TEST REPORT

Report No.: 2601R49543E Date: May 12, 2026 Page 1 of 9

M5Stack Technology Co., Ltd
Block A10, Expo Bay South Coast,Fuhai Street, Bao'an District,Shenzhen,Guangdong,China

Report on the submitted samples said to be:

Sample Description:	M5Atom Matrix V1.1
Style/Item No.:	Atom Matrix V1.1
Sample Receiving Date:	March 24, 2026
Testing Period:	March 24, 2026 - April 17, 2026
Result:	**Please refer to next page(s).**

Signed for and on behalf of

BACL

Checked by: Queenie Lee

Approved by: Len Xie

TEST REPORT

****

Summary of Test Result:

TEST REQUEST	**CONCLUSION**
A RoHS Directive 2011/65/EU and amendment directives (EU) 2015/863 on Lead,Cadmium, Mercury, Hexavalent Chromium, PBBs & PBDEs, Phthalates(DBP, BBP,DEHP, DIBP) content	Pass
A.1 XRF screening test	Please refer to next page(s).
A.2 Wet Chemical Testing	
A.2.1 PBBs & PBDEs content	Pass
A.3 Phthalates(DBP, BBP, DEHP, DIBP)content	Pass

****

A RoHS Directive 2011/65/EU and amendment directives (EU) 2015/863 on Lead,Cadmium, Mercury, Hexavalent Chromium, PBBs & PBDEs, Phthalates(DBP, BBP,DEHP, DIBP) content

A.1 XRF screening test

Test method: IEC 62321-3-1:2013

Seq No.	Tested Part(s)	Result				
		Pb	Cd	Hg	Cr	Br
(1)	Gray plastic(cover)	BL	BL	BL	BL	BL
(2)	Black plastic(cap)	BL	BL	BL	BL	BL
(3)*1	Golden metal(nut, cover)	OL (22891)	BL	BL	BL	---
(4)	Brown clear plastic with coppery metal(FPC)	BL	BL	BL	BL	BL
(5)	Black plastic with adhesive(pad, LED PCB)	BL	BL	BL	BL	BL
(6)	Black body(IC, LED PCB)	BL	BL	BL	BL	BL
(7)	Black body(SMD resistor, LED PCB)	BL	BL	BL	BL	BL
(8)	Brown body(SMD capacitor, LED PCB)	BL	BL	BL	BL	BL
(9)	Clear/body(SMD LED, LED PCB)	BL	BL	BL	BL	BL
(10)*	White printed black coated beige plastic with coppery metal(LED PCB)	BL	BL	BL	BL	X
(11)	Silvery solder(SMT, LED PCB)	BL	BL	BL	BL	---
(12)	Silvery solder(SMT, LED PCB)	BL	BL	BL	BL	---
(13)	Silvery metal(cover, Type-c socket, main PCB)	BL	BL	BL	BL	---
(14)	Gray plastic(pin holder, Type-c socket, main PCB)	BL	BL	BL	BL	BL
(15)	Silvery metal(pin, Type-c socket, main PCB)	BL	BL	BL	BL	---
(16)	Off-white plastic(pin holder, socket, main PCB)	BL	BL	BL	BL	BL
(17)	Silvery metal(pin, socket, main PCB)	BL	BL	BL	BL	---
(18)	Silvery metal(stator, socket, main PCB)	BL	BL	BL	BL	---
(19)	Black plastic(pin holder, small connector, main PCB)	BL	BL	BL	BL	BL
(20)	Silvery metal(contact chip, small connector, main PCB)	BL	BL	BL	BL	---
(21)	Black plastic(pin holder, big connector, main PCB)	BL	BL	BL	BL	BL
(22)	Silvery metal(contact chip, big connector, main PCB)	BL	BL	BL	BL	---
(23)	Silvery metal(cover, button switch, main PCB)	BL	BL	BL	BL	---
(24)	Black plastic(button, button switch, main PCB)	BL	BL	BL	BL	BL
(25)	Yellow clear plastic with adhesive(sticker, button switch, main PCB)	BL	BL	BL	BL	BL
(26)	Silvery metal(clips, button switch, main PCB)	BL	BL	BL	BL	---

