

# Low Pass Filter

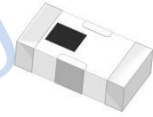
## Features

- 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-1200+



50Ω DC to 1200 MHz

### Electrical Specifications at 25°C

Parameter		Frequency(MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-1200	-	1.0	1.3	dB
	Freq.Cut-Off	1590	-	3.0	-	dB
	VSWR	DC-1200	-	1.2	1.5	:1
Stop Band	Rejection Loss VSWR	1800	25	30	-	dB
		2000-5000	30	35	-	dB
		1880-5000	-	20	-	:1

Measured on Characterization Test Board T-39.

### Typical Performance Data

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

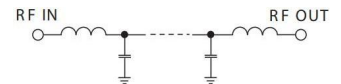
Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50	0.06	1.02
500	0.24	1.20
750	0.35	1.23
1200	0.62	1.06
1613	8.37	5.36
1891	32.19	29.28
2000	36.73	36.07
2270	38.40	46.71
2570	39.40	55.64
3024	37.64	60.94
4042	29.20	71.07
5000	32.09	68.75
6000	36.27	53.14
7000	25.21	46.76
8000	26.39	48.58

### 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.

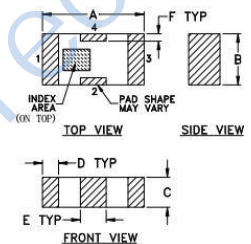
### Electrical Schematic



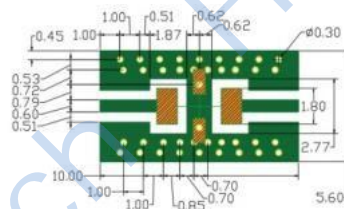
### Pin Connections

RF IN	1
RF OUT	3
GROUND	2,4

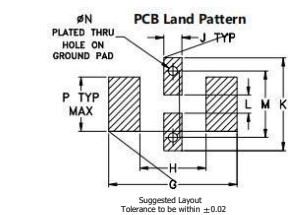
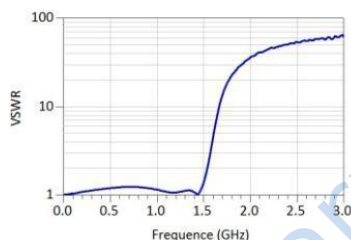
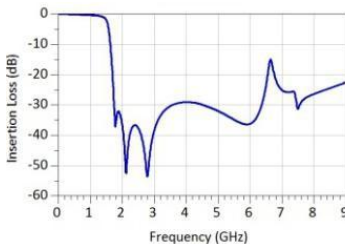
### Outline Drawing



### 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



### 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