



## ATTO Battery- Flight Safety Certificates

No.	Document	Standard	Dated
3	IECEE TEST REPORT	IEC 62133	10 OCT 2015
4	MA BATTERY SAFETY CERTIFICATES	UN 38.3	19 AUG 2015
5	MA BATTERY TRANSPORT CERTIFICATES	UNUN8.3	19 AUG 2015

For more information:

[www.movinglife.com](http://www.movinglife.com)

[info@movinglife.com](mailto:info@movinglife.com)

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# TEST REPORT IEC 62133

**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**

Report Number .....: 3174113.50

Date of issue .....: 2015-10-10

## Test specification:

Standard .....: IEC 62133: 2012 (Second Edition)

Test procedure .....: CB Scheme

Non-standard test method.....: N/A

Test Report Form No.....: IEC62133B

Test Report Form(s) Originator ....: UL(Demko)

Master TRF .....: Dated 2013-03

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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.**

Test item description .....: Rechargeable Li-ion Battery

Model/Type reference .....: BT25

Ratings .....: 48 Vdc, 5200 mAh, 249,6 Wh

## 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.



## Testing procedure and testing location:

☒ **CB Testing Laboratory:** DEKRA Testing and Certification (Shanghai) Ltd.

**Testing location/ address .....:** 3F, #250 Jiangchangsan Road, Building 16, Headquarter Economy Park Shibei Hi-Tech Park, Zhabei District, Shanghai, 200436, China

☐ **Associated CB Testing Laboratory:**

**Testing location/ address .....:**

**Tested by (name + signature) .....:**

Yong Liu

*Yong Liu*

**Approved by (name + signature) .....:**

Cliff Lin

*Cliff Lin*

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

SYSTEME CEI D'ACCEPTATION MUTUELLE DE CERTIFICATS D'ESSAIS  
DES EQUIPEMENTS ELECTRIQUES (IECEE) METHODE OC

## CB TEST CERTIFICATE

## CERTIFICAT D'ESSAI OC

Product Rechargeable Li-ion Battery  
Produit

Name and address of the Applicant China  
Nom et adresse du demandeur

Rating and principal characteristics 48 Vdc, 5200 mAh, 249,6 Wh  
Valeurs nominales et caractéristiques principales

Trademark (if any)  
Marque de fabrique (si elle existe)

Type of manufacturer's Testing Laboratories used  
Type de programme de laboratoire d'essais constructeur

Model / Type Ref. BT25  
Réf. de type

Additional information (if necessary may also be reported on  
page 2)

Les informations complémentaires (si nécessaire, peuvent être  
indiquées sur la 2ème page)

A sample of product was tested and found to be in conformity  
with IEC 62133(ed.2)

Un échantillon de ce produit a été essayé et été considéré  
conforme à la CEI

As shown in the test report Ref. No. which forms part of this  
certificate 3174113.50

Comme indiqué dans le rapport d'essais numéro de référence  
qui constitue partie de ce certificat

This CB Test Certificate is issued by the National Certification Body:

Ce Certificat d'essai OC est établi par l'Organisme National de Certification

DEKRA Certification B.V.  
Meander 1051, 6825 MJ  
Arnhem  
The Netherlands



Date: 2015-10-12

Signature: Vicky Zhang





2014002938Z

华南国家计量测试中心  
广东省计量科学研究院

SOUTH CHINA NATIONAL CENTER OF METROLOGY  
GUANGDONG INSTITUTE OF METROLOGY



# 检测报告

## TEST REPORT

证书编号 DCW201504028  
Certificate No.

第 1 页, 共 17 页  
Page of

委托方  
Client

委托方地址  
Add. of Client

样品名称 可充电锂离子电池  
Description Rechargeable Li-ion Battery

型号规格 BT25  
Model/Type

制造厂  
Manufacturer

出厂编号 1#~41#  
Serial No.

设备编号  
Equipment No.

接收日期 2015 年 08 月 19 日  
Date of Receipt Y M D

结论 见检测结果页  
Conclusion Shown in the results of test report

检测日期 2015 年 08 月 19 日  
Date of Test Y M D

批准人  
Approved Signatory

核 验  
Inspected by

检 测  
Tested by

证书专用章  
Stamp



本中心地址: 中国广州市广园中路松柏东街30号 邮政编码: 510405  
电话: (8620)86594172 传真: (8620)86590743 投诉电话: (8620)26296063 E-mail: scm@scm.com.cn  
Add: No.30, Songbaidong Street, Guangyuanzhong Road, Guangzhou, P. R. China  
Post Code: 510405 Tel: (8620)86594172 Fax: (8620)86590743 Complaint Tel: (8620)26296063  
证书真伪查询: [www.scm.com.cn](http://www.scm.com.cn) [www.mtsp.com](http://www.mtsp.com) Certificate Authenticity Identify: [www.scm.com.cn](http://www.scm.com.cn) [www.mtsp.com](http://www.mtsp.com)

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华南国家计量测试中心  
广东省计量科学研究院

SOUTH CHINA NATIONAL CENTER OF METROLOGY  
GUANGDONG INSTITUTE OF METROLOGY



# 检测结果

## RESULTS OF TEST

证书编号: DCW201504028

原始记录编号: 020154028

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Certification No.

