

FCC TEST REPORT
For

Dongguan Easyfeng Technology Co., Ltd

POWER BANK

Test Model: YLD-025

Additional Model No.: YLD-020, YLD-021, YLD-023, YLD-024,
YLD-026, YLD-027, YLD-030, YLD-061, YLD-063

Prepared for : Dongguan Easyfeng Technology Co., Ltd
Address : 9th Floor, Building 1, Juntong Industrial Park, No.9
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Dongguan, Guangdong Province

Prepared by : Shenzhen AOCE Electronic Technology Service Co.,
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Date of receipt of test sample : July 24, 2023
Number of tested samples : 1
Serial number : Prototype
Date of Test : July 24, 2023 - August 07, 2023
Date of Report : October 16, 2024

FCC TEST REPORT**FCC 47 CFR Part 15 Subpart B, Class B(SDoC), ANSI C63.4 -2014****Report Reference No.:** AOC230807102F-R2

Date Of Issue.....: October 16, 2024

Testing Laboratory Name.....: Shenzhen AOCE Electronic Technology Service Co., Ltd.

Address.....: Room 202, 2nd Floor, No.12th Building of Xinhe Tongfuyu Industrial Park, Fuhai Street, Baoan District, Shenzhen, Guangdong, China

Testing Location/ Procedure.....: Full application of Harmonised standards ☒
Partial application of Harmonised standards ☐
Other standard testing method ☐**Applicant's Name.....:** Dongguan Easyfeng Technology Co., Ltd

Address.....: 9th Floor, Building 1, Juntong Industrial Park, No.9 Jiuyuan Road, Zhushan Community, Dalang, Dongguan, Guangdong Province

Test Specification:Standard.....: FCC 47 CFR Part 15 Subpart B, Class B(SDoC),
ANSI C63.4 -2014

Test Report Form No.....: AOCEMC-1.0

TRF Originator.....: Shenzhen AOCE Electronic Technology Service Co., Ltd.

Master TRF.....: Dated 2011-03

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Test Item Description.....: POWER BANK

Trade Mark.....: N/A

Model/ Type Reference.....: YLD-025

Ratings.....: See page of 6

Result Pass**Compiled by:**

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Supervised by:

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Approved by:

Jackson Fang/ Manager

FCC -- TEST REPORT

Test Report No. : AOC230807102F-R2October 16, 2024

Date of issue

Type / Model..... : YLD-025

EUT..... : POWER BANK

Applicant..... : Dongguan Easyfeng Technology Co., LtdAddress..... : 9th Floor, Building 1, Juntong Industrial Park, No.9
Jiuyuan Road, Zhushan Community, Dalang, Dongguan,
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Jiuyuan Road, Zhushan Community, Dalang, Dongguan,
Guangdong Province

Telephone..... : /

Fax..... : /

Test Result according to the standards on page 5: **Pass**

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

This report was based on the original report AOC230807102F-R1, only following items are revised, when this report issued, the original report will be withdraw:

1.Address

2.Manufacturer

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1. SUMMARY OF STANDARDS AND RESULTS

1.1.Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below.

EMISSION			
Description of Test Item	Standard	Limits	Results
Conducted disturbance at mains terminals	FCC 47 CFR Part 15 Subpart B, Class B(SDoC), ANSI C63.4 -2014	Class B	PASS
Radiated disturbance	FCC 47 CFR Part 15 Subpart B, Class B(SDoC), ANSI C63.4 -2014	Class B	PASS
N/A is an abbreviation for Not Applicable.			

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

EUT : POWER BANK

Model Number : YLD-025

Power Supply : Input: Type C DC 5V, 2A
Output: DC 7.4V, 3A / USB: DC 5V, 2.4A
Capacity: DC 3.7V, 20000mAh, 74Wh

2.2. Description of Support Device

Name	Manufacturers	M/N	S/N
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2.3. Description of Test Facility

Site Description
EMC Lab. : ---

2.4. Statement of the Measurement Uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. To CISPR 16 – 4 “Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements” and is documented in the AOC quality system acc. To DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

2.5.Measurement Uncertainty

Test Item		Parameters	Expanded Uncertainty (Ulab)	Expanded Uncertainty (Ucisp)
Conducted Emission :		Level accuracy (9kHz to 150kHz) (150kHz to 30MHz)	2.63 dB 2.35 dB	3.8 dB 3.4 dB
Power Disturbance :		Level accuracy (30MHz to 300MHz)	±2.90dB	±4.5 dB
Radiated Emission :		Level accuracy (9kHz to 200MHz)	±3.68 dB	N/A
Radiated Emission		Level accuracy (200Hz to 1000MHz)	±3.48 dB	±5.3 dB
Radiated Emission		Level accuracy (above 1000MHz)	±3.90 dB	±5.2 dB

- (1) Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus.
- (2) The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor of $k=2$, which for a normal distribution corresponds to a coverage probability of approximately 95%.

