



TEST REPORT

Applicant : Mid Ocean Brands B.V.
Address : 7/F., King Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, HongKong.

Report on the submitted samples said to be:

Sample Name(s) : WIRELESS SPEAKER
Trade Mark : N/A
Tested Model No. : CX1449
Sample Received Date : June 07, 2024
Testing Period : June 07, 2024 ~ June 14, 2024
Date of Report : June 14, 2024
Testing Location : 901, No.40 Building, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, Guangdong, China
Results : Please refer to next page(s).

| TEST REQUEST | CONCLUSION |
|--|------------|
| As specified by client, based on the performed tests on submitted sample, the result of Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr(VI)), PBBs, PBDEs, Dibutyl Phthalate(DBP), Butylbenzyl Phthalate(BBP), Di-2-ethylhexyl Phthalate(DEHP) and Diisobutyl phthalate(DIBP) content comply with the limits set by RoHS Directive 2011/65/EU with amendment (EU) 2015/863. | PASS |

Signed for and on behalf of LCS

Terry Luo



**A. EU RoHS Directive 2011/65/EU and its amendment directives**

Test method: Refer to IEC 62321-1:2013&IEC 62321-2:2021&IEC 62321-3-1:2013, Screening by X-ray Fluorescence Spectroscopy (XRF).

Test result(s):

| Sample No. | Sample Description | Screening Result(s) | | | | | | Date of sample submission/ Resubmission |
|------------|----------------------------|---------------------|----|----|-----------------|-----------------|-------|---|
| | | Cd | Pb | Hg | Cr [▼] | Br [▼] | | |
| | | | | | | PBBs | PBDEs | |
| 1 | Red plastic shell | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 2 | Black adhesive | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 3 | Red plastic thread | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 4 | Black plastic thread | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 5 | Silver wire | BL | BL | BL | BL | / | / | 2024-06-07 |
| 6 | Black soft plastic | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 7 | Black plastic sheet | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 8 | Gold sheet metal | BL | BL | BL | BL | / | / | 2024-06-07 |
| 9 | White plastic ring | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 10 | Silver metal ring | BL | BL | BL | BL | / | / | 2024-06-07 |
| 11 | Blue PCB board | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 12 | Tin solder | BL | BL | BL | BL | / | / | 2024-06-07 |
| 13 | Red wire | BL | BL | BL | BL | / | / | 2024-06-07 |
| 14 | Blue wire | BL | BL | BL | BL | / | / | 2024-06-07 |
| 15 | White dry glue | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 16 | White plastic sheet | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 17 | Black paper | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 18 | Bright black plastic sheet | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 19 | Black soft plastic | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 20 | Tin solder | BL | BL | BL | BL | / | / | 2024-06-07 |
| 21 | White plastic sheet | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 22 | black magnet | BL | BL | BL | BL | / | / | 2024-06-07 |
| 23 | Black foam | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 24 | Brown plastic sheet | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 25 | Silver sheet metal | BL | BL | BL | BL | / | / | 2024-06-07 |
| 26 | Gold wire | BL | BL | BL | BL | / | / | 2024-06-07 |
| 27 | Red wire | BL | BL | BL | BL | / | / | 2024-06-07 |
| 28 | Yellow paper | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 29 | Silver sheet metal | BL | BL | BL | BL | / | / | 2024-06-07 |
| 30 | Black plastic sheet | BL | BL | BL | BL | BL | BL | 2024-06-07 |



Shenzhen LCS Compliance Testing Laboratory Ltd.

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Document No:TRF-4-R-027 Ver. A/0



