



深圳市天逸源电子科技有限公司
Shenzhen Tianyiyuan Elec&Technology CO.,Ltd

Recognition book

SPECIFICATION FOR APPROVAL

Name: WIFI/BT 2.4/5.8G Antenna

Item No: TTY-TX3905

Custoer name: Shenzhen Saite Century Technology Co., Ltd.

Company stamp: _____

drawing			Customer approve
MADE	CHECKED	APPROVED	
QIU	jack	Miketang	
DATE: 2026.08.04			DATE

1、Specifications

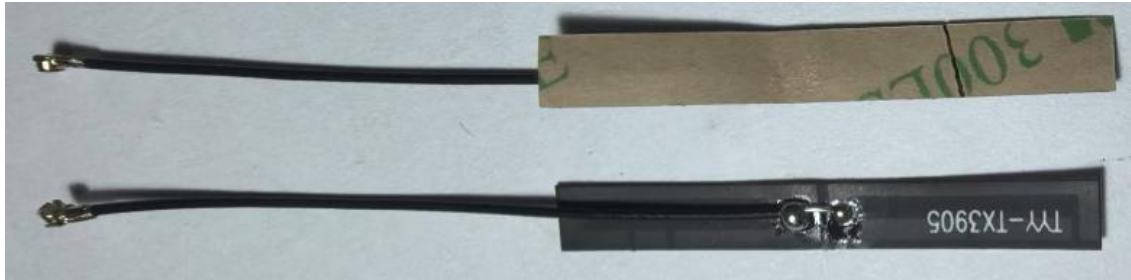
The report provides a test of the electrical performance parameters of the **TTY-TX3905** Technical parameters of antenna electrical appliances antenna, which is a science and technology model.TYY-TX3905 WIFI Built in antenna,WIFI Antenna is made by copper pipe+RF Line composition。(As follows 1 Shown)

Electrical technical parameters			
电 性 能 指 标		Electrical Specifications	
频率范围	2400~2500MHZ	Frequency Range	2400~2500MHZ
电压驻波比	≤2.0	VSWR	≤2.0
增益	2~3DBI	GAIN	2~3DBI
输入阻抗	50 Ω	Input Impedance	50 Ω
机 械 指 标		Mechanical Specifications	
天线颜色	黑色	Antenna Color	BLACK
接口形式	IPEX-3	Input connector	IPEX-3
线长度	60mm	Cable length	60mm
工作温度	-40℃~+85℃	Working Temperature	-40℃~+85℃
工作湿度	20~80%	Working Humidity	20~80%

Chart 1 TYY-TX3905 Product size



Chart 2 TYY-TX3905 Antenna finished



Line length 60+/-2mm, The other end with the 3-IPEX.

Chart 3 Location of antenna patch

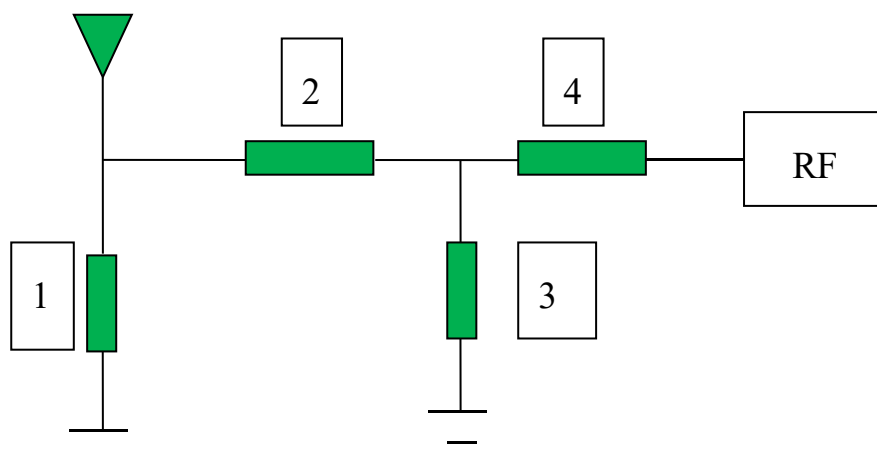


Note: First tear the FPC back tape, stick in the red frame position, close to the bottom of the border at right angles, away from the horn metal hardware, thank you!

