#### Ka-Band

# **150 W CW TWT Power Amplifier**

## **Efficient and Cost Effective**

Mounting at the antenna improves performance through minimized cable losses and saves cost in system design. Employs a high efficiency helix traveling tube, reducing operating costs.

#### **Simple to Operate**

User-friendly microprocessor-controlled logic with integrated RS422/485 serial, GPIB or Ethernet interface. Digital metering is standard.

#### **Easy to Maintain**

Modular design and built-in fault diagnostic capability via remote monitor and control.

### **Global Applications**

Meets International Safety Standard EN-60215, Electromagnetic Compatibility 2014/30/EU and Harmonic Standard EN-61000-3-2 to satisfy worldwide requirements.

#### **Worldwide Support**

Backed by more than four decades of satellite communications experience, and CPI's worldwide 24-hour customer support network which includes over twenty regional factory service centers.



Model VZA2791J1 150 W CW power amplifier for EMI/EMC testing applications

**OPTIONS** 

Outdoor operation



#### Ka-Band

Specifications

#### **150 W CW TWT Power Amplifier**

Specification	Model VZA2791J1
Electrical Specifications	
Frequency	26.5 to 40.0 GHz
Output Power (min.)	
TWT CW Power Flange	150 W (54.0 dBm) 100 W (50.0 dBm) min, 125 W (51.0 dBm) typ.
Bandwidth	13.5 GHz
bandwidth	50 dB min. at rated power output
Gain	53 dB min. at small signal
Gain Stability	$\pm 0.25$ dB/24 hour max. (at constant drive and temp.) $\pm 1.0$ dB over temperature range
Small Signal Gain Slope	±0.025 dB/MHz max.
Small Signal Gain Variation	±5.0 dB pk-pk across full bandwidth
RF Level Adjust Range	0 to 20 dB typ.
Attenuator Step Size	0.1 dB typ.
Input/Output VSWR	2:1 max.
Load VSWR	1.5:1 max; no degradation, infinite VSWR without damage
Phase Noise	IESS 308 continuous mask
Noise and Spurious	-50 dBc max.
AM/PM Conversion	2.5%dB max. for a single carrier up to 6 dB below rated power (1.0°dB max, up to 3 dB OBO with linearizer option)
Primary Power	100-240 VAC ± 10% single phase, 47-63 Hz
Power Consumption	650 VA typ. at saturate RF output power; 750 VA max.
Power Factor	0.95 min.
Environmental Specifications	
Ambient Temperature	-40°C to +45°C operating
Relative Humidity	100% condensing
Altitude	10,000 ft. with standard adiabatic derating of 2°C/1000 ft, operating; 50,000 ft. non-operating
Shock and Vibration	20 g <sub>peak</sub> estimated, truck transportation
Mechanical Specifications	
Cooling	Forced air with integral blower
RF Input Connection	WR28F (WR34F optional)
RF Output Connection	WR34G (WR28G optional)
Remote Interface	RS422/485 and RS232 serial, Ethernet interface optional, GPIB
RF Output Monitor	2.9 mm SMA female
Dimensions (W x H x D)	10.25 x 9.5 x 20.0 in. (261 x 242 x 508 mm) not including handles or connectors
Weight	55 lbs (25 kg) with no options
Heat and Acoustic	
Heat Dissipation	450 W typ.
Acoustic	65 dBA typ.

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Quality Management System - ISO 9001:2008

For more detailed information, please refer to the corresponding CPI technical description if one has been published, or contact CPI. Specifications may change without notice as a result of additional data or product refinement. Please contact CPI before using this information for system design.

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