

FCC Test Report

Client Name : REMO TECH Co., Ltd

Address : Room 220, Building 6, Qianhai Shenzhen-Hong Kong
Youth Innovation and Entrepreneur Hub, Nanshan
District, Shenzhen, China

Product Name : OBSBOT Me

Date : May 31, 2021



Shenzhen Anbotech Compliance Laboratory Limited



Contents

1. General Information.....	4
1.1. Client Information.....	4
1.2. Description of Device (EUT).....	4
1.3. Auxiliary Equipment Used During Test.....	4
1.4. Description of Test Modes.....	5
1.5. Test Summary.....	5
1.6. Test Equipment List.....	5
1.7. Measurement Uncertainty.....	6
1.8. Description of Test Facility.....	6
2. Radiated Emission Test.....	7
2.1. Test Standard and Limit.....	7
2.2. Test Setup.....	7
2.3. EUT Configuration on Measurement.....	8
2.4. Operating Condition of EUT.....	8
2.5. Test Procedure.....	8
2.6. Test Results.....	8
APPENDIX I -- TEST SETUP PHOTOGRAPH.....	17
APPENDIX II -- EXTERNAL PHOTOGRAPH.....	18
APPENDIX II -- INTERNAL PHOTOGRAPH.....	23



TEST REPORT

Applicant : REMO TECH Co., Ltd
Manufacturer : REMO TECH Co., Ltd
Product Name : OBSBOT Me
Model No. : OSB-2007-CO
Trade Mark : OBSBOT
Rating(s) : Input: DC 5V, 0.3A, 1.5W
Battery: DC 3.7V, 950mAh

Test Standard(s) : FCC Part 15 Subpart B:2019

Test Method(s) : ANSI C63.4-2014

The device described above is tested by Shenzhen Anbotech Compliance Laboratory Limited To determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart B Class B limits both radiated and conducted emissions. The measurement results are contained in this test report and Shenzhen Anbotech Compliance Laboratory Limited Is assumed full responsibility for the accuracy and completeness of these measurements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Shenzhen Anbotech Compliance Laboratory Limited

Date of Receipt: Feb. 24, 2021

Date of Test: Feb. 24~Mar. 05, 2021

Prepared By:

Yee Huang

(Yee Huang)

Approved & Authorized Signer:

KingKong Jin

(KingKong Jin)



1. General Information

1.1. Client Information

Applicant	:	REMO TECH Co., Ltd
Address	:	Room 220, Building 6, Qianhai Shenzhen-Hong Kong Youth Innovation and Entrepreneur Hub, Nanshan District, Shenzhen, China
Manufacturer	:	REMO TECH Co., Ltd
Address	:	Room 220, Building 6, Qianhai Shenzhen-Hong Kong Youth Innovation and Entrepreneur Hub, Nanshan District, Shenzhen, China
Factory	:	Shenzhen yuanbo chuangxing technology co., ltd
Address	:	402, Workshop 2B, No.48, Industrial Zone 228.Silian Community, Henggang Street, Longgang District, Shenzhen.

1.2. Description of Device (EUT)

Product Name	:	OBSBOT Me
Model No.	:	OSB-2007-CO
Trade Mark	:	OBSBOT
Test Power Supply	:	DC 5V via adapter / DC 3.7V
Test Sample No.	:	1-1-1
Product Description	:	Adapter: N/A
Remark: (1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual. (2)As specified by the client, all the results in this report were quoted from report 18230EC10026701.		

1.3. Auxiliary Equipment Used During Test

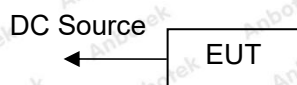
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1.4. Description of Test Modes

Pretest Modes	Descriptions
Mode 1	Charging
Mode 2	On

For Mode 1 Block Diagram of Test Setup



For Mode 2 Block Diagram of Test Setup



1.5. Test Summary

Test Items	Test Modes	Status
Power Line Conducted Emission Test (150KHz To 30MHz)	/	N
Radiated Emission Test (30MHz To 6GHz)	All Mode	P
P) Indicates "PASS". N) Indicates "Not applicable".		

1.6. Test Equipment List

Radiated Emission Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	EMI Test Receiver	Rohde & Schwarz	ESR26	101481	Oct. 26, 2020	1 Year
2.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	VULB 9163-289	Nov. 02, 2020	2 Year
3.	Pre-amplifier	SONOMA	310N	186860	Oct. 26, 2020	1 Year
4.	Software Name EZ-EMC	Ferrari Technology	ANB-03A	N/A	N/A	N/A
5.	Preamplifier	SKET Electronic	BK1G18G30 D	KD17503	Oct. 26, 2020	1 Year
6.	Double Ridged Horn Antenna	Instruments corporation	GTH-0118	351600	Nov. 02, 2020	2 Year



1.7. Measurement Uncertainty

Radiation Uncertainty	:	Ur = 3.9 dB (Horizontal)
		Ur = 3.8 dB (Vertical)
Conduction Uncertainty	:	Uc = 3.4 dB
Disturbance Uncertainty	:	Ud = 3.4 dB

1.8. Description of Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

FCC-Registration No.: 184111

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No. 184111, September 30, 2020.

ISED-Registration No.: 8058A

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (ISED) Innovation, Science and Economic Development Canada. The acceptance letter from the ISED is maintained in our files. Registration 8058A, September 30, 2020.

Test Location

Shenzhen Anbotek Compliance Laboratory Limited.

1/F, Building D, Sogood Science and Technology Park, Sanwei community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.518128



2. Radiated Emission Test

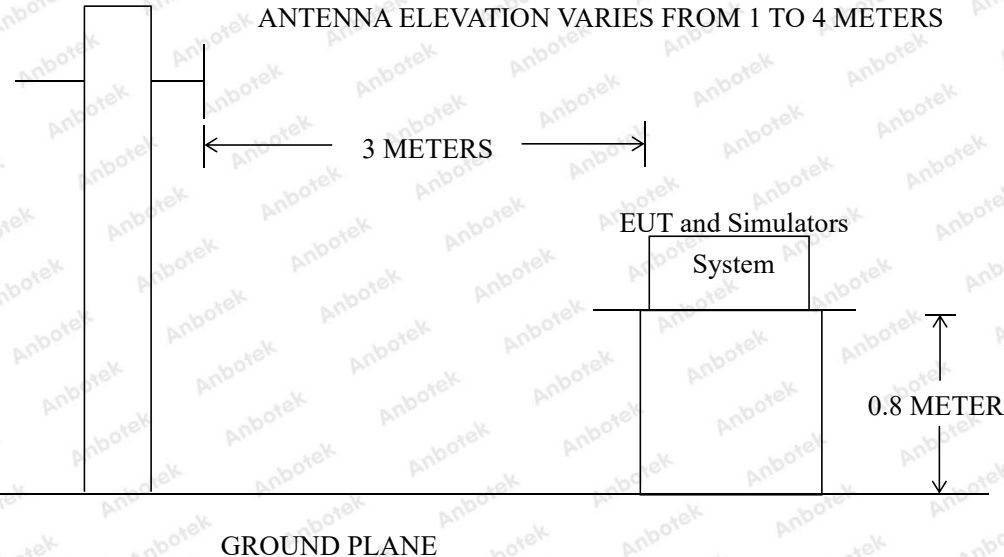
2.1. Test Standard and Limit

Test Standard	FCC Part 15 Subpart B
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Radiated Emission Test Limit (Subpart B Class B)