2. Electrical properties

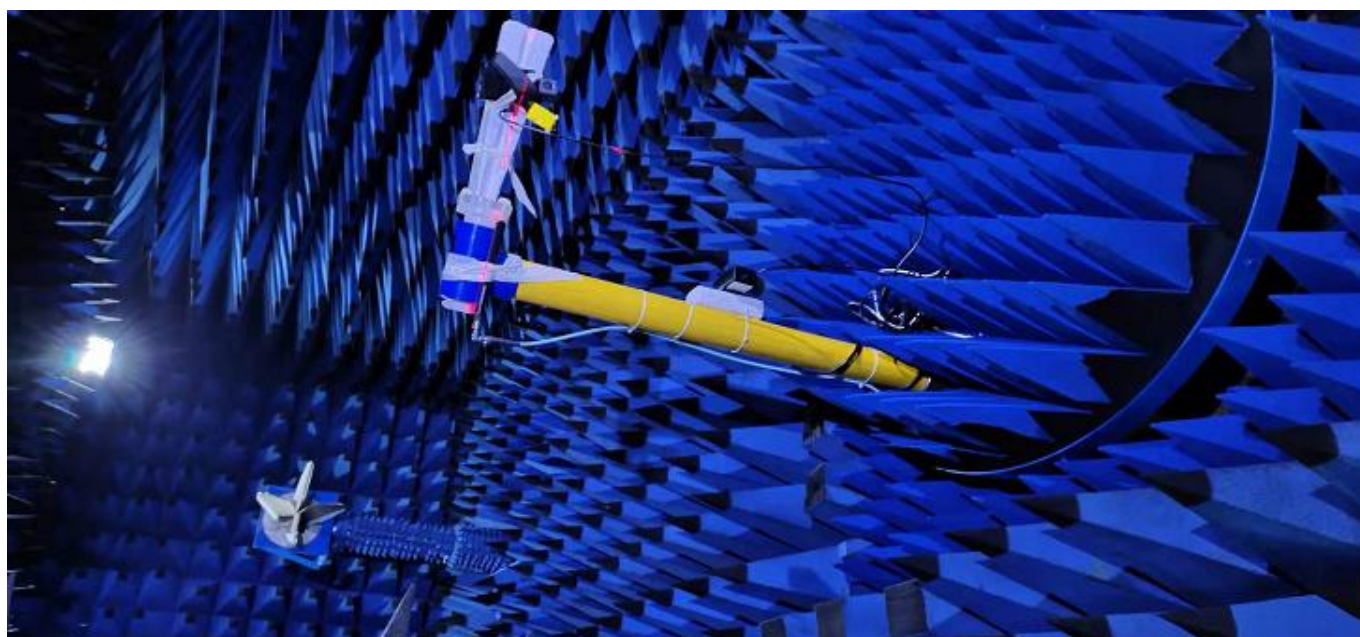
2.1 WIFI Antenna matching circuit

This item matching circuit is provided by the customer.

