ALLEN AVIONICS, INC.

Medium Cut-Off Low Pass Filters

Custom Built LC Filters - 50 Hz to 5000 MHz

Anti-Aliasing, Reconstruction and Band Limiting

mcolpPrinter

Allen Avionics manufacturers 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.

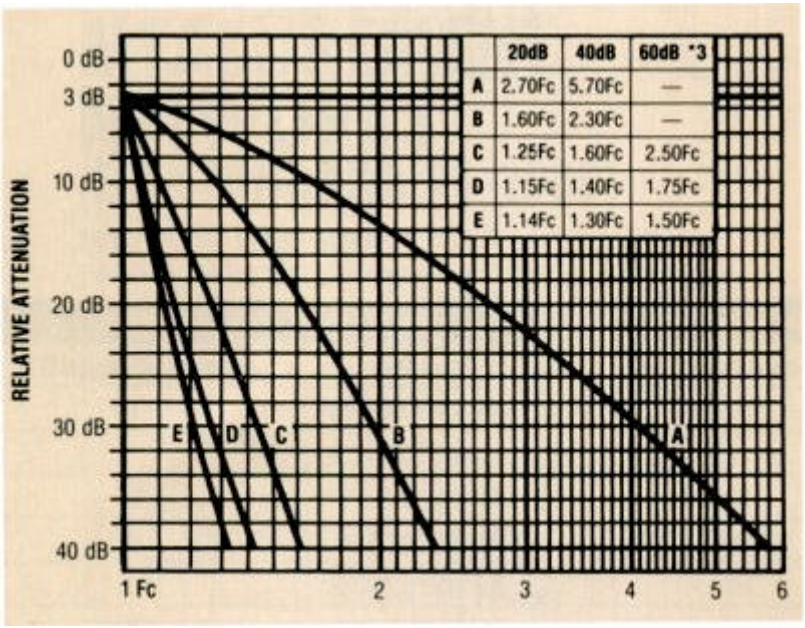
- **Frequency Range:** 50 Hz to 5000 MHz
- **Impedance Range:** 50 Ohms to 50K Ohms
- **Construction:** Epoxy encapsulated or sealed in metal cans
- **Available Connectors** include BNC, SMA, Type N, Printed Circuit and Surface Mounting.
- **Delivery:** Prototypes can often be delivered in less than 7 days.
  Call or e-mail factory for special sizes
- Maximum Ripple: .25dB
- Maximum Insertion Loss: 1dB
- Custom Packages and Mounting are available, FAX or E-Mail your requirements

Order any Cut-Off Frequency from 50 Hz to 5000 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
J -	1.00 x	.750	x .500	**S -**	1.250 x	.875	x .625
K -	1.50 x	1.000	x .750	**U -**	2.00 x	1.125	x .750
K1 -	2.00 x	1.125	x .750	**W -**	2.50 x	1.125	x .750
K2 -	2.50 x	1.125	x .750	**X**	3.00 x	1.500	x 1.00
K3 -	3.00 x	1.125	x .750	**X1 -**	3.00 x	2.00	x 1.00
M -	3.00 x	1.625	x 1.125	**Y -**	4.00 x	1.500	x 1.125
M1 -	3.00 x	2.000	x 1.250	**Y1 -**	4.00 x	2.000	x 1.250
N -	4.00 x	1.500	x 1.250	**Z -**	4.50 x	2.500	x 1.375
N1 -	4.00 x	2.000	x 1.250				



	20dB	40dB	60dB *3
A	2.70Fc	5.70Fc	—
B	1.60Fc	2.30Fc	—
C	1.25Fc	1.60Fc	2.50Fc
D	1.15Fc	1.40Fc	1.75Fc
E	1.14Fc	1.30Fc	1.50Fc

Custom Medium Cut-Off LC Lowpass Filters - Series MCOLP

Cut-Off (Fc) Frequency 3 dB Max.	Impedance Range (Ohms)	Shape Factor (see Graph)	Size	
			Epoxy	Metal
*1 50 Hz	1K	A	Y1	N1
		B	Z	--
*1 100 Hz	1K	A	Y1	N1
		B	Z	--
		C	Z	--
250 Hz	500 - 15K	A	X1	M
		B	Y	N
		C	Y1	N1
		D	Z	--
		E	Z	--
500 Hz	500 - 3K	A	X	M
		B	X1	M1
		C	Y	N
		D	Y1	N1
		E	Z	--
1 KHz	200 - 10K	A	X	M
		B	X1	M1
		C	Y	N
		D	Y1	N1
		E	Z	--
2.5 KHz	200 - 20K	A	X	M
		B	X1	M1
		C	Y	N
		D	Y1	N1
		E	Z	--
5 KHz	100 - 20K	A	X	M
		B	X1	M1
		C	X1	M1
		D	Y	N
		E	Y1	N1
7.5 KHz	75 - 10K	A	X	M
		B	X1	M1
		C	X1	M1
		D	Y	N
		E	Y1	N1
10 KHz	50 - 10K	A	X	M
		B	X	M
		C	X1	M1
		D	Y	N
		E	Y1	N1
25 KHz	50 - 10K	A	X	M
		B	X	M
		C	X1	M1
		D	Y	N
		E	Y1	N1