30~1000 MHz				
Test Limit	Frequency (MHz)	DISTANCE (Meters)	FIELD STRENGTHS LIMIT	
			μV/m	(dBμV/m)
	30 ~ 88	3	100	40
	88 ~ 216	3	150	43.5
	216 ~ 960	3	200	46
	960 ~ 1000	3	500	54
1~6 GHz				
Test Limit	Frequency (GHz)	DISTANCE (Meters)	FIELD STRENGTHS LIMIT	
			Average (μV/m)	Peak (dBμV/m)
	1 ~ 6	3	54	74
Remark: (1) Emission level (dB)μV = 20 log Emission level μV/m (2) The smaller limit shall apply at the cross point between two frequency bands. (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system. (4) 3M Limit=10M Limit+k k=20log(D1/D2)=10 3M Limit=10M Limit +10 (D1= 10M D2=3M)				

2.2. Test Setup



2.3. EUT Configuration on Measurement

The following equipments are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

2.4. Operating Condition of EUT

2.4.1. Setup the EUT as shown in Section 2.2.

2.4.2. Turn on the power of all equipments.

2.4.3. Let the EUT work in test mode and measure it.

2.5. Test Procedure

EUT and its simulators are placed on a turn table, which is 0.1 meter high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (Trilog Broadband Antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4-2014 on radiated emission measurement.

The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1GHz.

The test receiver/spectrum was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1GHz.

Note:

The resolution bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.

The resolution bandwidth is 1MHz and video bandwidth of test receiver/spectrum analyzer is 3MHz for Peak/ Average detection at frequency above 1GHz.

The frequency range from 30MHz to 6GHz is checked.

The test results are listed in Section 2.6.

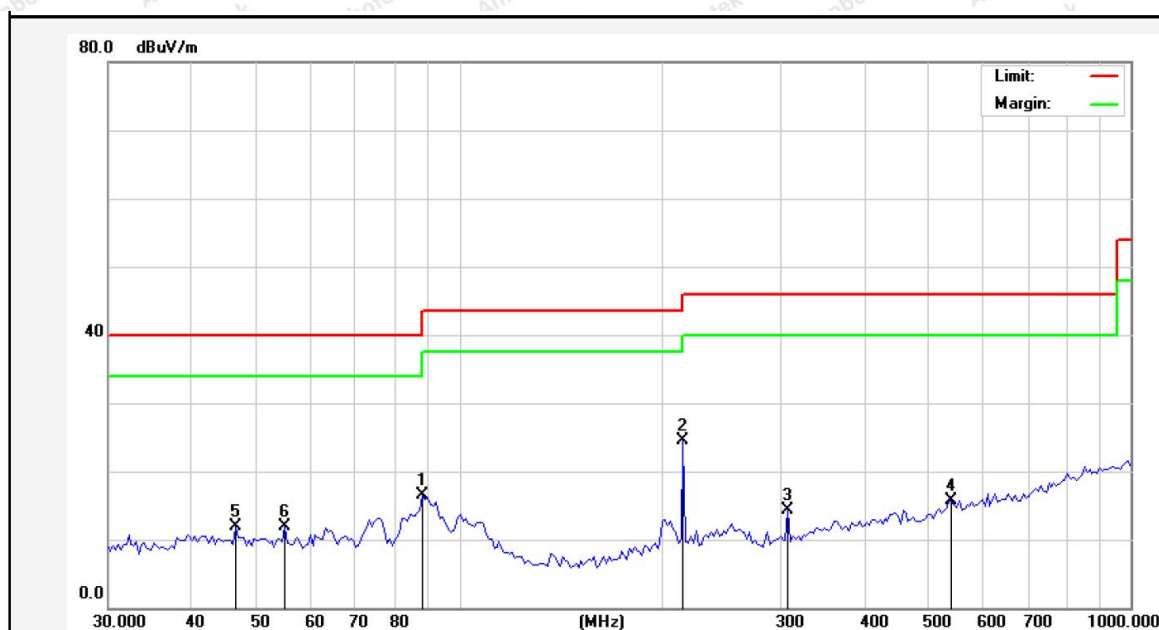
2.6. Test Results

PASS

The test curves are shown in the following pages.



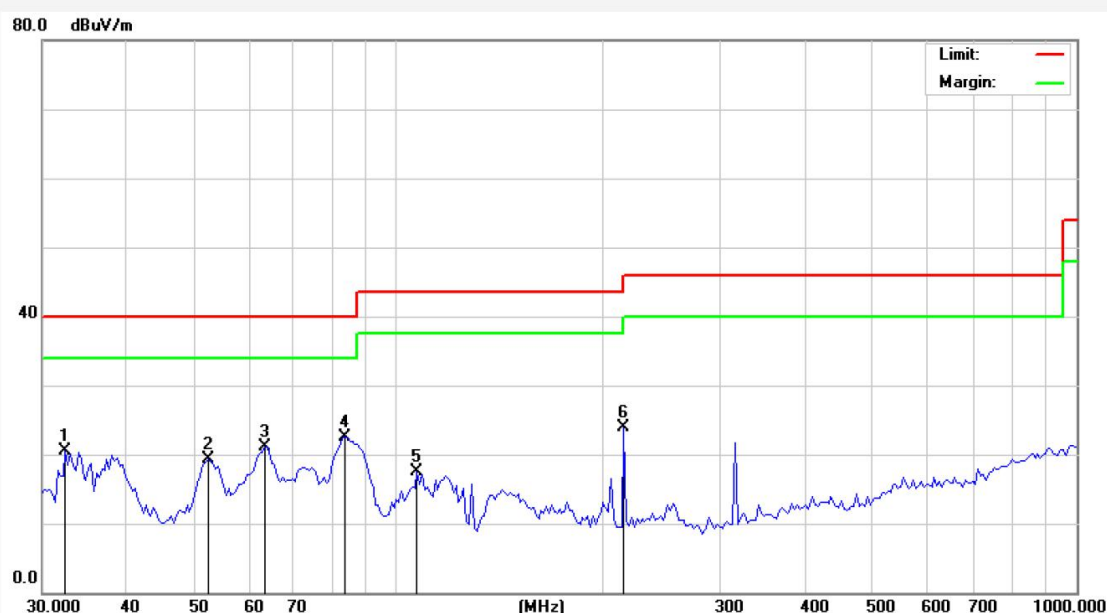
Test item: Radiation Test **Polarization:** Horizontal
Standard: (RE)FCC Part 15 Subpart B_30~1000MHz **Power Source:** DC 5V via adapter
Distance: 3m **Temp.(°C)/Hum.(%RH):** 22.1(°C)/50%RH
Test Mode: Charging



