

# Low Pass Filter

# LFCN-3400+

50Ω DC to 3400 MHz

### Maximum Ratings

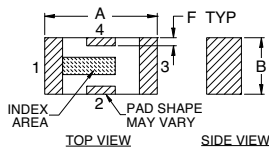
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	8W at 25°C
DC Current Input to Output	0.5A max. at 25°C

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

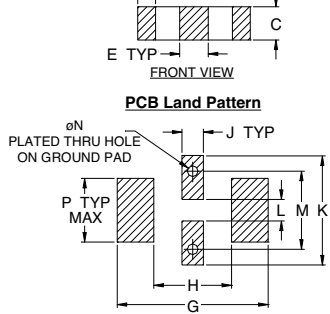
### Pin Connections

RF IN	1
RF OUT	3
GROUND	2, 4

### Outline Drawing



### PCB Land Pattern

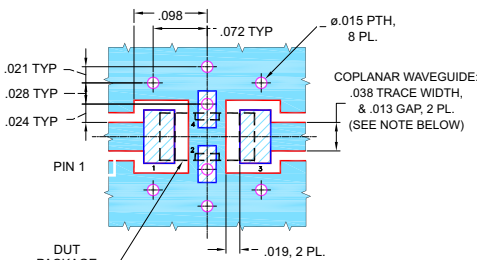


Suggested Layout, Tolerance to be within ±.002

### Outline Dimensions (inch/mm)

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
.087	.024	.122	.024	.087	.012	.071
2.21	0.61	3.10	0.61	2.21	0.30	1.80
						wt
						grams
						.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, 8W
- small size
- 5 sections
- temperature stable
- protected by US Patent 6,943,646

### Applications

- point to point
- harmonic rejection
- transmitters/receivers



CASE STYLE: FV1206

Model	Price	Qty.
LFCN-3400+	\$1.99	(10-49)
LFCN-3400D+	\$2.49	(10-49)

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

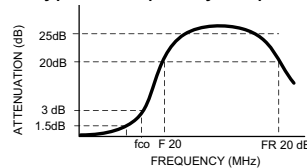
The +suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

### Low Pass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

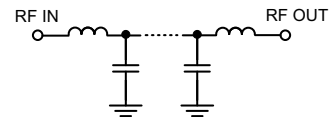
PASSBAND (MHz)	f <sub>co</sub> , MHz Nom.	STOP BAND (MHz) (loss, dB)			VSWR (:1)		NO. OF SECTIONS
		F 20 Min.	25 Typ.	FR 20 Typ.	Stopband Typ.	Passband Typ.	
DC - 3400	3950	4300	4600 - 7800	8300	17	1.2	5

1. For Applications requiring DC voltage to be applied to the Input or output, use LFCN-3400D+ (DC Resistance to ground is 100 Mohms min.)

### typical frequency response



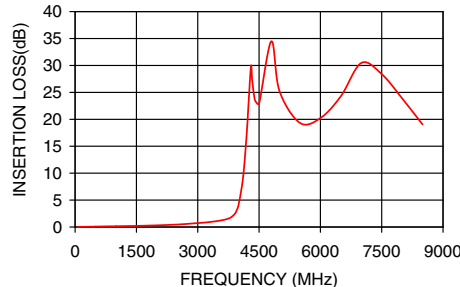
### schematic



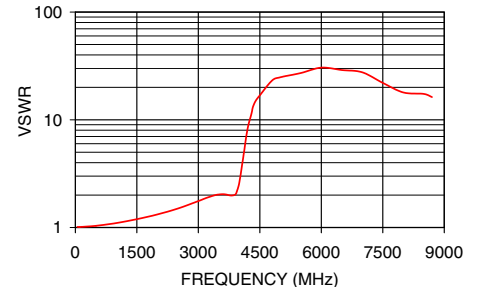
### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
40	0.01	1.02
100	0.03	1.01
500	0.08	1.04
1000	0.15	1.10
2000	0.31	1.32
3000	0.73	1.76
3400	1.03	1.99
3800	1.73	1.98
3950	3.04	2.21
4050	6.01	3.38
4150	12.50	6.26
4300	29.75	11.53
4600	25.02	19.32
5050	23.78	26.33
6500	24.27	28.96
7800	25.25	19.32
8300	21.39	18.11

### LFCN-3400+ INSERTION LOSS



### LFCN-3400+ VSWR



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