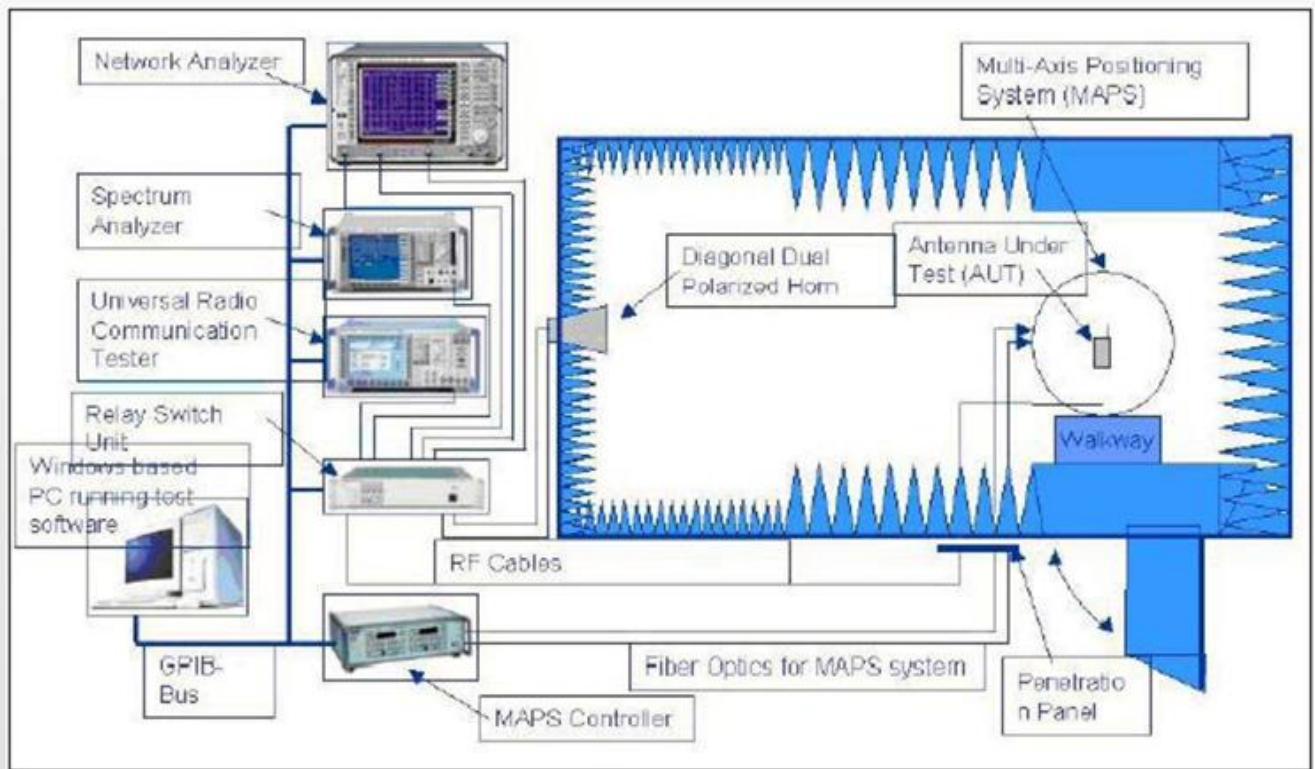


Element number	1	2	3	4
WIFI optimum	NC	0 ohm	NC	
Original (spare)	50 ohm matching (inductance capacitance / sunlord Darfon)			

Chart 4 OTA Microwave dark room



2.3 Bobbi (VSWR) test



2.3.1. Test setup

Connect the VSWR test device are: Agilent E5071B network analyzer from 50 ohm coaxial Cable 120mm long Brass & test fixtureProcessing test fixture: 50 ohm antenna leads to SMA-J connector from the test point on the plate PCB with a rigid cable, and a Connect the choke tube, and then sequentially connected with other devices.

WIFI In Bobbi

Chart 5 Return loss

4. 3D dynamic test of the whole machine

4.1 Test site

TCT microwave anechoic chamber: the test frequency range is 800mhz-6ghz, the quiet zone range is 50cm circle, and the reflectivity is less than -90 dB.

