Huaxun testing (Shenzhen) Group Co., Ltd

Report No: F03310012-XQ

FCC SDOC TEST REPORT

Applicant:	Shenzhen Xiaoqiang Technology Co., Ltd
Address:	Floor 2-3, Building 3, Fifth Industrial Zone, Tianliao Community, Yutang Street, Guangming District, Shenzhen City
Manufacturer:	Shenzhen Xiaoqiang Technology Co., Ltd
Address:	Floor 2-3, Building 3, Fifth Industrial Zone, Tianliao Community, Yutang Street, Guangming District, Shenzhen City
Product name:	Straight hair egg comb
Model:	GT2218
Serial model:	N/A
Brand Name:	N/A
Sample Received Date:	Mar 27,2023
Testing Period:	Mar 27,2022~Mar 31,2023

Test Requirement:

This device described above has been tested by Huaxun testing (Shenzhen) Group Co., Ltd, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

Test Result(s): Please refer to the following page(s);

Test Method: Please refer to the following page(s);

Prepared by: Rite

Reviewer: Heidi

Approved & Authorized Signer: Spike

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1.TEST SUMMARY

TEST PROCEDURES AND RESULTS

EMC Emission			
Standard	Test Item	Limit	Result
FCC Part 15 Subpart B ANSI C63.4: 2014	Conducted Emission	Class B	N/A
	Radiated Emission	Class B	PASS

Note: 1. “N/A” denotes test is not applicable in this test report.
2. For client’s request and manual description, the test will not be executed.

TEST FACTORY

Test Firm : Huaxun testing (Shenzhen) Group Co., Ltd

Address : Goldman Sachs building, No. 18, Shaqi Community Center Road, Xinqiao street, Bao'an District, Shenzhen, Guangdong, China

MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement y ± U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k = 2, providing a level of confidence of approximately 95%.

A. Conducted Measurement:

Test Site	Method	Measurement Frequency Range	U, (dB)	NOTE
HX	ANSI	9kHz ~ 150kHz	2.96	
		150kHz ~ 30MHz	2.44	

B. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	U, (dB)	NOTE
HX	ANSI	9kHz ~ 30MHz	2.50	
		30MHz ~ 1000MHz	4.80	
		1000MHz ~ 6000MHz	4.13	

2.GENERAL INFORMATION

2.1GENERAL DESCRIPTION OF EUT

Product Name:	Straight hair egg comb
Brand Name :	N/A
Main Model:	GT2218
Additional Model:	N/A
Model Difference:	N/A
Power Source:	INPUT: DC 5V, 2A, 10W
Product Description:	The EUT is a Straight hair egg comb . Based on the application, features, or specification exhibited in User's Manual, more details of EUT technical specification, please refer to the User's Manual.

2.2DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

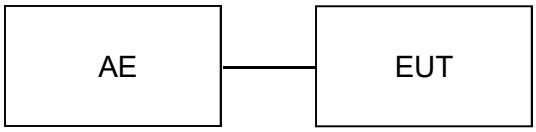
Pretest Mode	Description
Mode 1	Running

For Conducted Test	
Pretest Mode	Description
Mode 1	Running

For Radiated Test	
Pretest Mode	Description
Mode 1	Running

Note: The test modes were carried out for all operation modes (include link and idle).

2.3DESCRIPTION OF TEST SETUP



Note: The EUT tested system was configured as upper figure, unless otherwise a special operating condition is specified in the following during the testing.

2.4DESCRIPTION TEST PERIPHERAL AND EUT PERIPHERAL

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Note
E-1	Straight hair egg comb	N/A	GT2218	EUT

Item	Shielded Type	Ferrite Core	Length	Note

Note:

1. The support equipment was authorized by Declaration of Confirmation.
2. For detachable type I/O cable should be specified the length in cm in『Length』column.
3. “YES” is means “shielded” “with core”; “NO” is means “unshielded” “without core”.

