FCC Test Report

Test Report
On Behalf of
Shenzhen Kula Technology Co.,LTD.
For
1500mAh Protable Wireless Charger For Apple Watch
Model No.: KL-YD52

FCC ID: 2A5T7-KL-YD52

Prepared For:	**Shenzhen Kula Technology Co.,LTD.** **Room 306,3 Floor,Block C,Gangzhilong Business Center,No.6, Shenzhen Guangdong, China**
Prepared By:	**Shenzhen HUAK Testing Technology Co., Ltd.** **1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China**
Date of Test:	**Sept. 08, 2023 ~ Sept. 15, 2023**
Date of Report:	**Sept. 15, 2023**
Report Number:	**HK2309084149-2E**

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Test Result Certification

Applicant's Name..... : Shenzhen Kula Technology Co.,LTD.

Address..... : Room 306,3 Floor,Block C,Gangzhilong Business Center,No.6, Shenzhen Guangdong, China

Manufacture's Name..... : Shenzhen Kula Technology Co.,LTD.

Address..... : Room 306,3 Floor,Block C,Gangzhilong Business Center,No.6, Shenzhen Guangdong, China

Product Description

Trade Mark..... : N/A

Product Name..... : 1500mAh Protable Wireless Charger For Apple Watch

Model and/or Type Reference: KL-YD52

Standards ..... : FCC CFR 47 PART 18, KDB 680106 D01

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Date of Test.....:

Date (s) of Performance of Tests .....: **Sept. 08, 2023 ~ Sept. 15, 2023**

Date of Issue.....: **Sept. 15, 2023**

Test Result.....: **Pass**

Testing Engineer : Gary Qian

(Gary Qian)

Technical Manager : Eden Hu

(Eden Hu)

Authorized Signatory : Jason Zhou

(Jason Zhou)

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Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2. Frequency Band: 314KHz

Channel List							
Channel	Frequency (KHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
Middle CH	314						

The EUT antenna is Coil Antenna. No antenna other than that furnished by the responsible party shall be used with the device.

2. Summary of Test Results

2.1 Test procedures according to the technical standards:

FCC KDB 680106 D01 RF Exposure Wireless Charging Apps v03r01

FCC CFR 47			
Standard Section	Test Item	Judgment	Remark
FCC CFR 47 part1, 1.1310 KDB 680106 D01v03r01 (3)(3)	Magnetic Field Strength (H) (A/m)	PASS	

2.2 Measurement Uncertainty

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

No.	Item	Uncertainty
1	All Emissions, Radiated(<30M)(9KHz-30MHz)	±3.90dB
2	Temperature	±0.5°C
3	Humidity	±2%

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2.3 Test Instruments

Description	Brand	Model No.	S/N	Calibrated Date	Calibrated Until
Electric and Magnetic Field Analyzer	narda	EHP-200AC	180ZX11028	Feb. 17, 2023	Feb. 16, 2024

NOTE: 1. The calibration interval of the above test instruments is 12 months.

2.4 Test Mode

Test Item	Test mode	Description
MPE Test Cases	Mode 1	AC/DC Adapter+ EUT + Apple Watch (Battery Status: <1%)
	Mode 2	AC/DC Adapter+ EUT + Apple Watch (Battery Status: <50%)
	Mode 3	AC/DC Adapter+ EUT + Apple Watch (Battery Status: <100%)
	Mode 4	EUT + Apple Watch (Battery Status: <1%)
	Mode 5	EUT + Apple Watch (Battery Status: <50%)
	Mode 6	EUT + Apple Watch (Battery Status: <100%)

Note:

1. All modes and configurations above have been tested.
2. For Radiated Emission, 3axis were chosen for testing for each applicable mode.
3. The Apple Watch provided by Lab.
4. According to the manufacturer's design principle, the wireless charging power will reach its maximum when the client device's battery level is between 1% and 10%.

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3. Maximum Permissible Exposure

Limit of Maximum Permissible Exposure

Limits for Occupational / Controlled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm²)	Averaging Time |E|²,|H|² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6
Limits for General Population / Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm²)	Averaging Time |E|²,|H|² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180 / f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1	30

Note 1: f = frequency in MHz; *Plane-wave equivalent power density.

