A. MAXIMUM RATING:

Electrostatic Sensitive Device (ESD)

1. Input Power Level: 10dBm
2. DC Voltage: 3V
3. Operating Temperature: -30°C to +85°C
4. Storage Temperature: -40°C to +85°C

B. ELECTRICAL CHARACTERISTICS:

1. Terminating source impedance (single ended): $Z_S = 50\Omega$
2. Terminating load impedance (single ended): $Z_L = 50\Omega$

<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 $F_c$</td>
<td>MHz</td>
<td>-</td>
<td>1950</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Insertion Loss (1940 ~ 1960MHz) IL</td>
<td>dB</td>
<td>-</td>
<td>2.1</td>
<td>3.5</td>
<td>-</td>
</tr>
<tr>
<td>Amplitude Ripple (1940 ~ 1960MHz)</td>
<td>dB</td>
<td>-</td>
<td>0.6</td>
<td>1.5</td>
<td>-</td>
</tr>
<tr>
<td>VSWR (1940 ~ 1960MHz)</td>
<td>-</td>
<td>1.7</td>
<td>2.2</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Attenuation (reference level from 0dB)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1780 ~ 1880MHz</td>
<td>dB</td>
<td>35</td>
<td>38</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2025 ~ 2140MHz</td>
<td>dB</td>
<td>40</td>
<td>43</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Temperature Coefficient of Frequency</td>
<td>ppm/°C</td>
<td>-</td>
<td>-36</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
C. OUTLINE DRAWING:

D. MEASUREMENT CIRCUIT:

HP Network analyzer

E. PCB FOOTPRINT:
F. FREQUENCY CHARACTERISTICS:

![Frequency Characteristics Graph]

SAW Filter: 1950.0MHz
Model: TA1590A
Part No: MP05543
Rev No: 1

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Reflection Functions

**S11**

- Center: 1.05 GHz
- Span: 100 MHz
- IFBW: 3 kHz
- SWR 1.000 / Ref 1.000

**S22**

- Center: 1.05 GHz
- Span: 100 MHz
- IFBW: 3 kHz
- SWR 1.000 / Ref 1.000
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 245 ~ 260°C peak (min. 10sec).
4. Time: 2 times.