



Shenzhen xingtong wireless technology co.,Ltd
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Address: 3/F, Building A1, Qiangrongdong Industrial Zone,
Jiuwei, Xixiang, Baoan District, Shenzhen

Product specification

Product number: MS13A

Product name: MS13A WIFI/BT ANT

Product item number: 2025-07-11-V1

Producer	Audit	Date
Huangjiajun	Wu Yanlong	2025-7-11

Customer confirmation:

Customer name: Shenzhen Hongding Weishi 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	2025-7-11
		Version	A0
		File number	XT-YF-004
Product model	MS13A WIFI-ANT	Product number	MS13A APP-RA

1.Product Constrution

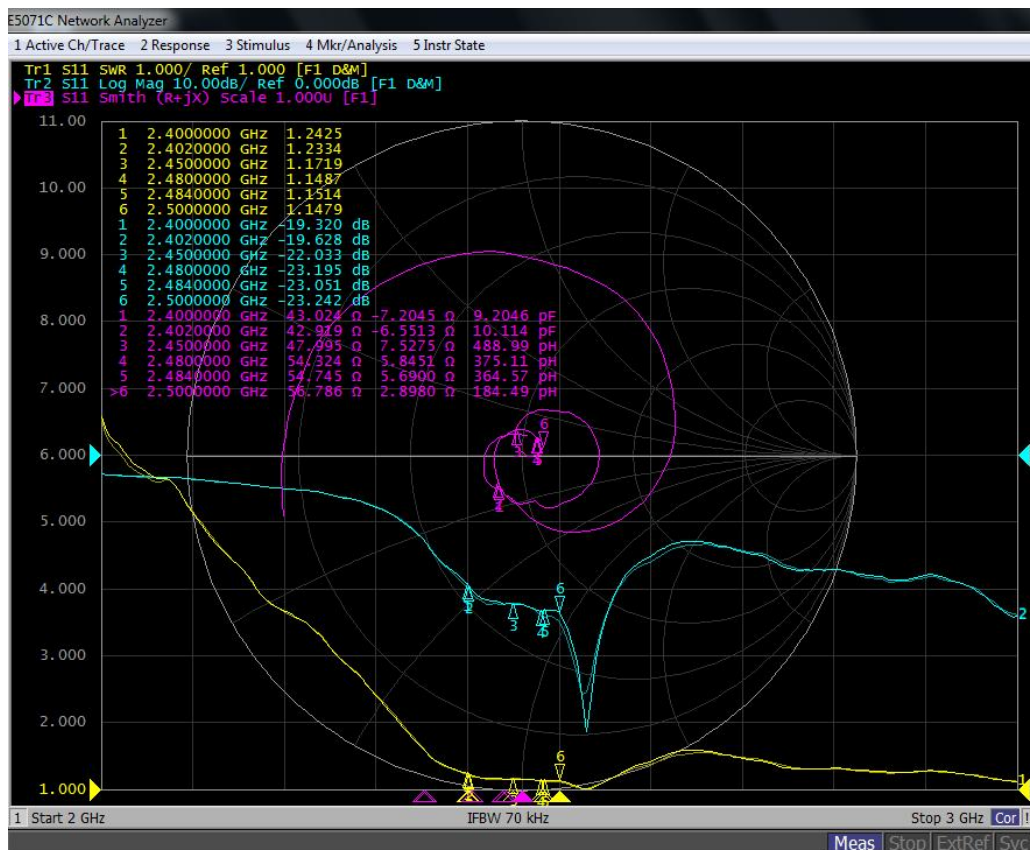
- 1.Antenna material: FPC
- 2.Adhesive model: 3M-300LE
- 3.Antenna size: 29.8mm * 10.40mm * 0.2mm (length and width tolerance $\pm 0.1\text{mm}$, thickness tolerance $\pm 0.02\text{mm}$)
- 4.Coaxial dimension: 40 $\varnothing$ 0.81 fourth generation IPEX (tolerance $\pm 1.0\text{mm}$)

2.Parameter index

- Scope of use: Customer supplied machines
- Antenna frequency: 2.4G (2402-2484MHz)
- Antenna impedance: 50 Ω
- Antenna standing wave:<1.24
- Return loss:<-23.19 db
- Maximum gain of antenna: 2.60dbi
- Polarization mode: vertival/horizontal
- Power capacity: 5W
- Installation method: Connect the terminal wire to the motherboard

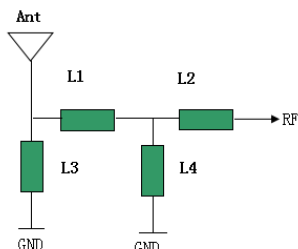
3.S11 value of antenna (S11)

