

# Low Pass Filter

50Ω

\*DC to 190 MHz

VLF-190+

## 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



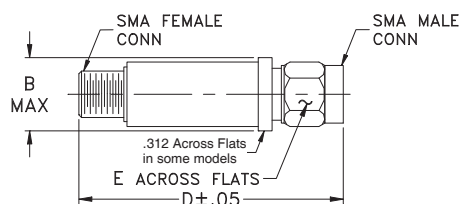
CASE STYLE: FF704

Connectors	Model
SMA	VLF-190+

### +RoHS Compliant

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

## Outline Drawing

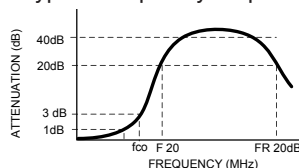


## Low Pass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

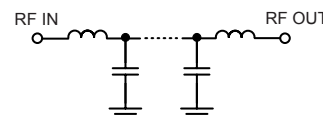
PASSBAND (MHz)	f <sub>co</sub> , MHz Nom.	STOP BAND (MHz)			VSWR (:1)		NO. OF SECTIONS
		F 20 Min.	40 Typ.	FR 20 Typ.	Stopband Typ.	Passband Typ.	
*DC - 190 (loss < 1 dB) Max.	280 (loss 3 dB) Typ.	400	510 - 2850	6550	17	1.2	7

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

## Typical frequency response



## Electrical schematic



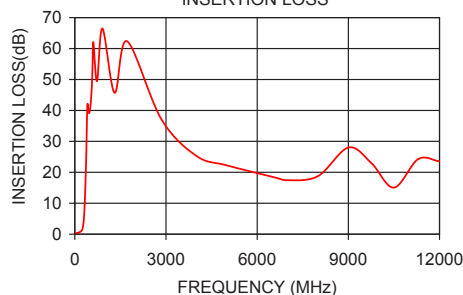
## Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
40	0.26	1.08
100	0.44	1.08
170	0.71	1.10
190	0.83	1.12
250	1.65	1.47
280	3.15	2.13
310	6.83	3.46
340	13.47	4.47
375	25.46	3.89
400	37.43	3.86
510	40.97	12.99
850	57.21	52.65
1500	48.19	64.35
2850	37.12	64.35
6550	18.42	32.18
9000	28.00	6.03
12000	23.53	4.26

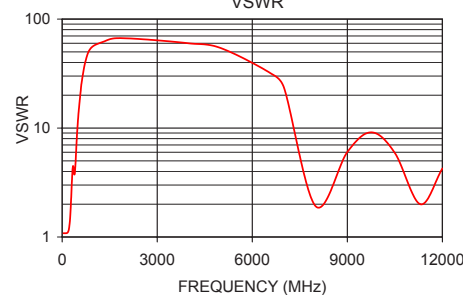
## Outline Dimensions (inch mm)

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

VLF-190+  
INSERTION LOSS



VLF-190+  
VSWR



### 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](http://www.minicircuits.com/MCLStore/terms.jsp)



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