



深圳市天逸源电子科技有限公司
Shenzhen Tianyiyuan Elec&Technology CO.,Ltd
Tel.: 13244864327 Fax.: 0755-32936059

Add.: 6th Floor, Building A, Xinlongxin Industrial Park, No.50 Fengtang
Avenue, Fuhai Sub-district, Bao'an District, Shenzhen City

Approval Sheet

SPECIFICATION FOR APPROVAL

Name: WIFI Antenna

Item No: WIFI Antenna TYY-TX2506G-1

Custoer name: Shenzhen Tianyiyuan Elec&Technology CO.,Ltd

Company stamp: _____

drawing			Customer approve
MADE	CHECKED	APPROVED	
QIU	Jiang Zhiyuan	Tang Xiaohong	
DATE: 2026.08.20			DATE



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1、Spec.

This report mainly provides the test of various electrical performance parameters for the model of Shenzhen Ruipin Times Technology Co., Ltd. The TYY-TX2506G-1 antenna is a built-in Wi-Fi antenna, which consists of FPC and RF cable. (As shown in Figure 1 below.)

Figure 1 TYY-TX2506G-1 Antenna W I F I Antenna

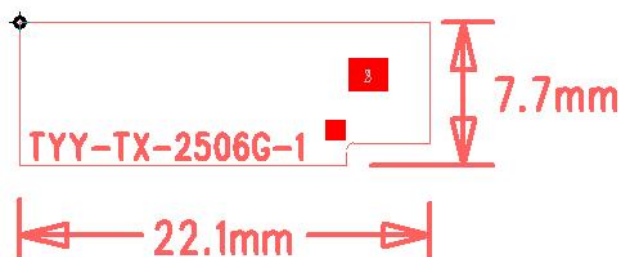


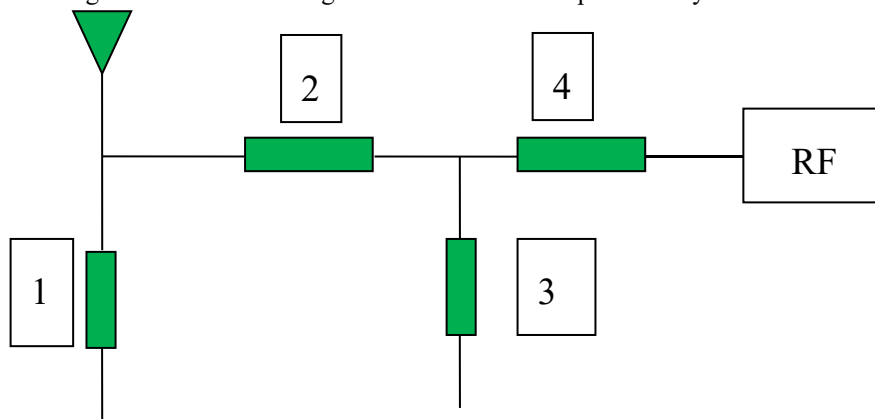
Figure 2 TYY-TX2506G-1 Antenna (1.13 mm Cable length: 80/+2mm)



Tip: Fasten the terminal block first, then peel off the adhesive tape on the back of the antenna. The antenna must be attached to the plastic housing.

2. Electrical Performance

2.1 Wi-Fi The antenna matching circuit. The matching circuit for this item is provided by the customer.





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Component No.	1	2	3	4
Optimal Wi-Fi	NC	0 Ohm	NC	
Original (Spare)	50 Ohm Matching			

