

# Low Pass Filter

VLFX-780

50Ω DC to 780 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

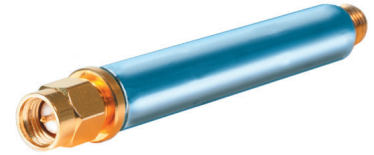
\*Passband rating, derate linearly to 3.5W at 100°C ambient.  
Permanent damage may occur if any of these limits are exceeded.

## 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



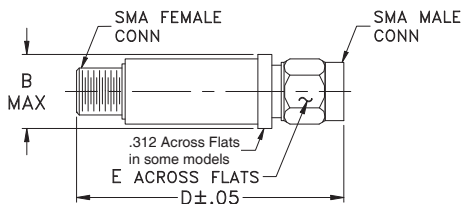
CASE STYLE: FF1118

Connectors	Model
SMA	VLFX-780

**+RoHS Compliant**

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

## Outline Drawing



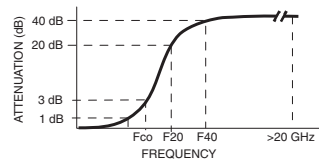
## Outline Dimensions (inch mm)

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

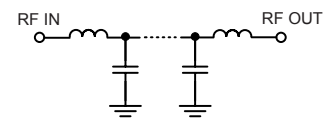
## Low Pass Filter Electrical Specifications @ 25°C

MODEL NO.	PASSBAND (MHz)	Fco, MHz Nom	STOPBAND (MHz) (Loss, dB)		VSWR (:1)		NO. OF SECTIONS
	(Loss < 1.3dB) Max.	(Loss 3 dB) Typ	F20 Min.	F40 Typ.	Stopband Typ.	Passband Typ.	
VLFX-780	DC-780	950	1450	1600-20000	10	1.25	21

## Typical Frequency Response

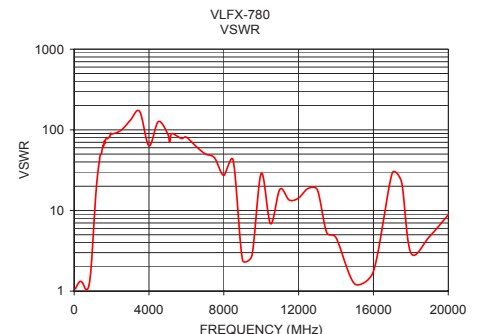
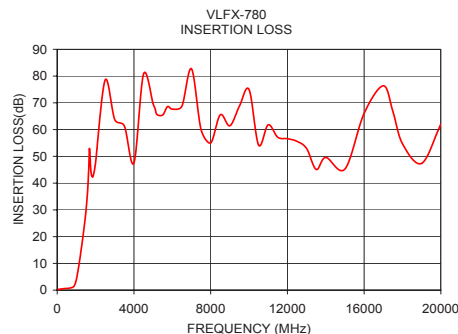


## Functional Schematic



## Typical Performance Data @ 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50	0.20	1.07
200	0.42	1.23
500	0.67	1.20
780	1.00	1.15
840	1.24	1.38
900	1.80	1.89
950	2.71	2.73
1050	5.85	6.43
1450	26.42	50.23
1600	38.96	69.51
1750	44.97	78.34
2000	47.85	88.41
2500	78.54	98.33
5000	69.60	89.14
7500	59.97	45.09
10000	74.94	28.77
12500	55.61	18.76
15000	45.26	1.23
17500	66.73	22.68
20000	62.04	8.82



## 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)


[www.minicircuits.com](http://www.minicircuits.com) P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com