S/C-Band

500 W Rack-Mount TWTA

Compact
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.

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.

Global Applications
230 VAC operation. Meets International Safety Standard EN-60215 and Electromagnetic Compatibility 2014/30/EU standards to satisfy world requirements.

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 world wide 24-hour customer support network that includes more than twenty regional factory service centers.

Model VZSC-2780C2
2.0 to 8.0 GHz, 500 watt S/C-band rack-mount TWTA for **test and measurement applications**

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

Communications & Power Industries

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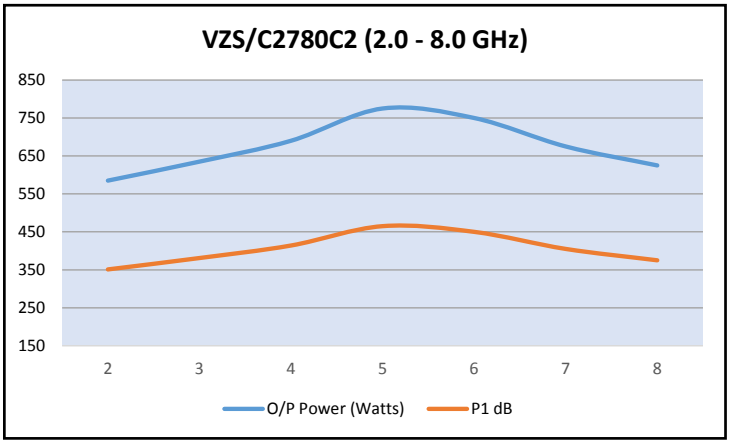
S/C-Band **2.0 - 8.0 GHz**

500 W Rack Mount TWTA

Specification	Model VZS/C-2780C2
Output Frequency	2.0 to 8.0 GHz
Output Power (min.)	550 W min. (TWT) / 500 W min. (HPA flange)
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 6 GHz bandwidth
Input VSWR	1.4:1 max.
Output VSWR	1.4:1 max.
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: 3-phase, 208 VAC ±10%, or 380-415 VAC ±10%; 5 wires are: phase 1, 2 & 3, neutral and ground; 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



VZS/C-2780C2 typical Psat and P1dB output power, dBm

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CE

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.

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