

WAG-H-LTE4-00-001

1. Explanation of Part Number :

WAG - H - LTE4 - 00 - 001
 (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 : 001
- ※ 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



INPAQ TECHNOLOGY CO., LTD.

SCALE : N/R	UNIT : mm
DRAWN BY: 林豪建	CHECKED BY: 吳明怡
DESIGNED BY: 林豪建	APPROVED BY: 黃月碧

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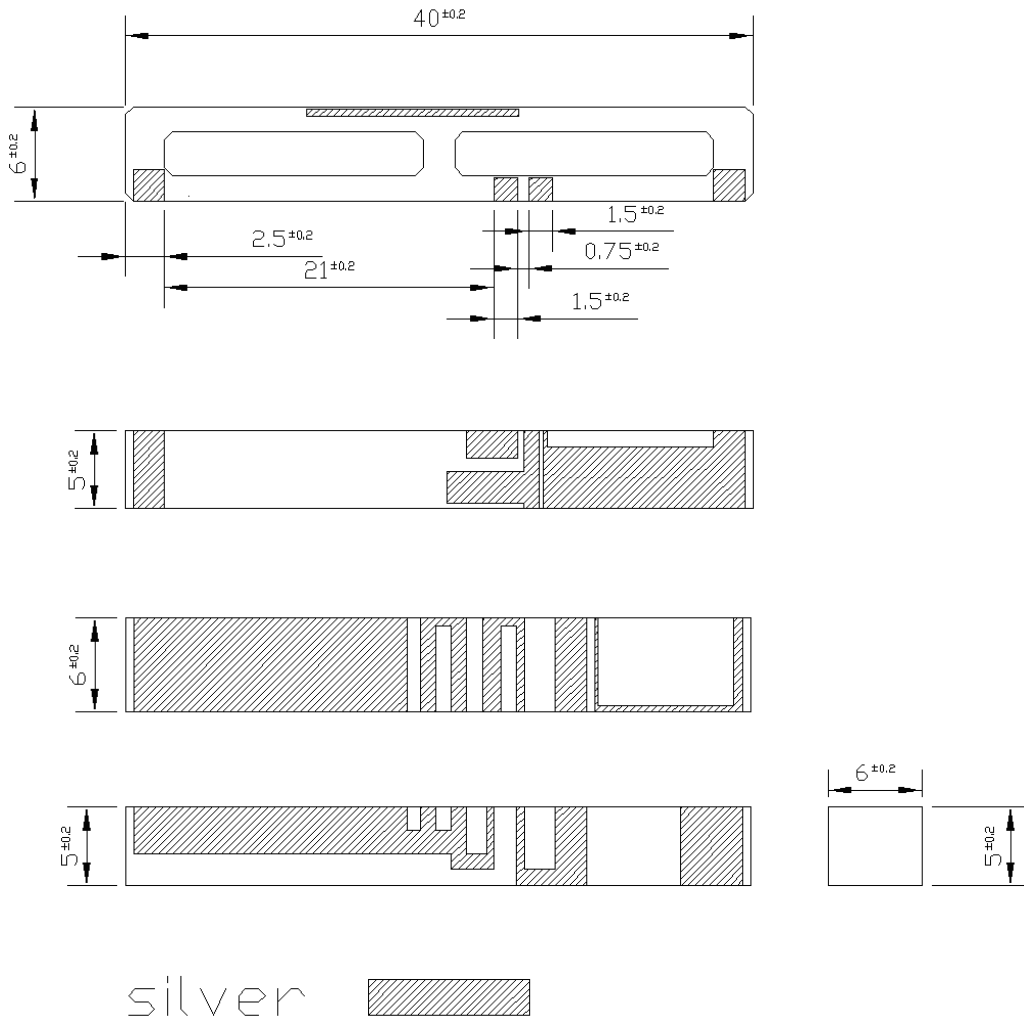
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3. Physical Dimension :



