

LTCC 低通滤波器 (Low Pass Filter)

HT-LFCG-3800+

Features

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

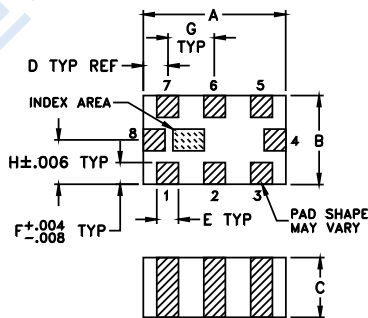
Applications

- Test and measurement
- Telecommunications & broadband wireless applications
- Public safety communication
- Satcom modems

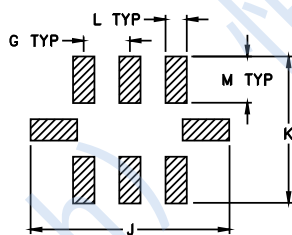
Pad Connections

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

Outline Drawing



PCB Land Pattern

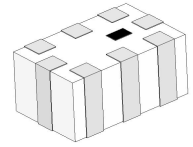
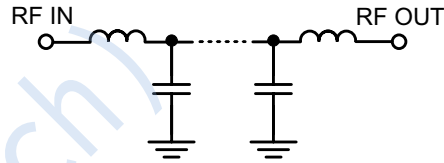


Suggested Layout,
Tolerance to be within .002

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	0.014	.039		grams
0.64	3.40	2.64	0.36	0.99		.008

Functional Schematic



50 Ω
DC to 3900MHz

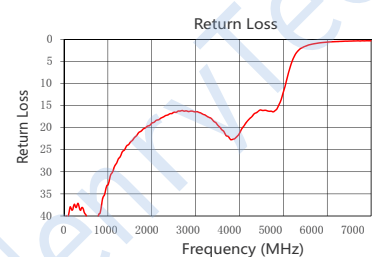
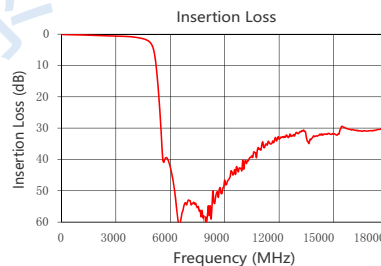
Electrical Specifications(1) at 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Insertion Loss	DC - 3900	—	1.3	dB
	Freq. Cut-Off	5000	—	3.0	dB
	Return Loss	DC - 3900	—	14	dB
Stop Band	Rejection Loss	5800 - 6200	20	40	dB
		6200 - 8400	35	42	dB
		8400 - 12000	25	48	dB
		12000 - 18000	—	20	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

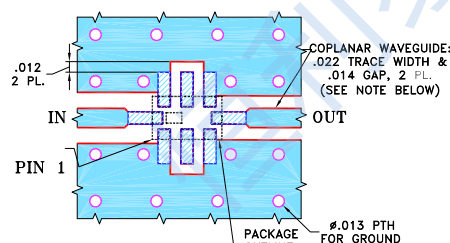
Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)
10	0.09	46.99
100	0.12	39.94
500	0.18	39.75
1000	0.25	32.99
1500	0.33	23.47
3800	0.82	22.72
3900	0.87	22.44
5000	3.58	11.97
5380	20.59	2.19
5490	30.36	1.61
5800	39.45	0.86
6000	42.37	0.66
6200	48.44	0.53
8000	59.93	0.42
8400	53.65	0.49
9000	46.61	0.64
10000	40.21	0.83
12000	33.47	0.74
15000	31.92	0.37
18000	29.42	0.77



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

* Permanent damage may occur if any of these limits are exceeded.

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