

**TEST REPORT**

電気用品の技術上の基準を定める省令の解釈(H26.04.14), 別表第九: Interpretation for METI Ordinance of Technical Req. (H26.04.14), Appendix 9:

Report Number..... : S03A21090157P00101

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Testing Laboratory Name : Guangdong ESTL Technology Co., Ltd.

Address : Room 101, 201-208, Unit 1, Building 1, No. 9 Headquarters 2nd Road, Songshan Lake Park, Dongguan, Guangdong, China.

Applicant's name..... : SHENZHEN BOFUNENG BATTERY CO., LTD.

Address..... : A Building Chunyang Industrial park , Zhugushi Road Wulian community LongCheng Street, Longgang district, Shenzhen China

Test specification:

Standard..... : 電気用品の技術上の基準を定める省令の解釈(H26.04.14), 別表第九: Interpretation for METI Ordinance of Technical Req. (H26.04.14), Appendix 9

Test item description..... : Rechargeable Battery

Trade Mark..... : N/A

Manufacturer..... : Same as applicant

Address..... : Same as applicant

Factory..... : Same as applicant

Address..... : Same as applicant

Model/Type reference..... : LDC-361A

Ratings..... : 3.7V 3600mAh 13.32Wh



Test item particulars :	
Classification of installation and use..... :	Portable Equipment
Supply Connection..... :	N/A
Possible test case verdicts:	
- test case does not apply to the test object..... :	N/A(Not Applicable)
- test object does meet the requirement..... :	P (Pass)
- test object does not meet the requirement..... :	F (Fail)
Testing :	
Date of receipt of test item..... :	2021-09-08
Date (s) of performance of tests..... :	2021-09-08 to 2021-10-08
General remarks:	
The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory. "(see Enclosure #)" refers to additional information appended to the report. "(see appended table)" refers to a table appended to the report. Throughout this report a comma (point) is used as the decimal separator.	
General product information: See page 3	



General product information

This battery is constructed with single cell and has overcharge, over-discharge, over current and short-circuits proof circuit.

The battery pack mainly consist of:

- 1 cell (1S1P)
- PCM (protective circuit module)
- Dimension is L(70.0mm) * φ (19.0 mm)
- Weight: 50.9g

Type classification

型式の区分 Classification of type	
要素 Factor	区分 Classification
単電池の形状 Shape of secondary cell	<input type="radio"/> 円筒形のもの Cylindrical
	<input type="radio"/> 角形のもの Angular
	<input type="radio"/> その他のもの Other
単電池の電解質の種類 Type of electrolyte in secondary	<input type="radio"/> 液体状のもの Liquid state
	<input type="radio"/> その他のもの Other
単電池の上限充電電圧 Upper limit charge voltage of secondary cell	<input type="radio"/> 4.25V以下のもの 4.25 V or less
	<input type="radio"/> 4.25Vを超えるもの More than 4.25 V
組電池の質量 Weight of secondary battery	<input type="radio"/> 7kg以下のもの 7 kg or less
	<input type="radio"/> 7kgを超えるもの More than 7 kg
電池ブロックの個数 Number of battery blocks	<input type="radio"/> 1個のもの Single
	<input type="radio"/> 2個以上のもの Multiple
過充電の保護機能 Overcharge protection	<input type="radio"/> 組電池で制御するもの Controlled by secondary battery
	<input type="radio"/> 組電池搭載機器又は充電器で制御するもの Controlled by equipment incorporating a secondary battery or a charger
用途 Uses	<input type="radio"/> 携帯機器用のもの For mobile equipment
	<input type="radio"/> 卓上機器用のもの For desktop equipment
	<input type="radio"/> その他のもの Other
組電池の種類 Type of secondary battery	<input type="radio"/> はんだ付けその他の接合方法により、容易に取り外すことができない状態で機械器具に固定して用いられるものその他の特殊な構造のもの Those designed to fix to appliances by soldering or other joining methods so that it cannot be easily removed, or those having other special construction
	<input type="radio"/> その他のもの Other

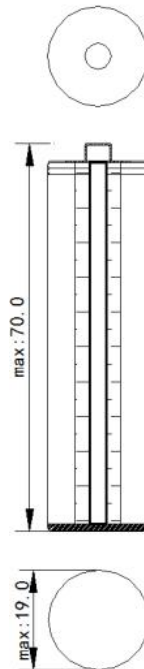
The main features of this model are shown as below:

Model	Nominal capacity	Nominal voltage	Nominal Charge Current	Nominal Discharge Current	Maximum Charge Current	Maximum Discharge Current	Maximum Charge Voltage	Cut-off Voltage
LDC-361A	3600mAh	3.7V	720mA	720mA	3000mA	3000mA	4.25V	3.0V

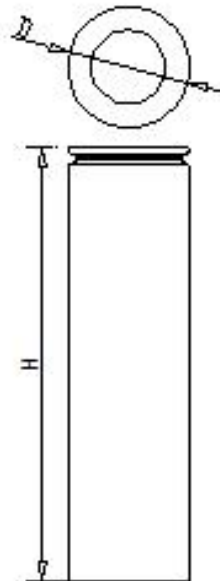
The main features of this cell within the battery pack shown as below:

Model	Nominal capacity	Nominal voltage	Nominal Charge Current	Nominal Discharge Current	Maximum Charge Current	Maximum Discharge Current	Maximum Charge Voltage	Cut-off Voltage
Li-18650	3600mAh	3.7V	720mA	720mA	3600mA	10800mA	4.25V	3.0V

Enclosure drawing:

