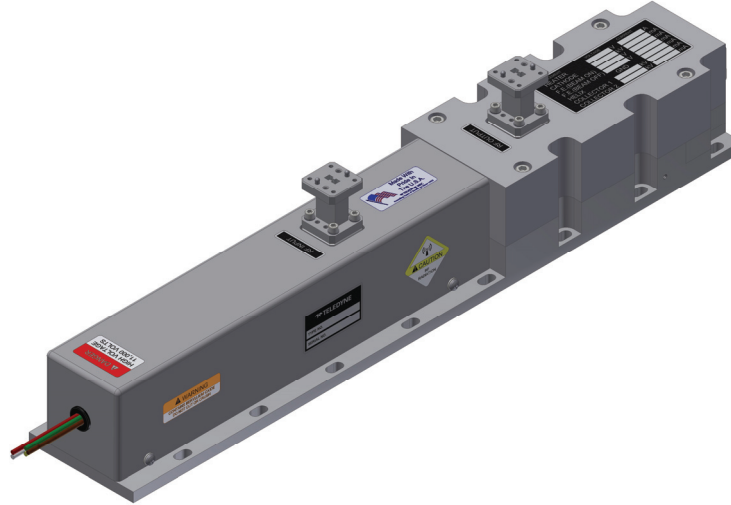


MEC 5493/MEC 5493E

Continuous Wave TWT

18.0 GHz – 26.5 GHz

- 50 W Minimum Power
- 18.0 to 26.5 GHz
- -40° to 85° C
- 450 W Typ. Prime Power
- 26-28 dB Typical Gain
- 16.1" L x 2.76" W x 3.4" H (62 x 7 x 8.6 cm)



RF Performance

Freq (GHz)	Typ. Sat. Power Output (W)	Min. Spec. Power Output (W)	Typ. Gain @ Spec. Power (dB)
18.0	75	50	35
19.0	80	50	38
20.0	80	50	39
21.0	100	50	41
22.0	100	50	41
23.0	100	50	41
24.0	100	50	40
25.0	100	50	40
26.0	90	50	40
26.5	90	50	39

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	0.7 A	-5.8 Vdc	-6.4 Vdc	1.5 A
Helix					
with RF	Ground	1.4 mA	Ground	Ground	4 mA
without RF	Ground	0.5 mA	Ground	Ground	4 mA
FE On	-19 Vdc	0.1 mA	0	-40 Vdc	1 mA
FE Off	-850 Vdc	0.1 mA	-800 Vdc	-1200 Vdc	0.2 mA
Cathode (E_k)	-10.55 kV	113 mA	-10.3 kV	-10.8 kV	140 mA
Collector w/RF					
Coll. #1	5.28 kV	40.8 mA	50% x $E_k \pm 2\%$		75 mA
Coll. #2	2.64 kV	70.8 mA	25% x $E_k \pm 2\%$		140 mA

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

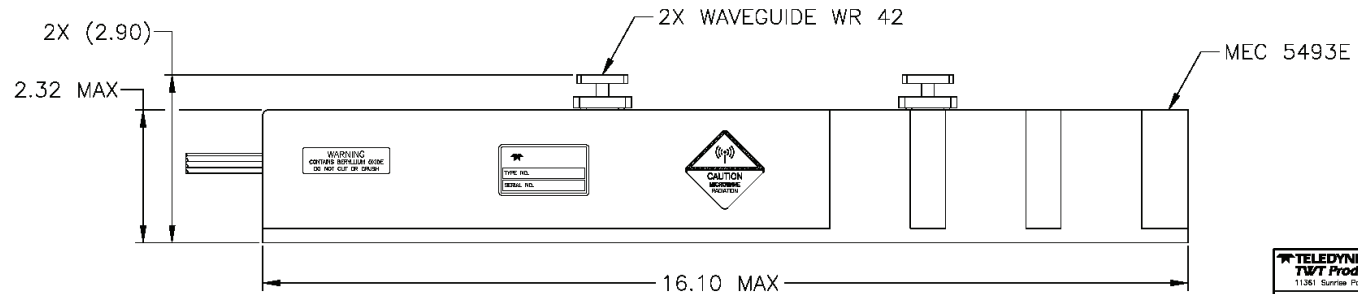
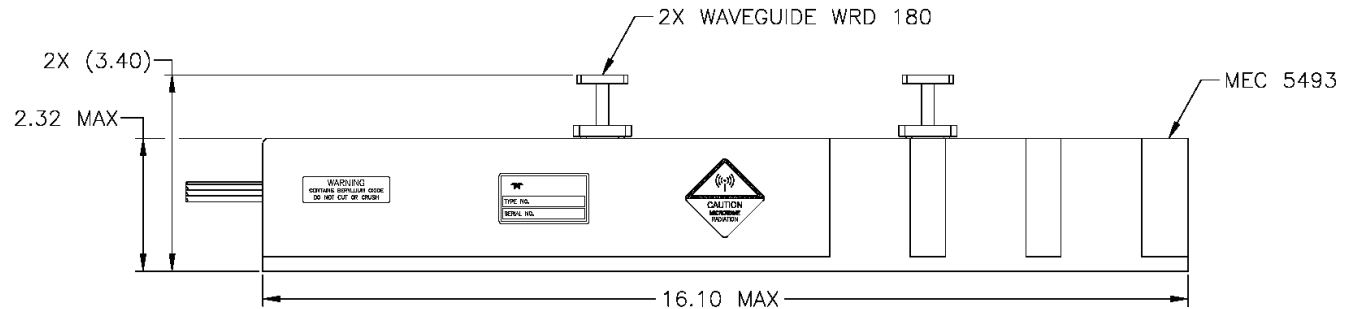
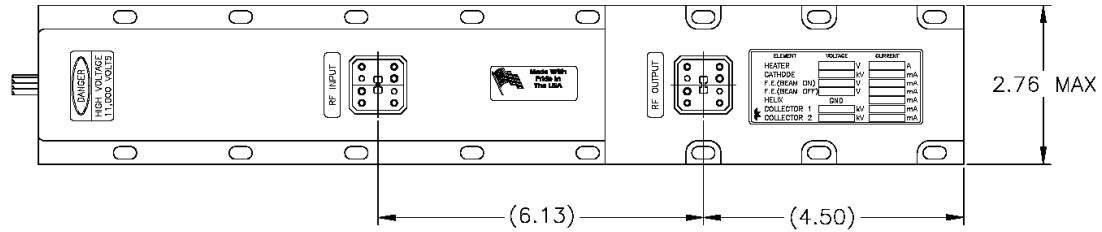
Performance

	Typical	Spec
Input VSWR.....	2.0:1	2.5:1
Output VSWR.....	2.0:1	2.5:1
Max. Duty	—	CW
FE Capacitance.....	50 pF	60 pF
Min. Harmonic Separation.....	-8 dBc	-6 dBc
Noise Power Density		
(dBm/MHz)	-25	-20
Prime Power.....	450 W	500 W

This model number is subject to the jurisdiction of the U.S. Department of Commerce.

NOTES:

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



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

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

TITLE
MEC 5493/MEC 5493E

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