Shenzhen Jiexuntong Wireless Technology Co. LTD

Antenna acknowledgment

Customer name：Baoneng Daktron

Project model：DPXTH

Our company's material number：20016000004

Antenna specification：Spring antenna

Manufacturer Address：409, Building A, No. 30, Aviation Road, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen

Date of issue：2023-1-9

Manufacturer acknowledgment column:

Project preparation	RF	structure	approve	Date

Customer acknowledgement column：

confirm	audit	approve	Date

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Acknowledgement of change of resume

version	Date	Change description	remarks
R/A	2023-1-9	First edition	

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catalogue

1、 COVER.....PAGE 1

2、 CHANGE OF RESUME..... PAGE 2

3、 DIRECTORY..... PAGE 3

4、ANTENNA PICTURE..... PAGE 4

5、TEST THE ENVIRONMENT..... PAGE 4

6、ANTENNA MATCHING ..... PAGE 4

7、ELECTRICAL PERFORMANCE REPORT..... PAGE 5-14

8、RELIABILITY TEST REPORT..... PAGE 15

9、ENGINEERING DRAWING..... PAGE 16

Address: 409, 423, 425-426, Building A, No. 30, Sanwei Hanghang Road, Sanwei Community, Hangcheng Street, Baoan District, Shenzhen

