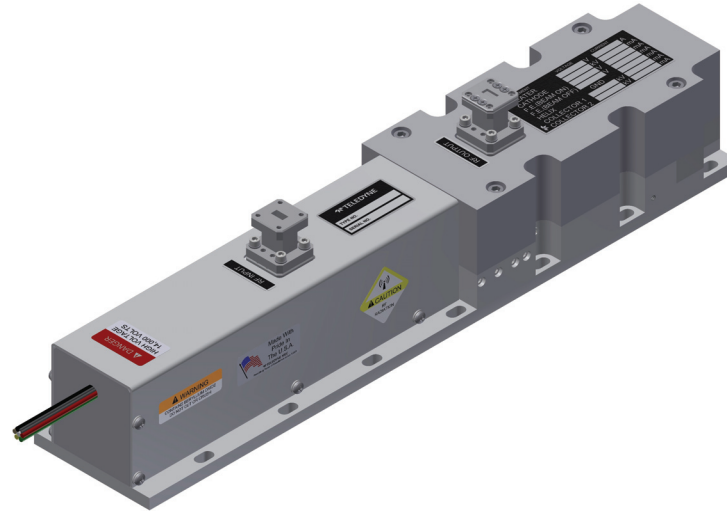


# MEC 5523

## Communication TWT

### 43.5 GHz – 45.5 GHz

- 125 W Minimum Power
- 43.5 to 45.5 GHz
- -40° to 85° C
- 575 W Typical Prime Power
- 30 to 32 dB Typical Gain @ Saturation
- 14.1" L x 2.76" W x 3.15" H (35.8 x 7.0 x 8.0 cm)



#### RF Performance

Freq (GHz)	Typ. Sat. Power Output (W)	Min. Spec. Power Output (W)	Typ. Gain @ Spec. Power (dB)
43.50	140	125	33
43.75	135	125	32
44.00	145	125	32
44.25	145	125	32
44.50	145	125	32
44.75	145	125	32
45.00	135	125	31
45.25	135	125	31
45.50	132	125	30

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	0.75 A	-5.8 Vdc	-6.6 Vdc	1.5 A
Helix					
with RF	Ground	1.4 mA	Ground	Ground	4 mA
without RF	Ground	0.7 mA	Ground	Ground	4 mA
FE On	-14 Vdc	0.1 mA	0 Vdc	-40 Vdc	1 mA
FE Off	-1300 Vdc	0.0 mA	-1300 Vdc	-1400 Vdc	0.2 mA
Cathode (Ek)	-15.1 kV	152 mA	-15.1 kV	-16.1 kV	185 mA
Collector w/RF					
Coll. #1	4.98 kV	47.8 mA	33% x Ek ±2%		90 mA
Coll. #2	3.02 kV	102.8 mA	20% x Ek ±2%		185 mA

Performance	Typical	Spec
Input VSWR:.....	1.9:1	2.0:1
Output VSWR.....	1.7:1	2.0:1
Max. Duty .....	-	CW
FE Capacitance.....	50 pF	60 pF
Noise Power Density (dBm/MHz) .....	-26	-20
Prime Power.....	575 W	650W

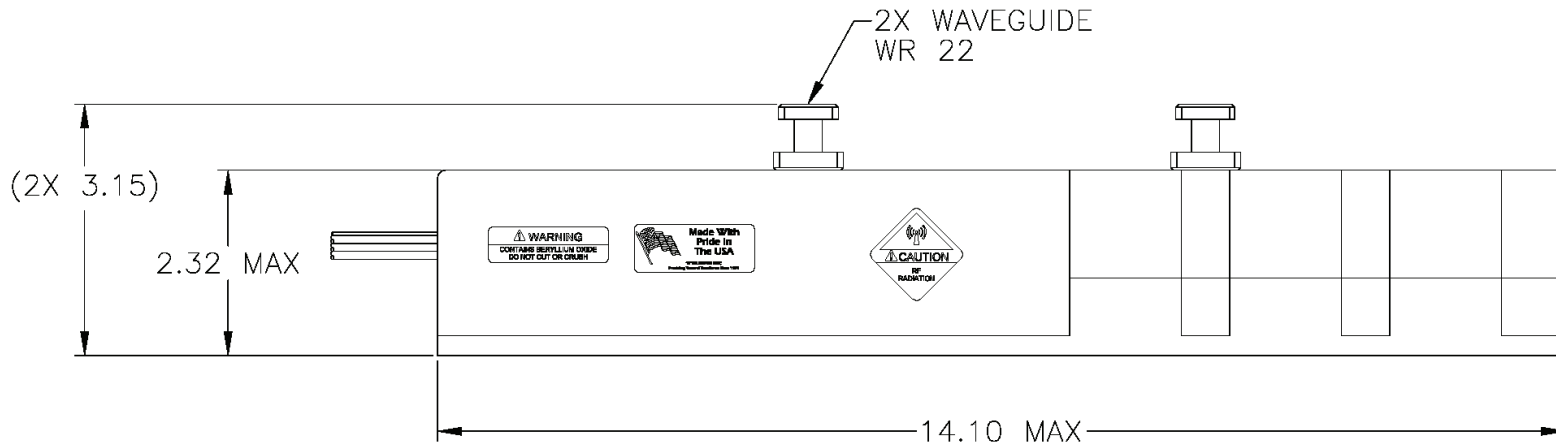
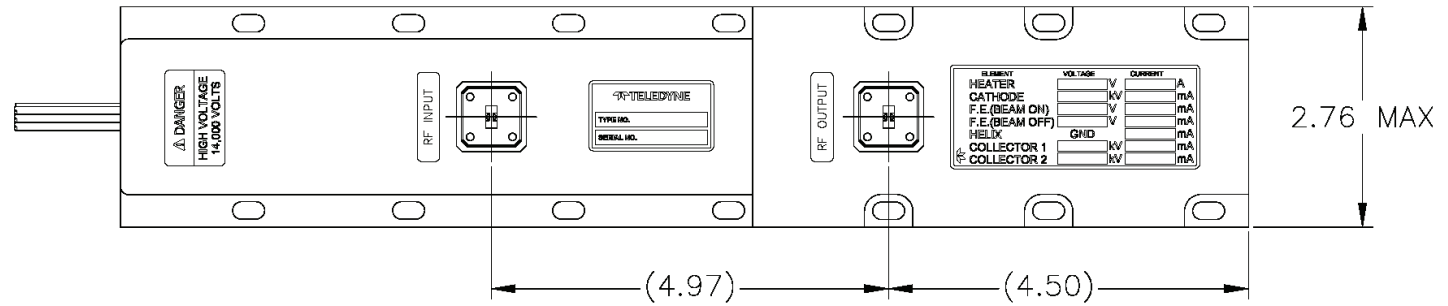
Cathode voltage is measured with respect to ground.  
Heater, Collector, and Focus Electrode (FE) voltages are measured with respect to Cathode.

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NOTES:

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



TELEDYNE MICROWAVE SOLUTIONS  
TWT Products  
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TITLE

MEC 5523

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

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