Test Report

Client	:	Zendure USA Inc.
Address	:	1765 E BAYSHORE RD # 201 EAST PALO ALTO, CA 94303-5501
Manufacturer	:	ZENDURE TECHNOLOGY CO., LIMITED
Address	:	RM 77A 2/F BLK F TUEN MUN INDUSTRIAL CENTRE 2 SAN PING CIRCUIT TUEN MUNNT
Sample Name	:	Zendure Smart Meter 3CT-S，Zendure Smart Meter 1CT-S
Sample Model	:	ZDC2503
Series Models	:	ZDC2502
Receiving Date	:	Jan 24, 2026
Testing Period	:	Jan 24, 2026 to Jan 27, 2026
Test Requested	:	1. According to the requirement of the applicant, Lead (Pb), Cadmium (Cd), Mercury (Hg), Chromium (Cr) and Bromine (Br) in submitted sample were screened by XRF. 2. According to the requirement of the applicant, when the screening results exceed the XRF screening limit of IEC 62321-3-1:2013, Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent chromium [Cr(VI)], Polybrominated biphenyls (PBBs) and Polybrominated diphenyl ethers (PBDEs) in the submitted sample are further tested by chemical methods according to IEC 62321-4:2013/AMD 1:2017, IEC 62321-5:2013, IEC 62321-6:2015, IEC 62321-7-1:2015, IEC 62321-7-2:2017. 3. According to the requirement of the applicant, Diisobutyl phthalate (DIBP), Dibutyl Phthalate (DBP), Benzyl butyl phthalate (BBP) and Bis(2-ethylhexyl) phthalate (DEHP) in the submitted sample are tested by chemical method according to IEC 62321-8:2017. 4. Coordination Standard EN IEC 63000:2018.
Test Methods	:	Please refer to next page(s)
Test Results	:	Please refer to next page(s)
Conclusion	:	RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU & Coordination Standard EN IEC 63000:2018 — PASS

DONGGUAN ZRLK TESTING TECHNOLOGY CO., LTD. Approved

Edited by: Mist Luo **Reviewed by:** Camile Li **Approved by:** Terry Cao

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Test Methods

a) XRF scanning testing

Test method: IEC 62321-3-1:2013.

Element	Screening limits in mg/kg for regulated elements in various matrices			MDL（mg/kg）	
	Polymers	Metals	Composite material	Polymers	Other materials
Pb	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL	BL ≤ (500-3σ) < X < (1500+3σ) ≤ OL	10	50
Cd	BL ≤ (70-3σ) < X < (130+3σ) ≤ OL	BL ≤ (70-3σ) < X < (130+3σ) ≤ OL	BL ≤ LOD < X < (150+3σ) ≤ OL	10	50
Hg	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL	BL ≤ (500-3σ) < X < (1500+3σ) ≤ OL	10	50
Cr	BL ≤ (700-3σ) < X	BL ≤ (700-3σ) < X	BL ≤ (500-3σ) < X	10	50
Br	BL ≤ (300-3σ) < X	---	BL ≤ (250-3σ) < X	10	50
Remark:1. BL — Below limit, 2. OL — Over limit, 3. X — Inconclusive, need to chemical test, 4. 3σ — The repeatability of the XRF, 5. MDL — Method detection limit, 6. LOD = MDL.					

b) Chemical testing

Test items	Test methods	Instruments	MDL	Limit
Pb	IEC 62321-5:2013	ICP-OES	2 mg/kg	1000 mg/kg
Cd	IEC 62321-5:2013	ICP-OES	2 mg/kg	100 mg/kg
Hg	IEC 62321-4:2013/AMD 1:2017	ICP-OES	2 mg/kg	1000 mg/kg
Cr(VI)	IEC 62321-7-1:2015	UV-Vis	0.1μg/cm^2	1000 mg/kg
	IEC 62321-7-2:2017	UV-Vis	8 mg/kg	1000 mg/kg
PBBs	IEC 62321-6:2015	GC-MS	30 mg/kg	1000 mg/kg
PBDEs	IEC 62321-6:2015	GC-MS	30 mg/kg	1000 mg/kg
DIBP	IEC 62321-8:2017	GC-MS	30 mg/kg	1000 mg/kg
DBP	IEC 62321-8:2017	GC-MS	30 mg/kg	1000 mg/kg
BBP	IEC 62321-8:2017	GC-MS	30 mg/kg	1000 mg/kg
DEHP	IEC 62321-8:2017	GC-MS	30 mg/kg	1000 mg/kg

