



中国认可
国际互认
检测
TESTING
CNAS L4136



WTF23H07153650R2C



验证报告 Verification Report

报告编号/ Report No..... : WTF23H07153650R2C
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样品名称/ Sample Name..... : 无刷内转子/ Brushless inner rotor
样品型号/ Sample Model..... : BL4235I、BL3657I
客户参考信息/ Client's Ref. Info..... : BL1625I、BL2412I、BL2418I、BL2430I、BL2808I、BL2832I、
BL2838I、BL2847I、BL2867I、BL3220I、BL3626I、BL3630I、
BL3640I、BL3650I、BL3657I、BL3660I、BL4235I、BL4250I、
BL4260I、BL4275I、BL4525I、BL5265I、BL5285I、BL6050I、
BL6060I
检测要求/ Test Requested..... : 参见报告下页/ Refer to next page (s)
检测结论/ Test Conclusion..... : 参见报告下页/ Refer to next page (s)
样品接收日期/ Date of Receipt sample..... : 2023-7-13
检测周期/ Testing period..... : 2023-7-13 ~ 2023-7-20
报告日期/ Date of Issue..... : 2024-3-12
检测结果/ Test Result..... : 参见报告下页/ Refer to next page (s)

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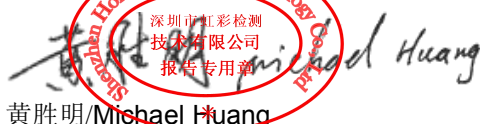
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Signed for and on behalf of
Shenzhen Hongcai Testing Technology Co.,
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HCT/RF-23-19

检测要求/ Test Requested	检测结论/ Test Conclusion
参照欧盟 RoHS 指令 2011/65/EU 及其修订指令 EU 2015/863, 对样品中的铅、镉、汞、六价铬、多溴联苯、多溴二苯醚、DBP、BBP、DEHP、DIBP 的含量进行验证。 Verify the Pb, Cd, Hg, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP content in the sample with reference to EU RoHS Directive 2011/65/EU and its amendment Directive EU 2015/863.	合格/ PASS

检测结果/ Test Result(s):

序号 No.	样品描述 Sample Description	检测项目 Test Item(s)	ED-XRF 结果 ED-XRF Result(s) (1)	化学结果 Chemical Result(s) (2)	样品接收日期 Received Sample(s) Date	备注 Note
1-1	银灰色金属盖 Silver gray metal cover	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
1-2	黑色金属弹片 Black metal shrapnel	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	IN	ND		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
1-3	银色金属外环 (滚珠轴承) Silver metal outer ring (ball bearing)	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	IN	ND		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
DIBP	NA	---				



序号 No.	样品描述 Sample Description	检测项目 Test Item(s)	ED-XRF 结果 ED-XRF Result(s) (1)	化学结果 Chemical Result(s) (2)	样品接收日期 Received Sample(s) Date	备注 Note
1-4	银色金属内环 (滚珠轴承) Silver metal inner ring (ball bearing)	Pb	BL	---	2023-7-13	同/Same 1-3
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	IN	ND		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
1-5	浅金色金属盖 (滚珠轴承) Light golden metal cover (ball bearing)	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
1-6	银色金属球 (滚珠轴承) Silver metal ball (ball bearing)	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	IN	ND		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
1-7	银色金属保持器 (滚珠轴承) Silver metal retainer (ball bearing)	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	IN	ND		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		



序号 No.	样品描述 Sample Description	检测项目 Test Item(s)	ED-XRF 结果 ED-XRF Result(s) (1)	化学结果 Chemical Result(s) (2)	样品接收日期 Received Sample(s) Date	备注 Note
1-8	银灰色金属外壳 Silver gray metal shell	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	IN	ND		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
1-9	红色干胶 (定子) Red dry glue (stator)	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	BL	---	2023-7-18	
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
1-10	黑色塑胶 (定子) Black plastic (stator)	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	BL	---		
		DBP	NA	403		
		BBP	NA	ND		
		DEHP	NA	ND		
1-11	铜色漆包线 (定子) Copper enamelled wire (stator)	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	BL	---		
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
		DIBP	NA	ND		



序号 No.	样品描述 Sample Description	检测项目 Test Item(s)	ED-XRF 结果 ED-XRF Result(s) (1)	化学结果 Chemical Result(s) (2)	样品接收日期 Received Sample(s) Date	备注 Note
1-12	银色金属硅钢片 (定子) Silver metal silicon steel sheet (stator)	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	IN	ND		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
1-13	白色塑胶皮连粘胶 (定子) White plastic sheet with adhesive(stator)	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	BL	---	2023-7-18	
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
1-14	黑色塑胶环 (轴) Black plastic ring (shaft)	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	BL	---		
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
1-15	金色金属环 (轴) Golden metal ring (shaft)	Pb	IN	74	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
		DIBP	NA	---		



