

E Band Diplexer, 74 to 89 GHz, Port Separation 50 mm

Description:

Model SWY-77387355-12-I2 is an E band waveguide diplexer with a low passband of 74 to 79 GHz and a high passband of 84 to 89 GHz. The nominal insertion loss of the diplexer is 0.5 dB and the minimum isolation is 55 dB. Since both low and high passband frequencies can be changed by modifying the design, custom designs are available under different model numbers.



Features:

- Low Cost
- Low Insertion Loss
- High Rejection

Applications:

- Communication Systems
- Sub-assemblies

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Low Passband		·	
Passband Frequency	74 GHz		79 GHz
Passband Insertion Loss		0.5 dB	
Rejection Frequency	84 GHz		89 GHz
Rejection		55 dB	
Return Loss		16 dB	
Group Delay Variation			150 ps
High Passband			
Passband Frequency	84 GHz		89 GHz
Passband Insertion Loss		0.5 dB	
Rejection Frequency	74 GHz		79 GHz
Rejection		55 dB	(4)
Return Loss		16 dB	
Group Delay Variation			150 ps
Power Handling		25 W (CW)	
Specification Temperature		+25 °C	4
Operating Temperature	-40 °C		+85 °C

Mechanical Specifications:

Item	Specification	
Waveguide Ports	WR-12 Waveguide with UG-387/U Compatible Flanges	
Material	Brass	
Finish	Silver Plated	
Weight	3.5 Oz	
Size	2.83" (L) x 0.75" (W) x 0.39" (H)	
Outline	WY-IE-PV1	

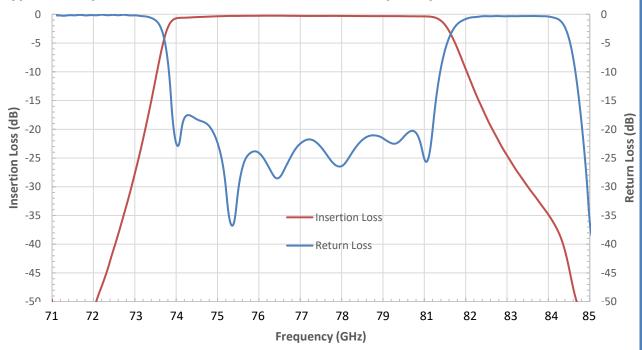


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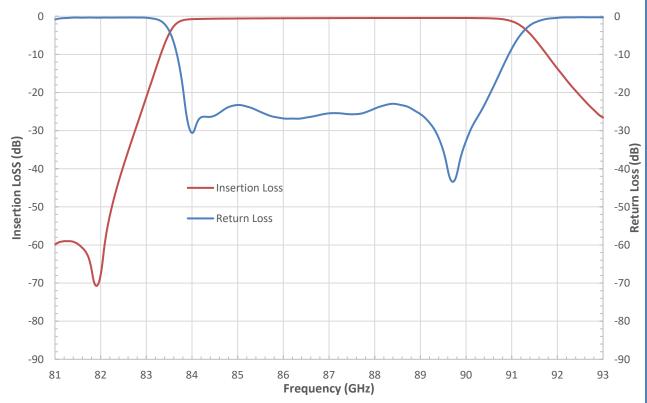
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Typical Lowpass Insertion and Return Loss vs. Frequency



Typical Highpass Insertion and Return Loss vs. Frequency



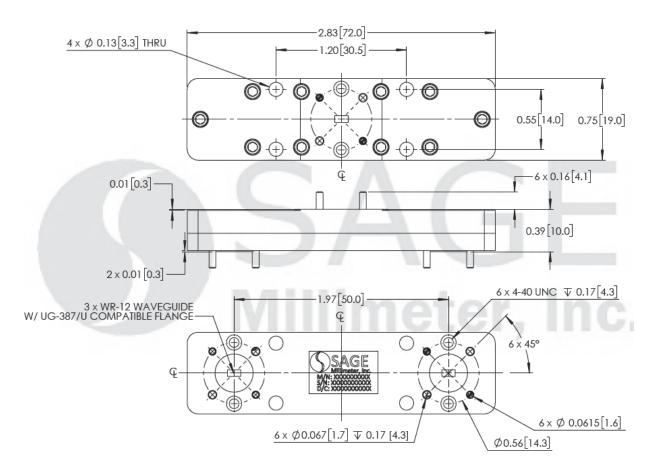


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Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



Note:

- All data presented is collected from a 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.
- Other mechanical configurations are available under different model numbers.

Caution:

 Any foreign objects into the waveguide will cause performance degradation and possible device damage.



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