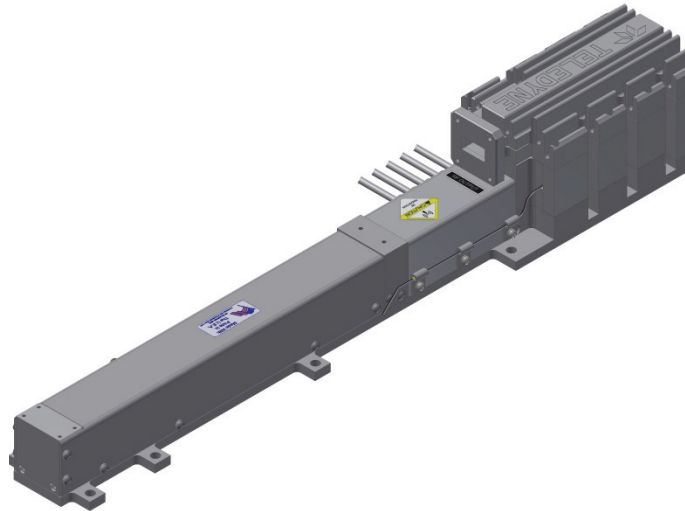


MEC 5452/5455 Communication TWT 13.75 GHz – 14.5 GHz

- 500 W Minimum Power
- 13.75 to 14.5 GHz
- -40° to 85° C
- 1320 W Typ. Prime Power
- 60 dB Typical Gain
- 19.8" L x 3" W x 3.4" H
(50.3 x 7.9 x 8.6 cm)
- Phase Match Available

5452 – Focus Electrode (FE)
5455 – Grid



RF Performance

Freq (GHz)	Typ. Sat. Power Output (W)	Min. Spec. Power Output (W)	Typ. Gain @ Spec. Power (dB)
13.75	510	500	60
14.0	510	500	60
14.1	510	500	60
14.2	520	500	60
14.3	520	500	60
14.4	520	500	60
14.5	510	500	60

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	-6.3 Vdc	1.6 A	-5.8 Vdc	-6.6 Vdc	2.5 A
Helix					
with RF	Ground	5 mA	Ground	Ground	10 mA
without RF	Ground	0.5 mA	Ground	Ground	10 mA
FE On	-35 Vdc	0.3 mA	0	-75 Vdc	1 mA
FE Off	-1300 Vdc	0.05 mA	-1200 Vdc	-1500 Vdc	1 mA
Grid On	160 Vdc	0.1 mA	125 Vdc	250 Vdc	10 mA
Grid Off	-250 Vdc	0.02 mA	-250 Vdc	-500 Vdc	1 mA
Cathode (E _k)	-10.3 kV	320 mA	-10 kV	-10.8 kV	320 mA
Collector w/RF					
Coll. #1	5.5 kV	88 mA	54% x E _k ±2%		100 mA
Coll. #2	3.4 kV	226 mA	33% x E _k ±2%		320 mA

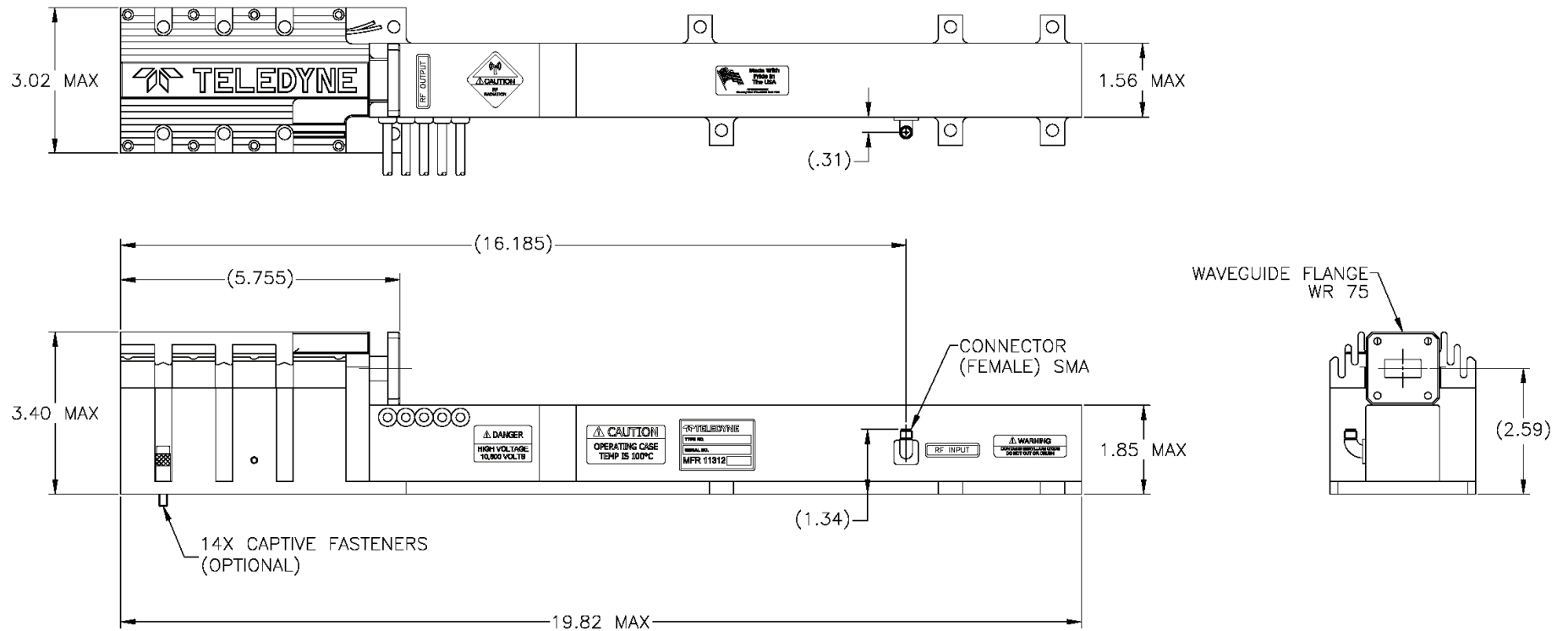
Cathode voltage is measured with respect to ground.
Heater, Collector, and Grid or Focus Electrode (FE) voltages are measured with respect to Cathode.

Performance	Typical	Spec
Input VSWR.....	1.38:1	1.5:1
Output VSWR.....	1.45:1	1.7:1
Max. Duty	—	CW
FE Capacitance.....	50 pF	65 pF
Grid Capacitance.....	37 pF	50 pF
Min. Harmonic Separation.....	-30 dBc	-15 dBc
Noise Power Density (dBm/MHz)	-7	-5
Prime Power.....	1320 W	1450 W

This model number is subject to the jurisdiction of the U.S. Department of Commerce.

NOTES:

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



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

TELEDYNE MICROWAVE SOLUTIONS TWT Products 11361 Sunrise Park Dr., Rancho Cordova, CA (916) 638-3344
TITLE
MEC 5452/MEC 5455

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