

Low Pass Filter

WGLL-03900-2012

50Ω

DC to 3900 MHz

Ver. A

2025.08.25

Maximum Rating

Operating Temperature -55°C~+125°C

Storage Temperature -55°C~+125°C

RF Input Power 4.5W max at 25°C

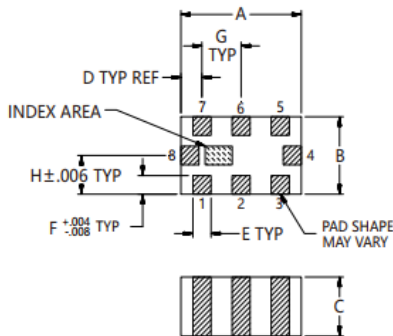
Pin Connections

RF Input 8

RF Output 4

Ground 1,2,3,5,6,7

Outline Drawing

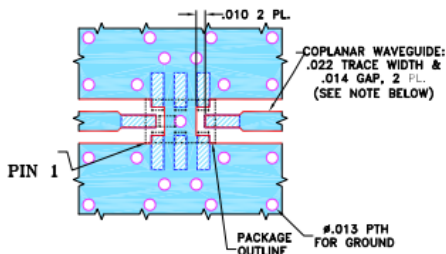


Outline Dimensions (inch)

A	B	C	D	E	F	G	Wt.
.079	.049	.037	.014	.012	.012	.026	grams
2.00	1.25	0.95	0.35	0.30	0.30	0.65	.008

Note: Please refer to case style drawing for details

Demo Board MCL P/N: CG-2012 Suggested PCB Layout

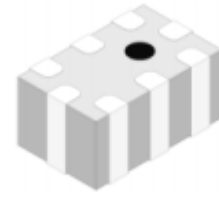


NOTES:

1. 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.
 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.

Features

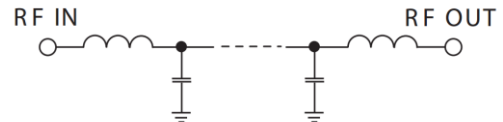
- High Performance
- Small Size
- Wide Band
- Ultra Low I.L.
- Temperature Stable
- LTCC Structure



RoHS Compliant

Application

- Harmonic Rejection
- Transmitters/Receivers
- Lab Use



Functional Schematic

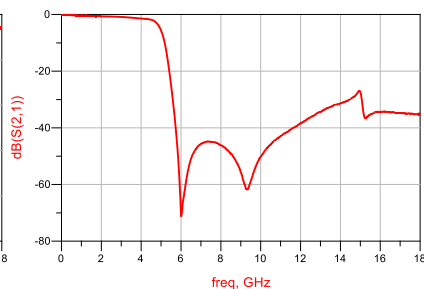
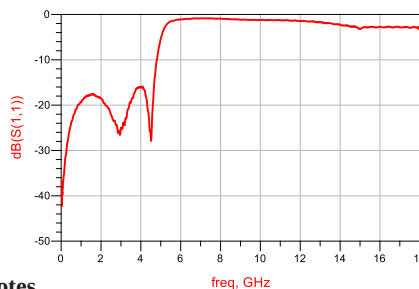
Electrical Specifications⁽¹⁾ at 25°C

Parameter		Frequency (MHz)	MIN	Typ.	MAX	Unit
Pass Band	Insertion Loss	DC-3900	-	1.3	1.8	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) Tested on Demo Board.

Typical Performance at 25°C

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)
100	0.12	39.94
1000	0.25	32.99
1500	0.33	23.47
3900	0.87	22.44
5000	3.58	11.97
5490	30.36	1.61
5800	39.45	0.86
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

- a. The specifications are tested at 25°C±5°C, relative humidity 55~75%.
 - b. Other quality and characteristic not specify in this datasheet.
- Please contact us for detail requirements.



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