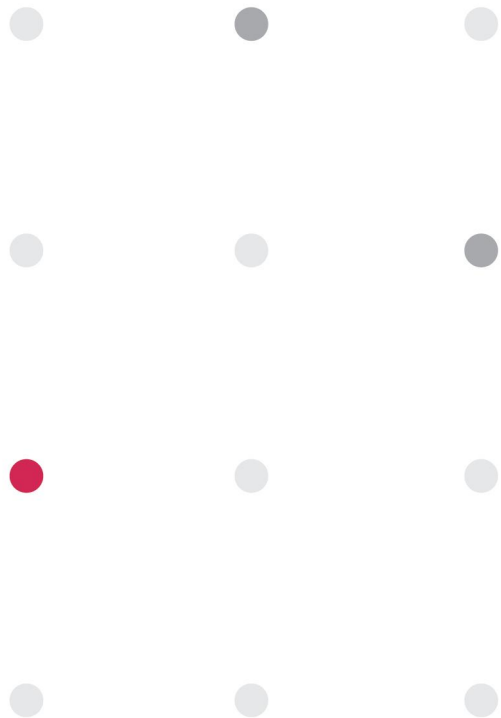


PSA

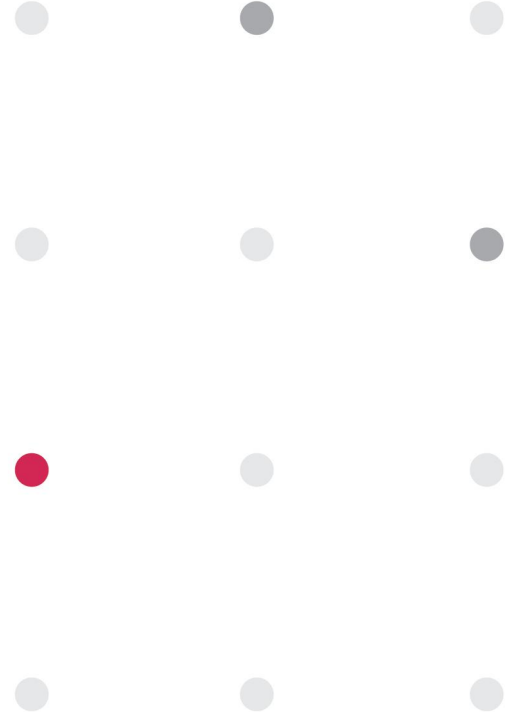
# 佳邦科技股份有限公司

INPAQ TECHNOLOGY CO., LTD.



PSA

PASSIVE SYSTEM ALLIANCE  
INPAQ TECHNOLOGY CO., LTD.



# 峰米\_C025FGN

Presented by

FangTan Jin

2023/04/06



<b>Version</b>	<b>Date</b>	<b>Description</b>	<b>Author</b>
V01	2023/03/14	New Release	FangTan Jin
V01	2023/04/06	更改天线位置及走线方式	FangTan Jin

# OUTLINE

## 1. Measurement Information

- 1.1 Experimental Setup
- 1.2 Antenna Solution Detail

## 2. Antenna Characteristics

- 2.1 S-Parameter
- 2.2 Antenna Efficiency and Peak Gain
- 2.3 3 views of antenna & 2D Radiation Patterns

## 3. Summary

# 1. Measurement Information

## 1.1 Experimental Setup



# 1. Measurement Information

## 1.2 Antenna Solution Detail

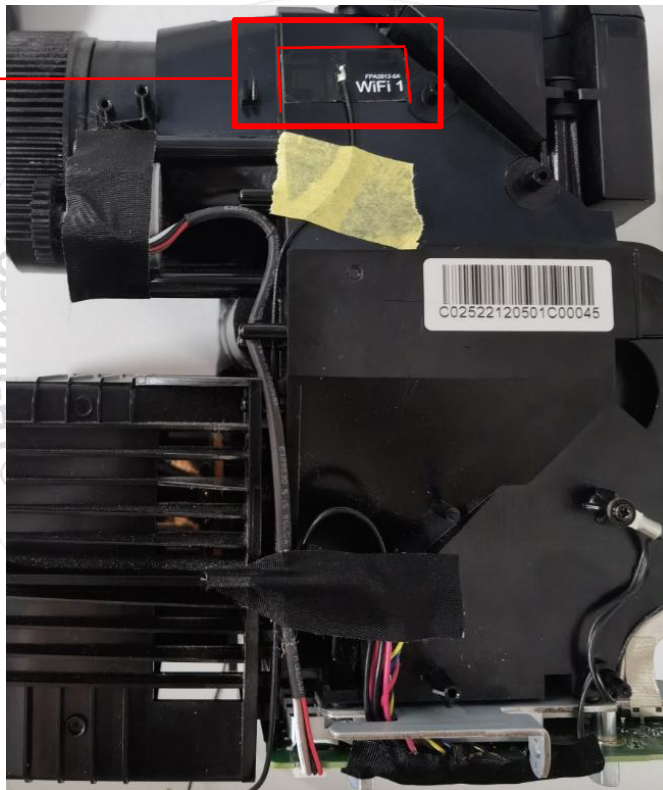
WIFI-1



model: C025FGN\_WIFI 1

天线齐红线贴

线长: 235mm

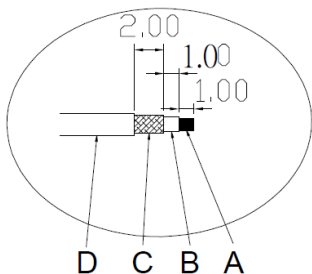


# Dimensions

**ELECTRICAL**

Frequency:  
2.4~2.5/5.15~5.85 GHz

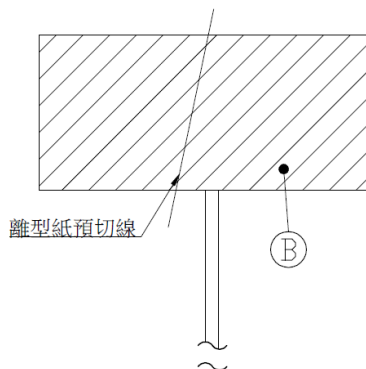
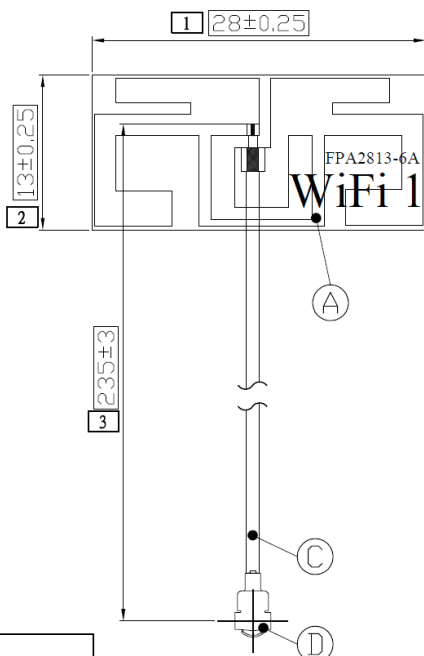
No.	DESCRIPTION	MAT'L	Color	Q'TY
A	Body	FPC (0.5oz) (Single Layer)	Black	1
B	Double Tape	3M 467	—	1
C	(Coaxial Cable $\phi 1.13$ )	—	Black	1
D	IPEX Compatible(2130800037)	—	Gold	1



A - center conductor  
B - Dielectric  
C - Outer conductor  
D - Jacket

(Front View)

(Back View)



IPEX方向:  
100mm :  $\pm 90^\circ$   
200mm :  $\pm 135^\circ$   
200mm以上不管控

※標記□記號者, 為重點檢驗尺寸

設計 DR.	SHLEE	2021.07.16	品名	版本 REV.
核准 APP.	MARCO		ARTICLE	A
容許公差 TOLERANCE			RFFPA281323IMLB301	
LTR	DESCRIPTION	DATE	REQ. BY	
PSA 華新科技股份有限公司 WALSIN TECHNOLOGY CORPORATION			單位 UNIT	比例 SCALE
			mm	****
			張數 SHEET	1



