



High Power Gated RF Pulse Amplifier Model GA-2500A

- Output Powers up to 5 KW
- True Gated Amplifier
- Frequencies down to 40 kHz
- Available in several power configurations

The Model GA 2500A Gated RF Amplifier is a high power, limited duty cycle instrument designed to produce high amplitude radio frequency (RF) tone bursts derived from either a continuous wave (CW) RF signal or from an externally generated RF tone burst. The instrument requires an external TTL level gate coherent with either the burst or the CW signal. A -40 dB monitor point for examining the output signal is provided at the front panel.

The frequency range covered is two decades when built for 400W or 1.5 kW outputs. When structured for a 5 kW output, one decade of frequency coverage is provided. The 5 kW output corresponds to 1440 Volts peak-to-peak into 50 Ohms. A front panel ten turn potentiometer controls the output level. Total maximum gain is approximately 60 dB. A signal input of ~1 Volt peak-to-peak is required for maximum output.

The instrument is protected against open circuit and short circuit conditions on its output. The instrument is also protected against excessive temperature and excessive current by two automatic shutdown circuits. Cycling the high voltage switch will reset the instrument to operating conditions.



RITEC, Inc. 60 Alhambra Rd., Suite 5, Warwick, R.I. 02886
(401) 738-3660 FAX (401) 738-3661

SPECIFICATIONS

Frequency:

400W or 1.5W units; greater than any two decades with 40 kHz the lowest frequency and 15 MHz the highest to meet power specification. It is operable to above 20 MHz.

5KW unit; greater than any one decade with 40 kHz the lowest frequency and 7 MHz the highest to meet power specification. It is operable to above 15 MHz. 10 MHz power is approximately 4 kW in a unit specified for 1 to 10 MHz operation.

Duty Cycle:

400W unit, approximately 2%.
1.5kW unit; approximately 0.3%.
5kW unit; approximately 0.1%.

RF Input Impedance:

50 Ohms, BNC connector.

RF Output Impedance:

Nominally 50 Ohms.

TTL Gate Input:

BNC connector.
Standard models require positive TTL (0V during off time, 5V during burst).
The instrument can be modified for negative TTL (5V during the off time, 0V during the burst) if specified with the suffix -NG on the purchase order.)

Output Level Control:

Greater than 20 dB.

On/Off Ratio:

Greater than 100 dB.

Dimensions:

19" wide by 13" deep by 5.25" high.

Power Requirements:

May be set for 100,120,220 or 240 Volts, 50-60 Hz, ~ 50 Watt.

Separate power switch for low voltage supplies and high voltage supplies.

Over current protection:

Shutdown circuit activated if current draw from power supply is excessive.

System can be reset by cycling the high voltage switch.

Over Temperature protection:

Shutdown circuit activated if temperature of amplifier exceeds 75 degrees Celsius.

System can be reset by cycling the high voltage switch.

Peripheral Power Connector:

+5V, -5V, +15V, -15V and ground to power an external diplexer or preamplifier.



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