

Low Pass Filter

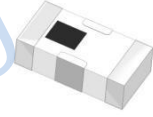
Features

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

Applications

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

HT-LFCN-530+



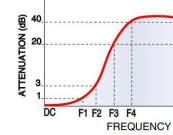
50Ω DC to 530 MHz

Maximum Ratings

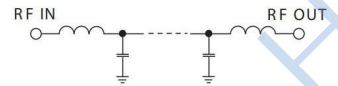
| | |
|-----------------------|------------------|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature | -55°C to 100°C |
| RF Power Input* | 10W max. at 25°C |

* 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



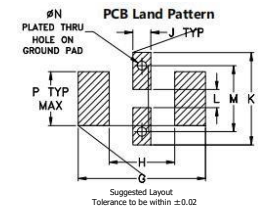
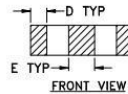
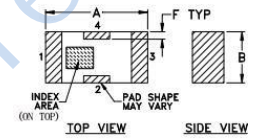
Electrical Schematic



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 | w1 | 0.02g |

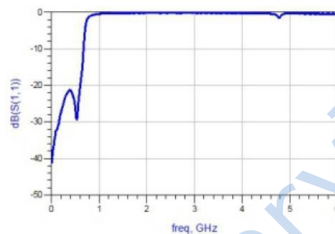
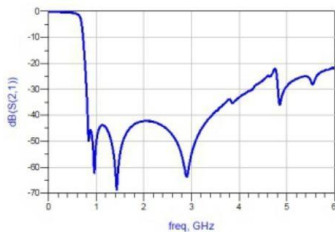
Electrical Specifications at 25°C

| Parameter | F# | Frequency(MHz) | Min. | Typ. | Max. | Unit | |
|-----------|----------------|----------------|----------|------|------|------|----|
| Pass Band | Insertion Loss | DC-F1 | DC-530 | - | 0.8 | 1.0 | dB |
| | Freq.Cut-Off | F2 | 700 | - | 3.0 | - | dB |
| | VSWR | DC-F1 | DC-530 | - | 1.2 | - | :1 |
| Stop Band | Rejection Loss | F3 | 820 | 20 | - | - | dB |
| | | F4-F5 | 945-3000 | - | 40 | - | dB |
| | VSWR | F6 | 6000 | - | 20 | - | dB |
| | | F3-F6 | 820-6000 | - | 20 | - | :1 |

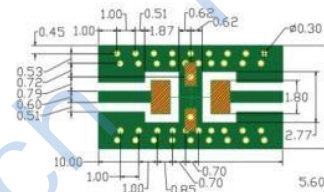
Typical Performance Data

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

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) |
|-----------------|---------------------|-----------|
| 1 | 0.05 | 1.01 |
| 100 | 0.20 | 1.04 |
| 575 | 0.81 | 1.05 |
| 770 | 2.92 | 1.99 |
| 900 | 33.14 | 13.92 |
| 1050 | 47.43 | 22.87 |
| 1215 | 36.74 | 29.96 |
| 1500 | 43.94 | 40.41 |
| 1915 | 71.13 | 49.64 |
| 2200 | 62.28 | 49.64 |
| 2500 | 52.63 | 51.10 |
| 3200 | 47.83 | 46.96 |
| 4000 | 38.32 | 43.44 |
| 4970 | 16.59 | 8.64 |
| 5500 | 25.11 | 29.46 |



Suggested PCB Layout



- 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