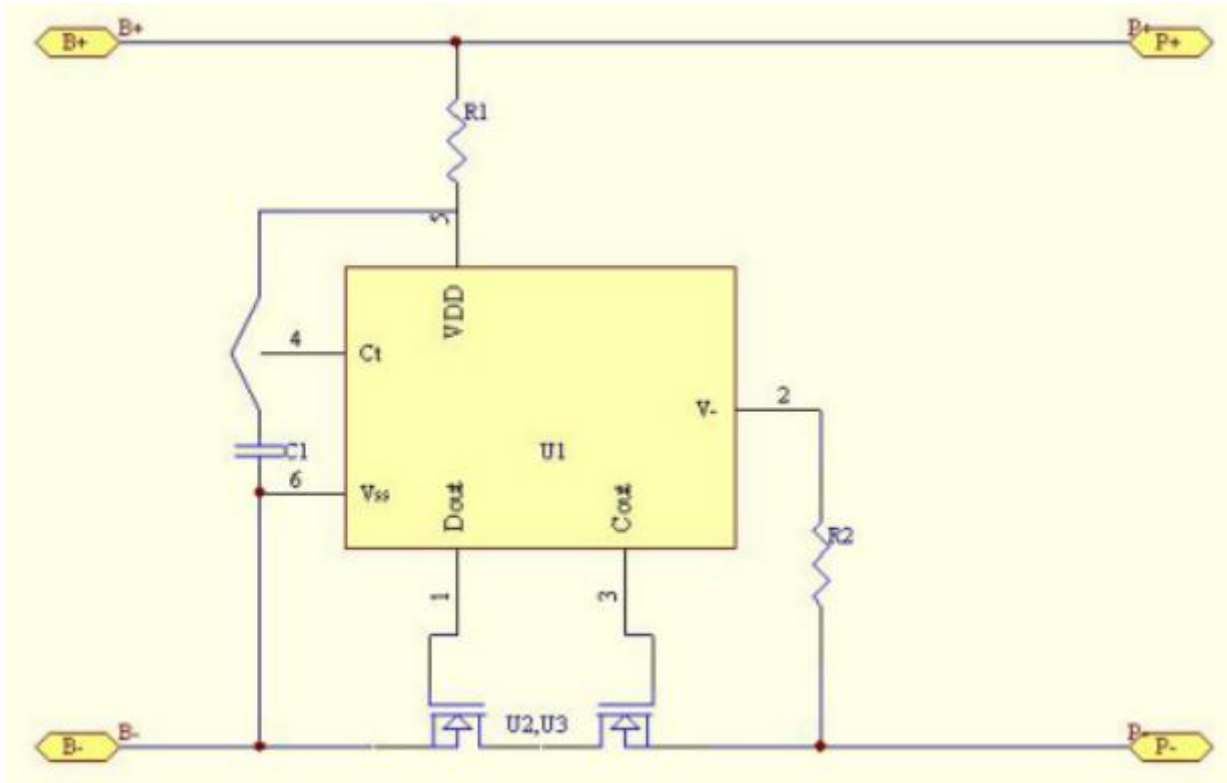


Cell: ϕ (max.): H(max.)= 19.0mm: 70.0mm



Battery: D(max.): H(max.)= 18.5mm: 65.2mm

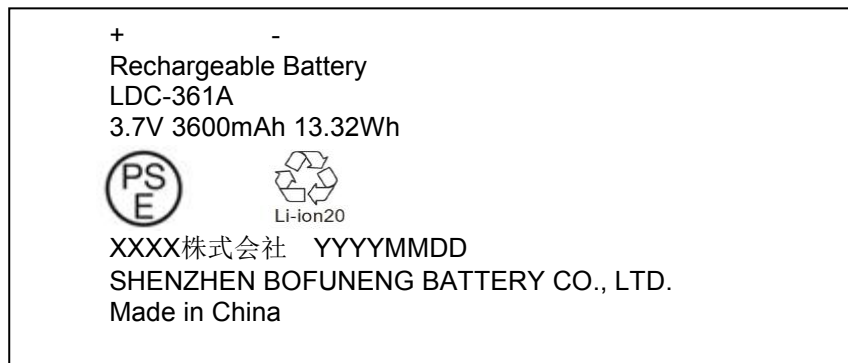
Schematics:



Summary of Testing:

The battery pack is evaluated and tested in this test report according to DENAN appendix 9.
 The cell is also evaluated and tested in this test report according to DENAN appendix 9.

Copy of marking plate:



Remark: "YYYYMMDD" represents the date of manufacture. "YYYY" represents the year, "MM" represents the month, "DD" represents the day



Appendix 9			
Clause	Requirement + Test	Result - Remark	Verdict
1.	Basic Design		P
1.(1)	Insulation and Wiring		N/A
	a) Insulation Resistance between an accessible metal case (excluding electrical contacts) and positive terminals $\geq 5M\Omega$.		N/A
	b) Internal wiring and insulation are sufficient to withstand maximum anticipated current, voltage and temperature requirements		N/A
	c) Orientation of wiring maintains adequate creepage and clearance distances between conductors. Mechanical integrity of internal connections are sufficient to accommodate conditions of reasonably foreseeable misuse.		N/A
1.(2)	Inner Pressure Reduction Mechanism		P
	a) Battery cases and cells incorporate a pressure relief mechanism or are constructed so that they relieve excessive internal pressure at a value and rate that will preclude rupture, explosion and self-ignition.	Venting mechanism exists on the top of the cylindrical cell.	P
	b) Encapsulant used to support cells within an outer casing does not cause the battery to overheat during normal operation no inhibit pressure relief.		N/A
1.(3)	Temperature and current management		P
	The batteries are designed such that abnormal temperature rise conditions are prevented.	Overcharge, over-discharge, over current and short-circuit proof circuit used in this battery. See tests of clause 3.	P
	Means is provided to limit current to safe levels during charge and discharge.	Overcharge, over-discharge, over current and short-circuit proof circuit used in this battery. See tests of clause 3.	P
1.(4)	Terminal contacts		P
	a) Terminals have a clear polarity marking on the external surface of the battery or be designed with no fear of misconnection.		P
	b) The size and shape of the terminal contacts ensure that they can carry the maximum anticipated current.	Complied.	P
	c) External terminal contact surfaces are formed from conductive materials with good mechanical strength and corrosion resistance.		P
	Terminal contacts are arranged to minimize the risk of short circuits.		P
1.(5)	Assembly of cells into batteries	1S1P	P



