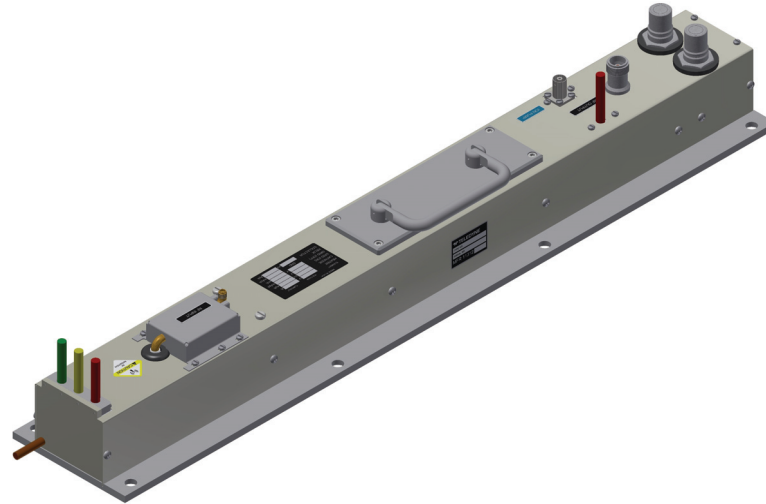


MEC 3090X

Pulse TWT

2.8 GHz – 3.6 GHz

- 2% Maximum Duty
- 14+ kW_{pk} Typical Minimum Power
- 2.8 to 3.6 GHz
- Liquid Cooled Design
- On board Vac-Ion Pump
- 1300 W Typ. Prime Power
- 100 μS PW Max
- 40 dB Typical Sat. Gain
- 27.5" L x 4.75" W x 3.72" H (70 x 12 x 9.45 cm)



RF Performance

Freq (GHz)	Typ. Sat. Power Output (W)	Min. Spec. Power Output (W)	Typ. Gain @ Sat. Power (dB)
2.8	13500	13000	38
2.9	14500	13000	39
3.0	16000	13000	40
3.1	17500	13000	41
3.2	19500	13000	41
3.3	21000	13000	41
3.4	21000	13000	41
3.5	21000	13000	41
3.6	19500	13000	41

Typical power output is shown to illustrate capability.
Typical gain shown is with equalizer.

Typical Operating Conditions

Element	Voltage	Current	Power Supply Requirements		
			Voltage Min.	Voltage Max.	Current Max.
Heater	-6.3 Vdc	5.55 A	-6.1 Vdc	-6.5 Vdc	6 A
Helix					
with RF	Ground	1.39 Apk	Ground	Ground	1.5 Apk
without RF	Ground	300 mApk	Ground	Ground	1.5 Apk
Grid On	216 Vpk	1.0 mApk	175 Vpk	350 Vpk	50 mApk
Grid Off	-300 Vdc	0.1 mA	-300 Vdc	-500 Vdc	0.5 mA
Cathode (E _k)	-16.75 kV	4.63 Apk	-16.0 kV	-17.0 kV	5.0 Apk
Collector w/RF	14.75 kV	3.24 Apk	88% x E _k ±2%		4.8 Apk
Vac-Ion Pump	3.3 kV	0 to 5 uA	3.3 kV		5.0 uA

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

Performance

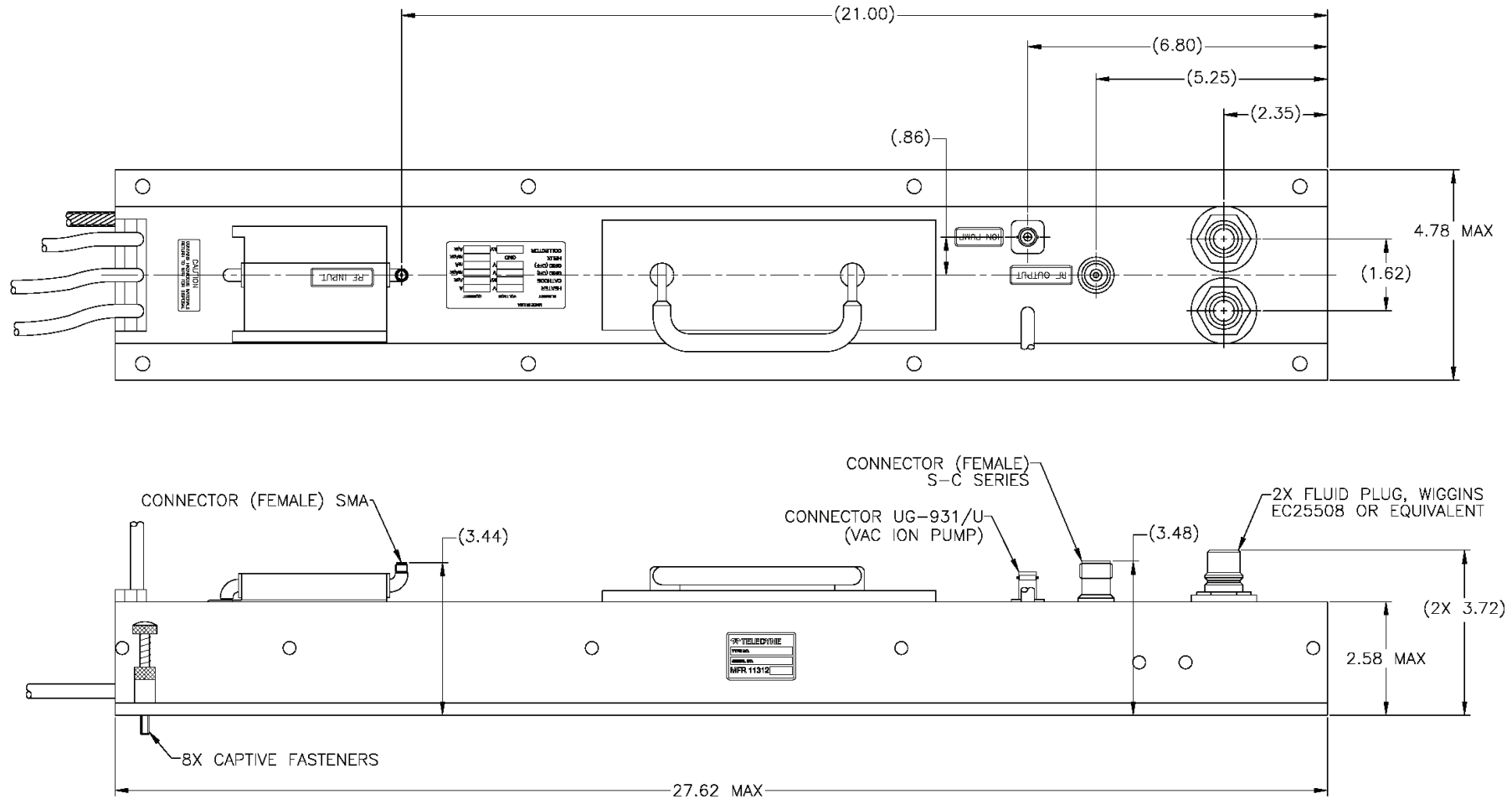
	Typical	Spec
Input VSWR.....	1.5:1	2.0:1
Output VSWR.....	1.7:1	2.5:1
Max. Duty	2%	2%
Max. Pulsewidth	100 μs	100 μs
Grid Capacitance.....	55 pF	65 pF max.
Prime Power.....	1300W	1400 W

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.

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NOTES:

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



TELEDYNE MICROWAVE SOLUTIONS
TWT Products
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TITLE

MEC 3090X

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

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