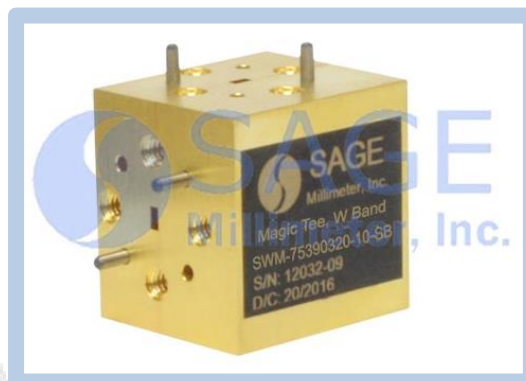


Full Waveguide W-Band Magic Tee

Description:

Model 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 0.3 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-10 waveguides with UG-387/U-M flanges.



Features:

- Low Insertion Loss and High Isolation
- Compact Package

Applications:

- Test Labs
- Test Instrumentation
- Sub-assemblies

Electrical Specifications:

Parameter		Minimum	Typical	Maximum
Frequency		75 GHz		110 GHz
Insertion Loss			0.3 dB	
Isolation	Sum and Difference Ports		30 dB	
	Collinear Ports		20 dB	
Return Loss			14 dB	
Specification Temperature			+25 °C	
Operating Temperature		-40 °C		+85 °C

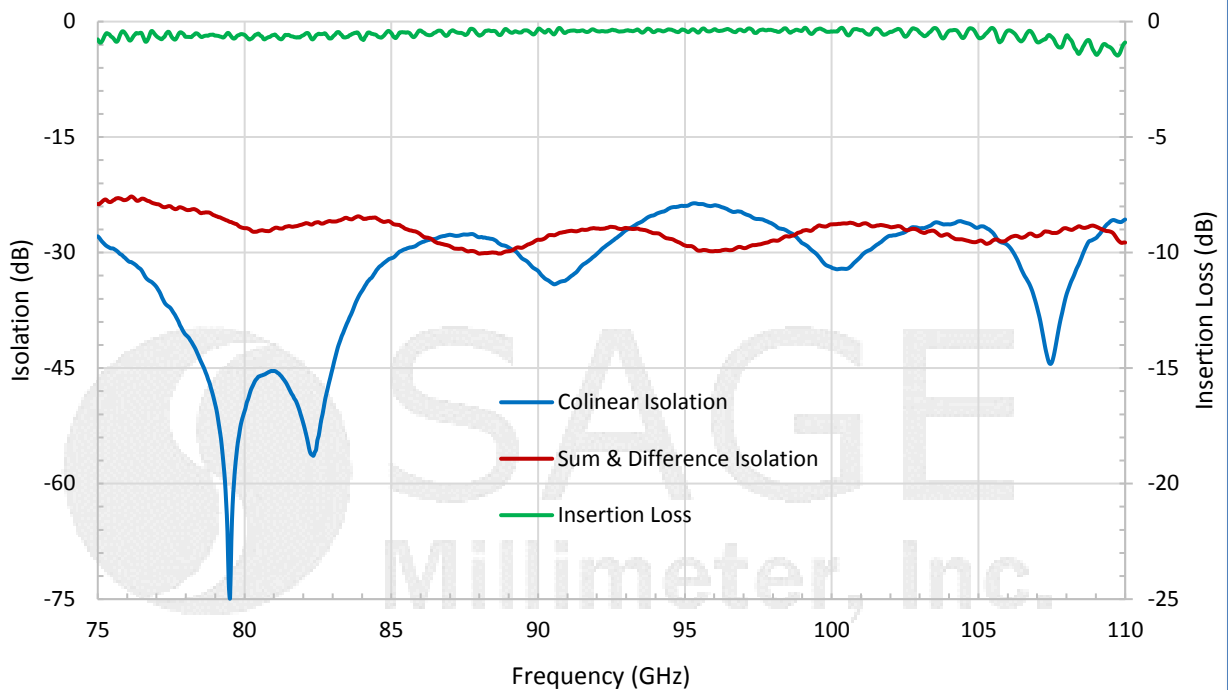
Mechanical Specifications:

Item	Specification
Sum and Difference Ports	WR-10 Waveguide with UG-387/U-M Flange
Collinear Port	WR-10 Waveguide with UG-387/U-M Flange
Material	Aluminum
Finish	Gold Plated
Weight	1.3 Oz
Size	1.00" (L) X 1.00" (W) X 0.88" (H)
Outline	WM-BW

