



## 1500W1000A

- 1500 Watts CW
- 80MHz–1000MHz

### Features

The Model 1500W1000A 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 1500W1000A, when used with an RF sweep generator, will provide a minimum of 1500 watts of RF power.

The Model 1500W1000A 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.

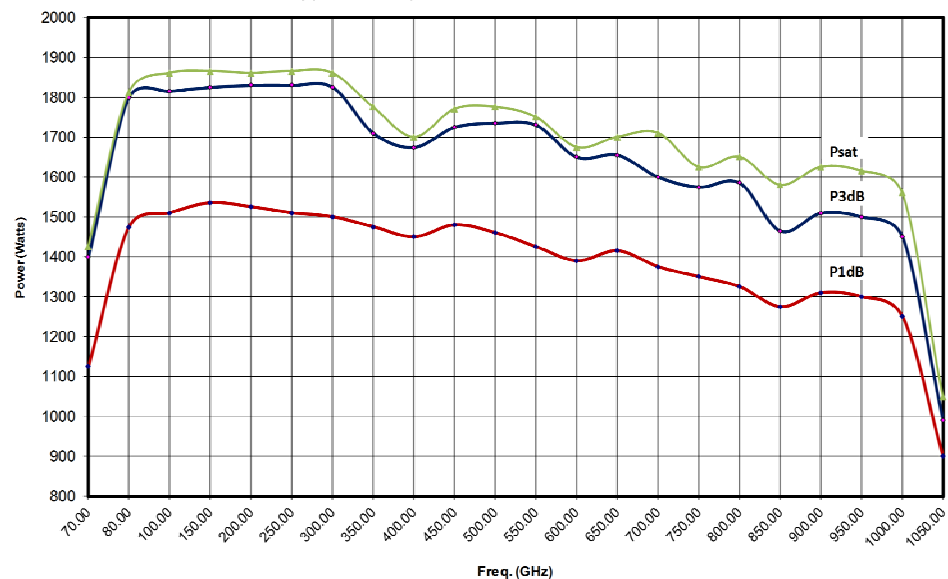
All amplifier control functions and status indications are available remotely in GPIB/IEEE-488 format and RS-232 hardware and fiber optic, USB and Ethernet. The buss interface connector is located on the back panel and positive control of local or remote operation is assured by a keylock on the front panel of the amplifier.

Housed in a single equipment rack, the 1500W1000A 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 1500W1000A has the ability to be upgraded at a later date to the 2000W1000D, 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.

Typical Output Power 1500W1000A



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## Specifications

**RATED OUTPUT POWER:** 1600 watts typical; 1500 watts minimum

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

**POWER OUTPUT @ 3 dB compression:**  
Nominal 1600 watts, 1500 watts min up to 700 MHz, 1400 watts from 700 to 1000 MHz

**POWER OUTPUT @ 1 dB compression:**  
Nominal 1450 watts, 1400 watts min up to 700 MHz; 1250 watts min from 700 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 1250 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 Delta connected (4-wire)  
360-435 VAC ye connected (5-wire)  
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: Type N female, front (-63 dBc)  
Reverse sample: Type N 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):** 182 kg (400 lb)

**SIZE (W x H x D):** 56.1 x 175.3 x 97.6 cm (22.1 x 69 x 38.4 in)

### ENVIRONMENTAL:

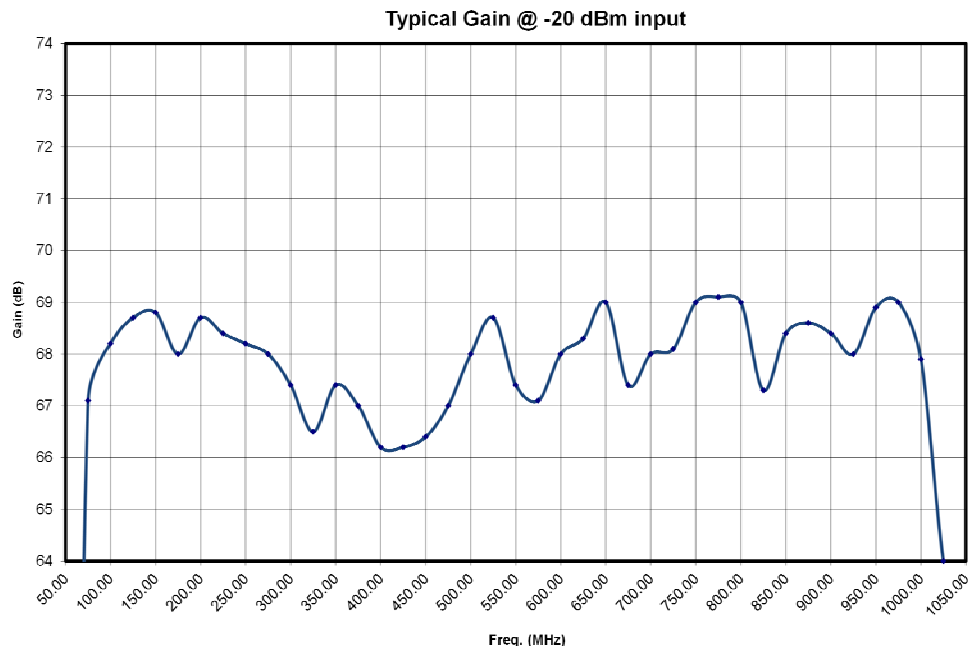
Operating Temperature: 5°C / +40°C  
Operating Altitude: Up to 2000M  
Shock and vibration: Normal Truck Transport