# 1. Measurement Information

## 1.2 Antenna Solution Detail

**WIFI-2**

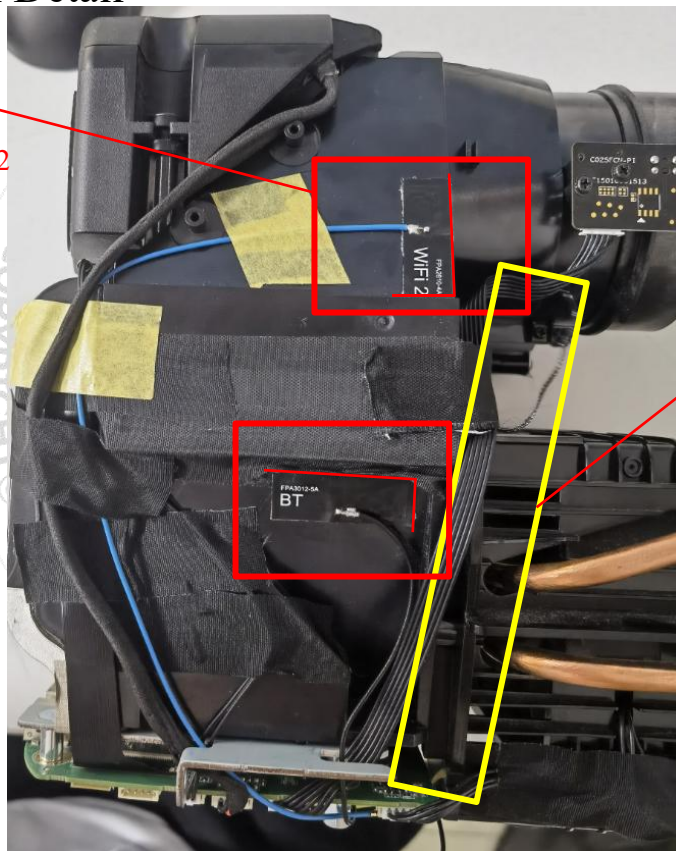
model: C025FGN\_WIFI 2

天线齐红线贴  
线长: 235mm

**BT**

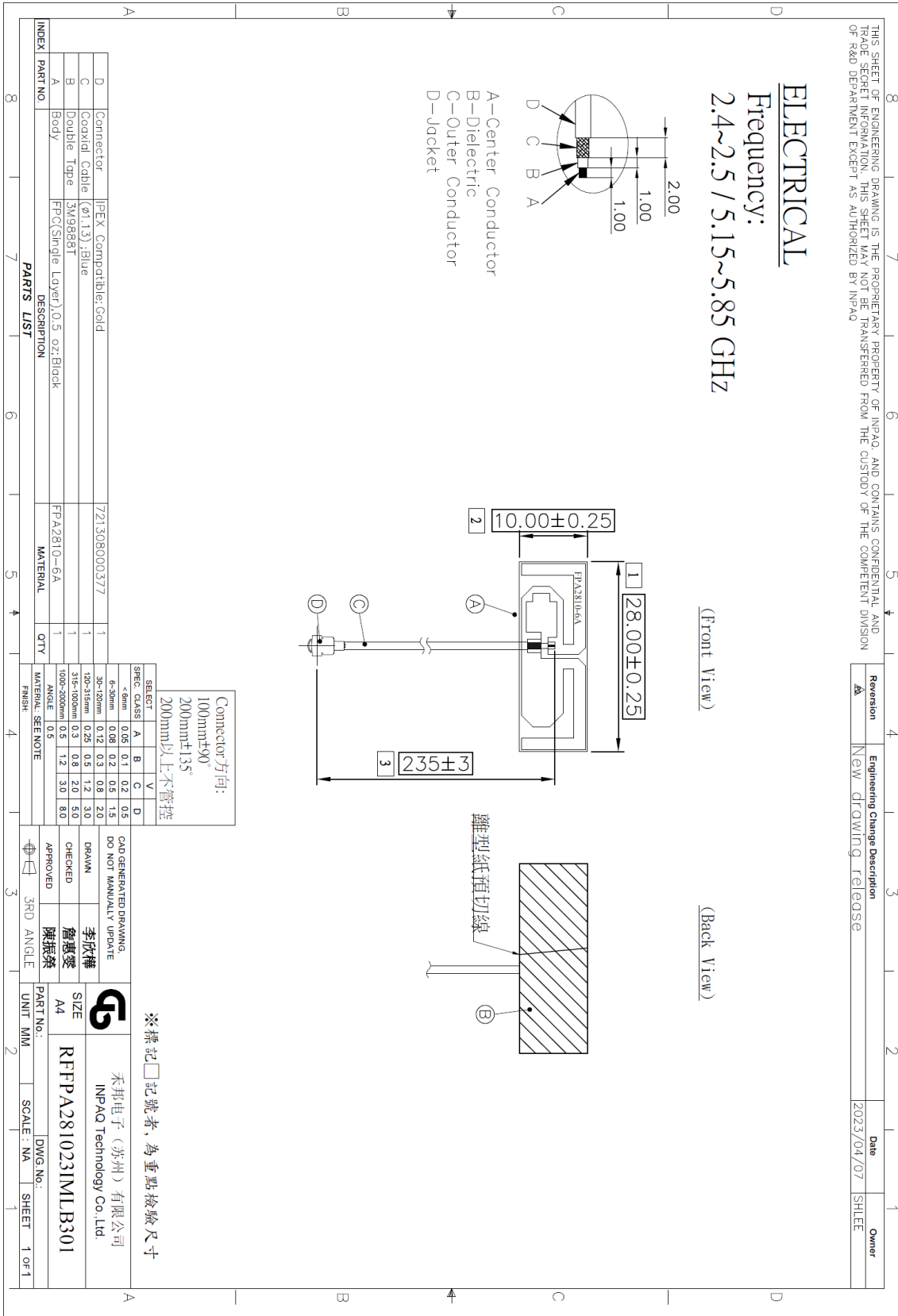
model: C025FGN\_BT

天线齐红线贴 线  
长: 100mm




黄框内的线请缕一缕，使其远离天线

### 3. Antenna Drawing : Wi Fi 2

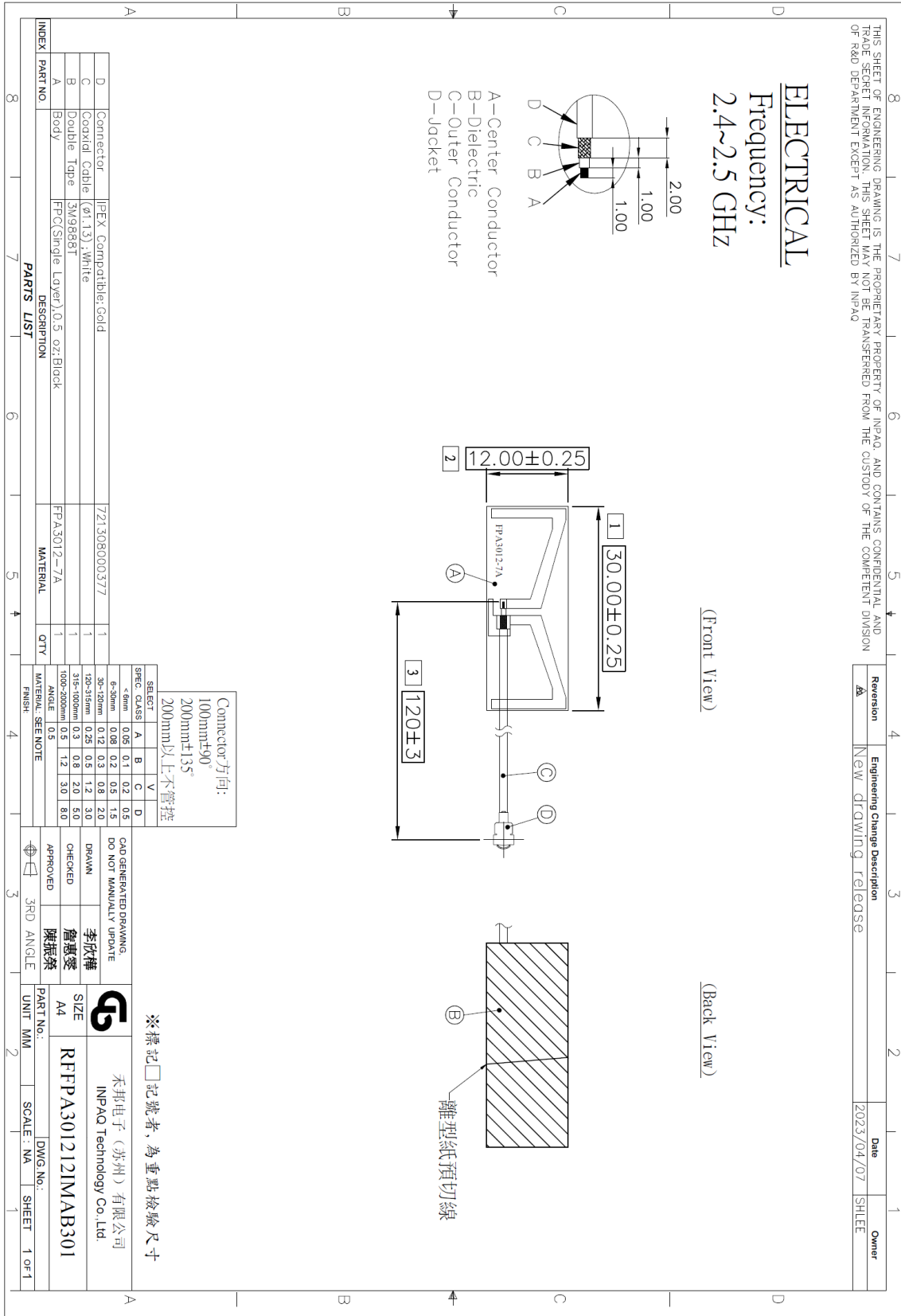



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Revision	Engineering Change Description	Date	Owner
A	New drawing release	2023/04/07	SHLEE

