

New PM304 Antenna Specifications

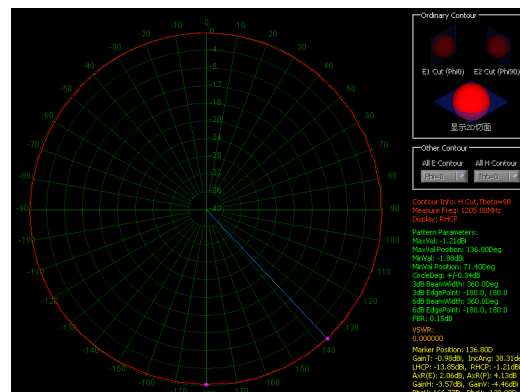
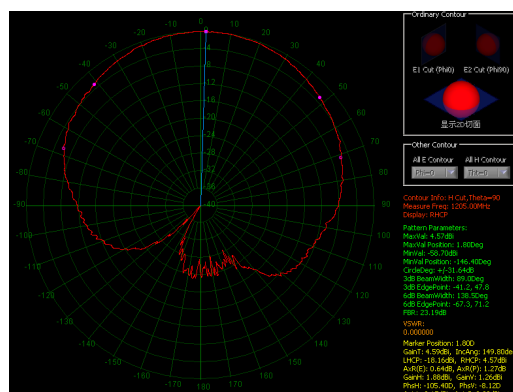
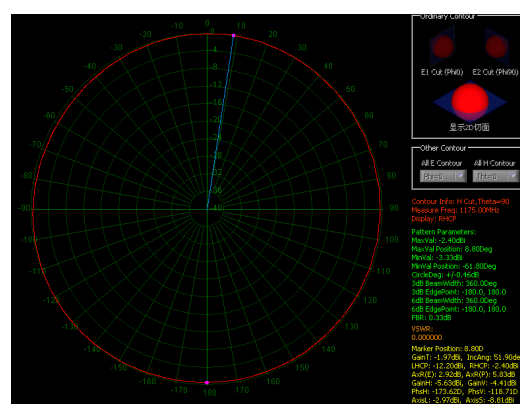
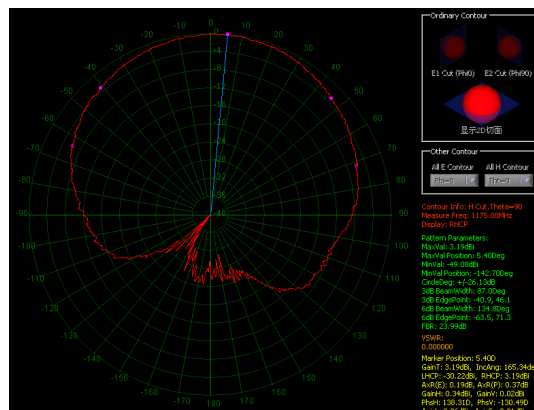
Product name: GNSS Full frequency measuring
antenna

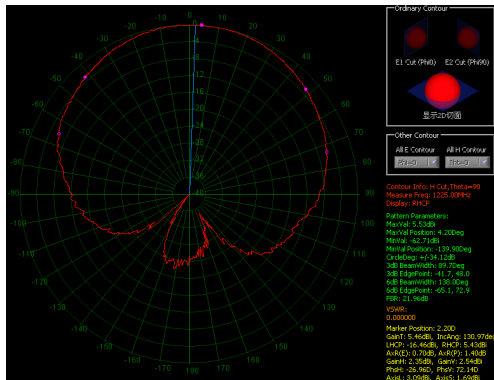
Product model: PM304

1. Test purpose: To conduct passive test, 4G standing wave, gain and efficiency test, Bluetooth standing wave, gain and efficiency test, low noise emission part test and direction diagram for the new antenna.
2. Main instruments and equipment: vector network analyzer, noise meter, microwave darkroom and a full set of test systems.