TEST REPORT

Report No.: 2601R49543E Date: May 12, 2026

Seq No.	Tested Part(s)	Result				
		Pb	Cd	Hg	Cr	Br
(27)	Black plastic(contact chip holder, button switch, main PCB)	BL	BL	BL	BL	BL
(28)	Silvery metal(contact chip, button switch, main PCB)	BL	BL	BL	BL	---
(29)	Yellow clear plastic with adhesive(sticker, side button switch, main PCB)	BL	BL	BL	BL	BL
(30)	Silvery metal(cover, side button switch, main PCB)	BL	BL	BL	BL	---
(31)	Black plastic(button, side button switch, main PCB)	BL	BL	BL	BL	BL
(32)	Silvery metal(clips, side button switch, main PCB)	BL	BL	BL	BL	---
(33)	Black plastic(contact chip holder, side button switch, main PCB)	BL	BL	BL	BL	BL
(34)	Silvery metal(contact chip, side button switch, main PCB)	BL	BL	BL	BL	---
(35)	Silvery metal(antenna, main PCB)	BL	BL	BL	BL	---
(36)	Black body(square IC, main PCB)	BL	BL	BL	BL	BL
(37)	Black body(big rectangle IC, main PCB)	BL	BL	BL	BL	BL
(38)	Black body(small rectangle IC, main PCB)	BL	BL	BL	BL	BL
(39)	Black/white body(SMD resistor, main PCB)	BL	BL	BL	BL	BL
(40)	Black body(SMD resistor, main PCB)	BL	BL	BL	BL	BL
(41)	Brown body(SMD capacitor, main PCB)	BL	BL	BL	BL	BL
(42)	Black body(SMD inductor, main PCB)	BL	BL	BL	BL	BL
(43)	Black body(SMD triode, main PCB)	BL	BL	BL	BL	BL
(44)	Black body(SMD diode, main PCB)	BL	BL	BL	BL	BL
(45)	Blue/black body(SMD EC, main PCB)	BL	BL	BL	BL	BL
(46)	Clear/white body(SMD LED, main PCB)	BL	BL	BL	BL	BL
(47)*	White printed black coated beige plastic with coppery metal(main PCB)	BL	BL	BL	BL	X
(48)	Silvery solder(SMT, main PCB)	BL	BL	BL	BL	---
(49)	Silvery solder(THT, main PCB)	BL	BL	BL	BL	---

Note:
--- = Not Applicable.
* = Screening by XRF and detected by chemical method. The test result of chemical method please refer to next pages.
*1 = According to the material declaration provided by the client, the sample of test No. 3 is exempted accordance with Annex III 6(c) of directive 2011/65/EU. The exempt items of Annex III 6(c) of directive 2011/65/EU: Copper alloy containing up to 4% lead by weight.

Remark:

i Result were obtained by XRF for primary screening, and further chemical testing by ICP (for Cd, Pb, Hg), UV-Vis (for Cr(VI)) and GC-MS (for PBBs, PBDEs) are recommended to be performed, if the concentration exceeds the below warning value according to IEC62321-3-1:2013.

Element	Unit	Polymers	Metal	Composite Material
Cd	mg/kg	BL≤70-3σ<X <130+3σ≤OL	BL≤70-3σ<X <130+3σ≤OL	BL≤50-3σ<X <150+3σ≤OL
Pb	mg/kg	BL≤700-3σ<X <1300+3σ≤OL	BL≤700-3σ<X <1300+3σ≤OL	BL≤500-3σ<X <1500+3σ≤OL
Hg	mg/kg	BL≤700-3σ<X <1300+3σ≤OL	BL≤700-3σ<X <1300+3σ≤OL	BL≤500-3σ<X <1500+3σ≤OL
Cr	mg/kg	BL≤700-3σ<X	BL≤700-3σ<X	BL≤500-3σ<X
Br	mg/kg	BL≤300-3σ<X	--	BL≤250-3σ<X

Note:
BL = Below Limit
OL = Over Limit
IN/X = Inconclusive (questionable, need further chemical analysis)

ii The XRF screening test for RoHS elements – The reading may be different to the actual content in the sample be of non-uniformity composition.

iii The maximum permissible limit is quoted from the RoHS directive 2011/65/EU:

Restricted Substances	Maximum Concentration Value (mg/kg) (by weight in homogenous materials)
Cadmium (Cd)	100
Lead (Pb)	1000
Mercury (Hg)	1000
Hexavalent Chromium (Cr(VI))	1000
Polybrominated biphenyls (PBBs)	1000
Polybrominated diphenylethers (PBDEs)	1000

Disclaimers:

This XRF Screening report is for reference purposes only. The applicant shall make its/his/her own judgment as to whether the information provided in this XRF screening report is sufficient for its/his/her purposes.

