

# Low Pass Filter

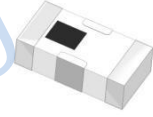
## Features

- 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-900+

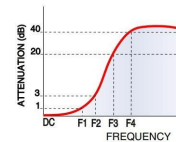


50Ω DC to 900 MHz

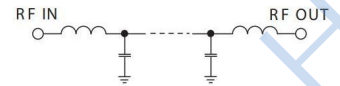
Maximum Ratings	
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	10W max. at 25°C

\* 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



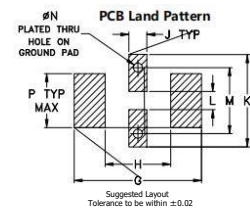
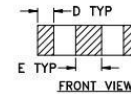
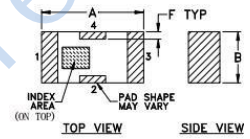
### Electrical Schematic



### 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	w	0.02g

### Electrical Specifications at 25°C

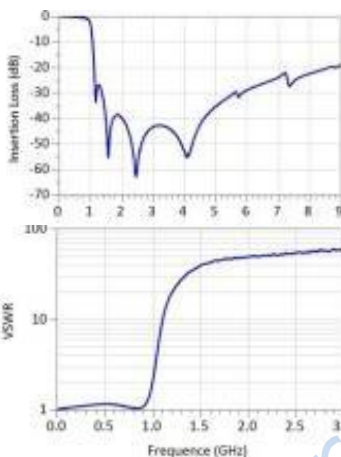
Parameter	F#	Frequency(MHz)	Min.	Typ.	Max.	Unit	
Pass Band	Insertion Loss	DC-F1	DC-900	-	1.0	1.3	dB
	Freq.Cut-Off	F2	1015	-	3.0	-	dB
	VSWR	DC-F1	DC-900	-	1.2	1.5	:1
Stop Band	Rejection Loss	F3	1150	20	25	-	dB
		F4-F5	1350-4500	25	30	-	dB
	VSWR	F6	5100	25	30	-	dB
		F3-F6	1150-5100	-	20	-	:1

Measured on Fenghua Characterization Test Board T-39.

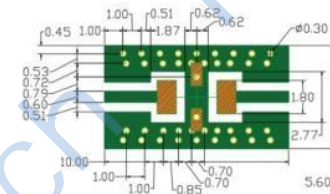
### Typical Performance Data

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

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50	0.08	1.04
500	0.37	1.27
800	0.68	1.10
900	1.03	1.10
1015	3.03	2.09
1117	16.05	9.73
1180	25.87	16.47
1279	33.43	24.76
1615	58.89	42.77
1905	39.93	48.45
2457	63.31	54.64
3229	41.89	68.97
4118	78.75	70.83
6000	28.14	51.29
8000	22.32	33.71



### 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