Chart 6 Agilent E5071C network analyzer

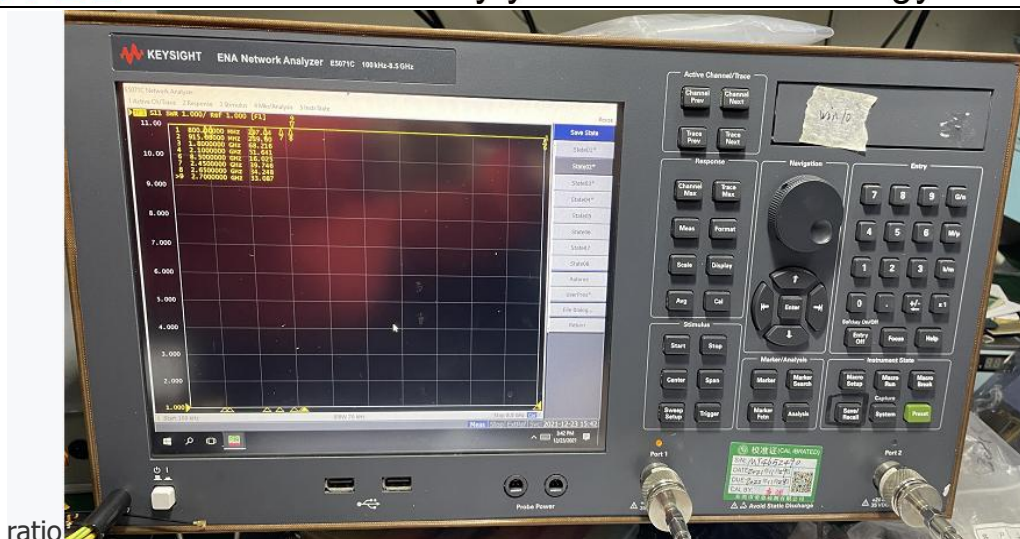
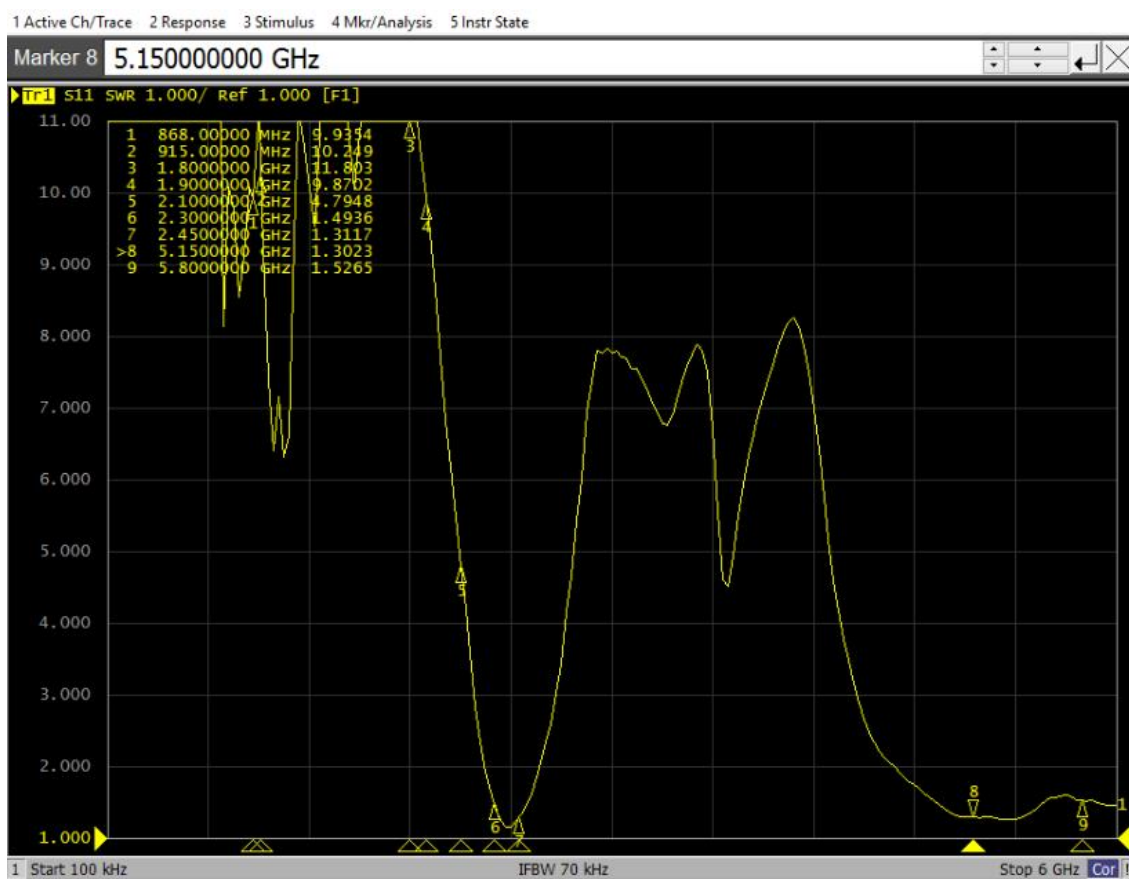


