



# *TopGain*

## SPECIFICATION

ANTENNA TYPE

Chip Antenna

MODEL NO.

CH2G4-6022-000D1-01

VERSION

V01

頂益科技有限公司

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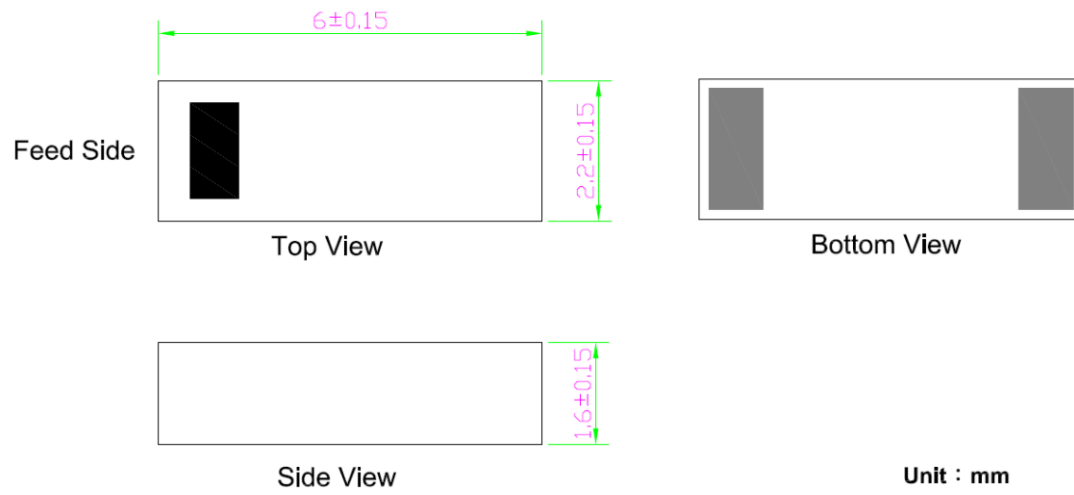
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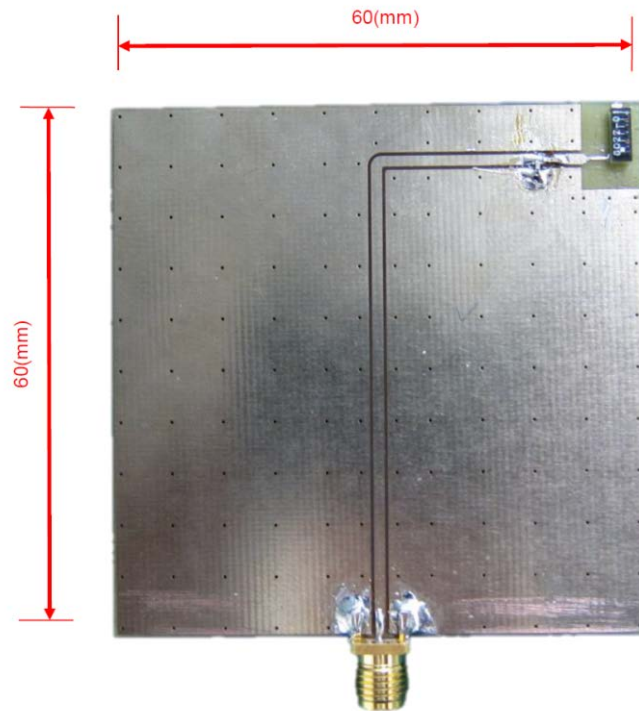
## 1. Antenna Specification

|                                                |                            |
|------------------------------------------------|----------------------------|
| <b>Outline Dimensions</b>                      | <b>6.0x2.2x1.6(mm)</b>     |
| <b>Ground Plane</b>                            | <b>60×60(mm)</b>           |
| <b>Frequency Range</b>                         | <b>2.4GHz ~ 2.5GHz</b>     |
| <b>Impedance</b>                               | <b>50 Ohm Nominal</b>      |
| <b>Bandwidth</b><br>( under -10dB return loss) | <b>100MHz (Typ.)</b>       |
| <b>Radiation</b>                               | <b>Omni-directional</b>    |
| <b>Peak Gain</b>                               | <b>2.3 dBi (Typ.)</b>      |
| <b>Efficiency</b>                              | <b>60% (Typ.)</b>          |
| <b>Polarization</b>                            | <b>Linear Polarization</b> |
| <b>Storage Temp</b>                            | <b>-25℃ ~ +85℃</b>         |
| <b>Color</b>                                   | <b>Black</b>               |

