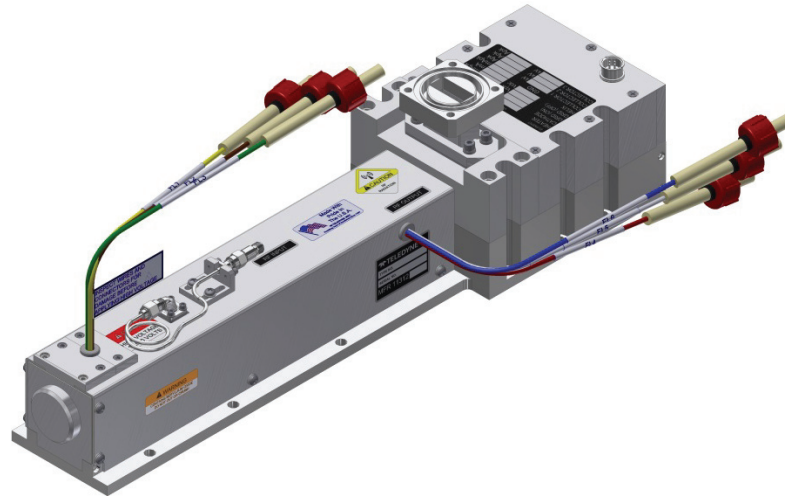


MTI 3948U

Pulse TWT

9 GHz – 10 GHz

- 5% Maximum Duty
- 7945 W Minimum Power
- 9.0 to 10.0 GHz
- -40° to 85° C
- 1150 W Typ. Prime Power @5%
- 47-48 dB Typical Gain
- 15.45" L x 4" W x 3.78" H
(39.2 x 10.15 x 9.6 cm)
- ±15° Phase Match



RF Performance

Freq (GHz)	Typ. Sat. Power Output (W)	Min. Spec. Power Output (W)	Typ. Gain @ Spec. Power (dB)
9.0	8000	7945	47
9.1	8000	7945	47
9.2	8000	7945	47
9.3	8000	7945	47
9.4	8000	7945	48
9.5	8000	7945	47
9.6	8000	7945	47
9.7	8000	7945	47
9.8	8000	7945	47
9.9	8000	7945	47
10.0	8000	7945	47

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

Typical Operating Conditions

Element	Typical Operating Conditions		Power Supply Requirements		
	Voltage	Current	Voltage Min.	Voltage Max.	Current Max.
Heater	-6.3 Vdc	2.2 A	-6.1 Vdc	-6.5 Vdc	2.8 A
Helix					
with RF	Ground	400 mApk	Ground	Ground	460 mApk @ 5%
without RF	Ground	80 mApk	Ground	Ground	460 mApk @ 5%
Grid On	185 Vpk	1.0 mApk	100 Vpk	300 Vpk	30 mApk
Grid Off	-325 Vdc	0.02 mA	-300 Vdc	-500 Vdc	0.5 mA
Cathode (Ek)	-14.2 kV	2.25 Apk	-13 kV	-15 kV	2.5 Apk
Collector w/RF					
Coll. #1	10.5 kV	825 mApk	74% x Ek ±2%		1.1 Apk
Coll. #2	7.67 kV	740 mApk	54% x Ek ±2%		1.0 Apk
Coll. #3	5.4 kV	285 mApk	38% x Ek ±2%		2.4 Apk

Cathode voltage is measured with respect to ground.
Heater, Collector, and Grid voltages are measured with respect to Cathode.

