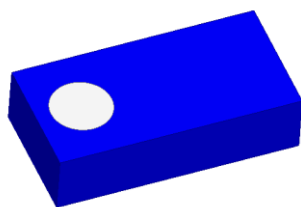


## Description : 1608 2.4G Chip Antenna

**PART NUMBER : ANT1608LL14R2400A**

### Features:

- Size : 1.6x0.8x0.4 mm
- Working Frequency : 2.4~2.5GHz
- Omni-directional Radiation
- Tape & reel automatic mounting
- Reflow process compatible
- RoHS compliant



### Applications:

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

All dimensions are in mm / inches

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

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For more information:



## Description : 1608 2.4G Chip Antenna

**PART NUMBER : ANT1608LL14R2400A**

### ELECTRICAL SPECIFICATIONS

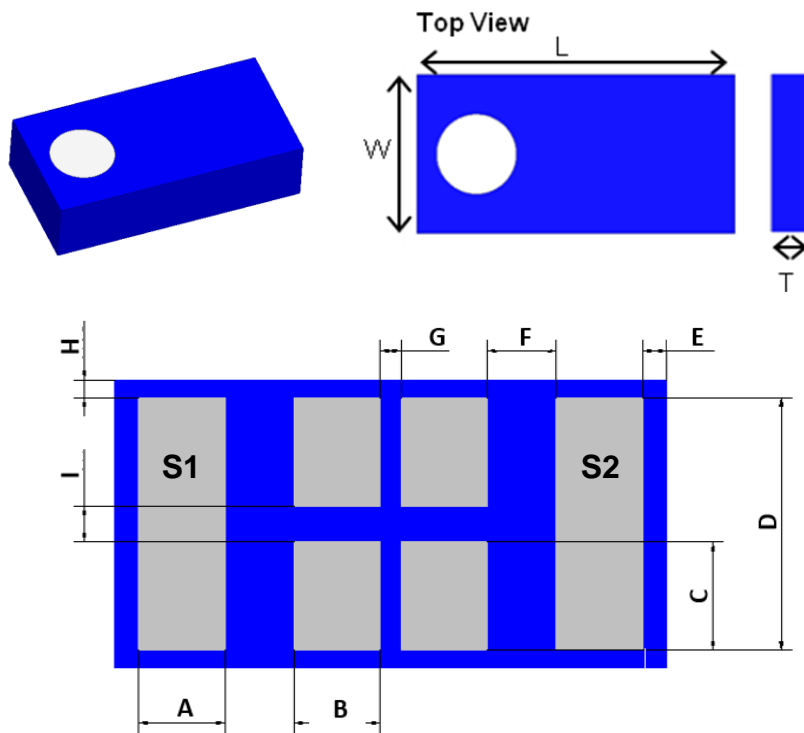
<b>Working Frequency</b>	2.4 ~ 2.484 GHz
<b>Bandwidth</b>	150 MHz(Typ.)
<b>Return Loss</b>	6.0 dB Max
<b>Polarization</b>	Linear
<b>Azimuth Beamwidth</b>	Omni-directional
<b>Peak Gain</b>	2.0 dBi(Typ.)
<b>Impedance</b>	50 $\Omega$
<b>Operating Temperature</b>	- 40~105 °C
<b>Maximum Power</b>	1 W
<b>Termination</b>	Ag (Environmentally-Friendly Leadless)
<b>Peak Reflow Temperature</b>	260°C , 5sec.

#### NOTE

1. The specification is defined on Pulse evaluation board

### MECHANICAL DRAWING

	Dimension
L (mm)	1.60 $\pm$ 0.15
W (mm)	0.80 $\pm$ 0.15
T (mm)	0.40 (Max.)
A (mm)	0.25 $\pm$ 0.15
B (mm)	0.25 $\pm$ 0.15
C (mm)	0.30 $\pm$ 0.15
D (mm)	0.70 $\pm$ 0.15
E (mm)	0.07 $\pm$ 0.07
F (mm)	0.20 $\pm$ 0.10
G (mm)	0.06 $\pm$ 0.05
H (mm)	0.05 $\pm$ 0.05
I (mm)	0.10 $\pm$ 0.05



