

ACA-5020-D1-MF-S

1. Explanation of Part Number :

AC A - 5020 D1 - MF - S -
 (1) (2) (3) (4) (5) (6) (7)

- (1) Product Type : Chip Antenna
- (2) Center Frequency/Band Code : A -2.45GHz
- (3) Size Code : 5.0mm(length) x 2.0mm(width)
- (4) Design Revision Code : D1= Rev. 1
- (5) Series No. : MF=MONOPOLE PCB type
- (6) Special Code : S= RoHS Compliant
- (7) Suffix For Special Requirements

2. Electrical Specification :

ITEM	SPECIFICATION
Frequency Band	2400-2500MHz
Return Loss	Less than -10
Polarization	Linear
Impedance	50 ohm Typ.
Operating temperature	-45 ~85 °C
Dimension	5.0 x 2.0 x 1.6mm

* Test condition : Test board size 5*2 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 : 郭副哲

CHECKED BY : 林存蔚

DESIGNED BY : 彭少君

APPROVED BY : 謝立庭

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TITLE : ACA-5020-D1-MF-S Specification

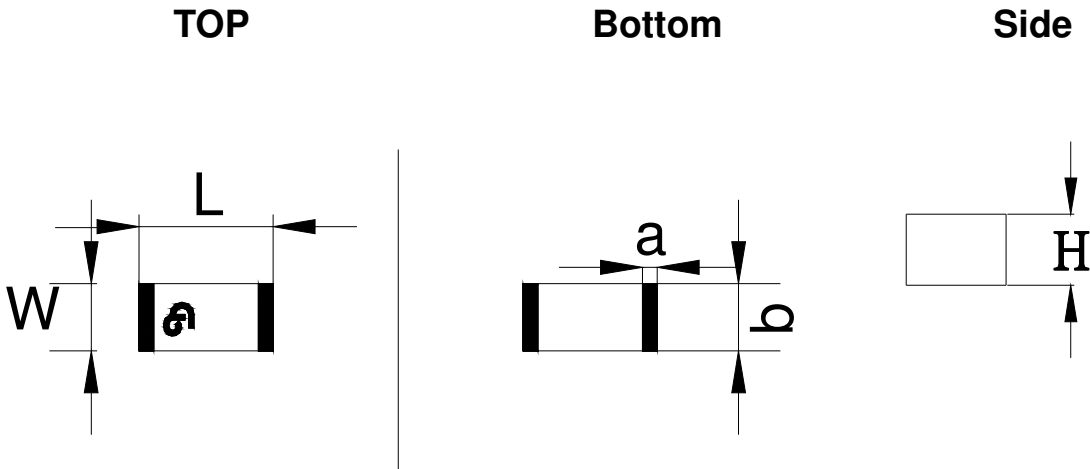
DOCUMENT
NO.

ENS000122130

SPEC REV.

