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MODEL 1000T2G8B
M1, M2, M3, M7, M8
1000 WATTS CW
2.5 - 7.5 GHz

The Model 1000T2G8B is a self contained, forced air cooled, broadband traveling wave tube (TWT) microwave amplifier designed for applications where instantaneous bandwidth, high gain and high power output are required. Reliable TWT subsystems provide a conservative 1000 watts minimum over most of the frequency range at the amplifier output connector. Stated power specifications are at fundamental frequency.

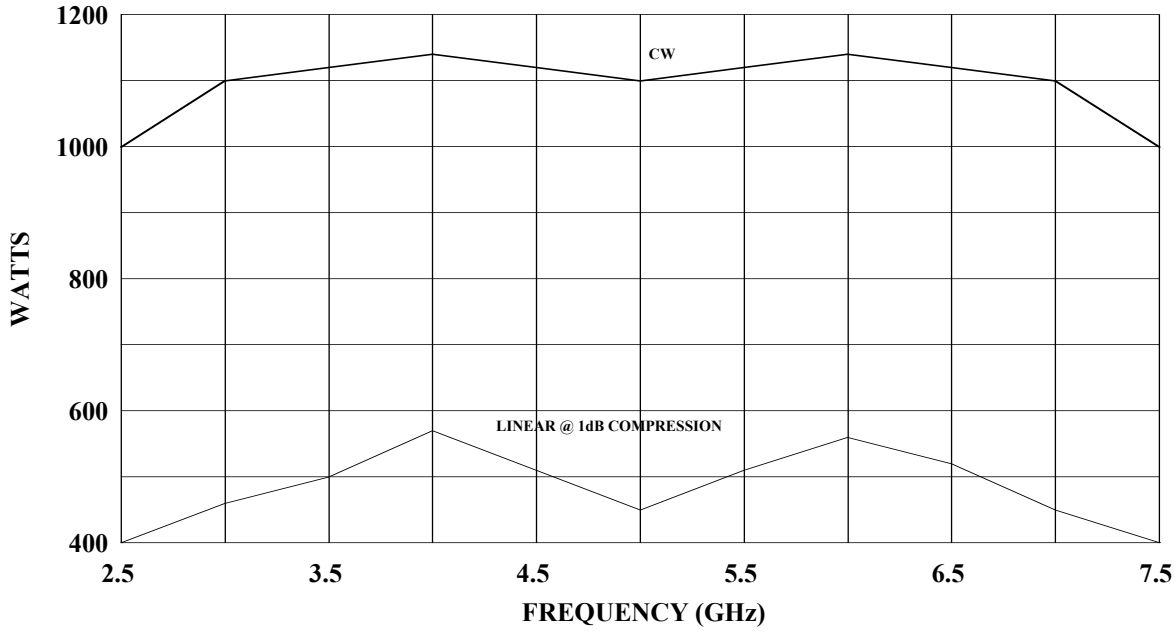
The amplifier's front panel digital display shows forward and reflected output plus extensive system status information accessed through a series of menus via soft keys. Status indicators include power on, warm-up, standby, operate, faults, excess reflected power warning and remote. Standard features include a built-in IEEE-488 (GPIB) interface, 0dBm input, VSWR protection, gain control, RF output sample ports, 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.

The rated power is developed by efficiently power combining the outputs from two 535 watts (nominal) microwave tubes that are factory matched in gain and phase to offer moderate harmonic levels without added filters. Amplifier includes wheels, leveling feet and lifting hooks.

The Model 1000T2G8B 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. Unit is CE marked to comply with EMC European Directive 89/336/EEC for operation inside a shielded room.

Refer to the Model Configuration Chart for alternative configurations.

1000T2G8B TYPICAL POWER OUTPUT



REV052305

SPECIFICATIONS
Model 1000T2G8B

POWER (fundamental), CW, @ OUTPUT CONNECTOR

- ***Nominal*** ..... ***1100 watts***
- ***Minimum*** ..... ***900 watts minimum, 2.5-2.7GHz.***
  1000 watts minimum 2.7-7.5GHz.
- ***Linear @ 1 dB Compression*** ..... ***250 watts minimum***

FLATNESS ..... ***±8 dB maximum, equalized for***
±3 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) ..... ***60 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 200 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 85 dBm/Hz (maximum)***
Minus 95 dBm/Hz (typical)

HARMONIC DISTORTION ..... ***Minus 15 dBc maximum, Minus 17 dBc typical***

PRIMARY POWER ..... ***See Model Configuration***

CONNECTORS

- ***RF input*** ..... ***Type N female***
- ***RF output*** ..... ***See Model Configuration***
- ***RF output sample ports (forward and reflected)*** ..... ***Type N female***
- ***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 (approximate) ..... ***295 kg (650 lb)***

SIZE (WxHxD) ..... ***56 x 160 x 82.3 cm***
22.1 x 63 x 32.4 in

MODEL CONFIGURATIONS

Model Number	*Primary Power*	*RF Output Connectors*	*RF input and RF output sample ports connector location*	*Features*
1000T2G8B	*190-255 VAC, 3 phase, delta (4 wire) 50/60 Hz, 8.0 KVA max*	*Type WRD250D30 waveguide flange on rear panel*	*rear panel*	*-*
1000T2G8BM1	*360-435 VAC, 3 phase,WYE (5 wire) 50/60 Hz, 8.0 KVA max*	*Type WRD250D30 waveguide flange on rear panel*	*rear panel*	*-*
1000T2G8BM2	*190-255 VAC, 3 phase, delta (4 wire) 50/60 Hz,8.0 KVA max*	*2.5-4.0GHz, WRD200D24 4-7.5GHz, WRD350D24 waveguide flange on rear panel*	*rear panel*	*Frequency response 2.5-4.0GHz instantaneously, 4-7.5GHz instantaneously, Power 900 watts minimum from 2.5-3 GHz and 7-7.5 GHz, 1000 watts minimum from 3-7 GHz*
1000T2G8BM3	*360-435 VAC, 3 phase,WYE (5 wire) 50/60 Hz, 8.0 KVA max*	*2.5-4.0GHz, WRD200D24 4-7.5GHz, WRD350D24 waveguide flange on rear panel*	*rear panel*	*Frequency response 2.5-4.0GHz instantaneously 4-7.5GHz instantaneously, Power 900 watts minimum from 2.5-3 GHz and 7-7.5 GHz, 1000 watts minimum from 3-7 GHz*
1000T2G8BM4	*See Individual Specification Sheet. Version offers 400 Hz primary power and a blanking input.*			
1000T2G8BM5	*See Individual Specification Sheet. Version offers reduced harmonics using switched external filters and other special features.*			
1000T2G8BM6	*See Individual Specification Sheet. Version offers front panel connectors and other special features.*			
1000T2G8BM7	*190-255 VAC, 3 phase, delta (4 wire) 50/60 Hz, 8.0 KVA max*	*Type WRD250D30 waveguide flange on rear panel*	*front panel*	*-*
1000T2G8BM8	*See Individual Specification Sheet.*			