

ACA-5010-A1-MF-S

1. Explanation of Part Number :

AC A - 5010 A1 - 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 1.0mm(width)
- (4) Design Revision Code : A1= 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 1.0 x 1.6mm

* Test condition : Test board size 5*1 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

SCALE : N/R

UNIT : mm

DRAWN BY : 黃建棠

CHECKED BY : 劉維林

DESIGNED BY : 彭少君

APPROVED BY : 謝立庭

TITLE : ACA-5010-A1-MF-S Specification



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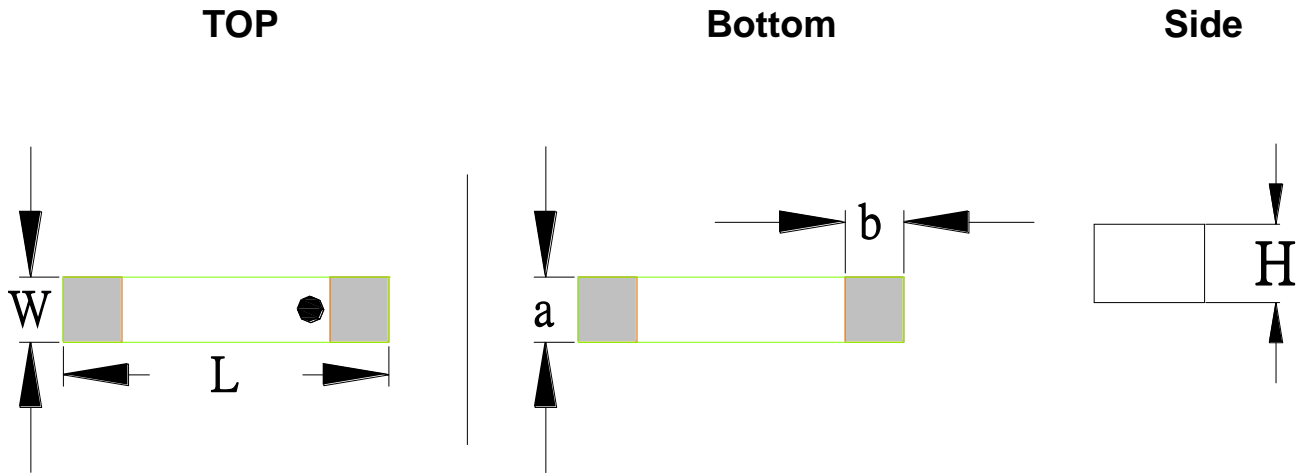
DOCUMENT
NO.

ENS000122120

SPEC REV.

