Report No. HTT202412074CH

Test Report

Application information:

Applicant name:	
Address:	
Manufacturer:	
Address:	

Sample information:

Sample Name:	Cylindrical lithium-ion rechargeable cell
Sample Model:	IMR14500-500mAh
Trade mark:	N/A
Sample Received Date:	Dec. 02, 2024
Testing Period:	Dec. 02, 2024 ~ Dec. 06, 2024
Test Requested:	As specified by Regulation (EU) 2023/1542- Heavy Metals Content in batteries and waste batteries.
Test Method:	Please refer to next page.
Test Results	Please refer to next page(s).
Conclusion:	Based on the performed tests on submitted sample(s), the results Comply with the Regulation (EU) 2023/1542- Heavy Metals Content in batteries and waste batteries.

Completed by: **Reviewed by:** **Approved by:**

Technical Manager

Shenzhen HTT Technology Co., Ltd.

Shenzhen HTT Technology Co., Ltd.
Hotline: 400-6655-351 Tel: 0755-23595200 Fax: 0755-23595201 http://www.httprc.com

Test Report

Test Result:

Regulation (EU) 2023/1542- Heavy Metals Content in batteries and waste batteries.

Tested Item(s)	Unit	Limit	MDL	Result
Lead(Pb)	mg/kg	100	2	N.D.
Cadmium(Cd)	mg/kg	20	2	N.D.
Mercury(Hg)	mg/kg	5	2	N.D.

Note:

(1) MDL = Method Detection Limit

(2) N.D. =Not Detected(<MDL)

(3) mg/kg = ppm =parts per million

(4) Batteries, accumulators and button cells containing more than 0.0005 % mercury, more than 0.002 % cadmium or more than 0.01 % lead, shall be marked with the chemical symbol for the metal concerned: Hg, Cd or Pb.

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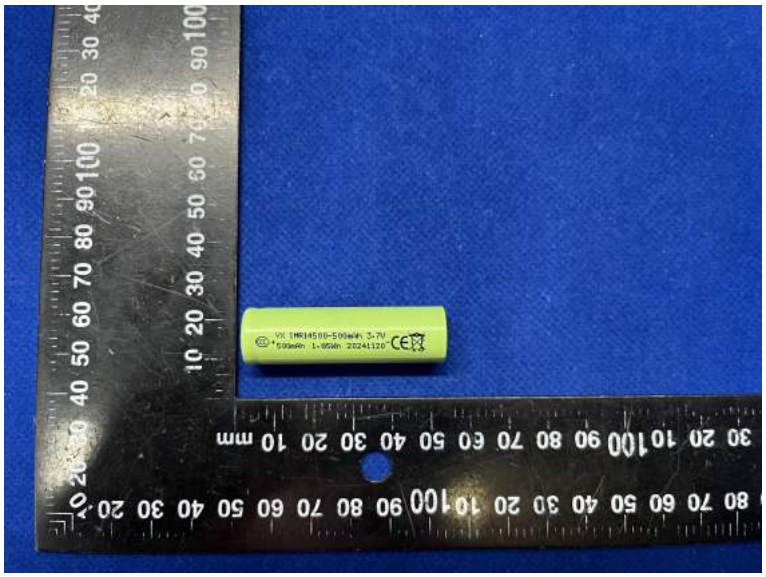
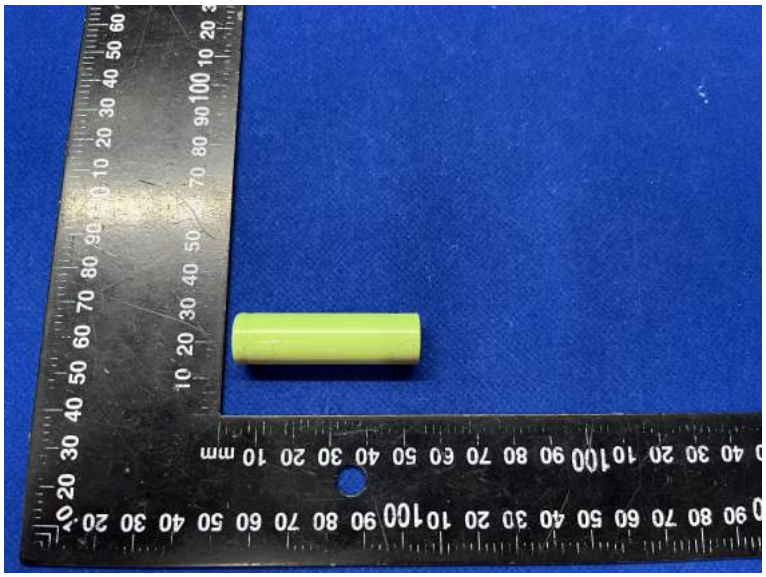
Test Report

