

Shandong Anodepower Battery Co.,Ltd

TEST REPORT

SCOPE OF WORK

Test Report

REPORT NUMBER

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Special Test Report_ A

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TEST REPORT

Applicant	:	Shandong Anodepower Battery Co.,Ltd
Address	:	Yanggu Double Innovation Industrial Park, East Industrial Concentration Zone, Yanggu County Economic Development Zone, Liaocheng City, Shandong Province
Product Description		
Name of Product	:	Rechargeable Li-ion Cell
<i>Trade Mark</i>	:	-
<i>Model Number</i>	:	ZNL 14500
<i>Model differences</i>	:	N/A
<i>Date of Receival</i>	:	02-Dec-2023
<i>Date of test Conducted</i>	:	02-Dec-2023 to 29-Dec-2023
Test		
<i>Test Requested</i>	:	Test according to standards: Lithium Batteries [UL 1642:2020 Ed.6+R:12Oct2022]
<i>Test Conclusion:</i>	:	The products complied with the requirements of clause 10, 11, 13, 14, 15, 16, 17, 18, 19, 20 in UL 1642.
<i>Other information</i>	:	N/A
General Remark:		
<ul style="list-style-type: none"> This test report is only for evaluation of the specified standard clauses listed in <u>Test Requested</u>. When determine the test result, measurement uncertainty has been considered. Manufacturing site: Shandong Anodepower Battery Co.,Ltd Yanggu Double Innovation Industrial Park, East Industrial Concentration Zone, Yanggu County Economic Development Zone, Liaocheng City, Shandong Province 		

Tested by:

Demain Liu

Demain Liu

Engineer

Approved by:

Joseph Li

Joseph Li

Project Manager

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Test Requested:

Lithium Batteries [UL 1642:2020 Ed.6+R:12Oct2022] Safety for Lithium Batteries		
10	Short-Circuit Test	P
11	Abnormal Charging Test	P
12	Forced-Discharge Test	N/A
13	Crush Test	P
14	Impact Test	P
14A	Round Bar Crush Test	N/A
15	Shock Test	P
16	Vibration Test	P
17	Heating Test	P
18	Temperature Cycling Test	P
19	Low Pressure (Altitude Simulation) Test	P
20	Projectile Test	P
<p>Possible test case verdicts:</p> <ul style="list-style-type: none"> - 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) 		

Appendix 1: Critical components information					
Component Name	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity
Cell	Shandong Anodepower Battery Co., Ltd.	ZNL 14500	3.7Vd.c., 800mAh	UL 1642	Tested with appliance
-Electrolyte	Dongguan Shanshan Battery Material Co.,Ltd.	LD-1039	LiPF6, EC, EMC, DMC, DEC, PC, VC	--	--
-Separator	W-SCOPE Korea co.,Ltd	16µm	PE single layers, 16µm thick	--	--
-Negative electrode	GUANGDONG DONGDAO NEW ENERGY CO.,LTD	DAG-1	Graphite, CMC, SBR, Conductive, Additive Copper Foil	--	--
-Positive electrode	Xinxiang Tianli Lithium Energy Co., Ltd.	TLM510	Li(Ni _{0.5} Co _{0.2} Mn _{0.3})O ₂ , NMP, PVDF, Conductive, Additive, Aluminum Foil	--	--
-Wiring	DONGGUAN TRIUMPHCABLE CO LTD	1007	22AWG, 80°C, 300V	UL 758	UL E249743
-Alternative	Interchangeable	1007	22AWG, 80°C, 300V	UL 758	UL Approved
-Connector	Xinxiang Xingxing Electronic Factory	XH2.54-2P	PC/ABS, 100V AC/DC, 3A AC/DC, Temperature range: -25°C to 85°C	--	Tested with appliance
Remark:					

