

CPI 900W L-Band TWT System for Instrumentation Applications

Model VZL2780P2

Compact

Provides 900 watts of power in the 1.0 to 2.5 GHz frequency band in a compact 19-inch rack-mount multiple drawer configuration 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 two decades of satellite communications experience, and CPI's worldwide 24-hour customer support network that includes sixteen regional factory service centers.

L-Band



L-Band

900W TWT High Power System



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OPTIONS & COMPANION PRODUCTS:

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

SPECIFICATIONS, VZL2780P2

Electrical

Frequency	1.0 to 2.5 GHz
Output Power	
Combined TWTs	1000 W min.
Flange	900 W min.
Bandwidth	1.5 GHz
Gain	60 dB min. at rated power output; 63 dB typ. at small signal
RF Level Adjust	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 1.5 GHz bandwidth
Input VSWR	1.65:1 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	-6 dBc typ. at 1 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.

Environmental (Operating)

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

Mechanical

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 7/16 coaxial female
RF Power Monitors	Type-N female
Dimensions (W x H x D)	
RF Drawers (each)	19 x 17.5 x 28 in. (483 x 445 x 711 mm)
Power Supplies (each)	19 x 8.75 x 24 in. (483 x 223 x 610 mm)
Weight	
Qty (2) RF Drawers	230 lbs (104 kg)
Qty (2) Power Supplies	200 lbs (90 kg)
Qty (2) Interconnects	20 lbs (9 kg)

This product is subject to the U.S. International Traffic in Arms Regulations (ITAR). Sale of this product is subject to US Government approval. In accordance with part 126.1 of the ITAR, it is the policy of the United States to deny licenses and other approvals for the sales, exports/ imports, and or transfer of items subject to the ITAR destined for or originating in certain countries in which the U.S. maintains an arms embargo.



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For more detailed information, please refer to the corresponding CPI Technical Description.

Note: Specifications may change without notice as a result of additional data or product refinement.

Please contact CPI before using this information for system design.