

# Ceramic Low Pass Filter

50Ω DC to 3400 MHz

LFCN-3400D-1+



## Maximum Ratings

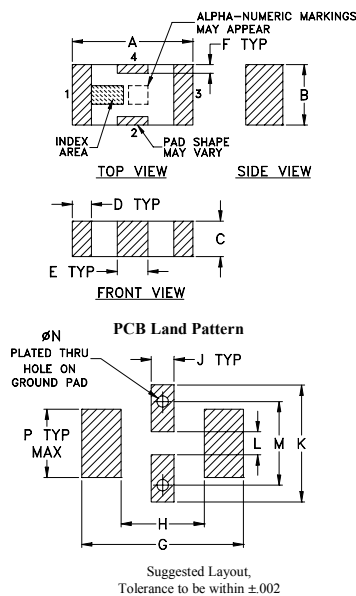
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	8W max. at 25°C
Max. DC Voltage at pins 1 & 3	25 VDC
DC Current Input to Output	0.5A max. at 25°C

\* Passband rating, derate linearly to 3W 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



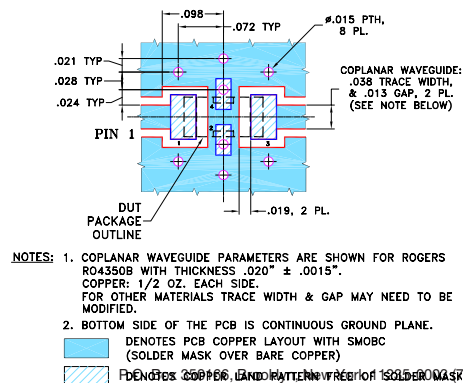
## Outline Dimensions (inch/mm)

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	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)**



## Features

- excellent power handling, 8W
- small size
- 5 sections
- temperature stable
- hermetically sealed
- LTCC construction
- protected by U.S. Patent 6,943,646

## Applications

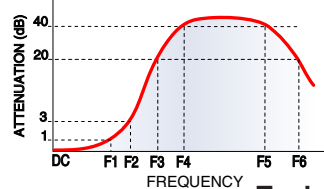
- harmonic rejection
- point to point
- transmitters/receivers

## Electrical Specifications<sup>1</sup> at 25°C

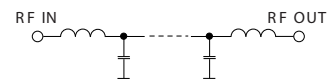
Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-F1	—	—	1.5	dB
	Freq. Cut-Off	F2	—	3.0	—	dB
	VSWR	DC-F1	—	1.2	—	:1
Stop Band	Rejection Loss	F3-F4	20	—	—	dB
		F4-F5	—	25	—	dB
		F5-F6	—	20	—	dB
	VSWR	F3-F6	—	17	—	:1

1. DC Resistance to ground is 100 Mohms min.

## Typical Frequency Response



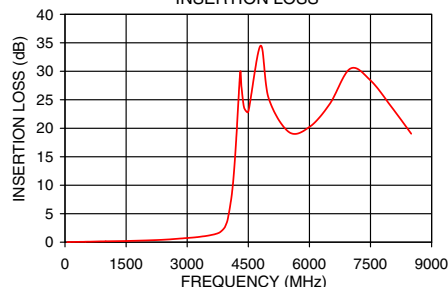
## Electrical Schematic



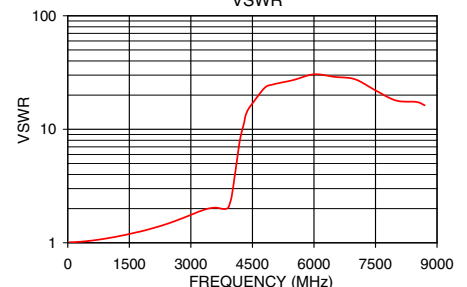
## Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
40	0.01	1.01
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-3400D-1+ INSERTION LOSS



## LFCN-3400D-1+ VSWR



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ISO 9001 ISO 14001 AS 9100 CERTIFIED

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IF/RF MICROWAVE COMPONENTS

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REV. OR  
M126523  
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EDR-8824/2F1  
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