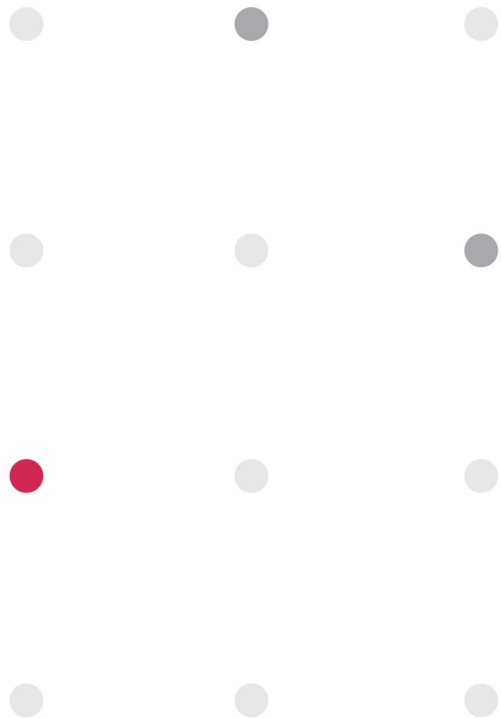


PSA

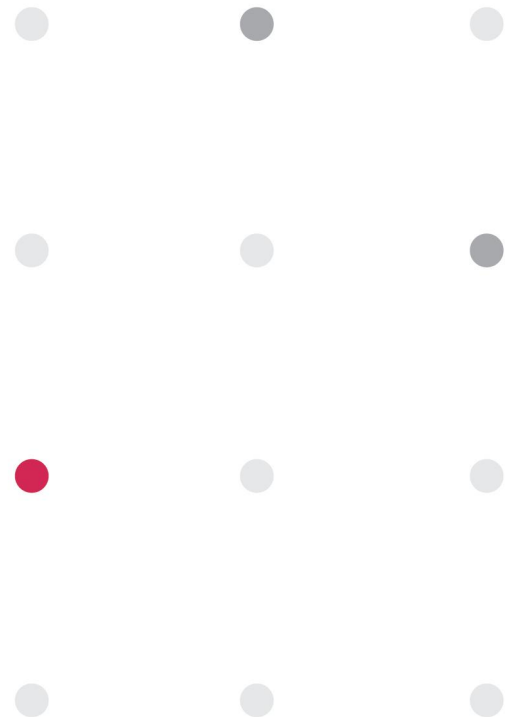
佳邦科技股份有限公司

INPAQ TECHNOLOGY CO., LTD.



PSA

PASSIVE SYSTEM ALLIANCE
INPAQ TECHNOLOGY CO., LTD.



