

Description: 7020 870MHz Chip Antenna

PART NUMBER: ANT7020LL05R0870A

Features:

- Size : 7.00x2.05x0.78 mm
- Omni-directional radiation
- Tape & reel automatic mounting
- Reflow process compatible
- RoHS compliant



Applications:

- Smart meter
- Industrial remote control
- ISM band equipment

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

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ELECTRICAL SPECIFICATIONS

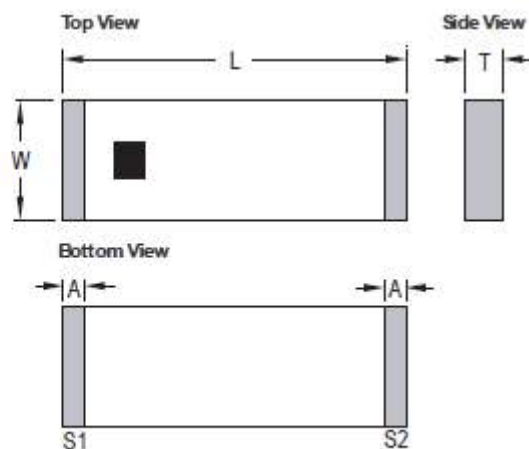
| | |
|--------------------------------------|---|
| Working Frequency | 870 MHz |
| Bandwidth | 37 MHz(Typ.) |
| Return Loss | 10 dB Min. |
| Polarization | Linear |
| Azimuth Beamwidth | Omni-directional |
| Peak Gain | 1.83 dBi(Typ.) |
| Impedance | 50 Ω |
| Operating Temperature | - 40~105 °C |
| Maximum Power | 1 W |
| Termination | Ni / Sn (Environmentally-Friendly Leadless) |
| Resistance to Soldering Heats | 260°C , 10sec. |

NOTE

1. The specification is defined on Pulse evaluation board

MECHANICAL DRAWING

| | Dimension |
|--------|------------------|
| L (mm) | 7.00 ±0.20 |
| W (mm) | 2.05 ±0.20 |
| T (mm) | 0.78 ±0.20 |
| A (mm) | 0.45 ±0.20 |



| Terminal name | Function |
|----------------------|-----------------|
| S1 | Feeding Point |
| S2 | Soldering Point |

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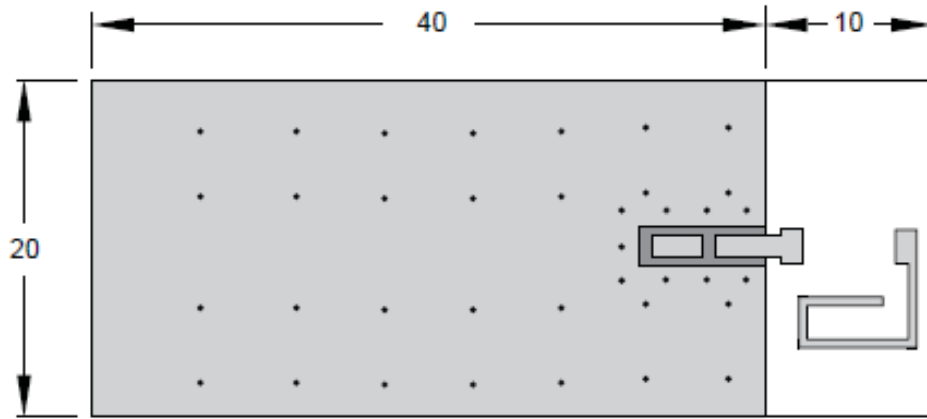
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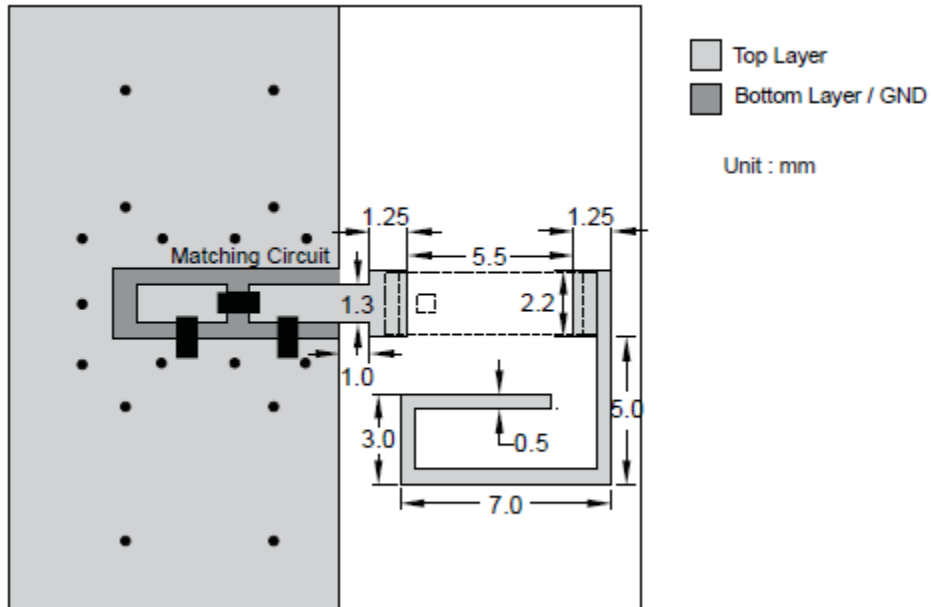
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REFERENCE DESIGN OF EVALUATION BOARD



