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Data Sheet

August 14, 2026

AMPLIFIER RESEARCH

Amplifier Research 100A400

Amplifier Research 100A400 Broadband RF Amplifier The Amplifier Research 100A400 is a solid-state air-cooled broadband amplifier providing 100 W CW minimum from 10 kHz to 400 MHz. OEM A400 family documentation lists Class A push-pull stages, digital local/remote control, and mismatch-tolerant operation for EMC and lab RF applications. RF susceptibility testing through 400 MHz, antenna and component testing, wattmeter calibration, and driver service for higher-power amplifiers. Solid state broadband 10 kHz to 400 MHz design The Amplifier Research 100A400 is a solid-state air-cooled broadband amplifier providing 100 W CW minimum from 10 kHz to 400 MHz. OEM A400 family documentation lists Class A push-pull stages, digital local/remote control, and mismatch-tolerant operation for EMC and lab RF applications. RF susceptibility testing through 400 MHz, antenna and component testing, wattmeter calibration, and driver service for higher-power amplifiers. Solid state broadband 10 kHz to 400 MHz design Digital local and remote amplifier control



MODEL

**Amplifier Research
100A400**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

100A400

LISTING

<https://aumictechlabs.com/products/100a400-3/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Amplifier Research 100A400 is a solid-state, Class A broadband power amplifier delivering 100 watts nominal output across 10 kHz to 400 MHz. Built on push-pull MOSFET architecture, it has 50 dB minimum gain with ± 1.0 dB typical flatness and operates unconditionally into any load

impedance without damage or foldback. The amplifier accepts input signals down to 1.0 mW for rated output and includes RF input leveling protection above 0 dBm. It reproduces AM, FM, and pulse modulation present on the input while maintaining stability across full source and load impedance variation. Air-cooled design suits benchtop laboratory deployment. Front-panel gain adjustment spans 20 dB minimum range. Optional remote control packages support GPIB/IEEE-488, RS-232 hardwire and fiber optic, USB, and Ethernet interfaces, with external safety interlock capability.

Technical Specifications

Frequency range: 10 kHz to 400 MHz

Output power: 100 watts nominal (1 dB compression); 130 watts nominal (3 dB compression); minimum 75 watts (1 dB); minimum 100 watts (3 dB)

Gain: 50 dB minimum with 20 dB minimum continuous adjustment range

Flatness: ± 1.0 dB typical, ± 1.5 dB maximum

Input for rated output: 1.0 mW maximum

RF input leveling: Activates above 0 dBm

Mismatch tolerance: 100% rated power without foldback; unconditional operation into any impedance

Power supply: 100–240 VAC, 50/60 Hz, 500 watts maximum

Operating temperature: 5 °C to 40 °C

Humidity: Maximum 80% up to 31 °C, decreasing linearly to 50% at 40 °C

Altitude: Up to 2000 m

Key Features

- Push-pull MOSFET circuit topology for improved stability and low distortion
- RF input overdrive protection with automatic leveling
- Modulation fidelity: AM, FM, and pulse modulation transparency
- Digital front-panel indicators for operate status and fault conditions (over-temperature, supply, amplifier fault)
- Local/Remote switch with optional keylock for operation control
- Optional external safety interlock circuit via Remotes Package

Typical Applications

- EMC testing and RF susceptibility testing
- Antenna and component characterization
- Driver stage for higher power amplification
- Laboratory broadband signal amplification

Compatibility & Integration

Optional Remotes Package enables remote operation via GPIB/IEEE-488, RS-232 (hardwire and fiber optic), USB, or Ethernet. External safety interlock connections available.

100A400 Characteristics / Specifications

PARAMETER	VALUE
Rated Output Power	100 watts minimum
Frequency Response	10 kHz to 400 MHz instantaneously
Gain At Maximum Setting Class	50 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 A400 10 kHz to 400 MHz
Primary Power Class	Universal AC mains autoranging 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

100A400 Specifications

PARAMETER	VALUE
Amplifier Research 100A400 Broadband RF Amplifier	Overview
Key Features	Solid state broadband 10 kHz to 400 MHz design
Forced air self contained cooling	Type N RF connector class
Technical Specifications	Rated Output Power: 100 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 100A400 / 100A400A OEM family documentation. Confirm compression and mass on the unit-specific 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.