

**Description:** 5010 2.4-2.5GHz Chip Antenna

**PART NUMBER:** ANT5010LL04R2400A

**Features:**

- Size : 5.10x1.00x1.00 mm
- Omni-directional radiation
- Tape & reel automatic mounting
- Reflow process compatible
- RoHS compliant

**Applications:**

- 2.4 GHz WiFi device
- Bluetooth gadget
- Zigbee device
- ISM band equipment

**ELECTRICAL SPECIFICATIONS**

|                                      |   |
|--------------------------------------|---|
| <b>Working Frequency</b>             | 2.45 GHz                                    |
| <b>Bandwidth</b>                     | 210 MHz(Typ.)                               |
| <b>Return Loss</b>                   | 6.5 dB Max.                                 |
| <b>Polarization</b>                  | Linear                                      |
| <b>Azimuth Beamwidth</b>             | Omni-directional                            |
| <b>Peak Gain</b>                     | 2.28 dBi (Typ.)                             |
| <b>Impedance</b>                     | 50 Ω  |
| <b>Operating Temperature</b>         | - 40~105 °C                                 |
| <b>Maximum Power</b>                 | 1 W   |
| <b>Termination</b>                   | Ni / Sn (Environmentally-Friendly Leadless) |
| <b>Resistance to Soldering Heats</b> | 260°C , 10sec.                              |

NOTE  
1. The specification is defined on Pulse evaluation board

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

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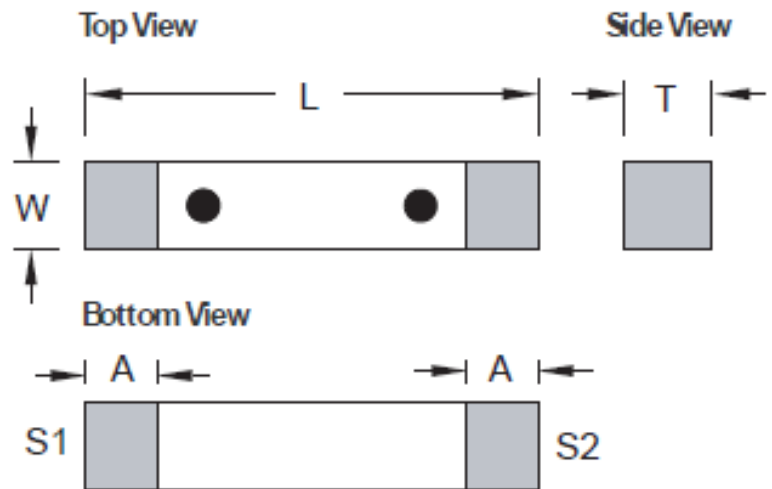
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**MECHANICAL DRAWING**



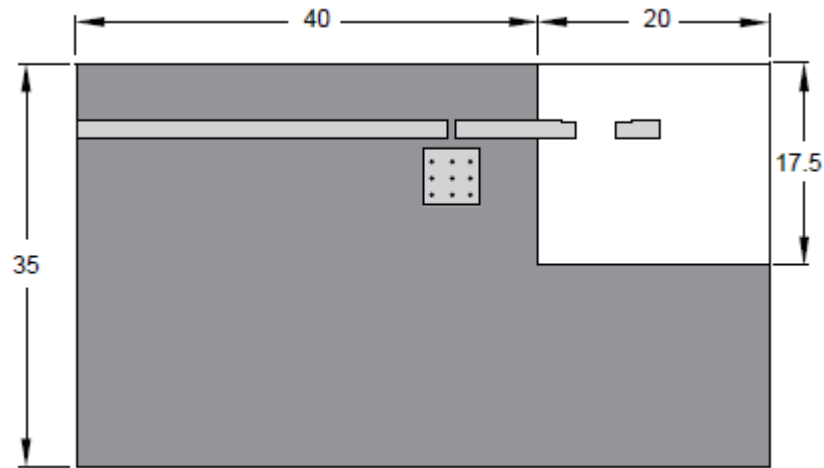
|        | <b>Dimension</b> |
|--------|------------------|
| L (mm) | 5.10 ±0.10       |
| W (mm) | 1.00 ±0.10       |
| T (mm) | 1.00 ±0.10       |
| A (mm) | 0.85 ±0.15       |

| <b>Terminal name</b> | <b>Function</b>     |
|----------------------|---------------------|
| S1                   | Feeding / Soldering |
| S2                   | Soldering / Feeding |

