



# TEST REPORT

**Report No.**..... : WTD23X12276189C  
**Applicant**..... : Coolr Group Inc.  
**Address**..... : 4451 Brookfield Corporate Dr Suite 111,Chantilly,VA 20151,US  
**Manufacturer 1**..... : Suga Electronics (Dongguan) Co., Ltd.  
**Address 1**..... : Suga High-tech Industrial Park, No.8 Fulong Road, Sanzhong village,  
Qingxi Town, Dongguan City, Guangdong Province, China  
**Manufacturer 2**..... : Suga International (Vietnam) Company Limited  
**Address 2**..... : Lo so CN11-3, Que Vo 3 Industrial Park, Que Tan Commune, Que Vo  
District, Bac Ninh Province,Vietnam  
**Sample Name**..... : VistaZ  
**Model No.** ..... : CVZ-0303  
**Reference Model No.** ..... : CVL-0303  
**Brand**..... : NA  
**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.  
**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).  
**Date of Receipt sample**..... : 2023-12-28  
**Testing period**..... : 2023-12-28 ~ 2024-01-08  
**Date of Issue**..... : 2024-01-16  
**Test Result**..... : Refer to next page (s)

**Prepared By:**

**Waltek Testing Group (Shenzhen) Co., Ltd.**

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Signed for and on behalf of  
Waltek Testing Group (Shenzhen) Co., Ltd.

*Hugo Chen*

Hugo.CHen

Waltek Testing Group (Shenzhen) Co., Ltd.

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Report No.: WTD23X12276189C

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**Test Method:**

- IEC 62321-3-1:2013, screening - Lead, mercury, cadmium, total chromium and total bromine by X-ray fluorescence spectrometry (XRF)
- IEC 62321-4:2017 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 (Cr<sup>6+</sup>), 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

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Report No.: WTD23X12276189C

**Test Results:**

**1. Lead, Mercury, Cadmium, Hexavalent Chromium, PBBs and PBDEs**

No.	Part Description (See Photograph of parts tested)	Result of XRF					Result of Chemical Testing (mg/kg)
		Pb	Cd	Hg	Cr	Br	
1	White plastic shell	BL	BL	BL	BL	BL	NA
2	Golden cladding metal nut	BL	BL	BL	BL	NA	NA
3	White sponge adhesive tape	BL	BL	BL	BL	BL	NA
4	Transparent plastic film w/green gloss	BL	BL	BL	BL	BL	NA
5	Red plastic wire jacket 1	BL	BL	BL	BL	BL	NA
6	Black plastic wire jacket 1	BL	BL	BL	BL	BL	NA
7	Silvery metal wire core	BL	BL	BL	BL	NA	NA
8	Coppery metal foil	BL	BL	BL	BL	NA	NA
9	Solder	BL	BL	BL	BL	NA	NA
10	Transparent plastic film w/blue gloss	BL	BL	BL	BL	BL	NA
11	Black rubber frame (big)	BL	BL	BL	BL	BL	NA
12	Black rubber frame (small)	BL	BL	BL	BL	BL	NA



Report No.: WTD23X12276189C

No.	Part Description (See Photograph of parts tested)	Result of XRF					Result of Chemical Testing (mg/kg)
		Pb	Cd	Hg	Cr	Br	
13	Black rubber ring	BL	BL	BL	BL	BL	NA
14	Black cladding metal body (Camera)	BL	BL	BL	IN	NA	Cr <sup>6+</sup> : Negative
15	Transparent glass lens (Camera)	BL	BL	BL	BL	BL	NA
16	Gray plastic base (Camera)	BL	BL	BL	BL	BL	NA
17	Silvery metal plate (Camera)	BL	BL	BL	BL	NA	NA
18	Green sensor (Camera)	BL	BL	BL	BL	BL	NA
19	Black FPC	BL	BL	BL	BL	BL	NA
20	Black/brown FPC plate (antenna)	BL	BL	BL	BL	BL	NA
21	Solder (antenna)	BL	BL	BL	BL	NA	NA
22	Black plastic wire jacket 2 (antenna)	BL	BL	BL	BL	BL	NA
23	Transparent plastic wire (antenna)	BL	BL	BL	BL	BL	NA
24	Silvery metal core (antenna)	BL	BL	BL	BL	NA	NA



