

# Coaxial Low Pass Filter

## VLFG-4800+

50Ω DC to 4800 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-4800+ is a 50Ω low pass filter built in rugged unibody construction. Covering DC-4800 MHz bandwidth, these units offer good matching within the passband and good rejection in stopband. VLFG-4800+ 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](http://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, 1.2dB typ.
- Very good rejection 42dB typ.
- Excellent power handling, 4.5W
- Temperature stable
- Connectorized package
- Rugged unibody construction

### Applications

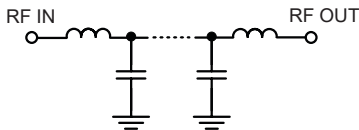
- Military radar applications
- Test and measurement
- 5G Sub 6 Telecom
- Telecommunications and broadband wireless applications

### Electrical Specifications at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
<b>Pass Band</b>	Insertion Loss	DC-F1	—	1.2	1.7	dB
	Freq. Cut-Off	F2*	5600	—	3.0	dB
	Return Loss	DC-F1	DC - 4800	—	12	dB
<b>Stop Band</b>	Rejection Loss	F3-F4	6700 - 7200	20	34	dB
		F4-F5	7200 - 9300	30	42	dB
		F5-F6	9300 - 12500	22	29	dB
		F6-F7	12500 - 18000	—	20	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.

### Functional Schematic



### Maximum Ratings

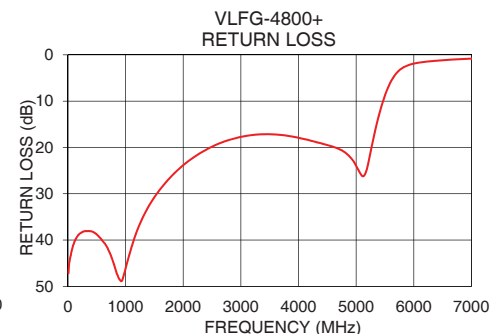
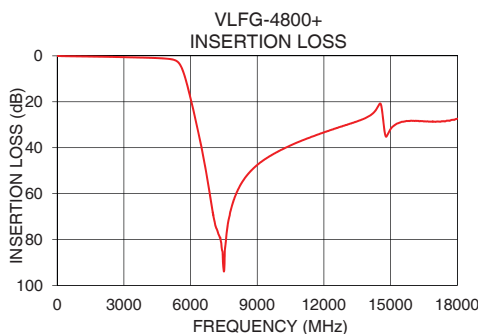
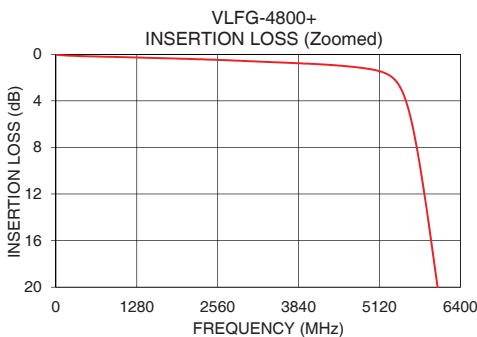
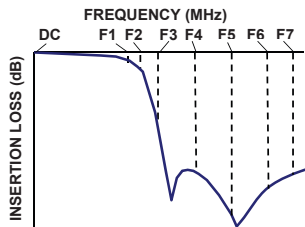
Operating Temperature	-55°C to 125°C
Storage Temperature	-55°C to 125°C
RF Power Input*	4.5W max. @25°C

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

### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)
10	0.05	47.15
100	0.08	40.87
500	0.17	38.79
1000	0.24	46.18
1500	0.31	30.74
2000	0.38	23.83
3000	0.58	17.73
4800	1.14	21.02
5460	2.98	10.25
5600	5.20	5.83
6040	20.15	1.79
6280	30.23	1.39
6700	50.63	1.01
7200	76.03	0.74
8000	61.34	0.54
9300	45.35	0.55
11000	36.94	0.50
12500	31.70	0.55
15000	31.91	1.22
18000	27.39	0.91

### Typical Frequency Response



#### Notes

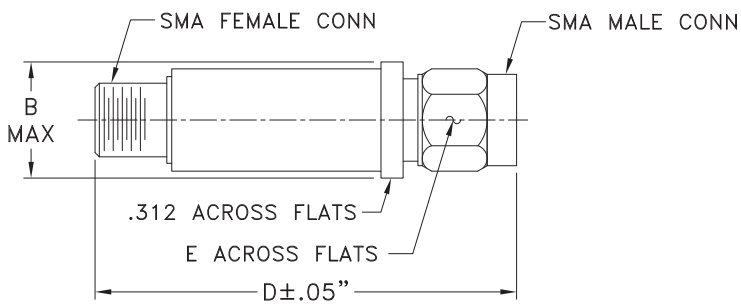
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**Coaxial Connections**

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

**Outline Drawing**



**Outline Dimensions ( inch )**

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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