

# 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



## 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
Acoustic Noise	72 dBA one meter from front panel
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)

Distributed by: Reliant EMC LLC, 3311 Lewis Ave, Signal Hill CA 90755, 408-916-5750, www.reliantemc.com



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.

MKT 330, ISSUE 3 dated AUG 2015