3.TEST RESULTS

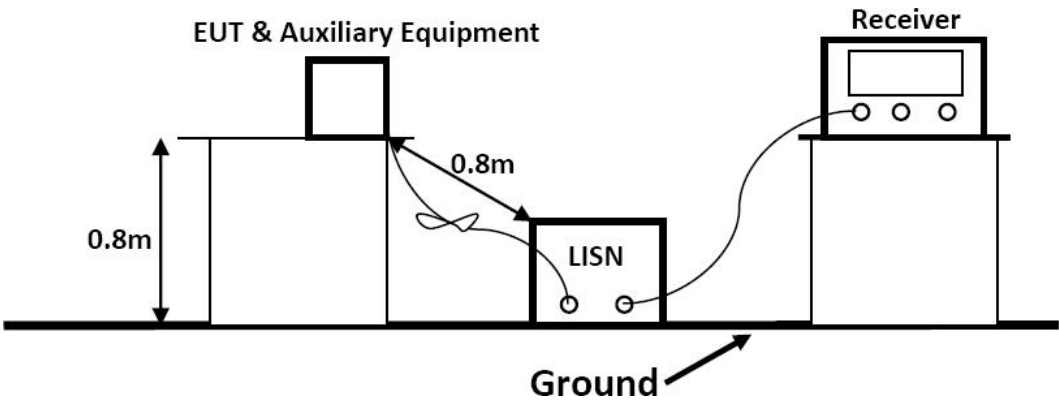
3.1. POWER LINE CONDUCTED EMISSION MEASUREMENT

3.1.1. Test Equipment

The following test equipments are used during the power line conducted measurement:

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	EMI Test Software	EZ	EZ-EMC	/	N/A	N/A
2	EMI Test Receiver	R&S	ESPI	101840	2023/04/24	2024/04/23
3	Artificial Mains	R&S	ENV216	101288	2023/04/24	2024/04/23
4	10dB Attenuator	SCHWARZBECK	MTS-IMP-136	261115-01-0032	2023/04/24	2024/04/23
5	Impedance Stabilization Network	TESEQ	ISN T800	45130	2023/04/24	2024/04/23

3.1.2. Block Diagram of Test Setup



3.1.3. Test Standard

Power Line Conducted Emission Limits (Class B)				
Frequency (MHz)			Limit (dB V)	
			Quasi-peak Level	Average Level
0.15	~	0.50	66.0 ~ 56.0 *	56.0 ~ 46.0 *
0.50	~	5.00	56.0	46.0
5.00	~	30.00	60.0	50.0

NOTE1-The lower limit shall apply at the transition frequencies.
NOTE2-The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.

3.1.4. EUT Configuration on Test

The following equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner, which tends to maximize its emission characteristics in a normal application.

3.1.5. Operating Condition of EUT

3.1.5.1. Setup the EUT as shown on Section

3.1.5.2. Turn on the power of all equipments.

3.1.5.3. Let the EUT work in measuring Working and measure it.

3.1.6. Test Procedure

The EUT system is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to FCC/ANSI C63.4-2014 on Conducted Emission Measurement.

The bandwidth of the test receiver is set at 9kHz.

The frequency range from 150kHz to 30MHz is investigated

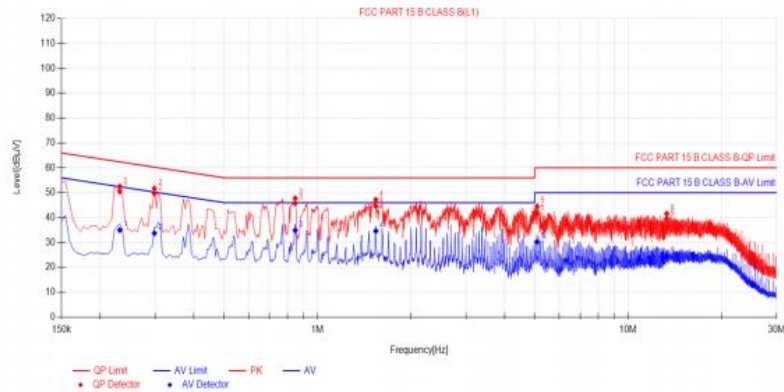
3.1.7. Test Results

PASS.

