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Data Sheet

August 15, 2026

IOTECH

IOtech ADC488/16A

Key Features 16-bit resolution, 96 dB dynamic range 33 uV/bit at plus or minus 1 V 16 analog input channels on /16A IEEE-488 plus digital I/O Benchtop / rack chassis Technical Specifications Model: ADC488/16A Also Known As: ADC48816A Instrument Type: IEEE-488 analog-to-digital converter with digital I/O Resolution: 16 bit Dynamic Range: 96 dB Sensitivity: 33 uV/bit at plus or minus 1 V range Analog Channels: 16 on the /16A Host Interface: IEEE-488 (GPIB) Digital I/O: digital I/O interface on the ADC488 series Form Factor: compact benchtop / rackmount chassis Family: ADC488 / ADC488/8S / ADC488/8SA / ADC488/16 User Manual: 100-0920 Rev 4.



MODEL	CALIBRATION
IOtech ADC488/16A	Available on request
CONDITION	STATUS
Used	In stock
RFQ / SKU	LISTING
ADC488/16A	https://aumictechlabs.com/products/adc488-16a-2/

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The IOtech ADC488/16A is a 16-bit analog-to-digital converter engineered for high-resolution data acquisition across demanding measurement applications. This IEEE-488 interfaced instrument delivers up to 100 kHz sampling at 16-bit resolution with programmable input ranges (± 1 V, ± 2 V, ± 5 V, ± 10 V FS) and 96 dB dynamic range. With 500 VCM isolation, 33 μ V/bit sensitivity at ± 1 V range, and 1.8 μ s acquisition time, it captures subtle signal variations without frequent gain adjustments. The device supports 16 single-ended or 8 differential input channels, eight TTL digital I/O lines, and flexible triggering from analog level, external TTL, or IEEE-488 commands.

Configurable memory from 4 Kbytes to 8 Mbytes enables local buffering or FIFO operation to the GPIB bus at 200 Kbytes/s throughput. Temperature coefficient of ($\pm 0.002\% \pm 100 \mu\text{V}$)/ $^{\circ}\text{C}$ and 25 ns aperture time ensure measurement stability. Transient capture capability down to 20 μs and programmable scan intervals from 10 μs to 50 seconds make it suitable for both repetitive and single-shot acquisitions. Master/slave expansion supports up to four slave units for increased channel capacity. Technical Specifications Resolution: 16-bit Input Channels: 16 single-ended or 8 differential Sampling Rate: Up to 100 kHz Input Ranges: $\pm 1 \text{ V}$, $\pm 2 \text{ V}$, $\pm 5 \text{ V}$, $\pm 10 \text{ V FS}$ (programmable) Sensitivity: 33 $\mu\text{V/bit}$ ($\pm 1 \text{ V}$ range) Dynamic Range: 96 dB Analog Input Isolation: 500 VCM Maximum Input: 25 V p-p Acquisition Time: 1.8 μs typical Aperture Time: 25 ns typical Conversion Time: 8.1 μs typical Temperature Coefficient: ($\pm 0.002\% \pm 100 \mu\text{V}$)/ $^{\circ}\text{C}$ Throughput: 200 Kbytes/s to IEEE 488 bus Internal Memory: 4 Kbytes standard; up to 8 Mbytes optional Digital I/O: Eight TTL inputs, eight TTL outputs Power: 105–125 VAC or 210–250 VAC, 50/60 Hz; 20 VA max Operating Temperature: 0°C to 50°C Operating Humidity: 0% to 95% RH, non-condensing to 35°C Key Features Programmable gain and input range selection Pre-trigger storage up to 100% of available memory Trigger delay up to 8,000 scans Scan intervals from 10 μs to 50 seconds Transient capture as fast as 20 μs Bandwidth for 50 kHz repetitive signals Double-buffering FIFO support Master/slave expandability to four slave units ASCII command programming Interfaces & Integration IEEE-488 (GPIB) compliant (SH1, AH1, T6, TE0, L4, LE0, SR1, PP1, RL0, DC1, DT1, C0) Analog level, external TTL, Group Execute Trigger (GET), and TALK command triggering Single-shot and continuous acquisition modes

ADC48816A Characteristics / Specifications

PARAMETER	VALUE
Model	ADC488/16A
Also Known As	ADC48816A
Instrument Type	IEEE-488 analog-to-digital converter with digital I/O
Resolution	16 bit
Dynamic Range	96 dB
Sensitivity	33 uV/bit at plus or minus 1 V range
Analog Channels	16 on the /16A
Host Interface	IEEE-488 (GPIB)
Digital Io	digital I/O interface on the ADC488 series
Form Factor	compact benchtop / rackmount chassis
Family	ADC488 / ADC488/8S / ADC488/8SA / ADC488/16
User Manual	100-0920 Rev 4.0 May 1996
Nsn	6625-01-453-8893
Manufacturer	IOtech / Measurement Computing
Literature	IOtech ADC488 Series A/D literature
Application Class	GPIB data acquisition
Range Class	programmable input ranges, multiple channels
System Role	16-bit voltage digitizer
Use Case	small-signal measurement on large spans
Documentation Type	OEM ADC488 series literature and 100-0920 manual
Bus Class	IEEE-488 talker/listener
Channel Class	16 analog inputs
Converter Class	16-bit A/D
Sibling Eight Ch	ADC488/8S and ADC488/8SA
Year Class	1996 ADC488/16A/8SA manual revision

ADC48816A Specifications

PARAMETER	VALUE
Applications	High-resolution GPIB voltage acquisition where 8- or 12-bit scopes lack dynamic range.
Key Features	16-bit resolution, 96 dB dynamic range
Technical Specifications	Model: ADC488/16A

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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Notes

From IOtech ADC488 Series literature (16-bit, 96 dB, 33 uV/bit at +/-1 V, 16 channels on /16A, IEEE-488, digital I/O, manual 100-0920). Sample-rate and exact range list are in 100-0920; do not invent kS/s figures.

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.