

# Low Pass Filter

WGLL-00500-2012

50Ω DC to 500MHz

Ver. A  
2020.08.10

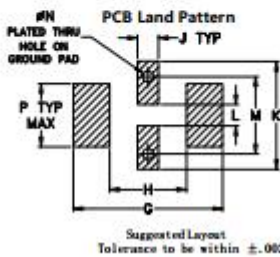
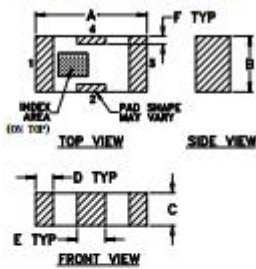
## Maximum Rating

Operating Temperature	-55°C~+105°C
Storage Temperature	-55°C~+105°C
RF Input Power	5W max at 25°C

## Pin Connections

RF Input	1
RF Output	3
Ground	2,4

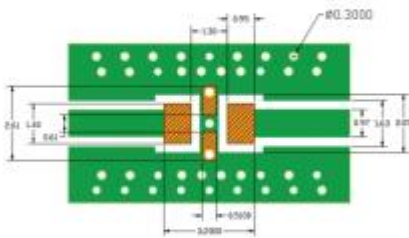
## Outline Drawing



## Outline Dimensions (mm) (Tolerance)

A	B	C	D	E	F	G
2.0	1.25	0.95	0.31	0.51	0.23	3.2
±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	
H	J	K	L	M	N	P
1.30	0.51	2.61	0.61	2.18	0.30	1.4
						wt
						.020

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



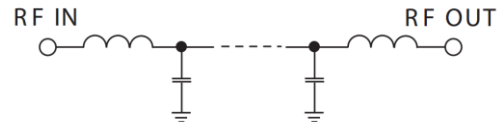
- NOTES:
- COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4380 WITH THICKNESS .508" ± .0015", COPPER 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH & GAP MAY NEED TO BE MODIFIED.
  - BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
    - DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
    - DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

## Features

- High Performance
- Small Size
- 7 sections
- Ultra Low I.L.
- Temperature Stable
- LTCC Structure



RoHS Compliant



## Functional Schematic

## Application

- Harmonic Rejection
- Transmitters/Receivers
- Lab Use

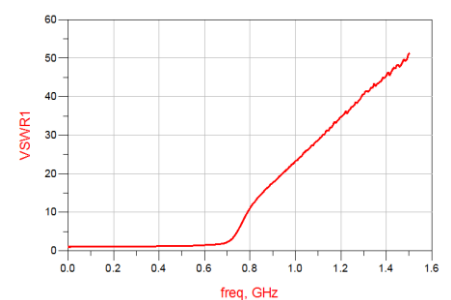
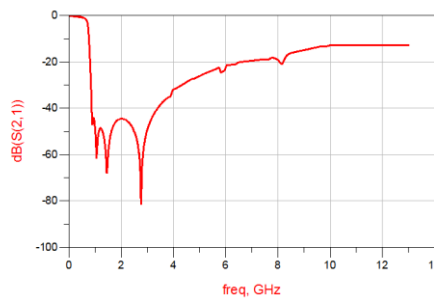
## Electrical Specifications<sup>(1)</sup> at 25°C

Parameter		Frequency (MHz)	MIN	Typ.	MAX	Unit
Pass Band	Insertion Loss	DC-500	-	0.7	1.0	dB
	Freq. Cut-off	730	-	3.0	-	dB
	VSWR	DC-500	-	1.2	1.5	:1
Stop Band	Rejection Loss	900-1000	35	40	-	dB
		1000-6000	20	25	-	dB
		6000-13000	-	10	-	dB

(1) Tested on Demo Board.

## Typical Performance at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
50	0.131	1.023
200	0.289	1.041
500	0.771	1.216
700	3.275	2.209
900	45.17	17.63
1000	50.41	23.22
1500	58.48	51.16
2000	44.41	65.36
2500	50.43	71.86
2800	63.19	75.29
3000	48.77	76.64
3500	38.32	82.02
4000	31.80	77.81
5000	26.07	40.64
6000	22.11	36.92



## Notes

- The specifications are tested at 25°C±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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