



# Certificate of Conformity

Certificate Number: DL-20230112018C

**Applicant:** SHENZHEN HAOHUALIANHE TECHNOLOGY CO., LTD  
701、801, Building 4, No. A3, 4th Industrail Park, Heshuikou Community,  
Gongming Street, Guangming District, Shenzhen

**Manufacturer:** SHENZHEN HAOHUALIANHE TECHNOLOGY CO., LTD  
701、801, Building 4, No. A3, 4th Industrial Park, Heshuikou Community,  
Gongming Street, Guangming District, Shenzhen

**Product:** Folding Fan

**Trade Mark:** 叠品/ADYSS

**Model No.:** P1000

**Test Standard:** EN IEC 55014-1:2021  
EN IEC 61000-3-2:2019+A1:2021, EN 61000-3-3:2013+A1:2019+A2:2021  
EN IEC 55014-2:2021  
EN 61000-4-2:2009, EN IEC 61000-4-3:2020, EN 61000-4-4:2012,  
EN 61000-4-5:2014+A1:2017, EN IEC 61000-4-6:2022,  
EN IEC 61000-4-11:2020

The EUT described above has been tested by us with the listed standards and found in compliance with the council EMC directive 2014/30/EU. It is possible to use CE marking to demonstrate the compliance with this EMC Directive. It is only valid in connection with the test report number: DL-20230112018E.



This certificate of conformity is based on a single evaluation of the submitted sample(s) of the above mentioned product. It does not imply an assessment of the whole product and relevant. Without the written approval, It is not permitted to use the test lab's logo.

Shenzhen DL Testing Technology Co., Ltd.  
101-201, Building C, Shuanghuan, No.8, Baoqing Road, Baolong Industrial Zone, Baolong Street,  
Longgang District, Shenzhen, Guangdong, China

Web: [www.dl-cert.com](http://www.dl-cert.com) E-mail: [Service@dl-cert.com](mailto:Service@dl-cert.com) Tel: 400-688-3552





# TEST REPORT

Applicant: SHENZHEN HAOHUALIANHE TECHNOLOGY CO., LTD  
Address: 701、801, Building 4, No. A3, 4th Industrial Park, Heshuikou Community, Gongming Street, Guangming District, Shenzhen  
Manufacturer: SHENZHEN HAOHUALIANHE TECHNOLOGY CO., LTD  
Address: 701、801, Building 4, No. A3, 4th Industrial Park, Heshuikou Community, Gongming Street, Guangming District, Shenzhen  
EUT: Folding Fan  
Trade Mark: 叠品/ADYSS  
Model Number: P1000  
Date of Receipt: Jan. 04, 2023  
Test Date: Jan. 04, 2023 - Jan. 12, 2023  
Date of Report: Jan. 12, 2023  
Prepared By: Shenzhen DL Testing Technology Co., Ltd.  
Address: 101-201, Building C, Shuanghuan, No.8, Baoqing Road, Baolong Industrial Zone, Baolong Street, Longgang District, Shenzhen, Guangdong, China  
Applicable Standards: EN IEC 55014-1:2021  
EN IEC 61000-3-2:2019+A1:2021, EN 61000-3-3:2013+A1:2019+A2:2021  
EN IEC 55014-2:2021  
EN 61000-4-2:2009, EN IEC 61000-4-3:2020, EN 61000-4-4:2012,  
EN 61000-4-5:2014+A1:2017, EN IEC 61000-4-6:2022, EN IEC 61000-4-11:2020  
Test Result: Pass  
Report Number: DL-20230112018E

Prepared (Engineer):

HuiLian Xu

Reviewer (Supervisor):

Jack Bu

Approved (Manager):

Jade Yang



*This test report is based on a single evaluation of one sample of above mentioned products. It is not permitted to be duplicated in extracts without written approval of Shenzhen DL Testing Technology Co., Ltd.*

**TABLE OF CONTENT**

	Page
Test Report Declaration	
1. <b>VERSION</b> .....	3
2. <b>TEST SUMMARY</b> .....	3
3. <b>GENERAL INFORMATION</b> .....	4
4. <b>TEST INSTRUMENT USED</b> .....	5
5. <b>CONDUCTED EMISSION AT THE MAINS TERMINALS TEST</b> .....	7
6. <b>DISTURBANCE POWER EMISSION TEST</b> .....	9
7. <b>RADIATION EMISSION TEST</b> .....	11
8. <b>HARMONIC CURRENT EMISSION TEST</b> .....	19
9. <b>VOLTAGE FLUCTUATIONS &amp; FLICKER TEST</b> .....	20
10. <b>IMMUNITY TEST OF GENERAL THE PERFORMANCE CRITERIA</b> .....	21
11. <b>ELECTROSTATIC DISCHARGE IMMUNITY TEST</b> .....	22
12. <b>RF FIELD STRENGTH SUSCEPTIBILITY TEST</b> .....	24
13. <b>ELECTRICAL FAST TRANSIENT/BURST IMMUNITY TEST</b> .....	26
14. <b>SURGE TEST</b> .....	27
15. <b>INJECTED CURRENTS SUSCEPTIBILITY TEST</b> .....	28
16. <b>VOLTAGE DIPS AND INTERRUPTIONS TEST</b> .....	29
17. <b>SETUP PHOTOGRAPHS</b> .....	30
18. <b>EUT PHOTOGRAPHS</b> .....	31

**1. VERSION**

Version No.	Date	Description
00	Jan. 12, 2023	Original

**2. TEST SUMMARY**

EMC Emission				
Standard	Test Item	Limit	Result	Remark
EN 55014-1	Conducted Emission at power ports	-----	N/A	
	Conducted Emission at load terminals	-----	N/A	
	Disturbance power Emission	-----	N/A	
	Radiated Emission below 1GHz	-----	PASS	
EN 61000-3-2	Harmonic Current Emission	Class A or D	N/A	
EN 61000-3-3	Voltage Fluctuations & Flicker	-----	N/A	
EMC Immunity				
Section EN 55014-2	Test Item	Performance Criteria	Result	Remark
EN 61000-4-2	Electrostatic Discharge	B	PASS	
EN 61000-4-3	RF electromagnetic field	A	PASS	
EN 61000-4-4	Fast transients	B	N/A	
EN 61000-4-5	Surges	B	N/A	
EN 61000-4-6	Injected Current	A	N/A	
EN 61000-4-11	Volt. Interruptions Volt. Dips	C / C / C <sup>NOTE (3)</sup>	N/A	

**NOTE:**

- (1) "N/A" denotes test is not applicable in this Test Report
- (2) The power consumption of EUT is less than 75W and no Limits apply.
- (3) Voltage dip: 70% reduction – Performance Criteria B  
Voltage Interruptions: 30% reduction – Performance Criteria C
- (4) Test Facility: Shenzhen DL Testing Technology Co., Ltd.

Address: 101-201, Building C, Shuanghuan, No.8, Baoqing Road, Baolong Industrial Zone, Baolong Street, Longgang District, Shenzhen, Guangdong, China



### 3. GENERAL INFORMATION

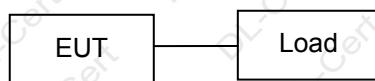
#### 3.1 Description of Device (EUT)

EUT: Folding Fan  
Trade Mark: 叠品/ADYSS  
Model Number: P1000  
Test Model: P1000  
Model difference: N/A  
Power Supply: DC 5V from charger  
Output: USB 5V === 0.5A  
Work Frequency: Below 15MHz

#### 3.2 Tested System Details

None.

#### 3.3 Block Diagram of Test Set-up



#### 3.4 Test Mode Description

Mode1. On Mode(Fan)  
Mode2. On Mode(USB O/P 5V)  
Mode3. On Mode(Fan + USB)

#### 3.5 Test Auxiliary Equipment

None.

#### 3.6 Test Uncertainty

Conducted Emission Uncertainty : ±2.56dB

Radiated Emission Uncertainty : ±3.24dB



#### 4. TEST INSTRUMENT USED

##### For Conducted and Disturbance power Emission Test (843 Shielded Room)

Equipment	Manufacturer	Model	Serial	Last Cal.	Next Cal.
843 Shielded Room	ChengYu	843 Room	843	Sep. 20, 2022	Sep. 19, 2025
EMI Receiver	R&S	ESR	101421	Nov. 05, 2022	Nov. 04, 2023
LISN	R&S	ENV216	102417	Nov. 05, 2022	Nov. 04, 2023
Clamp	COM-POWER	CLA-050	431071	Nov. 05, 2022	Nov. 04, 2023
3-Loop Antenna	DAZE	ZN30401	13021	Nov. 05, 2022	Nov. 04, 2023
ISN T8	Schwarzbeck	NTFM 8158	101135	Nov. 05, 2022	Nov. 04, 2023
ISN T5	Schwarzbeck	NTFM 8158	101136	Nov. 05, 2022	Nov. 04, 2023
843 Cable 1#	ChengYu	CE Cable	001	Nov. 05, 2022	Nov. 04, 2023
843 Cable 1#	ChengYu	CE Cable	002	Nov. 05, 2022	Nov. 04, 2023

##### For Radiated Emission Test (966 chamber)

Equipment	Manufacturer	Model	Serial	Last Cal.	Next Cal.
966 Chamber	ChengYu	966 Room	966	Sep. 20, 2022	Sep. 19, 2025
Spectrum Analyzer	Agilent	E4408B	MY50140780	Nov. 05, 2022	Nov. 04, 2023
EMI Receiver	R&S	ESRP7	101393	Nov. 05, 2022	Nov. 04, 2023
Amplifier	Schwarzbeck	BBV9743B	00153	Nov. 05, 2022	Nov. 04, 2023
Amplifier	EMEC	EM01G8GA	00270	Nov. 05, 2022	Nov. 04, 2023
Broadband Trilog Antenna	Schwarzbeck	VULB9162	00306	Nov. 05, 2022	Nov. 04, 2023
Horn Antenna	Schwarzbeck	BBHA9120D	02139	Nov. 05, 2022	Nov. 04, 2023
966 Cable 1#	ChengYu	966	004	Nov. 05, 2022	Nov. 04, 2023
966 Cable 2#	ChengYu	966	003	Nov. 05, 2022	Nov. 04, 2023

##### For Harmonic & Flicker Test (EMS --- site)

Equipment	Manufacturer	Model	Serial	Last Cal.	Next Cal.
Harmonics, Flicker & power Analyser	LAPLACE INSTRUMENTS	AC2000A	311370	Nov. 05, 2022	Nov. 04, 2023
AC Power Supply	MToni	HPF5010	633659	Nov. 05, 2022	Nov. 04, 2023

##### For Electrostatic Discharge Immunity Test (EMS --- site)

Equipment	Manufacturer	Model	Serial	Last Cal.	Next Cal.
ESD Tester	SCHLODER	SESD 230	17352	Nov. 05, 2022	Nov. 04, 2023

**For RF Field Strength Susceptibility Test (Keyway --- site)**

Equipment	Manufacturer	Model	Serial	Last Cal.	Next Cal.
Signal Generator	HP	8648A	3625U00573	Apr. 12, 2022	Apr. 11, 2023
Amplifier	A&R	500A100	17034	Apr. 12, 2022	Apr. 11, 2023
Amplifier	A&R	100W/1000M1	17028	Apr. 12, 2022	Apr. 11, 2023
Audio Analyzer (20Hz~1GHz)	Panasonic	2023B	202301/428	Apr. 12, 2022	Apr. 11, 2023
Isotropic Field Probe	A&R	FP2000	16755	Apr. 12, 2022	Apr. 11, 2023
Antenna	EMCO	3108	9507-2534	Apr. 12, 2022	Apr. 11, 2023
Log-periodic Antenna	A&R	AT1080	16812	Apr. 12, 2022	Apr. 11, 2023

**For EFT /B, Surge, Voltage Dips Interruptions Test (EMS --- site)**

Equipment	Manufacturer	Model	Serial	Last Cal.	Next Cal.
Transient Comprehensive Immunity Test System	Graphtec	HVIP16T+HCO MPACT 5	192501+192202	Nov. 05, 2022	Nov. 04, 2023
Coupling Clamp	HTEC	001	0001	Nov. 05, 2022	Nov. 04, 2023

**For Injected Currents Susceptibility Test (EMS --- site)**

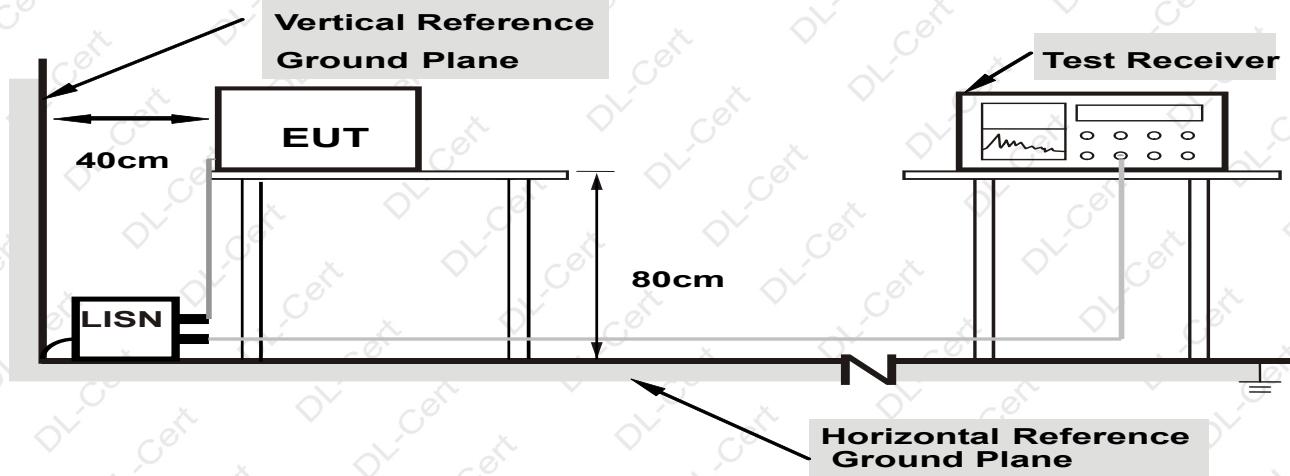
Equipment	Manufacturer	Model	Serial	Last Cal.	Next Cal.
C/S Test System	LIONCEL	RIS-6091-85	0191101	Nov. 05, 2022	Nov. 04, 2023
CDN	LIONCEL	CDN-M2-16	0191001	Nov. 05, 2022	Nov. 04, 2023
CDN	LIONCEL	CDN-M3-16	0191002	Nov. 05, 2022	Nov. 04, 2023
Injection Clamp	Frankonia	EMCL-20	18101728-0108	Nov. 05, 2022	Nov. 04, 2023

**Other**

Name	Manufacturer	Model	Software version
EMC Conduction Test System	FALA	EZ_EMC	EMC-CON 3A1.1
EMC radiation test system	FALA	EZ_EMC	FA-03A2
RF test system	MAIWEI	MTS8310	2.0.0.0
RF communication test system	MAIWEI	MTS8200	2.0.0.0

## 5. CONDUCTED EMISSION AT THE MAINS TERMINALS TEST

### 5.1 Block Diagram of 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 cm from other units and other metal planes

### 5.2 Test Standard and Limit

EN 55014-1

Frequency MHz	Limits dB( $\mu$ V)			
	At mains terminals		At load terminals and additional terminals	
	Quasi-peak Level	Average Level	Quasi-peak Level	Average Level
0.15~0.50	66 ~ 56*	59 ~ 46*	80	70
0.50~5.00	56	46	74	64
5.00~30.00	60	50	74	64

Notes: 1. \*Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

### 5.3 EUT Configuration on Test

The following equipment's are installed on conducted emission test to meet EN 55014-1 requirement and operating in a manner which tends to maximize its emission characteristics in a normal application.

### 5.4 Operating Condition of EUT

- 5.4.1 Setup the EUT and simulators as shown in Section 5.1.
- 5.4.2 Turn on the power of all equipment.
- 5.4.3 Let the EUT work in test modes and test it.



## 5.5 Test Procedure

The EUT is put on the ground and connected to the AC mains through a Artificial Mains Network (AMN). This provided a 50ohm coupling impedance for the tested equipments. Both sides of AC line are checked to find out the maximum conducted emission levels according to the **EN 55014-1** regulations during conducted emission test.

The bandwidth of the test receiver (R&S Test Receiver ESR) is set at 10KHz.

The frequency ranges from 150kHz to 30MHz is investigated.

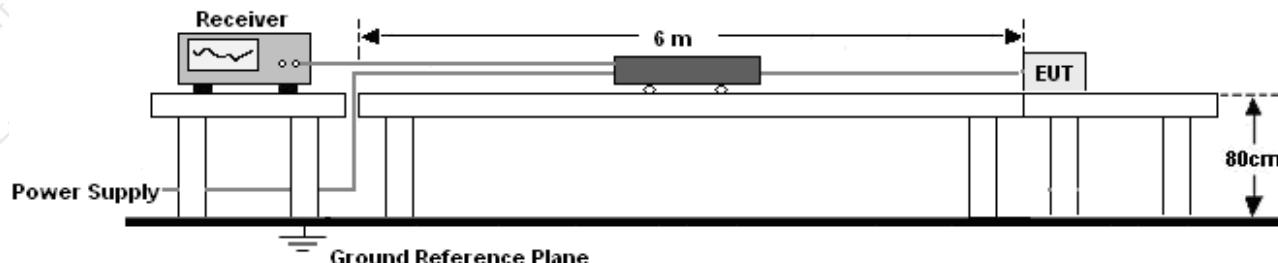
## 5.6 Test Result

The EUT is powered by DC, no requirements for this item.



## 6. DISTURBANCE POWER EMISSION TEST

### 6.1 Block Diagram of Test Setup



### 6.2 Test Standard and Limit

EN 55014-1

Frequency MHz	Limits dB(pW)	
	Quasi-peak Level	Average Level
30-300	45-55	35-45

Notes: The limit Increasing linearly with the frequency from 30 to 300MHz.

### Margin when performing disturbance power Measurement in the frequency range 30 MHz to 300 MHz

Frequency MHz	Margin Quasi-peak dB(pW)
	Household and similar appliances / Tools
200 to 300	0 to 10

Note: The limit Increasing linearly with the frequency from 200 to 300MHz.

### 6.3 EUT Configuration on Test

The following equipment's are installed on conducted emission test to meet EN 55014-1 requirement and operating in a manner which tends to maximize its emission characteristics in a normal application.

### 6.4 Operating Condition of EUT

6.4.1 Setup the EUT and simulators as shown in Section 6.1.

6.4.2 Turn on the power of all equipment.

6.4.3 Let the EUT work in test modes and test it.



## 6.5 Test Procedure

- a. The absorbing clamp was placed around the lead to be measured, with its current transformer towards the equipment under test.
- b. All connectors having a connected lead shall be terminated in a manner representative of use.
- c. The absorbing clamp was applied successively to all leads whose length is 25cm or longer, unscreened or screened, which may be connected to the individual units of the equipment under test.
- d. The Product was placed on a nonconductive table of 0.8 m of height above the floor and at least 0.8m from other metallic objects and from any person. The lead to be measured shall be stretched in a straight horizontal line for length sufficient to accommodate the absorbing clamp.
- e. Pre-scans were performed with a quasi-peak detector and an average detector.
- f. At each test frequency the absorbing clamp shall be moved along the lead until the maximum value is found between a position adjacent to the equipment under test and a distance of about a half wavelength from it.

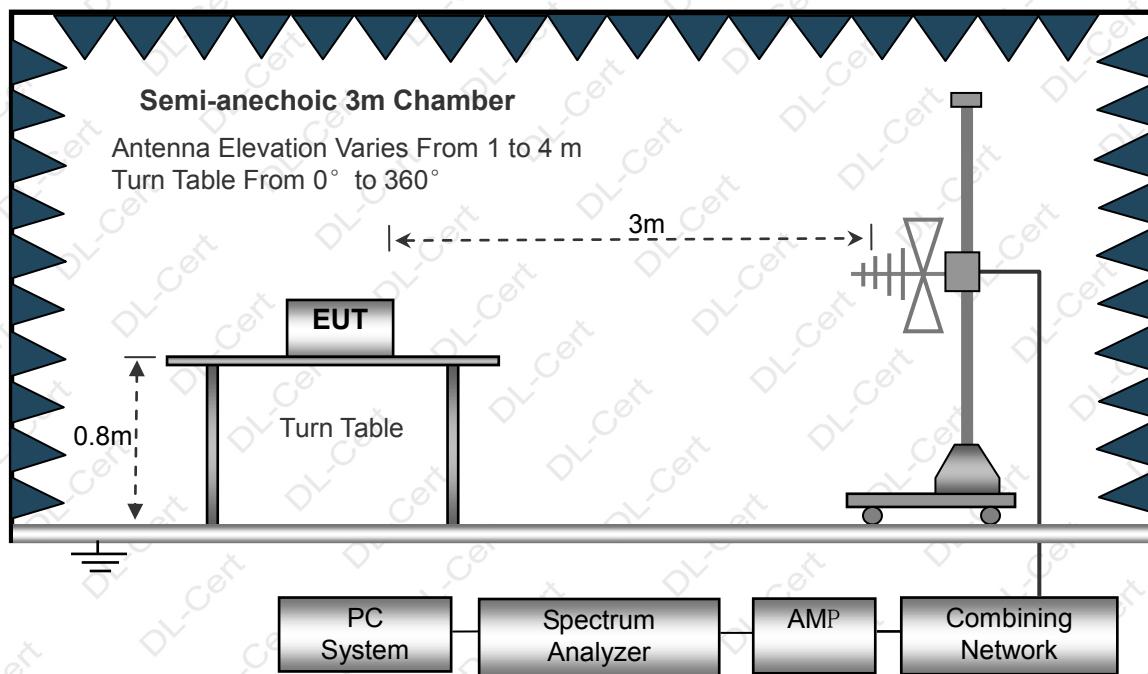
The bandwidth of the test receiver (R&S Test Receiver ESR) is set at 10KHz.

## 6.6 Test Result

The product meets the requirements of Section 7, so no testing in this section.

## 7. RADIATION EMISSION TEST

### 7.1 Block Diagram of Test Setup



### 7.2 Test Standard and Limit

EN 55014-1

Frequency MHz	Distance (Meters)	Field Strengths Limits dB( $\mu$ V)/m
30~230	3	40.0
230~1000	3	47.0

Remark:

- (1) The smaller limit shall apply at the cross point between two frequency bands.
- (2) Distance refers to the distance in meters between the measuring instrument, antenna and the closed point of any part of the device or system.

### 7.3 EUT Configuration on Test

The EN 55014-1 regulations test method must be used to find the maximum emission during radiated emission test.

The configuration of EUT is the same as used in conducted emission test.

Please refer to Section 2.2.

### 7.4 Operating Condition of EUT

Same as conducted emission test, which is listed in Section 2.2 except the test set up replaced as Section 4.1.

### 7.5 Test Procedure

- 1) The radiated emissions test was conducted in a semi-anechoic chamber.



- 2) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, but separated from metallic contact with the ground reference plane by 0.1m of insulation.
- 3) Before final measurements of radiated emissions, a pre-scan was performed in the spectrum mode with the peak detector to find out the maximum emissions spectrum plots of the EUT.
- 4) The frequencies of maximum emission were determined in the final radiated emissions measurement. At each frequency, the EUT was rotated 360°, and the antenna was raised and lowered from 1 to 4 meters in order to determine the maximum disturbance. Measurements were performed for both horizontal and vertical antenna polarization.
- 5) The bandwidth setting on the field strength meter (R&S Test Receiver ESCI) is set at 120KHz.
- 6) The frequency range from 30MHz to 1000MHz is checked.

## 7.6 Test Result

PASS

Please refer to the following page.



Radiation Emission Test Data			
Temperature:	24.5°C	Relative Humidity:	54%
Pressure:	1009hPa	Polarization:	Horizontal
Test Voltage:	DC 3.7V	Test Mode:	Mode 1



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin	Detector
		MHz	dBuV	dB	dBuV/m	dB/m	dB	
1		42.4508	24.67	-11.96	12.71	40.00	-27.29	QP
2		75.1822	34.26	-15.20	19.06	40.00	-20.94	QP
3	*	185.7882	44.39	-14.19	30.20	40.00	-9.80	QP
4		277.0935	36.04	-11.18	24.86	47.00	-22.14	QP
5		331.3546	30.54	-10.27	20.27	47.00	-26.73	QP
6		729.3583	23.26	-3.33	19.93	47.00	-27.07	QP

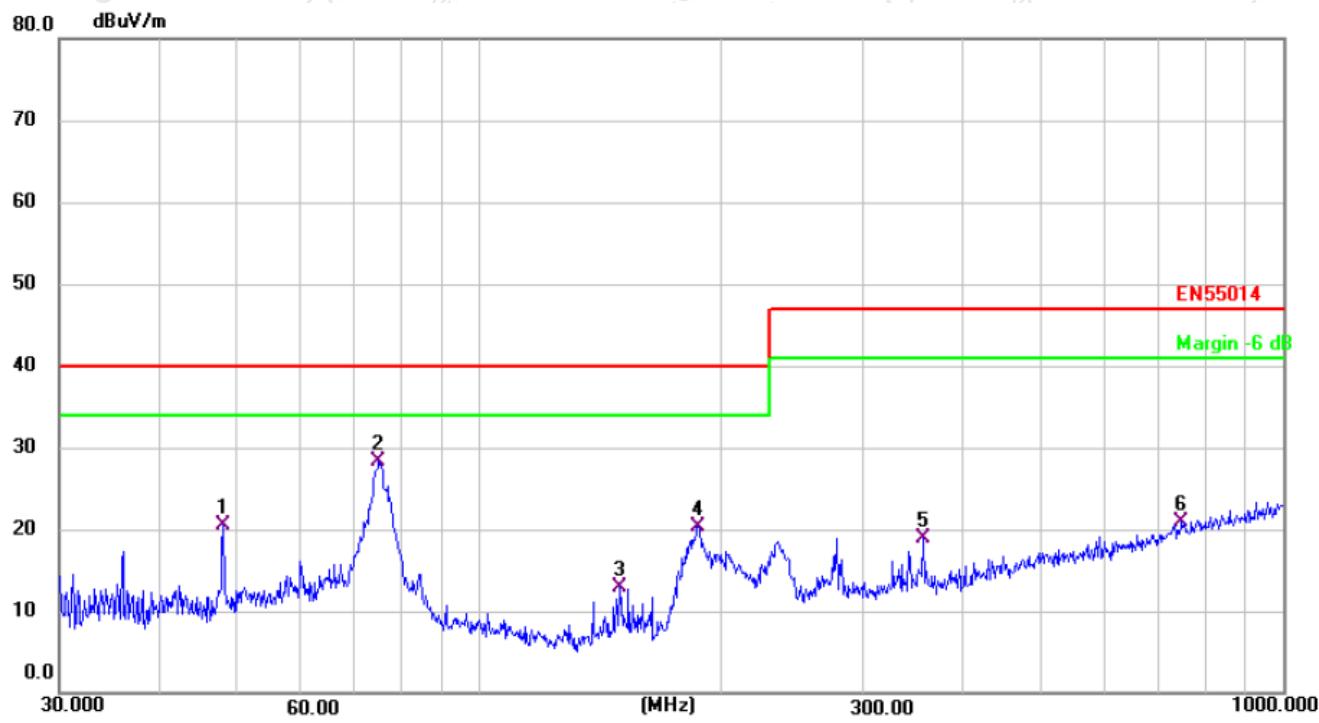
Remark:

Correct Factor=Cable loss+Antenna factor-Preamplifier

Measurement Level = Reading Level + Correct Factor; Margin = Measurement Level- Limit;



Radiation Emission Test Data			
Temperature:	24.5°C	Relative Humidity:	54%
Pressure:	1009hPa	Polarization:	Vertical
Test Voltage:	DC 3.7V	Test Mode:	Mode 1



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin	Detector
		MHz	dBuV	dB	dBuV/m	dB/m	dB	
1		47.9940	31.91	-11.40	20.51	40.00	-19.49	QP
2	*	74.9191	44.48	-16.08	28.40	40.00	-11.60	QP
3		149.4857	29.48	-16.48	13.00	40.00	-27.00	QP
4		187.0958	34.32	-13.94	20.38	40.00	-19.62	QP
5		356.6758	27.77	-8.87	18.90	47.00	-28.10	QP
6		747.4825	22.97	-1.99	20.98	47.00	-26.02	QP

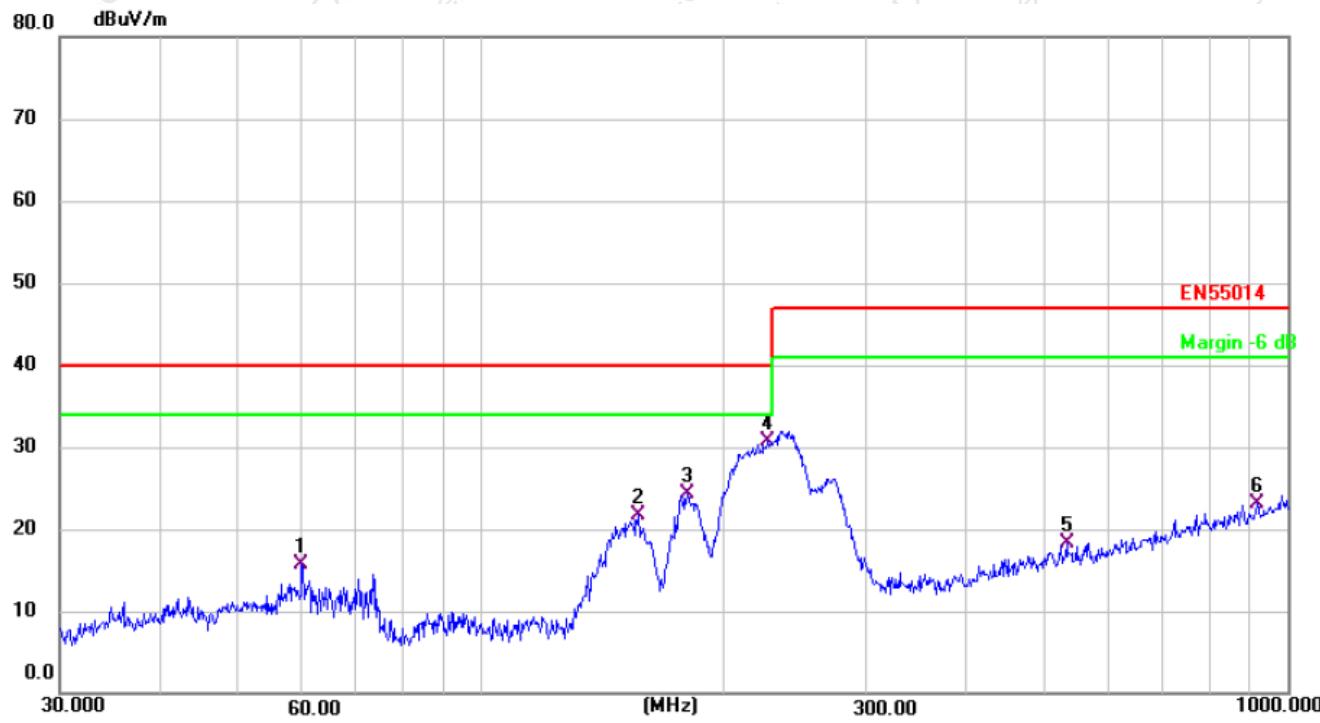
Remark:

Correct Factor=Cable loss+Antenna factor-Preamplifier

Measurement Level = Reading Level + Correct Factor; Margin = Measurement Level- Limit;



Radiation Emission Test Data			
Temperature:	24.5°C	Relative Humidity:	54%
Pressure:	1009hPa	Polarization:	Horizontal
Test Voltage:	DC 3.7V	Test Mode:	Mode 2



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin	Detector
		MHz	dBuV	dB	dBuV/m	dB/m	dB	
1		59.8588	26.80	-11.16	15.64	40.00	-24.36	QP
2		156.4578	37.57	-15.93	21.64	40.00	-18.36	QP
3		180.0165	38.92	-14.56	24.36	40.00	-15.64	QP
4	*	226.8936	43.16	-12.47	30.69	40.00	-9.31	QP
5		531.9635	24.75	-6.41	18.34	47.00	-28.66	QP
6		916.0687	24.05	-0.90	23.15	47.00	-23.85	QP

