PSE TEST REPORT

Interpretation for METI Ordinance of Technical Req. (H26.04.14), Appendix 9:

Report Number. .....:	HTT190506042PR
Tested by (printed name + signature) .....:	Darek Wang
Approved by (printed name + signature) .....:	Kevin Yang
Date of issue .....:	May.13,2019
Total number of pages .....:	22 Pages.
Testing laboratory .....:	Shenzhen HTT Technology Co.,Ltd.
Address .....:	7F,A Building,Smart valley Science and technology innovation Park,Xixiang,Baoan District,Shenzhen,Guangdong,China
Applicant's name .....:	Shenzhen Wonzer Technology CO.,Ltd
Address .....:	3rd Floor, Bldg 6, Tongfuyu Industrial Park, Dalang Street, Longhua District, ShenZhen
Manufacturer's name .....:	Shenzhen Wonzer Technology CO.,Ltd
Address .....:	3rd Floor, Bldg 6, Tongfuyu Industrial Park, Dalang Street, Longhua District, ShenZhen
Test specification:	
Standard.....:	Interpretation for METI Ordinance of Technical Req.(H26.04.14), Appendix 9:
Test procedure .....:	Test Report
Non-standard test method.....:	N/A
Test item description .....:	Li-ion Polymer
Trade Mark .....:	万造
Model/type reference .....:	WZ103040
Ratings .....:	3.7V, 1200mAh, 4.44Wh

List of Attachments (including a total number of pages in each attachment):

Attachment NO.1: 3 pages of Photo Documentation

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Model List:	
Test Model	WZ103040
Other models	602030, 18650, 18500, 26650, 21700, 14430, 08400, 75400, 13450, XX1010, XX1012, XX1013, XX1015, XX1018, XX1020, XX1025, XX 1030, XX1035, XX 1040, XX 1119, XX 1120, XX 1125, XX 1130, XX 1214, XX 1215, XX 1218, XX 1220, XX 1225, XX 1228, XX 1230, XX 1235, XX 1240, XX 1243, XX 1245, XX 1248, XX 1250, XX 1428, XX 1430, XX 1423, XX 1435, XX 1440, XX 1438, XX1460, XX 1515, XX 1517, XX 1520, XX 1525, XX 1425, XX 1528, XX 1530, XX 1535, XX 1540, XX 1635, XX1640, XX1645, XX1646, XX1720, XX1725, XX1730, XX1735, XX 1738, XX 1818, XX 1820, XX 1956, XX 2020, XX 2025, XX 2030, XX 2035, XX 2038, XX 2040, XX 2045, XX 2050, XX 2055, XX 2060, XX 2248, XX 2525, XX 2530, XX 2535, XX 2540, XX 2545, XX 2550, XX 2560, XX 2728, XX 2228, XX 3030, XX 3035, XX 3040, XX 3045, XX 3048, XX 3050, XX 3060, XX 3160, XX 3450, XX 3443, XX 3448, XX 3445, XX 3535, XX 3540, XX 3545, XX 3550, XX 3759, XX 4040, XX 4045, XX 4050, XX 4060, XX 5564, XX 5573, XX 4854, XX 5461, XX 2760, XX 5050, XX 5070, XX 5080, XX 6090, XX 66125, XX 0834, XX 0923, XX 0926, XX 65113, XX 66121, XX 5085, XX0821, XX 7090, XX 7595, XX 3498, XX 3282, XX 1627,XX5060, XX5065, XX4070, XX60100, XX65113, XX4260, XX3665, XX0926
1.All tests are carried out on WZ103040 2. All models have same diagram circuit, PCB layout, except different model names.	

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Summary of testing:	
Tests performed (name of test and test clause): Tests are made with the number of samples specified in Clause: Appendix 9, Lithium Ion Secondary Batteries, Ministerial Ordinance of MITI (1962: No.85) 1st cl. 2.(1) Continuous charging at constant voltage cl. 2.(2) Vibration cl. 2.(3) Battery enclosure test at high ambient temperature cl. 2.(4) Temperature cycling cl. 3.(1) External short circuit cl. 3.(2) Free fall cl. 3.(3) Mechanical shock (crash hazard) cl. 3.(4) Thermal abuse cl. 3.(5) Crushing of cells cl. 3.(6) Low pressure cl. 3.(7) Overcharge cl. 3.(8) Forced discharge cl. 3.(9) Cell protection against a high charging rate cl. 3.(10) Forced internal short circuit of cells cl. 3.(11) Function of the overcharge protection of batteries cl. 3.(12) Free fall of appliance	**Testing location:** Shenzhen HTT Technology Co.,Ltd. 7F,A Building,Smart valley Science and technology innovation Park,Xixiang,Baoan District,Shenzhen,Guangdong,China