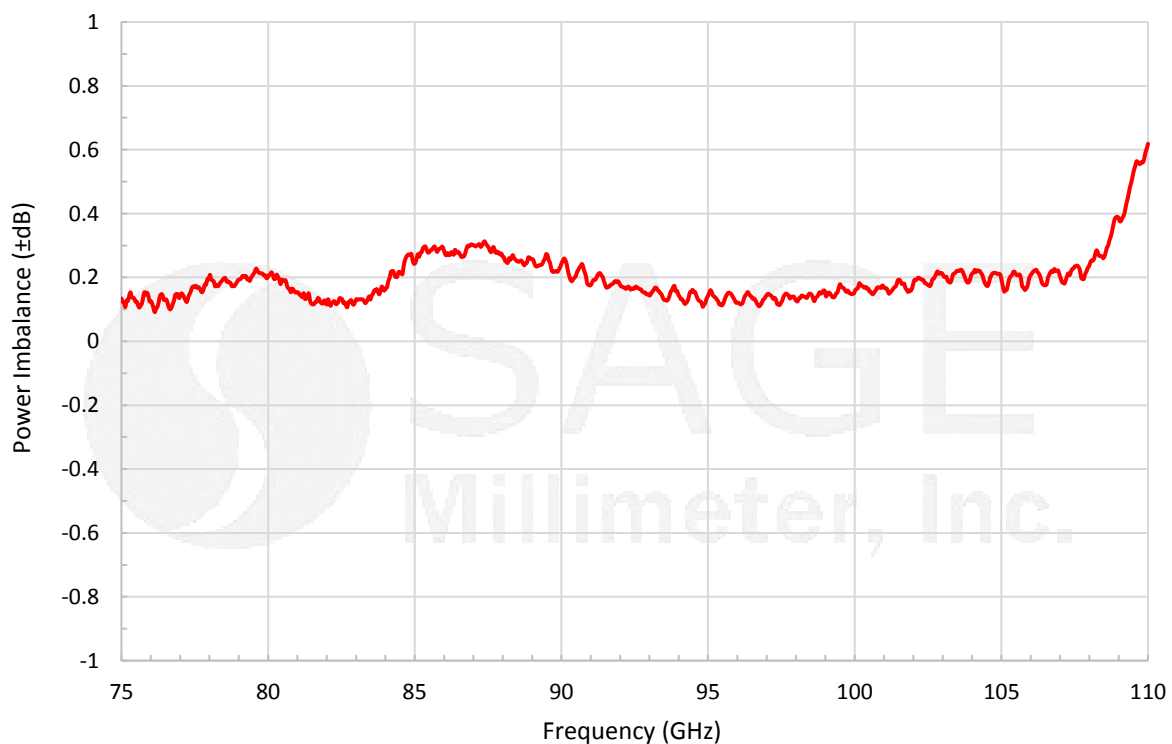


Full Waveguide W-Band Magic Tee

Typical Isolation and Insertion Loss vs Frequency

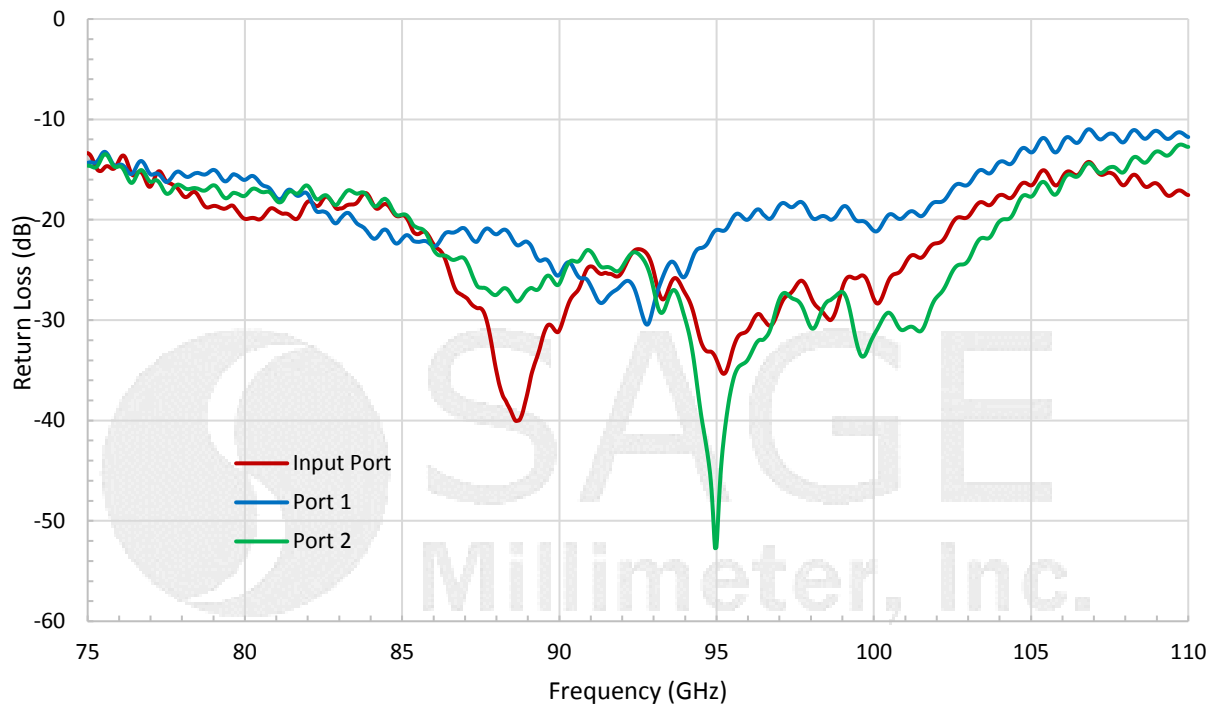


Typical Power Imbalance vs Frequency

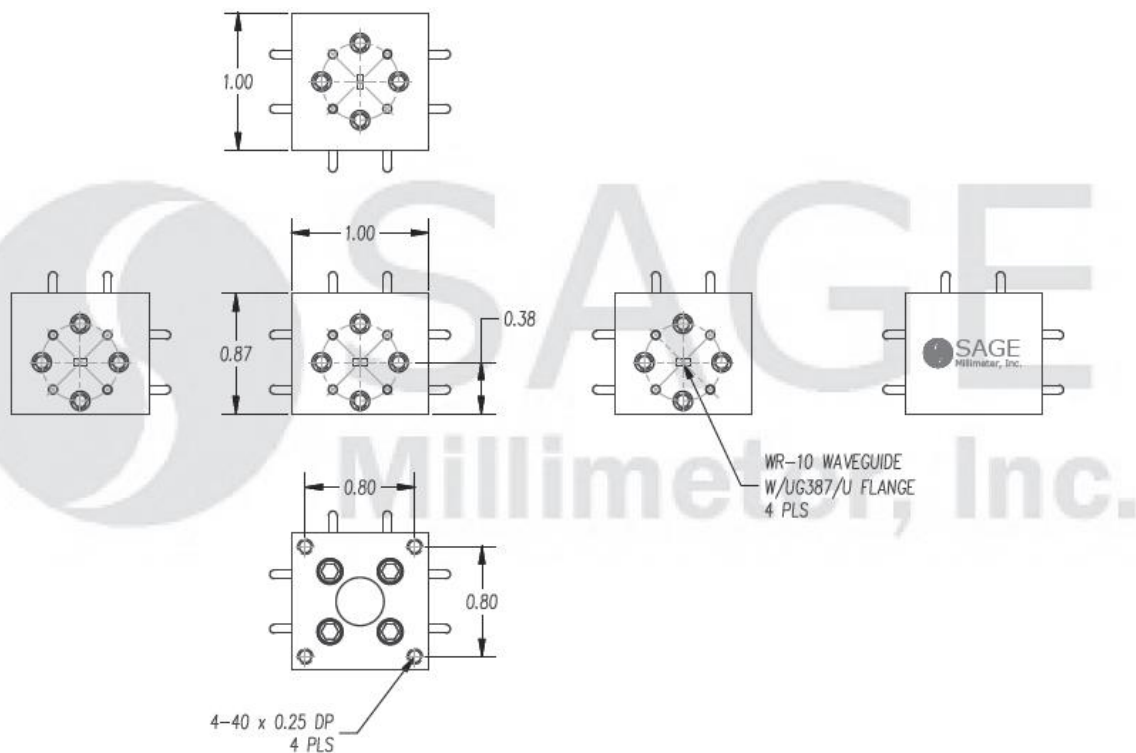


Full Waveguide W-Band Magic Tee

Typical Return Loss vs Frequency



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





Full Waveguide W-Band Magic Tee

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.