致瓴科技-H2E基站

Presented by

冯立翔

2024/ 12/ 02



Version	Date	Description	Author
V01	2024/12/02	New Release	冯立翔

OUTLINE

1. Measurement Information

1.1 Experimental Setup

1.2 Antenna Solution Detail

2. Antenna Characteristics

2.1 S-Parameter

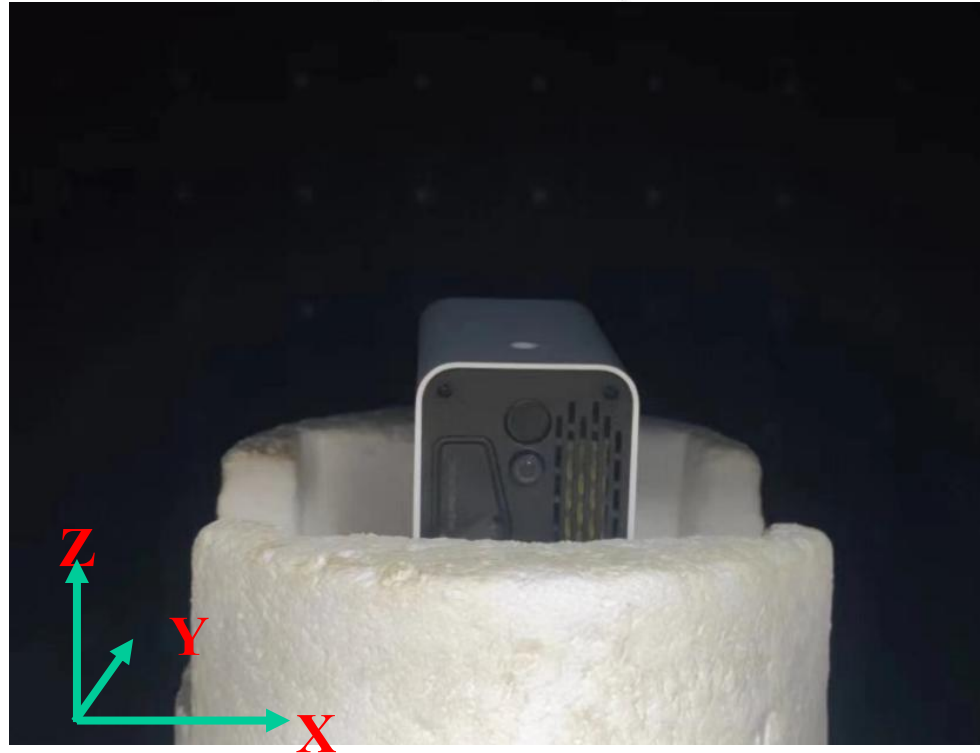
2.2 Antenna Efficiency and Peak Gain

2.3 3 views of antenna & 2D Radiation Patterns

3. Summary

1. Measurement Information

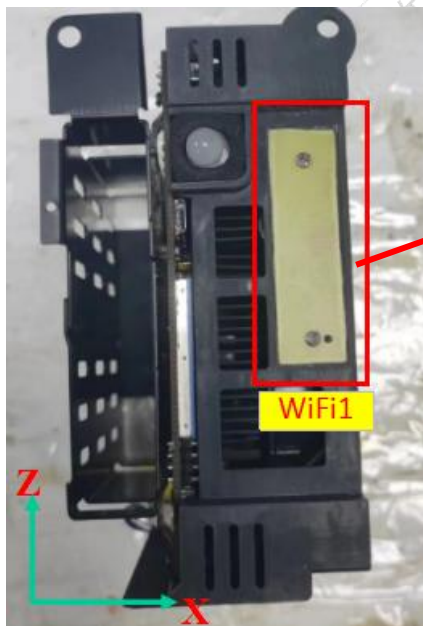
1.1 Experimental Setup



1. Measurement Information

1.2 Antenna Solution Detail

WiFi1

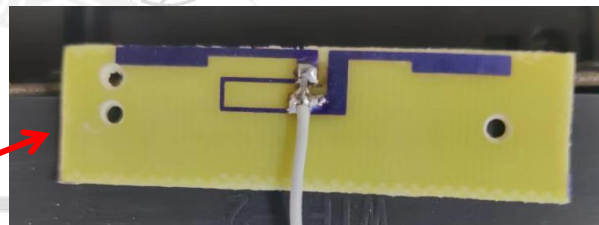


天线尺寸: 14.8mm*52.6mm
1.13黑色正常线, 一代端子头,
线长:115mm
天线频段:
2400-2500MHz

