# SWG-12030-FB-F

## WR-12 Flexible Waveguide Section, 3” (76.2 mm) Length

**SWG-12030-FB-F** is a 3” (76.2 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.

### Electrical Specifications:

| Parameter | Minimum | Typical | Maximum |
|---|---|---|---|
| Frequency | 60 GHz | | 90 GHz |
| Insertion Loss | | 1.5 dB | |
| Return Loss | 10 dB | 15 dB | |
| Power Handling (CW/PK) | | 20 W / 2 kW | 40 W / 3.8 kW |
| Specification Temperature | | +25°C | |
| Operating 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 |
| Max Pressure | 20 lb/in$^2$ |
| Max Torsion | 0 psi |
| Compression/Elongation | 0.05”/in |
| Insertion Length | 3” (76.2 mm) |
| Material | Brass |
| Flange Finish | Nickel Plated |
| Waveguide Finish | Silver Plated |
| Waveguide Jacket Material | Polysulfide Rubber |
| Outline | WG-FE-F-L |

### ECCN

EAR99

### FEATURES

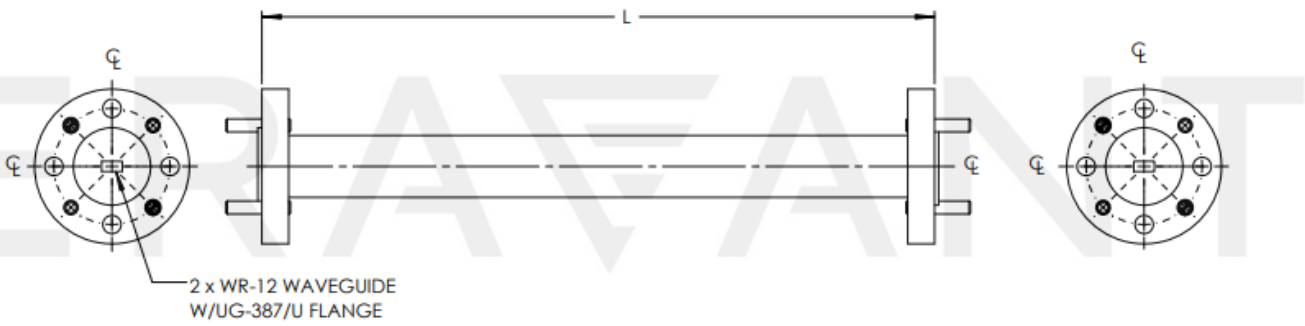
- High Quality
- Flexible Bending
- Comparable Cost to the Rigid Waveguide

### APPLICATIONS

- Communication Systems
- Test Instrumentations
- Sub-assemblies

### SUPPLEMENTAL DETAILS

**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.
- Eravant reserves the right to change the information presented without notice.

**CAUTION:**

- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- Flexible Waveguide Assemblies are fragile and must be afforded careful handling to avoid damage - No torsional stresses are allowed.