

# Coaxial Low Pass Filter

## VLFG-1200+

50Ω DC to 1200 MHz



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CASE STYLE: FF704

### The Big Deal

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

### Product Overview

VLFG-1200+ is a 50Ω low pass filter built in rugged unibody construction. Covering DC-1200 MHz bandwidth, these units offer good matching within the passband and good rejection in stopband. VLFG-1200+ 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.

#### 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.  
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50Ω

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**+RoHS Compliant**

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

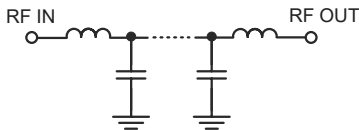
## Features

- Low loss, 1.0 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 - 1200	—	1.0	1.8	dB
	Freq. Cut-Off	F2	1470	—	3.0	—	dB
	Return Loss	DC-F1	DC - 1200	—	24	—	dB
Stop Band	Rejection Loss	F3-F4	1865 - 2000	20	50	—	dB
		F4-F5	2000 - 3700	40	50	—	dB
		F5-F6	3700 - 7000	28	40	—	dB
		F6-F7	7000 - 10000	—	30	—	dB

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

## Maximum Ratings

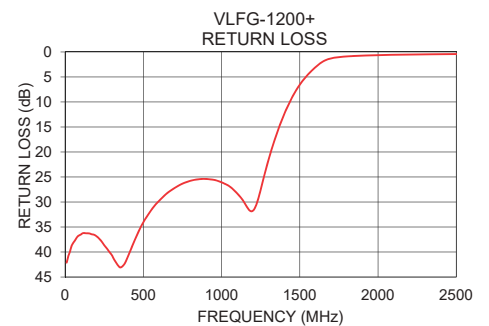
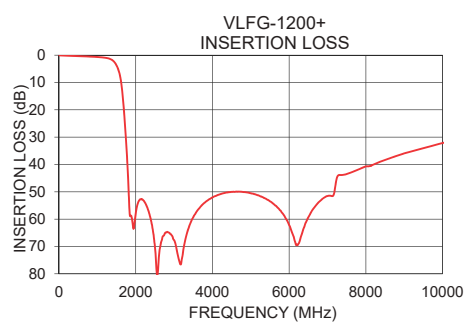
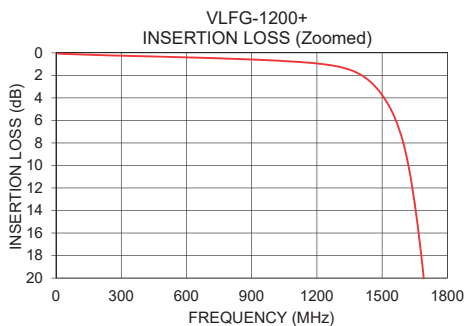
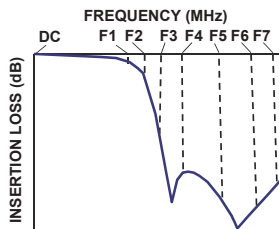
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	6W max. @25°C

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

## Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)
10	0.07	42.12
100	0.14	36.51
400	0.30	41.00
600	0.40	29.78
1000	0.67	26.07
1200	0.94	31.75
1300	1.23	21.58
1470	3.02	8.01
1650	13.39	1.87
1700	21.50	1.28
1750	31.72	1.03
1865	58.83	0.78
1900	59.68	0.73
2000	57.95	0.64
3700	55.26	0.39
5000	50.52	0.41
7000	51.55	0.45
8000	40.70	0.46
9000	35.93	0.46
10000	32.14	0.58

## Typical Frequency Response



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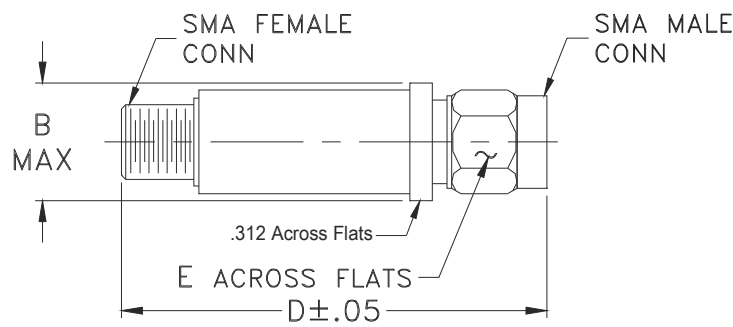
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Coaxial Connections

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

Outline Drawing



Outline Dimensions ( <sup>inch</sup> <sub>mm</sub> )

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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