

## SWY-74384355-12-I1

## E Band Diplexer, 71 to 86 GHz

**SWY-74384355-12-I1** is an E band waveguide diplexer with a low passband of 71 to 76 GHz and a high passband of 81 to 86 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.



## Electrical Specifications:

Parameter	Minimum	Typical	Maximum
<b>Low Passband</b>			
Passband Frequency	71 GHz		76 GHz
Passband Insertion Loss		0.5 dB	
Rejection Frequency	81 GHz		86 GHz
Rejection		55 dB	
Return Loss		16 dB	
Group Delay Variation			150 ps
<b>High Passband</b>			
Passband Frequency	81 GHz		86 GHz
Passband Insertion Loss		0.5 dB	
Rejection Frequency	71 GHz		76 GHz
Rejection		55 dB	
Return Loss		16 dB	
Group Delay Variation			150 ps
Power Handling		1 W (CW)	
Specification Temperature		+25°C	
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

## ECCN

EAR99

## FEATURES

- Low Cost
- Low Insertion Loss
- High Rejection

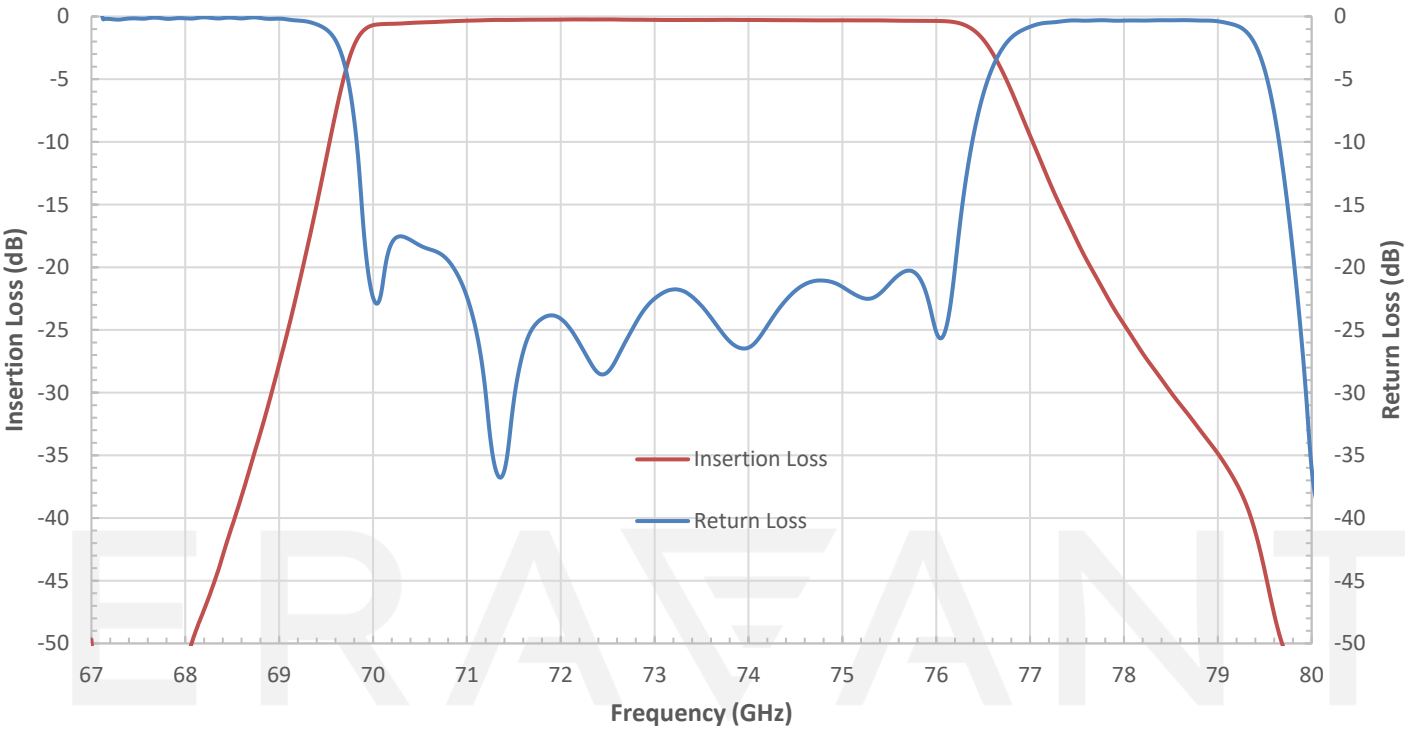
## APPLICATIONS

- Last Mile Communication Systems
- Sub-assemblies

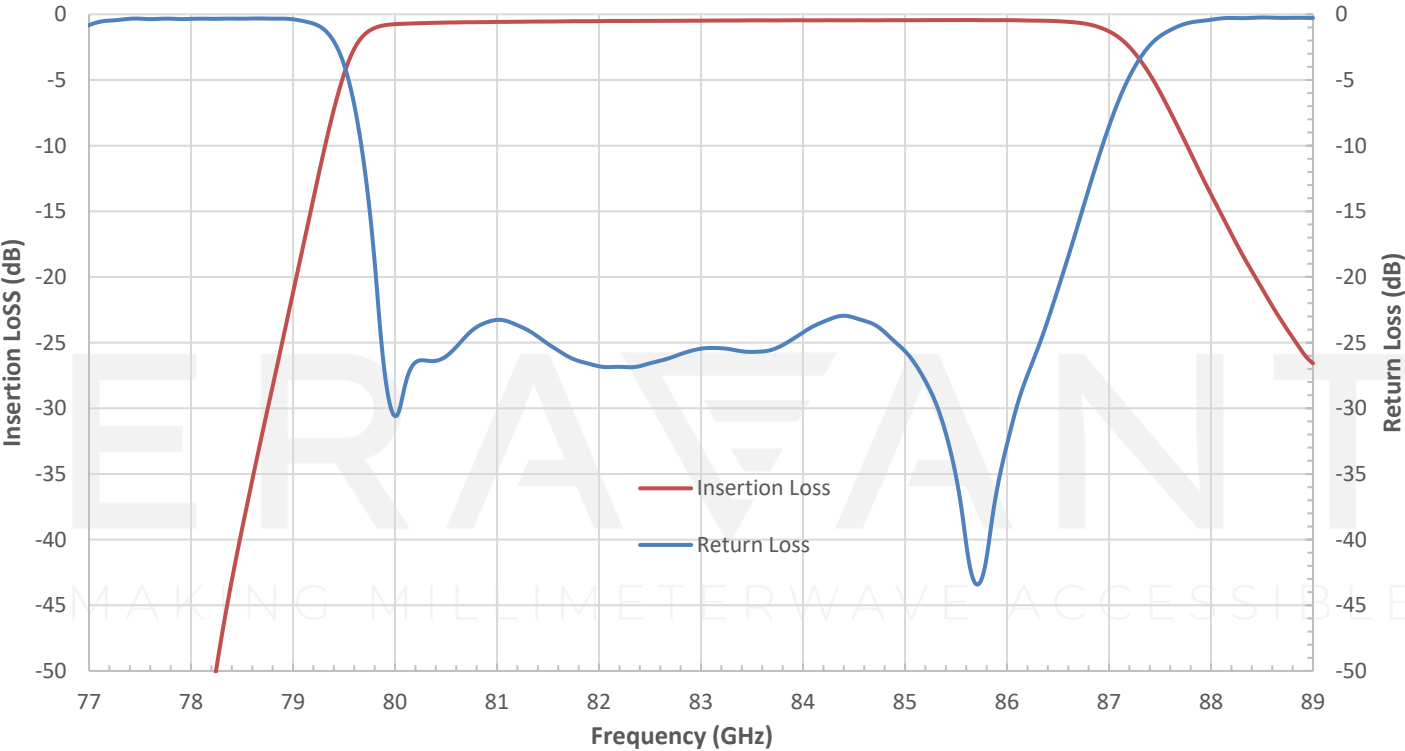
## SUPPLEMENTAL DETAILS



Typical Lowpass Insertion and Return Loss vs. Frequency

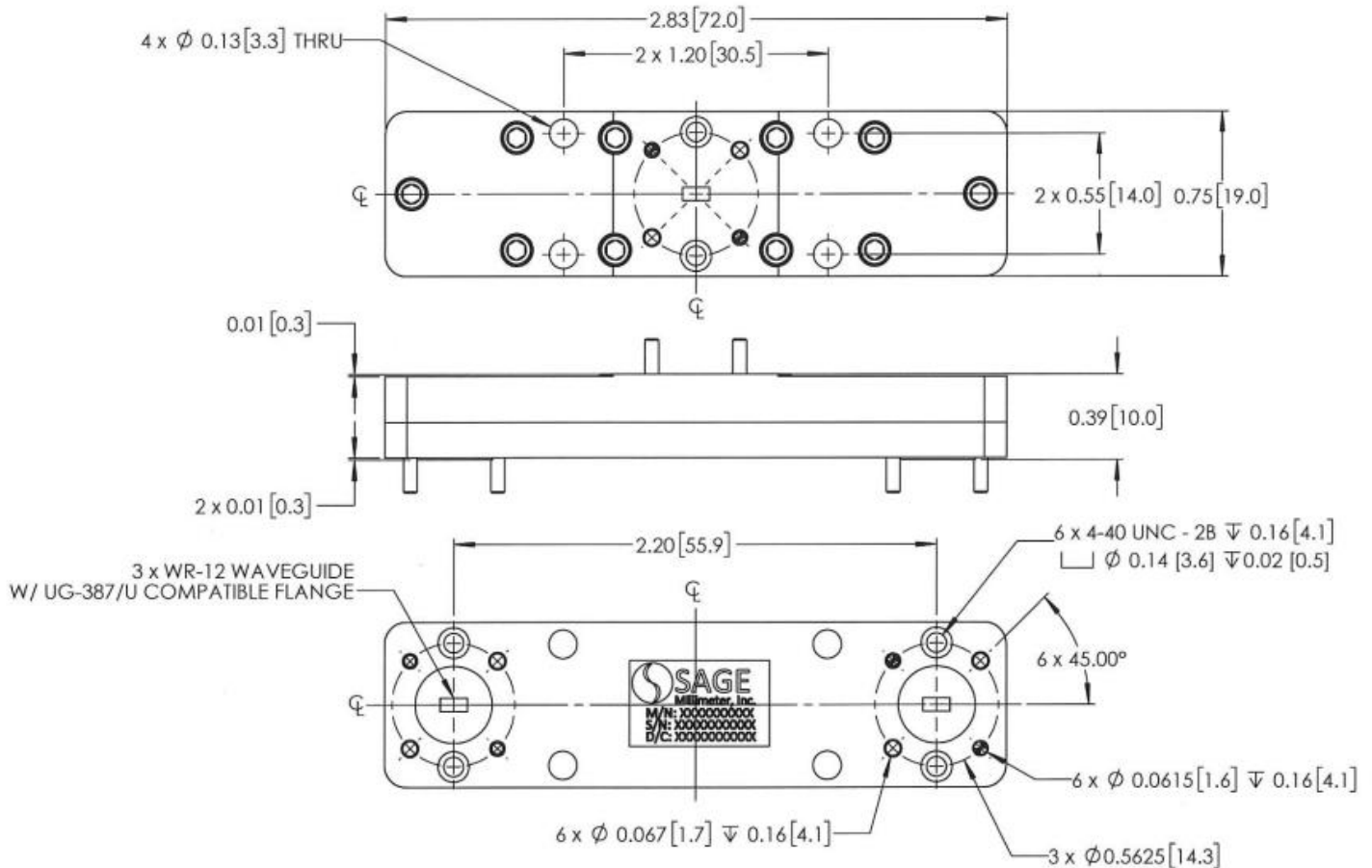


Typical Highpass Insertion and Return Loss vs. Frequency



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



### NOTE:

- On condition that test data is provided it is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- On condition that simulated test data is provided, actual measured data may slightly vary.
- Eravant reserves the right to change the information presented without notice.
- Other mechanical configurations are available under different model numbers.

### CAUTION:

- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.

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