



TWT Amplifier

1-18GHz, 1kWatt, CW
RTWTA-1-18GHz-1kW-CW-w9



This Amplifier systems provides the maximum in performance, reliability and cost effectiveness.

- ❖ Delivers incomparable RF performance.
- ❖ Microprocessors provide the operator, and or computer, access to monitor power supply parameters, TWT conditions, fault latching, and control of the power supply for both the safety of the TWT and the operator.
- ❖ These controls also provide a TWT warm-up delay; automatic sequencing of High Voltage and Beam Current as well as an automatic recycle.

Features-
RS-232, GPIB 488 Interface
Software provided to operate MS Window

NOTE – Frequency 1-18 GHz – 3 Cabinets similar to above, for each of three bands shown below - 3 I/PS, 3O/PS

Specifications			
RF SPECIFICATIONS			
Frequency	1.0 –2.5 GHz	2.0-8.0 GHz	8.0-18.0GHz
C.W. Output Power, <i>specified</i>	+60 dBm <i>minimum</i> Psat	+60 dBm <i>minimum</i> Psat	+60 dBm <i>minimum</i> Psat
Input Power for <i>rated output</i>	0 dBm <i>nominal</i>	0 dBm <i>nominal</i>	0 dBm maximum
Gain	60 dB <i>nominal</i>	60 dB <i>nominal</i>	60 dB <i>nominal</i>
<i>Spurious Output</i> 0–250 Hz	55 dBc <i>minimum</i>	55 dBc <i>minimum</i>	55 dBc <i>minimum</i>
> 250 Hz	60 dBc <i>minimum</i>	60 dBc <i>minimum</i>	60 dBc <i>minimum</i>
Modulation	Modulated RF, CW Amplifier	Modulated RF, CW Amplifier	Modulated RF, CW Amplifier
Noise Figure	8.74 dB	8.74 dB	8.74 dB
Output VSWR Protection	100 %	100 %	100 %
Harmonics	-2 dB @ Psat	-3 dB @ Psat	-5 dB @ Psat
Forward Output RF Sample	- 40 dB	- 40 dB	- 40 dB
Input/Output Impedance	50 Ω	50 Ω	50 Ω
ELECTRICAL			
Primary Input Power Mains	210-250V/ 1Phase	210-250V/ 1Phase	210-250V/ 1Phase
Primary Power Current	27A	25A	22A
Digital Interface	RS-232 or GPIB 488	RS-232 or GPIB 488	RS-232 or GPIB 488

TWT Amplifier

1-18GHz, 1kWatt, Continuous

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Frequency	1.0 –2.5 GHz	2.0-8.0 GHz	8.0-18.0GHz
Front Panel Controls and Indicators	Red reset button that illuminates with faults	Red reset button that illuminates with faults	Red reset button that illuminates with faults
SWITCHES	Off/ Power, Operate Reset	Off/ Power, Operate Reset	Off/ Power, Operate Reset
Illuminated Status Monitor	Operate, Warm-Up, Remote Power On	Operate, Warm-Up, Remote Power On	Operate, Warm-Up, Remote Power On
Illuminated Fault Monitor	Power, Timing, Operate, Helix Current, Remote	Power, Timing, Operate, Helix Current, Remote	Power, Timing, Operate, Helix Current, Remote
Elapsed time meter	00000.0 Hrs	00000.0 Hrs	00000.0 Hrs

CONNECTORS			
RF Input 50 Ω Rear Panel	Co-ax, Type "NF"	Co-ax, Type "NF"	Co-ax, Type "NF"
RF Output, Rear Panel	Co-ax, Type SC	Co-ax, Type SC	Waveguide, Size WRD-750
RS 232 Serial, Rear Panel	DB 25 F	DB 25 F	DB 25 F
Primary Input Power, Rear Panel	Three wire NEMA L6-30 Connector	Three wire NEMA L6-30 Connector	Three wire NEMA L6-30 Connector
MECHANICAL			
Front Panel	Standard RETMA 3/16" thick, Slotted Holes	Standard RETMA 3/16" thick, Slotted Holes	Standard RETMA 3/16" thick, Slotted Holes
Enclose Dimensions			
Height	36½ "	36½ "	36½ "
Depth	30"	30"	30"
Width	23 ½ "	23 ½ "	23 ½ "
Finish Front Panel Chassis	Enamel, Color White & Black Alodine, Color Silver	Enamel, Color White & Black Alodine, Color Silver	Enamel, Color White & Black Alodine, Color Silver
Weight	290 pounds <i>nominal</i>	290 pounds <i>nominal</i>	290 pounds <i>nominal</i>
Cooling	Self contained forced air	Self contained forced air	Self contained forced air
ENVIRONMENTAL			
Temperature Operating	0 to +50°C Derate 10°C for 10,000 foot Operation	0 to +50°C Derate 10°C for 10,000 foot Operation	0 to +50°C Derate 10°C for 10,000 foot Operation
Storage	-30 to +60°C	-30 to +60°C	-30 to +60°C
Humidity	0 to 95% non-condensing	0 to 95% non-condensing	0 to 95% non-condensing
Altitude	0 to 10,000 feet above sea level	0 to 10,000 feet above sea level	0 to 10,000 feet above sea level

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Frequency	1.0 –2.5 GHz	2.0-8.0 GHz	8.0-18.0GHz
CONDITIONS MONITORED AND INTERLOCKED			
Body Voltage	00.00 kV	00.00 kV	00.00 kV
Body Current	00.00 mA	00.00 mA	00.00 mA
Collector #1 Voltage	00.00 kV	00.00 kV	00.00 kV
Collector #1 Current	000.0 mA	000.0 mA	000.0 mA
Heater Voltage	0.00 V	0.00 V	0.00 V
Heater Current	0.00 A	0.00 A	0.00 A
Grid Bias Voltage	000.00 V	000.00 V	000.00 V
Grid Pulse Amplitude	000.00 v	000.00 v	000.00 v
Access Lid Interlock	Fault	Fault	Fault
Excessive Temperature	Fault	Fault	Fault
WARRANTY	One Year Parts & Labor	One Year Parts & Labor	One Year Parts & Labor

ACCESSORIES SUPPLIED

1-each, CD operating software/ Instruction Service Manuals / Primary Input Power Connector