Appendix 9			
Clause	Requirement + Test	Result - Remark	Verdict
	Cells used in the battery assembly have closely matched capacities, are of the same design, and are of the same chemistry and same manufacturer.		P
	The battery incorporates separate circuitry to prevent cell reversal from uneven charges as the pack is designed for the selective discharge of a portion of its series connected cells.		N/A
2.	Intended Use		P
2.(1)	Continuous Low Rate Charge		P
	Fully charged cells are subjected for 28 days to a charge as specified by the manufacturer.	Arrange the test as required.	P
	Ambient temperature when testing	45°C	P
	Results: no fire, no explosion, no leakage	No fire, no explosion, no leakage.	P
2.(2)	Vibration		P
	The measured open circuit voltage of the fully charged cells or batteries is within anticipated parameters	See test below.	P
	The cells or batteries are subjected to a vibration sequence with amplitude of 0.76 mm and a total maximum excursion of 1.52 mm. The frequency was varied at the rate of 1 Hz/min between the limits of 10 Hz and 55 Hz. The entire range of frequencies (10 Hz to 55 Hz) and return (55 Hz to 10 Hz) was traversed in 90 min ± 5 min for each mounting position.	Arrange the test as required.	P
	The vibration was applied in each of three mutually perpendicular directions.	Arrange the test as required.	P
	Results: no fire, no explosion, no leakage	No fire, no explosion, no leakage.	P
2.(3)	Battery enclosure test at high ambient temperature		P
	Fully charged batteries were placed in an air-circulating oven at a temperature of 70°C ± 2°C for 7 hours. Afterwards, they are removed and allowed to return to room temperature.		P
	Results: no physical distortion of the battery casing resulting in exposure of internal components.		P
2.(4)	Temperature cycling		P
	Fully charged cells or batteries were subjected to temperature cycling (+75°C, +20°C, -20°C, +20°C) in forced draught chambers according to the procedure.	Arrange the test as required.	P
	After the fifth cycle, the cells or batteries were stored at 20 ± 5°C for 7 days prior to examination.	Arrange the test as required.	P
	Results: No fire, no explosion, no leakage	No fire, no explosion, no leakage.	P



Appendix 9

Clause	Requirement + Test	Result - Remark	Verdict
3	Reasonably foreseeable misuse		P
3.(1)	External short circuit		P
	a) Fully charged cells were subjected to a short circuit test at 55°C ± 5°C.	Arrange the test as required. Each 5pcs batteries charged at ambient temperature 50°C and -5°C respectively prepared for the test.	P
	The external resistance did not exceed 80 ± 20 mΩ.	See table 3.(1)	P
	The cells were tested for 24 h or until the case temperature declined by 20% of the maximum temperature rise.	Tested until the case temperature declined by 20% of the maximum temperature rise.	P
	b) Fully charged batteries were subjected to a short circuit test at 20°C ± 5°C.	Arrange the test as required Each 5pcs batteries charged at ambient temperature 50°C and -5°C respectively prepared for the test.	P
	The external resistance did not exceed 80 ± 20 mΩ.	See table 3.(1)	P
	The batteries were tested for 24 h or until the case temperature declined by 20% of the maximum temperature rise.		N/A
	If battery incorporates protective device or protective circuit and the current has stopped, then for one hour after the current stopped.	Tested for 1 hours.	P
	Results: no fire, no explosion.	No fire, no explosion.	P
3.(2)	Free fall		P
	Fully charged cells or batteries were dropped 3 times from a height of 1.0 m onto a concrete floor.	Arrange the test as required.	P
	Provided that this does not apply to charged batteries weighting more than 7 kg.		N/A
	Results: no fire, no explosion	No fire, no explosion.	P
3.(3)	Mechanical shock (crash hazard)		P
	a) Fully charged cells or batteries were subjected to a total of three shocks of equal magnitude applied in each of three mutually perpendicular directions.	Arrange the test as required.	P
	b) During the initial 3 milliseconds, the minimum average acceleration was 735 m/s ² . The peak acceleration was between 1228 m/s ² and 1716 m/s ² .		P
	Results: no fire, no explosion, no leakage	No explosion, no leakage.	P
3.(4)	Thermal abuse		P



Appendix 9			
Clause	Requirement + Test	Result - Remark	Verdict
	Fully charged cells were placed in a gravity or circulating air-convection oven. The oven temperature was raised at a rate of 5°C/min ± 2°C/min to a temperature of 130°C ± 2°C. The cell remained at that temperature for 10 minutes before the test was discontinued.	Arrange the test as required. Each 5pcs cells charged at ambient temperature 50°C and -5°C respectively prepared for the test.	P
	Results: no fire, no explosion	No fire, no explosion	P
3.(5)	Crushing of cells		P
	a) Fully charged cells were crushed between two flat surfaces with a hydraulic ram exerting a force of 13 kN ± 1 kN.	Arrange the test as required. Each 5pcs cells charged at ambient temperature 50°C and -5°C respectively prepared for the test.	P
	b) The force was released when		N/A
	(1) the maximum forces applied	Arrange the test as required. The Maximum force is achieved when the force applied crushing the cell from wide side.	P
	(2) an abrupt voltage drop of one-third of the original voltage has been obtained		N/A
	(3) There was 10% deformation of battery height		N/A
	c) A cylindrical or prismatic cell was crushed with its longitudinal axis parallel to the flat surfaces of the crushing apparatus.		N/A
	A second set of prismatic cells was tested, rotated 90 degrees around their longitudinal axis compared to the first set.		P
	Ambient temperature when testing	Ambient temperature 50°C and -5°C respectively.	P
	Results: no fire, no explosion.	No fire, no explosion.	P
3.(6)	Low pressure		P
	Fully charged cells are placed in a vacuum chamber whose internal pressure was gradually reduced to a pressure equal to or less than 11.6 kPa and held at that value for 6 hours.	Arrange the test as required.	P
	Results: no fire, no explosion, no leakage	No fire, no explosion, no leakage	P
3.(7)	Overcharge		P
	A discharged cell was charged from a power supply of ≥ 10 V, at a charging current I_{rec} recommended by the manufacturer for 2.5 C_5/I_{rec} hours or until it reach the test voltage.	Arrange the test as required. Each 5pcs cells overcharged at ambient temperature 50°C and -5°C respectively during the test.	P



Appendix 9			
Clause	Requirement + Test	Result - Remark	Verdict
	Ambient temperature when testing	Ambient temperature 50°C and -5°C respectively.	P
	Results: no fire, no explosion.	No fire, no explosion.	P
3.(8)	Forced discharge		P
	Discharged cells intended for use in multi-cell applications, were subjected to a reverse charge at 1.0 I _t (A) for 90 minutes.	Arrange the test as required. Each 5pcs cells overcharged at ambient temperature 50°C and -5°C respectively during the test.	P
	Ambient temperature when testing	Ambient temperature 50°C and -5°C respectively.	P
	Results: no fire, no explosion	No fire, no explosion	P
3.(9)	Cell protection against a high charging rate		P
	Discharged cells were charged at three times the charging current recommended by the manufacturer until	Arrange the test as required	P
	the cells was fully charged, or		N/A
	A protective devices in the equipment or battery cut off the charge current before the cell became fully charged.	Arrange the test as required. Each 5pcs cells overcharged at ambient temperature 50°C and -5°C respectively during the test.	P
	Ambient temperature when testing	Ambient temperature 50°C and -5°C respectively.	P
	Results: no fire, no explosion	No fire, no explosion	P
3.(10)	Forced internal short circuit of cells		P
	Pressed the winding core of charged cell (except when electrolyte is not liquid) by pressing jig under condition that nickel peace was inserted.	Arrange the test as required. Each 5pcs cells overcharged at ambient temperature 50°C and -5°C respectively during the test.	N/A
	Inserted between the positive active material and negative active material		P
	Inserted between the uncoated current collector of positive electrode and the active material coated negative active electrode	Arrange the test as required	P
	Test was stopped when voltage drop of over 50 mV was obtained, or		N/A
	Stopped when the pressure reached 800 N (for prismatic cells, 400N).	800N for cylindrical cell.	P
	Ambient temperature when testing	Ambient temperature 50°C and -5°C respectively.	P



