

## SWM-75311420-10-SB

### W-Band Magic Tee, 75 to 110 GHz

**SWM-75311420-10-SB** is a W-band magic tee that covers the frequency range of 75 to 110 GHz. This magic tee is a four-port hybrid coupler and/or power divider with two collinear arms, an E-plane (difference) arm, and an H-plane (sum) arm. The magic tee offers a 0.5 dB nominal insertion loss and high isolation between the two collinear arms and between the sum and difference arms. All waveguide ports have standard WR-10 waveguides with UG-387/U-M anti-cocking flanges.



#### Electrical Specifications:

Parameter		Minimum	Typical	Maximum
Frequency Range		75 GHz		110 GHz
Insertion Loss			0.5 dB	
Isolation	Sum and Difference Ports		30 dB	
	Collinear Ports		20 dB	
Return Loss			15 dB	
Specification Temperature			+25°C	
Operating Temperature		-40°C		+85°C

#### Mechanical Specifications:

Item	Specification
RF Ports	WR-10 Waveguide with UG-387/U-M Anti-Cocking Flanges
Material	Brass
Finish	Gold Plated
Weight	3.8 Oz
Outline	WM-BW-A

#### ECCN

EAR99

#### FEATURES

- Full Band Performance from 75 to 110 GHz
- Low Insertion Loss
- High Isolation
- Compact Package

#### APPLICATIONS

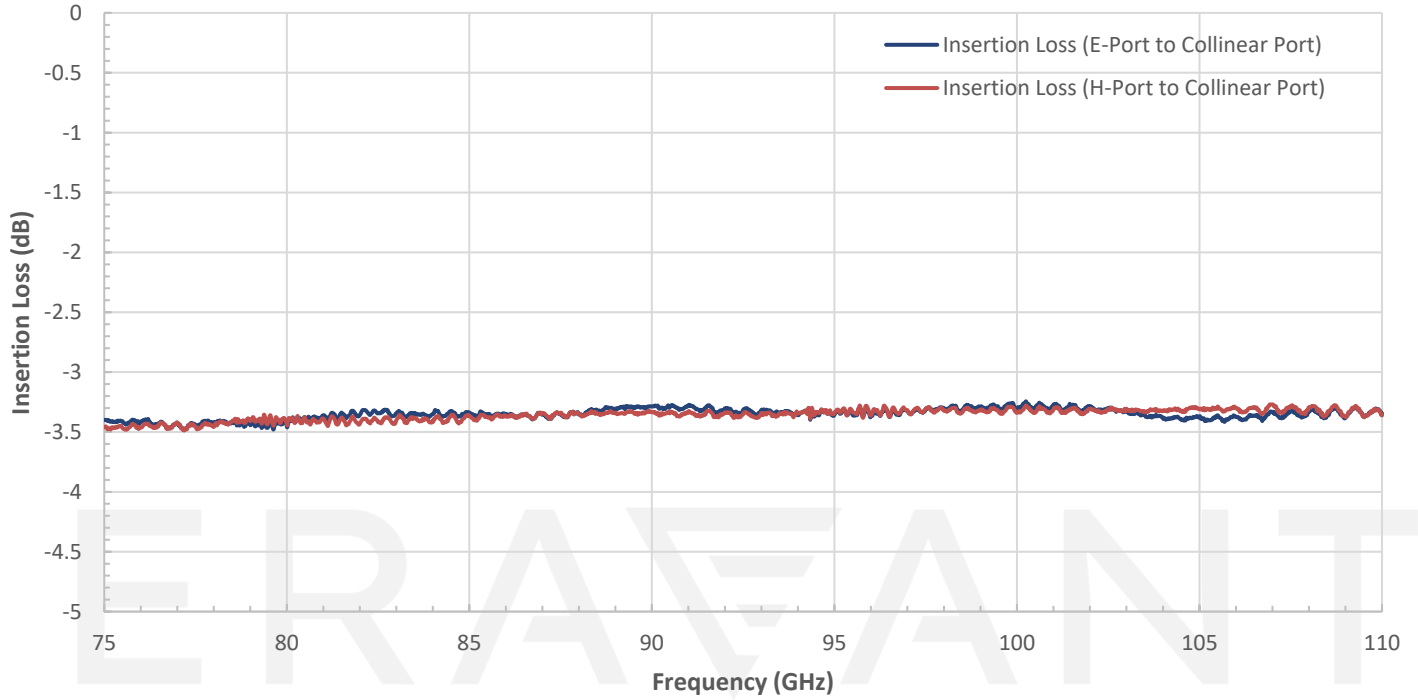
- Test Labs
- Test Instrumentation
- Sub-assemblies

