



K Band Full Waveguide Junction Circulator

Description:

Model SNF-42-C5 is a K band, waveguide junction circulator that covers the frequency range of 18 to 26.5 GHz. The full band circulator is designed and manufactured to provide a low insertion loss of 0.3 dB typical with good flatness. The circulator also offers a moderate isolation of 20 dB for system integration. 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 | 18.0 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 | -40 °C | | +85 °C |

Mechanical Specifications:

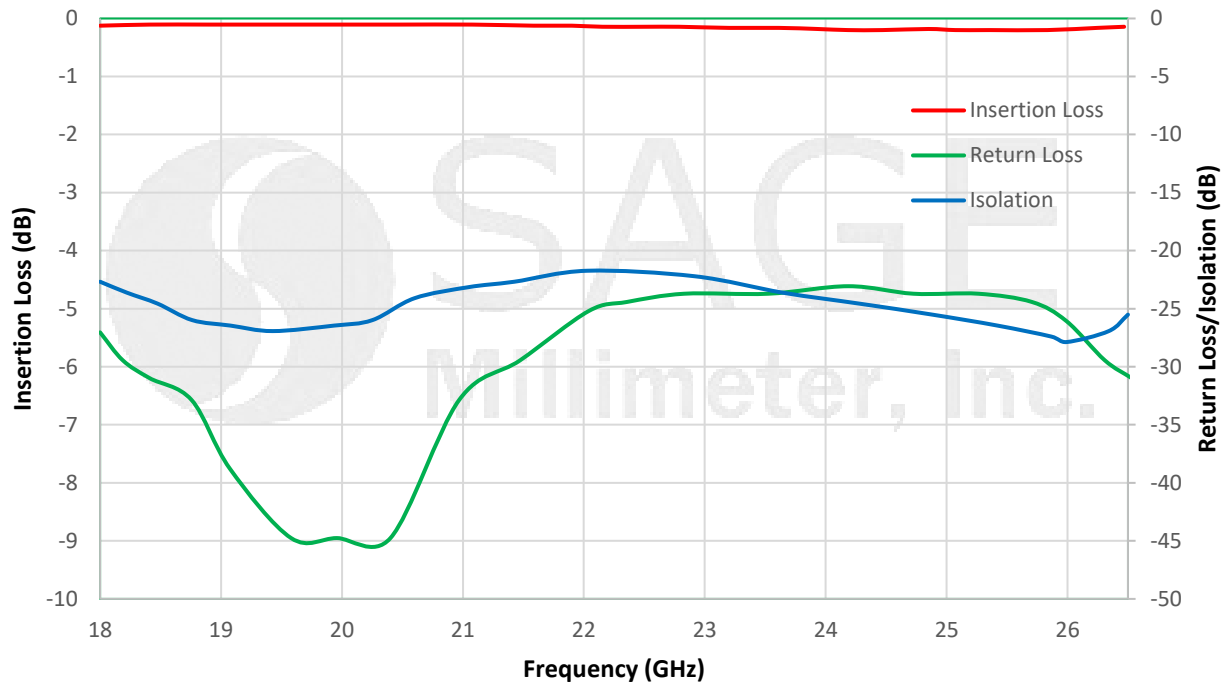
| Item | Specification |
|------------------------|--------------------------------------|
| Input and Output Ports | WR-42 Waveguide with UG-595/U Flange |
| Body Material | Aluminum |
| Finish | Natural Conductive Oxidation |
| Weight | 1.4 Oz |
| Size | 1.18" (L) x 1.18" (L) x 0.88" (H) |
| Outline | NF-CK-DB1 |





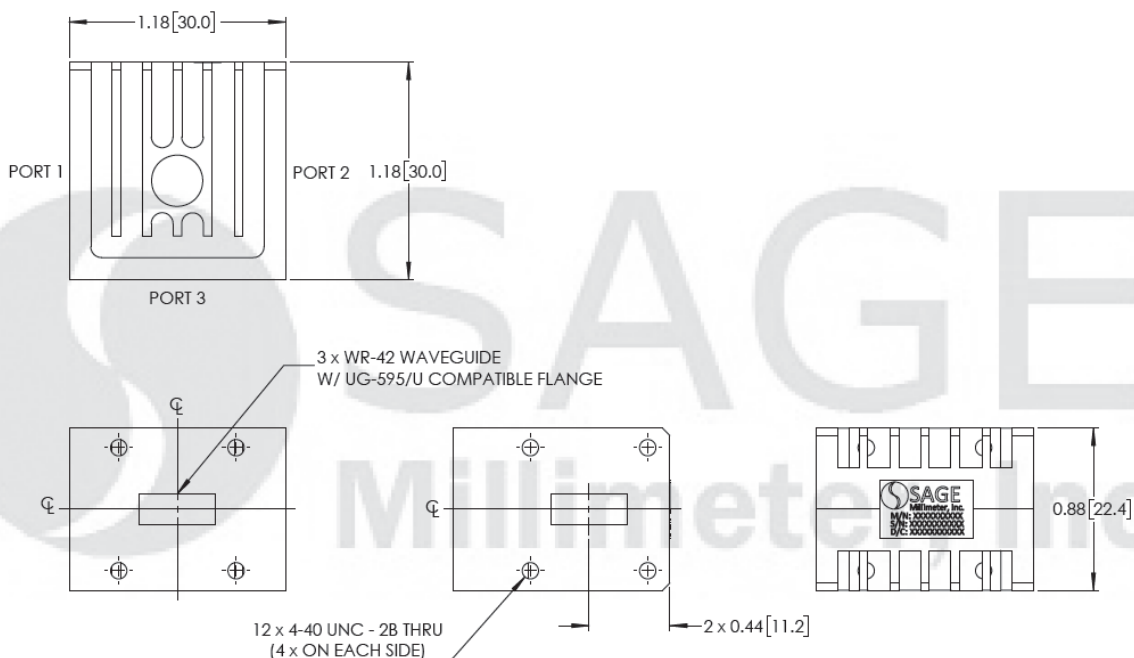
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Typical Performance vs Frequency



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

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.

