

# LTCC 低通滤波器 (Low Pass Filter)

HT-LFCN-4400+

## Features

- Low insertion loss.
- Good rejection.
- LTCC Construction.
- temperature stable.
- Small size.

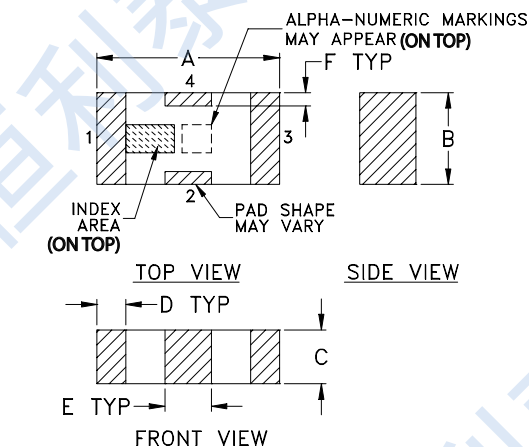
## Applications

- Harmonic rejection.
- VHF/UHF transmitters/receivers.
- Lab use.

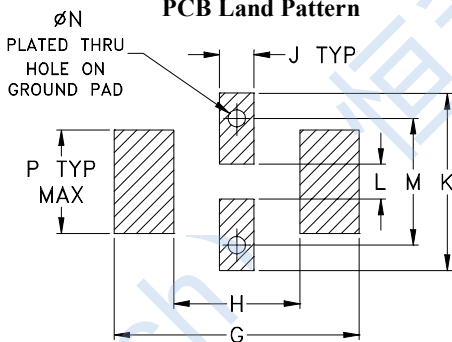
## Pad Connections

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

## Outline Drawing



## PCB Land Pattern



Suggested Layout,  
Tolerance to be within  $\pm 0.002$

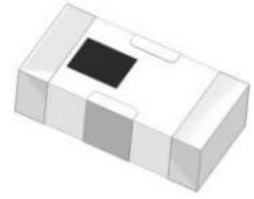
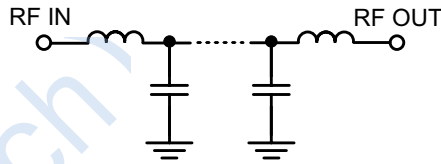
## Outline Dimensions : inch mm

|      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|
| A    | B    | C    | D    | E    | F    | G    |
| .126 | .063 | .037 | .020 | .032 | .009 | .169 |
| 3.20 | 1.60 | 0.94 | 0.51 | 0.81 | 0.23 | 4.29 |

|      |      |      |      |      |      |      |       |
|------|------|------|------|------|------|------|-------|
| H    | J    | K    | L    | M    | N    | P    | wt    |
| .087 | .024 | .122 | .024 | .087 | .012 | .071 | grams |
| 2.21 | 0.61 | 3.10 | 0.61 | 2.21 | 0.30 | 1.80 | .020  |

## Functional Schematic



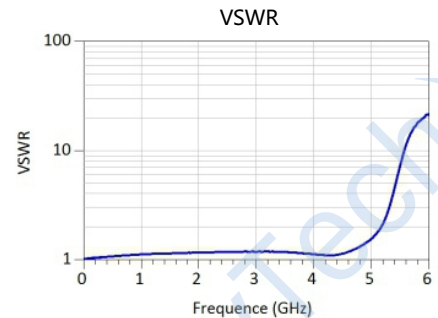
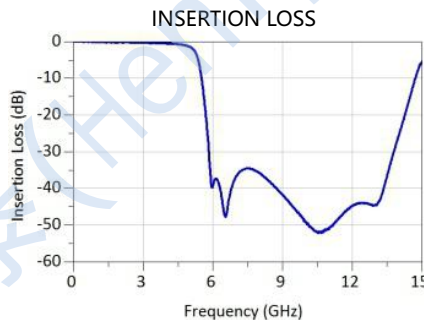
50  $\Omega$   
DC to 4400MHz

## Electrical Specifications(1) at 25°C

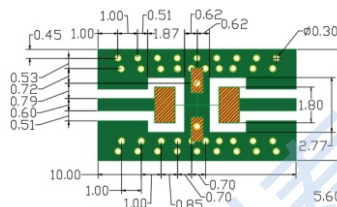
| Parameter |                | Frequency (MHz) | Min. | Typ. | Max. | Unit |
|-----------|----------------|-----------------|------|------|------|------|
| Pass Band | Insertion Loss | DC-4400         | —    | —    | 1.0  | dB   |
|           | Freq. Cut-Off  | 5290            | —    | 3.0  | —    | dB   |
|           | Return Loss    | DC-4400         | 14   | 20   | —    | dB   |
| Stop Band | Rejection Loss | 6700            | 20   | —    | —    | dB   |
|           |                | 6280-9800       | 30   | —    | —    |      |
|           |                | 9800-13000      | 20   | —    | —    |      |

1. In Application where DC voltage is present at either input or output ports, coupling capacitors are required.

## Typical Performance Data at 25°C



## Suggested PCB Layout



- NOTES: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350 WITH THICKNESS .508"  $\pm$  .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 +125°C |
| Storage Temperature   | -55°C to +125°C |
| RF Power Input*       | 10W at 25°C     |

\*Permanent damage may occur if any of these limits are exceeded.