序号 No.	样品描述 Sample Description	检测项目 Test Item(s)	ED-XRF 结果 ED-XRF Result(s) (1)	化学结果 Chemical Result(s) (2)	样品接收日期 Received Sample(s) Date	备注 Note
1-16	银色金属轴 (轴) Silver metal shaft (shaft)	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	IN	ND		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
1-17	蓝色干胶 (轴) Blue dry glue (shaft)	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	BL	---		
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
1-18	银色金属硅钢片 (轴) Silver metal silicon steel sheet (shaft)	Pb	BL	---	2023-7-13	同/Same 1-12
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	IN	ND		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
1-19	黑色磁体 (轴) Black magnet (shaft)	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	IN	ND		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
DIBP	NA	---				



序号 No.	样品描述 Sample Description	检测项目 Test Item(s)	ED-XRF 结果 ED-XRF Result(s) (1)	化学结果 Chemical Result(s) (2)	样品接收日期 Received Sample(s) Date	备注 Note
1-20	哑白色塑胶插口外壳 (PCB 板) Matte white plastic socket shell (PCB board)	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	BL	---		
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
1-21	银色金属针 (PCB 板) Silver metal pin (PCB board)	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
1-22	银色金属固定片 (PCB 板) Silver metal fixed sheet (PCB board)	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
1-23	棕色本体贴片电容 (PCB 板) Brown body chip capacitor (PCB board)	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	IN	ND		
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
		DIBP	NA	ND		



序号 No.	样品描述 Sample Description	检测项目 Test Item(s)	ED-XRF 结果 ED-XRF Result(s) (1)	化学结果 Chemical Result(s) (2)	样品接收日期 Received Sample(s) Date	备注 Note
1-24	黑印白色本体贴片电阻 (PCB 板) Black printed white body chip resistor (PCB board)	Pb	IN	326	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	IN	ND		
		Br(PBBs&PBDEs)	BL	---		
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
1-25	黑色本体二极管 (PCB 板) Black body diode (PCB board)	Pb	IN	4250##	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	BL	---		
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
1-26	黑色本体三极管 (PCB 板) Black body triode (PCB board)	Pb	IN	4250##	2023-7-13	同/Same 1-25
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	BL	---		
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
1-27	黑色本体 4 脚集成电路 (PCB 板) Black body 4-pins IC (PCB board)	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	BL	---		
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
DIBP	NA	ND				



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序号 No.	样品描述 Sample Description	检测项目 Test Item(s)	ED-XRF 结果 ED-XRF Result(s) (1)	化学结果 Chemical Result(s) (2)	样品接收日期 Received Sample(s) Date	备注 Note
1-28	黑色本体 8 脚集成电路 (PCB 板) Black body 8-pins IC (PCB board)	Pb	BL	---	2023-7-13	同/Same 1-27
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	BL	---		
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
1-29	黑色本体 16 脚集成电路 (PCB 板) Black body 16-pins IC (PCB board)	Pb	BL	---	2023-7-13	同/Same 1-27
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	BL	---		
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
1-30	米色覆铜层压板连绿色, 白色涂层 (PCB 板) Cream copper clad laminated board with green, white coating (PCB board)	Pb	BL	---	2023-7-13	●
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	IN	ND		
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
1-31	银色金属焊锡 (PCB 板) Silver metal solder (PCB board)	Pb	BL	---	2023-7-13	●
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
DIBP	NA	---				



序号 No.	样品描述 Sample Description	检测项目 Test Item(s)	ED-XRF 结果 ED-XRF Result(s) (1)	化学结果 Chemical Result(s) (2)	样品接收日期 Received Sample(s) Date	备注 Note
2-1	银灰色金属盖 Silver gray metal cover	Pb	BL	---	2023-7-13	同/Same 1-1
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
2-2	黑色金属弹片 Black metal shrapnel	Pb	BL	---	2023-7-13	同/Same 1-2
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	IN	ND		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
2-3	银色金属外环（滚珠轴承） Silver metal outer ring (ball bearing)	Pb	BL	---	2023-7-13	同/Same 1-3
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	IN	ND		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
2-4	银色金属内环（滚珠轴承） Silver metal inner ring (ball bearing)	Pb	BL	---	2023-7-13	同/Same 1-3
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	IN	ND		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		



