

Custom Low Pass Filters



RLC Electronics' computerized Custom Low Pass Filters are available built to your specifications in the cutoff and rejection regions. By varying the number of sections, you not only have direct control of the cutoff frequency but also the skirt selectivity. RLC units are available over the pass band frequencies of 10 to 26,000 MHz. Advanced coaxial techniques and optimum selection of component materials assure low VSWR over the entire pass band.

Specifications

F-80⁻¹⁻²⁻³

Model Number	Cut-Off Frequency fc (MHz)	Number of Sections*	3 dB Point (Typical)	30 dB Point (Typical)	60 dB Point (Min.)
F-80	10 to 26,000	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
		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	1.03 fc	1.08 fc	1.19 fc
		10	1.02 fc	1.06 fc	1.14 fc

Pass Band: DC to fc
Pass Band Insertion Loss(max): (see below)
Pass Band VSWR: 1.5**
Power Rating: 25 Watts
Impedance: 50 Ohms
Environmental: MIL-E-5400, Class 1A; except operating temp -55C to +85C

Connector Types: (Male & Female)
Type - Recommend Freq Range:
 N DC - 12,400
 BNC DC - 1,000
 TNC DC - 12,400
 SMA DC - 26,000

*Refers to number of filter sections N: total number of reactive elements is 2N+1

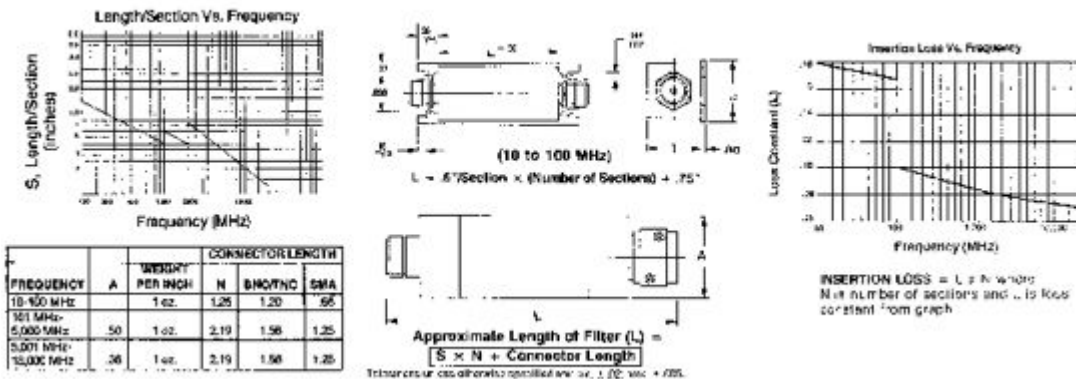
**VSWR 12.4GHz and above for 8 or more sections to be 1.5+(0.05(N-7)), where N = number of sections

To designate the filter desired use:

- 1: Cut-off Frequency in MHz
- 2: Number of Sections
- 3: "N" for type N, "B" for BNC, "T" for TNC or "R" for SMA. Add "M" or "F" for type male or female.

Example: F-80-500-4-N is a 500 MHz cutoff, 4 section filter with type N connectors.

Outline Drawing



Custom High Frequency Lowpass Filters



RLC computerized Low Pass filters are available built to your specifications for both cut-off frequency and rejection regions. This series of filters have cut-off frequencies up to 50.5 GHz with as many as 10 sections. By varying the number of sections you have direct control of the cut-off frequency and the skirt selectivity. Advanced coaxial techniques and optimum selection of component materials ensure stability over temperature and a low VSWR over the entire passband.

Specifications

F-80⁻¹⁻²⁻³

Model No.	Cut-Off Frequency (MHz)	Number of Sections	3 dB Point (Typical)	30 dB Point (Typical)	60 dB Point (min)
F-80	26000 to 50500	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
		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	1.03 fc	1.08 fc	1.19 fc
		10	1.02 fc	1.06 fc	1.14 fc

Pass Band: DC to fc

Pass Band Ins Loss: 0.12dB/section up to 40 GHz
0.18dB/section up to 50.5 GHz

Pass Band VSWR: 1.8:1 up to 40GHz 2.0:1 up to 50.5GHz

Impedance: 50 ohms

Environmental: MIL-E-5400, Class 1A

Connector Types: 2.92 mm up to 40Hz
2.4 mm or 1.85 mm up to 50.5 GHz

To designate the Filter desired use:

- (1) Cut-off frequency in MHz (2) Number of Sections
(3) Connector "2.92", "2.4" or 1.85 Add "M"
or "F" for both male or female

Example: F-80-42000-6-2.4 is a 42000 MHz cut-off, 6 sections with 2.4 mm M/F connectors



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