| Sample No. | Sample Description | Screening Result(s) | | | | | | Date of sample submission/ Resubmission |
|------------|---------------------------|---------------------|----|----|------------------|-----------------|-------|---|
| | | Cd | Pb | Hg | Cr ^{VI} | Br [▼] | | |
| | | | | | | PBBs | PBDEs | |
| 31 | Silver metal needle | BL | BL | BL | BL | / | / | 2024-06-07 |
| 32 | Tin solder | BL | BL | BL | BL | / | / | 2024-06-07 |
| 33 | chip resistor | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 34 | Black IC | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 35 | Silver sheet metal | BL | BL | BL | BL | / | / | 2024-06-07 |
| 36 | Black plastic sheet | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 37 | Silver metal shrapnel | BL | BL | BL | BL | / | / | 2024-06-07 |
| 38 | Silver metal pin | BL | BL | BL | BL | / | / | 2024-06-07 |
| 39 | Silver crystal oscillator | BL | BL | BL | BL | / | / | 2024-06-07 |
| 40 | Black IC | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 41 | PCB board | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 42 | light-emitting diode | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 43 | Silver metal pin | BL | BL | BL | BL | / | / | 2024-06-07 |
| 44 | Silver metal screw | BL | BL | BL | BL | / | / | 2024-06-07 |
| 45 | Silver plastic sheet | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 46 | Black soft plastic | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 47 | Silver sheet metal | BL | BL | BL | BL | / | / | 2024-06-07 |
| 48 | White plastic sheet | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 49 | Silver metal needle | BL | BL | BL | BL | / | / | 2024-06-07 |
| 50 | Black plastic wire sheath | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 51 | Red plastic thread | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 52 | Black plastic thread | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 53 | Silver wire | BL | BL | BL | BL | / | / | 2024-06-07 |
| 54 | Black soft plastic | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 55 | Silver sheet metal | BL | BL | BL | BL | / | / | 2024-06-07 |
| 56 | Black plastic sheet | BL | BL | BL | BL | BL | BL | 2024-06-07 |
| 57 | Silver metal needle | BL | BL | BL | BL | / | / | 2024-06-07 |

Note:

- Results were obtained by XRF for primary screening, and further chemical testing by ICP(for Cd, Pb, Hg), UV-Vis(for Cr(VI)) and GC-MS(for PBBs, PBDEs) are recommended to be performed, if the concentration exceeds the below warning value according to IEC 62321-3-1:2013(Unit: mg/kg).





| Element | Polymers | Metals | Composite material |
|---------|--|--|--|
| Cd | $BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$ | $BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$ | $LOD < X < (150+3\sigma) \leq OL$ |
| Pb | $BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$ | $BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$ | $BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$ |
| Hg | $BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$ | $BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$ | $BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$ |
| Cr | $BL \leq (700-3\sigma) < X$ | $BL \leq (700-3\sigma) < X$ | $BL \leq (500-3\sigma) < X$ |
| Br | $BL \leq (300-3\sigma) < X$ | N/A | $BL \leq (250-3\sigma) < X$ |

Remark:

- BL= Below Limit
 - OL= Over Limit
 - X= The range of needing to do further testing
 - 3σ = The reproducibility of analytical instruments
 - N/A= Not applicable
 - LOD= Detection limit
2. The XRF screening test for RoHS elements – The reading may be different to the actual content in the sample be of non-uniformity composition.
 3. The maximum permissible limit is quoted from the document RoHS Directive 2011/65/EU with amendment (EU) 2015/863.
 4. ▼=For restricted substances PBBs and PBDEs, the results show the total Br content, the restricted substance was Cr(VI), and the results showed the total Cr content.





| RoHS Restricted Substances | Maximum Concentration Value (mg/kg) (by weight in homogenous materials) |
|--------------------------------------|--|
| Cadmium(Cd) | 100 |
| Lead(Pb) | 1000 |
| Mercury(Hg) | 1000 |
| Hexavalent Chromium(Cr(VI)) | 1000 |
| Polybrominated biphenyls(PBBs) | 1000 |
| Polybrominated diphenylethers(PBDEs) | 1000 |
| Dibutyl Phthalate(DBP) | 1000 |
| Butylbenzyl Phthalate(BBP) | 1000 |
| Di-(2-ethylhexyl) Phthalate(DEHP) | 1000 |
| Diisobutyl phthalate(DIBP) | 1000 |

Disclaimers:

This XRF Screening report 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 result 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.). Further wet chemical pre-treatment with relevant chemical equipment analysis are required to obtain quantitative data.



**B. EU RoHS Directive 2011/65/EU with amendment (EU) 2015/863 on DBP, BBP, DEHP & DIBP content**

Test method:

Phthalates(DBP, BBP, DEHP &DIBP) Content:

Refer to IEC 62321-8:2017, by solvent extraction and analysis was performed by gas chromatography-mass spectrometer (GC-MS).

