CCU-80 Antenna Report

Customer：Estone

Project：CCU-80-8InchPlastic-Rk3588MasterControl

Report Date：2022.07.19

深圳市宝安区西乡街道润东晟工业区13栋4楼A
A, floor 4, building 13, rundongsheng Industrial Zone, Xixiang street, Bao'an District, Shenzhen City, Guangdong Province

Project Introduction

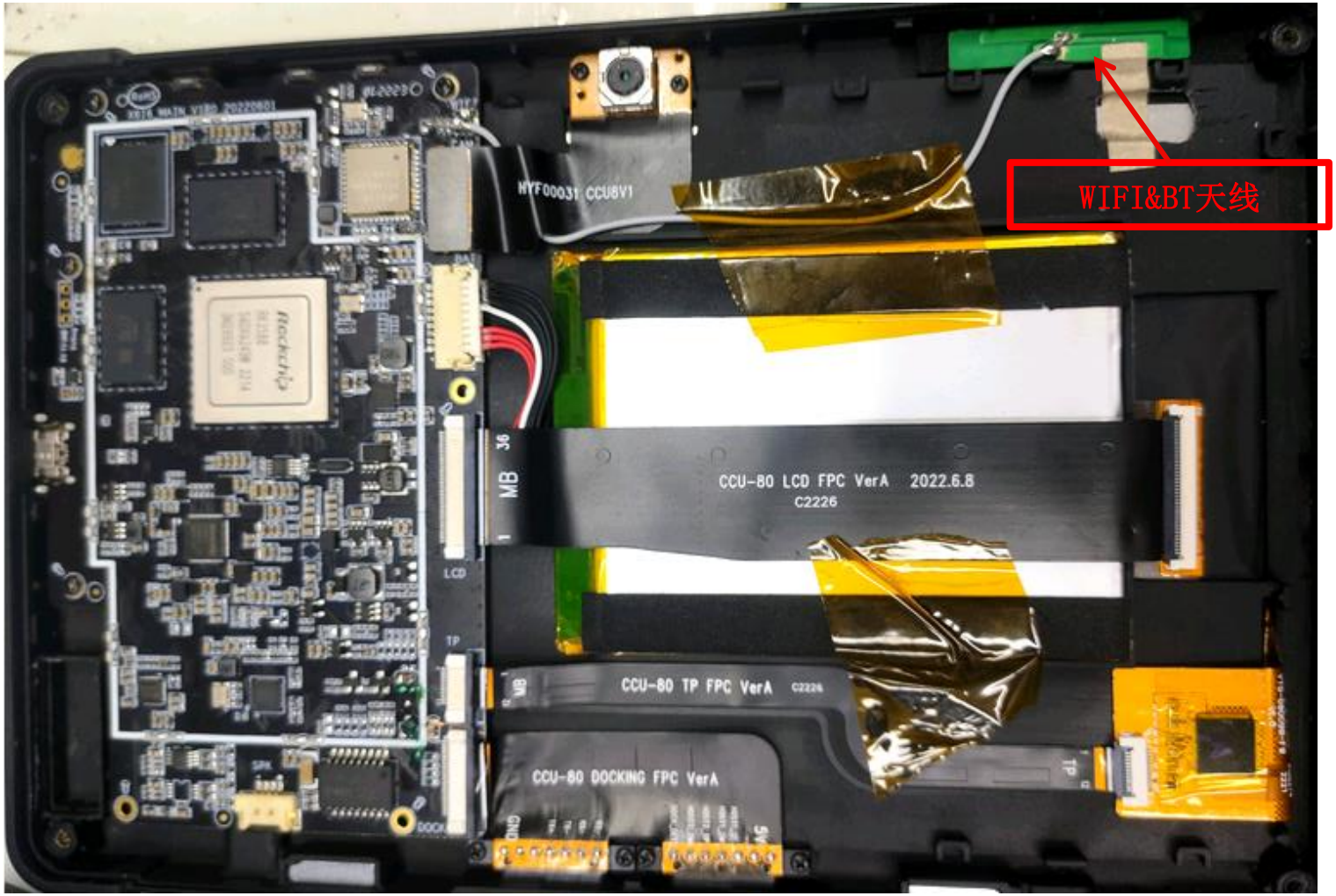
1.Resume

Antennas	Type
1	Tablet
Shell Material：8-Inch-Plastic	

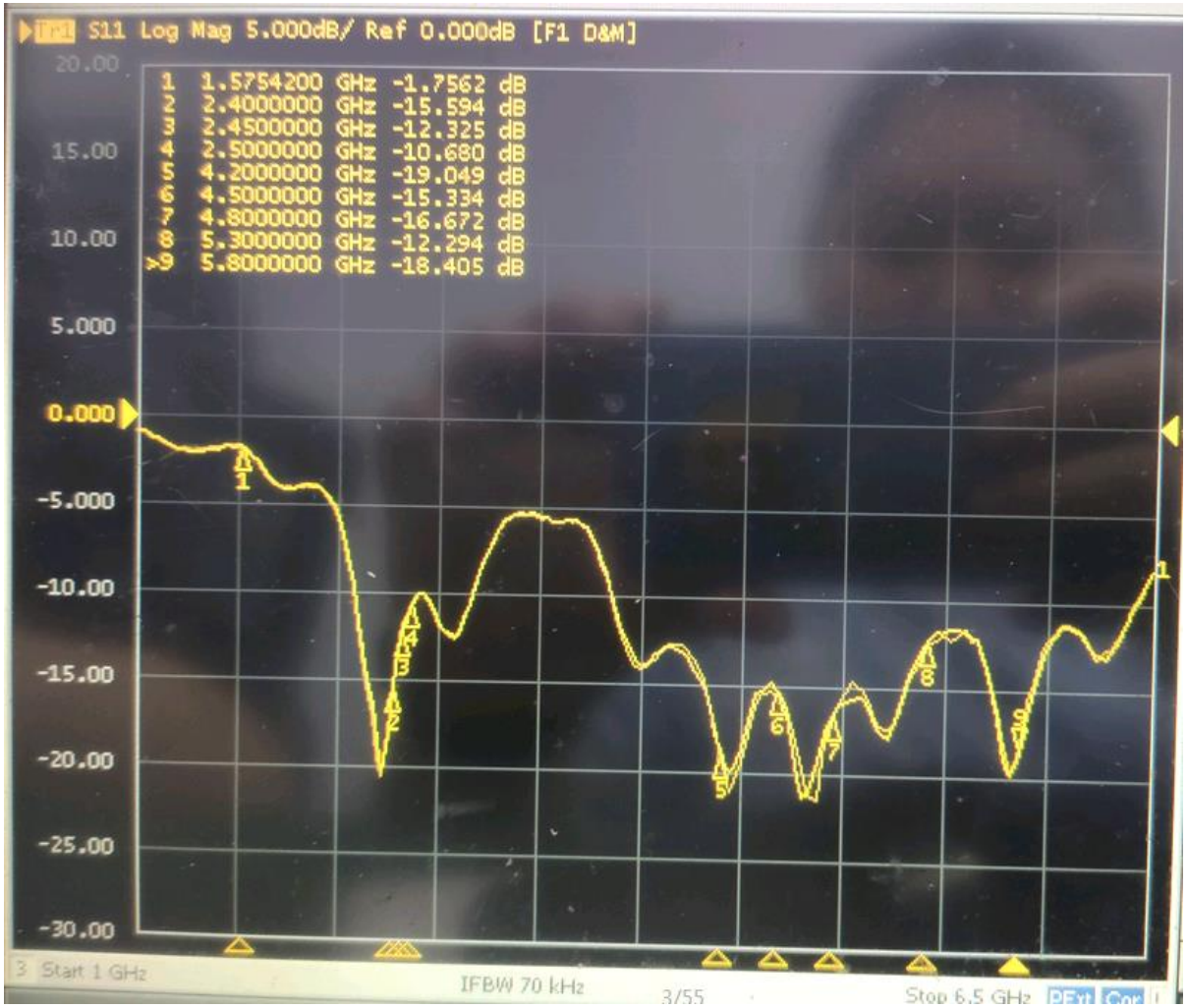
2.Description

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

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
1	1	11.23		11.13		11.73		NA	NA
	7	12.16		11.47		11.79		NA	NA