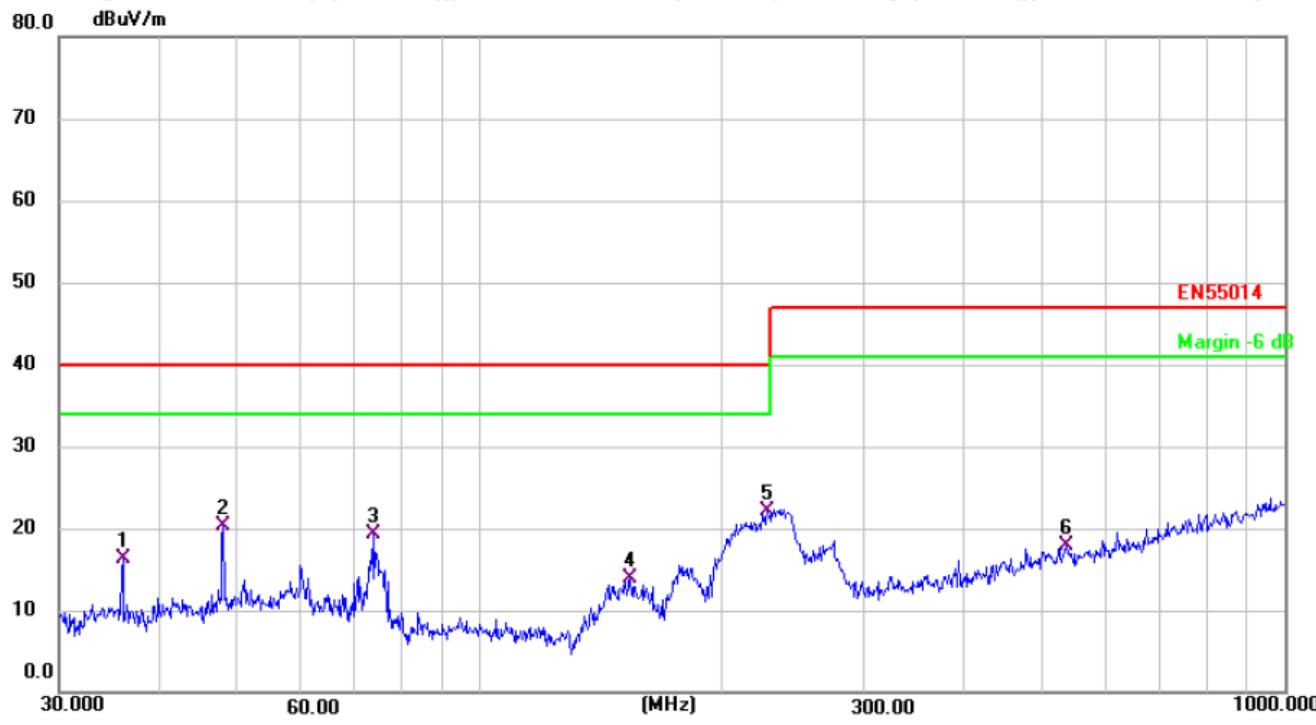
Remark:

Correct Factor=Cable loss+Antenna factor-Preamplifier

Measurement Level = Reading Level + Correct Factor; Margin = Measurement Level- Limit;



Radiation Emission Test Data			
Temperature:	24.5°C	Relative Humidity:	54%
Pressure:	1009hPa	Polarization:	Vertical
Test Voltage:	DC 3.7V	Test Mode:	Mode 2



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin	Detector
		MHz	dBuV	dB	dBuV/m	dB/m	dB	
1		36.0007	29.82	-13.48	16.34	40.00	-23.66	QP
2		47.9940	31.70	-11.40	20.30	40.00	-19.70	QP
3		73.8756	35.14	-15.85	19.29	40.00	-20.71	QP
4		153.7385	30.08	-16.25	13.83	40.00	-26.17	QP
5	*	227.6906	33.90	-11.86	22.04	40.00	-17.96	QP
6		535.7073	23.27	-5.44	17.83	47.00	-29.17	QP

Remark:

Correct Factor=Cable loss+Antenna factor-Preamplifier

Measurement Level = Reading Level + Correct Factor; Margin = Measurement Level- Limit;



Radiation Emission Test Data			
Temperature:	24.5°C	Relative Humidity:	54%
Pressure:	1009hPa	Polarization:	Horizontal
Test Voltage:	DC 3.7V	Test Mode:	Mode 3



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin	Detector
		MHz	dBuV	dB	dBuV/m	dB/m	dB	
1		74.1351	39.14	-14.93	24.21	40.00	-15.79	QP
2		155.9101	36.76	-15.95	20.81	40.00	-19.19	QP
3		185.1379	44.70	-14.23	30.47	40.00	-9.53	QP
4	*	210.0482	44.52	-12.99	31.53	40.00	-8.47	QP
5		331.3546	30.50	-10.27	20.23	47.00	-26.77	QP
6		533.8321	24.21	-6.40	17.81	47.00	-29.19	QP

Remark:

Correct Factor=Cable loss+Antenna factor-Preamplifier

Measurement Level = Reading Level + Correct Factor; Margin = Measurement Level- Limit;



Radiation Emission Test Data			
Temperature:	24.5°C	Relative Humidity:	54%
Pressure:	1009hPa	Polarization:	Vertical
Test Voltage:	DC 3.7V	Test Mode:	Mode 3



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin	Detector
		MHz	dBuV	dB	dBuV/m	dB/m	dB	
1		55.0274	34.99	-11.53	23.46	40.00	-16.54	QP
2	*	75.1822	44.32	-16.14	28.18	40.00	-11.82	QP
3		157.5588	29.39	-15.99	13.40	40.00	-26.60	QP
4		204.9551	35.06	-12.79	22.27	40.00	-17.73	QP
5		497.6765	23.96	-5.91	18.05	47.00	-28.95	QP
6		711.6734	22.68	-2.45	20.23	47.00	-26.77	QP

Remark:

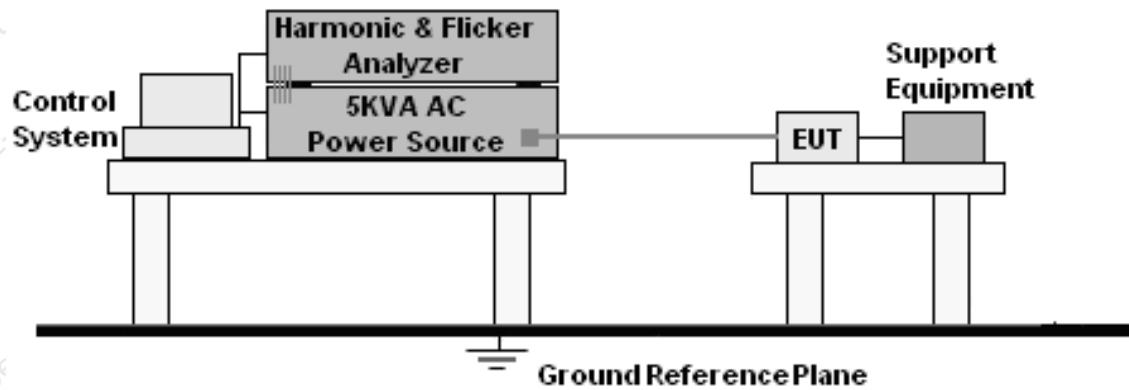
Correct Factor=Cable loss+Antenna factor-Preamplifier

Measurement Level = Reading Level + Correct Factor; Margin = Measurement Level- Limit;



## 8. HARMONIC CURRENT EMISSION TEST

### 8.1 Block Diagram of Test Setup



### 8.2 Test Standard

EN 61000-3-2

### 8.3 Operating Condition of EUT

Setup the EUT as shown in Section 8.1.

Turn on the power of all equipment.

Let the EUT work in test mode and test it.

### 8.4 Test Procedure

The power cord of the EUT is connected to the output of the test system. Turn on the power of the EUT and use the test system to test the harmonic current level.

### 8.5 Test Results

The EUT is powered by DC, no requirements for this item.



## 9. VOLTAGE FLUCTUATIONS & FLICKER TEST

### 9.1 Block Diagram of Test Setup

Same as Section 8.1.

### 9.2 Test Standard

EN 61000-3-3

### 9.3 Operating Condition of EUT

Same as Section 8.3. The power cord of the EUT is connected to the output of the test system. Turn on the power of the EUT and use the test system to test the harmonic current level.

Flicker Test Limit

Test items	Limits
Pst	1.0
dc	3.3%
Tmax	4.0%
dt	Not exceed 3.3% for 500ms

### 9.4 Test Procedure

The power cord of the EUT is connected to the output of the test system. Turn on the power of the EUT and use the test system to test the harmonic current level.

### 9.5 Test Results

The EUT is powered by DC, no requirements for this item.



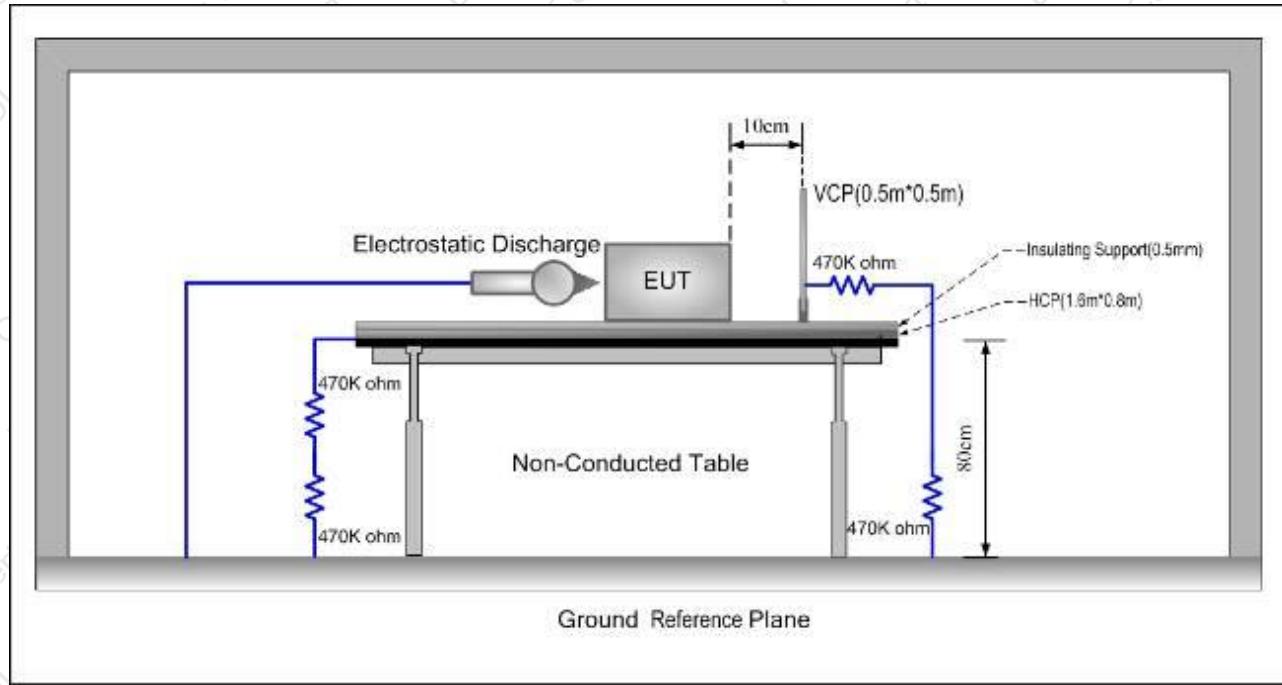
## 10. IMMUNITY TEST OF GENERAL THE PERFORMANCE CRITERIA

Product Standard	EN 55014-2
<b>CRITERION A</b>	The apparatus shall continue to operate as intended during the test. No degradation of performance or loss of function is allowed below a performance level (or permissible loss of performance) specified by the manufacturer, when the apparatus is used as intended. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and from what the user may reasonably expect from the apparatus if used as intended
<b>CRITERION B</b>	The apparatus shall continue to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level (or permissible loss of performance) specified by the manufacturer, when the apparatus is used as intended. During the test, degradation of performance is allowed, however, no change of actual operating state or stored data is allowed. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and from what the user may reasonably expect from the apparatus if used as intended.
<b>CRITERION C</b>	Temporary loss of function is allowed, provided the function is self-recoverable or can be restored by the operation of the controls, or by any operation specified in the instructions for use.



## 11. ELECTROSTATIC DISCHARGE IMMUNITY TEST

## 11.1 Block Diagram of Test Setup



## 11.2 Test Standard

EN 55014-2, EN 61000-4-2

### 11.3 Severity Levels and Performance Criterion

Severity Level: 3 / Air Discharge:  $\pm 8\text{Kw}$

Level: 2 / Contact Discharge:  $\pm 4\text{KV}$

### Performance criterion: B

## 11.4 Test Procedure

- a. Electrostatic discharges were applied only to those points and surfaces of the Product that are accessible to users during normal operation.
- b. The test was performed with at least ten single discharges on the pre-selected points in the most sensitive polarity.
- c. The time interval between two successive single discharges was at least 1 second.
- d. The ESD generator was held perpendicularly to the surface to which the discharge was applied and the return cable was at least 0.2 meters from the Product.
- e. Contact discharges were applied to the non-insulating coating, with the pointed tip of the generator penetrating the coating and contacting the conducting substrate.
- f. Air discharges were applied with the round discharge tip of the discharge electrode approaching the Product as fast as possible (without causing mechanical damage) to touch the Product. After each discharge, the ESD generator was removed from the Product and re-triggered for a new single discharge. The test was repeated until all discharges were complete.
- g. At least ten single discharges (in the most sensitive polarity) were applied to the Horizontal Coupling Plane at points on each side of the Product. The ESD generator was positioned vertically at a distance of 0.1 meters from the Product with the discharge electrode touching the HCP.
- h. At least ten single discharges (in the most sensitive polarity) were applied to the center of one vertical



edge of the Vertical Coupling Plane in sufficiently different positions that the four faces of the Product were completely illuminated. The VCP (dimensions 0.5m x 0.5m) was placed vertically to and 0.1 meters from the Product.

### 11.5 Test Results

PASS

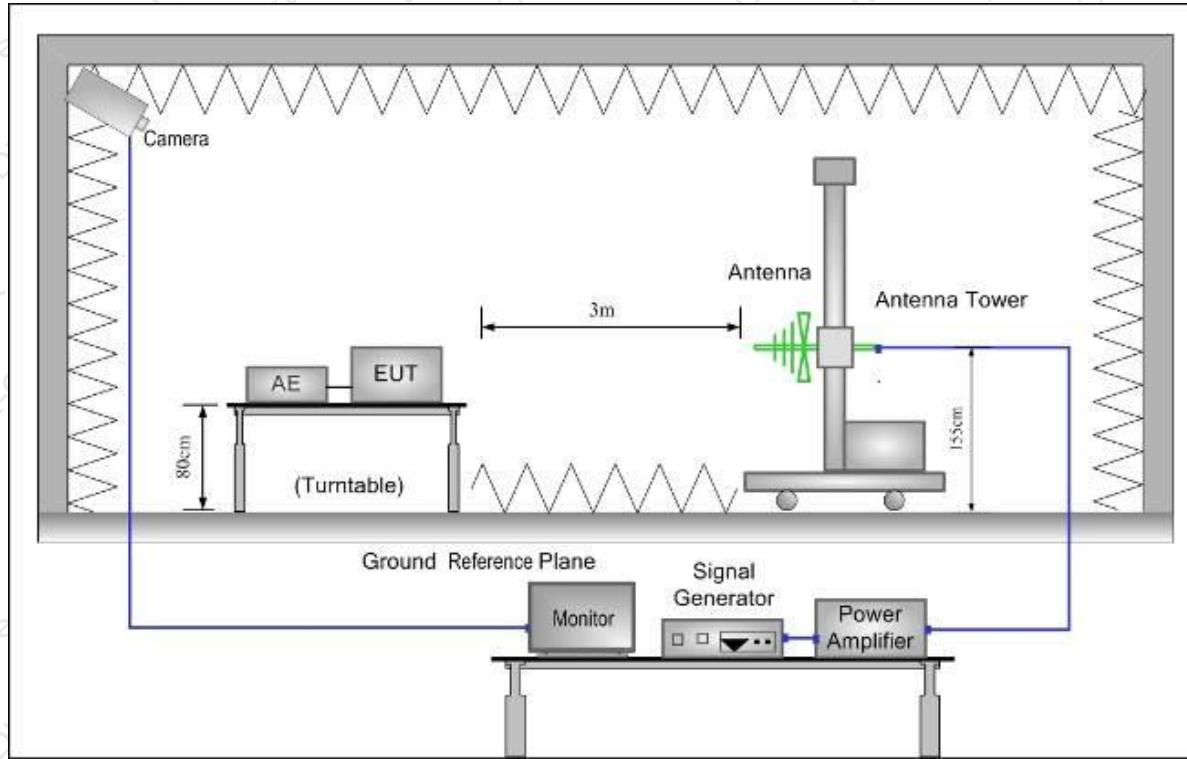
Please refer to the following page.

Electrostatic Discharge Test Data					
Temperature:		25.1°C		Humidity: 55%	
Power Supply:		DC 3.7V		Test Mode: Mode 1/2/3	
Discharge Method	Discharge Position	Voltage ( $\pm$ kV)	Min. No. of Discharge per polarity (Each Point)	Required Level	Result
Contact Discharge	Conductive Surfaces	4	10	B	Pass
	Indirect Discharge HCP	4	10	B	Pass
	Indirect Discharge VCP	4	10	B	Pass
Air Discharge	Slots, Apertures, and Insulating Surfaces	8	10	B	Pass

Note: N/A

## 12. RF FIELD STRENGTH SUSCEPTIBILITY TEST

### 12.1 Block Diagram of Test Setup



### 12.2 Test Standard

EN 55014-2, EN 61000-4-3

### 12.3 Severity Levels and Performance Criterion

Severity Level 2, 3V / m

Performance criterion: A

### 12.4 Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. EUT is set 3 meter away from the transmitting antenna which is mounted on an antenna tower. Both horizontal and vertical polarization of the antenna are set on test. Each of the four sides of EUT must be faced this transmitting antenna and measured individually.



All the scanning conditions are as follows:

Condition of Test	Remarks
Fielded Strength	3 V/m (Severity Level 2)
Radiated Signal	Modulated
Scanning Frequency	80 – 1000 MHz
Dwell time of radiated	0.0015 decade/s
Waiting Time	1 Sec.

## 12.5 Test Results

PASS

Please refer to the following page.

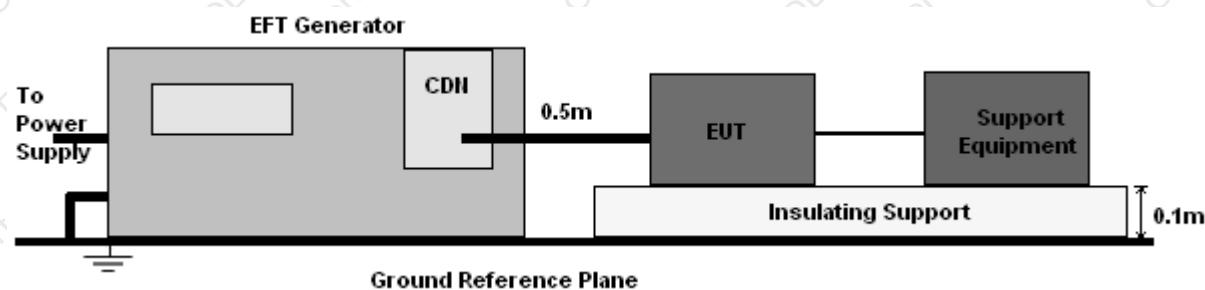
R/S Test Data				
Temperature:	25.1 °C	Humidity:	55%	
Power Supply :	DC 3.7V	Test Mode:	Mode 1/2/3	
Criterion:	A	Steps	1 %	
Frequency (MHz)	Position	Field Strength (V/m)	Required Level	Result
80 – 1000	Front, Right, Back, Left	3	A	Pass
Note: N/A				



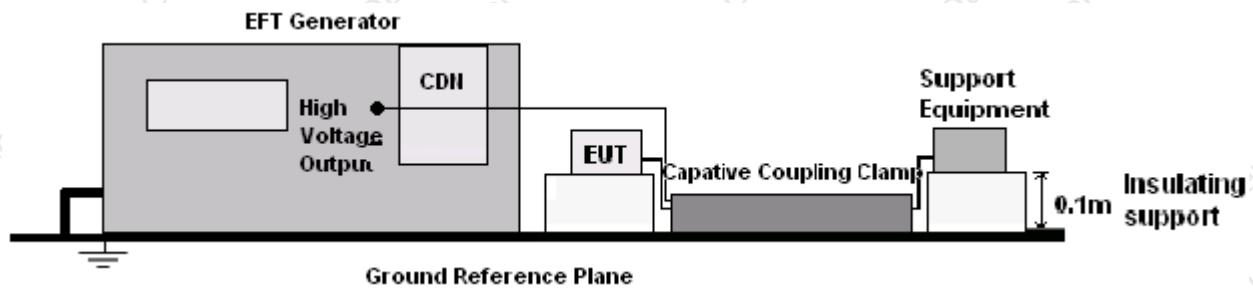
### 13. ELECTRICAL FAST TRANSIENT/BURST IMMUNITY TEST

#### 13.1 Block Diagram of EUT Test Setup

For input a.c. / d.c. power port:



For signal lines and control lines:



#### 13.2 Test Standard

EN 55014-2, EN 61000-4-4

#### 13.3 Severity Levels and Performance Criterion

Severity Level 2 at 1KV, Pulse Rise time & Duration: 5 nS / 50 nS

Performance criterion: B

#### 13.4 Test Procedure

EUT shall be placed 0.8m high above the ground reference plane which is a min.1m\*1m metallic sheet with 0.65mm minimum thickness. This reference ground plane shall project beyond the EUT by at least 0.1m on all sides and the minimum distance between EUT and all other conductive structure, except the ground plane beneath the EUT, shall be more than 0.5m

For input and output AC power ports:

The EUT is connected to the power mains by using a coupling device which couples the EFT interference signal to AC power lines. Both polarities of the test voltage should be applied during compliance test and the duration of the test is 2 minutes.

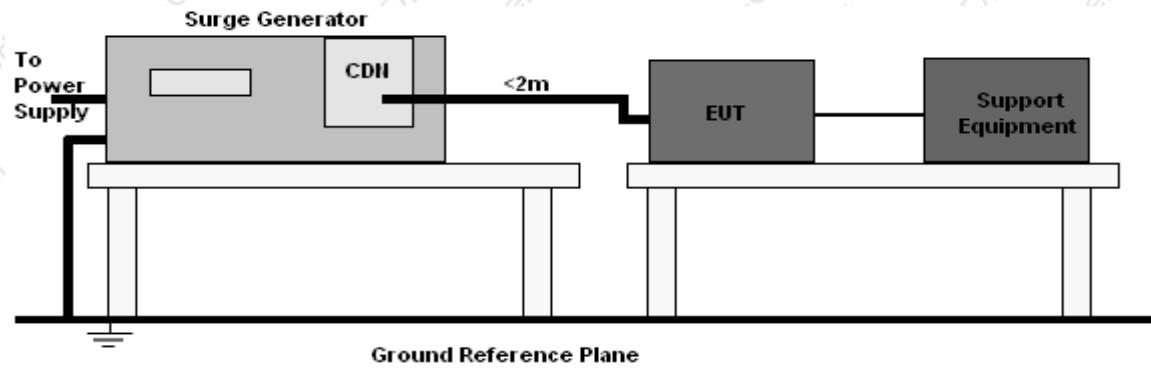
#### 13.5 Test Results

The EUT is powered by DC, no requirements for this item.



## 14. SURGE TEST

### 14.1 Block Diagram of EUT Test Setup



### 14.2 Test Standard

EN 55014-2, EN 61000-4-5

### 14.3 Severity Levels and Performance Criterion

Severity Level: Line to Line, Level 2 at 1KV;

Severity Level: Line to Earth, Level 3 at 2KV.

Performance criterion: B

### 14.4 Test Procedure

- 1) Set up the EUT and test generator as shown on section 11.1
- 2) For line-to-line coupling mode, provide a 1KV 1.2/50us voltage surge (at open-circuit condition) and 8/20us current surge to EUT selected points.
- 3) At least 5 positive and 5 negative (polarity) tests with a maximum 1/min repetition rate are conducted during test.
- 4) Different phase angles are done individually.
- 5) Repeat procedure 2) to 4) except the open-circuit test voltage change from 1KV to 2KV for line to earth coupling mode test.
- 6) Record the EUT operating situation during compliance test and decide the EUT immunity criterion for above each test.

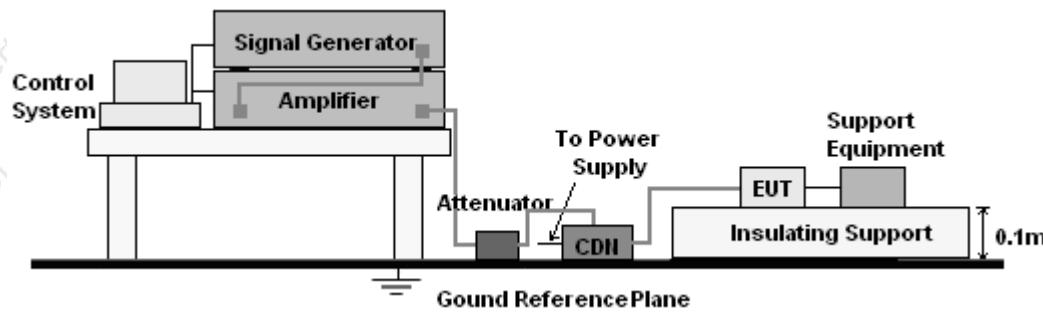
### 14.5 Test Result

The EUT is powered by DC, no requirements for this item.

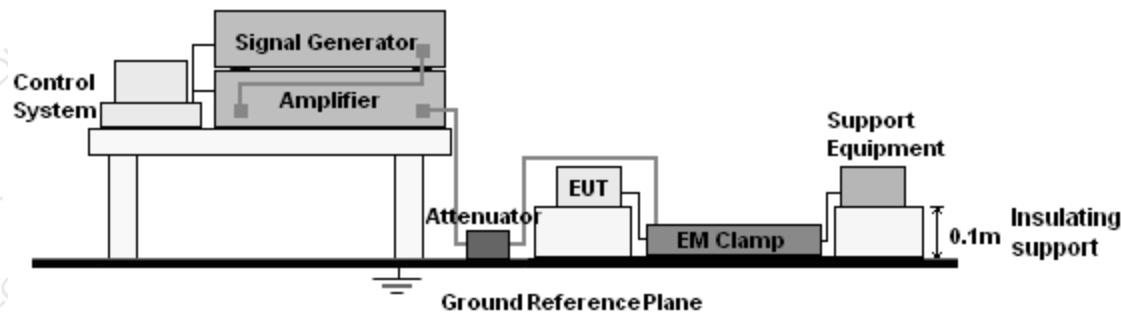
## 15. INJECTED CURRENTS SUSCEPTIBILITY TEST

### 15.1 Block Diagram of EUT Test Setup

For input a.c. / d.c. power port:



For signal lines and control lines:



### 15.2 Test Standard

EN 55014-2, EN 61000-4-6

### 15.3 Severity Levels and Performance Criterion

Severity Level 2: 3V( rms ), 150KHz ~ 80MHz

Performance criterion: A

### 15.4 Test Procedure

- 1) Set up the EUT, CDN and test generator as shown on section 12.1
- 2) Let EUT work in test mode and measure.
- 3) The EUT and supporting equipments are placed on an insulating support 0.1m high above a ground reference plane. CDN (coupling and decoupling device) is placed on the ground plane at above 0.1-0.3m from EUT. Cables between CDN and EUT are as short as possible, and their height above the ground reference plane shall be between 30 and 50 mm (where possible).
- 4) The disturbance signal described below is injected to EUT through CDN.
- 5) The EUT operates within its operational mode(s) under intended climatic conditions after power on.
- 6) The frequency range is swept from 150KHz to 80MHz using 3V signal level, and with the disturbance signal 80% amplitude modulated with a 1KHz sine wave
- 7) The rate of sweep shall not exceed  $1.5 \times 10^{-3}$  decades/s. Where the frequency is swept incrementally, the step size shall not exceed 1% of the start and thereafter 1% of the preceding frequency value.
- 8) Recording the EUT operating situation during compliance test and decide the EUT immunity criterion for above each test.

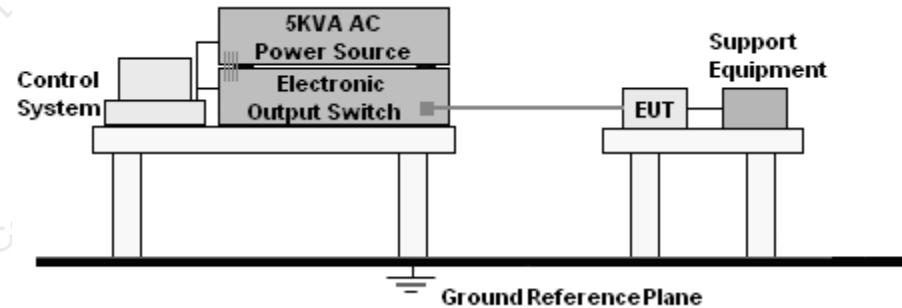
### 15.5 Test Result

The EUT is powered by DC, no requirements for this item.



## 16. VOLTAGE DIPS AND INTERRUPTIONS TEST

### 16.1 Block Diagram of EUT Test Setup



### 16.2 Test Standard

EN 55014-2, EN 61000-4-11

### 16.3 Severity Levels and Performance Criterion

Input and Output AC Power Ports.

- Voltage Dips.
- Voltage Interruptions.

Environmental Phenomena	Test Specification	Units	Performance Criterion
Voltage Dips	100	% Reduction period	C
	0.5		
	60	% Reduction period	C
	10		
	30	% Reduction period	C
	25		

### 16.4 Test Procedure

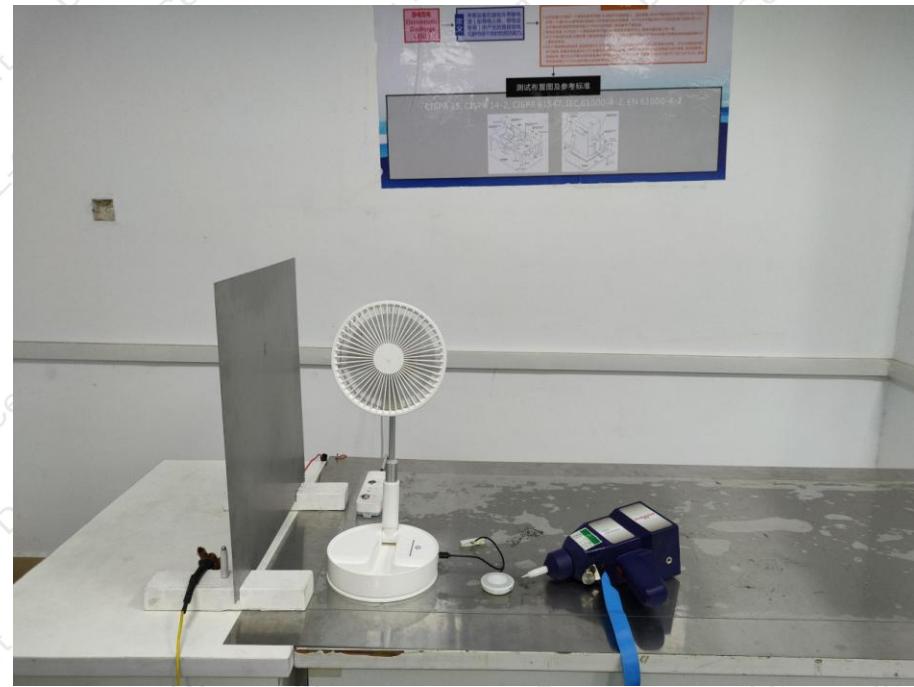
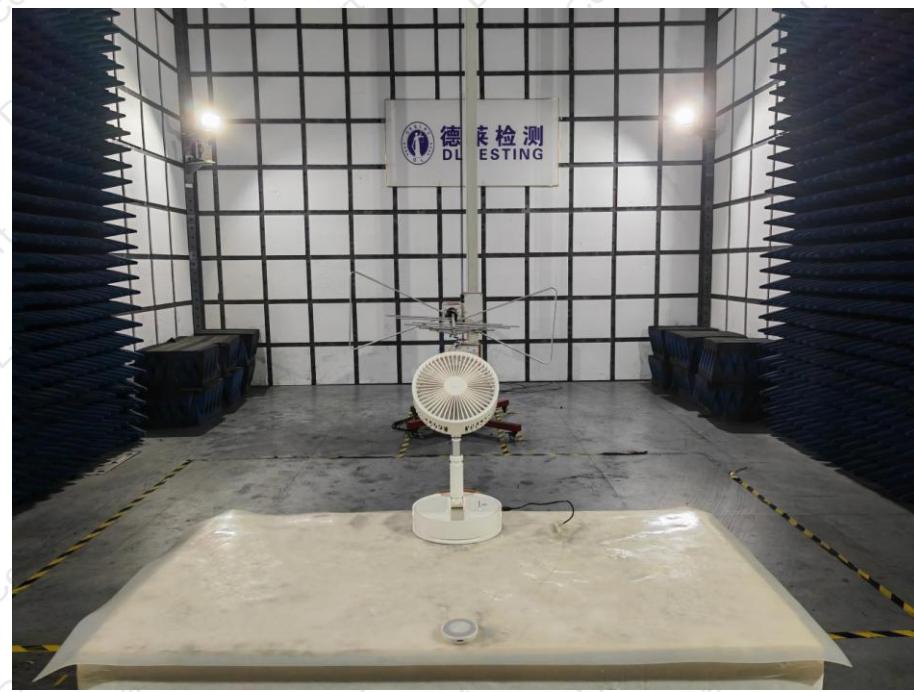
- 1) Set up the EUT and test generator as shown on section 14.1
- 2) The interruption is introduced at selected phase angles with specified duration. There is a 3mins minimum interval between each test event.
- 3) After each test a full functional check is performed before the next test.
- 4) Repeat procedures 2 & 3 for voltage dips, only the level and duration is changed.
- 5) Record any degradation of performance.

### 16.5 Test Result

The EUT is powered by DC, no requirements for this item.