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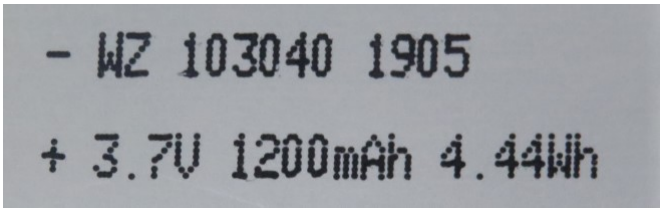
Copy of marking plate



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Test item particulars ..... :	
Classification of installation and use ..... :	N/A
Supply connection ..... :	N/A
Recommend charging method declaired by the manufacturer ..... :	Charge at constant current 600mA until voltage reaches 4.2V, and then charge at constant voltage 4.2V till charge current is 30mA.
Discharge current (0,5 I_t A) ..... :	600mA
Specified final voltage ..... :	3.7V
Recommend of charging limit for lithium system	
Upper limit charging voltage per cell ..... :	4.2V
Maximum charging current ..... :	1200mA
Charging temperature upper limit ..... :	45°C
Charging temperature lower limit ..... :	0°C
Polymer cell electrolyte type ..... :	☐ gel polymer ..... ☒ solid polymer
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 ..... :	May.05,2019
Date (s) of performance of tests ..... :	May.05,2019 ~ May.13,2019

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.

Name and address of factory (ies) ..... : Same as Manufacturer

General product information:

Additionally, details information of the battery and the cell built in battery, as following:

Product name	Li-ion Polymer	Power tool battery
Product model	WZ103040	BL1430
Rated capacity	1200mAh	1200mAh
Nominal voltage	3.7V	3.7V
Charing current declared by manufacturer	600mA	600mA

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Upper limited charging voltage	4.2V	4.2V
Charging temperature upper limit	45°C	45°C
Charging temperature lower limit	0°C	0°C
Specified final voltage	2.5V	2.5V
Dimensions	10*30*40mm	10*30*40mm
Weight	--	21.6g

The final evaluation of the battery must be conducted in the end product for which the battery will be used.

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1.	**Basic Design**		P
1.(1)	**Insulation and Wiring**		P
	a) Insulation Resistance between an accessible metal case (excluding electrical contacts) and positive terminals ≥ 5MΩ.		N/A
	b) Internal wiring and insulation are sufficient to withstand maximum anticipated current, voltage and temperature requirements		P
	c) Orientation of wiring maintains adequate creepage and clearance distances between terminals.		P
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.	Assembly cap as the pressure relief mechanism.	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.		P
1.(3)	**Temperature and current management**		P
	The batteries are designed such that abnormal temperature rise conditions are prevented.		P
	Means is provided to limit current to safe levels during charge and discharge.	IC and MOSFET as limit current devices.	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.		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**		P
	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

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2.	**Intended Use**		P
2.(1)	Continuous charging at constant voltage		P
	Fully charged cells are subjected for 28 days to a charge at constant voltage.		P
	Ambient temperature when testing		P
	Results: no fire, no explosion, no leakage	(See Table 2.(1))	P
2.(2)	Vibration		P
	The measured open circuit voltage of the fully charged cells or batteries is within anticipated parameters		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 10Hz and 55 Ha. The entire range of frequencies (10Hz to 55 Hz) and return (55 Hz to 10 Hz) was traversed in 90 min±5 min for each mounting position.	Frequency: 10~55Hz Excursion: 1.52mm(p-p) Frequency variation: 1Hz/min	P
	The vibration was applied in each of three mutually perpendicular directions.		P
	Results: no fire, no explosion, no leakage	(See Table 2.(2))	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.	70°C	P
	Results: no physical distortion of the battery casing resulting in exposure if 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.		P
	After the fifth cycle, the cells or batteries were stored at 20°C±5°C for 7 days prior to examination.		P
	Results: No fire, no explosion, no leakage		P

