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Data Sheet
August 14, 2026

AMPLIFIER RESEARCH

Amplifier Research 2500L

Amplifier Research 2500L Broadband RF Amplifier The Amplifier Research 2500L isahigh-power self-contained air-cooled broadband laboratory amplifier in the AR L-series providing approximately 2500 W class RF output. OEM L-series literature describes hybrid solid-state driver stages withavacuum-tube final amplifier for high-field susceptibility testing. High-field laboratory RF susceptibility testing, high-power wattmeter calibration, and broadband RF power applications requiring kilowatt-class L-series tube finals. The Amplifier Research 2500L isahigh-power self-contained air-cooled broadband laboratory amplifier in the AR L-series providing approximately 2500 W class RF output. OEM L-series literature describes hybrid solid-state driver stages withavacuum-tube final amplifier for high-field susceptibility testing. High-field laboratory RF susceptibility testing, high-power wattmeter calibration, and broadband RF power applications requiring kilowatt-class L-series tube finals. Kilowatt class hybrid solid state and vacuum tube design

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

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NAICS 423690 · 811210 · 541380

This unit

The Amplifier Research 2500L is a self-contained, air-cooled solid-state RF amplifier delivering 2500 W continuous-wave output across 10 kHz to 220 MHz with minimum 64 dB gain. This broadband unit operates without damage across any load impedance, tolerates 100% of rated power without foldback, and faithfully reproduces AM, FM, and pulse modulation. Front-panel

controls govern power, standby, operate, and output level adjustment; rear connectors support Type N RF input, 7/16 DIN RF output, and optional forward/reverse power sampling. Remote operation via TTL, IEEE-488, Ethernet, USB, GPIB, fiber-optic serial, or RS-232 enables laboratory integration. Crowbar protection safeguards internal components from arcing damage. Input impedance is 50 Ω at 1.5:1 VSWR maximum; input power to rated output is 1.0 mW maximum. Pulse output reaches 4000 W. The 2500L accommodates continuous gain adjustment across a minimum 20 dB range and maintains ±3.0 dB flatness across the operating band, reduced to ±1.0 dB with internal leveling. Rise and fall times measure 10 ns maximum. Harmonic distortion does not exceed −20 dBc at 1800 W output. Frequency-specific variants support narrower bands; model 2500LM8 operates 1 MHz to 220 MHz. Output at 1 dB compression point is 1750 W, with derating above 100 MHz on certain configurations. Reflected power limiting engages above specified mismatch ratios to protect circuitry.

2500L Characteristics / Specifications

PARAMETER	VALUE
Rated Output Power Class	2500 watts class
Frequency Response Class	Low frequency through VHFLseries band class
Input For Rated Output Class	1.0 milliwatt maximum class
Gain At Maximum Setting Class	High gain vacuum tube final class
Gain Adjustment	Front panel continuous gain control
Input Impedance Class	50 ohms class
Output Impedance Class	50 ohms nominal class
Cooling	Forced air self contained fans
Form Factor	Floor standing high power air cooled cabinet
Circuit Topology	Solid state low level stages with vacuum tube final
Modulation Capability Class	CW and pulsed RF input supported class
Primary Power Class	AC mains multi kilowatt laboratory supply class
RF Connector Class	High power TypeNor specialty RF output class
Series Family	Amplifier Research 2500L broadband laboratory amplifier
Export Classification Class	Confirm ECCN on unit nameplate
Mismatch Tolerance Class	Operate into specified load VSWR per manual
Blanking Capability Class	Blanking input supported on relatedLmanuals
Power Metering Class	Forward power monitoring class
Protection Class	Over temperature and supply fault indication class
Applications Class	High field laboratory RF susceptibility
Power Class Sibling 500L	500 watts class
Safety Interlock Class	High voltage panel interlock class

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
From Amplifier Research 2500L OEM/rental L-series documentation. Confirm exact frequency band, gain, and primary power on the unit nameplate and operating manual specification table.

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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