



Ka Band Full Waveguide Junction Circulator, High Power

Description:

Model SNF-28-C5 is a Ka band, waveguide junction circulator that covers the frequency range of 26.5 to 40 GHz. The full band isolator is designed and manufactured to provide a low insertion loss of 0.4 dB typical with good flatness. Compared to a Faraday isolator, it offers a much shorter insertion length for system integration. The circulator also offers a moderate isolation of 15 dB and a forward power handling of 20 Watts. The input and output ports are WR-28 waveguides with UG-599/U flanges.



Features:

- Full Waveguide Band Operation
- Low Insertion Loss
- Moderate Isolation
- High Power Handling

Applications:

- Port Isolation
- Instrumentation
- Module Integration

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
RF Frequency	26.5 GHz		40 GHz
Insertion Loss		0.4 dB	0.7 dB
Isolation*		15 dB	
Return Loss		15 dB	
Forward Power Handling			20 W (CW)
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+80 °C

*The values are obtained when the spare port is terminated with high performance load.

Mechanical Specifications:

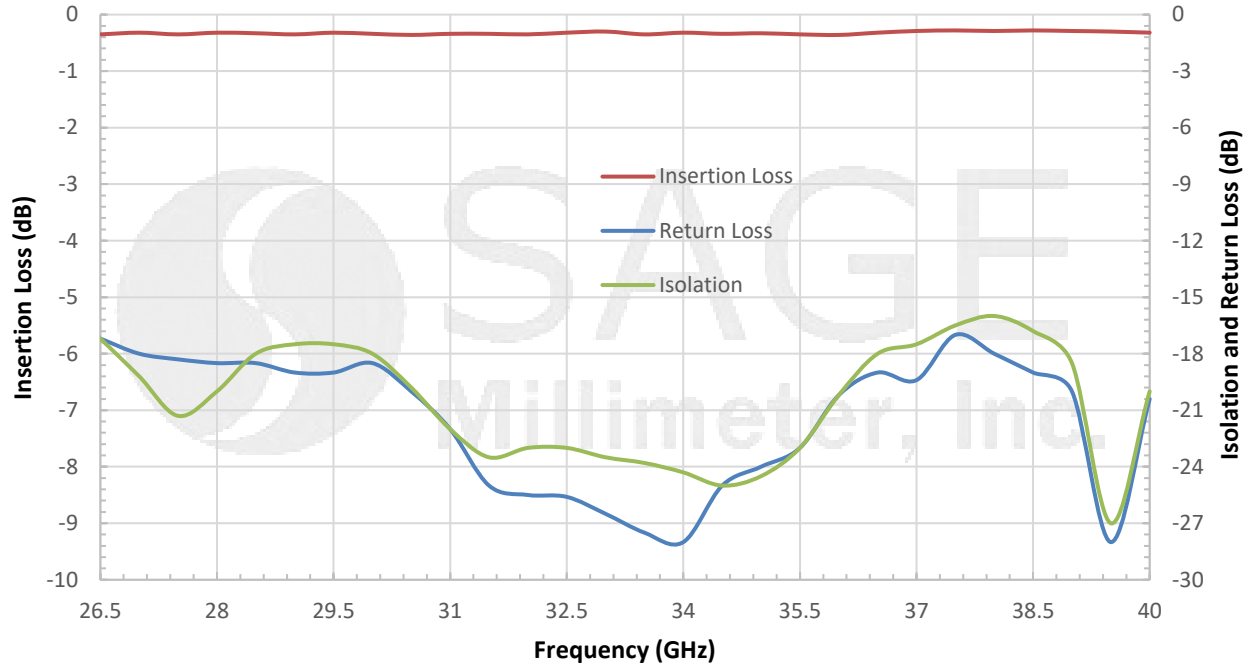
Item	Specification
RF Ports	WR-28 Waveguide with UG-599/U Flange
Case Material	Aluminum
Finish	Chem Film
Weight	0.8 Oz
Insertion Length	0.83"
Outline	NF-CA-DB1





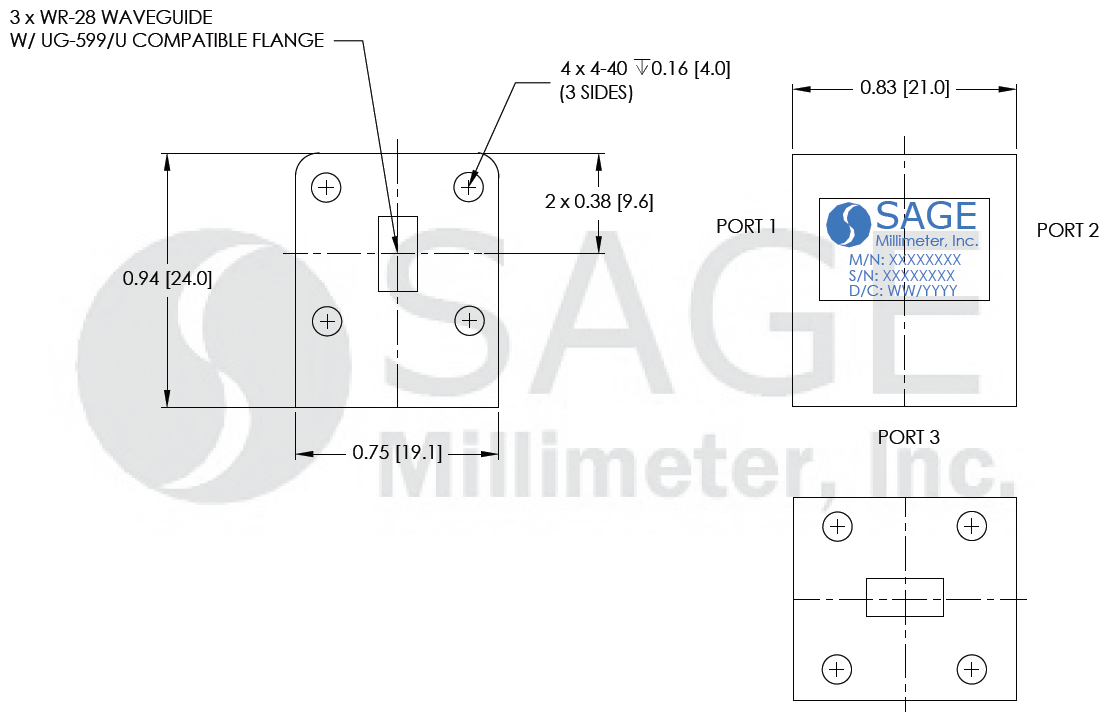
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Typical Isolation, Insertion, and Return Loss vs. Frequency



Note: The insertion loss, isolation and return loss between other ports, such as port 2 to port 3 and port 3 to port 1, are similar to the above.

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





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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.
- Other mechanical configurations are available under different model numbers.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

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.