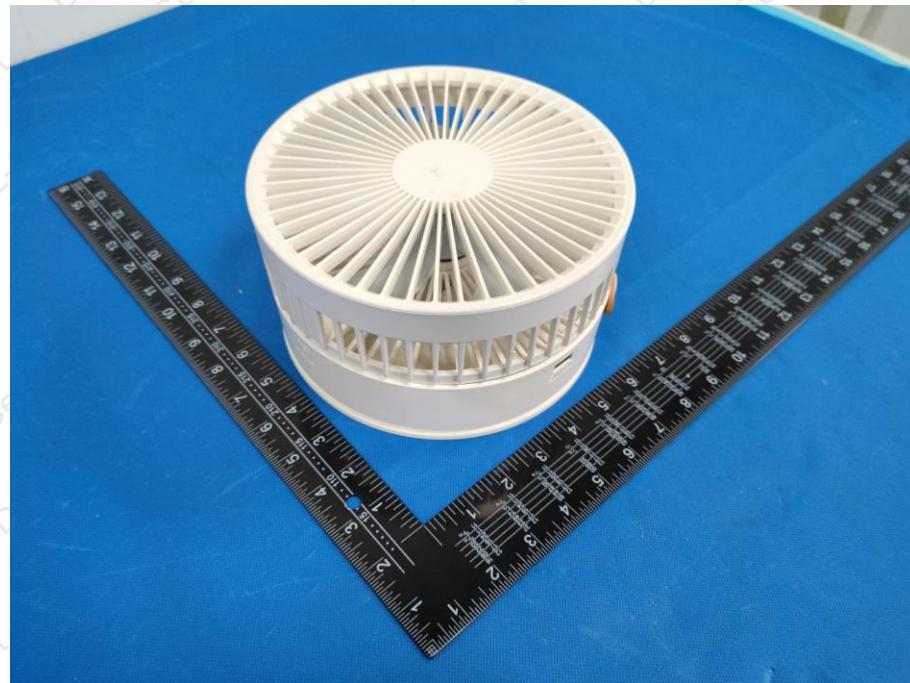


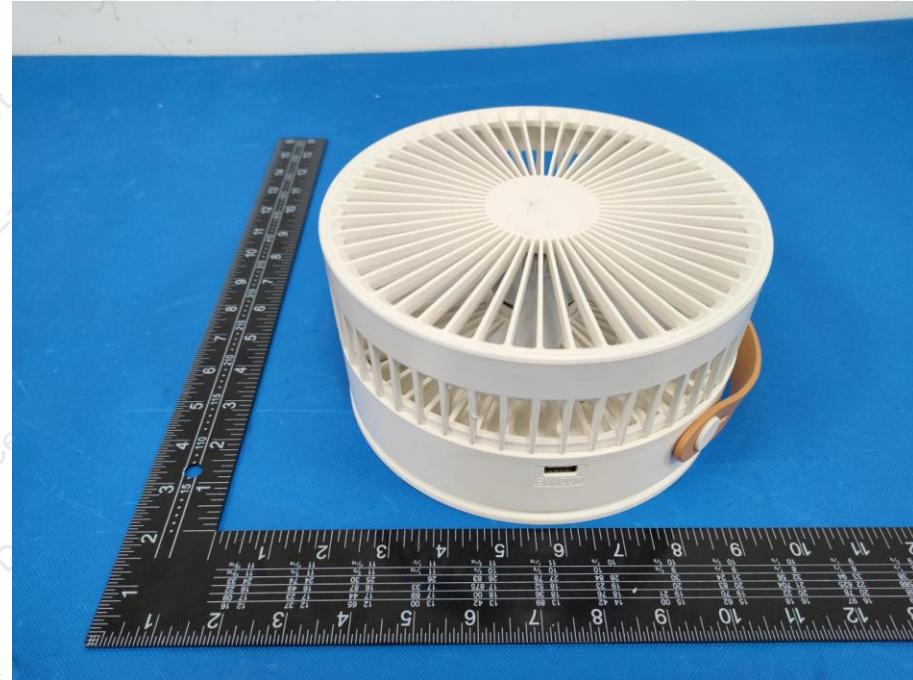
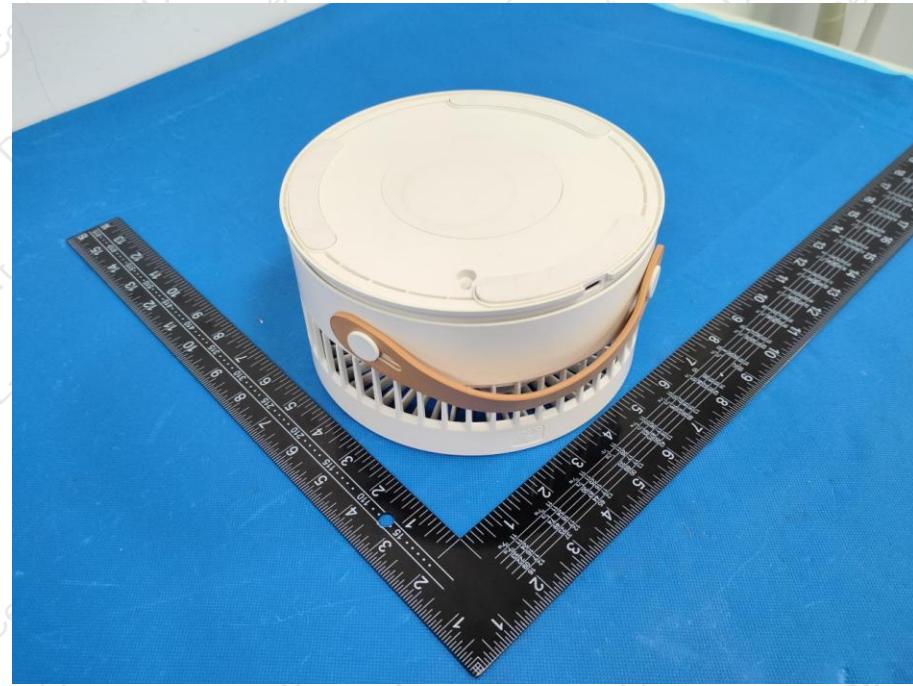
## 17. SETUP PHOTOGRAPHS

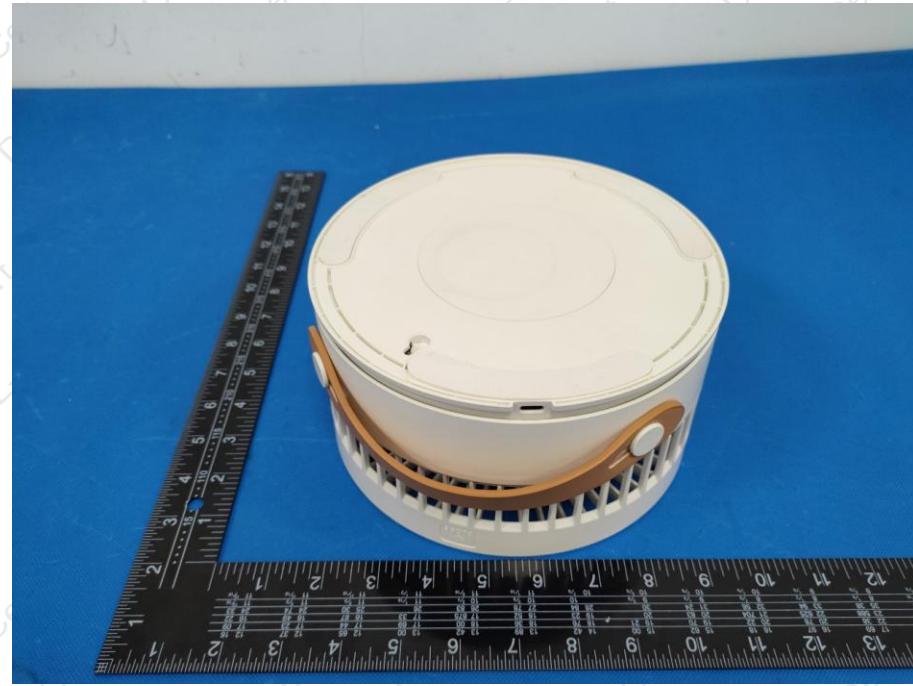


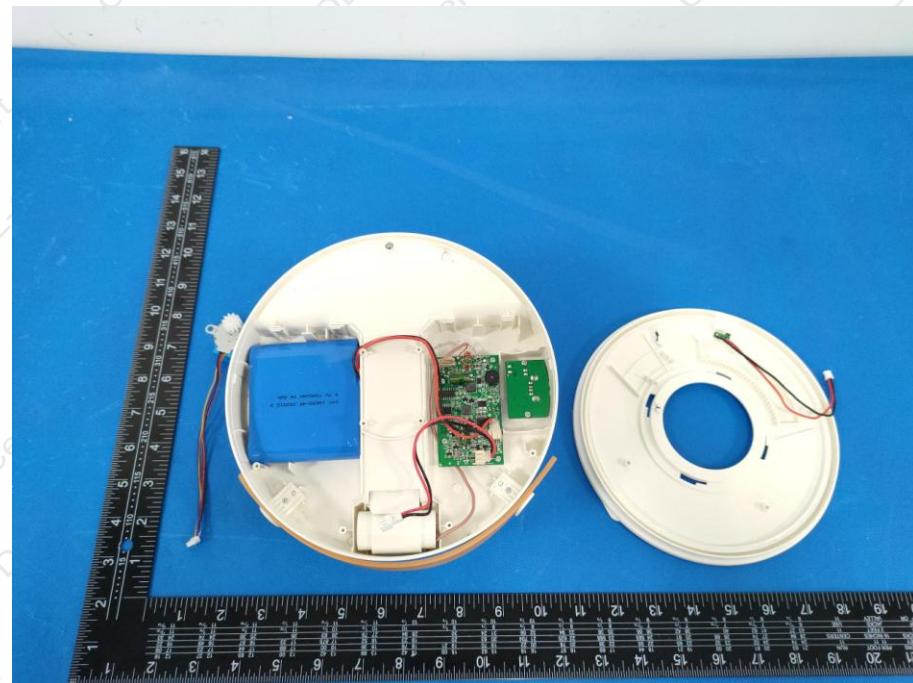


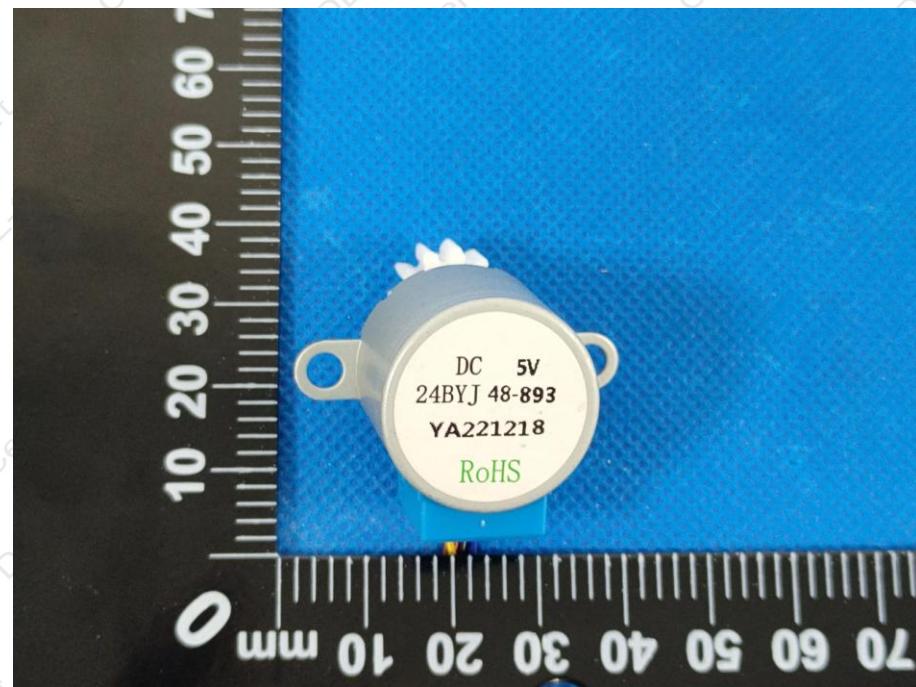
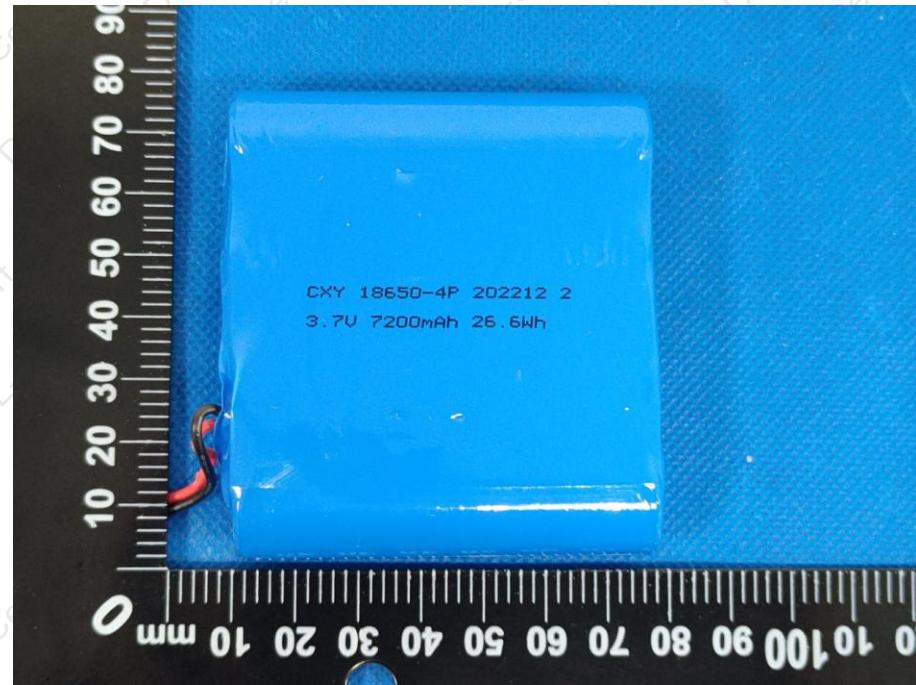
## 18. EUT PHOTOGRAPHS

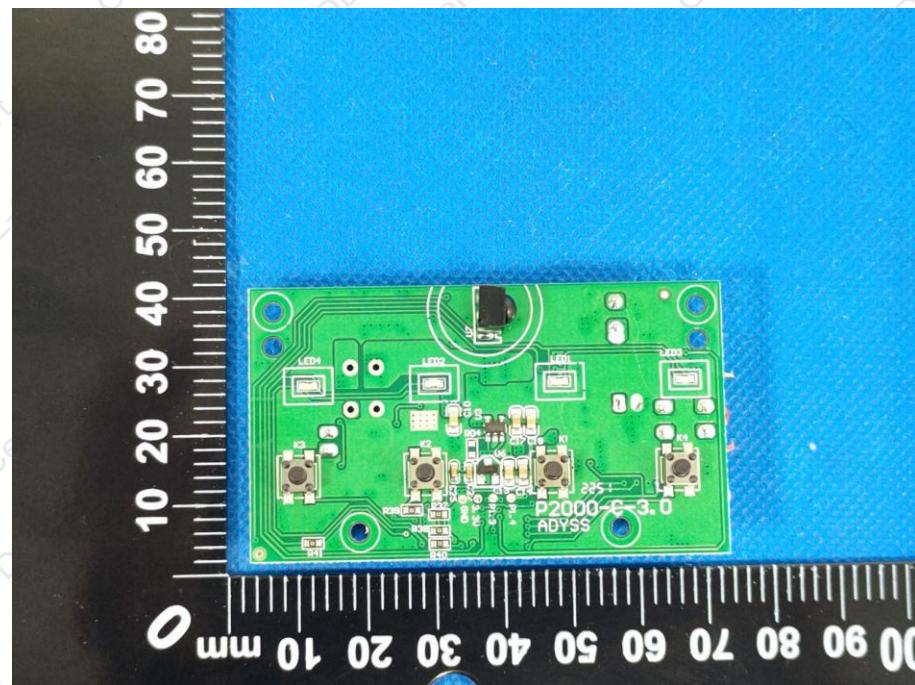
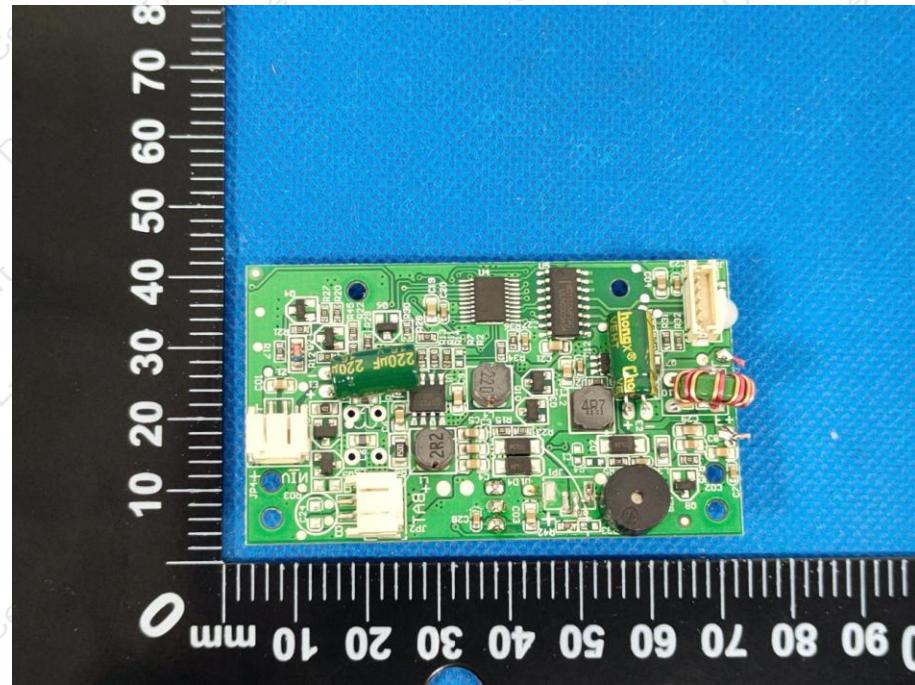


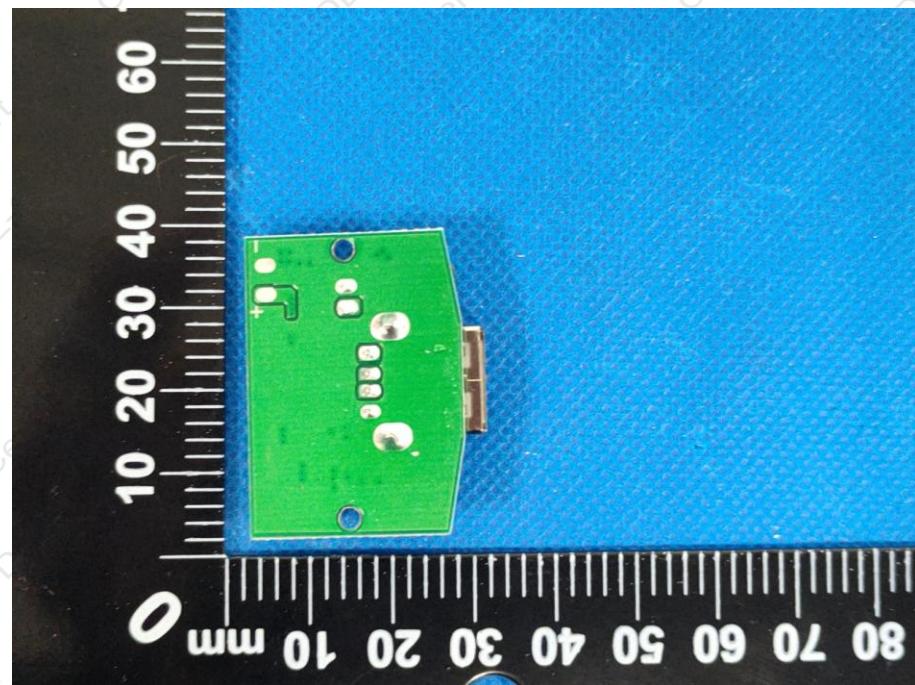
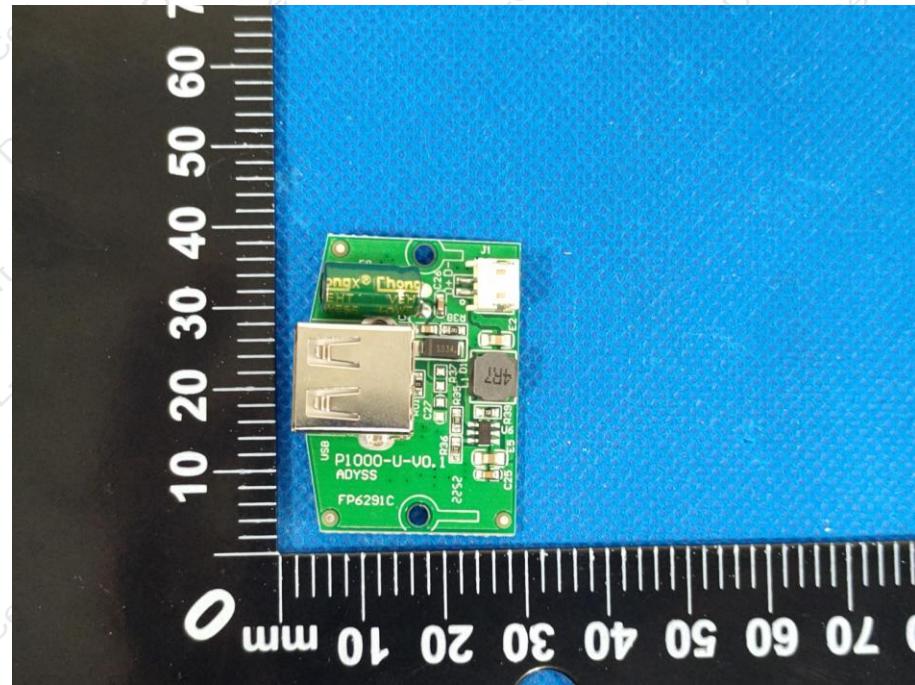


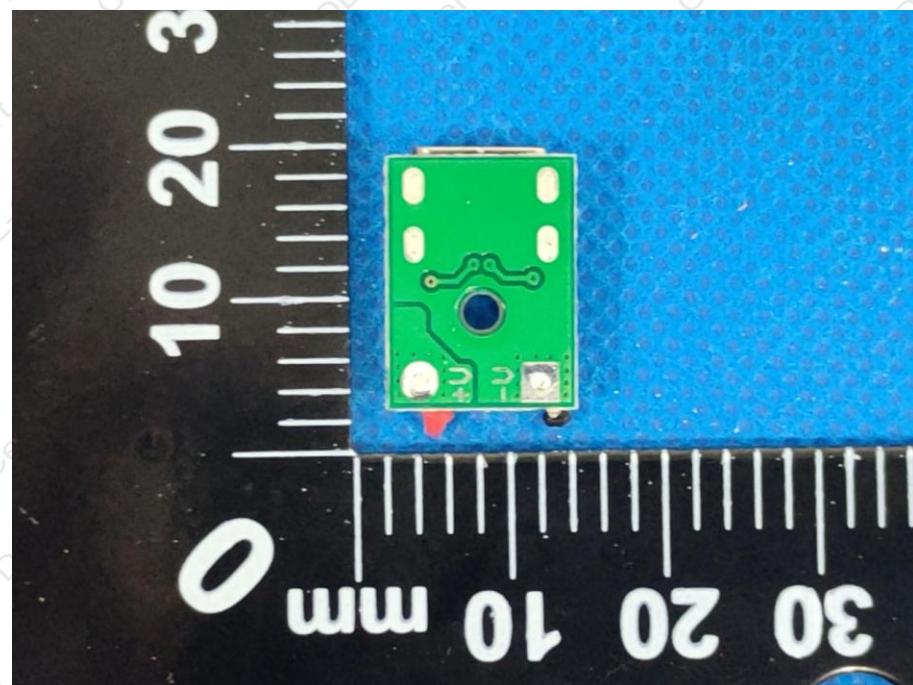
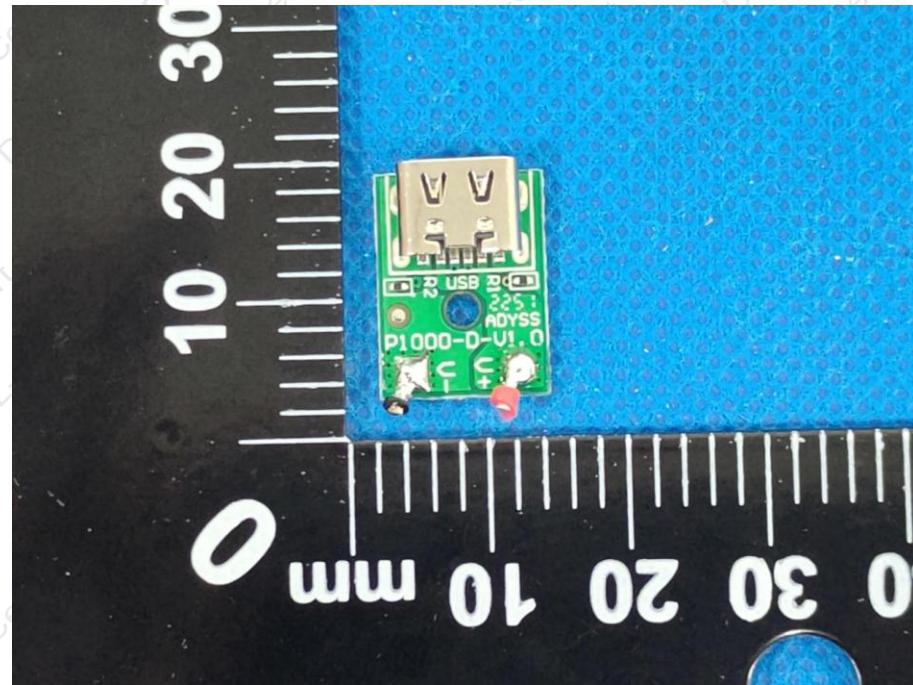


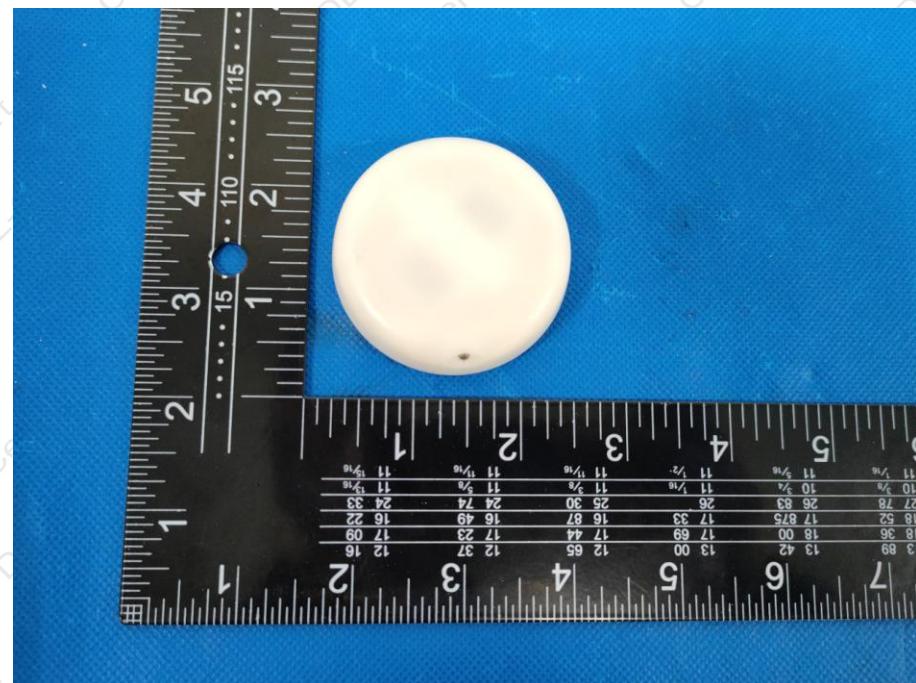
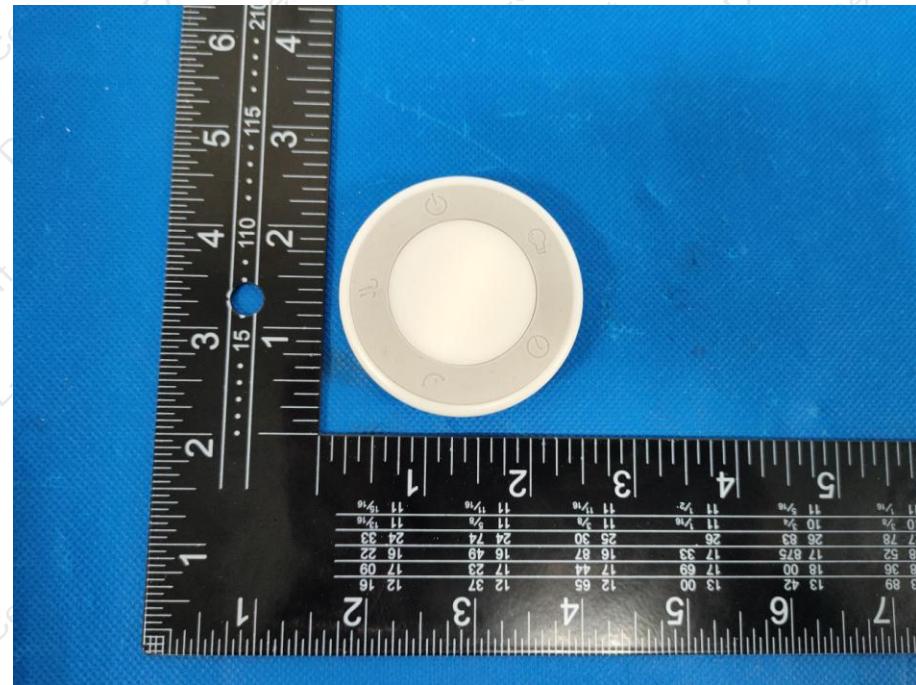












\*\*\*\*\* END OF REPORT \*\*\*\*\*



# Supplier's Declaration of Conformity

Certificate Number: DL-20230112017C

**Applicant:** SHENZHEN HAOHUALIANHE TECHNOLOGY CO., LTD  
701、801, Building 4, No. A3, 4th Industrail Park, Heshuikou Community,  
Gongming Street, Guangming District, Shenzhen

**Manufacturer:** SHENZHEN HAOHUALIANHE TECHNOLOGY CO., LTD  
701、801, Building 4, No. A3, 4th Industrial Park, Heshuikou Community,  
Gongming Street, Guangming District, Shenzhen

**Product:** Folding Fan

**Trade Mark:** 叠品/ADYSS

**Model No.:** P1000

**Test Standard:** FCC Part 15 Subpart B  
ANSI C63.4:2014

This certificate is part of the full test report(s) and should be read in conjunction with it. The referred Test report(s) show that the product complies with standard(s) recognized as giving presumption of compliance with the essential requirements in the specified FCC standard. It is only valid in connection with the test report number: DL-20230112017E.

FC



This certificate of conformity is based on a single evaluation of the submitted sample(s) of the above mentioned product. It does not imply an assessment of the whole product and relevant. Without the written approval, It is not permitted to use the test lab's logo.

Shenzhen DL Testing Technology Co., Ltd.  
101-201, Building C, Shuanghuan, No.8, Baoqing Road, Baolong Industrial Zone, Baolong Street,  
Longgang District, Shenzhen, Guangdong, China

Web: [www.dl-cert.com](http://www.dl-cert.com) E-mail: [Service@dl-cert.com](mailto:Service@dl-cert.com) Tel: 400-688-3552





# FCC TEST REPORT

Applicant: SHENZHEN HAOHUALIANHE TECHNOLOGY CO., LTD

Address: 701、801, Building 4, No. A3, 4th Industrial Park, Heshuikou Community, Gongming Street, Guangming District, Shenzhen

Manufacturer: SHENZHEN HAOHUALIANHE TECHNOLOGY CO., LTD

Address: 701、801, Building 4, No. A3, 4th Industrial Park, Heshuikou Community, Gongming Street, Guangming District, Shenzhen

EUT: Folding Fan

Trade Mark: 叠品/ADYSS

Model Number: P1000

Date of Receipt: Jan. 04, 2023

Test Date: Jan. 04, 2023 - Jan. 12, 2023

Date of Report: Jan. 12, 2023

Prepared By: Shenzhen DL Testing Technology Co., Ltd.

Address: 101-201, Building C, Shuanghuan, No.8, Baoqing Road, Baolong Industrial Zone, Baolong Street, Longgang District, Shenzhen, Guangdong, China

Applicable Standards: FCC Part 15 Subpart B

ANSI C63.4:2014

Test Result: Pass

Report Number: DL-20230112017E

Prepared (Test Engineer): HuiLian Xu

Reviewer (Supervisor): Jack Bu

Approved (Manager): Jade Yang



*This test report is based on a single evaluation of one sample of above mentioned products. It is not permitted to be duplicated in extracts without written approval of Shenzhen DL Testing Technology Co., Ltd.*



## TABLE OF CONTENT

	Page
Test Report Declaration	
<b>1. VERSION</b>	<b>3</b>
<b>2. TEST SUMMARY</b>	<b>3</b>
<b>3. GENERAL INFORMATION</b>	<b>4</b>
<b>4. TEST INSTRUMENT USED</b>	<b>5</b>
<b>5. CONDUCTED EMISSION TEST</b>	<b>6</b>
<b>6. RADIATION EMISSION TEST</b>	<b>8</b>
<b>7. SETUP PHOTOGRAPHS</b>	<b>16</b>
<b>8. EUT PHOTOGRAPHS</b>	<b>17</b>

**1. VERSION**

Version No.	Date	Description
00	Jan. 12, 2023	Original

**2. TEST SUMMARY**

EMC Emission				
Standard	Test Item	Limit	Result	Remark
FCC PART 15 B	Conducted Emission at power ports	Class B	N/A	
	Radiated Emission below 1GHz	Class B	PASS	
	Radiated Emission above 1GHz	Class B	N/A	

**NOTE:**

(1) "N/A" denotes test is not applicable in this Test Report

(2) Test Facility: Shenzhen DL Testing Technology Co., Ltd.

