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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight N4985A

Agilent Keysight N4985A-P15 System Amplifier 10 MHz to 50 GHz The Keysight N4985A-P15 is a self-contained broadband system amplifier covering 10 MHz to 50 GHz with built-in AC supply and cooling fan. OEM datasheet 5991-0713EN lists banded Psat, P-1dB, gain, match, isolation, and noise figure at 25 C. Saturated RF amplifier testing, TWT driver stages, antenna system amplification, and overcoming cable loss from microwave sources. Instrument Type: broadband system amplifier The Keysight N4985A-P15 is a self-contained broadband system amplifier covering 10 MHz to 50 GHz with built-in AC supply and cooling fan. OEM datasheet 5991-0713EN lists banded Psat, P-1dB, gain, match, isolation, and noise figure at 25 C. Saturated RF amplifier testing, TWT driver stages, antenna system amplification, and overcoming cable loss from microwave sources. Instrument Type: broadband system amplifier Small Signal Gain Typical 2 to 10 GHz: 29 dB



MODEL

**Agilent / Keysight
N4985A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

N4985A

LISTING

<https://aumictechlabs.com/products/n4985a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight N4985A series comprises broadband system amplifiers engineered for RF and microwave applications spanning baseband to millimeter-wave frequencies. Each model delivers high gain and output power across its designated frequency range, with self-contained construction powered by standard AC mains. The series accommodates diverse test scenarios:

bench-top laboratory characterization, production-line validation, and time/frequency-domain measurements. Multiple variants N4985A-P15, N4985A-P25, N4985A-S30, and N4985A-S50 - provide tailored frequency coverage and performance metrics for specific amplification requirements.

Technical Specifications

Frequency Coverage (model-dependent):

- N4985A-P15: 10 MHz to 50 GHz
- N4985A-P25: 2 GHz to 50 GHz
- N4985A-S30: 100 kHz to 30 GHz
- N4985A-S50: 100 kHz to 50 GHz

Gain: Up to 27 dB at 20 GHz (N4985A-P15, ± 2 dB flatness); 30 dB gain to 26 GHz across series variants

Output Power: - 22 dBm at 50 GHz Greater than 20 dBm across frequency range - 1 W (30 dBm) Psat to 10 GHz - 26 dBm P_{-1dB} and 29 dBm Psat at 20 GHz

Key Features

- Built-in bias power supplies eliminate external supply dependencies
- Compact form factor enables close placement to device under test or fixture
- Self-contained design integrates into existing benchtop or automated test setups

Typical Applications

- Saturated RF amplifier characterization
- Traveling Wave Tube (TWT) amplifier drive stages
- Antenna system amplification and R&D RF source amplification and mixer local oscillator chains
- Noise figure measurement (LNA and full-system configurations)
- Pulse and time-domain amplification
- Digital communication system validation
- General-purpose RF gain blocks

Compatibility & Integration

Optional optical application tuning modules N4985A-OA3 (S30 option) and N4985A-OA5 (S50 option) - extend flexibility for specialized measurement environments. Standard AC power connection ensures straightforward deployment in laboratory and production facilities.

Features & description

From manufacturer datasheet

Built-in cooling fan and AC power supply

2.4 mm input and output connectors Benchtop 5.5 by 4.5 by 2.75 inch package High reverse isolation across bands Technical Specifications Model: N4985A-P15 Instrument Type: broadband system amplifier Frequency Range: 10 MHz to 50 GHz Psat Typical 2 to 10 GHz: 30 dBm Psat Typical 10 to 30 GHz: 29 dBm Psat Typical 40 to 50 GHz: 24 dBm P1dB Typical 2 to 10 GHz: 28 dBm Small Signal Gain Typical 2 to 10 GHz: 29 dB Small Signal Gain Typical 10 to 30 GHz: 28 dB Small Signal Gain Typical 40 to 50 GHz: 24 dB Input Match Typical 2 to 10 GHz: minus 15 dB Output Match Typical 2 to 10 GHz: minus 15 dB Reverse Isolation Typical 2 to 30 GHz: minus 60 dB Noise Figure Typical 2 to 30 GHz: 9 dB Noise Figure Typical 40 to 50 GHz: 12 dB Second Harmonic At P1dB Typical 2 to 30 GHz: minus 40 dBc Maximum Input Power: 26 dBm Operating Temperature: 0 C to 55 C DC Power Dissipation: 9 V 1.5 A Input Connector: 2.4 mm Output Connector: 2.4 mm Net Weight: 1.03 kg Shipping Weight: 3.2 kg Package Size: 5.5 by 4.5 by 2.75 inch Series Family: Keysight N4985A Notes Numeric rows from Keysight N4985A System Amplifiers datasheet 5991-0713EN N4985A-P15 specification table at 25 C.

N4985A Characteristics / Specifications

PARAMETER	VALUE
Model	N4985A-P15
Instrument Type	broadband system amplifier
Frequency Range	10 MHz to 50 GHz
Psat Typical 2 to 10 GHz	30 dBm
Psat Typical 10 to 30 GHz	29 dBm
Psat Typical 40 to 50 GHz	24 dBm
P1dB Typical 2 to 10 GHz	28 dBm
Small Signal Gain Typical 2 to 10 GHz	29 dB
Small Signal Gain Typical 10 to 30 GHz	28 dB
Small Signal Gain Typical 40 to 50 GHz	24 dB
Input Match Typical 2 to 10 GHz	minus 15 dB
Output Match Typical 2 to 10 GHz	minus 15 dB
Reverse Isolation Typical 2 to 30 GHz	minus 60 dB
Noise Figure Typical 2 to 30 GHz	9 dB
Noise Figure Typical 40 to 50 GHz	12 dB
Second Harmonic At P1dB Typical 2 to 30 GHz	minus 40 dBc
Maximum Input Power	26 dBm
Operating Temperature	0 C to 55 C
DC Power Dissipation	9 V 1.5 A
Input Connector	2.4 mm
Output Connector	2.4 mm
Net Weight	1.03 kg
Shipping Weight	3.2 kg
Package Size	5.5 by 4.5 by 2.75 inch

PARAMETER	VALUE
Series Family	Keysight N4985A

N4985A Specifications

PARAMETER	VALUE
Applications	Saturated RF amplifier testing, TWT driver stages, antenna system amplification, and overcoming cable loss from microwave sources.
Key Features	1 W class Psat in 2 to 10 GHz band
Technical Specifications	Model: N4985A-P15
Notes	Numeric rows from Keysight N4985A System Amplifiers datasheet 5991-0713EN N4985A-P15 specification table at 25 C.

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 C to 55 C
Operating Temperature	0 C to 55 C
DC Power Dissipation	9 V 1.5 A
Input Connector	2.4 mm
Output Connector	2.4 mm
Net Weight	1.03 kg
Shipping Weight	3.2 kg
Package Size	5.5 by 4.5 by 2.75 inch
Series Family	Keysight N4985A Notes Numeric rows from Keysight N4985A System Amplifiers datasheet 5991-0713EN N4985A-P15 specification table at 25 C.

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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Specifications	
PARAMETER	VALUE
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Maximum Input Power	26 dBm
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Shipping Weight	3.2 kg
Package Size	5.5 by 4.5 by 2.75 inch
Series Family	Keysight N4985A

Notes
Numeric rows from Keysight N4985A System Amplifiers datasheet 5991-0713EN N4985A-P15 specification table at 25 C.

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.