



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

Product specification

Product number: R1030B

Product name: R1030B WIFI ANT

Product item number: 2025-10-23-V1

Producer	Audit	Date
Huangjiajun	Wu Yanlong	2025-10-23

Customer confirmation:

Customer name: Shenzhen Jiuzhou Zhihe Technology Co., Ltd

Approval :

Date :

Notes :

Please sign and stamp the document before returning it to our company for archiving. Thank you for your cooperation!

 Shenzhen Xingtong Wieress Technology Co., Ltd		Date	2025-10-23
		Version	A0
		File number	XT-YF-004
Product model	R1030B WIFI-ANT	Product number	R1030B-APP-RA

1.Product Constrution

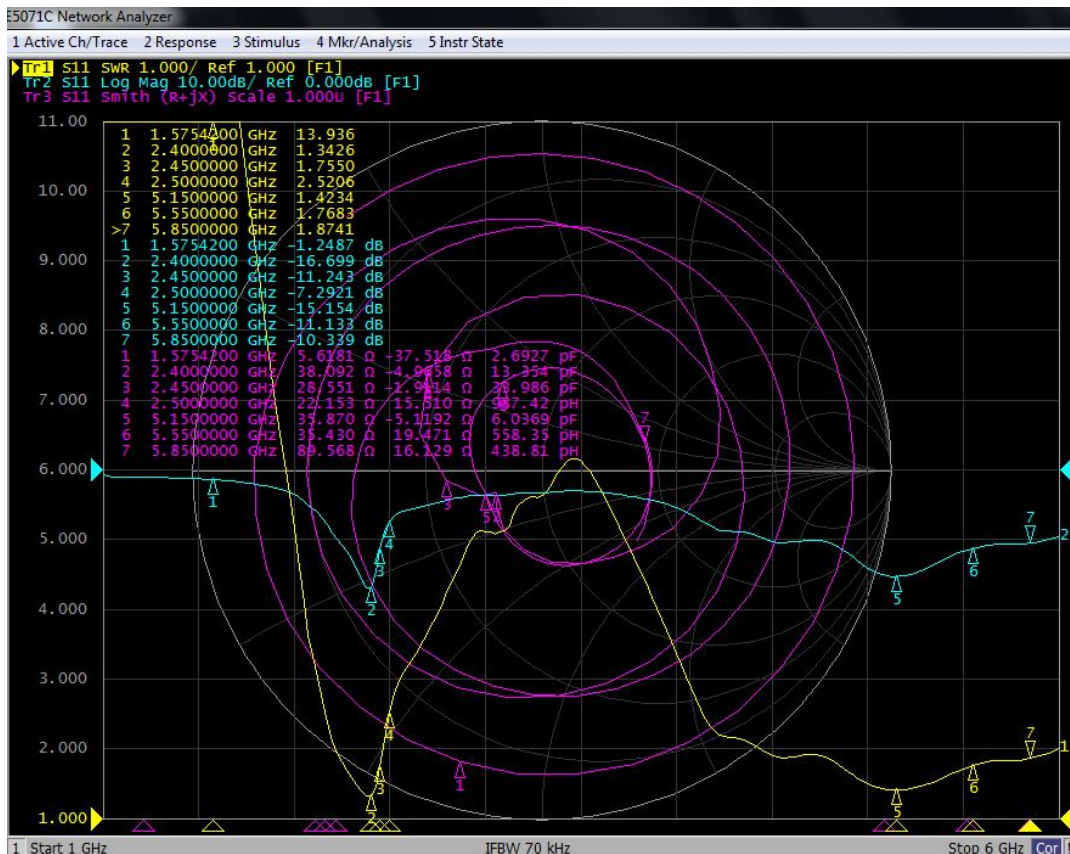
- 1.Antenna material: FPC
- 2.Adhesive model: 3M9471
- 3.Antenna size: 26.6mm *24mm * 0.2mm (length and width tolerance ± 0.1 mm, thickness tolerance ± 0.02 mm)
- 4.Coaxial dimension: 80mm $\varnothing$ 0.81 fourth generation IPEX (tolerance ± 1.0 mm)

