

**Description:** 7020 2.4-2.5GHz Chip Antenna**PART NUMBER:** ANT7020LL05R2400A**Features:**

- Size : 7.00x2.00x0.75 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

**SPECIFICATIONS**

<b>Working Frequency</b>	2.45 GHz
<b>Bandwidth</b>	500 MHz(Typ.)
<b>Return Loss</b>	10 dB Max.
<b>Polarization</b>	Linear
<b>Azimuth Beamwidth</b>	Omni-directional
<b>Peak Gain</b>	2.62 dBi (Typ.)
<b>Impedance</b>	50 $\Omega$
<b>Operating Temperature</b>	- 40~105 $^{\circ}\text{C}$
<b>Maximum Power</b>	1 W
<b>Termination</b>	Ni / Sn (Environmentally-Friendly Leadless)
<b>Peak Reflow Temperature</b>	260 $^{\circ}\text{C}$ , 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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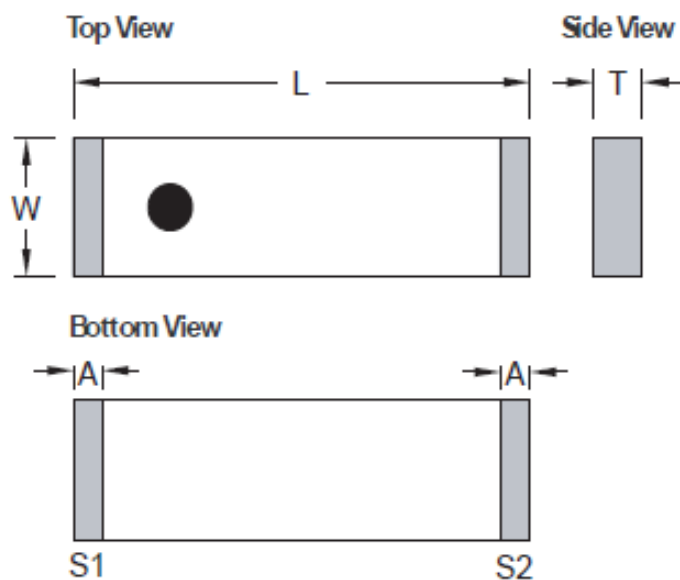
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## MECHANICAL DRAWING



	Dimension
L (mm)	$7.00 \pm 0.20$
W (mm)	$2.00 \pm 0.20$
T (mm)	$0.75 \pm 0.20$
A (mm)	$0.45 \pm 0.20$

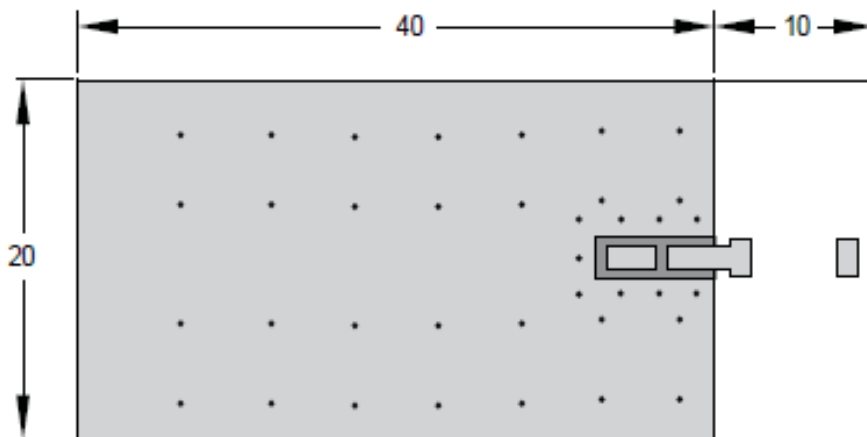
Terminal name	Function
S1	Feeding Point
S2	Soldering Point

