天线测试报告

Antenna Testing report

日期
DATE: 2023. 05. 08

版本
REV.: V01

客　户
CUSTOMER: 同维

客户料号
CUSTOMER P/N:

品　名
PART NAME: DZS2428

供方料号
SUPPLIER P/N:

送样日期 Date:

送样数量 Q'TY:

客户确认 CUSTOMER APPROVED BY		
工程研发部	生产采购部	承认
ENGINEER R&D DEPT	BUSSINESS DEPT	APPROVED BY

供方确认 SUPPLIER SIGNATURE		
研发部	工程部	批准
ENGINEER R&D DEPT	ENGINEER R&D DEPT	APPROVAL
TongLongxiang	Tom.	Huiping Feng

CONTENTS

Item Description Page

1. … ……cover…….....1

2. ….……....Test Report ……5-32

a. Manufacturer： Shenzhen be-comfortable technology.co.,LTD；
Address： No.1606,Build C6,HengFeng industrial city,xixiang street,baoan district,Shenzhen.

b.Antenna model： DZS2428(2.4G&5GWIFI Antenna)； Antenna type： PCB antenna

c.Test software version： AMS_V51_8G

d.Antenna testing laboratory： Yimai electromagnetic 24 probe spherical near-field antenna test system；

Test instruments ： E5071C； Calibration date:2022.11.12~2023.11.12

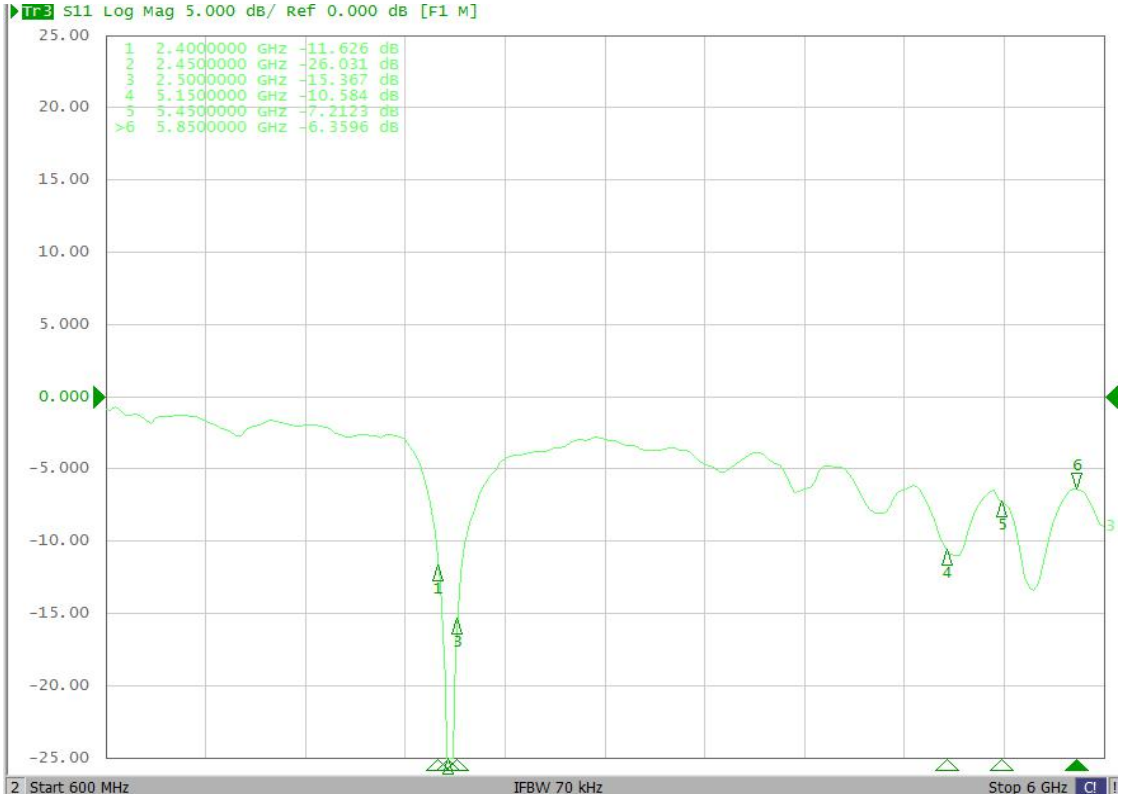
e.Testing Engineer ： Tong Longxiang Test date： 2023.3.15

