

**Aumictech**

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 15, 2026

ABACO SYSTEMS / VMIC

Abaco Systems / VMIC VMIVME-3122-420 High-Performance 16-Bit Analog-to-Digital Converter (ADC)

Abaco Systems / VMIC Data Acquisition Systems (DAQ). Voltage / Current Range: ± 10 V, ± 2.5 V, ± 5 V, 0 to +10 V, 0 to +5 V, Resolution: 16-bit, Channels: 64 differential or single-ended.



MODEL

**Abaco Systems /
VMIC VMIVME-
3122-420**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

**VMIVME-3122-
420**

LISTING

[https://aumictechlabs.c
om/products/vmivme-3
122-420-2/](https://aumictechlabs.com/products/vmivme-3122-420-2/)

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Abaco Systems / VMIC VMIVME-3122-420 is a 16-bit analog-to-digital converter module engineered for VMEbus systems requiring high-accuracy data acquisition across multiple channels. This 6U form-factor board delivers 64 differential or single-ended analog inputs with software-selectable conversion rates up to 100 kSPS, programmable gains of $\times 1$ or $\times 10$, and flexible scanning modes including autoscanning, data bursts, and external synchronization. A dual-port data buffer (16 to 1,024 words) allows accumulated data in selectable blocks of 1, 8, 16, 32, or 64 channels. The module supports multiple analog input ranges (± 2.5 V, ± 5 V, ± 10 V, 0 to +5 V, 0 to +10 V) and VMEbus addressing via A16, A24, and A32 modes, with configurable interrupt routing (IRQ1-IRQ7). Access times are 600 ns maximum for nonscanning operations and 600 ns

typical / 1.2 μ s maximum for scanning. Optional low-pass filtering and signal conditioning board compatibility extend measurement capability to thermocouples, RTDs, and strain gauges.

Technical Specifications

ADC Resolution: 16-bit Input Channels: 64 differential or single-ended Conversion Rate: 381 Hz to 100 kSPS (high-performance); 381 Hz to 50 kSPS (standard) Programmable Gains: $\times 1$ or $\times 10$ Analog Input Ranges: ± 2.5 V, ± 5 V, ± 10 V, 0 to +5 V, 0 to +10 V Data Buffer: 16- to 1,024-word dual-port; block sizes 1, 8, 16, 32, or 64 channels Input Bandwidth: 5 kHz typical (standard); 40 kHz typical (high-performance) Access Time: 600 ns maximum (nonscanning); 600 ns typical, 1.2 μ s maximum (scanning) VMEbus Addressing: A16, A24, A32 Interrupt Configuration: IRQ1 through IRQ7 Form Factor: VMEbus 6U Connectors: P3 and P4 support 96-pin DIN (nonlatching) or 64-pin DIN (latching)

Key Features Autoscanning, data burst, and externally synchronized trigger modes Optional low-pass filtering for noise reduction Common-mode/floating input protection (option includes 22 M Ω ground pull-down per input) Multiple simultaneous board synchronization capability Optional conformal coating with standard VME front panel

Typical Applications Factory automation and process control Data acquisition systems and laboratory instrumentation Training simulators

Compatibility & Integration Direct interface with VMIC signal conditioning boards for thermocouple, RTD, and strain gauge signal acquisition. Supports multi-board synchronization for coordinated data collection.

VMIVME3122420 Characteristics / Specifications

PARAMETER	VALUE
Model	VMIVME-3122
Instrument Type	High-performance 16-bit scanning analog to digital converter board
Card Form Factor	6U VME
Digitizing Resolution	16 bits
Input Channels	64 differential or single-ended
Program Controlled Gain	x1 or x10
Ad Range Plus Minus 2.5 V	jumper selectable
Ad Range Plus Minus 5 V	jumper selectable
Ad Range Plus Minus 10 V	jumper selectable
Ad Range 0 To 5 V	jumper selectable
Ad Range 0 To 10 V	jumper selectable
Conversion Rate Standard	381 Hz to 50 kHz
Conversion Rate High Performance Option	381 Hz to 100 kHz
Default After Reset Scan Rate	100 kHz 64-channel autoscanning gain x1
Data Buffer Size	16 to 1024 words binary increments
Channel Block Sizes	1, 8, 16, 32, or 64 channels
Burst Sample Count	8 to 1024 channel samples
Burst Interval Timer Maximum	687 s repetitive or single shot
Address Space A	supported
Operating Mode Autoscanning	supported
Operating Mode Data Bursts	supported
Operating Mode External Sync	supported
Standard Mode Reprogram Code	write 00F7 hex to relative address 0006 for 50 kHz
Bus Interface	VMEbus slave with programmable interrupter

PARAMETER	VALUE
Ordering Alias Base	VMIVME-3122-000

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.

Performance 16-Bit Analog Scanning ADC

Overview

The Abaco (VMIC/GE) VMIVME-3122 is a 16-bit 64-channel scanning analog digitizer for VMEbus. OEM VMIVME-3122 manuals rate dual-ported buffers from 16 to 1024 words, software gains x1 or x10, jumper ranges plus or minus 2.5 V through 0 to 10 V, and conversion rates from 381 Hz to 50 kHz standard or 100 kHz high-performance option.

Applications

High-channel-count analog acquisition for industrial automation, process control, and VME data systems needing minimal host overhead.

Key Features

Autoscanning timed burst and externally synchronized modes
Per-channel or global programmable gain
Dual-port data buffer with middle or end of scan interrupts
Optional low pass input filters
Interval timer for repetitive bursts to 687 s

Technical Specifications

Technical Specifications

PARAMETER	VALUE
Model	VMIVME-3122
Instrument Type	High-performance 16-bit scanning analog to digital converter board
Card Form Factor	6U VME
Digitizing Resolution	16 bits
Input Channels	64 differential or single-ended
Program Controlled Gain	x1 or x10
Ad Range Plus Minus 2.5 V	jumper selectable
Ad Range Plus Minus 5 V	jumper selectable
Ad Range Plus Minus 10 V	jumper selectable
Ad Range 0 To 5 V	jumper selectable
Ad Range 0 To 10 V	jumper selectable
Conversion Rate Standard	381 Hz to 50 kHz
Conversion Rate High Performance Option	381 Hz to 100 kHz
Default After Reset Scan Rate	100 kHz 64-channel autoscanning gain x1
Data Buffer Size	16 to 1024 words binary increments
Channel Block Sizes	1, 8, 16, 32, or 64 channels
Burst Sample Count	8 to 1024 channel samples

PARAMETER	VALUE
Burst Interval Timer Maximum	687 s repetitive or single shot
Address Space A16	supported
Address Space A24	supported
Address Space A32	supported
Operating Mode Autoscanning	supported
Operating Mode Data Bursts	supported
Operating Mode External Sync	supported
Standard Mode Reprogram Code	write 00F7 hex to relative address 0006 for 50 kHz
Bus Interface	VMEbus slave with programmable interrupter

Ordering Alias Base: VMIVME-3122-000

Notes
From GE/VMIC VMIVME-3122 hardware description and published electrical tables for gains, ranges, rates, and buffer sizes. Queue SKUs such as VMIVME-3122-000/-001/-010/-200/-420 are ordering suffixes of the same scanning ADC family.

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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 15, 2026

Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.