



TEST REPORT

检测报告

Report No. : WTX21X09092868X1C

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Applicant..... : ZHEJIANG SAIKONG ELECTRICAL TECHNOLOGY CO., LTD
申请商 : 浙江赛控电气科技有限公司
Applicant Address..... : No.18 Liujiang road, Liushi town, Yueqing city, Wenzhou city, Zhejiang province, CN
申请商地址 : 浙江省温州市乐清市柳市镇柳江路 18 号
Supplier..... : ZHEJIANG SAIKONG ELECTRICAL TECHNOLOGY CO., LTD
供应商 : 浙江赛控电气科技有限公司
Supplier Address..... : No.18 Liujiang road, Liushi town, Yueqing city, Wenzhou city, Zhejiang province, CN
供应商地址 : 浙江省温州市乐清市柳市镇柳江路 18 号
Date of Receipt sample... : Sep.03, 2021
样品接收日期..... : 2021 年 09 月 03 日
Testing Period..... : Sep.03, 2021 to Sep.18, 2021
测试日期 : 2021 年 09 月 03 日 至 2021 年 09 月 18 日
Date of Issue..... : Oct.18, 2021
报告日期..... : 2021 年 10 月 18 日
Test Requested..... : In accordance with the RoHS Directive 2011/65/EU and its amendment (EU) No. 2015/863, to determine the 10 restricted substances content in the submitted sample.
测试需求 : 根据欧盟 RoHS 指令 2011/65/EU 及其修订指令 (EU)No.2015/863, 测试样品中 10 种限制物质的含量。

*****FOR FURTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGE(S) 更多详细信息请查阅下页 *****

Signed for and on behalf of 谨代表

Waltek Testing Group (Shenzhen) Co., Ltd. 深圳沃特检验技术有限公司

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Lee Li

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Tin Wang 王奇

Approved by:

Hugo Chen

签发

Hugo Chen 陈汝春



Sample Name..... : SSR
样品名 : 软启动器

Model No. : SSR4011-A-3P3
型号 : SSR4011-A-3P3

Reference Model No. : N/A
参考型号 : /

Brand..... : N/A
商标 : /

Test Method 检测方法:

- IEC 62321-3-1:2013, screening - Lead, mercury, cadmium, total chromium and total bromine by X-ray fluorescence spectrometry (XRF)
- IEC 62321-4:2013/AMD1:2017 for mercury (Hg), analyzed by ICP-OES
- IEC 62321-5:2013 for lead (Pb) and cadmium (Cd), analyzed by ICP-OES
- IEC 62321-7-2:2017 and/or IEC 62321-7-1:2015 for hexavalent chromium (Cr⁶⁺), analyzed by UV-Vis
- IEC 62321-6:2015 for PBBs and PBDEs, analyzed by GC-MS
- IEC 62321-8:2017 for phthalates, analyzed by GC-MS
- 参考 IEC 62321-3-1:2013, 使用 X 射线荧光光谱仪 (XRF) 对铅、镉、汞、总铬和总溴进行筛选;
- 参考 IEC 62321-4:2013/AMD1:2017, 使用 ICP-OES 检测汞含量;
- 参考 IEC62321-5:2013, 使用 ICP-OES 检测铅、镉含量;
- 参考 IEC62321-7-1:2015 及 IEC62321-7-2: 2017, 使用 UV-Vis 检测六价铬含量;
- 参考 IEC62321-6:2015, 使用 GC-MS 检测 PBBs 及 PBDEs 含量;
- 参考 IEC62321-8:2017, 使用 GC-MS 检测邻苯二甲酸酯含量。

Test Conclusion..... : **Pass** (Based on the performed tests on the submitted samples, the results comply with the requirement of EU RoHS Directive 2011/65/EU and its amendment (EU) No. 2015/863).
测试结论 **符合** (根据客户提供的样品, 测试结果符合 RoHS 指令 2011/65/EU 及其修订指令(EU) No.2015/863 的要求。)

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**Test Results/检测结果:****1. Lead, Mercury, Cadmium, Hexavalent Chromium, PBBs and PBDEs**

铅、汞、镉、六价铬、多溴联苯和多溴联苯醚

No. 序号	Part Description (See Photograph of parts tested) 部件描述 (见测试部件照片)	Result of XRF XRF 结果					Result of Chemical Testing 化学分析结果 (mg/kg)
		Pb 铅	Cd 镉	Hg 汞	Cr 铬	Br 溴	
1	Gray plastic body shell 灰色塑料外壳	BL	BL	BL	BL	BL	NA
2	Gray plastic film w/multicolor printing 灰色塑料膜板带多色印字	BL	BL	BL	BL	BL	NA
3	Beige plastic 米色塑料	BL	BL	BL	BL	BL	NA
4	Blue plastic button 蓝色塑料旋钮	BL	BL	BL	BL	IN	PBBs: ND PBDEs: ND
5	Silvery metal 银色金属	BL	BL	BL	BL	NA	NA
6	Silvery metal body 银色金属	BL	BL	BL	BL	NA	NA
7	Coppery metal screw 铜色金属螺丝	BL	BL	BL	IN	NA	Cr ⁶⁺ : Negative
8	Coppery metal nut 铜色金属螺母	BL	BL	BL	IN	NA	Cr ⁶⁺ : Negative
9	Silvery metal screw 银色金属螺丝	BL	BL	BL	BL	NA	NA
10	Silvery metal spring 银色金属弹簧	BL	BL	BL	BL	NA	NA
11	White plastic wire jacket 1 白色塑料线皮 1	BL	BL	BL	BL	BL	NA



No. 序号	Part Description (See Photograph of parts tested) 部件描述 (见测试部件照片)	Result of XRF XRF 结果					Result of Chemical Testing 化学分析结果 (mg/kg)
		Pb 铅	Cd 镉	Hg 汞	Cr 铬	Br 溴	
12	Blue plastic wire jacket 1 蓝色塑料线皮 1	BL	BL	BL	BL	BL	NA
13	Red plastic wire jacket 1 (CNMINGJUN) 红色塑料线皮 1 (CNMINGJUN)	BL	BL	BL	BL	BL	NA
14	Black body (diode) 黑色体 (二极管)	BL	BL	BL	BL	BL	NA
15	Silvery metal (diode) 银色金属 (二极管)	IN	BL	BL	BL	NA	Pb:1640#
16	Silvery metal PIN (diode) 银色金属针 (二极管)	IN	BL	BL	BL	NA	Pb:2000#
17	Blue plastic wire jacket 2 (CNMINGJUN) 蓝色塑料线皮 2 (CNMINGJUN)	BL	BL	BL	BL	BL	NA
18	Green plastic wire jacket 2 (CNMINGJUN) 绿色塑料线皮 2 (CNMINGJUN)	BL	BL	BL	BL	BL	NA
19	Black adhesive tape 黑色胶带	BL	BL	BL	BL	BL	NA
20	Grey solid core w/yellow coating 灰色固体材料带黄色涂层	BL	BL	BL	BL	BL	NA
21	Copperry metal coil 铜色金属线圈	BL	BL	BL	BL	NA	NA
22	White plastic wire jacket 3 白色塑料线皮 3	BL	BL	BL	BL	BL	NA
23	Red plastic wire jacket 3 红色塑料线皮 3	BL	BL	BL	BL	BL	NA



