SAW Filter 1649.50MHz  Model: TA1453A
Part No: MP04160  Rev No: 1

A. MAXIMUM RATING:

Electrostatic Sensitive Device (ESD)

1. Input Power Level: 10dBm
2. DC Voltage: 3V
3. Operating Temperature: -40°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>1649.5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Bandwidth</td>
<td>MHz</td>
<td>42</td>
<td>67</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Insertion Loss (Fc ± 21MHz)</td>
<td>dB</td>
<td>-</td>
<td>4</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Amplitude Ripple (Fc ± 21 MHz)</td>
<td>dB</td>
<td>-</td>
<td>1.2</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>VSWR (Fc ± 21MHz)</td>
<td>-</td>
<td>1.7</td>
<td>2.5</td>
<td>-</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>DC ~ 1576.5MHz</td>
<td>dB</td>
<td>40</td>
<td>49</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1593MHz</td>
<td>dB</td>
<td>35</td>
<td>54</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1593 ~ 1605MHz</td>
<td>dB</td>
<td>19</td>
<td>41</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1751MHz</td>
<td>dB</td>
<td>25</td>
<td>44</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2400 ~ 2500MHz</td>
<td>dB</td>
<td>40</td>
<td>44.5</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>
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C. OUTLINE DRAWING:

D. MEASUREMENT CIRCUIT:

HP Network analyzer

E. PCB FOOTPRINT:
F. FREQUENCY CHARACTERISTICS:

![Frequency Characteristics Graphs]

**SAW Filter 1649.50MHz**

**Part No:** MP04160

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**Rev No:** 1

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*These images depict the frequency characteristics of the SAW Filter, showing the magnitude response in decibels (dB) for different frequencies.*
Reflection Functions

**S11**

**S22**
G. PACKING:

1. Reel Dimension

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. 10sec).
4. Time: 2 times.