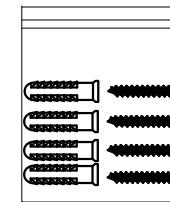
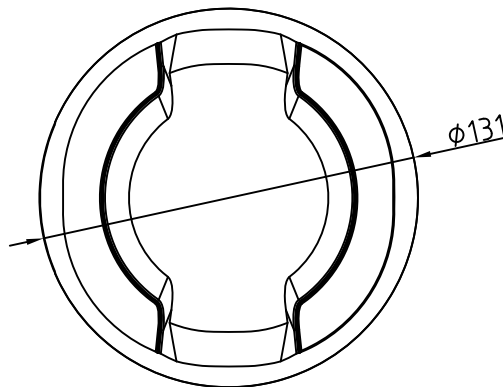
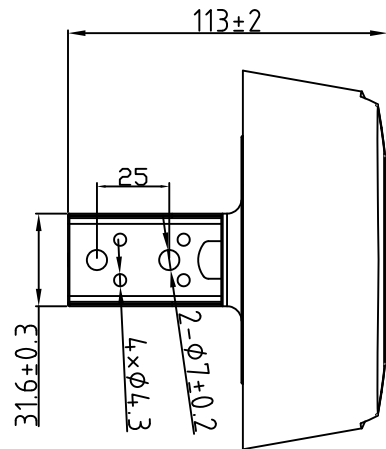


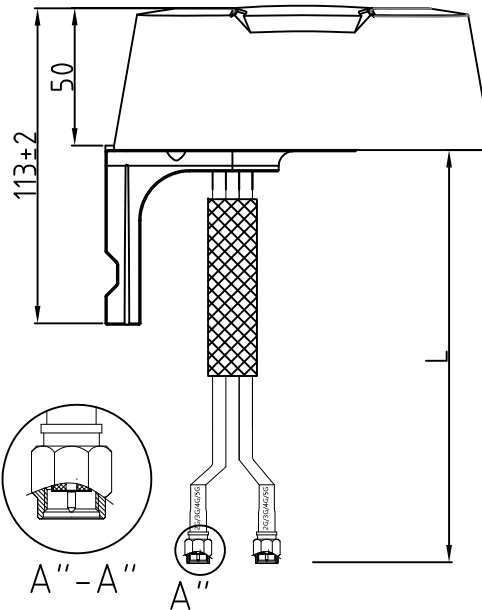
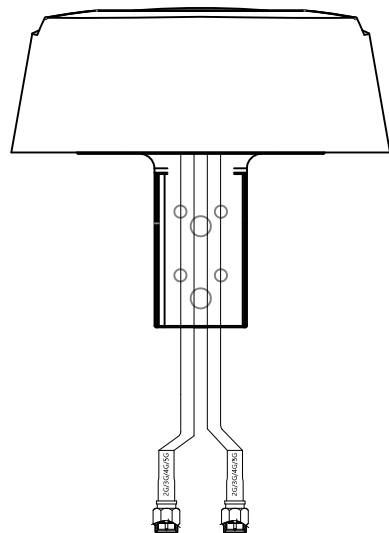
# ***M131 Antenna 5G 2 IN 1 Antenna test report***

*Version: V 1.1*

*Released Date: 2020/09/07*



Wall Mounting x4  
Screw 4x25L x4

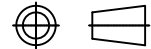


Electrical Properties	
Frequency Range	2* 600~6000MHZ
Impedance	50 Ω
V.S.W.R.	≤2.5
Radiation	Omni
Gain	7±1DBi
Polarization	Vertical
Mechanical Properties	
Whip	PC+ABS
Standard Connector	SMA MALE
Waterprooflevel	IP68
Operating Temp	-φ40°~ +85°

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	BLACK	4
8	Screw	SUS304	N. A	4
9	Shrink tube	PE		2

THIRD ANGLE PROJECTION

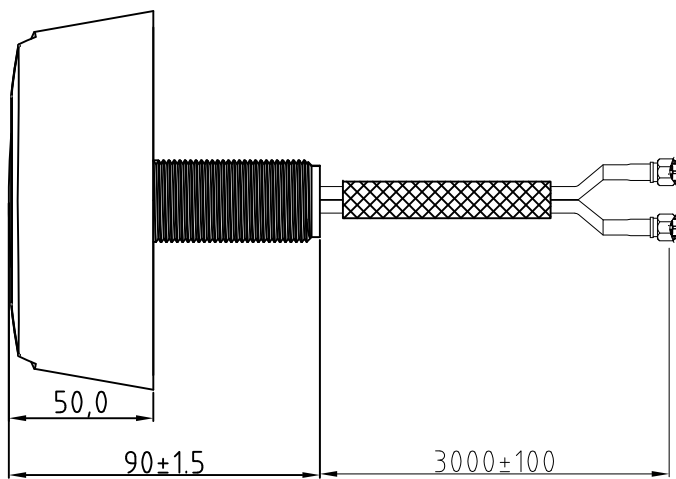
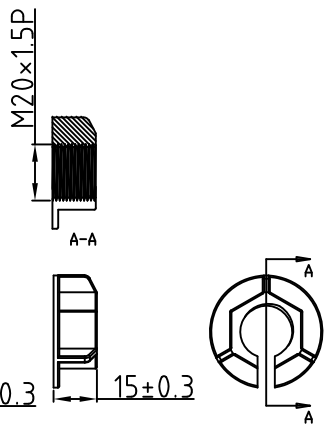
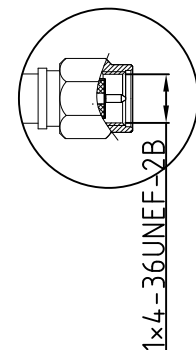
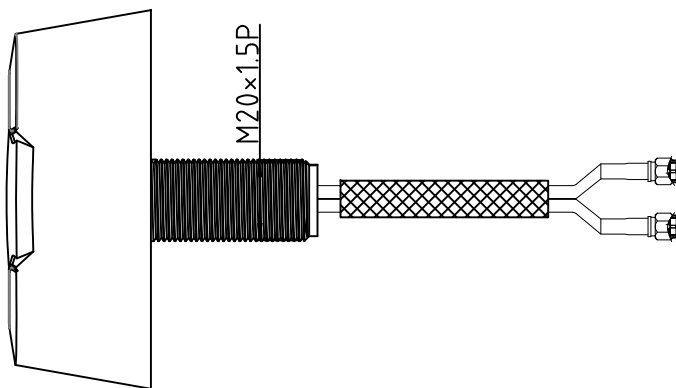
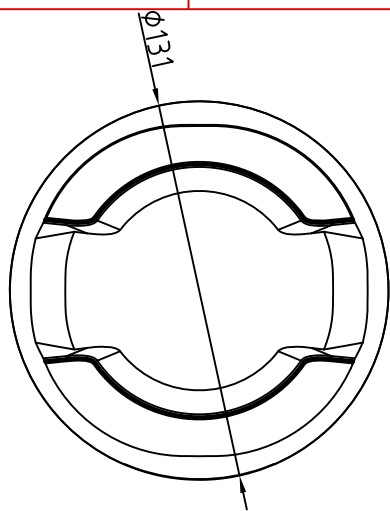


