SAW Filter 421.90MHz

Part No: MP05534

Model: TA1638A

Rev No: 2

A. MAXIMUM RATING:

Electrostatic Sensitive Device (ESD)

1. Input Power Level: 20dBm
2. DC Voltage: 7.5V
3. Operating Temperature: -40°C to +85°C
4. Storage Temperature: -40°C to +85°C

B. ELECTRICAL CHARACTERISTICS:

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center frequency $F_c$</td>
<td>MHz</td>
<td>-</td>
<td>421.9</td>
<td>-</td>
</tr>
<tr>
<td>Insertion Loss (420.9 ~ 422.9MHz) $IL$</td>
<td>dB</td>
<td>-</td>
<td>1.7</td>
<td>3.0</td>
</tr>
<tr>
<td>Amplitude Ripple (420.9 ~ 422.9MHz)</td>
<td>dB</td>
<td>-</td>
<td>0.3</td>
<td>1.2</td>
</tr>
<tr>
<td>VSWR (420.9 ~ 422.9MHz)</td>
<td>-</td>
<td>-</td>
<td>1.4</td>
<td>2.2</td>
</tr>
</tbody>
</table>

Attenuation (Reference level from 0dB)

<table>
<thead>
<tr>
<th>Range</th>
<th>Unit</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 ~ 380MHz</td>
<td>dB</td>
<td>55</td>
<td>67</td>
<td>-</td>
</tr>
<tr>
<td>380 ~ 405MHz</td>
<td>dB</td>
<td>45</td>
<td>55</td>
<td>-</td>
</tr>
<tr>
<td>440 ~ 450MHz</td>
<td>dB</td>
<td>30</td>
<td>41</td>
<td>-</td>
</tr>
<tr>
<td>450 ~ 700MHz</td>
<td>dB</td>
<td>50</td>
<td>56</td>
<td>-</td>
</tr>
<tr>
<td>700 ~ 1000MHz</td>
<td>dB</td>
<td>42</td>
<td>55</td>
<td>-</td>
</tr>
<tr>
<td>Temperature coefficient of frequency</td>
<td>ppm/k</td>
<td>-</td>
<td>-36</td>
<td>-</td>
</tr>
</tbody>
</table>

C. MEASUREMENT CIRCUIT:

HP Network analyzer

\[ \begin{array}{c}
\text{50Ω} \\
| A, C, D, F |
\end{array} \quad \begin{array}{c}
\text{SAW Filter} \\
B \\
\text{50Ω}
\end{array} \quad \begin{array}{c}
E
\end{array} \]
SAW Filter 421.90MHz  
Model: TA1638A  
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D. OUTLINE DRAWING:

B: Input  
E: Output  
A, C, D, F: Ground  
Unit: mm

F. PCB FOOTPRINT:
F. FREQUENCY CHARACTERISTICS:
SAW Filter 421.90MHz
Part No: MP05534
Model: TA1638A
Rev No: 2

Reflection Functions

S11

S22
G. PACKING:

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

2. Tape Dimension

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SECTION A-A

SECTION B-B

DIMENSION: mm

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 250 ± 10°C peak (max. 10 sec).
4. Time: 2 times.