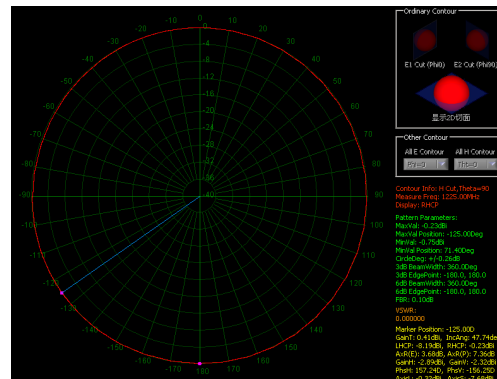
1: New antenna passive microwave test data:

Frequency point	Vertex gain	Vertex axial ratio	20 degrees maximum gain	20 degree minimum gain	20 degrees out of roundness
1175. MHz	3.19	0.37	-2.4	-3.33	0.46
1205. MHz	4.57	1.27	-1.21	-1.88	0.34
1225. MHz	5.53	1.40	-0.23	-0.75	0.26
1240. MHz	5.73	1.84	-0.18	-0.74	0.28
1265. MHz	4.93	1.94	-1.36	-2.45	0.55
1565. MHz	5.81	0.42	-1.32	-2.63	0.66
1575. MHz	5.86	0.11	-1.49	-2.79	0.65
1585. MHz	6.13	0.39	-1.58	-2.71	0.57
1610. MHz	5.55	0.29	-2.58	-4.01	0.71

