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Data Sheet

August 15, 2026

ABACO SYSTEMS / VMIC

Abaco Systems / VMIC VMIVME-4145-001 Arbitrary Waveform Generator

Abaco Systems / VMIC Arbitrary Waveform Generators. Frequency Range: 40 MHz, Voltage / Current Range: $\pm 10V$ (bipolar); 0 to +5V, $\pm 2.5V$, $\pm 5V$, 0 to +10V (unipolar); $\pm 10mA$.



MODEL

**Abaco Systems /
VMIC VMIVME-
4145-001**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

VMIVME-4145-001

LISTING

[https://aumictechlabs.c
om/products/vmivme-4
145-001-2/](https://aumictechlabs.com/products/vmivme-4145-001-2/)

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The VMIVME-4145-001 is a four-channel arbitrary waveform generator module designed for VMEbus systems, delivering high-resolution analog signal generation with 16-bit DACs and flexible output voltage programming. Each of the four output channels supports bipolar ranges ($\pm 2.5V$, $\pm 5V$, $\pm 10V$) and unipolar ranges (0 to +5V, 0 to +10V), with $\pm 10mA$ drive capability and 1.5Ω output impedance in online mode. Technical Specifications Architecture & Interface VMEbus compliance: ANSI/IEEE STD1014-1987, IEC 821 and 297 128KB configurable address space (base address A31-A17 via jumper field) D16, D08 (EO) data access Single-ended analog outputs Waveform Generation Capability Four independent channels with 16-bit DAC resolution per channel Waveform buffer: 2 to 65,536 samples per channel Generation modes: continuous, single burst, or burst/idle/burst Deglitched DAC outputs with optional 4-pole low-pass filtering (500kHz

or 1MHz Chebyshev; 500kHz or 1MHz Bessel) Clock & Timing Internal timebase: 40MHz ± 10 PPM stability Internal sample clock: 400ns to 1.52ms (25ns resolution) External sample clock: minimum 400ns period (2.5 million samples/second maximum) External trigger: minimum 50ns pulse width, 300ns latency Calibration & Diagnostics Autocalibration and self-test via VMEbus reset or software command Onboard DSP and 20-bit ADC for DAC offset and gain calibration Offline analog output disconnection for isolated testing

Key Features Per-channel programmable output voltage ranges ± 10 mA drive current across full output range 65,536-sample buffer capacity per channel for complex waveform generation Dual clock architecture supporting both internal and external timing sources Integrated filtering options for output conditioning

Typical Applications Test and measurement systems requiring multi-channel signal synthesis, hardware-in-the-loop simulation, and VMEbus-integrated analog stimulus generation.

Compatibility & Integration The module integrates into standard VMEbus crate systems and occupies 128KB of addressable memory. Offline mode enables channel output isolation for circuit protection during configuration or maintenance. Status: Entered Restricted Production Phase (RPP) on September 11, 2018.

VMIVME4145001 Characteristics / Specifications

PARAMETER	VALUE
Model	VMIVME-4145
Instrument Type	4-channel 16-bit arbitrary waveform generator analog output board
Card Form Factor	VME 6U
Output Channels	4
Dac Resolution	16 bits
Dacs Per Channel	one dedicated DAC per output
Channel Voltage Range 0 To 5 V	supported
Channel Voltage Range 0 To 10 V	supported
Channel Voltage Range Plus Minus 2.5 V	supported
Channel Voltage Range Plus Minus 5 V	supported
Channel Voltage Range Plus Minus 10 V	supported
Output Drive At Plus Minus 10 V	source or sink 10 mA
Throughput Timing Class	400 ns
Waveform Mode Continuous	supported
Waveform Mode Single Burst	supported
Waveform Mode Burst Idle Burst	supported
Autocalibration	all channels
Self Test Trigger Reset	supported
Self Test Trigger Software	supported
Offline Disconnect	analog outputs disconnectable from field wiring
Function Class	16-bit DAC arbitrary waveform
Product Alias	VME-4145
Ordering Alias Base	VMIVME-4145-000
Ordering Alias Example	VMIVME-4145-001
Lifecycle Note Class	entered restricted production phase September 11 2018 per Abaco

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	
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Channel Voltage Range Plus Minus 2.5 V	supported
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Output Drive At Plus Minus 10 V	source or sink 10 mA
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Notes	
From Abaco Systems VME-4145 / VMIVME-4145 product overview and specifications table. Queue SKUs VMIVME-4145-	

000 and -001 are configuration suffixes of the same four-channel AWG board. Extended settling and accuracy tables belong in the hardware reference manual when not on the public web sheet.

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.