

## K-Band Waveguide to K Connector Adapter, Non-Standard UBR220 Flange, End Launch

## Description:

Models SWC-42KF-E1-U220 and SWC-42KM-E1-U220 are end launch (180°) K-Band waveguide to coax adapters with a UBR220 flange that cover the frequency range of 18 to 26.5 GHz. They are designed and manufactured for instrumentation grade quality but offered at a commercial grade price, allowing for an efficient transition between the rectangular waveguide and 2.92 mm (K) coax connector.



## Features:

- Full Waveguide Band Coverage
- Lower Insertion Loss and High Return Loss
- Instrumentation Grade
- DC Short Circuit

## Applications:

- Test Lab
- Instrumentations
- Sub-assemblies

## Electrical Specifications:

| Parameter                 | Minimum | Typical | Maximum   |
|---------------------------|---------|---------|-----------|
| Frequency                 | 18 GHz  |         | 26.5 GHz  |
| Insertion Loss            |         | 0.2 dB  |           |
| Return Loss               |         | 20 dB   |           |
| Power Handling            |         |         | 50 W (CW) |
| Specification Temperature |         | +25 °C  |           |
| Operating Temperature     | -40 °C  |         | +85 °C    |

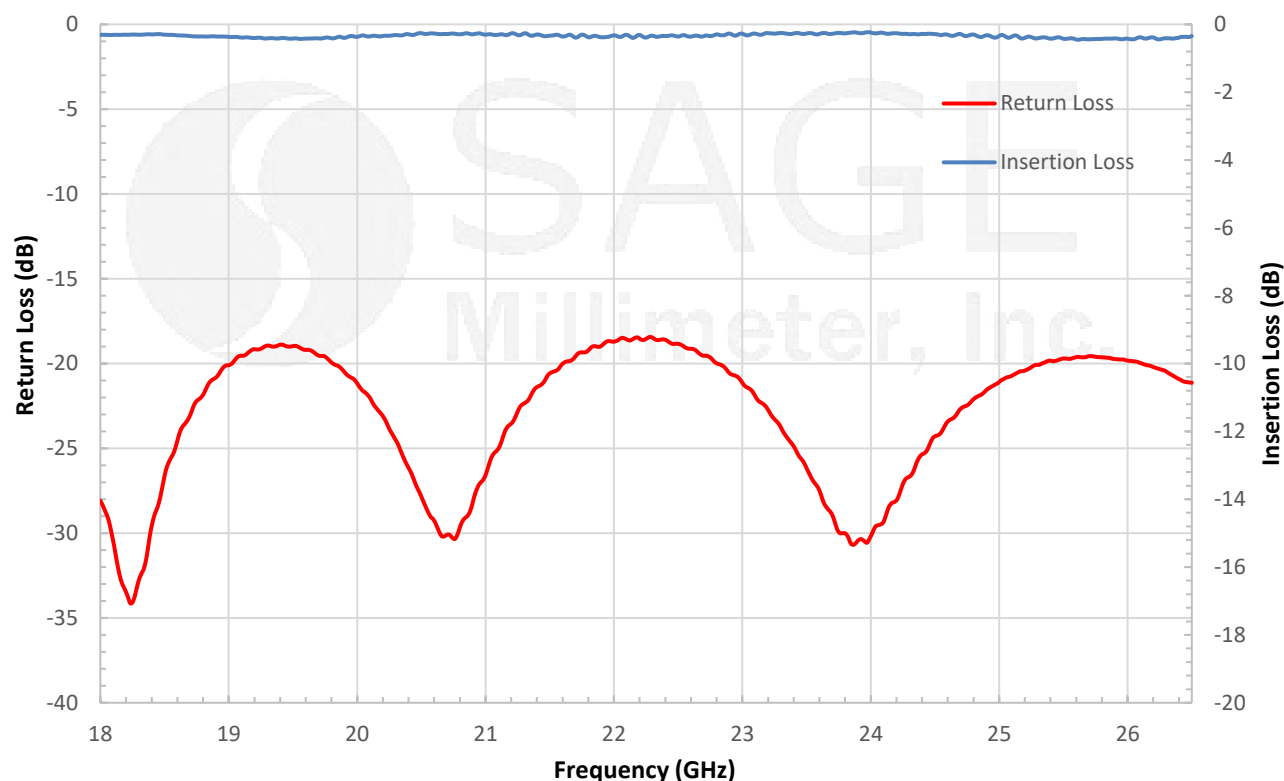
## Mechanical Specifications:

| Item             | Specification  |
|------------------|--|
| Waveguide Port   | WR-42 Waveguide with Non-Standard UBR220 Flange          |
| Coaxial Port     | 2.92 mm (K) Female for Model Number: SWC-42KF-E1-U220    |
| Coaxial Port     | 2.92 mm (K) Male for Model Number: SWC-42KM-E1-U220      |
| Housing Material | Aluminum   |
| Finish           | Gold Plated  |
| Weight           | 0.4 Oz   |
| Size             | 0.97" (L) x 0.88" (S) for Model Number: SWC-42KF-E1-U220 |
| Size             | 1.10" (L) x 0.88" (S) for Model Number: SWC-42KM-E1-U220 |
| Outline          | WC-KE-U220   |

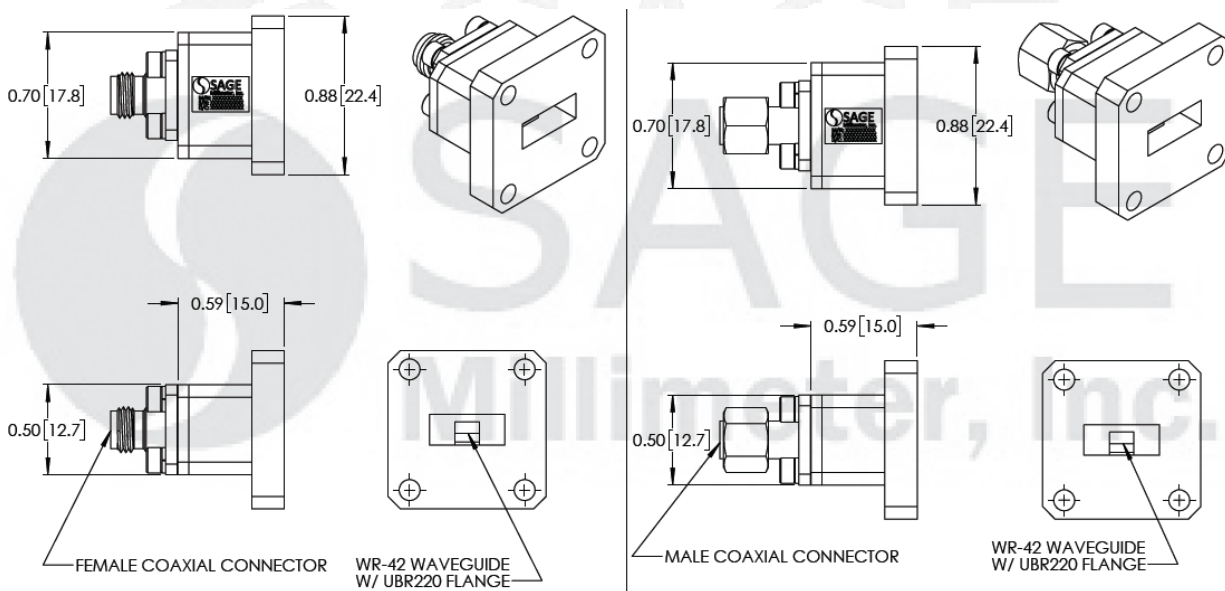


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### Typical Insertion Loss and Return Loss vs. Frequency (Back to Back)



### 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.
- All testing was performed under 25°C case temperature.
- 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 may damage the adapter.
- Proper torque,  $8.0 \pm 0.15$  inch-pounds ( $0.90 \pm 0.02$  Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-U3, is highly recommended.**

