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### **Test Report**

Bao'an, Shenzhen, 518104, China

Manufacturer ...... Shenzhen Yongjiu Precision Electronics Co.,Ltd.

Bao'an, Shenzhen, 518104, China

Trade Mark...... N/A

Test item description ...... Wall Charger

Date of receipt of test item...... Feb. 21, 2023

Date(s) of performance of tests....... Feb. 21, 2023 - Feb. 27, 2023

Date of report...... Feb. 27, 2023

#### **Test Requested:**

1. As specified by client ,to screen Lead(Pb),Cadmium(Cd),Mercury(Hg), Chromium(Cr)and Bromine(Br)in the submitted sample(s)by XRF.

2. As specified by client ,when screening results exceed the XRF screening limit in IEC62321:2013 Edition 1.0,further use of wet chemical methods are required to test Lead(Pb),Cadmium(Cd),Mercury(Hg),Hexavalent Chromium(Cr(VI)),Polybrominated Biphenyls(PBBs),Polybrominated Diphenyl Ethers(PBDEs),Polybrominated diphenyl ethers (PBDEs) and Phthalates such as Bis(2-ethylhexyl) phthalate (DEHP) ,Butyl benzyl phthalate (BBP), Dibutylphthalate (DBP) ,and Diisobutyl phthalate (DIBP) in the submitted sample(s).

Test Results: Pass

Conclusion:

2011/65/EU

The test results comply with the limits of RoHS 2.0 Directive (EU) 2015/863 amending Annex II to Directive

Signed for and ow behalf of Lintek.

PSQ Executive



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No.	Sample Description	Test item	XRF Result	ChemicalTest (mg/kg)	Conclusion
1	Plastic enclosure	Pb	BL		
		Cd	BL		
		Hg	BL		
		Cr(Cr(VI)	BL		Pass
		Br(PBBs&PBDEs)	BL		
		Phthalate(DBP\BBP \DEHP\DIBP)	1	N.D.	
2	Plastic on plug	Pb	BL		
		Cd	BL		
		Hg	BL		
		Cr(Cr(VI)	BL		Pass
		Br(PBBs&PBDEs)	BL		
		Phthalate(DBP\BBP \DEHP\DIBP)	1	N.D.	
3	Metal of plug	Pb	BL		
		Cd	BL		
		Hg	BL		
		Cr(Cr(VI)	BL		Pass
		Br(PBBs&PBDEs)	N.D.		
		Phthalate(DBP\BBP \DEHP\DIBP)		N.D.	
4	Metal of wire	Pb	BL		
		Cd	BL		
		Hg	BL		
		Cr(Cr(VI)	BL		Pass
		Br(PBBs&PBDEs)	N.D.		
		Phthalate(DBP\BBP \DEHP\DIBP)		N.D.	



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5	Plastic of wire	Pb	BL		
		Cd	BL		
		Hg	BL		
		Cr(Cr(VI)	BL		Pass
		Br(PBBs&PBDEs)	BL		
		Phthalate(DBP\BBP \DEHP\DIBP)		N.D.	
6	Tape of transformer	Pb	BL		
		Cd	BL		
		Hg	BL		
		Cr(Cr(VI)	BL		Pass
		Br(PBBs&PBDEs)	BL		
		Phthalate(DBP\BBP \DEHP\DIBP)		N.D.	
7	Wire of transformer	Pb	BL		
		Cd	BL		
		Hg	BL		
		Cr(Cr(VI)	BL		Pass
		Br(PBBs&PBDEs)	BL		
		Phthalate(DBP\BBP \DEHP\DIBP)		N.D.	
8	Core of transformer	Pb	BL		
		Cd	BL		
		Hg	BL		
		Cr(Cr(VI)	BL		Pass
		Br(PBBs&PBDEs)	BL		
		Phthalate(DBP\BBP \DEHP\DIBP)	-	N.D.	



