

# 8.0 kW Combined Pulse Amplifier

for Test and Measurement Applications

## The VZC-3530P2

8000 Watt TWT  
Compact Pulsed  
Amplifier

### Versatile

Modular assembly allows for either lower-powered multiple test applications or a single amplifier phase combined system of two VZC-3530J1 amplifiers achieving 8000 watts peak-pulsed output power.

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.

### Easy to Maintain

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

4.0 to 8.0 GHz



4.0 to 8.0 GHz

7.0 kW Compact Pulsed Amplifier

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## 4.0 to 8.0 GHz

### OPTIONS:

- Remote Control Panel
- Input Isolator (-1 dB Gain)

### SPECIFICATIONS, VZC-3530P2

#### Electrical

|                          |                                                                                                                                 |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Frequency                | 4.0 to 8.0 GHz                                                                                                                  |
| Output Peak Power (min.) |                                                                                                                                 |
| TWT                      | 9000 W combined                                                                                                                 |
| Flange                   | 8000 W typ, 7500 W min.                                                                                                         |
| Gain                     | 65 dB min. at rated power;<br>70 dB typical                                                                                     |
| Gain Adjustment Range    | 20 dB min.                                                                                                                      |
| Gain Stability           | ±0.25 dB/24hr max. (after 30 minute warmup<br>and at constant drive and temp.)                                                  |
| Input VSWR               | 2.5:1 typ;<br>1.5:1 typ. with optional input isolator                                                                           |
| Output VSWR              | 2.5:1 typ.                                                                                                                      |
| Load VSWR                | 1.5:1 max. for full spec. compliance;<br>Any value for continuous operation (soft fail<br>VSWR protection limits at 500 W peak) |
| Phase Noise              | 0.5°rms asynchronous ripple                                                                                                     |
| Pulse Width              | 0.07 to 50 µs                                                                                                                   |
| PRF                      | 50 kHz max, 100 kHz max. available as option                                                                                    |
| Duty Cycle               | 6% max.                                                                                                                         |
| Delay                    | 400 ns typ.                                                                                                                     |
| Droop                    | 0.5 dB over 50 µs                                                                                                               |
| NPO                      | -10 dBm/MHz Beam On;<br>-110 dBm/MHz Beam Off                                                                                   |
| Primary Power            | 220 - 240 VAC ±10%,<br>single phase 47-63 Hz                                                                                    |
| Power Consumption        | 2.2 kVA typ.<br>2.5 kVA max.                                                                                                    |
| Filament Voltage         | Reduction of 10% in standby for extended<br>TWT life (available as option)                                                      |
| Inrush Current           | 200% max.                                                                                                                       |

#### Environmental

|                     |                                                                                                         |
|---------------------|---------------------------------------------------------------------------------------------------------|
| Ambient Temperature | -10° to +40°C operating<br>-40° to +70°C non-operating                                                  |
| Relative Humidity   | 95% non-condensing                                                                                      |
| Altitude            | 10,000 ft. with standard adiabatic<br>derating of 2°C/1000 ft., operating;<br>40,000 ft., non-operating |
| Shock and Vibration | As normally encountered in a<br>protected laboratory environment                                        |

#### Mechanical

|                         |                                                                                                                       |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Cooling (TWT)           | Forced air with integral blower<br>Rear air intake & exhaust;<br>0.10" water max. external pressure<br>loss allowable |
| RF Input Connection     | Type N female                                                                                                         |
| RF Output Connection    | WRD-350 waveguide                                                                                                     |
| Dimensions (W x H x D)* | 19 x 37 x 27.5 in.<br>(483 x 940 x 699 mm)                                                                            |
| System Weight           | 300 lbs (136 kg)                                                                                                      |
| Heat Dissipation        | 2200 watts max.                                                                                                       |
| Safety                  | EN61010                                                                                                               |
| Acoustic Noise          | 65 dBA @ 3 ft. from amplifier                                                                                         |

\*Dimension exclude front handles, rear fans and exhaust ducts.

This product is subject to the U.S. International Traffic in Arms Regulations (ITAR). Sale of this product is subject to US Government approval. In accordance with part 126.1 of the ITAR, it is the policy of the United States to deny licenses and other approvals for the sales, exports/ imports, and or transfer of items subject to the ITAR destined for or originating in certain countries in which the U.S. maintains an arms embargo.



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.

