

# Waveguide Bandpass Filter, V Band, 50 to 75 GHz

#### **Description:**

Model SWF-63325340-15-B1 is a V band waveguide bandpass filter with a passband frequency of 50 to 75 GHz and rejection frequencies from DC to 44 GHz and 80 to 110 GHz. The nominal insertion loss of the bandpass filter is 2.0 dB and the typical rejection is 40 dB. Since both low end and high end cut off frequencies can be selected by modifying



the design, custom designs are available 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	50 GHz		75 GHz
Passband Insertion Loss		2.0 dB	3.0 dB
Passband Ripple		±0.5 dB	
Rejection Frequency, Low Side	DC		44 GHz
Rejection Frequency, High Side	80 GHz		110 GHz
Rejection		40 dB	
Passband Return Loss		14 dB	
Specification Temperature		+25 °C	9
Operating Temperature	-40 °C		+85 °C

### **Mechanical Specifications:**

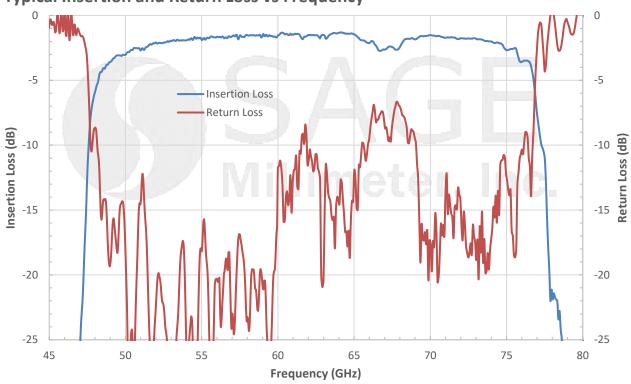
Item	Specification	
Waveguide Ports	WR-15 Waveguide with UG-385/U Anti-Cocking Flange	
Material	Brass	
Finish	Gold Plated	
Weight	3.6 Oz	
Size	2.00" (L) X 0.78" (W) X 0.75" (H)	
Outline	WF-BV-L1-A-2.0	



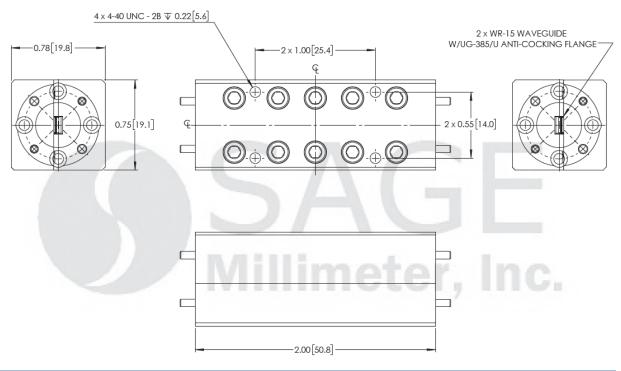
www.sagemillimeter.com | 3043 Kashiwa Street, Torrance, CA 90505 Phone: 424-757-0168 | Fax: 424-757-0188 | Email: sales@sagemillimeter.com

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**Typical Insertion and Return Loss vs Frequency** 



**Mechanical Outline:** (Unless otherwise specified, all dimensions are in inches [millimeters])





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#### 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 cause performance degradation and possible device damage.





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