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Data Sheet

August 14, 2026

AMPLIFIER RESEARCH

Amplifier Research 150A220

Amplifier Research 150A220 Broadband RF Amplifier The Amplifier Research 150A220 is a solid-state air-cooled broadband amplifier providing 150 W CW minimum from 10 kHz to 220 MHz. OEM product documentation lists Class A push-pull stages intended for laboratory RF susceptibility and general RF power applications. RF susceptibility testing through 220 MHz, antenna and component testing, and wattmeter calibration. Solid state broadband 10 kHz to 220 MHz design The Amplifier Research 150A220 is a solid-state air-cooled broadband amplifier providing 150 W CW minimum from 10 kHz to 220 MHz. OEM product documentation lists Class A push-pull stages intended for laboratory RF susceptibility and general RF power applications. RF susceptibility testing through 220 MHz, antenna and component testing, and wattmeter calibration. Solid state broadband 10 kHz to 220 MHz design Digital or front panel gain control class



MODEL

**Amplifier Research
150A220**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

150A220

LISTING

<https://aumictechlabs.com/products/150a220-3/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Amplifier Research 150A220 is a solid-state, linear broadband RF amplifier engineered for laboratory and test environments demanding instantaneous bandwidth across a wide frequency span. Built on MOSFET technology, this 150 W rated amplifier delivers up to 250 W typical output at 3 dB compression while maintaining ± 1.5 dB flatness across its operating range. The unit has

53 dB minimum gain with continuous 18 dB adjustment capability, allowing precise power control from 1.0 mW input. Complete thermal and over-current protection, combined with 100% mismatch tolerance at rated output power, ensures operation survives any source and load impedance combination without damage, foldback, shutdown, or oscillation. With harmonic distortion of -20 dBc (10 kHz to 125 MHz) and -30 dBc (125 MHz to 250 MHz), the amplifier meets demanding spectral purity requirements. RF rise time of 3 ns maximum and a typical third-order intercept point of 60 dBm support high-fidelity signal conditioning. The 150A220 accepts 50 Ω sources with 1.5:1 maximum VSWR and configures in multiple form factors, including rack-mount (M1) and BNC-input (M6) variants. Remote control via 25-pin subminiature D connector and optional computer interface (CP2001, CP3000 accessories) enable automated test sequences and system integration.

Technical Specifications

Frequency Range: 10 kHz to 220 MHz instantaneously
Rated Output Power: 150 watts
Input for Rated Output: 1.0 mW maximum
Power Output @ 3 dB Compression: 250 W typical, 150 W minimum
Power Output @ 1 dB Compression: 200 W typical, 150 W minimum
Gain (maximum setting): 53 dB minimum
Gain Adjust (continuous range): 18 dB minimum
Flatness: ± 1.5 dB maximum
Harmonic Distortion at 150 W: -20 dBc (10 kHz–125 MHz); -30 dBc (125 MHz–250 MHz)
Third-Order Intercept Point: 60 dBm typical
RF Rise Time (10% to 90%): 3 ns maximum
Input Impedance: 50 Ω , 1.5:1 VSWR maximum
Mismatch Tolerance: 100% of rated power without damage across all source/load impedance magnitudes and phases

Key Features

Solid-state MOSFET design for linear amplification
Integrated thermal and over-current protection
Total mismatch tolerance at rated output power
Broadband operation without tuning
Continuous gain adjustment for precise output control

Interfaces & Configuration

RF Input: Type N female (Type BNC female on M6 variant)
RF Output: Type N female
Remote Control: 25-pin subminiature D connector
Computer Interface: CP2001 and CP3000 accessories available

Standard dimensions: 50.7 cm $\times$ 34.0 cm $\times$ 55.0 cm; 47 kg
Rack-mount option (M1): 48.3 cm $\times$ 31.2 cm $\times$ 52.3 cm; 34 kg

Compatibility & Integration

The 150A220 integrates with Amplifier Research control accessories CP2001 and CP3000 for remote and automated operation in multi-instrument test systems.

150A220 Characteristics / Specifications

PARAMETER	VALUE
Rated Output Power	150 watts minimum
Frequency Response	10 kHz to 220 MHz instantaneously
Gain At Maximum Setting Class	52 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	8 dB class
Modulation Capability Class	AM FM pulse faithful reproduction
Remote Interfaces Class	IEEE 488 and RS 232 class
Cooling	Forced air self contained fans
RF Connector Class	TypeNfemale
Form Factor	Benchtop or rack mountable cabinet
Series Family	Amplifier Research A220 10 kHz to 220 MHz
Power Class Sibling 150A100B	150 W minimum to 100 MHz
Primary Power Class	Universal AC mains class
Export Classification Class	EAR99 family class
Circuit Topology	Push pull MOSFET broadband stages
Third Order Intercept Class Typical	58 dBm class
Forward Reflected Metering Class	Digital forward reflected power display class

150A220 Specifications

PARAMETER	VALUE
Amplifier Research 150A220 Broadband RF Amplifier	Overview
Applications	RF susceptibility testing through 220 MHz, antenna and component testing, and wattmeter calibration.
Key Features	Solid state broadband 10 kHz to 220 MHz design
Forced air self contained cooling	Type N RF connector class
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	
Rated power and frequency from Amplifier Research 150A220 OEM/rental documentation. Confirm compression and mass on the unit datasheet revision.	

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.