

ACH-5036-A1-CC-S Specification

1. Features and Application :

This product is for H-ISM band 、 915 MHz.

2. Explanation of Part Number :

AC H - 5036 - A1 - CC - S -
 (1) (2) (3) (4) (5) (6) (7)

- (1) Product Type : Chip Antenna
- (2) Center Frequency/Band Code : 915 MHz
- (3) Product Code : 5.0*3.6 mm (Length * Width)
- (4) Design Revision Code : Rev. 1
- (5) Antenna Type : Coupling Ceramics
- (6) Special Code : RoHS Compliant
- (7) Suffix For Special Requirements

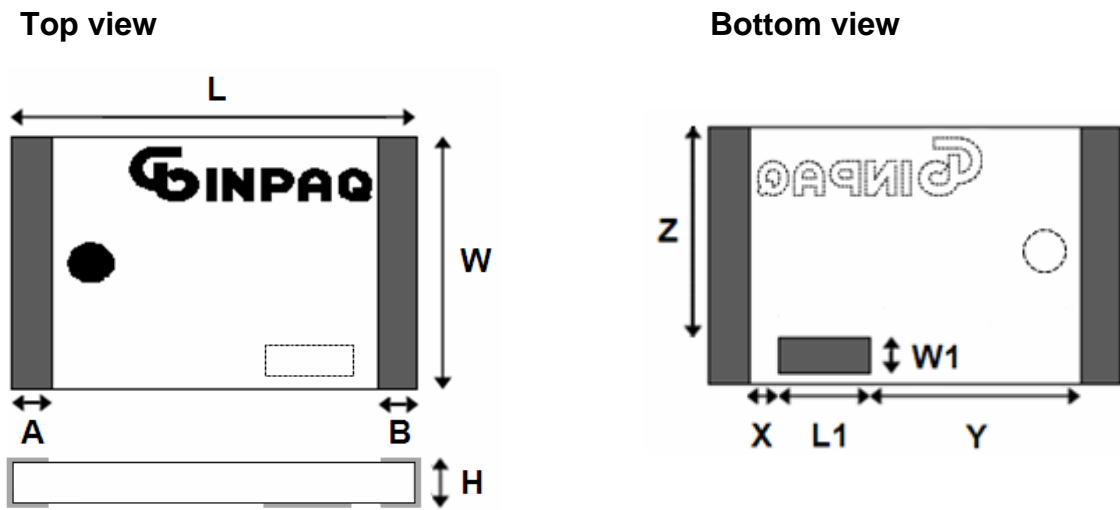
3. Electrical Specification :

Item	Specification
Frequency Band	902 ~ 928 MHz
Polarization	Linear
Impedance	50 ohm Typ.
VSWR	Less than 3
*Peak Gain	0.52 dBi Typ.
*Peak Efficiency	36.5 % Typ.

* Test condition: Test board size 80*20 mm
 Matching circuit may be required

UNLESS OTHER SPECIFIED TOLERANCES ON : X=± X.X=± X.XX= ANGLES=± HOLEDIA=±			INPAQ TECHNOLOGY CO., LTD.	
SCALE : -----	UNIT : mm			
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DESIGNED BY : 林豪建	APPROVED BY : 黃月碧			
TITLE : ACH-5036-A1-CC-S Specification		DOCUMENT NO.	ENS000095690	SPEC REV. P1

4. Physical Dimension :



L	5.20 ± 0.30
W	3.70 ± 0.30
H	0.70 ± 0.15
A	0.50 ± 0.25
B	0.50 ± 0.25
L1	1.10 ± 0.20
W1	0.55 ± 0.20
X	0.50 ± 0.10
Y	2.60 ± 0.20
Z	2.95 ± 0.30

(Unit : mm)

