



rf/microwave instrumentation

**Model 150W1000,
 M1 through M7
 150 Watts CW
 80MHz–1000MHz**

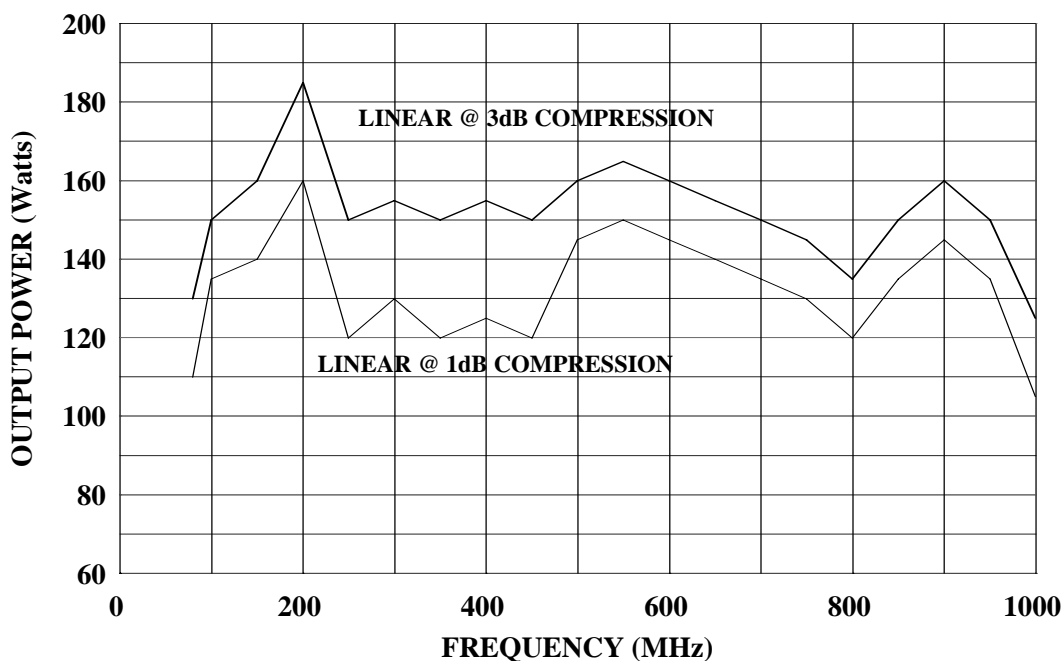
The Model 150W1000 is a portable, self-contained, air-cooled, broadband, completely solid-state amplifier designed for applications where instantaneous bandwidth, high gain and linearity are required. Push-pull circuitry is utilized in all high power stages in the interest of lowering distortion and improving stability. The Model 150W1000, when used with a sweep generator, will provide a minimum of 150 watts of RF power.

The Model 150W1000 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. Protection is provided by DC current level sensing and individual fusing of all output stages.

All amplifier control functions and status indications are available remotely in GPIB / IEEE-488 and RS-232 format. 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 bench top enclosure, the Model 150W1000 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.

150W1000 Typical Performance



SPECIFICATIONS, MODEL 150W1000

RATED OUTPUT POWER 150 watts

INPUT FOR RATED OUTPUT 1.0 milliwatt maximum

POWER OUTPUT @ 3dB compression

 Nominal 140 watts

 Minimum 120 watts

POWER OUTPUT @ 1dB compression

 Nominal 120 watts

 Minimum 100 watts

FLATNESS ±2.0 dB maximum; 1.5 dB typical; ±0.8 dB with internal leveling

FREQUENCY RESPONSE 80-1000 MHz instantaneously

GAIN (at maximum setting) 52 dB minimum

GAIN ADJUSTMENT (continuous range) 18 dB minimum (4096 steps remote)

INPUT IMPEDANCE 50 ohms, VSWR 2.0:1 maximum

OUTPUT IMPEDANCE 50 ohms nominal

MISMATCH TOLERANCE * Will operate without damage or oscillation with any magnitude and phase of source and load impedance. Will limit reflected power to 100 watts.

MODULATION CAPABILITY Will faithfully reproduce AM, FM, or pulse modulation appearing on the input signal

HARMONIC DISTORTION Minus 20 dBc maximum at 100 watts

THIRD ORDER INTERCEPT POINT 58 dBm typical

RF POWER DISPLAY 0-200 watts

PRIMARY POWER (user must specify) 90 - 264 VAC
40/400Hz, single phase
1200 watts maximum

CONNECTORS

 RF See Model Configurations

 REMOTE INTERFACES

 IEEE-488 24 pin female

 RS-232 9 pin Subminiature D (female)

 ALC & PULSE Type BNC on front panel

SAFETY INTERLOCK 15 pin Subminiature D

COOLING Forced air (self contained fans)

* See Application Note #27

MODEL	RF INPUT	MODEL CONFIGURATIONS RF OUTPUT	WEIGHT	SIZE (W x H x D)
150W1000	Type N female on front panel	Type N female on front panel	40 Kg (88 lbs)	50.3 x 24.9 x 53.0 cm 19.8 x 9.8 x 21.1 in
150W1000M1	Type N female on rear panel	Type N female on rear panel	40 Kg (88 lbs)	50.3 x 24.9 x 53.0 cm 19.8 x 9.8 x 21.1 in
150W1000M2	Same as 150W1000 with enclosure removed for rack mounting		30 Kg (66 lbs)	48.3 x 22.2 x 53.0 cm 19 x 8.75 x 21.1 in
150W1000M3	Same as 150W1000M1 with enclosure removed for rack mounting		30 Kg (66 lbs)	48.3 x 22.2 x 53.0 cm 19 x 8.75 x 21.1 in
150W1000M4	Type N on front panel.	Type N on rear panel.	40 Kg (88 lbs)	50.3 x 24.9 x 53.0 cm 19.8 x 9.8 x 21.1 in
150W1000M5	150W1000M2 with gain control non adjustable – set to max gain		30 kg (66 lbs)	48.3 s 22.2 s 53.0 cm 19 x 8.75 x 21.1 in
150W1000M6	*See Individual Specification Sheet		*	*
150W1000M7	Same as 150W1000M4 with enclosure removed for rack mounting		30 Kg (66 lbs)	48.3 x 22.2 x 53.0 cm 19 x 8.75 x 21.1 in