2.Parameter index

- Scope of use: Customer supplied machines
- Antenna frequency: 2.4G (2402-2484MHz) 5G (5150-5850MHz)
- Antenna impedance: 50 Ω
- Antenna standing wave:<1.87
- Return loss:2.4G<-11.24 db 5G<-15.15 db
- Maximum gain of antenna: 2.4G: 0.34dbi 5G: -0.05dbi
- Polarization mode: vertival/horizontal
- Power capacity: 5W
- Installation method: Connect the terminal wire to the motherboard

3.S11 value of antenna (S11)

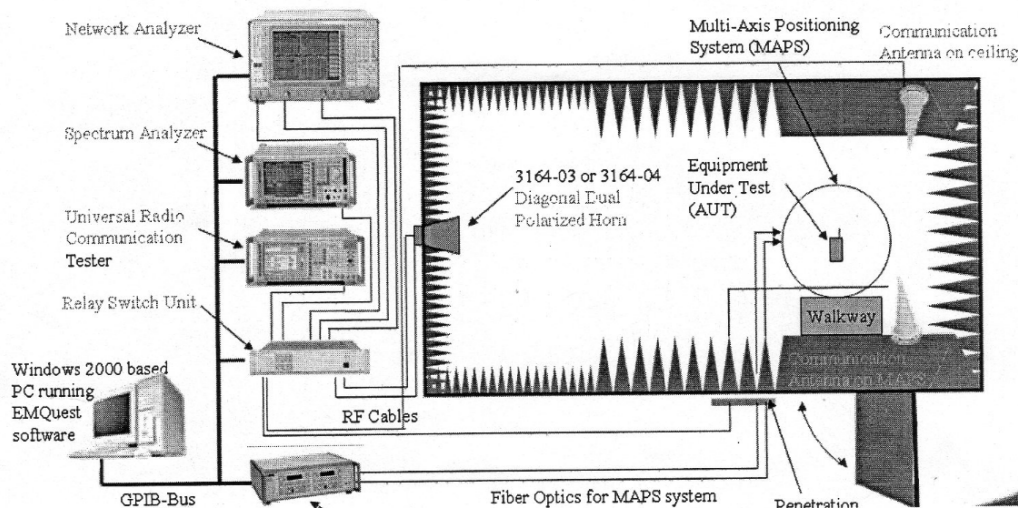
- 3.1: Antenna standing wave ratio/loss value -2.4G/5G



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4. Antenna performance (OTA)