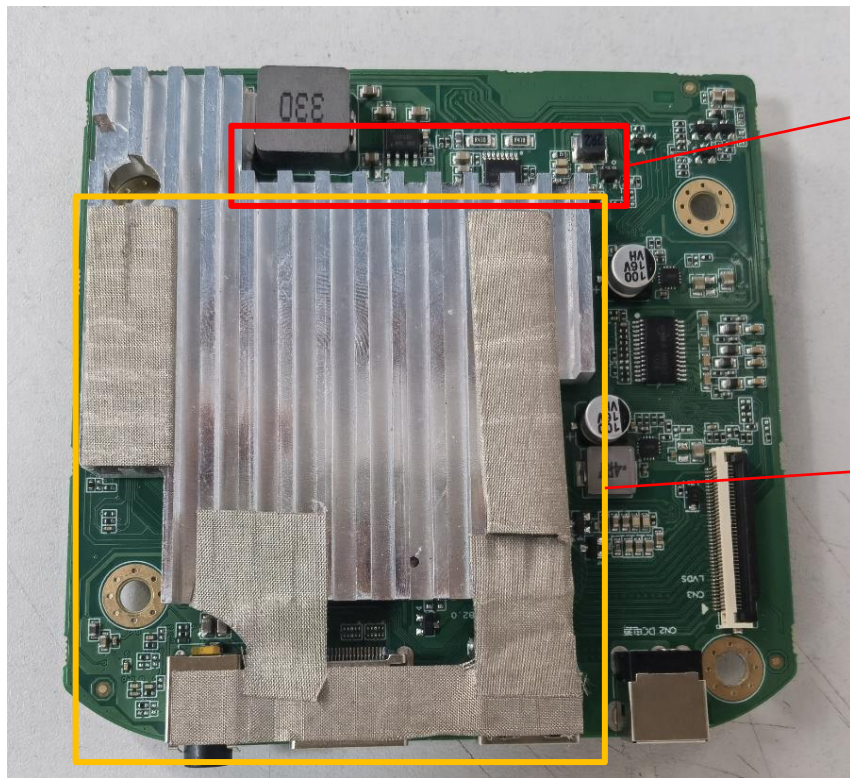
UNLESS OTHER SPECIFIED TOLERANCES ON : X=N/A      X.X=N/A      X.XX=N/A ANGLES=N/A      HOLEDIA=N/A		 <b>INPAQ TECHNOLOGY CO., LTD.</b>	
SCALE : N/A	UNIT : mm		
DRAWN BY : 李欣樺	CHECKED BY : 詹惠愛	THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION	
DESIGNED BY : 黃瑞郎	APPROVED BY : 陳振榮		
TITLE : RFFPA281023IMLB301		DOCUMENT NO.	SPEC REV. P0

### 3. Antenna Drawing : BT



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 : 李欣樺	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	
DESIGNED BY : 黃瑞郎	APPROVED BY : 陳振榮		
TITLE : RFFPA301212IMAB301		DOCUMENT NO.	SPEC REV. P0

