

# Ceramic Balance Filter

50Ω 690 to 1570 MHz

## Features

- Small size (0.126"x0.098"x0.039")
- Temperature stable
- Hermetically sealed
- LTCC construction

## Applications

- ISM
- Cellular

# BLFCV-1570+



Generic photo used for illustration purposes only

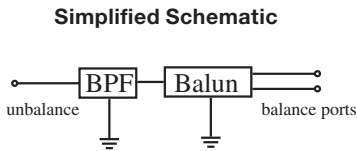
CASE STYLE: JV1210C-4

**+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, 4000



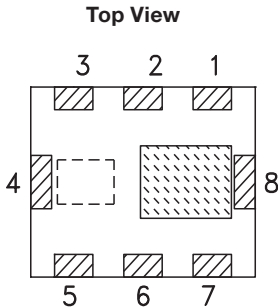
## Electrical Specifications at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
<b>Impedance Ratio</b>			2:1			
<b>Insertion Loss</b>	F1-F2	690 - 1570	—	—	3.0	dB
<b>Attenuation</b>		2200-5050	25	—	—	dB
		5050-6000	20	—	—	dB
<b>Amplitude Unbalance</b>		690 - 1570	—	—	1.5	dB
<b>Phase Unbalance</b>		690 - 1570	—	—	15	degree
<b>Input VSWR</b>		690 - 1570	—	1.78	—	:1

## Maximum Ratings

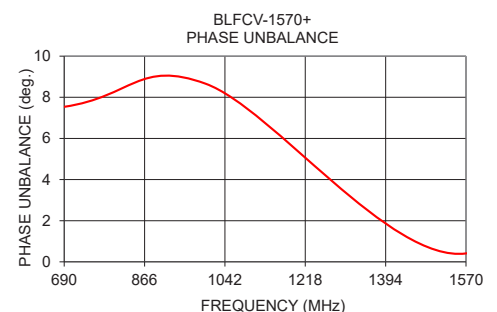
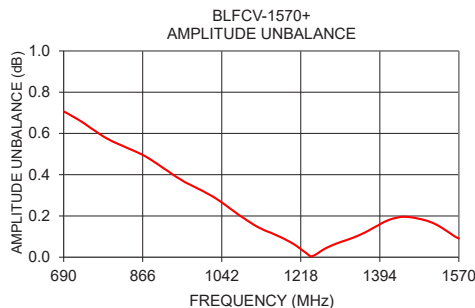
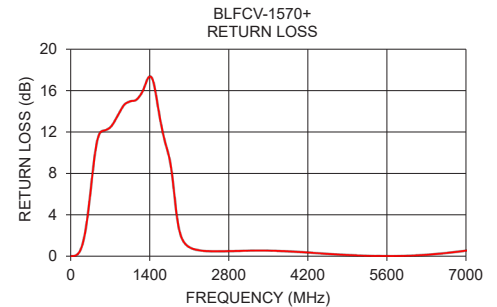
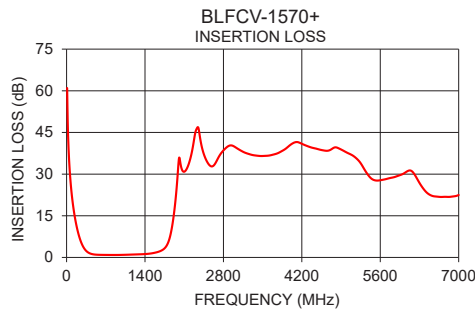
Operating Temperature	-55°C to +105°C
Storage Temperature	-55°C to +105°C
RF Power Input*	1W @25°C

\* Refer to product storage temperature after installation  
Suggestion for T&R unused product storage condition: +5 ~ +35 °C,  
Humidity 45-75%RH, 12 month Max



## Pad Connections

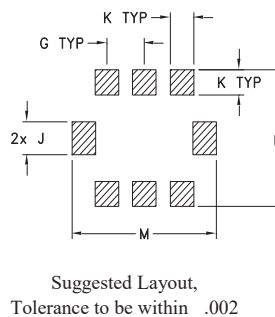
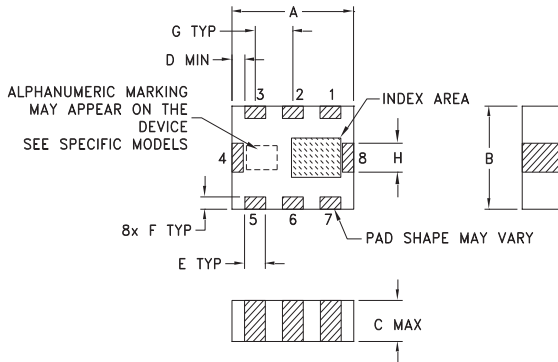
Unbalanced Port	7
Balanced Port	3, 5
GND	2, 4, 8
GNC or DC Feed	6
NC	1



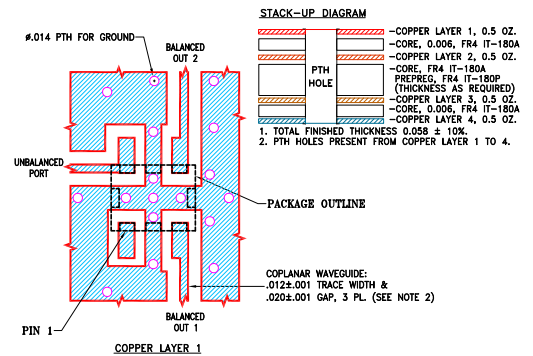
### Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	Amplitude Unbalance (dB)	Phase Unbalance (Deg.)
10	60.98	0.04	2.72	31.03
50	33.22	0.05	2.49	9.47
100	21.27	0.14	2.27	5.68
690	0.91	12.38	0.71	7.54
1000	0.93	14.80	0.32	8.66
1570	1.67	13.49	0.09	0.41
2000	34.43	1.38	6.11	11.55
2500	34.77	0.51	3.43	27.47
3000	39.84	0.55	3.20	37.34
3500	36.52	0.57	1.36	30.47
4000	40.59	0.45	9.38	85.68
4500	38.92	0.27	0.20	158.12
5000	37.79	0.12	4.09	170.46
5500	27.79	0.05	0.06	65.38
6000	30.01	0.08	10.33	69.21
7000	22.48	0.58	4.00	84.49

### Outline Drawing



### Demo Board MCL P/N: TB-1053+ Suggested PCB Layout (PL-632)



- NOTES:
- PCB IS MULTILAYER PCB, SEE STACK-UP DIAGRAM.
  - TRACE WIDTH & GAP PARAMETERS ARE SHOWN FOR FR4 IT-180A WITH DIELECTRIC THICKNESS .006"±.0007"; COPPER: 1/2 OZ. FOR OTHER MATERIALS TRACE WIDTH AND GAP MAY NEED TO BE MODIFIED.
  - LAYERS 2,3,4 OF THE PCB ARE CONTINUOUS GROUND PLANE.
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

### Outline Dimensions (Inch/mm)

A	B	C	D	E	F	G
.126	.098	.039	.004	.022	.012	.039
3.2	2.5	1.0	0.1	0.56	0.3	1.0
H	J	K	L	M		wt
.028	.031	.024	.130	0.15		grams
0.7	0.8	0.6	3.30	3.81		0.030

### Additional Notes

- 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.
- 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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