

客戶名稱 : **ASUSTEK**
CUSTOMER

Documnet No.: **ENS000015380**

Approval Sheet Rev.: **A0**

Spec. Rev. : **A1**

承認書

APPROVAL SHEET

產品品名/Product Model No. : **ACA-3216-A2-MC-S**

客戶料號/Customer No. : **07041-00120000**

案名/ Model Name. : **AISSENS 100AW**

發行日期/ Issue Date : **2025/5/7**

承認日期/ Approved Date :

Approved by customer: (signing or stamping here)



佳邦科技股份有限公司
INPAQ TECHNOLOGY CO., LTD.

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ACA-3216-A2-MC-S SPECIFICATION

1. EXPLANATION OF PART NUMBER :

$\frac{AC}{(1)}$ $\frac{A}{(2)}$ - $\frac{3216}{(3)}$ $\frac{A2}{(4)}$ - $\frac{MC}{(5)}$ - $\frac{S}{(6)}$ - $\frac{}{(7)}$

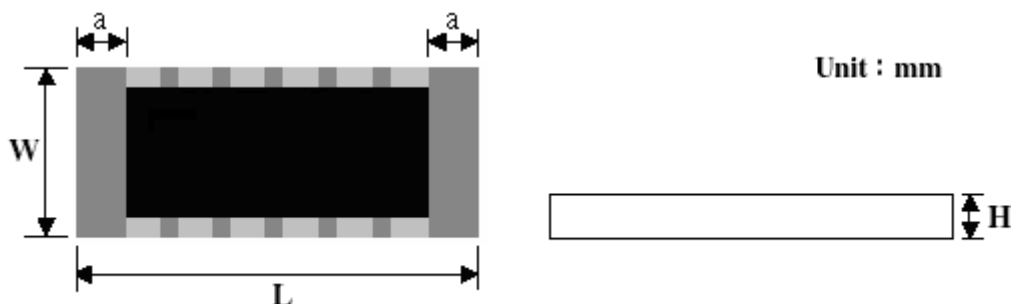
- (1) Product Type : Chip Antenna
- (2) Center Frequency/Band Code : A -2.45GHz
- (3) Size Code : 3.2mm(length) x 1.6mm(width)
- (4) Design Revision Code : A2= Rev. 2
- (5) Series No. : MC=MONOPOLE Ceramics type
- (6) Special Code : S= RoHS Compliant
- (7) Suffix For Special Requirements

2. ELECTRICAL SPECIFICATION :

ITEM	SPECIFICATION
Frequency Band	2400MHz~2500MHz
Return Loss	Less than -10
Polarization	Linear
*Gain	Max peak gain : 0.5 dBi
	Typ peak gain : -0.5 dBi
Impedance	50Ω typ.

*Test condition : Test board size 53*20 mm , ground clearance 13*20 mm
Matching circuit : Pi matching circuit will be required

3. DIMENSIONS :



Mark	L	W	H	a
Dimensions	3.2±0.2	1.6±0.2	0.7±0.15	0.35±0.2

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=± X.XX=

ANGLES=± HOLEDIA=±

SCALE : xxxx UNIT : mm

DRAWN BY:彭少君 CHECKED BY:謝立庭

DESIGNED BY:彭少君 APPROVED BY:謝立庭

TITLE : ACA-3216-A2-MC-S SPECIFICATION



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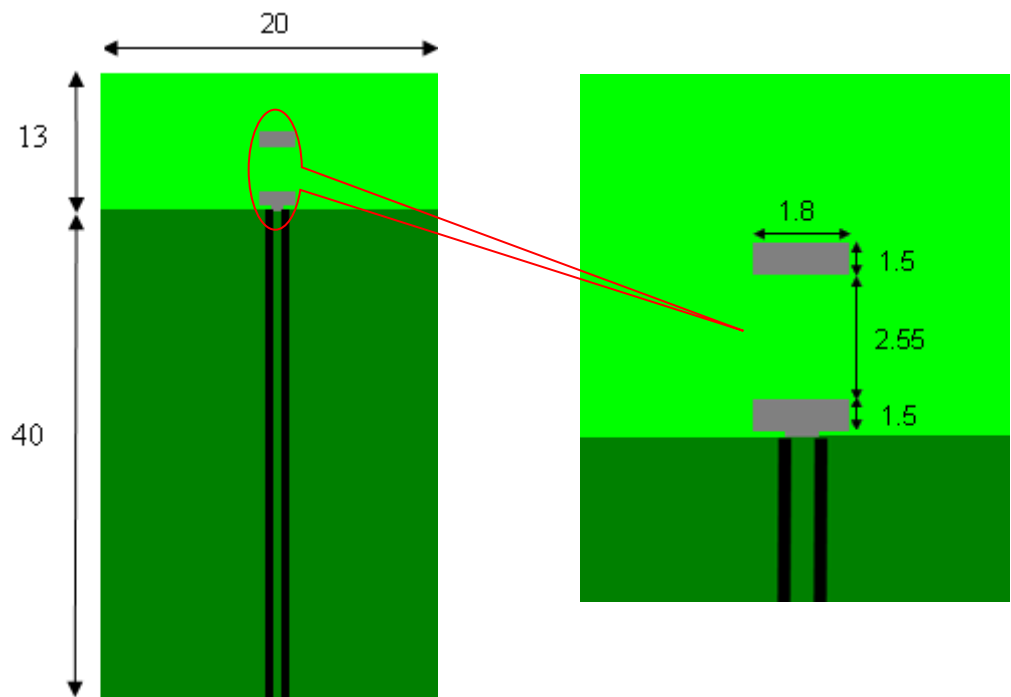
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4. RECOMMENDED PCB LAYOUT : (unit : mm)