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	88.1873	34.81	-18.24	16.57	43.50	-26.93	peak			
2	215.6456	41.79	-17.29	24.50	43.50	-19.00	peak			
3	308.9126	31.21	-16.95	14.26	46.00	-31.74	peak			
4	541.3725	29.12	-13.38	15.74	46.00	-30.26	peak			
5	46.5030	27.60	-15.70	11.90	40.00	-28.10	peak			
6	54.9310	28.01	-16.12	11.89	40.00	-28.11	peak			

Note: Result=Reading+Factor Over Limit=Result-Limit

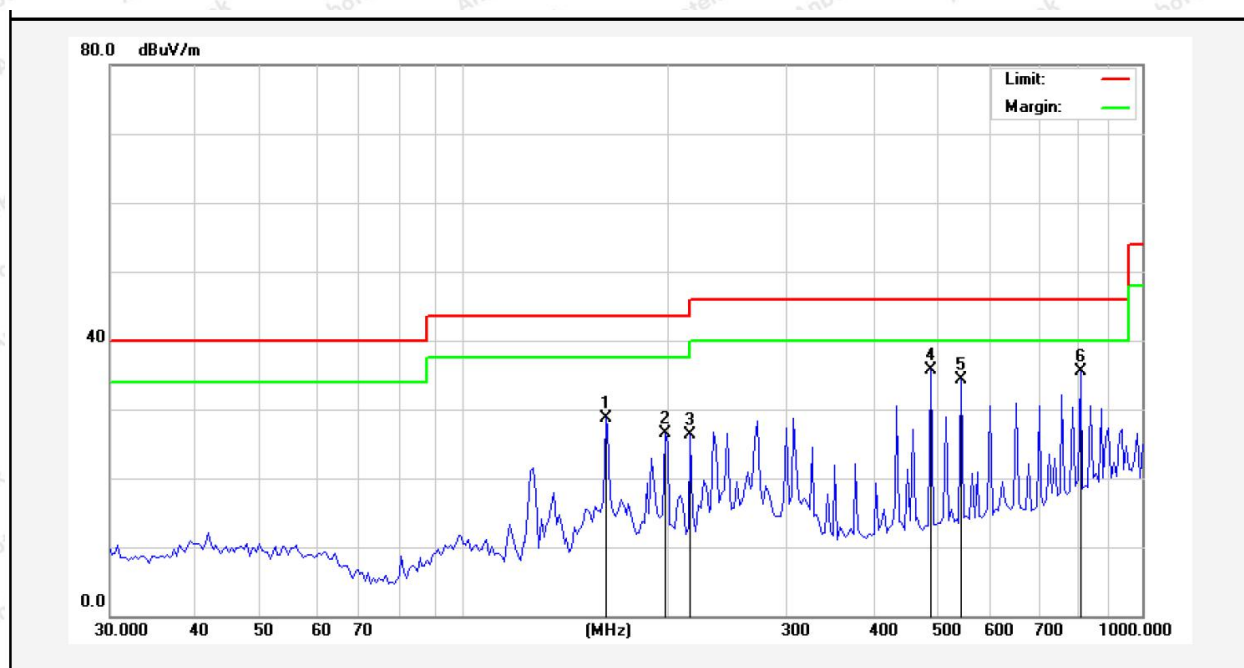
Test item: Radiation Test **Polarization:** Vertical
Standard: (RE)FCC Part 15 Subpart B_30~1000MHz **Power Source:** DC 5V via adapter
Distance: 3m **Temp.(°C)/Hum.(%RH):** 22.1(°C)/50%RH
Test Mode: Charging



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	32.4628	37.27	-16.82	20.45	40.00	-19.55	peak			
2	52.5753	35.30	-16.02	19.28	40.00	-20.72	peak			
3	63.7588	39.01	-17.88	21.13	40.00	-18.87	peak			
4	83.6688	41.65	-19.12	22.53	40.00	-17.47	peak			
5	106.9461	33.72	-16.29	17.43	43.50	-26.07	peak			
6	215.6456	41.28	-17.29	23.99	43.50	-19.51	peak			

Note: Result=Reading+Factor Over Limit=Result-Limit

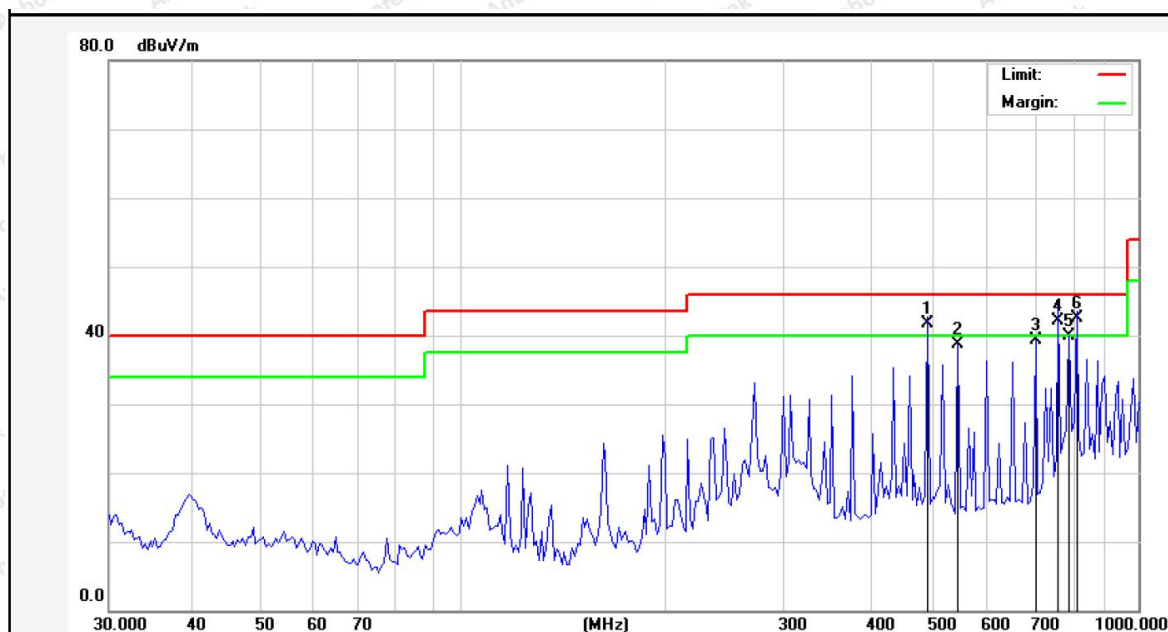
Test item: Radiation Test **Polarization:** Horizontal
Standard: (RE)FCC Part 15 Subpart B_30~1000MHz **Power Source:** DC 3.7V
Distance: 3m **Temp.(°C)/Hum.(%RH):** 22.1(°C)/50%RH
Test Mode: On



