WAG-H-LTE4-00-001

1. Explanation of Part Number：

WAG - H - LTE4 - 00 - 001

(1) (2) (3) (4) (5)

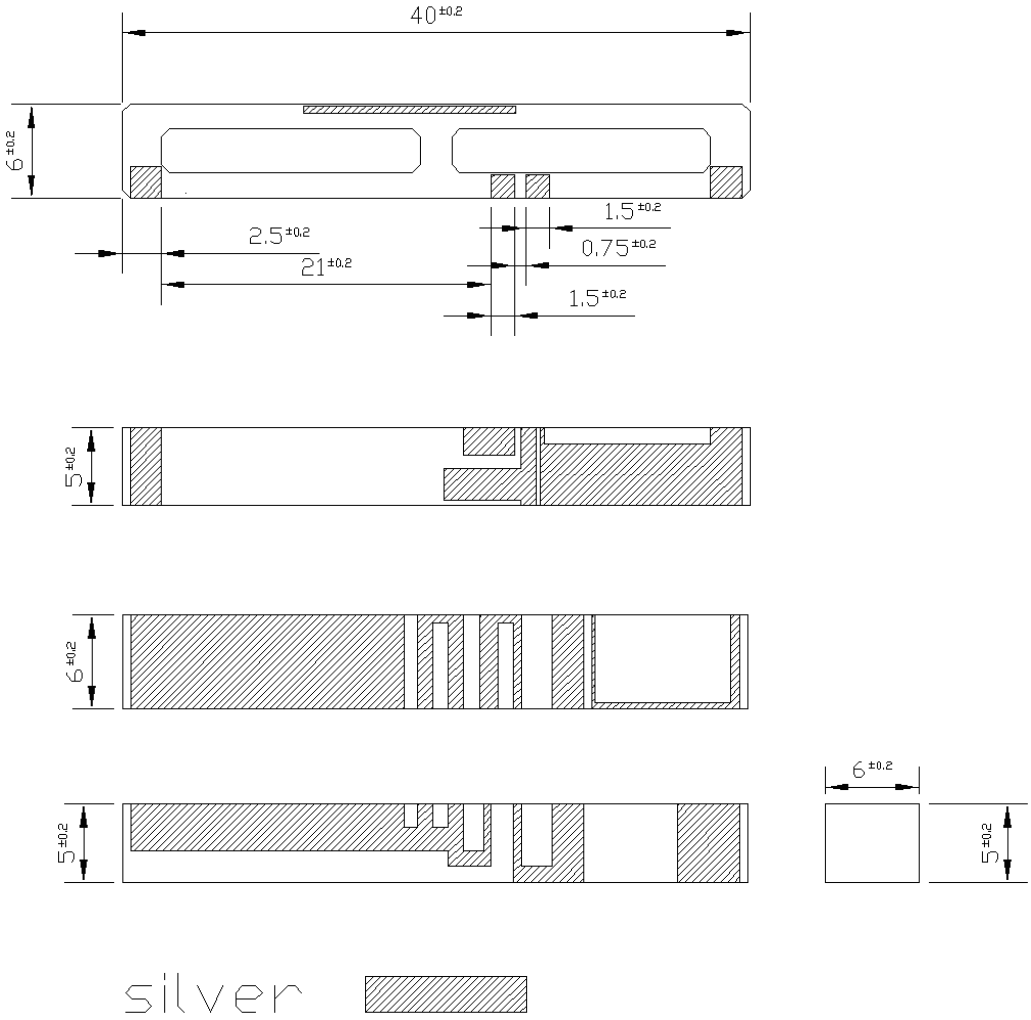
(1) Product type：wireless antenna
(2) Material：ceramic
(3) Frequency：700~960MHz、1710~2170MHz、2500~2690MHz
(4) Connector Types：00
(5) Suffix for special requirements：001
※ RoHS Compliant

