TEST REPORT

Electrical Appliance and Material Safety Act Appendix 9: (Lithium Ion Secondary Batteries)

Test Report No.....:	RDG191225031-SF	
Tested by (printed name and signature) ..... :	Gary Huang	Gary Huang
Reviewed by (printed name and signature) ..... :	David Yang	David Yang
Date of issue.....:	2020.04.03	
Testing laboratory.....:	**Bay Area Compliance Laboratories Corp. (Dongguan)**	
Address.....:	No.69, Pulongcun, Puxinhu Industry Area, Tangxia, Dongguan, Guangdong, China	
Testing Location ..... :	1F.,No.91,Luyi Road, Tianxin Community, Tangxia Town, Dongguan, Guangdong/523718	
Applicant ..... :	**BAREBONES SYSTEMS,LLC.**	
Address ..... :	1215 East Wilmington Avenue-Ste.140 Salt Lake City, UT 84106	
Manufacturer ..... :	**Ningbo Lanqi Electronic Technology CO.,LTD.**	
Address ..... :	NO.1 Building, NO. 188-1 Shanhai Road, Wangchun Industrial Zone, Haishu, Ningbo, zhejiang	
Test item description.....:		
Sample Name.....:	**Li-ion Rechargeable Battery**	
Trade Mark..... :	Lanqi	
Model/Type reference..... :	INR18650-2200A	
Ratings..... :	3.7V, 2200mAh,8.14Wh	
Test specification.....:		
Standard ..... :	**METI Electrical Appliance and Material Safety Act Appendix 9: Lithium ion secondary batteries**	
Test procedure.....:	Type test	

COMPLIANCE TESTING AND VERIFICATION SERVICES BACL

Summary of testing:	
Tests performed (name of test and test clause): Test items: Clause 2.1 Continuous low-rate charging Clause 2.2 Vibration Clause 2.3 Battery enclosure test at high ambient temperature Clause 2.4 Temperature cycling Clause 3.1 External short circuit Clause 3.2 Free fall Clause 3.3 Mechanical shock (crash hazard) Clause 3.4 Thermal abuse Clause 3.5 Crushing of cells Clause 3.6 Low pressure Clause 3.7 Overcharge Clause 3.8 Forced discharge Clause 3.9 Cell protection against a high charging rate Clause 3.10 Forced internal short circuit of cells Clause 3.11 Function of the overvoltage protection of batteries Test of clause 2.1, 2.2, 2.4, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 3.10 was carried out on cells.	**Testing location:** **Bay Area Compliance Laboratories Corp. (Dongguan)** 1F.,No.91,Luyi Road, Tianxin Community, Tangxia Town, Dongguan, Guangdong/523718

Copy of marking plate:

Li-ion Rechargeable Battery
Model: ICR18650-2200mAh 3.7V
3.7V, 2200mAh,8.14Wh
Manufacturer: Ningbo Lanqi Electronic Technology CO.,LTD.
Date: YYYY-MM-DD
Red wire (+) Black wire (-)
Made in China

Test item particulars..... :	
Classification of installation and use..... :	Use in portable appliance
Supply connection..... :	Copper foil
Recommend charging method declaired by the manufacturer……..:	CC/CV
Discharge current .....:	440mA
Specified final voltage.....:	2.75V
Maximum charging current……..:	1100mA
Possible test case verdicts:	
- 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)
Testing.....:	
Date of receipt of test item .....:	2019.12.26
Date (s) of performance of tests .....:	2020.01.11~2020.03.21

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.

The information is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report.
"(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 point is used as the decimal separator.

General product information:

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

The main features of the battery are shown as below:

Model	Nominal Voltage	Nominal Capacity	Nominal Charge Current	Nominal Discharge Current	Maximum Charge Current	Maximum Discharge Current	Maximum Charge Voltage	Cut-off Voltage
INR18650-2200A	3.7V	2200mAh	440mA	440mA	1100mA	2200mA	4.20V	2.75V

