

## SPECIFICATION FOR APPROVAL

**CUSTOMER'S APPROVAL CHOP**

Approval's condition: \_\_\_\_\_

Approved date: \_\_\_\_\_

KINDLY RETURN A SET WITH YOUR COMPANY'S OFFICIAL STAMP  
ON APPROVAL OF THIS ITEM

**CUSTOMER'S NAME:** \_\_\_\_\_

**CUSTOMER'S MODEL NO. :** \_\_\_\_\_

**CUSTOMER'S PART NO. :** \_\_\_\_\_

**DESCRIPTION:** **Dielectric Filter**

**Semitel'S MODEL NO. :** **SE8R3950B500\_25.7\_038**

**VERSION:** **A**

**DATE:** **2024/7/10**

- Attachments:**
- Product Specification
  - Sample Qty. :
  - Test Data

| Prepared By            | Checked By              | Approved By             |
|------------------------|-------------------------|-------------------------|
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|                             |  |
|-----------------------------|--|
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## 1.FEATURES

- Small Size, Light weight
- SMT package soldering
- Ideal for Microwave telecommunication

## 2.SPECIFICATIONS

| 【 ELECTRICAL SPECIFICATIONS 】 |                               |                          |      |
|-------------------------------|-------------------------------|--------------------------|------|
| NO.                           | ITEM                          | SPEC                     | UNIT |
| 1                             | Center Frequency [fo]         | 3950                     | MHz  |
| 2                             | Bandwidth [BW]                | fo±250[3700~4200]        | MHz  |
| 3                             | Insertion Loss in BW          | 1.5 max.                 | dB   |
| 4                             | Ripple in BW                  | 1.0 max.                 | dB   |
| 5                             | Return Loss in BW (S11, S22)  | 15 min.                  | dB   |
| 6                             | Attenuation[Absolute Value]   | 50 dB min. @ DC~3000 MHz | dB   |
|                               |                               | 20 dB min. @ 3640 MHz    |      |
|                               |                               | 20 dB min. @ 4260 MHz    |      |
| 7                             | In/Out Impedance              | 50                       | Ω    |
| 8                             | [Operation Temperature Range] | -40℃ to +105℃            |      |

^ All Parameters are measured with 50Ω system at +25℃ if not specified.

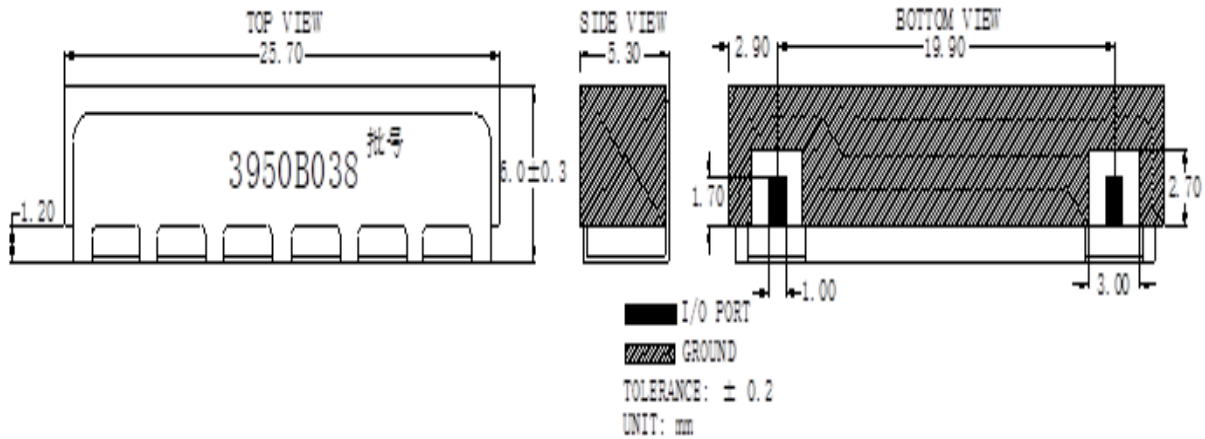
|                       |                       |                        |  |
|-----------------------|-----------------------|------------------------|--|
| Semitel'S MODEL NO. : | SE8R3950B500_25.7_038 | CUSTOMER'S MODEL NO. : |  |
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| DATE:                 | 2024/7/10             |                        |  |