5. TERMINAL CONFIGURATION :

Top Layer :



Bottom Layer :



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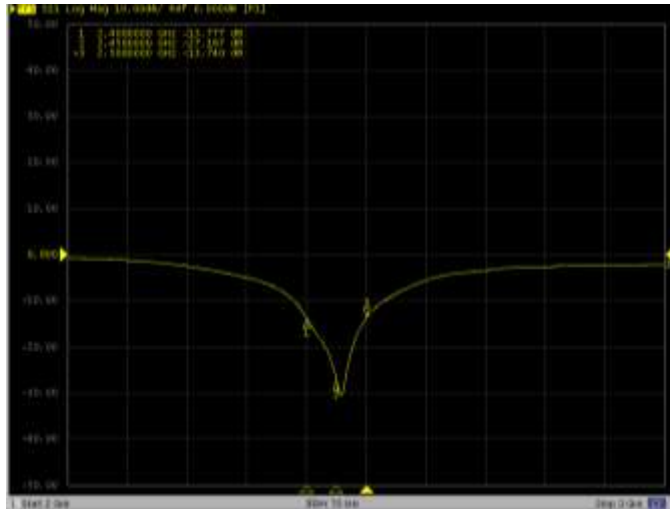
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6. ELECTRICAL CHARACTERISTICS :

Return Loss

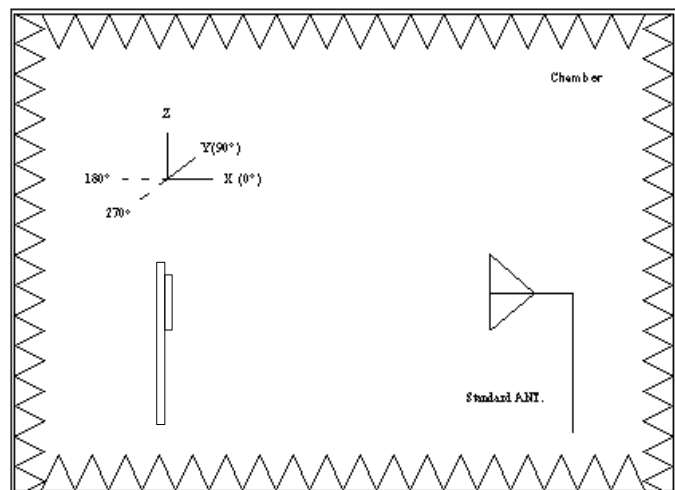
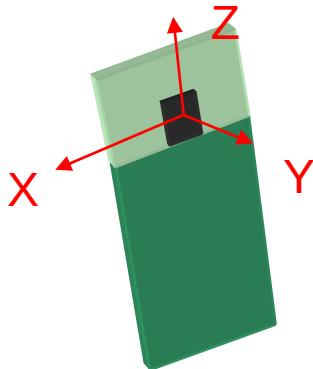


Freq.	Return Loss
2400 MHz	-13.78 dB
2450 MHz	-27.17 dB
2500 MHz	-13.74 dB

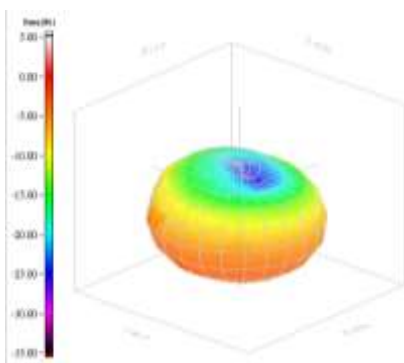
7. RADIATION PATTERN :

The gain pattern is measured in INPAQ's far-field chamber. AUT is placed on the table of rotator, a standard horn antenna and vector network analyzer is used to collect data. (Please contact with INPAQ for more detail)

