

## Features

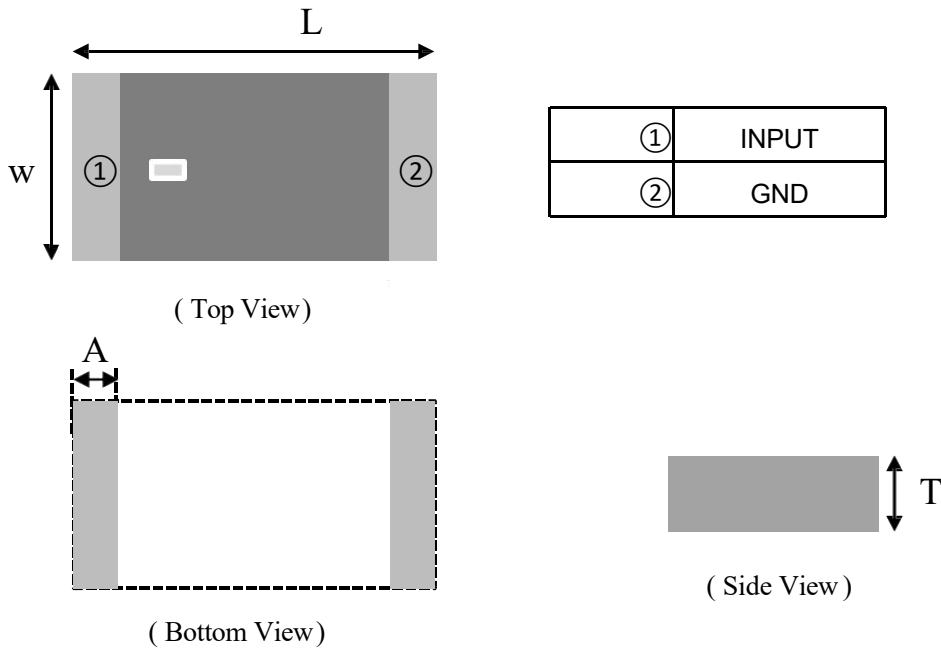
1. Surface Mounted Devices with a small dimension of 2.0 x 1.25 x 0.6 mm<sup>3</sup> meet future miniaturization trend.
2. Embedded and LTCC (Low Temperature Co-fired Ceramic) technology is able to future integrate with system design as well as beautifying the housing of final product.
3. High Stability in Temperature / Humidity Change

## Applications

1. Bluetooth
2. Wireless LAN
3. ISM band 2.4GHz wireless applications

Antenna Type: SMD Antenna

Dimensions (Unit: mm)