## 优化TIS措施

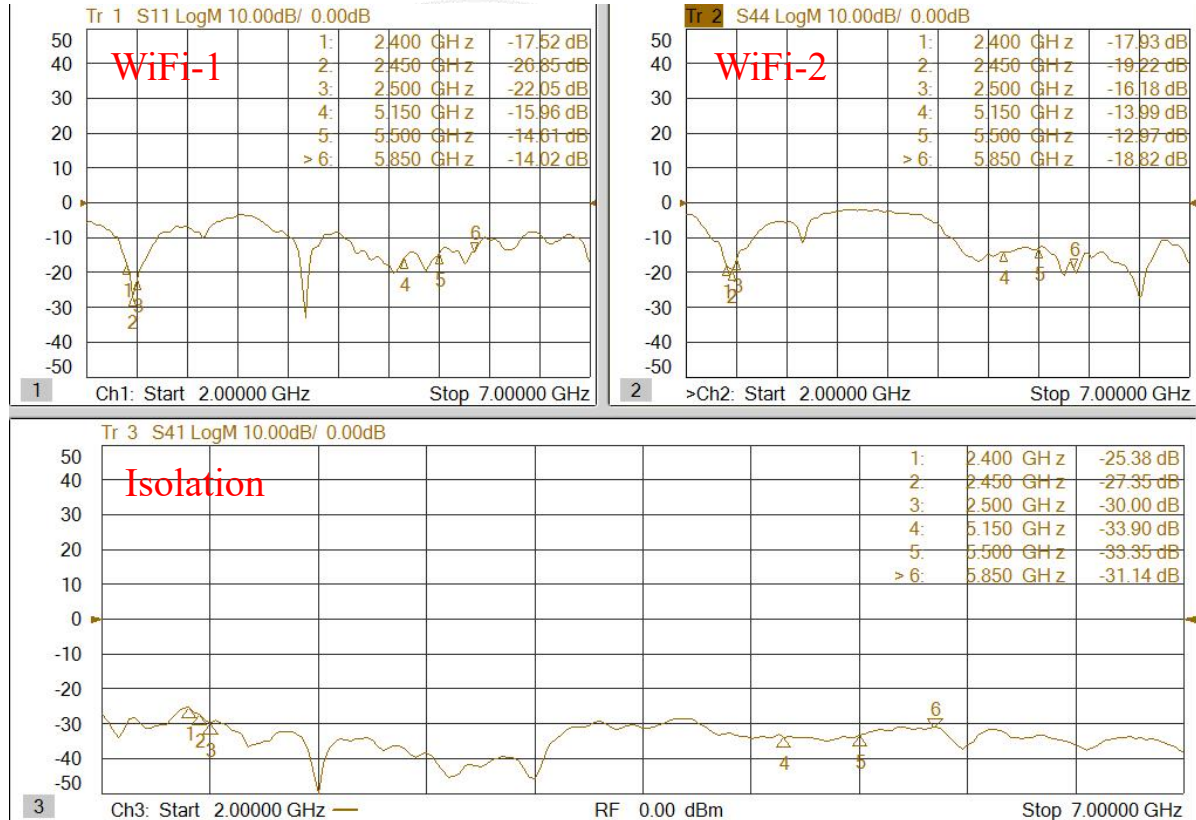


1.散热片此处请切平。

2.导电布及导电泡棉  
请如图贴

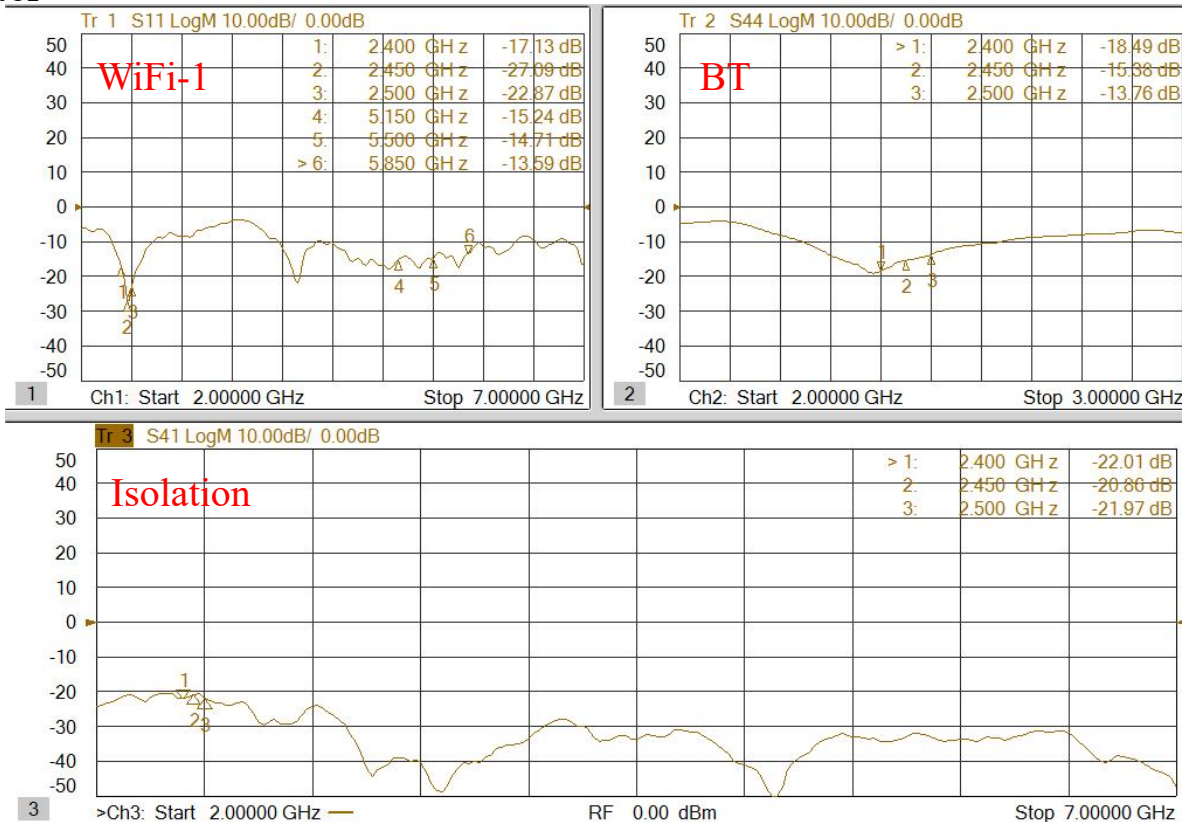
## 2. Antenna Characteristics

### 2.1 S-Parameter



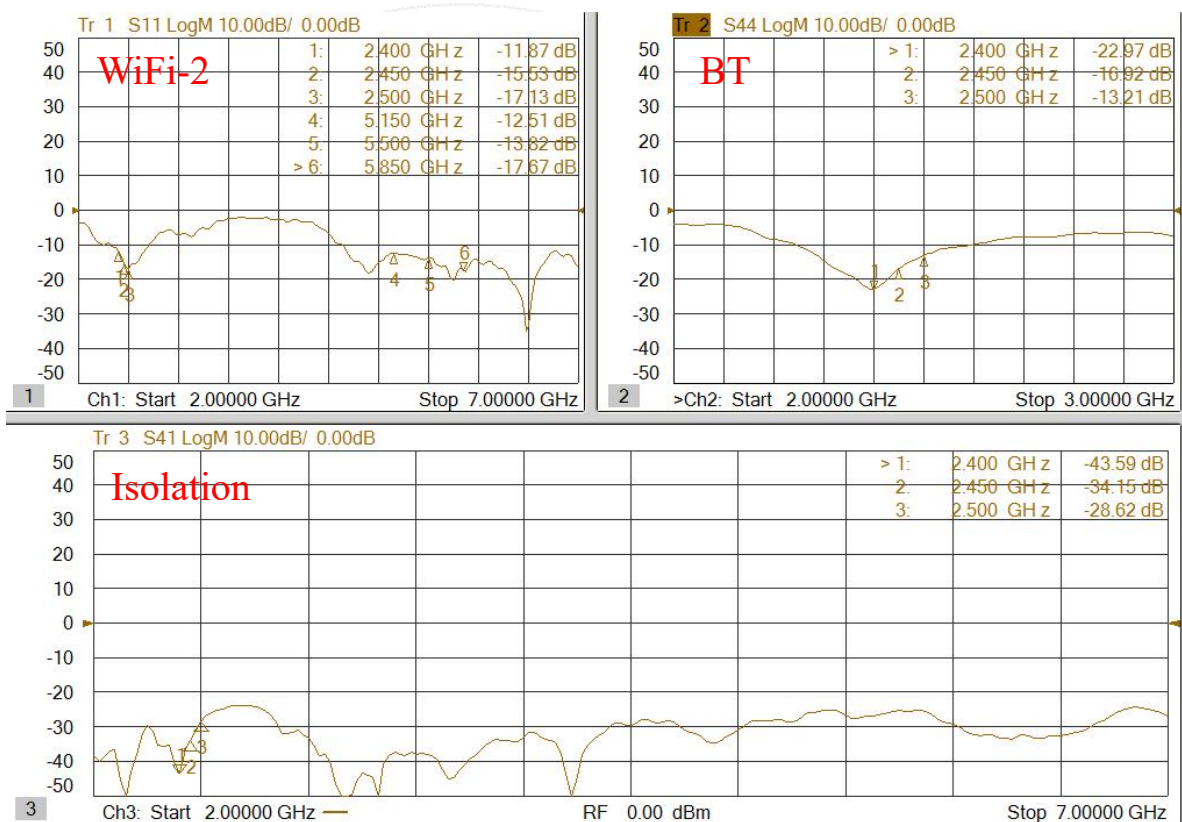
## 2. Antenna Characteristics

### 2.1 S-Parameter



## 2. Antenna Characteristics

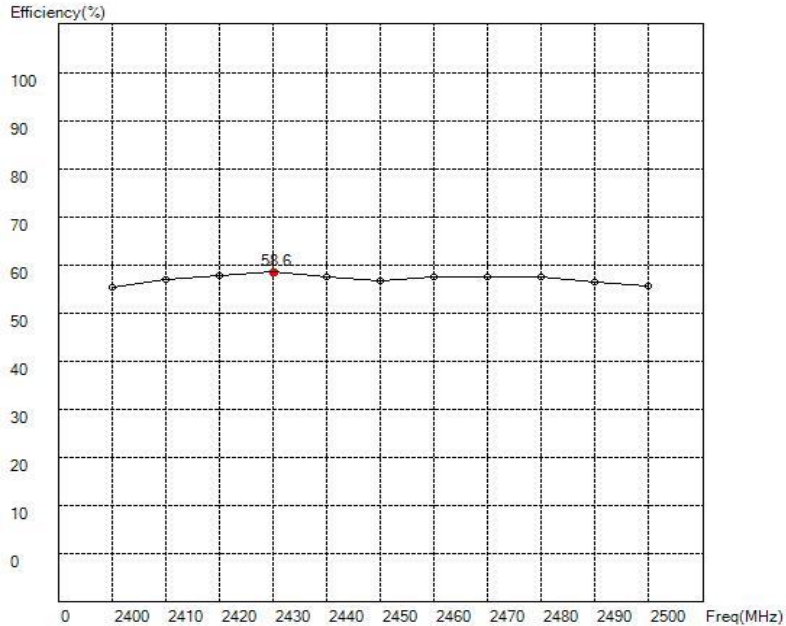
