

# Waveguide Highpass Filter, V Band, Anti-Cocking

### **Description:**

Model SWF-57353340-15-H1-A is a V band waveguide highpass filter with a passband frequency of 57 GHz and higher and a rejection frequency from DC to 53 GHz. The filter provides a nominal insertion loss of 0.8 dB across its passband with a low ripple and a typical rejection of 40 dB. The waveguide interface for the filter incorporates UG-385/U



anti-cocking flanges to enhance waveguide interface contact and reduce leakage. Since the low end cutoff frequency can be changed by modifying the design, custom designs can be offered under different model numbers.

#### **Features:**

- Low Cost
- Low Insertion Loss
- High Rejection

### **Applications:**

- IEEE 802.11ad WiGig Systems
- Communication Systems
- Radar Systems
- Sub-assemblies

## **Electrical Specifications:**

Parameter	Minimum	Typical	Maximum
Passband Frequency	57 GHz		
Passband Insertion Loss	7/1	0.8 dB	
Passband Ripple		±0.3 dB	
Rejection Frequency	DC		53 GHz
Rejection		40 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C	Jan I	+85°C

## **Mechanical Specifications:**

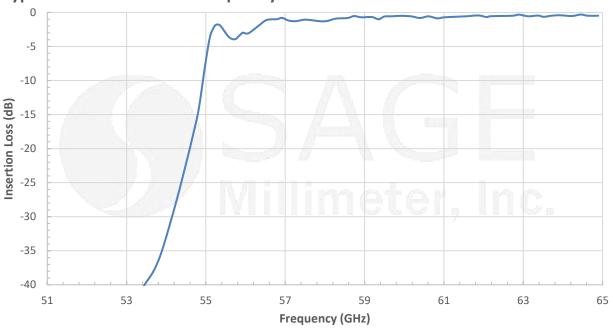
Item	Specification	
Waveguide	WR-15 with UG-385/U Anti-Cocking Flange	
Size	1.20" (L) X 0.75" (Ø)	
Material	Aluminum	
Finish	Gold Plated	
Weight	0.4 Oz	
Outline	WF-HV-A	



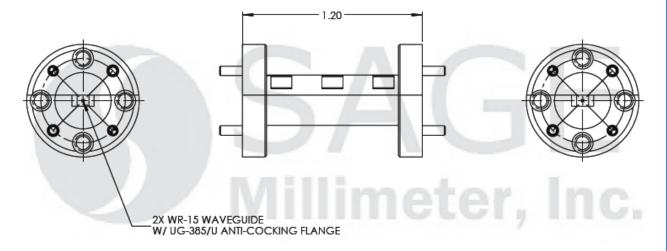
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### **Typical Insertion Loss vs. Frequency**



**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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