

WAG-H-LTE4-00-002

1. Explanation of Part Number :

WAG - H - LTE4 - 00 - 002
 (1) (2) (3) (4) (5)

(1) Product type : wireless antenna

(2) Material : ceramic

(3) Frequency : 700~960MHz、1710~2170MHz、2500~2690MHz

(4) Connector Types : 00

(5) Suffix for special requirements : 002

※ RoHS Compliant

2. Electrical Specification :

| ITEM | SPECIFICATION |
|-----------------------|--|
| Frequency Band | 700~960 MHz、1710~2690 MHz |
| VSWR | 4 Max (depends on the special environment) |
| Polarization | Linear |
| Impedance | 50 ohm Typ. |
| Operating temperature | -45 ~85 °C |
| Dimension | 40 x 5 x 6mm |

* Test condition : Test board size 120*45 mm
Matching circuit may be required

UNLESS OTHER SPECIFIED TOLERANCES ON :
 X=N/R X.X=N/R X.XX =N/R
 ANGLES=N/R HOLEDIA=N/R



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| | |
|-------------------|-------------------|
| SCALE : N/R | UNIT : mm |
| DRAWN BY : 彭少君 | CHECKED BY : 吳明怡 |
| DESIGNED BY : 彭少君 | APPROVED BY : 黃月碧 |

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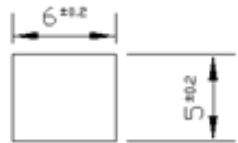
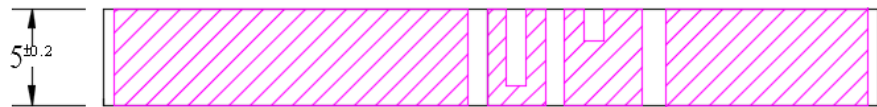
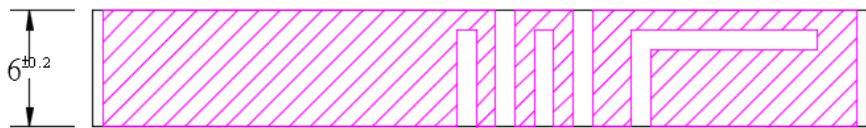
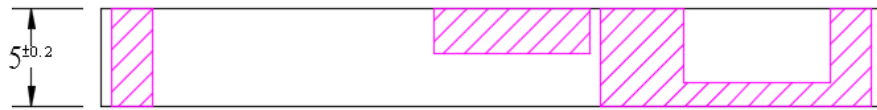
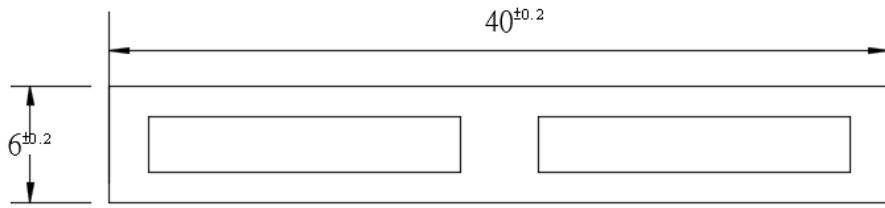
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3. Physical Dimension :



Silver 

UNLESS OTHER SPECIFIED TOLERANCES ON :

