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Data Sheet

August 13, 2026

KEYSIGHT / AGILENT / HP

Keysight / Agilent / HP E1438D 100 MSa/s Digitizer with DSP and Memory

Agilent E1438D 100 MSa/s VXI Digitizer with DSP and Memory The Agilent E1438D isaC-size VXI 100 MSa/s digitizer with on-board DSP and deep memory in the E1438A/B/C/D family. Single-channel (family) high-speed ADC for IF, communications, and transient capture in VXI ATE. D-revision is the last generation with updated memory/DSP. 100 MSa/s VXI IF digitizing; radar/communications capture; DSP-based filtering and triggering in the module; multi-mainframe VXI systems with local bus. The Agilent E1438D isaC-size VXI 100 MSa/s digitizer with on-board DSP and deep memory in the E1438A/B/C/D family. Single-channel (family) high-speed ADC for IF, communications, and transient capture in VXI ATE. D-revision is the last generation with updated memory/DSP. 100 MSa/s VXI IF digitizing; radar/communications capture; DSP-based filtering and triggering in the module; multi-mainframe VXI systems with local bus.



Artsan Technology Group

MODEL

**Keysight / Agilent /
HP E1438D**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

E1438D

LISTING

[https://aumictechlabs.c
om/products/e1438d-2/](https://aumictechlabs.com/products/e1438d-2/)

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight/Agilent/HP E1438D is a single-channel C-size VXI digitizer delivering 100 MSa/s (selectable to 102.4 MSa/s) signal acquisition with integrated Digital Signal Processing for high-speed measurement and analysis. Engineered for demanding ATE and radar test environments,

the E1438D combines a 40 MHz anti-alias filter, -90 dBfs spurious-free dynamic range, and 144 MB expandable RAM with dual high-speed data interfaces: a 2.5 Gbit/sec optical front panel port (VITA 17.1 Draft compliant, multi-mode fiber, 850 nm, up to 100 m) and VXI local bus connectivity. The 50 Ω input accepts DC or AC coupling with configurable attenuation across 17 dB steps (30 dBm to -21 dBm) and programmable digital decimation filters spanning 40 MHz to 305 Hz center frequency. Technical Specifications Signal Acquisition Sampling Rate: 100 MSa/s or 102.4 MSa/s (software selectable) Input Bandwidth: 0-40 MHz Input Impedance: 50 Ω (>18 dB return loss, 1.3 VSWR) Input Coupling: DC or AC (0.2 μ F) Analog Input: BNC connector, shell grounded ADC Overload Level: 0 dBfs typical Dynamic Range and Filtering Input Range: 30 dBm to -21 dBm (3 dB steps, 10.0 Vp to 28.2 mVp) Spurious-Free Dynamic Range: -90 dBfs Anti-Alias Filter: 40 MHz with bypass Harmonic Distortion: -85 dBc typical (3rd order, -25 dBm 13 MHz signal, -15 dBm range) Digital Decimation: Tunable center frequency, 17 octave steps (40 MHz to 305 Hz) Memory and Interfaces FIFO Memory: 144 MB RAM (expandable to 1.2 GB) Optical Data Port: 2.5 Gbit/sec, VITA 17.1 Draft, multi-mode fiber 850 nm, max 100 m (>200 MBytes/sec throughput) VXI Local Bus: 66 MBytes/s data transfer rate FPDP: 2.5 Gigabit/second VXIbus: Standard communication

Key Features Programmable input attenuation with fine resolution across wide dynamic range Integrated DSP with tunable decimation filters for post-acquisition analysis Dual optical and electrical data paths for flexible system integration 144 MB base memory expandable for extended acquisition windows

Typical Applications Automated test equipment (ATE) for RF and baseband signal characterization Radar and pulse signal analysis High-speed transient capture

Compatibility & Integration Operates within VXI chassis architecture with direct module-to-module data transfer via local bus. Optical FPDP port accommodates long-distance data streaming in distributed test systems.

Features & description

From manufacturer datasheet

Features

- 100 MSa/s family ADC with DSP

E1438D Characteristics / Specifications

PARAMETER	VALUE
Model	E1438D
Manufacturer	Agilent / Keysight / Hewlett Packard
Instrument Type	VXI Digitizer with DSP and Memory
Family	E1438A/B/C/D
Alias	E1438D; Agilent E1438D
Maximum Sample Rate	100 MSa/s
Channels	1 (E1438 family single-channel digitizer)
DSP	on-board
Memory	included onDrevision
VXI Size	C-size
Device Class	register-based VXI digitizer
Local Bus	ECL local-bus family support (confirm on module)
Host	C-size VXI mainframe
Predecessor	E1438A E1438B E1438C
Related E1430A	10 MSa/s 23-bit ADC
Related E1428A	1 GSa/s 2-channel oscilloscope
Related E1432A	16 ch 51.2 kSa/s
Related E1433B	8 ch 196 kSa/s
Use	high-speed IF/transient digitizing
Trigger	module/VXI trigger
Filtering	DSP-based digital filters in firmware
Data Path	FIFO/memory to VME and optional local bus
Firmware	E1438D revision
Cooling	VXI C-size airflow
Input	front-panel analog (connector per faceplate)

PARAMETER	VALUE
Clock	internal or external sample clock family
Status	Agilent E1438D EOL
Software	VXI plug and play / E1438 drivers
Slot	1 C-size slot typical
Not Multi Channel kSa	do not confuse with E1432/E1433 Notes 100 MSa/s DSP digitizer identity from Agilent E1438 family and this D-revision listing. Analog input range bandwidth and exact memory depth are option/faceplate items: confirm the module label rather than inventing ADC bits or MB counts not on theDsheets in hand.
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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.

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Notes

100 MSa/s DSP digitizer identity from Agilent E1438 family and this D-revision listing. Analog input range bandwidth and exact memory depth are option/faceplate items: confirm the module label rather than inventing ADC bits or MB counts not on the Dsheet in hand.

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>

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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.