

SWP-50375304-15-E1

Rev. 1.1

4-Way Waveguide Power Divider, 50 to 65 GHz

Description:

Model SWP-50375304-15-E1 is a V band, 4-way waveguide power divider that operates across the frequency range of 50 to 65 GHz. The power divider offers a typical insertion loss of 1.0 dB at each output port and a typical adjacent port isolation of 15 dB and non-adjacent port 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 comes as an inline design with WR-15 waveguides and UG-385 flanges. Other configurations are available under different model numbers.



Features:

- Full Waveguide Band Operation
- Low Insertion Loss
- High Isolation
- Inline Configuration

Applications:

- IEEE 802.11ab, WiGig
- Power Combining and Dividing
- Test Instrumentation
- Sub-assemblies

Electrical Specifications:

Parameter		Minimum	Typical	Maximum
Frequency		50 GHz		65 GHz
Insertion Loss			1.0 dB	
Power Unbalance			±0.20 dB	
Isolation	Adjacent Ports		15 dB	
	Non-Adjacent Ports		20 dB	
Return Loss	Input Port		15 dB	
	Output Ports		15 dB	
Specification Temperature			+25 °C	
Operating Temperature		-40 °C		+85 °C

Mechanical Specifications:

Item	Specification
Waveguide Ports	WR-15 Waveguide with UG-385/U Flange
Port Separation	1.15"
Material	Aluminum
Finish	Gold Plated
Weight	3.4 Oz
Outline	WP-V4I-2



www.sagemillimeter.com | 3043 Kashiwa Street, Torrance, CA 90505
Phone: 424-757-0168 | Fax: 424-757-0188 | Email: sales@sagemillimeter.com



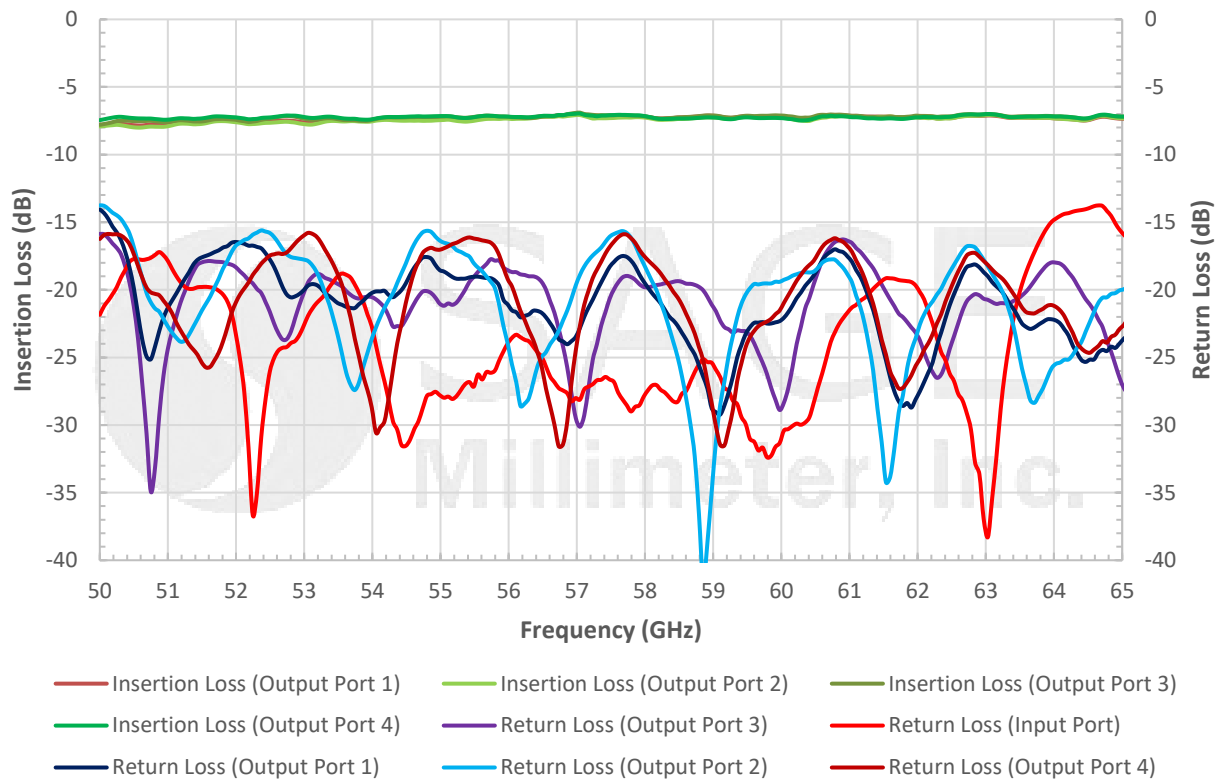
SAGE Millimeter, Inc.