Contact number: 0755-23731203

website：http://www.jxtant.com

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一、Antenna picture

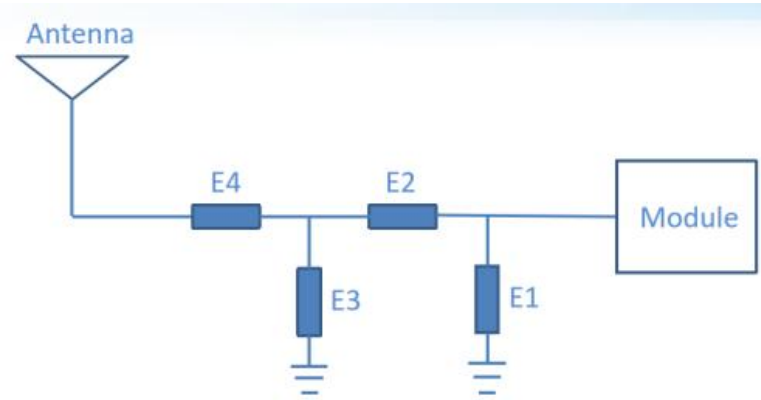
二、Test the environment

2.1.Environmental treatment

There is no

三、Antenna matching

3.1.Antenna



E1	E2	E3	E4
NC	OΩ	NC	OΩ

Our company has not changed the original antenna front-end matching

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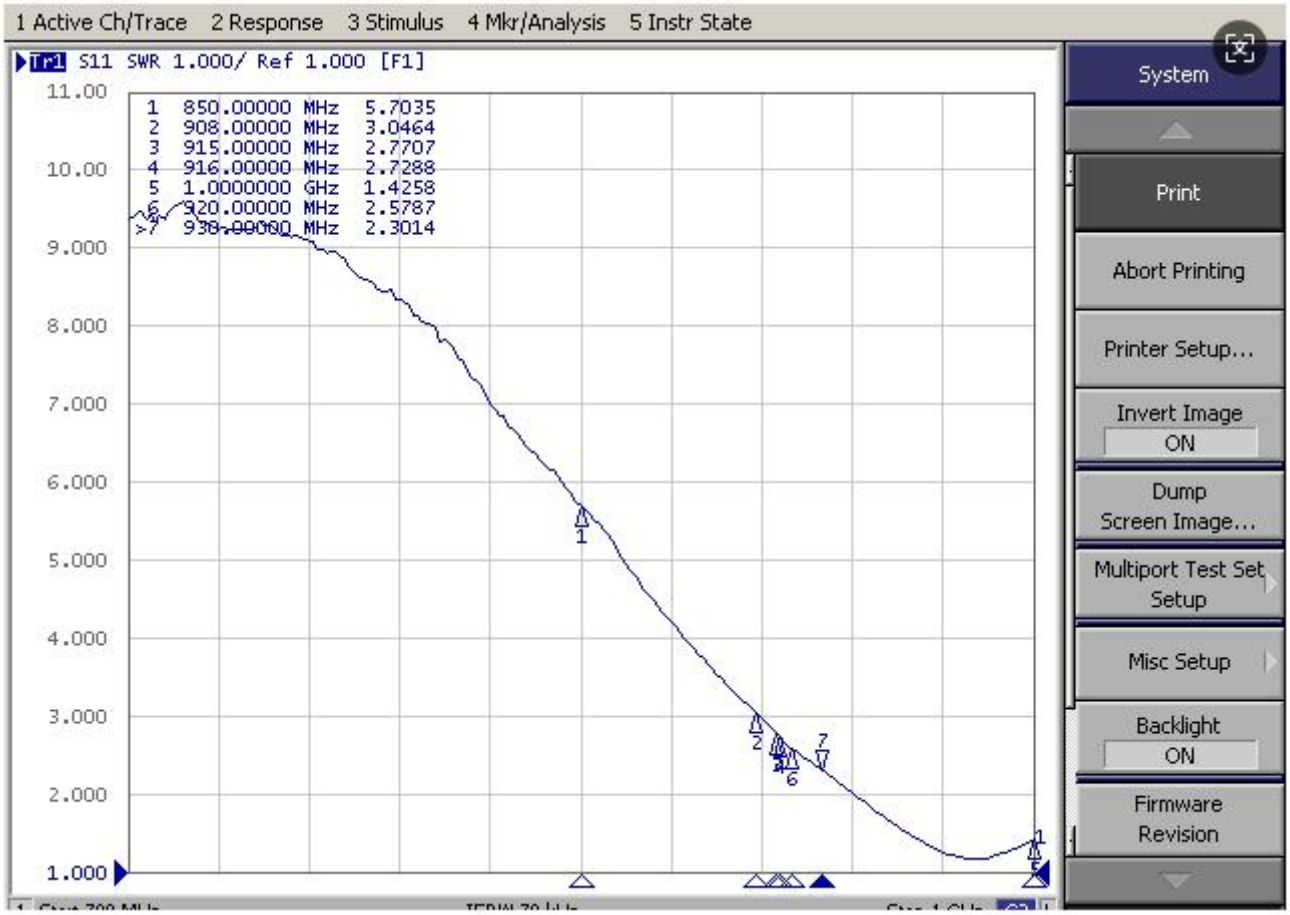
四、Electrical performance report

VSWR



Frequency (MHz)	850	908	915	916	920	930
VSWR	5.70	3.04	2.77	2.72	2.57	2.30

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Passive test data:

Freq(MHz)	Gain(dBi)	Efficiency(dB)	Efficiency(%)
850	-6.062715192	-8.633012958	13.69931034
851	-6.099502566	-8.55596534	13.94451668
852	-6.014472944	-8.469270719	14.22567649
853	-5.883546828	-8.382917455	14.51136462
854	-5.778969818	-8.307378071	14.76597718
855	-5.688825871	-8.270194145	14.89294499
856	-5.569221759	-8.248760523	14.96662743
857	-5.507158807	-8.255451955	14.94358522
858	-5.528066166	-8.300547298	14.78922002
859	-5.570701985	-8.357058602	14.59802623
860	-5.604876032	-8.432256765	14.3474369
861	-5.650130598	-8.482592325	14.18210732
862	-5.813769663	-8.496513189	14.13672081
863	-5.921600779	-8.471252873	14.21918526
864	-6.005480181	-8.40885445	14.42495792
865	-5.995323074	-8.311386473	14.75235493
866	-5.888669816	-8.183082781	15.19468572
867	-5.681251703	-8.045185359	15.68488952
868	-5.486482176	-7.92058243	16.14142071
869	-5.309867621	-7.83789338	16.45169548
870	-5.108571919	-7.801832471	16.58886806
871	-4.995217229	-7.823949092	16.50460332
872	-4.808897031	-7.891046578	16.25157073
873	-4.752337996	-7.981767091	15.91561009
874	-4.798632567	-8.076813009	15.57107868
875	-4.978496458	-8.169210971	15.2432967
876	-5.239756232	-8.218129186	15.07256208

