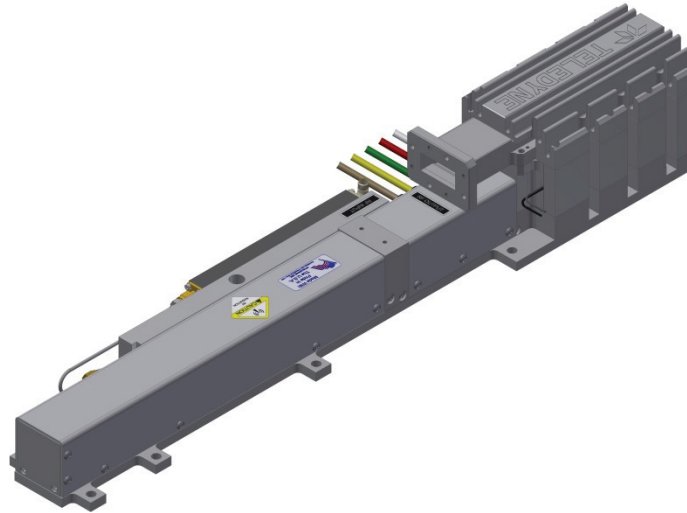


MEC 5450X

Communication TWT

7.9 GHz – 8.4 GHz

- 600 W Minimum Power
- 7.9 to 8.4 GHz
- -40° to 85° C
- 1700 W Typ. Prime Power
- 46 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. Spec. Power Output (W)	Typ. Gain @ Spec. Power (dB)
7.900	630	600	46
8.200	630	600	46
8.400	630	600	46

Typical power output is shown to illustrate capability.
Typical gain shown is with equalizer.

Spectral Regrowth

Freq (GHz)	Min. Linear Power (W)	Modulation	Level @1 Symbol Rate
7.9	380	OQPSK	-30 dBc
8.4	380	OQPSK	-30 dBc

Typical Operating Conditions

Element	Voltage	Current	Power Supply Requirements		
			Voltage Min.	Voltage Max.	Current Max.
Heater	-5.8 Vdc	1.62 A	-6.0 Vdc	-6.6 Vdc	2 A
Helix					
with RF	Ground	2 mA	Ground	Ground	10 mA
without RF	Ground	1 mA	Ground	Ground	10 mA
FE On	-6 Vdc	0.1 mA	0	-10 Vdc	1 mA
FE Off	-1300 Vdc	0.1 mA	-1600 Vdc	-1500 Vdc	0.2 mA
Cathode (E _k)	-10.95 kV	340 mA	-10.5 kV	-11.1 kV	340 mA
Collector w/RF					
Coll. #1	6.68 kV	80 mA	61% x E _k ±2%		125 mA
Coll. #2	4.38 kV	258 mA	40% x E _k ±2%		340 mA

Cathode voltage is measured with respect to ground.

Heater, Collector, and Focus Electrode (FE) voltages are measured with respect to Cathode.

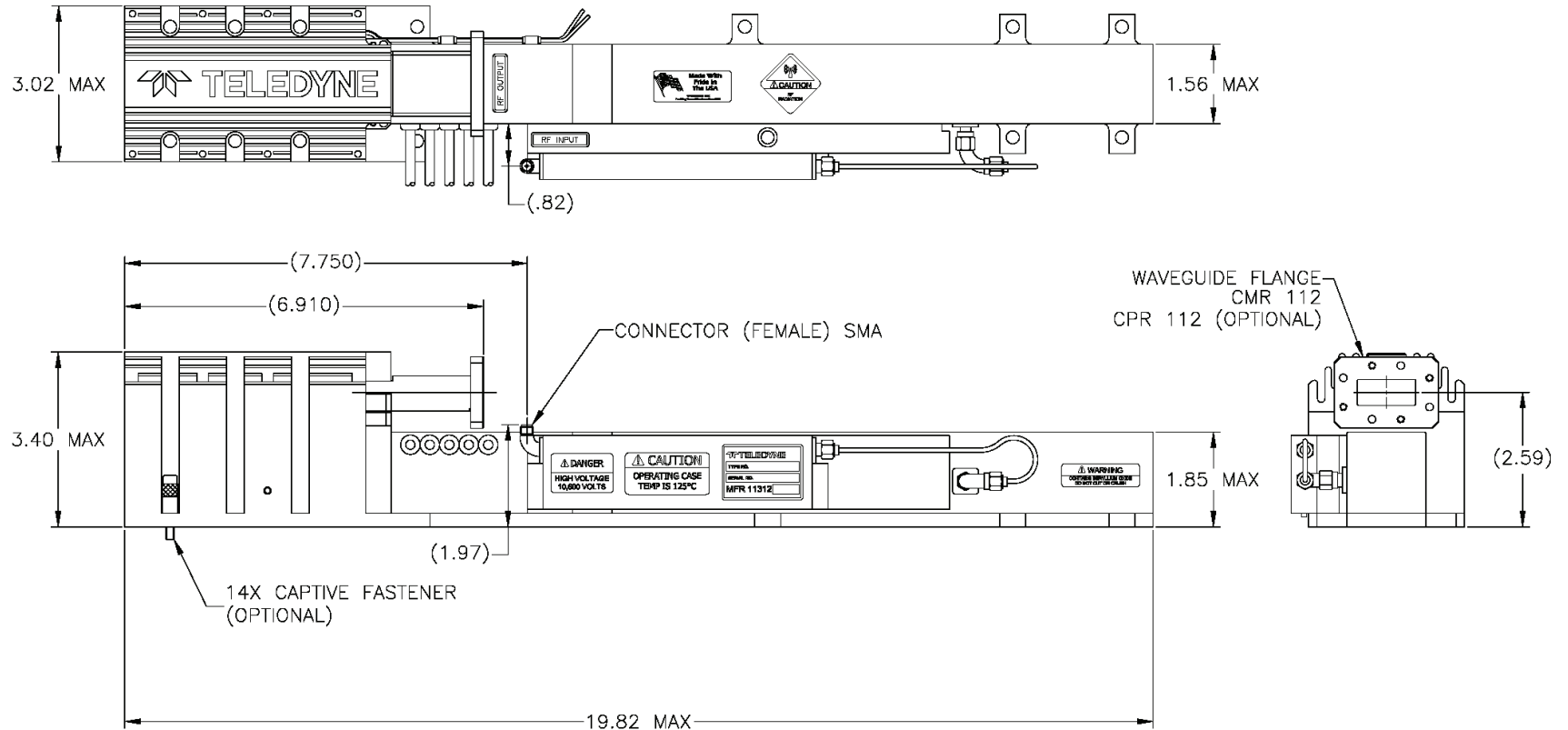
Performance

	Typical	Spec
Input VSWR.....	1.6:1	2.0:1
Output VSWR.....	1.8:1	2.0:1
Max. Duty	—	CW
FE Capacitance.....	50 pF	65 pF
Min. Harmonic Separation.....	-20 dBc	-15 dBc
Noise Power Density (dBm/MHz)	-16	-14
Prime Power.....	1700 W	1750 W

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NOTES:

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



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

TELEDYNE MICROWAVE SOLUTIONS
TWT Products
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TITLE

MEC 5450X

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