

# APPROVAL SHEET

**FPC Antenna**

**2.4~2.5 GHz Working Frequency**

**P/N: RFFPA301720EMAB302**

Customer : 威強電工業電腦股份有限公司

Customer 's Part No. : 32505-011900-100-HF

Approval No. :

Issue Date :



# 品名：RFFPA301720EMAB301

## 1. Explanation of part number :

RF	FPA	3017	20	E	M	A	B	3	02
Type Code	Product Code	PCB Dimension (Unit: mm)	Cable Length (unit: cm)	Connector Brand	Type of Connector	Application	Project status	Wire Diameter	Project
RF Device	FPA Antenna	Per 2 digits of length, width e.g.: 1614 Length 160.0mm, Width 140.0mm	2 digits for cable length e.g.: 20 5G1 : Length 17.5cm 5G2 : Length 17.5cm 2G1 : Length 20.0cm 2G2 : Length 13.0cm BT : Length 7.0cm	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>B: Reverse Male</b> F: Female M: Male N: None	<b>0: 0GHz</b> <b>3: 3GHz</b> <b>6: 6GHz</b> <b>5: 5GHz</b> A: 2.4GHz ISM band B: GSM 900/1800 dual band G: GPS band L: 2.4/5.X GHz tri-band <b>N: NFC</b> <b>T: LTE band</b> W: WCDMA band	B: MP <b>T: During Test</b> X: Pile Run	0: None 1: Ø0.81 2: Ø1.32 3: Ø1.13 4: Low Loss Ø1.13 5: Ø0.5 6: RG316 7: Ø1.37 8: RG178 9: Low Loss Ø1.37	01~99 series number

## 2. Electrical Specification :

Item	Specification
Working Frequency Range	2.4~2.5 GHz
Gain	2.64 dBi
Return Loss	-10dB(Max)
VSWR	2 max.
Polarization	Linear
Radiation Pattern	Omni-directional
Impedance	50Ω
Operation Temperature	-20°C ~ +65°C
Antenna type	PIFA

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 : 邱瑩鈺

CHECKED BY : 詹惠雯

DESIGNED BY : 黃瑞郎

APPROVED BY : 陳振榮

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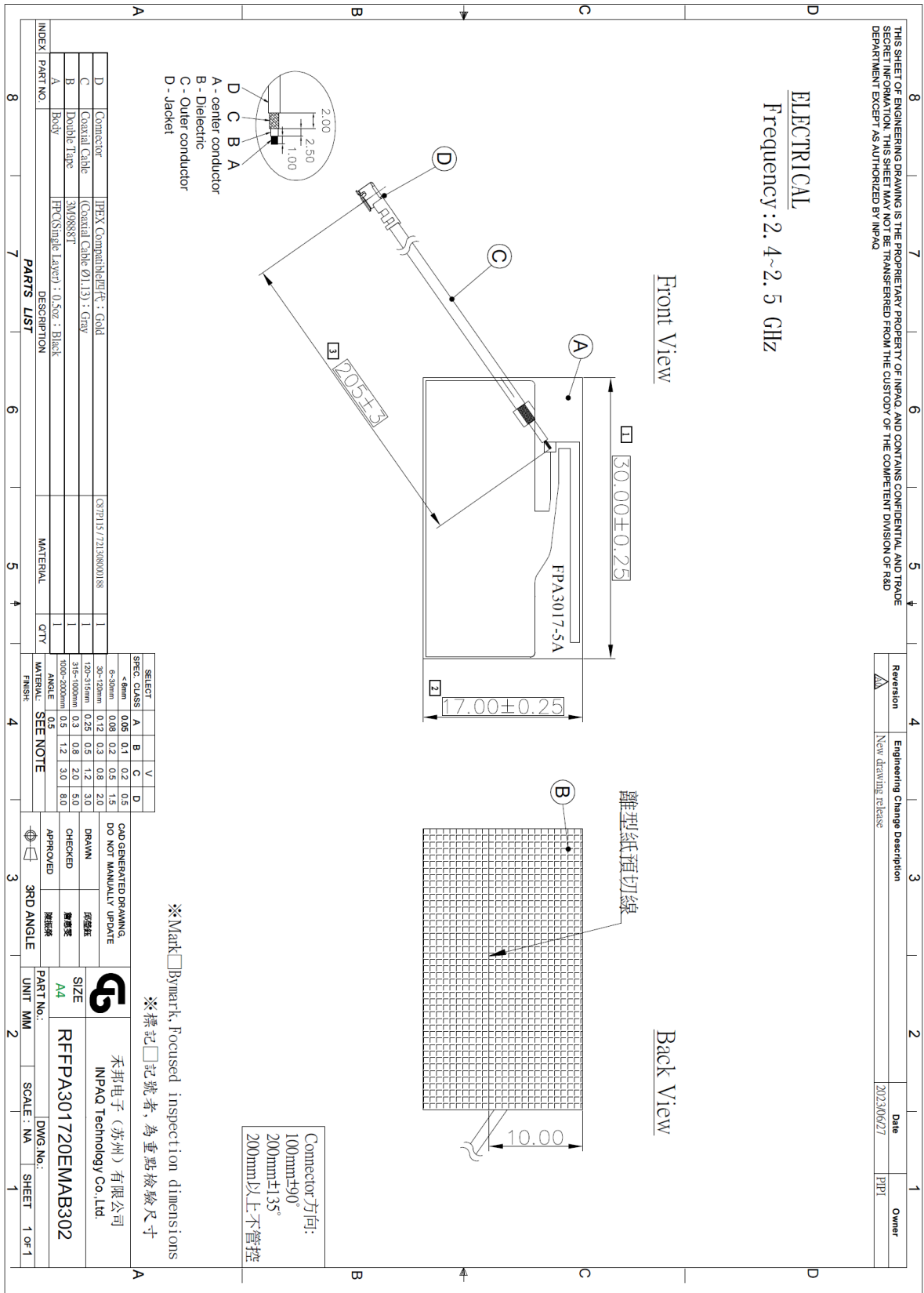
TITLE : RFFPA301720EMAB302

