

High Pass Filter

50Ω 5000 to 11000 MHz
HFCN-4600D+

CASE STYLE: FV1206-1
PRICE: Contact Sales Dept.

Maximum Ratings

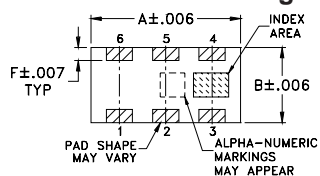
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	7W max. at 25°C
Max. DC Voltage at pins 1&3	25 VDC

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

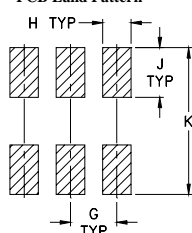
Pin Connections

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

Outline Drawing



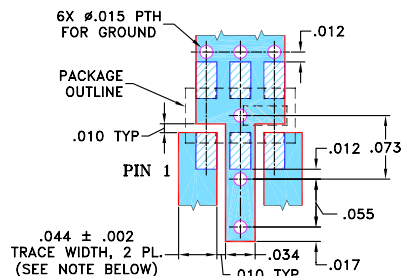
PCB Land Pattern


Suggested Layout,
Tolerance to be within ±0.02

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	L	M
.039	.024	.042	.123	.034	.017
0.99	0.61	1.07	3.12	.020	

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

- 6X .015 PTH FOR GROUND
- PACKAGE OUTLINE
- .010 TYP
- PIN 1
- .044 ± .002
- TRACE WIDTH, 2 PL. (SEE NOTE BELOW)
- .034
- .010 TYP
- .012
- .073
- .055
- .017

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

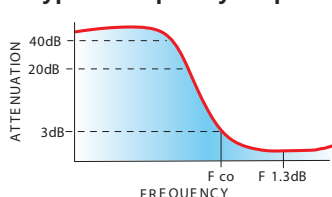
- Sub-harmonic rejection and DC blocking
- Transmitters / receivers

Electrical Specifications¹ at 25°C

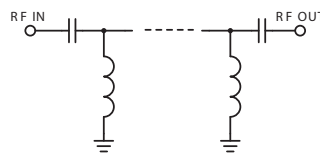
STOPBAND (MHz)	fco, MHz Nom.	PASSBAND (MHz)	VSWR Typ. Frequency (MHz)	POWER INPUT (W)	NO. OF SECTIONS
(Loss > 30dB) Typ.	(Loss > 20dB) Min.	(Loss < 1.5dB) Max.	Stopband 1.5:1	Max.	
3700	3800	4600	4720-11000	7	5

¹. DC Resistance to ground is 100 Mohms min.

typical frequency response



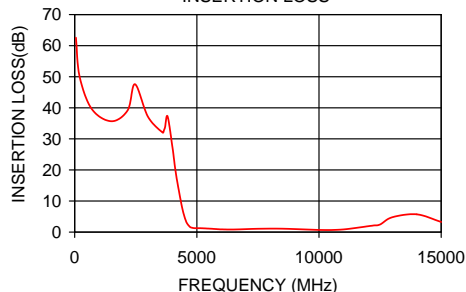
electrical schematic



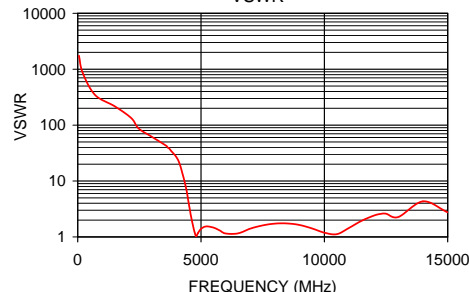
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50	62.56	1737.18
1500	35.68	217.15
2470	47.59	86.86
3700	33.77	38.61
3800	37.24	34.07
4150	18.50	19.32
4380	8.52	7.90
4500	4.77	3.97
4600	2.78	2.25
4720	1.66	1.31
5000	1.27	1.39
5200	1.25	1.54
8000	1.11	1.73
10500	0.66	1.12
11000	0.85	1.45
14000	5.72	4.32
15000	3.27	2.75

HFCN-4600D+ INSERTION LOSS



HFCN-4600D+ VSWR



Mini-Circuits
ISO 9001 ISO 14001 AS 9100 CERTIFIED

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