	13	12.34	-80.07	11.78	-68.48	11.77	-66.54	NA	NA
	36	NA	NA	NA	NA	10.16		10.38	
	149	NA	NA	NA	NA	10.47		11.59	
	161	NA	NA	NA	NA	10.18	-66.42	11.57	-68.09

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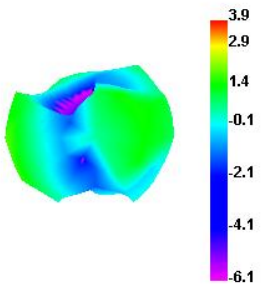
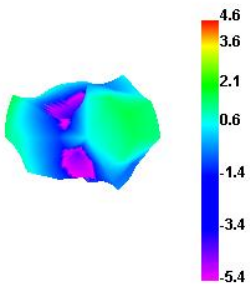
Antenna 2.4G Efficiency

Passive Test For 2.4Gwifi								
Freq	Effi	Effi	Gain	Gain	UHIS	DHIS	Max	Min
(MHz)	(%)	(dB)	(dBi)	(dBd)	(%)	(%)	(dB)	(dB)
2400	47.46	-3.24	3.88	1.73	21.959	25.503	3.88	-16.45
2410	45.66	-3.4	3.82	1.67	20.906	24.757	3.82	-15.95
2420	45.87	-3.38	4	1.85	20.799	25.073	4	-15.1
2430	46.28	-3.35	4.17	2.02	20.822	25.455	4.17	-14