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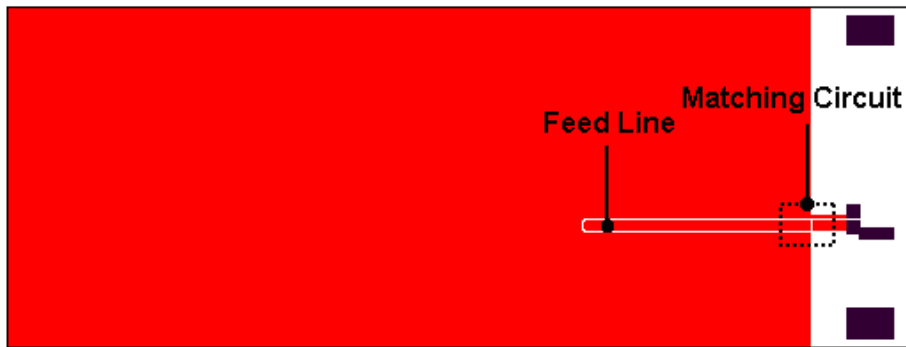
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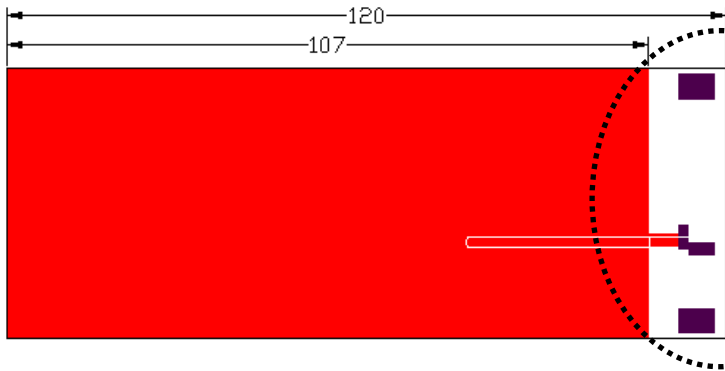
4. Recommend PCB Layout :

Layout

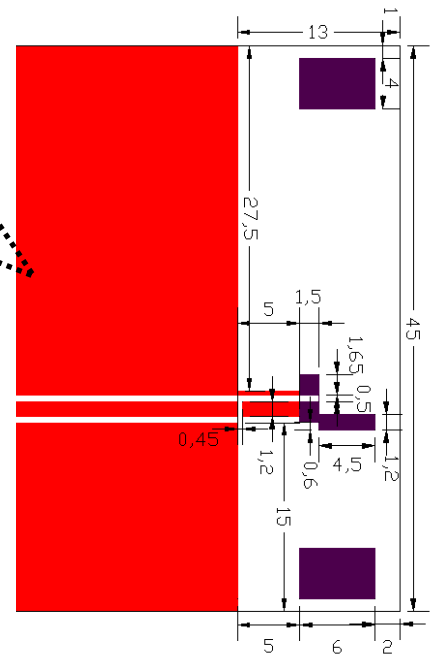
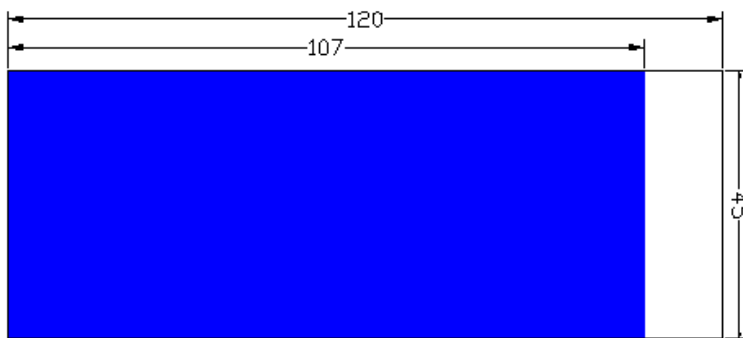