Terminal name	Function
S1	Soldering Pad
S2	Feeding Pad

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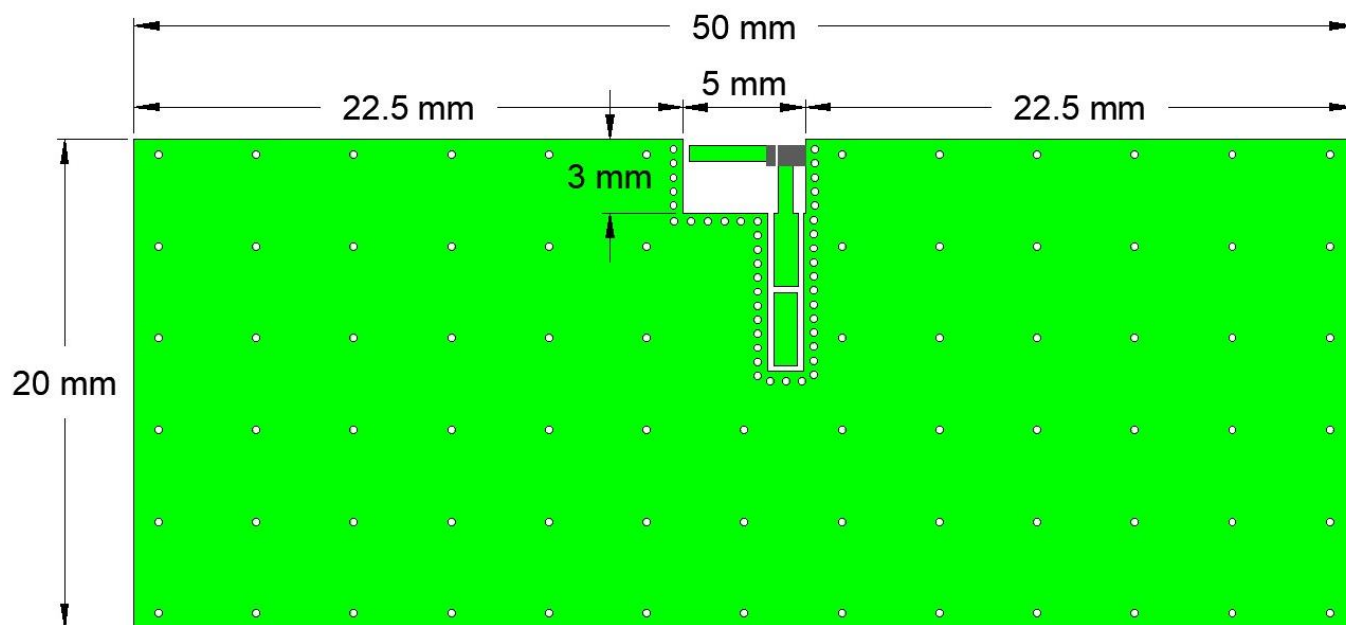
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**Description : 1608 2.4G Chip Antenna**