The result shown in this XRF screening report will differ based on various factors, including but not limited to, the sample size, thickness, area, surface flatness, equipment parameters and matrix effect (e.g. plastic, rubber, metal, glass, ceramic etc.). Further wet chemical pre-treatment with relevant chemical equipment analysis are required to obtain quantitative data.

A.2 Wet Chemical Testing

A.2.1 PBBs & PBDEs content

Test method: IEC 62321-6:2015

Item	Unit	MDL	Result		Limit
			(10)	(47)	
Monobromobiphenyl (MonoBB)	mg/kg	50	N.D.	N.D.	-
Dibromobiphenyl(DiBB)	mg/kg	50	N.D.	N.D.	-
Tribromobiphenyl(TriBB)	mg/kg	50	N.D.	N.D.	-
Tetrabromobiphenyl(TetraBB)	mg/kg	50	N.D.	N.D.	-
Pentabromobiphenyl(PentaBB)	mg/kg	50	N.D.	N.D.	-
Hexabromobiphenyl(HexaBB)	mg/kg	50	N.D.	N.D.	-
Heptabromobiphenyl (HeptaBB)	mg/kg	50	N.D.	N.D.	-
Octabromobiphenyl(OctaBB)	mg/kg	50	N.D.	N.D.	-
Nonabromobiphenyl(NonaBB)	mg/kg	50	N.D.	N.D.	-
Decabromobiphenyl(DecaBB)	mg/kg	50	N.D.	N.D.	-
Monobromodiphenyl ether (MonoBDE)	mg/kg	50	N.D.	N.D.	-
Dibromodiphenyl ether (DiBDE)	mg/kg	50	N.D.	N.D.	-
Tribromodiphenyl ether (TriBDE)	mg/kg	50	N.D.	N.D.	-
Tetrabromodiphenyl ether (TetraBDE)	mg/kg	50	N.D.	N.D.	-
Pentabromodiphenyl ether (PentaBDE)	mg/kg	50	N.D.	N.D.	-
Hexabromodiphenyl ether (HexaBDE)	mg/kg	50	N.D.	N.D.	-
Heptabromodiphenyl ether (HeptaBDE)	mg/kg	50	N.D.	N.D.	-
Octabromodiphenyl ether (OctaBDE)	mg/kg	50	N.D.	N.D.	-
Nonabromodiphenyl ether (NonaBDE)	mg/kg	50	N.D.	N.D.	-
Decabromodiphenyl ether (DecaBDE)	mg/kg	50	N.D.	N.D.	-

Item	Unit	MDL	Result		Limit
			(10)	(47)	
sum of MonoBDE,DiBDE,TriBDE,TetraBDE,PentaBDE,HexaBDE,HeptaBDE,OctaBDE,NonaBDE,DecaBDE	mg/kg	-	N.D.	N.D.	1000
sum of MonoBB,DiBB,TriBB,TetraBB,PentaBB,HexaBB,HeptaBB,OctaBB,NonaBB,DecaBB	mg/kg	-	N.D.	N.D.	1000
Conclusion	/	/	**Pass**	**Pass**	/

