



Shenzhen xingtong wireless technology co.,
Telephone: +86-755- 27850514 Fax: +86- 0755-27850514
Address: 3/F, Building A1, Qiangrongdong Industrial Zone,
Jiuwei, Xixiang, Baoan District, Shenzhen

SPECIFICATION

Project Name: PB700K3

Product Name: PB700K3 WIFI/BT Antenna

Product part number: ANT-PB700K3-WIFI-RF1-XT001

Product part number:	Product part number:	Product part number:
Huangjiajun	Wu Yanlong	2024-02-21

Please sign and stamp on behalf of your company and return a copy to our company for filing. Thank you for your cooperation!

 Shenzhen Xingtong Wieress Technology Co., Ltd		Date	2024-02-21
		Version	A0
		File number	XT-YF-004
Product model	PB700K3-WIFI-ANT	Product number	

1.Product Constrution:

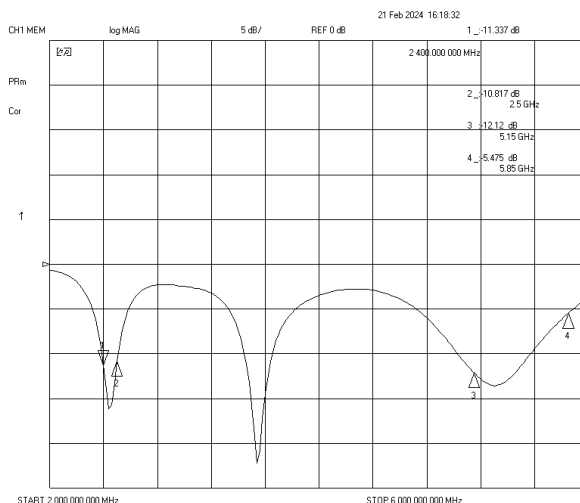
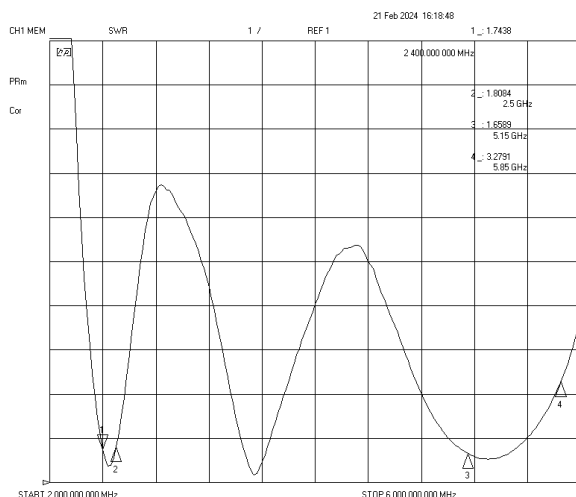
- 1. Antenna material: FPC
- 2. Back glue model: 3M300LE
- 3. Antenna size: 31.1 * 24.25 (tolerance ± 0.1)
- 4. Coaxial line size: 42mm $\varnothing$ 0.81-3rd generation IPEX
- 4. Appearance treatment: Surface antioxidant treatment

2. parameters

- Scope of use: Customer supplied machines
- Antenna frequency: 2400-2484mhz 5150-5850mhz
- Antenna free space average gain: 2.4G ≥ 1.22 dbi 5.8G ≥ 1.53 dbi
- Antenna impedance: 50 ohms
- Polarization mode: horizontal/vertical
- Installation method: Connect the IPEX terminal wire to the motherboard
- Packaging method: Use PE bag+packaging box

3.S11 value of antenna (S11)

- 3.1: Antenna standing wave ratio/return loss value



- 3.2: Antenna parameters:

Frequency point	2400mhz	2500mhz	5150Mhz	5850Mhz
SWR(dbm)	1.74	1.80	1.65	3.27
LOG (db)	-11.33	-10.81	-12.12	-5.47

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4. Antenna performance (OTA)

- 4.1: Antenna matching suggestions
The antenna cannot be subjected to vector impedance modulation.

- 4.2: Antenna OTA/efficiency/gain (testing instruments: network analyzer, oscilloscope, customer supplied engineering prototype, various standard cards, etc.)

