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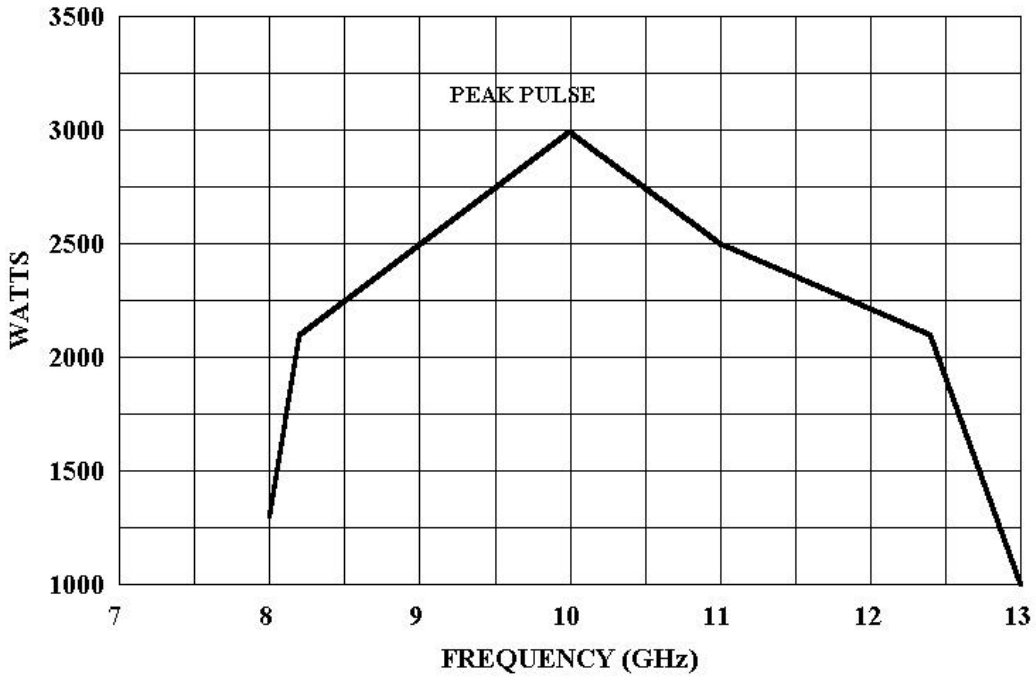
MODEL 2000TP8G12
2000 WATTS PULSE
8.2 – 12.4 GHz

The Model 2000TP8G12 is a self contained, forced air cooled, broadband traveling wave tube (TWT) microwave amplifier designed for pulse applications at low to moderate duty factors where instantaneous bandwidth and high gain are required. A reliable TWT provides a conservative 2000 watts minimum peak RF pulse power at the amplifier output connector. Stated power specifications are at the fundamental frequency.

The amplifier's front panel digital display shows forward and reflected average power output or forward and reflected peak power, plus extensive system status information accessed through a series of menus via soft keys. Status indicators include power on, warm-up, standby, operate, faults, excess average or peak reflected power warning and remote. Standard features include a built-in IEEE-488 (GPIB) interface, 0dBm input, TTL Gating, VSWR protection, gain control, RF output sample port, plus monitoring of TWT helix current, cathode voltage, collector voltage, heater current, heater voltage, baseplate temperature and cabinet temperature. Modular design of the power supply and RF components allow for easy access and repair. Use of a switching mode power supply results in significant weight reduction.

Housed in a stylish contemporary cabinet, the Model 2000TP8G12 provides readily available pulsed RF power for a variety of applications in Test and Measurement, (including EMC RF pulse susceptibility testing), Industrial and University Research and Development, and Service applications. AR also offers a broad range of amplifiers for CW (Continuous Wave) applications.

2000TP8G12 TYPICAL POWER OUTPUT



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SPECIFICATIONS
Model 2000TP8G12

POWER (fundamental), PEAK PULSE, @ OUTPUT CONNECTOR	
Nominal	***2500 watts***
Minimum	***2000 watts***
FLATNESS	***±13 dB maximum, equalized for ±3dB maximum at rated power***
FREQUENCY RESPONSE	***8.2 – 12.4 GHz instantaneously***
INPUT FOR RATED OUTPUT	***1.0 milliwatt maximum***
GAIN (at maximum setting)	***63 dB minimum***
GAIN ADJUSTMENT (continuous range)	***35 dB minimum***
INPUT IMPEDANCE	***50 ohms, VSWR 2.5:1 maximum***
OUTPUT IMPEDANCE	***50 ohms, VSWR 2.5:1 typical***
MISMATCH TOLERANCE	***Output power foldback protection at average reflected power exceeding 60 watts. Will operate without damage or oscillation with any magnitude and phase of source and load impedance. May oscillate with unshielded open due to coupling to input. Should not be tested with connector off.***
PULSE CAPABILITY	
Pulse Width	***0.07 – 30 microseconds.***
Pulse Rate (PRF)	***100kHz maximum.***
Duty Cycle	***4% maximum.***
RF Rise and Fall	***30 ns max (10% to 90%).***
Delay	***300 ns maximum from pulse input to RF 90%***
Pulse Width Distortion	***±30ns max (50% point of output pulse width compared to 50% points of input pulse width).***
Pulse Off Isolation	***80dB minimum, 90dB typical***
NOISE POWER DENSITY (pulse on)	***Minus 70 dBm/Hz (maximum), minus 75dBm/Hz (typical)***
(pulse off)	***Minus 140 dBm/Hz (typical)***
HARMONIC DISTORTION	****Minus 8dBc maximum, Minus 10dBc typical***
PRIMARY POWER	***190 – 260VAC, single phase 50/60 Hz 2.0 KVA maximum***
CONNECTORS	
RF input	***Type N female on rear panel***
RF output	*****Type WRD 750D24 waveguide flange***
RF output sample port	***Type N female***
Pulse input	***Type BNC female on rear panel***
GPIB	***IEEE-488 female on rear panel***
Interlock	***DB-15 female on rear panel***
COOLING	***Forced air (self contained fans), air entry and exit in rear.***
WEIGHT	***68 kg (150 lb)***
SIZE (WxHxD)…	***50.3 x 31.1 x 77.5 cm 19.8 x 12.25 x 30.5 in***

* Contact Amplifier Research for alternative harmonic specifications.
** Contact Amplifier Research for alternative waveguide output types.