

Ceramic High Pass Filter

HFCN-2000+ HFCN-2000

50Ω 2260 to 6250 MHz



Maximum Ratings

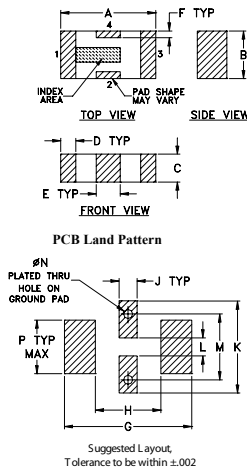
| | |
|-----------------------|-----------------|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature | -55°C to 100°C |
| RF Power Input* | 7W max. at 25°C |

* Passband rating, derate linearly to 3W at 100°C ambient. Permanent damage may occur if any of these limits are exceeded.

Pin Connections

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

Outline Drawing

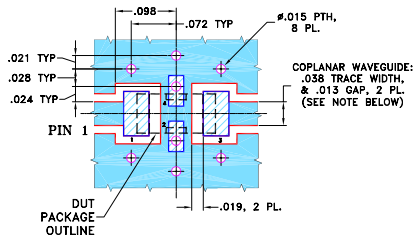


Outline Dimensions (inch)

| 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 |

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



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

Features

- low cost
- small size
- 7 sections
- temperature stable
- excellent power handling, 7W
- hermetically sealed

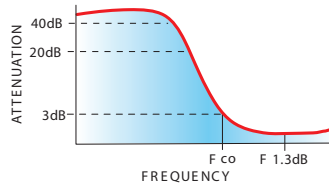
Applications

- sub-harmonic rejection
- transmitters/receivers
- lab use

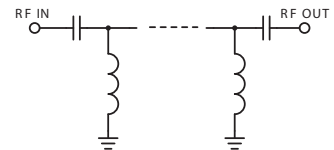
Electrical Specifications (T_{AMB}=25°C)

| STOP BAND (MHz) Min. | f _{co} , MHz Nom. | PASSBAND (MHz) | VSWR (:1) Typ. | POWER INPUT (W) | NO. OF SECTIONS |
|-------------------------------|----------------------------|---|--------------------------------|-----------------|-----------------|
| (loss > 40 dB) (loss > 20 dB) | (loss 3 dB) Typ. | (loss < 1.3 dB) (loss < 2 dB) Max. Typ. | Frequency (MHz) Stopband 1.5:1 | | |
| 1300 1530 | 2000 | 2410-5550 2260-6250 | 20:1 2400-5600 | 7 | 7 |

typical frequency response

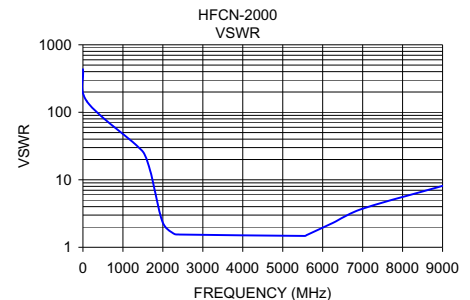
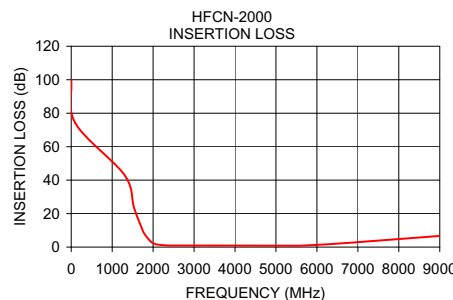


electrical schematic



Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) |
|-----------------|---------------------|-----------|
| 1.00 | 99.34 | 434.30 |
| 100.00 | 74.05 | 144.77 |
| 1300.00 | 43.12 | 34.07 |
| 1530.00 | 23.93 | 24.48 |
| 1700.00 | 12.72 | 12.61 |
| 1800.00 | 7.49 | 6.78 |
| 2000.00 | 2.31 | 2.31 |
| 2260.00 | 1.12 | 1.61 |
| 2400.00 | 0.95 | 1.55 |
| 2410.00 | 0.95 | 1.54 |
| 5550.00 | 0.84 | 1.47 |
| 5600.00 | 0.86 | 1.52 |
| 6250.00 | 1.65 | 2.29 |
| 7000.00 | 2.96 | 3.73 |
| 9000.00 | 6.69 | 8.12 |



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IF/RF MICROWAVE COMPONENTS

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EDR-6465/6
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