DOCUMENT NO.

ENS070030510-000803721275


SPEC REV.  
A0

3. Drawing :



THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF INPAQ, AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. IT IS TO BE TRANSMITTED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY INPAQ

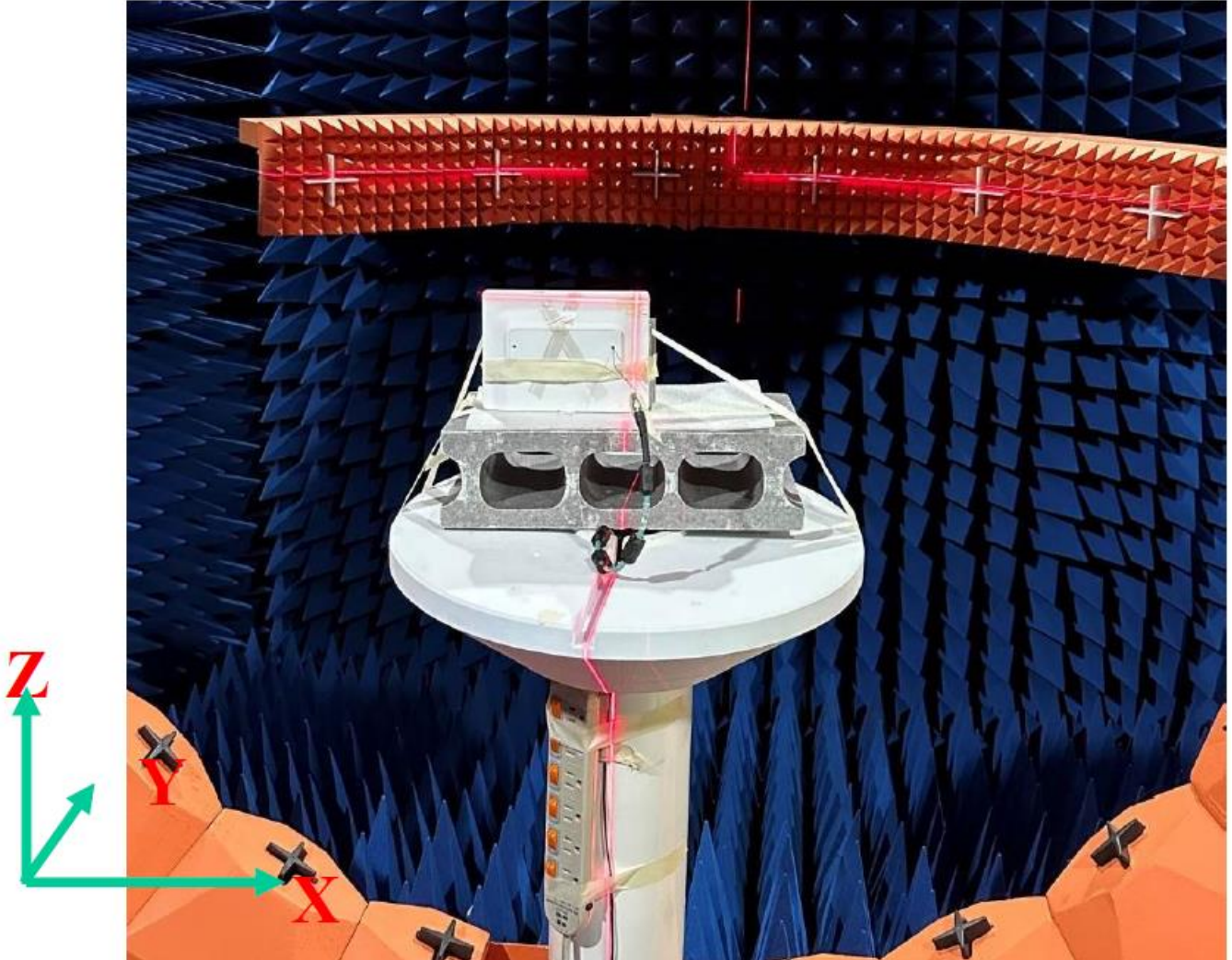
Revision	Engineering Change Description	Date	Owner
1	New drawing release	2023/06/27	pp1


