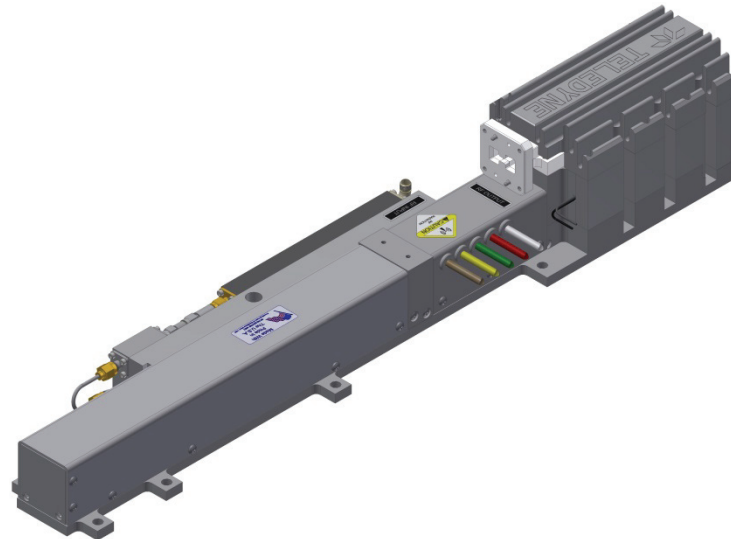


# MTG 5338X

## Communication TWT

### Tri-Band

- 350 W Minimum Power
- Tri-Band
- -40° to 85° C
- 1700 W Typ. Prime Power
- 37/46/48 dB Typical Gain
- 19.8" L x 3.9" W x 3.4" H  
(50.34 x 9.9 x 8.64 cm)
- Phase Match Available



Typical Operating Conditions			Power Supply Requirements		
Element	Voltage	Current	Voltage Min.	Voltage Max.	Current Max.
Heater	-5.8 Vdc	1.62 A	-5.8 Vdc	-6.8 Vdc	2 A
Helix with RF	Ground	4 mA	Ground	Ground	10 mA
without RF	Ground	1 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
Cathode (E <sub>k</sub> )	-10.95 kV	340 mA	-10.1 kV	-11.1 kV	340 mA
Collector w/RF					
Coll. #1	6.68 kV	80 mA	61% x E <sub>k</sub> ±2%		125 mA
Coll. #2	4.38 kV	256 mA	40% x E <sub>k</sub> ±2%		340 mA

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

\*/\*\*/\*\*\*\* Minimum harmonic separation applies to the minimum specified power output at the indicated frequency.

This model number is controlled by the International Traffic in Arms Regulations, and can only be exported via a U.S. Department of State export license. They may not be transferred, transshipped on a non-continuous voyage, or otherwise be disposed of in any other country, either in their original form or after being incorporated into other end-items, without the prior written approval of the U.S. Department of State.

#### RF Performance

Freq (GHz)	Typ. Sat. Power Output (W)	Min. Spec. Power Output (W)	Typ. Gain @ Spec. Power (dB)
5.850	400	350*	37
6.000	400	350	37
6.425	400	350	37
-----			
7.900	640	600**	46
8.200	635	600	46
8.400	630	600	46
-----			
14.000	400	350***	48
14.250	400	350	48
14.500	400	350	48

Typical power output is shown to illustrate capability.  
Typical gain shown is with equalizer.  
Requires independent (E<sub>k</sub>) in each band.

