Shenzhen South Star Technology Co. Ltd.
Shanghai South Star Technology Co. Ltd.

SPECIFICATION FOR APPROVAL

CUSTOMER :	**H3C**
CS P/N :	
PART NAME :	**TX5400**
PART NO. :	**2.4GHz&5.8GHz**
NDX NO. :	
REV. :	

	MANUFACTURERR SIGNATURE	**CUSTOMER SIGNATURE**
APPROVED BY:		
DATE:		

Shenzhen southstar technology.co.,LTD
深圳市南斗星科技有限公司
Address： No.1606,Build C6,HengFeng industrial city,xixiang street,baoan district,Shenzhen
Shenzhen southstar technology co., LTD. Shanghai branch
深圳市南斗星科技有限公司上海分公司
103B, Build10, No.198 Zhang Heng Road , Pudong New Area,Shanghai

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PCB Antenna Assembly

Specification(With housing)

1.Electrical Properties

1.1 Frequecy range...2.412GHz~2.472GHz/5.15GHz~5.85GHz

1.2 Impedance.....50Ω Norminal

1.3 VSWR.....<2

1.4 Radiation.....Omni

1.5 Gain(Peak).....5dBi

1.6 Polarization.....Linear

1.7 Admitted Power.....1W

1.8 Cable.....Φ1.13mm cable

1.9 Connector.....Soldering

2.Physical Properties

2.1 Working Temperature.....-20℃~+65℃

2.2 Storage Temperature.....-30℃~+75℃

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Antenna Design for TX5400

V1.00

Document Number	**NDX-191031**
1st Released Date	**06/11/2021**
Last Released Date	**06/11/2021**
Author	**Yangyang Liao**
Review By	**Hui Zhang**

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Revised History

Date	Version	Revised Recored
06/11/2021	1.00	● 1st Released

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Specification

Rough description	**2.4G&5.8G ANT**
Item	**Initial Specification**
Dimensions	
Impedance	**50Ω Norminal**
Test environment	**With housing**
Spectrum	**None**
Frequecy range	**2.412GHz~2.472GHz 5.15GHz~5.85GHz**
Antenna Type	**Dipole**
VSWR	**<2**
Gain(Peak)	**5dBi**
Radiation	**Omni**
Polarization	**Linear**
Rad. efficiency	**≥60%**
Power	**1W**
Connector Type	**Soldering**
Cable Type	**Φ1.13mm coaxial cable**
Cable Length	
Isolation	**None**

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1.Antennas' setup and enviroment

With housing

Ant2 2.4G
外露线长为105mm

Ant4 2.4G
外露线长为195mm

Ant1 5.8G
外露线长为350mm

Ant2 5.8G
外露线长为 195mm

Ant6 5.8G
外露线长为 80mm

Ant5 5.8G
外露线长为 60mm

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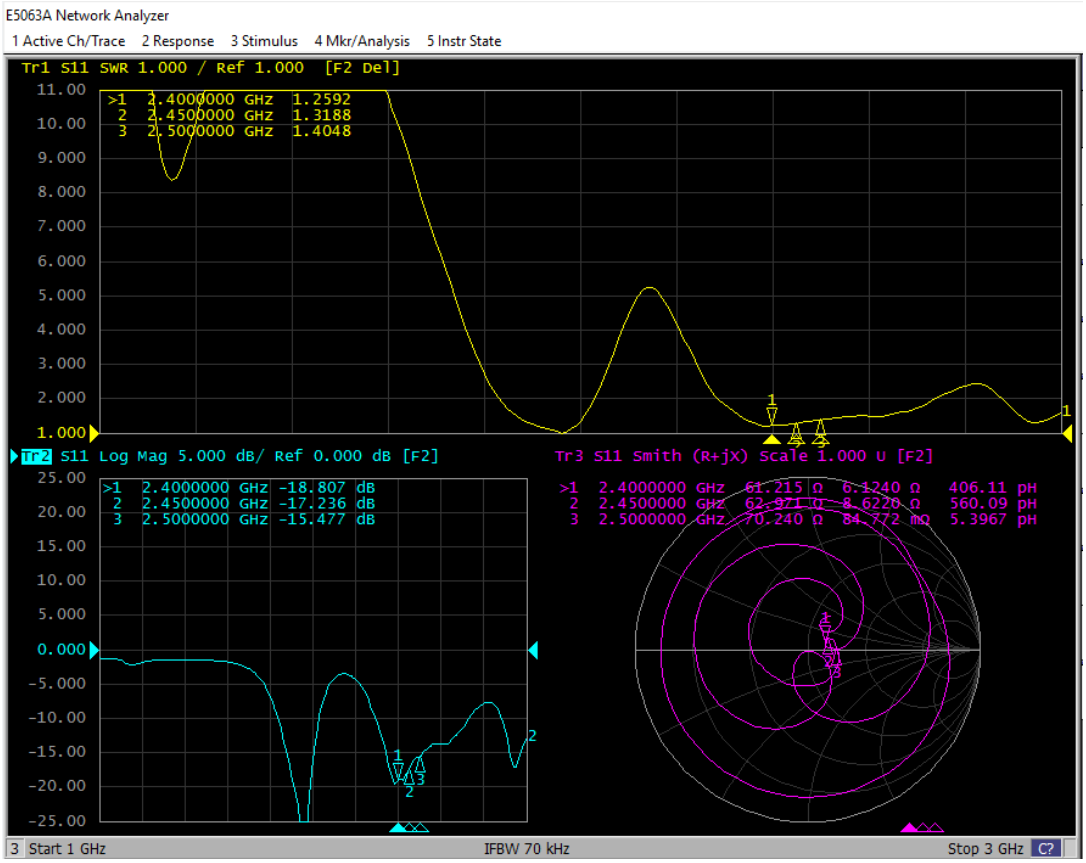
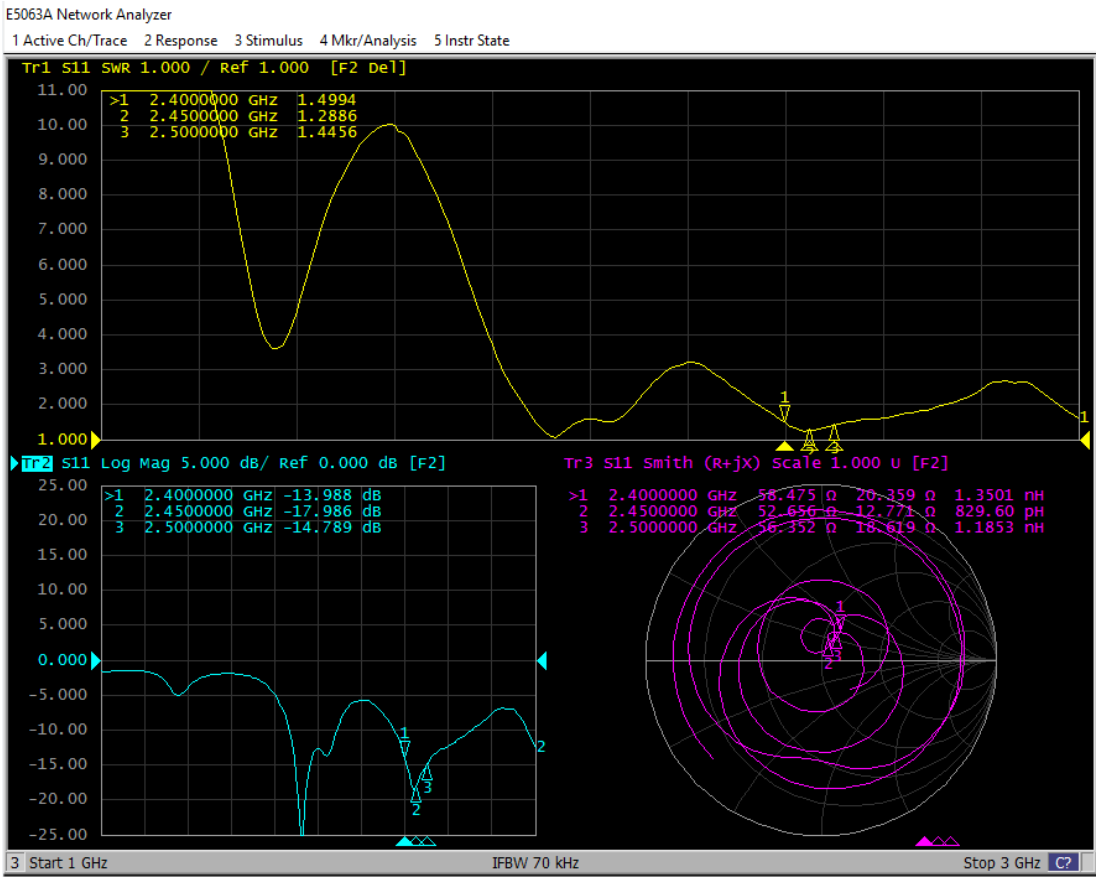
2.Analyzer Measurement

