



## Waveguide Bandpass Filter, Ka Band, 27.5 to 32.5 GHz

### Description:

**Model SWF-30305340-28-B1** is a Ka band waveguide bandpass filter with a passband frequency of 27.5 to 32.5 GHz and rejection frequencies from 18.5 to 23.5 GHz and 36.5 to 41.5 GHz. The nominal insertion loss of the bandpass filter is 1.5 dB and the minimum 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:

- Communication Systems
- Radar Systems
- Sub-assemblies

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Passband Frequency	27.5 GHz		32.5 GHz
Passband Insertion Loss		1.5 dB	
Passband Ripple		±0.4 dB	
Rejection Frequency, Low Side	18.5 GHz		23.5 GHz
Rejection Frequency, High Side	36.5 GHz		41.5 GHz
Rejection	40 dB		
Passband VSWR		1.5:1	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

### Mechanical Specifications:

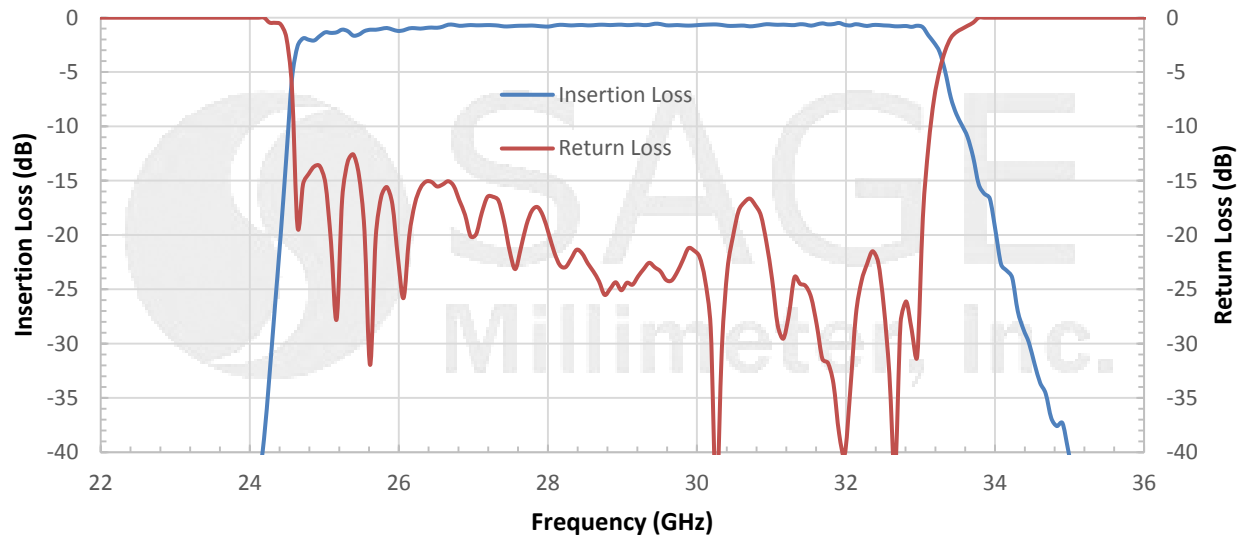
Item	Specification
Waveguide	WR-28 Waveguide with UG-599/U Flange
Size	3.70" (L) x 0.75" (W) x 0.75" (H)
Material	Brass
Finish	Gold Plated
Weight	3.2 Oz
Outline	WF-BA-3.7



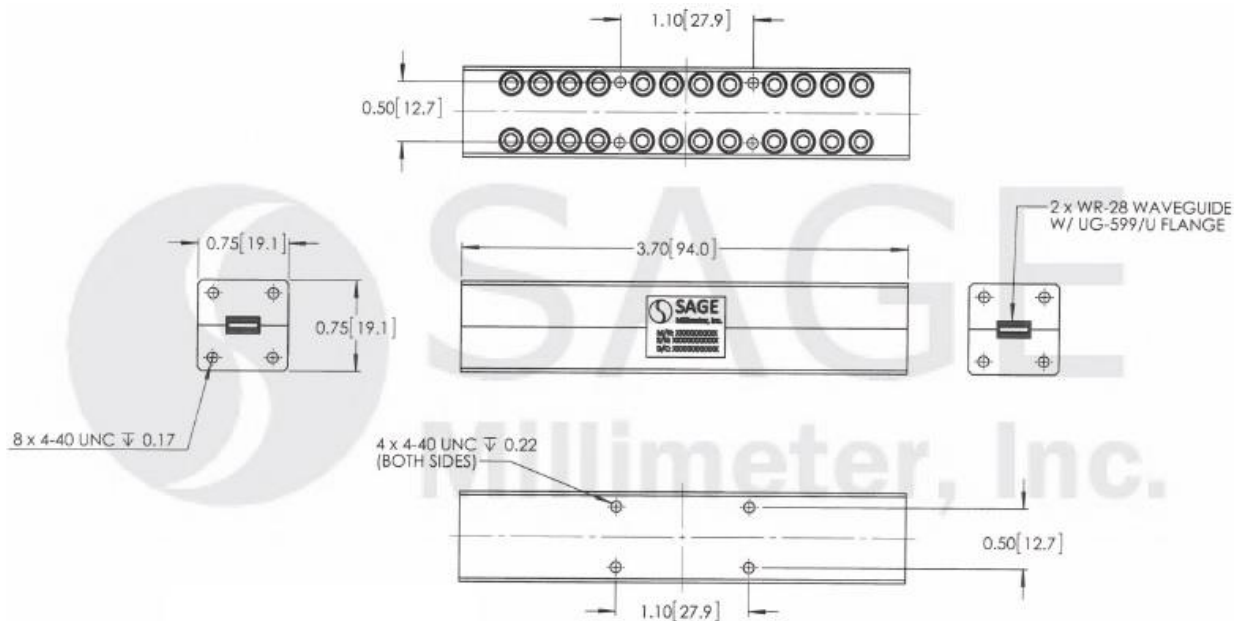


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### Typical Insertion Loss and Return Loss vs. Frequency



### 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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