Appendix 2: Marking

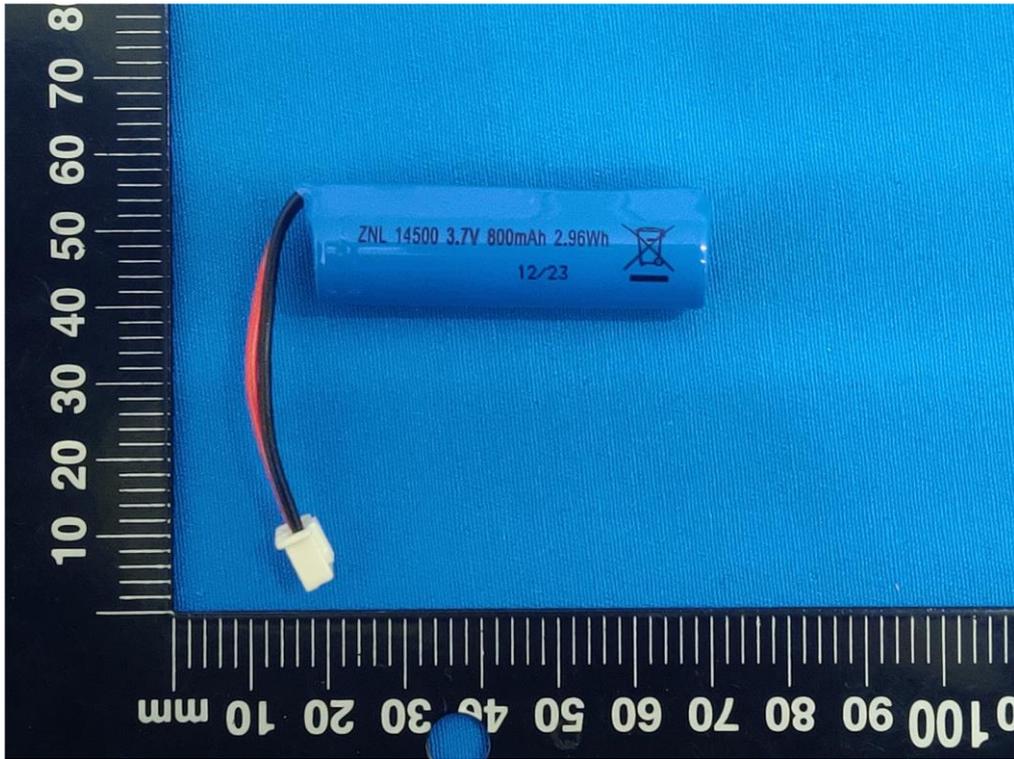
Rechargeable Li-ion Cell
 Model: ZNL 14500
 3.7Vd.c., 800mAh
 Shandong Anodepower Battery Co., Ltd.
 Date: YYYYMMDD

Remark: YYYYMMDD represents the data code.

