SAW Filter 1820.0MHz Model: TA1905A
Part No: MP07600
Rev No: 1

A. MAXIMUM RATING:

1. Input Power Level: 15dBm
2. DC voltage: 5V
3. Operating Temperature: -40°C to +85°C
4. Storage Temperature: -55°C to +95°C
5. ESD Voltage: 50V (Machine model)
6. ESD Voltage: 250V (Human body model)

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 Fc</td>
<td>MHz</td>
<td>-</td>
<td>1820</td>
<td>-</td>
</tr>
<tr>
<td>Insertion Loss (1790 ~ 1850MHz) IL</td>
<td>dB</td>
<td>-</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Amplitude Ripple (1790 ~ 1850MHz)</td>
<td>dB</td>
<td>-</td>
<td>1.8</td>
<td>2.5</td>
</tr>
<tr>
<td>Return Loss (1790 ~ 1850MHz)</td>
<td>dB</td>
<td>7</td>
<td>7.8</td>
<td>-</td>
</tr>
</tbody>
</table>

Attenuation (Reference level from 0dB)

<table>
<thead>
<tr>
<th></th>
<th>Unit</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 ~ 1730MHz</td>
<td>dB</td>
<td>27</td>
<td>31</td>
<td>-</td>
</tr>
<tr>
<td>1910 ~ 3000MHz</td>
<td>dB</td>
<td>30</td>
<td>37</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

```
50Ω  B  SAW Filter  E  50Ω
```

A, C, D, F

D. OUTLINE DRAWING:

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

E. PCB FOOTPRINT:
F. FREQUENCY CHARACTERISTICS:

![Frequency Characteristics Diagram]

- Center: 1.82 GHz
- IFBW: 70 kHz
- Span: 70 MHz

**F1**

1. Center 1.82 GHz
2. IFBW 70 kHz
3. Span: 70 MHz

**F2**

1. 1.83GHz: -48.869 dB
2. 1.85GHz: -2.749 dB
Reflection Functions

**S11**

![S11 Plot]

**S22**

![S22 Plot]
G. PACKING:

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

2. Tape Dimension
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.