

V-Band Magic Tee, 50 to 70 GHz

Description:

Model SWM-50370315-15-SB-WP is a V band magic tee that covers the frequency range of 50 to 70 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 0.3 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-15 waveguides with UG-385/U flanges.



Features:

- Low Insertion Loss
- High Isolation
- Compact Package

Applications:

- IEEE 802.ad WiGig Systems
- Test Labs
- Test Instrumentation
- Sub-assemblies

Electrical Specifications:

Parameter		Minimum	Typical	Maximum
Frequency		50 GHz		70 GHz
Insertion Loss			0.3 dB	
Isolation	Sum and Difference Ports		30 dB	
	Collinear Ports		15 dB	
Return Loss			12 dB	
Specification Temperature			+25 °C	
Operating Temperature		-40 °C		+85 °C

Mechanical Specifications:

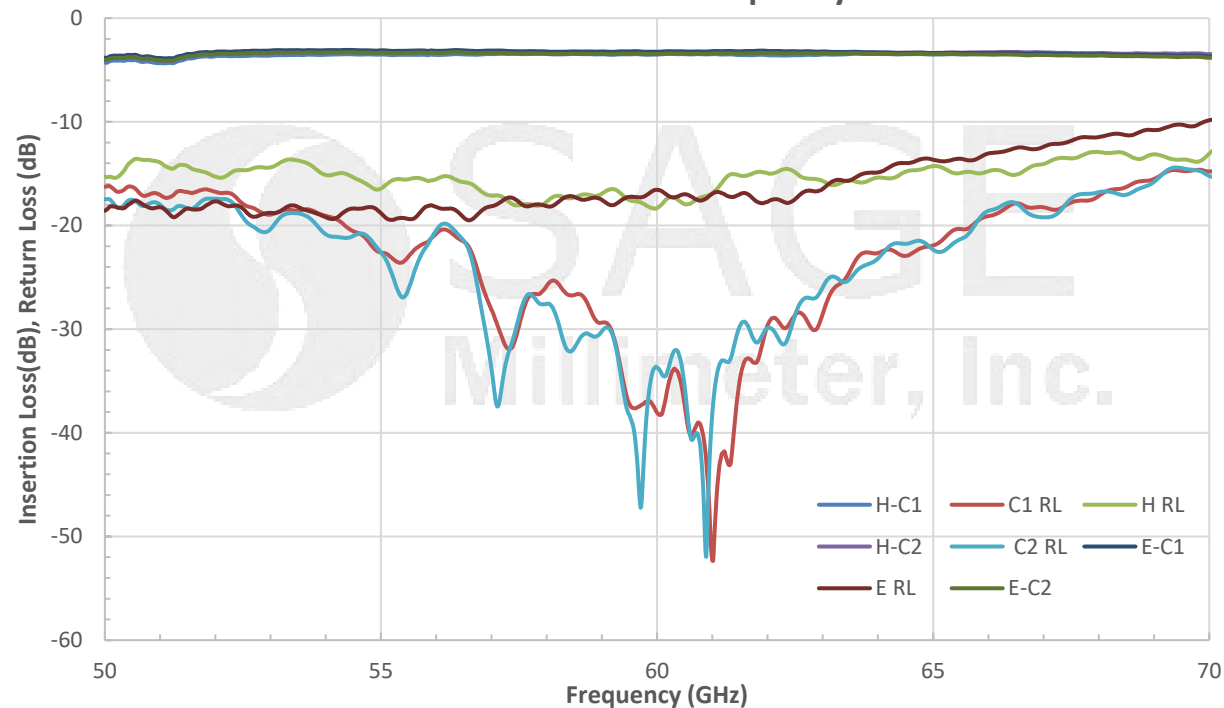
Item	Specification
Sum and Difference Ports	WR-15 Waveguide with UG-385/U Anti-Cocking Flange
Collinear Port	WR-15 Waveguide with UG-385/U Anti-Cocking Flange
Material	Aluminum
Finish	Gold Plated
Weight	1.3 Oz
Outline	WM-BV-A



