

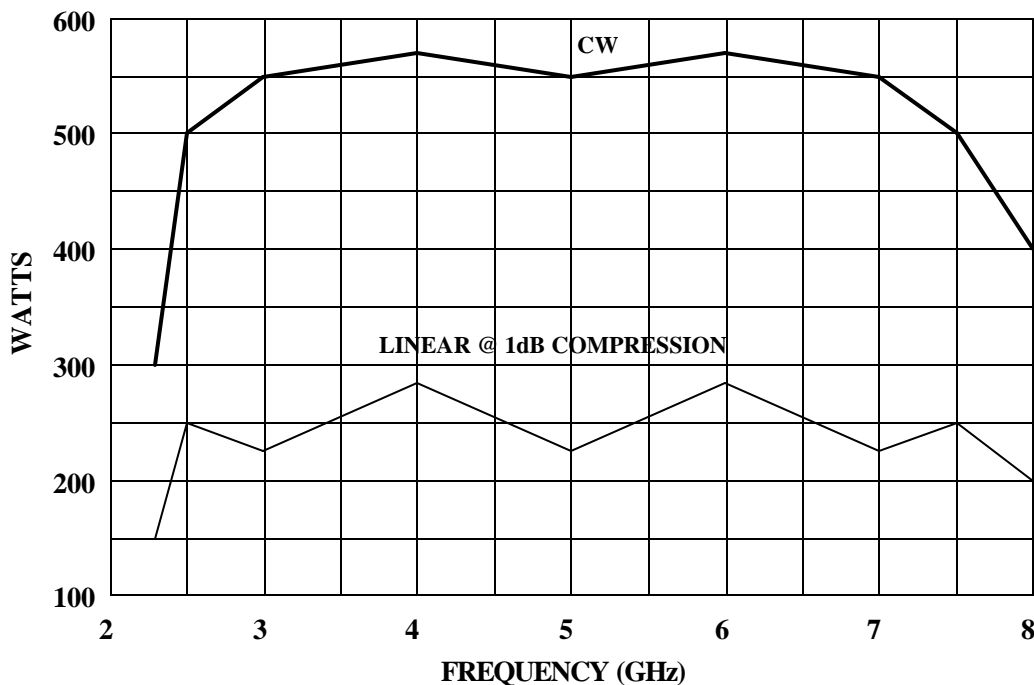
The Model 500T2G8 is a self contained, forced air cooled, broadband traveling wave tube (TWT) microwave amplifier designed for applications where instantaneous bandwidth and high gain are required. A reliable TWT provides a conservative 500 watts minimum at the amplifier output connector. Stated power specifications are at fundamental frequency.

The amplifier's front panel digital display shows forward and reflected output 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 reflected power warning and remote. Standard features include a built-in IEEE-488 (GPIB) interface, 0dBm input, 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, this unit is designed for benchtop use, but can be removed from the cabinet for rack mounting. The Model 500T2G8 provides readily available RF power for a variety of applications in Test and Measurement, (including EMC RF susceptibility testing), Industrial and University Research and Development, and Service applications.

See model configuration for primary power and package alternatives.

500T2G8 TYPICAL POWER OUTPUT



SPECIFICATIONS

Model 500T2G8

POWER (fundamental), CW, @ OUTPUT CONNECTOR

Nominal.....	541 watts
Minimum	500 watts
Linear @ 1 dB Compression.....	125 watts minimum
FLATNESS	±8 dB maximum, equalized for ±5 dB maximum at rated power
FREQUENCY RESPONSE	2.5 - 7.5 GHz instantaneously
INPUT FOR RATED OUTPUT.....	1.0 milliwatt maximum
GAIN (at maximum setting)	57 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 reflected power exceeding 100 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.
MODULATION CAPABILITY.....	Will faithfully reproduce AM, FM, or pulse modulation appearing on the input signal. AM peak envelope power limited to specified power.
NOISE POWER DENSITY.....	Minus 64 dBm/Hz (maximum) Minus 70 dBm/Hz (typical)
HARMONIC DISTORTION.....	Minus 3dBc maximum, Minus 3.5dBc typical
CONNECTORS	
RF input.....	Type N female on rear panel
RF output.....	7-16 DIN female on rear panel
RF output sample port.....	Type N female on rear panel
GPIB.....	IEEE – 488 (f) on rear panel
Interlock	DB-15 (f) on rear panel
COOLING.....	Forced air (self contained fans), air entry and exit in rear.

MODEL CONFIGURATIONS
Model 500T2G8

<i>Model Number</i>	<i>Description</i>	<i>Primary Power</i>	<i>Weight</i>	<i>Size (W x H x D)</i>
500T2G8	With removable enclosure	208 VAC ± 10% three phase 50/60 Hz 3.5 KVA maximum	68kg (150 lbs)	50.3 x 25.4 x 68.6 cm 19.8 x 10.0 x 27 in
500T2G8M2	Shipped w/o an outer cabinet	208 VAC ± 10% three phase 50/60 Hz 3.5 KVA maximum	55kg (120 lbs)	48.3 x 22.2 x 66.1 cm 19.0 x 8.75 x 26 in
500T2G8M3	With removable enclosure	190-260 VAC single phase 50/60 Hz 3.5 KVA maximum	68kg (150 lbs)	50.3 x 25.4 x 68.6 cm 19.8 x 10.0 x 27 in
500T2G8M4	Shipped w/o an outer cabinet	190-260 VAC single phase 50/60 Hz 3.5 KVA maximum	55kg (120 lbs)	48.3 x 22.2 x 66.1 cm 19.0 x 8.75 x 26 in
500T2G8M5	Enclosure removed for rack mounting – slides and front handles installed	208 VAC ± 10% three phase 50/60 Hz 3.5 KVA maximum	57kg (125 lbs)	48.3 x 22.2 x 66.1 cm 19.0 x 8.75 x 26 in
500T2G8M6	Enclosure removed for rack mounting – slides and front handles installed	190-260 VAC single phase 50/60 Hz 3.5 KVA maximum	57kg (125 lbs)	48.3 x 22.2 x 66.1 cm 19.0 x 8.75 x 26 in
500T2G8M1	<i>See Separate Specification Sheet</i>			
500T2G8M7	<p>Shipped w/o an outer cabinet, flatness ±3 dB max at rated power, and a video pulse capability to offer blanking capability to use for noise quieting.</p> <p>VIDEO PULSE CAPABILITY</p> <ul style="list-style-type: none"> -Pulse Width: 0.05 microseconds min -Pulse Rate (PRF): 100 kHz max -RF Rise and Fall: 30 ns max (10% to 90%) -Delay: 300 ns max from pulse input to RF90% -Pulse width distortion: ±30 ns max (50% points of output pulse width compared to 50% points of input pulse width) <p>NOISE POWER DENSITY</p> <ul style="list-style-type: none"> -(pulse off): Minus 140 dBm/Hz (typical) <p>CONNECTOR</p> <ul style="list-style-type: none"> -Video: BNC-female on rear panel 	190-260 VAC single phase 50/60 Hz 3.3 KVA maximum	55 kg (120 lbs)	48.3 x 22.2 x 66.1 cm 19.0 x 8.75 x 26 in