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Data Sheet

August 14, 2026

AMPLIFIER RESEARCH

Amplifier Research 150W1000M3

Amplifier Research 150W1000M3 Solid State RF Amplifier The Amplifier Research 150W1000M3 is an M3 configuration of the 150W1000 solid-state broadband amplifier family providing 150 W CW class output from 80 MHz to 1000 MHz. OEM 150W1000 family datasheets specify 52 dB minimum gain and digital local/remote control. RF susceptibility and EMC drive through 1 GHz, antenna/component testing, and wattmeter calibration. Frequency Response: 80 to 1000 MHz instantaneously The Amplifier Research 150W1000M3 is an M3 configuration of the 150W1000 solid-state broadband amplifier family providing 150 W CW class output from 80 MHz to 1000 MHz. OEM 150W1000 family datasheets specify 52 dB minimum gain and digital local/remote control. RF susceptibility and EMC drive through 1 GHz, antenna/component testing, and wattmeter calibration. Frequency Response: 80 to 1000 MHz instantaneously Input For Rated Output: 1.0 milliwatt maximum



MODEL

**Amplifier Research
150W1000M3**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

150W1000M3

LISTING

<https://aumictechlabs.com/products/150w1000m3-3/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Amplifier Research 150W1000M3 is a solid-state, broadband RF amplifier delivering 150 W CW across 80 MHz to 1000 MHz. Built on push-pull circuitry, this unit combines high gain, linearity, and instantaneous bandwidth with reliable performance in demanding test and communication environments. The amplifier accepts 1 mW input and achieves minimum 52 dB

gain with ± 1.5 dB flatness across the band. Internal or external automatic level control (ALC) enables precise output management, while mismatch tolerance ensures safe operation under any source and load impedance conditions, limiting reflected power to 100 W. Harmonic distortion measures -20 dBc at 100 W, with spurious content at -73 dBc and third-order intercept at 58 dBm. Modulation fidelity extends to AM, FM, and pulse formats. The unit operates from 90–135 / 180–270 VAC autoranging input and consumes maximum 650 W. A comprehensive control interface includes an integral digital panel with power/gain display, forward and reflected power metering, and GPIB, RS-232, fiber-optic, USB, and Ethernet remote control. The $19.8 \times 8.1 \times 29.5$ inch benchtop enclosure integrates into rack systems via the 4U, 19-inch variant configuration.

Technical Specifications

Frequency Range: 80 MHz to 1000 MHz
Power Output: 150 W CW minimum; 120 W nominal at 1 dB compression; 140 W nominal at 3 dB compression; 130 W saturated (PSAT)
Gain: 52 dB minimum (maximum setting); 53 dB minimum (small signal); 20 dB adjustment range (front panel control)
Flatness: ± 1.5 dB minimum
Input Impedance: 50 Ω , 1.5:1 VSWR maximum
Output Impedance: 50 Ω , 2.5:1 VSWR maximum
Harmonic Distortion: -20 dBc (H2, H3) at 100 W
Spurious: -73 dBc
Third-Order Intercept (IP3): 58 dBm
Noise Figure: 8 dB maximum
Input for Rated Output: 1 mW / 0 dBm
Power Consumption: 650 W maximum
Primary Power: 90–135 / 180–270 VAC, 50 / 60 Hz, single phase, autoranging

Key Features

Modulation fidelity for AM, FM, and pulse waveforms
Internal/external ALC with threshold control
Mismatch tolerance - unlimited source/load impedance without damage or oscillation; 100 W reflected power limit
Air-cooled operation
Digital control panel with forward and reflected power display
Remote Control & Integration GPIB / IEEE-488 RS-232 Fiber-optic serial (ST connector) USB Ethernet Safety interlock connector (rear panel)

Typical Applications

EMC testing Laboratory RF systems Communication system validation

150W1000M3 Characteristics / Specifications

PARAMETER	VALUE
Rated Output Power	150 watts minimum
Frequency Response	80 to 1000 MHz instantaneously
Gain At Maximum Setting	52 dB 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
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
Series Family	Amplifier Research 150W1000 80 to 1000 MHz
Configuration Code	M3

150W1000M3 Specifications

PARAMETER	VALUE
Amplifier Research 150W1000M3 Solid State RF Amplifier	Overview
Applications	RF susceptibility and EMC drive through 1 GHz, antenna/component testing, and wattmeter calibration.
Key Features	M3 configuration of 150W1000 family
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	
Electrical ratings from Amplifier Research 150W1000 family OEM tables applied to the M3 configuration. Confirm RF connector placement and enclosure options on the M3 configuration row.	

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.