



# 产 品 手 册

仪器型号： AR放大器200T4G8

西安安泰测试科技有限公司

仪器维修|租赁|销售|测试



## 200T4G8

- M1, M3-M5
- 200 Watts CW
- 4GHz-8GHz

### Features

The Model 200T4G8 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 250 watt TWT provides a conservative 200 watts minimum at the amplifier output connector. Stated power specifications are at the 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, 0 dBm 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.

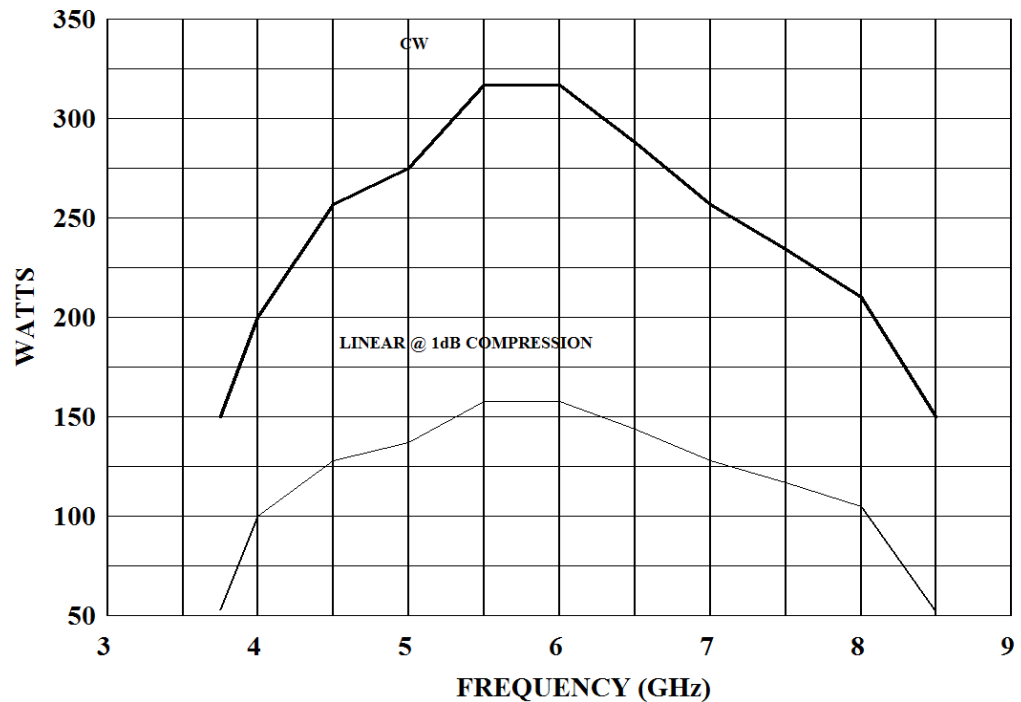
Modular design of the power supply and RF components allow for easy access and repair. Use of a switching mode power supply results in significant weight reduction.

Housed in a stylish contemporary cabinet, this unit is designed for benchtop use but can be removed from cabinet for rack mounting. The Model 200T4G8 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 package alternatives.

The export classification for this equipment is EAR99. These commodities, technology or software are controlled for export in accordance with the U.S. Export Administration Regulations. Diversion contrary to U.S. law is prohibited.

200T4G8 TYPICAL POWER OUTPUT



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### Specifications

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#### POWER (fundamental), CW, @ OUTPUT

##### CONNECTOR:

Nominal: 262 watts  
Minimum: 200 watts  
Linear @ 1 dB Compression: 100 watts minimum

**FLATNESS:**  $\pm 6$  dB maximum at rated power

**FREQUENCY RESPONSE:** 4-8 GHz instantaneously

**INPUT FOR RATED OUTPUT:** 1.0 milliwatt maximum

**GAIN (at maximum setting):** 53 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 40 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 4 dBc maximum; Minus 7.0 dBc typical

**PRIMARY POWER:** 190-260 VAC, 50/60 Hz single phase, 2.0 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  
GPIO: IEEE (f) on rear panel  
Interlock: DB-15 (f) on rear panel

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

**EXPORT CLASSIFICATION:** EAR99

### Model Configurations

Model Number	Description	Weight	Size (W x H x D)
200T4G8	With removable enclosure	54 kg (120 lb)	50.3 x 29.7 x 68.6 cm 19.8 x 11.7 x 27 in
200T4G8M1	Shipped without an outer cabinet	41 kg (90 lb)	48.3 x 26.7 x 68.6 cm 19.0 x 10.5 x 27 in
200T4G8M3	Enclosure removed for rack mounting – slides and front handles installed	43 kg (95 lb)	48.3 x 26.7 x 68.6 cm 19.0 x 10.5 x 27 in
200T4G8M4	See separate specification sheet.		
200T4G8M5	Enclosure removed. Side carry handles and front pull handles installed	41 kg (90 lb)	48.3 x 26.7 x 68.6 cm 19.0 x 10.5 x 27 in