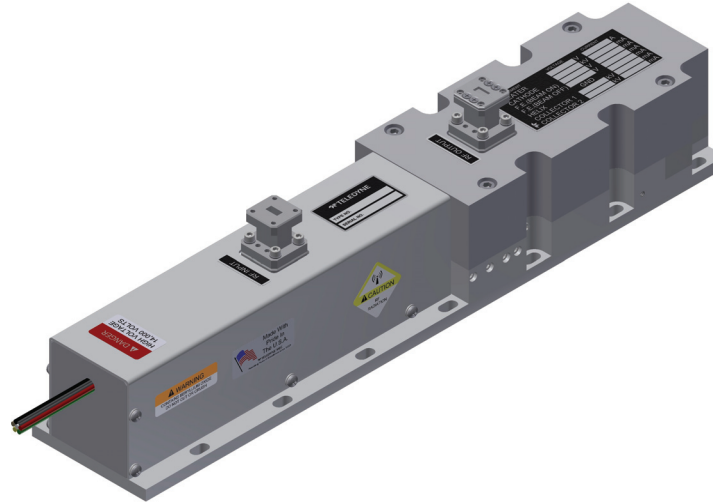


MEC 5530H

Dual Band Communication TWT

30 GHz – 31 GHz

- 502 W Peak Minimum Power
- 250 W CW Minimum Power
- 175 W Linear Minimum Power (Linearized)
- 30 GHz to 31 GHz
- -40° to 85° C
- 970 W Typ. Prime Power @ 53.5dBm
- 40 dB Typical Gain
- 14.1" L x 2.76" W x 3.15" H (36 x 7.0 x 8.0 cm)



RF Performance

Freq (GHz)	Typ. CW. Power Output (W)	Min. Spec. Power Output (W)	Typ. Gain @ Spec. Power (dB)
30.0	250	250	40
30.5	250	250	39
31.0	250	250	40

Typical power output is shown to illustrate capability. Typical gain shown is without equalizer.

Spectral Regrowth

Freq (GHz)	Min. Linear Power (W)	Modulation	Level @1 Symbol Rate
30.0	175	QPSK	-30 dBc
30.5	175	QPSK	-30 dBc
31.0	175	QPSK	-30 dBc

Typical Operating Conditions Element	Typical Operating Conditions		Power Supply Requirements		
	Voltage	Current	Voltage Min.	Voltage Max.	Current Max.
Heater	-6.3 Vdc	0.78A	-5.8 Vdc	-6.6 Vdc	1.5 A
Helix					
with RF	Ground	1.3 mA	Ground	Ground	4 mA
without RF	Ground	0.6 mA	Ground	Ground	4 mA
FE On	-18 Vdc	0.1 mA	0 Vdc	-40 Vdc	1 mA
FE Off	-1300 Vdc	0.1 mA	-1300 Vdc	-1400 Vdc	0.2 mA
Cathode (E _k)	-17.4 kV	178 mA	-17.2 kV	-18.2 kV	200 mA
Collector w/RF					
Coll. #1	8.53 kV	60.4 mA	49% x E _k ±2%		90 mA
Coll. #2	3.65 kV	116.3 mA	21% x E _k ±2%		185 mA

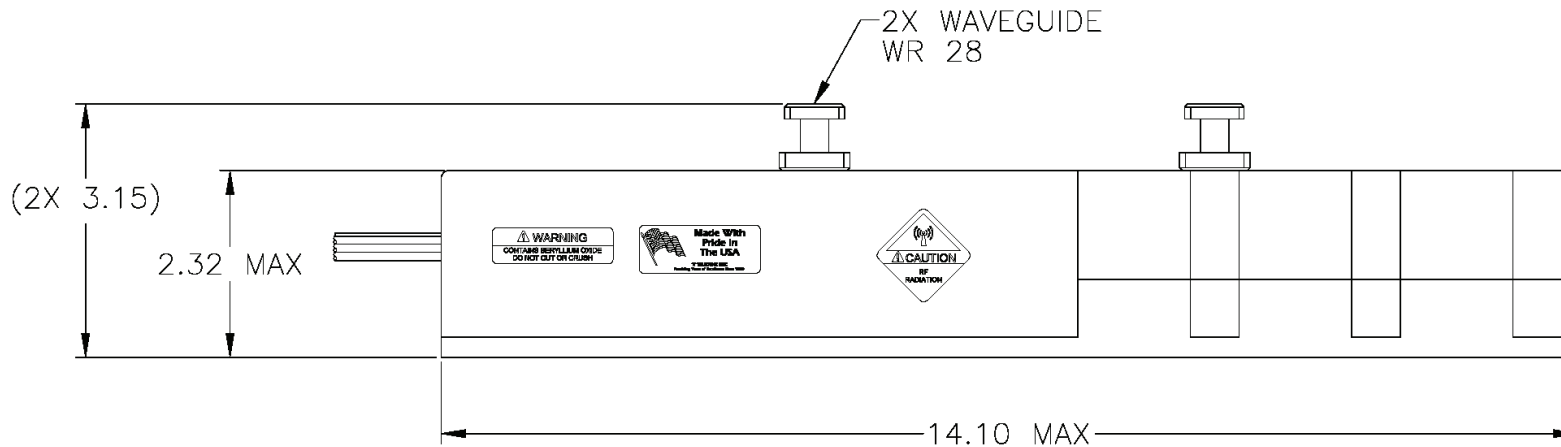
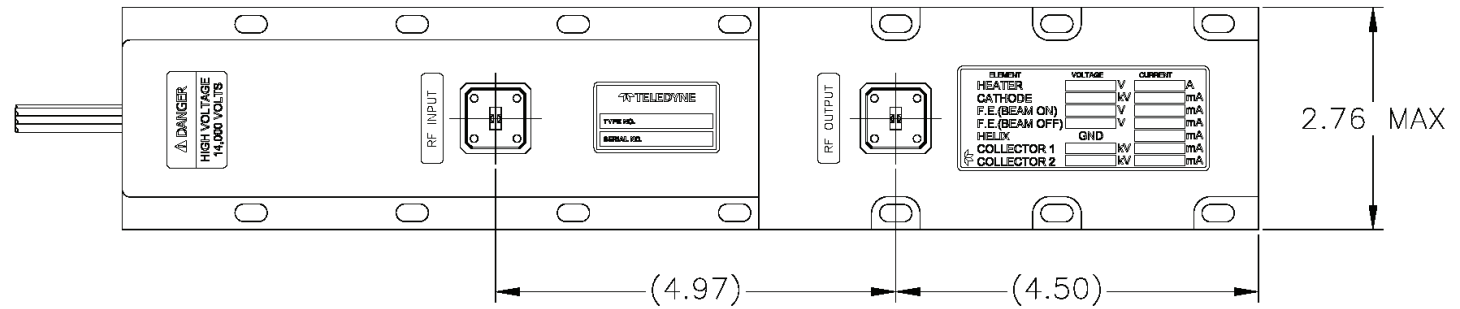
*Cathode voltage is measured with respect to ground.
Heater, Collector, and Focus Electrode (FE) voltages are measured with respect to Cathode.*

Performance	Typical	Spec
Input VSWR.....	1.30:1	2.0:1
Output VSWR.....	1.30:1	2.0:1
Max. Duty	—	CW
FE Capacitance	50 pF	65 pF
Noise Power Density (dBm/MHz)	-23	-20
Prime Power @ 53.5dBm	970 W	1100 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



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

TITLE
MEC 5530L/MEC 5530H

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

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