

Waveguide Lowpass Filter, E Band, 50 to 90 GHz

Description:

Model SWF-90395340-12-L1 is an E band waveguide lowpass filter with a passband frequency from 50 to 90 GHz and a rejection frequency from 95 to 140 GHz. Due to the corrugated design of the WR-12 waveguide, the filter also has a low side rejection frequency from DC to 45 GHz. As such, this filter can also be accepted as a bandpass filter. The filter provides a nominal insertion loss of 1.8 dB across its passband and a typical rejection of 40 dB. Since the high end cutoff frequency can be changed by modifying the design, custom designs can be offered under different model numbers.



Features:

- Full Band Operation
- Low Insertion Loss
- High Rejection

Applications:

- Test Labs
- Instrumentations
- Sub-assemblies

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Passband Frequency	50 GHz		90 GHz
Passband Insertion Loss		1.8 dB	
Rejection Frequency, Low Side	DC		45 GHz
Rejection Frequency, High Side	95 GHz		140 GHz
Rejection		40 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

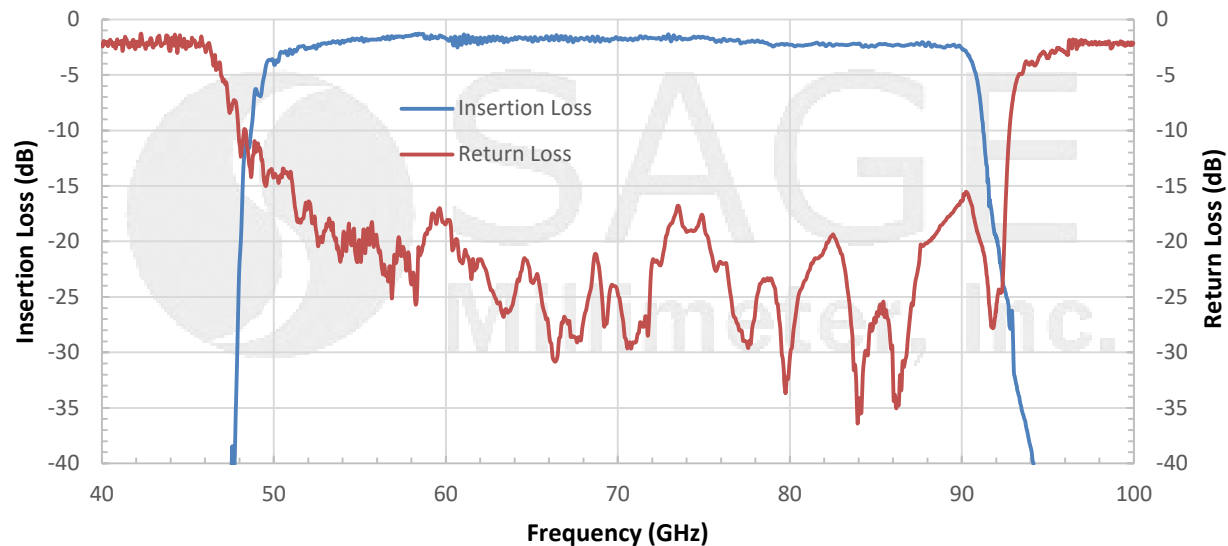
Mechanical Specifications:

Item	Specification
Waveguide	WR-12 Waveguide with UG-387/U Flange
Size	1.60" (L) X 0.75" (W) x 0.75" (H)
Material	Aluminum
Finish	Gold Plated
Weight	4.0 Oz
Outline	WF-LE-1.6-2

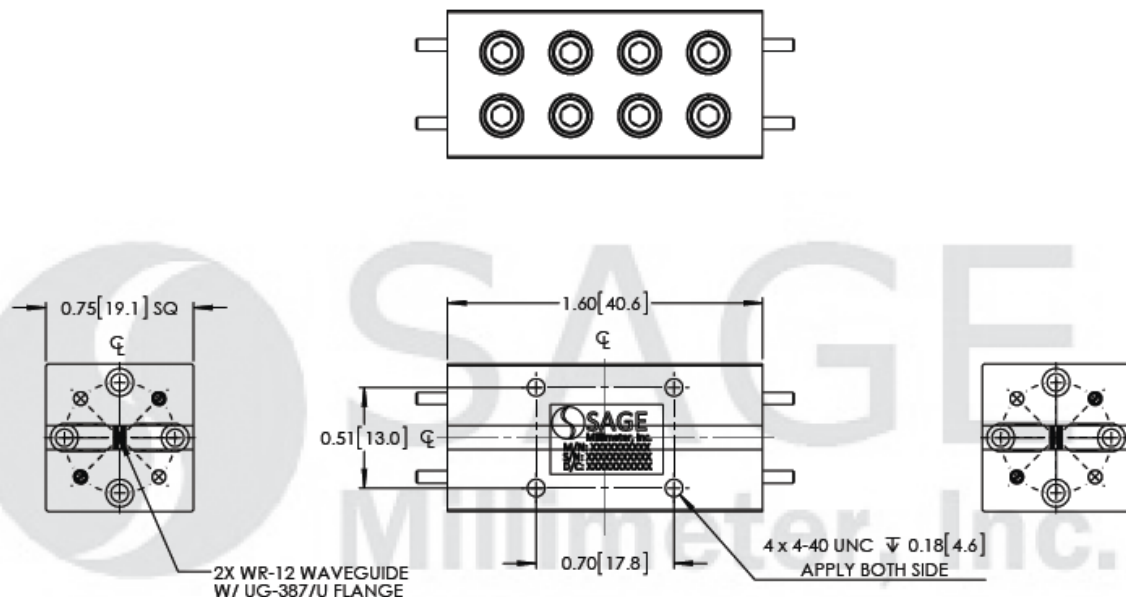


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Typical Insertion and Return Loss vs. Frequency



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.



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