

Characteristics

- ◆ Low Pass-Band Insertion Loss
- ◆ High Out-of-Band Rejection
- ◆ Wide Range of Bandwidth Options



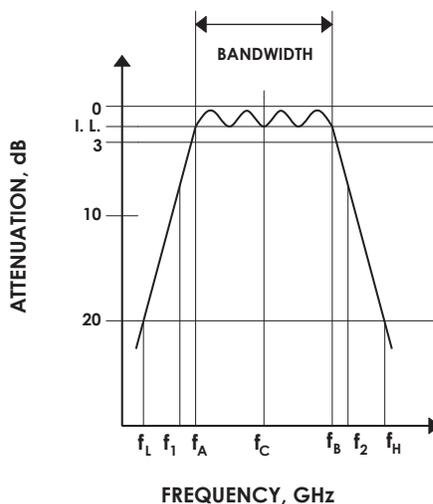
Product Description

QuinStar Technology's **QFB series waveguide bandpass filters** are available in ten waveguide bands covering the frequency range of 18 to 220 GHz. Bandwidths may be specified from 2% to 20% of center frequency. The filters can handle up to one Watt (CW) of RF power. Standard versions are for 2%, 5% and 10% passband bandwidth.

The design ripple is typically 0.1 dB with a Chebychev response. High out-of-band rejection is offered with customer-specific attenuation characteristics. Since filter requirements vary widely, QuinStar Technology is set up to design and supply custom products in a short turnaround time.

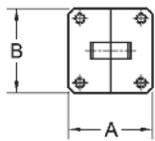
Specifications

PERFORMANCE PARAMETER	TYPICAL CHARACTERISTICS
Range of Passband Bandwidth	2% to 20% of center frequency; standard versions 2%, 5%, 10%
Passband Attenuation (typ)	Less than 1 dB (Bandwidth & rejection dependent)
Rejection (typ)	20-40 dB at center frequency \pm bandwidth
Ripple in Passband	0.1 dB to 0.5 dB depending on percent bandwidth and rejection requirements

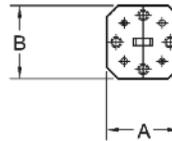
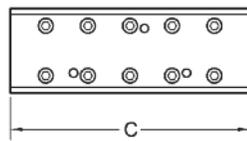


f_A, f_B : Band edges
 f_L, f_H : 20 dB rejection points

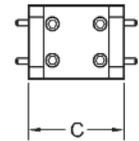
Outline Drawings/Mechanical Specifications



WR-42 and WR-28



WR-22 through WR-5



FREQUENCY BAND	WAVEGUIDE SIZE	FLANGE PATTERN	OUTLINE DIMENSIONS, inches/mm		
			A	B	C ¹
K	WR-42	UG-595/U	0.88/22.4	0.88/22.4	2.00/51.0
Ka	WR-28	UG-599/U	0.75/19.1	0.75/19.1	2.00/51.0
Q	WR-22	UG-383/U	1.12/28.4	1.12/28.4	1.50/38.1
U	WR-19	UG-383/U	1.12/28.4	1.12/28.4	1.50/38.1
V	WR-15	UG-385/U	0.75/19.1	0.75/19.1	1.50/38.1
E	WR-12	UG-387/U	0.75/19.1	0.75/19.1	1.00/25.4
W	WR-10	UG-387/U-M	0.75/19.1	0.75/19.1	1.00/25.4
F	WR-8	UG-387/U-M	0.75/19.1	0.75/19.1	1.00/25.4
D	WR-6	UG-387/U-M	0.75/19.1	0.75/19.1	1.00/25.4
G	WR-5	UG-387/U-M	0.75/19.1	0.75/19.1	1.00/25.4

¹ Standard versions only. Length may vary depending on specifications. Contact QuinStar for exact length.

Ordering Information

Model Number **QFB -**

AB CD E 0



Please specify exact center frequency and complete rejection requirements when ordering.

center frequency rounded to nearest GHz

(A0 = 100 GHz, A1 = 101 GHz, B0 = 110 GHz, etc.)

passband bandwidth rounded to nearest GHz

waveguide band designator

- K = K-band
- A = Ka-band
- Q = Q-band
- U = U-band
- V = V-band
- E = E-band
- W = W-band
- F = F-band
- D = D-band
- G = G-band