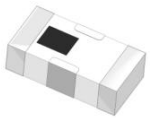
Jieying Communication Technology (Shenzhen) Co., Ltd.
http://www.jytxjs.cn

# Low Pass Filter

## JY-LFCN-530+



Generic photo used for illustration purposes only

**50Ω DC to 530 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.

### Maximum Ratings

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

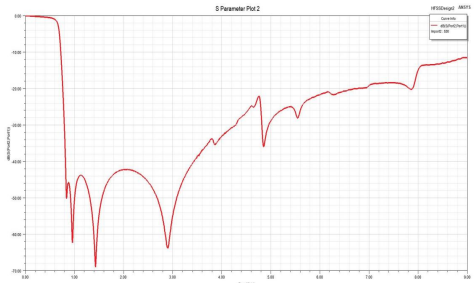
* Passband rating, derate linearly to 3.5W at 100°C ambient.
Permanent damage may occur if any of these limits are exceeded.

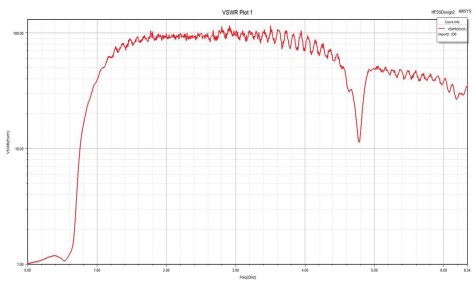
### Electrical Specifications at 25°C

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

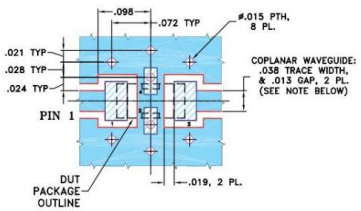
### Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) |
|---|---|---|
| 1 | 0.04 | 1.02 |
| 100 | 0.14 | 1.05 |
| 500 | 0.58 | 1.10 |
| 530 | 0.67 | 1.07 |
| 670 | 2.94 | 1.94 |
| 700 | 5.57 | 3.29 |
| 815 | 38.53 | 17.39 |
| 820 | 41.07 | 18.13 |
| 945 | 57.12 | 33.97 |
| 1315 | 49.99 | 70.25 |
| 2140 | 42.29 | 89.95 |
| 3000 | 54.77 | 101.81 |
| 3640 | 36.42 | 97.23 |
| 4910 | 31.92 | 45.83 |
| 6000 | 21.68 | 38.79 |



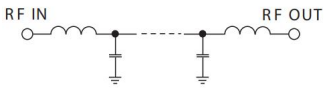




### Suggested PCB Layout




NOTES: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH THICKNESS .020" ± .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

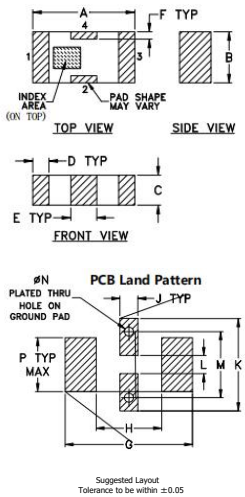
### Electrical Schematic




### Pin Connections

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

### Outline Drawing




Suggested Layout
Tolerance to be within ±0.05

### Outline Dimensions：Unit ( mm)

| | | | | | |
|---|---|---|---|---|---|
| A | 3.20 | B | 1.60 | C | 0.94 |
| 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 |

JY-LFCN-530+

Tel : +86 0755-27881106
Fax : +86 0755-27597069
Add : 806 Building B7, Tianrui Industrial Park, Fuyong Street, Baoan District, Shenzhen