SAW Filter 1601.0MHz
Model: TA0550A
Part No: MP05145
Rev No: 1

A. MAXIMUM RATING:

Electrostatic Sensitive Device (ESD)

1. Input Power Level: 10dBm
2. DC Voltage: 3V
3. Operating Temperature: -55°C to +85°C
4. Storage Temperature: -55°C to +85°C

B. ELECTRICAL CHARACTERISTICS: (By 20°C)

1. Terminating source impedance (single ended): \( Z_S = 50\Omega \)
2. Terminating load impedance (single ended): \( Z_L = 50\Omega \)

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center Frequency Fc</td>
<td>MHz</td>
<td>-</td>
<td>1601</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Min. Insertion Loss IL</td>
<td>dB</td>
<td>-</td>
<td>3.4</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Amplitude Ripple (1593 ~ 1609MHz)</td>
<td>dB</td>
<td>-</td>
<td>1.1</td>
<td>1.5</td>
<td>-</td>
</tr>
<tr>
<td>Group Delay Ripple (1593 ~ 1609MHz)</td>
<td>ns</td>
<td>-</td>
<td>9</td>
<td>15</td>
<td>-</td>
</tr>
<tr>
<td>VSWR (1593 ~ 1609MHz)</td>
<td></td>
<td>-</td>
<td>1.9</td>
<td>2.2</td>
<td>-</td>
</tr>
</tbody>
</table>

Relative Attenuation (relative to 0dB)

<table>
<thead>
<tr>
<th></th>
<th>Unit</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC ~ 1560MHz</td>
<td>dB</td>
<td>35</td>
<td>50</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1563 ~ 1580MHz</td>
<td>dB</td>
<td>11</td>
<td>16.5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1622 ~ 1650MHz</td>
<td>dB</td>
<td>11</td>
<td>20.5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1650 ~ 3000MHz</td>
<td>dB</td>
<td>35</td>
<td>43.5</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Deviation of Center and Bounder Frequencies in temperature range from -55°C to +85°C by TCD = -35ppm / grad.
C. OUTLINE DRAWING:

![Outline Drawing]

2: Input  
5: Output  
1, 3, 4, 6: Ground  
Unit: mm

D. MEASUREMENT CIRCUIT:

HP Network analyzer

```
50Ω       2
          SAW Filter
          1, 3, 4, 6
          5
          50Ω
```

E. PCB FOOTPRINT:

![PCB Footprint]
F. FREQUENCY CHARACTERISTICS:

![Graph 1](image1)

![Graph 2](image2)
Reflections Functions

**S11 VSWR**

![S11 VSWR Graph](image)

**S22 VSWR**

![S22 VSWR Graph](image)
G. PACKING:

1. Reel Dimension (Please refer to FR-75D10 for packing quantity)

2. Tape Dimension
H. RECOMMENDED REFLOW PROFILE:

1. Preheating shall be fixed at 150 ~ 180°C for 60 ~ 90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50 ~ 80 seconds and at 245 ~ 260°C peak (min. 10 sec).
4. Time: 2 times.