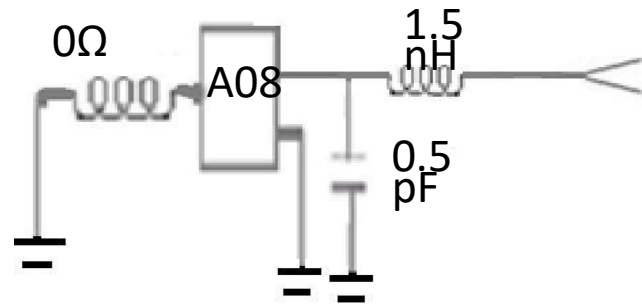
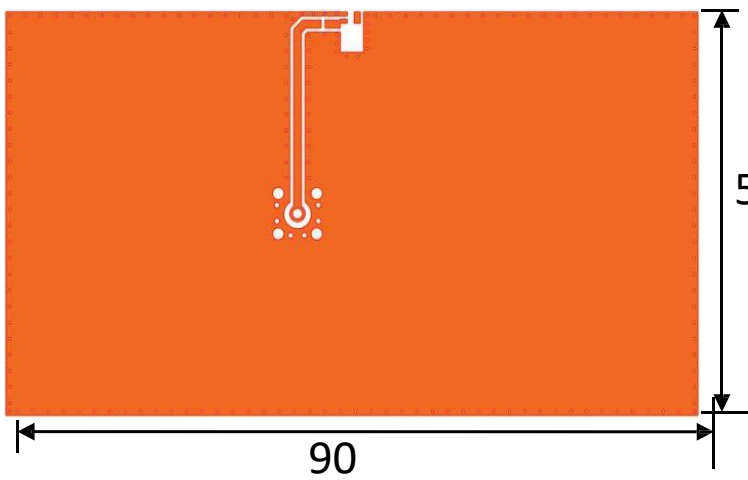
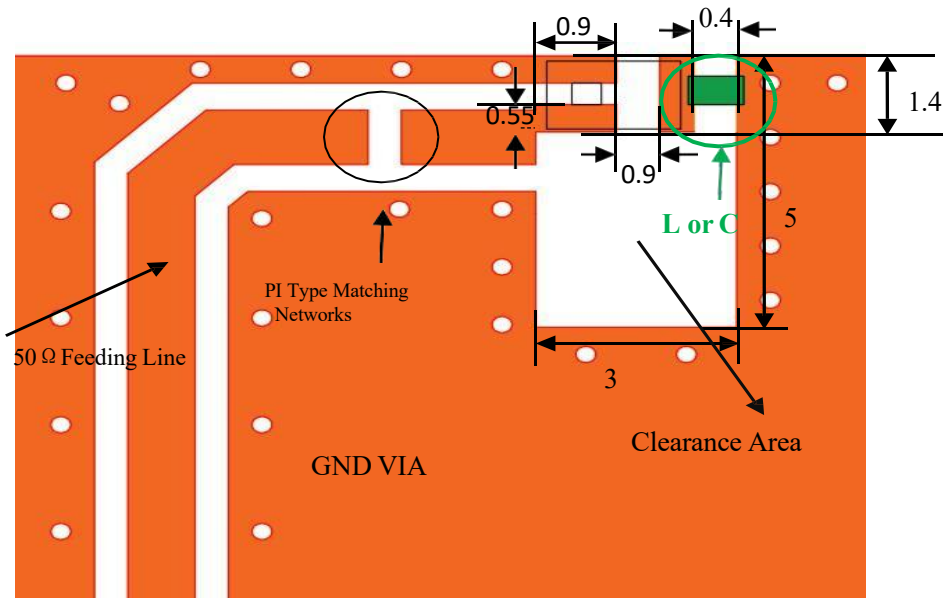
Symbols	L	W	T	A
Dimensions	2.0+/-0.2	1.25+/-0.2	0.6+/-0.1	0.6+/-0.1

Manufacturer: Shenzhen Helixun Technology Co., LTD

Address: 1905, Building 2, Jiufang Square, Tiezai Road, Gongle Community, Xixiang Street, Baoan District, Shenzhen

1905 TEL: 0755-23591525, FAX: 0755-23591525

### Evaluation Board and Matching Circuits



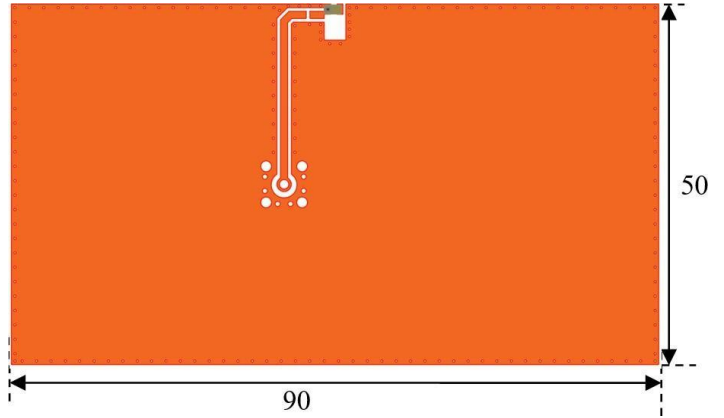
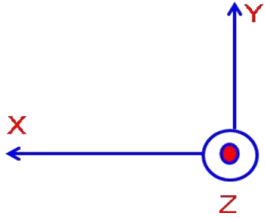
### S11-Parameter



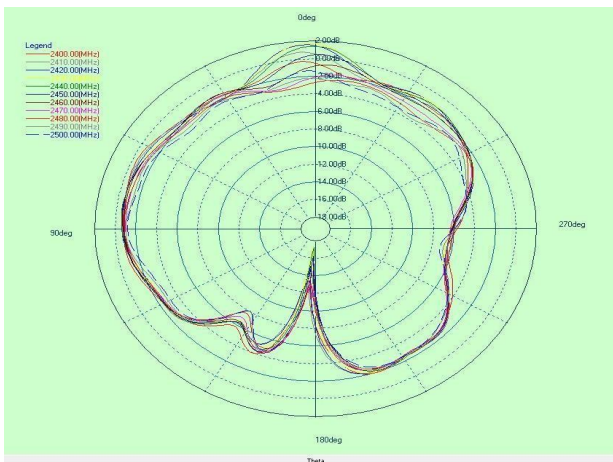
Frequency(MHz)	2400	2450	2480	2500
VSWR	1.56	1.16	1.48	1.79