3	**Reasonably foreseeable misuse**		P
3.(1)	External short circuit		P

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	a) Fully charged cells were subjected to a short circuit test at 55°C±5°C.		P
	The external resistance did not exceed 80±20 mΩ.		P
	The cells were tested for 24 h or until the difference between the surface temperature of the charged cell and the ambient temperature becomes not more than 20% of the maximum difference (which is the sooner).	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.		P
	The external resistance did not exceed 80±20 mΩ.		P
	The batteries were tested for 24 h or until the difference between the temperature of the battery container and the ambient temperature becomes not more than 20% of the maximum difference.	The batteries were tested for 24 h.	P
	If battery incorporates protective device or protective circuit and the current has stopped, then for one hour after the current stopped.		N/A
	Results: no fire, no explosion.	(See Table3.(1))	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.	Dropped three times from a height of 1.0m.	P
	Provided that this does not apply to charged batteries weighting more than 7 kg.		P
	Results: 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.		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		P
3.(4)	Thermal abuse		P
	Fully charged cells were placed in a gravity or circulating air-convention 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.	130°C, 10 minutes	P

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	Results: 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.		P
	b) The force was released when		P
	(1) the maximum force is 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) A cylindrical or prismatic cell was crushed with its longitudinal axis parallel to the flat surfaces of the crushing apparatus.		P
	A second set of prismatic cells was tested, rotated 90 degrees around their longitudinal axis compared to the first set.		N/A
	Ambient temperature when testing	45°C and 10°C	P
	Results: 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.		P
	Results: no fire, no explosion, no leakage		P
3.(7)	Overcharge		P
	A discharged cell was charged from a power supply of not less than 10V, the battery was energized until it reaches 250% of the rated capacity or the test voltage with the designed charging current		P
	Ambient temperature when testing	45°C and 10°C	P
	Results: 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.		P
	Ambient temperature when testing	45°C and 10°C	P
	Results: no fire, no explosion		P
3.(9)	Cell protection against a high charging rate		P

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	Discharged cells were charged at three times the charging current recommended by the manufacturer until		P
	the cells was fully charged, or		P
	A protective devices in the equipment or battery cut off the charge current before the cell became fully charged.		N/A
	Ambient temperature when testing		P
	Results: 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.		P
	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		N/A
	Test was stopped when voltage drop of over 50 mV was obtained, or		P
	Stopped when the pressure reached 800 N (for prismatic cells, 400N).		P
	Ambient temperature when testing		P
	Number of test sample		P
	Results: 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
	The battery provides with protective circuits		P
	Appliance in which battery is installed or battery charger provides with protective circuits.		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.		P
	An equivalent load shall be applied to the battery		P
	Kind of equipment		P
	Weight of appliance		P

	Applicable standard	JIS C 6950, cl. 4.2.6	P
	Height in drop testing	1000 mm	P
	Results: 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.		P
	Rated voltage	3.7V	P
	Rated capacity	1200mAh	P

	TABLE: Critical components information				P
Object/part no.	**Manufacturer/ trademark**	**Type/model**	**Technical data**	**Standard**	**Mark(s) of conformity [1)]**
Temperature/current management devices, protective circuit components	--	2532	Overcharge detection voltage:4.20±0.03 V, Overdischarge detection voltage:3.0±0.01 V, Overcurrent detection current: 4A-10A, RDS≤65mΩ	--	--
- Control IC	HY	HY2111-GB	VCC:-0.30-7V, TA:-20-70°C, ISINK:5mA,	--	--
- Control Q1	GJ	8205	VDSS:20V, VGSS:±12V, ID:6.0A, TJ:-55- 150°C, TSSOP-8	--	--
-Cells	Shenzhen Wonzer Technology CO.,Ltd	18500	1400mAh,3.7V	IEC62133:2017- 2	Tested with appliance
- Electrolyte	Interchangeable	Interchangeab le	LiPF6 dissolved in organic solvent (DMC+EC)	--	--
- Separator	Interchangeable	Interchangeab le	Nylon, PP, PE, shutdown temperature: 130°C	--	--
- Anode	Interchangeable	Interchangeab le	Positive material LiCoO2, coated on Al film	--	--
- Cathode	Interchangeable	Interchangeab le	Negative material Graphite, coated on Cu film	--	--
Supplementary information: N/A					

