# Coaxial **Bandpass Filter**

2340 to 2530 MHz 50Ω

# **The Big Deal**

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



VBF-2435+

## **Product Overview**

The VBF-2435+ Band Pass Filter is constructed using internal LTCC Band Pass Filter structure to achieve repeatable performance. Covering 2435 MHz ± 95 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-2435+ 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 milita- rized or industrial systems.



For detailed performance specs

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine 2 Provides ACTUAL Data Instantity at minicipations. 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 Min-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuit's applicable established test are an entitled to the rights and benefits contained therein. For a full statement of the Standard Terms'): Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms'): Purchasers of this parts covered by this specification. For a full statement of the Standard Terms'): Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms'): Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms'): Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms'): Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms'): Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms'): Purchasers of the standar

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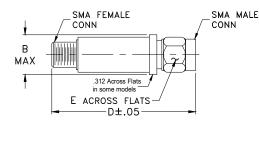
#### 50Ω 2340 to 2530 MHz

#### **Maximum Ratings**

•	
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	1.5W max. at 25°C
*Passband rating, derate linearly to	0.25W at 100°C ambient

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

### **Outline Drawing**



## Outline Dimensions (inch)

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

#### **Features**

- Small size
- Temperature stable
- · Rugged unibody construction

#### **Applications**

- Harmonic Rejection
- Transmitters / Receivers



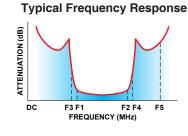
	CASE STYLE:	FF704	
Connectors	Model	Price	Qty.
SMA	VBF-2435+	\$34.95 ea.	(1-9)

#### + RoHS compliant in accordance with EU Directive (2002/95/EC)

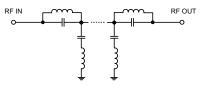
The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

### Electrical Specifications at 25°C

Parar	neter	F#	Frequency (MHz)	Min.	Тур.	Max.	Unit
	Center Frequency	_	—	_	2435	_	MHz
Pass Band	Insertion Loss	F1-F2	2340-2530	_	_	3.0	dB
	VSWR	F1-F2	2340-2530	_	_	2.5	:1
Step Band Lawer	Insertion Loss	DC-F3	DC-1830	_	20	_	dB
Stop Band, Lower	VSWR	DC-F3	DC-1830	-	25	-	:1
Stop Bond Upper	Insertion Loss	F4-F5	4300-5500	_	25	_	dB
Stop Band, Upper	VSWR	F4-F5	4300-5500	_	20	—	:1



#### **Functional Schematic**

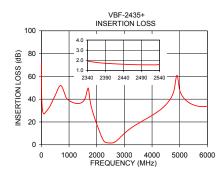


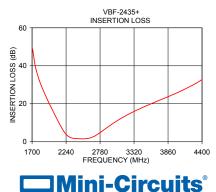
#### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
0.30	71.98	10651.50
100.00	27.08	244.03
1000.00	38.91	80.92
1500.00	37.83	63.35
1650.00	47.03	54.90
1950.00	21.73	28.06
2200.00	5.68	3.99
2340.00	1.92	1.02
2440.00	1.61	1.35
2530.00	1.55	1.30
3000.00	9.98	16.10
3580.00	19.86	45.67
3800.00	22.91	48.47
3850.00	23.59	48.74
5500.00	35.01	42.42

1000000

VSWR





20 2340 2390 2440 2490 254 1000 2000 3000 6000 0 1000 4000 5000 FREQUENCY (MHz)

VBF-2435+

VSWR

## For detailed performance specs

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