# **ligh Pass Filter**

### 4250 to 10000 MHz

### **Maximum Ratings**

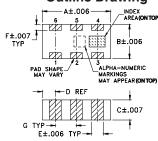
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	7W max. at 25°C
Max. DC Voltage at pins 1&3	25 VDC

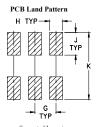
<sup>\*</sup>Passband rating, derate linearly to 3W at 100°C ambient. Permanent damage may occur if any of these limits are exceeded.

### **Pin Connections**

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

### Outline Drawing



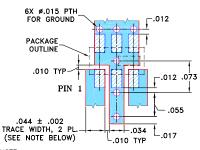


Suggested Layout, Tolerance to be within ±.002

Outl	ine I	Dimer	sions	(inch)	)
٨	D	_	D		

Α	В	С	D	Е	F
.126	.063	.035	.024	.022	.011
3.20	1.60	0.89	0.61	0.56	0.28
G	Н	J	K		wt
.039	.024	.042	.123		grams

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



NOTE: 1. TRACE WIDTH IS SHOWN FOR ROGERS R04350 WITH DIELECTRIC THICKNESS: .020 ± .0015;

COPPER: 1/2 OZ. EACH SIDE.
FOR OTHER MATERIALS TRACE WIDTH MAY NEED
TO BE MODIFIED.
BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

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-3800D+



CASE STYLE: FV1206-1

#### +RoHS Compliant

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

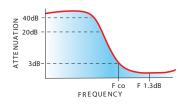


### Electrical Specifications<sup>1,2</sup> at 25°C

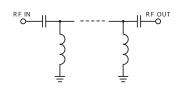
	BAND Hz)	fco, MHz Nom.	PASSI (MI			SWR 「yp.	POWER INPUT	NO. OF SECTIONS
(Loss > 30dB) Typ.	(Loss > 20dB) Min.	(Loss 3 dB) Typ.	(Loss < 1.5dB) Max.	(Loss < 2dB) Max.	Stopband	Frequency (MHz) 1.5:1	(W) Max.	
2500	3200	3800	4500-9000	4250-10000	20:1	3950-10000	7	5

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

### typical frequency response

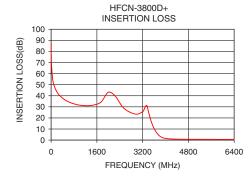


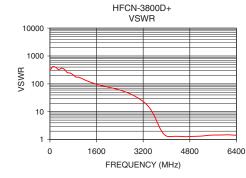
### electrical schematic



### 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





- OBS

  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.
  Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria 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-Circuits website at www.minicircuits.com/MCLStore/terms.jsp