

LITHIUM 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/Description of battery
Li-ion batterie 17-21BE-M040/0000

1a. Name/Description of the cells inside the battery
Lithium-ion Cell Samsung SDE INR18650-15L

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.

2. Manufacturer of battery	
Name	CINO Group
Address	Eastern Science Industrial Park, 18F., No. 100, Sec. 1, Xintai 5th Rd., Xizhi Dist., New Taipei City, 22102, Taiwan, R.O.C.
Phone	886-2-26962559
Email	
Website	https://www.cino.com.tw/

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

3. Test laboratory of battery	
Name	Jhih-Hong Technology Co., Ltd.
Address	6F., No. 15, Wu Chuan Rd., Wu-Ku Industrial Park, New Taipei City 248, Taiwan
Phone	+886-2-22989236
Email	
Website	

4. ID-number and date			
Unique test report identification number	JHT-525T2019-A	Date of test report	04.06.2013



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DESCRIPTION OF BATTERY

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

6. Parameters *	
Mass in gram (g):	43 g
Lithium ion: Indicate watt-hour rating (Wh):	5,4 Wh
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

7. Physical description of battery
Lithium-ion batterie

8. Model numbers
SDE INR18650-15L

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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
T7 - Overcharge	<input type="radio"/>	<input checked="" 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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<p>9a.UN 38.3 Test Confirmation for the Cells inside the battery 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.</p>	<input checked="" type="radio"/>	Cell UN 38.3 Test confirmed	Cell UN 38.3 Test NOT confirmed	<input type="radio"/>
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10. Reference to assembled battery testing requirements		
	N/A	<input checked="" type="checkbox"/>

11. Reference to the revised edition of the Manual of Tests and Criteria used and to amendments thereto		
The UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria 38.3 Lithium batteries, 5th revised edition		

ADDITIONAL SUPPLIER INQUIRY

<p>12. Quality management system for manufacturing batteries Does the manufacturer of the battery manufacture the products based on a documented quality management system according to transport regulations?</p>	<input checked="" type="radio"/>	YES	NO	<input type="radio"/>
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<p>13. Are the following parameters exceeded? 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</p>	<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":				
<p>14. Does each battery incorporates a safety venting device or is designed to preclude a violent rupture under normal conditions of carriage?</p>	<input type="radio"/>	YES	NO	<input type="radio"/>
<p>15. Is each battery equipped with an effective means of preventing external short circuits?</p>	<input type="radio"/>	YES	NO	<input type="radio"/>
<p>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.)?</p>	<input type="radio"/>	N/A	YES	NO

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

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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	<input type="radio"/>	NO	<input checked="" type="radio"/>
18.b) Number of enclosed batteries per equipment					1
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 checked="" type="radio"/>	N/A	<input type="radio"/>	YES	<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 checked="" type="radio"/>	N/A	<input type="radio"/>	YES	<input type="radio"/>

19. Place, Date	20. Title, Surname, First name	21. Company stamp and signature
Hüffenhardt 04.03.2020	Kesselring, Manuela	Sigmann Delta GmbH Hauptstraße 53 D - 74928 Hüffenhardt Telefon 06268 - 426

* Parameters from samsung cell INR18650-15L