Tolerance  
.X ±0.1  
.XX ±0.05  
.x ±1°

DRAWN BY	li	MATERIAL:	
CHECKED BY		FINISH:	BLACK
APPROVED BY	King	UNIT:	mm
DATE:	21. 4. 19	SCALE:	1/1

PART NO:	M131. C2. 2. 335
TITLE:	M131 2-5G Antenna

 **RUNSHUN**  
Dongguan Run Shun /www.rsantenna.com

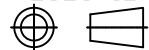


Electrical Properties	
Frequency Range	600~6000MHZ
Impedance	50 Ω
V.S.W.R.	≤2.5
Radiation	Omni
Gain	7DBi
Polarization	Vertical
Mechanical Properties	
Whip	PC+ABS
Standard Connector	SMA MALE
Waterprooflevel	IP68
Operating Temp	-φ40°~ +80°

BOM

NO	Name	Material	Finish	QTY
1	Top	ABS+PC	BLACK	1
2	Bottom	ABS+PC	BLACK	1
3	LMR200 Coaxial cable	PE	BLACK	1
4	SMA Male	Brass	GOLD	2
5	5G Antenna			2
6	Screw installation	ABS+PC	BLACK	1
7	NUT	ABS+PC	BLACK	1
8	Shrink tube	PE	BLACK	2
9	Tube	PET	BLACK	1

THIRD ANGLE PROJECTION



Tolerance	
.X	±0.1
.XX	±0.05
.x	±1°

DRAWN BY	li	MATERIAL:		PART NO:	M131.C2.2.332
CHECKED BY		FINISH:	BLACK	TITLE:	M131 4G/5G Antenna
APPROVED BY	King	UNIT:	mm		
DATE:	20.8.21	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

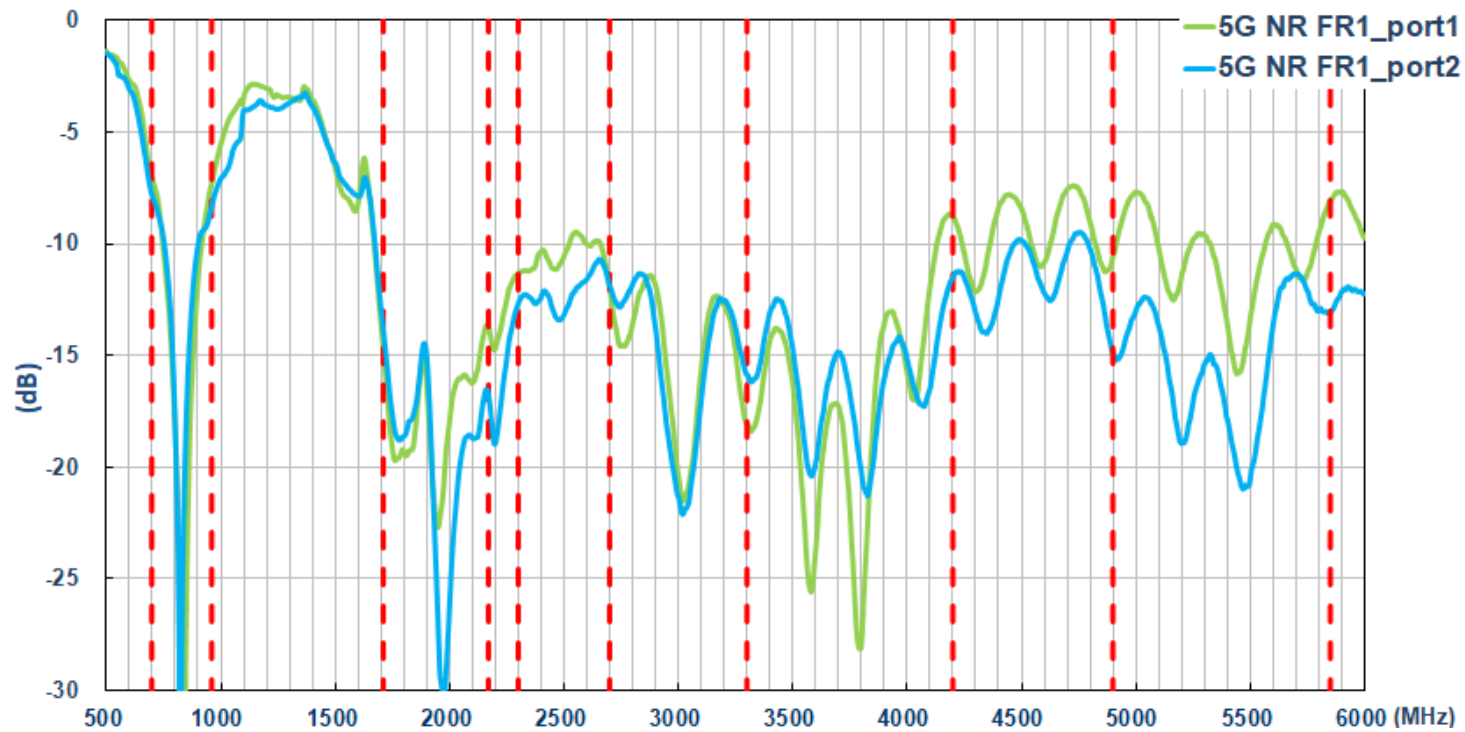
## Requirements of Antenna Design

RF Function	Number of ANT	Frequency Band	Remark
5G NR FR1	2	698~960/1710~2690/3300~4200/5150~5850MHz	