Test result(s):

1) Phthalates(DBP, BBP, DEHP &DIBP)

| Tested Item(s) | MDL (mg/kg) | Test Result(s) (mg/kg) | | | | Limit (mg/kg) |
|---|-------------|------------------------|------|------|------|---------------|
| | | 46 | 50 | 51 | 52 | |
| Dibutyl Phthalate(DBP) Content | 50 | N.D. | N.D. | N.D. | N.D. | 1000 |
| Butylbenzyl Phthalate(BBP) Content | 50 | N.D. | N.D. | N.D. | N.D. | 1000 |
| Di-(2-ethylhexyl) Phthalate(DEHP) Content | 50 | N.D. | N.D. | N.D. | N.D. | 1000 |
| Diisobutyl phthalate(DIBP) Content | 50 | N.D. | N.D. | N.D. | N.D. | 1000 |

| Tested Item(s) | MDL (mg/kg) | Test Result(s) (mg/kg) | Limit (mg/kg) |
|---|-------------|------------------------|---------------|
| | | 1+2+3+4+6+7 | |
| Dibutyl Phthalate(DBP) Content | 50 | N.D. | 1000 |
| Butylbenzyl Phthalate(BBP) Content | 50 | N.D. | 1000 |
| Di-(2-ethylhexyl) Phthalate(DEHP) Content | 50 | N.D. | 1000 |
| Diisobutyl phthalate(DIBP) Content | 50 | N.D. | 1000 |

| Tested Item(s) | MDL (mg/kg) | Test Result(s) (mg/kg) | Limit (mg/kg) |
|---|-------------|------------------------|---------------|
| | | 9+11+15+16+17+18 | |
| Dibutyl Phthalate(DBP) Content | 50 | N.D. | 1000 |
| Butylbenzyl Phthalate(BBP) Content | 50 | N.D. | 1000 |
| Di-(2-ethylhexyl) Phthalate(DEHP) Content | 50 | N.D. | 1000 |
| Diisobutyl phthalate(DIBP) Content | 50 | N.D. | 1000 |





| Tested Item(s) | MDL (mg/kg) | Test Result(s) (mg/kg) | Limit (mg/kg) |
|---|-------------|------------------------|---------------|
| | | 19+21+23+24+28+30 | |
| Dibutyl Phthalate(DBP) Content | 50 | N.D. | 1000 |
| Butylbenzyl Phthalate(BBP) Content | 50 | N.D. | 1000 |
| Di-(2-ethylhexyl) Phthalate(DEHP) Content | 50 | N.D. | 1000 |
| Diisobutyl phthalate(DIBP) Content | 50 | N.D. | 1000 |

| Tested Item(s) | MDL (mg/kg) | Test Result(s) (mg/kg) | Limit (mg/kg) |
|---|-------------|------------------------|---------------|
| | | 33+34+36+40+41+42 | |
| Dibutyl Phthalate(DBP) Content | 50 | N.D. | 1000 |
| Butylbenzyl Phthalate(BBP) Content | 50 | N.D. | 1000 |
| Di-(2-ethylhexyl) Phthalate(DEHP) Content | 50 | N.D. | 1000 |
| Diisobutyl phthalate(DIBP) Content | 50 | N.D. | 1000 |

| Tested Item(s) | MDL (mg/kg) | Test Result(s) (mg/kg) | Limit (mg/kg) |
|---|-------------|------------------------|---------------|
| | | 45+48+54+56 | |
| Dibutyl Phthalate(DBP) Content | 50 | N.D. | 1000 |
| Butylbenzyl Phthalate(BBP) Content | 50 | N.D. | 1000 |
| Di-(2-ethylhexyl) Phthalate(DEHP) Content | 50 | N.D. | 1000 |
| Diisobutyl phthalate(DIBP) Content | 50 | N.D. | 1000 |

Note:

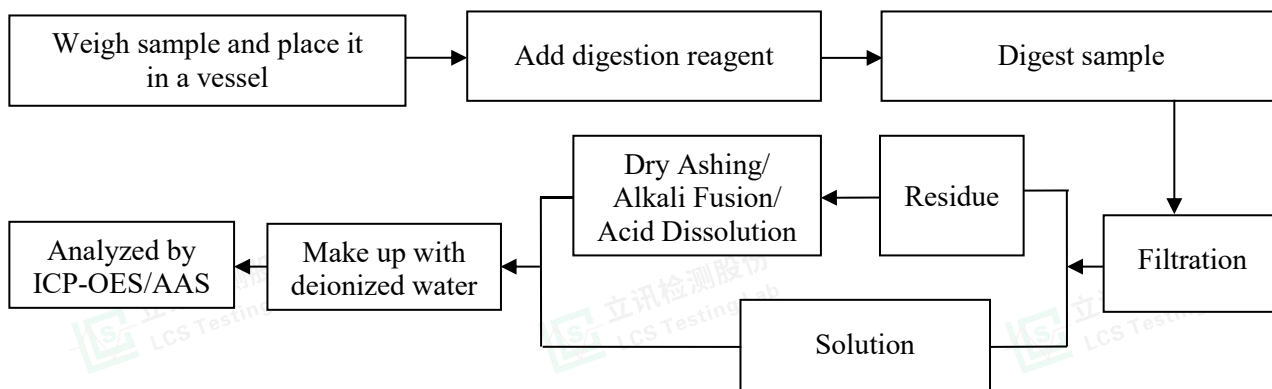
- MDL = Method Detection Limit
- N.D. = Not Detected (<MDL)
- mg/kg= milligram per kilogram=ppm
- According to customer's requirement, only the appointed materials have been tested.



