SAW Filter 869.2250MHz  
Model: TA1912A  
Part No: MP07119  
Rev No: 1

A. MAXIMUM RATING: 
Electrostatic Sensitive Device (ESD)

1. Input Power Level: 20dBm  
2. DC Voltage: 5V  
3. Operating Temperature: -40°C to +85°C  
4. Storage Temperature: -40°C to +85°C

B. ELECTRICAL CHARACTERISTICS:

1. Terminating source / load impedance (single): $Z_S = 50\Omega / Z_L = 50\Omega$  
2. Test Temperature 25°C

<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>869.225</td>
<td>-</td>
</tr>
<tr>
<td>Insertion Loss (868.3 ~ 870.15MHz)</td>
<td>IL</td>
<td>dB</td>
<td>4.0</td>
<td>5.0</td>
</tr>
<tr>
<td>VSWR (868.3 ~ 870.15MHz)</td>
<td></td>
<td></td>
<td>1.3</td>
<td>2.0</td>
</tr>
<tr>
<td>Amplitude ripple (868.3 ~ 870.15MHz)</td>
<td>dB</td>
<td></td>
<td>1.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Attenuation</td>
<td>dB</td>
<td></td>
<td>45</td>
<td>50</td>
</tr>
<tr>
<td>50 ~ 791MHz</td>
<td></td>
<td></td>
<td>45</td>
<td>50</td>
</tr>
<tr>
<td>791 ~ 848MHz</td>
<td></td>
<td></td>
<td>35</td>
<td>40</td>
</tr>
<tr>
<td>848 ~ 862MHz</td>
<td></td>
<td></td>
<td>30</td>
<td>40</td>
</tr>
<tr>
<td>880 ~ 883MHz</td>
<td></td>
<td></td>
<td>30</td>
<td>40</td>
</tr>
<tr>
<td>883 ~ 1000MHz</td>
<td></td>
<td></td>
<td>45</td>
<td>50</td>
</tr>
</tbody>
</table>

C. TEST CIRCUIT:

Network analyzer

From 50Ω to SAW Filter to 50Ω
Network Analyzer to 50Ω
D. FREQUENCY CHARACTERISTICS:

1. S21 response: (span 150MHz)

   ![S21 response graph with data points]

2. S21 response: (span 10MHz)

   ![S21 response graph with data points]
3. S21 response: (span 3GHz)

4. S11/S22 response:
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E. OUTLINE DRAWING:

![Outline Drawing]

Unit: mm
F. PACKING:

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

2. Tape Dimension

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Direction of Feed
G. 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 260°C +0/-5°C peak (20 ~ 40sec).
4. Time: 2 times.