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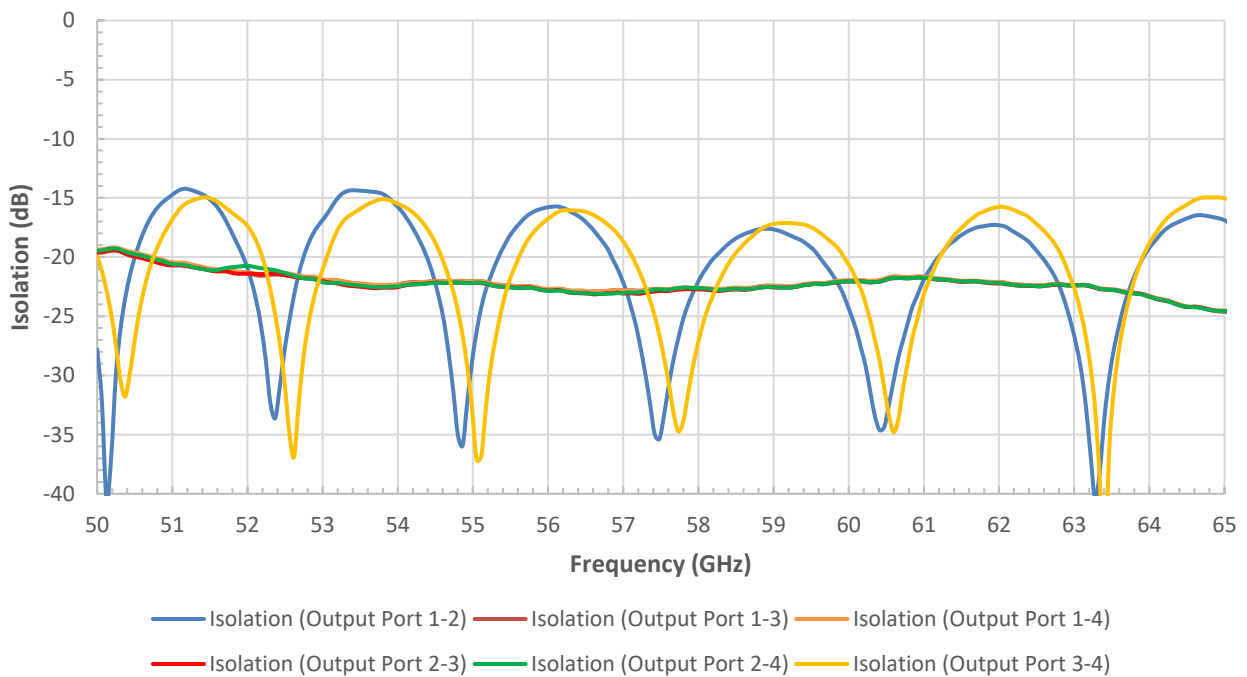
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Typical Insertion and Return Loss vs Frequency



