



Amplifiers

125W1000

- 125 Watts CW
- 80MHz–1000MHz



Features

The Model 125W1000 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 125W1000, when used with a sweep generator, will provide a minimum of 125 watts of RF power. The Model 125W1000 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

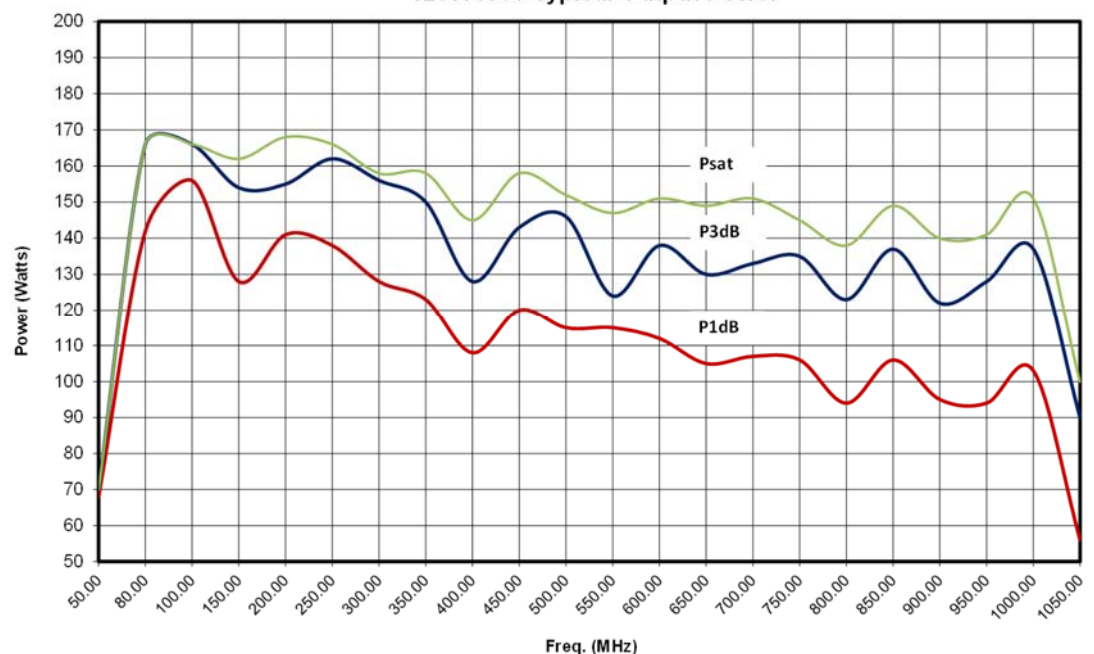
of the ALC threshold and RF output level protection. Protection is provided by DC current level sensing of all output stages.

All amplifier control functions and status indications are available remotely in GPIB/IEEE-488 and RS-232C hardware 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 key lock on the front panel of the amplifier.

Housed in a stylish, contemporary bench top enclosure, the Model 125W1000 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.

125W1000 Typical Output Power



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Specifications

RATED OUTPUT POWER: 125 watts minimum

INPUT FOR RATED OUTPUT: 1.0 mW maximum

POWER OUTPUT @ 3dB COMPRESSION:

Nominal: 130 watts, Minimum: 110 watts

POWER OUTPUT @ 1dB COMPRESSION:

Nominal: 110 watts, Minimum: 85 watts

FLATNESS: ± 1.5 dB typical, ± 2.0 dB maximum

FREQUENCY RESPONSE: 80-1000 MHz instantaneously

GAIN (at maximum setting): 51 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: Will faithfully reproduce AM, FM, or Pulse modulation appearing on input signal.

THIRD ORDER INTERCEPT: 58 dBm typical

NOISE FIGURE: 8 dB maximum, 6 dB typical

HARMONIC DISTORTION: Minus 25 dBc maximum at 100 watts, -30dBc typical at 100 watts

SPURIOUS: Minus 73 dBc typical

PRIMARY POWER (selected automatically):

90-264 VAC, 50/60Hz, 625 watts

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

USB 2.0: Type B

Ethernet: RJ-45

SAFETY INTERLOCK: 15-pin subminiature D

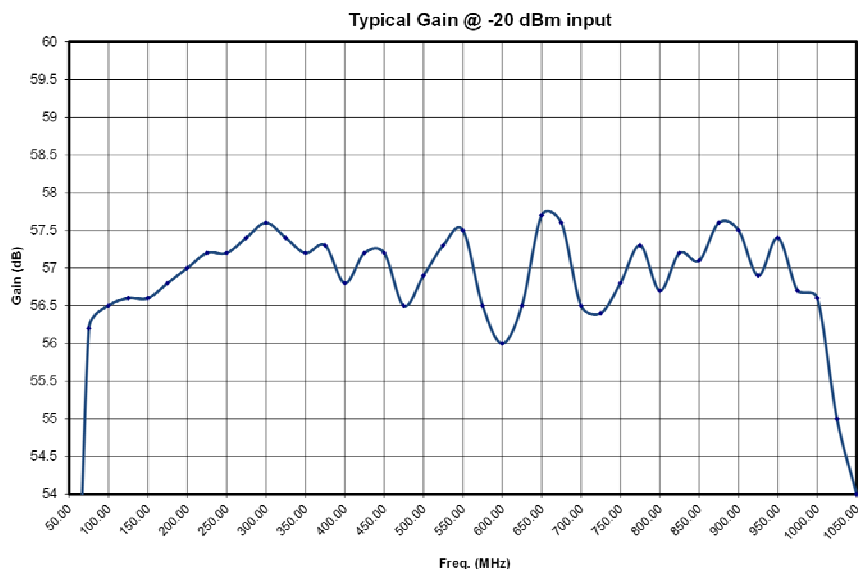
COOLING: Forced air (self contained fans)

EXPORT CLASSIFICATION: EAR99

Model Configurations

MODEL NUMBER	RF INPUT	RF OUTPUT	WEIGHT	SIZE (W x H x D)
125W1000	N female, front	N female, front	36kg (80 lb)	50.3 x 24.9 x 61cm 19.8 x 9.8 x 24in
125W1000M1	N female, rear	N female, rear	36kg (80 lb)	50.3 x 24.9 x 61cm 19.8 x 9.8 x 24in
125W1000M2	Same as 125W1000 with enclosure removed for rack mounting		26kg (58 lb)	48.3 x 22.2 x 61cm 19 x 8.75 x 24in
125W1000M3	Same as 125W1000M1 with enclosure removed for rack mounting		26kg (58 lb)	48.3 x 22.2 x 61cm 19 x 8.75 x 24in

Graphs



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