Record No.

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### I Basic information 基本信息

Sample name 样品名称	Rechargeable Li-ion Battery 可充电锂离子电池	Type 型号规格	BT25
Nominal voltage 标称电压	48 V	Rated capacity 额定容量	5200mAh 249.6Wh
Limited charge voltage 限制充电电压	54.6 V	Trade mark 商标	----
Shape 样品外观	Prismatic 菱形	Size (L×W×T) 尺寸(L×W×T)	(285.7×124.8×80.9)mm
Test item 检测项目	Altitude simulation, Thermal test, Vibration, Shock, External short circuit, Impact/Crush, Overcharge, Forced discharge 高度模拟, 热冲击, 振动, 机械冲击, 外部短路, 重物冲击/挤压, 过充电, 强制放电		
Test reference 检测依据	Recommendations on the Transport of Dangerous Goods, Manual of Test and Criteria, Part III, subsection 38.3. (ST/SG/AC.10/11/Rev.5 Amendment 1 and Amendment 2) 《关于危险货物运输的建议书: 试验和标准手册》第III部分第 38.3 节。(ST/SG/AC.10/11/Rev.5 修订版 1 和修订版 2)		
Test conclusion 检测结论	The battery samples pass all of the requirement test items. 经检测, 全部检测项目符合要求。 本次检测结论为合格。		
Remark 备注	----		





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广东省计量科学研究院

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GUANGDONG INSTITUTE OF METROLOGY



## 检测结果

RESULTS OF TEST

证书编号: DCW201504028

Certification No.

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### II Photos of the Sample 样品照片

Battery 电池



Cell 电芯







# 货物运输条件鉴定书

## CERTIFICATE FOR SAFE TRANSPORT OF GOODS

鉴定书编号 DCW201504029  
Certificate No.

第 1 页, 共 6 页  
Page of

委托方  
Client

委托方地址  
Add. of Client

样品名称  
Description 可充电锂离子电池  
Rechargeable Li-ion Battery

型号规格  
Model/Type BT25

制造厂  
Manufacturer

样品编号  
Serial No. 1#

接收日期  
Date of Receipt 2015 年 08 月 19 日  
Y M D

鉴定日期  
Date of Certificate 2015 年 08 月 19 日  
Y M D

批准人  
Approved Signatory

核 验  
Inspected by

检 查  
Censored by







## 声 明

鉴定书编号: DCW201504029  
Certification No.

### Statement

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Page of

1. 本中心是国家质量监督检验检疫总局在华南地区设立的国家法定计量检定机构, 本中心质量管理体系符合ISO/IEC 17020:2012标准的要求。  
This laboratory is the National Legal Metrological Verification Institution in southern China set up by the General Administration of Quality Supervision. The quality system is in accordance with ISO/IEC 17020:2012.
2. 本中心所出具的数据均可溯源至中国计量基准和国际单位制(SI)。  
All data issued by this laboratory are traceable to national primary standards and International System of Units(SI).
3. 鉴定书无广东省计量科学研究院检查报告专用章无效。  
The certification is invalid if it is not affixed the official certification seal of Guangdong Institute of Metrology.
4. 未经本机构许可, 不得部分复制、摘用本鉴定报告书内容。  
This report shall not be reproduced except in full, or extracted, without the written approval of our laboratory.
5. 鉴定书无检查、核验、批准人签字无效。  
The certification is invalid without the signature of Censor, Inspector and Approved Signatory.
6. 鉴定书涂改无效。  
The certification is invalid if it is blotted out.
7. 客户必须如实提供样品及资料, 并保证申报品名和样品与运输货物相同, 否则本单位不承担任何相关责任。  
The client should provide samples and relevant data, at the same time, they should guarantee the consistence of the product's name they declared, the samples they provided and the goods to be transported. Otherwise we will not bear any relevant responsibilities.
8. 本鉴定书的鉴定结论仅对客户所送样品负责。  
The conclusion of this certification is responsible for the sample provided by the client.
9. 本鉴定书当年有效。  
The certification is valid in the year subscribed on it.
10. 本鉴定书不考虑国家及经营人差异。  
The certification takes no account of the State and Operator Variations.