### Radiation Pattern

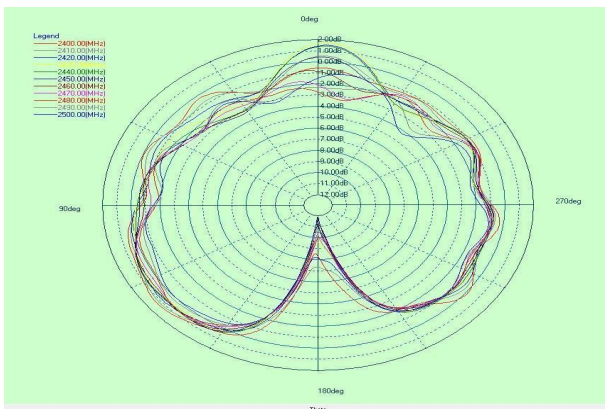
coordinates:



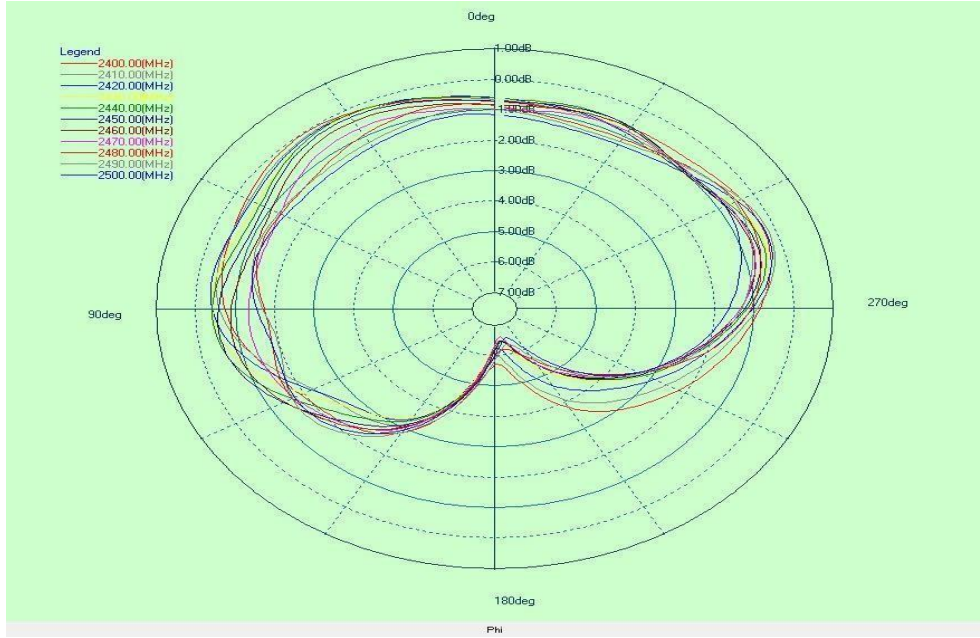
Y-Z Plane



X-Z Plane



X-Y Plane



Frequency	2400MHz	2450MHz	2490MHz
Avg. gain	1.30	0.93	0.45
Peak gain	2.7	2.6	2.5
Efficiency	57%	54%	53%

Item	Post Dependability Tolerance
Central Frequency	±5 MHz
Band Width	±5 MHz
Gain	±0.1 dBi
V.S.W.R (in BW)	±0.1

## Post Dependability Tolerance

### Dependability Test

Temperature range	25±5°C
Relative Humidity range	55~75%RH
Operating Temperature range	-40°C~+85°C
Storage Temperature range	-40°C~+85°C

### Vibration Resist

The device should satisfy the electrical characteristics specified in paragraph 8.1~8.4 after applied to the vibration of 10 to 55Hz with amplitude of 1.5mm for 2 hours each in X , Y and Z directions.

