SAW Filter 1688.420MHz
Part No: MP01625

Model: TA0727A
Rev No: 3

A. MAXIMUM RATING:

1. Input Power Level: 10dBm
2. DC Voltage: 3V
3. Operating Temperature: -40°C to +85°C
4. Storage Temperature: -50°C to +95°C

B. ELECTRICAL CHARACTERISTICS:

1. Terminating source impedance (differential): \( Z_S = 150 \Omega // 39nH \)
2. Terminating load impedance (differential): \( Z_L = 150 \Omega // 39nH \)

<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>1688.42</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Bandwidth at -2dB</td>
<td>MHz</td>
<td>40</td>
<td>59</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Insertion Loss in 1668.42 ~ 1708.42MHz</td>
<td>dB</td>
<td>-</td>
<td>2.7</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Amplitude ripple (1668.42 MHz ~ 1708.42MHz)</td>
<td>dB</td>
<td>-</td>
<td>0.8</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Phase error (1668.42 MHz ~ 1708.42 MHz) (3)</td>
<td>deg</td>
<td>-</td>
<td>1.1</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Group Delay ripple(1668.42 MHz ~ 1708.42MHz)</td>
<td>ns</td>
<td>-</td>
<td>8</td>
<td>25</td>
<td>-</td>
</tr>
<tr>
<td>I/O VSWR (1668.42MHz ~ 1708.42MHz)</td>
<td></td>
<td>-</td>
<td>1.8</td>
<td>2.5</td>
<td>-</td>
</tr>
<tr>
<td>Attenuation (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50 ~ 1606.36MHz</td>
<td>dB</td>
<td>44</td>
<td>50</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1770.48 ~ 1810.5MHz</td>
<td>dB</td>
<td>46</td>
<td>55</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1810.5 ~ 4250MHz</td>
<td>dB</td>
<td>35</td>
<td>41</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4250 ~ 6000MHz</td>
<td>dB</td>
<td>30</td>
<td>38</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Notes:
1. The amplitude reference is insertion loss at Fc.
2. The amplitude ripple is defined as the max. level - min. level over any 30MHz block of the given bandwidth.
3. The phase error is measured over any 30MHz block of the given bandwidth.
C. OUTLINE DRAWING:

D. MEASUREMENT CIRCUIT:

E. PCB FOOTPRINT:
F. FREQUENCY CHARACTERISTICS:

*Graphs showing frequency characteristics.*
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Reflection Functions

S11

S22
G. PACKING:

1. Reel Dimension (Reel Count: 7”=1000; 13”=3000)

2. Tape Dimension

DIMENSION : mm

Direction of Feed
H. RECOMMENDED REFLOW PROFILE:

![Graph showing the recommended reflow profile with temperature on the y-axis and time on the x-axis. The profile peaks around 220°C and holds for a few seconds before cooling down.]