Unit : mm

Outlook and dimension of evaluation board



Unit : mm

Details of soldering Pad

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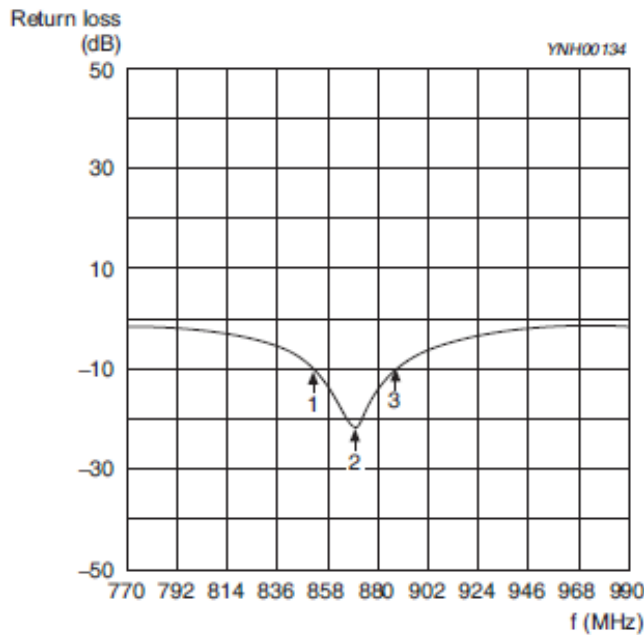
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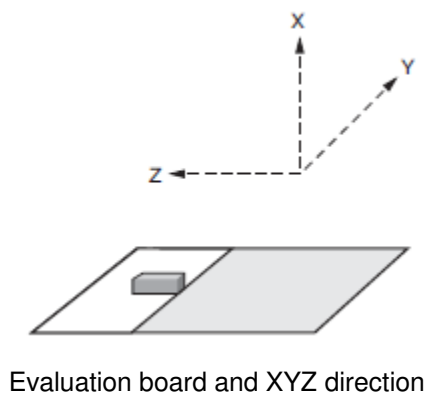
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ELECTRICAL PERFORMANCES



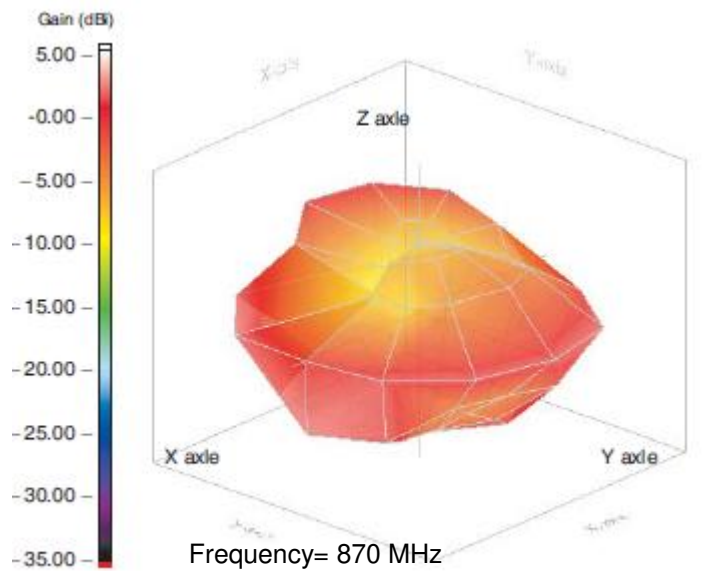
Maker data
 1. 852MHz, -10dB
 2. 870MHz, -22dB
 3. 889MHz, -10dB

Return loss



Evaluation board and XYZ direction

Radiation pattern



Frequency= 870 MHz
 Max gain = 1.83 dBi, at (90,330)
 MEG (mean effective gain)= -2.51dBi
 Directivity (dB) = 3.75
 Efficiency = -1.92dB, 64.20%

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REVISION HISTORY

| Revision | Date | Description |
|-----------|---------------|-------------|
| Version 1 | Oct. 14, 2020 | - New issue |

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