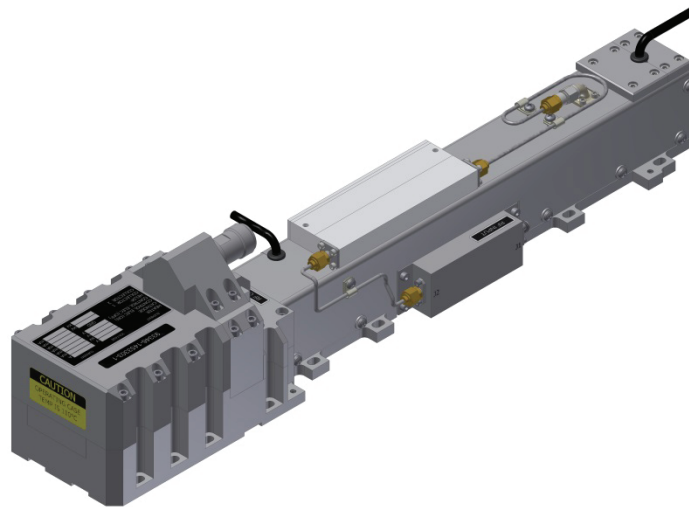


MEC 5497

Continuous Wave TWT

2.5 GHz – 7.5 GHz

- 400 W Minimum Power
- 2.5 to 7.5 GHz
- -40° to 85° C
- 1575 W Typ. Prime Power
- 30-43 dB Typical Gain
- 17.5" L x 3.25" W x 4.1" H (44.5 x 8.25 x 10.4 cm)
- Phase Match Available



Typical Operating Conditions			Power Supply Requirements		
Element	Voltage	Current	Voltage Min.	Voltage Max.	Current Max.
Heater	-6.3 Vdc	1.93 A	-6.0 Vdc	-6.6 Vdc	2.5 A
Helix					
with RF	Ground	35 mA	Ground	Ground	55 mA
without RF	Ground	5 mA	Ground	Ground	55 mA
Grid On	138 Vdc	0.2 mA	100 Vdc	250 Vdc	10 mA
Grid Off	-250 Vdc	0.05 mA	-250 Vdc	-350 Vdc	1 mA
Cathode (E _k)	-5.60 kV	430 mA	-5.4 kV	-5.7 kV	475 mA
Coll. #1	3.584 kV	360 mA (w/RF) 42 mA (w/o RF)	64% x E _k ±2%		425 mA
Coll. #2	2.184 kV	35 mA (w/RF) 383 mA (w/o RF)	39% x E _k ±2%		475 mA

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

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

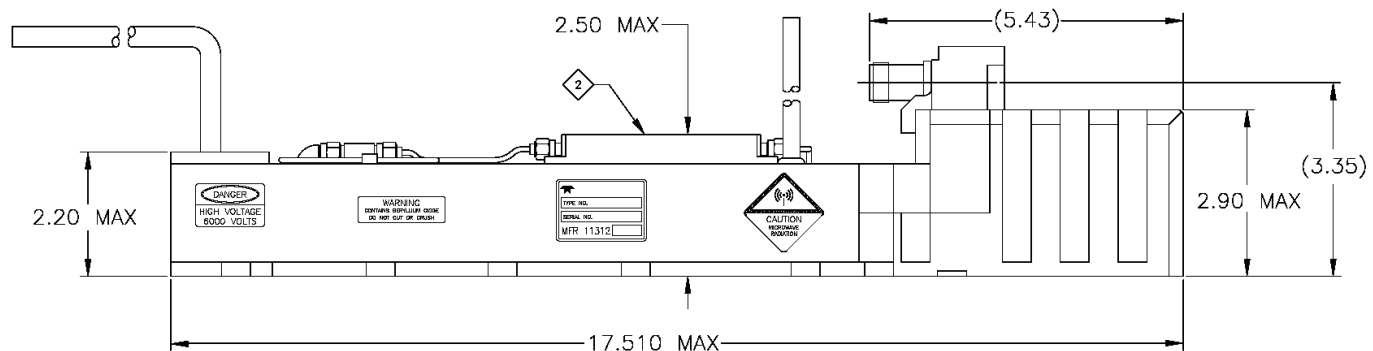
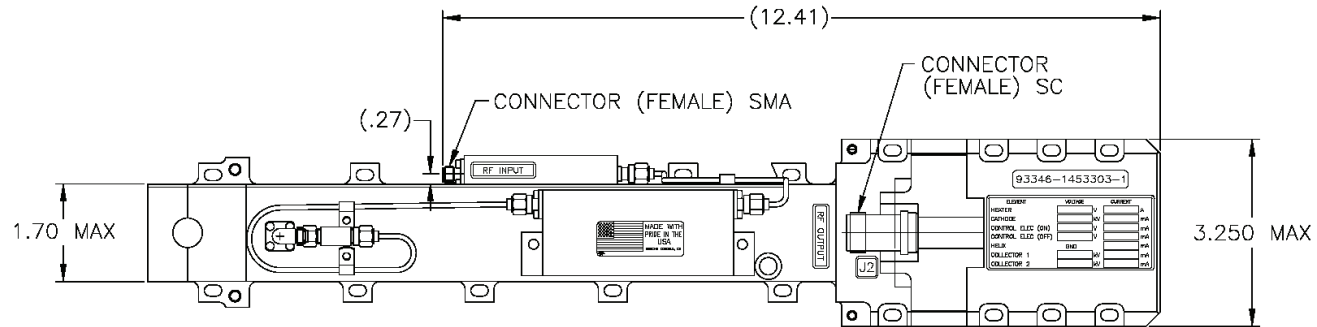
Freq (GHz)	Typ. Sat. Power Output (W)	Min. Spec. Power Output (W)	Typ. Gain @ Spec. Power (dB)
2.5	575	500	31
3.0	700	630	40
3.5	700	630	41
4.0	680	630	43
4.5	725	630	43
5.0	700	630	42
5.5	650	575	40
6.0	600	550	37
6.5	600	550	37
7.0	500	450	32
7.5	450	400	30

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

Performance	Typical	Spec
Input VSWR.....	2:1	2.5:1
Output VSWR.....	2:1	2.5:1
Max. Duty	—	CW
Min. Harmonic Separation.....	-5 dBc	-3 dBc
Noise Power Density (dBm/MHz)	-30	-20
Prime Power.....	1575 W	1650 W

NOTES:

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



TELEDYNE MICROWAVE SOLUTIONS
TWT Products
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TITLE

MEC 5497

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

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