



Waveguide Bandpass Filter, V Band, 55.75 to 56.25 GHz

Description:

Model SWF-56305240-15-B1 is a V band waveguide bandpass filter with a passband frequency of 55.75 to 56.25 GHz and rejection frequencies from 54.75 GHz or below and 57.50 to 70.0 GHz. The nominal insertion loss of the bandpass filter is 2.5 dB and the typical rejection is 40 dB. Since both low end and high end cut off frequencies can be selected by modifying the design, custom designs are available under different model numbers.



Features:

- Low Cost
- Low Insertion Loss
- High Rejection

Applications:

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

Electrical Specifications:

| Parameter | Minimum | Typical | Maximum |
|--------------------------------|-----------|----------|-----------|
| Passband Frequency | 55.75 GHz | | 56.25 GHz |
| Passband Insertion Loss | | 2.5 dB | |
| Passband Ripple | | ± 0.3 dB | |
| Rejection Frequency, Low Side | DC | | 54.75 GHz |
| Rejection Frequency, High Side | 57.5 GHz | | 70 GHz |
| Rejection | | 40 dB | |
| Power Handling | | | 50 W (CW) |
| Specification Temperature | | +25 °C | |
| Operating Temperature | -40 °C | | +85 °C |

Mechanical Specifications:

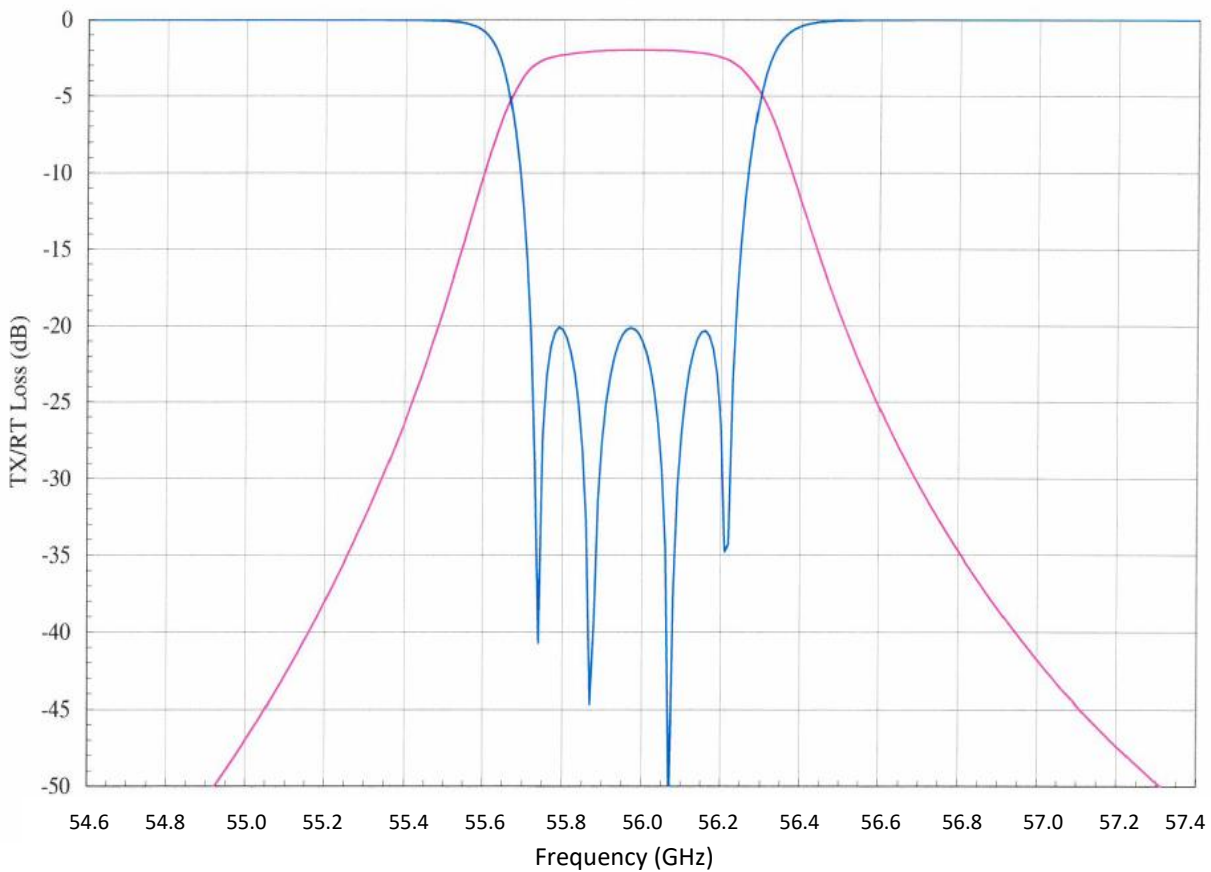
| Item | Specification |
|-----------------|--------------------------------------|
| Waveguide Ports | WR-15 Waveguide with UG-385/U Flange |
| Material | Aluminum |
| Finish | Gold Plated |
| Weight | 0.4 Oz |
| Size | 1.20" (L) X 0.75" (Ø) |
| Outline | WF-BV |



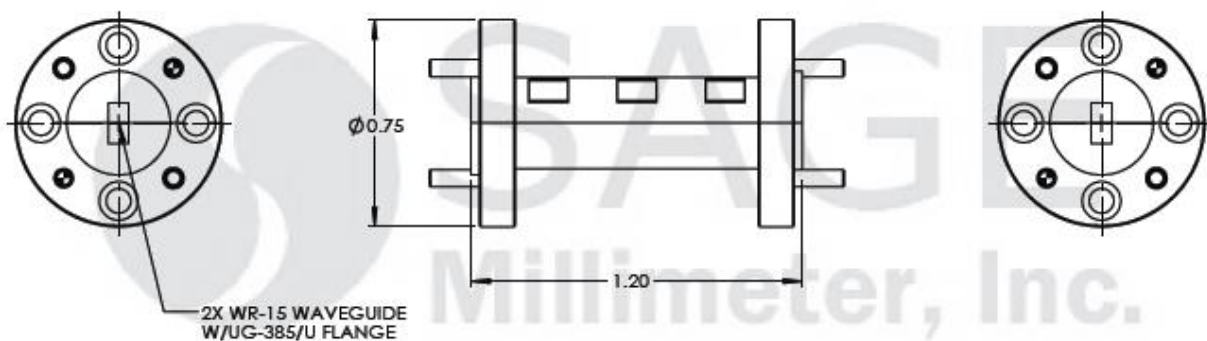


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Typical Performance vs. Frequency



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



Note:

- All data presented is simulated. Actual data may vary, slightly.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

Caution:

- Any foreign objects in the waveguide will degrade performance and/or damage the device.



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