





NO.1122100026

检测报告

Test Report

样品名称:

锂离子电池 HDY18650-2P 5200mAh 3.7V 19.24Wh

Name of Sample:

Li-ion Battery HDY18650-2P 5200mAh 3.7V 19.24Wh

委托单位:

深圳市华鼎元电子科技有限公司

Consignor:

HDY ELECTRONIC TECHNOLOGY CO., LTD.

上海化土院检测有限公司
Shanghai Institute of Chemical Industry Testing Co., Ltd.

上海化工院检测有限公司 检 测 报 告

Shanghai Institute of Chemical Industry Testing Co., Ltd. Test Report

NO. 1122100026

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	中文	锂离子电池 HDY18650-2P 5200mAh 3.7V 19.24Wh					
样品名称	Chinese						
Name of Sample	英文 English						
样品编号 Sample No.		1122100026					
委托单位 Consignor		深圳市华鼎元电子科技有限公司 HDY ELECTRONIC TECHNOLOGY CO., LTD.					
生产单位 Manufacturer		深圳市华鼎元电子科技有限公司 HDY ELECTRONIC TECHNOLOGY CO., LTD.					
检测方法 Test method	ST/SG/AC. 1	联合国《试验和标准手册》 ST/SG/AC.10/11/Rev.7 38.3 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.7 Section 38.3					
判定标准 Criterion	ST/SG/AC. 1	联合国《试验和标准手册》 ST/SG/AC.10/11/Rev.7 38.3 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.7 Section 38.3					
样品外观 Appearance		蓝色 塑料薄膜外壳 Blue-Plastic film shell					
样品接受日期 Accepted Date	2022	2-10-08 检测起迄日期 Test Date 2022-10-13 ~ 2022-11-11					
检测项目 Test Items	Al	高度模拟;热测试;振动;冲击:外短路;撞击;过充电;强制放电 titude simulation,Thermal test,Vibration,Shock,External short circuit,Impact,Overcharge,Forced discharge					
检测结论	The sample h	品符合联合国《试验和标准手册》ST/SG/AC.10/11/Rev.7 38.3标准要求。 has passed the test items of UN Manual of Tests and Criteria 11/Rev.7 Section 38.3					
Conclusion		生效日期(Date) 70-2022-11-13					
备注 Comment	可充电锂电池	组Rechargeable Lithium Battery./					
委托单位地址 Consignor Address		邮政编码 / Post Code					

批准

存勉

审核 Checker: 编制 Compiler: 頂位

Approver: 职务 Title:

电化学测试部部长(Head of Electrochemical Testing Department)



Shanghai Institute of Chemical Industry Testing Co., Ltd. Test Report

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序号 No.	检测项目名称 Name of Test Items	标准要求或标准条款号 Standard requirement or The Clause Number of Standard			检测结果 Test Result	本项结论 Conclusion	备注 Remark
1	高度模拟 Altitude simulation	联合国《试验和标准手 册》ST/SG/AC.10/11/Rev.7 38.3 试验T.1 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.7 Section 38.3 Test T.1			见附表 1 See Appendix 1	合格 Passed	1
2	热测试 Thermal test	联合国《试验和标准手 册》ST/SG/AC.10/11/Rev.7 38.3 试验T.2 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.7 Section 38.3 Test T.2			见附表 2 See Appendix 2	合格 Passed	12 /
3	振动 Vibration	联合国《试验和标准手 册》ST/SG/AC.10/11/Rev.7 38.3 试验T.3 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.7 Section 38.3 Test T.3			见附表 3 See Appendix 3	介格 Passed	/
4	冲击 Shock	联合国《试验和标准于 册》ST/SG/AC.10/11/Rev.738.3 试验T.4 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.7 Section 38.3 Test T.4			见附表 4 See Appendix 4	合格 Passed	- 1
5	外短路 External short circuit	联合国《试验和标准手 册》ST/SG/AC. 10/11/Rev. 7-38. 3 试验T. 5 UN Manual of Tests and Criteria ST/SG/AC. 10/11/Rev. 7 Section 38. 3 Test T. 5			见附表 5 See Appendix 5	介格 Passed	1
6	撞击 Impact	联合国《试验和标准手 册》ST/SG/AC.10/11/Rev.7 38.3 试验T.6 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.7 Section 38.3 Test T.6			见附表 6 See Appendix 6	合格 Passed	- /
7		联合国《试验和标准 册》ST/SG/AC, 10/11, UN Manual of Tests ST/SG/AC, 10/11/Rev. T. 7	/Rev. 7 38, 3 and Criteri 7 Section 3	a	见附表 7 See Appendix 7	介格 Passed	Z
8	强制放电 Forced discharge	朋》ST/SG/AC.10/11, UN Manual of Tests	联合国《试验和标准手 册》ST/SG/AC.10/11/Rev.7 38.3 试验T.8 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.7 Section 38.3 Test			合格 Passed	1
	t测环境条件 st Environment Condition	Aml			E-23℃;环境湿度 ℃-23℃;Ambier	불:/% nt humidity:/%	
分	包检验情况	检测项目 Test Item			/		
Subcontracted Test Condition		分包实验室 Subcontracted	名称 Name		/	邮编 Post Code	/
		Laboratory	地址 Address		/	电话 Tel	/