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ANGLES=N/R HOLEDIA=N/R

SCALE : N/R

UNIT : mm

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DESIGNED BY : 彭少君

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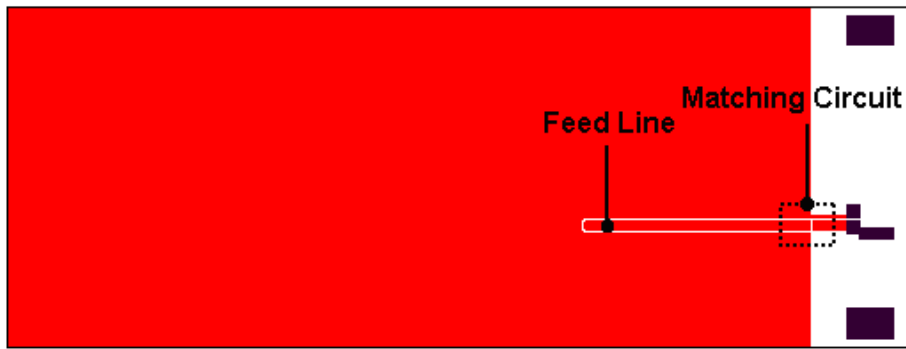
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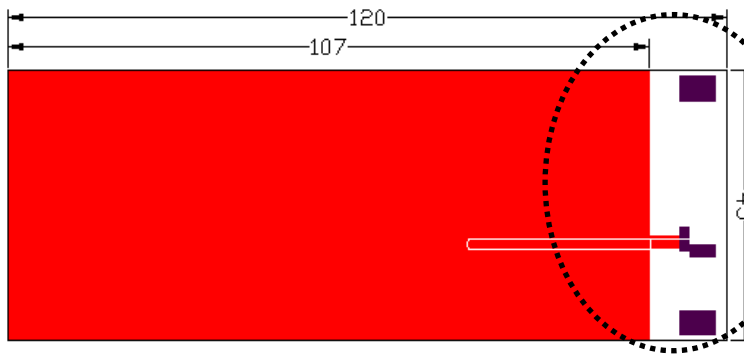
4. Recommend PCB Layout :

Layout

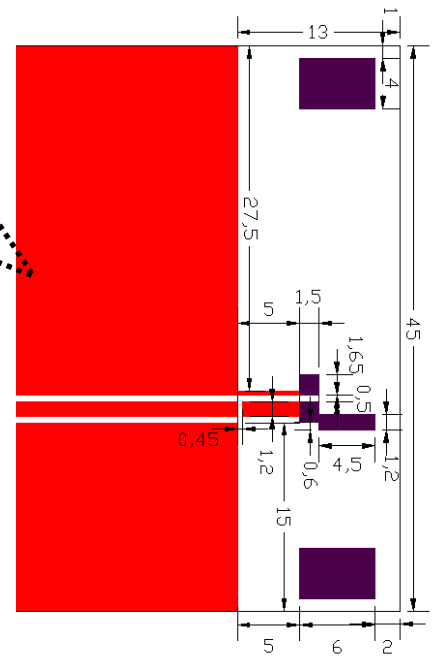
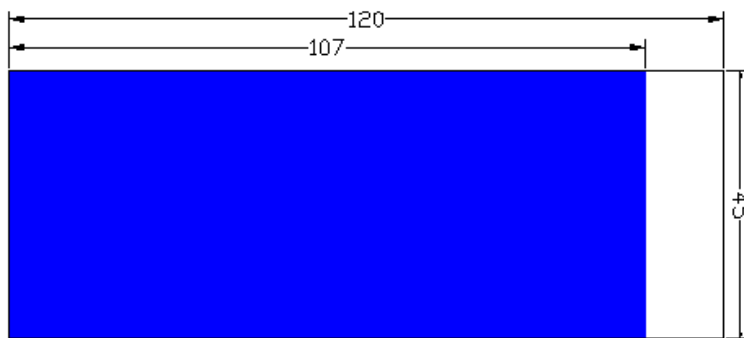


