Shenzhen Saiwei Communication Technology Co., Ltd

Antenna Specifications

Customer Name: Tai Lefeng
Project name: S33-4G
Reporting time: 20250408

Saiwei - Sai is far away, and Wei is eternal!

Catalogue

- Introduction to project debugging
- Report version feed
- Test environment
- Main antenna matching circuit
- Main antenna dark room data
- Additional instructions

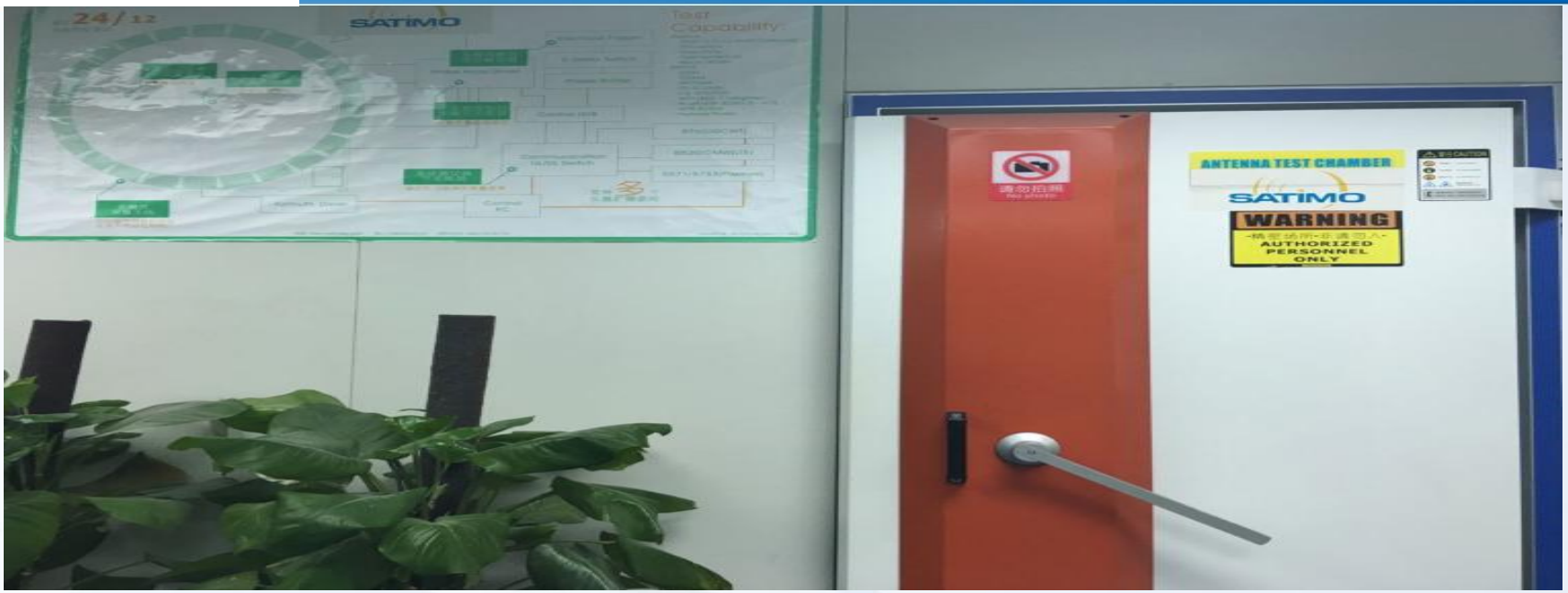
Introduction to project debugging

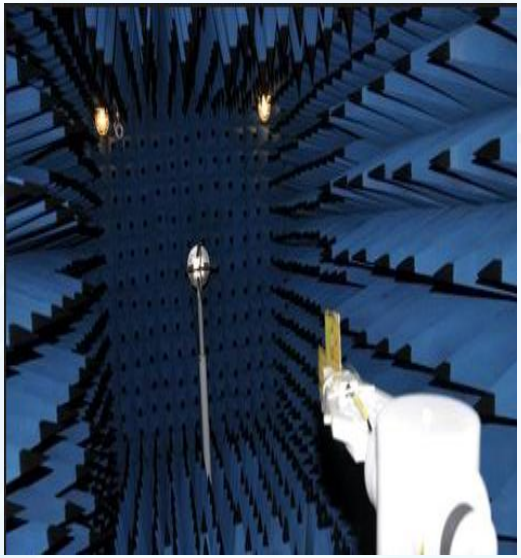
Type	Smart phone						
Plate type	Motherboard						
Antenna Overview	Main antenna	Frequency band		Premature line status	Yao line form	Design area	Matching changes
		2G	850/900 1800/1900	FPC	PIFA		
		3G	B1/2/4/5/8				
		4G	1/2/3/4/5/7/8/ /12/17/20/25/2 6/28A/28B/38/ 39/40/41/66				
	Other antennas	BT/WIFI	2.4G/5G		PIFA		
		GPS	1.575G				
		Episodes			PIFA		
Prototype status			Environmental treatment				

