

Ceramic

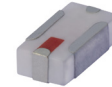
# Bandpass Filter

**BFCN-5540+**

50Ω      4620 to 6640 MHz

## The Big Deal

- LTCC construction
- Temperature stable from -55 to +100°C
- Small size (0.12 x .06 X .03")



CASE STYLE: FV1206-4

## Product Overview

The BFCN-5540+ LTCC bandpass filter covers the 4620 to 6640 MHz passband with 1.2 dB passband insertion loss, 22 dB lower stopband rejection, and 30 dB upper stopband rejection. This model handles up to 1W RF input power and provides a wide operating temperature range from -55 to +100°C. Utilizing LTCC construction, the filter achieves excellent repeatability of performance and comes in a tiny 1206 ceramic package with wraparound terminations, minimizing performance variations due to parasitics and saving space in dense PCB layouts.

## Key Features

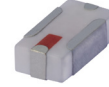
Feature	Advantages
LTCC Construction	Provides a rugged package well suited for tough environments such as high humidity and temperature extremes.
Tiny size (0.12 x .06 x .03")	Saves space in dense circuit boards and minimizes the effects of parasitics.
Wrap-around terminations	Provides excellent solderability and easy visual inspection
Wide operating temperature range, -55 to +100°C	Enables reliable performance in extreme environments



# Ceramic Bandpass Filter

50Ω 4620 to 6640 MHz

## BFCN-5540+



Generic photo used for illustration purposes only  
CASE STYLE: FV1206-4

### Features

- Small size
- Temperature stable
- LTCC construction

### Applications

- Harmonic Rejection
- Transmitters / Receivers
- Aviation
- Communications
- W-LAN

**+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

### Electrical Specifications<sup>(1,2)</sup> at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Center Frequency	—	—	5540	—	MHz	
	Insertion Loss	F1-F2	4620-6640	—	1.2	4	dB
Stop Band, Lower	VSWR	F1-F2	4620-6640	—	2.1	—	:1
	Insertion Loss	DC-F3	DC-3470	17	22	—	dB
Stop Band, Upper	VSWR	DC-F3	DC-3470	—	25	—	:1
	Insertion Loss	F4-F5	8060-8820	13	30	—	dB
Stop Band, Upper	VSWR	F4-F5	8820-10990	—	17	—	dB
	VSWR	F4-F6	8060-10990	—	25	—	:1

1. Measured on Mini-Circuits Characterization Test Board TB-824+.

2. This filter is not intended for use as a DC Blocking circuit element. In Application where DC voltage is present at either input or output ports, blocking capacitors are required at the corresponding RF port.

### Maximum Ratings

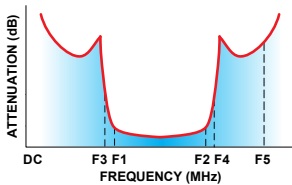
Operating Temperature	-55°C to +100°C
Storage Temperature	-55°C to +100°C
RF Power Input*	1W at 25°C

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

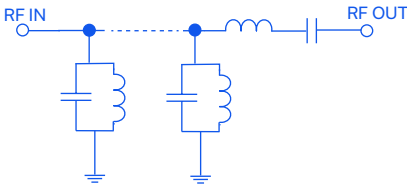
### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1000	36.33	65.08
2000	25.57	46.87
3400	37.28	39.50
4600	1.39	1.58
5000	1.48	1.95
6600	2.33	2.10
7000	3.54	1.62
7500	16.69	9.78
8000	38.25	15.07
8600	45.83	14.11
9000	35.68	14.34
9500	30.89	17.30
10000	29.47	22.09
10900	40.64	27.46
11000	38.85	26.92

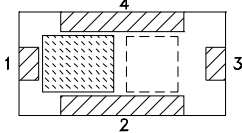
### Specification Definition



### Functional Schematic



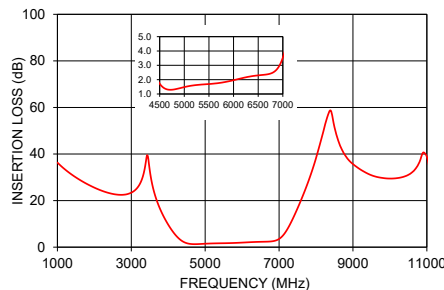
### Top View



### Pad Connections

Input	1
Output	3
Ground	2,4

### BFCN-5540+ INSERTION LOSS



### BFCN-5540+ VSWR

