

Ceramic

Low Pass Filter

DC to 1000 MHz

NEW!

LFCN-1000



BLUE CELL™

CASE STYLE: FV1206

Maximum Ratings

| | |
|----------------------------|-------------------|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature | -55°C to 100°C |
| RF Power Input | 10W* max. at 25°C |
| DC Current Input to Output | 0.5A max. at 25°C |

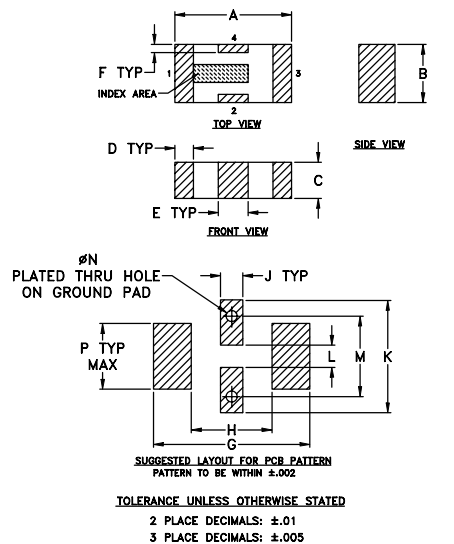
*derate linearly to 3.5W at 100°C ambient.

Pin Connections

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

** RF IN & RF OUT can be interchanged

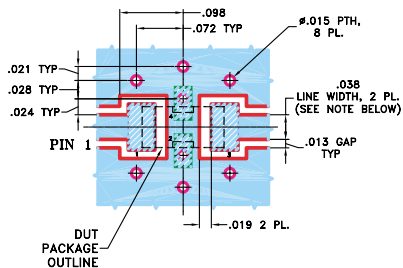
Outline Drawing



Outline Dimensions (inch)

| A | B | C | D | E | F | G | H |
|------|------|------|------|------|------|-------|------|
| .126 | .063 | .039 | .020 | .032 | .009 | .169 | .087 |
| 3.20 | 1.60 | 0.99 | 0.51 | 0.81 | 0.23 | 4.29 | 2.21 |
| J | K | L | M | N | P | wt. | |
| .024 | .122 | .024 | .087 | .012 | .071 | grams | |
| 0.61 | 3.10 | 0.61 | 2.21 | 0.30 | 1.80 | .020 | |

Demo Board MCL P/N: TB-270
Suggested PCB Layout (PL-137)



NOTE: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350, WITH DIELECTRIC THICKNESS .020" ± .0015". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

- DENOTES PCB COPPER LAYOUT
- DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

Features

- excellent power handling, 10W
- small size
- 7 sections
- temperature stable
- patent pending

Applications

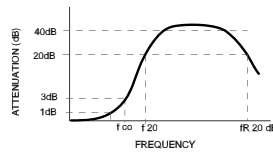
- harmonic rejection
- VHF/UHF transmitters/receivers
- lab use

Low Pass Filter Electrical Specifications¹ (T_{AMB}=25°C)

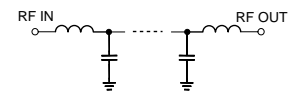
| MODEL NO. | PASSBAND (MHz) (loss < 1 dB) Max. | f _{co} , MHz Nom. (loss 3 dB) Typ. | STOP BAND (MHz) (loss, dB) | | | VSWR (:1) | | NO. OF SECTIONS |
|-----------|---|--|-------------------------------|------------|---------------------------|------------------|------------------|-----------------|
| | | | f 20 Min. | 30 Typ. | f _r 20 Typ. | Stopband Typ. | Passband Typ. | |
| LFCN-1000 | DC-1000 | 1300 | 1550 | 1900-5000 | 5500 | 20 | 1.3 | 7 |

1. For Applications requiring DC voltage to be applied to the Input or output, use LFCN-1000D (DC Resistance to ground is 100 Mohms min.)

typical frequency response

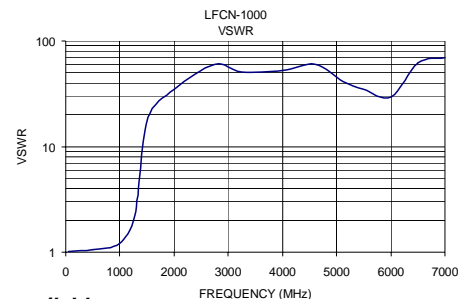
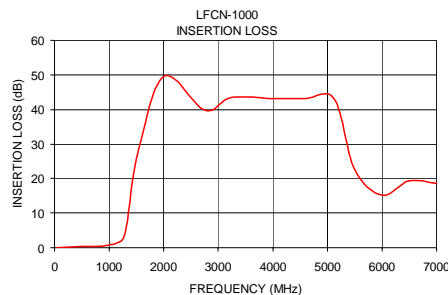


schematic



Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) |
|-----------------|---------------------|-----------|
| 50.00 | 0.01 | 1.01 |
| 500.00 | 0.30 | 1.05 |
| 1000.00 | 0.80 | 1.21 |
| 1275.00 | 3.33 | 2.23 |
| 1500.00 | 25.87 | 17.57 |
| 2000.00 | 49.50 | 34.75 |
| 2750.00 | 39.80 | 59.91 |
| 3250.00 | 43.45 | 51.10 |
| 4000.00 | 43.25 | 52.65 |
| 4600.00 | 43.25 | 59.91 |
| 5125.00 | 43.11 | 41.37 |
| 5500.00 | 22.76 | 34.75 |
| 6000.00 | 15.24 | 29.46 |
| 6500.00 | 19.30 | 62.05 |
| 7000.00 | 18.56 | 69.49 |



designers kit available

| Kit No. | No. of Units in Kit | Description | Price \$ per Kit |
|---------|---------------------|--|------------------|
| K2-LFCN | 60 | 5 of each: LFCN-800,-900,-1000,-1200,-1325,-1700,-2000,-2250,-2400,-5000,-6000,-6700 | 119.95 |

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