Photo(s) of the sample(s)





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*** End of report ***

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Test Report issued under the responsibility of:

TÜVRheinland®

TEST REPORT
IEC 62133-2
Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications – Part 2: Lithium systems

Report Number. ..... :	CN22NCNY 004
Date of issue ..... :	2025-01-22
Total number of pages ..... :	6 pages
Name of Testing Laboratory preparing the Report ..... :	Guangzhou MCM Certification & Testing Co., Ltd.
Applicant's name ..... :	
Address ..... :	
Test specification:	
Standard ..... :	IEC 62133-2:2017, IEC 62133-2:2017/AMD1:2021
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. ..... :	IEC62133_2C
Test Report Form(s) Originator .... :	DEKRA Certification B.V.
Master TRF ..... :	Dated 2022-07-01

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This report is not valid as a CB Test Report unless signed by an approved IECEE 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.
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Test item description ..... :	Cylindrical Lithium-ion Rechargeable Cell
Trade Mark(s) ..... :	N/A
Manufacturer ..... :	Same as applicant
Model/Type reference ..... :	IMR14500-600mAh, IMR14500-500mAh, IMR14500-400mAh, IMR14500-300mAh
Ratings ..... :	3.7V, 600mAh, 2.22Wh 3.7V, 500mAh, 1.85Wh 3.7V, 400mAh, 1.48Wh 3.7V, 300mAh, 1.11Wh

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):

☒	**CB Testing Laboratory:**	Guangzhou MCM Certification & Testing Co., Ltd.	
Testing location/ address ..... :		Room 101 to 116 & 216, Building 2 (Office Building and Workshop)No. 45 Zhong Er Section of Shiguang Road, Zhongcun Street, Panyu District, Guangzhou City, Guangdong Province, China	
Tested by (name, function, signature) ..... :		Zhipeng Liu (Engineer)	Zhipeng Liu
Approved by (name, function, signature) .. :		Liang Hongcheng (Authorizer)	Liangzhongcheng
☐	**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 ..... :			
Tested by (name + signature) ..... :			
Witnessed by (name, function, signature). :			
Approved by (name, function, 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):

- Attachment 1: Photo Documentation (8 pages)

Also see attachments in original report CN22NCNY 001, CN22NCNY 002 and CN22NCNY 003.

Summary of testing:

Tests performed (name of test and test clause):	**Testing location:**
N/A	N/A

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

See original report CN22NCNY 001, CN22NCNY 002 and CN22NCNY 003.

☒ **The product fulfils the requirements of EN 62133-2:2017, EN 62133-2:2017/A1:2021, SASO-IEC-62133-2.**

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: N/A (to be specified, for example when required by the standard or client, or if national accreditation requirements apply)

Information on uncertainty of measurement:

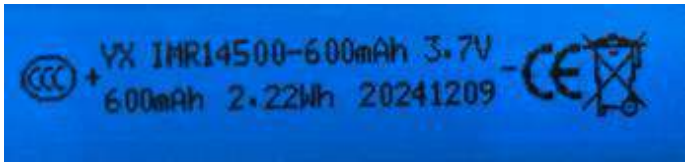
The uncertainties of measurement are calculated by the laboratory based on application of criteria given by OD-5014 for test equipment and application of test methods, decision sheets and operational procedures of IECEE.

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.

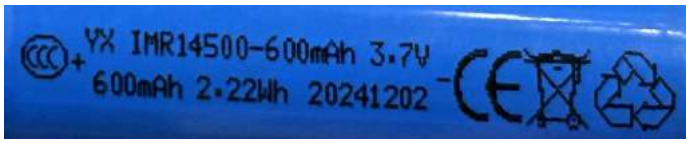
Calculations leading to the reported values are on file with the NCB and testing laboratory that conducted the testing.

Copy of marking plate:

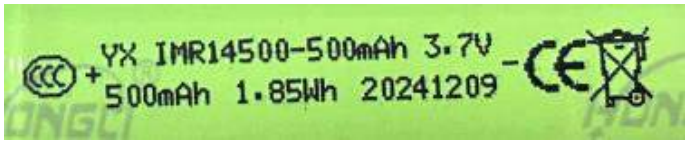
The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.