Note 2: For the applicable limit, see FCC 1.1310, 680106 D01 RF Exposure Wireless Charging Apps v03.

Note 3: Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 614 V/m and 1.63A/m. A KDB inquiry is required to determine the applicable exposure limits below 100 kHz.

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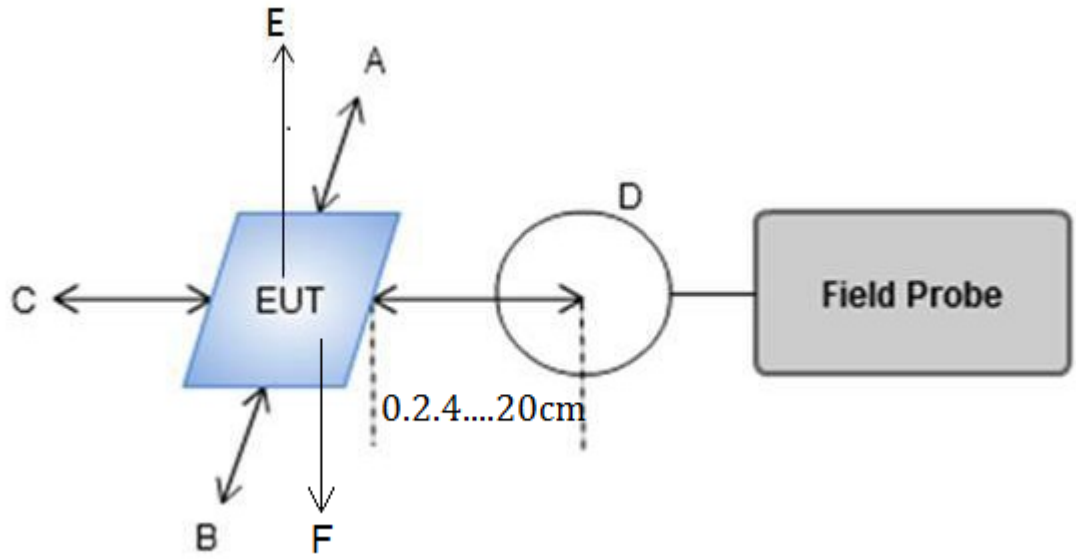
4. Test Procedure

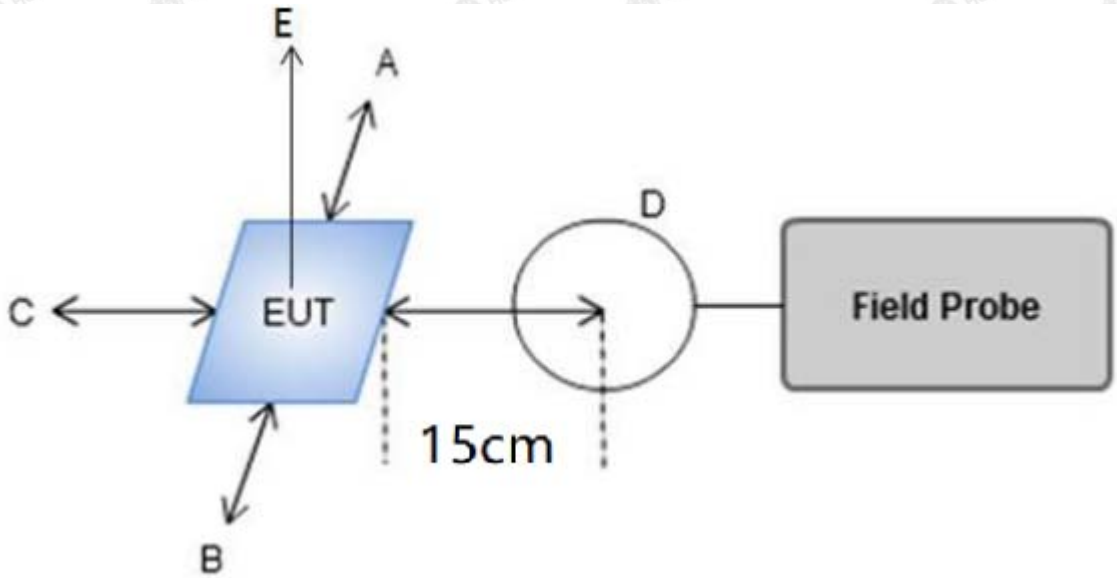
a. For devices designed for typical desktop applications, such a wireless charging pads, RF exposure evaluation should be conducted assuming a user separation distance 0-20cm.
E and H field strength measurements or numerical modeling may be used to demonstrate compliance. Measurements should be made from all sides and the top of the primary/client pair, with the 0-20 cm measured from the center of the probe(s) to the edge of the device.