Report No.: WTD23X12276189C

No.	Part Description (See Photograph of parts tested)	Result of XRF					Result of Chemical Testing (mg/kg)
		Pb	Cd	Hg	Cr	Br	
25	White rubber	BL	BL	BL	BL	BL	NA
26	Translucent glue	BL	BL	BL	BL	BL	NA
27	Silvery metal screw	BL	BL	BL	BL	NA	NA
28	Silvery metal screw	BL	BL	BL	BL	NA	NA
29	Silvery metal screw	BL	BL	BL	BL	NA	NA
30	Silvery metal screw	BL	BL	BL	BL	NA	NA
31	Silvery metal shell	BL	BL	BL	BL	NA	NA
32	White plastic ring	BL	BL	BL	BL	BL	NA
33	Green plastic film w/black printing	BL	BL	BL	BL	BL	NA
34	Beige plastic	BL	BL	BL	BL	BL	NA
35	Black plastic	BL	BL	BL	BL	BL	NA
36	Silvery metal PIN	BL	BL	BL	BL	NA	NA



Report No.: WTD23X12276189C

No.	Part Description (See Photograph of parts tested)	Result of XRF					Result of Chemical Testing (mg/kg)
		Pb	Cd	Hg	Cr	Br	
37	Silvery metal shell	BL	BL	BL	BL	NA	NA
38	Gold cladding metal PIN	BL	BL	BL	BL	NA	NA
39	Gray plastic	BL	BL	BL	BL	BL	NA
40	Silvery metal shell	BL	BL	BL	BL	NA	NA
41	Red plastic button (switch)	BL	BL	BL	BL	IN	PBBs: ND PBDEs: ND
42	Blue plastic body (switch)	BL	BL	BL	BL	IN	PBBs: ND PBDEs: ND
43	Golden cladding metal sheet (switch)	BL	BL	BL	BL	NA	NA
44	Golden cladding metal PIN (switch)	BL	BL	BL	BL	NA	NA
45	White plastic (socket)	BL	BL	BL	BL	BL	NA
46	Silvery metal PIN (socket)	BL	BL	BL	BL	NA	NA
47	Brown capacitor SMD	BL	BL	BL	BL	BL	NA
48	Gray solid material (Inductance)	BL	BL	BL	BL	BL	NA



Report No.: WTD23X12276189C

No.	Part Description (See Photograph of parts tested)	Result of XRF					Result of Chemical Testing (mg/kg)
		Pb	Cd	Hg	Cr	Br	
49	Coppery metal coil (Inductance)	BL	BL	BL	BL	NA	NA
50	Beige plastic (socket)	BL	BL	BL	BL	IN	PBBs: ND PBDEs: ND
51	Black IC SMD	BL	BL	BL	BL	BL	NA
52	Blue cladding PCB board	BL	BL	BL	BL	BL	NA
53	Brown capacitor SMD	BL	BL	BL	BL	BL	NA
54	Black IC SMD	BL	BL	BL	BL	BL	NA
55	Blue body	BL	BL	BL	BL	BL	NA
56	Silvery metal body (Crystal oscillator)	BL	BL	BL	BL	NA	NA
57	Black cladding PCB board	BL	BL	BL	BL	IN	PBBs: ND PBDEs: ND
58	Solder	BL	BL	BL	BL	NA	NA



Report No.: WTD23X12276189C

**Note:**

- (1) Results are obtained by EDXRF for primary screening, and further chemical testing by ICP (for Cd, Pb, Hg), UV-VIS (for Cr<sup>6+</sup>) 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)

Element	Polymer	Metal	Composite Materials
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

OL= Over Limit

LOD = Limit of Detection

-- = Not Regulated

- (2) "IN" expresses the inconclusive region, and further chemical testing to confirm whether it complies with the requirement of RoHS Directive.
- (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.
- (4) mg / kg =milligram per kilogram=ppm,  $\mu\text{g}/\text{cm}^2$ = Micrograms per square centimeter.
- (5) ND = Not Detected, less than the value of Method Detection Limit.
- (6) NA = Not Applicable, as the XRF screening test result was below the limit, it was not need to conduct the chemical testing.
- (7) MDL= Method Detection Limit in chemical test.

Test Items	Pb	Cd	Hg	Cr <sup>6+</sup>		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 Cr<sup>6+</sup> for polymer and composite sample is 10mg/kg and MDL of Cr<sup>6+</sup> for metal sample is 0.1 $\mu\text{g}/\text{cm}^2$ .