No. 序号	Part Description (See Photograph of parts tested) 部件描述 (见测试部件照片)	Result of XRF XRF 结果					Result of Chemical Testing 化学分析结果 (mg/kg)
		Pb 铅	Cd 镉	Hg 汞	Cr 铬	Br 溴	
24	Blue plastic wire jacket 3 蓝色塑料线皮 3	BL	BL	BL	BL	BL	NA
25	Green plastic wire jacket 3 绿色塑料线皮 3	BL	BL	BL	BL	BL	NA
26	Yellow plastic wire jacket 4 黄色塑料线皮 4	BL	BL	BL	BL	BL	NA
27	Black soft plastic tube 黑色软塑料套管	BL	BL	BL	BL	BL	NA
28	Silvery metal buckle 银色金属扣	BL	BL	BL	BL	NA	NA
29	Copperty metal wire 铜色金属线芯	BL	BL	BL	BL	NA	NA
30	Silvery metal 银色金属	BL	BL	BL	BL	NA	NA
31	White plastic wire jacket 5 白色塑料线皮 5	BL	BL	BL	BL	BL	NA
32	Red plastic wire jacket 5 红色塑料线皮 5	BL	BL	BL	BL	BL	NA
33	Black plastic wire jacket 5 黑色塑料线皮 5	BL	BL	BL	BL	BL	NA
34	Yellow plastic wire jacket 5 黄色塑料线皮 5	BL	BL	BL	BL	BL	NA
35	Silvery metal wire core 银色金属线芯	BL	BL	BL	BL	NA	NA



No. 序号	Part Description (See Photograph of parts tested) 部件描述 (见测试部件照片)	Result of XRF XRF 结果					Result of Chemical Testing 化学分析结果 (mg/kg)
		Pb 铅	Cd 镉	Hg 汞	Cr 铬	Br 溴	
36	Gray plastic wire jacket 6 灰色塑料线皮 6	BL	BL	BL	BL	BL	NA
37	Red/gray plastic wire jacket 6 红色/灰色塑料线皮 6	BL	BL	BL	BL	BL	NA
38	White plastic (socket) 白色塑料 (插座)	BL	BL	BL	BL	BL	NA
39	Gray plastic (socket) 灰色塑料 (插座)	BL	BL	BL	BL	IN	PBBs: ND PBDEs: ND
40	Black plastic (socket) 黑色塑料 (插座)	BL	BL	BL	BL	IN	PBBs: ND PBDEs: ND
41	Copper metal PIN (socket) 铜色金属针 (插座)	BL	BL	BL	BL	NA	NA
42	Beige plastic 米色塑料	BL	BL	BL	BL	IN	PBBs: ND PBDEs: ND
43	Black plastic 黑色塑料	BL	BL	BL	BL	BL	NA
44	Blue plastic 蓝色塑料	BL	BL	BL	BL	BL	NA
45	Gray plastic 灰色塑料	BL	BL	BL	BL	IN	PBBs: ND PBDEs: ND
46	Black plastic body shell 黑色塑料体外壳	BL	BL	BL	BL	IN	PBBs: ND PBDEs: ND
47	Silvery metal body 银色金属体	BL	BL	BL	BL	NA	NA



No. 序号	Part Description (See Photograph of parts tested) 部件描述 (见测试部件照片)	Result of XRF XRF 结果					Result of Chemical Testing 化学分析结果 (mg/kg)
		Pb 铅	Cd 镉	Hg 汞	Cr 铬	Br 溴	
48	Coppery metal sheet 铜色金属片	BL	BL	BL	BL	NA	NA
49	Silvery metal body 银色金属片	BL	BL	BL	BL	NA	NA
50	Silvery metal 银色金属	IN	BL	BL	BL	NA	Pb:10300#
51	Green plastic body shell 绿色塑料体外壳	BL	BL	BL	BL	BL	NA
52	Blue body (Y capacitor) 蓝色体 (Y 电容)	BL	BL	BL	BL	BL	NA
53	Silvery metal PIN (Y capacitor) 银色金属针 (Y 电容)	BL	BL	BL	BL	NA	NA
54	Yellow plastic shell w/black printing (safety capacitor) 黄色塑料体外壳带黑色印字 (安全电容)	BL	BL	BL	BL	IN	PBBs: ND PBDEs: ND
55	Dark red plastic cap (fuse) 深红色塑料盖 (保险丝)	BL	BL	BL	BL	BL	NA
56	Silvery metal filament (fuse) 银色金属丝 (保险丝)	BL	BL	BL	BL	NA	NA
57	Black body (Rectifier bridge) 黑色体 (整流桥)	BL	BL	BL	BL	IN	PBBs: ND PBDEs: ND
58	Silvery metal PIN (Rectifier bridge) 银色金属针 (整流桥)	BL	BL	BL	BL	NA	NA
59	Blue plastic w/white printing 1 (capacitor) 蓝色塑料带白色印字 1 (电容)	BL	BL	BL	BL	BL	NA



