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Data Sheet

August 13, 2026

KEITHLEY / METRABYTE

Keithley / MetraByte PIO-24 Parallel Digital Interface Board

Keithley MetraByte PIO-24 High Current 24 Bit ISA Parallel Digital I/O Board The Keithley MetraByte PIO-24 is a high-current 24-line parallel digital I/O board for IBM PC and compatibles. It emulates an 8255 Programmable Peripheral Interface in Control Word Mode 0 with much higher drive than the PIO-12: 64 mA sink and 15 mA source per line. Three TTL/CMOS ports (PA, PB, PC) map to four consecutive I/O addresses with a factory base of 300h. A 37-pin D connector is pin-compatible with PIO-12 accessories. Half-slot ISA form factor; DriverLINX Windows support. The Keithley MetraByte PIO-24 is a high-current 24-line parallel digital I/O board for IBM PC and compatibles. It emulates an 8255 Programmable Peripheral Interface in Control Word Mode 0 with much higher drive than the PIO-12: 64 mA sink and 15 mA source per line. Three TTL/CMOS ports (PA, PB, PC) map to four consecutive I/O addresses with a factory base of 300h. A 37-pin D connector is pin-compatible with PIO-12 accessories. Half-slot ISA form factor; DriverLINX Windows support. High-current LED, Opto 22, and relay drive from ISA PCs



MODEL

**Keithley /
MetraByte PIO-24**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

PIO-24

LISTING

<https://aumictechlabs.com/products/pio-24-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keithley / MetraByte PIO-24 is a parallel digital interface board that delivers 24 lines of TTL/CMOS-compatible digital I/O for IBM PC and compatible systems. It emulates the Intel 8255 Programmable Peripheral Interface in MODE 0, providing flexible configuration across three ports (PA, PB, and PC, with PC subdividing into two 4-bit half ports) via a 10-bit I/O address decode. The board connects through a standard 37-pin D-type male connector and supports both DriverLINX and ActiveX Direct I/O software interfaces for rapid hardware access and OS-independent operation.

Technical Specifications

I/O Architecture: 24 digital lines across three TTL/CMOS ports with independent programmability

Interface: 8-bit ISA peripheral bus to PC

Address Decode: 10-bit I/O address decode

Interrupt Support: Dedicated interrupt input channel with enable control

Power Supply: +5V, +12V, -12V 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

Maximum output current 25 mA per line

Input high voltage (VIH) minimum 2.0V; input low voltage (VIL) maximum 0.8V

Current sink capability: 6 mA minimum @ 0.33V, 20 mA maximum @ 1.0V

Input current (IIH) $\pm 1 \mu\text{A}$ @ 2.7V

Intel 8255 MODE 0 emulation for legacy software compatibility

Rear-panel connector for cable-based external device connections

Port C subdivisions enable flexible half-port configuration

Typical Applications

Data acquisition, digital device control, experimental automation, and legacy system integration within PC-based platforms.

Compatibility & Integration

Designed for IBM PC, PC-XT, PC-AT, and compatibles. Ships with DriverLINX software for Windows 95/98 and Windows NT. ActiveX Direct I/O provides alternative access without interrupt support. Mating connector is standard 37-pin D female (e.g., SFC-37). Optional cables include C-1800 (unshielded, 18-inch ribbon) and S-1800 (shielded variant).

PIO Characteristics / Specifications

PARAMETER	VALUE
Model	PIO-24
Manufacturer	Keithley MetraByte
Instrument Type	ISA 24 bit high current parallel digital I/O board
Alias	PIO-24; PIO24; MetraByte PIO-24
Host Bus	ISA 8 bit peripheral
Digital Lines	24
Port A	8 bit input or output
Port B	8 bit input or output
Port C	8 bit or two 4 bit halves independently or OPPI Emulation: 8255 Control Word Mode 0
Address Decode	10 bit
Address Map	4 consecutive I/O locations
Default Base Address	300h
Control Register	base plus 3
Input Low Voltage	-0.5 V to plus 0.8 V
Input High Voltage	2.0 V to 5.0 V
Output Low At 64 mA Sink	0.55 V max
Output High At 15 mA Source	2.0 V min
Output High At 3 mA Source	2.7 V min
Bus Loading Power	400 mA typical at plus 5 V
Connector	37 pin D male
Mating Connector	SFC-37 37 pin female
Power Rails On Connector	plus 5 V, plus 12 V, minus 12 V
Operating Temperature	0 C to 70 C
Storage Temperature	minus 40 C to 100 C
Humidity	0 to 90 percent noncondensing

PARAMETER	VALUE
Form Factor	half slot
Interrupt	input channel with interrupt enable
Accessories	C-1800, STA-U, ERB-24, ERA-01, SRA-01, SSIO-24
Software	DriverLINX
Related Lower Drive	PIO-12
Related PCI	KPCI-PIO24

General Specifications & Supplementary Characteristics

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Storage temperature	minus 40 C to 100 C
Operating temperature	0 C to 70 C
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Form Factor	half slot
Interrupt	input channel with interrupt enable
Accessories	C-1800, STA-U, ERB-24, ERA-01, SRA-01, SSIO-24
Software	DriverLINX
Related Lower Drive	PIO-12
Related PCI	KPCI-PIO24 Notes Specs from Keithley PIO-24 Parallel Digital Interface Board User's Guide (64230C) Table 1-1. Confirm PIO-24 (high current) versus PIO-12 (standard 8255 drive). March 1999 latch change reduced input load current for ERB-24 compatibility.

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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Related Lower Drive	PIO-12
Related PCI	KPCI-PI024

Notes

Specs from Keithley PIO-24 Parallel Digital Interface Board User's Guide (64230C) Table 1-1. Confirm PIO-24 (high current) versus PIO-12 (standard 8255 drive). March 1999 latch change reduced input load current for ERB-24 compatibility.

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.