Test Report issued under the responsibility of:

TÜVRheinland®

TEST REPORT
IEC 62368-1
Audio/video, information and communication technology equipment
Part 1: Safety requirements

Report Number..... :	CN25FQ4U 002
Date of issue ..... :	2025-Mar-23
Total number of pages ..... :	10
Name of Testing Laboratory preparing the Report ..... :	**TÜV Rheinland (Shenzhen) Co., Ltd.**
Applicant's name..... :	**Motorola Mobility LLC**
Address ..... :	222 W, Merchandise Mart Plaza, Chicago IL 60654 USA
Test specification:	
Standard ..... :	IEC 62368-1:2018
Test procedure..... :	CB Scheme
Non-standard test method..... :	N/A
TRF template used ..... :	IECEE OD-2020-F1:2021, Ed.1.4
Test Report Form No. ..... :	IEC62368_1E
Test Report Form(s) Originator.... :	UL(US)
Master TRF ..... :	Dated 2022-04-14

If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

General disclaimer:

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.

Test item description .....:	Smart Watch
Trade Mark(s) .....:	
Manufacturer.....:	Same as applicant
Model/Type reference .....:	XT2541-1
Ratings .....:	I/P: 5V⎓1A

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):			
☒	**CB Testing Laboratory:**	TÜV Rheinland (Shenzhen) Co., Ltd.	
Testing location/ address ..... :		1-5F, Block 5, No. 1100, Huanli Road, Yungu Community, Xinhu Street, Guangming District Shenzhen, China	
Tested by (name, function, signature) ..... :		Solina Zhao Project Engineer	Solina Zhao
Approved by (name, function, signature) .. :		Crystal Xu Authorizer	Crystal Xu
☐	**Testing procedure: CTF Stage 1:**		
Testing location/ address ..... :			
Tested by (name, function, signature) ..... :			
Approved by (name, function, signature) .. :			
☐	**Testing procedure: CTF Stage 2:**		
Testing location/ address ..... :			
Tested by (name, function, signature)			
Witnessed by (name, function, signature) . :			
Approved by (name, function, signature) .. :			
☐	**Testing procedure: CTF Stage 3:**		
☐	**Testing procedure: CTF Stage 4:**		
Testing location/ address ..... :			
Tested by (name, function, signature) ..... :			
Witnessed by (name, function, signature) . :			
Approved by (name, function, signature) .. :			
Supervised by (name, function, signature) :			

List of Attachments (including a total number of pages in each attachment):

- N/A

Summary of testing:

Tests performed (name of test and test clause):	**Testing location:**
- N/A	- N/A

Summary of compliance with National Differences (List of countries addressed):

EU Group Differences, EU Special National Conditions, AU, CA, JP, KR, NZ, SA, US

Explanation of used codes: AU= Australia, CA=Canada, JP= Japan, KR=Korea, NZ= New Zealand, SA= Saudi Arabia, US=United States of America

☒**The product fulfils the requirements of EN IEC 62368-1:2020+ A11:2020**
☒**The product fulfils the requirements of BS EN IEC 62368-1: 2020 + A11: 2020**
☒**The product fulfils the requirements of CSA/UL 62368-1:2019**
☒**The product fulfils the requirements of National standard SASO-IEC 62368-1:2020**
☒**The product fulfils the requirements of J62368-1(2023)**
☒**The product fulfils the requirements of AS/NZS 62368.1:2022**
☒**The product fulfils the requirements of KC 62368-1(2021-08)**

For National Differences see corresponding Attachment 1 of original report CN25FQ4U 001.

Use of uncertainty of measurement for decisions on conformity (decision rule) :

☒ No decision rule is specified by the IEC standard, when comparing the measurement result with the applicable limit according to the specification in that standard. The decisions on conformity are made without applying the measurement uncertainty ("simple acceptance" decision rule, previously known as "accuracy method").

☐ Other: … (to be specified, for example when required by the standard or client, or if national accreditation requirements apply)

Information on uncertainty of measurement:
The uncertainties of measurement are calculated by the laboratory based on application of criteria given by OD-5014 for test equipment and application of test methods, decision sheets and operational procedures of IECEE.
IEC Guide 115 provides guidance on the application of measurement uncertainty principles and applying the decision rule when reporting test results within IECEE scheme, noting that the reporting of the measurement uncertainty for measurements is not necessary unless required by the test standard or customer.

Calculations leading to the reported values are on file with the NCB and testing laboratory that conducted the testing.

Copy of marking plate:

- See original report CN25FQ4U 001 for details.

