

APPROVAL SHEET

FPC Antenna

2.4~2.5 GHz Working Frequency

Halogens Free Product

P/N: RFFPA301914IMAB301

Customer : Primax Electronics Ltd.

Customer 's Part No. :

Production : 禾邦电子（苏州）有限公司
INPAQ TECHNOLOGY(SUZHOU) CO., LTD

Address : 中國江苏省无锡市锡山区安泰一路81号
No.81, Antai 1st Road, Xishan District, Wuxi, Jiangsu, China

[illegible]

品名：RFFPA301914IMAB301

1. Explanation of part number：

RF	FPA	3019	14	I	M	A	B	3	01
Type Code	Product Code	FPCB Dimension (Unit: mm)	Cable Length (unit: cm)	Connector Brand	Type of Connector	Application	Project status	Wire Diameter	Project
RF Device	FPC Antenna	Per 2 digits of length, width e.g.: 3019 Length 30.0mm, Width 19.7mm	2 digits for cable length e.g.: 14 Length 14.7cm	A: N C:MCX D:IPEX III E: IPEX IV F: IPEX A13 H: Hirose I: IPEX M: MMCX S: SMA T: TNC U:MURATA N: None	A: Reverse Female B: Reverse Male F: Female M: Male N: None	0: 0GHz 3: 3GHz 5: 5GHz 6: 6GHz A: 2.4GHz ISM band B: GSM 900/1800 dual band G: GPS band L: 2.4/5.2/5.8 GHz tri-band N: NFC T: LTE band W: WCDMA band	B: MP T:During Test X: Pile Run	0:None 1:Ø 0.81 2:Ø 1.32 3:Ø 1.13 4:Low Loss Ø 1.13 5:Ø 0.5 6:RG316 7: Ø 1.37 8:RG178 9:Low Loss Ø 1.37	01~99 series number

2. Electrical Specification：

Item	Specification
Working Frequency Range	2.4~2.5 GHz (note-1)
Return Loss	-10.0 dB(Max)
VSWR	2.0 (Max)
Polarization	Linear
Radiation Pattern	Omni-directional
Impedance	50Ω

UNLESS OTHER SPECIFIED TOLERANCES ON：
X=N/A X.X=N/A X.XX=N/A
ANGLES=N/A HOLEDIA=N/A



INPAQ TECHNOLOGY CO., LTD.

