# **Bandpass Filter**

**VBF-8350+** 

 $50\Omega$ 

8250 to 8450 MHz

# The Big Deal

- Low Insertion Loss (1.8 dB typical)
- Good close-in rejection
- Versatile small size, coaxial, 1.43" length



CASE STYLE: FF704

## **Product Overview**

The VBF-8350+ Band Pass Filter is constructed using internal LTCC Band Pass Filter structure to achieve repeatable performance. Covering 8350 MHz  $\pm$  100 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-8350+ 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.

C. The parts covered by this specification document 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.ninicircuits.com/MCLStore/terms.jsp

# **Bandpass Filter**

#### $50\Omega$ 8250 to 8450 MHz

#### **Maximum Ratings**

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
BF Power Input*	2W max_at 25°C

<sup>\*</sup>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

VBF-8350+

CASE STYLE: FF704

Connectors	Model
SMA	VBF-8350+

#### +RoHS Compliant

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

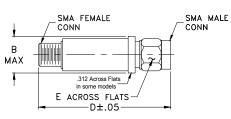
#### **Applications**

- Harmonic Rejection
- Transmitters / Receivers

### Electrical Specifications at 25°C

Para	meter	F#	Frequency (MHz)	Min.	Тур.	Max.	Unit
	Center Frequency	_	_	_	8350	_	MHz
Pass Band	Insertion Loss	F1-F2	8250-8450	_	1.8	3.5	dB
	VSWR	F1-F2	8250-8450	_	1.4		:1
Oten Dend Lewer	Insertion Loss	DC-F3	DC-7300	_	18	_	dB
Stop Band, Lower	VSWR	DC-F3	DC-7300	_	30	_	:1
Cton Bond Ilmner	Insertion Loss	F4-F5	10300-15050	_	18	_	dB
Stop Band, Upper	VSWR	F4-F5	10300-15050	_	30	_	-1

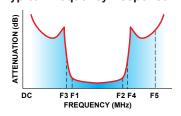
#### **Outline Drawing**



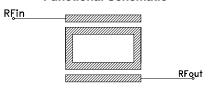
### Outline Dimensions (inch mm)

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

#### **Typical Frequency Response**

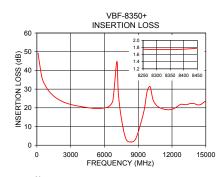


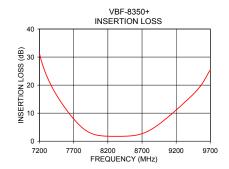
#### **Functional Schematic**

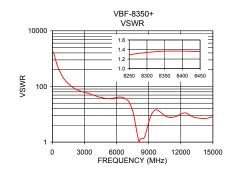


#### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	
100.00	49.29	1737.18	
800.00	31.37	289.53	
1500.00	26.27	124.09	
2200.00	23.55	78.97	
3600.00	21.00	52.65	
4300.00	20.28	42.38	
6050.00	20.00	40.41	
6750.00	23.97	37.77	
7200.00	31.32	25.94	
7400.00	18.52	17.22	
8250.00	1.75	1.29	
8450.00	1.78	1.36	
9550.00	19.49	13.92	
11050.00	19.69	7.66	
15050.00	23.94	8.23	







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