

## Waveguide Bandpass Filter, E Band, 81 to 87 GHz

### Description:

**Model SWF-84306330-12-B1-WP** is an E band waveguide bandpass filter with a passband frequency of 81 to 87 GHz and rejection frequencies from DC to 78 GHz and 90 to 108 GHz. The nominal insertion loss of the bandpass filter is 2.0 dB and the typical rejection is 30 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	81 GHz		87 GHz
Passband Insertion Loss		2.0 dB	4.0 dB @ 81 GHz
Passband Ripple		±0.3 dB	
Rejection Frequency, Low Side	DC		78 GHz
Rejection Frequency, High Side	90 GHz		108 GHz
Rejection		30 dB	
Passband VSWR		1.5:1	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

### Mechanical Specifications:

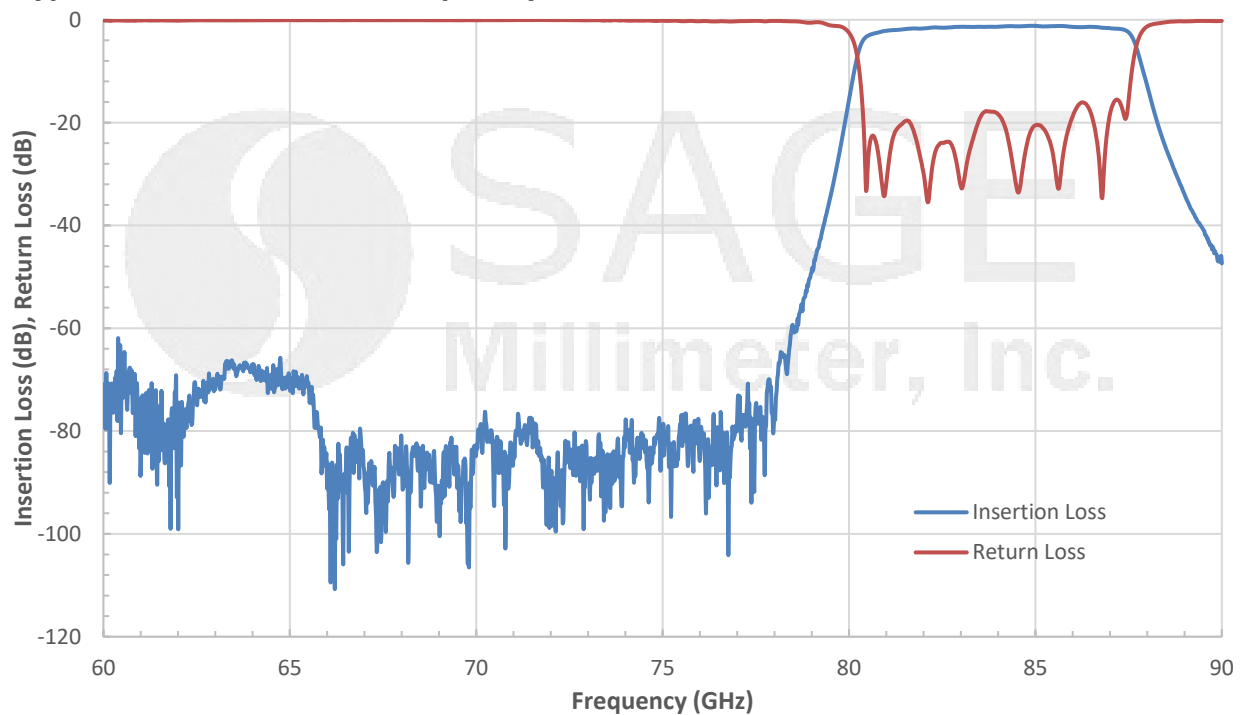
Item	Specification
Waveguide	WR-12 Waveguide with UG-387/U Flange
Material	Aluminum
Finish	Gold Plated
Weight	0.4 Oz
Size	1.20" (L) X 0.75" (Ø)
Outline	WF-BE



