Coaxial

Low Pass Filter

VLFG-3000+

50Ω DC to 3000 MHz

Generic photo used for illustration purposes only

CASE STYLE: FF704

The Big Deal

- Excellent power handling, 6W
- Temperature stable
- Rugged unibody construction
- Very good rejection, 50 dB typical

Product Overview

VLFG-3000+ is a 50Ω low pass filter built in rugged unibody construction. Covering DC-3000 MHz bandwidth, these units offer good matching within the passband and good rejection in stopband. VLFG-3000+ offer low insertion loss, and excellent power handling capability. It handles up to 6W RF input power and provides a wide operating temperature range from -55°C to 100°C.

Key Features

Feature	Advantages
Low passband insertion loss	Suitable for high performance application.
6W 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.

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

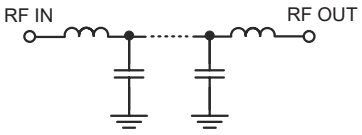
Features

- Low loss, 1.4 dB typical
- Good rejection 50 dB typical
- Excellent power handling, 6W
- Temperature stable
- Connectorized package
- Rugged unibody construction

Applications

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

Functional Schematic



Electrical Specifications at 25°C

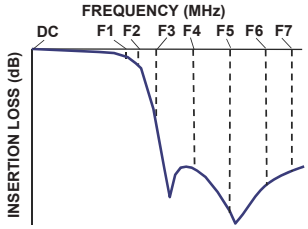
Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-F1	DC - 3000	—	1.4	2.2	dB
	Freq. Cut-Off	F2	3460	—	3.0	—	dB
	Return Loss	DC-F1	DC - 3000	—	16	—	dB
Stop Band	Rejection Loss	F3-F4	4550 - 4800	20	50	—	dB
		F4-F5	4800 - 7000	35	45	—	dB
		F5-F6	7000 - 11000	—	30	—	dB
		F6-F7	11000 - 15000	—	25	—	dB

In Application where DC voltage is present at either input or output port, DC blocks are required.

Maximum Ratings	
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	6W max.@25°C

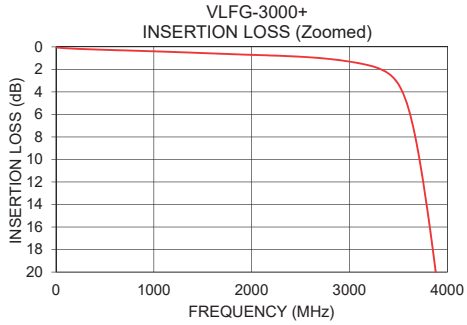
*Passband rating, derate linearly to 3W at 100°C ambient
Permanent damage may occur if any of these limits are exceeded.

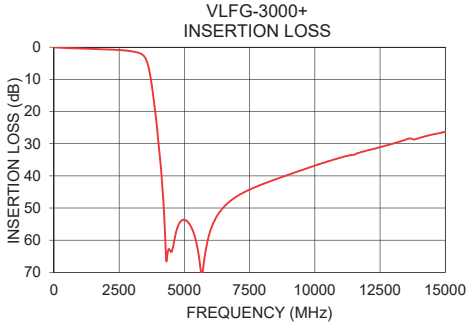
Typical Frequency Response

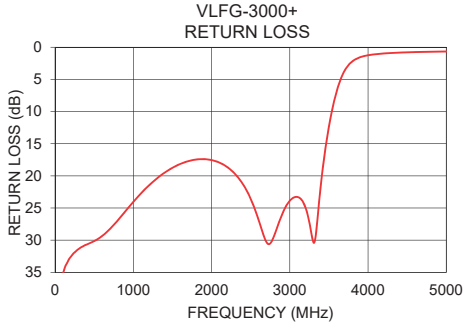


Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)
10	0.06	42.21
100	0.12	35.18
1000	0.39	24.05
1400	0.52	19.50
1800	0.65	17.47
3000	1.31	23.86
3460	2.85	15.35
3500	3.32	12.35
3880	19.92	1.64
4000	28.81	1.25
4550	62.53	0.77
4600	60.58	0.76
4800	54.80	0.70
5000	53.65	0.66
7000	46.42	0.52
10000	36.80	0.44
11000	34.31	0.47
12000	32.12	0.62
13000	29.98	0.92
15000	26.30	1.48





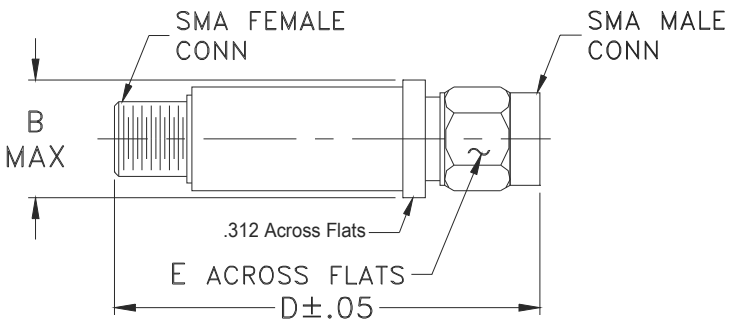


Notes
A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's 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

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