### Drop Shock

The device should satisfy the electrical characteristics specified in paragraph 8.1~8.4 after dropping onto the hard wooden board from the height of 100cm for 3 times each facet of the 3 dimensions of the device.

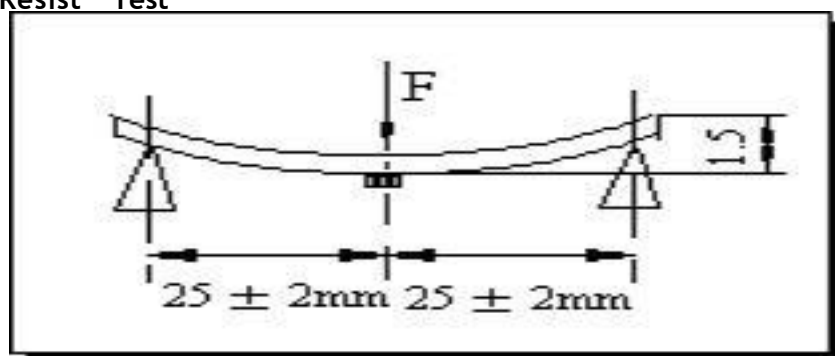
### Solder Heat Proof

The device should be satisfied after preheating at 120°C~150°C for 120 seconds and dipping in soldering Sn at 255°C+10°C for 5±0.5 seconds, or electric iron 300°C-10°C for 3±0.5 seconds, without damage.

### Adhesive Strength of Termination

The device have no remarkable damage or removal of the termination after horizontal force of 5N(≦0603); 10N(>0603)with 10±1 seconds.

### Bending Resist Test



Weld the product to the center part of the PCB with the thickness 1.6±0.2mm as the illustration shows, and keep exerting force arrow-ward on it at speed of :1mm/S , and hold for 5±1S at the position of 1.5mm bending distance , so far , any peeling off of the product metal coating should not be detected .

### Moisture Proof

The device should satisfy the electrical characteristics specified in paragraph 8.1~8.4 after exposed to the temperature  $60\pm 2^{\circ}\text{C}$  and the relative humidity 90~95% RH for 96 hours and 1~2 hours recovery time under normal condition.

### High Temperature Endurance

The device should satisfy the electrical characteristics specified in paragraph 8.1~8.4 after exposed to temperature  $85\pm 5^{\circ}\text{C}$  for  $96\pm 2$  hours and 1~2 hours recovery time under normal temperature.

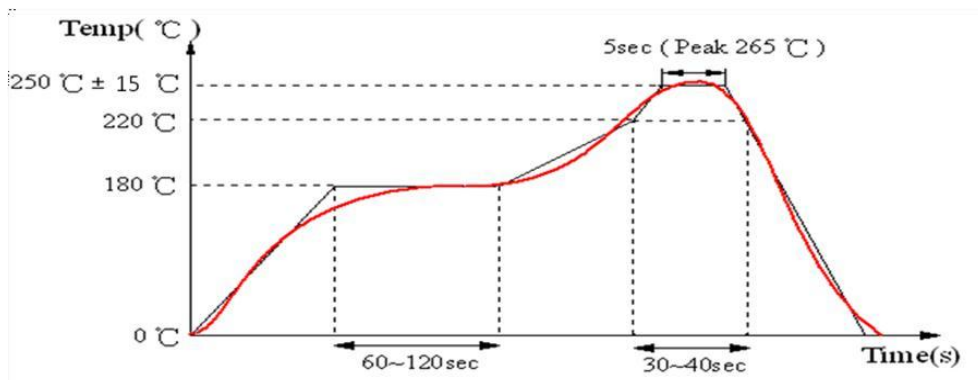
### Low Temperature Endurance

The device should also satisfy the electrical characteristics specified in paragraph 8.1~8.4 after exposed to the temperature  $-40^{\circ}\text{C}\pm 5^{\circ}\text{C}$  for  $96\pm 2$  hours and to 2 hours recovery time under normal temperature.

### Temperature Cycle Test

The device should also satisfy the electrical characteristics specified in paragraph 8.1~8.4 after exposed to the low temperature  $-40^{\circ}\text{C}$  and high temperature  $+85^{\circ}\text{C}$  for  $30\pm 2$  min each by 5 cycles and 1 to 2 hours recovery time under normal temperature.

