

Low Pass Filter

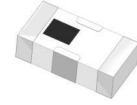
Features

- excellent power handling
- small size
- 7 sections
- temperature stable
- LTCC construction, and has good moisture resistance, corrosion resistance, high reliability.

Applications

- harmonic rejection
- VHF/UHF transmitters/receivers
- Base Station of Mobile Communication, lab use.

HT-LFCN-120+



50Ω DC to 120 MHz

Electrical Specifications at 25°C						
Parameter		Frequency(MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-120	-	-	1.0	dB
	Freq.Cut-Off	195	-	3.0	-	dB
	VSWR	DC-120	-	1.2	1.5	:1
Stop Band	Rejection Loss	280	20	-	-	dB
		300-1850	-	40	-	dB
	VSWR	4750	-	20	-	dB
		280-4750	-	20	-	:1

Maximum Ratings

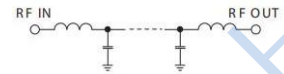
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power Input*	8.5W max. at 25°C

* Passband rating, derate linearly to 3.5W at 100°C ambient.
Permanent damage may occur if any of these limits are exceeded.

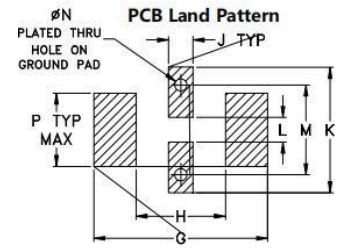
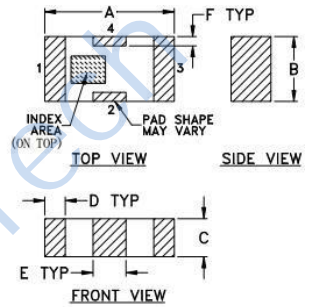
Pin Connections

RF IN	1
RF OUT	3
GROUND	2,4

Electrical Schematic



Outline Drawing

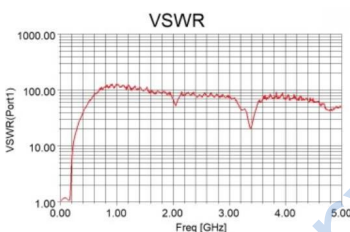


Suggested Layout
Tolerance to be within ±0.02

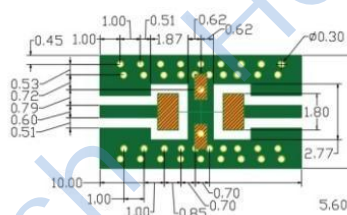
Outline Dimensions: Unit (mm)

A	3.20	B	1.60	C	0.94
D	0.51	E	0.81	F	0.23
G	4.29	H	2.21	J	0.61
K	3.10	L	0.61	M	2.21
N	0.30	P	1.80	wt	0.02

Typical Performance Data at 25°C			
Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	
10	0.11	1.05	
100	0.60	1.18	
120	0.76	1.14	
135	0.96	1.09	
195	9.86	3.57	
270	43.72	16.78	
280	50.16	18.28	
285	51.48	18.81	
300	45.12	21.53	
920	39.13	127.50	
1100	41.68	120.72	
1850	43.04	91.29	
2000	40.36	69.85	
4000	28.98	73.00	
4750	24.51	43.65	



Suggested PCB Layout



NOTES: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS R04350 WITH THICKNESS .508" ± .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