Coaxial

Low Pass Filter

VLF-8400+

50Ω DC to 8400 MHz

CASE STYLE: FF704

The Big Deal

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

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

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Connectors	Model
SMA	VLF-8400+

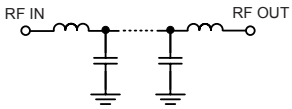
Features

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

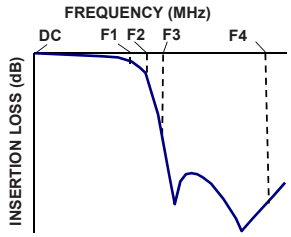
Applications

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

Functional Schematic



Typical Frequency Response



+RoHS Compliant

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

Electrical Specifications[(1)] 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

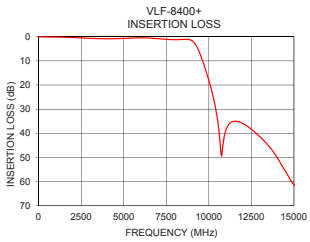
(1) In Application where DC voltage is present at either input or output ports, coupling capacitors are required.

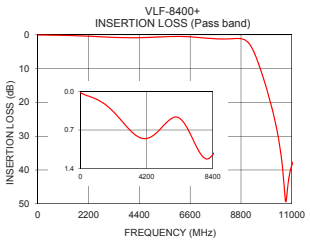
Maximum Ratings	
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	8W max. at 25°C

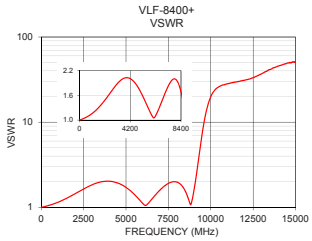
*Passband rating derated linearly to 3W at 100°C ambient.
Permanent damage may occur if any of these limits are exceeded.

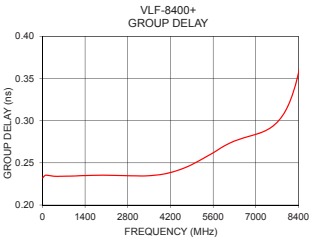
Typical Performance Data at 25°C

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	750	0.23
1000	0.14	1.15	1500	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









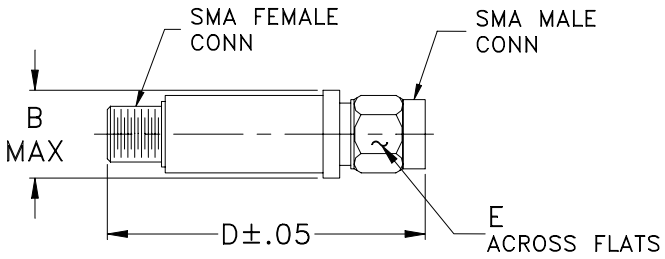
Notes

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.
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

Coaxial Connections

INPUT	SMA-Female
OUTPUT	SMA-Male

Outline Drawing



Outline Dimensions (inch / mm)

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

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