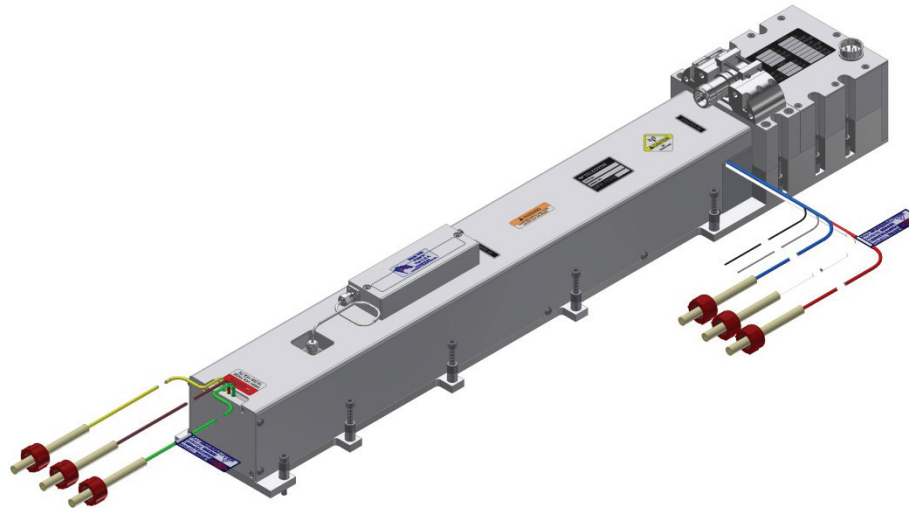


MEC 3102

Pulse TWT

2 GHz – 4 GHz

- 6% Maximum Duty
- 4.5 kW Minimum Power
- 2.0 to 4.0 GHz
- -40° to 85° C
- 1220 W Typ. Prime Power @6%
- 35 dB Typical Gain
- 25.7" L x 4" W x 4.07" H
(65.3 x 10.2 x 10.34 cm)
- Phase Match Available



RF Performance

Freq (GHz)	Typ. Sat. Power Output (W)	Min. Spec. Power Output (W)	Typ. Gain @ Spec. Power (dB)
2.0	5500	4500	35
2.25	5500	4500	35
2.5	6000	4500	35
2.75	6500	4500	35
3.0	6500	4500	35
3.25	6500	4500	35
3.5	6000	4500	35
3.75	5500	4500	35
4.0	5500	4500	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	-6.5 Vdc	4.3 A	-6.4 Vdc	-6.8 Vdc	5.00 A
Helix					
with RF	Ground	600 mA	Ground	Ground	800 mApk @ 6%
without RF	Ground	70 mA	Ground	Ground	800 mApk @ 6%
Grid On	157 Vpk	3.3 mA	100 Vpk	300 Vpk	30 mApk
Grid Off	-325 Vdc	0.010 mA	-300 Vdc	-500 Vdc	1 mA
Cathode (E _k)	-10.9 kV	2.3 Apk	-10.2 kV	-11.2 kV	2.5 Apk
Collector w/RF					
Coll. #1	8.7 kV	530 mApk	80% x E _k ±2%		0.7 Apk
Coll. #2	7.7 kV	780 mApk	71% x E _k ±2%		1.2 Apk
Coll. #3	4.21 kV	425 mApk	39% x E _k ±2%		2.5 Apk