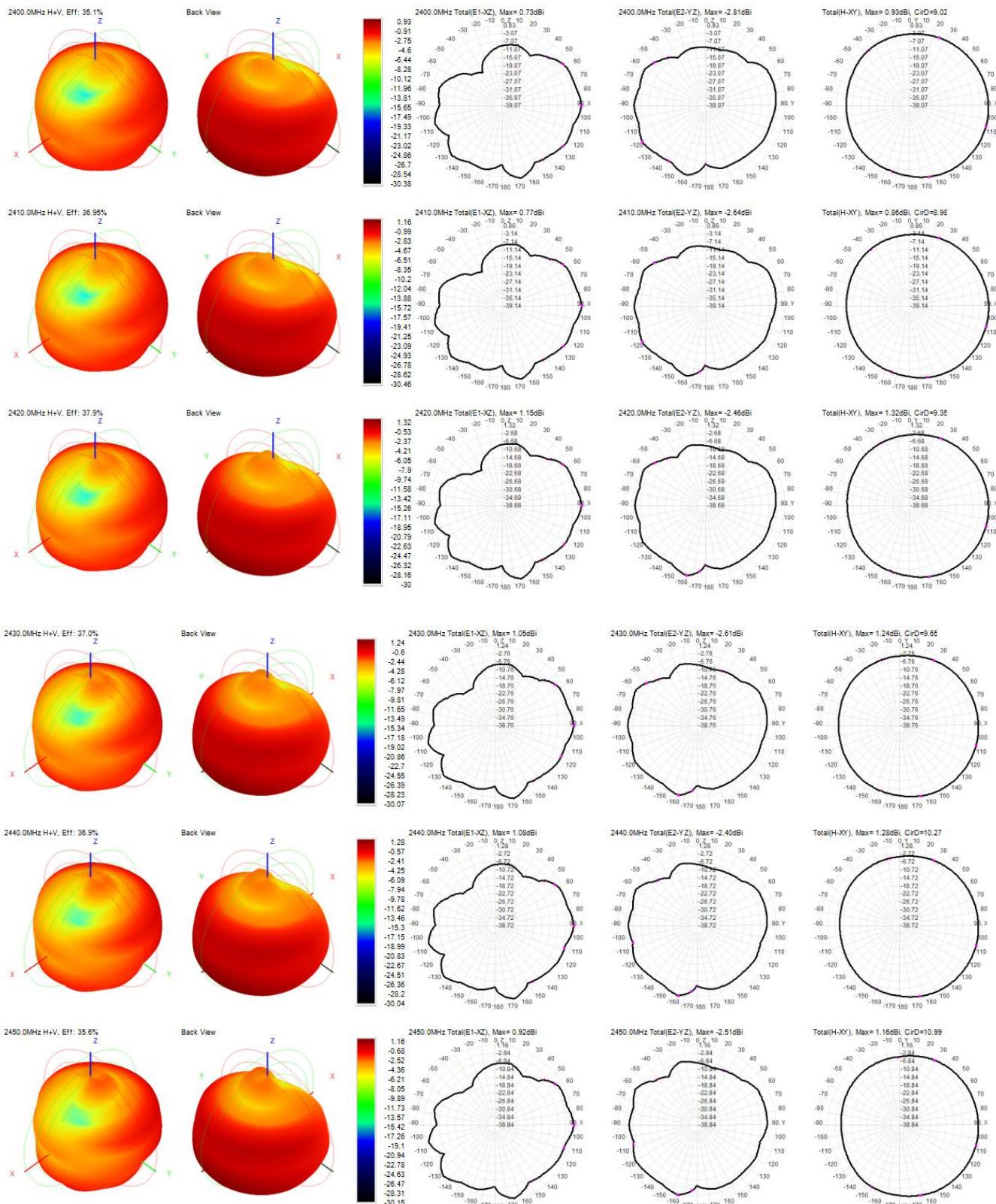
4.2.1: 2.4G-WIFI/BT-2D

Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Efficiency (dBi)	-4.55	-4.32	-4.21	-4.32	-4.33	-4.48	-4.57	-4.80	-5.03	-5.43	-5.91
Gain (dBi)	0.93	1.16	1.32	1.24	1.28	1.16	1.11	0.92	0.73	0.37	-0.06
Efficiency (%)	35.06	36.95	37.93	36.97	36.94	35.63	34.90	33.14	31.42	28.64	25.67
Directivity (dB)	5.48	5.42	5.53	5.56	5.60	5.64	5.68	5.71	5.76	5.80	5.85
Peak Gain Position (Theta)	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Peak Gain Position (Phi)	195.00	195.00	195.00	195.00	195.00	195.00	195.00	195.00	195.00	195.00	180.00
Efficiency ThetaPol (%)	32.32	33.02	34.69	33.51	33.32	31.72	30.85	29.19	27.40	24.84	22.04
Efficiency PhiPol (%)	2.74	2.93	3.25	3.46	3.62	3.91	4.05	3.95	4.02	3.80	3.63
Upper Hem. Efficiency (%)	16.04	17.80	17.06	16.61	16.56	15.86	15.36	14.36	13.49	12.24	10.99
Lower Hem. Efficiency (%)	19.01	19.15	20.88	20.36	20.37	19.77	19.54	18.78	17.94	16.40	14.69

4.2.2: 5.8G-WIFI-2D

Frequency ID	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Frequency (MHz)	5150.0	5200.0	5250.0	5300.0	5350.0	5400.0	5450.0	5500.0	5550.0	5600.0	5650.0	5700.0	5750.0	5800.0	5850.0