Pad Dimensions on PCB Layout

Top View



Perspective View



Unit: mm

- Top Layer
- Bottom Layer
- Top Solder

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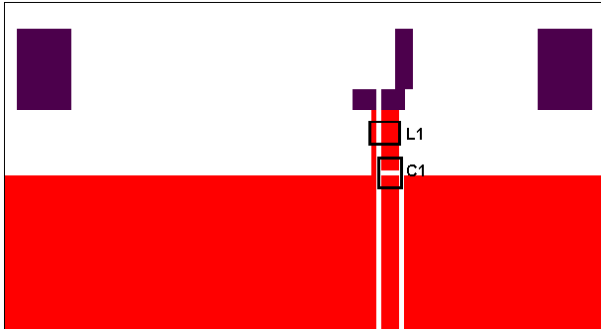
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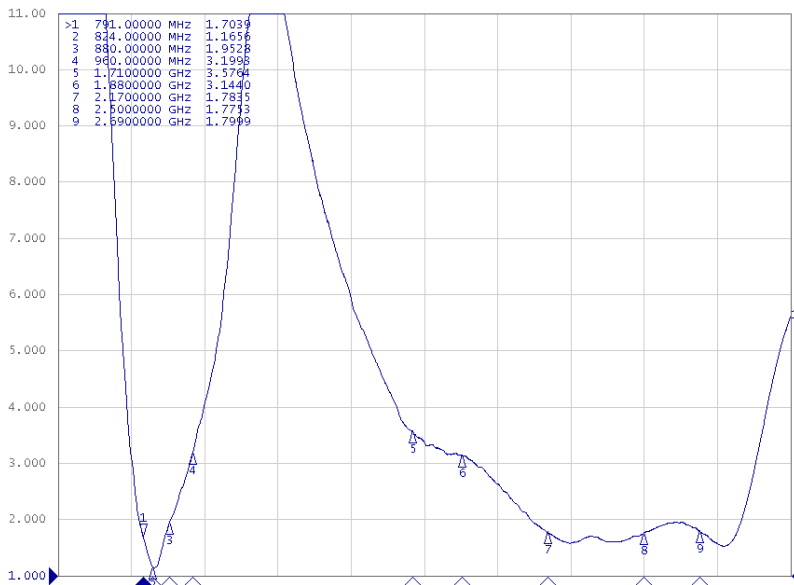
Matching Circuit on Demoboard



Circuit Symbol	Size	Description
L1	0402	3.9 nH Inductor
C1	0402	4.3 pF Capacitance

5. Electrical Characteristics :

VSWR



Frequency (MHz)	VSWR
791	1.70
824	1.16
880	1.95
960	3.19
1710	3.57
1880	3.14
2170	1.78
2500	1.77
2690	1.79

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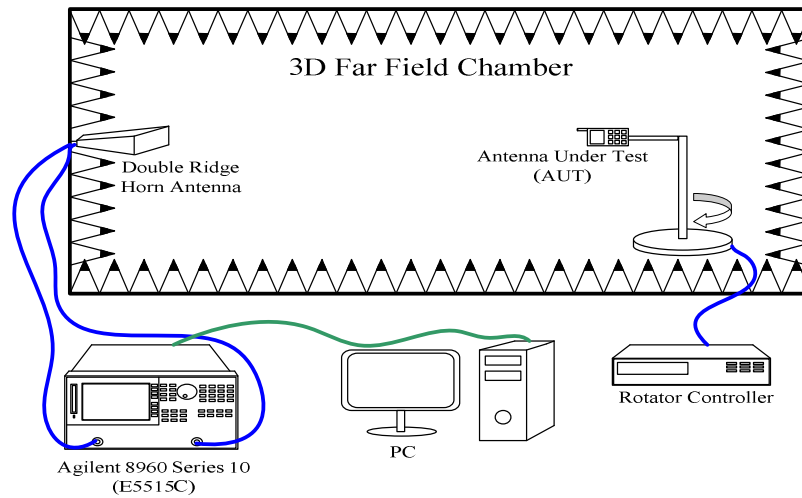
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Radiation Pattern

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.



Efficiency & Peak Gain

Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)
700	-3.45	27.0
790	2.11	77.9
824	1.62	72.4
850	0.80	66.4
880	-0.02	55.6
960	-0.98	50.7
1710	1.48	45.3
1830	2.33	54.2
1910	2.62	63.2
1990	2.73	70.2
2170	2.35	64.4
2500	4.05	62.2
2570	4.30	63.5
2690	5.56	84.0

