

ACA-2012-A1-CC-S Specification

1. APPLICATION:

WLAN, 802.11b/g, Bluetooth, etc...

2. Explanation of part number :

AC A - 2012 - A1 - CC S
(1) (2) - (3) - (4) - (5) (6) (7)

- (1) Product Type: Chip Antenna
- (2) Center Frequency/Band Code : A—2442MHz group
- (3) Size Code: 2.0mm(Length) x 1.2mm(Width)
- (4) Design Revision Code: Rev.1
- (5) CC= Coupling Ceramics Type
- (6) Special Code: S=RoHS Compliant
- (7) Suffix For Special Requirements

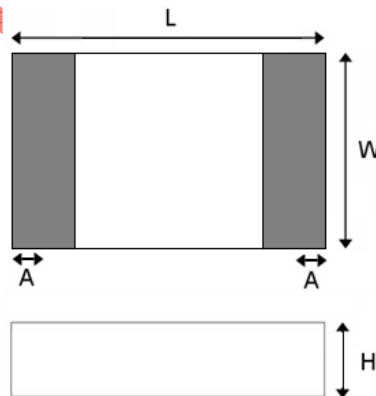
3. Electrical Specification :

ITEM	SPECIFICATION
Frequency Band	2400MHz~2483MHz
VSWR	Less than 3
Polarization	Linear
*Peak Gain	1.72 dBi Typ.
*Peak Efficiency	72.3% Typ.
Impedance	50Ω Typ.

* Test condition: Test board size 110*55 mm

Matching circuit: Pi matching circuit will be required

4. Physical Dimension : (Unit:mm)



Chip Antenna	L	W	H	A
ACA2012	2.0±0.3	1.2±0.3	0.55±0.2	0.4±0.25

UNLESS OTHER SPECIFIED TOLERANCES ON :

X = ± X.X = ± X.XX =
ANGLES = ± HOLEDIA = ±



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SCALE : -----

UNIT : mm

DRAWN BY : 楊奇峰

CHECKED BY : 鄭大福

DESIGNED BY : 謝立庭

APPROVED BY : 蘇志銘

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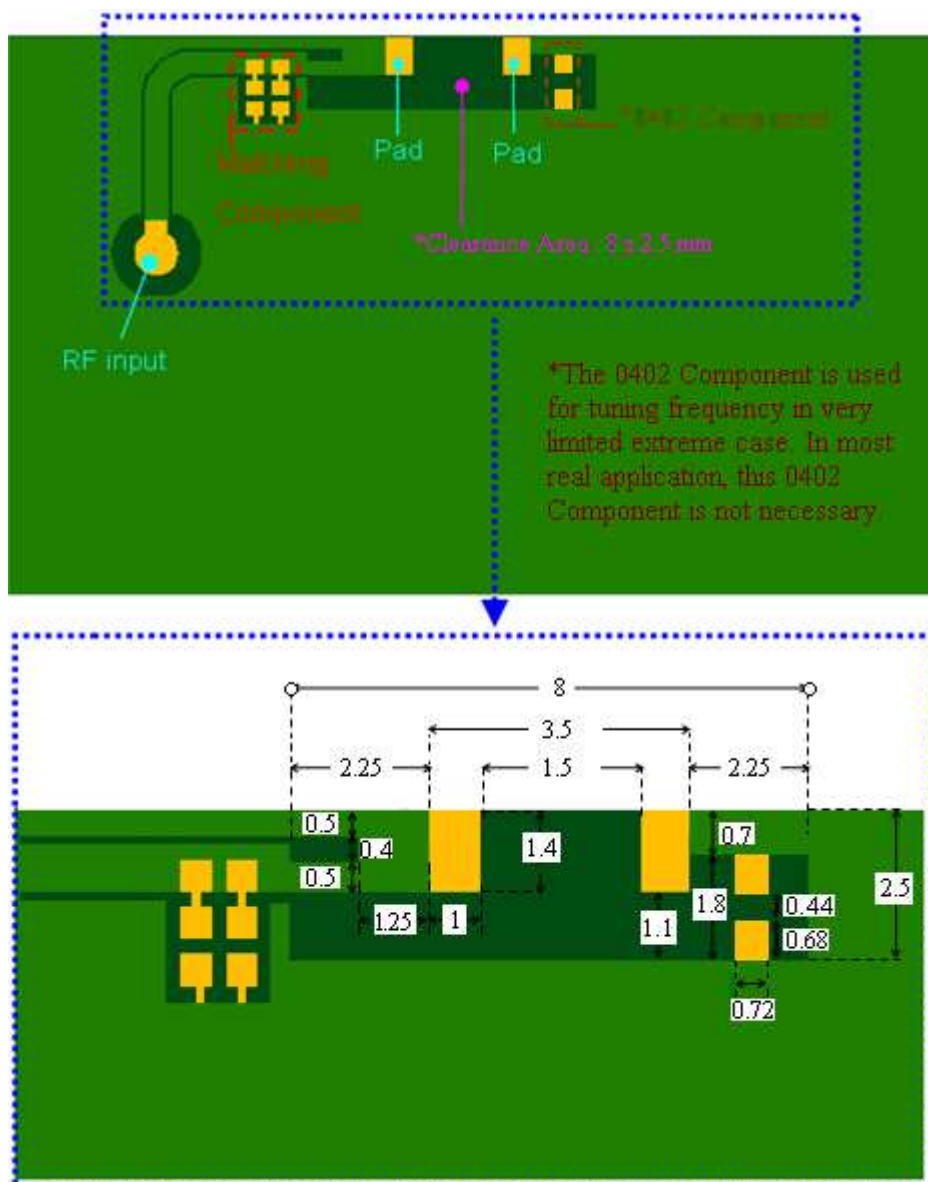
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5. Recommend PCB Layout : (Unit:mm)