Efficiency (dBi)	-4.01	-3.20	-2.97	-3.78	-3.44	-2.95	-4.02	-3.85	-2.83	-4.12	-4.02	-3.08	-3.77	-4.46	-2.86
Gain (dBi)	1.48	1.46	2.08	1.48	2.53	2.48	2.00	2.09	3.08	1.78	1.28	1.79	1.64	1.02	2.58
Efficiency (%)	39.72	47.88	50.52	41.86	45.26	50.72	39.61	41.21	52.17	38.73	39.61	49.22	42.00	35.78	51.72
Directivity (dB)	4.49	4.66	5.05	5.26	5.97	5.43	6.02	5.94	5.90	4.90	5.30	4.86	5.40	5.48	5.44
Peak Gain Position (Theta)	90.00	75.00	75.00	90.00	75.00	60.00	60.00	60.00	60.00	90.00	90.00	60.00	75.00	90.00	75.00
Peak Gain Position (Phi)	30.00	15.00	30.00	30.00	30.00	15.00	15.00	15.00	15.00	45.00	45.00	15.00	165.00	45.00	45.00
Efficiency ThetaPol (%)	17.62	21.75	22.62	19.00	20.53	24.15	19.63	20.98	27.15	20.38	20.82	26.50	21.82	18.75	27.28
Efficiency PhiPol (%)	22.10	26.14	27.90	22.86	24.73	26.57	19.97	20.23	25.02	18.35	18.79	22.72	20.17	17.03	24.44
Upper Hem. Efficiency (%)	23.41	28.09	29.68	24.56	25.90	28.34	21.49	22.60	27.92	20.56	21.28	26.28	22.55	19.10	26.29
Lower Hem. Efficiency (%)	16.31	19.79	20.83	17.29	19.36	22.38	18.12	18.60	24.26	18.17	18.33	22.94	19.44	16.68	25.43