- (8) Requirement as per RoHS Directive 2011/65/EU and its amendment (EU) No. 2015/863

Restricted Substances	Limits
Cadmium (Cd)	0.01% (100 mg/kg)
Lead (Pb)	0.1% (1000 mg/kg)
Mercury (Hg)	0.1% (1000 mg/kg)
Chromium (VI) (Cr <sup>6+</sup> )	0.1% (1000 mg/kg)
Polybrominated Biphenyls (PBBs)	0.1% (1000 mg/kg)
Polybrominated Diphenyl Ethers (PBDEs)	0.1% (1000 mg/kg)

- (9) According to IEC 62321-7-1:2015, determined of Cr<sup>6+</sup> on metal sample by boiling water extraction test method, and result is shown as Positive/Negative.

Boiling water extraction:

Negative = Absence of Cr<sup>6+</sup> coating, the detected concentration in boiling water extraction solution is less than 0.10 $\mu\text{g}/\text{cm}^2$ .



Report No.: WTD23X12276189C

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Positive = Presence of  $\text{Cr}^{6+}$  coating, the detected concentration in boiling water extraction solution is greater than  $0.13\mu\text{g}/\text{cm}^2$ .

Information on storage conditions and production date of the tested sample is unavailable and thus  $\text{Cr}^{6+}$  results represent status of the sample at the time of testing.

(10) Abbreviation:

“Pb” denotes Lead, “Cd” denotes Cadmium, “Hg” denotes Mercury, “Cr” denotes Chromium, “ $\text{Cr}^{6+}$ ” denotes Hexavalent Chromium, “Br” denotes Bromine, “PBBs” denotes Total Polybrominated Biphenyls, “PBDEs” denotes Total Polybrominated Diphenyl Ethers.

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Report No.: WTD23X12276189C

## 2. Phthalates (DEHP, BBP, DBP, DIBP)

Serial No.	Part No. (See Photograph of parts tested)	Result (mg/kg)			
		DIBP	DBP	BBP	DEHP
T01	1+4+15 <sup>△</sup>	ND	ND	ND	ND
T02	3+10+33 <sup>△</sup>	ND	ND	ND	ND
T03	11+12 <sup>△</sup>	ND	ND	ND	ND
T04	5+6 <sup>△</sup>	ND	ND	ND	ND
T05	16+18+19 <sup>△</sup>	ND	ND	ND	ND
T06	13	ND	ND	ND	ND
T07	20+32+34 <sup>△</sup>	ND	ND	ND	ND
T08	22+23 <sup>△</sup>	ND	ND	ND	ND
T09	25+26 <sup>△</sup>	ND	ND	ND	ND
T10	35+39+45 <sup>△</sup>	ND	ND	ND	ND
T11	41+42+47 <sup>△</sup>	ND	ND	ND	ND
T12	48+50+51 <sup>△</sup>	ND	ND	ND	ND
T13	52+53+54 <sup>△</sup>	ND	ND	ND	ND
T14	55+57 <sup>△</sup>	ND	ND	ND	ND

### Note:

- (1) mg/kg = milligram per kilogram = ppm.
- (2) Requirement as per RoHS Directive 2011/65/EU and its amendment (EU) No. 2015/863

