

TEST REPORT

Report No.: BCTC2501816634B

Applicant: Shenzhen shangu innovation technology
co., ltd

Product Name: LED Matrix Panel



Test Model: Main Model: HRP-1696
Series Model see page 2 for detail.

Tested Date: 2025-01-16 To 2025-01-23

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Shenzhen BCTC Testing Co., Ltd.

Products Incorporating Button Batteries or Coin Cell Batteries ANSI/UL 4200A: 2023			
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Test Date	From 2025-01-16 To 2025-01-23		
Applicant Name & Address	Shenzhen shangu innovation technology co., ltd 3rd Floor, Building A, Factory Building, Zhixuanhan Industrial Park, Yuanling Road, Shangwu Community, Shiyuan Street, Baoan District, Shenzhen, China		
Manufacturer Name & Address	Same as applicant.		
Product Name	LED Matrix Panel		
Product Model	Main Model: HRP-1696, Series Model: HRP-1632, HRP-1664, HRP-2064, HRP-1696PLUS, HRP-16144, HRP-16144D, HRP-16192, HRP-16192D, HRP-16128, HRP-16256, HRP-1648, HRP-16224, HRP-16288.		
Battery is intended to be replaceable by the user	<input checked="" type="checkbox"/> YES		<input type="checkbox"/> NO
Enclosure Type	<input type="checkbox"/> Metal	<input checked="" type="checkbox"/> Plastic	<input type="checkbox"/> Others:
Packing Garding	<input checked="" type="checkbox"/> Corrugated Carton	<input type="checkbox"/> Wood Carton	<input type="checkbox"/> Others:
Sample size	85.6*39.5*6.6mm		
Testing Laboratory & Address	Shenzhen BCTC Testing Co., Ltd. 1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Zhancheng, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China		
Other Remark	P = Pass, F = Fail, N/A = Not Applicable		
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Tested by (Name, Function, Signature)	 (Ivy Wei , Project handler)		
Approved by (Name, Function, Signature)	 (Andre Yu , Supervisor)		

SHENZHEN BCTC TESTING CO., LTD.

Products Incorporating Button Batteries or Coin Cell Batteries ANSI/UL 4200A: 2023			
5	PRODUCTS WITH BUTTON/COIN CELL BATTERIES		
5.1	Products that use button/coin cell batteries shall be designed to minimize the risk of children removing and ingesting or aspirating the batteries		P
	Products that allow user removal or replacement of button/coin cells shall comply with requirements 5.2 – 5.6; OR		P
	Products with button/coin cells that are not intended to allow user removal/replacement shall comply with 5.7		N/A
5.2	Button/coin cell battery protected against contact from probe.		P
5.3	Probe applied to any depth permitted via openings and rotated or angled throughout insertion to examine the enclosure.		P
5.4	Parts of the enclosure that may be opened or removed by the user without a tool or with less effort that two movements by hand are to be opened and removed.		P
5.5	Products with removeable or replaceable button/coin cell battery inside a battery compartment shall be designed to prevent child by one of the following methods:		P
	a) A tool, such as a screwdriver or monetary coin, is required to open the battery compartment. For a battery compartment secured by a screw or a twist-on access cover, a minimum torque of 0.5 Nm and a minimum angle of 90 degrees of rotation shall be required to open the compartment or the fastener shall engage a minimum of two full threads; or		P
	b) The battery compartment door or cover requires the application of a minimum of two independent and simultaneous movements to open by hand.		P
5.6	If screws or similar fasteners are used to secure the door or cover, the fasteners shall be captive to the door, cover, or device.		P
5.7	Products incorporating button/coin cells not intended for user removal or replacement shall effectively prevent remove of the battery. The button/coin cell shall be:		N/A
	a) Made inaccessible by an enclosure or similar means which passes tests of 6.2 and 6.3; or		
	b) Held fully captive using soldering, fasteners or equivalent means and shall pass test 6.4		
6	PROTECTION FROM INGESTION OR ASPIRATION OF BUTTON/COIN CELL BATTERIES		
6.1	General		P
6.1.1	Products shall not present a risk of unintentional access by children to button/coin cells. Button/coin cell batteries shall not be accessible or liberated from the product as a result of mechanical abuse tests in applicable safety standards for the product, and products with button/coin cells shall comply with the tests in 6.2 – 6.4.		P
6.2	Pre-conditioning		P
6.2.1	Pre-conditioning conditions		P
	a) Stress relief test - Sample of complete product placed in oven for a period of 7 h. Then permitted to cool to room temperature		P

	b) Battery Replacement Test - Battery replaced a total often times, adhering to manufacturer's instructions.		P
6.3	Abuse tests		-
6.3.1	General		P
6.3.2	Drop test for portable devices		P
6.3.3	Impact test		P
6.3.4	Crush test		P
6.3.5	Compliance		P
6.3.5.1	After the test Probe with >50N force was applied to the battery compartment door/cover or enclosure, the battery compartment door/cover shall not open and remain functional and the battery shall not be accessible		P
6.4	Secureness test		N/A
7	GENERAL		-
7A	General		-
7A.1	Warning statements or icons are prominent, legible, easily discernable under normal lighting conditions, and permanently marked.		P
7A.2	Instructional safeguards are not in multiple colors, unless otherwise specified.		P
	When instructional safeguard are in more than one color to indicate hazard severity, the color shall be in accordance with the ISO 3864 series.		P
7A.3	Printed or screened markings are permanent.		P
7A.4	Legibility of markings.		P
	Permanency of markings		P
7A.5	Markings are in the official language(s) of the country where the product is sold or in English if there is no official language(s).	English	P
7A.6	When used, the safety alert symbol precedes the signal word.		P
	The base of the safety alert symbol is on the same horizontal line as the base of the letters of the signal word.		P
	The height of the safety alert symbol is equal or exceed the signal word letter height.		P
7A.7	Certain text in the message panel must be in bold and in capital letters.		P
7A.8	For labels that are provided on a sticker, hang tag, instructions or manual, the safety alert symbol and the signal word "WARNING" is at least 0.2 in (5 mm) high. The remainder of the text is in characters whose upper case are at least 0.1 in (2.5 mm), except where otherwise specified.		N/A
7A.9	For labels that are required to be on the packaging of consumer products and directly on consumer products, text size is dependent on the area of the principal display panel. Text size is determined based on Table 7A.1.	PDP: 5.18 in ²	P
7B	Packaging Markings		P
7B.1	Except as allowed in 7B.2 and 7B.3, the principal display panel contains the warning label in Figure 7B.1 or Figure 7B.2.		P