2440	47.97	-3.19	4.41	2.26	21.581	26.393	4.41	-12.98
2450	49.46	-3.06	4.6	2.45	22.143	27.312	4.6	-12.69
2460	48.27	-3.16	4.53	2.38	21.697	26.569	4.53	-12.57
2470	47.6	-3.22	4.49	2.34	21.33	26.268	4.49	-12.1
2480	49.39	-3.06	4.67	2.52	22.279	27.11	4.67	-11.07
2490	53.83	-2.69	5.05	2.9	24.368	29.462	5.05	-9.69
2500	53.44	-2.72	5.01	2.86	24.581	28.859	5.01	-10.08

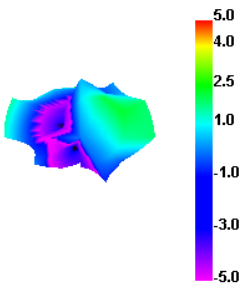
2400.000MHz



2450.000MHz



2500.000MHz



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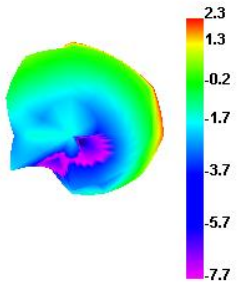
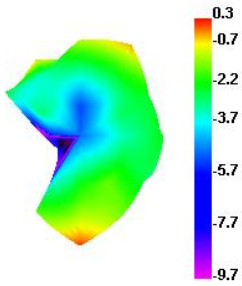
Antenna 5G Efficiency

Passive Test For 5Gwifi								
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHIS (%)	DHIS (%)	Max (dB)	Min (dB)
5000	37.87	-4.22	2.34	0.19	13.876	23.997	2.34	-17.52
5100	37.1	-4.31	2.52	0.37	14.141	22.963	2.52	-17.93
5200	35.08	-4.55	2.45	0.3	13.84	21.236	2.45	-17.83
5300	28.31	-5.48	0.37	-1.78	12.193	16.122	0.37	-18.35
5400	39.98	-3.98	-0.18	-2.33	18.787	21.193	-0.18	-14.49
5500	38.37	-4.16	0.31	-1.84	19.228	19.143	0.31	-12.56
5600	40.17	-3.96	2.09	-0.06	20.658	19.509	2.09	-13.15
5700	45.49	-3.42	2.31	0.16	23.489	22.005	2.31	-12.54
5800	45.25	-3.44	1.81	-0.34	23.607	21.642	1.81	-12.12
5900	41.06	-3.87	0.39	-1.76	21.875	19.188	0.39	-13.23
6000	45.36	-3.43	1.67	-0.48	22.911	22.449	1.67	-13.51

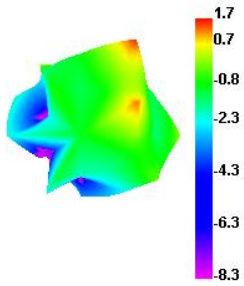
5000.000MHz



5500.000MHz



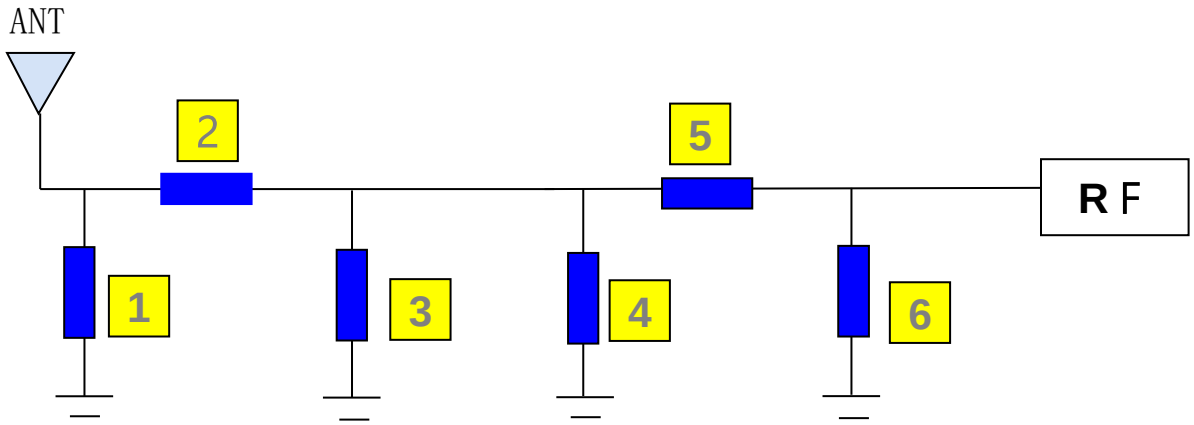
6000.000MHz



Antenna 2.4G Signal Strength

Test Location: R & D of Sward
Test Time : 14:00-14:30
Test Distance: 10-15 meters
Test Result : -52dbm to -42dbm

Antenna Matching Network



Antenna matching has not been changed.

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

Assembly Instructions

The assembly style of the machine has not been changed.

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Notes:

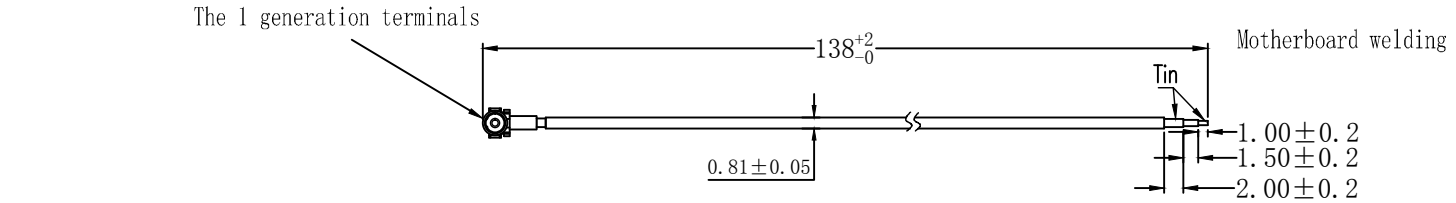
1. This report is based on the actual commissioning and testing of the commissioning prototype, including the assembly instructions, antenna position and assembly position of each device. **It cannot be changed at will;**