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Freq(MHz)	Gain(dBi)	Efficiency(dB)	Efficiency(%)
877	-5.552619606	-8.182742824	15.19587518
878	-5.795851443	-8.074231123	15.58033845
879	-5.605849461	-7.92436747	16.12735898
880	-5.379163323	-7.723681878	16.89008411
881	-5.243431296	-7.533073616	17.64788392
882	-5.013888174	-7.361856999	18.35753226
883	-4.77108178	-7.257798775	18.80269591
884	-4.565765073	-7.224357195	18.94803946
885	-4.454262342	-7.275637841	18.72562043
886	-4.212835638	-7.378198081	18.28858865
887	-4.130998797	-7.547083967	17.59104353
888	-4.131268528	-7.73990149	16.82712229
889	-4.299075894	-7.902158589	16.21004204
890	-4.611987786	-8.014351742	15.79664382
891	-4.990877575	-8.036061362	15.7178762
892	-5.35315746	-7.952395297	16.02361384
893	-5.50846234	-7.787407196	16.6440603
894	-5.161559132	-7.582181379	17.4494548
895	-4.967043805	-7.386196826	18.25493611
896	-4.939408071	-7.220705541	18.96397814
897	-4.658081865	-7.114744294	19.43236103
898	-4.395603589	-7.093447622	19.5278863
899	-4.286886047	-7.154128688	19.25693352
900	-4.119267657	-7.293051017	18.65068977
901	-4.011782856	-7.435442169	18.04910964
902	-3.993935527	-7.596139161	17.39346405
903	-4.170751945	-7.744911764	16.80772074
904	-4.417673583	-7.799990783	16.59590429

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Freq(MHz)	Gain(dBi)	Efficiency(dB)	Efficiency(%)
905	-4.735663481	-7.787174572	16.64495183
906	-5.017573353	-7.654793235	17.16013407
907	-5.102115244	-7.471607127	17.89943354
908	-4.818331638	-7.266102227	18.76678062
909	-4.67233378	-7.073106538	19.61956374
910	-4.655424012	-6.947658927	20.19454661
911	-4.417684676	-6.878511582	20.51865276
912	-4.171572593	-6.876875501	20.52638403
913	-3.9411961	-6.961269415	20.13135737
914	-3.792011076	-7.071570956	19.62650207
915	-3.777665349	-7.201536237	19.04786816
916	-3.931584746	-7.306600345	18.59259313
917	-4.09692809	-7.360254356	18.36430785
918	-4.38446132	-7.330334694	18.49126108
919	-4.695200092	-7.228021162	18.93206051
920	-4.544944844	-7.070498862	19.63134764
921	-4.250719188	-6.889992444	20.46448197
922	-4.16415648	-6.735875295	21.20374001
923	-4.216114268	-6.632959526	21.71221083
924	-4.091286527	-6.590958201	21.92321182
925	-3.904022931	-6.60849262	21.83487641
926	-3.605957279	-6.706389576	21.34818916
927	-3.440390193	-6.821564145	20.78947803
928	-3.39376949	-6.960860756	20.13325176
929	-3.462430848	-7.066018217	19.65161188
930	-3.649712844	-7.11491113	19.43161455