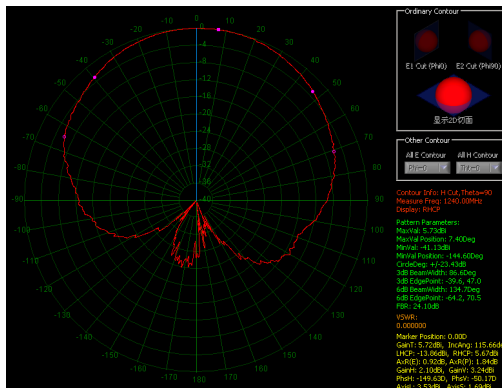




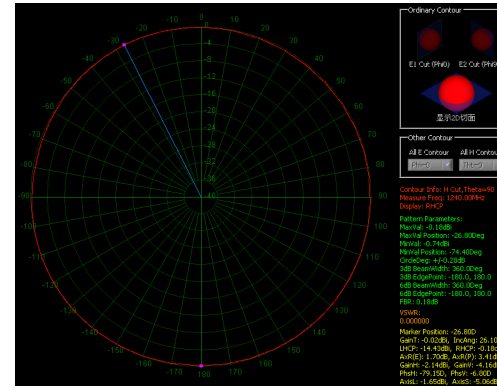
1225MHZ



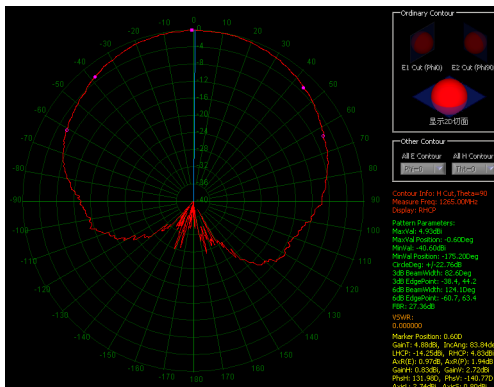
1225MHZ



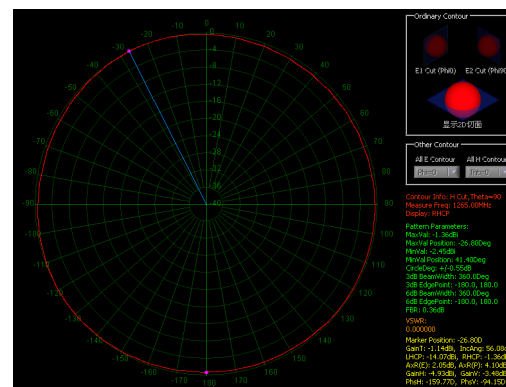
1240MHZ



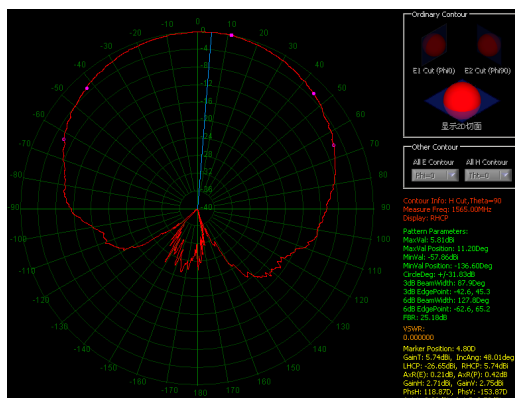
1240MHZ



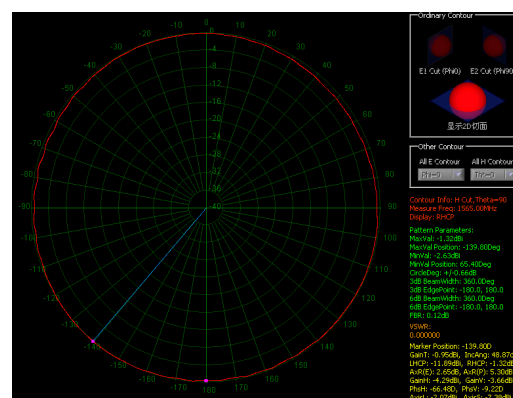
1268MHZ



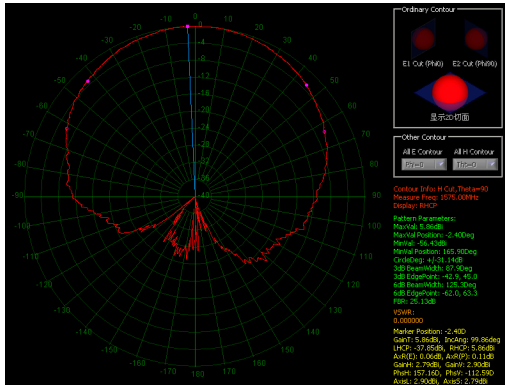
1268MHZ



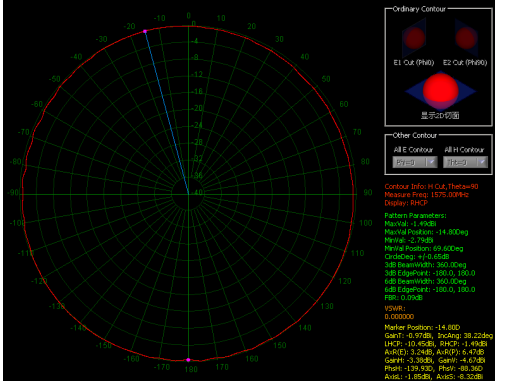
1565MHZ



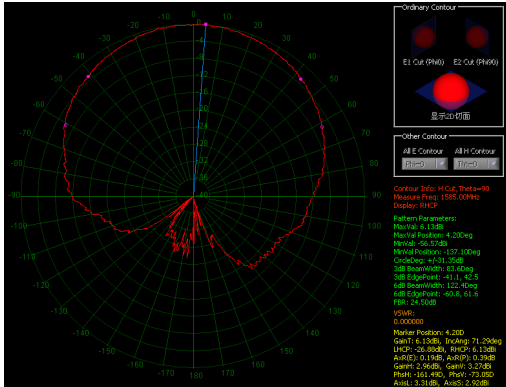
1565MHZ



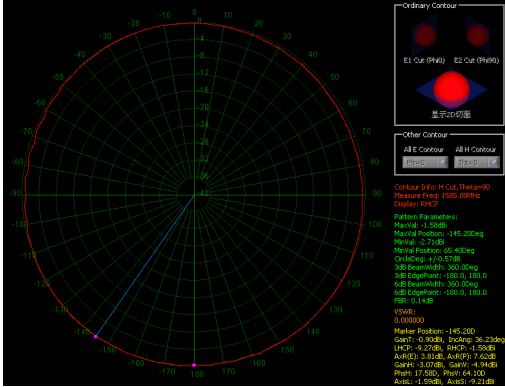
