**SAW Filter 462.0MHz**  
**Model: TA1677A**  
**Part No: MP08138**  
**Rev No: 1**

**A. MAXIMUM RATING:**

Electrostatic Sensitive Device (ESD)

1. Input Power Level: 10dBm
2. DC Voltage: 5V
3. Operating Temperature: -30°C to +70°C
4. Storage Temperature: -40°C to +85°C

**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 MHz</td>
<td>MHz</td>
<td>462</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1dB Bandwidth MHz</td>
<td>dB</td>
<td>20</td>
<td>29</td>
<td>-</td>
</tr>
<tr>
<td>VSWR</td>
<td>dB</td>
<td>1.6</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>Insertion loss 452 ~ 472MHz</td>
<td>dB</td>
<td>-</td>
<td>2.0</td>
<td>3.3</td>
</tr>
<tr>
<td>Attenuation (reference from 0dB)</td>
<td>dB</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 ~ 165MHz</td>
<td>dB</td>
<td>35</td>
<td>51</td>
<td>-</td>
</tr>
<tr>
<td>225 ~ 380MHz</td>
<td>dB</td>
<td>30</td>
<td>55</td>
<td>-</td>
</tr>
<tr>
<td>380 ~ 396MHz</td>
<td>dB</td>
<td>25</td>
<td>53</td>
<td>-</td>
</tr>
<tr>
<td>396 ~ 418MHz</td>
<td>dB</td>
<td>15</td>
<td>51</td>
<td>-</td>
</tr>
<tr>
<td>508 ~ 528MHz</td>
<td>dB</td>
<td>15</td>
<td>35</td>
<td>-</td>
</tr>
<tr>
<td>528 ~ 540MHz</td>
<td>dB</td>
<td>25</td>
<td>46</td>
<td>-</td>
</tr>
<tr>
<td>540 ~ 663MHz</td>
<td>dB</td>
<td>30</td>
<td>47</td>
<td>-</td>
</tr>
<tr>
<td>663 ~ 850MHz</td>
<td>dB</td>
<td>27</td>
<td>41</td>
<td>-</td>
</tr>
<tr>
<td>Source impedance Z_S</td>
<td>Ω</td>
<td>-</td>
<td>50</td>
<td>-</td>
</tr>
<tr>
<td>Load impedance Z_L</td>
<td>Ω</td>
<td>-</td>
<td>50</td>
<td>-</td>
</tr>
</tbody>
</table>
C. FREQUENCY CHARACTERISTICS:

1. Wideband response: (span 840MHz)

![Wideband response graph](image1)

2. S21 response: (span 200MHz)

![S21 response graph](image2)
3. Passband response: (span 50MHz)

![Passband Response Graph](image)

4. S11 & S22 VSWR: (span 50MHz)

![S11 & S22 VSWR Graph](image)
D. MEASUREMENT CIRCUIT:

HP Network analyzer

```
50Ω --|---|---|---|---|-- 50Ω
   B   SAW Filter   E
   A, C, D, F
```

E. OUTLINE DRAWING:

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

F. PCB FOOTPRINT:

```
Dimensions in mm
```
G. PACKING:

1. Reel Dimension

2. Tape Dimension
H. RECOMMENDED REFLOW PROFILE:

![Graph showing recommended reflow profile with temperature (°C) on the y-axis and time (Sec) on the x-axis. The graph shows a temperature profile with a peak around 220°C for approximately 2 minutes, followed by a cooling phase.](image-url)