No. 序号	Part Description (See Photograph of parts tested) 部件描述 (见测试部件照片)	Result of XRF XRF 结果					Result of Chemical Testing 化学分析结果 (mg/kg)
		Pb 铅	Cd 镉	Hg 汞	Cr 铬	Br 溴	
60	Black rubber cover 1 (capacitor) 黑色橡胶盖 1 (电容)	BL	BL	BL	BL	BL	NA
61	Silvery metal shell 1 (capacitor) 银色金属外壳 1 (电容)	BL	BL	BL	BL	NA	NA
62	Silvery metal PIN 1 (capacitor) 银色金属针 1 (电容)	BL	BL	BL	BL	NA	NA
63	Brown wet paper 1 (capacitor) 棕色湿纸 1 (电容)	BL	BL	BL	BL	BL	NA
64	Yellow plastic film adhesive tape (Transformer) 黄色塑料膜胶带 (变压器)	BL	BL	BL	BL	BL	NA
65	Black solid material support (Transformer) 灰色固体材料支架 (变压器)	BL	BL	BL	BL	BL	NA
66	Black plastic (Transformer) 黑色塑料 (变压器)	BL	BL	BL	BL	BL	NA
67	Yellow plastic wire jacket (Transformer) 黄色塑料线皮 (变压器)	BL	BL	BL	BL	BL	NA
68	Copperty metal coil (Transformer) 铜色金属线圈 (变压器)	BL	BL	BL	BL	NA	NA
69	Green body (LED) 绿色体 (LED)	BL	BL	BL	BL	IN	PBBs: ND PBDEs: ND
70	Yellow body (LED) 黄色体 (LED)	BL	BL	BL	BL	IN	PBBs: ND PBDEs: ND
71	Red body (LED) 红色体 (LED)	BL	BL	BL	BL	IN	PBBs: ND PBDEs: ND



No. 序号	Part Description (See Photograph of parts tested) 部件描述 (见测试部件照片)	Result of XRF XRF 结果					Result of Chemical Testing 化学分析结果 (mg/kg)
		Pb 铅	Cd 镉	Hg 汞	Cr 铬	Br 溴	
72	Black plastic column (LED) 黑色塑料柱 (LED)	BL	BL	BL	BL	BL	NA
73	Silvery metal PIN (LED) 银色金属针 (LED)	BL	BL	BL	BL	NA	NA
74	Gray solid material (Inductance) 灰色固体材料 (电感)	BL	BL	BL	BL	BL	NA
75	Black body 黑色体	BL	BL	BL	BL	BL	NA
76	Silvery metal PIN 银色金属针	BL	BL	BL	BL	NA	NA
77	Blue body w/multicolor printing 蓝色体带多色印花	BL	BL	BL	BL	BL	NA
78	Black body (IC) 黑色体 (IC)	BL	BL	BL	BL	BL	NA
79	Silvery metal PIN (IC) 银色金属针 (IC)	BL	BL	BL	BL	NA	NA
80	Black body 黑色体	BL	BL	BL	BL	BL	NA
81	Silvery metal PIN 银色金属针	BL	BL	BL	BL	NA	NA
82	Black IC SMD 黑色 IC 贴片	BL	BL	BL	BL	BL	NA
83	Green cladding PCB board 绿色 PCB 板	BL	BL	BL	BL	IN	PBBs: ND PBDEs: ND



No. 序号	Part Description (See Photograph of parts tested) 部件描述 (见测试部件照片)	Result of XRF XRF 结果					Result of Chemical Testing 化学分析结果 (mg/kg)
		Pb 铅	Cd 镉	Hg 汞	Cr 铬	Br 溴	
84	Solder 焊锡	BL	BL	BL	BL	NA	NA
85	White plastic (socket) 白色塑料 (插座)	BL	BL	BL	BL	BL	NA
86	Silvery metal PIN (socket) 银色金属针 (插座)	BL	BL	BL	BL	NA	NA
87	White plastic (socket) 白色塑料 (插座)	BL	BL	BL	BL	BL	NA
88	Silvery metal PIN (socket) 银色金属针 (插座)	BL	BL	BL	BL	NA	NA
89	Translucent plastic column 半透明塑料柱	BL	BL	BL	BL	BL	NA
90	Black plastic shell 黑色塑料体外壳	BL	BL	BL	BL	IN	PBBs: ND PBDEs: ND
91	Silvery metal body 银色金属体	BL	BL	BL	BL	NA	NA
92	Copperty metal sheet 铜色金属片	BL	BL	BL	BL	NA	NA
93	Silvery metal body 银色金属体	BL	BL	BL	BL	NA	NA
94	White plastic (socket) 白色塑料 (插座)	BL	BL	BL	BL	BL	NA
95	Silvery metal PIN (socket) 银色金属针 (插座)	BL	BL	BL	BL	NA	NA



No. 序号	Part Description (See Photograph of parts tested) 部件描述 (见测试部件照片)	Result of XRF XRF 结果					Result of Chemical Testing 化学分析结果 (mg/kg)
		Pb 铅	Cd 镉	Hg 汞	Cr 铬	Br 溴	
96	Blue body (Y capacitor) 蓝色体 (Y 电容)	BL	BL	BL	BL	BL	NA
97	Silvery metal PIN (Y capacitor) 银色金属针 (Y 电容)	BL	BL	BL	BL	NA	NA
98	Black body 黑色体	BL	BL	BL	BL	IN	PBBs: ND PBDEs: ND
99	Silvery metal PIN 银色金属针	BL	BL	BL	BL	NA	NA
100	Black resistance SMD 黑色贴片电阻	BL	BL	BL	BL	BL	NA
101	Brown capacitor SMD 棕色电容器	BL	BL	BL	BL	BL	NA
102	Black body (triode) 黑色体 (三极管)	BL	BL	BL	BL	BL	NA
103	Silvery metal (triode) 银色金属 (三极管)	BL	BL	BL	BL	NA	NA
104	Silvery metal PIN (triode) 银色金属针 (三极管)	BL	BL	BL	BL	NA	NA
105	Solder 焊锡	BL	BL	BL	BL	NA	NA
106	Green cladding PCB board 绿色 PCB 板	BL	BL	BL	BL	BL	NA
107	Black diode SMD 黑色二极管贴片	BL	BL	BL	BL	BL	NA



No. 序号	Part Description (See Photograph of parts tested) 部件描述 (见测试部件照片)	Result of XRF XRF 结果					Result of Chemical Testing 化学分析结果 (mg/kg)
		Pb 铅	Cd 镉	Hg 汞	Cr 铬	Br 溴	
108	Blue body 蓝色体	BL	BL	BL	BL	IN	PBBs: ND PBDEs: ND
109	Black body 黑色体	BL	BL	BL	BL	BL	NA
110	Silvery metal PIN 银色金属针	BL	BL	BL	BL	NA	NA
111	Black IC SMD 黑色 IC 贴片	BL	BL	BL	BL	BL	NA
112	Green cladding PCB board 绿色镀层 PCB 板	BL	BL	BL	BL	IN	PBBs: ND PBDEs: ND
113	Solder 焊锡	BL	BL	BL	BL	NA	NA

**Note/备注:**

- (1) Results are obtained by EDXRF for primary screening, and further chemical testing by ICP (for Cd, Pb, Hg), UV-VIS (for Cr⁶⁺) 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 (unit: mg/kg)
- EDXRF所得的测试结果只作初步筛选, 如果XRF结果超出IEC 62321-3-1: 2013所规定的警戒范围, 需要使用更精确的化学测试方法测试, 如: 用ICP 测试Cd、Pb、Hg, 用UV-VIS测试Cr⁶⁺, 用GS/MS测试PBBs和PBDEs (单位:mg/kg)

