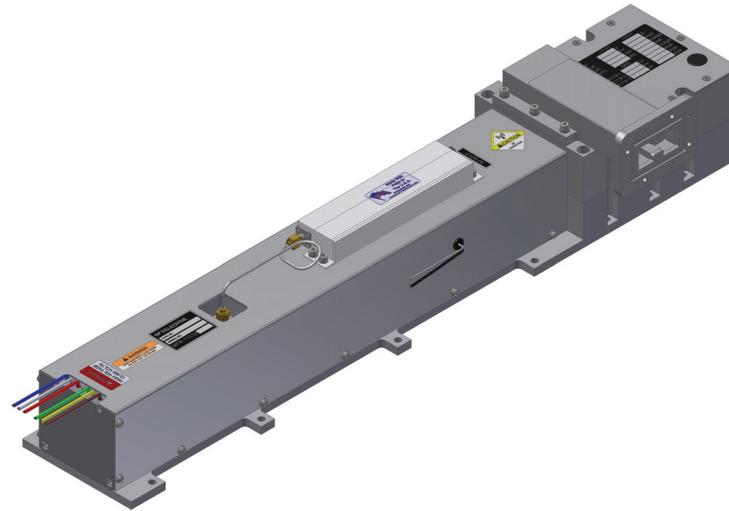


# MEC 3119

## Pulse TWT

### 6.0 GHz – 8.0GHz

- 4% Maximum Duty
- 7000 W<sub>pk</sub> Minimum Power
- 6 to 8 GHz
- -40° to 85° C
- 900 W<sub>pk</sub> Typ Prime Power @ 4%
- 160 μS PW Max
- 42 dB Typical Sat. Gain
- 22.27" L x 5.54" W x 4.34" H  
(56 x 14 x 11 cm)



#### RF Performance

Freq (GHz)	Typ. Sat. Power Output (W)	Min. Spec. Power Output (W)	Typ. Gain @ Sat. Power (dB)
6.0	8500	7000	42
6.5	8800	7000	42
7.0	8900	7000	43
7.5	8500	7000	42
8.0	7500	7000	41

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

#### Typical Operating Conditions

Element	Voltage	Current	Power Supply Requirements		
			Voltage Min.	Voltage Max.	Current Max.
Heater	-6.3 Vdc	2.23 A	-6.1 Vdc	-6.5 Vdc	3.0 A
Helix					
with RF	Ground	542 mApk	Ground	Ground	800 mApk
without RF	Ground	45 mApk	Ground	Ground	800 mApk
Grid On	150 Vpk	2.0 mApk	100 Vpk	220 Vpk	30 mApk
Grid Off	-250 Vdc	0.0 mA	-300 Vdc	-500 Vdc	1 mA
Cathode (E <sub>k</sub> )	-13.8 kV	2468 mApk	-13.0 kV	-14.5 kV	3000 mApk
Collector w/RF					
Coll. #1	10.63 kV	512 mApk	77% x E <sub>k</sub> ±2%		700 mApk
Coll. #2	8.00 kV	760 mApk	58% x E <sub>k</sub> ±2%		1200 mApk
Coll. #3	6.21 kV	654 mApk	45% x E <sub>k</sub> ±2%		2700 mApk

Cathode voltage is measured with respect to ground.

