The Model 2000W1000B 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 2000W1000B, when used with a sweep generator, will nominally provide over 2000 watts of RF power.

The Model 2000W1000B is equipped with a Digital Control Panel (DCP) which provides both local and remote control of the amplifier. The DCP uses a 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-488.2 format, and RS-232 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 stylish, contemporary equipment racks, the Model 2000W1000B 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.

The 2000W1000B consists of two 1000 watt amplifiers which can be operated as independent individual amplifiers and a controller/driver equipment rack.

By simply adding one 1000 watt amplifier and the appropriate combiner along with minor tuning, the 2000W1000B is upgraded to a 3000 watt amplifier with expandability to 4000 watts.

![2000W1000B TYPICAL POWER OUTPUT](image)
SPECIFICATIONS, MODEL 2000W1000B

RATED OUTPUT POWER ....................................... 1900 watts minimum
INPUT FOR RATED OUTPUT ................................. 1.0 milliwatts maximum

POWER OUTPUT @ 3dB compression
Nominal ...................................................... 2100 watts
Minimum .................................................... 1700 watts

POWER OUTPUT @ 1dB
Nominal ...................................................... 1750 watts
Minimum .................................................... 1250 watts

FLATNESS ...................................................... ±2.5 dB maximum
±0.8 dB with internal leveling

FREQUENCY RESPONSE ..................................... 80-1000 MHz instantaneously

GAIN (at maximum setting) .............................. 63 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 1000 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 1600 watts

THIRD ORDER INTERCEPT POINT ....................... 70 dBm typical

RF POWER DISPLAY ........................................ 0-2500 watts

PRIMARY POWER  (specify voltage) ...................... 200-250 VAC, Delta Connected (4 wire)
360-435 VAC, Wye Connected (5 wire)
50/60 Hz, 3 phase
25 kVA Maximum

CONNECTORS
RF input .................................................. N female on rear panel
RF output .................................................. Type 1 5/8 EIA on rear
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 female subminiature D on rear panel
Remote computer interface ......................... 24 Pin female IEEE-488.2 (GPIB) connector on rear panel
Remote computer interface (fiber optic) ......... ST Conn Tx and Rx RS-232

COOLING ................................................... Forced air (self contained fans) Enters front and bottom

WEIGHT (approximate) ..................................... 839 kg (1850 lb)
SIZE (WxHxD) (3 cabinets) .............................. 201 x 158 x 160 cm (79 x 62 x 63 in)