FCC TEST REPORT

Product	:	Classic CD Patterned Wireless Headphones
Trade mark	:	MINISO / MUCRO
Model/Type reference	:	L36
Serial Number	:	N/A
Ratings	:	DC 3.7V 300 mAh (Li-on Rechargeable Battery)
Report Number	:	EED32N807250
Date of Issue	:	Sep. 13, 2021
Regulations	:	See below

Test Standards	Results
☒ 47 CFR FCC Part 15 Subpart B	PASS

Prepared for:

MINISO CORPORATION
ROOM 2501, NO.486HEYE SQUARE, KANGWANG MIDDLE ROAD, LIWAN DISTRICT, GUANGZHOU, GUANGDONG, CHINA

Prepared by:

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Approved by:	David Wang	Date:	Sep. 13, 2021
	David Wang		

Check No.::5632120821

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(Note: N/A means not applicable)

1. GENERAL INFORMATION

Applicant:	MINISO CORPORATION ROOM 2501, NO.486HEYE SQUARE, KANGWANG MIDDLE ROAD, LIWAN DISTRICT, GUANGZHOU, GUANGDONG, CHINA
Manufacturer:	Huizhou Willong Zhanye Industrial Co., Ltd. 1st Rainbow Rd, Yonghu Town, Huiyang Dist, Huizhou, Guangdong
Factory:	Huizhou Willong Zhanye Industrial Co., Ltd. 1st Rainbow Rd, Yonghu Town, Huiyang Dist, Huizhou, Guangdong
Product:	Classic CD Patterned Wireless Headphones
Trade mark:	MINISO / MUCRO
Model/Type reference:	L36
Serial Number:	N/A
Report Number:	EED32N807250
State of Sample(s):	Normal
Sample Received Date:	Aug. 13, 2021
Sample tested Date:	Aug. 14, 2021 to Aug. 23, 2021
Test mode:	Mode a:BT play Mode b:Charging mode Mode c:AUX play

Remark:

1.Company Name and Address shown on Report, the sample(s) and sample Information was/ were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.

2.Model No.:L36

It comes in three colors,only the black was tested, since the electrical circuit design, layout, components used and internal wiring were identical for the three colors, with difference color.

2. TEST SUMMARY

The Product has been tested according to the following specifications:

Standard	Test Item	Test Method	Test
FCC 15.107	Conducted Emission	ANSI C63.4:2014	N/A[1]
FCC 15.109	Radiated Emission	ANSI C63.4:2014	Yes

Remark:

1. The Product is powered DC 3.7V 300 mAh (Li-on Rechargeable Battery).

3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the Product as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Test item	Value (dB)
Radiated disturbance (30MHz to 1GHz)	4.9
N/A[1]	N/A[1]

4. PRODUCT INFORMATION AND TEST SETUP

4.1. PRODUCT INFORMATION

Ratings: DC 3.7V 300 mAh (Li-on Rechargeable Battery)

Model: L36

4.2. TEST SETUP CONFIGURATION

See test photographs attached in Appendix 1 for the actual connections between Product and support equipment.

4.3. SUPPORT EQUIPMENT

No.	Device Type	Brand	Model	Series No.	Data Cable	Power Cord
1	Phone	XIAOMI	MI 6X	1e8964f9	/	FCC

Notes:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer’s requirements and conditions for the intended use.

5. FACILITIES AND ACCREDITATIONS

5.1. TEST FACILITY

All test facilities used to collect the test data are located at Hongwei Industrial Zone, Bao'an 70 District, Shenzhen, Guangdong, China. The site and apparatus are constructed in conformance with the requirements of ANSI C63.4, CISPR 16-1-1 and other equivalent standards.

5.2. TEST EQUIPMENT LIST

Instrumentation: The following list contains equipments used at CTI for testing.
The calibrations of the measuring instruments, including any accessories that may effect such calibration, are checked frequently to assure their accuracy. Adjustments are made and correction factors applied in accordance with instructions contained in the manual for the measuring instrument.

Equipment used during the tests:

3M Semi-anechoic Chamber (2)- Radiated disturbance Test				
Equipment	**Manufacturer**	**Model**	**Serial No.**	**Due Date**
3M Chamber & Accessory Equipment	TDK	SAC-3	---	05/23/2022
Receiver	R&S	ESCI7	100938-003	10/15/2021
TRILOG Broadband Antenna	schwarzbeck	VULB 9163	401	04/29/2024
Multi device Controller	maturo	NCD/070/10711112	---	---
Horn Antenna	ETS-LINGREN	BBHA 9120D	9120D-1869	04/16/2024
Microwave Preamplifier	Agilent	8449B	3008A02425	06/22/2022

5.3. LABORATORY ACCREDITATIONS AND LISTINGS

The measuring equipment utilized to perform the tests documented in this report has been calibrated once a year or in accordance with the manufacturer's recommendations, and is traceable under the ISO/IEC 17025 to international or national standards. Equipment has been calibrated by accredited calibration laboratories.

