

# LTE Antenna

# Product Specification

ODM PN: V1831-011-A-01

OC:



Version	Date	Author	Note
1.0			

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## Product Description

The antenna is designed for superior performance, and can be widely used for wireless applications. We provide comprehensive antenna design support such as simulation, testing and manufacturing for custom antenna solutions to meet your specific application needs.

## Product Features

- Cellular LTE
- High efficiency
- Excellent performance



## Product Specifications

### Passive Electrical Specifications

Frequency Range (MHz)	700-960/1710-2690/3300-5000
Input Impedence ( $\Omega$ )	50
VSWR	$\leq 4.0$
Gain (dBi)	$\geq -2$
Polarization Type	Linear

### Mechanical Specifications

Antenna Size (mm)	208 x $\varnothing$ 12
Casing	PC+ABS
Radiator	Cuprum
Connect Type	SMA Male
Working Temperature ( $^{\circ}$ C)	-20 ~ +80
Radome Color	Black
Wire Rod	1.5DS
Line length	0.5m

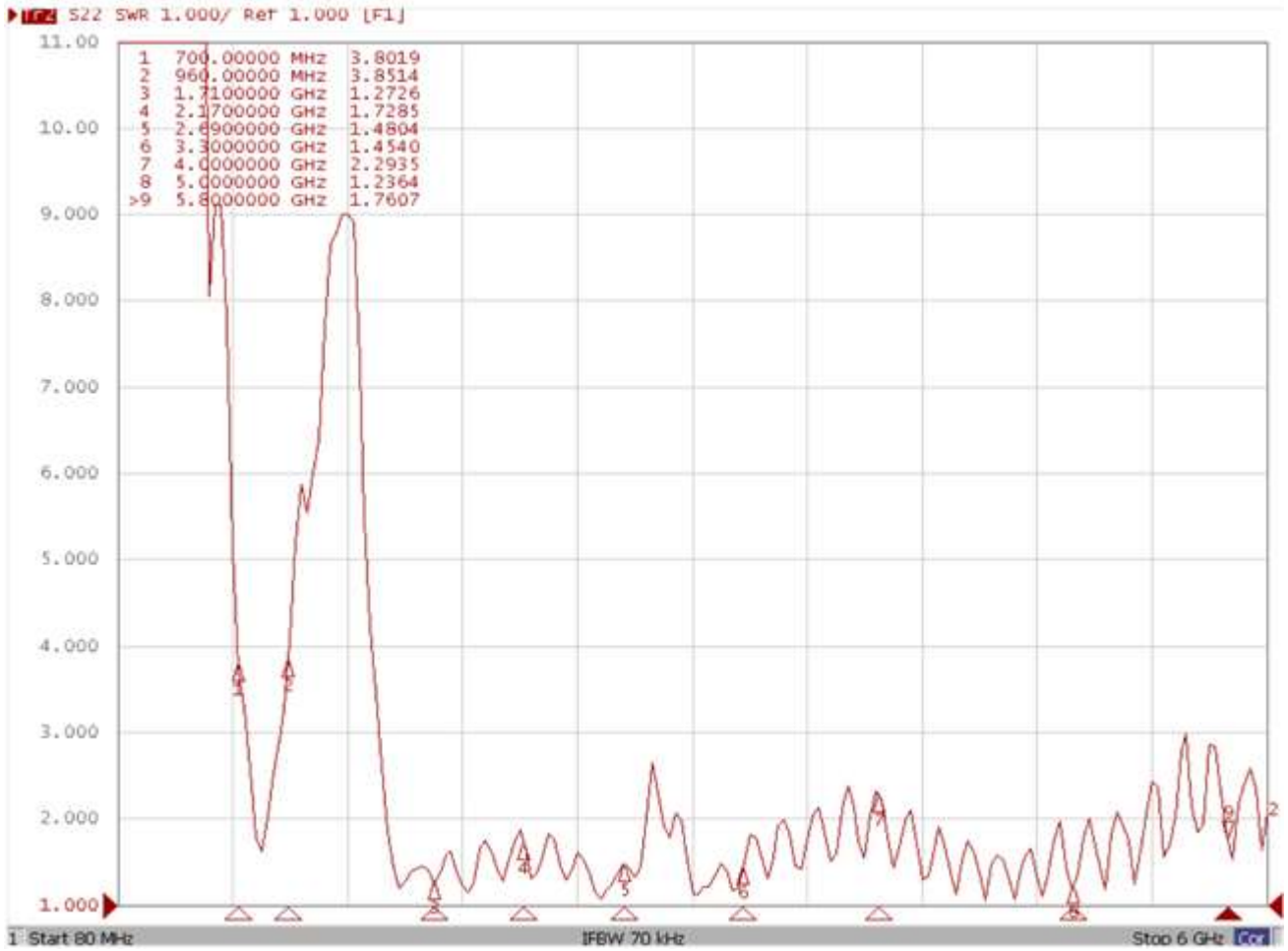
## Overall Performance

- Test Environment
  - KEYSIGHT VNA Network Analyzer E5063A 690MHz-6GHz
  - RayZone®2800 Chamber 5G(FR1) SISO/MIMO, 690MHz-6.0GHz.



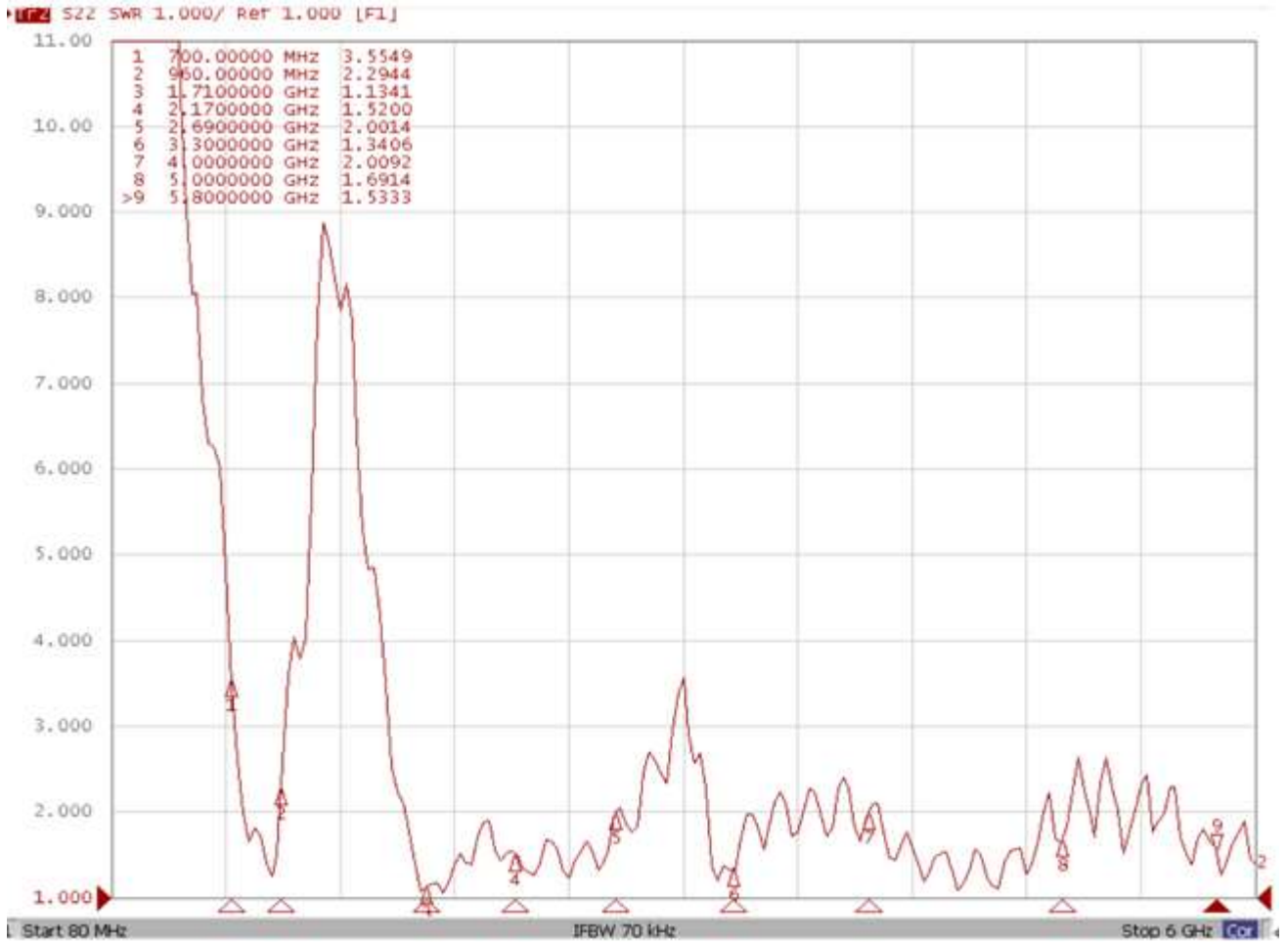
- VSWR

4G&5G Main Antenna



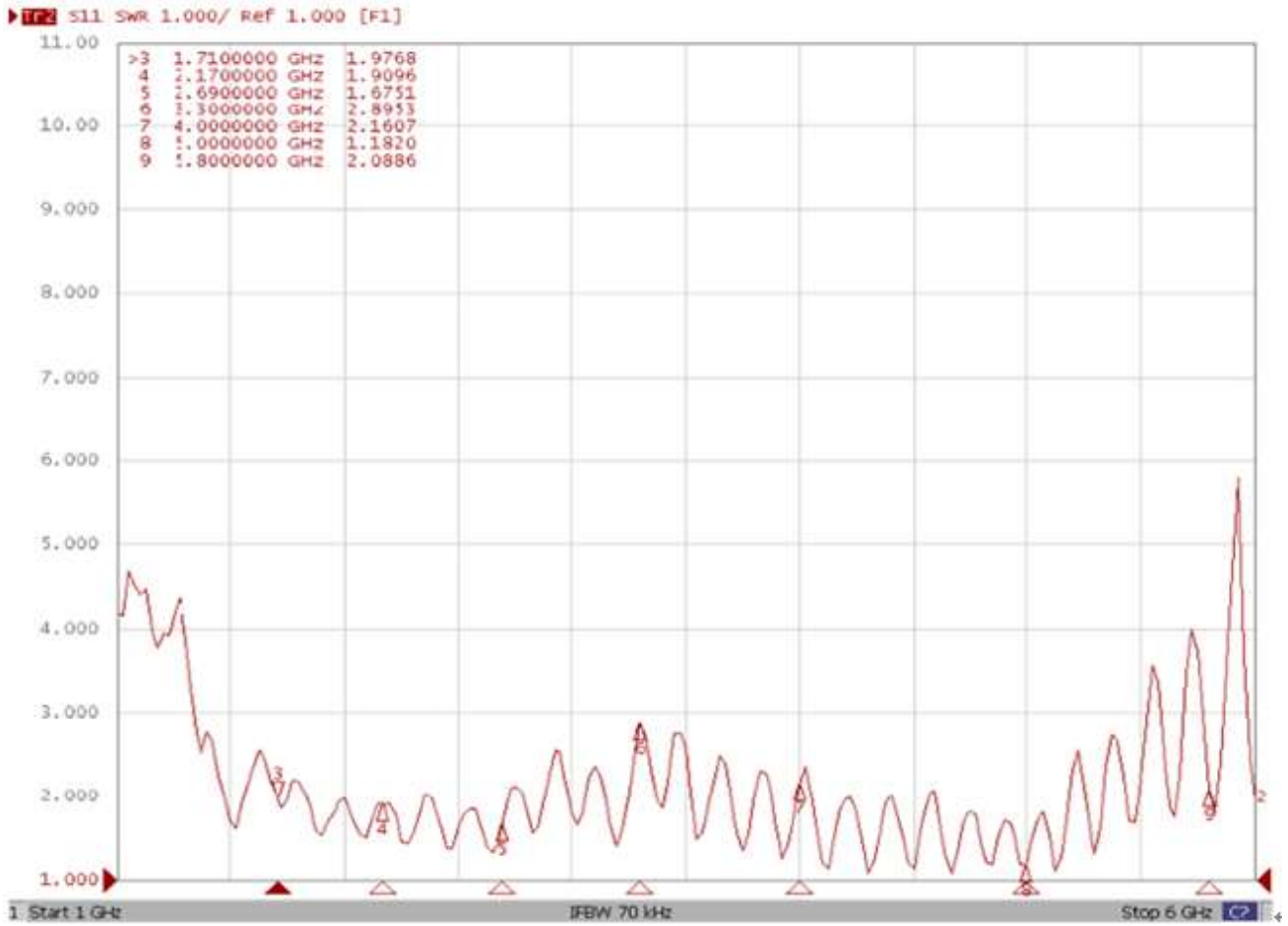
Frequency(MHz)	700	960	1710	2170	2690	3300	4000	5000
VSWR	3.80	3.85	1.27	1.73	1.48	1.45	1.29	1.24

### 4G&5G Diversity Antenna



Frequency(MHz)	700	960	1710	2170	2690	3300	4000	5000
VSWR	3.55	2.29	1.13	1.52	2.00	1.34	2.01	1.69

