

# Coaxial Low Pass Filter

## VLF-2350+

50Ω DC to 2350 MHz

### The Big Deal

- Excellent power handling, 9W
- 5 Sections
- Rugged unibody construction



CASE STYLE: FF704

### Product Overview

VLF-2350+ is a 50Ω low pass filter built in rugged unibody construction. Covering DC-2350 MHz bandwidth, these units offer good matching within the passband and high rejection in stopband. VLF-2350+ offer low insertion loss, and excellent power handling capability.

### Key Features

Feature	Advantages
Low passband insertion loss	Suitable for high performance application
9W 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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# Low Pass Filter

## VLF-2350+

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Connectors Model  
SMA VLF-2350+

### Features

- Rugged uni-body construction, small size
- 5 Sections
- Excellent power handling, 9W
- Temperature stable
- Protected by US patent 6,943,646

### Applications

- Harmonic rejection
- 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-2350	—	1	1.6	dB
	Freq. Cut-Off	F2	2700	—	3.0	—	dB
	VSWR	DC-F1	DC-2350	—	1.5	—	:1
Stop Band	Insertion Loss	F3	3600	20	—	—	dB
		F4-F6	3700-4000	—	30	—	dB
	F5	3800	—	40	—	dB	
	F7	5000	—	20	—	dB	
	VSWR	F3-F7	3600-5000	—	20	—	:1

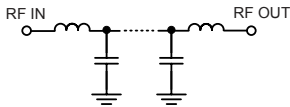
(1) In Application where DC voltage is present at either input or output ports, coupling capacitors are required.

### Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	9W max. at 25°C

\*Passband rating derated linearly to 4W at 100°C ambient. Permanent damage may occur if any of these limits are exceeded.

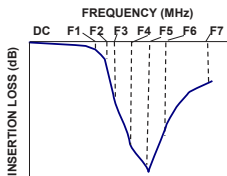
### Functional Schematic



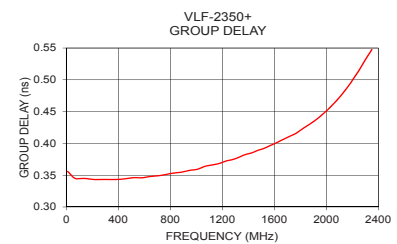
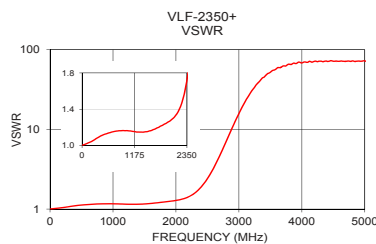
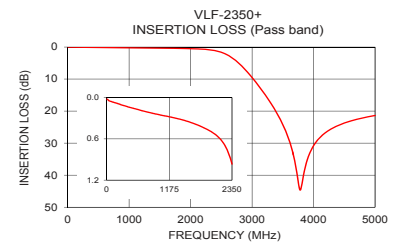
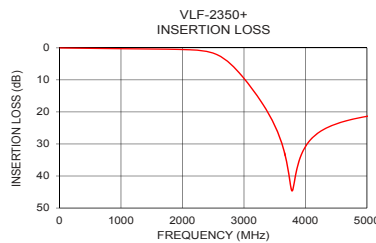
### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (nsec)
10	0.02	1.01	10	0.36
100	0.06	1.02	100	0.34
500	0.15	1.12	200	0.34
1000	0.25	1.16	300	0.34
2000	0.52	1.28	350	0.34
2700	3.71	4.77	400	0.34
2800	5.33	7.12	500	0.35
2900	7.30	10.70	750	0.35
3000	9.52	15.77	900	0.36
3100	11.95	22.39	1000	0.36
3200	14.57	30.13	1250	0.37
3390	20.20	44.90	1500	0.39
3500	24.21	52.23	1750	0.41
3600	28.93	58.20	1800	0.42
3620	30.10	59.76	1900	0.43
3700	36.22	62.49	2000	0.45
3800	43.86	65.86	2100	0.47
3900	35.07	67.13	2200	0.50
4000	30.79	68.35	2300	0.53
5000	21.37	72.48	2350	0.55

### Typical Frequency Response



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



#### Notes

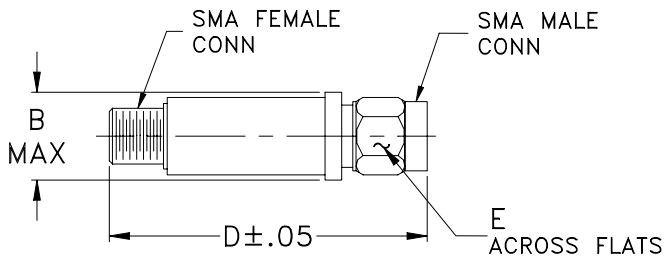
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## Coaxial Connections

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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