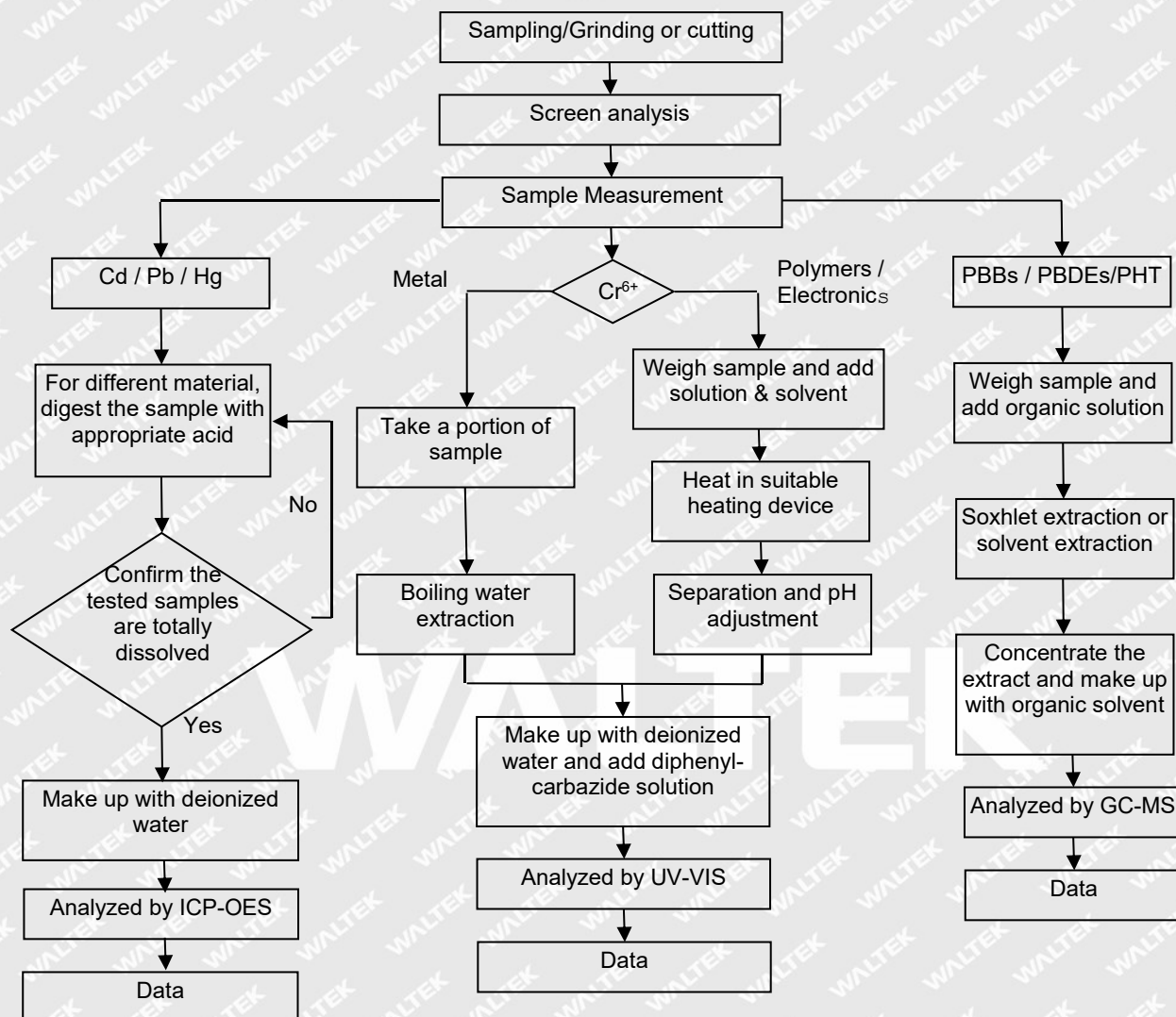
Test Item(s)	Limit (mg/kg)
Bis (2-ethylhexyl)- phthalate (DEHP)	1000
Dibutyl phthalate (DBP)	1000
Benzylbutyl phthalate (BBP)	1000
Diisobutyl phthalate (DIBP)	1000

- (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.
- (4) Method Detection Limit (MDL) : 50mg/kg for each of phthalate.
- (5) “△”= As client’s requirement, the testing was conducted based on mixed components. Results are calculated by the minimum weight of mixed components.