Test item particulars:	
Product group .....:	☒ end product ☐ built-in component
Classification of use by .....:	☒ Ordinary person ☒ Children likely present ☐ Instructed person ☐ Skilled person
Supply connection.....:	☐ AC mains ☐ DC mains ☒ not mains connected: ☒ ES1 ☐ ES2 ☐ ES3
Supply tolerance .....:	☐ +10%/-10% ☐ +20%/-15% ☐ + %/ - % ☒ None
Supply connection – type .....:	☐ pluggable equipment type A - ☐ non-detachable supply cord ☐ appliance coupler ☐ direct plug-in ☐ pluggable equipment type B - ☐ non-detachable supply cord ☐ appliance coupler ☐ permanent connection ☐ mating connector ☒ other: not directly connected to the mains
Considered current rating of protective device.....:	☐ A; Location: ☐ building ☐ equipment ☐ N/A
Equipment mobility .....:	☐ movable ☐ hand-held ☒ transportable ☐ direct plug-in ☐ stationary ☐ for building-in ☐ wall/ceiling-mounted ☐ SRME/rack-mounted ☐ other:
Overvoltage category (OVC) .....:	☐ OVC I ☐ OVC II ☐ OVC III ☐ OVC IV ☒ other: not directly connected to the mains
Class of equipment .....:	☐ Class I ☐ Class II ☒ Class III ☐ Not classified ☐
Special installation location .....:	☒ N/A ☐ restricted access area ☐ outdoor location ☐
Pollution degree (PD) .....:	☐ PD 1 ☒ PD 2 ☐ PD 3
Manufacturer's specified T_{ma}.....:	45 °C ☐ Outdoor: minimum °C
IP protection class .....:	☒ IPX0 ☐ IP___
Power systems .....:	☐ TN ☐ TT ☐ IT - V_{L-L} ☒ not AC mains
Altitude during operation (m) .....:	☐ 2000 m or less ☒ 5000 m
Altitude of test laboratory (m) .....:	☒ 2000 m or less ☐ m
Mass of equipment (kg) .....:	Approx. 0.024kg

Possible test case verdicts:

- test case does not apply to the test object....: N/A

- test object does meet the requirement.....: P (Pass)

- test object does not meet the requirement....: F (Fail)

Testing:

Date of receipt of test item .....: N/A

Date (s) of performance of tests.....: N/A

General remarks:

"(See Enclosure #)" refers to additional information appended to the report.
"(See appended table)" refers to a table appended to the report.

Throughout this report a ☐ comma / ☒ point is used as the decimal separator.

Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:

The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided .....:	☐ **Yes** ☒ **Not applicable**

When differences exist; they shall be identified in the General product information section.

Name and address of factory (ies) ..... :	LONGCHEER ELECTRONICS (HUIZHOU) CO. LIMITED No.28,Hechang Six Road(West), Zhongkai High Technology Zone, Huizhou, Guangdong, P.R. China

General product information and other remarks:

Product Description –

Refer to original report CN25FQ4U 001.

Description of change(s):

1. Correct the "Allowed T_{max} (°C)" of accessible part in Table 5.4.1.4, 9.3, B.1.5, B.2.6 due to typing error.

For the above described change(s) the following was considered to be necessary:

Change	Testing	Comments
1.	- N/A	Due to the test data is below the allow T_{max}, no further test is request. See Table 5.4.1.4, 9.3, B.1.5, B.2.6 for details.

History of amendments and modifications:

Ref. No. CN25FQ4U 001, dated 20.Feb.2025 (Original report)
Ref. No. CN25FQ4U 002, dated 23.Mar.2025 (Amendment)

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

5.4.1.4, 9.3, B.1.5, B.2.6	**TABLE: Temperature measurements**				P
Supply voltage (V)..... :	Operation mode 1: 5Vdc		Operation mode 2: 5Vdc		—
Ambient temperature during test T_{amb} (°C) .... :	See below	See below	See below	See below	—
Maximum measured temperature *T* of part/at:	*T* (°C)				Allowed T_{max} (°C)
Test with battery L3275 (Chongqing VDL Electronics Co., LTD.)					
PCB near U800	35.4	57.2	39.6	60.2	130
PCB near U401	33.6	55.4	38.5	59.1	130
PCB near U1701	36.3	58.1	40.2	60.8	130
PCB near U301	38.7	60.5	43.2	63.8	130
PCB near L500	36.5	58.3	40.1	60.7	130
Battery body	36.3	58.1	40.2	60.8	Ref.
Plastic enclosure inside near battery	34.4	56.2	37.8	58.4	Ref.
Ambient	23.2	Shift to 45.0	24.4	Shift to 45.0	--
Touch temperature for accessible part under normal condition					
Plastic enclosure outside near battery	31.7	33.5	35.8	36.4	**43**
Panel surface	29.4	31.2	37.0	37.6	**43**
Button	28.9	30.7	33.5	34.1	**43**
Ambient	23.2	Shift to 25.0	24.4	Shift to 25.0	--
	Operation mode 3				
PCB near U800	28.6	50.6	--	--	130
PCB near U401	28.3	50.3	--	--	130
PCB near U1701	28.5	50.5	--	--	130
PCB near U301	28.7	50.7	--	--	130
PCB near L500	28.4	50.4	--	--	130
Battery body	28.5	50.5	--	--	Ref.
Plastic enclosure inside near battery	27.6	49.6	--	--	Ref.
Ambient	23.0	Shift to 45.0	--	--	--
Touch temperature for accessible part under normal condition					
Plastic enclosure outside near battery	26.7	28.7	--	--	**43**