UNLESS OTHER SPECIFIED TOLERANCES ON : X=N/A      X.X=N/A      X.XX=N/A ANGLES=N/A      HOLEDIA=N/A		 <b>INPAQ TECHNOLOGY CO., LTD.</b>
SCALE : N/A	UNIT : mm	
DRAWN BY : 邱發鈺	CHECKED BY : 詹惠愛	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION
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TITLE : RFFPA301720EMAB302		DOCUMENT NO. ENS070030510-000803721275
		SPEC REV. <b>A0</b>

4. Performance Report :

**Test Report**

**Experimental Setup**




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		SPEC REV. <b>A0</b>

## Antenna Solution Detail

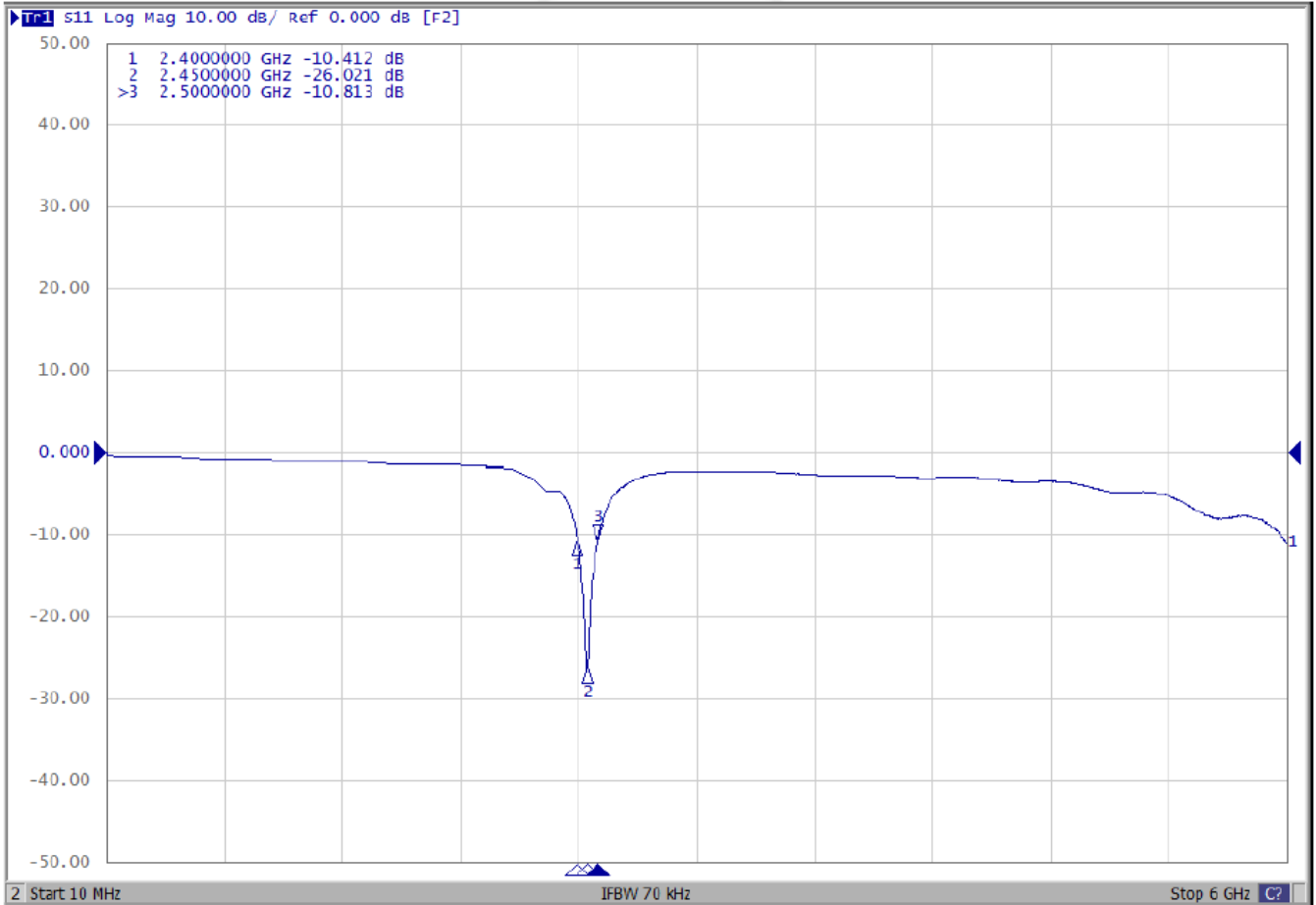
WiFi




UNLESS OTHER SPECIFIED TOLERANCES ON : X=N/A      X.X=N/A      X.XX=N/A ANGLES=N/A      HOLEDIA=N/A		 <b>INPAQ TECHNOLOGY CO., LTD.</b>
SCALE : N/A	UNIT : mm	
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# ELECTRICAL CHARACTERISTICS

