



## Waveguide Bandpass Filter, W Band, 86 to 94 GHz

### Description:

**Model SWF-90308340-10-B1** is a W band waveguide bandpass filter with a passband frequency of 86 to 94 GHz and rejection frequencies from DC to 82 GHz and 98 to 106 GHz. The nominal insertion loss of the bandpass filter is 2.5 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:

- Communication Systems
- Radar Systems
- Sub-assemblies

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Passband Frequency	86 GHz		94 GHz
Passband Insertion Loss		2.5 dB	
Passband Ripple		±0.3 dB	
Rejection Frequency, Low Side	DC		82 GHz
Rejection Frequency, High Side*	98 GHz		106 GHz
Rejection		25 dB	
Passband Return Loss		14 dB	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

\*Note: High side rejection extends beyond 110 GHz.

### Mechanical Specifications:

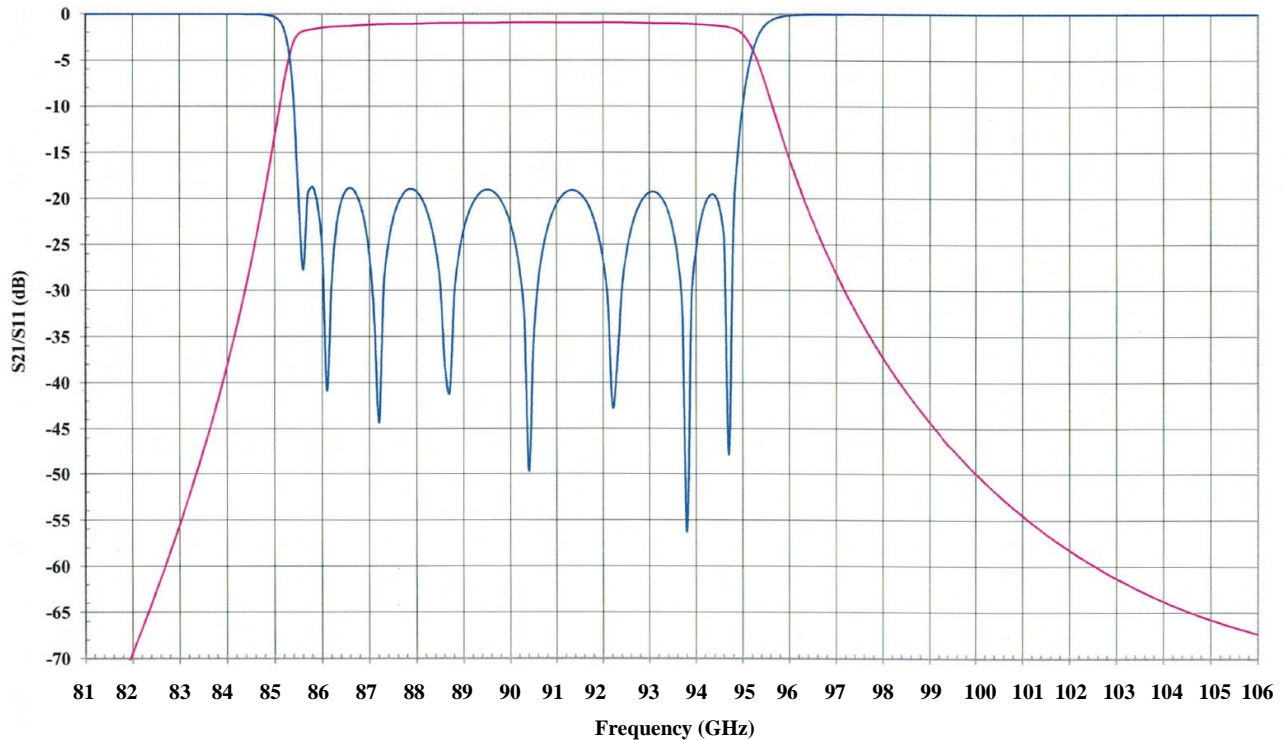
Item	Specification
Waveguide	WR-10 Waveguide with UG-387/U-M Flange
Material	Aluminum
Finish	Gold Plated
Weight	0.4 Oz
Size	1.20" (L) X 0.75" (Ø)
Outline	WF-BW



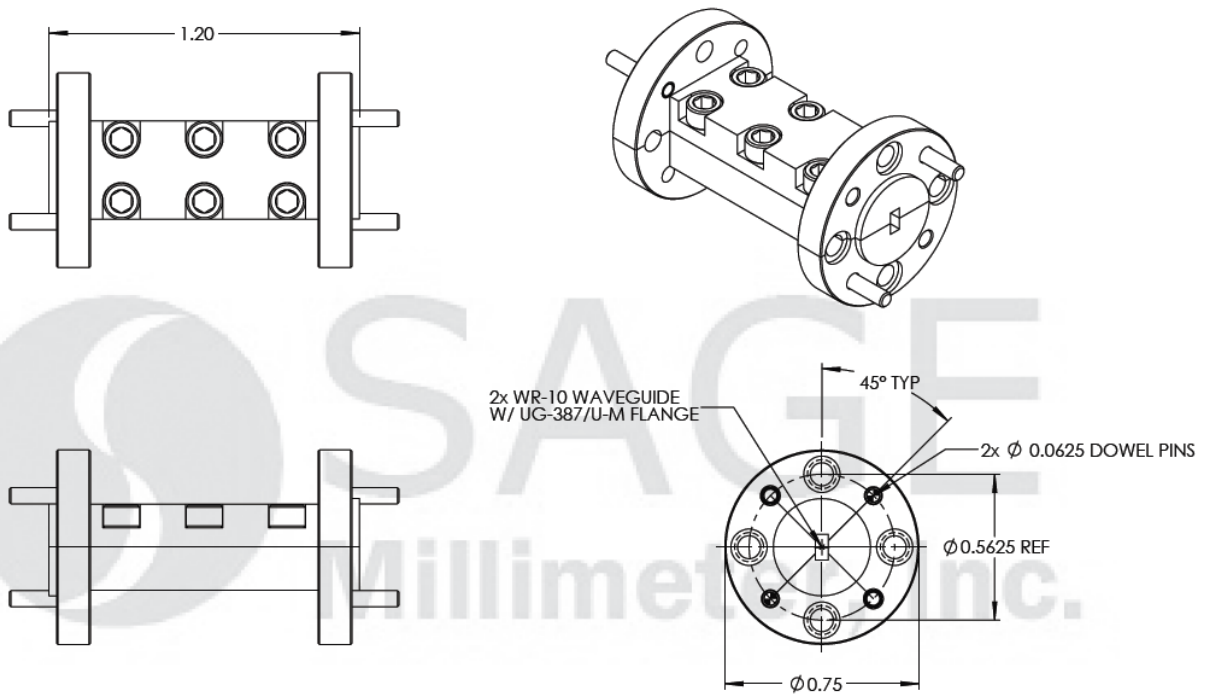


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### Simulated Data



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



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### Note:

- All data presented are simulated. Actual data may vary.
- 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.