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2-5	银色金属盖 (滚珠轴承) Silver metal cover (ball bearing)	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	IN	ND		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
2-6	银色金属环 (滚珠轴承) Silver metal ring (ball bearing)	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	IN	ND		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
2-7	银色金属球 (滚珠轴承) Silver metal ball (ball bearing)	Pb	BL	---	2023-7-13	同/Same 1-6
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	IN	ND		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
2-8	银色金属保持器(滚珠轴承) Silver metal retainers (ball bearing)	Pb	BL	---	2023-7-13	同/Same 1-7
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	IN	ND		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
		DIBP	NA	---		



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序号 No.	样品描述 Sample Description	检测项目 Test Item(s)	ED-XRF 结果 ED-XRF Result(s) (1)	化学结果 Chemical Result(s) (2)	样品接收日期 Received Sample(s) Date	备注 Note
2-9	黑色涂层 Black coating	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	BL	---		
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
2-10	银灰色金属外壳 Silver gray metal shell	Pb	BL	---	2023-7-13	同/Same 1-8
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	IN	ND		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
2-11	黑色软胶 (外壳) Black soft plastic (shell)	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	BL	---		
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
2-12	黑色塑胶 (定子) Black plastic (stator)	Pb	BL	---	2023-7-13	同/Same 1-10
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	BL	---		
		DBP	NA	403		
		BBP	NA	ND		
		DEHP	NA	ND		
DIBP	NA	ND				



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2-13	银色金属硅钢片 (定子) Silver metal silicon steel sheet (stator)	Pb	BL	---	2023-7-13	同/Same 1-12
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	IN	ND		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
2-14	铜色漆包线 (定子) Copper enamelled wire (stator)	Pb	BL	---	2023-7-13	同/Same 1-11
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	BL	---		
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
2-15	红色干胶 (定子) Red dry glue (stator)	Pb	BL	---	2023-7-13	同/Same 1-9
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	BL	---		
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
2-16	白印黑色软胶热缩管 (定子) White printed black soft plastic heat shrink tube (stator)	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	BL	---	2023-7-18	
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
		DIBP	NA	ND		



序号 No.	样品描述 Sample Description	检测项目 Test Item(s)	ED-XRF 结果 ED-XRF Result(s) (1)	化学结果 Chemical Result(s) (2)	样品接收日期 Received Sample(s) Date	备注 Note
2-17	黑色塑胶环 (轴) Black plastic ring (shaft)	Pb	BL	---	2023-7-13	同/Same 1-14
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	BL	---		
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
2-18	金色金属环 (轴) Golden metal ring (shaft)	Pb	IN	74	2023-7-13	同/Same 1-15
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
2-19	银色金属轴 (轴) Silver metal shaft (shaft)	Pb	BL	---	2023-7-13	同/Same 1-16
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	IN	ND		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
2-20	蓝色干胶 (轴) Blue dry glue (shaft)	Pb	BL	---	2023-7-13	同/Same 1-17
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	BL	---		
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
		DIBP	NA	ND		



序号 No.	样品描述 Sample Description	检测项目 Test Item(s)	ED-XRF 结果 ED-XRF Result(s) (1)	化学结果 Chemical Result(s) (2)	样品接收日期 Received Sample(s) Date	备注 Note
2-21	银色金属硅钢片 (轴) Silver metal silicon steel sheet (shaft)	Pb	BL	---	2023-7-13	同/Same 1-12
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	IN	ND		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
2-22	黑色磁体 (轴) Black magnet (shaft)	Pb	BL	---	2023-7-13	同/Same 1-19
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	IN	ND		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
2-23	银色金属螺纹管 (轴) Silver metal threaded tube (shaft)	Pb	BL	---	2023-7-13	●
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	IN	ND		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
2-24	哑白色塑胶插口外壳 (PCB 板) Matte white plastic socket shell (PCB board)	Pb	BL	---	2023-7-13	同/Same 1-20
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	BL	---		
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
DIBP	NA	ND				



