

# Coaxial Low Pass Filter

## VLF-8400+

50Ω DC to 8400 MHz

### The Big Deal

- Excellent power handling, 8W
- Temperature stable
- Rugged unibody construction



CASE STYLE: FF704

### Product Overview

VLF-8400+ is a 50Ω low pass filter built in rugged unibody construction. Covering DC-8400 MHz bandwidth, these units offer good matching within the passband and high rejection in stopband. VLF-8400+ offer low insertion loss, and excellent power handling capability.

### Key Features

Feature	Advantages
Low passband insertion loss	Suitable for high performance application
8W 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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# Low Pass Filter

50Ω DC to 8400 MHz

## VLF-8400+



CASE STYLE: FF704

Connectors	Model
SMA	VLF-8400+

### Features

- Rugged uni-body construction, small size
- Excellent power handling, 8W
- Temperature stable
- Protected by US patent 6,943,646

### Applications

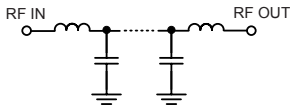
- Harmonic rejection
- VHF/UHF Transmitters / Receivers
- Lab use

### Electrical Specifications<sup>(1)</sup> at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Insertion Loss	DC-F1	DC-8400	—	1.6	1.8	dB
	Freq. Cut-Off	F2	9100	—	3.0	—	dB
	VSWR	DC-F1	DC-8400	—	1.6	—	:1
Stop Band	Insertion Loss	F3	10300	18	20	—	dB
		F3-F4	10300-15000	—	30	—	dB
	VSWR	F3-F4	10300-15000	—	17	—	:1

(1) In Application where DC voltage is present at either input or output ports, coupling capacitors are required.

### Functional Schematic



### Maximum Ratings

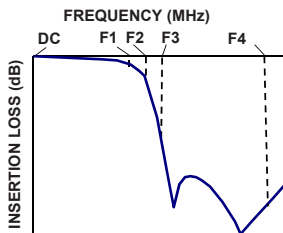
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	8W max. at 25°C

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

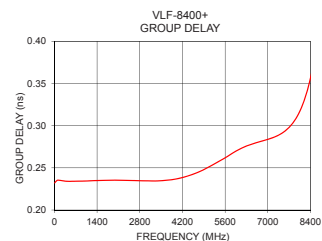
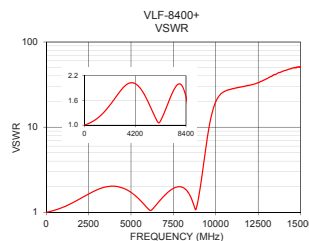
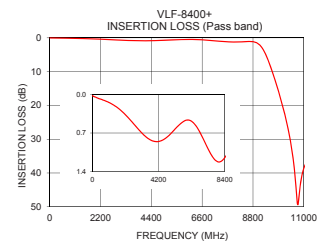
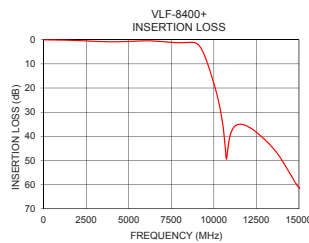
### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (nsec)
10	0.02	1.00	10	0.23
100	0.04	1.01	100	0.24
500	0.08	1.06	500	0.23
1000	0.14	1.15	1000	0.23
2000	0.34	1.45	2000	0.24
4000	0.86	2.03	2500	0.23
8000	1.23	1.98	3000	0.23
8400	1.15	1.68	3500	0.23
9100	2.16	2.05	4000	0.24
9200	3.02	2.81	4500	0.24
9750	12.38	13.85	5000	0.25
10100	20.57	21.79	5500	0.26
10300	26.29	24.58	6000	0.27
10400	29.71	25.42	6500	0.28
11000	38.63	28.25	7000	0.28
11500	34.98	29.64	7500	0.29
12000	35.92	31.17	8000	0.31
13000	41.39	36.90	8100	0.32
14000	49.90	45.60	8200	0.33
15000	61.14	50.27	8400	0.36

### Typical Frequency Response



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



**Notes**

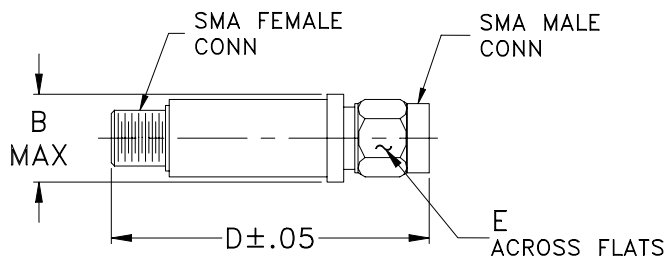
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## Coaxial Connections

INPUT	SMA-Female
OUTPUT	SMA-Male

## Outline Drawing



## Outline Dimensions ( $\frac{\text{inch}}{\text{mm}}$ )

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

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