UN38.3Rev.6 Amend.1-2017 检测报告

UN38.3Rev.6 Amend.1-2017 Test Report

报告编号 (Report No.): RTN-UN38.3Rev.6 Amend.1-2017-2011-007

样 品 名 称: ATL 锂离子电池

Sample name: ATL Lithium-ion Battery

样 品 型 号: EB-BG525BBE

Sample Model: EB-BG525BBE

委 托 单 位: 宁德新能源科技有限公司

Consignor: Ningde Amperex Technology Limited

宁德新能源科技有限公司中心实验室

Ningde Amperex Technology Limited Central Lab

说明 Directions

1.报告无本中心实验室公章无效
The test report is invalid without the official stamp of CL.
2.本中心所出具的数据均可溯源至国家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.检测报告仅与本样品有关,未经本中心实验室书面同意,不得部分地复制本报告.
The test report is only responsible for the samples，Any photocopies or part photocopies of the test report are forbidden without the written permission from CL.
4.报告无审核人、批准人签名无效.
The test report is invalid without the signatures of checker and authorizer.
5.报告涂改无效.
The test report is invalid if altered.
6. 报告仅对客户所送样品负责
The conclusion of this report is responsible for the sample provided by the client.
7.本次测试的技术依据：**UN38.3 Rev.6 Amend.1-2017**
Reference documents for the test: **UN38.3 Rev.6 Amend.1-2017**
8. 本次测试所使用的主要计量标准器具：
Major standards of measurement used in test:
见附页.
Refer to attachment
9. 测试地点、环境条件：
Place and environmental conditions of the test:
见附页.
Refer to attachment

本中心实验室地址：中国福建省宁德市蕉城区漳湾镇新港路 1 号
邮箱：CL-ND@ATLBattery.com 电话：0593-2357677 投诉电话：0593-2585080
Add：No.1 Xingang Road, Zhangwan Town, Jiaocheng City, NingDe, Fu Jian Province, China
E-mail：CL-ND@ATLBattery.com Tel：0593-2357677 Complaint Tel：0593-2585080
网址 Website: http://www.atlbattery.com

样品名称 Sample name	锂离子电池 Li-ion Battery		测试类别 Test category	委托检测 After testing
样品型号 Sample model	EB-BG525BBE		样品接收日期 Accepted date	2020.11.3
样品规格 Sample specification	3.85V 11.25Wh		测试开始日期 Test start date	2020.11.16
样品数量(个) Sample quantity (pcs.)	48		测试结束日期 Test end date	2020.12.5
委托单位信息 Consignor Information	委托单位 Consignor	宁德新能源科技有限公司 Ningde Amperex Technology Limited		
	委托单位地址 Consignor address	中国福建省宁德市蕉城区漳湾镇新港路 1 号 No.1 Xingang Road, Zhangwan Town, Jiaocheng City, NingDe, Fu Jian Province, China		
制造商信息 Manufacturer Information	制造商名称 Manufacturer Name	宁德新能源科技有限公司 Ningde Amperex Technology Limited		
	制造商地址 Manufacturer address	中国福建省宁德市蕉城区漳湾镇新港路 1 号 No.1 Xingang Road, Zhangwan Town, Jiaocheng City, NingDe, Fu Jian Province, China		
	电话号码 Telephone Number	0593-2583888	电子邮箱 E-mail	ND-Reception@ATLBattery.com
	网址 Website	http://www.atlbattery.com/		
测试环境条件 Test environment condition	环境温度： 15℃~25℃ ；环境湿度：40%~75% Ambient temperature: 15℃~25℃ ;Ambient humidity：40%~75%			
测试方法和判定标准 Test method and criterion	联合国《关于危险物品运输的建议书 试验和标准手册》ST/SG/AC.10/11/ Rev.6 Amend.1,38.3 United Nations Recommendations on the Transport of Dangerous Goods: Manual of Tests and Criteria ST/SG/AC.10/11/ Rev.6 Amend.1,38.3			
测试项目 Test items	低气压测试、温度循环、振动、机械冲击、外部短路、挤压、过度充电、强制放电 Altitude simulation、Thermal test、Vibration、Shock、External short circuit、Crush、Overcharge 、Forced discharge			
测试结论 Conclusion	经测试，该样品符合联合国《关于危险物品运输的建议书试验和标准手册》ST/SG/AC.10/11/Rev.6 Amend.1, 38.3 The sample has passed the test items of United Nations Recommendations on the Transport of Dangerous Goods: Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6 Amend.1,38.3			
测试人员 Testers	曾征、陈平、关波 陈平			
编制人员 Compiler	陈平 陈平	宁德新能源科技有限公司 中心实验室 Central Lab of Ningde Amperex Technology Limited (签章) (signature)		
审核 Checker	吴美兰 吴美兰			
批准 Approval	向德权 向德权 授权签字人：向德权 Authorized signature: Dequan Xiang 中心主任:鲁宇浩 Center Director: Yuhao Lu	签发日期: 2020年12月7日 (Date of issue):		

