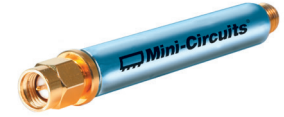


Low Pass Filter

VLFX-540+

50Ω DC to 540 MHz (40 dB Typ. Isolation up to 20 GHz)



Generic photo used for illustration purposes only

CASE STYLE: FF1118

Connectors	Model
SMA	VLFX-540+

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⁽¹⁾ at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Insertion Loss	DC-F1	DC-540	—	1.0	1.6	dB
	Freq. Cut-Off	F2	810	—	3.0	—	dB
	VSWR	DC-F1	DC-540	—	1.2	—	:1
Stop Band	Insertion Loss	F3	1000	20	30	—	dB
		F4-F5	1100-20000	—	40	—	dB
	VSWR	F3-F5	1000-20000	—	10	—	:1

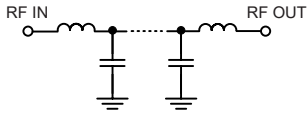
(1) In Application where DC voltage is present at either input or output ports, coupling capacitors are required.

Maximum Ratings

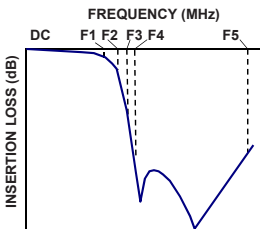
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	10W max.

*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

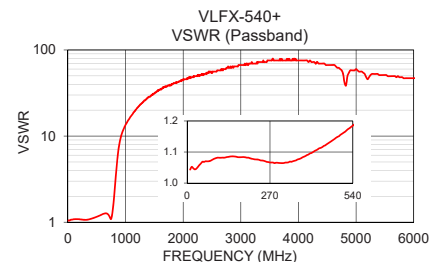
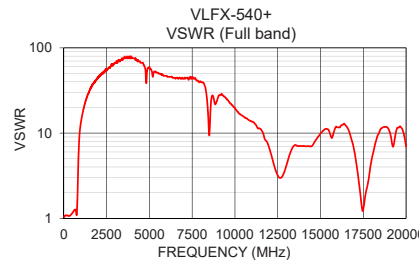
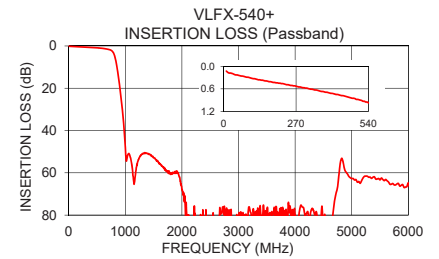
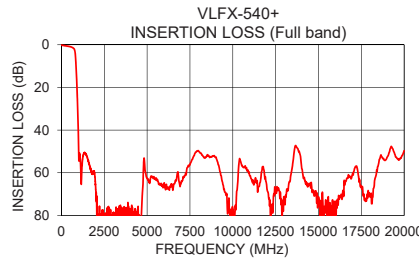


Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
10	0.13	1.04
250	0.51	1.07
540	0.97	1.18
700	1.61	1.23
790	3.22	1.63
810	4.54	2.29
860	11.16	5.58
910	20.97	9.23
950	30.56	11.38
1000	47.72	13.49
1100	53.78	17.22
1500	52.90	31.03
2500	93.32	56.04
5000	62.71	59.91
7500	56.27	45.72
10000	78.04	19.54
12500	67.02	3.19
15000	71.37	9.90
17500	66.17	1.27
20000	49.71	6.97

+RoHS Compliant

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



Notes

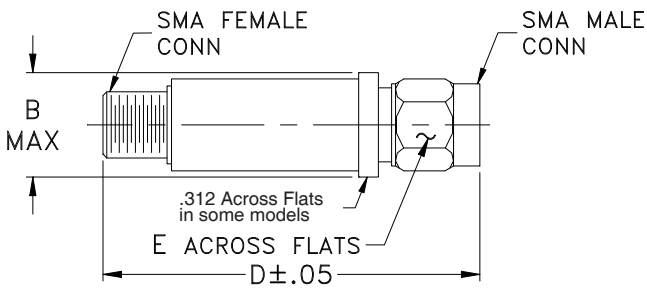
- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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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

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