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Data Sheet
August 14, 2026

AMPLIFIER RESEARCH

Amplifier Research 2500A225

Amplifier Research 2500A225 Solid State RF Amplifier The Amplifier Research 2500A225 isahigh-power solid-state amplifier providing 2500 W CW from 10 kHz to 100 MHz with derating from 100 MHz to 225 MHz. OEM 2500A225 M1 through M5 datasheets list 64 dB minimum gain, internal leveling flatness, GPIB/RS-232/USB remote control, and forced-air plus internal liquid cooling. High-power RF susceptibility testing, antenna driving, and broadband HF/VHF power amplification to 225 MHz. Rated Output Power 10 kHz To 100 MHz: 2500 watts The Amplifier Research 2500A225 isahigh-power solid-state amplifier providing 2500 W CW from 10 kHz to 100 MHz with derating from 100 MHz to 225 MHz. OEM 2500A225 M1 through M5 datasheets list 64 dB minimum gain, internal leveling flatness, GPIB/RS-232/USB remote control, and forced-air plus internal liquid cooling. High-power RF susceptibility testing, antenna driving, and broadband HF/VHF power amplification to 225 MHz. Rated Output Power 10 kHz To 100 MHz: 2500 watts Rated Output Power 100 MHz To 225 MHz: 2500 to 1900 watts with 4.8 W per MHz derating

MODEL **Amplifier Research 2500A225**	CALIBRATION **Available on request**
CONDITION **Used**	STATUS **In stock**
RFQ / SKU **2500A225**	LISTING **https://aumictechlabs.com/products/2500a225-3/**

NIST-traceable cal · SAM registered · 30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Amplifier Research 2500A225 is a solid-state, broadband RF power amplifier delivering 2500 W CW across 10 kHz to 225 MHz. It combines push-pull LDMOS circuitry with internal liquid

cooling and a Digital Control Panel for local and remote operation. The amplifier achieves 64 dB minimum small signal gain with ±3.0 dB gain flatness and 20 dB gain control range.Harmonic distortion measures −20 dBc maximum at 1800 W, with 7 dB noise figure and low spurious signals ideal for EMC testing.Technical Specifications Frequency Range: 10 kHz to 225 MHz Rated Output Power (CW): 2500 W from 10 kHz to 100 MHz; 2500–1900 W from 100 MHz to 225 MHz (4.8 W/MHz derating) Output Power at 1 dB Compression: 2000 W from 10 kHz to 100 MHz; 2000–1200 W from 100 MHz to 225 MHz (6.4 W/MHz derating) Small Signal Gain: 64 dB minimum Gain Flatness: ±3.0 dB maximum Gain Control Range: 20 dB minimum Harmonic Distortion: −20 dBc maximum at 1800 W Noise Figure: 7 dB Input for Rated Output: 1.0 mW maximum Input Overdrive Protection: Protected to +13 dBm without damage; RF input leveling active above 0 dBm Mismatch Tolerance: 100% rated power without foldback up to 6.0:1 mismatch; operates without damage or oscillation across all source and load impedance conditions Primary Power: 187–264 VAC Delta (4-wire) or 365–528 VAC Wye (5-wire), 47–63 Hz, 10,000 W maximumKey Features Push-pull LDMOS high-power stages for low distortion and enhanced stability Internal liquid cooling for operational efficiency Digital Control Panel with graphic display, softkeys, rotary knob, and dedicated switches Modulation capability supporting AM, FM, and Pulse Modulation Multiple remote control interfaces: GPIB/IEEE-488, RS-232, fiber optic, USB, and EthernetTypical Applications RF susceptibility testing Antenna and component testing Watt meter calibration Particle accelerators Plasma generation Driver for higher power amplifiers

2500A225 Characteristics / Specifications

PARAMETER	VALUE
Rated Output Power 10 kHz To 100 MHz	2500 watts
Rated Output Power 100 MHz To 225 MHz	2500 to 1900 watts with 4.8 W per MHz derating
Input For Rated Output	1.0 milliwatt maximum
Power Output For 1 dB Compression 10 kHz To 100 MHz	2000 watts
Power Output For 1 dB Compression 100 MHz To 225 MHz	2000 to 1200 watts with 6.4 W per MHz derating
Frequency Response	10 kHz to 225 MHz instantaneously
Gain At Maximum Setting	64 dB minimum
Flatness Maximum	plus or minus 3.0 dB
Flatness With Internal Leveling	plus or minus 1.0 dB
Gain Adjustment Continuous Range	20 dB minimum
Input Impedance	50 ohms, VSWR 1.5:1 maximum
Output Impedance	50 ohms nominal
Mismatch Tolerance	100 percent rated power without foldback up to 6.0:1; may limit to 1250 W reflected above that
Modulation Capability	Faithful AM FM pulse reproduction
Harmonic Distortion At 1800 W	minus 20 dBc maximum
RF Power Display Full Scale	0 to 3000 W
Rise Time Fall Time Maximum	10 nanoseconds
Remote Interfaces	GPIB IEEE-488 RS-232 USB
Cooling	Forced air with internal self contained liquid
Mass Maximum	159 kg
Export Classification Class	EAR99
Primary Power Class	three phase AC user specified Delta or Wye
Safety Interlock	15 pin female TypeDrear panel

PARAMETER	VALUE
Rise Time	Fall Time Maximum: 10 nanoseconds

2500A225 Specifications

PARAMETER	VALUE
Amplifier Research 2500A225 Solid State RF Amplifier	Overview
Applications	High-power RF susceptibility testing, antenna driving, and broadband HF/VHF power amplification to 225 MHz.
Key Features	2500 W class HF/VHF solid state power
Forward and reverse sample ports	GPIB RS-232 USB remote package
Technical Specifications	Rated Output Power 10 kHz To 100 MHz: 2500 watts

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
Rated Output Power 10 kHz To 100 MHz: 2500 watts
Rated Output Power 100 MHz To 225 MHz: 2500 to 1900 watts with 4.8 W per MHz derating
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Specifications

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Notes
From Amplifier Research 2500A225 M1 through M5 OEM specification sheet. Confirm primary-power wiring option Delta vs Wye and enclosure size for M5.

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

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