

# Low Pass Filter

## VLFX-300

50Ω DC to 300 MHz (40 dB Isolation up to 20 GHz)

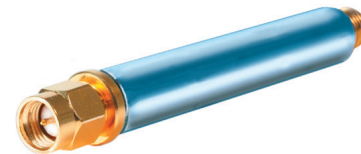
### Maximum Ratings

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



CASE STYLE: FF1118

Connectors	Model
SMA	VLFX-300

**+RoHS Compliant**

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

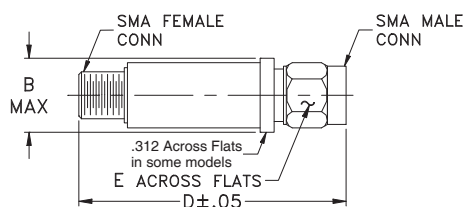
### Applications

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

### 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-300	DC-300	450	580	650-20000	10	1.15	21

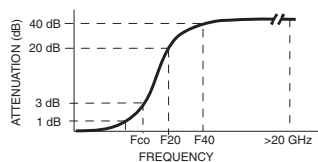
### Outline Drawing



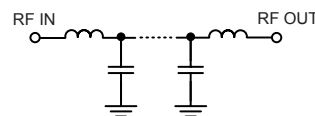
### Outline Dimensions (inch mm)

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

### Typical Frequency Response

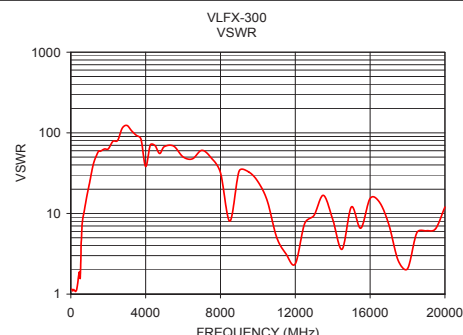
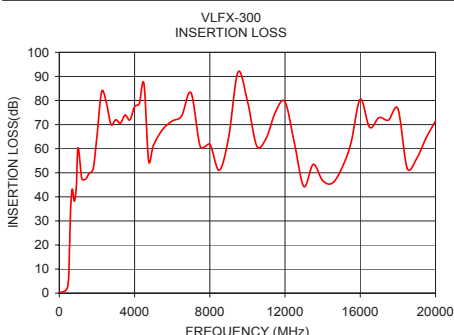


### Functional Schematic



### Typical Performance Data @ 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50	0.38	1.16
100	0.39	1.09
200	0.64	1.11
300	0.95	1.11
350	1.21	1.28
400	1.79	1.58
450	2.85	1.88
500	6.46	1.56
580	29.41	5.57
650	41.12	8.93
800	38.18	13.79
900	44.02	18.40
1000	60.37	23.84
2500	79.10	80.35
5000	61.32	67.53
7500	60.77	49.08
10000	79.72	24.86
12500	62.16	7.48
15000	51.60	12.04
20000	71.48	12.03



### 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)

