SWP-50366308-15-E1

Rev. 1.0

8-Way Waveguide Power Divider, 50 to 66 GHz

Description:

Model SWP-50366308-15-E1 is a V band, 8-way in-line waveguide power divider that operates across the frequency range of 50 to 66 GHz. The power divider offers a typical insertion loss of 1.7 dB at each output port and a typical isolation of 20 dB. The ports are well balanced and in phase for either power dividing or power combining applications across the full band. This model offers an end launch design with WR-15 waveguides and UG-385/U flanges. Other configurations are available under different model numbers.

Features:

- Low Insertion Loss
- High Isolation
- Inline Package

Applications:

- IEEE 802.11.ad WiGig Systems
- Power Combining and Dividing
- Power Amplifiers
- Sub-assemblies

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	50 GHz		66 GHz
Power Unbalance		±0.4 dB	±0.5 dB
Insertion Loss*		1.7 dB	
Isolation (Adjacent Ports)		20 dB	
Isolation (Non Adjacent Ports)	20 dB	30 dB	
Input/Output VSWR			1.5:1
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Note: The insertion loss does not include the power splitting loss.

Mechanical Specifications:

Item	Specification
Input	WR-15 Waveguide with UG-385/U Flange
Outputs	WR-15 Waveguide with UG-385/U Flange
Output Port Separation	1.15”
Material	Aluminum
Finish	Gold Plated
Weight	10.2 Oz
Dimension	2.00” (L) X 9.20” (W) X 0.75” (H)
Outline	WP-V8I

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Phone: 424-757-0168 | Fax: 424-757-0188 | Email: sales@sagemillimeter.com

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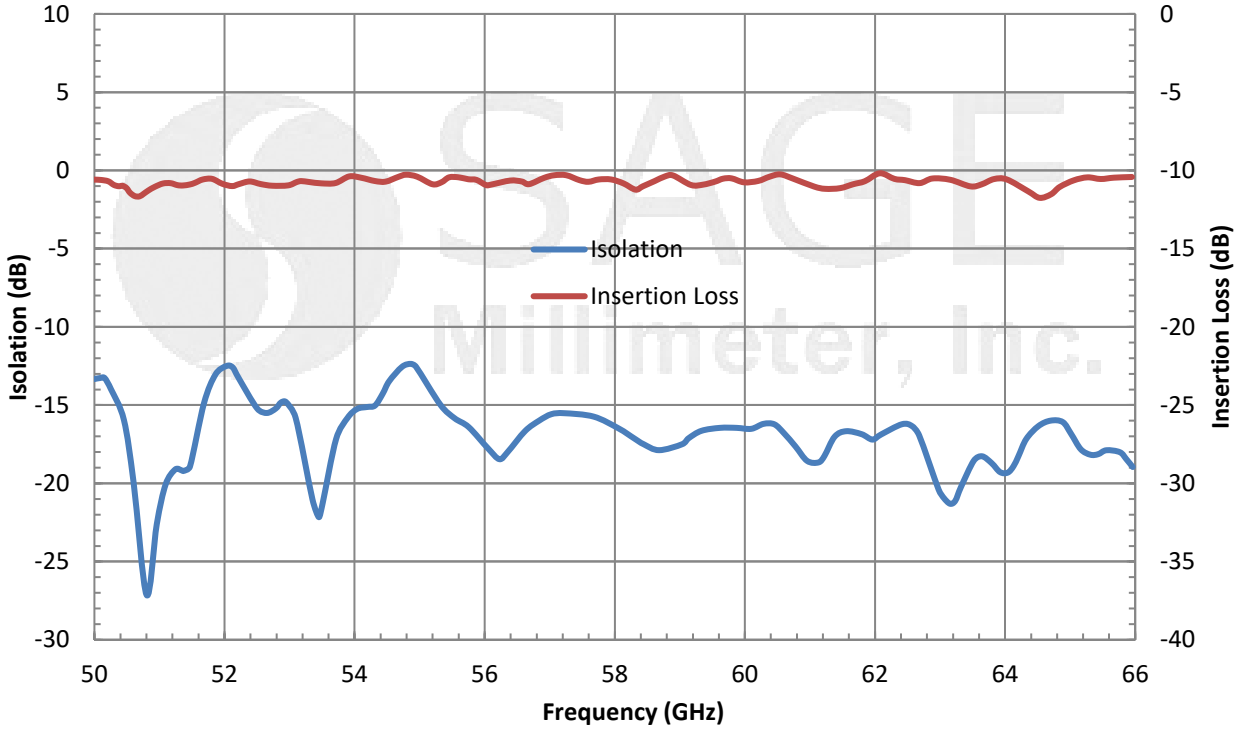
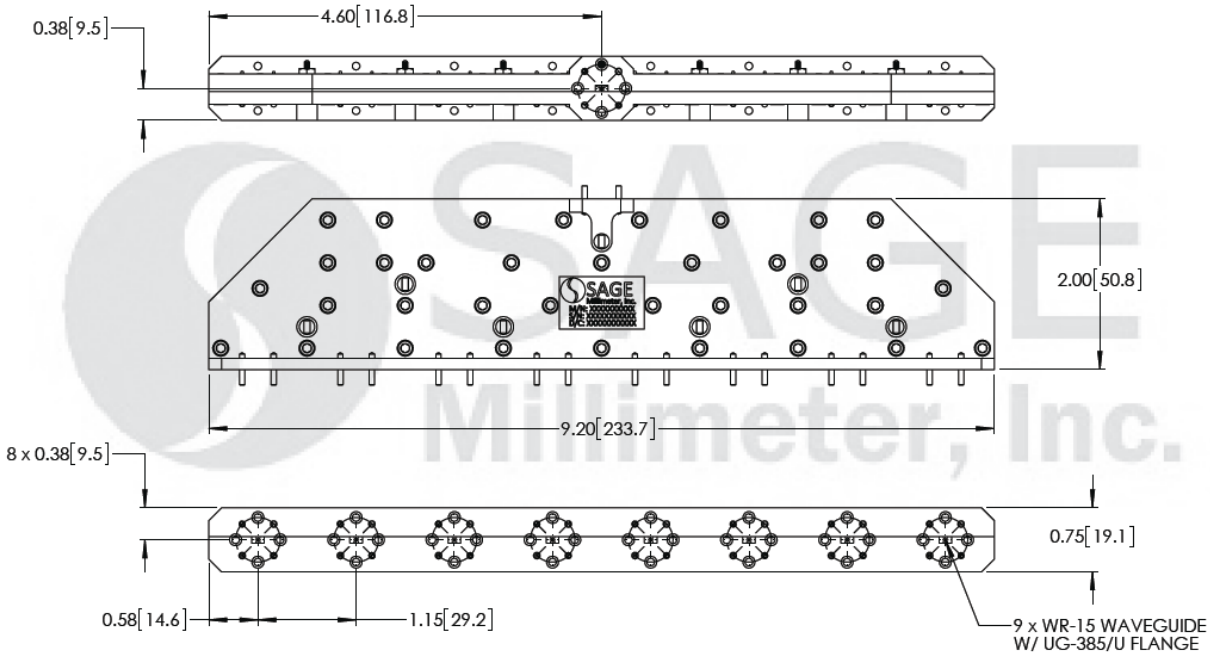
Typical Port Isolation and Insertion Loss vs. Frequency

Isolation was tested between adjacent ports (i.e. 1-2, 3-4, 5-6 and 7-8)



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



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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.
- SAGE Millimeter, Inc. 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.

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