

Ceramic High Pass Filter

HFCN-1500+ HFCN-1500

50Ω 1600 to 5500 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

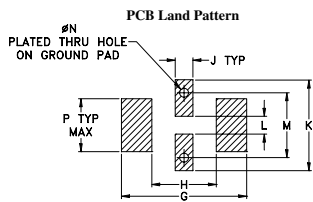
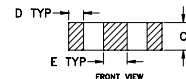
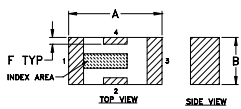
* Passband rating, derate linearly to 3W at 100°C ambient.

Pin Connections

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

** RF IN & RF OUT can be interchanged

Outline Drawing

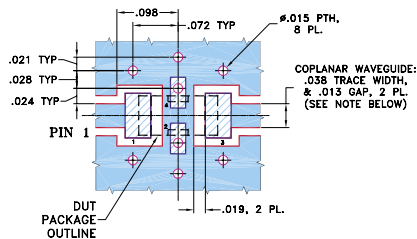


Suggested Layout, Tolerance to be within ±0.02

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 COP4350B 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
- dc block in/out, breakdown voltage, 1kV typ.
- excellent power handling, 7W
- hermetically sealed

Applications

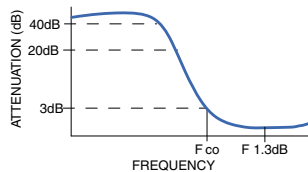
- sub-harmonic rejection and dc blocking
- transmitters/receivers
- lab use

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

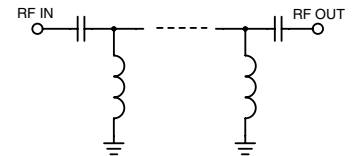
STOP BAND (MHz) Min.	f _{co} , MHz Nom.	PASSBAND (MHz)	VSWR (:1) Typ.	POWER INPUT (W)	NO. OF SECTIONS
(loss > 40 dB)	(loss > 20 dB)	(loss < 1.3 dB)	Frequency (MHz)		
1090	1250	1850-4400	Stopband 1.5:1	7	7

1. For applications requiring DC voltage to be applied to the input or output, use HFCN-1500D (DC Resistance to ground is 100 Mohms min.)

typical frequency response

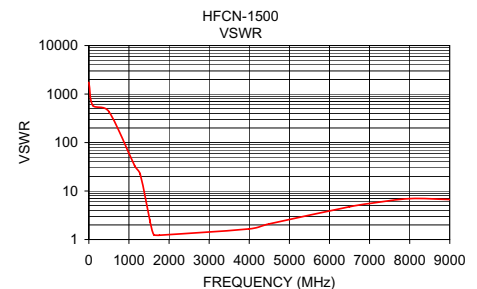
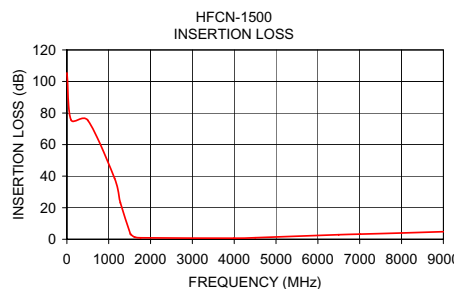


electrical schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1.00	105.45	1737.18
100.00	75.64	579.06
500.00	75.41	434.30
1140.00	38.65	33.42
1280.00	23.08	22.29
1520.00	3.30	2.53
1530.00	2.97	2.26
1620.00	1.36	1.25
1760.00	0.91	1.23
4000.00	0.67	1.65
4500.00	0.96	2.10
6500.00	2.88	4.74
7000.00	3.24	5.52
8000.00	4.00	6.97
9000.00	4.78	6.68



designers kit available

Kit No.	No. of Units in Kit	Description	Price \$ per Kit
K1-HFCN	40	5 of each: HFCN-650,-740,-1200,-1500,-1760,-2000,-2275,-2700	79.95



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