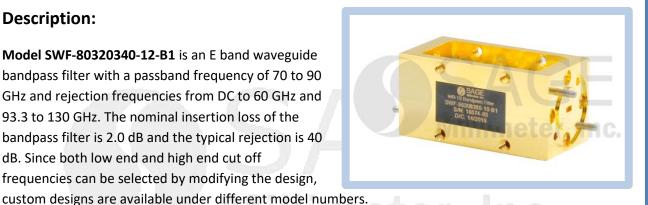


# Waveguide Bandpass Filter, E Band, 70 to 90 GHz

#### **Description:**

Model SWF-80320340-12-B1 is an E band waveguide bandpass filter with a passband frequency of 70 to 90 GHz and rejection frequencies from DC to 60 GHz and 93.3 to 130 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,



**Features:** 

- Low Cost
- **Low Insertion Loss**
- **High Rejection**

## **Applications:**

- **Communication Systems**
- **Radar Systems**
- Sub-assemblies

#### **Electrical Specifications:**

Parameter	Minimum	Typical	Maximum
Passband Frequency	70 GHz		90 GHz
Passband Insertion Loss		2.0 dB	3.0 dB
Passband Ripple		±0.3 dB	
Rejection Frequency, Low Side	DC		60.0 GHz
Rejection Frequency, High Side	93.3 GHz		130.0 GHz
Rejection		40 dB	
Passband VSWR		1.5:1	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

## **Mechanical Specifications:**

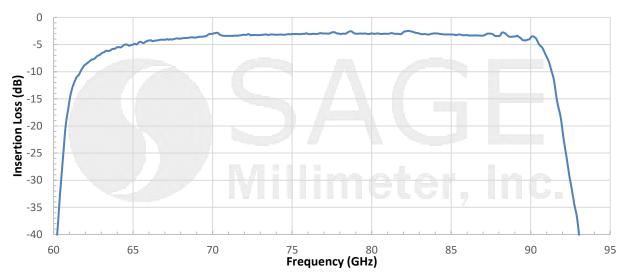
Item	Specification	
Waveguide	WR-12 Waveguide with UG-387/U Flange	
Size	1.50" (L) x 0.75" (H) x 0.75" (W)	
Material	Brass	
Finish	Gold Plated	
Weight	2.6 Oz	
Outline	WF-BE-L1	



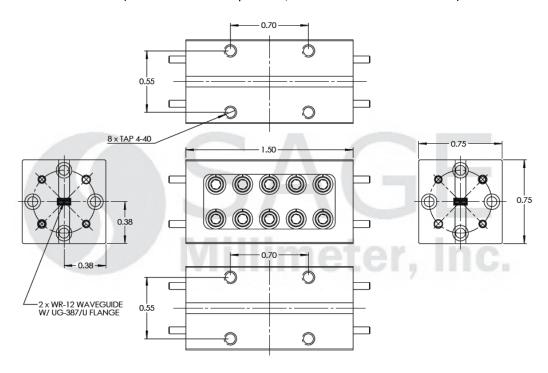
www.sagemillimeter.com | 3043 Kashiwa Street, Torrance, CA 90505 Phone: 424-757-0168 | Fax: 424-757-0188 | Email: sales@sagemillimeter.com

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



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



#### Note:

- All data are presented 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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