

Ceramic High Pass Filter

HFCN-1910D+

50Ω 2000 to 5200 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

* 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

Features

- low cost
- small size
- 7 sections
- temperature stable
- hermetically sealed
- LTCC construction
- excellent power handling, 7W

Applications

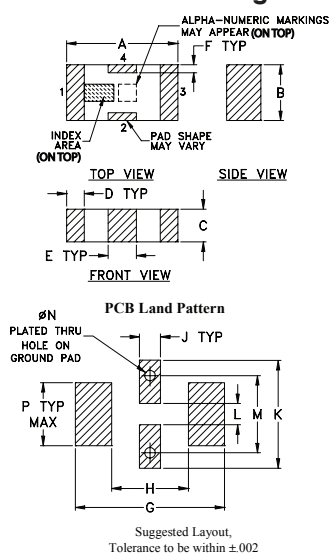
- sub-harmonic rejection
- transmitters/receivers
- lab use

Electrical Specifications^{1,2} at 25°C

STOP BAND (MHz) Min.	f _{co} , MHz Nom.	PASSBAND (MHz)	VSWR (:1) Typ.	POWER INPUT (W)	NO. OF SECTIONS
(loss > 40 dB)	(loss 3 dB) Typ.	(loss < 1.3 dB) (loss < 2 dB) Typ.	Frequency (MHz) Stopband 1.5:1		
1075 1400	1910	2200-4400 2000-5200	20:1 2100-4500	7	7

1. DC Resistance to ground is 100 Mohms min.
2. Measured on Mini-Circuits Characterization Test Board TB-270.

Outline Drawing

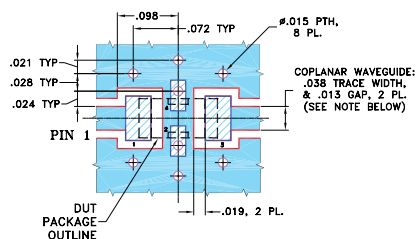


Outline Dimensions (inch/mm)

A	B	C	D	E	F	G
.126	.063	.037	.020	.032	.009	.169
3.20	1.60	0.94	0.51	0.81	0.23	4.29

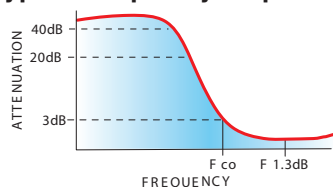
H	J	K	L	M	N	P	wt
.087	.024	.122	.024	.087	.012	.071	grams
2.21	0.61	3.10	0.61	2.21	0.30	1.80	.020

Demo Board MCL P/N: TB-270 Suggested PCB Layout (PL-137)

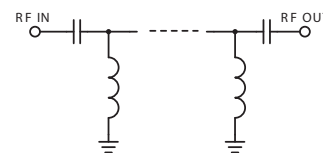


- NOTES: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH THICKNESS .020" ± .0015". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH & GAP MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
 - DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

typical frequency response

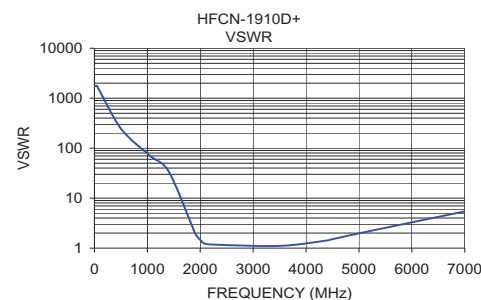
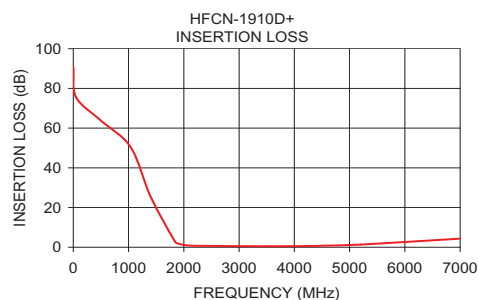


electrical schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1.00	90.73	1737.18
50.00	75.59	1737.18
500.00	63.78	248.17
1040.00	50.40	72.39
1400.00	25.38	34.75
1840.00	2.89	2.89
1910.00	1.73	1.90
2050.00	0.97	1.29
2100.00	0.87	1.23
2200.00	0.75	1.18
3500.00	0.48	1.11
4400.00	0.67	1.42
4500.00	0.76	1.51
5200.00	1.37	2.19
7000.00	4.34	5.44



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