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	161.4742	48.64	-19.85	28.79	43.50	-14.71	peak			
2	197.5462	44.41	-17.82	26.59	43.50	-16.91	peak			
3	215.6456	43.63	-17.29	26.34	43.50	-17.16	peak			
4	487.3151	50.24	-14.62	35.62	46.00	-10.38	peak			
5	541.3725	47.61	-13.38	34.23	46.00	-11.77	peak			
6	810.2654	44.27	-8.79	35.48	46.00	-10.52	peak			

Note: Result=Reading+Factor Over Limit=Result-Limit

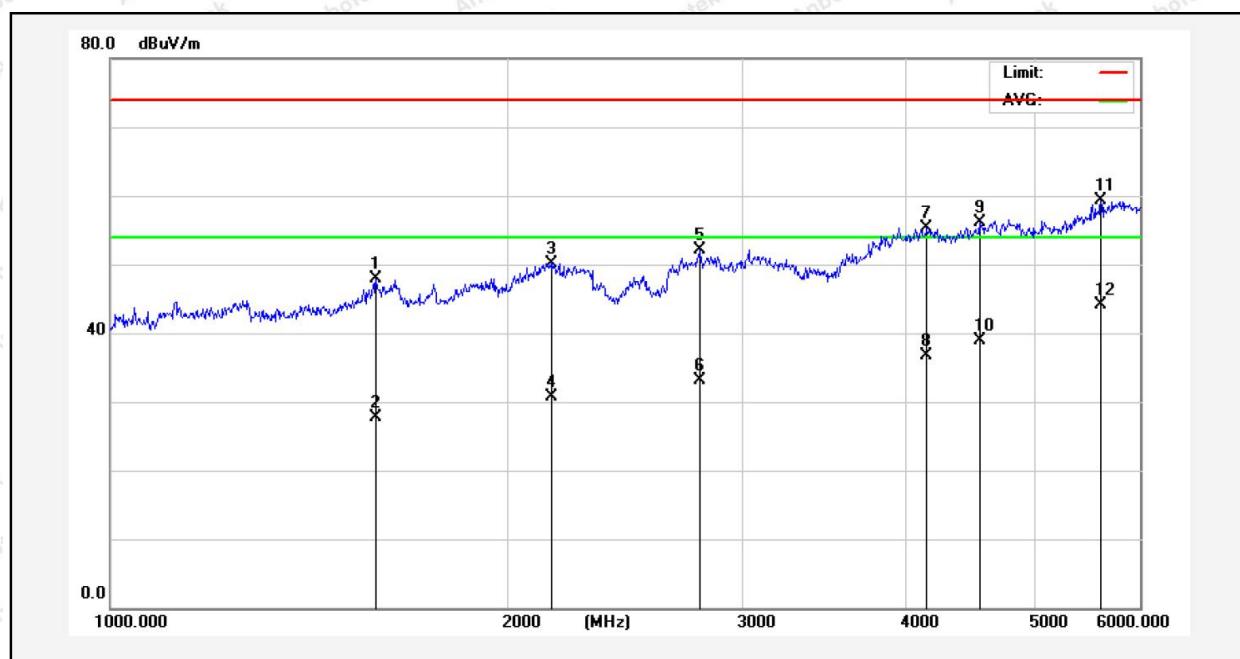
Test item: Radiation Test **Polarization:** Vertical
Standard: (RE)FCC Part 15 Subpart B_30~1000MHz **Power Source:** DC 3.7V
Distance: 3m **Temp.(°C)/Hum.(%RH):** 22.1(°C)/50%RH
Test Mode: On



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	487.3151	56.23	-14.62	41.61	46.00	-4.39	QP	100	0	
2	541.3725	52.08	-13.38	38.70	46.00	-7.30	peak			
3	704.2261	50.66	-11.28	39.38	46.00	-6.62	peak			
4	762.0385	52.03	-9.86	42.17	46.00	-3.83	QP	100	360	
5	789.2338	49.05	-9.21	39.84	46.00	-6.16	peak			
6	810.2654	51.22	-8.79	42.43	46.00	-3.57	QP	100	0	

Note: Result=Reading+Factor Over Limit=Result-Limit

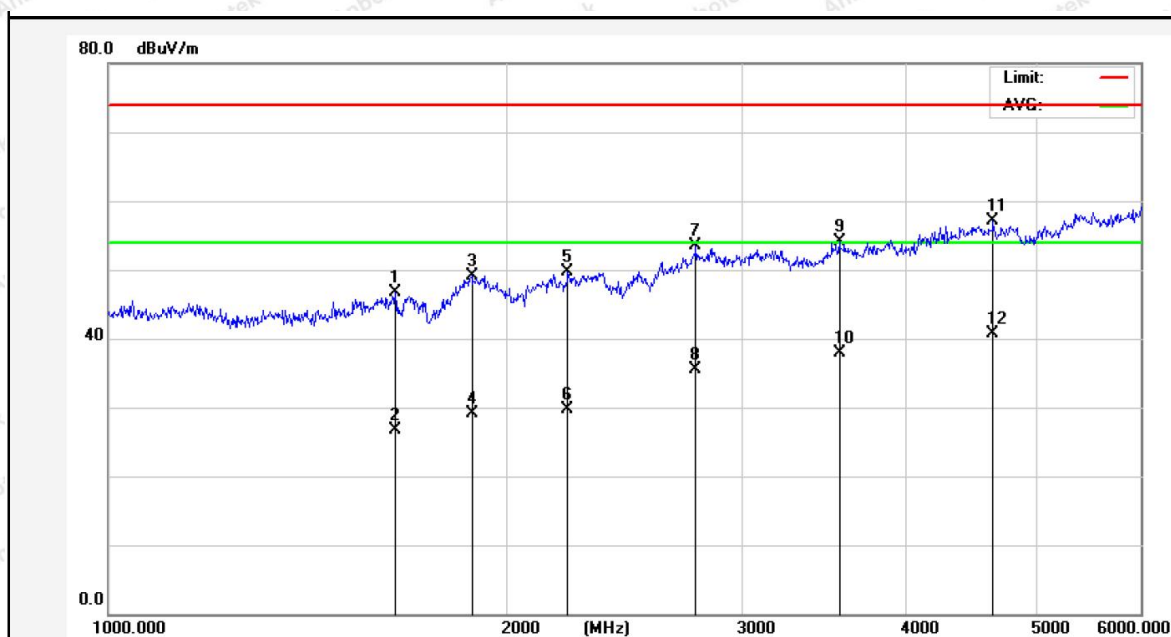
Test item: Radiation Test **Polarization:** Horizontal
Standard: (RE)FCC Part 15 Subpart B_1~6GHz **Power Source:** DC 5V via adapter
Distance: 3m **Temp.(°C)/Hum.(%RH):** 22.5(°C)/50%RH
Test Mode: Charging