2.5MEASUREMENT INSTRUMENTS LIST

Item	Equipment	Manufacturer	Model No.	Serial No.	Calibrated until
Conduction Emissions Measurement					
1	Conducted Emission Test Software	EZ-EMC	Ver.CCS-3GT2218-CE	N/A	N/A
2	AMN	Schwarzbeck	NNLK8121	8121370	2023.10.15
3	AMN	ETS	3810/2	00020199	2023.10.15
4	AAN	TESEQ	T8-Cat6	38888	2023.10.15
5	Pulse Limiter	CYBRTEK	EM5010	E115010056	2023.05.20
6	EMI Test Receiver	Rohde&Schwarz	ESCI	101210	2023.10.15
Radiated Emissions Measurement					
1	Radiated Emission Test Software	EZ-EMC	Ver.CCS-03GT2218	N/A	N/A
2	Horn Antenna	Sunol	DRH-118	GT221801415	2023.10.18
3	Broadband Hybrid Antenna	Sunol	JB1	A090215	2024.03.01
4	PREAMP	HP	8449B	3008A00160	2023.10.21
5	PREAMP	HP	8447D	2944A07999	2023.05.20
6	EMI Test Receiver	Rohde&Schwarz	ESR3	101891	2023.10.15
7	MXA Signal Analyzer	Keysight	N9020A	MY51110104	2023.10.15
8	Active Loop Antenna	Com-Power	AL-310R	10160009	2023.05.20
9	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1680	2023.05.20
10	Horn Antenna	A-INFOMW	LB-180400-KF	J211060660	2023.10.23
11	Loop Antenna	Beijing daze Technology	ZN30401	13015	2023.10.15
12	EM Clamp	Schwarzbeck	MDS21	03350	2023.10.20

3.CONDUCTED EMISSIONS MEASUREMENT

3.1 TEST LIMIT

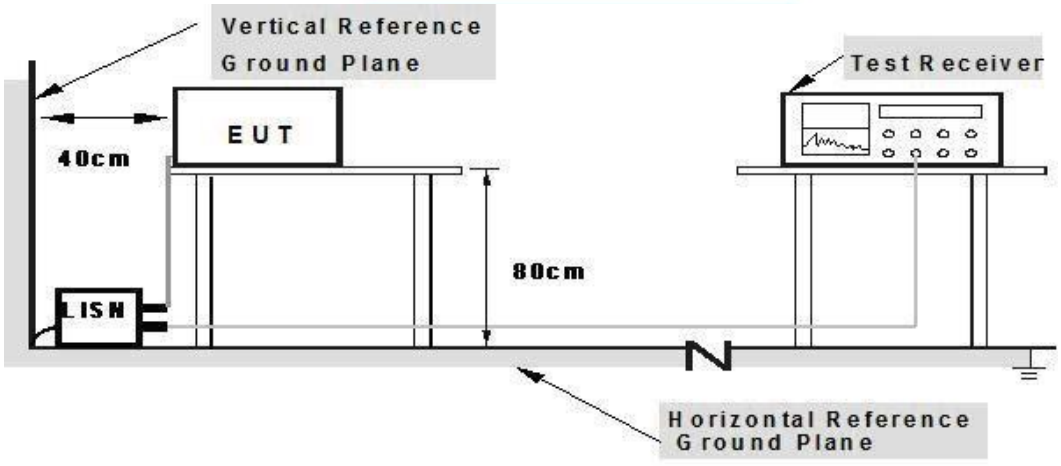
Frequency (MHz)	Maximum RF Line Voltage (dB V)			
	CLASS A		CLASS B	
	Q.P.	Ave.	Q.P.	Ave.
0.15~0.50	79	66	66~56*	56~46*
0.50~5.00	73	60	56	46
5.00~30.0	73	60	60	50

Note:
1. The tighter limit applies at the band edges.
2. The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver:

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.2 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

3.3 TEST PROCEDURE

1. The EUT was placed 0.4 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
2. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
3. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
4. For the actual test configuration, please refer to the related Item EUT Test Photos.

