

## C-Band 4.25 kW TWT Compact Pulsed Amplifier

### VZC3530J1

#### Features:

- Rack mountable
- Waveguide output
- GPIB remote

#### Benefits:

- Compact high pulsed power
- Single phase AC power
- Local or remote control
- Wide RF bandwidth



#### Compact

Eight rack-units tall (14 in/356 mm).

#### Versatile

Wide band, automatic fault recycle, user-friendly microprocessor-controlled logic with integrated computer interface, digital metering, and quiet operation suitable for laboratory environments.

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

#### Global Applications

230 VAC operation. Designed to meet International Safety Standard EN61010 and Electromagnetic Compatibility 2004/108/EC.

#### Applications:

- Test and measurement systems

#### Easy to Maintain

Modular design and built-in fault diagnostic capability.

#### Worldwide Support

Backed by CPI's worldwide 24-hour customer support network that includes more than 20 regional factory service centers.



## 4.25 kW Compact Pulsed Amplifier - VZC3530J1

| Specifications                     |                                                                                                                                                |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Frequency</b>                   | 4.0 to 8.0 GHz                                                                                                                                 |
| <b>Output Power (min.), Flange</b> | 4250 W                                                                                                                                         |
| <b>Gain</b>                        | 66 dB min. at rated power (with no RF options);<br>>66 dB min. at small signal (with no RF options);                                           |
| <b>Gain Adjustment Range</b>       | 20 dB min.                                                                                                                                     |
| <b>Input VSWR</b>                  | 2.5:1 typical                                                                                                                                  |
| <b>Output VSWR</b>                 | 2.5:1 typical                                                                                                                                  |
| <b>Load VSWR</b>                   | 1.5:1 max. for full spec. compliance;<br>May oscillate with unshielded open due to coupling to input. Should not be tested with connector off. |
| <b>Pulse Width</b>                 | 0.1 $\mu$ s to 100 $\mu$ s                                                                                                                     |
| <b>PRF</b>                         | 50 kHz max.                                                                                                                                    |
| <b>Duty Cycle</b>                  | 6% max.                                                                                                                                        |
| <b>Delay</b>                       | 300 ns typ; 400 ns max.                                                                                                                        |
| <b>Droop</b>                       | 0.5 dB over 50 $\mu$ s                                                                                                                         |
| <b>NPO</b>                         | -10 dBm/MHz Beam On;<br>110 dBm/MHz Beam Off                                                                                                   |
| <b>Primary Power</b>               | 220 - 240 VAC, single phase 47- 63 Hz                                                                                                          |
| <b>Power Consumption</b>           | 2.0 kVA typical                                                                                                                                |
| <b>Filament Voltage</b>            | Reduction of 10% in standby for extended TWT life                                                                                              |
| <b>Inrush Current</b>              | 200% max.                                                                                                                                      |
| <b>Ambient Temperature</b>         | -10° to +40°C operating<br>-40° to +70°C non-operating                                                                                         |
| <b>Relative Humidity</b>           | 95% non-condensing                                                                                                                             |
| <b>Altitude</b>                    | 10,000 ft. with standard adiabatic derating of 2°C/1000 ft., operating;<br>40,000 ft., non-operating                                           |
| <b>Shock and Vibration</b>         | As normally encountered in a protected laboratory environment                                                                                  |
| <b>Cooling</b>                     | Forced air with integral blower<br>Rear air intake & exhaust;<br>0.10" water max. external pressure loss allowable                             |
| <b>RF Input Connection</b>         | Type N female                                                                                                                                  |
| <b>RF Output Connection</b>        | WRD-350 waveguide flange                                                                                                                       |
| <b>RF Output Monitor</b>           | Type N female, -46 dB nominal                                                                                                                  |
| <b>Dimensions (W x H x D)</b>      | 19 x 14 x 26 in. (483 x 356 x 661 mm)<br>excluding connectors, fans, handles and exhaust duct                                                  |
| <b>Weight</b>                      | 150 lbs (68 kg) max.                                                                                                                           |
| <b>Heat Dissipation</b>            | ≈1500 W                                                                                                                                        |
| <b>Safety</b>                      | EN61010                                                                                                                                        |
| <b>Acoustic Noise</b>              | 65 dBA @ 3 ft. from amplifier                                                                                                                  |

The values listed above represent specified limits for the product and are subject to change. The data should be used for basic information only. Formal, controlled specifications may be obtained from CPI for use in equipment design.

For information on this and other CPI products visit our webpage at [www.cpii.com/bmd](http://www.cpii.com/bmd), or contact:  
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