SCALE：N/A

UNIT：mm

DRAWN BY：劉采璇

CHECKED BY：詹惠雯

DESIGNED BY：林育帆

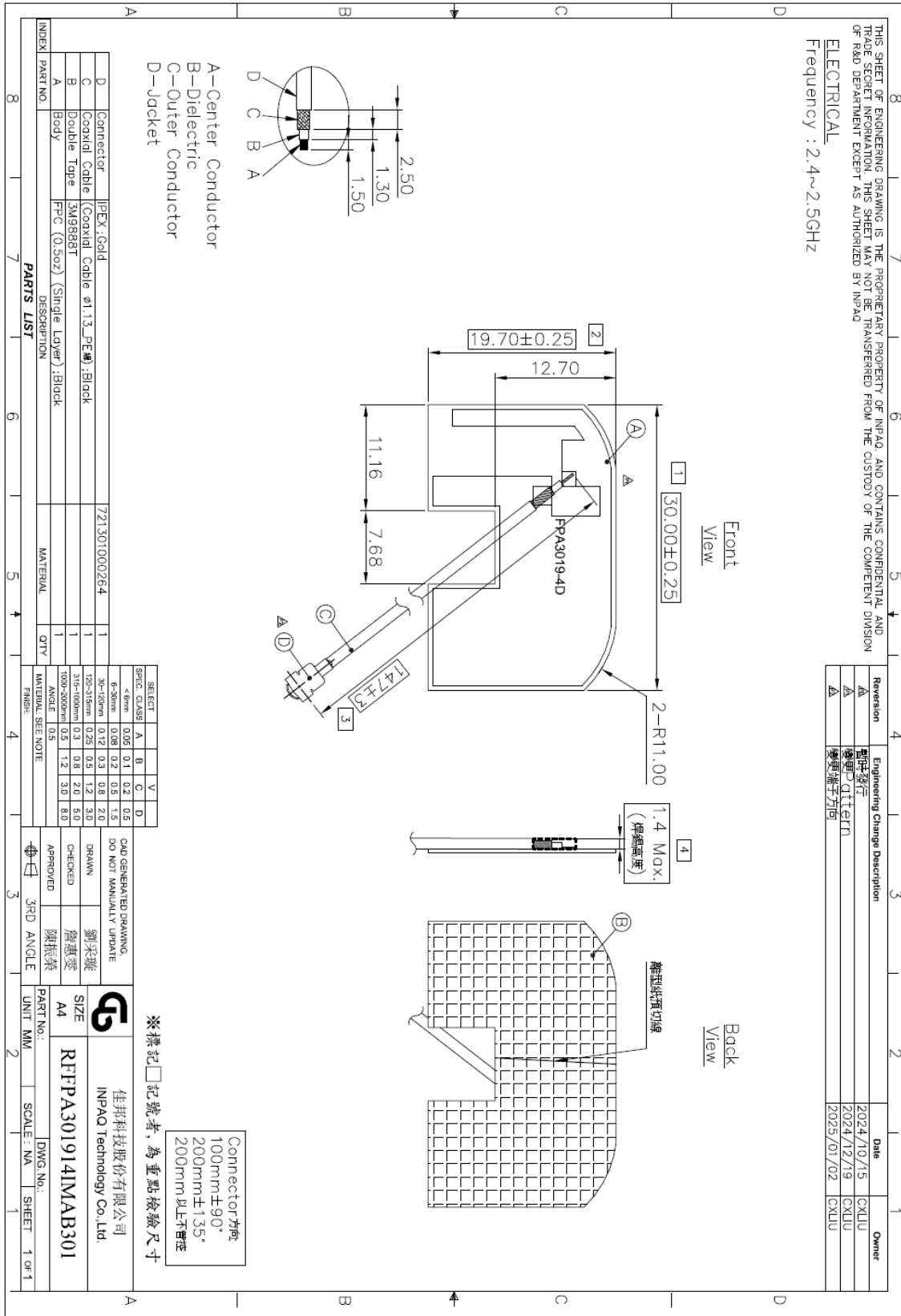
APPROVED BY：陳振榮

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TITLE：RFFPA301914IMAB301

DOCUMENT
NO.SPEC REV.
P0

3. Antenna Drawing :



UNLESS OTHER SPECIFIED TOLERANCES ON :
X = N/A X.X = N/A X.XX = N/A
ANGLES = N/A HOLEDIA = N/A



INPAQ TECHNOLOGY CO., LTD.

SCALE : N/A

UNIT : mm

DRAWN BY : 劉采璇

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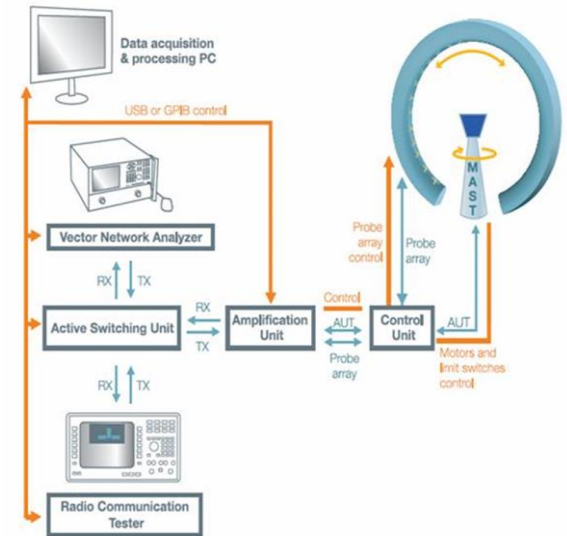
Bubblicious

Antenna measurement report



- 1. Brand: Primax
- 2. Model Name : 12-D0101CG01
- 3. Manufacture information: Primax
- 4. Test engineer name :Kyle Wang
- 5. Test date:2024.03.13
- 6. Test Equipment : SATIMO Testing System (SG-24L)
- 7. test set up photo/equipment/ measure method