样品描述及说明 Sample description and description			
样品名称 Sample name	锂离子电池 Li-ion Battery	型号 Model	EB-BG525BBE
额定容量 Rated capacity	2920 mAh	标称电压 Nominal voltage	3. 85V
化学组分 Chemical composition	Licox		
测试用充电程序 Test charge program	按照制造商规定的办法进行充电: 0.2C CC 4.4V CV 0.02C		
测试用放电程序 Test discharge program	按照制造商规定的办法进行放电: 0.2C DC 2.75V		

测试样品图片
Test sample image

图 1：正面
Figure 1: positive

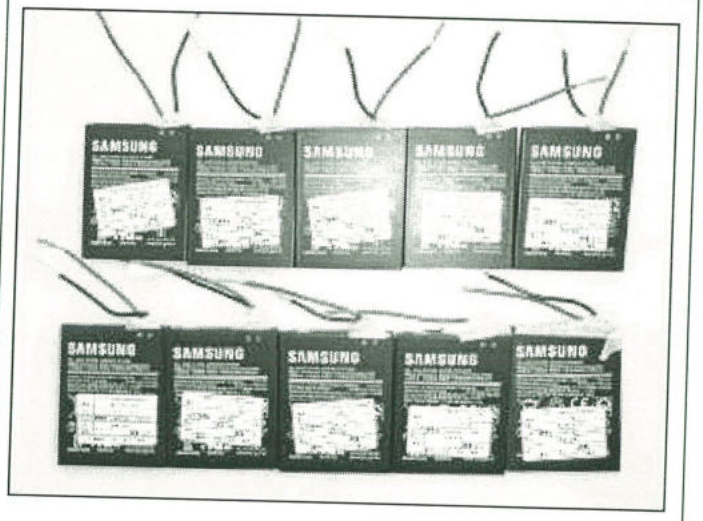

图 2：反面
Figure 2: negative

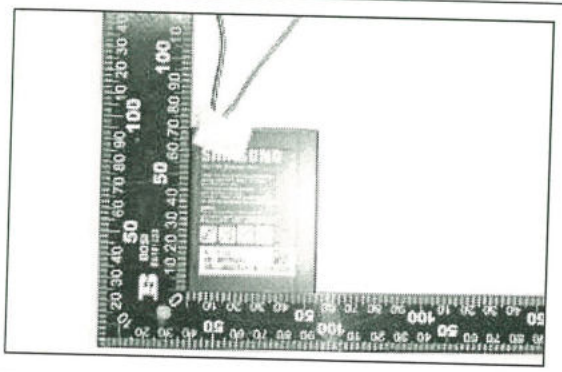

图 3：标识
Figure 3: Logo

序号 No	测试项目名称 Name of test	标准要求或标准号条款 Standard requirement or the clause number of standard	测试现象 Phenomenon	本项结论 Test conclusion	备注 Remarks
1	低气压测试 Altitude simulation	UN38.3 Rev6 Amend.1 4.1	O	Pass	
2	温度循环 Thermal test	UN38.3 Rev6 Amend.1 4.2	O	Pass	
3	振动 Vibration	UN38.3 Rev6 Amend.1 4.3	O	Pass	
4	机械冲击 Shock	UN38.3 Rev6 Amend.1 4.4	O	Pass	
5	外部短路 External short circuit	UN38.3 Rev6 Amend.1 4.5	O	Pass	
6	挤压 Crush	UN38.3 Rev6 Amend.1 4.6	O	Pass	
7	过度充电 Overcharge	UN38.3 Rev6 Amend.1 4.7	O	Pass	
8	强制放电 Forced discharge	UN38.3 Rev6 Amend.1 4.8	SW	Pass	

分包测试情况 Subcontracted test condition	测试项目 Test items	/			
	分包测试情况 Subcontracted test condition	名称 Name	/	邮编 Post code	/
		地址 Address	/	电话 Tel.	/

<备注>测试现象：L-漏液，V-泄气，D-解体，R-开裂，S-冒烟，SW-胀气，F-起火，P-电芯或爆炸的部分电池穿过筛网或全部的电芯/电池突出筛网，O-无漏液、无泄气、无解体、无开裂、无起火、无冒烟、无胀气，No-电芯或爆炸的部分电池没有穿过筛网或全部的电芯/电池没有突出筛网。