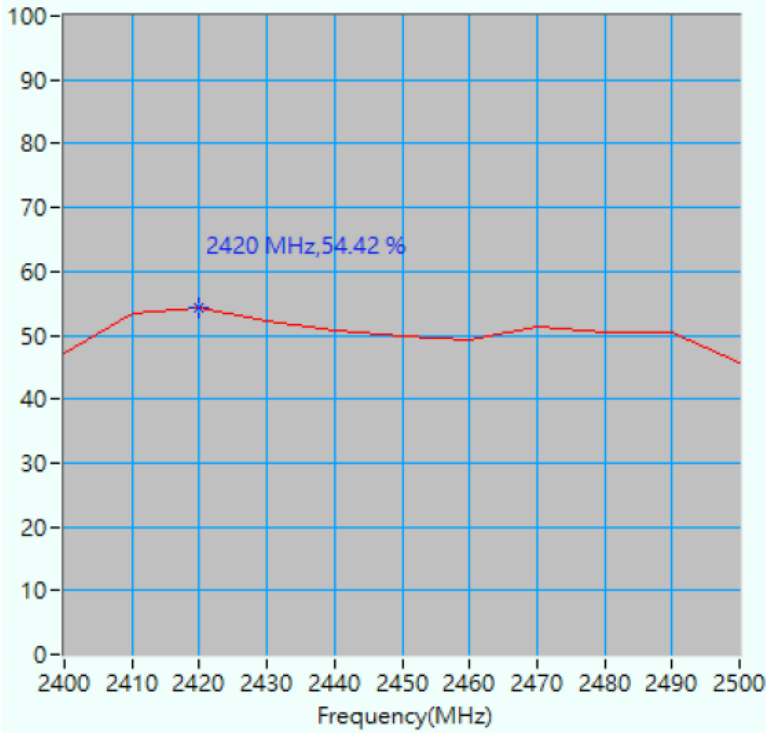
## S-parameter



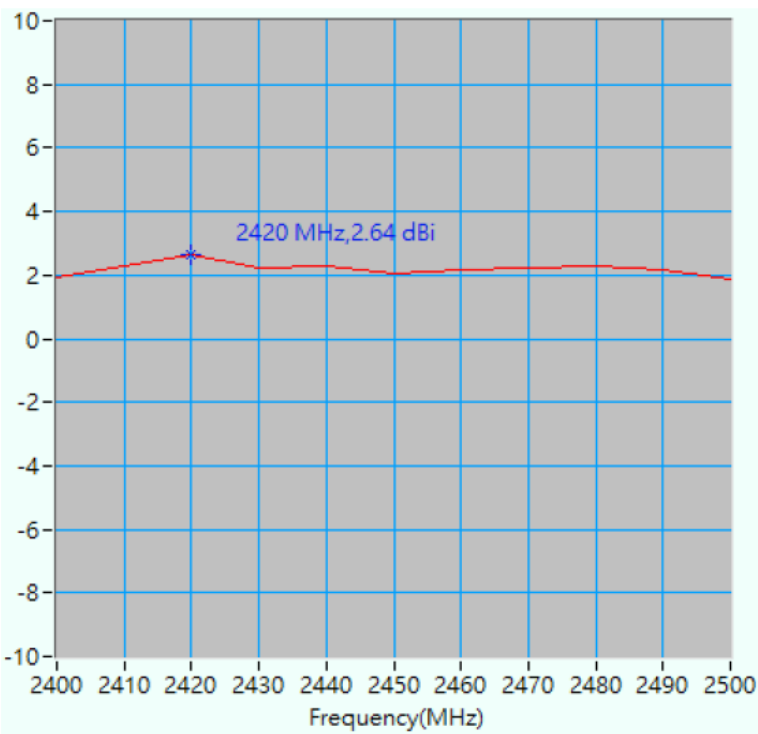
UNLESS OTHER SPECIFIED TOLERANCES ON : X=N/A      X.X=N/A      X.XX=N/A ANGLES=N/A      HOLEDIA=N/A		 <b>INPAQ TECHNOLOGY CO., LTD.</b>
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## Antenna Efficiency and Peak Gain



