# High Pass Filter

#### 4250 to 10000 MHz

#### **Maximum Ratings**

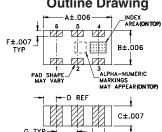
Operating Temperature	-55ºC to 100ºC
Storage Temperature	-55ºC to 100ºC
RF Power Input*	7W max. at 25ºC
*Passband rating, derate linearly to	3W at 100°C ambient.

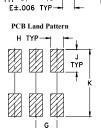
Permanent damage may occur if any of these limits are exceeded.

#### **Pin Connections**

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

#### **Outline Drawing**

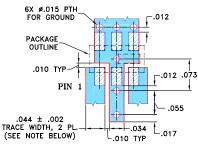




## Outline Dimensions (inch )

F	Е	D	С	В	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)



NOTE: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350
WITH DIELECTRIC THICKNESS: 020 ± .0015;
COPPER: 1/2 02. EACH SIDE.
FOR OTHER MATERIALS TRACE WIDTH MAY NEED
TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PL

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

# HFCN-3800+



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



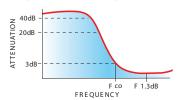
#### Electrical Specifications(1,2) at 25°C

	STOPBAND fco, MHz (MHz) Nom.		PASSBAND (MHz)		VSWR Typ. Frequency		POWER INPUT (W)	NO. OF SECTIONS
(Loss > 30dB) Typ.	(Loss > 20dB) Min.	(Loss 3 dB) Typ.	(Loss < 1.5dB) Max.	(Loss < 2dB) Max.	Stopband	(MHz) 1.5:1	Max.	
2500	3200	3800	4500-9000	4250-10000	20:1	3950-10000	7	5

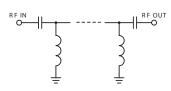
(1) In Application where DC voltage is present at either input or output ports, coupling capacitors are required. Alternatively, Mini-Circuits' "D" suffix version of this model will provide>100 MOhm isolation to ground.

(2) Measured on Mini-Circuits Characterization Test Board TB-285.

#### typical frequency response

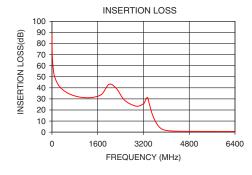


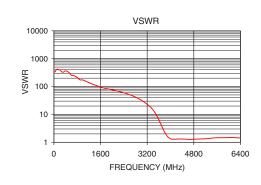
#### electrical schematic



### Typical Performance Data at 25°C

	Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
	50.00	55.55	352.78
	500.00	36.00	329.74
	1500.00	31.71	104.95
	3200.00	25.64	23.24
	3400.00	25.91	14.49
	3500.00	16.74	10.30
	3800.00	3.55	2.30
	4000.00	1.50	1.34
	4250.00	0.97	1.31
	4500.00	0.78	1.29
	5000.00	0.70	1.31
	5500.00	0.66	1.44
	6000.00	0.61	1.48
	6400.00	0.59	1.42





- 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

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