

Ceramic

# Bandpass Filter

BFCN-2840+

50Ω 2750 to 2930 MHz

## Maximum Ratings

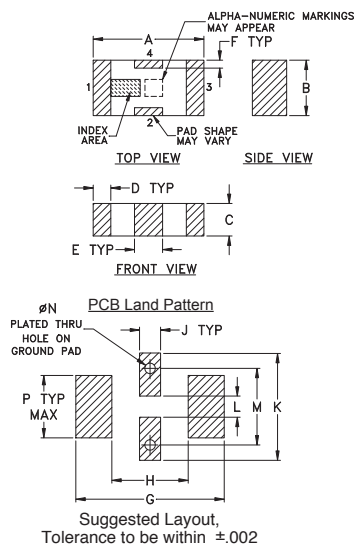
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	1.5W at 25°C

\*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

## Outline Drawing

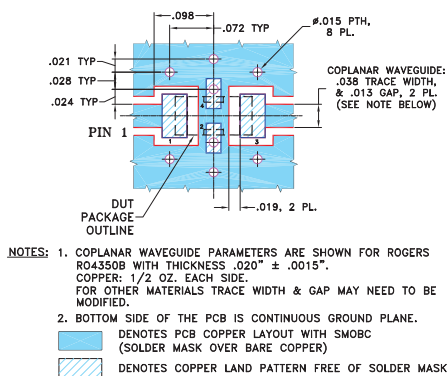


## Outline Dimensions (inch/mm)

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

- Good VSWR, 1.6:1 typ @ passband
- Small size
- Temperature stable
- LTCC construction

## Applications

- Harmonic Rejection
- Transmitters / Receivers
- WiMAX

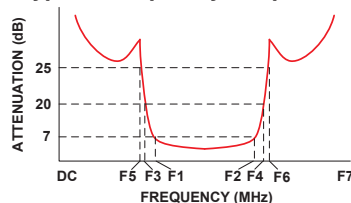
## Electrical Specifications<sup>1,2</sup> at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Center Frequency	—	—	2840	—	MHz
	Insertion Loss	F1-F2	—	—	7	dB
	VSWR	F1-F2	—	1.6	3.0	:1
Stop Band, Lower	Insertion Loss	DC-F5	—	25	—	dB
	VSWR	DC-F3	20	—	—	dB
	VSWR	DC-F3	—	20	—	:1
Stop Band, Upper	Insertion Loss	F4-F6	20	—	—	dB
	VSWR	F6-F7	—	25	—	dB
	VSWR	F4-F7	—	20	—	:1

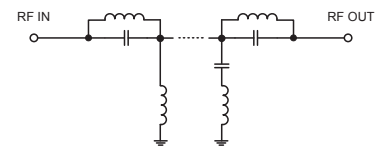
1. Measured on Mini-Circuits Characterization Test Board TB-270.

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.

## Typical Frequency Response

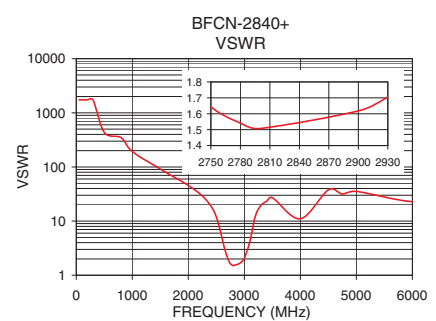
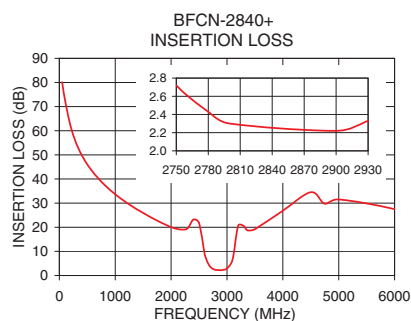


## Functional Schematic



## Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50	80.14	1737.18
500	46.02	434.30
1500	25.87	91.43
1550	25.16	82.73
2570	11.87	6.78
2650	5.57	3.06
2750	2.72	1.64
2800	2.30	1.51
2840	2.19	1.50
2900	2.22	1.62
2930	2.33	1.70
3070	4.74	3.07
3130	9.35	6.11
3190	18.60	11.69
4000	26.84	11.03
4050	28.86	17.05
4500	34.53	37.77
6000	27.46	22.87



## 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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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

REV. OR  
M123626  
EDR-9332/4F1  
BFCN-2840+  
RAV  
140220  
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