

# LITHIUM BATTERY TEST SUMMARY AND SUPPLIER INQUIRY

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

N/A = Not Applicable

<b>1. Name/Description of battery</b>	
Conrad energy Modellbau-Akkupack (LiPo) 11.1 V 1300 mAh; Nr. 1344131	

<b>1a. Name/Description of the cells inside the battery</b>	
Li-po	

The test summary of the cells inside the battery must either be presented or under checkpoint 9 and 9a it must be confirmed that the UN 38.3 test summary for the cells is available.

<b>2. Manufacturer of battery</b>	
Name	CEI Conrad Electronic International (HK) Limited
Address	18 Flr. Tower 2, Nina Tower, No. 8 Yeung UK Road, Tsuen Wan, NT, Hong Kong
Phone	(852) 2559 6238
Email	panda.ng@cei-hk.com
Website	www.cei-hk.com

<b>2a. Manufacturer of the equipment (if the battery is contained in equipment)</b>	
Name	
Address	
Phone	
Email	
Website	

<b>3. Test laboratory of battery</b>	
Name	Shenzhen TCT Testing Technology Co., Ltd.
Address	1B/F Bldg. 1, Yibaolai Industrial Park, Qiaotou, Fuyong, Bao'an District, Shenzhen
Phone	86-755-27673339
Email	tom@tct-lab.com
Website	www.tct-lab.com

<b>4. ID-number and date</b>			
Unique test report identification number	TCT191219B015	Date of test report	2019.12.17



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## DESCRIPTION OF BATTERY

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

<b>6. Parameters</b>	
Mass in gram (g):	139
Lithium ion: Indicate watt-hour rating (Wh):	13.32
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

<b>7. Physical description of battery</b>
Silver solid

<b>8. Model numbers</b>
2096

## 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 checked="" type="radio"/>	<input type="radio"/>
T2 - Thermal Test	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
T3 - Vibration	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
T4 - Shock	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
T5 - External Short Circuit	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
T6 - Impact - for cylindrical cells having a diameter of at least 18 mm See check point 1a and 9a.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
T6 - Crush - for prismatic cells, pouch cells, button cells and cylindrical cells having a diameter of less than 18 mm. See check point 1a and 9a.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
T7 - Overcharge	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
T8 - Forced Discharge, only valid for cells. See check point 1a and 9a.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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<b>9a. UN 38.3 Test Confirmation for the Cells inside the battery</b> When no separate document for the cells is provided, this confirms that the cells inside the battery (see checkpoint 1.a.) have successfully passed the UN 38.3 test. In this case under checkpoint 9 the T.6 and T.8 must be marked as „passed“ and here under 9.a. „Cell UN 38.3 Test confirmed“ needs to be ticked.	<input checked="" type="radio"/>	Cell UN 38.3 Test confirmed	Cell UN 38.3 Test NOT confirmed	<input type="radio"/>

<b>10. Reference to assembled battery testing requirements</b>
N/A

<b>11. Reference to the revised edition of the Manual of Tests and Criteria used and to amendments thereto</b>
ST/SG/AC.10/11/Rev.6/Amend.1/Section38.3

## ADDITIONAL SUPPLIER INQUIRY

<b>12. Quality management system for manufacturing batteries</b> Does the manufacturer of the battery manufacture the products based on a documented quality management system according to transport regulations?	<input checked="" type="radio"/>	YES	NO	<input type="radio"/>

<b>13. Are the following parameters exceeded?</b> Lithium ion battery: more than 100 Wh 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 type="radio"/>

<b>Check point 14 – 16 need to be answered when 13 has been ticked "YES":</b>				
<b>14. Does each battery incorporates a safety venting device or is designed to preclude a violent rupture under normal conditions of carriage?</b>	<input type="radio"/>	YES	NO	<input checked="" type="radio"/>
<b>15. Is each battery equipped with an effective means of preventing external short circuits?</b>	<input type="radio"/>	YES	NO	<input checked="" type="radio"/>
<b>16. 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.)?</b>	<input type="radio"/>	N/A	YES	NO

<b>17. Only in air transport: State of Charge (SoC) for UN 3480 Lithium ion batteries and lithium polymer batteries</b>				
State of Charge (SoC) max. 30 %	<input checked="" type="radio"/>	N/A	YES	NO



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## BATTERIES INSTALLED IN EQUIPMENT

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

19. Place, Date	20. Title, Surname, First name	21. Company stamp and signature
Hong Kong Dec. 31, 2019	Head of Quality: Ng, Panda	 

