250W1000B

- 250 Watts CW
- 80MHz–1000MHz

Features

The Model 250W1000B 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.

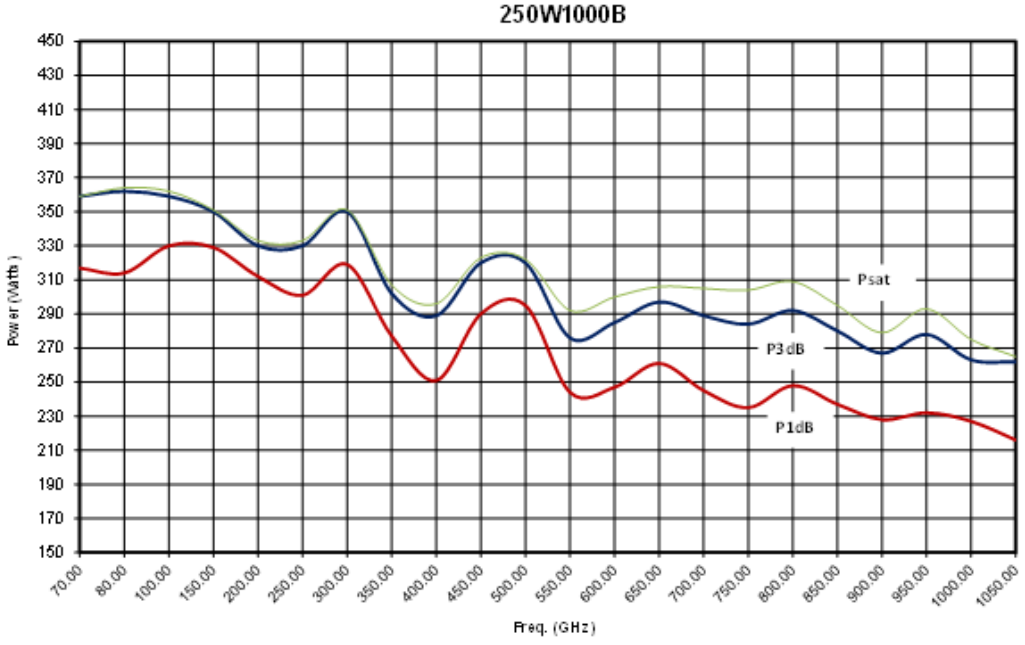
The Model 250W1000B, when used with a sweep generator, will provide a minimum of 250 watts of RF power.

The Model 250W1000B is equipped with a Digital Control Panel (DCP) which provides both local and remote control of the amplifier. The DCP uses a color LCD touch screen and a single rotary knob to offer status reporting and control capability. The display provides operational presentation of Forward Power and Reflected Power plus amplifier status. Special features include a gain control, internal automatic level control (ALC) with front panel control of the ALC threshold, forward and reflective RF sample ports for precise power measurements and RF output level protection. Protection is provided by DC current level sensing 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, USB and Ethernet. 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 250W1000B 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.

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.



AR RF/Microwave Instrumentation
160 School House Rd
Souderton, PA 18964
215-723-8181

For an applications engineer call:800.933.8181

www.arworld.us

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Specifications

RATED OUTPUT POWER: 250 watts minimum

INPUT FOR RATED OUTPUT: 1.0 mW Max

POWER OUTPUT @ 3dB COMPRESSION:
Nominal: 300 watts, Minimum: 250 watts

POWER OUTPUT @ 1dB COMPRESSION:
Nominal: 250 watts, Minimum: 200 watts

FLATNESS: ±1.5 dB maximum, ±1.0 dB typical

FREQUENCY RESPONSE: 80-1000 MHz instantaneously

GAIN (at maximum setting): 54 dB minimum

GAIN ADJUSTMENT (Continuous Range) : 25 dB minimum (4096 steps remote)

