

High Pass Filter

50Ω, 9000 to 13000 MHz

Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input	7W*

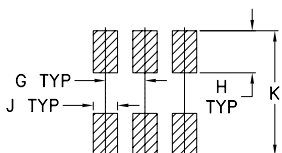
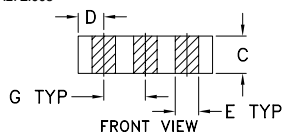
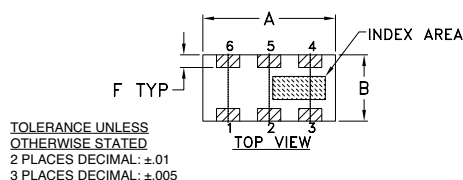
*derate linearly to 3W at 100°C ambient

Pin Connections

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

****RF IN & RF OUT can be interchanged**

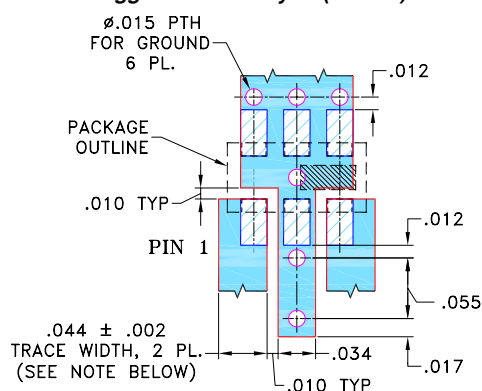
Outline Drawing



Outline Dimensions (inch)

A	B	C	D	E	F	G	H	J	K	wt.
.126	.063	.035	.024	.022	.012	.039	.042	.024	.123	grams
3.20	1.60	0.89	0.61	0.56	0.30	0.99	1.07	0.61	3.12	.02

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



1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350
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

 DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

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

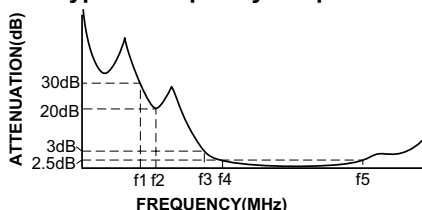
- Sub-harmonic rejection and DC blocking
- Transmitters/Receivers

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

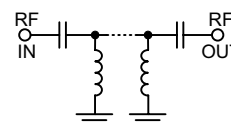
MODEL NO.	STOPBAND (MHz)		fco, MHz	PASSBAND (MHz)		VSWR		POWER INPUT (W)
	(Loss 30dB) (Loss>20dB)		Nom.	(Loss<2.5dB) (Loss<3dB)		Typ.		
	Typ. DC-f1	Min. DC-f2	Typ. f3	Max. f4-f5	Max.	Stopband Frequency (MHz)	1.5:1	
HFCN-8400(+)	DC-5700	DC-6000	8400	9500-13000	9000-13000	20:1	9000-13000	7

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

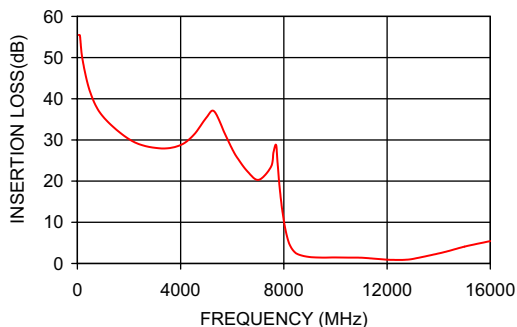
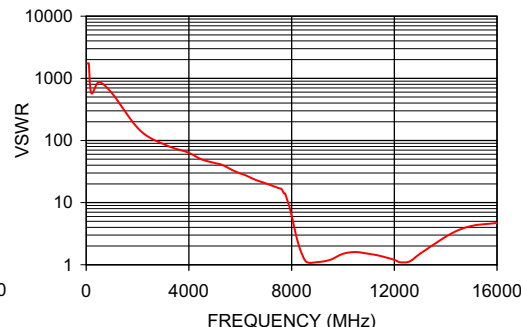


Schematic



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

HFCN-8400
INSERTION LOSSHFCN-8400
VSWR

Distribution Centers NORTH AMERICA 800-654-7949 • 417-335-5935 • Fax 417-335-5945 • EUROPE 44-1252-832600 • Fax 44-1252-837010

Mini-Circuits ISO 9001 & ISO 14001 Certified



REV. A
M101678
EDR-6982/5
HFCN-8400
RAV
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