2.(1)	TABLE: Continuous charging at constant voltage (cells)				P
Model	**Test temperature (at highest test temperature), °C**	**Recommended charging voltage V_c, (Vdc)**	**Recommended charging current I_{rec}, (A)**	**OCV at start of test, (Vdc)**	**Results**
#C1	45	4.20	0.6	4.237	No fire, explosion and leakage
#C2	45	4.20	0.6	4.238	No fire, explosion and leakage
#C3	45	4.20	0.6	4.237	No fire, explosion and leakage
#C4	45	4.20	0.6	4.238	No fire, explosion and leakage
#C5	45	4.20	0.6	4.237	No fire, explosion and leakage

Supplementary information:

- No fire or explosion
- No leakage
- Leakage
- Fire
- Explosion
- Bulge
- Others (please explain)

2.(2)	TABLE: Vibration (cells)	P
Model	**OCV at start of test, (Vdc)**	**Results**
#C6	4.237	No fire, explosion and leakage
#C7	4.238	No fire, explosion and leakage
#C8	4.237	No fire, explosion and leakage
#C9	4.238	No fire, explosion and leakage
#C10	4.237	No fire, explosion and leakage

Supplementary information:

- No fire or explosion
- No leakage
- Leakage
- Fire
- Explosion
- Bulge
- Others (please explain)

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2.(2)	TABLE: Vibration (Batteries)	P

Model	OCV at start of test, (Vdc)	Results
#B1	4.238	No fire, explosion and leakage
#B2	4.237	No fire, explosion and leakage
#B3	4.236	No fire, explosion and leakage
#B4	4.238	No fire, explosion and leakage
#B5	4.237	No fire, explosion and leakage

Supplementary information:

- No fire or explosion
- No leakage
- Leakage
- Fire
- Explosion
- Bulge
- Others (please explain)

3.(1)	TABLE: External short circuit (cells)	P

Model	Ambient, (°C)	OCV at start of test, (Vdc)	Resistance of circuit, (Ω)	Maximum case temperature rise ΔT, (°C)	Results
Samples charged at highest test temperature					
#C11	55.0	4.237	80.0	106.8	No fire and explosion
#C12	55.0	4.238	80.0	104.9	No fire and explosion
#C13	55.0	4.237	80.0	105.2	No fire and explosion
#C14	55.0	4.238	80.0	104.3	No fire and explosion
#C15	55.0	4.237	80.0	105.9	No fire and explosion
Samples charged at lowest test temperature					
#C16	55.0	4.211	80.0	106.9	No fire and explosion
#C17	55.0	4.212	80.0	104.3	No fire and explosion
#C18	55.0	4.213	80.0	105.8	No fire and explosion
#C19	55.0	4.212	80.0	106.7	No fire and explosion
#C20	55.0	4.213	80.0	103.9	No fire and explosion

Supplementary information:

- No fire or explosion
- No leakage
- Leakage
- Fire
- Explosion
- Bulge
- Others (please explain)

3.(1)	TABLE: External short circuit (batteries)				P
Model	**Ambient, (°C)**	**OCV at start of test, (Vdc)**	**Resistance of circuit, (Ω)**	**Maximum Case Temperature ~~Rise ΔT,~~ °C**	**Results**
Samples charged at highest test temperature					
#B1	23.5	4.237	80	105.9	No fire and explosion
#B2	23.5	4.238	80	108.3	No fire and explosion
#B3	23.5	4.237	80	106.3	No fire and explosion
#B4	23.5	4.236	80	105.3	No fire and explosion
#B5	23.5	4.237	80	24.8	No fire and explosion
Samples charged at lowest test temperature					
#B6	23.5	4.237	80	105.9	No fire and explosion
#B7	23.5	4.238	80	108.3	No fire and explosion
#B8	23.5	4.237	80	106.3	No fire and explosion
#B9	23.5	4.236	80	105.3	No fire and explosion
#B10	23.5	4.237	80	24.8	No fire and explosion

Supplementary information:

- No fire or explosion
- No leakage
- Leakage
- Fire
- Explosion
- Bulge
- Others (please explain)

