TEST REPORT

Report No.: 2402Z107564E Date: March 10, 2025 Page 1 of 11

D-ROBOTICS HOLDING LIMITED
SUITE 603，6/F LAWS COMM PLAZA 788 CHEUNG SHA WAN RD KLN HONG KONG

Report on the submitted samples said to be:

Sample Description:	RDK X5
Tested Model(s):	RDK X5 8G,RDK X5 4G
Sample Receiving Date:	December 02,2024
Testing Period:	December 02,2024 - March 03,2025
Result:	Please refer to next page(s).

Signed for and on behalf of

BACL

Checked by: _____ Chevy Feng

Approved by: _____ Jeff Duan

Bay Area Compliance Laboratories Corp. (Dongguan)
No. 12, Pulong East 1st Road, Tangxia Town, Dongguan, Guangdong, China
Tel: +86-769-86858888 Fax: +86-769-86858891

TEST REPORT

Summary of Test Result:

TEST REQUEST	CONCLUSION
A RoHS Directive 2011/65/EU and its amendment directives (EU) 2015/863	Pass
A.1 XRF screening test	Please refer to next page(s).
A.2 Wet Chemical Testing	
A.2.1 Total Lead Content	Pass
A.2.2 Chromium VI (Cr(VI)) Content	Pass
A.2.3 PBBs & PBDEs Content	Pass
A.3 Phthalates(DBP, BBP, DEHP, DIBP) Content	Pass

A RoHS Directive 2011/65/EU and its amendment directives (EU) 2015/863

A.1 XRF screening test

Test method: IEC 62321-3-1:2013

Seq No.	Tested Part(s)	Result				
		Pb	Cd	Hg	Cr	Br
(1)	Transparent plastic (film , cushion , RDK) [1][2]	BL	BL	BL	BL	BL
(2)	Blue soft plastic (cushion , RDK) [1][2]	BL	BL	BL	BL	BL
(3)	Silvery metal (cover , RDK) [1][2]	BL	BL	BL	BL	---
(4)*	Silvery metal (shell , network socket , PCB , RDK) [1][2]	BL	BL	BL	IN	---
(5)	Silvery solder (shell , network socket , PCB , RDK) [1][2]	BL	BL	BL	BL	---
(6)	Black soft plastic (wire jacket , electric wire , network socket , PCB , RDK) [1][2]	BL	BL	BL	BL	BL
(7)	Silvery metal (wire , electric wire , network socket , PCB , RDK) [1][2]	BL	BL	BL	BL	---
(8)	Green body (LED , network socket , PCB , RDK) [1][2]	BL	BL	BL	BL	BL
(9)	Yellow body (LED , network socket , PCB , RDK) [1][2]	BL	BL	BL	BL	BL
(10)*	Black plastic (pin holder , network socket , PCB , RDK) [1][2]	BL	BL	BL	BL	IN
(11)	Silvery metal (pin , network socket , PCB , RDK) [1][2]	BL	BL	BL	BL	---
(12)	Black magnet (magnet ring , network socket , PCB , RDK) [1][2]	BL	BL	BL	BL	---
(13)	Coppery metal (coil , network socket , PCB , RDK) [1][2]	BL	BL	BL	BL	---
(14)	Coppery metal with red plating (coil , network socket , PCB , RDK) [1][2]	BL	BL	BL	BL	---
(15)	Coppery metal with green plating (coil , network socket , PCB , RDK) [1][2]	BL	BL	BL	BL	---
(16)*	Green PCB with EC (PCB , network socket , PCB , RDK) [1][2]	BL	BL	BL	BL	IN
(17)	Silvery solder (PCB , network socket , PCB , RDK) [1][2]	BL	BL	BL	BL	---
(18)	Silvery metal (shell , big USB socket , PCB , RDK) [1][2]	BL	BL	BL	BL	---
(19)	Blue plastic (pin holder , big USB socket , PCB , RDK) [1][2]	BL	BL	BL	BL	BL
(20)	Silvery metal (pin , big USB socket , PCB , RDK) [1][2]	BL	BL	BL	BL	---
(21)	Silvery metal (shell , middle USB socket , PCB , RDK) [1][2]	BL	BL	BL	BL	---
(22)	Black plastic (pin holder , middle USB socket , PCB , RDK) [1][2]	BL	BL	BL	BL	BL
(23)	Golden metal (pin , middle USB socket , PCB , RDK) [1][2]	BL	BL	BL	BL	---
(24)	Black plastic (earphone socket , PCB , RDK) [1][2]	BL	BL	BL	BL	BL
(25)	Golden metal (conductor , earphone socket , PCB , RDK) [1][2]	BL	BL	BL	BL	---
(26)*	Silvery metal (shell , small USB socket , PCB , RDK) [1][2]	BL	BL	BL	IN	---
(27)	Black plastic (pin holder , small USB socket , PCB , RDK) [1][2]	BL	BL	BL	BL	BL
(28)	Golden metal (pin , small USB socket , PCB , RDK) [1][2]	BL	BL	BL	BL	---