Shanghai Institute of Chemical Industry Testing Co., Ltd. Test Report — Appendix 1

NO. 1122100026

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序号 No.	1	1/15/5 1/2/15/19	页目名称 Test Items	高度模拟	simulation			
14 17	14 7 11. 4	试验前 Before		试验后 After			414	J
样品 编号 Sample No.	样品状态 Sample Status	质量 Mass /g	开路电压 OCV /V	质量 Mass	开路电压 OCV /V	质量损失 Mass Loss /%	剩余电压 Residual OCV /%	其他 现象 Other Event
001	ICYC完全充电 ICYC Fully charged	96. 1482	4. 16	96. 1525	4. 16	0.00	100.00	0
002	ICYC完全充电 ICYC Fully charged	96. 1191	4. 16	96. 1237	4. 16	0.00	100.00	0
003	ICYC完全充电 ICYC Fully charged	96. 5112	4.16	96. 5154	4. 16	0.00	100.00	0
004	ICYC完全充电 ICYC Fully charged	96. 2449	4.16	96. 2488	4. 16	0.00	100.00	О
005	25CYC完全充电 25CYC Fully charged	96. 6910	4. 16	96. 6960	4. 16	0.00	100.00	0
006	25CYC完全充电 25CYC Fully charged	96, 2083	4.16	96. 2126	4.16	0.00	100.00	0
007	25CYC完全充电 25CYC Fully charged	96. 6999	4.16	96. 7042	4.16	0.00	100.00	0
008	25CYC完全充电 25CYC Fully charged	96. 3902	4.16	96. 3950	4. 16	0.00	100.00	0
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备注: L-泄漏 V-漏气 D-解体 R-破裂 F-起火 0-无泄漏、无漏气、无解体、无破裂、无起火。 Note: L-Leakage V-Venting D-Disassembly R-Rupture F-Fire O-No Leakage,No Venting, No Disassembly,No Rupture & No Fire.

Shanghai Institute of Chemical Industry
Testing Co., Ltd. Test Report — Appendix 2

NO. 1122100026

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序号	2	11.100.1110.1110.111	页目名称	热测试				
No.		Name of	Test Items	Thermal	test			
样品编号	样品状态	试验前	Before	试验	后 After	质量损失	剩余电压	其他
	Sample Status	质量	开路电压	质量	开路电压	Mass Loss	Residual	现象
Sample No.		Mass	OCV	Mass	OCV		OCV	Other
	Lovoch A start.	/g	/V	/g	/V	/%	/%	Event
001	ICYC完全充电 ICYC Fully charged	96. 1525	4. 16	96. 1069	4.11	0.05	98.80	О
002	1CYC完全充电 1CYC Fully charged	96. 1237	4. 16	96. 0722	4.11	0.05	98. 80	О
003	ICYC完全充电 ICYC Fully charged	96. 5154	4. 16	96. 4717	4.11	0.05	98. 80	О
004	ICYC完全充电 ICYC Fully charged	96. 2488	4. 16	96, 2016	4.11	0.05	98. 80	0
005	25CYC完全充电 25CYC Fully charged	96. 6960	4. 16	96. 6462	4.12	0.05	99. 04	О
006	25CYC完全充电 25CYC Fully charged	96. 2126	4.16	96. 1717	4.11	0.04	98. 80	О
007	25CYC完全充电 25CYC Fully charged	96. 7042	4. 16	96, 6641	4.11	0.04	98. 80	О
008	25CYC完全充电 25CYC Fully charged	96. 3950	4. 16	96. 3466	4.12	0.05	99. 04	О
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备注: L-泄漏 V-漏气 D-解体 R-破裂 F-起火 0-无泄漏、无漏气、无解体、无破裂、无起火。 Note: L-Leakage V-Venting D-Disassembly R-Rupture F-Fire O-No Leakage,No Venting, No Disassembly,No Rupture & No Fire.

