



NO.1123010024

检 测 报 告

Test Report

样品名称： 锂离子聚合物电池组/二次鋰電池組 BP4N 3.87V
4320mAh/16.7Wh (Rated) 4420mAh/17.1Wh (Typical)

Name of Sample: Rechargeable Li-ion Polymer Battery BP4N 3.87V
4320mAh/16.7Wh (Rated) 4420mAh/17.1Wh (Typical)

委托单位： 欣旺达电子股份有限公司

Consignor: SUNWODA Electronic Co., Ltd.



上海化工院检测有限公司

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
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样品名称 Name of Sample	中文 Chinese	锂离子聚合物电池组/二次锂电池组 BP4N 3.87V 4320mAh/16.7Wh (Rated) 4420mAh/17.1Wh (Typical)			
	英文 English	Rechargeable Li-ion Polymer Battery BP4N 3.87V 4320mAh/16.7Wh (Rated) 4420mAh/17.1Wh (Typical)			
样品编号 Sample No.	1123010024				
委托单位 Consignor	欣旺达电子股份有限公司 SUNWODA Electronic Co., Ltd.				
生产单位 Manufacturer	浙江欣旺达电子有限公司 Zhejiang Sunwoda Electronic Co., Ltd.				
检测方法 Test method	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	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	黑色 塑料薄膜外壳 Black Plastic film shell				
样品接受日期 Accepted Date	2023-01-03	检测起始日期 Test Date	2023-01-06 ~ 2023-02-01		
检测项目 Test Items	高度模拟;热测试;振动;冲击;外短路;挤压;过充电;强制放电 Altitude simulation, Thermal test, Vibration, Shock, External short circuit, Crush, Overcharge, Forced discharge				
检测结论 Conclusion	经检测, 该样品符合联合国《试验和标准手册》ST/SG/AC.10/11/Rev.7 38.3标准要求。 The sample has passed the test items of UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.7 Section 38.3 生效日期(Date): 2023-02-02				
备注 Comment	可充电单电芯电池Rechargeable Single Cell Battery. /				
委托单位地址 Consignor Address	/		邮政编码 Post Code 518106		

批准
Approver:
职务
Title:

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



上海化工院检测有限公司

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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	/
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	/
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	合格 Passed	/
4	冲击 Shock	联合国《试验和标准手册》ST/SG/AC.10/11/Rev.7 38.3 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	/
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	合格 Passed	/
6	挤压 Crush	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	过充电 Overcharge	联合国《试验和标准手册》ST/SG/AC.10/11/Rev.7 38.3 试验T.7 UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.7 Section 38.3 Test T.7	见附表 7 See Appendix 7	合格 Passed	/
8	强制放电 Forced discharge	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 T.8	见附表 8 See Appendix 8	合格 Passed	/
检测环境条件 Test Environment Condition		环境温度:20℃-21℃;环境湿度:/% Ambient temperature:20℃-21℃;Ambient humidity:/%			
分包检验情况 Subcontracted Test Condition		检测项目 Test Item	/		
		分包实验室 Subcontracted Laboratory	名称 Name	/	邮编 Post Code
			地址 Address	/	电话 Tel

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序号 No.	1	检测项目名称 Name of Test Items		高度模拟 Altitude simulation				
样品 编号 Sample No.	样品状态 Sample Status	试验前 Before		试验后 After		质量损失 Mass Loss /%	剩余电压 Residual OCV /%	其他 现象 Other Event
		质量 Mass /g	开路电压 OCV /V	质量 Mass /g	开路电压 OCV /V			
001	1CYC完全充电 1CYC Fully charged	60.9933	4.43	60.9943	4.43	0.00	100.00	O
002	1CYC完全充电 1CYC Fully charged	61.2084	4.43	61.2087	4.43	0.00	100.00	O
003	1CYC完全充电 1CYC Fully charged	61.2692	4.43	61.2690	4.43	0.00	100.00	O
004	1CYC完全充电 1CYC Fully charged	60.9535	4.43	60.9538	4.43	0.00	100.00	O
005	1CYC完全充电 1CYC Fully charged	61.2174	4.43	61.2183	4.43	0.00	100.00	O
006	25CYC完全充电 25CYC Fully charged	61.3017	4.44	61.3005	4.44	0.00	100.00	O
007	25CYC完全充电 25CYC Fully charged	60.9317	4.44	60.9285	4.44	0.01	100.00	O
008	25CYC完全充电 25CYC Fully charged	61.3138	4.44	61.3120	4.44	0.00	100.00	O
009	25CYC完全充电 25CYC Fully charged	61.2459	4.44	61.2443	4.44	0.00	100.00	O
010	25CYC完全充电 25CYC Fully charged	61.2547	4.44	61.2537	4.44	0.00	100.00	O
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序号 No.	2	检测项目名称 Name of Test Items		热测试 Thermal test				
样品 编号 Sample No.	样品状态 Sample Status	试验前 Before		试验后 After		质量损失 Mass Loss /%	剩余电压 Residual OCV /%	其他 现象 Other Event
		质量 Mass /g	开路电压 OCV /V	质量 Mass /g	开路电压 OCV /V			
001	1CYC完全充电 1CYC Fully charged	60.9943	4.43	60.9894	4.36	0.01	98.42	O
002	1CYC完全充电 1CYC Fully charged	61.2087	4.43	61.2052	4.36	0.01	98.42	O
003	1CYC完全充电 1CYC Fully charged	61.2690	4.43	61.2659	4.36	0.01	98.42	O
004	1CYC完全充电 1CYC Fully charged	60.9538	4.43	60.9504	4.36	0.01	98.42	O
005	1CYC完全充电 1CYC Fully charged	61.2183	4.43	61.2144	4.36	0.01	98.42	O
006	25CYC完全充电 25CYC Fully charged	61.3005	4.44	61.2982	4.38	0.00	98.65	O
007	25CYC完全充电 25CYC Fully charged	60.9285	4.44	60.9296	4.37	0.00	98.42	O
008	25CYC完全充电 25CYC Fully charged	61.3120	4.44	61.3108	4.38	0.00	98.65	O
009	25CYC完全充电 25CYC Fully charged	61.2443	4.44	61.2431	4.37	0.00	98.42	O
010	25CYC完全充电 25CYC Fully charged	61.2537	4.44	61.2515	4.38	0.00	98.65	O
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Testing Co., Ltd. Test Report—Appendix 3

