SAW Filter 70.0MHz
Model: TB1040A
Part No: MP05704
Rev No: 1

A. MAXIMUM RATING:

Electrostatic Sensitive Device (ESD)

1. Operating Temperature: 0°C ~ +70°C
2. Storage Temperature: -40°C ~ +85°C
3. Input power: 10dBm

B. CHARACTERISTICS:

Ambient Temperature: 25°C

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center frequency Fc MHz</td>
<td>69.9</td>
<td>70</td>
<td>70.1</td>
<td>-</td>
</tr>
<tr>
<td>Minimum Insertion loss IL dB</td>
<td>-</td>
<td>21</td>
<td>24.0</td>
<td>-</td>
</tr>
<tr>
<td>1dB Bandwidth MHz</td>
<td>1.7</td>
<td>1.79</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>40dB Bandwidth MHz</td>
<td>-</td>
<td>2.48</td>
<td>2.5</td>
<td>-</td>
</tr>
<tr>
<td>45dB Bandwidth MHz</td>
<td>-</td>
<td>2.55</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Passband Ripple (Fc ± 0.5MHz) dB</td>
<td>-</td>
<td>0.6</td>
<td>1.0</td>
<td>-</td>
</tr>
<tr>
<td>Absolute Delay</td>
<td>5.1</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Ultimate Rejection dB</td>
<td>45</td>
<td>48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temp Coefficient ppm/K</td>
<td>-</td>
<td>-0.032</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Matching:
1. The input of the filter will be matched to 50ohm
2. The output of the filter will be matched to 50ohm
C. FREQUENCY CHARACTERISTICS:

1. S21 Response: (span: 20MHz)

2. Pass-band Response: (span: 3MHz)
3. S11 Smith Chart: (span: 20MHz)

![S11 Smith Chart (span: 20MHz)](image)

4. S22 Smith Chart (span: 20MHz)

![S22 Smith Chart (span: 20MHz)](image)
D. MEASUREMENT CIRCUIT:

\[ Z_{IN} = Z_{OUT} = 50 \text{ohm} \]

\[ L1 = 220 \text{nH}, L2 = 68 \text{nH}, L3 = 300 \text{nH} \]

E. OUTLINE DRAWING:

1: RF input
4: RF output
3, 6: Case Ground
2, 5: Ground
Unit: mm
F. RECOMMENDED REFLOW PROFILE: