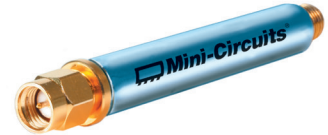


# Low Pass Filter

## VLFX-950+

50Ω DC to 950 MHz (40 dB Typ. Isolation up to 20 GHz)



Generic photo used for illustration purposes only

CASE STYLE: FF1118

Connectors Model

SMA VLFX-950+

### Features

- Very good isolation, 40 dB typ. up to 20 GHz
- Excellent power handling, 10W
- Temperature stable LTCC internal structure
- Re-entry frequency > 20 GHz
- Protected by US patent 6,943,646
- Rugged unibody construction

### Applications

- Harmonic rejection
- Transmitters/receivers
- Lab use
- Test instrumentation

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

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Insertion Loss	DC-F1	DC-950	—	1.1	1.6	dB
	Freq. Cut-Off	F2	1400	—	3.0	—	dB
	VSWR	DC-F1	DC-950	—	1.4	—	:1
Stop Band	Insertion Loss	F3	1865	20	30	—	dB
		F4-F5	2250-20000	—	40	—	dB
	VSWR	F3-F5	1865-20000	—	10	—	:1

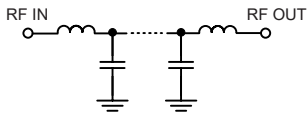
(1) In Application where DC voltage is present at either input or output ports, coupling capacitors are required.

### Maximum Ratings

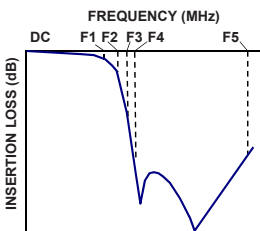
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	10W max.

\*Passband rating, derate linearly to 3.5W at 100°C ambient. Permanent damage may occur if any of these limits are exceeded.

### Functional Schematic



### Typical Frequency Response

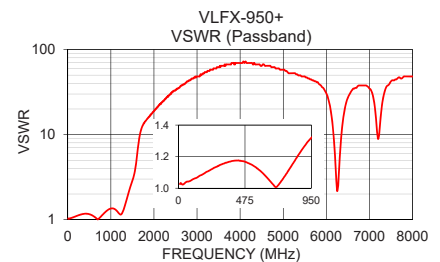
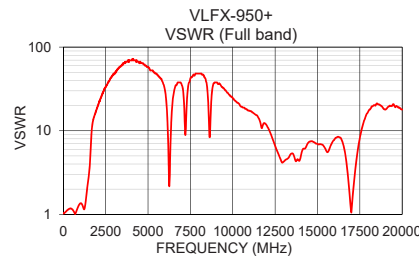
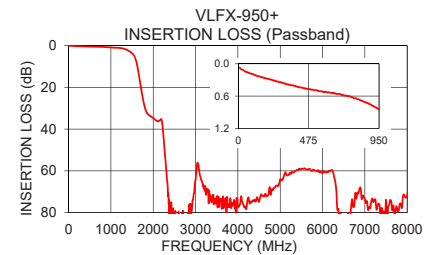
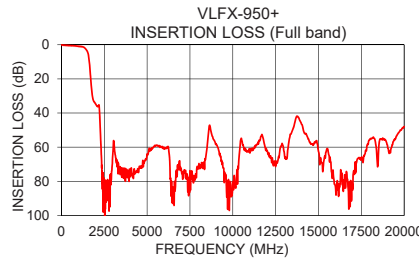


### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
10	0.07	1.03
500	0.48	1.16
950	0.84	1.32
1400	2.28	1.98
1500	3.70	2.88
1650	12.65	8.43
1710	20.09	11.77
1750	24.84	13.09
1810	30.23	14.50
1865	32.65	15.81
2500	93.97	33.42
5000	64.02	57.91
7500	73.79	42.38
10000	80.21	24.48
12500	71.37	6.63
15000	62.48	6.97
17500	66.61	8.12
18000	55.44	17.05
19000	58.39	17.93
20000	47.94	17.93

### +RoHS Compliant

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



### Notes

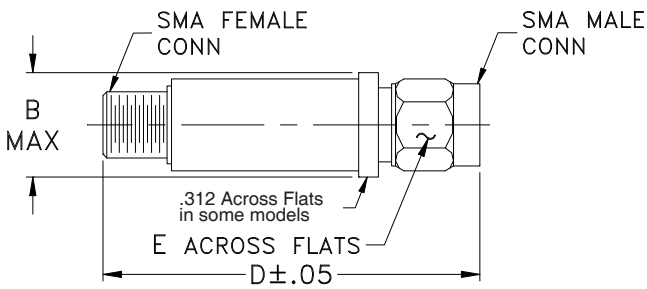
- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
- 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](http://www.minicircuits.com/MCLStore/terms.jsp)



## Coaxial Connections

INPUT	SMA-Male
OUTPUT	SMA-Female

## Outline Drawing



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

B	D	E	wt.
$\frac{\text{inch}}$	$\frac{\text{inch}}$	$\frac{\text{inch}}$	$\frac{\text{grams}}$
.410	2.67	.312	17.0
10.41	67.82	7.92	

Note: Please refer to case style drawing for details

### 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](http://www.minicircuits.com/MCLStore/terms.jsp)

