

LITHIUM CELL TEST SUMMARY AND SUPPLIER INQUIRY

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

Name/Description of cell / modeln o. of Product	
CR2032	TX-168 (in remote)

Manufacturer of cell

Name	Guangzhou TianQiu Enterprise Co., Ltd
Address	Xinji Industrial Zone, Machong Town, Dongguan, Guangzhou, China
Phone	0769-81210202
E-Mail	qd@gdtianqiu.com
Website	www.tmmq.cn

Manufacturer

Name	Technaxx Deutschland GmbH & Co. KG
Address	Konrad-Zuse-Ring 16-18, 61137 Schöneck
Phone	+49 [69] 90 47552 0
E-Mail	Zentrale@technaxx.de
Website	http://www.technaxx.de/

Test laboratory of cell

Name	Shanghai Research Institute of Chemical Industry Testing Center
Address	No.345 Esast Yunling Road,Putuo Shanghai, China 200062
Phone	021-31765555
E-Mail	battery@ghs.cn
Website	www.ghs.cn

ID-number and date

Unique test report identification number	1111030018
Date of test report	2011-4-15

DESCRIPTION OF CELL (Mark with an "X")

Lithium ion cell	
Lithium metal cell	

Parameters

Mass in gram (g):	2.82
Lithium ion: Indicate watt-hour rating (Wh):	0.777
Lithium metal: Indicate lithium metal content in gram (g):	

Physical description of cell

Silvery Button metal shell

Model numbers

CR2032

TESTS AND RESULTS

List of tests conducted and results - Mark N/A, pass or fail with an "X"	N/A	Pass	Fail
T1 - Altitude simulation		X	
T2 - Thermal Test		X	
T3 – Vibration		X	
T4 – Shock		X	
T5 - External Short Circuit		X	
T6 - Impact - for cylindrical cells having a diameter of at least 18 mm		X	
T6 - Crush - for prismatic cells, pouch cells, button cells and cylindrical cells having a diameter of less than 18 mm	/		
T7 – Overcharge	/		
T8 - Forced Discharge		X	

ADDITIONAL SUPPLIER INQUIRY

Mark Yes or no with an "X"	Yes	No
Quality management system for manufacturing cells Does the manufacturer of the cell/battery manufacture the products based on a documented quality management system according to transport regulations?	X	
Are the following parameters exceeded? Lithium ion cell: more than 20 Wh Lithium metal cell: more than 1 g Lithium		X

Check point 13 – 15 need to be answered when 12 has been ticked "YES":

Mark Yes or no with an "X"	Yes	No
Does each cell incorporate a safety venting device or is designed to preclude a violent rupture under normal conditions of carriage?		
Is each cell equipped with an effective means of preventing external short circuits?		
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.) Not relevant for cells		




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


State of Charge (SoC) max. 30 %		
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CELLS INSTALLED IN EQUIPMENT

Check point 17 needs to be answered when the cells are installed in articles: Mark N/A, pass or fail with an "X"	N/A	Pass	Fail
17c) Only button cells enclosed?		X	
17b) Number of enclosed cells (other than button cells) per equipment	1		
When the equipment is intentionally active/switched on during transport e.g. data loggers:			
17c) Confirmation that no dangerous amount of heat is emitted from the equipment	X		
17d) Confirmation that the equipment when transported by air fulfills the defined air transport standards for electromagnetic radiation according to DO-160		X	

Please mark the correct column with an X

	X	
Single Cell or Battery	Build in Cell/ Battery	Over 100Wh
		

Place, Date	Signature	Company stamp and Signature
Schöneck, 02.12.2021		Technaxx Deutschland GmbH & Co.KG Konrad-Zuse-Ring 16-18 61137 Schöneck-Kilianstädten Fon +49 (0)6187 / 200 92-0 • Fax -16