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	1587.680	42.54	5.43	47.97	74.00	-26.03	peak			
2	1587.680	22.30	5.43	27.73	54.00	-26.27	AVG			
3	2156.885	40.90	9.30	50.20	74.00	-23.80	peak			
4	2156.885	21.39	9.30	30.69	54.00	-23.31	AVG			
5	2786.779	41.03	11.01	52.04	74.00	-21.96	peak			
6	2786.779	22.06	11.01	33.07	54.00	-20.93	AVG			
7	4140.702	42.13	13.25	55.38	74.00	-18.62	peak			
8	4140.702	23.50	13.25	36.75	54.00	-17.25	AVG			
9	4536.905	41.33	14.74	56.07	74.00	-17.93	peak			
10	4536.905	24.10	14.74	38.84	54.00	-15.16	AVG			
11	5605.076	42.47	16.90	59.37	74.00	-14.63	peak			
12	5605.076	27.27	16.90	44.17	54.00	-9.83	AVG			

Note: Result=Reading+Factor Over Limit=Result-Limit

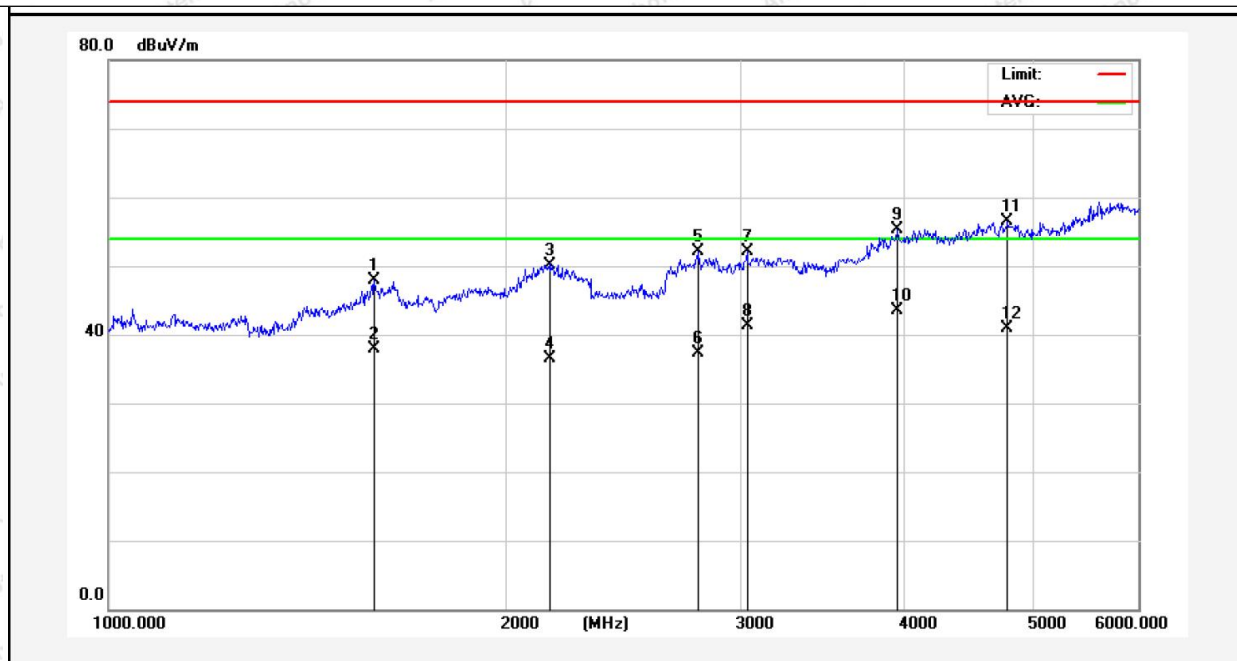
Test item: Radiation Test **Polarization:** Vertical
Standard: (RE)FCC Part 15 Subpart B_1~6GHz **Power Source:** DC 5V via adapter
Distance: 3m **Temp.(°C)/Hum.(%RH):** 22.5(°C)/50%RH
Test Mode: Charging



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	1645.607	40.86	5.93	46.79	74.00	-27.21	peak			
2	1645.607	20.73	5.93	26.66	54.00	-27.34	AVG			
3	1878.924	41.10	7.95	49.05	74.00	-24.95	peak			
4	1878.924	21.22	7.95	29.17	54.00	-24.83	AVG			
5	2219.613	40.21	9.41	49.62	74.00	-24.38	peak			
6	2219.613	20.22	9.41	29.63	54.00	-24.37	AVG			
7	2771.839	42.46	10.95	53.41	74.00	-20.59	peak			
8	2771.839	24.52	10.95	35.47	54.00	-18.53	AVG			
9	3555.749	41.74	12.43	54.17	74.00	-19.83	peak			
10	3555.749	25.50	12.43	37.93	54.00	-16.07	AVG			
11	4643.823	42.06	14.95	57.01	74.00	-16.99	peak			
12	4643.823	25.75	14.95	40.70	54.00	-13.30	AVG			

Note: Result=Reading+Factor Over Limit=Result-Limit

Test item: Radiation Test **Polarization:** Horizontal
Standard: (RE)FCC Part 15 Subpart B_1~6GHz **Power Source:** DC 3.7V
Distance: 3m **Temp.(°C)/Hum.(%RH):** 22.5(°C)/50%RH
Test Mode: On



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	1587.680	42.54	5.43	47.97	74.00	-26.03	peak			
2	1587.680	32.42	5.43	37.85	54.00	-16.15	AVG			
3	2156.885	40.90	9.30	50.20	74.00	-23.80	peak			
4	2156.885	27.27	9.30	36.57	54.00	-17.43	AVG			
5	2786.779	41.03	11.01	52.04	74.00	-21.96	peak			
6	2786.779	26.21	11.01	37.22	54.00	-16.78	AVG			
7	3037.063	40.30	11.84	52.14	74.00	-21.86	peak			
8	3037.063	29.40	11.84	41.24	54.00	-12.76	AVG			
9	3945.153	42.70	12.66	55.36	74.00	-18.64	peak			
10	3945.153	30.91	12.66	43.57	54.00	-10.43	AVG			
11	4778.879	41.37	15.22	56.59	74.00	-17.41	peak			
12	4778.879	25.65	15.22	40.87	54.00	-13.13	AVG			