1.Test enviroment

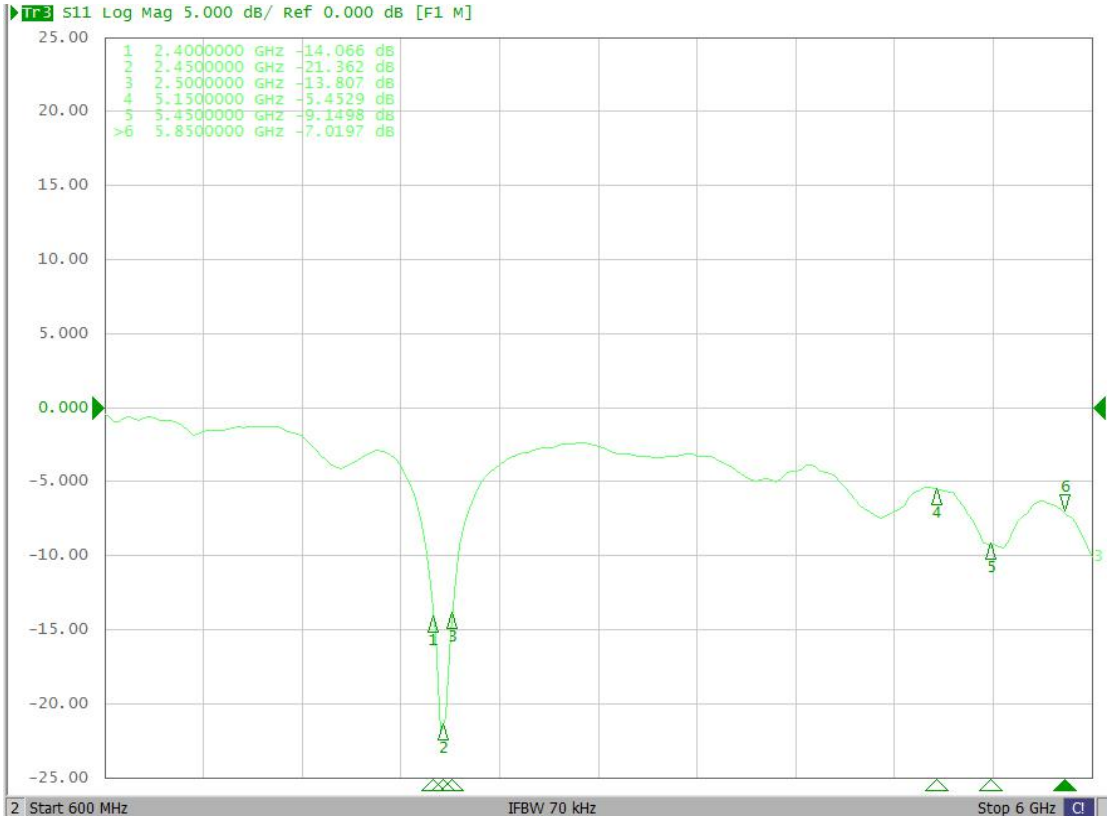
Agilent Technologies E5071C

2. S11

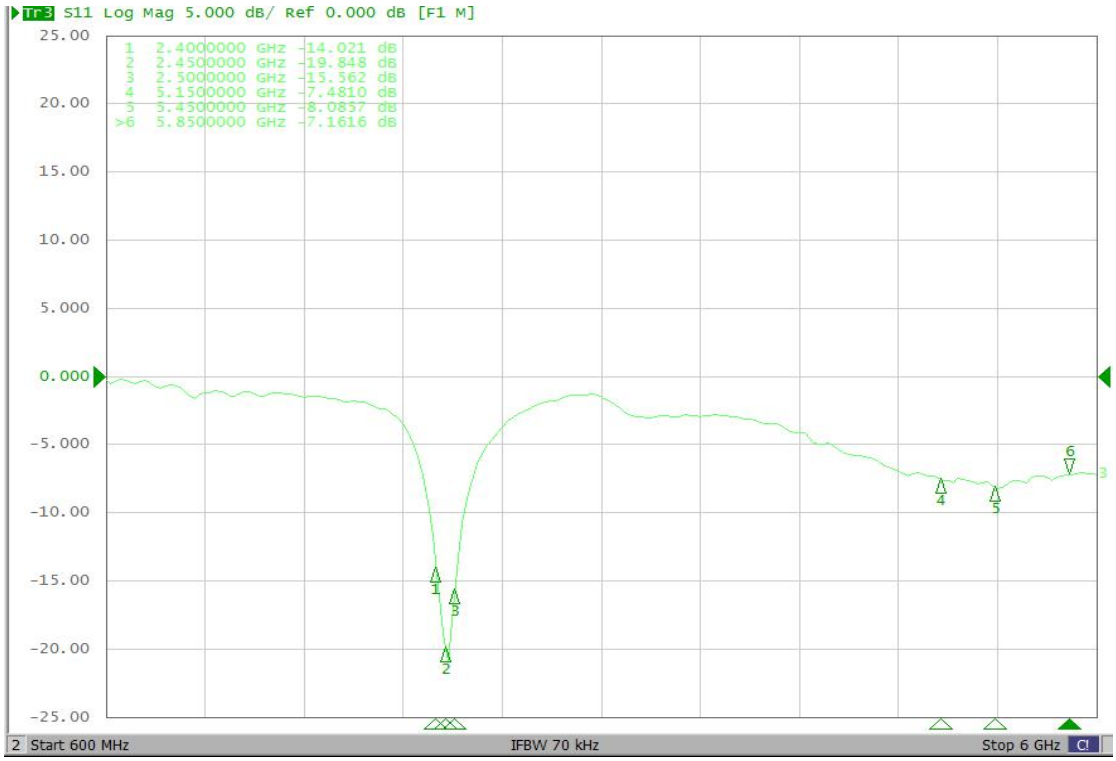
2.4G-ANTO



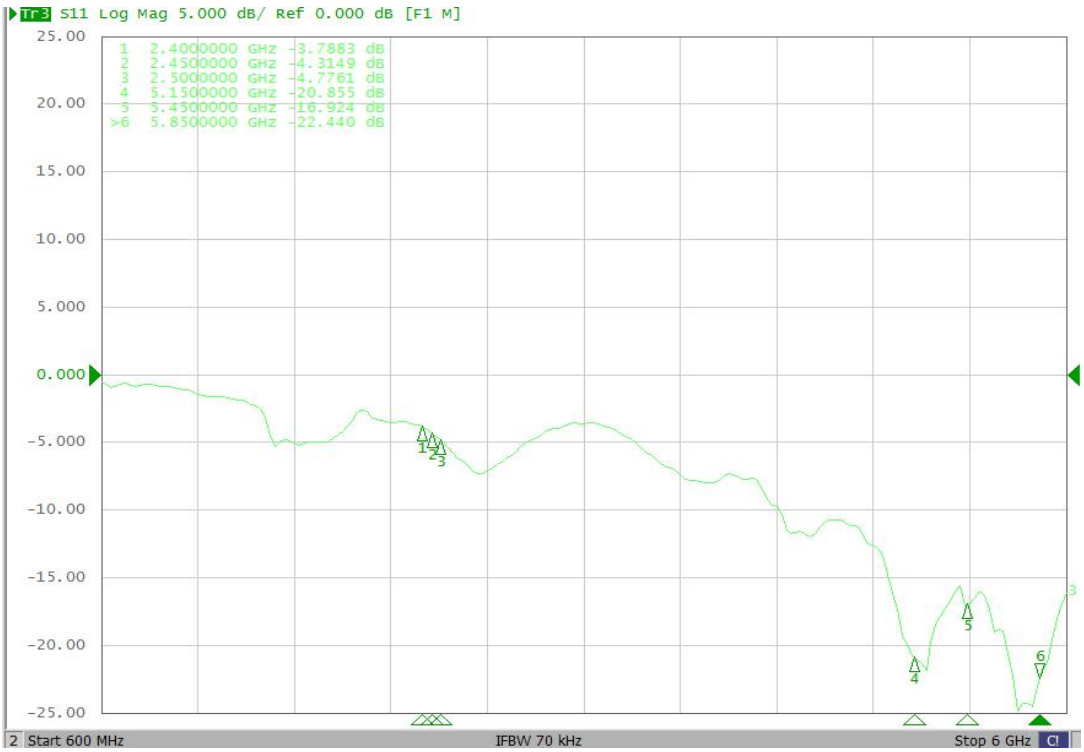
2.4G-ANT1


Tr3 S11 Log Mag 5.000 dB/ Ref 0.000 dB [F1 M]
1 2.4000000 GHz -14.066 dB
2 2.4500000 GHz -21.362 dB
3 2.5000000 GHz -13.807 dB
4 5.1500000 GHz -5.4529 dB
5 5.4500000 GHz -9.1498 dB
>6 5.8500000 GHz -7.0197 dB
25.00
20.00
15.00
10.00
5.000
0.000
-5.000
-10.00
-15.00
-20.00
-25.00
2 Start 600 MHz
IFBW 70 kHz
Stop 6 GHz

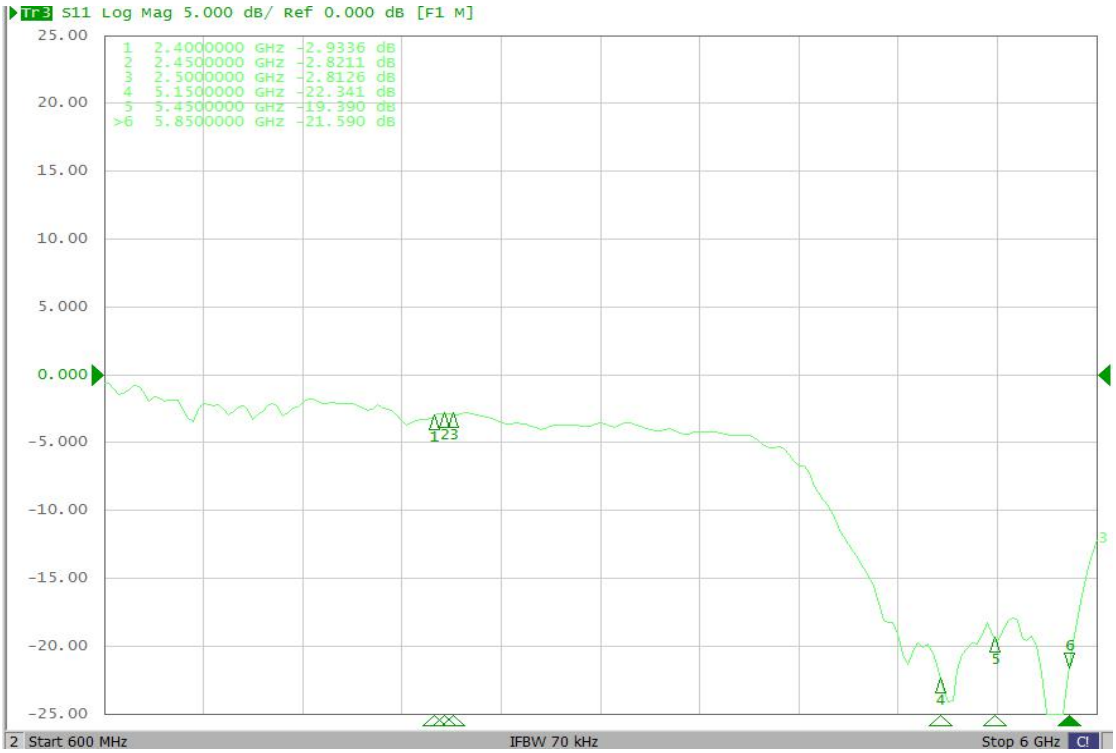
2.4G-ANT2


Tr3 S11 Log Mag 5.000 dB/ Ref 0.000 dB [F1 M]
1 2.4000000 GHz -14.021 dB
2 2.4500000 GHz -19.848 dB
3 2.5000000 GHz -15.562 dB
4 5.1500000 GHz -7.4810 dB
5 5.4500000 GHz -8.0857 dB
>6 5.8500000 GHz -7.1616 dB
25.00
20.00
15.00
10.00
5.000
0.000
-5.000
-10.00
-15.00
-20.00
-25.00
2 Start 600 MHz
IFBW 70 kHz
Stop 6 GHz

