EMC TEST REPORT

For

Mid Ocean Brands B.V.

2 In 1 splitter cable

Test Model: MO2496

Prepared for	:	Mid Ocean Brands B.V.
Address	:	7/F., King Tower, 111King Lam Street, Cheung ShaWan, Kowloon, HongKong.
Prepared by	:	Shenzhen LCS Compliance Testing Laboratory Ltd.
Address	:	Room 101, 201, Building A and Room 301, Building C, Juji Industrial Park, Yabianxueziwei, Shajing Street, Bao'an District, Shenzhen, Guangdong, China
Tel	:	+(86) 0755-82591330
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Web	:	www.lcs-cert.com
Mail	:	webmaster@lcs-cert.com
Date of receipt of test sample	:	October 21, 2024
Number of tested samples	:	1
Serial number	:	Prototype
Date of Test	:	October 21, 2024 to October 24, 2024
Date of Report	:	November 06, 2024

TEST REPORT

Report No.	:	**LCSA10184193E001**
Date of Issue	:	November 06, 2024
Testing Laboratory Name	:	**Shenzhen LCS Compliance Testing Laboratory Ltd.**
Address	:	Room 101, 201, Building A and Room 301, Building C, Juji Industrial Park, Yabianxueziwei, Shajing Street, Bao'an District, Shenzhen, Guangdong, China
Testing Location/ Procedure	:	Full application of Harmonised standards ■ Partial application of Harmonised standards □ Other standard testing method □
Applicant's Name	:	**Mid Ocean Brands B.V.**
Address	:	7/F., King Tower, 111King Lam Street, Cheung ShaWan, Kowloon, HongKong.
Test Specification		
Standard	:	EN 55032:2015/A1:2020 EN 55035:2017/A11:2020
Test Report Form No.	:	TRF-4-E-006 A/0
TRF Originator	:	Shenzhen LCS Compliance Testing Laboratory Ltd.
Master TRF	:	Dated 2011-03

Test Item Description.	:	**2 In 1 splitter cable**
Trade Mark	:	N/A
Test Model	:	MO2496
Result	:	**Positive**

Compiled by:	**Supervised by:**	**Approved by:**
Emma wang / File Administrator	Cary Luo/ Technique principal	Gavin Liang / Manager

TEST REPORT

Test Report No.: LCSA10184193E001	November 06, 2024 Date of issue

Test Model	:	**MO2496**
EUT	:	2 In 1 splitter cable
Applicant	:	**Mid Ocean Brands B.V.**
Address	:	7/F., King Tower, 111King Lam Street, Cheung ShaWan, Kowloon, HongKong.
Telephone	:	/
Fax	:	/
Manufacturer	:	**Mid Ocean Brands B.V.**
Address	:	7/F., King Tower, 111King Lam Street, Cheung ShaWan, Kowloon, HongKong.
Telephone	:	/
Fax	:	/
Factory	:	**Mid Ocean Brands B.V.**
Address	:	7/F., King Tower, 111King Lam Street, Cheung ShaWan, Kowloon, HongKong.
Telephone	:	/
Fax	:	/

Test Result	**Positive**

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.

Revision History

Report Version	Issue Date	Revision Content	Revised By
000	October 25, 2024	Initial Issue	/
001	November 06, 2024	This report replaces the report No. LCSA10184193E, and the original report is invalid.	Emma wang

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Test Report Description Page

1. TEST STANDARDS

The tests were performed according to following standards:

EN 55032:2015/A1:2020: Electromagnetic compatibility of multimedia equipment - Emission requirements

EN 55035:2017/A11:2020: Electromagnetic compatibility of multimedia equipment - Immunity requirements.

