

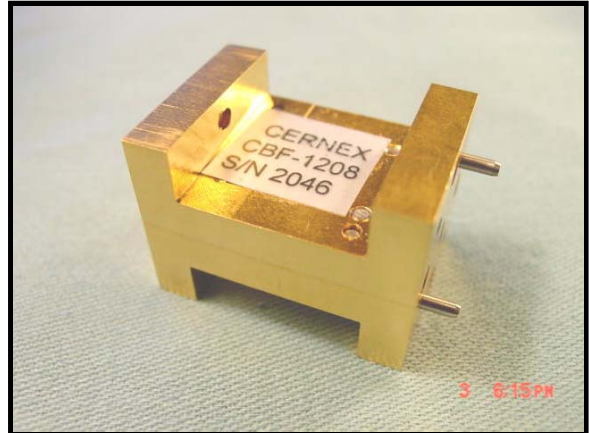
Low Pass Filter (Waveguide & Coaxial)

FEATURES:

- ❖ Frequency up to 110GHz
- ❖ Low Cost
- ❖ Wide Bandwidths
- ❖ Low Insertions Loss
- ❖ Low VSWR in Band
- ❖ High Rejection

APPLICATIONS:

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



CLF Series

DESCRIPTION:

Cernex's CLF series low pass filters are available from 0.1-110GHz in seven waveguide bands. The filters have well matched, full waveguide pass band and thereafter a very wide stop band. The filters reject up to three times the highest pass band frequency. Due the natural waveguide cut off, these filters can also function as full waveguide band-pass filters. Consult Cernex for dimensions due to the wide range of waveguide sizes and frequency ranges.

SPECIFICATIONS:

LC:

Model Number	Cutoff Frequency (MHz)	Insertion Loss (dB) Max.	Stopband (MHz)	Rejection (dB)	Case Type (mm)
CLFU10050B	120 (-1dB)	*	150	50@150MHz	*
CLFU10055B	120 (-2dB)	*	150	55@150MHz	*
CLFU10080B	150 (-1dB)	*	225	80@225MHz	40.4 x 12 x 10
CLFU10075B	155 (-3dB)	*	200	75@200MHz	*
CLFU10040B	180 (-1dB)	*	200	40@200MHz	40.4 x 12 x 10
CLFU20060B	205 (-1dB)	*	270	60@270MHz	40.4 x 12 x 10
CLFU20023B	250 (-1dB)	*	280	23@280MHz	30 x 12 x 10
CLFU40080B	400 (-1dB)	*	225	80@225MHz	*
CLFU40070B	450 (-3dB)	*	500	70@500MHz	40.4 x 12 x 10
CLFU50065B	560 (-3dB)	*	700	65@700MHz	*
CLFU50025B	570 (-1dB)	*	630	25@630MHz	40.4 x 12 x 10
CLFU60025B	600 (-1dB)	*	800	25@800MHz	*
CLFU60040B	650 (-1dB)	*	750	40@750MHz	40.4 x 12 x 10
CLFU60060B	650 (-1dB)	*	800	60@800MHz	*
CLFU70065B	745 (-1dB)	*	1460	65@1460MHz	30 x 12 x 10
CLFU70060B	790 (-1dB)	*	900	60@990MHz	50.9 x 9.5 x 9.5
CLFU80040B	800 (-1dB)	*	1000	40@1000MHz	40.4 x 12 x 10

Low Pass Filter (Waveguide & Coaxial)

Model Number	Cutoff Frequency (MHz)	Insertion Loss (dB) Max.	Stopband (MHz)	Rejection (dB)	Case Type (mm)
CLFU80065B	870 (-1dB)	*	1650	65@1650MHz	40.4 x 12 x 10
CLFU90075B	902 (-1dB)	*	1020	75@1020MHz	40.4 x 12 x 10
CLFU90050B	950 (-3dB)	*	1000	50@1000MHz	50.9 x 9.5 x 9.5
CLF010045B	1190 (-1dB)	*	1300	45@1300MHz	50.9 x 9.5 x 9.5
CLF010075B	1400 (-1dB)	*	2800	75@2800MHz	40.4 x 12 x 10
CLF010035B	1400 (-1dB)	*	1600	35@1600MHz	40.4 x 12 x 10
CLF010055B	1790 (-1dB)	*	2100	55@2100MHz	50.9 x 9.5 x 9.5
CLF020060B	2000 (-1dB)	*	2500	60@2500MHz	50.9 x 9.5 x 9.5
CLF020065B	2000 (-1dB)	*	2800	65@2800MHz	40.4 x 12 x 10
CLF020030B	2424 (-1dB)	*	3150	30@3150MHz	30 x 12 x 10
CLF020075B	2800 (-2dB)	*	3200	75@3200MHz	50.9 x 9.5 x 9.5
CLF030075B	3200 (-1dB)	*	4000	75@4000MHz	50.9 x 9.5 x 9.5
CLF050060B	5200 (-1dB)	*	10000	60@10000MHz	*

