

# Coaxial Low Pass Filter

50Ω

\*DC to 1800 MHz

VLF-1800+  
VLF-1800

## Maximum Ratings

|                            |                   |
|----------------------------|-------------------|
| Operating Temperature      | -55°C to 100°C    |
| Storage Temperature        | -55°C to 100°C    |
| RF Power Input*            | 10W 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.  
Permanent damage may occur if any of these limits are exceeded.

## Features

- rugged uni-body construction, small size
- 7 sections
- excellent power handling, 10W
- temperature stable
- low cost
- protected by U.S. Patent 6,943,646

## Applications

- harmonic rejection
- transmitters/receivers
- lab use



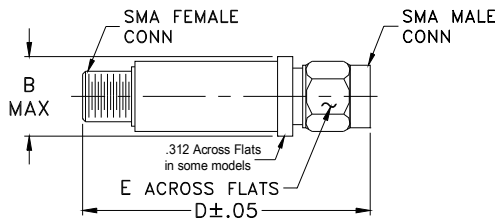
CASE STYLE: FF704

| Connectors | Model       | Price       | Qty.  |
|------------|-------------|-------------|-------|
| SMA        | VLF-1800(+) | \$21.95 ea. | (1-9) |

## +RoHS Compliant

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

## Outline Drawing



## Outline Dimensions (inch/mm)

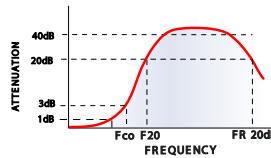
| B     | D     | E    | wt    |
|-------|-------|------|-------|
| .410  | 1.43  | .312 | grams |
| 10.41 | 36.32 | 7.92 | 10.0  |

## Electrical Specifications at 25°C

| PASSBAND (MHz) | fco, MHz Nom. | STOP BAND (MHz) (loss, dB) | VSWR (:1)         | NO. OF SECTIONS |
|----------------|---------------|----------------------------|-------------------|-----------------|
| (loss < 1 dB)  | (loss 3 dB)   | f 20 30 fr 20              | Stopband Passband |                 |
| Max.           | Typ.          | Min. Typ. Typ.             | Typ. Typ.         |                 |
| *DC-1800       | 2125          | 2425 2500-7200 8600        | 20 1.2            | 7               |

\* Not for use with DC voltage at input and output ports

## typical frequency response

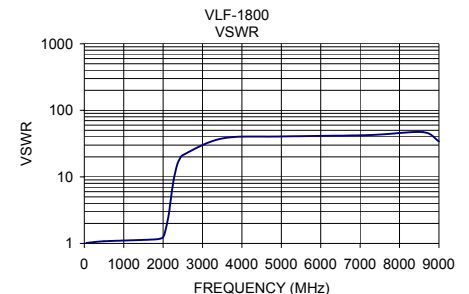
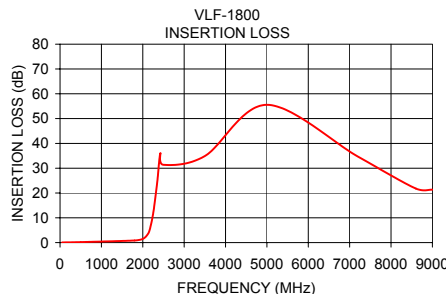


## electrical schematic



## Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) |
|-----------------|---------------------|-----------|
| 50              | 0.05                | 1.02      |
| 500             | 0.19                | 1.08      |
| 1800            | 0.85                | 1.15      |
| 2000            | 1.47                | 1.24      |
| 2125            | 3.50                | 2.38      |
| 2180            | 6.02                | 3.95      |
| 2260            | 12.64               | 8.47      |
| 2350            | 24.51               | 14.87     |
| 2425            | 35.98               | 18.70     |
| 2500            | 31.35               | 21.20     |
| 3500            | 34.91               | 37.77     |
| 5000            | 55.54               | 40.41     |
| 7200            | 34.68               | 42.38     |
| 8600            | 21.81               | 46.96     |
| 9000            | 21.33               | 34.07     |



**Mini-Circuits®**  
ISO 9001 ISO 14001 AS 9100 CERTIFIED

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IF/RF MICROWAVE COMPONENTS

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp).

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