2.1 Ant2# 2.4G S11 test results



2.2 Ant4# 2.4G S11 test results



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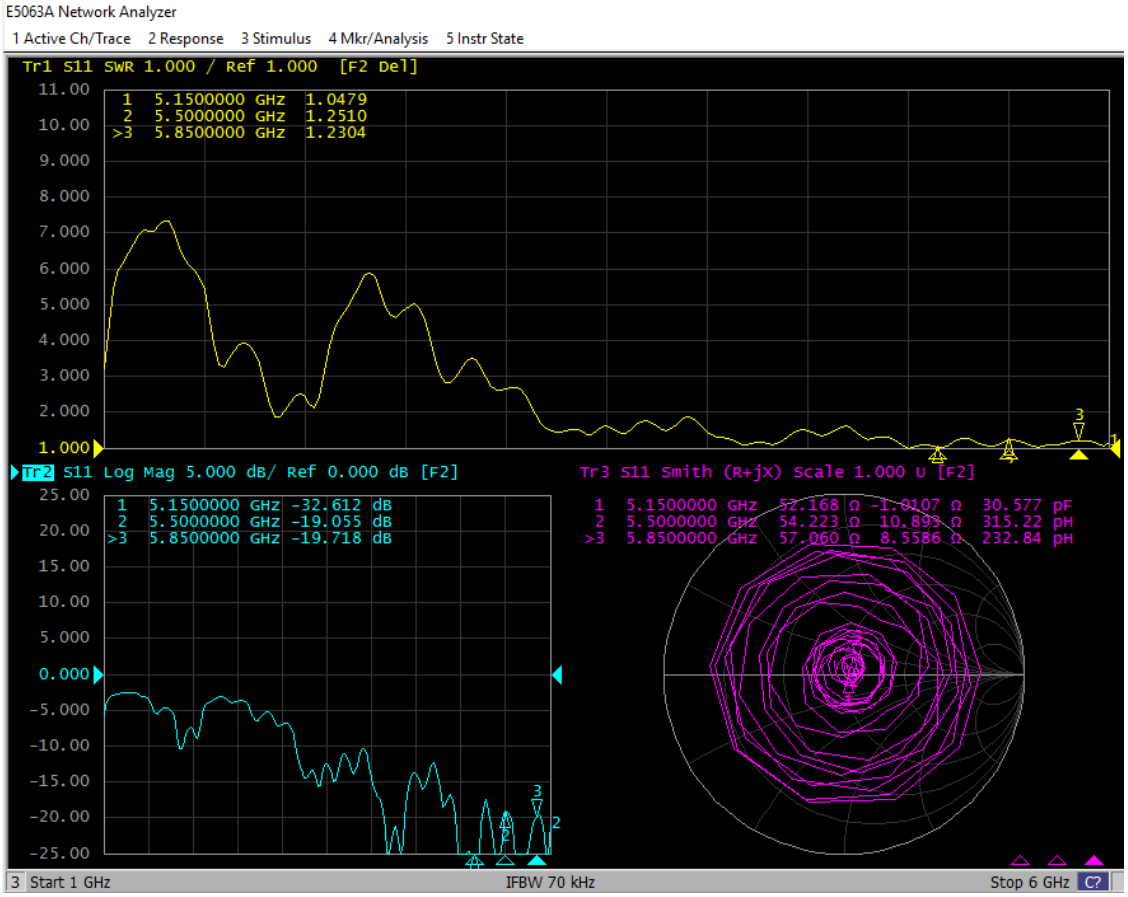
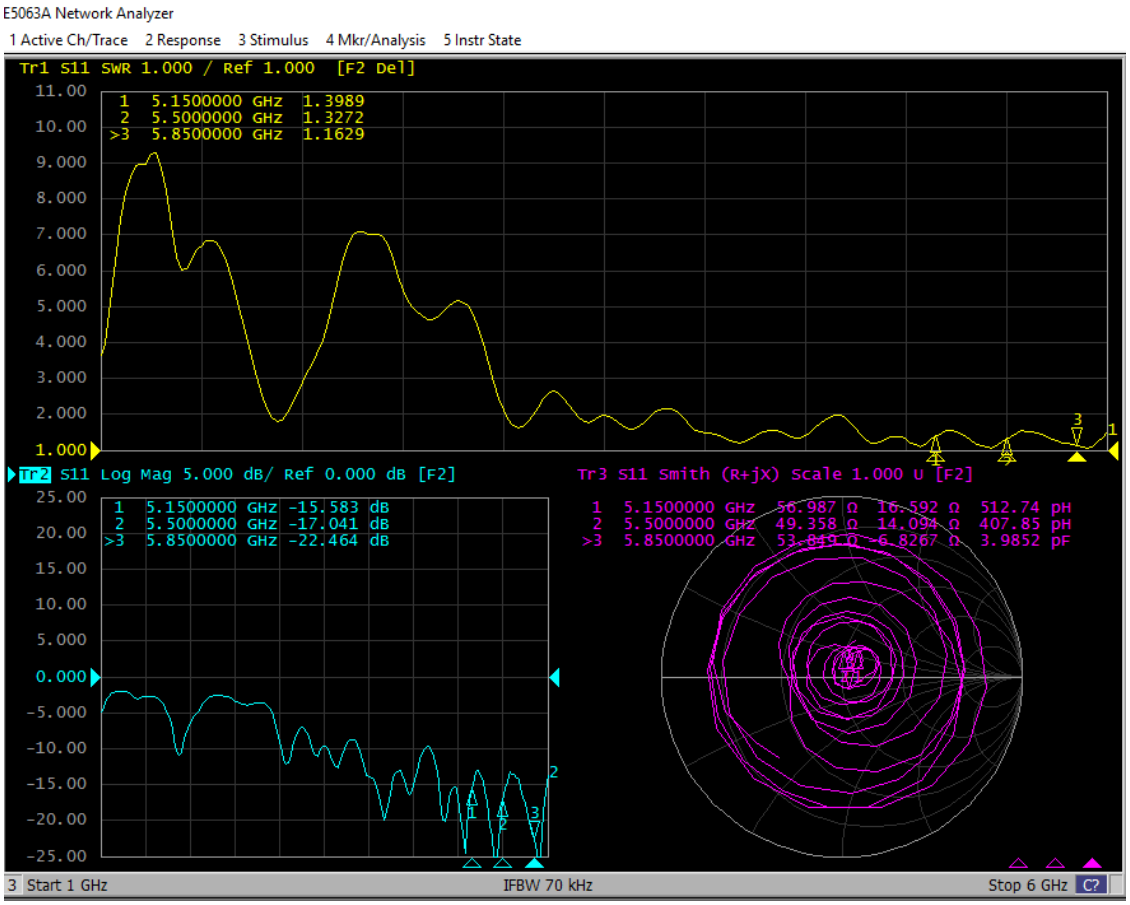
2.3 Ant 1# 5.8G S11 test results