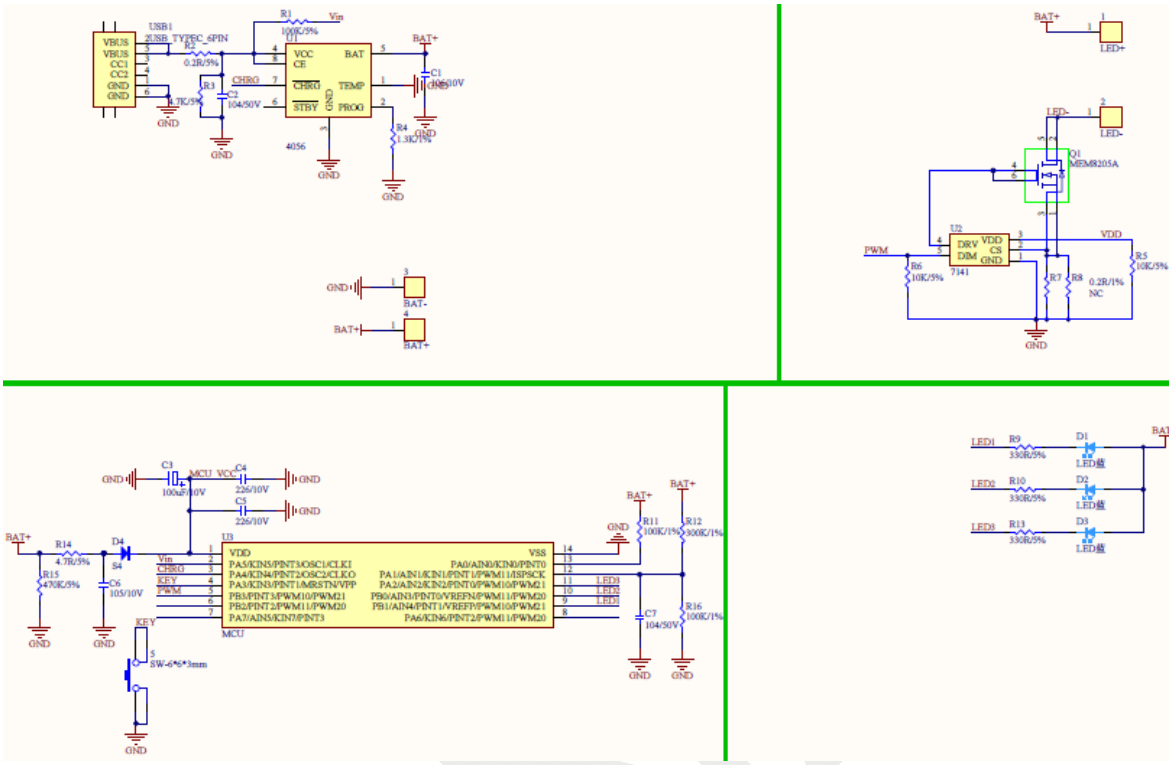
Model	Upper limit charge voltage	Taper-off current	Lowest test temperature	Highest test temperature
INR18650-2200A	4.225V	110mA	-5°C	45°C

The main features of the cell are shown as below:

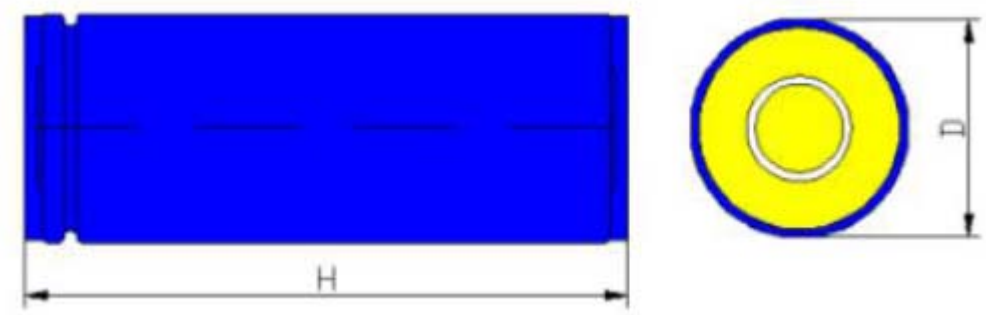
Model	Nominal Voltage	Nominal Capacity	Nominal Charge Current	Nominal Discharge Current	Maximum Charge Current	Maximum Discharge Current	Maximum Charge Voltage	Cut-off Voltage
INR18650-2200A	3.7V	2200mAh	440mA	440mA	1100mA	2200mA	4.20V	2.75V

Model	Upper limit charge voltage	Taper-off current	Lowest test temperature	Highest test temperature
INR18650-2200A	4.225V	110mA	-5°C	45°C

The principle diagram of the PCB:



Construction: (Unit: mm)



