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Data Sheet

August 14, 2026

AMPLIFIER RESEARCH

Amplifier Research LN1500

Amplifier Research LN1500 Low Noise Preamplifier The Amplifier Research LN1500 is a broadband self-contained linear low-noise preamplifier covering 0.1 MHz to 1500 MHz with plus 10 dBm output at less than 1 dB gain compression. OEM datasheets list 30 dB minimum gain, plus or minus 1.5 dB flatness, 3.8 dB typical noise figure, and 100 to 240 VAC automatic primary power. Raising low-level signals ahead of power amplifiers, improving receiver sensitivity, and general laboratory low-noise RF gain to 1.5 GHz. The Amplifier Research LN1500 is a broadband self-contained linear low-noise preamplifier covering 0.1 MHz to 1500 MHz with plus 10 dBm output at less than 1 dB gain compression. OEM datasheets list 30 dB minimum gain, plus or minus 1.5 dB flatness, 3.8 dB typical noise figure, and 100 to 240 VAC automatic primary power. Raising low-level signals ahead of power amplifiers, improving receiver sensitivity, and general laboratory low-noise RF gain to 1.5 GHz. Power Output: plus 10 dBm at less than 1 dB gain compression



MODEL

**Amplifier Research
LN1500**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

LN1500

LISTING

<https://aumictechlabs.com/products/Ln1500-3/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Amplifier Research LN1500 is a solid-state, low-noise preamplifier engineered to amplify weak RF signals across the UHF spectrum. Delivering +10 dBm output with 30 dB minimum gain and 3.8 dB typical noise figure, it bridges low-level signal sources to power amplifiers or receivers requiring enhanced sensitivity. The unit maintains ± 1.5 dB gain flatness across its operating band,

with harmonic distortion held to -20 dBc at rated output. Its 50 ohm input and output impedances tolerate any load condition without oscillation, fold-back, or damage. The LN1500 faithfully preserves AM, FM, and pulse modulation on input signals. Auto-ranging 100 – 240 VAC primary power with IEC 320 connector simplifies field deployment. Offered in benchtop cabinet or rack-mount configurations with front or rear RF connectors.

Technical Specifications

Frequency Response: 1 MHz to 1500 MHz Power Output: $+10$ dBm at <1 dB gain compression Gain: 30 dB minimum; ± 1.5 dB flatness Noise Figure: 3.8 dB typical Input for Rated Output: -19 dBm maximum Input Impedance: 50 ohms, VSWR $2.5:1$ max Output Impedance: 50 ohms, VSWR $2.0:1$ max Harmonic Distortion: -20 dBc max at $+10$ dBm output Third Order Intercept Point: $+20$ dBm typical Modulation Support: AM, FM, pulse modulation

Key Features

Mismatch-tolerant design operates at 100% load/source impedance mismatch without damage or oscillation Auto-ranging internal power supply accommodates 100 – 240 VAC, $50/60$ Hz input Benchtop cabinet ($26.0 \times 11.7 \times 21.6$ cm; 4.5 kg) or rack-mount option RF connectors configurable on front or rear panel

Typical Applications

EMC testing signal conditioning Communication system receiver sensitivity enhancement Low-level RF source amplification Laboratory signal generation and control

Compatibility & Integration

Operates across 5°C to 40°C ambient with relative humidity to 80% (derated to 50% at 40°C). Altitude rating to 2000 meters. CISPR compliant. Mains supply voltage fluctuations must not exceed $\pm 10\%$ of nominal.

LN1500 Characteristics / Specifications

PARAMETER	VALUE
Power Output	plus 10 dBm at less than 1 dB gain compression
Frequency Response	0.1 to 1500 MHz
Input For Rated Output	minus 19 dBm maximum
Gain	30 dB minimum
Gain Flatness	plus or minus 1.5 dB
Noise Figure Typical	3.8 dB
Input Impedance	50 ohms VSWR 2.5:1 maximum
Output Impedance	50 ohms VSWR 2.0:1 maximum
Mismatch Tolerance	100 percent without damage foldback or oscillation
Harmonic Distortion	minus 20 dBc maximum at plus 10 dBm output
Third Order Intercept Typical	plus 20 dBm
Primary Power	100 to 240 VAC 50/60 Hz IEC 320
Size Benchtop WxHxD	26.0 x 11.7 × 21.6 cm
Weight Benchtop	4.5 kg
RF Connectors	TypeNModulation Capability: Reproduces AM FM or pulse on input
Form Factor Benchtop	LN1500 frontNconnectors
Form Factor LN1500M	FrontNrack mount 1.8 kg
Cooling Class	Convection / internal supply class
Series Family	LN1500 M1 through M3

LN1500 Specifications

PARAMETER	VALUE
Amplifier Research LN1500 Low Noise Preamplifier	Overview
Applications	Raising low-level signals ahead of power amplifiers, improving receiver sensitivity, and general laboratory low-noise RF gain to 1.5 GHz.
Key Features	0.1 to 1500 MHz instantaneous bandwidth
Technical Specifications	Power Output: plus 10 dBm at less than 1 dB gain compression
Notes	From Amplifier Research Model LN1500 M1 through M3 OEM datasheet.

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
Power Output	plus 10 dBm at less than 1 dB gain compression
Frequency Response	0.1 to 1500 MHz
Input For Rated Output	minus 19 dBm maximum
Gain	30 dB minimum
Gain Flatness	plus or minus 1.5 dB
Noise Figure Typical	3.8 dB
Input Impedance	50 ohms VSWR 2.5:1 maximum
Output Impedance	50 ohms VSWR 2.0:1 maximum
Mismatch Tolerance	100 percent without damage foldback or oscillation
Harmonic Distortion	minus 20 dBc maximum at plus 10 dBm output
Third Order Intercept Typical	plus 20 dBm
Primary Power	100 to 240 VAC 50/60 Hz IEC 320
Size Benchtop WxHxD	26.0 x 11.7 x 21.6 cm
Weight Benchtop	4.5 kg
RF Connectors	TypeNModulation Capability: Reproduces AM FM or pulse on input
Form Factor Benchtop	LN1500 frontNconnectors
Form Factor LN1500M1	RearNbenchtop
Form Factor LN1500M2	FrontNrack mount 1.8 kg
Form Factor LN1500M3	RearNrack mount 1.8 kg
Cooling Class	Convection / internal supply class
Series Family	LN1500 M1 through M3
Notes	
From Amplifier Research Model LN1500 M1 through M3 OEM datasheet.	

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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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.