RADIATED EMISSION TEST

5.4. LIMITS

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.

And according to §15.109 (2)measurements below 1000 MHz provided the limits in paragraphs (a) and (b) of this section are extrapolated to the new measurement distance using an inverse linear distance extrapolation factor (20 dB/decade).

According to FCC 15.31 section(1), at frequencies at or above 30 MHz measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse linear-distance for field strength measurements; inverse-linear-distance-squared for power density measurements).

According to FCC 15.31 section(2), frequencies below 30 MHz, performing measurements at a closer distance than specified, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade).

According to 15.35 Measurement detector functions and bandwidths section (b). Unless otherwise specified, e.g., see §§15.250, 15.252, 15.253(d), 15.255, 15.256, and 15.509 through 15.519 of this part, the limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit applicable to the equipment under test.

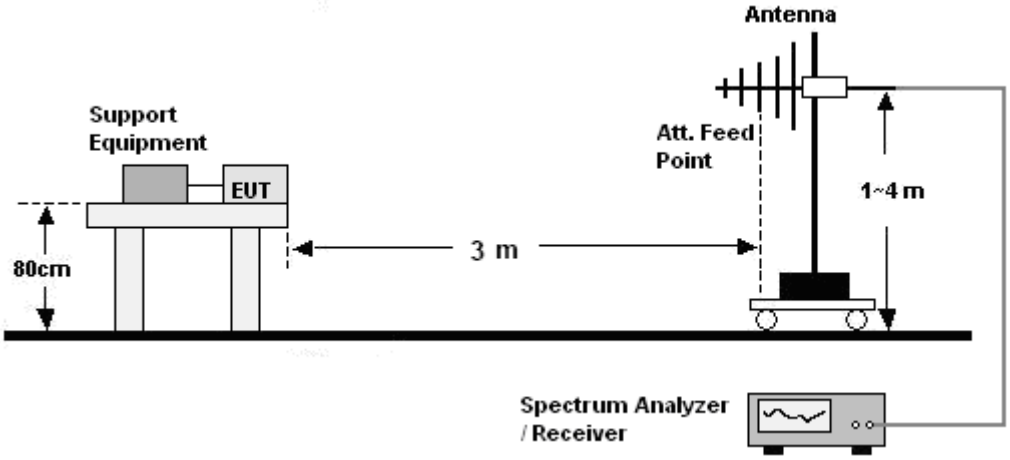
Limits for Class B digital devices

Frequency (MHz)	limits at 3m dB(μV/m)
30-88	40.0
88-216	43.5
216-960	46.0
Above 960	54.0

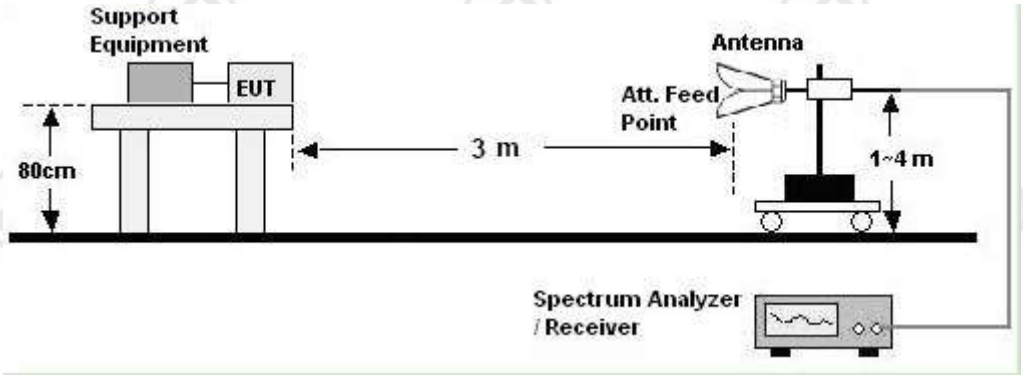
NOTE: 1. The lower limit shall apply at the transition frequency.
2. The limits shown above are based on measuring equipment employing a CISPR quasi-peak detector function for frequencies below or equal to 1000MHz.
3. The limits shown above are based on measuring equipment employing an average detector function for frequencies above 1000MHz.

5.5. BLOCK DIAGRAM OF TEST SETUP

30MHz ~ 1GHz:



Above 1GHz:



5.6. PROCEDURE OF RADIATED EMISSION TEST

30MHz ~ 1GHz:

a. The Product was placed on the non-conductive turntable 0.8 m above the ground at a chamber.

b. Set the spectrum analyzer/receiver in Peak detector, Max Hold mode, and 120 kHz RBW. Record the maximum field strength of all the pre-scan process in the full band when the antenna is varied between 1~4 m in both horizontal and vertical, and the turntable is rotated from 0 to 360 degrees.

c. For each frequency whose maximum record was higher or close to limit, measure its QP value: vary the antenna's height and rotate the turntable from 0 to 360 degrees to find the height and degree where Product radiated the maximum emission, then set the test frequency analyzer/receiver to QP Detector and specified bandwidth with Maximum Hold Mode, and record the maximum value.

