

Ceramic Low Pass Filter

50Ω DC to 3400 MHz

LFCN-3400D+



Maximum Ratings

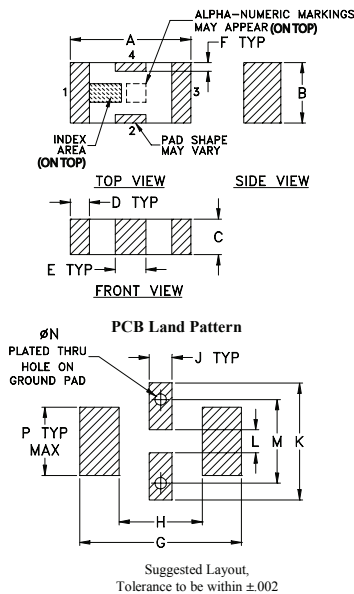
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	8W max. at 25°C
Max. DC Voltage at pins 1 & 3	25 VDC
DC Current Input to Output	0.5A max. at 25°C

* 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

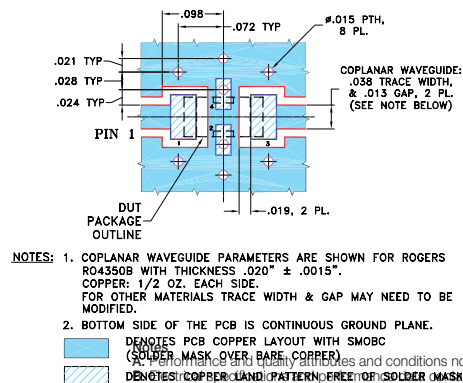


Outline Dimensions (inch)

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

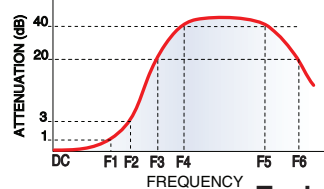
- harmonic rejection
- point to point
- transmitters/receivers

Electrical Specifications^{1,2} at 25°C

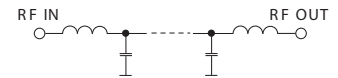
Parameter	F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-F1	DC-3400	—	—	dB
	Freq. Cut-Off	F2	3950	—	3.0	dB
	VSWR	DC-F1	DC-3400	—	1.2	:1
Stop Band	Rejection Loss	F3-F4	4300-4600	20	—	dB
		F4-F5	4600-7800	—	25	dB
		F5-F6	7800-8300	—	20	dB
	VSWR	F3-F6	4300-8300	—	17	:1

1. DC Resistance to ground is 100 Mohms min.
2. Measured on Mini-Circuits Characterization Test Board TB-270.

Typical Frequency Response



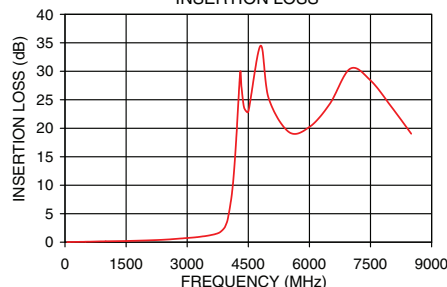
Electrical Schematic



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+ INSERTION LOSS



LFCN-3400D+ VSWR

