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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight EXR254A

Agilent Keysight EXR254A Infiniium EXR-Series Oscilloscope The Keysight EXR254A is an Infiniium EXR-Series oscilloscope with 2.5 GHz analog bandwidth on 4 channels and 16 GSa/s sample rate on every channel. OEM EXR data sheets list 10-bit ADC resolution (up to 16-bit high-resolution), 100 Mpts/ch standard memory, and optional 16 digital MSO channels. High-speed digital debug, multi-lane serial analysis, power integrity, and general-purpose high-bandwidth multi-channel capture. Sample Rate Real Time: 16 GSa/s all analog channels The Keysight EXR254A is an Infiniium EXR-Series oscilloscope with 2.5 GHz analog bandwidth on 4 channels and 16 GSa/s sample rate on every channel. OEM EXR data sheets list 10-bit ADC resolution (up to 16-bit high-resolution), 100 Mpts/ch standard memory, and optional 16 digital MSO channels. High-speed digital debug, multi-lane serial analysis, power integrity, and general-purpose high-bandwidth multi-channel capture. Sample Rate Real Time: 16 GSa/s all analog channels Vertical Resolution: 10 bits up to 16 bits with high resolution mode



MODEL

**Agilent / Keysight
EXR254A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

EXR254A

LISTING

<https://aumictechlabs.com/products/exr254a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight EXR254A is a 2.5 GHz real-time oscilloscope with four analog channels sampling simultaneously at 16 GSa/s. This Infiniium EXR-Series instrument combines oscilloscope, logic analyzer, arbitrary waveform generator, frequency response analyzer, digital voltmeter, counter,

and protocol analyzer functionality into a single platform. The 10-bit ADC delivers up to 16-bit resolution in high-resolution mode, achieving system ENOB of 9.0 bits with hardware filtering and noise as low as 43 μ V. With 100 Mpts/channel standard memory (upgradeable to 400 Mpts/channel) and waveform update rates exceeding 200,000 wfm/s, the EXR254A supports demanding signal analysis workflows across RF, digital, and power electronics applications.

Technical Specifications

- Bandwidth: 2.5 GHz (upgradeable)
- Analog Channels: 4
- Sample Rate: 16 GSa/s on all channels simultaneously
- Memory Depth: 100 Mpts/channel standard; upgradeable to 400 Mpts/channel
- ADC Resolution: 10 bits native; up to 16 bits in high-resolution mode
- System ENOB: 9.0 bits with hardware filtering; 8.1 bits standard
- Noise: 43 μ V minimum
- Waveform Update Rate: > 200,000 wfm/s
- Display: 15.6-inch capacitive multi-touch, Full HD (1920×1080)
- Operating System: Windows 10
- Physical: 17.32 in. W × 9.06 in. L × 12.99 in. H; 30 lbs

Key Features

- Integrated logic analyzer with 16 digital channels (optional)
- Arbitrary waveform generator rated 50 MHz
- Frequency response analyzer (Bode plotter) to 50 MHz
- Digital voltmeter (4-digit) and 10-digit counter standard
- Optional protocol analyzer support
- Over 50 voltage and timing measurements with trends and histograms
- Real-time eye diagrams and jitter decomposition
- Segmented memory and history mode
- FFT analysis and flexible three-stage triggering
- Fault Hunter for automatic signal evaluation against user-defined criteria
- Hardware-accelerated plotting

Typical Applications

High-speed digital design verification, mixed-signal analysis, power integrity measurements, serial protocol debug, and frequency response characterization.

Compatibility & Integration

Includes one N2873A 500 MHz passive probe per channel, keyboard, mouse, and Keysight I/O Libraries Suite. Supports external second monitor. Fully upgradeable post-purchase via software licenses.

EXR254A Characteristics / Specifications

PARAMETER	VALUE
Model	EXR254A
Analog Bandwidth 50 Ohm	2.5 GHz
Analog Bandwidth 1 MOhm	500 MHz
Analog Channels	4
Sample Rate Real Time	16 GSa/s all analog channels
Sample Resolution	62.5 ps
Vertical Resolution	10 bits up to 16 bits with high resolution mode
ENOB Class	as high as 9.0
Standard Memory Depth	100 Mpts per channel
Typical Rise Time 10/	172 ps
Typical Rise Time 20/	124 ps
Real Time Update Rate	greater than 200000 waveforms per second
Digital Logic Channels Optional	16 dedicated MSO input
Display	15.6 inch touch full HD dual screen support
Input Impedance 50 Ohm	50 ohm plus or minus 3.5 percent
Input Impedance 1 MOhm	1 MOhm plus or minus 1 percent (14 pF typical)
Series Family	Infiniium EXR-Series
Brand Lineage	Agilent / Keysight
Form Factor	benchtop InfiniiumEye Diagram Speed Class: greater than 750000 UI/s
Bandwidth Upgrade Path	field upgradeable up to 6 GHz
Channel Upgrade Path	4 to 8 channel license path on 4ch models
Bandwidth	50 Ohm: 2.5 GHz
Rise Time	10/90: 172 ps

EXR254A Specifications

PARAMETER	VALUE
Key Features	2.5 GHz bandwidth on all analog channels
Technical Specifications	Model: EXR254A
Notes	From Keysight Infiniium EXR-Series data sheet model table for EXR254A.

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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Analog Bandwidth 50 Ohm	2.5 GHz
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Sample Rate Real Time	16 GSa/s all analog channels
Sample Resolution	62.5 ps
Vertical Resolution	10 bits up to 16 bits with high resolution mode
ENOB Class	as high as 9.0
Standard Memory Depth	100 Mpts per channel
Optional Memory 400 Mpts: 400 Mpts per channel option path	
Optional Flexible Memory: 1.6 Gpts combined flexible memory option path	
Specifications	
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Typical Rise Time 10/90	172 ps
Typical Rise Time 20/80	124 ps
Real Time Update Rate	greater than 200000 waveforms per second
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Bandwidth Upgrade Path	field upgradeable up to 6 GHz
Channel Upgrade Path	4 to 8 channel license path on 4ch models

Notes

From Keysight Infiniium EXR-Series data sheet model table for EXR254A.

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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NIST-traceable calibration · SAM registered ·
30-day returns
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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.