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Data Sheet

August 14, 2026

AMPLIFIER RESEARCH

Amplifier Research 250A250

Amplifier Research 250A250 Broadband RF Amplifier The Amplifier Research 250A250 is a solid-state air-cooled broadband amplifier providing 250 W CW minimum from 10 kHz to 250 MHz. OEM A250 family documentation lists push-pull MOSFET stages, digital local/remote control, and mismatch-tolerant operation for high-power laboratory RF drive. High-power RF susceptibility and EMC testing below 250 MHz, antenna and component testing, and wattmeter calibration. Solid state broadband 10 kHz to 250 MHz design The Amplifier Research 250A250 is a solid-state air-cooled broadband amplifier providing 250 W CW minimum from 10 kHz to 250 MHz. OEM A250 family documentation lists push-pull MOSFET stages, digital local/remote control, and mismatch-tolerant operation for high-power laboratory RF drive. High-power RF susceptibility and EMC testing below 250 MHz, antenna and component testing, and wattmeter calibration. Solid state broadband 10 kHz to 250 MHz design Digital local and remote amplifier control



MODEL

**Amplifier Research
250A250**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

250A250

LISTING

<https://aumictechlabs.com/products/250a250-3/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Amplifier Research 250A250 is a solid-state RF power amplifier delivering 250 W across 10 kHz to 250 MHz. Purpose-built for EMC testing, laboratory characterization, and communication system applications, it combines stable gain, low distortion, and integrated protection to enable

repeatable measurements across demanding test scenarios. Class AB operation, 54 dB minimum small-signal gain, and ± 1.5 dB flatness ensure predictable performance. Harmonic distortion remains -20 dBc typical below 100 MHz and -15 dBc typical above 100 MHz at full power. Spurious content measures -60 dBc typical. The 50 Ω input and output ports accept Type N Female connectors. Settling time of less than 50 μ s supports fast transient measurements. AM, FM, pulse, and other modulation types are supported. Thermal shutdown, output overload protection, and arc detection safeguard the amplifier during fault conditions. Forced-air cooling with fan speed control maintains optimal operating temperatures. Remote enable/disable and status indication via digital interface provide system integration flexibility. Single-phase 200–240 VAC, 50/60 Hz power inlet. Input drive requirement is 0 dBm (1 mW) for rated output power.

250A250 Characteristics / Specifications

PARAMETER	VALUE
Rated Output Power	250 watts minimum
Frequency Response	10 kHz to 250 MHz instantaneously
Gain At Maximum Setting Class	54 dB minimum class
Input For Rated Output Class	1.0 milliwatt maximum
Flatness Maximum Class	plus or minus 1.5 dB class
Gain Adjustment Range Class	18 dB minimum class
Input Impedance Class	50 ohms VSWR 1.5:1 maximum
Output Impedance Class	50 ohms VSWR 2.0:1 maximum
Mismatch Tolerance Class	100 percent of rated power without foldback
Harmonic Distortion Class	minus 20 dBc maximum near rated power
Noise Figure Above 1 MHz Typical Class	10 dB class
Modulation Capability Class	AM FM pulse faithful reproduction
Remote Interfaces Class	IEEE 488 and RS 232
Cooling	Forced air self contained fans
RF Connector Class	TypeNfemale
Form Factor	Benchtop or rack mountable cabinet
Series Family	Amplifier Research A250 10 kHz to 250 MHz
Power Class Sibling 100A250A	100 W minimum
Power Class Sibling 75A250A	75 W minimum
Primary Power Class	Universal AC mains kilowatt class
Export Classification Class	EAR99 family class
Circuit Topology	Push pull MOSFET broadband stages
Third Order Intercept Class Typical	62 dBm class

250A250 Specifications

PARAMETER	VALUE
Amplifier Research 250A250 Broadband RF Amplifier	Overview
Applications	High-power RF susceptibility and EMC testing below 250 MHz, antenna and component testing, and wattmeter calibration.
Key Features	Solid state broadband 10 kHz to 250 MHz design
Forced air self contained cooling	Type N RF connector class
Technical Specifications	Rated Output Power: 250 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 250A250 OEM/rental A250 family documentation. Confirm compression and 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.