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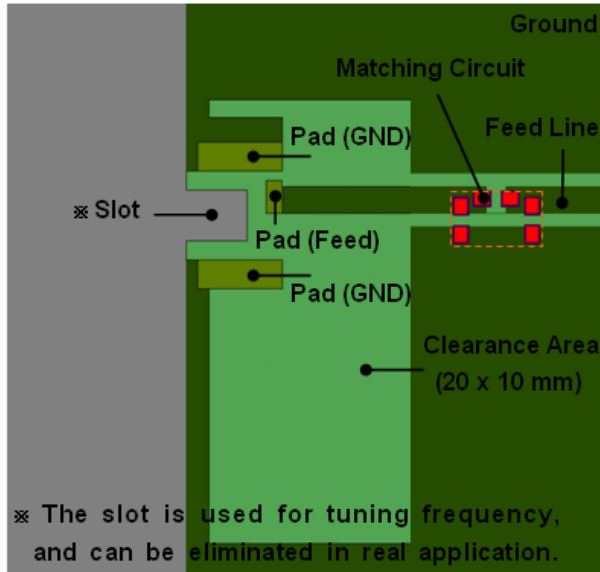
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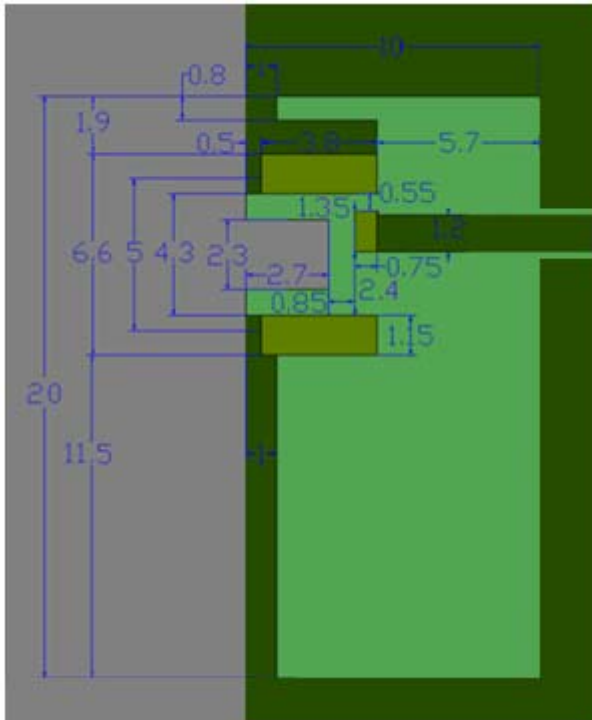
5. Recommend PCB Layout :

Layout

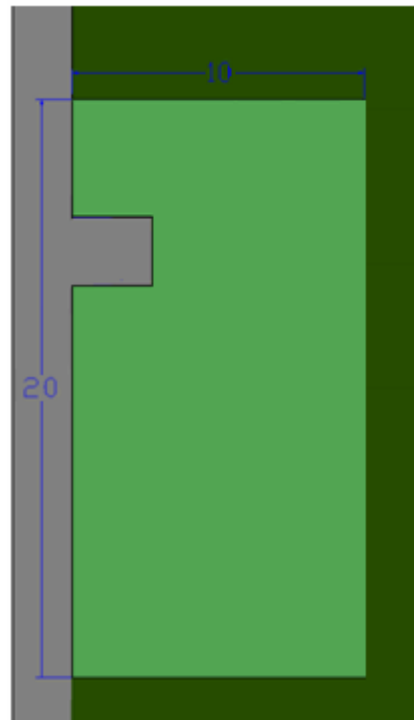


Pad Dimensions on PCB Layout

Top View



Perspective View



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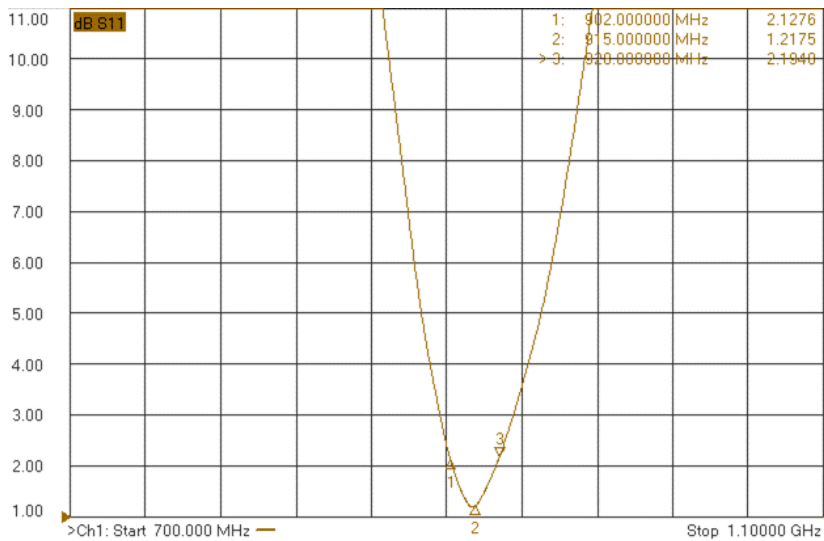
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6. Electrical Characteristics :