2.4 Ant3# 5.8G S11 test results



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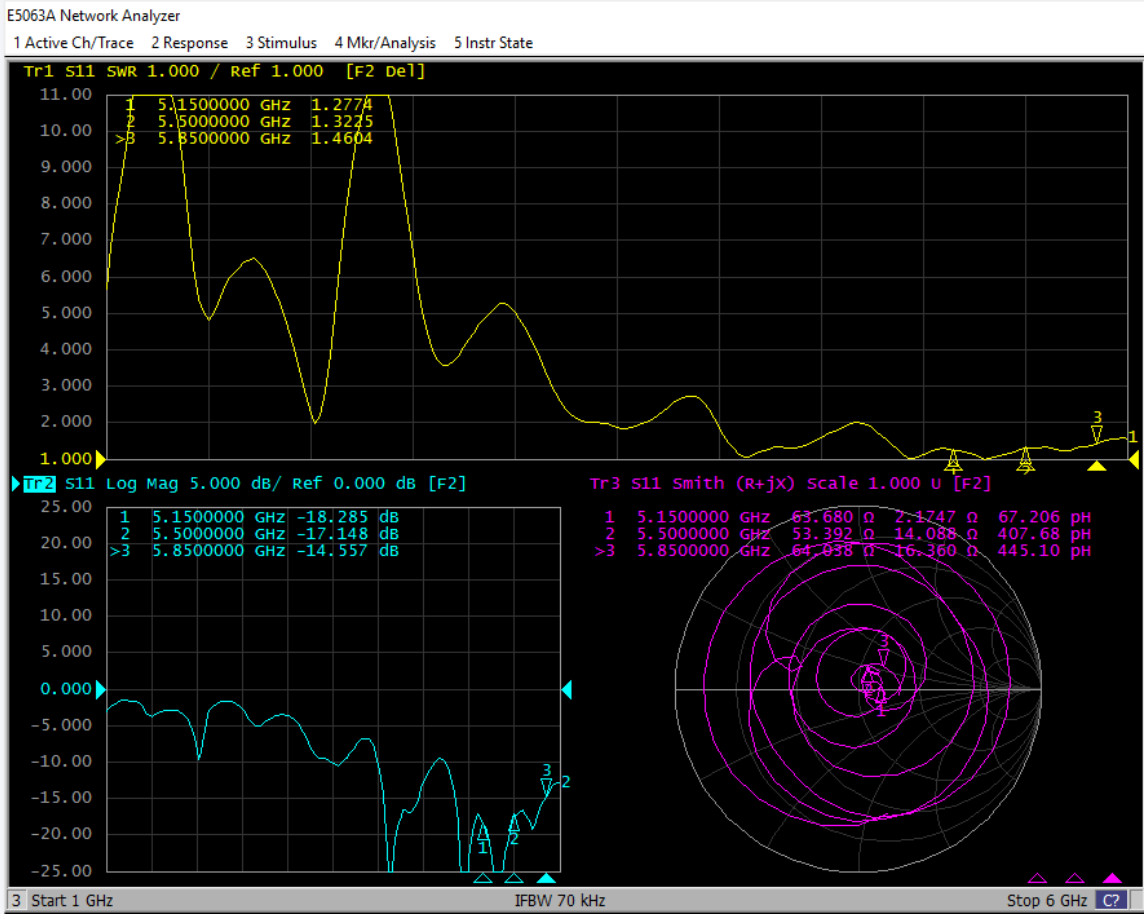
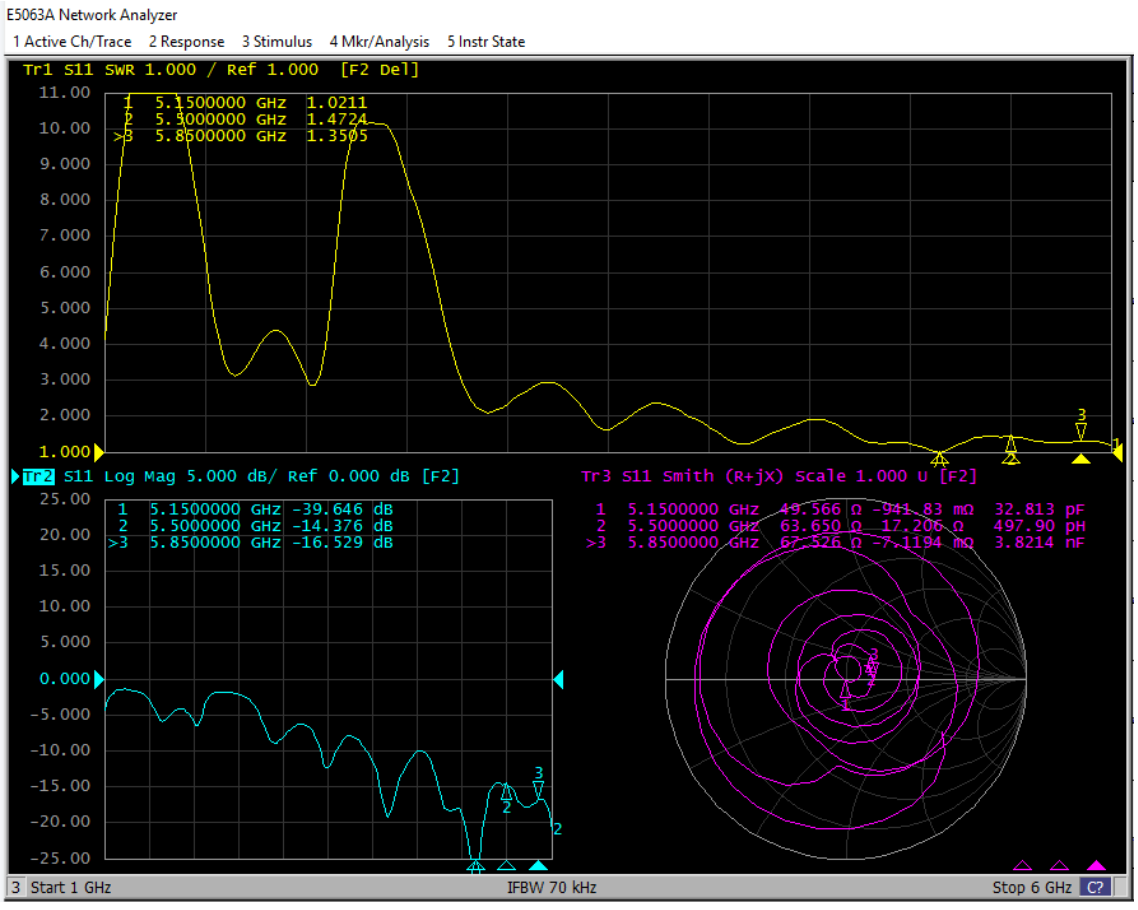
2.5 Ant 5# 5.8G S11 test results

