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Data Sheet

August 14, 2026

AMPLIFIER RESEARCH

Amplifier Research 4W1000

Amplifier Research 4W1000 Solid State RF Amplifier The Amplifier Research 4W1000 is a solid-state air-cooled broadband amplifier providing 4 W CW minimum from 80 MHz to 1000 MHz. OEM W1000 family documentation positions it as a compact Class A driver for lab RF and pretest EMC applications. Low-power RF drive, antenna and component pretest, and driver service ahead of higher-power amplifiers through 1 GHz. Frequency Response: 80 to 1000 MHz instantaneously The Amplifier Research 4W1000 is a solid-state air-cooled broadband amplifier providing 4 W CW minimum from 80 MHz to 1000 MHz. OEM W1000 family documentation positions it as a compact Class A driver for lab RF and pretest EMC applications. Low-power RF drive, antenna and component pretest, and driver service ahead of higher-power amplifiers through 1 GHz. Frequency Response: 80 to 1000 MHz instantaneously Gain At Maximum Setting Class: 36 dB minimum class



MODEL

**Amplifier Research
4W1000**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

4W1000

LISTING

<https://aumictechlabs.com/products/4w1000-3/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Amplifier Research 4W1000 is a self-contained, broadband Class A solid-state amplifier engineered for laboratory RF applications requiring instantaneous bandwidth and high gain. Delivering 4 W of continuous wave power across its operational range, it is a driver stage for frequency multipliers and high-power amplifiers, or as a dedicated RF source for specialized

measurements including nuclear magnetic resonance studies.

Technical Specifications

Frequency Range: 1 MHz to 1000 MHz Power Output: 4 W CW; 4.0 W linear swept (1 MHz to 900 MHz); 3.5 W linear swept (1 MHz to 1000 MHz) Gain: Minimum 36 dB Harmonic Distortion: -20 dBc at 4 W output Input Impedance: $50\ \Omega$; VSWR 2.0:1 maximum Output Impedance: $50\ \Omega$ nominal Mismatch Tolerance: 100% (operates without damage at any magnitude and phase of source and load impedance) Noise Figure: 8 dB typical Modulation Capability: AM, FM, and pulse modulation RF Connectors: BNC (female) input and output

Key Features

Class A topology ensures linear amplification across the full 1 MHz to 1000 MHz band Unconditional stability with 100% mismatch tolerance eliminates load-pulling constraints Internal forced-air cooling maintains thermal stability during continuous operation Compact 9.1 kg form factor with integrated power supply (100–240 VAC, 50/60 Hz)

Typical Applications

RF driver for frequency multiplier chains and power amplifier input stages Laboratory antenna and component characterization Nuclear magnetic resonance (NMR) signal generation and conditioning Broadband signal source for EMI/EMC testing

Compatibility & Integration

The 4W1000 operates from single-phase AC mains (100–240 VAC $\pm 5\%$, 50/60 Hz) with maximum power consumption of 110 W. Its $50\ \Omega$ BNC interface integrates directly into standard RF test benches and measurement systems. The amplifier's inherent mismatch tolerance and modulation fidelity make it suitable for cascaded amplifier chains and complex signal conditioning applications.

4W1000 Characteristics / Specifications

PARAMETER	VALUE
Rated Output Power	4 watts minimum
Frequency Response	80 to 1000 MHz instantaneously
Gain At Maximum Setting Class	36 dB minimum class
Input For Rated Output Class	1.0 milliwatt maximum
Flatness Maximum Class	plus or minus 1.5 dB class
Input Impedance Class	50 ohms
Output Impedance Class	50 ohms nominal
Mismatch Tolerance Class	100 percent of rated power without foldback
Harmonic Distortion Class	minus 20 dBc maximum near rated power
Modulation Capability Class	AM FM pulse faithful reproduction
Cooling	Forced air self contained fans class
RF Connector Class	TypeNfemale
Form Factor	Compact benchtop self contained cabinet
Series Family	Amplifier Research W1000 80 to 1000 MHz
Primary Power Class	Universal AC mains class
Export Classification Class	EAR99 family class
Circuit Topology	Solid state broadband stages
Remote Interfaces Class	Local front panel class
Power Class Sibling 1W10	1 W minimum
Power Class Sibling 10W1000A	10 W minimum
ALC Capability Class	Gain control leveling class
Spurious Typical Class	Low spurious ClassAdriver class

4W1000 Specifications

PARAMETER	VALUE
Amplifier Research 4W1000 Solid State RF Amplifier	Overview
Applications	Low-power RF drive, antenna and component pretest, and driver service ahead of higher-power amplifiers through 1 GHz.
Key Features	Compact solid state W1000 family design
Mismatch tolerant Class A stages	Type N RF connector class
Technical Specifications	Rated Output Power: 4 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	
Rated power and frequency from Amplifier Research 4W1000 OEM/rental W1000 family documentation. Confirm exact gain and enclosure mass on the unit 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

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.