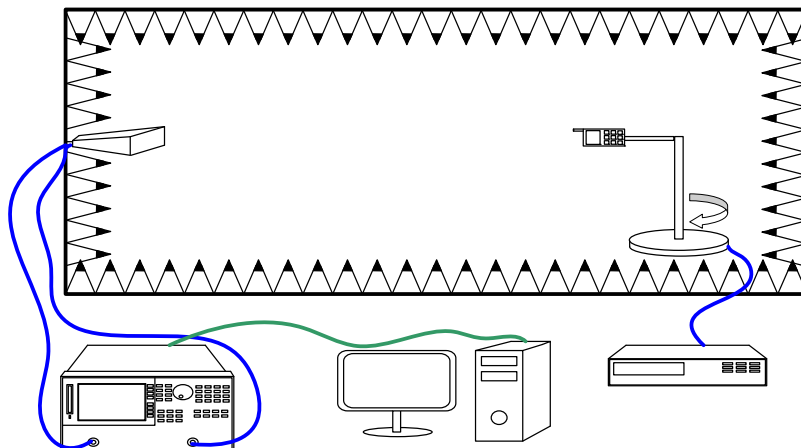
VSWR



Frequency (MHz)	VSWR
902	2.12
915	1.21
928	2.19

Radiation Pattern

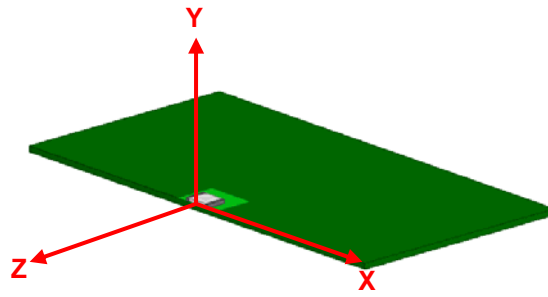
The Gain pattern is measured in INPAQ's FAR-field chamber. DUT is placed on the table of rotator, a standard horn antenna and Vector Network Analyzer is used to collect data.



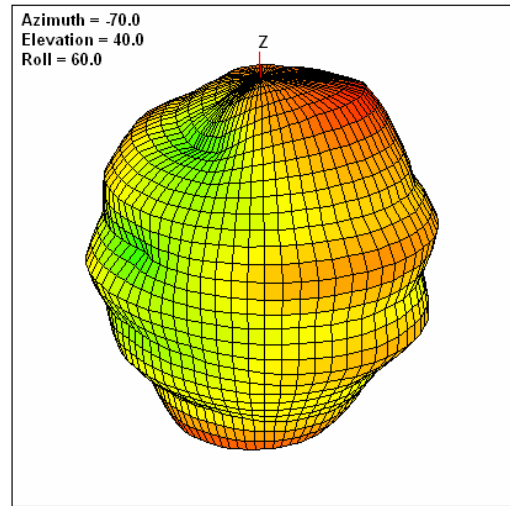
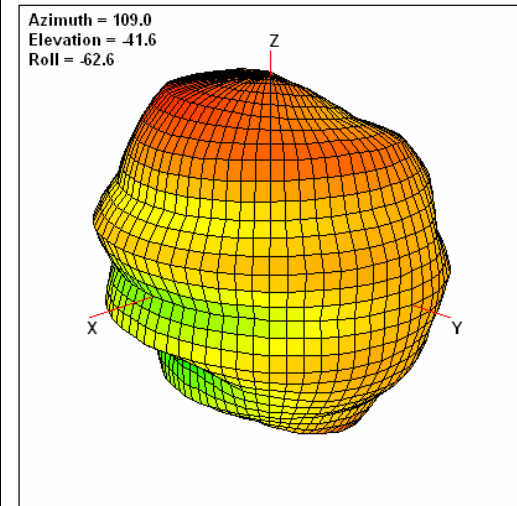
3D Chamber Definition