The test result please refer to the next page.

Model No.	YLD-025	Test Date	August 07, 2023
Environmental Conditions	24°C / 56% RH	Test Mode	Working
Pol	Line	Detector Function	Quasi-peak
Test Engineer	Andy	Test Voltage	DC 5V

Test Graph

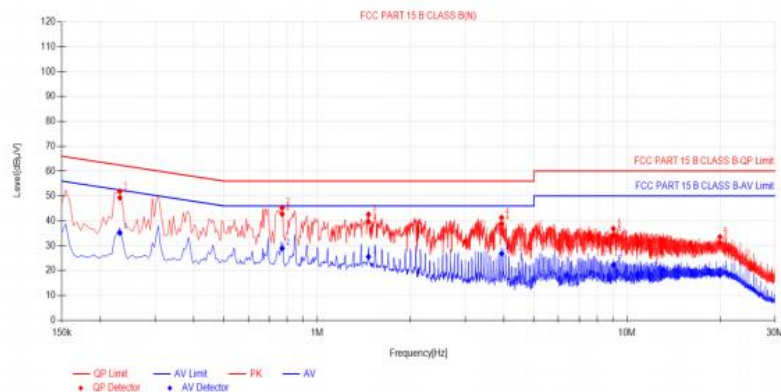


Suspected List

NO.	Freq. [MHz]	Reading [dBμV]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Detector	Type	Verdict
1	0.231	42.01	52.51	10.50	62.41	9.90	PK	L1	PASS
2	0.2985	41.22	51.72	10.50	60.28	8.56	PK	L1	PASS
3	0.8475	37.28	47.78	10.50	56.00	8.22	PK	L1	PASS
4	1.5405	36.68	47.18	10.50	56.00	8.82	PK	L1	PASS
5	5.0865	34.06	44.56	10.50	60.00	15.44	PK	L1	PASS
6	13.299	31.07	41.57	10.50	60.00	18.43	PK	L1	PASS

Model No.	YLD-025	Test Date	August 07, 2023
Environmental Conditions	24°C / 56% RH	Test Mode	Working
Pol	Line	Detector Function	Quasi-peak
Test Engineer	Andy	Test Voltage	DC 5V

Test Graph



Suspected List

NO.	Freq. [MHz]	Reading [dBμV]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Detector	Type	Verdict
1	0.231	41.39	51.89	10.50	62.41	10.52	PK	N	PASS
2	0.771	34.82	45.32	10.50	56.00	10.68	PK	N	PASS
3	1.464	32.06	42.56	10.50	56.00	13.44	PK	N	PASS
4	3.9345	30.79	41.29	10.50	56.00	14.71	PK	N	PASS
5	9.024	26.38	36.88	10.50	60.00	23.12	PK	N	PASS
6	19.914	23.06	33.56	10.50	60.00	26.44	PK	N	PASS

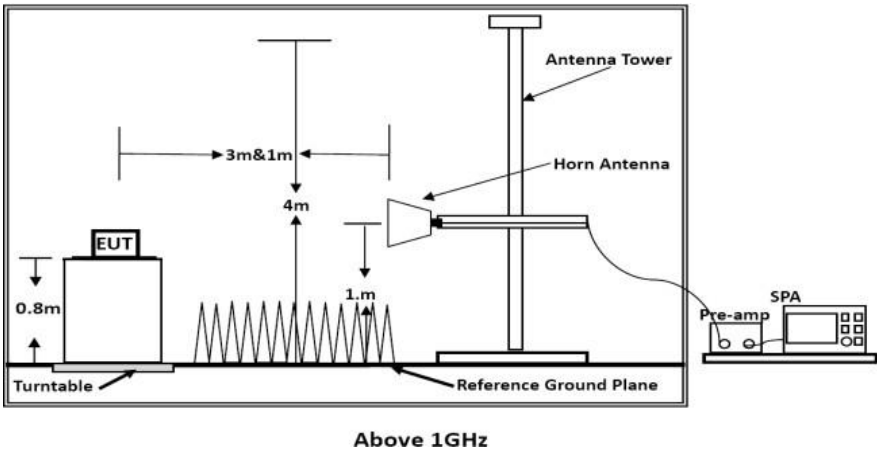
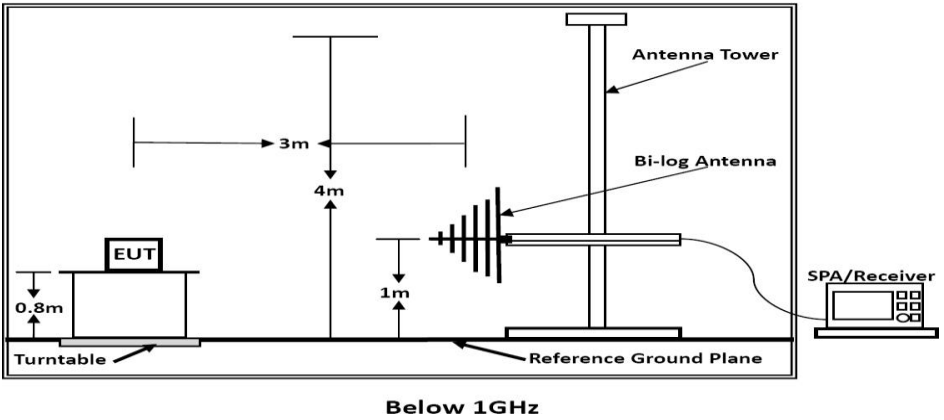
3.2. Radiated emission Measurement