Maximum Efficiency at 2420MHz : 54.42%



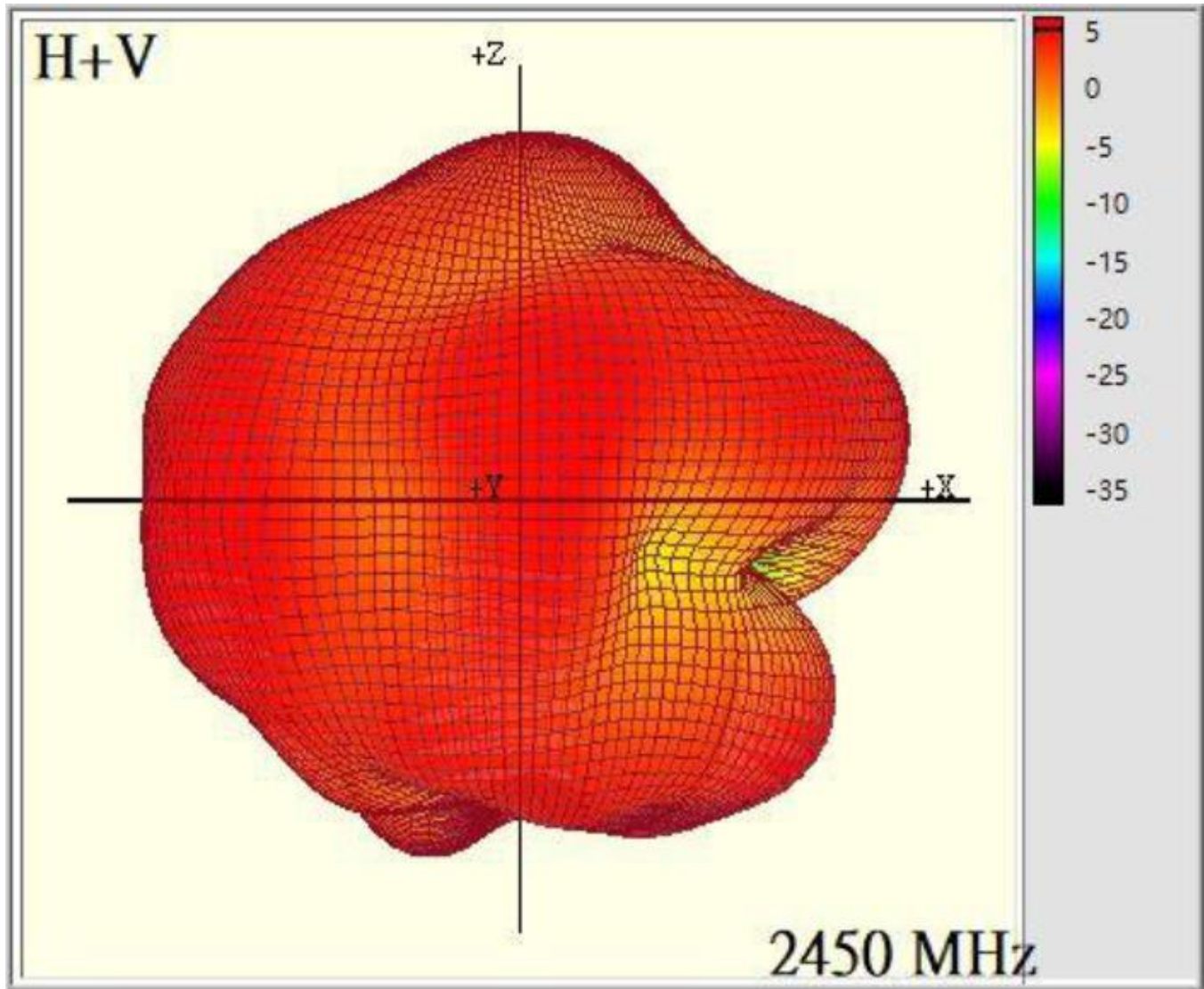
Maximum Peak Gain at 2420MHz : 2.64dBi


UNLESS OTHER SPECIFIED TOLERANCES ON : X=N/A      X.X=N/A      X.XX=N/A ANGLES=N/A      HOLEDIA=N/A		 <b>INPAQ TECHNOLOGY CO., LTD.</b>
SCALE : N/A	UNIT : mm	
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3D Pattern