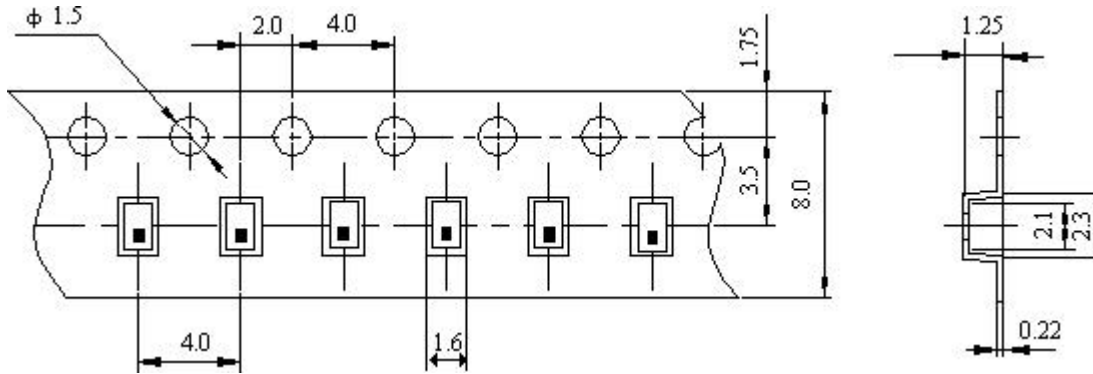
### Reflow Soldering Standard Condition



**HLX201212506A08**

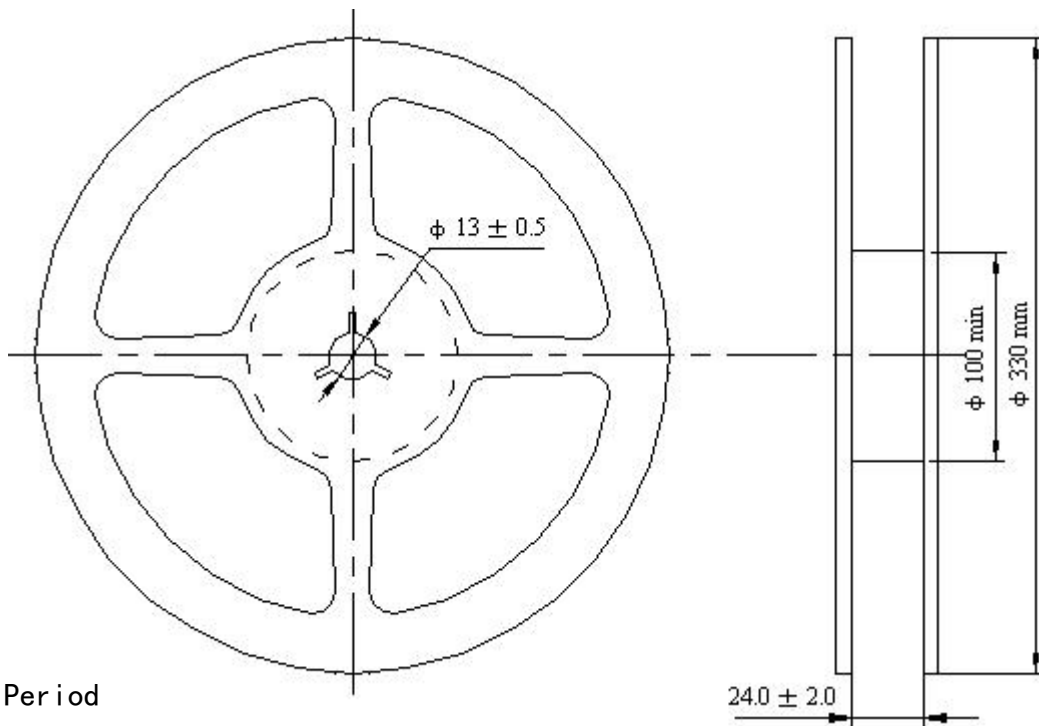
Packaging and Dimensions (2012)

Plastic Tape



Remarks for Package

Reserve a length of 150~200mm for the trailer of the carrier and 250~300 mm for the leader of the carrier and further 250mm of cover tape at the leading part of the carrier.  
 Reel (4000 pcs/Reel)



Storage Period

Product should be used within twelve months of receipt.

MSL 1 / Storage Temperature Range : -40~85 degree C, Humidity : <60%RH