Battery

T(max.): H(max.)= 19.5mm: 69.5 mm

Electrical Appliance and Material Safety Act Appendix 9 : (Lithium Ion Secondary Batteries)			
Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
1.	**Basic Design**		P
1.(1)	**Insulation and wiring**		P
	a) The insulation resistance between the positive terminal and a metal surface (excluding electrical contact surfaces and electrical parts having the same potential as the electrode potential of the battery) exposed to outside the battery, and which, as mounted on the equipment, may be touched by a human, shall be 5MΩ or more at 500 VDC.		N/A
	b) Internal wiring and its insulation shall sufficiently withstand anticipated maximum current, maximum voltage, and maximum temperature.		P
	c) Equipment having connection terminals shall be wired to maintain an appropriate clearance and creepage distance between terminals.		P
1.(2)	**Inner Pressure Reduction Mechanism**		P
	a) Battery cases and cells shall be designed with a gas release mechanism, or shall be designed to reduce excessive internal pressure when the equipment reaches a value or rate set so as to protect against explosion or fire.	Explosion-proof safety valve for venting exists.	P
	b) If support material is used to fix cells within the battery case, the type of support material and method of fixing cells shall not inhibit pressure relief, and the battery shall not induce overheating during normal use of the battery.		P
1.(3)	**Temperature and current management**		P
	The battery shall be designed so that abnormal temperature-rise conditions are prevented.Provided that this does not apply if a current limiter is installed outside the battery to control abnormal temperature-rise during charging and discharging within a safety level.	Overcharge, over-discharge,over current and short-circuit proof circuit used in this battery.	P
1.(4)	**Terminal contacts**		P
	a) The battery shall be marked positive (+) or negative (-) for terminals on its external surface or be designed with no fear of misconnection		P
	b) Batteries having a terminal contact plate shall be sized and shaped to ensure the flow of maximum current anticipated.		P
	c) Batteries having a terminal contact plate shall be designed so that the surface of the terminal contact plate will be a conductive material with good mechanical strength and corrosion resistance. Moreover, the terminal contact plate shall be arranged to minimize the risk of short circuits.		P
1.(5)	**Assembly of cells into batteries**		N/A
	Batteries made of series connected cell blocks shall be		N/A

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Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
	designed so that cells are assembled to make the cell blocks the same capacity, and cell polarity reversal is prevented. Provided that this does not apply to the battery controlled by itself or the equipment as cell polarity reversal is prevented.		N/A
2.	**Intended Use**		P
2.(1)	**Continuous charging at constant voltage**		P
	Fully charged cells are subjected for 28 days to charge as specified by the manufacturer. 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 fullycharged cells or batteries is within anticipated parameters.The cells or batteries are subjected to a vibration sequence with amplitude of 0.76mm and a total maximum excursion of1.52mm.The frequency was varied at the rate of 1Hz/min between the limits of 10Hz and 55Hz. The entire range of frequencies (10Hzto55Hz) and return (55Hz to 10Hz) was traversed in 90min ± 5 min for each mounting position.The vibration was applied in each of three mutually perpendicular directions.		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 aircirculating oven at a temperature of 70°C±2°C for 7hours. Afterwards, they are removed and allowed to return to room temperature. Results: no physical distortion of the battery casing resulting in exposure if internal components.	70°C	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 After the fifth procedure, the cells or batteries were stored at 20±5°C for 7 days prior to examination. Results: No fire, no explosion, no leakage		P
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.The external resistance did not exceed 80 ± 20 mΩ. The cells were tested for 24h or until the case temperature declined by 20% of the maximum temperature rise.		P

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Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
	b) Fully charged batteries were subjected to a short circuit test at 20°C ± 5°C.The external resistance did not exceed 80 ± 20mΩ. The batteries were tested for 24h or until the case temperature declined by 20% of the maximum temperature rise. (whichever is the sooner ; if the battery incorporates a protective device or protective circuit and the current has stopped, then for one hour after the current stopped).		P
	Results: no fire, no explosion.	No fire, no explosion.	P
3.(2)	**Free fall**		P
	Fully charged cells and batteries were dropped 3 times from a height of 1.0m onto a concrete floor. Results: no fire, no explosion		P
3.(3)	**Mechanical shock (crash hazard)**		P
	Fully charged cells and batteries shall not fire, explode, or leak when tested under the following test conditions: a) The charged cell and battery shall be secured to on an impact testing machine by means of a rigid mount. Then shock of the equal magnitude shall be applied to the battery in each of three mutually perpendicular directions (X, Y, and Z axes). b) The shock applied to the charged cell or battery shall be accelerated so that the minimum average acceleration will be 735m/s^2 during the first 3ms.The peak acceleration was between 1228m/s^2 and 1716m/s^2.		P
	Results: no fire, no explosion, no leakage	No explosion, no leakage.	P
3.(4)	**Thermal abuse**		P
	Fully charged batteries at 20± 5°C shall be placed in a gravity or circulating air-convention oven. The oven temperature shall then be increased to 130 ± 2°C at a rate of 5 ± 2°C/min., left for 10 minutes, and then the battery shall not fire or explode.	Each 5pcs cells charged at ambient temperature 45°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
	Fully charged cells shall not fire or explode when tested under the following test conditions:		P
	a) Fully charged cells shall be placed between two flat surfaces and a force of 13 ±1kN shall be applied by a crushing apparatus.		P
	b) The force was released when any of the following occurs:		P
	(1) the maximum forces applied		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) Force shall be applied to charged cells so that the longitudinal axis of the cells becomes parallel with the flat surface of the crushing apparatus		P

