

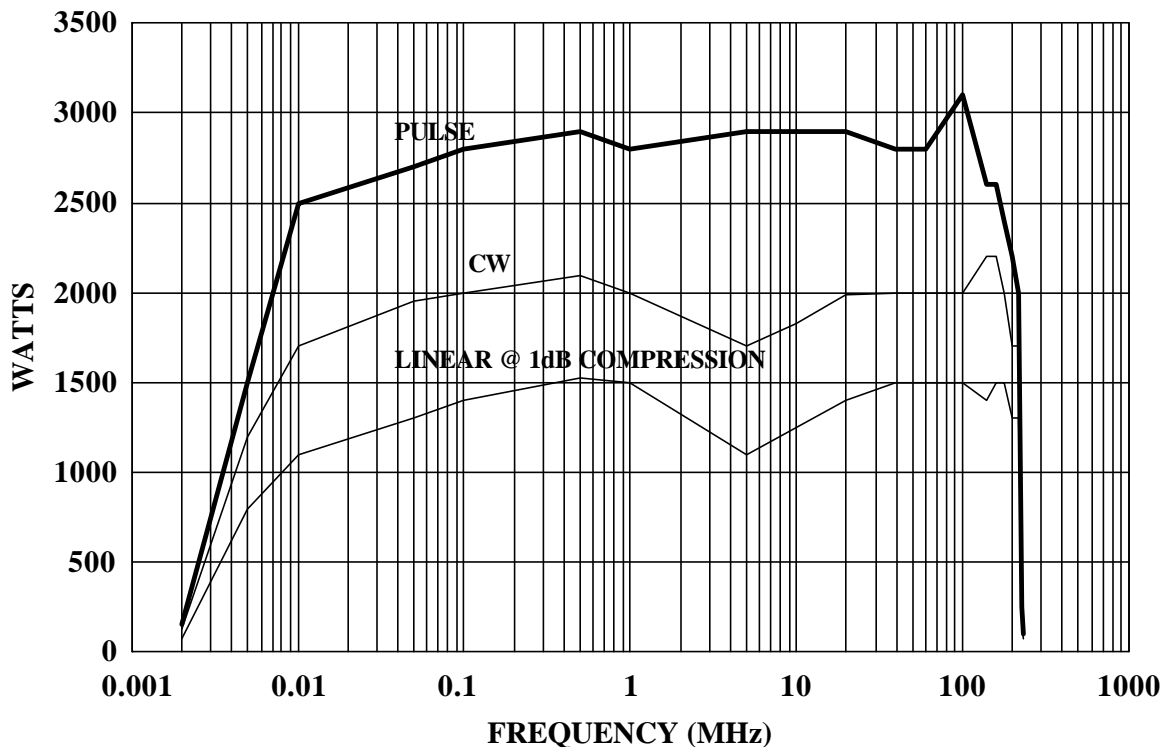


## Model 1000L / 10W1000

MODEL 1000L  
1200 WATTS CW  
2500 WATTS PULSE  
10kHz-220 MHz

The Model 1000L is an economical, self-contained, air-cooled broadband amplifier designed for laboratory applications that require instantaneous bandwidth, high gain and high power output. Housed in a stylish contemporary enclosure, the Model 1000L is smaller than competitive units with similar power levels. All operating controls are functionally grouped on the front panel for simplicity of operation. These include modern, lighted push-button switches for the command functions, POWER, STANDBY, OPERATE and PULSE, a control for setting the output level of the amplifier, and a meter for monitoring critical operating voltages and currents. Remote control is provided through a rear panel mounted connector. Isolated TTL level remote control can be accomplished using our CP2001 interface. Isolated IEEE-488 compatible control can be provided with our CP3000. A highly versatile unit, the Model 1000L features rugged circuitry and a quick-acting, solid state crowbar circuit to protect the final amplifier tubes from damage due to internal arcing. An electronic circuit is provided to enable rapid gating or blanking of the amplifier.