TEST REPORT

Seq No.	Tested Part(s)	Result				
		Pb	Cd	Hg	Cr	Br
(29)	Silvery metal (shell , micro USB socket , PCB , RDK) [1][2]	BL	BL	BL	BL	---
(30)	Black plastic (pin holder , micro USB socket , PCB , RDK) [1][2]	BL	BL	BL	BL	BL
(31)	Silvery metal (pin , micro USB socket , PCB , RDK) [1][2]	BL	BL	BL	BL	---
(32)*	Silvery metal (shell , SD card socket , PCB , RDK) [1][2]	BL	BL	BL	IN	---
(33)	Black plastic (pin holder , SD card socket , PCB , RDK) [1][2]	BL	BL	BL	BL	BL
(34)	Silvery metal (pin , SD card socket , PCB , RDK) [1][2]	BL	BL	BL	BL	---
(35)	Beige plastic (socket , PCB , RDK) [1][2]	BL	BL	BL	BL	BL
(36)	Silvery metal (pin , socket , PCB , RDK) [1][2]	BL	BL	BL	BL	---
(37)	Beige plastic (FPC socket , PCB , RDK) [1][2]	BL	BL	BL	BL	BL
(38)	Black plastic (FPC socket , PCB , RDK) [1][2]	BL	BL	BL	BL	BL
(39)	Silvery metal (pin , FPC socket , PCB , RDK) [1][2]	BL	BL	BL	BL	---
(40)	Orange plastic (pin plug , PCB , RDK) [1][2]	BL	BL	BL	BL	BL
(41)	Golden metal (pin , pin plug , PCB , RDK) [1][2]	BL	BL	BL	BL	---
(42)*	Black plastic (pin plug , PCB , RDK) [1][2]	BL	BL	BL	BL	IN
(43)	Black plastic with brown plastic (button/base , key , PCB , RDK) [1][2]	BL	BL	BL	BL	BL
(44)*	Silvery metal (shell , key , PCB , RDK) [1][2]	BL	BL	BL	IN	---
(45)	Silvery metal (pin , key , PCB , RDK) [1][2]	BL	BL	BL	BL	---
(46)*	Silvery metal (foil , key , PCB , RDK) [1][2]	BL	BL	BL	IN	---
(47)	Silvery metal (shell , antenna socket , PCB , RDK) [1][2]	BL	BL	BL	BL	---
(48)	White plastic (pin holder , antenna socket , PCB , RDK) [1][2]	BL	BL	BL	BL	BL
(49)	Golden metal (pin , antenna socket , PCB , RDK) [1][2]	BL	BL	BL	BL	---
(50)*/*1	Brown ceramic body (crystal oscillator , PCB , RDK) [1][2]	OL	BL	BL	BL	BL
(51)	Green PCB with EC (micro PCB , RDK) [1][2]	BL	BL	BL	BL	BL
(52)*	Black PCB with EC (PCB , RDK) [1][2]	BL	BL	BL	BL	IN
(53)	Silvery solder (PCB , RDK) [1][2]	BL	BL	BL	BL	---

Note:
[1]RDK X5 8G [2]RDK X5 4G

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. 50 is exempted accordance with Annex III 7(c)-Ⅰ of directive 2011/65/EU. The exempt items of 7(c)-Ⅰ in Annex III of Directive 2011/65/EU: Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound.

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 Total Lead Content

Test method: IEC 62321-5:2013

Item	Unit	RL	Result
			(50)
Lead(Pb)	mg/kg	10	42432

Note:
- N.D. = Not Detected or less than RL
- RL = Report Limit
- mg/kg = ppm

A.2.2 Chromium VI (Cr(VI)) Content

Test method: IEC 62321-7-1:2015

Item	Unit	RL	Result					Limit
			(4)	(26)	(32)	(44)	(46)	
hexavalent chromium(Cr(VI))	μg/cm²	0.10	N.D.	N.D.	N.D.	N.D.	N.D.	See Remark
Conclusion	/	/	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	/

Limit Remark:

a. The sample is positive for Cr(VI) if the CrVI concentration is greater than 0.13μg/cm², The sample coating is considered to contain Cr(VI);
b. The sample is negative for Cr(VI) if Cr(VI) is ND (concentration less than 0.10μg/cm²),The coating is considered a non-Cr(VI) based coating;
c. The result between 0.10μg/cm² and 0.13μg/cm² is considered to be inconclusive -unavoidable coating variations may influence the determination;
For corrosion protection coatings on metals: Information on storage conditions and production date of the tested sample is unavailable and thus results of Cr(VI) represent status of the sample at the time of testing.

