Test Report issued under the responsibility of:

TEST REPORT
IEC 62368-1
Audio/video, information and communication technology equipment
Part 1: Safety requirements

Report Number .....:	E184259-A7098-CB-1
Date of issue .....:	2025-07-15 ; Amendment 1 : 2025-07-25
Total number of pages .....:	11
Name of Testing Laboratory preparing the Report .....:	Underwriters Laboratories Taiwan Co., Ltd
Applicant's name.....:	**SIMPLO TECHNOLOGY CO., LTD.**
Address .....:	**471 PA TEH RD, SEC 2 HU KOU HSINCHU HSIEN 303 TAIWAN**
Test specification:	
Standard .....:	IEC 62368-1: 2018
Test procedure.....:	CB Scheme
Non-standard test method.....:	N/A
TRF template used .....:	IECEE OD-2020-F1:2021, Ed.1.4
Test Report Form No.....:	IEC62368_1E
Test Report Form(s) Originator...:	UL(US)
Master TRF .....:	Dated 2022-04-14

If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

General disclaimer:

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing Laboratory.
The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.

Test Item description :	Rechargeable Li-Polymer Battery Pack
Trade Mark(s) .....:	ASUS
Manufacturer.....:	SIMPLO TECHNOLOGY CO., LTD. 471 PA TEH RD, SEC 2 HU KOU HSINCHU HSIEN 303 TAIWAN
Model/Type reference .....:	C41N2503
Ratings .....:	15.6Vdc, 3174mAh/3082mAh/49.5Wh

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):			
☒	**CB Testing Laboratory:**		
Testing location/ address .....:		Underwriters Laboratories Taiwan Co., Ltd No. 260, Daye Rd., Beitou Dist., Taipei City, TW-112, Chinese Taipei	
Tested by (name, function, signature).....:		Lily Su / Project Handler	
Approved by (name, function, signature) ..:		Richard Lin / Reviewer	
☐	**Testing procedure: CTF Stage 1:**		
Testing location/ address .....:			
Tested by (name, function, signature).....:			
Approved by (name, function, signature) ..:			
☒	**Testing procedure: CTF Stage 2:**		
Testing location/ address .....:		SIMPLO TECHNOLOGY CO., LTD. 471 PA TEH RD, SEC 2 HU KOU HSINCHU HSIEN 303 TAIWAN	
Tested by (name, function, signature).....:		Tammy Chen / Tester	see original CBTR for signature
Witnessed by (name, function, signature) .:		Derek Kuo / Project Handler	see original CBTR for signature
Approved by (name, function, signature) ..:		Eric Hsu / Reviewer	see original CBTR for signature

☐	**Testing procedure: CTF Stage 3:**		
☐	**Testing procedure: CTF Stage 4:**		
Testing location/ address ..... :			
Tested by (name, function, signature)..... :			
Witnessed by (name, function, signature) . :			
Approved by (name, function, signature) .. :			
Supervised by (name, function, signature) :			

List of Attachments (including a total number of pages in each attachment):

National Differences (0 pages)
Enclosures (4 pages)

Summary of testing:

Tests performed (name of test and test clause): **None**	**Testing Location: None**

Summary of compliance with National Differences (List of countries addressed):

Australia - AU / New Zealand - NZ, China - CN, EU Group Differences, Japan - JP, Saudi Arabia - SA, United States of America - US / Canada - CA

United Kingdom (Per customer's request shown separately)

Singapore - SG (No National or Group Differences declared)

☒ **The product fulfils the requirements of** AS/NZS 62368.1:2022

GB 4943.1-2022

EN IEC 62368-1:2020+A11:2020; BS EN IEC 62368-1:2020 + A11:2020

National standard SASO-IEC 62368-1:2020

UL62368-1 3rd Edition, 2021-10-22

CSA Group CSA C22.2 No. 62368-1:2019, 3rd Ed, 2021-10-22

J62368-1(2023)

Use of uncertainty of measurement for decisions on conformity (decision rule) :

☒ No decision rule is specified by the IEC standard, when comparing the measurement result with the applicable limit according to the specification in that standard. The decisions on conformity are made without applying the measurement uncertainty ("simple acceptance" decision rule, previously known as "accuracy method").

☐ Other:… (to be specified, for example when required by the standard or client, or if national accreditation requirements apply)

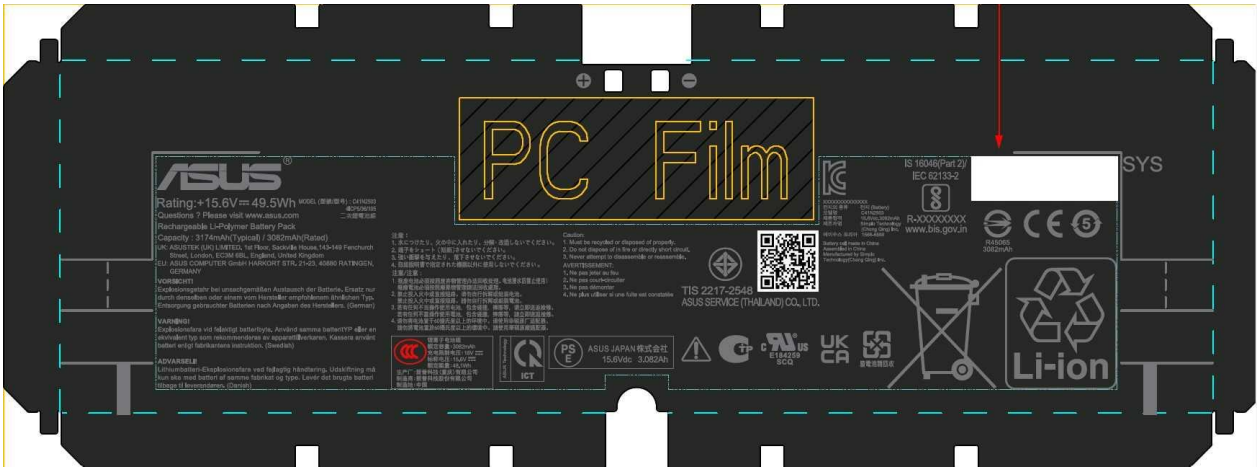
Information on uncertainty of measurement:

The uncertainties of measurement are calculated by the laboratory based on application of criteria given by OD-5014 for test equipment and application of test methods, decision sheets and operational procedures of IECEE. IEC Guide 115 provides guidance on the application of measurement uncertainty principles and applying the decision rule when reporting test results within IECEE scheme, noting that the reporting of the measurement uncertainty for measurements is not necessary unless required by the test standard or customer.

Calculations leading to the reported values are on file with the NCB and testing laboratory that conducted the testing.

Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.



Note: The above markings are the minimum requirements required by the safety lab. For the final production samples, the additional markings which do not give rise to misunderstanding may be added.

Test item particulars:	
Product group ..... :	built-in component
Classification of use by ..... :	Skilled person
Supply Connection ..... :	not mains connected: ES1
Supply tolerance ..... :	None
Supply connection – type ..... :	Not connected to mains
Considered current rating of protective device ... :	-- A; N/A
Equipment mobility ..... :	for building-in
Over voltage category (OVC) ..... :	Not directly connected to mains
Class of equipment ..... :	Class III
Special installation location ..... :	N/A
Pollution degree (PD) ..... :	PD 2
Manufacturer's specified Tma (°C) ..... :	45 degree C
IP protection class ..... :	IPX0
Power systems ..... :	not AC mains
Altitude during operation (m) ..... :	5000 m
Altitude of test laboratory (m) ..... :	2000 m or less
Mass of equipment (kg) ..... :	0.166
Possible test case verdicts:	
- test case does not apply to the test object ....:	N/A
- test object does meet the requirement.....:	P (Pass)
- test object does not meet the requirement....:	F (Fail)
Testing:	
Date of receipt of test item .....:	N/A
Date (s) of performance of tests .....:	N/A
General remarks:	
"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. **Throughout this report a ☐ comma / ☒ point is used as the decimal separator.**	
Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided ..... :	☒ **Yes** ☐ **Not applicable**
When differences exist; they shall be identified in the General product information section.	

Name and address of factory (ies) ..... :	Huapu Technology (Changshu) Inc 888 Dongnan Avenue Changshu New & Hi-Tech Industrial Development Zone Changshu Jiangsu 215500 CHINA SIMPLO TECHNOLOGY (CHONGQING) INC. No.2 Zongbao Avenue, Shapingba District Chongqing 401332 CHINA Simplo Technology (Changshu) Inc No. 888 Dongnan Avenue Changshu New & Hi-Tech Industrial Development Zone Changshu Jiangsu 215500 CHINA SIMPLO TECHNOLOGY (VIETNAM) CO LTD Lot CNSG-07 Van Trung Industrial Park Van Trung Commune Viet Yen District 26171 Bac Giang Province VIETNAM SIMPLO TECHNOLOGY (VIETNAM) CO., LTD. Lot CN-08, Hoa Phu Industrial Park Hiep Hoa District Bac Giang Province VIETNAM

General product information and other remarks:

The original report was modified on 2025-07-25 to include the following changes/additions:

-This test Report should be read in conjunction with the original report No.:

1. E184259-A7098-CB-1 Original issued on 2025-07-15 with CB Certificate No. DK-168836-UL issued 2025-07-15.

This Test Report were deemed to (Technical) amendment due to below:

1. Modify watt-hour rating from 49Wh to 49.5Wh.
2. Replace label.
3. Replace photo ID 03-07 in enclosure.

No tests were considered necessary due to modify watt-hour rating not involve related test evaluation.