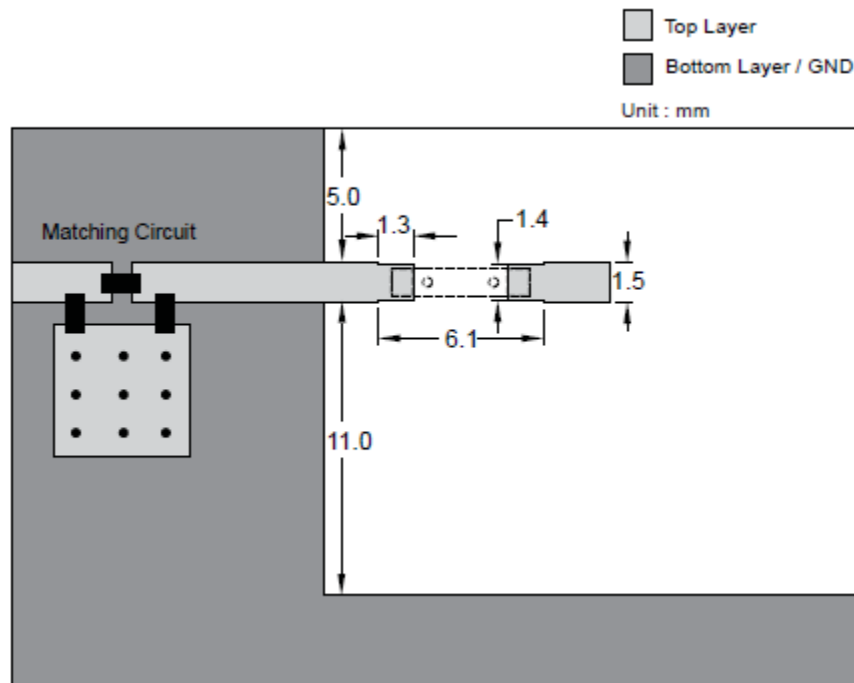
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**REFERENCE DESIGN OF EVALUATION BOARD**



Outlook and dimension of evaluation board



Details of soldering Pad

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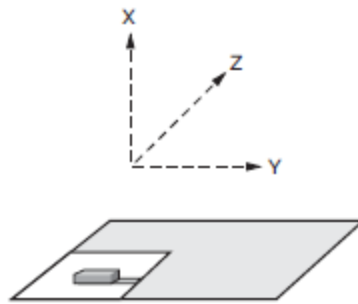
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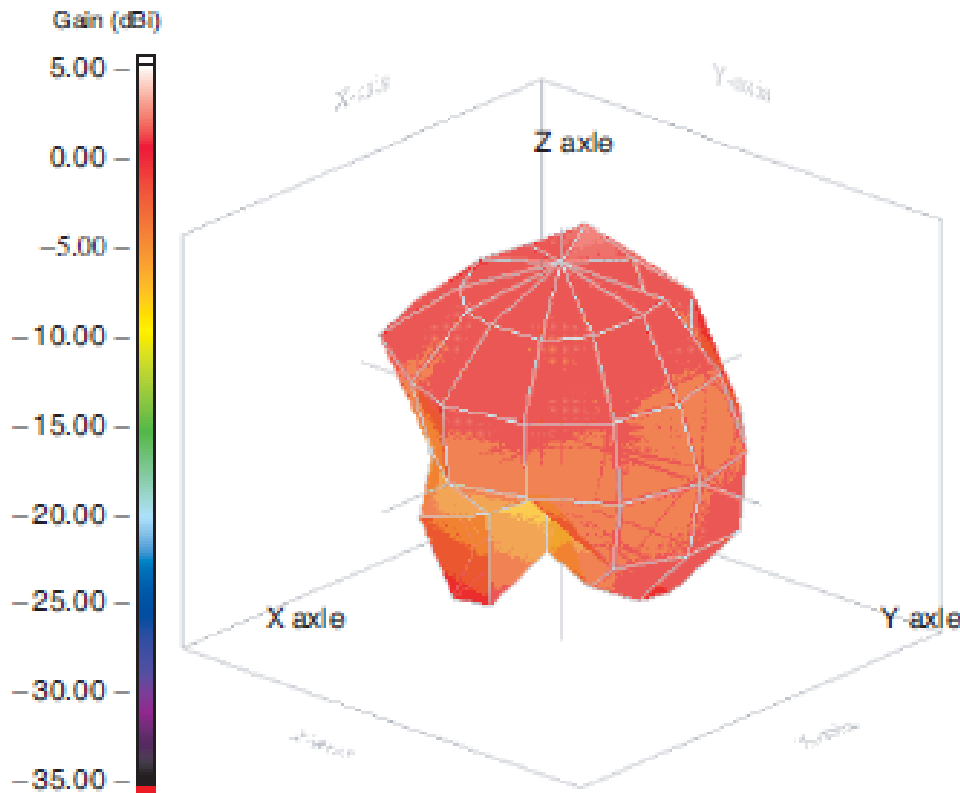
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**REFERENCE DESIGN OF EVALUATION BOARD**



