Sward Antenna Report

Customer： Miotone

Project ：MF01（A Tape Recorder with 6221B-SRC Module by Lianyong Platform）

Report Date：2022.08.08

A, floor 4, building 13, rundongsheng Industrial Zone, Xixiang street, Bao'an District, Shenzhen City, Guangdong Province

Project Introduction

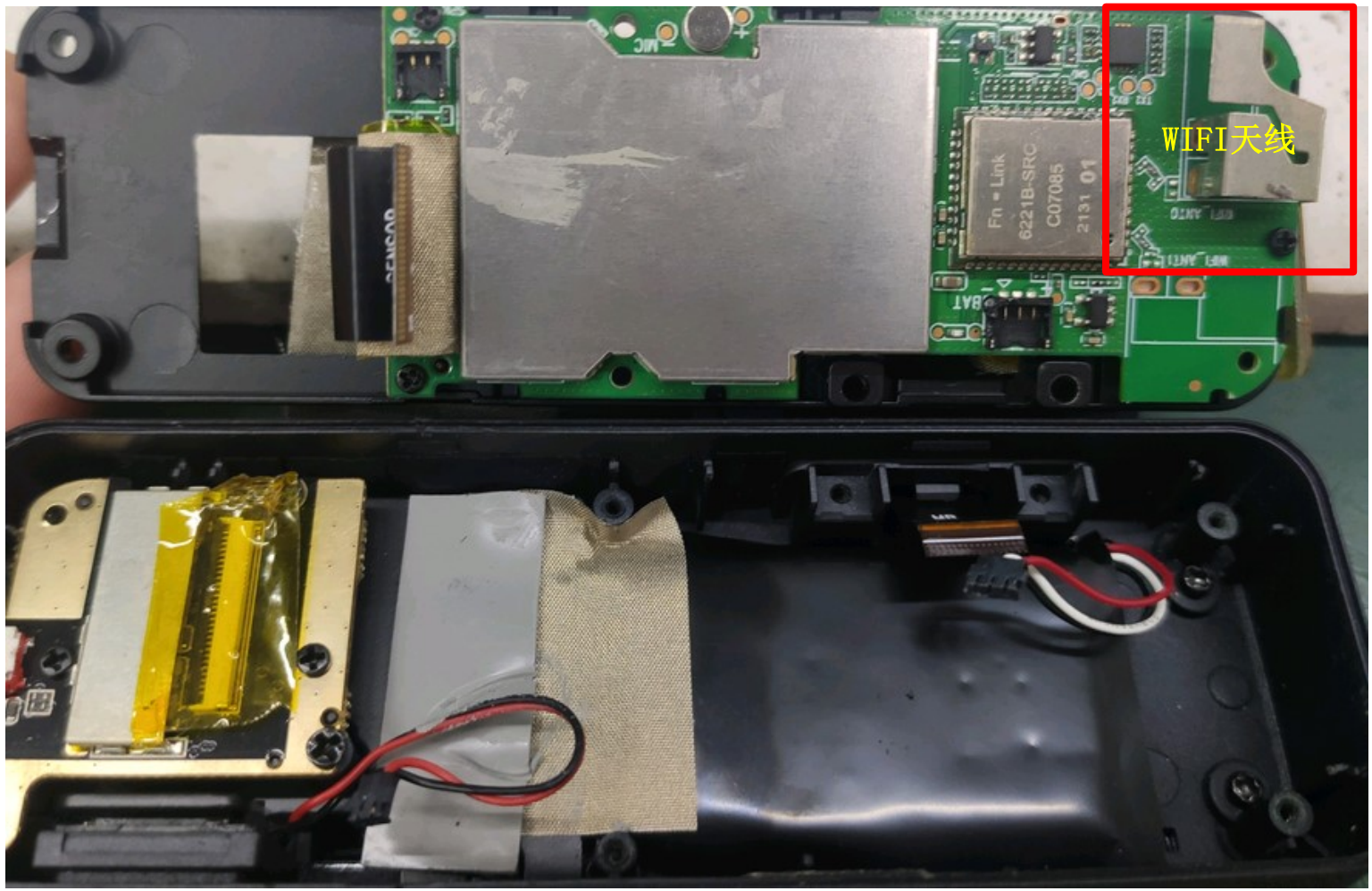
1.Resume

Antennas	Type
1	Tape Recorder
Shell Material：Plastic with a screen	

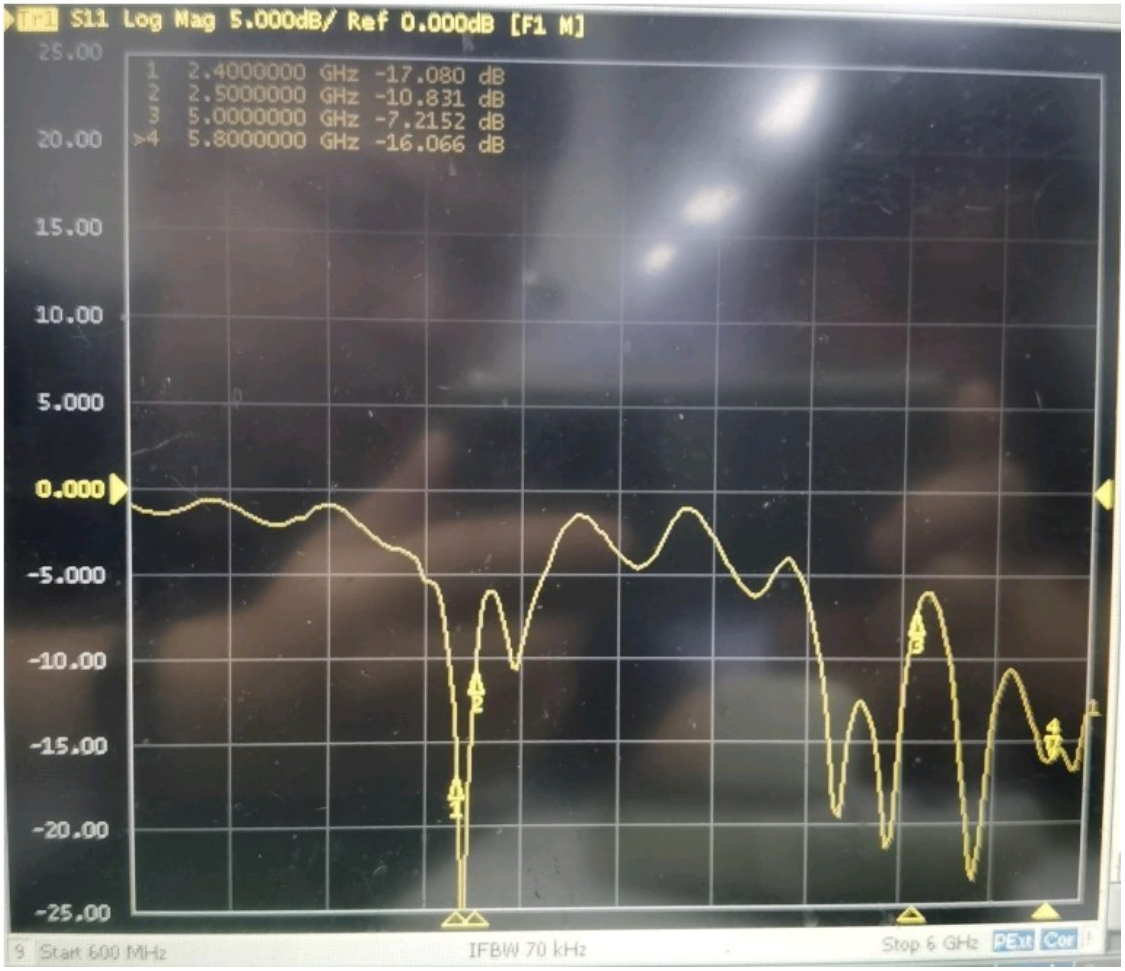
2.Description

Num.	Function	Frequency Band / MHz	Material / Structure
1	WIFI&BT&5Gwifi	2400MHz/2500MHz&5.8GHz	FPC