Address: 101-201, Building C, Shuanghuan, No.8, Baoqing Road, Baolong Industrial Zone, Baolong Street, Longgang District, Shenzhen, Guangdong, China



### 3. GENERAL INFORMATION

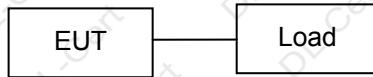
#### 3.1 Description of Device (EUT)

EUT: Folding Fan  
Trade Mark: 叠品/ADYSS  
Model Number: P1000  
Test Model: P1000  
Model difference: N/A  
Power Supply: DC 5V from charger  
Output: USB 5V == 0.5A  
Working Frequency: Below 15MHz

#### 3.2 Tested System Details

None.

#### 3.3 Block Diagram of Test Set-up



#### 3.4 Test Mode Description

Mode1.	On Mode(Fan)	Mode2.	On Mode(USB O/P 5V)
Mode3.	On Mode(Fan + USB)		

#### 3.5 Test Auxiliary Equipment

None.

#### 3.6 Test Uncertainty

Conducted Emission Uncertainty : ±2.56dB

Radiated Emission Uncertainty : ±3.65dB

**4. TEST INSTRUMENT USED****For Conducted Emission Test (843 Shielded Room)**

Equipment	Manufacturer	Model	Serial	Last Cal.	Next Cal.
843 Shielded Room	ChengYu	843 Room	843	Sep. 20, 2022	Sep. 19, 2025
EMI Receiver	R&S	ESR	101421	Nov. 05, 2022	Nov. 04, 2023
LISN	R&S	ENV216	102417	Nov. 05, 2022	Nov. 04, 2023
Clamp	COM-POWER	CLA-050	431071	Nov. 05, 2022	Nov. 04, 2023
3-Loop Antenna	DAZE	ZN30401	13021	Nov. 05, 2022	Nov. 04, 2023
ISN T8	Schwarzbeck	NTFM 8158	101135	Nov. 05, 2022	Nov. 04, 2023
ISN T5	Schwarzbeck	NTFM 8158	101136	Nov. 05, 2022	Nov. 04, 2023
843 Cable 1#	ChengYu	CE Cable	001	Nov. 05, 2022	Nov. 04, 2023
843 Cable 1#	ChengYu	CE Cable	002	Nov. 05, 2022	Nov. 04, 2023

**For Radiated Emission Test (966 chamber)**

Equipment	Manufacturer	Model	Serial	Last Cal.	Next Cal.
966 Chamber	ChengYu	966 Room	966	Sep. 20, 2022	Sep. 19, 2025
Spectrum Analyzer	Agilent	E4408B	MY50140780	Nov. 05, 2022	Nov. 04, 2023
EMI Receiver	R&S	ESRP7	101393	Nov. 05, 2022	Nov. 04, 2023
Amplifier	Schwarzbeck	BBV9743B	00153	Nov. 05, 2022	Nov. 04, 2023
Amplifier	EMEC	EM01G8GA	00270	Nov. 05, 2022	Nov. 04, 2023
Broadband Trilog Antenna	Schwarzbeck	VULB9162	00306	Nov. 05, 2022	Nov. 04, 2023
Horn Antenna	Schwarzbeck	BBHA9120D	02139	Nov. 05, 2022	Nov. 04, 2023
966 Cable 1#	ChengYu	966	004	Nov. 05, 2022	Nov. 04, 2023
966 Cable 2#	ChengYu	966	003	Nov. 05, 2022	Nov. 04, 2023

**Other**

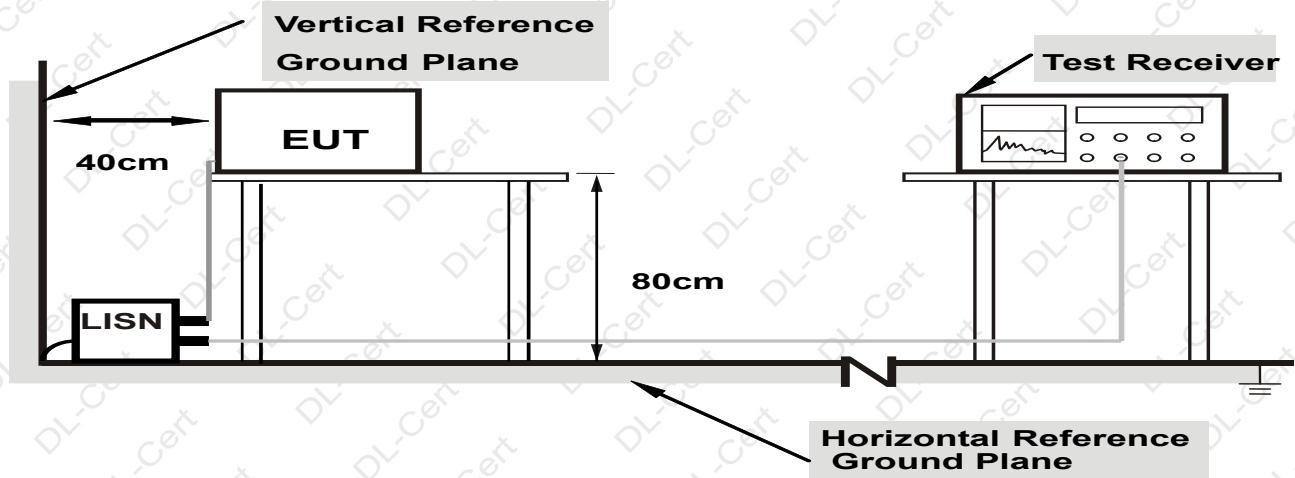
Name	Manufacturer	Model	Software version
EMC Conduction Test System	FALA	EZ_EMC	EMC-CON 3A1.1
EMC radiation test system	FALA	EZ_EMC	FA-03A2
RF test system	MAIWEI	MTS8310	2.0.0.0
RF communication test system	MAIWEI	MTS8200	2.0.0.0



## 5. CONDUCTED EMISSION TEST

### 5.1 Block Diagram of Test Setup

#### For Mains Terminals Test



**Note: 1. Support units were connected to second LISN.**

**2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes**

### 5.2 Test Standard and Limit

#### FCC PART 15 B

Frequency MHz	Limits dB( $\mu$ V)	
	Quasi-peak Level	Average Level
0.15~0.50	66 ~ 56*	55 ~ 46*
0.50~5.00	56	46
5.00~30.00	60	50

Notes: 1. \*Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

### 5.3 EUT Configuration on Test

The following equipment's are installed on conducted emission test to meet FCC PART 15 B requirement and operating in a manner which tends to maximize its emission characteristics in a normal application.

### 5.4 Operating Condition of EUT

5.4.1 Setup the EUT and simulators as shown in Section 5.1.

5.4.2 Turn on the power of all equipments.

5.4.3 Let the EUT work in test modes and test it.



## 5.5 Test Procedure

The EUT is put on the table and connected to the AC mains through a Artificial Mains Network (AMN) or ISN. This provided a 50ohm coupling impedance for the tested equipments. Both sides of AC line are checked to find out the maximum conducted emission levels according to the **ANSI C63.4** regulations during conducted emission test.

The bandwidth of the test receiver (R&S Test Receiver ESR) is set at 10KHz.

The frequency range from 150 KHz to 30 MHz is investigated.

## 5.6 Test Result

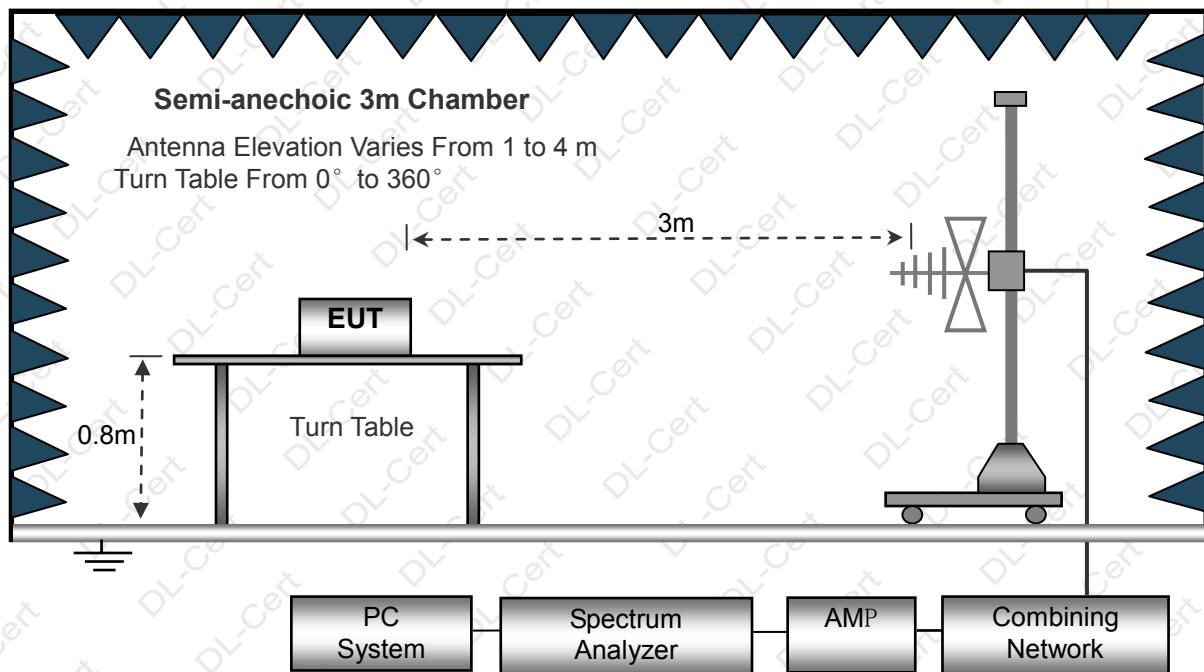
The EUT is powered by DC, no requirements for this item.



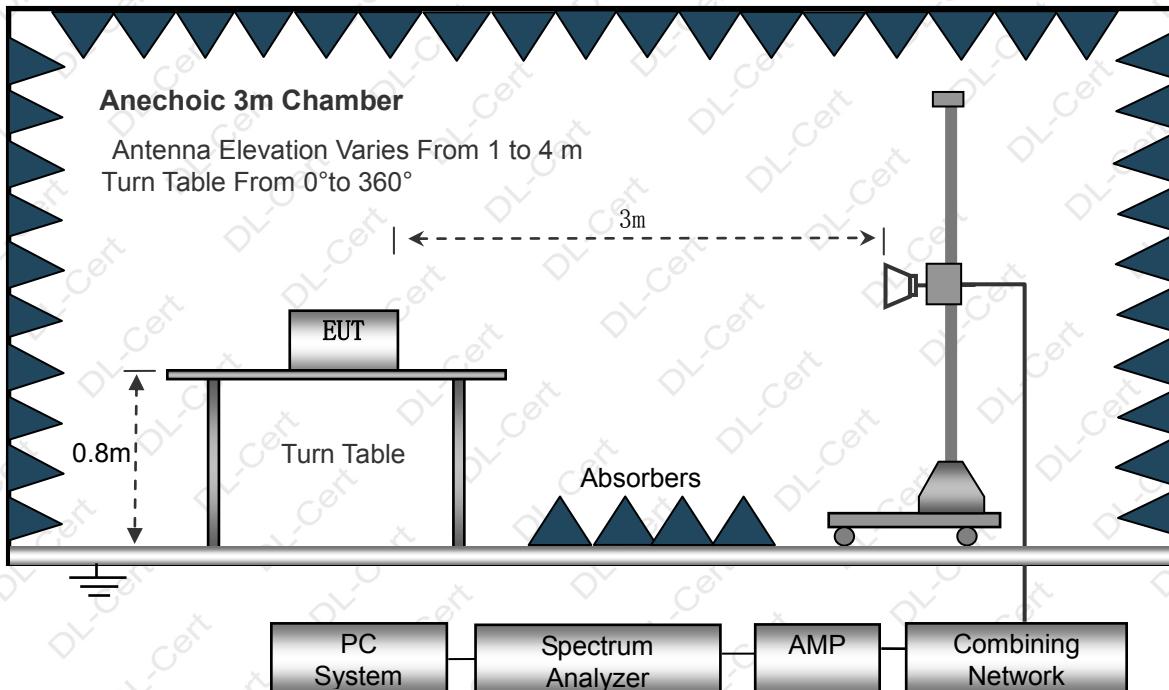
## 6. RADIATION EMISSION TEST

### 6.1 Block Diagram of Test Setup

Below 1GHz



Above 1GHz



### 6.2 Test Standard and Limit

FCC PART 15 B



## Below 1GHz

Frequency (MHz)	Distance (Meters)	Field Strengths Limits (dB $\mu$ V/m)
30 ~ 88	3	40.0
88 ~ 216	3	43.5
216 ~ 960	3	46.0
960 ~ 1000	3	54.0

## Above 1GHz

Frequency MHz	Distance (Meters)	Field Strengths Limits dB( $\mu$ V/m)	Detector
1000~6000	3	74.0	PEAK
1000~6000	3	54.0	AVERAGE

## Remark:

- (1) The smaller limit shall apply at the cross point between two frequency bands.
- (2) Distance refers to the distance in meters between the measuring instrument, antenna and the closed point of any part of the device or system.

## 6.3 EUT Configuration on Test

The FCC PART 15 B regulations test method must be used to find the maximum emission during radiated emission test.

The configuration of EUT is the same as used in conducted emission test.

Please refer to Section 5.3.

## 6.4 Operating Condition of EUT

Same as conducted emission test, which is listed in Section 5.4 except the test set up replaced as Section 6.2.

## 6.5 Test Procedure

- 1) The radiated emissions test was conducted in a semi-anechoic chamber.
- 2) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, but separated from metallic contact with the ground reference plane by 0.1m of insulation.
- 3) Before final measurements of radiated emissions, a pre-scan was performed in the spectrum mode with the peak detector to find out the maximum emissions spectrum plots of the EUT.
- 4) The frequencies of maximum emission were determined in the final radiated emissions measurement. At each frequency, the EUT was rotated 360°, and the antenna was raised and lowered from 1 to 4 meters in order to determine the maximum disturbance. Measurements were performed for both horizontal and vertical antenna polarization.
- 5) The bandwidth setting on the field strength meter (R&S Test Receiver ESCI) is set at 120KHz.
- 6) The frequency range from 30MHz to 1000MHz is checked.

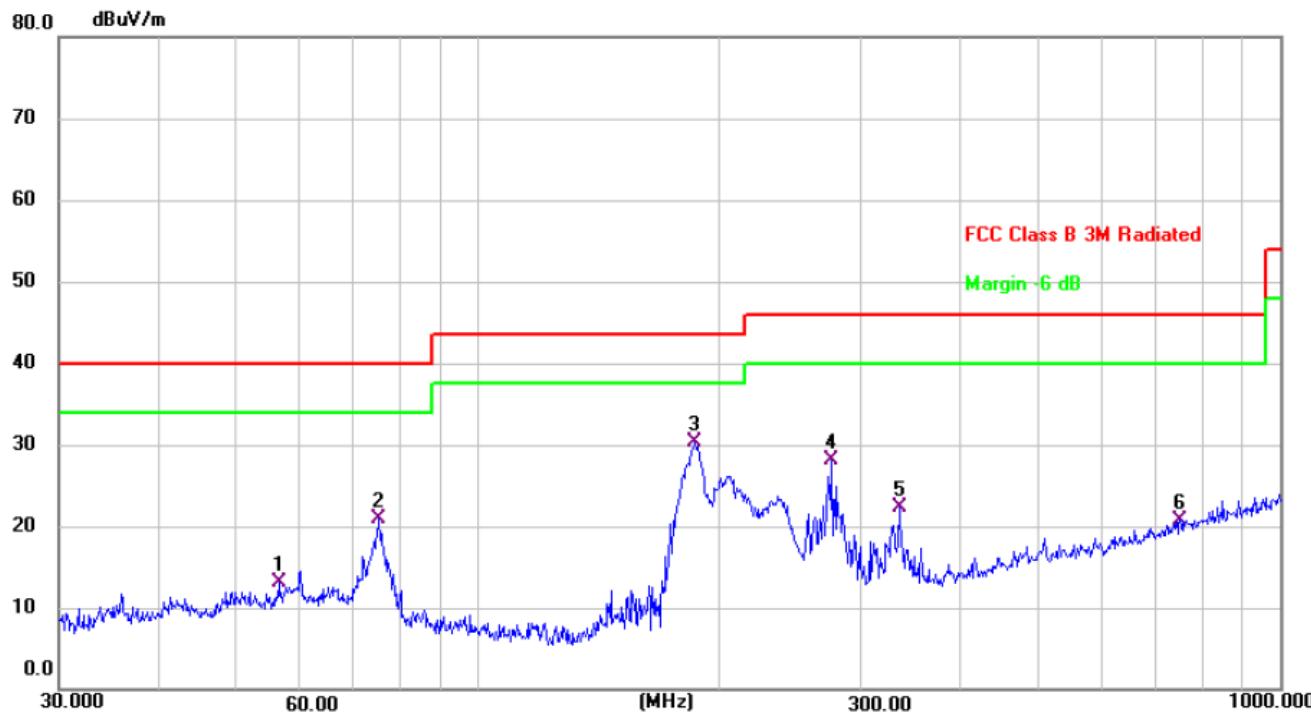
## 6.6 Test Result

PASS

Please refer to the following page.

**Radiation Emission Test Data**

Temperature:	24.5°C	Relative Humidity:	54%
Pressure:	1009hPa	Polarization:	Horizontal
Test Voltage:	DC 3.7V	Test Mode:	Mode 1



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB/m	Margin dB	Detector
1		56.3948	24.44	-11.28	13.16	40.00	-26.84	QP
2		75.1822	36.01	-15.20	20.81	40.00	-19.19	QP
3	*	186.4409	44.42	-14.16	30.26	43.50	-13.24	QP
4		276.1235	39.39	-11.20	28.19	46.00	-17.81	QP
5		334.8589	32.45	-10.21	22.24	46.00	-23.76	QP
6		750.1083	23.80	-3.00	20.80	46.00	-25.20	QP

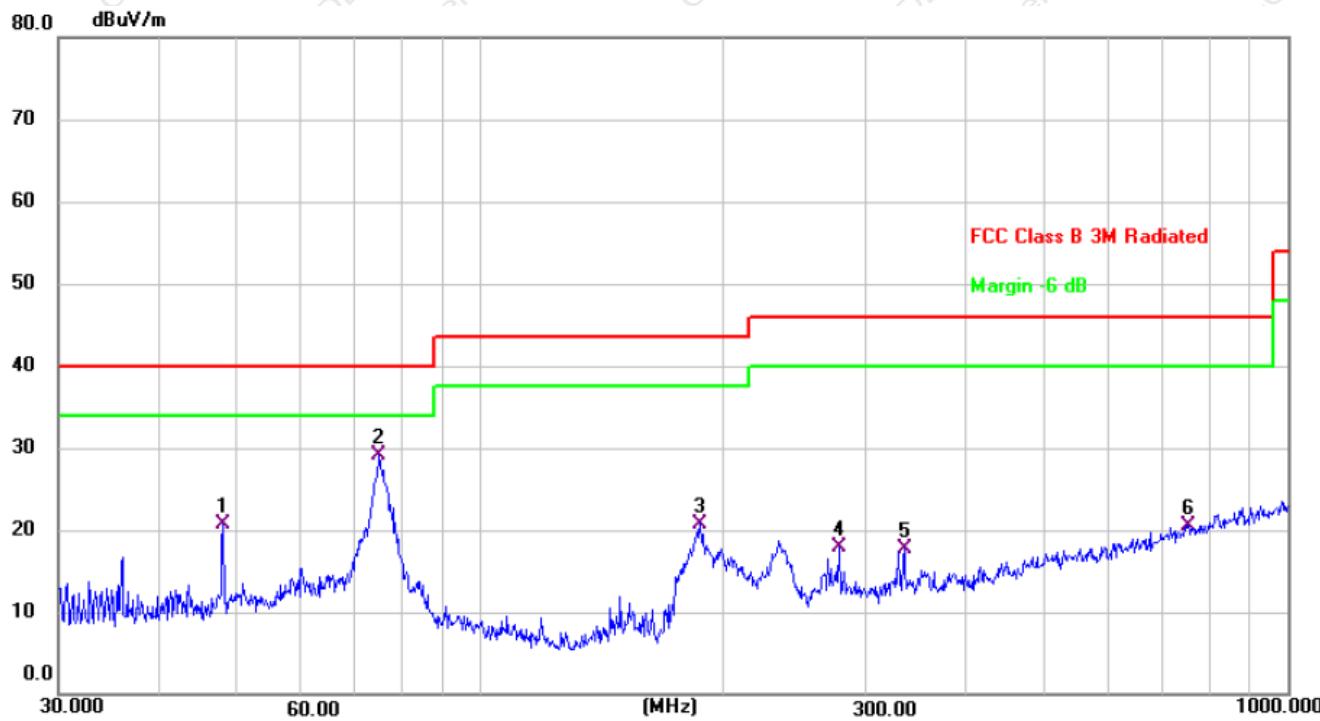
Remark:

Correct Factor=Cable loss+Antenna factor+Preamplifier

Measurement Level = Reading Level + Correct Factor; Margin = Measurement Level- Limit;



Radiation Emission Test Data			
Temperature:	24.5°C	Relative Humidity:	54%
Pressure:	1009hPa	Polarization:	Vertical
Test Voltage:	DC 3.7V	Test Mode:	Mode 1



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Margin
			Level	Factor	ment		
		MHz	dBuV	dB	dBuV/m	dB/m	dB
1		47.9940	32.07	-11.40	20.67	40.00	-19.33
2	*	74.6569	45.21	-16.02	29.19	40.00	-10.81
3		187.0958	34.74	-13.94	20.80	43.50	-22.70
4		278.0668	28.06	-10.19	17.87	46.00	-28.13
5		334.8589	26.91	-9.15	17.76	46.00	-28.24
6		752.7432	22.46	-1.91	20.55	46.00	-25.45

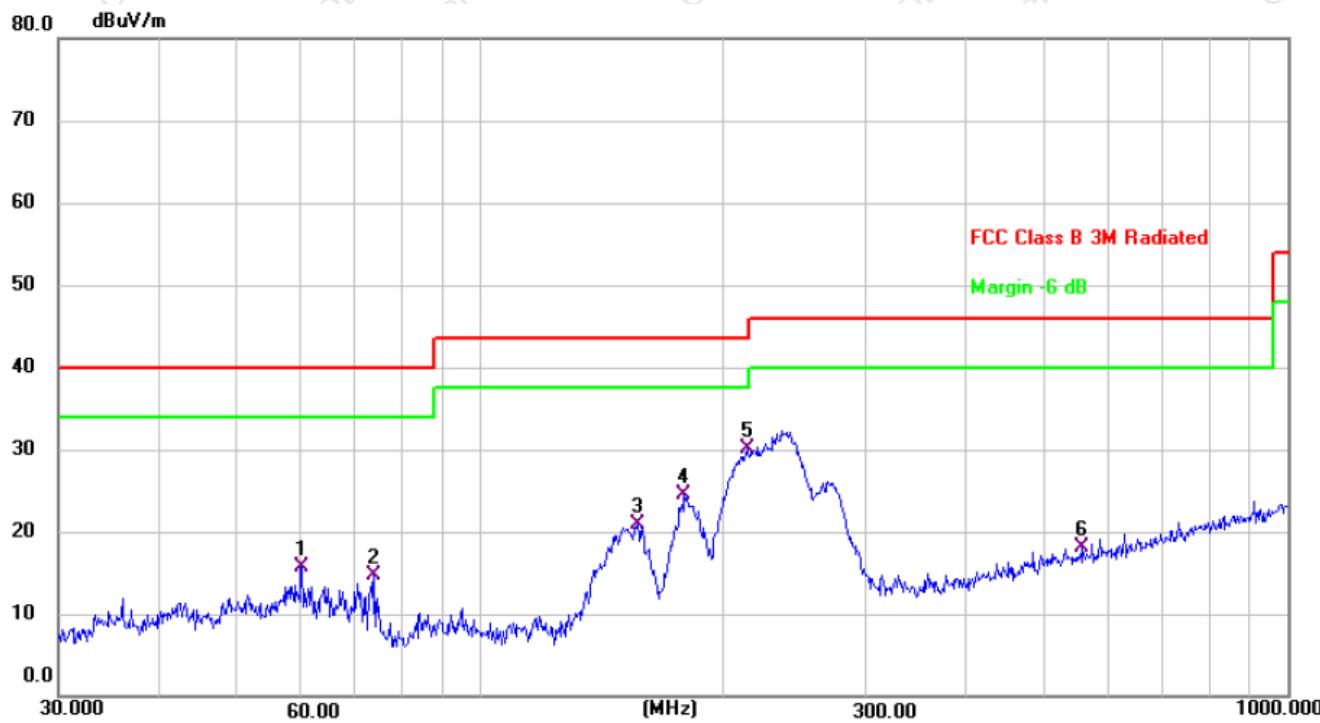
Remark:

Correct Factor=Cable loss+Antenna factor+Preamplifier

Measurement Level = Reading Level + Correct Factor; Margin = Measurement Level- Limit;



Radiation Emission Test Data			
Temperature:	24.5°C	Relative Humidity:	54%
Pressure:	1009hPa	Polarization:	Horizontal
Test Voltage:	DC 3.7V	Test Mode:	Mode 2



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin	Detector
		MHz	dBuV	dB	dBuV/m	dB/m	dB	
1		60.0691	26.96	-11.18	15.78	40.00	-24.22	QP
2		73.8756	29.65	-14.87	14.78	40.00	-25.22	QP
3		156.4578	36.92	-15.93	20.99	43.50	-22.51	QP
4		178.7584	39.21	-14.63	24.58	43.50	-18.92	QP
5	*	213.7634	43.02	-12.87	30.15	43.50	-13.35	QP
6		556.7744	24.34	-6.16	18.18	46.00	-27.82	QP

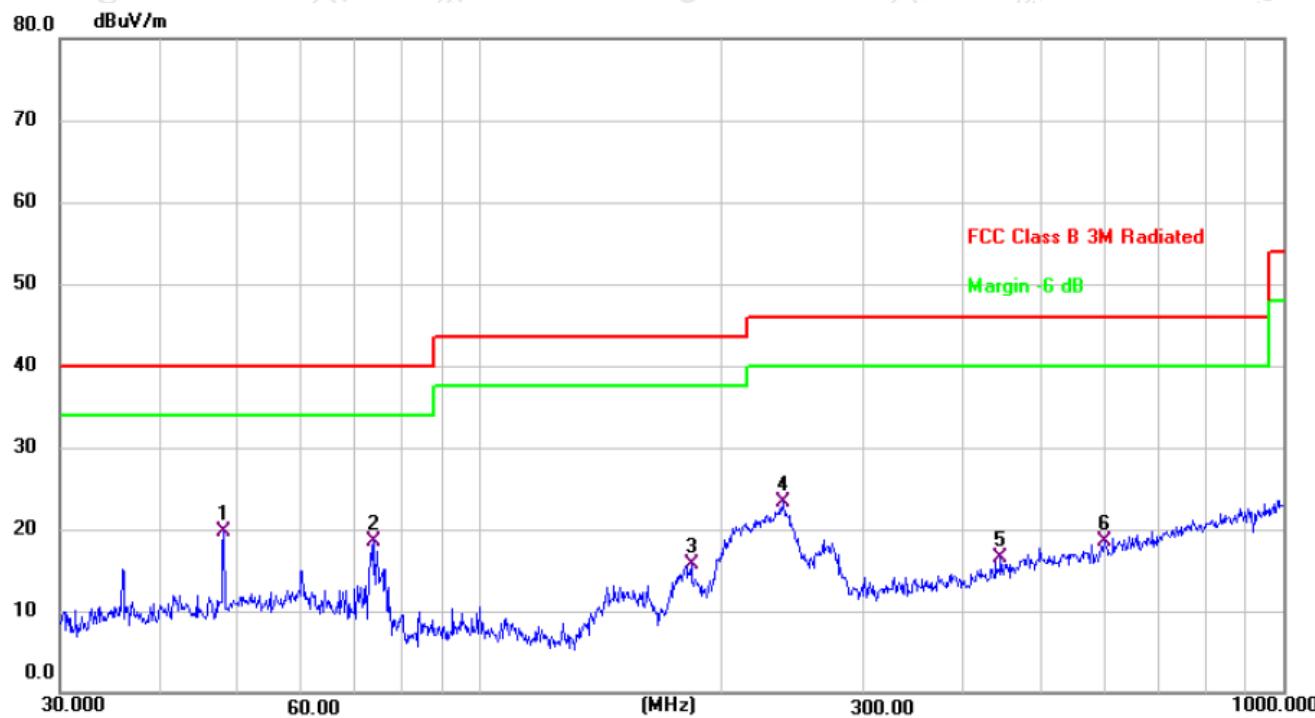
Remark:

Correct Factor=Cable loss+Antenna factor+Preamplifier

Measurement Level = Reading Level + Correct Factor; Margin = Measurement Level- Limit;

**Radiation Emission Test Data**

Temperature:	24.5°C	Relative Humidity:	54%
Pressure:	1009hPa	Polarization:	Vertical
Test Voltage:	DC 3.7V	Test Mode:	Mode 2



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Detector
		MHz	dBuV	dB	dBuV/m	dB/m	dB	
1	*	47.9940	31.14	-11.40	19.74	40.00	-20.26	QP
2		73.8756	34.26	-15.85	18.41	40.00	-21.59	QP
3		183.2005	29.87	-14.22	15.65	43.50	-27.85	QP
4		238.3102	34.75	-11.42	23.33	46.00	-22.67	QP
5		444.8514	23.77	-7.20	16.57	46.00	-29.43	QP
6		599.3212	23.30	-4.71	18.59	46.00	-27.41	QP

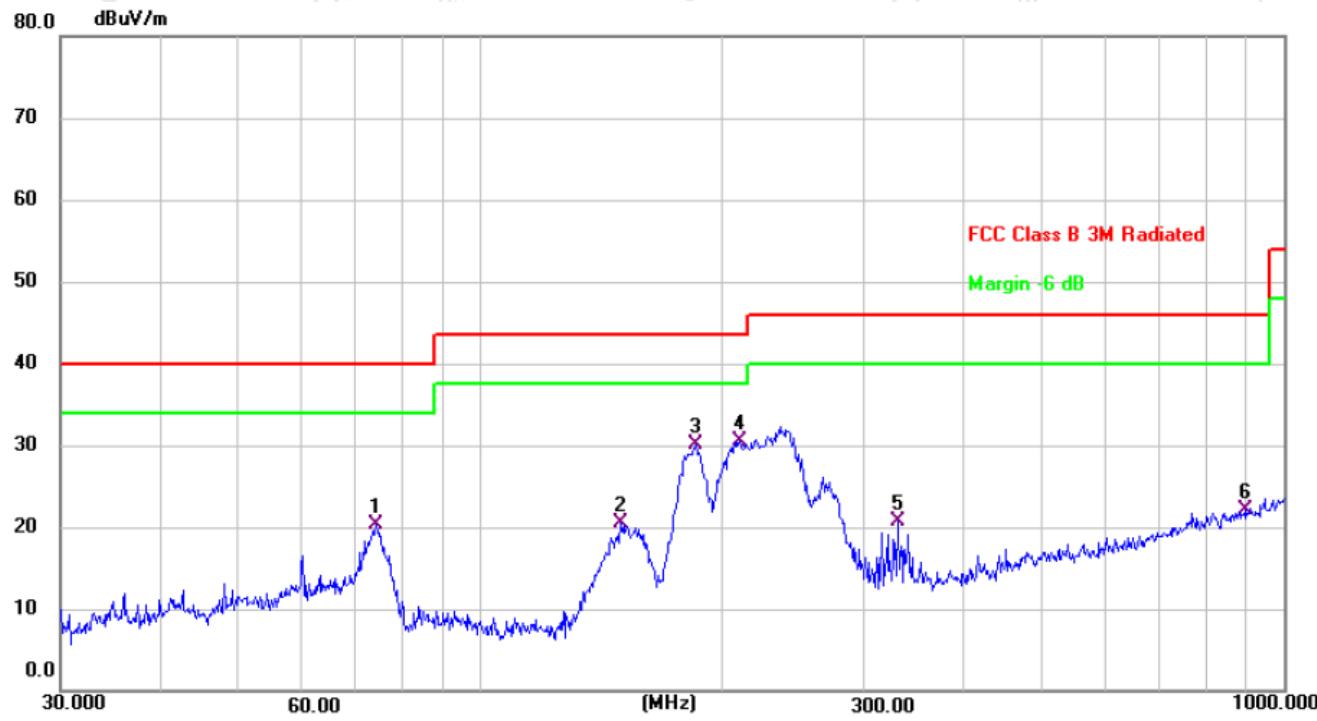
Remark:

Correct Factor=Cable loss+Antenna factor+Preamplifier

Measurement Level = Reading Level + Correct Factor; Margin = Measurement Level- Limit;



Radiation Emission Test Data			
Temperature:	24.5°C	Relative Humidity:	54%
Pressure:	1009hPa	Polarization:	Horizontal
Test Voltage:	DC 3.7V	Test Mode:	Mode 3



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin	Detector
		MHz	dBuV	dB	dBuV/m	dB/m	dB	
1		74.1351	35.21	-14.93	20.28	40.00	-19.72	QP
2		149.4857	36.72	-16.29	20.43	43.50	-23.07	QP
3		185.1379	44.31	-14.23	30.08	43.50	-13.42	QP
4	*	210.0482	43.51	-12.99	30.52	43.50	-12.98	QP
5		330.1949	30.90	-10.28	20.62	46.00	-25.38	QP
6		893.8567	23.28	-1.22	22.06	46.00	-23.94	QP

