SAW Filter 1090.0MHz  
Part No: MP08167  
Model: TA0970B  
Rev No: 1

A. MAXIMUM RATING:
   Electrostatic Sensitive Device (ESD)
   1. Input Power Level: 20dBm
   2. DC voltage: 3V
   3. Operating Temperature: -55°C to +100°C
   4. Storage Temperature: -55°C to +105°C

B. ELECTRICAL CHARACTERISTICS:

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Center frequency Fc (MHz)</td>
<td>-</td>
<td>1090</td>
<td>-</td>
</tr>
<tr>
<td>Insertion loss within 1075 ~ 1105MHz IL (dB)</td>
<td>-</td>
<td>2.3</td>
<td>3.5</td>
</tr>
<tr>
<td>Amplitude ripple (p-p) within 1085 ~ 1095MHz (dB)</td>
<td>-</td>
<td>0.25</td>
<td>1.2</td>
</tr>
<tr>
<td>Attenuation (Reference level from 0dB) DC ~ 970MHz (dB)</td>
<td>25.0</td>
<td>30</td>
<td>-</td>
</tr>
<tr>
<td>Attenuation (Reference level from 0dB) 1150 ~ 1300MHz (dB)</td>
<td>25.0</td>
<td>33.5</td>
<td>-</td>
</tr>
<tr>
<td>VSWR within 1075 ~ 1105MHz</td>
<td>-</td>
<td>1.8</td>
<td>2.3</td>
</tr>
<tr>
<td>Source impedance ZS (Ω)</td>
<td>-</td>
<td>50</td>
<td>-</td>
</tr>
<tr>
<td>Load impedance ZL (Ω)</td>
<td>-</td>
<td>50</td>
<td>-</td>
</tr>
<tr>
<td>Temperature Coefficient of Frequency ppm/°C</td>
<td>-</td>
<td>-36</td>
<td>-</td>
</tr>
</tbody>
</table>

Note 1: No matching network required for operation at 50 Ω

C. MEASUREMENT CIRCUIT:

HP Network analyzer

![Measurement Circuit Diagram]

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TA0970B v1
D. FREQUENCY CHARACTERISTICS:
1. Wideband
2. Reflection Functions

Smith Chart

VSWR

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E. OUTLINE DRAWING:

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

F. PCB FOOTPRINT:
G. PACKING:

1. Reel Dimension

2. Tape Dimension

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