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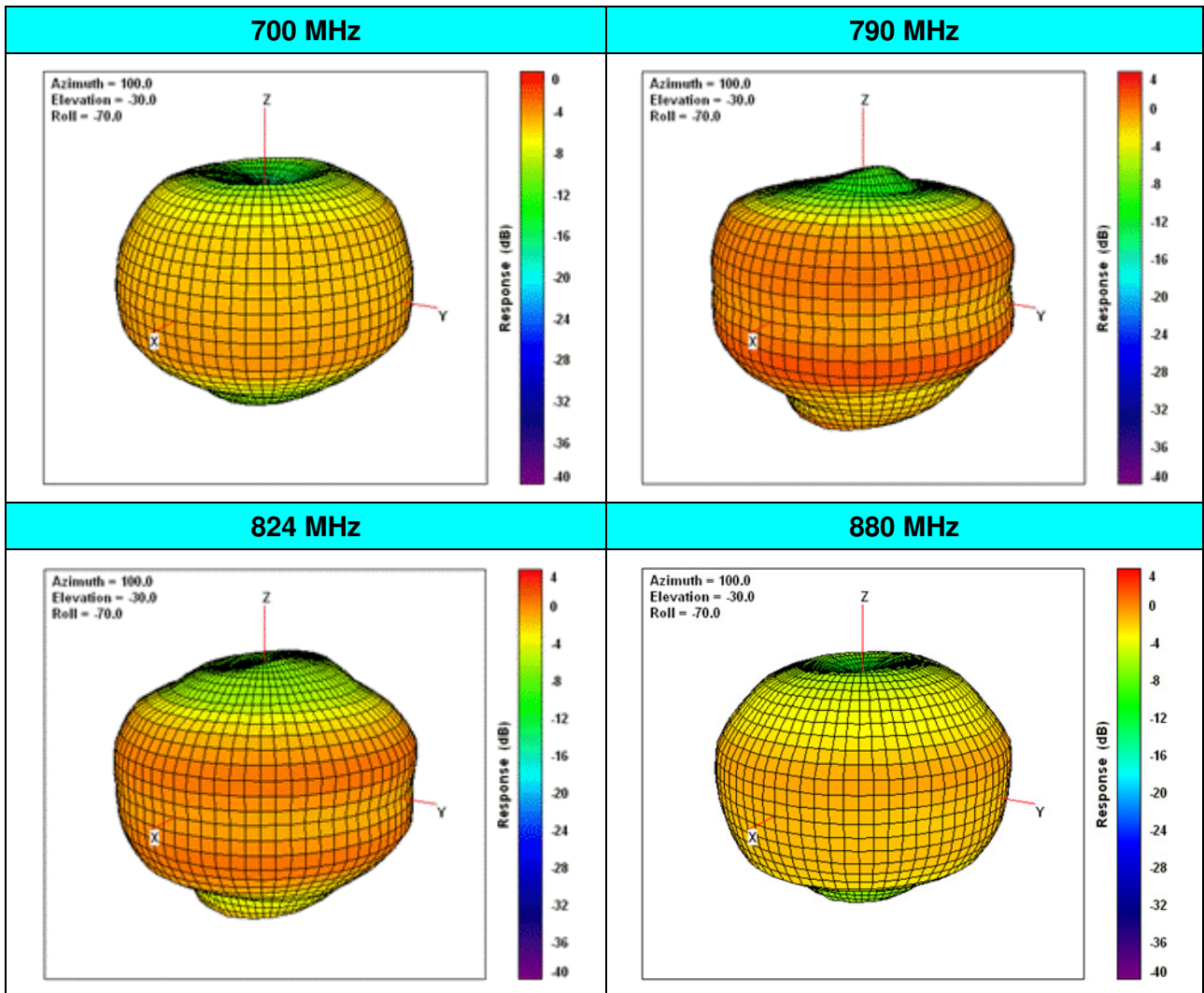
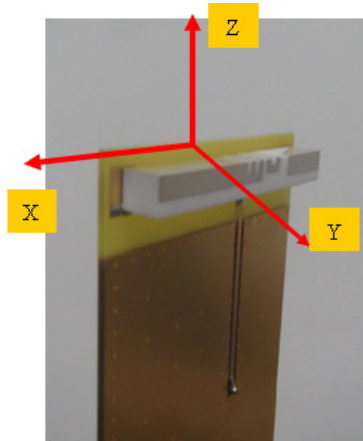
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3D Radiation Patten