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9	Metal pin of transformer	Pb	BL		
		Cd	BL		
		Hg	BL		
		Cr(Cr(VI)	BL		Pass
		Br(PBBs&PBDEs)	BL		
		Phthalate(DBP\BBP \DEHP\DIBP)		N.D.	
10	Metal wire of	Pb	BL		
	transformer	Cd	BL		
		Hg	BL		
		Cr(Cr(VI)	BL		Pass
		Br(PBBs&PBDEs)	N.D.		
		Phthalate(DBP\BBP \DEHP\DIBP)		N.D.	
11	Bobbin of	Pb	BL		
	transformer	Cd	BL		
		Hg	BL		
		Cr(Cr(VI)	BL		Pass
		Br(PBBs&PBDEs)	BL		
		Phthalate(DBP\BBP \DEHP\DIBP)		N.D.	
12	Capacitance	Pb	BL		
		Cd	BL		
		Hg	BL		
		Cr(Cr(VI)	BL		Pass
		Br(PBBs&PBDEs)	BL		
		Phthalate(DBP\BBP \DEHP\DIBP)	1	N.D.	



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13	РСВ	Pb	BL		
		Cd	BL		
		Hg	BL		
		Cr(Cr(VI)	BL		Pass
		Br(PBBs&PBDEs)	BL		
		Phthalate(DBP\BBP \DEHP\DIBP)		N.D.	
14	Fuse	Pb	BL		
		Cd	BL		
		Hg	BL		
		Cr(Cr(VI)	BL		Pass
		Br(PBBs&PBDEs)	BL		
		Phthalate(DBP\BBP \DEHP\DIBP)		N.D.	
15	Metal of terminal	Pb	BL		
		Cd	BL		
		Hg	BL		
		Cr(Cr(VI)	BL		Pass
		Br(PBBs&PBDEs)	N.D.		
		Phthalate(DBP\BBP \DEHP\DIBP)		N.D.	
16	Plastic of terminal	Pb	BL		
		Cd	BL		
		Hg	BL		
		Cr(Cr(VI)	BL		Pass
		Br(PBBs&PBDEs)	BL		
		Phthalate(DBP\BBP \DEHP\DIBP)	1	N.D.	



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17	Solder tin	Pb	BL		
		Cd	BL		
		Hg	BL		
		Cr(Cr(VI)	BL		Pass
		Br(PBBs&PBDEs)	BL		
		Phthalate(DBP\BBP \DEHP\DIBP)		N.D.	
18	Chip	Pb	BL		
		Cd	BL		
		Hg	BL		
		Cr(Cr(VI)	BL		Pass
		Br(PBBs&PBDEs)	BL		
		Phthalate(DBP\BBP \DEHP\DIBP)	-	N.D.	
19	Wire of Inductance	Pb	BL		
		Cd	BL		
		Hg	BL		
		Cr(Cr(VI)	BL		Pass
		Br(PBBs&PBDEs)	BL		
		Phthalate(DBP\BBP \DEHP\DIBP)		N.D.	
20	Core of Inductance	Pb	BL		
		Cd	BL		
		Hg	BL		
		Cr(Cr(VI)	BL		Pass
		Br(PBBs&PBDEs)	BL		
		Phthalate(DBP\BBP \DEHP\DIBP)		N.D.	



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21	Internal plastic	Pb	BL		
		Cd	BL		
		Hg	BL		
		Cr(Cr(VI)	BL		Pass
		Br(PBBs&PBDEs)	BL		
		Phthalate(DBP\BBP \DEHP\DIBP)		N.D.	

- It is the result on total Br while test item on restricted substances in PBBs/PBDEs. It is the result on total Cr while test item on restricted substances is Cr(VI).
- 2. Screening test by XRF spectroscopy XRF screening limits in mg/kg for regulated elements according to IEC62321:2013 Ed.1 Sec.6 & AnnesD.