3.4 TEST RESULT

PASS

4 RADIATED EMISSION MEASUREMENT

4.1 TEST LIMIT

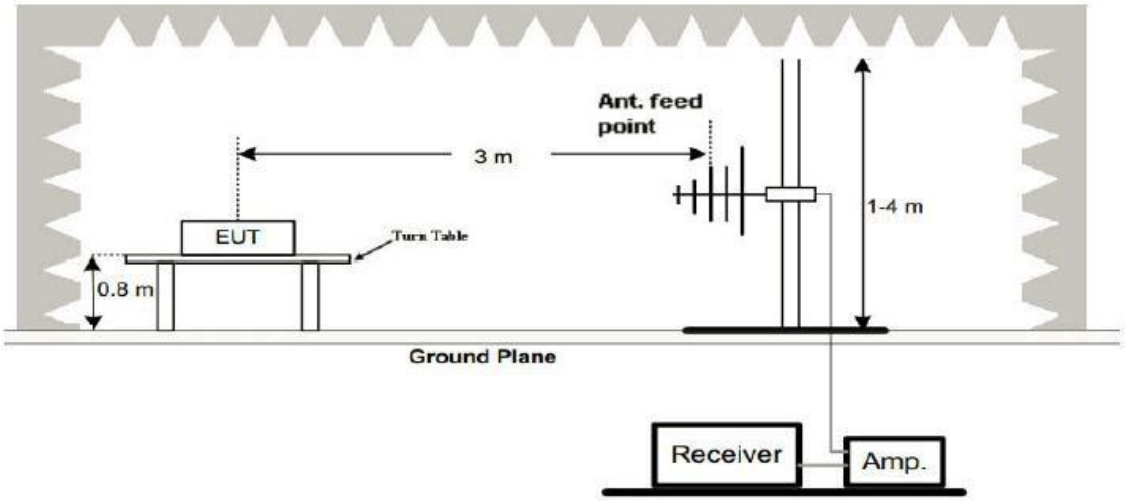
For unintentional device, according to § 15.109(a), except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values：

Frequency (MHz)	Class A (at 10m)	Class B (at 3m)
	dBuV/m	dBuV/m
30-88	39.0	40.0
88-216	43.5	43.5
216-960	46.5	46.0
Above 960	49.5	54.0

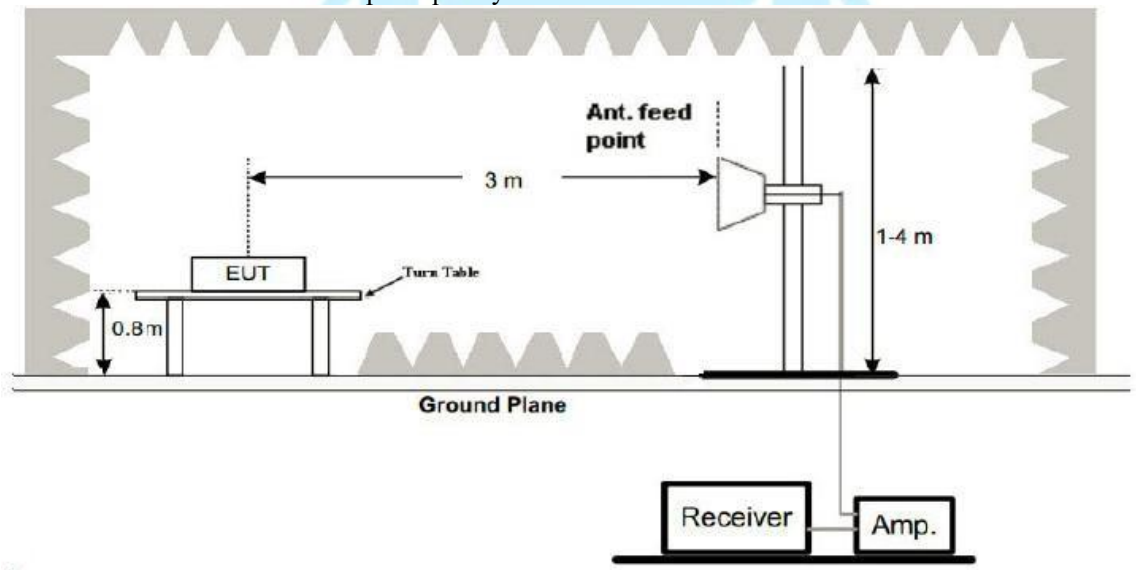
Notes:
1. The limit for radiated test was performed according to as following: FCC PART 15B / ICES-003.
2. The tighter limit applies at the band edges.
3. Emission level (dBuV/m) = 20log Emission level (uV/m).

