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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 428B

Agilent E1428B 1 GSa/s VXI Digitizing Oscilloscope The Agilent/Keysight E1428B is the B-revision of the C-size message-based VXI digitizing oscilloscope family documented by datasheet 5965-5581 for E1428A. OEM specs list 250 MHz bandwidth, two simultaneous 1 GSa/s channels, 8-bit ADCs with 8000-point realtime memory, and 1 MB shared RAM; B units retain that acquisition identity in VXI ATE systems. Transient capture, automated pulse parameter measurements, and GO/NO-GO waveform compare in VXI ATE. The Agilent/Keysight E1428B is the B-revision of the C-size message-based VXI digitizing oscilloscope family documented by datasheet 5965-5581 for E1428A. OEM specs list 250 MHz bandwidth, two simultaneous 1 GSa/s channels, 8-bit ADCs with 8000-point realtime memory, and 1 MB shared RAM; B units retain that acquisition identity in VXI ATE systems. Transient capture, automated pulse parameter measurements, and GO/NO-GO waveform compare in VXI ATE. Nineteen automatic IEEE pulse parameter measurements



MODEL

**Agilent / Keysight
428B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

428B

LISTING

<https://aumictechlabs.com/products/428b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 428B is a clip-on DC milliammeter that performs non-intrusive current measurements by converting the magnetic field around a conductor into a proportional AC voltage, then processing and displaying it as DC current. No circuit interruption, soldering, or indirect calculations via voltage and resistance are required, eliminating loading errors and

simplifying measurement workflows.

Technical Specifications

Measurement Range & Accuracy

Current measurement: 0.02 mA to 10 A full-scale Accuracy: $\pm(3\% \text{ of full scale} + 0.15 \text{ mA})$

Complete DC isolation with no direct circuit contact

Output Characteristics

Front panel analog voltage output delivers 1 V into an open circuit at full-scale deflection

Variable linear output with calibrated position: $0.73 \pm 0.01 \text{ V}$ into $1 \text{ k}\Omega$

Maximum 1.5 V into an open circuit in uncalibrated position

Suitable for driving strip chart recorders

Probe Specifications

Probe inductance: Less than $0.5 \mu\text{H}$

Induced voltage: Less than 15 mV peak (worst case at 20 kHz and harmonics)

Noise performance: 1 mA range < 15 mV rms across $1 \text{ k}\Omega$; 3 mA range < 5 mV rms across $1 \text{ k}\Omega$

Frequency Response

DC-only primary measurement capability

Low-frequency AC currents up to 400 Hz measurable via oscilloscope or voltmeter connection to front panel output

Key Features

Non-intrusive clip-on transducer design eliminates circuit disruption

Magnetic field sensing converts DC current to proportional voltage signal

Complete common mode rejection - responds only to target DC current

Sensitivity enhancement available by passing multiple conductor loops through the probe

Analog output suitable for external instrumentation and recording devices

Typical Applications

Direct current measurement in electrical circuits where minimal circuit loading and non-invasive monitoring are required. Ideal for steady-state DC current characterization and long-term current trending via external recorders.

Compatibility & Integration

Clip-on probe design accommodates various conductor sizes within physical envelope constraints. Analog front panel output integrates with oscilloscopes, voltmeters, and chart recorders.

428B Characteristics / Specifications

PARAMETER	VALUE
Analog Bandwidth Repetitive	DC to 250 MHz
Analog Bandwidth Single Shot	DC to 250 MHz
Maximum Sample Rate	1 GSa/s simultaneous on both channels
Analog Channels	2
External Trigger Inputs	1
Vertical Resolution ADC	8 bit
Vertical Resolution With Averaging	10 bit class
Waveform Record Length Realtime	8000 points
Waveform Record Length Repetitive	500 points
Vertical Sensitivity Range	8 mV to 40 V full scale
Vertical Gain Accuracy DC	plus/minus 1.25 percent of full scale
Input Resistance Selectable	1 MOhm or 50 ohm
Input Capacitance	7 pF nominal
Input Coupling	AC DC
Maximum Input Voltage 1 MOhm	plus/minus 250 V
Maximum Input Voltage 50 Ohm	5 V rms
Offset Range	up to plus/minus 250 V
Time Base Range	10 ns to 50 s full scale
Time Base Resolution	20 ps
Shared Memory	1 MB
VXI Device Type	message based
Module Size	C
Slots Occupied	1
Connectors	P1/P2
VXI Trigger Bus	ECL Trigger Bus

PARAMETER	VALUE
Bandwidth	Repetitive: DC to 250 MHz

428B Specifications

PARAMETER	VALUE
Agilent E1428B 1 GSa/s VXI Digitizing Oscilloscope	Overview
Key Features	Two simultaneous 1 GSa/s channels
Measurement limit test and waveform compare	SCPI and 54510A compatible command sets
Technical Specifications	Analog Bandwidth Repetitive: DC to 250 MHz

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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Notes

Numeric acquisition values from Agilent E1428A datasheet 5965-5581 applied to E1428B family identity. Confirm any B-revision deltas on the installed module documentation.

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.