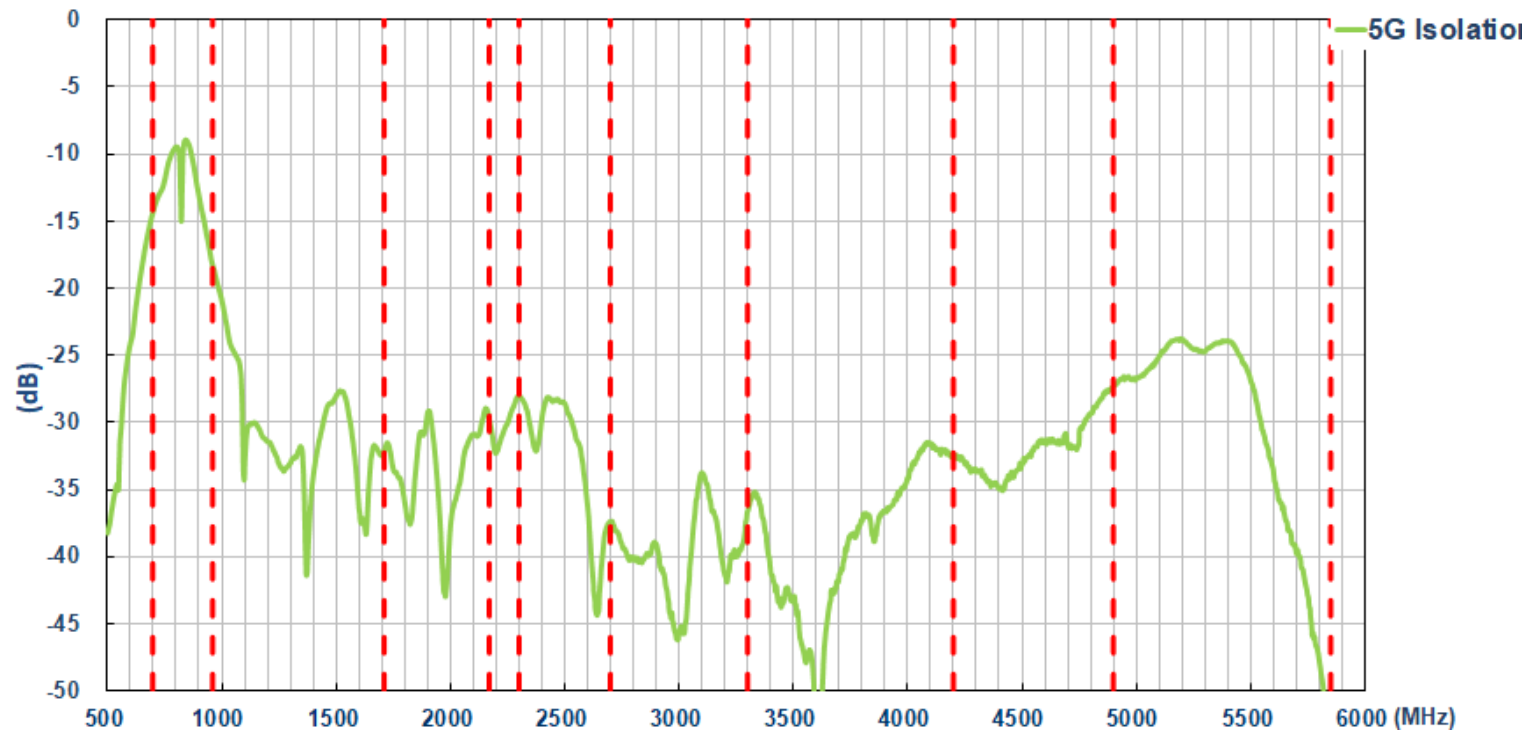
## Requirements of Measurement

Test Item	Specification	Remark
Return Loss	<-6dB	
Peak gain (without cable loss)	5G : 3dBi@698~960MHz; 5dBi@1710~2690MHz; 7dBi@3300~3800MHz; 6dBi@5150~5850MHz	
Efficiency (without cable loss)	5G : 50~80%@698~960; 50~80%@1710~2690; 45~70%@3300~3800; 45~70%@5150~5850	

# Return Loss\_5G

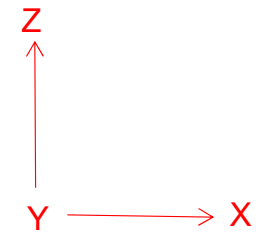
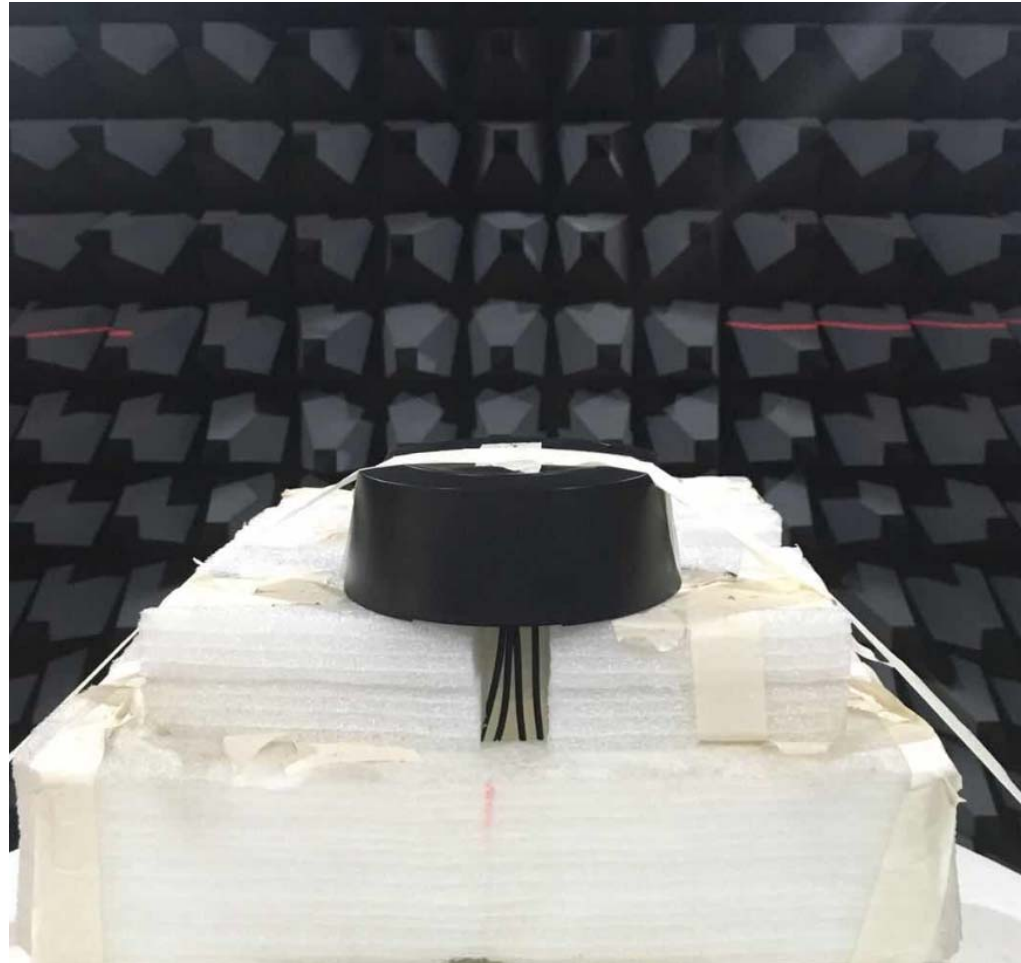


