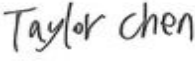
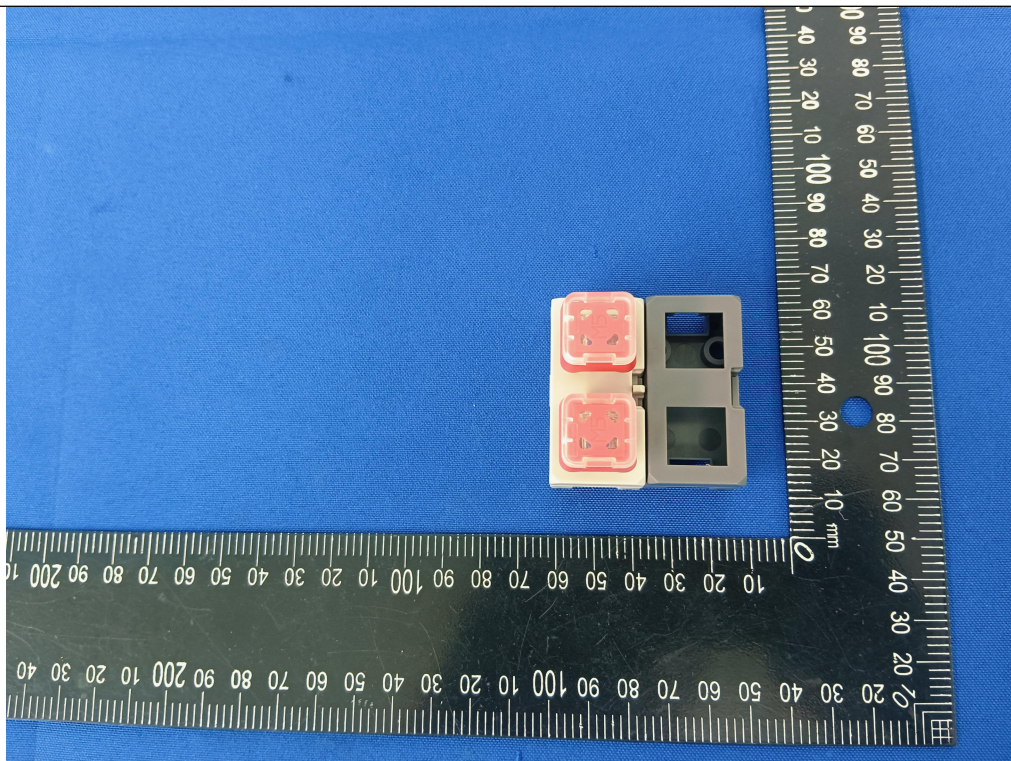


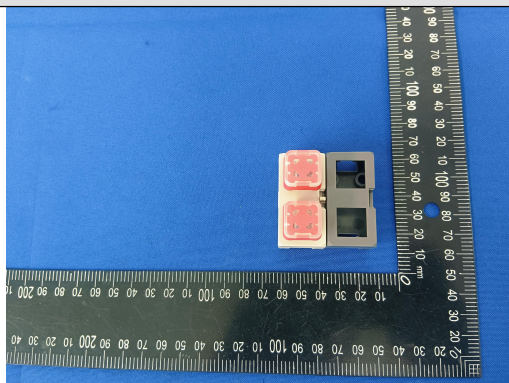
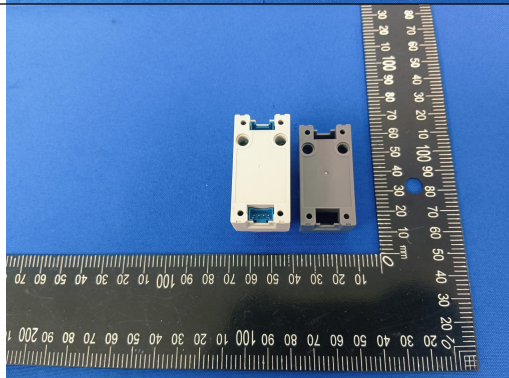
Test Report WEEE	
Report Reference No.	AiTSZ-250902004WE
Date of issue	2025-09-29
Total number of pages	7 pages
Testing Laboratory name	Guangdong Asia Hongke Test Technology Limited
Address	Room B1101, Building 11, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Testing location	Same as above
Applicant's name	M5Stack Technology Co., Ltd
Address	Block A10, Expo Bay South Coast, Fuhai Street, Bao'an District, Shenzhen, China
Manufacturer's name	M5Stack Technology Co., Ltd
Address	Block A10, Expo Bay South Coast, Fuhai Street, Bao'an District, Shenzhen, China
Test specification:	
Test Requirement	Disassembly instructions according to the WEEE Directive 2012/19/EU (Recasting 2002/96/EC) Article 4,11,15(2) & Annex V
Product category in WEEE	Category 3: IT and computer equipment
Test Object	
Description	M5DualKey
Brand Name	 M5STACK
Model and/or type reference	DualKey
Serial number	ESP-DualKey
Ratings	Input: 5.0V $\overline{\text{---}}$ 0.5A
Conclusion	Compliant
Tested by (+ signature)	Green Zhang 
Approved by (+ signature)	Taylor Chen 
	