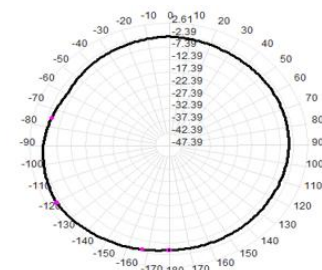
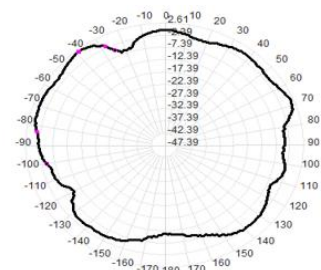
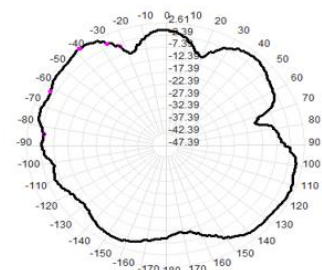
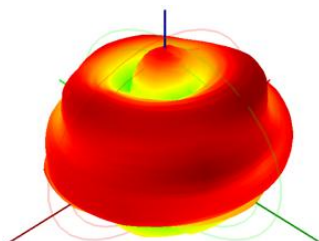
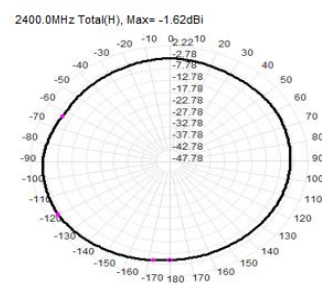
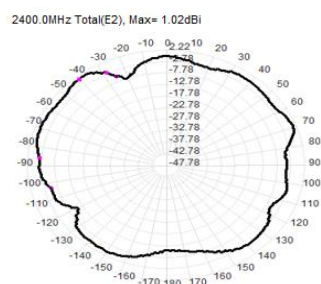
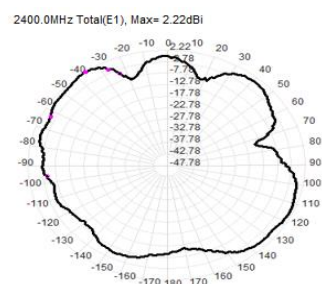
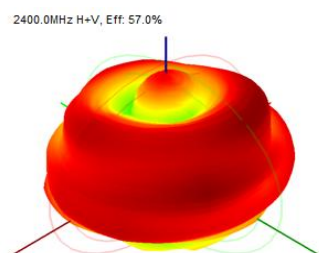
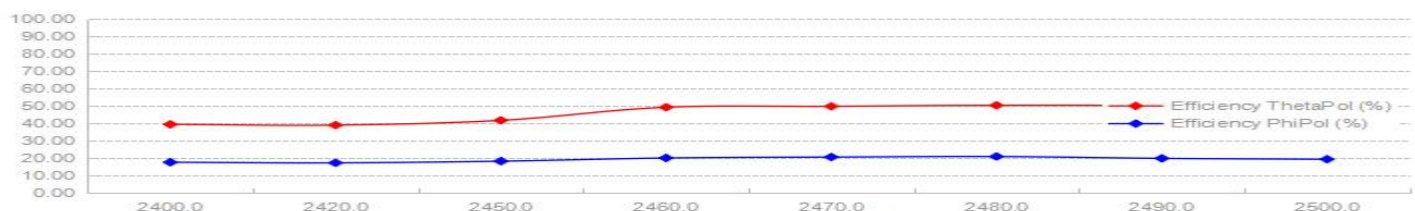
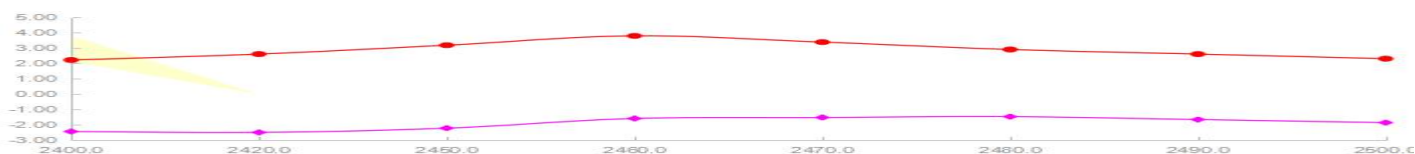
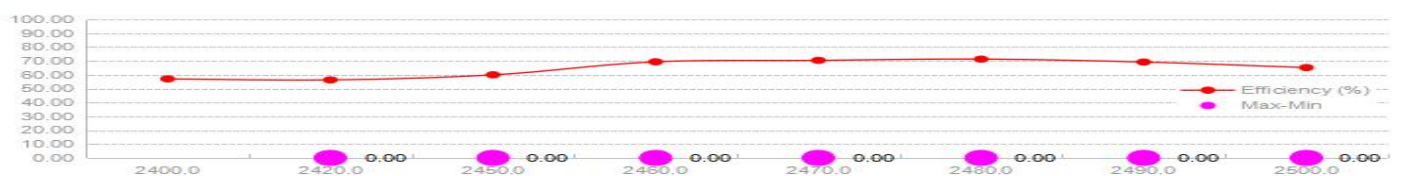
Chart 7 WIFI VSWR

