

Low Pass Filter

50Ω

*DC to 3400 MHz

VLF-3400+

Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	8W at 25°C
DC Current Input to Output	0.5A max. at 25°C

*Passband rating, derate linearly to 3W at 100°C ambient
Permanent damage may occur if any of these limits are exceeded.

Features

- Rugged uni-body construction, small size
- 5 sections
- Excellent power handling, 8W
- Temperature stable
- Low cost
- Protected by US patent 6,943,646

Applications

- Point to point
- Harmonic rejection
- Transmitters/receivers
- Lab use



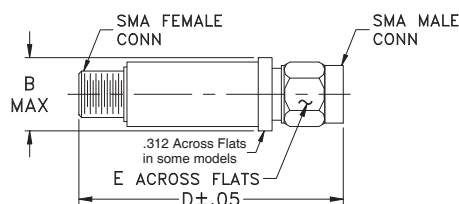
CASE STYLE: FF704

Connectors	Model
SMA	VLF-3400+

+RoHS Compliant

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

Outline Drawing



Outline Dimensions (inch mm)

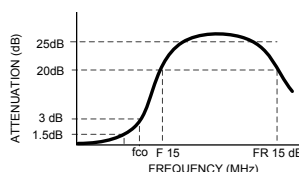
B	D	E	wt.
.410	1.43	.312	grams
10.41	36.32	7.92	10

Low Pass Filter Electrical Specifications (T_{AMB} = 25°C)

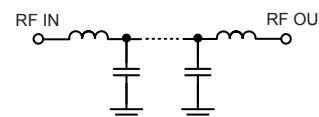
PASSBAND (MHz)	f _{co} , MHz Nom.	STOP BAND (MHz) (loss, dB)			VSWR (:1)		NO. OF SECTIONS
		F 20 Min.	25 Typ.	FR 20 Typ.	Stopband Typ.	Passband Typ.	
*DC - 3400 (loss < 1.5 dB) Max.	3950 Typ.	4300	4600 - 7800	8300	17	1.2	5

* Not for use with DC voltage at input and output ports

Typical frequency response

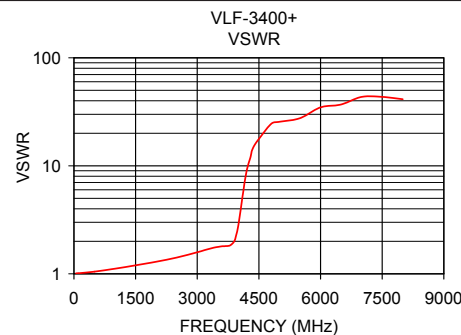
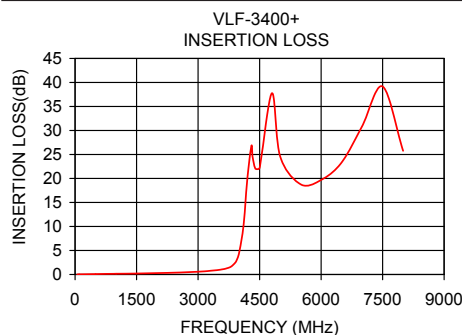


Electrical schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
40	0.01	1.01
100	0.03	1.01
500	0.08	1.05
1000	0.15	1.12
2000	0.29	1.29
3000	0.58	1.58
3400	0.85	1.74
3800	1.61	1.83
3950	3.15	2.29
4050	6.53	3.73
4150	13.83	6.91
4300	26.75	12.18
4600	24.94	20.45
5050	23.14	27.16
6500	23.33	36.97
7800	29.30	45.72
8300	21.56	35.46



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



Coaxial Low Pass Filter

VLF-3400+

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)
40	0.01	43.38
50	0.01	45.36
100	0.03	45.54
500	0.08	32.54
1000	0.15	25.25
1500	0.20	20.89
2000	0.29	17.85
2500	0.40	15.31
3000	0.58	12.95
3200	0.69	12.04
3400	0.85	11.33
3500	0.95	11.09
3600	1.09	10.90
3675	1.22	10.85
3800	1.61	10.64
3900	2.39	9.54
3940	2.97	8.43
3950	3.15	8.15
4000	4.45	6.45
4050	6.53	4.77
4110	10.31	3.21
4150	13.83	2.53
4200	19.75	1.96
4300	26.75	1.43
4330	24.46	1.26
4400	22.02	1.11
4500	22.22	0.98
4600	24.94	0.85
4800	37.75	0.71
5000	24.61	0.68
5050	23.14	0.64
5500	18.78	0.63
6000	19.69	0.50
6500	23.33	0.47
7000	30.88	0.40
7500	39.16	0.40
7800	29.30	0.38
8300	21.56	0.49
8000	25.76	0.42
8500	18.88	0.55
8700	15.86	0.69
9000	9.74	1.65
9250	4.08	8.77
9500	7.65	2.33
10000	13.75	0.81
11000	14.87	0.71
12000	11.68	1.30
13000	9.52	1.79
14000	8.43	1.95

