



## 2500A225

- M1 through M5
- 2500 Watts CW
- 10kHz–225MHz

### Features

The Model 2500A225 is a self-contained, broadband, completely solid-state amplifier designed for applications where instantaneous bandwidth and high gain are required. The amplifier is air cooled using internal self-contained liquid cooling for high performance and reliability. Push-pull LDMOS circuitry is utilized in all high power stages in the interest of low distortion and improved stability.

The Model 2500A225 is equipped with a Digital Control Panel (DCP), providing local and remote control of the amplifier. The DCP uses a 3 ¾ inch diagonal graphic display, menu assigned softkeys, a single rotary knob, and four dedicated switches to offer extensive control and status reporting. The display provides operational presentation of Forward Power and Reflected Power plus control status and reports of internal amplifier status.

All amplifier control functions and status indications are available remotely in GPIB/IEEE-488 format, RS-232 hard wire, fiber optic and

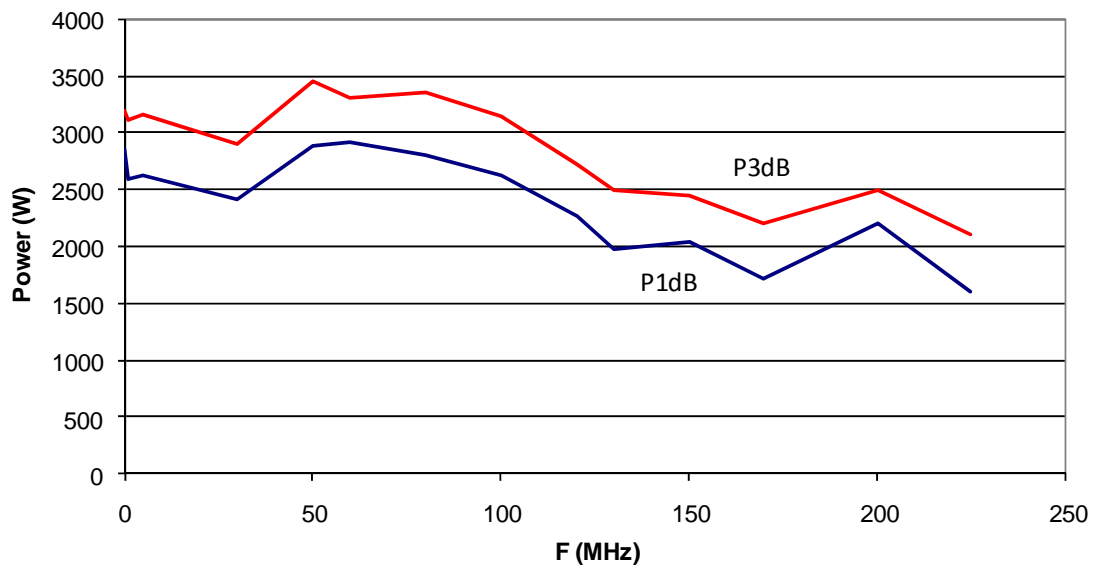
USB. The bus interface connectors are located on the back panel and positive control of local or remote operation is assured by a keylock on the front panel of the amplifier.

High efficiency universal input, power factor corrected switching power supplies provide DC to all internal sub-assemblies.

Housed in a stylish, contemporary enclosure, the Model 2500A225 provides readily available RF power for typical applications such as RF susceptibility testing, antenna and component testing, watt meter calibration, particle accelerators, plasma generation, communications and use as a driver for higher power amplifiers.

The export classification for this equipment is EAR99. These commodities, technology or software are controlled for export in accordance with the U.S. Export Administration Regulations. Diversion contrary to U.S. law is prohibited.

Typical Output Power



AR RF/Microwave  
Instrumentation  
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215-723-8181

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## Specifications

**RATED OUTPUT POWER:**  
 2500W, 10 kHz–100 MHz  
 2500–1900W, 100 MHz–225 MHz (derating slope of 4.8W/MHz)

**INPUT FOR RATED OUTPUT:** 1.0 mW Max

**POWER OUTPUT FOR 1dB COMPRESSION:**  
 2000W, 10 kHz–100 MHz  
 2000–1200W, 100 MHz–225 MHz (derating slope of 6.4W/MHz)

**FREQUENCY RESPONSE:** 10 Khz–225 MHz instantaneously

**GAIN (at max. setting):** 64 dB min.

**FLATNESS:** ± 3.0 dB max; ± 1.0 dB with int. leveling

**GAIN ADJUSTMENT (continuous range):** 20 dB minimum

**INPUT IMPEDANCE:** 50 ohms, VSWR 1.5:1 max

**OUTPUT IMPEDANCE:** 50 ohms nominal

**MISMATCH TOLERANCE:** 100% rated power without foldback up to 6.0:1 mismatch, above which may limit to 1250w reflected power

**MODULATION CAPABILITY:** Will faithfully reproduce AM, FM, or Pulse Modulation appearing on the input signal.

**HARMONIC DISTORTION:** Minus 20 dBc maximum at 1800W

**RF POWER DISPLAY:** 0–3000W full scale

**RISE TIME/FALL TIME:** 10 nanoseconds maximum

**PRIMARY POWER (User must specify)**  
 187-264 VAC Delta (4-wire)  
 365-460 VAC, Wye (5-wire)  
 47-63Hz, 3-phase  
 10,000W maximum

**CONNECTORS**  
 RF Input See Model Configurations  
 RF Output See Model Configurations  
 Forward Sample BNC Female on front panel  
 Reverse Sample BNC Female on front panel  
 Remote Control 24-pin Female GPIB/IEEE-488, 9-pin RS-232 and USB on rear panel  
 Remote Control (fiber optic) ST Connector, Tx and Rx RS-232  
 Safety interlock 15 pin female Type D on rear panel

**IEEE-488 (GPIB) & RS-232 INTERFACE** Allows control of all amplifier functions and monitoring of all status indications via standard GPIB/IEEE-488 or RS-232 commands

**COOLING:** Forced air, internal self-contained liquid

**WEIGHT (max.):** 159 kg (350 lb)

**SIZE (W x H x D):** 56.1 x 108 x 88.9 cm (22.1 x 42.5 x 35 in)  
 M5: 56.1 x 152.4 x 88.9 cm (22.1 x 60 x 35 in)

**EXPORT CLASSIFICATION:** EAR99

### MODEL CONFIGURATIONS

Model	RF Input	RF Output
2500A225	N Female, rear panel	7-16 DIN Female, rear panel
2500A225M1	N Female, front panel	7-16 DIN Female, front panel
2500A225M2	N Female, front panel	7-16 DIN Female, rear panel
2500A225M3	Same as M1, cabinet removed for placement in user-supplied cabinet. Contact factory for mounting requirements.	
2500A225M4	See separate specification sheet.	
2500A225M5	Same as 2500A225, taller cabinet supplied to provide 10U of available rack space at the top of the cabinet for user-supplied equipment.	