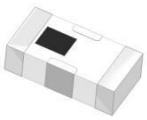
HenryTech

# Low Pass Filter

## HT-LFCN-9170+



**50Ω DC to 9170 MHz**

### 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.

### Electrical Specifications at 25°C

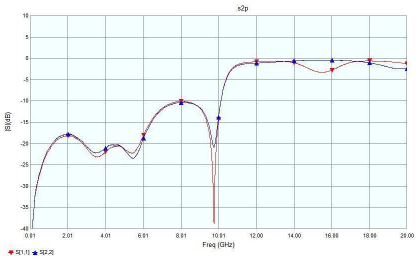
| Parameter | | Frequency(MHz) | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|
| Pass Band | Insertion Loss | DC-9170 | - | 1.0 | 3.0 | dB |
| | Freq.Cut-Off | 9170 | - | 3.0 | - | dB |
| | VSWR | DC-9170 | - | 1.2 | - | :1 |
| Stop Band | Rejection Loss | 11630-18770 | 20 | 30 | - | dB |
| | VSWR | 11630-18770 | 28 | 20 | - | :1 |

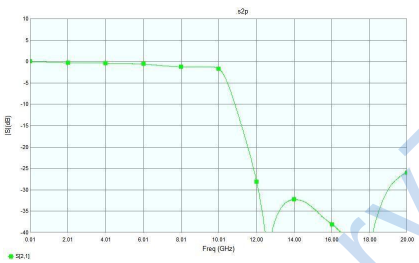
Measured on Fenghua Characterization Test Board T-39.

### Typical Performance Data

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

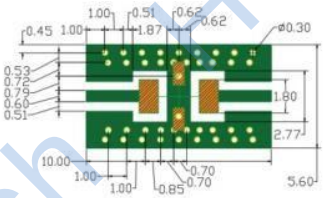
| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) |
|---|---|---|
| 1000 | 0.17 | 1.18 |
| 2000 | 0.30 | 1.28 |
| 4000 | 0.39 | 1.17 |
| 6000 | 0.60 | 1.28 |
| 9160 | 1.27 | 1.61 |
| 9800 | 1.33 | 1.07 |
| 10000 | 1.71 | 1.50 |
| 11360 | 17.11 | 16.59 |
| 11620 | 21.09 | 19.23 |
| 12000 | 27.82 | 21.70 |
| 14000 | 32.28 | 16.78 |
| 16000 | 38.07 | 6.33 |
| 18000 | 43.71 | 28.13 |
| 18760 | 31.92 | 24.29 |
| 19000 | 29.87 | 22.05 |





### Demo Board MCL 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)

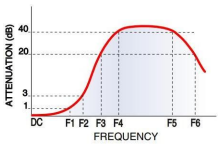
DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

### Maximum Ratings

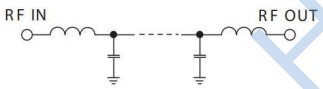
| | |
|---|---|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature | -55°C to 100°C |
| RF Power Input* | 7W max. at 25°C |

* 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

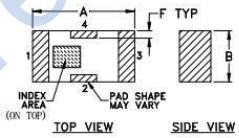


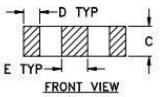

### Electrical Schematic

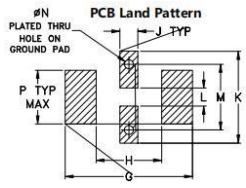



| Pin Connections | |
|---|---|
| RF IN | 1 |
| RF OUT | 3 |
| GROUND | 2,4 |

### 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 |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