4.1 Test Setup

DC Mode:



AC Mode:



4.2 Result of Maximum Permissible Exposure

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AC Mode:

All test modes (H-Fields) complete the test. Only the Battery Status: <1% worst results reported below:

H-Field Strength at 15 cm (E top side: 20cm) from the edges surrounding the EUT (A/m)

Field strength	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Limits (A/m)
A/m	0.112	0.134	0.106	0.122	0.118	1.63

DC Mode:

All test modes (H-Fields) complete the test. Only the Battery Status: <1% worst results reported below:

H-Field Strength at 0-20 cm from the edges surrounding the EUT (A/m)

Measuring distance (cm)	Field strength	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	Limits (A/m)
0	A/m	0.312	0.302	0.298	0.222	0.301	0.327	1.63
2	A/m	0.302	0.308	0.296	0.234	0.261	0.213	1.63
4	A/m	0.254	0.244	0.236	0.281	0.225	0.231	1.63
6	A/m	0.207	0.197	0.164	0.124	0.115	0.106	1.63
8	A/m	0.127	0.106	0.115	0.108	0.096	0.087	1.63
10	A/m	0.109	0.110	0.093	0.084	0.074	0.067	1.63
12	A/m	0.075	0.078	0.065	0.61	0.058	0.054	1.63
14	A/m	0.062	0.052	0.047	0.041	0.052	0.043	1.63
16	A/m	0.046	0.039	0.034	0.030	0.024	0.037	1.63
18	A/m	0.039	0.033	0.028	0.023	0.021	0.019	1.63
20	A/m	0.025	0.012	0.017	0.020	0.013	0.016	1.63

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Remark: According KDB 680106 D01 RF Exposure Wireless Charging App v03r01, section 5, b). The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit. The E- field evaluation conducted assuming a user separation distance of 15 cm according to the KDB 680106 D01 RF Exposure Wireless Charging App v03 section 3, c).

Result: The device comply with the RF exposure requirement according to 680106 D01 v03r01, section 5, b):

(1) Power transfer frequency is less than 1MHz.
- The device operate in the frequency range for 314 KHz

(2) Output power from each primary coil is less than or equal to 15 watts.
- The maximum output power is 2.5W

(3) The system consists of more than one source primary coils, charging one or more clients. If more than one primary coil is present, the coil pairs may be powered on at the same time.
-- The transfer system is a charging system with only one main coil.

(4) Client device is placed directly in contact with the transmitter.
-The EUT is placed directly in contact with the transmitter

(5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).
- This is a portable device.

(6) The aggregate H-field strengths anywhere at or beyond 15 cm surrounding the device, and 20 cm away from the surface from all coils that by design can simultaneously transmit, and while those coils are simultaneously energized, are demonstrated to be less than 50% of the applicable MPE limit.
- The EUT meet the conditions.