## 2. Antenna Dimension

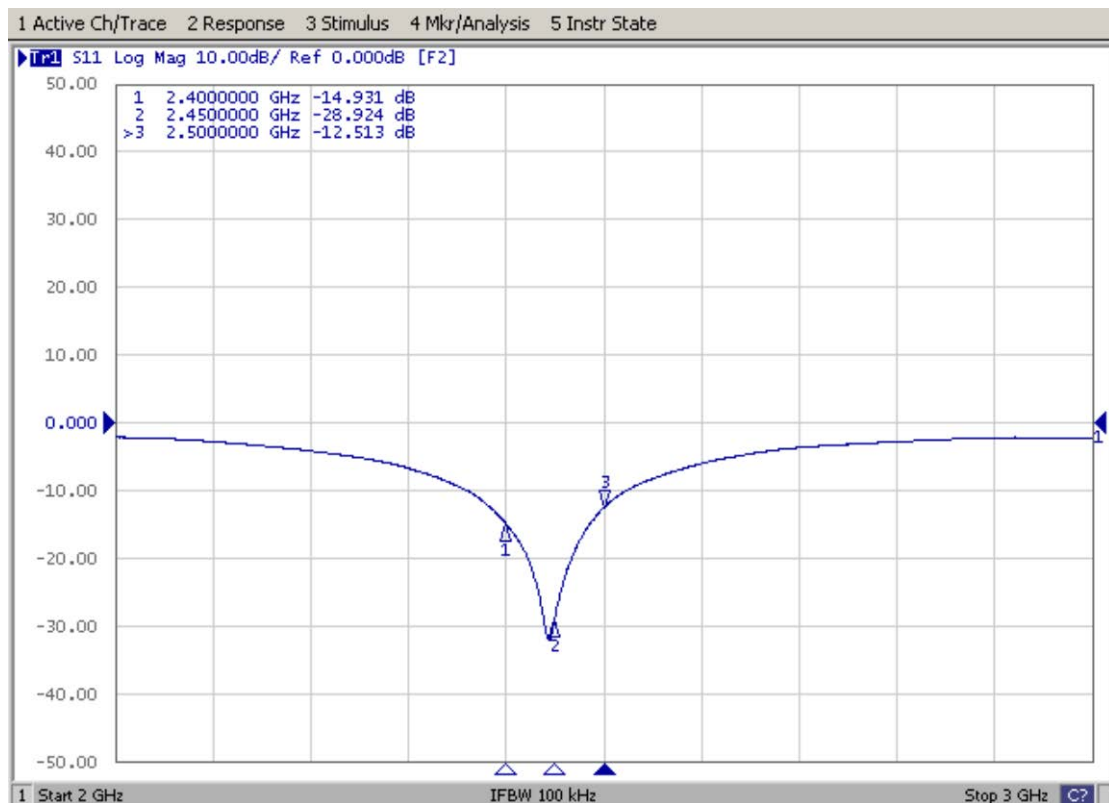


### 3. Test Data

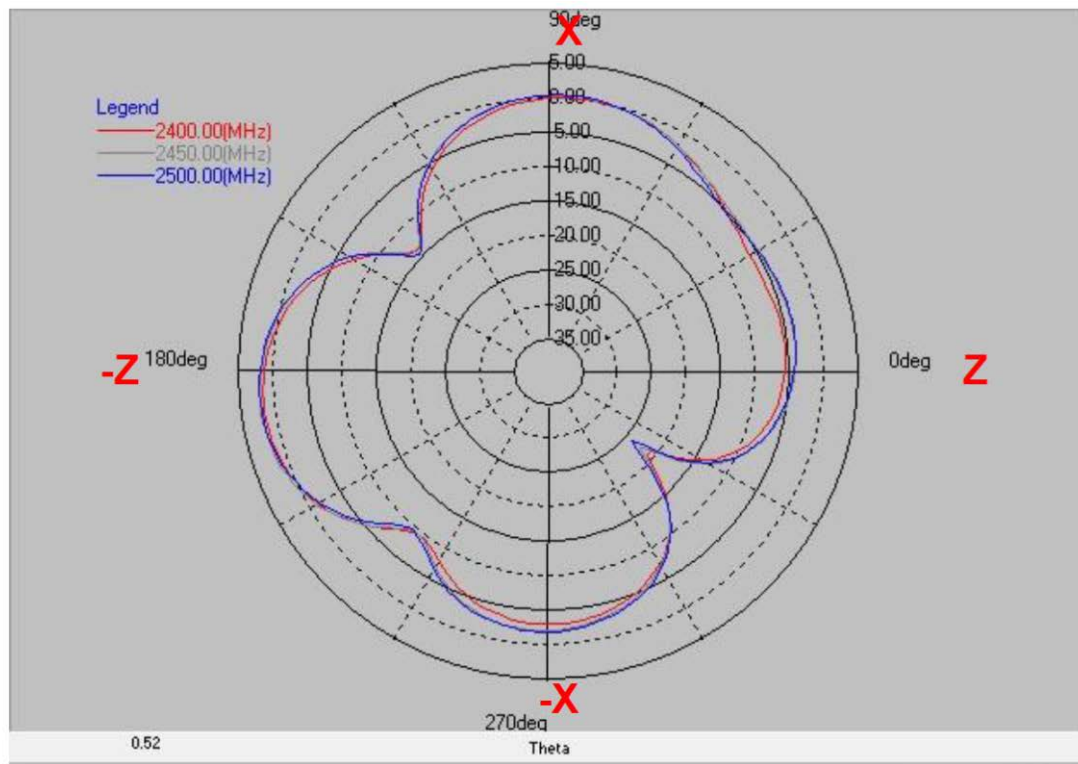


#### 3.1 ELECTRICAL CHARACTERISTICS

##### S11

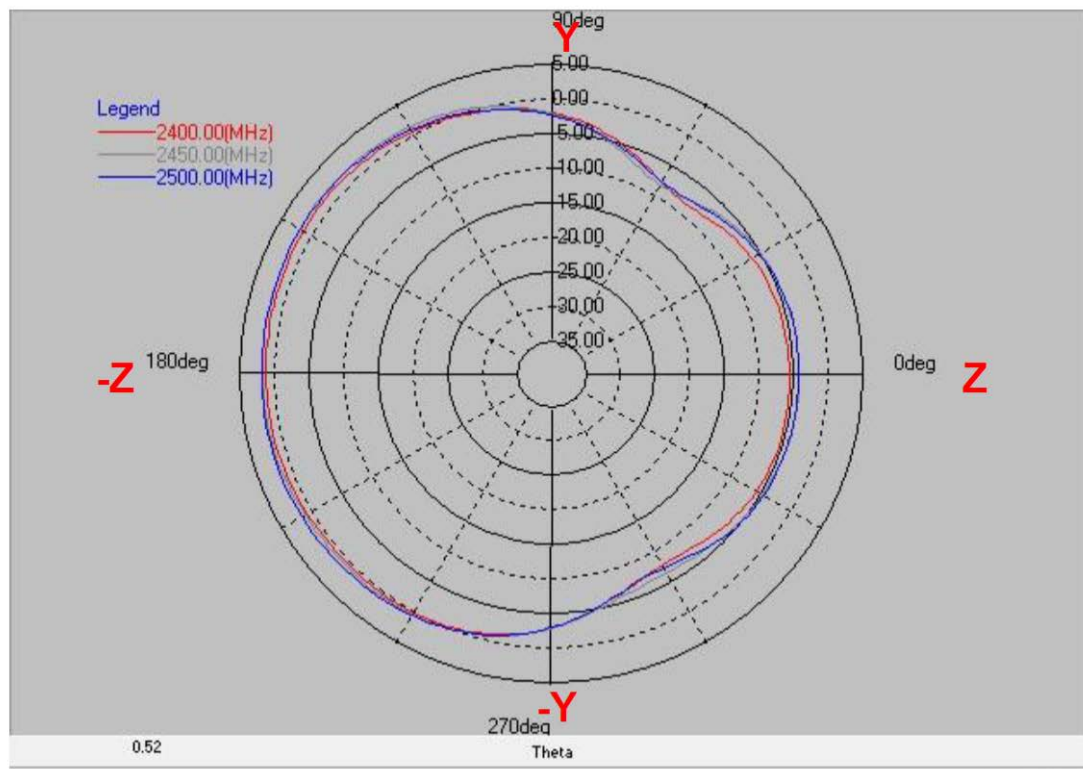


Frequency(MHz) : **2400~2500.**    Pattern Field : **Z-X plane**



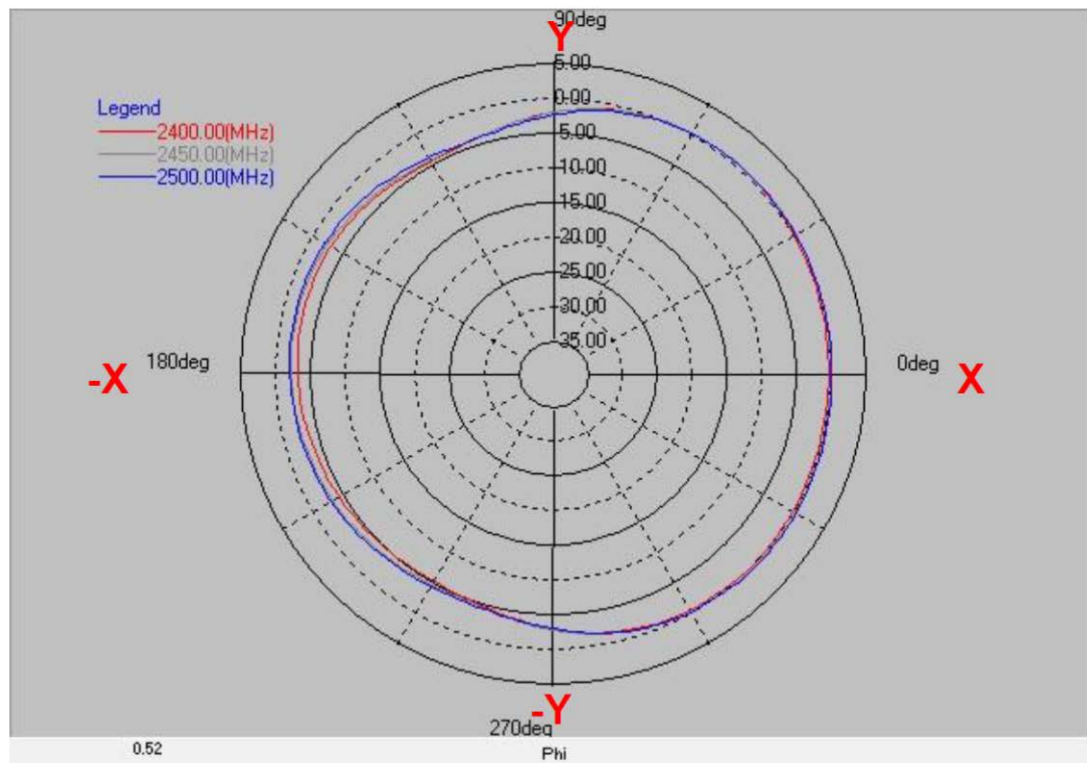
| Frequency | Max value(dBi) | Min value(dBi) | Average(dBi) |
|-----------|----------------|----------------|--------------|
| 2400(MHz) | 1.64           | -21.05         | -3.40        |
| 2450(MHz) | 2.12           | -22.47         | -2.82        |
| 2500(MHz) | 2.08           | -24.13         | -2.88        |

Frequency(MHz) : **2400~2500.**    Pattern Field : **Z-Y plane**



| Frequency | Max value(dBi) | Min value(dBi) | Average(dBi) |
|-----------|----------------|----------------|--------------|
| 2400(MHz) | 1.45           | -8.68          | -1.62        |
| 2450(MHz) | 2.00           | -8.51          | -1.09        |
| 2500(MHz) | 1.92           | -8.10          | -1.08        |