1575MHZ



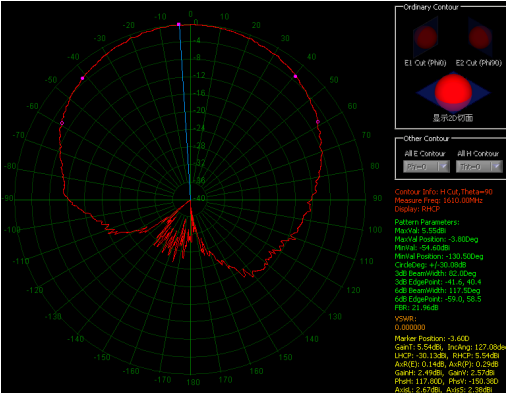
1575MHZ



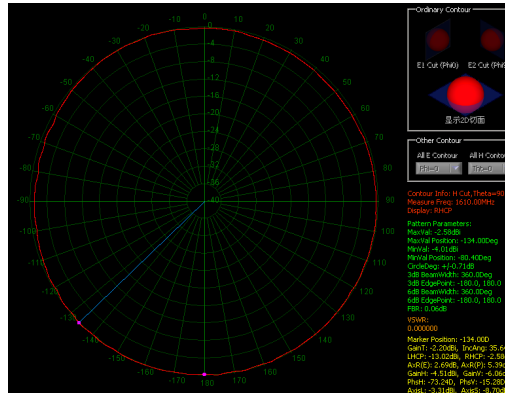
1585MHZ



1585MHZ



1610MHZ

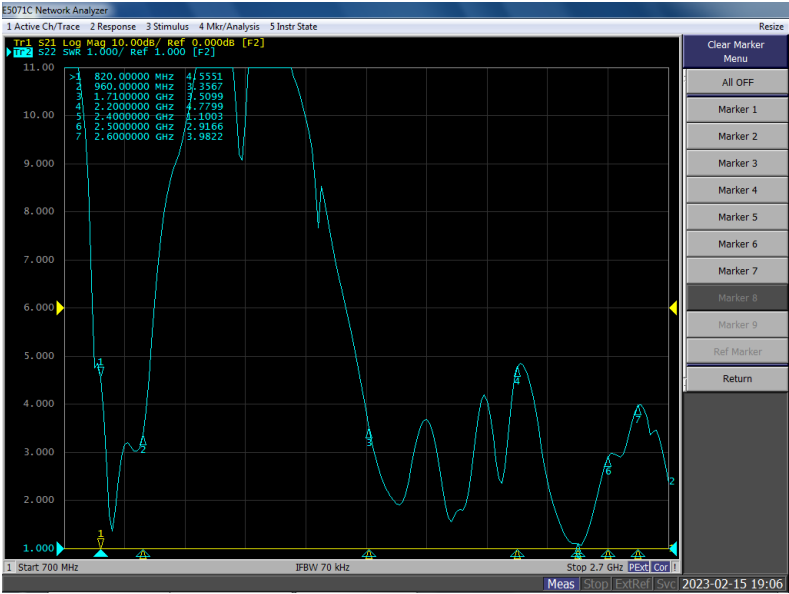


1610MHZ

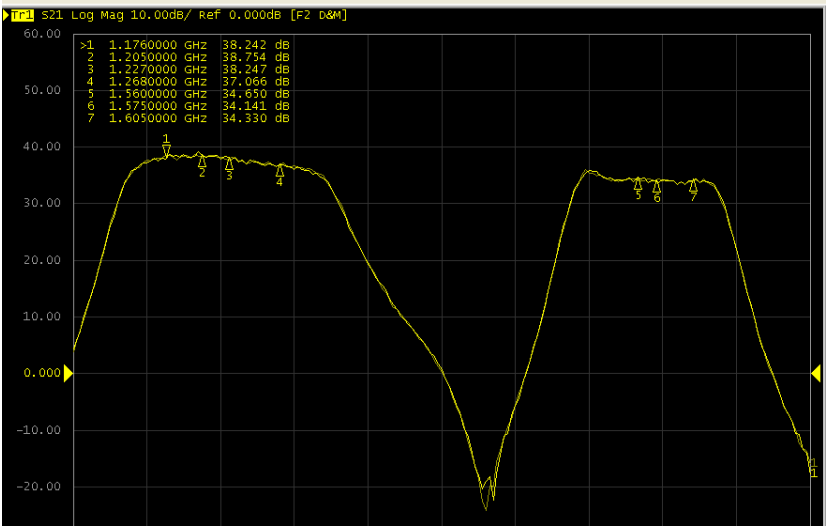
2、4G standing wave, gain, efficiency

Frequency point	820	880	925	960	1700	1800	1825	1875	1950	2025	2175	2300	2400	2575	2690
gain	0.63	0.91	-0.50	-0.52	0.58	0.73	1.18	1.54	0.70	1.63	1.46	2.00	2.55	1.78	2.41
efficiency	31%	46%	43%	34%	38%	49%	49%	32%	38%	36%	31%	37%	35%	32%	30%