Appendix 9

Clause	Requirement + Test	Result - Remark	Verdict
	Number of test sample	Each 10pcs cells overcharged at ambient temperature 50°C and -5°C respectively during the test.	P
	Results: no fire	No fire	P
3.(11)	Function of the overvoltage protection of batteries		P
	The cell block in the battery shall not exceed the upper limited charging voltage at 20 ± 5°C ambient temperature.		P
	a) For batteries made of a one cell block, the voltage applied to the cell block during charging shall be measured	Arrange the test as required on the cell. The max. voltage measured are not exceed the limit.	P
	b) For batteries consisting of a series of two pieces or more of cell blocks, it shall be charged while measuring the voltage of each cell block and at the same time, one cell block shall forcibly be discharged and the voltages of the other cell blocks shall gradually be measured		N/A
	c) For batteries consisting of a series of connection of two pieces or more of cell blocks, a voltage exceeding the upper limited charging voltage specified in Annex Table 1-2 shall be applied to the cell block while measuring the voltage of each cell block. When the charging stops, the voltage shall be measured		N/A
3.(12)	Free fall of appliance		P
	The charged battery shall be installed to be used, and shall be dropped once a concrete floor or iron plate in a direction considered to most likely affect the battery in a negative manner.	Arrange the test as required	P
	An equivalent load shall be applied to the battery	Complied.	P
	Kind of equipment	Portable	P
	Weight of appliance	Less than 7kg	P
	Applicable standard		P
	Height in drop testing	1000mm	P
	Results: no short-circuiting	no short-circuiting	P
4	Labeling		P
	Labeling for batteries shall be provided as below on surface where it can easily be seen but not easily faded.	The label of battery cell meets the requirements.	P
	Rated voltage	See page 5	P
	Rated capacity	See page 5	P



Appendix 9

Clause	Requirement + Test	Result - Remark	Verdict
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TABLE: Critical components information					P
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾
Cell	SHENZHEN BOFUNENG BATTERY CO., LTD	Li-18650	3.7V, 3600mAh	Appendix 9	Tested with appliance
-Electrolyte	DONGGUAN SHANSHAN BATTERY MATERIALS CO., LTD	LD-1039	LiPF6, EC, DEC, EMC	--	--
-Separator	W-SCOPE KOREA CO., LTD	20µm	PE, 20µm, Shutdown temperature: 135°C	--	--
-Positive electrode	Jiangmen Rongcarbon Electronic Materials Co., Ltd	A110P3	Graphite, CMC, SBR, Conductive, Additive, Copper foil	--	--
-Negative electrode	SHANDONG FENGYUAN LITHIUM ENERGY TECHNOLOGY CO., LTD	FYN-502	Li(NiCoMn)O ₂ , NMP, PVDF, Conductive, Additive, Aluminum foil	--	--
-Cell case	Xinxiang ShengDa Power Technology Co., Ltd.	18	0.22mm, Ni-plated Steel	--	--
PCB	Interchangeable	Interchangeable	V-0, 130°C	UL 796, UL 94	UL Approve
IC (U1)	Fortune Semiconductor Corporation	DW01-G	Overcharge Detection Voltage: 4.25 ± 0.05 V, Over-discharge Detection Voltage: 2.4 ± 0.1V,	--	Tested with appliance
MOSFET (U2, U3)	ShenZhen Developer Microelectronics Co., Ltd	DP8205A	VDS=20V, VGS=±12V, ID= 5A	--	Tested with appliance

Supplementary information: --



Appendix 9

Clause	Requirement + Test	Result - Remark	Verdict
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TABLE: 2.(1) Continuous Low Rate Charge Test					P
Model	Recommended Charging Method, CC, CV, or CC/CV	Recommended Charging Voltage Vc, (Vdc)	Recommended Charging Current I _{rec} , (A)	OCV at Start of Test, Vdc	Results
Li-18650(Cell)	CC/CV	4.25	3.6	4.232	P
	CC/CV	4.25	3.6	4.234	P
	CC/CV	4.25	3.6	4.233	P
	CC/CV	4.25	3.6	4.234	P
	CC/CV	4.25	3.6	4.234	P

supplementary information:
 - No Fire or Explosion
 - No Leakage

TABLE: 2.(2) – Vibration Test		P
Model	OCV at Start of Test, Vdc	Results
Li-18650(Cell)	4.185	P
	4.186	P
	4.187	P
	4.185	P
	4.186	P
LDC-361A(Battery)	4.185	P
	4.185	P
	4.185	P
	4.186	P
	4.186	P

supplementary information:
 - No Fire or Explosion
 - No Leakage

TABLE: 3.(1) – External Short Circuit Test (Cell)						P
Model	Charge Temperature High (At 50°C)	Test Temperature (At 55°C ± 5°C)	OCV at start of test, Vdc	Resistance of Circuit, mΩ	Maximum Case Temperature Rise ΔT, °C	Results
Li-18650(Cell)	50	55.5	4.234	88	65.1	P
	50	55.6	4.235	81	63.2	P
	50	55.5	4.237	82	64.2	P



Appendix 9						
Clause	Requirement + Test			Result - Remark		Verdict
	50	55.5	4.234	85	66.8	P
	50	55.4	4.235	88	65.8	P
Model	Charge Temperature Low (-5°C)	Test Temperature (At 55°C ± 5°C)	OCV at start of test, Vdc	Resistance of Circuit, mΩ	Maximum Case Temperature Rise ΔT, °C	Results
Li-18650(Cell)	-5	55.6	4.165	92	68.2	P
	-5	55.6	4.166	84	67.4	P
	-5	55.5	4.164	86	68.5	P
	-5	55.6	4.166	87	66.6	P
	-5	55.5	4.166	85	65.5	P
supplementary information: - No Fire or Explosion						