Above 1GHz:

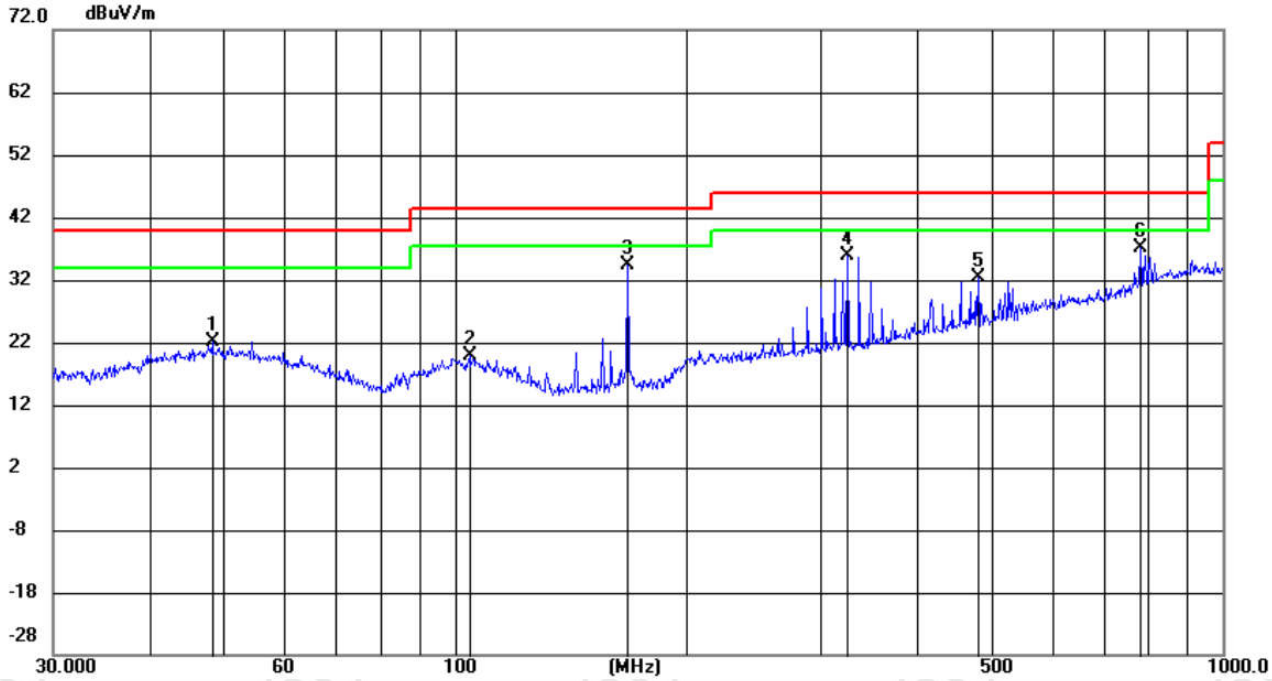
a. The Product was placed on the non-conductive turntable 0.8m above the ground at a chamber.

b. Set the spectrum analyzer/receiver in Peak detector, Max Hold mode, and 1MHz RBW. Record the maximum field strength of all the pre-scan process in the full band when the antenna is varied in both horizontal and vertical, and the turntable is rotated from 0 to 360 degrees.

c. For each frequency whose maximum record was higher or close to limit, measure its AV value: rotate the turntable from 0 to 360 degrees to find the degree where Product radiated the maximum emission, then set the test frequency analyzer/receiver to AV value and specified bandwidth with Maximum Hold Mode, and record the maximum value.

