

Flexible Cable Low Pass Filter



RLC Electronics' Cable Low Pass Filters are now available with hand formable .086 semi rigid cables. These cables can be formed into custom configurations after the manufacturing process with * minimal electrical degradation . We offer the same electrical specs as our .086 semi rigid with pass-

bands up to 26 Ghz. When ordering catalog CLPF filters with hand formable cables the S dimension, ie; space between connectors (measured in inches) has been replaced with the CL cable length dimension (measured in inches) and the proper cable designator is FC.

FCLPF-1-2-3

Cut-Off Frequency fc (MHz)	Number of Sections (N)	3 dB Point (Typical)	30 dB Point (Typical)	60 dB Point (Min)
	2	1.4 fc	2.5 fc	5.2 fc
	3	1.15 fc	1.7 fc	2.8 fc
	4	1.09 fc	1.4 fc	2.0 fc
100 to 26,000	5	1.07 fc	1.26 fc	1.62 fc
	6	1.05 fc	1.18 fc	1.44 fc
	7	1.04 fc	1.14 fc	1.33 fc
	8	1.04 fc	1.11 fc	1.26 fc
	9	1.04 fc	1.08 fc	1.19 fc
	10	1.02 fc	1.06 fc	1.14 fc

Pass Band VSWR: See table 2
Pass Band Insertion Loss: See table below
Power Rating: 2 watts average

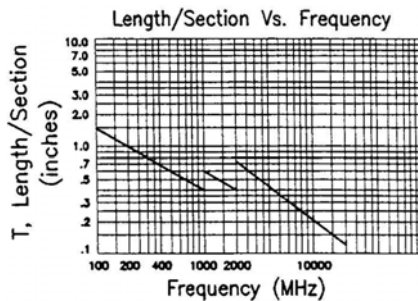
Impedance: 50 ohms
Connector Type: SMA Male
Cable Diameter: .086

Environment: MIL-E-5400, Class 1A except operating temperature range -55°C to +85°C

To designate the filter desired use:

- 1: Filter Cutoff Frequency in MHz (100 MHz to 18,000 MHz) 3: Cable Length CL (In Inches accurate to .05 inches)
 2: Number of Sections N (2 to 10)

Example a FCLPF-12,000-5-6.3-FC is a 12 GHz 5 section filter with a 6.3 inch .086 hand formable cable.



FREQUENCY (MHz)	A	CONNECTOR LENGTH
100 to 4,500	.50	.85
4,500 to 18,000	.31	.70
18,000 to 26,000	.25	.70

Cable Dia	Minimum Bend Radius
.086	0.23

Passband Response

VSWR Passband	Cable Loss Constant	Filter Loss Constant in dB per Section
	.086 Diameter	
1.4:1 to 2.0 GHz	.24 dB/ft	.10 dB/N
1.5:1 to 8.0 GHz	.61 dB/ft	.08 dB/N
1.6:1 to 12.4 GHz	.67 dB/ft	.075 dB/N
1.8:1 to 18.0 GHz*	.83 dB/ft	.07 dB/N
2.0:1 to 26.0 GHz**	1.00 dB/ft	.07 dB/N

Calculation Notes

Passband Insertion Loss (Max) = (Filter Loss Constant x N) + Cable Loss *VSWR 12.4 GHz to 18 GHz for more than 8 sections to be 1.8 + (0.05 x (N-7)) **VSWR 18 GHz to 26 GHz for more than 8 sections to be 2.0 + (0.05 x (N-7))

NOTE: * Minimum bend radius of 0.23 still applies, after cable is bent to fit application

Specifications subject to change without notification.

Tolerances unless otherwise specified are .xx +/- .02, xxx +/- .005

Specials requiring closer tolerances, different frequency ranges, special connectors, different materials, finishes, etc. can be furnished upon request.



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