TEST SUMMARY FOR LITHIUM BATTERIES AND SUPPLIER INQUIRY

ACCORDING TO SUBSECTION 38.3
OF THE UN TESTING MANUAL

N/A = not applicable

1. Name / designation of the battery
LI-ION BATTERY DCLi20, 18V, 4.0Ah (TJEP #124204-all versions)

1a. Name / designation of the cells contained in the battery
HIGHSTAR 3.7V 2000mAh ISR18650-2000 LI-ION

The test summary of the cells within the battery must either also be submitted or at
Points 9 and 9a must be confirmed that the UN 38.3 examination summary for the cells is available.

2. Manufacturer of the battery	
Name	JIANGSU HIGHSTAR BATTERY MANUFACTURING CO., LTD.
Address	No. 899, Nanyuan West Road, Qidong, Jiangsu
Phone	0086 -513-83312776
Email	highstar@highstar.net.cn
Website	http://www.highstar.net.cn

2a. Manufacturer of the device (if battery is installed in the device)	
Name	TAIZHOU XINDALU ELECTRONIC TECHNOLOGY CO, LTD.
Address	NO. 167, NANHUAN ROAD, WENLING, ZHEJIANG, CHINA
Phone	0086-576-86229788
Email	Sales01@xdldz.com
Website	www.xdldz.com

3. Test laboratory	
Name	Shanghai Research Institute of Chemical Industry Testing Co., Ltd.
Address	No. 345, East Yunling Road, Shanghai
Phone	0086-21-31765555
Email	zmb@ghs.cn
Website	www.ghs.cn

4. ID number and date			
Unique test report identification no.	1119090378	Date of report	2019-12-18

LITHIUM BATTERIE SERVICE

TEST SUMMARY FOR LITHIUM BATTERIES AND SUPPLIER INQUIRY

ACCORDING TO SUBSECTION 38.3
OF THE UN TESTING MANUAL

Name/designation of battery (from field 1))

DESCRIPTION OF THE BATTERY

5. Mark the battery type with "x" •			
X	Lithium-ion battery	Lithium metal battery	◯
◯	Lithium hydride battery		

6. Parameters	
Mass in grams (g):	584
Lithium-ion: Watt hour rating (Wh):	72
Lithium metal: Lithium content in grams (g):	
Lithium hybrid: lithium content in grams (g) and watt-hour rating (Wh)	g Wh

7. Physical description of the battery
Black plastic shell, rechargeable Lithium-ion battery

8. Model numbers
DCLI20, VB0172EU, 72700196

TESTS AND RESULTS

9. List of tests and results carried out Mark 'N/A', 'passed' or 'failed' with "x" •	N/A	Passed	Failed
T1 - Height simulation	◯	◯X	◯
T2 - Thermal test	◯	◯X	◯
T3 - Vibration	◯	◯X	◯
T4 - Impact/blow	◯	◯X	◯
T5 - External short circuit	◯	◯X	◯
T6 - Impact-for cylindrical cells with a diameter of at least 18 mm See points 1a and 9a	◯	◯X	◯
T6 - Pinch - for prismatic cells, pouch cells, button cells and cylindrical ones	◯	◯	◯
T7 - Overload	◯	◯X	◯
T8 - Forced discharge, only applies to the cells, see items 1a and 9a	◯	◯X	◯

LITHIUM BATTERIE SERVICE

TEST SUMMARY FOR LITHIUM BATTERIES AND SUPPLIER INQUIRY

ACCORDING TO SUBSECTION 38.3
OF THE UN TESTING MANUAL

Name/designation of battery (from field 1))

9a. UN 38.3 Test confirmation for the cells inside the battery If no separate document is provided for the battery cells, this field confirms that the cells inside the battery (see point 1.a.) have successfully passed the UN38.3 test series. In this case, Point 9 (T.6) and (T.8) must be marked as "passed". Furthermore Point 9.a. must be marked "Cell UN 38.3 test passed".	◯ X	cell UN 38.3 test passed	cell UN 38.3 test NOT passed	◯

10. Reference to test requirements for assembled batteries		
	N/A	

11. Reference to the revised version of the manual used for reviews and criteria and any changes to it
ST/SG/AC.10/11/Rev.6 Amend.1 38.3 UNITED NATIONS "Recommendations on the TRANSPORT OF DANGEROUS GOODS" Manual of Tests and Criteria ST/SG/AC.10/11/REV.6 Amend.1 Section 38.3

ADDITIONAL SUPPLIER INQUIRIES

12. Quality management system for the manufacture of batteries Are the battery manufactured according to a documented QM system, that meets the requirements of the regulations?	◯ X	Yes	No	◯

13. Have the following parameters been exceeded? Lithium-ion battery: more than 100 Wh Lithium metal battery: more than 2 g of lithium Lithium hybrid battery: more than 1.5 g of lithium and/or more than 10 Wh	◯	Yes	**No**	◯ X

Points 14-16 must be answered if the parameters in point 13 are exceeded:					
14. Is every battery provided with a protective device against internal overpressure or designed so that a violent breach under normal transportation conditions is prevented?		◯	Yes	No	◯
15. Is every battery equipped with an effective device for preventing short circuits?		◯	Yes	No	◯
16. Is each battery equipped with cells connected in parallel or rows of cells connected in parallel which are equipped with an active protectiion against dangerous reverse current (e.g. diodes, fuses, etc.)?	◯ N/A	◯	Yes	No	◯

LITHIUM BATTERIE SERVICE

TEST SUMMARY FOR LITHIUM BATTERIES AND SUPPLIER INQUIRY

ACCORDING TO SUBSECTION 38.3
OF THE UN TESTING MANUAL

Name/designation of battery (from field 1))

17. Only for air freight of lithium-ion batteries and lithium-polymer batteries: Charge level (SoC) for UN 3480						
Charge level (SoC) max. 30%	○	N/A	○ x	Yes	No	○

BATTERIES BUILT INTO DEVICES

18. Point 18 must be answered if batteries are installed in devices :						
18.a) Only include button cell batteries?	○	Yes			No	○ X
18.b) Number of batteries included (without button cell batteries) per device					2pcs battery	
When the device is intentionally active / switched on during transport, e.g. Data Logger:						
18.c) Confirmation that the device does not generate dangerous heat.	○	N/A	○ x	Yes	No	○
18.d) Confirmation that the device for air shipment meets the defined standards for electromagnetic radiation according to DO-160	○	N/A	○ x	Yes	No	○

19. Place, Date	20. Name	21. Company stamp and signature of the supplier
Zhejiang, Wenling 2020-06-04	Zheng Qinxian	台州市新大陆电子科技有限公司 TAIZHOU XINDALU ELECTRONIC TECHNOLOGY CO.,LTD