Testing	
Date of receipt of test item	2025-09-02
Date(s) of performance of test	2025-09-02 to 2025-09-08

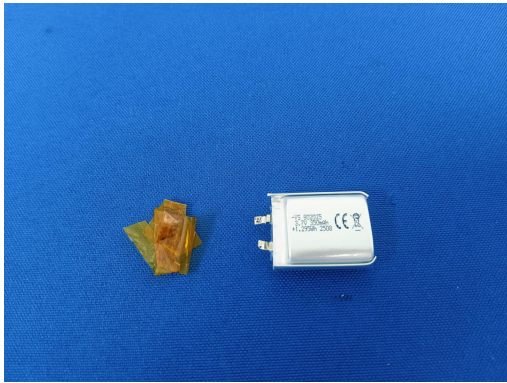
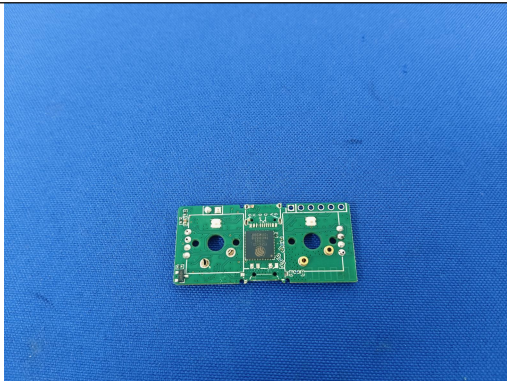
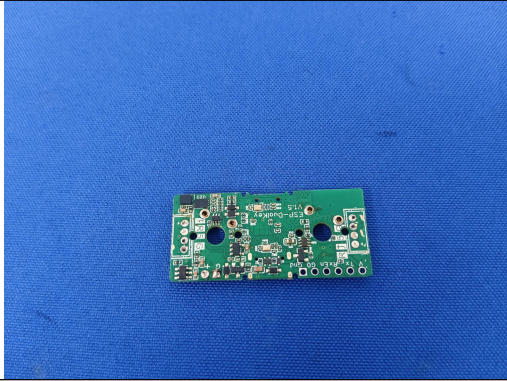
1. Tested sample information

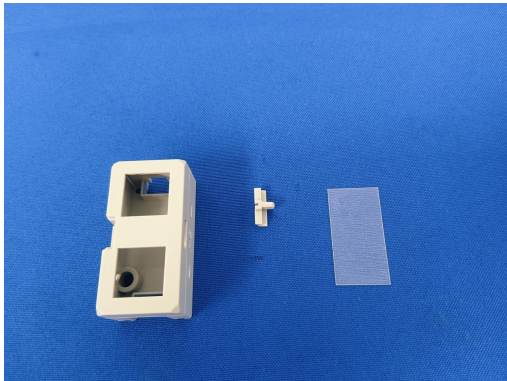
Sample photo	
	
Marking on sample	
M5DualKey Model: DualKey Input: 5.0V --- 0.5A     M5STACK M5Stack Technology Co., Ltd MADE IN CHINA	
Product Weight	15.7g
Product Size	24mm*16mm*10mm

Evaluation results

1.1 Material and recycling information:

Item Name	Material Description	Photo	Weight (g)	Reuse/Recycling & Recoverable
Shell	Plastic shell		275.3	Reuse/Recycling & Recoverable
	Plastic shell		67.2	Reuse/Recycling & Recoverable

Battery	Li-ion Battery		\	See the note
PCB	Green PCB with EC		\	See the note, (17mm*14mm) >10cm ²
PCB	Green PCB with EC		0.7	Not recoverable

Part	Silvery metal screw		5.1	Reuse/Recycling & Recoverable
	Black rubber piece			Reuse/Recycling & Recoverable
	Silvery magnetic bar		0.5	Not recoverable
Wire	Black ribbon cable plastic jacket		4.7	Reuse/Recycling & Recoverable
	Copper wire			Reuse/Recycling & Recoverable
	Red ribbon cable plastic jacket			Reuse/Recycling & Recoverable
	Copper wire			Reuse/Recycling & Recoverable
Part	Silvery metal plate		3.7	Reuse/Recycling & Recoverable
	Silvery metal bar			Reuse/Recycling & Recoverable
	Black adhesive tape		0.7	Reuse/Recycling & Recoverable
	Pale-grey Sponge		5.2	Recoverable

Note:

— According to Directive 2012/19/EU(recasting2002/96/EC) Article 8<Proper treatment>, the 2nd : “Proper treatment, other than preparing for re-use, and recovery or recycling operations shall, as a minimum, include the removal of all fluids and selective treatment in accordance with Annex VII.”(Annex VII, point 1, As a minimum the following substances, mixtures and components have to be removed from any separately collected WEEE:-printed circuit boards of mobile phones generally, and of other devices if the surface of the printed circuit board is greater than 10 square centimetres.)

