DEKRA Testing and Certification (Shanghai) Ltd., Guangzhou branch

Flashbay Electronics
Building2, Jixun Industrial Park, Xinjiao, Dong'ao Village, Shatian Town, Huiyang District, Huizhou City, Guangdong Province, P.R. China

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TEST REPORT

Test Report No.	**:**	**4932050.50** Version 1
Project No.	**:**	**4932050.00**
Test Report Date	**:**	**2025-01-20**

Job No.	:	25-00078
Applicant	:	Flashbay Electronics Building2, Jixun Industrial Park, Xinjiao, Dong'ao Village, Shatian Town, Huiyang District, Huizhou City, Guangdong Province, P.R. China
Product Name	:	Wireless Chargers
Model No.	:	Vivid (VID)

Test Requested	*Conclusion:*
RoHS Directive 2011/65/EU & Amendment Directive (EU) 2015/863.	PASS

Sample Received	:	2025-01-08
Testing Period	:	2025-01-08 to 2025-01-20
Test Results		Refer to data listed in following pages

TESTED SAMPLE PHOTO:

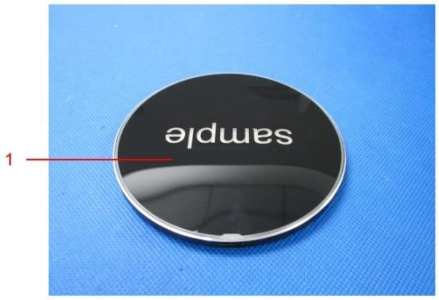
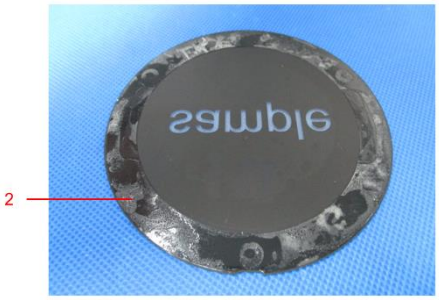
Signed for and on behalf of
DEKRA Testing and Certification (Shanghai) Ltd., Guangzhou branch
Chemical & Mechanical

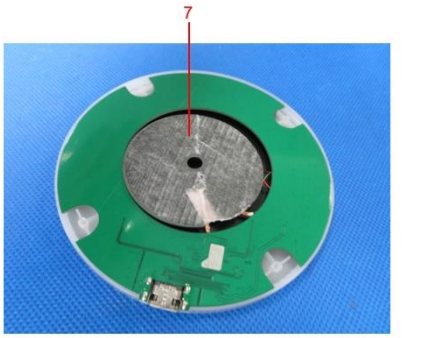
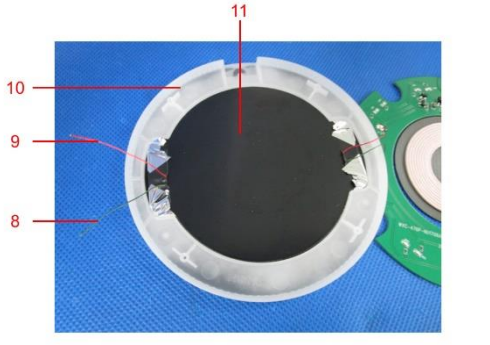
Devin Ai
Laboratory Manager

