

PTWT2G4G-1.9KW

2.0-4.0GHz 2.2KW (typ) Pulsed TWT Amplifier



MAIN FEATURES

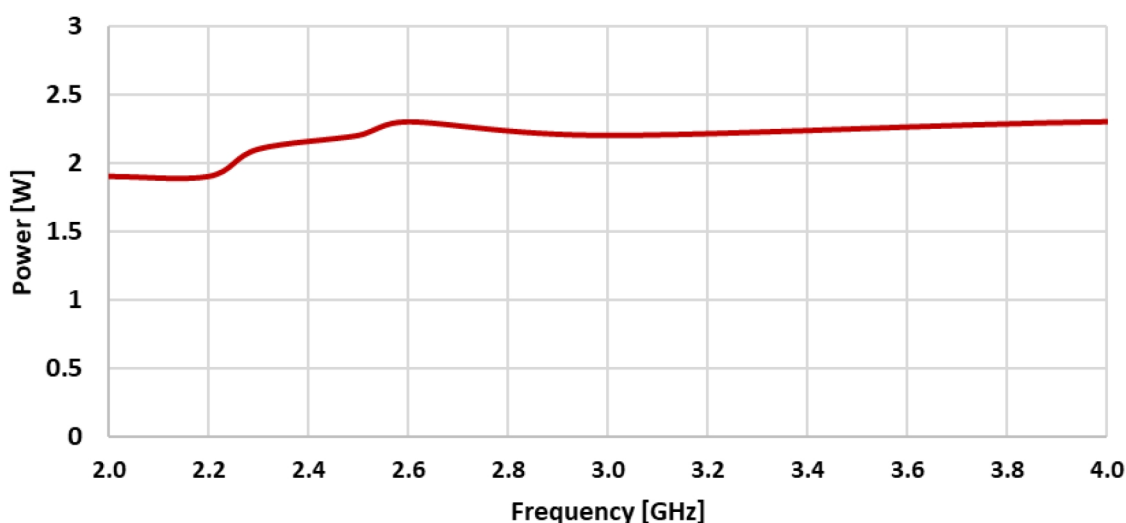
- User Interface
- Rugged, Ultra-Reliable Design
- Ethernet and GPIB Remote Interface
- 3 year warranty (1 Year on the tube)
- Plug and Play Field-Replaceable Power

The PTWT2G4G series of Pulsed TWT Amplifier provide outstanding RF performance. These 2.0 to 4.0 GHz TWTA's (traveling wave tube amplifiers) have field proven reliability and industry leading performance. This makes these amplifiers ideal for multiple high frequency high power applications including EMC / Radiated Immunity, Communications, EW, Radar, RF Component Testing, and scientific applications.

Operation safety and ease of use are paramount in Teseq Pulsed TWT amplifier product designs. The PTWT2G4G series includes a full complement of RF and hardware protection systems including high VSWR, over-current, voltage and TWT arc protection as well as redundant thermal and airflow sensors to prevent the TWT from overheating.

PTWT2G4G series includes a display screen and web page providing instant operational and critical parameter status, as well as built in self-test, advanced fault diagnostics and modular plug and play field replaceable power supplies. This modular design offers ease of service providing quick turn around times. In addition, these amplifiers will log operational hours and any tripped states with a date stamp throughout their life which greatly aids diagnostics.

PTWT2G4G-1.9KW



Technical Specifications

Frequency (min.) GHz	2 GHz
Frequency (max.) GHz	4 GHz
Psat (min)	1.9 kW
Psat (typ)	2.2 KW
Small Signal Gain	57.8 dB
Pulse Width Range	200 nsec to 50 µsec
PRF Range	Up to 100KHz
Duty Cycle	6%
Rise & Fall Time	50 nsec to 100 nsec
Pulse to Pulse Jitter	+/- 5 nsec
Pulse Width Jitter (Distortion)	+/- 5 nsec
Pulse Recovery Time	150 nsec
Pulse Delay	200 nsec to 300 nsec
Pulse Droop	0.5 dB /100 µsec or 0.25 dB/10 µsec
Power Output Stability	0.3 dB Pulse to Pulse at a Constant Drive Level
Pulse On / Off Ratio	80dB
Modulation Formats	AM, FM, Pulse
Output VSWR Tolerance	< 3:1
Maximum Input Power (no damage)	5 dBm
Stability	Unconditional
Output Impedance	50 Ohm
Input VSWR	2:1 (typical)
Output VSWR	2.5:1 (max)
2nd Harmonic	Typ +3.5dBc / Max +4.5dBc
Operating Temperature	0°C to +40°C
Non-Operating Temperture	-10°C to +50°C
Humidity	80% Max, non condensing
Supply Frequency	47 to 63 Hz
Supply Power (typ)	1.5 KVA
Pulse Input	Front Panel BNC Female, 5V TTL Into 50 ohms

General Specifications

Safety Interlock	BNC-female
Supply Voltage	"1-Phase: 200-264 V or 3-Phase: 187-230 VLL"
RF Input Connector	Type N female
RF Output Connector	Type N female
Com. Interface	GPIO & Ethernet
Dimensions	6U, 19 inch, 800mm (WxHxD)
Weight kg	45 kg
Cooling System	Air Cooled, Self Contained

Available Variants

Product	Configuration	Item #
PTWT2G4G-1.9KW-001	Front Panel RF Connectors	3-342040
PTWT2G4G-1.9KW-002	Rear Panel RF Connectors	3-342041