

# Low Pass Filter

# WGLL-00105

50Ω DC to 105 MHz

Ver. A  
2022.02.22

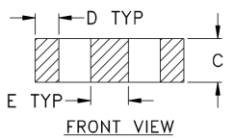
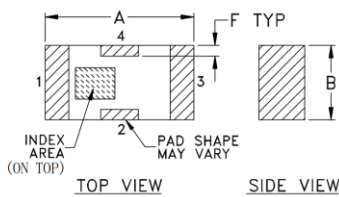
## Maximum Rating

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

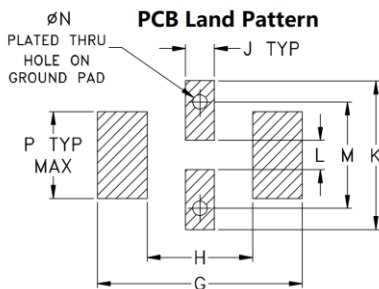
## Pin Connections

RF Input	1
RF Output	3
Ground	2,4

## Outline Drawing



## PCB Land Pattern

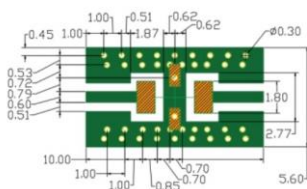


Suggested Layout  
Tolerance to be within  $\pm .002$



## Outline Dimensions (Tolerance) mm

A	B	C	D	E	F	G
3.20	1.60	0.95	0.51	0.81	0.23	4.29
$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.1$	$\pm 0.1$	$\pm 0.1$	
H	J	K	L	M	N	P
2.21	0.61	3.10	0.61	2.21	0.30	1.8
						wt
						.020

Demo Board MCL P/N: T-39  
Suggested PCB Layout (PL-137)



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.

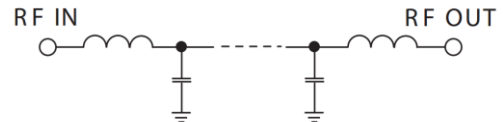
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.  
 DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)  
 DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

## Features

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



RoHS Compliant



Functional Schematic

## Application

- Harmonic Rejection
- Transmitters/Receivers
- Lab Use

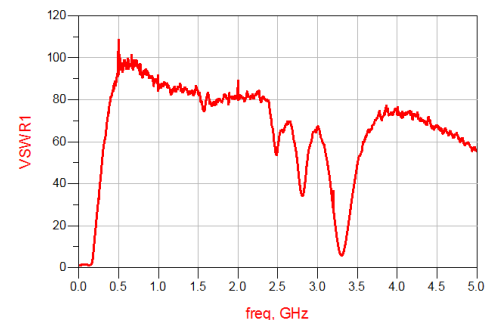
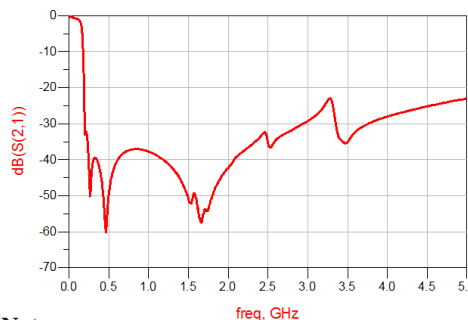
## Electrical Specifications<sup>(1)</sup> at 25°C

Parameter		Frequency (MHz)	MIN	Typ.	MAX	Unit
Pass Band	Insertion Loss	DC-105	-	0.9	1.0	dB
	Freq. Cut-off	140	-	3.0	-	dB
	VSWR	DC-105	-	1.4	2.0	:1
Stop Band	Rejection Loss	250	20	30	-	dB
		265-1650	25	35	-	dB
		4750	15	23	-	dB

(1) Tested on Demo Board.

## Typical Performance at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
10	0.35	1.10
50	0.65	1.40
100	0.91	1.41
105	0.94	1.37
125	1.21	1.14
200	35.67	15.62
225	44.62	22.15
500	46.55	88.14
1000	46.10	145.17
1550	42.26	170.10
2000	34.15	172.43
2500	29.42	146.20
3500	26.69	113.29
4500	20.81	55.64
5000	18.34	35.05



## Notes

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



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