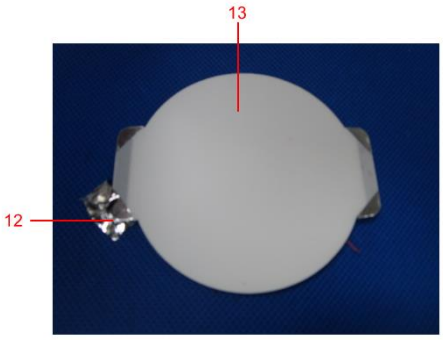
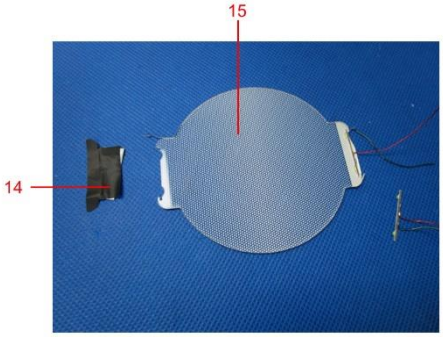
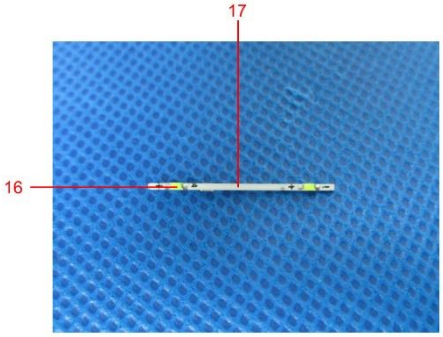
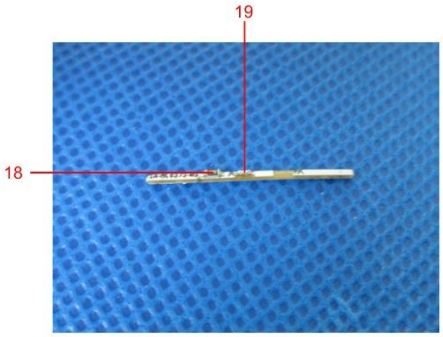
TEST RESULTS

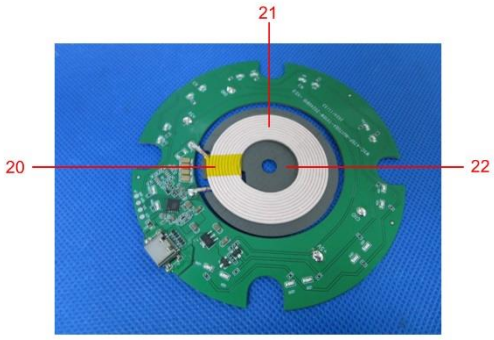
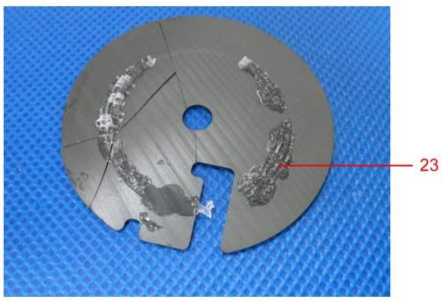
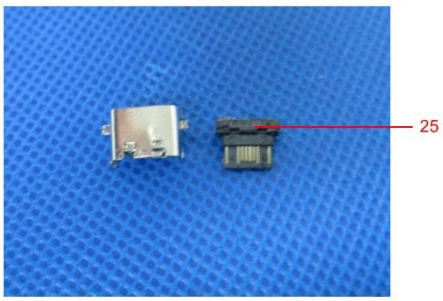
RoHS Directive 2011/65/EU & Amendment Directive (EU) 2015/863

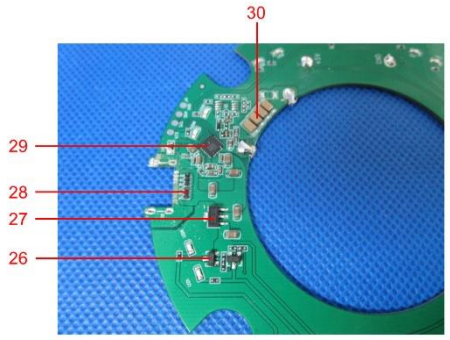
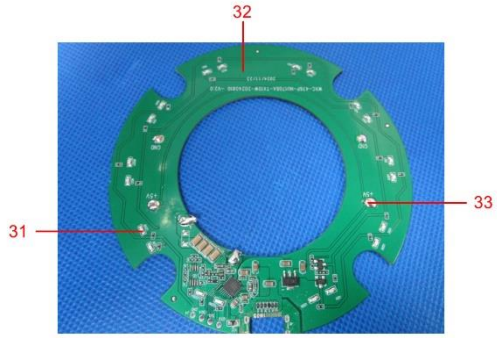
Test Components:

Test No.	Name of material	Photograph
1	Black plastic	
2	Transparent glue	
3	Black adhesive foam	
4	Black surfaced metal	