Cut-Off (Fc) Frequency 3 dB Max.	Impedance Range (Ohms)	Shape Factor (see Graph)	Size	
			Epoxy	Metal
4 MHz	50 - 150	A	S	J
		B	U	K
		C	U	K
		D	W	K1
		E	X	K2
5 MHz	50 - 100	A	S	J
		B	S	J
		C	U	K
		D	--	K1
		E	--	K2
7.5 MHz	50 - 100	A	--	J
		B	--	K
		C	--	K1
		D	--	K2
		E	--	K3
10 MHz	50 - 100	A	--	J
		B	--	K
		C	--	K1
		D	--	K2
		E	--	K3
15 MHz	50 - 100	A	--	J
		B	--	K
		C	--	K
		D	--	K1
		E	--	K2
20 MHz	50 - 75	A	--	J
		B	--	K
		C	--	K
		D	--	K1
		E	--	K2
20 MHz	50 - 75	A	--	J
		B	--	K
		C	--	K
		D	--	K1
		E	--	K2
30 MHz	50	A	--	K
		B	--	K1
		C	--	K2
		D	--	K3
		E	--	M
40 MHz	50	A	--	K
		B	--	K1
		C	--	K2
		D	--	K3
		E	--	M

50 KHz	50 - 10K	A	X	M
		B	X	M
		C	X1	M1
		D	Y	N
		E	Y1	N1
75 KHz	50 - 10K	A	W	K2
		B	X	M
		C	X1	M1
		D	Y	N
		E	Y1	N1
100 KHz	50 - 10K	A	W	K2
		B	X	M
		C	X1	M1
		D	Y	N
		E	Y	N
250 KHz	50 - 5K	A	U	K
		B	W	K1
		C	W	K1
		D	X	M
		E	X	M
500 KHz	50 - 2.5K	A	S	J
		B	U	K
		C	W	K1
		D	W	K1
		E	X	M
750 KHz	50 - 1K	A	S	J
		B	U	K
		C	U	K1
		D	W	K1
		E	X	M
1 MHz	50 - 500	A	S	J
		B	U	K
		C	U	K1
		D	W	K1
		E	X	M
2 MHz	50 - 500	A	S	J
		B	U	K
		C	U	K1
		D	W	K1
		E	X	M
3 MHz	50 - 250	A	S	J
		B	U	K
		C	U	K
		D	W	K1
		E	X	M

50 MHz	50	A	--	K
		B	--	K1
		C	--	K2
		D	--	K3
		E	--	M
75 MHz	50	A	--	K1
		B	--	K2
		C	--	K3
		D	--	M
		E	--	M
100 MHz	50	A	--	K1
		B	--	K2
		C	--	K3
		D	--	M
		E	--	M
250 MHz	50	A	--	K
		B	--	K1
		C	--	K2
		D	--	K3
		E	--	M
500 MHz	50	A	--	J
		B	--	K
		C	--	K1
		D	--	K2
		E	--	K3
***2** **1000 MHz**	50	A	--	J
		B	--	K
		C	--	K1
		D	--	K2
		E	--	K3
***2** **2000 MHz**	50	A	--	J
		B	--	K
		C	--	K1
		D	--	K2
		E	--	K3
***2** **3000 MHz**	50	A	--	J
		B	--	K
		C	--	K1
		D	--	K1
		E	--	K2
***2** **4000 MHz**	50	A	--	J
		B	--	K
		C	--	K1
		D	--	K1
		E	--	K2
***2** **5000 MHz**	50	A	--	J
		B	--	K
		C	--	K1
		D	--	K1
		E	--	K2

***1** 2dB maximum insertion loss
***2** 1/2 dB maximum ripple

Allen Avionics, Inc.
224 East Second Street, Mineola, NY 11501
Phone: (516) 248-8080 **Fax:** (516) 747-6724
E-Mail: Info@AllenAvionics.com