

# Low Pass Filter

# WGLL-12800

50Ω DC to 12800 MHz

Ver. A  
2022.12.13

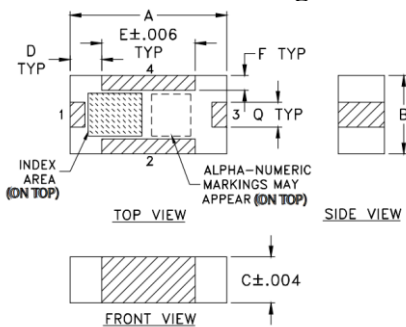
## Maximum Rating

Operating Temperature	-55°C~+100°C
Storage Temperature	-55°C~+100°C
RF Input Power	8W max at 25°C

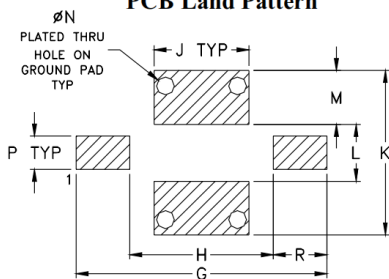
## Pin Connections

RF Input	1
RF Output	3
Ground	2,4

## Outline Drawing



## PCB Land Pattern



Suggested Layout,  
Tolerance to be within  $\pm 0.02$

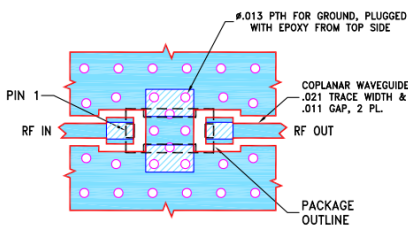
## Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J
.126	.063	.037	.026	.075	.012	.182	.104	.069
3.20	1.60	0.94	0.66	1.91	0.30	4.62	2.64	1.75

K	L	M	N	P	Q	R	wt
.119	.041	.039	.013	.024	.020	.039	grams
3.02	1.04	0.99	0.33	0.61	0.51	0.99	.020

Demo Board MCL P/N: T-11  
Suggested PCB Layout (PL-137)

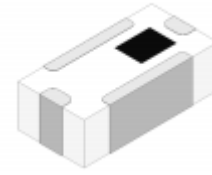


NOTES:  
1. TRACE WIDTH & GAP PARAMETERS ARE SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .010±.001, COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH & GAP MAY NEED TO BE MODIFIED.  
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

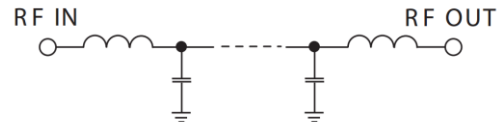
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER).
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK.

## Features

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



RoHS Compliant



## Application

- Harmonic Rejection
- Transmitters/Receivers
- Lab Use

## Functional Schematic

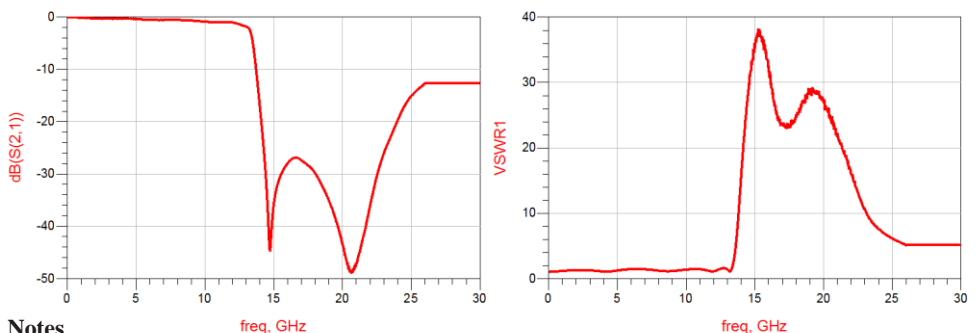
## Electrical Specifications<sup>(1)</sup> at 25°C

Parameter	Frequency (MHz)	MIN	Typ.	MAX	Unit	
Pass Band	Insertion Loss	DC-12800	-	1.2	4.0	dB
	Freq. Cut-off	13900	-	3.0	-	dB
	VSWR	DC-12800	-	1.7	2.0	:1
Stop Band	Rejection Loss	16200-19500	20	30	-	dB
		16500-20000	25	40	-	dB
	VSWR	16200-20330	-	40	-	:1

(1) Tested on Demo Board.

## Typical Performance at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
1000	0.155	1.168
2000	0.275	1.296
5000	0.393	1.233
7000	0.577	1.419
9000	0.668	1.148
11000	1.030	1.427
12000	1.060	1.111
12800	1.678	1.588
13900	14.79	12.65
15800	28.74	34.70
16500	26.92	26.12
18000	29.84	25.06
20000	43.48	27.14
20700	48.80	23.66
22500	30.38	13.18



## 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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