



F-Band Magic Tee, 90 to 140 GHz

Description:

Model SWM-90314420-08-SB is a F-band magic tee that covers the frequency range of 90 to 140 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 1.0 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-08 waveguides with UG-387/U-M anti-cocking flanges.



Features:

- Low Insertion Loss
- High Isolation
- Compact Package

Applications:

- Test Labs
- Test Instrumentation
- Sub-assemblies

Electrical Specifications:

Parameter		Minimum	Typical	Maximum
Frequency		90 GHz		140 GHz
Insertion Loss			1.0 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:

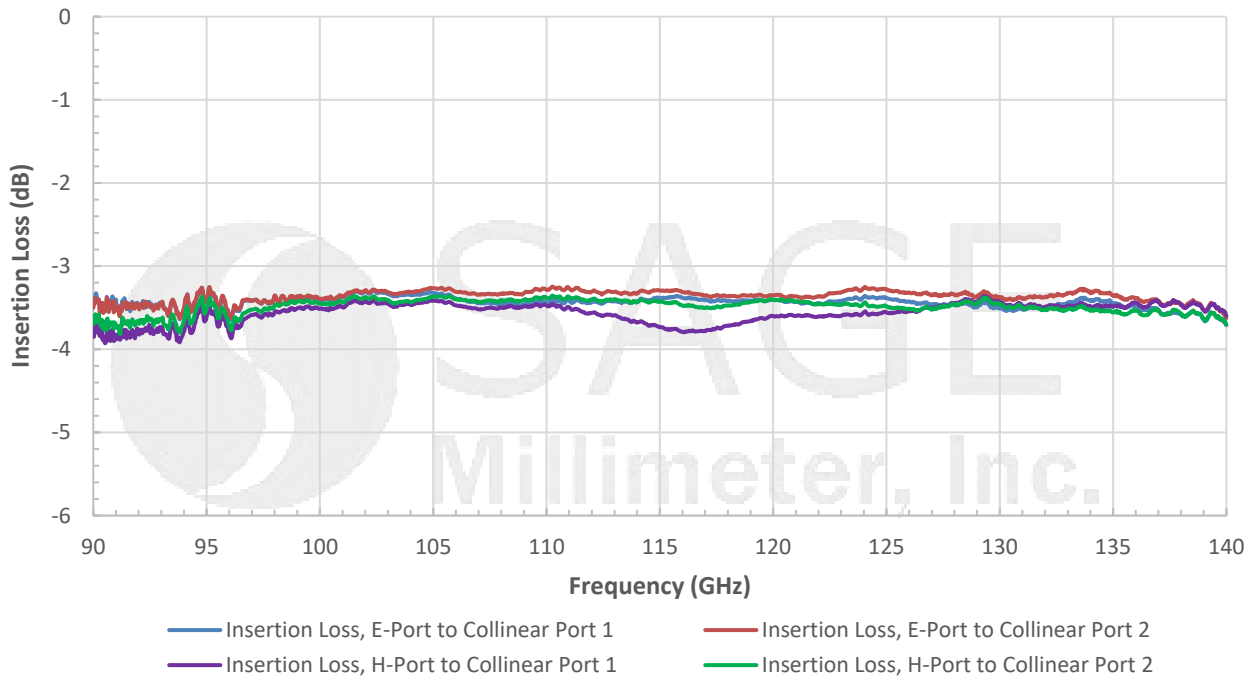
Item	Specification
RF Ports	WR-08 Waveguide with UG-387/U-M Anti-Cocking Flanges
Material	Brass
Finish	Gold Plated
Weight	4.0 oz.
Outline	WM-BF-A



