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Data Sheet

August 15, 2026

ABACO SYSTEMS / VMIC

Abaco Systems / VMIC VMIVME-3122-010 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: 16.



MODEL

Abaco Systems /
VMIC VMIVME-
3122-010

CALIBRATION

Available on
request

CONDITION

Used

STATUS

In stock

RFQ / SKU

VMIVME-3122-010

LISTING

<https://aumictechlabs.com/products/vmivme-3122-010-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Abaco Systems VMIVME-3122-010 is a 16-bit Analog-to-Digital Converter module for VMEbus systems, delivering high-resolution data acquisition across up to 64 configurable analog input channels. This card supports differential and single-ended inputs with selectable voltage ranges (± 2.5 V, ± 5 V, ± 10 V, 0 to +5 V, 0 to +10 V) and conversion rates up to 100 kHz on the option or 50 kHz on standard performance. The module features software-selectable programmable gain ($\times 1$ or $\times 10$) per channel or globally, adjustable scan modes including autoscan and single-scan operation, and a dual-port data buffer ranging from 16 to 1,024 words. Channel block size is configurable as 1, 8, 16, 32, or 64 channels, with scanning rates software-selectable from 381 Hz to either 100 kHz (high-performance) or 50 kHz (standard). Access time is 600 ns typical for

scanning modes and 600 ns maximum for nonscanning. The option includes common-mode protection via 22 M Ω pull-down resistors on each input; standard performance requires user-controlled common-mode voltage management. Multiple boards - up to 16 - can be synchronized for simultaneous scan initiation. Optional low-pass input filters improve signal quality.

Technical Specifications

Analog-to-Digital Conversion Resolution: 16-bit Channels: 16, 32, 48, or 64 (configurable differential or single-ended) Input voltage ranges: ± 2.5 V, ± 5 V, ± 10 V, 0 to +5 V, 0 to +10 V Maximum conversion rate: 100 kHz (high-performance) or 50 kHz (standard) Input bandwidth: 5 kHz (standard) or 40 kHz (high-performance) Access time (scanning): 600 ns typical, 1.2 μ s maximum Access time (nonscanning): 600 ns maximum

Signal Conditioning Programmable gain: $\times 1$ or $\times 10$, per-channel or fixed across all channels Common-mode protection (high-performance): 22 M Ω pull-down resistors Optional low-pass input filters available

Operating Modes Scan modes: Autoscan, Single Scan, Continuous, Burst Trigger modes: Three supported Scanning rate range: 381 Hz to 100 kHz (high-performance) or 381 Hz to 50 kHz (standard) Channel block sizes: 1, 8, 16, 32, or 64 Data buffer: 16 to 1,024 words dual-port

Key Features VMEbus compliance (A16, A24, A32 address spaces; Supervisory and Non-privilege modes) Up to 16-board synchronization capability 96-pin DIN nonlatching or 64-pin DIN latching input connectors 6U (4HP) single-slot Eurocard form factor, 9.2 in. (233.4 mm) height

Typical Applications Industrial control systems, scientific research instrumentation data acquisition environments requiring accurate analog-to-digital signal conversion.

Compatibility & Integration The VMIVME-3122-010 integrates directly into VMEbus-based systems with flexible address space configuration and multiple synchronization options for multi-board deployments.

VMIVME3122010 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

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NIST-traceable calibration · SAM registered ·
30-day returns
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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.