# Ceramic **High Pass Filter**

# **HFCN-1600**

Generic photo used for illustration purposes only

CASE STYLE: FV1206

## **50**Ω

# 1650 to 5000 MHz

### **Maximum Ratings**

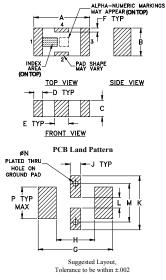
•				
Operating Temperature	-55°C to 100°C			
Storage Temperature	-55°C to 100°C			
RF Power Input*	7W max. at 25°C			
* Passband rating, derate linearly to 3W at 100°C ambient.				

Permanent damage may occur if any of these limits are exceeded.

### **Pin Connections**

RF IN	1
RF OUT	3
GROUND	2,4

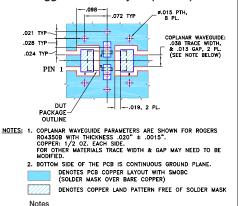
### Outline Drawing



#### Outline Dimensions (inch )

А	В	С	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	
н	J	к	L	М	Ν	Р	wt
H .087	J .024	K .122	L .024	M .087	N .012	P .071	
	-		L .024 0.61				

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



### **Features**

- low cost
- small size 7 sections
- temperature stable
- hermetically sealed
- LTCC construction
- excellent power handling, 7W

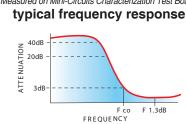
#### **Applications**

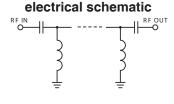
- sub-harmonic rejection
- transmitters/receivers

• lab use Electrical Specifications (12) at 25 C								
(M)	BAND Hz)	fco, MHz Nom.			VSWR (:1) Typ.		POWER	NO. OF SECTIONS
M	in.	(loss 3 dB)	(loss < 1.3 dB)	(loss < 2 dB)		Frequency (MHz)	(W)	
(loss > 40 dB)	(loss > 20 dB)	Тур.	Max.	Тур.	Stopband	1.5:1		
1090	1290	1600	1950-4000	1650-5000	20:1	1700-4000	7	7

Electrical Cracifications(12) at 25°C

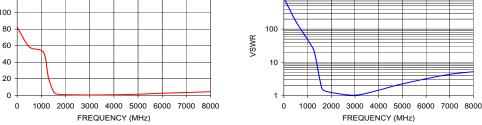
(1) In Application where DC voltage is present at either input or output ports, coupling capacitors are required. Alternatively, Mini-Circuits' "D" suffix version of this model will provide>100 MOhm isolation to ground. (2) Measured on Mini-Circuits Characterization Test Board TB-270.





#### Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)		
1.00 500.00	82.28 58.67	868.59 173.72		
1090.00	51.85	38.61		
1290.00 1500.00	21.92 4.72	19.98 3.58		
1600.00	1.87	1.68		
1700.00	1.87	1.68		
1950.00	0.72	1.27		
3000.00 4000.00	0.40 0.62	1.04 1.47		
	0.97	1.47		
4540.00 5000.00	1.30	2.26		
6000.00	2.45	3.24		
7000.00	3.41	4.39		
8000.00	4.26	5.28		
HFCN-1600 INSERTION LOSS		HFCN-1600 VSWR		
120	1000			
<u>m</u> <u>m</u>	+ $+$ $+$ $+$ $+$ $+$ $+$			
	100			



A Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document. B. Electrical specifications and performance data contained in this specification document are based on Mini Circuitto and leather than the specification document.

INSERTION LOS

Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable stabilished test performance orteria and measurement instructions. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuit's website at www.minicircuits.com/MCLStore/terms.jsp

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