A.3 Phthalates(DBP, BBP, DEHP, DIBP)content

Test method: IEC 62321-8:2017

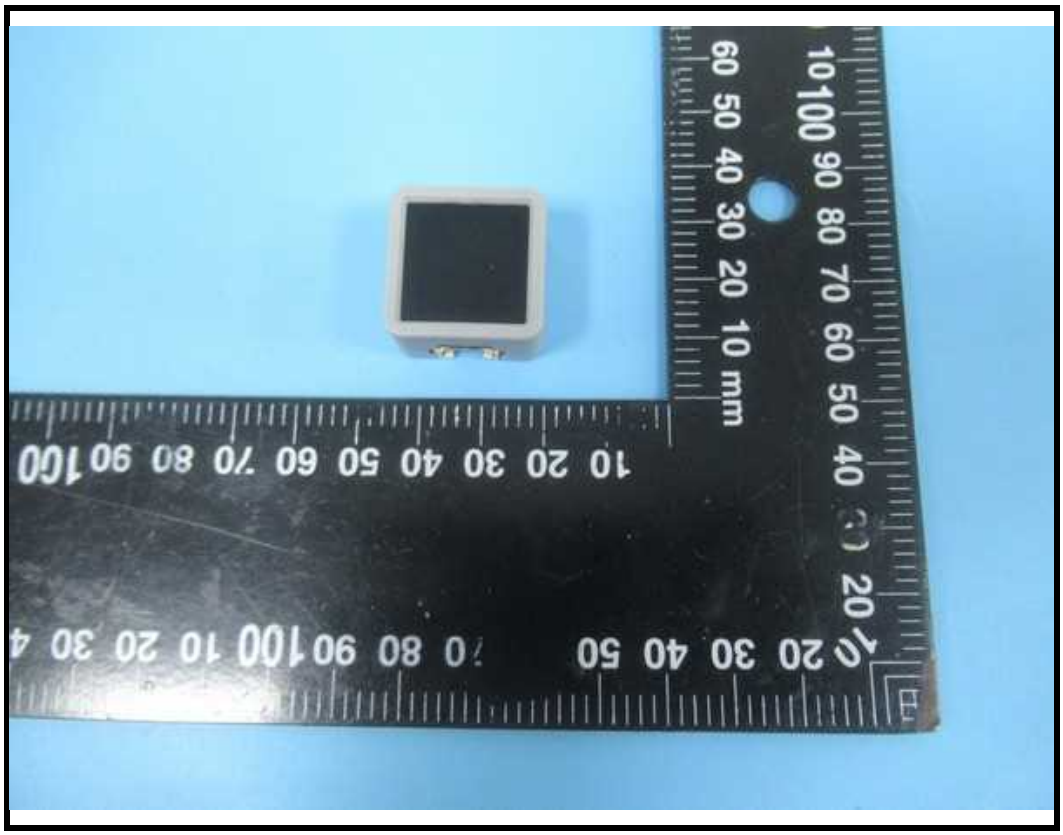
Item	Unit	MDL	Result						Limit
			(1)+(2)	(4)+(10)+(47)	(5)	(6)+(7)+(8)	(9)+(45)+(46)	(14)+(16)	
Dibutyl Phthalate(DBP)	mg/kg	30	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1000
Benzyl Butyl Phthalate(BBP)	mg/kg	30	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1000
Bis-(2-ethylhexyl) Phthalate (DEHP)	mg/kg	30	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1000
Diisobutyl phthalate(DIBP)	mg/kg	30	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1000
Conclusion	/	/	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	/

Item	Unit	MDL	Result						Limit
			(19)+(21)+(24)	(25)+(29)	(27)+(31)+(33)	(36)+(37)+(38)	(39)+(40)+(41)	(42)+(43)+(44)	
Dibutyl Phthalate(DBP)	mg/kg	30	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1000
Benzyl Butyl Phthalate(BBP)	mg/kg	30	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1000
Bis-(2-ethylhexyl) Phthalate (DEHP)	mg/kg	30	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1000
Diisobutyl phthalate(DIBP)	mg/kg	30	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	1000
Conclusion	/	/	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	/

Note:
- N.D.= Not Detected or less than MDL
- MDL = Method Detection Limit
- "+" = Composite testing.
-The Result less than MDL are not taken into account while calculating the sum contents.

****

Photograph of Sample



BACL authenticate the photo on original report only

TEST REPORT

Statement:

1.This report cannot be reproduced except in full, without prior written approval of the Company.
2.Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.
3.This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.
4.Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.
5.The information which provided by the applicant, such as sample description, sample name, material component, style/item No. , P.O. No. , manufacturer, age phase, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report.
6.The test samples were in good condition before testing.

*** End of Report ***