# Isolation\_5G

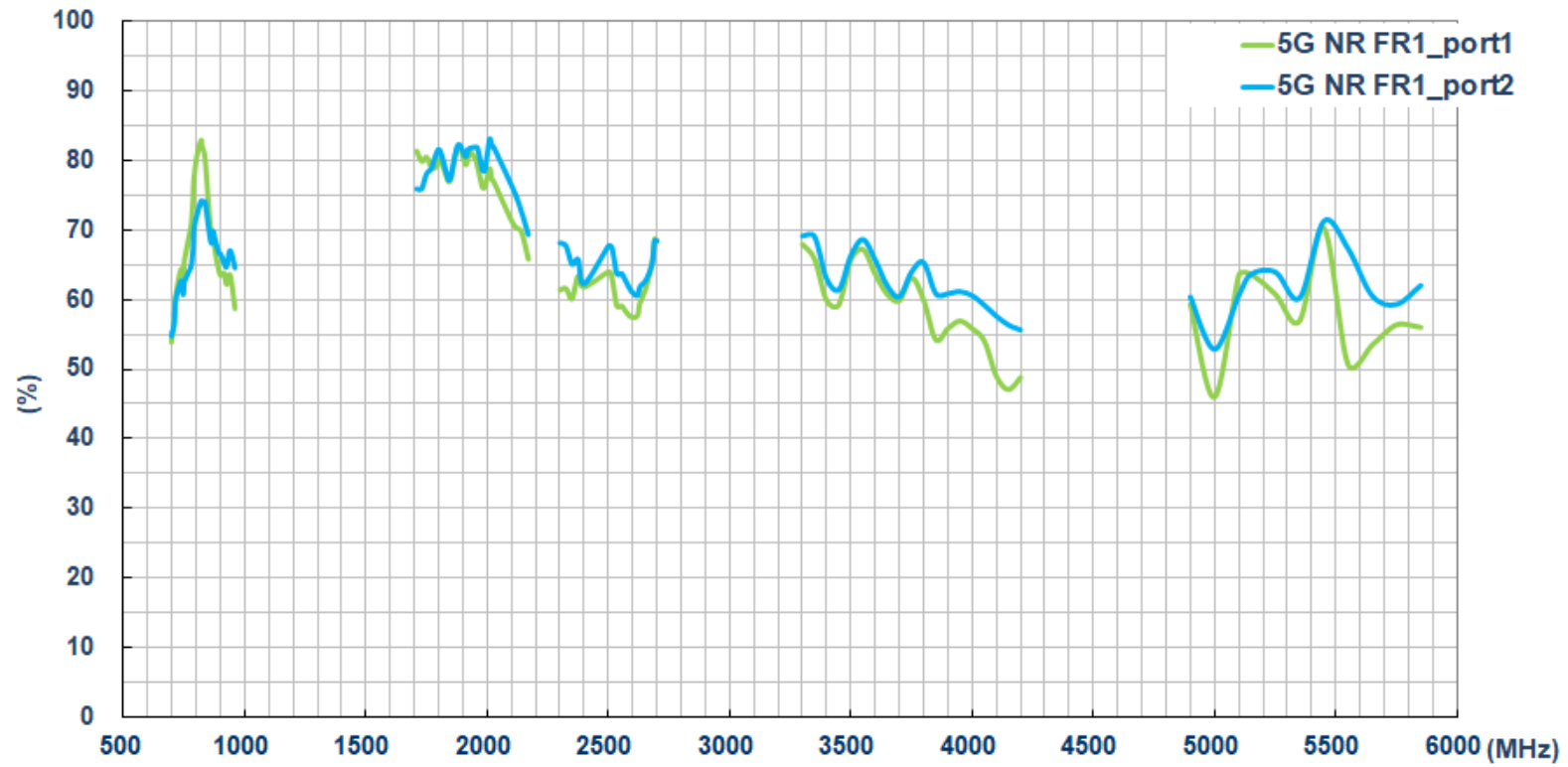




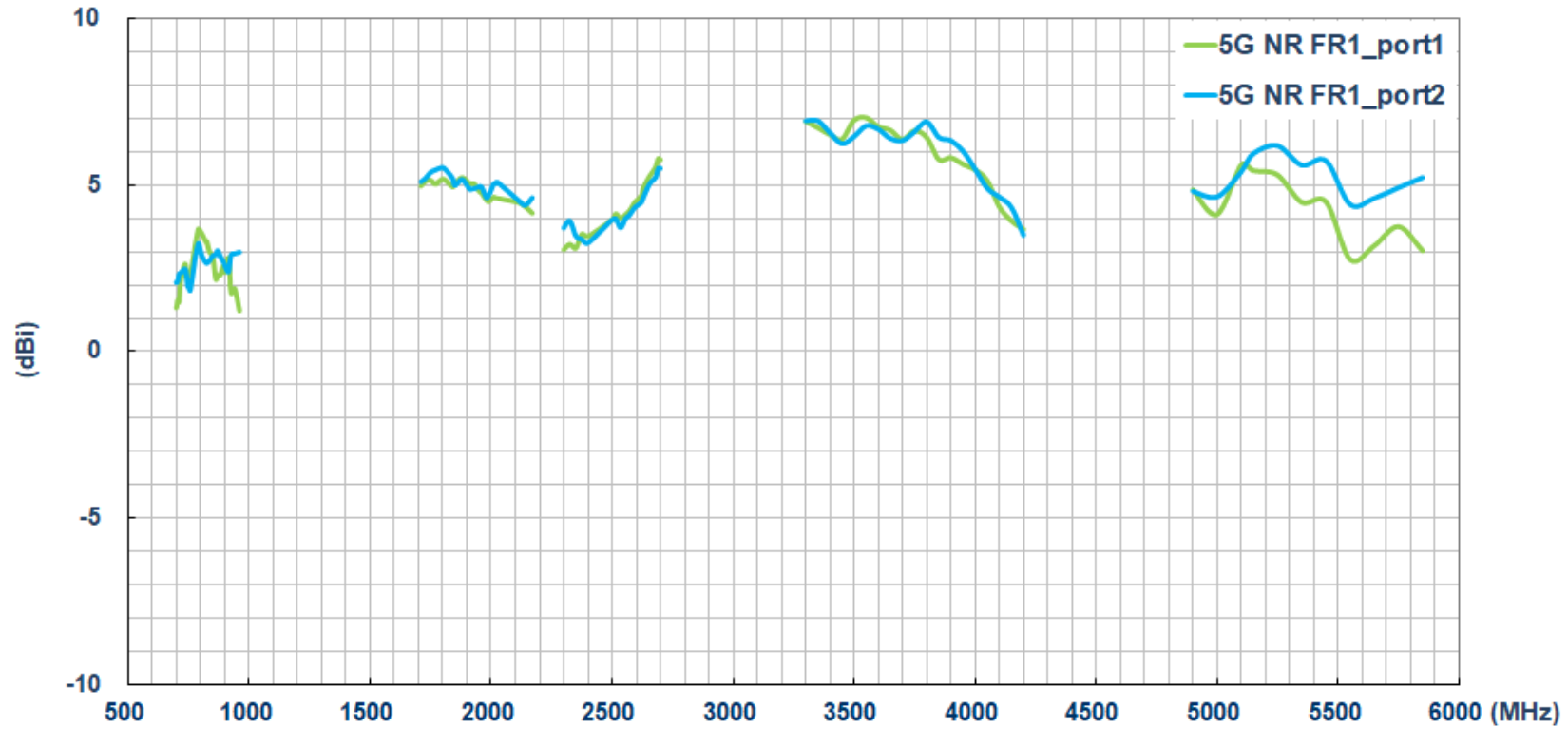
# Test Setup



# Efficiency\_5G NR FR1



# Peak Gain\_5G NR FR1

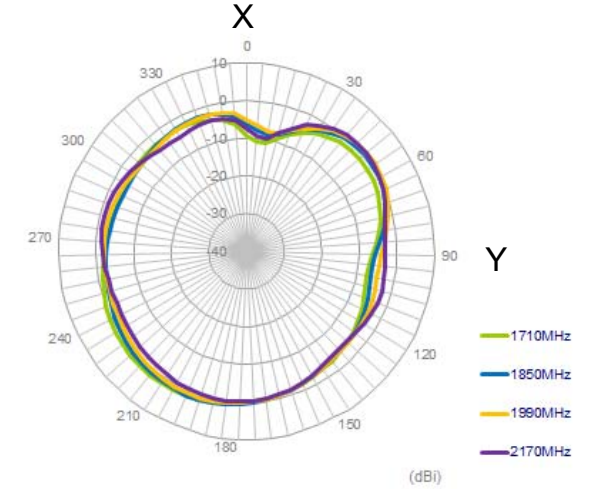
