

# Coaxial High Pass Filter

## VHF-145+

50Ω

140 to 1150 MHz



CASE STYLE: FF704

### The Big Deal

- Low Insertion Loss (2.0 dB max.)
- Good close-in rejection
- Versatile small size, coaxial, 1.43" length

### Product Overview

The VHF-145+ High Pass Filter is constructed using internal LTCC High Pass Filter structure to achieve repeatable performance. Covering 140-1150 MHz, these filters offer a wide bandwidth. For a high pass filter, that is versatile for many upconverter applications. Built using Mini-Circuits proven unibody construction which integrates the RF connectors with the case body, the VHF-145+ takes very little space and meets rugged field test lab system environment.

### Key Features

Feature	Advantages
Wideband	Covers VHF and UHF bands, and is ideal for up conversion applications.
Compact Versatile Case (1.43"x0.41")	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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# Coaxial High Pass Filter

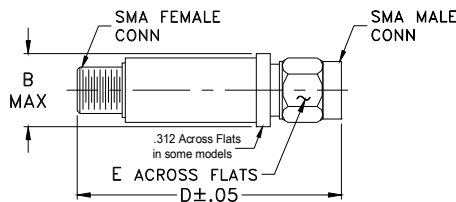
50Ω 140 to 1150 MHz

## 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.

## Outline Drawing



## Outline Dimensions (inch/mm)

B	D	E	wt
.410	1.43	.312	grams
10.41	36.32	7.92	10.0

## Features

- rugged unibody construction, small size
- 7 sections
- temperature stable
- excellent power handling, 7W
- low cost

## Applications

- sub-harmonic rejection
- transmitters/receivers
- lab use

VHF-145+



Generic photo used for illustration purposes only

CASE STYLE: FF704

Connectors	Model
SMA	VHF-145+

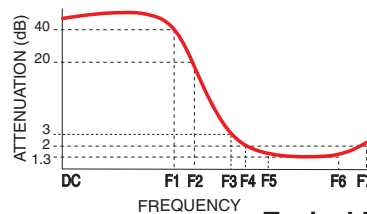
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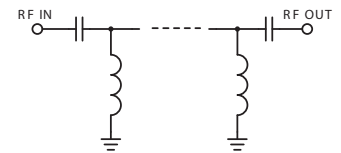
## Electrical Specifications at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Stop Band	Rejection Loss	DC-F1	DC-80	20		dB
		DC-F2	DC-115	15		dB
	Freq. Cut-Off	F3	132	3.0		dB
	VSWR	DC-F2	DC-115	20		:1
Pass Band	Insertion Loss	F5-F6	155-1050		1.5	dB
		F4-F7	140-1150		3.0	dB
	VSWR	F5-F7	155-1150	1.5		:1

## Typical Frequency Response

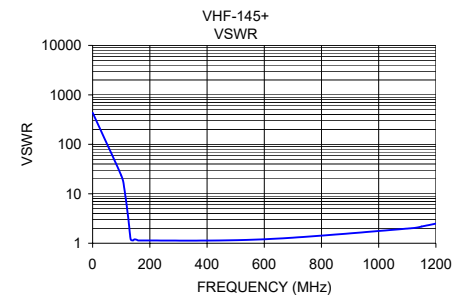
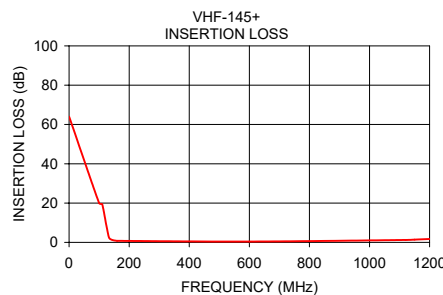


## Electrical Schematic



## Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
0.30	63.96	434.30
100.00	20.05	23.49
110.00	19.50	13.60
124.00	8.68	3.42
133.00	2.45	1.20
141.00	1.39	1.14
145.00	1.17	1.19
148.00	1.06	1.20
152.00	0.94	1.19
156.00	0.84	1.16
160.00	0.77	1.14
600.00	0.39	1.20
1120.00	1.23	2.03
1150.00	1.38	2.18
1200.00	1.71	2.50



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