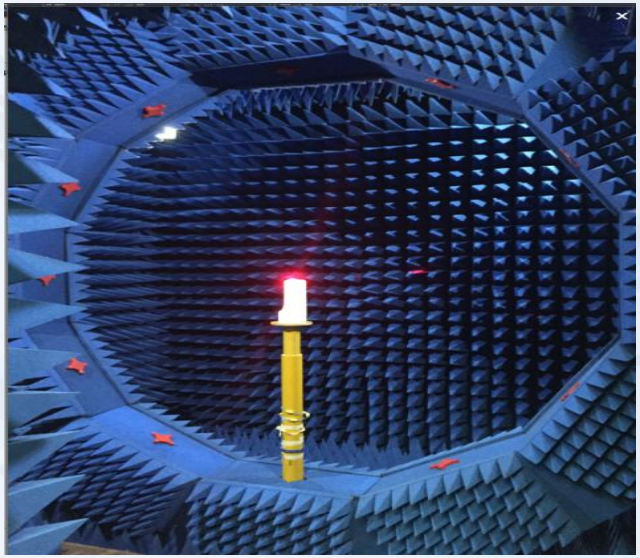
Report version feed

Edition	Date	Overview of meat
V1	20250408	Test data

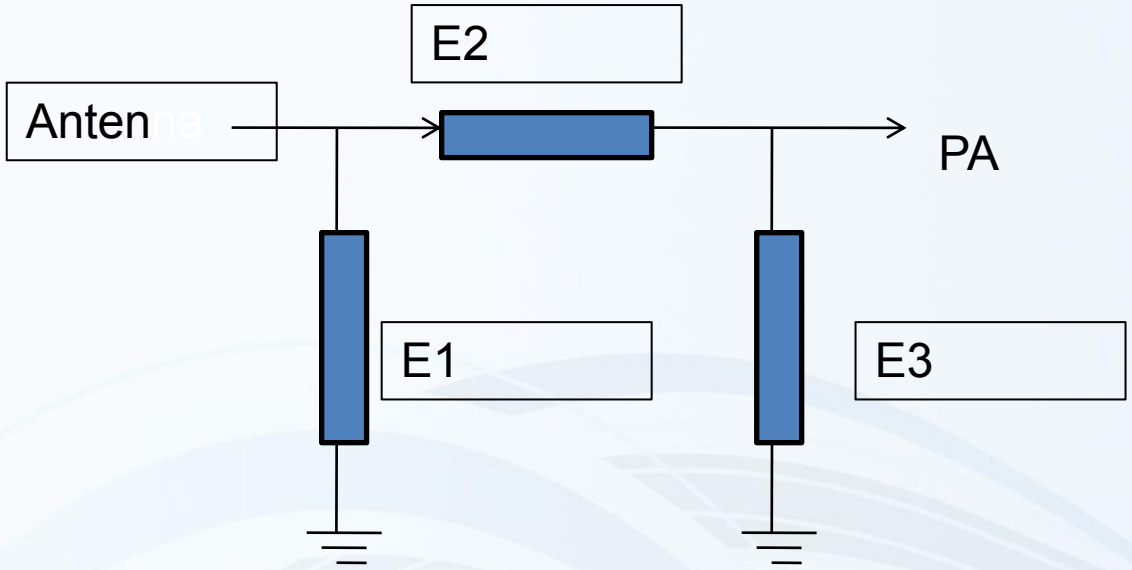
Test environment







Main antenna matching circuit



Element	Value
E1(0402)	N/A
E2(0402)	N/A
E3(0402)	N/A

2G OTA

2G	Channel	TRP(dBm)	TIS(dBm)
850	L	20.3	
	W	21.6	
	H	20.8	-100.3
900	L	22.2	
	W	22.9	
	H	22.3	-96.7
1800	L	20.3	
	W	20.4	
	H	20.8	-99.8
1900	L	20.6	
	W	20.3	
	H	20.2	-96.8

3G OTA

3G	Channel	TRP(dBm)	TIS(dBm)
W1	L	15.3	
	W	14.7	
	H	14.2	-98.6
W2	L	13.9	
	W	14.2	
	H	14.7	-102.2
W4	L	13.2	
	W	13.6	
	H	13.1	-100.6
W5	L	14.1	
	W	13.8	
	H	13.4	-103.2
W8	L	15.1	
	W	15.2	
	H	15.7	-100.6

4G OTA

4G	Channel	TRP(dBm)	TIS(dBm)
B1	L	15.1	
	W	15.2	
	H	15.2	-84.1
B2	L	13.8	
	W	14.6	
	H	14.7	-88.1
B3	L	12.7	
	W	12.3	
	H	13.7	-83.8
B4	L	13.1	
	W	13.6	
	H	12.7	-86.5
B5	L	13.6	
	W	14.1	
	H	14.3	-86.6

4G	Channel	TRP(dBm)	TIS(dBm)
B7	L	14.1	
	W	14.1	
	H	14.6	-88.9
B8	L	15.1	
	W	15.5	
	H	15.6	-84.2
B12	L	10.6	
	W	10.9	
	H	10.6	-80.6
B17	L	10.9	
	W	10.9	
	H	10.5	-80.2
B20	L	14.1	
	W	14.6	
	H	14.5	-87.6

4G OTA

4G	Channel	TRP(dBm)	TIS(dBm)
B25	L	13.2	
	W	13.7	
	H	14.6	-82.3
B26	L	13.5	
	W	14.1	
	H	14.4	-86.5
B28A	L	10.6	
	W	10.2	
	H	10.2	-87.2
B28B	L	10.1	
	W	10.8	
	H	10.1	-88.2
B38	L	16.1	
	W	16.8	
	H	17.1	-85.5

4G	Channel	TRP(dBm)	TIS(dBm)
B39	L	14.5	
	W	14.6	
	H	14.5	-86.1
B40	L	14.1	
	W	14.4	
	H	14.5	-84.3
B41	L	15.4	
	W	16.2	
	H	16.5	-83.9
B66	L	12.5	
	W	12.6	
	H	12.6	-82.6

