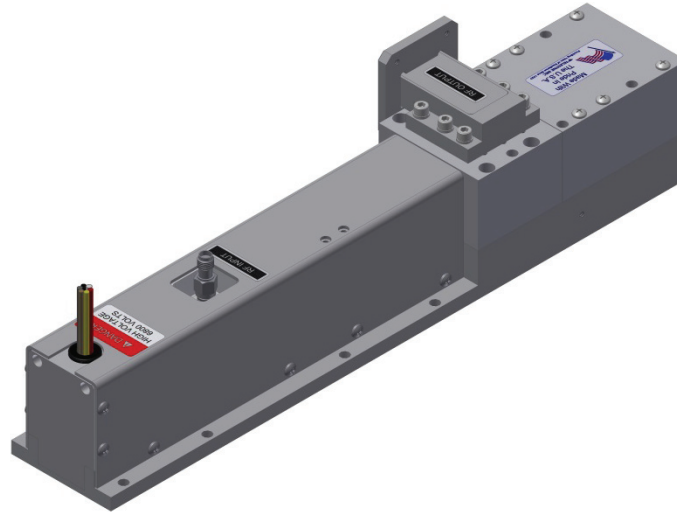


MEC 5499/MEC 5499A Communication TWT 13.75 GHz – 14.5 GHz

- 200 W Minimum Power
- 13.75 to 14.5 GHz
- -30° to 75° C
- 615 W Typ. Prime Power
- 53-55 dB Typical Gain
- 12.05" L x 2.1" W x 2.45" H
(30.6 x 5.33 x 6.22 cm)
- Phase Match Available



RF Performance

Freq (GHz)	Typ. Sat. Power Output (W)	Min. Spec. Power Output (W)	Typ. Gain @ Spec. Power (dB)
13.75	210	200	55
14.0	210	200	55
14.1	210	200	54
14.2	210	200	54
14.3	210	200	53
14.4	210	200	53
14.5	210	200	53

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
13.75	90	QPSK	-26 dBc
14.5	90	QPSK	-26 dBc

Typical Operating Conditions Element	Voltage	Current	Power Supply Requirements		
			Voltage Min.	Voltage Max.	Current Max.
Heater	-6.3 Vdc	1.3 A	-6.0 Vdc	-6.6 Vdc	1.5 A
Helix					
with RF	Ground	6 mA	Ground	Ground	12 mA
without RF	Ground	2 mA	Ground	Ground	12 mA
Cathode (E_k)	-6.4 kV	235 mA	-5.2 kV	-6.5 kV	300 mA
Collector 1					
w/RF	3.1 kV	150 mA	48% x $E_k \pm 2\%$		165 mA
w/o RF	3.1 kV	34 mA	48% x $E_k \pm 2\%$		165 mA
Collector 2					
w/RF	1.47 kV	80 mA	23% x $E_k \pm 2\%$		290 mA
w/o RF	1.47 kV	195 mA	23% x $E_k \pm 2\%$		290 mA

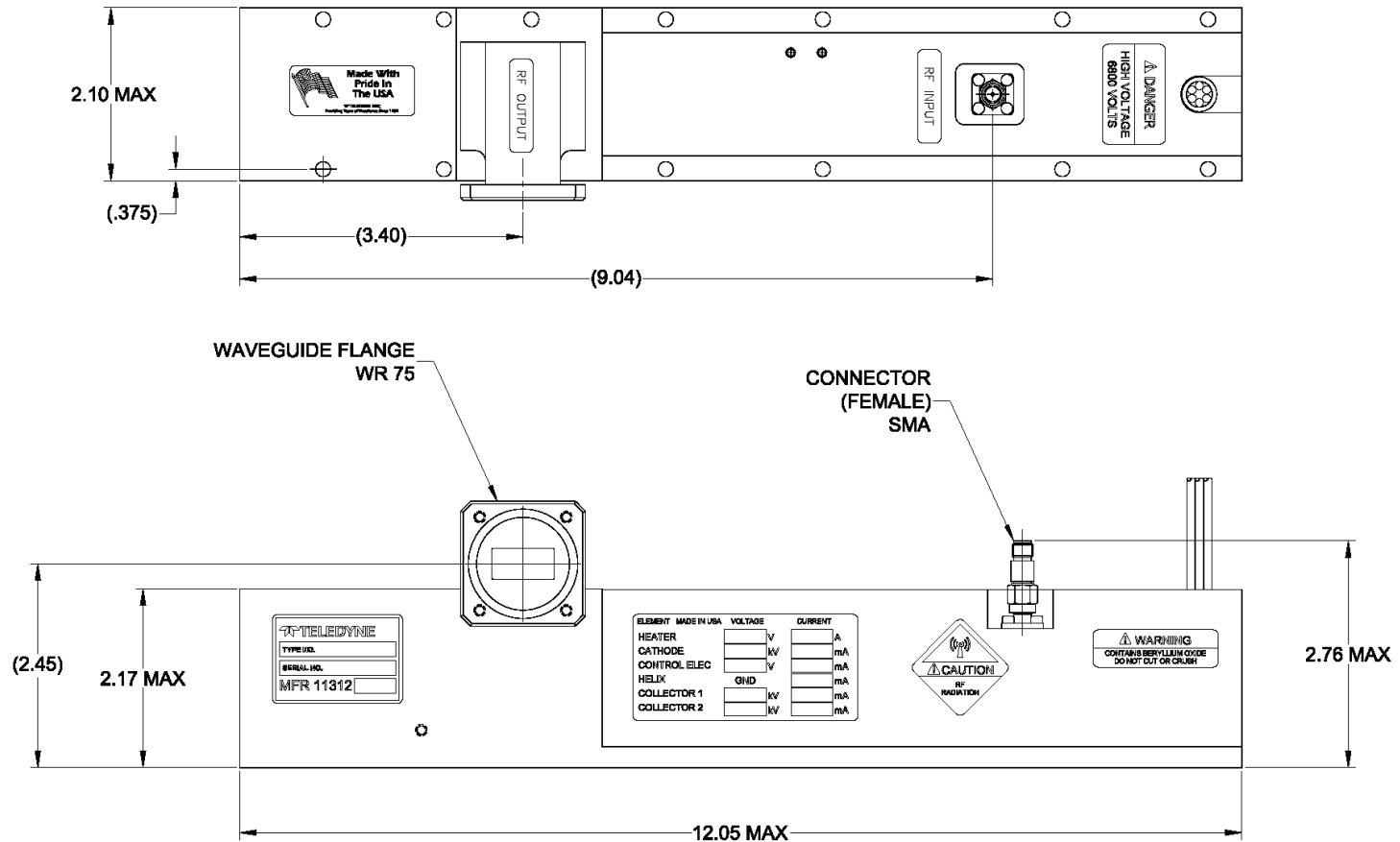
Cathode voltage is measured with respect to ground.
Heater, Collector, and Focus Electrode (FE) voltages are measured with respect to Cathode.

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Performance	Typical	Spec
Input VSWR.....	1.3:1	1.6:1
Output VSWR.....	1.4:1	1.6:1
Max. Duty	—	CW
Noise Power Density (dBm/MHz)	-30	-26
Prime Power.....	615 W	649 W

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 95742 (916) 638-3344

TITLE

MEC 5499/MEC 5499A

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