4.2 TEST SETUP

1. Radiated Emission Test Set-Up Frequency Below 1000MHz



2. Radiated Emission Test Set-Up Frequency Above 1000MHz



4.3 TEST PROCEDURE

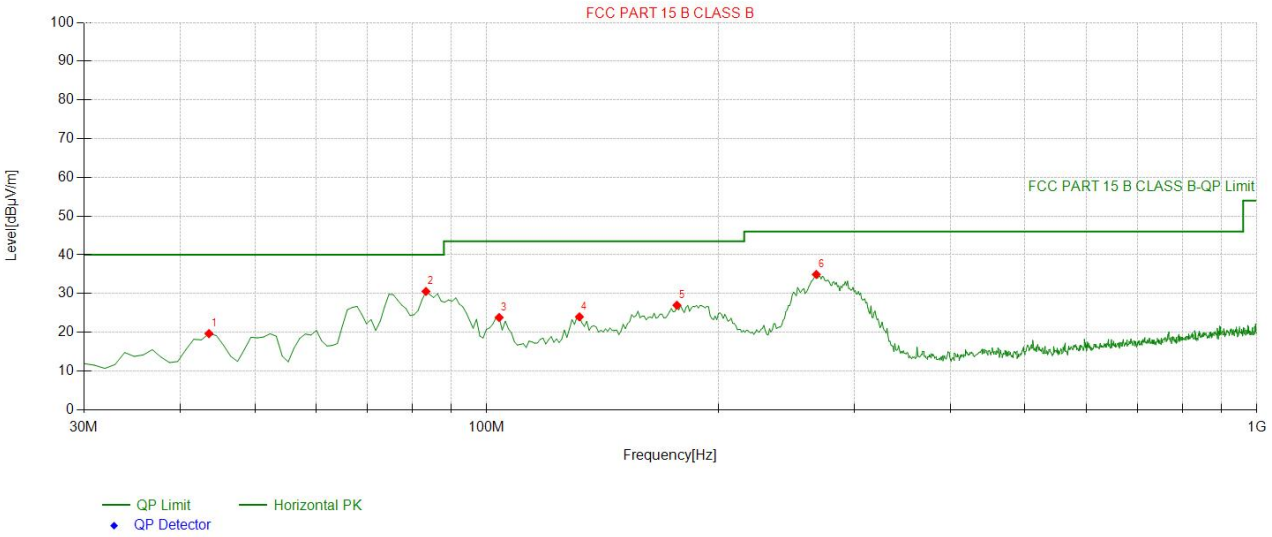
1. The measuring distance of at 10 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
2. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
3. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured, above 1G Average detector mode will be instead.
5. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP(AV) Limits and then no additional QP Mode measurement performed.
6. For the actual test configuration, please refer to the related Item EUT Test Photos.

4.4 TEST RESULT

PASS

Below 1000MHz Test Results:

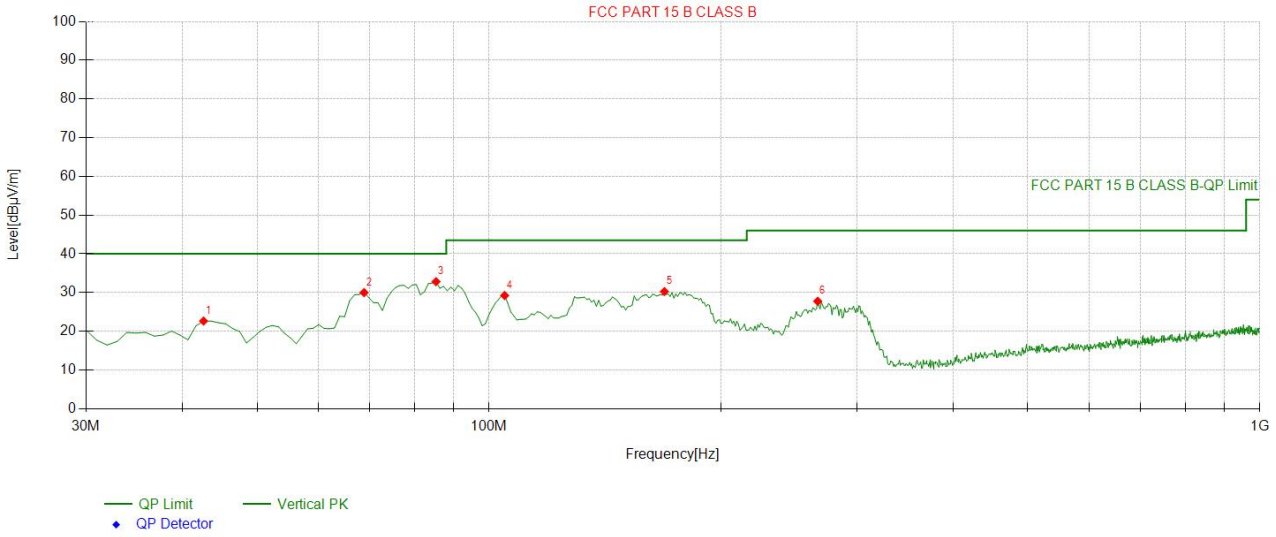
Temperature:	24℃	Relative Humidity:	48%
Test Mode:	Running	Pressure:	1010hPa
Polarization:	Horizontal		