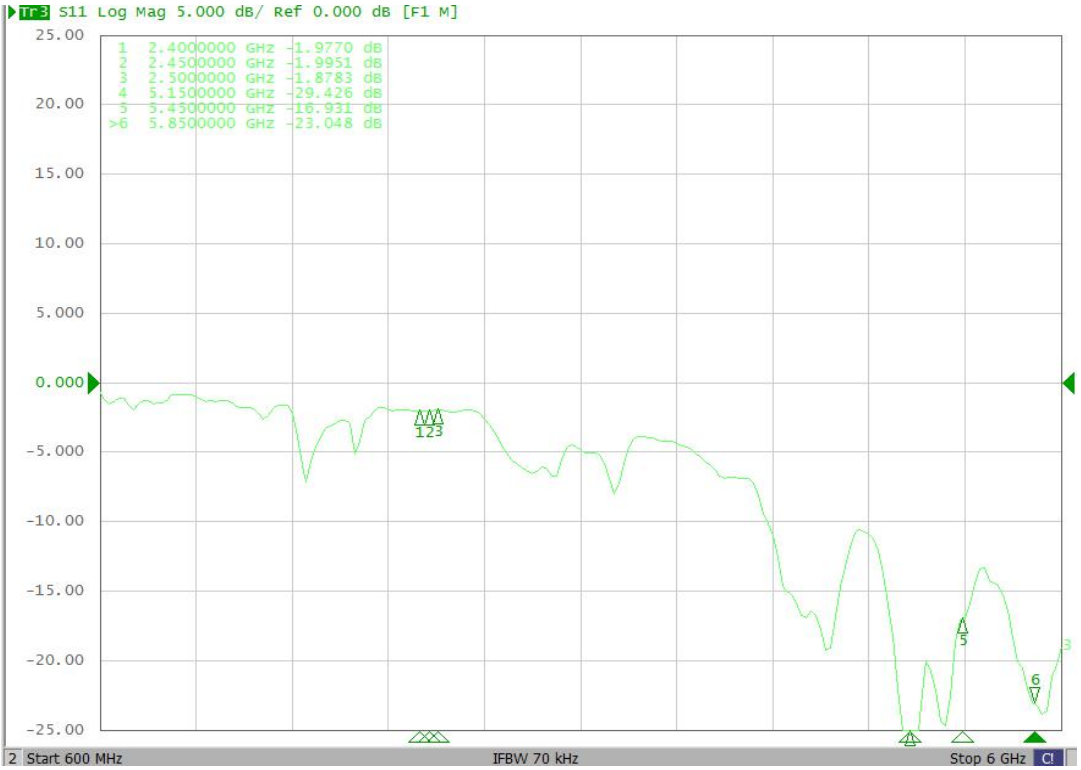
5G-ANTO


Tr3 S11 Log Mag 5.000 dB/ Ref 0.000 dB [F1 M]
1 2.4000000 GHz -3.7883 dB
2 2.4500000 GHz -4.3149 dB
3 2.5000000 GHz -4.7761 dB
4 5.1500000 GHz -20.855 dB
5 5.4500000 GHz -16.924 dB
>6 5.8500000 GHz -22.440 dB
25.00
20.00
15.00
10.00
5.000
0.000
-5.000
-10.00
-15.00
-20.00
-25.00
2 Start 600 MHz
IFBW 70 kHz
Stop 6 GHz

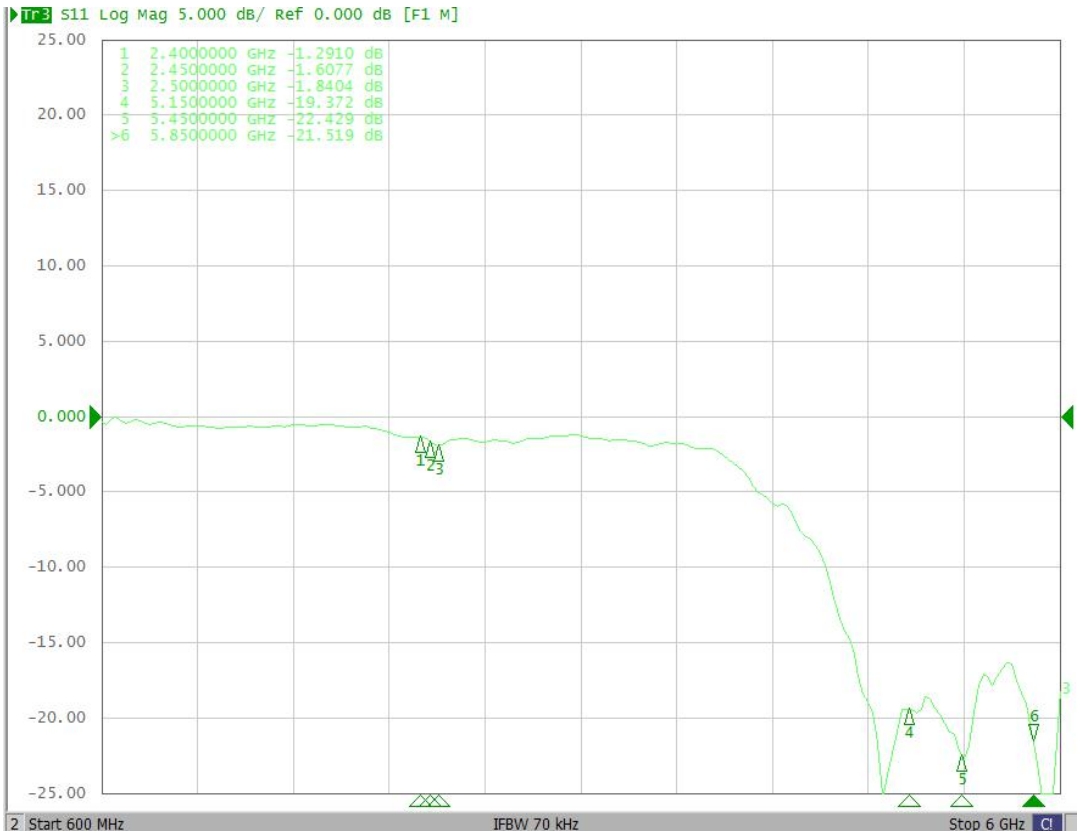
5G-ANT1


Tr3 S11 Log Mag 5.000 dB/ Ref 0.000 dB [F1 M]
1 2.4000000 GHz -2.9336 dB
2 2.4500000 GHz -2.8211 dB
3 2.5000000 GHz -2.8126 dB
4 5.1500000 GHz -22.341 dB
5 5.4500000 GHz -19.390 dB
>6 5.8500000 GHz -21.590 dB
25.00
20.00
15.00
10.00
5.000
0.000
-5.000
-10.00
-15.00
-20.00
-25.00
2 Start 600 MHz
IFBW 70 kHz
Stop 6 GHz

5G-ANT2


Tr3 S11 Log Mag 5.000 dB/ Ref 0.000 dB [F1 M]
1 2.4000000 GHz -1.9770 dB
2 2.4500000 GHz -1.9951 dB
3 2.5000000 GHz -1.8783 dB
4 5.1500000 GHz -29.426 dB
5 5.4500000 GHz -16.931 dB
>6 5.8500000 GHz -23.048 dB
25.00
20.00
15.00
10.00
5.000
0.000
-5.000
-10.00
-15.00
-20.00
-25.00
2 Start 600 MHz
IFBW 70 kHz
Stop 6 GHz

5G-ANT3


Tr3 S11 Log Mag 5.000 dB/ Ref 0.000 dB [F1 M]
1 2.4000000 GHz -1.2910 dB
2 2.4500000 GHz -1.6077 dB
3 2.5000000 GHz -1.8404 dB
4 5.1500000 GHz -19.372 dB
5 5.4500000 GHz -22.429 dB
>6 5.8500000 GHz -21.519 dB
25.00
20.00
15.00
10.00
5.000
0.000
-5.000
-10.00
-15.00
-20.00
-25.00
2 Start 600 MHz
IFBW 70 kHz
Stop 6 GHz