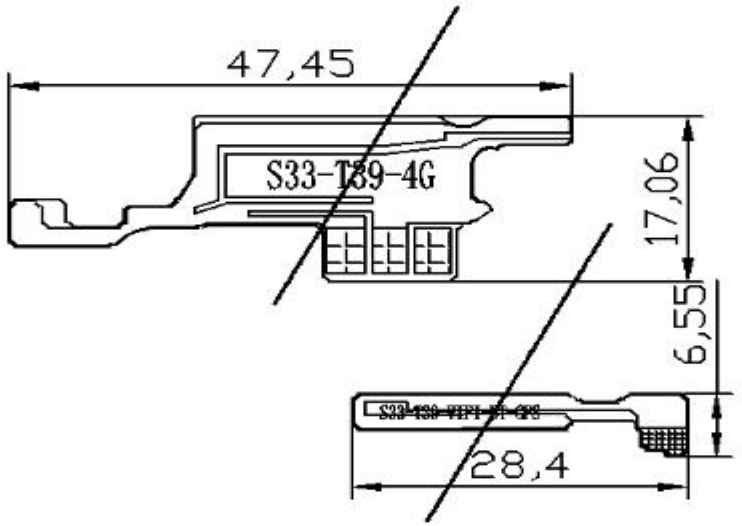
Antenna gain

Standard	Band	Gain(dbi)	Standard	Band	Gain(dbi)
LTE	B1	0.16	LTE	B26	-0.06
LTE	B2	-0.12	LTE	B28A	-0.26
LTE	B3	-0.18	LTE	B28B	-0.28
LTE	B4	-0.16	LTE	B38	0.37
LTE	B5	-0.02	LTE	B39	0.11
LTE	B7	0.06	LTE	B40	0.13
LTE	B8	0.22	LTE	B41	0.24
LTE	B12	-0.22	LTE	B66	-0.11
LTE	B17	-0.26			
LTE	B20	-0.09			
LTE	B25	-0.04			

Antenna gain

Standard	Band	Gain(dbi)
GSM	850	0.22
GSM	900	0.19
GSM	1800	-0.06
GSM	1900	-0.17
WCDMA	W1	0.51
WCDMA	W2	0.28
WCDMA	W4	0.26
WCDMA	W5	0.27
WCDMA	W8	0.22
WIFI	2.4G	0.77
WIFI	5G	0.82
BT	2.4G	0.77
GPS	1.575G	0.29

Antenna specifications



Shenzhen Saiwei Communication Technology Co., Ltd.

No.	Layer	Description(Thickness)	Manufacturer &P/N
1	背 胶	3M9LS8MP(12μm)	九江福来克斯
2	基 材	IUM-900F MH3(10μm)	贝力
3	印 油	Cu(3D) (18μm)+PI (12.5μm)	凯耀

第三角法			
0~10	±0.10	○	0.02
10~20	±0.12	◎	⌀0.08
20~40	±0.15	⊥	0.02
40~	±0.20	▱	0.04
		∠	0.02
请勿实测图纸	位 置		

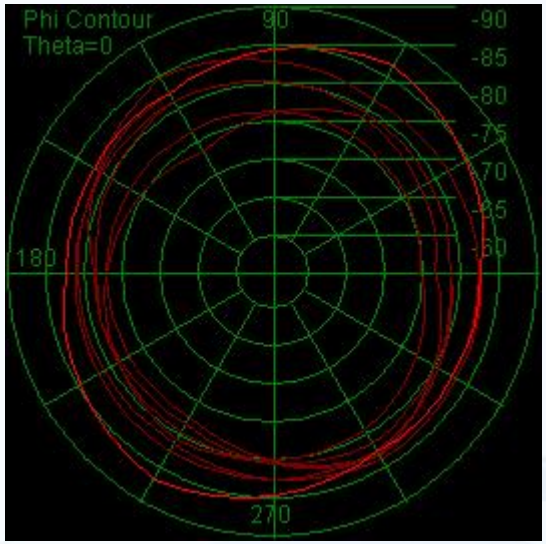
机 种	S33-4G
品 名	GSM天线
料 号	SW37-S33-4G-F
材 质	FPC+3M9471
镀面处理	
外观处理	

日期	2025-2-13	绘图		页码	1 of 1
	设计	审核		核准	
结构					
射频					
	单位	mm	比例	1:1	版本 REV:A

V.1 V.2 V.3 V.4 V.5 V.6

2D picture display

700



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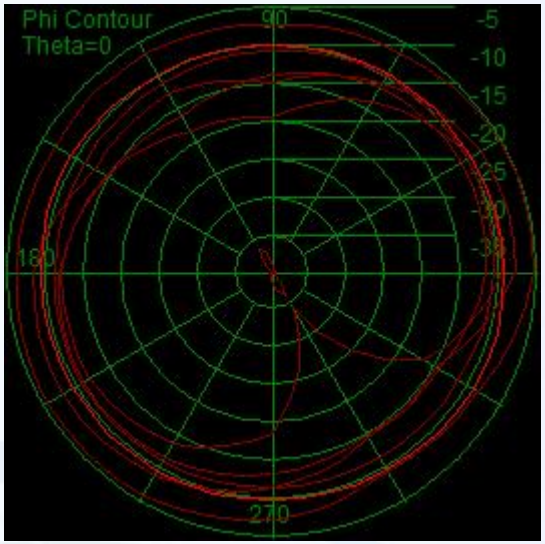

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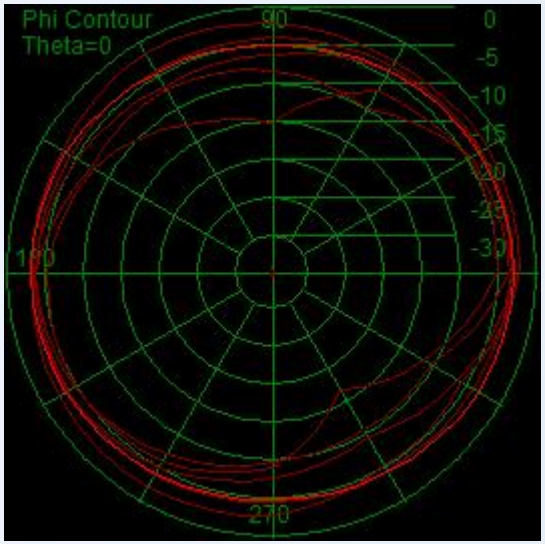

