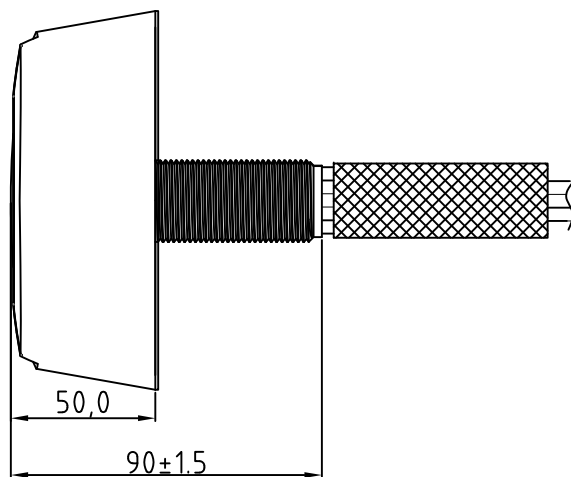
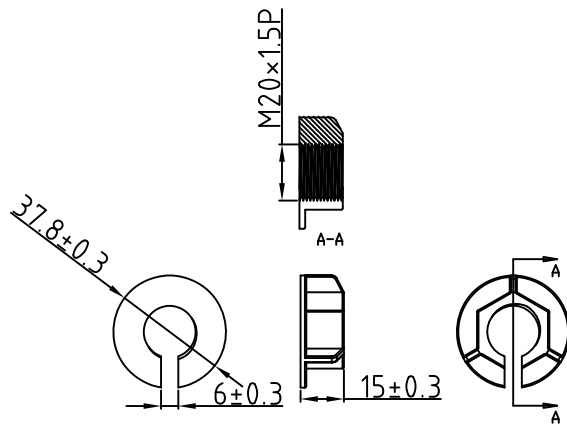
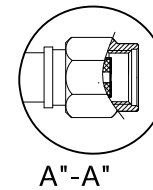
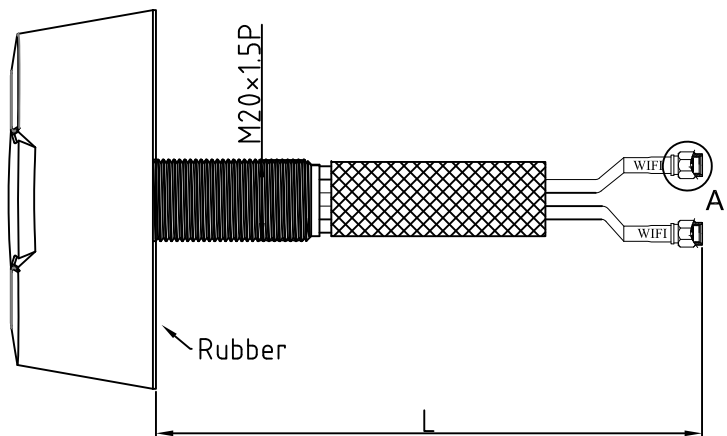
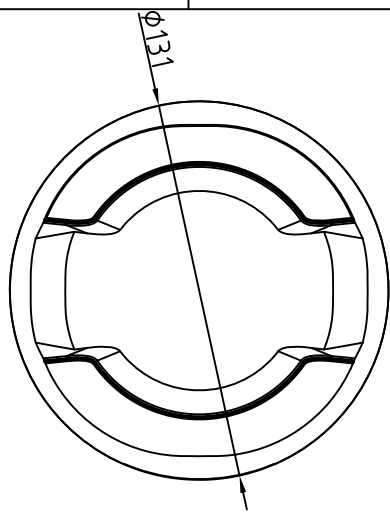


***M131.W2 Antenna***  
***MIMO Dual Band 2.4/5.8GHz 2 IN 1***  
***Antenna***  
***test report***

*Version: V 1.1*

*Released Date: 2020/09/07*

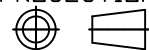


Electrical Properties	
Frequency Range	2* 2.4~2.5GHZ 5.15~5.85GHZ 6.125~7.125GHZ
Impedance	50 Ω
V.S.W.R.	≤2.0
Radiation	Omni
Gain	7±1DBi
Polarization	Vertical
Mechanical Properties	
Whip	PC+ABS
Standard Connector	RP-SMA MALE
Waterprooflevel	IP68
Operating Temp	-φ40°~ +80°

BOM

NO	Name	Material	Finish	QTY
1	Top	ABS+PC	BLACK	1
2	Bottom	ABS+PC	BLACK	1
3	CFD200 Coaxial cable	PE	BLACK	1
4	SMA Connector	Brass	GOLD	2
5	Antenna			2
6	Screw installation	ABS+PC	BLACK	1
7	NUT	PA66	BLACK	1
8	Shrink tube	PE		2
9				

