

# K-Band Fixed Attenuator, High Precision, 40 dB

**STA-40-42-F1** is a 40 dB fixed attenuator that is used in millimeterwave systems and operates from 18 to 26.5 GHz. The attenuator has a fixed attenuation value of 40 dB at center frequency, 22.25 GHz. The attenuator's waveguides are manufactured with precision wire EDM to ensure high accuracy and a quality internal surface finish. The design features a sandblasted surface treatment to provide a durable finish. While the attenuator is designed for full waveguide band applications, the attenuation value does show a minor slope within the band due to its distinct mechanical configuration. Other attenuation values are available under different model numbers as **STA-XX-42-F1**, where **XX** is the desired attenuation value.



# **Electrical Specifications:**

| Parameter                     | Minimum | Typical | Maximum      |
|-------------------------------|---------|---------|--------------|
| Frequency Range               | 18 GHz  |         | 26.5 GHz     |
| Attenuation Range @ 22.25 GHz |         | 40 dB   |              |
| Return Loss                   |         | 20 dB   |              |
| Power Handling                |         | 750 mW  | 1000 mW (CW) |
| Specification Temperature     |         | +25°C   |              |
| Operating Temperature         | -40°C   |         | +85°C        |

# **Mechanical Specifications:**

| Item                | Specification                        |  |
|---------------------|--------------------------------------|--|
| Waveguide Ports     | WR-42 Waveguide with UG-595/U Flange |  |
| Attenuation Setting | Fixed                                |  |
| Insertion Length    | 4.00"                                |  |
| Material            | Brass                                |  |
| Finish              | Gold Plated                          |  |
| Weight              | 6.0 Oz                               |  |
| Outline             | TA-FK                                |  |

## **ECCN**

EAR99

# **FEATURES**

- · Full Band Coverage
- Low Cost
- Accurate Attenuation Value at Center Frequency

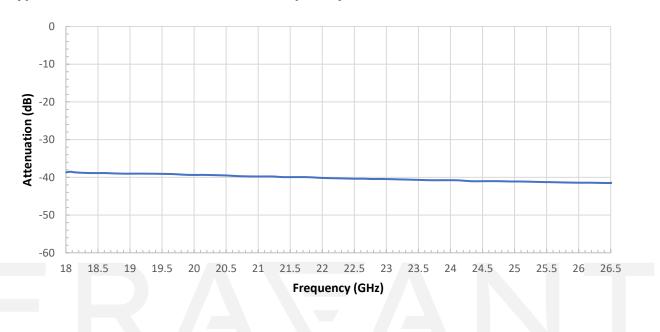
## **APPLICATIONS**

- · Test Lab
- Instrumentations
- System Integration

# **SUPPLEMENTAL DETAILS**

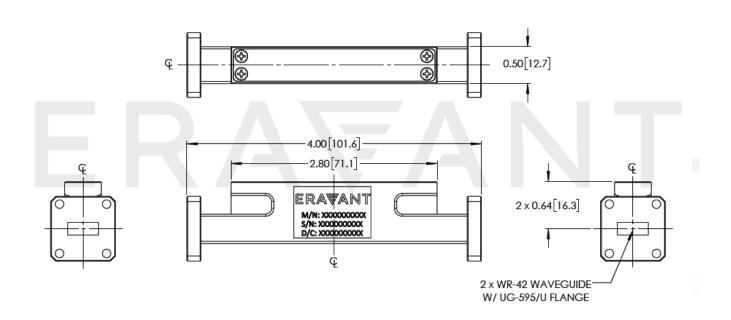


# **Typical Measured Attenuation vs Frequency**



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, slightly.
- All testing was performed under +25 °C case temperature.
- Eravant reserves the right to change the information presented without notice.

## **CAUTION:**

- Exceeding absolute maximum ratings will damage the device.
- Any foreign objects in the waveguide will cause performance degradation and may damage the device.

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