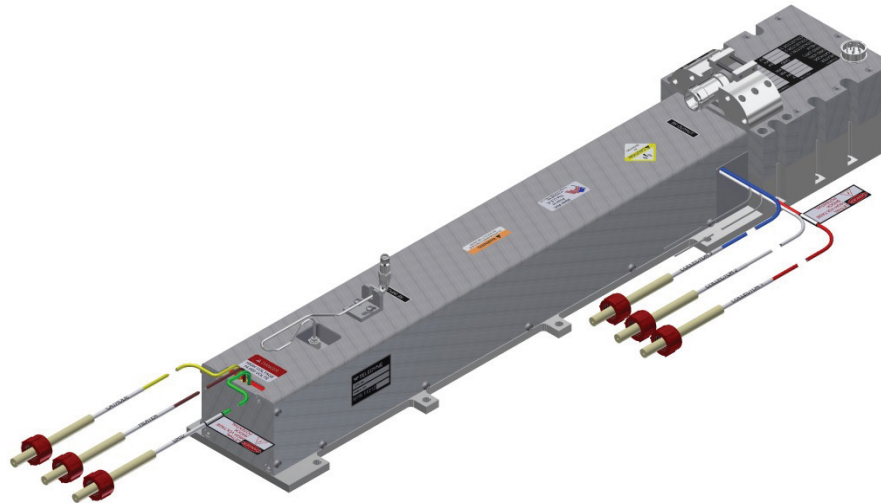


MEC 3082B

Pulse TWT

2.7 GHz – 4.0 GHz

- 4% Typical Maximum Duty
- 10 kW Minimum Power
- 2.7 to 4.0 GHz
- -40° to 85° C
- 1400 W Typ. Prime Power @4%
- 42-47 dB Typical Gain
- 23.5" L x 4" W x 4.2" H
(59.7 x 10.2 x 10.7 cm)
- ±20° Typical Phase Match



RF Performance

Freq (GHz)	Typ. Sat. Power Output (W)	Min. Spec. Power Output (W)	Typ. Gain @ Spec. Power (dB)
2.7	10,000	10,000	42
2.9	10,500	10,000	45
3.25	12,500	10,000	47
3.4	12,500	10,000	46
3.7	13,325	10,000	45
3.85	13,500	10,000	45
4.0	13,800	10,000	43

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

Typical Operating Conditions			Power Supply Requirements		
Element	Voltage	Current	Voltage Min.	Voltage Max.	Current Max.
Heater	-6.6 Vdc	4.5 A	-6.4 Vdc	-6.8 Vdc	5 A
Helix					
with RF	Ground	0.63 Apk	Ground	Ground	0.8 Apk @ 4%
without RF	Ground	0.12 Apk	Ground	Ground	0.8 Apk @ 4%
Grid On	175 Vpk	2.0 mApk	100 Vpk	250 Vpk	30 mApk
Grid Off	-400 Vdc	0 mA	-400 Vdc	-500 Vdc	1.0 mA
Cathode (E _k)	-14.49 kV	2.94 Apk	-12.5 kV	-15 kV	3.5 Apk
Collector					
Coll. #1	12.75 kV	1.080 Apk (w/RF) 0.172 Apk (w/o RF)	88% x E _k ±2%		2 Apk
Coll. #2	8.58 kV	0.746 Apk (w/RF) 0.093 Apk (w/o RF)	66% x E _k ±2%		3.5 Apk
Coll. #3	4.69 kV	0.378 Apk (w/RF) 2.630 Apk (w/o RF)	41% x E _k ±2%		3.5 Apk

