



## WR-15 Flexible Waveguide Section, 4" (101.6 mm) Length

### Description:

**Model SWG-15040-FB-F** is a 4" (101.6 mm) long, V-band flexible waveguide section with a WR-15 waveguide and UG-385/U flange. It also has a polysulfide rubber jacket for robustness applications. The waveguide features a flexible bend to be long-term stress free when it is integrated into systems. The waveguide is manufactured with a precision manufacturing process to ensure high quality. The waveguide has low insertion loss in the frequency range of 50 to 75 GHz. Various standard and custom length options are available under different model numbers.



### Features:

- High Quality
- Flexible Bending
- Comparable Cost to the Rigid Waveguide

### Applications:

- Communication Systems
- Test Instrumentation
- Sub-assemblies

### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	50 GHz		75 GHz
Insertion Loss		1.4 dB	
Return Loss	10 dB	15 dB	
Power Handling (CW/PK)		25 W / 3.5 kW	50 W / 5.7 kW
Specification Temperature		+25 °C	
Operation Temperature	-40 °C		+85 °C

### Mechanical Specifications:

Item	Specification
Waveguide Port	WR-15 Waveguide with UG-385/U Flange
Min. Centerline Bend Radius (E Plane)	90°/in
Min. Centerline Bend Radius (H Plane)	45°/in
Maximum Pressure	15 lb/in <sup>2</sup>
Maximum Torsion	0 psi
Compression/Elongation	0.05"/in
Material	Brass
Flange Finish	Nickel Plated
Waveguide Finish	Silver Plated
Waveguide Jacket Material	Polysulfide Rubber
Insertion Length	4" (101.6 mm)
Outline	WG-FV-F-L





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



NOTE:  
LENGTH "L" IS CUSTOMIZABLE

**Note:**

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

**Caution:**

- Any foreign objects in the waveguide will cause performance degradation and possible device damage.
- Flexible Waveguide Assemblies are fragile and must be afforded careful handling to avoid damage - No torsional stresses are allowed.