3.2.1 Test Equipment

The following test equipments are used during the radiated emission measurement:

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	EMI Test Software	EZ	EZ-EMC	/	N/A	N/A
2	By-log Antenna	SCHWARZBECK	VULB9163	9163-470	2023/04/24	2024/04/23
3	Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1925	2023/04/24	2024/04/23
4	EMI Test Receiver	R&S	ESR 7	101181	2023/04/24	2024/04/23
5	Broadband Preamplifier	/	BP-01M18G	P190501	2023/04/24	2024/04/23

3.2.2. Block Diagram of Test Setup



3.2.3. Radiated Emission Limit (Class B)

Limits for Radiated Disturbance Below 1GHz

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		V/ m	dB(V)/ m
30 ~ 88	3	100	40
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46
960 ~ 1000	3	500	54

Remark: (1) Emission level (dB) $V = 20 \log$ Emission level V/m
 (2) The smaller limit shall apply at the cross point between two frequency bands.
 (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

Limits for Radiated Emission Above 1GHz

Frequency (MHz)	Distance (Meters)	Peak Limit (dB μ V/m)	Average Limit (dB μ V/m)
Above 1000	3	74	54

***Note: The lower limit applies at the transition frequency.

3.2.4. EUT Configuration on Measurement

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

3.2.5. Operating Condition of EUT

1.1.1.1. Setup the EUT as shown in Section 3.2.2.

3.2.5.2. Let the EUT work in test Mode 1 and measure it.

3.2.6. Test Procedure

EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated by-log antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna is set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4-2014 on radiated emission measurement.

The bandwidth of the EMI test receiver is set at 120kHz, 300kHz.

The frequency range from 30MHz to 1000MHz is checked.

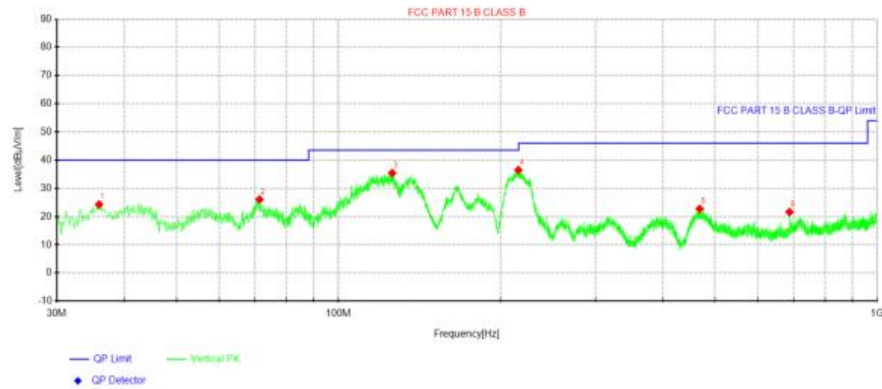
3.2.7. Radiated Emission Noise Measurement Result

PASS.

The scanning waveforms please refer to the next page.