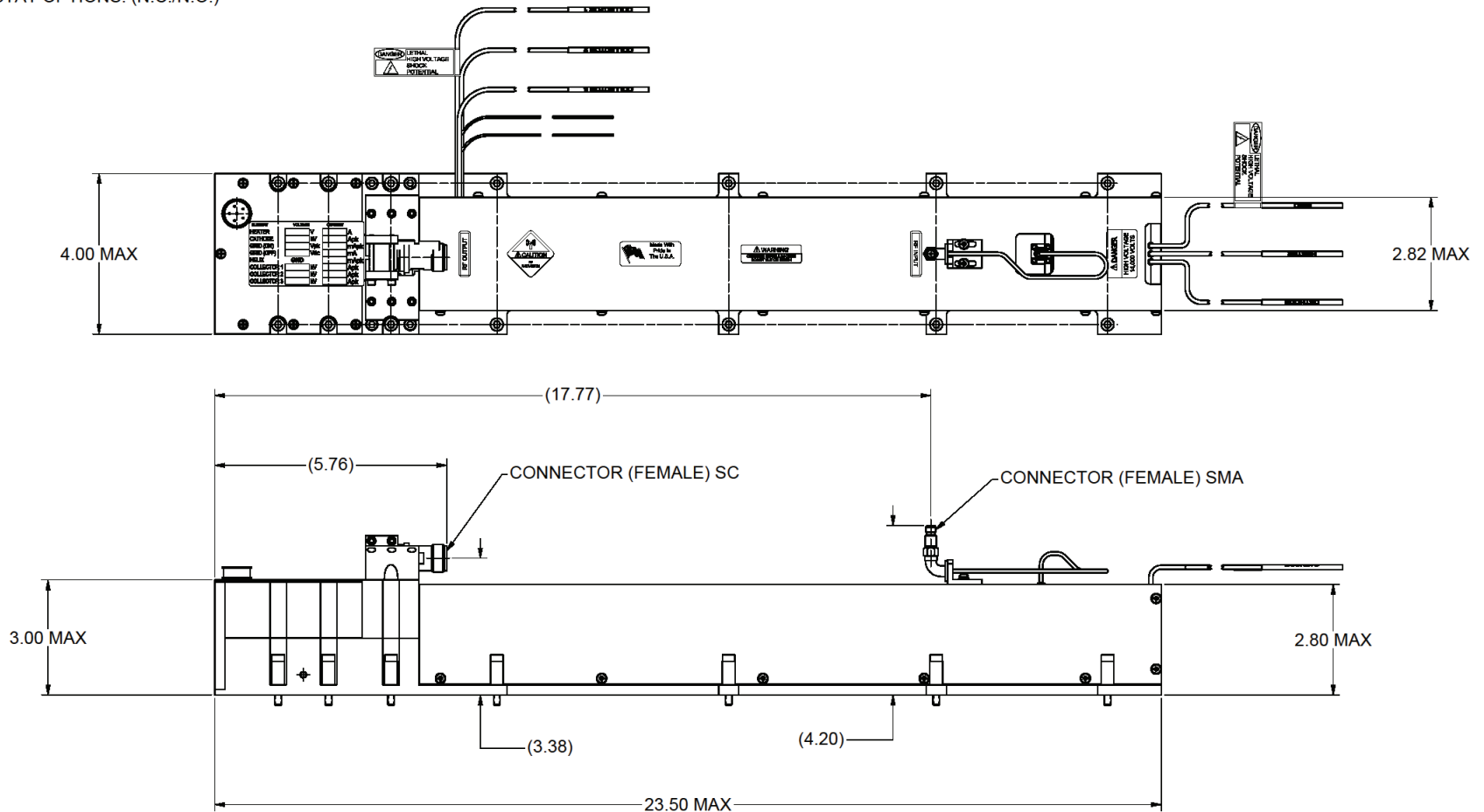
Cathode voltage is measured with respect to ground.
Heater, Collector, and Grid voltages are measured with respect to Cathode.

Performance	Typical	Spec
Input VSWR.....	1.55:1	2:1
Output VSWR.....	1.6:1	2:1
Max. Duty	—	4%
Max. Pulsewidth	—	150 μs
Grid Capacitance.....	45 pF	50 pF
Second Harmonic.....	-8.7 dBc	-6 dBc
Noise Power Density (dBm/MHz)	-26	-20
Prime Power.....	1400 W	1500 W max.

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.

NOTES:

1. THERMOSTAT OPTIONS: (N.C./N.O.)



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

<p>TELEDYNE MICROWAVE SOLUTIONS TWT PRODUCTS <small>11361 Sunrise Park Dr., Rancho Cordova, CA (916) 638-3344</small></p>
<p>TITLE</p> <p style="text-align: center;">MEC 3082B</p>

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