Shanghai Institute of Chemical Industry
Testing Co., Ltd. Test Report — Appendix 3

NO. 1122100026

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序号	3	N 5 958 5	页目名称	振动				
No.		Name of	Test Items	Vibratio	n			
样品	样品状态		1 Before	试验)	后 After	质量损失	剩余电压	其他
编号	Sample Status	质量	开路电压	质量	开路电压	Mass Loss	Residual	现象
Sample		Mass	OCV	Mass	OCV		OCV	Other
No.		/g	/V	/g	/V	/%	/%	Event
001	ICYC完全充电 ICYC Fully charged	96. 1069	4.11	96. 1287	4.11	0.00	100.00	0
002	ICYC完全充电 ICYC Fully charged	96. 0722	4.11	96. 0925	4.11	0.00	100.00	0
003	ICYC完全充电 ICYC Fully charged	96. 4717	4.11	96. 4917	4.11	0.00	100.00	0
004	1CYC完全充电 1CYC Fully charged	96. 2016	4.11	96. 2235	4. 10	0.00	99. 76	0
005	25CYC完全充电 25CYC Fully charged	96. 6462	4.12	96. 6663	4. 11	0.00	99, 76	0
006	25CYC完全充电 25CYC Fully charged	96. 1717	4.11	96. 1925	4. 07	0.00	99. 03	О
007	25CYC完全充电 25CYC Fully charged	96. 6641	4.11	96. 6846	4. 11	0.00	100.00	О
008	25CYC完全充电 25CYC Fully charged	96. 3466	4.12	96. 3682	4. 11	0.00	99. 76	О
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备注: L-泄漏 V-漏气 D-解体 R-破裂 F-起火 O-无泄漏、无漏气、无解体、无破裂、无起火。 Note: L-Leakage V-Venting D-Disassembly R-Rupture F-Fire O-No Leakage,No Venting, No Disassembly,No Rupture & No Fire.

Shanghai Institute of Chemical Industry
Testing Co., Ltd. Test Report — Appendix 4

NO. 1122100026

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序号 No.	4		页目名称 Test Items	冲击 Shock	7			
样品 编号 Sample No.	样品状态 Sample Status	试验前 质量 Mass	Before 开路电压 OCV /V	试验/ 质量 Mass	后 After 开路电压 OCV /V	质量损失 Mass Loss	剩余电压 Residual OCV /%	其他 现象 Other Event
001	ICYC完全充电 ICYC Fully charged	96. 1287	4.11	96. 1292	4.11	0.00	100.00	0
002	ICYC完全充电 ICYC Fully charged	96. 0925	4. 11	96. 0928	4.10	0.00	99. 76	0
003	ICYC完全充电 ICYC Fully charged	96. 4917	4.11	96. 4922	4.11	0.00	100.00	0
004	ICYC完全充电 ICYC Fully charged	96. 2235	4.10	96. 2238	4.09	0.00	99. 76	0
005	25CYC完全充电 25CYC Fully charged	96. 6663	4.11	96. 6666	4. 11	0.00	100.00	0
006	25CYC完全充电 25CYC Fully charged	96. 1925	4. 07	96. 1928	4.06	0.00	99. 75	0
007	25CYC完全充电 25CYC Fully charged	96. 6846	4.11	96. 6853	4.11	0.00	100.00	0
008	25CYC完全充电 25CYC Fully charged	96. 3682	4.11	96. 3685	4.10	0.00	99. 76	О
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备注: L-泄漏 V-漏气 D-解体 R-破裂 F-起火 O-无泄漏、无漏气、无解体、无破裂、无起火。 Note: L-Leakage V-Venting D-Disassembly R-Rupture F-Fire O-No Leakage,No Venting, No Disassembly,No Rupture & No Fire.

Shanghai Institute of Chemical Industry
Testing Co., Ltd. Test Report — Appendix 5

NO. 1122100026

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序号 No.	5	检测项目名称 Name of Test Items	外短路 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 /℃	其他现象 Other Event
001	1CYC完全充电 1CYC Fully charged	56. 2	0
002	1CYC完全充电 1CYC Fully charged	57. 5	0
003	1CYC完全充电 1CYC Fully charged	57. 3	0
004	1CYC完全充电 1CYC Fully charged	56. 3	0
005	25CYC完全充电 25CYC Fully charged	56. 3	0
006	25CYC完全充电 25CYC Fully charged	57.1	0
007	25CYC完全充电 25CYC Fully charged	57. 5	O
008	25CYC完全充电 25CYC Fully charged	57. 3	O
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备注: D-解体 R-破裂 F-起火 O-无解体、无起火、无破裂。

Note: D-Disassembly R-Ruptur F-Fire O-No Disassembly, No Fire & No Rupture.

