

Test report No. UN-17-010d

2020/7/8

Test summary of UN test for Lithium ion single cell battery

TOCAD ENERGY CO.,LTD.

Quality Assurance Department

Customer Model	PA-BT-005
Product Part Code	H1UR18650RX-1010/H1UR18650RX-1026



Mikiya Hiroshima Manager

We declare that this single cell battery passed UN test.

Manual of Tests and Criteria (38.3 Lithium batteries)		Test results	Note	Number of test samples	
No.	Test item				
T1	Altitude simulation	Pass		First cycle fully charged 10 cells	
T2	Thermal test	Pass			
T3	Vibration	Pass			
T4	Shock	Pass			
T5	External short circuit	Pass			
T6	Impact / Crush	Pass		First cycle 50% charged 5 cells	
T7	Overcharge	Pass		First cycle fully charged 4 single cell batteries	After 50 cycles, fully charged 4 single cell batteries
T8	Forced discharge	Pass		First cycle fully discharged 10 cells	After 50 cycles, fully discharged 10 cells

Lithium ion single cell battery Specification

Item	Value/Description	Note
Weight	70 g	
Physical description	Prismatic battery	
Number of Cells	1	
Nominal Voltage	3.6 V	
Rated Capacity	1.87 Ah	
Watt-hour rating	6.8 Wh	
Aggregate Lithium Equivalent Content	0.561 g	

We declare that the above-mentioned test is the result of being checked according to UN test

(Manual of Tests and Criteria ST/SG/AC. 10/11, Part III, sub-section 38.3, Rev. 5A1 for cell, Rev. 6 for single cell battery)

Manufacturer	(single cell battery)	TOCAD ENERGY, Co.Ltd. 989-0225 4-1-14 Higashicho, Shiroishi City, Miyagi Japan Tel: +81-224-25-0131, mail: info_green@tocad.co.jp, website: https://www.tocad.co.jp/
	(component cell)	SANYO Electric Co., Ltd. 222-1 Kaminaizen, Sumoto City, Hyogo 656-8555, Japan Tel: +81-799-23-3931, email: prb-bp-ta@ml.jp.panasonic.com website: https://industrial.panasonic.com/ww/products/batteries/
Test Laboratory	(single cell battery)	Same as the manufacturer
	(component cell)	Same as the manufacturer

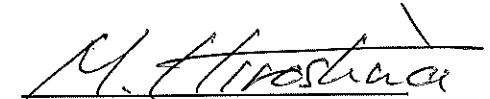
Lithium ion single cell battery Result of Package Drop Test

2020/7/8

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Customer Model	PA-BT-005
Product Part Code	H1UR18650RX-1010/H1UR18650RX-1026
Packing Drawing No.	P311558/P311720

TOCAD ENERGY CO.,LTD.
Quality Assurance Department


Mikiya Hiroshima Manager

We declare that this single cell battery passed UN test.

Test item	Test results	Note
Package Drop Test	Pass	The package shall be dropped from 1.2meter high onto a concrete surface (flat and horizontal) with five orientations (1)flat on the bottom , (2)flat on the top, (3)flat on the long side, (4)flat on the short side, (5)on a corner

Lithium ion single cell battery Specification

Item	Nominal Value		Note
Watt-hour rating	6.8	Wh	
Aggregate Lithium Equivalent Content	0.561	g	

We declare the above : The test result mentioned above was checked according to UN test
(Model Regulations ST/SG/AC. 10/1/Rev. 21, Special Provision188)