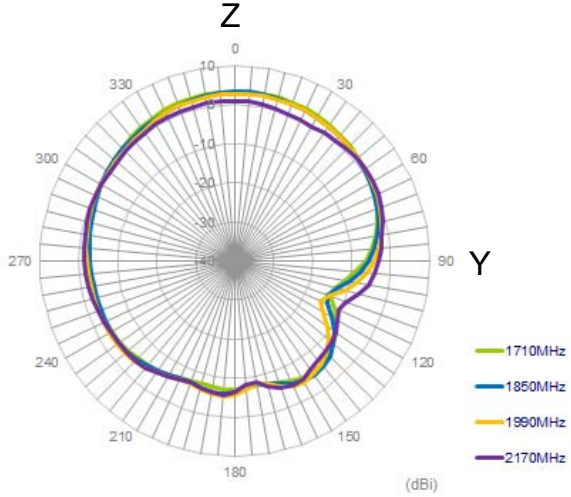
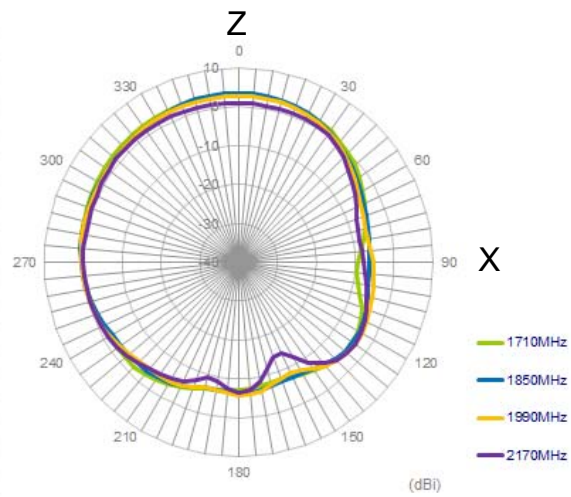
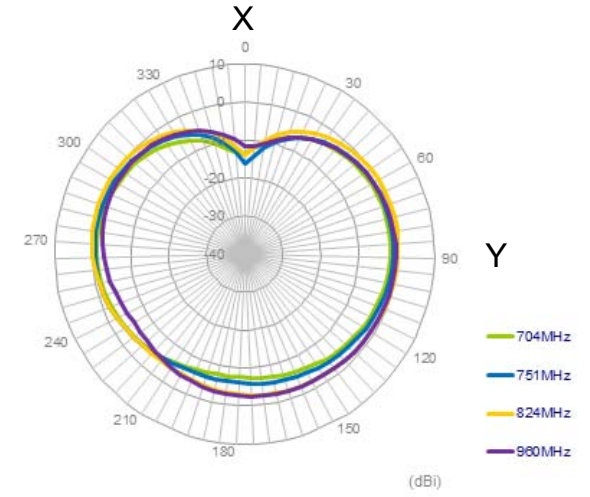
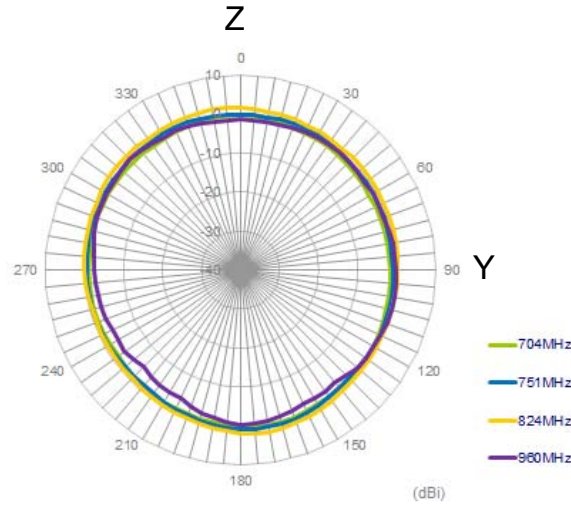
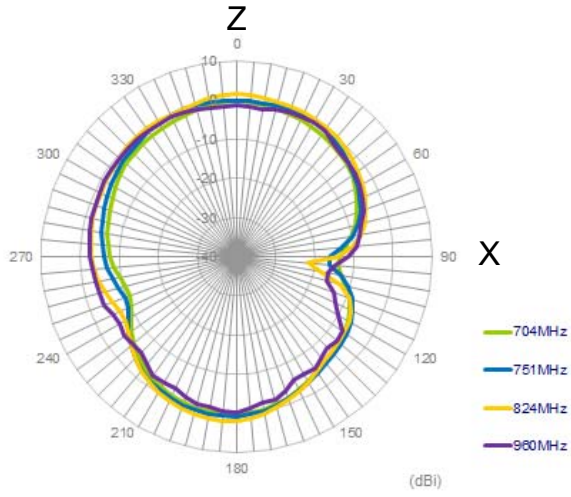