Figure 3 OTA Microwave Anechoic Chamber Test Equipment

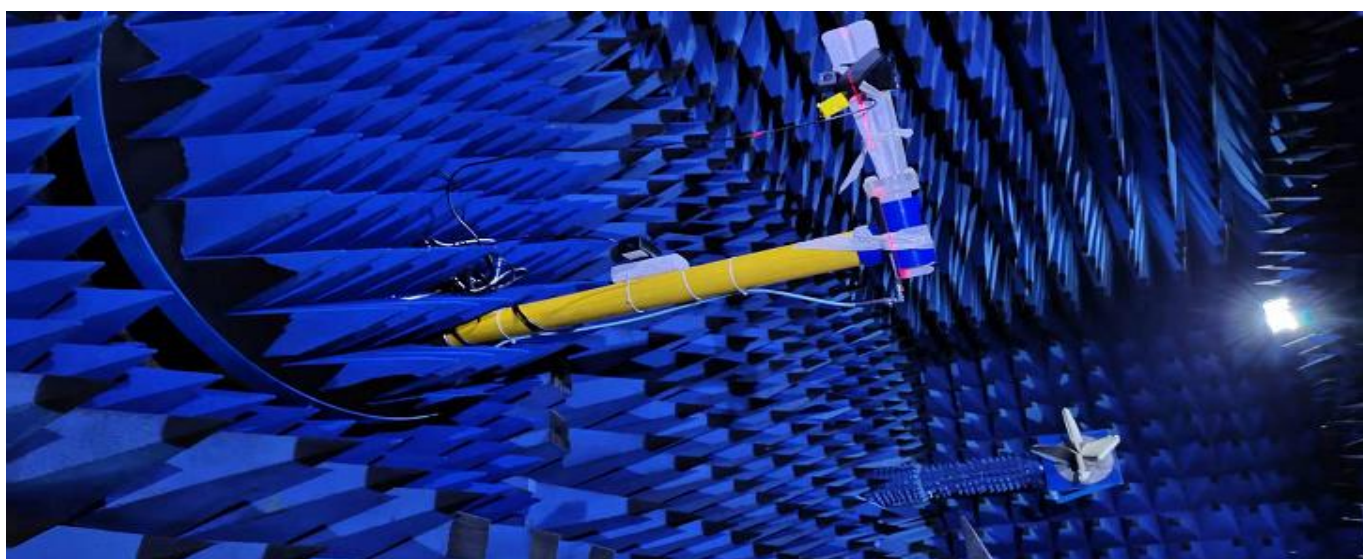
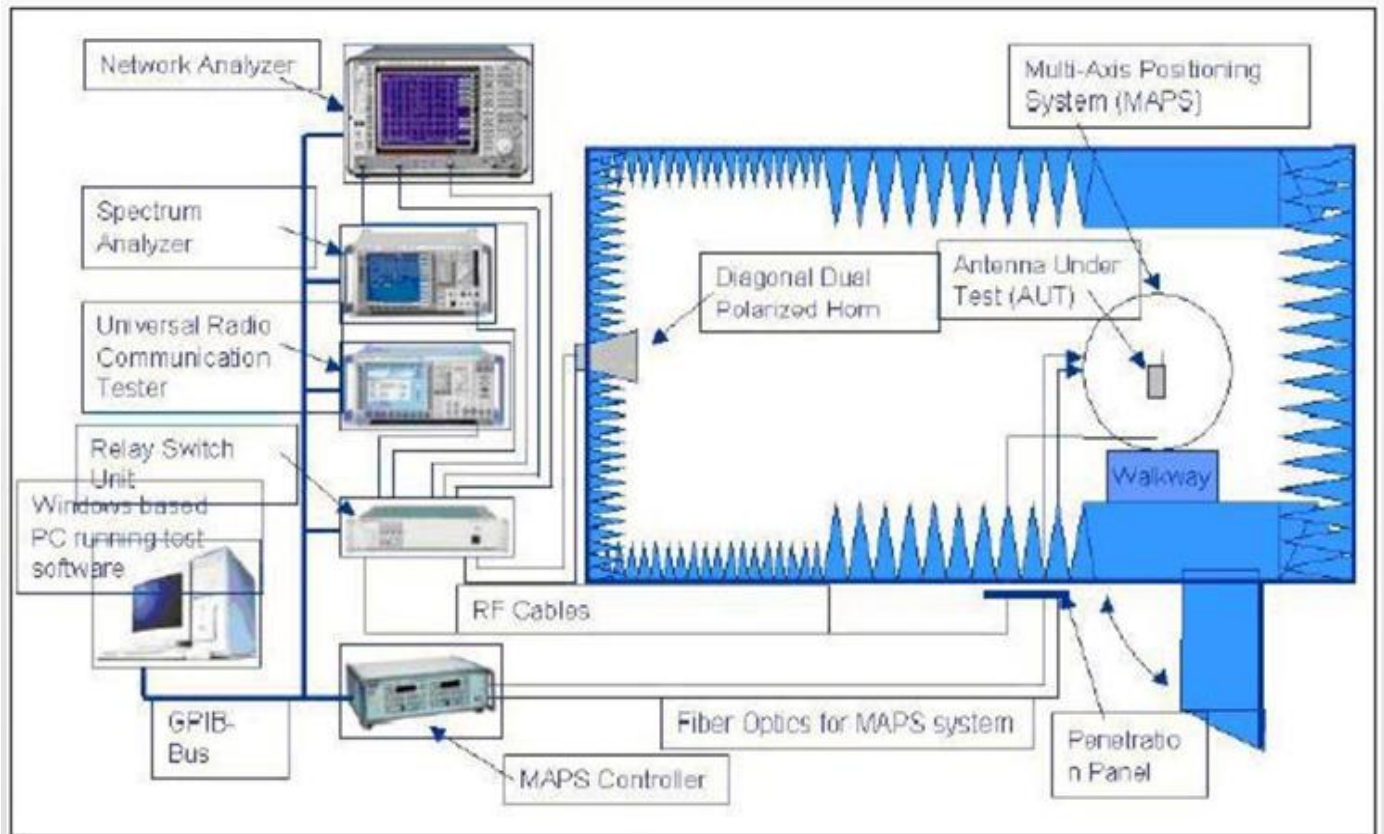