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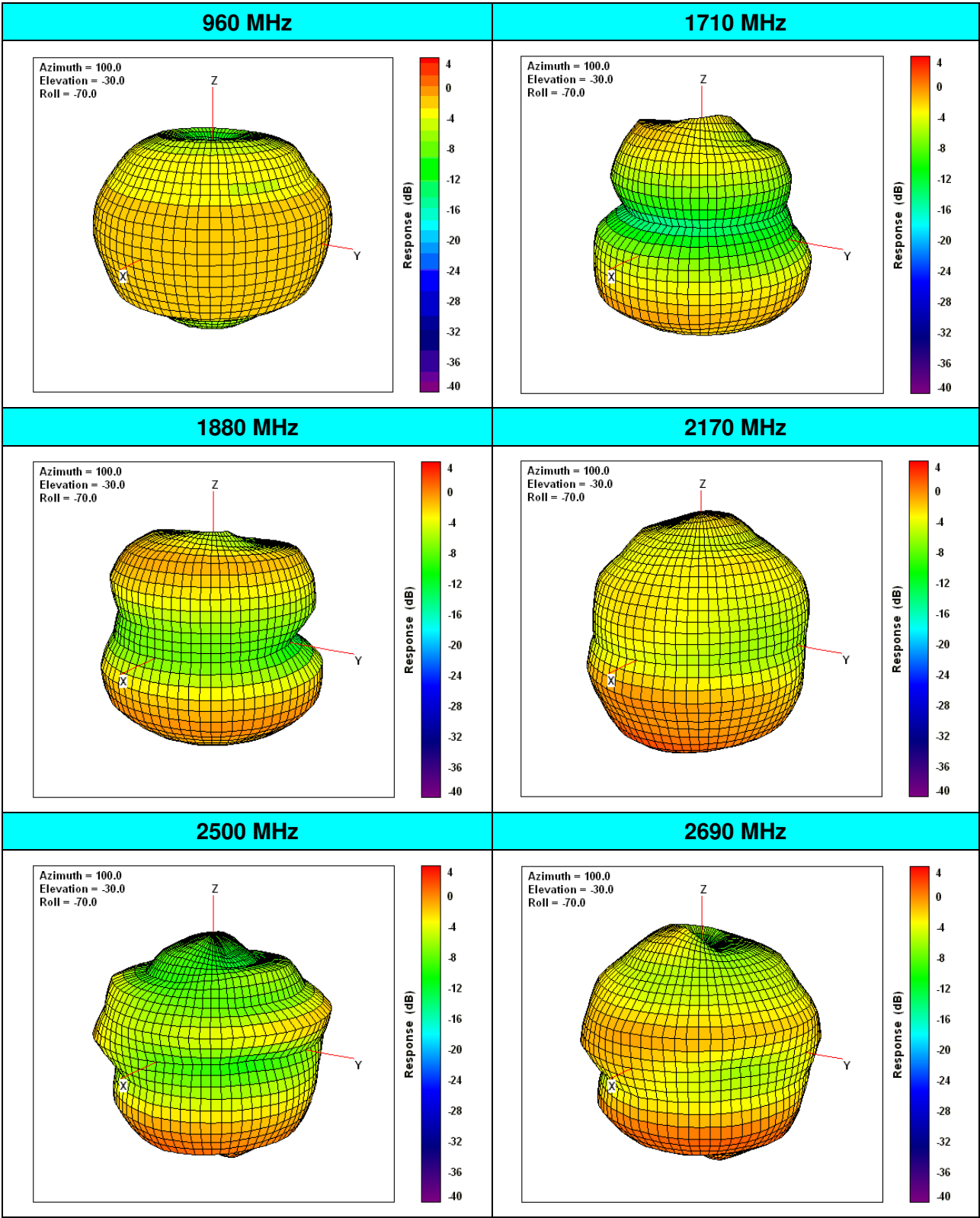
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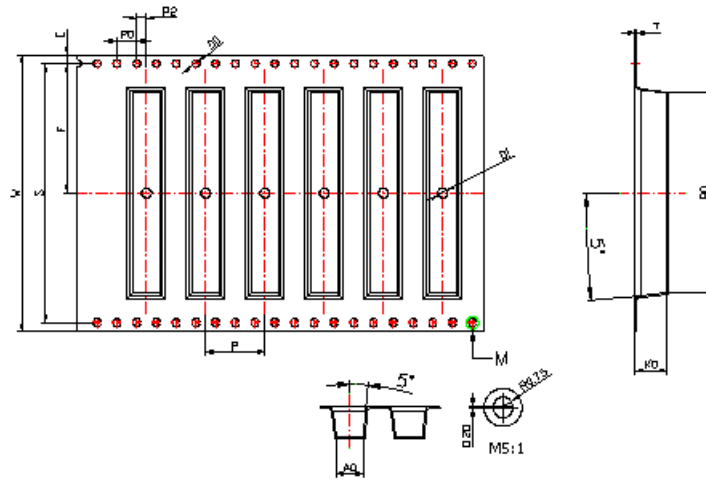
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6. Packing :