1. Measurement Information

1.2 Antenna Solution Detail

WiFi2

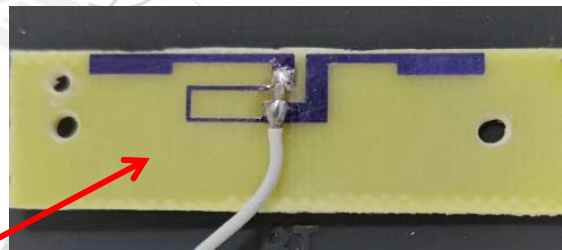


天线尺寸: 14.8mm*52.6mm
1.13黑色正常线, 一代端子头,
线长:45mm
天线频段:
2400-2500MHz

1. Measurement Information

1.2 Antenna Solution Detail

BT

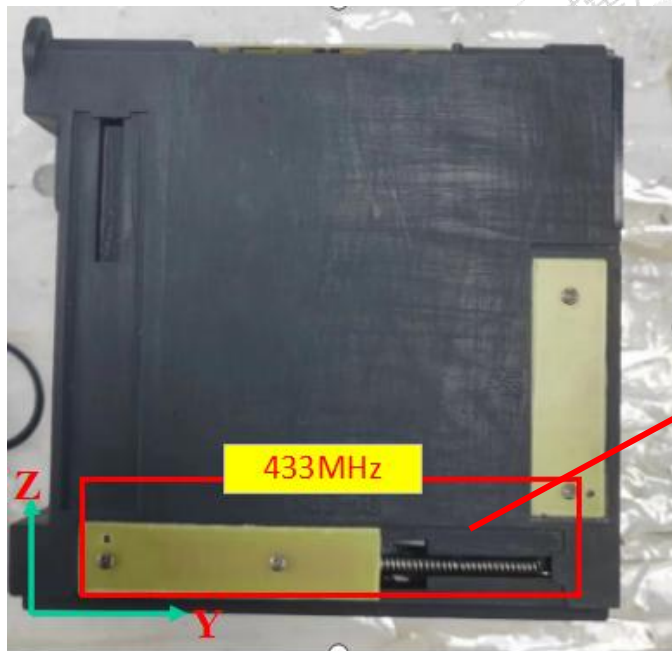


天线尺寸: 14.8mm*52.6mm
1.13黑色正常线, 一代端子头,
线长:170mm
天线频段:
2400-2500MHz

1. Measurement Information

1.2 Antenna Solution Detail

433MHz

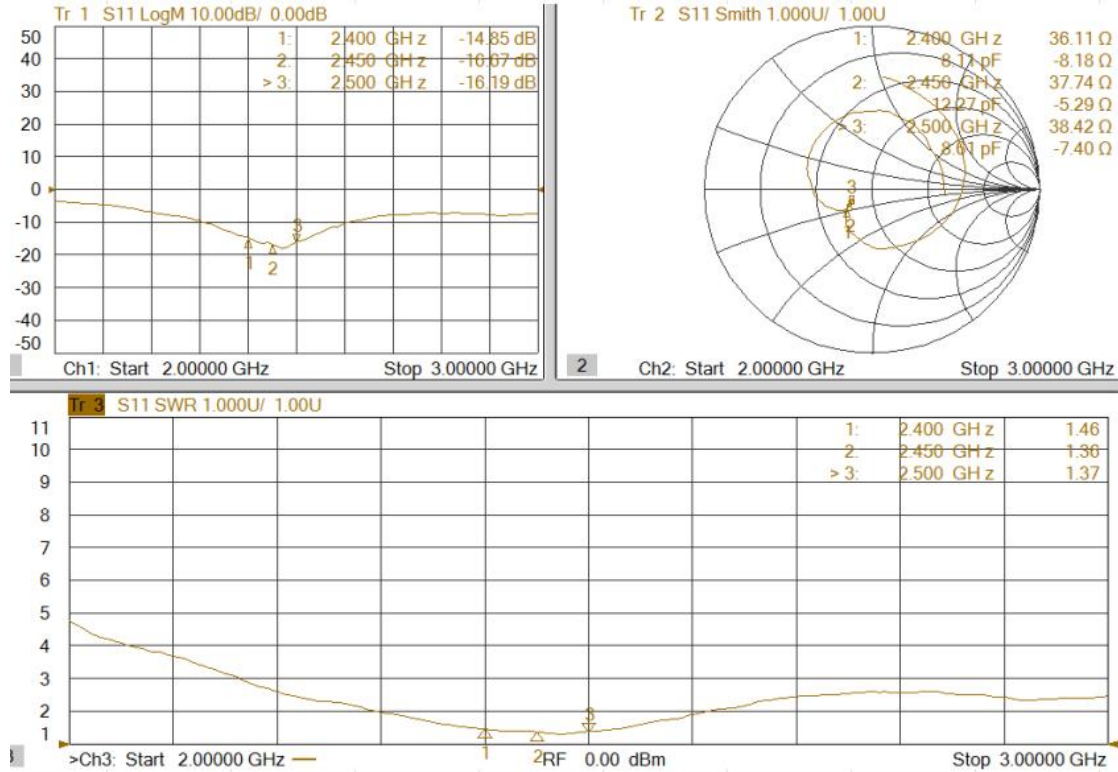


天线尺寸: 14.8mm*94.5mm
1.13黑色正常线, 一代端子头,
线长:170mm
天线频段:
2400-2500MHz

2. Antenna Characteristics

2.1 S-Parameter

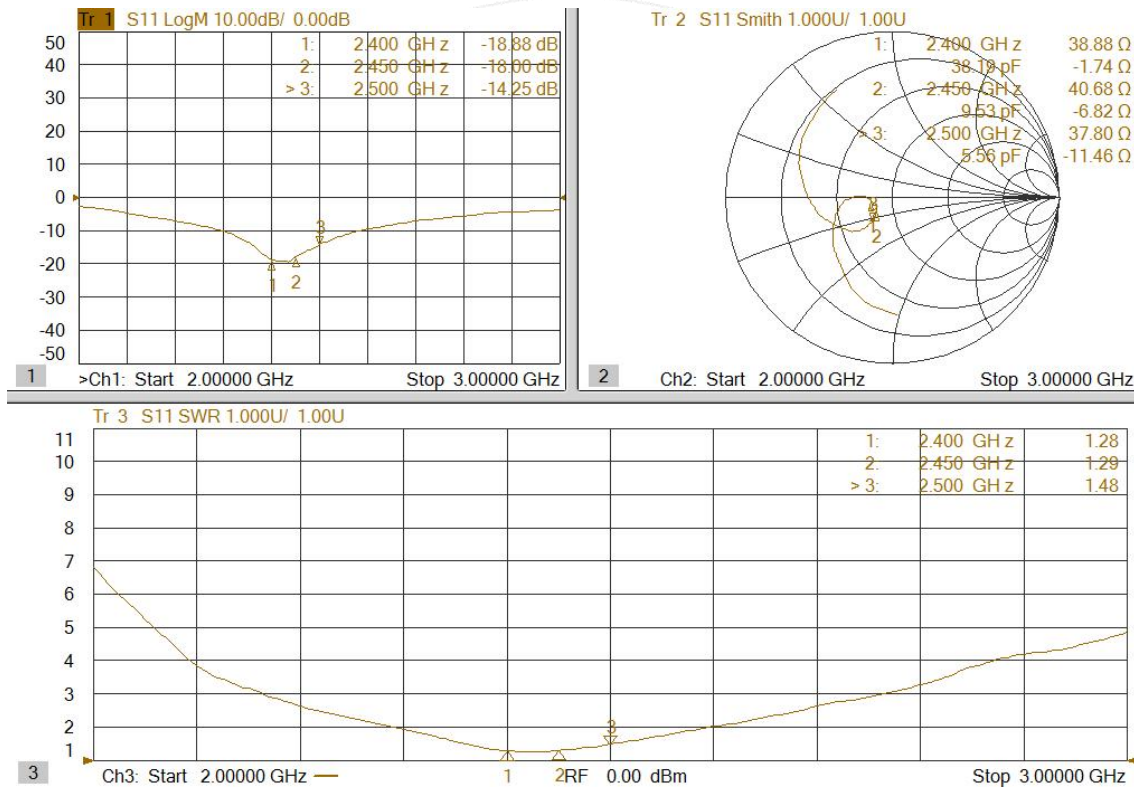
WiFi1



2. Antenna Characteristics

2.1 S-Parameter