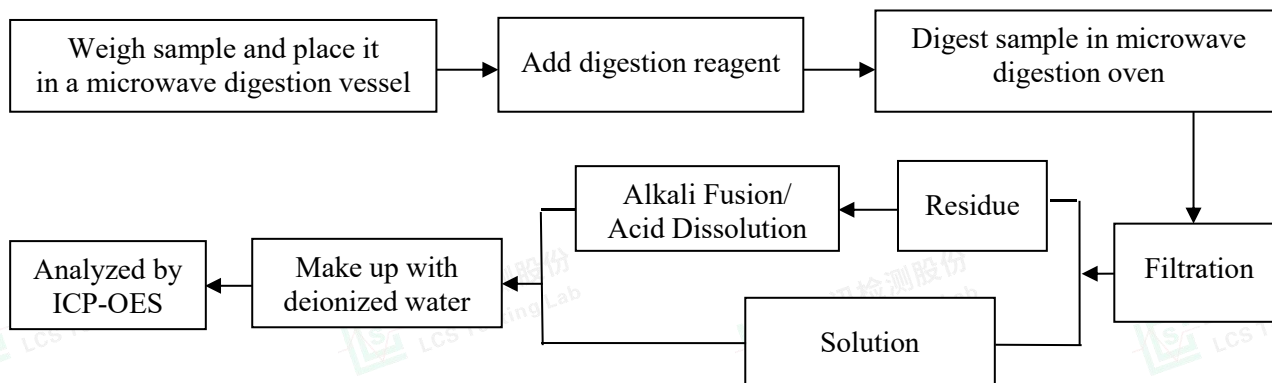


Test Process

1. Lead(Pb) & Cadmium(Cd): IEC 62321-5:2013

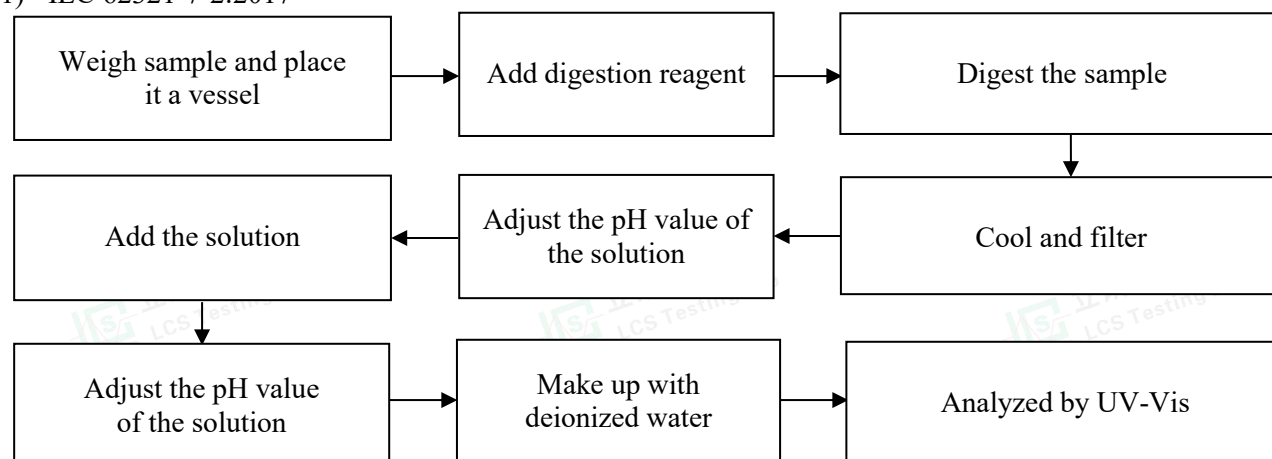


2. Mercury(Hg): IEC 62321-4:2013+AMD1:2017 CSV



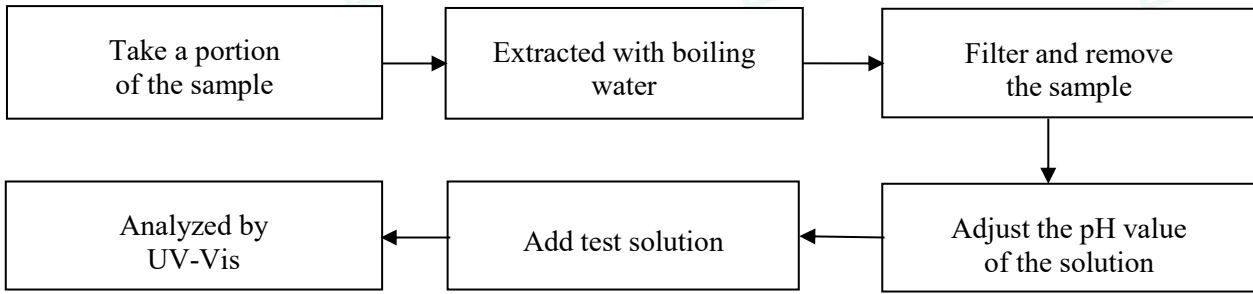
3. Hexavalent Chromium(Cr(VI))

