Waveguide Bandpass Filter, E Band, 82.5 to 87.0 GHz

Description:

Model SWF-85305340-12-B1 is an E band waveguide bandpass filter with a passband frequency of 82.5 to 87 GHz and rejection frequencies from DC to 80 GHz and 90 to 120 GHz. The nominal insertion loss of the bandpass filter is 2.5 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	82.5 GHz		87.0 GHz
Passband Insertion Loss		2.5 dB	3.0 dB
Passband Ripple		±0.3 dB	
Rejection Frequency, Low Side	DC		80 GHz
Rejection Frequency, High Side	90 GHz		120.0 GHz
Rejection		40 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	1.30" (L) X 0.75" (Ø)
Outline	WF-BE-1.3

SAGE Millimeter, Inc.

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Typical Performance vs. Frequency
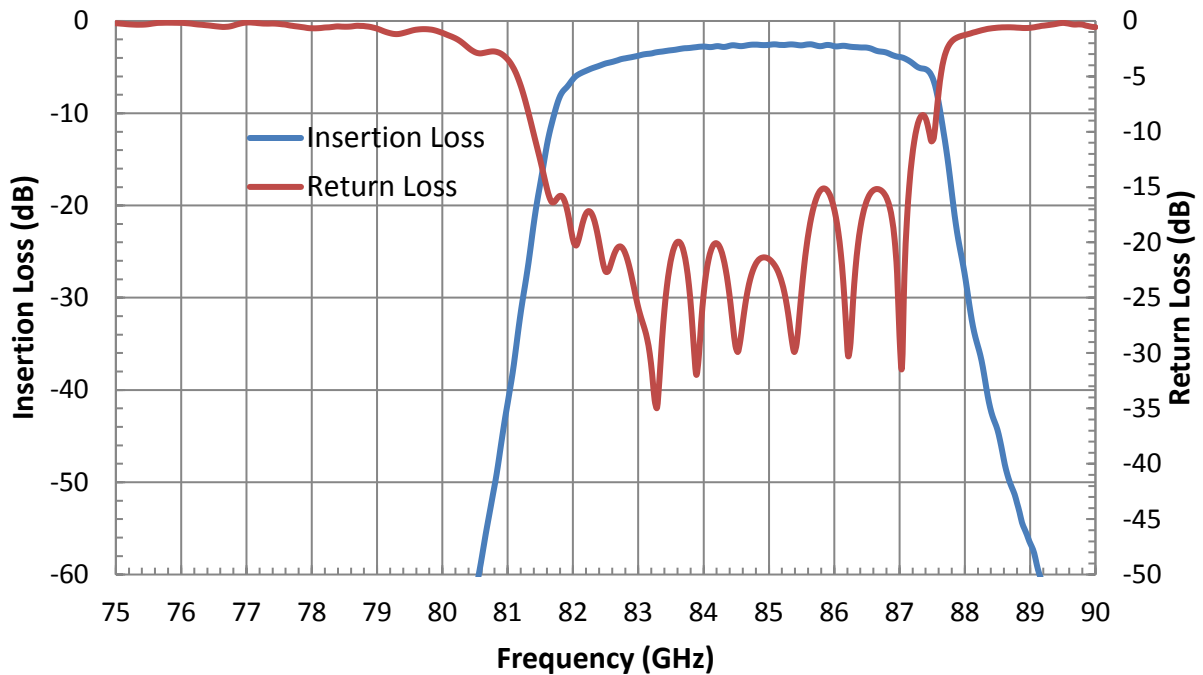
Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])

2 x WR-12 WAVEGUIDE
W/ UG-387/U FLANGE
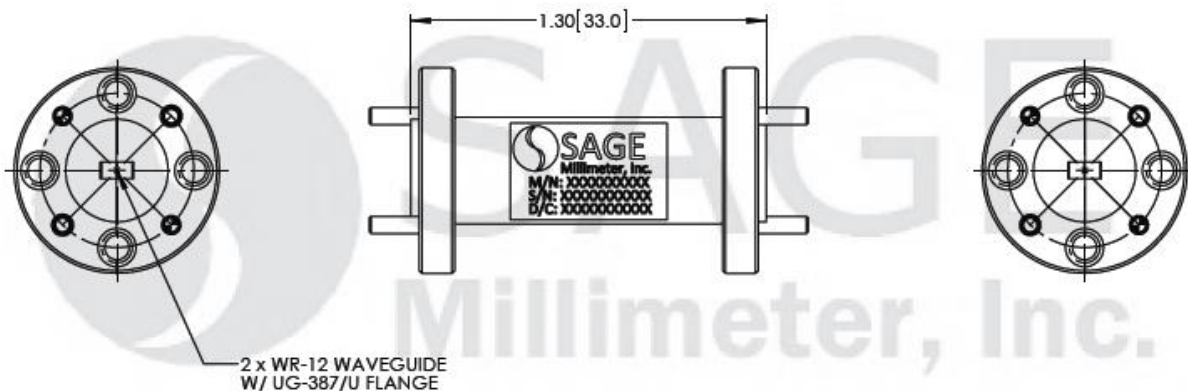
Note:

- 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.

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