

Coaxial

# Bandpass Filter

VBF-7900+

50Ω

7800 to 8100 MHz

## The Big Deal

- Low Insertion Loss (1.6 dB typical)
- Good close-in rejection
- Versatile small size, coaxial, 1.43" length



CASE STYLE: FF704

## Product Overview

The VBF-7900+ Band Pass Filter is constructed using internal LTCC Band Pass Filter structure to achieve repeatable performance. Covering 7900 MHz  $\pm$  150 MHz, these units offer low insertion loss and good rejection at the band reject edges. Built using Mini-Circuits proven unibody construction which integrates the RF connectors with the case body, the VBF-7900+ takes very little space and meets rugged test lab system environment.

## Key Features

Feature	Advantages
Good Rejection close to pass band	Provides good rejection of signals close to the pass band, for improved system performance.
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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50Ω 7800 to 8100 MHz

## VBF-7900+



CASE STYLE: FF704

Connectors SMA  
Model VBF-7900+

**+RoHS Compliant**

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

### Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	2W max. at 25°C

\*Passband rating, derate linearly to 0.5W at 100°C ambient

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

### Features

- Small size
- Temperature stable
- Rugged unibody construction

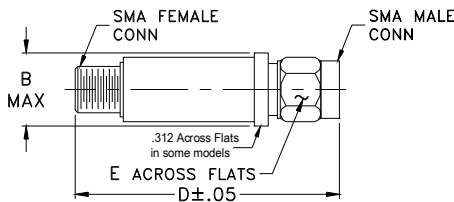
### Applications

- Harmonic Rejection
- Transmitters / Receivers

### Electrical Specifications at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Center Frequency	—	—	7900	—	MHz	
	Insertion Loss	F1-F2	7800-8100	—	1.6	3.5	dB
	VSWR	F1-F2	7800-8100	—	1.4	—	:1
Stop Band, Lower	Insertion Loss	DC-F3	DC-6800	—	20	—	dB
	VSWR	DC-F3	DC-6800	—	30	—	:1
Stop Band, Upper	Insertion Loss	F4-F5	9500-15000	—	20	—	dB
	VSWR	F4-F5	9500-15000	—	30	—	:1

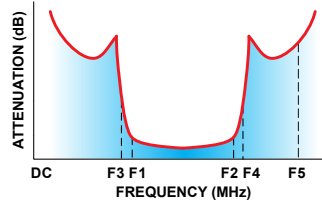
### Outline Drawing



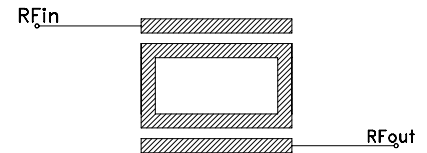
### Outline Dimensions (inch/mm)

B	D	E	gra
.410	1.43	.312	1
10.41	36.32	7.92	1

### Typical Frequency Response

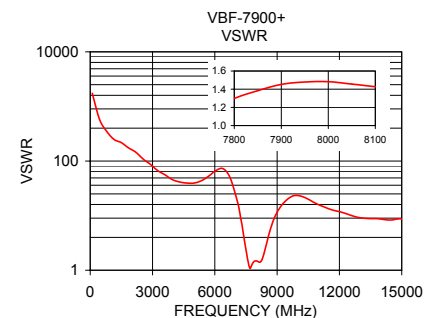
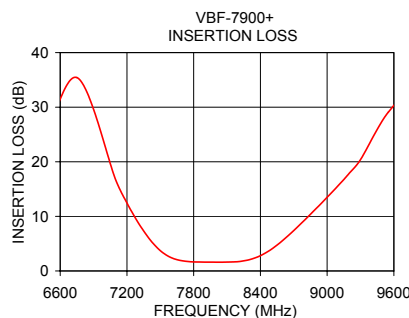
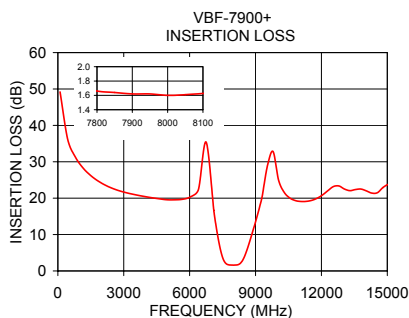


### Functional Schematic



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
100.00	49.20	1737.18
800.00	31.26	347.44
1500.00	26.19	217.15
2550.00	22.54	108.58
5000.00	19.55	39.49
6050.00	20.39	66.82
6750.00	35.42	48.26
7800.00	1.66	1.30
8000.00	1.60	1.48
9000.00	13.50	11.46
9300.00	20.39	16.89
12050.00	20.88	11.69
13550.00	22.36	8.81
14050.00	22.00	8.60
15050.00	23.77	8.68



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