

Ceramic High Pass Filter

50Ω 9000 to 13000 MHz

HFCN-8400+ HFCN-8400



Maximum Ratings

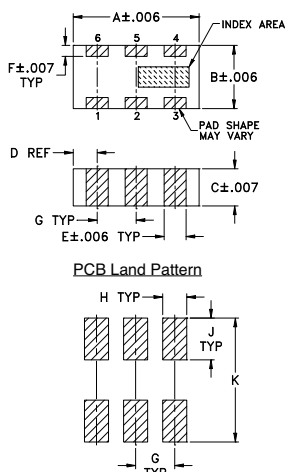
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	7W max. at 25°C

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

Pin Connections

RF IN	1
RF OUT	3
GROUND	2,4,5,6

Outline Drawing

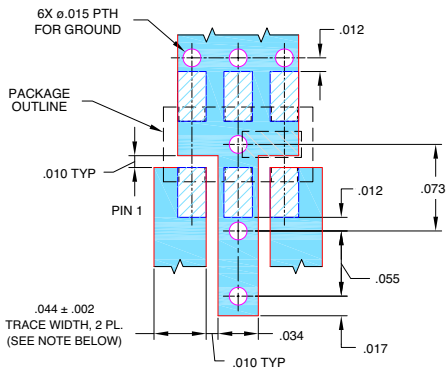


Suggested Layout, Tolerance to be within ±.002

Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	wt.
.126	.063	.035	.024	.022	.011	.039	.024	.042	.123	grams
3.20	1.60	0.91	0.61	0.56	0.28	0.99	0.61	1.07	3.12	.020

Demo Board MCL P/N: TB-285 Suggested PCB Layout (PL-158)



NOTES:

1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .020" ± .0015". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH 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
- 5 sections
- Temperature stable
- Excellent power handling, 7W
- DC block in/out, breakdown voltage, 1kV typ.
- Hermetically sealed
- Patent pending

Application

- Sub-harmonic rejection and DC blocking
- Transmitters/Receivers

CASE STYLE: FV1206-1

Model	Price	Qty.
HFCN-8400+	\$2.99	(10-49)
HFCN-8400	\$2.99	(10-49)
HFCN-8400D+	\$3.49	(10-49)
HFCN-8400D	\$3.49	(10-49)

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

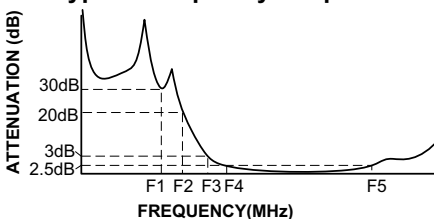
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

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

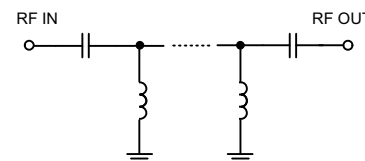
STOPBAND (MHz)		f _{co} , MHz	PASSBAND (MHz)		VSWR	POWER	NO. OF
(Loss>30dB)	(Loss>20dB)	Nom.	(Loss<2.5dB)	(Loss<3dB)	Typ.	INPUT (W)	SECTIONS
Typ.	Min.	Typ.	Max.	Max.	Stopband Frequency (MHz)	Max.	
DC-F1	DC-F2	F3	F4-F5		1.5:1		
DC-5700	DC-6000	8400	9500-13000	9000-13000	20:1	9000-13000	7

1. For Applications requiring DC voltage to be applied to the input or output, use HFCN-8400D (DC Resistance to ground is 100 Mohms min.)

Typical Frequency Response

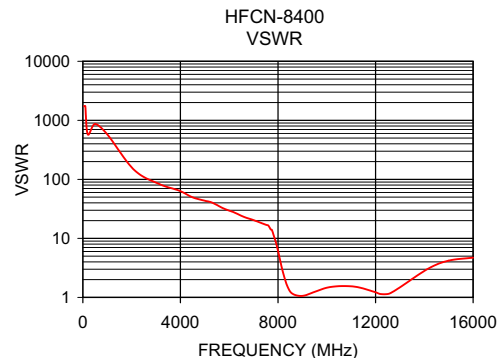
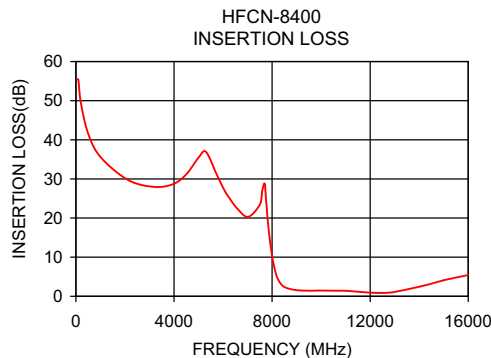


Electrical Schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50	55.48	1737.18
500	41.57	868.59
4500	31.17	49.64
5700	36.69	31.60
6000	27.78	29.46
7500	23.46	17.05
8020	9.65	5.68
8400	2.88	1.50
8600	2.11	1.15
9000	1.57	1.06
9500	1.43	1.24
10000	1.47	1.46
12000	0.92	1.22
13000	1.10	1.48
16000	5.43	4.72



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IF/RF MICROWAVE COMPONENTS

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EDR-6982/5
HFCN-8400
RAV
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