Test No.	Name of material	Photograph
5	Silvery metal screw	
6	Black adhesive foam	
7	White glue	
8	Green surfaced metal wire	
9	Red surfaced metal wire	
10	White plastic	
11	Black/white plastic	

Test No.	Name of material	Photograph
12	Silvery adhesive plastic	
13	White plastic	
14	Black/white adhesive plastic	
15	Transparent plastic with white printing	
16	Yellow LED	
17	White PCB	
18	Black body	
19	Silvery metal solder	

Test No.	Name of material	Photograph
20	Brown transparent adhesive plastic	
21	Pink enamel-insulated wire	
22	Dark grey ceramic	
23	Transparent glue	
24	Silvery metal	
25	Black plastic	

Test No.	Name of material	Photograph
26	Black body	
27	Black body	
28	Black body	
29	Black body	
30	Brown body	
31	White LED	
32	Green PCB	
33	Silvery metal solder	

A. Screening Test

Test No.	Result (mg/kg)				
	Pb	Cd	Hg	Cr	Br
1	BL	BL	BL	BL	BL
2	BL	BL	BL	BL	BL
3	BL	BL	BL	BL	BL
4	BL	BL	BL	BL	N.A.
5	BL	**OL**	BL	BL	N.A.
6	BL	BL	BL	BL	BL
7	BL	BL	BL	BL	BL
8	BL	BL	BL	BL	N.A.
9	BL	BL	BL	BL	N.A.
10	BL	BL	BL	BL	BL
11	BL	BL	BL	BL	BL
12	BL	BL	BL	BL	BL
13	BL	BL	BL	BL	BL
14	BL	BL	BL	BL	BL
15	BL	BL	BL	BL	BL
16	BL	BL	BL	BL	BL
17	BL	BL	BL	BL	**IC**
18	BL	BL	BL	BL	BL
19	BL	BL	BL	BL	N.A.
20	BL	BL	BL	BL	BL
21	BL	BL	BL	BL	BL
22	BL	BL	BL	BL	BL

Test No.	Result (mg/kg)				
	Pb	Cd	Hg	Cr	Br
23	BL	BL	BL	BL	BL
24	BL	BL	BL	**IC**	N.A.
25	BL	BL	BL	BL	BL
26	BL	BL	BL	BL	BL
27	BL	BL	BL	BL	BL
28	BL	BL	BL	BL	BL
29	BL	BL	BL	BL	BL
30	BL	BL	BL	BL	BL
31	BL	BL	BL	BL	BL
32	BL	BL	BL	BL	**IC**
33	BL	BL	BL	BL	N.A.

Remark:

1. mg/kg = Milligram per kilogram
2. BL = Below Limit
3. **OL = Over Limit, represents test item needs further confirmation.**
4. **IC = Inconclusive, represents test item needs further confirmation.**
5. N.A. = Not Applicable
6. There are the results on total Br while test items on restricted substances are PBBs and PBDEs. There are the results on total Cr while test item on restricted substance is Cr(VI).

Disclaimers:

This XRF screening result 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 results 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.).

B. Chemical Test

Test Item	Result (mg/kg)
	(5)
Cadmium (Cd)	N.D.

Test Item	Result
	(24)
Hexavalent Chromium Cr(VI)	Negative

Test Item	Result (mg/kg)	
	(17)	(32)
PBBs	N.D.	N.D.
PBDEs	N.D.	N.D.

Remark:

1. N.D. = Not Detected, less than MDL

2. mg/kg = Milligram per kilogram
3. According to IEC 62321-7-1:2015 Ed.1.0, result on Cr(VI) for metal sample is shown as Positive/Negative.
   Negative = Absence of Cr(VI) in coating layer, Positive = Presence of Cr(VI) in coating layer.

Note:
Results were obtained by EDXRF for primary screening, and further chemical testing by ICP-OES (for Cd, Pb, Hg), UV-Vis (for Cr(VI)) and GC-MS (for PBBs, PBDEs) were recommended to be performed, if the concentration exceeded the warning value according to IEC 62321-3-1:2013 Ed. 1.0 (unit: mg/kg).