4.2.3: WIFI OTA-2.4G-3D





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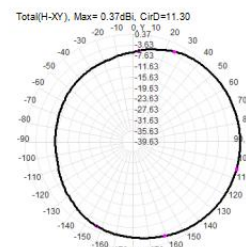
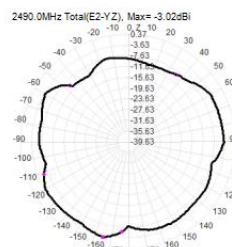
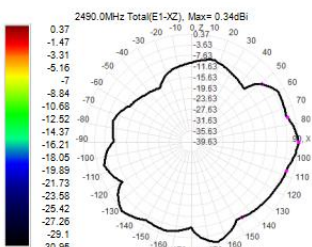
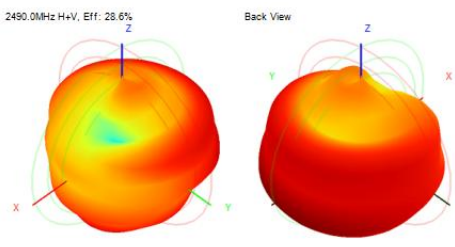
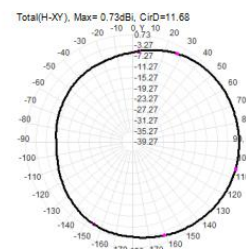
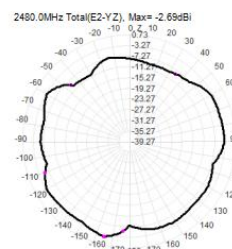
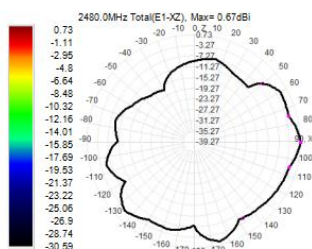
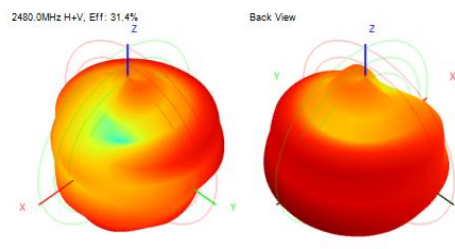
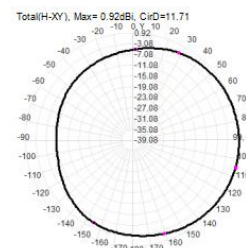
