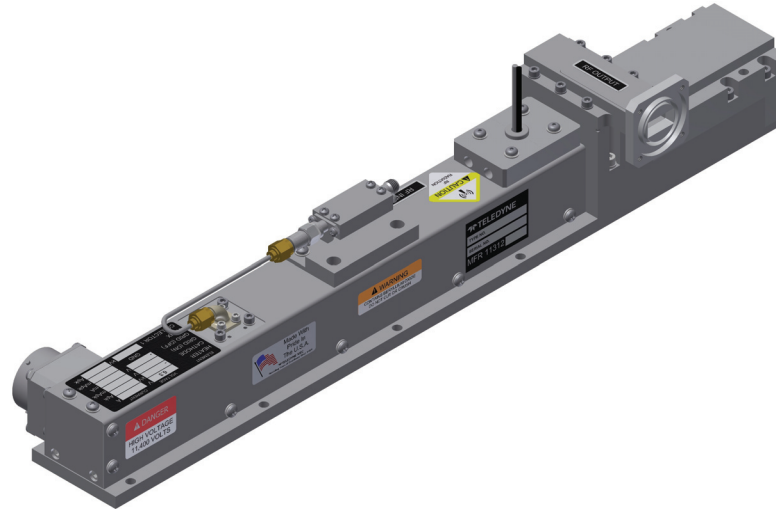


# MEC 3116X

## Pulse TWT

### 15.0 GHz – 18.0 GHz

- 4.5% Maximum Duty
- 2500 W<sub>pk</sub> Typical Minimum Power
- 15 to 18 GHz
- -40° to 85° C
- 415 W Typ. Prime Power
- 50 μs PW Max
- 44 dB Typical Sat. Gain
- 15.85" L x 1.98" W x 2.95" H (40.3 x 5.0 x 7.5 cm)



#### RF Performance

Freq (GHz)	Typ. Sat. Power Output (W)	Min. Spec. Power Output (W)	Typ. Gain @ Sat. Power (dB)
15.0	2200	1250	43
15.5	2300	1250	44
16.0	2450	1250	43
16.5	2500	1250	43
17.0	2500	1250	43
17.5	2400	1250	44
18.0	2400	1250	43

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

Typical Operating Conditions Element	Typical Operating Conditions		Power Supply Requirements		
	Voltage	Current	Voltage Min.	Voltage Max.	Current Max.
Heater	-6.3 Vdc	2.0 A	-6.1 Vdc	-6.5 Vdc	2.5 A
Helix					
with RF	Ground	270 mApk	Ground	Ground	450 mApk
without RF	Ground	45 mApk	Ground	Ground	450 mApk
Grid On	150 Vpk	2.0 mApk	125 Vpk	250 Vpk	250 mApk
Grid Off	-200 Vdc	0.0 mA	-125 Vdc	-250 Vdc	1 mA
Cathode (Ek)	-10.7 kV	1.5 Apk	-10.3 kV	-11.5 kV	1.8 Apk
Collector w/RF					
Coll. #1	6.21 kV	1.25 Apk	58% x Ek ±2%		1.55 Apk

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

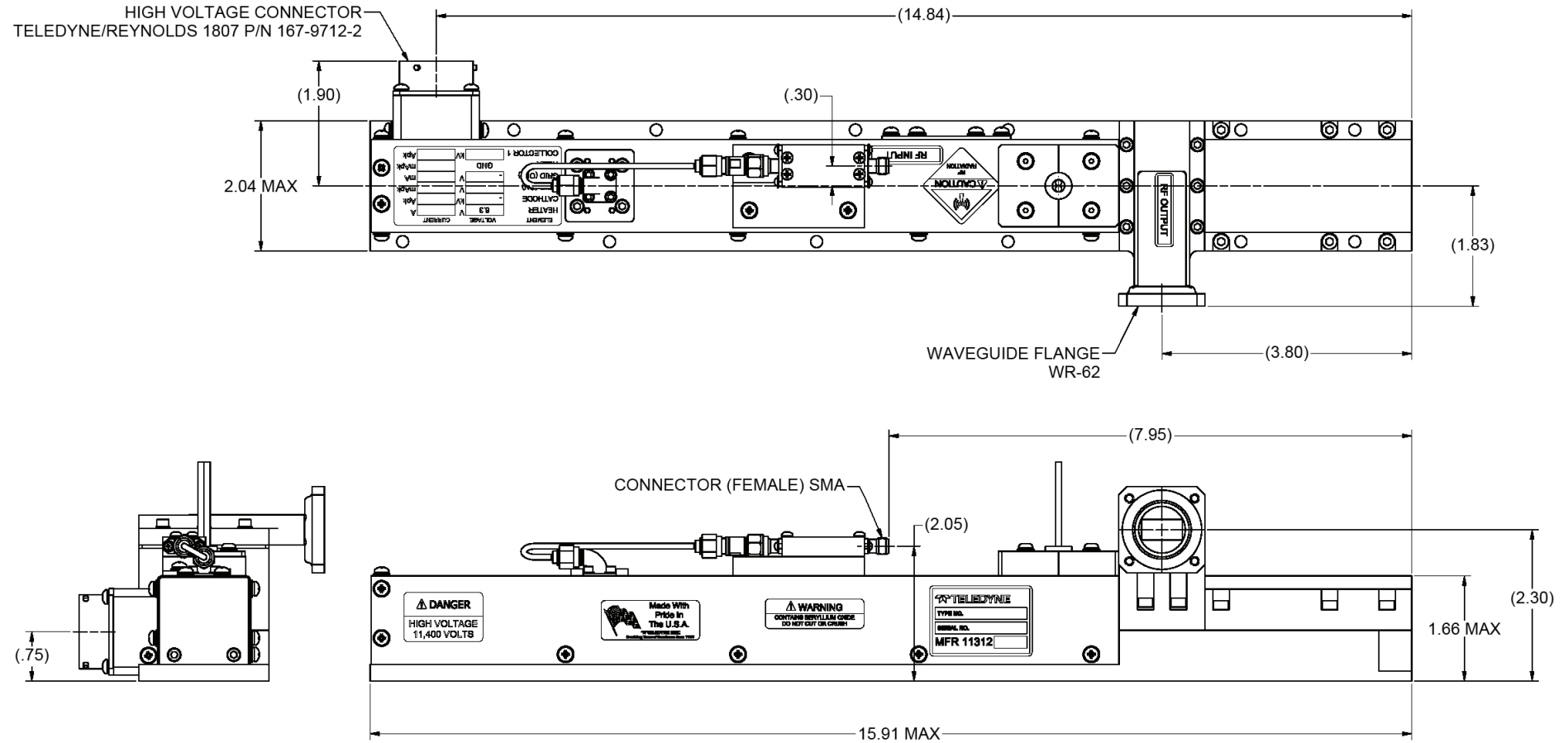
Performance	Typical	Spec
Input VSWR.....	1.5:1	2.0:1
Output VSWR.....	1.7:1	2.5:1
Max. Duty.....	4.5%	4.5%
Max. Pulsewidth .....	50 μs	50 μs
Grid Capacitance.....	55 pF	65 pF max.
Noise Power Density (dBm/MHz) .....	-3	-0
Prime Power.....	.415 W	.525 W

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NOTES:

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



TELEDYNE MICROWAVE SOLUTIONS TWT PRODUCTS 11361 Sunrise Park Dr., Rancho Cordova, CA (916) 638-3344
TITLE
MEC 3116

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

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**15.0 GHz – 18.0 GHz Pulse TWT • MEC 3116X**