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Data Sheet

August 15, 2026

ABACO SYSTEMS / VMIC

Abaco Systems / VMIC VMIVME-4514-000 16-Channel Scanning Analog I/O Board

The VMIVME-4514-000 is a 16-channel scanning analog I/O board designed for VMEbus systems. It provides high-performance analog input and output capabilities, suitable for industrial automation, data acquisition, and process control applications. This board supports both single-ended and differential input configurations and offers programmable gain settings for enhanced measurement accuracy.



MODEL

**Abaco Systems /
VMIC VMIVME-
4514-000**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

**VMIVME-4514-
000**

LISTING

[https://aumictechlabs.c
om/products/vmivme-4
514-000-2/](https://aumictechlabs.com/products/vmivme-4514-000-2/)

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Abaco Systems / VMIC VMIVME-4514-000 is a VMEbus-compatible analog I/O board delivering 16 input and 16 output channels, each with 12-bit resolution. Purpose-built for data acquisition, process control, and industrial automation, this double-width VME module supports differential and pseudo-differential input configurations across multiple programmable voltage ranges with flexible A/D operating modes. Technical Specifications Analog Inputs 16 channels with 12-bit ADC resolution Differential or pseudo-differential (single-ended) input types Programmable voltage ranges: 0 to +5 V, 0 to +10 V (unipolar); ± 2.5 V, ± 5 V, ± 10 V (bipolar) Optional 36 Hz

single-pole low-pass filter per channel Three A/D operating modes: Random Polling, Scanning Poll, Auto Scanning Input overvoltage protection via current-limiting resistors Analog Outputs 16 channels with 12-bit DAC resolution One Sample-and-Hold amplifier per channel Programmable voltage ranges: 0 to +5 V, 0 to +10 V (unipolar); ± 2.5 V, ± 5 V, ± 10 V (bipolar) Output drive capability: ± 10 mA at ± 10 V Protection against indefinite short to common and momentary short to ± 25 V Outputs disconnectable from I/O connector for off-line testing Power & Environmental +5 VDC supply: 3.0 A typical, 5.6 A maximum Operating temperature: 0 to 55 °C Storage temperature: -25 to +85 °C Form factor: VME double-width (160 × 233.5 mm) Performance & Integration Maximum settling time to 1 LSB: 1.7 ms On-board Built-in-Test (BIT) for active component diagnostics VMEbus Rev. C.1 compliant (A16:29, 2D:D16, D08 EO SLAVE)Key Features Independent, programmable channel voltage ranges eliminate external scaling circuits Three acquisition modes accommodate random access, sequential polling, and continuous scanning workflows Per-channel low-pass filtering reduces noise without external components solid output protection handles common fault conditions in industrial environments Integrated diagnostics accelerate board-level verification and troubleshootingTypical Applications Process control and monitoring systems Data acquisition for industrial automation Test and measurement instrumentation Military and aerospace embedded systemsCompatibility & Integration Complies with VMEbus specification Rev. C.1 and fits standard double-width VME cages. Requires +5 VDC power distribution and supports both differential and single-ended sensor interfaces.

VMIVME4514000 Characteristics / Specifications

PARAMETER	VALUE
Model	VMIVME-4514
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
Output Drive At Plus Minus 10 V	source or sink 10 mA
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	supported
Adc Operating Mode Random Polling	supported
Adc Operating Mode Scanning Poll	supported
Io Connector Class	P2 I/O
Built In Test Coverage	tests 100 percent of active components
Overvoltage Protection	inputs overvoltage protected

PARAMETER	VALUE
Fail Safe Power Off	supported
Ordering Alias Base	VMIVME-4514-000
Related Successor Model	VMIVME-4514A

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	VMIVME-4514
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
Output Drive At Plus Minus 10 V	source or sink 10 mA
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	supported
Adc Operating Mode Random Polling	supported
Adc Operating Mode Scanning Poll	supported
Io Connector Class	P2 I/O
Built In Test Coverage	tests 100 percent of active components
Overvoltage Protection	inputs overvoltage protected
Fail Safe Power Off	supported

Ordering Alias Base: VMIVME-4514-000
Related Successor Model: VMIVME-4514A

Notes

From Abaco/VMIC VMIVME-4514 family product descriptions shared with the 4514A scanning AIO line for channel counts, 12-bit resolution, jumper ranges, 10 mA drive, dual-port scan registers, and BIT. Finer settling and throughput limits for the non-A revision belong on the hardware reference manual and calibration certificate.

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.