

# CPI 900W M-Band TWT System

## Compact

Provides 900 watts of power in the 8.0 to 18.0 GHz frequency band in a compact 19-inch rack-mount multiple drawer configuration suitable for wideband testing.

## Efficient and Reliable

Employs CPI dual-depressed collector helix traveling wave tubes, increasing efficiency by a nominal 20% over conventional single collector TWTs, and a power supply designed with a minimum number of parts for maximum uptime.

## Simple to Operate

Integrated microprocessor control lets the user adjust and monitor all operating parameters from one easy-to-read local or remote panel, using straightforward menu-driven commands. Includes a built-in interface and serial bus for operation from the station computer.

## Safety

Conforms to international safety and EMC compliance standards.

## Easy to Maintain

Modular design provides for easy installation and maintainability in the field.

## Worldwide Support

Backed by over 35 years of satellite communications experience, and CPI's worldwide 24-hour customer support network that includes more than 20 regional factory service centers.



## Model VZM-2780P2

CPI 900W M-Band TWT System  
for **Instrumentation Applications**

### OPTIONS

- Mimic Remote Control Panel
- Octave External Harmonic Filters
- Octave Output Isolators



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## CPI 900W M-Band TWT System

Specification	Model VZM-2780P2
Frequency	8.0 to 18.0 GHz
TWT Model Number	VTM6392M4B
Output Power (min.), TWT Output Power (min.), Flange	1000 W min. 900 W min.
Gain	60 dB min. at rated power output; 63 dB typ. at small signal
RF Level Adjust Range	0 to 20 dB continuous
Output Power Adjustability	±0.1 dB
Gain Stability (typical)	±0.25 dB/24 hr max. (at constant drive and temp.)
Small Signal Gain Slope	0.02 dB/MHz max.
Small Signal Gain Variation (typical)	10.0 dB pk-pk max. over the 10 GHz bandwidth
Input VSWR	1.5:1 max.
Output VSWR	2.0:1 max.
Load VSWR	2.0:1 max. for full spec compliance; any value without damage
Residual AM	-45 dBc up to 4 kHz; -20 [1.25 + log F (kHz)] dBc, 4 kHz to 500 kHz (F in kHz); 80 dBc above 500 kHz
Harmonic Content	-10 dBc typ. at 8 GHz
Primary Power	208/120 V ±10%, or 380-415/220-240 V ±10%, 47-63 Hz; 5 wires are: Phase 1, 2 & 3, neutral and ground connection. Neutral (wire 5 can be used if available)
Power Factor	0.90 min. (at 50 Hz)
Power Consumption	13.8 kVA typ. 15.0 kVA max
Ambient Temperature	-10° to +40°C operating -20° to +70°C non-operating
Relative Humidity	95% non-condensing
Altitude	Up to 10,000 ft (3000 m) with standard adiabatic derating of 2%/1000 ft.
Shock and Vibration	Designed to meet conditions normally encountered in the laboratory
Acoustic Noise	72 dBA one meter from front panel
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Cooling (TWT)	Forced air with integral blower and power supply fan. Maximum external pressure loss allowable: 0.25 inch water gauge.
RF Input Connection	Type N female
RF Output Connection	Type WRD-750
RF Power Monitors	Type-N female
Dimensions (W x H x D) RF Drawers (each) Power Supplies (each)	19 x 17.5 x 28 in. (483 x 445 x 711 mm) 19 x 8.75 x 24 in. (483 x 223 x 610 mm)
Weight Qty (2) RF Drawers Qty (2) Power Supplies Qty (2) Interconnects	360 lbs (164 kg) 200 lbs (90 kg) 20 lbs (9 kg)