Test Results

Part No.	Part description	Restricted substances	Results of XRF (mg/kg)	Results of chemical testing (mg/kg)	Conclusion
1	Black plastic	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	
2	Silvery metal pin	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	---	---	
		PBDEs	---	---	
		DIBP	---	---	
		DBP	---	---	
		BBP	---	---	
		DEHP	---	---	
3	Black plastic	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	
4	Silvery metal pin	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	---	---	
		PBDEs	---	---	
		DIBP	---	---	
		DBP	---	---	
		BBP	---	---	
		DEHP	---	---	

Part No.	Part description	Restricted substances	Results of XRF（mg/kg）	Results of chemical testing（mg/kg）	Conclusion
5	Blue material	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	
6	Black plastic tube	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	
7	Grey material	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	
8	Brown plastic film (Capacitor)	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	

Part No.	Part description	Restricted substances	Results of XRF（mg/kg）	Results of chemical testing（mg/kg）	Conclusion
9	Silvery metal shell (Capacitor)	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	---	---	
		PBDEs	---	---	
		DIBP	---	---	
		DBP	---	---	
		BBP	---	---	
		DEHP	---	---	
10	Black soft plastic (Capacitor)	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	
11	Yellow paper (Capacitor)	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	
12	Aluminum foil (Capacitor)	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	

Part No.	Part description	Restricted substances	Results of XRF (mg/kg)	Results of chemical testing (mg/kg)	Conclusion
13	Silvery metal pin (Capacitor)	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	---	---	
		PBDEs	---	---	
		DIBP	---	---	
		DBP	---	---	
		BBP	---	---	
		DEHP	---	---	
14	Black plastic	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	
15	Silvery metal pin	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	---	---	
		PBDEs	---	---	
		DIBP	---	---	
		DBP	---	---	
		BBP	---	---	
		DEHP	---	---	
16	White plastic	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	

Part No.	Part description	Restricted substances	Results of XRF（mg/kg）	Results of chemical testing（mg/kg）	Conclusion
17	Black plastic	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	
18	Silvery metal pin	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	
19	Black plastic button (Switch)	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	
20	Silvery metal piece (Switch)	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	---	---	
		PBDEs	---	---	
		DIBP	---	---	
		DBP	---	---	
		BBP	---	---	
		DEHP	---	---	

Part No.	Part description	Restricted substances	Results of XRF（mg/kg）	Results of chemical testing（mg/kg）	Conclusion
21	Silvery metal elastic sheet (Switch)	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	---	---	
		PBDEs	---	---	
		DIBP	---	---	
		DBP	---	---	
		BBP	---	---	
		DEHP	---	---	
22	Black plastic base (Switch)	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	
23	Silvery metal pin (Switch)	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	---	---	
		PBDEs	---	---	
		DIBP	---	---	
		DBP	---	---	
		BBP	---	---	
		DEHP	---	---	
24	Diode	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	

Part No.	Part description	Restricted substances	Results of XRF（mg/kg）	Results of chemical testing（mg/kg）	Conclusion
25	Black material (Inductor)	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	
26	Copper wire (Inductor)	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	---	---	
		PBDEs	---	---	
		DIBP	---	---	
		DBP	---	---	
		BBP	---	---	
		DEHP	---	---	
27	Triode	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	
28	MOS	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	

Part No.	Part description	Restricted substances	Results of XRF (mg/kg)	Results of chemical testing (mg/kg)	Conclusion
29	Crystal oscillator	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	
30	IC	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	
31	Capacitor	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	
32	Resistor	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	