C. Phthalates Test

For plasticised material(s) in test components

Test Item	Result (mg/kg)						MDL	Limit
	(1)	(2)	(3)	(6)	(7)	(10)	(mg/kg)	(mg/kg)
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	100	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	100	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	N.D.	N.D.	111	N.D.	100	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	100	1000

Test Item	Result (mg/kg)						MDL	Limit
	(11)	(12)	(13)	(14)	(15)	(16)	(mg/kg)	(mg/kg)
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	100	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	100	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	100	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	100	1000

Test Item	Result (mg/kg)						MDL	Limit
	(17)	(20)	(21)	(23)	(25)	(31)	(mg/kg)	(mg/kg)
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	N.D.	151	N.D.	N.D.	N.D.	100	1000
Butyl benzyl phthalate (BBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	100	1000
Dibutyl phthalate (DBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	100	1000
Diisobutyl phthalate (DIBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	100	1000

Test Item	Result (mg/kg)	MDL	Limit
	(32)	(mg/kg)	(mg/kg)
Bis(2-ethylhexyl) phthalate (DEHP)	N.D.	100	1000
Butyl benzyl phthalate (BBP)	N.D.	100	1000
Dibutyl phthalate (DBP)	N.D.	100	1000
Diisobutyl phthalate (DIBP)	N.D.	100	1000

Remark:
1. N.D. = Not Detected (below MDL)
2. MDL = Method Detection Limit
3. mg/kg = Milligram per kilogram

Test Method

A. Screening test by XRF spectroscopy: With reference to IEC 62321-3-1: 2013 Ed. 1.0 Screening - Lead, mercury, cadmium, total chromium and total bromine using X-ray fluorescence spectrometry.

Screening limits in mg/kg for regulated elements in various material.

Element	Polymer Material	Metallic Material	Composite Material
Cadmium (Cd)	BL≤70＜IC＜130≤OL	BL≤70＜IC＜130≤OL	LOD＜IC＜150≤OL
Lead (Pb)	BL≤700＜IC＜1300≤OL	BL≤700＜IC＜1300≤OL	BL≤500＜IC＜1500≤OL
Mercury (Hg)	BL≤700＜IC＜1300≤OL	BL≤700＜IC＜1300≤OL	BL≤500＜IC＜1500≤OL
Bromine (Br)	BL≤300＜IC	N.A.	BL≤250＜IC
Chromium (Cr)	BL≤700＜IC	BL≤700＜IC	BL≤500＜IC

BL = Below Limit, OL = Over Limit, IC=Inconclusive, N.A. = Not Applicable, LOD=Limit of Detection

B. Chemical Test

Test Item	Test Method	Test Instrument	MDL	EU RoHS Limit (mg/kg)
Lead (Pb)	IEC 62321-5: 2013 Ed. 1.0 Sec.7	ICP-OES	5mg/kg	1000
Cadmium (Cd)	IEC 62321-5: 2013 Ed. 1.0 Sec.7	ICP-OES	5mg/kg	100
Mercury (Hg)	IEC 62321-4: 2013 AMD 1:2017 Ed. 1.0 Sec.7	ICP-OES	5mg/kg	1000
Hexavalent Chromium (Cr(VI))	IEC 62321-7-1:2015 Ed.1.0 Sec.7	UV-Vis	0.1μg/cm^2	1000
	IEC 62321-7-2:2017 Ed.1.0 Sec.7	UV-Vis	2mg/kg	
Polybrominated Biphenyls (PBBs)	IEC 62321-6: 2015 Ed. 1.0 Sec.8	GC-MS	10mg/kg	1000
Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321-6: 2015 Ed. 1.0 Sec.8	GC-MS	10mg/kg	1000
Bis(2-ethylhexyl) phthalate (DEHP)	IEC 62321-8: 2017 Ed. 1.0 Sec.8	GC-MS	100mg/kg	1000
Butyl benzyl phthalate (BBP)	IEC 62321-8: 2017 Ed. 1.0 Sec.8	GC-MS	100mg/kg	1000
Dibutyl phthalate (DBP)	IEC 62321-8: 2017 Ed. 1.0 Sec.8	GC-MS	100mg/kg	1000
Diisobutyl phthalate (DIBP)	IEC 62321-8: 2017 Ed. 1.0 Sec.8	GC-MS	100mg/kg	1000

---End of Report---