

Ceramic Low Pass Filter

50Ω DC to 6000 MHz

LFCN-6000+ LFCN-6000



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	0.5A max. at 25°C

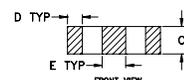
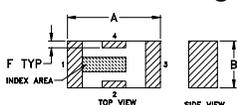
* Passband rating, derate linearly to 3W at 100°C ambient.

Pin Connections

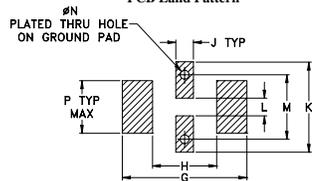
RF IN	1**
RF OUT	3**
GROUND	2,4

** RF IN & RF OUT can be interchanged

Outline Drawing



PCB Land Pattern

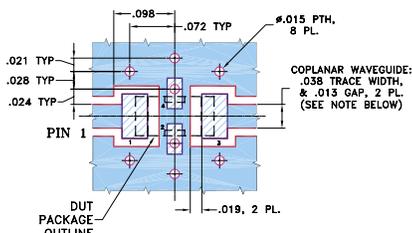


Suggested Layout, Tolerance to be within ±.002

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, 9W
- small size
- 7 sections
- temperature stable
- protected by U.S. Patent 6,943,646

Applications

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

CASE STYLE: FV1206

Model	Price	Qty.
LFCN-6000+	\$1.99	(10-49)
LFCN-6000	\$1.99	(10-49)
LFCN-6000D+	\$2.49	(10-49)
LFCN-6000D	\$2.49	(10-49)

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

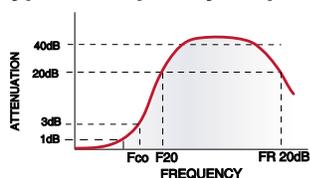
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Electrical Specifications¹ (T_{AMB} = 25°C)

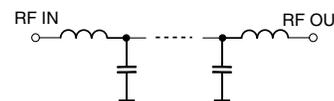
PASSBAND (MHz) (loss < 1.2 dB)	f _{co} , MHz Nom. (loss 3 dB)	STOP BAND (MHz) (loss, dB)			VSWR (:1)		NO. OF SECTIONS
		F 20	30	FR 20	Stopband	Passband	
Max.	Typ.	Min.	Typ.	Typ.	Typ.	Typ.	
DC-6000	6800	8500	8700-10500	18000	20	1.3	7

1. For applications requiring DC voltage to be applied to the Input or output, use LFCN-6000D (DC Resistance to ground is 100 Mohms min.)

typical frequency response

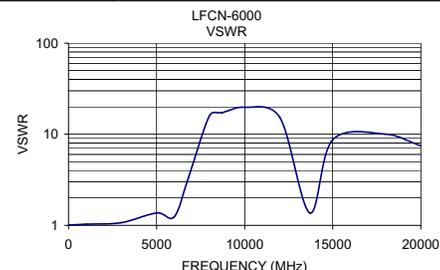
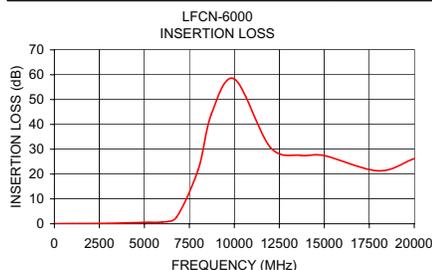


electrical schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50.00	0.10	1.01
100.00	0.02	1.01
1000.00	0.10	1.03
3000.00	0.19	1.07
5000.00	0.57	1.37
6000.00	0.75	1.24
6800.00	2.80	3.31
8000.00	21.90	15.96
8720.00	44.10	17.22
10000.00	58.33	19.76
12000.00	30.77	15.26
13700.00	27.55	1.37
15000.00	27.44	8.72
18000.00	21.31	10.02
20000.00	26.23	7.44



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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RF/IF MICROWAVE COMPONENTS

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