1000L TYPICAL POWER OUTPUT



## SPECIFICATIONS

Model 1000L

### POWER OUTPUT

#### High Range

##### Pulse

Minimum ..... 2500 watts to 150MHz  
1750 watts to 220MHz

Duty Cycle ..... 15%

Pulse Width..... 8 milliseconds

##### CW

Minimum ..... 1200 watts

Low Range ..... 100 watts nominal

FLATNESS, high range .....  $\pm 1.5$  dB

FREQUENCY RESPONSE..... 10 kHz - 220 MHz instantaneously

INPUT FOR RATED OUTPUT ..... 1.0 milliwatt maximum

### GAIN (at maximum setting)

High Range..... 61 dB minimum

Low Range..... 47 dB minimum

GAIN ADJUSTMENT (continuous range)..... 18 dB minimum

INPUT IMPEDANCE ..... 50 ohms, VSWR 1.5:1 maximum

OUTPUT IMPEDANCE..... 50 ohms, nominal

MISMATCH TOLERANCE\* ..... 100% of rated power without foldback. Will operate without damage, or oscillation with any magnitude and phase of source and load impedance.

MODULATION CAPABILITY ..... Linear amplitude and phase response to over 80 MHz allows faithful reproduction of AM, FM, Pulse, or phase modulation appearing on the input signal

### HARMONIC DISTORTION AT 750 WATTS

Above 120 MHz..... Minus 30 dBc maximum

Below 120 MHz..... Minus 15 dBc maximum

Minus 18 dBc nominal

THIRD ORDER INTERCEPT POINT..... 66dBm Typical

### GATING CHARACTERISTICS

#### Pulse Mode Pedestal/CW Mode Blanking

Signal (into 180 ohms)..... Plus or minus 2.5 to 6.0 VDC

Rise time..... 20 microseconds maximum

Fall time..... 4 microseconds maximum

RF Rise/Fall Time..... 10 nanoseconds maximum

RF Pulse Droop ..... 1.0% maximum at 8 milliseconds

PRIMARY POWER (specify one)..... 200/208  $\pm 5\%$  VAC, 3 phase, 50/60 Hz

380/415  $\pm 5\%$  VAC, 3 phase, 50/60

Hz 400/415  $\pm 5\%$  VAC, 3 phase,

50/60Hz 15.2 kVA nominal

### CONNECTORS

RF Input..... Type BNC female

RF Output, high range..... Type C female

RF Output, low range..... Type N female

Gating/Blanking ..... Type BNC female

Remote Control ..... 25 pin female subminiature D

COOLING..... Forced air (self contained fans)

WEIGHT..... 239 kg (525 lb)

SIZE (WxHxD) ..... 56.1 x 149.9 x 58.4 cm

22.1 x 59.0 x 23.0 in

\* See Application Note #27



MODEL 10W1000  
10 WATTS  
1 - 1000 MHz

The Model 10W1000 is an ultra-broadband, solid state amplifier. When used with a frequency swept signal source this reliable amplifier will provide 10 watts of swept power output from 1-1000 MHz. It is supplied as a laboratory amplifier complete with its own power supply.

SPECIFICATIONS

POWER OUTPUT, Maximum.....	Up to 22 watts
POWER OUTPUT, Linear (Into 50 ohms @ less than 1.0 dB Compression)	
1-900 MHz.....	10.0 watts
900-1000 MHz.....	8.0 watts
FREQUENCY RESPONSE.....	1 to 1000 MHz instantaneously
FLATNESS.....	±1.5 dB maximum ±1.0 dB typical
POWER GAIN.....	40 dB minimum
INPUT IMPEDANCE.....	50 ohms, VSWR 2:1 maximum
OUTPUT IMPEDANCE.....	50 ohms nominal
REVERSE ISOLATION.....	Greater than 45 dB
HARMONIC DISTORTION.....	Not less than 20 dB below fundamental at 10 watt output
INTERMODULATION DISTORTION.....	Third order intercept point 50 dBm, typical
MISMATCH TOLERANCE.....	Unconditionally stable; will operate without damage or oscillation with any magnitude and phase of source and load impedance
PRIMARY POWER.....	115/230 VAC, 50/60 Hz, 400 Watts
CONNECTORS.....	Type N Female
WEIGHT.....	63.0 lb
SIZE (W x H x D).....	19.8 in x 8.0 in x 18.0 in 50.0 cm x 20.3 cm x 45.7 cm

