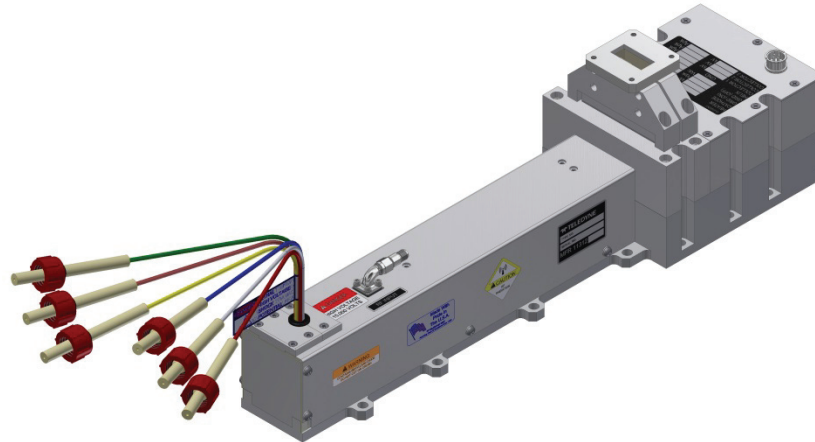


# MEC 3848

## Pulse TWT

### 8.0 GHz – 11.0 GHz

- 5% Maximum Duty
- 6500 W Minimum Power
- 8.0 to 11.0 GHz
- -40° to 85° C
- 947 W Typ. Prime Power @ 5%
- 48-51 dB Typical Gain
- 15.8" L x 4" W x 4.44" H  
(40.1 x 10.2 x 11.3 cm)
- ±15° Phase Match



#### RF Performance

Freq (GHz)	Typ. Sat. Power Output (W)	Min. Spec. Power Output (W)	Typ. Gain @ Spec. Power (dB)
8.0	8000	7500	48
8.5	8300	8000	48
9.0	8300	8000	49
9.2	8300	8000	50
9.4	8300	8000	50
9.6	8300	8000	50
9.8	8300	8000	50
10.0	8300	8000	51
10.5	8000	7500	50
11.0	7000	6500	49

Typical power output is shown to illustrate capability.  
Typical gain shown is without equalizer.

#### Typical Operating Conditions

Element	Voltage	Current	Power Supply Requirements		
			Voltage Min.	Voltage Max.	Current Max.
Heater	-6.3 Vdc	2.1 A	-6.1 Vdc	-6.5 Vdc	2.50 A
Helix					
with RF	Ground	400 mApk	Ground	Ground	500 mApk @ 5%
without RF	Ground	75 mApk	Ground	Ground	500 mApk @ 5%
Grid On	150 Vpk	0	100 Vpk	300 Vpk	30 mApk
Grid Off	-300 Vdc	0	-300 Vdc	-500 Vdc	0.5 mA
Cathode (E <sub>k</sub> )	-13.3 kV	2.3 Apk	-13 kV	-15 kV	2.8 Apk
Collector w/RF					
Coll. #1	9.0 kV	0.84 Apk	69% x E <sub>k</sub> ±2%		1.1 Apk
Coll. #2	6.4 kV	0.48 Apk	48% x E <sub>k</sub> ±2%		0.8 Apk
Coll. #3	4.7 kV	0.58 Apk	35% x E <sub>k</sub> ±2%		2.5 Apk

