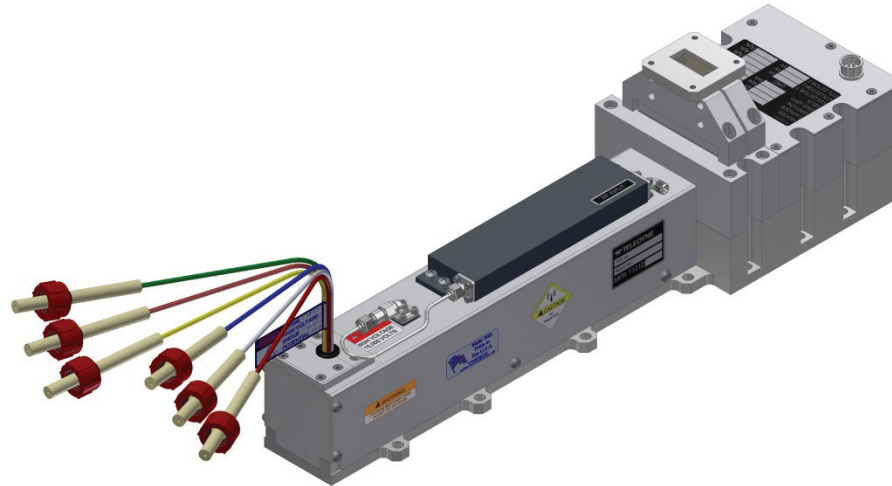


MEC 3848N

Pulse TWT

8 GHz – 12 GHz

- 10% Maximum Duty
- 5 kW Minimum Power
- 8.0 to 12.0 GHz
- -40° to 85° C
- 1250 W Typ. Prime Power @8%
- 41-50 dB Typical Gain
- 15.8" L x 2.8" W x 4.5" H
(40.1 x 7.1 x 11.4 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	6610	5000	48
8.5	7080	5000	48
9.0	7080	5000	49
9.5	6610	5000	50
10.0	6610	5000	50
10.5	7240	5000	49
11.0	6760	5000	48
11.5	6610	5000	44
12.0	5620	5000	41

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

Typical Operating Conditions

Element	Typical Operating Conditions		Power Supply Requirements		
	Voltage	Current	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	250 mApk	Ground	Ground	300 mApk @ 8%
without RF	Ground	75 mApk	Ground	Ground	300 mApk @ 8%
Grid On	150 Vpk	0.0 mApk	100 Vpk	300Vpk	30 mApk
Grid Off	-350 Vdc	0.0 mA	-300 Vdc	-500 Vdc	0.5 mA
Cathode (Ek)	-13.0 kV	1.8 Apk	-13 kV	-15 kV	2.5 Apk
Collector w/RF					
Coll. #1	8.97 kV	650 mApk	69% x Ek ±2%		1.1 mApk
Coll. #2	6.24 kV	430 mApk	48% x Ek ±2%		0.8 mApk
Coll. #3	4.55 kV	470 mApk	35% x Ek ±2%		2.5 mApk

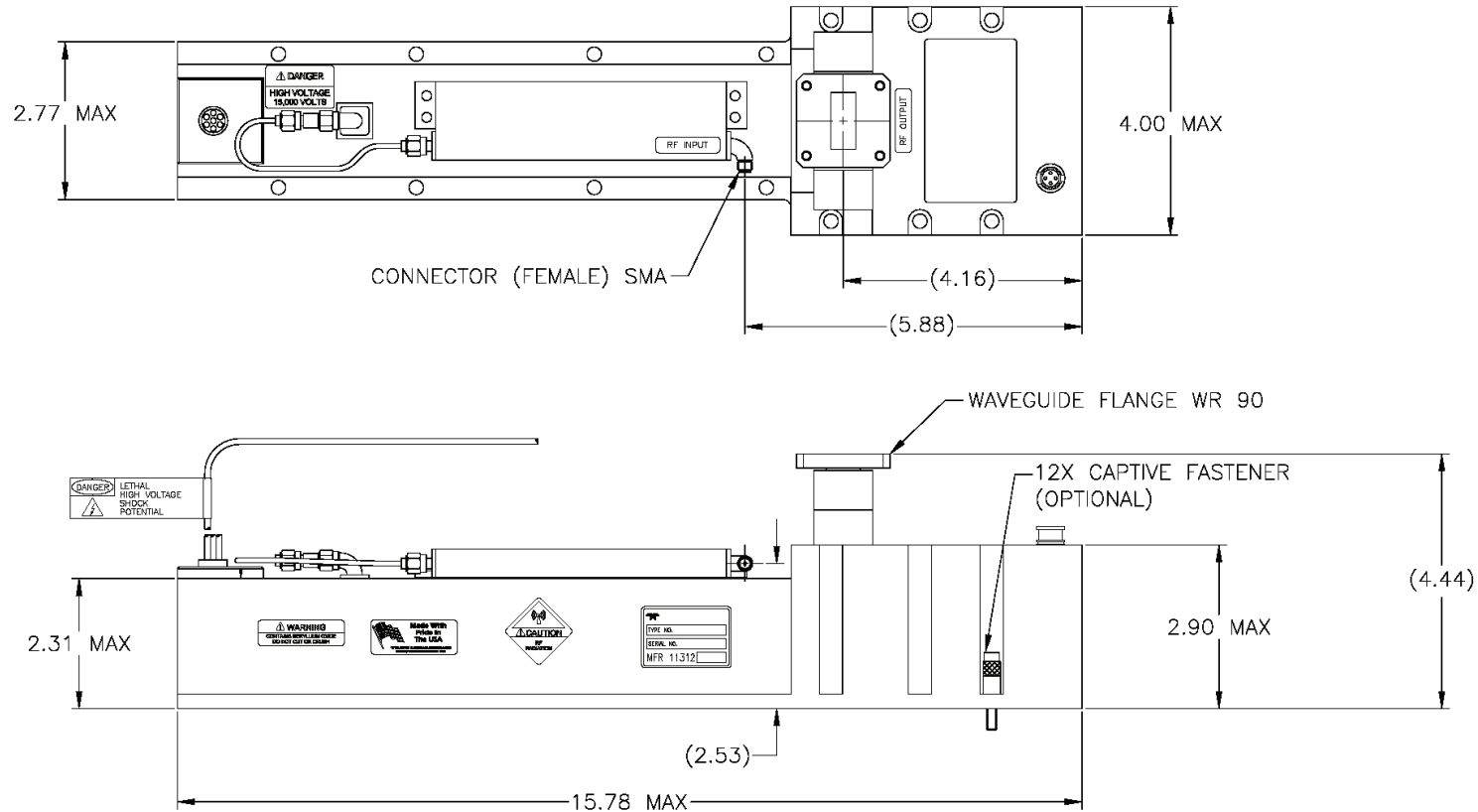
Cathode voltage is measured with respect to ground.
Heater, Collector, and Grid voltages are measured with respect to Cathode.

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Performance	Typical	Spec
Input VSWR.....	1.82:1	2.0:1
Output VSWR.....	1.65:1	2.0:1
Max. Duty	8%	10%
Max. Pulsewidth	50 μs	100 μs
Grid Capacitance.....	50 pF	50 pF max.
Min. Harmonic Separation.....	-13.0 dBc	-10 dBc
Noise Power Density (dBm/MHz)	-20	-10
Prime Power.....	1250 W	1700 W

NOTES:

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



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

TELEDYNE MICROWAVE SOLUTIONS
TWT Products
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TITLE

MEC 3848N

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