

Ceramic High Pass Filter

HFCN-2700+ HFCN-2700

50Ω 2650 to 6500 MHz



Maximum Ratings

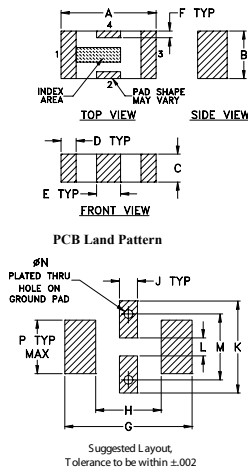
| | |
|-----------------------|-----------------|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature | -55°C to 100°C |
| RF Power Input* | 7W max. at 25°C |

* 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 |

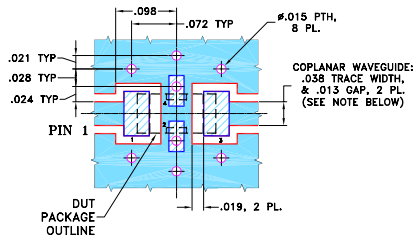
Outline Drawing



Outline Dimensions (inch)

| A | B | C | D | E | F | G | H | J | K | L | M | N | P | wt |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| .126 | .063 | .037 | .020 | .032 | .009 | .169 | .087 | .024 | .122 | .024 | .087 | .012 | .071 | grams |
| 3.20 | 1.60 | 0.94 | 0.51 | 0.81 | 0.23 | 4.29 | 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

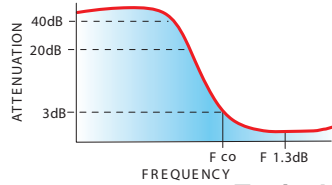
Applications

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

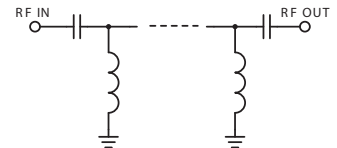
Electrical Specifications (T_{AMB}=25°C)

| 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 | | |
| 1500 1800 | 2500 | 3000-5700 2650-6500 | 20:1 2900-5500 | 7 | 7 |

typical frequency response

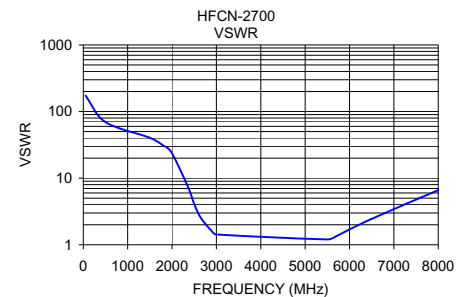
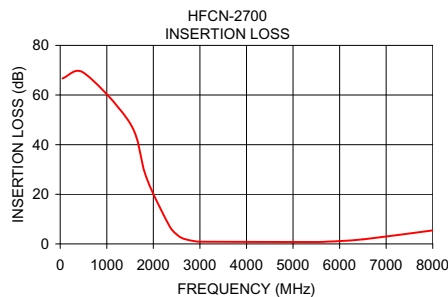


electrical schematic



Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) |
|-----------------|---------------------|-----------|
| 50.00 | 66.69 | 173.72 |
| 500.00 | 69.03 | 69.49 |
| 1500.00 | 48.61 | 40.41 |
| 1800.00 | 29.62 | 31.03 |
| 1980.00 | 20.93 | 24.83 |
| 2350.00 | 7.06 | 7.70 |
| 2500.00 | 3.85 | 4.11 |
| 2650.00 | 2.11 | 2.53 |
| 2900.00 | 1.04 | 1.59 |
| 3000.00 | 0.9 | 1.43 |
| 5500.00 | 0.75 | 1.20 |
| 5700.00 | 0.89 | 1.35 |
| 6500.00 | 1.85 | 2.45 |
| 8100.00 | 5.71 | 7.05 |



Mini-Circuits®
ISO 9001 ISO 14001 AS 9100 CERTIFIED

minicircuits.com

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site

The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

IF/RF MICROWAVE COMPONENTS

REV. G
M121640
HFCN-2700
EDR-6465/5
AD/RS/CP/AM
090218