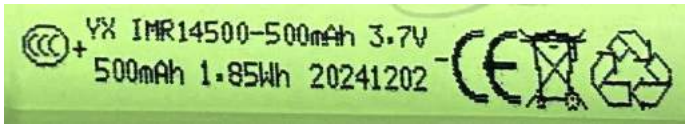
Label 1 for model IMR14500-600mAh



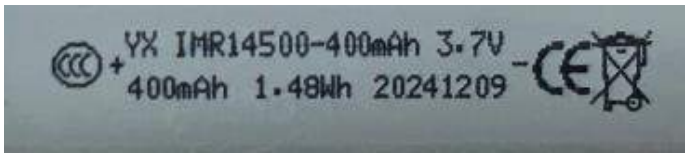
Label 2 for model IMR14500-600mAh



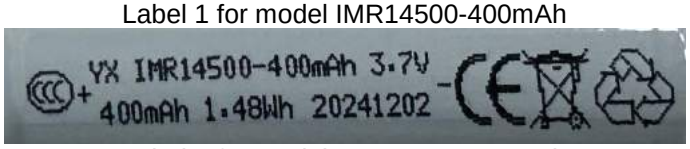
Label 1 for model IMR14500-500mAh



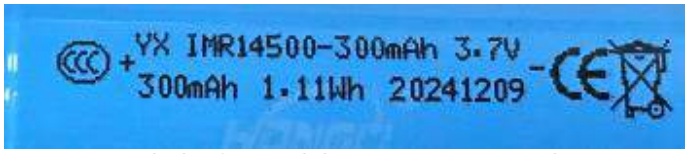
Label 2 for model IMR14500-500mAh



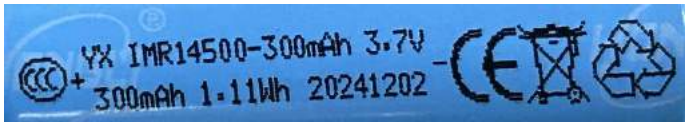
Label 1 for model IMR14500-400mAh



Label 2 for model IMR14500-400mAh



Label 1 for model IMR14500-300mAh



Label 2 for model IMR14500-300mAh

Remark: The agreement about marking plate between battery pack manufacturer and cell factory provided.

Test item particulars.....:	
Classification of installation and use.....:	To be defined in final product
Supply Connection.....:	DC Terminal
Recommend charging method declared by the manufacturer.....:	Charging the cell with 0.2C constant current and 4.2V constant voltage until the current reduces to 0.02C at ambient 20°C±5°C.
Discharge current (0,2 It A).....:	IMR14500-600mAh: 120mA, IMR14500-500mAh: 100mA, IMR14500-400mAh: 80mA, IMR14500-300mAh: 60mA.
Specified final voltage.....:	3.0V
Upper limit charging voltage per cell.....:	4.2V
Maximum charging current.....:	IMR14500-600mAh: 300mA, IMR14500-500mAh: 250mA, IMR14500-400mAh: 200mA, IMR14500-300mAh: 150mA.
Charging temperature upper limit.....:	45°C
Charging temperature lower limit.....:	0°C
Polymer cell electrolyte type.....:	☐ gel polymer ☐ solid polymer ☒ N/A
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).....:	Same as applicant

General product information and other remarks:

This test report shall be read in conjunction with the original report CN22NCNY 001, CN22NCNY 002 and CN22NCNY 003.

Description of change(s):

1. Add two new markings for the each of cell models. Details see page 4 and Attachment 1.

For the above described change(s) the following was considered to be necessary:

Change	Testing	Comments	Result
1	N/A	No safety impact, no further testing considered as necessary.	P

History of amendments and modifications:

Ref. No. CN22NCNY 001, dated 2022-09-07 (original test report)

Ref. No. CN22NCNY 002, dated 2024-06-05 (1st modification)

Ref. No. CN22NCNY 003, dated 2024-09-26 (2nd modification)

Ref. No. CN22NCNY 004, dated 2025-01-22 (1st amendment)

Attachment 1 Photo Documentation

Product: Cylindrical Lithium-ion Rechargeable Cell

Type Designation: IMR14500-600mAh, IMR14500-500mAh, IMR14500-400mAh, IMR14500-300mAh

Figure 1 Front view of cell (model: IMR14500-600mAh)

Figure 2 Side view of cell (model: IMR14500-600mAh)

Attachment 1 Photo Documentation

Product: Cylindrical Lithium-ion Rechargeable Cell

Type Designation: IMR14500-600mAh, IMR14500-500mAh, IMR14500-400mAh, IMR14500-300mAh

Figure 3 Front view of cell (model: IMR14500-600mAh)

Figure 4 Side view of cell (model: IMR14500-600mAh)

Attachment 1 Photo Documentation

Product: Cylindrical Lithium-ion Rechargeable Cell

Type Designation: IMR14500-600mAh, IMR14500-500mAh, IMR14500-400mAh, IMR14500-300mAh

