

Low Pass Filter

VLF-3800+

50Ω *DC to 3900 MHz

Maximum Ratings

| | |
|----------------------------|-------------------|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature | -55°C to 100°C |
| RF Power Input* | 8W at 25°C |
| DC Current Input to Output | 0.5A max. at 25°C |

*Passband rating, derate linearly to 3 W 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, 8W
- Temperature stable
- Low cost
- Protected by US patent 6,943,646

Applications

- Harmonic rejection
- Transmitters/receivers
- Lab use



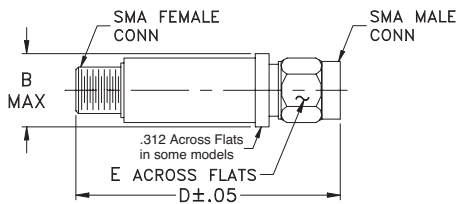
CASE STYLE: FF704

| Connectors | Model | Price | Qty. |
|------------|-----------|--------------|-------|
| SMA | VLF-3800+ | \$ 21.95 ea. | (1-9) |

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

The +suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Outline Drawing



Outline Dimensions (inch mm)

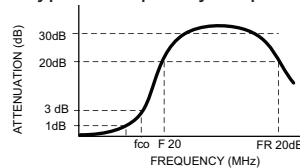
| B | D | E | wt. |
|-------|-------|------|-------|
| .410 | 1.43 | .312 | grams |
| 10.41 | 36.32 | 7.92 | 10 |

Low Pass Filter Electrical Specifications (T_{AMB} = 25°C)

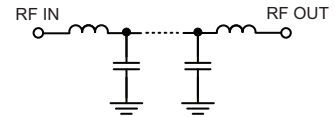
| PASSBAND (MHz) (loss < 1 dB) Max. | f _{co} , MHz Nom. (loss 3 dB) Typ. | STOP BAND (MHz) (loss, dB) | | | VSWR (:1) | | NO. OF SECTIONS |
|---|--|-------------------------------|------------|---------------|------------------|------------------|-----------------|
| | | F 20 Min. | 30 Typ. | FR 20 Typ. | Stopband Typ. | Passband Typ. | |
| *DC-3900 | 4850 | 6000 | 5700-8300 | 13000 | 17 | 1.3 | 7 |

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

Typical frequency response

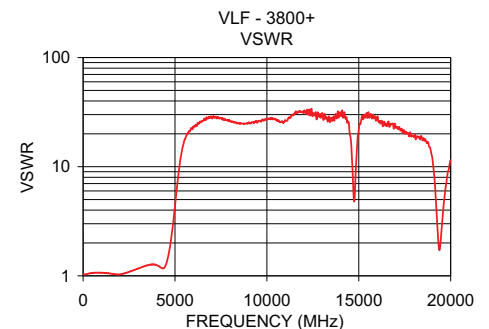
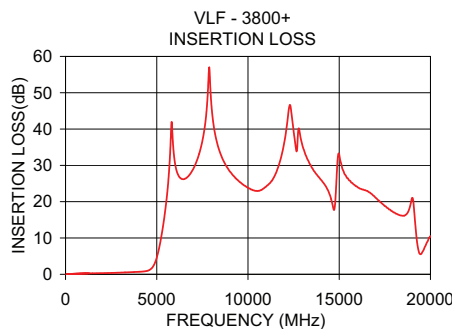


Electrical schematic



Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) |
|-----------------|---------------------|-----------|
| 40 | 0.01 | 1.03 |
| 1550 | 0.28 | 1.04 |
| 3060 | 0.47 | 1.18 |
| 3900 | 0.65 | 1.27 |
| 4510 | 1.00 | 1.27 |
| 4760 | 1.87 | 2.01 |
| 4850 | 2.60 | 2.60 |
| 4930 | 3.55 | 3.39 |
| 5120 | 7.00 | 6.76 |
| 5380 | 14.48 | 14.03 |
| 5700 | 30.38 | 20.22 |
| 6000 | 30.58 | 22.87 |
| 8300 | 36.33 | 25.56 |
| 13000 | 35.19 | 31.03 |
| 20000 | 10.55 | 11.46 |



For detailed performance specs & shopping online see web site

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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.