RADITEK

TWTA
HPA

TWT Amplifier

2-4 GHz, 4kW, 6% Duty

RTWTA-2-4-4kW-6%-w9

ELECTRICAL	
Frequency Range:	**2-4 GHz**
Output power Psat.	**66 dBm typical (nom.)**
Input power	0 dBm for 1kW out
Duty	6% maximum
Spurious for 0-250Hz	-55 dBc max.
Spurious for >250Hz	-60 dBc max.
Output VSWR protection	
Output pulse video sample	+10 mV/kW into 50Ω
Output Pulse sample	-40 dB
Input Power sample	-20 dB
MODULATION	
Pulse width	0.1 to 100µs
Pulse repetition rate	0-100 KHz max.
Rise and fall time	20ns max.
Droop	0.01 dB/ µs
Pulse jitter	±2ns
Video/RF delay	300ns max.
Modulation input pulse	+5V TTL
Primary Power: **Nema LS-20 (3 wire)**	
Voltage:	220 ±10%, single phase, 50Hz
Primary Power Consumption	TBD KVA max.
Frequency:	50 Hz
Elapsed time meter	100,000.0 hrs
MECHANICAL	
Dimensions:	19" x 14" x 36" deep (Rack)
Weight:	110 Pounds typical
Finish	Front: Black Anodized Chassis: Gold Alodine
RF Connectors:	**Front panel:** Std RETMA 3/16 inch thick
Input:	Type-N (f) on rear panel
Output:	Type SC 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 sample	BNC (f) 50 Ω on rear panel

ENVIRONMENTAL	
Temperature: ***Operating***	0°C to +50°C ***(derate 10°C per 10,000 feet altitude)***
Storage:	-30°C to +60°C
Humidity:	0-95% non condensing
Altitude	To 10,000 feet above sea level
MONITOR & CONTROL	
Computer Interface:	IEEE-488 (GPIB) rear panel (optional)
	Ethernet RJ45 rear panel (optional)
	RS 232 DB25 rear panel
Conditions monitored and interlocked.	
VSWR	
Body Voltage	xx.xx KV
Body current	xx.xx mA
Collector #1 voltage	xx.xx KV
Collector #2 voltage	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. Self contained forced air cooling.

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