

# Ceramic Low Pass Filter

50Ω DC to 800 MHz

# LFCN-800+ LFCN-800



## Maximum Ratings

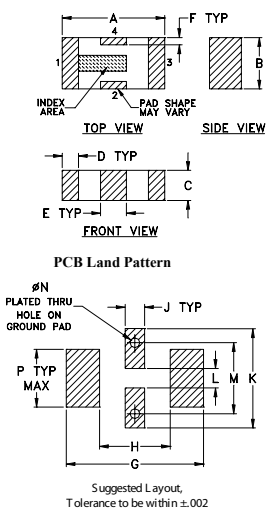
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	9W max. at 25°C
DC Current Input to Output	1A max. at 25°C

\* Passband rating, derate linearly to 4W at 100°C ambient. Permanent damage may occur if any of these limits are exceeded.

## Pin Connections

RF IN	1
RF OUT	3
GROUND	2,4

## Outline Drawing



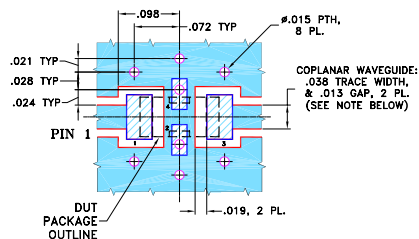
## Outline Dimensions (inch)

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:
- 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.
  - 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)

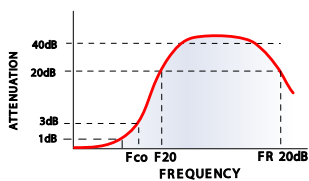
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

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

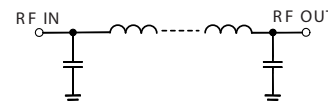
PASSBAND (MHz) (loss < 1.3 dB)	f <sub>co</sub> , MHz Nom. (loss 3 dB)	STOP BAND (MHz) (loss, dB)			VSWR (:1)		NO. OF SECTIONS
		F 20	30	FR 20	Stopband	Passband	
Max.	Typ.	Min.	Typ.	Typ.	Typ.	Typ.	
DC-800	990	1400	1500-2000	4500	20	1.2	5

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

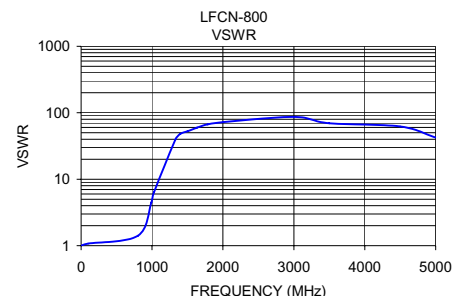
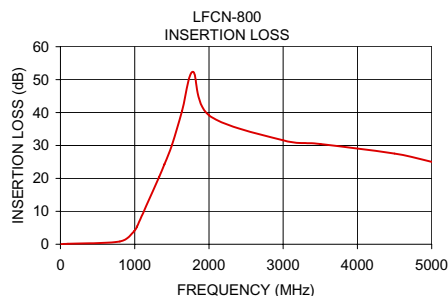


## electrical schematic



## Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
10.00	0.06	1.01
100.00	0.14	1.07
800.00	0.85	1.41
990.00	3.87	4.47
1030.00	5.38	6.39
1330.00	20.50	39.49
1400.00	24.29	48.26
1500.00	30.05	52.65
1635.00	40.35	59.91
1785.00	52.35	66.82
2000.00	39.14	72.39
3000.00	31.57	86.86
3500.00	30.42	69.49
4500.00	27.52	62.05
5000.00	25.04	42.38



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

minicircuits.com

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: [www.minicircuits.com](http://www.minicircuits.com)

IF/RF MICROWAVE COMPONENTS

REV. H  
M121640  
LFCN-800  
ED-9913/1  
AD/RS/CP/AM  
090218