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Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
	For charged cells that are prismatic (hereafter called "the prismatic cells"), a similar test shall be performed by rotating a cell 90°around its longitudinal axis and it shall be ensured that force is applied to both the wide and narrow sides of the prismatic cells. At that time, one sample shall receive force in a single direction.	Cylindrical cell	N/A
	Ambient temperature when testing	Ambient temperature 45°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, the chamber shall be closed, and then the chamber shall be gradually reduced to a pressure equal to or less than 11.6kPa. After being kept in that pressure of the value in the vacuum chamber for six hours.		P
	Results: no fire, no explosion, no leakage	No fire, no explosion, no leakage.	P
3.(7)	**Overcharge**		P
	The cell discharged under the conditions specified in Annex Table 1-2 (including cells equipped with a protective device for use in equipment or batteries; hereafter called "the discharged cells") shall be provided. Then by using a power supply of not less than 10V, the battery shall be energized until it reaches 250% of the rated capacity or the test voltage with the designed charging current, and the battery shall not fire or explode.		P
	Ambient temperature when testing	Ambient temperature 45°C and -5°C respectively.	P
	Results: no fire, no explosion.	No fire, no explosion.	P
3.(8)	**Forced discharge**		P
	When polarity reversely charged at $1I_tA$ for 90minutes, the discharged cell shall not fire or explode.		P
	Ambient temperature when testing	Ambient temperature 45°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
	The discharged cells shall not fire or explode when charged at a current three times the designed maximum charging current, thereby fully charging it, or when a protective device used in the equipment or battery cuts off the charge current.		P
	Ambient temperature when testing	Ambient temperature 45°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

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Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
	The winding core of a charged cell (except for those whose electrolyte is not liquid) shall not fire when tested according to the test procedure specified below. Note that each test shall use a new sample. Inserted between the positive active material andnegative active material Inserted between the uncoated current collector of positive electrode and the active material coated negative active electrode.Test was stopped when voltage drop of over 50mV was obtained, or Stopped when the pressure reached 800N (for Prismatic cells, 400N).	800N	P
	Ambient temperature when testing	Ambient temperature 45°C and -5°C respectively.	P
	Number of test sample	Each 5pcs cells charged at ambient temperature 45°C And -5°C respectively prepared for the test.	P
	Results: no fire, no explosion	No fire, no explosion.	P
3.(11)	**Function of the overvoltage protection of batteries**		P
	When tested at an ambient temperature of 20±5°C by using any method specified below, the cell block in the battery shall not exceed the upper limited charging voltage specified in Annex Table 1-2.		P
	a) For batteries made of a one cell block, the voltage applied to the cell block during charging shall be measured		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**		N/A
	The charged batteries 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.		N/A
	An equivalent load shall be applied to the battery		N/A
	Kind of equipment		N/A
	Weight of appliance		N/A
	Applicable standard		N/A
	Height in drop testing		N/A

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Clause	**Requirement – Test**	**Result - Remark**	**Verdict**
	Results: no short-circuiting		N/A
4	**Labeling**		P
	A method shall be used to provide labeling on a surface where it can easily be seen but not easily faded. This may be omitted if such surface labeling proves difficult, and another method can be utilized to provide labeling that will not easily fade on the surface where it is easy to see.	The label of battery meets the requirements.	P
	Rated voltage		P
	Rated capacity		P