#### SUPPLEMENTAL DETAILS

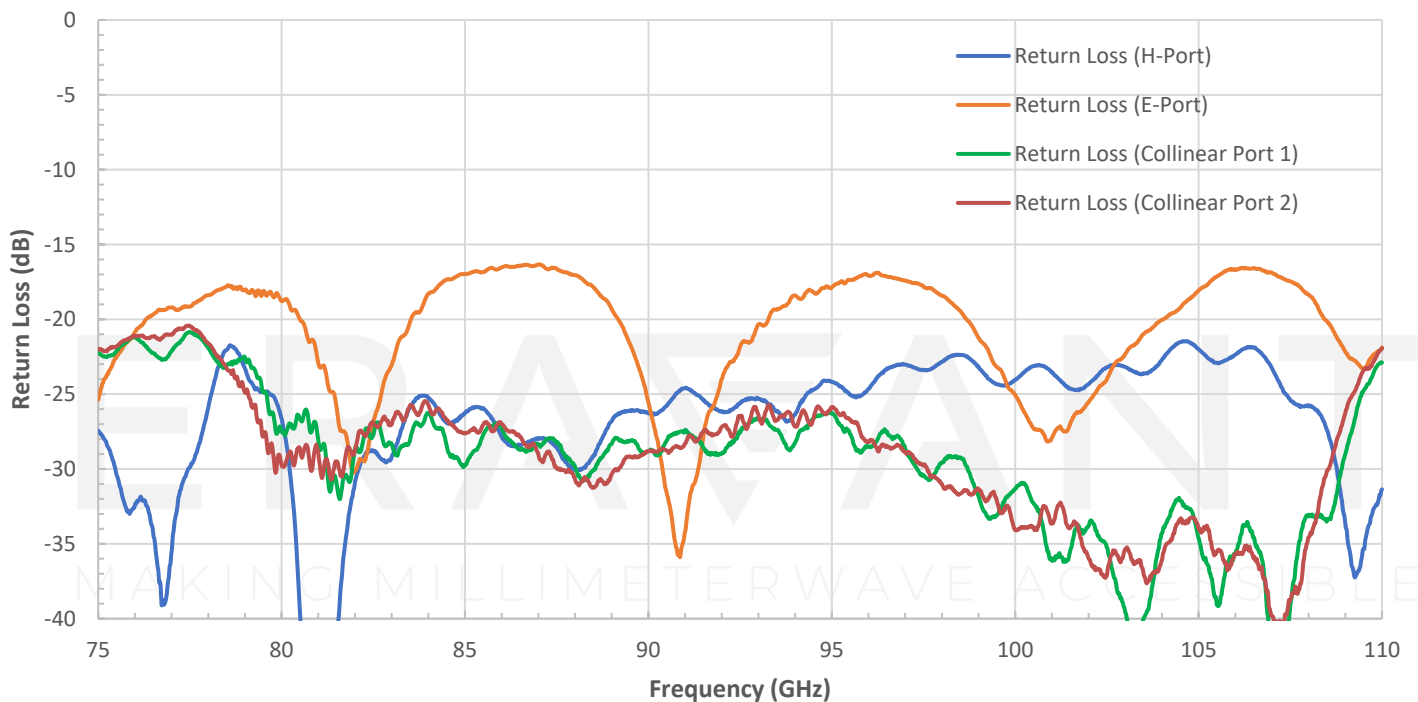
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### Typical Measured Insertion Loss vs Frequency