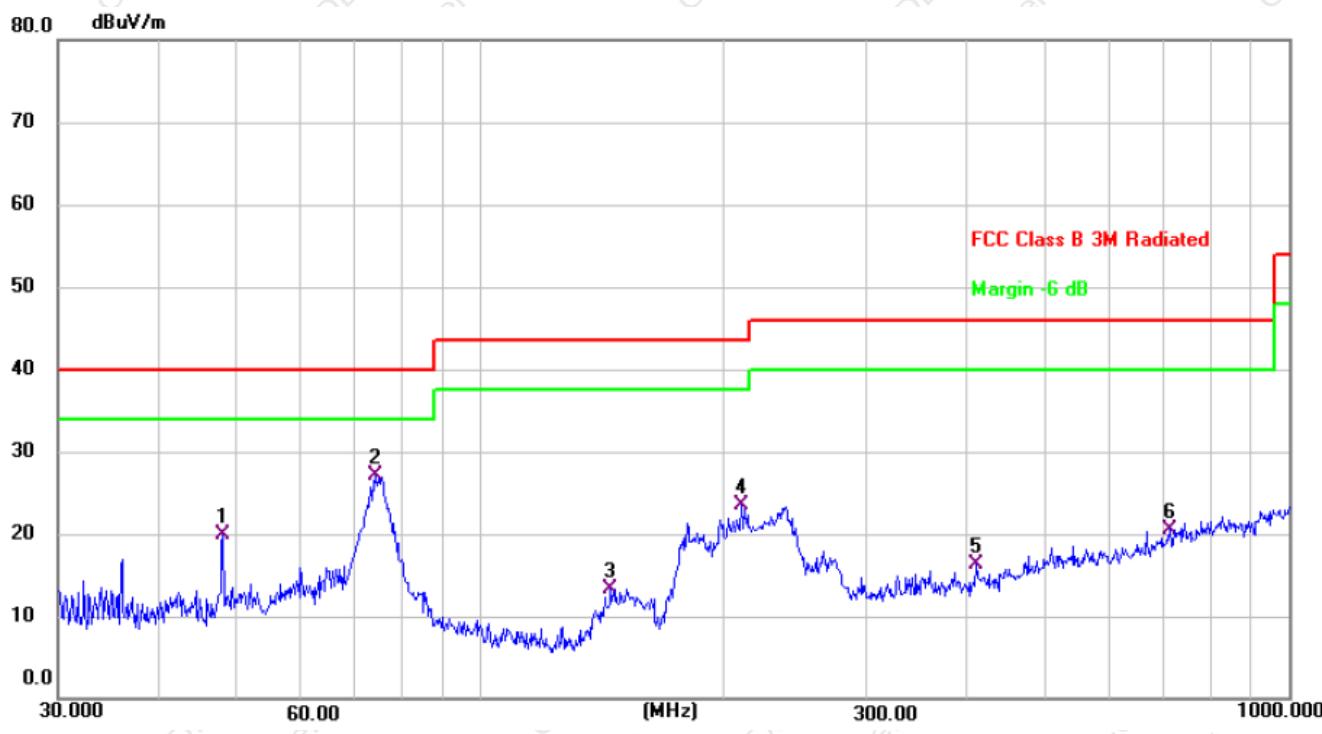
Remark:

Correct Factor=Cable loss+Antenna factor+Preamplifier

Measurement Level = Reading Level + Correct Factor; Margin = Measurement Level- Limit;



Radiation Emission Test Data			
Temperature:	24.5°C	Relative Humidity:	54%
Pressure:	1009hPa	Polarization:	Vertical
Test Voltage:	DC 3.7V	Test Mode:	Mode 3



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Margin
			Level	Factor	ment		
		MHz	dBuV	dB	dBuV/m	dB/m	dB
1		47.9940	31.26	-11.40	19.86	40.00	-20.14
2	*	74.1351	43.05	-15.91	27.14	40.00	-12.86
3		144.8418	29.57	-16.34	13.23	43.50	-30.27
4		210.0482	36.02	-12.59	23.43	43.50	-20.07
5		410.3825	24.30	-8.04	16.26	46.00	-29.74
6		711.6734	23.05	-2.45	20.60	46.00	-25.40

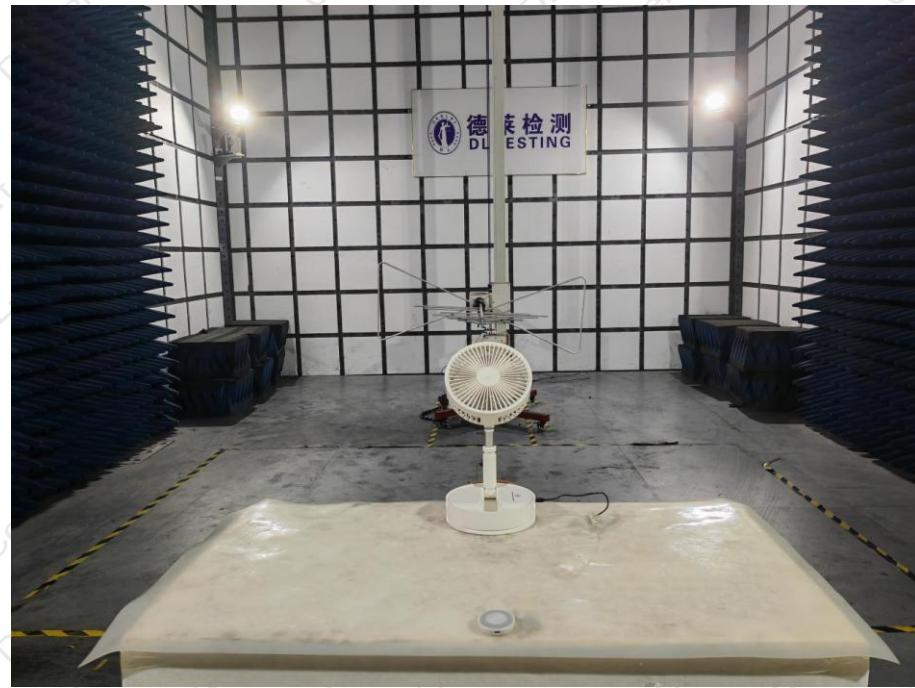
Remark:

Correct Factor=Cable loss+Antenna factor-Preamplifier

Measurement Level = Reading Level + Correct Factor; Margin = Measurement Level- Limit;

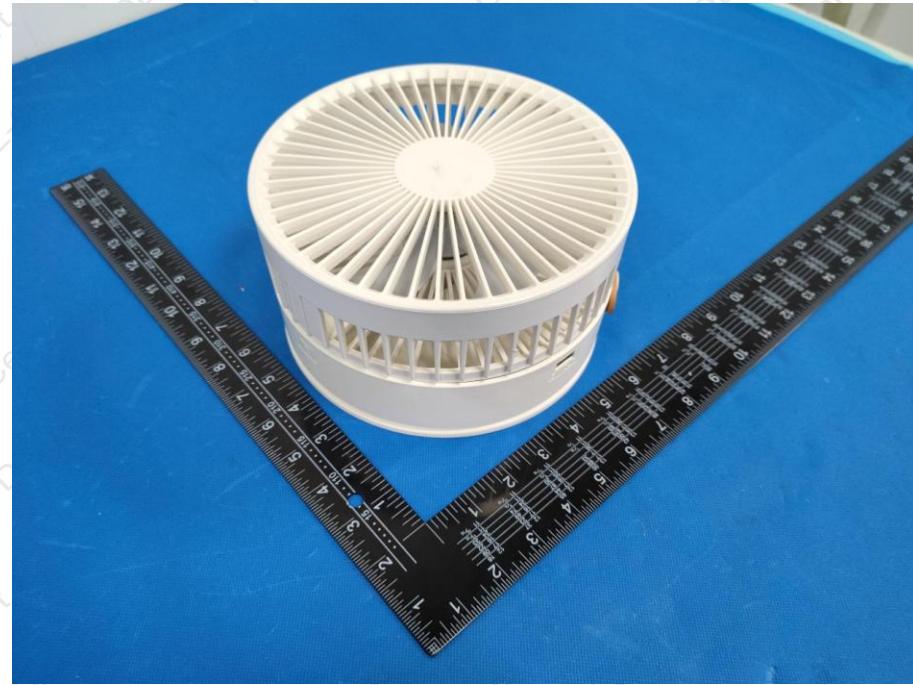


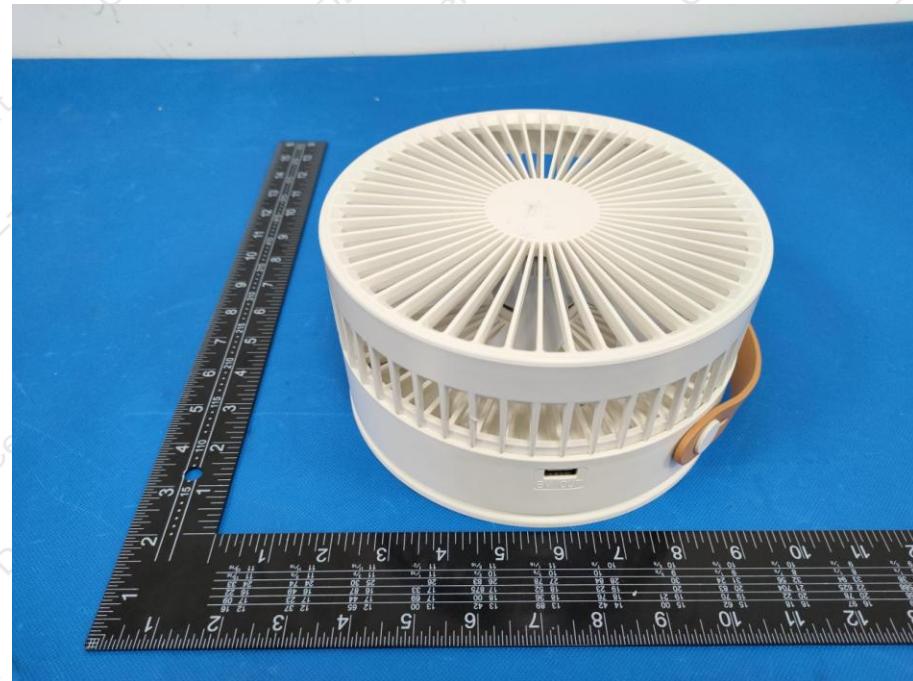
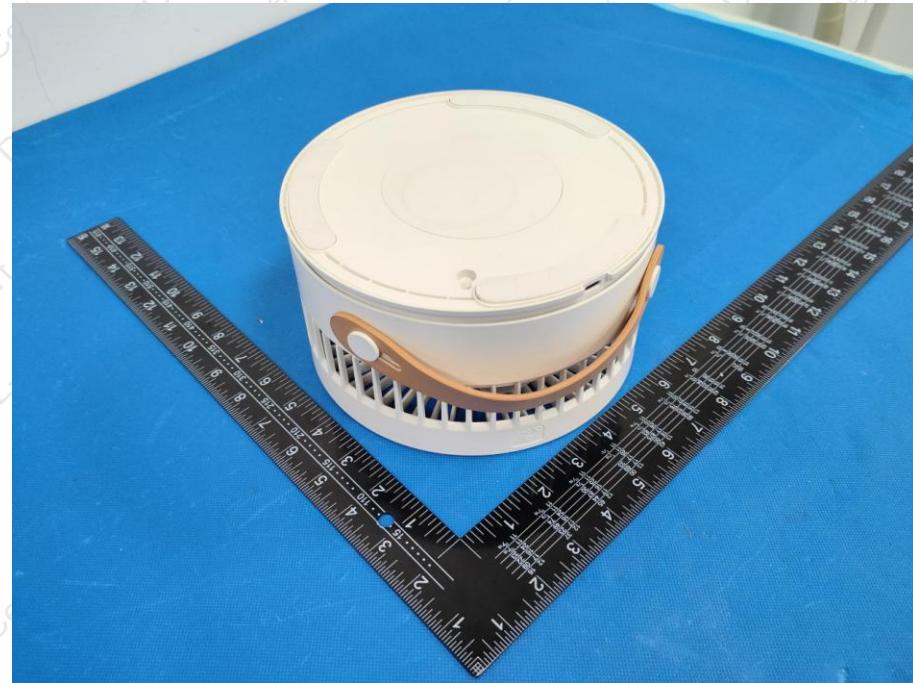
## 7. SETUP PHOTOGRAPHS

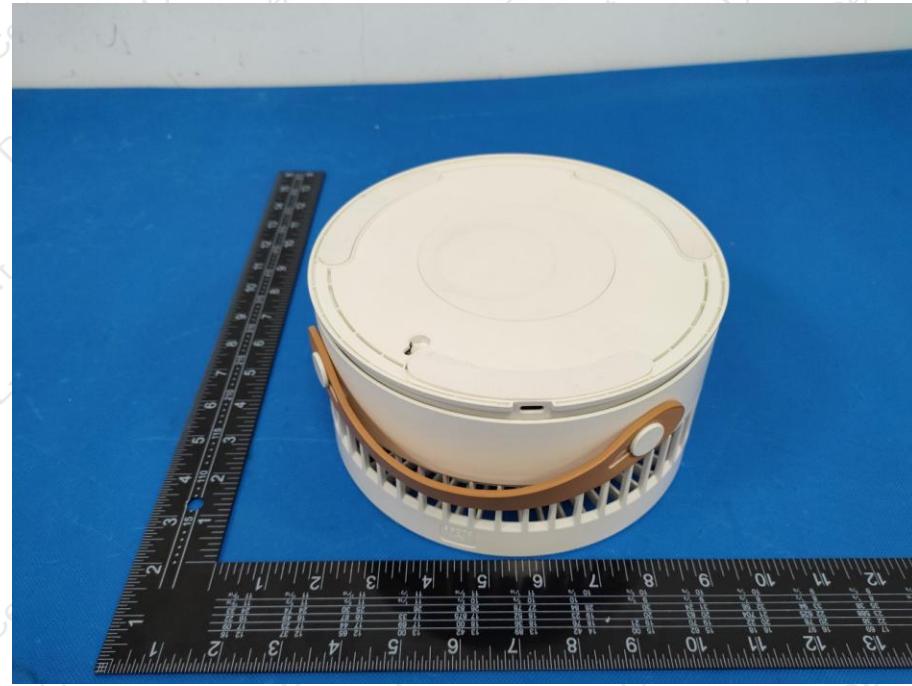


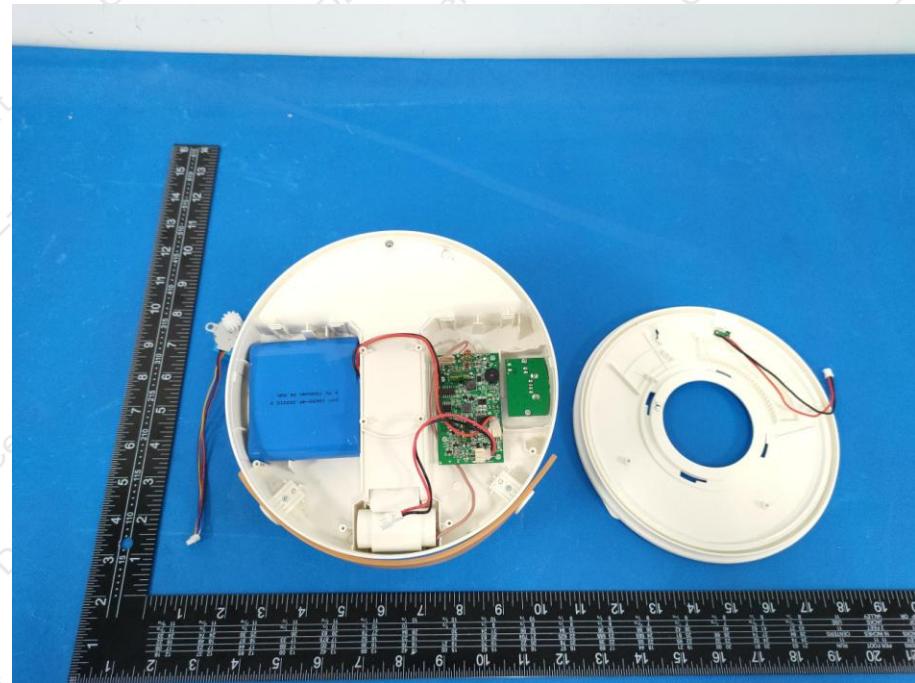
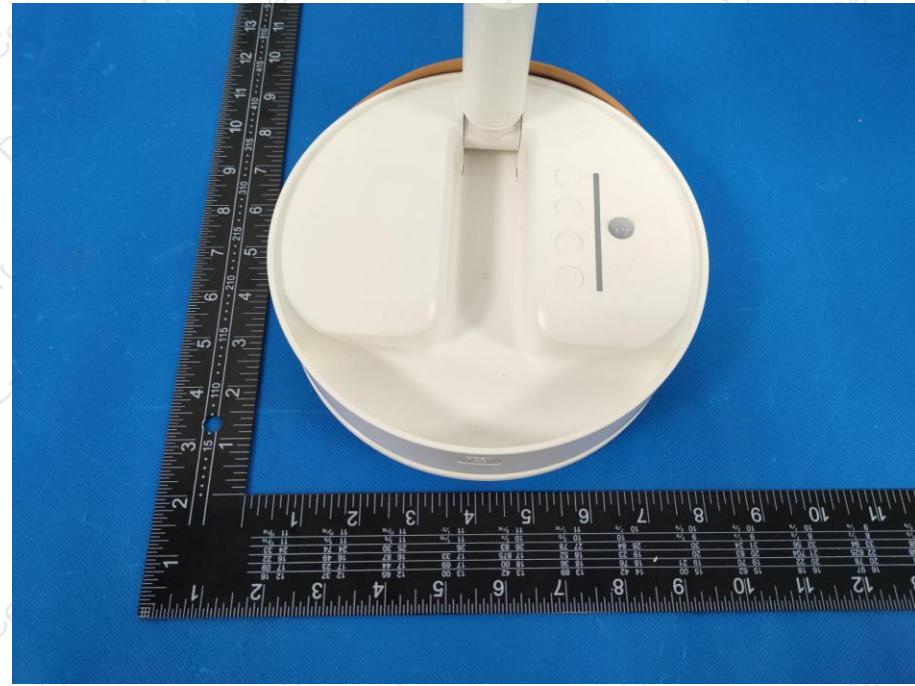


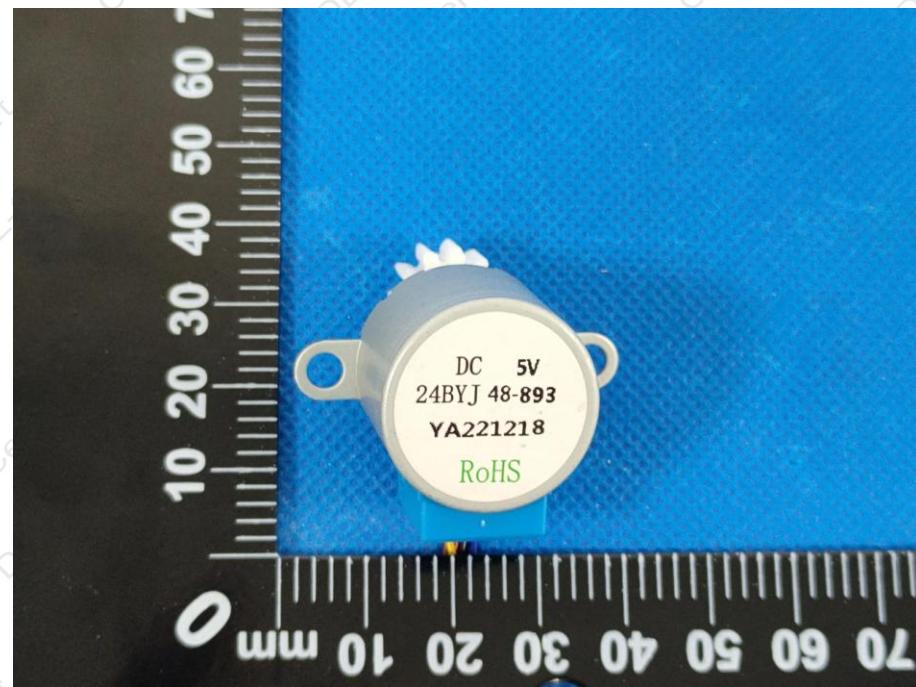
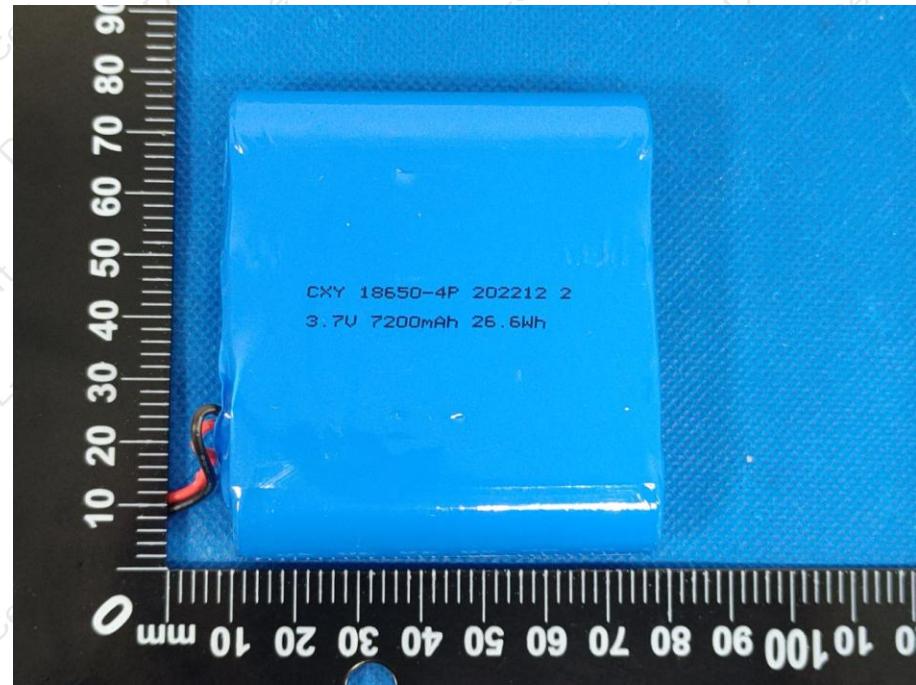
## 8. EUT PHOTOGRAPHS

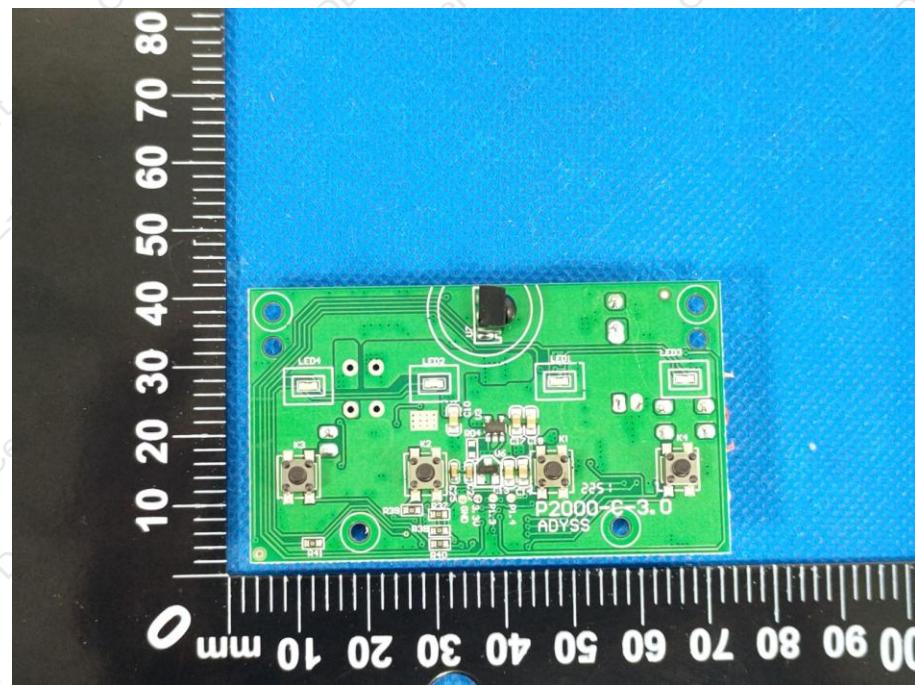
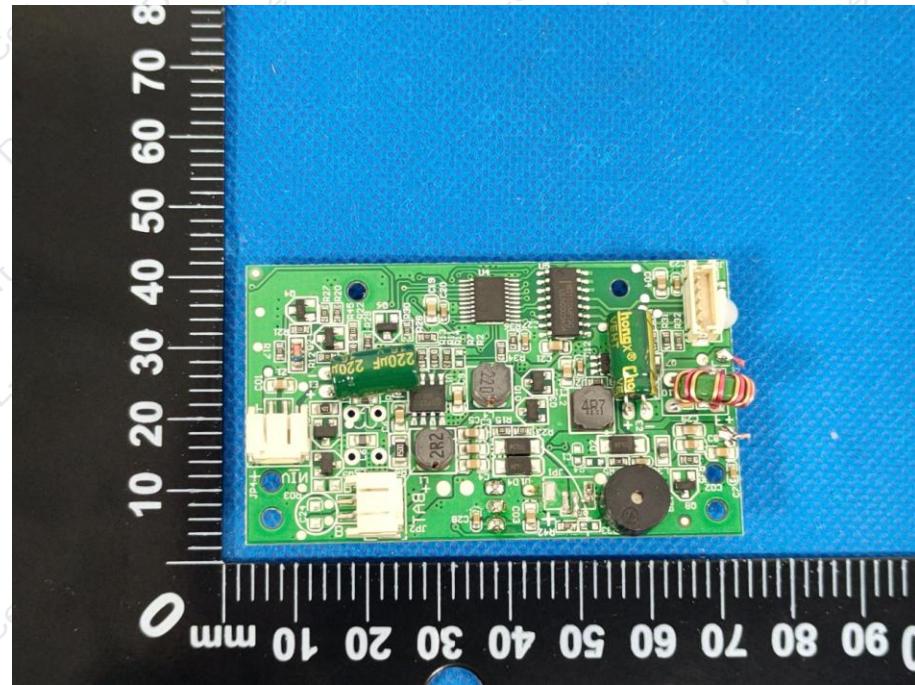


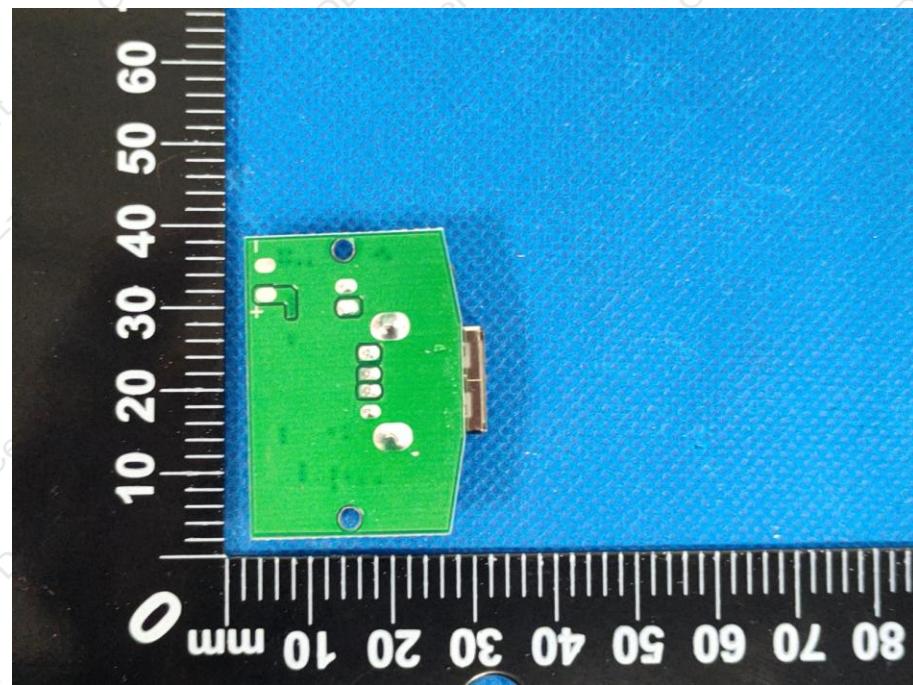
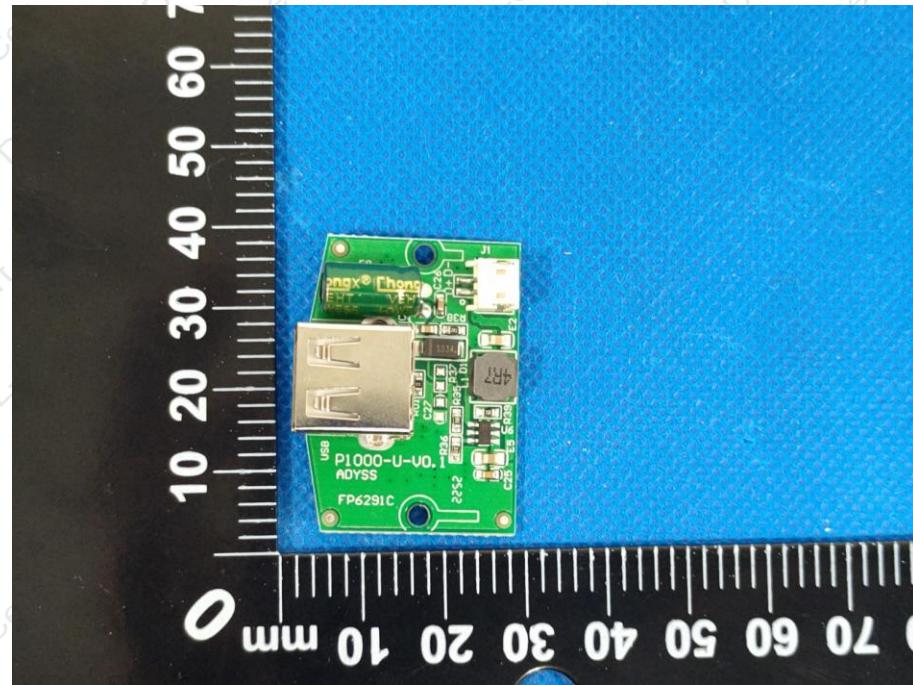


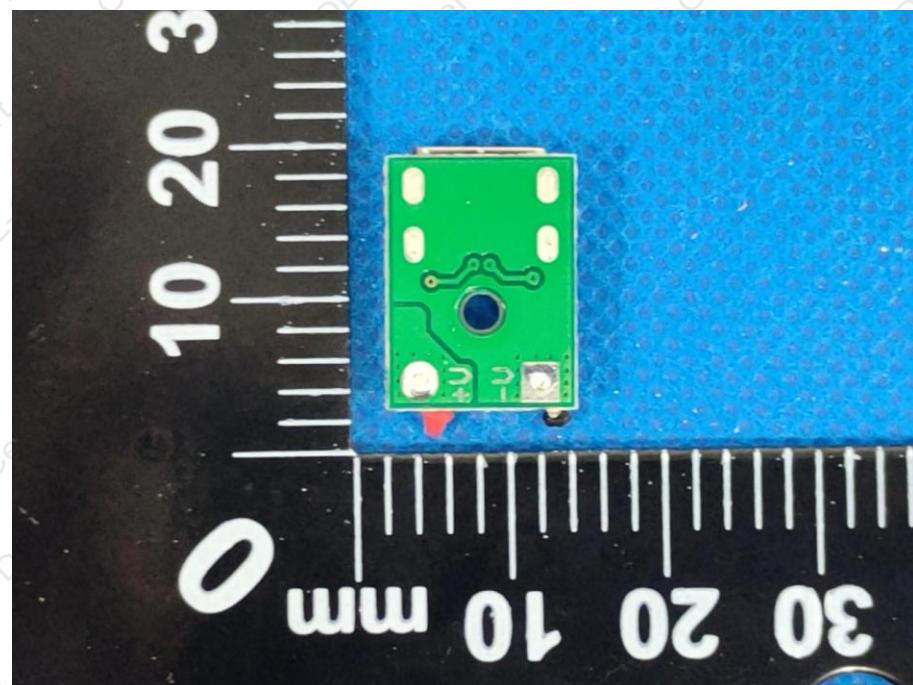
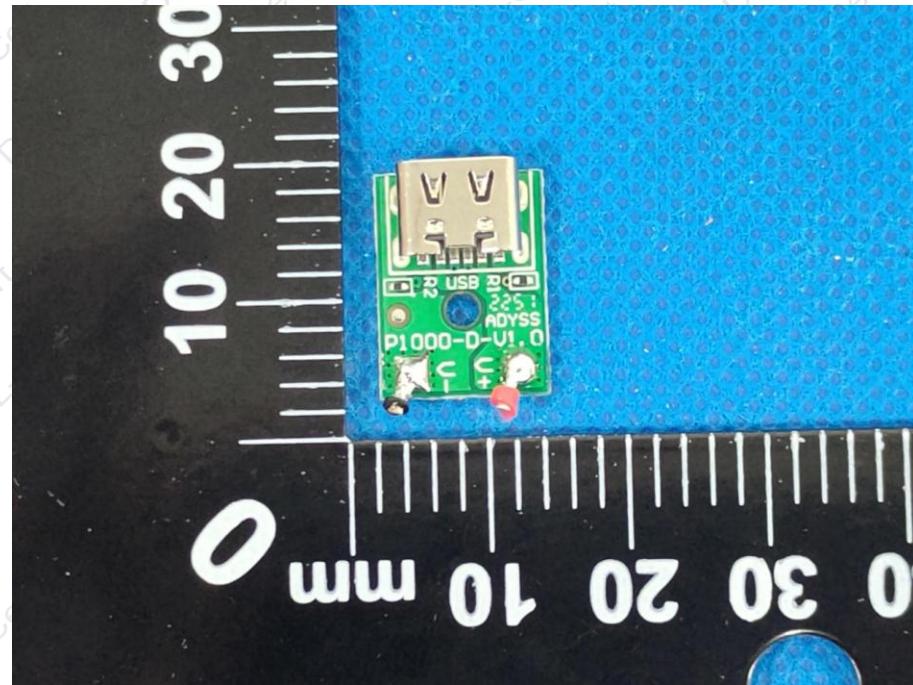