P2

3. Physical Dimension :



Chip Antenna	L	W	H	a	b
ACA-5010-A1-MF-S	5.0±0.2	1.0±0.2	1.6±0.2	1±0.2	0.9±0.2

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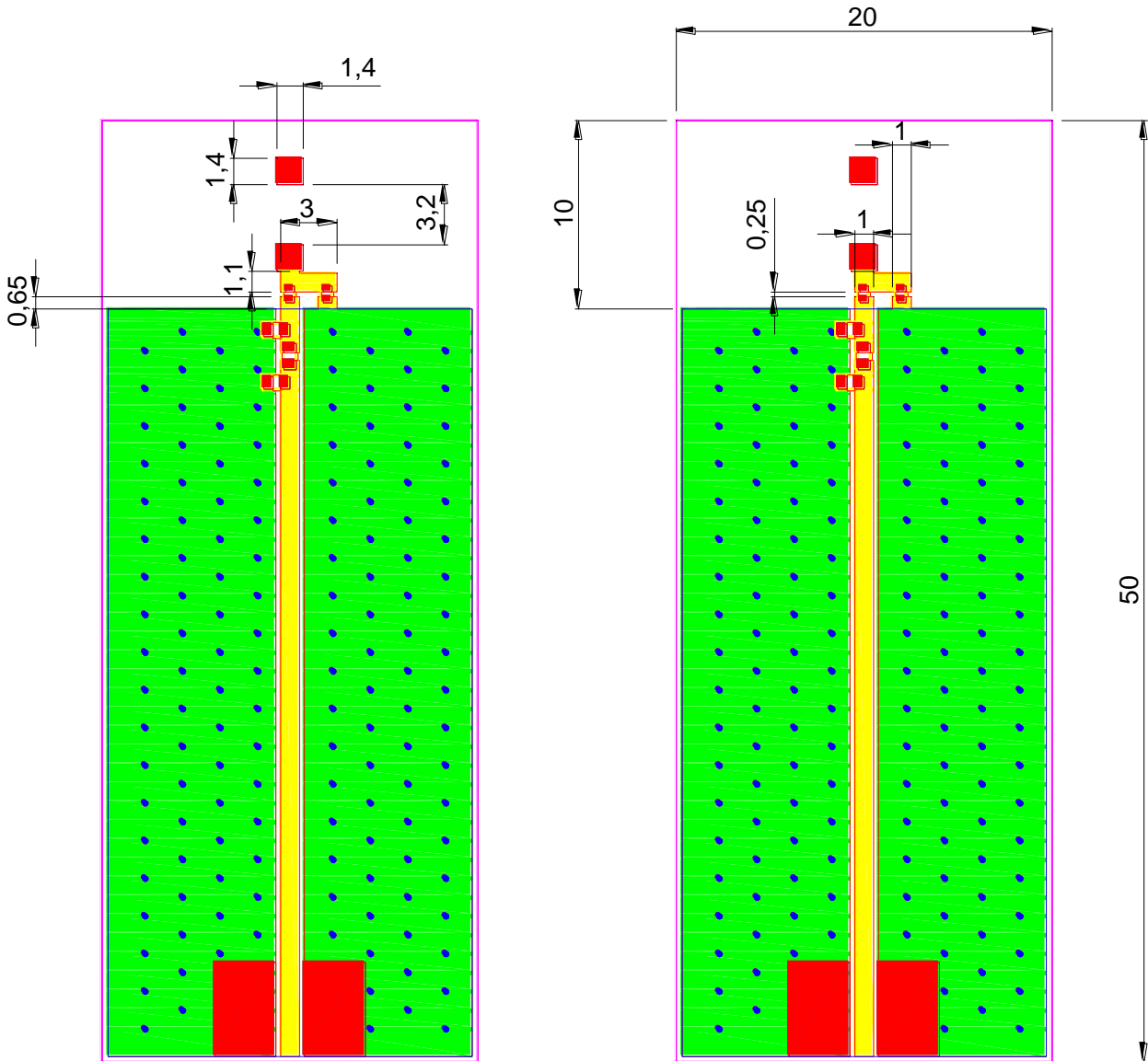
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SPEC REV. P2

4. Recommend PCB Layout :



Unit : mm

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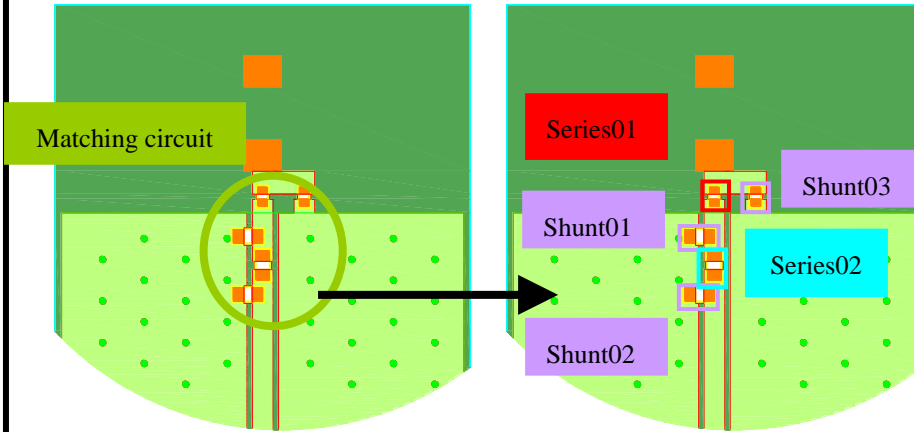
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SPEC REV. P2