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3D Gain Pattern

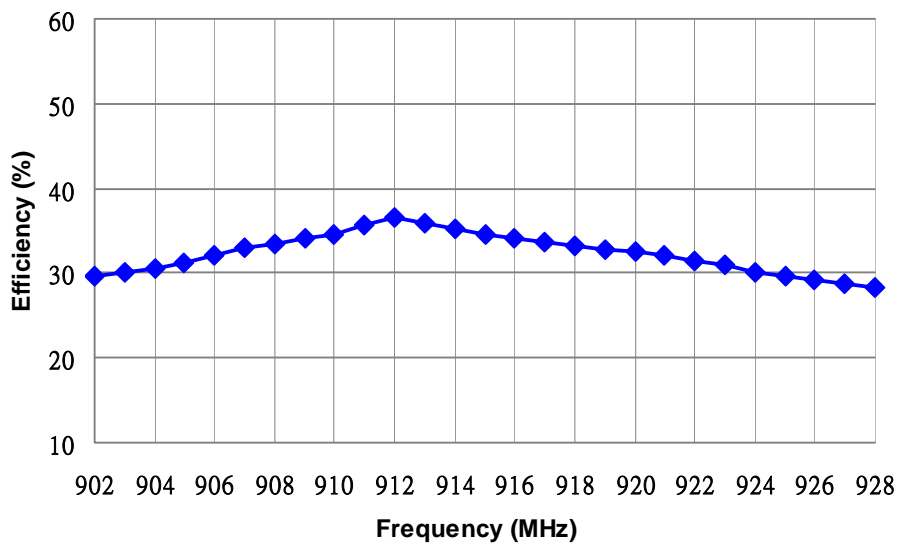


915 MHz



Efficiency

902 ~ 928 MHz



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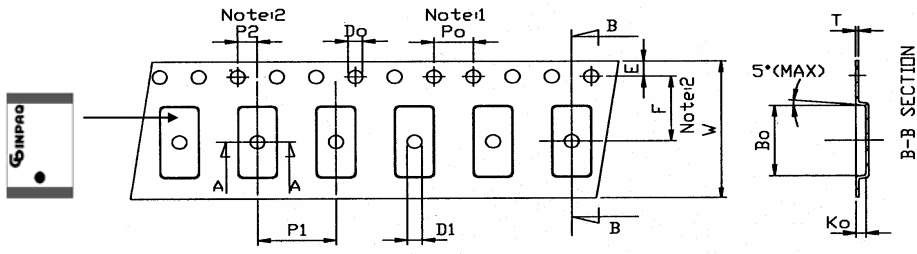
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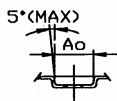
7. Tape & Reel Specifications (Unit : mm)

- (1) Quantity/Reel : 2000pcs/Reel
- (2) Carrier tape dimensions



Symbol	Spec.
Po	4.00±0.1
P1	8.00±0.1
P2	2.00±0.05
Do	1.55±0.05
D1	1.50(MIN)
E	1.75±0.1
F	5.50±0.05
10Po	40.00±0.2
W	12.00±0.1
T	0.25±0.05

Unit: mm)

