

Ceramic High Pass Filter

HFCN-1600+ HFCN-1600

50Ω 1650 to 5000 MHz



Maximum Ratings

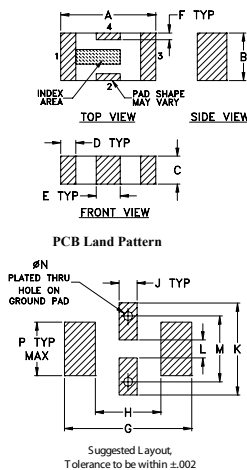
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	7W max. at 25°C

* 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

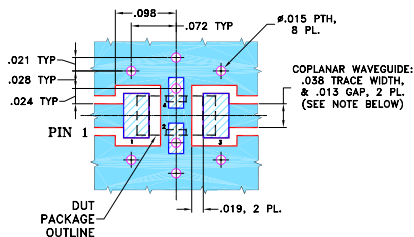
Outline Drawing



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

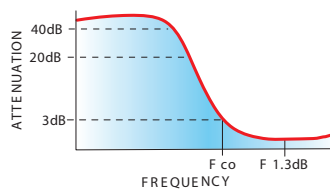
- sub-harmonic rejection
- transmitters/receivers
- lab use

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

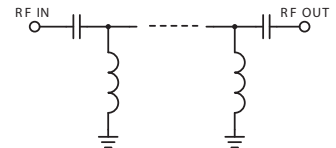
STOP BAND (MHz) Min.	f _{co} , MHz Nom.	PASSBAND (MHz)	VSWR (:1) Typ.	POWER INPUT (W)	NO. OF SECTIONS
(loss > 40 dB) (loss > 20 dB)	(loss 3 dB) Typ.	(loss < 1.3 dB) (loss < 2 dB) Max. Typ.	Frequency (MHz) Stopband 1.5:1		
1090	1290	1600	20:1	1700-4000	7

1. For applications requiring DC voltage to be applied to the Input or output, use HFCN-1600D (DC Resistance to ground is 100 Mohms min.)

typical frequency response

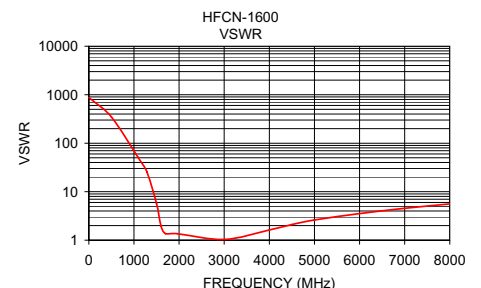
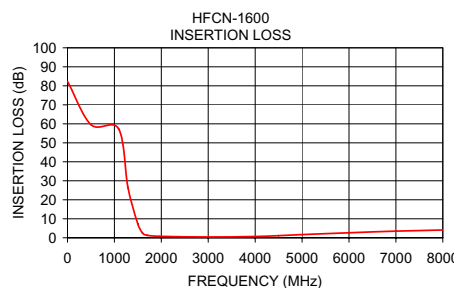


electrical schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1.00	82.28	>20
500.00	59.56	>20
1090.00	57.39	>20
1290.00	26.41	>20
1500.00	7.28	5.70
1600.00	2.52	1.95
1700.00	1.28	1.36
1960.00	0.80	1.36
3000.00	0.44	1.03
4000.00	0.70	1.63
4500.00	1.14	2.10
5000.00	1.70	2.61
6000.00	2.66	3.54
7000.00	3.49	4.55
8000.00	4.12	5.59



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IF/RF MICROWAVE COMPONENTS

REV. F
M121640
HFCN-1600
EDR-6437/3
RVN/AD/CP/AM
090218