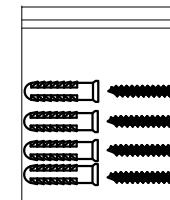
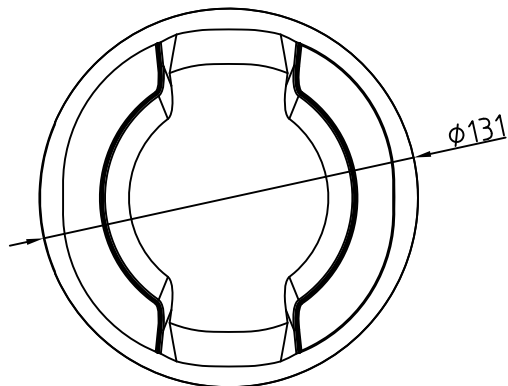
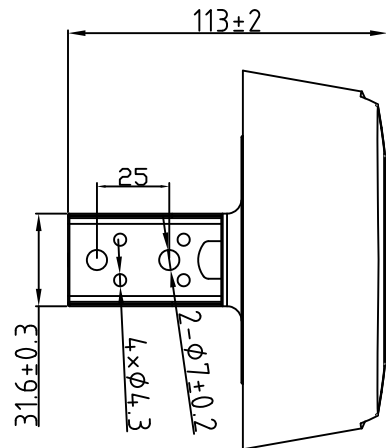
THIRD ANGLE PROJECTION



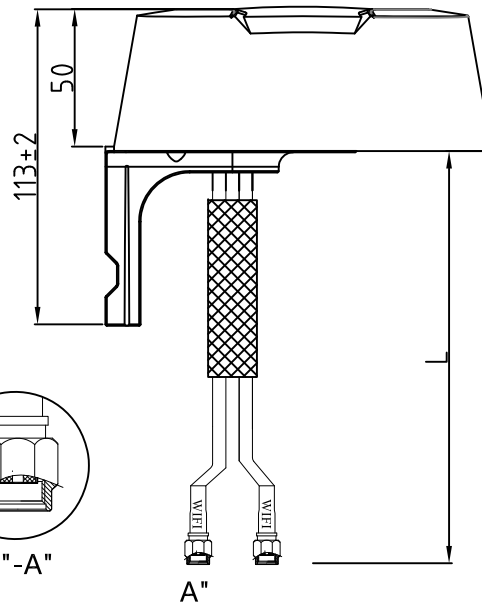
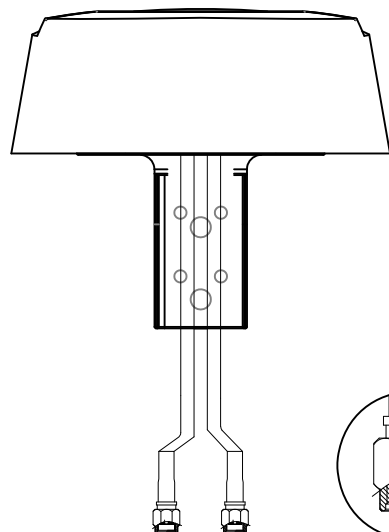
Tolerance	
.X	±0.1
.XX	±0.05
.x	±1°

DRAWN BY	li	MATERIAL:		PART NO:	M131.W2.2.334
CHECKED BY		FINISH:	BLACK	TITLE:	M131 WIFI Antenna
APPROVED BY	King	UNIT:	mm		
DATE:	21. 4. 16	SCALE:	1/1		





Wall Mounting x4  
Screw 4x25L x4

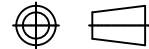


Electrical Properties	
Frequency Range	2* 2.4~2.5GHZ 5.15~5.85GHZ 6.125~7.125GHZ
Impedance	50 Ω
V.S.W.R.	≤2.0
Radiation	Omni
Gain	7±1DBi
Polarization	Vertical
Mechanical Properties	
Whip	PC+ABS
Standard Connector	RP-SMA MALE
Waterprooflevel	IP68
Operating Temp	-φ40°~ +80°

BOM

NO	Name	Material	Finish	QTY
1	Top	ABS+PC	BLACK	1
2	Bottom	ABS+PC	BLACK	1
3	CFD 200 Coaxial cable	PE	BLACK	1
4	SMA Connector	Brass	GOLD	2
5	Antenna			2
6	Bracket installation	ABS+PC	BLACK	1
7	Wall maunting	PA6	WHITE	4
8	Screw	SUS304	N. A	4
9	Shrink tube	PE		2

THIRD ANGLE  
PROJECTION



Tolerance  
.X ±0.1  
.XX ±0.05  
.x ±1°

DRAWN BY	li	MATERIAL:		PART NO:	M131.W2.2.335
CHECKED BY		FINISH:	BLACK	TITLE:	M131 WIFI Antenna
APPROVED BY	King	UNIT:	mm		
DATE:	21.4.19	SCALE:	1/1		



## *Contents*

- Revised History
- Specification
- Antenna Placement & Solution
- Return Loss & Isolation Results
- Test Setup
- Efficiency & PeakGain & Gain Table
- 2D Radiation Pattern Results

## Revision History



Released Date	Version	Record
2020/08/25	1.0	Antenna test report
2020/09/07	1.1	Increase Antenna Frequency to 6GHz

