

**Description: 3216 UWB 6.5-8GHz Chip Antenna**
**PART NUMBER: ANT3216LL00R6580A**
**Features:**

- Size : 3.2x1.6x1.2 mm
- Omni-directional Radiation
- Tape & reel automatic mounting
- Reflow process compatible
- RoHS compliant

**Applications:**

- Smart tag
- Indoor navigation
- Access management
- RTLS B2B
- UWB group Channel 5 (6.5GHz) to Channel 9 (8GHz)

**ELECTRICAL SPECIFICATIONS**
**Working Frequency**

6200 ~ 8200MHz

**Bandwidth**

2000 MHz

**Return Loss**

10 dB (Min.)

**Polarization**

Linear

**Azimuth Beamwidth**

Omni-directional

**Peak Gain**

2 dBi (Min.)

**Impedance**

50 Ω

**Operating Temperature**

- 30 ~ 85 °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

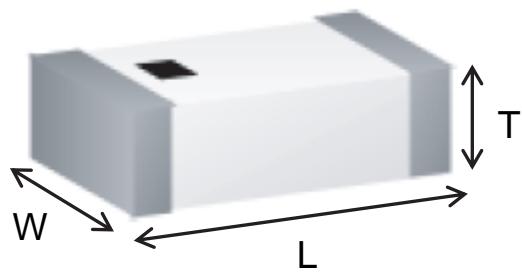
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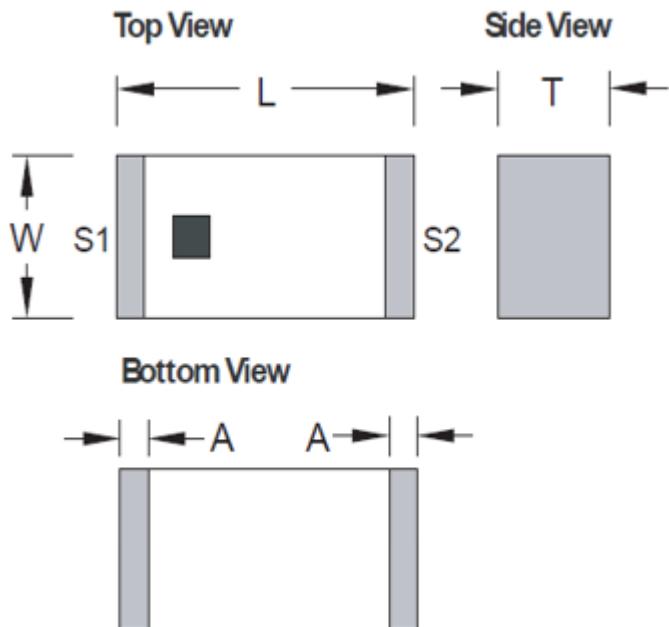
For more information:



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**MECHANICAL DRAWING**


<b>Dimension</b>	
L (mm)	3.20 $\pm$ 0.20
W (mm)	1.60 $\pm$ 0.15
T (mm)	1.20 $\pm$ 0.15
A (mm)	0.40 $\pm$ 0.25

<b>Terminal name</b>	<b>Function</b>
S1	Feeding Point
S2	Soldering Point



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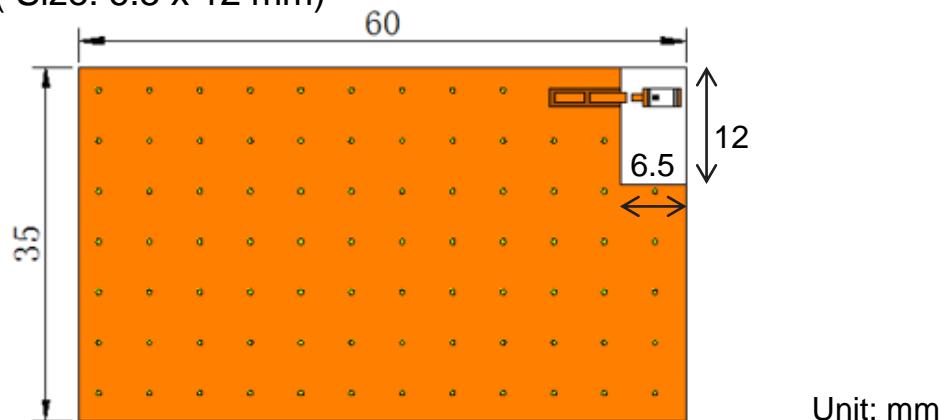