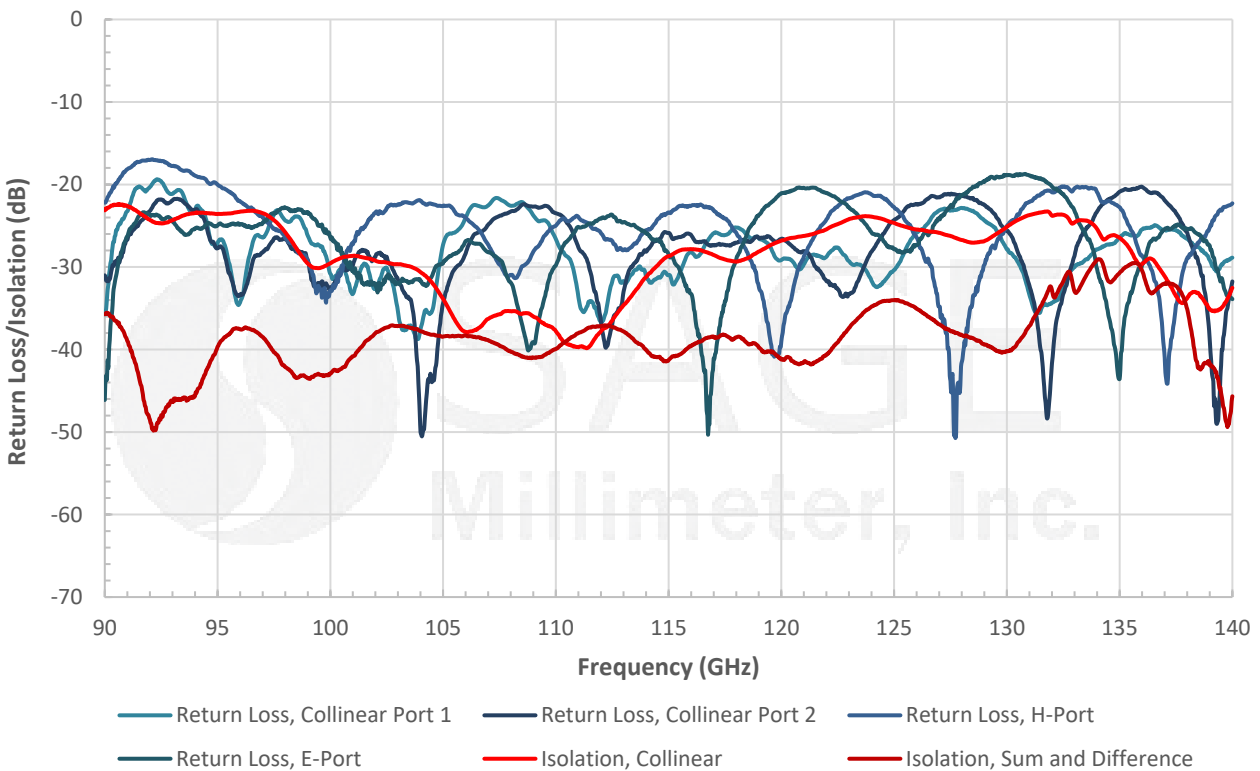


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Typical Measured Insertion Loss vs Frequency



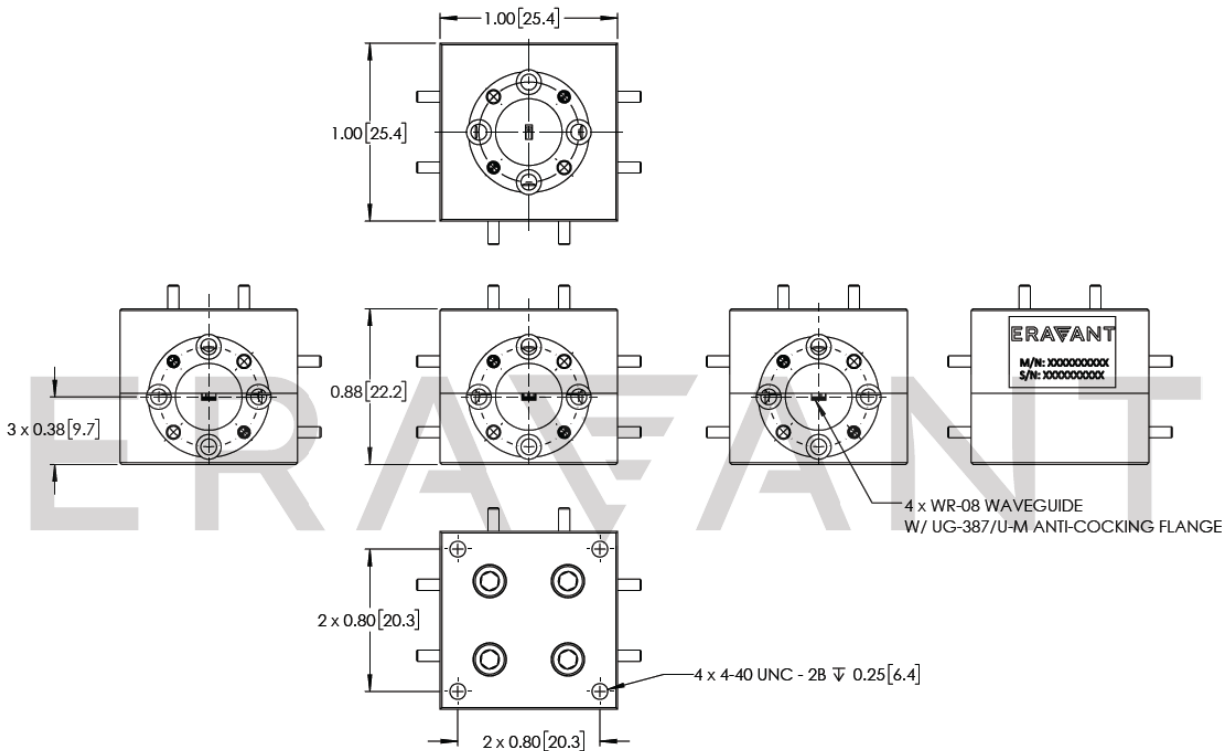
Typical Measured Return Loss and Isolation vs Frequency





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



Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit, slightly.
- All testing was performed under +25 °C case temperature.
- Eravant reserves the right to change the information presented without notice.

Caution:

- Any foreign objects in the waveguide will degrade performance and/or damage the device.