OTHER FREQUENCY BANDS AND ATTENUATION VALUES ARE ALSO AVAILABLE.

*CONSULT THE FACTORY

Tubular:

Model Number	Cutoff Frequency (MHz)	Insertion Loss (dB) Max.	Stopband (MHz)	Rejection (dB)	VSMR	Case Type (mm)
CLFDC050460T	DC-5GHz	0.4dB	10GHz	60dB	1.25	61.1 x 9.1
CLFDC060460T	DC-6GHz	0.4dB	12GHz	60dB	1.25	56.9 x 9.1
CLFDC070460T	DC-7GHz	0.4dB	14GHz	60dB	1.25	51.7 x 9.1
CLFDC080460T	DC-8GHz	0.4dB	16GHz	60dB	1.25	50.4 x 9.1
CLFDC090460T	DC-9GHz	0.4dB	18GHz	60dB	1.25	46.4 x 9.1
CLFDC0100460T	DC-10GHz	0.4dB	20GHz	60dB	1.25	47 x 7.4
CLFDC0110460T	DC-11GHz	0.4dB	22GHz	60dB	1.25	43 x 7.4
CLFDC0120460T	DC-12GHz	0.4dB	24GHz	60dB	1.25	42.8 x 7.4

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Microstrip:

Model Number	Cutoff Frequency (MHz)	Insertion Loss (dB) Max.	Stopband (MHz)	Rejection (dB)	Case Type (mm)
CLF020060B	2900 (-1.5dB)	*	3900	60@3900MHz	107 x 26 x 10.5
CLF020070B	2900 (-4dB)	*	3900	70@3900MHz	133 x 26 x 10.5
CLF030060B	3700 (-1.5dB)	*	5000	60@5000MHz	94 x 26 x 10.5
CLF040060B	4000 (-1dB)	*	8000	60@8000MHz	46 x 26.5 x 12.5
CLF040065B	4000 (-3dB)	*	6000	65@6000MHz	94 x 26 x 10.5

Low Pass Filter (Waveguide & Coaxial)

Model Number	Cutoff Frequency (MHz)	Insertion Loss (dB) Max.	Stopband (MHz)	Rejection (dB)	Case Type (mm)
CLF070060B	7000 (-1.5dB)	*	15500	60@15500MHz	45 x 24 x 11

OTHER FREQUENCY BANDS AND ATTENUATION VALUES ARE ALSO AVAILABLE.

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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
Insertion Loss (dB)	1.0	1.0	1.0	1.0	1.2	1.5	1.8
Rejection Band (GHz)	< 14 & > 33	< 20 & > 47	< 25 & > 56	< 29 & > 66	< 38 & > 80	< 45 & > 98	< 56 & > 118
Rejection (dB, Min)	40	40	40	40	40	40	40

OTHER FREQUENCY BANDS AND ATTENUATION VALUES ARE ALSO AVAILABLE.

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HOW TO ORDER:

WAVEGUIDE:

Specify Model Number **CLF - WG LF IL RI -- XX** ←

Waveguide _____ ↑ Rejection _____ ↑

Cutoff Frequency _____ ↑ Insertion Loss _____ ↑

COAXIAL:

Specify Model Number **CLF - LF IL RI -- XX** ← To be specified by the factory

Cutoff Frequency _____ ↑ Rejection _____ ↑

Insertion Loss _____ ↑

Example: To order WR-28 High pass Filter with a frequency band of 22-40Ghz and a insertion loss of 1dB and a Rejection of 40dB, specify CLF-22401040-XX.

CERNEX RESERVE THE RIGHT TO CHANGE THE SPECIFICATIONS WITHOUT NOTICE