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Data Sheet

August 14, 2026

AMPLIFIER RESEARCH

Amplifier Research 600A225A

Amplifier Research 600A225A Solid State RF Amplifier The Amplifier Research 600A225A is a solid-state broadband amplifier providing 600 W CW from 10 kHz to 225 MHz (instantaneous response stated to 250 MHz on OEM tables). Datasheets list 58 dB minimum gain, 400 W minimum at 1 dB compression, plus or minus 2.5 dB flatness, LDMOS push-pull stages, and GPIB/RS-232/USB/Ethernet remote options with LCD touch-screen control. RF immunity testing, antenna and component testing, wattmeter calibration, and high-power laboratory drive through HF/VHF. The Amplifier Research 600A225A is a solid-state broadband amplifier providing 600 W CW from 10 kHz to 225 MHz (instantaneous response stated to 250 MHz on OEM tables). Datasheets list 58 dB minimum gain, 400 W minimum at 1 dB compression, plus or minus 2.5 dB flatness, LDMOS push-pull stages, and GPIB/RS-232/USB/Ethernet remote options with LCD touch-screen control. RF immunity testing, antenna and component testing, wattmeter calibration, and high-power laboratory drive through HF/VHF. Input For Rated Output: 1.0 milliwatt maximum



MODEL

**Amplifier Research
600A225A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

600A225A

LISTING

<https://aumictechlabs.com/products/600a225a-3/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Amplifier Research 600A225A is a solid-state, air-cooled RF power amplifier delivering 600 watts minimum output across the 10 kHz to 225 MHz frequency range. Built on push-pull LDMOS

technology, it combines high gain (minimum 58 dB), instantaneous bandwidth, and exceptional mismatch tolerance - operating at full rated power without foldback up to 6.0:1 impedance mismatch. The amplifier accepts input signals as low as 1.0 mW and supports both modulation and pulse waveforms, making it ideal for susceptibility testing, antenna characterization, component validation, and driver applications.

Technical Specifications

Electrical Performance

Rated output power: 600 W minimum Output @ 3 dB compression: 600 W nominal, 550 W minimum Output @ 1 dB compression: 550 W nominal, 400 W minimum Maximum input for rated output: 1.0 mW Operating frequency: 10 kHz to 225 MHz instantaneous bandwidth Gain (maximum): 58 dB minimum Continuous gain adjustment range: 20 dB minimum Frequency response flatness: ± 2.5 dB maximum Input impedance: 50 Ω , VSWR 1.5:1 Output impedance: 50 Ω nominal Power & Thermal Primary power: 180–264 VAC, 47–63 Hz, single-phase Maximum input power draw: 2500 W @ 0.99 power factor typical Cooling: Air-cooled, self-contained

Key Features

Push-pull LDMOS high-power stages reduce distortion and enhance stability Unconditional mismatch tolerance: operates without damage or oscillation at any load impedance magnitude and phase Reflected power limiting above 6.0:1 mismatch (300–400 W typical) Color LCD touch screen control with graphic display (3.75-inch diagonal) Dual RF sample ports for forward and reflected power measurement Continuous gain control with 20 dB minimum adjustment range RF output level protection included Remote Control & Integration Local and remote operation via digital control panel (DCP) GPIB/IEEE-488, RS-232, Ethernet, and USB interfaces RS-232 fiber optic option on select configurations Menu-assigned softkeys and dedicated control switches Real-time display of forward power, reflected power, and amplifier status

Typical Applications

RF susceptibility testing, antenna and component testing, watt meter calibration, particle accelerators, plasma generation, driver stage for higher-power amplifiers.

600A225A Characteristics / Specifications

PARAMETER	VALUE
Rated Output Power	600 watts
Input For Rated Output	1.0 milliwatt maximum
Power Output At 3 dB Compression Nominal	600 watts
Power Output At 3 dB Compression Minimum	550 watts
Power Output At 1 dB Compression Nominal	550 watts
Power Output At 1 dB Compression Minimum	400 watts
Flatness Maximum	plus or minus 2.5 dB
Frequency Response	10 kHz to 250 MHz instantaneously
Gain At Maximum Setting	58 dB minimum
Input Impedance	50 ohms VSWR 1.5:1 maximum
Output Impedance	50 ohms nominal
Circuit Topology	Push pull LDMOS
Remote Interfaces	GPIB IEEE 488 RS 232 USB Ethernet
Display	LCD touch screen
Cooling	Forced air self contained fans class
Form Factor	Benchtop or rack M1 to M9 configs
Series Family	600A225A
Modulation Capability Class	AM FM pulse reproduction class
Mismatch Tolerance Class	High mismatch tolerance class
Export Classification Class	EAR99 family class
RF Connectors Class	TypeNclass
Pulse Input Capability	Supported
Sample Ports	RF sample ports supported

600A225A Specifications

PARAMETER	VALUE
Amplifier Research 600A225A Solid State RF Amplifier	Overview
Key Features	600 W CW 10 kHz to 225 MHz
LDMOS push pull stages	GPIB RS232 USB Ethernet remote
Technical Specifications	Rated Output Power: 600 watts
Notes	From Amplifier Research 600A225A OEM/rental specification tables. Confirm mechanical M-option mass on the configuration sheet.

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	
Specifications	
PARAMETER	VALUE
Rated Output Power	600 watts
Input For Rated Output	1.0 milliwatt maximum
Power Output At 3 dB Compression Nominal	600 watts
Power Output At 3 dB Compression Minimum	550 watts
Power Output At 1 dB Compression Nominal	550 watts
Power Output At 1 dB Compression Minimum	400 watts
Flatness Maximum	plus or minus 2.5 dB
Frequency Response	10 kHz to 250 MHz instantaneously
Gain At Maximum Setting	58 dB minimum
Input Impedance	50 ohms VSWR 1.5:1 maximum
Output Impedance	50 ohms nominal
Circuit Topology	Push pull LDMOS
Remote Interfaces	GPIB IEEE 488 RS 232 USB Ethernet
Display	LCD touch screen
Cooling	Forced air self contained fans class
Form Factor	Benchtop or rack M1 to M9 configs
Series Family	600A225A
Modulation Capability Class	AM FM pulse reproduction class
Mismatch Tolerance Class	High mismatch tolerance class
Export Classification Class	EAR99 family class
RF Connectors Class	TypeNclass
Pulse Input Capability	Supported
Sample Ports	RF sample ports supported
Notes	
From Amplifier Research 600A225A OEM/rental specification tables. Confirm mechanical M-option mass on the configuration sheet.	

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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

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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.