



## Ka Band Waveguide Junction Circulator, 38 to 40 GHz

### Description:

**Model SNW-3834030420-28-C1** is a Ka band waveguide junction circulator that covers the frequency range of 38 to 40 GHz. The waveguide junction circulator is designed and manufactured to provide a low insertion loss of 0.3 dB nominal, a typical isolation of 20 dB, and a much shorter insertion length for system integration. The input and output ports are WR-28 waveguides with UG-599/U flanges. The circulator implements a U-shaped magnet shielding steel cover to protect it from magnetic field interference.



### Features:

- Low Insertion Loss
- Moderate Isolation
- Compact Configuration

### Applications:

- 5G Systems
- Module Integration
- Port Isolation

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	38 GHz		40 GHz
Insertion Loss		0.3 dB	
Isolation	18 dB	20 dB	
Return Loss		17.5 dB	
Power Handling			3 W (CW)
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

### Mechanical Specifications:

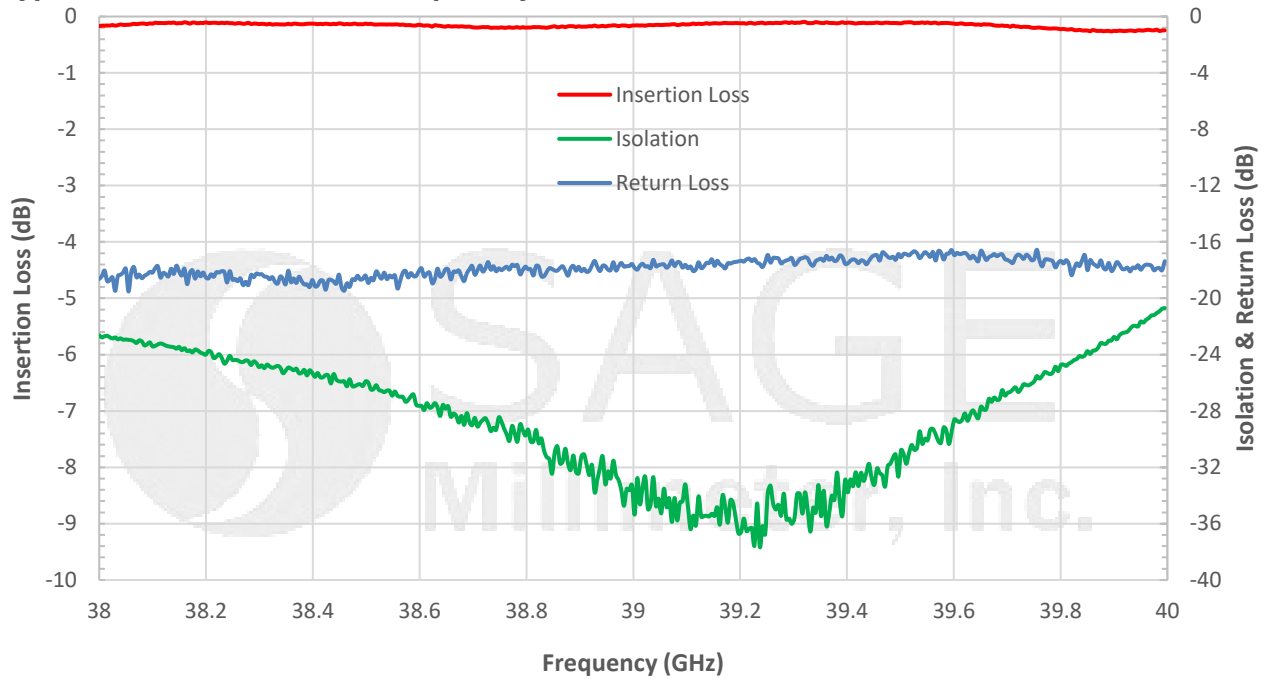
Item	Specification
RF Ports	WR-28 Waveguide with UG-599/U Flange
Case Material	Aluminum
Finish	Chem Film
Weight	0.8 Oz
Size	0.83" (W) x 0.94" (L) x 0.75" (H)
Outline	NW-CA2





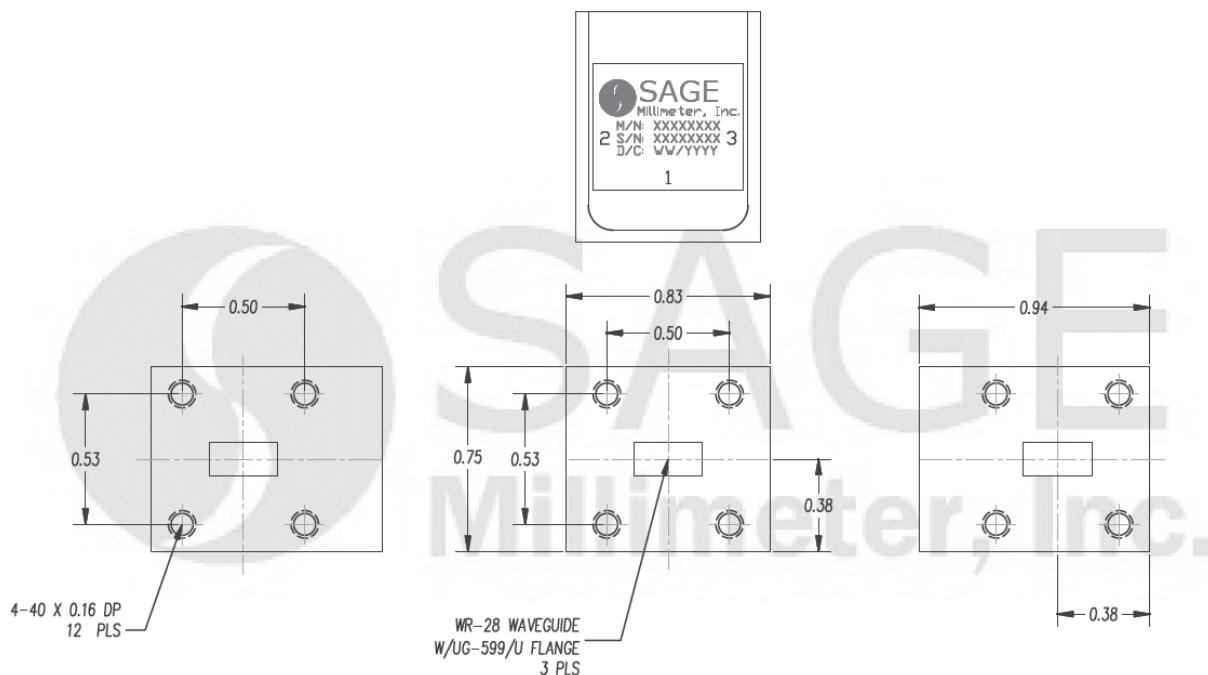
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Typical Performance vs. Frequency



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

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





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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.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

### Caution:

- Exceeding absolute maximum ratings will damage the device.
- This device is magnetic sensitive. Keep the device at least 6" away from magnetic fields.
- Any foreign objects in the waveguide will degrade the performance and/or damage the device.