序号 No.	样品描述 Sample Description	检测项目 Test Item(s)	ED-XRF 结果 ED-XRF Result(s) (1)	化学结果 Chemical Result(s) (2)	样品接收日期 Received Sample(s) Date	备注 Note
2-25	银色金属针 (PCB 板) Silver metal pin (PCB board)	Pb	BL	---	2023-7-13	同/Same 1-21
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
2-26	银色金属固定片 (PCB 板) Silver metal fixed sheet (PCB board)	Pb	BL	---	2023-7-13	同/Same 1-22
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
2-27	黑印白色本体贴片电阻 (PCB 板) Black printed white body chip resistor (PCB board)	Pb	IN	326	2023-7-13	同/Same 1-24
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	IN	ND		
		Br(PBBs&PBDEs)	BL	---		
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
2-28	黑色本体三极管 (PCB 板) Black body triode (PCB board)	Pb	IN	4250##	2023-7-13	同/Same 1-25
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	BL	---		
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
DIBP	NA	ND				



*

序号 No.	样品描述 Sample Description	检测项目 Test Item(s)	ED-XRF 结果 ED-XRF Result(s) (1)	化学结果 Chemical Result(s) (2)	样品接收日期 Received Sample(s) Date	备注 Note
2-29	米色覆铜层压板连绿色, 白色涂层 (PCB 板) Cream copper clad laminated board with green, white coating (PCB board)	Pb	BL	---	2023-7-13	同/Same 1-30
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	IN	ND		
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
2-30	银色金属焊锡 (PCB 板) Silver metal solder (PCB board)	Pb	BL	---	2023-7-13	同/Same 1-31
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
2-31	哑白色塑胶插头 (电线) Matte white plastic plug (wire)	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		2023-7-18	Br(PBBs&PBDEs)	IN	ND	
			DBP	NA	ND	
			BBP	NA	ND	
			DEHP	NA	ND	
2-32	银色金属插头针 (电线) Silver metal plug pin (wire)	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
DIBP	NA	---				



序号 No.	样品描述 Sample Description	检测项目 Test Item(s)	ED-XRF 结果 ED-XRF Result(s) (1)	化学结果 Chemical Result(s) (2)	样品接收日期 Received Sample(s) Date	备注 Note
2-33	米色塑胶插头 (电线) Cream plastic plug (wire)	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	IN	ND	2023-7-18	
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
2-34	银色金属插头针 (电线) Silver metal plug pin (wire)	Pb	BL	---	2023-7-13	同/Same 2-32
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
2-35	透明干胶 (电线) Transparent dry glue (wire)	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	BL	---	2023-7-18	
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
2-36	黑印灰色软胶线皮 (电线) Black printed gray soft plastic wire jacket (wire)	Pb	BL	---	2023-7-13	•
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	BL	---		
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
DIBP	NA	ND				



序号 No.	样品描述 Sample Description	检测项目 Test Item(s)	ED-XRF 结果 ED-XRF Result(s) (1)	化学结果 Chemical Result(s) (2)	样品接收日期 Received Sample(s) Date	备注 Note
2-37	黑印红色软胶线皮 (电线) Black printed red soft plastic wire jacket (wire)	Pb	BL	---	2023-7-13	●
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	BL	---		
		DBP	NA	ND		
		BBP	NA	ND		
		DEHP	NA	ND		
2-38	银色金属线芯 (电线) Silver metal wire core (wire)	Pb	BL	---	2023-7-13	●
		Cd	BL	---		
		Hg	BL	---		
		Cr(Cr(VI))	BL	---		
		Br(PBBs&PBDEs)	NA	---		
		DBP	NA	---		
		BBP	NA	---		
		DEHP	NA	---		
DIBP	NA	---				

备注/ Note:

●=实际检测样品/ ●=Actual tested sample

“同”=表示该样品与实际检测样品为同材质, 未测试。/ "Same" = It means that the sample and the actual tested sample are of the same material and have not been tested.

根据客户提供的申明, 材质相同的样品 (部位) 清单见上表格。/ According to the client's declarations, see the above table for the list of samples (parts) of the same material.

根据客户提供的声明, 样品 (基材) 中的铅(Pb)被欧盟 RoHS 指令 2011/65/EU 及其修订指令 EU 2015/863 豁免, 相应豁免条文为(According to the declaration from the client, Lead(Pb) in specimen(s) (Substrate) is(are) exempted by EU RoHS Directive 2011/65/EU and its amendment Directive EU 2015/863 base on):

##7(a) 高熔融温度型焊料中的铅(例如: 铅基合金中铅含量≥85%)(Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead).).



