

LTCC 低通滤波器 (Low Pass Filter)

HT-LFCN-1525+

Features

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

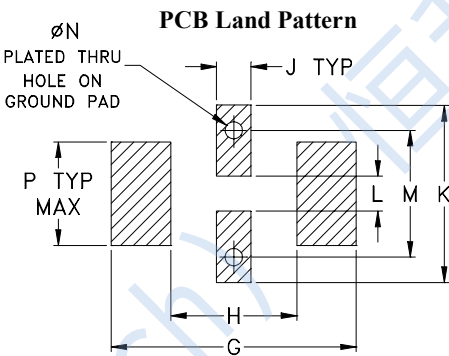
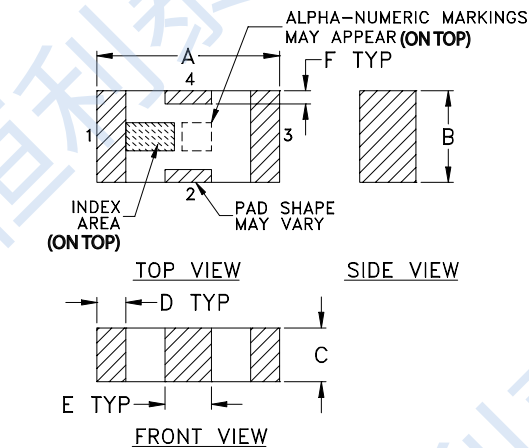
Applications

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

Pad Connections

RF IN	1
RF OUT	3
GROUND	2,4

Outline Drawing



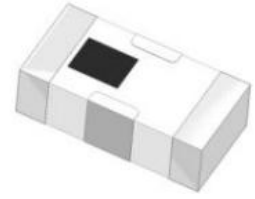
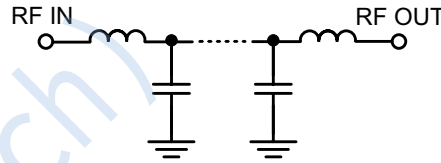
Suggested Layout,
Tolerance to be within ± 0.002

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



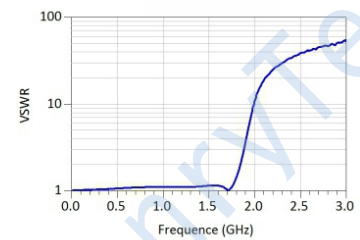
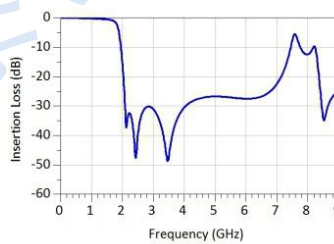
Electrical Specifications(1) at 25°C

Parameter		Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC-1525	-	0.8	1.1	dB
		1790	-	3.0	-	dB
		DC-1525	-	1.2	1.5	:1
Stop Band	Rejection Loss	2150	25	30	-	dB
		2380-5800	30	35	-	dB
		6800	20	25	-	dB
	VSWR	2220-6800	-	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

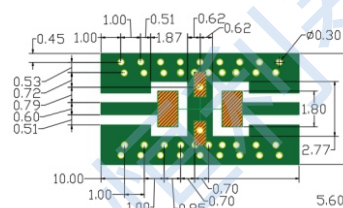
Frequency (Mhz)	Insertion Loss (dB)	VSWR (:1)
100	0.07	1.03
1000	0.36	1.18
1500	0.68	1.08
1700	1.14	1.12
1844	3.02	2.07
2141	37.28	19.59
2245	32.52	24.94
2461	48.77	33.65
2867	31.75	45.06
3472	50.29	62.72
4507	30.05	71.50
5504	31.16	61.05
6509	31.93	50.33
7000	25.36	40.04
7500	7.15	4.18



Notes

- The specifications are tested at 25°C $\pm 5^\circ\text{C}$, relative humidity 55~75%.
- Other quality and characteristic not specify in this datasheet.

Suggested PCB Layout



- NOTES: 1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350 WITH THICKNESS .508" $\pm$.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*	9W 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.