

# Low Pass Filter

## VLFX-540

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

### Maximum Ratings

Operating Temperature -55°C to 100°C

Storage Temperature -55°C to 100°C

RF Power Input\* 10W max. at 25°C

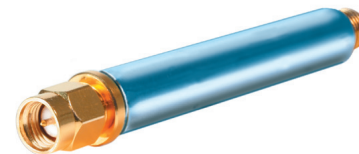
\*Passband rating, derate linearly to 3.5W at 100°C ambient.  
Permanent damage may occur if any of these limits are exceeded.

### Features

- very good isolation, 40 dB up to 20 GHz
- 21 sections
- excellent power handling, 10W
- temperature stable LTCC internal structure
- re-entry frequency > 20 GHz
- rugged unibody construction
- protected by US patent 6,943,646

### Applications

- harmonic rejection
- transmitters/receivers
- lab use
- test instrumentation



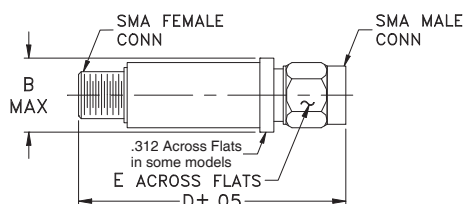
CASE STYLE: FF1118

Connectors	Model	Price	Qty.
SMA	VLFX-540	\$39.95 ea.	(1-9)

**+RoHS Compliant**

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

### Outline Drawing



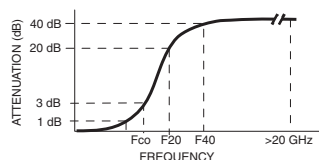
### Outline Dimensions (inch mm)

B	D	E	wt.
.410	2.67	.312	grams
10.41	67.82	7.92	17.0

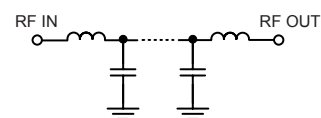
### Low Pass Filter Electrical Specifications @ 25°C

MODEL NO.	PASSBAND (MHz) (Loss < 1.2dB) Max.	Fco, MHz Nom (Loss 3 dB) Typ	STOPBAND (MHz) (Loss, dB)		VSWR (:1)		NO. OF SECTIONS
			F20 Min.	F40 Typ.	Stopband Typ.	Passband Typ.	
VLFX-540	DC-540	810	1000	1100-20000	10	1.2	21

### Typical Frequency Response

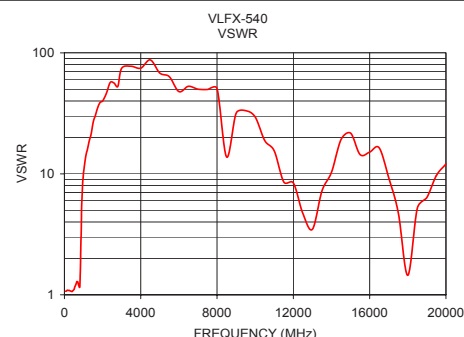


### Functional Schematic



### Typical Performance Data @ 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50	0.32	1.07
250	0.46	1.09
400	0.69	1.06
540	0.95	1.15
620	1.21	1.24
700	1.64	1.28
810	3.08	1.25
880	8.81	3.45
1000	32.81	10.22
1100	46.43	13.44
1500	50.47	26.44
2000	65.72	39.98
3000	73.08	74.63
5000	61.13	68.07
7500	70.11	49.82
10000	80.55	29.49
12500	72.73	4.71
15000	78.70	21.69
17500	67.07	4.77
20000	56.88	12.07



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IF/RF MICROWAVE COMPONENTS

For detailed performance specs & shopping online see web site

REV. B  
M131810  
VLFX-540  
EDU-0399  
ED-11930A/9  
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Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuits' applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet 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).