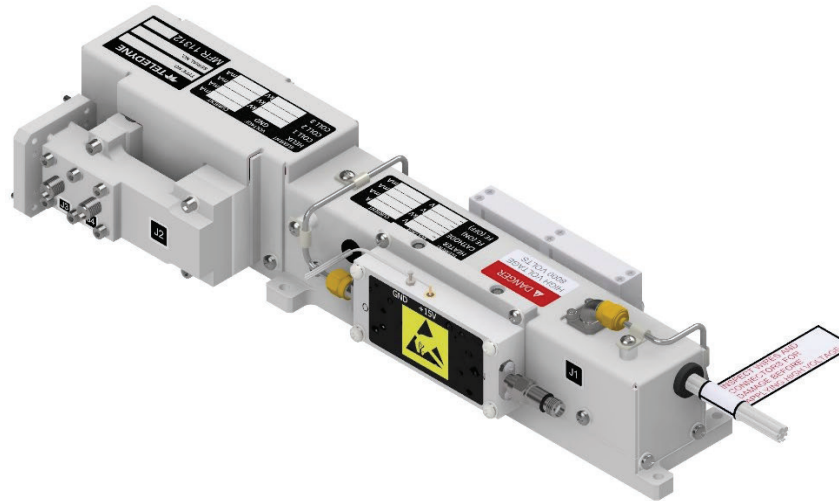


MEC 5508

Continuous Wave TWT 6.0 GHz – 18.0 GHz

- 200 W Minimum Power
- 6.0 to 18.0 GHz
- -40° to 85° C
- 840 W Typ. Prime Power
- 21 dB Typical Saturated Gain
- 10.95" L x 3.35" W x 2.16" H
(27.81 x 8.51 x 5.49 cm)



Typical Operating Conditions			Power Supply Requirements		
Element	Voltage	Current	Voltage Min.	Voltage Max.	Current Max.
Heater	-6.1 Vdc	0.54 A	-6.0 Vdc	-6.6 Vdc	1.0 A
Helix					
with RF	Ground	12 mA _{pk}	Ground	Ground	18 mA
without RF	Ground	3 mA _{pk}	Ground	Ground	18 mA
FE Drive	-25 V	0.1 mA	-10 Vdc	-60 V	1.0 mA
FE Bias	-1600 Vdc	0.1 mA	-1500 Vdc	-1700 Vdc	1.0 mA
Cathode (E _k)	7.4 kV	265 mA	7.2 kV	7.6 kV	215 mA
Collector w/RF					
Coll. #1	4.6 kV	80 mA	62.7% x E _k ±2%		100 mA
Coll. #2	3.2 kV	120 mA	42.7% x E _k ±2%		200 mA
Coll. #3	1.1 kV	53 mA	14.7% x E _k ±2%		250 mA

Cathode voltage is measured with respect to ground.
Heater, Collector, and Grid voltages are measured with respect to Cathode.