REV. X1
VLF-3400+
071206
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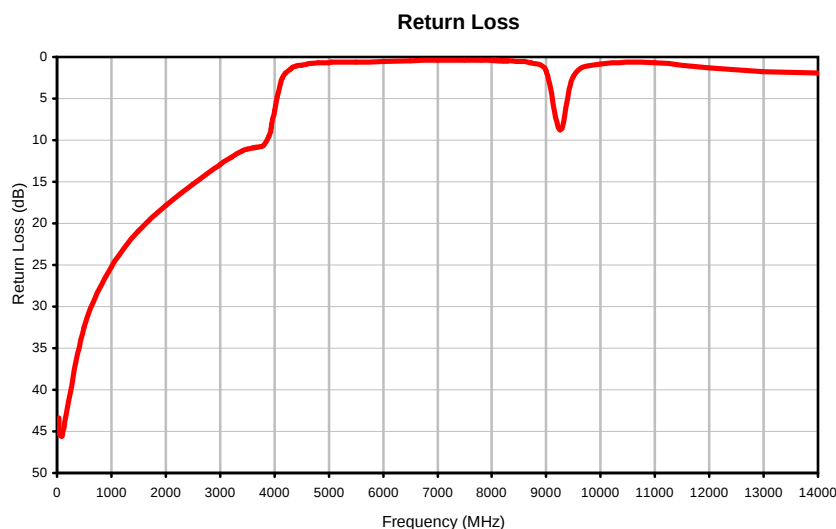
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Coaxial Low Pass Filter

Typical Performance Curves

VLF3400+



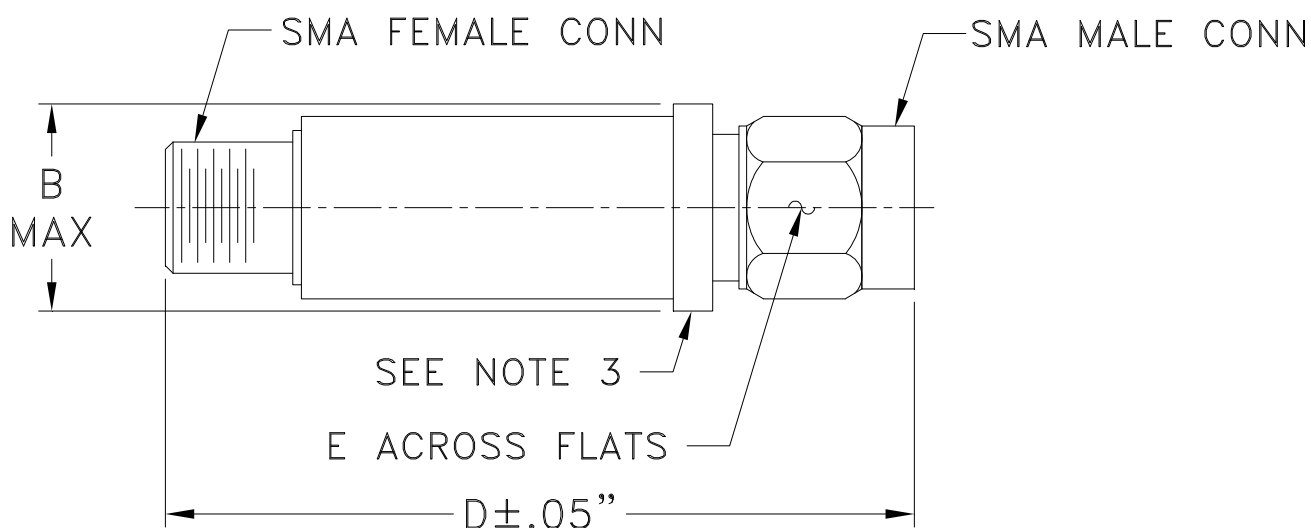
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Outline Dimensions



CASE #.	A	B	C	D	E	WT GRAMS
FF704	--	.410 (10.41)	--	1.43 (36.32)	.312 (7.92)	10.0

Dimensions are in inches (mm). Tolerances: 2Pl. ± .04; 3Pl. ± .030

Notes:

1. Case material: Stainless steel.
2. Case finish: Gold plated.
3. Round Flange may have .312 Across Flats in some models.



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RF/IF MICROWAVE COMPONENTS



All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-55° to 100°C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Barometric Pressure	100,000 Feet	MIL-STD-202, Method 105, Condition D
Humidity	90% RH, 65°C Units may require bake-out after humidity to restore full performance.	MIL-STD-202, Method 103
Thermal Shock	-65° to 125°C, 5 cycles	MIL-STD-202, Method 107, Condition B
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	100g, 6ms sawtooth, 3 shocks each direction 3 axes (total 18)	MIL-STD-202, Method 213, Condition I