

## PTWT6G18G-1KW

### 6.0-18.0GHz 2KW (typ) Pulsed TWT Amplifier



#### MAIN FEATURES

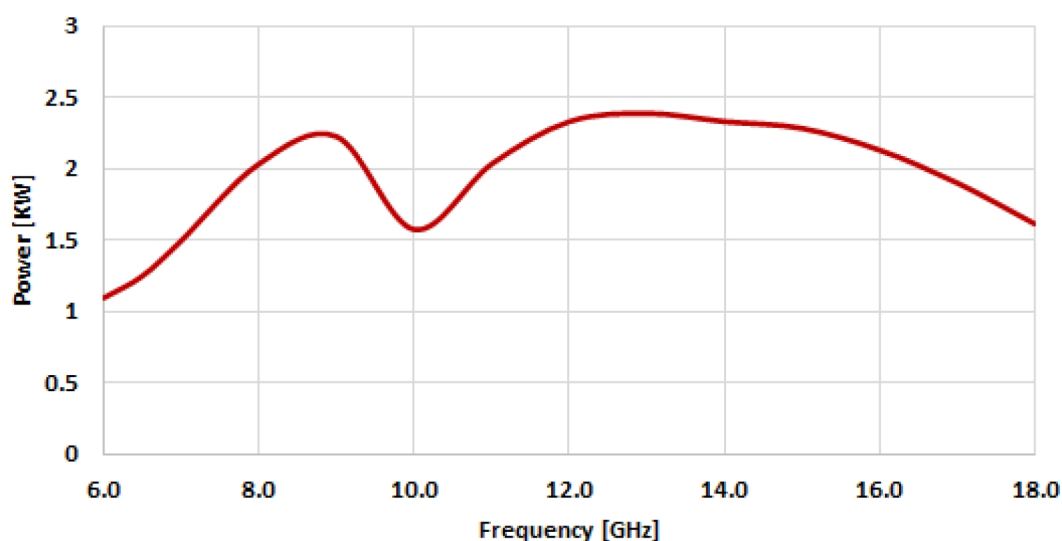
- User Interface
- Rugged, Ultra-Reliable Design
- Ethernet and GPIB Remote Interface
- 3 year warranty (1 Year on the tube)
- Plug and Play Field-Replaceable Power

The PTWT6G18G series of Pulsed TWT Amplifier provide outstanding RF performance. These 6.5 to 18.0 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 PTWT6G18G 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.

PTWT6G18G 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.

#### PTWT6G18G-1KW



## Technical Specifications

Frequency (min.) GHz	6.5 GHz
Frequency (max.) GHz	18 GHz
Psat (min)	1 kW
Psat (typ)	2 KW
Small Signal Gain	60 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 -6.5dBc / Max -2.0dBc
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	WRD650
Com. Interface	GPIO & Ethernet
Dimensions	6U, 19 inch, 800mm (WxHxD)
Weight kg	44 kg
Cooling System	Air Cooled, Self Contained

## Available Variants

Product	Configuration	Item #
PTWT6G18G-1KW-001	Front Panel RF Connectors	3-342052
PTWT6G18G-1KW-002	Rear Panel RF Connectors	3-342053