说明(Remark):

(1): ED-XRF 检测(ED-XRF test):

(a) 对于限用物质 PBBs/PBDEs, ED-XRF 结果显示的是总 Br 含量; 对于限用物质 Cr(VI), ED-XRF 结果显示的是总 Cr 含量(For the restricted substances PBBs/PBDEs, the ED-XRF results show the total Br content; for the restricted substance Cr(VI), the ED-XRF results show the total Cr content.)。

(b) ED-XRF 所得的检测结果只作初步筛选, 如果 ED-XRF 结果超出 IEC 62321-3-1:2013 所规定的警戒范围, 建议客户用更精确的化学检测方法检测样品(Results were obtained by ED-XRF for primary screening, and further chemical testing are recommended to be performed, if the concentration exceeds the below warning value according to IEC 62321-3-1:2013.)。

单位(Unit): mg/kg

元素 (Elements)	聚合物 (Polymers)	金属 (Metals)	复合材料 (Composite material)
Pb	BL ≤ 100 < X < 1200 ≤ OL	BL ≤ 100 < X < 1200 ≤ OL	BL ≤ 80 < X < 1300 ≤ OL
Cd	BL ≤ 30 < X < 120 ≤ OL	BL ≤ 30 < X < 120 ≤ OL	BL ≤ 30 < X < 120 ≤ OL
Hg	BL ≤ 100 < X < 1200 ≤ OL	BL ≤ 100 < X < 1200 ≤ OL	BL ≤ 80 < X < 1300 ≤ OL
Cr	BL ≤ 200 < X	BL ≤ 200 < X	BL ≤ 150 < X
Br	BL ≤ 200 < X	---	BL ≤ 200 < X

(c) BL=ED-XRF 分析低于限值(Below Limit by ED-XRF analysis),

OL=ED-XRF 分析高于限值(Over Limit by ED-XRF analysis), IN=不确定(Inconclusive),

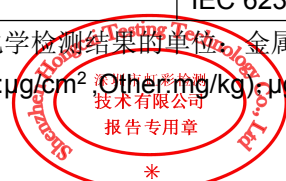
NA=不适用(Not Applicable), --- =未规定(Not regulated), X=需要进一步检测(need further chemical analysis)

(d)对于复合材料, ED-XRF 筛选检测元素所得数据可能与样品中实际含量不同(For composite material,the ED-XRF results may be different to the actual content in the sample.)。

(2): 化学检测及法规限值(Chemical test and regulatory limits):

检测项目 (Test Items)	检测方法 (Test Method)	检测仪器 (Test Equipment)	方法检出限 (MDL)	限值(均一材质) (Limit(by weight in homogeneous materials))
Pb	IEC 62321-5:2013	ICP-OES/AAS	2mg/kg	1000mg/kg
Cd	IEC 62321-5:2013	ICP-OES/AAS	2mg/kg	100mg/kg
Hg	IEC 62321-4:2013+AMD1:2017	ICP-OES	2mg/kg	1000mg/kg
Cr(VI)	金属(Metal)	IEC 62321-7-1:2015	UV-VIS	1000mg/kg
	其它(Others)	IEC 62321-7-2:2017	UV-VIS	
PBBs	IEC 62321-6:2015	GC-MS	5mg/kg(Each)	1000mg/kg(Sum)
PBDEs	IEC 62321-6:2015	GC-MS	5mg/kg(Each)	1000mg/kg(Sum)
DBP	IEC 62321-8:2017	GC-MS	30mg/kg	1000mg/kg
BBP	IEC 62321-8:2017	GC-MS	30mg/kg	1000mg/kg
DEHP	IEC 62321-8:2017	GC-MS	30mg/kg	1000mg/kg
DIBP	IEC 62321-8:2017	GC-MS	30mg/kg	1000mg/kg

(a) 化学检测结果的单位: 金属的 Cr(VI)是 $\mu\text{g}/\text{cm}^2$; 其余均为 mg/kg(Unit of Chemical test result: Cr(VI) of metal: $\mu\text{g}/\text{cm}^2$; Other:mg/kg); $\mu\text{g}/\text{cm}^2$ (microgram per square centimeter 微克每平方厘米), 1mg/kg=1ppm=0.0001%, mg/kg