# Gain Table



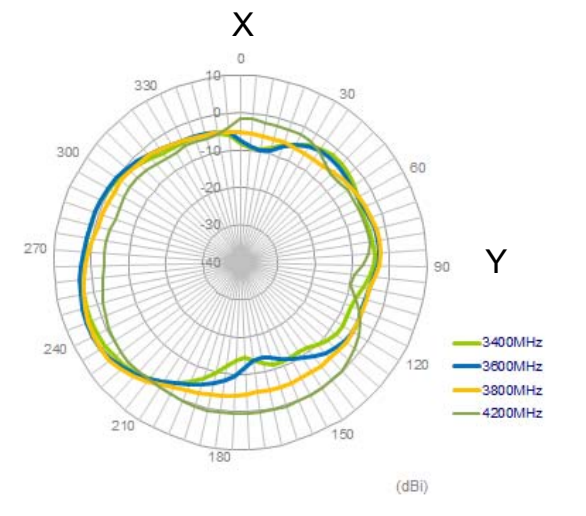
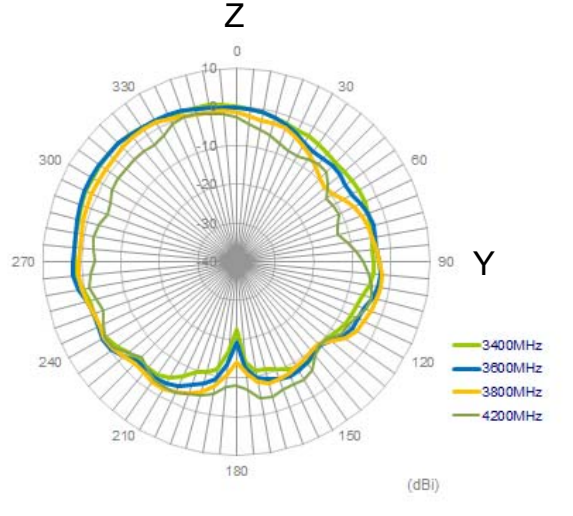
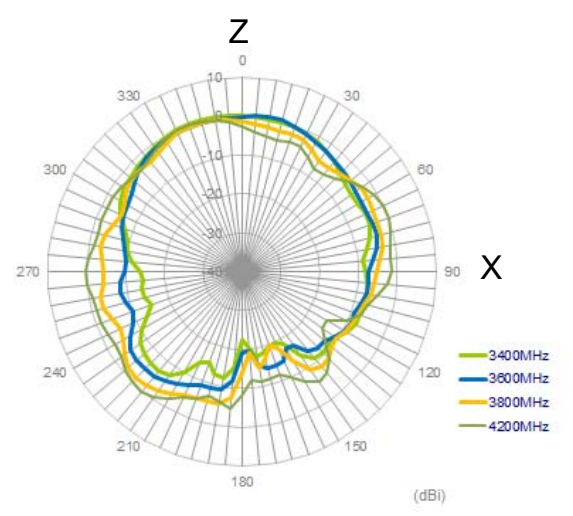
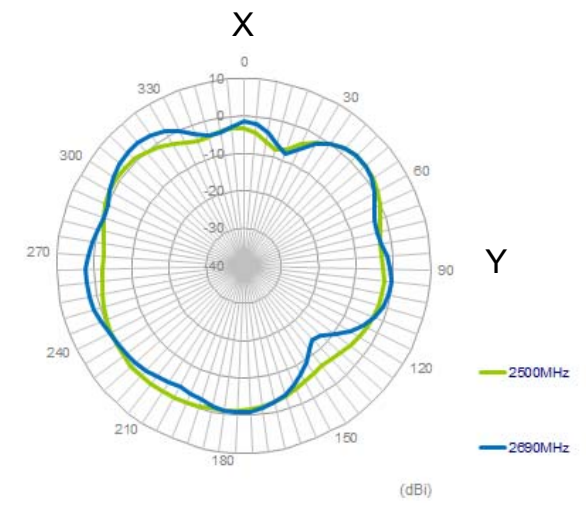
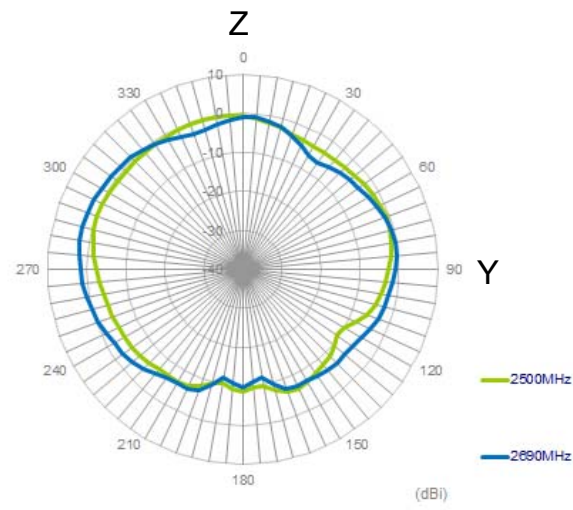
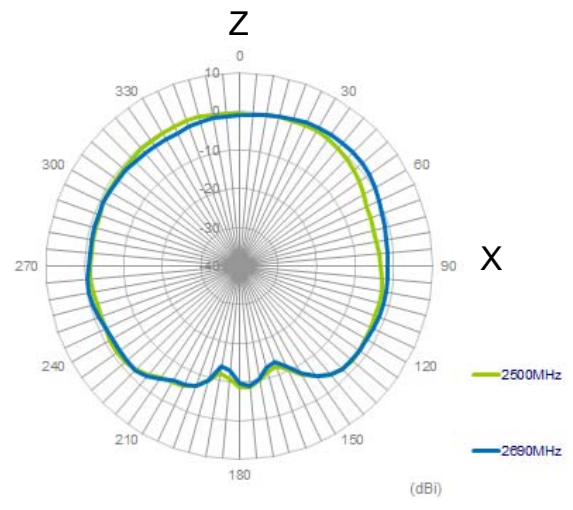
	698~960	1710~2170	2300~2690	3300~4200	5150~5850
	Efficiency				
5G NR FR1_port1	66.75	77.62	61.80	58.68	58.52
5G NR FR1_port2	64.95	78.95	64.85	62.48	63.53
	Peak gain				
5G NR FR1_port1	3.68	5.23	5.79	7.02	5.43
5G NR FR1_port2	3.24	5.50	5.50	6.93	6.18

# 2D Radiation Pattern Results\_5G\_port1

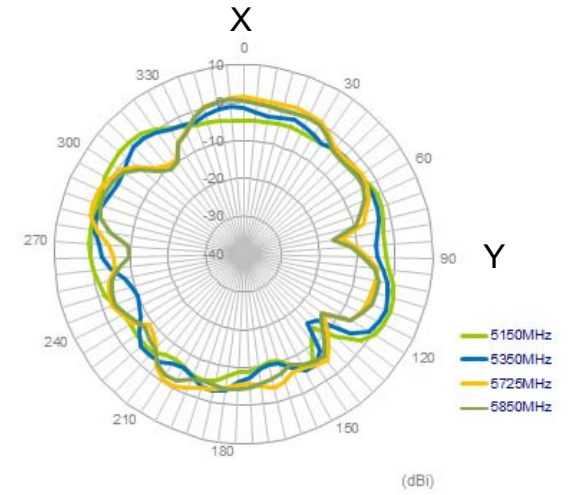
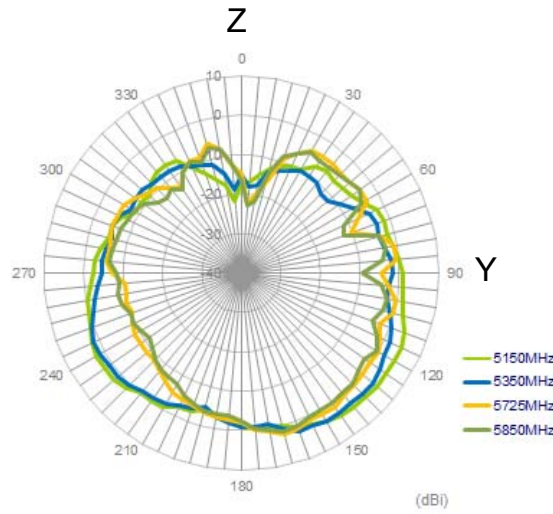
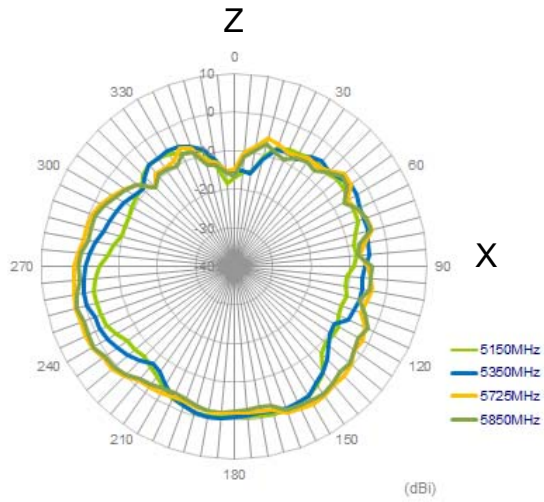