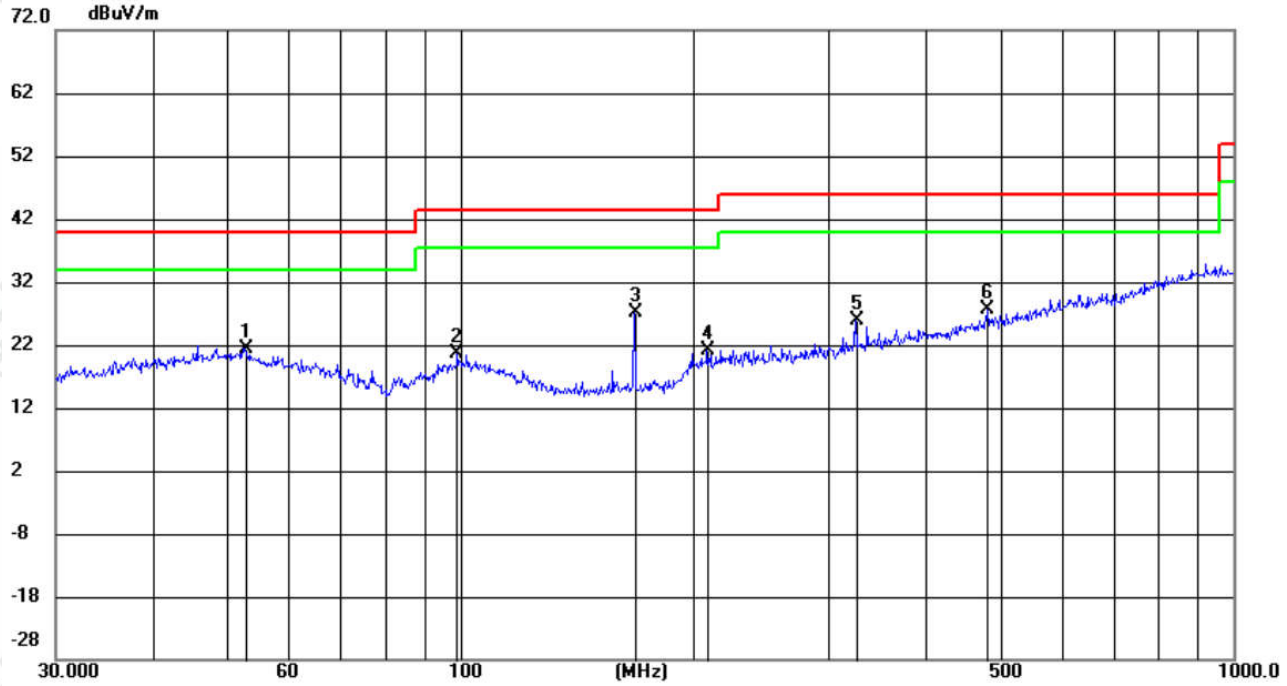
5.7. GRAPHS AND DATA

Product	:	Classic CD Patterned Wireless Headphones			
Model/Type reference	:	L36			
Power	:	DC 3.7V	**Temperature**	:	22℃
Mode	:	Mode a	**Humidity**	:	53%
Polarization	:	Horizontal			



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		48.3316	6.31	15.83	22.14	40.00	-17.86	peak	200	356	
2		104.5360	5.60	14.23	19.83	43.50	-23.67	peak	200	356	
3		167.8242	23.27	11.01	34.28	43.50	-9.22	peak	200	356	
4		324.4560	18.83	17.14	35.97	46.00	-10.03	peak	100	285	
5		480.5276	12.02	20.48	32.50	46.00	-13.50	peak	100	320	
6	*	782.3453	11.15	25.87	37.02	46.00	-8.98	peak	100	122	

Product	:	Classic CD Patterned Wireless Headphones			
Model/Type reference	:	L36			
Power	:	DC 3.7V	**Temperature**	:	22℃
Mode	:	Mode a	**Humidity**	:	53%
Polarization	:	Vertical			

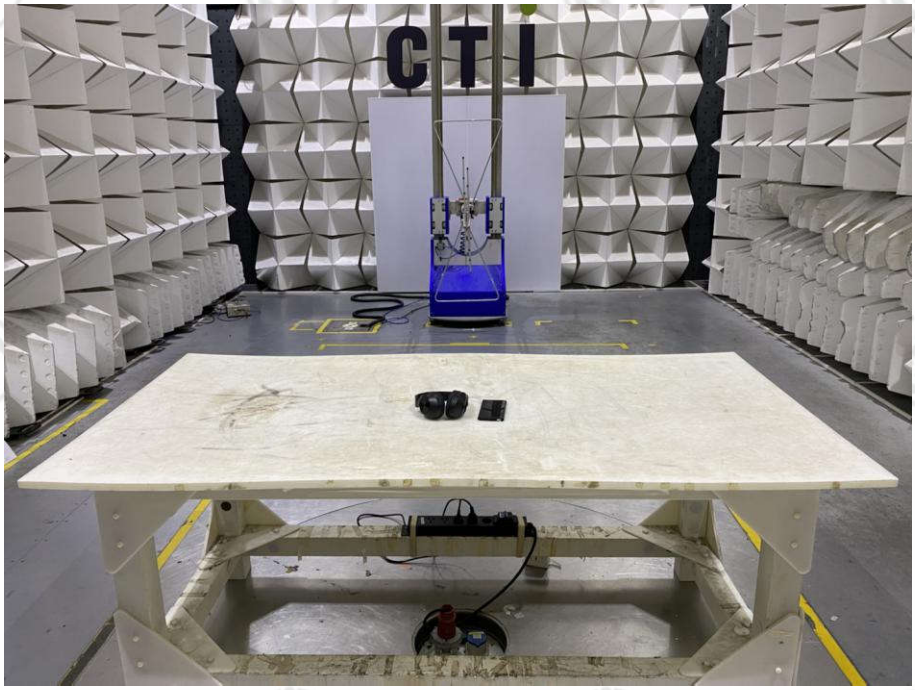


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		52.7600	5.74	15.60	21.34	40.00	-18.66	peak	100	356	
2		99.1797	6.16	14.48	20.64	43.50	-22.86	peak	200	326	
3	*	167.8243	16.08	11.01	27.09	43.50	-16.41	peak	200	292	
4		208.5803	6.31	14.84	21.15	43.50	-22.35	peak	200	19	
5		324.4561	8.65	17.14	25.79	46.00	-20.21	peak	100	356	
6		480.5276	7.19	20.48	27.67	46.00	-18.33	peak	200	95	