*Clearance 8mm × 2.5mm : All metallization should be removed from all PCB layers.

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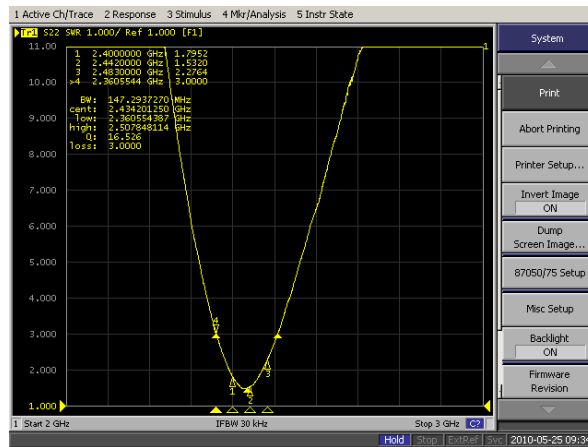
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6. Electrical Characteristics :

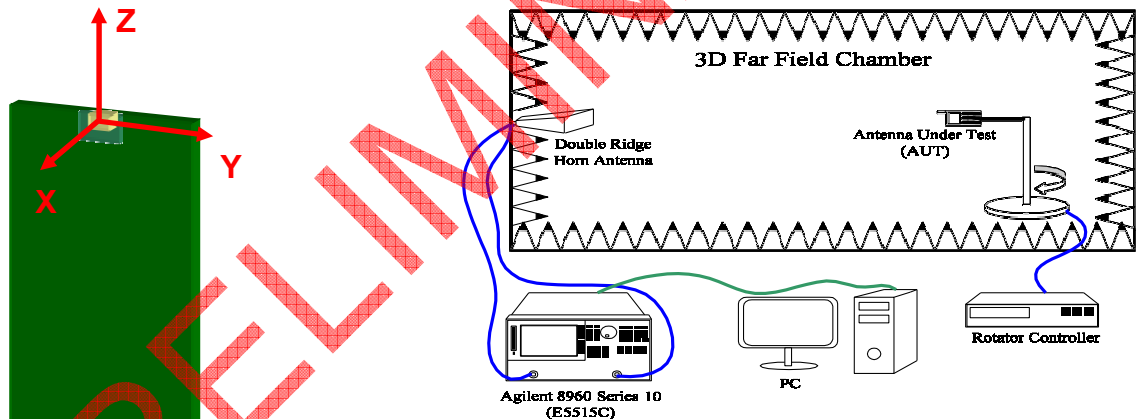
VSWR



Mark	Frequency	VSWR
1	2400 MHz	1.80
2	2442 MHz	1.53
3	2483 MHz	2.28

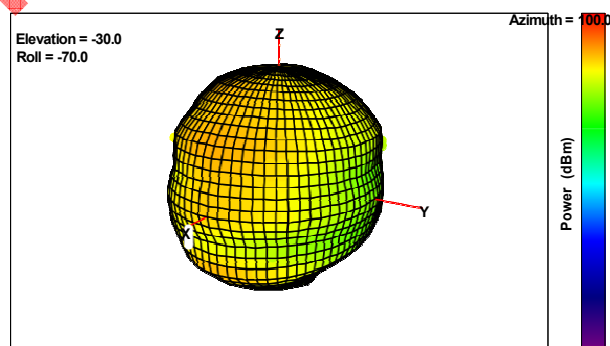
Radiation Pattern

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

© 3D Gain Pattern (2442 MHz)



