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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 11975A

Bias Port Purpose: bias current required by some external harmonic mixers Bandwidth Coverage: 2 GHz to 8 GHz covers two octaves Related Mixer Interface: used with 70907B class external mixer systems as LO driver Literature Class: HP 8447D/8449B/11975A amplifier family specification sheets Bandwidth Coverage: 2 GHz to 8 GHz covers two octaves Related Mixer Interface: used with 70907B class external mixer systems as LO driver Literature Class: HP 8447D/8449B/11975A amplifier family specification sheets Numeric rows from HP/Agilent 11975A product specifications (2 to 8 GHz, +6 to +16 dBm, 9 to 15 dB gain, plus or minus 11 mA at +3 V bias). 100 mW safe input is the OEM high-safe-input figure on that product description.



MODEL

**Agilent / Keysight
11975A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

11975A

LISTING

[https://aumictechlabs.c
om/products/11975a-2/](https://aumictechlabs.com/products/11975a-2/)

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 11975A is a leveled microwave amplifier that extends the frequency range of spectrum analyzers and sweep oscillators into the microwave band. It operates from 2.0 to 8.0 GHz with adjustable output power between +6 and +16 dBm, featuring automatic level control (ALC) capability and switchable operation modes. The 11975A is a local oscillator (LO) driver for harmonic mixers, delivering frequency-dependent gain that ranges from 15 dB at lower frequencies down to 9 dB at upper band edges. Harmonic and non-harmonic distortion remain well-controlled across the output power range, while a dedicated bias current output supplies adjustable current to external harmonic mixers with ± 11 mA maximum capability and 10 μ A

resolution. The unit accepts input power up to +30 dBm (1 watt) and requires only 100–240 VAC at less than 36 VA, making it suitable for bench and system integration applications.

Technical Specifications

Frequency & Output Power Operating range: 2.0 to 8.0 GHz Output power (adjustable): +6 to +16 dBm Gain variation: 15 dB (2.0–4.5 GHz), 11 dB (4.5–6.1 GHz), 9 dB (6.1–8.0 GHz) Automatic Level Control ALC switchable on/off with visual indicator Minimum input power for leveled output: >20 dB above noise floor Required input power: +2 dBm (2.0–4.5 GHz), +5 dBm (4.5–6.1 GHz), +8 dBm (6.1–8.0 GHz) Input & Output Maximum input power: +30 dBm (1 watt) Maximum input voltage: +35 Vdc Input SWR (ALC off): Typically 2.7:1 RF connectors: SMA female, 50 Ω (Option 001: Type N female) Distortion Performance Harmonic distortion (2nd & 3rd): Below fundamental at $\leq$ +16 dBm output Non-harmonic distortion: Typically >60 dB below fundamental at $\leq$ +16 dBm output Bias Current Output Maximum output: $\pm$ 11 mA, typically $\pm$ 3 Vdc Resolution: 10 μ A Short-circuit protection: Typically $\leq$ 10 mA Connector: BNC female Power Requirements AC input: 100, 120, 220, or 240 volts $\pm$ 5%/-10%; 48 to 440 Hz Consumption: <36 VA Physical & Environmental Dimensions: 213 mm $\times$ 102 mm (8.4 in $\times$ 4.0 in) Weight: 3.04 kg net (6.8 lbs) Operating temperature: 0 to 55 $^{\circ}$ C Storage temperature: -40 to +75 $^{\circ}$ C Compliance: MIL-T-28800C Type III Class 5 Style E; EMI per MIL STD 461A and CISPR 11 (1975) Compatibility & Integration Recommended for use as LO driver with Keysight 11970/74 series harmonic mixers.

Note: This product is obsolete; Keysight 87415A is the recommended alternative.