# Specification



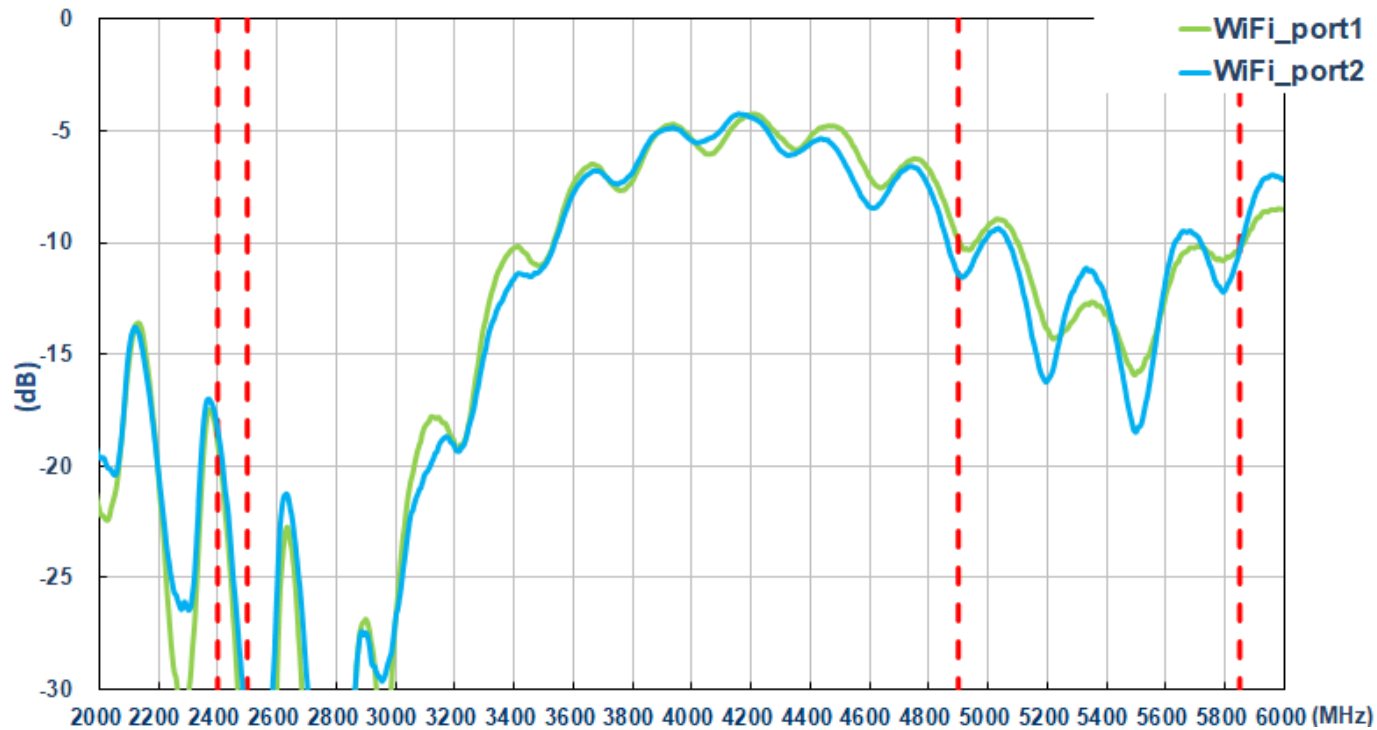
## Requirements of Antenna Design

RF Function	Number of ANT	Frequency Band	Remark
WIFI	2	2400~2500/4900~5850MHz	

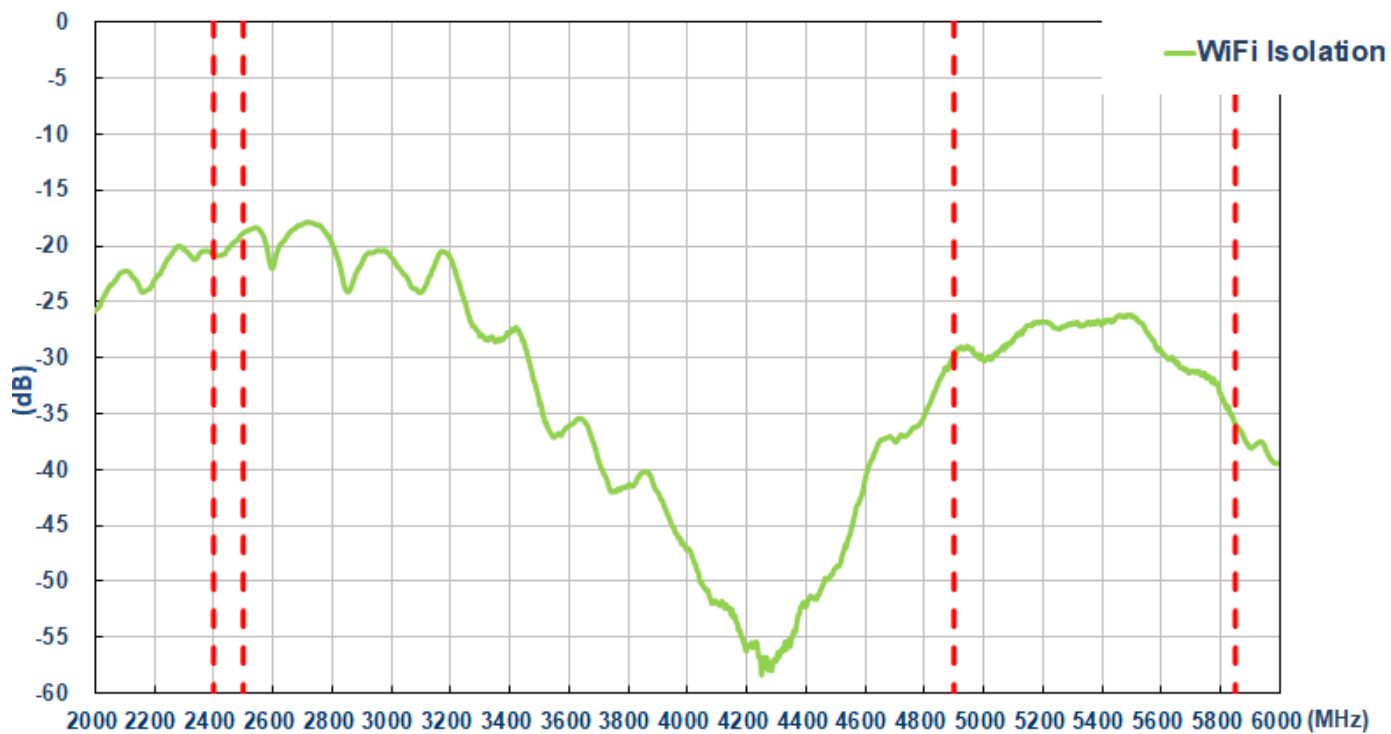
## Requirements of Measurement

Test Item	Specification	Remark