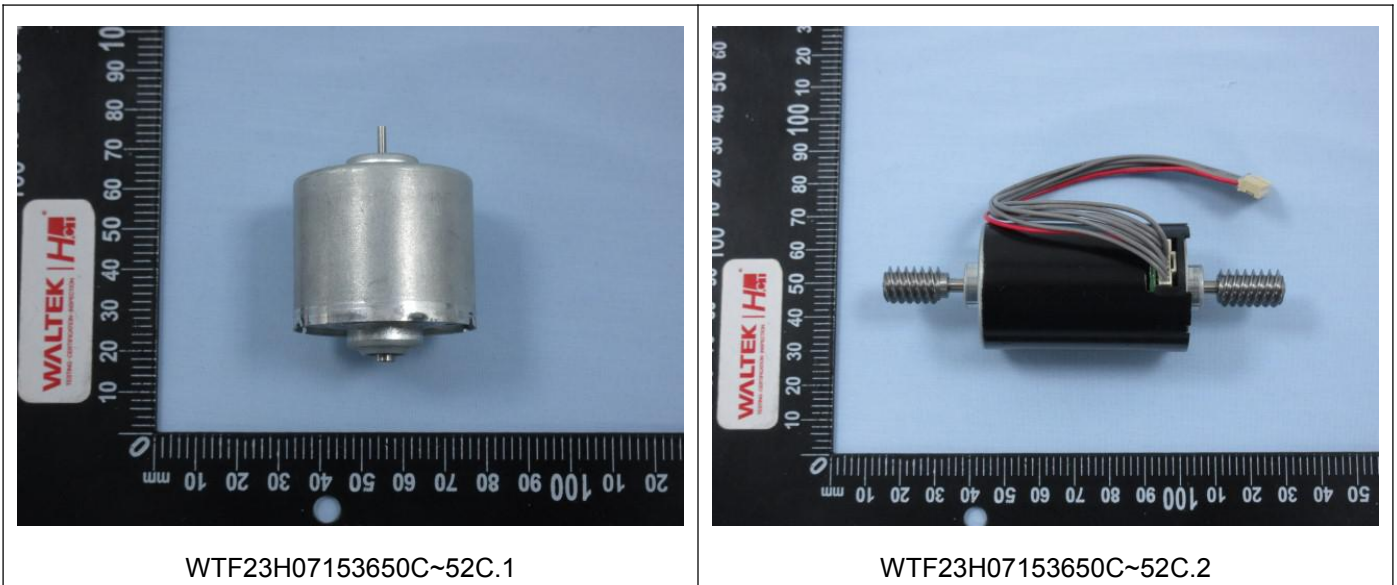


(milligram per kilogram 毫克每千克) = ppm (parts per million 百万分之), ND =未检出(低于方法检出限)(not detected (less than method detection limit)), MDL=Method Detection Limit 方法检出限, --- =未进行检测(Not Conducted)