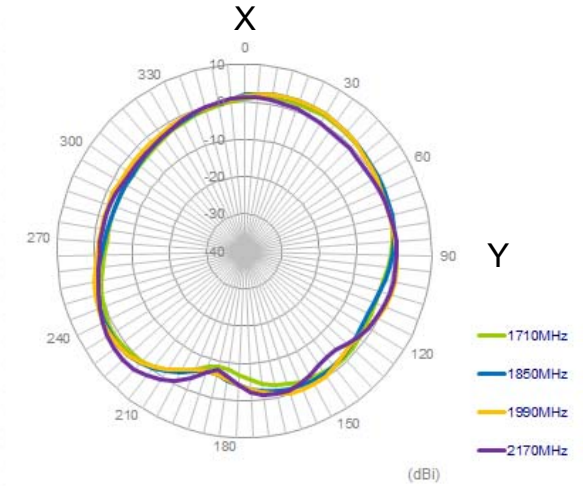
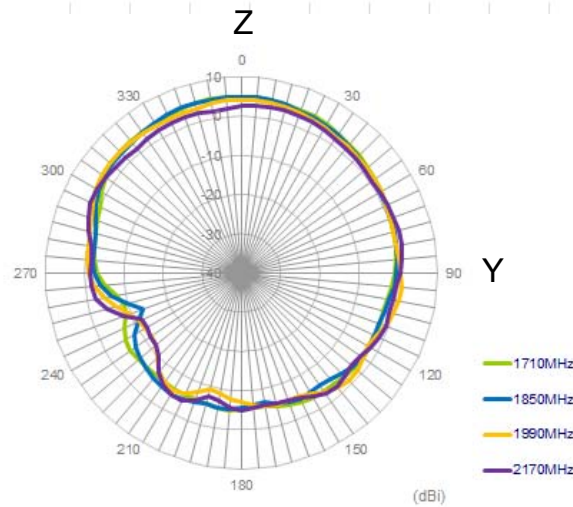
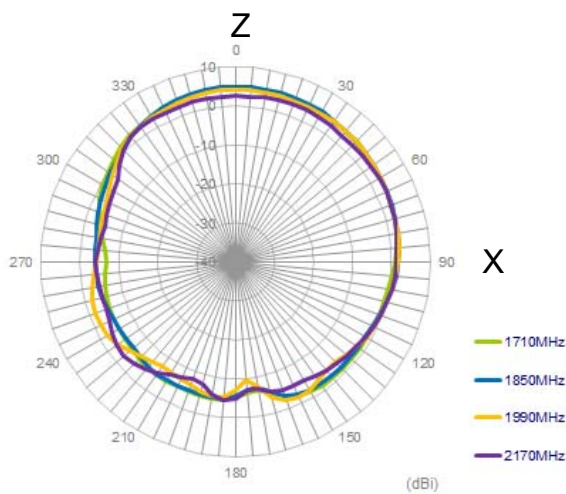
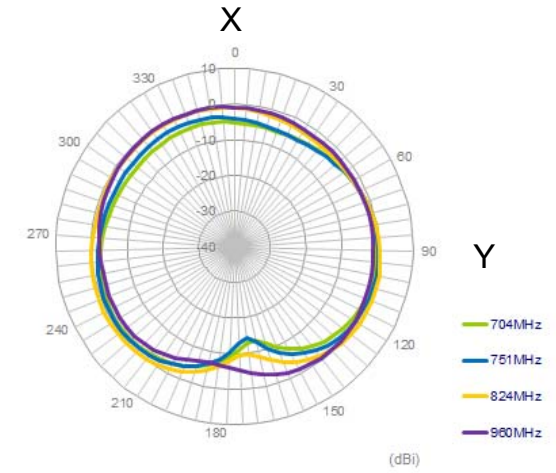
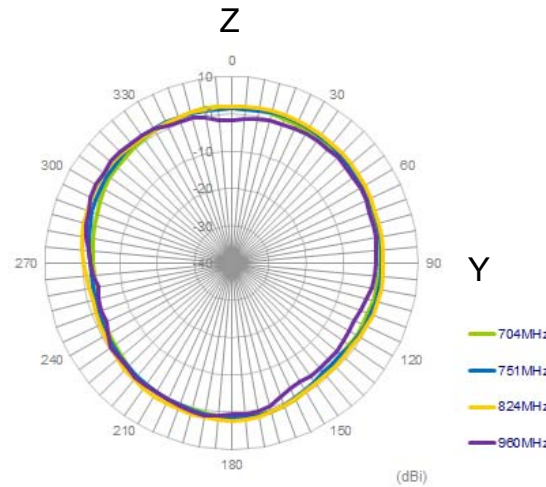
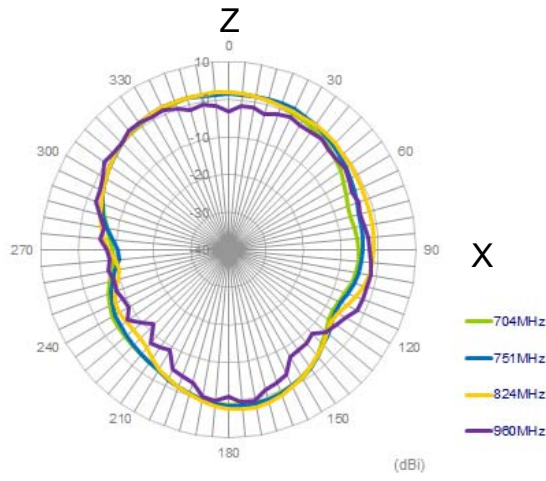
# 2D Radiation Pattern Results\_5G\_port1



