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**Data Sheet**

August 15, 2026

ABACO SYSTEMS / VMIC

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

Abaco Systems / VMIC Data Acquisition Systems (DAQ). Voltage / Current Range:  $\pm 10$  V (bipolar); 0 to +5 V,  $\pm 2.5$  V,  $\pm 5$  V, 0 to +10 V (unipolar);  $\pm 10$  mA output current, Current: limiting input resistors provide overvoltage prote, Current:  $\pm 10$  mA at  $\pm 10$  V per channel.



## MODEL

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

## CALIBRATION

**Available on  
request**

## CONDITION

**Used**

## STATUS

**In stock**

## RFQ / SKU

**VMIVME-4514A-  
000**

## LISTING

<https://aumictechlabs.com/products/vmivme-4514a-000-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

## This unit

The Abaco Systems / VMIC VMIVME-4514A-000 is a 16-channel scanning analog I/O board for VMEbus systems, delivering simultaneous data acquisition and control with 12-bit resolution on both input and output channels. The board supports differential and single-ended input configurations with programmable voltage ranges, on-board multiplexing for channel scanning, and individual sample-and-hold amplifiers on each output. Throughput reaches 33 kHz with flexible ADC operating modes including random polling, scanning poll, and auto scanning. Technical Specifications Analog Inputs 16 channels, 12-bit resolution Differential or pseudo-differential input capability Programmable ranges:  $\pm 2.5$  V,  $\pm 5$  V,  $\pm 10$  V (bipolar) or 0 to +5 V, 0 to +10 V (unipolar) Optional 36 Hz single-pole input filter On-board multiplexers for

automated channel scanning Current-limiting input resistors provide overvoltage protection 16-word dual-port memory stores complete scan cycle data ADC operating modes: Random Polling, Scanning Poll, Auto Scanning Analog Outputs 16 channels, 12-bit resolution Individual sample-and-hold amplifier per channel Output current:  $\pm 10$  mA at  $\pm 10$  V per channel Programmable ranges:  $\pm 2.5$  V,  $\pm 5$  V,  $\pm 10$  V (bipolar) or 0 to +5 V, 0 to +10 V (unipolar) Off-line testing capability with output isolation from I/O connector Performance Throughput: 33 kHz (1.7 mS per scan cycle) 16 MHz system clock drives microsecond timer for ADC control Short settling control mode available to increase throughput

**Key Features** Dual-port memory architecture allows VME access to latest scan data without interrupting acquisition Programmable gain on input channels Built-in test functionality verifies active component operation P2 I/O connector interface

**Typical Applications** Data acquisition systems, real-time control platforms, and instrumentation requiring simultaneous multichannel analog monitoring and command output in VMEbus environments.

**Compatibility & Integration** Standard VMEbus interface for direct integration into VME-based architectures. Supports both bipolar and unipolar signal conditioning with field-configurable gain and range settings.

## VMIVME4514A000 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                                  |                                                            |
|-------------------------------------------------|------------------------------------------------------------|
| 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                                          |
| Optional Input Filter Cutoff: 36 Hz single pole |                                                            |
| Specifications                                  |                                                            |

| PARAMETER                                | VALUE                                               |
|------------------------------------------|-----------------------------------------------------|
| <b>Adc Operating Mode Autoscanning</b>   | entered at power up system reset or program control |
| <b>Adc Operating Mode Random Polling</b> | supported                                           |
| <b>Adc Operating Mode Scanning Poll</b>  | supported                                           |
| <b>Io Connector Class</b>                | P2 I/O                                              |
| <b>Overvoltage Protection</b>            | 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](mailto: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.