

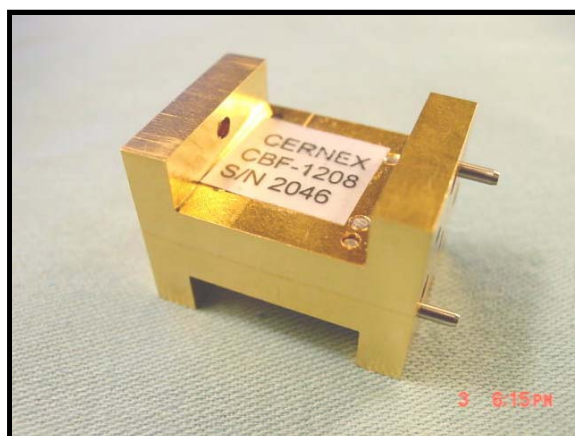
High Pass Filter (Waveguide & Coaxial)

FEATURES:

- ❖ Up to 220GHz
- ❖ Low Cost
- ❖ Wide Bandwidths
- ❖ Low Insertions Loss
- ❖ Low VSWR in Band

APPLICATIONS:

- ❖ Side Band Filters
- ❖ Frequency Diplexers
- ❖ Telecommunications Systems



CHF Series

DESCRIPTION:

Cernex's CHF series high pass filters use a simple yet effective waveguide cut-off filter technique. This design is useful for eliminating unwanted side bands in upconverters and out-of band frequencies in communication systems. These filters are small in size and compact by design. The CHF series can be designed for any frequency range from 0.1 to 220 GHz. Low insertion losses from 0.15 dB and cut off rejections of up to 80 dB are possible. Consult Cernex for dimensions due to the wide range of waveguide sizes and frequency ranges.

SPECIFICATIONS:

LC:

Model Number	Passband Frequency (MHz)	Insertion Loss (dB) Max.	Stopband (MHz)	Rejection (dB)	Case Type (mm)
CHF060040B	1100-6000	*	DC-950	40@DC-950	*
CHF080075B	3400-8100	*	DC-460	75@DC-460	40.4 x 12 x 10

OTHER FREQUENCY BANDS AND ATTENUATION VALUES ARE ALSO AVAILABLE.

*CONSULT THE FACTORY

Suspended Substrate:

Model Number	Cutoff Frequency (MHz)	Insertion Loss (dB) Max.	Stopband (MHz)	Rejection (dB)	Case Type (mm)
CHF050035B	1500-5000 (-1.5dB)	*	1000	35@1000MHz	149 x 34 x 10.5
CHF060040B	2300-6000 (-0.5dB)	*	1800	40@1800MHz	52 x 35 x 10

OTHER FREQUENCY BANDS AND ATTENUATION VALUES ARE ALSO AVAILABLE.

*CONSULT THE FACTORY



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Waveguide:

Frequency Band	K	Ka	Q	U	V	E	W
Waveguide Size	WR-42	WR-28	WR-22	WR-19	WR-15	WR-12	WR-10
Passband (GHz)	18 to 26.5	26.5 to 40	33 to 50	40 to 60	50 to 75	60 to 90	75 to 110
Cut off Frequency Range (GHz)	14 to 23	21 to 36	26 to 45	31 to 54	40 to 68	48 to 82	59 to 100
Pass band Loss (dB) ¹	0.6	0.7	0.8	0.8	0.9	1.0	1.0
Stop band Rejection (dB) ¹	45	45	45	45	45	45	45

1. The pass band insertion loss and stop band rejection is cut off frequency and filter physical length related. The longer the length, the higher the rejection in the stop bands
2. Other waveguide band highpass filters are available upon request.

HOW TO ORDER:

WAVEGUIDE:

Specify Model Number CHF – WG HF IL RJ -- XX ← To be specified by the factory

Waveguide _____ ↑ _____ ↑ _____ ↑ _____ ↑ Rejection

High End Cutoff Frequency _____ ↑ _____ ↑ Insertion Loss

COAXIAL:

Specify Model Number CHF – HF IL RJ -- XX ← To be specified by the factory

High End Cutoff Frequency _____ ↑ _____ ↑ _____ ↑ Rejection

Insertion Loss

Example: To order WR-28 High pass Filter with a high End Cut Off frequency band of 29Ghz and a rejection of 40dB, specify CHF-282910-XX.

CERNEX RESERVE THE RIGHT TO CHANGE THE SPECIFICATIONS WITHOUT NOTICE.