# 2D Radiation Pattern Results\_5G\_port1

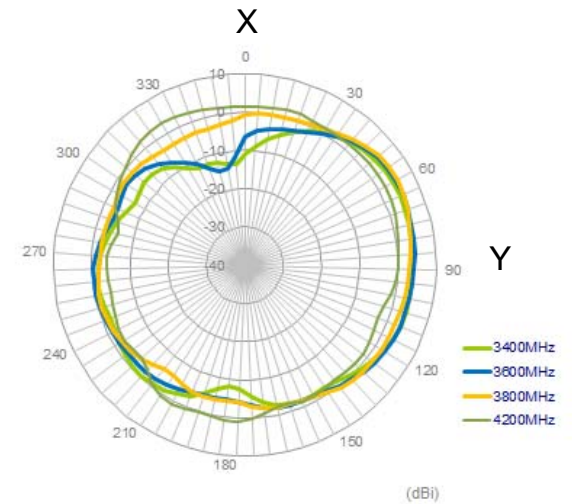
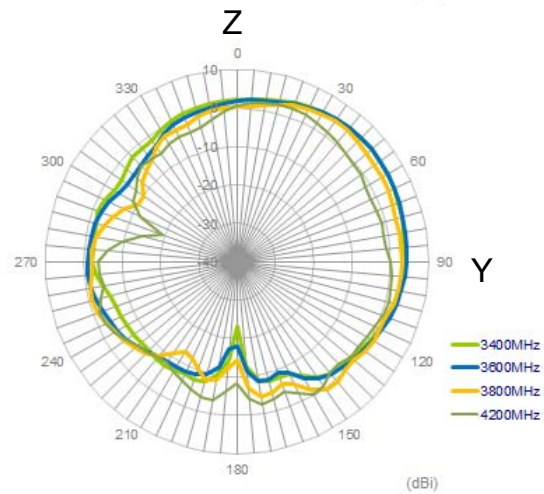
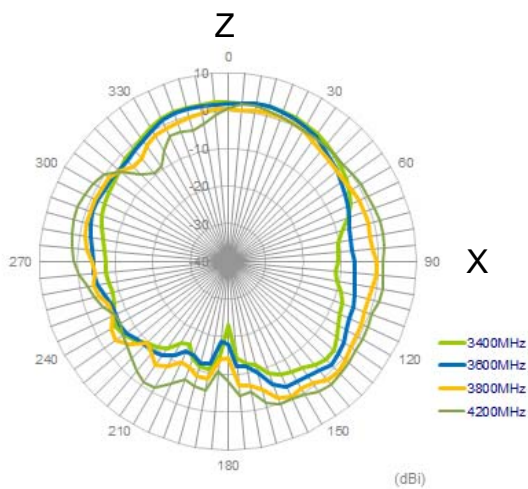
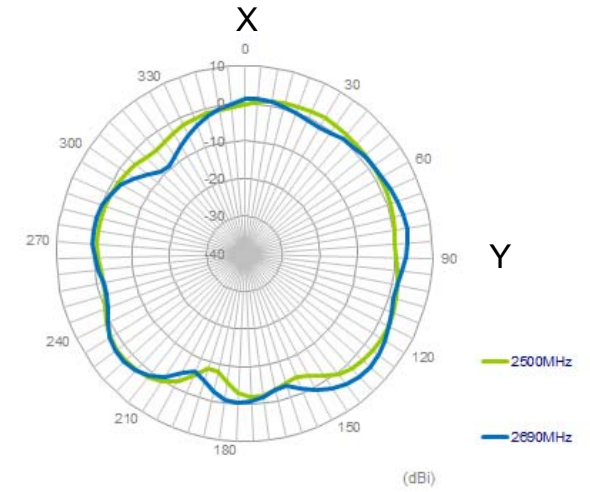
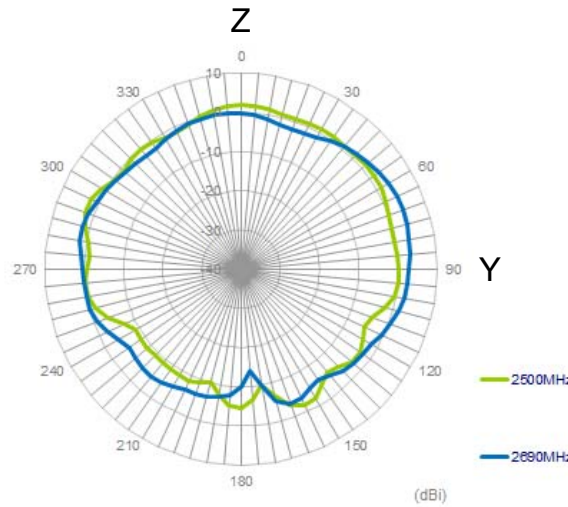
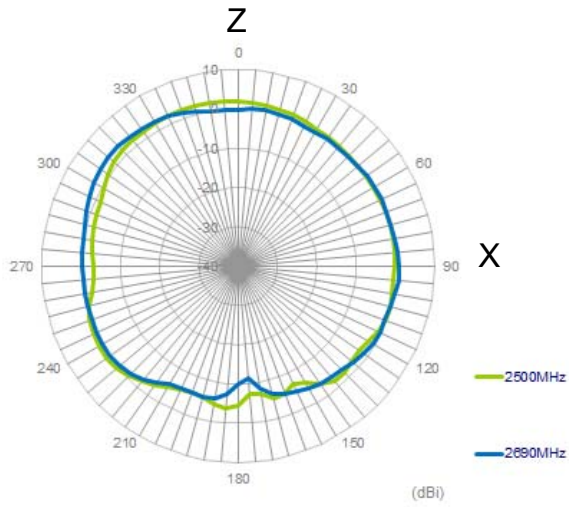


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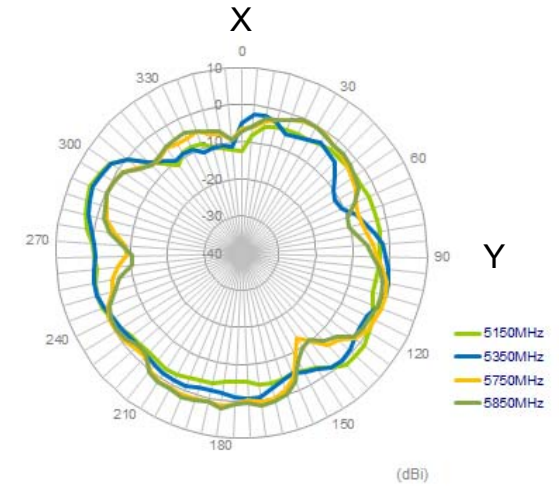
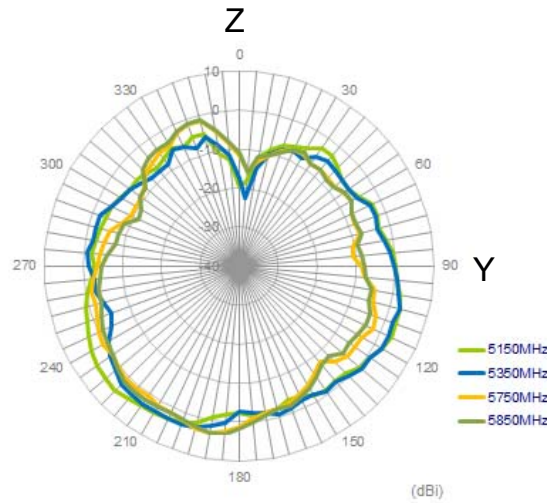
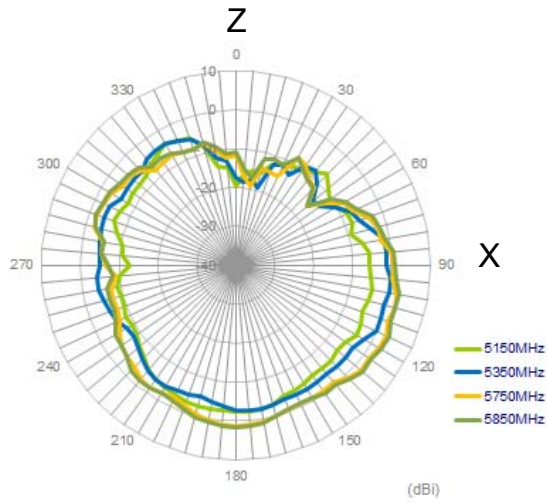




# 2D Radiation Pattern Results\_5G\_port2



# 2D Radiation Pattern Results\_5G\_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](tel:+8613268639768) 13268639768

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](tel:+886978811326) 978-811-326