

# LITHIUM CELL/BATTERY TEST SUMMARY AND SUPPLIER INQUIRY

IN ACCORDANCE WITH SUB-SECTION 38.3  
OF MANUAL OF TESTS AND CRITERIA

N/A = Not Applicable

1. Name of cell / battery	
Polymer lithium ion Battery 501419PL	

2. Manufacturer of cell / battery	
Name	Nanyang Huachuang New Energy Co Ltd
Address	
Phone	
Email	
Website	

3. Test laboratory of cell / battery	
Name	Shenzhen TCT Testing Technology Co. Ltd
Address	
Phone	
Email	
Website	

4. ID-number and date			
Unique test report identification number	TCT180309B022	Date of test report	2018.03.16

## DESCRIPTION OF CELL / BATTERY

5. Mark the type of cell/battery with an "x"			
<input type="radio"/>	Lithium ion cell	Lithium metal cell	<input type="radio"/>
<input checked="" type="radio"/>	Lithium ion battery	Lithium metal battery	<input type="radio"/>
<input type="radio"/>	Lithium hybrid battery		

6. Parameters	Cell	Battery
Mass in gram (g):		3,05
Lithium ion: Indicate watt-hour rating (Wh):		0,2775
Lithium metal: Indicate lithium metal content in gram (g):		
Lithium hybrid: Indicate lithium metal content in gram (g) and watt-hour rating (Wh):		g Wh

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Name of cell/battery (taken from field 1)

Polymer lithium ion Battery

## 7. Physical description of cell / battery

prismatic

## 8. Model numbers

24976, 24977, 24980 Copter Ball

## TESTS AND RESULTS

9. List of tests conducted and results - Mark N/A, pass or fail with an "●"	N/A	pass	fail
T1 - Altitude simulation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
T2 - Thermal Test	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
T3 - Vibration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
T4 - Shock	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
T5 - External Short Circuit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
T6 - Impact / Crush	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
T7 - Overcharge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
T8 - Forced Discharge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
for all above	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## 10. Reference to assembled battery testing requirements

N/A

## 11. Reference to the revised edition of the Manual of Tests and Criteria used and to amendments thereto

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Name of cell/battery (taken from field 1)

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## ADDITIONAL SUPPLIER INQUIRY

<b>12. Quality management system for manufacturing cells / batteries</b> Does the manufacturer of the cell/battery manufacture the products based on a documented quality management system according to transport regulations?	<input checked="" type="radio"/>	YES	NO	<input type="radio"/>
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<b>13. Are the following parameters exceeded?</b> Lithium ion cell: more than 20 Wh Lithium ion battery: more than 100 Wh Lithium metal cell: more than 1 g Lithium Lithium metal battery: more than 2 g Lithium Lithium hybrid Battery: more than 1,5 g Lithium and/or more than 10 Wh	<input type="radio"/>	YES	NO	<input checked="" type="radio"/>
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Check point 14 – 16 need to be answered when 13 has been ticked "YES":

<b>14.</b> Does each cell / battery incorporates a safety venting device or is designed to preclude a violent rupture under normal conditions of carriage?	<input type="radio"/>	YES	NO	<input type="radio"/>
<b>15.</b> Is each cell / battery equipped with an effective means of preventing external short circuits?	<input type="radio"/>	YES	NO	<input type="radio"/>
<b>16.</b> Is each battery containing cells or series of cells connected in parallel equipped with effective means as necessary to prevent dangerous reverse current flow (e.g. diodes, fuses, etc.)?	<input type="radio"/>	N/A	YES	NO

**17. Only in air transport: State of Charge (SoC) for UN 3480 Lithium ion cells/batteries and lithium polymer cells/batteries**

State of Charge (SoC) max. 30 %	<input type="radio"/>	YES	NO	<input type="radio"/>
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## CELLS/BATTERIES INSTALLED IN EQUIPMENT

<b>18. Check point 18 needs to be answered when the cells / batteries are installed in articles:</b>				
<b>18.a)</b> Only button cells enclosed?	<input type="radio"/>	YES	NO	<input checked="" type="radio"/>
<b>18.b) Number of enclosed cells (other than button cells)/batteries per equipment</b>				
Enclosed cells per equipment	Enclosed batteries per equipment		1	
When the equipment is intentionally active/switched on during transport e.g. data loggers:				
<b>18.c)</b> Confirmation that no dangerous amount of heat is emitted from the equipment	<input checked="" type="radio"/>	N/A	<input type="radio"/>	YES
<b>18.d)</b> Confirmation that the equipment when transported by air fulfills the defined air transport standards for electromagnetic radiation according to DO-160	<input checked="" type="radio"/>	N/A	<input type="radio"/>	YES

<b>19. Place, Date</b>	<b>20. Title, Surname, First name</b>	<b>21. Company stamp and signature</b>
Bünde, 2020.01.13	Vierregge Thomas Head of Quality Assurance & Product Safety	 <b>Revell GmbH</b> Henschelstr. 20-30 32257 Bünde Tel.: (+49/0) 5223 965-0