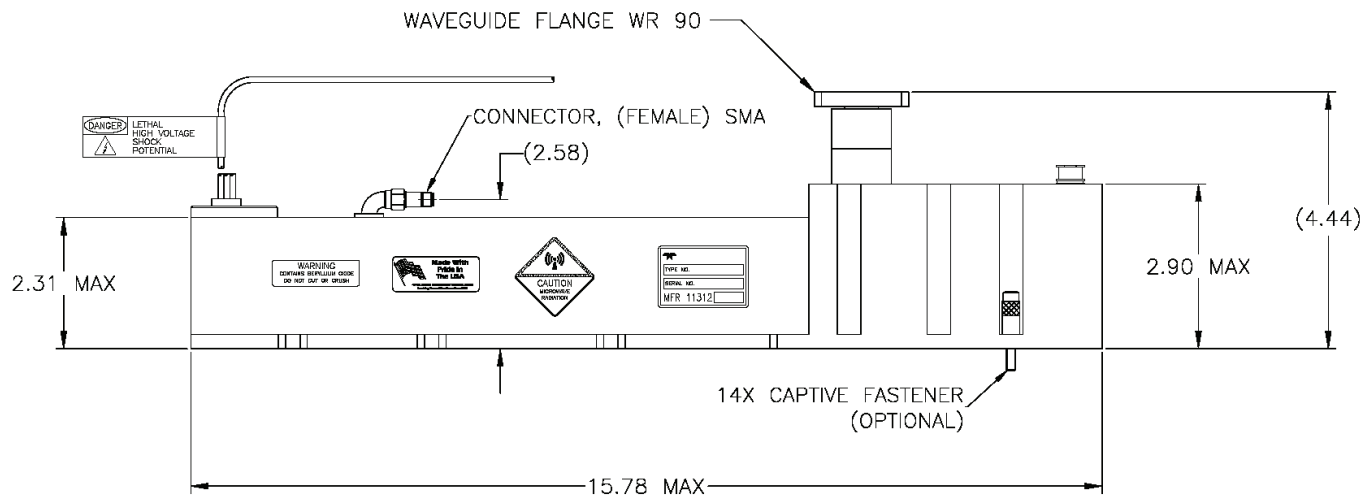
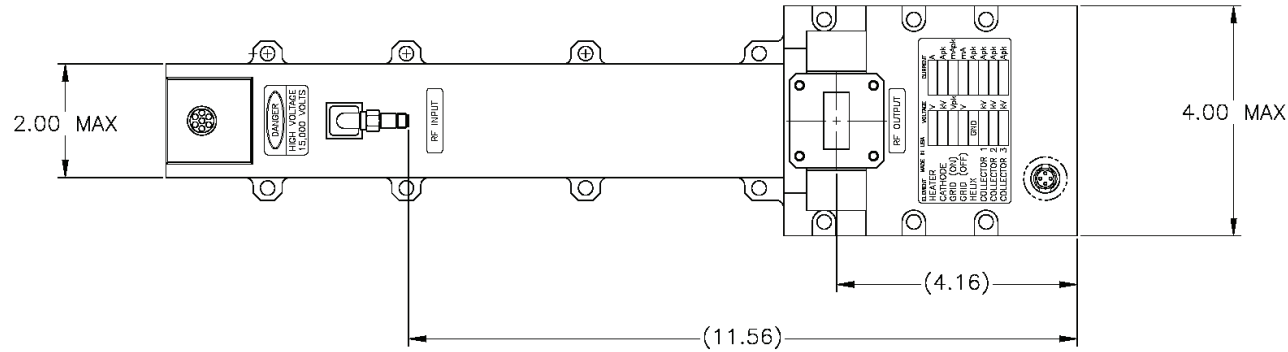
Cathode voltage is measured with respect to ground.  
Heater, Collector, and Grid voltages are measured with respect to Cathode.

Performance	Typical	Spec
Input VSWR.....	1.5:1	2:1
Output VSWR.....	1.5:1	2:1
Max. Duty .....	—	5%
Max. Pulsewidth .....	—	100 μs
Grid Capacitance.....	40 pF	60 pF
Min. Harmonic Separation .....	-14 dBc	-10 dBc
Noise Power Density (dBm/MHz) .....	-14	-10
Prime Power .....	947 W	1200 W

This model number is controlled by the International Traffic in Arms Regulations, and can only be exported via a U.S. Department of State export license. They may not be transferred, transshipped on a non-continuous voyage, or otherwise be disposed of in any other country, either in their original form or after being incorporated into other end-items, without the prior written approval of the U.S. Department of State.

NOTES:

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



SUBJECT TO CHANGE W/O NOTICE

ISO 9001:2008 Registered

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TWT Products  
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TITLE

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