



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

Product specification

Product number: MT022

Product name: MT022-LTE-ANT

Product item number: ANT-MT022-LTE-ANT-XT002

Producer	Audit	Date
Huangjiajun	Wu Yanlong	2024-07-11

Customer confirmation:

Customer name: Shenzhen Xinruizhi Industrial Co., Ltd
Approval :
Date :
Notes :

Please accept your signature and seal and return one copy to our company for filing. Thank you for your cooperation!

 Shenzhen Xingtong Wieress Technology Co., Ltd		Date	2024-07-11
		Version	A0
		File number	XT-YF-004
Product model	MT022-LTE antenna	Product number	XT-MT022-APP

1.Product Constrution:

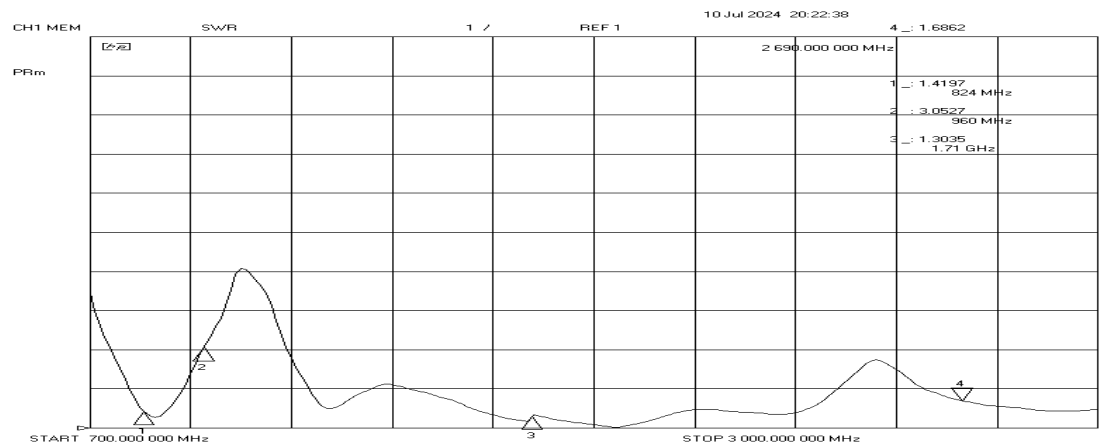
- 1. Antenna material: FPC
- 2. Adhesive tvpe: 3M9470
- 3. Antenna size: See engineering drawing at the end page
- 4. Coaxial line size: not have

2. parameters

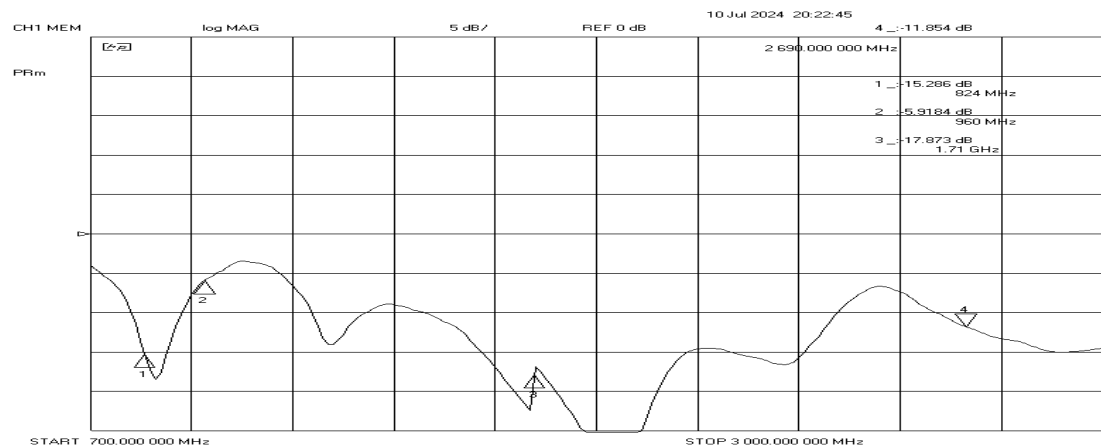
- Scope of use: customer-supplied machines
- Antenna frequency: 703-960Mhz 1710-2690Mhz
- Polarization method: horizontal/vertical
- Antenna free space gain: 2G≥-6.37dbi 3G≥-2.87dbi 4G≥-2.34dbi
- Installation mode: Antenna nasted inside the bottom shell
- Packing method: use PE bag+packing box

3.S11 value of antenna (S11)

- 3.1: antenna standing wave ratio



- 3.2: Antenna return loss value



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4.Antenna performance (OTA)

- 4.1: Antenna matching recommendations
Matching without modification
- 4.2: Antenna OTA/ efficiencyv/gain (test instruments: network analyzer, oscilloscope, customer engineering prototype, various standard cards, etc.)

Low-frequency-2D
700-900Mhz

Frequency ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Frequency (MHz)	700.0	710.0	720.0	730.0	740.0	750.0	760.0	770.0	780.0	790.0	800.0	810.0	820.0	830.0	840.0	850.0	860.0	870.0	880.0	890.0	900.0
Efficiency (dBi)	-9.88	-9.82	-9.57	-9.65	-9.34	-9.00	-8.62	-8.52	-8.45	-8.37	-8.44	-8.20	-8.00	-7.95	-7.65	-7.26	-7.08	-6.54	-6.31	-6.15	-5.94
Gain (dBi)	-6.37	-6.35	-6.03	-6.22	-5.57	-5.02	-4.70	-4.75	-4.56	-4.54	-4.73	-4.46	-3.97	-3.70	-3.27	-2.90	-2.90	-2.61	-2.45	-2.16	-1.73
Efficiency (%)	10.29	10.42	11.05	10.85	11.65	12.58	13.73	14.07	14.30	14.54	14.33	15.13	15.85	16.05	17.17	18.81	19.57	22.17	23.36	24.29	25.45
Directivity (dB)	3.51	3.48	3.54	3.43	3.77	3.98	3.92	3.77	3.89	3.84	3.70	3.74	4.03	4.24	4.38	4.36	4.18	3.94	3.86	3.98	4.21
Peak Gain Position (Theta)	120.00	90.00	90.00	90.00	135.00	135.00	135.00	105.00	105.00	105.00	105.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00	135.00
Peak Gain Position (Phi)	255.00	285.00	285.00	285.00	75.00	75.00	75.00	270.00	270.00	270.00	270.00	255.00	255.00	240.00	240.00	240.00	240.00	240.00	255.00	255.00	255.00
Efficiency ThetaPol (%)	7.31	7.31	7.72	7.59	8.28	9.08	9.97	10.18	10.26	10.35	10.07	10.53	10.92	10.95	11.67	12.67	13.12	14.89	15.68	16.23	16.91
Efficiency PhiPol (%)	2.98	3.10	3.32	3.26	3.37	3.50	3.77	3.90	4.04	4.19	4.26	4.60	4.93	5.10	5.50	6.14	6.45	7.28	7.68	8.05	8.54
Upper Hem. Efficiency (%)	2.88	3.11	3.44	3.35	3.36	3.29	3.35	3.41	3.61	3.89	4.03	4.37	4.53	4.34	4.33	4.63	4.90	5.72	6.25	6.69	7.09
Lower Hem. Efficiency (%)	7.40	7.31	7.60	7.50	8.29	9.29	10.38	10.66	10.70	10.66	10.30	10.76	11.31	11.71	12.84	14.18	14.67	16.45	17.12	17.60	18.36

880-960Mhz

19	20	21	22	23	24	25	26	27
880.0	890.0	900.0	910.0	920.0	930.0	940.0	950.0	960.0
-6.31	-6.15	-5.94	-5.81	-5.88	-5.88	-6.00	-6.24	-6.50
-2.45	-2.16	-1.73	-1.39	-1.38	-1.38	-1.58	-1.66	-1.70
23.36	24.29	25.45	26.22	25.79	25.83	25.12	23.77	22.37
3.86	3.98	4.21	4.42	4.50	4.50	4.42	4.58	4.80
135.00	135.00	135.00	135.00	135.00	135.00	135.00	105.00	105.00
255.00	255.00	255.00	255.00	255.00	255.00	240.00	270.00	270.00
15.68	16.23	16.91	17.28	16.94	16.92	16.45	15.44	14.26
7.68	8.05	8.54	8.94	8.86	8.92	8.67	8.33	8.10
6.25	6.69	7.09	7.22	6.82	6.46	6.03	5.74	5.53
17.12	17.60	18.36	19.01	18.98	19.38	19.08	18.03	16.84



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Product model

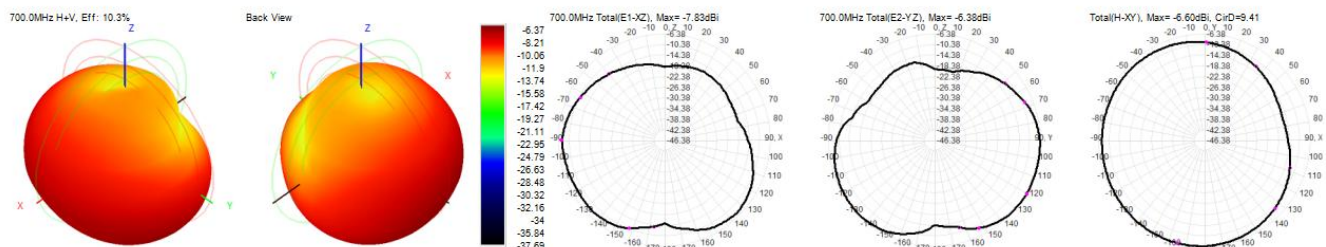
MT022-LTE antenna

Product
number

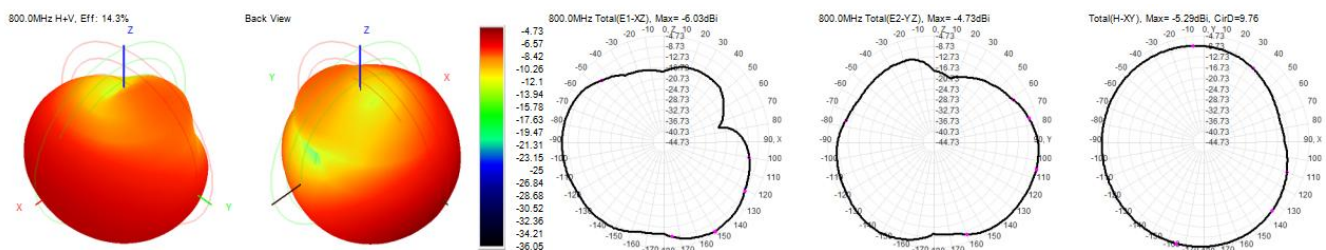
XT-MT022-APP

Low frequency 3D

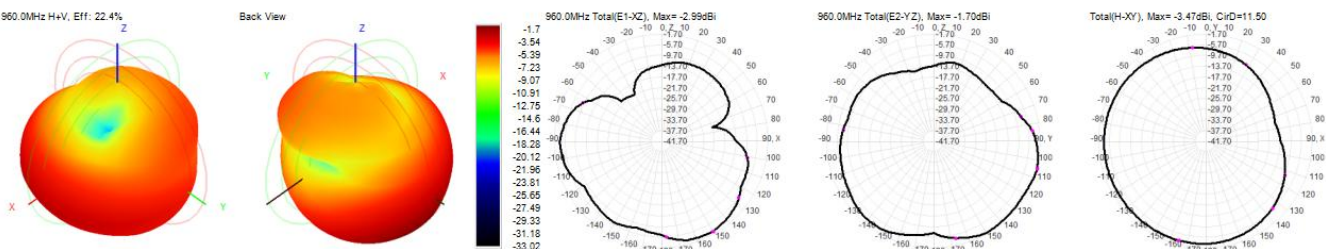
700Mhz



800Mhz

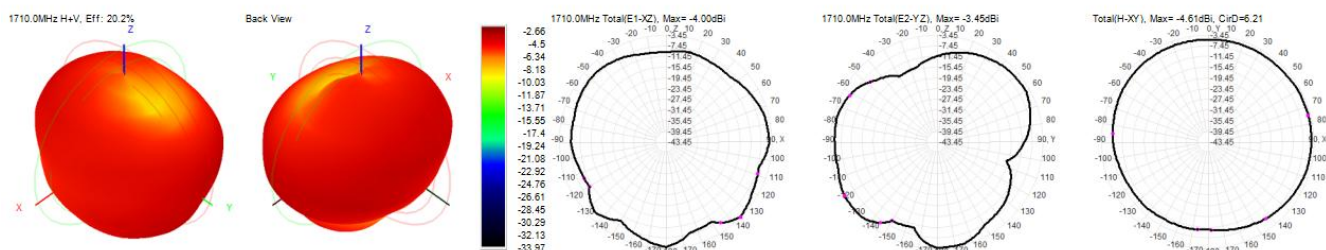


960Mhz

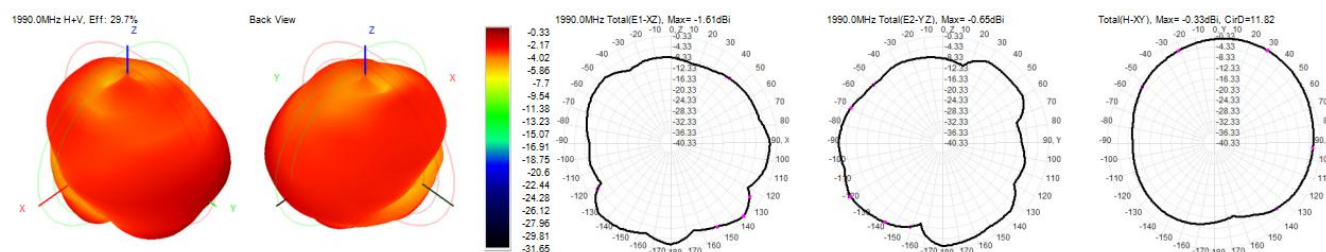


Mid range 3D

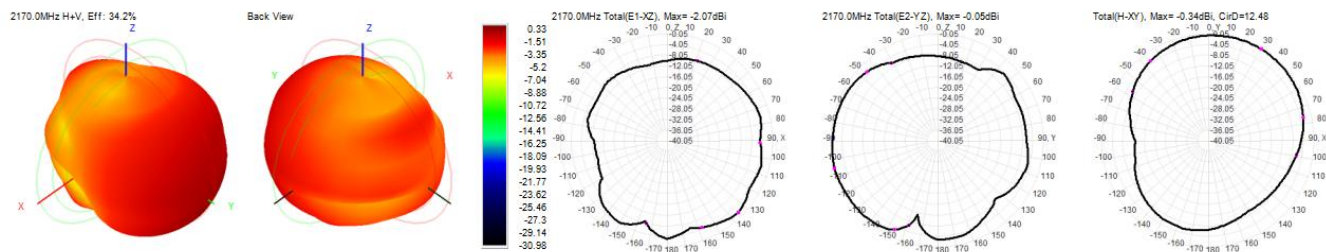
1710MHZ



1990MHZ



2170MHZ





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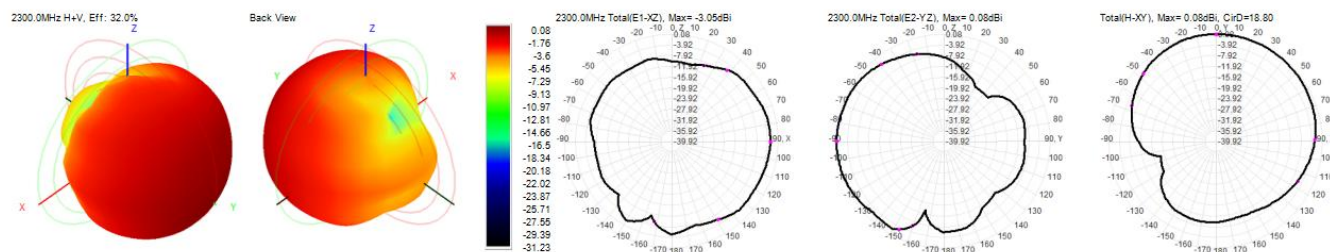
MT022-LTE antenna

Product
number

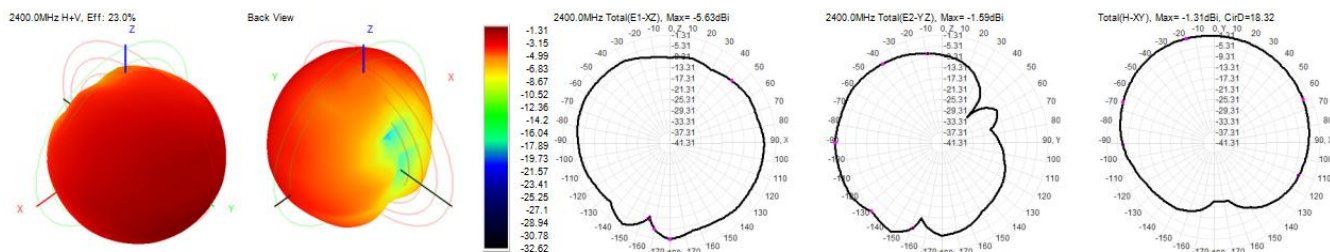
XT-MT022-APP

High frequency 3D

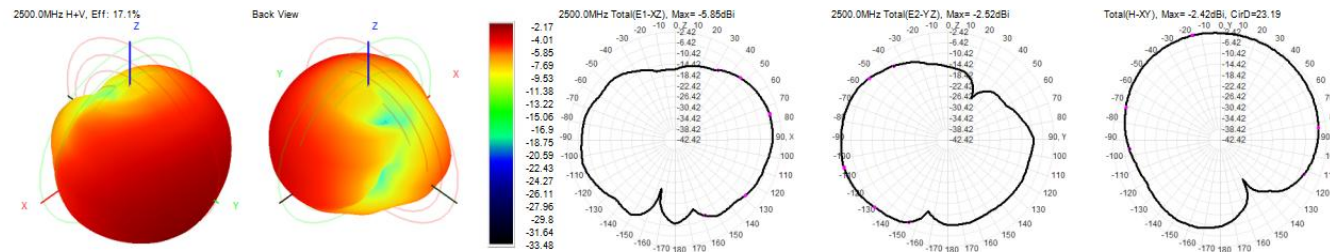
2300Mhz



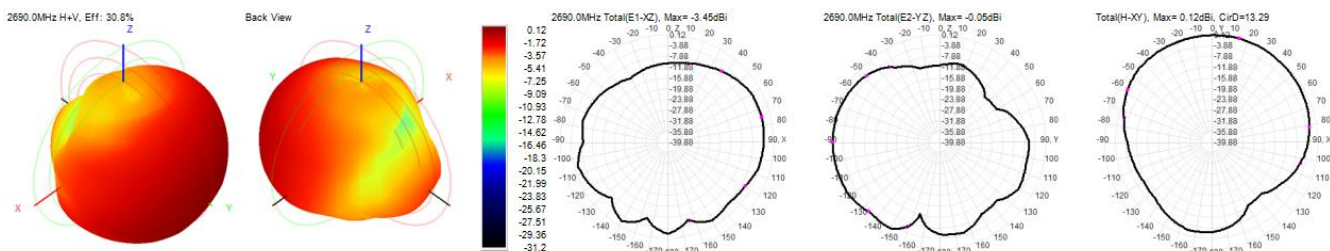
2400Mhz



2500Mhz



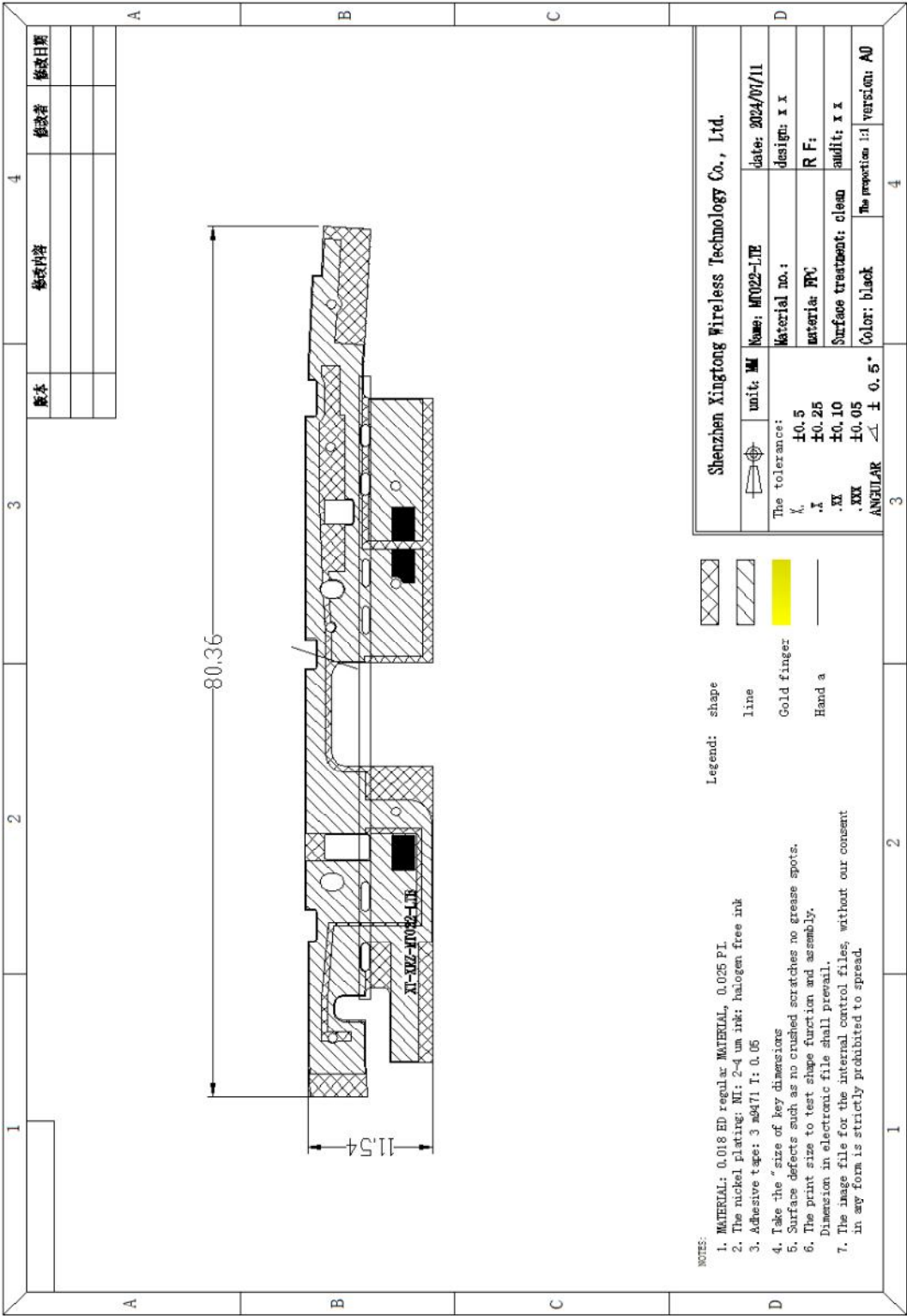
2690Mhz



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5. Attached figure:

5. 1: Finished antenna drawing

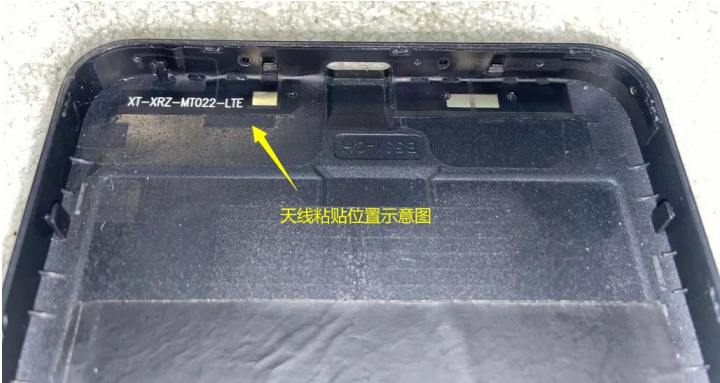


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7. Reliability test:

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≥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	Ok
6	Peel strength (copper foil)	≥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.