鉴定书编号: DCW201504029

原始记录号: 020154029

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Certification No.

Record No.

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一、本次鉴定的技术依据:

Reference documents for the certificate:

IATA (56th)-2015 危险品规则 (56版) Dangerous Goods Regulations (56th)

二、本次鉴定所使用的主要计量标准器具:

Major standards of measurement used in the certificate:

设备名称/型号 Name of Equipment /Model	编号 Serial No.	证书号/有效期 Certificate No. /Due Date	计量特性 Metrological Characteristic
电子天平 /TC20KB	332014010050	LZT201404755 /2015-11-18	Ⅲ 级 Class Ⅲ
钢卷尺 Steel Tape /5 m	D1	CDL201502675 /2016-05-20	Ⅱ 级 Grade II

三、鉴定地点、环境条件:

Place and environmental conditions of the certificate:

地点 Place	本院电磁实验 室 (Electrics-magnetics Lab)	温度 Temperature	( $20 \pm 5$ ) °C	相对湿度 R.H.	(40~70) %
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## 检查结果 RESULTS OF CERTIFICATION

鉴定书编号: DCW201504029  
Certification No.

原始记录编号: 020154029  
Record No.

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### 四. 鉴定结果/说明:

#### Results of certificate and additional explanation:

样品名称 Name of goods	可充电锂离子电池 Rechargeable Li-ion Battery	样品型号 Type	BT25
标称电压 Nominal voltage	48 V	额定容量 Rated capacity	5200mAh 249.6Wh
样品外观 Appearance	菱形 Prismatic	样品尺寸 Size(L×W×T)	(285.7×124.8×80.9) mm
包装件重量 Packaging weight	9.3kg	包装件尺寸(L×W×T) Packaging dimensions	(365×272×308) mm
内含电池数量 Battery number	4/包装件 4/packing	本鉴定书的有效期 The period of this certification	2015-12-31
鉴定结论 Certification	<p>1. 该样品为锂离子/聚合物电池, 已通过 UN38.3 测试。 This sample is lithium ion/polymer battery. This battery sample is proved to meet the Requirements tests in the UN <i>Manual of Tests and Criteria</i>, Part III, subsection 38.3.</p> <p>2. 根据 IATA DGR 规定, 本品受 DGR 包装说明 965 第 IA 章节限制, 属于第 9 类危险品。UN 编号为: UN3480 According to IATA DGR, this product is restricted to IATA DGR packing Instruction 965 Section IA, and belongs to Class 9 of dangerous goods. UN number: UN3480</p> <p>3. 其包装件须满足 DGR 包装说明 5.0.2 的一般包装要求和 II 级包装性能标准。 The package must meet the Packing Requirements of 5.0.2 and Packing Group II performance standards.</p>		





# 检 查 结 果

## RESULTS OF CERTIFICATION

鉴定书编号: DCW201504029  
Certification No.

原始记录编号: 020154029  
Record No.

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本鉴定书依据的  
检测报告信息  
Reference test  
reports for this  
certificate report.

鉴定机构: 广东省计量科学研究院  
锂电池 UN38.3 检测报告号: DCW201504028  
Certificate laboratory: Guangdong Institute of Metrology  
Lithium ion battery UN38.3 Test Report number: DCW201504028

备 注  
Comment

1. 电池和电芯必须包装在完全封装的内包装中然后再装进坚固的外包装中。  
Cells and batteries must be placed in inner packagings that completely enclose the cell or battery then placed in an outer packaging.

2. 每块电池必须配置安全排气装置, 或者在正常运输条件下其设计本身可防止爆裂, 并采用有效预防外部短路的方法进行装配。为阻挡危险性反向电流, 每个含有电池芯或多个并联电池芯的电池应采用有效的方法进行装配。  
Each battery must be incorporated a safety venting device or be designed to preclude a violent rupture under conditions normally incident to transport and be equipped with an effective means of preventing external short circuits. Each battery containing cells or series of cells connected in parallel must be equipped with an effective means, as necessary, to prevent dangerous reverse current flow.

3. 每个包装件必须贴有第9类危险品标签。货机运输的每个包装件电池净重不能超过35kg, 客机运输不能超过5kg。  
Each package must be labeled with a Class 9 label. The limit net quantity of each package for Cargo Aircraft is 35kg, and 5kg on Passenger.





## 检查结果 RESULTS OF CERTIFICATION

鉴定书编号: DCW201504029  
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样品照片 Photos of the Sample :

电池 Battery



包装件 Package