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 ℃
Dimension	40 x 5 x 6mm

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

3. Physical Dimension：



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.	
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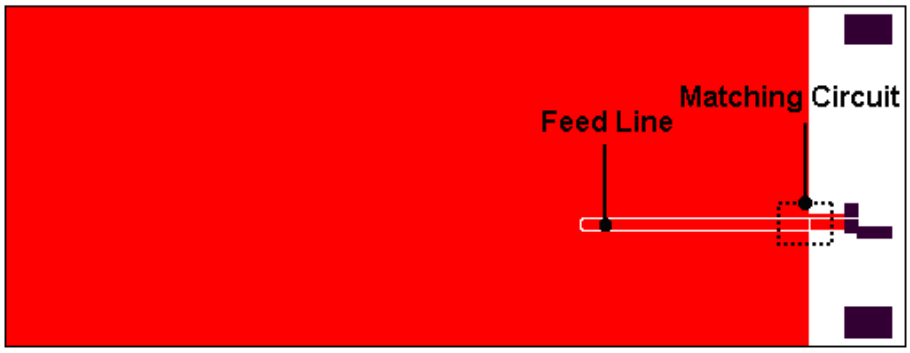
DRAWN BY:林豪建	CHECKED BY:吳明怡		
DESIGNED BY:林豪建	APPROVED BY:黃月碧		
TITLE: WAG-H-LTE4-00-001		DOCUMENT NO.	ENS000079930	SPEC REV. P2