Suspected List									
NO.	Freq. [MHz]	Factor [dB]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	43.5936	-16.66	36.30	19.64	40.00	20.36	100	349	Horizontal
2	83.4034	-20.93	51.47	30.54	40.00	9.46	100	349	Horizontal
3	103.7938	-19.80	43.61	23.81	43.50	19.69	100	349	Horizontal
4	131.952	-17.23	41.21	23.98	43.50	19.52	100	349	Horizontal
5	176.6166	-17.98	44.95	26.97	43.50	16.53	100	254	Horizontal
6	267.8879	-18.01	52.95	34.94	46.00	11.06	100	73	Horizontal

Remark: Factor = Cable loss + Antenna factor – Preamplifier; Level = Reading + Factor; Margin = Limit – Level;

Temperature:	24℃	Relative Humidity:	48%
Test Mode:	Running	Pressure:	1010hPa
Polarization:	Vertical		



Suspected List									
NO.	Freq. [MHz]	Factor [dB]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	42.6226	-16.59	39.23	22.64	40.00	17.36	100	48	Vertical
2	68.8388	-19.51	49.49	29.98	40.00	10.02	100	55	Vertical
3	85.3453	-20.87	53.69	32.82	40.00	7.18	100	11	Vertical
4	104.7648	-19.70	48.93	29.23	43.50	14.27	100	18	Vertical
5	168.8488	-16.98	47.24	30.26	43.50	13.24	100	52	Vertical
6	266.9169	-18.04	45.80	27.76	46.00	18.24	100	305	Vertical

Remark: Factor = Cable loss + Antenna factor – Preamplifier; Level = Reading + Factor; Margin = Limit – Level;

Above 1 GHz Test Results:

Temperature:	24℃	Relative Humidity:	48%
Test Voltage:	N/A	Pressure:	1010hPa
Test Mode:	N/A	Polarization:	N/A

Note: 1. N/A denotes test is not applicable in this test report.
2. There was not any unintentional transmission in standby mode.