	TABLE: List of Critical Components				P
Object/part no.	**Manufacturer/ trademark**	**Type/model**	**Technical data**	**Standard**	**Mark(s) of conformity** [1)]
PCB	Shenzhen meiyadi Electronic Co., Ltd	MYD-2A	V-0, 130ºC	UL796	UL E348865
IC	HYCON Technology Corporation	HY2111-HB SOT-23-6	overcharge detection voltage: 4.280± 0.025V Overdischarge detection voltage:2.9 ±0.1V overcurrent:3.0-6.0A	--	--
MOSFET	Shenzhen Ketong Electronic Co., Ltd	8205A TSSOT-8	VDS:20V; VGS:±8V; ID(atTA=25℃):4.8A; IDM:20A; TJ,TSTG:-55 To:150℃	--	--
Cell	Roofer Energy Technology (Baoshan) Co., Ltd	INR18650-2200A	3.7V, 2200mAh	--	Tested with appliance
-Separator	Xinxiang city science and Technology Co Ltd	61*0.02mm	PP, Shutdown temperature 130°C, One layer		
-Electrolyte	Shantou golden light High Tech Co., Ltd.	A2511	DMC/EC/EMC $LiPF_6$	--	
-Positive Electrode	Hunan Shanshan energy Polytron Technologies Inc	T31D/LM011-HD	Li (Ni, Co, Mn) O_2/$LiMn_2O_4$ Ni：Co：Mn=5:2:3	--	--
-Negative Electrode	Shenzhen beiterui new energy Limited by Share Ltd	A9	Graphite	--	--
Supplementary information: none					

2.(1)	TABLE: - Continuous Low Rate Charge Test (Cell)				P
Sample number	**Recommended Charging Method, CC, CV, or CC/CV**	**Recommended Charging Voltage Vc, (Vdc)**	**Recommended Charging Current Irec, (mA)**	**OCV at Start of Test, (Vdc)**	**Results**
C1	CC/CV	4.20	440	4.160	P
C2	CC/CV	4.20	440	4.156	P
C3	CC/CV	4.20	440	4.161	P
C4	CC/CV	4.20	440	4.165	P
C5	CC/CV	4.20	440	4.167	P
Supplementary information: -No fire or explosion -No leakage					

3.(1)	TABLE:– External Short Circuit Test (Cell)				P
Sample number	**Ambient, (°C)**	**OCV at start of test, (Vdc)**	**Resistance of Circuit, (mΩ)**	**Maximum surface Temperature, (℃)**	**Results**
Samples charged at the highest test temperature (45℃)					
C1	55.0	4.181	83.5	82.8	P
C2	55.0	4.181	89.6	81.0	P
C3	55.0	4.184	70.3	80.2	P
C4	55.0	4.183	78.5	77.5	P
C5	55.0	4.183	91.2	79.4	P
Samples charged at the lowest test temperature (-5℃)					
C6	55.0	4.100	83.5	82.1	P
C7	55.0	4.088	89.6	81.6	P
C8	55.0	4.095	70.3	77.3	P
C9	55.0	4.094	78.5	78.7	P
C10	55.0	4.100	91.2	79.1	P
Supplementary information: -No fire or explosion					

3.(1)	TABLE: – External Short Circuit Test (Battery)				P
Sample number	**Ambient, (ºC)**	**OCV at start of test, (Vdc)**	**Resistance of Circuit, (mΩ)**	**Maximum surface Temperature, (℃)**	**Results**
Samples charged at the highest test temperature (45℃)					
B1	20.0	4.177	85.1	23.0	P
B2	20.0	4.177	91.2	23.1	P
B3	20.0	4.178	71.4	23.0	P
B4	20.0	4.176	76.8	23.0	P
B5	20.0	4.175	92.6	23.1	P
Samples charged at the lowest test temperature (-5℃)					
B6	20.0	4.095	85.1	22.1	P
B7	20.0	4.098	91.2	22.2	P
B8	20.0	4.107	71.4	22.0	P
B9	20.0	4.091	76.8	22.0	P
B10	20.0	4.082	92.6	22.0	P

Supplementary information:
-No fire or explosion

3.(5)	TABLE: – Crush (Cell-wide side)			P
Sample number	**OCV at start of test, (Vdc)**	**The forced applied for crush, (kN)**	**Testing applied force for crush, (kN)**	**Results**
Samples charged and tested at the highest test temperature (45℃)				
C1	4.175	13±1	12.836	P
C2	4.185	13±1	12.832	P
C3	4.184	13±1	12.860	P
C4	4.184	13±1	12.836	P
C5	4.185	13±1	12.713	P
Samples charged and tested at the lowest test temperature (-5℃)				
C6	4.101	13±1	12.880	P
C7	4.089	13±1	12.840	P
C8	4.095	13±1	12.789	P
C9	4.095	13±1	12.864	P
C10	4.101	13±1	12.934	P

Note: There is the maximum forces applied.
Supplementary information:
-No fire or explosion

3.(5)	TABLE: – Crush (Cell-narrow side)			N/A
Sample number	**OCV at start of test, (Vdc)**	**Required deformation for crush, (mm)**	**Tested deformation for crush, (mm)**	**Results**
Samples charged and tested at the highest test temperature				
Samples charged and tested at the lowest test temperature				
Supplementary information: -No fire or explosion				

