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Data Sheet

August 15, 2026

ABACO SYSTEMS / VMIC

Abaco Systems / VMIC VMIVME-4514A-300 16-Channel Scanning Analog I/O Board

The VMIVME-4514A-300 is a 16-channel scanning analog I/O board designed for VMEbus systems. It provides high-performance analog-to-digital and digital-to-analog conversion capabilities, making it suitable for a wide range of industrial and scientific applications. This board features programmable gain, multiple input ranges, and onboard data buffering for efficient data acquisition.

**MODEL****Abaco Systems /
VMIC VMIVME-
4514A-300****CALIBRATION****Available on
request****CONDITION****Used****STATUS****In stock****RFQ / SKU****VMIVME-4514A-
300****LISTING**[https://aumictechlabs.c
om/products/vmivme-4
514a-300-2/](https://aumictechlabs.com/products/vmivme-4514a-300-2/)

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Abaco Systems / VMIC VMIVME-4514A-300 is a 16-channel scanning analog I/O board designed for VMEbus systems, delivering simultaneous analog input and output capabilities with 12-bit resolution. Built for data acquisition and control in industrial and scientific environments, this board features individual Sample-and-Hold amplifiers on each output channel, configurable differential or pseudo-differential inputs, and programmable voltage ranges controlled via on-board jumpers. Technical Specifications Analog I/O Architecture 16 analog output channels with individual S&H amplifiers 16 analog input channels, configurable as differential or pseudo-

differential 12-bit resolution on all channels Output current capability: Up to 10 mA source or sink at ± 10 V Voltage Ranges (Jumper Selectable) Unipolar: 0 to +5 V, 0 to +10 V Bipolar: ± 2.5 V, ± 5.0 V, ± 10 V Analog Signal Processing ADC throughput: 33 kHz Conversion time: 1.7 ms per scan Optional 36 Hz single-pole input filter 16-word dual-port memory for continuous channel scanning Three ADC operating modes: Random Polling, Scanning Poll, Auto Scanning Power Management Onboard DC-to-DC converter generates regulated ± 15 VDC from +5 V logic supply ± 15 V bus capacity: 300 mA per rail Key Features Auto Scanning mode provides continuous digitization of all input channels upon initialization, reset, or program command Outputs can be disconnected from the I/O connector for offline testing Built-In-Test capabilities for system diagnostics Standard VMEbus interface with P2 I/O connector support Typical Applications Data acquisition systems, industrial process monitoring, scientific instrumentation, and closed-loop control within VMEbus-based platforms requiring synchronized multi-channel analog I/O operations. Compatibility & Integration Full VMEbus compatibility. Designed for direct integration into VMEbus architectures requiring 12-bit analog acquisition and control.

VMIVME4514A300 Characteristics / Specifications

PARAMETER	VALUE
Model	VMIVME-4514A
Instrument Type	16-channel scanning analog input and output board with BIT
Card Form Factor	6U VME
Analog Output Channels	16 sample-and-hold
Analog Input Channels	16 differential or pseudo-differential single-ended
Adc Resolution	12 bits
Dac Resolution	12 bits
Ad Throughput	40 kHz
Dac Throughput Rating	33 kHz 1.7 ms
Output Drive At Plus Minus 10 V	source or sink 10 mA
Bit Output Switch Impedance	0.1 ohm does not compromise accuracy
Dual Port Register Depth	16 words continuous scan storage
Input Range 0 To 5 V	jumper selectable
Input Range 0 To 10 V	jumper selectable
Input Range Plus Minus 2.5 V	jumper selectable
Input Range Plus Minus 5 V	jumper selectable
Input Range Plus Minus 10 V	jumper selectable
Output Range 0 To 5 V	jumper selectable
Output Range 0 To 10 V	jumper selectable
Output Range Plus Minus 2.5 V	jumper selectable
Output Range Plus Minus 5 V	jumper selectable
Output Range Plus Minus 10 V	jumper selectable
Adc Operating Mode Autoscanning	entered at power up system reset or program control
Adc Operating Mode Random Polling	supported
Adc Operating Mode Scanning Poll	supported

PARAMETER	VALUE
Io Connector Class	P2 I/O
Overvoltage Protection	inputs overvoltage protected
Ordering Alias Base	VMIVME-4514A-000

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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Input Range Plus Minus 10 V	jumper selectable
Output Range 0 To 5 V	jumper selectable
Output Range 0 To 10 V	jumper selectable
Output Range Plus Minus 2.5 V	jumper selectable
Output Range Plus Minus 5 V	jumper selectable
Output Range Plus Minus 10 V	jumper selectable
Optional Input Filter Cutoff: 36 Hz single pole	
Specifications	

PARAMETER	VALUE
Adc Operating Mode Autoscanning	entered at power up system reset or program control
Adc Operating Mode Random Polling	supported
Adc Operating Mode Scanning Poll	supported
Io Connector Class	P2 I/O
Overvoltage Protection	inputs overvoltage protected

Ordering Alias Base: VMIVME-4514A-000

Notes

From Abaco VME-4514A product specifications and Systerra/GE VMIVME-4514A feature tables for channel counts, ranges, 40 kHz A/D throughput, 10 mA drive, 0.1 ohm BIT switches, and 16-word dual-port storage. Optional 36 Hz filter is an ordering configuration.

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.