

LTCC 低通滤波器 (Low Pass Filter)

HT-LFCG-3500+

Features

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

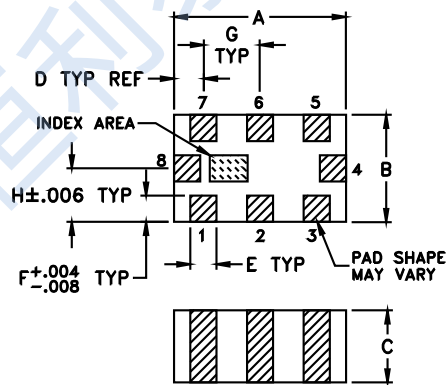
Applications

- Test and measurement
- Telecommunications & broadband wireless applications
- Harmonic Rejection
- VHF/UHF transmitters / receivers

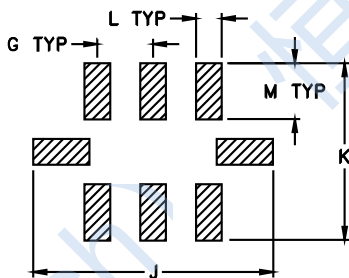
Pad Connections

RF IN	8
RF OUT	4
GROUND	1,2,3,5,6,7

Outline Drawing



PCB Land Pattern

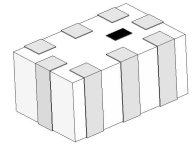
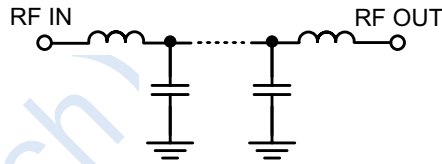


Suggested Layout,
Tolerance to be within .002

Outline Dimensions : inch mm

A	B	C	D	E	F	G
.079	.049	.037	.014	.012	.012	.026
2.01	1.24	0.94	0.36	0.30	0.30	0.66
H	J	K	L	M		wt
.025	.134	.104	.014	.039		grams
0.64	3.40	2.64	0.36	0.99		.008

Functional Schematic



50 Ω
DC to 3500MHz

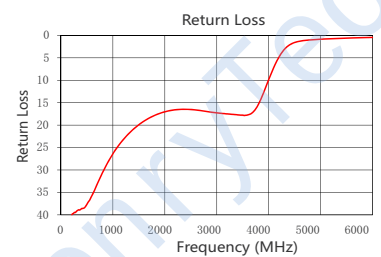
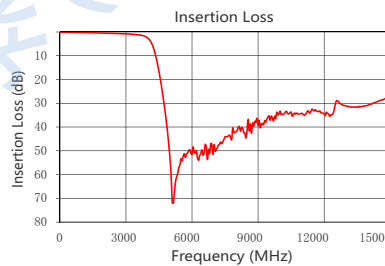
Electrical Specifications(1) at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC - 3500	—	1.3	dB
	Freq. Cut-Off	3970	—	3.0	dB
	Return Loss	DC - 3500	—	14	dB
Stop Band	Rejection Loss	4800 - 5000	20	35	dB
		5000 - 8500	30	38	dB
		8500 - 15000	—	25	dB

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

Typical Performance Data at 25°C

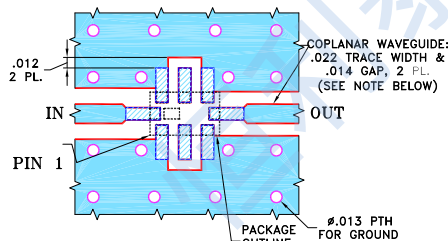
Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)
10	0.08	44.54
100	0.08	43.26
1000	0.23	26.40
1600	0.37	19.10
2200	0.53	16.57
2800	0.71	16.95
3500	1.13	17.78
3970	2.40	10.73
4000	2.63	9.85
4045	3.04	8.55
4575	20.70	1.34
4730	30.19	1.08
4800	35.09	1.00
5000	53.22	0.84
8200	41.80	0.22
8500	41.36	0.23
9000	39.27	0.23
10000	33.31	0.32
12000	34.35	0.34
15000	27.11	0.68



Notes

- The specifications are tested at 25°C±5°C, relative humidity 55~75%.
- Other quality and characteristic not specify in this datasheet.

Suggested PCB Layout



NOTES:

- COPLANAR WAVEGUIDE IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .010" ± .001". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH AND GAP MAY NEED TO BE MODIFIED.
- 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 +125°C
Storage Temperature	-55°C to +125°C
RF Power Input*	4.5W at 25°C

*Passband rating, derate linearly to 1W at 125°C ambient. Permanent damage may occur if any of these limits are exceeded.

Tel: +86-28-85589664

E-mail: mr_li@henglitaitech.com

Web: www.hltchips.com

Room 1401, 14th Floor, Building 5, Huaxi Science and Technology Innovation Center, No. 50, Shuixi Road, Jinniu District, Chengdu City