

# Coaxial High Pass Filter

## SHP-20+

50Ω      20 to 1000 MHz

### The Big Deal

- Low insertion loss
- High rejection
- Connectorized package



CASE STYLE: FF99

### Product Overview

SHP-20+ is a High pass filter in a connectorized package covering 20 to 1000 MHz. This filter can be used in IF stage filtering of various multiband, CATV, Broadband Fiber Networks and Multiband radio systems. It has repeatable performance across production lots and consistent performance across temperature.

### Key Features

Feature	Advantages
Low insertion loss	Can be used in high performance applications.
Good rejection	This enables the filter to attenuate spurious signals and reject harmonics for broad band frequency.
Connectorized package	The connectorized package is easy to interface with other devices and well suited for test setups.



For detailed performance specs  
& shopping online see web site

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IF/RF MICROWAVE COMPONENTS

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).

# Coaxial High Pass Filter

50Ω 20 to 1000 MHz

## SHP-20+



### Features

- Wide band, 20 MHz to 1000 MHz
- High rejection
- Connectorized package

CASE STYLE: FF99

Connectors	Model	Price	Qty.
SMA-MF	SHP-20+	\$43.95 ea.	(1-9)

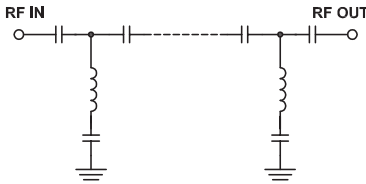
### Electrical Specifications at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Stop Band	Rejection Loss	DC-F1	DC-11	20	35	-	dB
	VSWR	DC-F1	DC-11	-	40	-	:1
Pass Band	Insertion Loss	F2-F3	20-1000	-	0.4	1	dB
	VSWR	F2-F3	20-1000	-	1.3	-	:1

### Applications

- IF stage filtering of various multiband
- Broadband Fiber Networks
- CATV
- Radio communications
- Receiver \ transmitters

### Functional Schematic



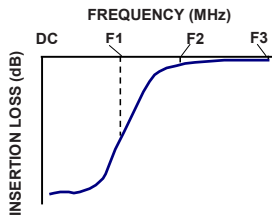
Maximum Ratings	
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5 W.

Permanent damage may occur if any of these limits are exceeded.

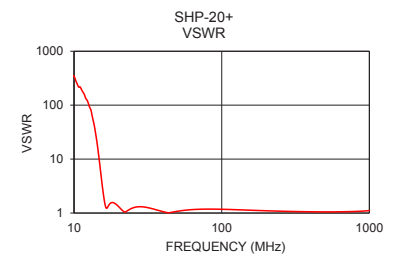
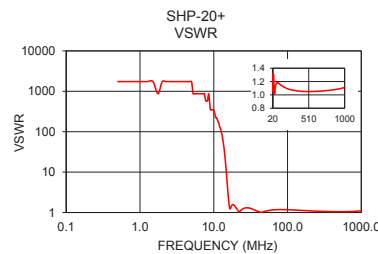
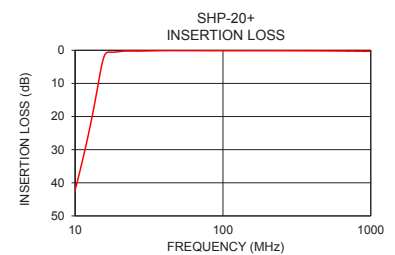
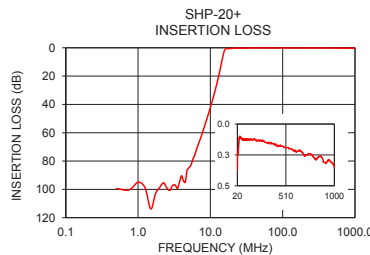
### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
0.50	99.43	1737.18
5.25	83.83	868.59
6.75	68.78	868.59
8.25	55.90	579.06
10.25	40.28	289.53
11.00	34.78	217.15
12.50	23.87	108.58
13.25	18.30	64.35
14.25	10.70	22.00
15.00	5.31	7.28
15.50	2.61	3.38
16.00	1.11	1.78
16.75	0.57	1.24
20.00	0.37	1.32
22.00	0.23	1.05
44.00	0.10	1.01
165.00	0.13	1.12
445.00	0.18	1.05
740.00	0.24	1.06
1000.00	0.35	1.11

### Typical Frequency Response



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



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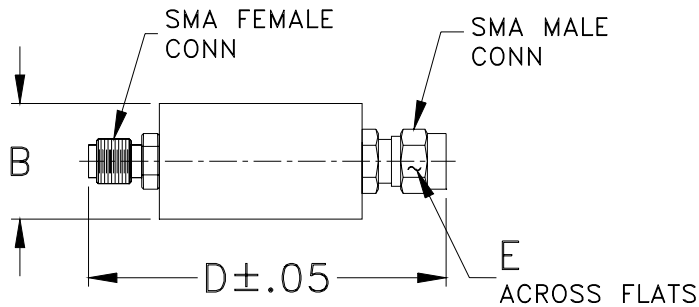
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## Coaxial Connections

INPUT	SMA-Male
OUTPUT	SMA-Female

## Outline Drawing



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

B	D	E	wt
.67	1.98	.312	grams
17.02	50.29	7.92	42.0