

Coaxial

# Low Pass Filter

DC to 80 MHz (40 dB Isolation up to 20 GHz)

**NEW!**  
**VLFX-80**

## 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

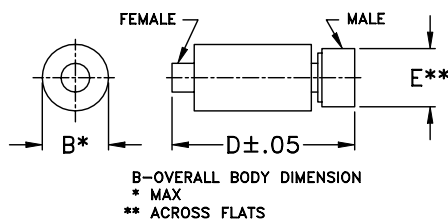
- very good isolation, 40 dB up to 20 GHz
- 21 sections
- temperature stable LTCC internal structure
- patent pending
- re-entry frequency > 20 GHz
- rugged stainless steel unibody


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

## Applications

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

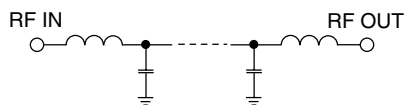
## Outline Drawing



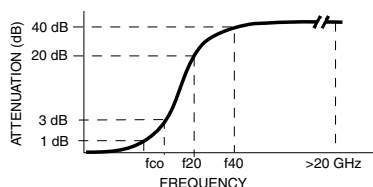
## Outline Dimensions (inch)

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

## Functional Schematic



## Typical Frequency Response

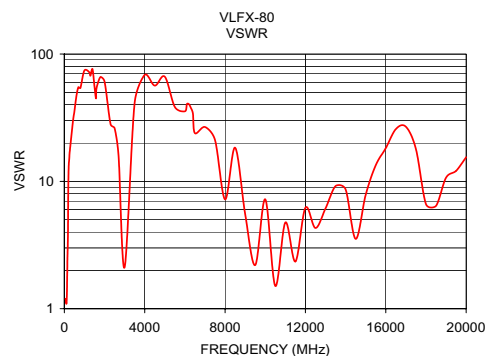
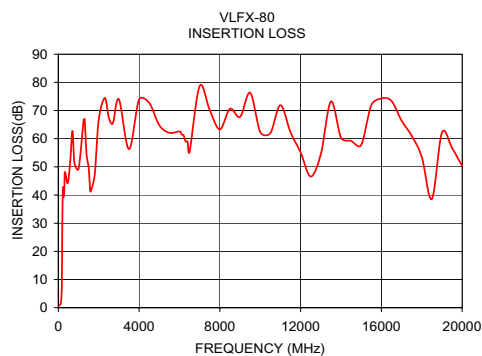


## Low Pass Filter Electrical Specifications @ 25°C

| 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-80   | DC-80                                    | 145                                   | 195                          | 300-20000   | 10               | 1.2              | 21              |

## Typical Performance Data @ 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) |
|-----------------|---------------------|-----------|
| 50              | 0.75                | 1.19      |
| 65              | 0.88                | 1.19      |
| 80              | 0.98                | 1.17      |
| 90              | 1.08                | 1.12      |
| 100             | 1.17                | 1.09      |
| 120             | 1.62                | 1.20      |
| 145             | 3.08                | 1.98      |
| 160             | 4.90                | 2.75      |
| 185             | 19.79               | 5.32      |
| 220             | 41.24               | 13.35     |
| 300             | 42.63               | 19.05     |
| 400             | 45.66               | 26.84     |
| 500             | 45.31               | 35.47     |
| 1000            | 49.28               | 74.28     |
| 2500            | 67.46               | 26.17     |
| 5000            | 64.78               | 66.41     |
| 7500            | 70.16               | 21.10     |
| 10000           | 62.34               | 7.22      |
| 15000           | 57.77               | 7.86      |
| 20000           | 50.35               | 15.48     |


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