

Sward Antenna Report

Customer: Estone

Project: PT-82

Report Date: 2022. 09. 06

Project Introduction

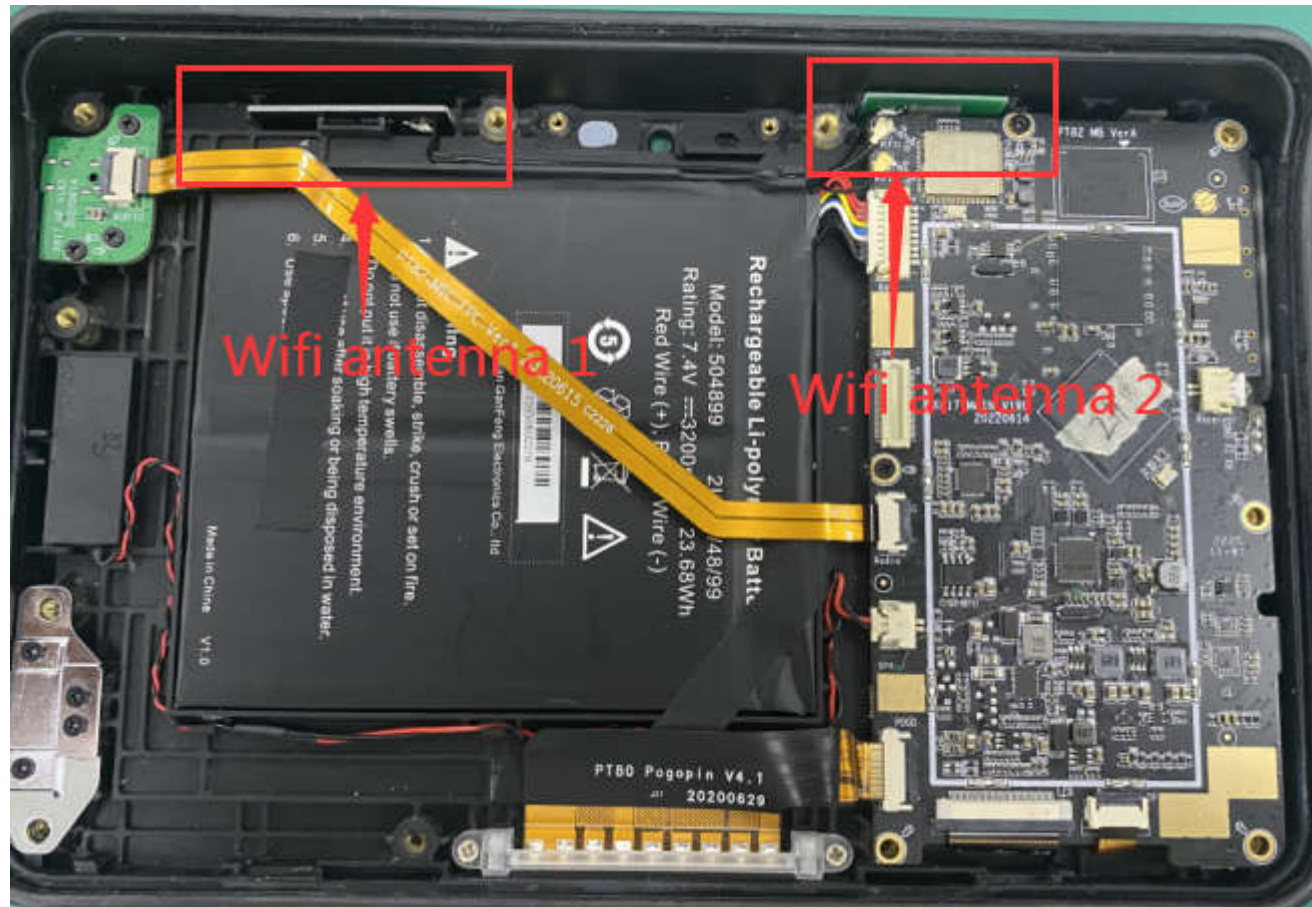
1.Resume

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

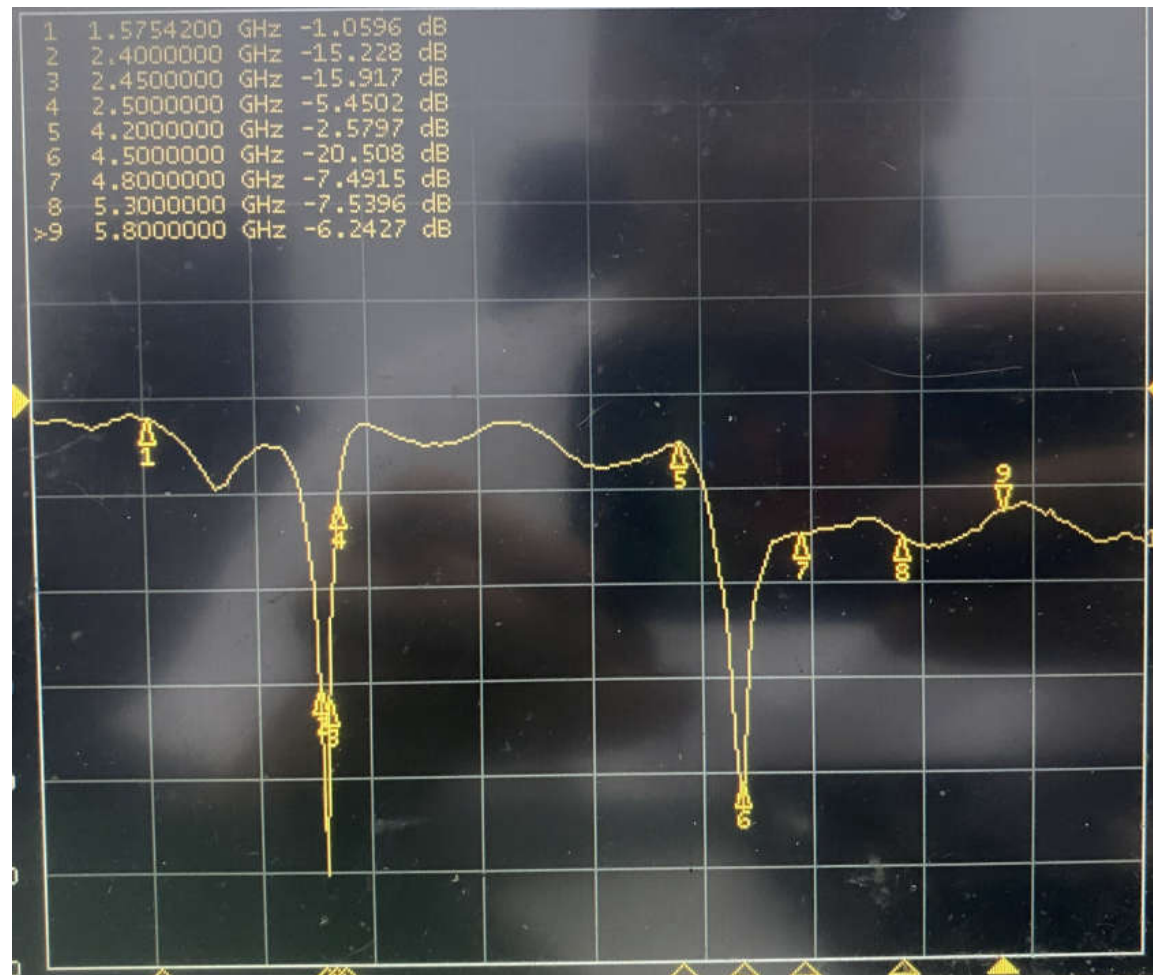
2.Description

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

Antenna Position



WIFI&BT Antenna S11



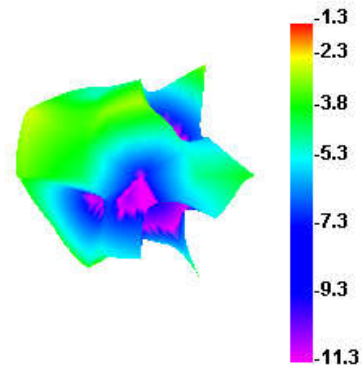
Antenna OTA Data

Num.	Channel	802.11b : 11MBps		802.11g : 54MBps		802.11n : MCS7)		802.11a : 54MBps	
		TRP	TIS	TRP	TIS	TRP	TIS	TRP	TIS
1	1	11.18		11.02		11.71		NA	NA
	7	10.57		10.57		10.36		NA	NA
	13	10.59	-76.16	10.17	-67.49	10.05	-65.49	NA	NA
	36	NA	NA	NA	NA	NA	NA	NA	NA
	149	NA	NA	NA	NA	NA	NA	NA	NA
	161	NA	NA	NA	NA	NA	NA	NA	NA

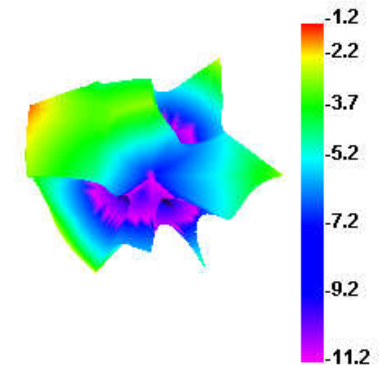
Antenna 2.4G Efficiency

Passive Test For 2.4G-WiFi-BT			
Freq	Effi	Effi	Gain
(MHz)	(%)	(dB)	(dBi)
2400	23.17	-6.35	-1.26
2410	25.78	-5.89	-0.94
2420	26.45	-5.78	-0.84
2430	24.52	-6.11	-1.31
2440	24.23	-6.16	-1.42
2450	26.17	-5.82	-1.22
2460	29.02	-5.37	-0.77
2470	31.41	-5.03	-0.51
2480	32.26	-4.91	-0.48
2490	31.33	-5.04	-0.57
2500	28.49	-5.45	-0.87