Figure 4 Test Environment: OTA743 Anechoic Chamber, W500/8960/8753ES/5071C.

The DUT is placed back-to-back, 4 meters from the standard horn antenna on the turntable.



2.3 VSWR Measurement

2.3.1 Test Setup

VSWR The test setup is connected in the following sequence: Agilent E5071C Network Analyzer® 50 Ohm Coaxial Cable® 120mm long copper tube® test fixture

Test Fixture Handling: A rigid cable shall be used to lead out an SMA-J connector from the 50 Ohm test point of the antenna on the flat PCB, connected to the copper tube with choke ring, followed by connection to other devices in sequence.

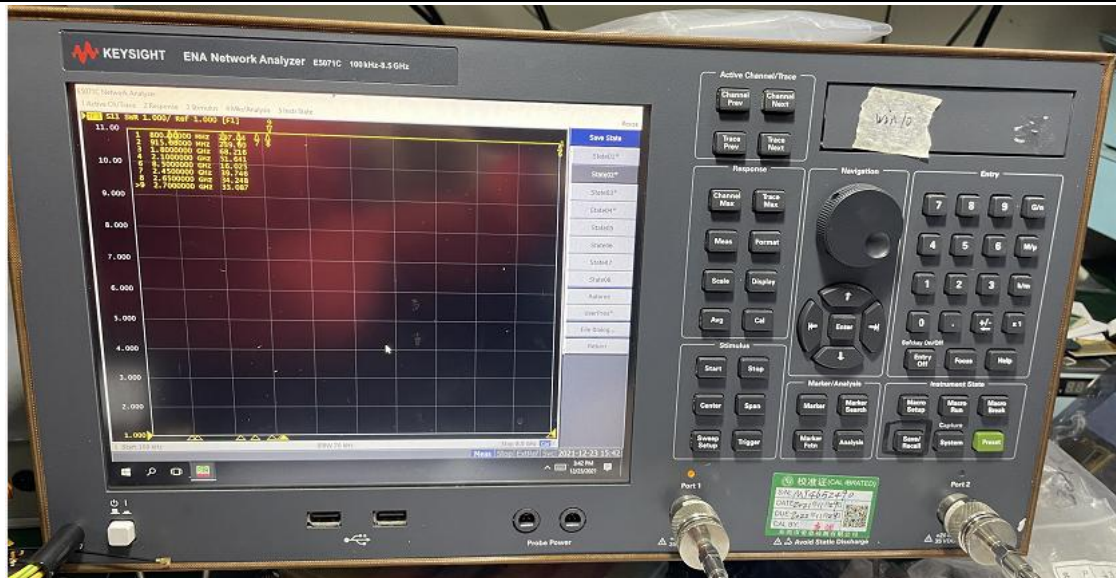
Figure 5 Agilent E5071C Network Analyzer