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



4. Antenna performance (OTA)

4.1: Antenna matching suggestions



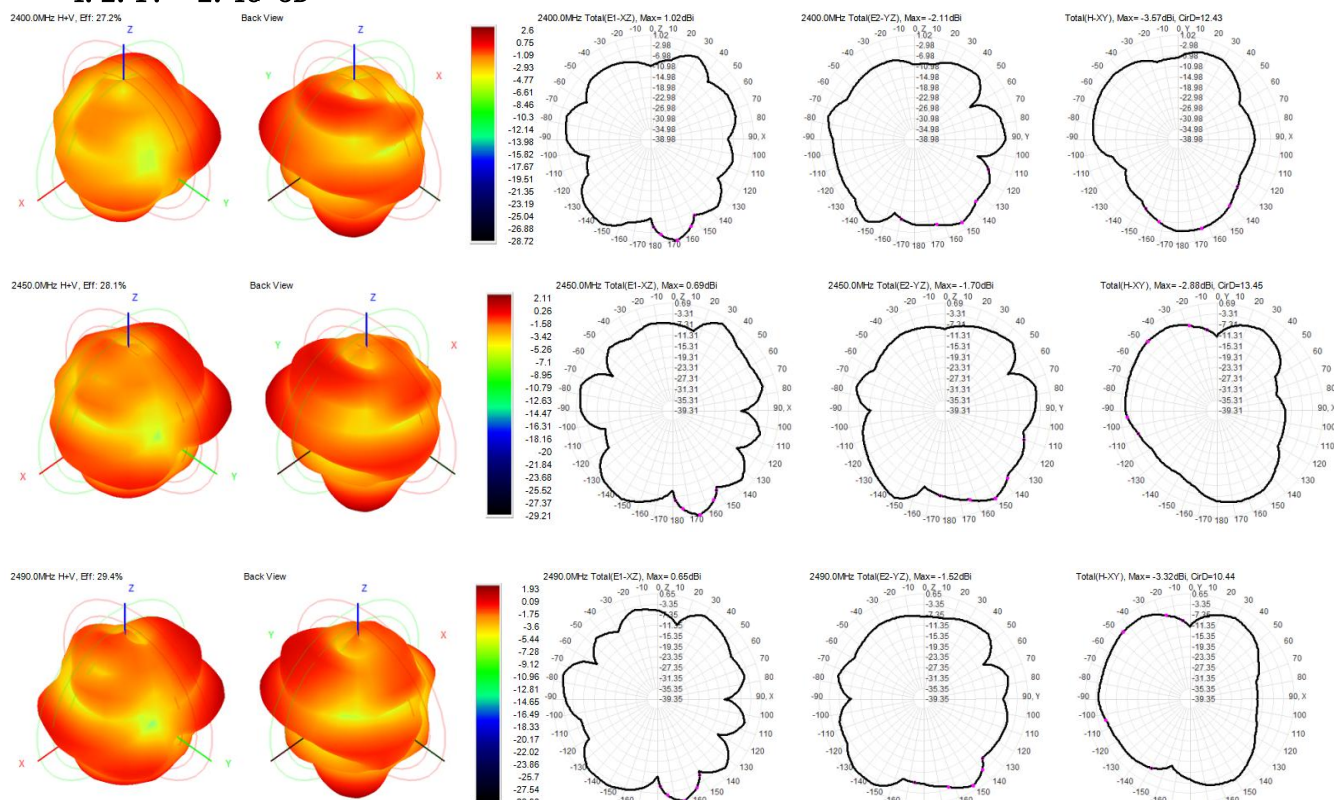
Antenna	
Element	Value
L1 (0201)	
L2 (0201)	
L3 (0201)	
L4 (0201)	
匹配无修改	

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

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)	-5.66	-5.72	-5.55	-5.59	-5.86	-5.51	-5.55	-5.71	-5.24	-5.31	-5.31
Gain (dBi)	2.60	2.43	2.40	2.16	1.82	2.11	2.00	1.74	2.10	1.93	1.82
Efficiency (%)	27.19	26.82	27.87	27.58	25.97	28.14	27.87	26.83	29.94	29.45	29.43
Directivity (dB)	8.25	8.15	7.94	7.76	7.67	7.61	7.55	7.45	7.34	7.24	7.13
Peak Gain Position (Theta)	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00
Peak Gain Position (Phi)	225.00	225.00	225.00	225.00	225.00	225.00	225.00	225.00	225.00	225.00	225.00
Efficiency ThetaPol (%)	14.25	13.98	14.47	14.30	13.15	13.87	13.47	12.94	14.30	13.93	13.89
Efficiency PhiPol (%)	12.93	12.84	13.40	13.28	12.82	14.27	14.39	13.89	15.63	15.52	15.54
Upper Hem. Efficiency (%)	12.47	12.44	13.09	13.08	12.41	13.38	13.12	12.42	13.63	13.23	13.04
Lower Hem. Efficiency (%)	14.72	14.38	14.78	14.49	13.56	14.76	14.75	14.41	16.31	16.22	16.39