序号 NO.	1	测试项目名称 Name of Test Items				低气压测试 Altitude simulation			
样品编号 Sample No.	样品状态 Sample status	OCV(V)		Weight(g)		剩余电压 Residual OCV(%)	质量损失 Mass loss(%)	测试现象 Phenomenon	结论 Conclusion
		OCV_BF	OCV_AF	W_BF	W_AF				
GH43-05060A +DLANA22AD+000546	首次完全充电 1CYC Fully Charged	4.380	4.371	55.4609	55.4604	99.79%	0.00%	O	Pass
GH43-05060A +DLANA22AD+000553	首次完全充电 1CYC Fully Charged	4.380	4.370	55.5667	55.5673	99.78%	0.00%	O	Pass
GH43-05060A +DLANA22AD+000541	首次完全充电 1CYC Fully Charged	4.380	4.370	55.6442	55.6448	99.78%	0.00%	O	Pass
GH43-05060A +DLANA22AD+000576	首次完全充电 1CYC Fully Charged	4.380	4.370	55.5493	55.5497	99.78%	0.00%	O	Pass
GH43-05060A +DLANA22AD+000562	首次完全充电 1CYC Fully Charged	4.380	4.370	55.1768	55.1763	99.78%	0.00%	O	Pass
GH43-05060A +DLANA22AD+000575	25 次完全充电 25CYC Fully Charged	4.383	4.375	55.5897	55.5893	99.83%	0.00%	O	Pass
GH43-05060A +DLANA22AD+000570	25 次完全充电 25CYC Fully Charged d	4.383	4.376	55.4284	55.4289	99.84%	0.00%	O	Pass
GH43-05060A +DLANA22AD+000561	25 次完全充电 25CYC Fully Charged	4.380	4.374	55.6159	55.6164	99.85%	0.00%	O	Pass
GH43-05060A +DLANA22AD+000448	25 次完全充电 25CYC Fully Charged d	4.383	4.376	55.7272	55.7277	99.82%	0.00%	O	Pass
GH43-05060A +DLANA22AD+000529	25 次完全充电 25CYC Fully Charged	4.382	4.375	55.8081	55.8086	99.84%	0.00%	O	Pass

