

Coaxial Low Pass Filter

VLFG-2750+

50Ω DC to 2750 MHz



Generic photo used for illustration purposes only
CASE STYLE: FF704

The Big Deal

- Excellent power handling, 4.5W
- Temperature stable
- Rugged unibody construction
- Good rejection, 42 dB typical

Product Overview

VLFG-2750+ is a 50Ω low pass filter built in rugged unibody construction. Covering DC-2750 MHz bandwidth, these units offer good matching within the passband and good rejection in stopband. VLFG-2750+ offer low insertion loss, and excellent power handling capability. It handles up to 4.5W RF input power and provides a wide operating temperature range from -55°C to 125°C.

Key Features

| Feature | Advantages |
|-----------------------------|--|
| Low passband insertion loss | Suitable for high performance application. |
| 4.5W Power handling | Supports a range of system power requirements. |
| Connectorized package | The connectorized package is easy to interface with other devices and well suited for test setups. |

Notes

- A. 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.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. 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



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

Features

- Low loss, 1.2 dB typical
- Good rejection 42 dB typical
- Excellent power handling, 4.5W
- Temperature stable
- Connectorized package
- Rugged unibody construction

Applications

- Military radar applications
- Test and measurement
- Telecommunication and broadband wireless applications

Electrical Specifications at 25°C

| Parameter | F# | Frequency (MHz) | Min. | Typ. | Max. | Unit | |
|-----------|----------------|-----------------|---------------|------|------|------|----|
| Pass Band | Insertion Loss | DC-F1 | DC - 2750 | — | 1.2 | 2 | dB |
| | Freq. Cut-Off | F2* | 3150 | — | 3.0 | — | dB |
| | Return Loss | DC-F1 | DC - 2750 | — | 16 | — | dB |
| Stop Band | Rejection Loss | F3-F4 | 4000 - 4350 | 20 | 40 | — | dB |
| | | F4-F5 | 4350 - 7200 | 33 | 42 | — | dB |
| | | F5-F6 | 7200 - 10000 | — | 30 | — | dB |
| | | F6-F7 | 10000 - 16000 | — | 25 | — | dB |

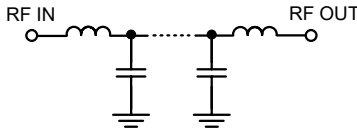
In Application where DC voltage is present at either input or output port, DC blocks are required.
* Typically, a ±5% frequency deviation from the stated value may occur on a unit-to-unit basis.

Maximum Ratings

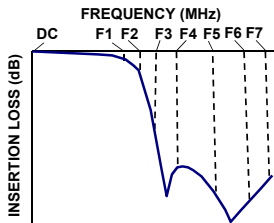
| | |
|-----------------------|-----------------|
| Operating Temperature | -55°C to 125°C |
| Storage Temperature | -55°C to 125°C |
| RF Power Input* | 4.5W max. @25°C |

*Passband rating, derate linearly to 1W at 125°C ambient
Permanent damage may occur if any of these limits are exceeded.

Functional Schematic

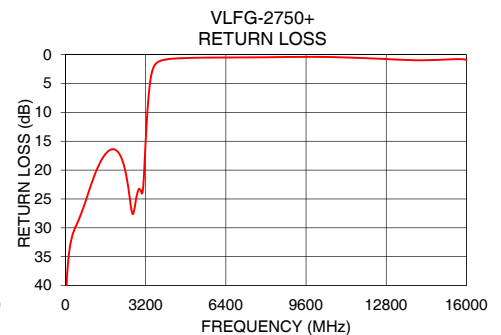
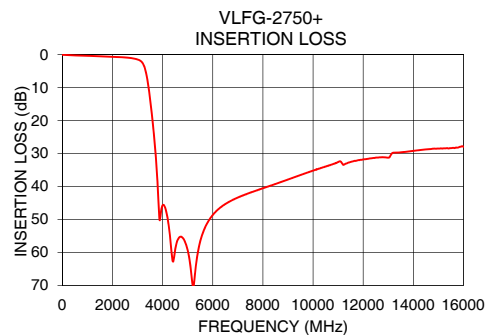
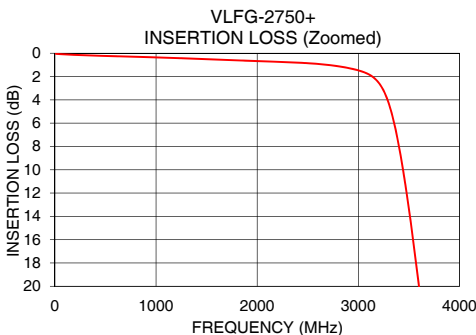


Typical Frequency Response



Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | Return Loss (dB) |
|-----------------|---------------------|------------------|
| 10 | 0.05 | 45.23 |
| 100 | 0.10 | 36.11 |
| 1000 | 0.36 | 22.81 |
| 1400 | 0.47 | 18.54 |
| 1800 | 0.61 | 16.47 |
| 2750 | 1.06 | 26.71 |
| 3150 | 2.08 | 19.35 |
| 3220 | 2.76 | 13.36 |
| 3500 | 13.38 | 2.34 |
| 3600 | 20.11 | 1.59 |
| 3730 | 31.10 | 1.17 |
| 4000 | 45.70 | 0.83 |
| 4300 | 55.45 | 0.69 |
| 4350 | 59.44 | 0.67 |
| 7200 | 42.68 | 0.47 |
| 8000 | 40.54 | 0.45 |
| 10000 | 35.18 | 0.38 |
| 12000 | 31.77 | 0.61 |
| 15000 | 28.48 | 0.88 |
| 16000 | 27.92 | 0.88 |



Notes

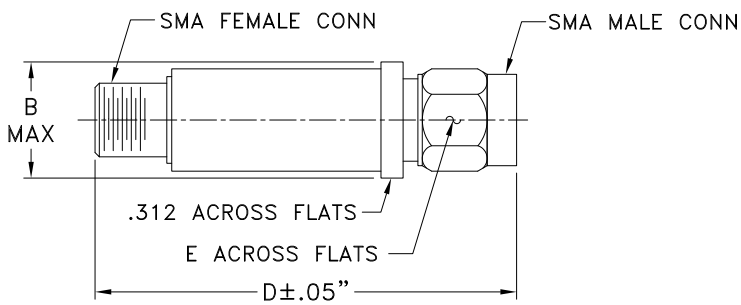
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Coaxial Connections

| | |
|----------|------------|
| PORT - 1 | SMA-Male |
| PORT - 2 | SMA-Female |

Outline Drawing



Outline Dimensions (inch / mm)

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

Note: Please refer to case style drawing for details

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