### 3.OUTLINE DRAWING

#### 3.1. Filter drawing

#### 3.2. SE8R3950B500\_25.7\_038

(marking showing 3950Bxxx, xxx=01~99 mean for project series code. )

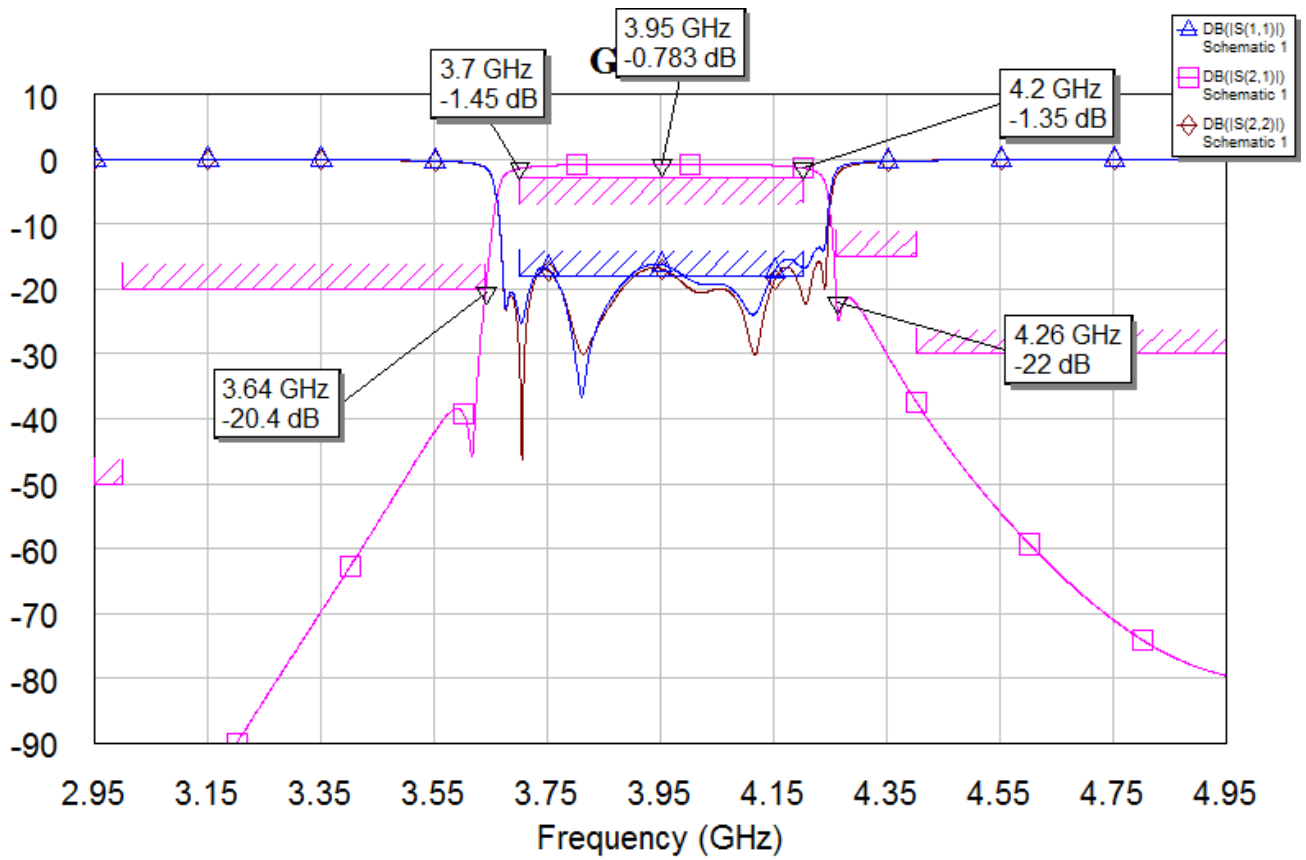


### 4.RECOMMENDED PC BOARD PATTERN



|                       |                       |                        |  |
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### 5.FREQUENCY RESPONSE



|                       |                       |                        |  |
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## 6.Environmental Test

### 6.1 Vibration Resist

The device should satisfy the electrical characteristics after applied to the vibration of 10 to 55Hz with amplitude of 1.5mm for 2 hours each in X, Y and Z directions.

