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Data Sheet

August 15, 2026

ACROMAG

Acromag IP341 14-Bit Simultaneous A/D Conversion Analog Input Module

Acromag IP341 14-Bit Simultaneous A/D Industry Pack Module 16 Channels The Acromag IP341 provides 16 differential plus or minus 10 V inputs sampled as two eight-channel banks with eight simultaneous 14-bit converters. OEM IP340/IP341 datasheet rates 8 us per bank (125 kHz per channel), 512-sample FIFO, and 1 MHz aggregate bank throughput. High-speed multi-channel acquisition where simultaneous sampling of sensor banks is required on an Industry Pack carrier. Instrument Type: Simultaneous sampling analog input Industry Pack module The Acromag IP341 provides 16 differential plus or minus 10 V inputs sampled as two eight-channel banks with eight simultaneous 14-bit converters. OEM IP340/IP341 datasheet rates 8 us per bank (125 kHz per channel), 512-sample FIFO, and 1 MHz aggregate bank throughput. High-speed multi-channel acquisition where simultaneous sampling of sensor banks is required on an Industry Pack carrier. Instrument Type: Simultaneous sampling analog input Industry Pack module One Channel Throughput: 125 kHz (8 us per conversion)



MODEL

Acromag IP341

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

IP341

LISTING

<https://aumictechlabs.com/products/ip341-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Acromag IP341 is a 14-bit simultaneous analog input module delivering high-resolution data acquisition across 16 differential channels in industrial environments. Eight integrated 14-bit ADCs

enable true simultaneous sampling of paired 8-channel banks, with conversion completed in 8 μ S per bank or 16 μ S for all 16 channels. Maximum throughput reaches 1 MHz across all 16 channels, supporting demanding signal measurement and logging applications requiring precision and speed.

Technical Specifications

Analog Input Channels 16 differential inputs, ± 10 V DC range 14-bit resolution with 2.4 LSB accuracy (0.014%) Simultaneous sampling via dual 8-channel banks

Conversion time: 8 μ S per bank, 16 μ S for complete 16-channel cycle

Maximum throughput: 125 kHz single channel; 1 MHz for 8-channel bank or all 16 channels

Input overvoltage protection: ± 25 V powered, ± 40 V unpowered

Common mode rejection (60 Hz): 96 dB typical

Channel-to-channel rejection (60 Hz): 96 dB typical

Data format: Binary two's complement

Data Acquisition 512-sample FIFO buffer with data tagging

Conversion modes: Continuous and single-cycle

Programmable timer: maximum 2.09 seconds interval

Individual channel/bank enable/disable control

Trigger sources: Internal timer, external TTL, software

Interrupt generation on FIFO threshold conditions

Key Features Eight simultaneous 14-bit ADCs eliminate phase skew between channels TTL-compatible external trigger input/output Programmable per-channel conversion control for flexible acquisition patterns Tagged FIFO data simplifies multi-channel signal identification

Typical Applications Multi-channel industrial data logging, transducer arrays, vibration monitoring, precision instrumentation, and distributed sensor networks requiring synchronized sampling.

Compatibility & Integration Industry Pack module compatible with VMEbus carriers (AVME9670, AVME9630/9660) and PC/AT PCibus (APC8620). Double-height 6U single-slot VME64x form factor. Standard IOSel* and IDSel* data transfer cycles with typical 0–1 wait states at 8 MHz clock.

IP341 Characteristics / Specifications

PARAMETER	VALUE
Model	IP341
Instrument Type	Simultaneous sampling analog input Industry Pack module
Input Configuration	16 differential
Ad Resolution	14 bits
Input Range	plus or minus 10 V
Fifo Memory	512 samples
One Channel Throughput	125 kHz (8 us per conversion)
Eight Channel Same Bank Throughput	1 MHz (8 us per 8 channels)
Sixteen Channel Throughput	1 MHz (16 us per 16 channels at minimum 2.2 kOhm source)
System Accuracy	2.4 LSB (0.014 percent)
Data Format	binary twos complement
Input Overvoltage Protection Power On	plus or minus 25 V
Input Overvoltage Protection Power Off	plus or minus 40 V
Common Mode Rejection 60 Hz Typical	96 dB
Channel To Channel Rejection 60 Hz Typical	96 dB
Id Space Read Access	0 wait states 250 ns
Fifo Read Access Typical	1 wait state 375 ns
Fifo Read Access Maximum	2 wait states 500 ns
Operating Temperature Standard	0 to 70 C
Operating TemperatureEModel	-40 to 85 C
Storage Temperature	-40 to 125 C
Relative Humidity	5 to 95 percent non-condensing
Mtbf	594898 hours at 25 C MIL-HDBK-217F notice 2
Power Plus 5 V	65 mA (76 mA onEModels)
Power Plus 12 V From P	7 mA

PARAMETER	VALUE
Power Minus 12 V From P	6 mA
I _p Standard	ANSI/VITA 4-1995
Operating temperature	Standard: 0 to 70 C
Humidity	5 to 95 percent non-condensing

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	40 to 125 C
Operating temperature	Standard: 0 to 70 C
Operating Temperature	Standard: 0 to 70 C
Humidity	5 to 95 percent non-condensing
Operating Temperature Standard	0 to 70 C
Operating TemperatureEModel	-40 to 85 C
Relative Humidity	5 to 95 percent non-condensing
Mtbf	594898 hours at 25 C MIL-HDBK-217F notice 2
Power Plus 5 V	65 mA (76 mA onEModels)
Power Plus 12 V From P	7 mA
Power Minus 12 V From P	6 mA
Ip Standard	ANSI/VITA 4-1995 Notes From Acromag IP340 and IP341 Simultaneous A/D Conversion Analog Input datasheet. IP341 is the 14-bit ordering model; IP340 is the 12-bit sibling.

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
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Ip Standard	ANSI/VITA 4-1995

Notes

From Acromag IP340 and IP341 Simultaneous A/D Conversion Analog Input datasheet. IP341 is the 14-bit ordering model; IP340 is the 12-bit sibling.

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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NIST-traceable calibration · SAM registered ·
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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.