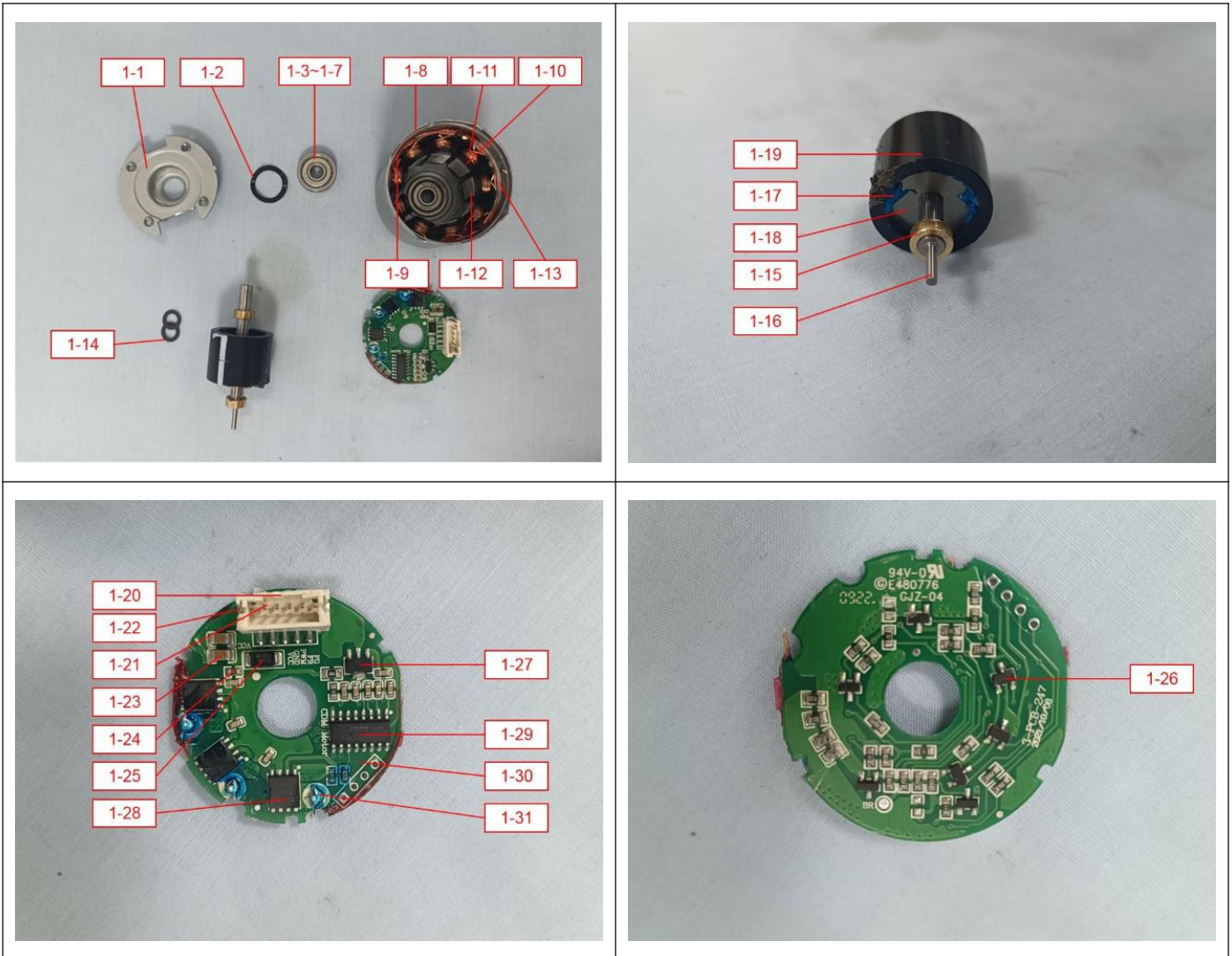
(b)金属镀层中,按照检测方法 IEC 62321-7-1:2015: ①当六价铬的浓度高于 $0.13\mu\text{g}/\text{cm}^2$ 时, 样品为阳性, 即含有六价铬; ②当六价铬的浓度为 ND(低于 $0.10\mu\text{g}/\text{cm}^2$) 时, 样品为阴性, 即未检测到六价铬; ③当六价铬的浓度介于 $0.10\mu\text{g}/\text{cm}^2$ 与 $0.13\mu\text{g}/\text{cm}^2$ 之间时, 无法直接判定是否检测到六价铬; 因不同个体的样品表面差异可能会影响测定结果; 由于未获知样品的存储条件和生产日期, 样品的六价铬检测结果仅能代表检测时样品含六价铬的状态(For corrosion-protected coatings on metals, according to the test method IEC 62321-7-1:2015: ①The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than $0.13\mu\text{g}/\text{cm}^2$. The sample coating is considered to contain Cr(VI); ②The sample is negative for Cr(VI) if Cr(VI) is ND (concentration less than $0.10\mu\text{g}/\text{cm}^2$). The coating is considered a non-Cr(VI) based coating; ③The result between $0.10\mu\text{g}/\text{cm}^2$ and $0.13\mu\text{g}/\text{cm}^2$ is considered to be inconclusive -unavoidable coating variations may influence the determination; The surface difference of samples from different individuals may affect the determination results of Cr(VI); Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.)