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



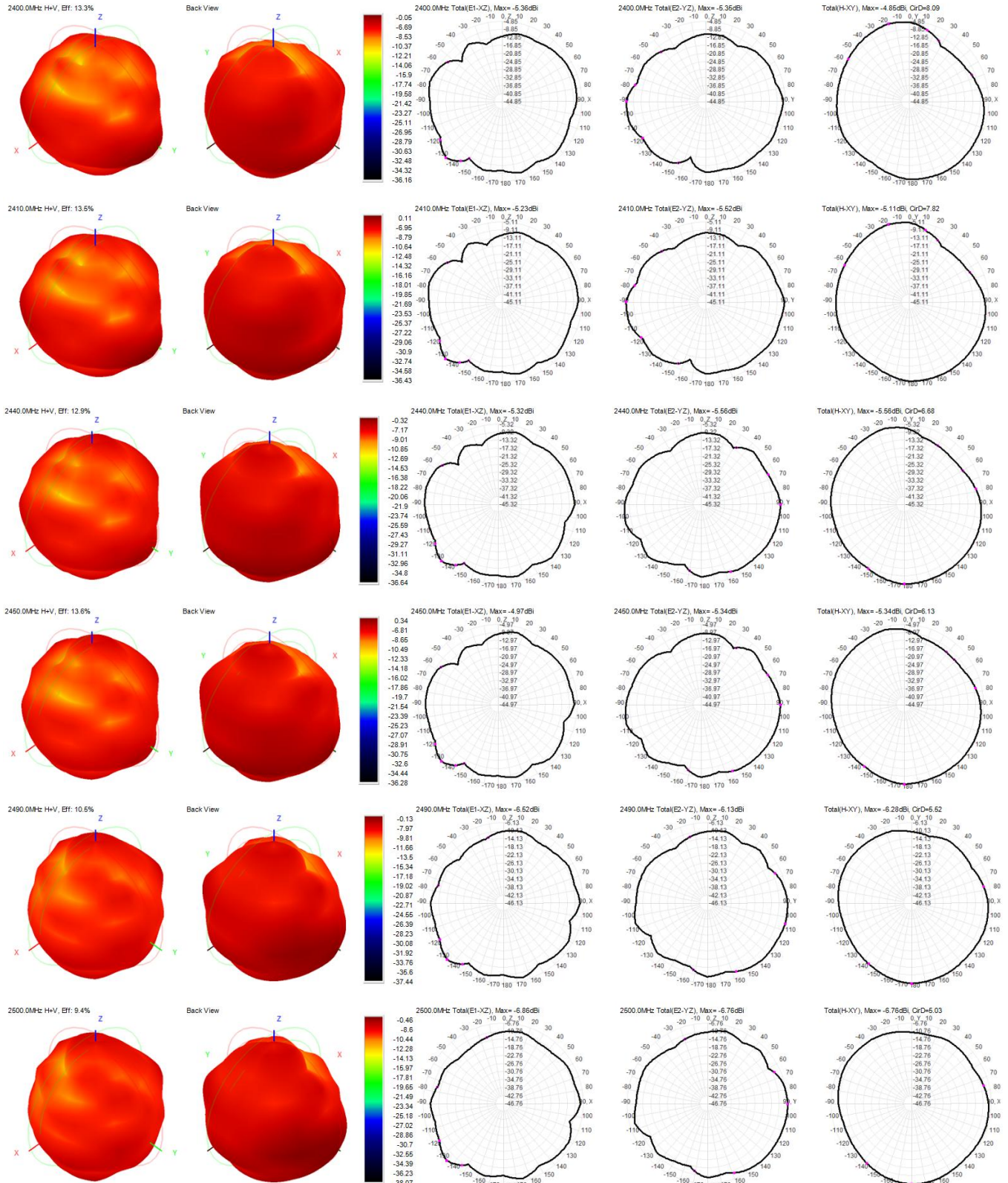
- 4.2:
■ 4.2.1-2. 4G-2D

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)	-8.76	-8.69	-8.46	-8.51	-8.89	-8.68	-8.95	-9.40	-9.27	-9.77	-10.25
Gain (dBi)	-0.05	0.11	0.04	0.11	-0.32	0.34	-0.37	-0.26	-0.23	-0.13	-0.46
Efficiency (%)	13.31	13.53	14.25	14.10	12.90	13.57	12.72	11.49	11.83	10.54	9.44
Directivity (dB)	3.91	3.58	3.42	3.60	3.57	3.71	3.58	3.54	3.64	3.64	3.50
Peak Gain Position (Theta)	90.00	90.00	135.00	135.00	135.00	135.00	135.00	105.00	105.00	105.00	90.00
Peak Gain Position (Phi)	75.00	75.00	0.00	0.00	0.00	0.00	0.00	270.00	270.00	270.00	270.00
Efficiency ThetaPol (%)	4.95	5.03	5.32	5.27	4.77	4.92	4.59	4.23	4.40	3.92	3.57
Efficiency PhiPol (%)	8.36	8.50	8.94	8.83	8.13	8.65	8.13	7.25	7.43	6.62	5.86
Upper Hem. Efficiency (%)	5.94	6.03	6.34	6.25	5.71	5.97	5.58	4.97	5.08	4.50	4.01
Lower Hem. Efficiency (%)	7.38	7.51	7.91	7.85	7.19	7.60	7.15	6.52	6.75	6.04	5.43