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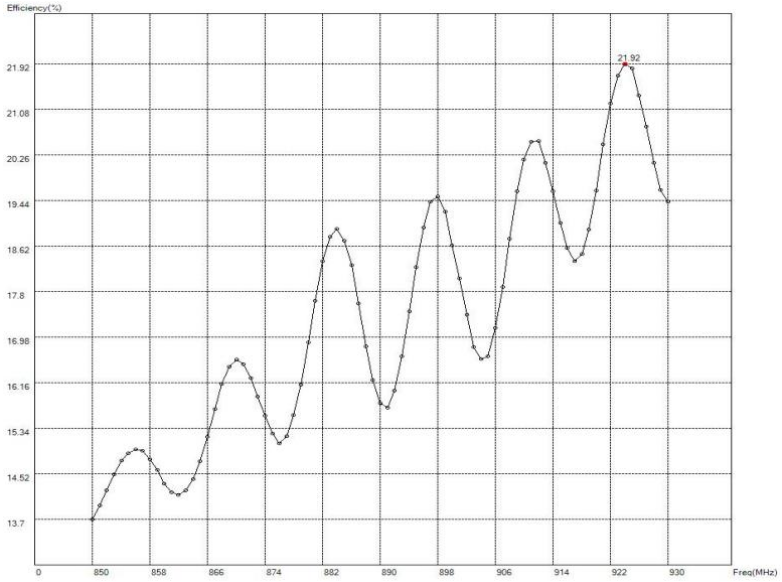
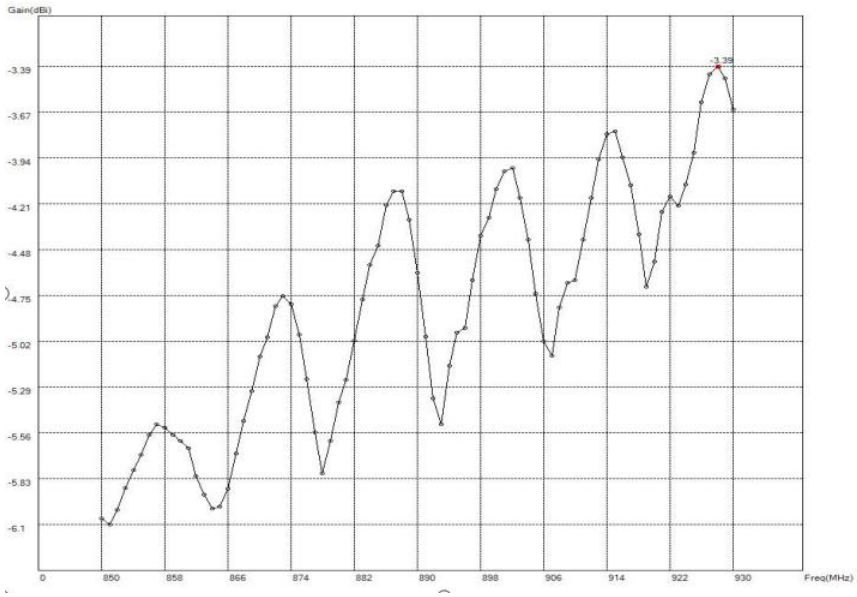
Efficiency line graph



Frequency (MHz)	850	908	915	916	920	930
Efficiency	13.69	18.76	19.04	18.59	19.63	19.43

Gain line graph：



Frequency (MHz)	850	908	915	916	920	930
Gain(dbi)	-6.06	-4.81	-3.77	-3.93	-4.54	-3.64

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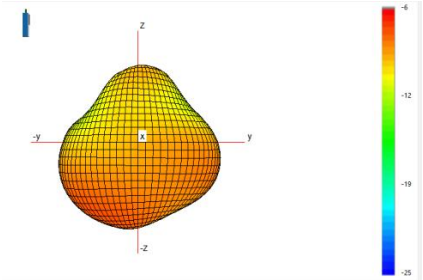
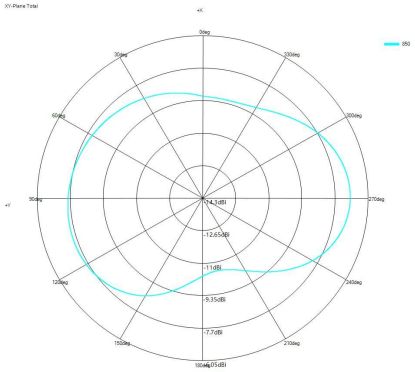
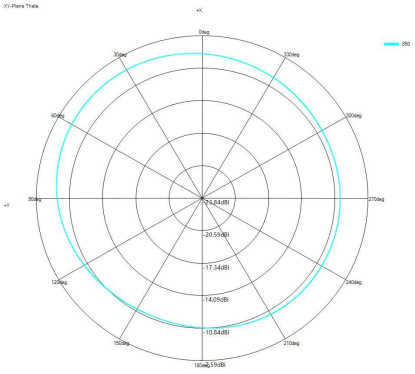
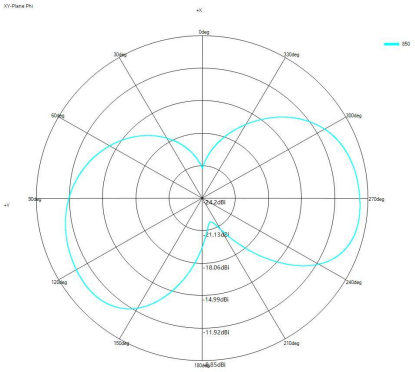
Field pattern diagram:

