

# Ceramic Low Pass Filter

50Ω DC to 2000 MHz

## LFCN-2000+ LFCN-2000



### Maximum Ratings

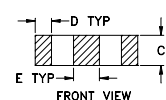
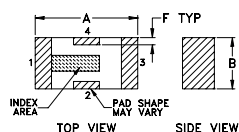
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	9W max. at 25°C
DC Current Input to Output	1A max. at 25°C

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

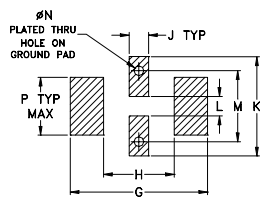
### Pin Connections

RF IN	1
RF OUT	3
GROUND	2,4

### Outline Drawing



#### PCB Land Pattern

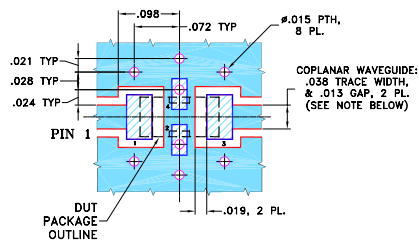


Suggested Layout,  
Tolerance to be within ±.002

### 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, 9W
- small size
- 5 sections
- temperature stable

### Applications

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

CASE STYLE: FV1206

Model	Price	Qty.
LFCN-2000+	\$1.99	(10-49)
LFCN-2000	\$1.99	(10-49)
LFCN-2000D+	\$2.49	(10-49)
LFCN-2000D	\$2.49	(10-49)

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

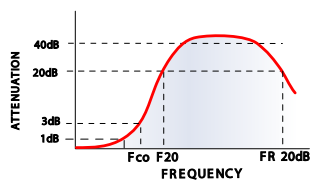
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

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

PASSBAND (MHz) (loss < 1.5 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-2000	2275	3000	3100-3500	4600	20	1.3	5

1. For applications requiring DC voltage to be applied to the Input or output, use LFCN-2000D (DC Resistance to ground is 100 Mohms min.)

### typical frequency response

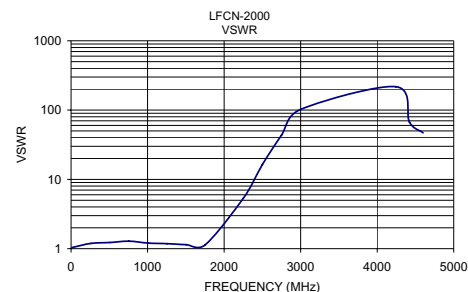
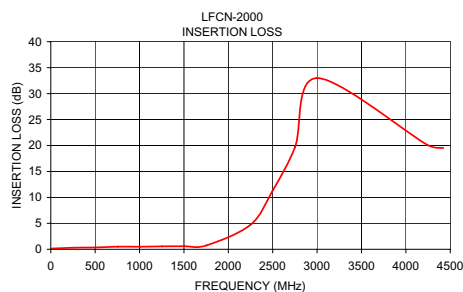


### electrical schematic



### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
10.00	0.14	1.04
258.75	0.30	1.19
507.50	0.35	1.23
756.25	0.51	1.28
1005.00	0.49	1.21
1253.75	0.56	1.18
1502.50	0.60	1.14
1751.25	0.74	1.13
2250.00	4.73	5.33
2500.00	11.34	16.41
2750.00	19.65	43.44
3000.00	32.99	102.19
4244.00	20.09	217.15
4422.00	19.52	66.82
4600.00	20.32	46.96



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IF/RF MICROWAVE COMPONENTS

REV. J  
M121640  
LFCN-2000  
ED-9913/4  
AD/CP/AM  
090218