序号 NO.	2	测试项目名称 Name of Test Items				温度循环 Thermal test			
样品编号 Sample No.	样品状态 Sample status	OCV(V)		Weight(g)		剩余电压 Residual OCV(%)	质量损失 Mass loss(%)	测试现象 Phenomenon	结论 Conclusion
		OCV_BF	OCV_AF	W_BF	W_AF				
GH43-05060A +DLANA22AD+000546	首次完全充电 1CYC Fully Charged	4.371	4.269	55.4604	55.3965	97.67%	0.12%	O	Pass
GH43-05060A +DLANA22AD+000553	首次完全充电 1CYC Fully Charged	4.370	4.268	55.5673	55.5243	97.67%	0.08%	O	Pass
GH43-05060A +DLANA22AD+000541	首次完全充电 1CYC Fully Charged	4.370	4.269	55.6448	55.5592	97.69%	0.15%	O	Pass
GH43-05060A +DLANA22AD+000576	首次完全充电 1CYC Fully Charged	4.370	4.268	55.5497	55.5036	97.67%	0.08%	O	Pass
GH43-05060A +DLANA22AD+000562	首次完全充电 1CYC Fully Charged	4.370	4.269	55.1763	55.1171	97.69%	0.11%	O	Pass
GH43-05060A +DLANA22AD+000575	25 次完全充电 25CYC Fully Charged	4.375	4.279	55.5893	55.5127	97.80%	0.14%	O	Pass
GH43-05060A +DLANA22AD+000570	25 次完全充电 25CYC Fully Charged d	4.376	4.280	55.4289	55.3836	97.82%	0.08%	O	Pass
GH43-05060A +DLANA22AD+000561	25 次完全充电 25CYC Fully Charged	4.374	4.277	55.6164	55.5703	97.79%	0.08%	O	Pass
GH43-05060A +DLANA22AD+000448	25 次完全充电 25CYC Fully Charged d	4.376	4.280	55.7277	55.6807	97.81%	0.08%	O	Pass
GH43-05060A +DLANA22AD+000529	25 次完全充电 25CYC Fully Charged	4.375	4.279	55.8086	55.7690	97.80%	0.07%	O	Pass

序号 NO.	3	测试项目名称 Name of Test Items				振动 Vibration			
样品编号 Sample No.	样品状态 Sample status	OCV(V)		Weight(g)		剩余电压 Residual OCV(%)	质量损失 Mass loss(%)	测试现象 Phenomenon	结论 Conclusion
		OCV_BF	OCV_AF	W_BF	W_AF				
GH43-05060A +DLANA22AD+000546	首次完全充电 1CYC Fully Charged	4.269	4.268	55.3965	55.3978	99.97%	0.00%	O	Pass
GH43-05060A +DLANA22AD+000553	首次完全充电 1CYC Fully Charged	4.268	4.267	55.5243	55.5256	99.97%	0.00%	O	Pass
GH43-05060A +DLANA22AD+000541	首次完全充电 1CYC Fully Charged	4.269	4.268	55.5592	55.5587	99.97%	0.00%	O	Pass
GH43-05060A +DLANA22AD+000576	首次完全充电 1CYC Fully Charged	4.268	4.267	55.5036	55.5043	99.97%	0.00%	O	Pass
GH43-05060A +DLANA22AD+000562	首次完全充电 1CYC Fully Charged	4.269	4.268	55.1171	55.1176	99.97%	0.00%	O	Pass
GH43-05060A +DLANA22AD+000575	25 次完全充电 25CYC Fully Charged	4.279	4.278	55.5127	55.4635	99.97%	0.09%	O	Pass
GH43-05060A +DLANA22AD+000570	25 次完全充电 25CYC Fully Charged d	4.280	4.279	55.3836	55.3844	99.97%	0.00%	O	Pass
GH43-05060A +DLANA22AD+000561	25 次完全充电 25CYC Fully Charged	4.277	4.276	55.5703	55.5709	99.97%	0.00%	O	Pass
GH43-05060A +DLANA22AD+000448	25 次完全充电 25CYC Fully Charged d	4.280	4.278	55.6807	55.6815	99.97%	0.00%	O	Pass
GH43-05060A +DLANA22AD+000529	25 次完全充电 25CYC Fully Charged	4.279	4.278	55.7690	55.7698	99.97%	0.00%	O	Pass

