SAW Filter 168.5.0MHz  
Part No: MA07378

A. MAXIMUM RATING:
1. Input power level: max. 20 dBm for <=100 hours
   max. 5 dBm for <=15 years
2. Operating Temperature: -20°C ~ +80°C
3. Storage Temperature: -40°C ~ +85°C

B. CHARACTERISTICS:
1. Ambient Temperature: 25°C

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Value</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center frequency Fc MHz</td>
<td>- 168.5 - -</td>
<td></td>
</tr>
<tr>
<td>3dB Bandwidth</td>
<td>- 28 - -</td>
<td></td>
</tr>
<tr>
<td>Maximum Insertion loss IL (158.5~178.5MHz) dB</td>
<td>- 8 10 -</td>
<td></td>
</tr>
<tr>
<td>Passband Ripple (158.5~178.5MHz) dB</td>
<td>- 0.8 1 -</td>
<td></td>
</tr>
<tr>
<td>Group Delay Ripple (158.5~178.5MHz) nS</td>
<td>- 45 100 -</td>
<td></td>
</tr>
<tr>
<td>Input VSWR (158.5~178.5MHz)</td>
<td>1.3 2</td>
<td></td>
</tr>
<tr>
<td>Output VSWR (158.5~178.5MHz)</td>
<td>1.9 2.5</td>
<td></td>
</tr>
<tr>
<td>Phase linearity (158.5~178.5MHz) (p-p°)</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Attenuation: (Reference level from minimum insertion loss)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) DC ~ 100 MHz dB</td>
<td>45 47 - -</td>
<td></td>
</tr>
<tr>
<td>2) 100 ~ 149 MHz dB</td>
<td>35 37 - -</td>
<td></td>
</tr>
<tr>
<td>3) 190 ~ 250 MHz dB</td>
<td>35 38 - -</td>
<td></td>
</tr>
<tr>
<td>4) 250~ 300 MHz dB</td>
<td>45 48 - -</td>
<td></td>
</tr>
</tbody>
</table>
C. OUTLINE DRAWING:

D. FREQUENCY CHARACTERISTICS:
1. S21 Response

Horizontal: 10MHz/Div. Vertical: 10dB/Div
2. Pass band Ripple and Group Delay Ripple

![Graph showing pass band ripple and group delay ripple with horizontal and vertical scales specified.]


3. Wide band Response

![Graph showing wide band response with horizontal and vertical scales specified.]

Horizontal: 10MHz~500MHz
4. Input VSWR

Horizontal: 148.5MHz~188.5MHz

5. Output VSWR

Horizontal: 148.5MHz~188.5MHz
SAW Filter 168.5.0MHz  
Part No: MA07378

E. TEST FIXTURE:

![Test fixture diagram]

L1 = 68 nH  L2 = 56 pF  L3 = 120 nH  C1 = 10 pF

F. PCB FOOTPRINT

![PCB footprint diagram]
SAW Filter 168.5.0MHz
Part No: MA07378

G. PACKING:

1. REEL DIMENSION

2. TAPE DIMENSION

---

Section A-A