YNH00120

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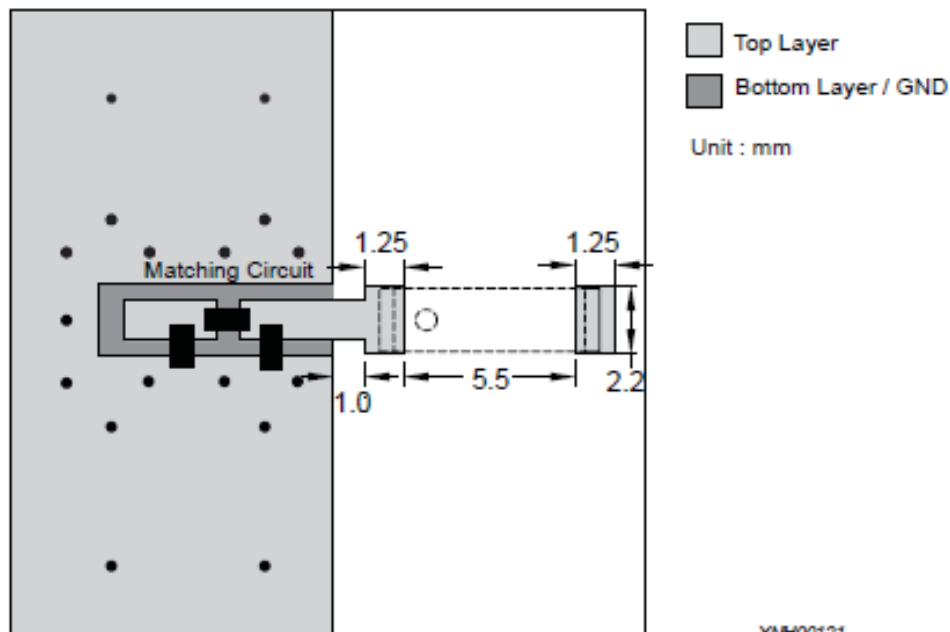
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## REFERENCE DESIGN OF EVALUATION BOARD



Outlook and dimension of evaluation board

Unit : mm



YNH00121

Details of soldering Pad

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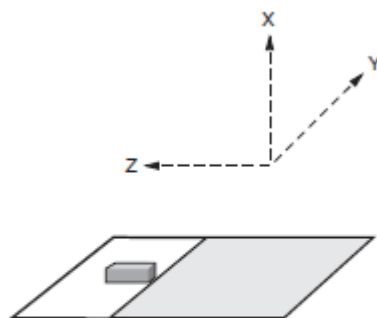
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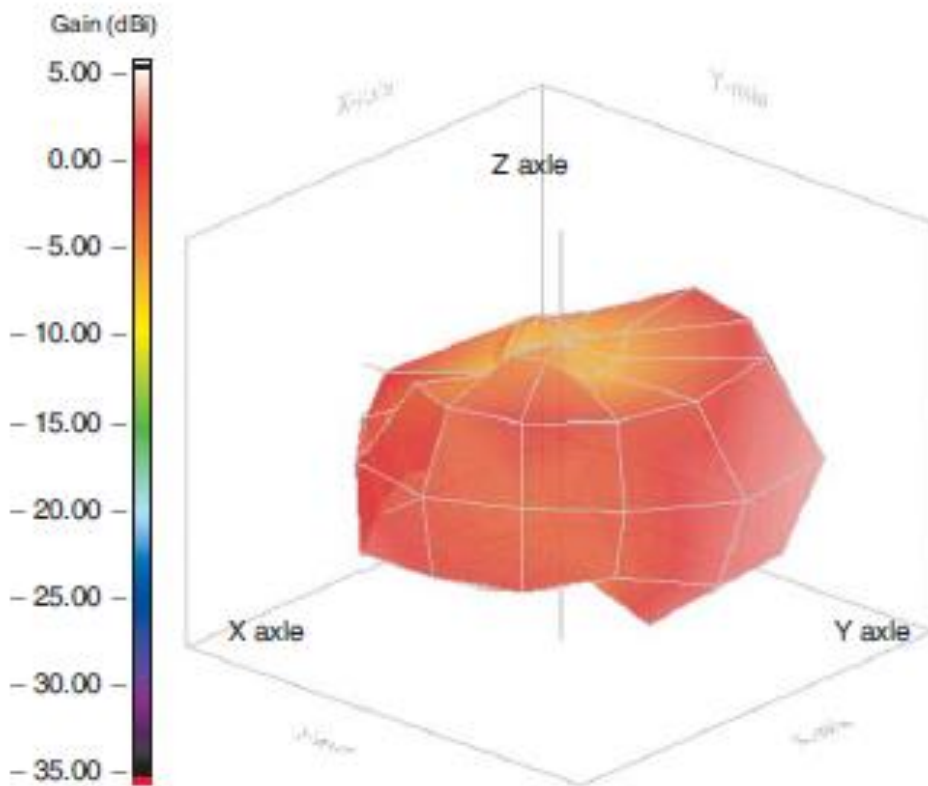
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## REFERENCE DESIGN OF EVALUATION BOARD