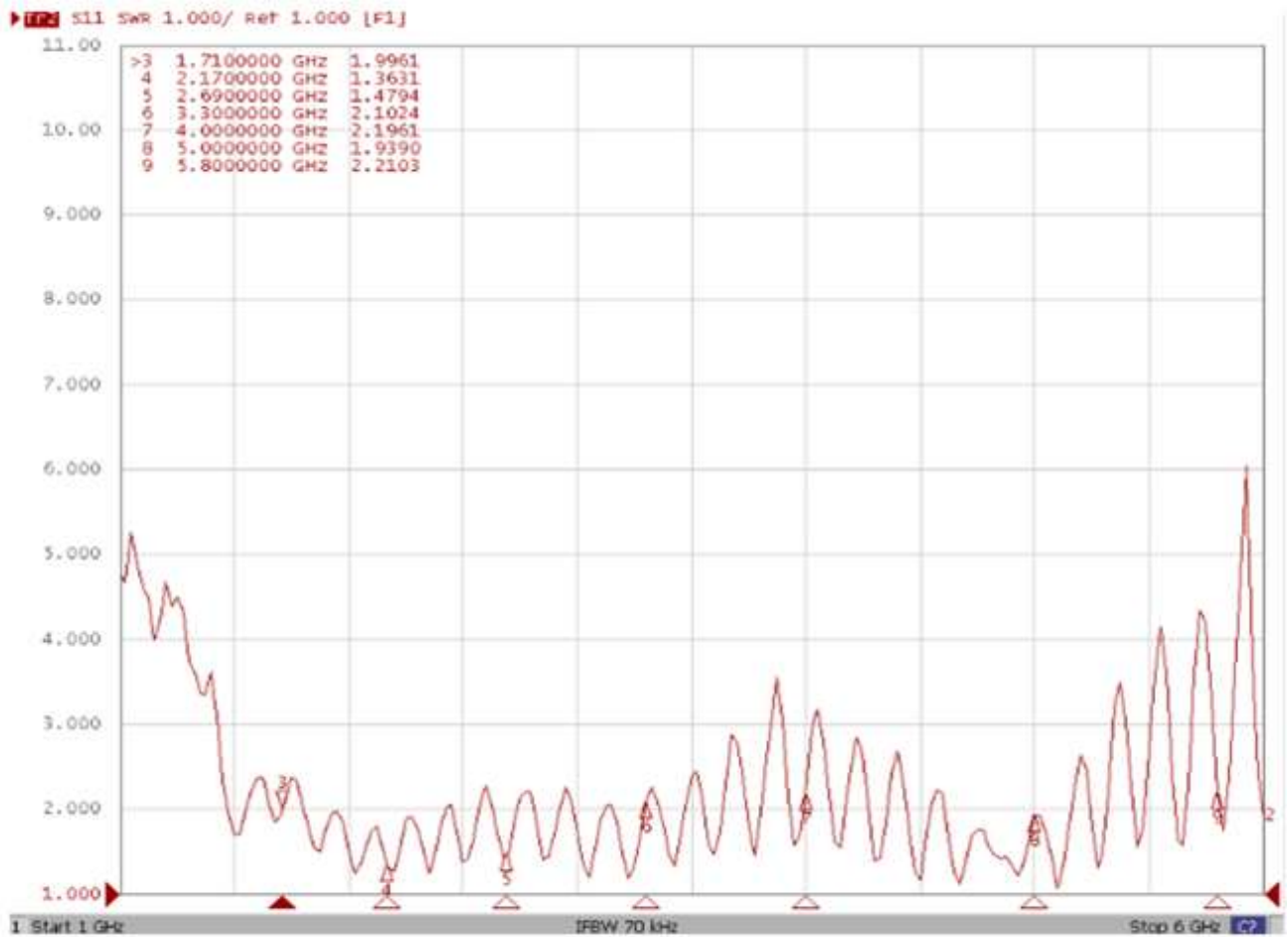
## 5G-MIMO1 Antenna



Frequency(MHz)	1710	2170	2690	3300	4000	5000
VSWR	1.98	1.91	1.67	2.89	2.16	1.18



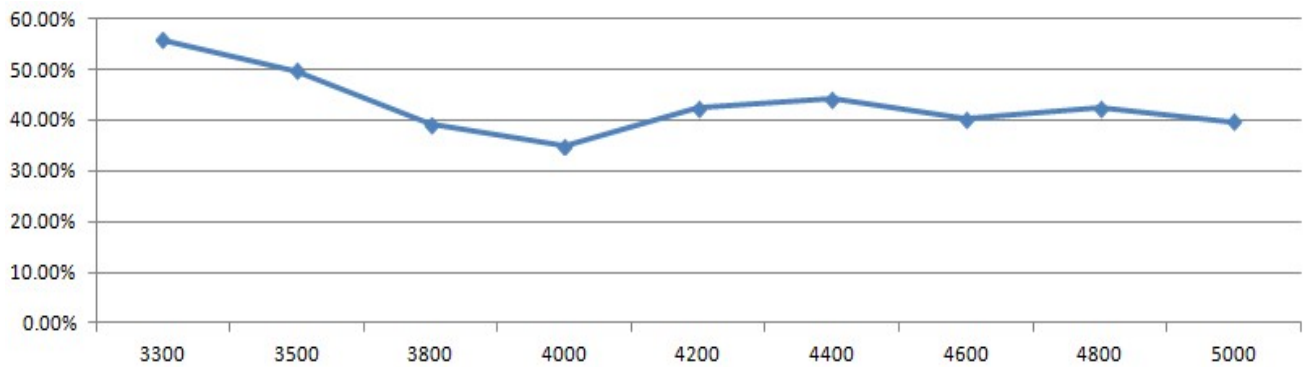
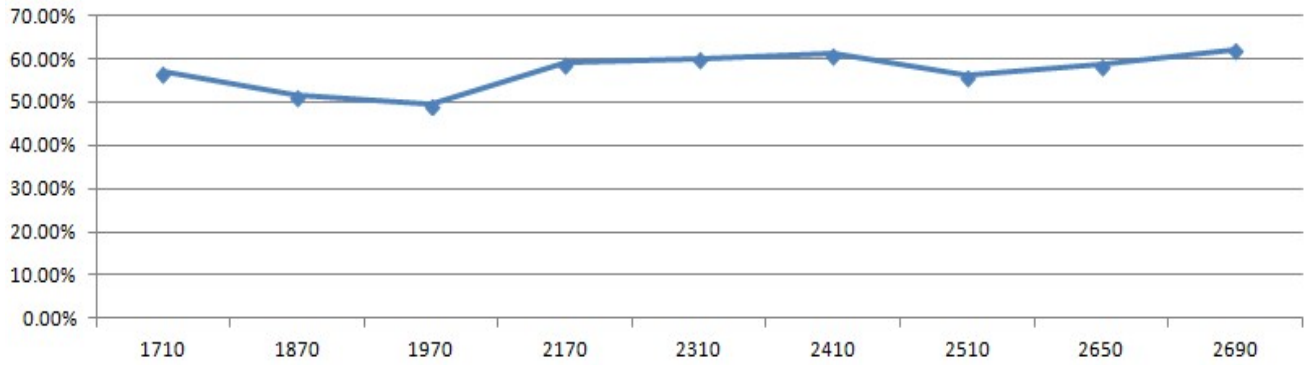
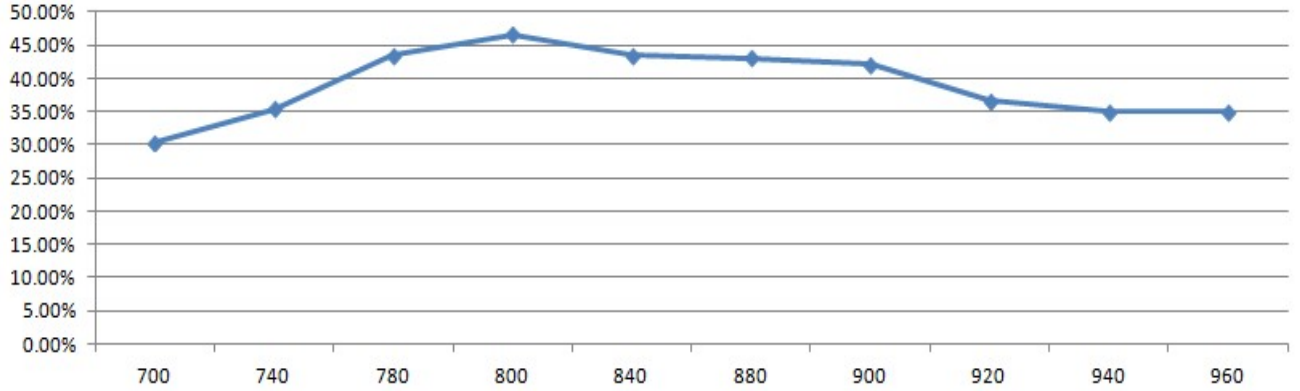
## 5G-MIMO2 Antenna



Frequency(MHz)	1710	2170	2690	3300	4000	5000
VSWR	2.00	1.36	1.48	2.10	2.19	1.94

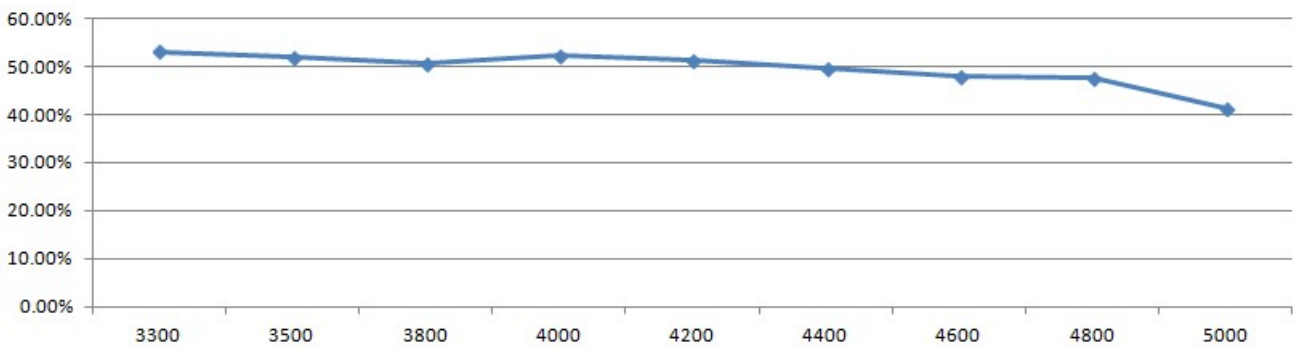
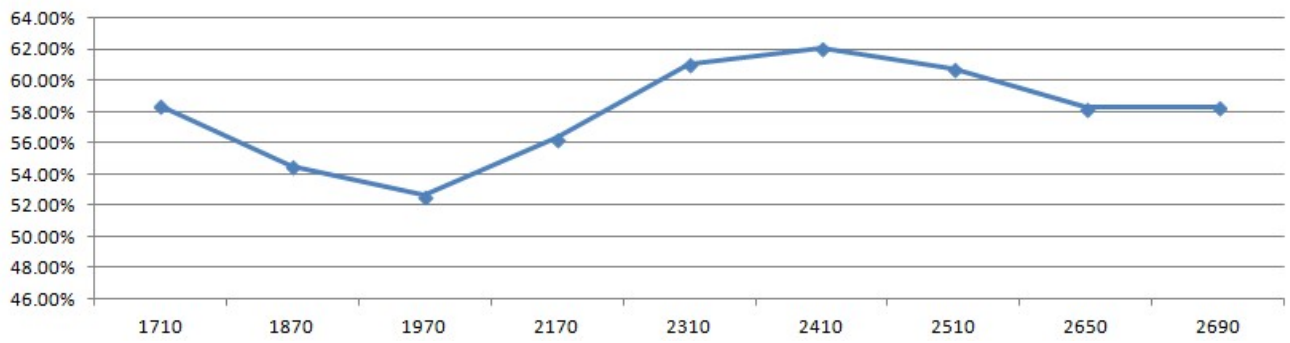
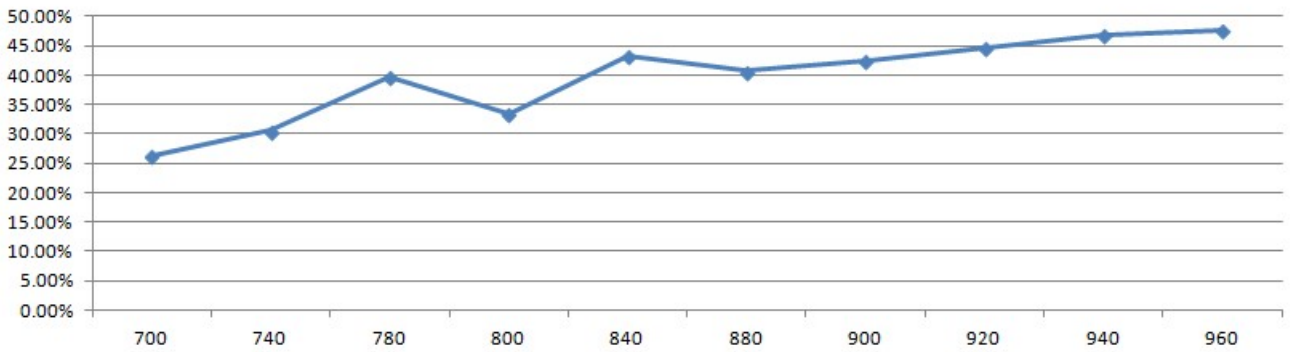
● Efficiency

