Coaxial

Low Pass Filter

VLFX-105

50Ω DC to 105 MHz (40 dB Isolation up to 20 GHz)

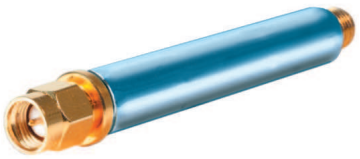
Maximum Ratings

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	Price	Qty.
SMA	VLFX-105	$39.95 ea.	(1-9)

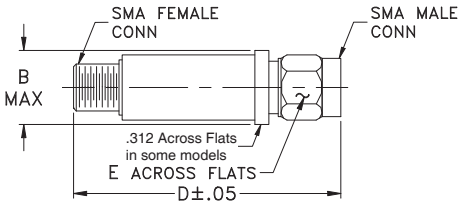
+RoHS Compliant

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

Applications

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

Outline Drawing



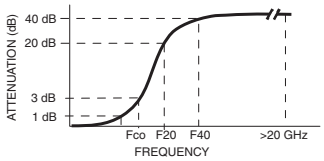
Outline Dimensions (inch / mm)

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

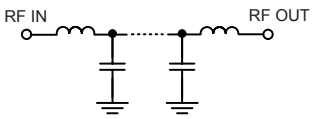
Low Pass Filter Electrical Specifications @ 25°C

MODEL NO.	PASSBAND (MHz) (Loss < 1.2dB) Max.	Fco, MHz Nom (Loss 3 dB) Typ	STOPBAND (MHz) (Loss, dB) F20 Min.	STOPBAND (MHz) (Loss, dB) F40 Typ.	VSWR (:1) Stopband Typ.	VSWR (:1) Passband Typ.	NO. OF SECTIONS
VLFX-105	DC-105	165	250	400-20000	10	1.2	21

Typical Frequency Response

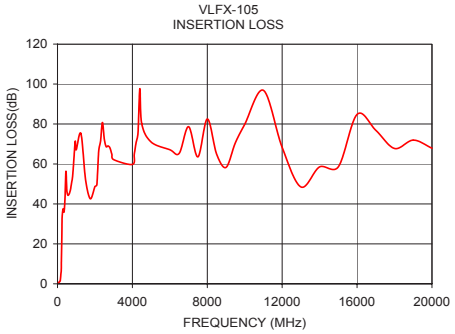


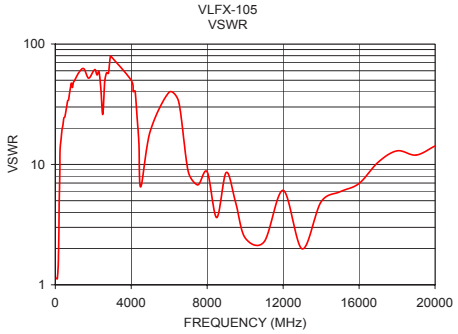
Functional Schematic



Typical Performance Data @ 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50	0.63	1.13
80	0.81	1.12
105	1.00	1.13
114	1.13	1.17
120	1.22	1.19
140	1.51	1.32
165	3.18	1.70
200	6.70	4.53
250	33.72	13.14
400	42.35	21.10
500	46.66	24.83
750	50.37	39.03
1000	67.08	49.17
2500	72.46	26.01
5000	70.98	18.90
7500	63.56	6.76
10000	79.87	2.45
12000	68.30	6.09
16000	84.80	6.95
20000	67.90	14.23





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.

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