Product Description

- Electronic components mounted on PWB, 4S/1P cells, secured together plastic frame, label and mylar sheet.

Model Differences

N/A

Additional Information

- Model C41N2503 was investigated in UL 2054 Third Edition. Test items were as below:

(1) Short Circuit Test (At room temperature)
(2) Short Circuit Test (At 55 temperature)
(3) Abnormal Charging Tests
(4) Abusive Overcharge Test
(5) Forced Discharge Test
(6) Battery Pack Component Temperature Test

- B.3 and B.4 tests result were refer to UL2054 fault condition.

- Sample Configuration: See Enclosure 07-31 for details.

Technical Considerations

- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of : 45 degree C
- The following are available from the Applicant upon request : Installation (Safety) Instructions / Manual provided by end product
- The charging/ discharging specification are listed as below:
  Maximum specified charging voltage/ current:
  (1) 0°C to 15°C: 616mA to 4.5V/Cell;
  (2) 15°C to 20°C: 1541mA to 4.5V/Cell;
  (3) 20°C to 43°C: 3390mA to 4.25V/Cell, 2157mA to 4.5V/Cell
  (4) 43°C to 45°C: 1541mA to 4.45V/Cell;
  (Tested with 18V, 3624mA as the worst condition)

  Max Discharging Power: 4.53A
  End of discharge voltage is 12Vdc

- The product was investigated to the following additional standards:
  IEC 62368-1:2018
  EN IEC62368-1:2020+A11:2020
  UL62368-1 3rd Edition, 2021-10-22
  CSA Group CSA C22.2 No. 62368-1:2019, 3rd Ed, 2021-10-22
  UL 2054 STANDARD FOR HOUSEHOLD AND COMMERCIAL BATTERIES - Edition 3 - Revision Date 2022/03/10
  IEC 62133-2:2017, IEC 62133-2:2017/AMD1:2021, EN 62133-2:2017/A1:2021
  UN38.3 which represent IEC 62281 requirement
  BS EN IEC 62368-1:2020 + A11:2020
  J62368-1(2023)
- Annex M.4.4 was evaluated together with end product.

Engineering Conditions of Acceptability

When installed in an end-product, consideration must be given to the following:

- The following output circuits are at ES1 energy levels : Whole battery circuit and output connector.
- The following output circuits are at PS3 energy levels : Battery output connector and Internal cell module
- The investigated Pollution Degree is : 2
- The following end-product enclosures are required : Fire and Mechanical Enclosure shall be provided and evaluated in end-product. If not provided in end-product, suitable evaluation shall be re-considered.
- The following components require special consideration during end-product Thermal (Heating) tests due to the indicated maximum temperature measurements during component-level testing : - PWB (130°C), - Cell (90°C), - Plastic frame, Label, Connector (80°C)
- Accessible parts: TS1, plastic parts, T (>1S and <10S)
- The product Battery Pack and Battery Cell were investigated to the following additional standards: UN38.3, which represent IEC 62281 requirement.
- This battery pack has been evaluated based upon manufacturer's specifications for charging, discharging and temperature limits. They have not been evaluated in combination with charger(s) or host product(s). Additional evaluation to determine compliance will be required on the combination(s) in the end product evaluation.
- Instruction safeguard to prevent reasonably foreseeable misuse: Shall be checked in end product's instruction. Symbol "see enclosure ID 7-05 for detail" is provided on battery pack body; Instructions to prevent reasonably foreseeable misuse of this battery pack and related warning should be considered and provided in the end product evaluation.
- The following parameters are used for Annex M.3 criteria:
  - Battery allowable temperature charging and discharging 90°C.

  -- Overcharge caused by fault in battery with Pack's Q300, Q301 (pin 3-6) shorted, R502 (U100) opened, RT200, RT201, and all thermostats disabled
  -- Overcharging test under system fault was charged with 24V/6.348A.
  -- Excessive discharging: 4.53A Pack's Q300,Q301 (Pin 3-6) shorted, R502 (U100) opened, RT201 and all thermostats disabled.