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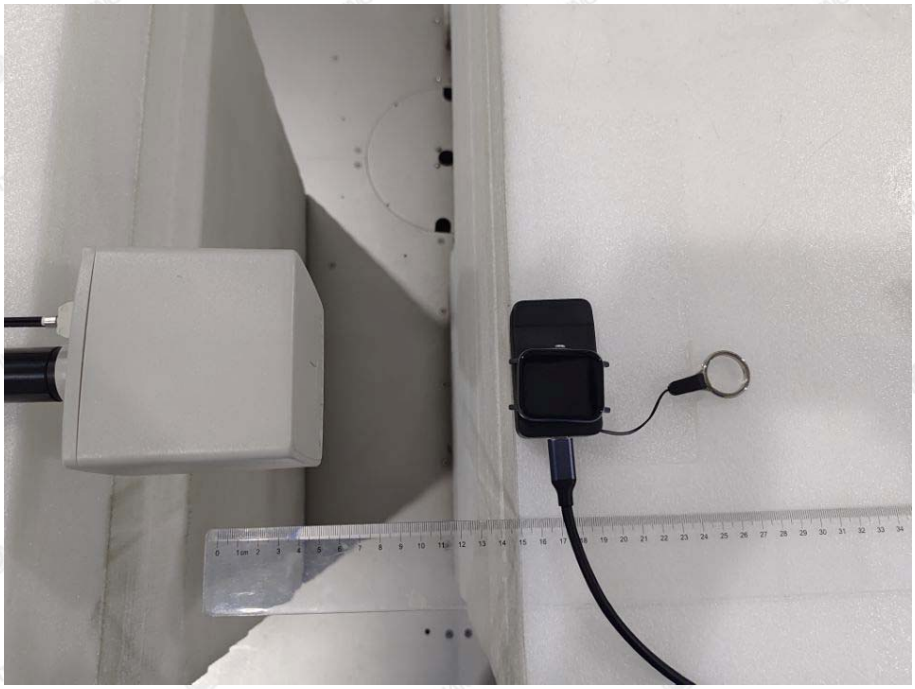
Photographs of Test

AC Mode:

A



B

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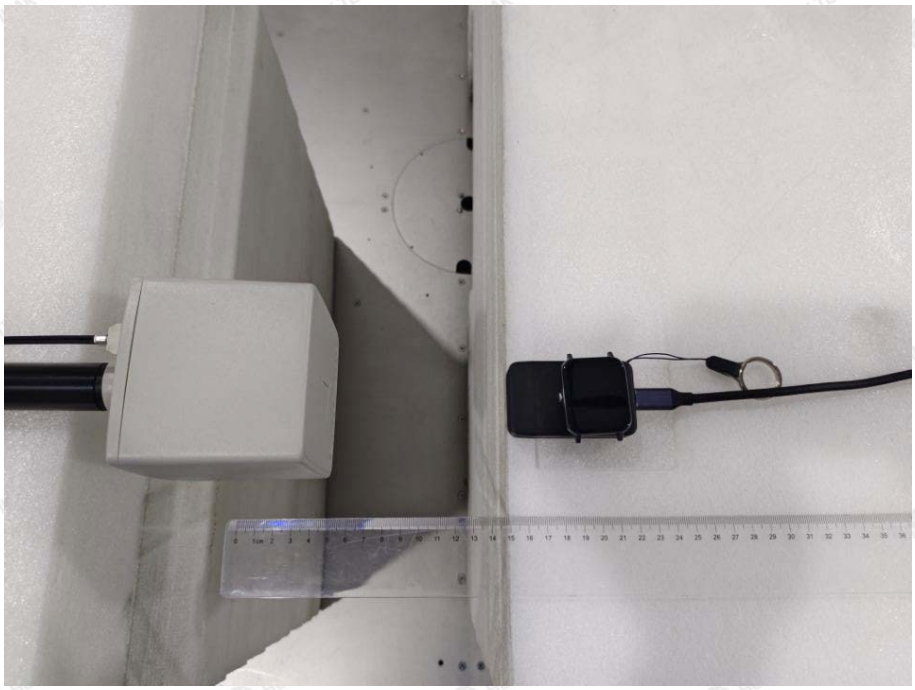
C