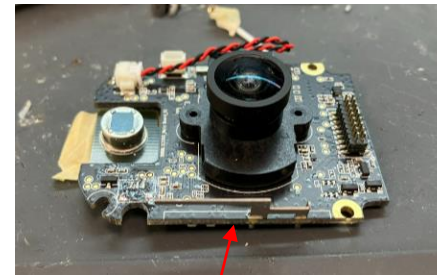
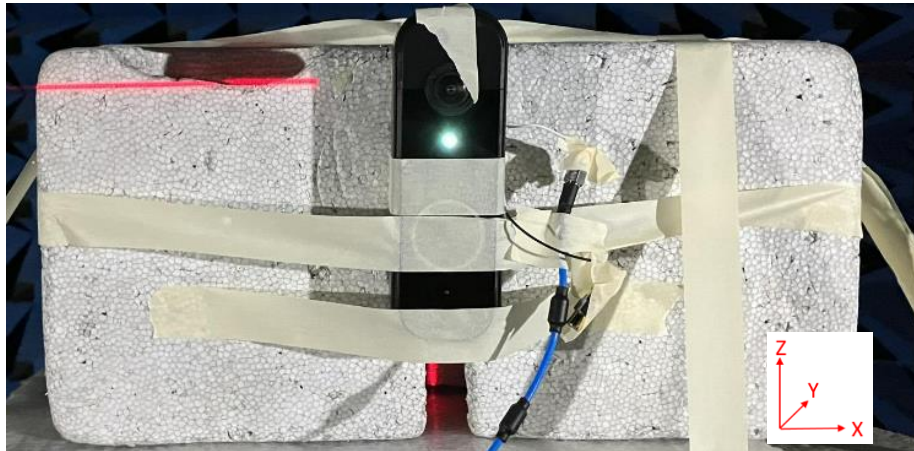
Antenna	WiFi	BLE
Type	Metal	FPC
model	RFMTA250900NNAB001	RFFPA301914IMAB301
connector info	X	IPEX



Measurement Information

Test Setup:

1. Test in anechoic chamber(Satimo Antenna Testing System)
2. Use instrument such as VNA(vector network analyzer),active switching unit , amplification unit, radio communication unit
3. Scan WIFI band test frequency
4. Test Return Loss by using Network analyzer
5. The DUT with housing and internal antenna



