

# 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.

### 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
- DC block in/out, breakdown voltage, 1kV typ.
- Patent pending

### Application

- Sub-harmonic rejection and DC blocking
- Transmitters/Receivers

CASE STYLE: FV1206-1

Model	Price	Qty.
HFCN-3100+	\$2.99	(10-49)
HFCN-3100D+	\$3.49	(10-49)

**+ RoHS compliant in accordance with EU Directive (2002/95/EC)**

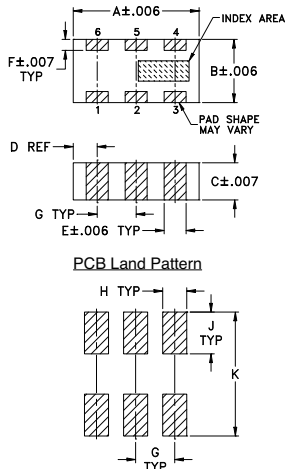
The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

### High Pass Filter Electrical Specifications<sup>1</sup> (T<sub>AMB</sub> = 25°C)

STOPBAND (MHz)		fco, MHz	PASSBAND (MHz)		VSWR	POWER INPUT	NO. OF SECTIONS
(Loss>30dB)	(Loss>20dB)	Nom.	(Loss<1.5dB)	(Loss<2dB)	Typ.	(W)	
Typ. DC-F1	Min. DC-F2	Typ. F3	Max. F4-F5	Max.	Stopband Frequency (MHz)	Max.	
DC-2500	DC-2450	3100	3500-9500	3400-9900	20:1	7	5

1. For Applications requiring DC voltage to be applied to the input or output, use HFCN-3100D+ (DC Resistance to ground is 100 Mohms min.)

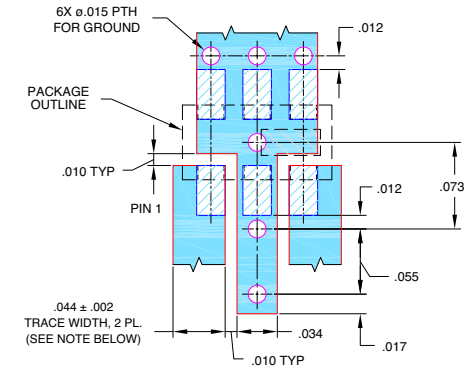
### Outline Drawing



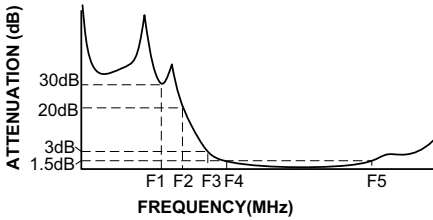
### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	wt.
.126	.063	.035	.024	.022	.011	.039	.024	.042	.123	grams
3.20	1.60	0.91	0.61	0.56	0.28	0.99	0.61	1.07	3.12	.020

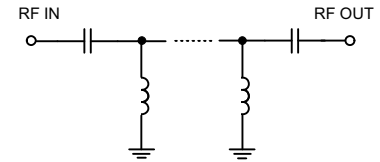
### Demo Board MCL P/N: TB-285 Suggested PCB Layout (PL-158)



### Typical Frequency Response

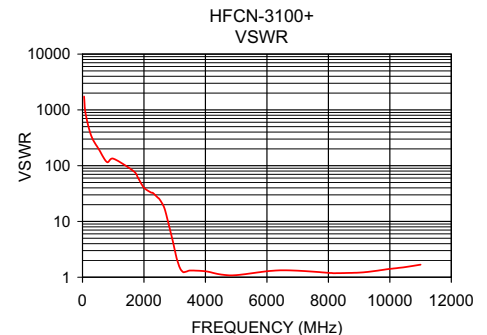
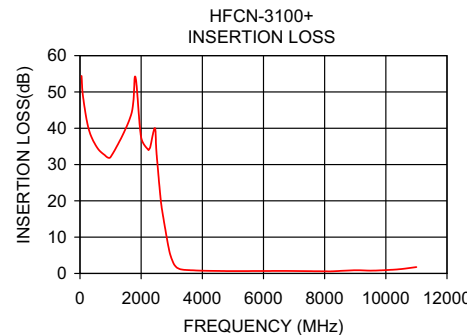


### Electrical Schematic



### 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



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: [www.minicircuits.com](http://www.minicircuits.com)

IF/RF MICROWAVE COMPONENTS

REV. A  
M121640  
EDR-7909/1  
HFCN-3100+  
RAV  
090223  
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