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Data Sheet

August 13, 2026

AMPLIFIER RESEARCH

Amplifier Research 150A250 RF Amplifier, 100 kHz to 250 MHz

Amplifier Research 150A250 RF Power Amplifier 100 kHz to 250 MHz 150 W The Amplifier Research 150A250 is a self-contained broadband solid-state RF power amplifier providing a minimum of 150 W swept output from 100 kHz to 250 MHz. Push-pull MOSFET circuitry improves stability and mismatch tolerance for EMC susceptibility, component stress, and laboratory RF amplification. The Amplifier Research 150A250 is a self-contained broadband solid-state RF power amplifier providing a minimum of 150 W swept output from 100 kHz to 250 MHz. Push-pull MOSFET circuitry improves stability and mismatch tolerance for EMC susceptibility, component stress, and laboratory RF amplification.



MODEL

**Amplifier Research
150A250**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

150A250

LISTING

<https://aumictechlabs.com/products/150a250-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Amplifier Research 150A250 is a self-contained broadband RF amplifier engineered for laboratory and test environments requiring high instantaneous bandwidth, stable gain, and moderate power delivery. Built on push-pull MOSFET circuitry, it delivers 150 W minimum output across 100 kHz to 250 MHz while maintaining unconditional stability into any load impedance - no damage, no oscillation, no foldback protection needed. The amplifier accepts input signals as low

as 1.0 mW for rated output and provides 52 dB minimum gain with ± 1.5 dB flatness across its operating range. Technical Specifications Frequency Range: 100 kHz to 250 MHz Output Power: 150 W minimum rated; 155 W minimum @ 3 dB compression; 120 W @ 1 dB compression Gain: 52 dB minimum with ± 1.5 dB flatness Input Level for Rated Output: 1.0 mW maximum Input Impedance: 50 Ω , VSWR 1.5:1 maximum Mismatch Tolerance: 100% rated power into any load impedance without damage or oscillation Primary Power: 90–135/180–270 VAC auto-ranging, 47–63 Hz, single-phase Operating Temperature: 5°C to 40°C Humidity: 80% maximum up to 31°C, decreasing linearly to 50% at 40°C Altitude: Up to 2000 m Dimensions: 9.9 in (H) $\times$ 19.8 in (W) $\times$ 18.1 in (D) Weight: 70 lb Key Features Push-pull MOSFET design minimizes distortion and ensures load-invariant operation Type-N (female) connectors for RF input and output Digital front-panel display for status and fault indication IEEE-488 (GPIB) and RS-232 remote control interfaces Integrated power supply with $\pm 10\%$ mains tolerance Typical Applications RF susceptibility and EMC testing Antenna and RF component evaluation Watt meter calibration Driver amplifier for high-power systems Compatibility & Integration IEEE-488 and RS-232 interfaces enable integration into automated test systems. The amplifier operates within standard laboratory environmental conditions and meets Pollution Degree 2 specifications.

Features & description

From manufacturer datasheet

Features

• Instantaneous bandwidth 100 kHz to 250 MHz • Minimum 150 W output power • Minimum gain 52 dB with 20 dB gain adjust • Push-pull MOSFET design for low distortion • Mismatch tolerant operation without damage • IEEE-488 and RS-232 remote interfaces • Auto-ranging AC primary power

Applications

• RF susceptibility and EMC immunity testing • Broadband RF power amplification for lab benches • Antenna and component power stressing 100 kHz to 250 MHz • Swept amplifier applications with RF sweep generators

150A250 Characteristics / Specifications

PARAMETER	VALUE
Model	150A250
Manufacturer	Amplifier Research
Instrument Type	Broadband RF Power Amplifier
Alias	150A250; AR 150A250
Frequency response	100 kHz to 250 MHz instantaneous
Power output minimum	150 W
Input for rated output	1.0 mW maximum
Gain minimum	52 dB
Gain adjustment range	20 dB
Input impedance	50 ohm
Input VSWR maximum	1.5:1
Output impedance	50 ohm
Output VSWR maximum	2.0:1
Mismatch tolerance	operates without damage or foldback into mismatch
Harmonic distortion	-20 dBc maximum at 120 W
Third order intercept typical	58 dBm
Primary power	90-135 / 180-270 VAC autoranging
Line frequency	47 to 63 Hz single phase
Remote IEEE 4	24 pin female
Remote RS2	9 pin subminiatureDfemale
Circuit topology	push-pull MOSFET
Application class	laboratory RF amplification
Swept power with sweep generator	yes minimum 150 W
Form factor	self contained benchtop/rack amplifier
Protection	mismatch tolerant without damage

PARAMETER	VALUE
Series	AR A-series broadband amplifiers Notes Specs from Amplifier Research 150A250 product specification listings. Confirm connector genders, firmware/controller revision, and measured gain on the unit.
Bandwidth	100 kHz to 250 MHz - Minimum 150 W output power - Minimum gain 52 dB with 20 dB gain adjust - Push-pull MOSFET design for low distortion - Mismatch tolerant operation without damage - IEEE-488 and RS-232 remote interfaces - Auto-ranging AC primary po

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
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Instrument Type	Broadband RF Power Amplifier
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Mismatch tolerance	operates without damage or foldback into mismatch
Harmonic distortion	-20 dBc maximum at 120 W
Third order intercept typical	58 dBm
Primary power	90-135 / 180-270 VAC autoranging
Line frequency	47 to 63 Hz single phase
Remote IEEE 488	24 pin female
Remote RS232	9 pin subminiatureDfemale
Circuit topology	push-pull MOSFET
Application class	laboratory RF amplification
Swept power with sweep generator	yes minimum 150 W
Form factor	self contained benchtop/rack amplifier
Protection	mismatch tolerant without damage
Series	AR A-series broadband amplifiers

Notes

Specs from Amplifier Research 150A250 product specification listings. 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

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.