

Low Pass Filter

50Ω *DC to 6400 MHz

VLF-6400+



CASE STYLE: FF704

| | |
|------------|-----------|
| Connectors | Model |
| SMA | VLF-6400+ |

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

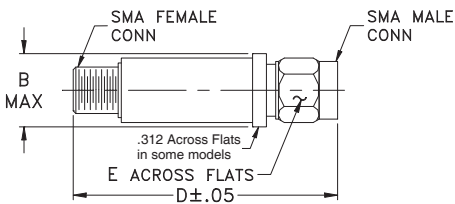
- Rugged uni-body construction, small size
- 7 sections
- Excellent power handling, 8W
- Temperature stable
- Low cost
- Protected by US patent 6,943,646

Applications

- Harmonic rejection
- Transmitters/receivers
- Lab use

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

Outline Drawing



Outline Dimensions (inch/mm)

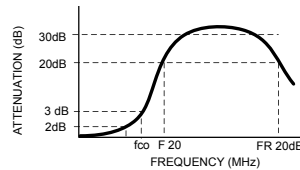
| | | | |
|-------|-------|------|-------|
| B | D | E | wt. |
| .410 | 1.43 | .312 | grams |
| 10.41 | 36.32 | 7.92 | 10 |

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

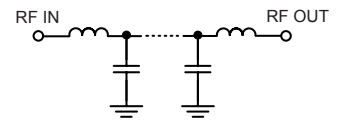
| PASSBAND (MHz) (loss < 2 dB) Max. | fco, MHz Nom. (loss 3 dB) Typ. | STOP BAND (MHz) (loss, dB) | | | VSWR (:1) | | NO. OF SECTIONS |
|---|---|-------------------------------|--------------|---------------|------------------|------------------|-----------------|
| | | F 20 Min. | 30 Typ. | FR 20 Typ. | Stopband Typ. | Passband Typ. | |
| *DC - 6400 | 7200 | 8300 | 7770 - 10200 | 12500 | 17 | 1.2 | 7 |

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

Typical frequency response



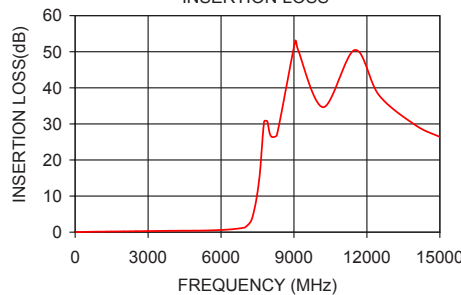
Electrical schematic



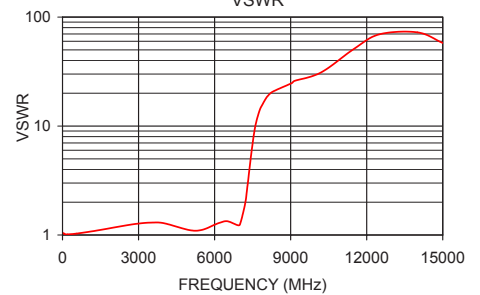
Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) |
|-----------------|---------------------|-----------|
| 40 | 0.06 | 1.04 |
| 500 | 0.08 | 1.03 |
| 2000 | 0.22 | 1.17 |
| 4000 | 0.39 | 1.28 |
| 5500 | 0.48 | 1.11 |
| 6400 | 0.79 | 1.33 |
| 7000 | 1.41 | 1.25 |
| 7200 | 2.73 | 1.92 |
| 7350 | 5.61 | 3.58 |
| 7500 | 11.17 | 6.94 |
| 7680 | 22.01 | 11.77 |
| 7770 | 30.63 | 13.81 |
| 8300 | 26.96 | 20.70 |
| 10200 | 34.63 | 31.03 |
| 11000 | 39.63 | 40.41 |
| 12500 | 37.94 | 69.49 |
| 15000 | 26.38 | 57.91 |

VLF-6400+
INSERTION LOSS



VLF-6400+
VSWR



Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document 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