Return Loss	<-10dB@WiFi	
Peak gain (without cable loss)	WiFi: 2dBi@2400~2500MHz; 6dBi@5150~5850MHz	
Efficiency (without cable loss)	WiFi: 50~60%@2400~2500MHz; 50~80%@5150~5850MHz	

## *Return Loss\_WiFi*

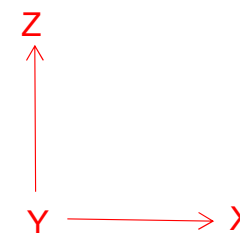
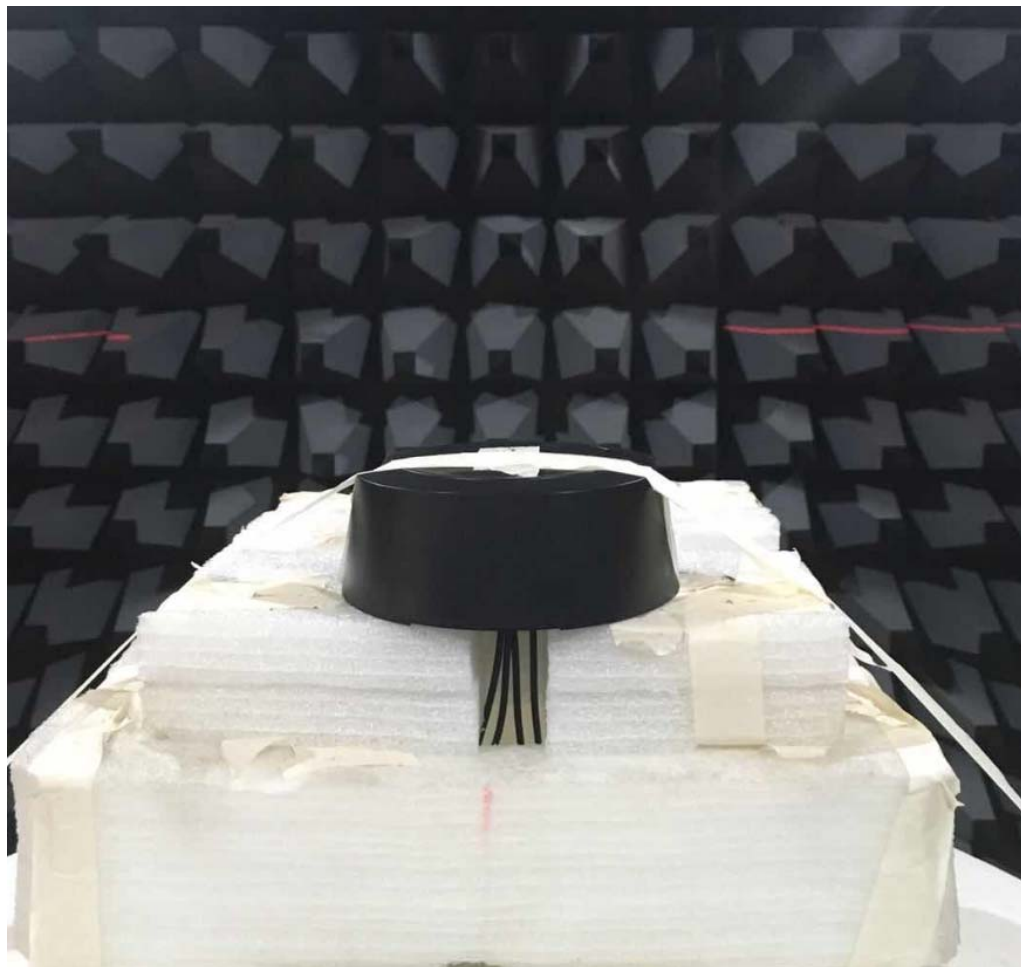


