

TEST REPORT

Report No.: **SZ1230323-14195E**

Date: April 21, 2023

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Shenzhen Xin Yuan Electronic Technology Co, Ltd.

**Room 803, Block A, YSW (You Suo Wei) Building, No. 2000, Jiaxian Road, Bantian Street, Longgang District,
Postcode 518129, Shenzhen City, Guangdong Province, China**

Report on the submitted samples said to be:

Sample Description:	T-Display-S3
Style/Item No.:	T-Display-S3
Sample Receiving Date:	March 23,2023
Lately Re-submit Date:	April 06,2023
Testing Period:	March 23,2023 - April 11,2023
Result:	Please refer to next page(s).

Signed for and on behalf of

BACL

Queenie Lee

Checked by: _____
Queenie Lee

Len Xie

Approved by: _____
Len Xie



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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

A.1 XRF screening test

Pass

A.2 Wet Chemical Testing

A.2.1 PBBs & PBDEs content

Pass

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

Pass

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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)	White plastic(socket, T-Display-S3)	BL	BL	BL	BL	BL
(2)	Silvery metal(pin, socket, T-Display-S3)	BL	BL	BL	BL	---
(3)	Red PVC(wire jacket, socket, T-Display-S3)	BL	BL	BL	BL	BL
(4)	Black PVC(wire jacket, socket, T-Display-S3)	BL	BL	BL	BL	BL
(5)	Silvery metal(inner wire, socket, T-Display-S3)	BL	BL	BL	BL	---
(6)	White plastic(base, screen, T-Display-S3)	BL	BL	BL	BL	BL
(7)	Translucent plastic(film, screen, T-Display-S3)	BL	BL	BL	BL	BL
(8)	Translucent white plastic(film, screen, T-Display-S3)	BL	BL	BL	BL	BL
(9)	Silvery plastic(film, screen, T-Display-S3)	BL	BL	BL	BL	BL
(10)	Multi-color plastic(film, screen, T-Display-S3)	BL	BL	BL	BL	BL
(11)	Black coated translucent glass(screen, T-Display-S3)	BL	BL	BL	BL	BL
(12)	Brown FPC(screen, T-Display-S3)	BL	BL	BL	BL	BL
(13)	Silvery solder(FPC, T-Display-S3)	BL	BL	BL	BL	---
(14)	White body(LED, screen, T-Display-S3)	BL	BL	BL	BL	BL
(15)	Blue glue(screen, T-Display-S3)	BL	BL	BL	BL	BL
(16)	White plastic(frame, screen, T-Display-S3)	BL	BL	BL	BL	BL
(17)	Translucent hard plastic(cover, screen, T-Display-S3)	BL	BL	BL	BL	BL
(18)	Black plastic(stick, cover, screen, T-Display-S3)	BL	BL	BL	BL	BL
(19)	White coated brown FPC(PCB, T-Display-S3)	BL	BL	BL	BL	BL
(20)	Silvery solder(FPC, PCB, T-Display-S3)	BL	BL	BL	BL	---
(21)	Silvery metal(cover, type-c socket, T-Display-S3)	BL	BL	BL	BL	---
(22)	Black plastic(pin holder, type-c socket, T-Display-S3)	BL	BL	BL	BL	BL
(23)	Silvery metal(pin, type-c socket, T-Display-S3)	BL	BL	BL	BL	---
(24)	Black plastic(cover, socket, T-Display-S3)	BL	BL	BL	BL	BL
(25)	White plastic(cover, socket, T-Display-S3)	BL	BL	BL	BL	BL
(26)	Silvery metal(clip, socket, T-Display-S3)	BL	BL	BL	BL	---
(27)	Silvery metal(pin, socket, T-Display-S3)	BL	BL	BL	BL	---