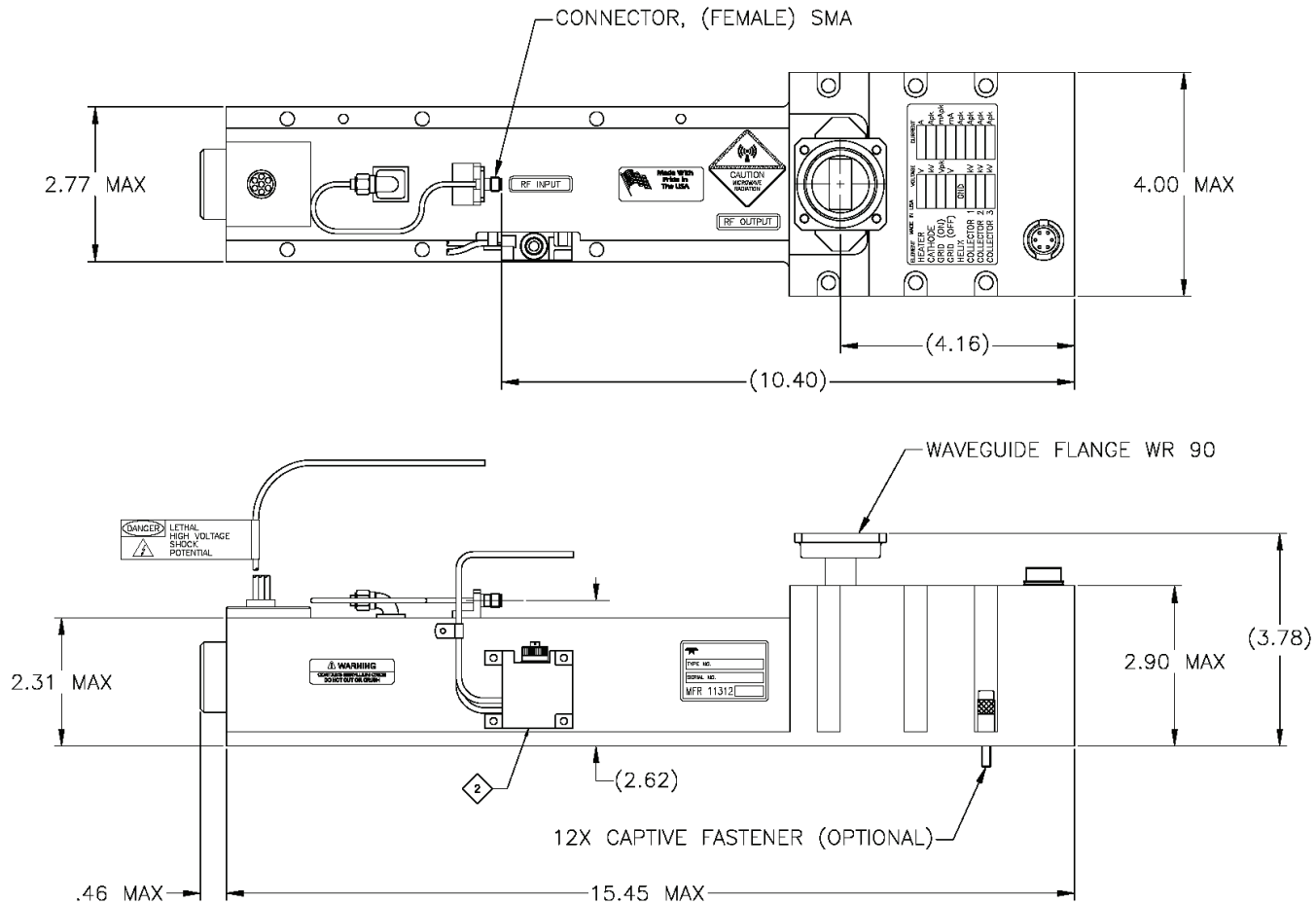
Performance

	Typical	Spec
Input VSWR.....	1.6:1	2.0:1
Output VSWR.....	1.4:1	2.0:1
Max. Duty	5%	5%
Max. Pulsewidth	50 μs	100 μs
Grid Capacitance.....	49 pF	60 pF
Min. Harmonic Separation.....	-12 dBc	-10 dBc
Noise Power Density (dBm/MHz)	>-14	-10
Prime Power.....	1150 W	1500 W

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.

NOTES:

1. THERMOSTAT OPTIONS: N/C OR N/O
- ② SOLID STATE AMPLIFIER OPTIONAL BASED UPON CUSTOMER REQUIREMENT.



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

TELEDYNE MICROWAVE SOLUTIONS TWT Products <small>11361 Sunrise Park Dr., Rancho Cordova, CA (916) 638-3344</small>	
TITLE	MTI 3948U

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