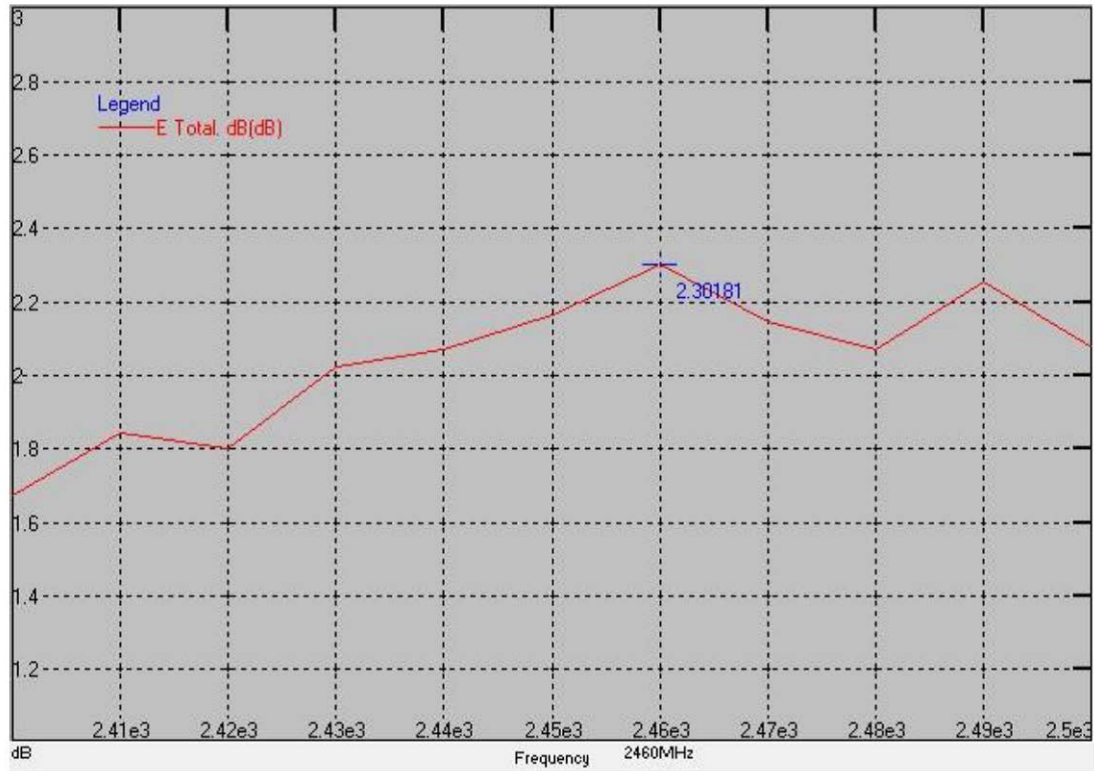
Frequency(MHz) : **2400~2500.**    Pattern Field : **X-Y plane**



| Frequency | Max value(dBi) | Min value(dBi) | Average(dBi) |
|-----------|----------------|----------------|--------------|
| 2400(MHz) | 0.30           | -5.40          | -1.82        |
| 2450(MHz) | 0.41           | -4.87          | -1.47        |
| 2500(MHz) | 0.38           | -4.66          | -1.40        |