序号 NO.	4	测试项目名称 Name of Test Items				机械冲击 Shock			
样品编号 Sample No.	样品状态 Sample status	OCV(V)		Weight(g)		剩余电压 Residual OCV(%)	质量损失 Mass loss(%)	测试现象 Phenomenon	结论 Conclusion
		OCV_BF	OCV_AF	W_BF	W_AF				
GH43-05060A +DLANA22AD+000546	首次完全充电 1CYC Fully Charged	4.268	4.268	55.3978	55.3974	100.00%	0.00%	O	Pass
GH43-05060A +DLANA22AD+000553	首次完全充电 1CYC Fully Charged	4.267	4.267	55.5256	55.5258	100.00%	0.00%	O	Pass
GH43-05060A +DLANA22AD+000541	首次完全充电 1CYC Fully Charged	4.268	4.267	55.5587	55.5588	99.99%	0.00%	O	Pass
GH43-05060A +DLANA22AD+000576	首次完全充电 1CYC Fully Charged	4.267	4.267	55.5043	55.5046	100.00%	0.00%	O	Pass
GH43-05060A +DLANA22AD+000562	首次完全充电 1CYC Fully Charged	4.268	4.268	55.1176	55.1178	100.00%	0.00%	O	Pass
GH43-05060A +DLANA22AD+000575	25 次完全充电 25CYC Fully Charged	4.278	4.278	55.4635	55.4638	100.00%	0.00%	O	Pass
GH43-05060A +DLANA22AD+000570	25 次完全充电 25CYC Fully Charged d	4.279	4.279	55.3844	55.3846	100.00%	0.00%	O	Pass
GH43-05060A +DLANA22AD+000561	25 次完全充电 25CYC Fully Charged	4.276	4.275	55.5709	55.5713	99.99%	0.00%	O	Pass
GH43-05060A +DLANA22AD+000448	25 次完全充电 25CYC Fully Charged d	4.278	4.278	55.6815	55.6819	100.00%	0.00%	O	Pass
GH43-05060A +DLANA22AD+000529	25 次完全充电 25CYC Fully Charged	4.278	4.278	55.7698	55.7697	100.00%	0.00%	O	Pass

序号 NO.	5	测试项目名称 Name of Test Items	**外部短路 External short-circuit**	
样品编号 Sample No.	样品状态 Sample status	样品表面最高温度 Max External Temperature(℃)	测试现象 Phenomenon	结论 Conclusion
GH43-05060A+DLANA22AD+000546	首次完全充电 1CYC Fully Charged	57.8	O	Pass
GH43-05060A+DLANA22AD+000553	首次完全充电 1CYC Fully Charged	57.1	O	Pass
GH43-05060A+DLANA22AD+000541	首次完全充电 1CYC Fully Charged	58.6	O	Pass
GH43-05060A+DLANA22AD+000576	首次完全充电 1CYC Fully Charged	56.6	O	Pass
GH43-05060A+DLANA22AD+000562	首次完全充电 1CYC Fully Charged	56.1	O	Pass
GH43-05060A+DLANA22AD+000575	25 次完全充电 25CYC Fully Charged	56.9	O	Pass
GH43-05060A+DLANA22AD+000570	25 次完全充电 25CYC Fully Charged	57.3	O	Pass
GH43-05060A+DLANA22AD+000561	25 次完全充电 25CYC Fully Charged	57.2	O	Pass
GH43-05060A+DLANA22AD+000448	25 次完全充电 25CYC Fully Charged	58.2	O	Pass
GH43-05060A+DLANA22AD+000529	25 次完全充电 25CYC Fully Charged	57.2	O	Pass

序号 NO.	6	测试项目名称 Name of Test Items	**挤压 Crush**	
样品编号 Sample No.	样品状态 Sample status	样品表面最高温度 Max External Temperature(℃)	测试现象 Phenomenon	结论 Conclusion
CB6039G10374	首次 50%容量 1CYC 50% Capacity	21.7	O	Pass
CB6039G1005D	首次 50%容量 1CYC 50% Capacity	21.9	O	Pass
CB6039G10DE6	首次 50%容量 1CYC 50% Capacity	21.9	O	Pass
CB6040A10A01	首次 50%容量 1CYC 50% Capacity	22.2	O	Pass
CB6039G10857	首次 50%容量 1CYC 50% Capacity	22.1	O	Pass
CB6039G10B74	25 次 50%容量 25CYC 50% Capacity	22.0	O	Pass
CB6039G102F6	25 次 50%容量 25CYC 50% Capacity	21.9	O	Pass
CB6039G11196	25 次 50%容量 25CYC 50% Capacity	22.1	O	Pass
CB6039G100CD	25 次 50%容量 25CYC 50% Capacity	22.2	O	Pass
CB6039G1050A	25 次 50%容量 25CYC 50% Capacity	22.2	O	Pass