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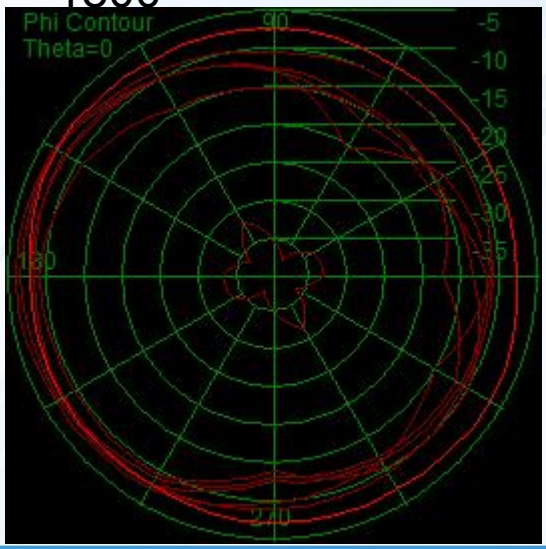

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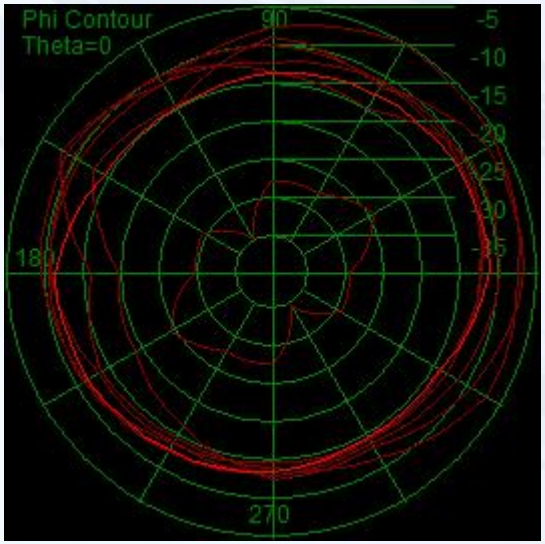

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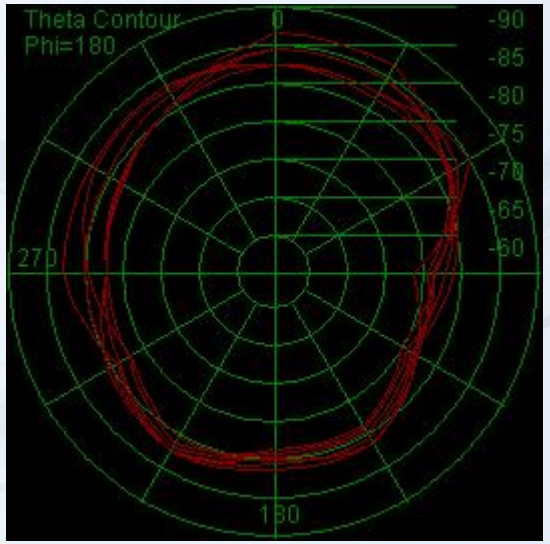

2D picture display

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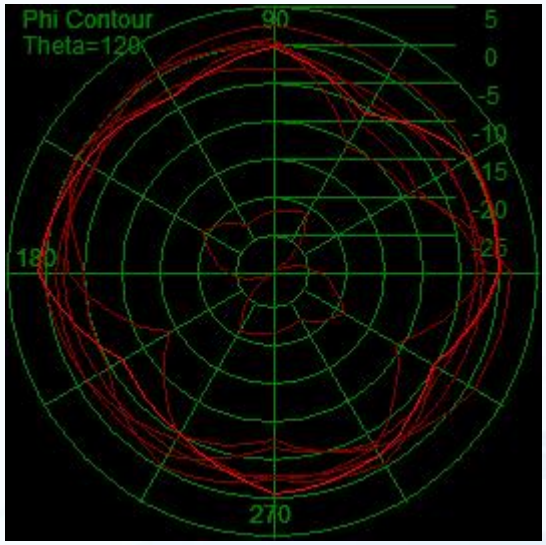

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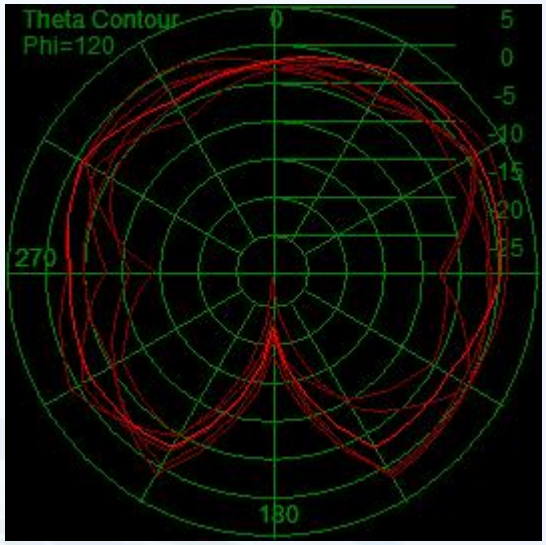
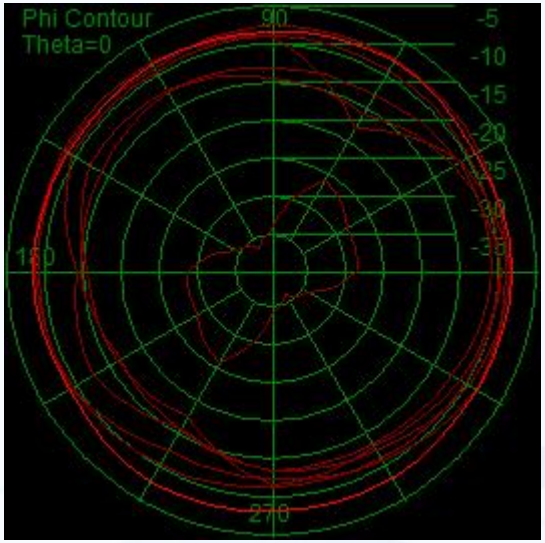


