

# Low Pass Filter

VLFX-825+

50Ω DC to 825 MHz (40 dB Typ. Isolation up to 20 GHz)



Generic photo used for illustration purposes only

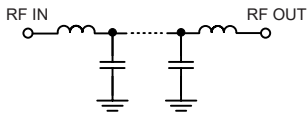
## Features

- 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

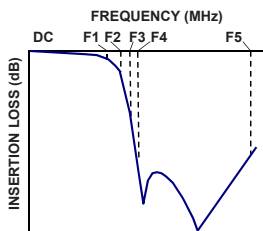
## Applications

- Harmonic rejection
- Transmitters/receivers
- Lab use
- Test instrumentation

## Functional Schematic



## Typical Frequency Response



### +RoHS Compliant

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

## Electrical Specifications<sup>(1)</sup> at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-F1	DC-825	—	1.1	1.6 dB
	Freq. Cut-Off	F2	1275	—	3.0	dB
	VSWR	DC-F1	DC-825	—	1.2	:1
Stop Band	Insertion Loss	F3	1550	20	30	dB
		F4-F5	1850-20000	—	40	dB
	VSWR	F3-F5	1550-20000	—	10	:1

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

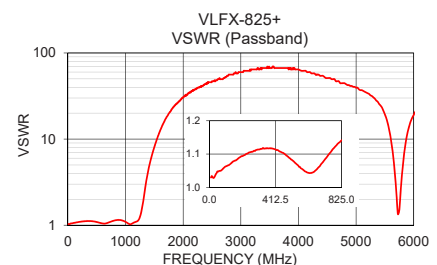
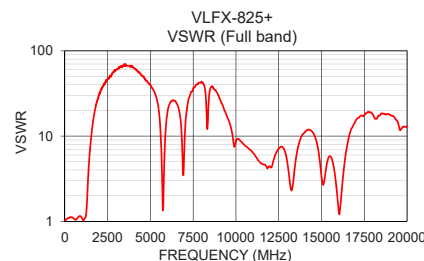
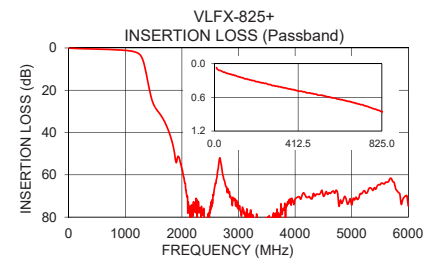
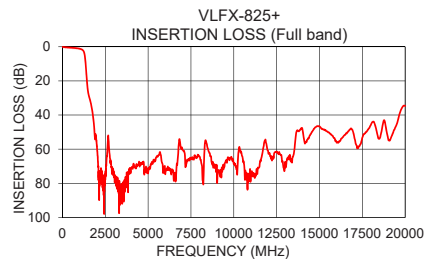
### Maximum Ratings

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.

## Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
10	0.07	1.03
250	0.35	1.10
500	0.54	1.09
825	0.85	1.14
1000	1.15	1.09
1275	3.70	1.44
1355	10.17	3.11
1435	20.76	5.68
1550	29.03	10.19
1600	30.78	12.52
1850	46.94	24.48
2500	77.83	46.96
5000	74.23	39.49
7500	65.65	36.20
10000	68.67	8.72
12500	61.88	7.14
15000	46.58	3.37
17500	53.29	17.39
18500	53.88	18.50
20000	34.65	12.99



### Notes

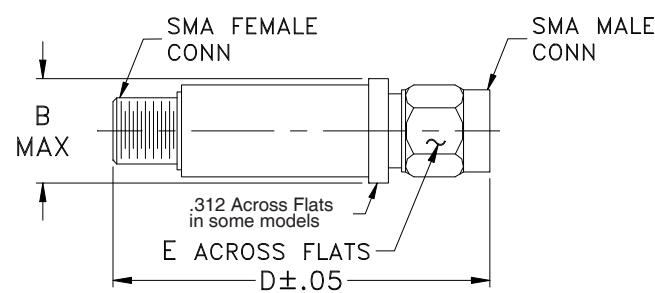
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Coaxial Connections

INPUT	SMA-Male
OUTPUT	SMA-Female

Outline Drawing



Outline Dimensions ( inch  
mm )

B	D	E	wt.
<b>.410</b>	<b>2.67</b>	<b>.312</b>	<b>grams</b>
10.41	67.82	7.92	17.0

*Note: Please refer to case style drawing for details*

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