

Ceramic

# Bandpass Filter

50Ω 1893 to 1920 MHz

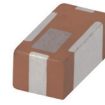
## Features

- Small size (0.126"x0.063"x0.051")
- Temperature stable
- Hermetically sealed
- LTCC construction

## Applications

- Harmonic Rejection
- Transmitters / receivers
- PCS

**BFCN-1900+**



Generic photo used for illustration purposes only

CASE STYLE: FV1206-5

### +RoHS Compliant

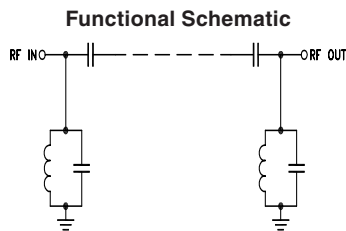
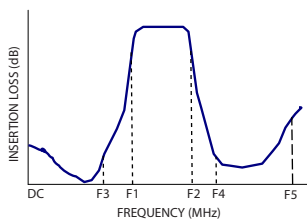
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications



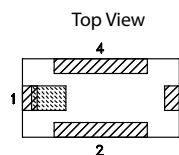
Available Tape and Reel at no extra cost

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

## Specification Definition



## Functional Schematic



## Pad Connections

Input	1
Output	3
Ground	2,4

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

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Center Frequency	—	—	1900	—	MHz
	Insertion Loss	F1 - F2	—	2.6	3.2	dB
	VSWR	F1 - F2	—	1.4	—	:1
Stop Band, Lower	Insertion Loss	DC - F3	—	35	—	dB
	VSWR	DC - F3	—	30	—	:1
Stop Band, Upper	Insertion Loss	F4 - F5	—	25	—	dB
	VSWR	F4 - F5	—	50	—	:1

1. Measured on Mini-Circuits Characterization Test Board TB-518+.

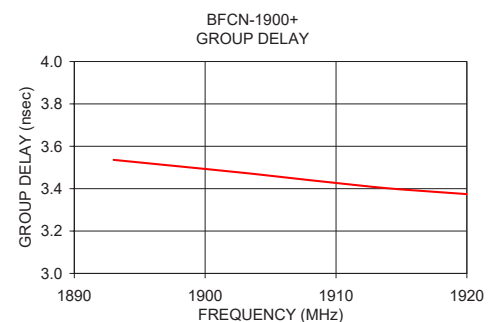
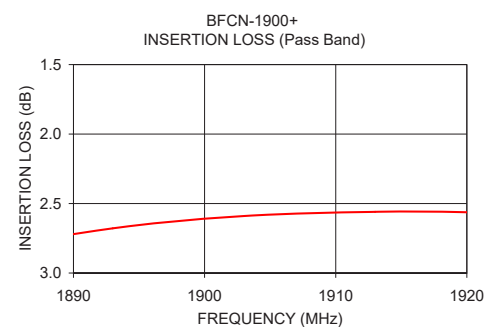
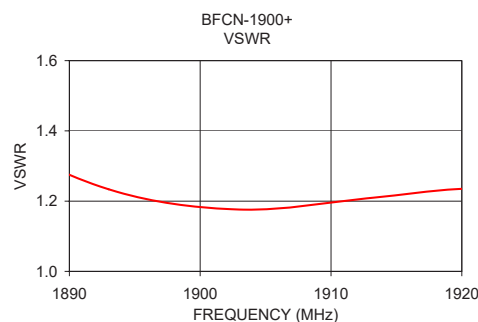
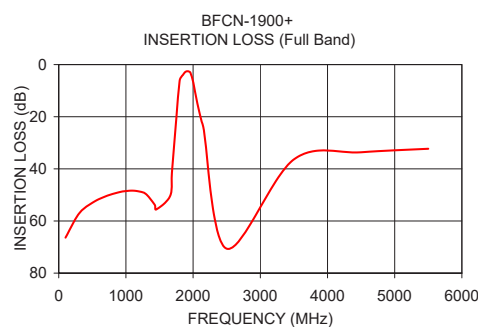
2. This filter is not intended for use as a DC Blocking circuit element. In Application where DC voltage is present at either input or output ports, blocking capacitors are required at the corresponding RF port.

## Maximum Ratings

Operating Temperature	-40°C to +85°C
Storage Temperature*	-55°C to +100°C
RF Power Input**	2W at 25°C

\* 12 months

\*\*Passband rating, derate linearly to 0.5W at 85°C ambient  
Permanent damage may occur if any of these limits are exceeded.



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REV. A  
M151107  
ED-15019/1  
BFCN-1900+  
WZ/CP/AM  
190725  
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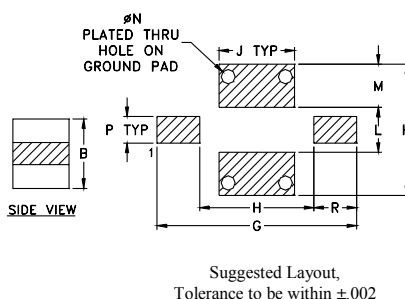
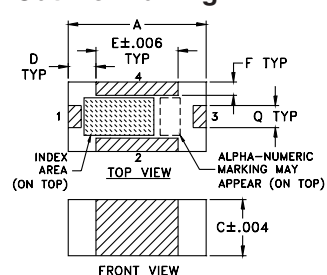
# BFCN-1900+

### Pass Band Performance

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Insertion Loss (dB)	Group Delay (nsec)
100.00	66.39	138.63	1893.00	2.68	3.54
500.00	53.03	102.96	1903.00	2.59	3.47
1000.00	48.53	94.67	1913.00	2.56	3.41
1200.00	48.68	92.97	1920.00	2.56	3.37
1660.00	50.31	45.30			
1687.00	40.78	37.21			
1800.00	6.13	2.56			
1893.00	2.68	1.23			
1920.00	2.56	1.23			
2000.00	6.53	4.20			
2153.00	24.20	43.19			
3500.00	36.36	137.82			
4500.00	33.62	95.34			
5500.00	32.30	90.59			


Input	1
Output	3
Ground	2,4

## Outline Drawing



**NOTE:** 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B  
WITH DIELECTRIC THICKNESS .020"  $\pm$  .0015".  
COPPER: 1/2 OZ. EACH SIDE.  
FOR OTHER MATERIALS TRACE WIDTH MAY NEED  
TO BE MODIFIED.

2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

 DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)  
 DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

### Outline Dimensions ( $\frac{\text{inch}}{\text{mm}}$ )

A	B	C	D	E	F	G	H	J
.126	.063	.051	.026	.075	.012	.182	.104	.069
3.20	1.60	1.30	0.66	1.91	0.30	4.62	2.64	1.75
K	L	M	N	P	Q	R		wt
.119	.041	.039	.013	.024	.020	.039		grams
3.02	1.04	0.99	0.33	0.61	0.51	0.99		.020

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