4G&5G Main Antenna



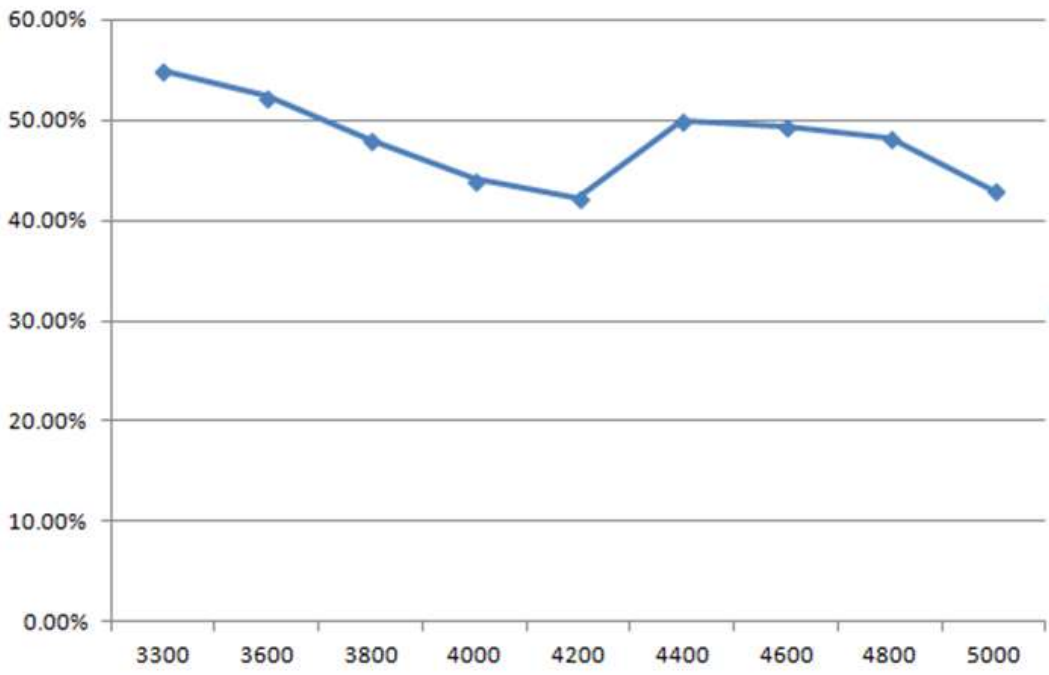
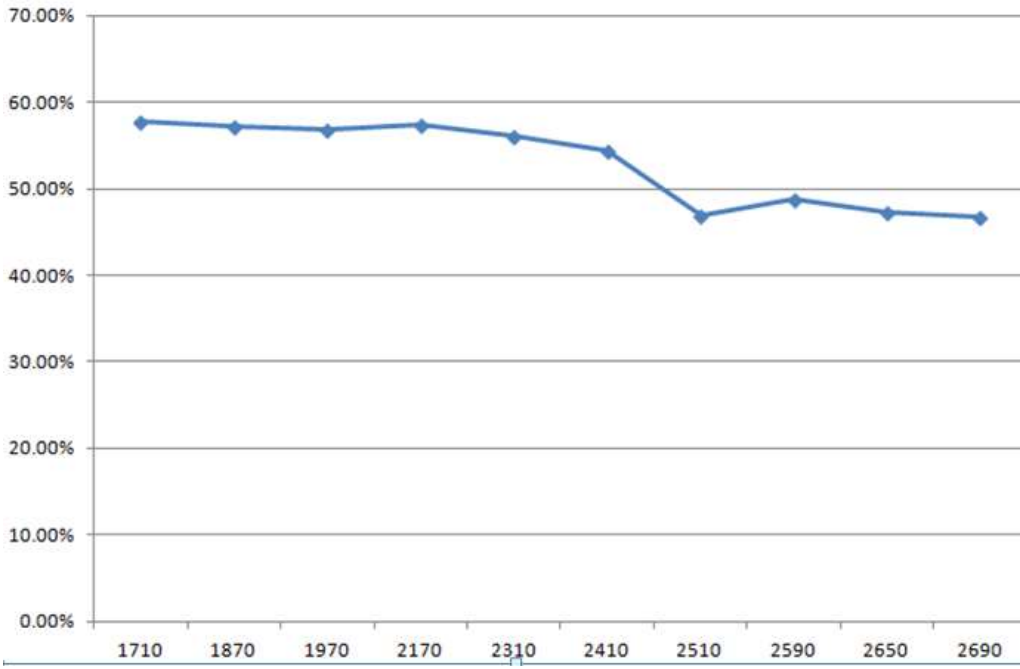
Frequency(MHz)	700	960	1710	2170	2690	3300	4000	5000
Efficiency(%)	30.4%	35.1%	56.9%	58.9%	62.0%	55.8%	44.3%	39.7%

### 4G&5G Diversity Antenna



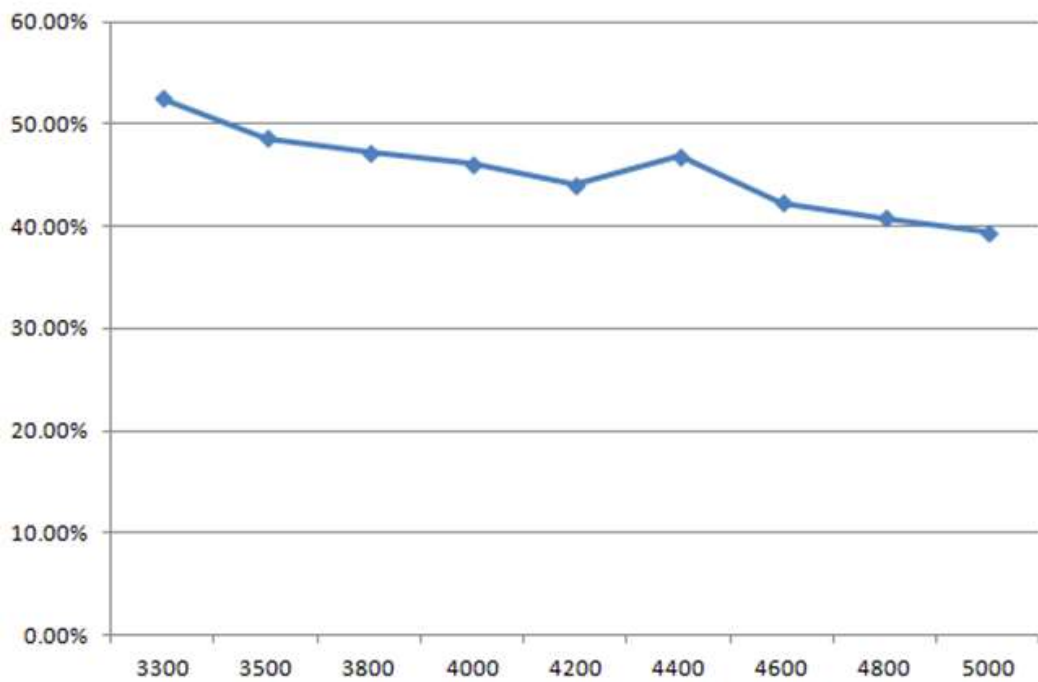
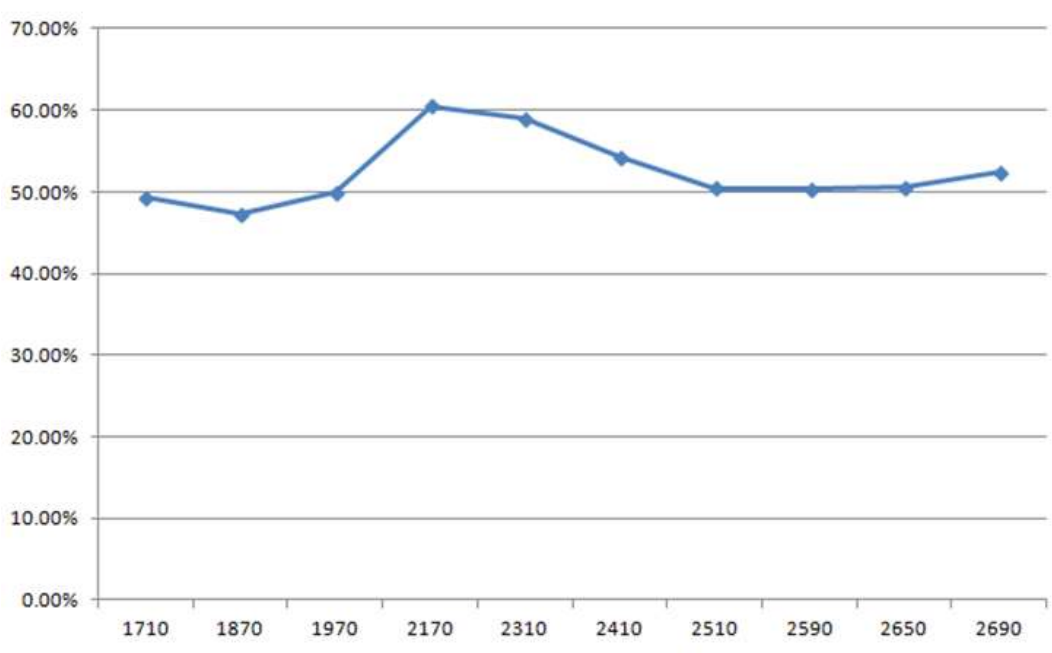
Frequency(MHz)	700	960	1710	2170	2690	3300	4000	5000
Efficiency(%)	26.2%	47.5%	58.4%	56.3%	58.3%	53.1%	52.2%	41.3%

**5G-MIMO1 Antenna**



Frequency(MHz)	1710	2170	2690	3300	4000	5000
Efficiency(%)	57.7%	57.4%	46.8%	54.9%	44.1%	43.0%

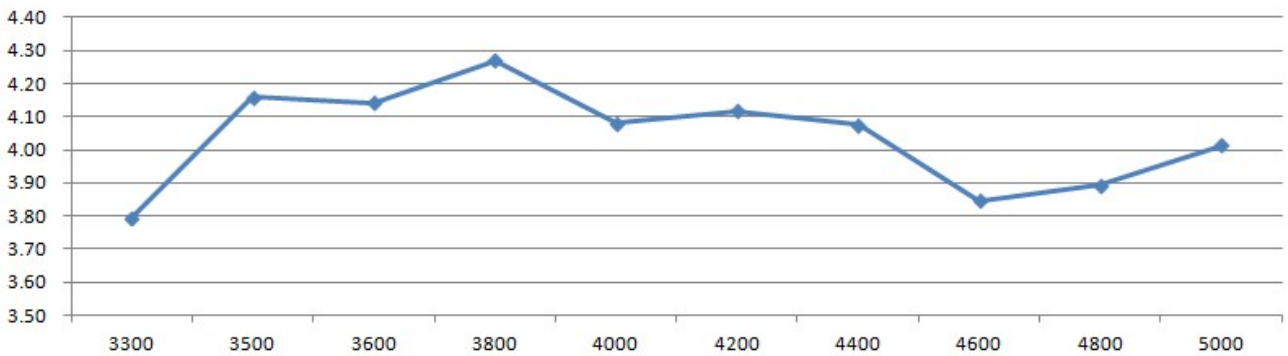
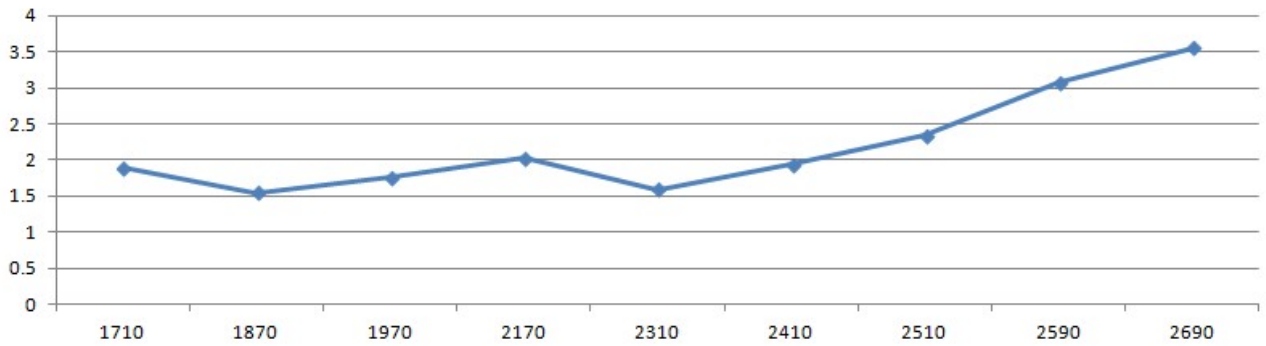
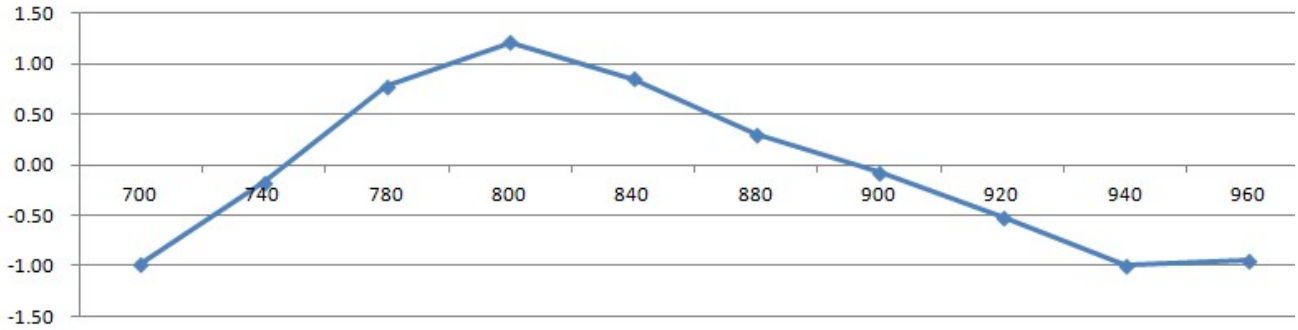
**5G-MIMO2 Antenna**



Frequency(MHz)	1710	2170	2690	3300	4000	5000
Efficiency(%)	49.4%	60.4%	52.7%	52.5%	46.1%	39.4%

