## CPI 900W S/C-Band TWT System

for Instrumentation Applications

#### Model VZSC2780P2

#### Compact

Provides 900 watts of power in the 2.0 to 8.0 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.





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# OPTIONS & COMPANION PRODUCTS:

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

### SPECIFICATIONS, VZSC2780P2

#### **Electrical**

Frequency 2.0 to 8.0 GHz
TWT Model Number VTG6292 (modified)

**Output Power** 

Combined TWTs 1000 W min.
Flange 900 W min.

Bandwidth 6.0 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)  $\pm 0.25 \text{ dB/24 hr max.}$ 

(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 6 GHz bandwidth

Input VSWR 1.4:1 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 -8 dBc typ. at 2 GHz

 Primary Power
  $208/120 \text{ V} \pm 10\%$ , or

 3 phase, 5 wire
  $380-415/220-240 \text{ V} \pm 10\%$ 

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

Up to 10,000 ft (3000 m) with standard adiabatic derating of 2°/1000 ft.

Designed to meet conditions normally

encountered in the laboratory

Acoustic Noise 72 dBA one meter from front panel

#### Mechanical

**Shock and Vibration** 

Altitude

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 SC female
RF Power Monitors Type-N female

Dimensions (W x H x D)

Power Supply (each)

RF Drawer (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)

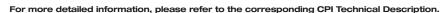
Weight

QTy (2) RF Drawers total 360 lbs (164 kg)
Qty (2) Power Supplies total 200 lbs (90 kg)
Qty (2) Interconnects total 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.







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