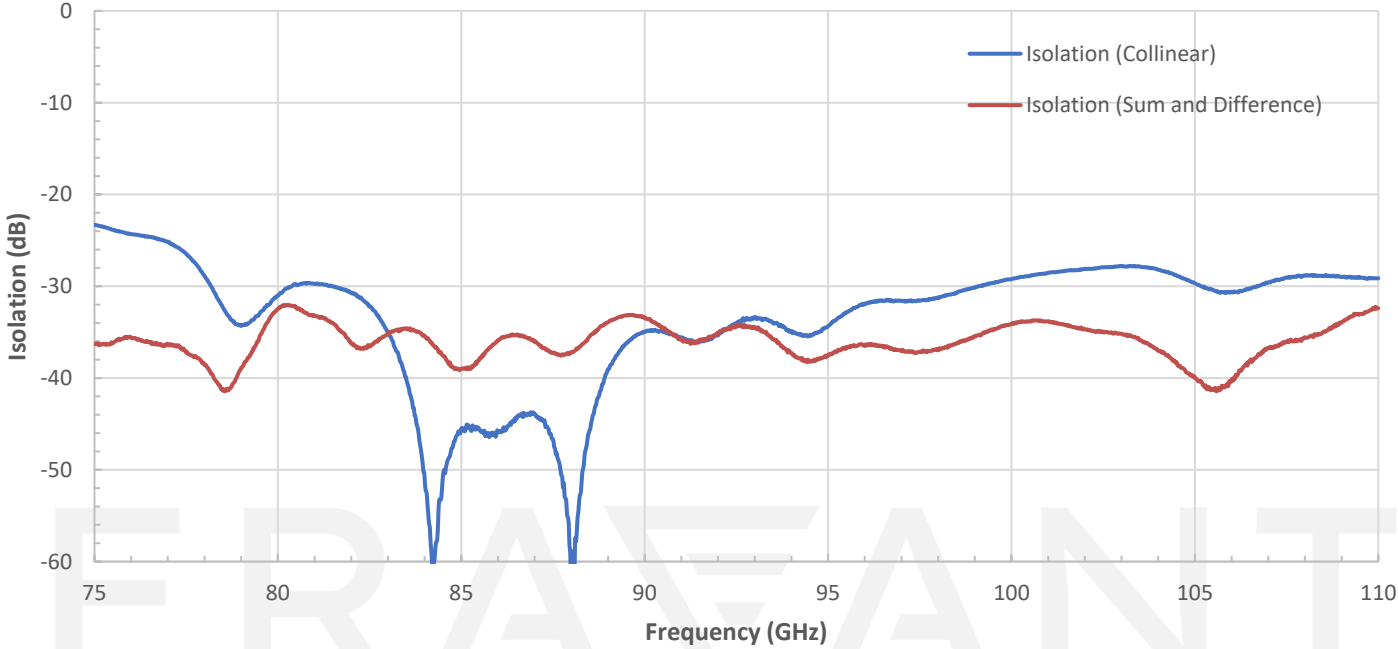


### Typical Measured Return Loss vs Frequency

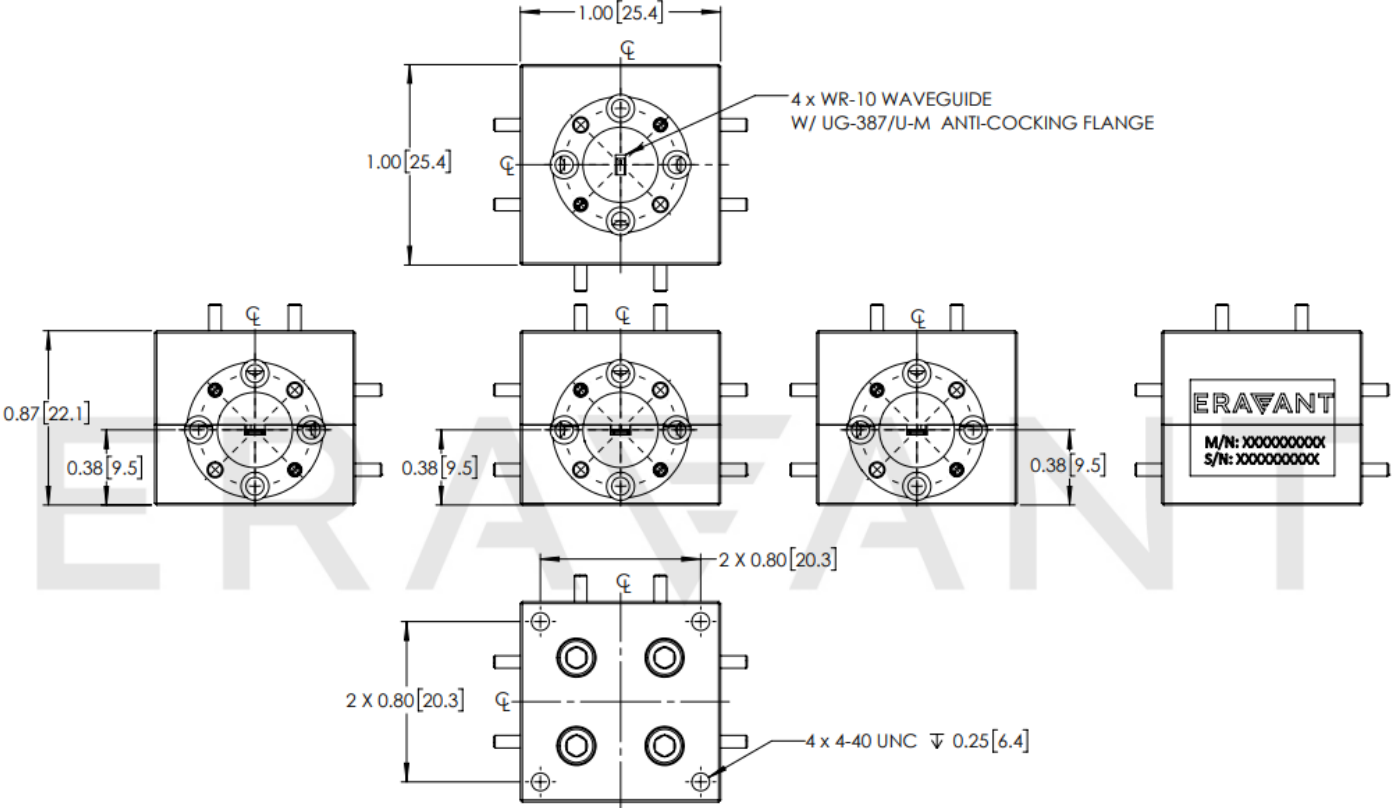


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### Typical Measured Isolation vs Frequency



**Mechanical Outline:** Unless otherwise specified, all dimensions are in inches [millimeters]



**NOTE:**

- On condition that test data is provided it is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- Eravant reserves the right to change the information presented without notice.

**CAUTION:**

- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.

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