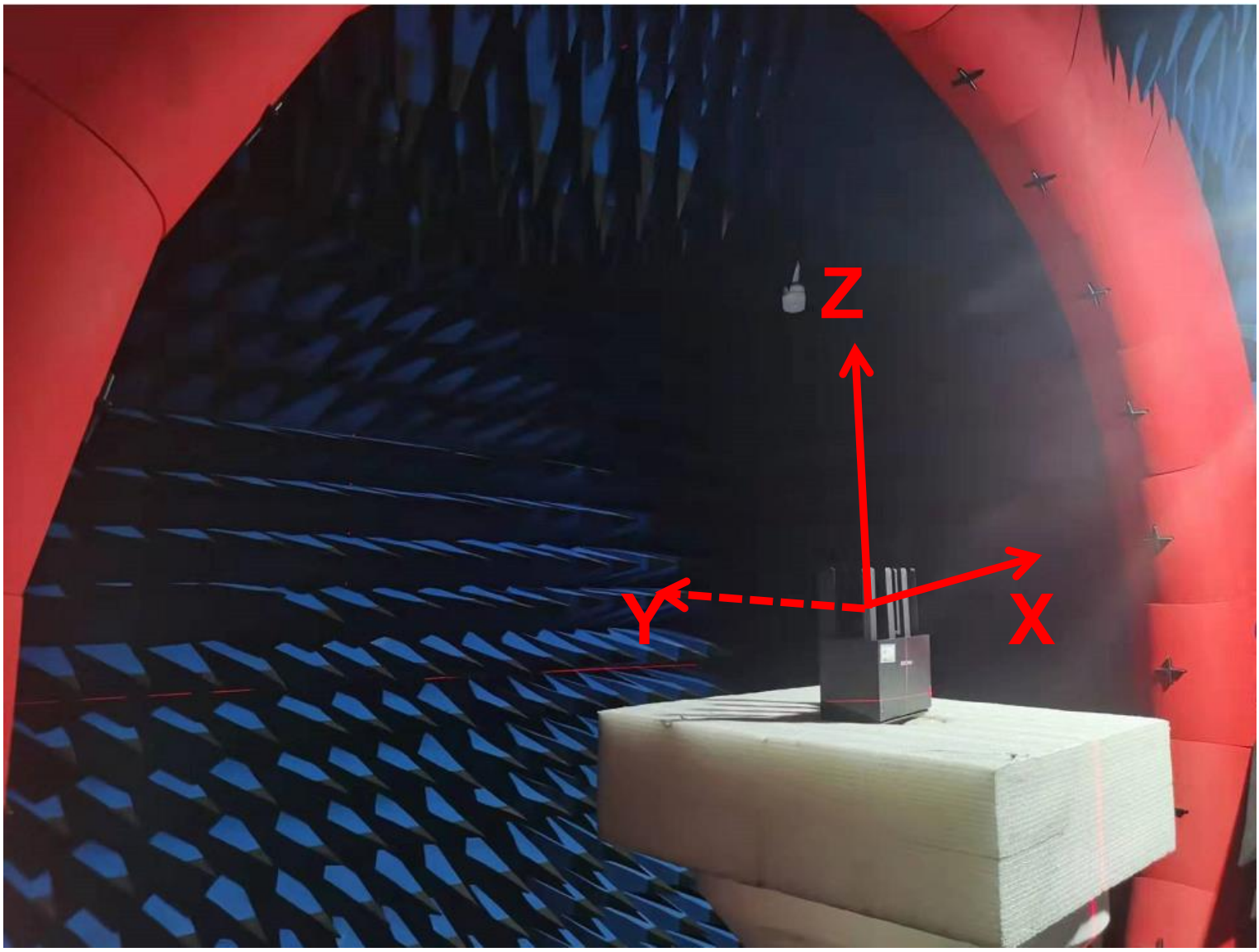


2.6 Ant 6# 5.8G S11 test results



3.Gain & Patterns test results

3.1 Measurement setting



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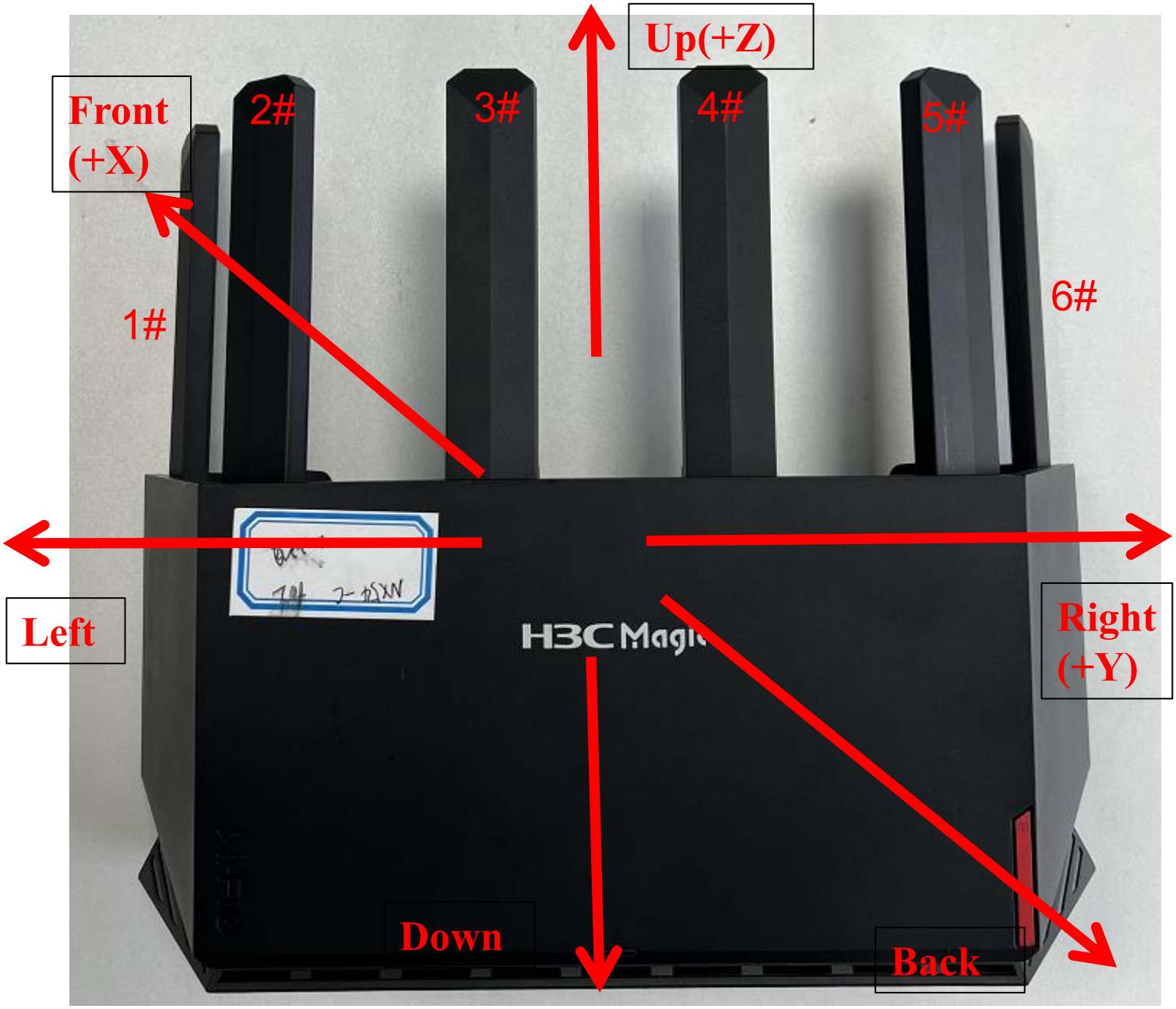

