

# Coaxial Low Pass Filter

50Ω

DC to 490 MHz

VLF-490+  
VLF-490



## Maximum Ratings

|                            |                   |
|----------------------------|-------------------|
| Operating Temperature      | -55°C to 100°C    |
| Storage Temperature        | -55°C to 100°C    |
| RF Power Input*            | 8.5W max. at 25°C |
| DC Current Input to Output | 0.5A max. at 25°C |

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

## Features

- rugged uni-body construction, small size
- 7 sections
- excellent power handling, 8.5W
- temperature stable
- low cost
- protected by U.S. Patent 6,943,646

## Applications

- harmonic rejection
- transmitters/receivers
- lab use

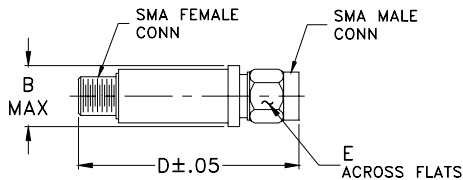
CASE STYLE: FF704

| Connectors | Model      | Price       | Qty.  |
|------------|------------|-------------|-------|
| SMA        | VLF-490(+) | \$21.95 ea. | (1-9) |

**+ RoHS compliant in accordance with EU Directive (2002/95/EC)**

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

## Outline Drawing



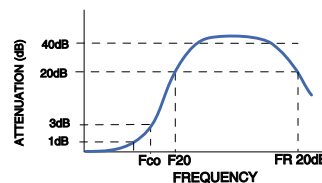
## Outline Dimensions (inch/mm)

| B     | D     | E    | wt    |
|-------|-------|------|-------|
| .410  | 1.43  | .312 | grams |
| 10.41 | 36.32 | 7.92 | 10.0  |

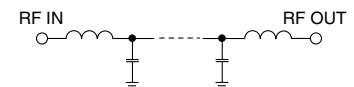
## Electrical Specifications (T<sub>AMB</sub>=25°C)

| PASSBAND<br>(MHz)<br>(loss < 1.2 dB) | fco, MHz<br>Nom.<br>(loss 3 dB) | STOP BAND (MHz)<br>(loss, dB) |          |       | VSWR<br>(:1) |          | NO. OF<br>SECTIONS |
|--------------------------------------|---------------------------------|-------------------------------|----------|-------|--------------|----------|--------------------|
|                                      |                                 | f 20                          | 40       | fr 20 | Stopband     | Passband |                    |
| Max.                                 | Typ.                            | Min.                          | Typ.     | Typ.  | Typ.         | Typ.     |                    |
| DC-490                               | 650                             | 800                           | 880-2500 | 6000  | 20           | 1.2      | 7                  |

## typical frequency response

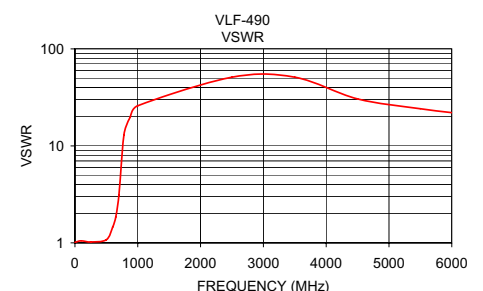
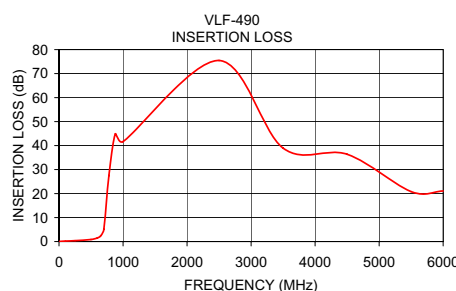


## electrical schematic



## Typical Performance Data at 25°C

| Frequency<br>(MHz) | Insertion Loss<br>(dB) | VSWR<br>(:1) |
|--------------------|------------------------|--------------|
| 1.00               | 0.05                   | 1.01         |
| 100.00             | 0.22                   | 1.05         |
| 250.00             | 0.39                   | 1.02         |
| 500.00             | 0.86                   | 1.07         |
| 600.00             | 1.52                   | 1.45         |
| 650.00             | 2.37                   | 1.85         |
| 700.00             | 5.08                   | 3.10         |
| 780.00             | 27.49                  | 12.99        |
| 880.00             | 44.92                  | 19.76        |
| 1000.00            | 41.68                  | 25.94        |
| 2500.00            | 75.47                  | 51.10        |
| 3500.00            | 38.94                  | 51.10        |
| 4500.00            | 36.38                  | 30.49        |
| 5500.00            | 20.80                  | 24.14        |
| 6000.00            | 21.07                  | 22.00        |



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