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Data Sheet

August 15, 2026

ABACO SYSTEMS / VMIC

Abaco Systems / VMIC VMIVME-3122-001 High-Performance 16-Bit Analog-to-Digital Converter (ADC)

Abaco Systems / VMIC Data Acquisition Systems (DAQ). Voltage / Current Range: ± 2.5 V, 0 to +5 V, Resolution: 16-bit ADC.



MODEL

**Abaco Systems /
VMIC VMIVME-
3122-001**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

VMIVME-3122-001

LISTING

<https://aumictechlabs.com/products/vmivme-3122-001-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Abaco Systems / VMIC VMIVME-3122-001 is a 16-bit VME-based analog-to-digital converter delivering data acquisition across 64 differential or single-ended input channels. The board performs precise analog-to-digital conversion with software-selectable rates up to 100 kSPS, dual-ported data memory for continuous scanning, and programmable bus interrupters that minimize host processor overhead. Technical Specifications Resolution: 16-bit ADC Channel Count: 64 differential or single-ended inputs Maximum Conversion Rate: 100 kSPS (software-selectable) Configurable Channel Scanning: 1, 8, 16, 32, 48, or 64 channels Gain Control: Software-controlled, selectable x1 or x10 per channel Input Bandwidth (typical, 20 Vp-p): 5 kHz (standard) / 40 kHz (high-performance) Common-Mode Rejection: Minimum 75 dB at ± 2.5 V and

0 to +5 V (differential) Access Time: 600 ns maximum (nonscanning), 600 ns typical / 1.2 μ s maximum (scanning) Input Filtering: Low-pass filters available Data Memory: Dual-ported registers for continuous scan storage On-Board Timers: Programmable scan interval controlKey Features Three trigger modes: software-initiated, external (P2 connector), and interval timer Two scan modes: autoscan (sequential all channels) and single scan (single burst per trigger) Programmable bus interrupter reduces processor involvement Common-mode/floating input protection (option: 22 M Ω pull-down to ground per channel) Board Identification Register (BIR) for VMIVME-3122 code verification Configuration Control Register (CCR) for buffer managementTypical Applications Demanding data acquisition environments requiring precise multichannel analog signal digitization with minimal CPU utilization, including real-time monitoring, industrial control, and signal processing systems.Compatibility & Integration Full VMEbus compatibility enables integration into existing VME backplane systems. Flexible input configuration supports both differential and single-ended signal sources.

VMIVME3122001 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

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