3. Peak Gain & Efficiency

2.4G-ANT0

Frequency (MHz)	Gain(dBi)	Efficiency(%)
2400	3.44	68.95
2410	3.38	67.85
2420	3.40	68.18
2430	3.43	69.47
2440	3.52	70.87
2450	3.33	68.66
2460	3.40	68.57
2470	3.38	67.65
2480	3.35	67.46
2490	3.30	66.95
2500	3.42	68.89

2.4G-ANT1

Frequency (MHz)	Gain(dBi)	Efficiency(%)
2400	3.46	67.27
2410	3.43	67.02
2420	3.50	68.39
2430	3.39	66.94
2440	3.60	70.02
2450	3.53	69.68
2460	3.39	67.27
2470	3.21	66.65
2480	3.34	67.65
2490	3.47	68.54
2500	3.35	67.84

2.4G-ANT2

Frequency (MHz)	Gain(dBi)	Efficiency(%)
2400	3.44	67.57
2410	3.50	67.12
2420	3.59	68.61
2430	3.42	66.35
2440	3.49	68.02
2450	3.61	70.06
2460	3.55	69.28
2470	3.47	67.57
2480	3.39	66.88
2490	3.45	67.11
2500	3.40	66.53

5G-ANTO

Frequency (MHz)	Gain(dBi)	Efficiency(%)
5100	4.44	66.74
5200	4.57	67.66
5300	4.61	67.47
5400	4.67	70.29
5500	4.70	69.05
5600	4.57	66.23
5700	4.51	66.66
5800	4.60	68.93
5900	4.41	67.32

5G-ANT1

Frequency (MHz)	Gain(dBi)	Efficiency(%)
5100	4.47	67.18
5200	4.36	66.87
5300	4.67	69.69
5400	4.58	68.27
5500	4.69	70.37
5600	4.52	67.19
5700	4.58	69.27
5800	4.49	67.45
5900	4.42	66.97

5G-ANT2

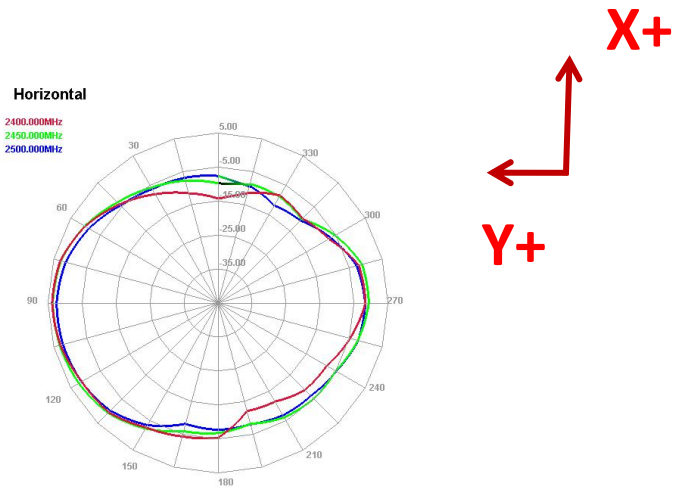
Frequency (MHz)	Gain(dBi)	Efficiency(%)
5100	4.55	70.36
5200	4.33	67.45
5300	4.36	68.01
5400	4.58	69.33
5500	4.67	70.00
5600	4.35	67.04
5700	4.30	67.04
5800	4.41	69.63
5900	4.55	68.21

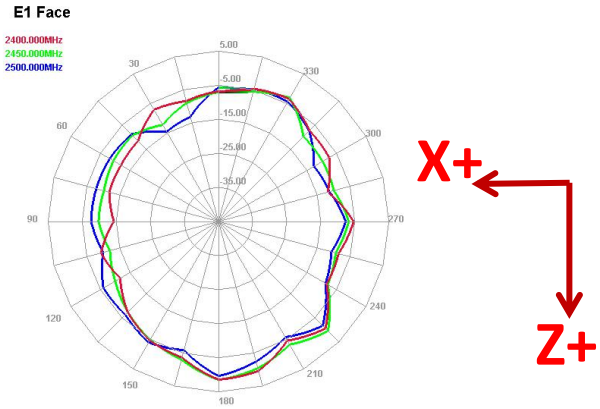
5G-ANT3

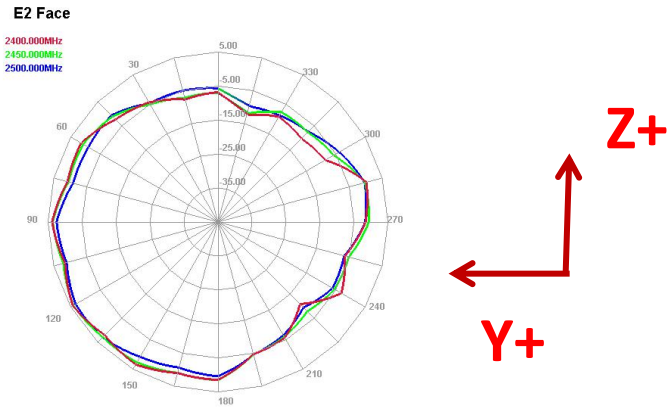
Frequency (MHz)	Gain(dBi)	Efficiency(%)
5100	4.31	67.26
5200	4.57	69.03
5300	4.44	67.49
5400	4.49	70.40
5500	4.57	69.38
5600	4.67	68.71
5700	4.52	69.97
5800	4.36	67.76
5900	4.49	67.28