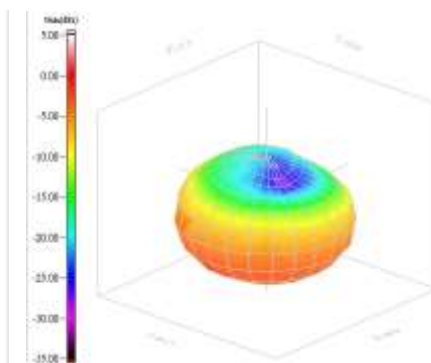
● Measuring factors definition



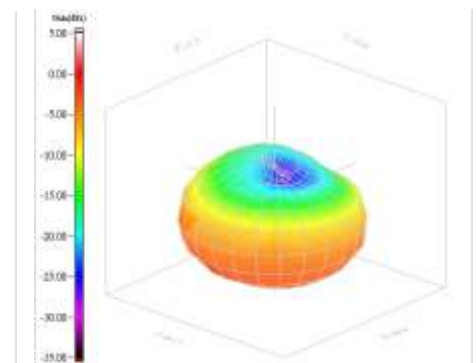
2400MHz



2450MHz



2500MHz



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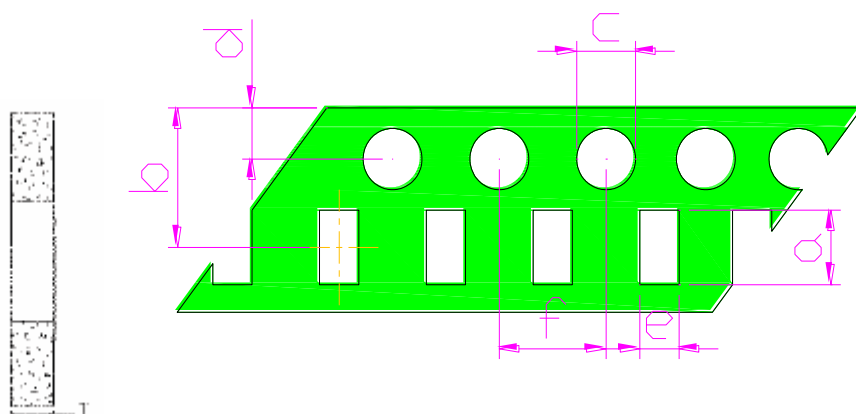
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8. PACKAGING :

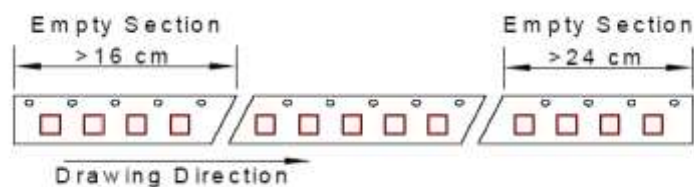
(1) Quantity : 4000pcs/Reel

(2) Carrier Tape Dimensions : (unit : mm)



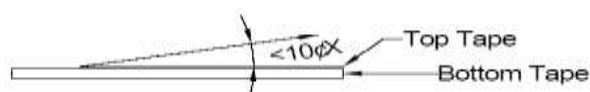
A	3.55±0.5
B	5.25±0.15
C	1.50±0.10
D	1.75±0.10
E	1.98±0.05
F	4.0±0.10
T	0.75±0.05

(3) Tape Packing

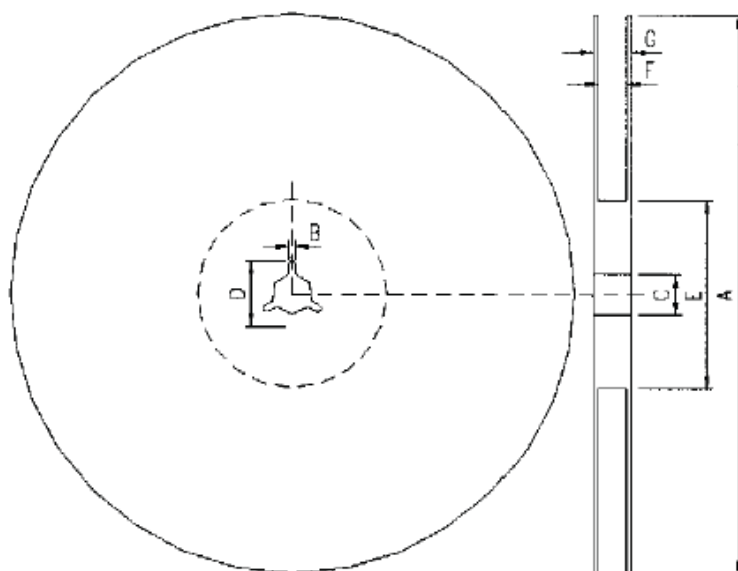


(4) Cover Tape Reel Off Force

$$5g \cdot f \leq \text{Peel-Off Force} \leq 70g \cdot f$$



(5) Reel Dimensions: (unit: mm)