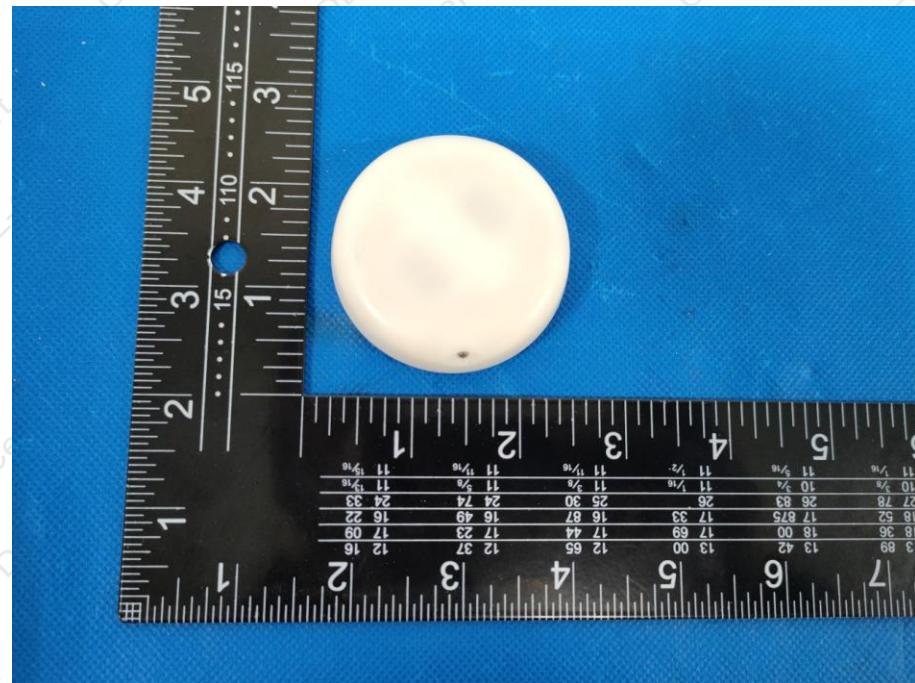
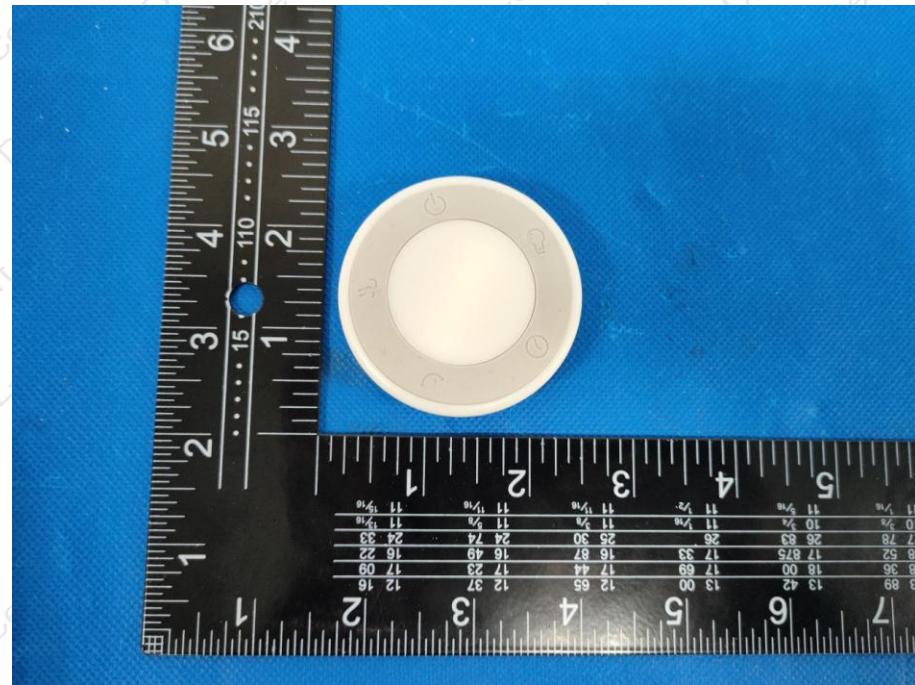












\*\*\*\*\* END OF REPORT \*\*\*\*\*



# Certificate of Conformity

Certificate Number: DL-20221230014C

**Applicant:** SHENZHEN HAOHUALIANHE TECHNOLOGY CO., LTD  
701, 801, Building 4, No.A3, 4th Industrial Park, Heshuikou Community,  
Gongming Street, Guangming District, Shenzhen

**Manufacturer:** SHENZHEN HAOHUALIANHE TECHNOLOGY CO., LTD  
701, 801, Building 4, No.A3, 4th Industrial Park, Heshuikou Community,  
Gongming Street, Guangming District, Shenzhen

**Product:** Folding Fan

**Trade Mark:** 叠品/ADYSS

**Model No.:** P1000

**Test Standard:** IEC62321-1:2013  
IEC62321-3-1:2013; IEC62321-4:2013+A1:2017; IEC62321-5:2013;  
IEC62321-6:2015; IEC62321-7-1:2015; IEC62321-7-2:2017; IEC62321-8:2017

The EUT described above has been consolidated by us and found in compliance with the council RoHS directive 2011/65/EU its amendment Directive EU 2015/863. It is possible to use RoHS marking to demonstrate the compliance with this RoHS Directive. It is only valid in connection with the test report number: DL-20221230014R.

# RoHS



This certificate of conformity is based on a single evaluation of the submitted sample(s) of the above mentioned product. It does not imply an assessment of the whole product and relevant. Without the written approval, It is not permitted to use the test lab's logo.

Shenzhen DL Testing Technology Co., Ltd.  
101-201, Building C, Shuanghuan, No.8, Baoqing Road, Baolong Industrial Zone, Baolong Street,  
Longgang District, Shenzhen, Guangdong, China

Web: [www.dl-cert.com](http://www.dl-cert.com) E-mail: [Service@dl-cert.com](mailto:Service@dl-cert.com) Tel: 400-688-3552





# TEST REPORT

Applicant: SHENZHEN HAOHUALIANHE TECHNOLOGY CO., LTD  
Address: 701, 801, Building 4, No.A3, 4th Industrail Park, Heshuikou Community, Gongming Street, Guangming District, Shenzhen  
Manufacturer: SHENZHEN HAOHUALIANHE TECHNOLOGY CO., LTD  
Address: 701, 801, Building 4, No.A3, 4th Industrial Park, Heshuikou Community, Gongming Street, Guangming District, Shenzhen  
Product Name: Folding Fan  
Trade Mark: 叠品/ADYSS  
Model Number: P1000  
Series Model No.: N/A  
Prepared By: Shenzhen DL Testing Technology Co., Ltd.  
Address: 101-201, Building C, Shuanghuan, No.8, Baoqing Road, Baolong Industrial Zone, Baolong Street, Longgang District, Shenzhen, Guangdong, China  
Date of Receipt: Dec.30, 2022  
Date of Test: Dec.30, 2022 - Feb.06, 2023  
Date of Report: Feb.06, 2023  
Test Requested: With reference to RoHS Directive (EU) 2015/863 amending 2011/65/EU.  
Test Standard: Please refer to next page(s).  
Test Results: Please refer to next page(s).

## Conclusion:

As requested by applicant, the submitted sample was were tested, with is listed as specimen description in the following page. the results of Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs) and Phthalates such as Bis(2-ethylhexyl) phthalate (DEHP) , Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP), and Diisobutyl phthalate (DIBP) comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

Prepared (Engineer): Cheney Wei  
Approved (Manager): Jade Yang



*This test report is based on a single evaluation of one sample of above mentioned products. It is not permitted to be duplicated in extracts without written approval of Shenzhen DL Testing Technology Co., Ltd.*

**Version**

Version No.	Date	Description
00	Feb.06, 2023	Original

**Remark:**

(1) There are the results on total Br while test items on restricted substances are PBBs and PBDEs. There are the results on total Cr while test items on restricted substances Cr(VI)

(2) Results are obtained by EDXRF for primary screening, and further chemical testing by ICP-OES (for Cd, Pb, Hg),UV-Vis (for Cr(VI) and GC-MS (for PBBs,PBDEs) is recommended to be performed, if the concentration exceeds the below warning value according to IEC 62321-3-1:2013 (unit:mg/kg)

Element	Polymer Materials	Metal Materials	Composite Materials
Cd	BL≤70-3σ<X<130+3σ≤OL	BL≤70-3σ<X<130+3σ≤OL	BL≤50-3σ<X<150+3σ≤OL
Pb	BL≤700-3σ<X<1300+3σ≤OL	BL≤700-3σ<X<1300+3σ≤OL	BL≤500-3σ<X<1500+3σ≤OL
Hg	BL≤700-3σ<X<1300+3σ≤OL	BL≤700-3σ<X<1300+3σ≤OL	BL≤500-3σ<X<1500+3σ≤OL
Br	BL≤300-3σ<X	----	BL≤250-3σ<X
Cr	BL≤700-3σ<X	BL≤700-3σ<X	BL≤500-3σ<X

(a) BL=Below Limit,OL=Over Limit, X=Inconclusive, LOD=Limit of Detection,---=Not regulated.

(b)The XRF screening test for RoHS elements- the reading may be different to actual content in the sample be of non-uniformity composition

**(3) Chemical Method**

- ① With reference to IEC 62321-5:2013,determination of Cadmium,Lead by ICP-OES.
- ② With reference to IEC 62321-4:2013+AMD1:2017 CSV, determination of Mercury by ICP-OES.
- ③ With reference to IEC 62321-7-1:2015▼ & IEC 62321-7-2:2017, determination of Hexavalent Chromium by Colorimetric method using UV-Vis.
- ④ With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.
- ⑤ With reference to IEC 62321-8:2017, determination of Phthalates by GC-MS.

(4) (a) mg/kg=0.0001%,MDL=MDL=Method Detection Limit,(c)ND=Not Detected(<MDL),  
---=Not Regulated

**(b) Unit and MDL in wet chemical test**

Test Item	Pb	Cd	Hg	DBP	BBP	DEHP	DIBP
Unit	mg/kg						
MDL	10	10	10	100	100	100	100

The MDL for single compound of PBBs and PBDEs is 100 mg/kg

MDL of Cr(VI) for polymer and composite sample is 10 mg/kg

MDL of Cr(VI) for metal sample is 0.10ug/cm<sup>2</sup>

**(c) ▼=Metal sample**

- a. The sample is negative for Cr<sup>6+</sup> if Cr<sup>6+</sup> is N.D. (below the limit 0.10ug/cm<sup>2</sup>). The coating is considered a non Cr<sup>6+</sup> based coating.
- b. The sample positive for Cr<sup>6+</sup> if the Cr<sup>6+</sup> concentration is greater than 0.13ug/cm<sup>2</sup>. The sample coating is considered to contain Cr<sup>6+</sup>.
- c. The result between 0.10ug/cm<sup>2</sup> and 0.13ug/cm<sup>2</sup> is considered to be inconclusive unavoidable coating variations may influence the determination.

**Tested Sample/Part Description:**

Specimen No.	Component Description(s)	Style
01	Orange leather	-
02	White plastic	-
03	White silicone	-
04	Grey plastic	-
05	Silver screw	-
06	Silver metal	-
07	Silver screw	-
08	Silver metal	-
09	Black magnet	-
10	Silver metal	-
11	Silver metal	-
12	Black plastic	-
13	Yellow metal conductor	-
14	IC	-
15	Patch resistance	-
16	Silver solder	-
17	Green PCB	-
18	Black element	-
19	Black plastic skin	-
20	Silver metal	-
21	White silicone	-
22	White plastic	-
23	Silver metal	-
24	Silver metal	-
25	Silver metal	-
26	Silver metal	-
27	Black plastic	-
28	Green PCB	-
29	Silver solder	-
30	Silver metal	-
31	White plastic	-



Specimen No.	Component Description(s)	Style
32	Green plastic skin	-
33	Silver metal	-
34	White plastic	-
35	Silver metal pin	-
36	Black ceramic inductor	-
37	IC	-
38	Silver solder	-
39	Green PCB	-
40	Glass diode	-
41	Patch resistance	-
42	Patch capacitance	-
43	IC	-
44	IC	-
45	Yellow metal conductor	-
46	Red metal conductor	-
47	Green ceramics	-
48	Black plastic	-
49	Grey element	-
50	Black diode	-
51	Black ceramic inductor	-
52	Green PCB	-
53	Silver solder	-
54	Silver metal	-
55	Black plastic	-
56	White plastic terminal	-
57	Red rubber wire leather	-
58	Black rubber wire leather	-
59	Silver metal conductor	-
60	Blue plastic	-
61	Silver metal	-
62	White plastic terminal	-
63	Blue rubber wire leather	-



Specimen No.	Component Description(s)	Style
64	Brown rubber wire leather	-
65	Yellow rubber wire leather	-
66	Black rubber wire leather	-
67	Red rubber wire leather	-
68	Silver metal conductor	-
69	Gray silicone	-
70	White plastic	-
71	Black magnet	-
72	Black sponge adhesive	-
73	Silver metal	-
74	Black plastic	-
75	White plastic skin	-
76	Silver metal	-
77	Yellow plastic flash lamp	-
78	IC	-
79	Clear plastic flash lamp	-
80	White PCB	-
81	Silver solder	-
82	IC	-
83	Silver metal	-
84	White silicone	-
85	White plastic	-
86	Yellow metal pins	-
87	White rubber skin	-
88	Brown rubber wire leather	-
89	Red rubber wire leather	-
90	Yellow metal conductor	-
91	White silicone	-
92	Silver metal	-
93	Black plastic	-
94	Silver metal	-
95	Silver solder	-



Specimen No.	Component Description(s)	Style
96	Red PCB	-
97	Black sponge	-
98	Blue plastic	-

**Test Results:**

The results of XRF screening and chemical test (Unit: mg/kg)

Part No.	Element	X-ray Screening	Results of chemical test	Conclusion on RoHS EU	Sample Resubmitted
01	Pb	BL	---	Pass	Feb.06,2023
	Cd	BL	---		
	Hg	BL	---		
	Cr(Cr <sup>6+</sup> )	BL	---		
	Br(PBBs&PBDEs)	BL	---		
	DBP,BBP,DEHP,DIBP	---	N.D.		
02	Pb	BL	---	Pass	/
	Cd	BL	---		
	Hg	BL	---		
	Cr(Cr <sup>6+</sup> )	BL	---		
	Br(PBBs&PBDEs)	BL	---		
	DBP,BBP,DEHP,DIBP	---	N.D.		
03	Pb	BL	---	Pass	/
	Cd	BL	---		
	Hg	BL	---		
	Cr(Cr <sup>6+</sup> )	BL	---		
	Br(PBBs&PBDEs)	BL	---		
	DBP,BBP,DEHP,DIBP	---	N.D.		
04	Pb	BL	---	Pass	/
	Cd	BL	---		
	Hg	BL	---		
	Cr(Cr <sup>6+</sup> )	BL	---		
	Br(PBBs&PBDEs)	BL	---		
	DBP,BBP,DEHP,DIBP	---	N.D.		
05	Pb	BL	---	Pass	/
	Cd	BL	---		
	Hg	BL	---		
	Cr(Cr <sup>6+</sup> )	BL	---		
	Br(PBBs&PBDEs)	---	---		
	DBP,BBP,DEHP,DIBP	---	---		
06	Pb	BL	---	Pass	/
	Cd	BL	---		
	Hg	BL	---		
	Cr(Cr <sup>6+</sup> )	OL	N.D.		
	Br(PBBs&PBDEs)	---	---		
	DBP,BBP,DEHP,DIBP	---	---		
07	Pb	BL	---	Pass	/
	Cd	BL	---		
	Hg	BL	---		
	Cr(Cr <sup>6+</sup> )	OL	N.D.		
	Br(PBBs&PBDEs)	---	---		
	DBP,BBP,DEHP,DIBP	---	---		



Part No.	Element	X-ray Screening	Results of chemical test	Conclusion on RoHS EU	Sample Resubmitted
08	Pb	BL	---	Pass	/
	Cd		---		
	Hg		---		
	Cr(Cr <sup>6+</sup> )		---		
	Br(PBBs&PBDEs)	---	---		
	DBP, BBP, DEHP, DIBP	---	---		
09	Pb	BL	---	Pass	/
	Cd		---		
	Hg		---		
	Cr(Cr <sup>6+</sup> )		N.D.		
	Br(PBBs&PBDEs)	---	---		
	DBP, BBP, DEHP, DIBP	---	---		
10	Pb	BL	---	Pass	/
	Cd		---		
	Hg		---		
	Cr(Cr <sup>6+</sup> )		N.D.		
	Br(PBBs&PBDEs)	---	---		
	DBP, BBP, DEHP, DIBP	---	---		
11	Pb	BL	---	Pass	/
	Cd		---		
	Hg		---		
	Cr(Cr <sup>6+</sup> )		N.D.		
	Br(PBBs&PBDEs)	---	---		
	DBP, BBP, DEHP, DIBP	---	---		
12	Pb	BL	---	Pass	/
	Cd		---		
	Hg		---		
	Cr(Cr <sup>6+</sup> )		---		
	Br(PBBs&PBDEs)	BL	---		
	DBP, BBP, DEHP, DIBP	---	N.D.		
13	Pb	BL	---	Pass	/
	Cd		---		
	Hg		---		
	Cr(Cr <sup>6+</sup> )		---		
	Br(PBBs&PBDEs)	---	---		
	DBP, BBP, DEHP, DIBP	---	---		
14	Pb	BL	---	Pass	/
	Cd		---		
	Hg		---		
	Cr(Cr <sup>6+</sup> )		---		
	Br(PBBs&PBDEs)	BL	---		
	DBP, BBP, DEHP, DIBP	---	N.D.		



Part No.	Element	X-ray Screening	Results of chemical test	Conclusion on RoHS EU	Sample Resubmitted
15	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
16	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		---		
17	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
18	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
19	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
20	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		---		
21	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		



Part No.	Element	X-ray Screening	Results of chemical test	Conclusion on RoHS EU	Sample Resubmitted		
22	Pb	BL	---	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )						
	Br(PBBs&PBDEs)						
	DBP,BBP,DEHP,DIBP		N.D.				
23	Pb	BL	---	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )						
	Br(PBBs&PBDEs)						
	DBP,BBP,DEHP,DIBP						
24	Pb	BL	---	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )		N.D.				
	Br(PBBs&PBDEs)						
	DBP,BBP,DEHP,DIBP						
25	Pb	BL	---	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )						
	Br(PBBs&PBDEs)						
	DBP,BBP,DEHP,DIBP						
26	Pb	BL	---	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )						
	Br(PBBs&PBDEs)						
	DBP,BBP,DEHP,DIBP						
27	Pb	BL	---	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )						
	Br(PBBs&PBDEs)		N.D.				
	DBP,BBP,DEHP,DIBP						
28	Pb	BL	---	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )						
	Br(PBBs&PBDEs)						
	DBP,BBP,DEHP,DIBP		N.D.				



Part No.	Element	X-ray Screening	Results of chemical test	Conclusion on RoHS EU	Sample Resubmitted		
29	Pb	BL	---	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )						
	Br(PBBs&PBDEs)	---	---				
	DBP,BBP,DEHP,DIBP						
30	Pb	BL	---	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )						
	Br(PBBs&PBDEs)	---	---				
	DBP,BBP,DEHP,DIBP						
31	Pb	BL	---	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )						
	Br(PBBs&PBDEs)	BL	---				
	DBP,BBP,DEHP,DIBP						
32	Pb	BL	---	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )						
	Br(PBBs&PBDEs)	BL	---				
	DBP,BBP,DEHP,DIBP						
33	Pb	BL	---	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )						
	Br(PBBs&PBDEs)	---	---				
	DBP,BBP,DEHP,DIBP						
34	Pb	BL	---	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )						
	Br(PBBs&PBDEs)	BL	---				
	DBP,BBP,DEHP,DIBP						
35	Pb	BL	---	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )						
	Br(PBBs&PBDEs)	---	---				
	DBP,BBP,DEHP,DIBP						



Part No.	Element	X-ray Screening	Results of chemical test	Conclusion on RoHS EU	Sample Resubmitted		
36	Pb	BL	---	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )						
	Br(PBBs&PBDEs)						
	DBP,BBP,DEHP,DIBP		N.D.				
37	Pb	BL	---	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )						
	Br(PBBs&PBDEs)						
	DBP,BBP,DEHP,DIBP		N.D.				
38	Pb	BL	---	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )						
	Br(PBBs&PBDEs)						
	DBP,BBP,DEHP,DIBP						
39	Pb	BL	---	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )						
	Br(PBBs&PBDEs)		N.D.				
	DBP,BBP,DEHP,DIBP						
40	Pb	OL	^2.6x10 <sup>5</sup>	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )						
	Br(PBBs&PBDEs)						
	DBP,BBP,DEHP,DIBP		N.D.				
41	Pb	BL	---	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )						
	Br(PBBs&PBDEs)						
	DBP,BBP,DEHP,DIBP		N.D.				
42	Pb	BL	---	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )						
	Br(PBBs&PBDEs)						
	DBP,BBP,DEHP,DIBP		N.D.				



Part No.	Element	X-ray Screening	Results of chemical test	Conclusion on RoHS EU	Sample Resubmitted
43	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
44	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
45	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP				
46	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP				
47	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
48	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
49	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		



Part No.	Element	X-ray Screening	Results of chemical test	Conclusion on RoHS EU	Sample Resubmitted
50	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
51	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
52	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
53	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		---		
54	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		---		
55	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
56	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		



Part No.	Element	X-ray Screening	Results of chemical test	Conclusion on RoHS EU	Sample Resubmitted
57	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
58	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
59	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP				
60	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
61	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP				
62	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
63	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		



Part No.	Element	X-ray Screening	Results of chemical test	Conclusion on RoHS EU	Sample Resubmitted
64	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
65	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
66	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
67	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
68	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		---		
69	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
70	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		



Part No.	Element	X-ray Screening	Results of chemical test	Conclusion on RoHS EU	Sample Resubmitted		
71	Pb	BL	---	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )						
	Br(PBBs&PBDEs)	---	---				
	DBP, BBP, DEHP, DIBP						
72	Pb	BL	---	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )						
	Br(PBBs&PBDEs)	BL	---				
	DBP, BBP, DEHP, DIBP						
73	Pb	BL	---	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )						
	Br(PBBs&PBDEs)	---	---				
	DBP, BBP, DEHP, DIBP						
74	Pb	BL	---	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )						
	Br(PBBs&PBDEs)	BL	---				
	DBP, BBP, DEHP, DIBP						
75	Pb	BL	---	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )						
	Br(PBBs&PBDEs)	BL	---				
	DBP, BBP, DEHP, DIBP						
76	Pb	BL	---	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )						
	Br(PBBs&PBDEs)	---	---				
	DBP, BBP, DEHP, DIBP						
77	Pb	BL	---	Pass	/		
	Cd						
	Hg						
	Cr(Cr <sup>6+</sup> )						
	Br(PBBs&PBDEs)	BL	---				
	DBP, BBP, DEHP, DIBP						



Part No.	Element	X-ray Screening	Results of chemical test	Conclusion on RoHS EU	Sample Resubmitted
78	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
79	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
80	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)		N.D.		
	DBP,BBP,DEHP,DIBP		N.D.		
81	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP				
82	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
83	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP				
84	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		



Part No.	Element	X-ray Screening	Results of chemical test	Conclusion on RoHS EU	Sample Resubmitted
85	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
86	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		---		
87	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
88	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
89	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		
90	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		---		
91	Pb	BL	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP		N.D.		



Part No.	Element	X-ray Screening	Results of chemical test	Conclusion on RoHS EU	Sample Resubmitted
92	Pb	BL BL BL OL ---	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP				
93	Pb	BL BL BL BL BL ---	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP				
94	Pb	BL BL BL OL ---	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP				
95	Pb	BL BL BL BL ---	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP				
96	Pb	BL BL BL BL OL ---	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP				
97	Pb	BL BL BL BL BL ---	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP				
98	Pb	BL BL BL BL BL ---	---	Pass	/
	Cd				
	Hg				
	Cr(Cr <sup>6+</sup> )				
	Br(PBBs&PBDEs)				
	DBP,BBP,DEHP,DIBP				

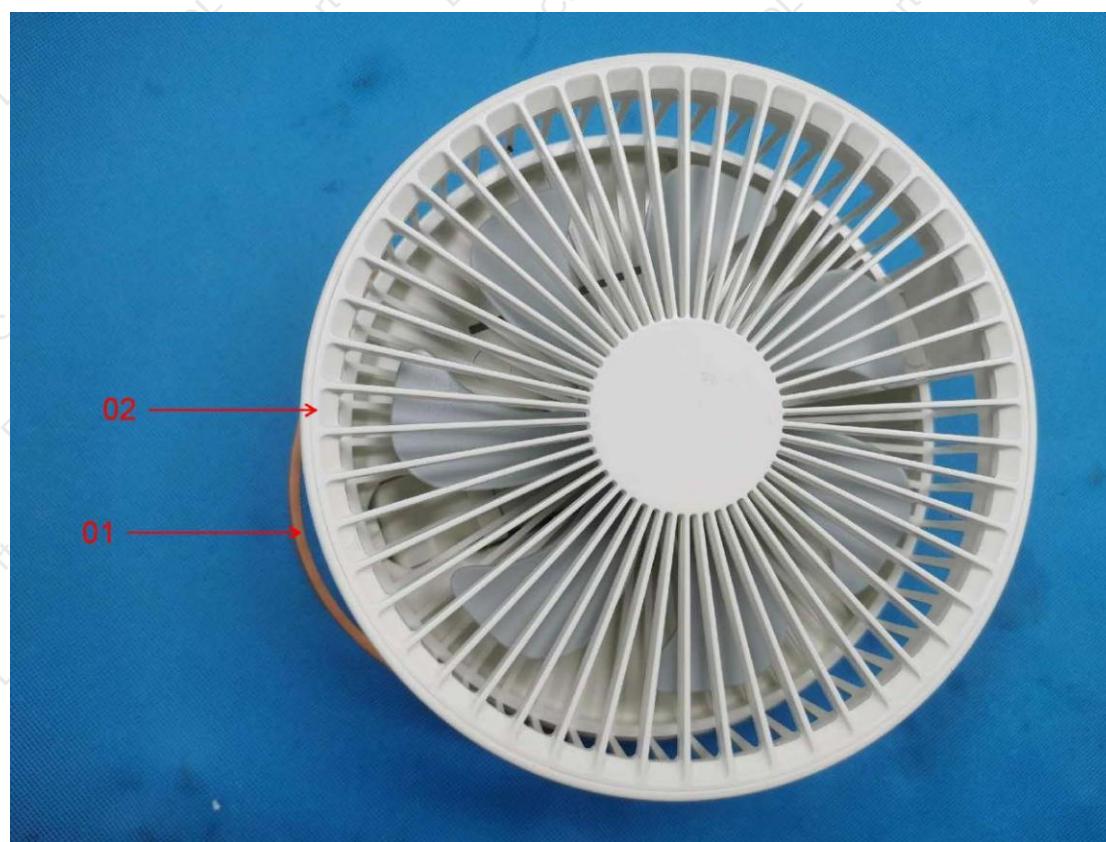
**Remark:**

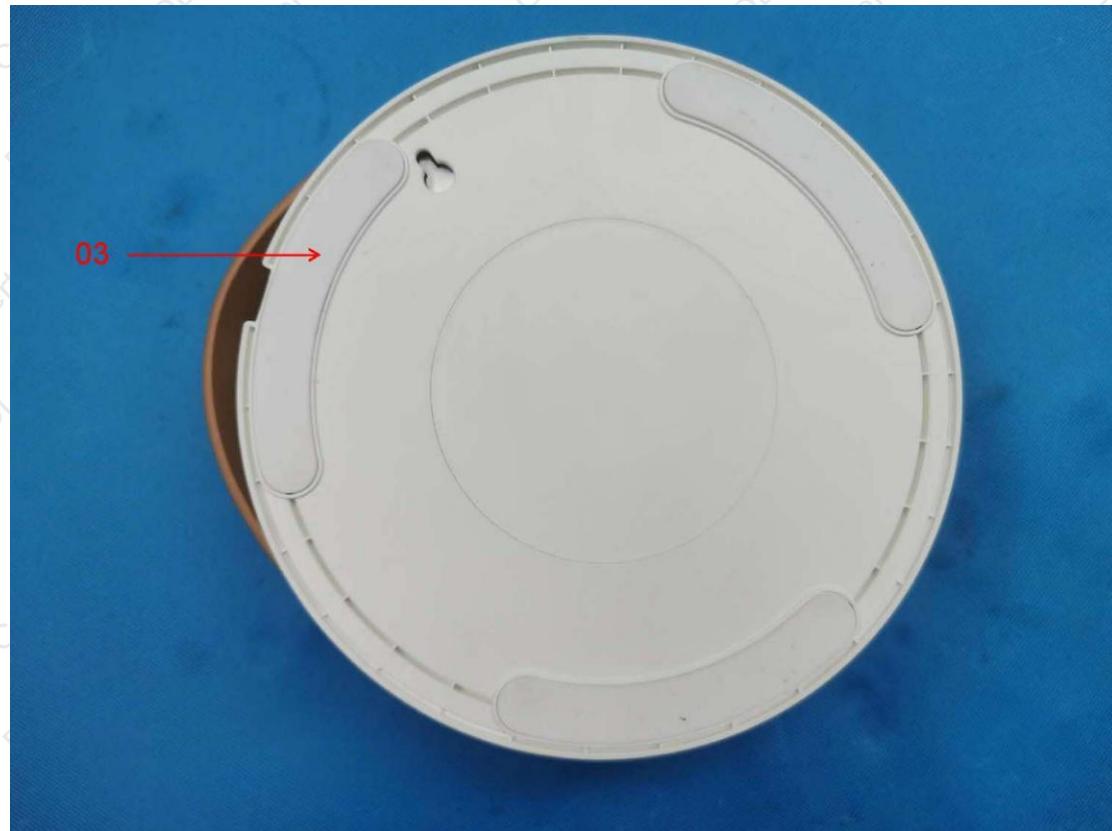
(1) <sup>&</sup>=Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectric devices, or in a glass or ceramic matrix compound.