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Wi-Fi VSWR

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3 Wi-Fi VSWR

Figure 6 Wi-Fi VSWR



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Frequency(MHz)	2400	2500	5700	5800	
VSWR	1.4	1.1	1.4	1.9	

3. Whole Unit 3D Dynamic Test

3.1 Test Site

TCT Microwave Anechoic Chamber: The test frequency range is 600 MHz — 6 GHz, the quiet zone is a 50 cm diameter circle, and the reflectivity is less than -90 dB.

(See Figure 4 and Figure 5)

3.2 Environmental Conditioning

Environmental Conditioning: None.

Wi-Fi Passive Test Report

FEITUKEJI												
Frequency ID	1	3	5	7	9	11	12	14	16	18	20	22
Frequency (MHz)	2400.0	2420.0	2440.0	2460.0	2480.0	2500.0	5700.0	5720.0	5740.0	5760.0	5780.0	5800.0
Efficiency (dBi)	-2.44	-2.50	-1.91	-1.59	-1.47	-2.10	-1.49	-1.08	-2.62	-1.42	-1.52	-1.55
Gain (dBi)	2.22	2.61	3.43	3.80	2.91	2.38	3.39	4.13	2.22	3.61	3.78	2.82
Efficiency (%)	57.02	56.28	64.38	69.33	71.29	61.70	71.01	78.01	54.67	72.14	70.49	70.06
Directivity (dB)	4.66	5.11	5.34	5.39	4.38	4.48	4.88	5.21	4.85	5.03	5.30	4.37
Peak Gain Position (Theta)	144.00	141.00	144.00	124.00	144.00	145.00	80.00	127.00	79.00	86.00	141.00	81.00
Peak Gain Position (Phi)	180.00	180.00	180.00	210.00	180.00	180.00	90.00	90.00	90.00	270.00	60.00	90.00
Efficiency ThetaPol (%)	39.41	39.00	45.30	49.26	50.37	43.36	22.93	23.88	24.09	23.92	23.84	23.39
Efficiency PhiPol (%)	17.60	17.28	19.08	20.07	20.92	18.34	48.08	54.13	30.58	48.22	46.65	46.67
Upper Hem. Efficiency (%)	21.62	20.70	23.32	25.75	27.24	23.07	33.45	36.85	26.01	33.82	32.02	31.23
Lower Hem. Efficiency (%)	35.39	35.57	41.06	43.58	44.04	38.62	37.56	41.16	28.66	38.32	38.47	38.83