A	178.0±2.0
B	2.0±0.5
C	13.0±0.5
D	21.0±0.8
E	60.0±1.0
F	9.0±0.5
G	12.0±0.2

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ANGLES=± HOLEDIA=±

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9. Environmental Specifications :

(1) Reliability Test

Item	Condition	Specification
Thermal shock	1. 30±3 minutes at -40°C±5°C, 2. Convert to +105°C (5 minutes) 3. 30±3 minutes at +105°C±5°C, 4. Convert to -40°C (5 minutes) 5. Total 24 continuous cycles	No apparent damage Fulfill the electrical spec. after test.
Humidity resistance	1. Humidity: 85% R.H. 2. Temperature: 85±5°C 3. Time: 500 hours.	No apparent damage Fulfill the electrical spec. after test.
High temperature resistance	1. Temperature: 150°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±1 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 3±1 seconds.	No apparent damage

(2) Storage condition

(a) At warehouse :

The temperature should be within 0 ~ 30°C and humidity should be less than 75% 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°C to +105°C.

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ANGLES=± HOLEDIA=±

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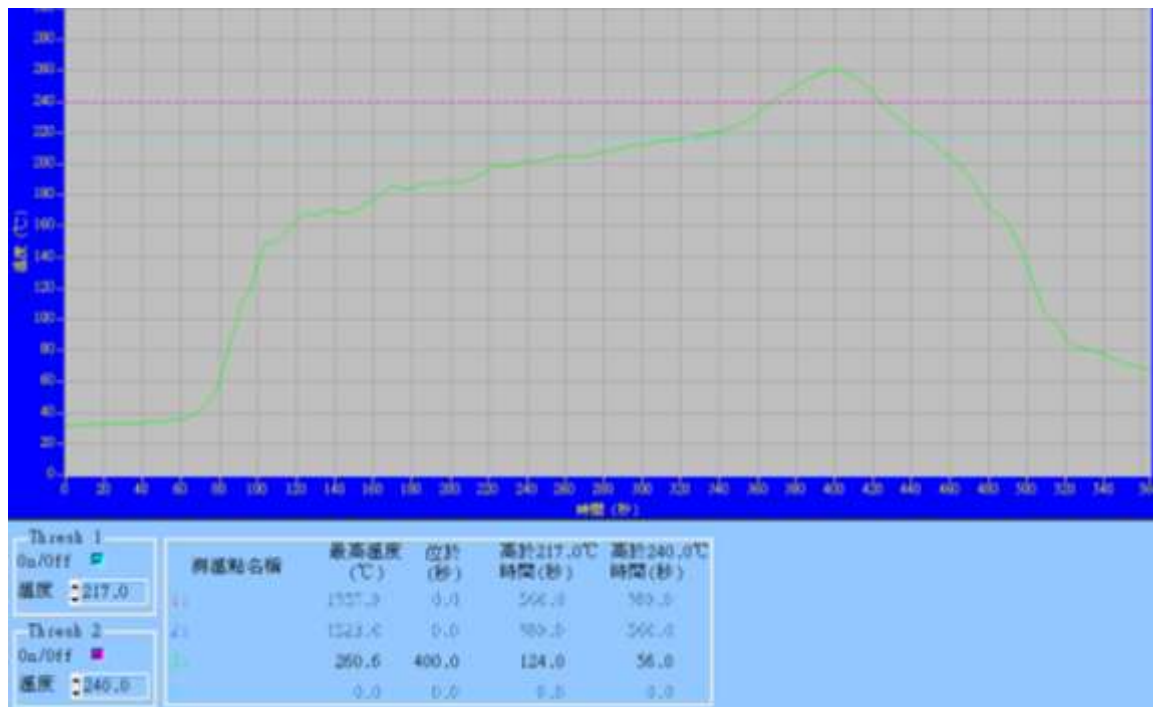
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10. Recommendable reflow soldering :



(1) Soldering gun procedure

Note the follows, in case of using solder gun for replacement.

- (a) The tip temperature must be less than 350°C for the period within 3 seconds by using soldering gun under 30 W.
- (b) The soldering gun tip shall not touch this product directly.

(2) Soldering volume

Note that excess of soldering volume will easily get crack the body of this Product.

UNLESS OTHER SPECIFIED TOLERANCES ON :			INPAQ TECHNOLOGY CO., LTD.		
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ANGLES=± HOLEDIA=±					
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