Element	Polymer Material	Metallic Material	Composite Material
DI	BL≤700-3σ≤X<1300+3σ	BL≤700-3σ≤X<1300+3σ	BL≤500-3σ≤X<1500+3σ
Pb	≤OL	≤OL	≤OL
	BL≤70-3σ≤X<130+3σ	BL≤70-3σ≤X<130+3σ	LOD <x<150+3σ≤ol< td=""></x<150+3σ≤ol<>
Cd	≤OL	≤OL	LOD \ X \ 130+3030L
11-	BL≤700-3σ≤X<1300+3σ	BL≤700-3σ≤X<1300+3σ	BL≤500-3σ≤X<1500+3σ
Hg	≤OL	≤OL	≤OL
Cr	BL≤700-3σ <x< td=""><td>BL≤700-3σ<x< td=""><td>BL≤500-3σ<x< td=""></x<></td></x<></td></x<>	BL≤700-3σ <x< td=""><td>BL≤500-3σ<x< td=""></x<></td></x<>	BL≤500-3σ <x< td=""></x<>
Br	BL≤300-3σ <x< td=""><td></td><td>BL≤250-3σ<x< td=""></x<></td></x<>		BL≤250-3σ <x< td=""></x<>

XRF detection limits in mg/kg for regulated elements in various material

Element	Polymer Material	Metallic Material	Composite Material
Pb	10	50	50
Cd	10	50	50
Hg	10	50	50
Cr	10	50	50
Br	10	50	50



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## Test Report

**Note**: -BL = Under the XRF screening limit

-OL = Furture chemical test will be conducted while result is above the screening limit

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- -X =The symbol"X"marks the region where further investingation in necessary
- -3σ=The reproducibility of analytical instruments
- -LOD=Detection limit

#### 3. Wet chemical test

Test Item(s)	Test Method	Test Equipment	MDL
Pb	IEC62321-5:2013	ICP-AES	2
Cd	IEC62321-5:2013	ICP-AES	2
Hg	IEC62321-4:2013	ICP-AES	2
Cr(VI)	IEC62321-7-1:2015 IEC62321-7-2:2017	UV-Vis	2
PBB	IEC62321-6:2015	GC-MS	5
PBDE	IEC62321-6:2015	GC-MS	5
Dibutyl Phthalate(DBP)	IEC62321-8:2017	GC-MS	30
Benzylbutyl Phthalate (BBP)	IEC62321-8:2017	GC-MS	30
Di-(2-ethylhexyl) Phthalate(DEHP)	IEC62321-8:2017	GC-MS	30
Diisobutylhthalate (DIBP)	IEC62321-8:2017	GC-MS	30

**Note**: - mg/kg= ppm=0.0001%

-ND=Not Detected(<MDL)

- MDL = Method Detection Limit

-- = No Testing

-Negative = Absence of Cr(VI), the detected Cr(VI) concentration in the boiling water extraction solution is less than 0.02  $\,$  mg/kg  $\,$  with 50cm2  $\,$  sample  $\,$  surface

-\*=According to 2011/65/EU Annex,point 6-Lead as an alloying element is steel



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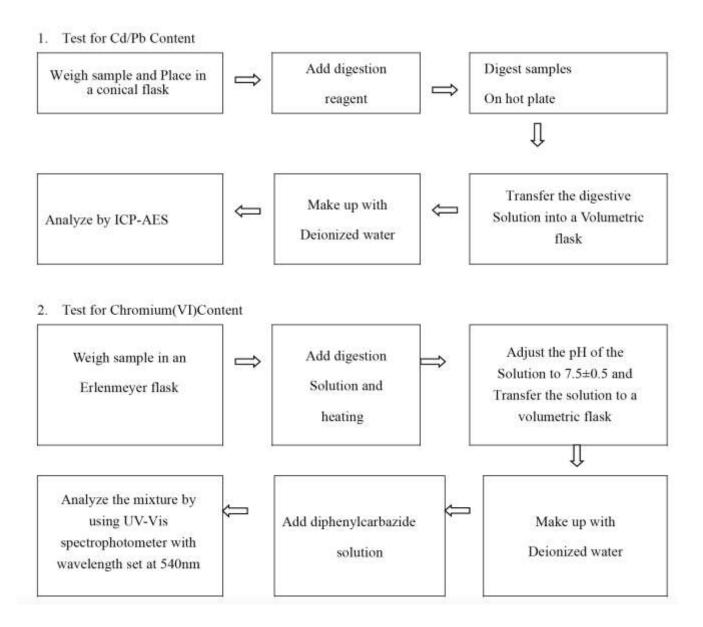
containing up to 0.35% lead by weight, aluminum containing up to 0.4% lead by weight and as a copper alloy, containing up to 4% leda by weight can be exempted.