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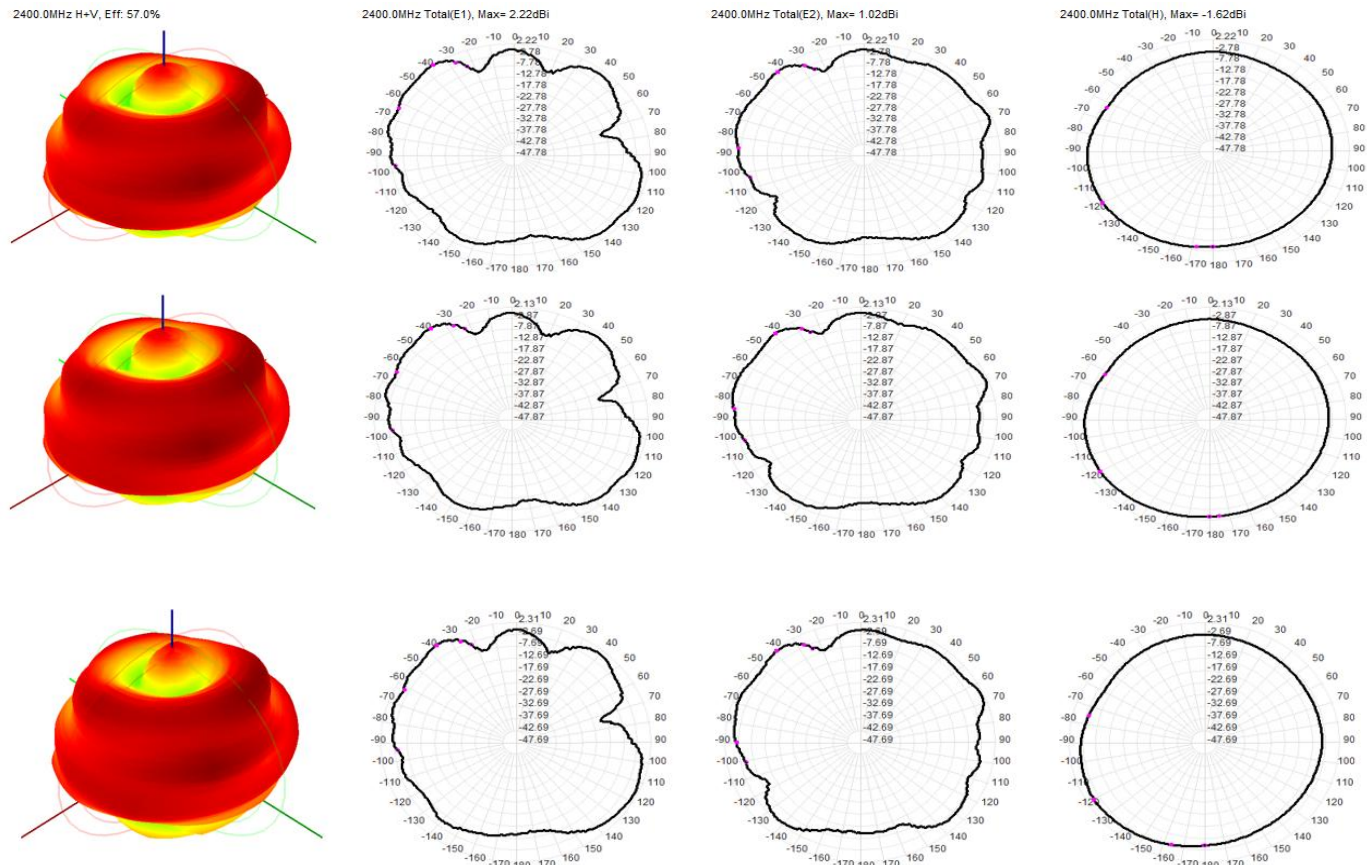
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Figure 7 Radiation Pattern



