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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight R347B

Agilent Keysight R347B Millimeter-Wave Noise SourceRband The HP/Agilent/Keysight R347B is a 347 Series waveguide noise source for millimeter-wave noise-figure measurements. OEM data sheets list 26.5 to 40 GHz coverage, stated ENR, and 28 V bias compatible with the 8970B. Noise figure and gain measurements on millimeter-wave amplifiers, mixers, and receivers in the stated waveguide band. Waveguide output matched to the named UG flange

The HP/Agilent/Keysight R347B is a 347 Series waveguide noise source for millimeter-wave noise-figure measurements. OEM data sheets list 26.5 to 40 GHz coverage, stated ENR, and 28 V bias compatible with the 8970B. Noise figure and gain measurements on millimeter-wave amplifiers, mixers, and receivers in the stated waveguide band. Waveguide output matched to the named UG flange Low ENR drift versus bias voltage and temperature

**MODEL****Agilent / Keysight
R347B****CALIBRATION****Available on
request****CONDITION****Used****STATUS****In stock****RFQ / SKU****R347B****LISTING**<https://aumictechlabs.com/products/r347b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight R347B is a millimeter-wave noise source engineered for R-band applications spanning 26.5 to 40 GHz. This calibrated noise generator delivers precise broadband noise signals required for accurate noise figure measurements in millimeter-wave systems and components. The source operates via +28 V DC excitation and produces two distinct noise states - powered and thermal - enabling direct gain and noise characterization of devices under test when paired with compatible noise figure meters or analyzers. Technical Specifications Frequency

Range: 26.5 to 40 GHz Excess Noise Ratio (ENR): 10 to 13 dB Output Connector: R-band waveguide G-599/U flange Bias Connector: BNC (female) Power Supply: 28 V $\pm$ 1 V DC (integrated with 8970B meter) Maximum Reverse Power: 100 mW Source Impedance Match (SWR): <1.42 (source off), <1.31 (source on) ENR Stability: <0.005 dB/V over voltage; <0.009 dB/°C over temperature Switching Speed: <10 μ s Operating Temperature: 0 to 55 °C Physical Dimensions: 52 mm $\times$ 108 mm $\times$ 60 mm Weight: 0.21 kg (net); 0.36 kg (shipping)

Key Features Exceptional ENR stability supporting extended recalibration intervals Minimal SWR across the millimeter-wave band ensures accurate source characterization Rapid switching enables efficient noise figure workflows Compact form factor integrates directly into benchtop measurement systems

Typical Applications Noise figure characterization of low-noise amplifiers (LNAs) and RF front-end modules System-level noise performance validation in satellite and millimeter-wave communication systems Component qualification and acceptance testing in aerospace and defense programs R&D verification of wideband millimeter-wave receiver designs

Compatibility & Integration The R347B connects directly to the Agilent 8970B or Keysight 8970B Noise Figure Meter, which supplies bias power automatically. Integration with Keysight NFA and X-Series (PXA, MXA) analyzers extends measurement capability to systems-level characterization workflows.

R347B Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Millimeter-wave waveguide noise source
Series Family	HP Agilent Keysight 347 Series high frequency noise sources
Waveguide Band	R band
Frequency Range	26.5 to 40 GHz
Excess Noise Ratio Range	14 to 17 dB from 26.5 to 40 GHz
Maximum SWR Source Off	less than 1.42 (reflection coefficient 0.17)
Maximum SWR Source On	less than 1.31 (reflection coefficient 0.13)
Bias Voltage	28 V plus or minus 1 V automatically supplied by Keysight 8970B Noise Figure Meter
Maximum Reverse Power	100 mW
Bias Connector	BNC female
Noise Output Connector	R-band waveguide UG-599/U flange
ENR Variation With Voltage	less than 0.005 dB/V
ENR Variation With Temperature	less than 0.009 dB/C
Switching Speed	less than 10 μ s
Operating Temperature	0 to 55 C
Dimensions	52 mm x 108 mm x 60 mm (2.1 in x 4.3 in x 2.4 in)
Net Weight	0.21 kg (0.46 lb)
Shipping Weight	0.36 kg (0.80 lb)
Compatible Meter Class	Keysight 8970B noise figure meter 28 V drive
Measurement Role	ENR ON/OFF ratio into system IF for noise figure and gain
ENR Stability Class	excellent ENR stability over time for longer recalibration cycles
Form Factor	waveguide millimeter-wave noise head
Calibration Data Class	traditional 347 Series (not SNS EEPROM class)

R347B Specifications

PARAMETER	VALUE
Waveguide output matched to the named UG flange	Fast solid-state switching under 10 us
Low ENR drift versus bias voltage and temperature	Direct 28 V drive from 8970B class noise-figure meters
Technical Specifications	Instrument Type: Millimeter-wave waveguide noise source
Notes	Numeric rows from Keysight R347B Millimeter-Wave Noise Source R-Band data sheet 5991-0522.

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 to 55 C
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Dimensions	52 mm x 108 mm x 60 mm (2.1 in x 4.3 in x 2.4 in)
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Shipping Weight	0.36 kg (0.80 lb)
Compatible Meter Class	Keysight 8970B noise figure meter 28 V drive
Measurement Role	ENR ON/OFF ratio into system IF for noise figure and gain
ENR Stability Class	excellent ENR stability over time for longer recalibration cycles
Form Factor	waveguide millimeter-wave noise head
Calibration Data Class	traditional 347 Series (not SNS EEPROM class) Notes Numeric rows from Keysight R347B Millimeter-Wave Noise Source R-Band data sheet 5991-0522.

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