Model No.	YLD-025	Test Date	August 07, 2023
Environmental Conditions	24°C/ 56% RH	Test Mode	ON
Pol	Vertical	Detector Function	Quasi-peak
Test Engineer	Andy	Distance	3m

Test Graph

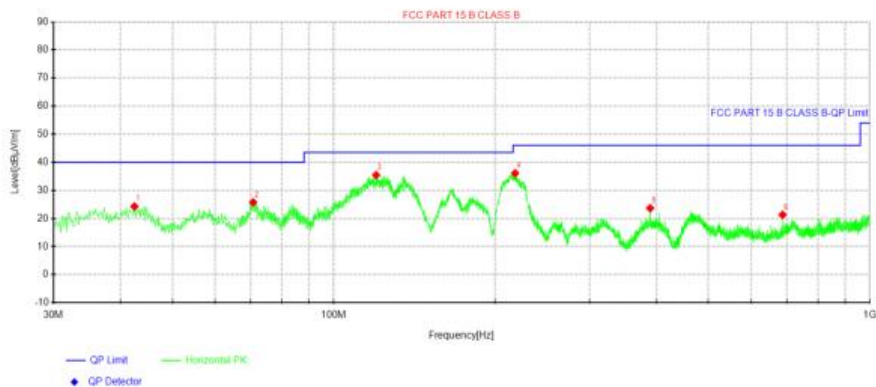


Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	35.9412	42.01	24.29	-17.72	40.00	15.71	100	340	Vertical
2	71.3462	46.98	26.04	-20.94	40.00	13.96	100	230	Vertical
3	125.787	56.28	35.39	-20.89	43.50	8.11	100	260	Vertical
4	215.755	55.42	36.49	-18.93	43.50	7.01	100	0	Vertical
5	468.318	37.52	22.70	-14.82	46.00	23.30	100	190	Vertical
6	687.538	33.34	21.60	-11.74	46.00	24.40	100	40	Vertical

Model No.	YLD-025	Test Date	August 07, 2023
Environmental Conditions	24°C/ 56% RH	Test Mode	ON
Pol	Horizontal	Detector Function	Quasi-peak
Test Engineer	Andy	Distance	3m

Test Graph



Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	42.4888	41.05	24.24	-16.81	40.00	15.76	100	40	Horizontal
2	70.74	46.63	25.72	-20.91	40.00	14.28	100	360	Horizontal
3	119.967	55.72	35.43	-20.29	43.50	8.07	100	260	Horizontal
4	217.937	54.95	36.08	-18.87	46.00	9.92	100	170	Horizontal
5	389.263	39.19	23.62	-15.57	46.00	22.38	100	360	Horizontal
6	687.538	33.03	21.29	-11.74	46.00	24.71	100	360	Horizontal