Report No.: WTD23X12276189C

### Measurement Flow chart:





Report No.: WTD23X12276189C

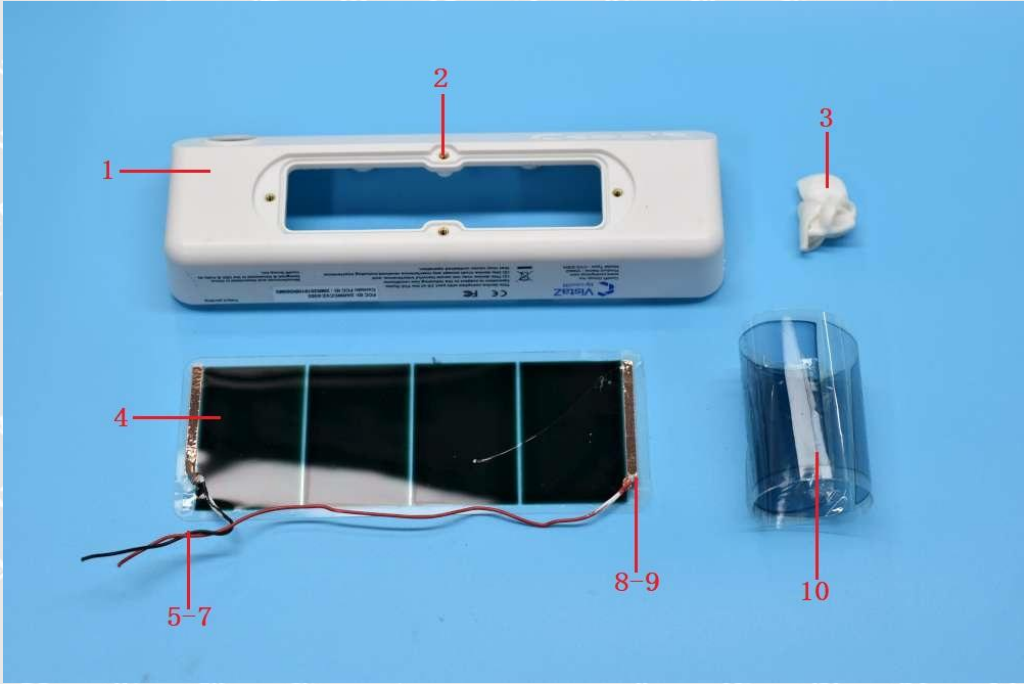
**Sample Photo:**





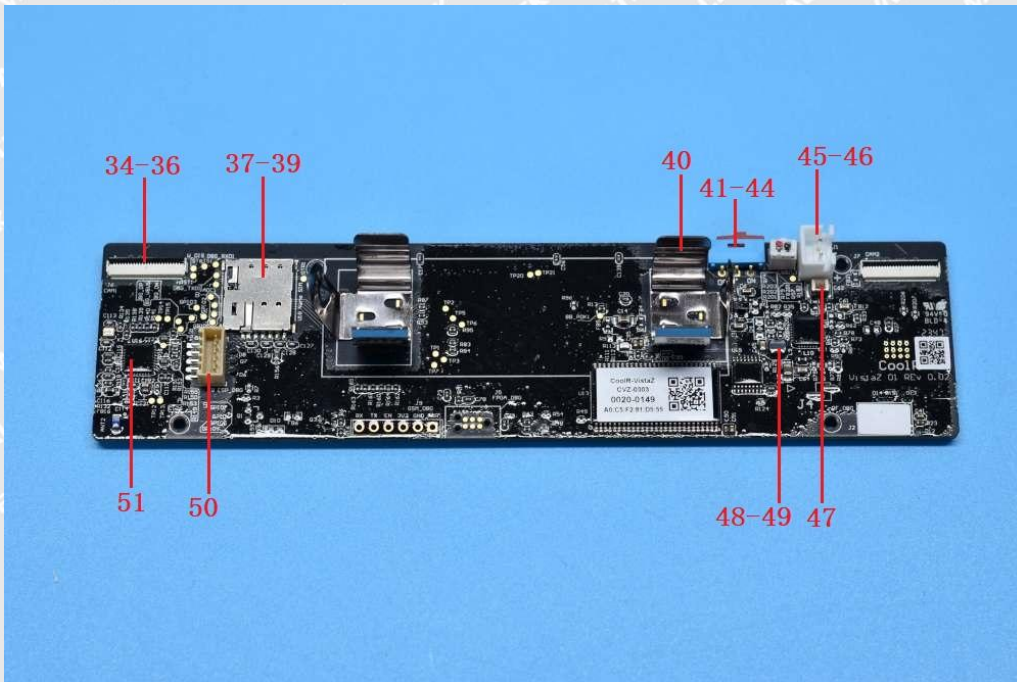
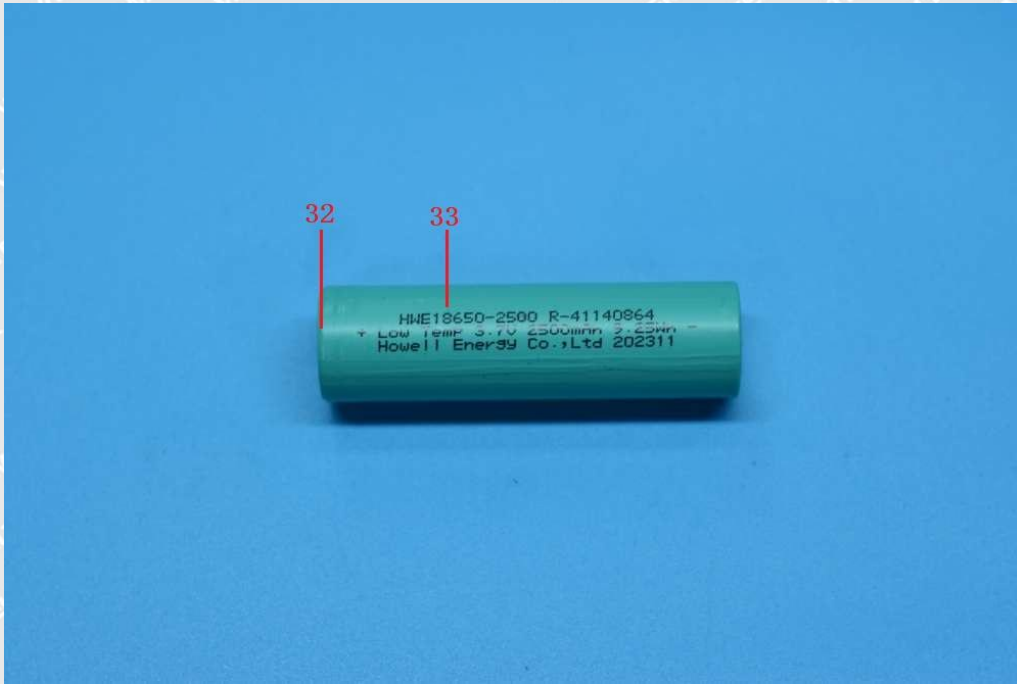
Report No.: WTD23X12276189C