Part No.	Part description	Restricted substances	Results of XRF（mg/kg）	Results of chemical testing（mg/kg）	Conclusion
33	PCB	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	X	ND	
		PBDEs	X	ND	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	
34	Tin solder	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	---	---	
		PBDEs	---	---	
		DIBP	---	---	
		DBP	---	---	
		BBP	---	---	
		DEHP	---	---	
35	Grey cable coating	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	
36	Red plastic electric wire	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	

Part No.	Part description	Restricted substances	Results of XRF（mg/kg）	Results of chemical testing（mg/kg）	Conclusion
37	Black plastic electric wire	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	
38	Copper wire	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	---	---	
		PBDEs	---	---	
		DIBP	---	---	
		DBP	---	---	
		BBP	---	---	
		DEHP	---	---	
39	Grey plastic outer model	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	
40	White plastic inner model	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	

Part No.	Part description	Restricted substances	Results of XRF (mg/kg)	Results of chemical testing (mg/kg)	Conclusion
41	Black plastic	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	
42	Silvery metal terminal	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	---	---	
		PBDEs	---	---	
		DIBP	---	---	
		DBP	---	---	
		BBP	---	---	
		DEHP	---	---	
43	Silvery label	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	X	ND	
		PBDEs	X	ND	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	
44	Black plastic	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	X	ND	
		PBDEs	X	ND	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	

Part No.	Part description	Restricted substances	Results of XRF（mg/kg）	Results of chemical testing（mg/kg）	Conclusion
45	White plastic shell	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	
46	Yellow tape	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	
47	Copper wire	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	---	---	
		PBDEs	---	---	
		DIBP	---	---	
		DBP	---	---	
		BBP	---	---	
		DEHP	---	---	
48	Black plastic shell	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	

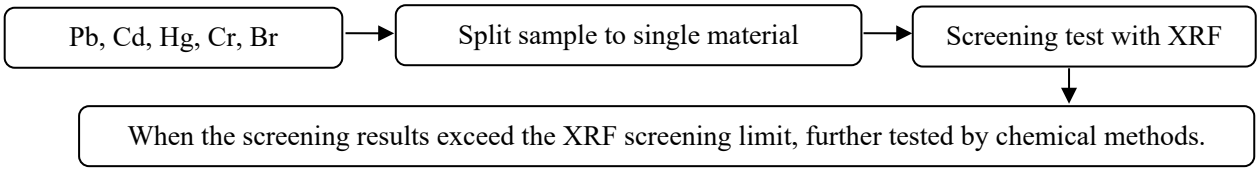
Part No.	Part description	Restricted substances	Results of XRF（mg/kg）	Results of chemical testing（mg/kg）	Conclusion
49	Black plastic	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	
50	Black material	Pb	BL	---	Pass
		Cd	BL	---	
		Hg	BL	---	
		Cr(VI)	BL	---	
		PBBs	BL	---	
		PBDEs	BL	---	
		DIBP	---	ND	
		DBP	---	ND	
		BBP	---	ND	
		DEHP	---	ND	

Remark:

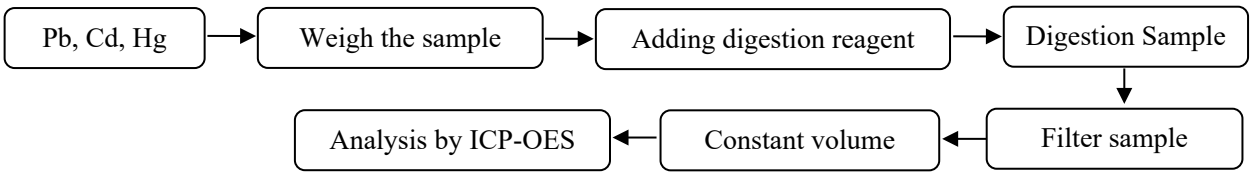
1. There are the results on total Br while test items on restricted substances are PBBs and PBDEs. There is the result on total Cr while test item on restricted substances is Cr(VI).
2. Results are obtained by XRF for primary screening, and chemical testing by ICP-OES (for Pb, Cd, Hg), UV-VIS (for Cr(VI)) and GC-MS (for PBBs, PBDEs) is recommended to be performed, if the concentration Exceeds the below warning value according to IEC 62321-3-1:2013.
3. ND = Not detected (<MDL), mg/kg = ppm = 0.0001%.
4. “---” = Not conducted.
5. The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than 0.13 μg/cm^2, the sample coating is considered to contain Cr(VI). The sample is negative for Cr(VI) if the Cr(VI) concentration is less than 0.10 μg/cm^2, the sample is considered a non-Cr(VI) based coating. The result between 0.10μg/cm^2 and 0.13μg/cm^2 is considered to be inconclusive, unavoidable coating variations may influence the determination.