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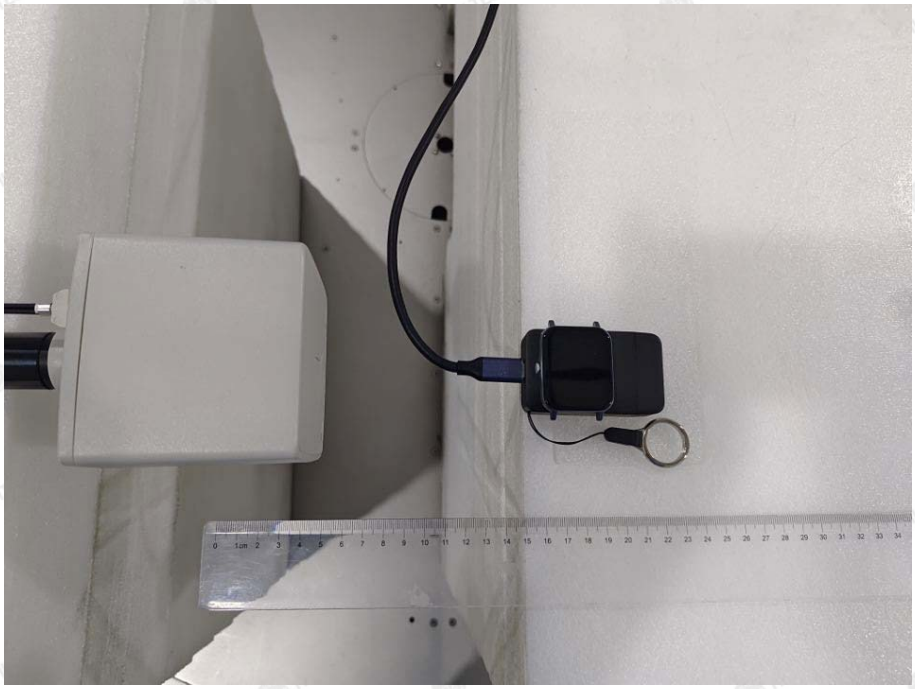

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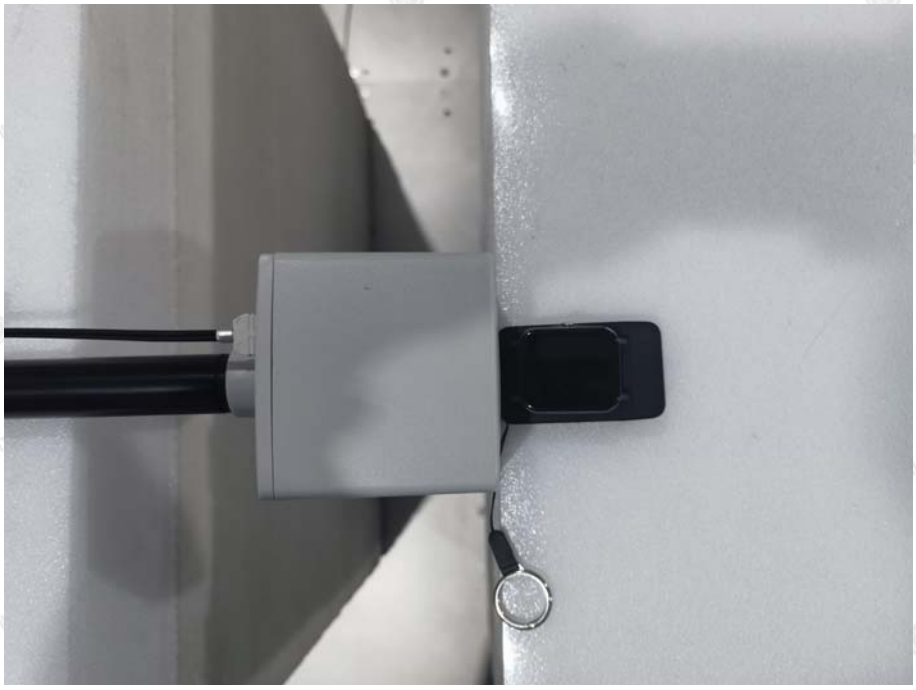
E

DC Mode:

A



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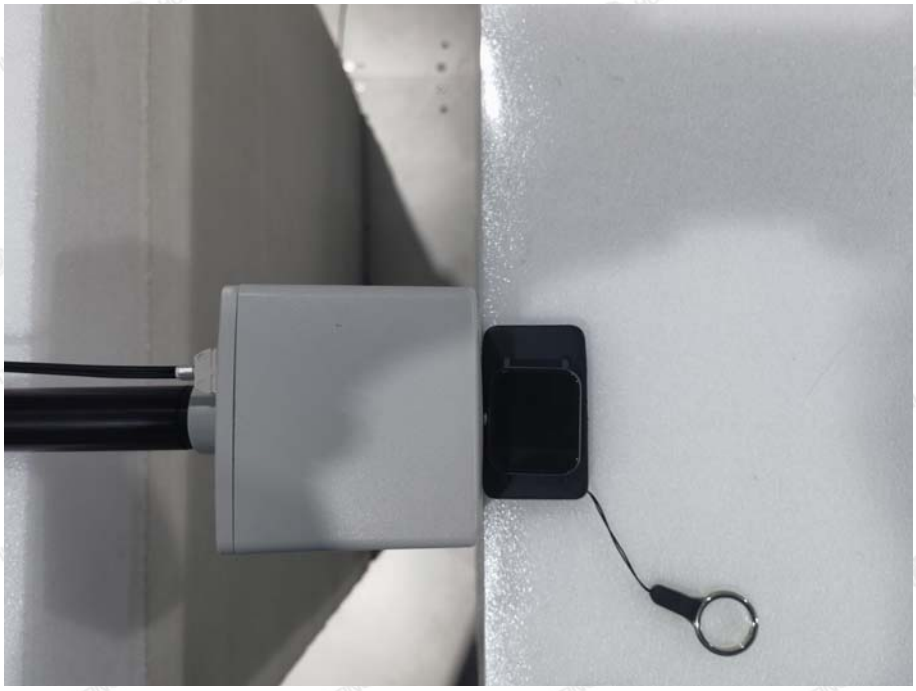
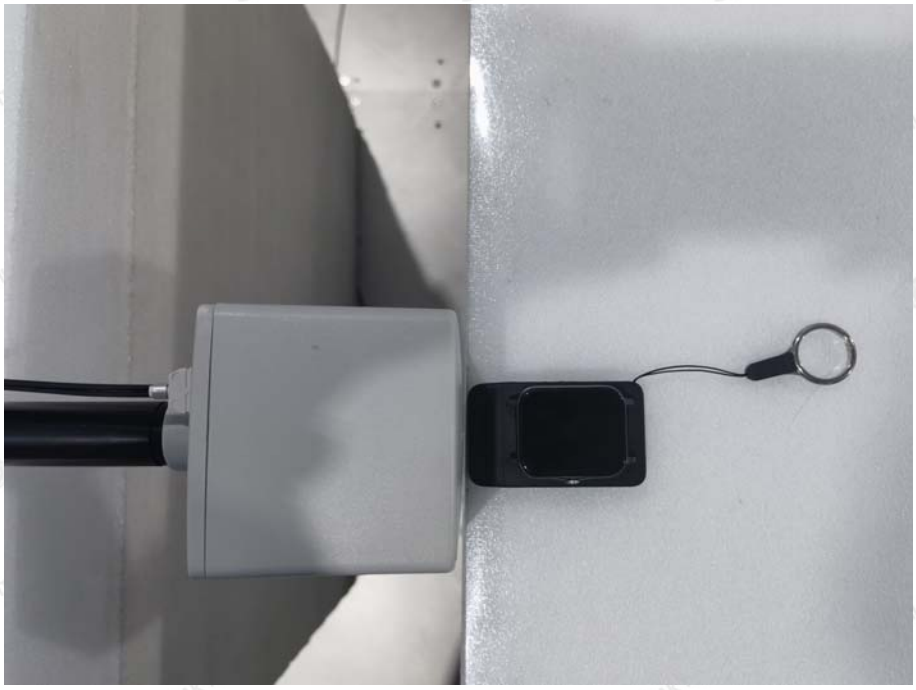


