

Ceramic High Pass Filter

HFCN-1200+ HFCN-1200

50Ω 1220 to 4600 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 |

Features

- low cost
- small size
- 7 sections
- temperature stable
- dc block in/out, breakdown voltage, 1kV typ.
- excellent power handling, 7W
- hermetically sealed

Applications

- sub-harmonic rejection and dc blocking
- transmitters/receivers
- lab use

CASE STYLE: FV1206

| Model | Price | Qty. |
|-------------|--------|---------|
| HFCN-1200+ | \$1.99 | (10-49) |
| HFCN-1200 | \$1.99 | (10-49) |
| HFCN-1200D+ | \$2.49 | (10-49) |
| HFCN-1200D | \$2.49 | (10-49) |

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

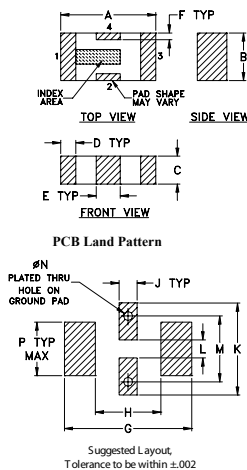
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Electrical Specifications¹ (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 3 dB) Typ. | (loss < 1.3 dB) Max. | Frequency (MHz) Stopband 1.5:1 | | |
| 750 | 1180 | 1380-4000 | 20:1 | 7 | 7 |

1. For applications requiring DC voltage to be applied to the Input or output, use HFCN-1200D (DC Resistance to ground is 100 Mohms min.)

Outline Drawing

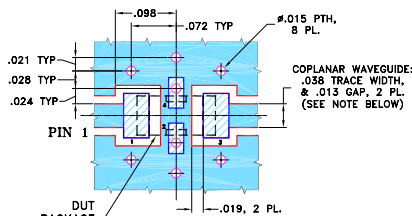


Outline Dimensions (inch)

| 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 |

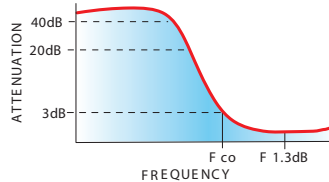
| H | J | K | L | M | N | P | wt |
|------|------|------|------|------|------|------|-------|
| .087 | .024 | .122 | .024 | .087 | .012 | .071 | grams |
| 2.21 | 0.61 | 3.10 | 0.61 | 2.21 | 0.30 | 1.80 | .020 |

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

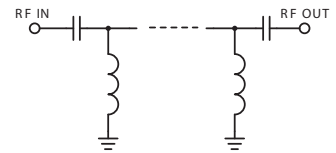


- NOTES: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH THICKNESS .020" ± .0015". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH & GAP MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
 - DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

typical frequency response

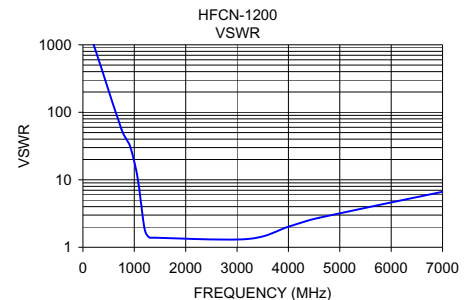
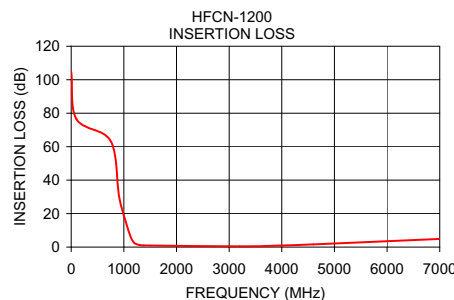


electrical schematic



Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) |
|-----------------|---------------------|-----------|
| 1.00 | 104.60 | 1737.18 |
| 100.00 | 76.44 | 1737.18 |
| 750.00 | 63.39 | 56.04 |
| 910.00 | 30.29 | 32.79 |
| 1050.00 | 13.74 | 12.35 |
| 1130.00 | 6.09 | 4.53 |
| 1180.00 | 3.15 | 2.35 |
| 1220.00 | 2.01 | 1.65 |
| 1300.00 | 1.24 | 1.39 |
| 1380.00 | 0.98 | 1.39 |
| 3200.00 | 0.44 | 1.33 |
| 4000.00 | 0.93 | 2.01 |
| 4600.00 | 1.62 | 2.73 |
| 7000.00 | 4.86 | 6.63 |



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IF/RF MICROWAVE COMPONENTS

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EDR-6251/1
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