Note: Result=Reading+Factor Over Limit=Result-Limit

Test item: Radiation Test **Polarization:** Vertical
Standard: (RE)FCC Part 15 Subpart B_1~6GHz **Power Source:** DC 3.7V
Distance: 3m **Temp.(°C)/Hum.(%RH):** 22.5(°C)/50%RH
Test Mode: On



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	1149.995	39.75	3.91	43.66	74.00	-30.34	peak			
2	1149.995	27.53	3.91	31.44	54.00	-22.56	AVG			
3	1358.513	39.33	4.36	43.69	74.00	-30.31	peak			
4	1358.513	27.38	4.36	31.74	54.00	-22.26	AVG			
5	1534.540	39.69	4.97	44.66	74.00	-29.34	peak			
6	1534.540	28.60	4.97	33.57	54.00	-20.43	AVG			
7	1878.924	39.60	7.95	47.55	74.00	-26.45	peak			
8	1878.924	25.68	7.95	33.63	54.00	-20.37	AVG			
9	2847.347	40.78	11.23	52.01	74.00	-21.99	peak			
10	2847.347	22.94	11.23	34.17	54.00	-19.83	AVG			
11	3555.749	40.74	12.43	53.17	74.00	-20.83	peak			
12	3555.749	23.23	12.43	35.66	54.00	-18.34	AVG			

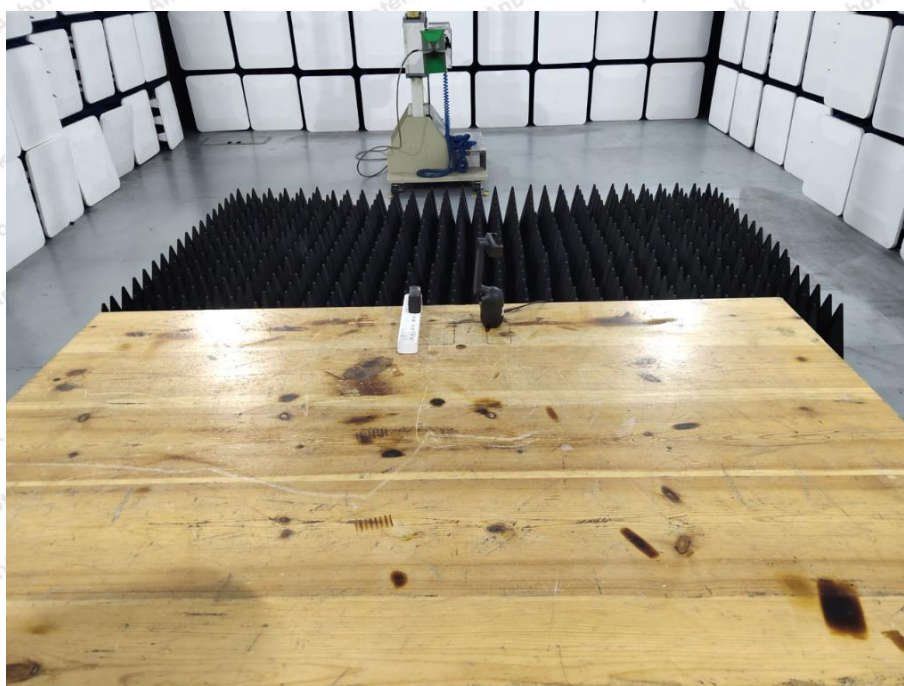
Note: Result=Reading+Factor Over Limit=Result-Limit

APPENDIX I -- TEST SETUP PHOTOGRAPH

Photo of Radiated Emission Test(30~1000MHz)



Photo of Radiated Emission Test(1~6GHz)