2D picture display

W1



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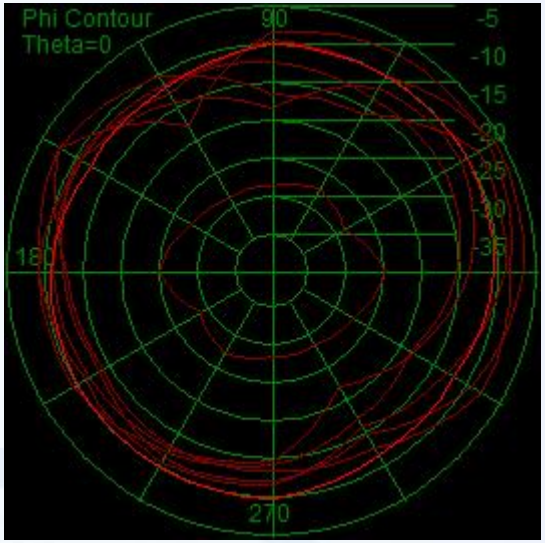

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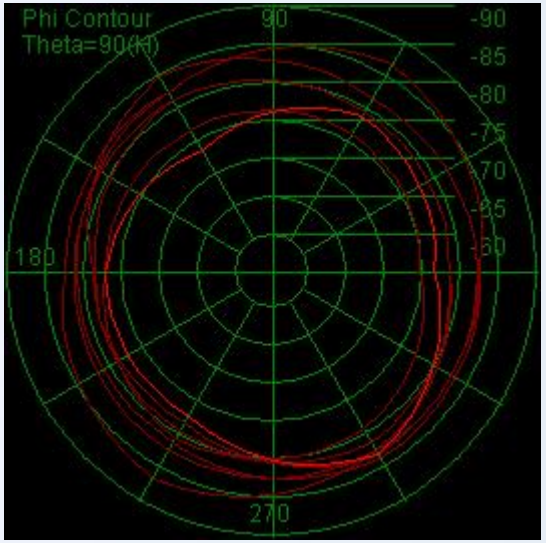

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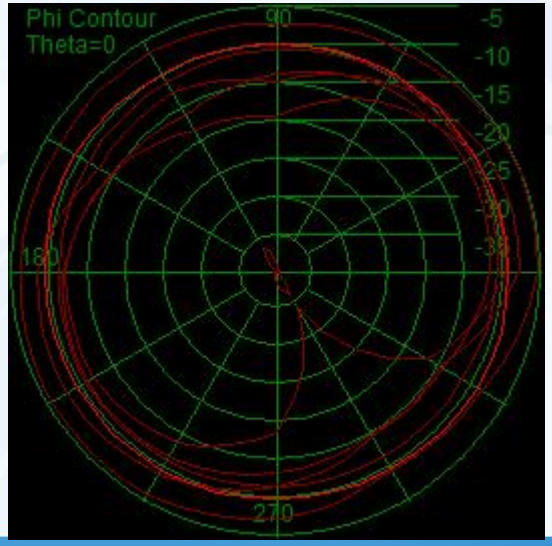

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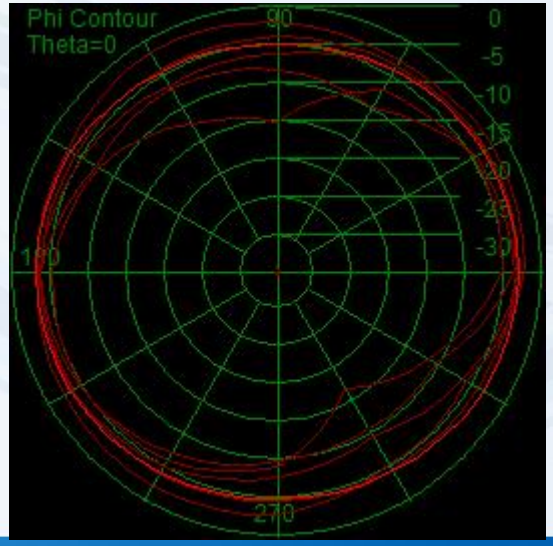
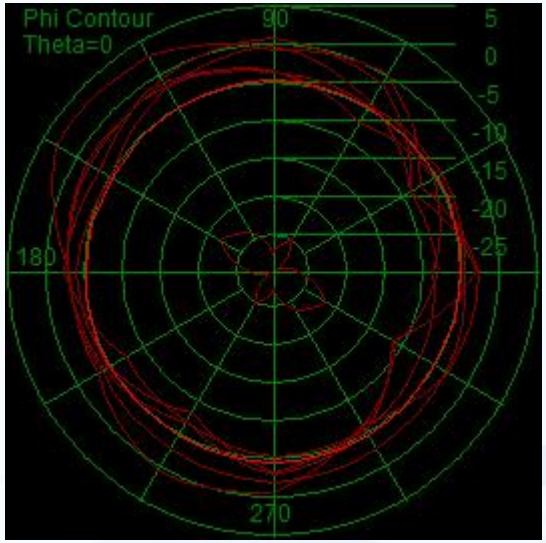
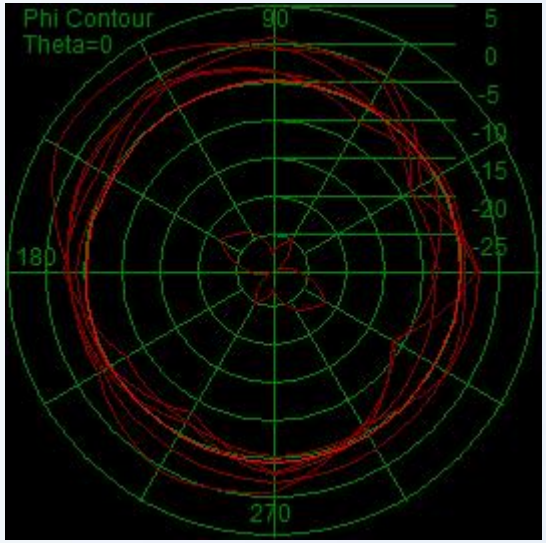


