

The Model 2500A250A is a self-contained, air-cooled, broadband, completely solid state amplifier designed for applications where instantaneous bandwidth and high gain are required. Push-pull MOSFET circuitry is utilized in all high power stages in the interest of lowering distortion and improving stability. The Model 2500A250A, when used with an RF sweep generator, will provide a minimum of 2500 watts of swept power.

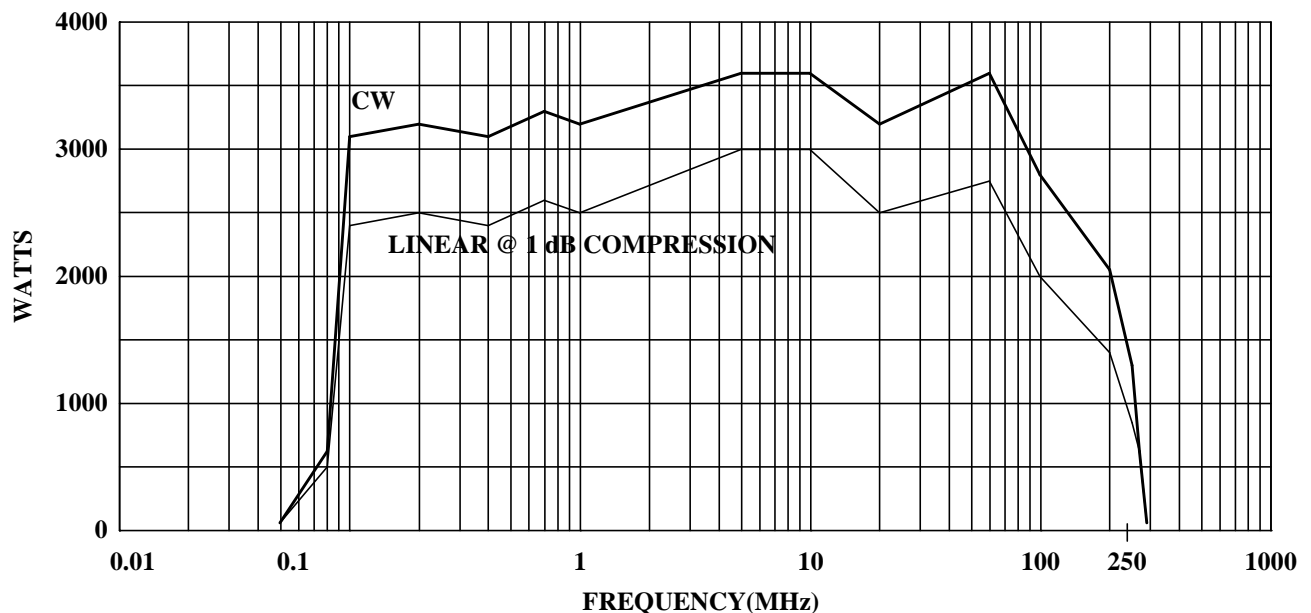
The Model 2500A250A is equipped with a Digital Control Panel (DCP) which provides both local and remote control of the amplifier. The DCP uses a 3¾-inch diagonal graphic display, menu assigned softkeys, a single rotary knob, and four dedicated switches (POWER, STANDBY, OPERATE and FAULT/RESET) to offer extensive control and status reporting capability. The display provides operational presentation of Forward Power and Reflected Power plus control status and reports of internal amplifier status. Special features include a gain control, internal/external automatic level control (ALC) with front panel control of the ALC threshold, pulse input capability and RF output level protection. Also included is an internal RF detector which provides an output for use in self-testing or operational modes.

All amplifier control functions and status indications are available remotely in GPIB / IEEE-488 format. The buss interface connector is 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 provides DC to all internal sub-assemblies.

Housed in a stylish, contemporary enclosure, the Model 2500A250A 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.

**2500A250A TYPICAL POWER OUTPUT**



**SPECIFICATIONS**  
**Model 2500A250A**

<b>RATED OUTPUT POWER</b> .....	2500 watts, 100 kHz – 100 MHz 2500 – 1500 watts, 100 MHz – 250 MHz (derating slope of 6.67 watts/MHz)
<b>INPUT FOR RATED OUTPUT</b> .....	1.0 milliwatt maximum
<b>POWER OUTPUT @ 1 dB COMPRESSION</b> .....	1800 watts, 100 kHz – 100 MHz 1800 – 800 watts, 100 MHz – 250 MHz (derating slope of 6.67 watts/MHz)
<b>FREQUENCY RESPONSE</b> .....	100 kHz - 250 MHz instantaneously
<b>GAIN (at maximum setting)</b> .....	64 dB minimum
<b>FLATNESS</b> .....	± 3.5 dB maximum ± 0.8 dB with internal leveling
<b>GAIN ADJUSTMENT (continuous range)</b> .....	20 dB minimum
<b>INPUT IMPEDANCE</b> .....	50 ohms, VSWR 1.5:1 maximum
<b>OUTPUT IMPEDANCE</b> .....	50 ohms, VSWR 2.5:1 maximum
<b>MISMATCH TOLERANCE</b> .....	100% rated power without foldback up to 6.0:1 mismatch above which may limit to 1250 watts reflected power, from 100 kHz to 100 MHz. Limited to 500 watts reflected power from 100 MHz to 250 MHz.
<b>MODULATION CAPABILITY</b> .....	Will faithfully reproduce AM, FM or Pulse modulation appearing on the input signal.
<b>HARMONIC DISTORTION</b> .....	Minus 20 dBc maximum at 1500 watts
<b>THIRD ORDER INTERCEPT POINT</b> .....	71 dBm typical
<b>RF POWER DISPLAY</b> .....	0 - 4000 watts full scale
<b>PULSE MODE GATING CHARACTERISTICS</b>	
Signal (into 50 ohms).....	+ 2.0 to 6.0 VDC
Rise Time .....	0.5 microseconds maximum
Fall Time .....	0.5 microseconds
<b>RF RISE/FALL TIME</b> .....	10 nanoseconds maximum
<b>PRIMARY POWER</b> .....	180-267 VAC Delta (4 wire) 360-500 VAC, Wye (5 wire) or Delta (4 wire) 47-63 Hz, 3 phase (user must specify) 10,000 watts maximum at .95 P.F. typical
<b>CONNECTORS</b>	
RF Input.....	Type N female on rear panel
RF Output.....	Type 7-16 DIN female on rear panel
External Leveling Inputs.....	Type BNC female on front panel
Pulse Modulation Inputs.....	Type BNC female on front panel
Detected RF Output.....	Type BNC female on front panel
Remote Control.....	24 pin female GPIB/IEEE-488 connector on rear panel
Safety Interlock.....	15 pin female Type D on rear panel
<b>IEEE-488 (GPIB) INTERFACE</b> .....	Allows control of all amplifier functions and monitoring of all status indications via standard GPIB / IEEE-488 commands
<b>COOLING</b> .....	Forced air (self contained fans)
<b>WEIGHT (maximum)</b> .....	227 kg (500 lb)
<b>SIZE (W x H x D)</b> .....	68.6 x 132.0 x 88.9 cm (27.0 x 52.0 x 35.0 in)