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Data Sheet

August 12, 2026

KEYSIGHT / AGILENT

Keysight (Agilent) N8974A

Keysight / Agilent N8974A NFA Series Noise Figure Analyzer The N8974A is an NFA-series noise figure analyzer covering 10 MHz to 6.7 GHz. Mechanical band switch at 3.0 GHz between low (to 3 GHz) and high (3–6.7 GHz) ranges. APC-3.5 (m) RF input (ESD sensitive). The N8974A is an NFA-series noise figure analyzer covering 10 MHz to 6.7 GHz. Mechanical band switch at 3.0 GHz between low (to 3 GHz) and high (3–6.7 GHz) ranges. APC-3.5 (m) RF input (ESD sensitive).



MODEL

**Keysight / Agilent
N8974A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

N8974A

LISTING

<https://aumictechlabs.com/products/n8974a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight N8974A is a noise figure analyzer designed for precise characterization of amplifiers and frequency translating devices from 10 MHz to 6.7 GHz. It delivers simultaneous noise figure and gain measurements with repeatable accuracy across six user-selectable measurement bandwidths. The instrument supports external noise sources from the Keysight SNS series and extends to 110 GHz with specialized K-Series block downconverters. A dedicated second GPIB interface enables Local Oscillator control, streamlining complex measurement workflows for wireless communication and aerospace/defense applications. Technical Specifications Frequency Range: 10 MHz to 6.7 GHz (extendable to 110 GHz with block downconverters) Noise Figure Range: 0 to 35 dB (source dependent) Gain Range: -20 to +40 dB Measurement Bandwidths: Six user-selectable options Standard Connector: APC 3.5 (m) Key Features Simultaneous noise figure

and gain characterization Compatible with SNS series noise sources: N4000A, N4001A, N4002A K-Series block downconverter support for frequency extension (e.g., N8974AZ-K98 for 86.5 to 100.0 GHz) Dedicated GPIB interface for LO control Optional high-stability frequency reference (N8974A-1D5) ANSI Z540 compliant calibration with test data available (N8974A-A6J) Rackmount configuration option (N8974A-1CP) with integral handle kit Front panel cover available (N8974A-UK9) Typical Applications Wireless communication amplifier characterization; aerospace and defense device testing; frequency converter noise performance evaluation. Compatibility & Integration Works with SNS-series broadband noise sources for rapid noise figure acquisition. Block downconverters extend measurement capability beyond 6.7 GHz. Documentation includes user manuals, application notes, installation guides, and programming resources.

Features & description

From manufacturer datasheet

Features

- Frequency range: 10 MHz to 6.7 GHz
- Band switch: mechanical switch at 3.0 GHz (minimize cycles for reliability)
- Measurement bandwidths: 4/2/1 MHz, 400/200/100 kHz
- Frequency reference: same std / Opt 1D5 classes as N8973A family
- NF uncertainty 10 MHz–3 GHz: $\pm < 0.05$ dB (ENR 4–17 dB); $\pm < 0.1$ dB (20–22 dB ENR)
- NF uncertainty >3 GHz: $\pm < 0.15$ dB (ENR 4–17 dB); $\pm < 0.2$ dB (20–22 dB ENR)
- Gain range: –20 to +40 dB; uncertainty $\pm < 0.17$ dB (stated conditions)
- RF input: APC 3.5 (m), 50 Ω (ESD sensitive)
- Max operating input: –10 dBm; protected ± 20 Vdc / +15 dBm
- Noise source drive: 28.0 V ± 0.1 V BNC; SNS connector
- Speed 10 MHz–3 GHz: <50 ms @ 8 avg; 3–6.7 GHz: <70 ms @ 8 avg (nominal)
- Weight: ~17.5 kg; power <300 W
- Operating temp: 0 °C to +55 °C

Applications

- Broadband amplifier NF/gain to 6.7 GHz
- Converter DUT modes with LO GPIB control
- SNS noise-source workflows

N8974A Characteristics / Specifications

PARAMETER	VALUE
Model	N8974A
Manufacturer	Keysight / Agilent
Instrument Type	Noise Figure Analyzer
Alias	N8974A; Agilent N8974A; Keysight N8974A
Frequency range	10 MHz to 6.7 GHz
RF connector	APC 3.5 (m) 50 Ω
Band switch	mechanical switch at 3.0 GHz (minimize cycles for reliability)
Gain range	-20 to +40 dB; uncertainty $\pm < 0.17$ dB (stated conditions)
Noise source drive	28.0 V ± 0.1 V BNC; SNS connector
Weight	17.5 kg Notes Specs from Agilent N8973A/74A/75A NFA Series data sheet. Minimize switching across 3 GHz. Confirm Opt 1D5 on the unit.
Measurement bandwidths	4/2/1 MHz, 400/200/100 kHz
Frequency reference	same std / Opt 1D5 classes as N8973A family
NF uncertainty 10 MHz–3 GHz	$\pm < 0.05$ dB (ENR 4–17 dB); $\pm < 0.1$ dB (20–22 dB ENR)
NF uncertainty >3 GHz	$\pm < 0.15$ dB (ENR 4–17 dB); $\pm < 0.2$ dB (20–22 dB ENR)
RF input	APC 3.5 (m), 50 Ω (ESD sensitive)
Max operating input	-10 dBm; protected ± 20 Vdc / +15 dBm
Speed 10 MHz–3 GHz	<50 ms @ 8 avg; 3–6.7 GHz: <70 ms @ 8 avg (nominal)
Operating temp	0 °C to +55 °C

N8974A Specifications

PARAMETER	VALUE
Applications	- Broadband amplifier NF/gain to 6.7 GHz
Key Features	- Frequency range: 10 MHz to 6.7 GHz
Technical Specifications	Model: N8974A
Notes	Specs from Agilent N8973A/74A/75A NFA Series data sheet. Minimize switching across 3 GHz. Confirm Opt 1D5 on the unit.

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
Model	N8974A
Manufacturer	Keysight / Agilent
Instrument Type	Noise Figure Analyzer
Alias	N8974A; Agilent N8974A; Keysight N8974A

Specifications

PARAMETER	VALUE
Frequency range	10 MHz to 6.7 GHz
RF connector	APC 3.5 (m) 50 Ω
Band switch	3.0 GHz mechanical

NF uncertainty ≤3 GHz: ±<0.05 dB (ENR 4–17 dB)
NF uncertainty >3 GHz: ±<0.15 dB (ENR 4–17 dB)

Specifications

PARAMETER	VALUE
Gain range	–20 to +40 dB
Noise source drive	28.0 V ±0.1 V
Weight	17.5 kg

Notes

Specs from Agilent N8973A/74A/75A NFA Series data sheet. Minimize switching across 3 GHz. Confirm Opt 1D5 on the unit.

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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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.