

# Ceramic Low Pass Filter

50Ω DC to 800 MHz

# LFCN-800+ LFCN-800



## Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	9W max. at 25°C
DC Current Input to Output	1A max. at 25°C

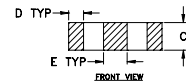
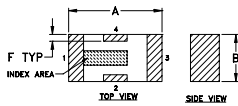
\* Passband rating, derate linearly to 4W at 100°C ambient.

## Pin Connections

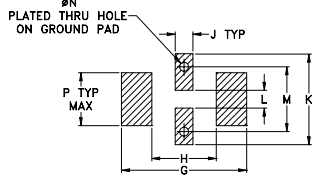
RF IN	1**
RF OUT	3**
GROUND	2,4

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

## Outline Drawing



### PCB Land Pattern



Suggested Layout,  
Tolerance to be within ±.002

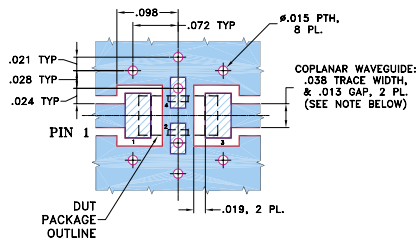
## Outline Dimensions (inch)

A	B	C	D	E	F	G
.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.

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

■ DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

## Features

- excellent power handling, 9W
- small size
- 5 sections
- temperature stable

## Applications

- harmonic rejection
- VHF/UHF transmitters/receivers
- lab use

CASE STYLE: FV1206

Model	Price	Qty.
LFCN-800+	\$1.99	(10-49)
LFCN-800	\$1.99	(10-49)
LFCN-800D+	\$2.49	(10-49)
LFCN-800D	\$2.49	(10-49)

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

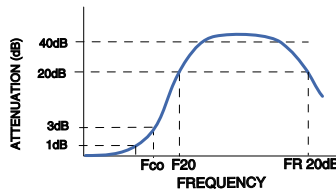
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

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

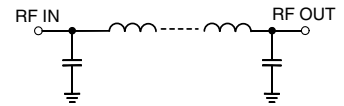
PASSBAND (MHz) (loss < 1.3 dB)	f <sub>co</sub> , MHz Nom. (loss 3 dB)	STOP BAND (MHz) (loss, dB)			VSWR (:1)		NO. OF SECTIONS
		F 20	30	FR 20	Stopband	Passband	
Max.	Typ.	Min.	Typ.	Typ.	Typ.	Typ.	
DC-800	990	1400	1500-2000	4500	20	1.2	5

1. For applications requiring DC voltage to be applied to the Input or output, use LFCN-800D (DC Resistance to ground is 100 Mohms min.)

## typical frequency response

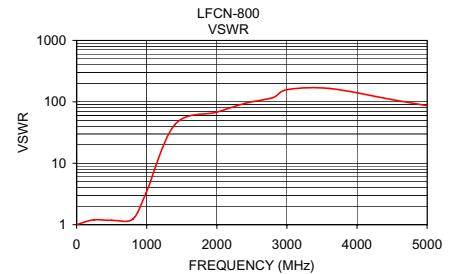
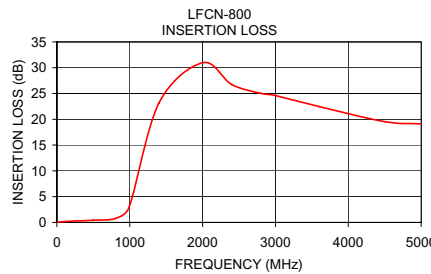


## electrical schematic



## Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
10.00	0.06	1.01
100.00	0.15	1.09
250.00	0.27	1.20
500.00	0.43	1.18
800.00	0.76	1.23
990.00	2.90	3.27
1400.00	23.15	42.47
2000.00	30.97	67.92
2400.00	26.74	94.43
2800.00	25.03	117.13
3000.00	24.60	157.82
3600.00	22.47	165.36
4500.00	19.54	108.74
5000.00	19.11	86.49



designers kit available

Kit No.	No. of Units in Kit	Description	Price \$ per Kit
K2-LFCN	60	5 of each: LFCN-800,-900,-1000,-1200,-1325,-1700,-2000,-2250,-2400,-5000,-6000,-6700	119.95



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