Pad Dimensions on PCB Layout

Top View



Perspective View



Unit: mm

- Top Layer
- Bottom Layer
- Top Solder

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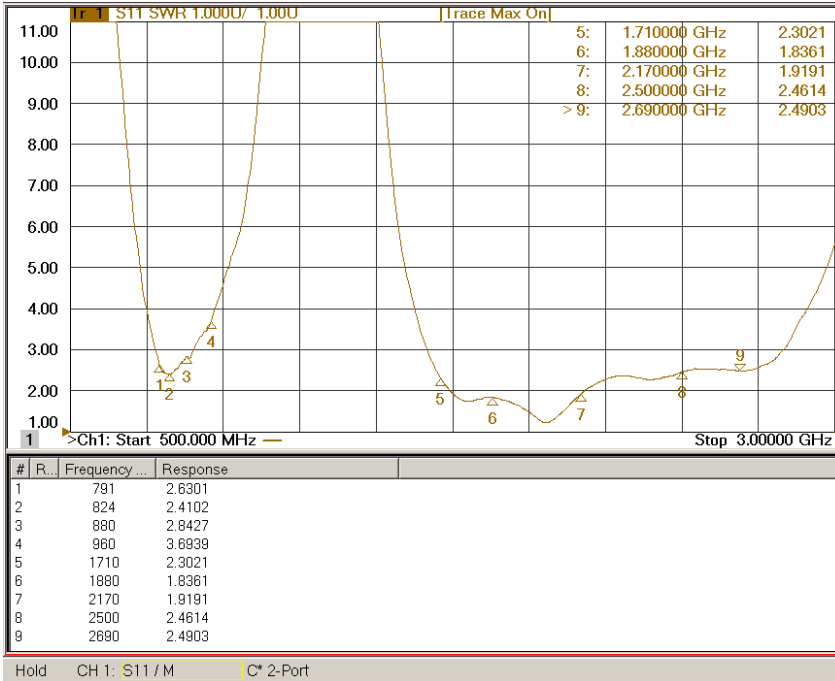
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5. Electrical Characteristics :

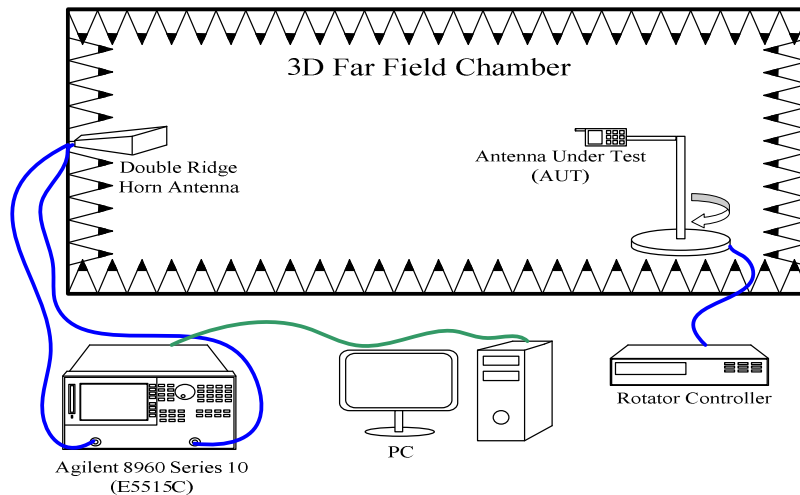
VSWR



| Frequency (MHz) | VSWR |
|-----------------|------|
| 791 | 2.6 |
| 824 | 2.4 |
| 880 | 2.8 |
| 960 | 3.6 |
| 1710 | 2.3 |
| 1880 | 1.8 |
| 2170 | 1.9 |
| 2500 | 2.4 |
| 2690 | 2.4 |

Radiation Pattern

The Gain pattern is measured in INPAQ's FAR-field chamber. DUT is placed on the table of rotator, a standard horn antenna and Vector Network Analyzer is used to collect data.



