

# 250 W and 320 W TWT Amplifiers

## RF Output Power From 8.0 to 18.0 GHz

4RU TWTA provides minimum of 225 W at the flange.

### Versatile

Ultra-wide band, automatic fault recycle, user friendly microprocessor-controlled logic with integrated computer interface, VSWR soft-fail protection, digital metering, and quiet operation for the laboratory environment.



### Efficient

Utilized dual-depressed collector helix traveling wave tube for maximum 1.5 kVA operation.

### Global Applications

230 VAC operation. Meets International Safety Standard EN61010 and Electromagnetic Compatibility 2004/108/EC.

### Model VZM-6993J5

250 watt and 320 W M-band TWTA  
for **EMC/EMI Test Applications**

#### OPTIONS

- Input isolator (-1 dB gain)
- Remote control panel
- 115 VAC external step-up transformer

### Worldwide Support

Modular design and built-in fault diagnostic capability, backed by CPI's worldwide 24-hour customer support network that includes more than twenty regional factory service centers.



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## 250 W and 320 W S/C-Band TWTAs

Specification	Model VZM-6993J5	
Frequency	8.0 to 18.0 GHz	
Output Power (min.), TWT	320 W CW	250 W CW
Output Power (min.), Flange	250 W CW	225 W CW
Bandwidth	10.0 GHz	
Gain	53.5 dB min. at rated power output; 53.5 dB typ. at small signal	
RF Level Adjust Range	0 to 20 dB continuous	
Gain Stability	±0.25 dB/24 hr max. (after 30 minute warmup and at constant drive and temperature)	
Gain Variation	12 dB pk-pk typ. over 10.0 GHz bandwidth	
VSWR	Input Output Load	2.5:1 typ, 1.5:1 max. with optional input isolator 2.5:1 max.
		1.5:1 max. full spec compliance; 2.0:1 max. continuous operation; any value without damage
Residual AM	-50 dBc below 10 kHz; -20[1.3 + log F (kHz)] dBc, 10 kHz to 500 kHz; -85 dBc above 500 kHz	
Phase Noise	Meets IESS 308/309 with 3 dB margin	
Noise and Spurious	-50 dBc typ. excluding harmonics	
Harmonic Content	-3 dBc typ. at lower band edge, decreasing to -15 dBc typ. at upper band edge	
Prime Power	220 to 240 VAC single phase ±10%, 2 wire, 47 to 63 Hz	
Power Consumption	1.4 kVA typ, 1.5 kVA max.	
Inrush Current	200%	
Operating Temperature	-10°C to +40°C (-40°C to +70°C non-operating)	
Relative Humidity	95% non-condensing	
Operating Altitude	10,000 ft above sea level (3,048 m), with standard adiabatic de-rating of 2° per 1,000 feet; 40,000 ft non-operating	
Shock and Vibration	Designed to meet conditions normally encountered in the laboratory	
Acoustic Noise	65 dBA max. at three feet from amplifier	
Cooling	Forced air with integral blower. Rear air intake and exhaust.	
Input RF Connector	Type N Female	
Output RF Connector	WRD-750	
RF Power Monitors	Type N Female	
Dimensions	19" H x 7" W x 24.0" L (483 x 178 x 610 mm)	
Weight	75 lbs (34.1 kg) max.	
Safety	Meets EN61010	