

High Pass Filter

HFCN-3100+

50Ω 3400 to 9900 MHz

Maximum Ratings

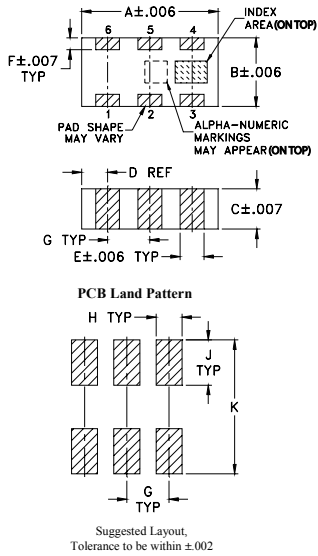
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	7W max. at 25°C

*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	2,4,5,6

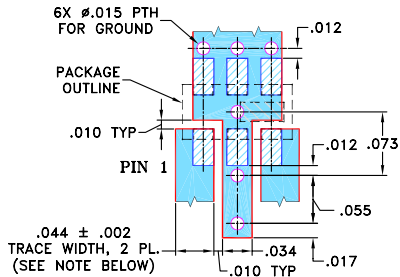
Outline Drawing



Outline Dimensions (inch)

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)



■ DENOTES PCB COPPER LAYOUT
■ DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

Notes

- 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-Circuit's 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

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

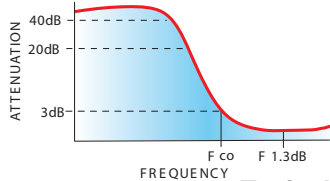
Electrical Specifications^(1,2) at 25°C

STOPBAND (MHz)	f _{co} , MHz Nom.	PASSBAND (MHz)	VSWR Typ.	POWER INPUT (W)	NO. OF SECTIONS
(Loss > 30dB) (Loss > 20dB) Typ. Min.	(Loss 3 dB) Typ.	(Loss < 1.5dB) (Loss < 2dB) Max. Max.	Frequency (MHz) Stopband 1.5:1	Max.	
2500 2450	3100	3500-9500 3400-9900	20:1 3100-10500	7	5

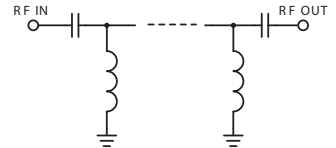
(1) In Application where DC voltage is present at either input or output ports, coupling capacitors are required. Alternatively, Mini-Circuits' "D" suffix version of this model will provide >100 MΩ isolation to ground.

(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	54.41	1737.18
800	32.66	115.81
1810	54.18	59.91
2450	40.03	26.74
2500	33.38	25.19
2700	16.65	15.00
2920	6.20	4.89
3100	2.22	1.87
3400	1.01	1.27
3500	0.94	1.32
5000	0.66	1.09
7000	0.68	1.31
9000	0.88	1.21
9500	0.78	1.29
9900	0.88	1.39
10500	1.21	1.52
11000	1.76	1.68

