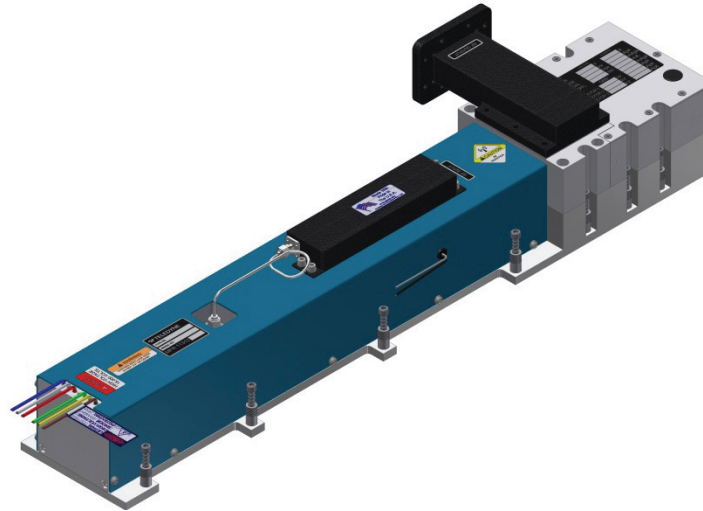


MEC 3103

Pulse TWT

4 GHz – 8 GHz

- 6% Maximum Duty
- 4500 W Minimum Power
- 4.0 to 8.0 GHz
- -40° to 85° C
- 1185 W Typ. Prime Power @6%
- 32-34 dB Typical Gain
- 22.27" L x 5.54" W x 4.34" H (56 x 14 x 11 cm)
- Phase Match Available



RF Performance

Freq (GHz)	Typ. Sat. Power Output (W)	Min. Spec. Power Output (W)	Typ. Gain @ Spec. Power (dB)
4.0	4790	4500	32
4.5	4570	4500	33
5.0	4570	4500	33
5.5	6170	4500	34
6.0	6310	4500	34
6.5	5890	4500	34
7.0	5890	4500	33
7.5	5750	4500	33
8.0	4790	4500	32

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	2.25 A	-6.1 Vdc	-6.5 Vdc	3.0 A
Helix					
with RF	Ground	600 mApk	Ground	Ground	800 mApk @ 6%
without RF	Ground	80 mApk	Ground	Ground	800 mApk @ 6%
Grid On	216 Vpk	3 mA	100 Vpk	300 Vpk	30 mApk
Grid Off	-300 Vdc	0.1 mA	-300 Vdc	-500 Vdc	1.0 mA
Cathode (E _k)	-12.6 kV	1.9 Apk	-12 kV	-14 kV	3.0 Apk
Collector w/RF					
Coll. #1	9.70 kV	485 mApk	77% x E _k ±2%		700 mApk
Coll. #2	7.30 kV	555 mApk	58% x E _k ±2%		1200 mApk
Coll. #3	5.65 kV	700 mApk	45% x E _k ±2%		2700 mApk

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

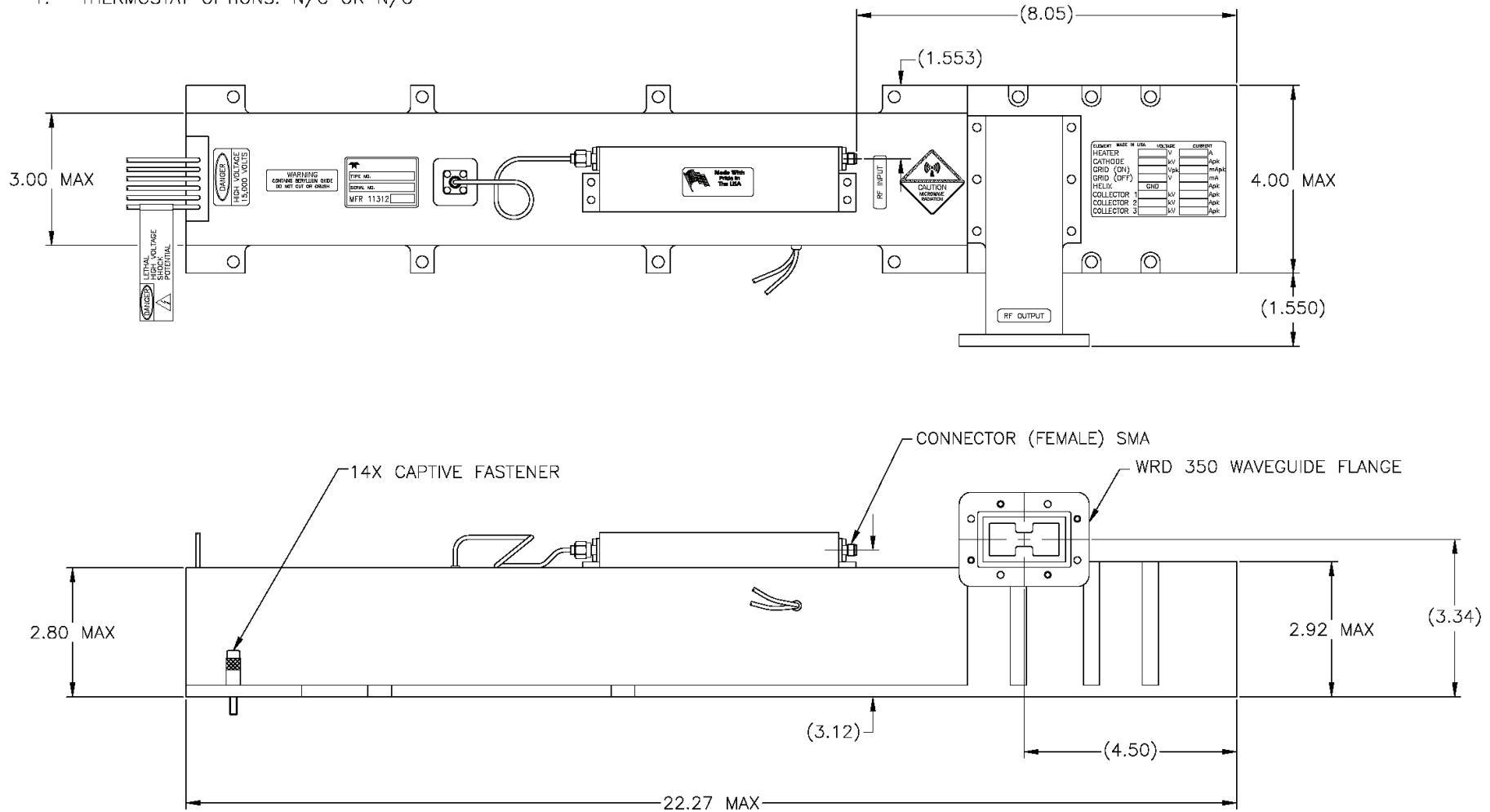
Performance

	Typical	Spec
Input VSWR.....	1.8:1	2.5:1
Output VSWR.....	1.9:1	2.0:1
Max. Duty	—	6%
Max. Pulsewidth	—	100 μs
Grid Capacitance.....	64 pF	70 pF
Min. Harmonic Separation.....	-5.1 dBc	-0.5 dBc
Noise Power Density (dBm/MHz)	-29	-5
Prime Power.....	1185 W	1800 W

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NOTES:

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



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TWT Products
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 TITLE
 MEC 3103

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

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