

# Coaxial Low Pass Filter

DC to 450 MHz (40 dB Isolation up to 20 GHz)

**NEW!**  
VLFX-450

## Maximum Ratings

Operating Temperature -55°C to 100°C

Storage Temperature -55°C to 100°C

RF Power Input\* 10W max. at 25°C

\*Passband rating, derate linearly to 3.5W at 100°C ambient.

## Features

- very good isolation, 40 dB up to 20 GHz
- 21 sections
- temperature stable LTCC internal structure
- patent pending
- re-entry frequency > 20 GHz
- rugged stainless steel unibody

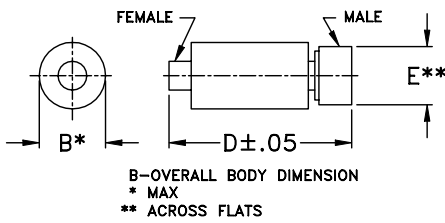


CASE STYLE: FF1118  
PRICE: \$ 39.95 ea. QTY (1-9)

## Applications

- harmonic rejection
- transmitters/receivers
- lab use
- test instrumentation

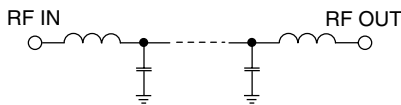
## Outline Drawing



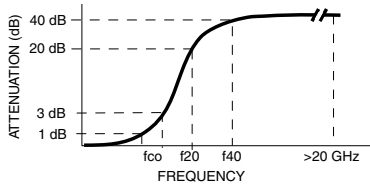
## Outline Dimensions (inch/mm)

| B    | D     | E    | wt.   |
|------|-------|------|-------|
| .39  | 2.67  | .312 | grams |
| 9.91 | 67.82 | 7.92 | 17.0  |

## Functional Schematic



## Typical Frequency Response



## Low Pass Filter Electrical Specifications @ 25°C

| MODEL NO. | PASSBAND (MHz)<br>(Loss < 1.2dB)<br>Max. | fco, MHz<br>Nom<br>(Loss 3 dB)<br>Typ | STOPBAND (MHz)<br>(Loss, dB) |             | VSWR (:1)        |                  | NO. OF SECTIONS |
|-----------|--|---------------------------------------|------------------------------|-------------|------------------|------------------|-----------------|
|           |  |                                       | f20<br>Min.                  | f40<br>Typ. | Stopband<br>Typ. | Passband<br>Typ. |                 |
| VLFX-450  | DC-450                                   | 640                                   | 780                          | 950-20000   | 10               | 1.15             | 21              |

## Typical Performance Data @ 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) |
|-----------------|---------------------|-----------|
| 50              | 0.31                | 1.06      |
| 175             | 0.45                | 1.13      |
| 300             | 0.71                | 1.09      |
| 450             | 1.00                | 1.09      |
| 500             | 1.21                | 1.18      |
| 575             | 1.84                | 1.38      |
| 640             | 2.93                | 1.45      |
| 685             | 5.85                | 1.71      |
| 750             | 18.23               | 4.33      |
| 850             | 42.71               | 8.60      |
| 1000            | 39.56               | 12.52     |
| 2000            | 65.26               | 44.38     |
| 4000            | 78.45               | 76.01     |
| 6000            | 69.29               | 49.69     |
| 8000            | 69.23               | 49.14     |
| 10000           | 97.72               | 23.84     |
| 12000           | 70.90               | 2.73      |
| 16000           | 70.44               | 11.13     |
| 18000           | 67.17               | 1.71      |
| 20000           | 60.16               | 8.17      |