2. SUMMARY OF STANDARDS AND RESULTS

2.1 Description of Standards and Results

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

Description of Test Item	Standard	Limits	Result
Radiated emissions (30MHz-1GHz)	EN 55032:2015/A1:2020	Class B	Pass
Electrostatic discharges	EN 55035:2017/A11:2020	Contact Discharge: +/- 4kV Air Discharge: +/- 8kV	Pass
RF electromagnetic field disturbances	EN 55035:2017/A11:2020	3V/m, 80%, 1kHz Amp. Mod.	Pass

2.2 Description of Test Modes

No	Title	Description
TM1	Working	Record

2.3 Description of Performance Criteria

General Performance Criteria

Performance Criteria A

The equipment shall continue to operate as intended without operator intervention. No degradation of performance, loss of function or change of operating state is allowed below a performance level specified by the manufacturer when the equipment is used as intended.

The performance level may be replaced by a permissible loss of performance. 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 by what the user may reasonably expect from the equipment if used as intended.

Performance Criteria B

During the application of the disturbance, degradation of performance is allowed. However, no unintended change of actual operating state or stored data is allowed to persist after the test.

After the test, the equipment shall continue to operate as intended without operator intervention; no degradation of performance or loss of function is allowed, below a performance level specified by the manufacturer, when the equipment is used as intended.

The performance level may be replaced by a permissible loss of performance.

If the minimum performance level (or the permissible performance loss), or recovery time, is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.

Performance Criteria C

Loss of function is allowed, provided the function is self-recoverable, or can be restored by the operation of the controls by the user in accordance with the manufacturer's instructions. A reboot or re-start operation is allowed.

Information stored in non-volatile memory, or protected by a battery backup, shall not be lost.

3. GENERAL INFORMATION

3.1 Description of Device (EUT)

EUT : 2 In 1 splitter cable
Test Model : MO2496
Power Supply : DC 5V 2A
Highest Internal Frequency : f ≤ 108MHz
Classification of Equipment : Class B

3.2 Support equipment List

Manufacturer	Description	Model	Serial Number	Certificate
Huawei	Tablet PC	/	/	/
/	Headphones	/	/	/
/	Mobile phone	/	/	/

3.3 Description of Test Facility

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 LCS 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.

NVLAP Accreditation Code is 600167-0.
FCC Designation Number is CN5024.
CAB identifier is CN0071.
CNAS Registration Number is L4595.

3.4 Measurement Uncertainty

Test Item	Measurement Uncertainty
Radiated Emission (30MHz to 1000MHz)	± 3.48 dB
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

4. MEASURING DEVICES AND TEST EQUIPMENT

Radiated emissions (30MHz-1GHz)				
Equipment	**Manufacturer**	**Model No**	**Serial No.**	**Due Date**
EMI Test Software	Farad	EZ	/	/
EMI Test Software	AUDIX	E3	/	/
By-log Antenna	SCHWARZBECK	VULB9163	01143	2027-07-19
Horn Antenna	SCHWARZBECK	3115	EABF-018	2027-07-19
EMI Test Receiver	R&S	ESR3	102311	2025-06-05
Broadband Preamplifier	/	BP-01M18G	P190501	2025-06-05
EMI Test Receiver	R&S	ESCI7	101173	2025-10-07
By-log Antenna	SchwarzZBECK	VULB9163	01565	2027-07-12

Electrostatic discharges				
Equipment	**Manufacturer**	**Model No**	**Serial No.**	**Due Date**
ESD Simulator	SCHLODER	SESD 230	604035	2025-07-14

RF electromagnetic field disturbances				
Equipment	**Manufacturer**	**Model No**	**Serial No.**	**Due Date**
MXG Vector Signal Generator	Agilent	E4438C	MY42081396(6G)	2025-06-05
RF POWER AMPLIFIER	SKET	HAP_0306G-50W	/	2025-06-05
RF POWER AMPLIFIER	OPHIR	5225R	1052	2025-06-05
RF POWER AMPLIFIER	OPHIR	5273F	1019	2025-06-05
Stacked Broadband Log Periodic Antenna	SCHWARZBECK	STLP 9128	9128ES-145	/
Stacked Mikrowellen Log.-Per Antenna	SCHWARZBECK	STLP 9149	9149-484	/
RS Electric field probe	narda	EP601	611WX80208	2025-06-05