  The following parameters are used for Annex M.4.2 criteria:
  Cell Max. charge Voltage: 4.5V
  Cell Max. charge current: 0~15°C: 616.4mA Max to 4.5V, then CV to 154.1mA;
  15~20°C:1541mA Max to 4.5V, then CV to 154.1mA.
  20~45°C: 3390.2mA Max to 4.25V, 2157.4mA to 4.5V, then CV to 154.1mA;
  45~60°C: 1541mA Max to 4.1V, then CV to 154.1mA

  Highest specified charging temperature: 90 degree C
  Lowest specified charging temperature: 0 degree C

  System fault –
  - Battery maximum allowable charging voltage:
  Pack's charge over voltage protection: 4.53V±0.01V / cell
  - Battery maximum allowable charging current: ≧3.698A
  Battery fault –
  - Highest specified charging temperature: ≧ 60°C±3°C
  - Lowest specified charging temperature: ≦ 0±3°C

  See table M for details.
- M.6.1 Cell's internal short condition was evaluated and complied with UL 1642 Round Bar Crush Test., which is considered compliant with IEC 62281 Impact Test.

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

F.3.2.1	Manufacturer identification ..... :	See Trade Mark	Pass
F.3.2.2	Model identification ..... :	See Model/Type reference	Pass
F.3.3.3	Nature of the supply voltage..... :	IEC 60417-5031 (2002-10) for d.c.	Pass
F.3.3.4	Rated voltage..... :	See Ratings	Pass
F.3.3.5	Rated frequency ..... :	DC source	Pass
F.3.3.6	Rated current or rated power..... :	See Ratings	Pass

List of test equipment used:

A completed list of used test equipment shall be provided in the Test Reports when a Customer's Testing Facility according to CTF stage 1 or CTF stage 2 procedure has been used.
Note: This page may be removed when CTF stage 1 or CTF stage 2 are not used. See also clause 4.8 in OD 2020 for more details.

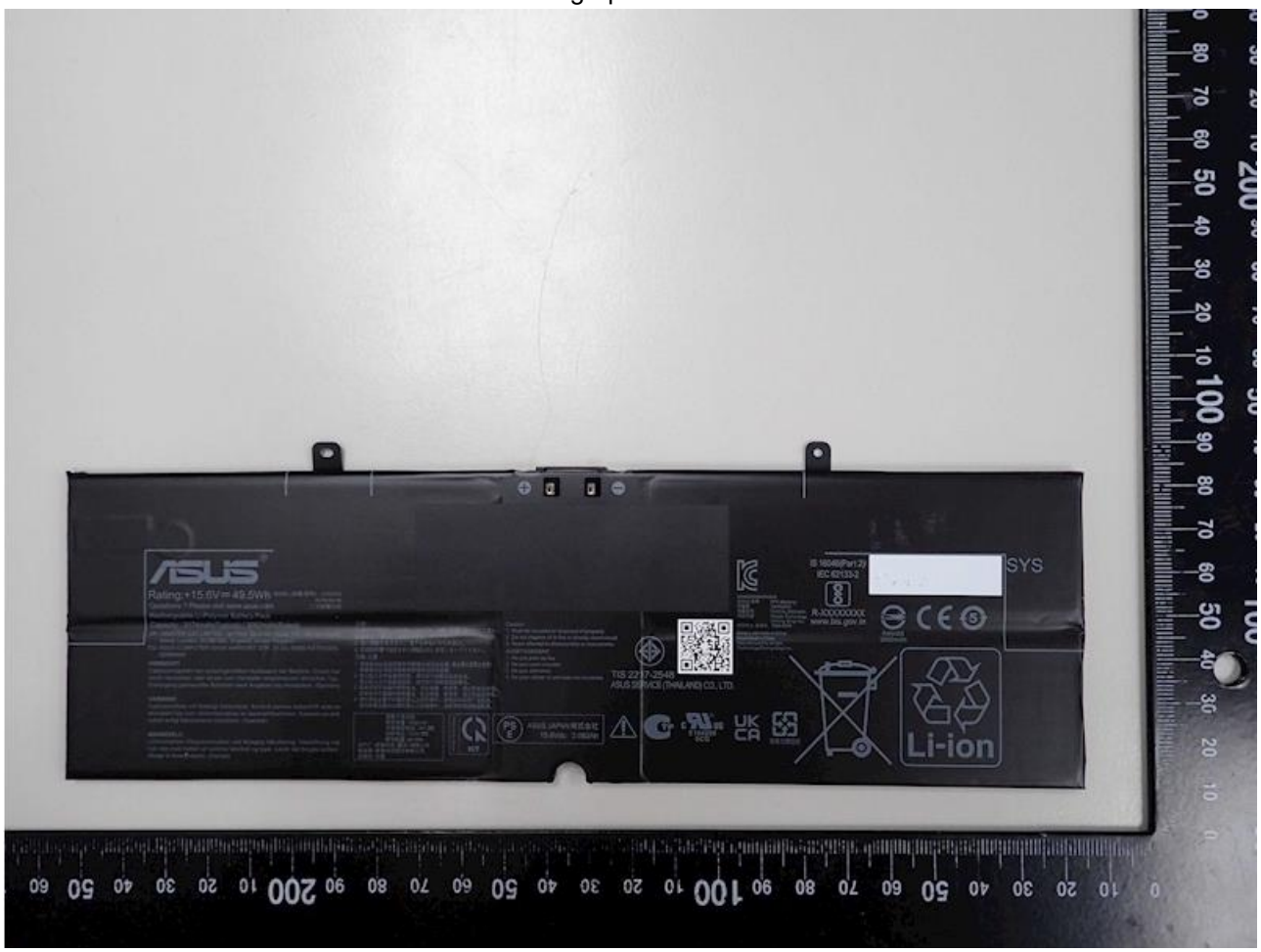
Clause	Measurement / testing	Testing / measuring equipment / material used, (Equipment ID)	Range used	Last Calibration date	Calibration due date