#### Spectral Regrowth

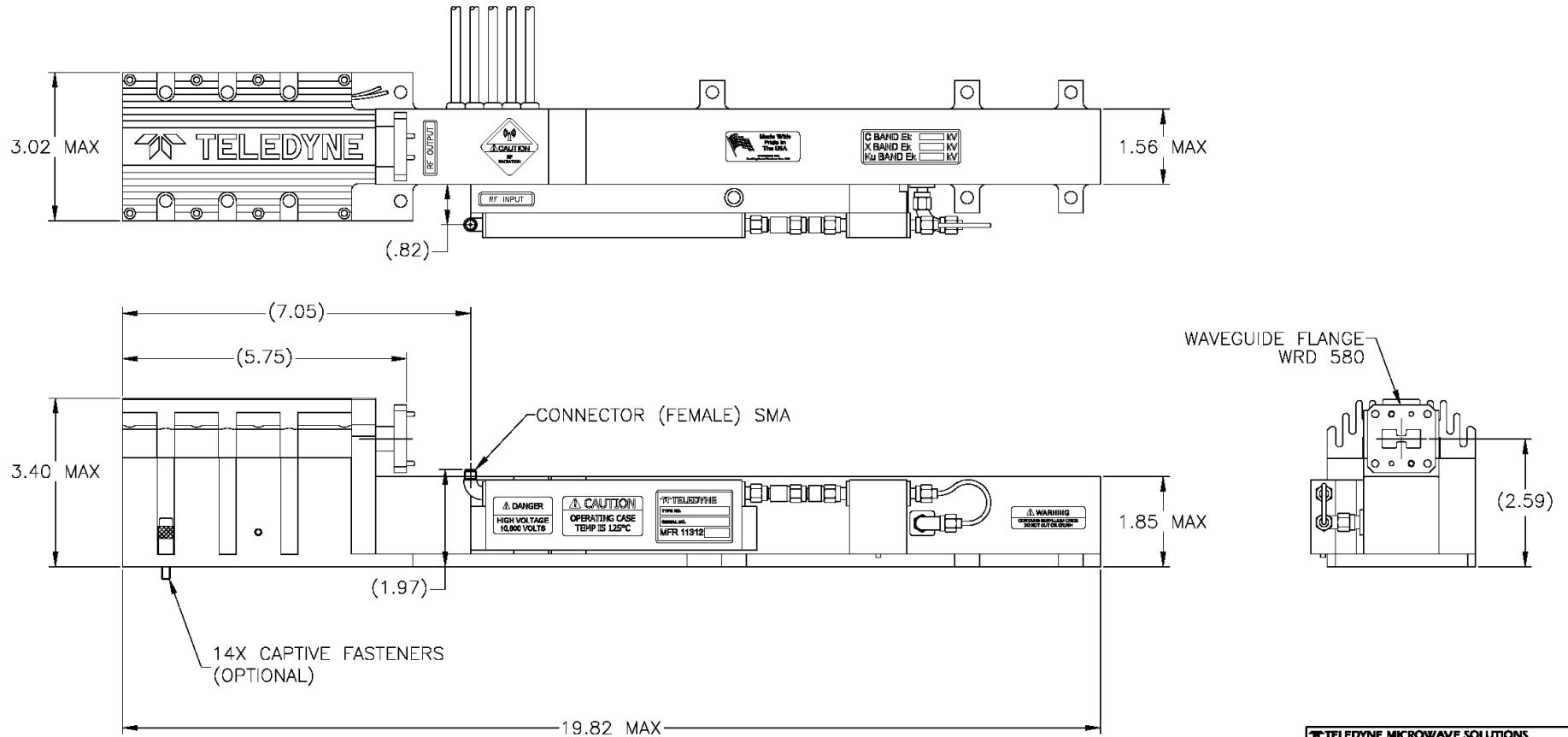
Freq (GHz)	Min. Linear Power (W)	Modulation	Level @1 Symbol Rate
5.85	280	QPSK	-26 dBc
6.425	280	QPSK	-26 dBc
-----			
7.9	380	QPSK	-30 dBc
8.4	380	QPSK	-30 dBc
-----			
13.75	125	QPSK	-26 dBc
14.5	125	QPSK	-26 dBc

Performance	Typical	Spec
Input VSWR.....	2.3:1	2.5:1
Output VSWR.....	1.8:1	2.0:1
Max. Duty .....	—	CW
FE Capacitance .....	50 pF	65 pF
Min. Harmonic Separation (dBc) .....	-5/-8/-20	-3*/-5**/-15***
Noise Power Density (dBm/MHz) .....	-14	-12
Prime Power .....	1700 W	1750 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

<b>TELEDYNE MICROWAVE SOLUTIONS</b> <b>TWT Products</b> 11361 Sunrise Park Dr., Rancho Cordova, CA (916) 638-3344 TITLE MTG 5338X
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