Test Flow Chart

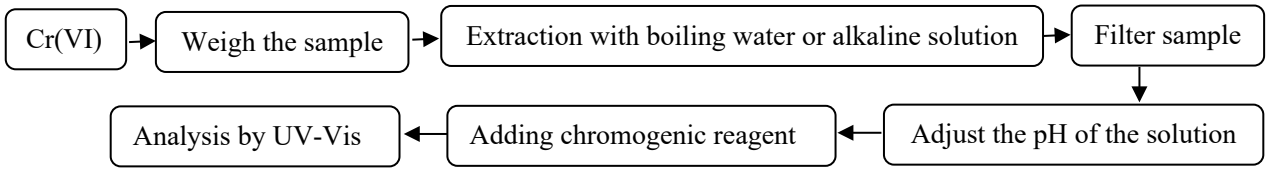
1. Pb, Cd, Hg, Cr, Br (XRF test method)



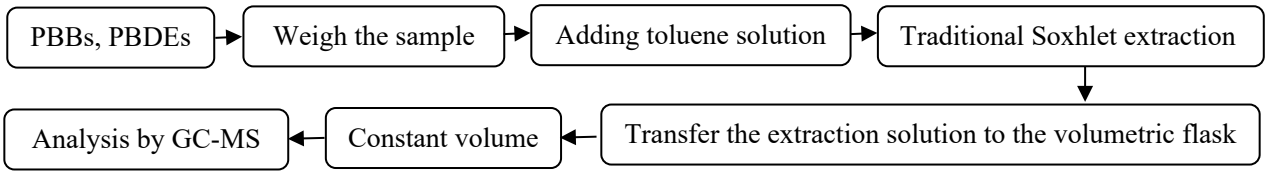
2. Pb, Cd, Hg (ICP-OES test method)



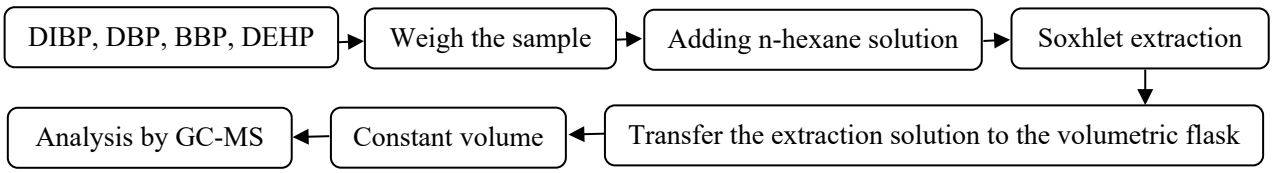
3. Cr(VI) (UV-Vis test method)