Figure 5 Front view of cell (model: IMR14500-500mAh)

Figure 6 Side view of cell (model: IMR14500-500mAh)

Attachment 1 Photo Documentation

Product: Cylindrical Lithium-ion Rechargeable Cell

Type Designation: IMR14500-600mAh, IMR14500-500mAh, IMR14500-400mAh, IMR14500-300mAh

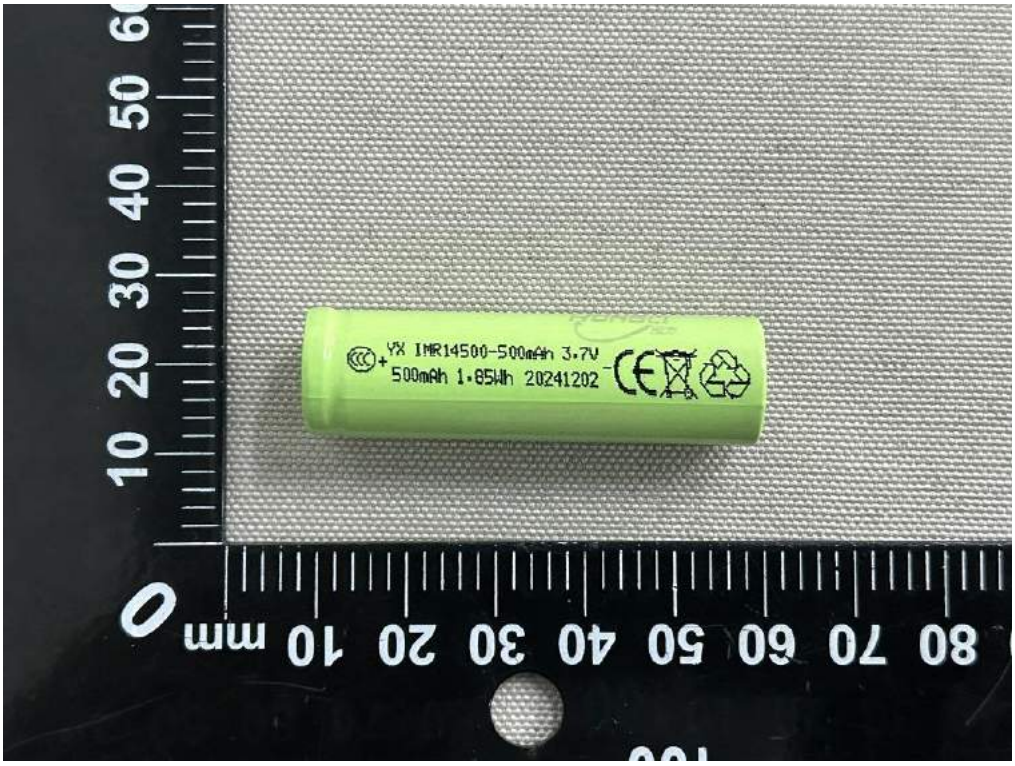


Figure 7 Front view of cell (model: IMR14500-500mAh)

Figure 8 Side view of cell (model: IMR14500-500mAh)

Product: Cylindrical Lithium-ion Rechargeable Cell

Type Designation: IMR14500-600mAh, IMR14500-500mAh, IMR14500-400mAh, IMR14500-300mAh

Figure 9 Front view of cell (model: IMR14500-400mAh)

Figure 10 Side view of cell (model: IMR14500-400mAh)

Attachment 1 Photo Documentation

Product: Cylindrical Lithium-ion Rechargeable Cell

Type Designation: IMR14500-600mAh, IMR14500-500mAh, IMR14500-400mAh, IMR14500-300mAh

Figure 11 Front view of cell (model: IMR14500-400mAh)

Figure 12 Side view of cell (model: IMR14500-400mAh)

Attachment 1 Photo Documentation

Product: Cylindrical Lithium-ion Rechargeable Cell

Type Designation: IMR14500-600mAh, IMR14500-500mAh, IMR14500-400mAh, IMR14500-300mAh

Figure 13 Front view of cell (model: IMR14500-300mAh)

Figure 14 Side view of cell (model: IMR14500-300mAh)

Attachment 1 Photo Documentation

Product: Cylindrical Lithium-ion Rechargeable Cell

Type Designation: IMR14500-600mAh, IMR14500-500mAh, IMR14500-400mAh, IMR14500-300mAh

Figure 15 Front view of cell (model: IMR14500-300mAh)

Figure 16 Side view of cell (model: IMR14500-300mAh)