**PART NUMBER : ANT1608LL14R2400A**

**REFERENCE DESIGN OF EVALUATION BOARD (SCENARIO 1)**

◇SCENARIO 1

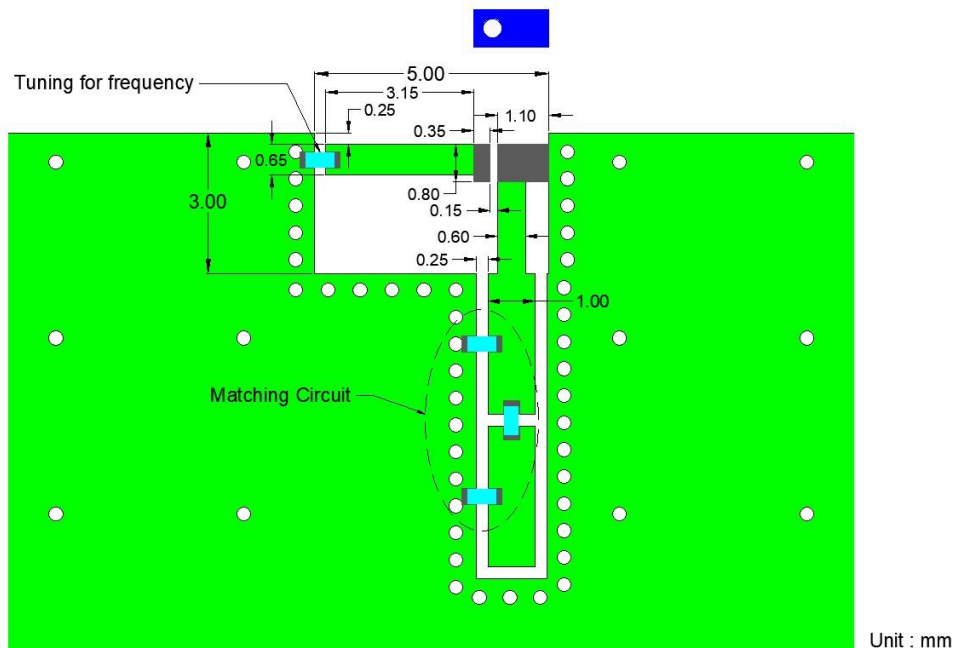


Outlook and dimension of evaluation board

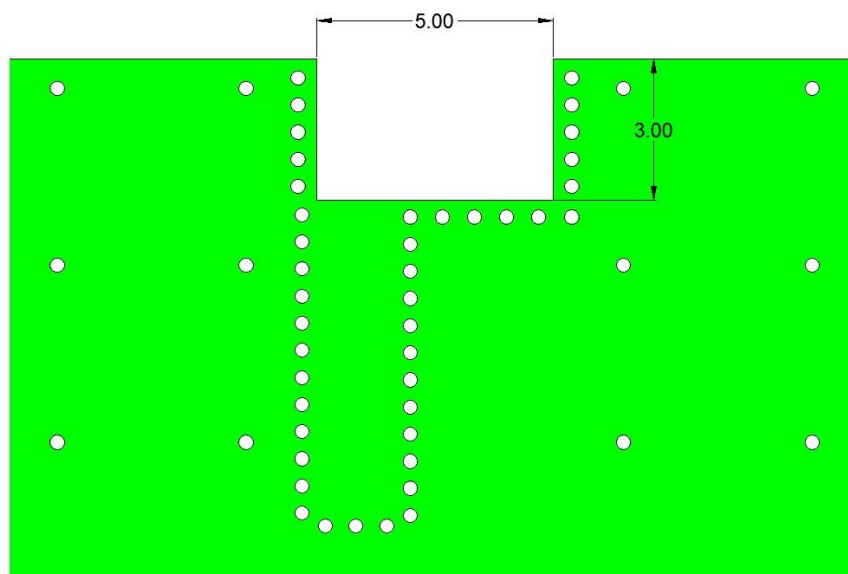
**Description : 1608 2.4G Chip Antenna**

**PART NUMBER : ANT1608LL14R2400A**

**REFERENCE DESIGN OF EVALUATION BOARD (SCENARIO 1)**



Top layer



Bottom layer

Details of clearance

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

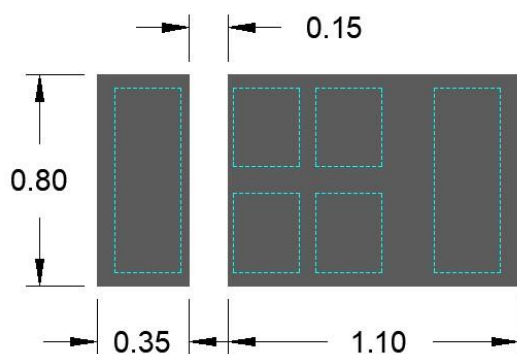
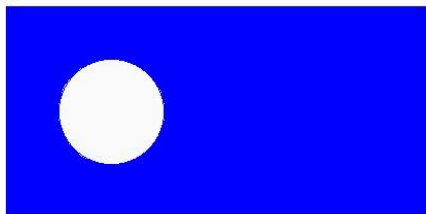
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**Description :** 1608 2.4G Chip Antenna