5 PHOTO OF EUT

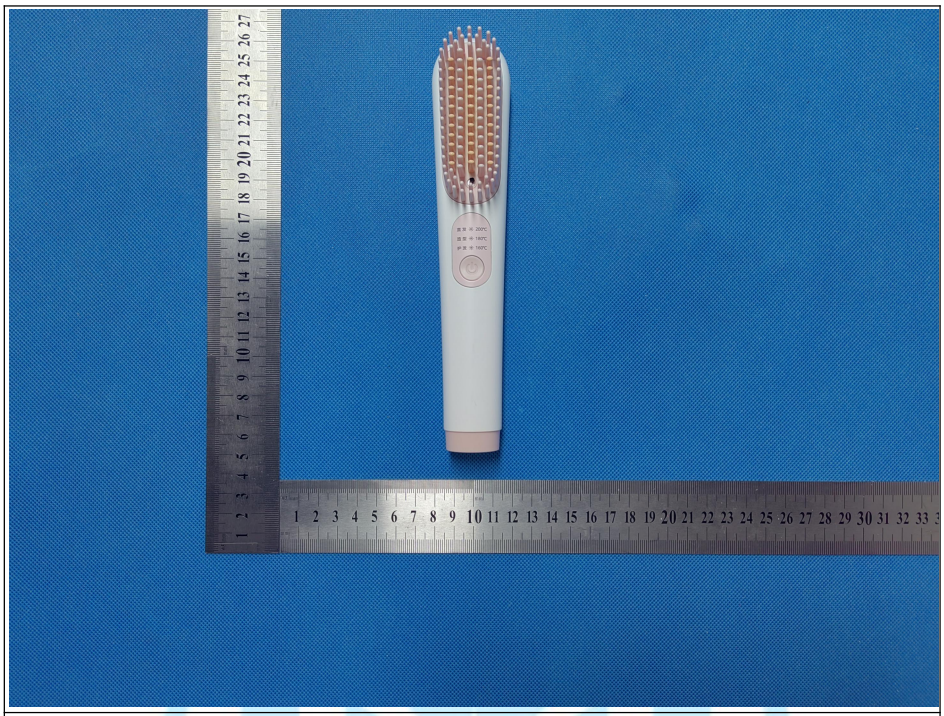


PHOTO 01

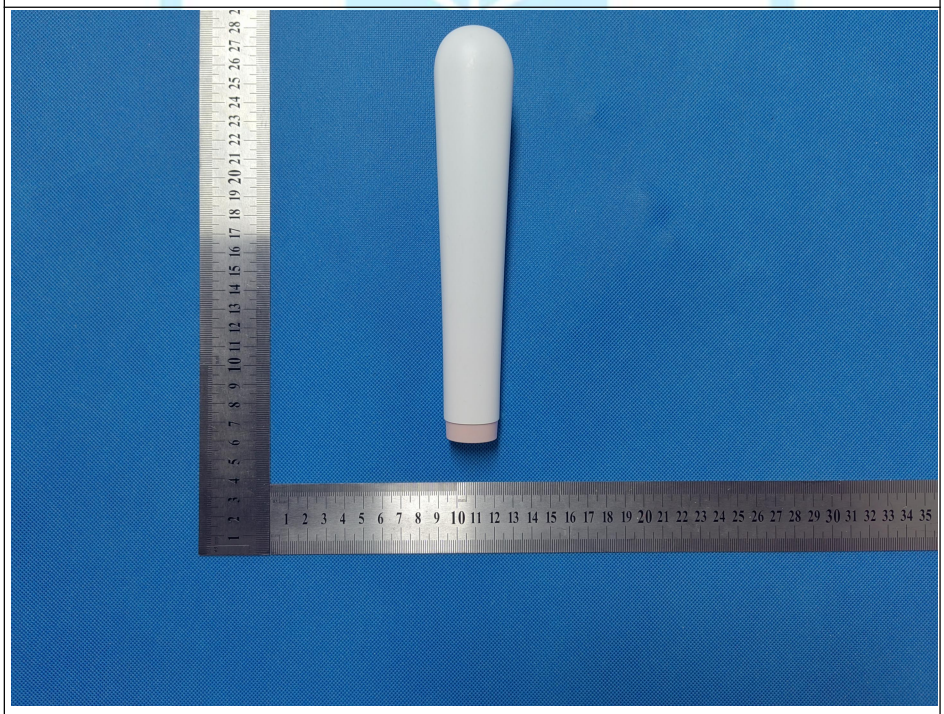


PHOTO 02

