


**LITHIUM CELLS OR BATTERIES TEST SUMMARY AND CERTIFICATION
IN ACCORDANCE WITH SUB-SECTION 38.3
OF MANUAL OF TESTS AND CRITERIA**

BATTERY TRANSPORTATION INFORMATION

Name of cell, battery or product manufacture, as applicable: Item Name Model name : CR2032 Normal voltage 3V Rated capacity 220mAh Item Description Lithium-metal cell		Cell, battery or product manufacturer's contact information to include address, phone number, email address and website for more information: Maxell, Ltd. 5 Takumidai, Ono-Shi, Hyogo, 675-1322 Japan Phone: (+81) 794-63-8054 e-mail: takashi-kimura@maxell.co.jp Web: http://www.maxell.co.jp																																																										
Name of the test laboratory to include address, phone number, email address and website for more information Maxell, Ltd. 1 Koizumi, Oyamazaki, Oyamazaki-cho, Otokuni-gun, Kyoto, 618-8525 Japan Phone: (+81) 75-956-4148 email: masahiko-takai@maxell.co.jp Web: http://www.maxell.co.jp		Test report identification number: C-1804-1	Date of the test report: April 5, 2018																																																									
Description of cell or battery to include at a minimum: Lithium ion or <u>Lithium metal cell</u> or battery Mass; Watt-hour rating, or <u>Lithium content</u> , Physical description of the cell/battery; and Model Number Cell or battery Type : Cell Lithium content : 0.07g Cell Weight : 3g Physical description : Stainless steel		List of test conducted and results(i.e. Pass/Fail) <table border="1"> <thead> <tr> <th rowspan="2">Test number</th> <th rowspan="2">Designation</th> <th rowspan="2">Results</th> <th colspan="3">Applicable</th> </tr> <tr> <th>cell</th> <th>Single cell battery</th> <th>battery</th> </tr> </thead> <tbody> <tr> <td>T-1</td> <td>Altitude</td> <td>Pass</td> <td>✓</td> <td></td> <td>✓</td> </tr> <tr> <td>T-2</td> <td>Thermal cycling</td> <td>Pass</td> <td>✓</td> <td></td> <td>✓</td> </tr> <tr> <td>T-3</td> <td>Vibration</td> <td>Pass</td> <td>✓</td> <td></td> <td>✓</td> </tr> <tr> <td>T-4</td> <td>Shock</td> <td>Pass</td> <td>✓</td> <td></td> <td>✓</td> </tr> <tr> <td>T-5</td> <td>External short circuit</td> <td>Pass</td> <td>✓</td> <td></td> <td>✓</td> </tr> <tr> <td>T-6</td> <td>Impact / Crush</td> <td>Pass</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td>T-7</td> <td>Overcharge *</td> <td>Not applicable</td> <td></td> <td>✓</td> <td>✓</td> </tr> <tr> <td>T-8</td> <td>Forced Discharge</td> <td>Pass</td> <td>✓</td> <td></td> <td></td> </tr> </tbody> </table> <p align="center">* Only secondary battery with protection element</p>		Test number	Designation	Results	Applicable			cell	Single cell battery	battery	T-1	Altitude	Pass	✓		✓	T-2	Thermal cycling	Pass	✓		✓	T-3	Vibration	Pass	✓		✓	T-4	Shock	Pass	✓		✓	T-5	External short circuit	Pass	✓		✓	T-6	Impact / Crush	Pass	✓			T-7	Overcharge *	Not applicable		✓	✓	T-8	Forced Discharge	Pass	✓		
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Reference to assembled battery testing requirements, if applicable(i.e. 38.3.3 (f) and 38.3.3 (g)) Not applicable	Reference to the revised edition of the Manual of Tests and Criteria used and to amendments thereto, if any: Revision 6 (2017-2018)	For air transport only: Does the cell or battery comply with the 30% State of Charge? Not applicable																																																										
PRODUCT CLASSIFICATION FOR TRANSPORT(According to UN-DGP)																																																												
UN Classification, UN3090		Proper Shipping Name: Lithium Metal Batteries																																																										
Signature with name and title of signatory as an indication of the validity information provided. Takashi Kimura / General Manager, Design Department Signature 		This document remains valid as long as no changes, modifications or additions are made to the model(s) described in this document, after being transported from a Manufacturer MAXELL, LTD. The model(s) has(have) been classified according to the applicable transport regulations and the UN Manual of Tests and Criteria as of the date of the certification. The model(s) must be packaged, labeled and documented according to country and other international regulations for transportation.																																																										
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