

## Waveguide Bandpass Filter, W Band, 95 to 99 GHz

### Description:

**Model SWF-97304345-10-B1** is a W band waveguide bandpass filter with a passband frequency of 95 to 99 GHz and rejection frequencies from DC to 92 GHz and 102 to 140 GHz. The nominal insertion loss of the bandpass filter is 2.5 dB and the typical rejection is 45 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	95 GHz		99 GHz
Passband Insertion Loss		2.5 dB	3.5 dB
Passband Ripple		±0.3 dB	
Rejection Frequency, Low Side	DC		92 GHz
Rejection Frequency, High Side	102 GHz		140 GHz
Rejection	40 dB	45 dB	
Passband Return Loss		14 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

### Mechanical Specifications:

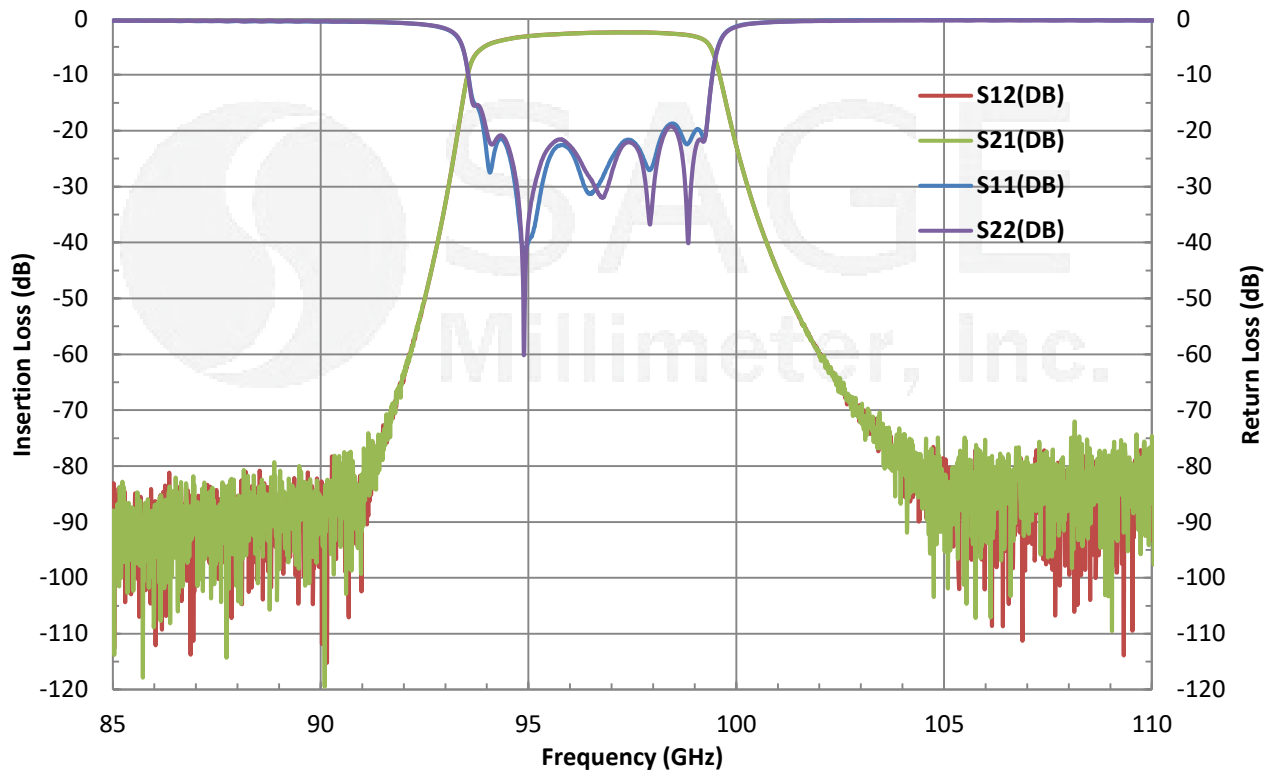
Item	Specification
Waveguide	WR-10 Waveguide with UG-387/U-M Flange
Material	Aluminum
Finish	Gold Plated
Weight	0.4 Oz
Size	1.20" (L) X 0.75" (Ø)
Outline	WF-BW



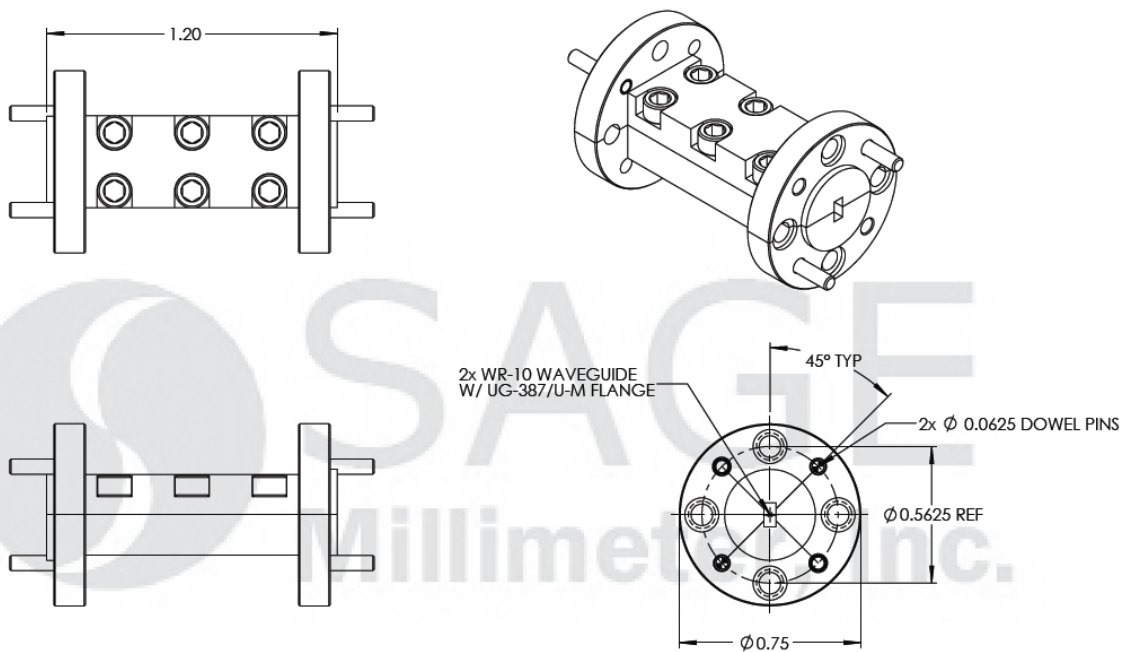


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### Typical Insertion Loss and Return Loss vs. Frequency



### Mechanical Outline: (Unless otherwise specified, all dimensions are in inches)



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### Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit.
- 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.

