

### Description

Yantel's surface mounted bandpass filters have the advantages of low insertion loss and return loss, small size, high rejection, good product consistency, etc. The product adopts high-precision innovative manufacturing process, suitable for mass production, competitive cost, and has obvious cost advantages compared with thin film filters.

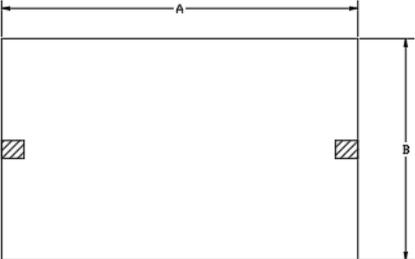
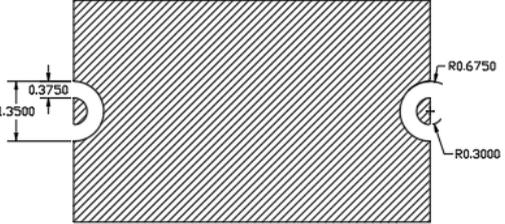
### Features

- Small size
- Low loss, High rejection
- With shielding cover
- SMD Surface mounted
- Humidity level: MSL1
- Working temperature: -55 to +85°C
- Characteristic Impedance: 50Ω
- Tape package
- Competitive price and suitable for large volume use

### Technical Data (Normal temperature +25°C)

| No.  | Parameter                  | Min.              | Typical | Max. | Unit |
|------|----------------------------|-------------------|---------|------|------|
| 1-1  | Model No.                  | SYTFB096QC2S      |         |      |      |
| 1-2  | Size                       | 9.1mm*4.6mm*2.5mm |         |      |      |
| 1-3  | Central Frequency $f_0$    |                   | 10      |      | GHz  |
| 1-4  | Working Frequency          | 8                 |         | 12   | GHz  |
| 1-5  | Central Loss               |                   | 2.5     | 3.0  | dB   |
| 1-6  | Band fluctuation           |                   | 1       | 1.2  | dB   |
| 1-7  | Return Loss                | 12                | 15      |      | dB   |
| 1-8  | Rejection                  | @6GHz             | 40      | 45   | dBc  |
|      |                            | @14GHz-18GHz      | 40      | 45   |      |
| 1-9  | Power                      |                   |         |      | dBm  |
| 1-10 | Working temperature        | -55               |         | +85  | °C   |
| 1-11 | Storage temperature        | -55               |         | +125 | °C   |
| 1-12 | Output installation method | Surface mounted   |         |      |      |

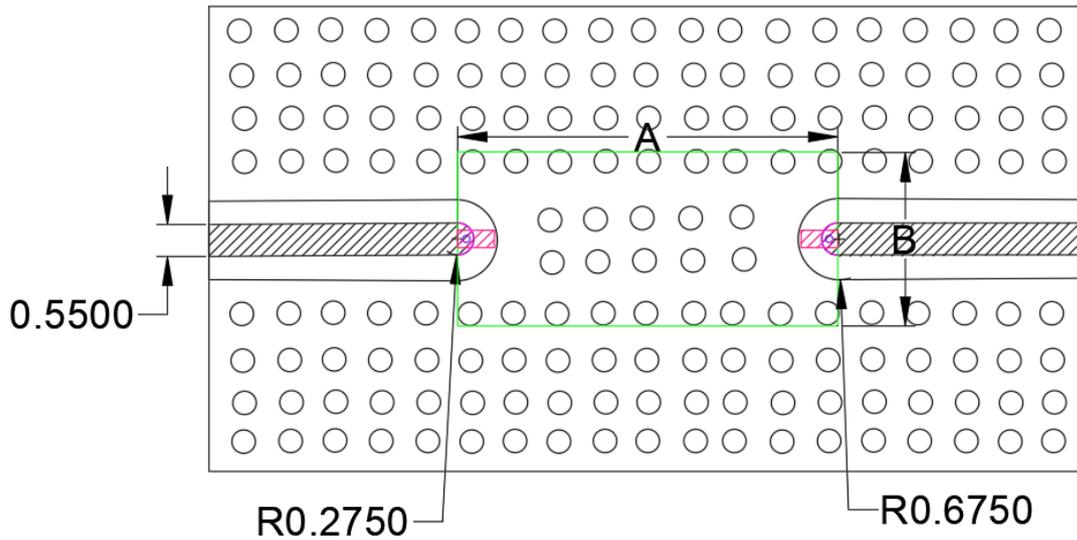
## Dimensions

|         |                    |   |
|---------|--------------------|---|
| 2-1     | Dimension          | See below picture (A、B dimension tolerance: $\pm 0.1\text{mm}$ )  |
| Front   |                    |   |
| Reverse |                    |    |
| 2-2     | Size               | A: 9.1mm B: 4.6mm C:0381mm H:2.5mm (the dimension unit in the drawing is mm, and the shape tolerance of A and B is $\pm 0.1\text{mm}$ ) |
| 2-3     | Substrate material | Alumina (Er=9.8)  |
| 2-4     | Surface treatment  | Gold plating  |

## Version status

| Version No. | Version date | File status |
|-------------|--------------|-------------|
| V2          | 20250717     | ✓           |

## Recommended assembly drawing



## Remark point:

1. Testing Substrate material is Rogers4350B(Er=3.66),thickness is 0.254mm
2. Make sure there is enough solder on the bottom surface of the filter and ensure good grounding.
3. The maximum temperature during assembly is 250°C.

## Simulation Curve:

