SAW Filter 2017.50MHz
Part No: MP04468

A. MAXIMUM RATING:

1. Input Power Level: 12dBm
2. DC Voltage: 3V
3. Operating Temperature: -25°C to +85°C
4. Storage Temperature: -40°C to +95°C

B. ELECTRICAL CHARACTERISTICS:

1. Terminating source impedance (single-ended): $Z_S = 50\Omega$
2. Terminating load impedance (differential): $Z_L = 200\Omega // 27\text{nh}$

<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>2017.5</td>
<td></td>
<td>500</td>
</tr>
<tr>
<td>Insertion Loss (2010 ~ 2025MHz) IL</td>
<td>dB</td>
<td>3</td>
<td>3.5</td>
<td></td>
</tr>
<tr>
<td>Amplitude ripple (2010 ~ 2025MHz)</td>
<td>dB</td>
<td>0.8</td>
<td>1.4</td>
<td></td>
</tr>
<tr>
<td>Group Delay ripple (2010 ~ 2025MHz)</td>
<td>ns</td>
<td>13</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Output amplitude balance ([S31/S21]) (2010~2025MHz)</td>
<td>dB</td>
<td>-3</td>
<td>0.3</td>
<td>3</td>
</tr>
<tr>
<td>Output phase balance (Φ(S31)-Φ(S21)+180°) (2010~2025MHz)</td>
<td>deg</td>
<td>-13</td>
<td>-3</td>
<td>13</td>
</tr>
<tr>
<td>VSWR (2010 ~ 2025MHz)</td>
<td>-</td>
<td>1.6</td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td>Attenuation</td>
<td>dB</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100 ~ 995MHz</td>
<td>32</td>
<td>65</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>995 ~ 1022MHz</td>
<td>35</td>
<td>65</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>1022 ~ 1925MHz</td>
<td>25</td>
<td>41</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>1925 ~ 1950MHz</td>
<td>22</td>
<td>42</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>1950 ~ 1980MHz</td>
<td>13</td>
<td>25</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>2050 ~ 2085MHz</td>
<td>5</td>
<td>19</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>2085 ~ 2110MHz</td>
<td>15</td>
<td>25</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>2430 ~ 2565MHz</td>
<td>35</td>
<td>51</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>2565 ~ 4010MHz</td>
<td>32</td>
<td>46</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>4010 ~ 4060MHz</td>
<td>40</td>
<td>58</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>4060 ~ 6000MHz</td>
<td>32</td>
<td>55</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>
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Rev No: 1

C. OUTLINE DRAWING:

- Top view:
  - Dimensions: 1.45mm by 1.15mm
  - Solder pads: A, B, C, D, E

- Bottom view:
  - Dimensions: 0.7mm (maximum)
  - Solder pads: A, B, C, D, E

- Side view:
  - Dimensions: 0.325mm (maximum)
  - Solder pads: C

D. MEASUREMENT CIRCUIT:

- Circuit diagram:
  - Components: 50Ω, 27nH, 200Ω
  - Labels: A, B, C, D, E
E. FREQUENCY CHARACTERISTICS:

![Graph 1]

- Center: 2.0175 GHz
- IFBW: 3 kHz
- Span: 100 MHz

![Graph 2]

- Center: 2.0175 GHz
- IFBW: 3 kHz
- Span: 400 MHz

![Graph 3]

- Start: 100 MHz
- IFBW: 3 kHz
- Stop: 1 GHz

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F. PACKING:

1. Reel Dimension

2. Tape Dimension

Direction of Feed
G. RECOMMENDED REFLOW PROFILE:

![Graph showing the recommended reflow profile with temperature on the y-axis and time on the x-axis. The profile starts at a low temperature, rises sharply to a peak around 220°C, and then cools down.]