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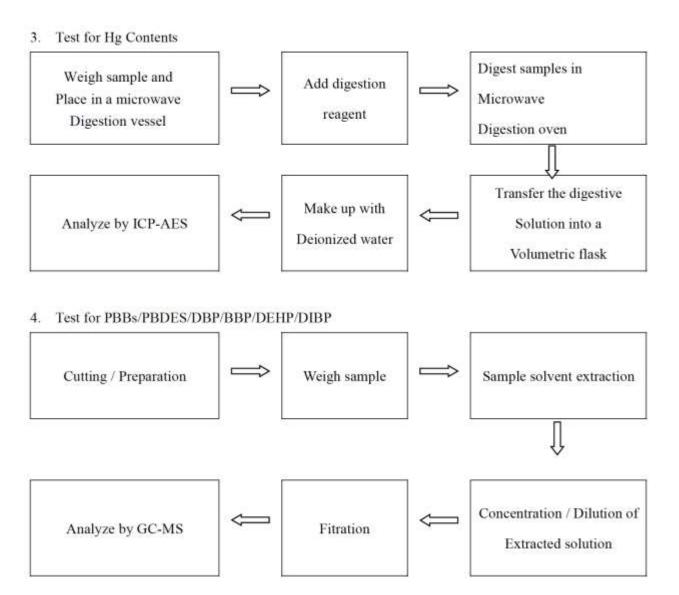
#### **Test Process:**





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### **Photograph of Sample:**

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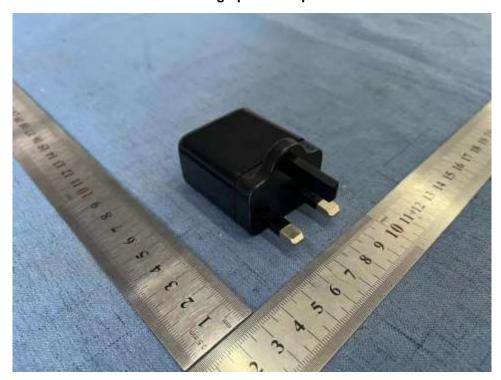


Fig.1

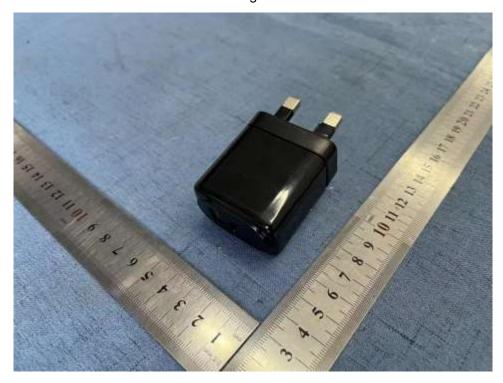


Fig.2



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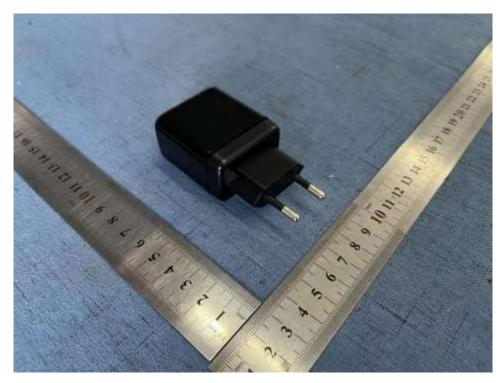


Fig.3

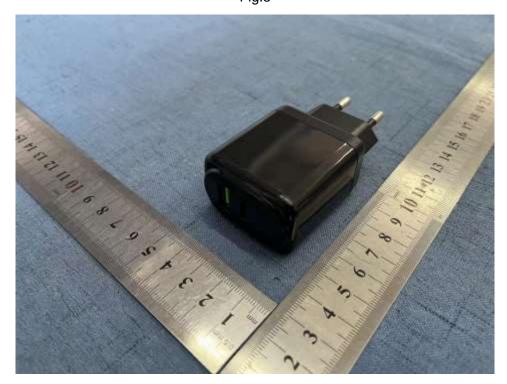


Fig.4

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Fig.5



Fig.6



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