3.(7)	TABLE: – Overcharge (Cell)			P
Sample number	**OCV at start of test, (Vdc)**	**Testing Current, (mA)**	**Testing time,(h)**	**Results**
Samples tested at the highest test temperature (45℃)				
C1	3.101	440	10	P
C2	3.098	440	10	P
C3	3.095	440	10	P
C4	3.101	440	10	P
C5	3.102	440	10	P
Samples tested at the lowest test temperature (-5℃)				
C6	3.095	440	10	P
C7	3.102	440	10	P
C8	3.098	440	10	P
C9	3.100	440	10	P
C10	3.091	440	10	P
Note: Reaches 250% of the rated capacity. **Supplementary information:** -No fire or explosion				

3.(8)	TABLE: – Forced discharge (Cell)			P
Sample number	**OCV before application of reverse charge, (Vdc)**	**Measured Reverse Charge It, (mA)**	**Total Time for Reversed Charge Application, (Min)**	**Results**
Samples tested at the highest test temperature (45℃)				
C1	3.117	2200	90	P
C2	3.115	2200	90	P
C3	3.110	2200	90	P
C4	3.113	2200	90	P
C5	3.108	2200	90	P
Samples tested at the lowest test temperature (-5℃)				
C6	3.116	2200	90	P
C7	3.118	2200	90	P
C8	3.120	2200	90	P
C9	3.115	2200	90	P
C10	3.112	2200	90	P
Supplementary information: -No fire or explosion				

3.(9)	TABLE: – Cell Protection Against a High Charging Rate			P
Sample number	**OCV at start of test, (Vdc)**	**Testing Current, (mA)**	**Maximum Charging Voltage, (Vdc)**	**Results**
Samples tested at the highest test temperature (45℃)				
C1	3.124	3300	4.2	P
C2	3.127	3300	4.2	P
C3	3.129	3300	4.2	P
C4	3.140	3300	4.2	P
C5	3.112	3300	4.2	P
Samples tested at the lowest test temperature (-5℃)				
C6	3.117	3300	4.2	P
C7	3.127	3300	4.2	P
C8	3.122	3300	4.2	P
C9	3.109	3300	4.2	P
C10	3.137	3300	4.2	P
Supplementary information: -No fire or explosion				

3.(10)	TABLE: – Forced internal short circuit of cells				P
Sample number	**Test Temperature, (°C)**	**OCV at start of test, (Vdc)**	**Particle location [1)]**	**Maximum applied pressure,(N)**	**Results**
Samples charged and tested at the highest test temperature (45℃)					
C1	45	4.184	1	800	P
C2	45	4.181	1	800	P
C3	45	4.183	1	800	P
C4	45	4.184	1	800	P
C5	45	4.183	1	800	P
Samples charged and tested at the lowest test temperature (-5℃)					
C6	-5	4.101	1	800	P
C7	-5	4.102	1	800	P
C8	-5	4.102	1	800	P
C9	-5	4.103	1	800	P
C10	-5	4.098	1	800	P

Supplementary information:

[1)] Identify one of the following:

1: Nickel particle inserted between positive and negative (active material) coated area.

2: Nickel particle inserted between positive aluminium foil and negative active material coated area.

-No fire

List of test equipment used:

Instrument Name	No.	Manufacturer	Calibration Date	Due Date	Equipment status
Low Pressure Chamber	T-08-BT001	GAOXIN	2019/05/09	2020/05/08	☒Yes ☐No
Battery Crush Tester	T-08-BT002	GAOXIN	2019/04/08	2020/04/07	☒Yes ☐No
High-Low Temperature short circuit	T-08-BT004	GAOXIN	2019/03/10	2020/03/09	☒Yes ☐No
Battery Thermal Abuse Tester	T-08-BT005	GAOXIN	2019/04/08	2020/04/07	☒Yes ☐No
Drop Tester	T-08-BT006	GAOXIN	2019/04/08	2020/04/07	☒Yes ☐No
Forced Internal Short Circuit Tester	T-08-BT007	BELL	2019/05/09	2020/05/08	☒Yes ☐No
Electric Vibration Test Machine	T-08-BT012	DONGLING	2019/09/12	2020/09/11	☒Yes ☐No
Hydraulic Shock Test Machine	T-08-BT013	LABTONE	2019/09/12	2020/09/11	☒Yes ☐No
Digital Multimeter	T-08-BT017	FLUKE	2019/03/10	2020/03/09	☒Yes ☐No
Digital Stopwatch	T-08-BT021	LEAP	2019/03/08	2020/03/07	☒Yes ☐No
High-low Temperature Test Chamber	T-08-BT024	BACL	2019/04/08	2020/04/07	☒Yes ☐No
Multipath temperature tester	T-08-BT025	RONGXIN	2019/07/29	2020/07/28	☒Yes ☐No
Milliohmmeter	T-08-BT026	ViCi	2019/07/23	2020/07/22	☒Yes ☐No
Battery Charge-Discharge Testing System	T-08-BT028	NEWARE	2018/10/18	2019/10/17	☒Yes ☐No
DC Power Supply	T-08-BT031	QJE	2019/04/29	2020/04/28	☒Yes ☐No
DC Power Supply	T-08-BT032	QJE	2019/04/29	2020/04/28	☒Yes ☐No
DC Power Supply	T-08-BT032	QJE	2019/04/29	2020/04/28	☒Yes ☐No
Battery Charge-Discharge Testing System	T-08-SF226	NEWARE	2019/06/14	2020/06/13	☒Yes ☐No