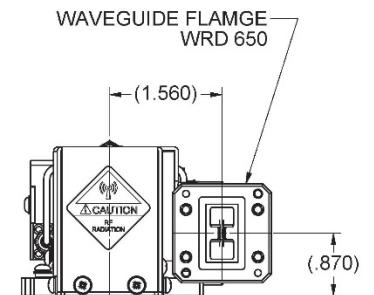
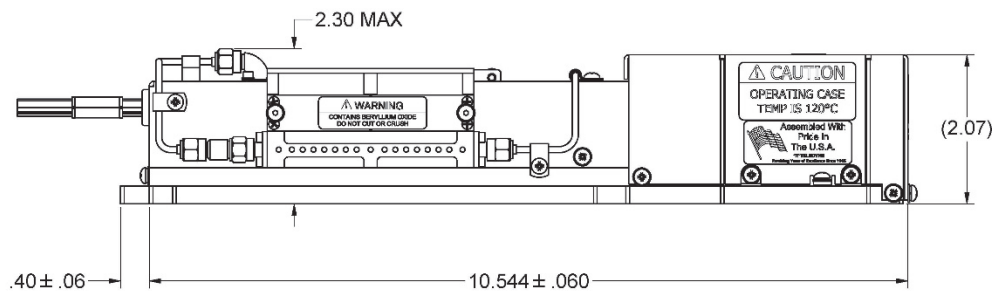
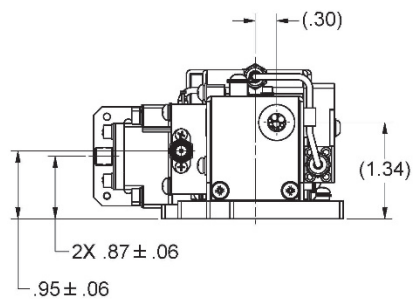
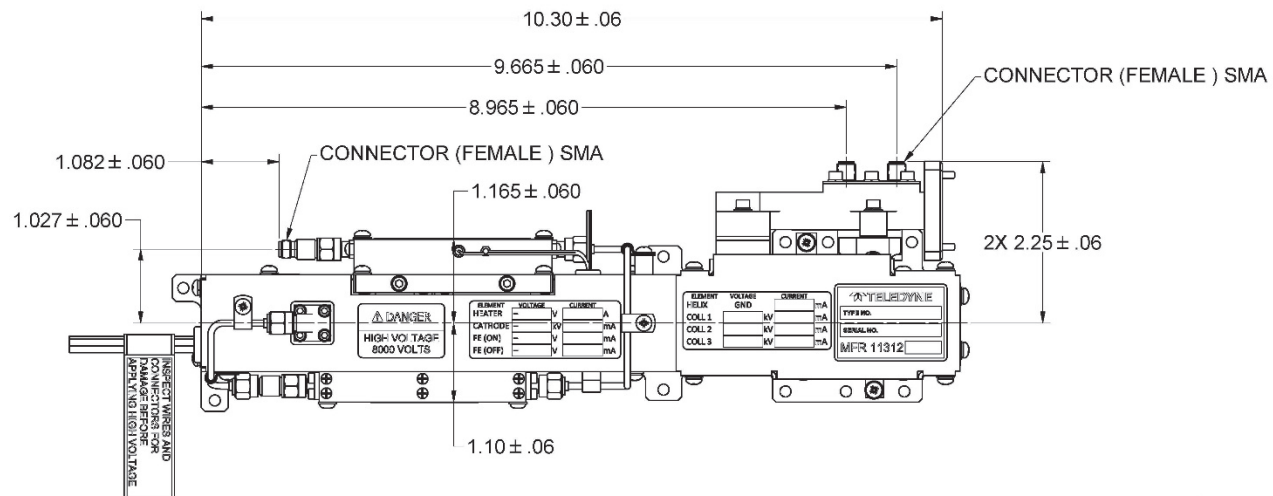
RF Performance

Freq (GHz)	Typ. Sat. Power Output (W)	Min. Spec. Power Output (W)	Typ. Gain @ Spec. Power (dB)
6.0	220	200	21
7.0	250	200	21
9.0	255	200	21
11.0	260	200	21
12.0	270	200	21
13.0	250	200	21
14.0	250	200	21
15.0	260	200	21
16.0	255	200	21
17.0	230	200	21
18.0	220	200	21

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

Performance	Typical	Spec
Input VSWR.....	2:1	2.5:1
Output VSWR.....	1.75:1	2.25:1
Max. Duty	—	CW
FE Capacitance	24 pF	35 pF
Min. Harmonic Separation (at 6.0 GHz).....	-3.0 dBc	-3 dBc
Noise Power Density (dBm/MHz)	-35	-26
Prime Power.....	840 W	1000 W

For operation into a load system with a VSWR greater than 2.0:1, contact TMS.



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

TELEDYNE MICROWAVE SOLUTIONS TWT PRODUCTS <small>11361 Sunrise Park Dr., Rancho Cordova, CA 95742 (916) 638-3344</small>
TITLE
MEC 5508