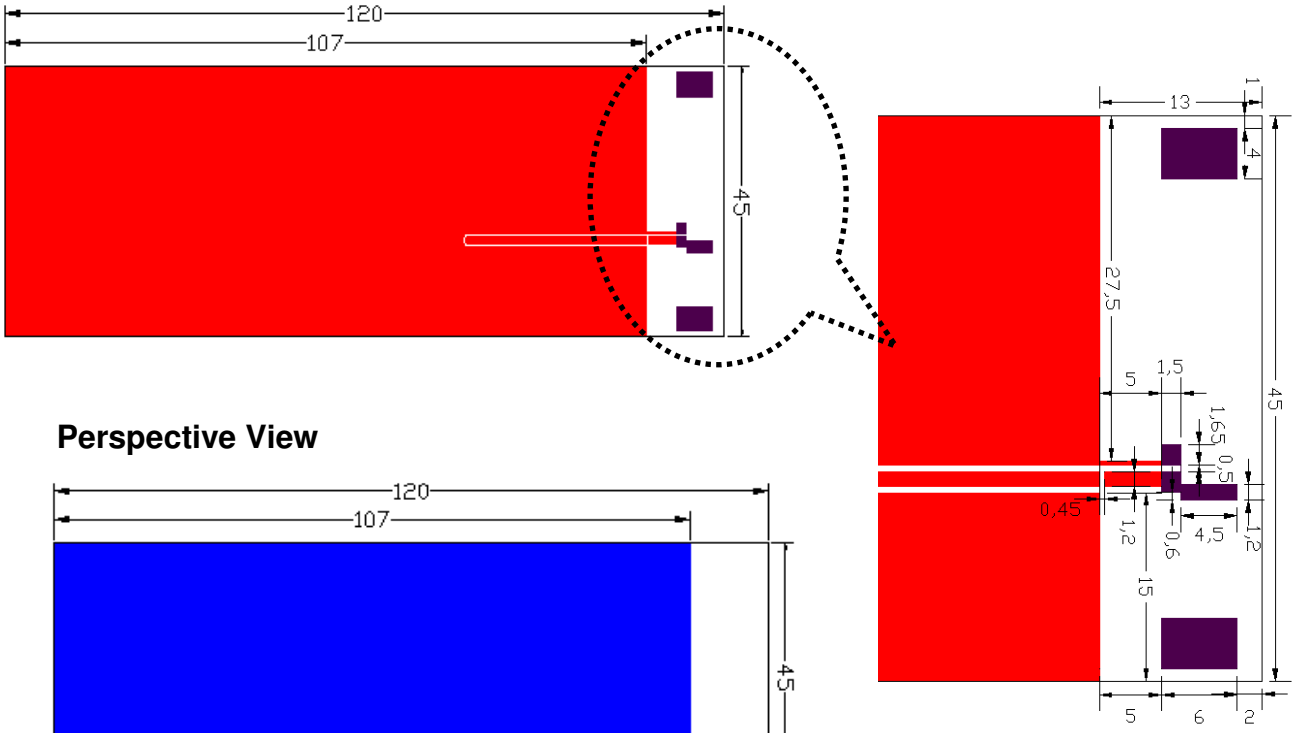
4. Recommend PCB Layout：

Layout



Pad Dimensions on PCB Layout

Top View



Perspective View

Unit: mm

Top Layer
Bottom Layer
Top Solder

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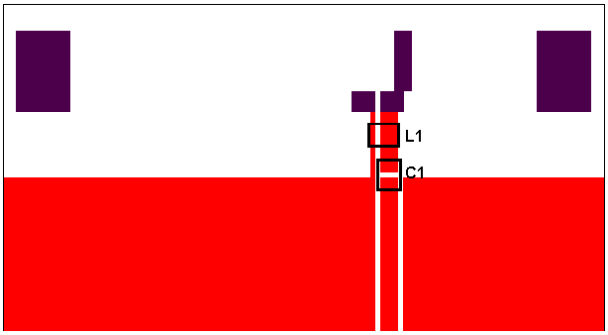
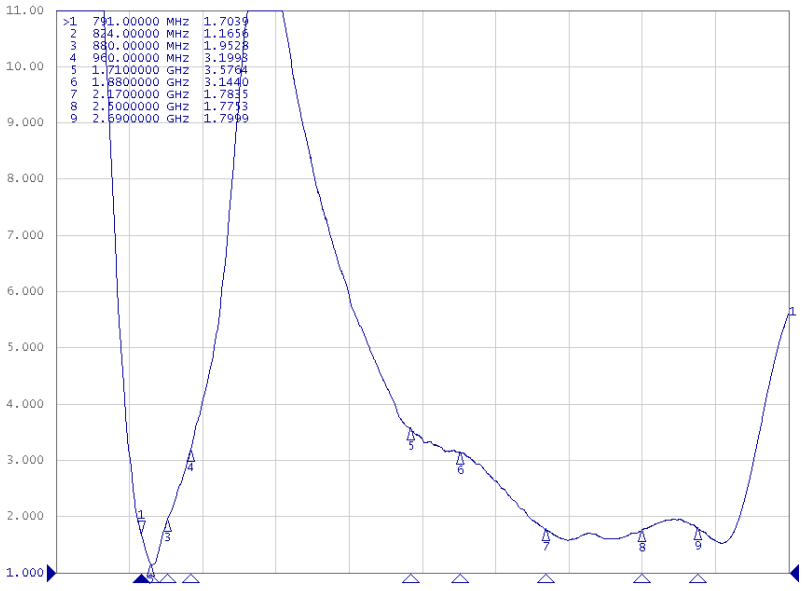
Matching Circuit on Demoboard



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

5. Electrical Characteristics：

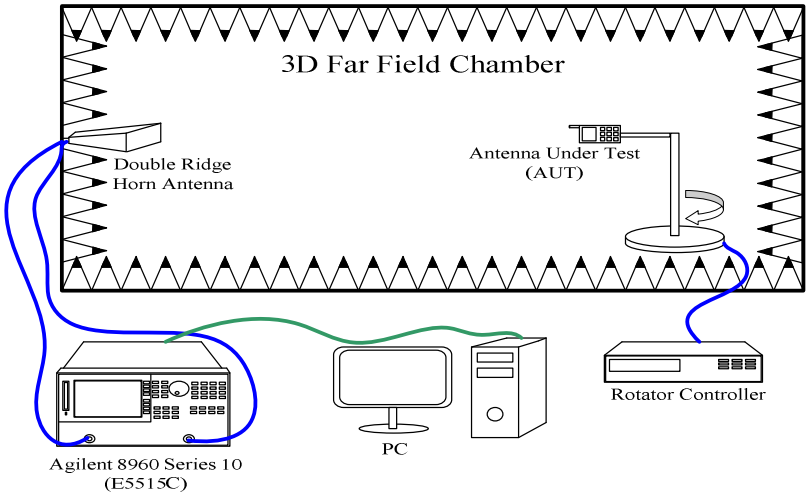
VSWR



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

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.

