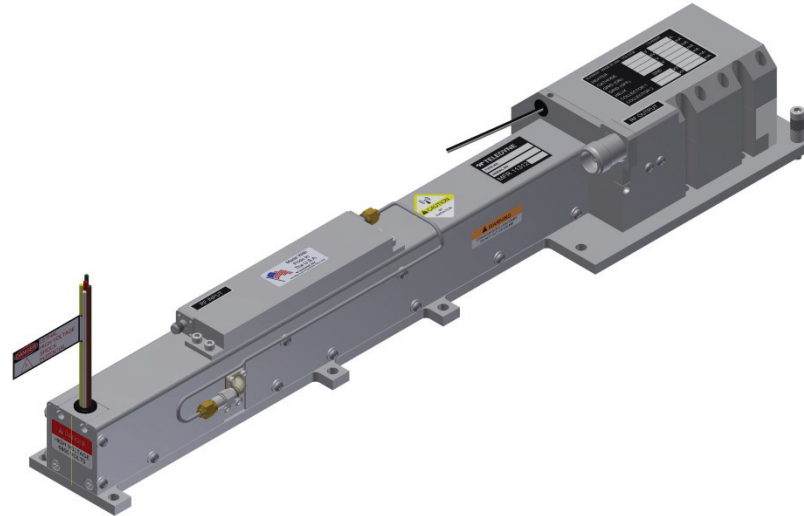


# MEC 5296

## Continuous Wave TWT

### 2.5 GHz – 7.5 GHz

- 535 W Minimum Power
- 2.5 to 7.5 GHz
- -40° to 85° C
- 1995 W Typ. Prime Power
- 31-43 dB Typical Gain
- 20.15" L x 4" W x 2.8" H  
(5.12 x 10.2 x 7.1 cm)
- Phase Match Available



#### RF Performance

Freq (GHz)	Typ. Sat. Power Output (W)	Min. Spec. Power Output (W)	Typ. Gain @ Spec. Power (dB)
2.5	600	535	32
3.0	775	535	38
3.5	825	535	40
4.0	775	535	42
4.5	750	535	43
5.0	750	535	43
5.5	700	535	42
6.0	675	535	40
6.5	675	535	38
7.0	635	535	34
7.5	550	535	31

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

Typical Operating Conditions Element	Voltage	Current	Power Supply Requirements		
			Voltage Min.	Voltage Max.	Current Max.
Heater	-6.3 Vdc	2.1 A	-6 Vdc	-6.5 Vdc	2.5 A
Helix					
with RF	Ground	35 mA	Ground	Ground	50 mA
without RF	Ground	5 mA	Ground	Ground	50 mA
Grid On	165 Vdc	0.2 mA	100 Vdc	250 Vdc	5 mA
Grid Off	-200 Vdc	0.05 mA	-200 Vdc	-500 Vdc	0.5 mA
Cathode ( $E_k$ )	-6.15 kV	500 mA	-5.8 kV	-6.5 kV	550 mA
Collector w/RF					
Coll. #1	4.31 kV	300 mA	70% x $E_k \pm 2\%$		450 mA
Coll. #2	2.89 kV	165 mA	47% x $E_k \pm 2\%$		550 mA

