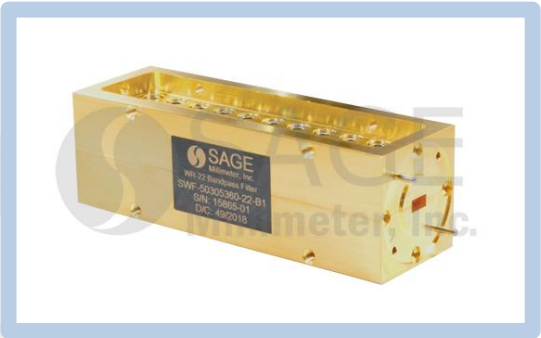
SWF-53312350-15-B1

Advanced

Waveguide Bandpass Filter, V Band, 47 to 59 GHz

Description:

Model SWF-53312340-15-B1 is a V band waveguide bandpass filter with a passband frequency of 47 to 59 GHz and rejection frequencies from DC to 44 GHz and 63 to 78 GHz. The nominal insertion loss of the bandpass filter is 2.0 dB and the typical rejection is 50 dB. Since both low end and high end cut off frequencies can be selected by modifying the design, custom designs are available under different model numbers.



Features:

- Low Cost
- Low Insertion Loss
- High Rejection

Applications:

- IEEE 802.11ad WiGig Systems
- Communication Systems
- Radar Systems
- Sub-assemblies

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Passband Frequency*	47 GHz		59 GHz
Passband Insertion Loss		2.0 dB	
Passband Ripple		±0.50 dB	
Rejection Frequency, Low Side	DC		44 GHz
Rejection Frequency, High Side	63 GHz		78 GHz
Rejection		50 dB	
Passband Return Loss		14 dB	
Specification Temperature		+25 ˚C	
Operating Temperature	-40 ˚C		+85 ˚C

*Note: The passband is extended to 46 to 60 GHz if higher insertion loss ripple is allowed.

Mechanical Specifications:

Item	Specification
Waveguide Port	WR-15 Waveguide with UG-385/U Flange
Material	Brass
Finish	Gold Plated
Weight	3.6 Oz
Size	2.00” (L) X 0.75” (W) X 0.75” (W)
Outline	WF-BV-L1

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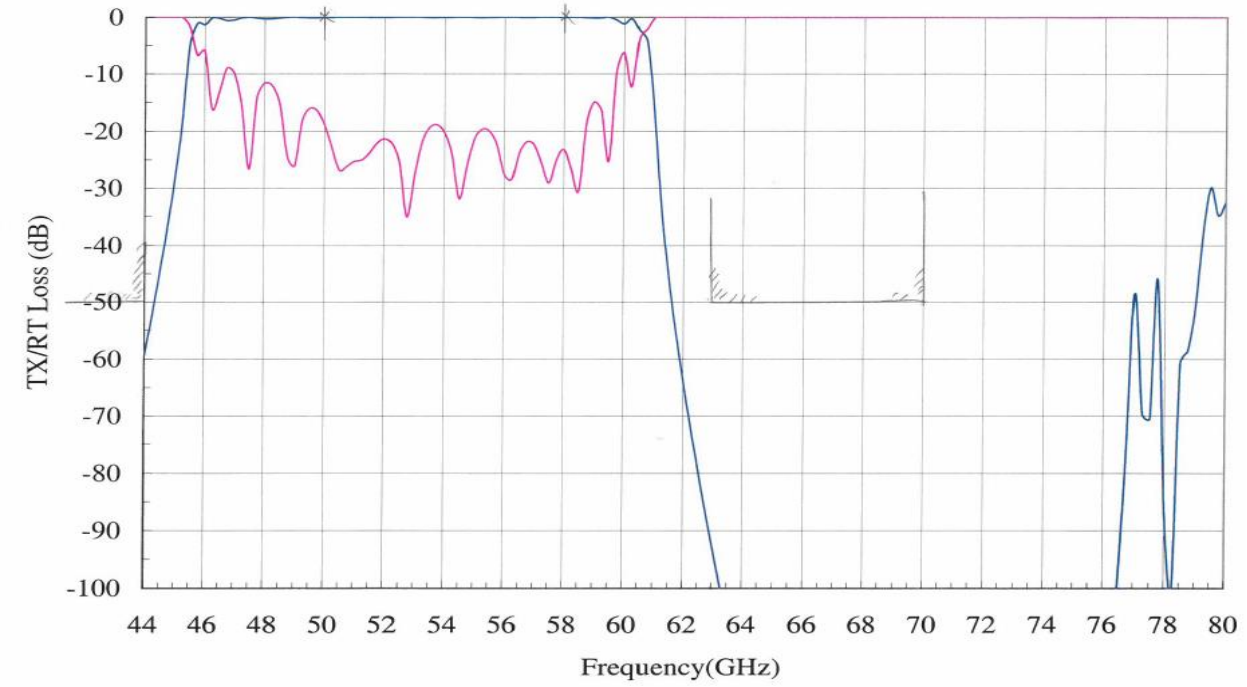
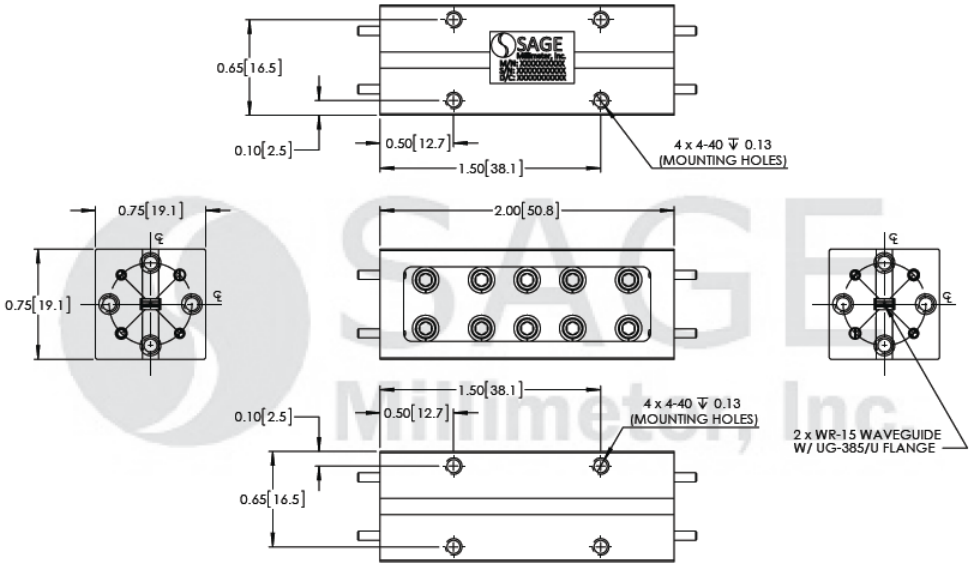
Typical Performance vs. Frequency



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



Note:

- All data presented is simulated. Actual data may vary, slightly.
- 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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