

LTCC Bandpass Filter

BFCN-2435+

50Ω 2340 to 2530 MHz

The Big Deal

- Small size 3.2mm x 1.6mm
- Pass band (2340-2530 MHz)
- Low Insertion Loss (2.0 dB typical)
- Sharp rejection peaks close to stop band



CASE STYLE: FV1206

Product Overview

The BFCN-2435+ LTCC Band Pass Filter is constructed with 12 layers in order to achieve a miniature size and high repeatability of performance. Wrap-around terminations minimize variations in performance due to parasitics. Covering 2435 MHz \pm 95 MHz, these units offer low insertion loss and good rejection.

Key Features

Feature	Advantages
Small Size (3.20mm x1.6 mm)	Allows for high layout density of circuit boards, while minimizing affects of parasitics.
Rejection peaks at harmonic frequencies	Provides good rejection of signals at harmonic frequencies, for improved system performance.
Wrap around termination	Provides excellent solderability and easy visual inspection capability.
LTCC construction	Provides a rugged package that is well suited for tough environments including high humidity and high temperature extremes.



For detailed performance specs
& shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 *The Design Engineers Search Engine*  Provides ACTUAL Data Instantly at minicircuits.com

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.

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CASE STYLE: FV1206
PRICE: \$3.95 ea. QTY (20)

+RoHS Compliant

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



Available Tape and Reel at no extra cost

Reel Size	Devices/Reel
7"	20, 50, 100, 200, 500, 1000, 3000

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

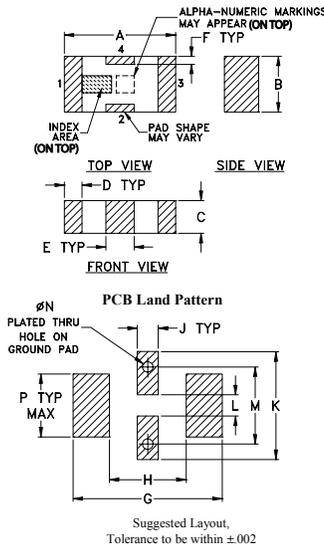
*Passband rating, derate linearly to 0.25W at 100°C ambient
Permanent damage may occur if any of these limits are exceeded.

Pin Connections

RF IN	1
RF OUT	3
GROUND	2,4

Product Marking: 36

Outline Drawing

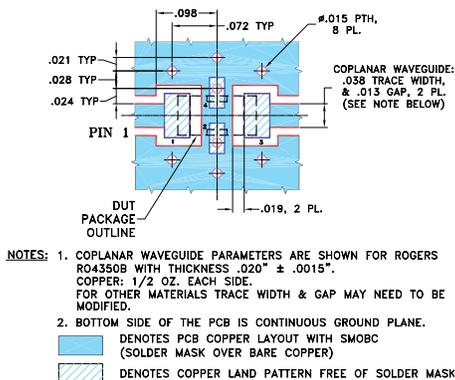


Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.126	.063	.037	.020	.032	.009	.169
3.20	1.60	0.94	0.51	0.81	0.23	4.29

H	J	K	L	M	N	P	wt
.087	.024	.122	.024	.087	.012	.071	grams
2.21	0.61	3.10	0.61	2.21	0.30	1.80	.020

Demo Board MCL P/N: TB-270 Suggested PCB Layout (PL-137)



Features

- Small size
- Temperature stable
- Hermetically sealed
- LTCC construction

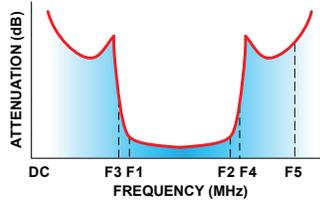
Applications

- Harmonic Rejection
- Transmitters / Receivers

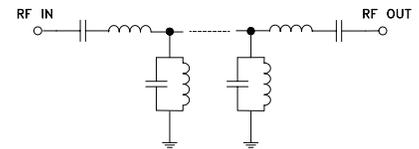
Electrical Specifications at 25°C

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

Typical Frequency Response

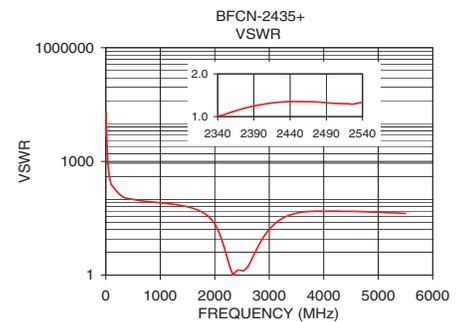
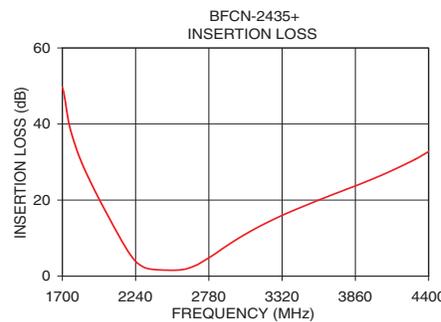
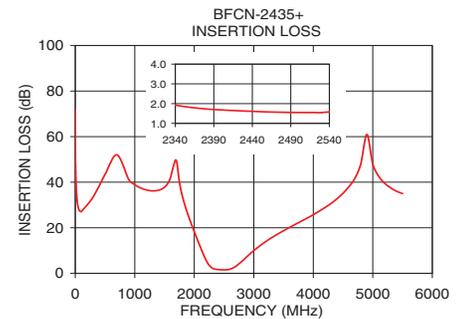


Functional Schematic



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



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