Sample Photos

Photo 1 **[√] General view of battery**	
Photo 2 **[√] General view of battery**	

Photo 3 **[√] General view of battery**	
Photo 4 **[√] General view of battery**	

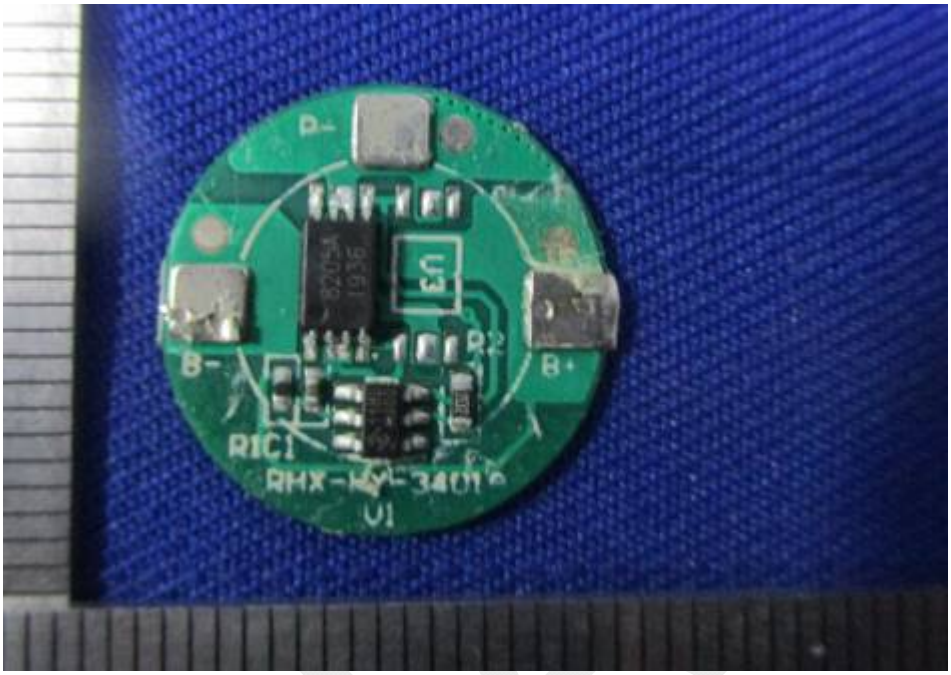
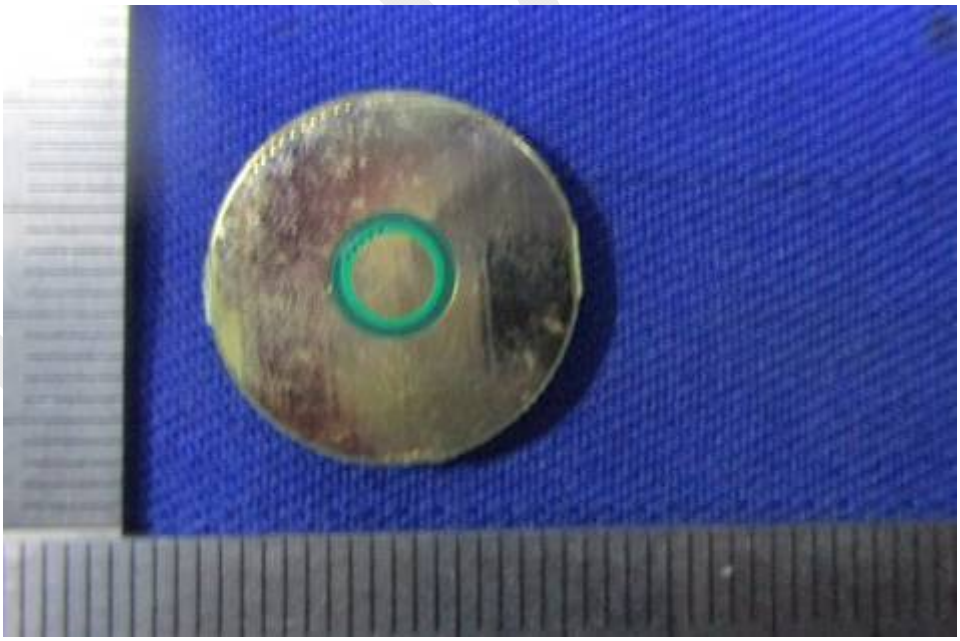
Photo 5 **[√] Component view of PCB**	
Photo 6 **[√] Trace view of PCB**	