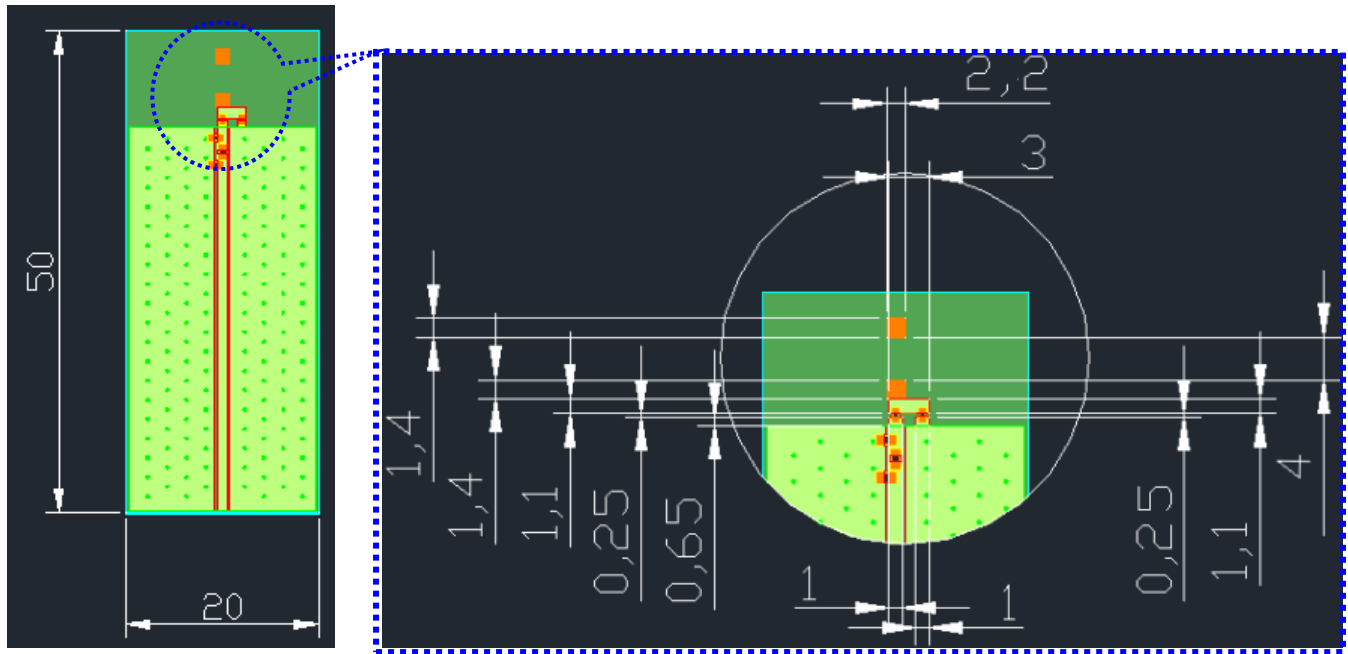
P0

3. Physical Dimension :



Chip Antenna	L	W	H	a	b
ACA-5020-D1-MF-S	5.0±0.2	2.0±0.2	1.6±0.2	0.7±0.2	2±0.2

4. Recommend PCB Layout :



Unit : mm

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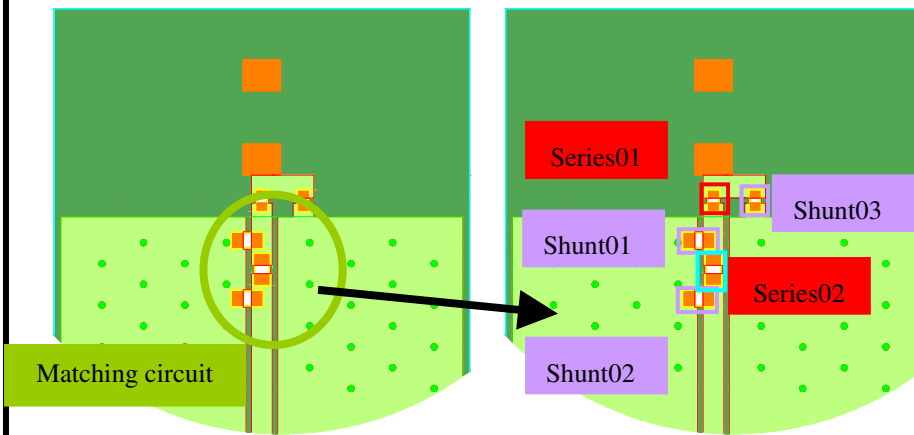
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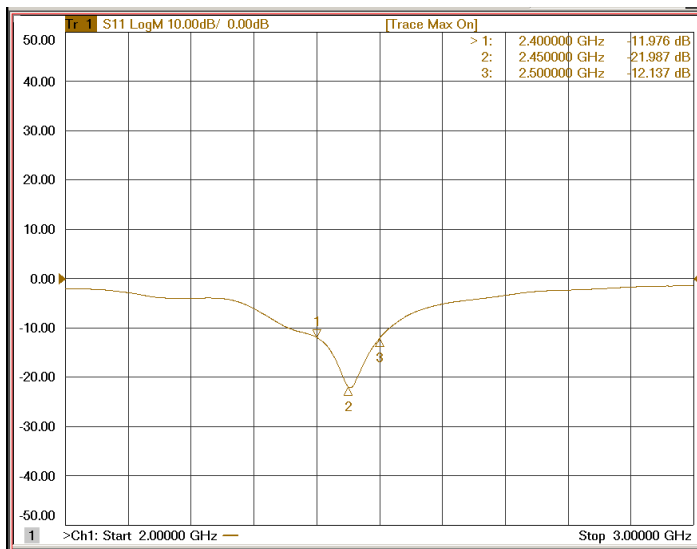
Matching Circuit on Demoboard :



Circuit Symbol	Size	Description
Series01	0201	6.8nH
Series02	0201	0ohm
Shunt01	0402	N/A
Shunt02	0402	N/A
Shunt03	0201	N/A

5. Electrical Characteristics :

Return Loss



Frequency (MHz)	S11(dB)
2400	-11
2450	-21
2500	-12

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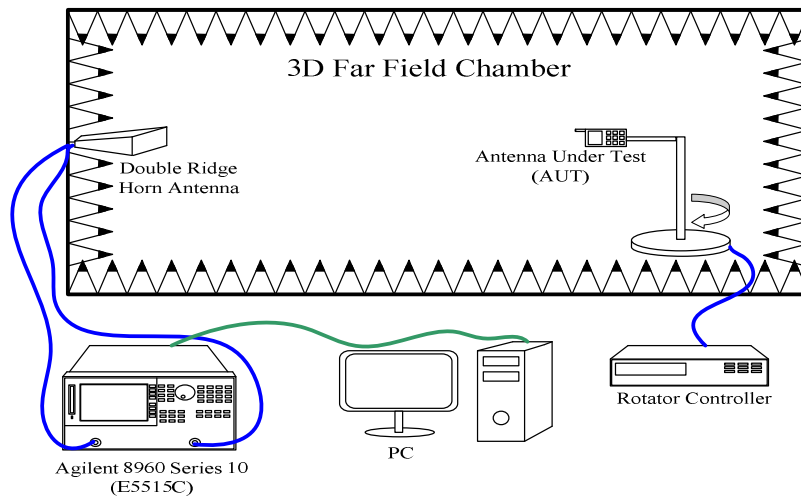
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Radiation Pattern

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.



3D Chamber Definition

Efficiency & Peak Gain :

Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)
2400	4.23	59.16
2410	4.3	60.35
2420	4.28	60.18
2430	4.46	62.59
2440	4.49	63.69
2450	4.51	64.52
2460	4.52	65.16
2470	4.5	65.22
2480	4.44	64.69
2490	4.45	64.65
2500	4.47	63.97

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