TABLE: 3.(1) – External Short Circuit Test (Battery)						P
Model	Charge Temperature High (At 50°C)	Test Temperature (At 20°C ± 5°C)	OCV at start of test, Vdc	Resistance of Circuit, mΩ	Maximum Case Temperature Rise ΔT, °C	Results
LDC-361A(Battery)	50	23.5	4.234	83	0.3	P
	50	23.5	4.237	84	0.3	P
	50	23.6	4.234	85	0.1	P
	50	23.6	4.235	88	0.2	P
	50	23.5	4.235	82	0.4	P
Model	Charge Temperature Low (-5°C)	Test Temperature (At 20°C ± 5°C)	OCV at start of test, Vdc	Resistance of Circuit, mΩ	Maximum Case Temperature Rise ΔT, °C	Results
LDC-361A(Battery)	-5	23.5	4.168	87	0.6	P
	-5	23.6	4.166	92	0.1	P
	-5	23.6	4.167	84	0.3	P
	-5	23.6	4.168	85	0.1	P
	-5	23.5	4.166	80	0.4	P
supplementary information: - No Fire or Explosion						

TABLE: 3.(7) – Overcharge Tests					P
Model	OCV at start of test, Vdc	Charging Current, A	Maximum Charging Voltage, Vdc	Total Time of Charging, h	Results



Appendix 9

Clause	Requirement + Test	Result - Remark			Verdict
Samples tested at charging temperature upper limit: 50°C					
Li-18650(Cell)	3.289	0.72	10	12.5	P
	3.278	0.72	10	12.5	P
	3.284	0.72	10	12.5	P
	3.281	0.72	10	12.5	P
	3.276	0.72	10	12.5	P
Samples tested at charging temperature lower limit: -5°C					
Li-18650(Cell)	3.275	0.72	10	12.5	P
	3.281	0.72	10	12.5	P
	3.282	0.72	10	12.5	P
	3.279	0.72	10	12.5	P
	3.284	0.72	10	12.5	P
supplementary information: - No Fire or Explosion					

TABLE: 3.(8) – Forced Discharge Test				P
Model	OCV before application of reverse charge, Vdc	Measured Reverse Charge It, (A)	Total Time for Reversed Charge Application, (minute)	Results
Samples tested at charging temperature upper limit: 50°C				
Li-18650(Cell)	3.282	3.6	90	P
	3.284	3.6	90	P
	3.283	3.6	90	P
	3.279	3.6	90	P
	3.281	3.6	90	P
Samples tested at charging temperature lower limit: -5°C				
Li-18650(Cell)	3.282	3.6	90	P
	3.284	3.6	90	P
	3.285	3.6	90	P
	3.281	3.6	90	P
	3.285	3.6	90	P
supplementary information: - No Fire or Explosion				

TABLE: 3.(9) – Cell Protection Against a High Charging Rate Test (Lithium Systems)				P
Model	OCV at start of test, Vdc	Maximum Charging Current, (mA)	Maximum Charging Voltage, Vdc	Results



Appendix 9				
Clause	Requirement + Test	Result - Remark		Verdict
Samples tested at charging temperature upper limit: 50°C				
Li-18650(Cell)	3.279	10800	4.25	P
	3.281	10800	4.25	P
	3.284	10800	4.25	P
	3.282	10800	4.25	P
	3.282	10800	4.25	P
Samples tested at charging temperature lower limit: -5°C				
Li-18650(Cell)	3.284	10800	4.25	P
	3.283	10800	4.25	P
	3.284	10800	4.25	P
	3.284	10800	4.25	P
	3.281	10800	4.25	P
supplementary information: - No Fire or Explosion				

TABLE: 3.(10) – Forced internal short circuit of cells				P
Model	OCV at start of test, Vdc	Maximum Pressure (N)	Voltage Drop (ΔmV)	Results
Samples charged at charging temperature upper limit: 50°C				
Li-18650(Cell)	4.208	800	1	P
	4.209	800	0	P
	4.206	800	0	P
	4.205	800	2	P
	4.208	800	1	P
	4.204	800	0	P
	4.205	800	1	P
	4.204	800	0	P
	4.202	800	0	P
	4.208	800	2	P
Samples charged at charging temperature lower limit: -5°C				
Li-18650(Cell)	4.138	800	7	P
	4.139	800	0	P
	4.135	800	5	P
	4.138	800	5	P
	4.132	800	9	P
	4.136	800	7	P



Appendix 9				
Clause	Requirement + Test		Result - Remark	Verdict
	4.133	800	0	P
	4.134	800	0	P
	4.135	800	5	P
	4.132	800	7	P
supplementary information: - No Fire				

TABLE: 3.(11)– Function of the overcharge protection of batteries				P
Model	OCV at start of test, Vdc	OCV at End of test, Vdc	Charging Voltage, Vdc	Results
LDC-361A	3.282	4.243	4.280	P
Supplementary information: The cell block in the battery not exceed the upper limited charging voltage				