### 6.2 Steady Damp Heat Test

The device should satisfy the electrical characteristics after exposed to the temperature 40

±2°C and the relative humidity 90~95% RH for 96 hours and 1~2 hours recovery time under normal condition.

### 6.3 High Temperature Storage

The device should satisfy the electrical characteristics after exposed to temperature 85±

5°Cf or 96±2 hours and 1~2 hours recovery time under normal temperature.

### 6.4 Low Temperature Storage

The device should also satisfy the electrical characteristics after exposed to the temperature

-40°C±5°C for 96±2 hours and to 2 hours recovery time under normal temperature.

### 6.5 Thermal Shock

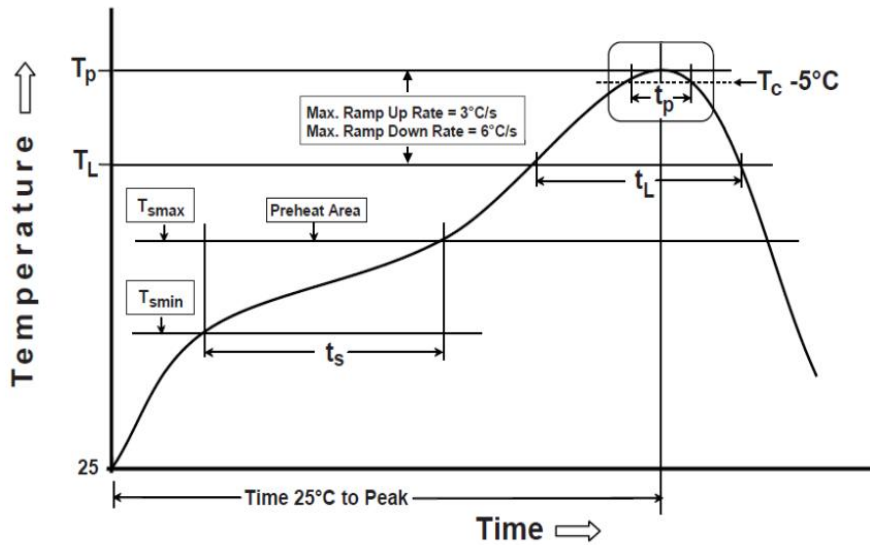
The device should also satisfy the electrical characteristics after exposed to the low temperature -40°C and high temperature +85°C for 30±2 min each by 5 cycles and 1 to 2 hours recovery time under normal temperature.

|                       |                       |                        |  |
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## 7. Notice

1. RoHS 2.0
2. MSL-1
3. Reflow temperature recommendation

| Profile feature                           |                                      | Pb-Free Assembly(SnAgCu) |
|---|--------------------------------------|--------------------------|
| PREHEAT                                   | Temperature Min(Tsmin)               | 150°C                    |
|   | Temperature Max(Tsmax)               | 200°C                    |
|   | Time(ts) (from Tsmin to Tsmax)       | 60-120 seconds           |
| RAMP-UP                                   | Ramp-up rate (TL to TP)              | 3 °C/second max.         |
| REFLOW                                    | Liquidus Temperature(TL)             | 217°C                    |
|   | Total Time maintained above TL (t L) | 30-100 seconds           |
| PEAK                                      | Temperature(TP)                      | 250°C                    |
|   | Time (tp)                            | 25 seconds               |
| RAMP-DOWN                                 | Ramp-down rate (TP to TL)            | 6 °C / second max.       |
| Time (from 25°C to Peak Temperature) 25°C |                                      | 8 minutes max.           |



This product may not be used in the following environments:

1. Ambient air containing corrosive gas and volatile or combustible gas.
2. In liquid and in environments with a high concentration of airborne particles.

|                       |                       |                        |  |
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