



Waveguide Bandpass Filter, V Band, 43.5 to 51.5 GHz

Description:

Model SWF-49309340-15-B1 is a V-band waveguide bandpass filter with a passband frequency of 43.5 to 51.5 GHz and rejection frequencies from DC to 42 GHz and 54 to 70 GHz. The nominal insertion loss of the bandpass filter is 2.5 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:

- Communication Systems
- Radar Systems
- Sub-assemblies

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Passband Frequency*	43.5 GHz		51.5 GHz
Passband Insertion Loss		2.5 dB	
Passband Return Loss		14 dB	
Rejection Frequency, Low Side	DC		42 GHz
Rejection Frequency, High Side	54 GHz		70 GHz
Rejection	40 dB	50 dB	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

*Note: The passband can be 3 dB bandwidth to cover 43.5 to 52.5 GHz.

Mechanical Specifications:

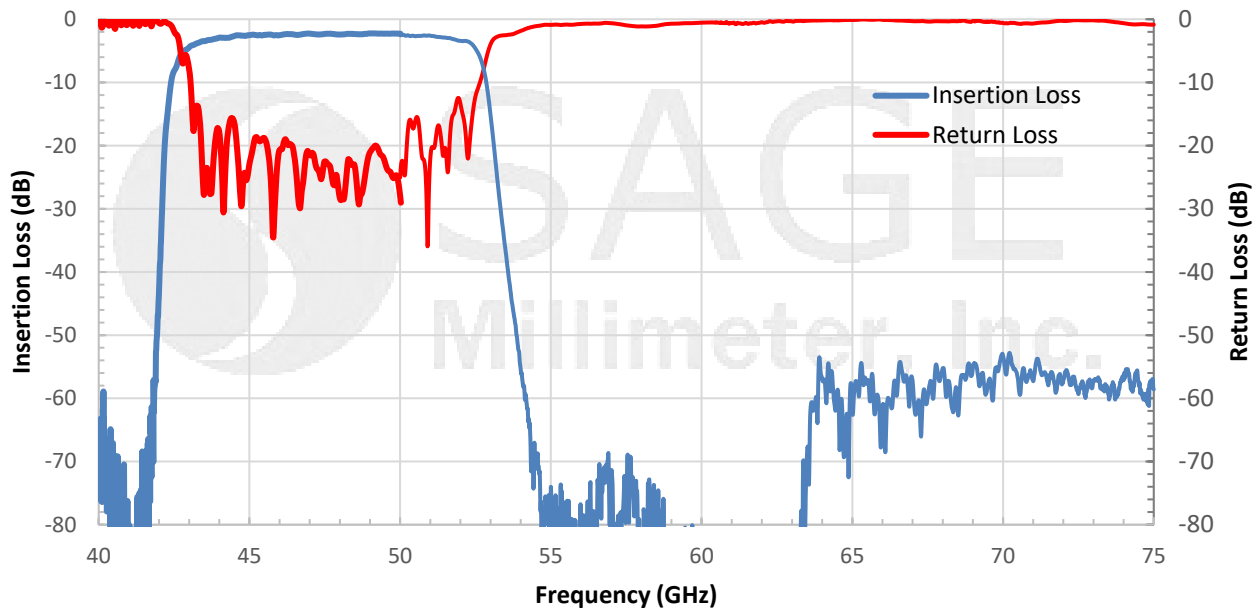
Item	Specification
Waveguide Ports	WR-15 Waveguide with UG-385/U Anti-Cocking Flange
Insertion Length	2.20"
Material	Brass
Finish	Gold Plated
Weight	5.5 oz.
Outline	WF-BV-L1-A-2.2



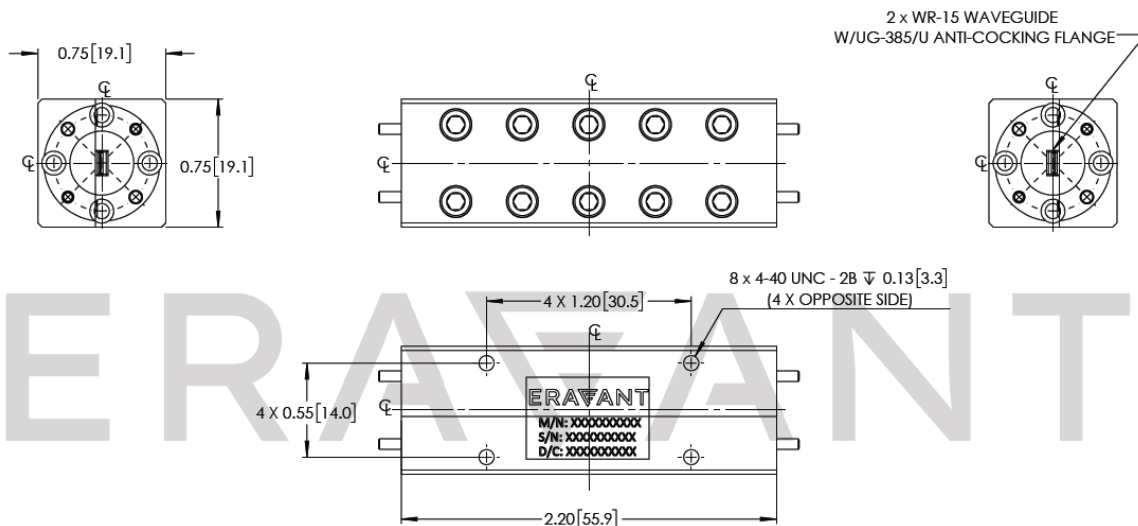


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Typical Performance vs Frequency



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 cause performance degradation and possible device damage.