Photos

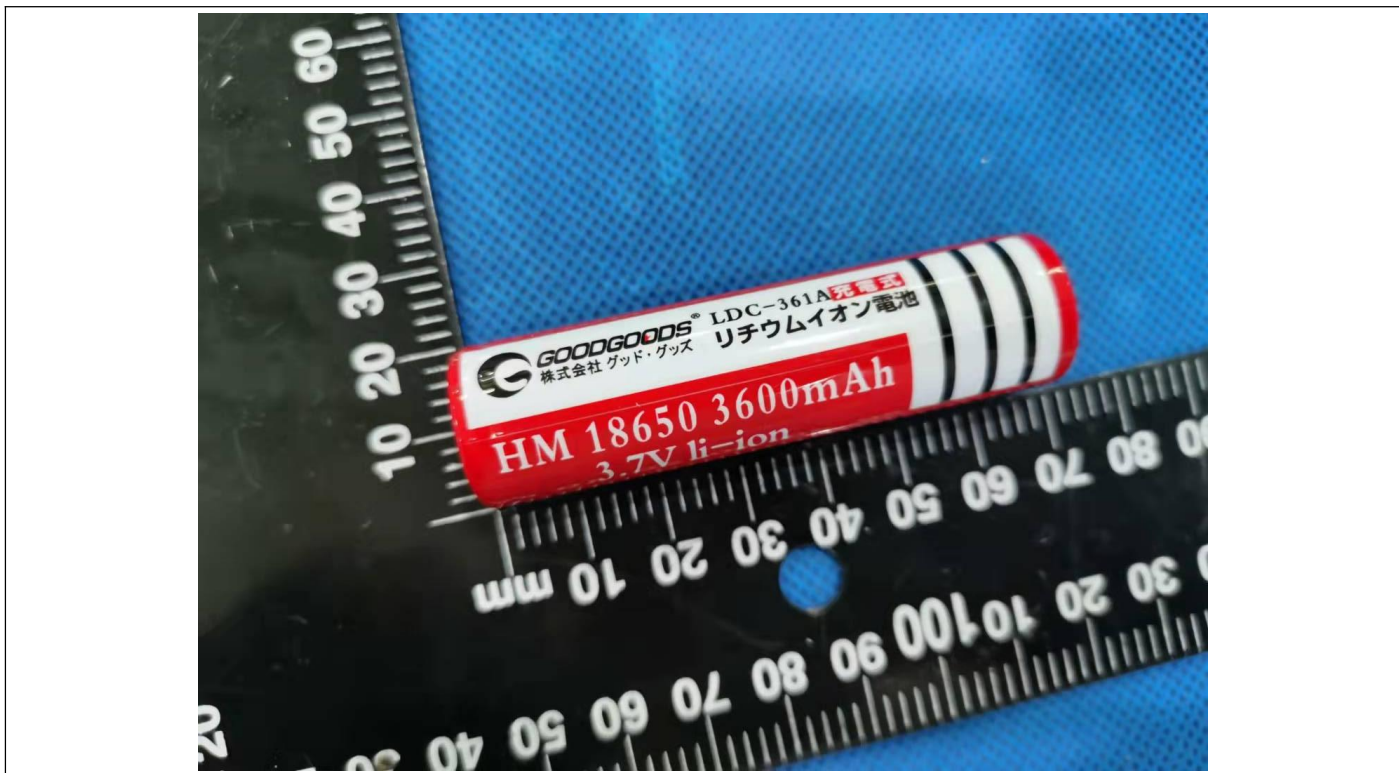


Fig. 1

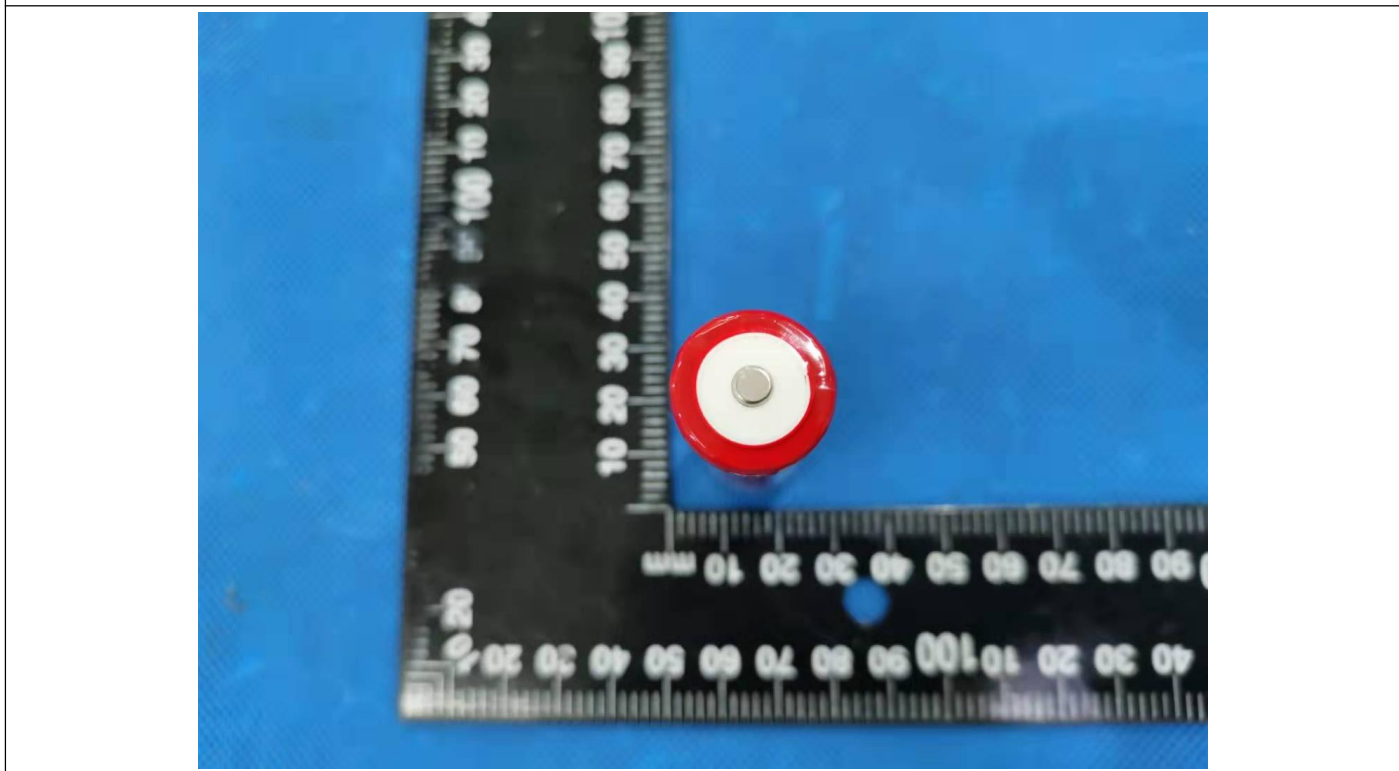


Fig. 2

Photos