5. EMISSION TEST RESULTS (EMI)

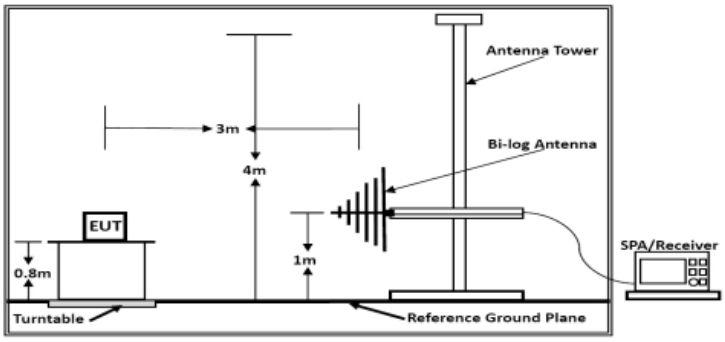
5.1 Radiated emissions (30MHz-1GHz)

Test Requirement:	Class B
Test Limit:	**Frequency (MHz)** / **Limit [dB(uV/m) at 10m]** / **Limit [dB(uV/m) at 3m]** 30 to 230 / 30 / 40 230 to 1000 / 37 / 47 Detector: / Peak for pre-scan (120kHz resolution bandwidth) 30M to 1000MHz
Test Method:	Clause 7.3 of CISPR 16-2-3:2016
Procedure:	An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities. Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

5.1.1 E.U.T. Operation:

Operating Environment:			
Temperature:	26.4 °C	Humidity:	54.2 %
Pre test mode:	TM1		
Final test mode:	TM1		

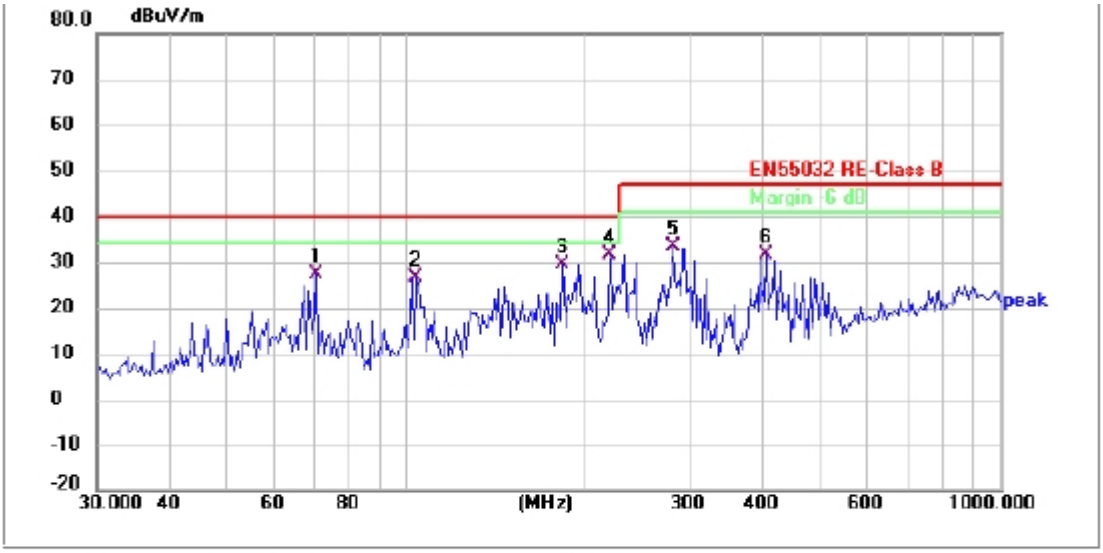
5.1.2 Test Setup Diagram:



Below 1GHz

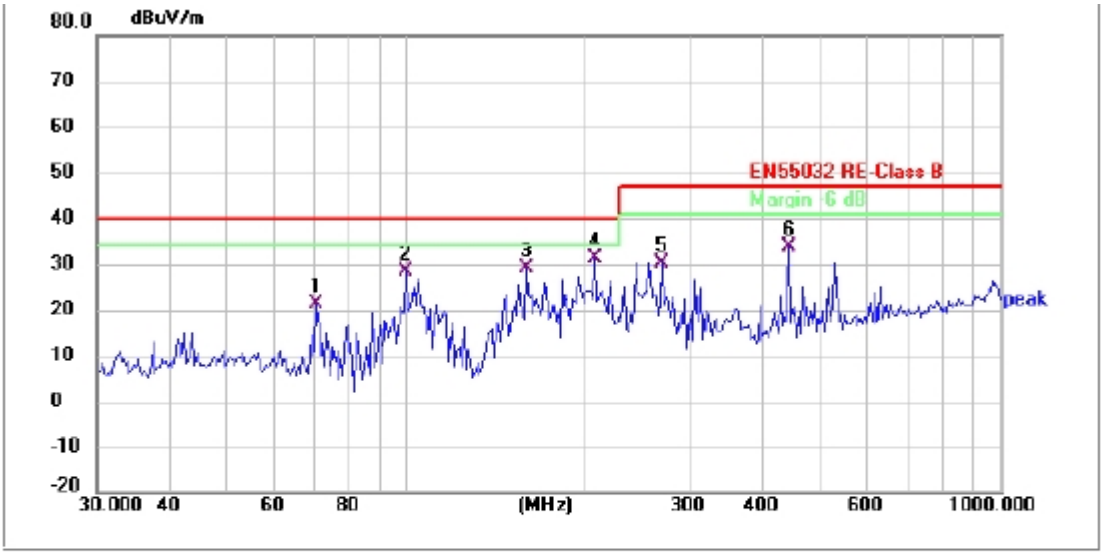
5.1.3 Test Data:

TM1 / Polarization: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	70.210	47.94	-20.62	27.32	40.00	-12.68	QP	P	
2	103.335	44.47	-17.80	26.67	40.00	-13.33	QP	P	
3	182.578	50.22	-20.78	29.44	40.00	-10.56	QP	P	
4 *	219.179	50.36	-18.63	31.73	40.00	-8.27	QP	P	
5	280.294	49.97	-16.74	33.23	47.00	-13.77	QP	P	
6	403.934	45.46	-13.80	31.66	47.00	-15.34	QP	P	

TM1 / Polarization: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	70.210	41.93	-20.62	21.31	40.00	-18.69	QP	P	
2	99.768	46.65	-18.11	28.54	40.00	-11.46	QP	P	
3	158.640	50.29	-21.20	29.09	40.00	-10.91	QP	P	
4 *	207.197	50.22	-19.10	31.12	40.00	-8.88	QP	P	
5	268.721	47.09	-17.00	30.09	47.00	-16.91	QP	P	
6	439.473	47.28	-13.58	33.70	47.00	-13.30	QP	P	

6. IMMUNITY TEST RESULTS (EMS)

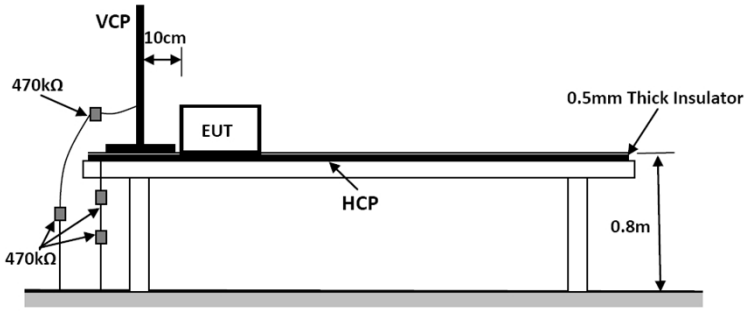
6.1 Electrostatic discharges

Test Requirement:	Contact Discharge: +/- 4kV Air Discharge: +/- 8kV
Test Method:	EN 61000-4-2: 2009
Procedure:	Discharge Impedance: 330Ω/150pF Number of Discharge: Minimum 10 times at each test point Discharge Mode: Single Discharge Discharge Period: 1 second minimum
Performance Criteria:	B

6.1.1 E.U.T. Operation:

Operating Environment:			
Temperature:	23.3 °C	Humidity:	57.5 %
Pre test mode:	TM1		
Final test mode:	TM1		