APPENDIX II -- EXTERNAL PHOTOGRAPH

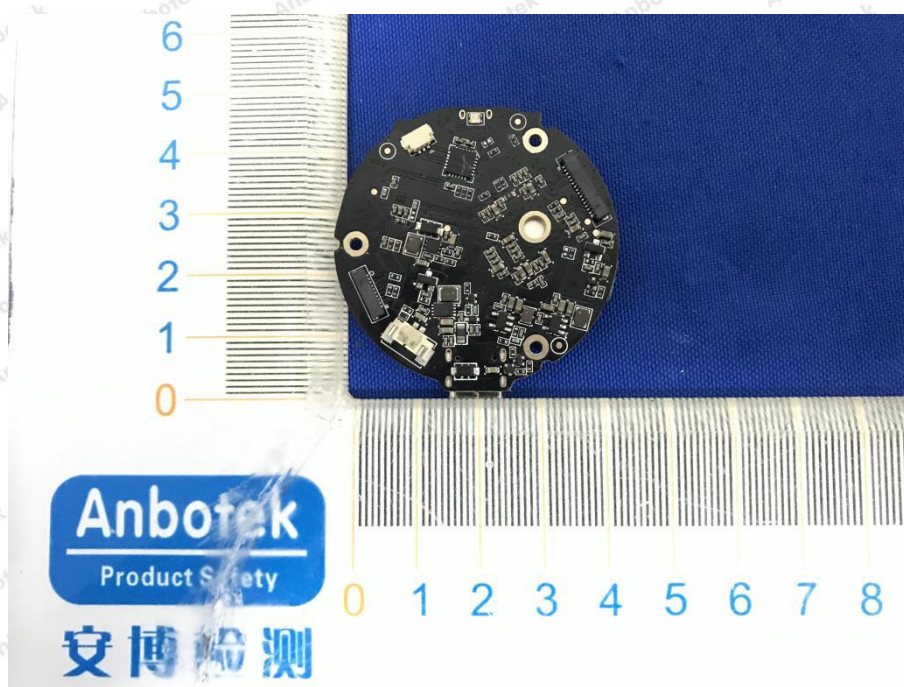


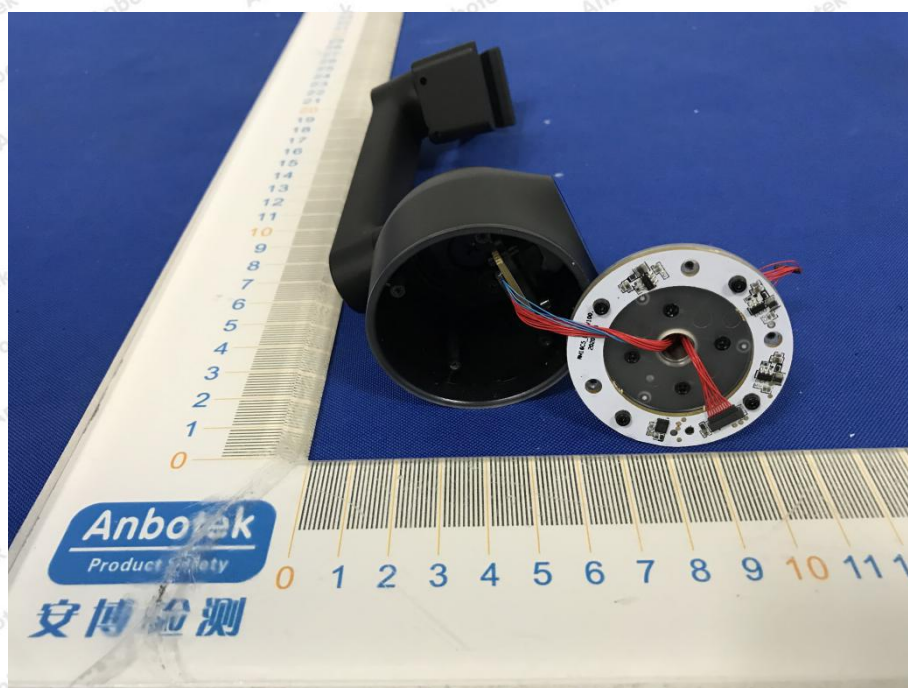
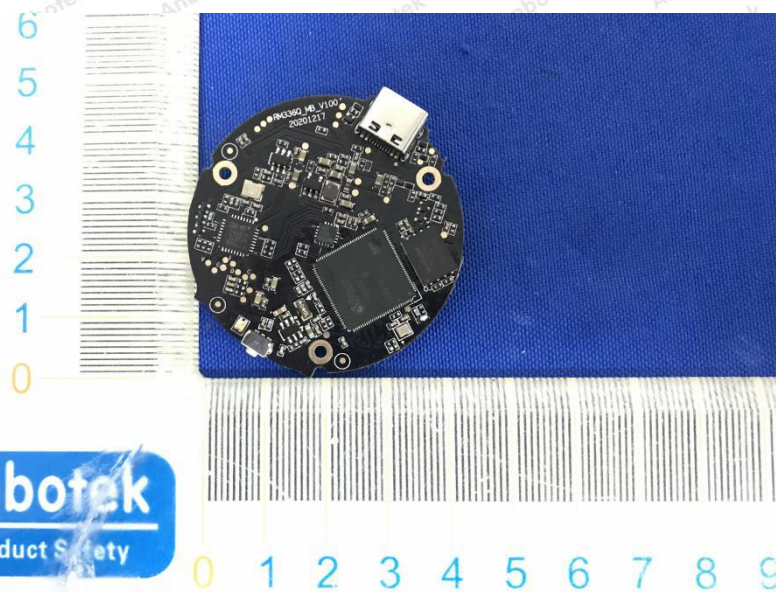


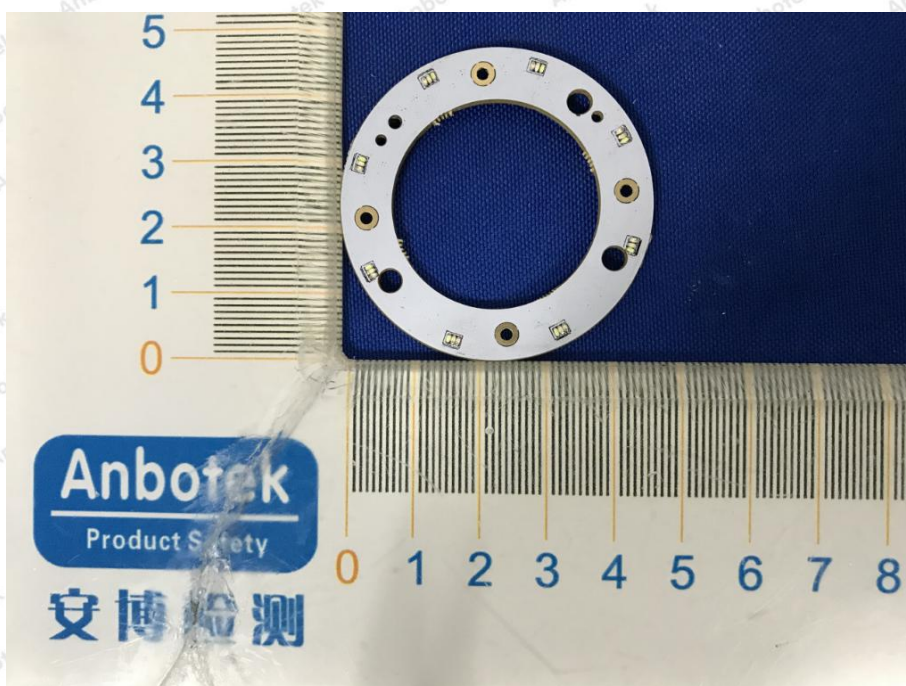
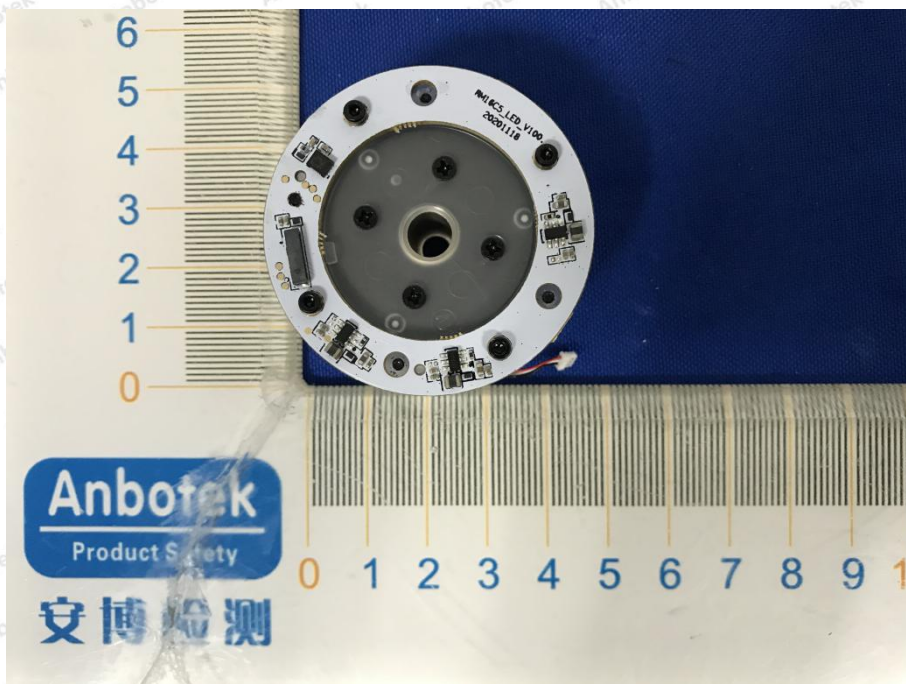