INPUT IMPEDANCE: 50 ohms, VSWR 1.5:1 maximum; 1.3:1 typical

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, -20dBc typical @ 250 watts

THIRD ORDER INTERCEPT POINT: 62 dBm typical

NOISE FIGURE: 8 dB maximum, 6 dB typical

PRIMARY POWER (user must specify):
120-240 VAC, 50/60Hz, single phase, 1000 watts maximum

CONNECTORS:
RF See Model Configurations
Forward Sample: BNC female, front (-46 dBc)
Reverse sample: BNC female, front (-46 dBc)
Remote Interfaces:

IEEE-488	24 pin female
RS-232	9 pin Subminiature D (female)
Fiber Optic	ST Conn Tx and Rx RS-232
USB 2.0	Type B
Ethernet	RJ-45

SAFETY INTERLOCK: 15 pin Subminiature D

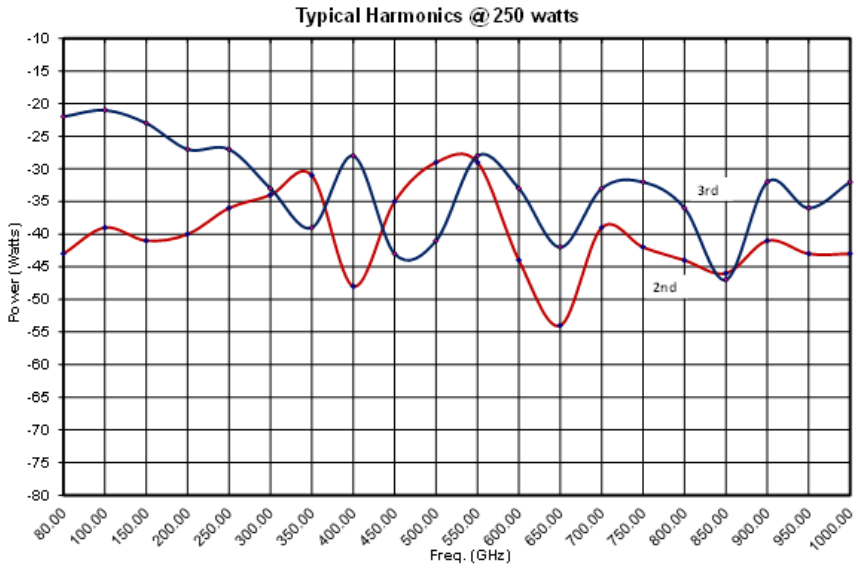
COOLING: Forced air (self contained fans)