Element 元素	Polymer 聚合物	Metal 金属	Composite Materials 复合材料
Cd	$BL \leq (70-3\sigma) < IN < (130+3\sigma) \leq OL$	$BL \leq (70-3\sigma) < IN < (130+3\sigma) \leq OL$	$LOD < IN < (150+3\sigma) \leq OL$
Pb	$BL \leq (700-3\sigma) < IN < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < IN < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < IN < (1500+3\sigma) \leq OL$
Hg	$BL \leq (700-3\sigma) < IN < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < IN < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < IN < (1500+3\sigma) \leq OL$
Cr	$BL \leq (700-3\sigma) < IN$	$BL \leq (700-3\sigma) < IN$	$BL \leq (500-3\sigma) < IN$
Br	$BL \leq (300-3\sigma) < IN$	--	$BL \leq (250-3\sigma) < IN$

BL= Below Limit /低于限值

OL= Over Limit /高于限值

LOD = Limit of Detection/检出限

-- = Not Regulated/未规定

- (2) "IN" expresses the inconclusive region, and further chemical testing to confirm whether it complies with the requirement of RoHS Directive.
"IN" 表示为未确定区域, 需进一步化学测试判断是否符合 RoHS 指令的要求。
- (3) The XRF screening test for RoHS elements – the reading may be different to the actual content in the sample be of non-uniformity composition.
XRF筛选测试RoHS元素 – 物质的不均一性导致测试结果和实际值可能存在差异。
- (4) mg / kg =milligram per kilogram(毫克每千克) = ppm (百万分之一), $\mu\text{g}/\text{cm}^2$ = Micrograms per square centimeter(微克每平方厘米).
- (5) ND = Not Detected, less than the value of Method Detection Limit.
未检出, 低于方法检出限。
- (6) NA = Not Applicable, as the XRF screening test result was below the limit, it was not need to conduct the chemical testing.
不适用, XRF筛选测试的结果低于限值, 不需要进行化学测试。
- (7) MDL= Method Detection Limit in chemical test.
方法检出限。

Test Items 测试项目	Pb	Cd	Hg	Cr ⁶⁺		PBB	PBDE
Units	mg/kg	mg/kg	mg/kg	mg/kg	$\mu\text{g}/\text{cm}^2$	mg/kg	mg/kg
MDL	10	10	10	10	0.1	10	10

The MDL for single compound of PBBs and PBDEs is 10mg/kg, MDL of Cr⁶⁺ for polymer and composite sample is 10mg/kg and MDL of Cr⁶⁺ for metal sample is 0.1 $\mu\text{g}/\text{cm}^2$.

对于单一化合物的 PBB 和 PBDE, MDL 为 10mg/kg。对于聚合物和复合样品的 Cr⁶⁺, MDL 为 10mg/kg。

对于金属样品的 Cr⁶⁺, MDL 为 0.1 $\mu\text{g}/\text{cm}^2$ 。

- (8) Requirement as per RoHS Directive 2011/65/EU and its amendment (EU) No. 2015/863
RoHS 指令 2011/65/EU及其修订指令(EU) No.2015/863的限值要求



Restricted Substances 限制物质	Limits 限值
Cadmium (Cd) 镉 (Cd)	0.01% (100 mg/kg)
Lead (Pb) 铅 (Pb)	0.1% (1000 mg/kg)
Mercury (Hg) 汞 (Hg)	0.1% (1000 mg/kg)
Chromium (VI) (Cr ⁶⁺) 六价铬 (Cr ⁶⁺)	0.1% (1000 mg/kg)
Polybrominated Biphenyls (PBBs) 多溴联苯 (PBBs)	0.1% (1000 mg/kg)
Polybrominated Diphenyl Ethers (PBDEs) 多溴联苯醚 (PBDEs)	0.1% (1000 mg/kg)

(9) According to IEC 62321-7-1:2015, determined of Cr⁶⁺ on metal sample by boiling water extraction test method, and result is shown as Positive/Negative.

Boiling water extraction:

Negative = Absence of Cr⁶⁺ coating, the detected concentration in boiling water extraction solution is less than 0.10µg/cm².

Positive = Presence of Cr⁶⁺ coating, the detected concentration in boiling water extraction solution is greater than 0.13µg/cm².

Information on storage conditions and production date of the tested sample is unavailable and thus Cr⁶⁺ results represent status of the sample at the time of testing.

根据 IEC 62321-7-1:2015 电子电器产品中限用物质含量的测定程序, 金属样品中的 Cr⁶⁺用沸水萃取方法来测定, 其测试结果显示为阳性/阴性

沸水萃取:

阴性 = 表示涂层不存在 Cr⁶⁺, 即在沸水萃取溶液中六价铬浓度小于 0.10 µg/cm²

阳性 = 表示涂层存在 Cr⁶⁺, 即在沸水萃取溶液中六价铬浓度大于 0.13 µg/cm²

关于金属样品的保存条件和生产日期将不能被采用, 其测试结果只能证明当下方法测试下样品是否存在/不存在 Cr⁶⁺。

(10) Abbreviation:

“Pb” denotes Lead, “Cd” denotes Cadmium, “Hg” denotes Mercury, “Cr” denotes Chromium, “Cr⁶⁺” denotes Hexavalent Chromium, “Br” denotes Bromine, “PBBs” denotes Total Polybrominated Biphenyls, “PBDEs” denotes Total Polybrominated Diphenyl Ethers.

英文字符含义:

“Pb”表示铅, “Cd”表示镉, “Hg”表示汞, “Cr”表示铬, “Cr⁶⁺”表示六价铬, “Br”表示溴, “PBBs”表示总多溴联苯, “PBDEs”表示总多溴联苯醚。

(11) # = Sample is copper alloy. The lead content which is under 4% (40000ppm) is exempted from the requirement of RoHS Directive (2011/65/EU).

= 样品为铜合金, 欧盟ROHS (2011/65/EU) 指令中, 铅含量达4% (40000 mg/kg) 以下的铜合金允许不执行相关条款中的要求。

(12) The test report WTX21X09092868X1C supersedes the test report WTX21X09092868C which is withdrawn.