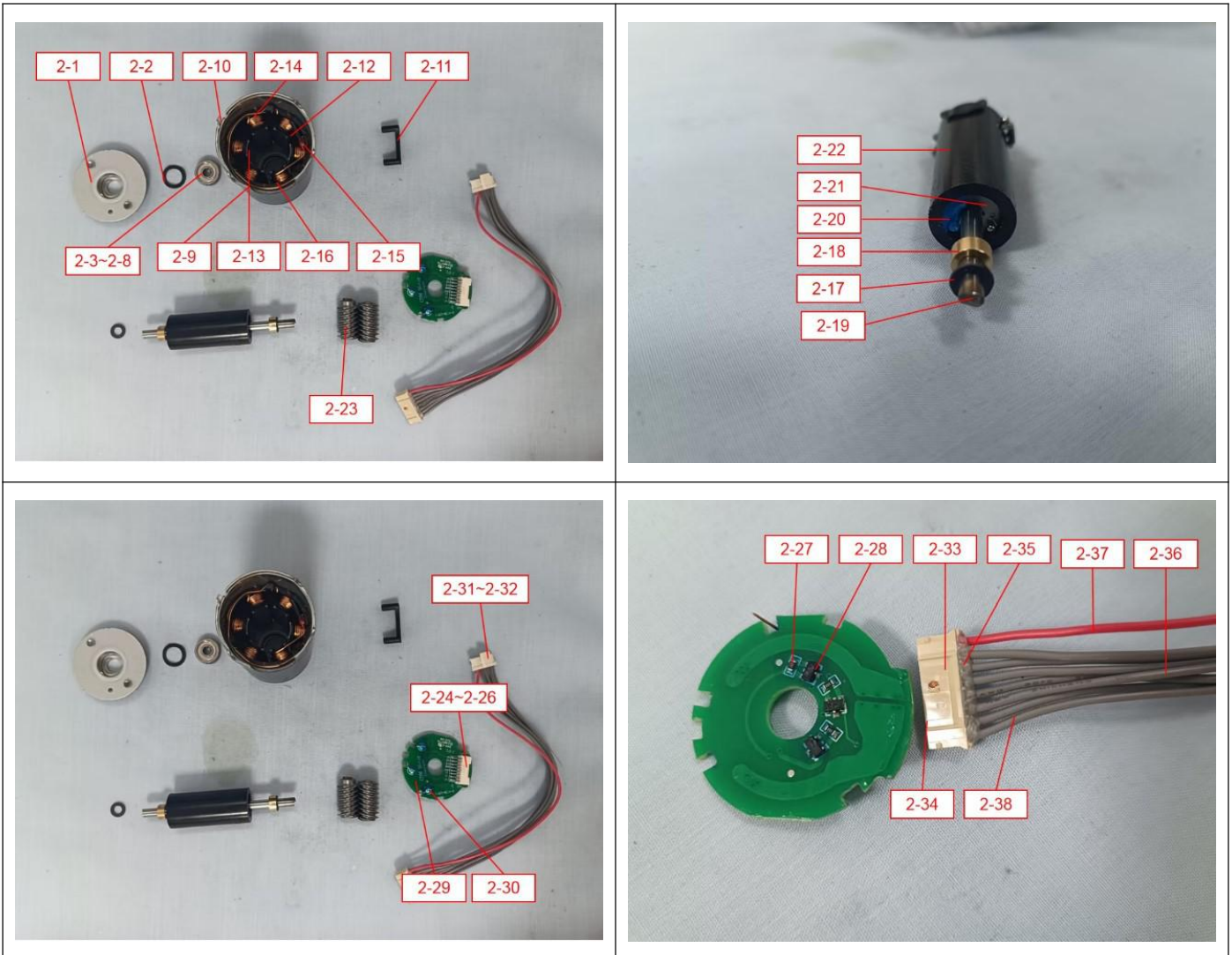
(3): 对本报告图片中标识的样品进行筛选及化学检测(Screening and chemical tests were performed for the samples indicated by the photo in this report.)

样品附图/ The photo of the sample



拆分附图/ The photo of Disassembly





声明/ Statement:

1. 检测报告无批准人签字和专用章无效。
This report is considered invalid without approved signature and special seal.
2. 委托单位及地址，样品和样品信息由委托方提供，委托方应对其真实性负责，HCT 未核实其真实性。
The Applicant name and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which HCT hasn't verified.
3. 本报告检测结果（结论）仅对受测样品负责。
The result(s)(conclusion) shown in this report refer(s) only to the sample(s) tested.
4. 未经 HCT 书面同意，不得部分复制本报告。
Without written approval of HCT, this report can't be reproduced except in full.
5. 无 CMA 标识报告中的结果仅用于客户科研、教学、内部质量控制、产品研发等目的，仅供内部参考。
The result(s) in no CMA logo report shall only be used for client's scientific research, teaching, internal quality control, product research and development, etc..and just for internal reference.
6. 有 CNAS 标识报告中的“n”代表该检测项目暂未申请 CNAS 认可。
The “n” in CNAS logo report means that the test item(s) was (were) currently not applying for CNAS accreditation.
7. 本报告使用的判定规则：
Decision rules used in this report:
(1)按照检测要求列的法规/标准中规定的判定规则；
(2)如果检测要求列的法规中没有规定判定规则的话，则按照《CNAS-GL015 判定规则和符合性声明指南》6.2.1 简单接受(w=0)的二元判定规则：
合格(接受)--测得值位于容许区间以内。
不合格(拒绝)--测得值位于容许区间以外。
(1)According to the Decision rules in the regulations/standards listed in the Test Requested;
(2)If there is no Decision rules specified in the regulations listed in the Test Requested, then according to CNAS-GL015 Guidelines on Decision Rules and Statements of Conformity, 6.2.1, Simple Acceptance (w=0) of The binary Decision rule:
PASS (Accepted) - The measured value is within the tolerance interval.
FAIL (Rejected) - The measured value is outside the tolerance interval.

=====报告结束/ End of Report =====