2D picture display

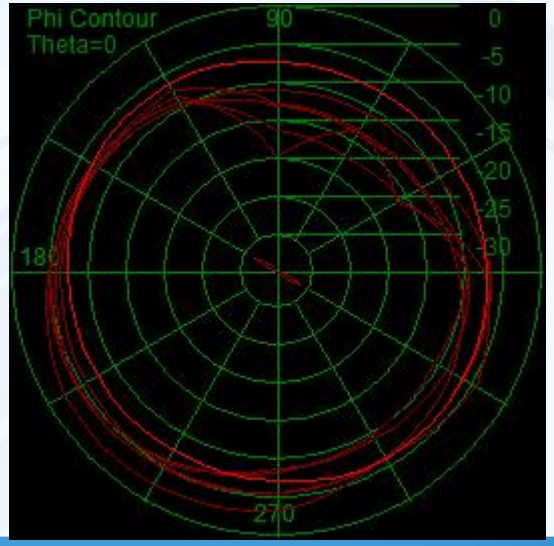
WIFI



BT



GPS



3D picture display

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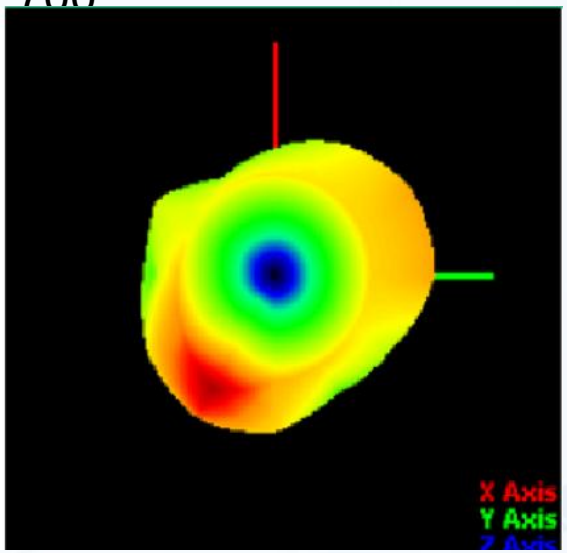

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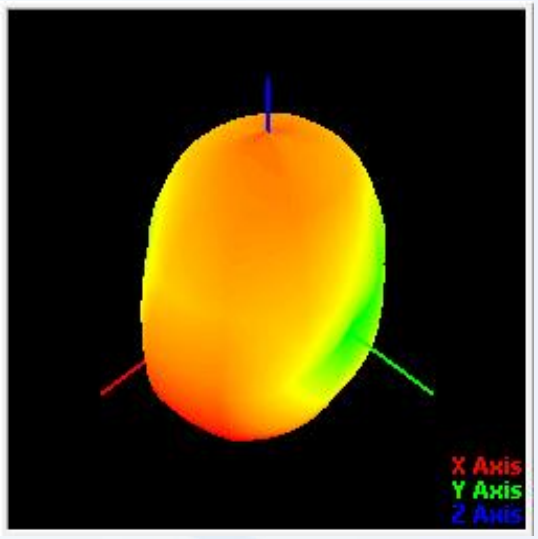

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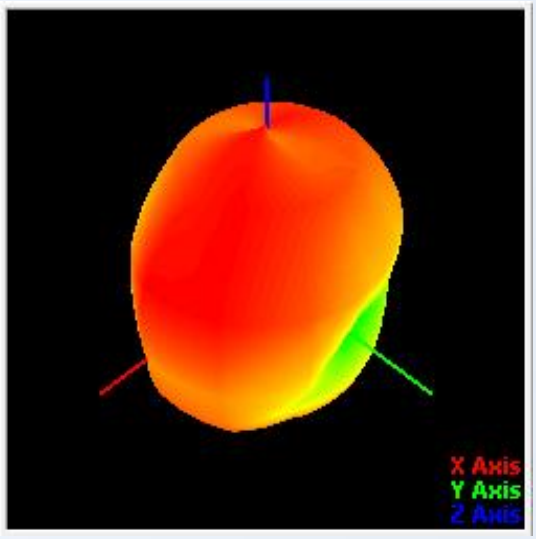

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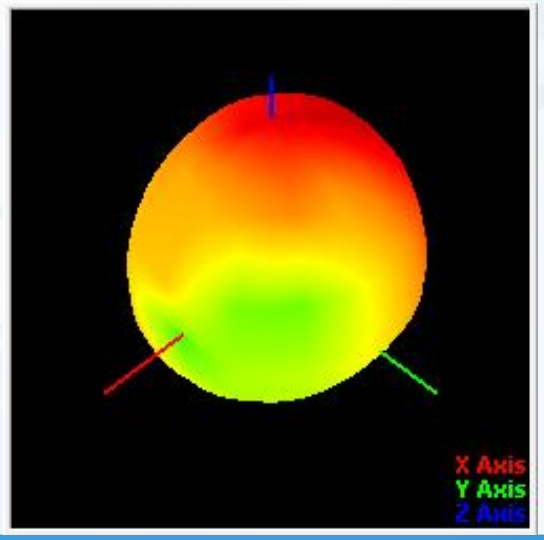

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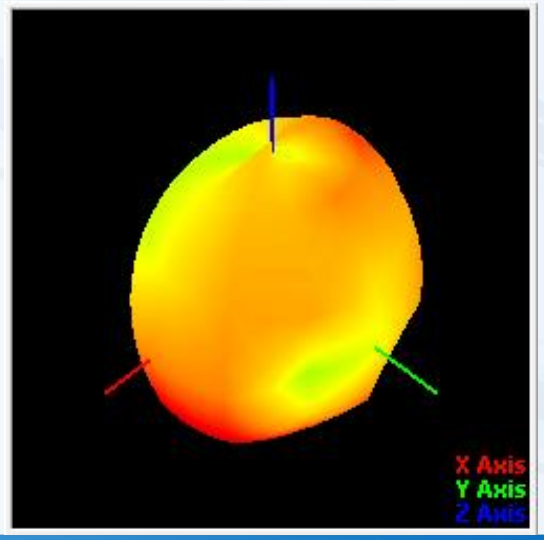

