



**Model 300TR2z5G7z5**  
**300 Watts CW**  
**2.5GHz–7.5GHz**

The Model 300TR2z5G7z5 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 300 watts minimum at the amplifier output connector. Stated power specifications are at the fundamental frequency.

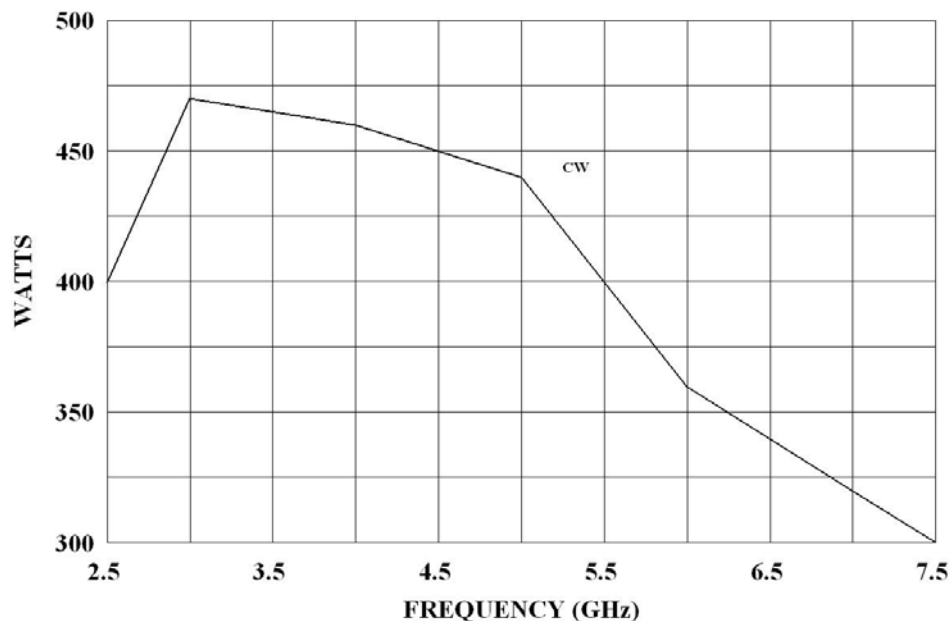
The amplifier's front panel digital display shows forward and reflected output plus extensive system status information accessed through a series of menus via soft keys. Status indicators include power on, warm-up, standby, operate, faults, excess reflected power warning and remote. Standard features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

This unit is designed for 19 inch rack mounting, offers four side mounted carry handles, plus non-slip feet for bench top use. Model 300TR2z5G7z5 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.

Contact AR RF/Microwave Instrumentation for information on other models with alternative packaging and features.

**300TR2z5G7z5 TYPICAL POWER OUTPUT**



## SPECIFICATIONS, MODEL 300TR2z5G7z5

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

Nominal ..... 350 watts  
Minimum ..... 300 watts

FLATNESS .....  $\pm 12$  dB maximum

FREQUENCY RESPONSE ..... 2.5-7.5 GHz instantaneously

INPUT FOR RATED OUTPUT ..... 1.0 milliwatt maximum

GAIN (at maximum setting) ..... 55 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 fold back protection at 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.

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 90 dBm/Hz typical

HARMONIC DISTORTION ..... Minus 3 dBc maximum, minus 4.5 dBc typical

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

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.

SIZE (W x H x D) ..... 48.3 x 26.7 (6U) x 68.6 cm, 19 x 10.5 (6U) x 27 in

WEIGHT (approximate) ..... 41 kg, 90 lb