

## SPECIFICATION

### 1.SCOPE

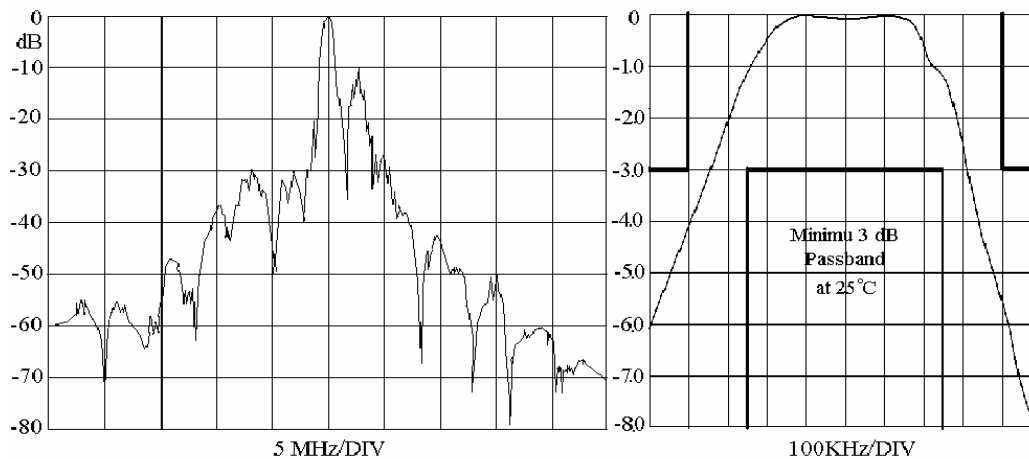
This specification shall cover the characteristics of SAW filter with used for remote-control security.

### 2. ELECTRICAL SPECIFICATION

|                             |                     |
|-----------------------------|---------------------|
| <b>DC Voltage VDC</b>       | <b>10V</b>          |
| <b>AC Voltage Vpp</b>       | <b>10V50Hz/60Hz</b> |
| <b>Storage temperature</b>  | <b>-45 to +85C</b>  |
| <b>RF Power Dissipation</b> | <b>0dBm</b>         |