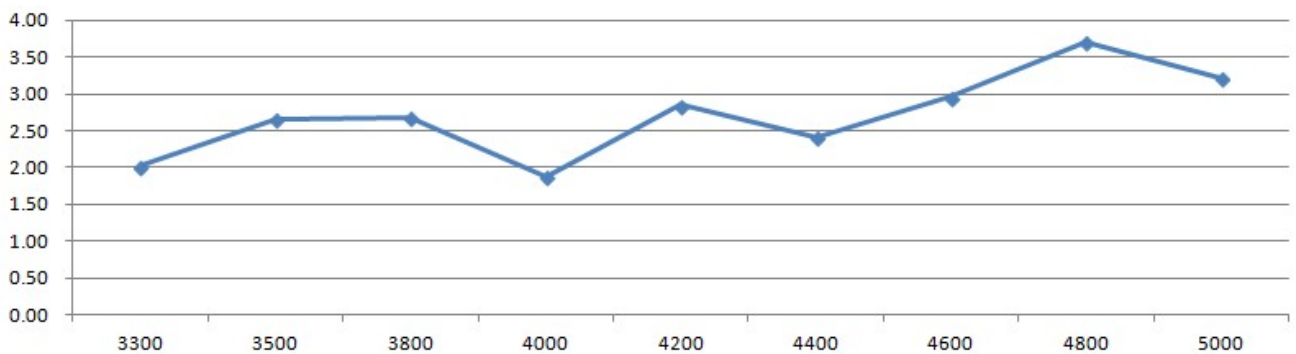
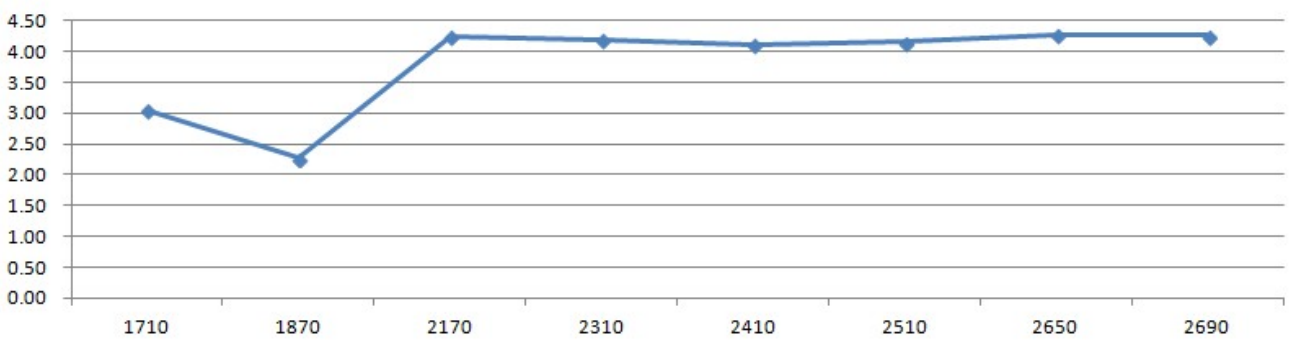
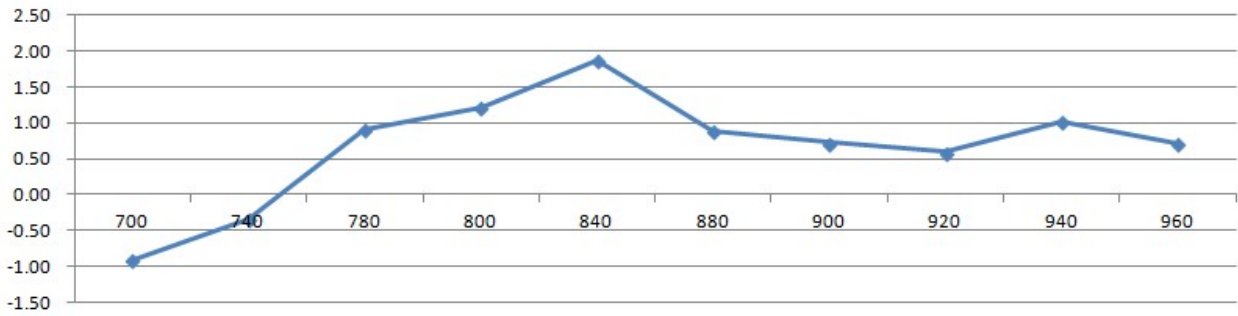
● Gain

4G&5G Main antenna



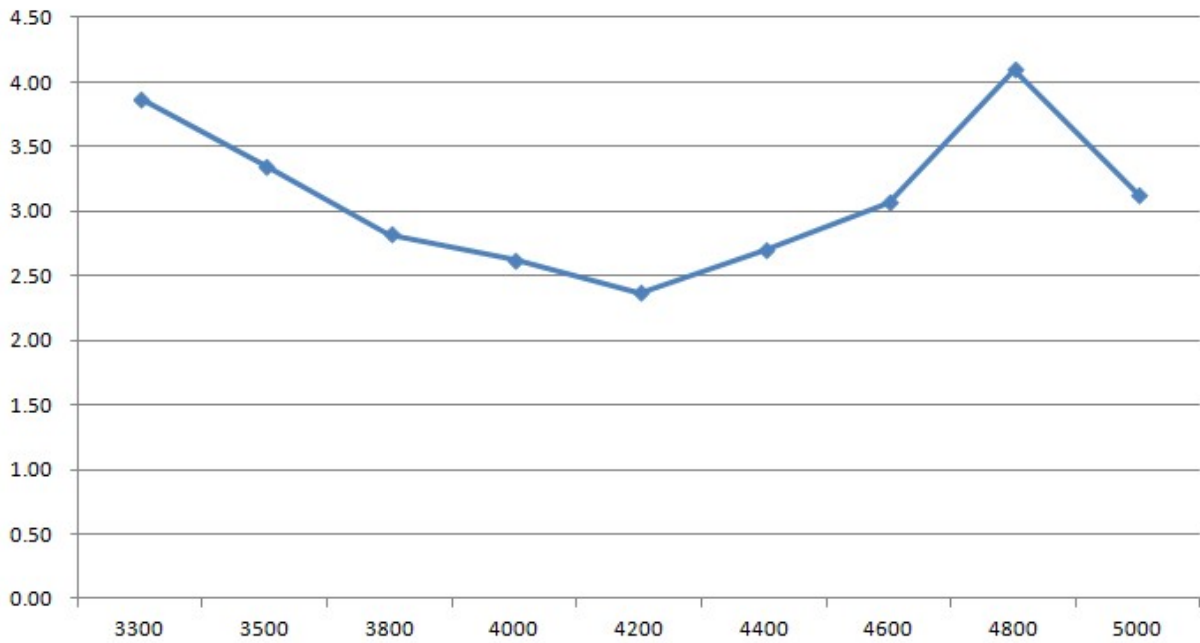
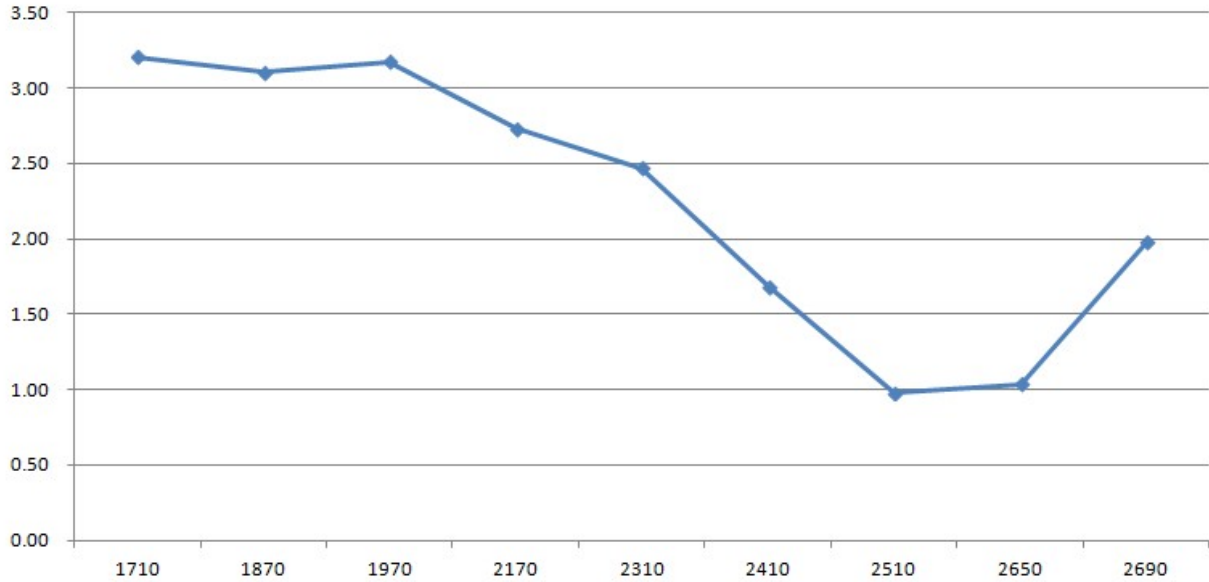
Frequency(MHz)	700	960	1710	2170	2690	3300	4000	5000
Gain	-0.99	-0.89	1.89	2.03	3.55	3.78	4.08	4.01

**4G&5G Diversity Antenna**



Frequency(MHz)	700	960	1710	2170	2690	3300	4000	5000
Gain	-0.91	0.71	3.05	4.24	4.26	2.02	1.88	3.22

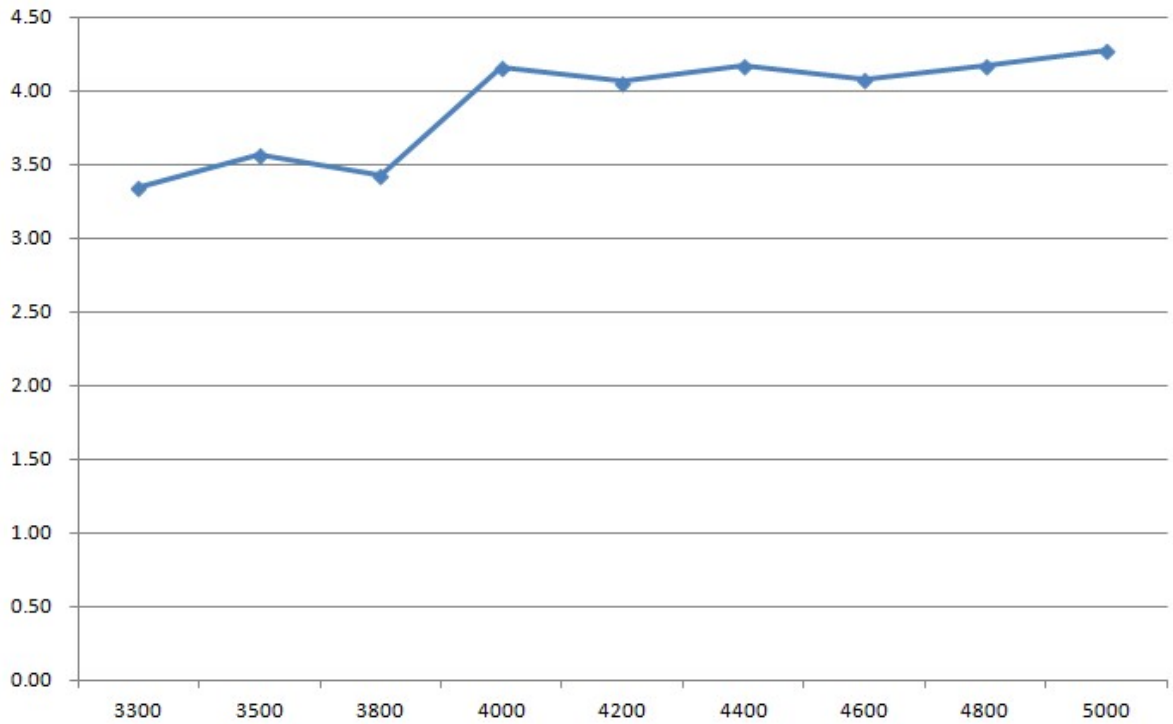
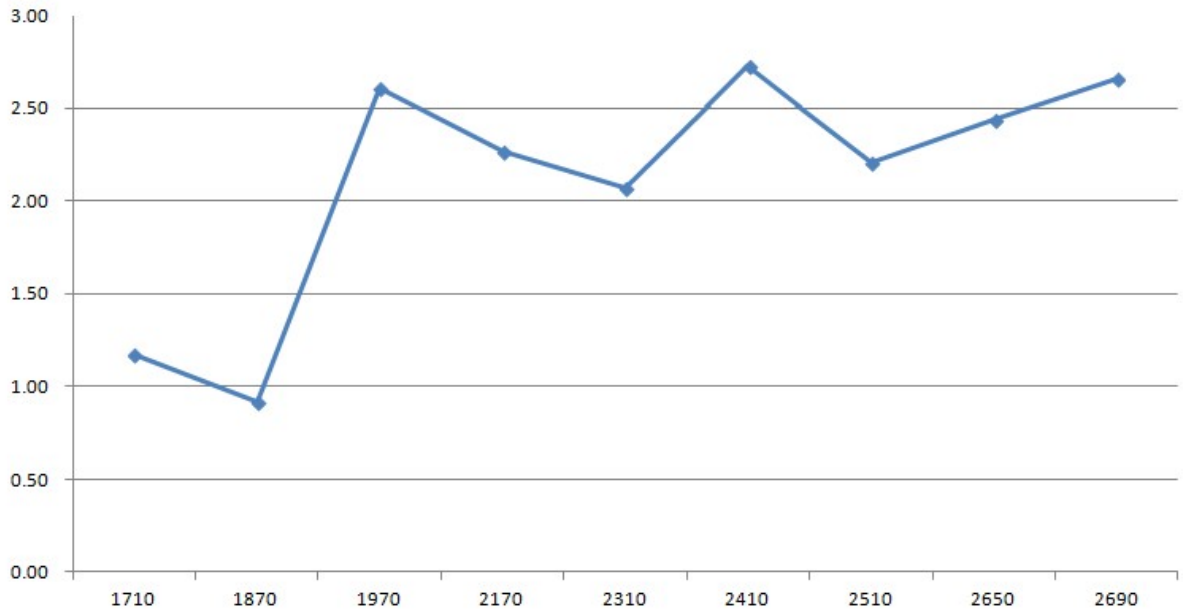
### 5G-MIMO1 Antenna



