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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight M8054A

Keysight M8054A Interference Source 32 GHz The Keysight M8054A is a 1-slot AXIe interference source generating calibrated random and sinusoidal level interference for high-speed receiver testing up to 64 Gbaud, with four differential outputs and adjustable bandwidth from 160 kHz to 32 GHz. RI/SI injection for M8040A BERT receiver tolerance, NEXT/FEXT coupler-based stress before or after ISI channels, and common-mode or differential-mode impairment emulation. Four differential output channels without baluns The Keysight M8054A is a 1-slot AXIe interference source generating calibrated random and sinusoidal level interference for high-speed receiver testing up to 64 Gbaud, with four differential outputs and adjustable bandwidth from 160 kHz to 32 GHz. RI/SI injection for M8040A BERT receiver tolerance, NEXT/FEXT coupler-based stress before or after ISI channels, and common-mode or differential-mode impairment emulation. Four differential output channels without baluns Random interference with crest factor greater than 5



MODEL

**Agilent / Keysight
M8054A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

M8054A

LISTING

<https://aumictechlabs.com/products/m8054a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight M8054A is a 32 GHz interference source module that generates repeatable, accurate level impairments for testing high-speed digital receivers in communication, radar, and electronic warfare applications. This 1-slot AXIe module delivers four differential output channels

with adjustable bandwidth from 160 kHz to 32 GHz, supporting symbol rates up to 64 Gbaud and line coding formats including NRZ and PAM4. It integrates with Keysight's M8000 Series BER test solutions and the M8040A BERT for comprehensive receiver stress testing.

Technical Specifications

Bandwidth: 160 kHz to 32 GHz (supports signals up to 58 Gbaud Nyquist/2)

Symbol Rate Support: Up to 64 Gbaud

Output Channels: 4 differential channels (2.4 mm female connectors)

Amplitude Range: Single-ended: 0 to 1 Vpp into 50 Ω Differential: 0 to 2 Vpp into 50 Ω

Single-ended voltage window: -1.0 to +2.5 V Termination voltage window: -600 mV to 1.1 V

Offset range: -945 mV to 549 mV (at 100 mV amplitude)

Amplitude Correction Factor: 0 to 10

Skew: ± 7 ps typical (inter-pair); 2.3 ps maximum (differential pair)

Frequency Accuracy: ± 2.0 ppm

Impedance: 50 Ω (nominal)

Power Consumption: 50 W

Key Features

- Random level interference generation (Gaussian noise with crest factor >5) and sinusoidal interference
- Common mode and differential mode interference capability
- Supports NRZ and PAM4 line coding
- Integrated control via Keysight M8070B system software with graphical interface and remote control
- Designed for combined operation with M8040A BERT in 5-slot AXIe chassis configurations

Typical Applications

- PCIe, SAS, Thunderbolt, and OIF CEI standard interface testing
- Ethernet receiver stress testing
- Optical receiver characterization
- High-speed digital receiver robustness evaluation

Compatibility & Integration

Operates with Keysight M8040A BERT (up to 64 Gbaud) within AXIe chassis environments. Control software: M8070B system software for M8000 Series BER test solutions.

M8054A Characteristics / Specifications

PARAMETER	VALUE
Model	M8054A
Instrument Type	AXIe interference source
Form Factor	1 slot AXIe
Output Channels	4
Output Type	single ended or differential
Impedance Nominal	50 ohm
Amplitude Single Ended Max	1 Vpp
Amplitude Differential Max	2 Vpp
RI Amplitude Range	0 mV to 1 V
RI Amplitude Resolution	1 mV
SI Amplitude Range	0 to 995 mV
SI Amplitude Resolution	1 mV
Bandwidth Range	160 kHz to 32 GHz
Crest Factor RI	greater than 5
Voltage Window Single Ended	-1.0 to +2.5 V into 50 ohm
Offset Range Example At 100 mV	-945 mV to 549 mV
Termination Voltage Window	-600 mV to 1.1 V
Skew Between Output Pairs Typical	plus or minus 7 ps
Skew Normal To Complement Max	3 ps fixed
Frequency Accuracy	plus or minus 2 ppm
Connector Type	2.4 mm female
Target Symbol Rate Class	up to 64 Gbaud
Nyquist Support Class	enough for 58 Gbaud signals
Control Software	M8070B revision 6.5 or later
Companion BERT Class	M8040A

PARAMETER	VALUE
Bandwidth	Range: 160 kHz to 32 GHz

M8054A Specifications

PARAMETER	VALUE
Keysight M8054A Interference Source 32 GHz	Overview
Four differential output channels without baluns	Random interference with crest factor greater than 5
Bandwidth adjustable 160 kHz to 32 GHz	Integrates with M8070B M8000 software
Technical Specifications	Model: M8054A
Notes	Numeric rows from Keysight M8054A Interference Source 32 GHz data sheet.

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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Form Factor	1 slot AXIe
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Amplitude Single Ended Max	1 Vpp
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SI Amplitude Range	0 to 995 mV
SI Amplitude Resolution	1 mV
Bandwidth Range	160 kHz to 32 GHz
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Offset Range Example At 100 mV	-945 mV to 549 mV
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Target Symbol Rate Class	up to 64 Gbaud
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Control Software	M8070B revision 6.5 or later
Companion BERT Class	M8040A

Notes

Numeric rows from Keysight M8054A Interference Source 32 GHz data sheet.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

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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.