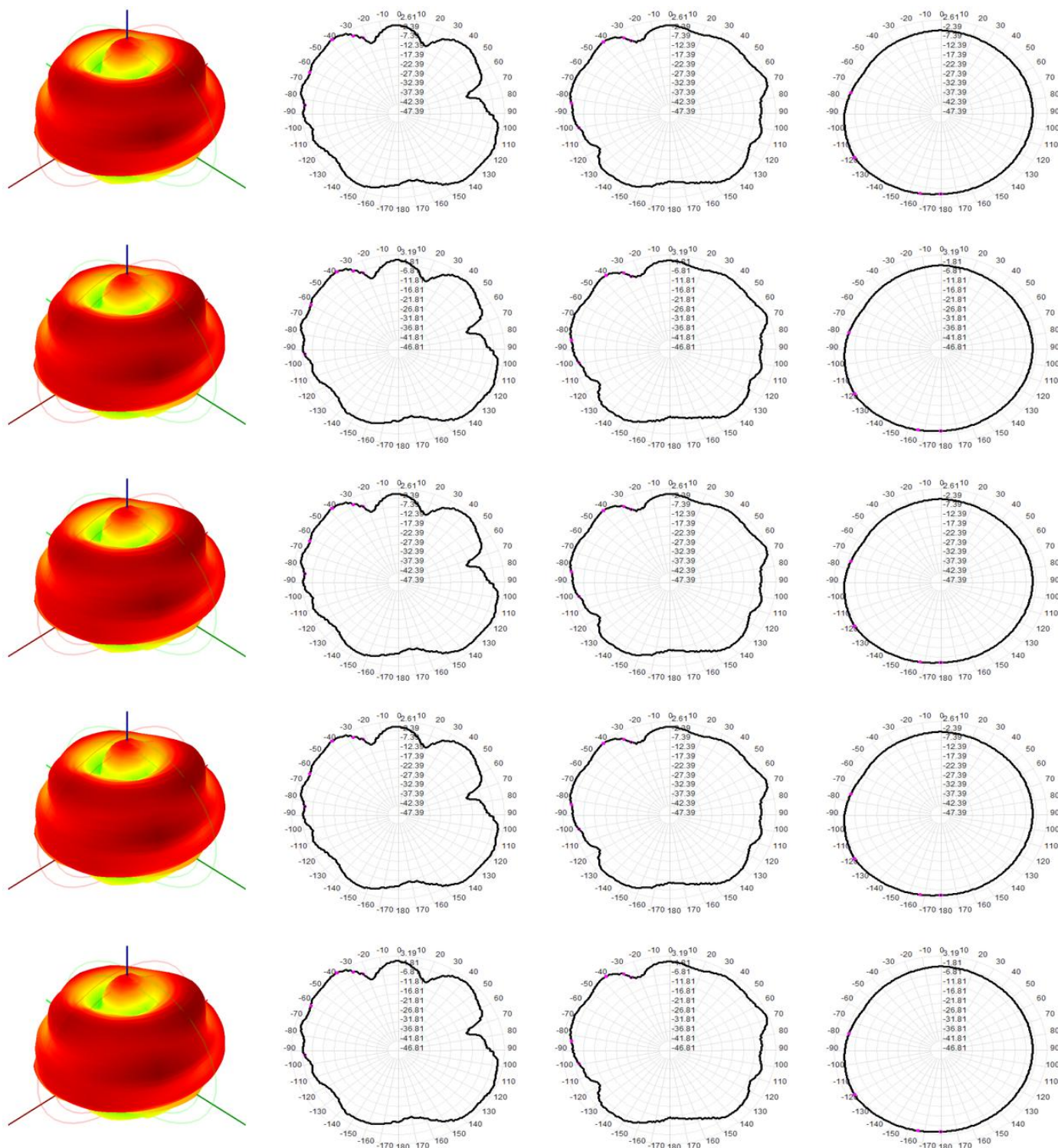


standard	Low frequency		High frequency		
frequency (MHz)	2400	2450	5150	5800	
VSWR	1.3	1.3	1.3	1.5	

Chart 8 Elevation map coverage

FEITUKEJI								
Frequency ID	1	3	4	7	8	9	10	10
Frequency (MHz)	2400.0	2420.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Efficiency (dBi)	-2.44	-2.50	-2.22	-1.59	-1.52	-1.47	-1.66	-1.86
Gain (dBi)	2.22	2.61	3.19	3.80	3.39	2.91	2.61	2.31
Efficiency (%)	57.02	56.28	59.97	69.33	70.41	71.29	69.19	65.19
Directivity (dB)	4.66	5.11	5.41	5.39	4.92	4.38	4.27	4.17
Peak Gain Position (Theta)	144.00	141.00	144.00	124.00	144.00	144.00	144.00	144.00
Peak Gain Position (Phi)	180.00	180.00	180.00	210.00	180.00	180.00	180.00	180.00
Efficiency ThetaPol (%)	39.41	39.00	41.74	49.26	49.81	50.37	49.84	45.84
Efficiency PhiPol (%)	17.60	17.28	18.23	20.07	20.59	20.92	19.85	19.35
Upper Hem. Efficiency (%)	21.62	20.70	21.72	25.75	26.56	27.24	24.81	24.88
Lower Hem. Efficiency (%)	35.39	35.57	38.25	43.58	43.84	44.04	42.30	40.30





3, recommendations and conclusions

This report is based on the antenna electrical performance measured by the customer based on the final version of the model project of Shenzhen Saite Century Technology Co., Ltd.

As can be seen from the above test data, the antenna provides good electrical performance. Tianyiyuan is looking forward to your confirmation. Thank you for your cooperation!