

# Low Pass Filter

50Ω \*DC to 6400 MHz

## VLF-6400+



CASE STYLE: FF704

Connectors	Model
SMA	VLF-6400+

### 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 3 W at 100°C ambient  
Permanent damage may occur if any of these limits are exceeded.

### Features

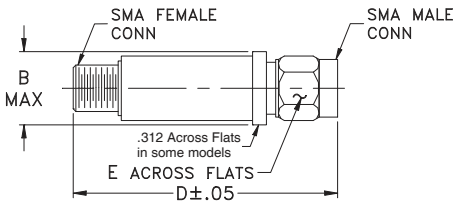
- Rugged uni-body construction, small size
- 7 sections
- Excellent power handling, 8W
- Temperature stable
- Low cost
- Protected by US patent 6,943,646

### Applications

- Harmonic rejection
- Transmitters/receivers
- Lab use

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

### Outline Drawing



### Outline Dimensions (inch/mm)

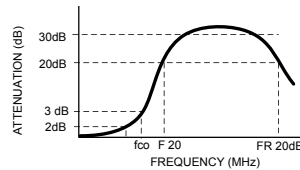
B	D	E	wt.
.410	1.43	.312	grams
10.41	36.32	7.92	10

### Low Pass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

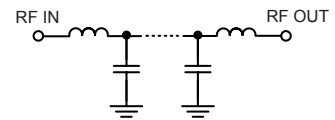
PASSBAND (MHz) (loss < 2 dB) Max.	fco, MHz Nom. (loss 3 dB) Typ.	STOP BAND (MHz) (loss, dB)			VSWR (:1)		NO. OF SECTIONS
		F 20 Min.	30 Typ.	FR 20 Typ.	Stopband Typ.	Passband Typ.	
*DC - 6400	7200	8300	7770 - 10200	12500	17	1.2	7

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

### Typical frequency response



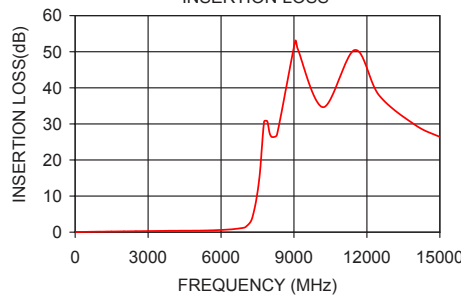
### Electrical schematic



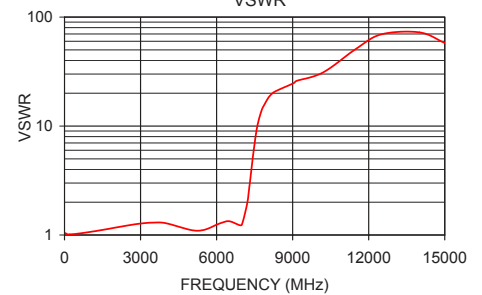
### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
40	0.06	1.04
500	0.08	1.03
2000	0.22	1.17
4000	0.39	1.28
5500	0.48	1.11
6400	0.79	1.33
7000	1.41	1.25
7200	2.73	1.92
7350	5.61	3.58
7500	11.17	6.94
7680	22.01	11.77
7770	30.63	13.81
8300	26.96	20.70
10200	34.63	31.03
11000	39.63	40.41
12500	37.94	69.49
15000	26.38	57.91

VLF-6400+  
INSERTION LOSS



VLF-6400+  
VSWR



### Notes

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- 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](http://www.minicircuits.com/MCLStore/terms.jsp)

