Report Number: 103425483DET-001

Certificate of UN Test for Lithium-ion Battery Pack

Customer Model iRobot ABL-B Global Code F12432712

Product Name Lithium Ion Battery Pack

Test Laboratory Manufacturer

> Panasonic Energy Mexico S.A. de C.V. Av. Santa Barbara No. 601 Ex-Ejido San Nicolas

Escobedo, NL, Mexico, CP 66050 Telephone: 469-362-5600

email: RBG-Regulatory@us.panasonic.com URL: https://na.industrial.panasonic.com

5/18/2018

Gary Drew, Compliance Specialist III

Panasonic Industrial Devices Sales Company of

America

3461 Plano Parkway The Colony, TX 75056 Telephone: 469-362-5600

email: RBG-Regulatory@us.panasonic.com URL: https://na.industrial.panasonic.com

[Manufacturer] SUZ

Sanyo Energy (Suzhou) Co., Ltd.

No.86, Sunwu Road, Xukou Town, Wuzhong

District,

Suzhou City, Jiangsu, P.R. China

Telephone: 469-362-5600

email: RBG-Regulatory@us.panasonic.com URL: https://na.industrial.panasonic.com

We Declare this LI-Ion Battery Pack has passed UN Test.

Manual of Tests and Criteria (38.3 Lithium Batteries) No. Test Item	Test Results	Note	Number of test batteries/cells		
T 1 Altitude simulation	Pass				
T 2 Thermal test	Pass		4 small batteries at first	4 small batteries after 50 cycles ending fully charged states.	
T 3 Vibration	Pass		cycle, fully charged		
T 4 Shock	Pass		cycle, fully charged		
T 5 External short circuit	Pass				
T 6 Crush	Pass	N/A			
T 7 Overcharge	Pass		First cycle, fully charged 4 batteries	After 50 cycles, fully charged 4 batteries.	
T 8 Forced discharge	Pass	N/A			

*The test data may contain additional test result other than above table.

Lithium Ion Battery Pack

Item	Nominal value		Note
Watt-hour rating	48 Wh	P	
Pack Weight	473 g	Robot	
Physical description	Brand & Model: iRobot ABL-B		
Lithium equivalent content	5.04 g		

Above test procedures are compliant to the following manual:

(Manual of Tests and Criteria ST/SG/AC.10/11/Rev.6)

Effective Date: