

Ceramic High Pass Filter

HFCN-650+ HFCN-650

50Ω 710 to 2490 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

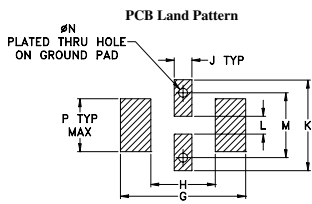
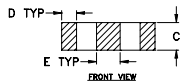
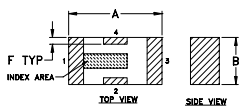
* Passband rating, derate linearly to 3W at 100°C ambient.

Pin Connections

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

** RF IN & RF OUT can be interchanged

Outline Drawing

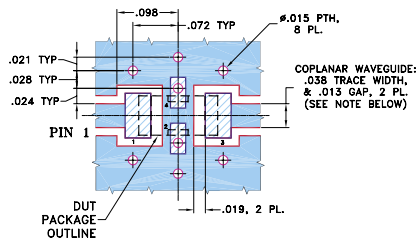


Suggested Layout, Tolerance to be within ±.002

Outline Dimensions (inch)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	wt
.126	.063	.037	.020	.032	.009	.169	.087	.024	.122	.024	.087	.012	.071	grams
3.20	1.60	0.94	0.51	0.81	0.23	4.29	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
- dc block in/out, breakdown voltage, 1kV typ.
- excellent power handling, 7W
- hermetically sealed

Applications

- sub-harmonic rejection and dc blocking
- transmitters/receivers
- lab use

CASE STYLE: FV1206

Model	Price	Qty.
HFCN-650+	\$1.99	(10-49)
HFCN-650	\$1.99	(10-49)
HFCN-650D+	\$2.49	(10-49)
HFCN-650D	\$2.49	(10-49)

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

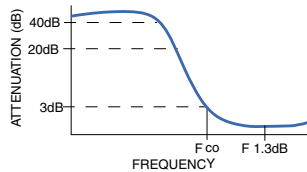
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

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

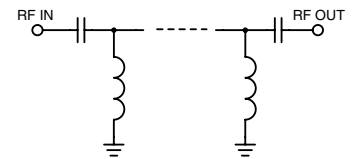
STOP BAND (MHz) Min.		f _{co} , MHz Nom.	PASSBAND (MHz)		VSWR (:1) Typ.	POWER INPUT (W)	NO. OF SECTIONS
(loss > 40 dB)	(loss > 20 dB)	(loss 3 dB) Typ.	(loss < 1.3 dB) Max.	(loss < 2 dB) Typ.	Frequency (MHz) Stopband 1.5:1		
390	480	650	850-2000	710-2490	20:1	760-1700	7

1. For applications requiring DC voltage to be applied to the Input or output, use HFCN-650D (DC Resistance to ground is 100 Mohms min.)

typical frequency response

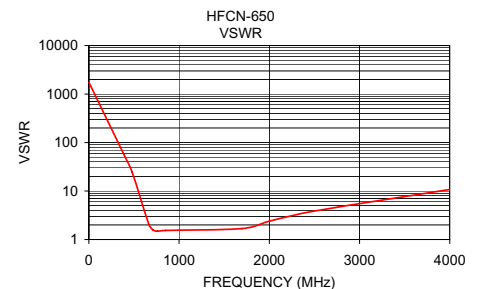
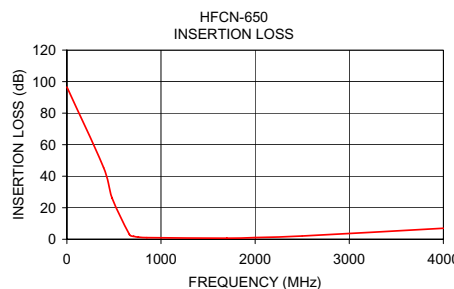


electrical schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1.00	96.55	1737.18
390.00	45.42	56.04
480.00	26.09	24.48
665.00	2.98	2.04
710.00	1.84	1.59
760.00	1.34	1.48
850.00	1.02	1.54
1700.00	0.69	1.68
2000.00	1.09	2.39
2500.00	2.08	3.86
4000.00	6.96	10.75



designers kit available

Kit No.	No. of Units in Kit	Description	Price \$ per Kit
K1-HFCN	40	5 of each: HFCN-650,-740,-1200,-1500,-1760,-2000,-2275,-2700	79.95



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