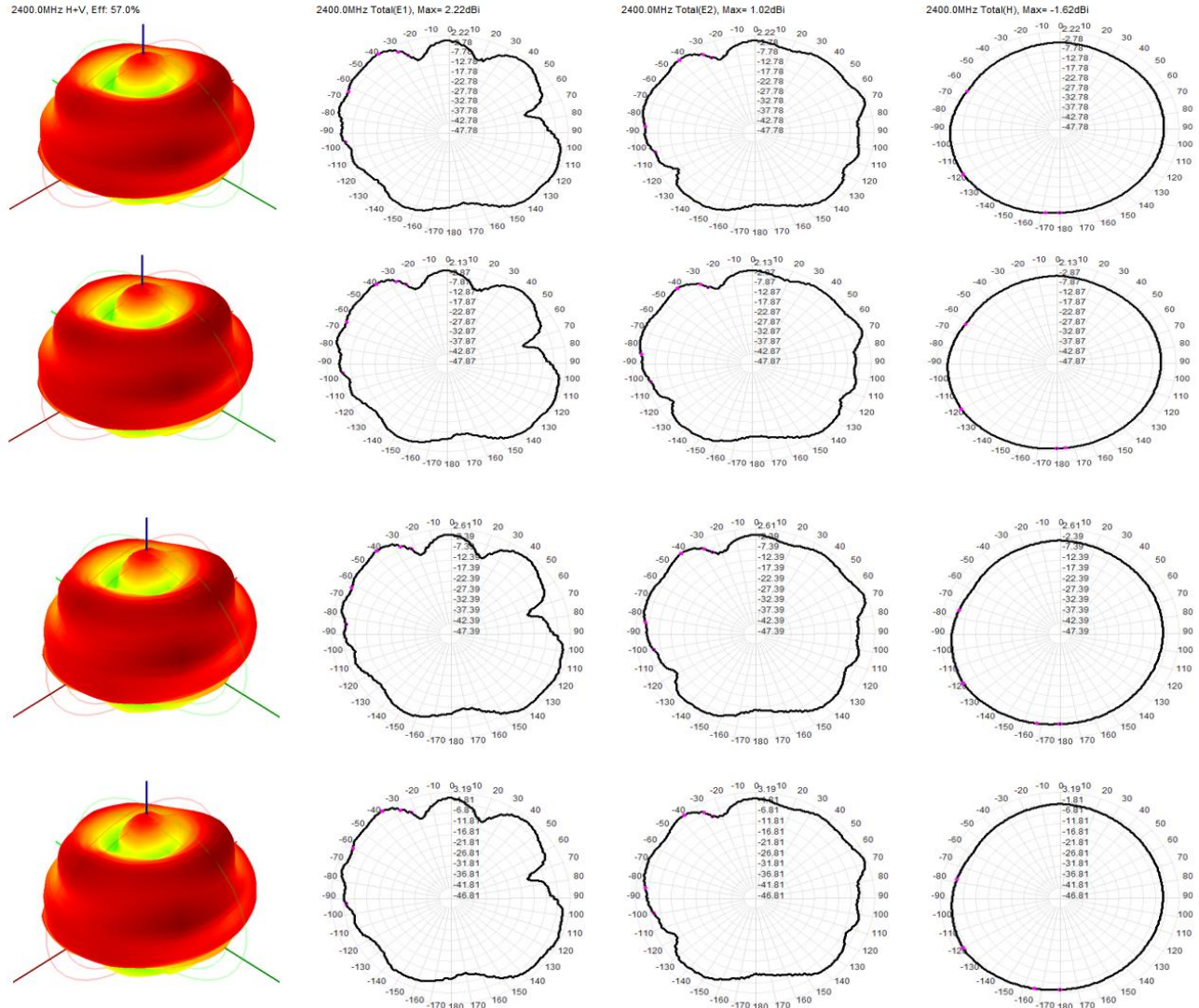


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5 Recommendations and Conclusions

This report presents the electrical performance of the antenna measured on the final version of the model project provided by the customer, Shenzhen Ruipin Times Technology Co., Ltd.

As shown in the above test data, this antenna achieves favorable electrical performance.

Tianyiyuan R&D looks forward to your confirmation. Thank you for your cooperation!