CPI 500 W Rack-Mount TWTAs

SC-Band

For EMC/EMI and other instrumentation applications. Provides 500 watts of power in the 2.0 to 8.0 GHz frequency band in a compact 19-inch rack-mount dual drawer configuration for wideband testing.

CPI 500 W SC-band TWTA,
Model VZSC2780C2

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 foroperation from the station computer.

Meets Global Requirements

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

Worldwide Support

CPI satcom amplifiers are backed by over 40 years of satellite communications experience, and CPI's global customer support network, including regional factory service centers located worldwide.

OPTIONS:

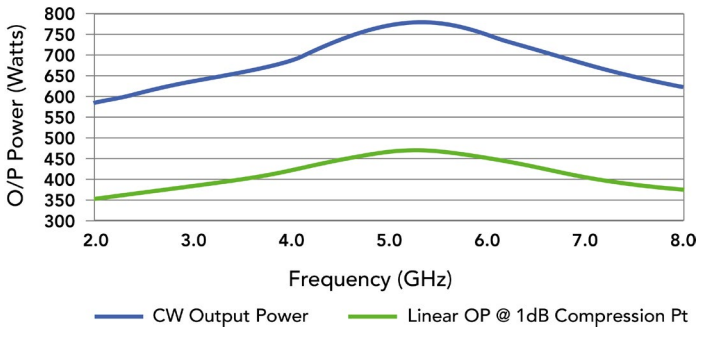
- Mimic remote control panel
- External harmonic filters
- External output isolator
- Ethernet interface

Quality Management System - ISO 9001:2015

CE

Specification	CPI Model VZSC2780C2, 500 W SC-Band Rack Mount TWTA
Output Frequency	2.0 to 8.0 GHz
Output Power (min.) TWT Flange	 550 W min. 500 W min.
Gain	57 dB at rated power output, 57 dB typ. at small signal
RF Level Adjust Range	0 to 20 dB
Output Power Adjustability	±0.1 dB
Gain Stability	±0.25 dB/24 hour typ, at constant drive and temperature, after 30 minute warmup
Small Signal Gain Slope	0.02 dB/MHz max.
Gain Variation	10 dB pk-pk typ. over the 10 GHz bandwidth
Input VSWR	2.5:1 typical, 1.7:1 with option input isolator.
Output VSWR	2.5:1 typical
Load VSWR	2.0:1 for full spec. compliance; any value operation without damage
Residual AM	-45 dBc up to 4 kHz; -20 [1.25 + logF (kHz)] dBc, 4 kHz to 500 kHz; -80 dBc above 500 kHz
Noise and Spurious	-60 dBW/4 kHz
Harmonic Content	-6 dBc typical at 8 GHz
Primary Power	Voltage: Single phase, 208-120 VAC ±10%, or 380-415/220-240 VAC ±10%; 5 wires are: phase 1, 2 & 3, neutral and ground (wire 5 can be used if available); Frequency: 47-63 Hz, 15 A max.
Power Factor	0.90 min. at 50 Hz
Power Consumption	6.9 kVA typ, 7.5 kVA max.
Inrush Current	200% max.
Ambient Temperature	-10˚C to +40˚C operating, -20˚C to +70˚C non-operating
Relative Humidity	95% non-condensing
Altitude	10,000 ft. with standard adiabatic derating of 2˚C/1000 ft. operating; 50,000 ft. non-operating
Shock and Vibration	As normally encountered in a protected engineering laboratory environment
Cooling	Forced Air with integral blower. Rear air intake and exhaust. Maximum external pressure loss allowable: 0.5" water column
Connections	RF Input: Type N Female; RF output: Type SC Female; RF output monitors: Type N Female, -50 dB nom.
M&C Interface	Serial RS232 or RS422/485 (Ethernet optional)
Dimensions, W x H x D	RF Drawer: 19 x 17.5 x 28 inches (483 x 445 x 711 mm); Power Supply: 19 x 8.75 x 24 inches (483 x 223 x 610 mm)
Weight	RF Drawer: 180 lbs (82 kg) nom; Power Supply: 100 lbs (45 kg); Interconnect Cables: 10 lbs (4.5 kg)
Acoustic noise	72 dBA @ 1 meter from front panel

VZSC2780C2 (2.0 - 8.0 GHz)



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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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