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序号 No.	4	检测项目名称 Name of Test Items		冲击 Shock				
样品 编号 Sample No.	样品状态 Sample Status	试验前 Before		试验后 After		质量损失 Mass Loss /%	剩余电压 Residual OCV /%	其他 现象 Other Event
		质量 Mass /g	开路电压 OCV /V	质量 Mass /g	开路电压 OCV /V			
001	1CYC完全充电 1CYC Fully charged	60.9839	4.36	60.9835	4.36	0.00	100.00	O
002	1CYC完全充电 1CYC Fully charged	61.1987	4.36	61.1984	4.35	0.00	99.77	O
003	1CYC完全充电 1CYC Fully charged	61.2583	4.36	61.2580	4.36	0.00	100.00	O
004	1CYC完全充电 1CYC Fully charged	60.9431	4.36	60.9427	4.36	0.00	100.00	O
005	1CYC完全充电 1CYC Fully charged	61.2076	4.35	61.2073	4.35	0.00	100.00	O
006	25CYC完全充电 25CYC Fully charged	61.2921	4.38	61.2918	4.37	0.00	99.77	O
007	25CYC完全充电 25CYC Fully charged	60.9208	4.37	60.9205	4.37	0.00	100.00	O
008	25CYC完全充电 25CYC Fully charged	61.3051	4.38	61.3044	4.38	0.00	100.00	O
009	25CYC完全充电 25CYC Fully charged	61.2342	4.37	61.2338	4.37	0.00	100.00	O
010	25CYC完全充电 25CYC Fully charged	61.2430	4.38	61.2427	4.38	0.00	100.00	O
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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.

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检测报告-附表7

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序号 No.	7	检测项目名称 Name of Test Items	过充电 Overcharge
样品编号 Sample No.	样品状态 Sample Status	其他现象 Other Event	
021	1CYC完全充电 1CYC Fully charged	O	
022	1CYC完全充电 1CYC Fully charged	O	
023	1CYC完全充电 1CYC Fully charged	O	
024	1CYC完全充电 1CYC Fully charged	O	
025	25CYC完全充电 25CYC Fully charged	O	
026	25CYC完全充电 25CYC Fully charged	O	
027	25CYC完全充电 25CYC Fully charged	O	
028	25CYC完全充电 25CYC Fully charged	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.