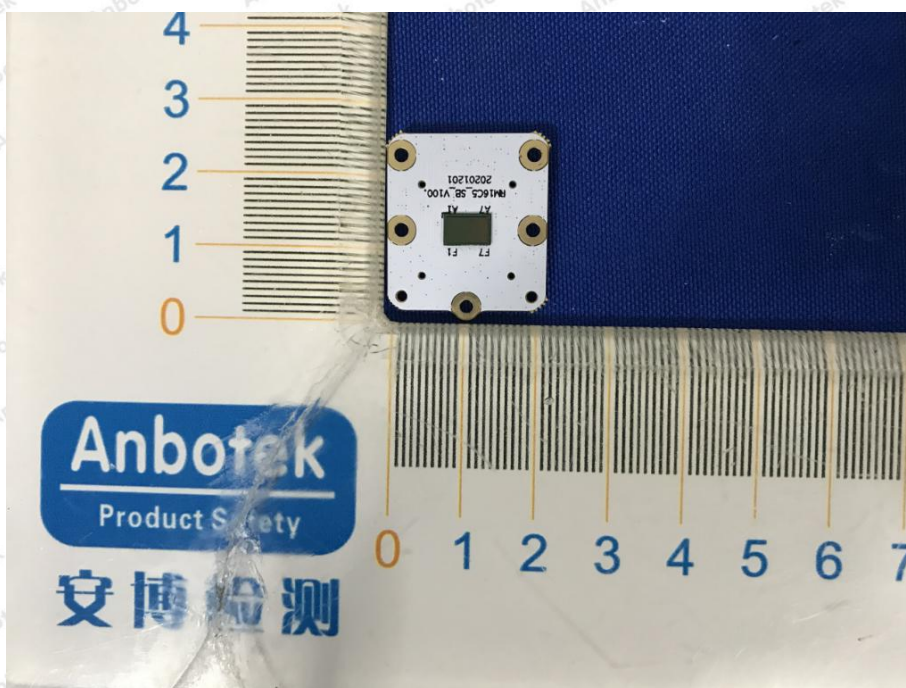
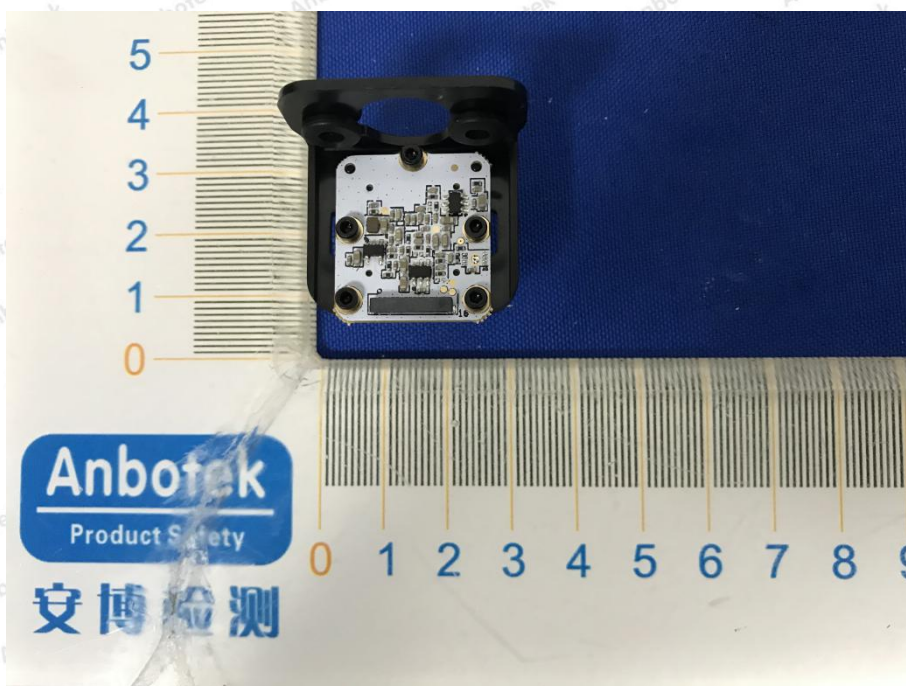


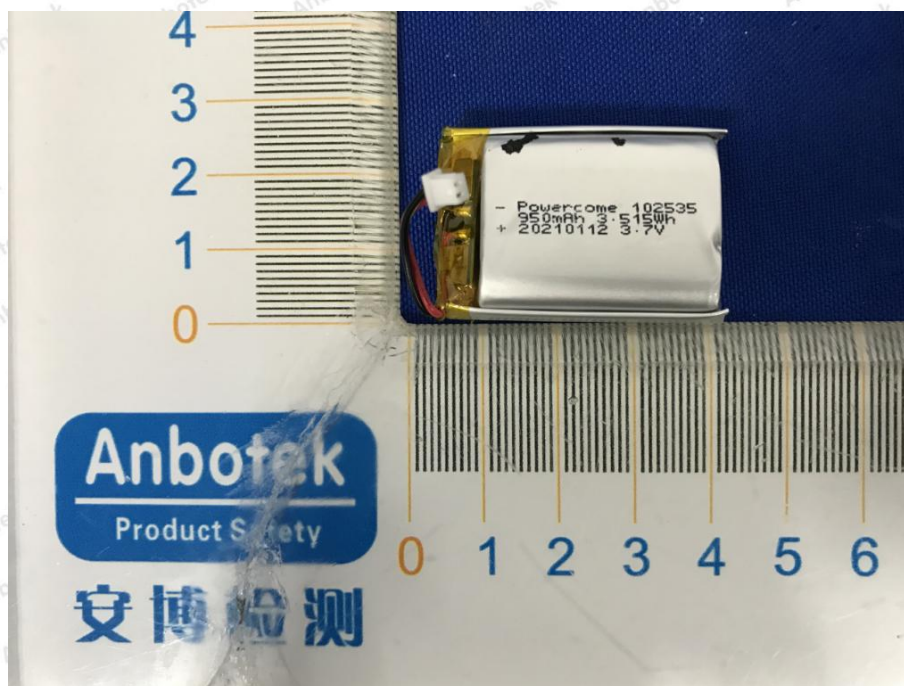
APPENDIX II -- INTERNAL PHOTOGRAPH











----- End of Report -----