检测报告WTX21X09092868X1C取代已撤销的检测报告WTX21X09092868C。

**2. Phthalates/邻苯二甲酸酯(DEHP, BBP, DBP, DIBP)**

Serial No. 序号	Part No. (See Photograph of parts tested) 部件编号(见测试部件照片)	Result (mg/kg) 测试结果 (毫克/千克)			
		DBP	BBP	DEHP	DIBP
T01	11	ND	ND	ND	ND
T02	12	ND	ND	ND	ND
T03	13	ND	ND	ND	ND
T04	17	ND	ND	ND	ND
T05	18	ND	ND	ND	ND
T06	19	ND	ND	ND	ND
T07	22	ND	ND	ND	ND
T08	23	ND	ND	ND	ND
T09	24	ND	ND	ND	ND
T10	25	ND	ND	ND	ND
T11	26+27 [△]	80	ND	ND	210
T12	31	ND	ND	ND	ND
T13	32	ND	ND	ND	ND
T14	33	ND	ND	ND	ND
T15	34	ND	ND	ND	ND
T16	36+37 [△]	ND	ND	ND	ND
T17	59+64 [△]	ND	ND	ND	ND
T18	2	ND	ND	ND	ND
T19	1+3+4 [△]	ND	ND	ND	ND
T20	101+102+106 [△]	ND	ND	ND	ND
T21	107+108 [△]	ND	ND	ND	ND
T22	109+111+112 [△]	ND	ND	ND	ND
T23	14+20 [△]	ND	ND	ND	ND
T24	38+39+40 [△]	ND	ND	ND	ND
T25	42+43+44+45 [△]	ND	ND	ND	ND
T26	46+51+52 [△]	ND	ND	ND	ND
T27	54+55+57 [△]	ND	ND	ND	ND
T28	60+63 [△]	ND	ND	ND	ND
T29	65+66+67 [△]	ND	ND	ND	ND
T30	69+70+71+72 [△]	ND	ND	ND	ND
T31	74+75+77 [△]	ND	ND	ND	ND
T32	78+80+82+83 [△]	ND	ND	ND	ND
T33	85+87+89 [△]	ND	ND	ND	ND
T34	90+94 [△]	ND	ND	ND	ND
T35	96+98+100 [△]	ND	ND	ND	ND

**Note/备注:**

- (1) mg/kg =milligram per kilogram= ppm.
mg/kg =毫克/千克= ppm
- (2) Requirement as per RoHS Directive 2011/65/EU and its amendment (EU) No. 2015/863
RoHS 指令 2011/65/EU及其修订指令(EU) No.2015/863的限值要求:

Test Item(s) 测试项目	Limit 限值要求 (mg/kg)
Bis (2-ethylhexyl)- phthalate (DEHP) 邻苯二甲酸 (2-乙基己基酯) (DEHP)	1000
Dibutyl phthalate (DBP) 邻苯二甲酸二丁酯(DBP)	1000
Benzylbutyl phthalate (BBP) 邻苯二甲酸丁苄酯 (BBP)	1000
Diisobutyl phthalate (DIBP) 邻苯二甲酸二异丁酯(DIBP)	1000

(3) Abbreviation:

“DBP” denotes Dibutyl phthalate, “BBP” denotes Benzyl butyl phthalate (BBP), “DEHP” denotes Bis(2-ethylhexyl)-phthalate, “DIBP” denotes Diisobutyl phthalate, “PHT” denotes Phthalates.

英文字符含义:

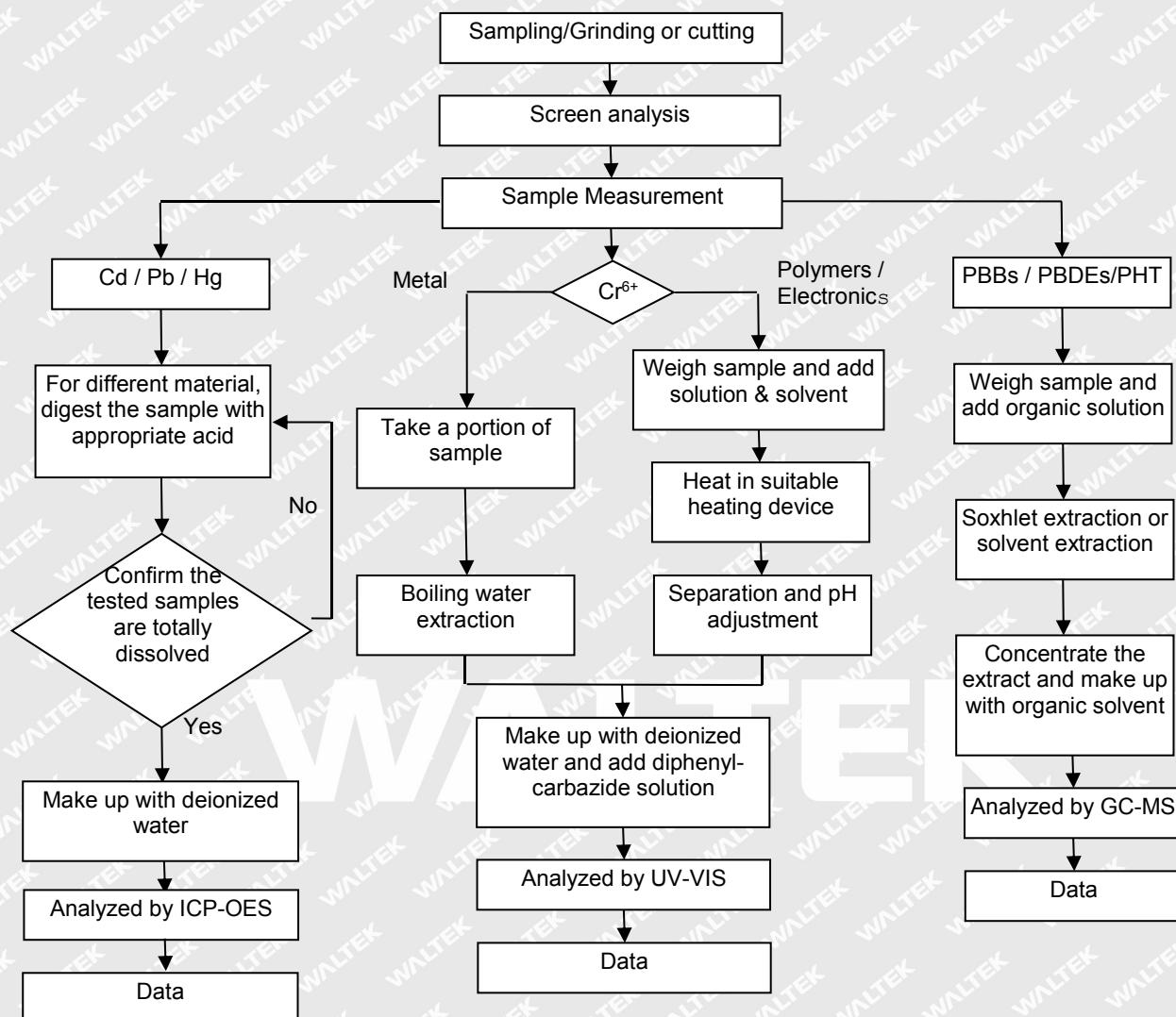
“DBP”表示邻苯二甲酸二丁酯, “BBP”表示邻苯二甲酸丁苄酯, “DEHP”表示邻苯二甲酸二(2-乙基己基)酯, “DIBP”表示邻苯二甲酸二异丁酯, “PHT”表示邻苯二甲酸酯。

(4) Method Detection Limit (MDL): 50mg/kg for each of phthalate.