Note:
- N.D. = Not Detected or less than RL
- RL = Report Limit
- mg/kg = ppm

A.2.3 PBBs & PBDEs Content

Test method: IEC 62321-6:2015

Item	Unit	RL	Result				Limit
			(10)	(16)	(42)	(52)	
Monobromobiphenyl (MonoBB)	mg/kg	25	N.D.	N.D.	N.D.	N.D.	-
Dibromobiphenyl(DiBB)	mg/kg	25	N.D.	N.D.	N.D.	N.D.	-
Tribromobiphenyl(TriBB)	mg/kg	25	N.D.	N.D.	N.D.	N.D.	-
Tetrabromobiphenyl(TetraBB)	mg/kg	25	N.D.	N.D.	N.D.	N.D.	-
Pentabromobiphenyl(PentaBB)	mg/kg	25	N.D.	N.D.	N.D.	N.D.	-
Hexabromobiphenyl(HexaBB)	mg/kg	25	N.D.	N.D.	N.D.	N.D.	-

Item	Unit	RL	Result				Limit
			(10)	(16)	(42)	(52)	
Heptabromobiphenyl (HeptaBB)	mg/kg	25	N.D.	N.D.	N.D.	N.D.	-
Octabromobiphenyl(OctaBB)	mg/kg	25	N.D.	N.D.	N.D.	N.D.	-
Nonabromobiphenyl(NonaBB)	mg/kg	25	N.D.	N.D.	N.D.	N.D.	-
Decabromobiphenyl(DecaBB)	mg/kg	25	N.D.	N.D.	N.D.	N.D.	-
Monobromodiphenyl ether (MonoBDE)	mg/kg	25	N.D.	N.D.	N.D.	N.D.	-
Dibromodiphenyl ether (DiBDE)	mg/kg	25	N.D.	N.D.	N.D.	N.D.	-
Tribromodiphenyl ether (TriBDE)	mg/kg	25	N.D.	N.D.	N.D.	N.D.	-
Tetrabromodiphenyl ether (TetraBDE)	mg/kg	25	N.D.	N.D.	N.D.	N.D.	-
Pentabromodiphenyl ether (PentaBDE)	mg/kg	25	N.D.	N.D.	N.D.	N.D.	-
Hexabromodiphenyl ether (HexaBDE)	mg/kg	25	N.D.	N.D.	N.D.	N.D.	-
Heptabromodiphenyl ether (HeptaBDE)	mg/kg	25	N.D.	N.D.	N.D.	N.D.	-
Octabromodiphenyl ether (OctaBDE)	mg/kg	25	N.D.	N.D.	N.D.	N.D.	-
Nonabromodiphenyl ether (NonaBDE)	mg/kg	25	N.D.	N.D.	N.D.	N.D.	-
Decabromodiphenyl ether (DecaBDE)	mg/kg	25	N.D.	N.D.	N.D.	N.D.	-
sum of MonoBDE,DiBDE,TriBDE,TetraBDE,PentaBDE,HexaBDE,HeptaBDE,OctaBDE,NonaBDE,DecaBDE	mg/kg	-	N.D.	N.D.	N.D.	N.D.	1000
sum of MonoBB,DiBB,TriBB,TetraBB,PentaBB,HexaBB,HeptaBB,OctaBB,NonaBB,DecaBB	mg/kg	-	N.D.	N.D.	N.D.	N.D.	1000
Conclusion	/	/	**Pass**	**Pass**	**Pass**	**Pass**	/

Note:
- N.D.= Not Detected or less than RL
- RL = Report Limit
- mg/kg = ppm
- The Result less than RL are not taken into account while calculating the sum contents.

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

Test method: IEC 62321-8:2017

Item	Unit	RL	Result						Limit
			(1)	(2)+(10)+(19)	(6)	(8)	(9)	(16)	
Dibutyl Phthalate(DBP)	mg/kg	30	N.D.	N.D.	204	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	RL	Result						Limit
			(22)	(24)	(27)	(30)	(33)	(35)	
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	RL	Result				Limit
			(37)	(38)	(40)	(42)	
Dibutyl Phthalate(DBP)	mg/kg	30	N.D.	N.D.	N.D.	N.D.	1000
Benzyl Butyl Phthalate(BBP)	mg/kg	30	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.	1000
Diisobutyl phthalate(DIBP)	mg/kg	30	N.D.	N.D.	N.D.	N.D.	1000
Conclusion	/	/	**Pass**	**Pass**	**Pass**	**Pass**	/