上海化工院检测有限公司
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Shanghai Institute of Chemical Industry
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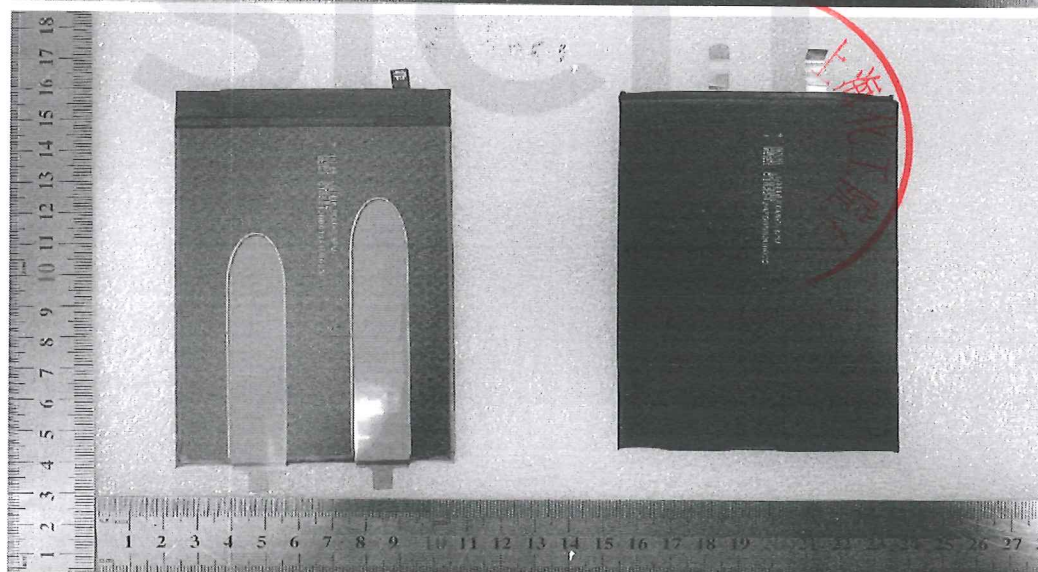
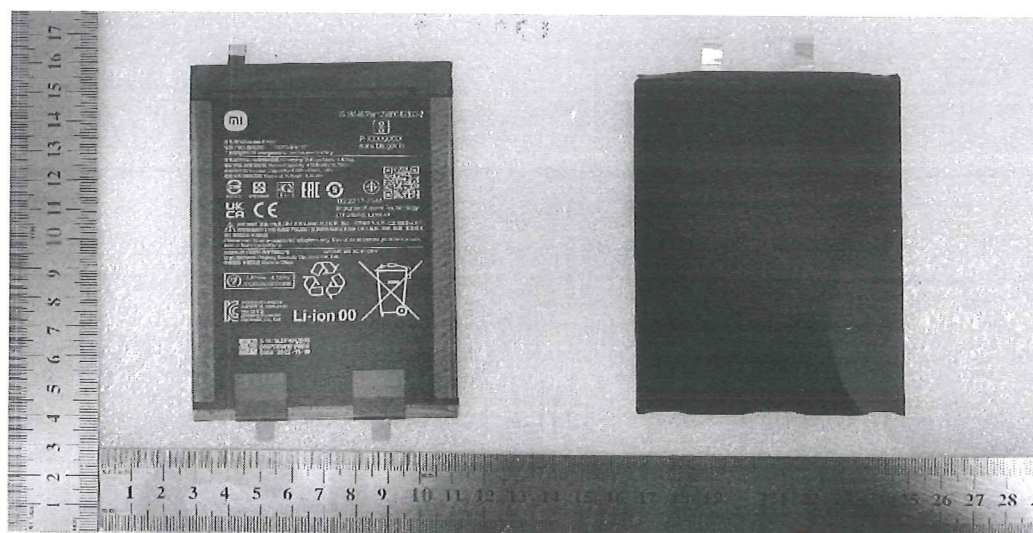
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序号 No.	8	检测项目名称 Name of Test Items	强制放电 Forced discharge
样品编号 Sample No.	样品状态 Sample Status	其他现象 Other Event	
029	1CYC完全放电 1CYC Fully discharged	O	
030	1CYC完全放电 1CYC Fully discharged	O	
031	1CYC完全放电 1CYC Fully discharged	O	
032	1CYC完全放电 1CYC Fully discharged	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	O	
036	1CYC完全放电 1CYC Fully discharged	O	
037	1CYC完全放电 1CYC Fully discharged	O	
038	1CYC完全放电 1CYC Fully discharged	O	
039	25CYC完全放电 25CYC Fully discharged	O	
040	25CYC完全放电 25CYC Fully discharged	O	
041	25CYC完全放电 25CYC Fully discharged	O	
042	25CYC完全放电 25CYC Fully discharged	O	
043	25CYC完全放电 25CYC Fully discharged	O	
044	25CYC完全放电 25CYC Fully discharged	O	
045	25CYC完全放电 25CYC Fully discharged	O	
046	25CYC完全放电 25CYC Fully discharged	O	
047	25CYC完全放电 25CYC Fully discharged	O	
048	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.			

上海化工院检测有限公司
检测报告-附图
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型号/型號/Model: BP4N

锂离子聚合物电池组 1ICP3/84/117

二次锂电池组/Rechargeable Li-ion Polymer Battery

充电限制电压/充電限制電壓/ Charging Voltage Limit: 4.45Vdc

额定容量/額定電容量/ Rated Capacity: 4320mAh/16.7Wh

典型电容量/Typical Capacity: 4420mAh/17.1Wh

额定电压/標稱電壓/ Nominal Voltage: 3.87Vdc

R-XXXXXXXXX

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报告结束