Evaluation board and XYZ direction



Frequency= 2.45 GHz  
Max gain = 2.62 dBi, at (90,120)  
MEG (mean effective gain)= -2.28 dBi  
Directivity (dB) = 3.67  
Efficiency = -1.05 dB, 78.49%

YNH00123

Radiation pattern

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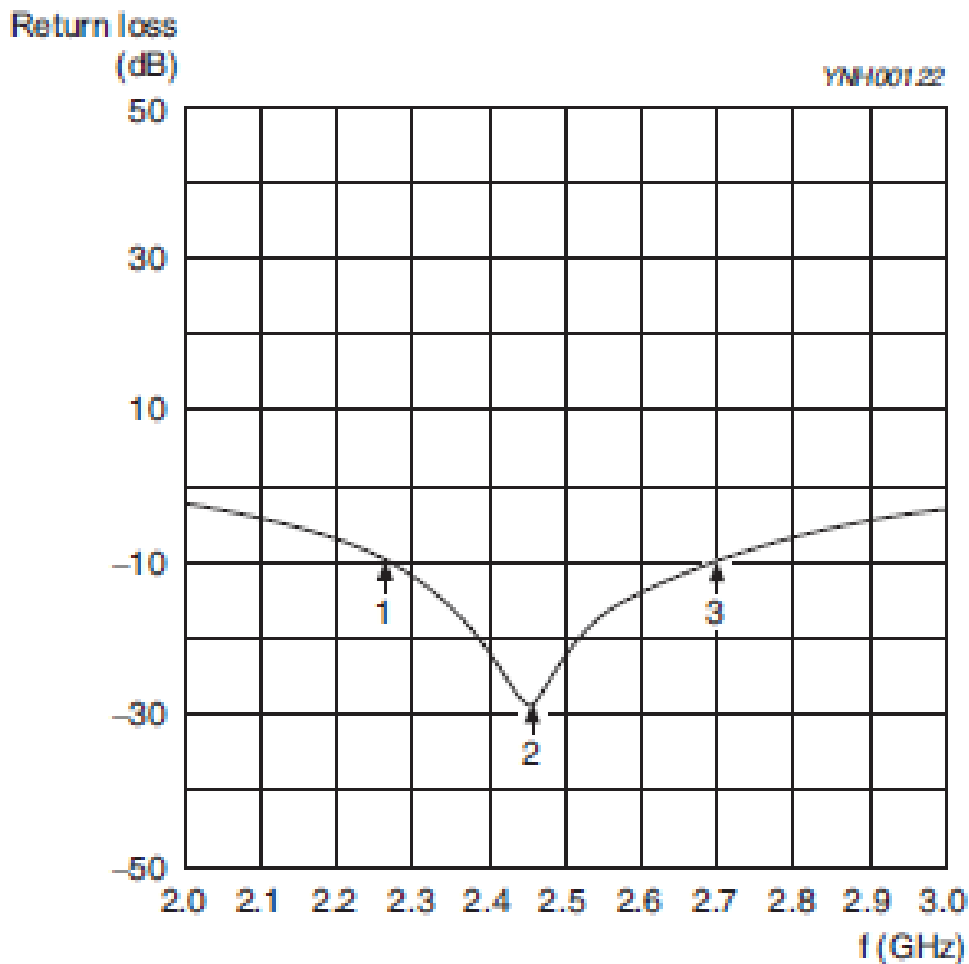
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## ELECTRICAL PERFORMANCES



Maker data  
2.27GHz, -10dB  
2.45GHz, -28.3dB  
2.69GHz, -10dB

Return loss

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## REVISION HISTORY

Revision	Date	Description
Version 1	Nov. 20, 2020	- New issue.
Version 2	Feb. 14, 2022	- Added product image. - Modified Description, Original: Resistance to Soldering Heats, Changed: Peak Reflow Temperature.

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