

Coaxial

Low Pass Filter

50Ω DC to 1300 MHz (40 dB Isolation up to 20 GHz)

VLFX-1300

Maximum Ratings

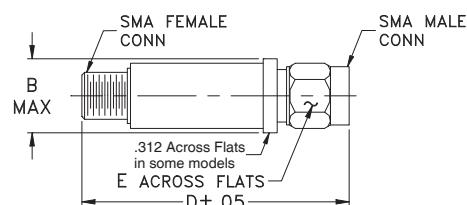
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	10W max. at 25°C

*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

Outline Drawing



Outline Dimensions (inch/mm)

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

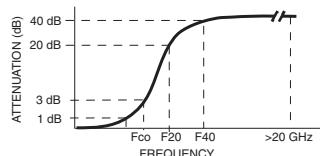
Applications

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

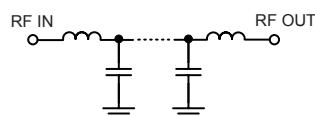
Low Pass Filter Electrical Specifications @ 25°C

MODEL NO.	PASSBAND (MHz) (Loss < 1.2dB) Max.	F _{CO} , MHz Nom (Loss 3 dB) Typ	STOPBAND (MHz) (Loss, dB)	VSWR (:1)		NO. OF SECTIONS
			F ₂₀ Min. F ₄₀ Typ.	Stopband Typ.	Passband Typ.	
VLFX-1300	DC-1300	1925	2300 2500-20000	10	1.2	21

Typical Frequency Response

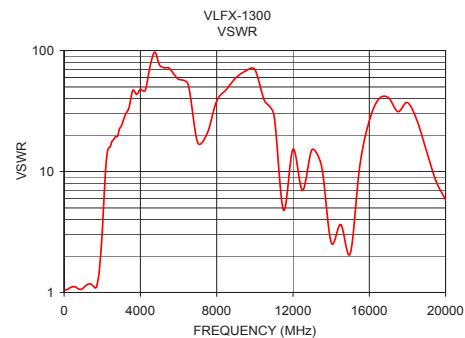
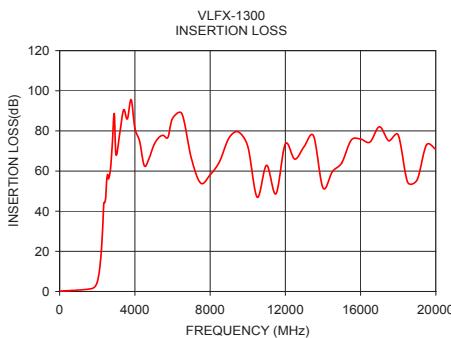


Functional Schematic



Typical Performance Data @ 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50	0.21	1.05
300	0.34	1.09
600	0.46	1.11
1300	0.95	1.18
1600	1.27	1.10
1750	1.58	1.20
1850	2.14	1.56
1925	3.07	2.15
2100	9.35	6.43
2300	33.88	15.28
2500	55.25	17.62
3000	68.08	23.79
4000	81.32	47.72
5000	72.73	76.04
7500	53.99	20.63
10000	72.31	69.62
12500	65.95	6.98
15000	64.17	2.10
17500	75.05	31.26
20000	70.82	5.83



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IF/RF MICROWAVE COMPONENTS

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REV. B
M131810
VLFX-1300
EDU-0399
ED-11930A/18
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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-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuit's 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.