— According to EU directive 2013/56/EU Article 12<Treatment and recycling>, the 3rd : “Where batteries or accumulators are collected together with waste electrical and electronic equipment on the basis of Directive 2012/19/EU(recasting2002/96/EC),batteries or accumulators shall be removed from the collected waste electrical and electronic equipment.

1.2 Theoretical recovery rate

Item name	Recoverable rate (%)	Reuse /recycling rate (%)
M5DualKey	80.2%	78.7%
Requirement of Category 3*	80%	70%
Conclusion	PASS	PASS

Note:

—“g” denotes gram

—“*”According to EU Directive 2012/19/EC Annex V

—“%”means percentage by weight

— Due to their insignificant weight and the difficulty of their separation in manual operation, sticker, solder, paint and printing materials are not included in this assessment

2. Conformity of WEEE marking(s):

Evaluate the sample according to EU directive 2012/19/EU Article 15(2) & EN50419: 2006

Item No.	Requirement	Evaluation Result	Conclusion
1	Unique identification of producer provided e.g. by brand name, trade mark, company registration number etc.	Brand name, trade mark was found	PASS
2	Date of manufacturing or date of product release to the market(coded or un-coded text)or indicated by an additional solid bar under the crossed wheel bin	Solid bar was found	PASS
3	Proper dimension of marking as prescribed in the standard EN54019:2006	Marking was found	PASS
4	The marking shall be accessible, durable, legible and indelible	Marking is accessible. legible, durable and indelible	PASS
5	Location of marking shall be on: 1) The product or 2) A flag on the fixed supply cord and in the operating instructions and warranty certificates included with the product If none of the above applies then the marking shall be on the packaging	Marking is located on product	PASS

3. WEEE Article 4-product design

Requirement	Design and production of electrical and electronic equipment which take into account and facilitate dismantling and recovery of the components and materials. The design features or manufacturing processes do not prevent the product from being reused
Disassembly Tools	Cross-head Screwdriver, Straight screwdriver, Pruning shears
Disassembly Time(s)	69 Minutes
Evaluation Result	Different parts can be separated easily
Conclusion	PASS

4. Annex VII of WEEE directive—Material and Components To Be Selective Treated

As a minimum the following substances, mixtures and components have to be removed from any separately collected WEEE

- Polychlorinated biphenyls (PCB) containing capacitors in accordance with Council Directive 96/59/EC of 16 September 1996 on the disposal of polychlorinated biphenyls and polychlorinated terphenyls (PCB/PCT) (1).
- Mercury containing components, such as switches or backlighting lamps.
- Batteries.
- Printed circuit boards of mobile phones generally, and of other devices if the surface of the printed circuit board is greater than 10 square centimetres.
- Toner cartridges, liquid and paste, as well as colour toner.
- Plastic containing brominated flame retardants.
- Asbestos waste and components which contain asbestos.
- Cathode ray tubes.
- Chlorofluorocarbons (CFC), hydrochlorofluorocarbons (HCFC) or hydrofluorocarbons (HFC), hydrocarbons (HC).
- Gas discharge lamps.
- Liquid crystal displays (together with their casing where appropriate) of a surface greater than 100 square centimetres and all those back-lighted with gas discharge lamps.
- External electric cables.
- Components containing refractory ceramic fibres as described in Commission Directive 97/69/EC of 5 December 1997 adapting to technical progress for the 23rd time Council Directive 67/548/EEC on the approximation of the laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances (2).
- Components containing radioactive substances with the exception of components that are below the exemption thresholds set in Article 3 of and Annex I to Council Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionizing radiation (3).
- Electrolyte capacitors containing substances of concern (height > 25 mm, diameter > 25 mm or proportionately similar volume).

The following components of WEEE that is separately collected have to be treated as indicated:

- Cathode ray tubes: the fluorescent coating has to be removed.
- Equipment containing gases that are ozone depleting or have a global warming potential (GWP) above 15, such as those contained in foams and refrigeration circuits: the gases must be properly extracted and properly treated. Ozone-depleting gases must be treated in accordance with Regulation (EC) No 1005/2009.
- Gas discharge lamps: the mercury shall be removed.

* * * * * **End of Report** * * * * *