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Data Sheet

August 13, 2026

AMPLIFIER RESEARCH

Amplifier Research 100W1000 RF Amplifier, 1 MHz to 1000 MHz, 100W

Amplifier Research 100W1000 RF Power Amplifier 1 MHz to 1000 MHz The Amplifier Research 100W1000 is a self-contained broadband solid-state RF power amplifier providing a minimum of 100 W swept output from 1 MHz to 1000 MHz. Push-pull MOSFET circuitry improves stability and mismatch tolerance for EMC susceptibility, antenna evaluation, and laboratory RF amplification. The Amplifier Research 100W1000 is a self-contained broadband solid-state RF power amplifier providing a minimum of 100 W swept output from 1 MHz to 1000 MHz. Push-pull MOSFET circuitry improves stability and mismatch tolerance for EMC susceptibility, antenna evaluation, and laboratory RF amplification.



MODEL

**Amplifier Research
100W1000**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

100W1000

LISTING

<https://aumictechlabs.com/products/100w1000-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Amplifier Research 100W1000 is a solid-state, air-cooled RF power amplifier delivering 100 watts across 1 to 1000 MHz. Push-pull circuitry in high-power stages minimizes distortion and enhances stability across demanding test and evaluation environments. The Digital Control Panel provides local and remote operation via LCD touch screen and rotary knob, with comprehensive power monitoring and protection circuits. Forward and reflected power are displayed in real time.

This amplifier excels as a primary source or driver stage in EMC compliance testing, communication system characterization, antenna measurements, and component validation.

Technical Specifications

Frequency Range: 1 MHz to 1000 MHz

Rated Output Power: 100 W minimum

Power Output @ 3 dB Compression: 123 W nominal; 100 W minimum

Power Output @ 1 dB Compression: 95 W nominal; 75 W minimum

Input for Rated Output: 1.0 mW

maximum Gain: 50 dB minimum

Gain Adjustment: Continuous range of 18 dB minimum

Power Flatness: ± 2.0 dB maximum; ± 1.5 dB typical; ± 0.8 dB with internal leveling

Input Impedance: 50 Ω , VSWR 2.0:1 maximum

Output Impedance: 50 Ω nominal, VSWR 2.5:1 maximum

Third Order Intercept Point: 58 dBm typical

Key Features

Modulation support: AM, FM, and pulse modes

Internal and external Automatic Level Control (ALC) with front panel threshold adjustment

RF output level protection with DC current sensing and individual fusing of output modules

Internal RF detector for self-testing and operational feedback

Forward and reflected power monitoring on front panel

Dedicated control switches: POWER, STANDBY, OPERATE, FAULT/RESET

Keylock for local/remote operation control

Remote Control & Integration

GPIB/IEEE-488 interface

RS-232 hardwire and fiber optic connections

USB and Ethernet on select models

Rear panel bus interface connector

Safety interlock capability via rear panel connector

Typical Applications

EMC compliance testing

Communication system evaluation

Antenna and component characterization

Driver stage for higher power amplifiers

Features & description

From manufacturer datasheet

Features

- Instantaneous bandwidth 1 MHz to 1000 MHz • Minimum 100 W output power • Minimum gain 50 dB with 18 dB gain adjust class • Push-pull MOSFET design for low distortion • Mismatch tolerant operation without damage • Forward and reflected power monitoring

Applications

- RF susceptibility and EMC immunity testing • Broadband RF power amplification for lab benches • Antenna and component power stressing 1 MHz to 1 GHz • Swept amplifier applications with RF sweep generators

100W1000 Characteristics / Specifications

PARAMETER	VALUE
Model	100W1000
Manufacturer	Amplifier Research
Instrument Type	Broadband RF Power Amplifier
Alias	100W1000; AR 100W1000
Frequency response	1 MHz to 1000 MHz instantaneous
Rated output power minimum	100 W
Power output at 3 dB compression minimum	100 W
Power output at 3 dB compression nominal	123 W
Power output at 1 dB compression minimum	75 W
Power output at 1 dB compression nominal	95 W
Input for rated output	1.0 mW maximum
Gain minimum	50 dB
Gain adjustment range	18 dB minimum
Flatness	plus or minus 2.0 dB maximum plus or minus 1.5 dB typical
Input impedance	50 ohm VSWR 2.0:1 maximum
Output impedance	50 ohm nominal
Mismatch tolerance	operates without damage into mismatch
Harmonic distortion	-20 dBc maximum at 80 W
Third order intercept typical	58 dBm
RF power display range	0 to 200 W
Primary power	90 to 264 VAC autoranging 47 to 440 Hz
Primary power maximum	1200 W class
Remote IEEE 4	24 pin female

PARAMETER	VALUE
Remote RS2	9 pin subminiatureDfemale
Circuit topology	push-pull MOSFET solid state
Cooling	forced air self contained fans
RF connectors	TypeNfemale input and output
Application class	laboratory RF amplification and EMC Notes Specs from Amplifier Research 100W1000 product specification listings and 100W1000C family datasheet class values. Confirm connector genders, firmware/controller revision, and measured gain on the unit.
Bandwidth	1 MHz to 1000 MHz - Minimum 100 W output power - Minimum gain 50 dB with 18 dB gain adjust class - Push-pull MOSFET design for low distortion - Mismatch tolerant operation without damage - Forward and reflected power monitoring

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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PARAMETER	VALUE
Model	100W1000
Manufacturer	Amplifier Research
Instrument Type	Broadband RF Power Amplifier
Alias	100W1000; AR 100W1000
Frequency response	1 MHz to 1000 MHz instantaneous
Rated output power minimum	100 W
Power output at 3 dB compression minimum	100 W
Power output at 3 dB compression nominal	123 W
Power output at 1 dB compression minimum	75 W
Power output at 1 dB compression nominal	95 W
Input for rated output	1.0 mW maximum
Gain minimum	50 dB
Gain adjustment range	18 dB minimum
Flatness	plus or minus 2.0 dB maximum plus or minus 1.5 dB typical
Input impedance	50 ohm VSWR 2.0:1 maximum
Output impedance	50 ohm nominal
Mismatch tolerance	operates without damage into mismatch
Harmonic distortion	-20 dBc maximum at 80 W
Third order intercept typical	58 dBm
RF power display range	0 to 200 W
Primary power	90 to 264 VAC autoranging 47 to 440 Hz
Primary power maximum	1200 W class
Remote IEEE 488	24 pin female
Remote RS232	9 pin subminiatureDfemale
Circuit topology	push-pull MOSFET solid state
Cooling	forced air self contained fans

PARAMETER	VALUE
RF connectors	TypeNfemale input and output
Application class	laboratory RF amplification and EMC

Notes
Specs from Amplifier Research 100W1000 product specification listings and 100W1000C family datasheet class values. Confirm connector genders, firmware/controller revision, and measured gain on the unit.

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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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.