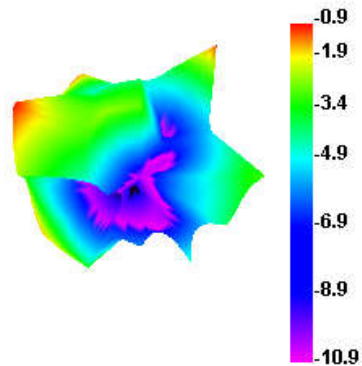
2400.000MHz



2450.000MHz



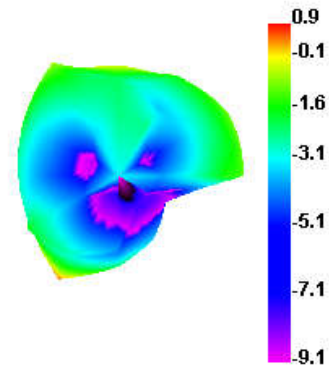
2500.000MHz



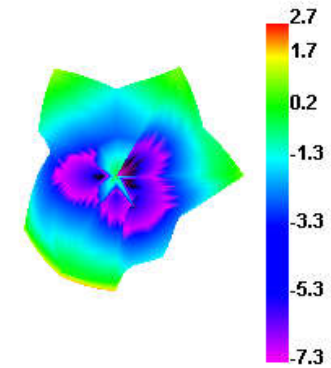
Antenna 5G Efficiency

Passive Test For 5G-WiFi			
Freq	Effi	Effi	Gain
(MHz)	(%)	(dB)	(dBi)
5000	29.53	-5.3	0.88
5100	27.6	-5.59	0.82
5200	32.09	-4.94	1.67
5300	32.81	-4.84	0.85
5400	45.48	-3.42	2.3
5500	44.42	-3.52	2.67
5600	42.12	-3.75	1.5
5700	50.56	-2.96	2.01
5800	52.25	-2.82	1.87
5900	56	-2.52	3.05
6000	69.01	-1.61	3.69

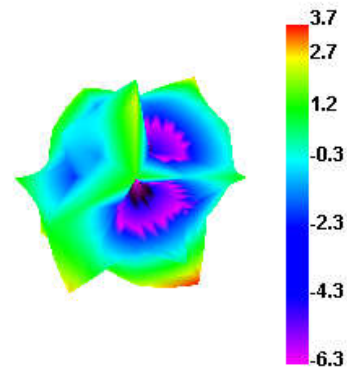
5000.000MHz



5500.000MHz



6000.000MHz

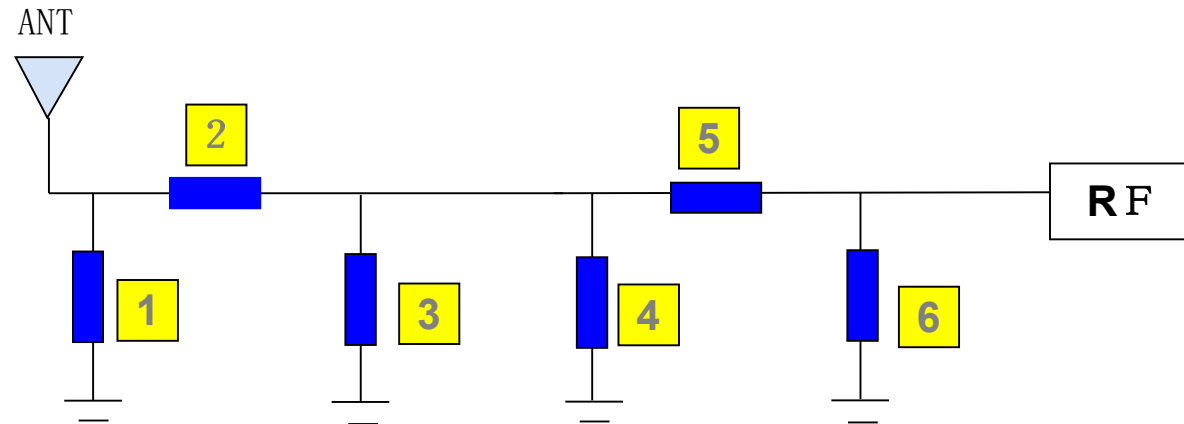


Antenna 2.4G Signal Strength



Test Location: R & D of Sward
Test Time : 14:00-14:30
Test Distance: 10-15 meters
Test Result : -43dbm to -40dbm

Antenna Matching Network



Antenna matching has not been changed.