#### Electronic Characteristics

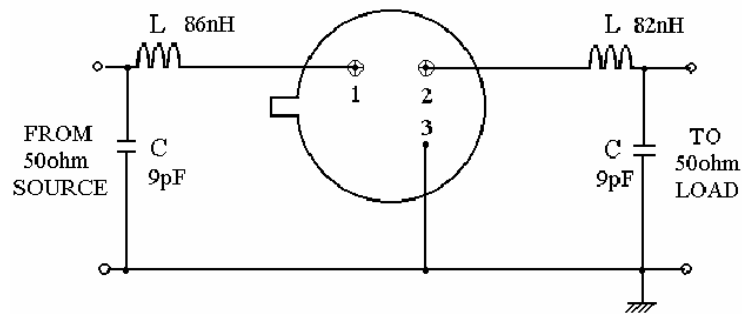
##### 2-1.Type frequency response



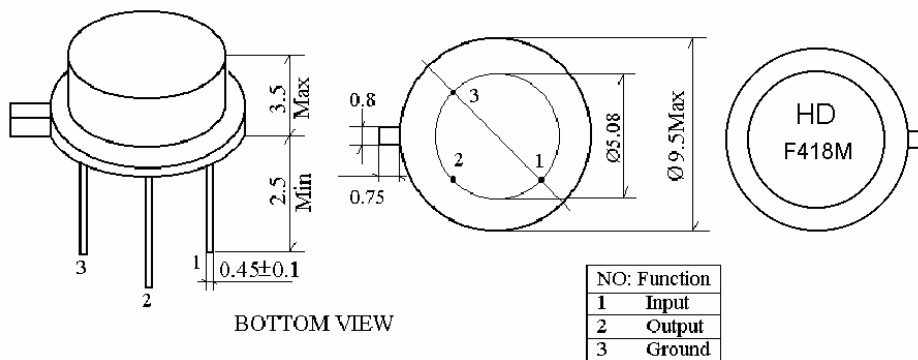
##### 2-2.Electrical characteristics

| Characteristics             |                        | Sym             | Notes | Min.    | Typical | Max.    | Units |
|-----------------------------|------------------------|-----------------|-------|---------|---------|---------|-------|
| Center Frequency            | Absolute Frequency     | Fc              | 1.2   | 417.925 | 418.000 | 418.000 | M Hz  |
|                             | tolerance from Nominal | fc              |       |         | +/-75   |         | KHz   |
| Insertion Loss              |                        | IL              | 1     |         | 3.5     | 5.0     | dB    |
| 3dB Bandwidth               |                        | BW <sub>3</sub> | 1.2   |         | 600     |         | KHz   |
| Rejection                   | At fo-21.4MHz (Image)  |                 | 1     | 40      | 50      |         | dB    |
|                             | At fo-10.7 MHz (LO)    |                 |       | 15      | 30      |         |       |
|                             | Ultimate               |                 |       |         | 80      |         |       |
| Temperature characteristics | Operating case temp.   | Tc              | 3.4   | -35     |         | +85     | C     |
|                             | Tumover temp.          | To              |       | 15      | 25      | 35      | C     |
|                             | Tumover Frequency      | fo              |       |         | fc+2.7  |         | MHz   |
|                             | Freq.temp.coe fficient | FTC             |       |         | 0.032   |         | ppm/C |
| Frequency aging             |                        |                 | 5     |         | <+/- 10 |         | ppm/y |

### 3. TEST CIRCUIT



### 4. DIMENSION



### 5. ENVIRONMENTAL CHARACTERISTICS

#### 5-1 High temperature exposure

Subject the filter to +80C for 96 hours. Then release the filter into the room conditions for 1 to 2 hours prior to the measurement. It shall fulfill the specifications in table 1.

#### 5-2 Moisture

Keep the filter at 40C and 95% rh for 96 hours. then release the filter into the room conditions for 1 to 2 hours prior to the measurement. It shall fulfill the specifications in table 1.

#### 5-3 Low temperature exposure

Subject the filter to -20C for 96 hours. Then release the filter into the room conditions for 1 to 2 hours prior to the measurement. It shall fulfill the specifications in table 1.

#### 5-4 Temperature cycling

Subject the filter to a low temperature of -55C for 30 minutes. Following by a high temperature of +85C for 30 Minutes. Then release the filter into the room conditions for 1 to 2 hours prior to the measurement. It shall meet the specifications in table

1.

5-5 Resistance to solder heat

Dip the filter terminals no closer than 1.5mm into the solder bath at 27C +/-10C for 10+/-1 sec. Then release the Filter into the room conditions for 1 to 2 hours. The Filter shall meet the specifications in table 1.

5-6 Mechanical shock

Drop the filter randomly onto the concrete floor from the height of 30cm 3 times. the filter shall fulfill the specifications in table 1.

5-7 Vibration

Subject the filter to the vibration for 1 hour each in x,y and z axes with the amplitude of 1.5 mm at 10 to 55 hz. The filter shall fulfill the specifications in table 1.

5-8 Lead fatigue

5-8-1 Pulling test

Weight along with the direction of lead without an shock 3 kg. The filter shall satisfy all the initial Characteristics.

5-8-2 Bending test

Lead shall be subject to withstand against 90C bending in the direction of thickness. This operation shall be done toward both direction. The filter shall show no evidence of damage and shall satisfy all the initial electrical characteristics.

## 6. REMARK

6.1 Static voltage

Static voltage between signal load & ground may cause deterioration & destruction of the component. Please avoid static voltage.

6.2 Ultrasonic cleaning

Ultrasonic vibration may cause deterioration & destruction of the component. Please avoid ultrasonic cleaning

6.3 Soldering

Only leads of component may be soldered. Please avoid soldering another part of component.