

# Ceramic Low Pass Filter

# LFCN-225+ LFCN-225

50Ω DC to 225 MHz



CASE STYLE: FV1206  
PRICE: \$2.99 ea. QTY (10-49)

## Maximum Ratings

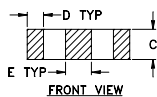
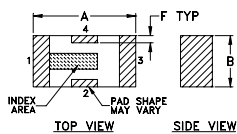
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	8.5W max. at 25°C

\* Passband rating, derate linearly to 3.5W at 100°C ambient. Permanent damage may occur if any of these limits are exceeded.

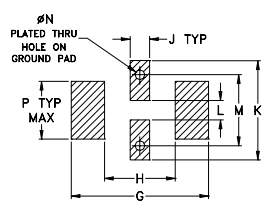
## Pin Connections

RF IN	1
RF OUT	3
GROUND	2,4

## Outline Drawing



PCB Land Pattern



Suggested Layout, Tolerance to be within ±.002

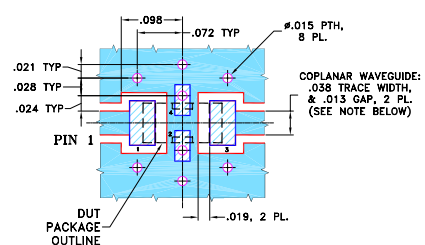
## Outline Dimensions (inch)

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)



- NOTES: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH THICKNESS .020" ± .0015". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH & GAP MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

## Features

- excellent power handling, 8.5W
- small size
- 7 sections
- temperature stable
- LTCC construction
- protected by U.S. Patent 6,943,646

## Applications

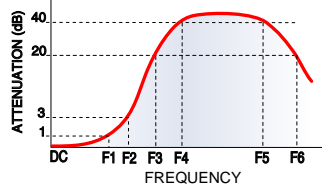
- harmonic rejection
- VHF/UHF transmitters/receivers
- RF suppression for DC lines on PCB
- anti-aliasing for A/D converter

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

Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Insertion Loss	DC-F1	DC-225	—	—	1.2	dB
	Freq. Cut-Off	F2	350	—	3.0	—	dB
	VSWR	DC-F1	DC-225	—	1.2	—	:1
Stop Band	Rejection Loss	F3	460	20	—	—	dB
		F4-F5	510-2500	—	40	—	dB
	VSWR	F3-F6	460-5500	—	20	—	:1

1. Coupling capacitors at input and output are recommended for use in applications that require DC isolation of input to output port or either port to ground. Alternatively, if DC pass IN - OUT is required, use the "D" version of this model which will support DC IN-OUT, and provide >100 MOhm isolation to ground.

## Typical Frequency Response

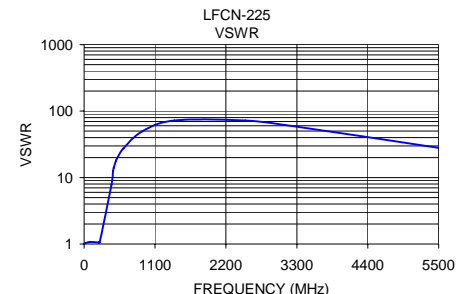
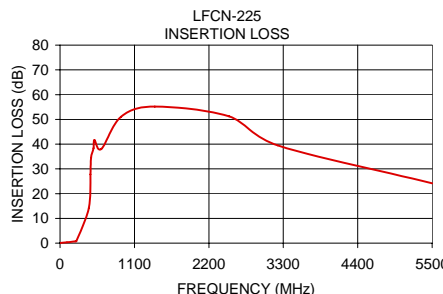


## Electrical Schematic



## Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1.00	0.09	1.02
100.00	0.36	1.08
225.00	0.69	1.05
240.00	0.76	1.06
425.00	14.11	7.80
450.00	27.79	12.52
460.00	34.45	14.03
495.00	38.38	17.93
510.00	41.66	19.32
610.00	38.03	27.59
900.00	51.04	49.64
1400.00	55.18	72.39
2500.00	51.22	72.39
3220.00	39.48	59.91
5500.00	24.20	28.03



**Mini-Circuits**  
ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at [minicircuits.com](http://minicircuits.com)

NOTES: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuit's 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-Circuit's website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp).

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