

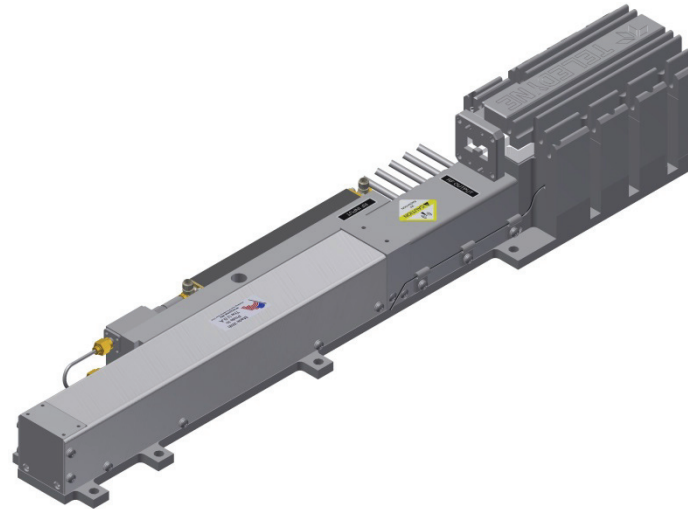
# MTG 5333/MTG 5336

## Communication TWT

### Tri-Band

- 325 W Minimum Power
- Tri-Band
- -40° to 85° C
- 1412 W Typ. Prime Power
- 37/46/48 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

5333 – Grid  
5336 – Focus Electrode (FE)



Typical Operating Conditions			Power Supply Requirements		
Element	Voltage	Current	Voltage Min.	Voltage Max.	Current Max.
Heater	-5.8 Vdc	1.62 A	-5.6 Vdc	-6.6 Vdc	2.5 A
Helix with RF	Ground	8 mA	Ground	Ground	10 mA
without RF	Ground	0.6 mA	Ground	Ground	10 mA
FE On	-6 Vdc	0.1 mA	0	-10 Vdc	1 mA
FE Off	-1300 Vdc	0.1 mA	-1300 Vdc	-1500 Vdc	1 mA
Grid On	200 Vdc	1 mA	125 Vdc	250 Vdc	5 mA
Grid Off	-250 Vdc	0.1 mA	-250 Vdc	-500 Vdc	1 mA
Cathode (E <sub>k</sub> )	-10.65 kV	300 mA	-10 kV	-10.8 kV	300 mA
Collector w/RF					
Coll. #1	5.96 kV	80 mA	56% x E <sub>k</sub> ±2%		150 mA
Coll. #2	4.26 kV	202 mA	40% x E <sub>k</sub> ±2%		300 mA

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

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#### RF Performance

Freq (GHz)	Typ. Sat. Power Output (W)	Min. Spec. Power Output (W)	Typ. Gain @ Spec. Power (dB)
5.850	375	325*	37
6.000	375	325	37
6.425	375	325	37
7.900	450	400**	46
8.200	450	400	46
8.400	450	400	46
14.000	375	325***	48
14.250	375	325	48
14.500	375	325	48

Typical power output is shown to illustrate capability.  
Typical gain shown is with equalizer.  
\*\*\*/\*\*\* Minimum harmonic separation applies to the minimum specified power output at the indicated frequency.

#### Spectral Regrowth

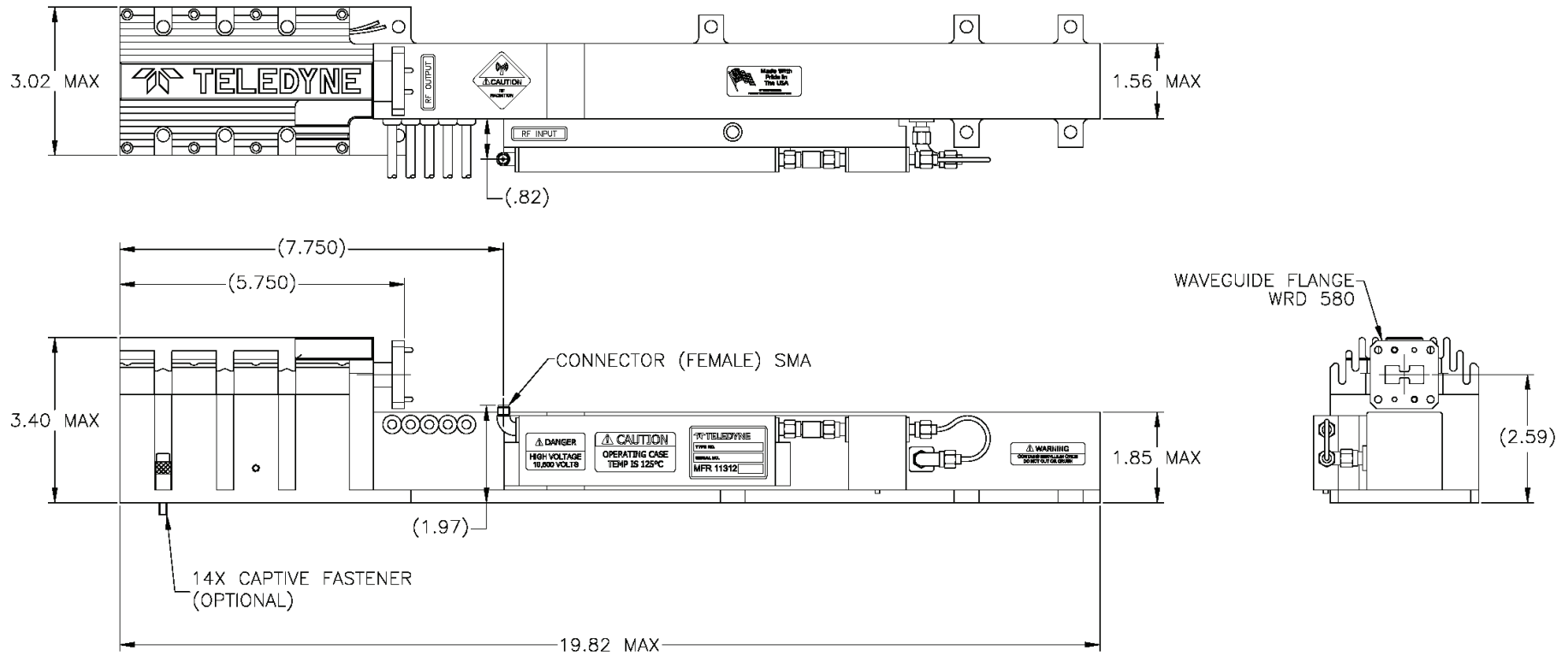
Freq (GHz)	Min. Linear Power (W)	Modulation	Level @1 Symbol Rate
7.9	250	QPSK	-30 dBc
8.4	250	QPSK	-30 dBc

Performance	Typical	Spec
Input VSWR.....	2.3:1	2.5:1
Output VSWR.....	1.8:1	2:1
Max. Duty .....	—	CW
FE Capacitance .....	50 pF	65 pF
Grid Capacitance.....	37 pF	50 pF
Min. Harmonic Separation (dBc) ....	-5/-8/-20	-3*/-5**/-15***
Noise Power Density (dBm/MHz) .....	-12	-10
Prime Power .....	1412 W	1450 W

*Specifications are subject to change without notice.*

NOTES:

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



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

TELEDYNE MICROWAVE SOLUTIONS  
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 TITLE  
 MTG 5333/MTG 5336

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