**PART NUMBER :** ANT1608LL14R2400A

## REFERENCE DESIGN OF EVALUATION BOARD (SCENARIO 1)



■ : Footprint

□ : Antenna pad

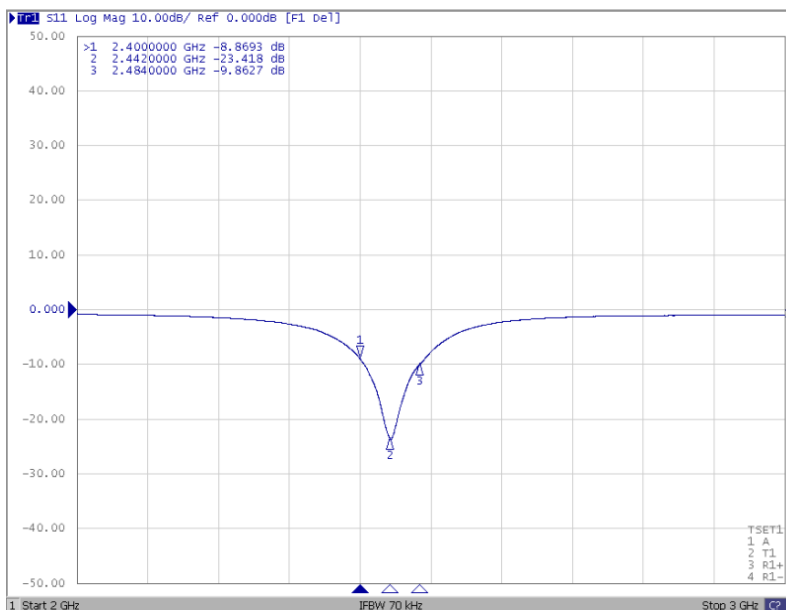
Unit : mm

[ Footprint

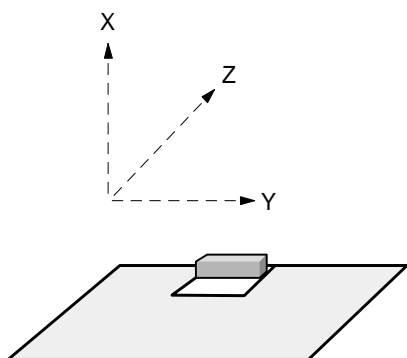
## Description : 1608 2.4G Chip Antenna

**PART NUMBER : ANT1608LL14R2400A**

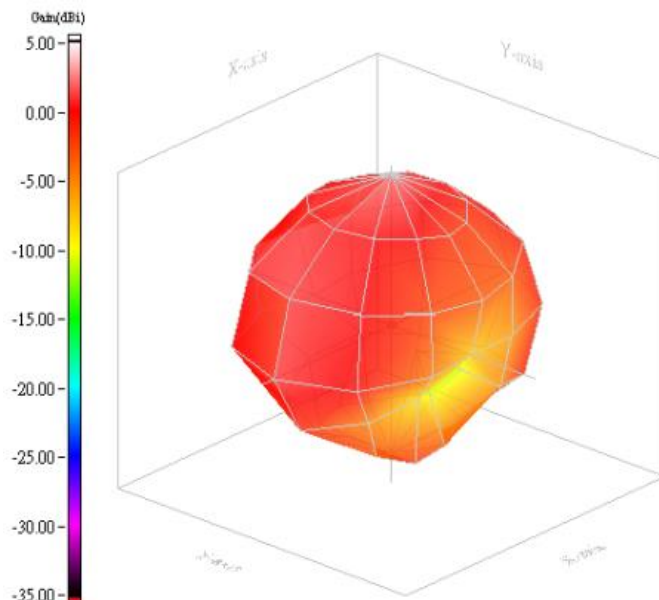
### ELECTRICAL PERFORMANCES (SCENARIO 1)