1) IEC 62321-7-2:2017

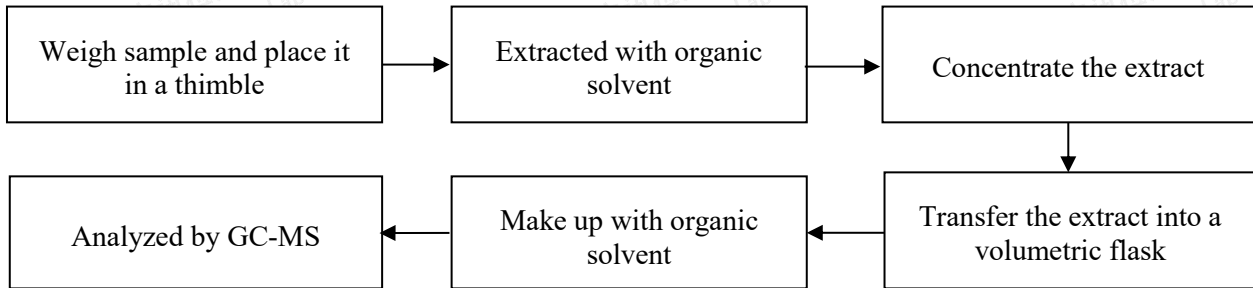




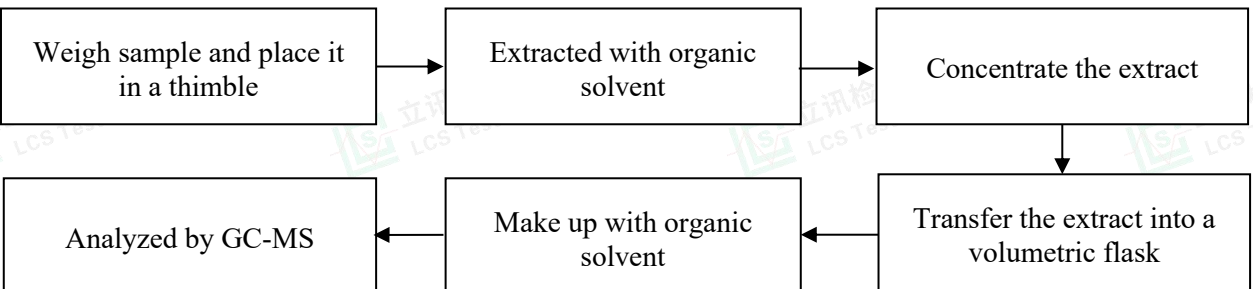
2) IEC 62321-7-1:2015



4. Polybrominated Biphenyls(PBBs) & Polybrominated Diphenyl Ethers(PBDEs) : IEC 62321-6:2015



5. Phthalates(DBP, BBP, DEHP & DIBP) : IEC 62321-8:2017

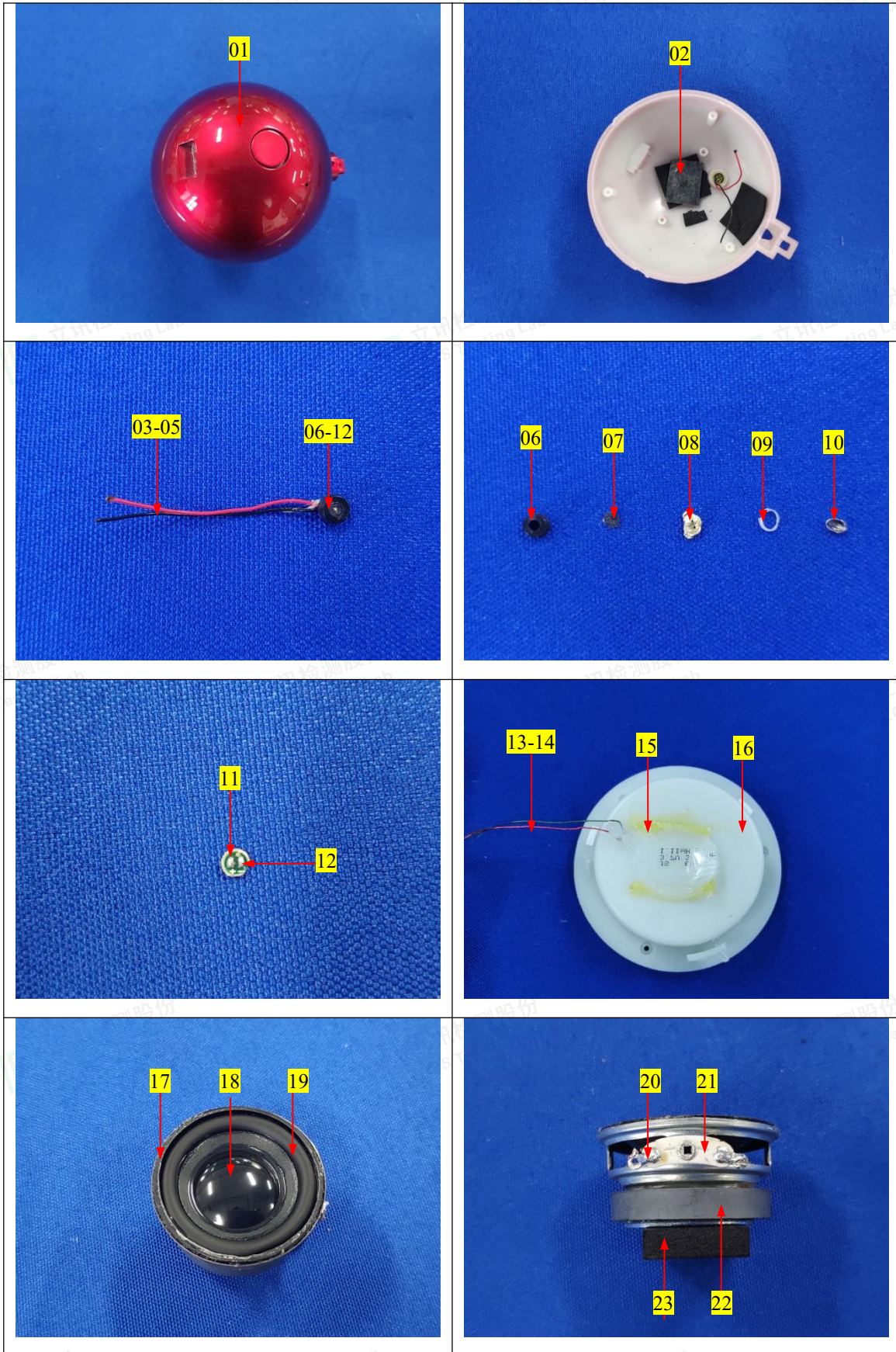


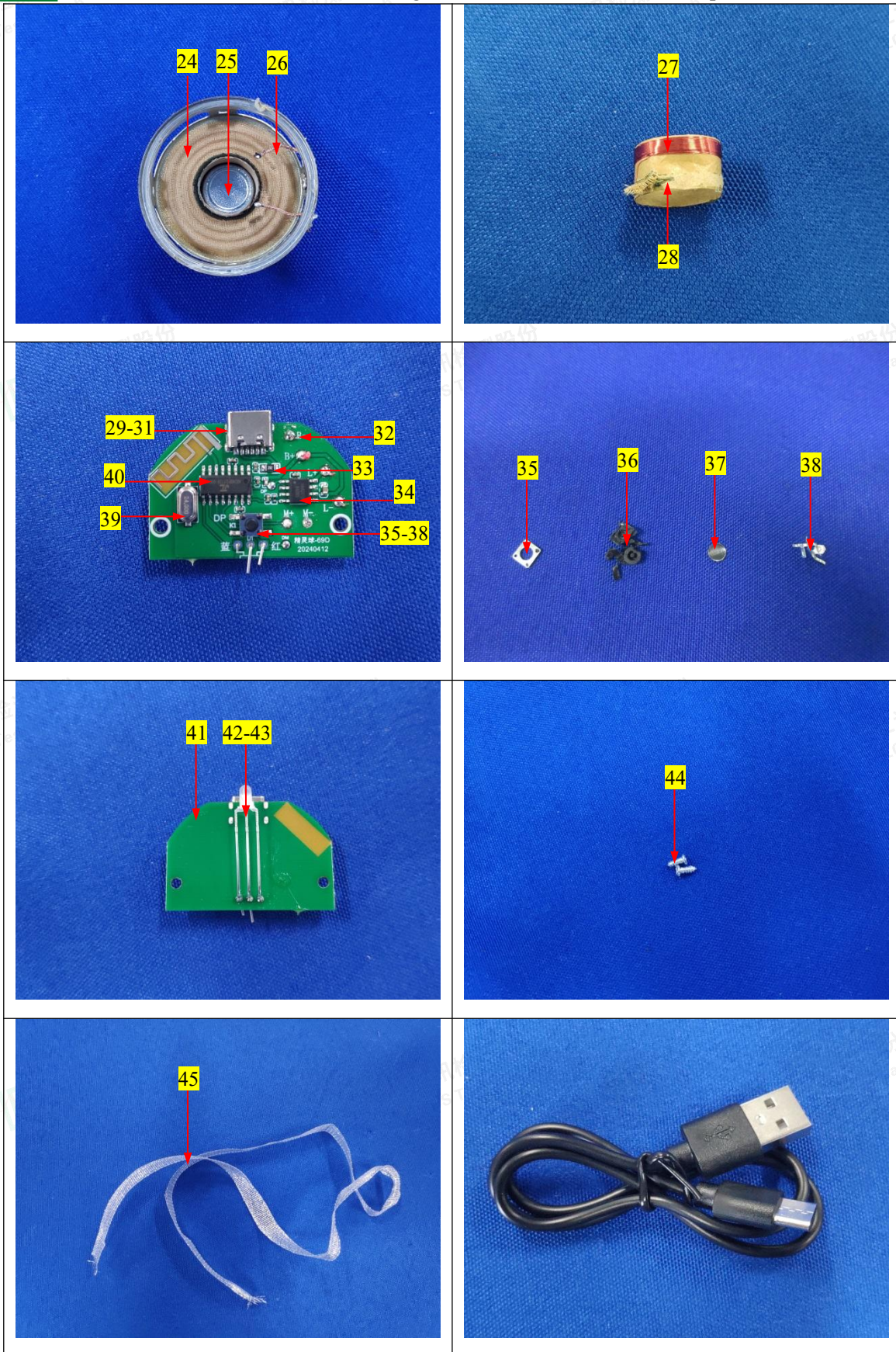


