

# Ceramic Low Pass Filter

50Ω DC to 320 MHz

# LFCN-320+ LFCN-320



## 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
DC Current Input to Output	0.5A max. at 25°C

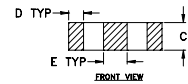
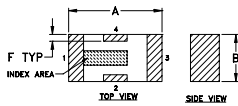
\* Passband rating, derate linearly to 3.5W at 100°C ambient.

## Pin Connections

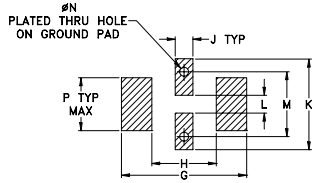
RF IN	1**
RF OUT	3**
GROUND	2,4

\*\* RF IN & RF OUT can be interchanged

## Outline Drawing



### PCB Land Pattern

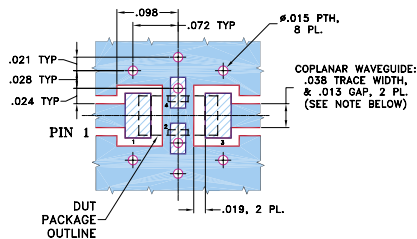


Suggested Layout, Tolerance to be within ±.002

## Outline Dimensions (inch)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	wt
.126	.063	.037	.020	.032	.009	.169	.087	.024	.122	.024	.087	.012	.071	grams
3.20	1.60	0.94	0.51	0.81	0.23	4.29	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.

■ DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

■ DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

## Features

- excellent power handling, 8.5W
- small size
- 7 sections
- temperature stable
- 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

CASE STYLE: FV1206

Model	Price	Qty.
LFCN-320+	\$2.99	(10-49)
LFCN-320	\$2.99	(10-49)
LFCN-320D+	\$3.49	(10-49)
LFCN-320D	\$3.49	(10-49)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

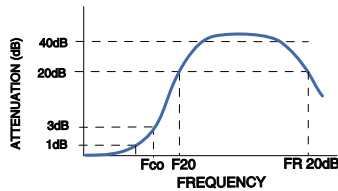
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

## Electrical Specifications<sup>1</sup> (T<sub>AMB</sub>=25°C)

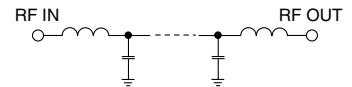
PASSBAND (MHz) (loss < 1 dB)	f <sub>co</sub> , MHz Nom. (loss 3 dB)	STOP BAND (MHz) (loss, dB)			VSWR (:1)		NO. OF SECTIONS
		F 20	40	FR 20	Stopband	Passband	
Max.	Typ.	Min.	Typ.	Typ.	Typ.	Typ.	
DC-320	460	560	640-2500	5300	20	1.2	7

1. For applications requiring DC voltage to be applied to the Input or output, use LFCN-320D (DC Resistance to ground is 100 Mohms min.)

## typical frequency response

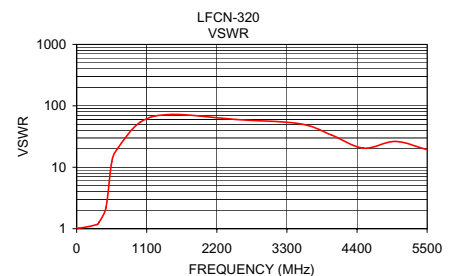
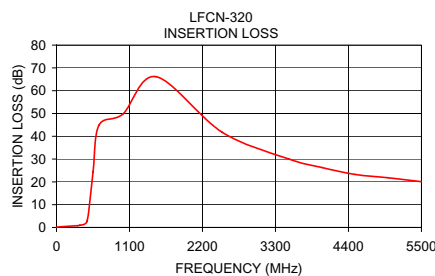


## electrical schematic



## Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1.00	0.09	1.02
100.00	0.36	1.04
320.00	0.79	1.17
350.00	0.94	1.27
460.00	2.72	2.20
550.00	24.34	12.26
640.00	44.80	19.98
1000.00	49.75	54.29
1500.00	66.15	72.39
2500.00	41.71	59.91
3500.00	30.04	51.10
4000.00	26.30	33.42
4500.00	23.26	20.45
5000.00	21.80	26.33
5500.00	20.10	19.32



designers kit available

Kit No.	No. of Units in Kit	Description	Price \$ per Kit
K1-LFCN	35	5 of each: LFCN-225, -320, -400, -490, -530, -575, -630	99.95



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