Return loss



Evaluation board and XYZ direction



Max Gain = 2.03dBi  
Efficiency = -2.08dB, 61.88%

Radiation pattern

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

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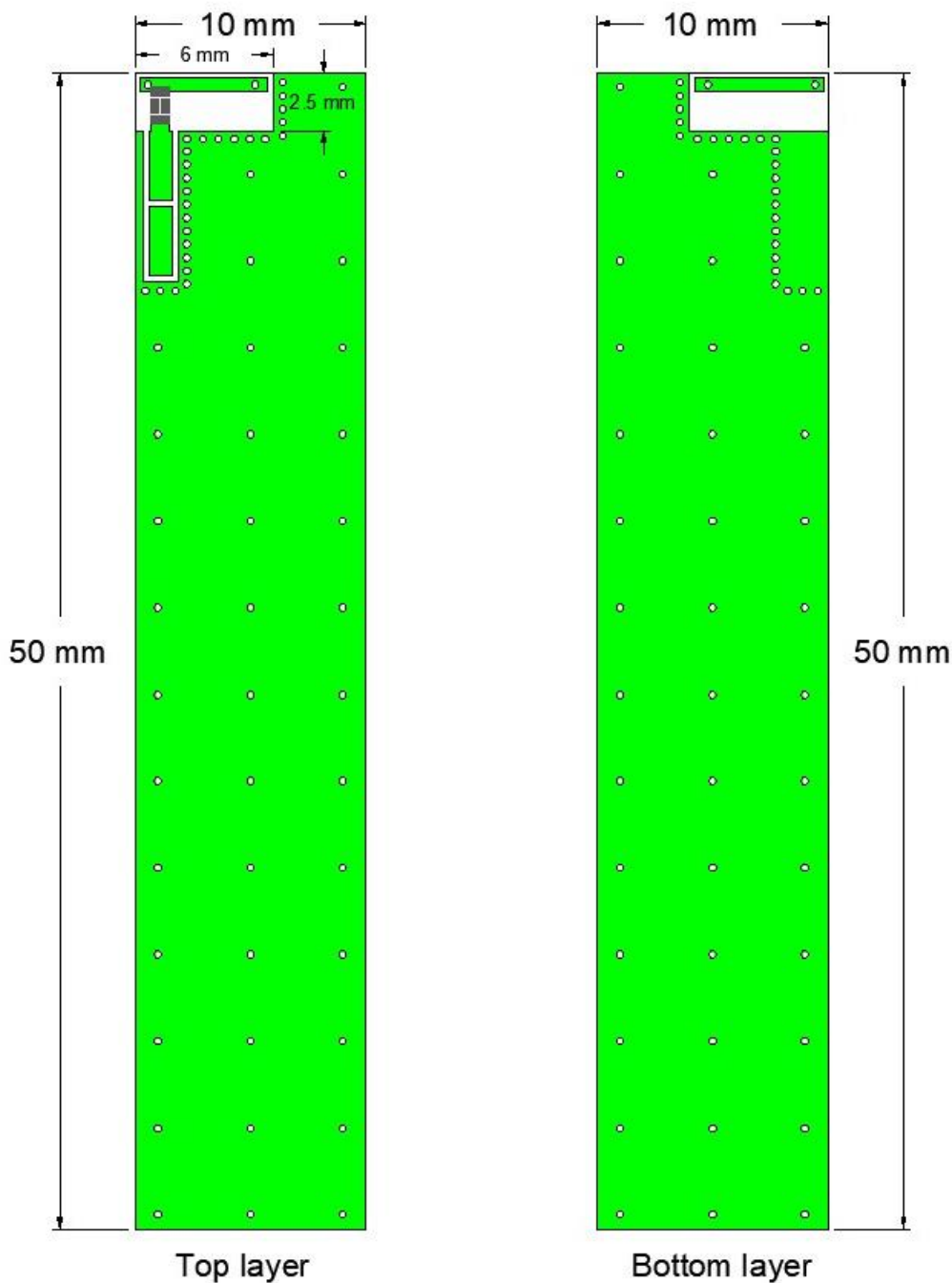
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**Description : 1608 2.4G Chip Antenna**