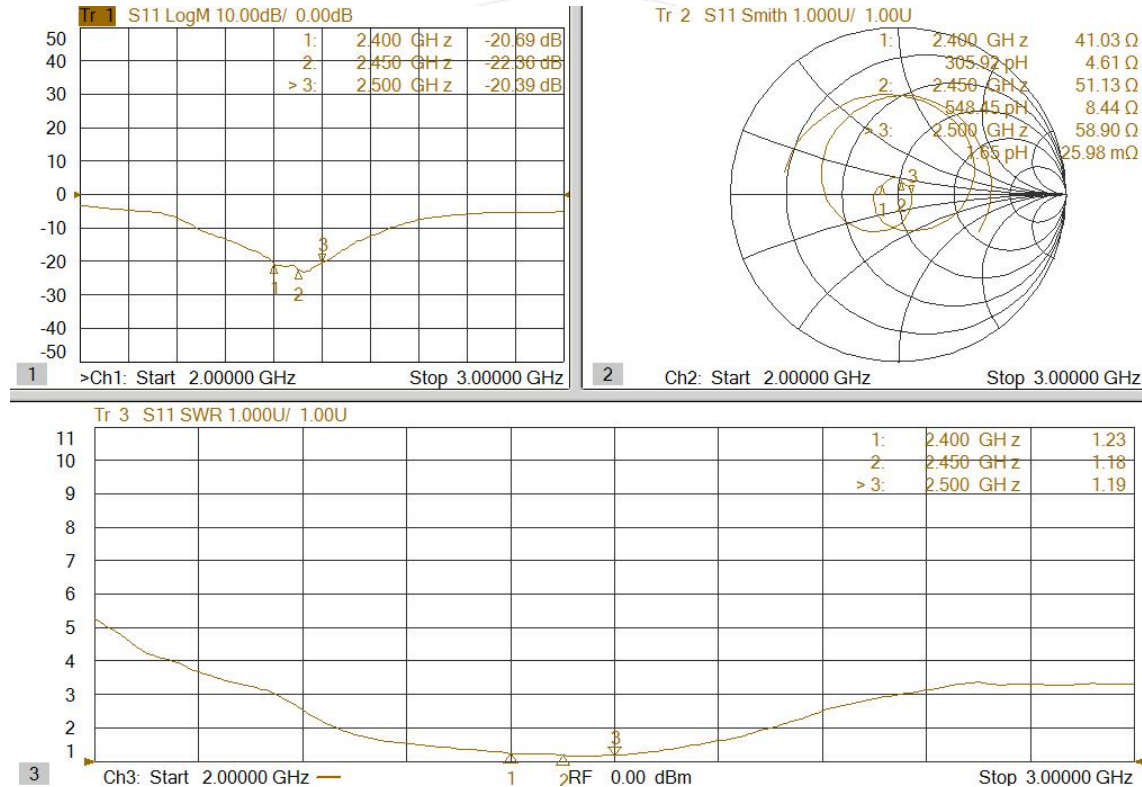
WiFi2



2. Antenna Characteristics

2.1 S-Parameter

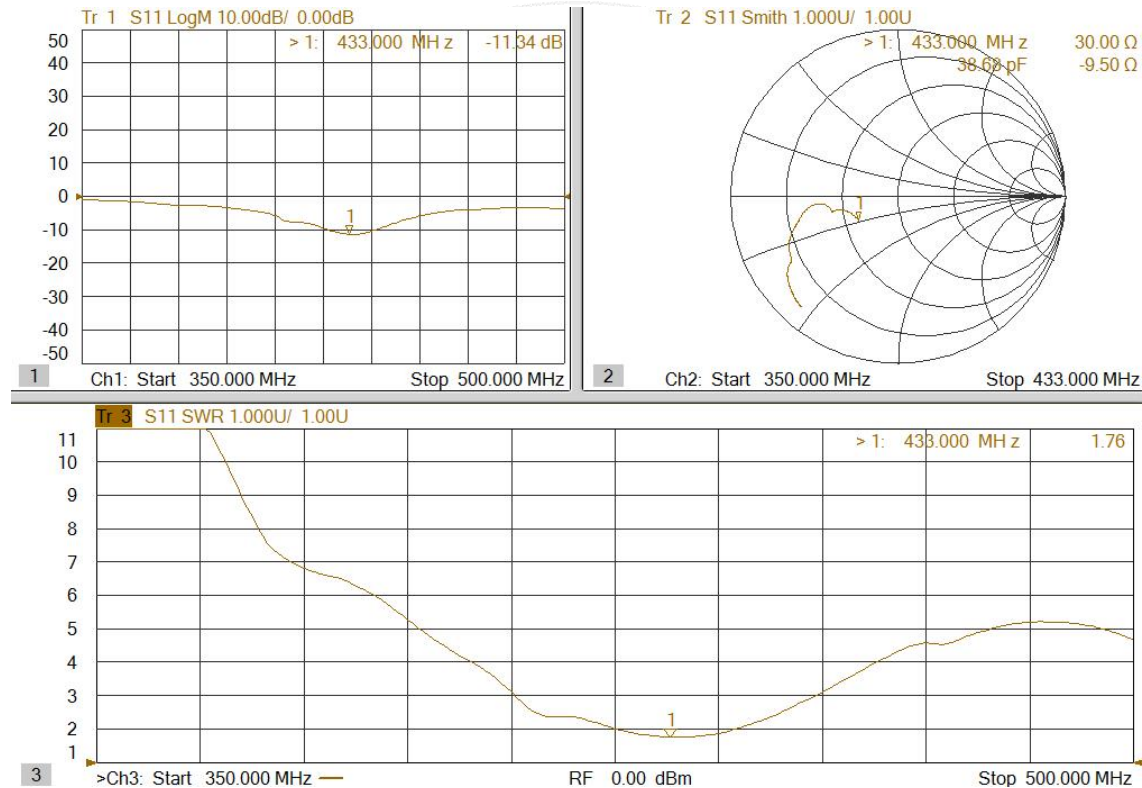
BT



2. Antenna Characteristics

2.1 S-Parameter

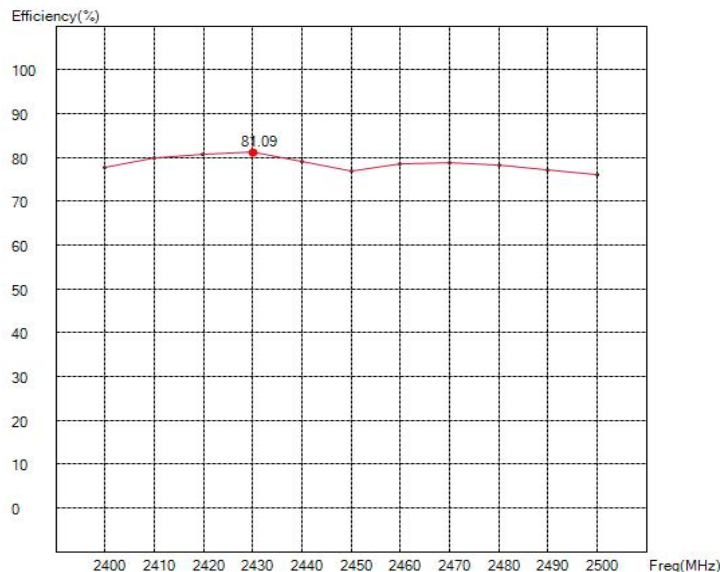
433MHz



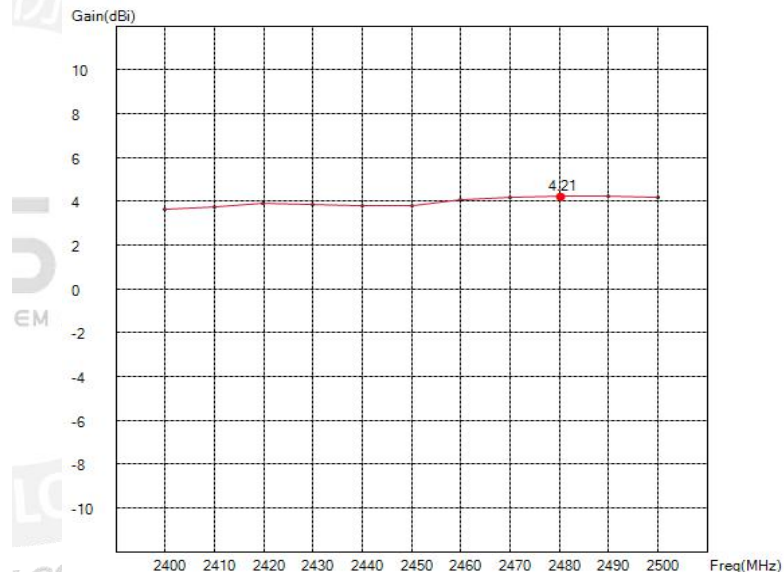
2. Antenna Characteristics

2.2 Antenna Efficiency and Peak Gain

WiFi1



Maximum Efficiency at 2430MHz : 81.09%

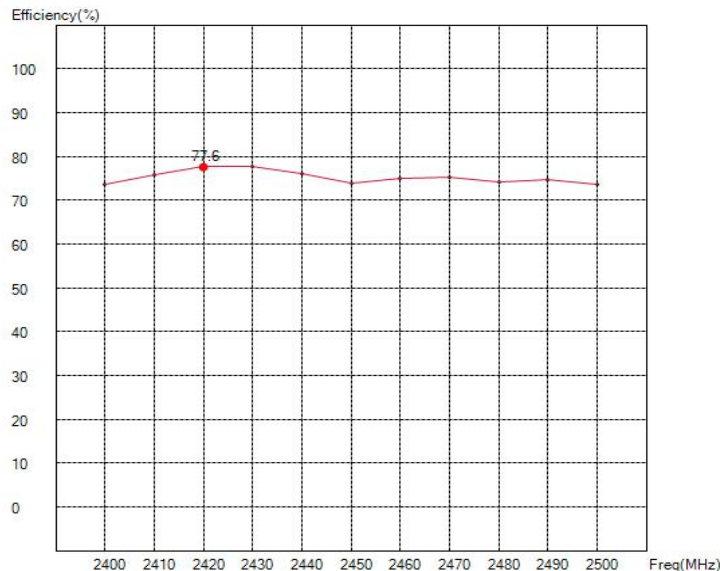


Maximum Peak Gain at 2480MHz :4.21dBi

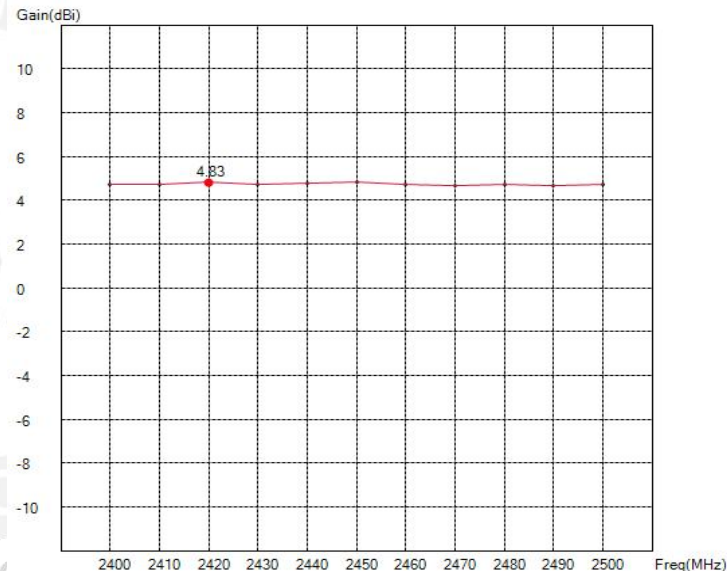
2. Antenna Characteristics

2.2 Antenna Efficiency and Peak Gain

WiFi2



Maximum Efficiency at 2420MHz :77.6%