3D Chamber Definition

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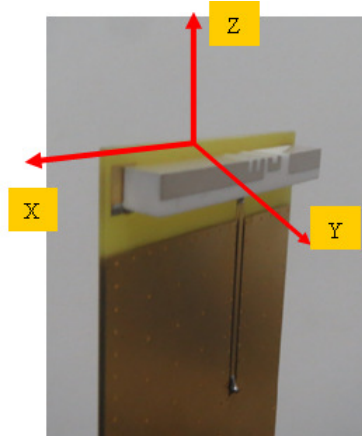
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Efficiency & Peak Gain

| Frequency (MHz) | Peak Gain (dBi) | Efficiency (%) |
|-----------------|-----------------|----------------|
| 700 | -1.76 | 34.06 |
| 790 | 2.29 | 67.76 |
| 824 | 3.24 | 85.67 |
| 850 | 3.32 | 90.66 |
| 880 | 3.39 | 81.64 |
| 960 | 2.91 | 75.3 |
| 1710 | 3.16 | 62.75 |
| 1830 | 5.01 | 75.9 |
| 1910 | 4.38 | 75.9 |
| 1990 | 4.25 | 81.3 |
| 2170 | 3.07 | 68.05 |
| 2500 | 4.4 | 65.62 |
| 2570 | 4.74 | 62.08 |
| 2690 | 5.67 | 71.54 |

