ERAVANT

SWF-22302213-42-B1-C

Compact Waveguide Bandpass Filter, K Band, 22.4 GHz, 2nd and 3rd Harmonic Rejection

SWF-22302213-42-B1-C is a K band iris resonance based compact bandpass filter with a passband center frequency at 22.4 GHz and 2nd and 3rd harmonic rejection frequencies at 44.8 GHz and 67.2 GHz. It is designed for any oscillator with a WR-42 waveguide output to pass the fundamental frequency at 22.4 GHz and reject the second harmonic at 44.8 GHz and third harmonic at 67.2 GHz.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Passband Frequency	22.34 GHz	22.4 GHz	22.46 GHz
Passband Insertion Loss		0.5 dB	
Passband Return Loss		10 dB	
2nd Harmonic Rejection Frequency		44.8 GHz	
2nd Harmonic Rejection		13 dB	
3rd Harmonic Rejection Frequency		67.2 GHz	
3rd Harmonic Rejection		15 dB	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

Mechanical Specifications:

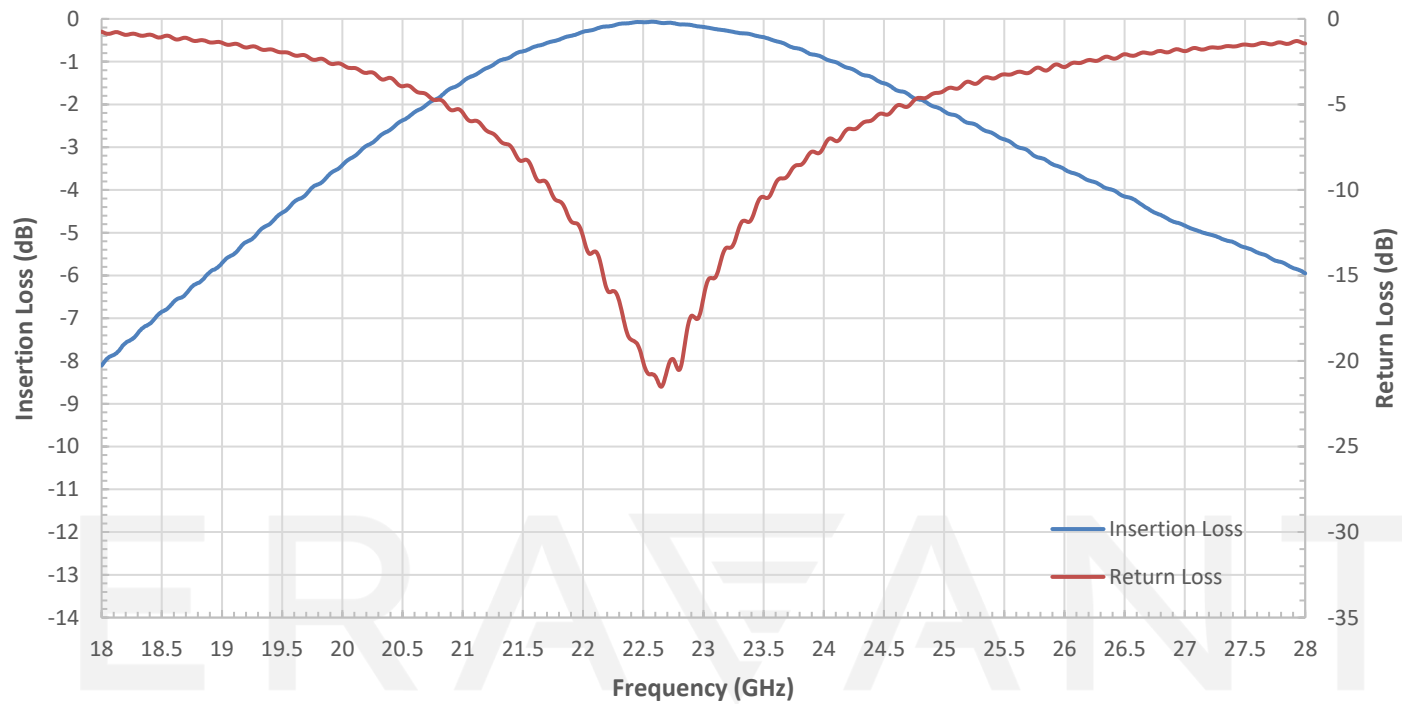| Item	Specification
Waveguide Port	WR-42
Flange	UG-595/U
Material	Aluminum
Finish	Chem Film
Outline	WF-BK-C