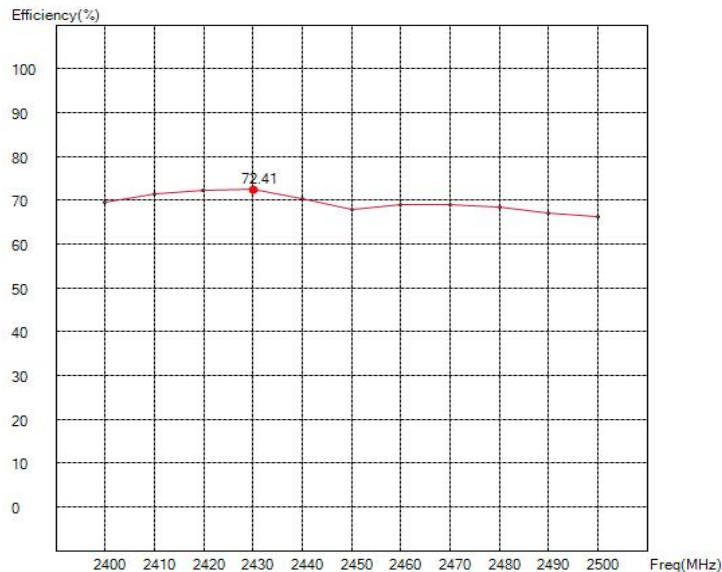


Maximum Peak Gain at 2420MHz :4.83dBi

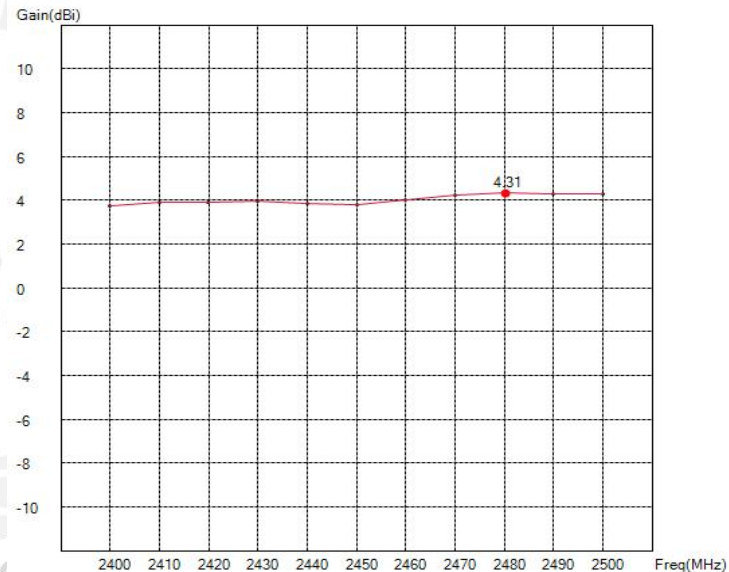
2. Antenna Characteristics

2.2 Antenna Efficiency and Peak Gain

BT



Maximum Efficiency at 2430MHz : 72.41%

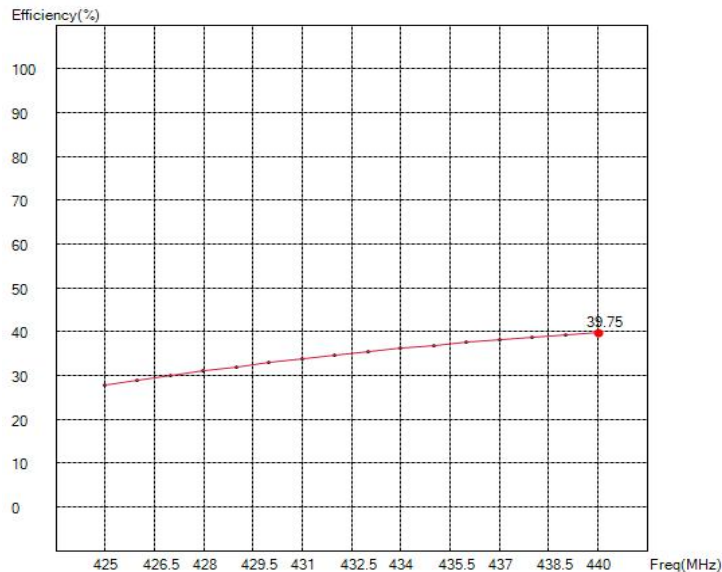


Maximum Peak Gain at 2480MHz :4.31dBi

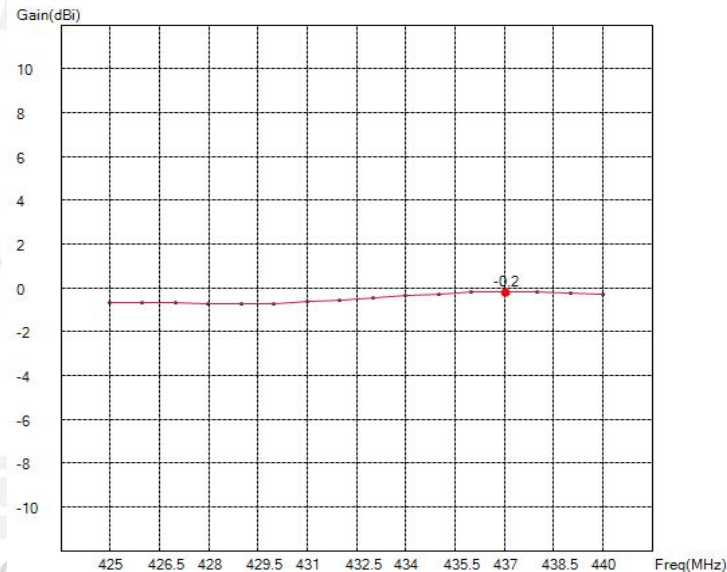
2. Antenna Characteristics

2.2 Antenna Efficiency and Peak Gain

433MHz



Maximum Efficiency at 440MHz : 39.75%



Maximum Peak Gain at 437MHz : -0.2dBi

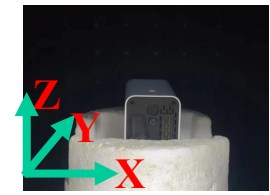
2. Antenna Characteristics

2.2 Antenna Efficiency and Peak Gain

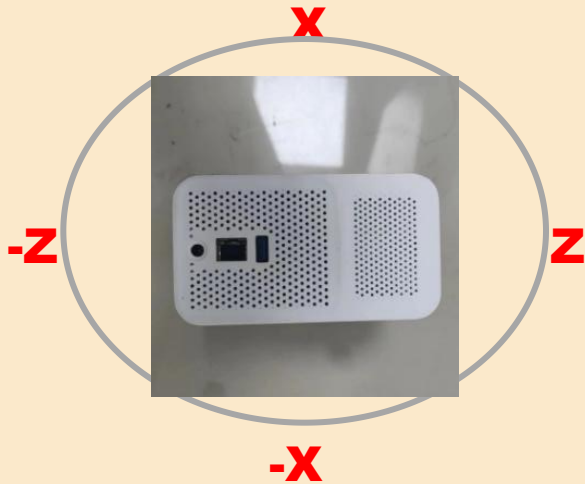