	XY	YZ	ZX
0^0	Front	Up	Up
90^0	Right	Right	Front
180^0	Back	Down	Down
270^0	Left	Left	Back

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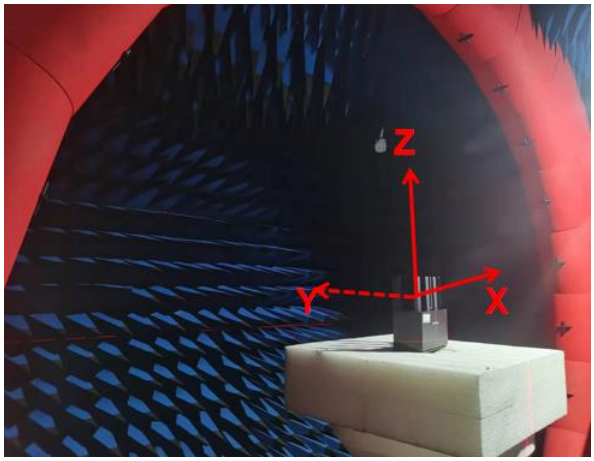
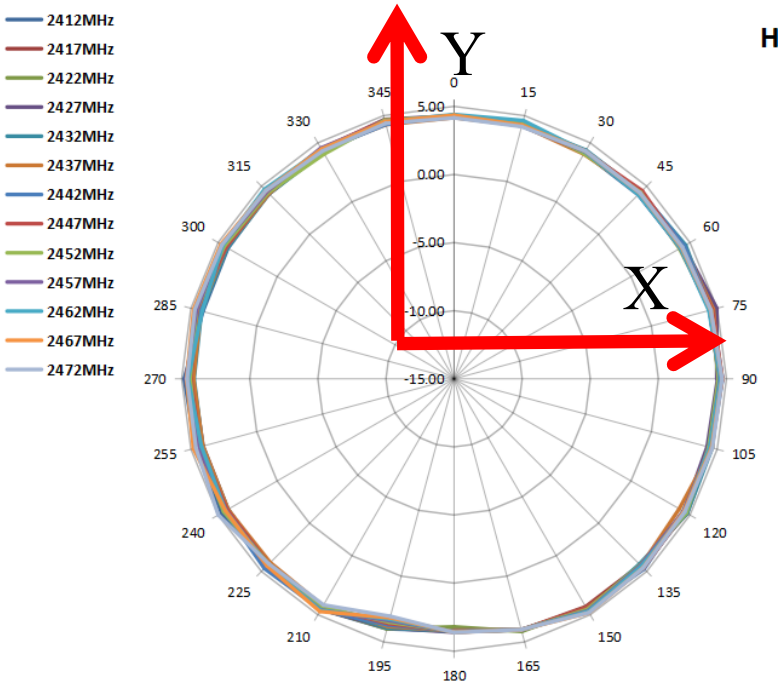
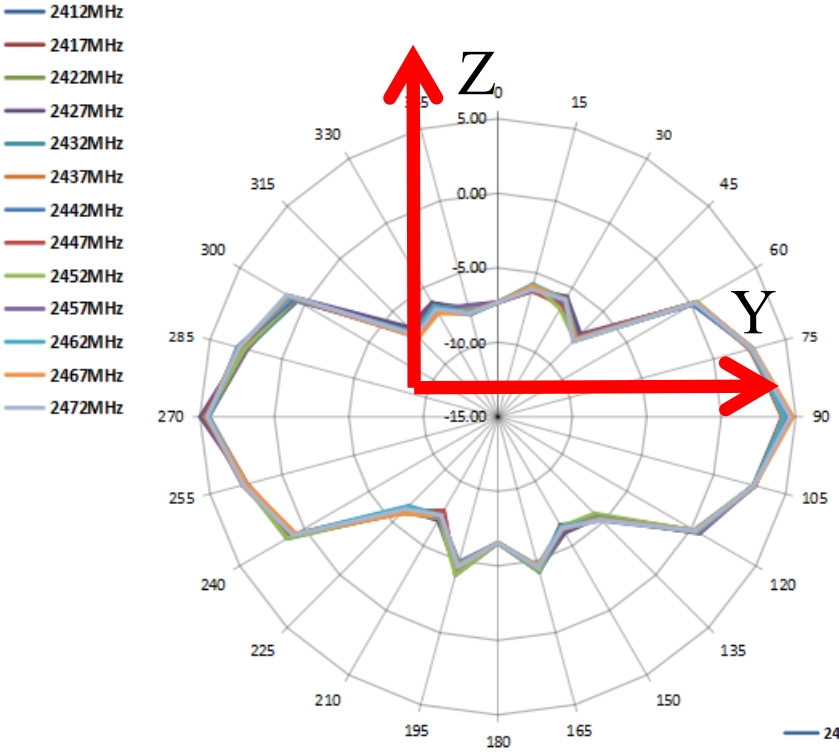
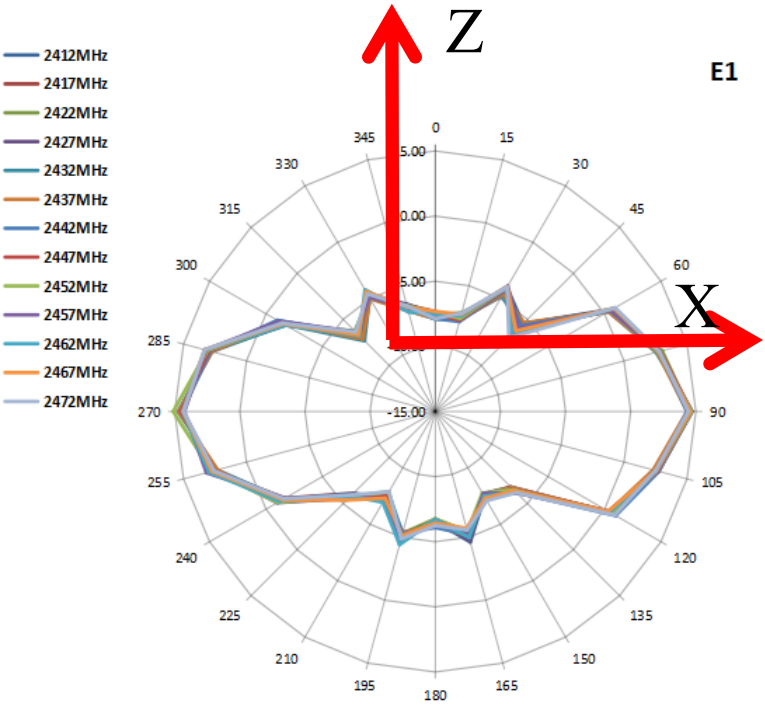
3.2.1 Ant 2# 2.4G









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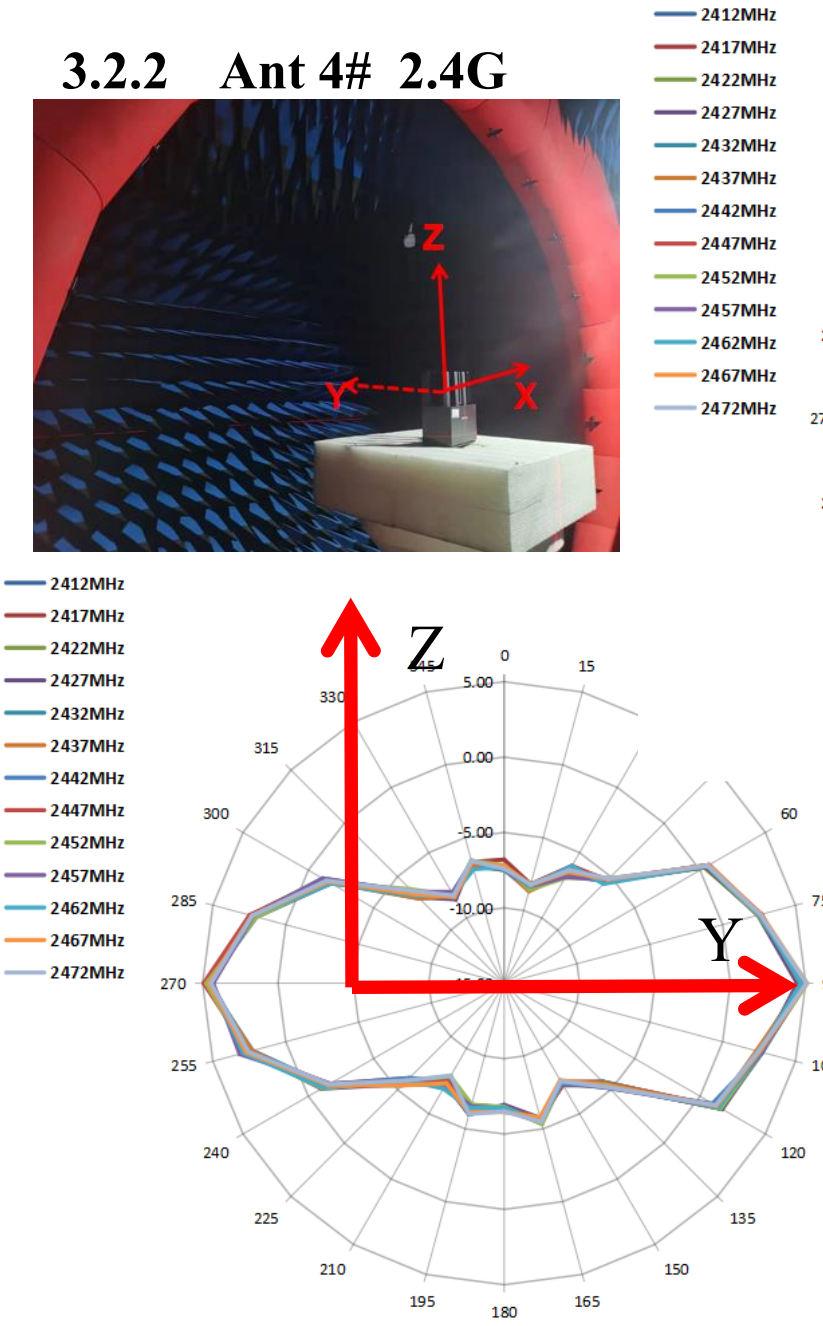
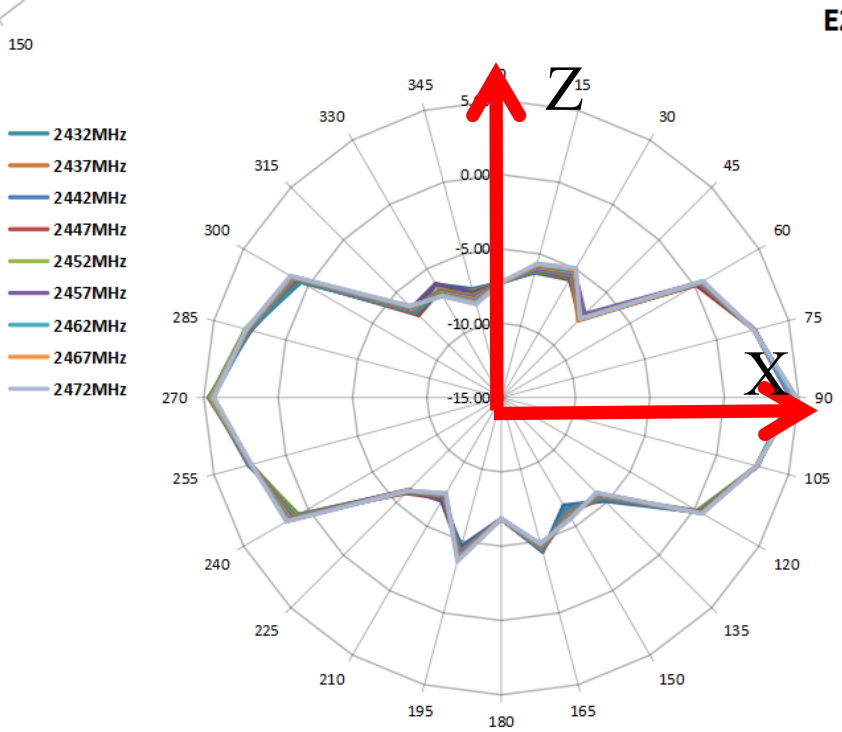
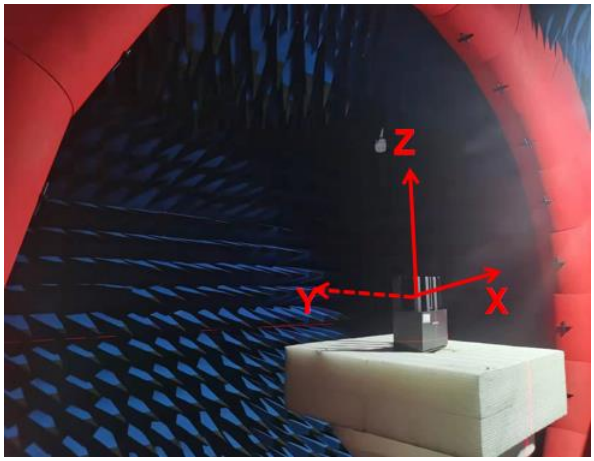
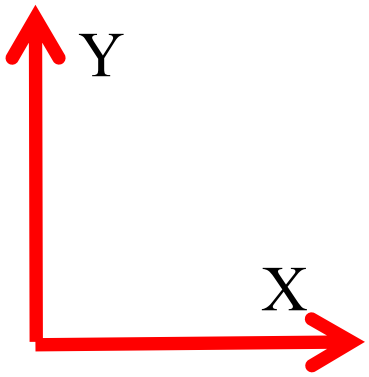
3.2.2 Ant 4# 2.4G