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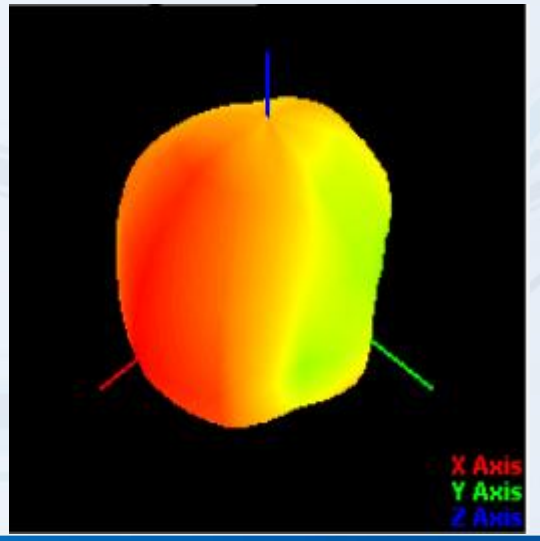

3D picture display

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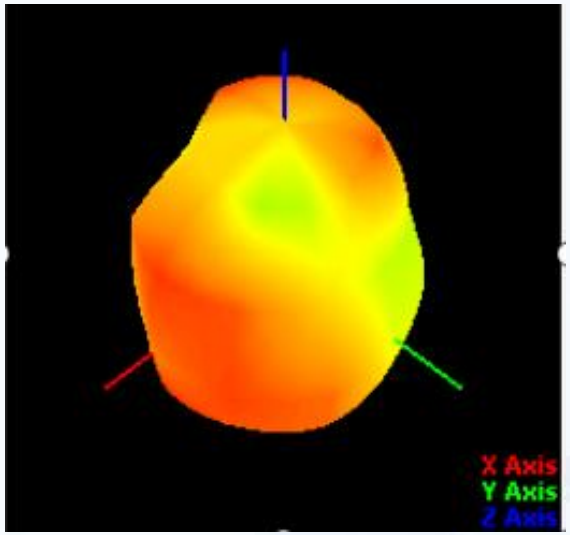

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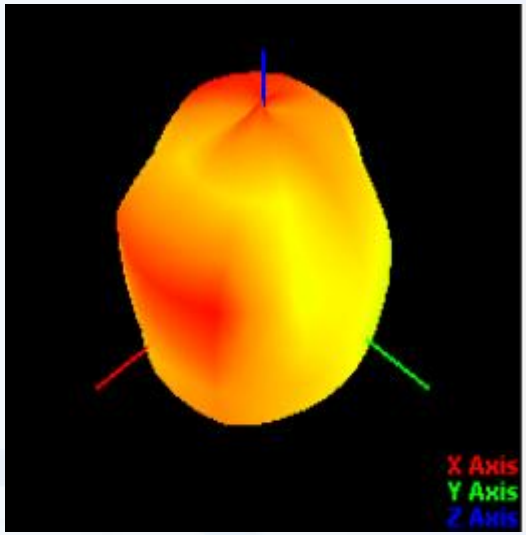
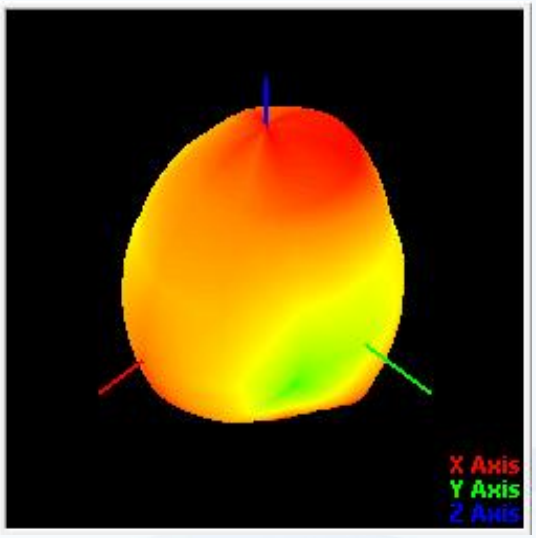


3D picture display

W1



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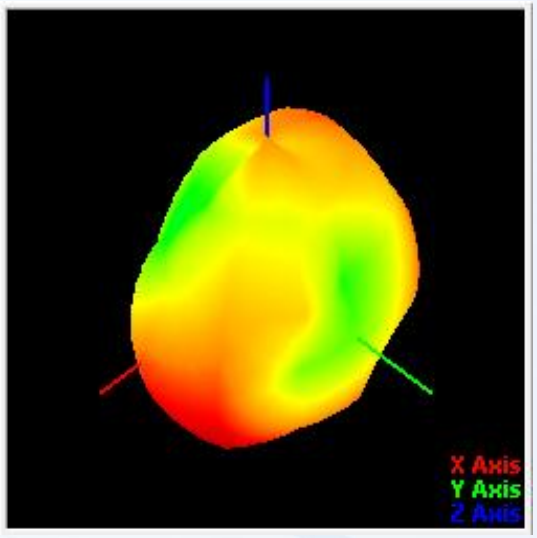

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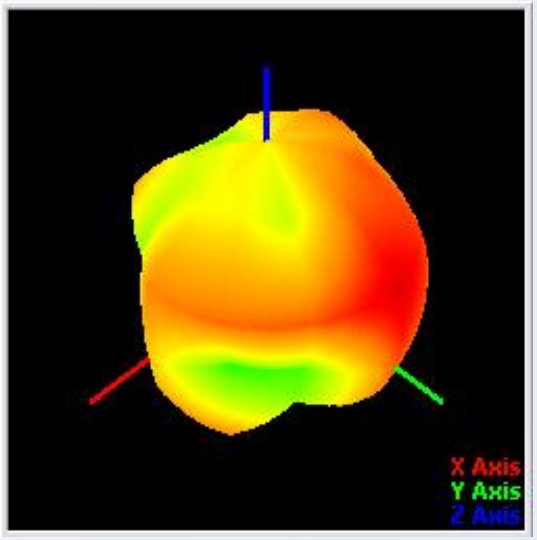