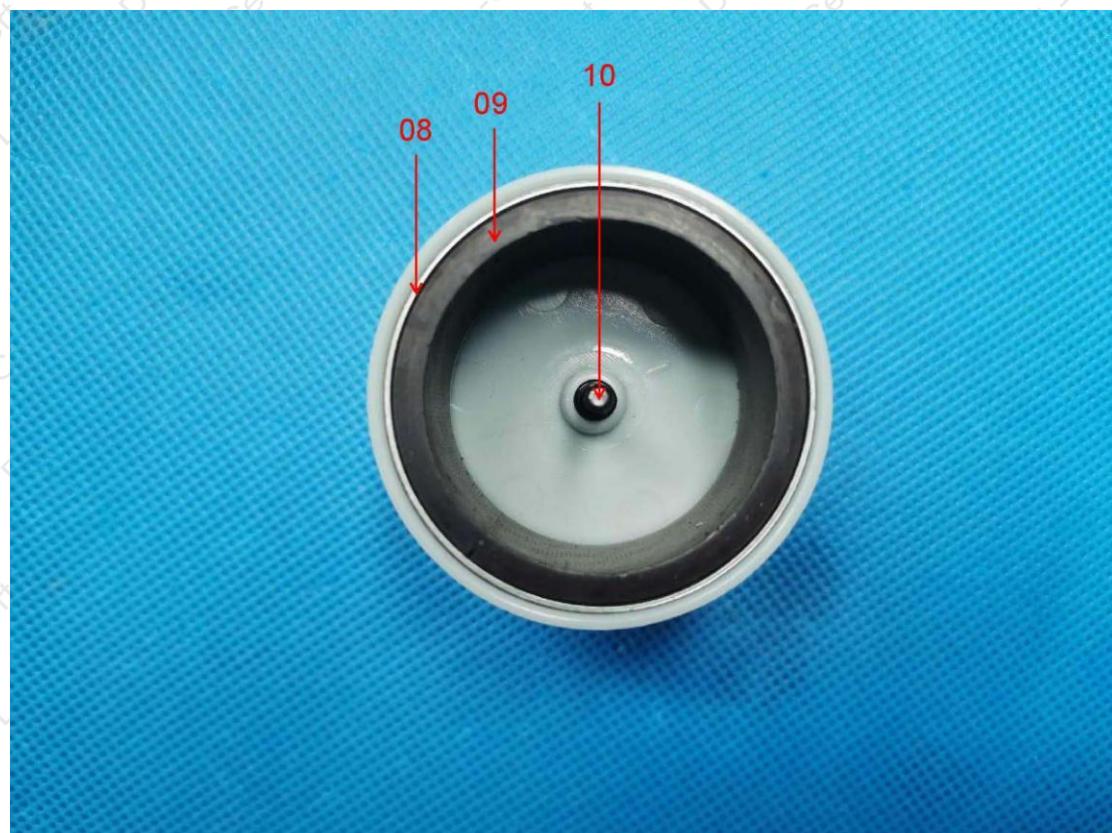
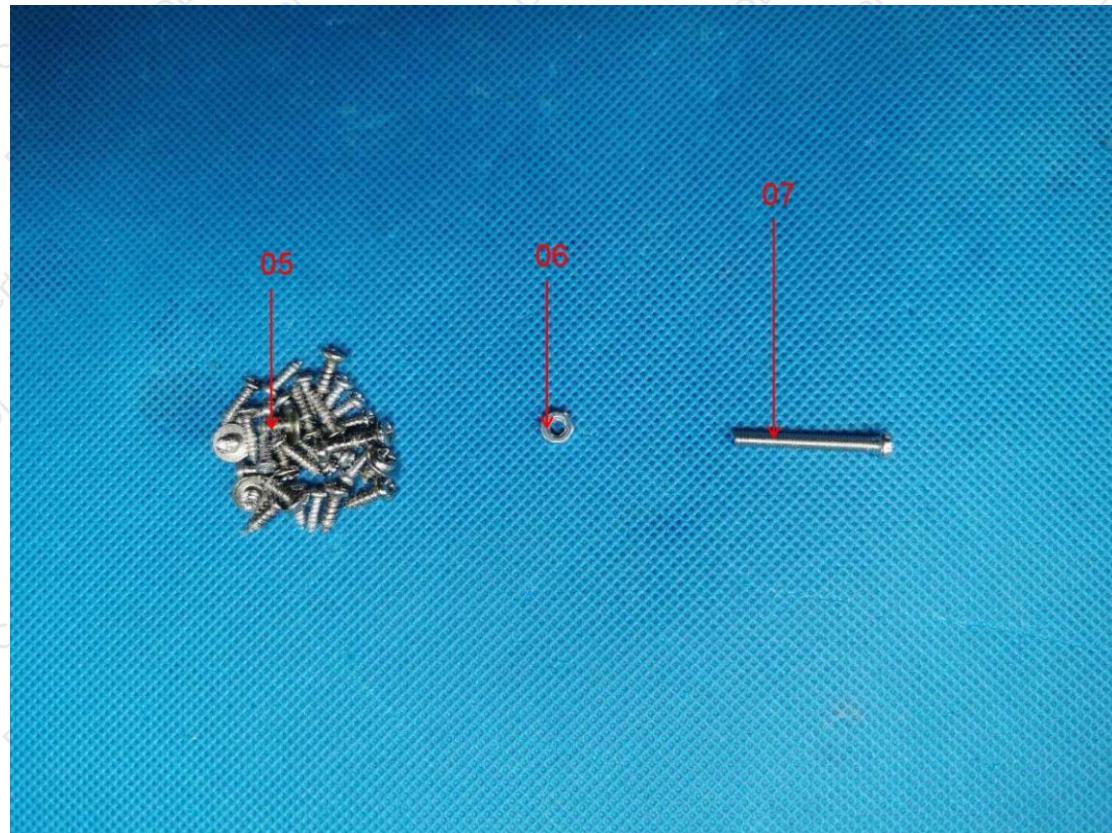
The item is exempted from the requirements of the item 7(c)-I in ANNEX III, (Directive 2011/65/EU).

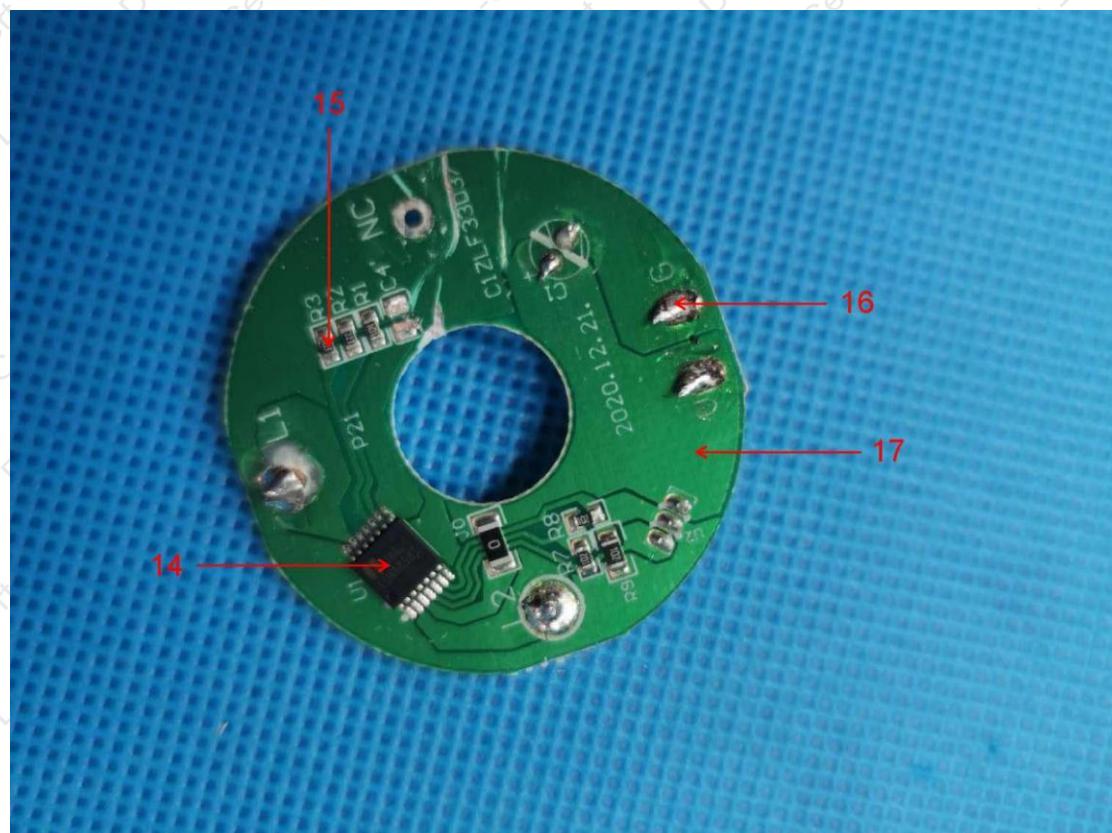
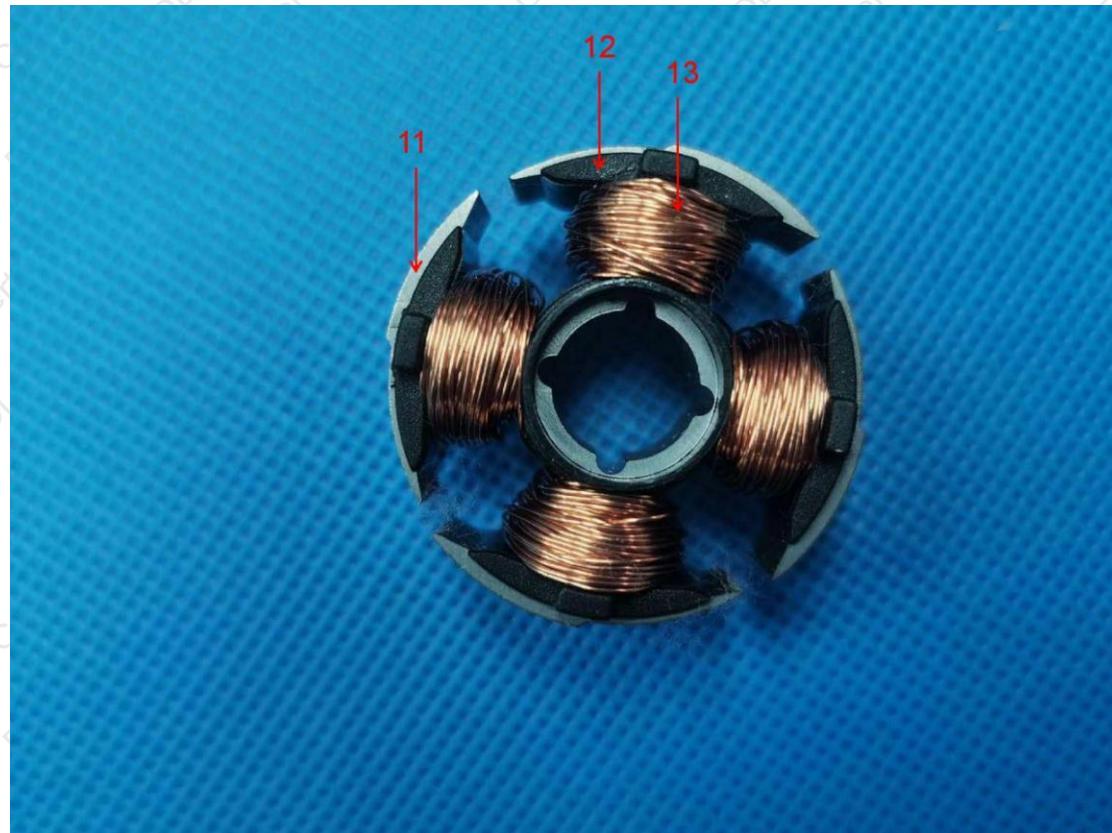


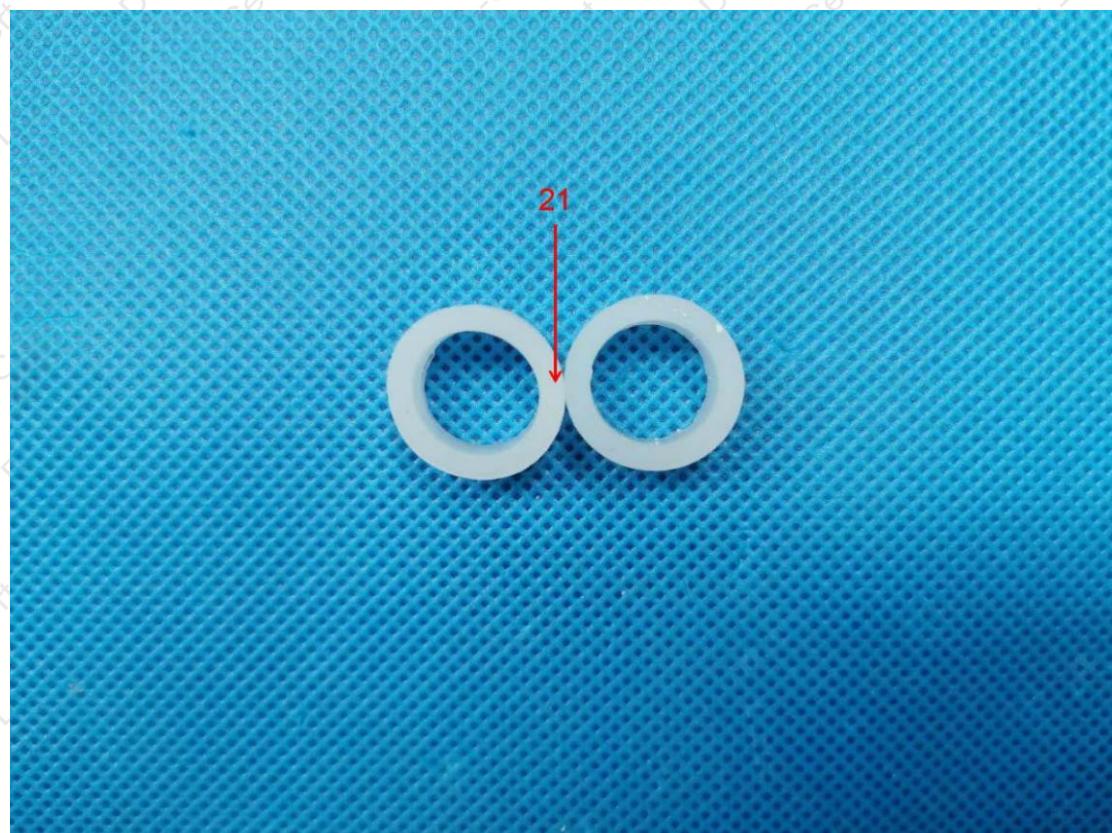
## EUT PHOTOGRAPHS

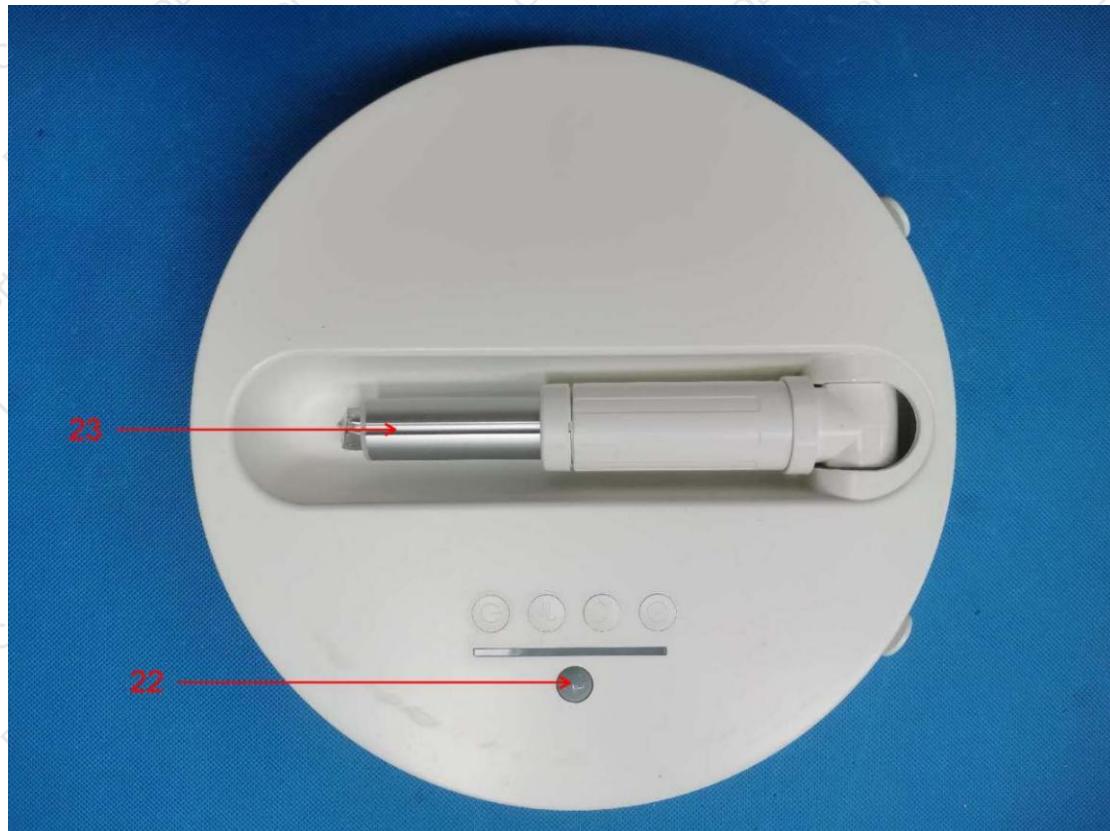


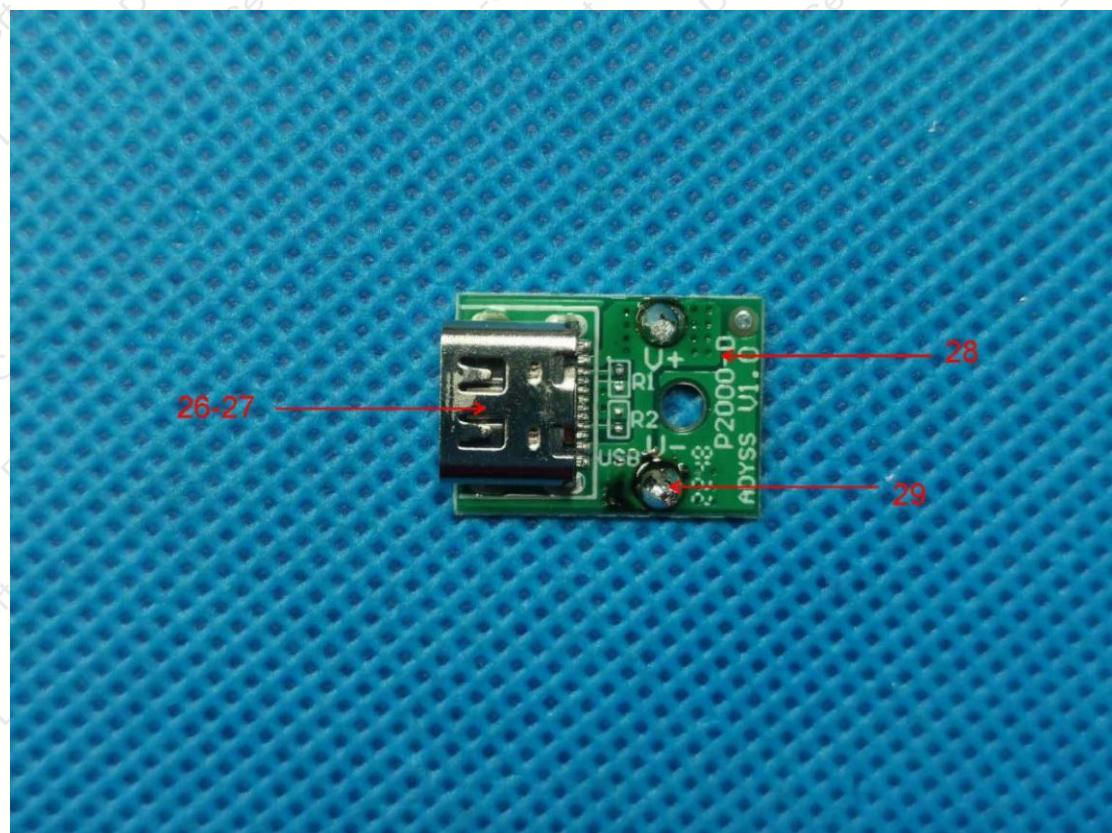
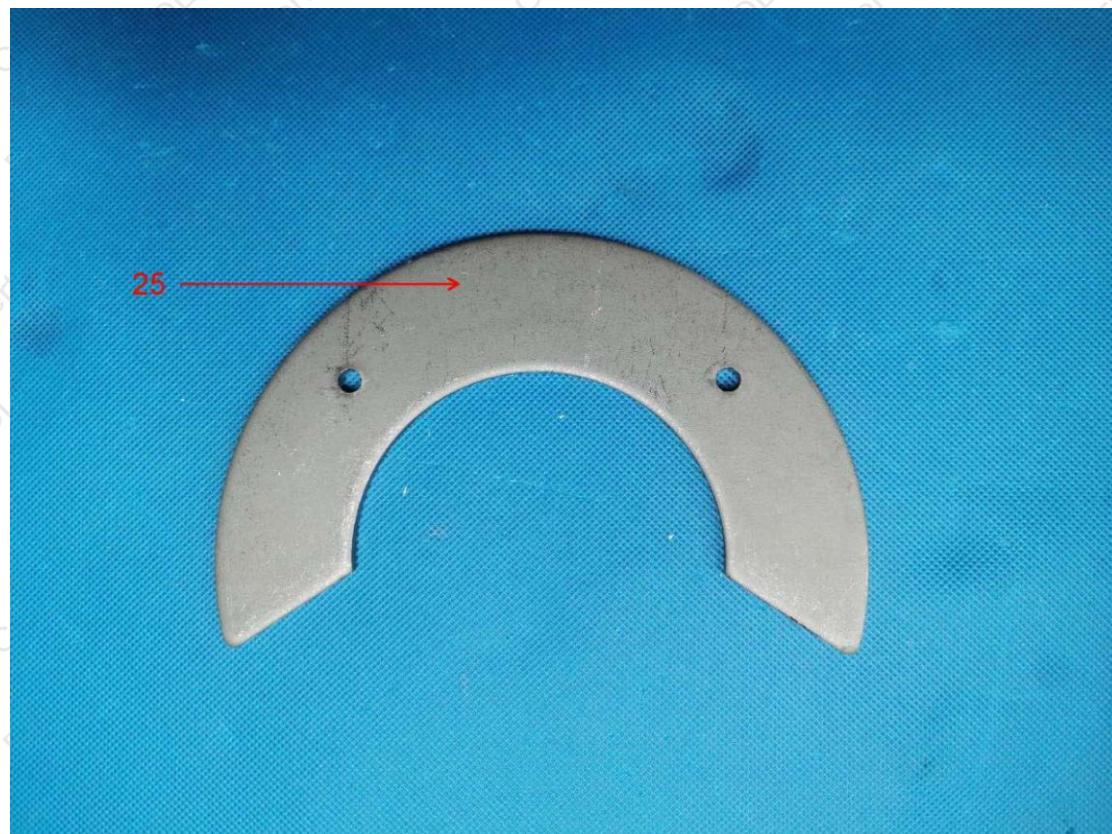


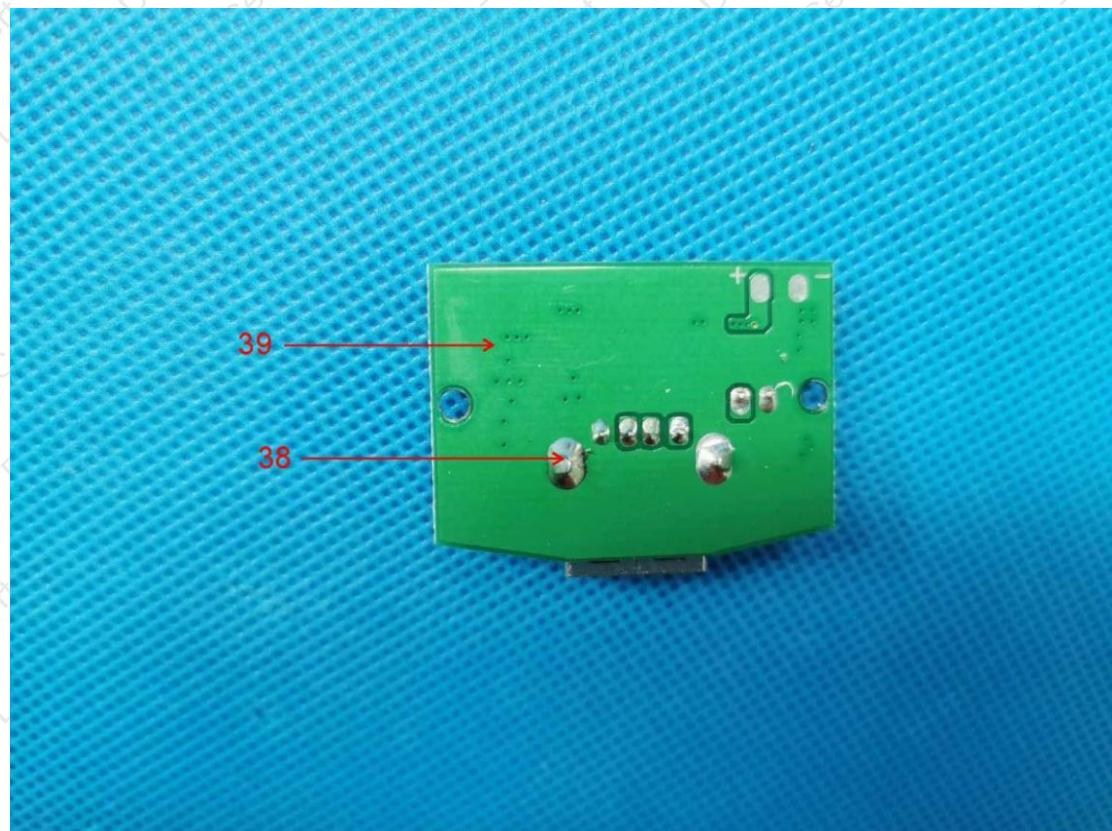
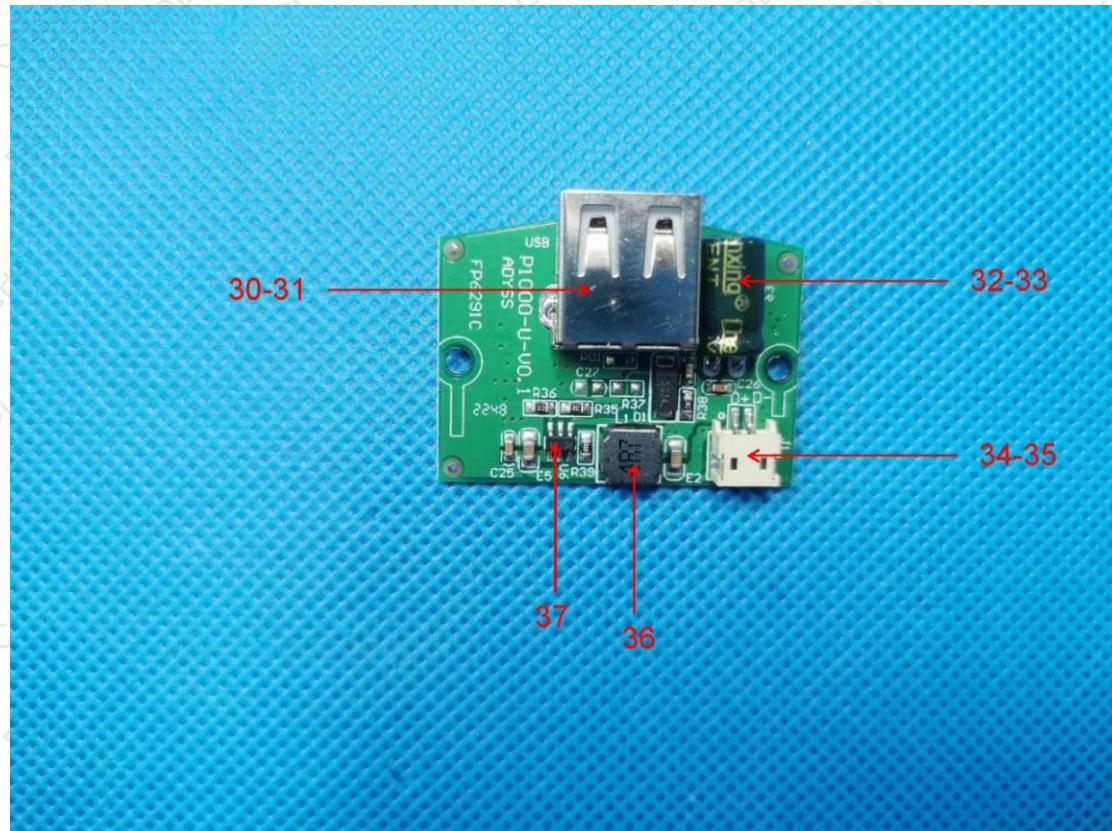


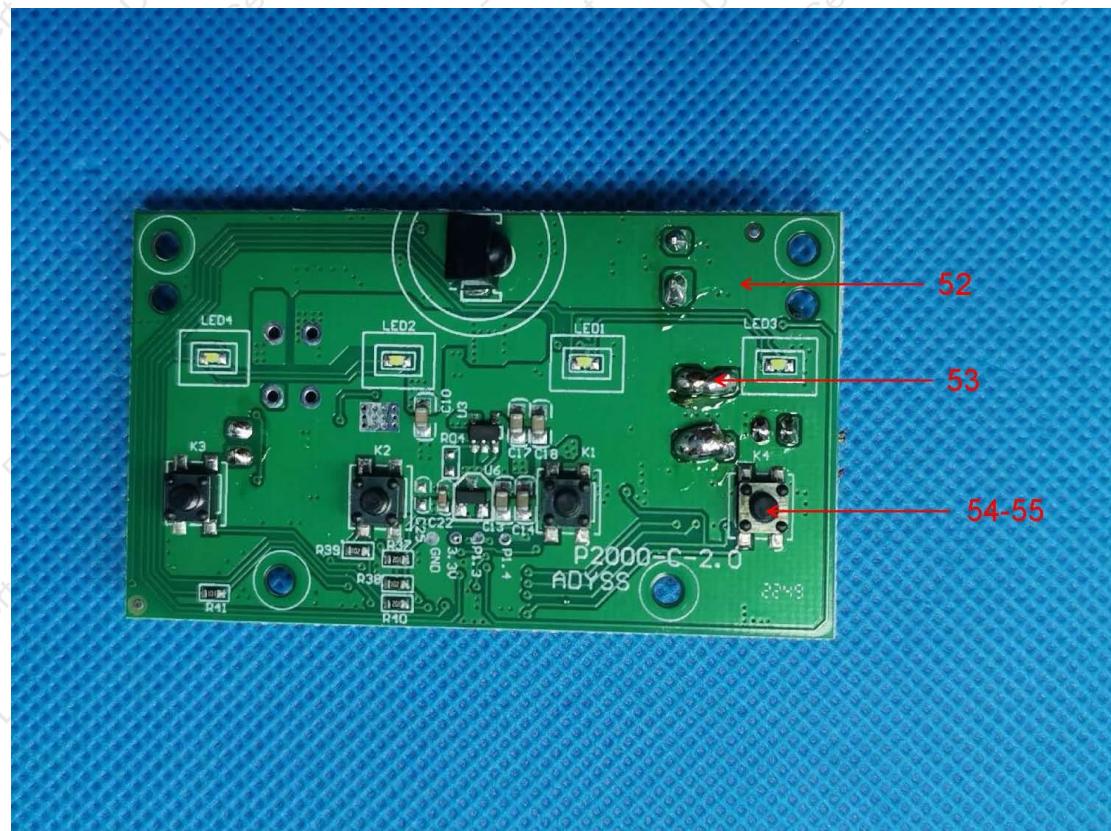
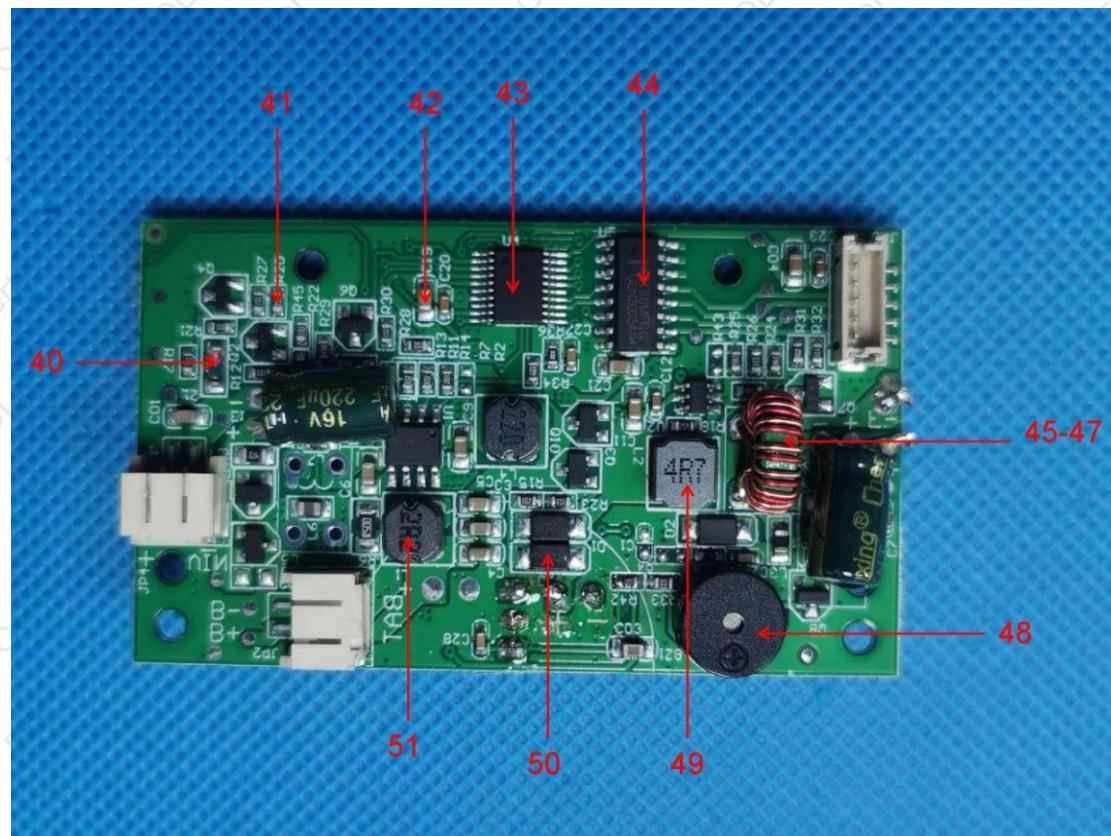