# Isolation\_WiFi

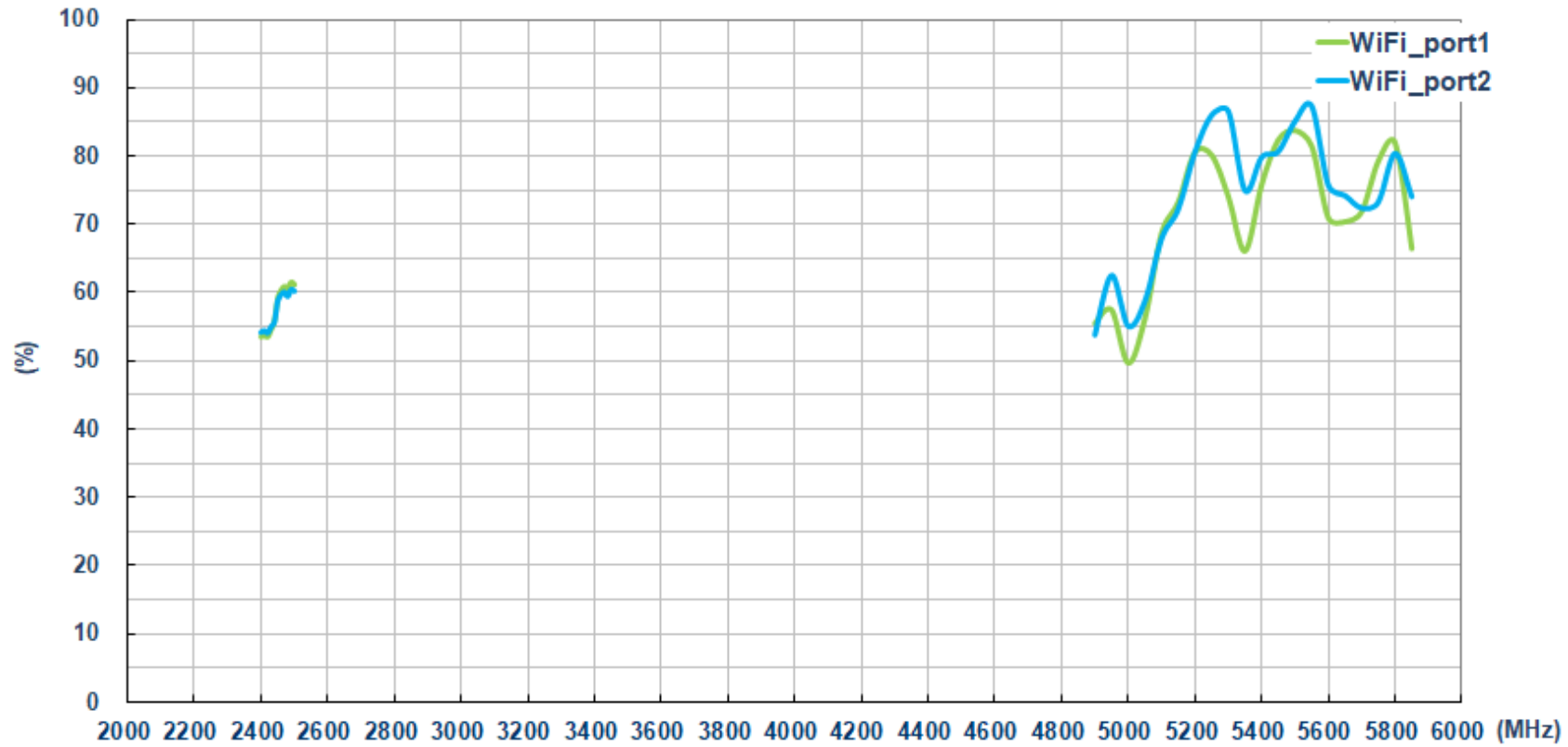




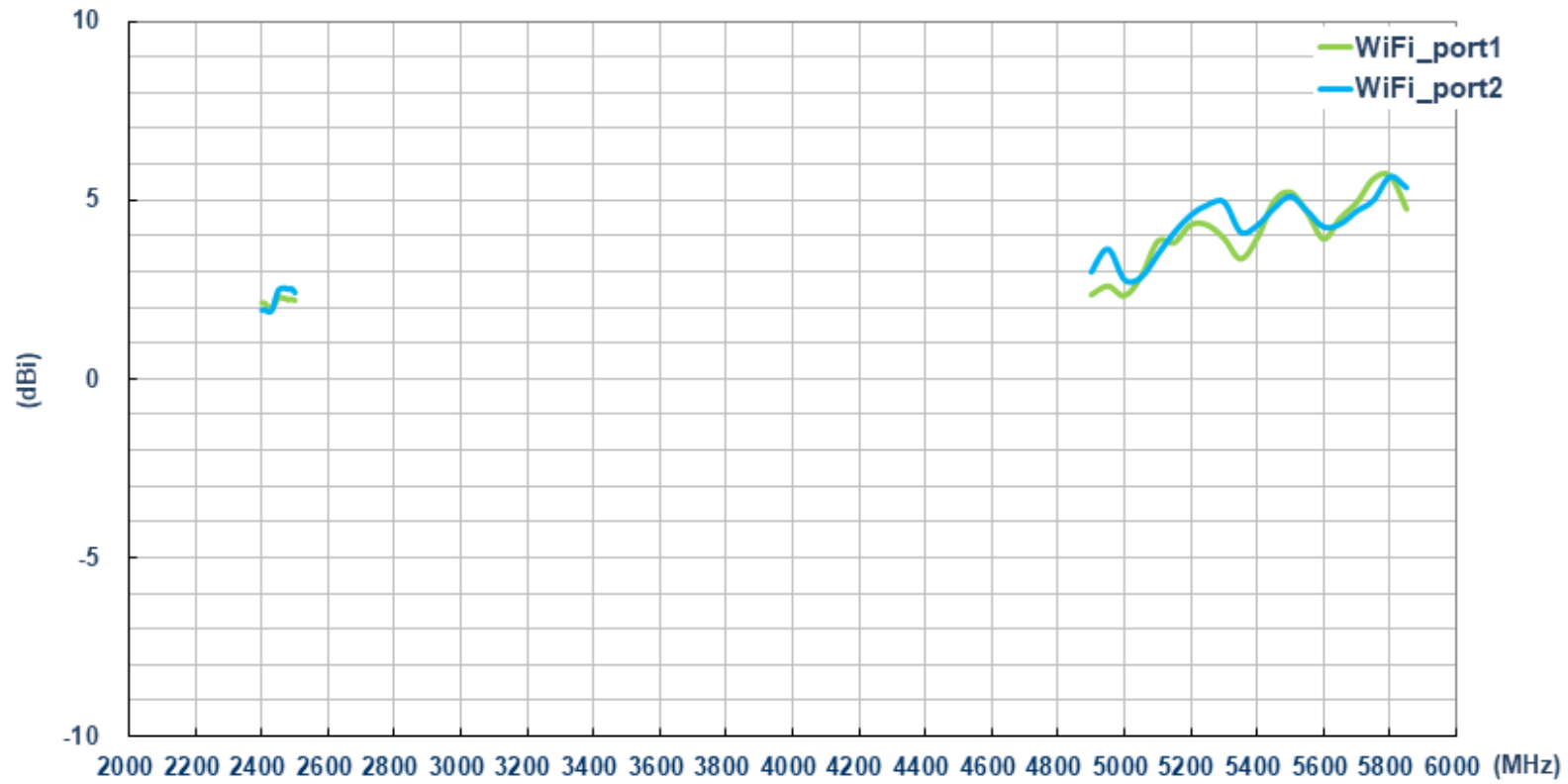
# Test Setup



## Efficiency\_WiFi



