



| | | | | | |
|-----------------|-----|-----|-----|------|-----------|
| 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) | 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 Standard |
| Maximum Input Power (Peak) (Watts to 10,000 ft.) | $\frac{1500 \times 3\text{dB BW (MHz)}}{F_c \text{ (MHz)}}$ | 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 | -25°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 Lark Engineering

INSERTION LOSS:

The maximum Insertion Loss at center frequency is equal to:

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

Where:

LF = Loss Factor
N = Number of Sections

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

Example:

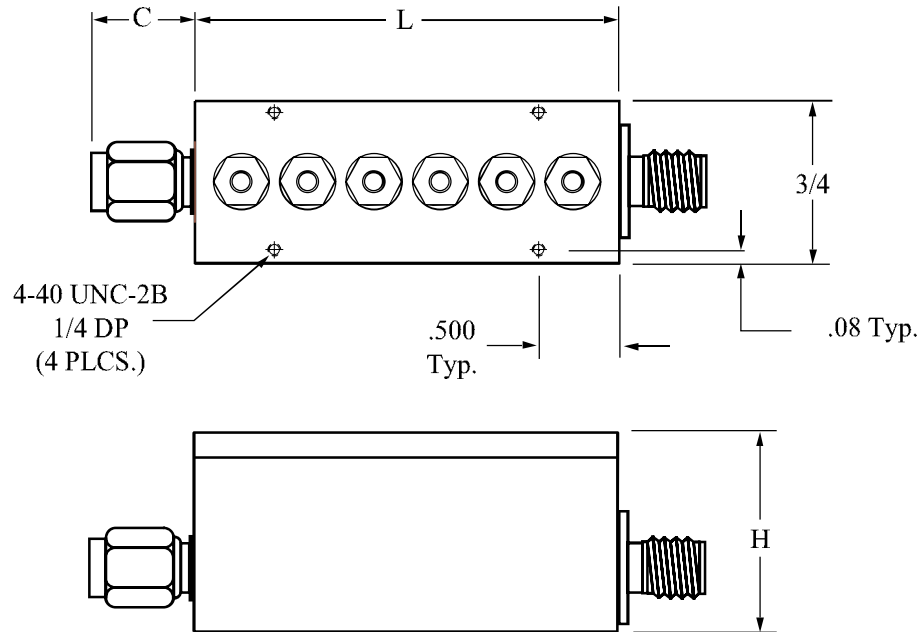
A 4 section 6C with a center frequency of 3000 MHz and a 3dB BW of 40 MHz would be:

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

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

LOSS FACTOR FOR ALL 6C SERIES FILTERS IS

$$LF = 0.4$$



L DIMENSION = 0.7 x (# of Sections) + 0.37 inch Approximately

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

CONNECTORS AVAILABLE ON 6C 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 |
| | | | SPECIAL | | |

*Not recommended for use with this filters

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.