Photograph of parts tested :



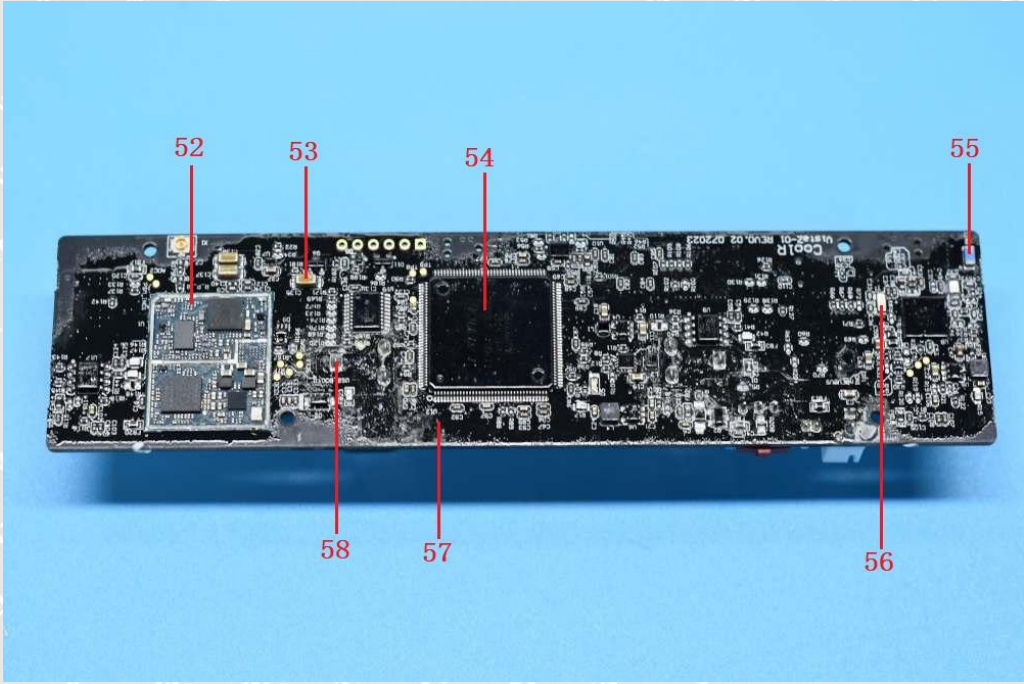


Report No.: WTD23X12276189C





Report No.: WTD23X12276189C



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Report No.: WTD23X12276189C

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Remarks:

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===== End of Report =====

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