### 2.1 S-Parameter



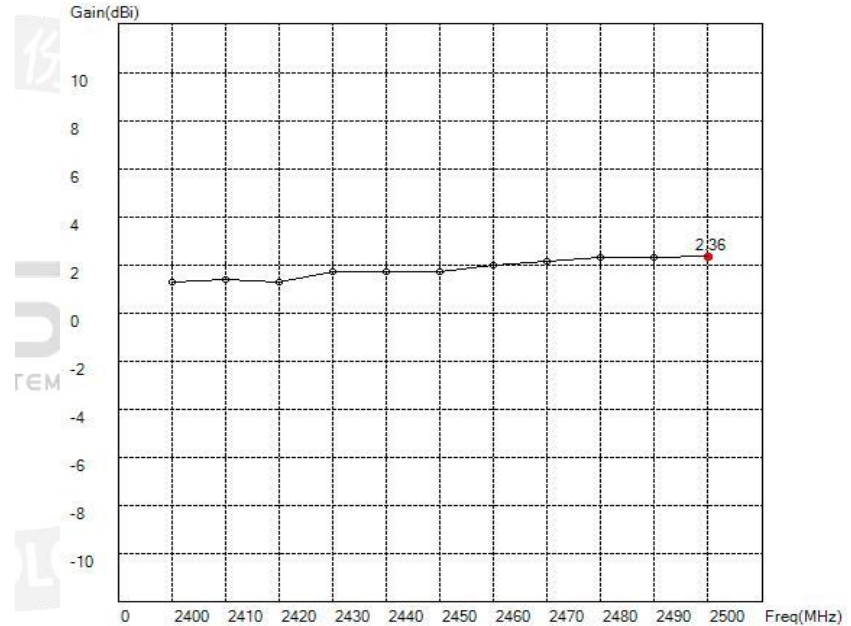
## 2. Antenna Characteristics

### 2.2 Antenna Efficiency and Peak Gain

WiFi-1-2G



Maximum Efficiency at 2430 MHz : 58.6 %



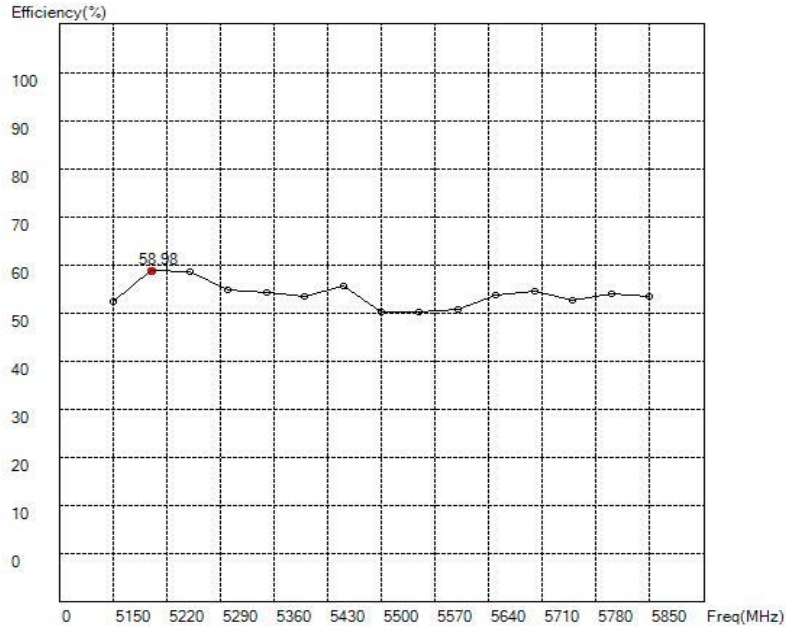
Maximum Peak Gain at 2500 MHz : 2.36 dBi