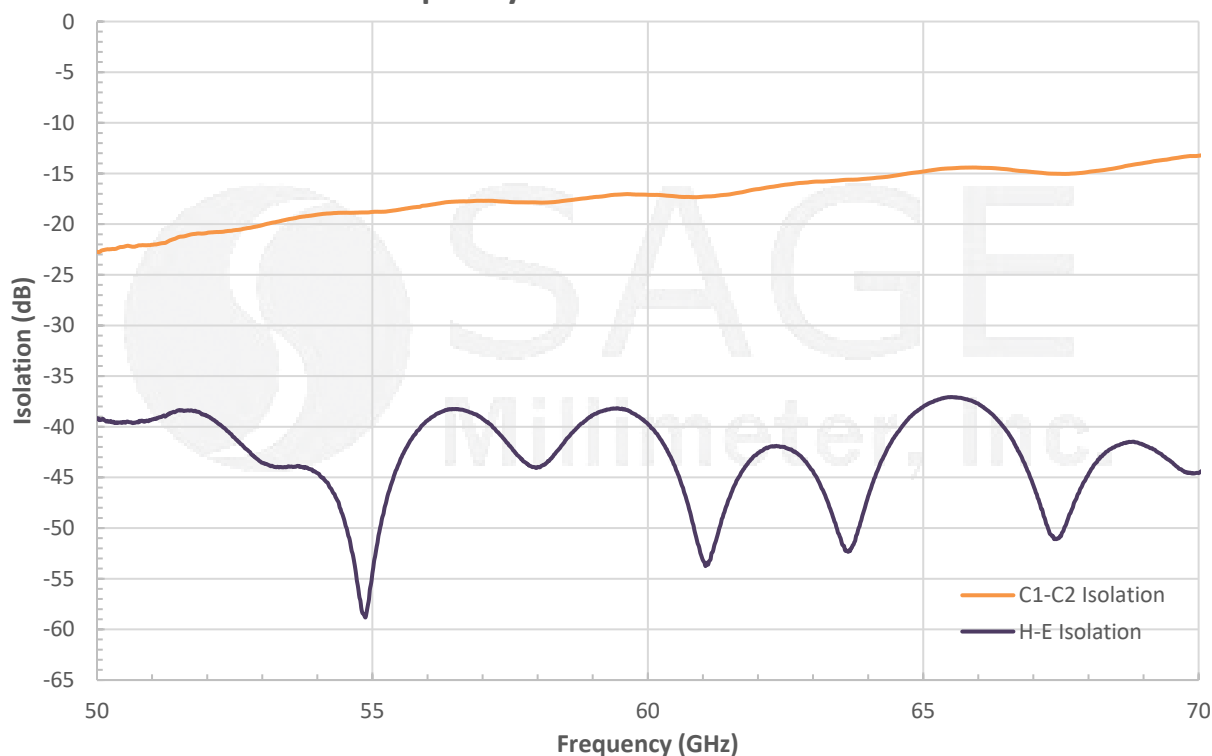


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Measured Insertion loss and Return Loss Vs Frequency

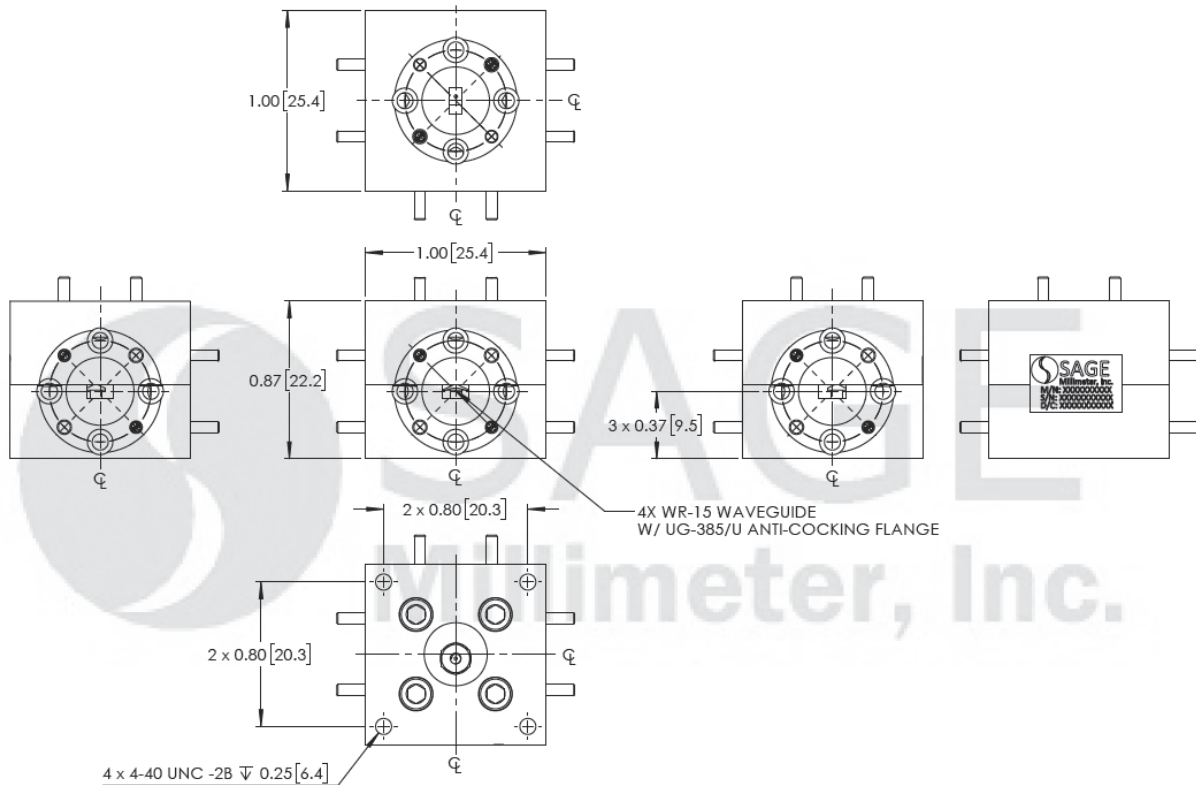


Measured Isolation Vs Frequency



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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.
- All testing was performed under +25 °C case temperature.
- Eravant reserves the right to change the information presented without notice.

Caution:

- Exceeding absolute maximum ratings shown will damage the device.
- Any foreign objects in the waveguide will degrade performance and/or damage the device.