

The Model 1000A250 is a self-contained, air-cooled, broadband, completely solid-state amplifier designed for applications where instantaneous bandwidth and high gain are required. Push-pull MOSFET circuitry is utilized in all high power stages in the interest of lowering distortion and improving stability.

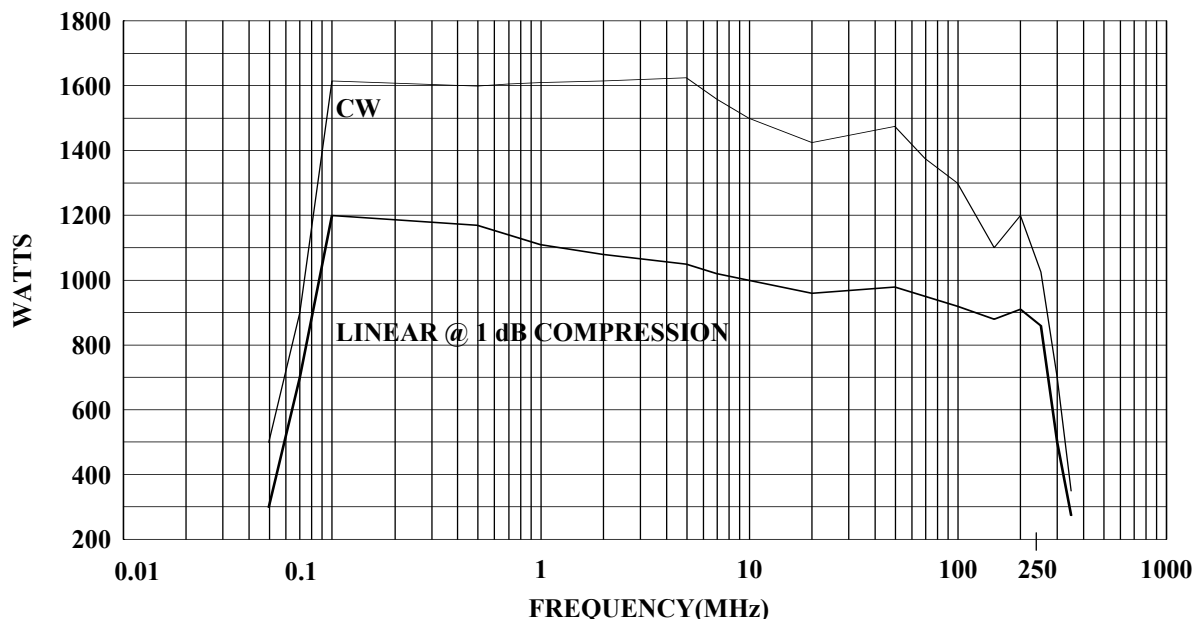
The Model 1000A250 is equipped with a Digital Control Panel (DCP) which provides both local and remote control of the amplifier. The DCP uses a 3¾-inch diagonal graphic display, menu assigned softkeys, a single rotary knob, and four dedicated switches (POWER, STANDBY, OPERATE and FAULT/RESET) to offer 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 hard wire and fiber optic. The buss interface connectors are 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.

High efficiency universal input, power factor corrected switching power supplies provides DC to all internal sub-assemblies.

Housed in a stylish, contemporary enclosure, the Model 1000A250 provides readily available RF power for typical applications such as RF susceptibility testing, antenna and component testing, watt meter calibration, particle accelerators, plasma generation, communications and use as a driver for higher power amplifiers.

1000A250 TYPICAL POWER OUTPUT



SPECIFICATIONS

Model 1000A250

RATED OUTPUT POWER.....	1200 watts, 100 kHz – 100 MHz 1200 – 700 watts, 100 MHz – 250 MHz (derating slope of 3.33 watts/MHz)
INPUT FOR RATED OUTPUT.....	1.0 milliwatt maximum
POWER OUTPUT @ 1 dB COMPRESSION.....	900 watts, 100 kHz – 100 MHz 900-400 watts, 100 MHz – 250 MHz (derating slop of 3.33 watts/MHz)
FREQUENCY RESPONSE.....	100 kHz - 250 MHz instantaneously
GAIN (at maximum setting).....	61 dB minimum
FLATNESS.....	± 3.5 dB maximum ± 0.8 dB with internal leveling
GAIN ADJUSTMENT (continuous range).....	20 dB minimum
INPUT IMPEDANCE.....	50 ohms, VSWR 1.5:1 maximum
OUTPUT IMPEDANCE.....	50 ohms, VSWR 2.5:1 maximum
MISMATCH TOLERANCE.....	100% rated power without foldback up to 6.0:1 mismatch above which may limit to 600 watts reflected power, from 100 kHz to 100 MHz. Limited to 250 watts reflected power from 100 MHz to 250 MHz.
MODULATION CAPABILITY.....	Will faithfully reproduce AM, FM or Pulse modulation appearing on the input signal.
HARMONIC DISTORTION.....	Minus 20 dBc maximum at 750 watts
THIRD ORDER INTERCEPT POINT.....	68 dBm typical
RF POWER DISPLAY.....	0 - 2000 watts full scale
PULSE MODE GATING CHARACTERISTICS	
Signal (into 50 ohms).....	+ 2.0 to 6.0 VDC
Rise Time.....	0.5 microseconds maximum
Fall Time.....	0.5 microseconds
RF RISE/FALL TIME.....	10 nanoseconds maximum
PRIMARY POWER.....	187-264 VAC 47-63 Hz, single phase (user must specify) 5,000 watts maximum at .95 P.F. typical
CONNECTORS	
RF Input.....	See Model Configurations
RF Output.....	See Model Configurations
External Leveling Inputs.....	Type BNC female on front panel
Pulse Modulation Inputs.....	Type BNC female on front panel
Detected RF Output.....	Type BNC female on front panel
Remote Control.....	24 pin female GPIB/IEEE-488 and 9-pin RS-232 connectors on rear panel
Remote Control (Fiber Optic).....	ST connector. Tx and Rx RS-232.
Safety Interlock.....	15 pin female Type D on rear panel
IEEE-488 (GPIB) INTERFACE & RS-232.....	Allows control of all amplifier functions and monitoring of all status indications.
COOLING.....	Forced air (self contained fans)
WEIGHT (maximum).....	136 kg (300 lb)
SIZE (W x H x D).....	56.1 x 109.2 x 88.9 cm (22.1 x 43.0 x 35.0 in)

MODEL CONFIGURATIONS

Model Number	RF Input	RF Output
1000A250	N female, rear panel	7-16 DIN female rear panel
1000A250M1	N female, front panel	7-16 DIN female front panel