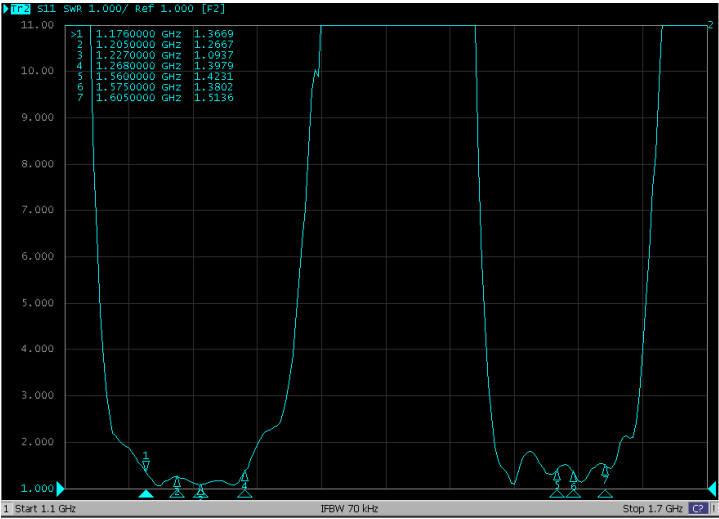
Shenzhen Kinvey Communication Technology Co., Ltd.
Address:D1110, Zhongtai Yannan Mingting (Phase II), junction of Yannan Road and Zhenhua Road, Futian District,
Shenzhen



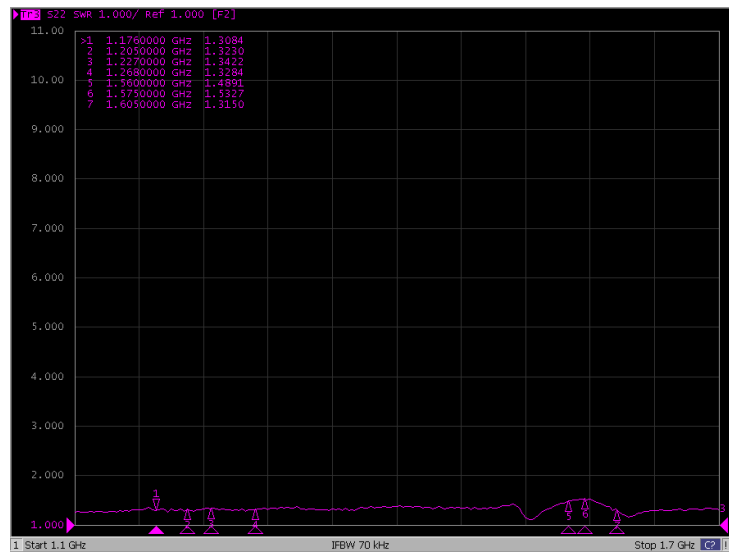
4、Low noise amplifier gain, input standing wave, output standing wave, noise
Gain graph



Input standing wave pattern



Output standing wave pattern



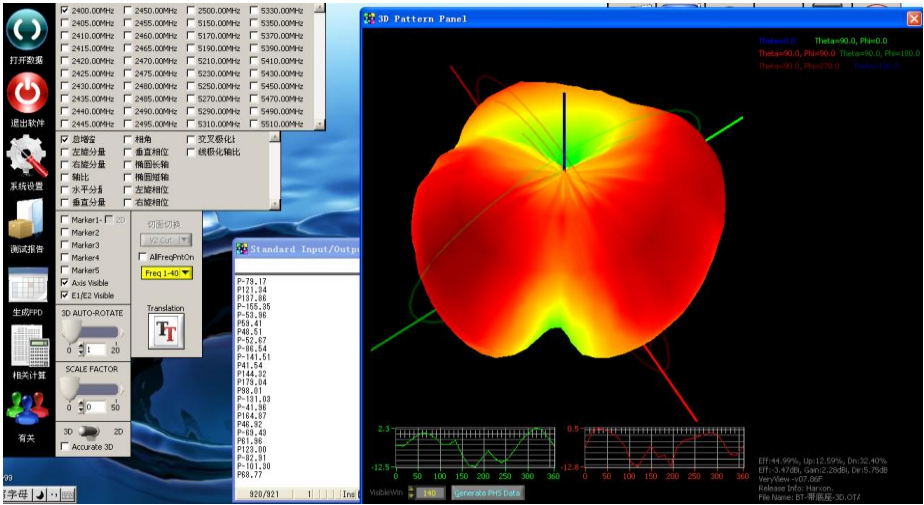
Noise pattern

Freq	NoiseFig dB	Freq	NoiseFig dB
1.520000 GHz	1.478	1.150000 GHz	1.548
1.527857 GHz	1.398	1.160000 GHz	1.414
1.535714 GHz	1.362	1.170000 GHz	1.280
1.543571 GHz	1.384	1.180000 GHz	1.355
1.551429 GHz	1.301	1.190000 GHz	1.450
1.559286 GHz	1.364	1.200000 GHz	1.453
1.567143 GHz	1.348	1.210000 GHz	1.314
1.575000 GHz	1.383	1.220000 GHz	1.324
1.582857 GHz	1.386	1.230000 GHz	1.411
1.590714 GHz	1.391	1.240000 GHz	1.383
1.598571 GHz	1.397	1.250000 GHz	1.460
1.606429 GHz	1.414	1.260000 GHz	1.445
1.614286 GHz	1.438	1.270000 GHz	1.420
1.622143 GHz	1.737	1.280000 GHz	1.416
1.630000 GHz	2.383	1.290000 GHz	1.471