EXPORT CLASSIFICATION: EAR99

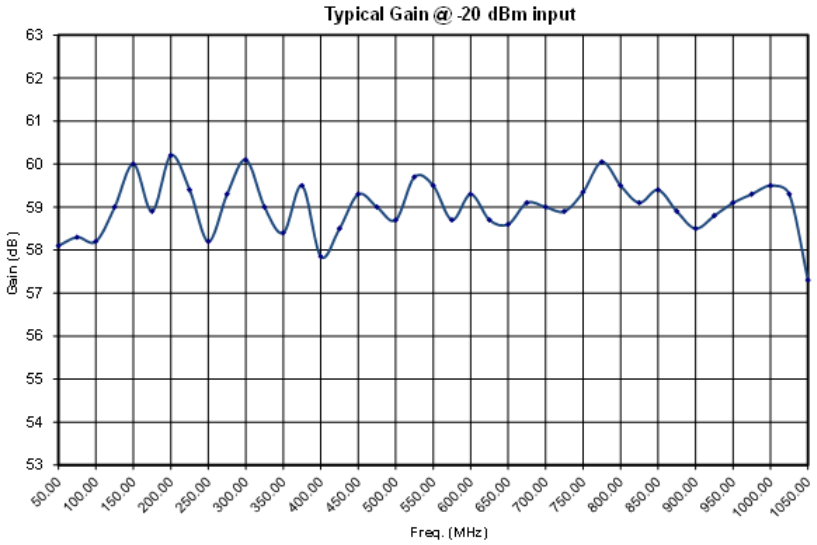
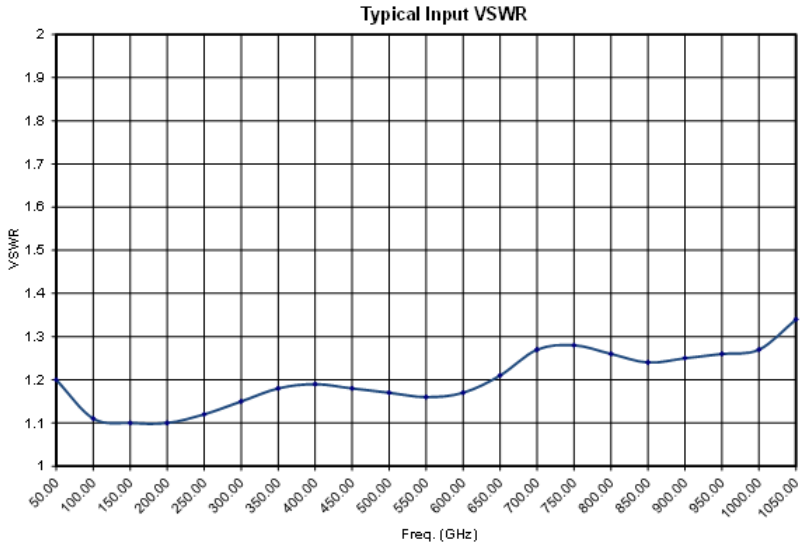
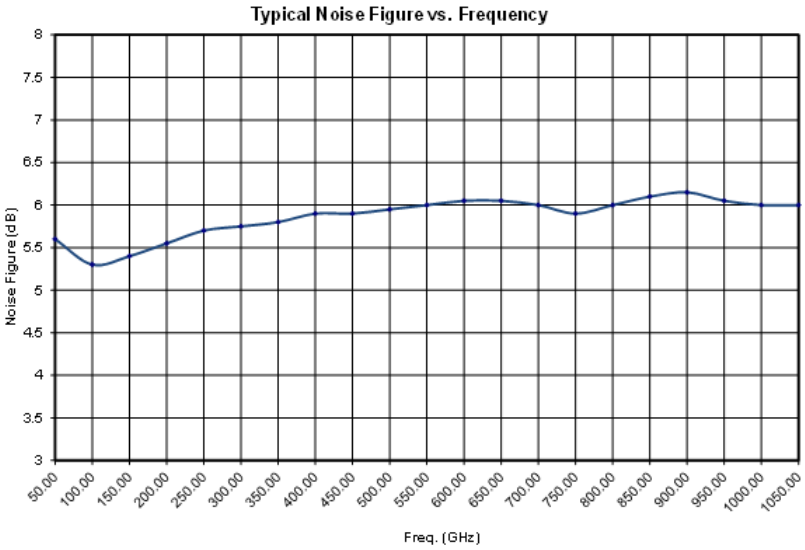
Model Configurations

MODEL NUMBER	RF INPUT	RF OUTPUT	WEIGHT	SIZE (W x H x D)
250W1000B	N female, front	N female, front	40kg (88 lb)	50.3 x 24.9 x 61cm 19.8 x 9.8 x 24in
250W1000BM1	N female, rear	N female, rear	40kg (88 lb)	50.3 x 24.9 x 61cm 19.8 x 9.8 x 24in
250W1000BM2	Same as 250W1000B with enclosure removed for rack mounting		30kg (66 lb)	48.3 x 22.2 x 61cm 19 x 8.75 x 24in
250W1000BM3	Same as 250W1000BM1 with enclosure removed for rack mounting		30kg (66 lb)	48.3 x 22.2 x 61cm 19 x 8.75 x 24in

Graphs



Graphs

250W1000B

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