

# Low Pass Filter

50Ω DC to 470 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.

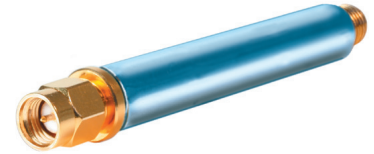
## Features

- 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

# VLFX-470



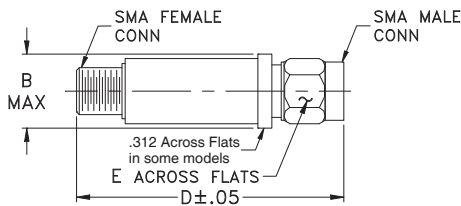
CASE STYLE: FF1118

Connectors	Model	Price	Qty.
SMA	VLFX-470	\$39.95 ea.	(1-9)

**+RoHS Compliant**

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

## Outline Drawing



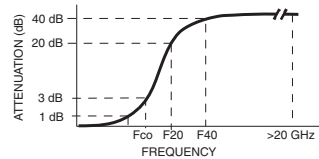
## Outline Dimensions (inch mm)

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

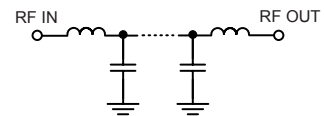
## Low Pass Filter Electrical Specifications @ 25°C

MODEL NO.	PASSBAND (MHz)	Fco, MHz Nom	STOPBAND (MHz) (Loss, dB)		VSWR (:1)		NO. OF SECTIONS
	(Loss < 1.2dB) Max.	(Loss 3 dB) Typ	F20 Min.	F40 Typ.	Stopband Typ.	Passband Typ.	
VLFX-470	DC-470	675	820	1000-20000	10	1.15	21

## Typical Frequency Response

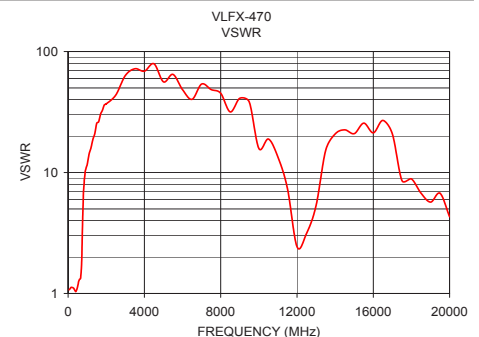
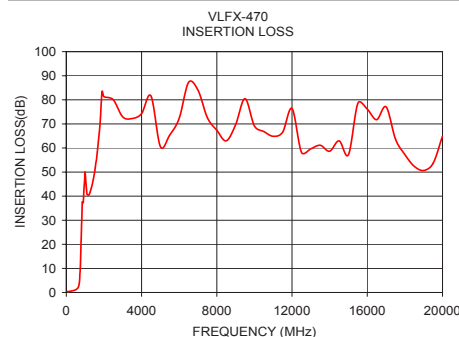


## Functional Schematic



## Typical Performance Data @ 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50	0.39	1.07
150	0.39	1.12
320	0.72	1.08
470	1.03	1.10
520	1.23	1.18
575	1.57	1.28
675	3.47	1.49
740	9.89	2.85
820	30.11	7.38
925	40.83	10.64
975	47.08	11.29
1000	49.80	11.57
2500	79.98	43.65
5000	60.62	56.18
7500	72.60	48.49
10000	69.11	15.82
12500	58.22	3.13
15000	57.24	20.96
17500	63.67	8.59
20000	64.93	4.31



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IF/RF MICROWAVE COMPONENTS

For detailed performance specs & shopping online see web site

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-Circuit's 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).

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