

# Ceramic High Pass Filter

850 to 2490 MHz

**NEW!**  
**HFCN-650**



**BLUE CELL™**

CASE STYLE: FV1206

## 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

## Features

- low cost
- small size
- 7 sections
- temperature stable
- dc block in/out, breakdown voltage, 1kV typ.
- excellent power handling, 7W

## Applications

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

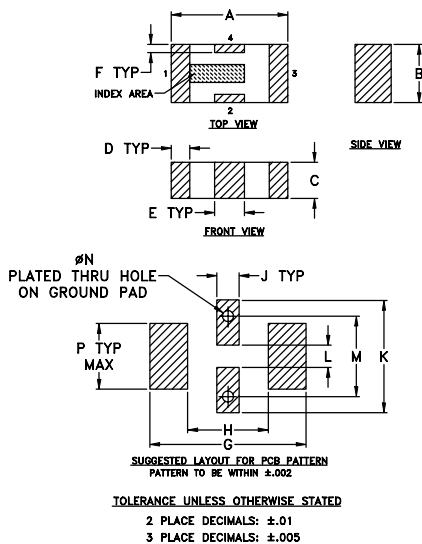
Model	Price	Qty.
HFCN-650	\$1.99	(10-49)
HFCN-650D	\$2.49	(10-49)

## High Pass Filter Electrical Specifications<sup>1</sup> (T<sub>AMB</sub>=25°C)

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

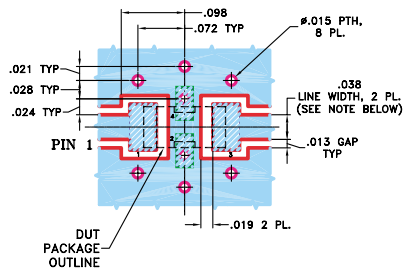
## Outline Drawing



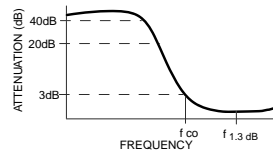
## Outline Dimensions (inch)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	wt
.126	.063	.037	.024	.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

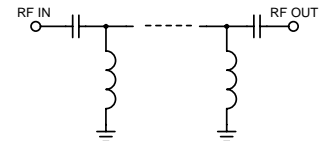
## Demo Board MCL P/N: TB-270 Suggested PCB Layout (PL-137)



## typical frequency response

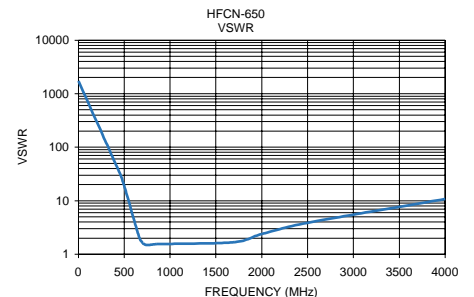
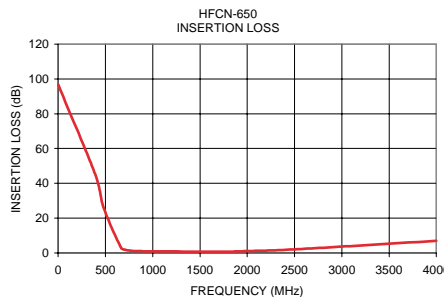


## schematic



## 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



INTERNET <http://www.minicircuits.com>  
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661

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. B  
M96263  
EDR-6251/3  
HFCN-650  
AD/RS/CP  
050113