### 3.2 Antenna Peak Gain

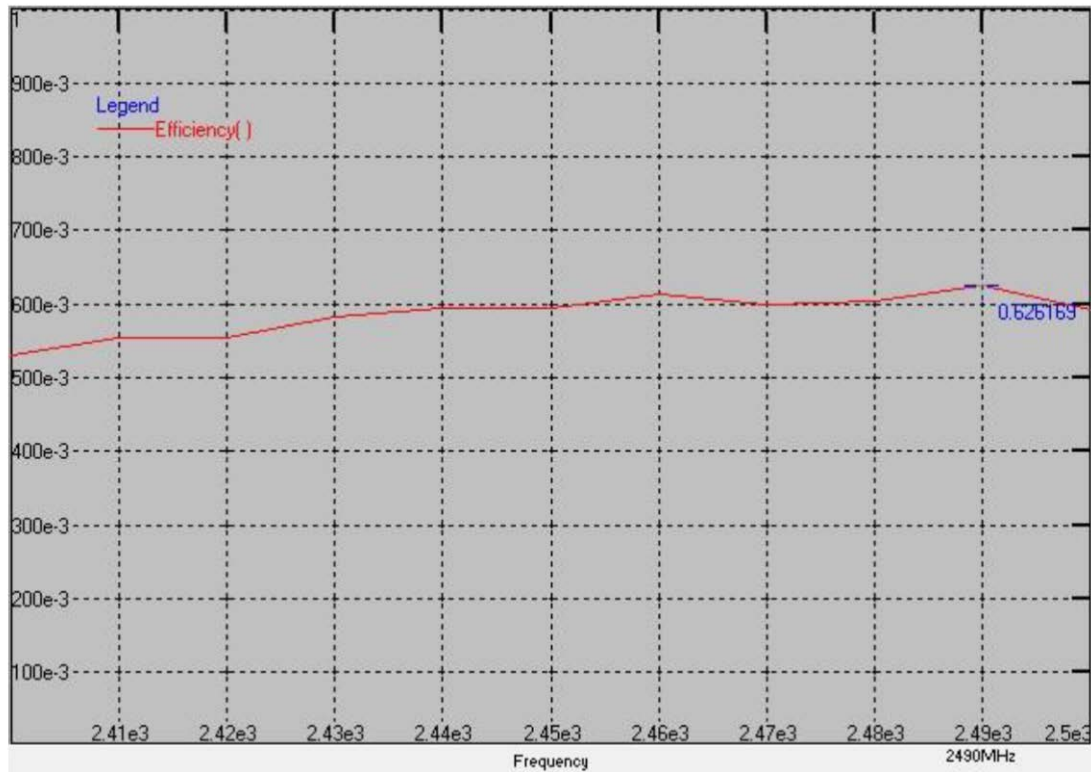
Frequency(MHz) : 2400~2500.



**Peak Gain : Max 2.3dBi @ 2460 MHz**

### 3.3 Antenna Efficiency

Frequency(MHz) : 2400~2500.

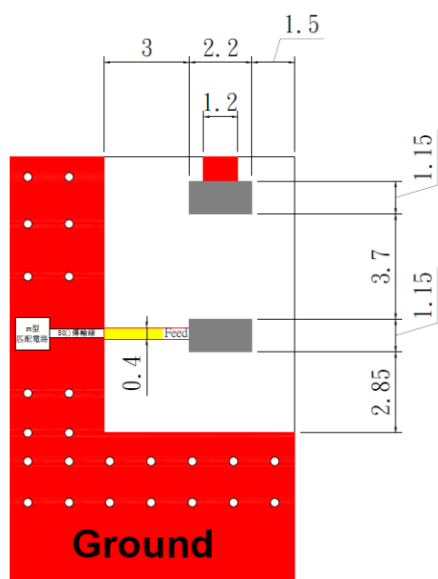


**Efficiency : Max 62 % @ 2490 MHz**

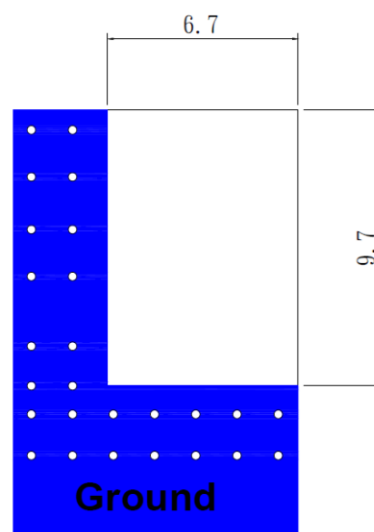
## 4. Layout Guide

### 4.1 Solder Land Pattern

Land pattern for soldering (black marking areas) is as shown below. Matching circuit is needed for good performance, when customer's device is different.



