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Pulse | LARSEN Antennas
A YAGEO Company

TECHNICAL DATA SHEET

Description: 1204 UHF 870MHz Chip Antenna

PART NUMBER: ANT1204F007R0870A

Features:

- Size : 12.2 x 4.0 x 1.6 mm
- Omni-directional Radiation
- Tape & reel automatic mounting
- Reflow process compatible
- RoHS compliant



Applications:

- Smart meter
- Industrial remote control

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RoHS COMPLIANT

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ELECTRICAL SPECIFICATIONS

Centre Frequency	870 MHz
Bandwidth	30 MHz (Typ.)
Return Loss	10 dB Min
Polarization	Linear
Azimuth Beamwidth	Omni-directional
Peak Gain	1.67 dBi(Typ.)
Impedance	50 Ω
Operating Temperature	- 40~85 ℃
Maximum Power	1 W
Termination	Cu / Au (Environmentally-Friendly Leadless)
Resistance to Soldering Heats	260℃ , 10sec.

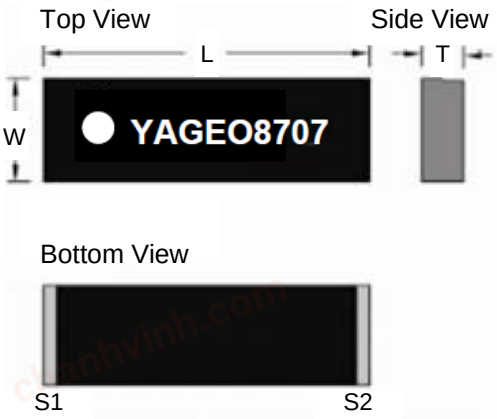
NOTE
1. The specification is defined on Pulse evaluation board

MECHANICAL DRAWING

	Dimension
L (mm)	12.2 ±0.2
W (mm)	4.0 ±0.2
T (mm)	1.6 ±0.2

TERMINATION	Function
S1	Feeding Point
S2	Soldering Point





Antenna outlines

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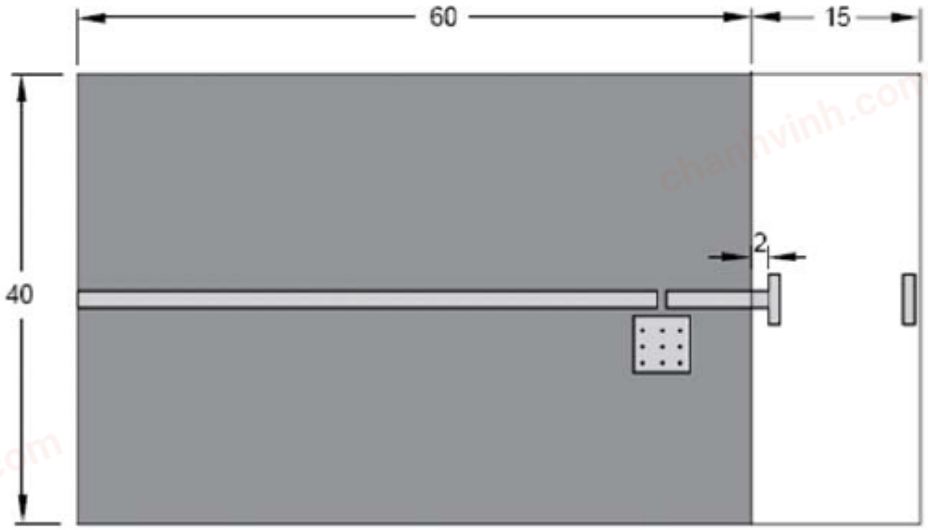
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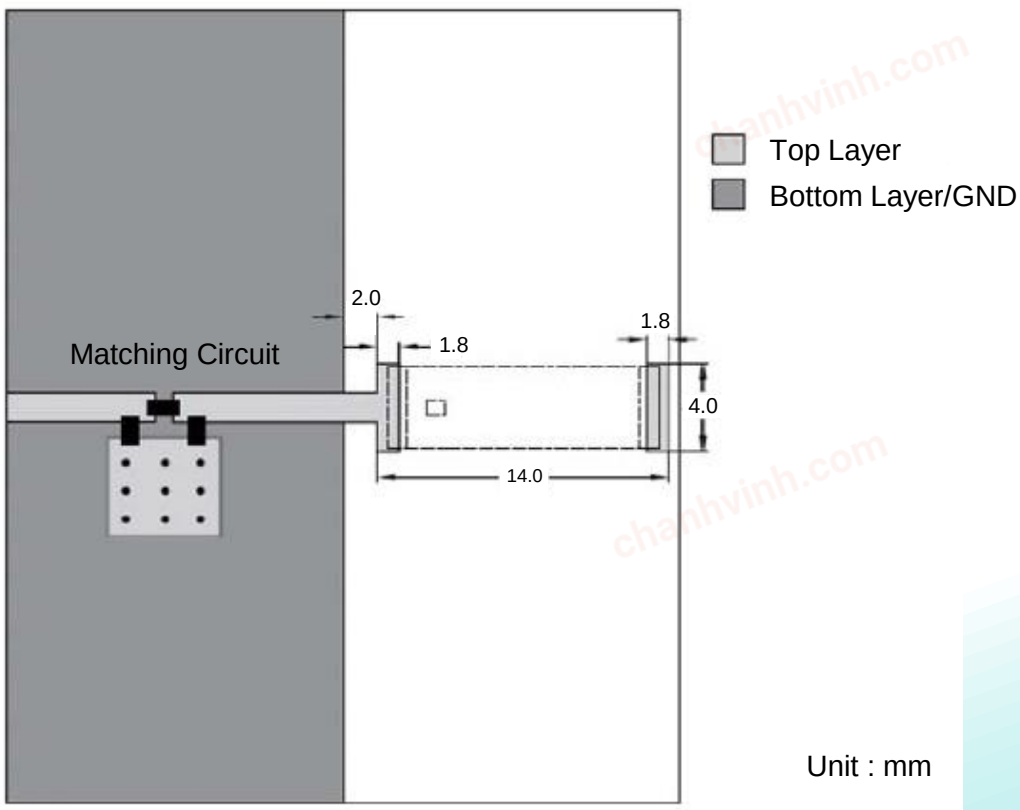
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REFERENCE DESIGN OF EVALUATION BOARD