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Seq No.	Tested Part(s)	Result				
		Pb	Cd	Hg	Cr	Br
(28)	Silvery metal(cover, button switch "KEY", T-Display-S3)	BL	BL	BL	BL	---
(29)	White plastic(button, button switch "KEY", T-Display-S3)	BL	BL	BL	BL	BL
(30)	White plastic(cover, button switch "KEY", T-Display-S3)	BL	BL	BL	BL	BL
(31)	Silvery metal(clips, button switch "KEY", T-Display-S3)	BL	BL	BL	BL	---
(32)	Silvery metal(contact chip, button switch "KEY", T-Display-S3)	BL	BL	BL	BL	---
(33)	Silvery metal(cover, button switch, T-Display-S3)	BL	BL	BL	BL	---
(34)	Black plastic(button, button switch, T-Display-S3)	BL	BL	BL	BL	BL
(35)	White plastic(cover, button switch, T-Display-S3)	BL	BL	BL	BL	BL
(36)	Silvery metal(clips, button switch, T-Display-S3)	BL	BL	BL	BL	---
(37)	Silvery metal(contact chip, button switch, T-Display-S3)	BL	BL	BL	BL	---
(38)	Black body(SMD big IC, PBC, T-Display-S3)	BL	BL	BL	BL	BL
(39)	Black body(SMD middle IC, PBC, T-Display-S3)	BL	BL	BL	BL	BL
(40)	Black body(SMD small IC, PBC, T-Display-S3)	BL	BL	BL	BL	BL
(41)	Brown body(SMD big capacitor, PCB, T-Display-S3)	BL	BL	BL	BL	BL
(42)	Brown body(SMD middle capacitor, PCB, T-Display-S3)	BL	BL	BL	BL	BL
(43)	Brown body(SMD small capacitor, PCB, T-Display-S3)	BL	BL	BL	BL	BL
(44)	Silvery body(SMD crystal oscillator, PCB, T-Display-S3)	BL	BL	BL	BL	BL
(45)	Black body(SMD big diode, PCB, T-Display-S3)	BL	BL	BL	BL	BL
(46)	Black body(SMD audion, PCB, T-Display-S3)	BL	BL	BL	BL	BL
(47)	Golden parts(SMD socket, PCB, T-Display-S3)	BL	BL	BL	BL	BL
(48)	Black body(SMD small diode, PCB, T-Display-S3)	BL	BL	BL	BL	BL
(49)	Translucent glue(PCB, T-Display-S3)	BL	BL	BL	BL	BL
(50)*	White printed green coated beige plastic with coppery metal(PCB, T-Display-S3)	BL	BL	BL	BL	X
(51)	Silvery solder(PCB, T-Display-S3)	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.

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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:

RoHS 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.

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A.2 Wet Chemical Testing

A.2.1 PBBs & PBDEs content

Test method: IEC 62321-6:2015

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

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Item	Unit	MDL	Result		Limit
			(50)		
sum of MonoBDE, DiBDE, TriBDE, TetraBDE, PentaBDE, HexaBDE, HeptaBDE, OctaBDE, NonaBDE, DecaBDE	mg/kg	-	/		1000
sum of MonoBB, DiBB, TriBB, TetraBB, PentaBB, HexaBB, HeptaBB, OctaBB, NonaBB, DecaBB	mg/kg	-	/		1000
Conclusion	/	/	Pass		/

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

Test method: IEC 62321-8:2017

Item	Unit	MDL	Result						Limit
			(1)	(3)	(4)	(6)+(7)+(8)	(9)+(10)+(18)	(11)	
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.	63	103	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
			(12)	(14)	(15)+(49)	(16)+(17)	(19)	(22)+(24)+(25)	
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	/

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Item	Unit	MDL	Result				Limit
			(29)+(30)+(34)	(35)	(38)+(39)+(40)	(44)	
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	MDL	Result			Limit
			(45)+(46)+(48)	(47)	(50)	
Dibutyl Phthalate(DBP)	mg/kg	30	N.D.	N.D.	N.D.	1000
Benzyl Butyl Phthalate(BBP)	mg/kg	30	N.D.	N.D.	N.D.	1000
Bis-(2-ethylhexyl) Phthalate (DEHP)	mg/kg	30	N.D.	N.D.	N.D.	1000
Diisobutyl phthalate(DIBP)	mg/kg	30	N.D.	N.D.	N.D.	1000
Conclusion	/	/	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.