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3.(5)	TABLE: Crushing of cells					P
Model	**Test temperature (°C)**	**OCV at start of test, (Vdc)**	**OCV at removal of crushing force, (Vdc)**	**Width/ diameter of cell before crush, (mm)**	**Required deformation for crush, (mm)**	**Results**
Samples charged at lowest test temperature						
C21	45	4.232	4.212	-	-	No fire and explosion
C22	45	4.232	4.212	-	-	No fire and explosion
C23	45	4.233	4.213	-	-	No fire and explosion
C24	45	4.233	4.213	-	-	No fire and explosion
C25	45	4.232	4.212	-	-	No fire and explosion
Samples charged at highest test temperature						
C26	0	4.212	4.212	-	-	No fire and explosion
C27	0	4.212	4.212	-	-	No fire and explosion
C28	0	4.213	4.213	-	-	No fire and explosion
C29	0	4.213	4.213	-	-	No fire and explosion
C30	0	4.212	4.212	-	-	No fire and explosion

Supplementary information:

- No fire or explosion
- No leakage
- Leakage
- Fire
- Explosion
- Bulge
- Others (please explain)

3.(7)	TABLE: Overcharge				P
Model	**Test temperature (°C)**	**OCV prior to charging, (Vdc)**	**Maximum charge current, (A)**	**Time for charging, (hours)**	**Results**
C31	0	4.225	1.2	3.0 hours	No fire and explosion
C32	0	4.224	1.2	3.0 hours	No fire and explosion

C33	0	4.223	1.2	3.0 hours	No fire and explosion
C34	0	4.225	1.2	3.0 hours	No fire and explosion
C35	0	4.224	1.2	3.0 hours	No fire and explosion
C36	45	4.238	1.2	3.0 hours	No fire and explosion
C37	45	4.237	1.2	3.0 hours	No fire and explosion
C38	45	4.236	1.2	3.0 hours	No fire and explosion
C39	45	4.237	1.2	3.0 hours	No fire and explosion
C40	45	4.238	1.2	3.0 hours	No fire and explosion

Supplementary information:

- No fire or explosion
- No leakage
- Leakage
- Fire
- Explosion
- Bulge
- Others (please explain)

3.(8)	TABLE: Forced discharge				P
Model	**Test temperature (°C)**	**OCV before application of reverse charge, (Vdc)**	**Measured reverse charge I_t, (A)**	**Time for reversed charge, (minutes)**	**Results**
C41	0	2.718	1.2	90	No fire and explosion
C42	0	2.710	1.2	90	No fire and explosion
C43	0	2.719	1.2	90	No fire and explosion
C44	0	2.721	1.2	90	No fire and explosion
C45	0	2.723	1.2	90	No fire and explosion
C46	45	2.718	1.2	90	No fire and explosion
C47	45	2.710	1.2	90	No fire and explosion
C48	45	2.719	1.2	90	No fire and explosion

C49	45	2.721	1.2	90	No fire and explosion
C50	45	2.723	1.2	90	No fire and explosion

Supplementary information:

- No fire or explosion
- No leakage
- Leakage
- Fire
- Explosion
- Bulge
- Others (please explain)

3.(9)	TABLE: Cell protection against a high charging rate				P
Model	**Test temperature (°C)**	**OCV prior to charging, (Vdc)**	**Maximum charge current, (A)**	**Maximum charge voltage, (Vdc)**	**Results**
C51	0	3.32	3.6	4.2	No fire and explosion
C52	0	3.32	3.6	4.2	No fire and explosion
C53	0	3.32	3.6	4.2	No fire and explosion
C54	0	3.33	3.6	4.2	No fire and explosion
C55	0	3.30	3.6	4.2	No fire and explosion
C56	45	3.32	3.6	4.2	No fire and explosion
C57	45	3.32	3.6	4.2	No fire and explosion
C58	45	3.32	3.6	4.2	No fire and explosion
C59	45	3.30	3.6	4.2	No fire and explosion
C60	45	3.32	3.6	4.2	No fire and explosion

Supplementary information:

- No fire or explosion
- No leakage
- Leakage
- Fire
- Explosion
- Bulge
- Others (please explain)

3.(10)	TABLE: Forced internal short circuit of cells	P

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Model	Chamber ambient, (°C)	OCV at start of test, (Vdc)	Particle location [1)]	Maximum applied pressure, (N)	Voltage drop, (mV)	Results
C71	0	4.223	1	400	3	No fire
C72	0	4.224	1	400	2	No fire
C73	0	4.225	1	400	1	No fire
C74	0	4.224	1	400	1	No fire
C75	0	4.225	1	400	1	No fire
C76	45	4.238	1	400	0	No fire
C77	45	4.237	1	400	2	No fire
C78	45	4.238	1	400	1	No fire
C79	45	4.239	1	400	2	No fire
C80	45	4.239	1	400	1	No fire