Enclosures

Type	Supplement Id	Description
Photographs	03-07	Overall view-1
Licenses	08-10	Pack Cert. (AM1)

Enclosures

Photographs ID 03-07



Enclosures

Licenses ID 08-10

	Ref. Certif. No.
IEC IECEE	JPTUV-175169-M1

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

CB TEST CERTIFICATE

Product	Rechargeable Li-Polymer Battery Pack
Name and address of the applicant	Simplo Technology Co., Ltd. No. 471, Pa Teh Road, Sec. 2 Hu Kou Hsiang, Hsin Chu Hsien 303 Taiwan
Name and address of the manufacturer	Simplo Technology Co., Ltd. No. 471, Pa Teh Road, Sec. 2 Hu Kou Hsiang, Hsin Chu Hsien 303 Taiwan
Name and address of the factory Note: *When more than one factory, please report on page 2*	See additional page(s) for the listing of 5 factories
Ratings and principal characteristics	DC 15.6V, Typical: 3174mAh, 49.5Wh / Rated: 3082mAh
Trademark / Brand (if any)	ASUS
Customer's Testing Facility (CTF) Stage used	N/A
Model / Type Ref.	C41N2503
Additional information (if necessary may also be reported on page 2)	Re-issue of JPTUV-175169 dated 2025-07-01, due to first modification.
A sample of the product was tested and found to be in conformity with	IEC 62133-2:2017 IEC 62133-2:2017/AMD1:2021
As shown in the Test Report Ref. No. which forms part of this Certificate	CN2565YK 002

This CB Test Certificate is issued by the National Certification Body

TÜVRheinland®

TÜV Rheinland Japan Ltd.
4-25-2 Kita-Yamata, Tsuzuki-ku
Yokohama 224-0021, Japan
Mail: info@jpn.tuv.com

Jason Tang

Date: 2025-07-25

Signature: Jason Tang

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Disclaimer: This is an electronically released document. The authenticity can be verified on the IECEE Website "http://certificates.iecee.org" (1.3s / 0)

Enclosures

Licenses ID 08-10

	Ref. Certif. No.
	JPTUV-175169-M1

Factories :

1. Simplo Technology (Chong Qing) Inc.
No. 2 Zongbao Avenue, Shapingba District Chongqing
P.R. China

2. Huapu Technology(Changshu)INC.
No.888, Dongnan Avenue, Changshu New & Hi-tech Industrial Development Zone,
Changshu, Jiangsu
P.R. China

3. Simplo Technology (Changshu) INC.
No.888,Dongnan Avenue, Changshu New & Hi-tech Industrial Development
Zone,Changshu, Jiangsu
P.R. China

4. SIMPLO TECHNOLOGY (VIETNAM) CO., LTD.
Lot CNSG-07, Van Trung Industrial Park, Van Trung Commune, Viet Yen District,
Bac Giang Province
Vietnam

5. SIMPLO TECHNOLOGY (VIETNAM) CO., LTD.
Lot CN-08, Hoa Phu Industrial Park, Hiep Hoa District, 26927 Bac Giang Province
Vietnam

TÜVRheinland®

Date: 2025-07-25 Signature: as on page 1

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