4. 2D

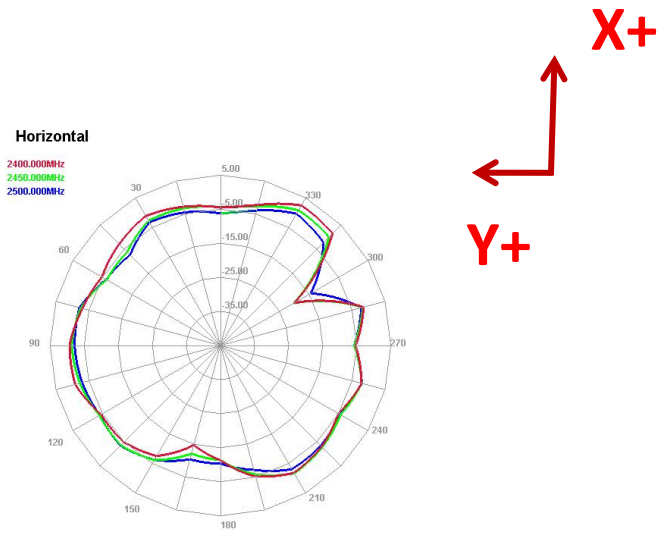
2.4G-0

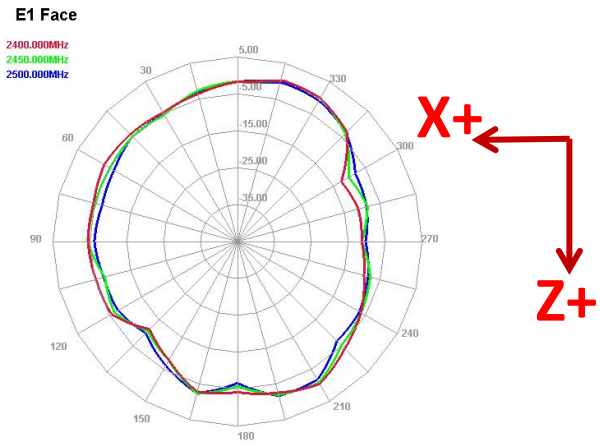

Horizontal
2400.000MHz
2450.000MHz
2500.000MHz
X+
Y+

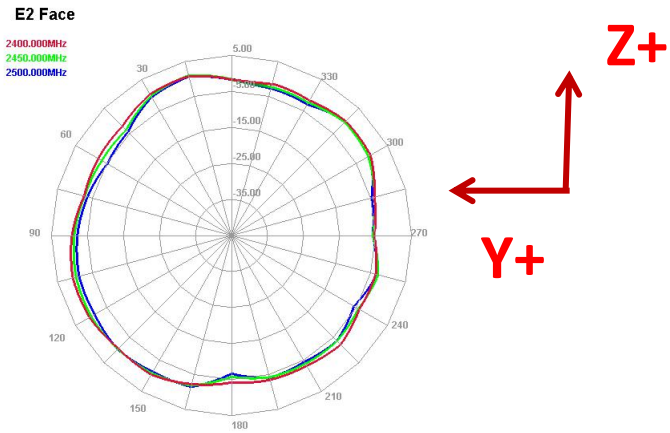

E1 Face
2400.000MHz
2450.000MHz
2500.000MHz
X+
Z+


E2 Face
2400.000MHz
2450.000MHz
2500.000MHz
Z+
Y+

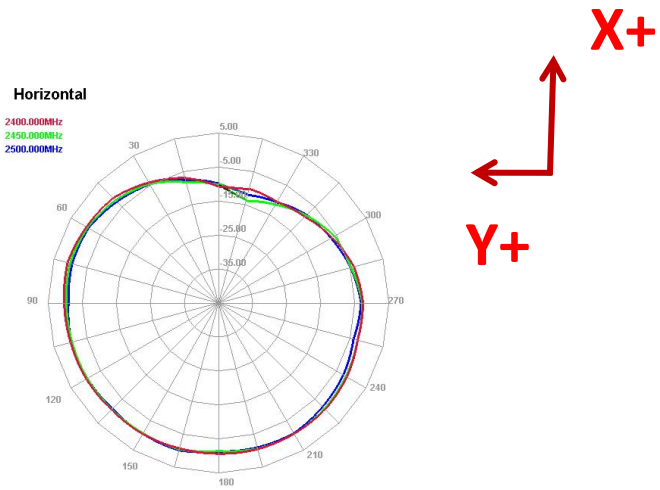
2.4G-1

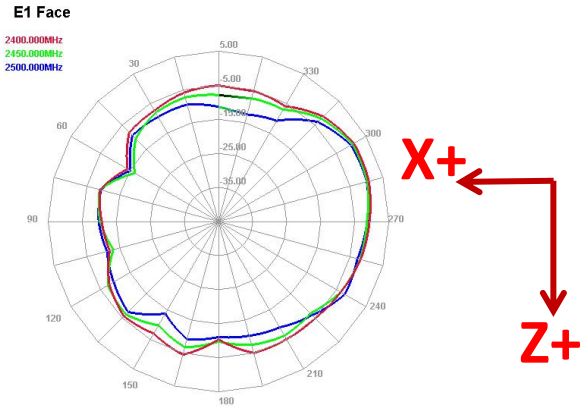

Horizontal
2400.000MHz
2450.000MHz
2500.000MHz
X+
Y+

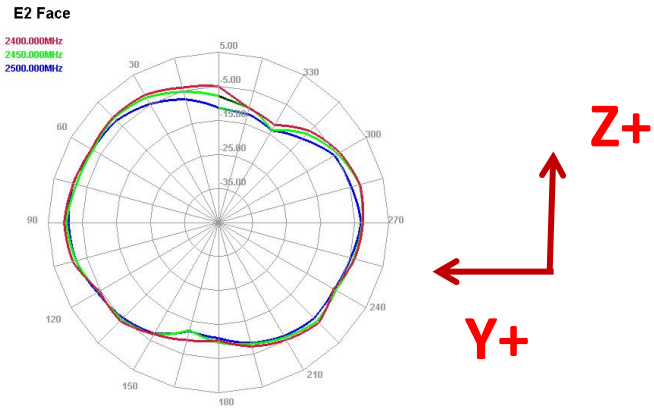

E1 Face
2400.000MHz
2450.000MHz
2500.000MHz
X+
Z+


E2 Face
2400.000MHz
2450.000MHz
2500.000MHz
Z+
