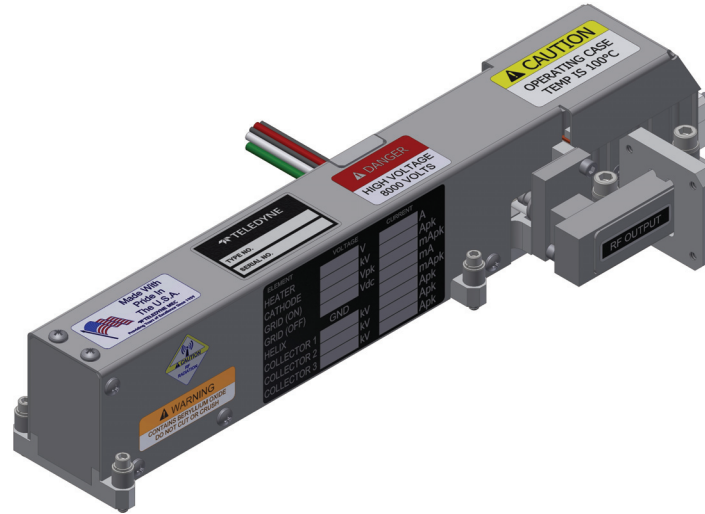


# MEC 3117X

## Pulse TWT

### 15.2 GHz – 18.2 GHz

- 35% Maximum Duty
- 350/400 W<sub>pk</sub> Minimum Power
- 15.2 to 18.2 GHz
- Output Power Flatness 1.0 dB
- -55° to 85° C
- 385 W<sub>pk</sub> Typ. Prime Power @35%
- 300 μs PW Max
- 34 dB Typical Rated Gain
- 9.21" L x 1.16" W x 1.73" H (23.4 x 2.95 x 4.4 cm)
- Weight 2 lbs. Max



#### RF Performance

Freq (GHz)	Typ. Sat. Power Output (W)	Min. Spec. Power Output (W)	Typ. Gain @ Spec. Power (dB)
15.2	410	350	34
15.5	410	350	34
16.0	410	400	34
16.5	430	400	34
17.0	440	400	34
17.5	450	400	34
18.0	450	350	35
18.2	440	350	35

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

Typical Operating Conditions			Power Supply Requirements		
Element	Voltage	Current	Voltage Min.	Voltage Max.	Current Max.
Heater	-6.3 Vdc	0.85 A	-5.9 Vdc	-6.6 Vdc	1.50 A
Helix					
with RF	Ground	15 mApk	Ground	Ground	23 mApk @ 35%
without RF	Ground	6 mApk	Ground	Ground	23 mApk @ 35%
Grid On	150 Vpk	0.0 mApk	100 Vpk	220 Vpk	6 mApk
Grid Off	-250 Vdc	0.0 mA	-200 Vdc	-300 Vdc	1 mA
Cathode (Ek)	-7.3 kV	304 mApk	-7.3 kV	-7.9 kV	350 mApk
Collector w/RF					
Coll. #1	5.91 kV	52 mApk	81% x Ek ±2%		100 mApk
Coll. #2	3.41 Kv	147 mApk	46.7% x Ek ±2%		175 mApk
Coll. #3	1.90 kV	90 mApk	26% x Ek ±2%		350 mApk