Top Layout

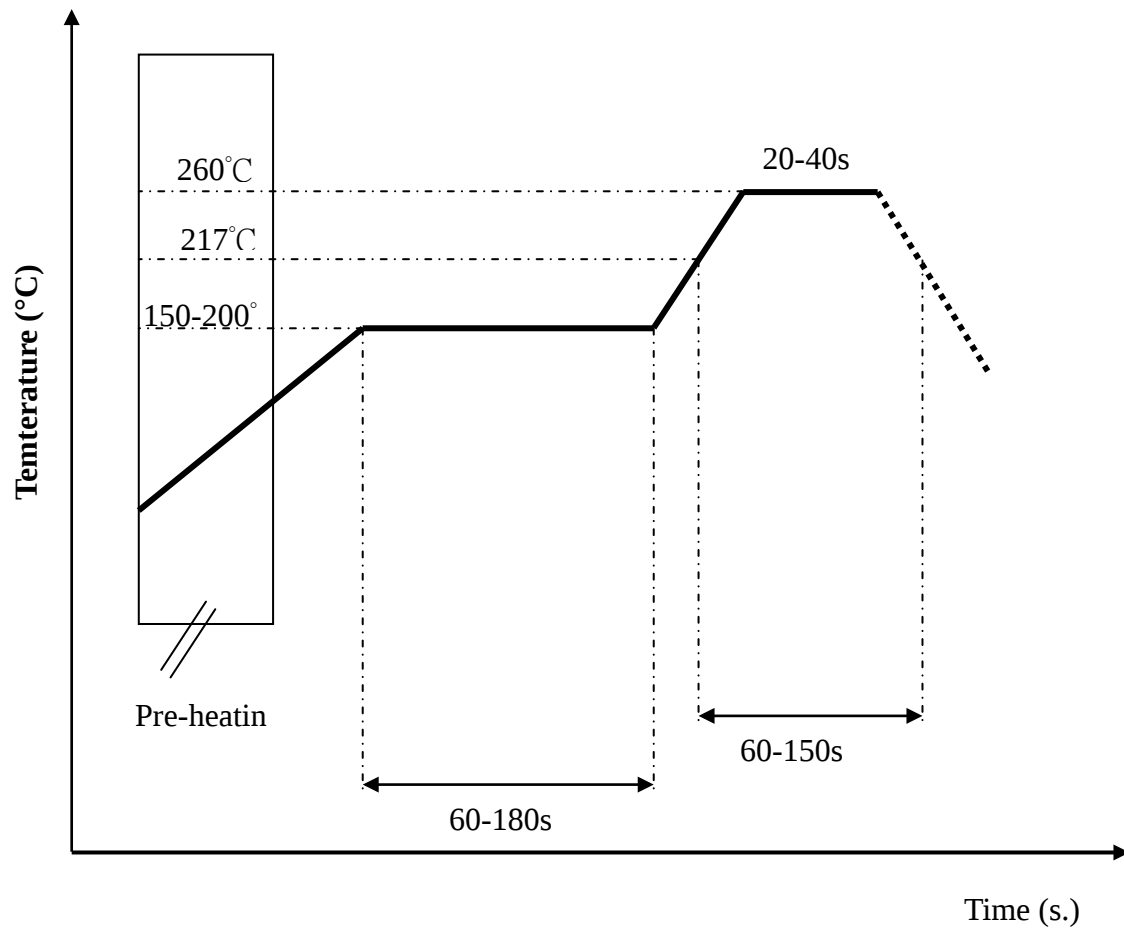


Bottom Layout

Unit:mm

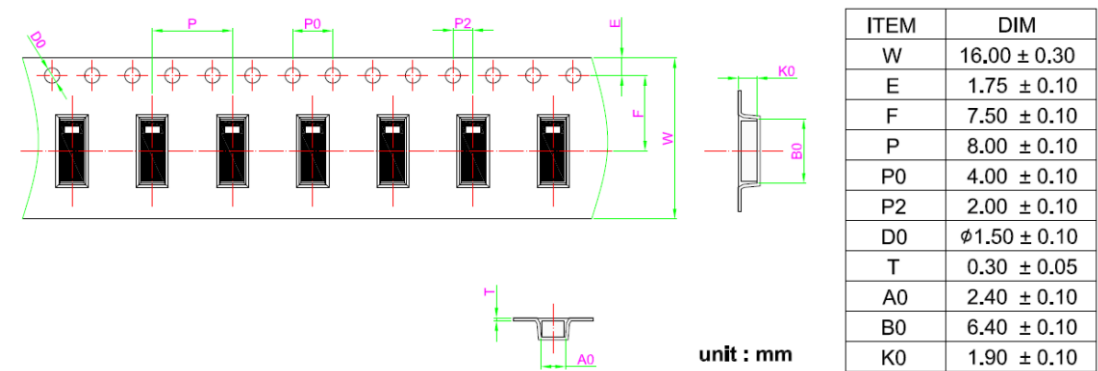
## 5. Soldering Conditions

### 5.1 Typical Soldering Profile for Lead-free Process



# 6. Package

## 6.1 Plastic Tape Specifications



## 6.2 Reel Dimensions

Typing Quantity : 4000 pieces per 13" reel