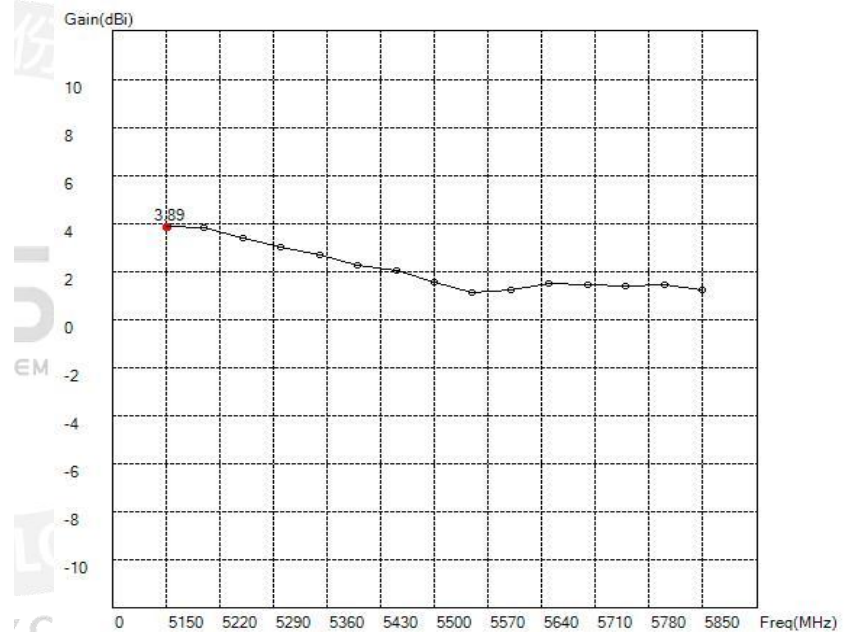
## 2. Antenna Characteristics

### 2.2 Antenna Efficiency and Peak Gain

WiFi-1-5G



Maximum Efficiency 5200 at MHz : 58.98 %

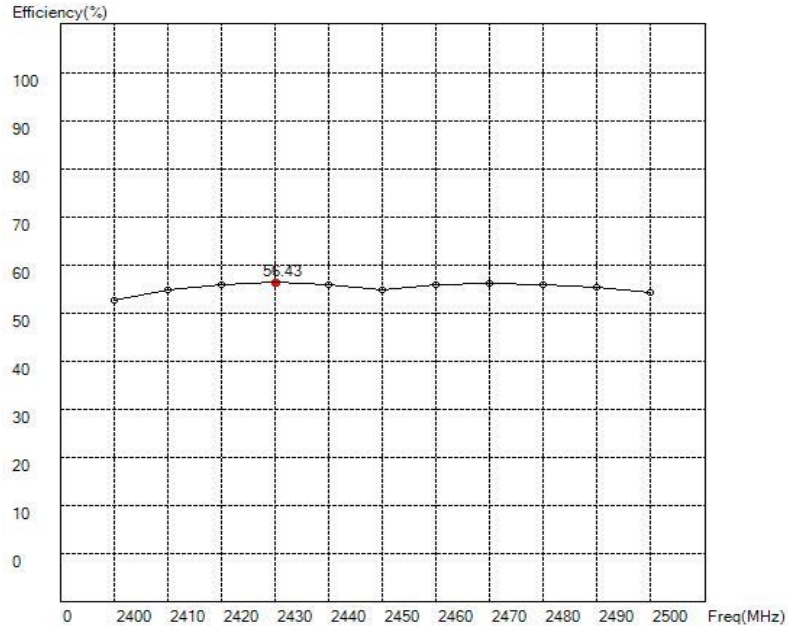


Maximum Peak Gain at 5150 MHz : 3.89 dBi

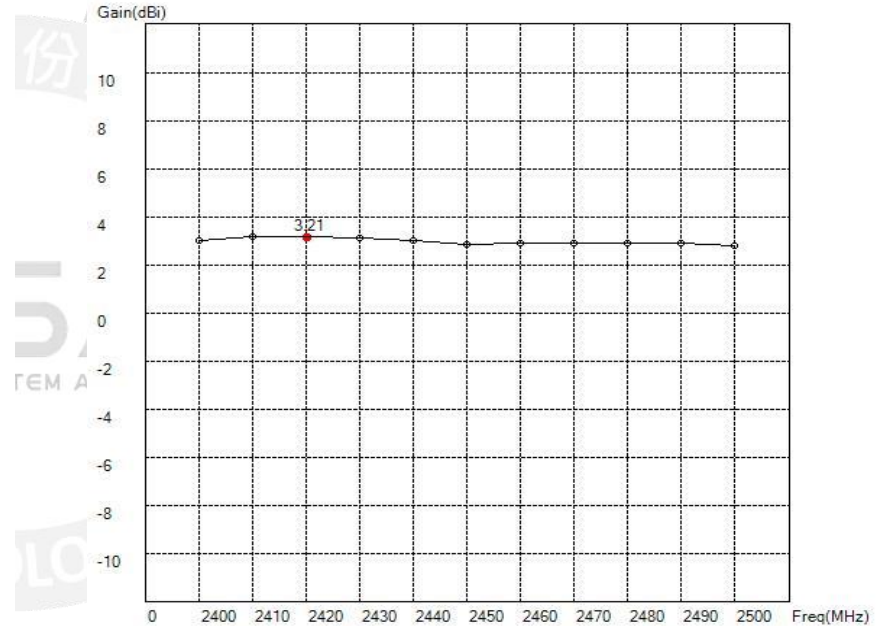
## 2. Antenna Characteristics

### 2.2 Antenna Efficiency and Peak Gain

WiFi-2-2G



Maximum Efficiency at 2430 MHz : 56.43 %

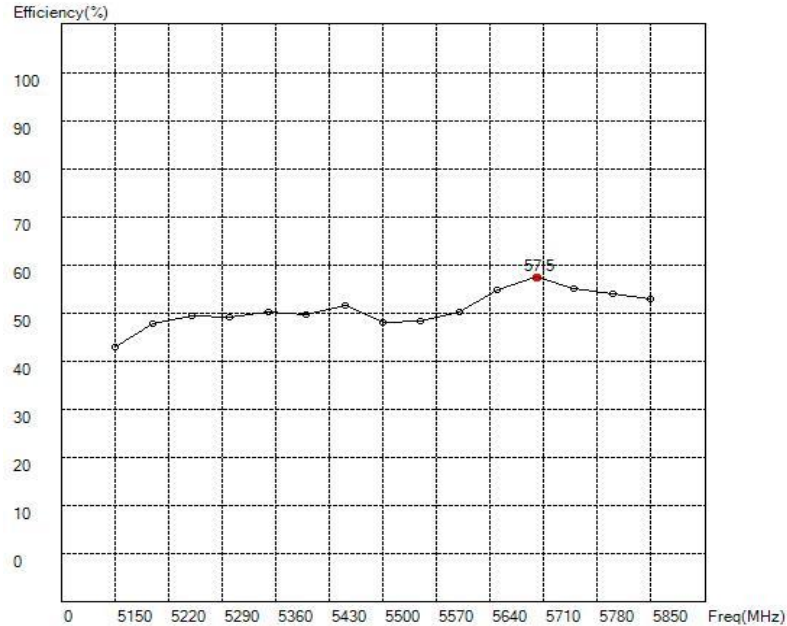


Maximum Peak Gain at 2420 MHz : 3.21 dBi

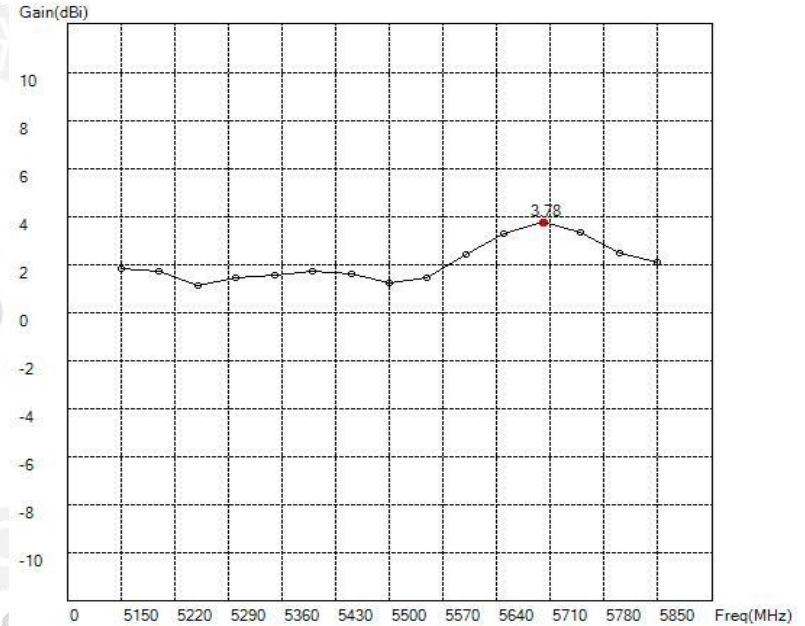
## 2. Antenna Characteristics

### 2.2 Antenna Efficiency and Peak Gain

WiFi-2-5G



Maximum Efficiency 5700 at MHz : 57.5 %

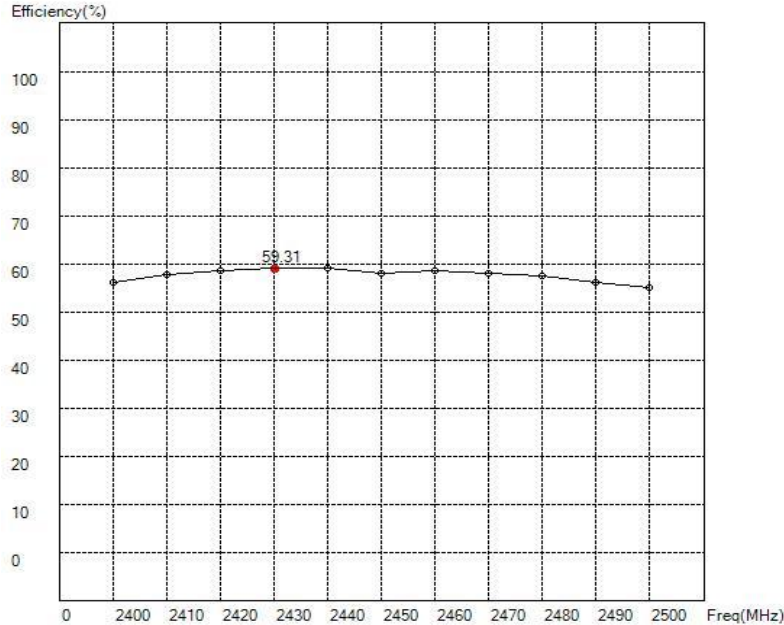


Maximum Peak Gain at 5700 MHz : 3.78dBi

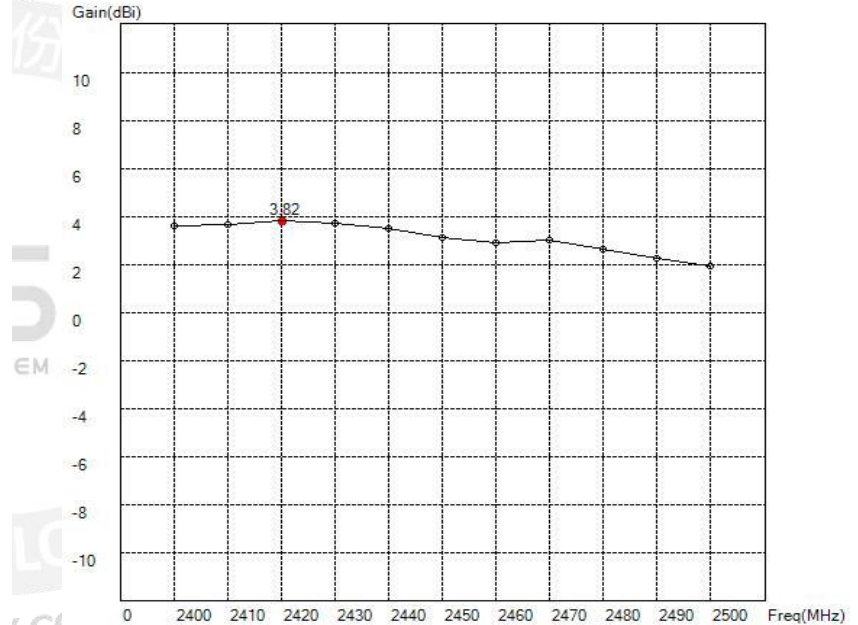
## 2. Antenna Characteristics

### 2.2 Antenna Efficiency and Peak Gain

BT



Maximum Efficiency at 2430 MHz : 59.31 %



Maximum Peak Gain at 2420 MHz : 3.82 dBi

## 2. Antenna Characteristics

### 2.2 Antenna Efficiency and Peak Gain

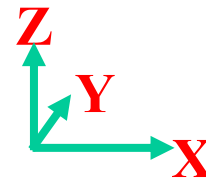
	WiFi-1		WiFi-2		BT	
Frequency (GHz)	Efficiency (%)	Peak gain (dBi)	Efficiency (%)	Peak gain (dBi)	Efficiency (%)	Peak gain (dBi)
2.4	55.34	1.30	52.68	3.04	56.15	3.65
2.45	56.68	1.73	54.93	2.86	58.14	3.15
2.5	55.71	2.36	54.42	2.84	55.10	1.95

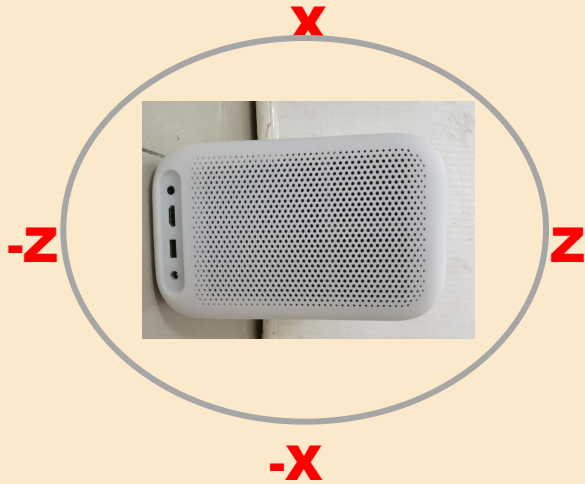
	WiFi-1		WiFi-2	
Frequency (GHz)	Efficiency (%)	Peak gain (dBi)	Efficiency (%)	Peak gain (dBi)
5.15	52.35	3.89	42.99	1.85
5.5	50.28	1.55	48.00	1.24
5.85	53.62	1.24	53.03	2.13