方法检出限: 邻苯二甲酸酯为50mg/kg每种。

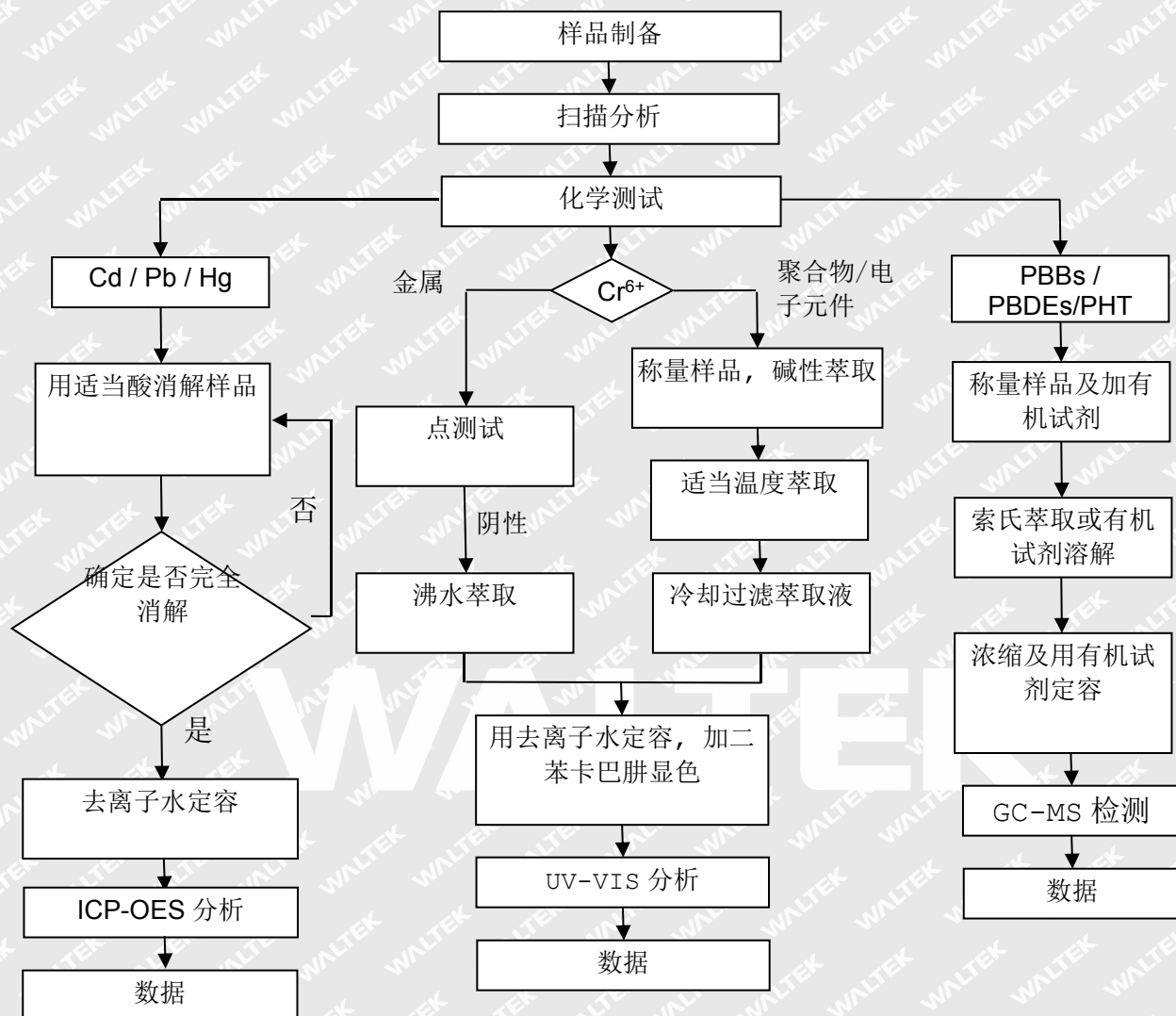
(5) “△”= As client's requirement, the testing was conducted based on mixed components. Results are calculated by the minimum weight of mixed components.

“△”=依据申请方要求, 对样品进行混合测试。基于混合测试部件中的最小样品质量计算测试结果。

**Measurement Flow chart:**

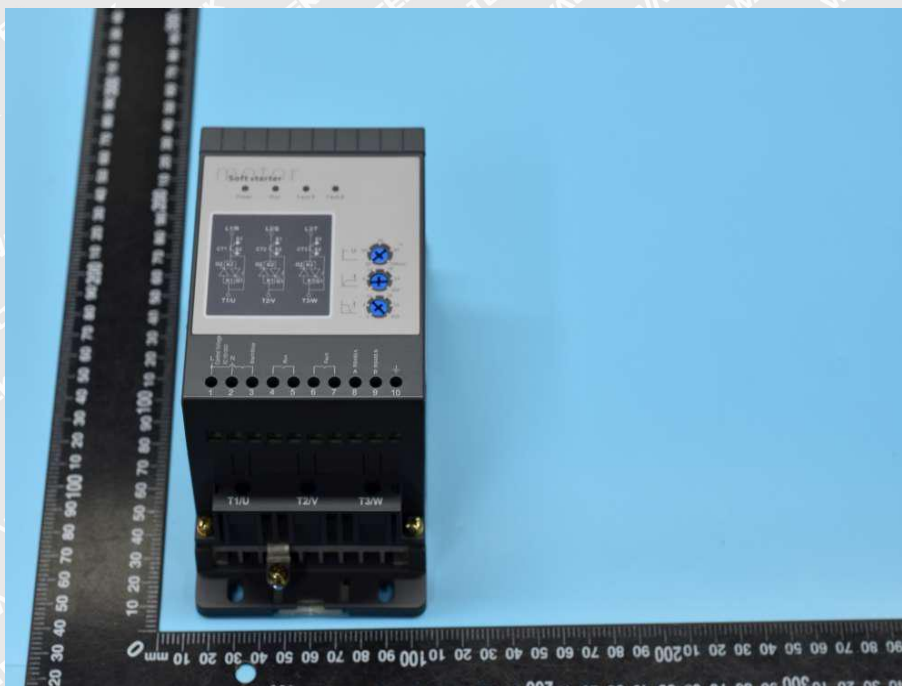


测试流程图:



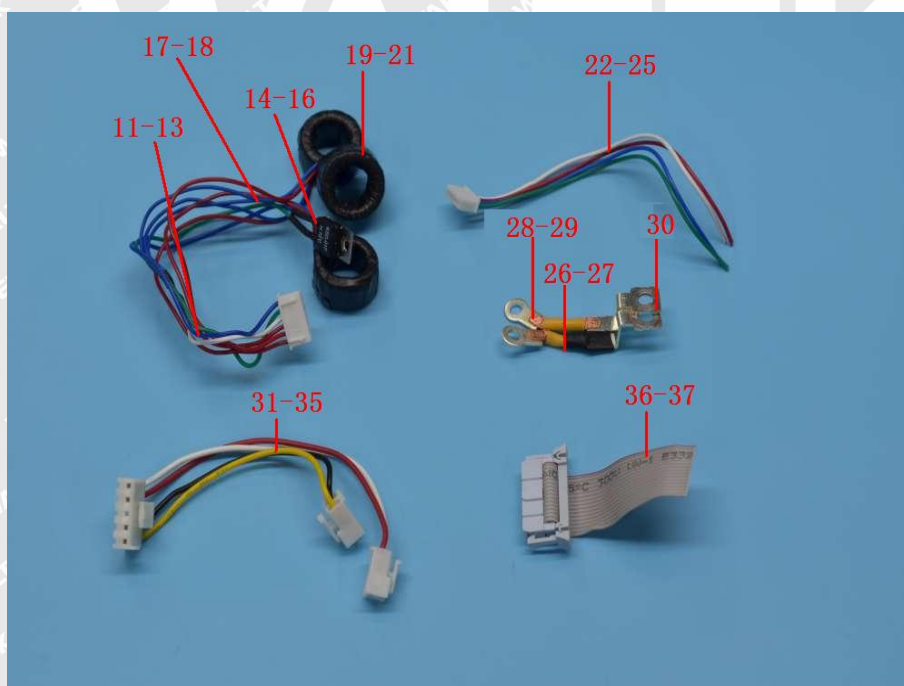
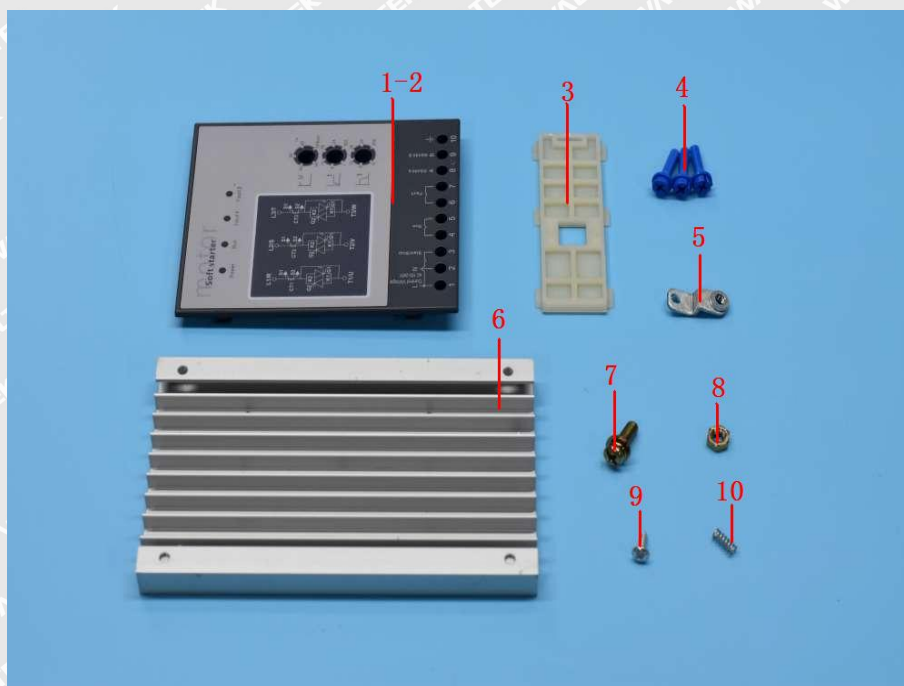


