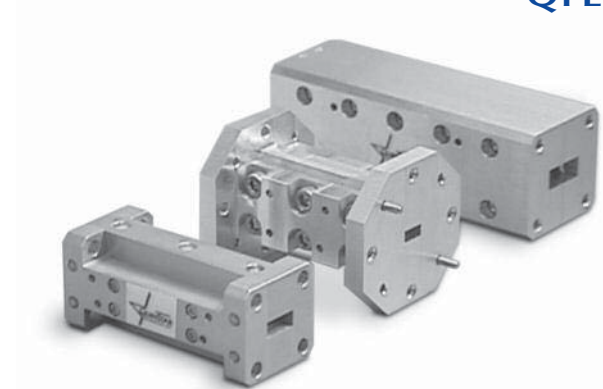


Characteristics

- ◆ Low Insertion Loss
- ◆ High rejection Level
- ◆ Frequencies Up to 110 GHz

Product Description

QuinStar Technology series **QFL Low Pass filters** provide high rejection level and steep skirt selectivity for frequencies above the band edge or corner frequency. Their pass band has low insertion loss over full standard waveguide bands. The lower band edge is established by the cut-off frequency of the waveguide for all standard models. These filters have a very wide rejection band that covers up to three times the highest pass band frequency. Series QFL filters are well suited as harmonic filters and as preselectors for receivers. They can be employed to remove undesirable sideband or spurious signals from



converters for receivers and transmitters. These filters also find applications in test equipment such as network analyzers and signal generators to eliminate or minimize sub-harmonics, harmonics and spurious signals.

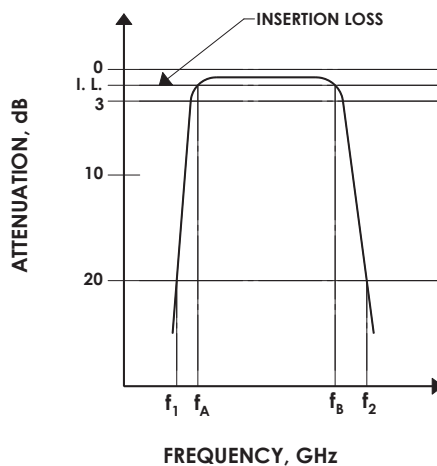
Standard products are offered in seven waveguide bands covering 18 to 110 GHz. Figure below shows the characteristics of this type of filters. Series QFL and QFH filters can be combined to create a very broad band-pass filter with distinct advantages

Specifications

FREQUENCY BAND	K	Ka	Q	U	V	E	W
Frequency Range (GHz)	18-26.5	26.5-40	33-50	40-60	50-75	60-90	75-110
Waveguide Size	WR-42	WR-28	WR-22	WR-19	WR-15	WR-12	WR-10
Typical 3 dB Upper Cutoff Frequency (GHz)	28.5	41.5	52.2	62.3	77.0	93.0	114.0
Rejection Band (GHz)	30-100	48-120	60-145	72-185	90-220	108-270	132-330
Lower Cutoff Frequency (GHz) ¹	14.1	21.1	26.3	31.4	39.9	48.4	59.1
Insertion Loss (dB max)	1.0	1.0	1.0	1.0	1.2	1.5	1.8
Rejection Band for Attenuation >40 dB (GHz)	35-66	50-95	62-120	75-145	92-180	110-215	140-265

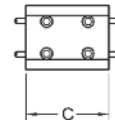
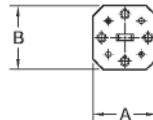
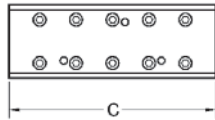
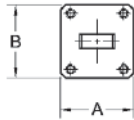
Other waveguide sizes are available.

¹ The lower cutoff frequency can be modified to meet special application requirements.



f_B : High Cut-off frequency
 f_A : Low Cut-off frequency (waveguide cut off)
 f_1, f_2 : 20 dB rejection points

Outline Drawings/Mechanical Specifications



WR-42 and WR-28

WR-22 through WR-10

FREQUENCY BAND	WAVEGUIDE SIZE	FLANGE PATTERN	OUTLINE DIMENSIONS, inches/mm ¹	
			A, B	C
K	WR-42	UG-595/U	0.88/22.4	2.5/63.5
Ka	WR-28	UG-599/U	0.75/19.1	1.65/41.9
Q	WR-22	UG-383/U	1.13/28.7	1.5/38.1
U	WR-19	UG-383/U	1.13/28.7	1.5/38.1
V	WR-15	UG-385/U	0.75/19.1	1.0/25.4
E	WR-12	UG-387/U	0.75/19.1	1.0/25.4
W	WR-10	UG-387/U	0.75/19.1	1.0/25.4

¹ Standard versions.

Ordering Information

Model Number **QFL -**

AB C D 00

upper cutoff frequency rounded to nearest GHz
(A0 = 100 GHz, A1 = 101 GHz, etc.)

waveguide band designator

- K = K-band
- A = Ka-band
- Q = Q-band
- U = U-band
- V = V-band
- E = E-band
- W = W-band

configuration

- S = Standard
- Z = Custom