WiFi-2G

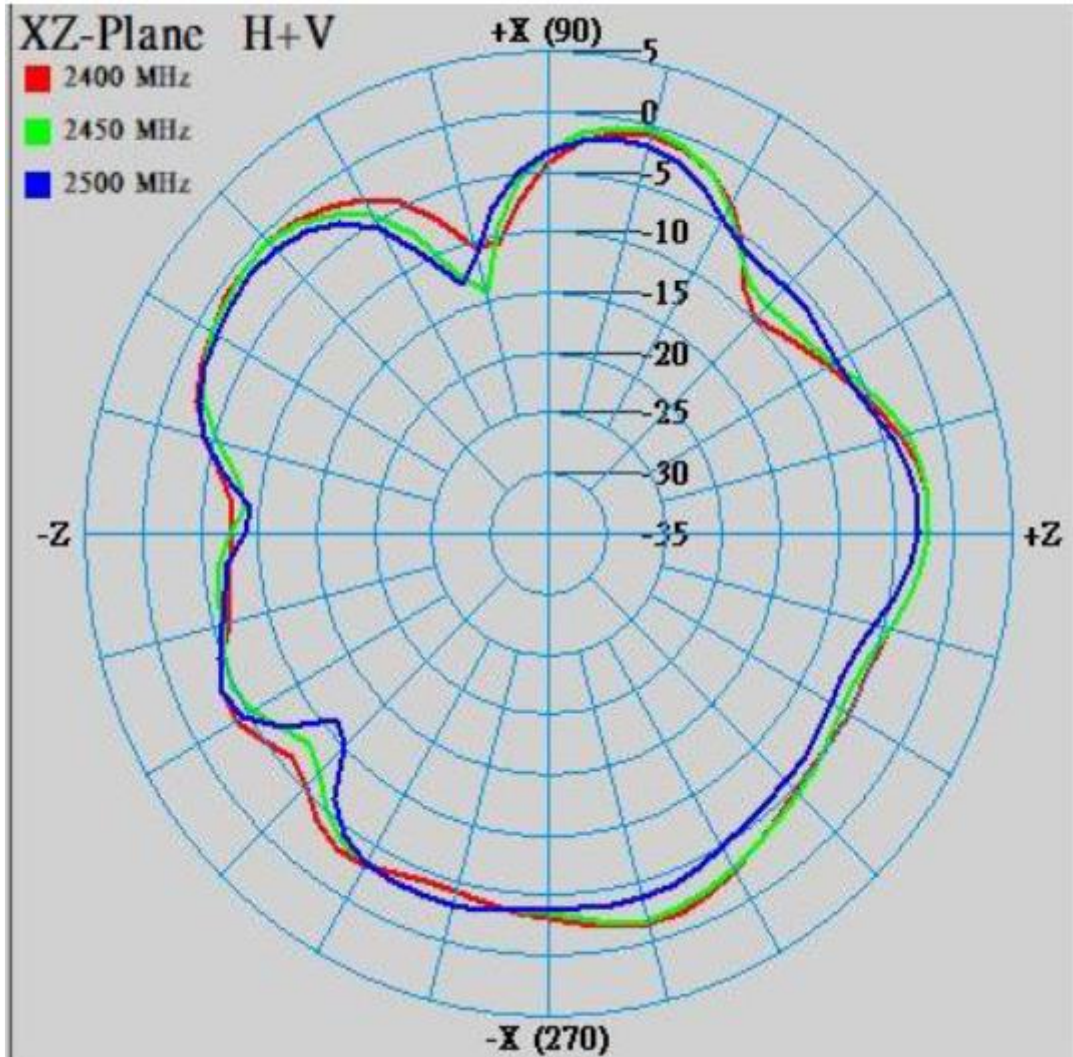



UNLESS OTHER SPECIFIED TOLERANCES ON :			<b>INPAQ TECHNOLOGY CO., LTD.</b>
X = N/A	X.X = N/A		
ANGLES = N/A		HOLEDIA = N/A	
SCALE : N/A	UNIT : mm		
DRAWN BY : 邱瑩鈺	CHECKED BY : 詹惠雯		
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# RADIATION PATTERN