3D Radiation Patten



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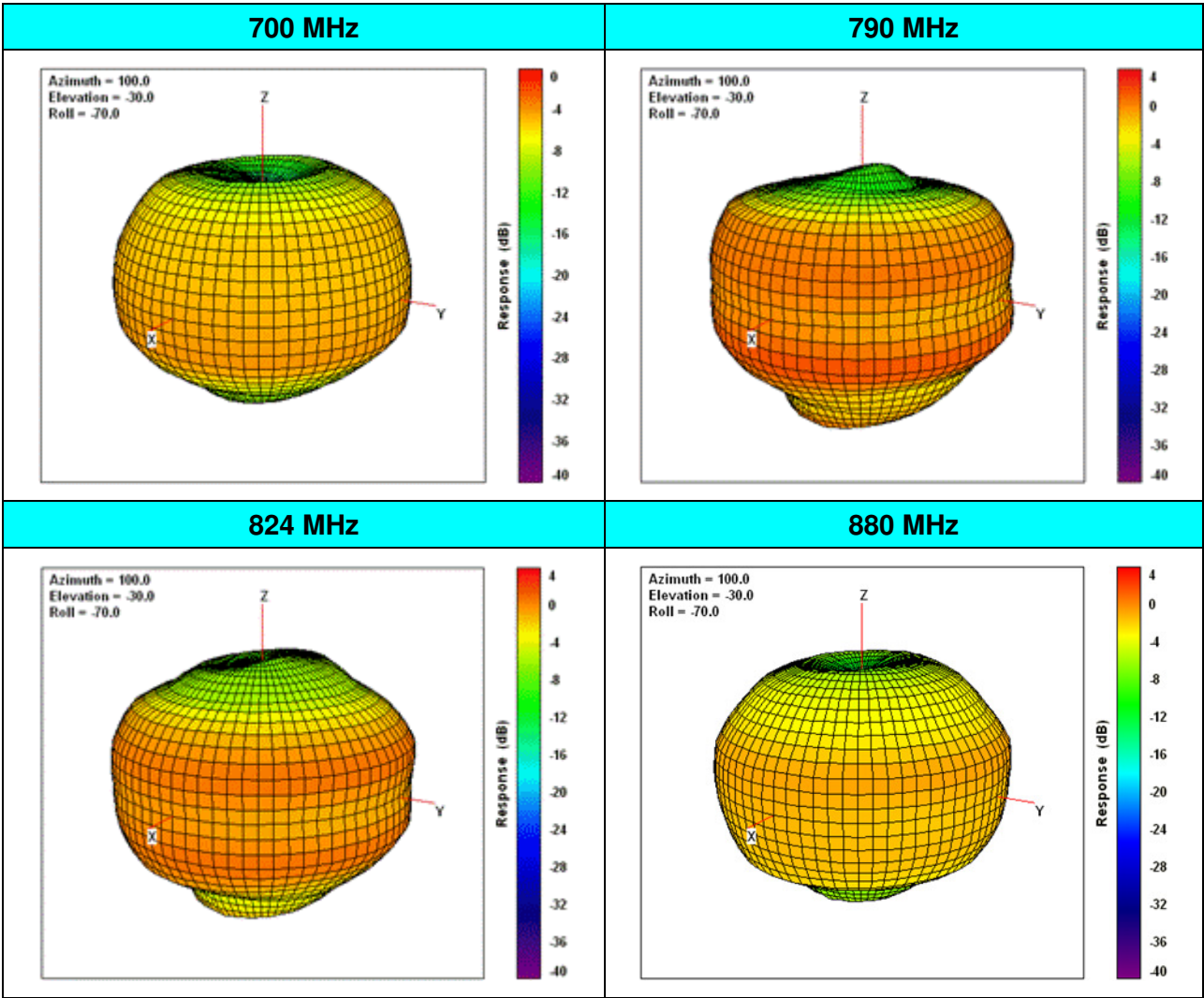
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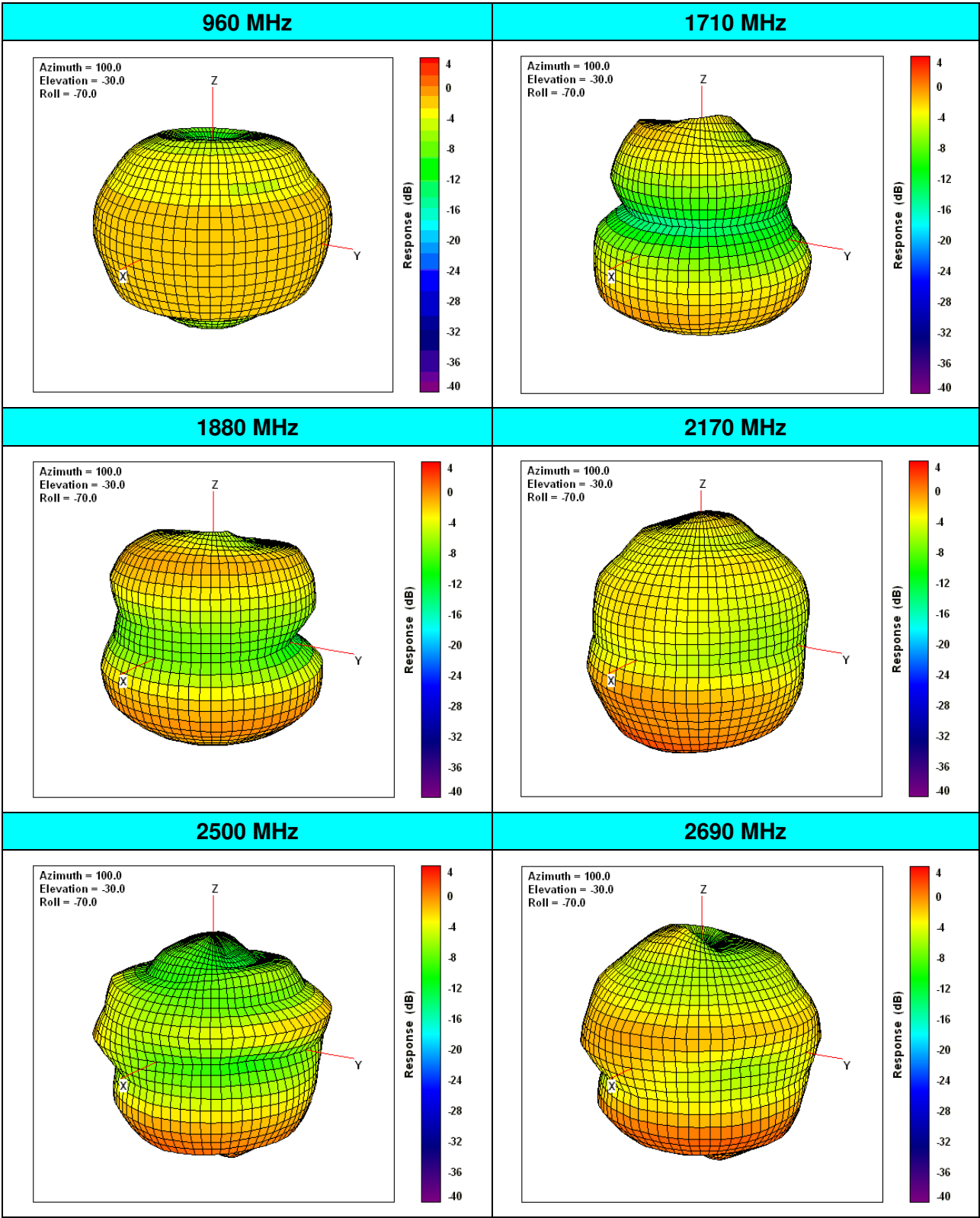
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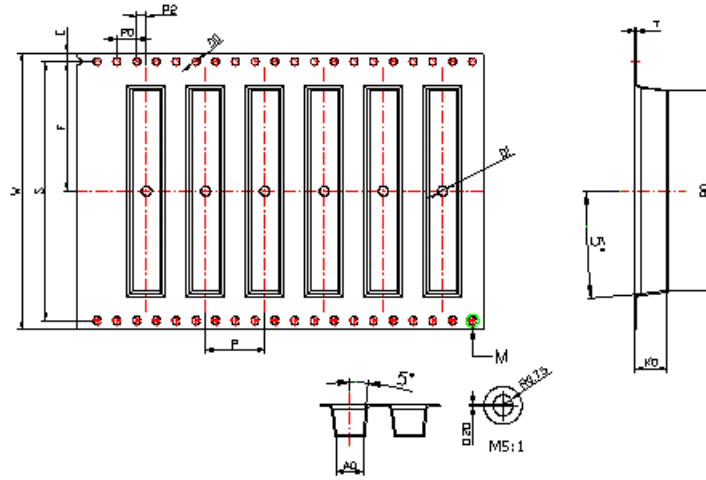
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6. Packing :

