

High Pass Filter

50Ω, 4250 to 10000 MHz

Maximum Ratings

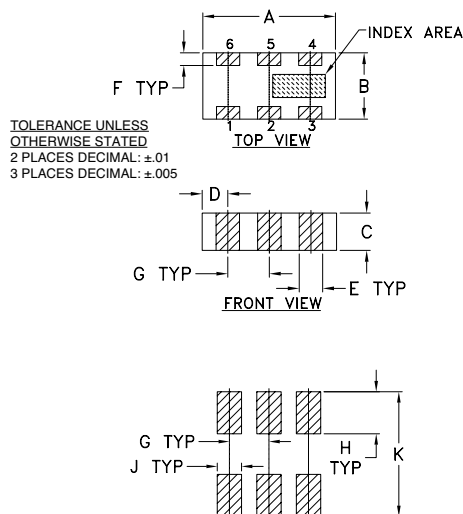
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input	7W*
*derate linearly to 3W at 100°C ambient	

Pin Connections

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

**RF IN & RF OUT can be interchanged

Outline Drawing



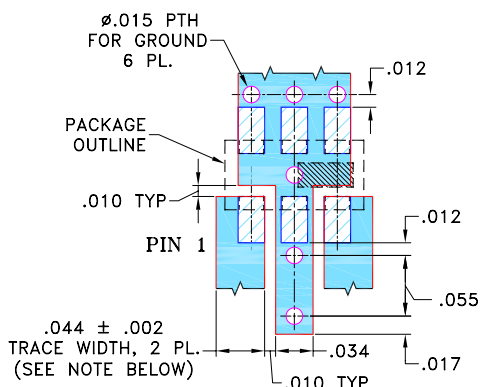
Outline Dimensions (inch/mm)

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

www.DataSheet4U.com

Demo Board MCL P/N: TB-285

Suggested PCB Layout(PL-158)



- TRACE WIDTH IS SHOWN FOR ROGERS R04350 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
■ DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

Features

- Low Cost
- Small size
- 5 sections
- Temperature stable
- Good power handling
- DC block in/out, breakdown voltage, 1kV typ.

Application

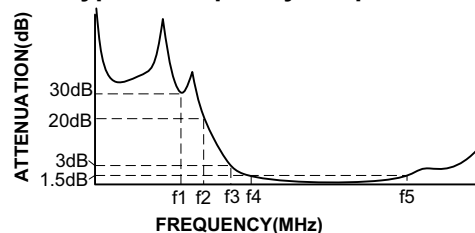
- Sub-harmonic rejection and DC blocking
- Transmitters/Receivers

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

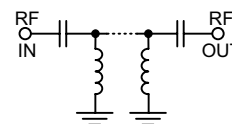
MODEL NO.	STOPBAND (MHz)		fco, MHz Nom. (Loss 3dB) Typ.	PASSBAND (MHz)		VSWR		POWER INPUT (W) Max.
	Typ. DC-f1	Min. DC-f2		Max. f4-f5	Max. f4-f5	Stopband	Frequency (MHz) 1.5:1	
HFCN-3800	DC-3100	DC-3200	3800	4500-9000	4250-10000	20:1	3950-10000	7

1. For Applications requiring DC voltage to be applied to the input or output, use HFCN-3800D (DC Resistance to ground is 100 Mohms min.)

Typical Frequency Response



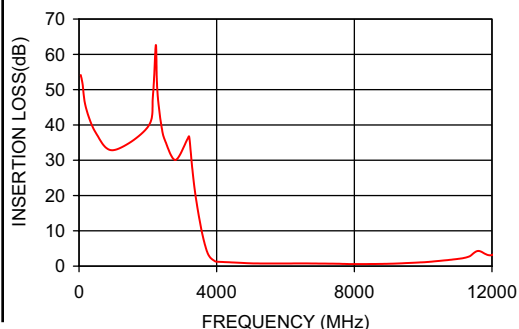
Schematic



Typical Performance Data at 25°C

FREQUENCY (MHz)	INSERTION LOSS (dB)	VSWR (:1)
50	54.14	1737.18
500	37.58	1737.18
1000	32.85	248.17
2000	39.46	78.97
2800	30.08	42.38
3280	28.81	23.81
3800	2.59	2.00
3950	1.41	1.16
4500	1.02	1.43
6000	0.76	1.18
8000	0.59	1.05
9900	1.05	1.65
10200	1.25	1.79
11330	2.71	1.96
12000	3.15	1.20

HFCN-3800 INSERTION LOSS



HFCN-3800 VSWR

