

# Coaxial High Pass Filter

## VHF-1080+

50Ω 1150 to 5000 MHz

### The Big Deal

- Pass band (1150 to 5000 MHz)
- Low insertion loss <1dB (1500-4000 MHz)
- Versatile small size, coaxial, 1.43" length



CASE STYLE: FF704

### Product Overview

The VHF-1080+ High Pass Filter is constructed using internal LTCC High Pass Filter structure to achieve repeatable performance. Covering 1150-5000MHz, these filters offer a wide bandwidth, good rejection and low insertion loss. Built using Mini-Circuits proven unibody construction which integrates the RF connectors with the case body, the VHF-1080+ takes very little space and meets rugged field test lab system environment.

### Key Features

Feature	Advantages
Rejection peaks at harmonic frequencies	Provides good rejection of signals at harmonic frequencies, for improved system performance.
Compact Versatile Case	Enables use in a variety of applications including space constrained connectorized systems. Connectors: SMA Female (1), SMA Male (1)
Rugged Unibody Construction	Mini-Circuits Unibody construction allows survivability in critical applications including militarized or industrial systems.

#### 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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## VHF-1080+

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CASE STYLE: FF704

Connectors	Model
SMA	VHF-1080+

### Features

- Low insertion loss <1dB (1500-4000 MHz)
- Temperature stable
- Rugged unibody construction, small size

### Electrical Specifications<sup>(1)</sup> at 25°C

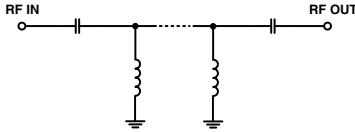
Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Stop Band	DC-F1	DC-600	40	45	-	dB
	Rejection Loss	F1-F2	600-750	20	30	
	Freq. Cut-Off	F3	780	-	20	
	VSWR	F4	1080	-	3	
Pass Band	DC-F3	DC-780	-	20	-	:1
	Insertion Loss	F5-F8	1150-5000	-	2.0	-
	VSWR	F6-F7	1500-4000	-	0.6	1.3
		F5-F7	1150-4000	-	2.0	-

(1) In Application where DC voltage is present at either input or output ports, coupling capacitors are required.

### Applications

- Transmitters / Receivers
- Lab use

### Functional Schematic



### Maximum Ratings

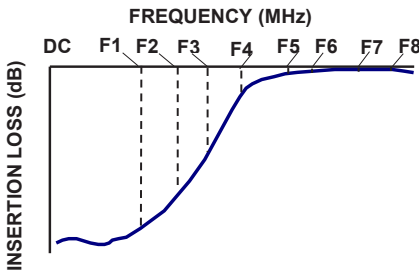
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	7 W

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

### Typical Performance Data at 25°C

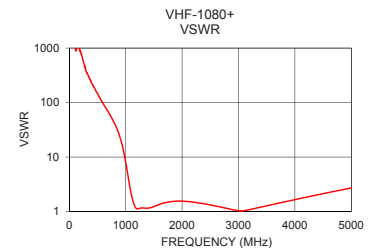
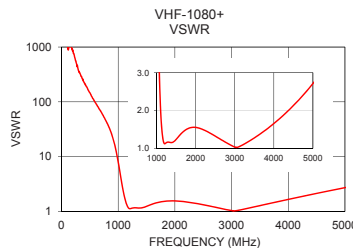
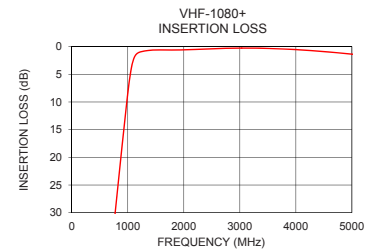
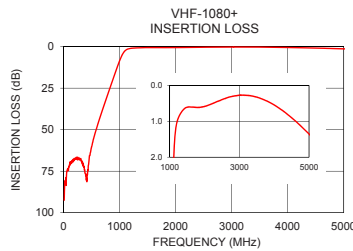
Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
10	92.45	6470.90
100	71.34	1388.17
600	47.82	95.94
750	32.42	52.52
760	31.46	50.59
770	30.46	47.86
780	29.48	45.92
870	20.70	28.45
900	17.79	22.97
950	12.97	14.68
1000	8.42	8.06
1050	4.68	3.97
1080	3.11	2.64
1100	2.38	2.07
1150	1.40	1.34
1200	1.05	1.12
1500	0.61	1.24
3000	0.27	1.03
4000	0.55	1.66
5000	1.35	2.71

### Typical Frequency Response



### +RoHS Compliant

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



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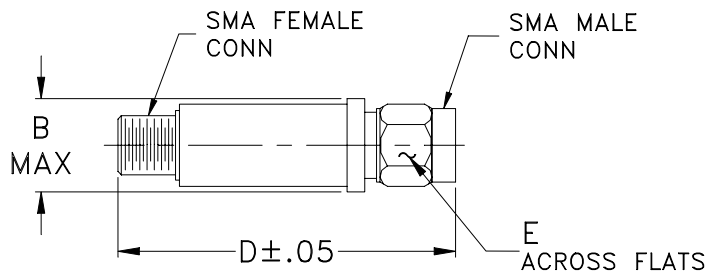
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M159042  
VHF-1080+  
EDU2542  
URJ  
170524  
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## Coaxial Connections

INPUT	SMA-Female
OUTPUT	SMA-Male

## Outline Drawing



## Outline Dimensions ( $\frac{\text{inch}}{\text{mm}}$ )

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

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