Ceramic

High Pass Filter

HFCN-4400+

50Ω 5000 to 10100 MHz

CASE STYLE: FV1206-1
PRICE: $2.99 ea. QTY (20)

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

Available Tape and Reel at no extra cost

Reel Size	Devices/Reel
7"	20, 50, 100, 200, 500,1000, 3000

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	2,4,5,6

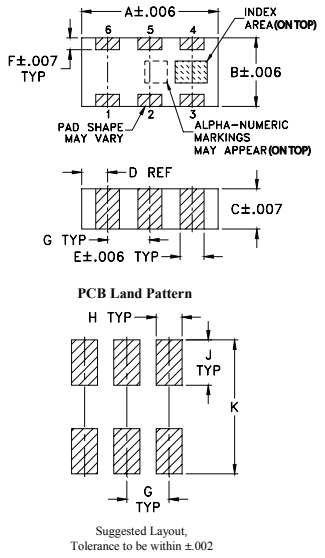
Features

- 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 and DC blocking
- Transmitters / receivers

Outline Drawing

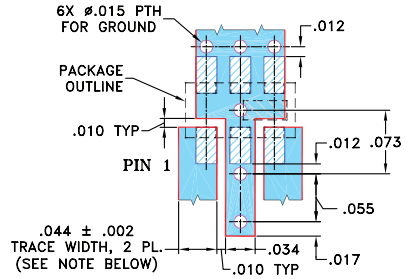


Outline Dimensions (inch / mm)

A	B	C	D	E	F
.126	.063	.035	.024	.022	.011
3.20	1.60	0.89	0.61	0.56	0.28

G	H	J	K	wt
.039	.024	.042	.123	grams
0.99	0.61	1.07	3.12	.020

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



NOTE: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350 WITH DIELECTRIC THICKNESS: .020 ± .0015; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

DENOTES PCB COPPER LAYOUT

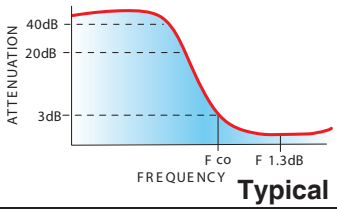
DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

Electrical Specifications[1,2] at 25°C

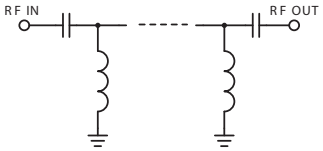
STOPBAND (MHz)		fco, MHz Nom.	PASSBAND (MHz)		VSWR Typ.		POWER INPUT (W)	NO. OF SECTIONS
(Loss > 30dB) Typ.	(Loss > 20dB) Min.	(Loss 3 dB) Typ.	(Loss < 1.5dB) Max.	(Loss < 2dB) Max.	Frequency (MHz) Stopband	Frequency (MHz) 1.5:1	Max.	
3600	3500	4400	5000-9900	5000-10100	20:1	4600-10100	7	5

(1) In Application where DC voltage is present at either input or output ports, coupling capacitors are required. Alternatively, if DC pass IN-OUT is required, Mini-Circuits' "D" suffix version of this model will support DC IN-OUT, and provide>100 MOhm isolation to ground.
(2) Measured on Mini-Circuits Characterization Test Board TB-285.

typical frequency response

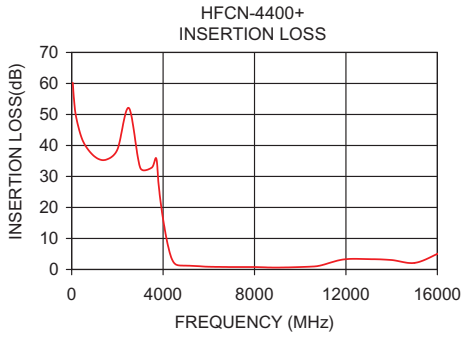


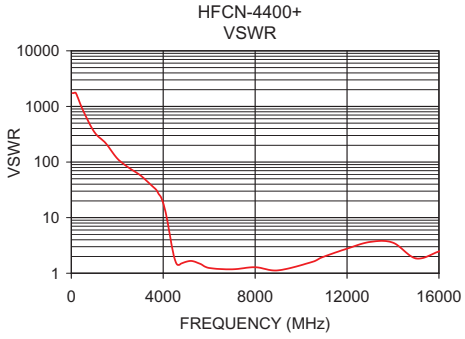
electrical schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50	60.22	1737.18
500	41.29	868.59
2500	52.10	78.97
3500	32.81	37.77
3600	36.38	34.75
3850	24.31	24.83
4050	14.01	15.00
4200	8.13	7.94
4400	3.09	2.73
4600	1.48	1.44
5000	1.24	1.65
9900	0.65	1.22
10100	0.71	1.33
10500	0.93	1.60
11500	2.12	2.37
13000	3.33	3.66
16000	5.02	2.47





Notes
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.minicircuits.com/MCLStore/terms.jsp

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