

## CPI Electron Device Business - CCTWT

The PT6055 pulsed coupled cavity TWT is an S-Band Traveling Wave Tube Amplifier.

The Peak Power is nominally 50 kW, the duty cycle 2.4% and the minimum gain 50 dB.

The RF input is an N-type coaxial connector and the RF output is in waveguide (CPR284F).



### Specification

#### Electrical (Nominal)

Cathode voltage (with respect to body)	-32 kV
Collector depression (with respect to body)	-10 kV
Cathode current	9 A
Interception current	3 A maximum
Duty cycle	2.4 % maximum
Heater voltage	9.3 V D.C.
Heater current	9.3 A
Cathode warm-up time	10 minutes
Grid bias	-500 V
Grid forward drive	+500 V
Grid current	10 mA
Grid capacitance	100 pF
Frequency band	2750 MHz to 3050 MHz
RF drive power	0.5 W maximum
Peak output power	50 kW minimum
Ion pump voltage	3.5 kV

#### Mechanical

Coolant	Forced air
Coolant flow rate	14 lbs per minute
Coolant pressure drop	9 inch WG at 20°C
Coolant inlet temperature	-15 to +60 °C
Gun cooling	No separate cooling required
Waveguide pressurization	Not required
Mass	41 kg
Electrical connections	Lying leads to connect with Amp type LGH4
RF waveguide output	CPR 284 F flange

RF input connector	N Type - co-axial
Mounting	Any position
Vac ion connection	Type to mate with UG931/U (MHV)

#### Other

Life 40,000 hours typical (end of life defined as when the peak output power has fallen to 40 kW peak with the nameplate conditions applied)	
X-radiation	0.7 mR per hour

#### FEATURES

- Frequency: 2.7 - 3.1 GHz
- Peak output power: 50 kW
- Duty cycle: 2.4% max
- 50 dB gain
- Forced air cooled
- PPM focused
- Coaxial type-n input

#### BENEFITS:

- Efficient
- Bandwidth
- Over 40 years of technical expertise

#### APPLIATIONS:

- Ground radar



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