



1500W1000

- 1500 Watts CW
- 80MHz–1000MHz

Features

The Model 1500W1000 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 1500W1000, when used with an RF sweep generator, will provide a minimum of 1500 watts of RF power.

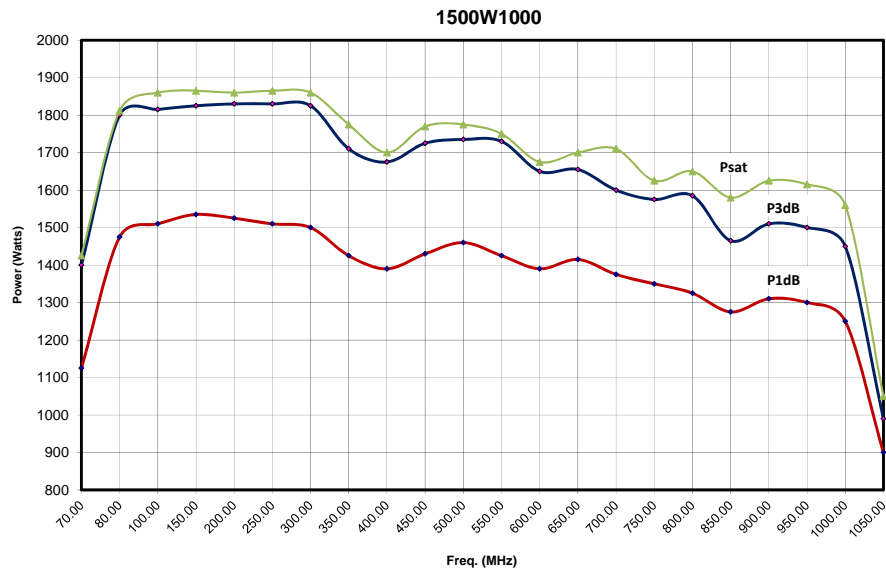
The Model 1500W1000 is equipped with a Digital Control Panel (DCP) which provides both local and remote control of the amplifier. The DCP uses a color LCD touch screen and a single rotary knob to offer status reporting and control capability. The display provides operational presentation of Forward Power 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 1500W1000 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 1500W1000 has the ability to be upgraded at a later date to the 2000W1000C, 3000W1000B, or 4000W1000B.

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: 1500 watts minimum

INPUT FOR RATED OUTPUT: 1.0 milliwatt maximum

POWER OUTPUT @ 3 dB compression:

Nominal 1600 watts, 1500 watts min up to 500 MHz, 1300 watts from 500 to 1000 MHz

POWER OUTPUT @ 1 dB compression:

Nominal 1400 watts, 1300 watts min up to 500 MHz; 1200 watts min from 500 to 1000 MHz

FLATNESS: ± 2.0 dB maximum; ± 1.5 dB typical

FREQUENCY RESPONSE: 80-1000 MHz instantaneously

GAIN (at maximum setting): 61.8 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 1200 watts, -20 dBc typical @ 1500 watts

THIRD ORDER INTERCEPT POINT: 68 dBm typical

NOISE FIGURE: 8 dB maximum, 6 dB typical

PRIMARY POWER (specify voltage): 200-240 VAC, 50/60 Hz, three phase, 7000 watts

CONNECTORS

RF Input: Type N female, rear panel

RF Output: Type 1-5/8 female, rear panel

Forward sample: BNC female, front (-60 dBc)

Reverse sample: BNC female, front (-60 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

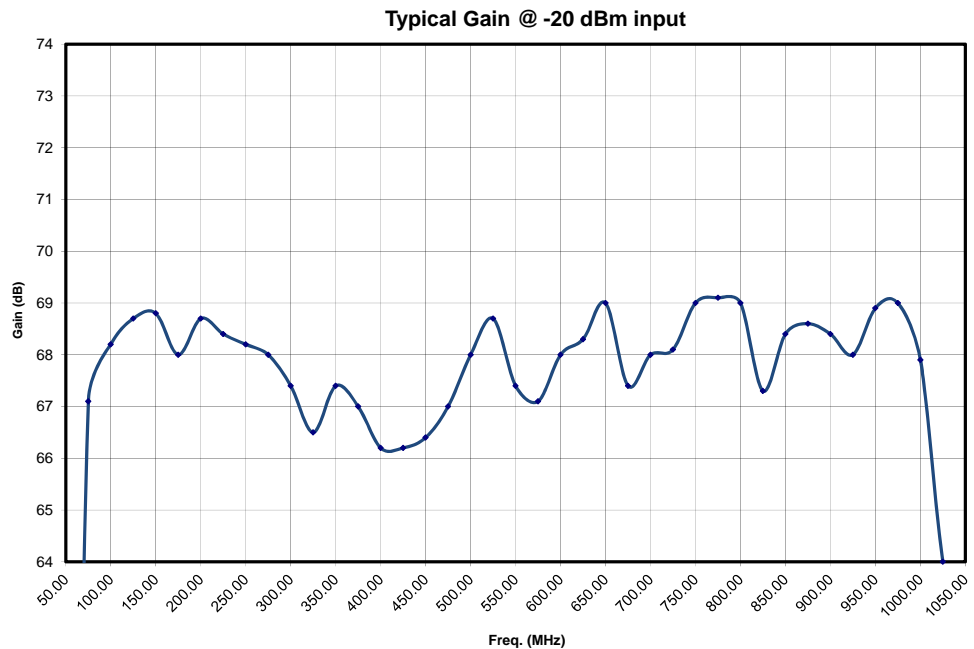
COOLING: Forced air (self contained fans), enters front and bottom

WEIGHT (approximate): 182 kg (400 lb)

SIZE (W x H x D): 56.1 x 149.9 x 82.3 cm (22.1 x 59 x 32.4 in)

EXPORT CLASSIFICATION: EAR99

Graphs



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