Typical Isolation vs Frequency

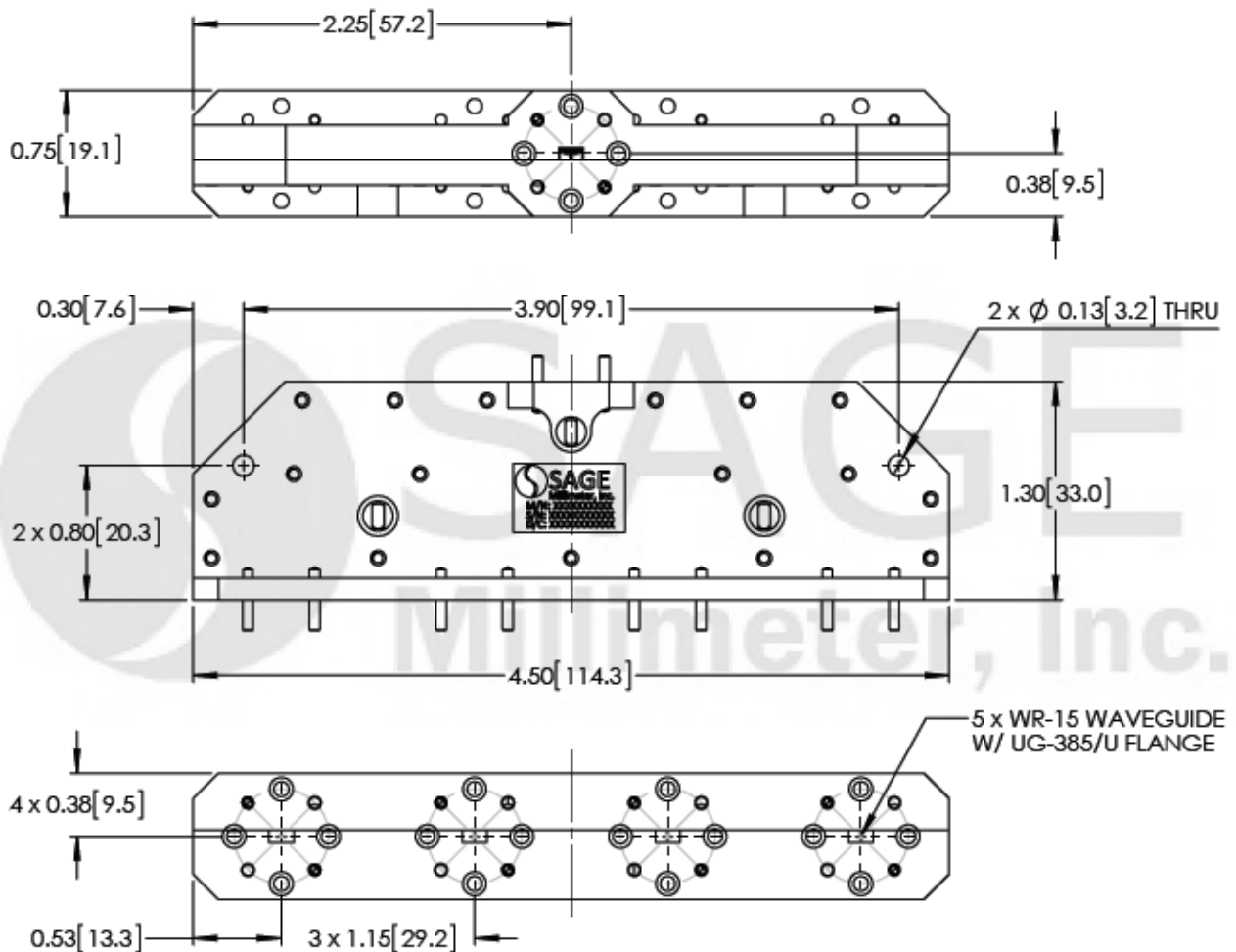


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Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



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.
- 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.