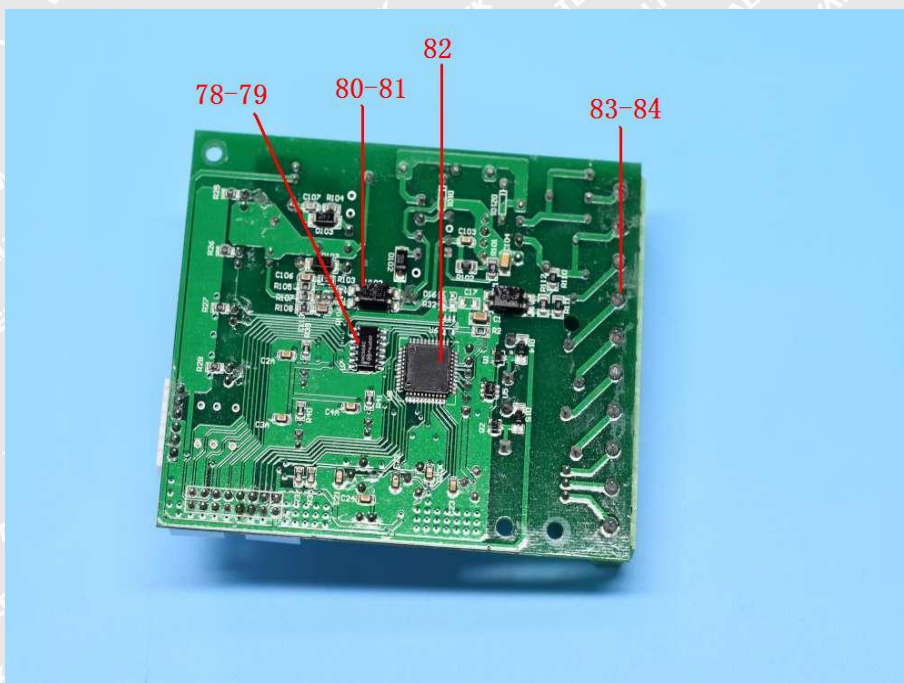
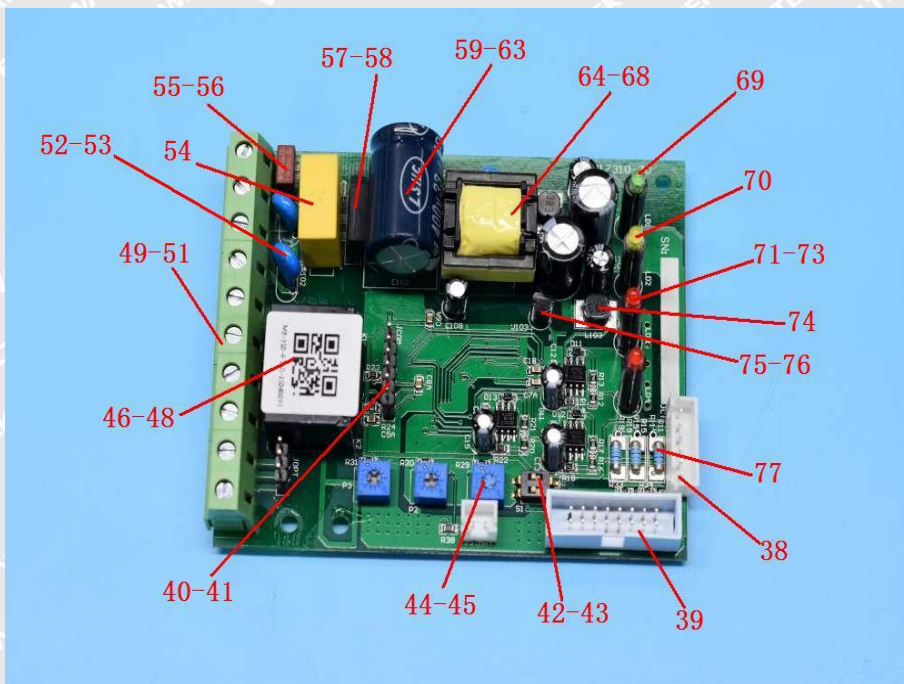
Sample Photo /样品照片:

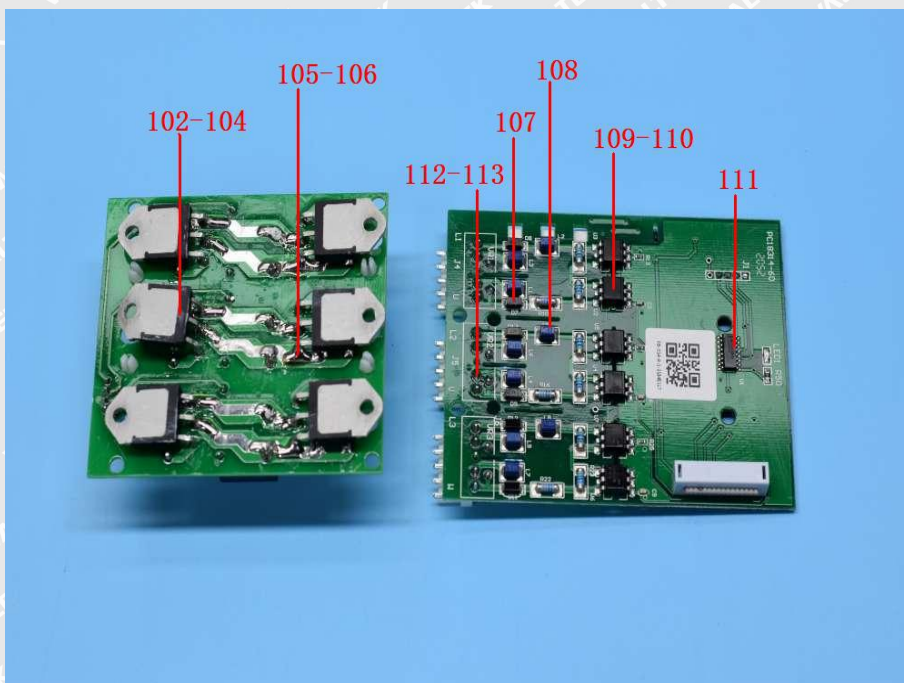
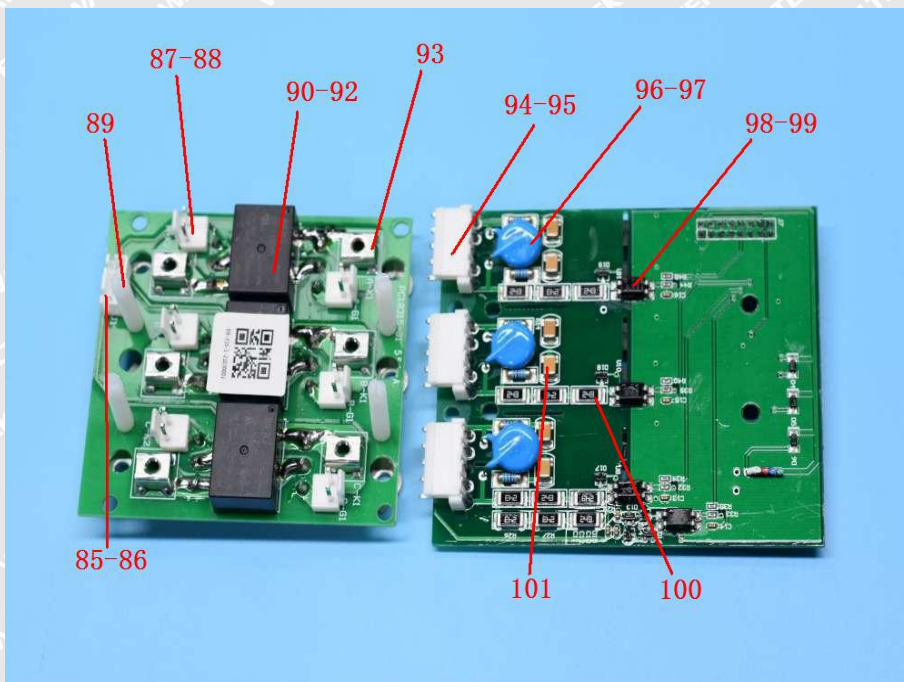




Photograph of parts tested / 测试部件照片:







===== End of Report 报告结束 =====