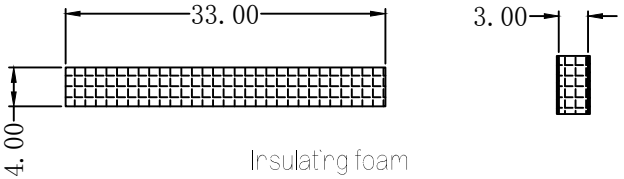
2. If there is **any change** in the materials used in the prototype, it is necessary to timely feed back to our company for **re-verification**;

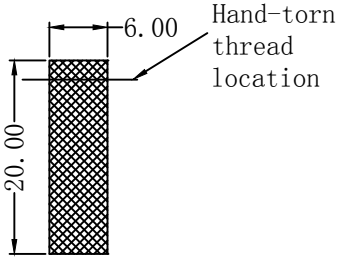
3. List of sensitive devices:

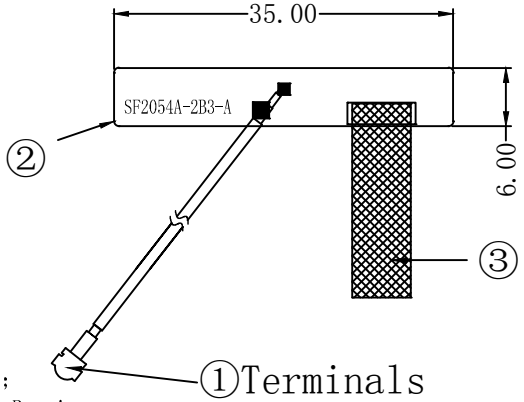
TP (material, coating, wiring, etc.)
Screen (amplification circuit, led, cable layout design, etc.)
Shell material (antenna assembly method, structural interference, shell material, antenna position height and area, etc.)
Mainboard (mainboard conduction, RF circuit matching, PA, duplex, filter, LNA,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

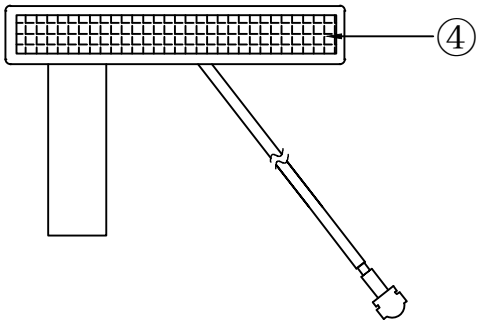
4. Due to the small number or only one sample adjusting machine, some probabilistic problems cannot be completely found. **It is recommended to Check the problem points in small batch trial production before mass production**(screen flashes , horn noise, TP jump point, black screen OR crash, signal diving,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











technical requirements:
1.* for critical dimensions;
2.Size conform to the requirements of the drawings;
3.No virtual welding welding point, false welding。Require full welding points。
4.Network test pass。
5.No marked tolerance according toSJ/T 10628 1995 6classes;

5											
4	Insulating foam	black	1	33*4*3mm							
3	Conductive cloth	gray	1	6*20mm		signatures	date	mass	signatures	date	
2	PCB	green	1	SF2054A-2B3-A	RD	YWD	2023.10.27	Q C			
1	coaxial line	black	1	ϕ=0.81mm	RF						
	name	color	quantity	specifications	audits			approval			

SWARD

ShenZhen SWARD Communication Technology Co.Ltd

SF2054A-2L11G-130-A

time markup					percentage
1			A		1 : 1

ROHS