**PART NUMBER : ANT1608LL14R2400A**

**REFERENCE DESIGN OF EVALUATION BOARD (SCENARIO 2)**

◇ **SCENARIO 2**



Outlook and dimension of evaluation board

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

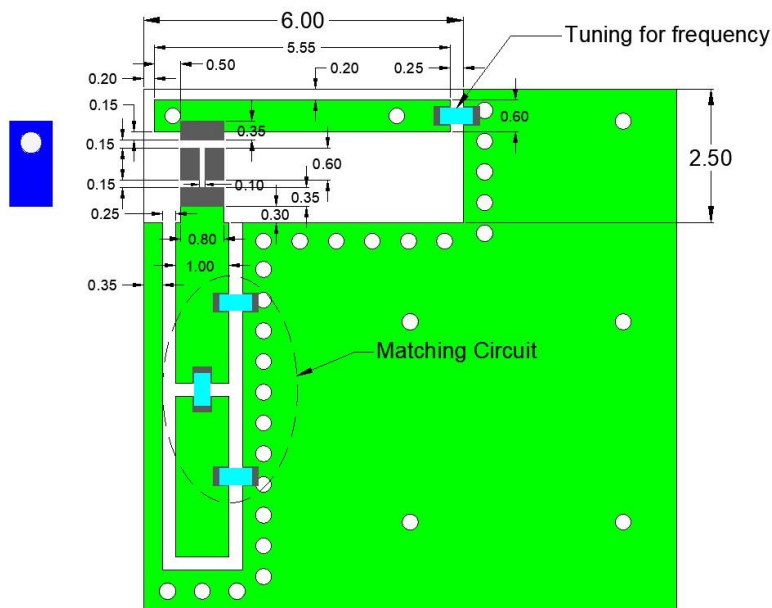
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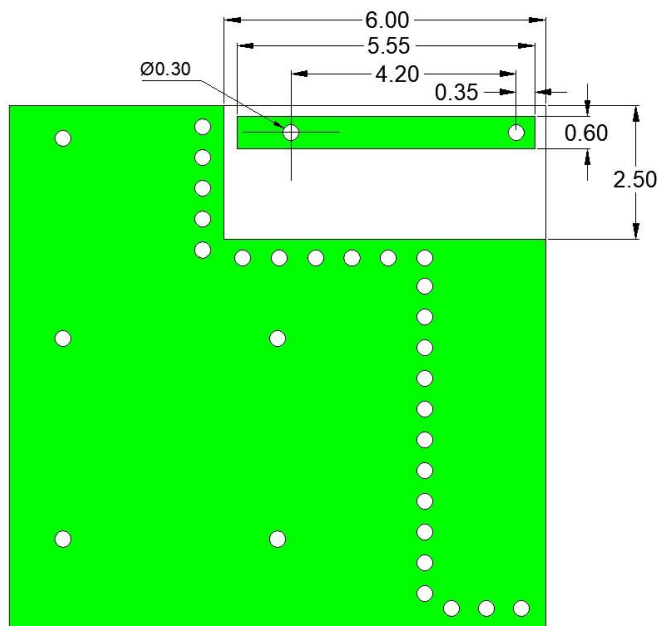
**Description : 1608 2.4G Chip Antenna**

**PART NUMBER : ANT1608LL14R2400A**

**REFERENCE DESIGN OF EVALUATION BOARD (SCENARIO 2)**



Top layer



Bottom layer

Details of clearance

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

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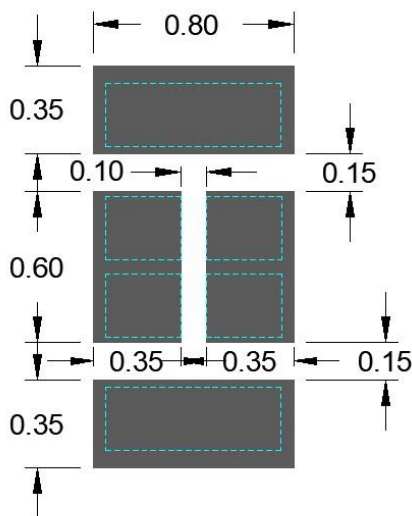
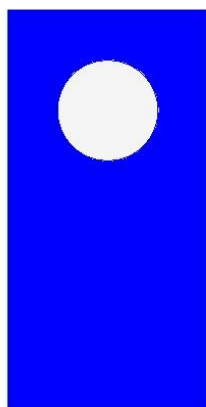
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**Description : 1608 2.4G Chip Antenna**

