



## Waveguide Bandpass Filter, E Band, 73 to 76 GHz

### Description:

**Model SWF-75303340-12-B1** is an E band waveguide bandpass filter with a passband frequency of 73 to 76 GHz and rejection frequencies from DC to 67 GHz and 82 to 100 GHz. The nominal insertion loss of the bandpass filter is 1.3 dB and the typical rejection is 40 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:

- E Band Communication Systems
- Automotive Radar Systems
- Sub-assemblies

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Passband Frequency*	73 GHz		76 GHz
Passband Insertion Loss		1.3 dB	2.5 dB
Passband Ripple		±0.3 dB	
Rejection Frequency, Low Side	DC		67 GHz
Rejection Frequency, High Side	82 GHz		100 GHz
Rejection		40 dB	
Passband Return Loss		14 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

\*Note: This model also covers 71 to 76 GHz passband operation.

### Mechanical Specifications:

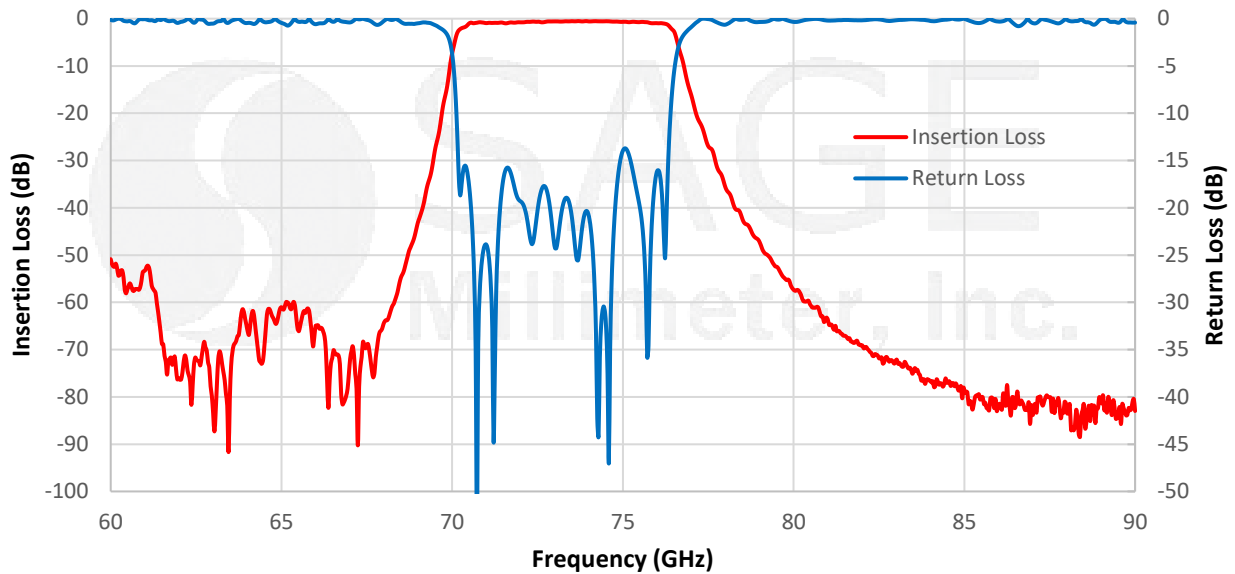
Item	Specification
Waveguide	WR-12 Waveguide with UG-387/U Flange
Size	1.20" (L) X 0.75" (Ø)
Material	Aluminum
Finish	Gold Plated
Weight	0.4 Oz
Outline	WF-BE



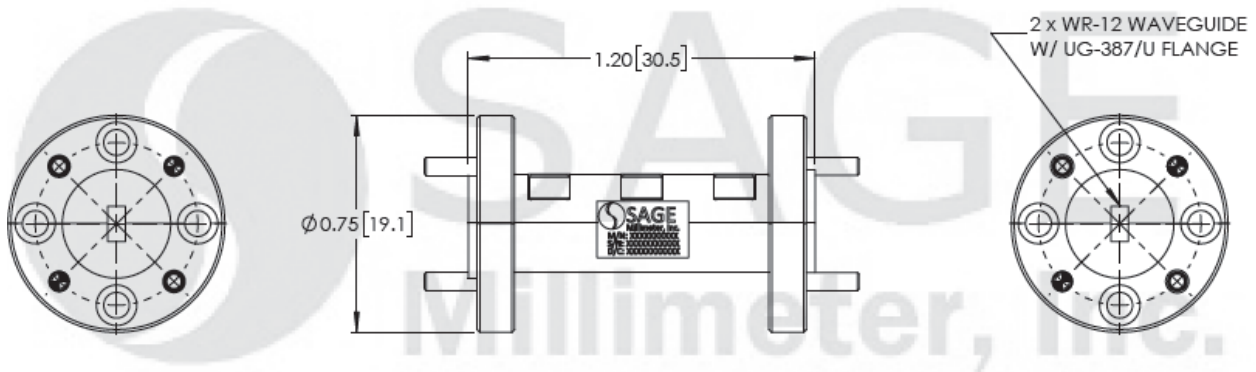


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### Typical Insertion Loss & Return Loss vs. Frequency



**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 degrade performance and/or damage the device.

