



## 10000W1000A

- 10000 Watts CW
- 80MHz–1000MHz

### Features

The Model 10000W1000A 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 10000W1000A, when used with an RF sweep generator, nominally provides over 10000 watts of RF power.

The Model 10000W1000A 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.

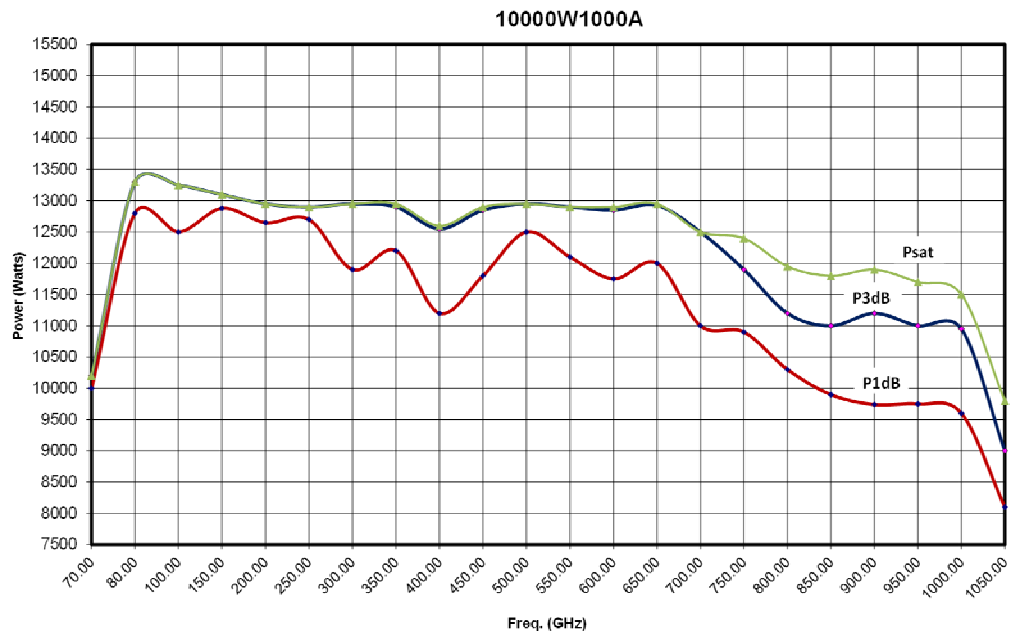
The Model 10000W1000A, housed in an equipment rack, provides readily available RF power for typical applications such as RF susceptibility testing, antenna and component testing, watt meter calibration, and as a driver for frequency multipliers and higher power amplifiers. A safety interlock can be implemented 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:

Nominal, 12500 watts  
12000 watts minimum up to 700 MHz  
10500 watts minimum, 700-1000 MHz

**INPUT FOR RATED OUTPUT:** 1.0 milliwatt maximum

### POWER OUTPUT @ 3 dB compression:

Nominal 12500 watts, 12000 watts min up to 700 MHz, 10000 watts from 700 to 1000 MHz

### POWER OUTPUT @ 1 dB compression:

Nominal 11000 watts, 10500 watts min up to 700 MHz; 9500 watts min from 700 to 1000 MHz

**FLATNESS:**  $\pm 2.0$  dB maximum;  $\pm 1.5$  dB typical

**FREQUENCY RESPONSE:** 80-1000 MHz instantaneously

**GAIN (at maximum setting):** 70 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, up to 6.0:1. Mismatch above which may limit to 6000 watts reflected power. 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 10000 watts, -25 dBc typical @ 10000 watts

**THIRD ORDER INTERCEPT POINT:** 78 dBm typical

**NOISE FIGURE:** 8 dB maximum, 6 dB typical

### PRIMARY POWER (specify voltage):

200-240 VAC Delta connected (4-wire),  
360-435 VAC Wye connected (5-wire)  
50/60 Hz, three phase, 48000W

### CONNECTORS

RF Input: Type N female, rear panel  
RF Output: Type 4-1/16 EIA, rear panel  
Forward sample: N female, front (-70 dBc)  
Reverse sample: N female, front (-70 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

### SYSTEM:

**WEIGHT (approximate):** 1590 kg (3500 lbs)  
**SIZE (W x H x D):** 394 x 183 x 99 cm (155 x 72 x 39 in)

### DRIVER/CONTROLLER RACK:

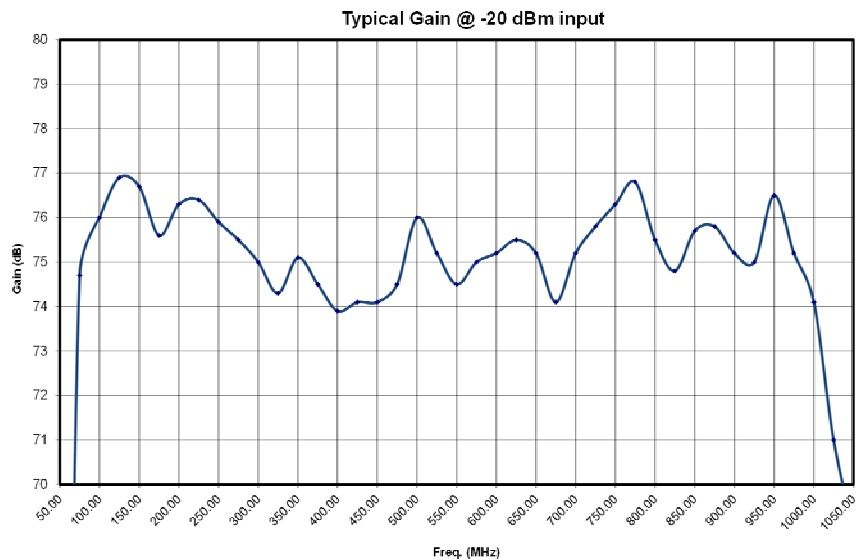
**WEIGHT (approximate):** 182 kg (400 lbs)  
**SIZE (W x H x D):** 56 x 183 x 99 cm (22 x 72 x 39 in)

### FINAL AMPLIFIER RACK (INCLUDES 2):

**WEIGHT (approximate):** 703 kg (1550 lbs)  
**SIZE (W x H x D):** 170 x 183 x 99 cm (67 x 72 x 39 in)

**EXPORT CLASSIFICATION:** EAR99

## Graphs



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