序号 NO.	7	测试项目名称 Name of Test Items	过充 Overcharge	
样品编号 Sample No.	样品状态 Sample status	样品表面最高温度 Max External Temperature(℃)	测试现象 Phenomenon	结论 Conclusion
GH43-05060A+DLANA22AD+000566	首次完全充电 1CYC Fully Charged	35.4	O	Pass
GH43-05060A+DLANA22AD+000578	首次完全充电 1CYC Fully Charged	20.8	O	Pass
GH43-05060A+DLANA22AD+000577	首次完全充电 1CYC Fully Charged	35.2	O	Pass
GH43-05060A+DLANA22AD+000405	首次完全充电 1CYC Fully Charged	20.2	O	Pass
GH43-05060A+DLANA22AD+000567	25 次完全充电 25CYC Fully Charged	20.5	O	Pass
GH43-05060A+DLANA22AD+000530	25 次完全充电 25CYC Fully Charged	33.2	O	Pass
GH43-05060A+DLANA22AD+000460	25 次完全充电 25CYC Fully Charged	20.2	O	Pass
GH43-05060A+DLANA22AD+000462	25 次完全充电 25CYC Fully Charged	32.5	O	Pass

序号 NO.	8	测试项目名称 Name of Test Items	**强制放电 Forced discharge**	
样品编号 Sample No.	样品状态 Sample status	样品表面最高温度 Max External Temperature(℃)	测试现象 Phenomenon	结论 Conclusion
CB6040A104BB	首次完全放电 1CYC Fully Discharged	49.5	SW	Pass
CB6040A10A56	首次完全放电 1CYC Fully Discharged	51.7	SW	Pass
CB6040A105AB	首次完全放电 1CYC Fully Discharged	50.3	SW	Pass
CB6040A102BA	首次完全放电 1CYC Fully Discharged	49.9	SW	Pass
CB6039G10D50	首次完全放电 1CYC Fully Discharged	49.8	SW	Pass
CB6040A10284	首次完全放电 1CYC Fully Discharged	49.4	SW	Pass
CB6039G1027C	首次完全放电 1CYC Fully Discharged	48.9	SW	Pass
CB6040A10B81	首次完全放电 1CYC Fully Discharged	50.5	SW	Pass
CB6039G10D6C	首次完全放电 1CYC Fully Discharged	50.4	SW	Pass
CB6040A106E1	首次完全放电 1CYC Fully Discharged	49.7	SW	Pass
CB6039G11402	25 次完全放电 25 CYC Fully Discharged	51.4	SW	Pass
CB6039G106D7	25 次完全放电 25 CYC Fully Discharged	48.0	SW	Pass
CB6040A107EF	25 次完全放电 25 CYC Fully Discharged	48.9	SW	Pass
CB6040A1075C	25 次完全放电 25 CYC Fully Discharged	51.6	SW	Pass
CB6039G101EF	25 次完全放电 25 CYC Fully Discharged	49.8	SW	Pass
CB6039G109DE	25 次完全放电 25 CYC Fully Discharged	52.1	SW	Pass
CB6039G10DF8	25 次完全放电 25 CYC Fully Discharged	50.6	SW	Pass
CB6040A100DA	25 次完全放电 25 CYC Fully Discharged	50.7	SW	Pass
CB6040A108B7	25 次完全放电 25 CYC Fully Discharged	45.1	SW	Pass
CB6040A1071B	25 次完全放电 25 CYC Fully Discharged	50.5	SW	Pass

-- End of Report --