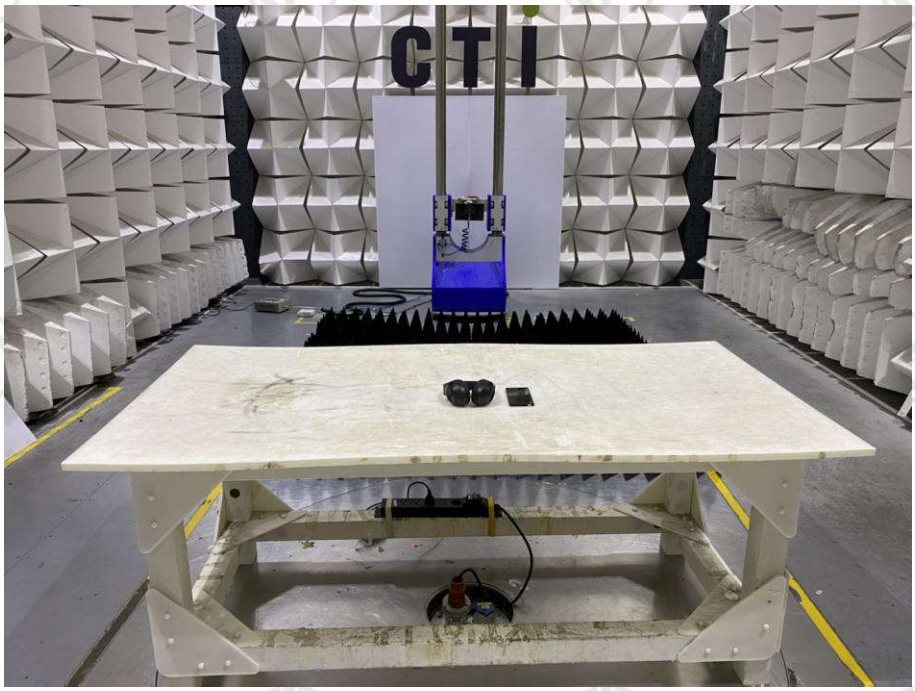
Note:
1. Margin=Measurement-Limit.
2. Measurement=Reading_Level+Correct Factor.
3. Correct Factor=Ant Factor+Cable loss.
4.The disturbance above 1GHz was very low, more than 20dB below the limit, so only the below 1GHz had been displayed.
5. Pretest the EUT at different test mode and found the Mode a which is worst case, the test worst case mode is recorded in the report.

APPENDIX 1 PHOTOGRAPHS OF TEST SETUP

Test Model No.: L36



RADIATED EMISSION TEST SETUP-1(30MHz ~ 1GHz)



RADIATED EMISSION TEST SETUP-2(Above 1GHz)

