



# TWT Amplifier

2-8GHz, 1kW, 6% Duty  
RTWTA-2-8-1kW-6%-w9



<b>ELECTRICAL</b>	
<b>Frequency Range:</b>	<b>2-8 GHz</b>
Output power Psat.	<b>62 dBm typical (1kW rated min)</b>
Input power	0 dBm for 1kW out
Duty	6% maximum
Spurious for 0-250Hz	-55 dBc max.
Spurious for >250Hz	-60 dBc max.
<b>Output VSWR protection</b>	
Output pulse video sample	+10 mV/kW into 50Ω
Output Pulse sample	-30 dB
Input Power sample	-20 dB
<b>MODULATION</b>	
Pulse width	0.1 to 25μs
Pulse repetition rate	0-100KHz
Rise and fall time	20ns max.
Droop	0.01 dB/ μs
Pulse jitter	±2ns
Video/RF delay	300ns max.
Modulation input pulse	+5V TTL
<b>Primary Power: Nema LS-20 (3 wire)</b>	
Voltage:	115 ±10%, single phase
Frequency:	60 Hz
Elapsed time meter	100,000.0 hrs
<b>MECHANICAL</b>	
Dimensions:	19" x 8.75" x 35" deep (Rack)
Weight:	85 Pounds typical
Finish	Front: Enamel FSN 26440 Grey Chassis: Gold Alodine
<b>RF Connectors:</b>	
<b>Front panel:</b> Std RETMA 3/16 inch thick	
Input:	Type-N (f) on rear panel
Output:	Type-N (f) on rear panel
RF Sample Ports	Type-N (f) on front panel
Input Pulse	Standard TTL level, BNC (f) 50 Ω on rear panel
RF output video pulse	Standard TTL level, BNC (f) 50 Ω on rear panel

<b>ENVIRONMENTAL</b>	
Temperature:	0°C to +50°C <i>(derate 10°C per 10,000 feet altitude)</i>
<b>Operating</b>	
<b>Storage:</b>	-30°C to +60°C
Humidity:	0-95% non condensing
Altitude	To 10,000 feet (-30 to 60°C)
<b>MONITOR &amp; CONTROL</b>	
<b>Computer Interface:</b>	IEEE-488 (GPIB) rear panel (optional) Ethernet RJ45 rear panel (optional) RS 232 DB25 rear panel
<b>Conditions monitored and interlocked.</b>	
VSWR	
Body Voltage	xx.xx KV
Body current	xx.xx mA
Heater Voltage	x.xx V
Heater Current	x.xx A
Grid bias voltage	xxx.xx V
Grid Pulse amplitude	xxx.xx V
Lid Access interlock	Fault
Over temperature	Fault
PRF limit	Fault
Pulse width limit	Fault
Pulse received	Yes/No

RS 232 interface allows remote operation, monitor, control; and adjustment. Any fault condition latched the information. Windows compatible MS GUI is supplied. The following Parameters. have high and low limits that are factory adjustable, Cathode Voltage, Body Current, Heater Voltage, Heater current, Grid bias voltage, Grid Pulse Amplitude, PRF limit, Pulse width Limit.