



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					

SPECIFICATIONS	STANDARD	*SPECIAL
ELECTRICAL		
Center Frequency (Fc)	800 to 2500 MHz	750 to 2500 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 Standard
Maximum Input Power (Peak) (Watts to 10,000 ft.)	$\frac{10000 \times 3dB \text{ BW (MHz)}}{Fc \text{ (MHz)}}$	See Standard
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.	2.2 x H x L	2.0 x H x L
Mounting Provisions	See Next Page	See Next Page
Special Configurations	Consult Factory	Consult Factory

*Contact Lark Engineering

INSERTION LOSS:

The maximum Insertion Loss at center frequency is equal to:

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

LOSS FACTOR FOR ALL 4C SERIES FILTERS IS

LF = 0.25 (STANDARD)

LF = 0.14 (SPECIAL)

Where:

LF = Loss Factor

N = Number of Sections

% 3dB BW:

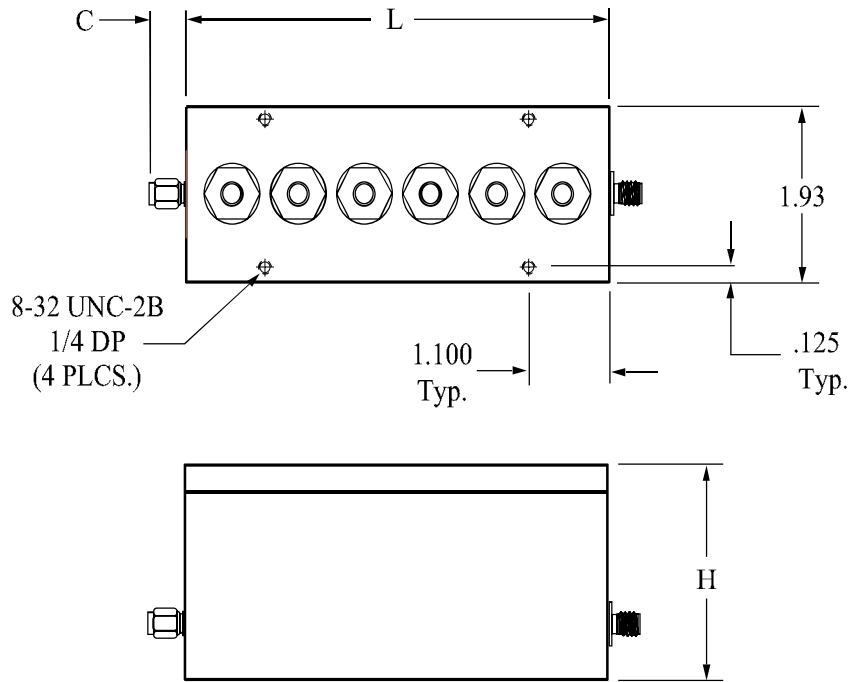
$$\frac{3dB \text{ BW (MHz)} \times 100}{\text{CENTER FREQUENCY (MHz)}}$$

Example:

A 3 section 4C with a center frequency of 1000 MHz and a 3dB BW of 20 MHz would be:

$$\frac{0.25 \times 3.5}{2} = 0.43$$

$$0.43 + 0.1 = 0.53dB$$



L DIMENSION = 1.875 x (# of Sections) + 0.2 inch Approximately

$$H \text{ DIMENSION} = \frac{2600}{F_c \text{ (MHz)}} + 0.75 \text{ inch Approximately}$$

CONNECTORS AVAILABLE ON 4C SERIES:

TYPE	DIMENSIONS		TYPE	DIMENSIONS	
	INCHES	MM		INCHES	MM
SMA JACK	.375	9.5	N JACK	.736	18.7
SMA PLUG	.507	12.9	N PLUG	.819	20.8
TNC JACK	.750	19.1	SPECIAL		
TNC PLUG	.844	21.4			

*Not recommended for use with this series.

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 Lark Engineering. This will enable Lark to quote the optimum design for your application.