

High Pass Filter

50Ω 5000 to 10100 MHz

HFCN-4400+



Maximum Ratings

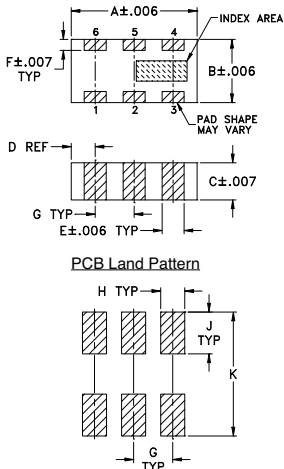
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	7W max. at 25°C

*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

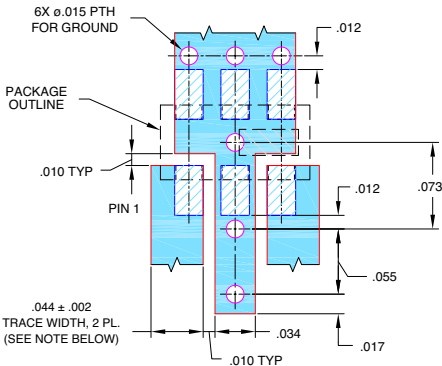


Suggested Layout, Tolerance to be within ±.002

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:

- 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.
- 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.
- Patent pending

Application

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

CASE STYLE: FV1206-1

Model	Price	Qty.
HFCN-4400+	\$2.99	(10-49)
HFCN-4400D+	\$3.49	(10-49)

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

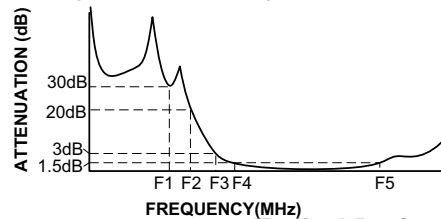
The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

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

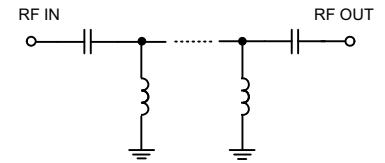
STOPBAND (MHz)	f _{co} , MHz	PASSBAND (MHz)	VSWR	POWER	NO. OF
(Loss>30dB)	Nom.	(Loss<1.5dB)	Typ.	INPUT	SECTIONS
Typ. DC-F1	Typ. F3	Max. F4-F5	Stopband Frequency (MHz)	(W)	
Min. DC-F2			1.5:1	Max.	
DC-3600	DC-3500	4400	20:1	4600-10100	7
		5000-9900		5000-10100	5

1. For Applications requiring DC voltage to be applied to the input or output, use HFCN-4400D+ (DC Resistance to ground is 100 Mohms min.)

Typical Frequency Response



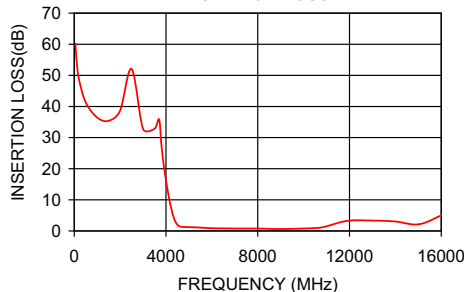
Electrical Schematic



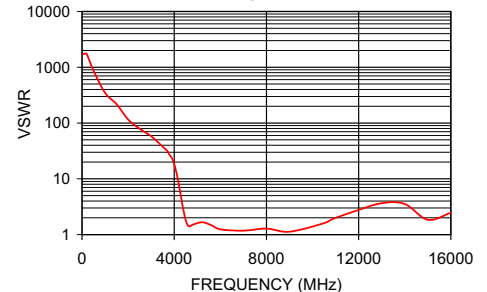
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50	60.22	1737.18
500	41.29	868.59
2500	52.10	78.97
3500	32.81	37.77
3600	36.38	34.75
3850	24.31	24.83
4050	14.01	15.00
4200	8.13	7.94
4400	3.09	2.73
4600	1.48	1.44
5000	1.24	1.65
9900	0.65	1.22
10100	0.71	1.33
10500	0.93	1.60
11500	2.12	2.37
13000	3.33	3.66
16000	5.02	2.47

HFCN-4400+ INSERTION LOSS



HFCN-4400+ VSWR



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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. A
M121640
EDR-8120/3
HFCN-4400+
RAV
090223
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