SWF-11412440-10-L1

SAGE Millimeter, Inc.

Waveguide Lowpass Filter, W Band

Description:

Model SWF-11412440-10-L1 is a W band waveguide lowpass filter with a passband frequency from 62 to 110 GHz and a rejection frequency 120 to 160 GHz. Due to the waveguide cut off nature, the low side of the filter has rejection range of DC to 56 GHz. The filter provides a nominal insertion loss of 1.6 dB across its passband and a typical rejection of 50 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	62 GHz		110 GHz
Passband Insertion Loss		1.6 dB	2.0 dB
Rejection Frequency, Low Side	DC		56 GHz
Rejection Frequency, High Side	120 GHz		160 GHz
Rejection	40 dB	50 dB	
Passband VSWR		1.5:1	
Specification Temperature		+25˚C	
Operating Temperature	-40˚C		+85˚C

Mechanical Specifications:

Item	Specification
Waveguide	WR-10 Waveguide with UG-387/U-M Flange
Size	1.20" (L) x 0.75" (W) x 0.75" (H)
Material	Brass
Finish	Gold Plated
Weight	2.6 Oz
Outline	WF-LW-1.2

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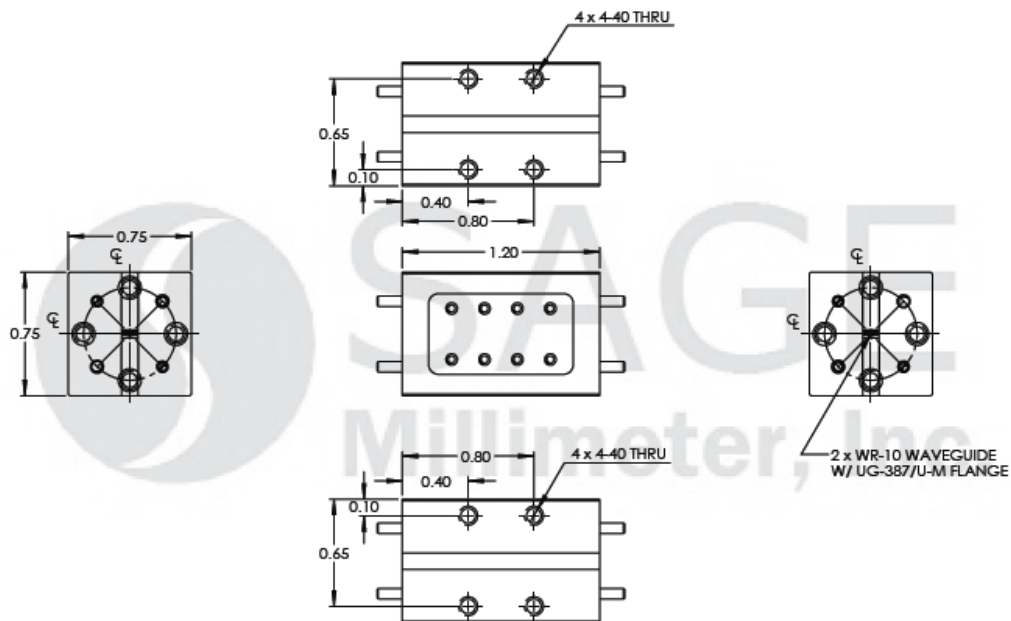Copyright © 2015 by SAGE Millimeter, Inc.   Page | 1

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Simulated Insertion Loss and Return Loss vs. Frequency
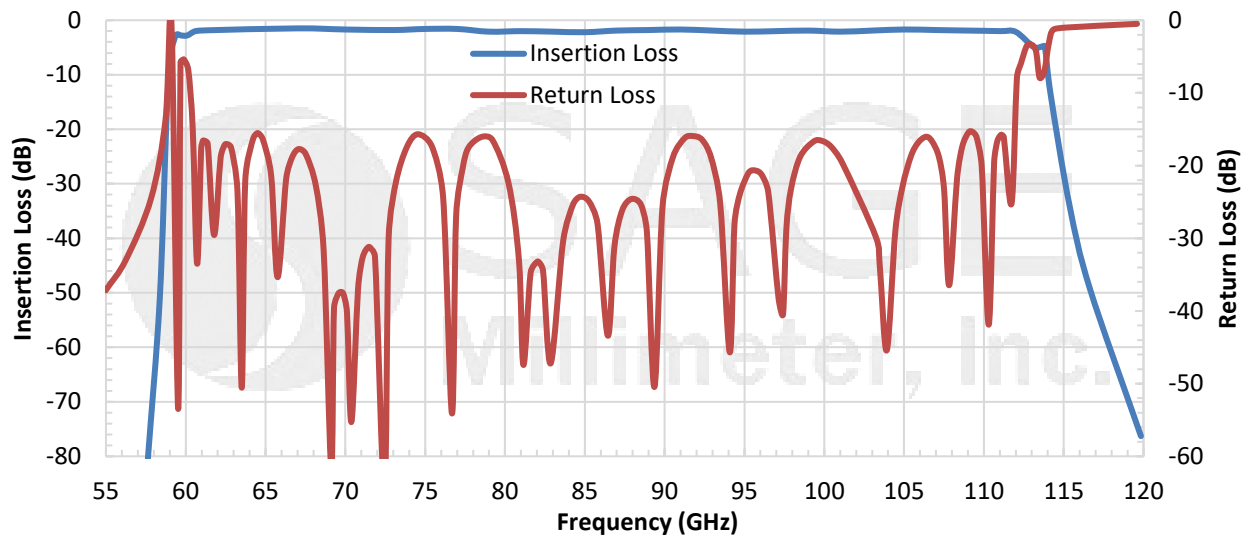
Mechanical Outline: (Unless otherwise specified, all dimensions are in inches)

Note:

- All data are presented by 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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