## 2. Antenna Characteristics

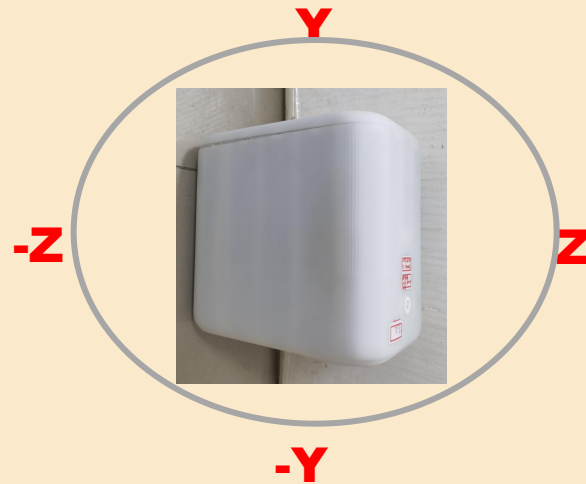
### 2.3 3 views of antenna



X-Z plane



Y-Z plane



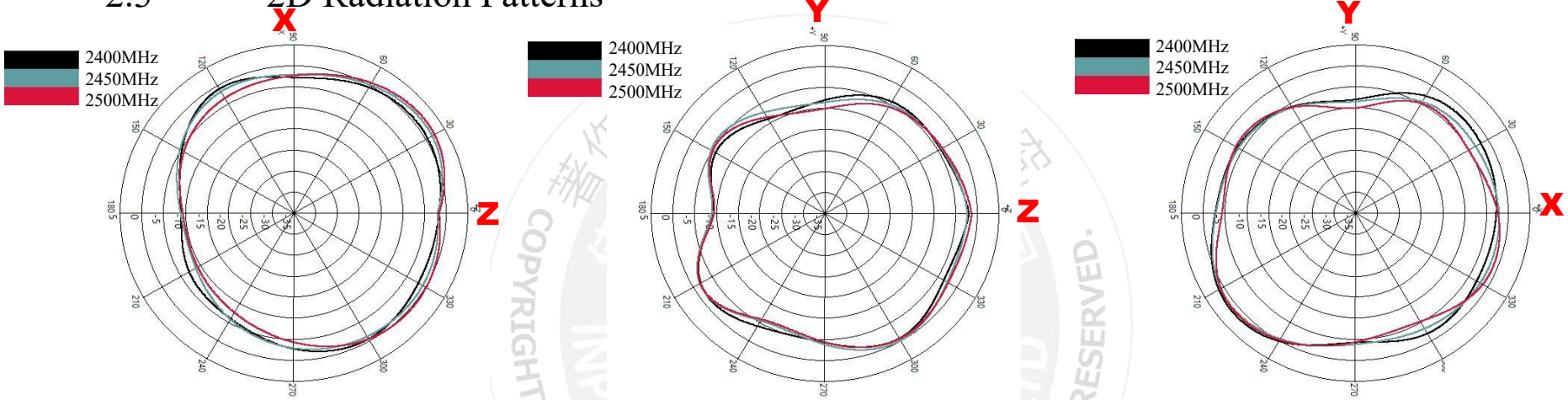
X-Y plane



## 2. Antenna Characteristics

WiFi-1-2G

### 2.3 2D Radiation Patterns

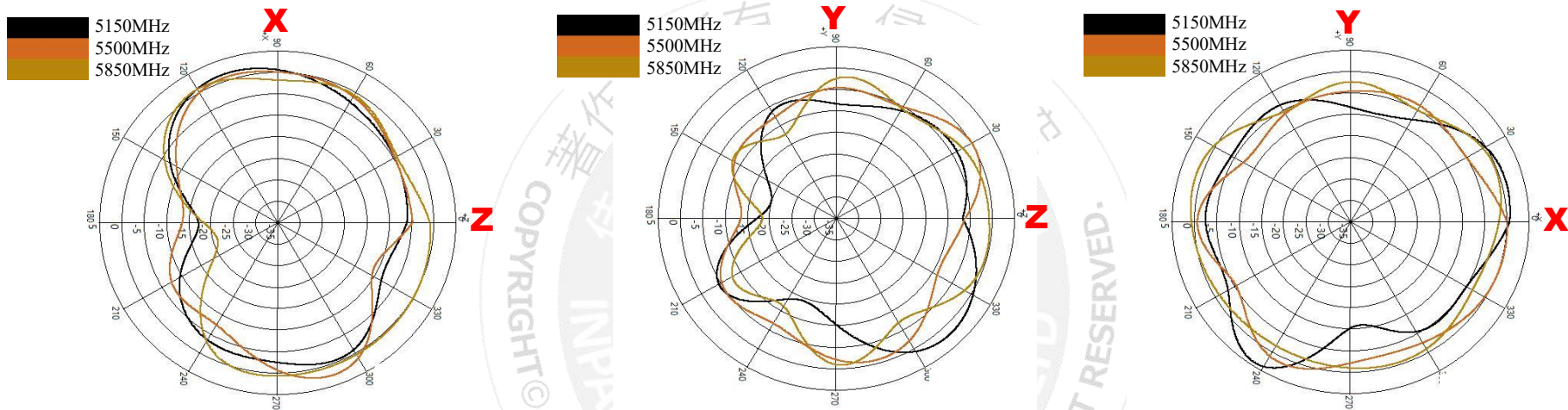


Frequency [MHz]	ZX plane		ZY plane		XY plane	
	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
2400	0.55	-2.02	-0.68	-3.54	1.30	-2.33
2450	1.73	-1.78	-0.08	-3.39	0.85	-2.72
2500	2.36	-1.66	-0.57	-3.40	0.76	-3.02

## 2. Antenna Characteristics

## WiFi-1-5G

### 2.3 2D Radiation Patterns



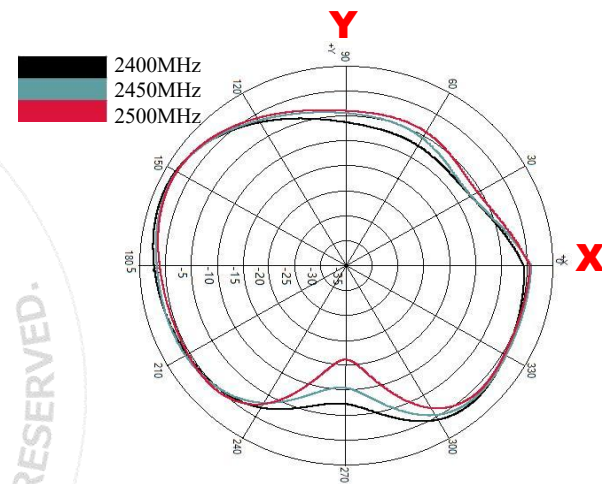
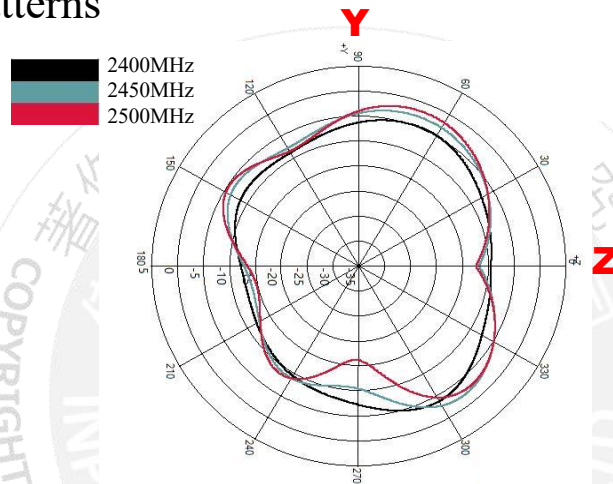
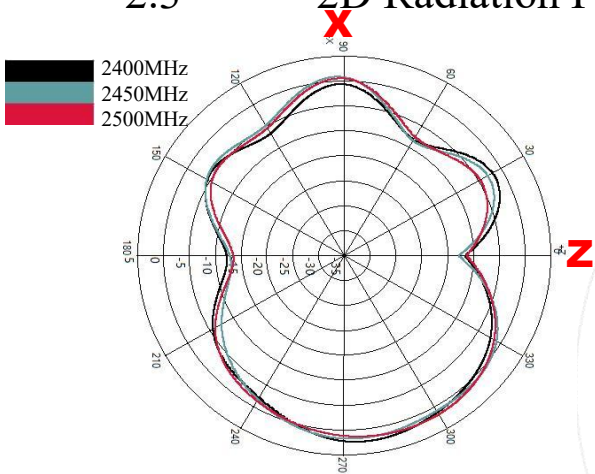
	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]
5150	1.06	-2.91	0.76	-4.44	3.89	-2.05
5500	1.55	-2.57	0.16	-4.39	1.14	-2.25
5850	1.24	-1.29	-0.75	-3.57	0.67	-1.49