(1) Quantity/Reel : 500pcs/Reel

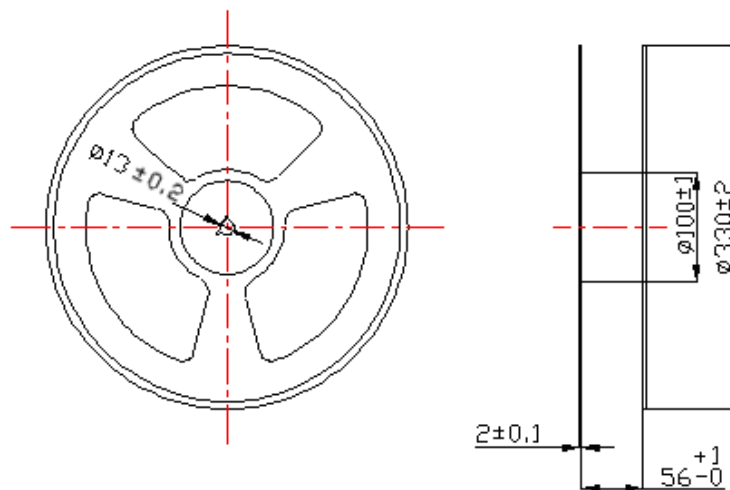
(2) Carrier tape dimensions



| ITEM | DIMENSION |
|------|-----------|
| W | 56.00 |
| P | 12.00 |
| --- | --- |
| E | 1.75 |
| F | 26.20 |
| P2 | 2.00 |
| D0 | 1.50 |
| D1 | 2.00 |
| P0 | 4.00 |
| 10P0 | 40.00 |

| ITEM | DIMENSION |
|------|-----------|
| A0 | 5.50 |
| A1 | --- |
| B0 | 40.50 |
| B1 | --- |
| K0 | 6.55 |
| K1 | --- |
| t | 0.40 |