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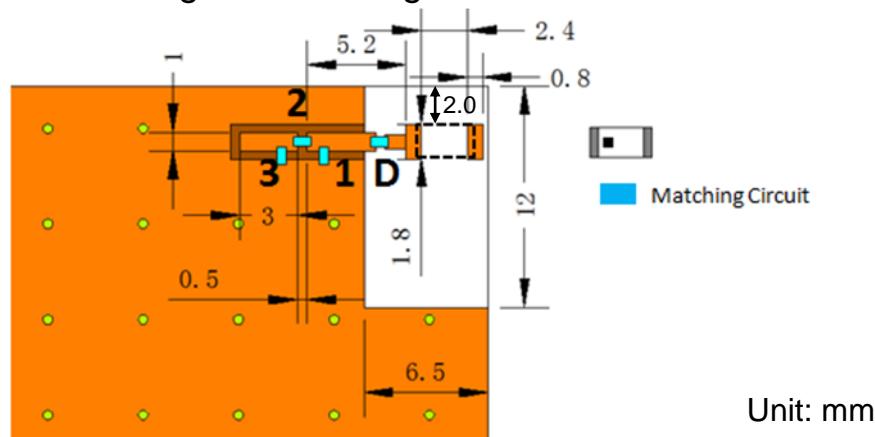
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**LAYOUT OF EVALUATION BOARD**

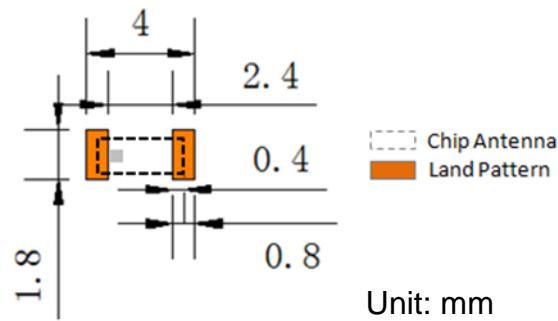
- Clearance Definition:  
( Size: 6.5 x 12 mm)



- Reference design of Matching circuit



- Soldering Pads Dimension and Footprint



Outlook and dimension of evaluation board

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**ELECTRICAL PERFORMANCES**



Return loss

Maker data

1. 6.2GHz, -14.87dB
2. 6.5GHz, -18.72dB
3. 7.2GHz, -13.38dB
4. 8.0GHz, -15.99dB
5. 8.2GHz, -18.39dB

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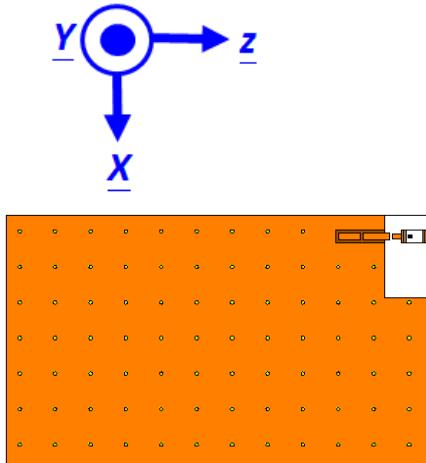
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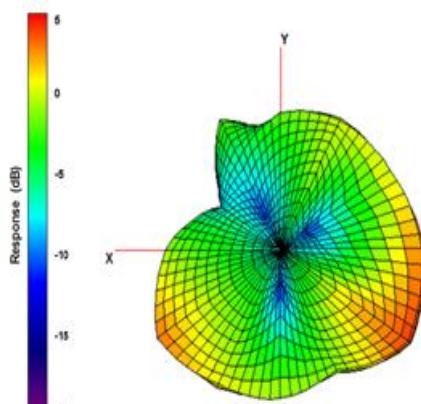
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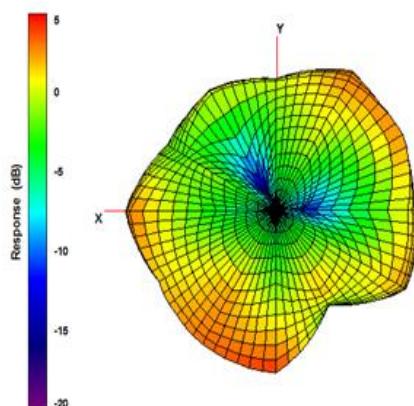
**ELECTRICAL PERFORMANCES**



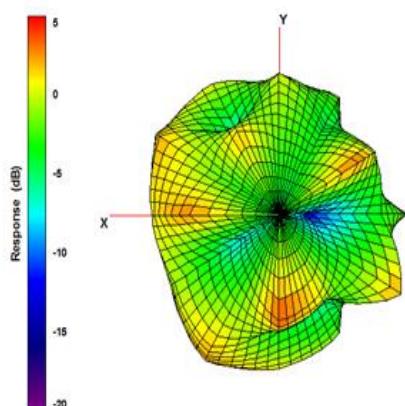
Evaluation board and XYZ direction



Frequency = 6500MHz  
Max. Gain = 3.0 dBi  
MEG (mean effective gain) = -1.7 dBi  
Efficiency = 67.9%



Frequency = 7200MHz  
Max. Gain = 5.2 dBi  
MEG (mean effective gain) = -1.3 dBi  
Efficiency = 74.9%



Frequency = 8000MHz  
Max. Gain = 1.7 dBi  
MEG (mean effective gain) = -3.1 dBi  
Efficiency = 48.7%



Radiation pattern

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**Description: 3216 UWB 6.5-8GHz Chip Antenna****PART NUMBER: ANT3216LL00R6580A****REVISION HISTORY**

Revision	Date	Description
Version 1	Aug. 5, 2021	- New issue.

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