ECCN

EAR99

FEATURES

- Low Cost
- Low Insertion Loss
- Compact Size
- 2nd and 3rd Harmonic Rejection
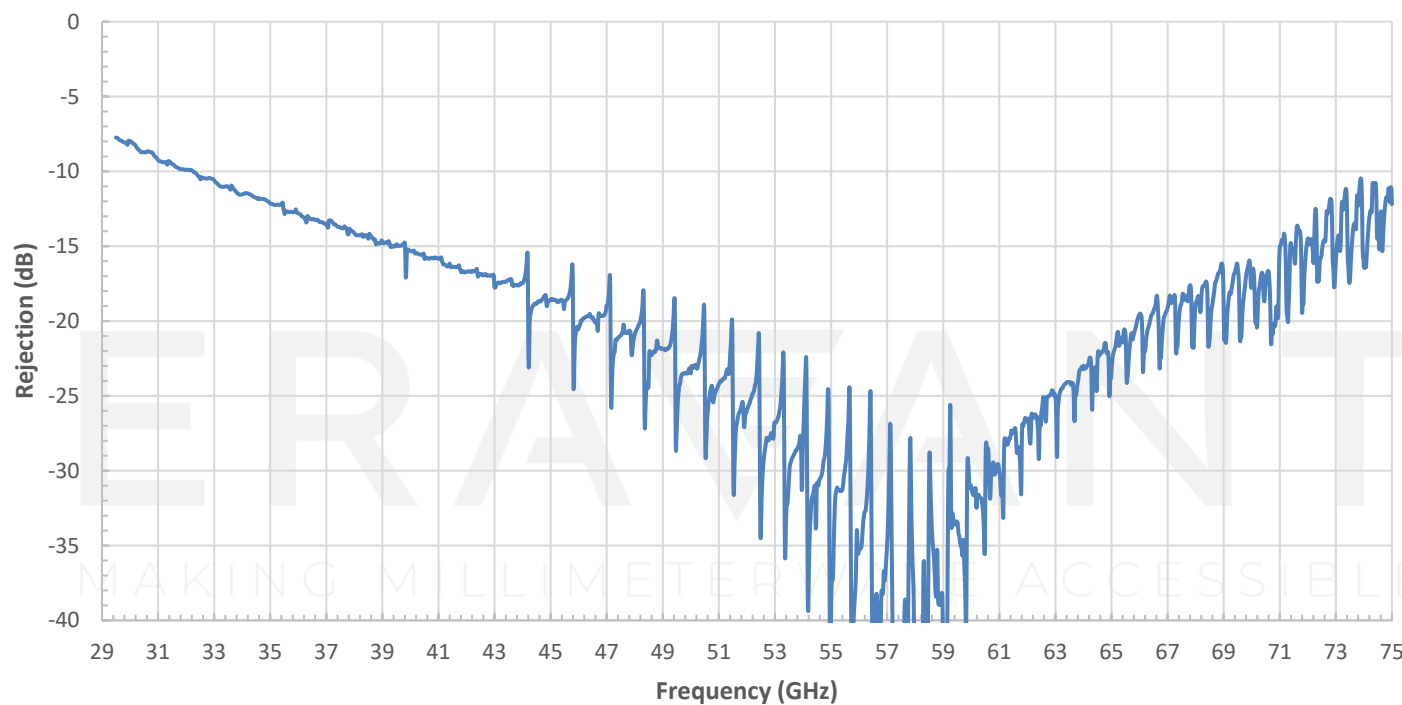
APPLICATIONS

- K Band Radar and Sensor Systems
- Sub-assemblies

SUPPLEMENTAL DETAILS

RoHS

Typical Performance vs Frequency @ 22.4 GHz

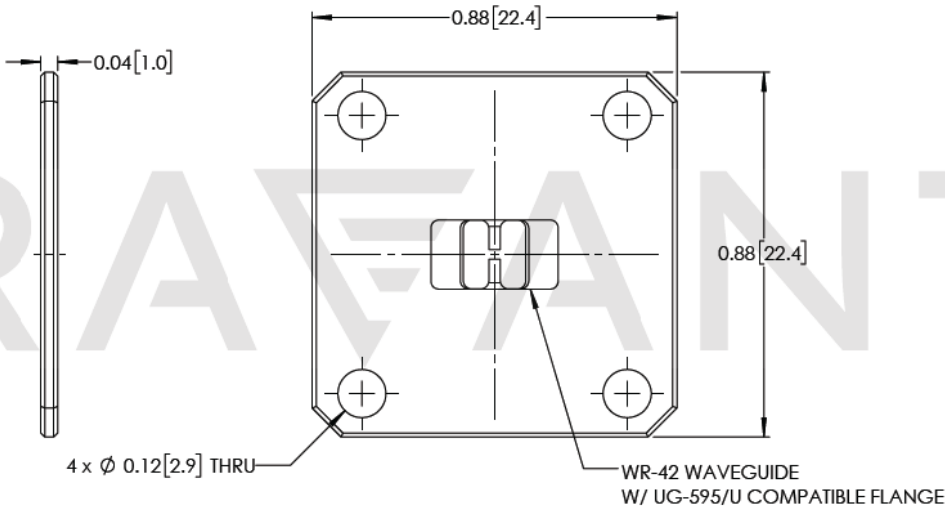## Typical Rejection vs Frequency (29 to 75 GHz)

Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])

0.04[1.0]

0.88[22.4]

0.88[22.4]

4 x Ø 0.12[2.9] THRU

WR-42 WAVEGUIDE
W/ UG-595/U COMPATIBLE FLANGE

NOTE:
- Test data provided is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- Eravant reserves the right to change the information presented without notice.

CAUTION:
- Any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.