

Compact Medium Power Amplifier for Test and Measurement Applications

4.0 to 10.0 GHz

The VZS/X-2777L1

200 Watt TWT
Compact Medium
Power Amplifier.



4.0 to 10.0 GHz

200W Compact Medium Power Amplifier

Compact

Three rack units tall (5.25 in/133 mm).

Versatile

Ultra wide-band, automatic fault recycle, user friendly microprocessor-controlled logic with integrated computer interface, VSWR soft-fail protection, digital metering, quiet operation for a laboratory environment.

IEEE interface and an integral solid state preamplifier are included as standard features.

Efficient

Utilizes dual-depressed collector helix traveling wave tube for maximum 1.5 kVA operation.

Global Applications

230 VAC operation. Designed to meet International Safety Standard EN61010 and Electromagnetic Compatibility 89/336/EEC.

Easy to Maintain

Modular design and built-in fault diagnostic capability backed by CPI's worldwide 24-hour customer support network that includes 9 regional factory Service Centers.

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INSTRUMENTATION
AMPLIFIERS

PRELIMINARY

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4.0 to 10.0 GHz

OPTIONS:

- *Input Isolator (-1 dB gain)*
- *Remote Control Panel*
- *115 VAC External Step-Up Transformer*

SPECIFICATIONS, VZS/X-2777L1

Electrical

| | |
|----------------------------|--|
| TWT Model Number | VTC6265M* |
| Frequency | 4.0 to 10.0 GHz |
| Output Power | |
| TWT | 200 W min. typical |
| Flange | 170 W min. typical |
| Gain | 50 dB min. at rated power output; 55 dB min. at small signal |
| RF Level Adjust | 0 to 20 dB |
| Gain Stability | ±0.25 dB/24hr. max. (after 30 min. warmup and at constant drive and temperature) |
| Gain Variation | 12 dB pk-to-pk, typical |
| Input VSWR | 2.5:1 typical 1.5:1 max. (with optional input isolator) |
| Output VSWR | 2.5:1 typical |
| Load VSWR | 1.5:1 max. for full spec compliance 2.0:1 max. continuous operation |
| Residual AM (Typical) | -50 dBc below 10 kHz -20 (1.3 + log F kHz) dBc, 10 kHz to 500 kHz -85 dBc above 500 kHz |
| Phase Noise (Typical) | Meets IESS 308/309 with 3 dB margin |
| Noise and Spurious | -50 dBc typical excluding harmonics |
| Noise Figure | 15 dB max. |
| Harmonic Content (Typical) | -3 dBc typical at lower band edge decreasing to -15 dBc typical at upper band edge |
| Primary Power | |
| Voltage | 220-240 VAC ±10%, single phase |
| Frequency | 47-63 Hz |
| Power Consumption | 1.4 kVA typical 1.5 kVA max. |
| Inrush Current | 200% max. |

Environmental (operating)

| | |
|---------------------|---|
| Ambient Temperature | -10° to +40°C operating |
| Relative Humidity | 95% non-condensing |
| Altitude | 10,000 ft. with standard adiabatic derating of 2°C/1000 ft., operating |
| Shock and Vibration | As normally encountered in a protected engineering laboratory environment |
| Acoustic Noise | 65 dBA @ 3 ft. from amplifier |

Mechanical

| | |
|-------------------------|--|
| Cooling (TWT) | Forced air with integral blower. Rear air intake & exhaust. |
| RF Connectors | |
| Input | Type-N female |
| Output | Type-N female |
| RF Output Monitor | Type-N female |
| Dimensions, (W x H x D) | 19 x 5.25 x 24 in (483 x 133 x 610 mm) |
| Weight | 70 lbs (32 kg) |
| Safety | Designed to meet EN61010 |

PRELIMINARY



KEEPING YOU ON THE AIR
not up in the air

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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.