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Data Sheet

August 14, 2026

AMPLIFIER RESEARCH

Amplifier Research 50W1000

Amplifier Research 150W1000 Solid State RF Amplifier The Amplifier Research 150W1000 is a portable self-contained air-cooled solid-state amplifier providing 150 W CW minimum from 80 MHz to 1000 MHz. OEM datasheets list 52 dB minimum gain, digital forward/reflected power display, and remote IEEE-488/RS-232 control with ALC and pulse input capability. RF susceptibility testing, antenna and component testing, wattmeter calibration, and driver service for frequency multipliers or higher-power amplifiers. The Amplifier Research 150W1000 is a portable self-contained air-cooled solid-state amplifier providing 150 W CW minimum from 80 MHz to 1000 MHz. OEM datasheets list 52 dB minimum gain, digital forward/reflected power display, and remote IEEE-488/RS-232 control with ALC and pulse input capability. RF susceptibility testing, antenna and component testing, wattmeter calibration, and driver service for frequency multipliers or higher-power amplifiers. Digital control panel with forward reflected power



MODEL

**Amplifier Research
50W1000**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

50W1000

LISTING

<https://aumictechlabs.com/products/50w1000-3/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Amplifier Research 50W1000 is a solid-state, air-cooled broadband amplifier engineered for RF and EMI susceptibility testing, antenna characterization, and component validation. Operating across 1 MHz to 1 GHz with 50 W CW minimum output and 47 dB gain, this self-contained unit

delivers instantaneous bandwidth without band switching. Type N female connectors, 50 ohm impedance, and integrated protection circuits ensure reliable performance in demanding laboratory environments.

Technical Specifications

Power & Gain CW minimum output: 50 W CW linear output (< 1 dB compression): 40 W minimum Power gain: 47 dB minimum Input for rated output: 1.0 mW maximum

Frequency & Response Instantaneous frequency range: 1 MHz to 1 GHz Flatness: ± 1.5 dB typical, ± 2.0 dB maximum Impedance & Mismatch Input impedance: 50 ohms; VSWR 2:1 maximum Output impedance: 50 ohms nominal Operates without damage across any source and load impedance magnitude/phase

Modulation Faithfully reproduces AM, FM, and pulse modulation on input signal

Key Features Push-pull circuitry in high-power stages enhances linearity and stability Input overdrive protection via limiting diodes and RF input leveling circuit Over-temperature protection with DC voltage removal upon thermal fault Crowbar protection against input overdrive Digital status display with operate mode and fault indication Mismatch-tolerant design allows 100% rated power delivery without foldback

Interfaces & Control RF connectors: Type N female IEEE-488 (GPIB) and RS-232 asynchronous, full duplex control Local and remote digital operation

Typical Applications RF and EMI susceptibility testing in sweep, CW, and pulse modes Antenna and component characterization Laboratory RF signal conditioning System integration requiring broadband, linear amplification

Physical Characteristics Air-cooled Weight: 98 kg (215 lb.)

50W1000 Characteristics / Specifications

PARAMETER	VALUE
Rated Output Power	150 watts minimum
Input For Rated Output	1.0 milliwatt maximum
Power Output At 3 dB Compression Nominal	140 watts
Power Output At 3 dB Compression Minimum	120 watts
Power Output At 1 dB Compression Nominal	120 watts
Power Output At 1 dB Compression Minimum	100 watts
Flatness Maximum	plus or minus 2.0 dB
Flatness Typical	plus or minus 1.5 dB
Flatness With Internal Leveling	plus or minus 0.8 dB
Frequency Response	80 to 1000 MHz instantaneously
Gain At Maximum Setting	52 dB minimum
Gain Adjustment Range	18 dB minimum (4096 remote steps)
Input Impedance	50 ohms, VSWR 2.0:1 maximum
Output Impedance	50 ohms nominal
Reflected Power Limit	100 watts
Harmonic Distortion	minus 20 dBc maximum at 100 watts
Third Order Intercept Typical	58 dBm
RF Power Display Range	0 to 200 watts
Primary Power	90 to 264 VAC, 40/400 Hz, 1200 W maximum
Remote Interfaces	IEEE 488 and RS 232
Cooling	Forced air self contained fans
Modulation Capability	Reproduces AM FM or pulse modulation on the input

50W1000 Specifications

PARAMETER	VALUE
Amplifier Research 150W1000 Solid State RF Amplifier	Overview
Safety interlock rear connector	Push pull broadband solid state stages
Technical Specifications	Rated Output Power: 150 watts minimum

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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Notes	
From Amplifier Research Model 150W1000 / 150W1000A OEM specification tables. Some later B-suffix sheets publish different compression minima; confirm faceplate revision.	

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.