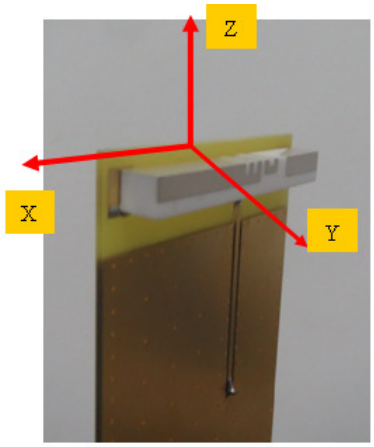


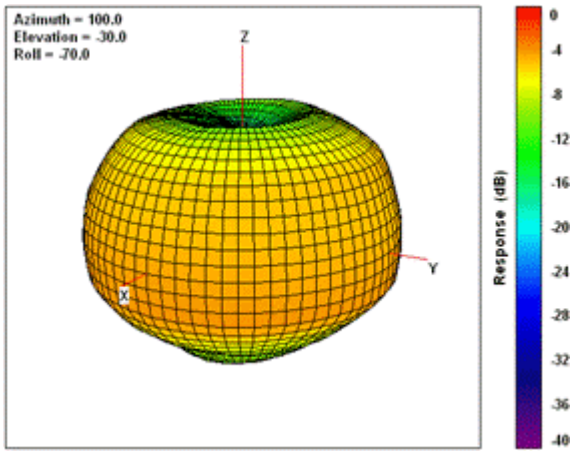
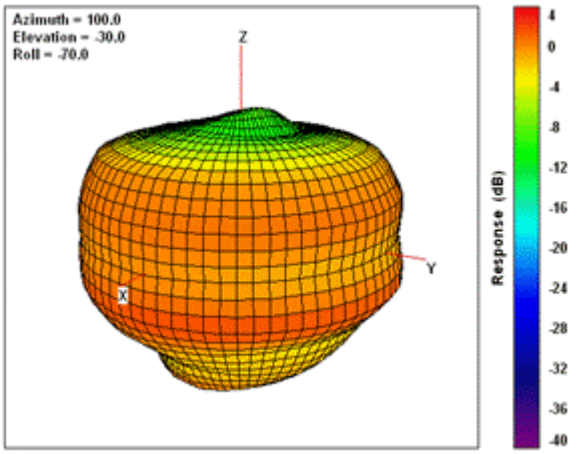
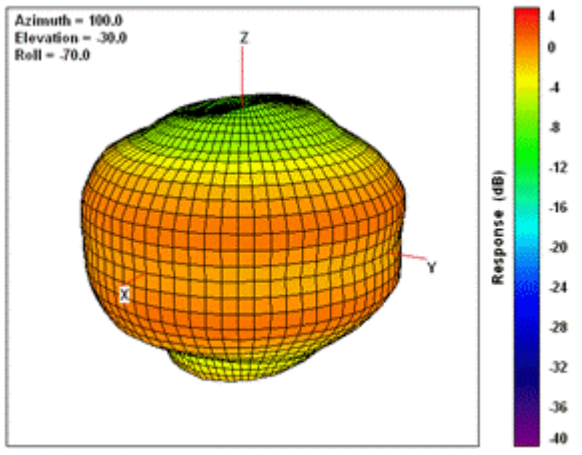
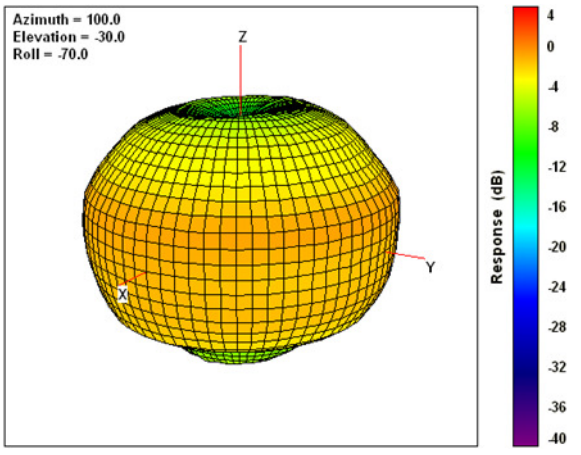
3D Chamber Definition

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

3D Radiation Patten



700 MHz	790 MHz
	
824 MHz	**880 MHz**
	

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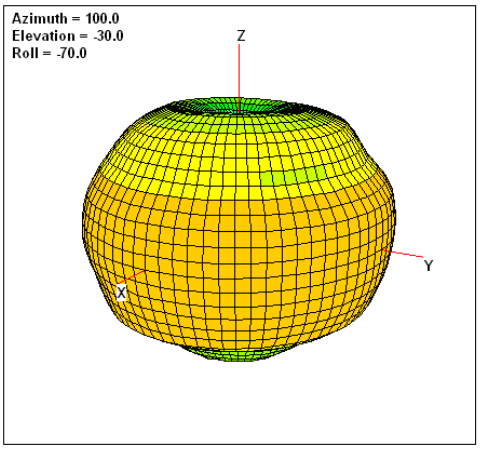
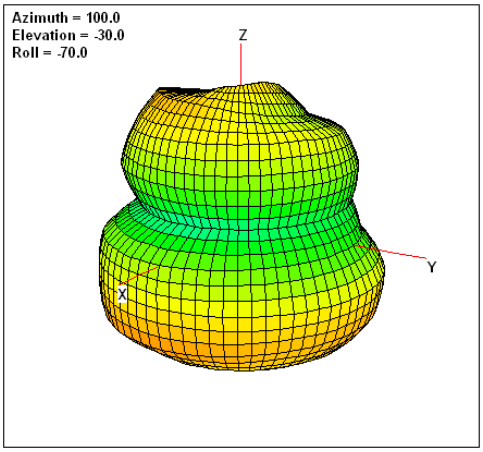
TITLE: WAG-H-LTE4-00-001	DOCUMENT NO. ENS000079930　SPEC REV. P2

