

Ceramic High Pass Filter

HFCN-2275+ HFCN-2275

50Ω 2450 to 7000 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

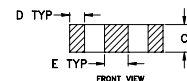
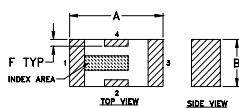
* Passband rating, derate linearly to 3W at 100°C ambient.

Pin Connections

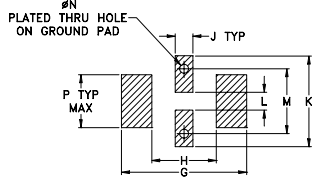
RF IN	1**
RF OUT	3**
GROUND	2,4

** RF IN & RF OUT can be interchanged

Outline Drawing



PCB Land Pattern

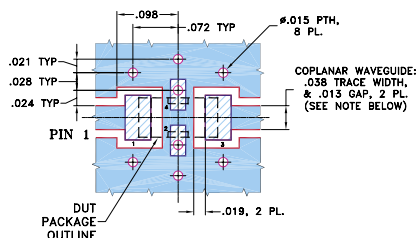


Suggested Layout,
Tolerance to be within ±.002

Outline Dimensions (inch)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	wt
.126	.063	.037	.020	.032	.009	.169	.087	.024	.122	.024	.087	.012	.071	grams
3.20	1.60	0.94	0.51	0.81	0.23	4.29	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

Features

- low cost
- small size
- 7 sections
- temperature stable
- dc block in/out, breakdown voltage, 1kV typ.
- excellent power handling, 7W
- hermetically sealed

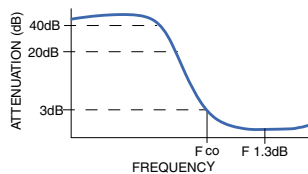
Applications

- sub-harmonic rejection and dc blocking
- transmitters/receivers
- lab use

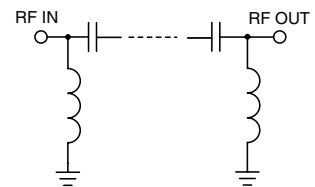
Electrical Specifications (T_{AMB} = 25°C)

STOP BAND (MHz) Min.	f _{co} , MHz Nom.	PASSBAND (MHz)	VSWR (:1) Typ.	POWER INPUT (W)	NO. OF SECTIONS
(loss > 40 dB) (loss > 20 dB)	(loss 3 dB) Typ.	(loss < 1.3 dB) (loss < 2 dB) Max. Typ.	Frequency (MHz) Stopband 1.5:1		
1400 1770	2275	2640-6230 2450-7000	20:1 2580-6000	7	7

typical frequency response

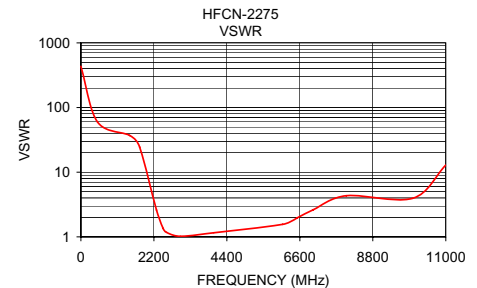
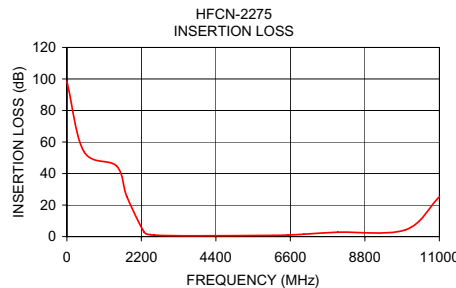


electrical schematic



Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1.00	98.51	434.30
500.00	54.08	59.91
1470.00	44.75	36.97
1770.00	25.43	24.48
2280.00	2.90	2.59
2480.00	1.26	1.35
2580.00	0.98	1.17
3000.00	0.64	1.02
4000.00	0.52	1.16
6080.00	0.75	1.56
6520.00	0.99	1.96
7000.00	1.51	2.61
8000.00	2.77	4.33
10000.00	4.28	3.95
11000.00	25.26	12.89



designers kit available

Kit No.	No. of Units in Kit	Description	Price \$ per Kit
K1-HFCN	40	5 of each: HFCN-650,-740,-1200,-1500,-1760,-2000,-2275,-2700	79.95



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