11975A Characteristics / Specifications

PARAMETER	VALUE
Model	11975A
Instrument Type	Leveled microwave amplifier
Frequency Range	2 GHz to 8 GHz
Minimum Frequency	2 GHz
Maximum Frequency	8 GHz
Adjustable Output Range	+6 dBm to +16 dBm
Small Signal Gain	9 dB to 15 dB depending on frequency
Bias Current Maximum	plus or minus 11 mA at +3 V
Alc	automatic level control, switchable on and off
Unleveled Indicator	front panel lamp indicates ALC off
Safe Input Level	100 mW
Intended Mixers	LO driver for 11970 and 11974 series harmonic mixers
Form Factor	benchtop portable amplifier
Alc Function	maintains adjustable leveled output across 2 to 8 GHz
Gain Versus Frequency Note	gain varies between 9 dB and 15 dB across the band
Bias Port Purpose	bias current required by some external harmonic mixers
Minimum Leveled Output	+6 dBm
Maximum Leveled Output	+16 dBm
Bandwidth Coverage	2 GHz to 8 GHz covers two octaves
Operating Mode Leveled	ALC on
Operating Mode Unleveled	ALC off
Related Mixer Interface	used with 70907B class external mixer systems as LO driver
Literature Class	HP 8447D/8449B/11975A amplifier family specification sheets
Bandwidth	Coverage: 2 GHz to 8 GHz covers two octaves

11975A Specifications

PARAMETER	VALUE
Applications	LO driver for 11970/11974 harmonic mixers; general 2 to 8 GHz leveled amplification.
Key Features	Leveled output +6 to +16 dBm
Mixer bias current for external harmonic mixers	Intended LO driver for 11970/11974 mixers
Technical Specifications	Model: 11975A

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 list 2 to 8 GHz, adjustable output +6 to +16 dBm, small-signal gain 9 to 15 dB versus frequency, switchable ALC, and an adjustable mixer-bias port supplying a maximum of plus or minus 11 mA at +3 V.

Applications

L0 driver for 11970/11974 harmonic mixers; general 2 to 8 GHz leveled amplification.

Key Features

Leveled output +6 to +16 dBm

ALC can be switched off (unleveled lamp)

Mixer bias current for external harmonic mixers

Intended L0 driver for 11970/11974 mixers

Option 001 female Type N connectors

Technical Specifications

Technical Specifications

PARAMETER	VALUE
Model	11975A
Instrument Type	Leveled microwave amplifier
Frequency Range	2 GHz to 8 GHz
Minimum Frequency	2 GHz
Maximum Frequency	8 GHz
Adjustable Output Range	+6 dBm to +16 dBm
Small Signal Gain	9 dB to 15 dB depending on frequency
Bias Current Maximum	plus or minus 11 mA at +3 V
Alc	automatic level control, switchable on and off
Unleveled Indicator	front panel lamp indicates ALC off
Safe Input Level	100 mW
Intended Mixers	L0 driver for 11970 and 11974 series harmonic mixers

Option 001 Connectors: female Type N connectors instead of standard

Specifications

PARAMETER	VALUE
Form Factor	benchtop portable amplifier
Alc Function	maintains adjustable leveled output across 2 to 8 GHz
Gain Versus Frequency Note	gain varies between 9 dB and 15 dB across the band
Bias Port Purpose	bias current required by some external harmonic mixers

PARAMETER	VALUE
Minimum Leveled Output	+6 dBm
Maximum Leveled Output	+16 dBm
Bandwidth Coverage	2 GHz to 8 GHz covers two octaves
Operating Mode Leveled	ALC on
Operating Mode Unleveled	ALC off
Related Mixer Interface	used with 70907B class external mixer systems as L0 driver
Literature Class	HP 8447D/8449B/11975A amplifier family specification sheets

Notes

Numeric rows from HP/Agilent 11975A product specifications (2 to 8 GHz, +6 to +16 dBm, 9 to 15 dB gain, plus or minus 11 mA at +3 V bias). 100 mW safe input is the OEM high-safe-input figure on that product description.

Ordering Information

OPTION	DESCRIPTION
Option 001	female TypeNconnectors

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

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NIST-traceable calibration · SAM registered ·
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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.