(3) Taping reel dimensions



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7. Environmental Characteristics :

(1) Reliability Test

| Item | Condition | Specification |
|---|---|--|
| Thermal shock | 1. 30 minutes at $-55^{\circ}\text{C}\pm 5^{\circ}\text{C}$, 2. Convert to $+125^{\circ}\text{C}$ (RAMP: $15^{\circ}\text{C}/\text{min}$) 3. 30 minutes at $+125^{\circ}\text{C}\pm 5^{\circ}\text{C}$, 4. Convert to -55°C (RAMP: $15^{\circ}\text{C}/\text{min}$) 5. Total 1000 continuous cycles | No apparent damage Fulfill the electrical spec. after test. |
| High Temperature / Humidity resistance | 1. Humidity : $90\pm 5\%$ R.H. 2. Temperature : $85\pm 3^{\circ}\text{C}$ 3. Time : 250 hours | No apparent damage Fulfill the electrical spec. after test. |
| High temperature resistance | 1. Temperature : $85^{\circ}\text{C}\pm 5^{\circ}\text{C}$ 2. Time : 250 hours. | No apparent damage Fulfill the electrical spec. after test. |
| Low temperature resistance | 1. Temperature : $-40^{\circ}\text{C}\pm 5^{\circ}\text{C}$ 2. Time : 250 hours. | No apparent damage Fulfill the electrical spec. after test. |

(2) Storage condition

(a) At warehouse :

The temperature should be within $0 \sim 30^{\circ}\text{C}$ and humidity should be less than 60% RH.

The product should be used within 1 year from the time of delivery.

(b) On board :

The temperature should be within $-40 \sim 85^{\circ}\text{C}$ and humidity should be less than 85% RH.

(3) Operating temperature range

Operating temperature range : $-40 \sim +105^{\circ}\text{C}$.

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ANGLES=N/R HOLEDIA=N/R



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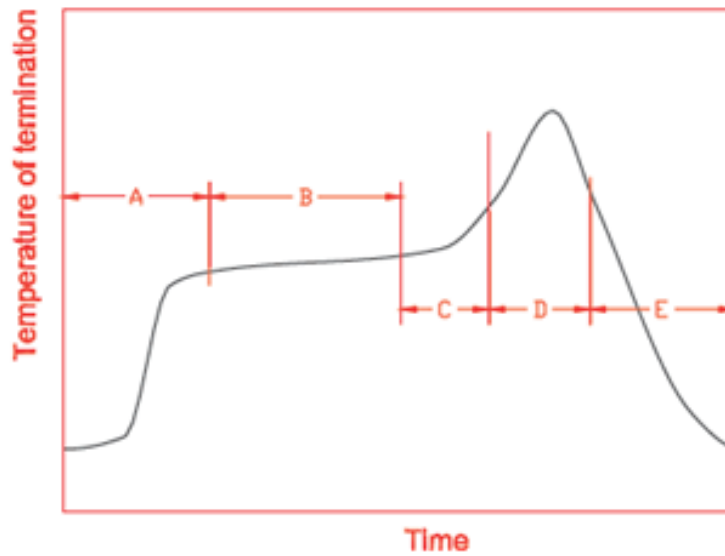
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8. Recommended reflow soldering :



| | | | |
|---|------------------------------------|--------------------------------------|--------------|
| A | 1 st rising temperature | The normal to Preheating temperature | 30s to 60s |
| B | Preheating | 140°C to 200°C | 90s to 120s |
| C | 2 nd rising temperature | Preheating to 217°C | 30s to 60s |
| D | Main heating | 240°C ~ 260°C | 20s to 40s |
| E | Regular cooling | 200°C to 100°C | 3°C/s ~ 6C/s |

9. Pull information : 8KG

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