Unit: mm

Outlook and dimension of evaluation board



Unit : mm

Details of soldering Pad

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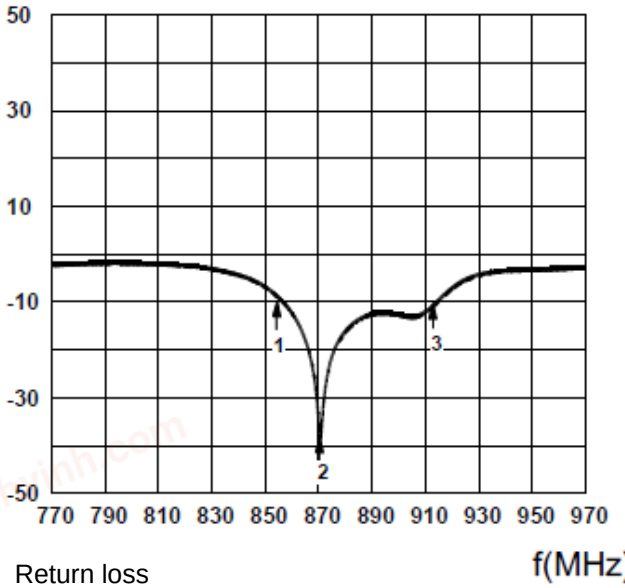
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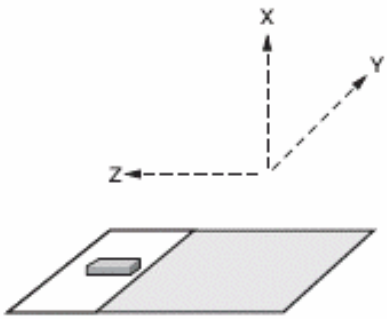
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ELECTRICAL PERFORMANCES

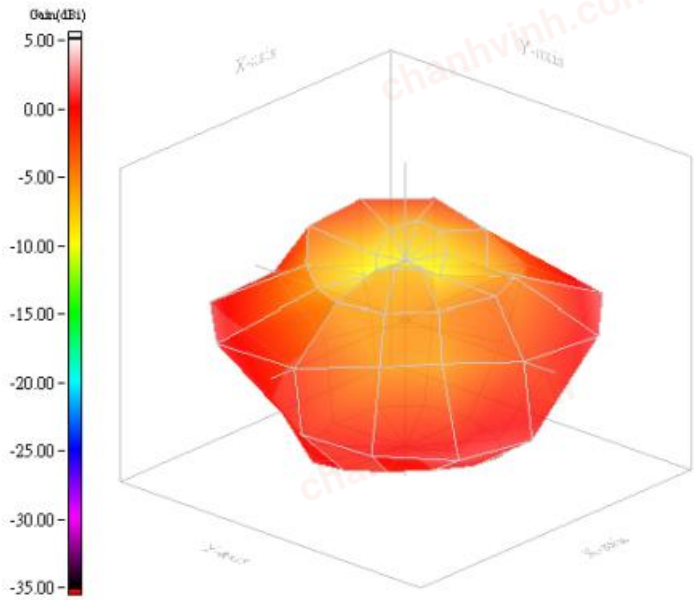


Return loss

Marker data
1. 856 MHz, -10dB
2. 870 MHz, -34dB
3. 914 MHz, -10dB



Evaluation board and XYZ direction



Radiation pattern

Max gain = 1.67dBi, at (90,150)
MEG (mean effective gain) = -2.69dBi
Directivity (dB) = 3.87
Efficiency = -2.20dB, 60.3%

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REVISION HISTORY

Revision	Date	Description
Version 1	Mar. 8, 2021	- New issue for Pulse version.

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