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

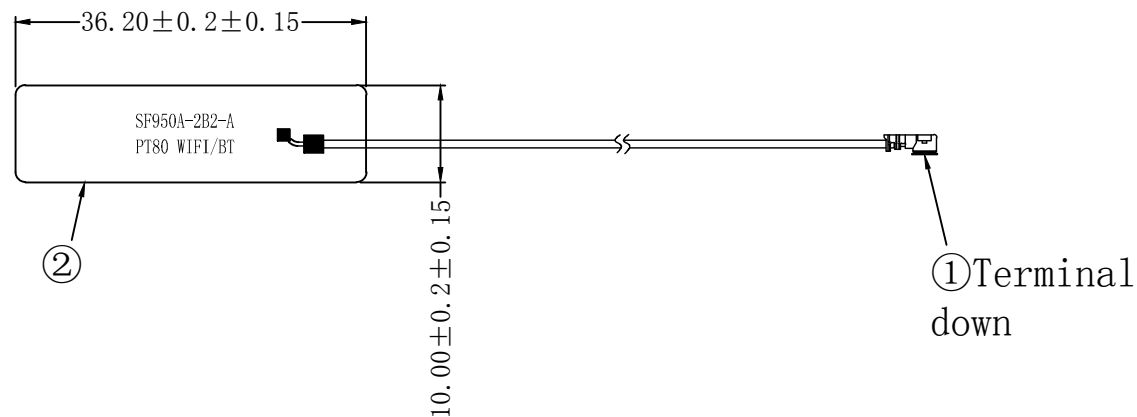
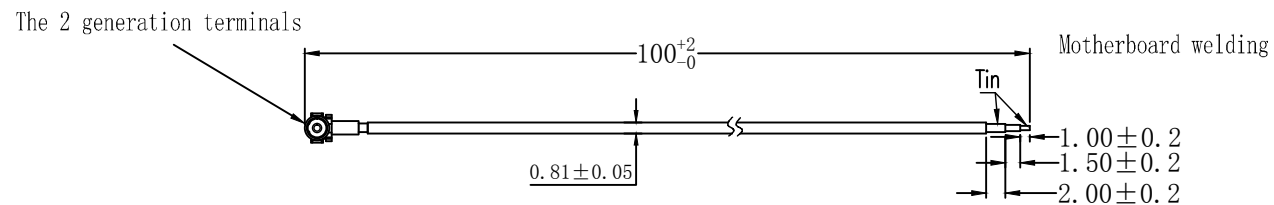
Assembly Instructions

The assembly style of the machine **has not been changed.**



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.).

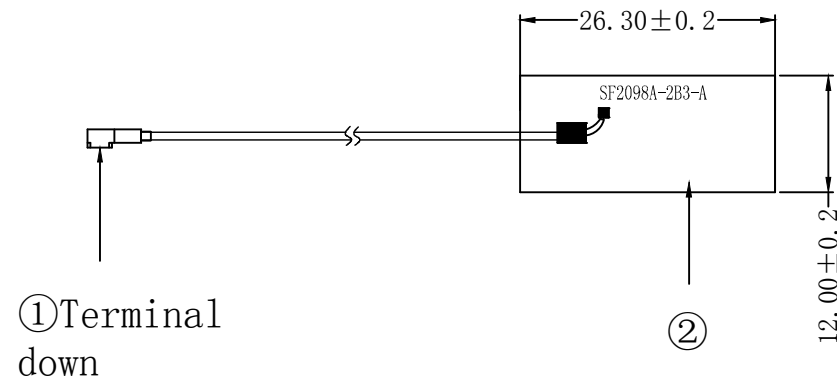


technical requirements:

- 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											SWARD					Technology Co., Ltd.	
4																SF950A-2R22B-100-A	
3					signatures	date	mass	signatures	date	time markup				percentage	ROHS		
2	PCB	black	1	SF950A-2B2-A						RD	YWD	2023.03.31	Q C				
1	coaxial line	black	1	Ø=0.81	RF						1			A			1 : 1
	name	color	quantity	specifications	audits				approval								



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5											SWARD						Technology Co., Ltd.						
4																	SF2098A-2L22B-040-A						ROHS
3						signatures	date	mass	signatures	date	time markup					percentage							
2	PCB	green	1	SF2098A-2B3-A		RD	YWD	2023. 03. 31	Q C														
1	coaxial line	black	1	Ø=0. 81	RF						1			A		1 : 1							
	name	color	quantity	specifications	audits				approval														