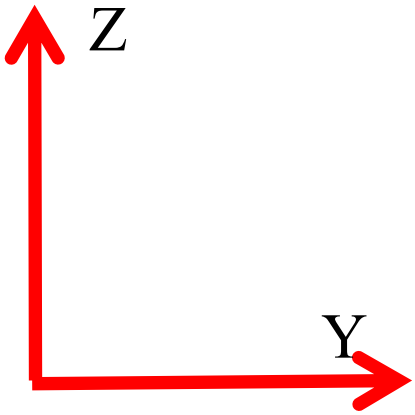


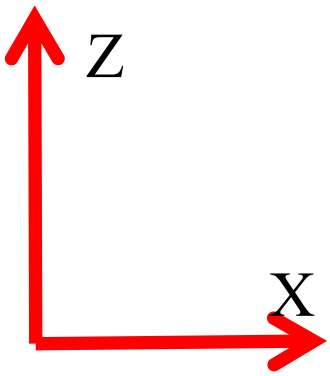


3.2.3 Ant 1# 5.8G









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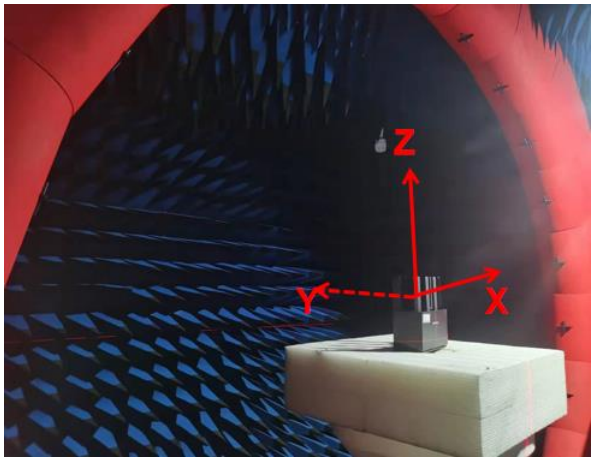
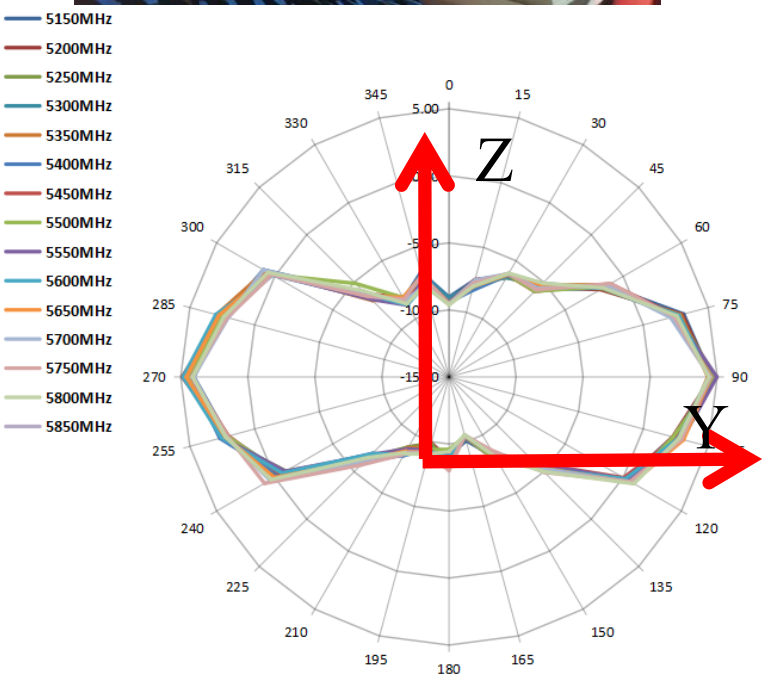
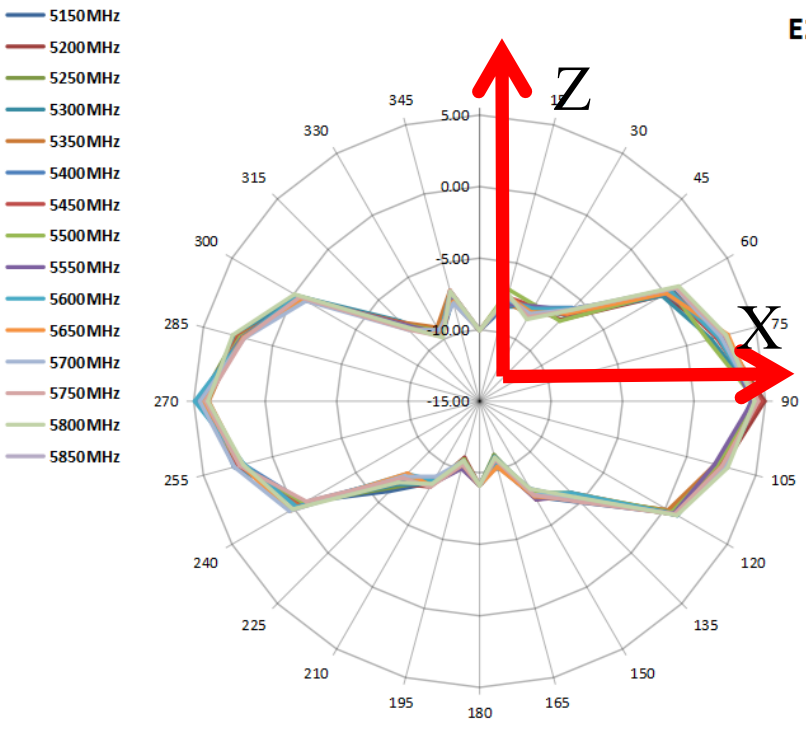
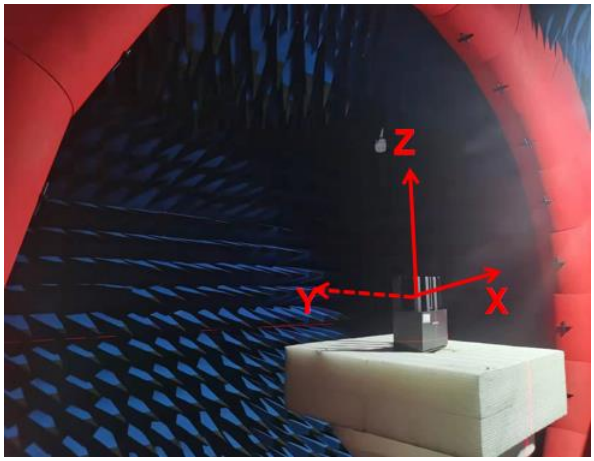
3.2.4 Ant 3# 5.8G

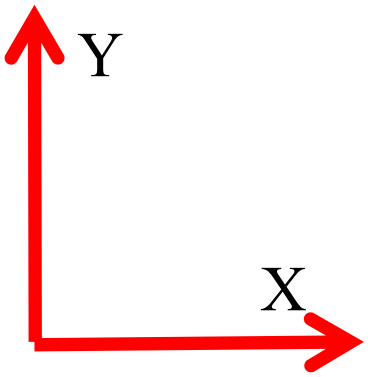


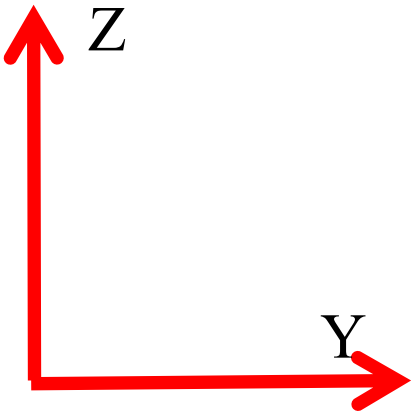


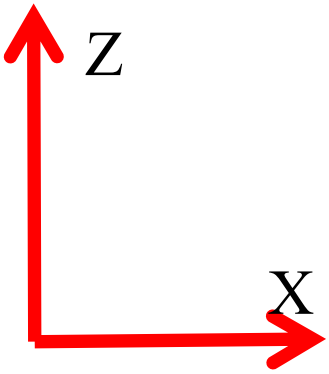


3.2.3 Ant 5# 5.8G

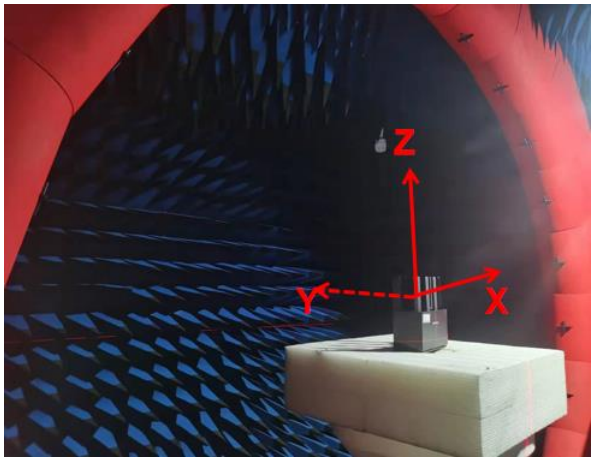








3.2.4 Ant 6# 5.8G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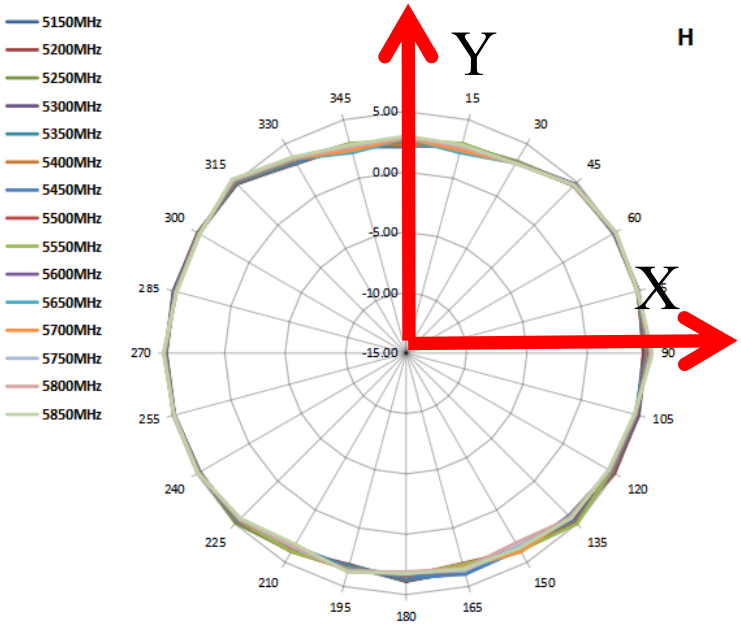
Y
X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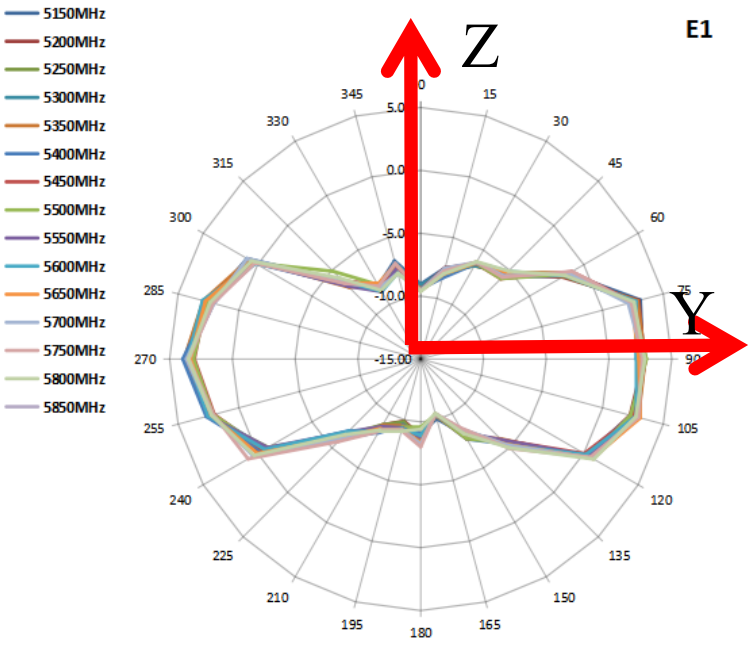
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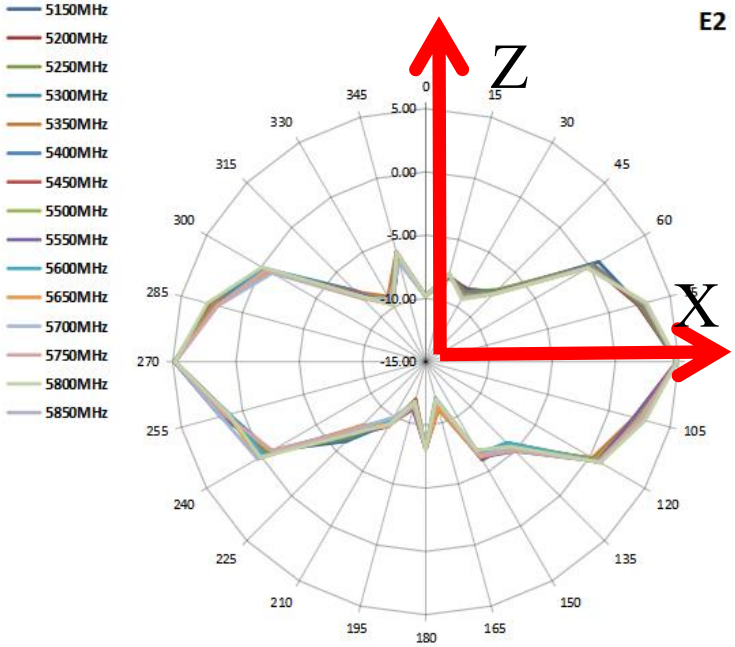
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-10.00
-15.00

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4.Summary

4.1 ANT 2.4G

	Ant 2		Ant 4	
Freq (MHz)	Effi (%)	Gain (dBi)	Effi (%)	Gain (dBi)
2412	75.35	4.52	69.68	4.31
2417	74.58	4.43	69.55	4.27
2422	73.62	4.38	68.23	4.22
2427	75.24	4.27	68.54	4.21
2432	75.33	4.35	69.27	4.31
2437	73.98	4.37	67.29	4.42
2442	73.84	4.22	67.53	4.25
2447	74.68	4.36	66.58	4.31
2452	74.75	4.31	67.85	4.14
2457	75.23	4.28	68.64	4.23
2462	73.64	4.17	69.33	4.22
2467	74.38	4.36	67.25	4.13
2472	73.86	4.31	68.48	4.24

4.2 ANT 5.8G

	Ant 1		Ant 3	
Freq	Effi	Gain	Effi	Gain
(MHz)	(%)	(dBi)	(%)	(dBi)
5150	71.67	5.06	67.27	4.88
5200	72.52	5.13	68.51	4.97
5250	74.36	5.27	67.62	5.05
5300	72.35	5.35	68.39	4.91
5350	73.42	5.15	66.54	4.94
5400	72.57	5.06	66.38	5.01
5450	73.68	5.23	67.69	4.86
5500	74.59	5.39	68.81	4.91
5550	72.11	5.42	67.64	4.78
5600	72.35	4.98	68.58	4.85
5650	73.49	5.34	67.34	4.89
5700	71.41	5.29	68.61	5.12
5750	72.46	5.17	69.55	5.03
5800	73.57	5.28	70.14	5.16
5850	72.68	5.21	69.28	4.94

4.2 ANT 5.8G

	Ant 5		Ant 6	
Freq (MHz)	Effi (%)	Gain (dBi)	Effi (%)	Gain (dBi)
5150	74.46	5.09	73.29	5.09
5200	75.26	5.18	72.27	5.42
5250	74.02	5.31	71.5	5.42
5300	72.2	4.93	73.36	5.26
5350	76.41	4.86	74.85	5.26
5400	75.03	5.1	71.91	5.1
5450	75.62	5.17	73.61	5.17
5500	74.87	4.57	73.37	5.42
5550	74.41	4.47	74.88	5.42
5600	74.39	4.88	74.67	5.28
5650	75.26	5.03	71.43	5.03
5700	75.71	5.42	73.51	5.42
5750	74.87	4.79	74.41	4.79
5800	73.04	5.1	73.12	5.1
5850	73.06	4.89	71.75	5.37