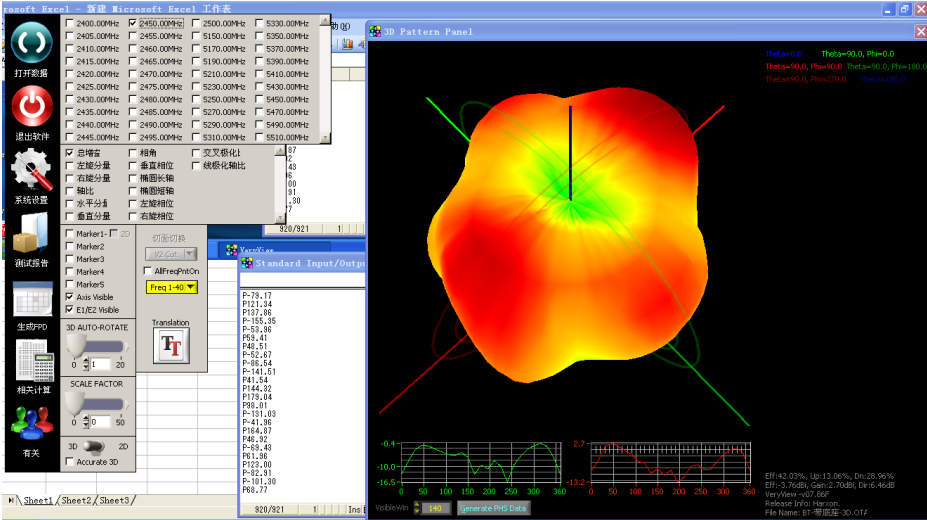
Current and voltage test drawings are attached:



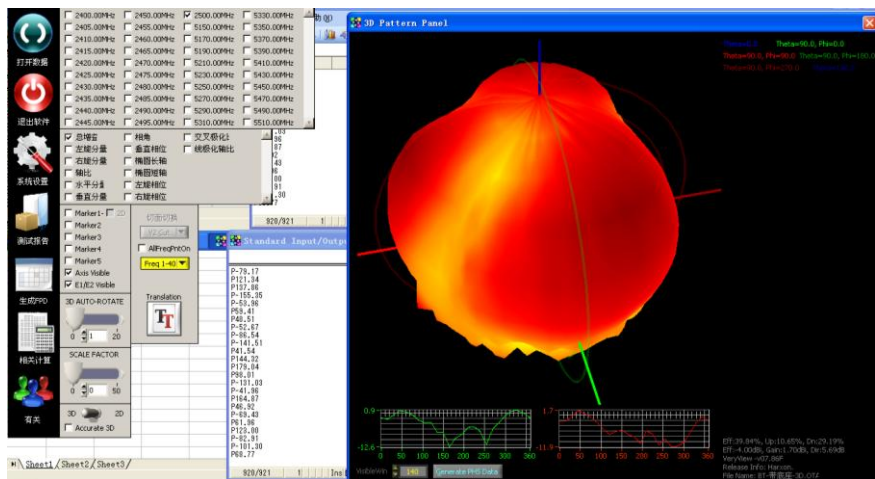
频率	效率	增益
2400MHZ	44.99%	2.28 dBi
2450MHZ	42.03%	2.70 dBi
2500MHZ	39.84%	1.70 dBi
5170MHZ	67.86%	1.07 dBi
5570MHZ	51.94%	1.95 dBi
5850MHZ	42.16%	1.71 dBi