Frequency(MHz)	1710	2170	2690	3300	4000	5000
Gain	3.20	2.73	1.98	3.87	2.62	3.13



### 5G-MIMO2 Antenna

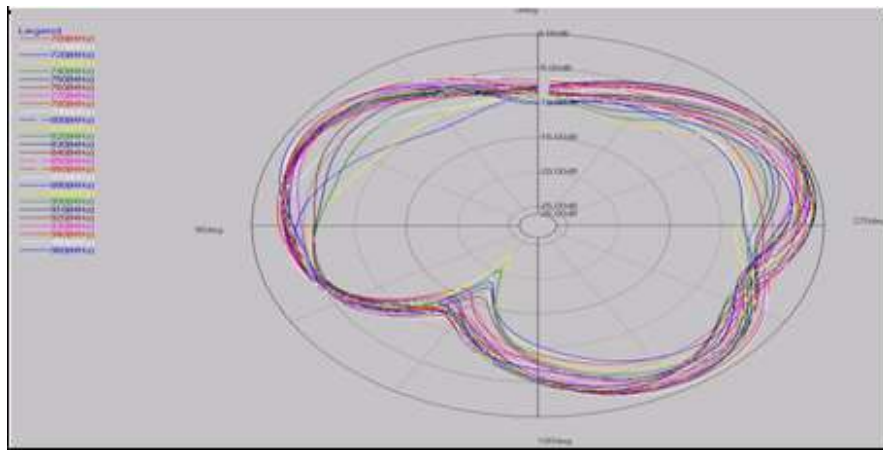


Frequency(MHz)	1710	2170	2690	3300	4000	5000
Gain	1.18	2.27	2.66	3.35	4.16	4.27

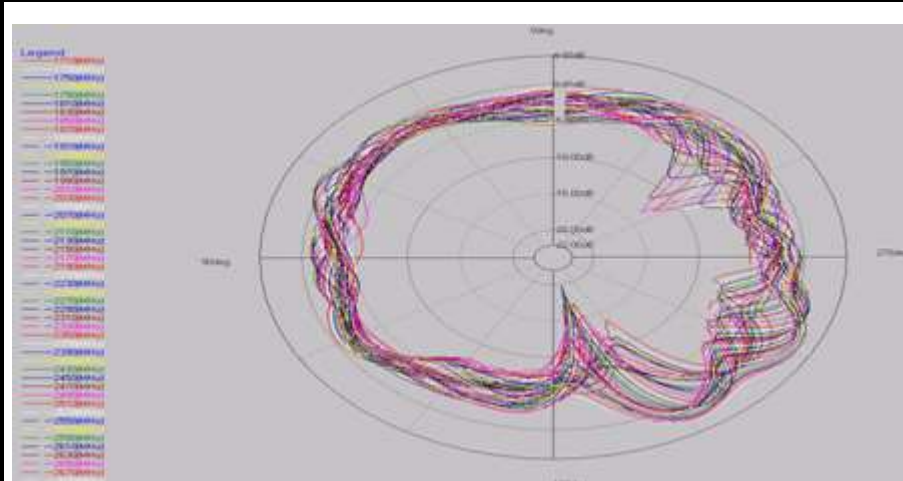
● Radiation Patterns

4G&5G Main Antenna

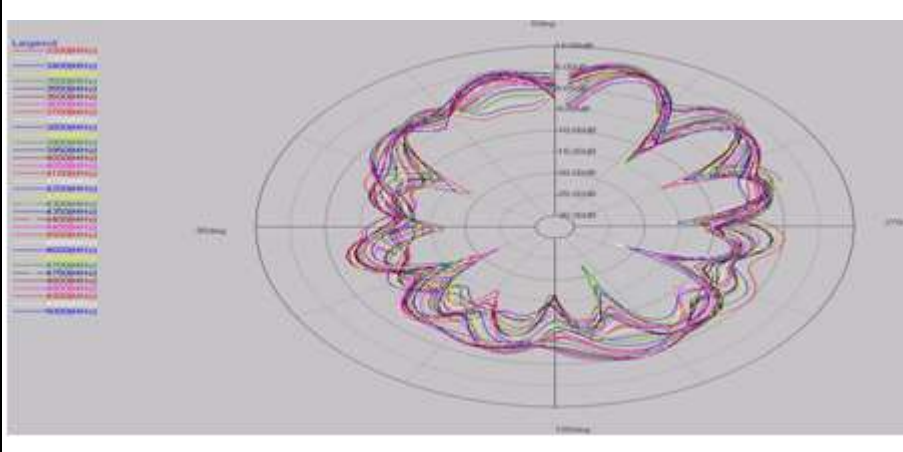
H(700-960MHz)



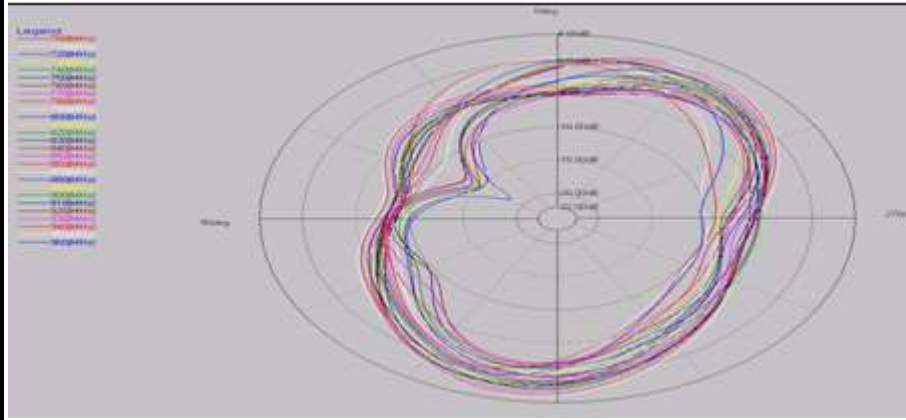
H(1710-2690MHz)



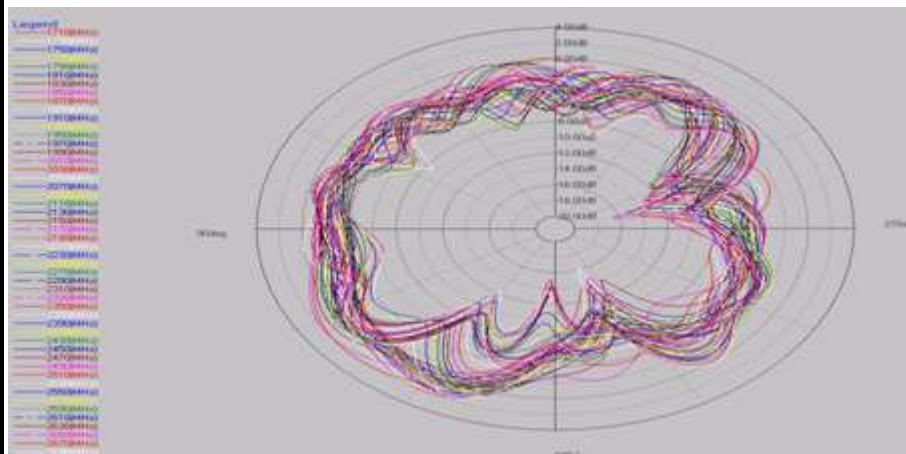
H(3300-5000MHz)



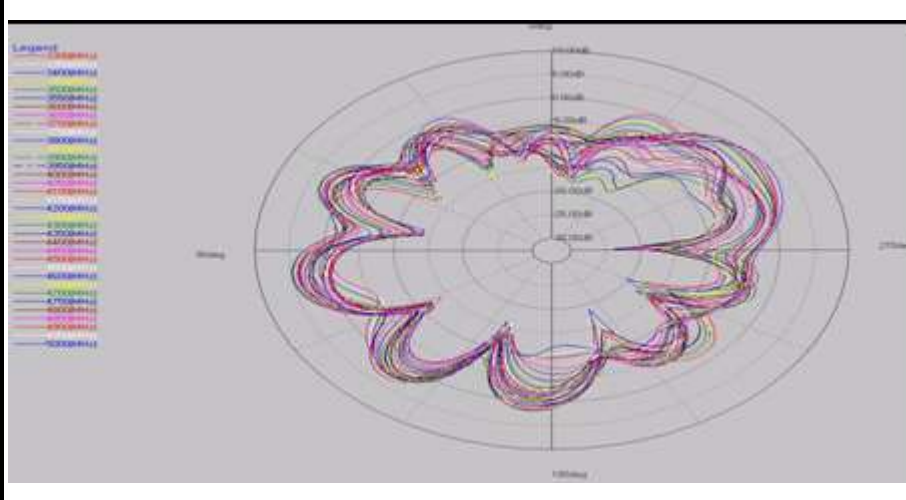
**E1(700-960MHz)**



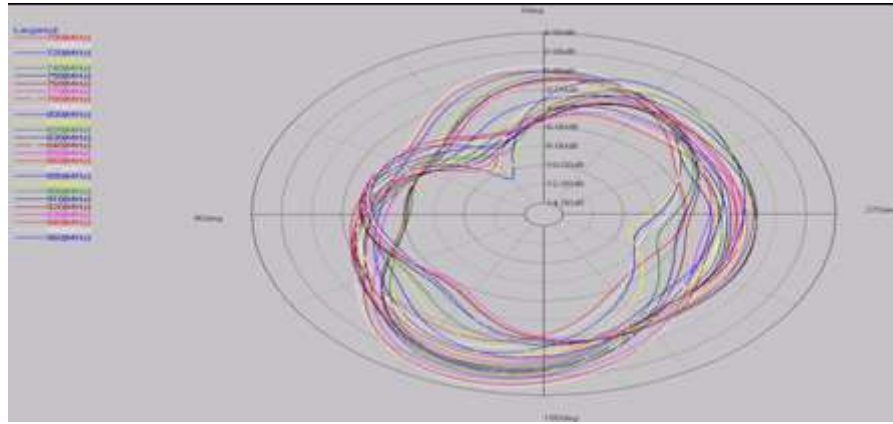
**E1(1710-2690MHz)**



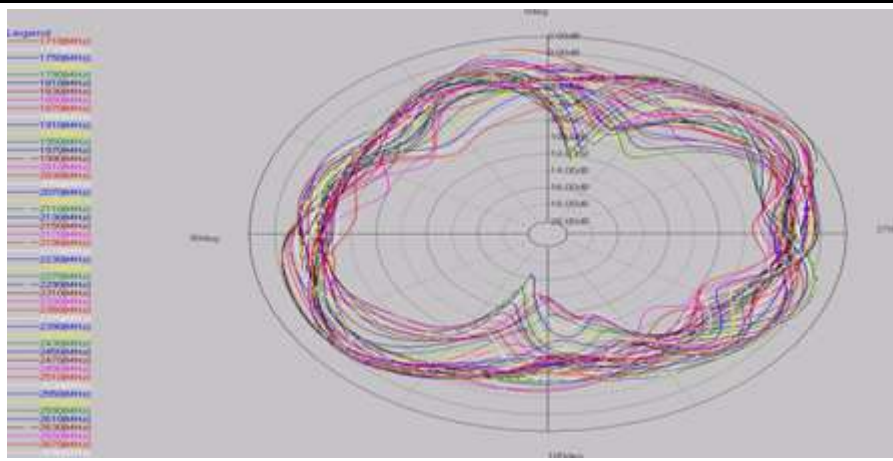
**E1(3300-5000MHz)**



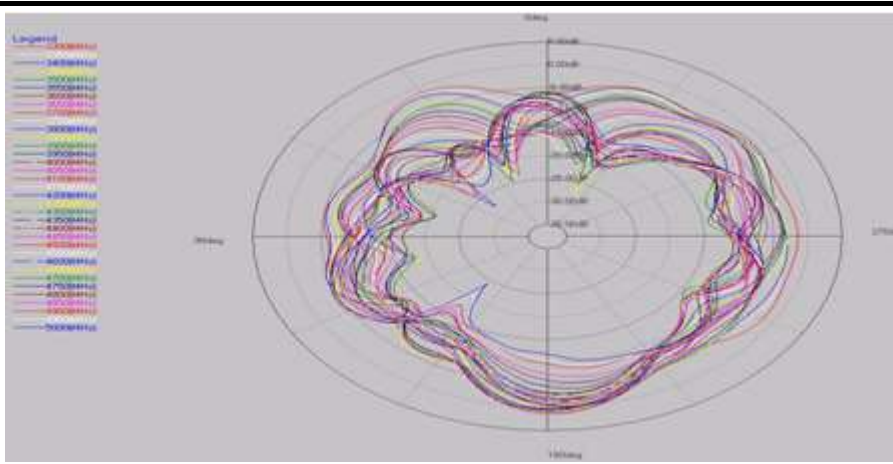
### E2(700-960MHz)



### E2(1710-2690MHz)

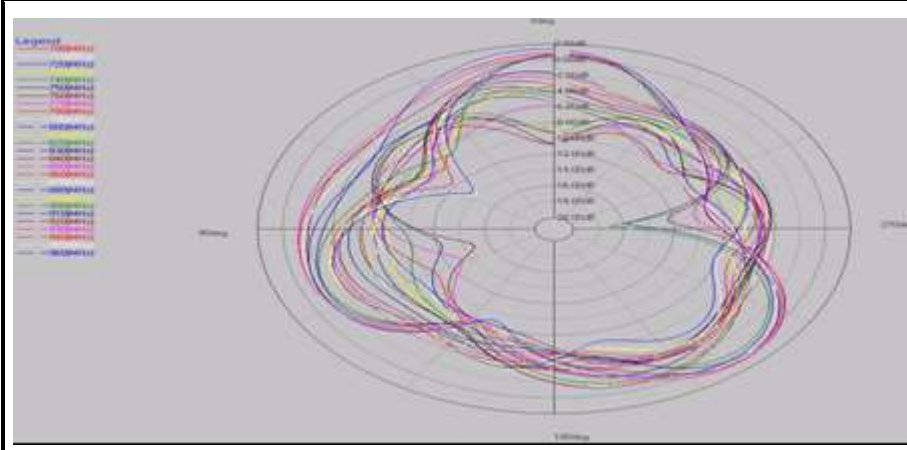


### E2(3300-5000MHz)

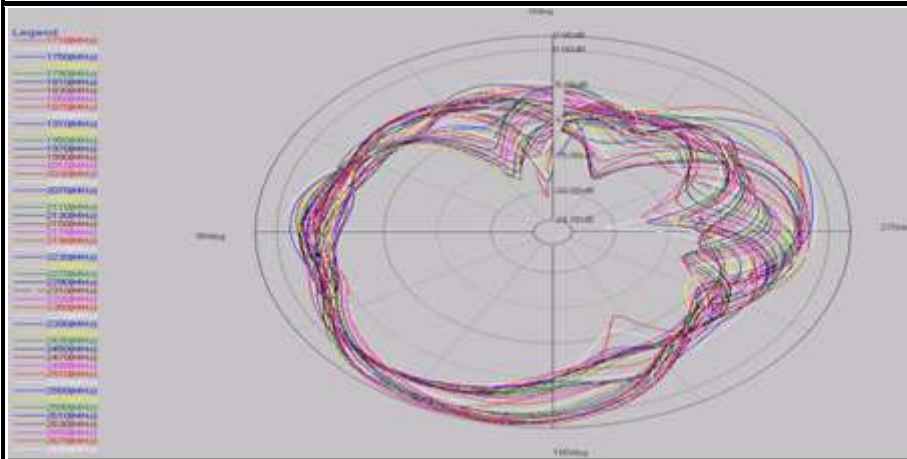


### 4G&5G Diversity Antenna

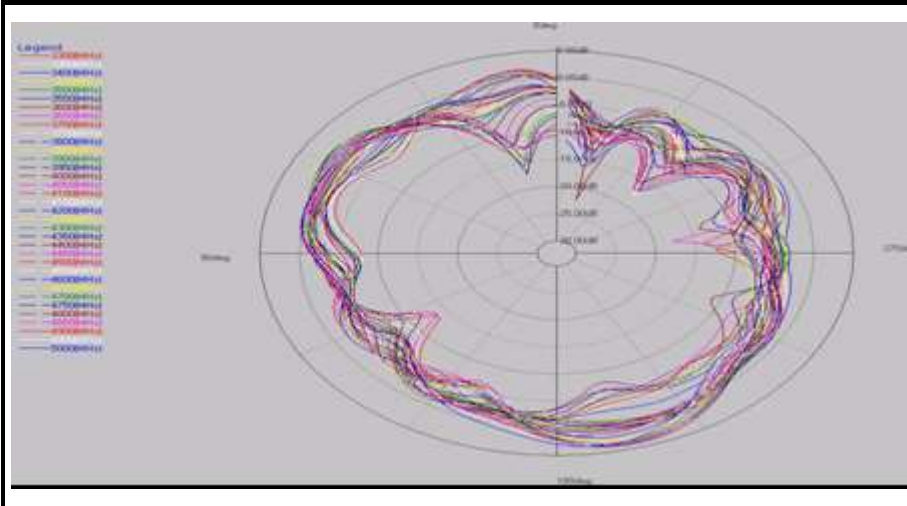
H(700-960MHz)