6.1.2 Test Setup Diagram:



6.1.3 Test Data:

Discharge type	Volt (kV)	Polarity	Test Point	Result/ Observations
Air discharge	2,4,8	+	10	B
Air discharge	2,4,8	-	10	B
Contact discharge	4	+	10	B
Contact discharge	4	-	10	B
Horizontal Coupling	4	+	10	B
Horizontal Coupling	4	-	10	B
Vertical Coupling	4	+	10	B
Vertical Coupling	4	-	10	B

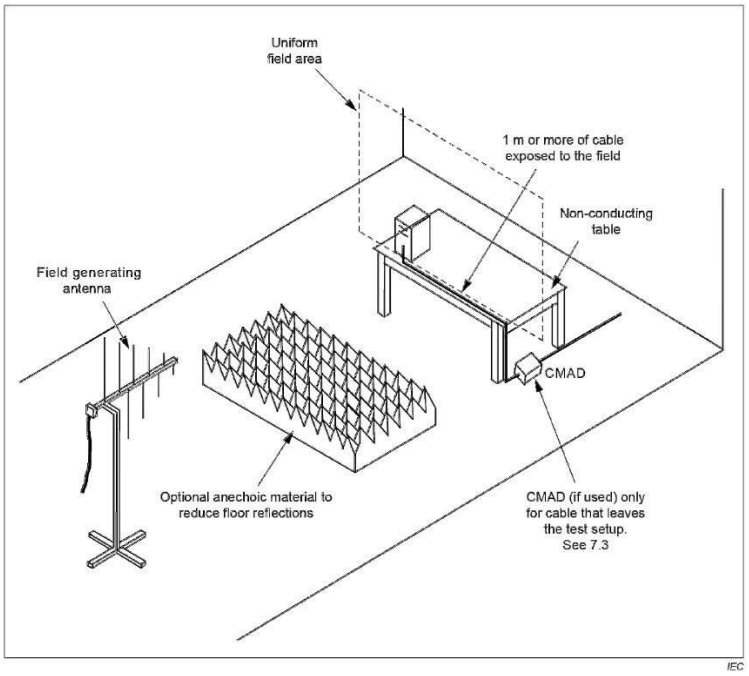
6.2 RF electromagnetic field disturbances

Test Requirement:	3V/m, 80%, 1kHz Amp. Mod.
Test Method:	EN IEC 61000-4-3: 2020
Procedure:	Frequency Range: 80MHz to 1GHz, 1800MHz, 2600MHz, 3500MHz, 5000MHz Antenna Polarisation: Vertical and Horizontal Modulation: 1kHz,80% Amp. Mod,1% increment
Performance Criteria:	A

6.2.1 E.U.T. Operation:

Operating Environment:			
Temperature:	23.3 °C	Humidity:	57.5 %
Pre test mode:	TM1		
Final test mode:	TM1		

6.2.2 Test Setup Diagram:



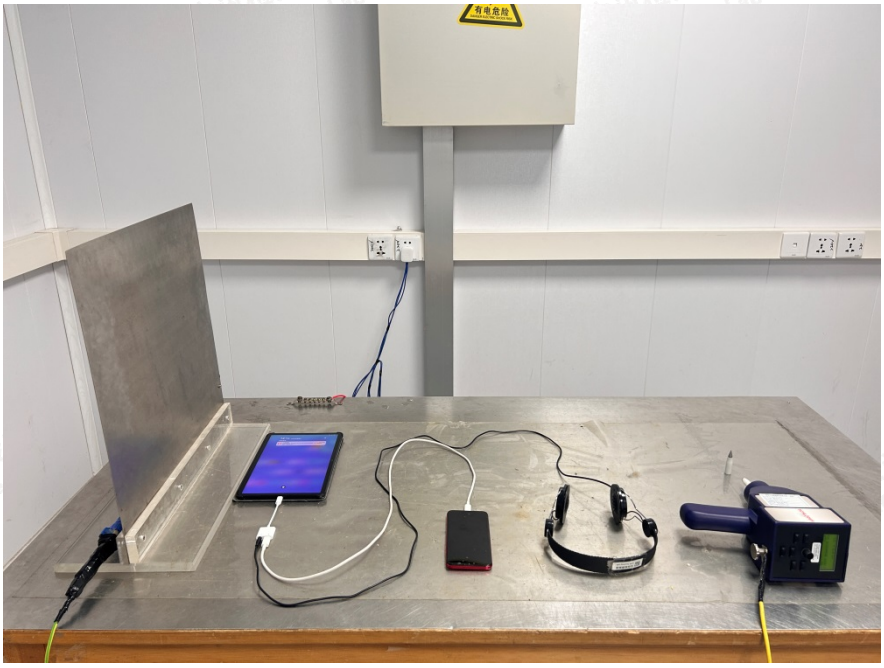
6.2.3 Test Data:

Frequency	Field Strength (V/m)	EUT face	Dwell time	Result/ Observations
80MHz-1GHz	3	Front, Back, Left, Right, Top, Bottom	3s	A
1800MHz	3	Front, Back, Left, Right, Top, Bottom	3s	A
2600MHz	3	Front, Back, Left, Right, Top, Bottom	3s	A
3500MHz	3	Front, Back, Left, Right, Top, Bottom	3s	A
5000MHz	3	Front, Back, Left, Right, Top, Bottom	3s	A

7. TEST SETUP PHOTOS

Radiated emissions (30MHz-1GHz)

Electrostatic discharges



RF electromagnetic field disturbances

8. EUT CONSTRUCTIONAL DETAILS (EUT PHOTOS)

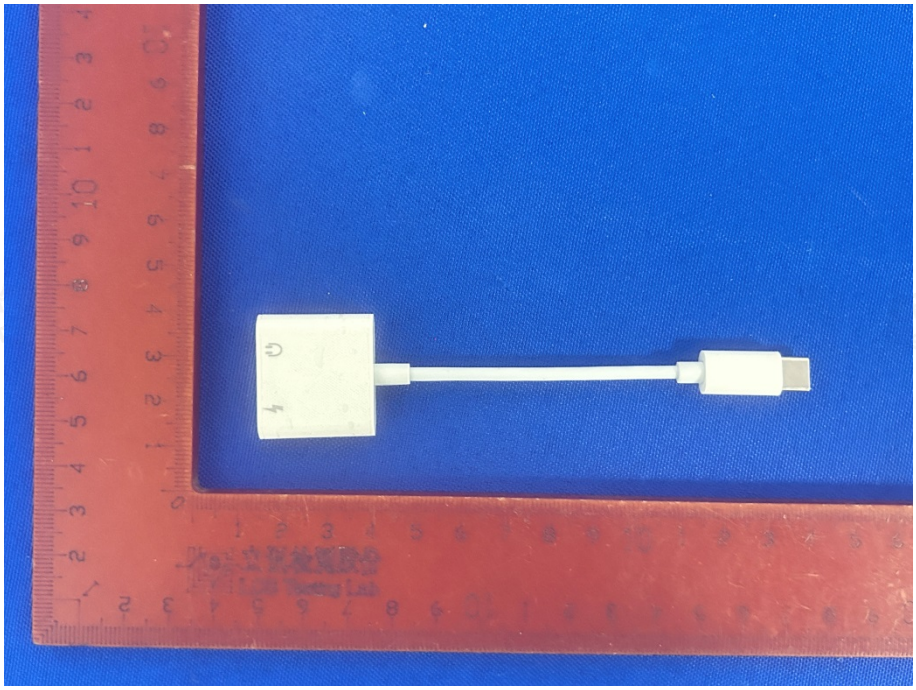