APPENDIX 2 PHOTOGRAPHS OF PRODUCT

Test Model No.: L36

View of Product-1

View of Product-2

View of Product-3

View of Product-4

View of Product-5

View of Product-6

View of Product-7

View of Product-8

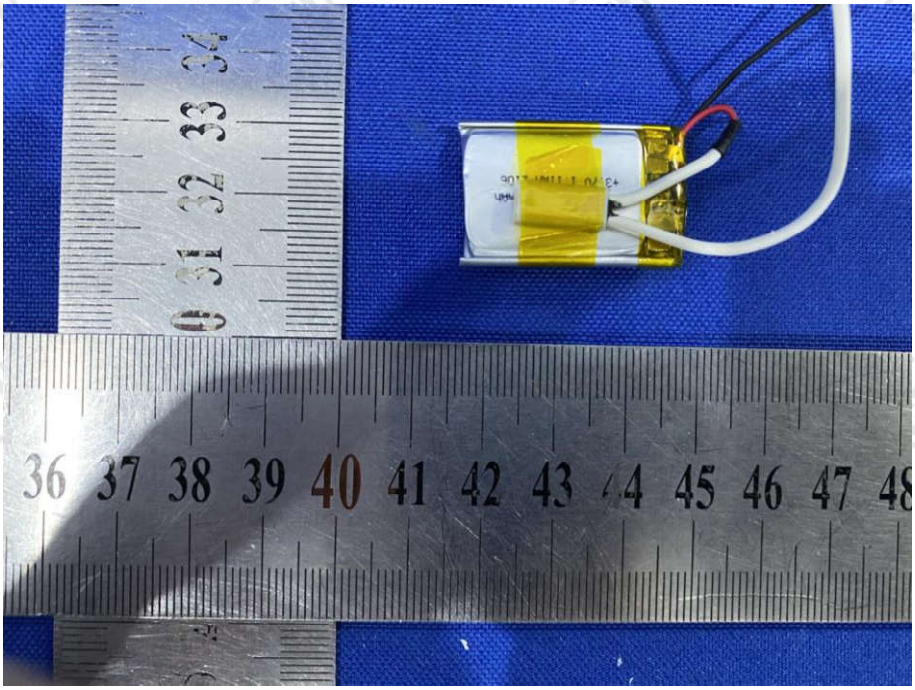
View of Product-9

View of Product-10