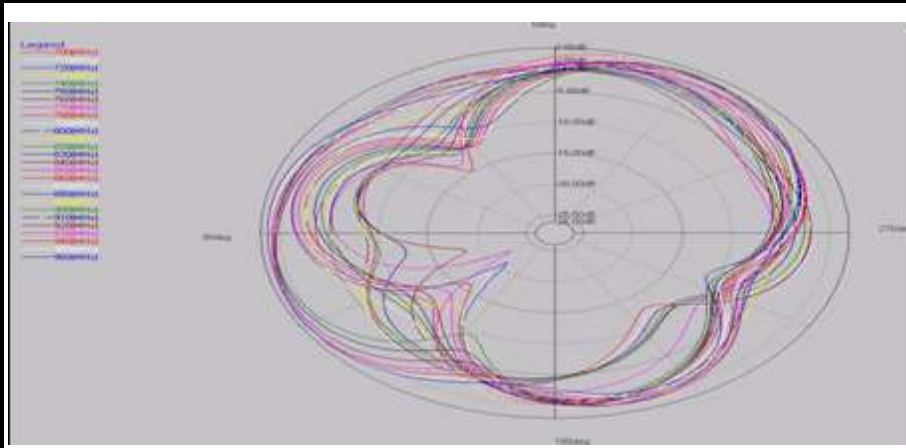
H(1710-2690MHz)



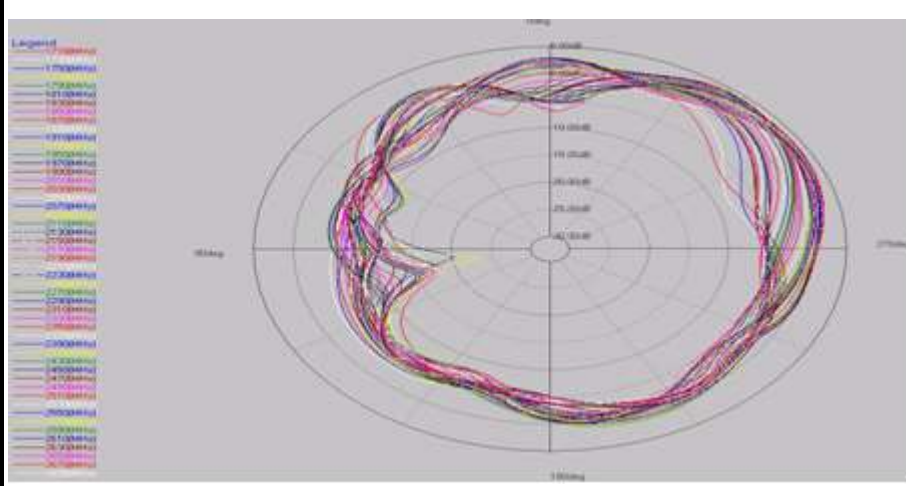
H(3300-5000MHz)



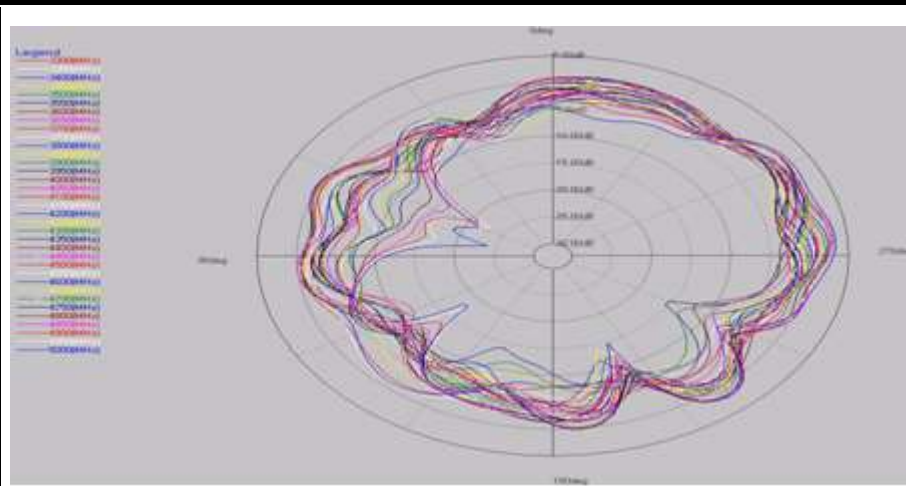
### E1(700-960MHz)



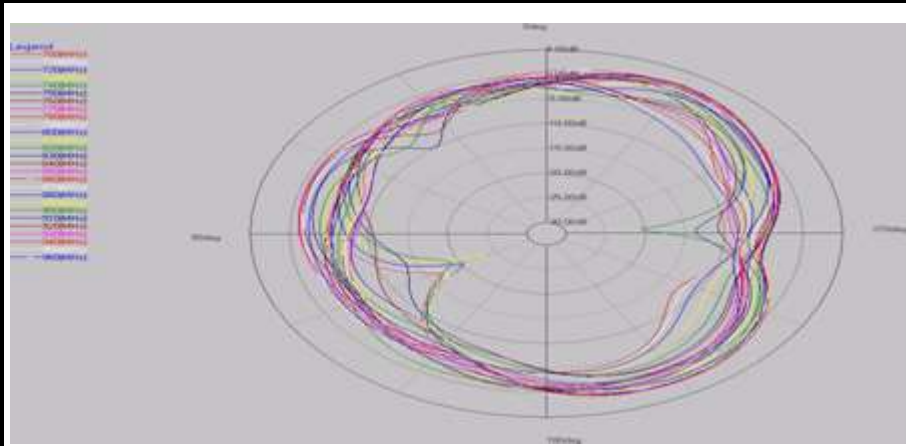
### E1(1710-2690MHz)



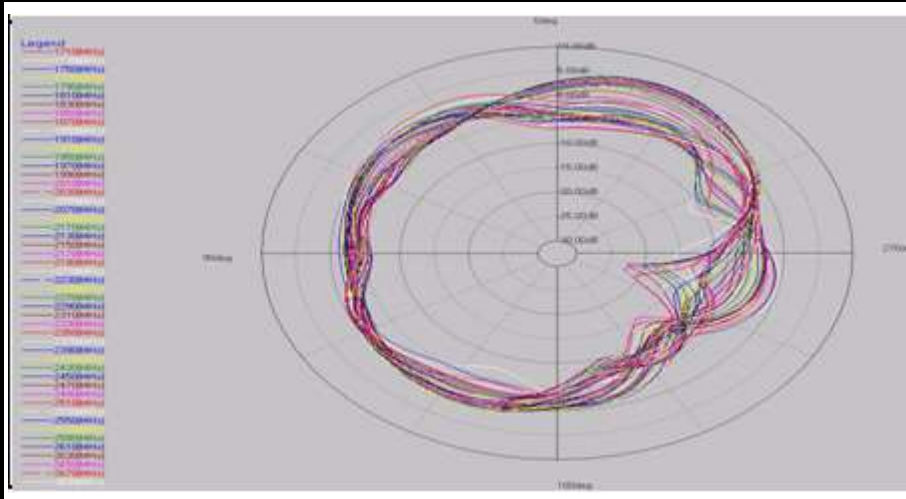
### E1(3300-5000MHz)



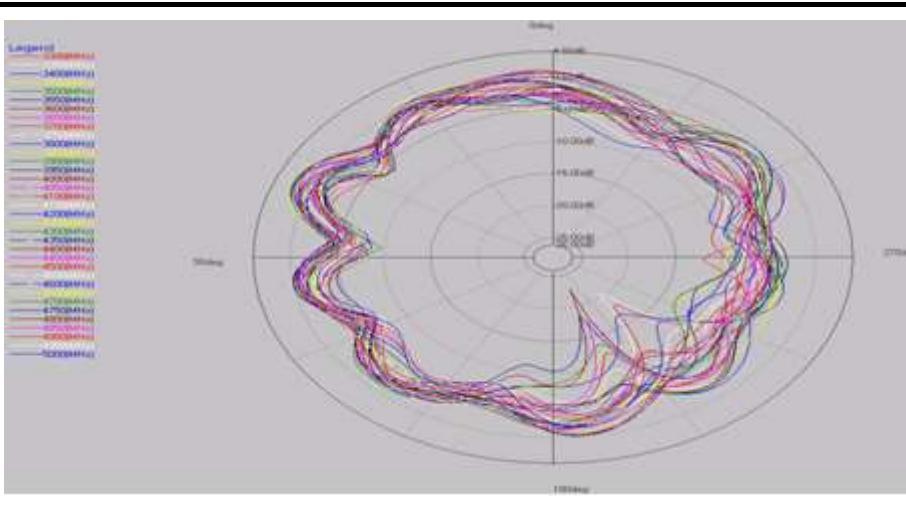
### E2(700-960MHz)



