

# Low Pass Filter

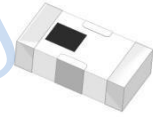
## Features

- excellent power handling
- small size
- 7 sections
- temperature stable
- LTCC construction, and has good moisture resistance, corrosion resistance, high reliability.

## Applications

- harmonic rejection
- VHF/UHF transmitters/receivers
- Base Station of Mobile Communication, lab use.

## HT-LFCN-2000+



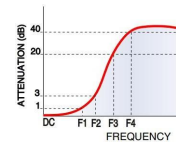
50Ω DC to 2000 MHz

### Maximum Ratings

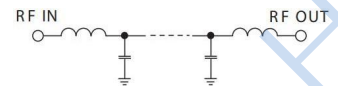
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	10W max. at 25°C

\* Passband rating, derate linearly to 3.5W at 100°C ambient.  
Permanent damage may occur if any of these limits are exceeded.

### Typical Frequency Response



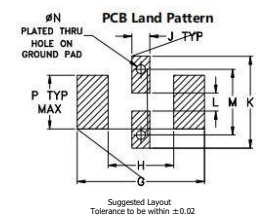
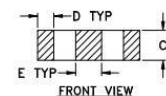
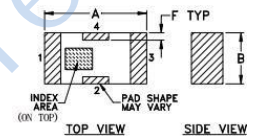
### Electrical Schematic



### Pin Connections

RF IN	1
RF OUT	3
GROUND	2,4

### Outline Drawing



### Outline Dimensions: Unit (mm)

A	3.20	B	1.60	C	0.95
D	0.51	E	0.81	F	0.23
G	4.29	H	2.21	J	0.61
K	3.10	L	0.61	M	2.21
N	0.30	P	1.80	wt	0.02g

### Electrical Specifications at 25°C

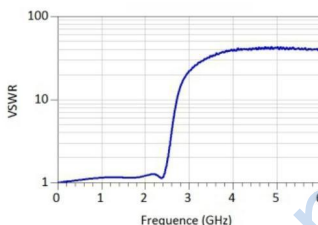
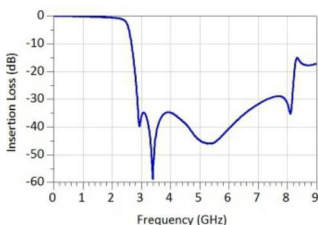
Parameter	F#	Frequency(MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Insertion Loss	DC-F1	DC-2000	-	0.8	1.1	dB
	Freq.Cut-Off	F2	2425	-	3.0	-	dB
	VSWR	DC-F1	DC-2000	-	1.5	1.8	:1
Stop Band	Rejection Loss	F3	2850	25	30	-	dB
		F4-F5	3000-6000	25	35	-	dB
	VSWR	F6	7200	20	30	-	dB
		F3-F6	2850-7200	-	20	-	:1

Measured on Fenghua Characterization Test Board T-39.

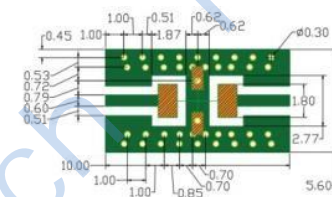
### Typical Performance Data

(TEST CONDITIONS: INPUT POWER = 0dBm @Temperature = +25°C)

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50	0.07	1.01
500	0.15	1.13
1000	0.24	1.18
1500	0.33	1.08
2000	0.67	1.26
2250	1.06	1.19
2575	9.64	6.76
2850	39.45	14.81
4250	40.28	27.72
5000	45.21	38.91
6500	37.17	55.43
7200	34.53	40.59
8000	26.73	36.95
9000	14.79	21.10
		12.18



### Demo Board P/N: T-39 Suggested PCB Layout (PL-137)



- NOTES: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350 WITH THICKNESS .508" ± .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