4. PHOTOGRAPH



Fig.1

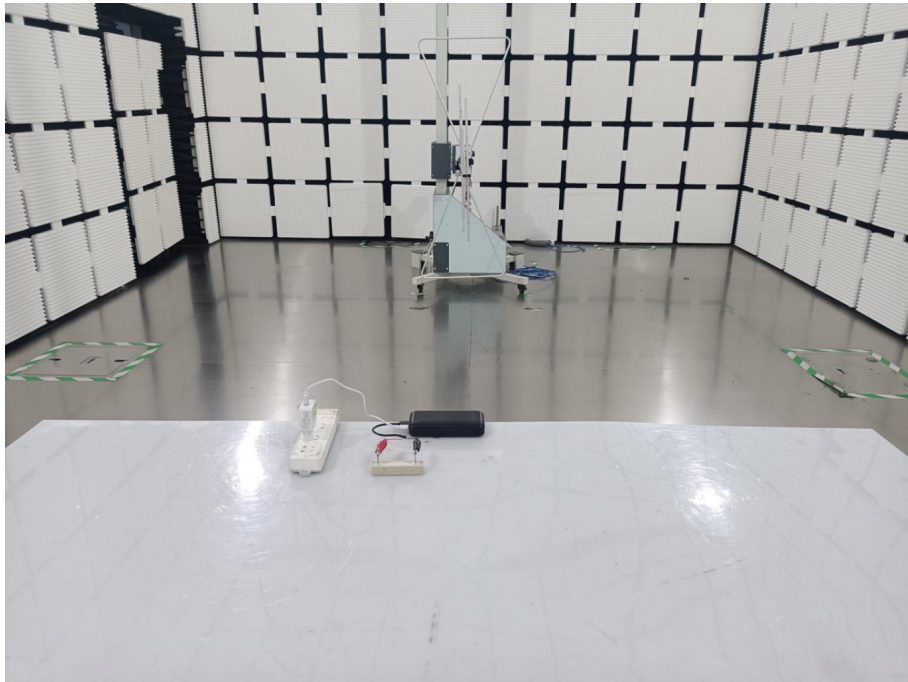


Fig.2

5. EXTERNAL AND INTERNAL PHOTOS OF THE EUT



Fig.1

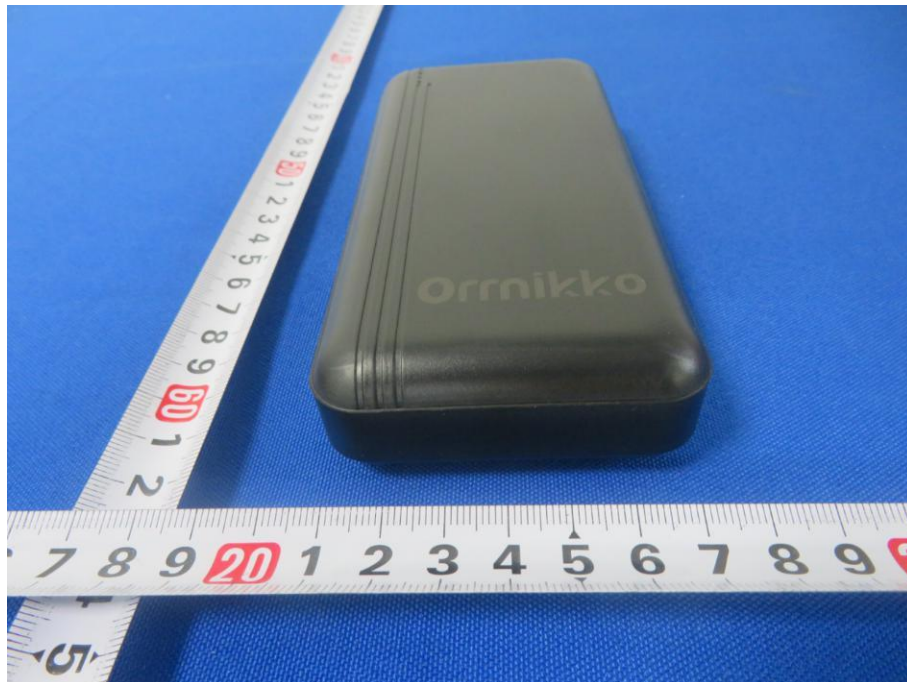


Fig.2

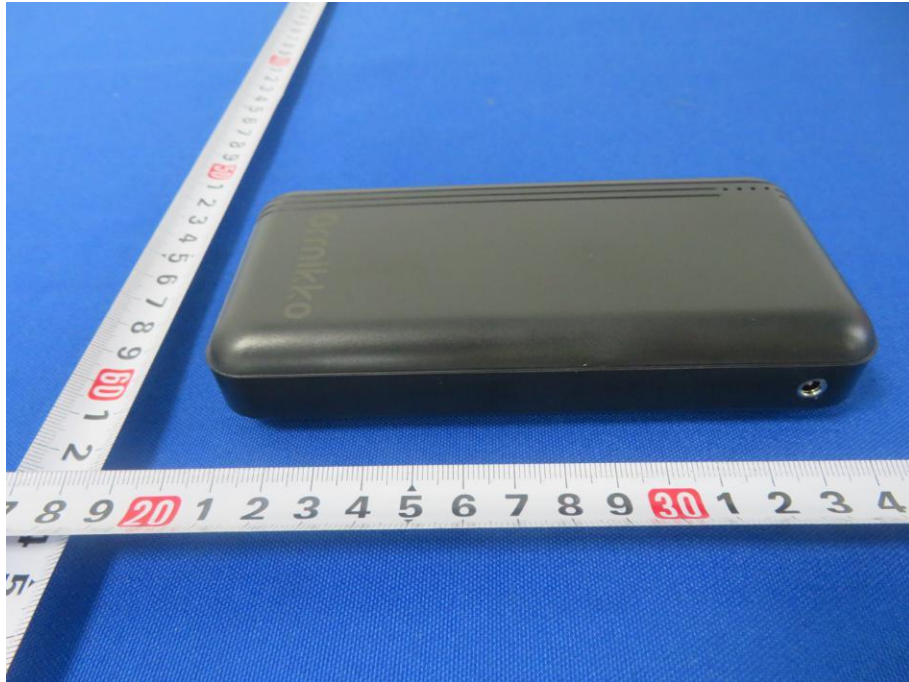


Fig.3



Fig.4

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