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Clause	Requirement + Test	Result - Remark	Verdict

Panel surface			29.9	31.9	--	--	**43**
Button			25.7	27.7	--	--	**43**
Ambient			23.0	Shift to 25.0	--	--	--
Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class
--	--	--	--	--	--	--	--
Supplementary information:							
Note 1: Tma should be considered as directed by appliable requirement							
Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9).							
Note 3: With a specified ambient temperature of 45°C. All recorded temperature have been calculated to ambient temperature 45°C. Temperature limits are calculated as follows: Components with maximum absolute temperature of others: - Tmax = Tmax of component							
Note 4: Details of all condition refer to Table B.2.5.							

5.4.1.4, 9.3, B.1.5, B.2.6	**TABLE: Temperature measurements**				P
Supply voltage (V)..... :	Operation mode 1: 5Vdc		Operation mode 2: 5Vdc		—
Ambient temperature during test T_{amb} (°C) .... :	See below	See below	See below	See below	—
Maximum measured temperature *T* of part/at:	*T* (°C)				Allowed T_{max} (°C)
Test with battery L3275 (Xinyu Ganfeng Electronics Co., LTD.)					
PCB near U800	31.6	53.4	38.7	58.8	130
PCB near U401	29.5	51.3	36	56.1	130
PCB near U1701	32.5	54.3	39.6	59.7	130
PCB near U301	34.6	56.4	42.2	62.3	130
PCB near L500	33.6	55.4	41	61.1	130
Battery body	32.3	54.1	40.3	60.4	Ref.
Plastic enclosure inside near battery	31.6	53.4	38.3	58.4	Ref.
Ambient	23.2	Shift to 45.0	24.9	Shift to 45.0	--
Touch temperature for accessible part under normal condition					
Plastic enclosure outside near battery	30.8	32.6	36.8	36.9	**43**
Panel surface	29.5	31.3	36.8	36.9	**43**

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Clause	Requirement + Test	Result - Remark	Verdict

Button	28.3	30.1	33.7	33.8	**43**
Ambient	23.2	Shift to 25.0	24.9	Shift to 25.0	--
	Operation mode 3				
PCB near U800	27.5	49.5	--	--	130
PCB near U401	27.2	49.2	--	--	130
PCB near U1701	28	50.0	--	--	130
PCB near U301	28	50.0	--	--	130
PCB near L500	28.3	50.3	--	--	130
Battery body	29.7	51.7	--	--	Ref.
Plastic enclosure inside near battery	27.9	49.9	--	--	Ref.
Ambient	23.0	Shift to 45.0	--	--	--
Touch temperature for accessible part under normal condition					
Plastic enclosure outside near battery	27.2	29.2	--	--	**43**
Panel surface	30.8	32.8	--	--	**43**
Button	27.3	29.3	--	--	**43**
Ambient	23.0	Shift to 25.0	--	--	--

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class
--	--	--	--	--	--	--	--

Supplementary information:

Note 1: Tma should be considered as directed by appliable requirement

Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9).

Note 3: With a specified ambient temperature of 45°C. All recorded temperature have been calculated to ambient temperature 45°C. Temperature limits are calculated as follows:

Components with maximum absolute temperature of others:

- Tmax = Tmax of component

Note 4: Details of all condition refer to Table B.2.5 of original report CN25FQ4U 001.

List of test equipment used:

A completed list of used test equipment shall be provided in the Test Reports when a Customer's Testing Facility according to CTF stage 1 or CTF stage 2 procedure has been used.
Note: This page may be removed when CTF stage 1 or CTF stage 2 are not used. See also clause 4.8 in OD 2020 for more details.

Clause	Measurement / testing	Testing / measuring equipment / material used, (Equipment ID)	Range used	Last Calibration date	Calibration due date

Statement of Measurement Uncertainty

The Test Report shall include a statement concerning the uncertainty of the measurement systems used for the tests conducted when it is required by the standard, client or other authorities.
In such cases, the table below is to be used for reporting U of M.

This page may be removed from the final Test Report when not required. See also clause 4.8 in OD 2020 for more details.

Clause #	Parameter/ Measurement / test method	Requirement % or k	Calculated U of M*

*Note: Calculations leading to the reported value are on file with the NCB