Y+

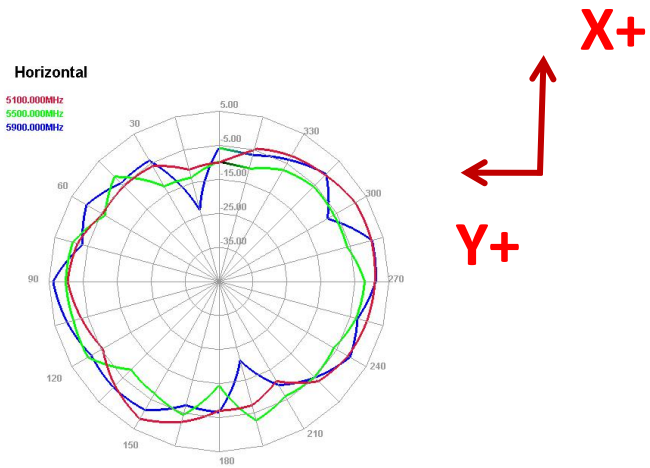
2.4G-2

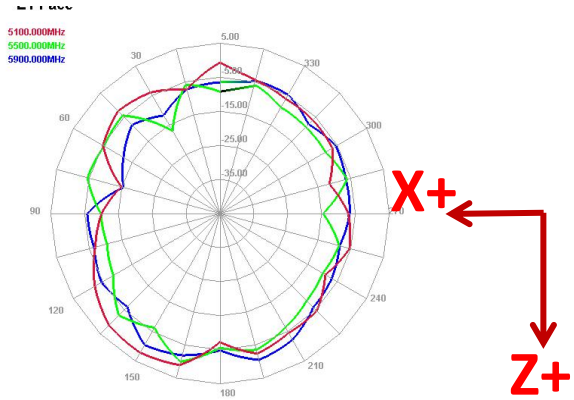

Horizontal
2400.000MHz
2450.000MHz
2500.000MHz
X+
Y+

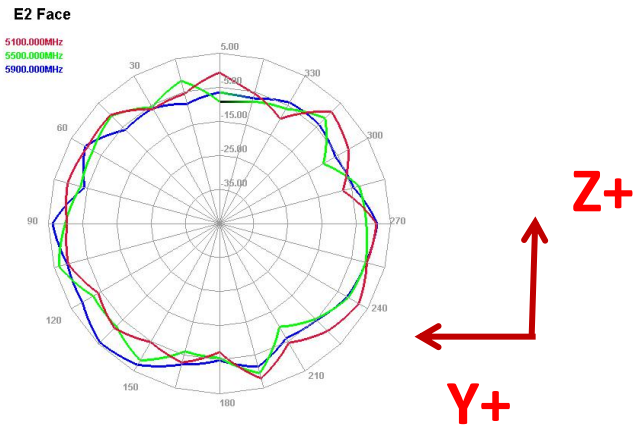

E1 Face
2400.000MHz
2450.000MHz
2500.000MHz
X+
Z+


E2 Face
2400.000MHz
2450.000MHz
2500.000MHz
Z+
Y+

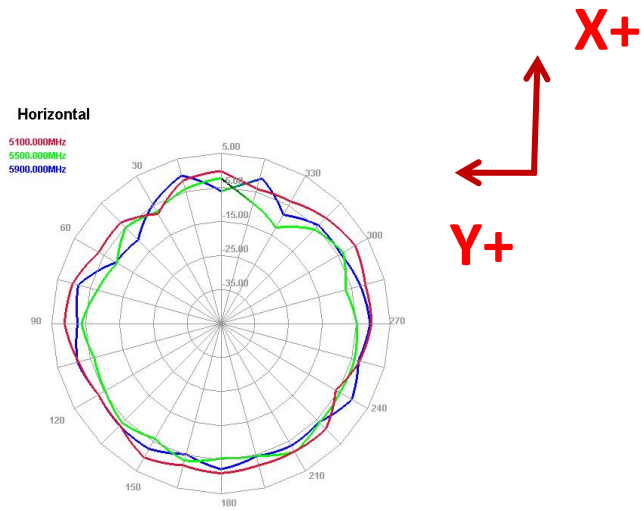
5G-O

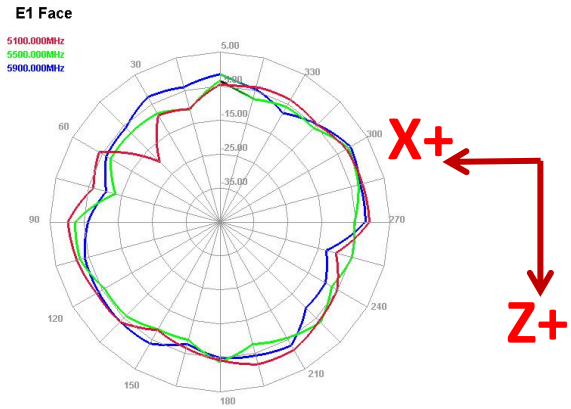

Horizontal
5100.000MHz
5500.000MHz
5900.000MHz
X+
Y+

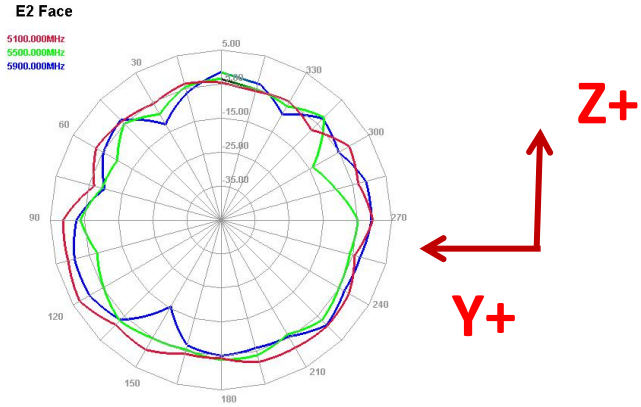

5100.000MHz
5500.000MHz
5900.000MHz
X+
Z+


E2 Face
5100.000MHz
5500.000MHz
5900.000MHz
Z+
Y+

