



160 School House Road, Souderton, PA 18964-9990 USA
Phone 215-723-8181 • FAX 215-723-5688

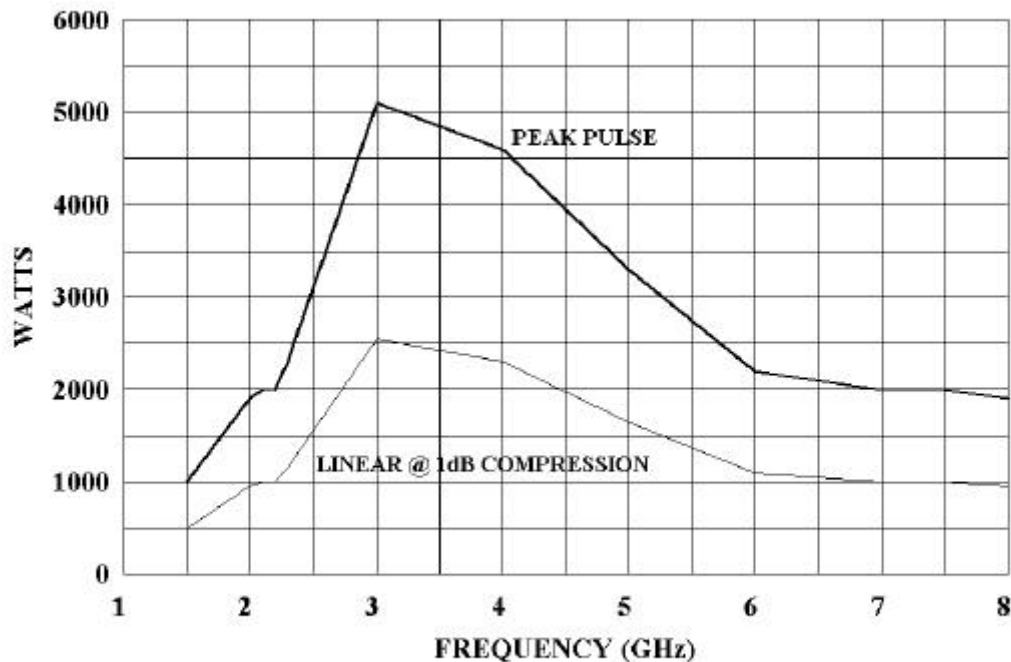
MODEL 2000TP2G8
2000 WATTS PULSE
2.1 – 7.5 GHz

The Model 2000TP2G8 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 subsystem provides a conservative 2000 watts minimum peak RF pulse power at the amplifier output connector. Stated power specifications are at 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 2000TP2G8 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.

2000TP2G8 TYPICAL POWER OUTPUT



SPECIFICATIONS

Model 2000TP2G8

POWER (fundamental), PEAK PULSE, @ OUTPUT CONNECTOR

Nominal.....	2500 watts
Minimum.....	2000 watts
Linear @ 1dB Compression.....	500 watts minimum

FLATNESS ± 13 dB maximum, equalized for
 ± 2 dB maximum at rated power

FREQUENCY RESPONSE..... 2.1 – 7.5 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 2.0:1 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.....	2 – 30 microseconds.
Pulse Rate (PRF).....	10kHz maximum
Duty Cycle.....	4% maximum.
RF Rise and Fall.....	30 ns max (10% to 90%).
Delay.....	800 ns maximum from pulse input to RF 90%

NOISE POWER DENSITY (pulse on)..... Minus 70 dBm/Hz (maximum), minus
74dBm/Hz (typical)

(pulse off)..... Minus 100 dBm/Hz (typical)

HARMONIC DISTORTION Minus 6dBc maximum, Minus 8dBc typical

PRIMARY POWER..... 190-260 VAC, single phase
50/60 Hz
3 KVA maximum

CONNECTORS

RF input.....	Type N female on rear panel
RF output.....	Type N female on rear panel
RF output sample port.....	Type N female on rear panel
Pulse input.....	Type BNC female on rear panel

COOLING..... Forced air (self contained fans), air entry and exit in rear.

WEIGHT..... 72 kg (170 lb)

SIZE (WxHxD)..... 50.3 x 39.4 x 77.5 cm
19.8 x 15.5 x 30.5 in.