# High Pass Filter

# HFCN-4400D+

#### $50\Omega$ 5000 to 10100 MHz

Maximum	<b>Ratings</b>
Operating Temp	naratura

-55°C to 100°C Operating Temperature Storage Temperature -55°C to 100°C RF Power Input\* 7W max. at 25°C

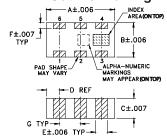
Max. DC Voltage at pins 1&3

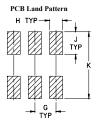
\*Passband rating, derate linearly to 3W at 100°C ambient.
Permanent damage may occur if any of these limits are exceeded.

#### **Pin Connections**

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

### **Outline Drawing**



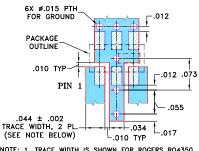


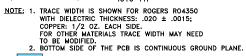
Suggested Layout, Tolerance to be within ±.002

Outl	<b>Outline Dimensions</b>			
Α	В	С	D	E

Г		U	C	ь	Α.
.011	.022	.024	.035	.063	.126
0.28	0.56	0.61	0.89	1.60	3.20
wt		K	J	Н	G
grams		.123	.042	.024	.039
.020		3.12	1.07	0.61	0.99

#### Demo Board MCL P/N: TB-285 Suggested PCB Layout (PL-158)





DENOTES PCB COPPER LAYOUT

DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

#### **Features**

- Low cost
- · Small size
- 5 sections
- Temperature stable
- Excellent power handling, 7W
- Hermetically sealed
- LTCC construction
- Protected by US Patent 7,760,485

# **Applications**

- Sub-harmonic rejection
- Transmitters / receivers



Generic photo used for illustration purposes only

CASE STYLE: FV1206-1

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

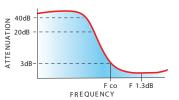


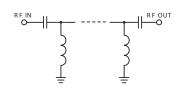
### Electrical Specifications<sup>1,2</sup> at 25°C

STOPBAND fco, MHz (MHz) Nom.		PASSBAND (MHz)		VSWR Typ.		POWER INPUT	NO. OF SECTIONS	
(Loss > 30dB)	(Loss > 20dB)	(Loss 3 dB)	(Loss < 1.5dB)	(Loss < 2dB)		Frequency (MHz)	(W)	
Тур.	Min.	Тур.	Max.	Max.	Stopband	1.5:1	Max.	
3600	3500	4400	5000-9900	5000-10100	20:1	4600-10100	7	5

- 1. DC Resistance to ground is 100 Mohms min.
- 2. Measured on Mini-Circuits Characterization Test Board TB-285.

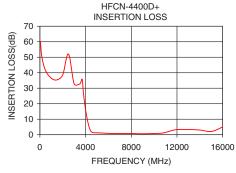
#### electrical schematic typical frequency response

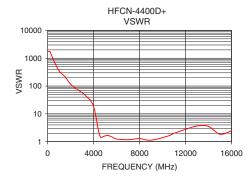




# Typical Performance Data at 25°C

1/01//0
VSWR (:1)
1737.18
868.59
78.97
37.77
34.75
24.83
15.00
7.94
2.73
1.44
1.65
1.22
1.33
1.60
2.37
3.66
2.47





- 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-Circuit's applicable established test performance criteria and measurement instructions.

  C. 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-Circuits' website at www.ninicircuits.com/MCLStore/terms.jsp