

# High Pass Filter

VHF-3100+

50Ω 3400 to 9900 MHz

## Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	7W 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
- Temperature stable
- Excellent power handling, 7W
- Low cost

## Application

- Sub-harmonic rejection and DC blocking
- Transmitters/Receivers
- Lab use



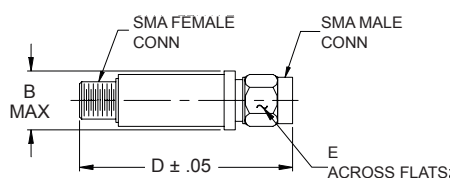
CASE STYLE: FF704

Connectors	Model	Price	Qty.
SMA	VHF-3100+	\$24.95 ea.	(1-9)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

## Outline Drawing



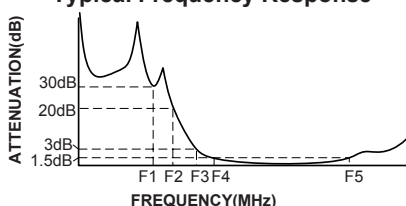
## Outline Dimensions (Inch/mm)

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

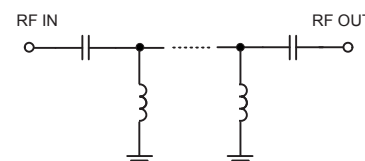
## High Pass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

STOPBAND (MHz)		f <sub>co</sub> , MHz	PASSBAND (MHz)		VSWR		NO. OF SECTIONS
(Loss>30dB)	(Loss>20dB)	(Loss 3dB)	(Loss<1.5dB)	(Loss<2dB)	Stopband	Typ. Frequency	
Typ. DC-F1	Min. DC-F2	Typ. F3	Max. F4-F5	Max.		(MHz)	
DC-2500	DC-2450	3100	3500-9500	3400-9900	20:1	3100-10500	5

## Typical Frequency Response



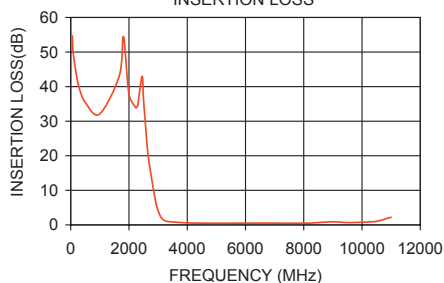
## Electrical schematic



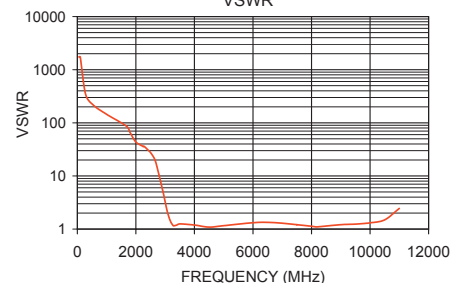
## Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50	54.69	1737.18
800	32.70	124.09
1810	54.43	64.35
2450	42.98	29.46
2500	36.08	27.59
2700	17.52	16.56
2920	6.49	5.25
3100	2.20	1.89
3400	0.91	1.19
3500	0.83	1.25
5000	0.48	1.16
7000	0.52	1.29
9000	0.87	1.21
9500	0.68	1.24
9900	0.74	1.29
10500	1.04	1.49
11000	2.20	2.45

VHF-3100+  
INSERTION LOSS



VHF-3100+  
VSWR



**Mini-Circuits®**  
ISO 9001 ISO 14001 AS 9100 CERTIFIED  
IF/RF MICROWAVE COMPONENTS

For detailed performance specs & shopping online see web site

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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-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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