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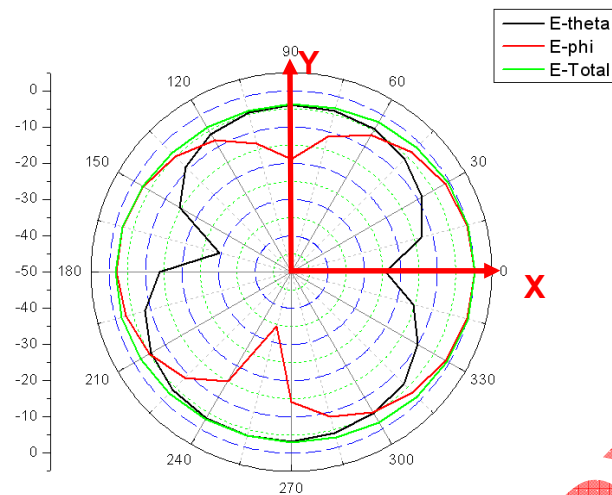
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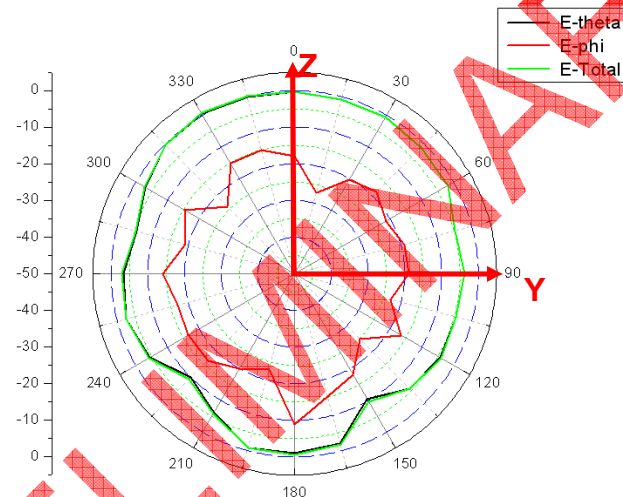
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◎ 2D Gain Pattern (2442 MHz)

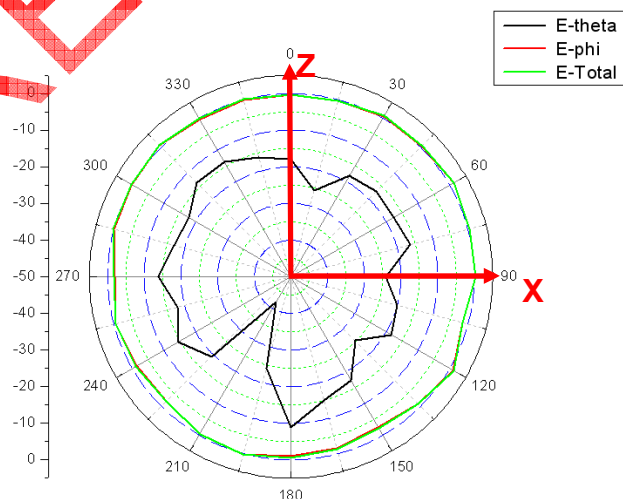
X-Y Plane



Y-Z Plane



X-Z Plane



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7. Antenna specification

Design Specifications	Typical	Units
天线形式	Chip	
工作频率(working Frequency)	2400MHz ~ 2500MHz	MHz
增益 (Gain)	Peak Gain (Max)1.72 dBi Typ.	
天线效率 (Antenna efficiency)	Peak Efficiency(Max)72.3% Typ.	
电压驻波比 (VSWR)	≤3	
极化方式 (Polarization)	线极化	
轴比(Axial Ratio)	>20	
辐射方向(Radiation pattern)	全向	
馈电阻抗 (impedance)	50 ohm	
功率容量(Power handling)	Max 30dBm	
天线尺寸(Overall dimensions)	2.0mm x 1.2mm x 0.55mm	mm
重量(Weight)	5	mg/pcs
工作温度(Working Temp)	-40°C to +105°C	°C

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