



## Waveguide Bandpass Filter, E Band, 76 to 81 GHz

### Description:

**Model SWF-79305340-12-B1** is an E band waveguide bandpass filter with a passband frequency of 76 to 81 GHz and rejection frequencies from DC to 73 GHz and 84 to 105 GHz. The nominal insertion loss of the bandpass filter is 2.0 dB and the minimum 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	76 GHz		81 GHz
Passband Insertion Loss		2.0 dB	3.0 dB
Passband Ripple		±0.3 dB	
Rejection Frequency, Low Side	DC		73 GHz
Rejection Frequency, High Side	84 GHz		105 GHz
Rejection	40 dB		
Passband VSWR		1.2:1	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

### Mechanical Specifications:

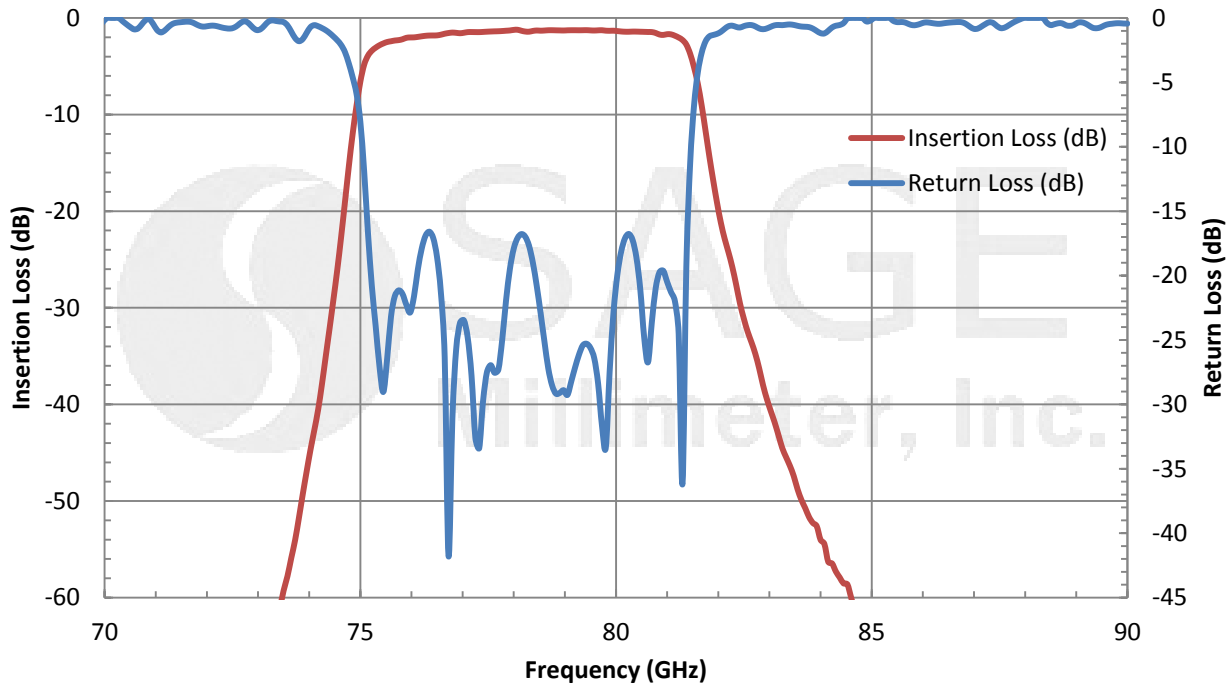
Item	Specification
Waveguide	WR-12 Waveguide with UG-387/U Flange
Size	1.20" (L) X 0.75" (Ø)
Material	Aluminum
Finish	Gold Plated
Weight	0.4 Oz
Outline	WF-BE



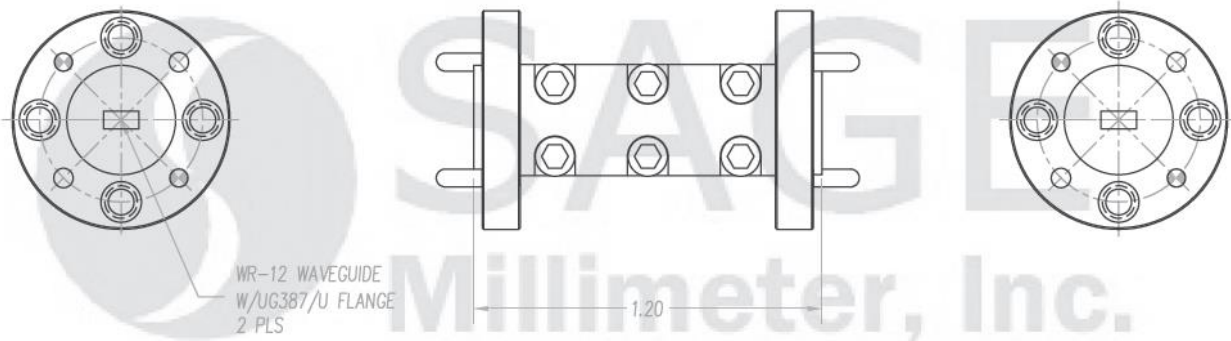


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### Typical Performance vs. Frequency



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



#### Note:

- All data are presented using a limited 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 degrade performance and/or damage the device.