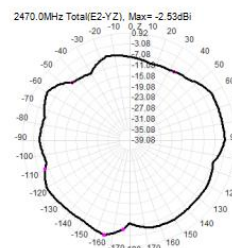
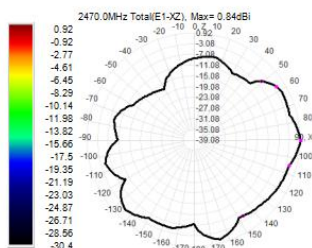
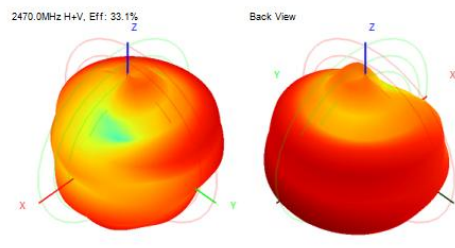
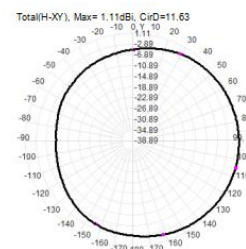
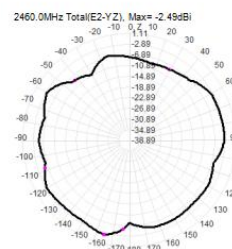
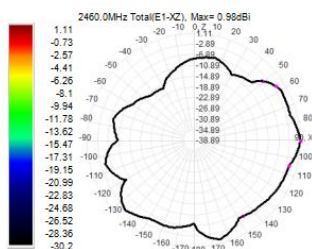
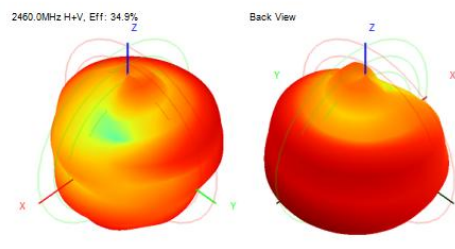
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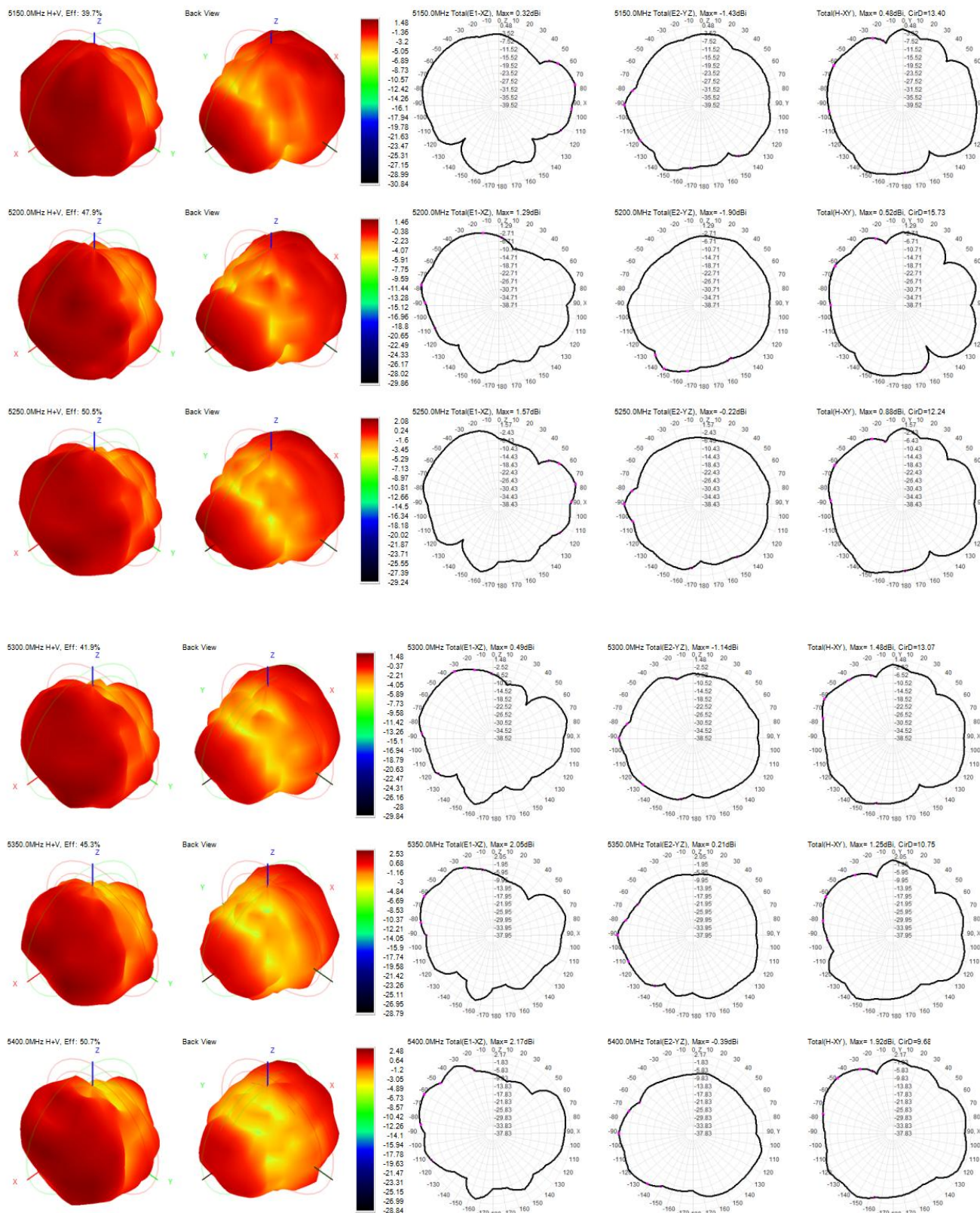
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4.2.4: WIFI-OTA-5.8G-3D