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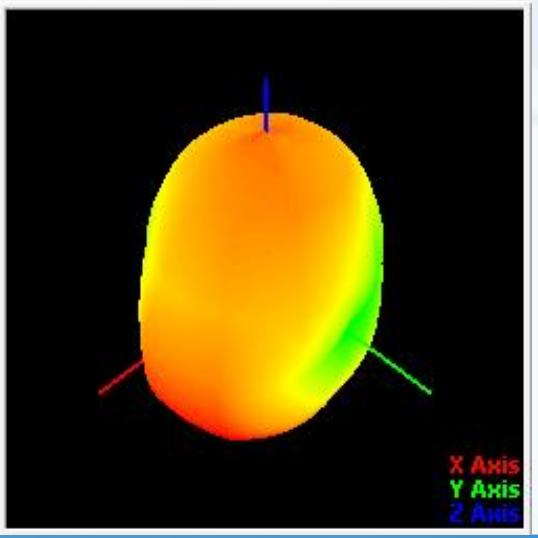

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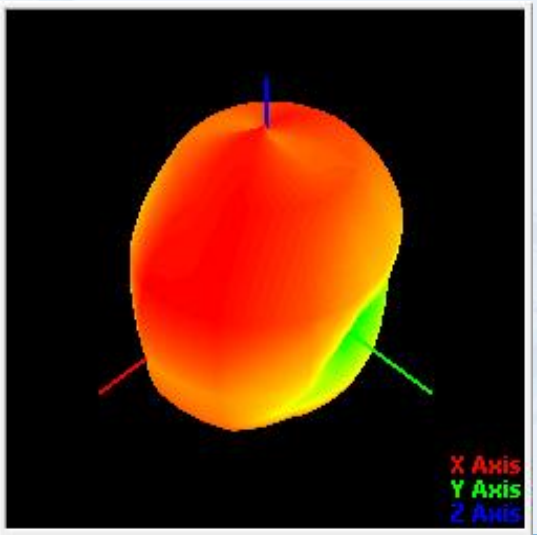
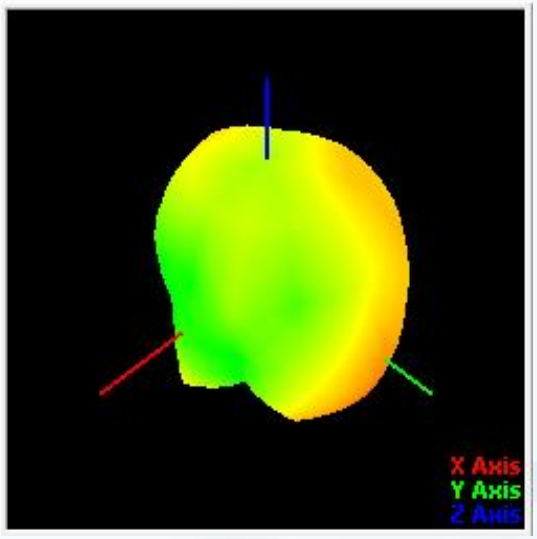


3D picture display

WIFI



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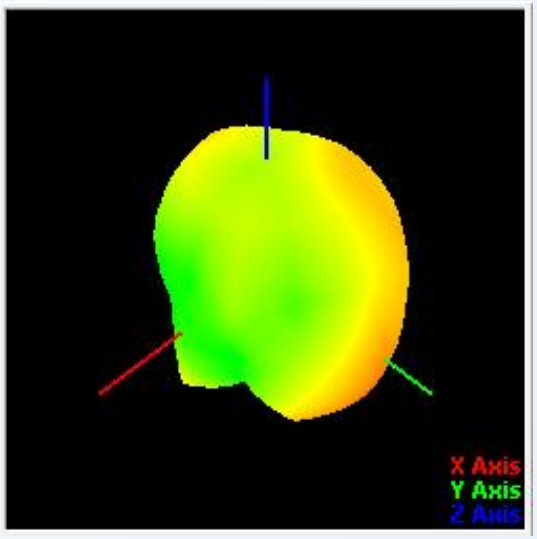
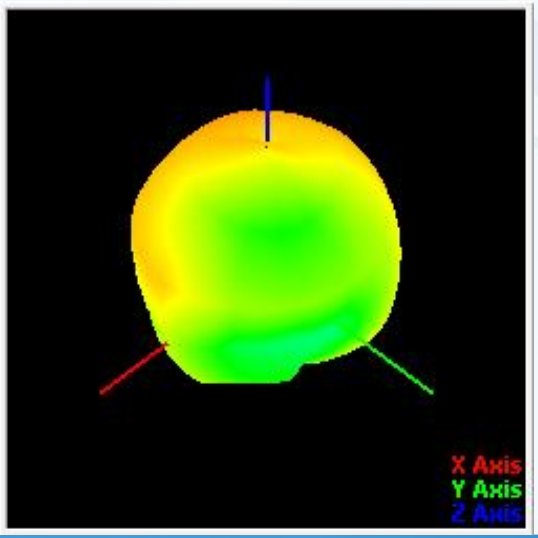


GPS



Additional instructions

⌂ Please carefully confirm whether the matching circuit mentioned in the report is modified and whether the environmental processing is conductive, which will directly affect the antenna performance.

⌂ The parameters provided in this report are only for the reference given by customers to our demo.

⌂ If your company has a prototype with the latest trial production or update status (replacement of materials, update software, replacement of environment processing, etc.), please submit it to our company for verification as soon as possible to confirm whether the antenna performance has been affected.。

⌂ If you need to send it to a third party for retest or send it to the customer for testing, please be sure to hand over the machine that needs to be tested by our company for testing and confirmation, because of the consistency of the motherboard, the consistency of assembly, and the difference in antenna assembly, etc.All factors may lead to the deviation of antenna parameters.

THANKS!

Shenzhen Saiwei Communication Technology Co., LTD

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E-mail：Sunwin_vip@163.com

Saiwei - Sai is far away, and Wei is eternal!