



## K Band Full Waveguide Junction Isolator

### Description:

**Model SNF-42-I5-H** is a K band, waveguide junction isolator that covers the frequency range of 18 to 26.5 GHz. The full band isolator is designed and manufactured to provide a low insertion loss of 0.3 dB typical with good flatness. Compared to a Faraday isolator, it offers a much shorter insertion length for system integration. The isolator also offers a moderate isolation of 20 dB. The input and output ports are WR-42 waveguides with UG-595/U flanges.



### Features:

- Full Waveguide Band Operation
- Low Insertion Loss
- Moderate Isolation

### Applications:

- Port Isolation
- Instrumentation
- Module Integration

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	18 GHz		26.5 GHz
Insertion Loss		0.3 dB	
Isolation		20 dB	
Return Loss		20 dB	
Forward Power Handling			25 W (CW)
Reverse Power Handling			5 W (CW)
Specification Temperature		+25 °C	
Operating Temperature	-25 °C		+60 °C

### Mechanical Specifications:

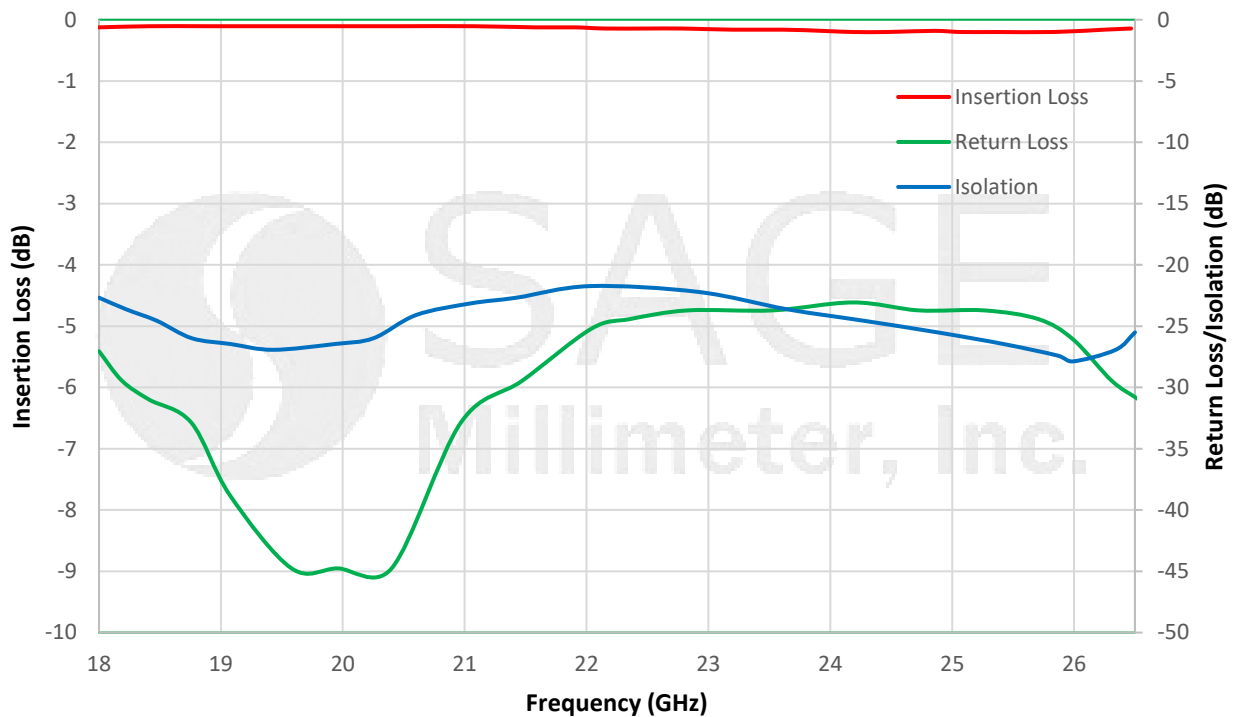
Item	Specification
RF Ports	WR-42 Waveguide with UG-595/U Flange
Body Material	Aluminum
Finish	Oxidation
Weight	2.5 Oz
Insertion Length	1.18"
Size	2.36" (L) X 1.18" (W) X 0.88" (H)
Outline	NF-IK-DB1-H



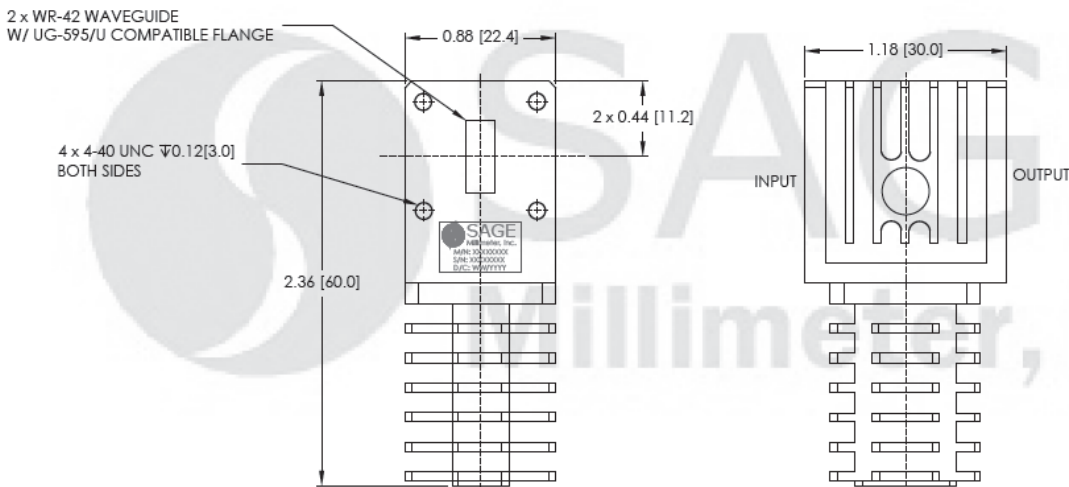


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### Typical Performance vs Frequency



### 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 slightly.
- 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.



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### Caution:

- Exceeding absolute maximum ratings of the device will damage the device.
- The device is magnetic field sensitive. Always keep magnetic fields a minimum of 6 inches away.
- Any foreign objects in the waveguide will destroy the device.

