

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

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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



Low Pass Filter

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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

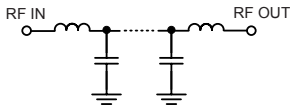
- Harmonic rejection
- Transmitters / Receivers
- Lab use

Electrical Specifications⁽¹⁾ 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.

Functional Schematic



Maximum Ratings

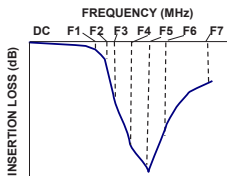
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	9W max. at 25°C

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

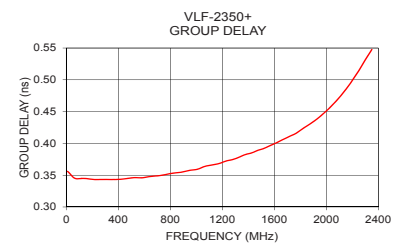
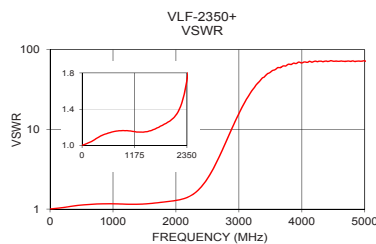
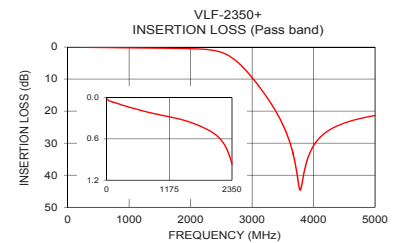
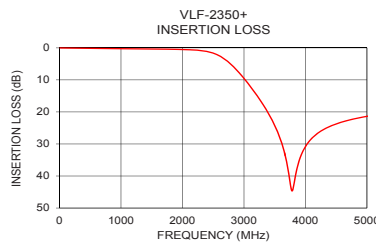
Typical Performance Data at 25°C

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

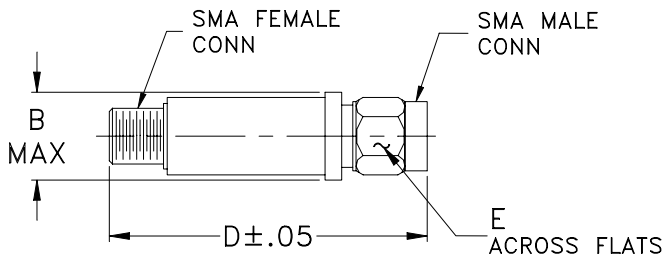
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Coaxial Connections

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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