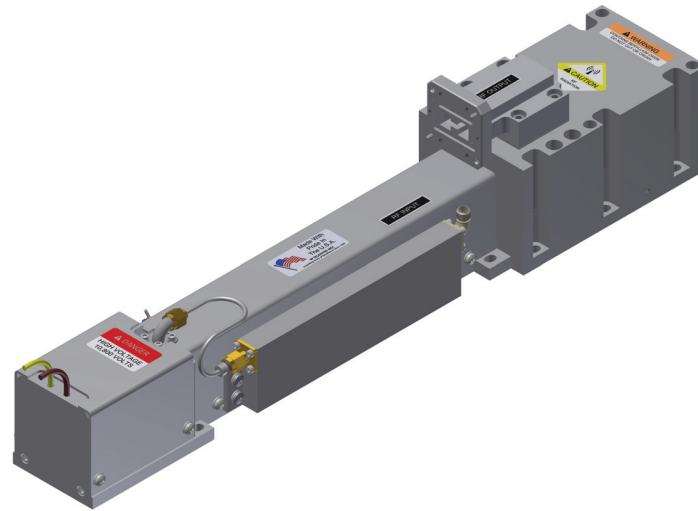


MEC 5516

Communication TWT

Dual Band

- 400 W Peak Minimum Power
- 125 W CW Minimum Power
- 100W Linear Minimum Power Non-Linearized
- X and Ku Bands for Satcom
- -40° to 85° C
- 800 W Typ. Prime Power @52.0 dBm
- 51 dB Typical Gain
- 15.0" L x 2.6" W x 2.25" H (38.1 x 6.6 x 5.7 cm)



RF Performance

Freq (GHz)	Typ. CW. Power Output (W)	Min. Spec. Power Output (W)	Typ. Gain @ Spec. Power (dB)
7.9	170	125	51
8.0	175	125	51
8.15	185	125	51
8.4	180	125	51

13.750	200	125	53
14.000	180	125	53
14.250	180	125	53
14.500	175	125	53

Typical power output is shown to illustrate capability.
Typical gain shown is with equalizer.

Spectral Regrowth

Freq (GHz)	Min. Linear Power (W)	Modulation	Level @1 Symbol Rate
7.9	100	QPSK	-30 dBc
8.4	100	QPSK	-30 dBc

13.75	100	QPSK	-30 dBc
14.5	100	QPSK	-30 dBc

Performance	Typical	Spec
Input VSWR.....	1.75:1	2.5:1
Output VSWR.....	1.95:1	2.0:1
Max. Duty	—	CW
FE Capacitance.....	50 pF	65 pF
Min. Harmonic Separation at 125W	-20 dBc	-15dBc
Noise Power Density (dBm/MHz)	-23	-19
Prime Power @ 52.0dBm.....	760 W	800 W

Typical Operating Conditions Element	Typical Operating Conditions		Power Supply Requirements		
	Voltage	Current	Voltage Min.	Voltage Max.	Current Max.
Heater	-6 Vdc	1.26 A	-5.8 Vdc	-6.3 Vdc	2 A
Helix					
with RF	Ground	3.8 mA	Ground	Ground	10 mA
without RF	Ground	1.0 mA	Ground	Ground	10 mA
FE On*	-6 Vdc	0.1 mA	@ Heater	@ Heater	1 mA
Cathode (E _k)	-10.65 kV	302 mA	-8kV	-12 kV	315 mA
Collector w/RF					
Coll. #1	4.69 kV	68.6 mA	44% x E _k ±2%		75 mA
Coll. #2	1.70 kV	229.6 mA	16% x E _k ±2%		305 mA

* FE tied to heater internally for bias

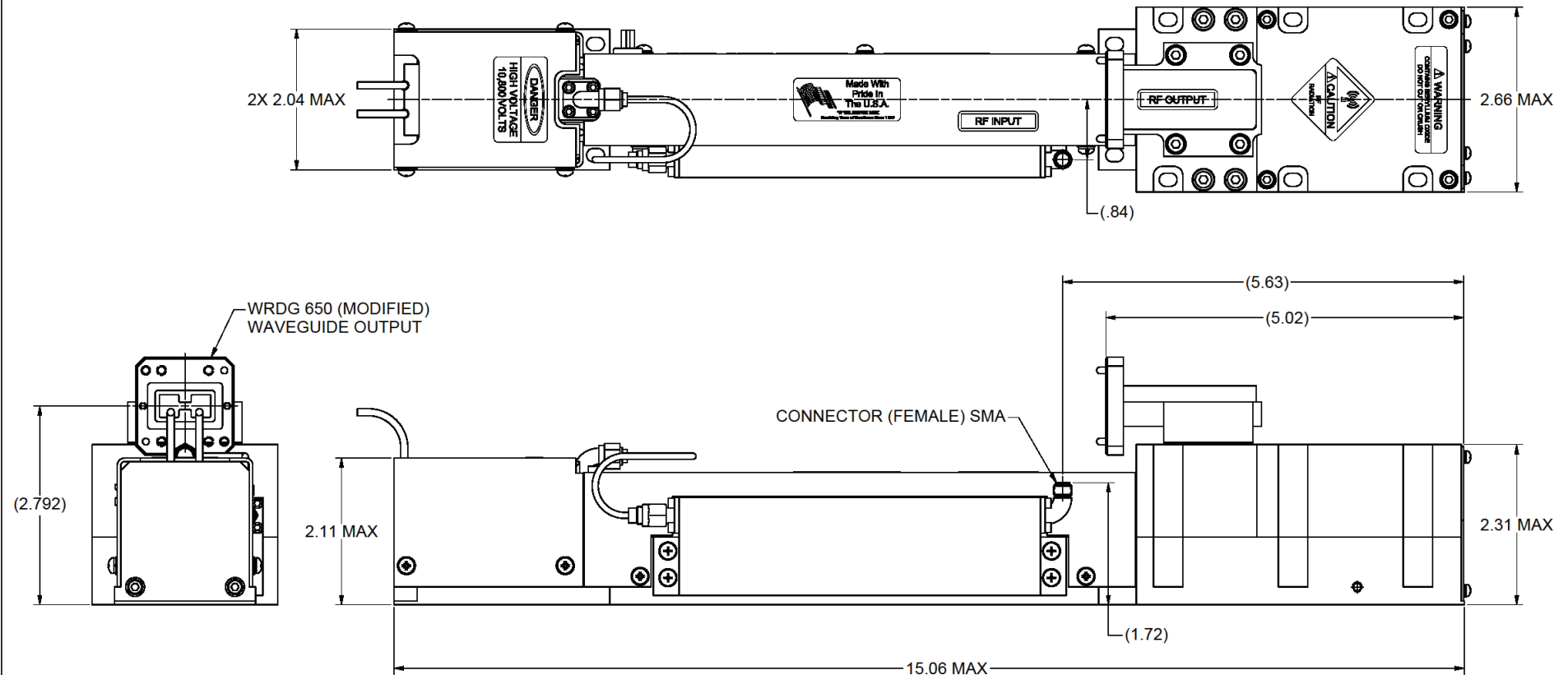
Cathode voltage is measured with respect to ground.
Heater, Collector, and Focus Electrode (FE) voltages are measured with respect to Cathode.

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NOTES:

1. THERMOSTAT OPTIONS: N/C OR N/O



SUBJECT TO CHANGE W/O NOTICE ISO 9001:2008 Registered

TELEDYNE MICROWAVE SOLUTIONS TWT PRODUCTS 11361 Sunrise Park Dr., Rancho Cordova, CA (916) 638-3344
TITLE
MEC 5516

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