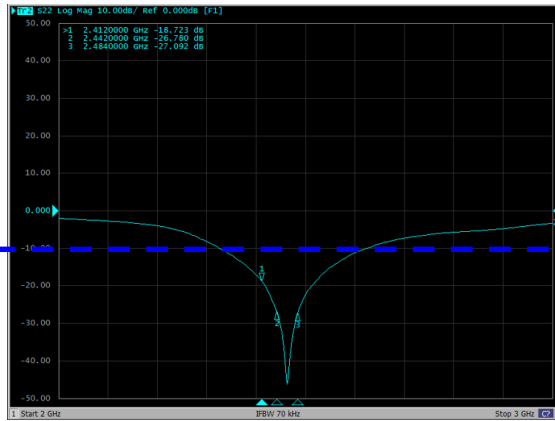
Wi-Fi ANT



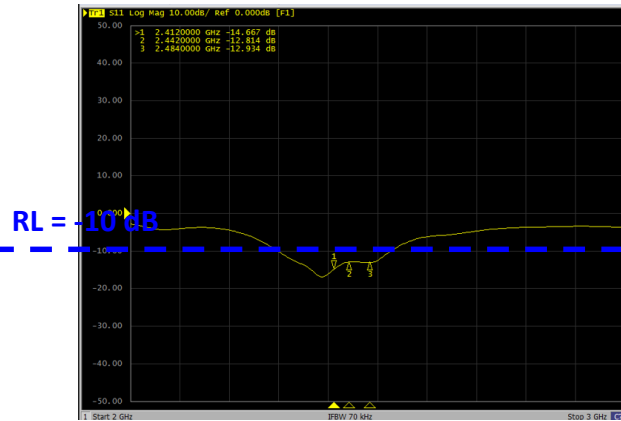
BLE ANT

Bubblicious Performance

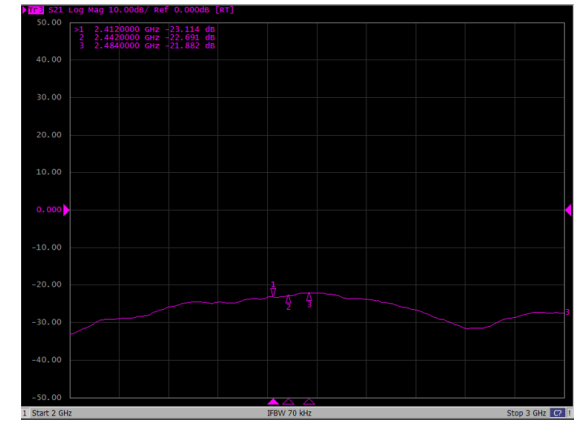
WIFI



BLE



Isolation



Frequency(MHz)	WiFi		BLE	
	Efficiency(%)	Peak Gain(dBi)	Efficiency(%)	Peak Gain(dBi)
2412	51%	0.87	45%	1.81
2442	55%	1.18	47%	1.65
2484	56%	1.37	47%	1.96



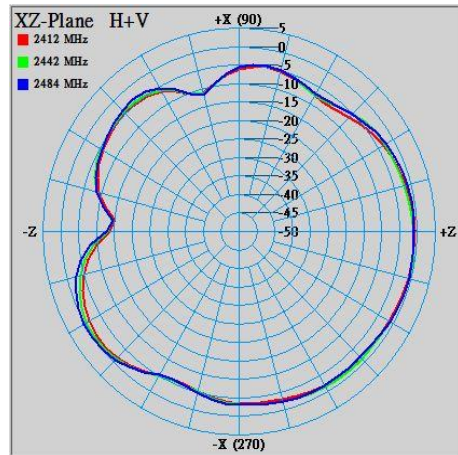
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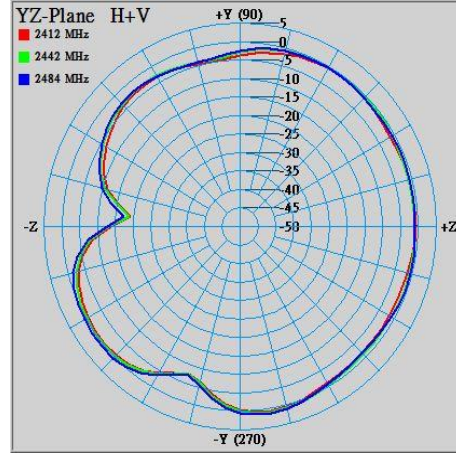
BLE ANT

