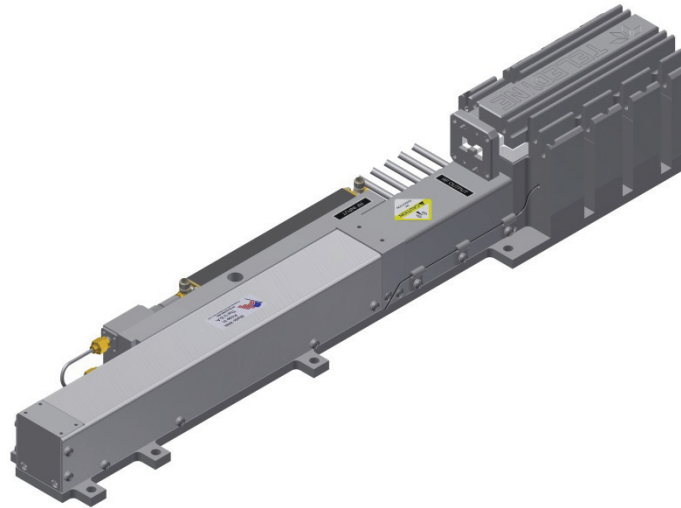


MEC 5417

Communication TWT

5.85 GHz – 6.45 GHz

- 282 W Minimum Power
- 5.85 to 6.45 GHz
- -40° to 85° C
- 1459 W Typ. Prime Power
- 39-41 dB Typical Gain
- 19.8" L x 3" W x 3.4" H (50.34 x 7.67 x 8.64 cm)
- Phase Match Available



RF Performance

Freq (GHz)	Typ. Sat. Power Output (W)	Min. Linear Power Output (W)**	Typ. Gain @ Spec. Power (dB)
5.85	445	282*	41
6.15	445	282**	41
6.45	445	282	39

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 Vdc	1.6 A	-5.0 Vdc	-6.5 Vdc	3 A
Helix					
with RF	Ground	5 mA	Ground	Ground	10 mA
without RF	Ground	1 mA	Ground	Ground	10 mA
Grid On	200 Vdc	0.5 mA	100 Vdc	250 Vdc	5 mA
Grid Off	-250 Vdc	0.1 mA	-250 Vdc	-500 Vdc	1 mA
Cathode (E_k)	-10.7 kV	300 mA	-10 kV	-11 kV	325 mA
Collector w/RF					
Coll. #1	5.99 kV	75 mA	56% x $E_k \pm 2\%$		150 mA
Coll. #2	4.28 kV	220 mA	40% x $E_k \pm 2\%$		325 mA

Cathode voltage is measured with respect to ground.

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

Currents measured at linear power output.

Collector voltage optimized for linear performance. Helix current will exceed max if TWT driven to saturation.

Performance	Typical	Spec
Input VSWR.....	2.4:1	2.5:1
Output VSWR.....	2.4:1	2.5:1
Third Order Intercept	61 dBm	—
Grid Capacitance.....	37 pF	65 pF
Min. Harmonic Separation	-15 dBc	-10 dBc*
Noise Power Density (dBm/MHz)	-12	-10
Prime Power	1459 W**	1500 W**

* Minimum harmonic separation applies to the minimum specified power output at the indicated frequency.

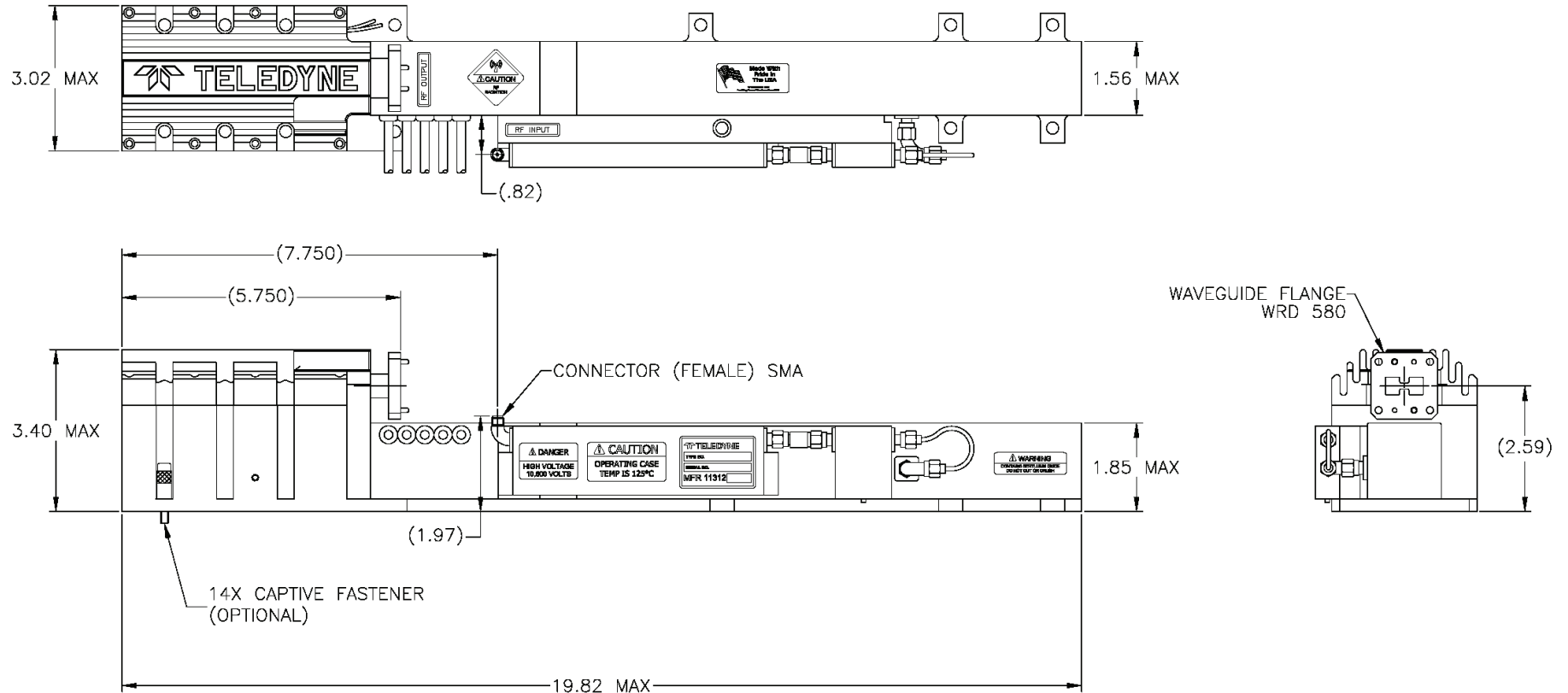
** Prime power applies to the minimum linear power output at the indicated frequency.

*** Spectral regrowth (QPSK modulation) measured at one symbol rate shall be no greater than -26 dBc.

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NOTES:

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



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

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TITLE

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