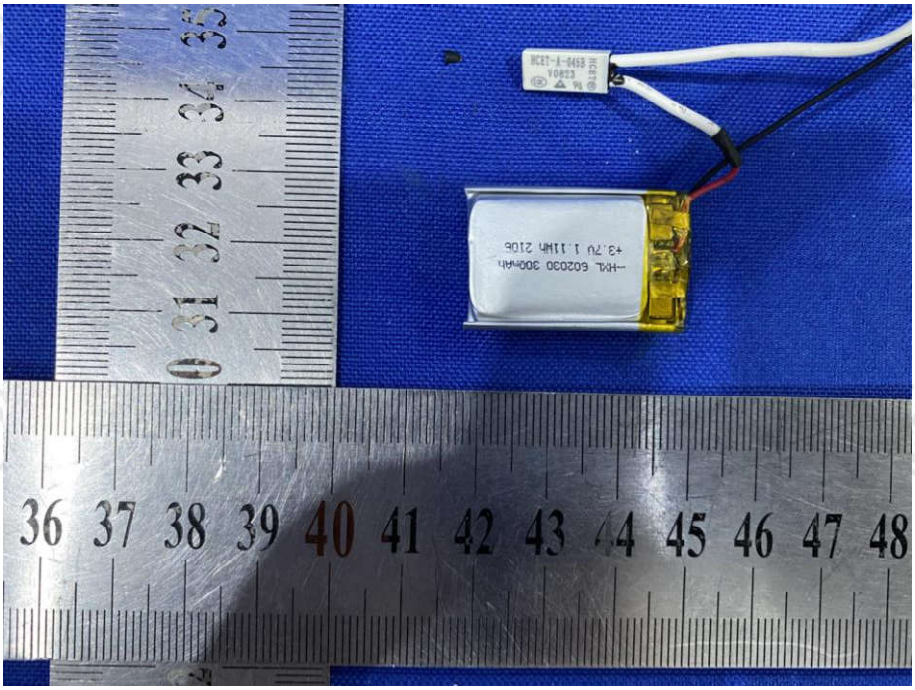
View of Product-11

View of Product-12

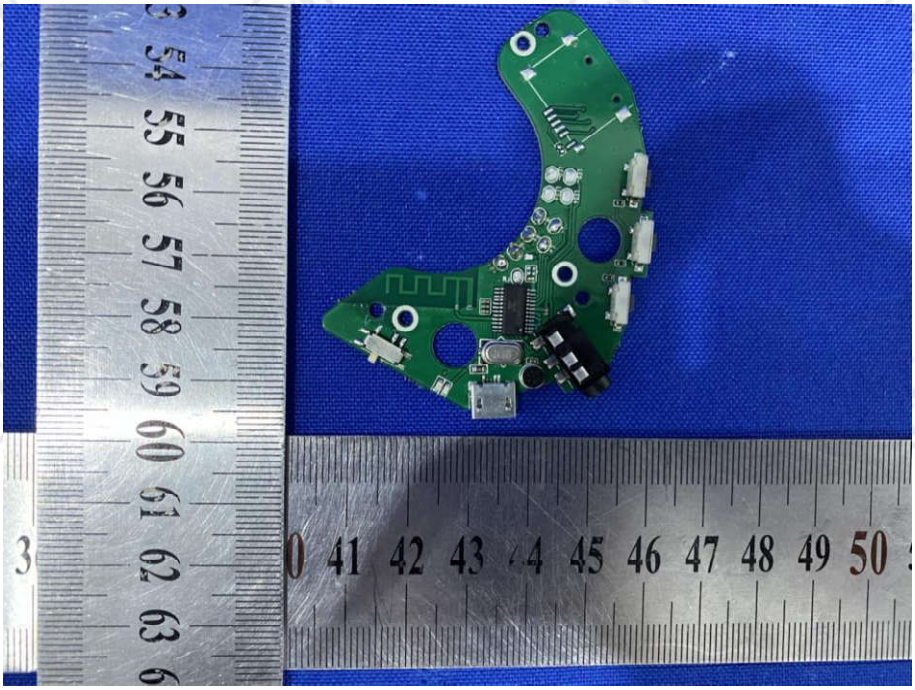
View of Product-13



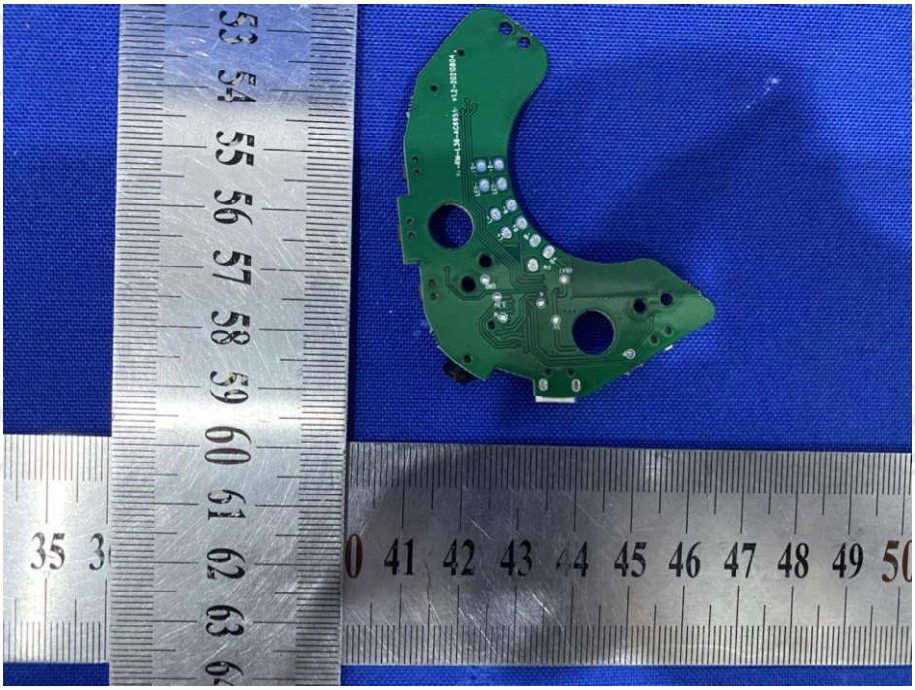
View of Product-14



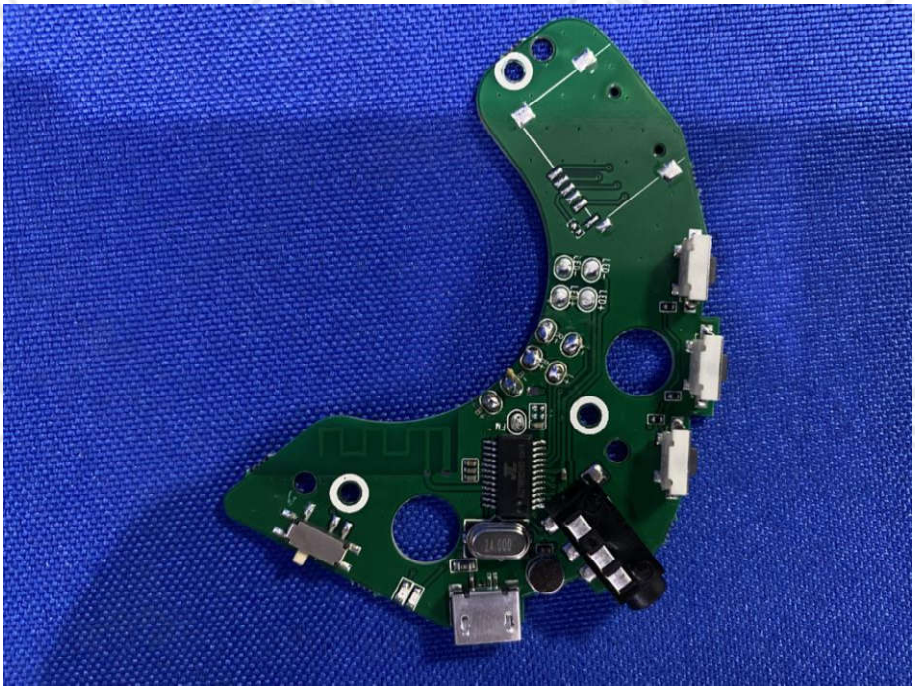
View of Product-15



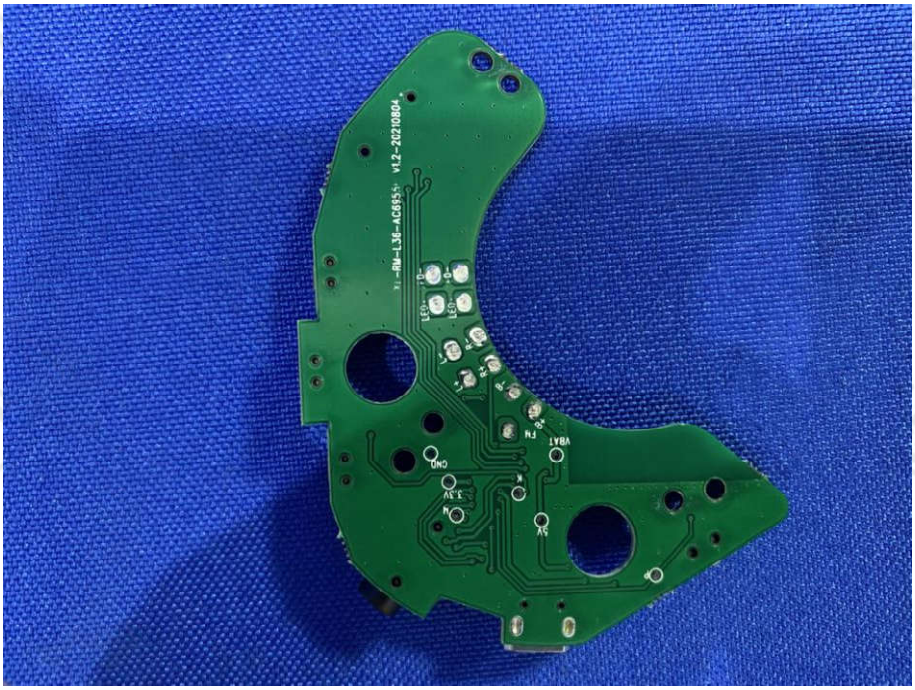
