

## Waveguide Lowpass Filter, W Band

### **Description:**

Model SWF-11412440-10-L1-WP 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 2 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		2 dB	
Passband Return Loss		14 dB	
Rejection Frequency, Low Side	DC		56 GHz
Rejection Frequency, High Side	120 GHz		160 GHz
Rejection	40 dB	50 dB	17.
Specification Temperature	' /\	+25°C	
Operating Temperature	-40°C		+85°C

## **Mechanical Specifications:**

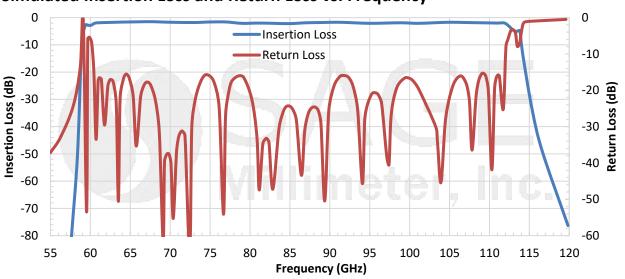
Item	Specification	
Waveguide	WR-10 Waveguide with UG-387/U-M Flange	
Size	1.20" (L) x 0.75" (W) x 0.75" (H)	
Material	Brass	
Finish	Gold Plated	
Weight	2.6 Oz	
Outline	WF-LW-1.2	



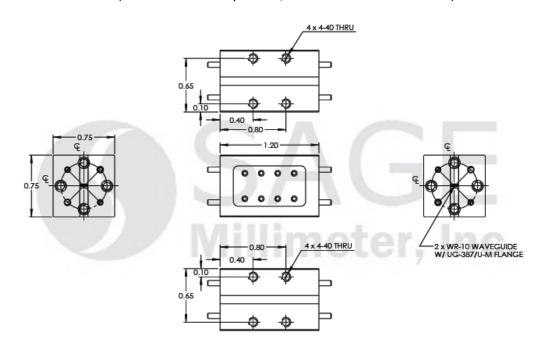
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## Simulated Insertion Loss and Return Loss vs. Frequency



**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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