Evaluation board and XYZ direction



Frequency= 2.45 GHz  
 Max gain = 2.28 dBi, at (90, 210)  
 MEG (mean effective gain)= -0.96 dBi  
 Directivity (dB) = 3.24  
 Efficiency = -0.82 dB, 82.80 %

YNH0095

Radiation pattern

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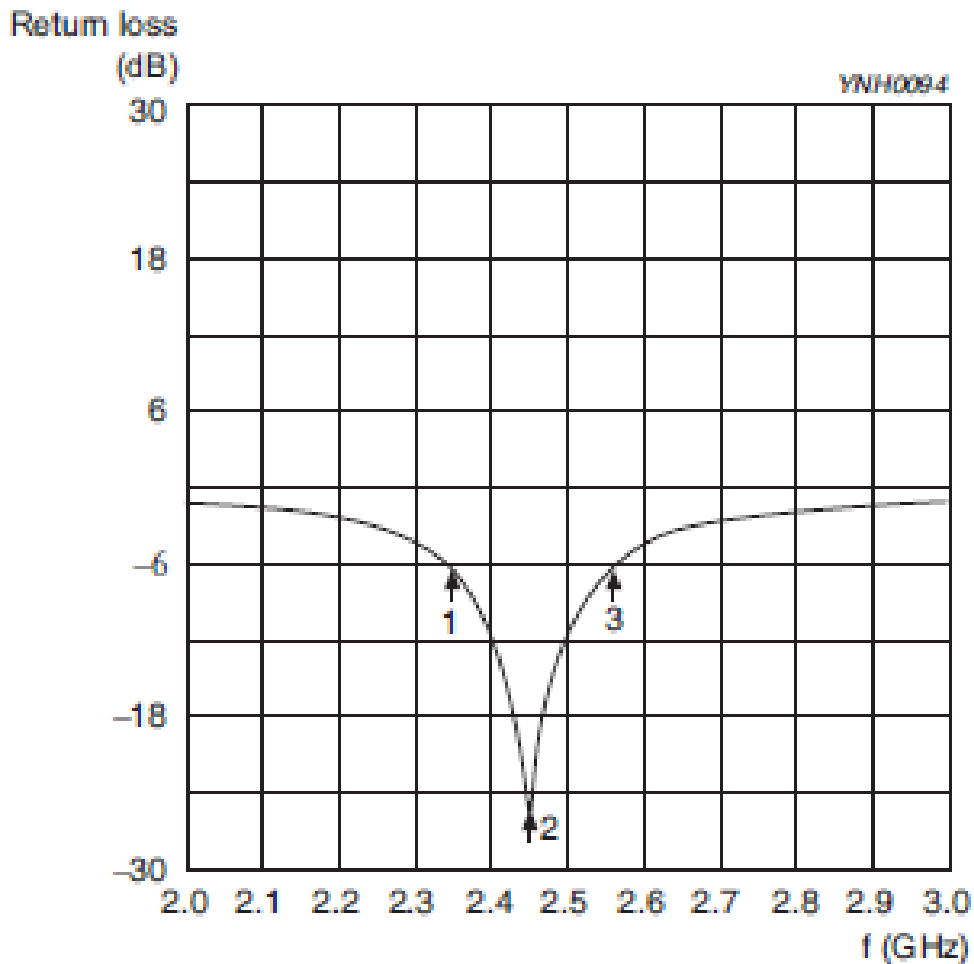
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**ELECTRICAL PERFORMANCES**



Marker data  
 1. 2.35GHz, -6.5dB  
 2. 2.45GHz, -27.45dB  
 3. 2.56GHz, -6.5dB

Return loss

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### REVISION HISTORY

| Revision  | Date          | Description |
|-----------|---------------|-------------|
| Version 1 | Nov. 20, 2020 | - New issue |

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