

Ceramic

Low Pass Filter

75Ω

5 MHz to 700 MHz

Features

- Low loss, 0.8 dB
- Small size, 1210 (3.2mm x 2.5mm)
- Temperature stable
- LTCC construction

Applications

- CATV/MDCA
- Harmonic Rejection
- Transmitters / Receivers

LFCV-700-75+



Generic photo used for illustration purposes only

CASE STYLE: JV1210C-2

+RoHS Compliant

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



Electrical Specifications^{1,2} at 25°C

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	F1-F2	5 - 700	—	1.0	dB
	Freq. Cut-Off	F3	855	3.0	—	dB
	VSWR	F1-F2	5 - 700	1.4	—	:1
Stop Band	Rejection Loss	F4-F5	990-1950	30	—	dB
		F5-F6	1950-2150	25	—	dB

1. Measured on Mini-Circuits Characterization Test Board TB-801+.

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

* 12 month max.

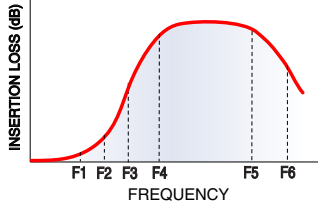
**Passband rating, derate linearly to 0.5W at 100°C ambient

Permanent damage may occur if any of these limits are exceeded.

Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
5.00	0.07	1.01
100.00	0.19	1.12
200.00	0.27	1.24
500.00	0.46	1.22
700.00	0.78	1.08
855.00	3.44	1.19
1000.00	51.74	29.28
1100.00	41.84	44.23
1200.00	61.85	52.95
1300.00	42.69	58.17
1400.00	38.22	60.59
1500.00	37.11	62.41
1600.00	37.70	62.79
1950.00	42.39	61.70
2000.00	39.55	61.40
2100.00	34.98	60.64
2150.00	33.21	60.65

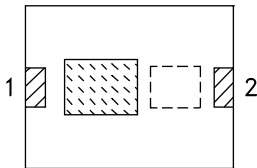
Specification Definition



Functional Schematic

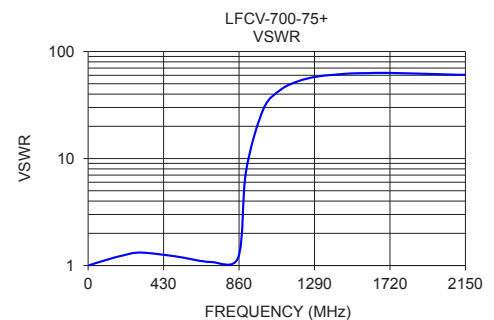
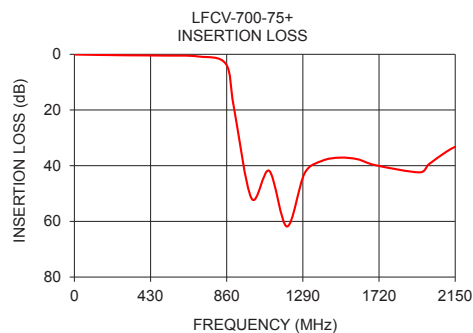


Top View



Pad Connections

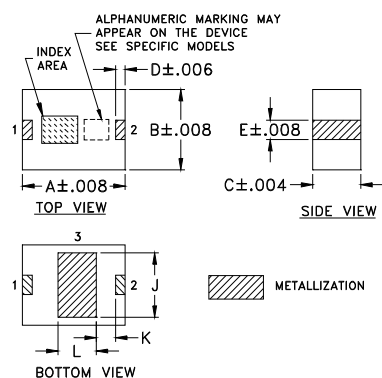
Input	1
Output	2
Ground	3



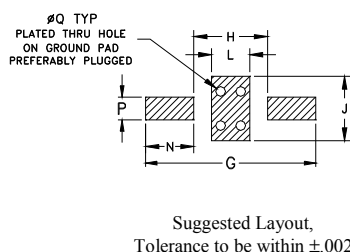
Low Pass Filter

LFCV-700-75+

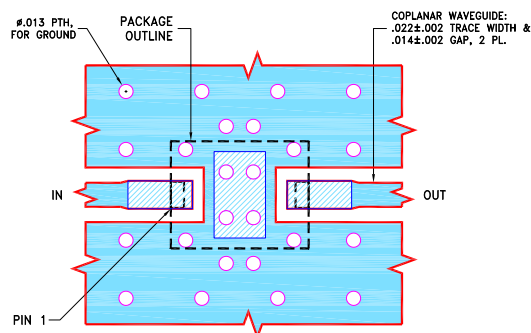
Outline Drawing



PCB Land Pattern



Demo Board MCL P/N: TB-801+ Suggested PCB Layout (PL-631)



- NOTES:
- TRACE WIDTH & GAP ARE SHOWN FOR ROGERS R04350B WITH DIELECTRIC THICKNESS .010" \pm .001". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH & GAP MAY NEED TO BE MODIFIED.
 - 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.

Pad Connections

Input	1
Output	2
Ground	3

Outline Dimensions (inches)

A	B	C	D	E	G	H
.126	.098	.059	.012	.024	.205	.087
3.2	2.5	1.5	0.3	0.61	5.2	2.2
J	K	L	N	P	Q	wt
.079	.028	.047	.059	0.026	0.012	grams
2.0	0.7	1.2	1.5	0.7	0.3	0.045

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.
- The parts covered by this specification document 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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