

# Low Pass Filter

## WGLL-03000

50Ω DC to 3000 MHz

Ver. B  
2024.04.16

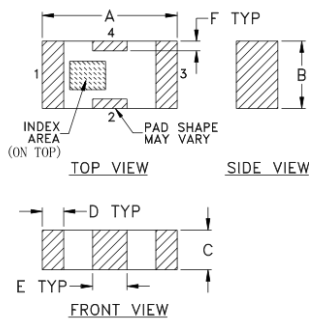
### Maximum Rating

Operating Temperature	-55°C~+100°C
Storage Temperature	-55°C~+100°C
RF Input Power	10W max at 25°C

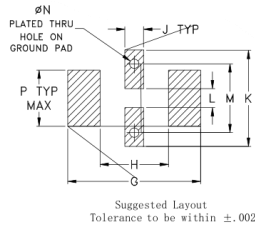
### Pin Connections

RF Input	1
RF Output	3
Ground	2,4

### Outline Drawing



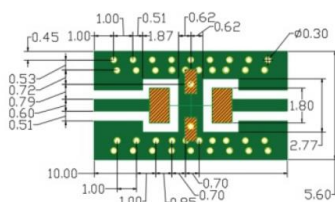
### PCB Land Pattern(mm)



### Outline Dimension (mm)

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

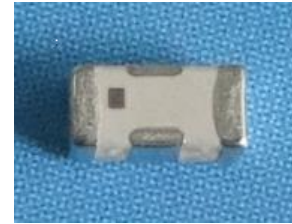
### Suggest PCB Layout



- NOTES:
- COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350 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

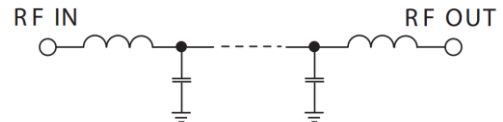
- High Performance
- Small Size
- Wide Band
- Ultra Low I.L.
- Temperature Stable
- LTCC Structure



RoHS Compliant

### Application

- Harmonic Rejection
- Transmitters/Receivers
- Lab Use



Functional Schematic

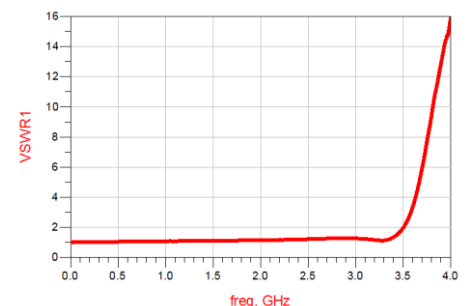
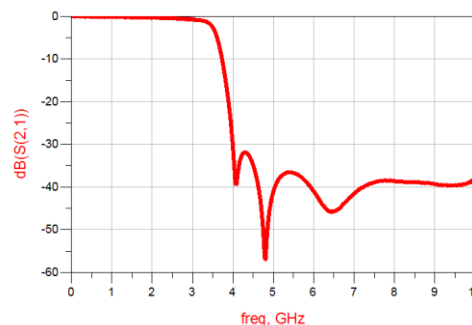
### Electrical Specifications<sup>(1)</sup> at 25°C

Parameter	Frequency (MHz)	MIN	Typ.	MAX	Unit	
Pass Band	Insertion Loss	DC-3000	-	1.1	1.3	dB
	Freq. Cut-off	3520	-	3.0	-	dB
	VSWR	DC-3000	-	1.2	1.5	:1
Stop Band	Rejection Loss	4200-6000	25	30	-	dB
		8000	20	30	-	dB

(1) Tested on Demo Board.

### Typical Performance at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
100	0.036	1.02
1000	0.19	1.08
2000	0.371	1.14
3000	0.788	1.27
3500	2.61	1.96
4000	30.8	15.8
4800	57.00	29.15
5000	41.14	32.48
5500	36.6	40.39
6000	41.1	46.63
6500	45.8	51.33
7000	41.55	52.35
8000	38.6	47.21
9000	39.36	40.29
10000	38.24	34.77



### 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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