



1000W1000E

- 1000 Watts CW
- 80MHz-1000MHz



Features

The Model 1000W1000E is a self-contained, air-cooled, broadband, completely solid-state amplifier designed for applications where instantaneous bandwidth and high gain are required. Push-pull circuitry is utilized in all high power stages in the interest of lowering distortion and improving stability. The Model 1000W1000E, when used with an RF sweep generator, will provide a minimum of 1000 watts of RF power.

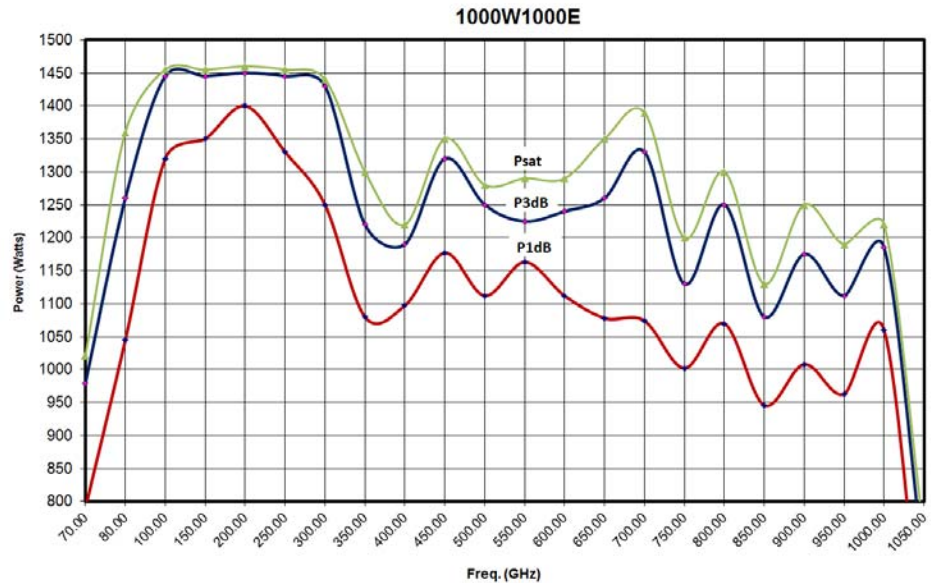
The Model 1000W1000E is equipped with a Digital Control Panel (DCP) which provides both local and remote control of the amplifier. The DCP uses a color LCD touch screen and a single rotary knob to offer status reporting and control capability. The display provides operational presentation of Forward 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 format and RS-232 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 keylock on the front panel of the amplifier.

Housed in a single equipment rack, the 1000W1000E 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.



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Specifications

RATED OUTPUT POWER: 1000 watts minimum

INPUT FOR RATED OUTPUT: 1.0 milliwatt maximum

POWER OUTPUT @ 3 dB compression:

Nominal 1200 watts, 1100 watts min up to 500 MHz, 950 watts from 500 to 1000 MHz

POWER OUTPUT @ 1 dB compression:

Nominal 950 watts, 950 watts min up to 500 MHz; 800 watts min from 500 to 1000 MHz

FLATNESS: ±1.5 dB maximum; ±1.0 dB typical

FREQUENCY RESPONSE: 80–1000 MHz instantaneously

GAIN (at maximum setting): 60 dB minimum

GAIN ADJUSTMENT (continuous range): 25 dB minimum

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. (See Application Note #27)

MODULATION CAPABILITY: Faithfully reproduces AM, FM, or Pulse modulation appearing on input signal.

HARMONIC DISTORTION: Minus 20 dBc maximum at 800 watts, -20 dBc typical @ 1000 watts

THIRD ORDER INTERCEPT POINT: 66 dBm typical

NOISE FIGURE: 8 dB maximum, 6 dB typical

PRIMARY POWER (specify voltage): 200-240 VAC, 50/60 Hz, single phase, 5000 watts

CONNECTORS

RF Input: See Model Configurations

RF Output: See Model Configurations

Forward sample: BNC female, front (-63 dBc)

Reverse sample: BNC female, front (-63 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, rear panel

COOLING: Forced air (self contained fans), enters front and bottom

WEIGHT (approximate): 124.8 kg (275 lb)

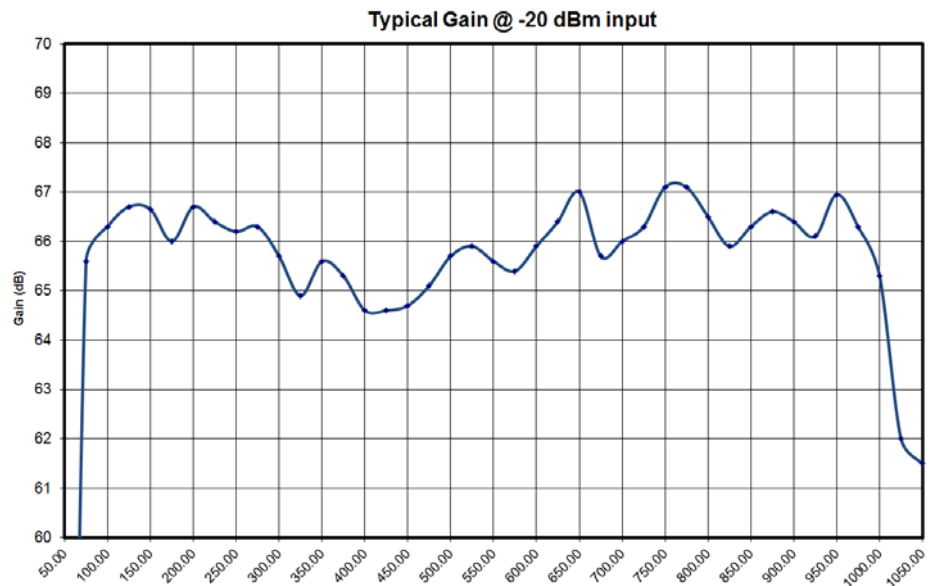
SIZE (W x H x D): 50.3 x 127 x 61 cm (19.8 x 50 x 24 in)

EXPORT CLASSIFICATION: EAR99

Model Configurations

Model	RF Input	RF Output
1000W1000E	N female, front	7/16 female, rear
1000W1000EM1	N female, rear	7/16 female rear

Graphs



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