General Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part Number</td>
<td>0783AT43A0008</td>
</tr>
<tr>
<td>Frequency Range</td>
<td>779 - 787 MHz</td>
</tr>
<tr>
<td>Peak Gain</td>
<td>-2.0 dBi typ. (XZ-total)</td>
</tr>
<tr>
<td>Average Gain</td>
<td>-5.0 dBi typ. (XZ-total)</td>
</tr>
<tr>
<td>Return Loss</td>
<td>9.5 dB min.</td>
</tr>
<tr>
<td>Impedance</td>
<td>50 Ω</td>
</tr>
<tr>
<td>Input Power</td>
<td>2W max.</td>
</tr>
</tbody>
</table>

Operating Temperature
-40 to +85°C

Storage Temperature
+5 ~ +35 °C, Humidity 45~75%RH, 12 mos. max

Reel Quantity
1,000

Mechanical Dimensions

<table>
<thead>
<tr>
<th>In</th>
<th>mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>0.276 ± 0.008</td>
</tr>
<tr>
<td>W</td>
<td>0.079 ± 0.008</td>
</tr>
<tr>
<td>T</td>
<td>0.031 +/-0.006</td>
</tr>
<tr>
<td>a</td>
<td>0.020 ± 0.012</td>
</tr>
</tbody>
</table>

Mounting Considerations
Mount these devices with brown mark facing up. Units: mm
* Line width should be designed to provide 50 Ω impedance matching characteristics.
Matching circuit and component values will be different, depending on PCB layout

Matching circuits

Johanson Technology, Inc. reserves the right to make design changes without notice.
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Mounting Considerations

Test Board

Ground

20mm

40mm

9.5mm

19mm

50Ω Feed Line

Antenna

No Ground

Return Loss (with matching)

freq, GHz

dB(S(1,1))

| m1 | freq=779.0MHz | dB(S(1,1))=-25.388 |
| m2 | freq=783.0MHz | dB(S(1,1))=-31.510 |
| m3 | freq=787.0MHz | dB(S(1,1))=-29.631 |

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Typical Radiation Patterns

XY-V/XY-H

XY cut @783MHz
- Vertical
- Horizontal

XZ-V/XZ-H

XZ cut @783MHz
- Vertical
- Horizontal

YZ-V/YZ-H

YZ cut @783MHz
- Vertical
- Horizontal

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