X-Z Plane  
Phi=0.00deg

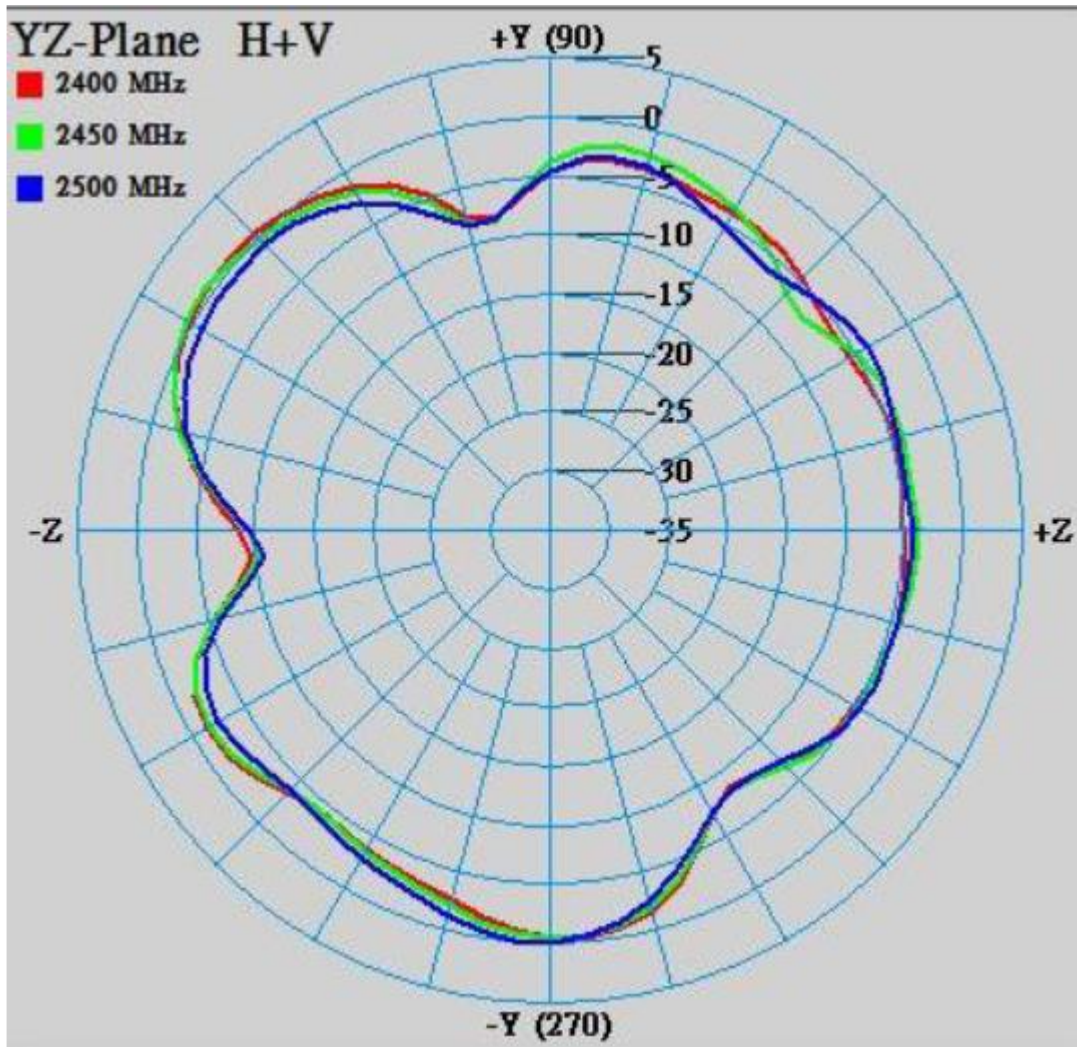
Gain . dB




UNLESS OTHER SPECIFIED TOLERANCES ON :		 <b>INPAQ TECHNOLOGY CO., LTD.</b>
X = N/A	X.X = N/A      X.XX = N/A	
ANGLES = N/A      HOLEDIA = N/A		THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION
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		SPEC REV. <b>A0</b>