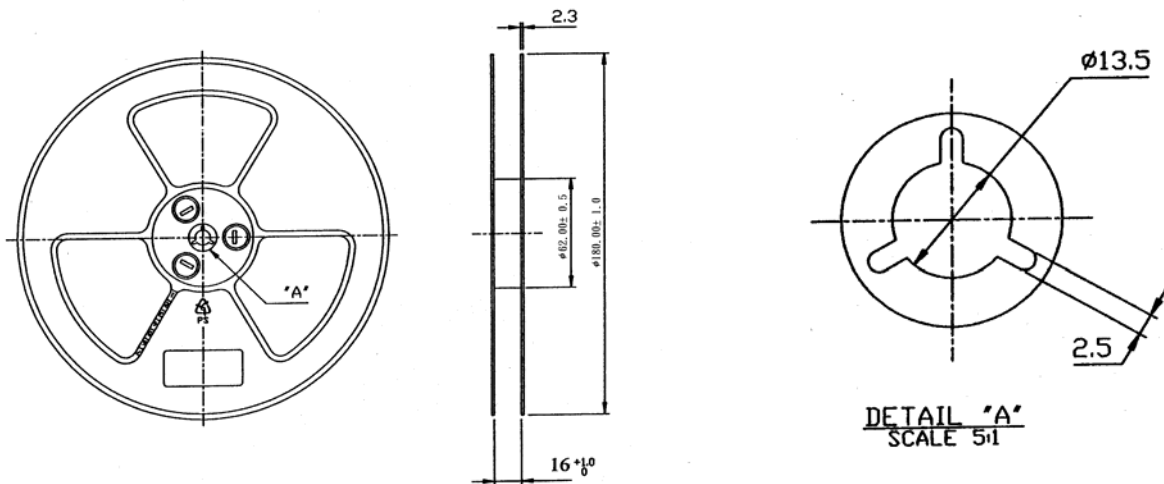


A0= 4.10±0.10 mm
 B0= 5.60±0.10 mm
 K0= 1.02±0.10 mm

Notice:

- 10 Sprocket hole pitch cumulative tolerance is ±0.1mm
- Pocket position relative to sprocket hole measured as true position of pocket not pocket hole.
- Ao & Bo measured on a plane 0.3mm above the bottom of the pocket to top surface of the carrier.
- Ko measured from a plane on the inside bottom of the pocket to the top surface of the carrier.
- Carrier camber shall be not than 1mm per 100mm through a length of 250mm.

(3) Taping reel dimensions



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8. Environmental Characteristics :

(1) Reliability Test

Item	Condition	Specification
Thermal shock	1. 30±3 minutes at -40±5°C 2. Convert to +105°C (5 minutes) 3. 30±3 minutes at +105±5°C 4. Convert to -40°C (5 minutes) 5. Total 100 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: 1000 hours	No apparent damage Fulfill the electrical spec. after test
High temperature resistance	1. Temperature: 150±5°C 2. Time: 1000 hours	No apparent damage Fulfill the electrical spec. after test
Low temperature resistance	1. Temperature: -40±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 60% RH.

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

(b) On Board :

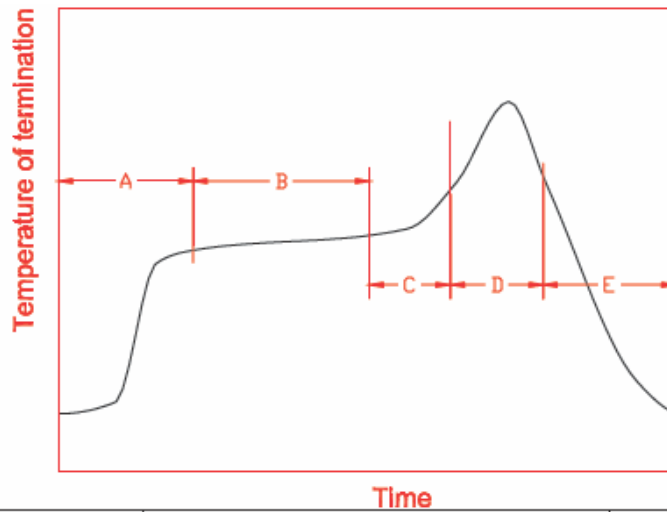
The temperature should be within -40~85°C and humidity should be less than 85% RH.

(3) Operating Temperature Range

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

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9. Recommended reflow soldering :



Time			
A	1 st rising temperature	The normal to Preheating temperature	30s to 60s
B	Preheating	140°C to 160°C	60s to 120s
C	2 nd rising temperature	Preheating to 200°C	20s to 40s
D	Main heating	if 220°C	50s~60s
		if 230°C	40s~50s
		if 240°C	30s~40s
		if 250°C	20s~40s
E	Regular cooling	200°C to 100°C	1°C/s ~ 4°C/s

*reference: J-STD-020C

(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.

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