



**Model 250W1000A,
M1 through M10
250 Watts CW
80–1000 MHz**

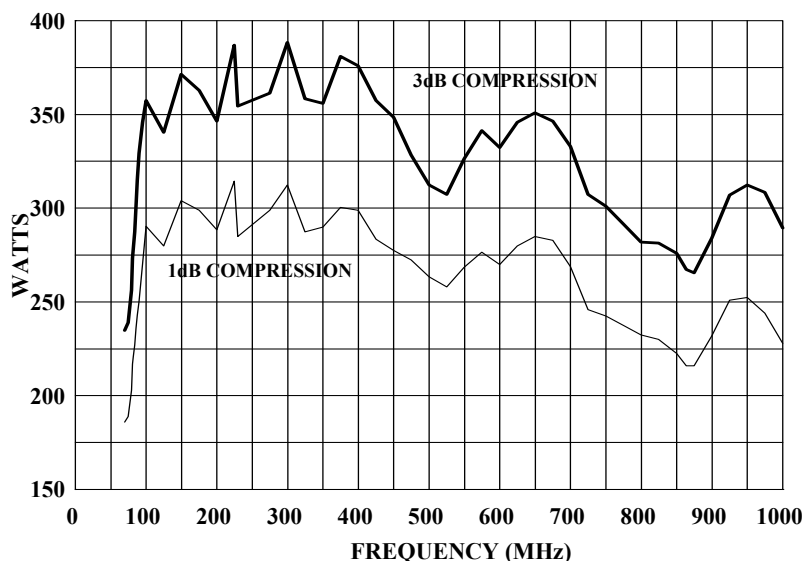
The Model 250W1000A is a portable, self-contained, air-cooled, broadband, completely solid-state amplifier designed for applications where instantaneous bandwidth, high gain and linearity are required. Push-pull circuitry is utilized in all high power stages in the interest of lowering distortion and improving stability. The Model 250W1000A, when used with a sweep generator, will provide a minimum of 250 watts of RF power.

The Model 250W1000A is equipped with a Digital Control Panel (DCP) which provides both local and remote control of the amplifier. The DCP uses a digital 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. Protection is provided by DC current level sensing and individual fusing of all output stages.

All amplifier control functions and status indications are available remotely in GPIB/IEEE-488 and RS-232 hardwire and fiber optic. 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.

Housed in a stylish, contemporary bench top enclosure, the Model 250W1000A provides readily available RF power for typical applications such as RF susceptibility testing, antenna and component testing, watt meter calibration, and as a driver for frequency multipliers and higher power amplifiers. A safety interlock can be implemented via a rear panel connector.

250W1000A TYPICAL POWER OUTPUT



SPECIFICATIONS, MODEL 250W1000A

RATED POWER OUTPUT	250 watts minimum
INPUT FOR RATED OUTPUT	1.0 milliwatt maximum
POWER OUTPUT @ 3dB COMPRESSION	
Nominal	310 watts
Minimum	250 watts
POWER OUTPUT @ 1dB COMPRESSION	
Nominal	255 watts
Minimum	200 watts
FLATNESS	± 2.0 dB maximum ± 1.5 dB typical
FREQUENCY RESPONSE	80 - 1000 MHz instantaneously
GAIN (at maximum setting)	54 dB minimum
GAIN ADJUSTMENT (Continuous Range)	18 dB minimum (4096 steps remote)
INPUT IMPEDANCE	50 ohms, VSWR 2.0:1 maximum
OUTPUT IMPEDANCE	50 ohms nominal
MISMATCH TOLERANCE	100% of rated power without foldback. Will operate without damage or oscillation with any magnitude and phase of source and load impedance.
MODULATION CAPABILITY	Faithfully reproduces AM, FM, or Pulse modulation appearing on input signal.
HARMONIC DISTORTION	Minus 20 dBc maximum at 200 watts
THIRD ORDER INTERCEPT POINT	62 dBm typical
PRIMARY POWER (user must specify)	120 - 240 VAC 40/400Hz, single phase 2200 watts maximum
CONNECTORS	
RF	See Model Configurations
REMOTE INTERFACES	
IEEE-488	24 pin female
RS-232	9 pin Subminiature D (female)
Fiber Optic	ST Conn Tx and Rx RS-232
ALC & PULSE	Type BNC on front panel
SAFETY INTERLOCK	15 pin Subminiature D
COOLING	Forced air (self contained fans)

MODEL CONFIGURATIONS

MODEL NUMBER	RF INPUT	RF OUTPUT	WEIGHT	SIZE (W x H x D)
250W1000A	Type N female on front panel	Type N female on front panel	86.2kg (190 lbs)	50.3 x 47.0 x 61.0cm 19.8 x 18.5 x 24.0in
250W1000AM1	Type N female on rear panel	Type N female on rear panel	86.2kg (190 lbs)	50.3 x 47.0 x 61.0cm 19.8 x 18.5 x 24.0in
250W1000AM2	Same as 250W1000A with enclosure removed for rack mounting		68.0kg (150 lbs)	48.3 x 44.5 x 61.0cm 19.0 x 17.5 x 24.0in
250W1000AM3	Same as 250W1000AM1 with enclosure removed for rack mounting		68.0kg (150 lbs)	48.3 x 44.5 x 61.0cm 19.0 x 17.5 x 24.0in
250W1000AM4	Type N on front panel.	Type N on rear panel.	86.2kg (190lbs)	50.3 x 47 x 61cm 19.8 x 18.5 x 24in
250W1000AM5	Same as 250W1000AM4 with enclosure removed.		68.0kg (150lbs)	48.3 x 44.5 x 61.0cm 19.0 x 17.5 x 24.0in
250W1000AM6	Type N female on front panel	Type 7-16 female on rear panel	86.2kg (190lbs)	50.3 x 47.0 x 61.0cm 19.8 x 18.5 x 24.0in
250W1000AM7	See separate specification sheet.			
250W1000AM8	Type N female on front panel	Type N female on front panel	104kg (230 lbs)	56.1 x 82.6 x 65.9cm 22.1 x 32.5 x 26.0in
Equipment rack with casters includes a 4U space for customer-installed equipment.				
250W1000AM9	Same as 250W1000A with extended frequency response of 70–80MHz @10% less than rated power specifications.			
250W1000AM10	Same as 250W1000AM2 with reduced gain for lower output noise. See separate specification sheet.			