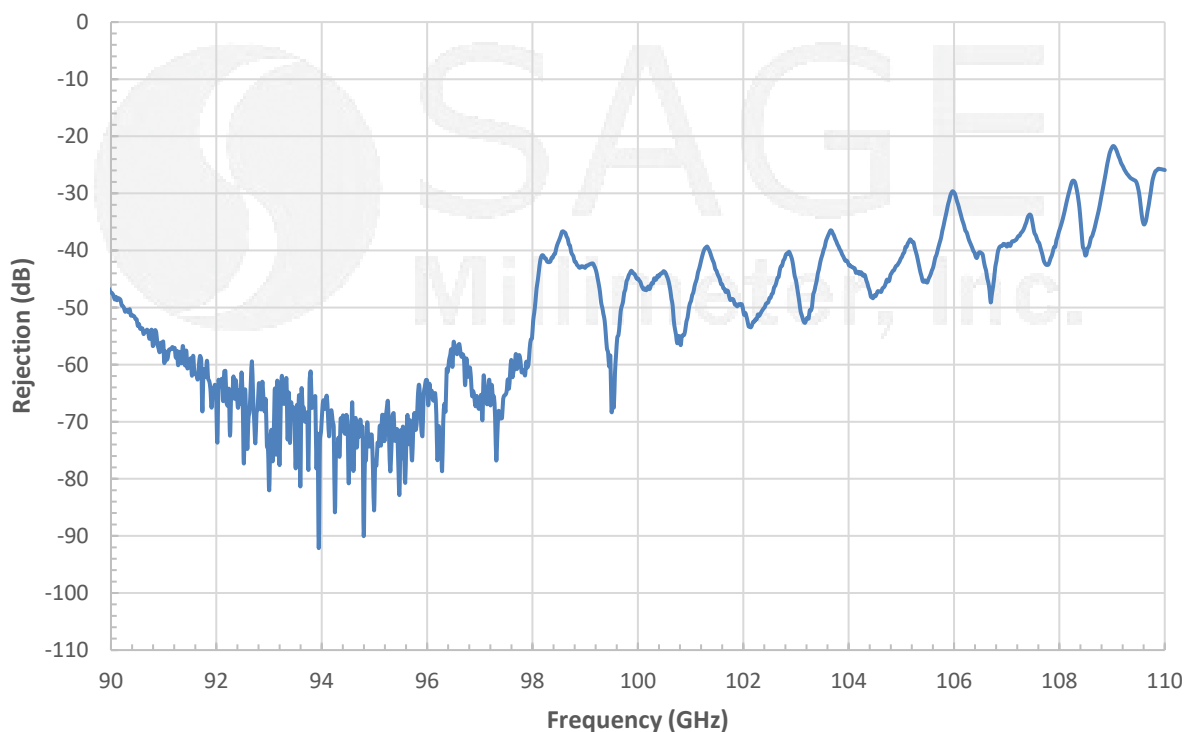


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Typical Performance Vs Frequency

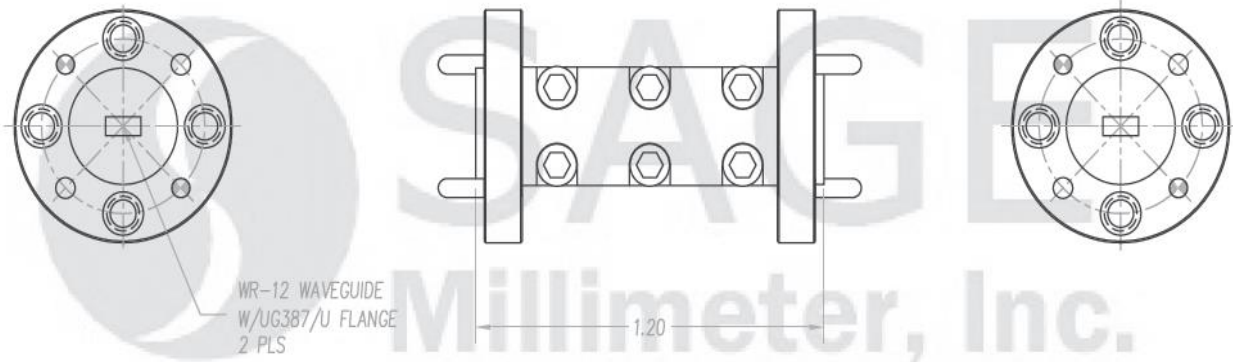


Typical Rejection Vs Frequency



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



**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.
- Eravant. 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.