Y-Z Plane  
Phi=90.00deg

Gain . dB

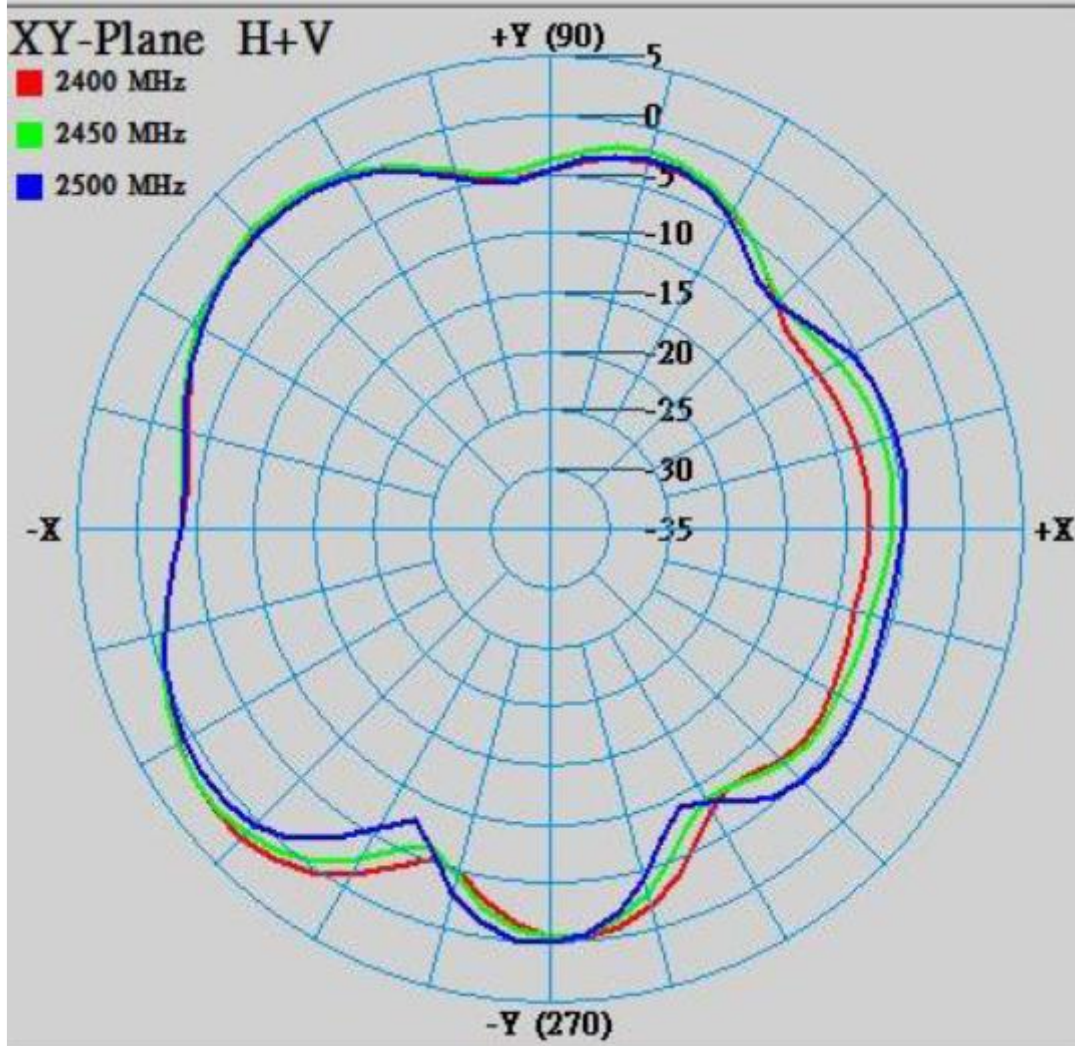


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X-Y Plane  
Theta=90.00deg

Gain . dB



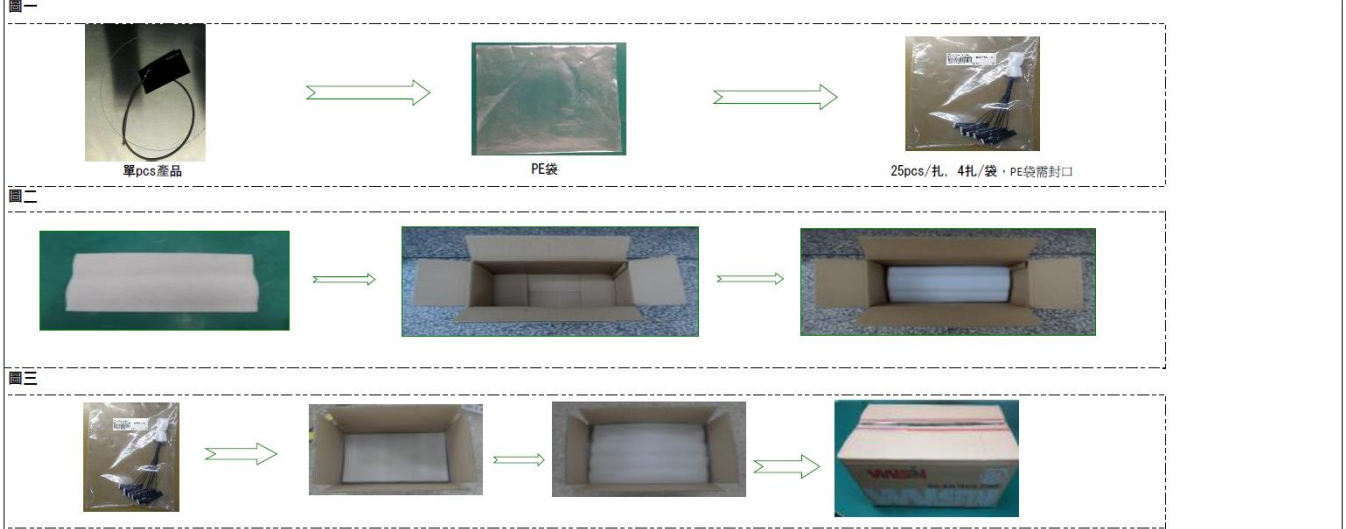
Frequency [MHz]	ZX plane		ZY plane		XY plane	
	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
2400	-0.76	-3.76	1.14	-3.07	1.95	-3.10
2450	-0.50	-3.88	1.26	-2.78	1.96	-2.61
2500	-1.54	-4.54	0.70	-3.43	1.89	-2.42

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# 5. Package

RFFPA301720EMAB302生規	頁次： 5 之 3
	版次： A0版
制修訂日期：2023/07/03	

**包裝圖**



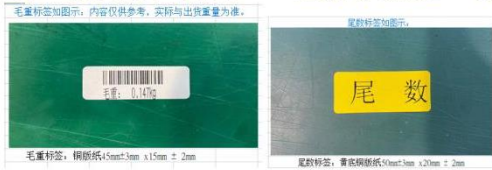
- 產品包裝規範：**
- 將每25pcs產品使用珍珠棉將端子端用白色橡皮筋包扎，裝入PE袋中，每PE袋100pcs，封口並粘貼製造標，如圖示（一）
  - 將泡棉放入外箱中（如圖示二）
  - 將裝好的成品（如圖示三）放入外箱中，每箱放4000pcs產品，上下各放1片珍珠棉，封箱并粘貼製造標，封箱為“工”字型即六面封箱。
  - 尾數箱填充參照此規範【Y-WI-09-281】

Metal Antenna 370625  
 RFMTA3706251MAE301 75B1031604 10

75B1031604 0001

第一排：機種+空格+Antenna+空格+規格的6-11位  
 第二排：規格+空格+批号+空格+數量  
 第三排：規格+批号+序号（同第四排最后的4碼流水碼）+數量（單位是K/PCS）  
 第四排：“-”+打印者工号+“-”+月份+日期+年+時+分+秒+“-”+“當次打印的”標籤數量” +批号+4碼流水碼

製造標籤規格：銅版紙 (L85±5mm\*W25±3mm) 字體規格：標楷體  
 製造條碼規格：code 128 (高度80mm)



標籤注釋權限 (PSA) 華新科技股份有限公司

核准：	何耀輝	審核：	趙文豹	制定：	程碧琴
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UNLESS OTHER SPECIFIED TOLERANCES ON :			INPAQ TECHNOLOGY CO., LTD.
X=N/A	X.X=N/A		
ANGLES=N/A		HOLEDIA=N/A	
SCALE : N/A	UNIT : mm		
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