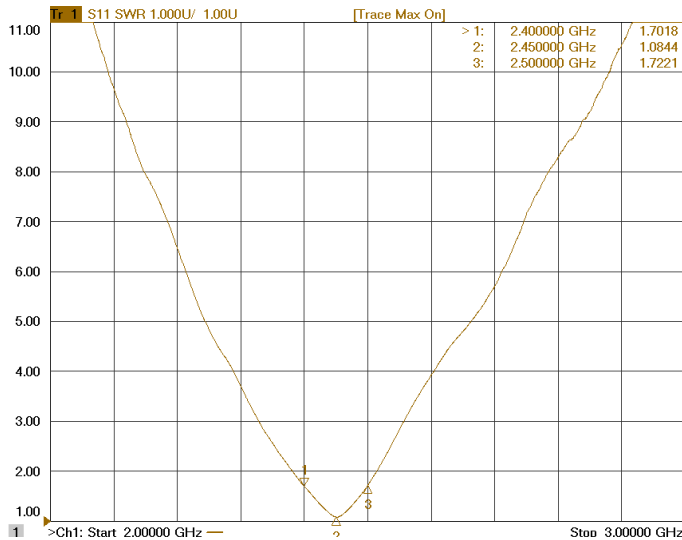
Matching Circuit on Demoboard :



Circuit Symbol	Size	Description
Series01	0201	6.8nH
Series02	0201	1.2nH
Shunt01	0402	N/A
Shunt02	0402	0.7pF
Shunt03	0201	N/A

5. Electrical Characteristics :

VSWR



Frequency (MHz)	VSWR
2400	1.70
2450	1.08
2500	1.72

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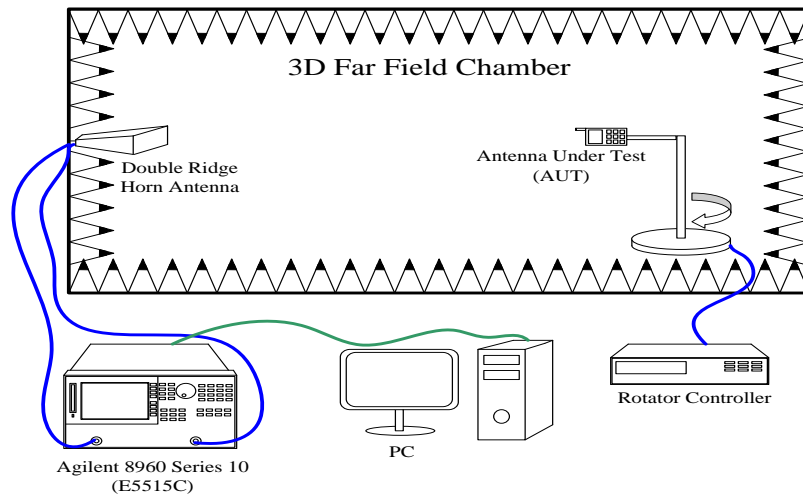


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DOCUMENT NO.	ENS000122120	SPEC REV.
		P2

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	3.62	47.01
2410	3.61	47.4
2420	3.54	50.07
2430	3.59	52.6
2440	3.54	54.19
2450	3.48	55.89
2460	3.38	53.92
2470	3.34	50.57
2480	3.27	47.64
2490	3.2	47.51
2500	3.19	45.6

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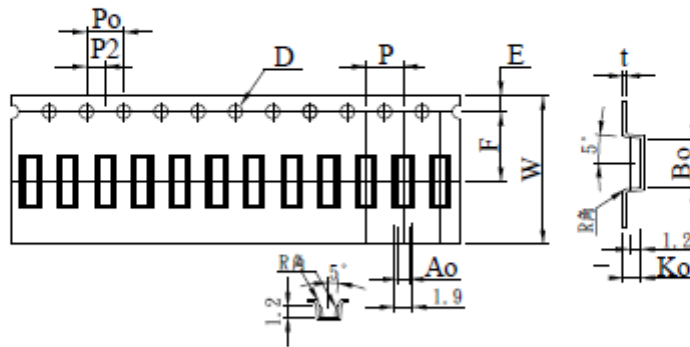
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6. Taping Package and Label Marking : (unit : mm)

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

SALES LEADS AND PRODUCT REQUEST FORM

SPEC NO: 112673



ITEM	SPEC
W	16.0 +0.30 -0.30
Ao	1.30 +0.10 -0.10
Bo	5.30 +0.10 -0.10
Ko	1.90 +0.10 -0.10
P	4.00 +0.10 -0.10
F	7.50 +0.10 -0.10
E	1.75 +0.10 -0.10
D	1.50 +0.10 -0.00
D1	0.00 +0.10 -0.10
Po	4.00 +0.10 -0.10
P2	2.00 +0.10 -0.10
t	0.30 +0.05 -0.05

RATIO 2 : 1

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