Antenna Position



WIFI&BT Antenna S11



Antenna OTA Data

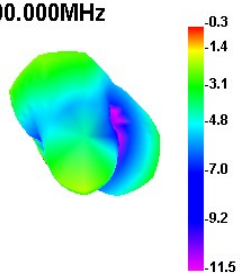
Num.	Channel	802.11b : 11MBps		802.11g : 54MBps		802.11n : MCS7）		802.11a : 54MBps	
		TRP	TIS	TRP	TIS	TRP	TIS	TRP	TIS
Fully Assembled Machine	1	15.9	-72.57	15.41	-65.86	15.44	-65.25	NA	NA
	7	15.31	-72.76	15.15	-66.06	15.68	-65.84	NA	NA
	13	15.23	-73.05	13.55	-66.43	12.55	-65.82	NA	NA
	36	NA	NA	NA	NA	NA	NA	11.57	-66.69
	100	NA	NA	NA	NA	NA	NA	10.73	-65.27
	136	NA	NA	NA	NA	NA	NA	11.28	-64.19
	161	NA	NA	NA	NA	NA	NA	10.89	-66.74

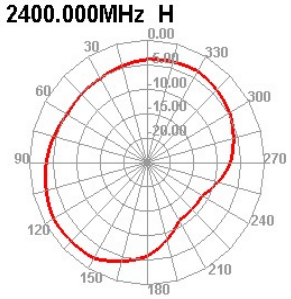
Antenna 2.4G Efficiency

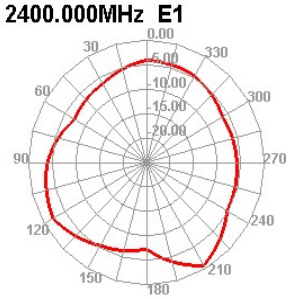
Passive Test For 2.4Gwifi								
Freq	Effi	Effi	Gain	Gain	UHIS	DHIS	Max	Min
(MHz)	(%)	(dB)	(dBi)	(dBd)	(%)	(%)	(dB)	(dB)
2400	36.45	-4.38	0.1	-2.05	14.51	21.945	0.1	-10.57
2410	37.35	-4.28	0.25	-1.9	15.216	22.13	0.25	-10.43
2420	40.14	-3.96	0.41	-1.74	16.799	23.342	0.41	-10.03
2430	42.63	-3.7	0.81	-1.57	18.194	24.435	0.58	-9.54
2440	43.86	-3.58	0.34	-1.81	19.318	24.547	0.34	-9.09
2450	44.06	-3.56	-0.12	-2.27	19.975	24.084	-0.12	-8.68
2460	43.68	-3.6	-0.33	-2.48	20.735	22.942	-0.33	-9.98
2470	42.06	-3.76	-0.41	-2.56	20.8	21.256	-0.41	-12.19
2480	41.4	-3.83	-0.35	-2.5	21.159	20.242	-0.35	-12.32
2490	41.44	-3.83	-0.42	-2.57	21.359	20.085	-0.42	-12.67
2500	41.62	-3.81	0.09	-2.06	21.008	20.612	0.09	-13.45

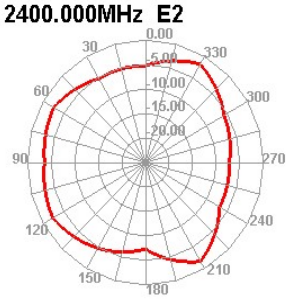
Antenna 2.4G Efficiency

2400.000MHz

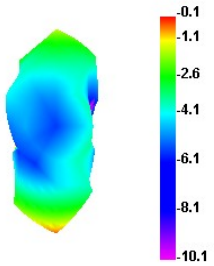


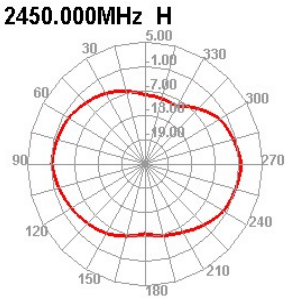


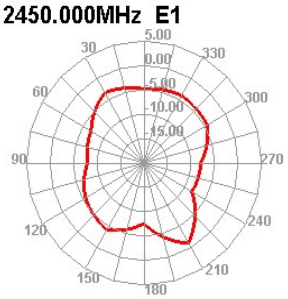


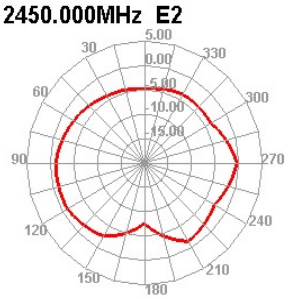


2450.000MHz

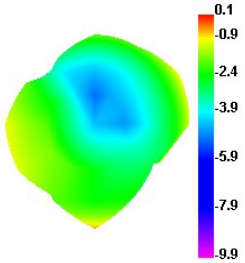


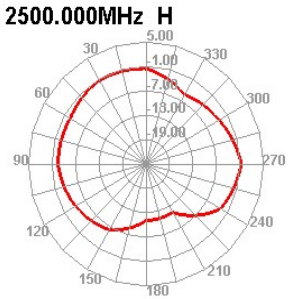


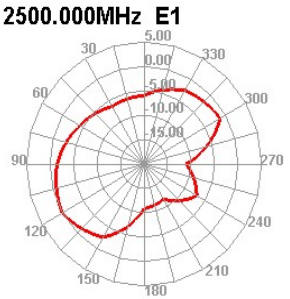


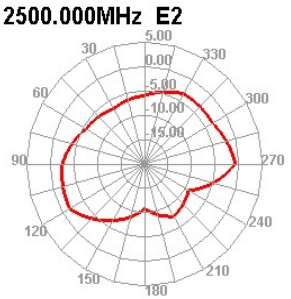


2500.000MHz





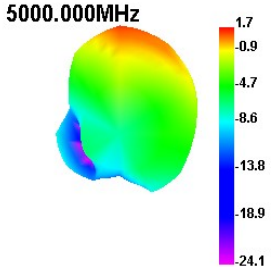


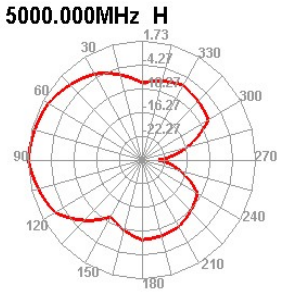


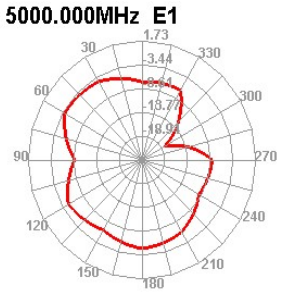
Antenna 5G Efficiency

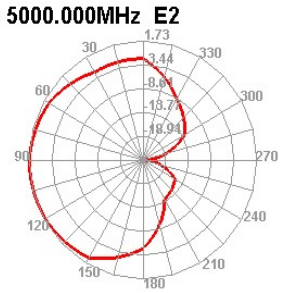
Passive Test For 5.8 Gwifi								
Freq	Effi	Effi	Gain	Gain	UHIS	DHIS	Max	Min
(MHz)	(%)	(dB)	(dBi)	(dBd)	(%)	(%)	(dB)	(dB)
5000	35.69	-4.47	1.73	-0.42	17.688	17.999	1.73	-24.11
5100	40.06	-3.97	2.29	0.14	20.078	19.983	2.29	-16.87
5200	42.94	-3.67	2.13	0.98	19.425	23.52	3.13	-17.41
5300	37.32	-4.28	2.29	0.14	17.967	19.357	2.29	-14.93
5400	42.84	-3.68	2.29	0.14	22.981	19.862	2.29	-13.5
5500	44.88	-3.48	2.76	0.81	25.937	18.945	2.96	-13.94
5600	42.8	-3.69	2.56	0.61	23.766	19.033	2.76	-14.62
5700	46.78	-3.3	2.11	0.96	24.699	22.08	3.11	-13.26
5800	39.52	-4.03	2.22	1.07	18.38	21.142	3.22	-13.73
5900	39.14	-4.07	2.5	0.35	16.988	22.147	2.5	-12.62
6000	40.31	-3.95	2.07	-0.08	15.805	24.503	2.07	-14.26

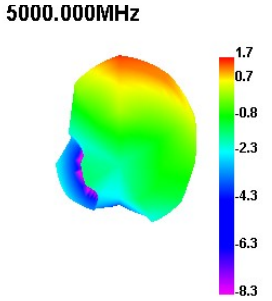
Antenna 5G Efficiency

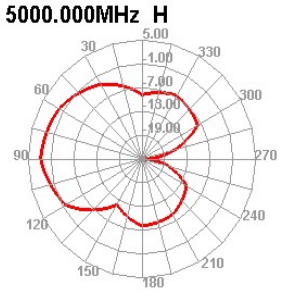


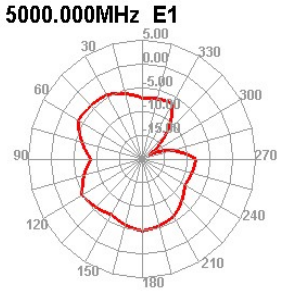


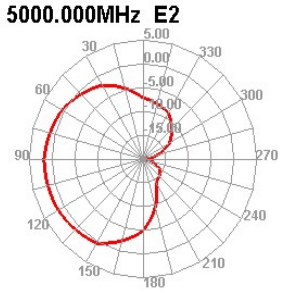


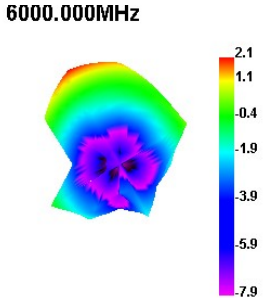


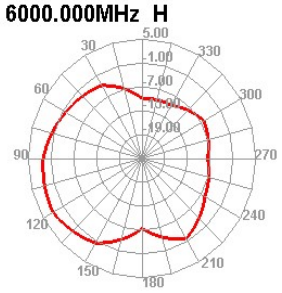


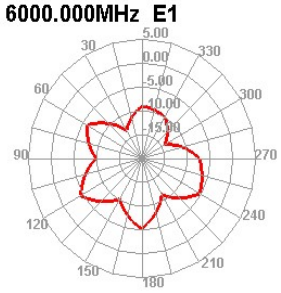


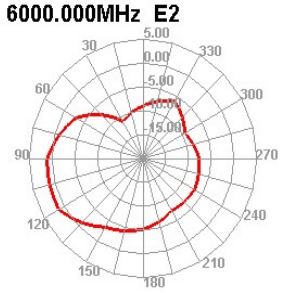




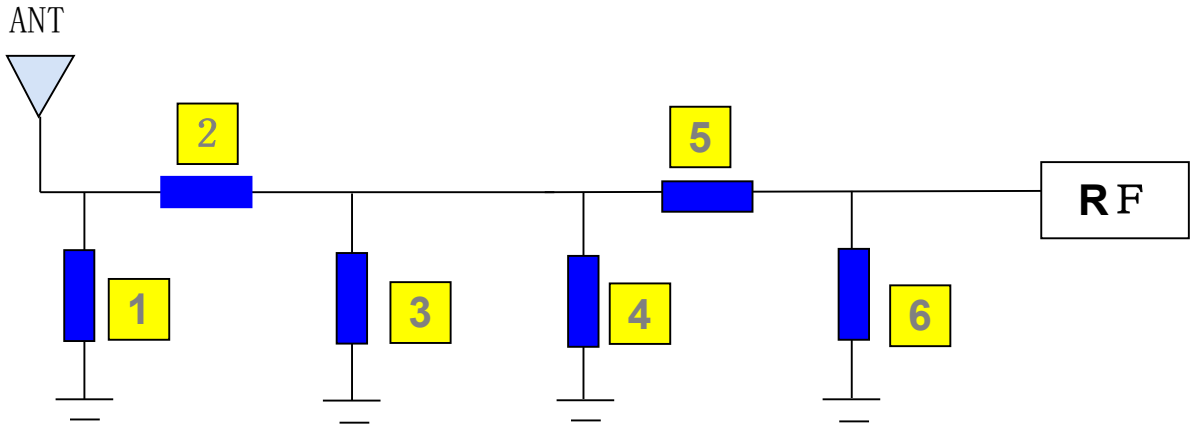








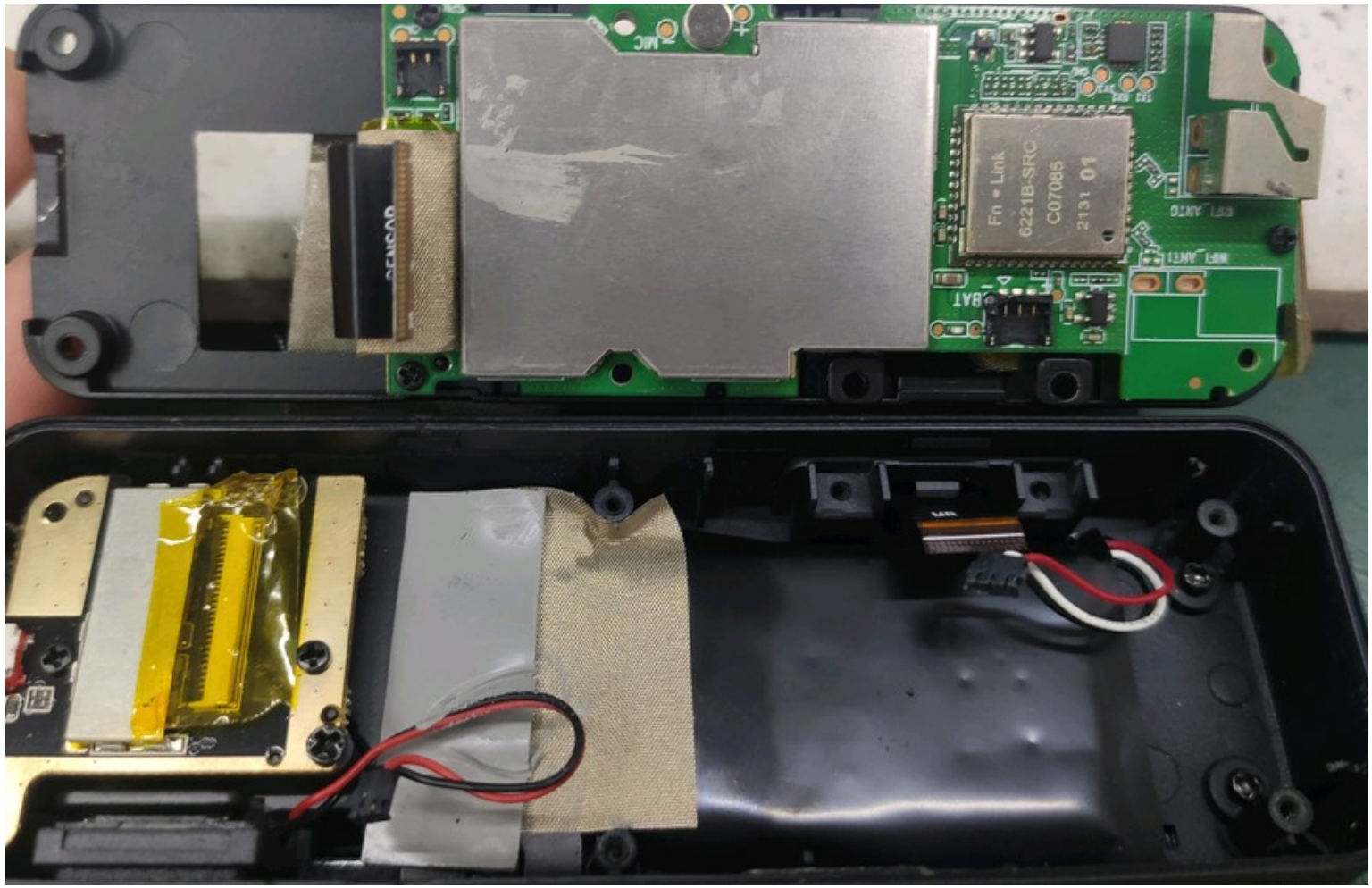
Antenna Matching Network



Antenna matching has not been changed.

Main Ant	1	2	3	4	5	6	Remarks
Original Match	-	-	-	-	-	-	-
Changed Match	-	-	-	-	-	-	-

Assembly Instructions



Notes:

1. This report is based on the actual commissioning and testing of the commissioning prototype, including the assembly instructions, antenna position and assembly position of each device. **It cannot be changed at will;**

2. If there is **any change** in the materials used in the prototype, it is necessary to timely feed back to our company for **re-verification**;

3. List of sensitive devices:

TP (material, coating, wiring, etc.)
Screen (amplification circuit, led, cable layout design, etc.)
Shell material (antenna assembly method, structural interference, shell material, antenna position height and area, etc.)
Mainboard (mainboard conduction, RF circuit matching, PA, duplex, filter, LNA, power circuit, etc.)
Camera, battery, motor, MIC, fingerprint identification module, etc.

4. Due to the small number or only one sample adjusting machine, some probabilistic problems cannot be completely found. **It is recommended to Check the problem points in small batch trial production before mass production**(screen flashes , horn noise, TP jump point, black screen OR crash, signal diving, etc.).