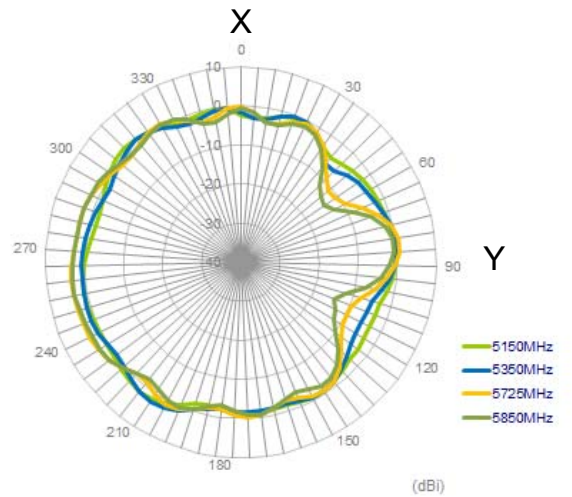
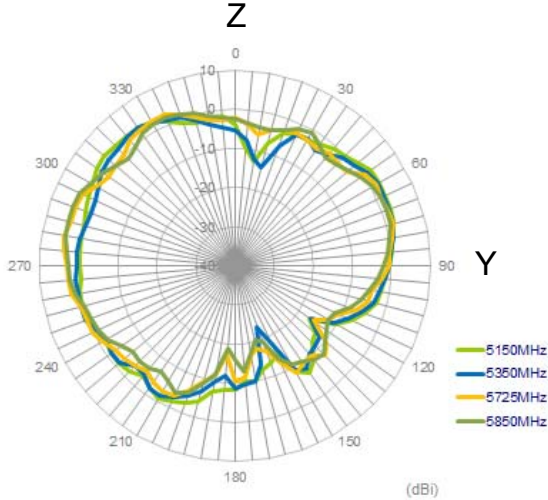
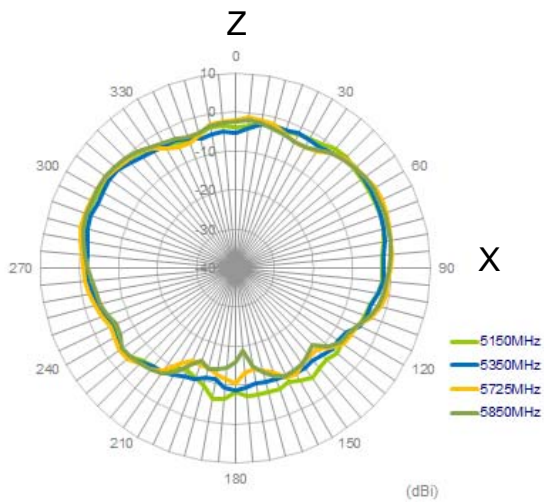
