SWP-50375304-15-E1

Rev. 1.0

4-Way Waveguide Power Divider, 50 to 75 GHz

Description:

Model SWP-50375304-15-E1 is a V band, 4-way in-line waveguide power divider that operates across the frequency range of 50 to 75 GHz. The power divider offers a typical insertion loss of 1.0 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:

- 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		75 GHz
Power Unbalance			±0.20 dB
Insertion Loss		1.0 dB	1.2 dB
Isolation		20 dB	
Input/ Output Return Loss		20 dB	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

Mechanical Specifications:

Item	Specification
Input Port	WR-15 Waveguide with UG-385/U Flange
Output Ports	WR-15 Waveguide with UG-385/U Flange
Port Separation	1.15”
Material	Aluminum
Finish	Gold Plated
Weight	3.4 Oz
Size	1.30” (L) x 4.50” (W) x 0.75” (H)
Outline	WP-V4I-2

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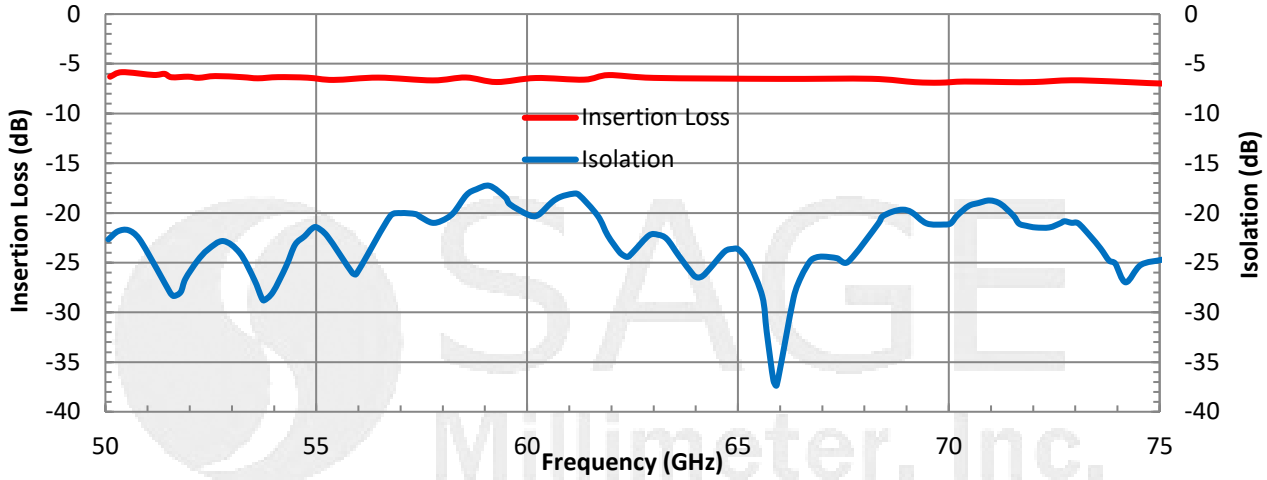
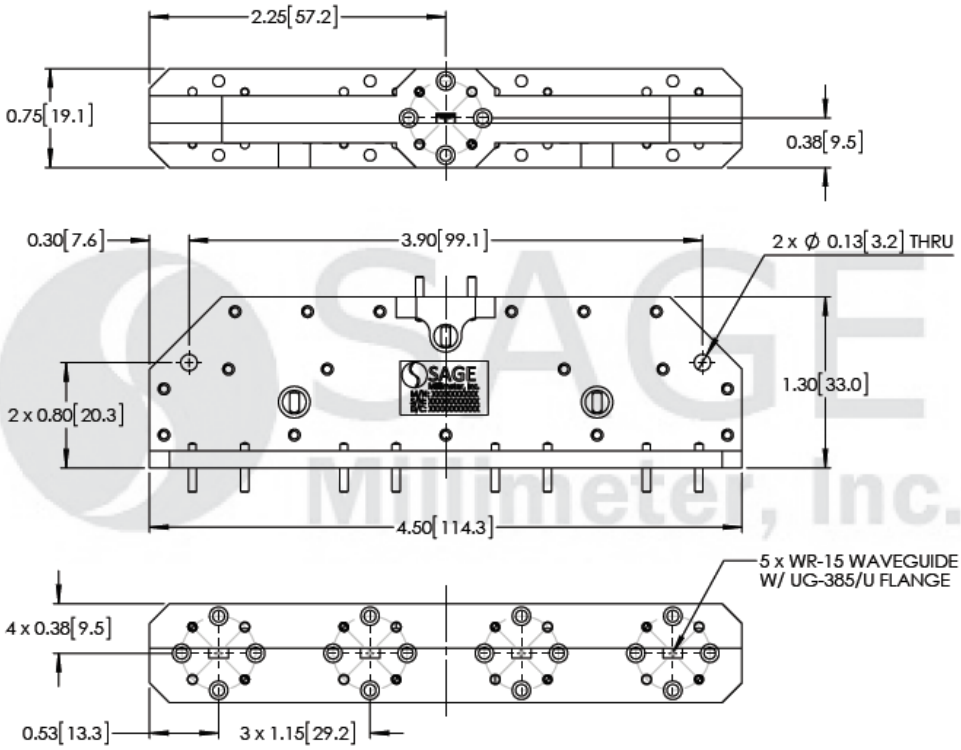
Typical Insertion Loss and Isolation vs. Frequency

Isolation was tested between adjacent ports (i.e. 1-2, 3-4)



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.

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