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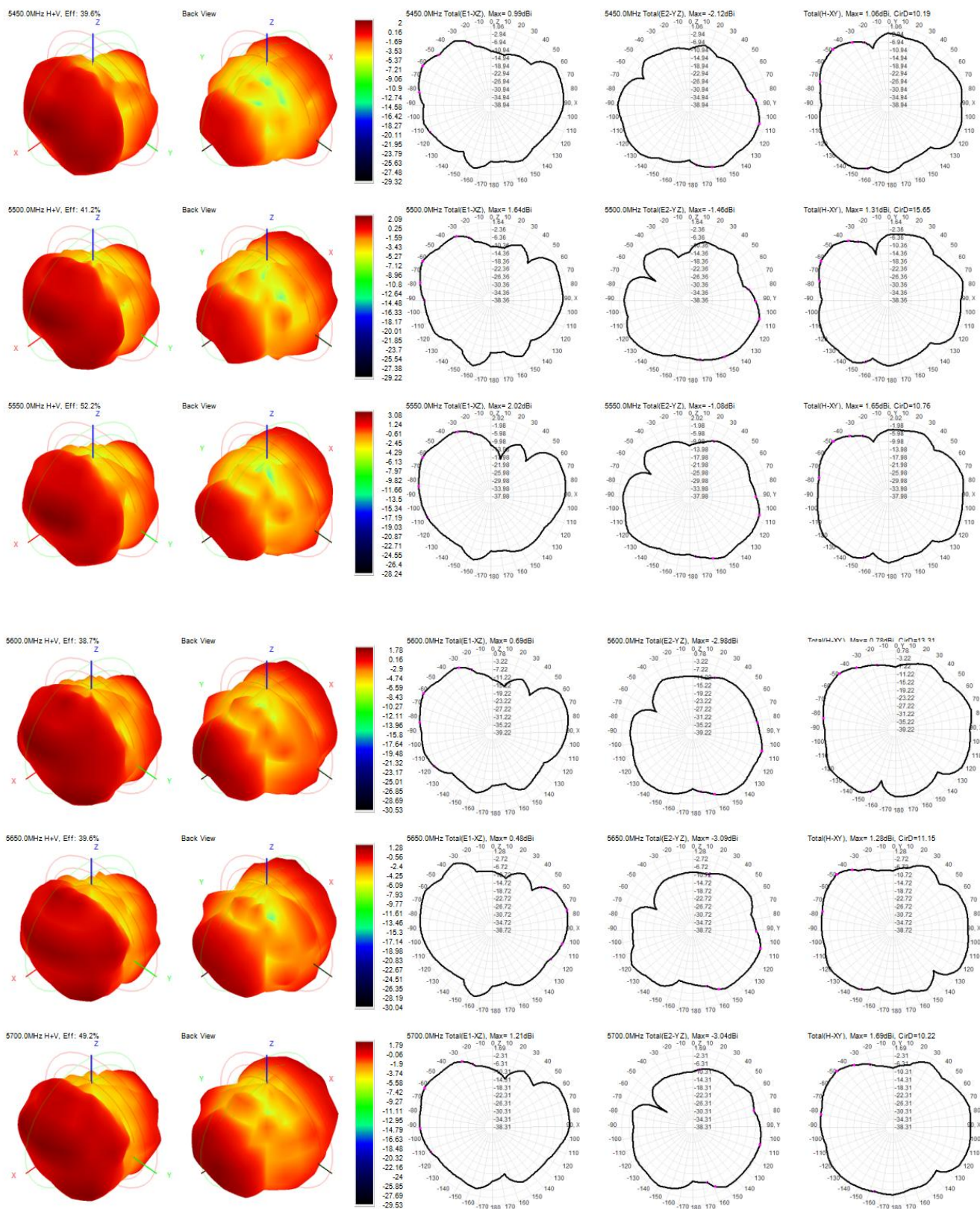
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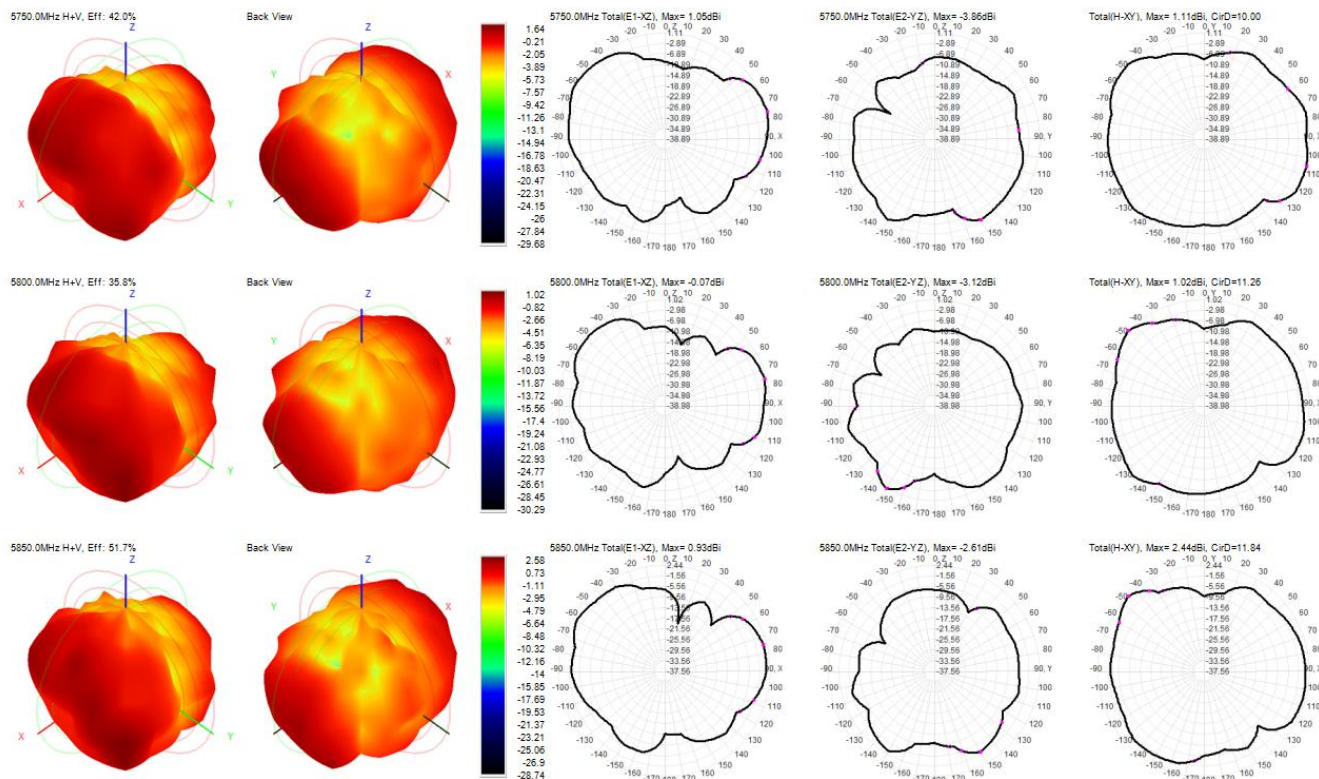
