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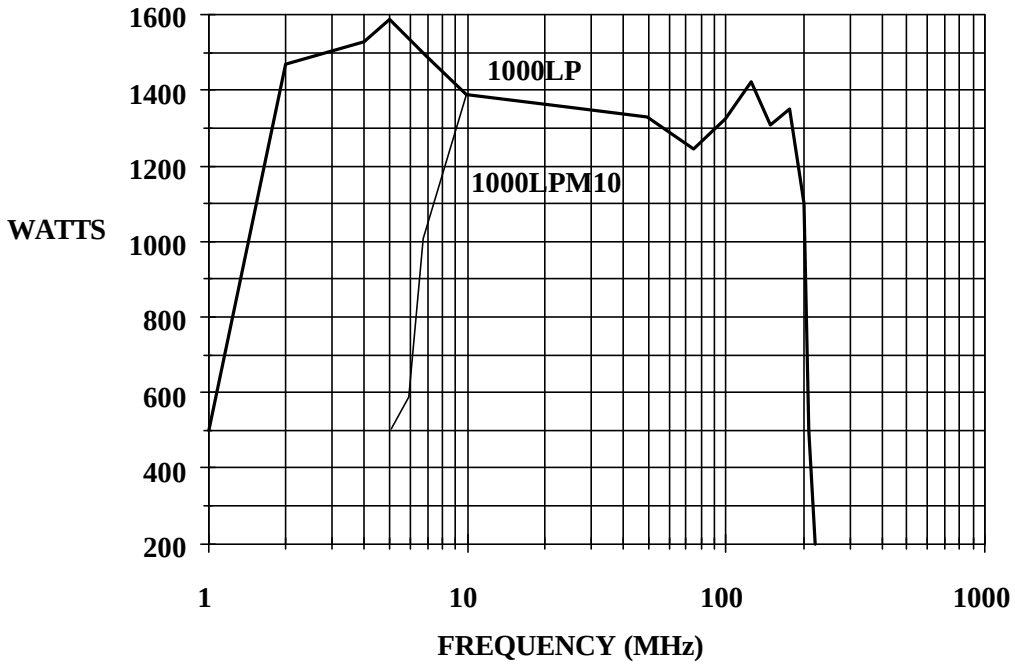
MODEL 1000LP/LPM10
300 WATTS CW
1000 WATTS PULSE
2-200 MHz/9-200 MHz

The Model 1000LP and its modified version, the 1000LPM10, are inexpensive, broadband amplifiers designed for applications which require instantaneous bandwidth, high gain, and linear, high power pulse output. The 1000LPM10, which includes a 9 MHz high pass output filter in its final amplifier, is designed for applications which require attenuation of low frequency pulse transients, which are created when the amplifier is blanked on and off. To increase their usefulness in RF testing, the amplifiers can also be operated in a CW mode which is front panel selectable.

The 1000LP employs solid-state, MOSFET, low power stages and vacuum tube final. The final amplifier stage operates in a gated mode to improve efficiency, reduce output noise, and increase the RF on/off ratio. Operating mode dependent blanking/gating input is provided on the front panel. In the CW mode an input signal (Blanking) turns the final amplifier off, reducing gain and output noise. In the Pulse mode an input signal (Gating) will switch the amplifier on. During the gate on time, the amplifier operates class A and will amplify RF pulses or other wave shapes within its specified operating range. A continuously variable input attenuator is provided to permit setting of the output power from the amplifier front panel. Overload protection is provided to prevent damage from overdrive or excessive pulse lengths or duty cycle. Crowbar protection of the final amplifier tubes and short circuit protection of all power supplies is also included.

Operating functions may be controlled remotely by TTL level signals or IEEE-488 bus when respectively connected to the Model CP2001 or CP3000. The Model 888 leveling preamplifier may be used to generate RF pulses synchronized with Blanking or Gating pulses.

1000LP TYPICAL POWER OUTPUT



REV012897

SPECIFICATIONS
Model 1000LP

POWER OUTPUT

Pulse

Minimum ..... ***1000 watts***

Duty cycle ..... ***10% maximum***

Pulse width ..... ***8 milliseconds maximum***

CW

Nominal ..... ***375 watts***

Minimum ..... ***300 watts***

Linear @ 1dB compression ..... ***250 watts***

FLATNESS ..... ***±1.5 dB maximum, ±1.0 dB typical***

FREQUENCY RESPONSE

1000LP ..... ***2-200 MHz instantaneously***

1000LPM10 ..... ***9-200 MHz instantaneously***

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

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

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

OUTPUT IMPEDANCE ..... ***50 ohms, VSWR 2.0:1 maximum***

MISMATCH TOLERANCE* ..... ***100% at rated power without foldback.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. (at rated.power) ..... ***Minus 15 dBc maximum below 125 MHz***
Minus 25 dBc maximum above 125 MHz

GATING CHARACTERISTICS

Pulse mode gating/CW mode blanking

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

Rise time ..... ***15 microseconds maximum***

Fall time ..... ***3 microseconds maximum***

RF rise/fall time ..... ***10 nanoseconds maximum***

PRIMARY POWER ..... ***100/110/120/200/208/220/240±5% VAC***

(select via internal taps) ..... ***50/60 Hz, single phase, 3000 watts max***

CONNECTORS

RF input ..... ***Type BNC female***

RF output ..... ***Type N female***

Gating/Blanking ..... ***Type BNC female***

Remote control ..... ***25 pin female subminiature D***

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

WEIGHT ..... ***82 kg (180 lb)***

SIZE (WxHxD) ..... ***50.3 x 42.7 x 55.1 cm (19.8 x 16.8 x 21.7 in)***

****See Application Note #27***