### E2(1710-2690MHz)

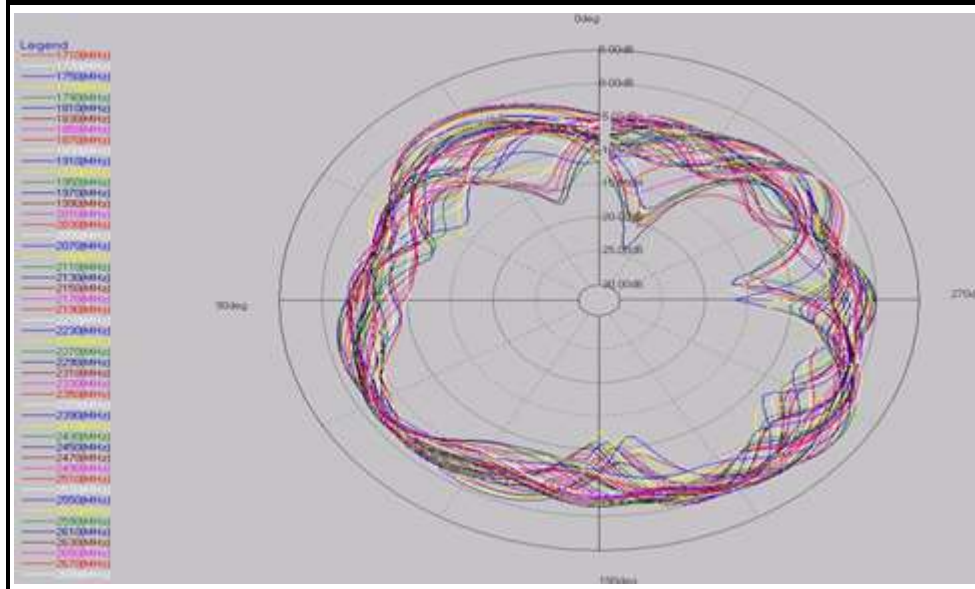


### E2(3300-5000MHz)

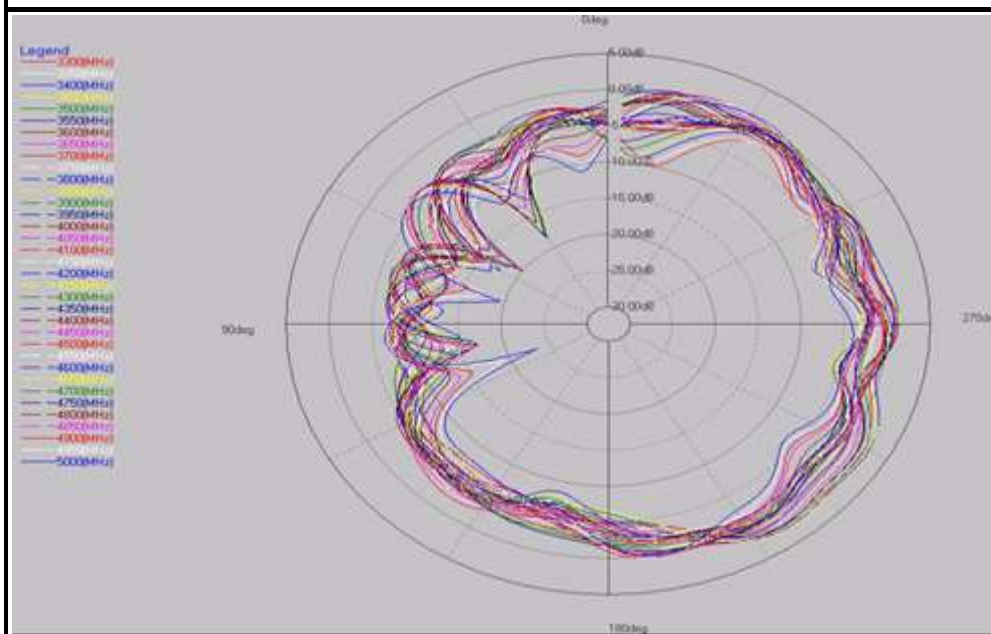


## 5G-MIMO1 Antenna

### H(1710-2690MHz)

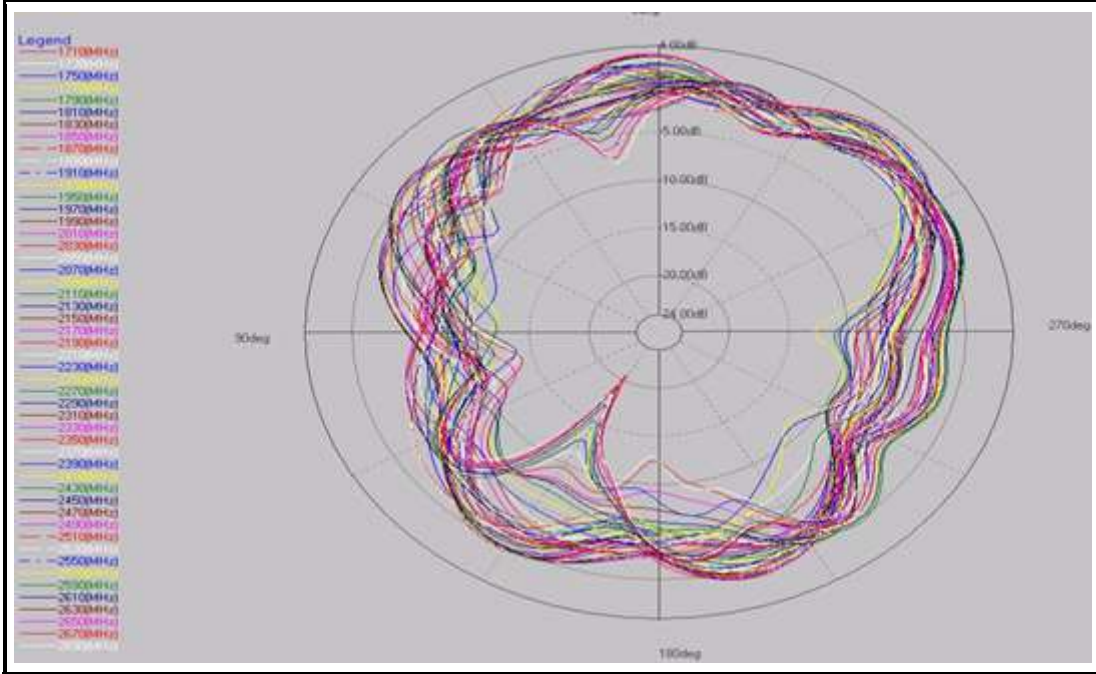


### H(3300-5000MHz)

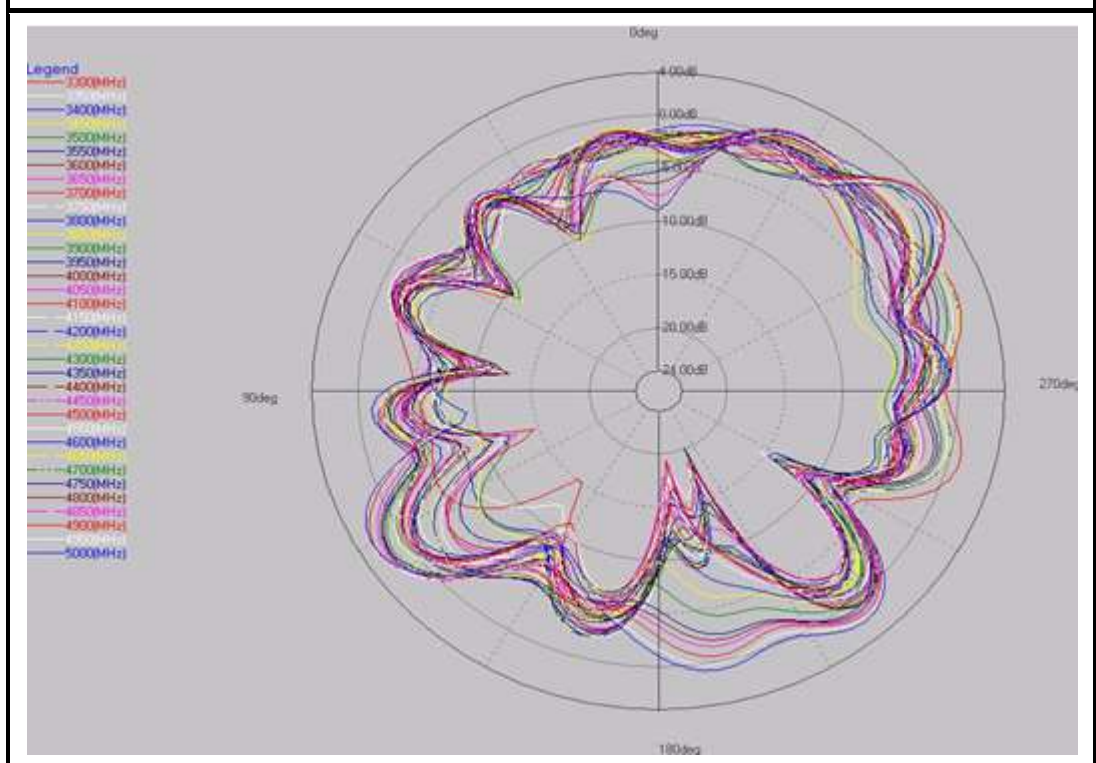




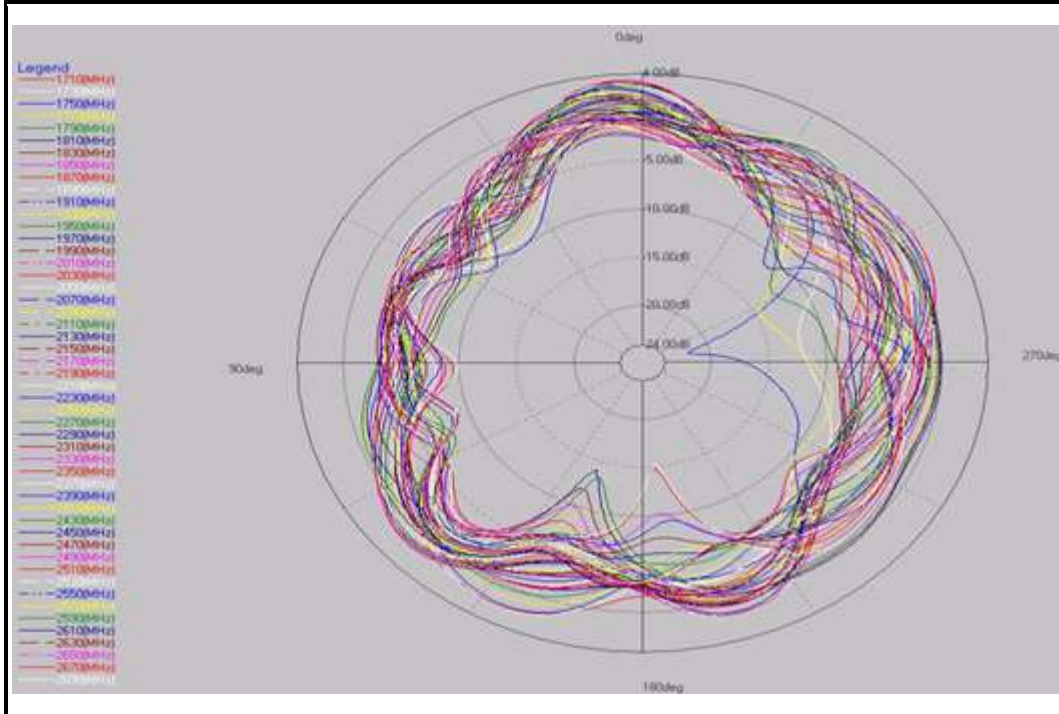
### E1(1710-2690MHz)



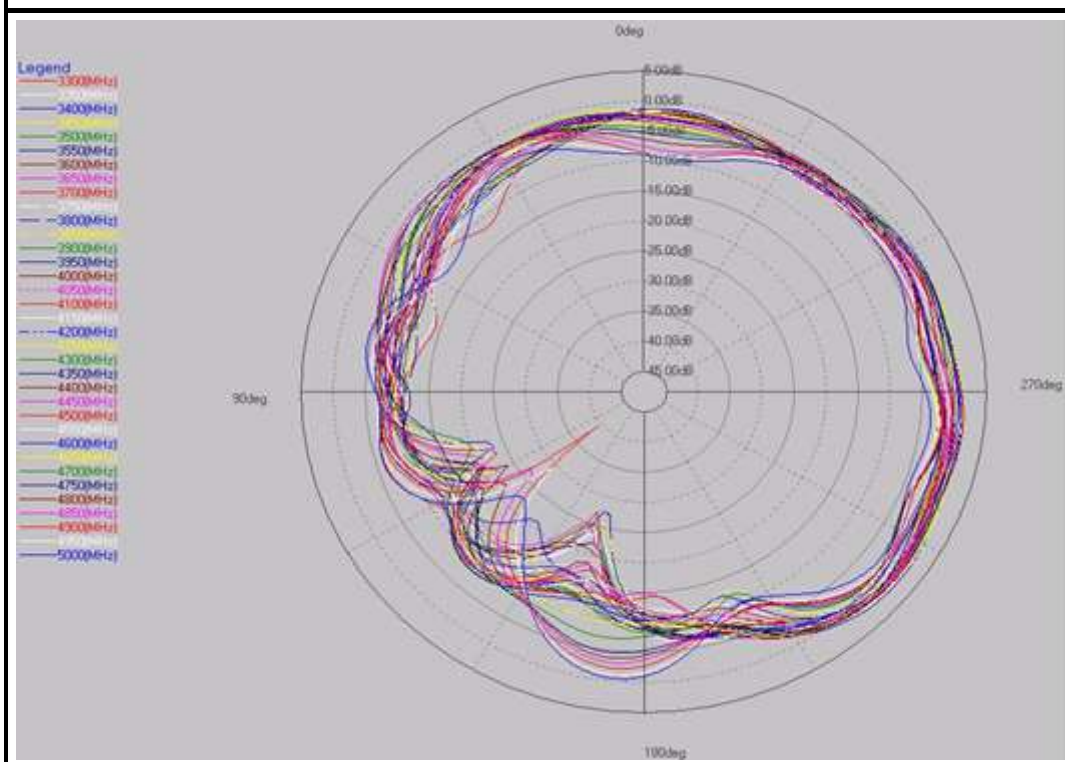
### E1(3300-5000MHz)



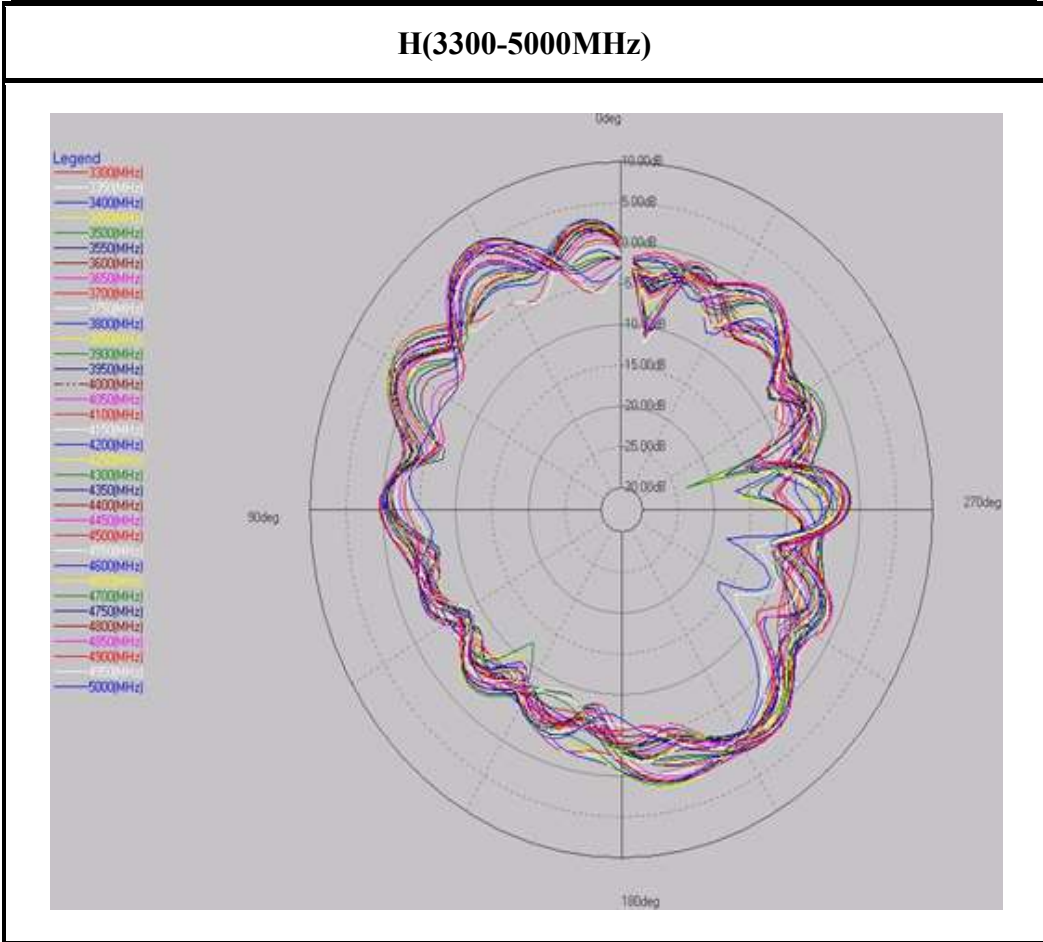
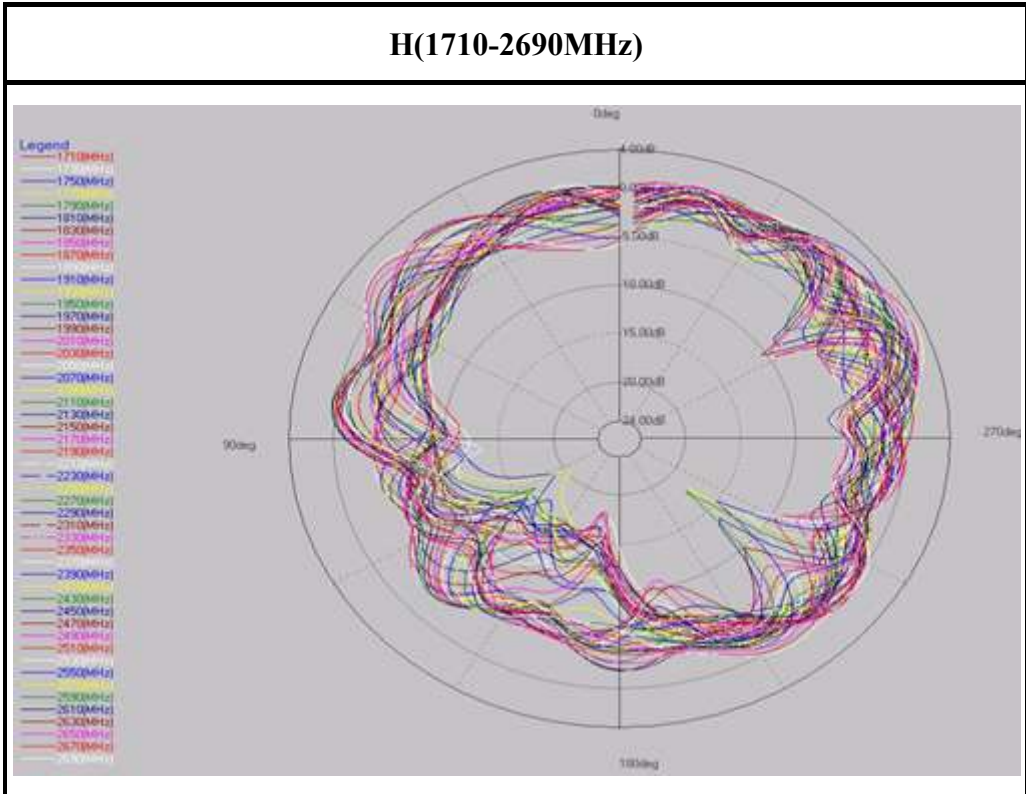
### E2(1710-2690MHz)



