# SWF-50302240-22-N1-WR

## Waveguide Bandstop Filter, Q Band, 50.2 to 50.4 GHz, Weather Resistant

**SWF-50302240-22-N1-WR** is a Q band waveguide bandstop filter with passband frequencies from 45.5 to 49.4 GHz and 51.2 to 52 GHz and a rejection frequency from 50.2 to 50.4 GHz. The filter provides a typical insertion loss of 1.5 dB across its passband and rejection of 40 dB at the rejection band. The typical passband return loss of the filter is 15 dB. The filter is equipped with WR-22 waveguides with UG-383/U-M anti-cocking grooved flange on one side and UG-599/U-M grooved flange on the other. The rejectioin frequency is customizable and other configurations are available under different model numbers.

### Electrical Specifications:

| Parameter | Minimum | Typical | Maximum |
|---|---|---|---|
| Passband Frequency, Low Side | 45.5 GHz | | 49.4 GHz |
| Passband Frequency, High Side | 51.2 GHz | | 52 GHz |
| Passband Insertion Loss | | 1.5 dB | |
| Passband Return Loss | | 15 dB | |
| Rejection Frequency | 50.2 GHz | | 50.4 GHz |
| Rejection | | 40 dB | |
| Power Handling | | | 150 W |
| Specification Temperature | | +25˚C | |
| Operating Temperature | -20°C | | +55°C |

### Mechanical Specifications:

| Item | Specification |
|---|---|
| RF Port 1 | WR-22 Waveguide with UG-383/U-M Anti-Cocking Grooved Flange |
| RF Port 2 | WR-22 Waveguide with UG-599/U-M Grooved Flange |
| IP Rating | IP67 |
| Material | Aluminum |
| Finish | Black Anodized |
| Weight | 2 Oz. |
| Outline | WF-NQ-WR-SX1 |

### ECCN

EAR99

### FEATURES

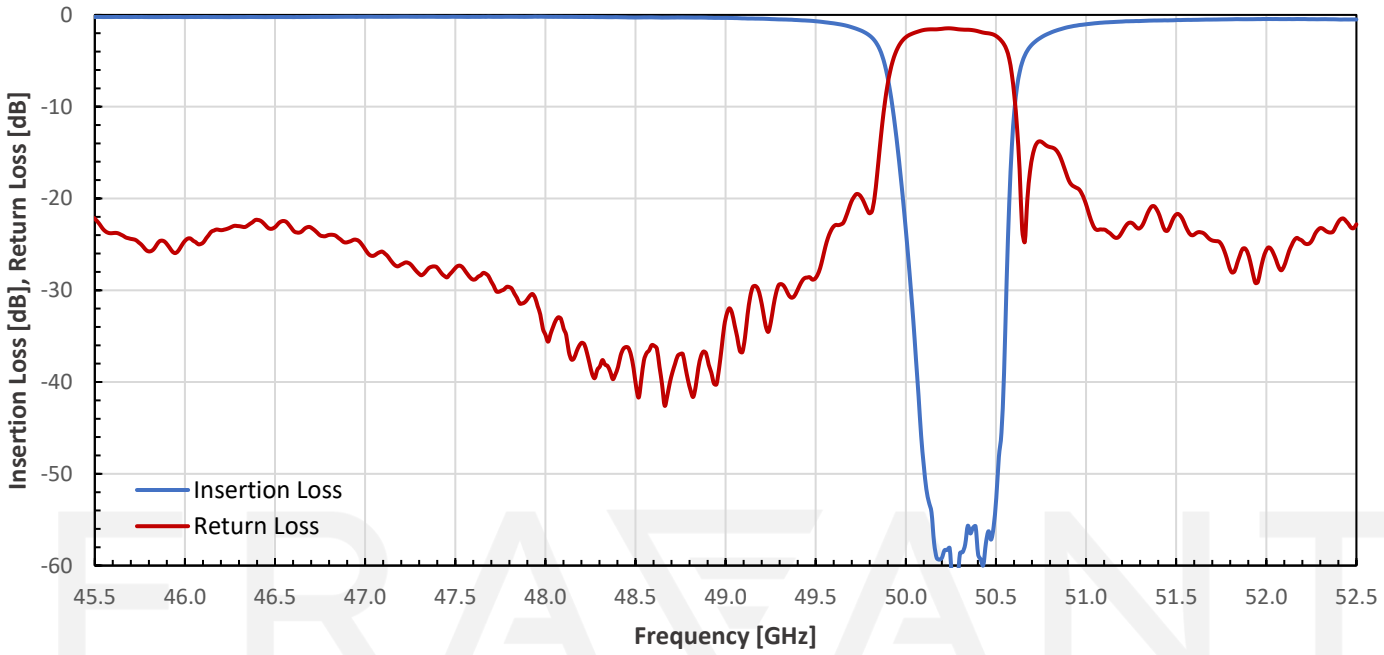
- Notch at 50.3 GHz
- High Rejection
- Narrow Notch Bandwidth
- IP67 Rated