850MHZ









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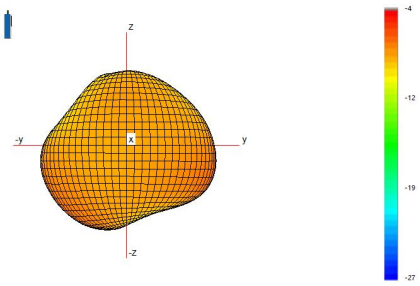
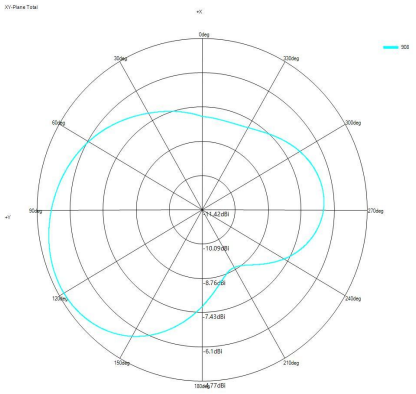
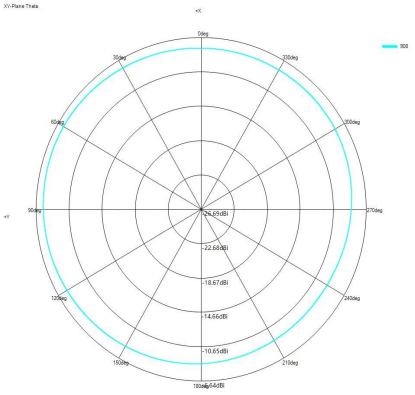
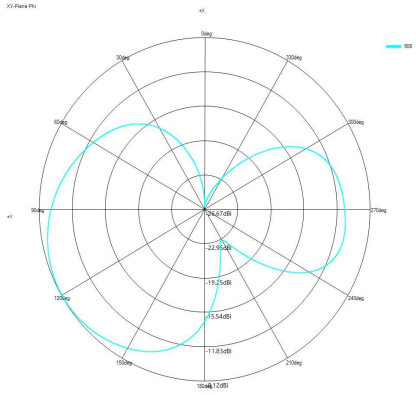
908MHZ









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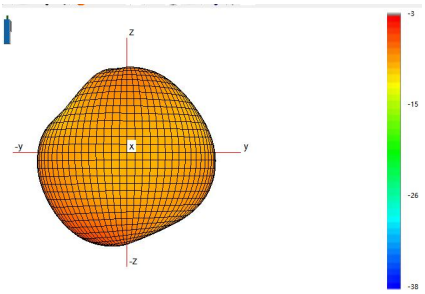
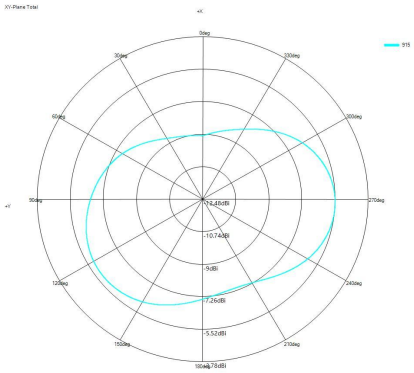
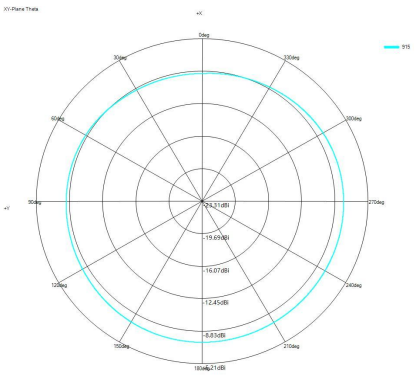
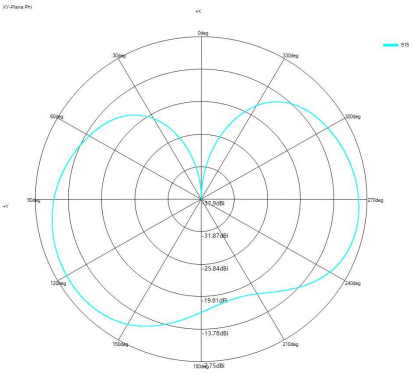
915MHZ