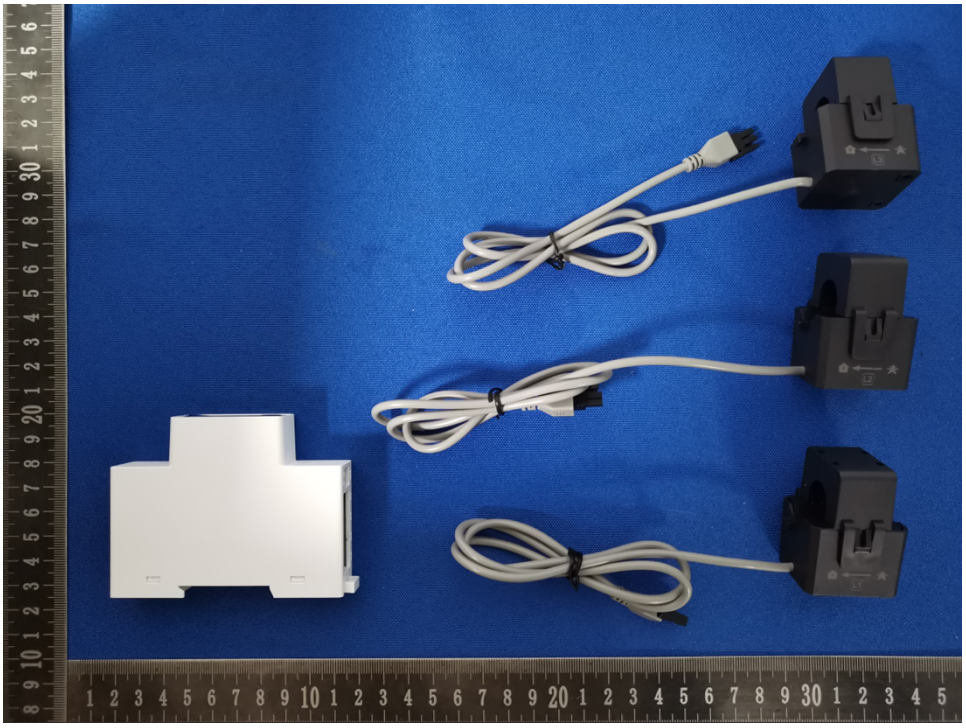
4. PBBs, PBDEs (GC-MS test method)

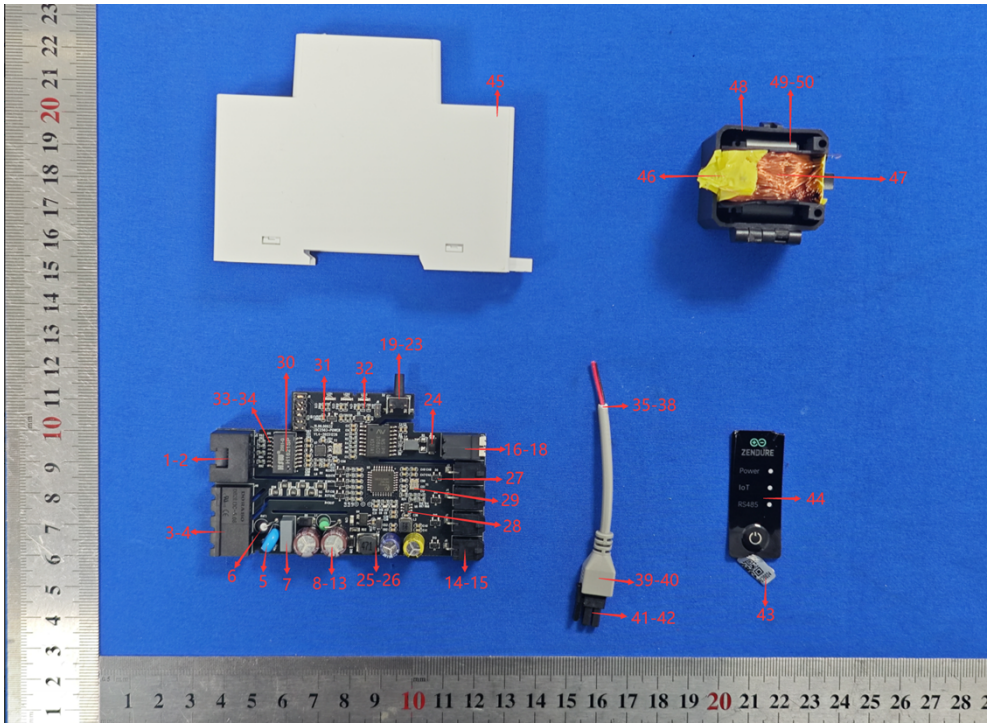


5. DIBP, DBP, BBP, DEHP (GC-MS test method)



Sample Photo(s)





Statement

1. Report is invalid without the editor, the reviewer or the approver signature, or altered, or additions and deletions, or not stamped with a special seal.
2. This test report is only responsible for the sample of this acceptance.
3. If the applicant does not raise any objection within 15 working days after receiving the report, it shall deemed to approve the report result.

* * * End of report * * *

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