Ceramic

High Pass Filter

HFCN-1810+
HFCN-1810

50Ω 1950 to 4750 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

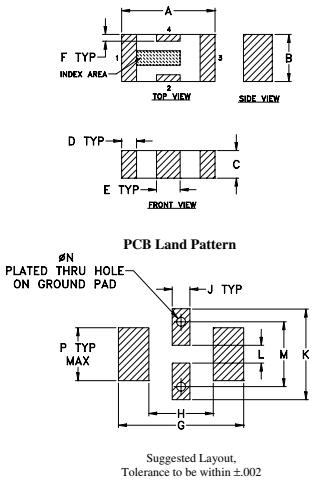
** Passband rating, derate linearly to 3W at 100°C ambient.*

Pin Connections

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

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

Outline Drawing

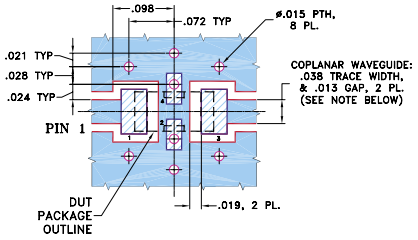


Outline Dimensions (inch / mm)

A	B	C	D	E	F	G
.126	.063	.037	.020	.032	.009	.169
3.20	1.60	0.94	0.51	0.81	0.23	4.29

H	J	K	L	M	N	P	wt
.087	.024	.122	.024	.087	.012	.071	grams
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 RO4350B 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
- excellent power handling, 7W
- hermetically sealed

Applications

- sub-harmonic rejection
- transmitters/receivers
- lab use

CASE STYLE: FV1206

Model	Price	Qty.
HFCN-1810+	$1.99	(10-49)
HFCN-1810	$1.99	(10-49)
HFCN-1810D+	$2.49	(10-49)
HFCN-1810D	$2.49	(10-49)

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

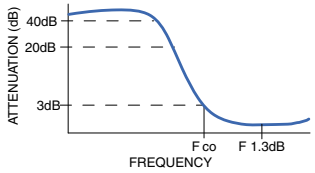
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Electrical Specifications[1] (T_{AMB}=25°C)

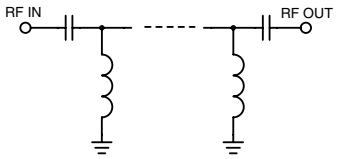
STOP BAND (MHz) Min.		fco, MHz Nom.	PASSBAND (MHz)		VSWR (:1) Typ.		POWER INPUT (W)	NO. OF SECTIONS
		(loss 3 dB)	(loss < 1.3 dB)	(loss < 2 dB)		Frequency (MHz)		
(loss > 40 dB)	(loss > 20 dB)	Typ.	Max.	Typ.	Stopband	1.5:1		
1100	1480	1810	2250-3850	1950-4750	20:1	2250-3750	7	7

1. For applications requiring DC voltage to be applied to the Input or output, use HFCN-1810D (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	94.72	>20
250.00	69.71	>20
1000.00	48.11	>20
1320.00	55.76	>20
1490.00	26.94	>20
1643.00	11.73	8.81
1780.00	3.10	2.15
2250.00	0.83	1.53
2750.00	0.52	1.19
3046.00	0.50	1.10
3750.00	0.64	1.49
4048.00	0.84	1.81
4750.00	1.73	2.73
5750.00	3.22	4.18
7000.00	4.60	6.05