	WiFi1		WiFi2		BT		433MHz	
Frequency (MHz)	Efficiency (%)	Peak gain (dBi)	Efficiency (%)	Peak gain (dBi)	Efficiency (%)	Peak gain (dBi)	Efficiency (%)	Peak gain (dBi)
2400	77.58	3.62	73.60	4.73	69.42	3.73	/	/
2450	76.96	3.78	73.92	4.82	67.93	3.78	/	/
2500	75.95	4.16	73.49	4.71	66.26	4.27	/	/
425	/	/	/	/	/	/	27.77	-0.67
433	/	/	/	/	/	/	35.49	-0.45
440	/	/	/	/	/	/	39.75	-0.32

2. Antenna Characteristics

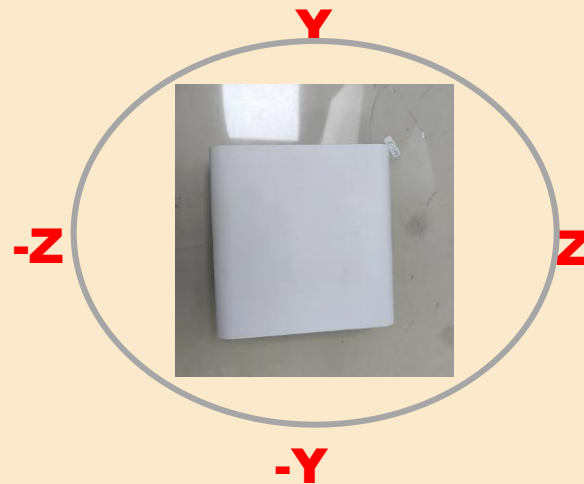
2.3 3 views of antenna



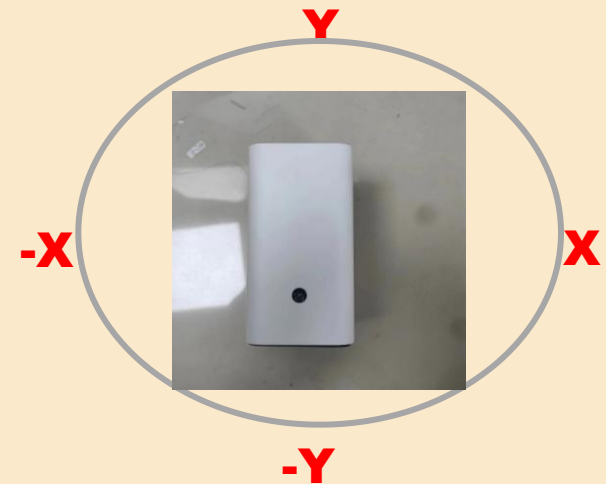
X-Z plane



Y-Z plane

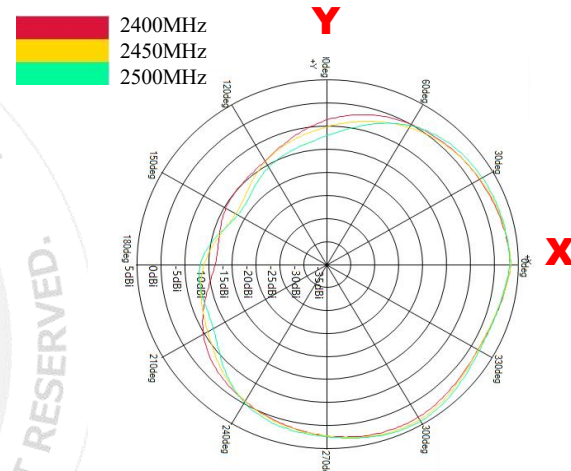
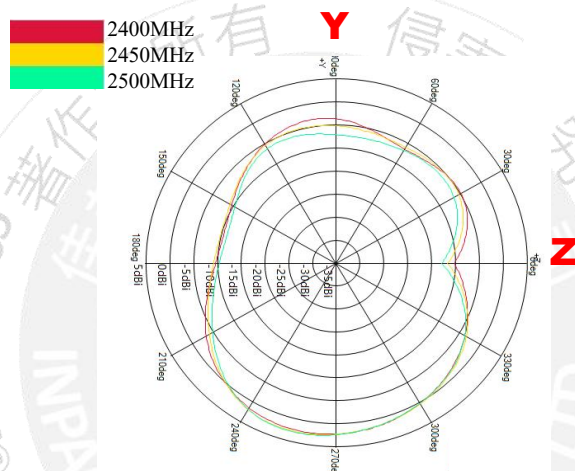
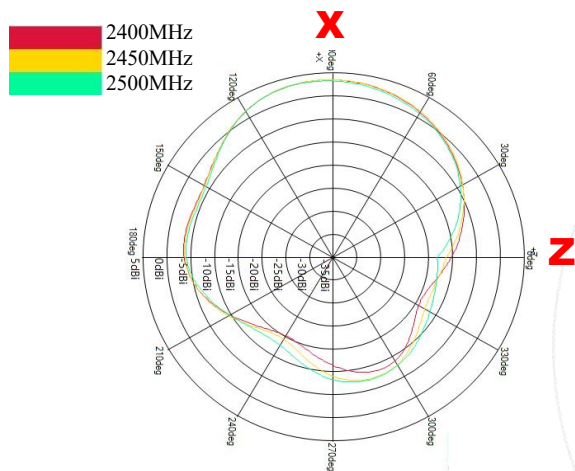


