight	116 g (4.1 oz)
Bus	PCI Plug and Play
PCI controller	AMCC S5933 target/passthrough (default)
Register block	8 consecutive memory-mapped locations at BADDR1
Ports	PA, PB byte-wide; PC lower/upper independently programmable
Power rails on connector	+5 V, +12 V, -12 V, DIG COM

PARAMETER	VALUE
Software	DriverLINX included
Host OS	Windows 95/98/NT class per manual
Interrupt	easily accessible interrupt configuration
Data transfer default	target passthrough after reset
Accessory SSI0 24	solid-state relay board listed for this I/O family
Accessory ERB 24	mechanical relay board listed for this I/O family
Accessory STA U	screw terminal panel
Document	Keithley 98230 Rev. C (September 2002)

Notes

Specs from Keithley KPCI-PI024 User's Manual Table A-1. Do not treat SSI0-24 as this board. Confirm PCI slot 5 V signaling compatibility on the host.

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.