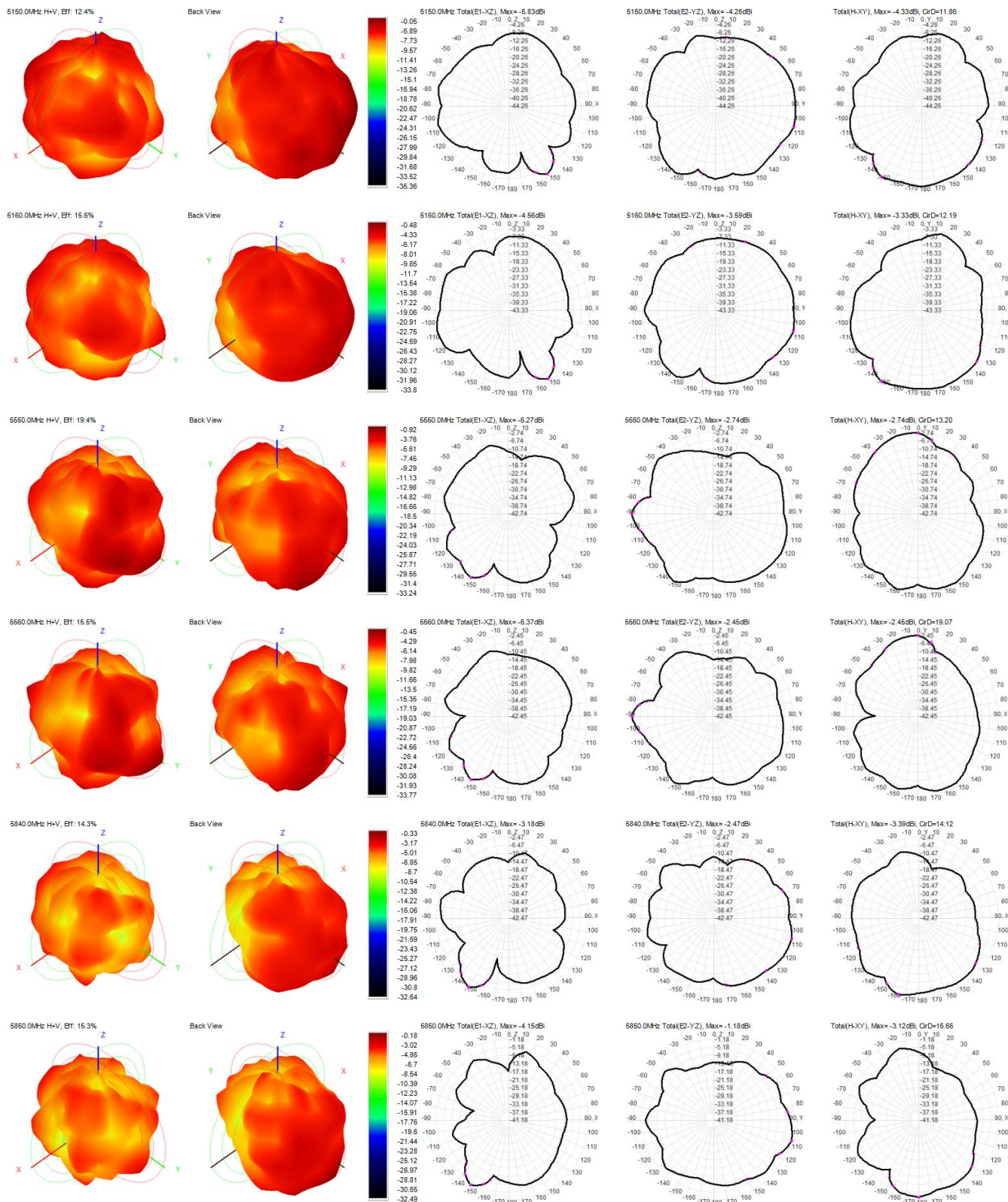
- 4.2.2-5G-2D

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)	-9.08	-8.36	-8.27	-9.23	-8.30	-7.65	-8.88	-7.97	-7.12	-8.24	-8.13	-7.40	-8.39	-9.17	-8.14
Gain (dBi)	-0.05	-0.89	-0.51	-0.30	-0.62	-0.50	-0.96	-0.98	-0.92	-0.14	-0.75	-0.72	-0.85	-0.23	-0.18
Efficiency (%)	12.37	14.60	14.88	11.94	14.78	17.18	12.95	15.97	19.42	14.98	15.38	18.21	14.48	12.11	15.35
Directivity (dB)	5.03	5.47	5.76	5.93	5.69	5.15	4.91	4.99	5.19	5.10	6.38	5.68	6.54	5.94	6.96
Peak Gain Position (Theta)	75.00	150.00	150.00	120.00	120.00	150.00	90.00	150.00	135.00	135.00	90.00	150.00	135.00	120.00	105.00
Peak Gain Position (Phi)	300.00	165.00	165.00	300.00	300.00	165.00	90.00	165.00	225.00	240.00	255.00	345.00	240.00	285.00	270.00
Efficiency ThetaPol (%)	4.65	5.85	6.17	5.16	7.07	8.20	6.19	8.12	9.73	7.40	7.56	9.40	7.49	6.51	8.03
Efficiency PhiPol (%)	7.72	8.75	8.72	6.78	7.71	8.98	6.76	7.85	9.69	7.58	7.81	8.81	6.99	5.60	7.32
Upper Hem. Efficiency (%)	6.10	6.92	6.98	5.56	6.80	7.81	5.84	7.11	8.22	6.52	6.88	8.00	6.09	5.29	6.53
Lower Hem. Efficiency (%)	6.27	7.68	7.91	6.38	7.98	9.37	7.12	8.86	11.20	8.46	8.50	10.21	8.39	6.82	8.81