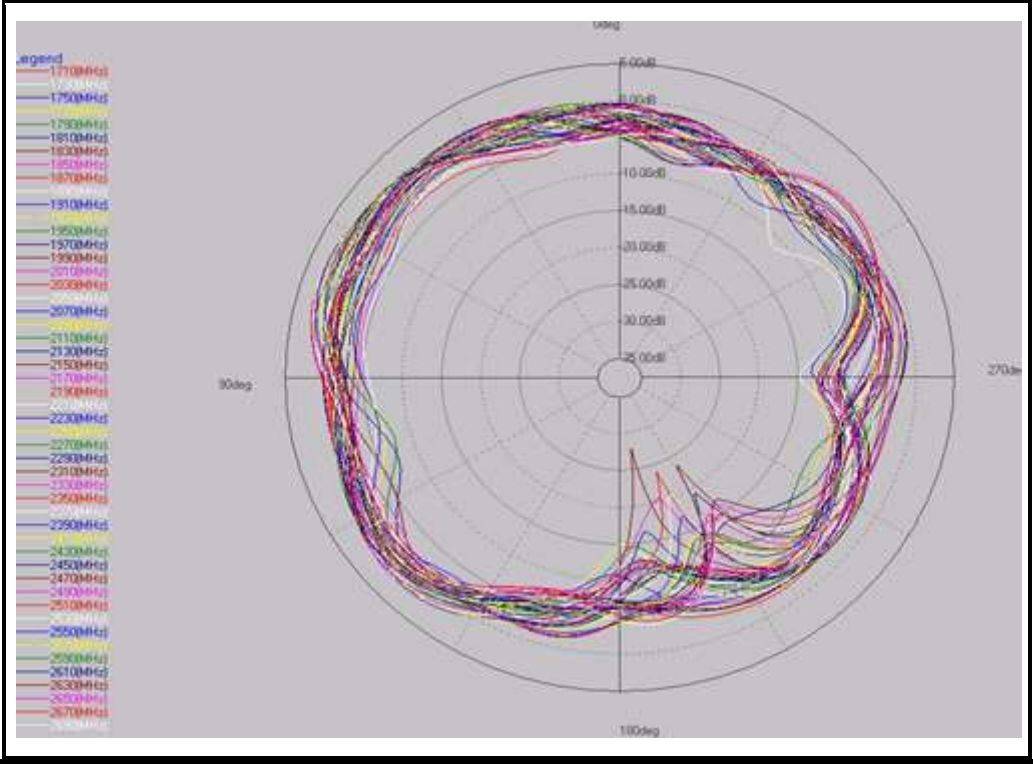
### E2(3300-5000MHz)



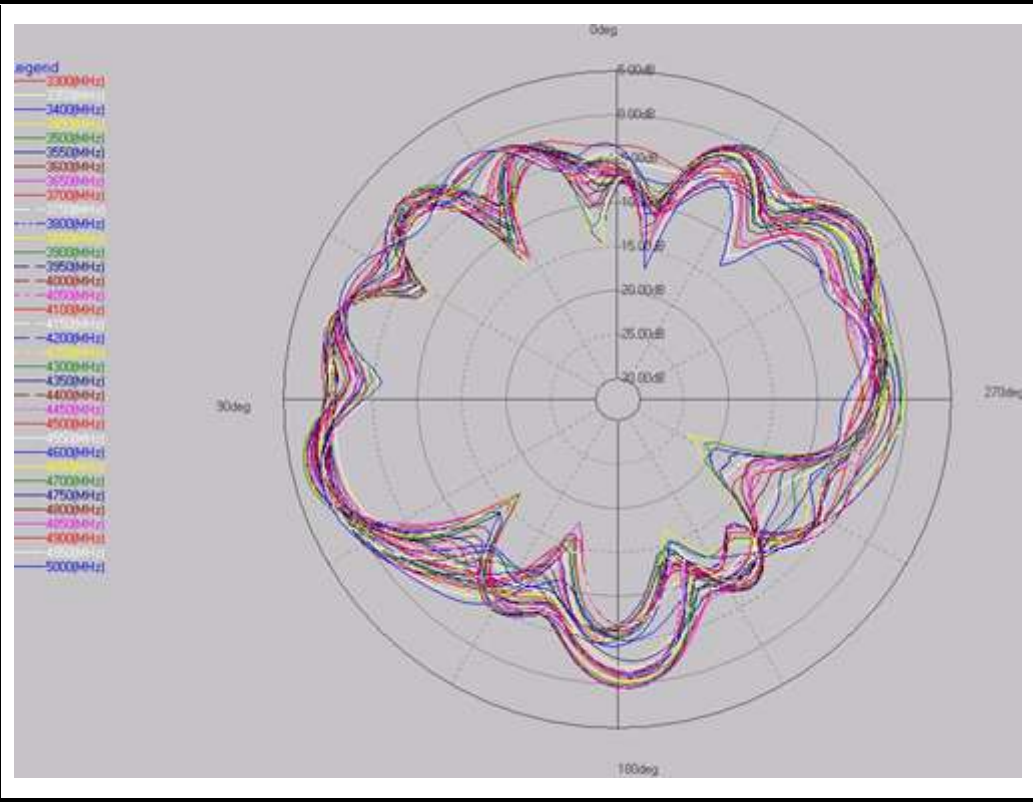
5G-MIMO2 Antenna



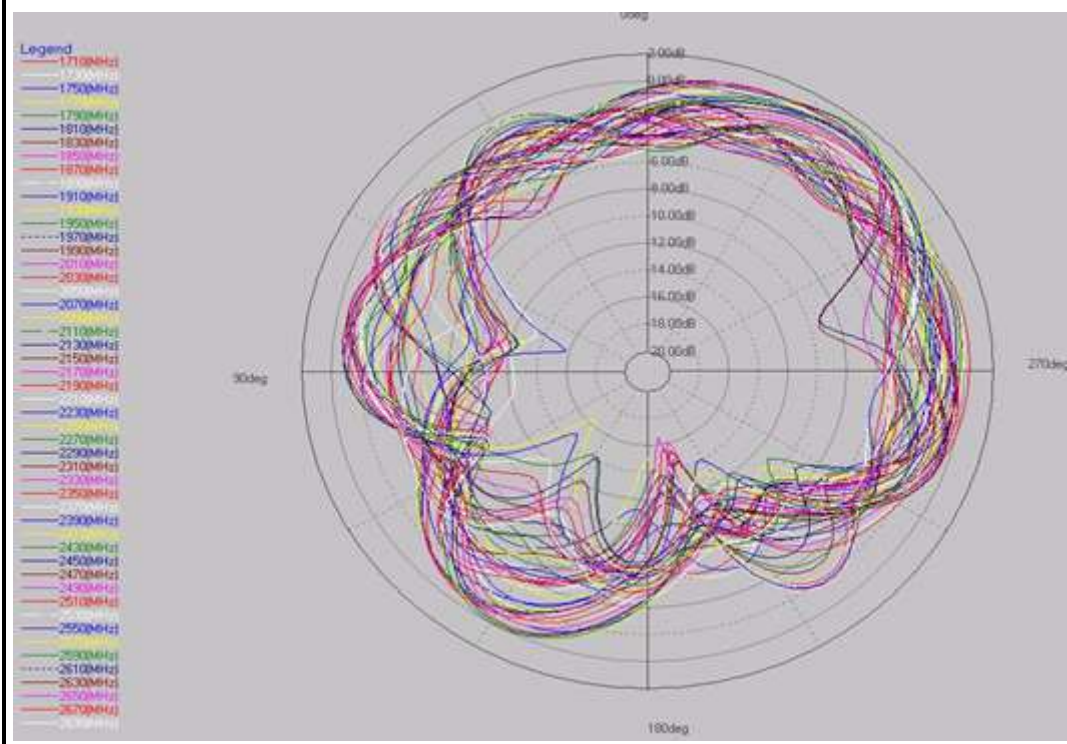
### E1(1710-2690MHz)



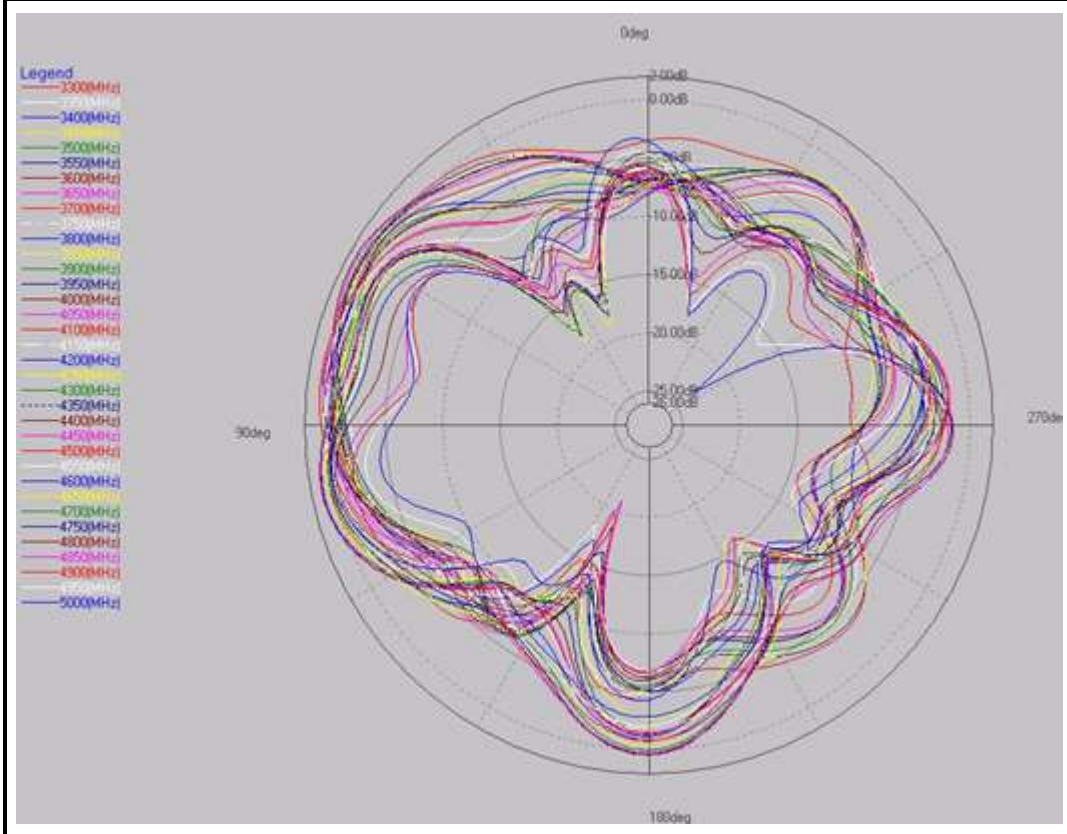
### E1(3300-5000MHz)



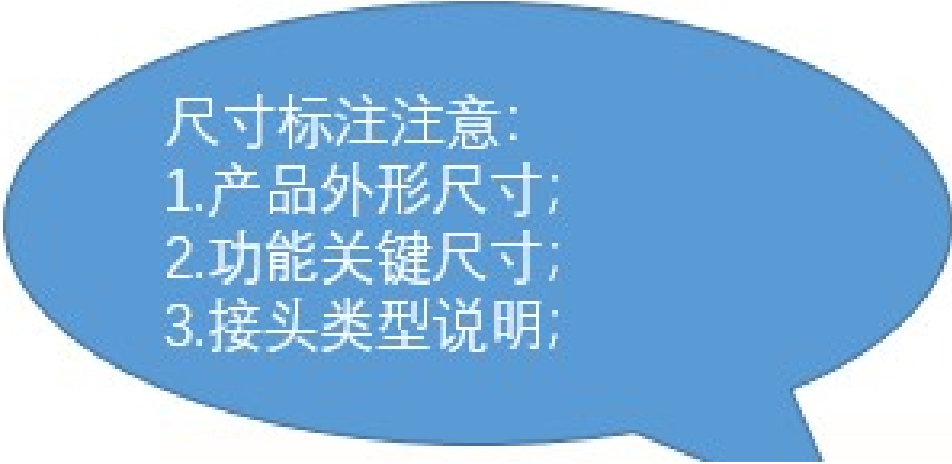
### E2(1710-2690MHz)



### E2(3300-5000MHz)



## Product Size



尺寸标注注意：  
1. 产品外形尺寸；  
2. 功能关键尺寸；  
3. 接头类型说明；

Please contact us for any unmarked size information.