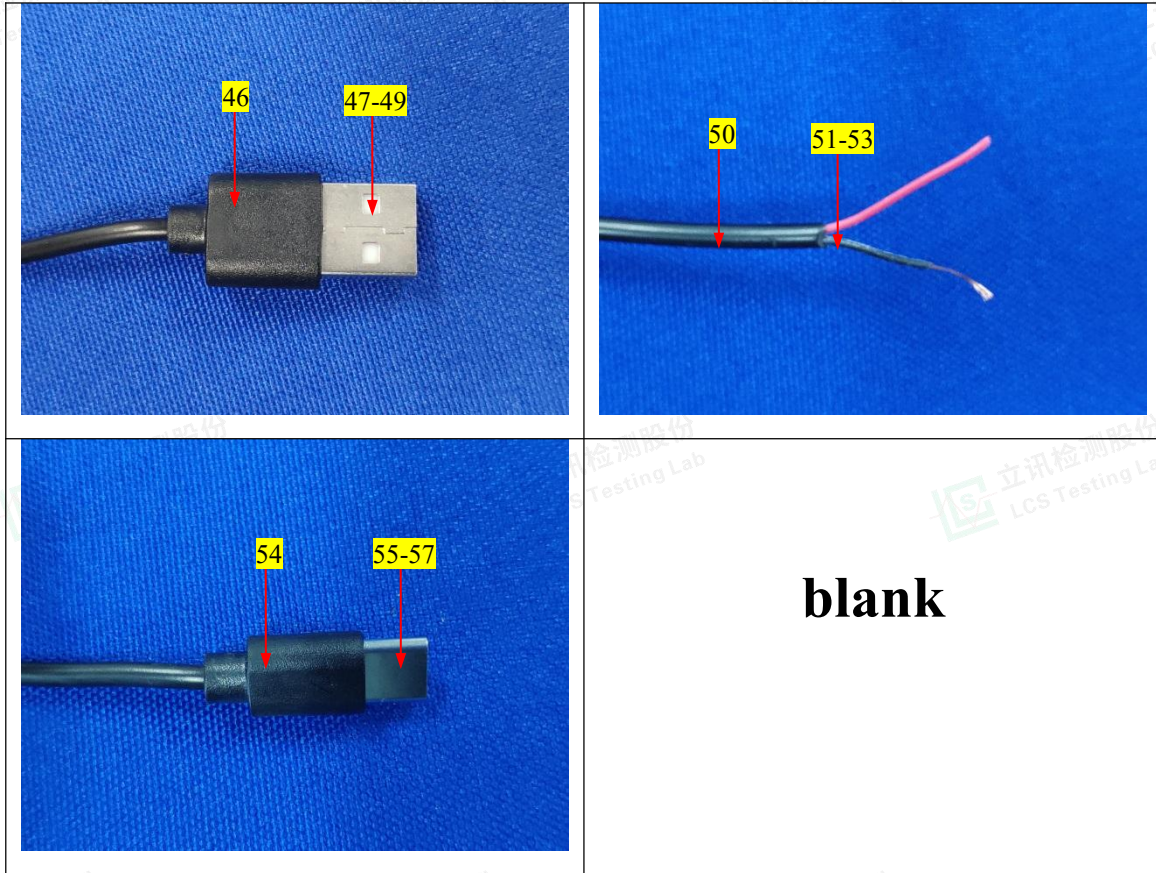
The photo(s) of the sample











Statement:

1. The test report is invalid without the signature of the approver and the special seal for the company's report;
2. The company name, address and sample information shown on the report were provided by the applicant who should be responsible for the authenticity which are not verified by LCS;
3. The test results in this report are only responsible for the tested samples;
4. Without written approval of LCS, this report can't be reproduced except in full;
5. In case of any discrepancy between the corresponding Chinese and English contents in the test report, the Chinese version shall prevail.

*** End of Report ***