4.2.3: 2.4G-3D



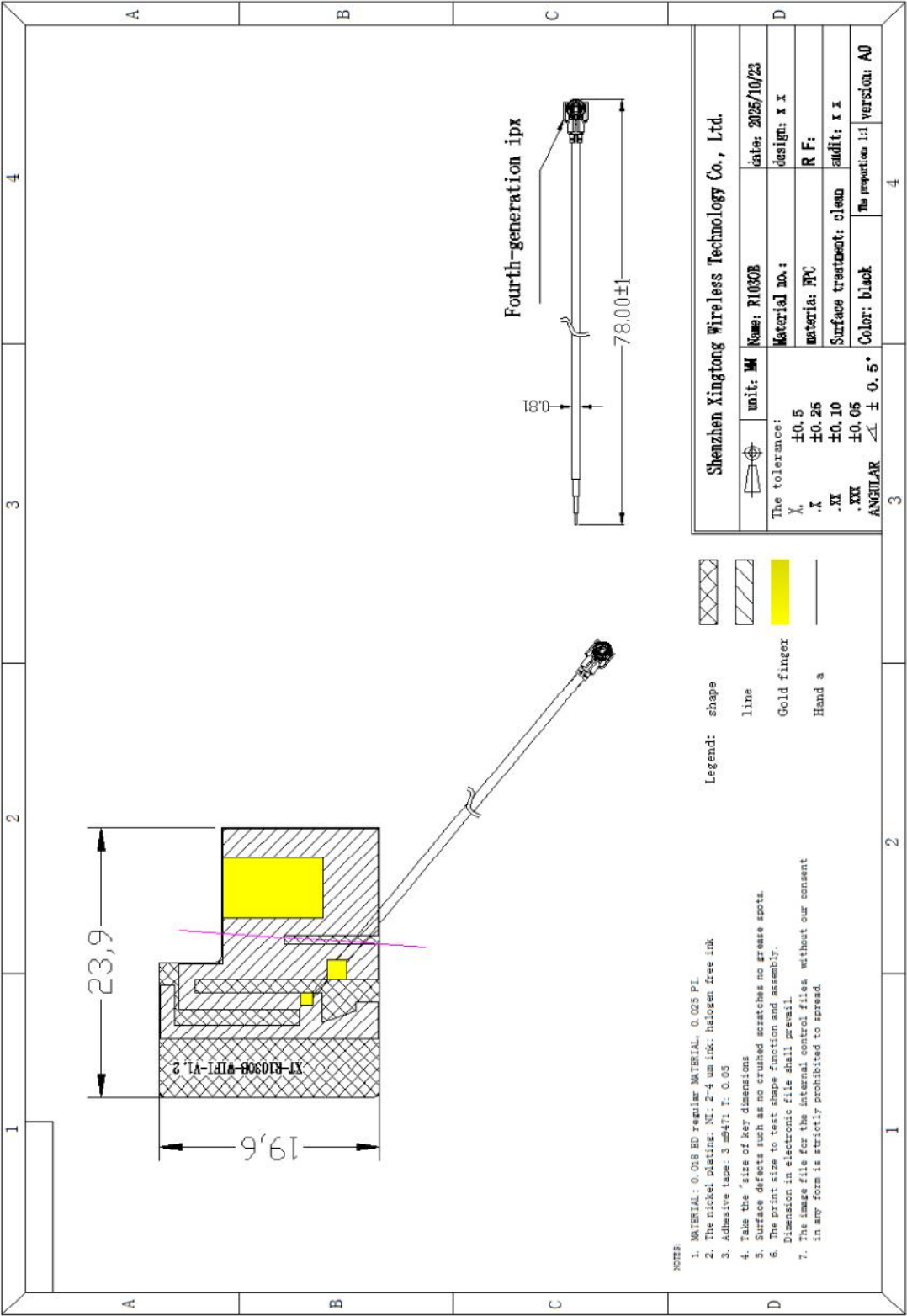
4.2.4: 5G-3D



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5. Attached image:

■ 5.1: Antenna finished product diagram

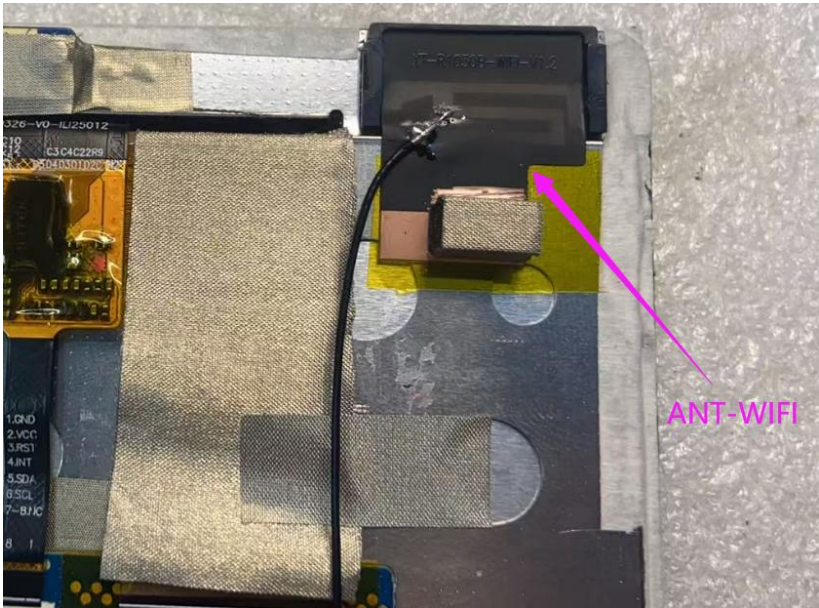


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7. Reliability test:

Serialnumb	test item	Test requirements	testing tool	test result
1	Resistance to tin melting	288℃, 10S, no delamination, no foaming	Tin furnace	Ok
2	weldability	245℃, 5s, smooth tin surface, solder surface≥95%	Tin furnace	Ok
3	Pulling force	N/A	tautness meter	Ok
4	Reverse pulling force	N/A	tautness meter	Ok
5	Peel strength (covering film)	≥0.35kg/cm	peel strength tester	Ok
6	Peel strength (copper foil)	≥0.8kg/cm	peel strength tester	Ok
7	Hot melt adhesive fluidity	0.1~0.15	/	Ok

7. Matters needing attention:



After opening, please carefully check whether the goods are complete. If there is any damage, please contact us immediately.