C



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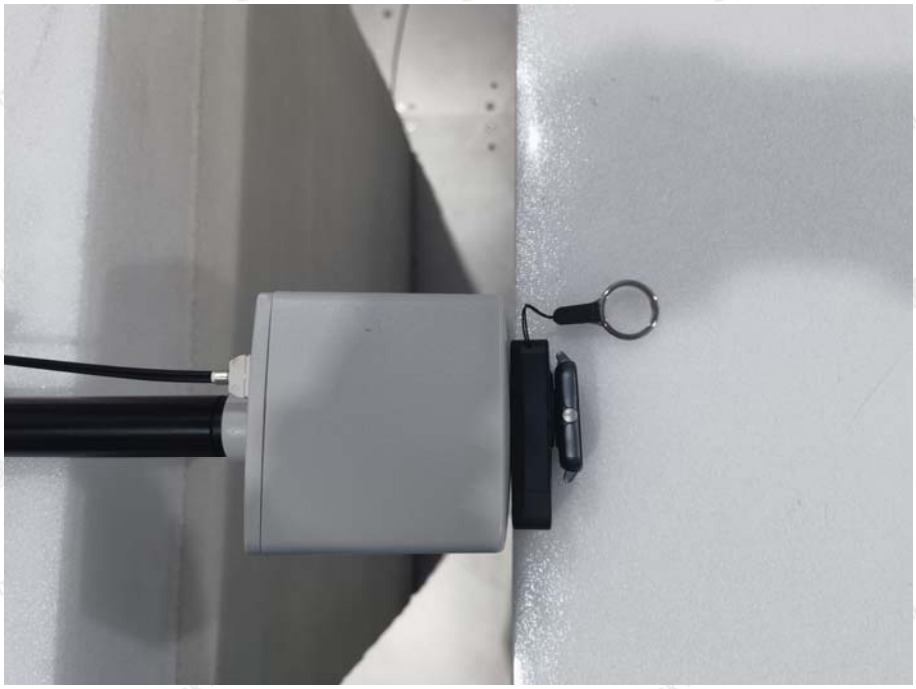
D

E



F

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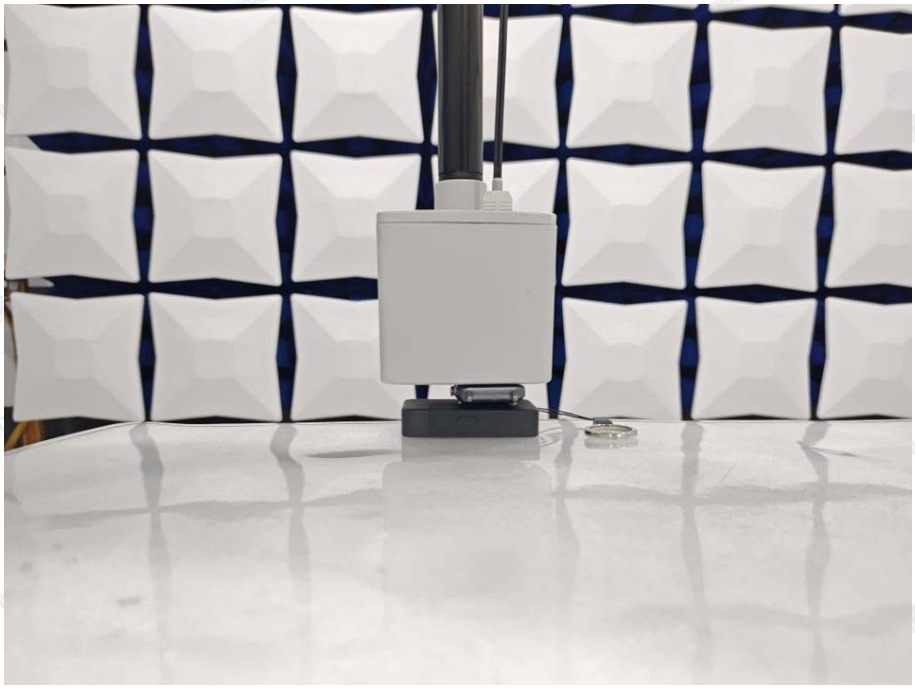

※※※※※THE END※※※※※

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