成都恒利泰科技有限公司
Chengdu HenryTech Technology co., Ltd

LTCC 低通滤波器（Low Pass Filter） HT-LFCN-120+

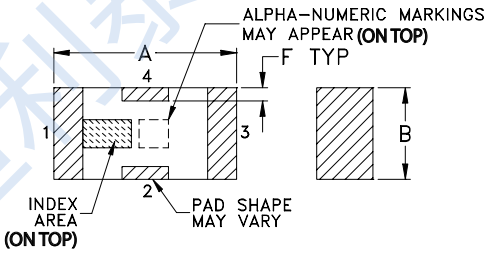
Features
- Low insertion loss.
- Good rejection.
- LTCC Construction.
- temperature stable.
- Small size.

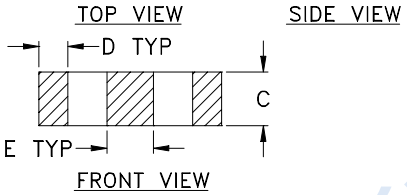
Applications
- Harmonic rejection.
- VHF/UHF transmitters/receivers.
- Lab use.

Pad Connections

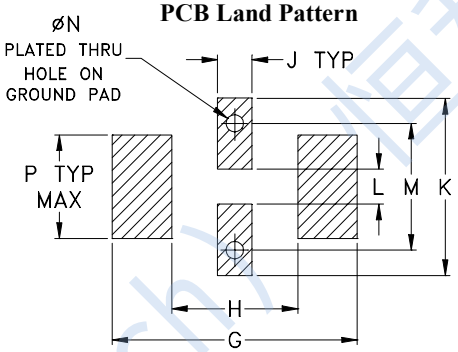
RF IN	1
RF OUT	3
GROUND	2,4

Outline Drawing





PCB Land Pattern



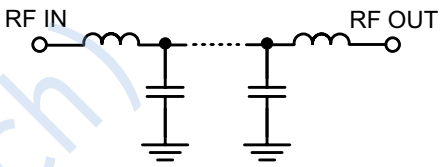
Suggested Layout,
Tolerance to be within ±.002

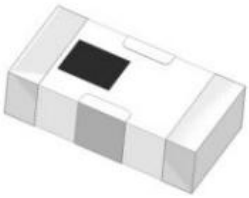
Outline Dimensions： inch / mm

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

Functional Schematic





50Ω
DC to 120MHz

Electrical Specifications(1) at 25°C

Parameter		Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-120	-	-	1.0	dB
	Freq. Cut-Off	180	-	3.0	-	dB
	VSWR	DC-120	-	1.2	1.5	:1
Stop Band	Rejection Loss	280	20	-	-	dB
		300-1850	-	40	-	dB
		4750	-	20	-	dB
	VSWR	280-4750	-	20	-	:1

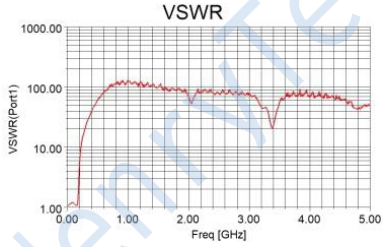
1.In Application where DC voltage is present at either input or output ports, coupling capacitors are required.

Typical Performance Data at 25°C

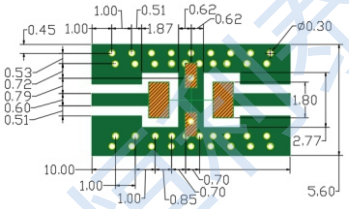
Frequency (Mhz)	Insertion Loss (dB)	VSWR (:1)
10	0.11	1.05
100	0.60	1.18
120	0.76	1.14
135	0.96	1.09
195	9.87	3.57
270	43.72	16.78
280	50.16	18.28
285	51.48	18.81
300	45.12	21.53
920	39.13	127.50
1100	41.68	120.72
1850	43.04	91.29
2000	40.36	69.85
4000	28.98	73.00
4750	24.51	43.65

INSERTION LOSS

VSWR



Suggested PCB Layout



NOTES: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350 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

Maximum Ratings

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

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

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