Item	Unit	RL	Result				Limit
			(43)	(48)	(50)	(51)+(52)	
Dibutyl Phthalate(DBP)	mg/kg	30	N.D.	N.D.	N.D.	N.D.	1000
Benzyl Butyl Phthalate(BBP)	mg/kg	30	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.	1000
Diisobutyl phthalate(DIBP)	mg/kg	30	N.D.	N.D.	N.D.	N.D.	1000
Conclusion	/	/	**Pass**	**Pass**	**Pass**	**Pass**	/

Note:
- N.D. = Not Detected or less than RL
- RL = Report Limit
- mg/kg = ppm
- "+" = Mixed, The admixture of specimen is tested as a whole(part)which according to the applicant' s request, the result of report as average value because of the whole specimen is regarded as constituting from the homogeneous material. If the testing of specimen may have the obvious difference, and the result may exceed the number in this report. The applicant will undertake all differences and risk.

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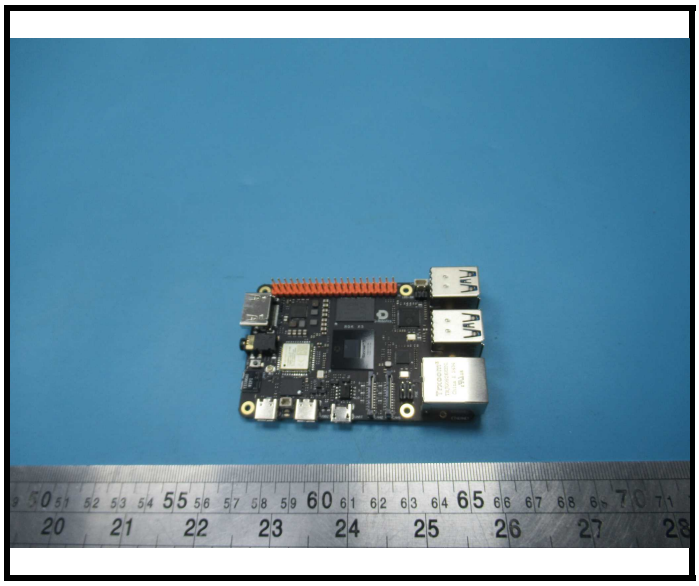
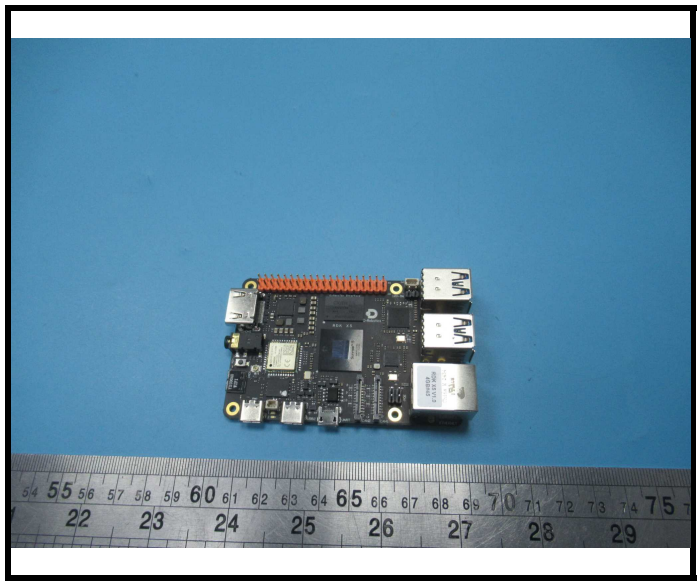
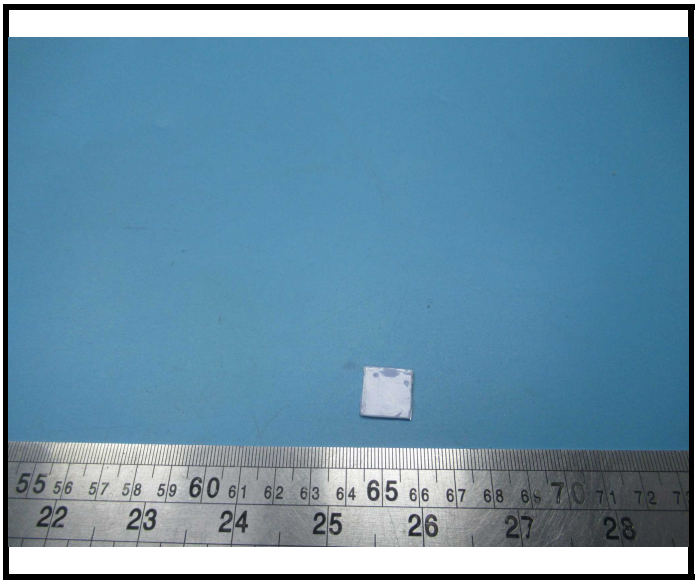
Photograph of Sample







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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.
7.The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

*** End of Report ***