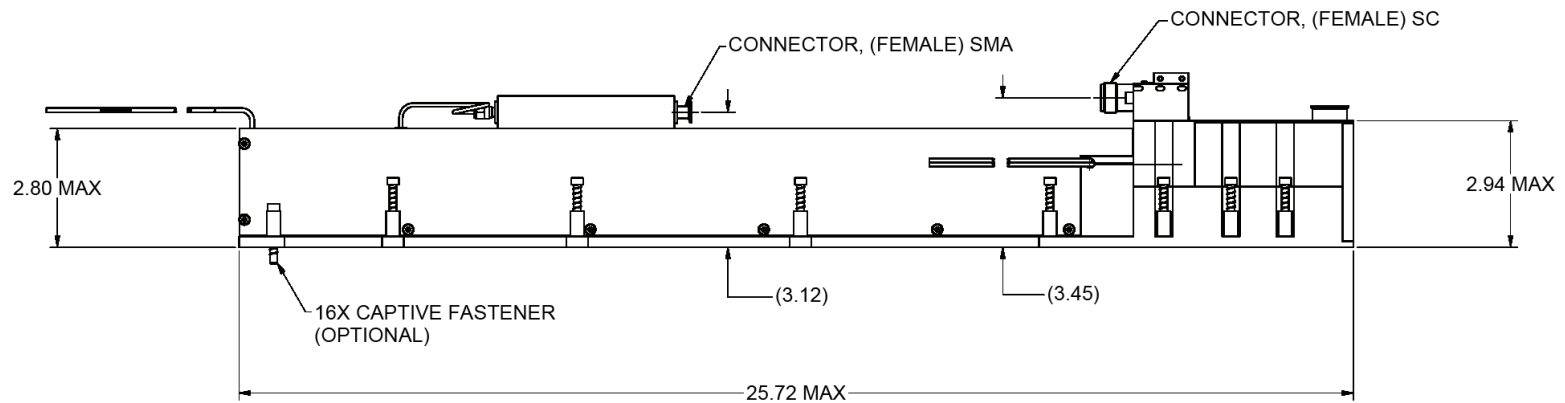
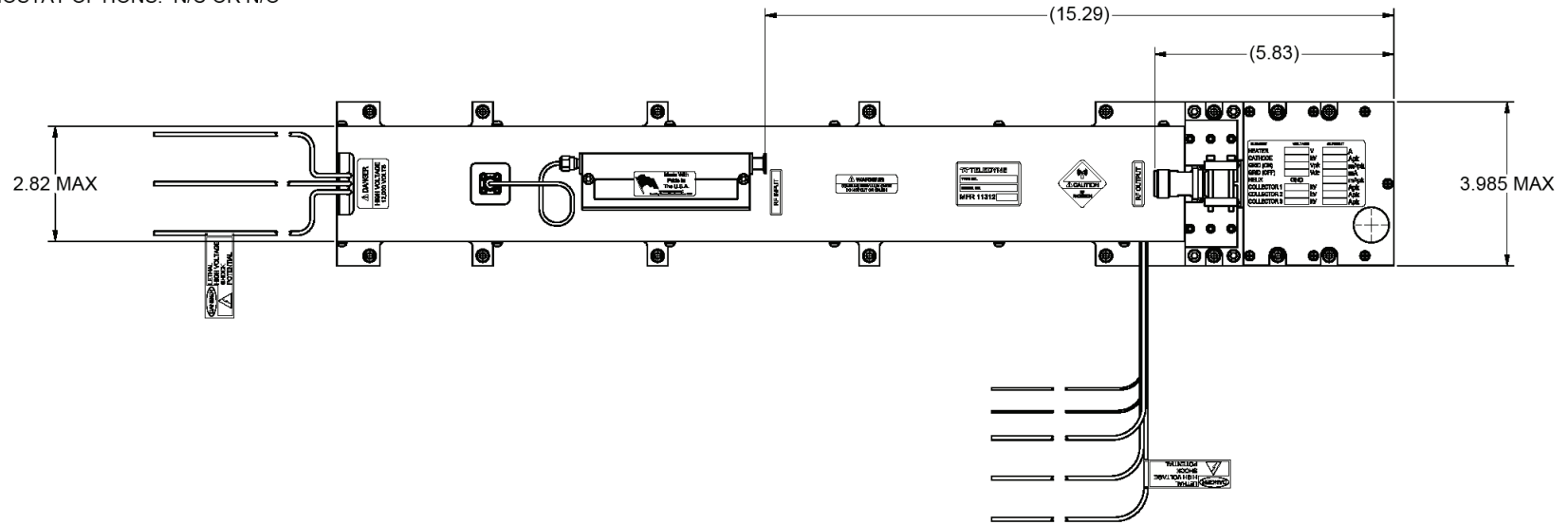
Performance	Typical	Spec
Input VSWR.....	2.0:1	2.5:1
Output VSWR.....	1.7:1	2.0:1
Max. Duty	—	6%
Max. Pulsewidth	—	100 μs
Grid Capacitance.....	59 pF	65 pF
Min. Harmonic Separation.....	-3.8 dBc	-3 dBc
Noise Power Density (dBm/MHz)	-30	5
Prime Power.....	1220 W	1800 W

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

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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 3102

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

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