2D Radiation Patterns _ Wi-Fi

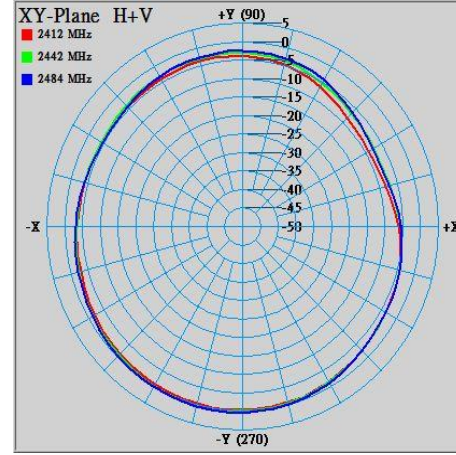
XZ-Plane



YZ-Plane

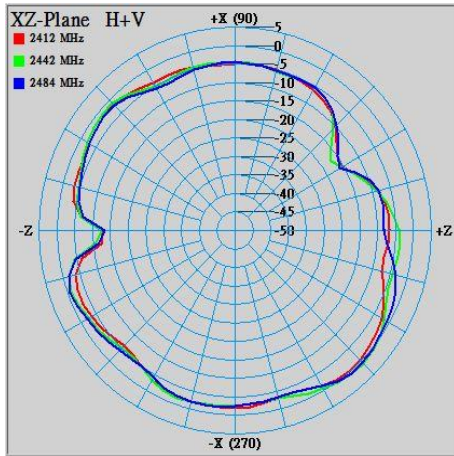


XY-Plane

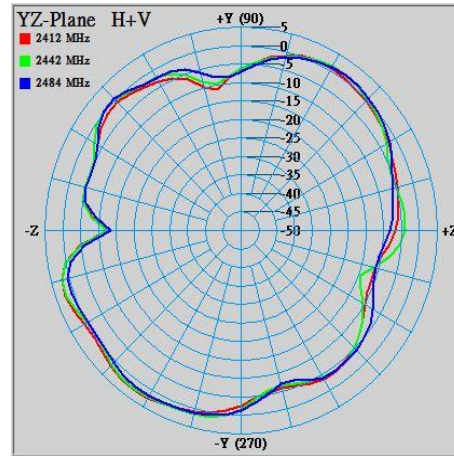


2D Radiation Patterns _ BLE

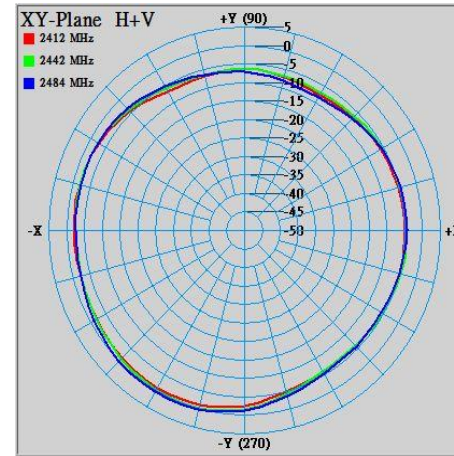
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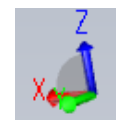
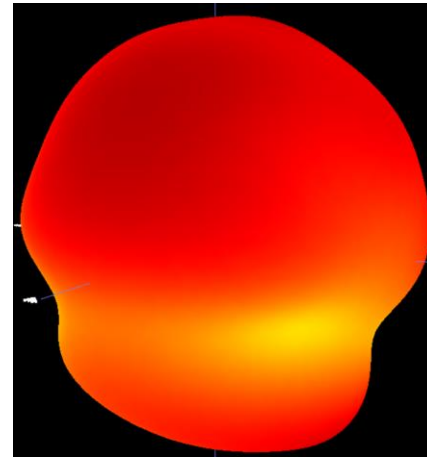
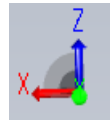
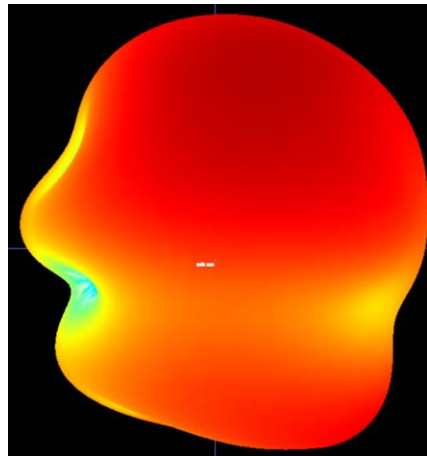
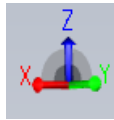
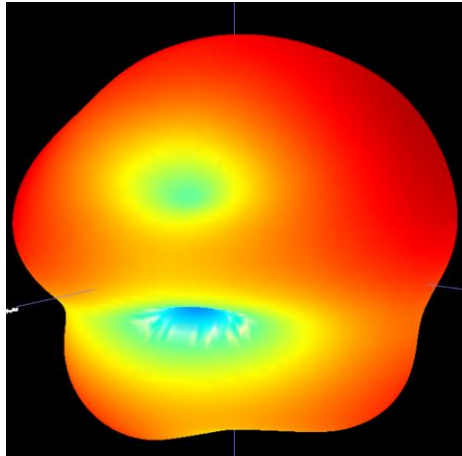
YZ-Plane



XY-Plane



3D Radiation Patterns



3D Radiation Patterns_BLE

3D Radiation Patterns