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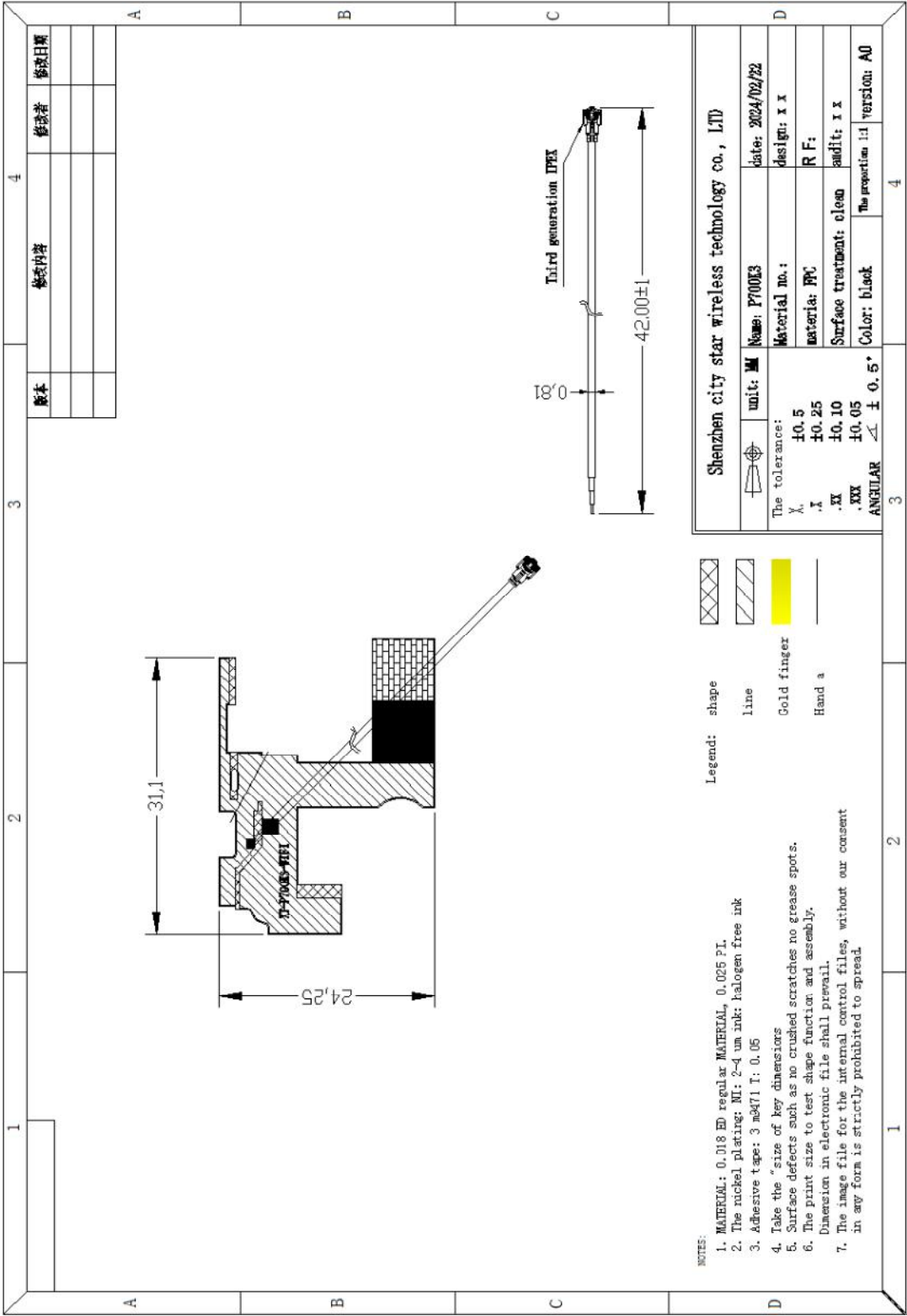
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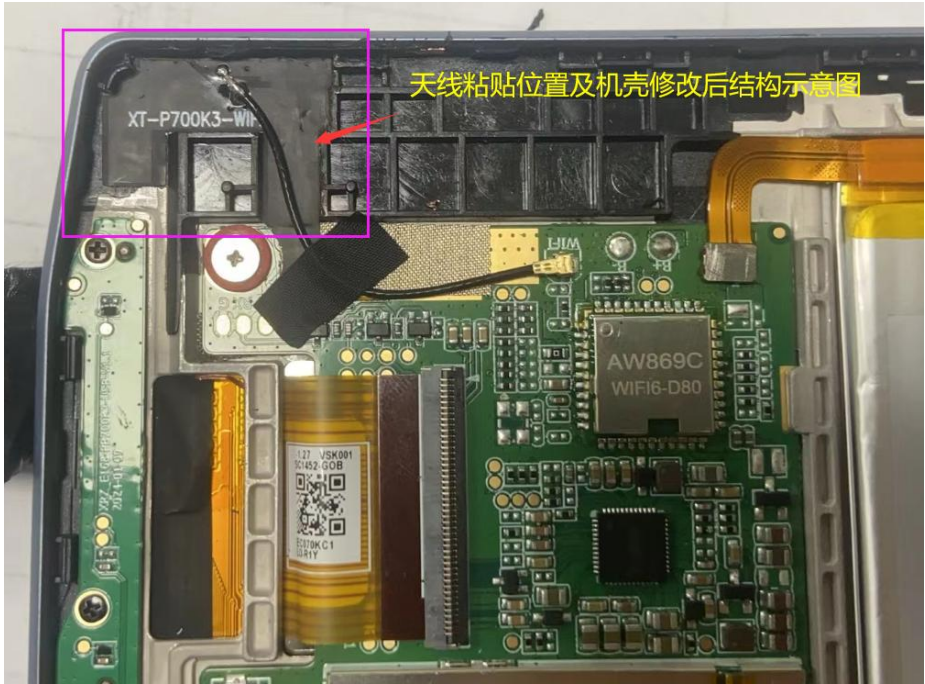
5. Attached image:

5.1: Finished antenna diagram



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6. Notes:



After opening, please carefully check if the item is intact. If there is any damage, please contact us immediately.