SAW Filter 1590.1550MHz
Model: TA1500A
Part No: MP06037
Rev No: 2

A. MAXIMUM RATING:

Electrostatic Sensitive Device (ESD)

1. Input Power Level: 13dBm
2. DC Voltage: 3V
3. Operating Temperature: -20°C to +70°C
4. Storage Temperature: -40°C to +85°C

B. ELECTRICAL CHARACTERISTICS:

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>1590.155</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Insertion Loss (1574.42~1576.42MHz) IL</td>
<td>dB</td>
<td>-</td>
<td>0.85</td>
<td>1.3</td>
<td>-</td>
</tr>
<tr>
<td>Insertion Loss (1597.55~1605.89MHz) IL</td>
<td>dB</td>
<td>-</td>
<td>0.95</td>
<td>1.3</td>
<td>-</td>
</tr>
<tr>
<td>Amplitude ripple (1574.42~1605.89MHz)</td>
<td>dB</td>
<td>-</td>
<td>0.3</td>
<td>0.6</td>
<td>-</td>
</tr>
<tr>
<td>Group Delay ripple (1574.42~1605.89MHz)</td>
<td>ns</td>
<td>-</td>
<td>8</td>
<td>15</td>
<td>-</td>
</tr>
<tr>
<td>VSWR (1574.42~1605.89 MHz)</td>
<td></td>
<td>-</td>
<td>1.3</td>
<td>2.1</td>
<td>-</td>
</tr>
<tr>
<td>Attenuation (Reference level from 0dB)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D.C. ~ 915MHz</td>
<td>dB</td>
<td>18</td>
<td>21</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>915 ~ 1525MHz</td>
<td>dB</td>
<td>17</td>
<td>19</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1660 ~ 4500MHz</td>
<td>dB</td>
<td>17</td>
<td>20</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4500 ~ 6000MHz</td>
<td>dB</td>
<td>12</td>
<td>32</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Temperature Coefficient of Frequency</td>
<td>ppm/°C</td>
<td>-</td>
<td>-36</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
C. OUTLINE DRAWING:

- Top view:
  - Dimensions: 1.4 mm
  - Labels: A, B, C, D, E

- Bottom view:
  - Dimensions: 0.25 mm, 0.75 mm, 0.25 mm
  - Labels: A, B, C, D, E

- Side view:
  - Dimensions: 0.25 mm, 0.75 mm, 0.25 mm

D. MEASUREMENT CIRCUIT:

- Diagram showing 50Ω resistors connected to labeled points A, B, C, D, E

E. PCB FOOTPRINT:

- Diagram showing the layout with specified dimensions in mm
  - Land Pattern: Red
  - Unit: mm
F. FREQUENCY CHARACTERISTICS:

[Graphs showing frequency characteristics of a SAW filter.]
Reflection Functions

S11

S22
G. PACKING:

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

![Diagram of Reel Dimension]

2. Tape Dimension

![Diagram of Tape Dimension]

Direction of Feed
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.