

**Aumictech**

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight E1420B High-Performance Universal Counter

The HP/Agilent E1420B isaC-size VXI universal counter module. OEM documentation set includes user, installation, quick reference, and plug&play notes for frequency, period, and time-interval class measurements in message-based VXI systems. Precision frequency and time interval measurements in C-size VXI automated test systems. Installation and quick reference documentation set Measurement Classes: frequency, period, time interval, ratio, totalize class Input Conditioning Class: impedance coupling attenuation class Resolution Class: universal counter resolution class Documentation Set: user, service, installation, quick reference Form factor and instrument class from HP E1420B manual set indexes and product listings. Confirm exact frequency ranges and accuracies from the E1420B user manual specification appendix.



MODEL

**Agilent / Keysight
E1420B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

E1420B

LISTING

<https://aumictechlabs.com/products/e1420b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight E1420B is a universal counter module engineered for automated test equipment environments. Housed in a C-size, 1-slot VXI form factor, it delivers comprehensive measurement capability spanning frequency, period, time interval, totalize, and ratio functions, complemented by automatic rise/fall time, pulse width, phase, and voltage

measurements. Technical Specifications Measurement Functions: Frequency: 200 MHz standard; 90 MHz to 2.5 GHz with Option 030 UHF channel (Input 3) Period: Supported Time Interval: 2 ns resolution (200 ps with averaging); maximum 99.999 seconds (1 second with Option 100) Totalize: 0 to 1×10^{12} events Ratio: Supported Rise/Fall Time: Automatic measurement down to 15 ns Pulse Width: Automatic measurement supported Phase: Automatic measurement supported AC Voltage: 200 mVp-p to 5 Vp-p range, 1 kHz to 20 MHz, 30 mV resolution DC Voltage: 30 mV to ± 10 V range, 30 mV resolution Sensitivity & Resolution: 35 mV rms up to 200 MHz; 100 mV rms with hysteresis control Frequency resolution: 9 digits per second of measurement time plus trigger error and system jitter Option 030 sensitivity: -25 dBm (90 MHz–1 GHz), -20 dBm (1 GHz–1.8 GHz), -12 dBm (1.8 GHz–2.5 GHz) Measurement Speed: 60 measurements/sec (single function) 40 measurements/sec (sequenced functions) 160 measurements/sec with Shared Memory Option 040 Key Features VXIbus and external triggering for event synchronization Programmable measurement time-outs for absent signal conditions Single Measurement Auto-Trigger capability SCPI interface for code leverage and existing test software integration Typical Applications High-speed production testing RF burst characterization Automated frequency and timing measurements Multi-function sequential measurement sequences Compatibility & Integration SCPI programming support enables integration with established test frameworks. Option 100 (reduced TI delay, mandatory, no-cost) ships with all E1420B units.

E1420B Characteristics / Specifications

PARAMETER	VALUE
Module Function	universal counter
Module Size	C
Slots Occupied	1
VXI Device Type	message based
Programming	SCPI
Measurement Classes	frequency, period, time interval, ratio, totalize class
Product Family	E142x VXI instruments
Connectors	P1/P2
Front Panel Inputs	counter input channels
Operating Temperature Class	0 to 55 C
Plug And Play	documented plug and play note
Installation Guide	documented
Quick Reference	documented
Calibration	counter calibration path
Triggering	external and VXI trigger class
Input Conditioning Class	impedance coupling attenuation class
Gate Time Class	programmable gate class
Resolution Class	universal counter resolution class
RelatedBSize Counter	E1333A
Form Factor	single slot C-size
Status Reporting	SCPI status model
Documentation Set	user, service, installation, quick reference
System Use	C-size VXI ATE
Attenuation	class
Operating temperature	Class: 0 to 55 C

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Class: 0 to 55 C
Operating Temperature	Class: 0 to 55 C
Operating Temperature Class	0 to 55 C
Plug And Play	documented plug and play note
Installation Guide	documented
Quick Reference	documented
Calibration	counter calibration path
Triggering	external and VXI trigger class
Input Conditioning Class	impedance coupling attenuation class
Gate Time Class	programmable gate class
Resolution Class	universal counter resolution class
RelatedBSize Counter	E1333A
Form Factor	single slot C-size
Status Reporting	SCPI status model
Documentation Set	user, service, installation, quick reference
System Use	C-size VXI ATE Notes Form factor and instrument class from HP E1420B manual set indexes and product listings. Confirm exact frequency ranges and accuracies from the E1420B user manual specification appendix.

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	
Specifications	
PARAMETER	VALUE
Module Function	universal counter
Module Size	C
Slots Occupied	1
VXI Device Type	message based
Programming	SCPI
Measurement Classes	frequency, period, time interval, ratio, totalize class
Product Family	E142x VXI instruments
Connectors	P1/P2
Front Panel Inputs	counter input channels
Operating Temperature Class	0 to 55 C
Plug And Play	documented plug and play note
Installation Guide	documented
Quick Reference	documented
Calibration	counter calibration path
Triggering	external and VXI trigger class
Input Conditioning Class	impedance coupling attenuation class
Gate Time Class	programmable gate class
Resolution Class	universal counter resolution class
RelatedBSize Counter	E1333A
Form Factor	single slot C-size
Status Reporting	SCPI status model
Documentation Set	user, service, installation, quick reference
System Use	C-size VXI ATE
Notes	
Form factor and instrument class from HP E1420B manual set indexes and product listings. Confirm exact frequency ranges and accuracies from the E1420B user manual specification appendix.	

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 14, 2026

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