SWG-42354-FB-FT-G

Rev 1.1

WR-42 Flexible Twistable Waveguide Section, 35.4” (900 mm) Length

Description:



Model SWG-42354-FB-FT-G is a 35.4” (900 mm) long, K-band flexible and twistable waveguide section with a WR-42 waveguide and UG-595/U grooved square flange. It also has a vulcanized silicone rubber jacket for robustness applications. The waveguide features a flexible bend with a static twist to be long-term stress free when it is integrated into systems. The flanges of the waveguide are grooved to accept rubber rings to be watertight for outdoor applications. The waveguide is manufactured with a precision manufacturing process to ensure high quality. The waveguide has low insertion loss in the frequency range of 18 to 26.5 GHz. Additional standard lengths and custom length options are available under different model numbers.

Features:

- High Quality
- Flexible Bending and Static Twisting
- Comparable Cost to the Rigid Waveguide

Applications:

- 5G Systems
- Communication Systems
- Various Outdoor Equipment

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	18 GHz		26.5 GHz
Insertion Loss		1.0 dB	
Return Loss		21 dB	
Power Handling			100 W (CW)
Specification Temperature		+25 ˚C	
Operation Temperature	-40 ˚C		+85 ˚C

Mechanical Specifications:

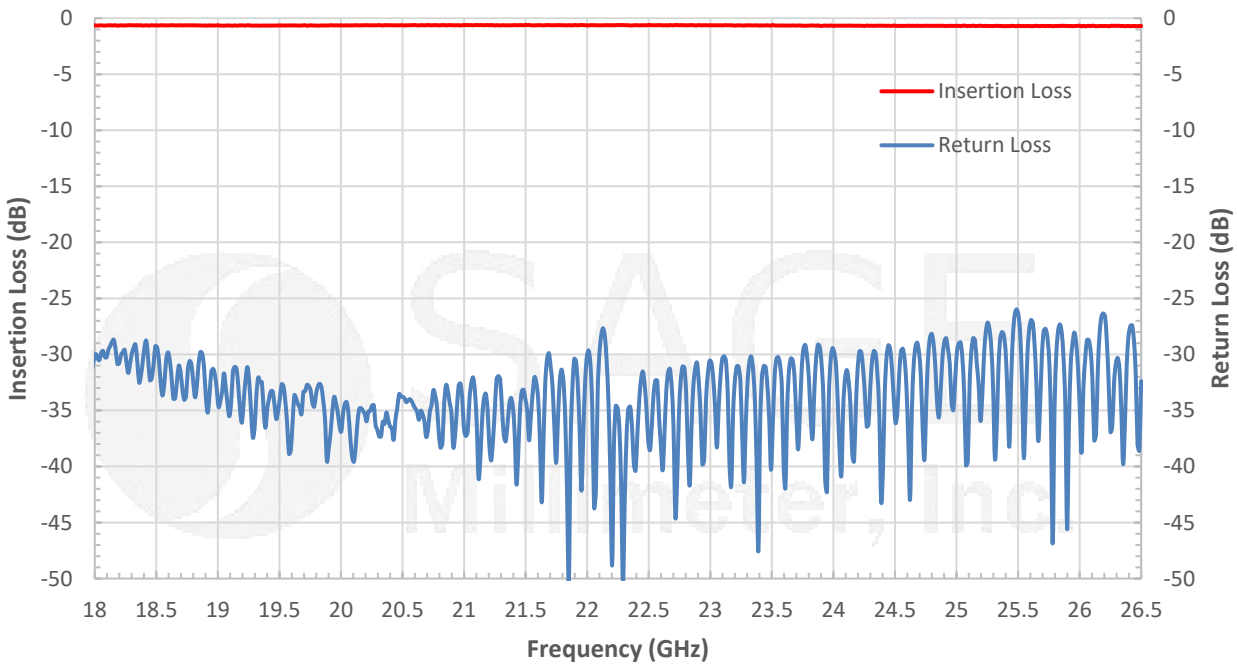
Item	Specification
Waveguide Port	WR-42 Waveguide with UG-595/U Grooved Flange
Minimum Bending Radius (Static)	E-plane: 1.5” (38 mm); H-plane: 3” (76 mm)
Minimum Bending Radius (Dynamic)	E-plane: 4.7” (120 mm); H-plane: 9.4” (240 mm)
Maximum Torsion Angle (Static)	465˚/meter
Maximum Torsion Angle (Dynamic)	157˚/meter
Material	Brass
Flange Finish	Nickel Plated
Waveguide Finish	Silver Plated
Waveguide Jacket Material	Vulcanized Silicone Rubber
Weight	8.3 Oz
Insertion Length	35.4” (900 mm) (±3%)
Outline	WG-FK-FT-G-L

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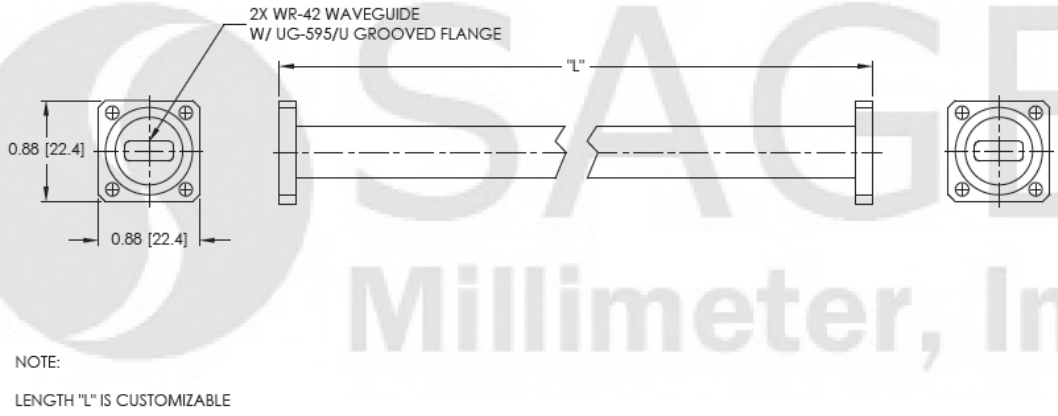
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Typical Performance vs. Frequency



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.
- 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 shown will damage the device.
- Any foreign objects in the waveguide will cause performance degradation and possible device damage.

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