View of Product-16



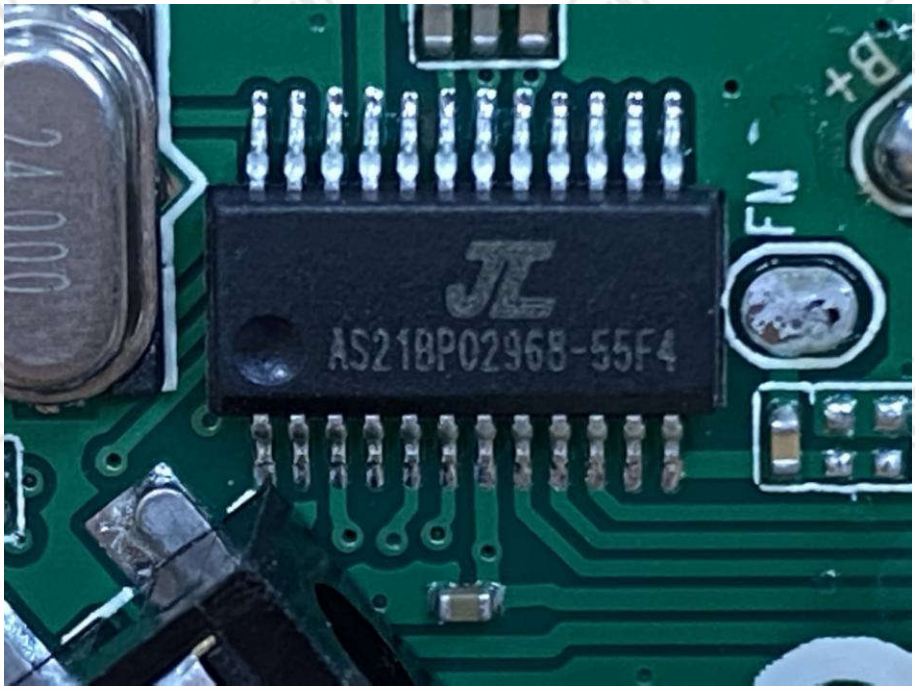
View of Product-17



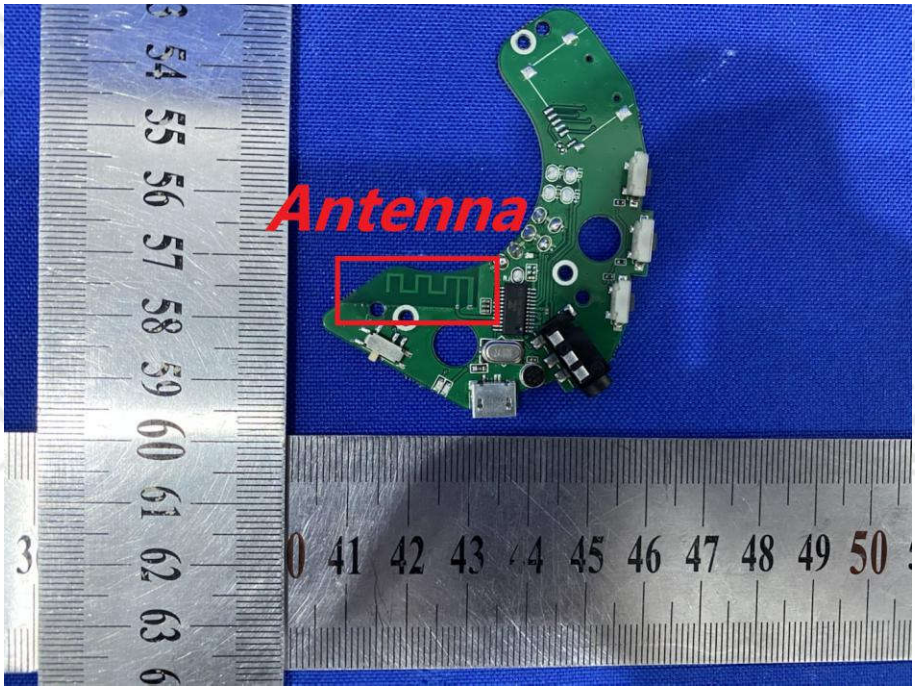
View of Product-18



View of Product-19



View of Product-20



View of Product-21

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*** End of Report ***