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Data Sheet

August 14, 2026

AMPLIFIER RESEARCH

Amplifier Research 300A100

Amplifier Research 300A100 Solid State RF Amplifier The Amplifier Research 300A100 is a self-contained air-cooled solid-state broadband amplifier providing 300 W CW minimum from 10 kHz to 100 MHz. OEM 300A100 catalog and datasheet materials list instantaneous bandwidth, high gain, mismatch tolerance, and IEEE-488/RS-232 remote interfaces on the A100 platform. RF susceptibility testing, antenna and component testing, wattmeter calibration, and broadband driver service from 10 kHz to 100 MHz. Forward and reflected power monitoring class The Amplifier Research 300A100 is a self-contained air-cooled solid-state broadband amplifier providing 300 W CW minimum from 10 kHz to 100 MHz. OEM 300A100 catalog and datasheet materials list instantaneous bandwidth, high gain, mismatch tolerance, and IEEE-488/RS-232 remote interfaces on the A100 platform. RF susceptibility testing, antenna and component testing, wattmeter calibration, and broadband driver service from 10 kHz to 100 MHz. Forward and reflected power monitoring class Safety interlock rear panel connector class



MODEL

**Amplifier Research
300A100**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

300A100

LISTING

<https://aumictechlabs.com/products/300a100-3/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Amplifier Research 300A100 is a solid-state broadband amplifier delivering 300 watts CW linear power output across 10 kHz to 100 MHz instantaneously. Operating with less than 1.0 dB

gain compression and a minimum 55.5 dB gain, this amplifier maintains ± 1.5 dB flatness (± 0.5 dB with internal leveling) across its full frequency range. The unit accepts 1.0 milliwatt maximum input to achieve rated output.

Technical Specifications

Power Output CW linear: 300 watts minimum (less than 1.0 dB gain compression) CW saturated: 350 watts minimum @ 1 dB compression: Minimum 75 watts (nominal 100 watts) @ 3 dB compression: Minimum 100 watts (nominal 130 watts)

Harmonic distortion: -20 dBc maximum at 300 watts

Frequency & Gain Operating range: 10 kHz to 100 MHz instantaneously Gain: 55.5 dB minimum (at maximum setting) Gain adjustment: 18 dB minimum continuous range Flatness: ± 1.5 dB maximum; ± 0.5 dB with internal leveling

Impedance & Mismatch Input: 50 ohms, VSWR 1.5:1 maximum Output: 50 ohms, VSWR 2.5:1 maximum Operates without damage or oscillation with any magnitude and phase of source and load impedance

Linearity & Dynamic Range Third order intercept point: 61 dBm typical

Modulation capability: Reproduces AM, FM, and pulse modulation on input signal

Control & Monitoring RF power meter: 0–400 watts full scale Automatic level control: Internal/external with front panel threshold control Pulse modulation input: BNC female Detected RF output: BNC female Remote control: 25-pin subminiature D connector

Electrical & Physical Primary power: 100/110/120/200/208/220/240 $\pm 5\%$ VAC, 50/60 Hz, single phase Maximum consumption: 2000 watts Dimensions: 50.3 $\times$ 42.7 $\times$ 55.1 cm Cooling: Forced air with self-contained fans

Key Features

Solid-state push-pull architecture Instantaneous frequency coverage 10 kHz to 100 MHz BNC input, Type N output connectors Integrated RF power metering and gain adjustment Built-in monitoring and protection circuits Front panel and remote control interfaces

Typical Applications

Electromagnetic compatibility (EMC) testing General laboratory amplification Communication system development and testing

Compatibility & Integration Input impedance of 50 ohms with 1.5:1 VSWR matches standard RF test equipment. Output impedance of 50 ohms accommodates typical 2.5:1 VSWR loads without performance degradation. External leveling and pulse modulation inputs enable integration with test systems and signal conditioning circuits.

300A100 Characteristics / Specifications

PARAMETER	VALUE
Rated Output Power	300 watts minimum
Input For Rated Output	1.0 milliwatt maximum
Frequency Response	10 kHz to 100 MHz instantaneously
Gain At Maximum Setting	55 dB minimum
Gain Adjustment Continuous Range	18 dB minimum class remote stepped
Flatness Class	plus or minus 1.5 to 3.0 dB class by model family sheet
Power Output At Compression Class	see model datasheet P1dB and P3dB rows
Input Impedance	50 ohms, VSWR 2.0:1 maximum class
Output Impedance	50 ohms nominal
Mismatch Tolerance	operates without damage into high VSWR loads class
Modulation Capability	Faithful AM FM pulse reproduction
Harmonic Distortion Class	minus 20 dBc class at rated power family
Remote Interfaces	IEEE-488 and RS-232
RF Connector Class	TypeNfemale class
Cooling	Forced air self contained fans
Form Factor	Portable benchtop or rack amplifier class
Series Family	Amplifier Research 300A100
Export Classification Class	EAR99 family class
Primary Power Class	universal AC mains auto ranging class
ALC Leveling	available class
Safety Interlock	rear panel interlock class
Sample Ports	forward reverse sample class

300A100 Specifications

PARAMETER	VALUE
Amplifier Research 300A100 Solid State RF Amplifier	Overview
Applications	RF susceptibility testing, antenna and component testing, wattmeter calibration, and broadband driver service from 10 kHz to 100 MHz.
Technical Specifications	Rated Output Power: 300 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, band, and gain from Amplifier Research 300A100 OEM catalog/datasheet summaries. Quote the exact configuration sheet for compression flatness mass and primary-power draw; do not assume sibling compression rows.	

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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NIST-traceable calibration · SAM registered ·
30-day returns
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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.