

**Model 250A250A,  
M1 Through M8  
250 Watts CW  
10kHz–250MHz**

The Model 250A250A is a self-contained, air-cooled, broadband, completely solid state amplifier designed for applications where instantaneous bandwidth and high gain and linearity are required. Push-pull MOSFET circuitry is utilized in all high power stages in the interest of lowering distortion and improving stability. The Model 250A250A, when used with an RF sweep generator, will provide a minimum of 250 watts of swept power.

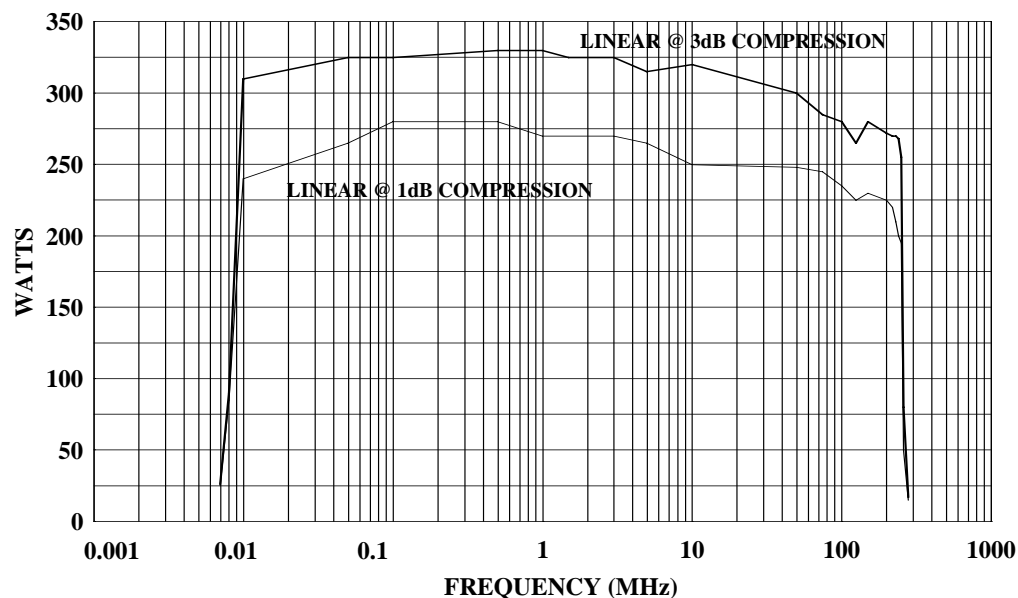
The Model 250A250A is equipped with a Digital Control Panel (DCP) which provides both local and remote control of the amplifier. The DCP uses a 4 line vacuum fluorescent display, menu assigned softkeys, a single rotary knob, and four dedicated switches (POWER, STANDBY, OPERATE and FAULT/RESET) to offer 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 and RS-232 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 250A250A 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.

**250A250A TYPICAL POWER OUTPUT**



## SPECIFICATIONS, MODEL 250A250A

RATED OUTPUT POWER .....	250 watts minimum
INPUT FOR RATED OUTPUT .....	1.0 milliwatt maximum
POWER OUTPUT @ 3 dB COMPRESSION	
Nominal .....	300 watts
Minimum .....	225 watts
POWER OUTPUT @ 1 dB COMPRESSION	
Nominal .....	245 watts
Minimum .....	150 watts
FLATNESS .....	± 1.5 dB maximum ± 0.5 dB with internal leveling
FREQUENCY RESPONSE .....	10 kHz - 250 MHz instantaneously
GAIN (at maximum setting) .....	54 dB minimum
GAIN ADJUSTMENT (continuous range) .....	25 dB minimum
INPUT IMPEDANCE .....	50 ohms, VSWR 1.5:1 maximum
OUTPUT IMPEDANCE .....	50 ohms, VSWR 2.5:1 maximum
MISMATCH TOLERANCE .....	Will operate without damage, or oscillation with any magnitude and phase of source and load impedance. May limit at rated output
MODULATION CAPABILITY .....	Will faithfully reproduce AM, FM, or pulse modulation appearing on the input signal
HARMONIC DISTORTION .....	Minus 20 dBc maximum at 150 watts
THIRD ORDER INTERCEPT POINT .....	60 dBm typical
RF POWER METER .....	0–350 watts full scale
PULSE MODE GATING CHARACTERISTICS	
Signal (into 50 ohms) .....	+2.0 to 6.0 VDC
Rise Time .....	0.5 microseconds maximum
Fall Time .....	0.5 microseconds maximum
RF Rise/Fall Time .....	10 nanoseconds maximum
PRIMARY POWER .....	180 - 264 VAC 47–440 Hz, 1400 watts maximum @ 0.99 P.F. typical
REMOTE INTERFACES .....	IEEE-488, RS-232
CONNECTORS	
RF input .....	See Model Configuration
RF output .....	See Model Configuration
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
Safety Interlock .....	15 pin female Type D on rear panel
REMOTE CONTROL	
IEEE-488 .....	24 pin female on rear panel
RS-232 .....	9 pin female Type D on rear panel
COOLING .....	Forced air (self contained fans)
WEIGHT, maximum .....	See Model Configuration
SIZE (W x H x D) .....	See Model Configuration

MODEL NUMBER	MODEL CONFIGURATIONS		WEIGHT	SIZE (W x H x D)
	RF INPUT	RF OUTPUT		
250A250A	Type N female on front panel	Type N female on front panel	68.0 kg (150 lb)	50.3 x 42.7 x 55.1 cm 19.8 x 16.8 x 21.7 in
250A250AM1	Type N female on rear panel	Type N female on rear panel	68.0 kg (150 lb)	50.3 x 42.7 x 55.1 cm 19.8 x 16.8 x 21.7 in
250A250AM2	Same as 250A250A with enclosure removed for rack mounting		54.5 kg (120 lb)	48.3 x 38.1 x 52.1 cm 19.0 x 15.0 x 20.5 in
250A250AM3	Same as 250A250AM1 with enclosure removed for rack mounting		54.5 kg (120 lb)	48.3 x 38.1 x 52.1 cm 19.0 x 15.0 x 20.5 in
250A250AM4	See separate specification sheet			
250A250AM5	Type N female on front panel	Type 7/16 DIN female on rear panel	68.0 kg (150 lb)	50.3 x 42.7 x 55.1 cm 19.8 x 16.8 x 21.7 in
250A250AM6	See separate specification sheet			
250A250AM7	See separate specification sheet			
250A250AM8	Type N female on front panel	Type N female on front panel	85.8 kg (190 lb)	56.1 x 82.6 x 65.9 cm 22.1 x 32.5 x 26.0 in

Equipment rack with casters includes a 4U space for customer-installed equipment.