

# High Pass Filter

## WGLH-00650

50Ω      710 to 2490 MHz

Ver. A  
2021.06.06

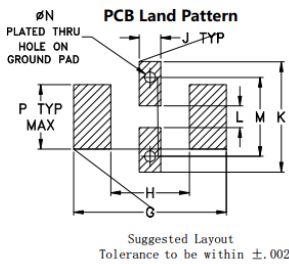
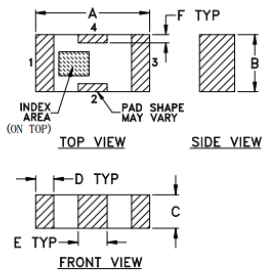
### Maximum Rating

|                       |                |
|-----------------------|----------------|
| Operating Temperature | -55°C~+100°C   |
| Storage Temperature   | -55°C~+100°C   |
| RF Input Power        | 7W max at 25°C |

### Pin Connections

|           |     |
|-----------|-----|
| RF Input  | 1   |
| RF Output | 3   |
| Ground    | 2,4 |

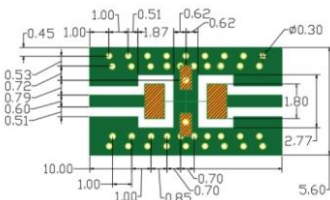
### Outline Drawing



### 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 |      |
| ±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 |

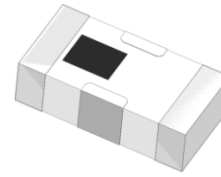
### Demo Board MCL P/N: T-39 Suggested PCB Layout (PL-137)



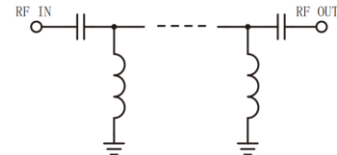
- NOTES:
1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS RO4350 WITH THICKNESS .508" ± .0015". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH & GAP MAY NEED TO BE MODIFIED.
  2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
    - DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK 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



### Application

- Harmonic Rejection
- Transmitters/Receivers
- Base Station of Mobile Communication
- Lab Use

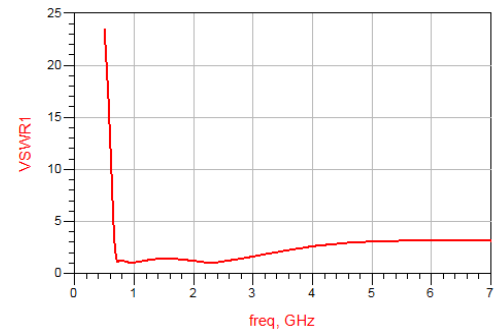
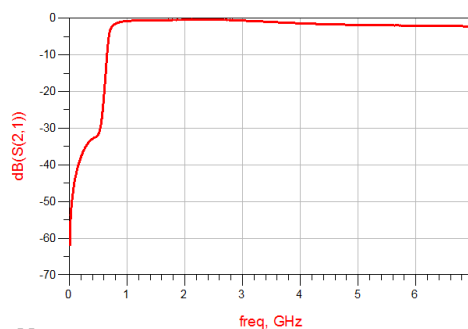
### Electrical Specifications<sup>(1)</sup> at 25°C

| Parameter | Frequency (MHz) | MIN      | Typ. | MAX | Unit |    |
|-----------|-----------------|----------|------|-----|------|----|
| Pass Band | Insertion Loss  | 759-2490 | -    | 1.3 | 2.0  | dB |
|           | Freq. Cut-off   | 710      | -    | 3.0 | -    | dB |
|           | VSWR            | 759-2490 | -    | 1.4 | 2.0  | :1 |
| Stop Band | Rejection Loss  | 390      | 32   | 33  | -    | dB |
|           |                 | 480      | 20   | 32  | -    | dB |

(1) Tested on Demo Board.

### Typical Performance at 25°C

| Frequency (MHz) | Insertion Loss (dB) | VSWR (:1) |
|-----------------|---------------------|-----------|
| 10              | 59.22               | 92.51     |
| 390             | 33.08               | 30.85     |
| 480             | 32.21               | 24.57     |
| 560             | 27.70               | 17.34     |
| 600             | 21.14               | 18.48     |
| 650             | 10.66               | 5.09      |
| 710             | 3.15                | 1.21      |
| 850             | 1.23                | 1.15      |
| 1500            | 0.64                | 1.43      |
| 2000            | 0.46                | 1.21      |
| 2490            | 0.42                | 1.16      |
| 2800            | 0.55                | 1.44      |
| 4000            | 1.41                | 2.62      |
| 4500            | 1.68                | 1.68      |
| 5000            | 1.85t               | 1.85      |



### 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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