



Sharp Cut-Off Low Pass Filter

Custom Built LC Filters - 500 Hz to 3000 MHz

Anti-Aliasing, Reconstruction and Band Limiting

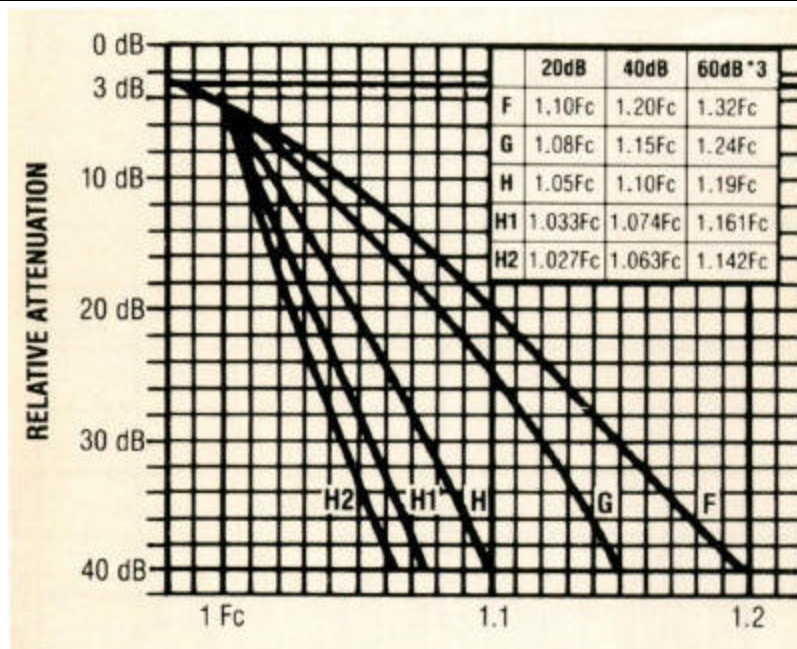
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Allen Avionics manufactures Lowpass Filters using many design types such as: Butterworth, Chebyshev and Elliptic Functions. The filters tabulated on this page are Chebyshev type. Other types can be designed when their special properties are needed.

- ▶ **Frequency Range:** 500 Hz to 3000 MHz
- ▶ **Impedance Range:** 50 Ohms to 20K Ohms
- ▶ **Construction:** Epoxy encapsulated or sealed in metal cans
- ▶ **Available Connectors:** Include BNC, Type N,UHF, Printed Circuit and Surface Mounting
- ▶ **Delivery:** Prototypes can often be delivered in less than 7 days.
Call or e-mail factory for special sizes
- ▶ Maximum Ripple: .5dB
- ▶ Maximum Insertion Loss: 1dB
- ▶ Custom Packages and Mounting are available, FAX or E-Mail your requirements

Order any Cut-Off Frequency from 500 Hz to 3000 MHz. Interpolation between tabulated data allowable.

Size (Inches)							
Units normally supplied in metal cans for printed circuit mounting (or end terminals). SMA connectors same size. BNC connectors may require larger cans. Epoxy cases available where listed in table.							
Metal Cans				Encapsulated in Epoxy Case:			
	L	W	H		L	W	H
K3	3.00	1.125	.750	W	2.50	1.125	.750
K4	4.00	1.125	.750	X	3.00	1.500	1.00
M	3.00	1.625	1.125	X1	3.00	2.00	1.00
M1	3.00	2.000	1.250	Y	4.00	1.500	1.125
N	4.00	1.500	1.250	Y1	4.00	2.000	1.250
N1	4.00	2.000	1.250	Z	4.50	2.500	1.375
O	5.00	1.500	1.125				
O1	5.00	2.000	1.250				
P	6.00	1.500	1.250				
P1	6.00	2.000	1.250				