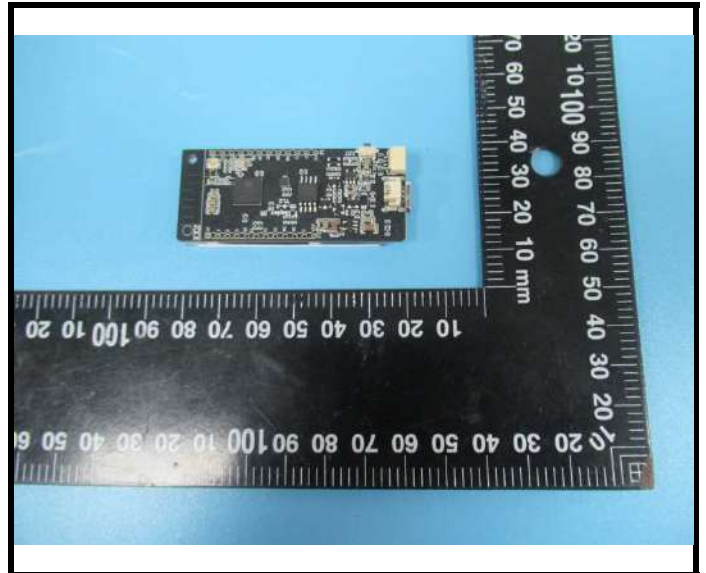
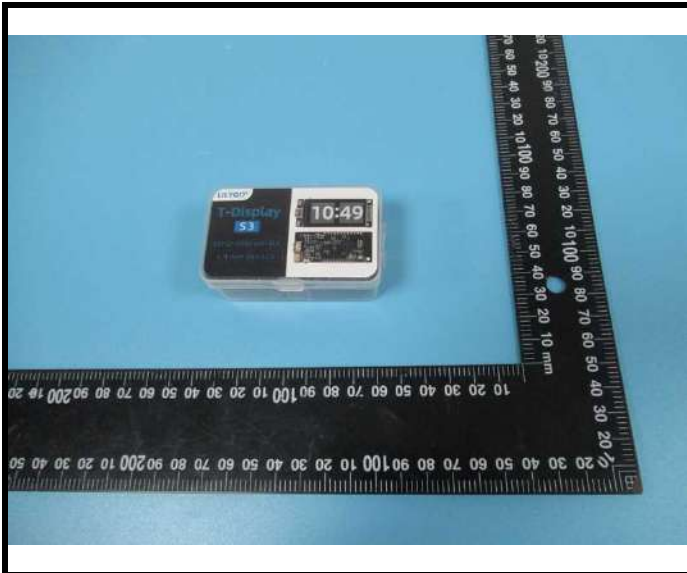
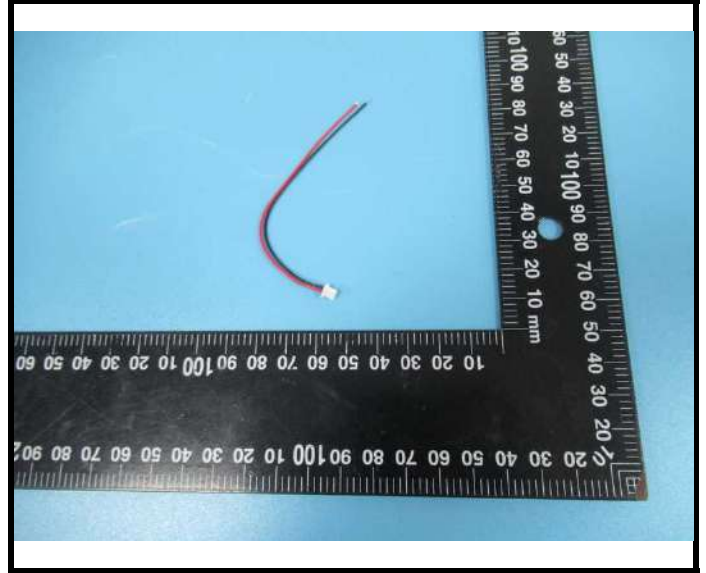
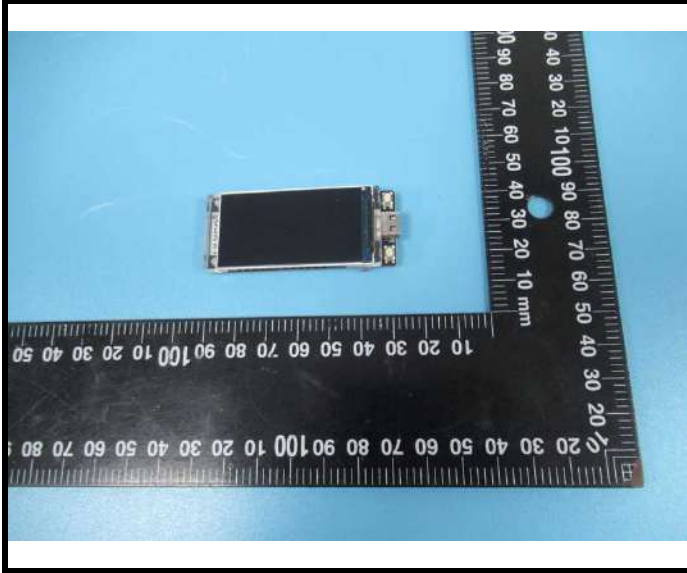
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Photograph of Sample

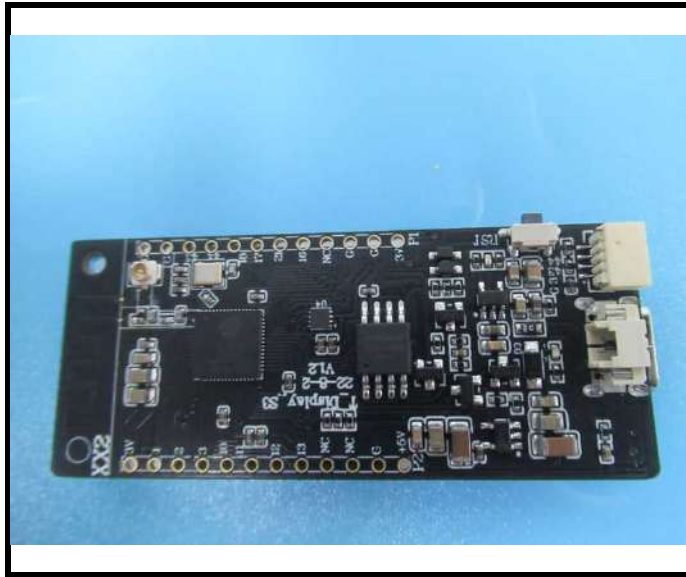


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Statement:

- 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 ***