

V-Band Magic Tee

Description:

Model SWM-50375320-15-SB is a V band magic tee that covers the frequency range of 50 to 75 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 anti-cocking 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		75 GHz
Insertion Loss			0.3 dB	
Isolation	Sum and Difference Ports		30 dB	
	Collinear Ports	15 dB	20 dB	
Return Loss			14 dB	
Specification Temperature			+25 °C	
Operating Temperature		-40 °C		+85 °C

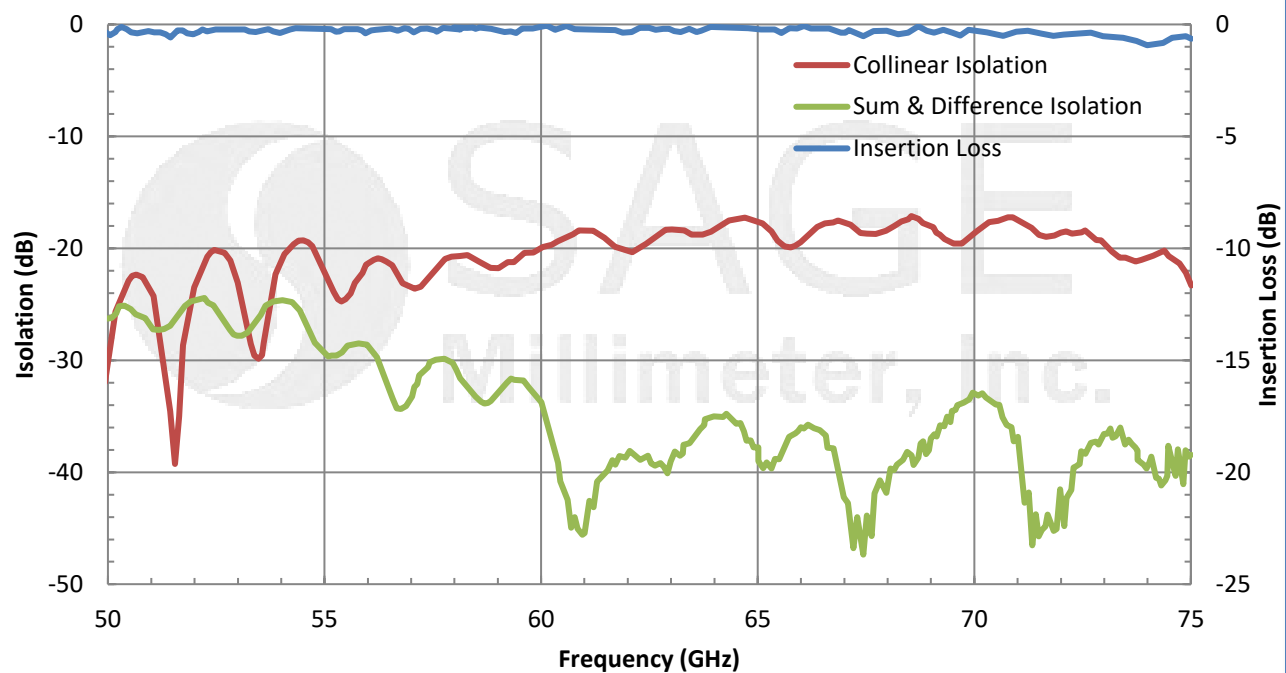
Mechanical Specifications:

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
Size	1.00" (L) x 1.00" (W) x 0.87" (H)
Outline	WM-BV-A

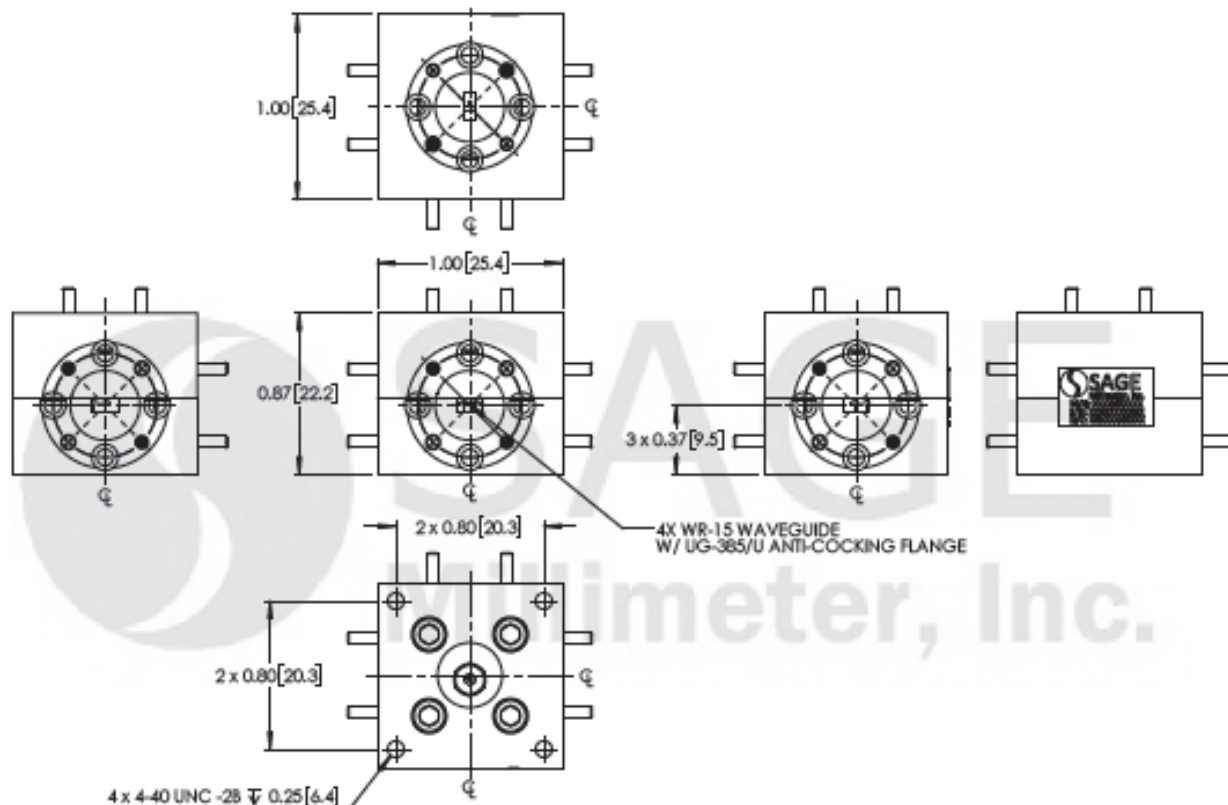


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Typical Isolation and Insertion Loss vs. Frequency



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



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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.
- SAGE Millimeter, Inc. 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.