## 2. Antenna Characteristics

WiFi-2-2G

### 2.3 2D Radiation Patterns

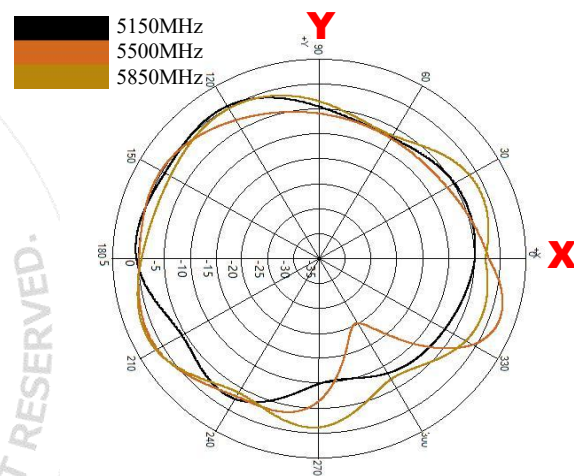
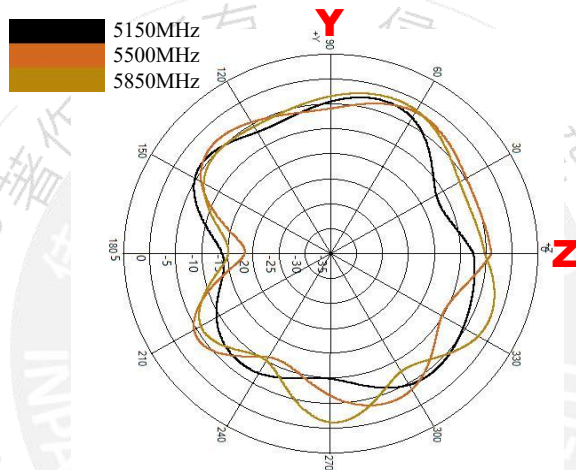
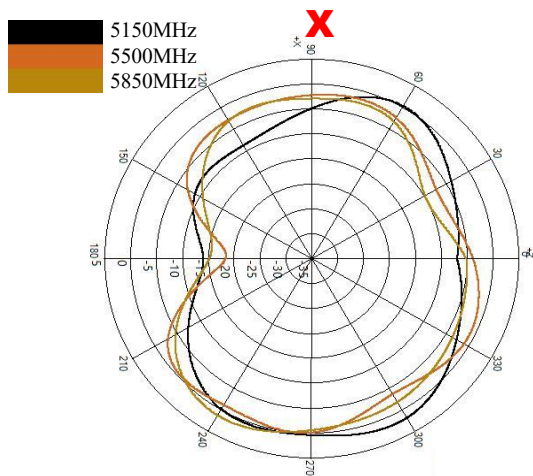


Frequency [MHz]	ZX plane		ZY plane		XY plane	
	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
2400	2.22	-2.42	-3.80	-7.39	3.04	-0.74
2450	1.69	-2.30	-2.74	-6.38	2.86	-0.74
2500	1.72	-2.43	-1.88	-6.46	2.84	-0.96

## 2. Antenna Characteristics

## WiFi-2-5G

### 2.3 2D Radiation Patterns

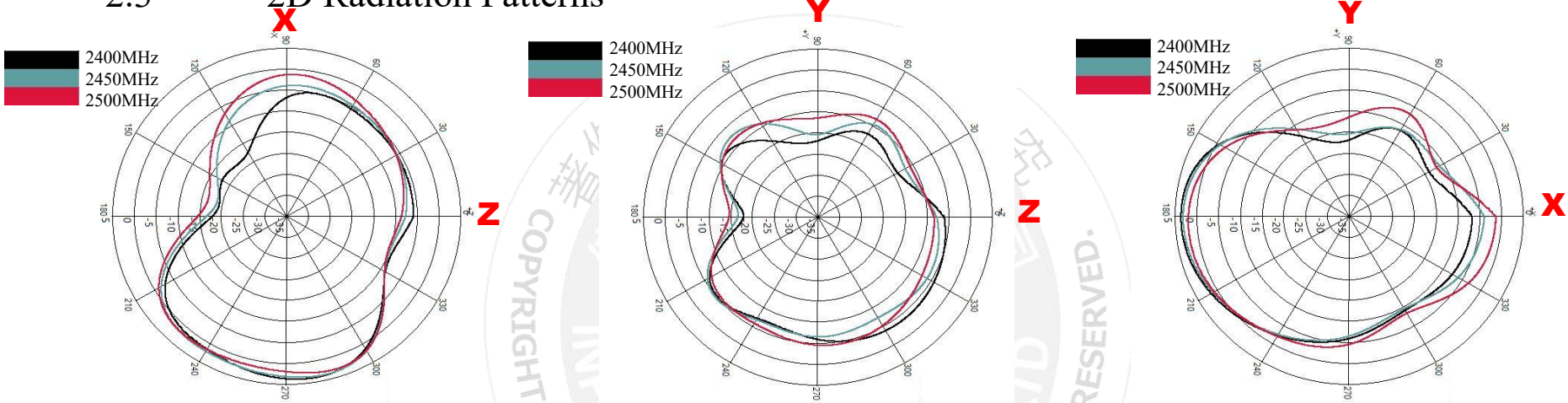


Frequency [MHz]	ZX plane		ZY plane		XY plane	
	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]
5150	1.85	-2.46	-3.51	-6.29	0.41	-3.24
5500	-0.10	-2.72	-2.18	-5.00	1.24	-2.46
5850	1.32	-3.04	-1.15	-4.41	2.13	-1.86

## 2. Antenna Characteristics

BT

### 2.3 2D Radiation Patterns

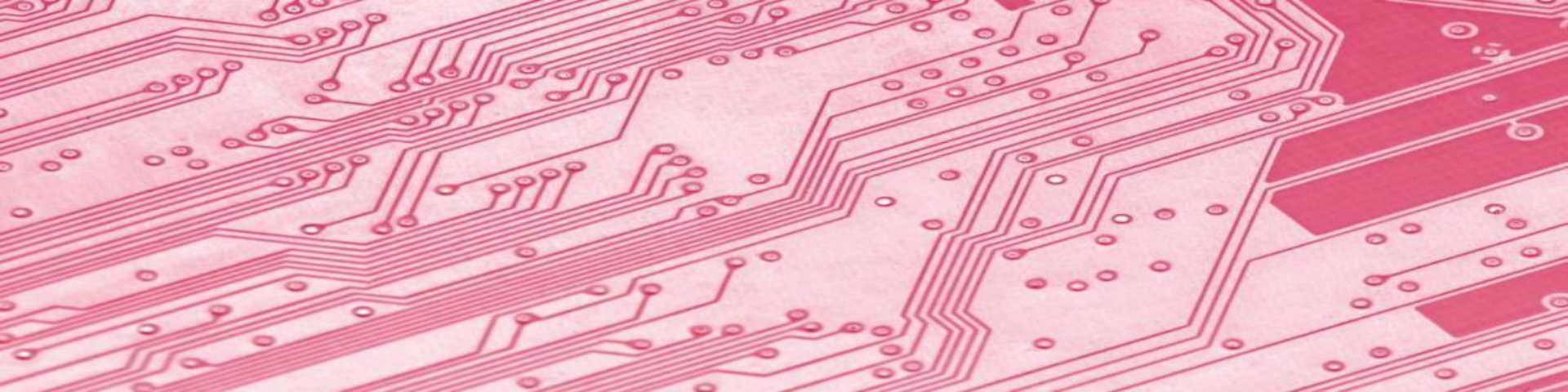


Frequency [MHz]	ZX plane		ZY plane		XY plane	
	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
2400	3.65	-2.30	-3.86	-7.28	3.65	-2.90
2450	3.15	-2.04	-5.72	-7.98	3.15	-3.02
2500	1.95	-2.09	-4.54	-7.50	1.95	-2.92

### 3. Summary

- The performance of antennas is shown in table

	WiFi-1-2G	WiFi-1-5G	WiFi-2-2G	WiFi-2-5G	BT
Maximum Efficiency (%)	58.6	58.98	56.43	57.5	59.31
Maximum Gain (dBi)	2.36	3.89	3.21	3.78	3.82



# Title for Image (above image could be replaced)

## Content Details

PASSIVE SYSTEM ALLIANCE  
INPAQ TECHNOLOGY CO., LTD.

# Thank you

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