X-Y plane



2. Antenna Characteristics

2.3 2D Radiation Patterns

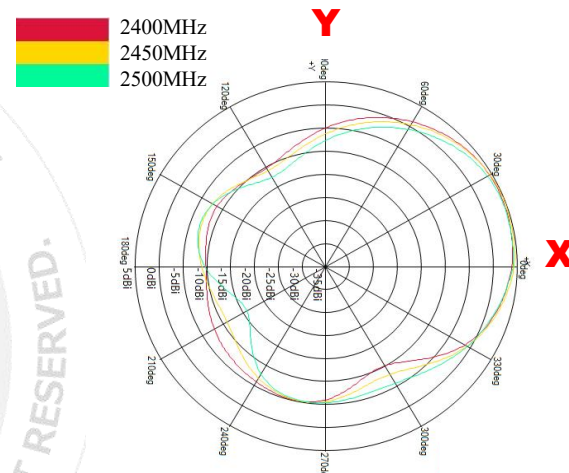
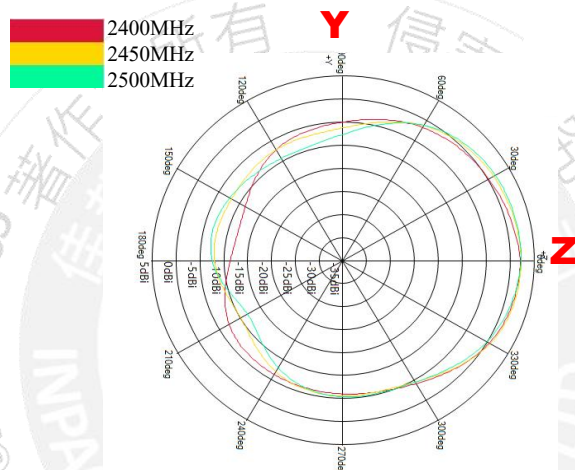
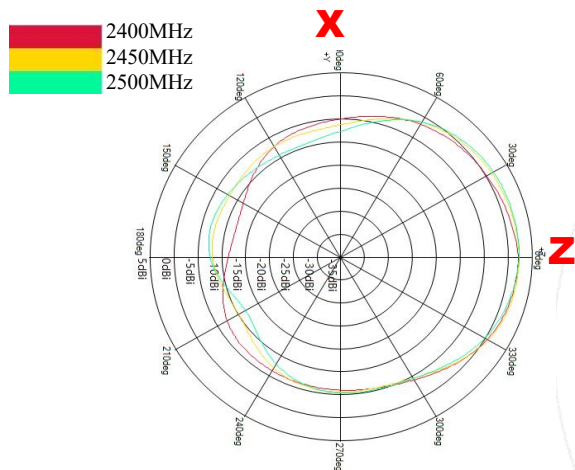


	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]
2400	3.62	-2.53	2.07	-2.36	3.62	-0.01
2450	3.63	-2.40	2.12	-2.41	3.78	0.00
2500	3.37	-2.67	2.25	-2.70	4.16	0.15

2. Antenna Characteristics

WiFi2

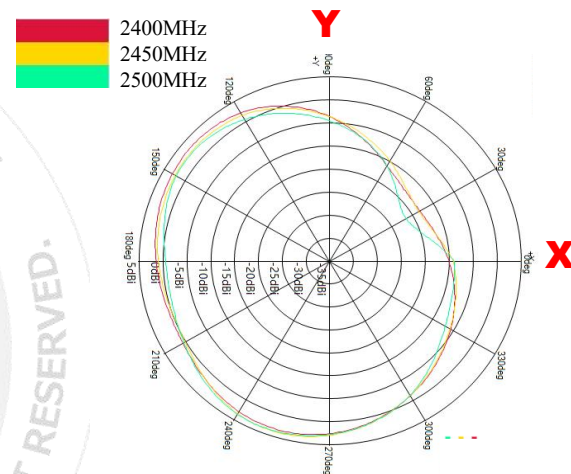
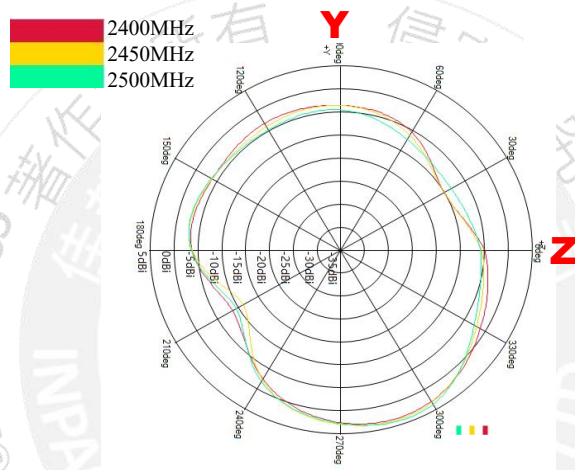
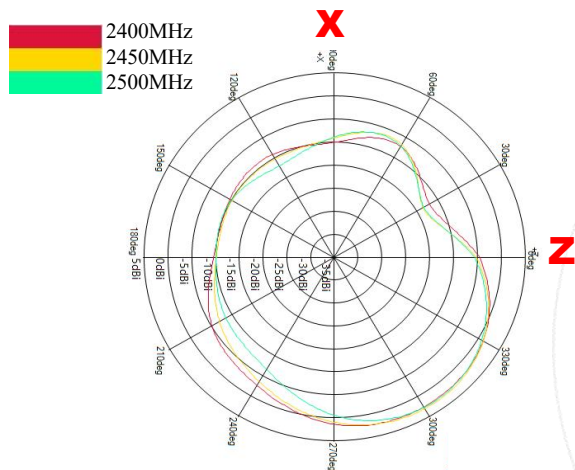
2.3 2D Radiation Patterns