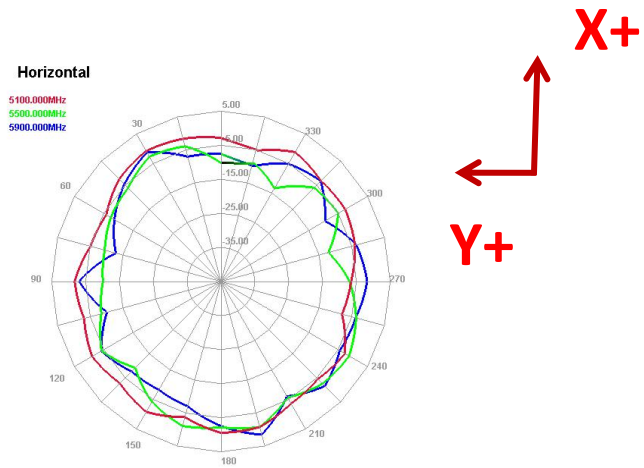
5G-1

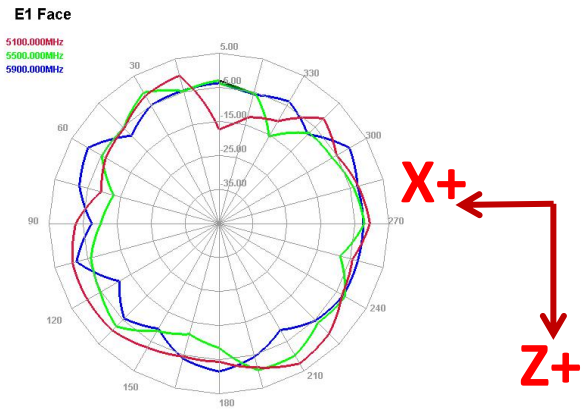

Horizontal
5100.000MHz
5500.000MHz
5900.000MHz
X+
Y+

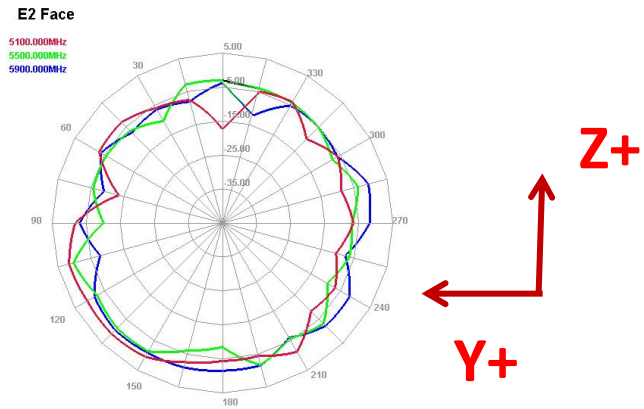

E1 Face
5100.000MHz
5500.000MHz
5900.000MHz
X+
Z+


E2 Face
5100.000MHz
5500.000MHz
5900.000MHz
Z+
Y+

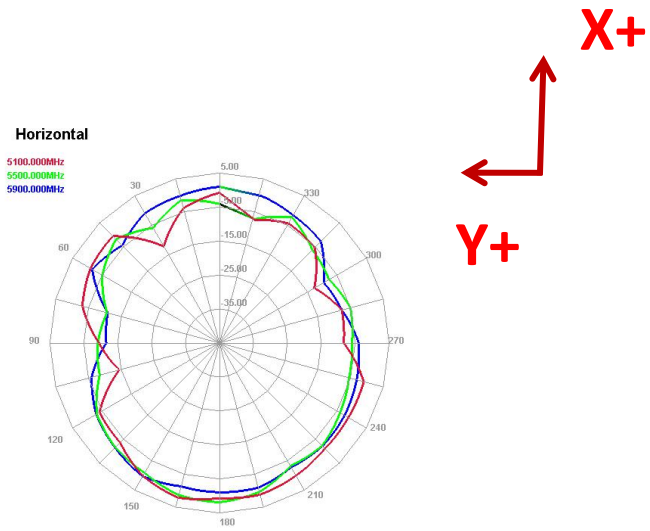
5G-2

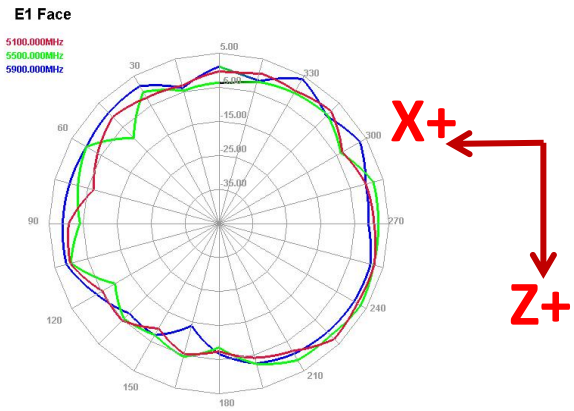

Horizontal
5100.000MHz
5500.000MHz
5900.000MHz
X+
Y+

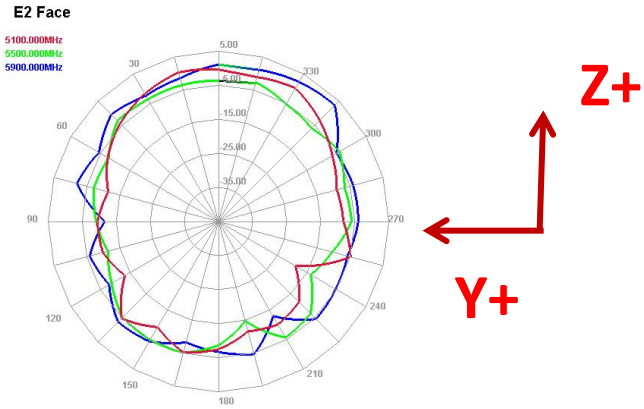

E1 Face
5100.000MHz
5500.000MHz
5900.000MHz
X+
Z+


E2 Face
5100.000MHz
5500.000MHz
5900.000MHz
Z+
Y+

5G-3

