Compact Medium Power Amplifier

for Test and Measurement Applications

4.0 to 10.0 GHz

The VZS/X-2776L1

100 Watt TWT 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.

PRELIMINARY

satcom division

CPI Communications & Power Industries

INSTRUMENTATION AMPLIFIERS

45 River Drive / Georgetown, Ontario / Canada L7G 2J4
TEL: 905-877-0161 / FAX: 905-877-5327
E-MAIL: marketing@cmp.cpii.com
WEB: www.cpii.com/cmp

4.0 to 10.0 GHz

100W Compact Medium Power Amplifier

4.0 to 10.0 GHz

SPECIFICATIONS, VZS/X-2776L1

Electrical

TWT Model Number	VTC6265M*
Frequency	4.0 to 10.0 GHz
Output Power	
TWT	100 W min. typical
Flange	70 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

OPTIONS:

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

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formerly varian mep

KEEPING YOU ON THE AIR
not up in the air

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.

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