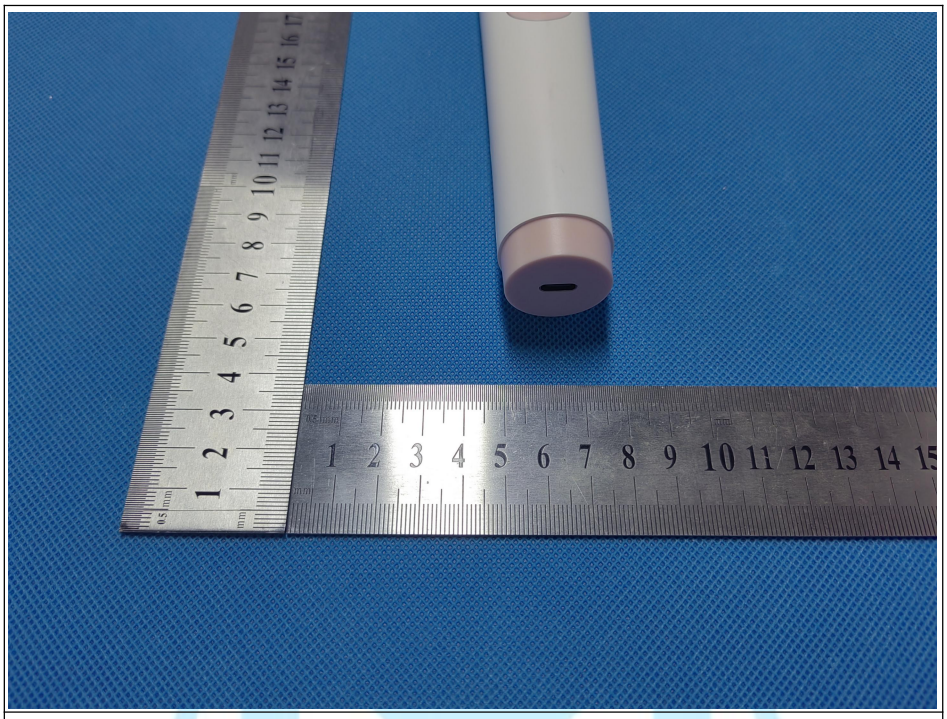


PHOTO 03

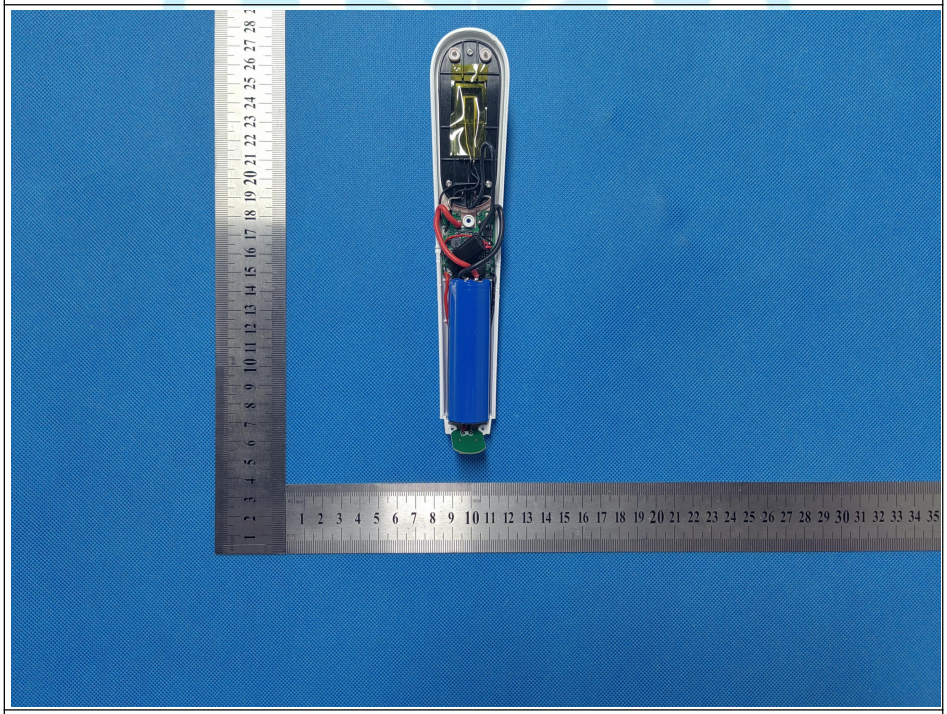


PHOTO 04

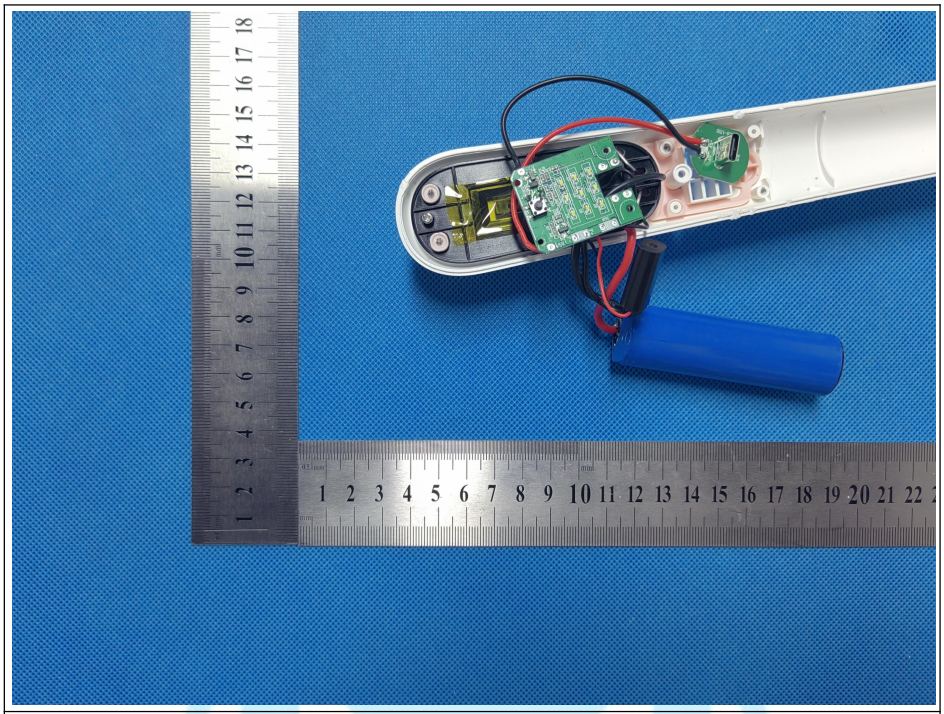