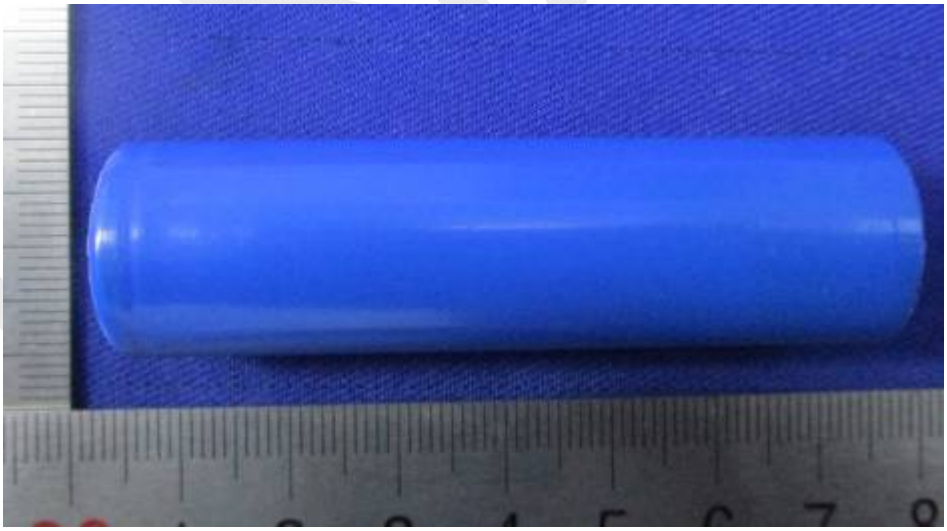
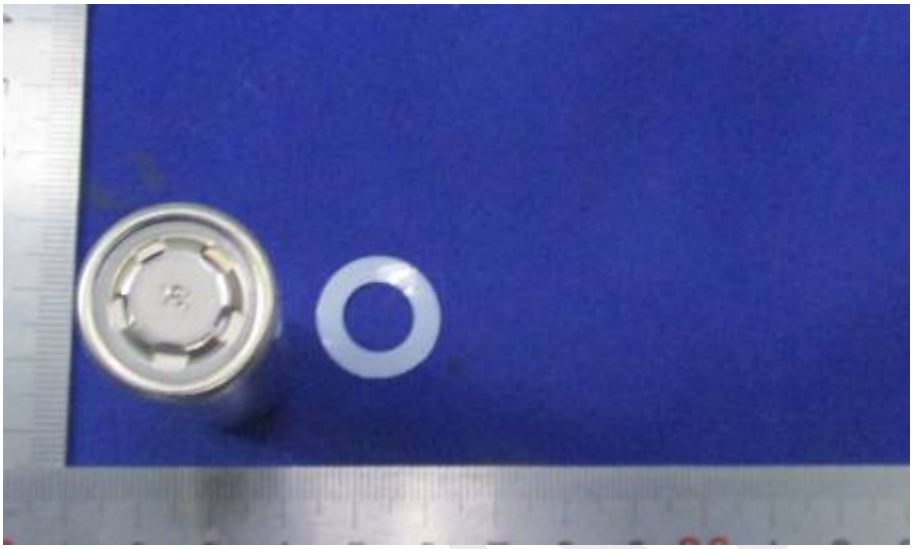
Photo 7 **[√] General view of cell**	
Photo 8 **[√] General view of cell**	

Photo 9 **[√] General view of cell**	
Photo 10 **[√] General view of cell**	

Directions

1.The information marked # is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report.

2. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

3. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

4.The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

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*******END OF REPORT*******