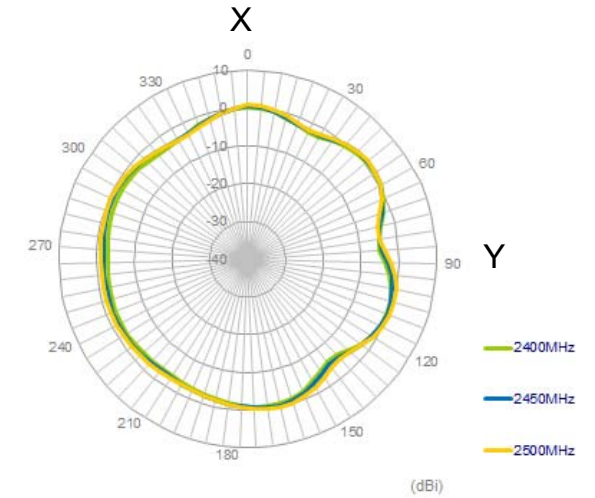
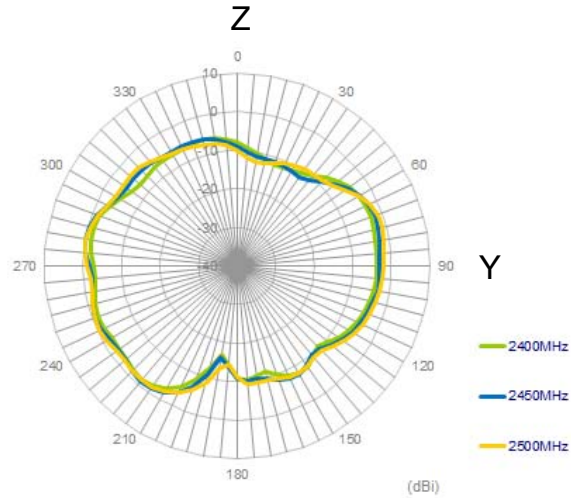
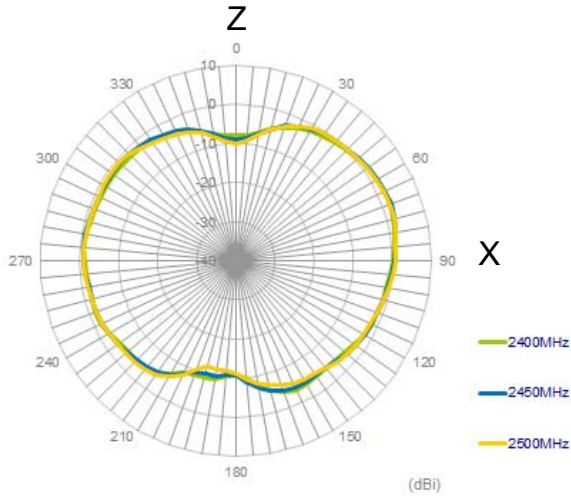
# Peak Gain\_WiFi