Fig. 1

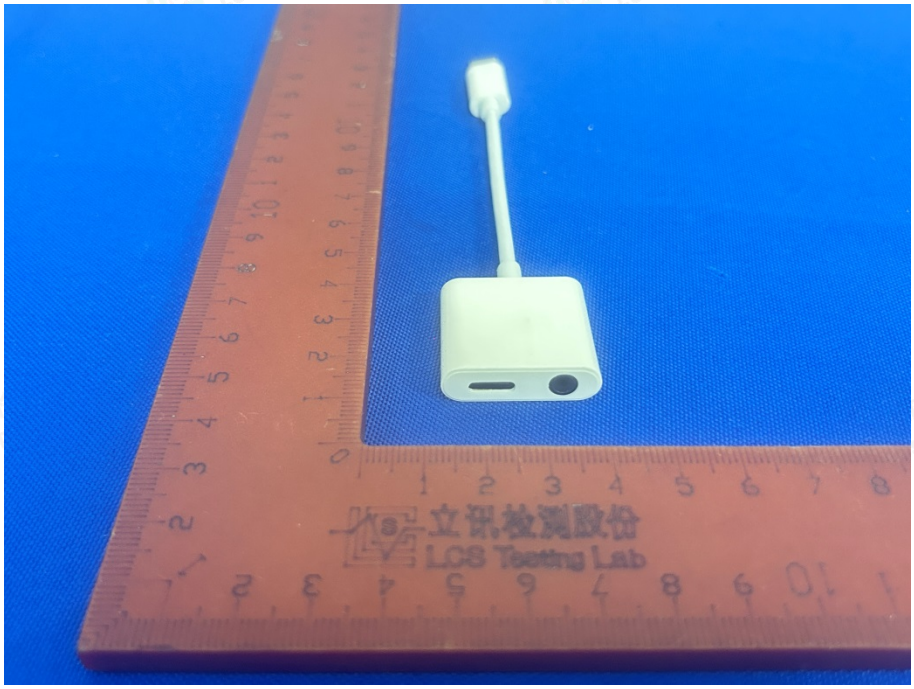


Fig. 2

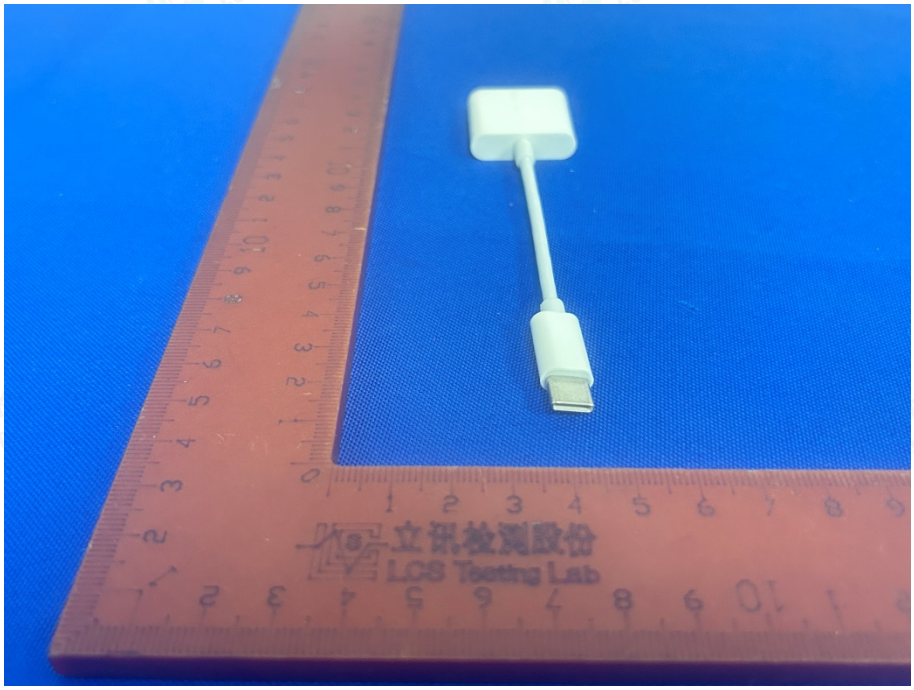


Fig. 3

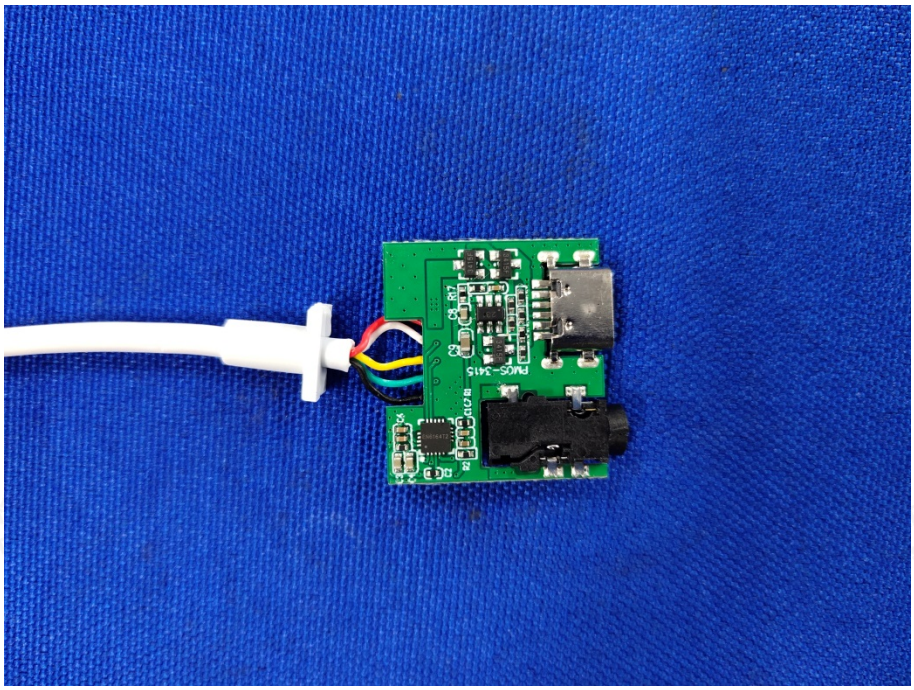


Fig. 4

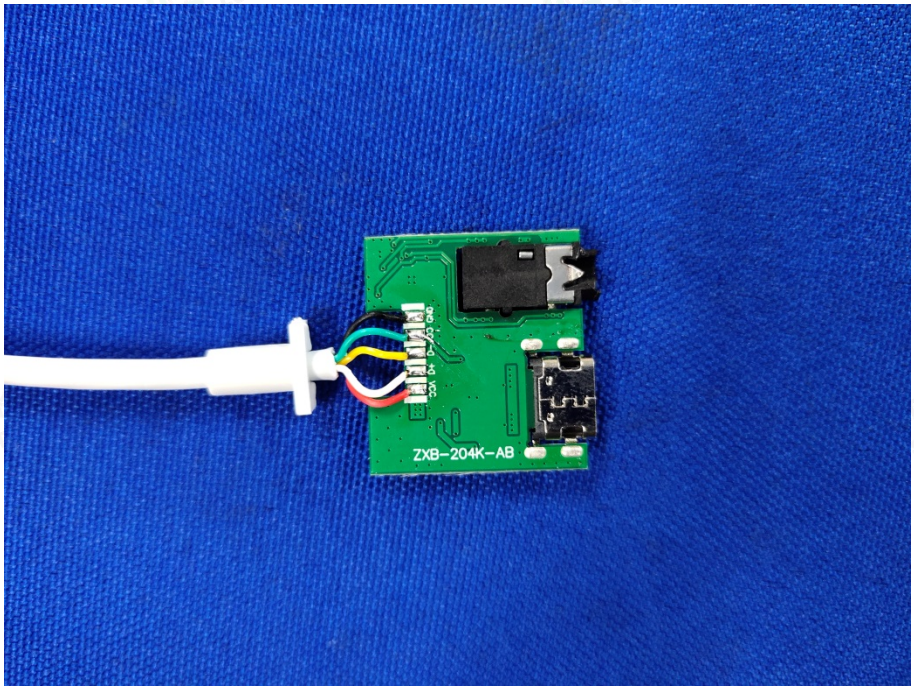


Fig. 5

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