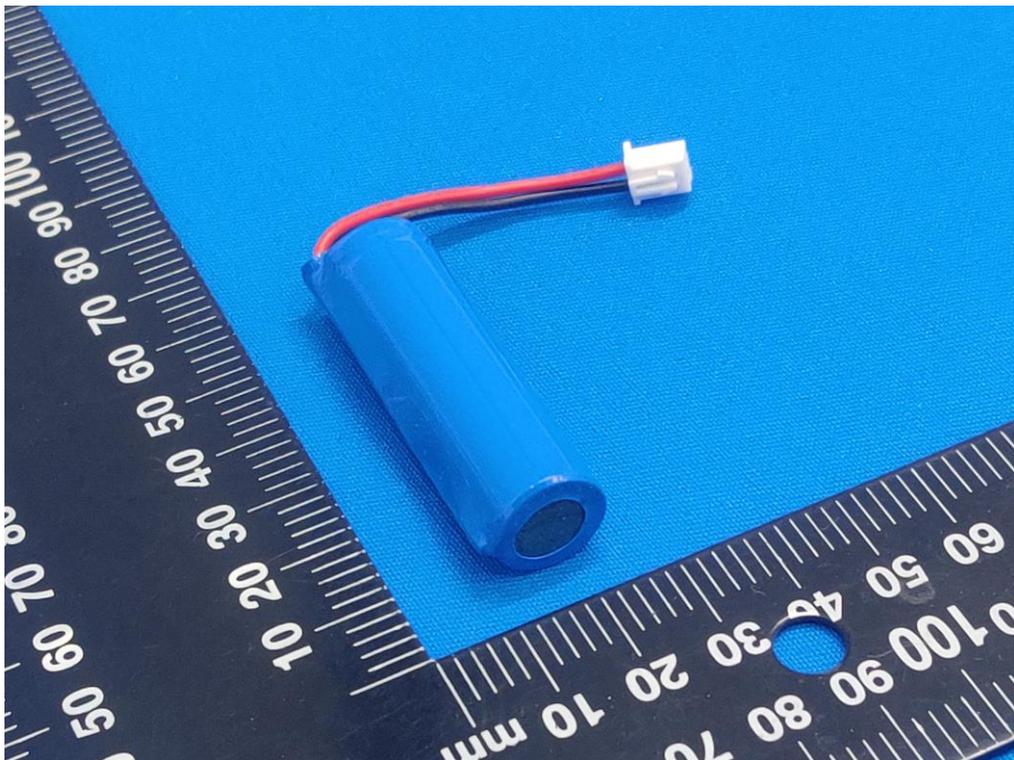
Appendix 3: Product Specification

Nominal Voltage (V)	3.7
Nominal Capacity (mAh)	800
Normal charging voltage (V)	4.20
Normal charging current (mA)	160
Max. charging current (mA)	800
End of discharging voltage (V)	2.75
Normal discharging current (mA)	160
Max. discharging current (mA)	2400
Upper limit charging voltage (V)	4.25
Operating temperature range (°C)	Charge: 0~45 Discharge: -20~60

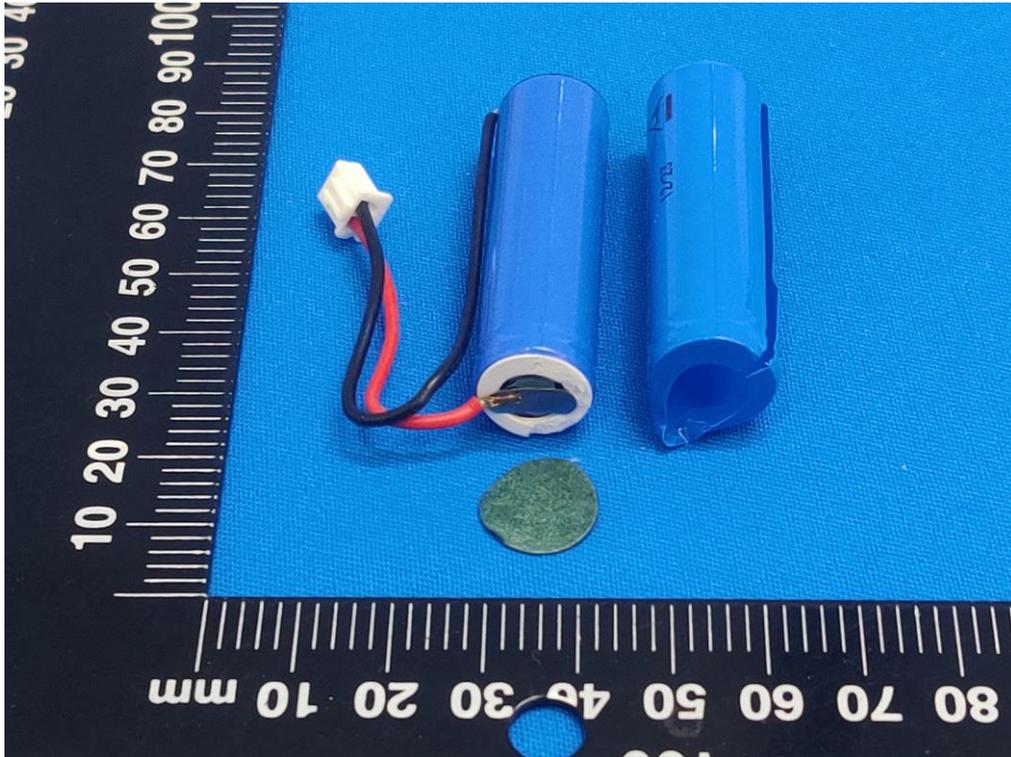
Appendix 4: Product Photos



View-1 of cell



View-2 of cell



Internal view-1 of cell



Internal view-2 of cell

The End of Report