



No. of Sections	2	3	4	5	6 or more
1.5/1 VSWR BW	0.4	0.7	0.8	0.85	0.9
MIN 3 dB BW					

Specification	Standard	*Special
Electrical		
Center Frequency (Fc)	2000 to 7500 MHz	2000 to 9000 MHz
3dB Relative Bandwidth (% of Fc)	0.2 to 3.5	0.2 to 3.5
Number of Sections Available	3 to 6	2 to 7
Nominal Impedance	50	50
Maximum Insertion Loss	See Below	See Below
Maximum VSWR	1.5/1	1.3/1
Attenuation in the Stopband	See Page 44	See Page 44
Maximum Input Power (Average) (Watts to 10,000 ft.)	25% of peak	See Standards
Maximum Input Power (Peak) (Watts to 10,000 ft.)	$\frac{1500 \times 3\text{dB BW (MHz)}}{\text{Fc (MHz)}}$	See Standards
Environmental		
Shock	20 G's	25 G's
Vibration	10 G's	20 G's
Humidity	95% relative	100% relative
Altitude	Unlimited	Unlimited
Temperature Range (Operating)	-25°C to + 85°C	-54°C to + 85°C
Temperature (Non-Operating)	-54°C to + 125°C	-54°C to + 125°C
Mechanical		
Approximate Weight in oz.	0.9 x H x L	0.8 x H x L
Mounting Provisions	See Next Page	See Next Page
Special Configurations	Consult Factory	Consult Factory

*Contact Benchmark Lark Engineering for Special Configurations

LOSS FACTOR FOR ALL 6C SERIES FILTERS IS

LF= 0.4

Insertion Loss:

The maximum Insertion Loss at center frequency is equal to:

$$\frac{\text{LF} \times (\text{N}-0.5)}{\% \text{ 3 dB BW}} + 0.1$$

Where:

LF = Loss Factor N = Number of Sections

% 3dB BW:

$$\frac{3\text{dB BW (MHz)} \times 100}{\text{Center Frequency (MHz)}}$$

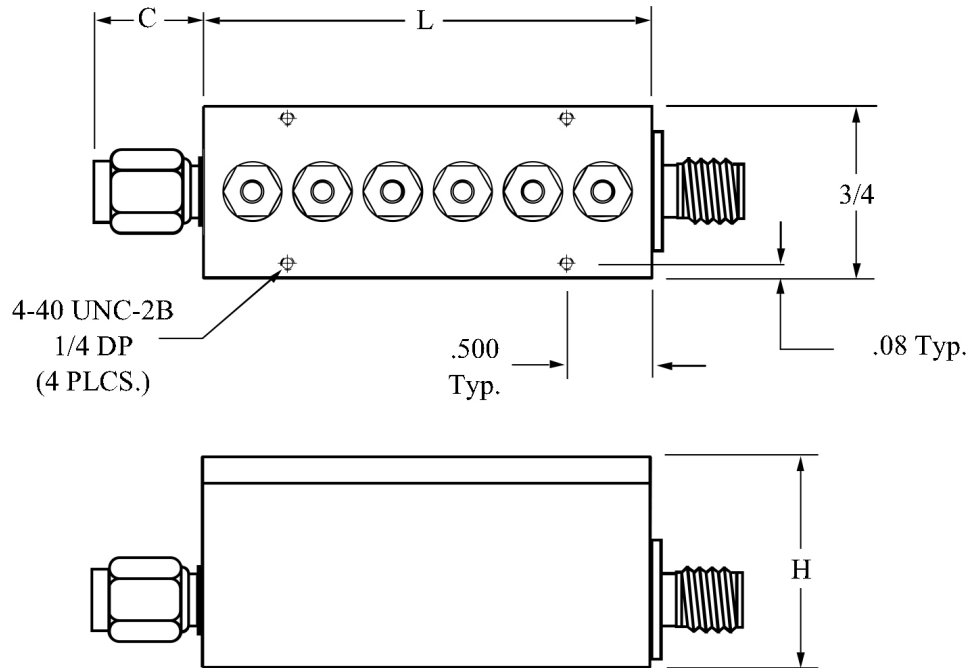
Example:

A 4 section 6C with a center frequency of 3000 MHz and a 3dB BW of 40 MHz would be:

$$\frac{0.4 \times 4.5}{1.3} = 1.38$$

$$1.38 + 0.1 = 1.5\text{dB}$$

Mechanical Specifications — 6C Series



L DIMENSION = $0.7 \times (\# \text{ of Sections}) + 0.37$ inch Approximately

H DIMENSION = $\frac{3000}{F_c \text{ (MHz)}}$ + 0.75 inch Approximately

Connectors Available on 6C Series

Type	Dimensions	
	Inches	MM
SMA Jack	.375	9.5
SMA Plug	.507	12.9

*Not recommended for use with this filters

Type	Dimensions	
	Inches	MM
*N Jack	.736	18.7
*N Plug	.819	20.8
Special		

The size shown is a standard used by Lark to facilitate low cost, easily reproduced units. Should you require another size, please submit all of your requirements, both electrical and mechanical, to Benchmark Lark Engineering. This will enable Lark to quote the optimum design for your application.

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