

High Pass Filter

Features

- Low cost
- Small size
- 5 sections
- Temperature stable
- Excellent power handling
- LTCC construction with great moisture resistance, corrosion resistance, and high reliability

Applications

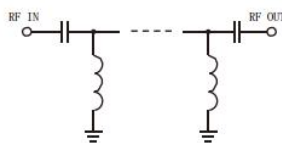
- Sub-harmonic rejection
- Transmitters / receivers
- base station of mobile communication and lab use

HT-HFCN-7971+



50 Ω 8560 to 12800 MHz

electrical schematic



Pin Connections

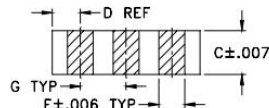
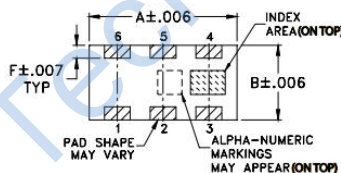
RF IN	1
RF OUT	3
GROUND	2,4,5,6

Maximum Ratings

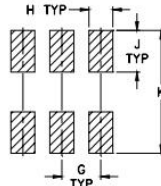
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input	7W at 25°C

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

Outline Drawing



PCB Land Pattern



Suggested Layout

Tolerance to be within ± 0.02

Outline Dimensions, Unit (mm)

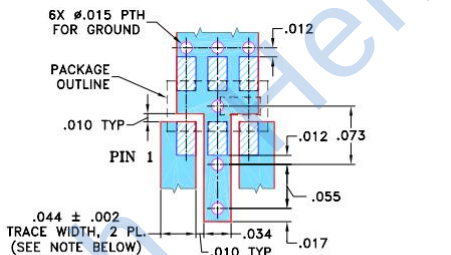
A	3.20	B	1.60	C	0.89
D	0.61	E	0.56	F	0.28
G	0.99	H	0.61	J	1.07
K	3.12	wt	0.020g		

Electrical Specifications (T _{AMB} = 25° C)							
STOP BAND (MHz)		FCO ₁ (MHz) Nom.	PASS BAND (MHz)		VSWR (:1)	POWER INPUT (W)	NO. OF SECTIONS
(Loss>25dB) Typ.	(Loss>17dB) Min.	(Loss 3dB) Typ.	(Loss<4dB) Max.	(Loss<2.0dB) Max.	Stopband Frequency (MHz) 1.5:1 Typ.	Max	
5500	6500	8000	8560-12800	9975-12350	20:1	8560-12800	5

Typical Performance Data at 25° C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50	61.91	1737.18
1000	38.60	1500.37
1960	35.58	157.93
3250	40.06	69.49
4170	39.69	32.79
5020	26.83	27.16
5680	22.27	25.72
6470	20.04	21.40
7550	9.03	2.47
8500	1.93	2.02
9480	1.81	2.34
10610	1.41	2.01
11530	0.92	1.52
12440	1.35	1.93
14000	1.19	1.61

Suggested PCB Layout



NOTE: 1. TRACE WIDTH IS SHOWN FOR ROGERS R04350 WITH DIELECTRIC THICKNESS: .020 $\pm$.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.

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

