

SWF-14408340-06-B1

Waveguide Bandpass Filter, D Band, 136 to 144 GHz

SWF-14408340-06-B1 is a D band waveguide bandpass filter with a passband frequency of 136 to 144 GHz and rejection frequencies from DC to 128 GHz and 152 to 170 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.



Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Passband Frequency Range	136 GHz		144 GHz
Passband Insertion Loss		2.5 dB	
Rejection Frequency, Low Side	DC		128 GHz
Rejection Frequency, High Side	152 GHz		170 GHz
Rejection		40 dB	
Passband Return Loss		14 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

Mechanical Specifications:

Item	Specification
Waveguide	WR-06 Waveguide with UG-387/U-M Anti-Cocking Flange
Material	Aluminum
Finish	Gold Plated
Weight	0.4 Oz
Outline	WF-BD-A

ECCN

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FEATURES

- Low Cost
- Low Insertion Loss
- High Rejection

APPLICATIONS

- Communication Systems
- Radar Systems
- Sub-assemblies

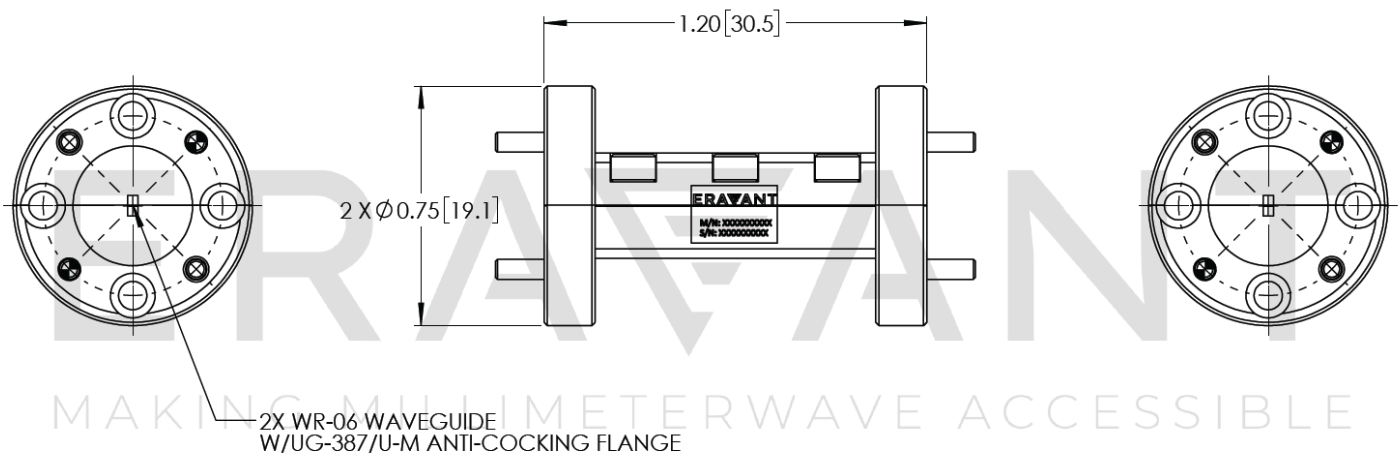
SUPPLEMENTAL DETAILS



The graph displays the frequency response of a device. The blue curve represents the Insertion Loss, which is low (near 0 dB) from 110 GHz to 135 GHz, then increases to a peak of -10 dB at 135 GHz, and finally decreases to -70 dB at 170 GHz. The red curve represents the Return Loss, which is 0 dB from 110 GHz to 135 GHz, then drops to -10 dB at 136 GHz, and shows several sharp dips reaching -40 dB, -60 dB, and -70 dB between 136 GHz and 145 GHz, before rising back to 0 dB at 146 GHz.

Frequency [GHz]	Insertion Loss [dB]	Return Loss [dB]
110	0	0
125	-100	0
135	-10	0
136	-10	-10
137	-10	-20
138	-10	-40
139	-10	-60
140	-10	-70
141	-10	-60
142	-10	-40
143	-10	-20
144	-10	-10
145	-10	0
146	-10	0
150	-40	0
160	-70	0
170	-70	0

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



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

- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.