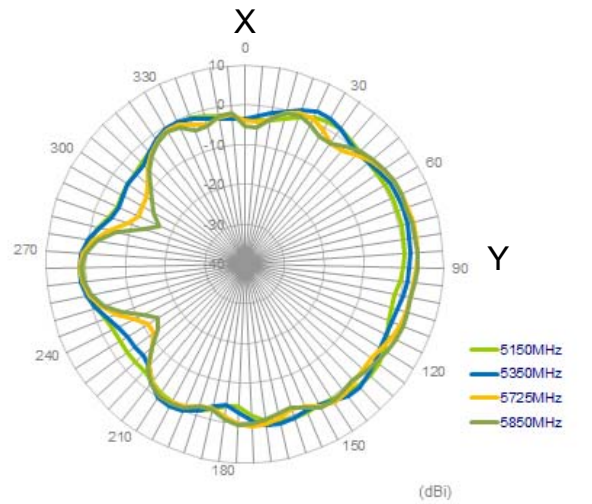
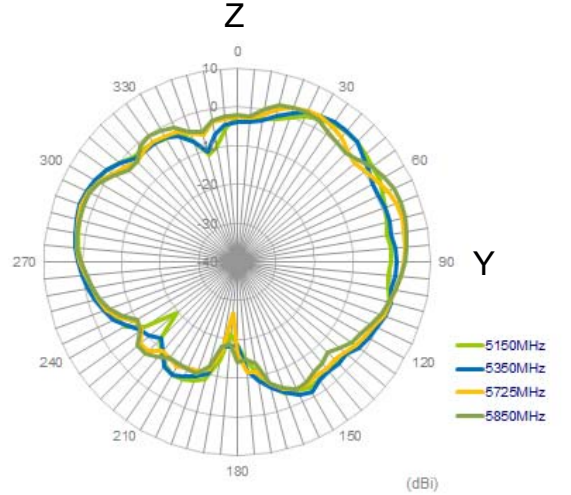
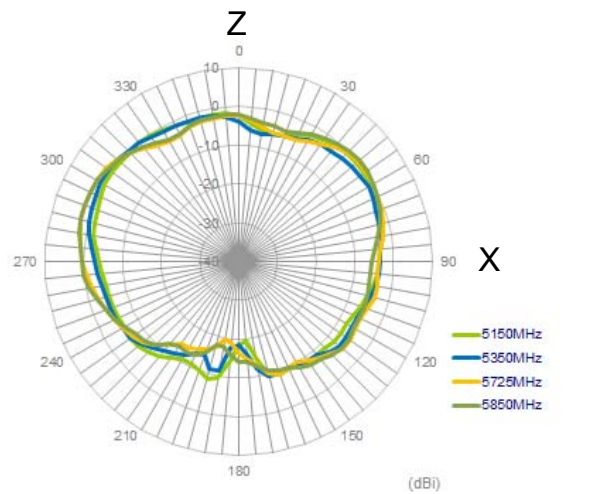
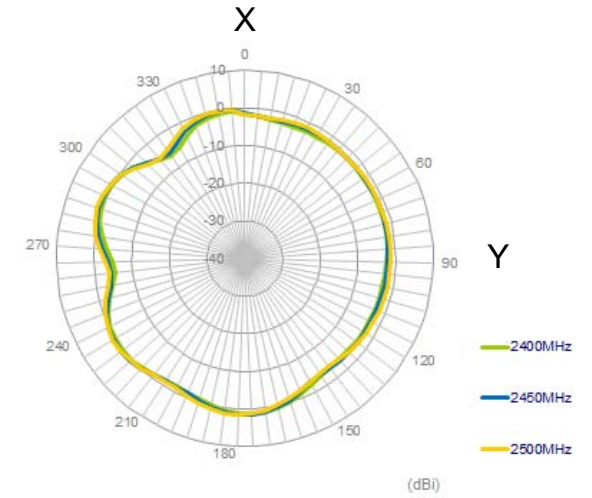
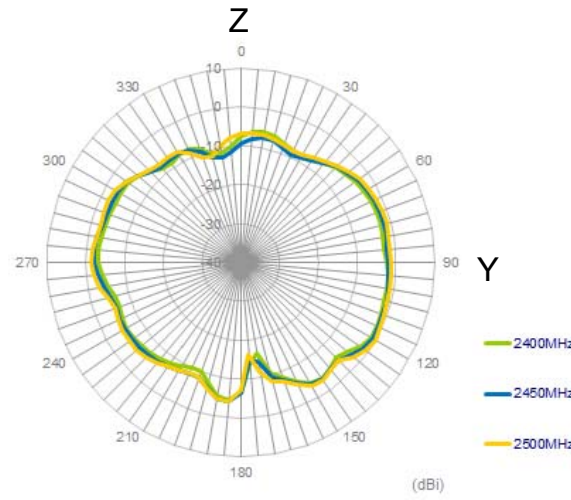
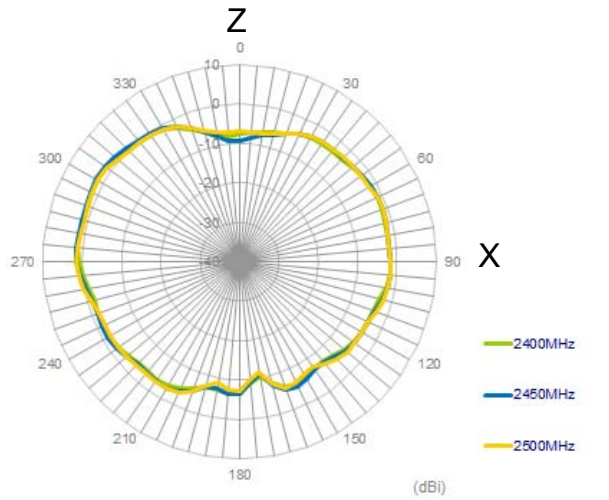
## Gain Table

	WiFi 2.4G 2400~2500	WiFi 5G 4900~5850
	Efficiency	
WiFi_port1	<b>57.72</b>	<b>75.89</b>
WiFi_port2	<b>57.46</b>	<b>78.89</b>
	Average gain	
WiFi_port1	<b>2.28</b>	<b>5.68</b>
WiFi_port2	<b>2.55</b>	<b>5.66</b>

# 2D Radiation Pattern Results\_WiFi\_port1



# 2D Radiation Pattern Results\_WiFi\_port2





## Contact With RS

China Mainland:Rushun Technology Co., Ltd.

Dongguan Factory

Address: Humen Town, Dongguan City, GuangDong Province, 523932 China

Email: [King@rsantenna.com](mailto:King@rsantenna.com)

[Tel:+86 13268639768](tel:+8613268639768)

Taiwan: DingYang Technology Co., Ltd.

Taiwan Factory

Address:2F.-1, No. 18, Daren 2nd St., Zhongli Dist., Taoyuan City 320, Taiwan (R.O.C.)

Email: [terry@rsantenna.com](mailto:terry@rsantenna.com)

[Tel:+886 978-811-326](tel:+886978811326)