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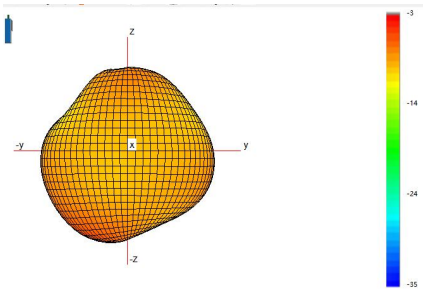
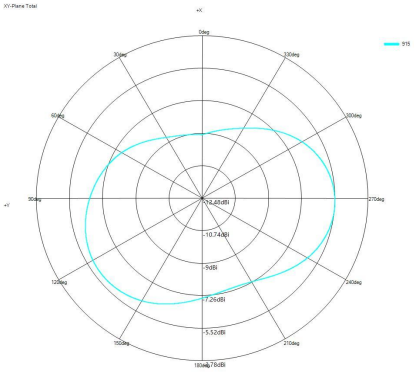
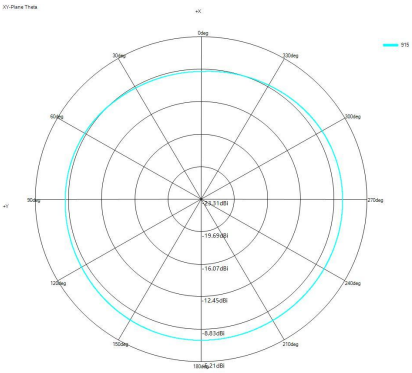
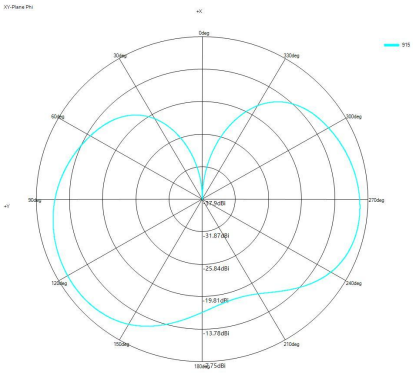
916MHZ









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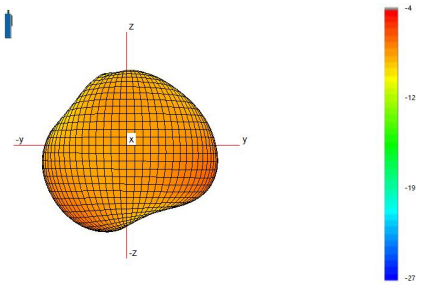
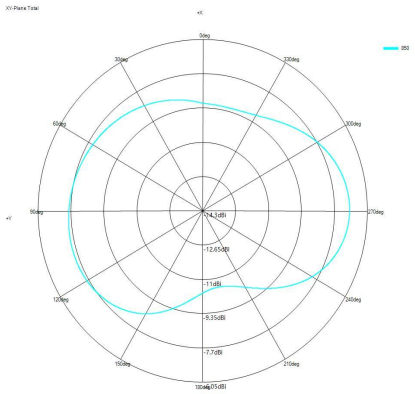
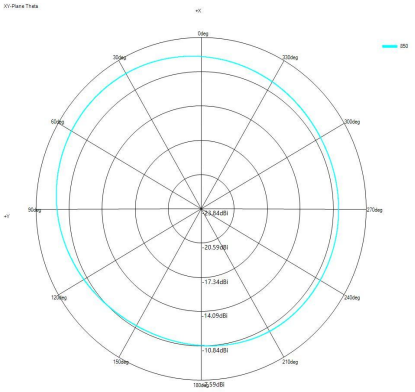
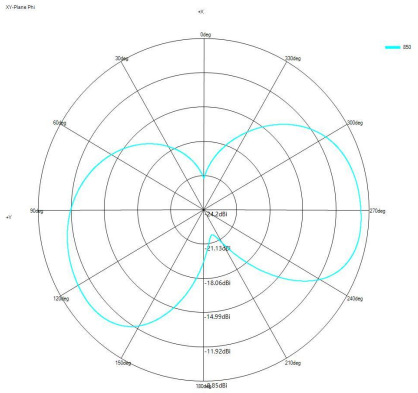
920MHZ