**PART NUMBER : ANT1608LL14R2400A**

**REFERENCE DESIGN OF EVALUATION BOARD (SCENARIO 2)**



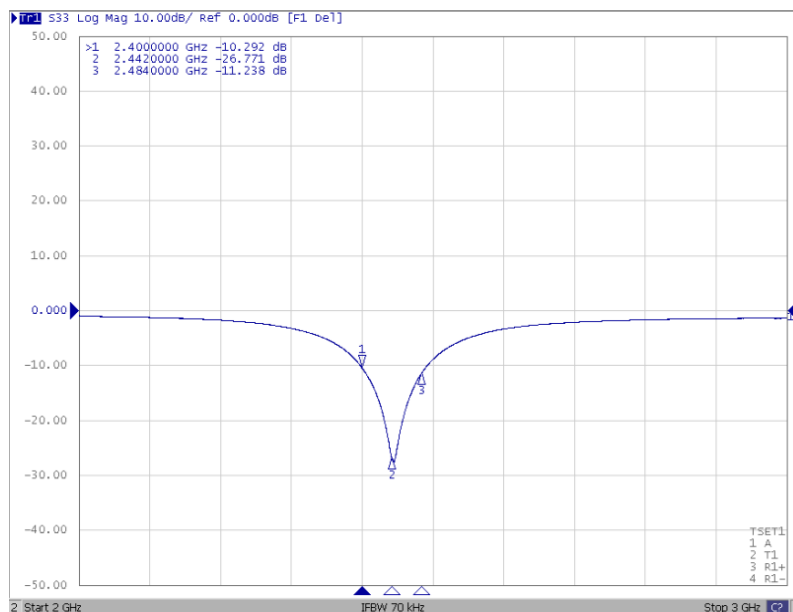
■ : Footprint  
□ : Antenna pad  
Unit : mm

Footprint

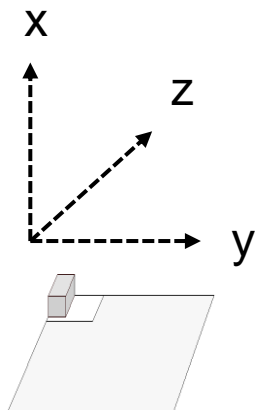
## Description : 1608 2.4G Chip Antenna

**PART NUMBER : ANT1608LL14R2400A**

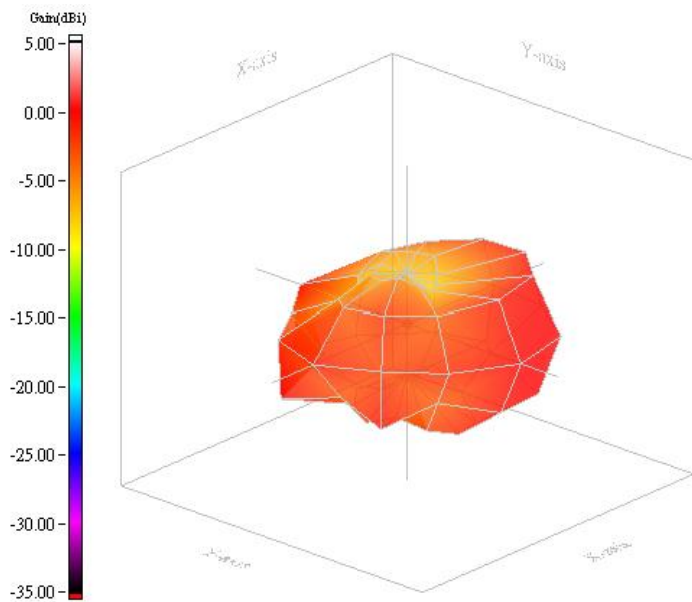
### ELECTRICAL PERFORMANCES (SCENARIO 2)



Return loss



Evaluation board and XYZ direction



Max Gain = 3.38dBi  
Efficiency = -2.17dB, 60.64%

Radiation pattern

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

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**Description : 1608 2.4G Chip Antenna**

**PART NUMBER : ANT1608LL14R2400A**

## REVISION HISTORY

Revision	Date	Description
Version 1	Sep. 30, 2020	- New issue
Version 2	Aug. 30, 2021	- Added Dimension E, G, H.
Version 3	Oct. 2023	- Modified EVB drawing and added footprint drawing

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