PHOTO 05

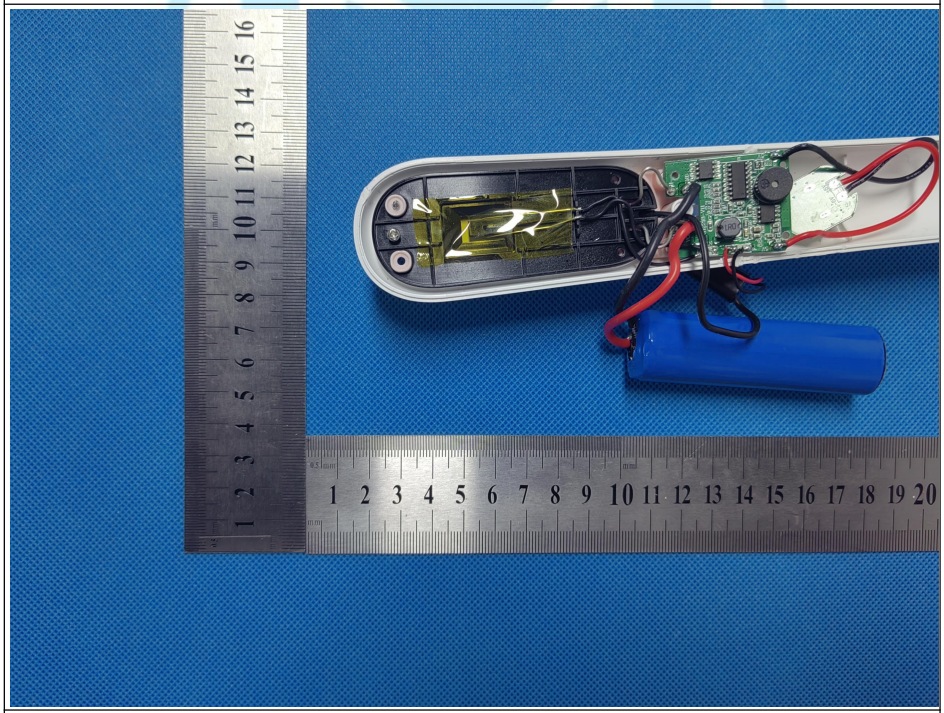


PHOTO 06

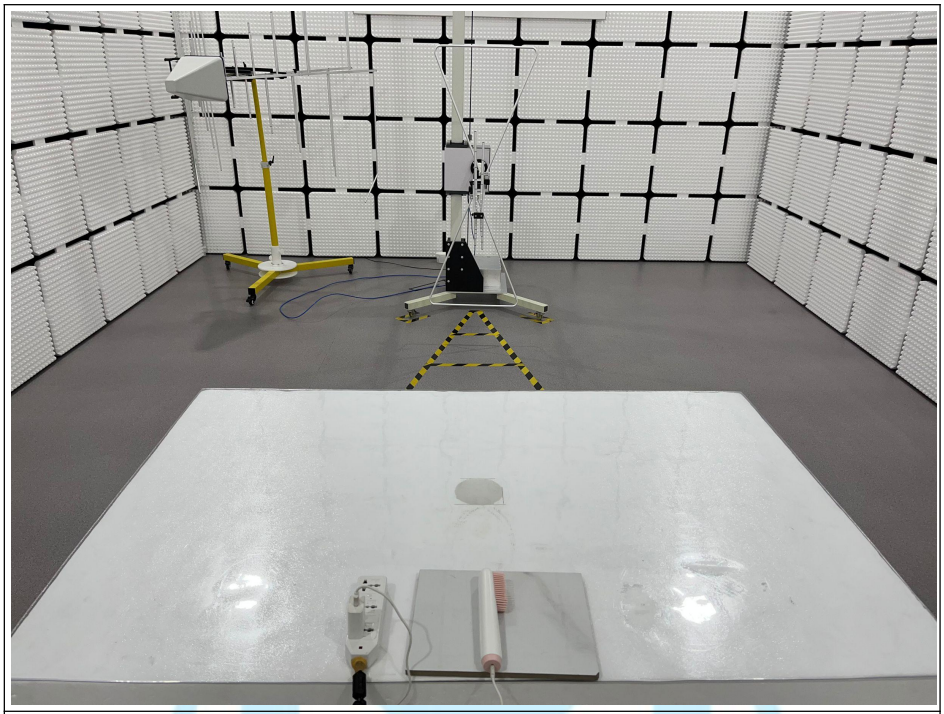


PHOTO 07

End of Report