

# Coaxial High Pass Filter

## VHFG-1100+

50Ω      1400 to 3900 MHz

### The Big Deal

- Excellent power handling, 4W
- Temperature stable
- Rugged unibody construction
- Good rejection, 51 dB typical



*Generic photo used for illustration purposes only*

CASE STYLE: FF704

### Product Overview

VHFG-1100+ is a 50Ω high pass filter built in rugged unibody construction. Covering 1400-3900 MHz bandwidth, these units offer good matching within the passband and good rejection in stopband. VHFG-1100+ offer low insertion loss, and excellent power handling capability. It handles up to 4W RF input power and provides a wide operating temperature range from -55°C to 125°C.

### Key Features

Feature	Advantages
Low passband insertion loss	Suitable for high performance application.
4W Power handling	Supports a range of system power requirements.
Connectorized package	The connectorized package is easy to interface with other devices and well suited for test setups.

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

### Features

- Temperature stable
- Excellent power handling, 4W
- Connectorized package
- Rugged unibody construction

### Applications

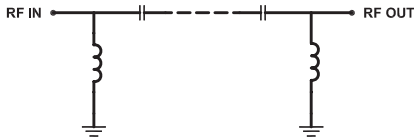
- Transmitters / Receivers
- Global positioning system(GPS)
- Satellite broadcast applications

### Electrical Specifications at 25°C

Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Stop Band	Rejection Loss	DC-F1	DC - 530	38	51	-	dB
	Freq. Cut-Off	DC-F2	DC - 700	20	30	-	dB
		F3*	1050	-	3.0	-	dB
Pass Band	Insertion Loss	F4-F7	1400 - 3900	-	1.6	2.5	dB
		F5-F6	1500 - 3200	-	1.2	2.0	dB
	Return Loss	F4-F6	1400 - 3200	-	13	-	dB

In Applications where DC voltage is present at either input or output ports, DC blocks are required.  
\* Typically, a ±5% frequency deviation from the stated value may occur on a unit-to-unit basis.

### Functional Schematic



### Maximum Ratings

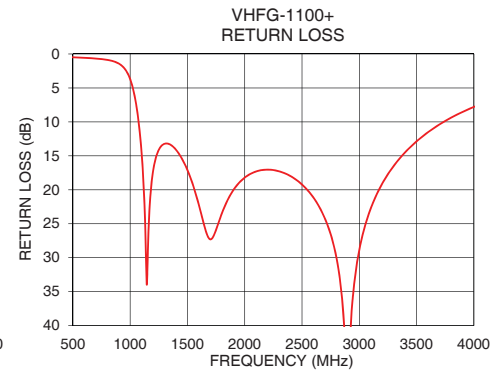
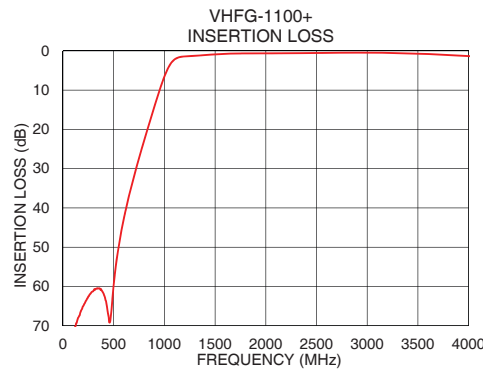
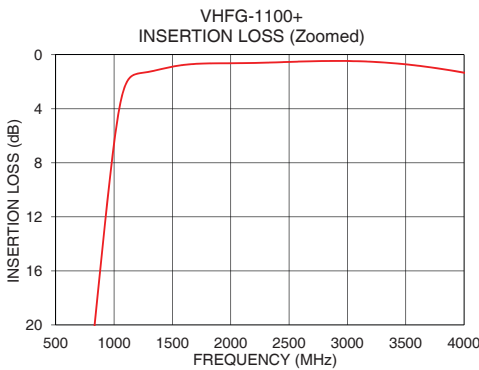
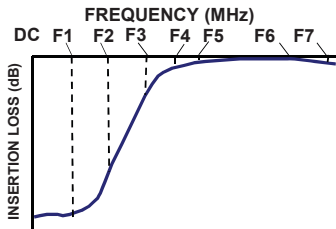
Operating Temperature	-55°C to 125°C
Storage Temperature	-55°C to 125°C
RF Power Input*	4W max. @25°C

\*Passband rating, derate linearly to 0.8W at 125°C ambient  
Permanent damage may occur if any of these limits are exceeded.

### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)
10	87.33	0.17
100	72.06	0.24
250	62.55	0.33
530	53.11	0.50
700	32.01	0.67
710	31.05	0.68
750	27.33	0.75
810	22.01	0.89
900	14.33	1.40
970	8.70	2.60
1040	4.21	6.26
1050	3.75	7.18
1100	2.19	14.59
1400	1.07	14.10
1500	0.89	17.10
2000	0.63	18.20
2500	0.53	19.23
3000	0.46	28.87
3200	0.52	19.10
3900	1.18	8.54

### Typical Frequency Response



### Notes

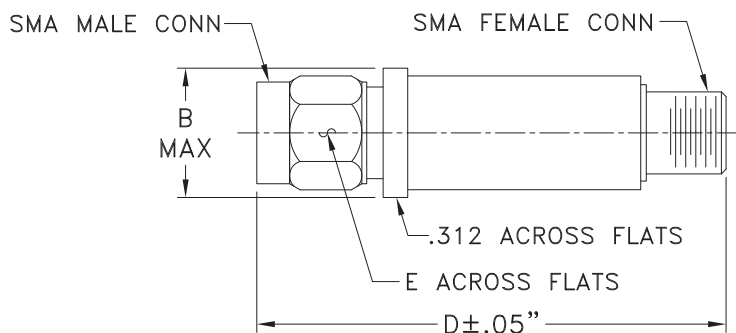
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## Coaxial Connections

PORT - 1	SMA-Male
PORT - 2	SMA-Female

## Outline Drawing



## Outline Dimensions ( inch )

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

Note: Please refer to case style drawing for details

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