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

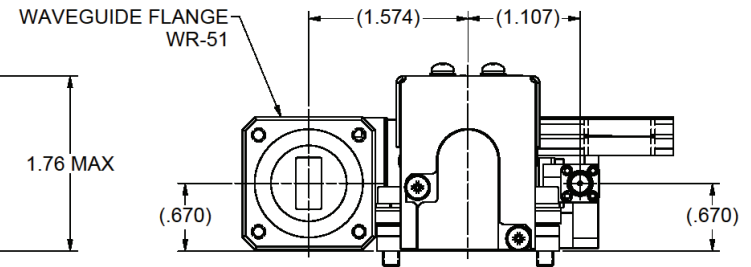
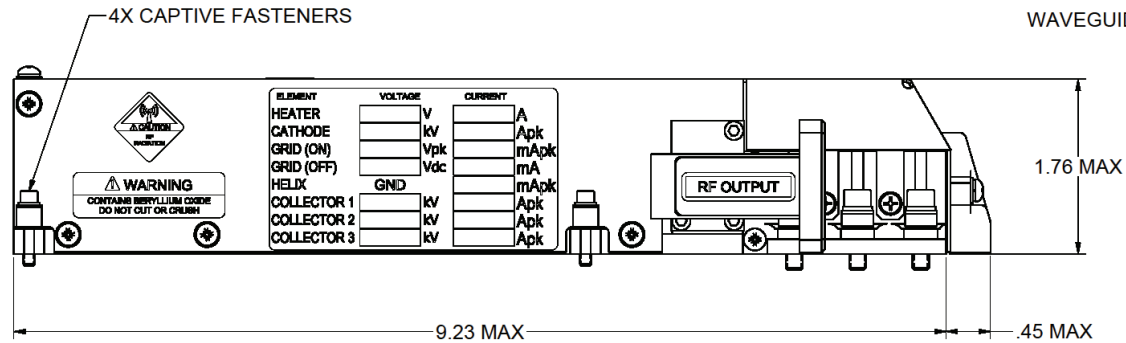
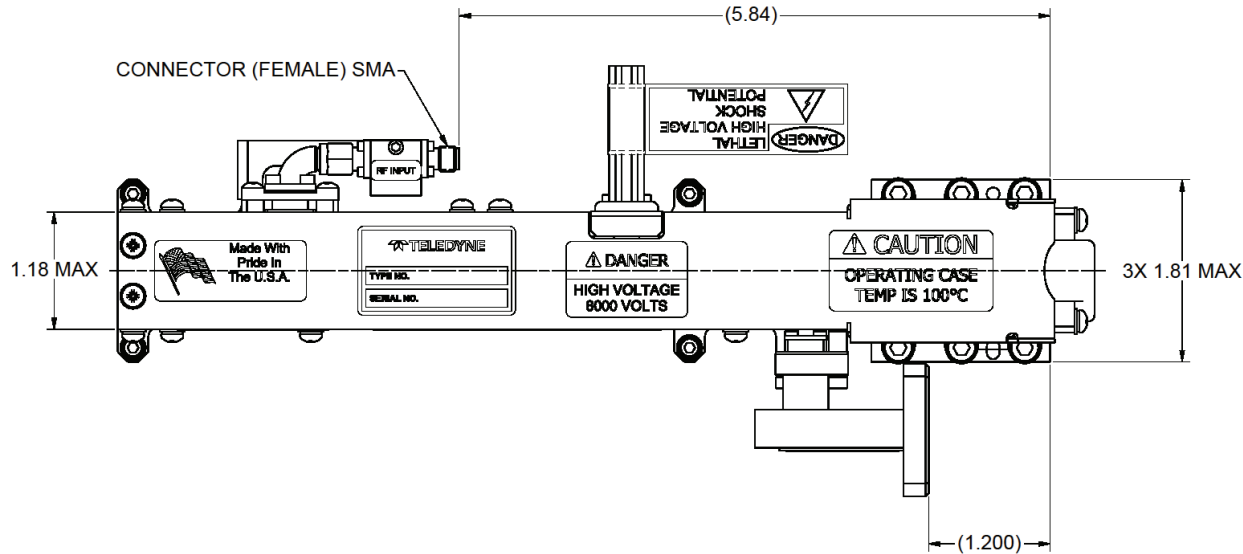
Performance	Typical	Spec
Input VSWR:.....	1.3:1	1.6:1
Output VSWR.....	1.6:1	2.0:1
Max. Duty .....	35%	35%
Max. Pulsewidth .....	300 μs	300 μs
Grid Capacitance.....	50 pF	50 pF max.
Noise Power Density (dBm/MHz) .....	-20	-10
Prime Power .....	1250 W	1700 W

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.

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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 3117X

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