(1) Quantity/Reel : 500pcs/Reel

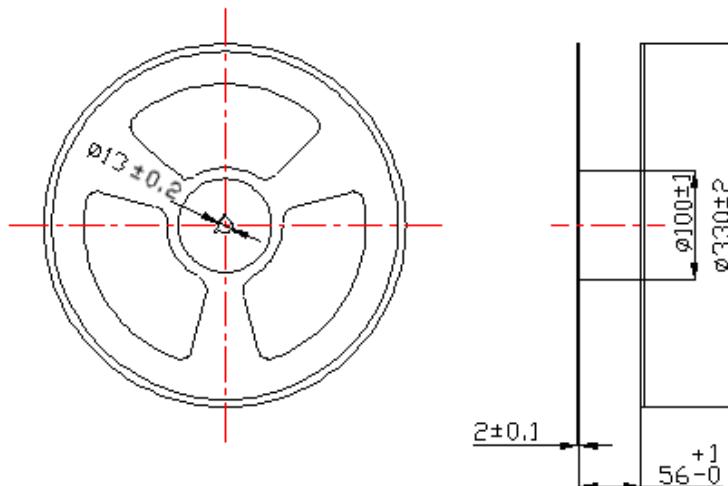
(2) Carrier tape dimensions



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 : $85\pm 5\%$ R.H. 2. Temperature : $85\pm 3^{\circ}\text{C}$ 3. Time : 1000 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 : 1000 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 : 1000 hours.	No apparent damage Fulfill the electrical spec. after test.
Soldering heat resistance	1. Solder bath temperature : $260\pm 5^{\circ}\text{C}$ 2. Bathing time : 10 ± 0.5 seconds	No apparent damage
Solderability	The dipped surface of the terminal shall be at least 95% covered with solder after dipped in solder bath of $245\pm 5^{\circ}\text{C}$ for 5 ± 0.5 seconds.	No apparent damage

(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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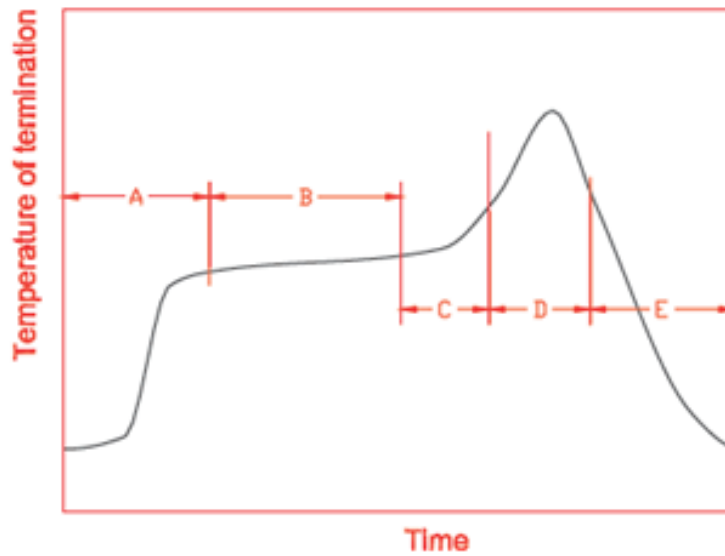
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8. Recommended reflow soldering :



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

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ANGLES=N/R HOLEDIA=N/R

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