Custom Sharp Cutoff LC Lowpass Filters - Series SCOLP

Cut-Off (Fc) Frequency 3 dB Max.	Impedance Range (Ohms)	Shape Factor (see Graph)	Size		Cut-Off (Fc) Frequency 3 dB Max.	Impedance Range (Ohms)	Shape Factor (see Graph)	Size	
			Epoxy	Metal				Epoxy	Metal
*1 500 Hz	200 - 5K	B	Z	--	5 MHz	50 - 100	F	X	M
1K Hz	200 - 10K	F	Z	--			G	X	M
2.5 KHz	200 - 20K	F	Z	--			H	Y	N
		G	Z	--			H1	--	N1
3 KHz	200 - 20K	F	Y1	N1			H2	--	N1
		G	Z	--	7.5 MHz	50 - 100	F	--	K3
4 KHz	150 - 20K	F	Y1	N1			G	--	M
		G	Z	P1			H	--	N
5 KHz	150 - 20K	F	Y1	N1			H1	--	N
		G	Z	O1			H2	--	O
7.5 KHz	150 - 20K	H	Z	P1	10 MHz	50 - 100	F	--	K3
		F	Y1	N1			G	--	M
10 KHz	50 - 10K	G	Y1	N1			H	--	M
		H	Z	O1			H1	--	N
20 KHz	50 - 10K	H1	P	Z1			H2	--	O
		F	Y1	N1	15 MHz	50 - 100	F	--	K3
G	Y1	N1	G	--			M		
30 KHz	50 - 10K	H	Z	O1			H	--	N
		H1	Z	P1			H1	--	N
40 KHz	50 - 10K	H2	Z	--			H2	--	O
		F	Y1	N1	20 MHz	50 - 75	F	--	K3
G	Y1	N1	G	--			M		
50 KHz	50 - 10K	H	Z	O1			H	--	N
		H1	Z	P1			H1	--	N
75 KHz	50 - 7.5K	H2	Z	--			H2	--	O
		F	Y1	N1	30 MHz	50	F	--	M
G	Y1	N1	G	--			N		
100 KHz	50 - 5K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
5 MHz	50 - 100	H2	Z	P1			H2	--	O
		F	Y1	N1	40 MHz	50	F	--	M
G	Y1	N1	G	--			N		
7.5 MHz	50 - 100	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
10 MHz	50 - 100	H2	Z	P1			H2	--	O
		F	Y1	N1	50 MHz	50	F	--	M
G	Y1	N1	G	--			N		
15 MHz	50 - 100	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
20 MHz	50 - 75	H2	Z	--			H2	--	O
		F	Y1	N1	75 MHz	50	F	--	M
G	Y1	N1	G	--			N		
30 MHz	50	H	Y1	N1			H	--	N
		H1	Z	P1			H1	--	N
40 MHz	50	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
50 MHz	50	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
75 MHz	50	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
100 MHz	50 - 5K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
500 Hz	200 - 5K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
1K Hz	200 - 10K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
2.5 KHz	200 - 20K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
3 KHz	200 - 20K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
4 KHz	150 - 20K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
5 KHz	150 - 20K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
7.5 KHz	150 - 20K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
10 KHz	50 - 10K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
20 KHz	50 - 10K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
30 KHz	50 - 10K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
40 KHz	50 - 10K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
50 KHz	50 - 10K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
75 KHz	50 - 7.5K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
100 KHz	50 - 5K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
500 Hz	200 - 5K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
1K Hz	200 - 10K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
2.5 KHz	200 - 20K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
3 KHz	200 - 20K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
4 KHz	150 - 20K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
5 KHz	150 - 20K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
7.5 KHz	150 - 20K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
10 KHz	50 - 10K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
20 KHz	50 - 10K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
30 KHz	50 - 10K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
40 KHz	50 - 10K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
50 KHz	50 - 10K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
75 KHz	50 - 7.5K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
100 KHz	50 - 5K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
500 Hz	200 - 5K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
1K Hz	200 - 10K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
2.5 KHz	200 - 20K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
3 KHz	200 - 20K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
4 KHz	150 - 20K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
5 KHz	150 - 20K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
7.5 KHz	150 - 20K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
10 KHz	50 - 10K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
20 KHz	50 - 10K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
30 KHz	50 - 10K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
40 KHz	50 - 10K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
50 KHz	50 - 10K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
75 KHz	50 - 7.5K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
100 KHz	50 - 5K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
500 Hz	200 - 5K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
1K Hz	200 - 10K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
2.5 KHz	200 - 20K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
3 KHz	200 - 20K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
4 KHz	150 - 20K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
5 KHz	150 - 20K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
7.5 KHz	150 - 20K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
10 KHz	50 - 10K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
20 KHz	50 - 10K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
30 KHz	50 - 10K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
40 KHz	50 - 10K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--			N		
50 KHz	50 - 10K	H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	N
75 KHz	50 - 7.5K	H2	Z	P1			H2	--	O
		F	Y1	N1	100 MHz	50	F	--	M
G	Y1	N1	G	--					

Custom Sharp Cutoff LC Lowpass Filters - Series SCOLP

Cut-Off (Fc) Frequency 3 dB Max.	Impedance Range (Ohms)	Shape Factor (see Graph)	Size		Cut-Off (Fc) Frequency 3 dB Max.	Impedance Range (Ohms)	Shape Factor (see Graph)	Size	
			Epoxy	Metal				Epoxy	Metal
200 KHz	50 - 5K	F	Y1	N	200 MHz	50	F	--	K3
		G	Y1	N1			G	--	K4
		H	Y1	N1			H	--	N
		H1	Z	O1			H1	--	O
		H2	Z	P1			H2	--	P
300 KHz	50 - 5K	F	X1	M1	300 MHz	50	F	--	K3
		G	Y	N			G	--	K4
		H	Y	N			H	--	N
		H1	Y1	N1			H1	--	O
400 KHz	50 - 5K	H2	Z	O1	400 MHz	50	H2	--	P
		F	X1	M1			F	--	M
		G	Y	N			G	--	N
		H	Y	N			H	--	O
500 KHz	50 - 2.5K	H1	Y1	N1	500 MHz	50	H1	--	P
		H2	Z	O1			F	--	K3
		F	X1	M1			G	--	K4
		G	X1	M1			H	--	N
750 KHz	50 - 1K	H	Y	N	750 MHz	50	H1	--	O
		H1	Y1	N1			H2	--	P
		H2	Y1	N1			F	--	K3
		F	X	M			G	--	K4
1 MHz	50 - 500	G	X1	M1	1000 MHz	50	H	--	N
		H	Y	N			H1	--	O
		H1	Y1	N1			H2	--	O
		H2	Y1	N1			F	--	K3
2 MHz	50 - 500	F	X	M	1500 MHz	50	G	--	K4
		G	X1	M1			H	--	N
		H	Y	N			H1	--	O
		H1	Y	N			F	--	K3
3 MHz	50 - 250	H2	Y1	N1	2000 MHz	50	G	--	K4
		F	X	M			H	--	N
		G	X1	M1			H1	--	O
		H	Y	N			F	--	K3
4 MHz	50 - 150	H1	Y1	N1	2500 MHz	50	G	--	K4
		H2	--	N1			H	--	N
		F	X	M			H1	--	O
		G	X	M			F	--	K3
3000 MHz	50	H	Y	N	3000 MHz	50	G	--	K4
		H1	Y1	N1			H	--	N
		H2	--	N1			H1	--	O

Custom Sharp Cutoff LC Lowpass Filters - Series SCOLP

- *1 2dB maximum insertion loss
- *2 1dB maximum ripple
- *3 Attenuation depends on termination type and frequency

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We are pleased to accept

