

WR-12 Flexible Waveguide Section, 4" (101.6 mm) Length

Description:

Model SWG-12040-FB-F is a 4" (101.6 mm) long, E-band flexible waveguide section with a WR-12 waveguide and UG-387/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 60 to 90 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 | 60 GHz | | 90 GHz |
| Insertion Loss | | 0.80 dB | |
| Return Loss | | 25 dB | |
| Power Handling (CW/PK) | | 20 W / 2 kW | 40 W / 3.8 kW |
| Specification Temperature | | +25 °C | |
| Operation Temperature | -40 °C | | +85 °C |

Mechanical Specifications:

| Item | Specification |
|---------------------------------------|--------------------------------------|
| Waveguide Port | WR-12 Waveguide with UG-387/U Flange |
| Min. Centerline Bend Radius (E Plane) | 100°/in |
| Min. Centerline Bend Radius (H Plane) | 50°/in |
| Maximum Pressure | 20 lb/in ² |
| 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-FE-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.