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**MODEL 500W1000A**  
**M1, M2, M3, M4, M5, M6, M7,**  
**M8**  
**500 WATTS CW**  
**80 - 1000 MHz**

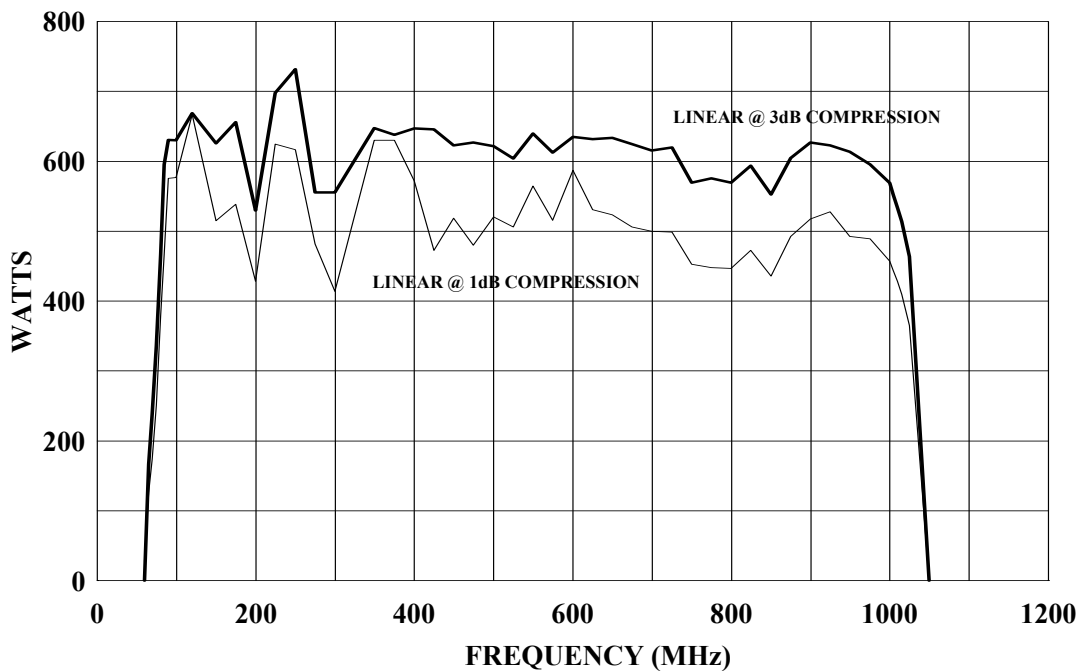
The Model 500W1000A is a self-contained, air-cooled, broadband, completely solid-state amplifier designed for applications where instantaneous bandwidth and high gain are required. Push-pull circuitry is utilized in all high power stages in the interest of lowering distortion and improving stability. 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 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 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
<b>POWER OUTPUT @ 3dB COMPRESSION</b>	
Nominal.....	612 watts
Minimum.....	450 watts
<b>POWER OUTPUT @ 1dB COMPRESSION</b>	
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, VSWR 2.0:1 typical
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
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
<b>CONNECTORS</b>	
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 (fiberoptic).....	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).....	See Model Configuration

\* See Application Note #27

**MODEL CONFIGURATION**

Model Number	RF Connector Locations & Type	Cooling Air Entry	Size (W x H x D)	Casters	Remarks
500W1000A	Type N female on rear panel	Bottom	56.1 x 149.9 x 58.4 cm 22.1 x 59.0 x 23.0 in	Standard	
500W1000AM1	Type N female on rear panel	Front Grills	56.1 x 152.0 x 58.4 cm 22.1 x 60.0 x 23.0 in	Large 5.0"	
500W1000AM2	Output Type 7/16 female on rear panel Input Type N rear panel	Bottom	56.1 x 149.9 x 58.4 cm 22.1 x 59.0 x 23.0 in	Standard	
500W1000AM3	Output Type N female on front panel Input Type N female on rear panel	Bottom	56.1 x 149.9 x 58.4 cm 22.1 x 59.0 x 23.0 in	Standard	
500W1000AM4	Type N female on front panel	Bottom	56.1 x 149.9 x 58.4 cm 22.1 x 59.0 x 23.0 in	Standard	
500W1000AM5	Input Type N female on front panel. Output Type C female on front panel.	Bottom	56.1 x 149.9 x 58.4cm 22.1 x 59.0 x 23.0 in	Standard	
500W1000AM6	Type N female on rear panel	Bottom	56.1 x 149.9 x 58.4 cm 22.1 x 59.0 x 23 in	Standard	Variable input Lockout
500W1000AM7	Type N female on rear panel	Front Grills	56.1 x 149.9 x 58.4 cm 22.1 x 59.0 x 23in	Standard	
500W1000AM8	Type N female on front panel	Front Grills	56.1 x 149.9 x 58.4 cm 22.1 x 59.0 x 23 in	Standard	