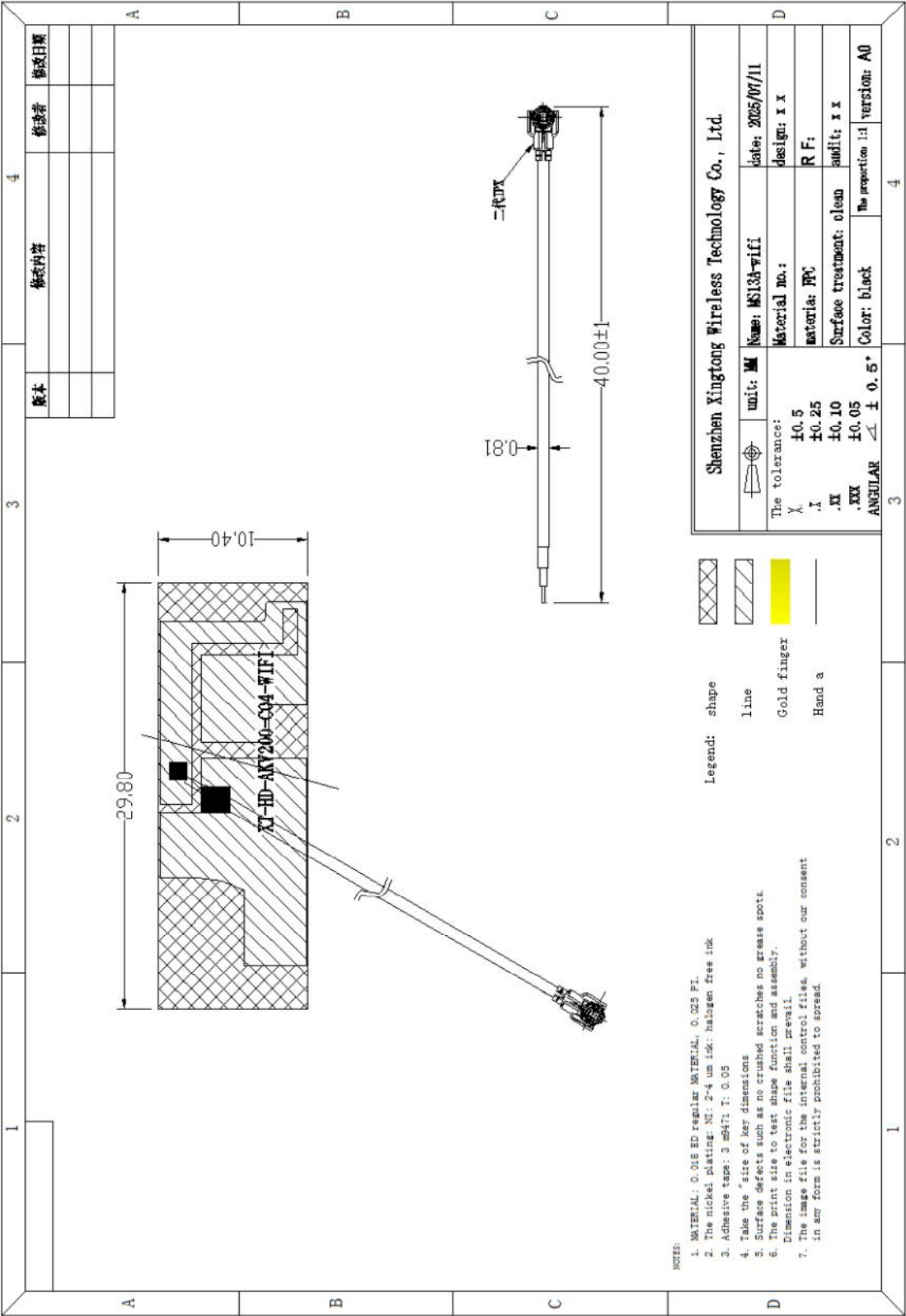
4.2.1: 2.4G-3D



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5. Attached image:

5.1: Antenna finished product diagram



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7. Reliability test:

Serialnumber	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 $\geq$ 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)	$\geq$ 0.35kg/cm	peel strength	Ok
6	Peel strength (copper foil)	$\geq$ 0.8kg/cm	peel strength	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.