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

#### Performance

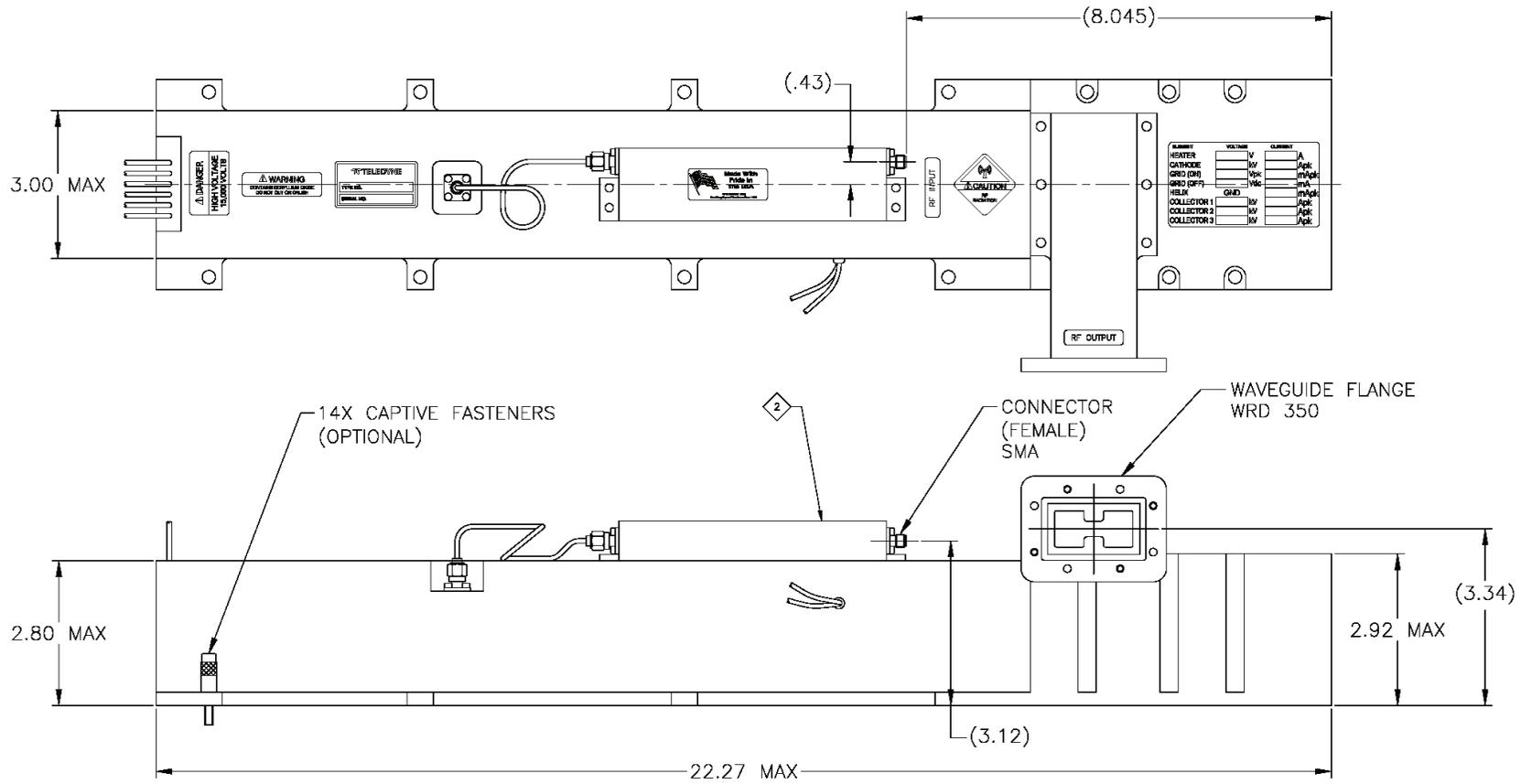
Performance	Typical	Spec
Input VSWR:	1.3:1	1.6:1
Output VSWR:	1.6:1	2.0:1
Max. Duty	4%	4%
Max. Pulsewidth	160 μs	160 μs
Grid Capacitance:	55 pF	65 pF max.
Noise Power Density (dBm/MHz)	-22	-20
Prime Power @ 4%	950 W	1800 W

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
2. EQUALIZER OPTIONAL, BASED UPON CUSTOMER REQUIREMENT.



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

TELEDYNE MICROWAVE SOLUTIONS  
TWT Products  
11361 Sunrise Park Dr., Rancho Cordova, CA 95742 (916) 638-3344

TITLE

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