

- ◆ Designed to Suppress Harmonics
- ◆ 50 Watt Average Power Rating
- ◆ Reliable Rod and Bead Design
- ◆ Minimal RF Insertion Loss
- ◆ RoHS compliant available
- ◆ Low Cost Design

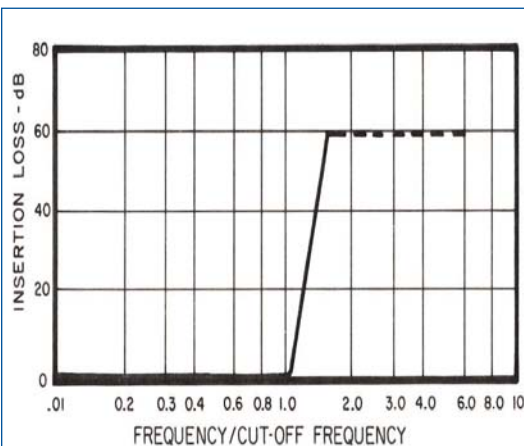


Microlab Model LA series low pass filters are designed to suppress harmonics and out of band noise and interference, to improve signal quality in medium power system applications and bench testing.

The rod and bead filter is constructed of alternate lengths of high and low impedance transmission lines tuned to provide the proper frequency response. Careful design of the matching end sections ensures a low loss pass band response down to at least 40% of the cut-off frequency, f_c . In the stop band rejection of at least 55 dB occurs at 150% of cut-off and extends typically for several octaves. Call for more details of the rejection characteristic. When compared to lumped element construction, the single piece rod and bead filter has far fewer solder joints, is better supported, and operates cooler with a better VSWR.

Options for special cut-off frequencies, special low pass responses, different polarity or alternate connectors are available on request. Note that not all connectors can be used to 18 GHz. (01/10)

Pass Band:	$0.4f_c - 1.0 f_c$
Stop Band:	
At $1.2 f_c$:	25 dB min. rejection
At $1.5 f_c$:	55 dB min. rejection
Power Rating:	
<7 GHz	50W avg, 4 kW peak
>7 GHz	25W avg, 1 kW peak
Temperature:	-55°C to +150°C
Connectors, (m-f) except FF (f-f) and Finish	
N, <12 GHz	Silver or triplate
SMA	Stainless steel
BNC, <4 GHz	Silver or triplate
TNC, <7 GHz	Silver or triplate
Housing: All	Passivated aluminum
except SMA	Stainless steel
and LA-115F/FF	Brass



N Connector Models

Model Number	Cut-Off MHz ¹	VSWR Max	Loss dB	Length in.(mm) ²	Weight oz (g) ²
LA-04N	400	1.30	<0.2	14.6 (409)	7 (178)
LA-07N	700	1.30	<0.2	9.9 (277)	6 (152)
LA-10N	1,000	1.30	<0.2	7.4 (207)	5 (127)
LA-15N	1,500	1.30	<0.2	5.8 (162)	4 (102)
LA-20N	2,000	1.30	<0.2	4.7 (132)	4 (102)
LA-30N	3,000	1.30	<0.2	4.8 (134)	3 (76)
LA-40N	4,000	1.40	<0.2	4.0 (112)	3 (76)
LA-50N	5,000	1.40	<0.2	3.6 (101)	3 (76)
LA-60N	6,000	1.40	<0.2	3.2 (90)	3 (76)
LA-70N	7,000	1.40	<0.2	3.0 (84)	3 (76)
LA-80N	8,000	1.50	<0.3	3.2 (90)	3 (76)
LA-90N	9,000	1.50	<0.3	3.0 (84)	3 (76)
LA-100N	10,000	1.50	<0.4	2.8 (78)	3 (76)
LA-110N	11,000	1.50	<0.4	2.8 (78)	3 (76)
LA-120N	12,000	1.50	<0.4	2.7 (76)	3 (76)

SMA Connector Models

LA-115F	11,500	1.50	<0.2	2.0 (51)	0.4 (11.2)
LA-120F	12,000	1.50	<0.4	1.6 (45)	0.5 (12.7)
LA-130F	13,000	1.50	<0.4	1.6 (45)	0.5 (12.7)
LA-150F	15,000	1.50	<0.4	1.6 (45)	0.5 (12.7)
LA-180F	18,000	1.50	<0.4	1.9 (53)	0.5 (12.7)

¹Accuracy f_c is 2%, -0%; <700 MHz +4%,-0%

²Weights, lengths nominal.

Alternate Connector Specifications

Connector Type	Suffix	Typical Part No.	Cut Off f_c Max.	Weight Difference
N	N	LA-04N	12 GHz	None
BNC	B	LA-04B	4 GHz	-2 (-54)
TNC	T	LA-04T	7 GHz	-2 (-54)
SMA (m-f)	F	LA-04F	18 GHz	None
SMA (f-f)	FF	LA-04FF	18 GHz	None