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 or explosion
- No leakage
- Leakage
- Fire
- Explosion
- Bulge
- Others (please explain)

3.(11a)	TABLE: Function of the overcharge protection of batteries			N/A
Model (battery)	**OCV at start of test, Vdc**	**OCV at End of test, Vdc (≤4.25V)**	**Charging Voltage, Vdc (> 4.25V)**	**Results**

Supplementary information:

- No fire or explosion
- No leakage
- Leakage
- Fire
- Explosion
- Bulge
- Others (please explain)

3.(11c)	TABLE: Function of the overcharge protection of batteries	P

Hotline: 400-6655-351 Tel: 86-755-23595200 Fax: 86-755-23595201 http://www.httprc.com

Model (Cell block)	OCV at start of test, Vdc	OCV at End of test, Vdc (≤4.25V)	Charging Voltage Per Cell block, Vdc (> 4.25V)	Results
Cell block 1	3.36	4.25	5	Pass
Cell block 2	3.37	4.25	5	Pass

Supplementary information:

- No fire or explosion
- No leakage
- Leakage
- Fire
- Explosion
- Bulge
- Others (please explain)

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Attachment 1: Photo documentation

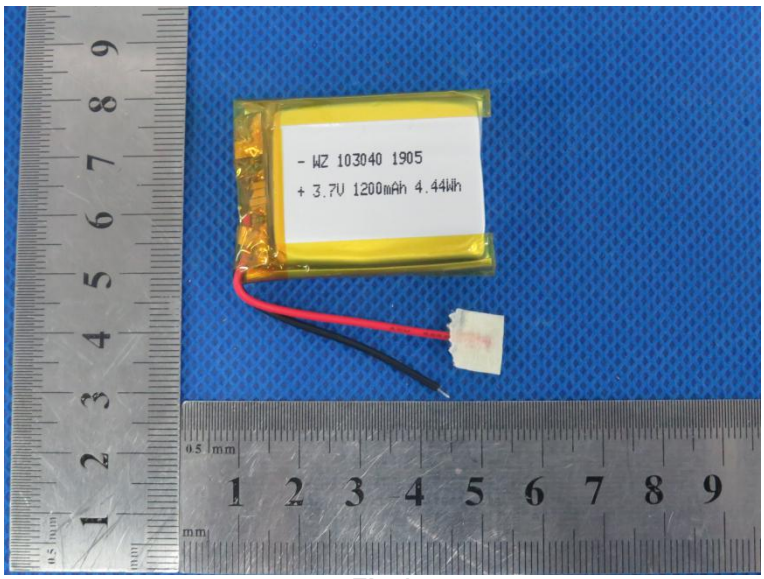

Fig.1

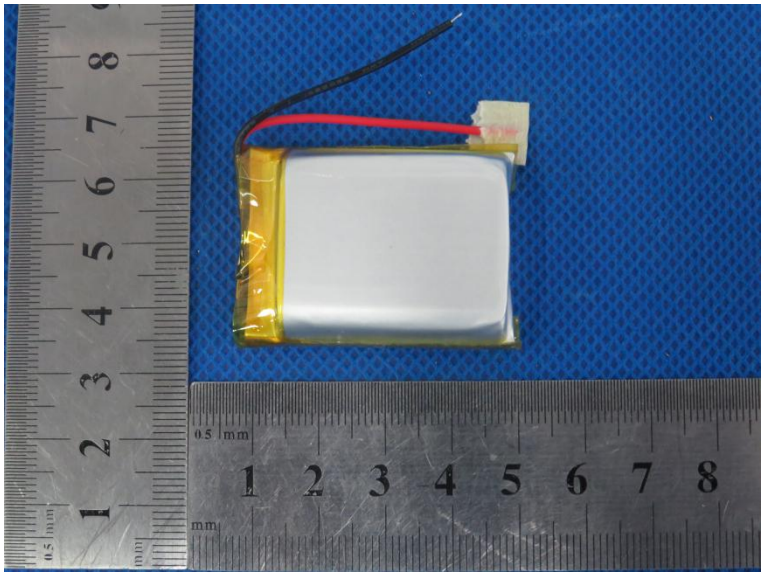

Fig.2

--End of Test Report--

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