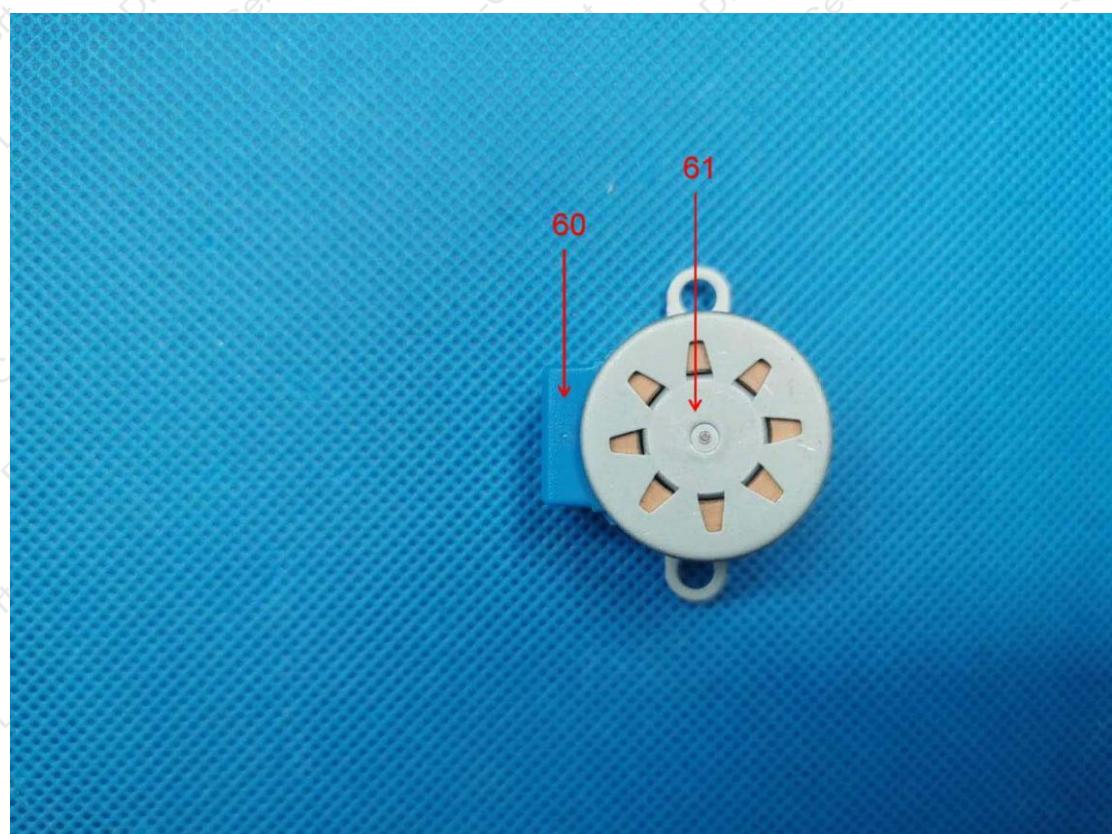
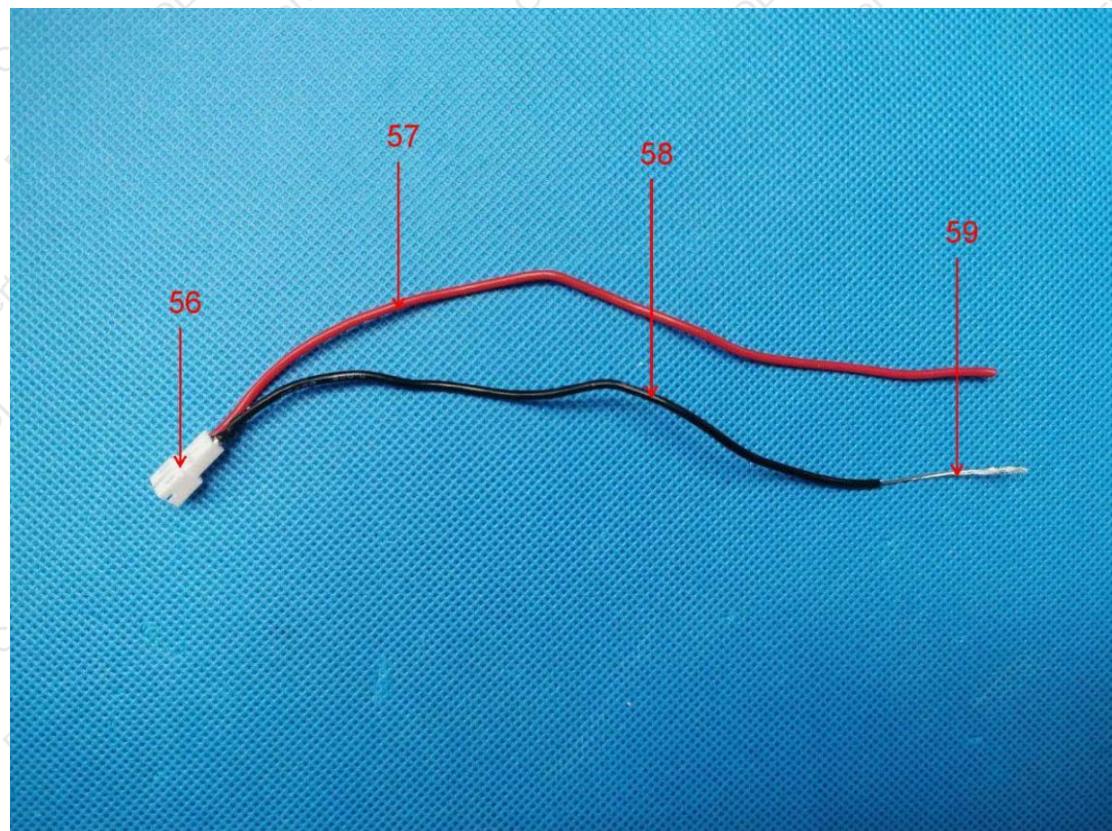


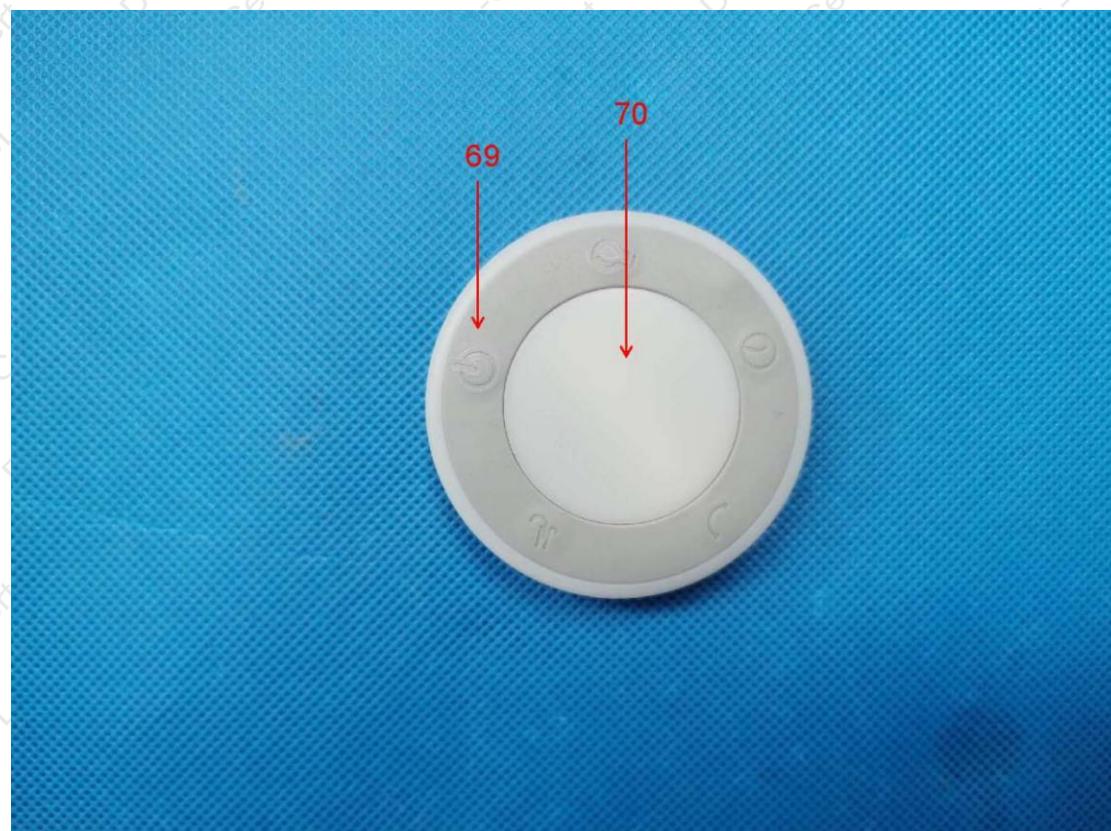
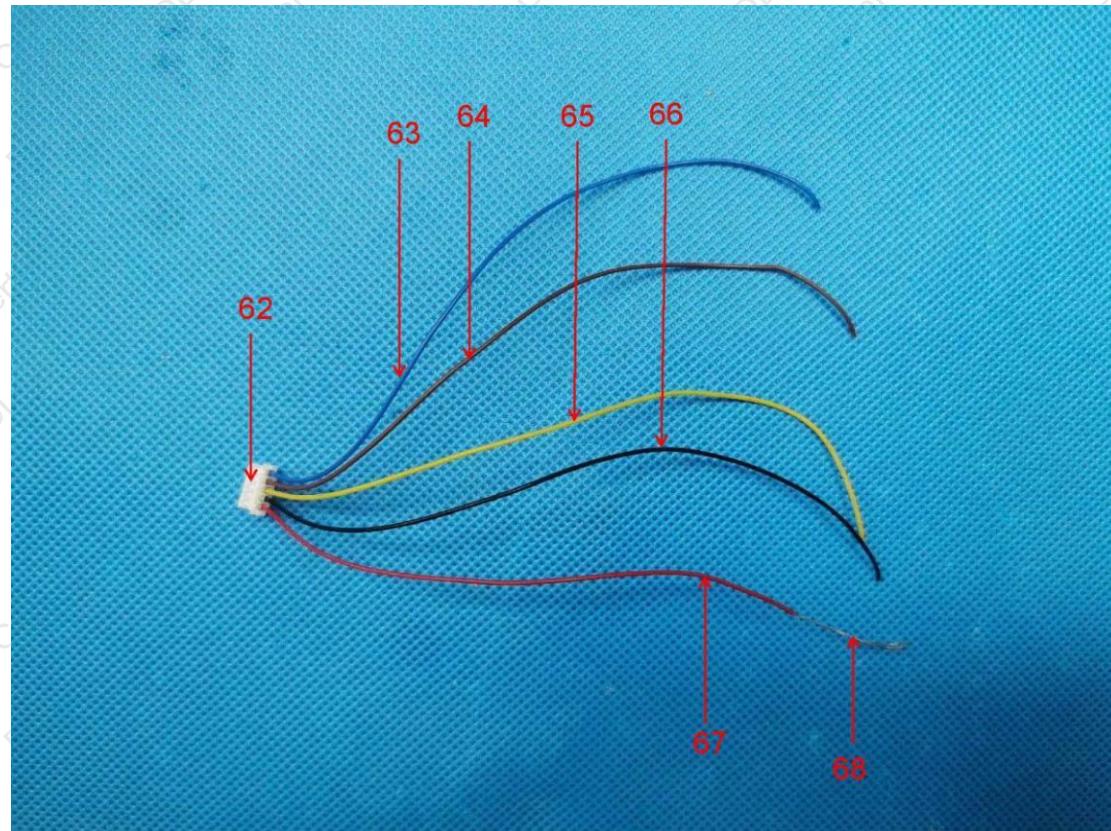


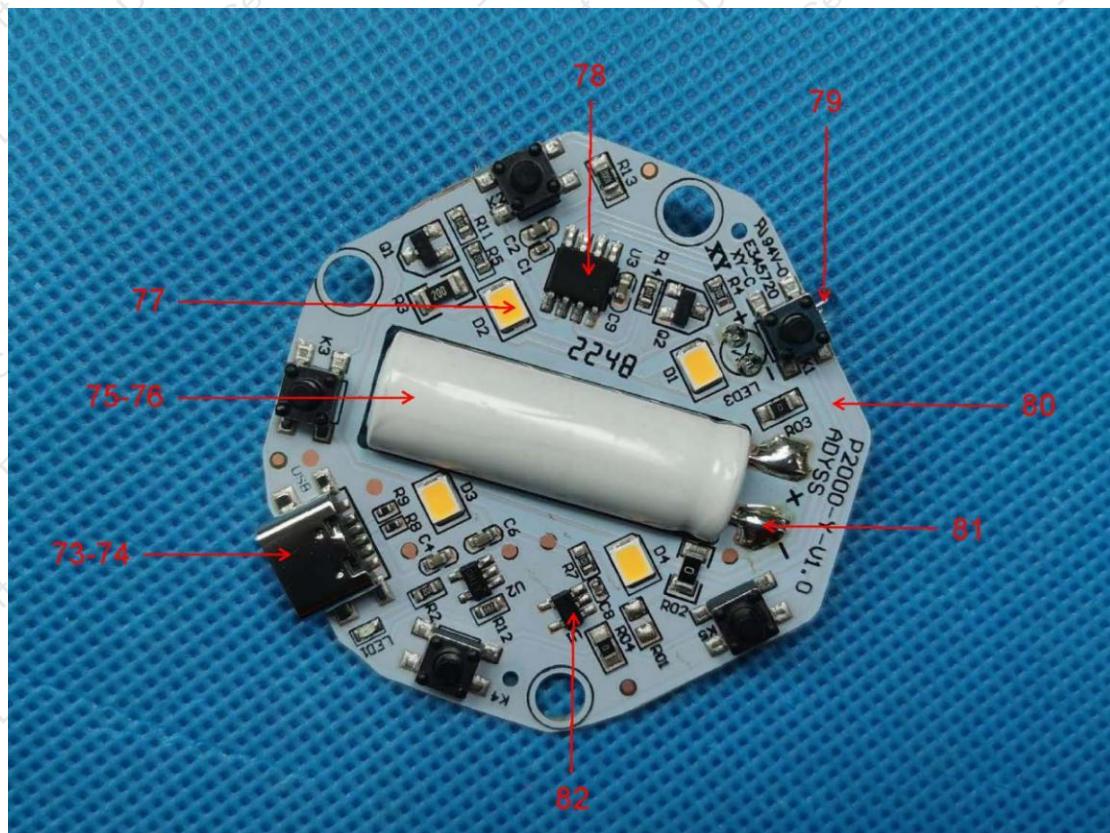
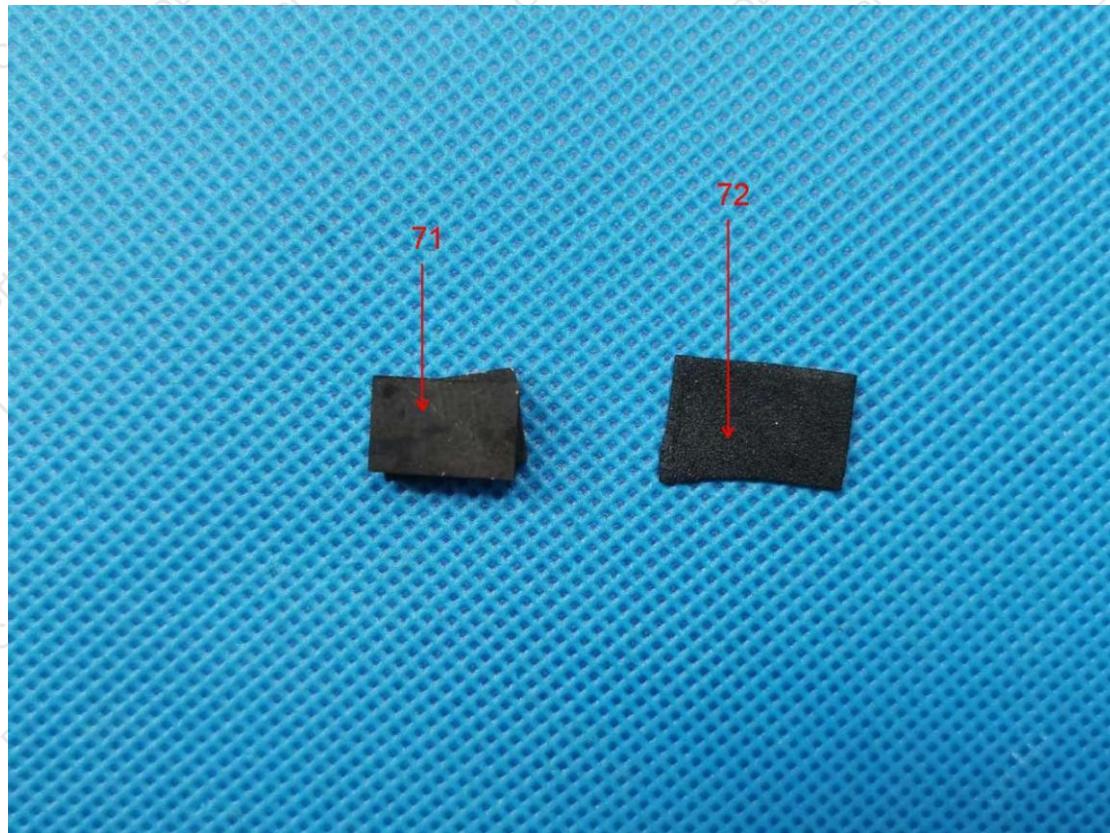


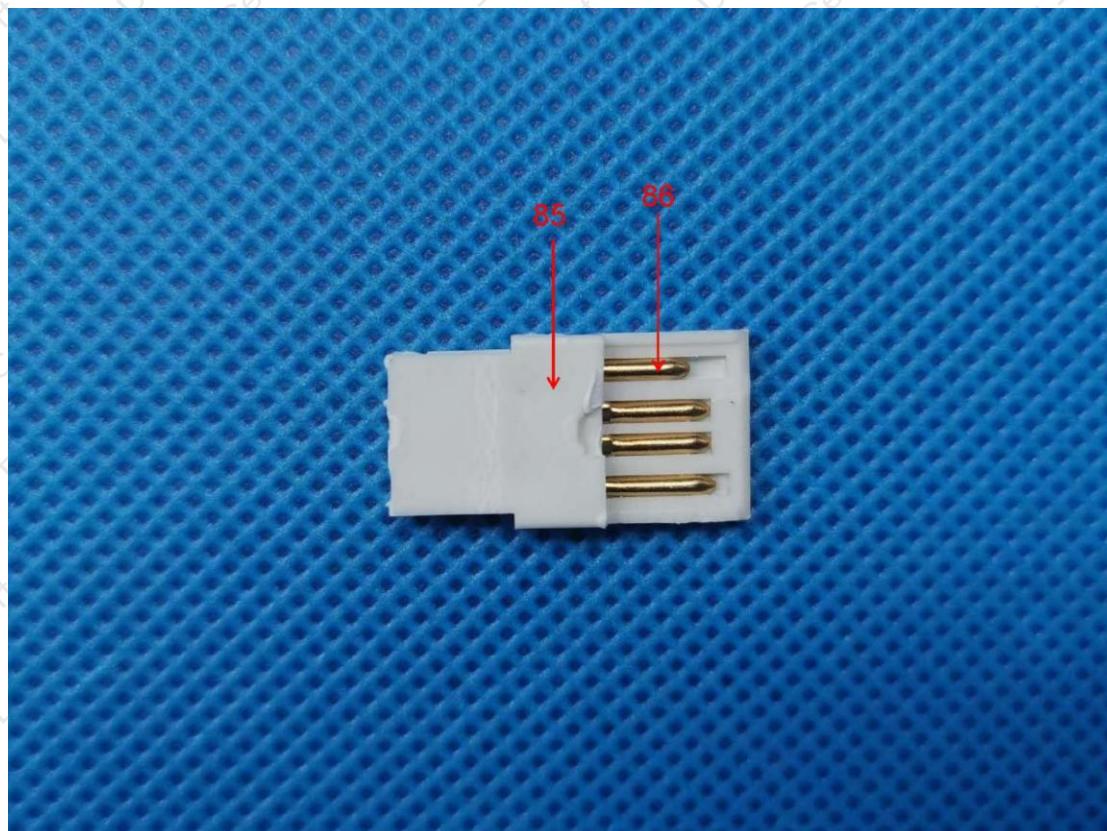


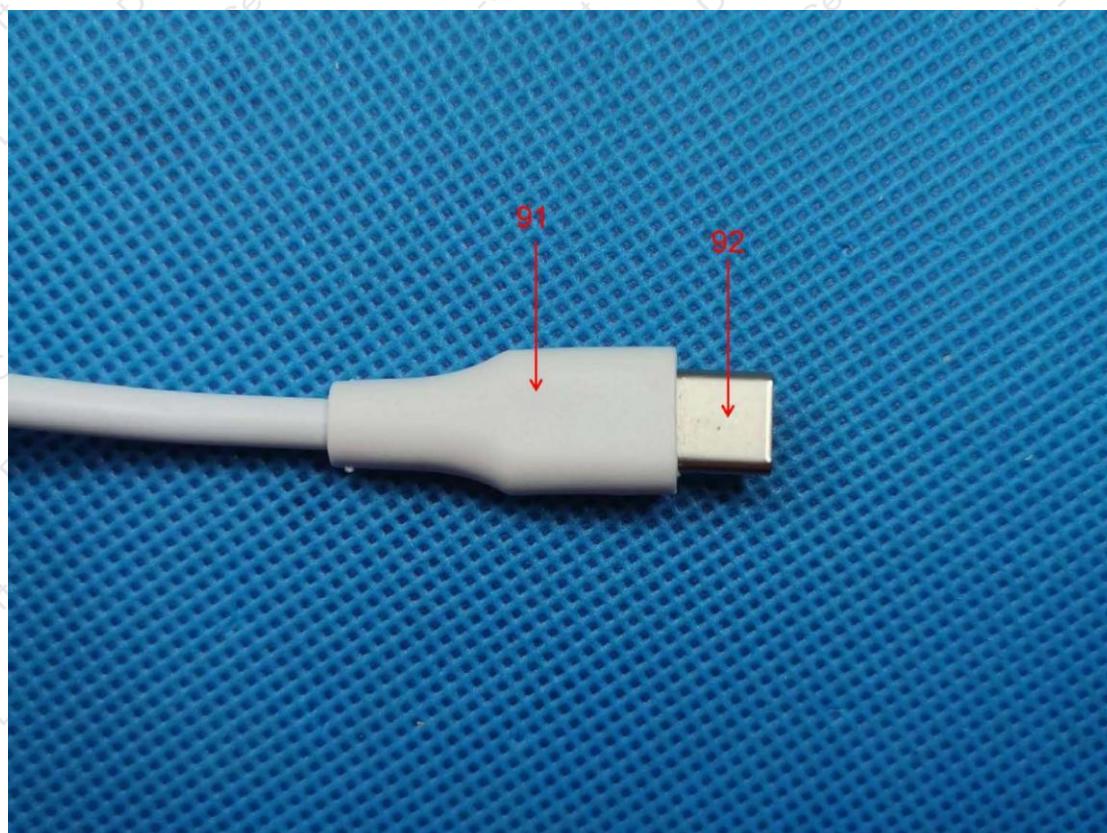
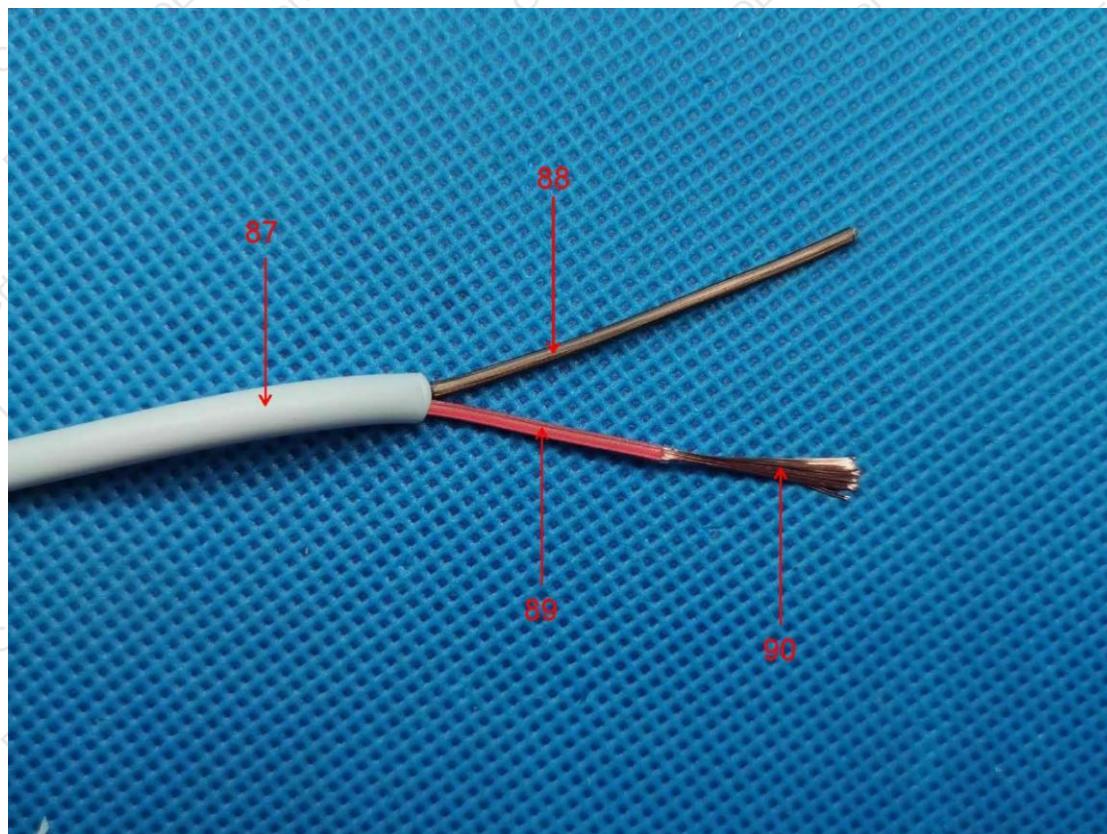


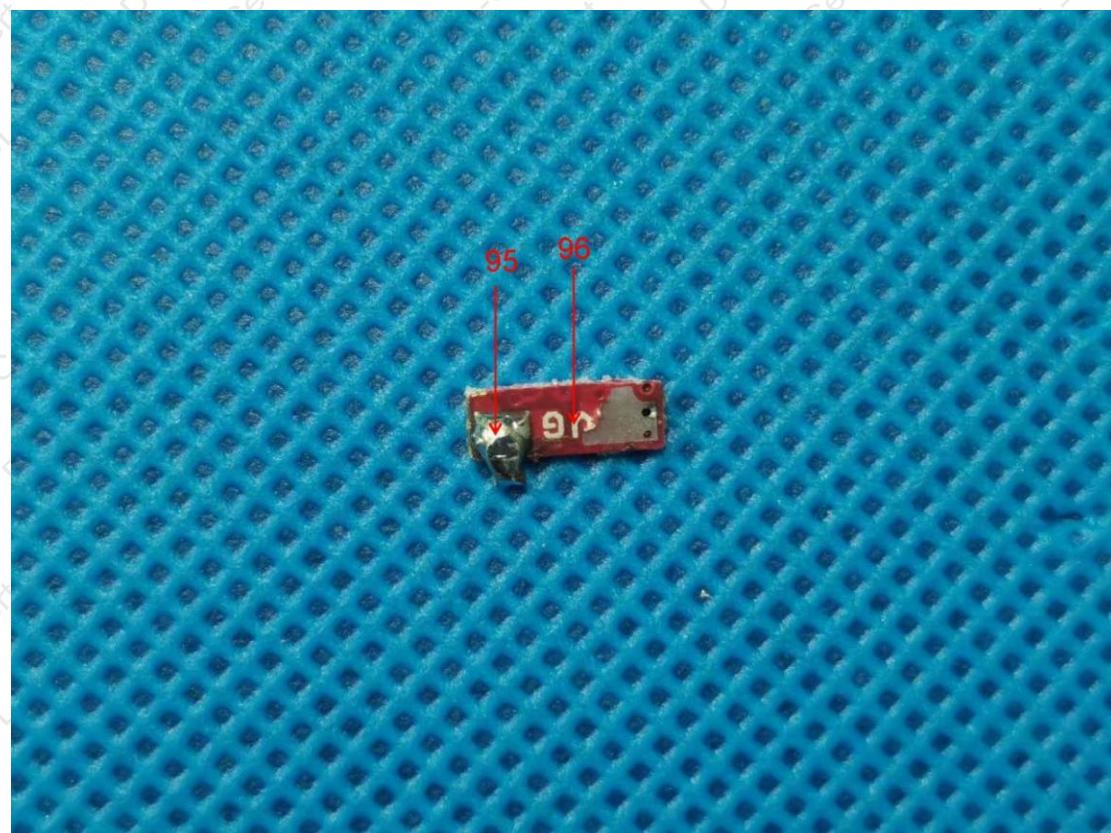
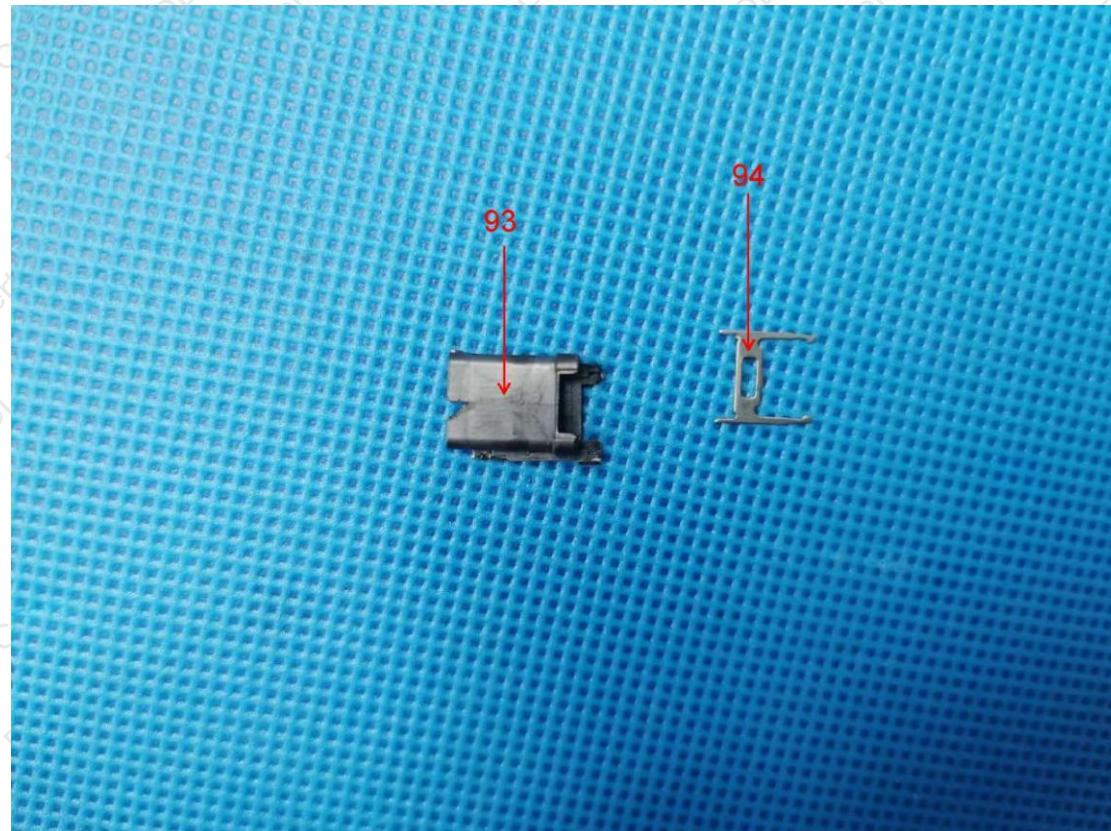


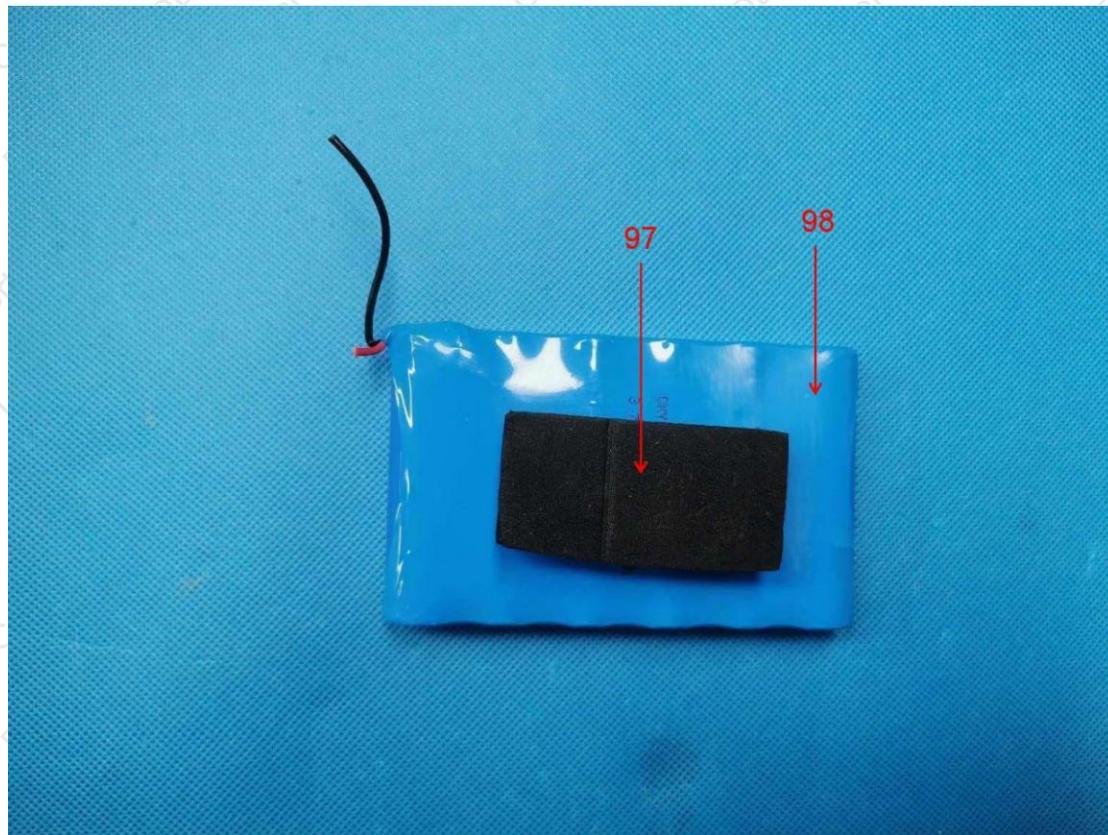












\*\*\*\*\* END OF REPORT \*\*\*\*\*