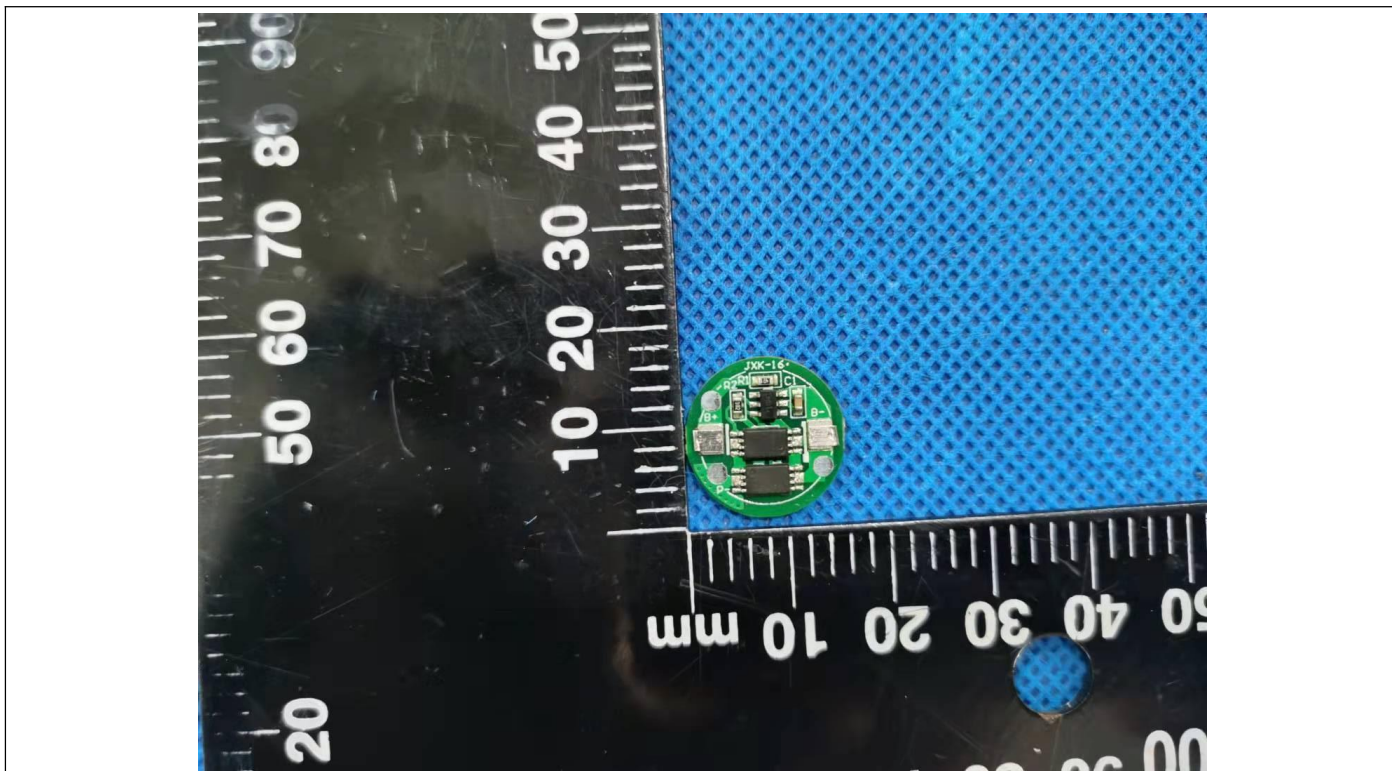


Fig. 3

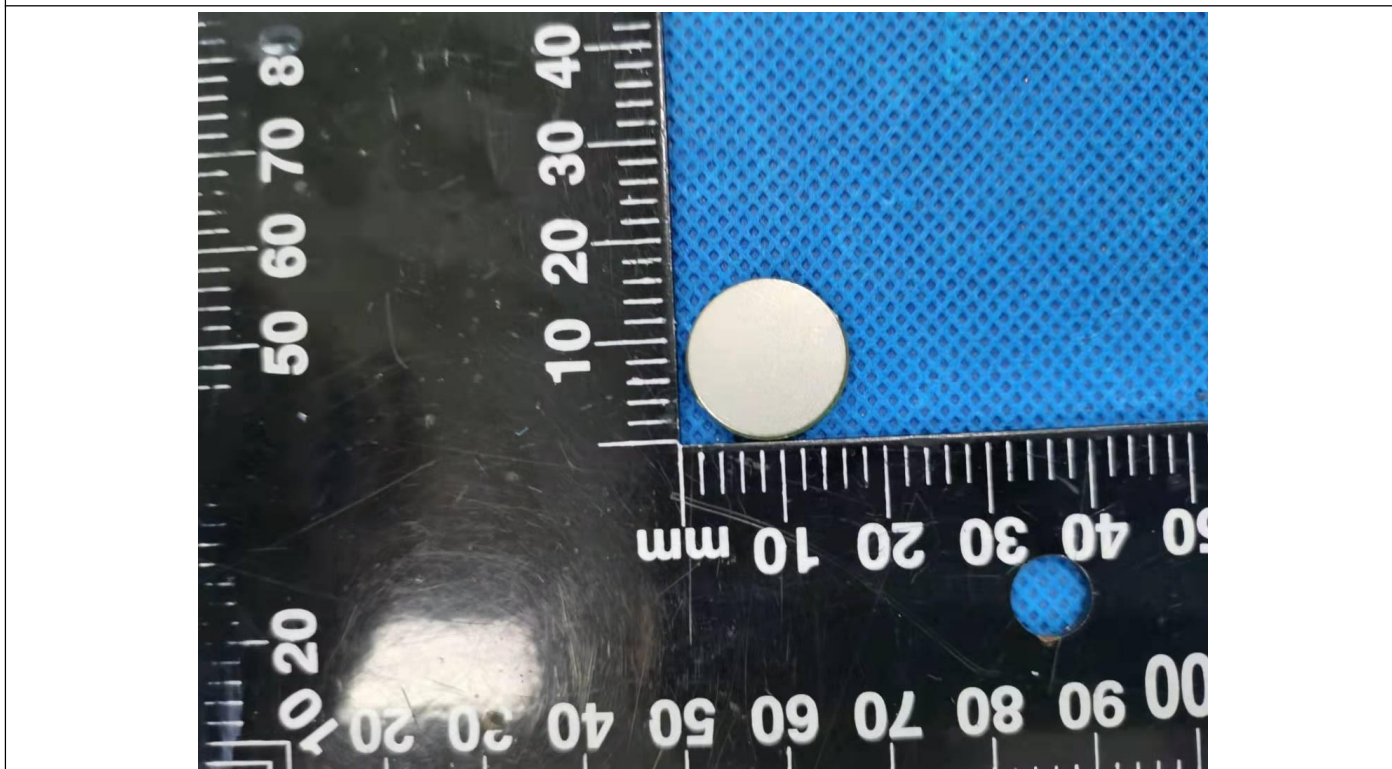


Fig. 4

Photos

