



**Model 500W1000A**  
**M1 through M11**  
**500 Watts CW**  
**80MHz–1000MHz**

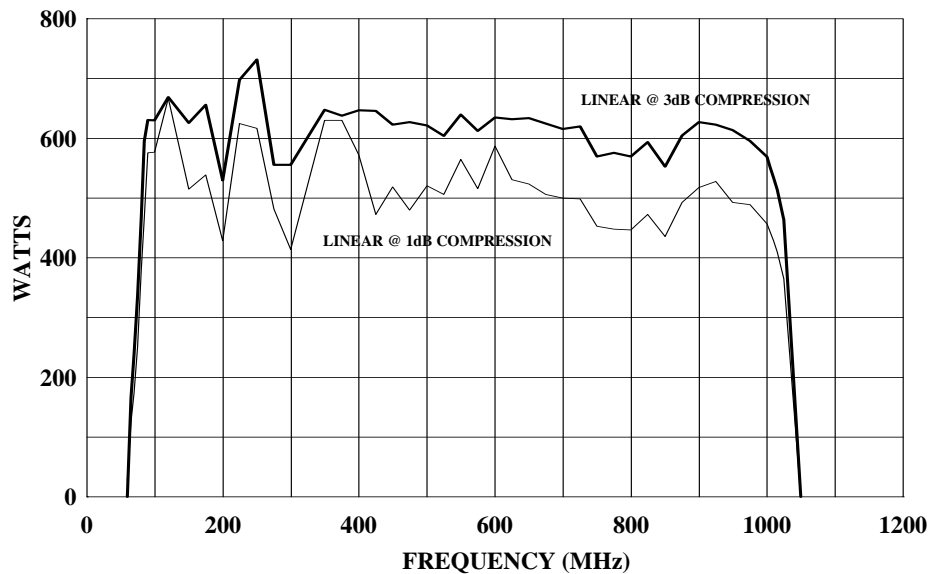
The Model 500W1000A is a self-contained, air-cooled, broadband, completely solid-state amplifier designed for applications where instantaneous bandwidth and high gain are required. Push-pull circuitry is utilized in all high power stages in the interest of lowering distortion and improving stability. The Model 500W1000A, when used with an RF sweep generator, will provide a minimum of 500 watts of swept power.

The Model 500W1000A is equipped with a Digital Control Panel (DCP) which provides both local and remote control of the amplifier. The DCP uses a digital display, menu assigned softkeys, a single rotary knob, and four dedicated switches (POWER, STANDBY, OPERATE and FAULT/RESET) to offer extensive control and status reporting capability. The display provides operational presentation of Forward Power and Reflected Power plus control status and reports of internal amplifier status. Special features include a gain control, internal/external automatic level control (ALC) with front panel control of the ALC threshold, pulse input capability and RF output level protection. Also included is an internal RF detector which provides an output for use in self-testing or operational modes.

All amplifier control functions and status indications are available remotely in GPIB/IEEE-488 format and RS-232 hardware and fiber optic. The bus 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 stylish contemporary equipment rack the Model 500W1000A provides readily available RF power for typical applications such as RF susceptibility testing, antenna and component testing, watt meter calibration, and use as a driver for higher power amplifiers.

**500W1000A TYPICAL POWER OUTPUT**



## SPECIFICATIONS, MODEL 500W1000A

RATED POWER OUTPUT .....	525 watts minimum
INPUT FOR RATED OUTPUT .....	1.0 milliwatt maximum
POWER OUTPUT @ 3dB COMPRESSION	
Nominal .....	612 watts
Minimum .....	450 watts
POWER OUTPUT @ 1dB COMPRESSION	
Nominal .....	515 watts
Minimum .....	350 watts
FLATNESS.....	± 2.0 dB maximum ± 0.8 dB with internal leveling
FREQUENCY RESPONSE .....	80–1000 MHz instantaneously
GAIN (at maximum setting) .....	57 dB minimum
GAIN ADJUSTMENT (continuous range).....	18 dB minimum
INPUT IMPEDANCE.....	50 ohms, VSWR 2.0:1 maximum
OUTPUT IMPEDANCE .....	50 ohms nominal
MISMATCH TOLERANCE* .....	100% of rated power without foldback up to 6.0:1 mismatch above which may limit to 250 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.....	Will faithfully reproduce AM, FM, or Pulse modulation appearing on the input signal.
HARMONIC DISTORTION.....	Minus 20 dBc maximum at 400 watts
THIRD ORDER INTERCEPT POINT .....	63 dBm typical
RF POWER METER.....	600 watts full scale
PRIMARY POWER (specify) .....	200 - 250 VAC, 50/60 Hz, single phase 6500 VA maximum
CONNECTORS	
RF Input .....	See Model Configuration
RF Output .....	See Model Configuration
External Leveling Inputs .....	Type BNC female on front panel
Pulse Modulation Input .....	Type BNC female on front panel
Detected RF Output .....	Type BNC female on front panel
Safety Interlock.....	15 pin subminiature D on rear panel
Remote Computer Interface .....	24 Pin female IEEE-488 (GPIB) and RS-232 connector on rear panel
Remote Computer Interface (fiber-optic) .....	ST Conn Tx and Rx RS-232
COOLING.....	Forced air (self contained fans) See Model Configuration
WEIGHT (approximate) .....	174 kg (383 lb)
SIZE (W x H x D).....	56.1 x 149.9 x 58.4 cm (22.1 x 59.0 x 23.0 in)

**MODEL CONFIGURATION, MODEL 500W1000A**

<b>Model Number</b>	<b>RF Connector Locations &amp; Type</b>	<b>Cooling Air Entry</b>	<b>Casters</b>	<b>Remarks</b>
500W1000A	Type N female, rear panel	Bottom	Standard	
500W1000AM1	Type N female, rear panel	Front Grills	Large 5.0"	
500W1000AM2	Output Type 7/16 female, rear panel Input Type N, rear panel	Bottom	Standard	
500W1000AM3	Output Type N female, front panel Input Type N female, rear panel	Bottom	Standard	
500W1000AM4	Type N female, front panel	Bottom	Standard	
500W1000AM5	Input Type N female, front panel. Output Type C female, front panel.	Bottom	Standard	
500W1000AM6	Type N female, rear panel	Bottom	Standard	Variable input lockout
500W1000AM7	Type N female, rear panel	Front Grills	Standard	
500W1000AM8	Type N female, front panel	Front Grills	Standard	
500W1000AM9	Type N female, front panel	Bottom	Standard	Forward and reverse sample ports, type N female on front panel (-60dBc)
500W1000AM10	Input Type N female, front panel. Output Type C female, front panel.	Bottom	Large 5.0"	
500W1000AM11	Type N female, rear panel	Bottom	Standard	Forward and reverse sample ports, type N female on front panel (-60dBc)