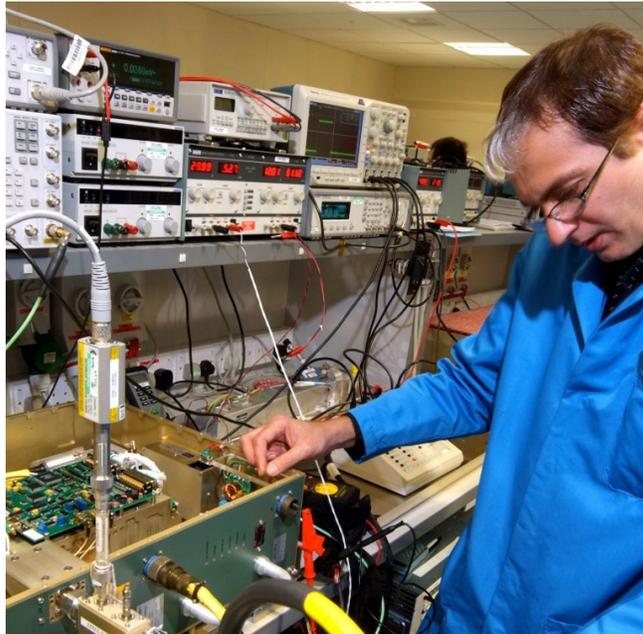


## CPI Electron Device Business - Traveling Wave Tube Transmitter



S-Band TWT transmitter testing

The PTX7948 is a packaged medium-power microwave transmitter that incorporates a high-voltage power supply unit (HVPSU), traveling wave tube (TWT) assembly, RF preamplifier, and output coupler within its chassis.

The component parts are designed and manufactured for use in harsh military applications, ensuring high reliability and ease of maintenance.

The transmitter's control interface allows for remote operation and status monitoring, providing several diagnostic outputs for test purposes.

The unit incorporates a reverse power protection circuit.

To learn more about CPI EDB's transmitter capabilities, contact CPI EDB at [ElectronDevices@cpiedb.com](mailto:ElectronDevices@cpiedb.com) or call +44 (0)20 8573 5555

### FEATURES:

- Frequency: S-Band (typically 3.1 -3.4 GHz)
- Duty cycle: Up to 4.5%
- Weight: 110.2 lbs (50 kgs) max

### BENEFITS:

- Excellent thermal management
- High electrical efficiency
- Qualified on numerous aircraft and ground mobile environments

### APPLICATIONS:

- Military Radar
- Ground mobile
- Naval
- Airborne

## Specification

The transmitter can be supplied for operation at alternative peak power and average power combinations depending upon the TWT selected.

The PTX7948 variant has typical operation as follows:

### Electrical

Frequency range	S-Band (typically 3.1 - 3.4 GHz)
Peak output power	11000 W
Gain	50 dB max
Duty cycle	Up to 4.5 %
Pulse length	20 $\mu$ s
PRF	50 kHz max
Maximum spurious FM	-90 dBc
Maximum random FM	-120 dBc/ Hz
Measured in 100 Hz bandwidth	
Prime power	3 phase, 4 wire 115 VAC line-neutral 400 H
TWT/gun type	Gridded helix or ring loop construction

### Mechanical

Mechanical outline	Dimensions 630 W x 480 L x 195 H (mm approx)
Weight	Not exceeding 110.2 lbs (50 kgs)
Cooling	Forced air (external)
Mounting	The unit can be supplied with or without chassis slide rails

### Application

Military radar, ground mobile, naval or airborne



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For more detailed information, please refer to the corresponding technical description if one has been published, or contact CPI TMD. Specifications may change without notice as a result of additional data or product refinement. Please contact CPI TMD before using this information for system design.