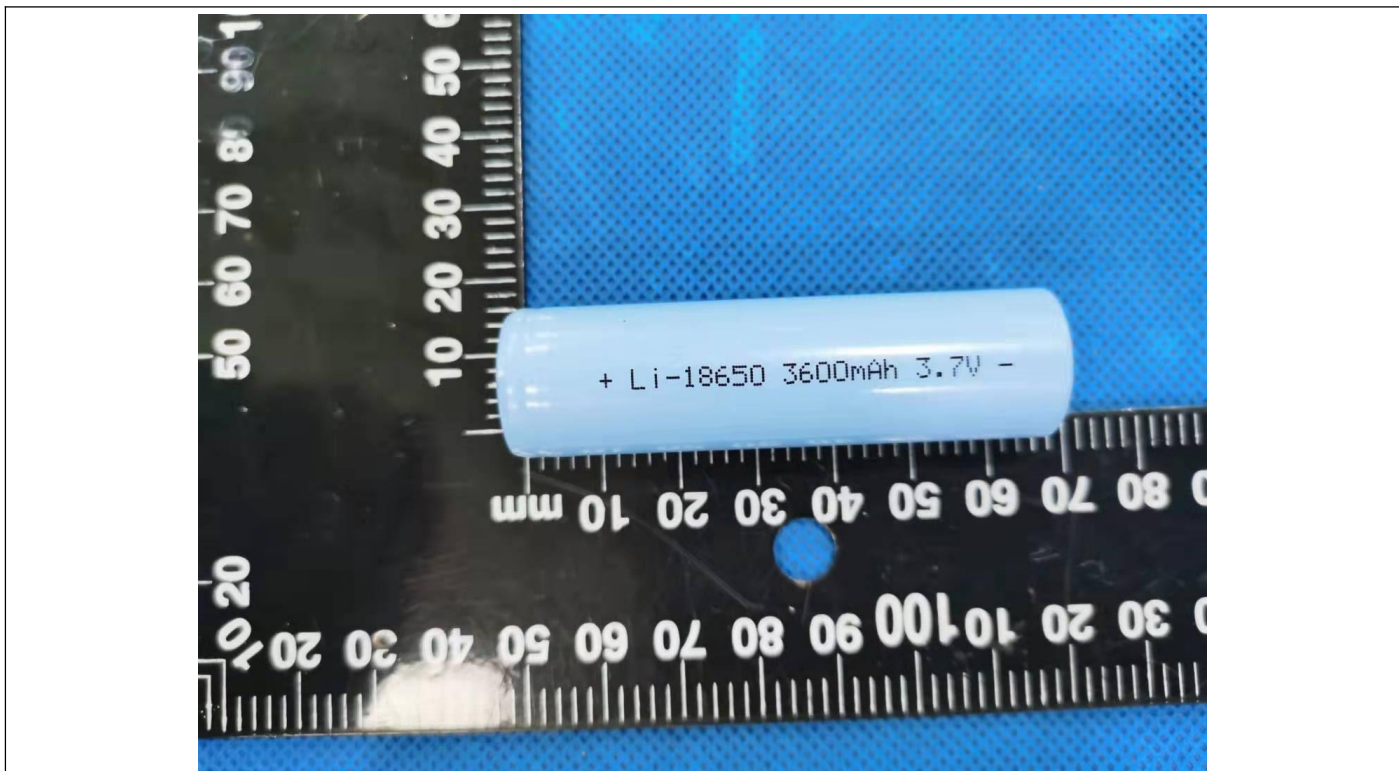


Fig. 5

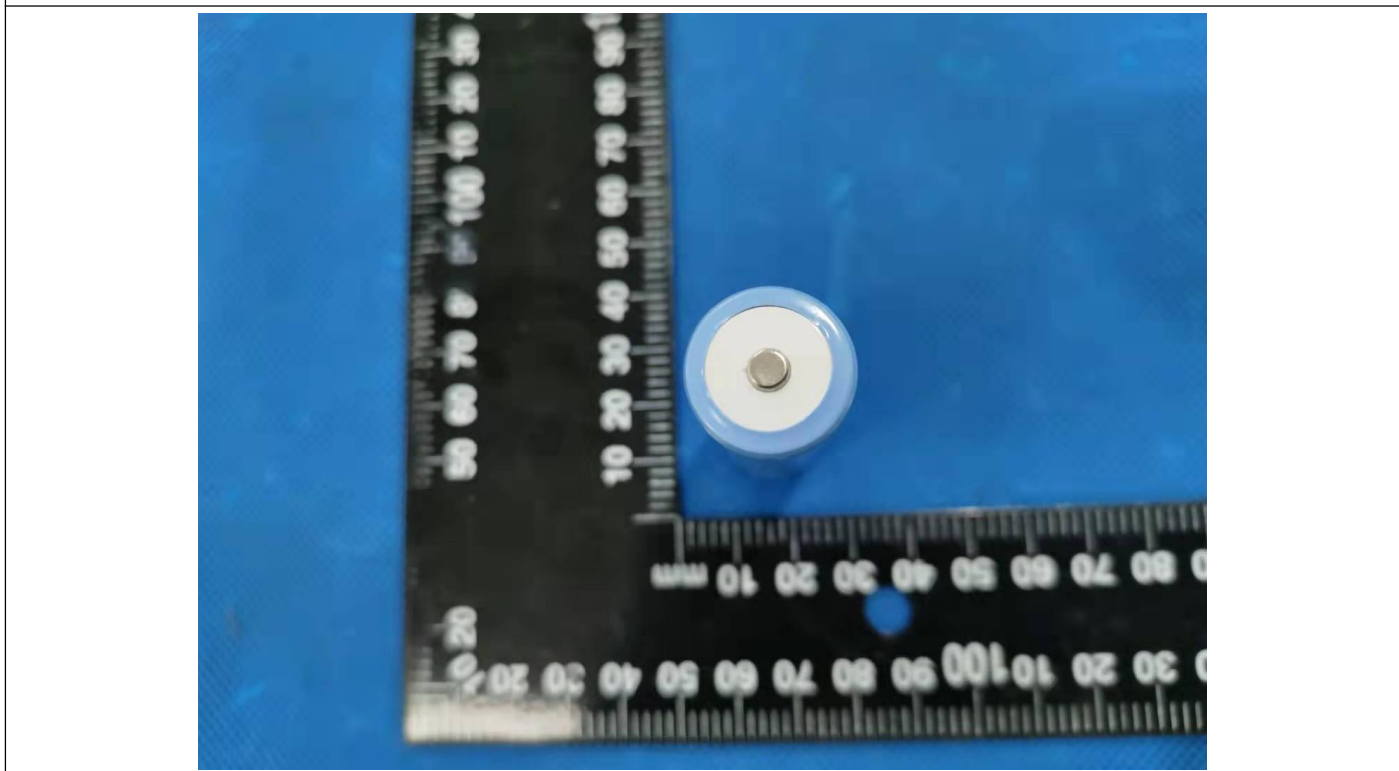


Fig. 6

--- End of Report ---