MITSUBISHI ELECTRIC
Changes for the Better

Product	MELSEC-A
Title	Summary of UN Test for A6BAT
Abstract	

This document is the Summary of UN Test for A6BAT
(ER17/33BD produced by Maxell, Ltd).

FA Systems Dept.1 MELSEC Technical Center

MITSUBISHI ELECTRIC CORPORATION NAGOYA WORKS

様式－1－1(190107)

S191218-6

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

BATTERY TRANSPORTION INFORMATION

Name of cell, battery or product manufacture, as applicable:

Item Name **Model name : ER17/33BD WK(MIT)**
Internal cell : ER17/33BD
Normal voltage **3.6V**
Rated capacity **1750mAh**

Item Description **Lithium-metal battery**

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: E-1907-1

Date of the test report: July 1, 2019

List of test conducted and results(i.e. Pass/Fail)

Test number	Designation	Results	Applicable		
			cell	Single cell battery	battery
T-1	Altitude	Not applicable	レ		レ
T-2	Thermal cycling	Not applicable	レ		レ
T-3	Vibration	Not applicable	レ		レ
T-4	Shock	Not applicable	レ		レ
T-5	External short circuit	Not applicable	レ		レ
T-6	Impact / Crush	Not applicable	レ		
T-7	Overcharge	Pass		レ	レ
T-8	Forced Discharge	Not applicable	レ		

Description of cell or battery to include at a minimum: Lithium ion or Lithium metal cell or battery Mass; Watt-hour rating, or Lithium content, Physical description of the cell/battery; and Model Number

Cell or battery Type : **Single cell battery**

Lithium content : **0.52g**

Cell or Battery Weight : **14g**

Physical description : **Label and insulated tape**

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, Amendment 1 (2019-)

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 Sipping 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

Phone: (+81) 794-63-8054
e-mail: takashi-kimura@maxell.co.jp

Date document was generated

December 18, 2019

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.

様式－1－1(190107)

C191218-6

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

BATTERY TRANSPORTION INFORMATION

Name of cell, battery or product manufacture, as applicable:

Item Name **Model name : ER17/33BD**

Normal voltage **3.6V**
Rated capacity **1750mAh**

Item Description **Lithium-metal battery**

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:
E-1907-1

Date of the test report:
July 1, 2019

List of test conducted and results(i.e. Pass/Fail)

Test number	Designation	Results	Applicable		
			cell	Single cell battery	battery
T-1	Altitude	Pass	レ		レ
T-2	Thermal cycling	Pass	レ		レ
T-3	Vibration	Pass	レ		レ
T-4	Shock	Pass	レ		レ
T-5	External short circuit	Pass	レ		レ
T-6	Impact / Crush	Pass	レ		
T-7	Overcharge	Not applicable		レ	レ
T-8	Forced Discharge	Pass	レ		

Description of cell or battery to include at a minimum: Lithium ion or Lithium metal cell or battery Mass; Watt-hour rating, or Lithium content, Physical description of the cell/battery; and Model Number

Cell or battery Type : **Cell**

Lithium content : **0.52g**

Cell or Battery Weight : **13g**

Physical description : **Label and insulated tape**

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, Amendment 1 (2019-)

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 Sipping 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

Phone: (+81) 794-63-8054
e-mail: takashi-kimura@maxell.co.jp

Date document was generated

December 18, 2019

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.