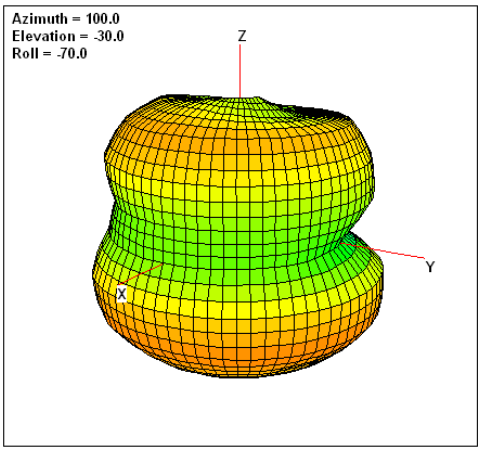
960 MHz



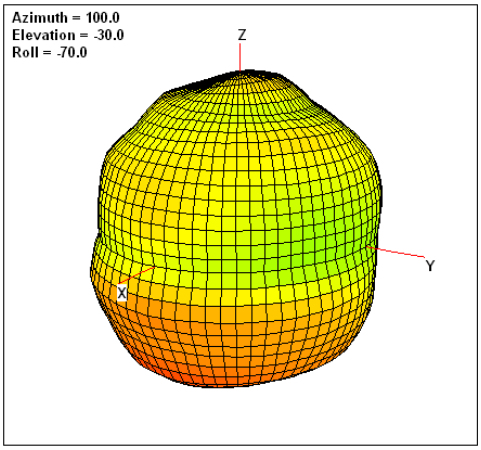
1710 MHz



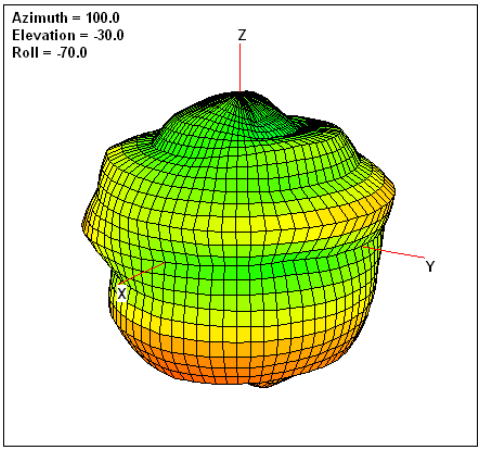
1880 MHz



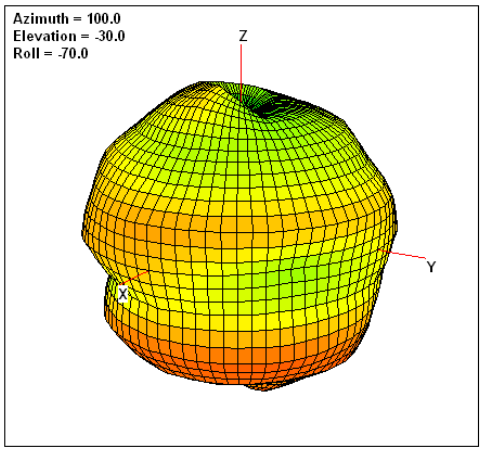
2170 MHz



2500 MHz



2690 MHz



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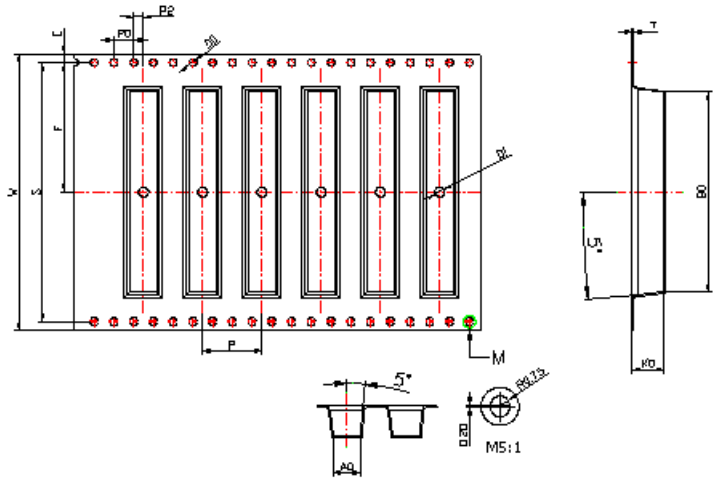
6. Packing：

(1) Quantity/Reel：500pcs/Reel

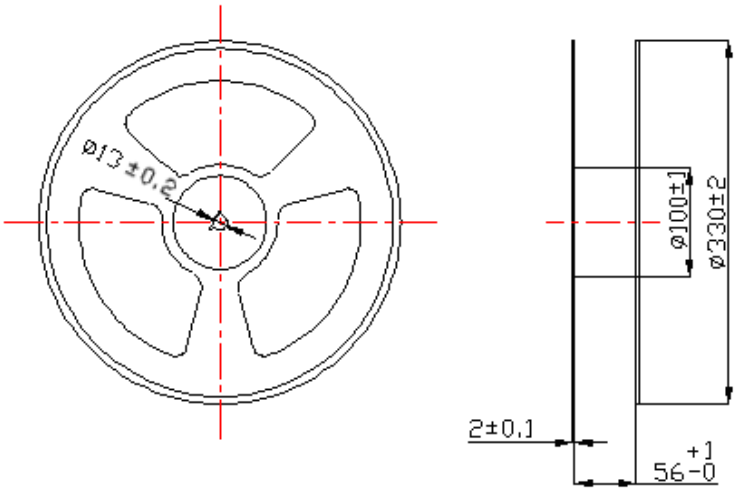
(2) Carrier tape dimensions



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

ITEM	DIMENSION
Ao	5.50
A1	---
B0	40.50
B1	---
Ko	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°C±5°C, 2. Convert to +125°C (RAMP:15°C /min) 3. 30 minutes at +125°C±5°C, 4. Convert to -55°C (RAMP:15°C/min) 5. Total 1000 continuous cycles	No apparent damage Fulfill the electrical spec. after test.
High Temperature / Humidity resistance	1. Humidity：85±5% R.H. 2. Temperature：85±3°C 3. Time：1000 hours	No apparent damage Fulfill the electrical spec. after test.
High temperature resistance	1. Temperature：85°C±5°C 2. Time：1000 hours.	No apparent damage Fulfill the electrical spec. after test.
Low temperature resistance	1. Temperature：-40°C±5°C 2. Time：1000 hours.	No apparent damage Fulfill the electrical spec. after test.
Soldering heat resistance	1. Solder bath temperature：260±5°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±5°C for 5±0.5seconds.	No apparent damage

(2) Storage condition

(a) At warehouse：

The temperature should be within 0 ~ 30°C and humidity should be less than 60% RH.

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

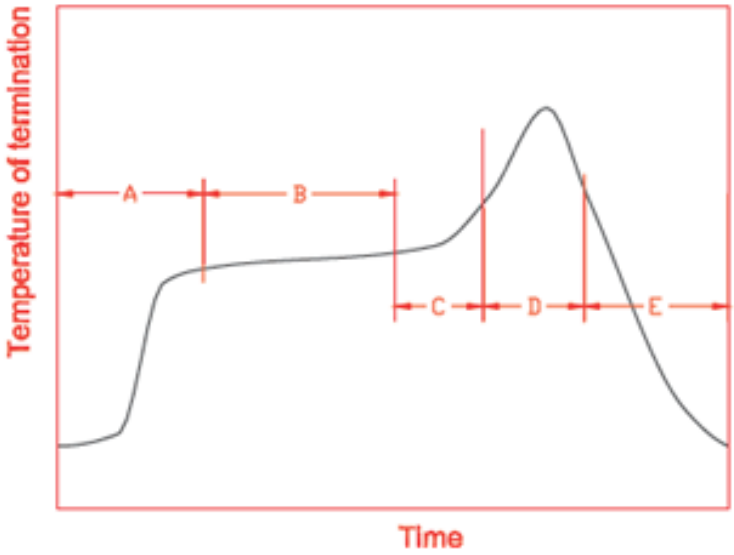
(b) On board：

The temperature should be within -40 ~ 85°C and humidity should be less than 85% RH.

(3) Operating temperature range

Operating temperature range：-40 ~ +105°C.

8. Recommended reflow soldering：



A	1st rising temperature	The normal to Preheating temperature	30s to 60s
B	Preheating	140°C to 200°C	90s to 120s
C	2nd 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