### APPLICATIONS

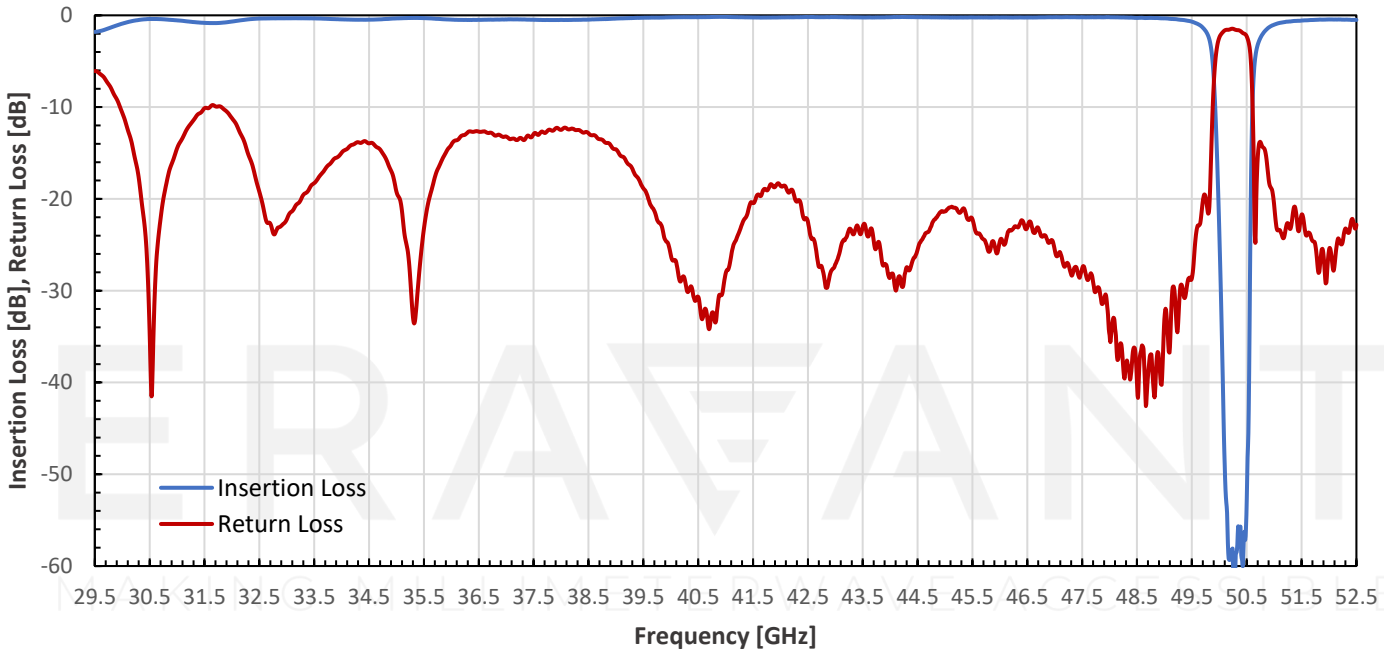
- Q/V-Band Communication Systems

### SUPPLEMENTAL DETAILS

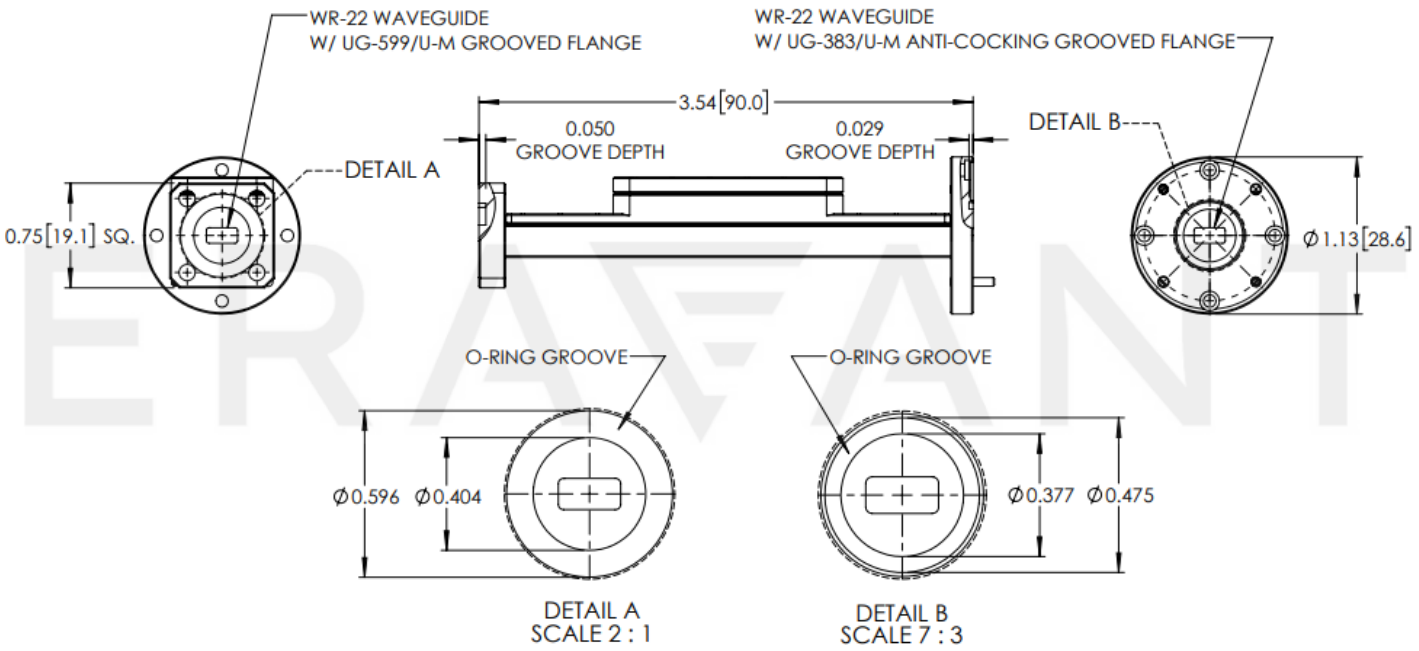
## Typical Rejection vs. Frequency




## Typical Broadband Rejection vs. Frequency



## Mechanical Outline:




**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.
- Filter is designed to meet IP67 rating. Unit cost does not include environmental qualification. Environmental testing can be provided using third party services at extra cost.
- 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.