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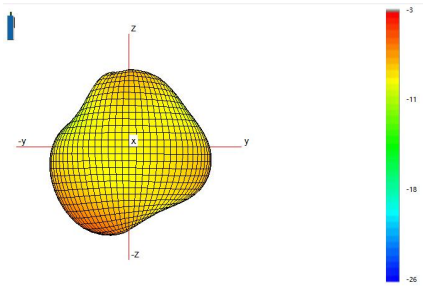
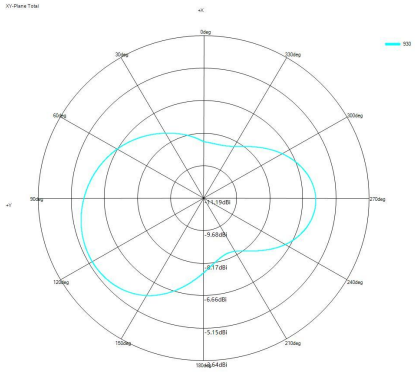
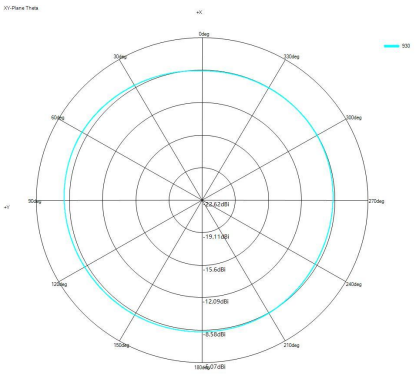
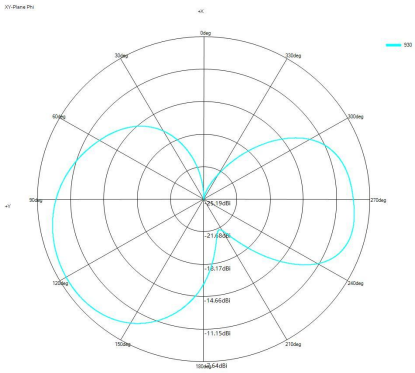
930MHZ









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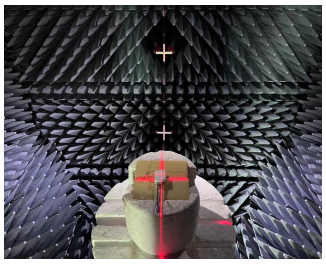
五、Reliability test report

5.1.Salt spray test report

Guest house	Baoneng Daktron	Part name	**DPXTH**	Date of completion	2022.12.27
Test item	Test requirement			Measured result	evaluation
Neutral salt spray test	Experimental process: Neutral salt spray test was carried out on the hardware on the antenna. In the closed environment of 35 ℃ ± 2 ℃, humidity > 85%, PH value within the range of 6.5-7.2, 5%±1% Nacl solution was used. After continuous 24h brine spray, the surface of the product should be free from corrosion, discoloration, and coating peeling.			After the end of the experiment, the surface of the product has no rust, no discoloration, and the coating has no peeling.	PASS
Experiment: Wang Ming			Approved by: Wang Ming		

