1. Features
   a) Small sizes and low profile
   b) Wide frequency range

2. Specifications

<table>
<thead>
<tr>
<th>Type</th>
<th>AHD1403-244ST01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>13.5 × 3 × 0.8 mm</td>
</tr>
<tr>
<td>Operating frequency</td>
<td>2400 – 2484 MHz</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-25 - +85 °C</td>
</tr>
</tbody>
</table>

3. Characteristics (Reference)

<table>
<thead>
<tr>
<th>Bandwidth in VSWR ≤ 2</th>
<th>140 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gain –peak-</td>
<td>0 dBd</td>
</tr>
<tr>
<td>Gain –average-</td>
<td>-6.6 dBd</td>
</tr>
<tr>
<td>Radiation Efficiency</td>
<td>36 %</td>
</tr>
</tbody>
</table>

4. Dimensions

<table>
<thead>
<tr>
<th>(1) in/out terminal</th>
<th>(2) GND</th>
<th>(3) Fixing Electrode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness: 0.8 mm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Recommended land pattern

Note:
*1 We recommend to make ground plane on area ‘B’.
You may not make ground plane on area ‘A’.
*2 Please connect this land to the ground with thru holes.

6. VSWR vs. Frequency

![VSWR vs. Frequency Graph]
9. Series of center Frequencies ($f_0$)

In case of surface mount antennas, the center frequency is dependent on the PCB size or other surrounding components and materials, and therefore can be different from what is measured with our standard test board. For the AHD1403-244ST, we have therefore prepared series of items having different center frequencies with a certain frequency step, in order to cancel the above mentioned frequency shift by the environmental factors.

So with our AHD1403-244ST series, you can easily and quickly find the most suitable antenna for your own mounting conditions.

**Example 1:**

If you take the AHD1403-244ST01 (nominal $f_0=2440$MHz), but see that the center frequency is $2490$MHz (50MHz higher) when mounted on your own board:

We recommend to use AHD1403-244ST25 (nominal $f_0=2390$MHz, $\Delta f_0=-50$MHz).

**Example 2:**

If you take the AHD1403-244ST01 (nominal $f_0=2440$MHz), but see that the center frequency is $2350$MHz (90MHz lower) when mounted on your own board:

We recommend to use AHD1403-244ST10 (nominal $f_0=2530$MHz, $\Delta f_0=+90$MHz).

Note:

1) The specifications given herein may be changed or modified at anytime without prior notice.

2) Please request specifications for the part your plan to use.

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