SPECIFICATION

SHEET FOR APPROVAL

（Revision：R：A1）

	CUSTOMER	Tianjin HualTechnology Co., LTD	
	CS P/N	KEYPAD（A304-031F）	
	PART NAME	FPC Antenna	
	FREQUENCY	906.8-913.2MHz	
	ZTX NO.	1.03.02510	
	DATE	2022-01-22	

CUSTOMER			
QA CHECKED	ME CHECKED	RF CHECKED	MANAGER CHECKED

Remark(备注)：

Sign(客户确认签字盖章)：_____

ZHONG TIAN XUN TECHNOLOGY CO., LTD				
MANAGER CHECKED	MANAGER CHECKED	ME CHECKED	RF CHECKED	LISTER
		Yilin Zou	Meng He	

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Revision history

NO	Date	State
A1	2022-01-22	The first edition

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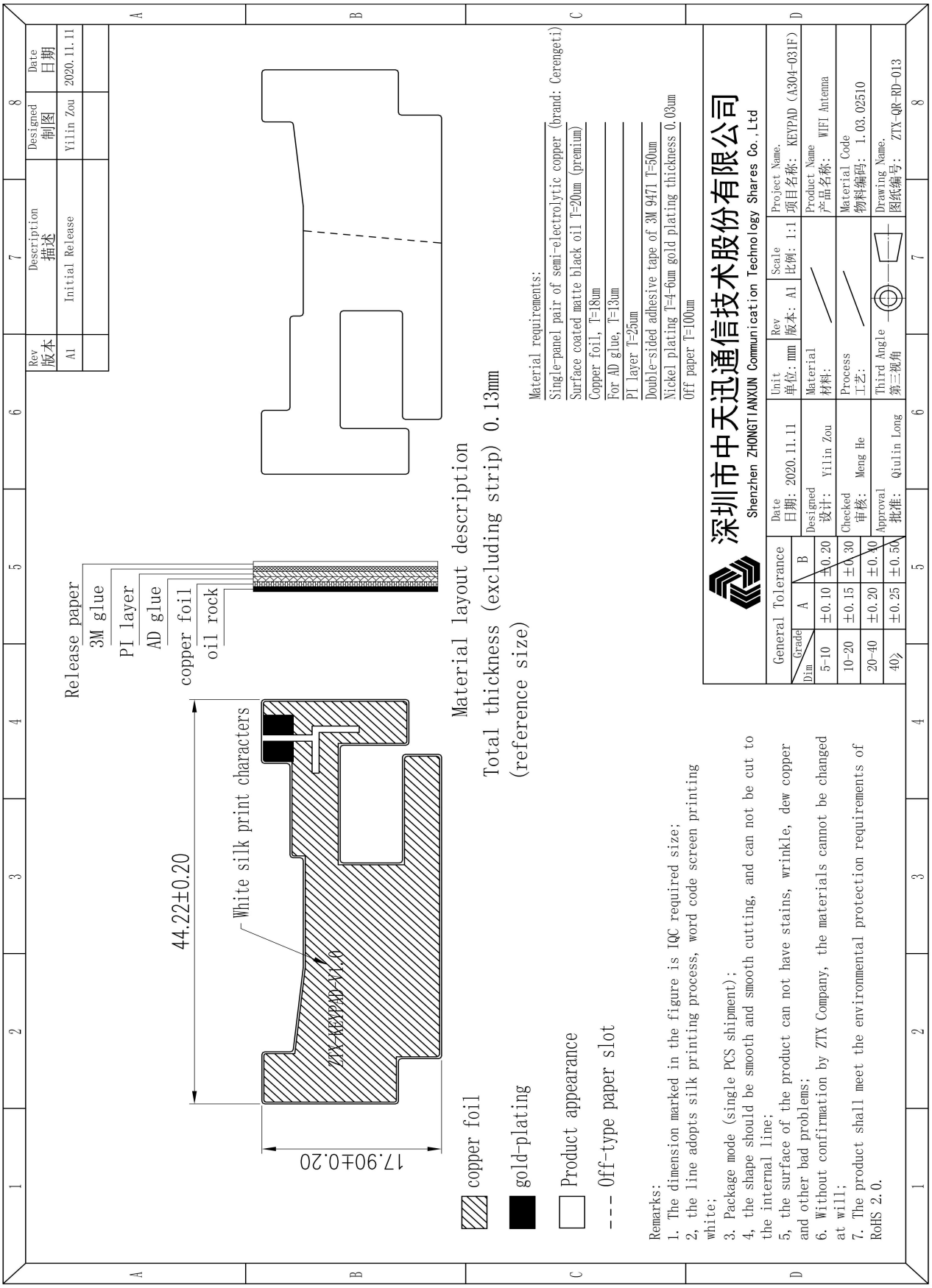
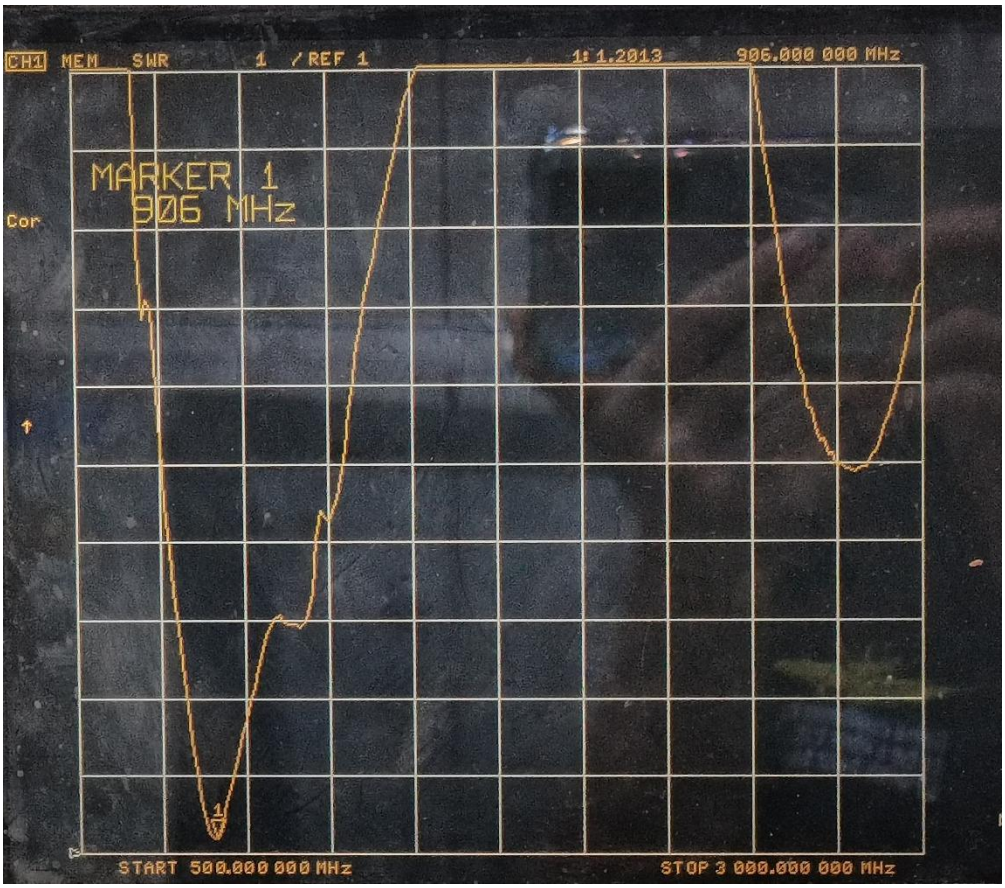
1. Mechanical Specification

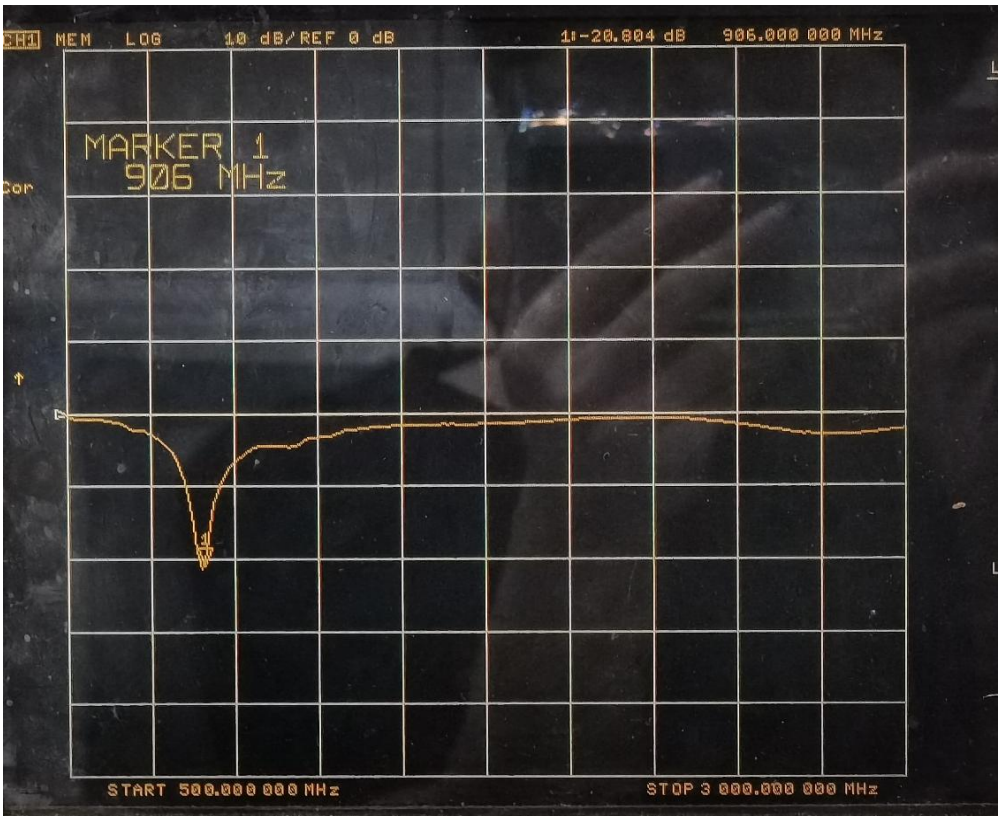
1-1 Mechanical Configuration(WIFI Antenna)



2.Antenna test data

2-1 VSWR&Return loss plot

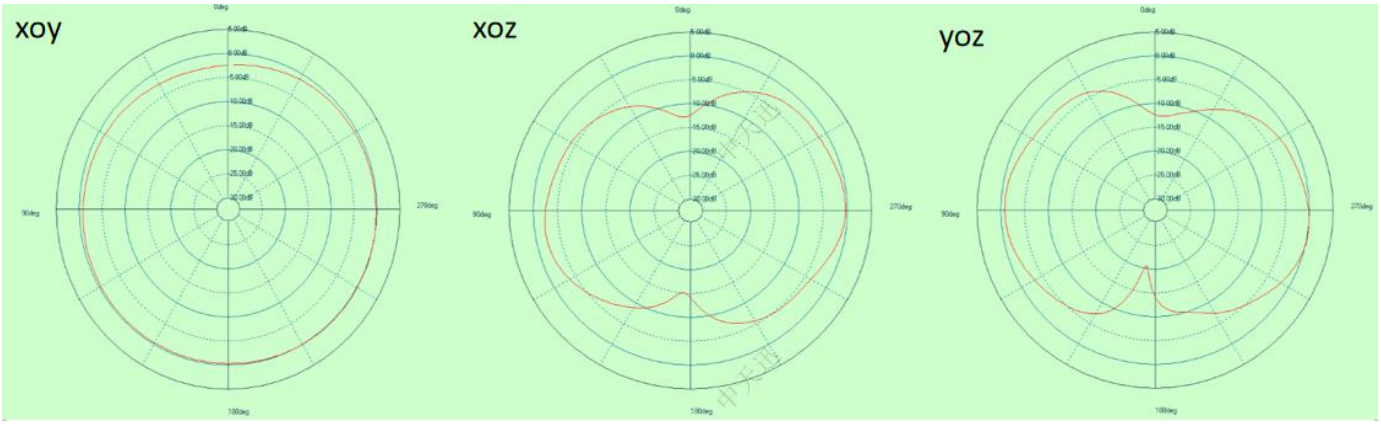




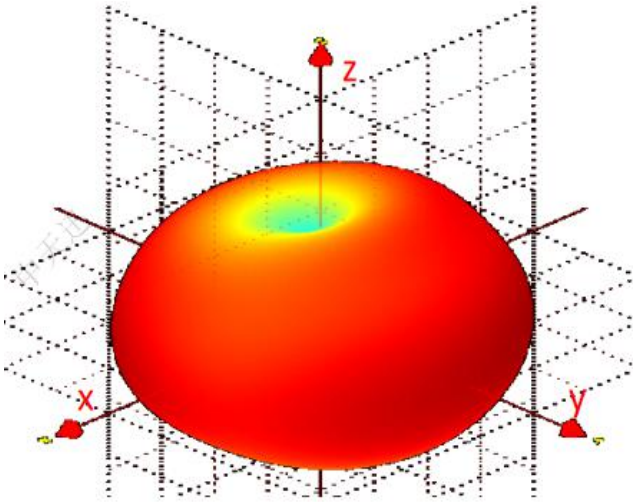
2-2 No-source test data

Frequency	Efficienc	Efficiency . dB	Frequency	Gain . dB
900000000	41%	-3.92	900000000	0.133
901000000	40%	-4.01	901000000	0.057
902000000	39%	-4.05	902000000	0.052
903000000	40%	-4.02	903000000	0.117
904000000	40%	-3.94	904000000	0.227
905000000	41%	-3.87	905000000	0.202
906000000	42%	-3.77	906000000	0.277
907000000	42%	-3.72	907000000	0.283
908000000	42%	-3.75	908000000	0.22
909000000	41%	-3.84	909000000	0.106
910000000	40%	-3.97	910000000	-0.03

2-3 Directional drawing of horizontal plane of



2-4 3D radiation drawing



2-5 Matching circuit

N/A

2-6 Environment treatment

N/A

3.Test Report

customer name	Tianjin Hualai	product name	KEYPAD（A304-031F）	quantity	5pcs
Product material	FPC	Material color	black	date	2021/1/23

Product type: ■new look product ☐change look product ☐mass production ☐others

NO	Dimensions are required for the engineering drawings	Measured size					judge	remarks
		1	2	3	4	5	OK/NG	
1	44.22±0.20	44.25	44.23	44.22	44.21	44.20	OK	
2	17.90±0.20	17.91	17.89	17.92	17.92	17.89	OK	
3	0.13	0.13	0.13	0.13	0.13	0.13	OK	
4								
5								
6								
7								
8								
9								
10								

surface:OK

Performance: grid, bending, adhesion test OK

Total judgment:

☑OK ☐NG

Approval: Wu Ruiyong

Review:, Yi Ailing made: Liu Xiaoqing

Remarks:

Form Number: ZTX-QR-QA-016 Version: A1

4.Salt-Spray test

customer name	Tianjin Hualai	product name	KEYPAD（A304-031F）WIFI Antenna	date	2020/11/11
Product material	FPC	proving time	48H	quantity	5PCS
time quantum	test condition	test criteria		bear fruit	Remarks
0-6 Hours	Salt spray tester: salt liquid: NaCl (no water); concentration 5% ± 1%; pH value: 6.5~7.2; laboratory temperature: 32-38℃; compressed air pressure: 1.0 ± 0.01 (KG / M2) Spray amount: 1.0~2.0ML/80CM2/H. Relative humidity: 85% ± 2%; placement angle of test product: 30 degrees + / -10 degrees; salt spray duration: 48h,	Product surface without rust point, oxidation, corrosion, coating (coating) layer off and other adverse phenomena		OK	2020.11.09 16:00 AM beginning
6-12 Hours					
12-18 Hours					
18-24 Hours					
24-30 Hours					2020.11.11 16:00 AM stop
30-36 Hours					
36-42 Hours					
42-48 Hours					
More than 48 hours		The product surface without rust point, oxidation, corrosion, coating (coating) layer off 1% of the product area			
conclusion	Salt Spray Test OK				
test clerk	Li Qingli	examine and verify	Yi Ailing	Ratify	Hu Chunmei

5.Environment Characteristic

NO.	ITEM	TEST CONDITION	SPECIFICATION
5-1	High Temperature/Humidity Storage Test(non operating)	1.Temperature: +70 ±2℃ 2.Humidity: 90~95%RH 3.Time: 48hrs	No material deformation is allowed. The VSWR, Gain, Radiation Pattern must be met specifications after these test.
5-2	Low Temperature/Humidity Storage Test(non operating)	1.Temperature: -30±2℃ 2.Humidity: 0%RH 3.Time:48hrs	