Shanghai Institute of Chemical Industry
Testing Co., Ltd. Test Report — Appendix 6

NO. 1122100026

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序号 No.	6	检测项目名称 Name of Test Items	撞击 Impact
样品编号 Sample No.	样品状态 Sample Status	样品表面最高温度 Max. External Temperature /*C	其他现象 Other Event
009	1CYC 50%容量 1CYC 50% Capacity	112.8	0
010	1CYC 50%容量 1CYC 50% Capacity	123. 4	0
011	1CYC 50%容量 1CYC 50% Capacity	97. 8	O
012	1CYC 50%容量 1CYC 50% Capacity	115. 9	0
013	1CYC 50%容量 1CYC 50% Capacity	100. 2	O
014	25CYC 50%容量 25CYC 50% Capacity	118.6	0
015	25CYC 50%容量 25CYC 50% Capacity	108. 5	0
016	25CYC 50%容量 25CYC 50% Capacity	104. 2	O
017	25CYC 50%容量 25CYC 50% Capacity	106. 9	O
018	25CYC 50%容量 25CYC 50% Capacity	97. 0	O
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备注: D-解体 F-起火 O-无解体、无起火。

Note: D-Disassembly F-Fire O-No Disassembly & No Fire.

Shanghai Institute of Chemical Industry
Testing Co., Ltd. Test Report — Appendix 7

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7	检测项目名称	过充电
	Name of Test Items	Overcharge
样品状态 Sample Status	其他现象 Other Event	
1CYC完全充电 1CYC Fully charged		O
1CYC完全充电 1CYC Fully charged		0
1CYC完全充电 1CYC Fully charged		0
1CYC完全充电 1CYC Fully charged		O
25CYC完全充电 25CYC Fully charged		O
25CYC完全充电 25CYC Fully charged	FLIFE	0
25CYC完全充电 25CYC Fully charged		0
25CYC完全充电 25CYC Fully charged		0
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		7-2-1-2-2-175
	7	Terre-terret
	样品状态 Sample Status 1CYC完全充电 1CYC Fully charged 1CYC完全充电 1CYC Fully charged 1CYC完全充电 1CYC Fully charged 1CYC完全充电 1CYC Fully charged 25CYC完全充电 25CYC完全充电 25CYC Fully charged 25CYC完全充电 25CYC Fully charged 25CYC Fully charged 25CYC Fully charged 25CYC Fully charged 25CYC Fully charged	Name of Test Items 样品状态 Sample Status 1CYC完全充电 1CYC Fully charged 1CYC完全充电 1CYC Fully charged 1CYC完全充电 1CYC Fully charged 1CYC完全充电 1CYC Fully charged 25CYC完全充电 25CYC Fully charged 25CYC Fully charged

备注: D-解体 F-起火 O-无解体、无起火。

Note: D-Disassembly F-Fire O-No Disassembly & No Fire.

Shanghai Institute of Chemical Industry
Testing Co., Ltd. Test Report — Appendix 8

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序号 No.	8	检测项目名称 Name of Test Items	强制放电 Forced discharge		
样品编号 Sample No.	样品状态 Sample Status	其他现象 Other Event			
027	1CYC完全放电 1CYC Fully discharged		0		
028	1CYC完全放电 1CYC Fully discharged		0		
029	1CYC完全放电 1CYC Fully discharged		0		
030	1CYC完全放电 1CYC Fully discharged		0		
031	1CYC完全放电 1CYC Fully discharged		0		
032	1CYC完全放电 1CYC Fully discharged	FLETTI'E	O		
033	1CYC完全放电 1CYC Fully discharged		O		
034	1CYC完全放电 1CYC Fully discharged		O		
035	1CYC完全放电 1CYC Fully discharged		0		
036	1CYC完全放电 1CYC Fully discharged		0		
037	25CYC完全放电 25CYC Fully discharged		O		
038	25CYC完全放电 25CYC Fully discharged		O		
039	25CYC完全放电 25CYC Fully discharged		O		
040	25CYC完全放电 25CYC Fully discharged		0		
041	25CYC完全放电 25CYC Fully discharged		0		
042	25CYC完全放电 25CYC Fully discharged		0		
043	25CYC完全放电 25CYC Fully discharged	О			
044	25CYC完全放电 25CYC Fully discharged	0			
045	25CYC完全放电 25CYC Fully discharged	0			
046	25CYC完全放电 25CYC Fully discharged	O			

备注: D-解体 F-起火 O-无解体、无起火。

Note: D-Disassembly F-Fire O-No Disassembly & No Fire.

Shanghai Institute of Chemical Industry Testing Co., Ltd. Test Report — Appendix

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