Compact Medium Power Amplifier
for Test and Measurement Applications

1.0 to 2.5 GHz

The VZL-6943J2

250 Watt TWT Compact Medium Power Amplifier.

Compact
Five rack units tall (8.75 in/222 mm).

Versatile
Ultra wide-band, automatic fault recycle, user friendly microprocessor-controlled logic with integrated computer interface, digital metering, electronic variable attenuation, soft fail when subjected to extreme load SWR conditions, quiet operation for a laboratory environment.

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

Global Applications
230 VAC operation. Meets 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

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1.0 to 2.5 GHz
250W Compact Medium Power Amplifier

1.0 to 2.5 GHz

SPECIFICATIONS, VZL-6943J2

Electrical

TWT Model Number	0102181700
Frequency	1.0 to 2.5 GHz
Output Power	
TWT	250W min. (typical 300W)
Flange	225W min. (typical 275W)
Gain	54 dB min. at rated power output; 56 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	18 dB pk-to-pk, typical
Input VSWR	2.5:1 max. 2.0:1 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	-50 dBc below 10 kHz -20 (1.3 +log F kHz) dBc, 10 kHz to 500 kHz -85 dBc above 500 kHz
Phase Noise	Meets IESS 308/309 with 3 dB margin
Noise and Spurious	-60 dBw/4 kHz
Noise Figure	15 dB max.
Harmonic Content	-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	2.6 kVA typical 3.0 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, -50 dB nominal
Dimensions (W x H x D)	19 x 8.75 x 26 in (483 x 222 x 661 mm)
Weight	110 lbs/50 kg
Safety	EN61010

OPTIONS:

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

ISO 9001

CE

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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