### REGULATORY COMPLIANCE:

EMC EN 61326-1  
Safety UL 61010-1  
CAN/CSA C22.2 #61010-1  
CENELEC EN 61010-1  
RoHS DIRECTIVE 2011/65/EU

**EXPORT CLASSIFICATION:** EAR99

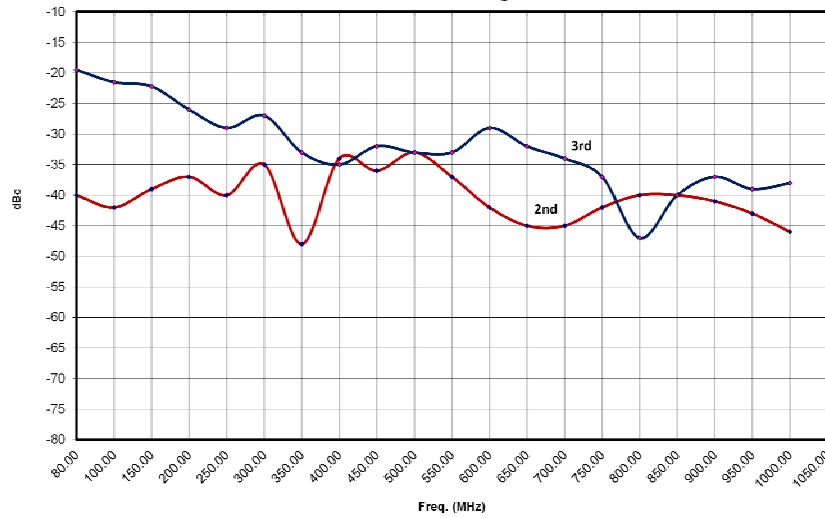
## Graphs



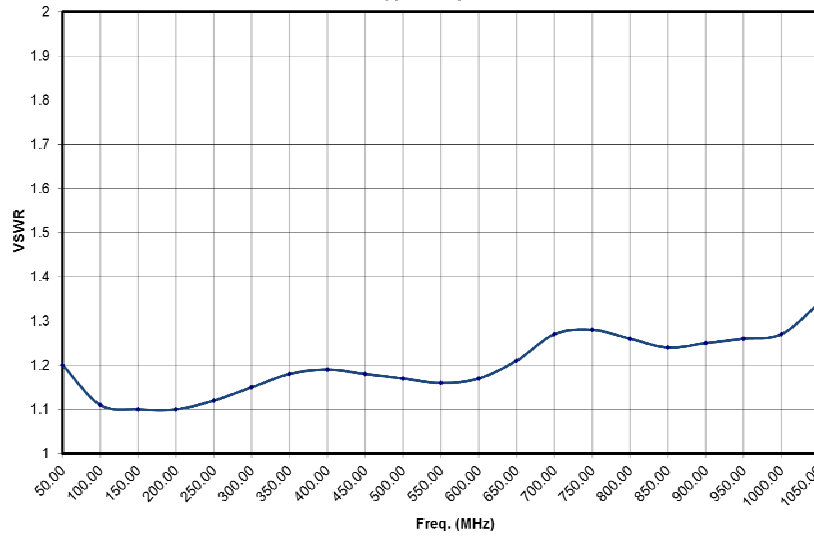
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1500W1000 Harmonics @1500 watts



Typical Input VSWR



Typical Noise Figure vs. Frequency

