

# Coaxial Low Pass Filter

## VLFG-400+

50Ω

DC to 400 MHz



*Generic photo used for illustration purposes only*

CASE STYLE: FF704

## The Big Deal

- Excellent power handling, 5W
- Temperature stable
- Rugged, unibody construction
- Good rejection, 31 dB typical

## Product Overview

VLFG-400+ is a 50Ω low pass filter built in rugged unibody construction. Covering DC-400 MHz bandwidth, these units offer good matching within the passband and high rejection in stopband. VLFG-400+ offer low insertion loss, and excellent power handling capability. It handles up to 5W 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.
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.  
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**+RoHS Compliant**

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

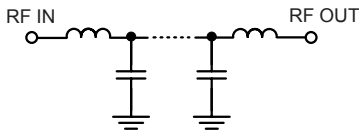
## Features

- Low loss, 1 dB typical
- Good rejection 31 dB typical
- Excellent power handling, 5 W
- Temperature stable
- Connectorized package

## Applications

- Harmonic Rejection
- VHF/UHF transmitters / receivers
- RF suppression for DC lines on PCB
- Anti-aliasing for A/D converter

## Functional Schematic



## Electrical Specifications at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-F1	DC - 400	—	1.0	1.8 dB
	Freq. Cut-Off	F2	520	—	3.0	dB
	VSWR	DC-F1	DC - 400	—	1.3	:1
Stop Band	Rejection Loss	F3-F4	800 - 2500	25	31	dB
		F4-F5	2500 - 4500	—	23	dB
	VSWR	F3-F5	800 - 4500	—	20	:1

### Maximum Ratings

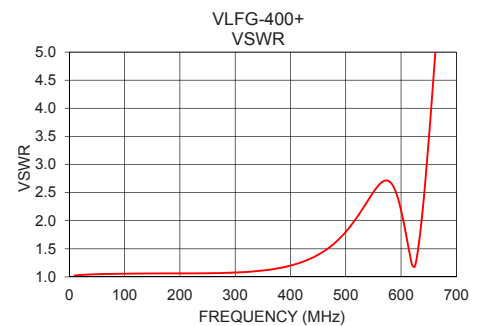
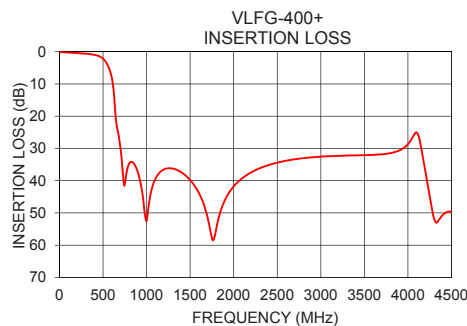
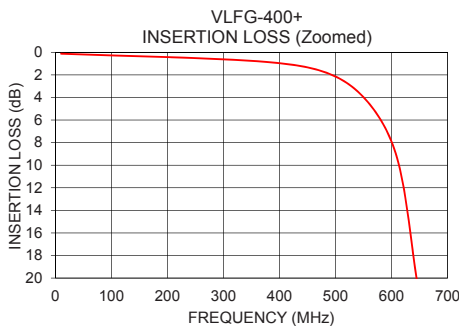
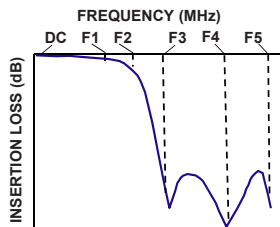
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	5 W max. @ 25°C

\*Passband rating, derate linearly to 2.5 W 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)	VSWR (:1)
10	0.12	1.03
50	0.20	1.05
100	0.27	1.07
200	0.42	1.09
400	0.96	1.20
500	2.14	1.85
520	2.71	2.16
530	3.07	2.34
645	20.16	7.05
705	30.86	9.77
800	34.73	13.27
900	37.41	17.92
1000	52.52	23.50
1500	39.81	45.39
2000	41.77	51.10
2500	34.41	52.52
3000	32.54	53.19
3500	32.10	52.75
4000	28.67	46.64
4500	49.60	48.59

## Typical Frequency Response



### Notes

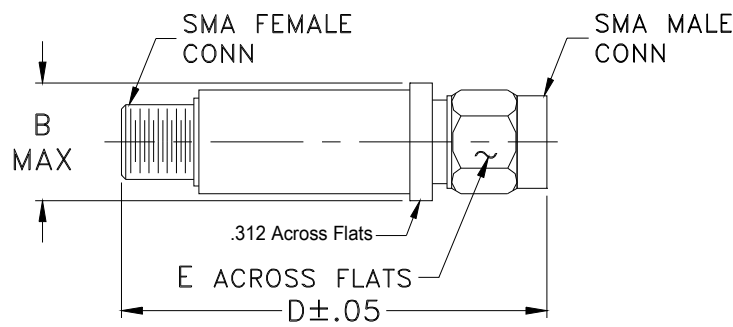
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Coaxial Connections

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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