SWF-75379340-12-L1

Rev. 1.0

Waveguide Lowpass Filter, E Band

Description:

Model SWF-75379340-12-L1 is an E band waveguide lowpass filter with a passband of 50 to 75 GHz and a rejection frequency from 79 to 110 GHz. Due to the corrugated design of the WR-12 waveguide, the filter also has a low side rejection frequency from DC to 48 GHz. As such, this filter can also be accepted as a bandpass filter. The filter provides a nominal insertion loss of 2.2 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		75 GHz
Passband Insertion Loss		2.2 dB	
Passband Ripple		±0.4 dB	
Rejection Frequency, Low Side	DC		48 GHz
Rejection Frequency, High Side	79 GHz		110 GHz
Rejection		40 dB	
Passband VSWR		1.5:1	
Specification Temperature		+25˚C	
Operating Temperature	-40˚C		+85˚C

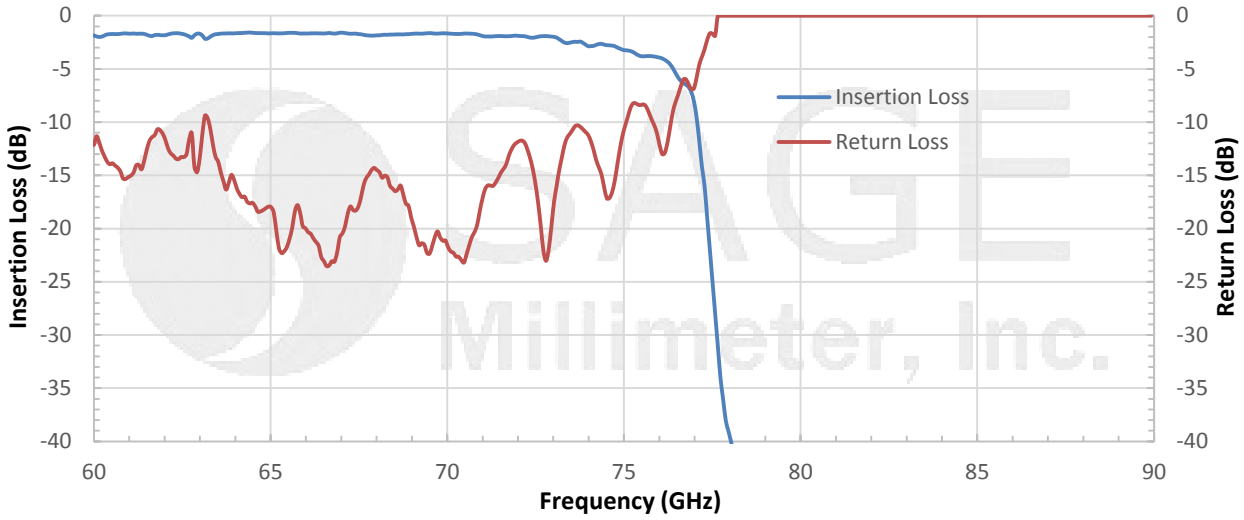
Mechanical Specifications:

Item	Specification
Waveguide	WR-12 Waveguide with UG-387/U Flange
Size	2.20” (L) X 0.75” (W) x 0.75” (H)
Material	Brass
Finish	Gold Plated
Weight	3.8 Oz
Outline	WF-LE

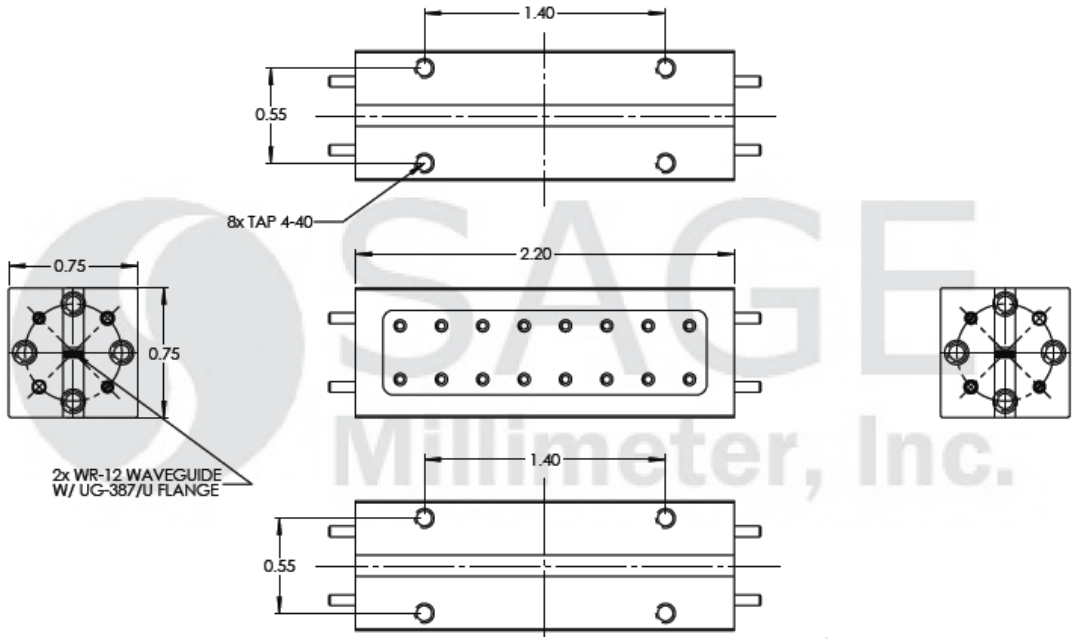
www.sagemillimeter.com | 3043 Kashiwa Street, Torrance, CA 90505
Phone: 424-757-0168 | Fax: 424-757-0188 | Email: sales@sagemillimeter.com

Waveguide Lowpass Filter, E Band

Typical 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.

www.sagemillimeter.com | 3043 Kashiwa Street, Torrance, CA 90505
Phone: 424-757-0168 | Fax: 424-757-0188 | Email: sales@sagemillimeter.com