

# Waveguide Lowpass Filter, Ka Band, 22 to 32 GHz

**SWF-32335340-28-L1** is a Ka band waveguide lowpass filter with a passband frequency from 22 to 32 GHz and a rejection frequency of 37 GHz to 75 GHz. The filter provides a nominal insertion loss of 1 dB across its passband and a typical rejection of 40 dB. Since the high end cutoff frequency can be changed by modifying the design, custom designs can be offered under different model numbers.



# **Electrical Specifications:**

| Parameter                      | Minimum | Typical | Maximum    |
|--------------------------------|---------|---------|------------|
| Passband Frequency Range       | 22 GHz  |         | 32 GHz     |
| Passband Insertion Loss        |         | 1 dB    |            |
| Rejection Frequency, Low Side  | DC      |         | 17 GHz     |
| Rejection Frequency, High Side | 37 GHz  |         | 75 GHz     |
| Rejection                      |         | 40 dB   |            |
| Passband Return Loss           | 14 dB   |         |            |
| Power Handling                 |         |         | 100 W (CW) |
| Specification Temperature      |         | +25°C   |            |
| Operating Temperature          | -40°C   |         | +85°C      |

# **Mechanical Specifications:**

| Item      | Specification                        |  |
|-----------|--------------------------------------|--|
| Waveguide | WR-28 Waveguide with UG-599/U Flange |  |
| Material  | Brass                                |  |
| Finish    | Gold Plated                          |  |
| Weight    | 8.7 Oz                               |  |
| Outline   | WF-LA-3.6                            |  |

#### **ECCN**

EAR99

#### **FEATURES**

- Low Cost
- Low Insertion Loss
- · High Rejection

#### **APPLICATIONS**

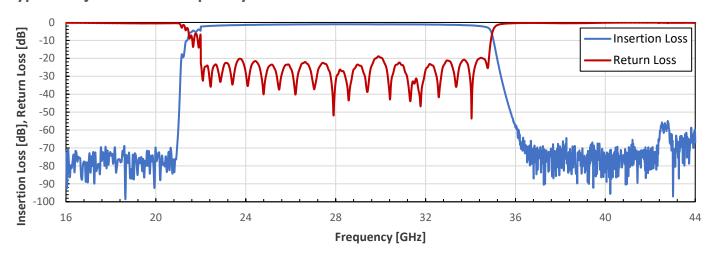
- IEEE 802.11ad WiGig Systems
- Communication Systems
- Radar Systems
- Sub-assemblies

#### SUPPLEMENTAL DETAILS



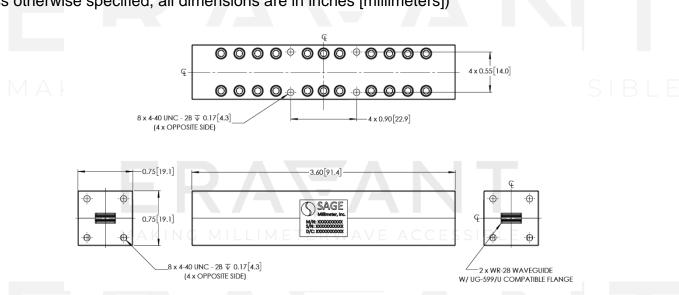
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## Typical Rejection vs. Frequency



### **Mechanical Outline:**

Unless otherwise specified, all dimensions are in inches [millimeters])



#### NOTE:

- On condition that test data is provided it is collected from a sample lot. Actual data may vary slightly from unit to unit. All
  testing is performed under +25 °C room temperature.
- On condition that simulated test data is provided, actual measured data may slightly vary.
- 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.