Antenna testing instrument



Darkroom test environment

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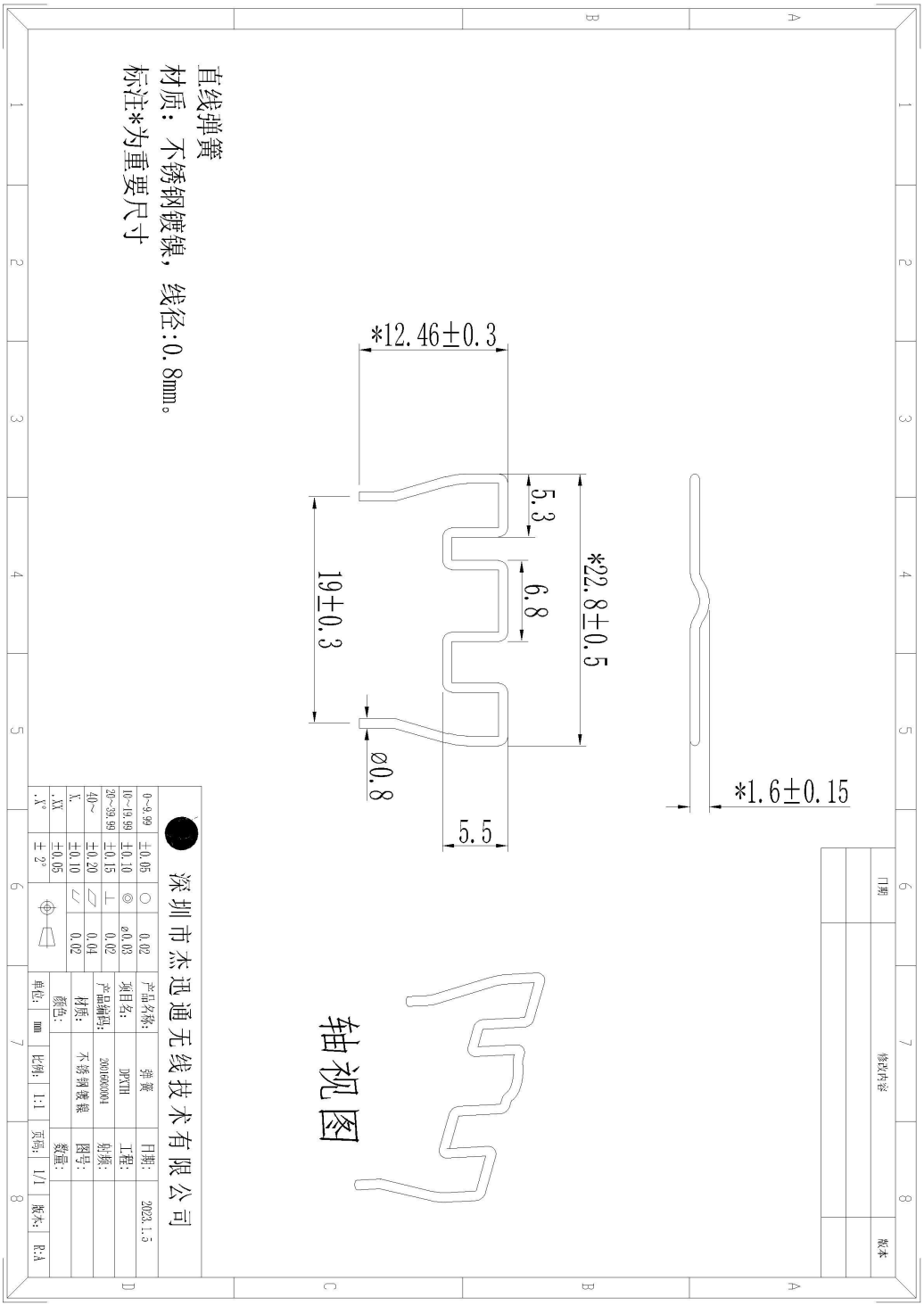
六. Engineering drawing



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