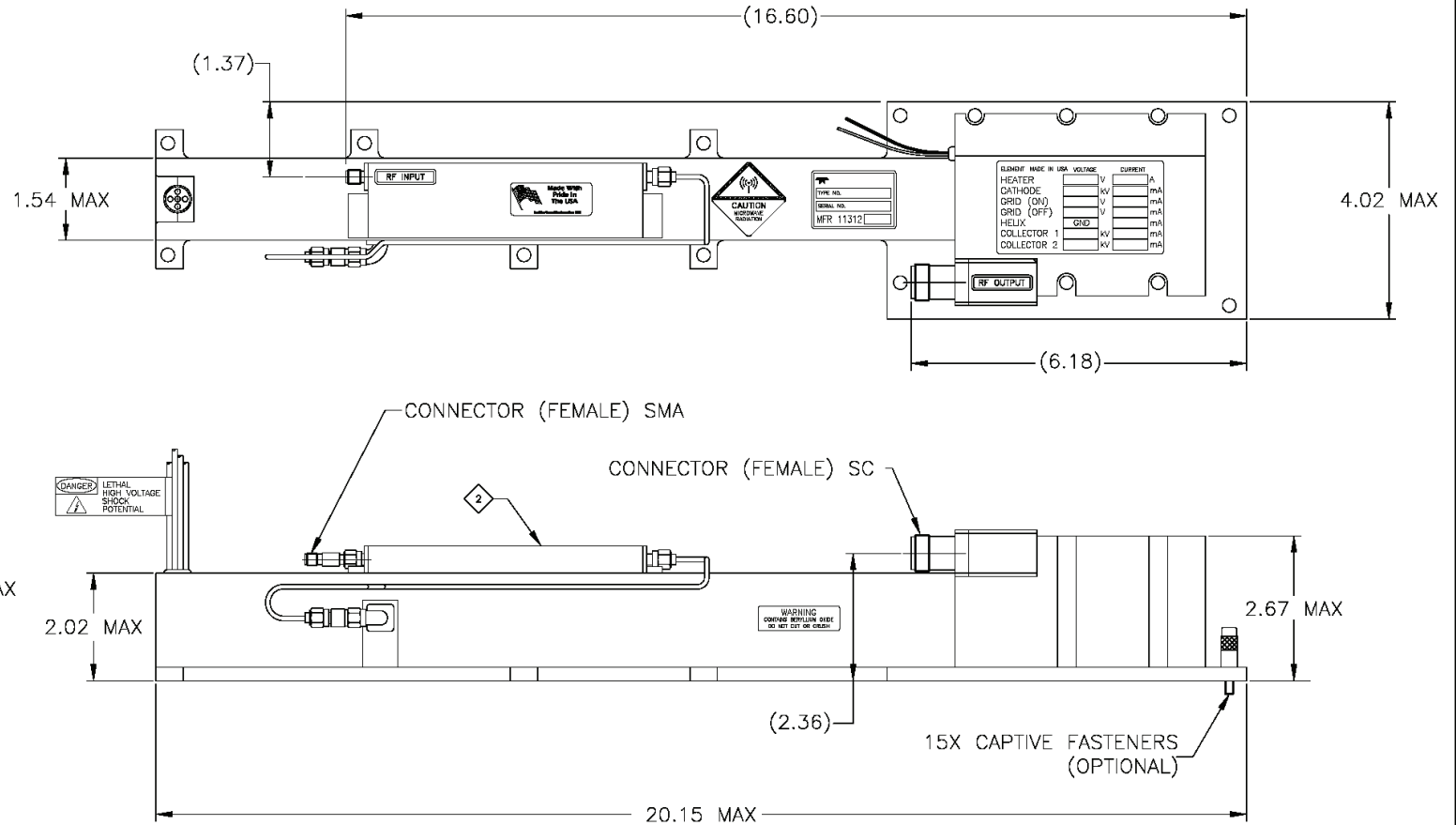
Cathode voltage is measured with respect to ground.  
Heater, Collector, and Grid voltages are measured with respect to Cathode.

Performance	Typical	Spec
Input VSWR.....	2:1	2.5:1
Output VSWR.....	1.75:1	2.5:1
Max. Duty .....	—	CW
Grid Capacitance.....	32 pF	50 pF
Min. Harmonic Separation.....	-5 dBc	-3 dBc
Noise Power Density (dBm/MHz) .....	-40	-25
Prime Power.....	1995 W	2500 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.

NOTES:

1. THERMOSTAT OPTIONS: N/C OR N/O
- ② EQUALIZER OPTIONAL BASED UPON CUSTOMER REQUIREMENT.



TELEDYNE MICROWAVE SOLUTIONS  
TWT Products  
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TITLE  
MEC 5296

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

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