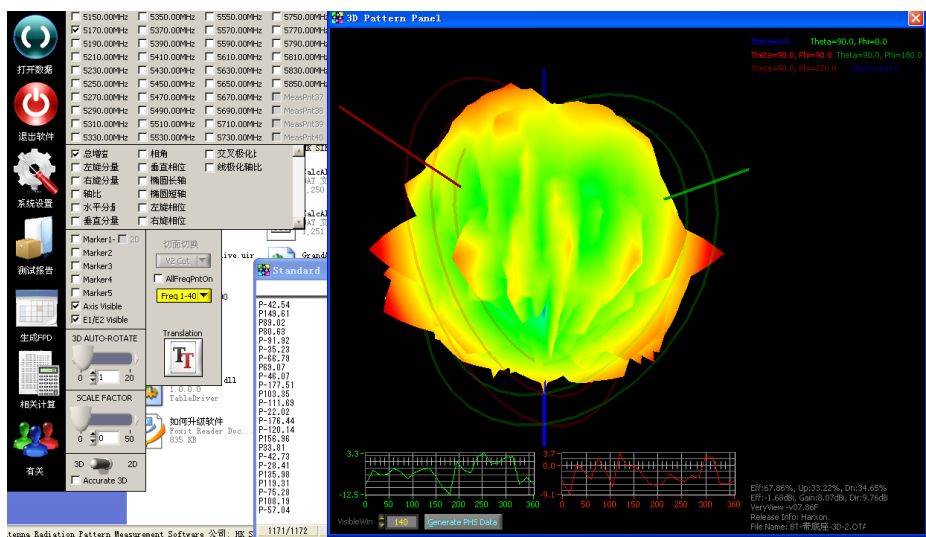
2400MHz



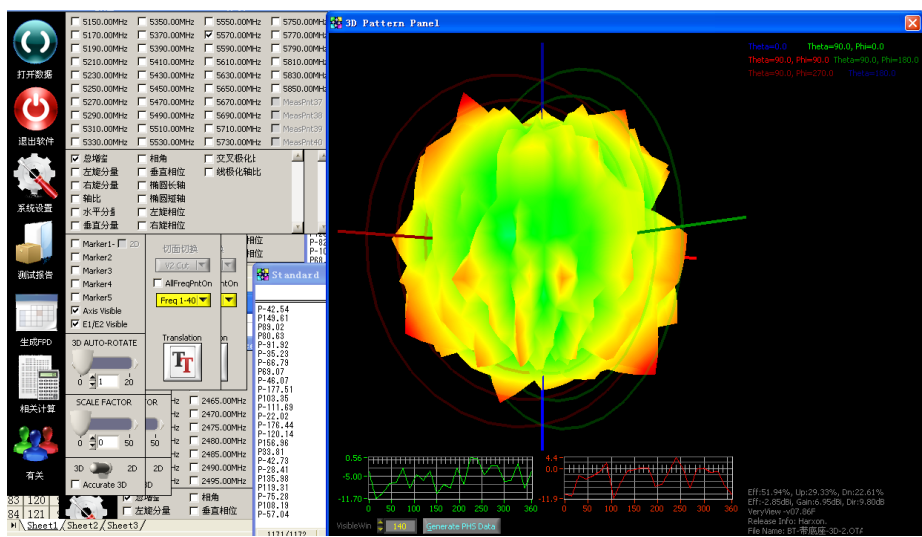
2450MHz



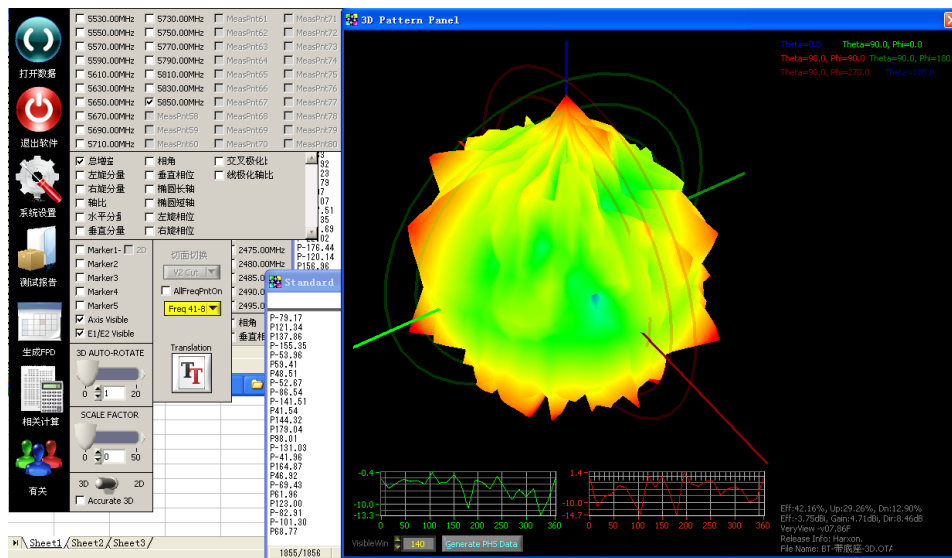
2500MHz



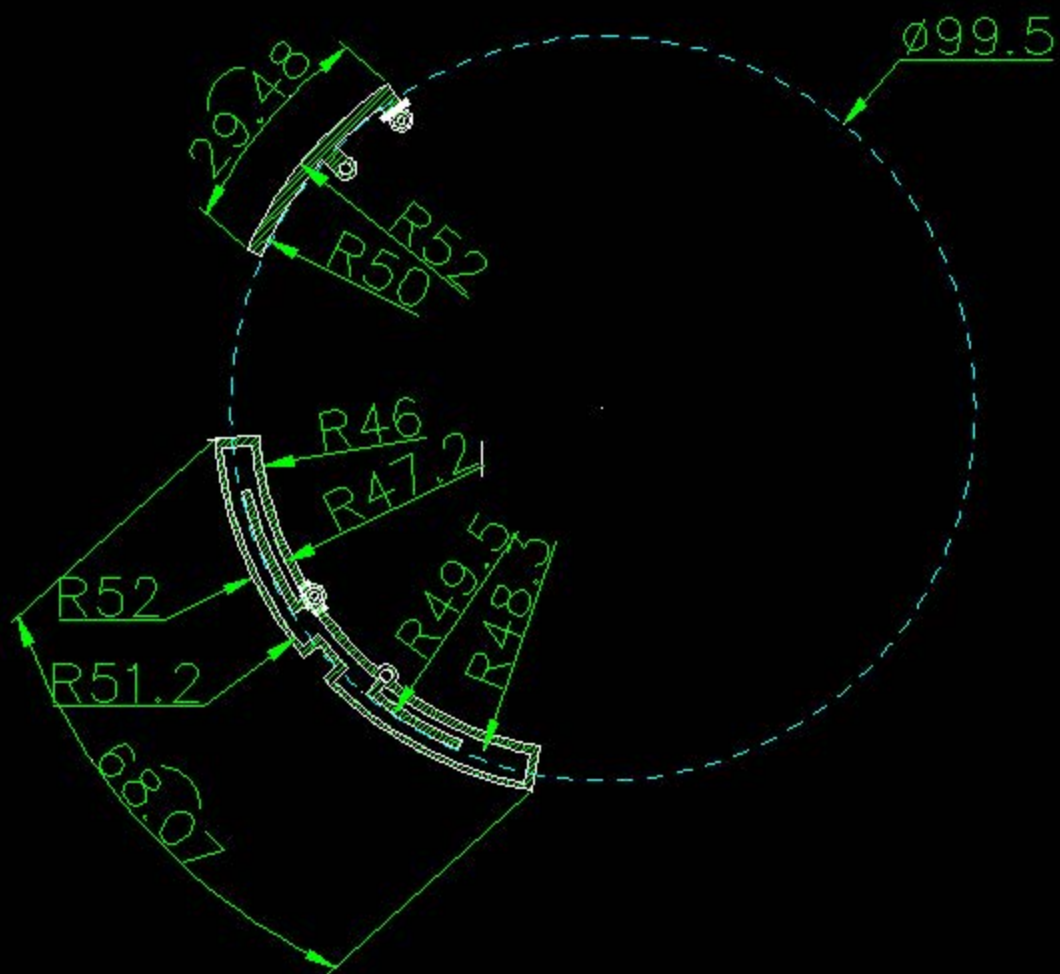
5170MHz



5570MHz



5850MHz





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SPECIFICATION FOR APPROVAL

客户名称Customer: South Surveying & Mapping Technology Co., Ltd.

产品名称Description: NTAG215

产品型号Model: NTAG215 22*12

样品编号LotNo: 30902001921

文件编号DocumentNo: TWH-GYCRS-A-NTAG215-2020010601-A0

日 期Date: 2020年1月6日

中山恒达智能科技有限公司
Tatwah Technology Co., Ltd.

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徐明亮	李中平 黄建华	杨善娇

客户确认签名
APPROVED SIGNATURES

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Antenna Information

Antenna Frequency: 13.56MHz

Antenna Gain: 0dBi

We statement that All measurements were performed radiated and therefore additional antenna gain documentation is not required.

