A. MAXIMUM RATING:  

Electrostatic Sensitive Device (ESD)

1. Input Power Level: 10dBm  
2. DC Voltage: 3V  
3. Operating Temperature: -20°C to +75°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>858.5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Insertion Loss (840 ~ 877MHz)</td>
<td>dB</td>
<td>-</td>
<td>3.15</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>Amplitude Ripple (840 ~ 877MHz)</td>
<td>dB</td>
<td>-</td>
<td>0.8</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>VSWR (840 ~ 877MHz)</td>
<td></td>
<td>-</td>
<td>1.3</td>
<td>2.1</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>DC ~ 790MHz</td>
<td>dB</td>
<td>25</td>
<td>35</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>989 ~ 1005MHz</td>
<td>dB</td>
<td>30</td>
<td>47</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1642 ~ 1792MHz</td>
<td>dB</td>
<td>30</td>
<td>36</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1792 ~ 3000MHz</td>
<td>dB</td>
<td>15</td>
<td>25</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Temperature Coefficient of Frequency</td>
<td>ppm/°C</td>
<td>-</td>
<td>-75</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
C. OUTLINE DRAWING:

![Outline Drawing]

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

D. MEASUREMENT CIRCUIT:

HP Network analyzer

![Measurement Circuit]

E. PCB FOOTPRINT:

![PCB Footprint]
F. FREQUENCY CHARACTERISTICS:

1 Carrier 858.5 MHz

1 Carrier 858.5 MHz

1 Carrier 858.5 MHz

SAW Filter 858.50MHz
Part No: MP05046
Model: TA1416A
Rev No: 1

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Reflection Functions

S11

S22
G. PACKING:

1. Reel Dimension

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. 10 sec).
4. Time: 2 times.