	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]
2400	4.03	1.14	2.26	-1.47	4.73	-1.25
2450	4.52	1.62	2.41	-1.27	4.82	-1.16
2500	4.34	1.52	2.42	-1.38	4.24	-1.62

2. Antenna Characteristics

2.3 2D Radiation Patterns

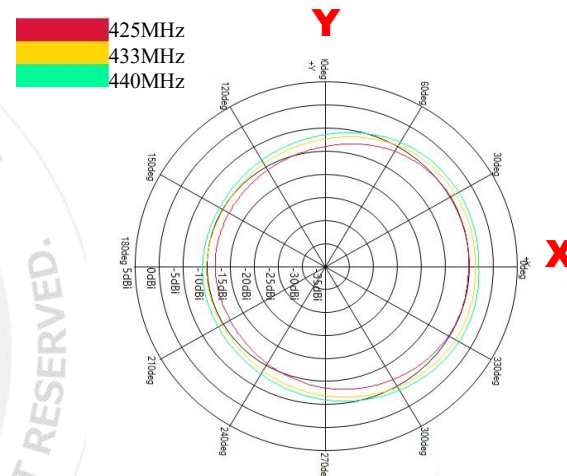
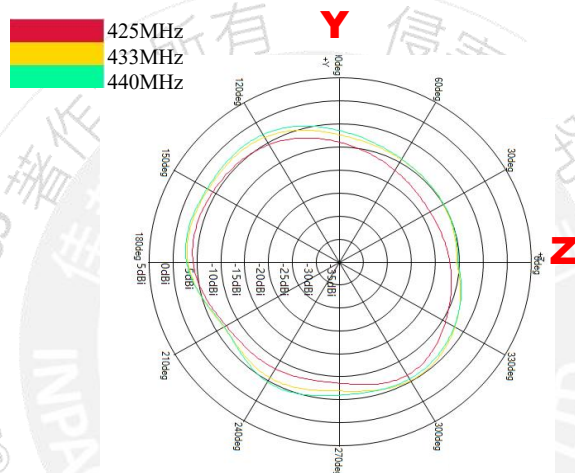
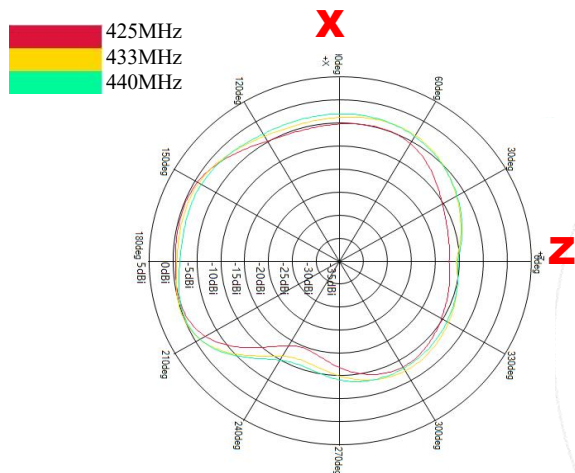


	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]
2400	2.58	-2.30	2.96	-1.85	2.99	-0.20
2450	3.05	-2.45	3.17	-1.95	3.26	-0.35
2500	2.68	-3.21	3.67	-1.96	3.36	-0.71

2. Antenna Characteristics

2.3 2D Radiation Patterns

433MHz

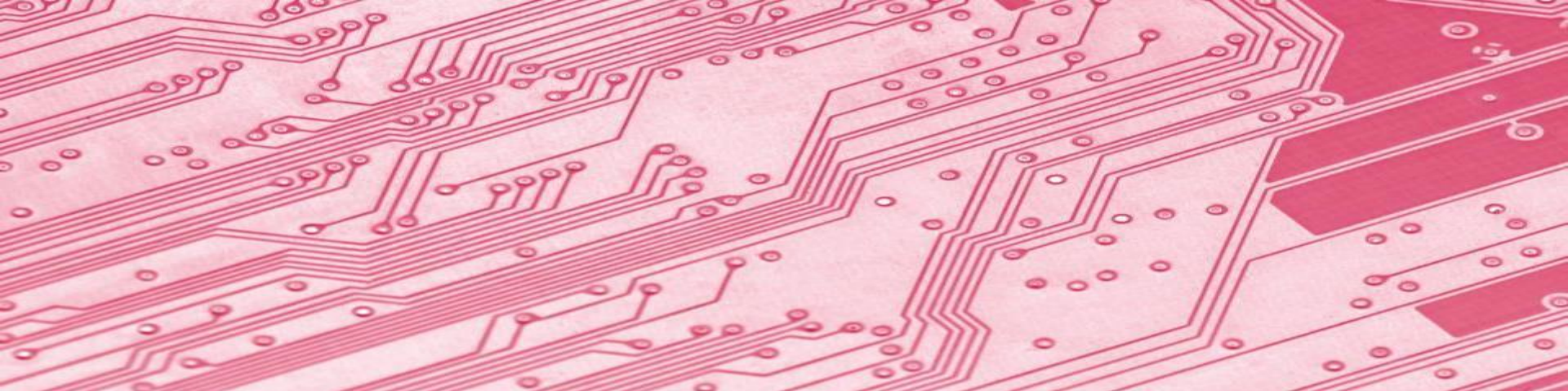


	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]
425	-0.67	-7.29	-4.39	-8.80	-4.68	-7.70
433	-0.94	-5.70	-3.27	-7.05	-3.48	-6.15
440	-1.24	-5.49	-2.91	-6.65	-2.64	-5.31

3. Summary

- The performance of antennas is shown in table

	WiFi1	WiFi2	BT	433MHz
Maximum Efficiency (%)	81.09	77.6	72.41	39.75
Maximum Gain (dBi)	4.21	4.83	4.31	-0.2



Title for Image (above image could be replaced)

Content Details

PASSIVE SYSTEM ALLIANCE
INPAQ TECHNOLOGY CO., LTD.

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