	The icon in Figure 7B.1 is at least 7 mm in width and 9 mm in height.		P
	The icon in Figure 7B.2 is at least 8 mm (0.31 in) in diameter.		N/A
	The text in the warning label is as shown in Figure 7B.1 or Figure 7B.2. When on a printed label using more than one color the marking uses colors as shown in Figure 7B.1 or Figure 7B.2.		P
7B.2	Consumer products not contained in packaging have the warning label in Figure 7B.1 or Figure 7B.2 affixed to the consumer product with a hang tag or a sticker label.		N/A
7B.3	When there is not enough space on the principal display panel of the consumer product packaging as per Figure 7B.1 or Figure 7B.2, the principal display panel includes the warning in Figure 7B.3 in a conspicuous location.		N/A
	The icon is at least 7 mm in width and 9 mm in height.		N/A
	The remaining warning statements are on a secondary display panel, as shown in Figure 7B.4.		N/A
	The text in the warning labels is as shown in Figure 7B.3 and Figure 7B.4.		N/A
	When on a printed label using more than one color the marking uses colors as shown in Figure 7B.3 and Figure 7B.4		N/A
7B.4	The principal display panel or secondary display panel of the consumer product packaging, or if there is no consumer product packaging, the accompanying hang tag or sticker label, includes the following text:		N/A
	a) For products with non-replaceable batteries, include a statement indicating the product contains non-replaceable batteries;		N/A
	b) Battery type; and	CR2032	P
	c) Nominal voltage.	3.0V	P
7C	Product Markings		P
7C.1	Except as provided in 7C.2 and 7C.3, consumer products are marked with a warning label on the product display panel that alerts the consumer of the presence of a button cell or coin battery.		N/A
	The warning text includes the safety alert symbol, signal word, and text, as shown in Figure 7C.1.		N/A
	When on a printed label using more than one color the marking uses the color as shown in Figure 7C.1.		N/A
7C.2	When space on the product is limited, use the "Warning: contains coin battery" icon shown in Figure 7C.2, without text.		P
	The icon is at least 7 mm in width and 9 mm in height and is on the product display panel.		P
	When on a printed label using more than one color the marking uses the color as shown in Figure 7C.2.		P
	The icon is defined in accompanying printed materials such as instructions, manual, insert, or hangtag.		P
7C.3	When the product itself is too small to include the warning with text in Figure 7C.1 or the icon in Figure 7C.2, the product:		N/A

	a) Has packaging containing the warning label following the requirements in Section 7B, Packaging Markings; or		N/A
	b) Contains a hangtag or sticker label with the full warning label using requirements in Section 7B, Packaging Markings.		N/A
7D	Permanence of Markings		P
9	General		P
9.1	Instructions and manuals, if provided, include all of the applicable markings in Figure 7B.1 or Figure 7B.2 and the statements noted below.		P
	When instructions and manuals are not provided, the statements is present on the principal display panel or secondary display panel of the consumer product packaging, or if there is no consumer product packaging, the accompanying hang tag or sticker label.		N/A
	a) The statement "Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children. Do NOT dispose of batteries in household trash or incinerate."		P
	b) The statement "Even used batteries may cause severe injury or death."		P
	c) The statement "Call a local poison control center for treatment information."		P
	d) A statement indicating the compatible battery type (e.g., LR44, CR2032).		P
	e) A statement indicating the nominal battery voltage.		P
	f) The statement "Non-rechargeable batteries are not to be recharged."		P
9.2	g) The statement "Do not force discharge, recharge, disassemble, heat above (manufacturer's specified temperature rating) or incinerate. Doing so may result in injury due to venting, leakage or explosion resulting in chemical burns."		P
	Products with replaceable button/coin cell batteries additionally includes:		P
	a) The statement "Ensure the batteries are installed correctly according to polarity (+ and -)."		P
	b) The statement "Do not mix old and new batteries, different brands or types of batteries, such as alkaline, carbon-zinc, or rechargeable batteries."		P
	c) The statement "Remove and immediately recycle or dispose of batteries from equipment not used for an extended period of time according to local regulations."		P
9.3	d) The statement "Always completely secure the battery compartment. If the battery compartment does not close securely, stop using the product, remove the batteries, and keep them away from children."		P
	Products with non-replaceable button/coin cell batteries additionally includes a statement indicating the product contains non-replaceable batteries.		N/A

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Photo Documentation



STATEMENT

1. The equipment lists are traceable to the national reference standards.
2. The test report can not be partially copied unless prior written approval is issued from our lab.
3. The test report is invalid without the "special seal for inspection and testing".
4. The test report is invalid without the signature of the approver.
5. The test process and test result is only related to the Unit Under Test.
6. Sample information is provided by the client and the laboratory is not responsible for its authenticity.
7. The quality system of our laboratory is in accordance with ISO/IEC17025.
8. If there is any objection to this test report, the client should inform issuing laboratory within 15 days from the date of receiving test report.

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