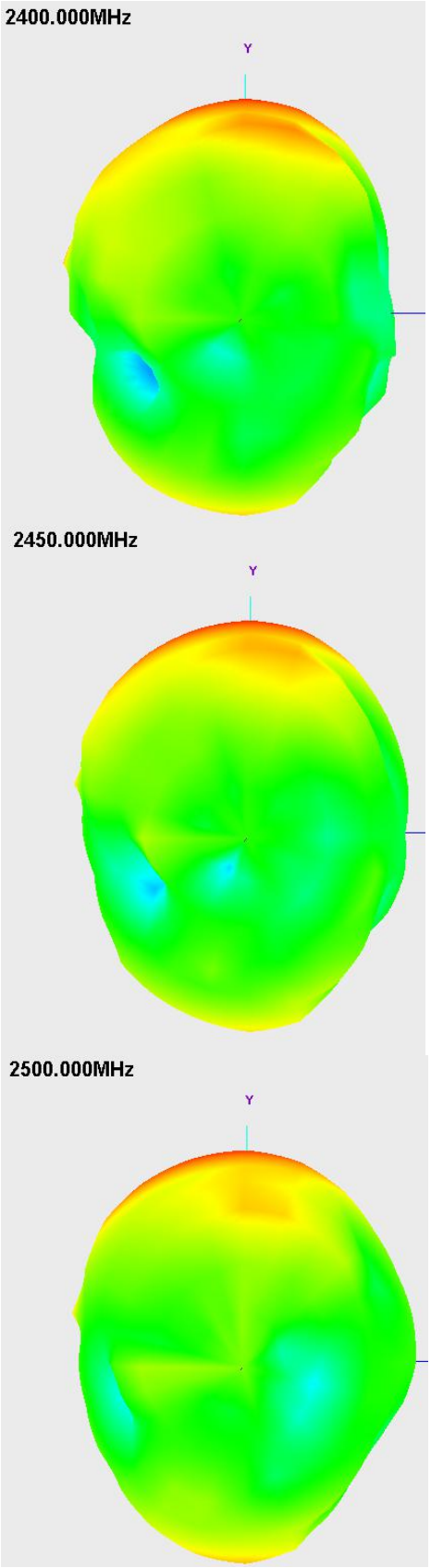

Horizontal
5100.000MHz
5500.000MHz
5900.000MHz
X+
Y+


E1 Face
5100.000MHz
5500.000MHz
5900.000MHz
X+
Z+

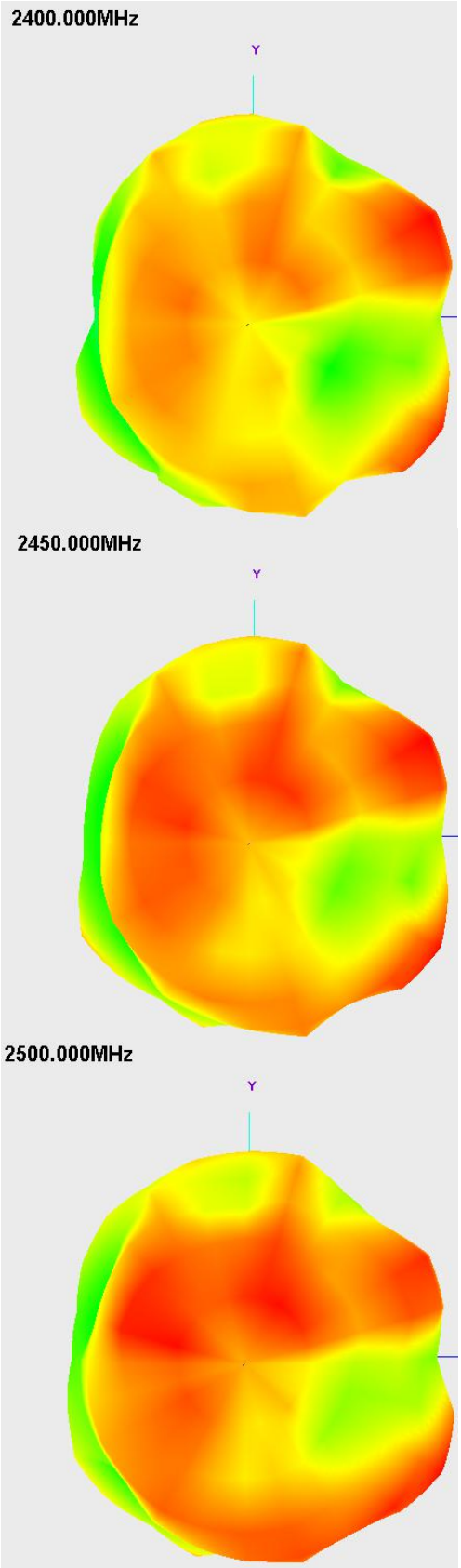

E2 Face
5100.000MHz
5500.000MHz
5900.000MHz
Z+
Y+

5. 3D

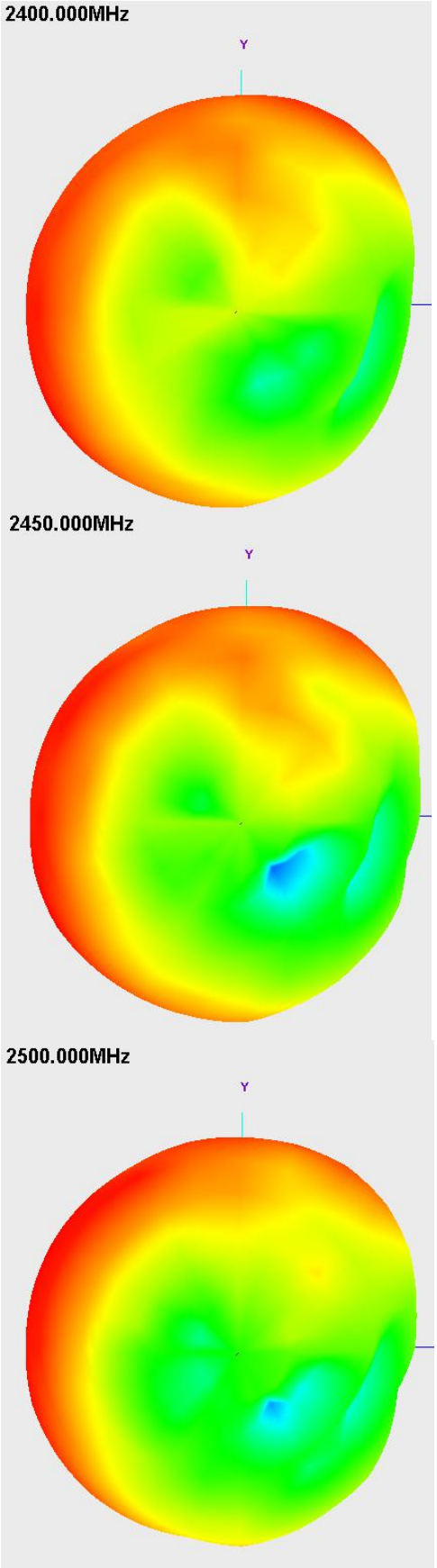
2.4G-0



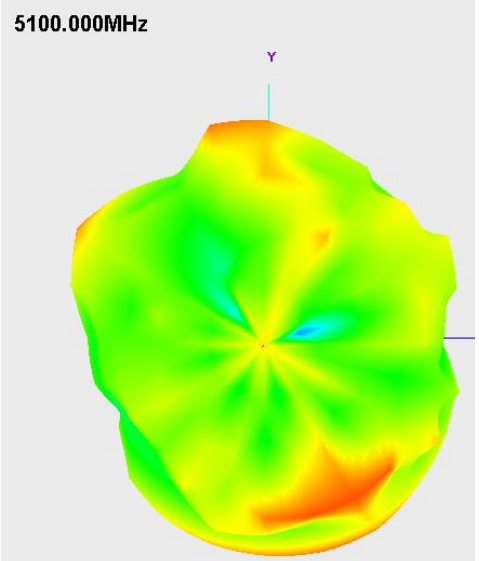
2.4G-1

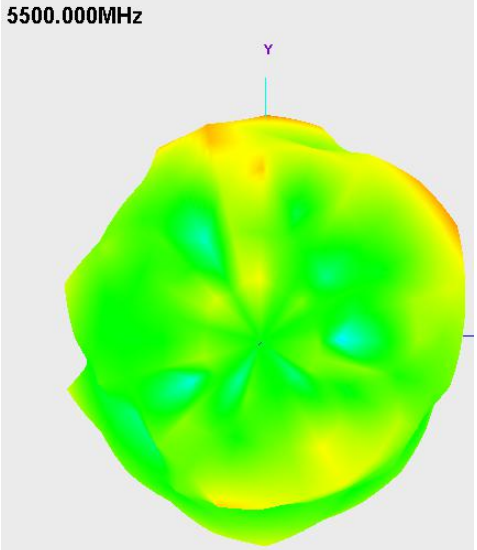


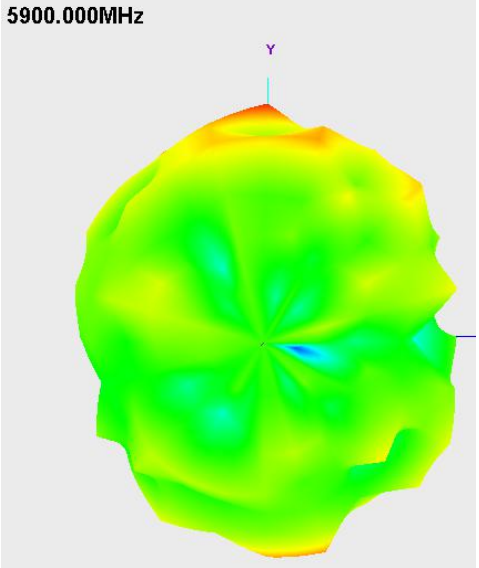
2.4G-2



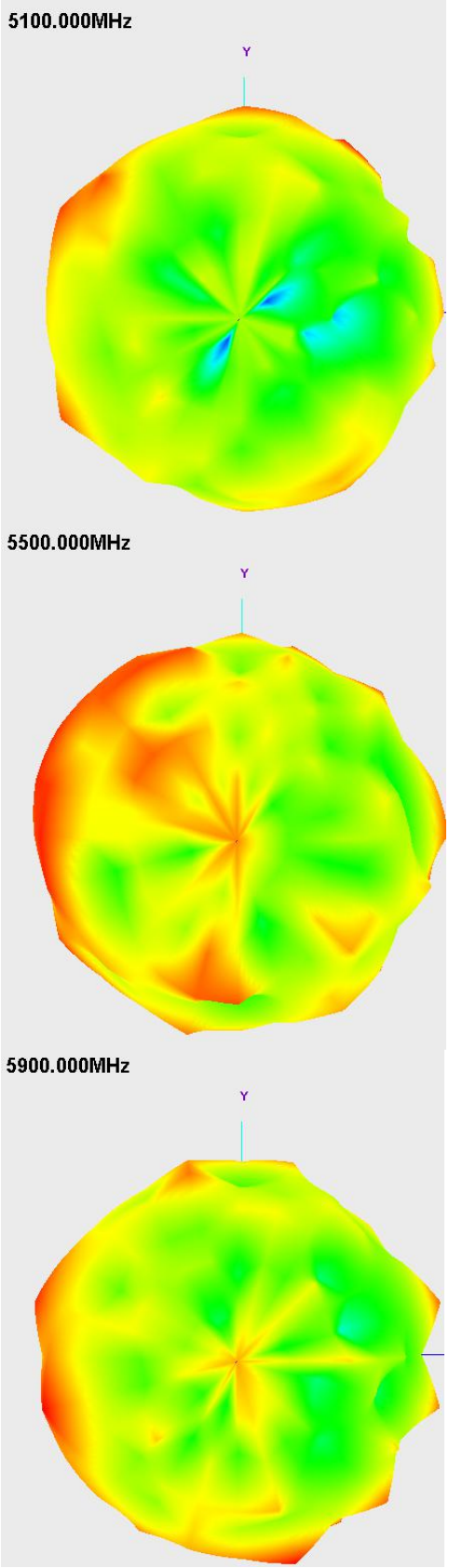
5G-O



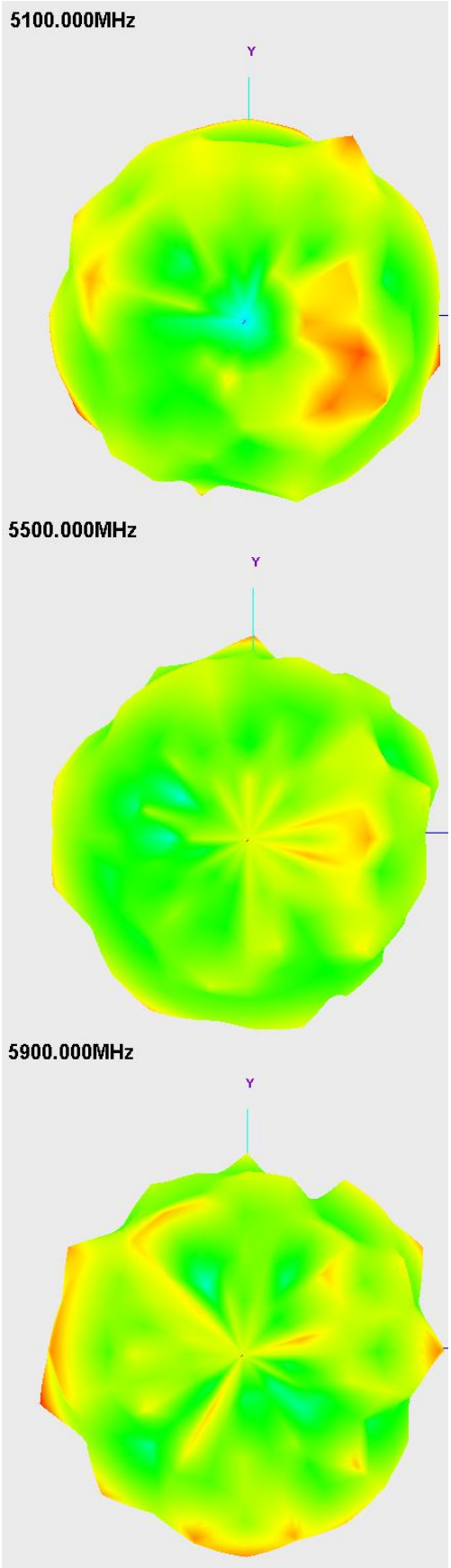
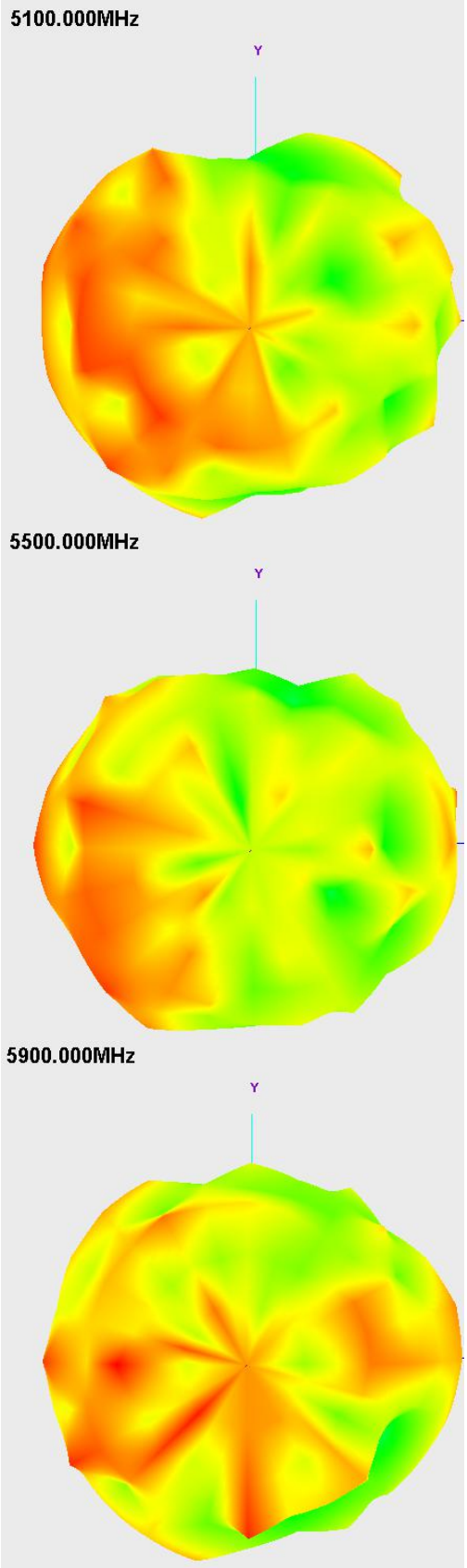




5G-1



5G-2



5G-3