



中国认可  
国际互认  
检测  
TESTING  
CNAS L6478



# TEST REPORT

**Report No.** ..... : WTF25F07184509C  
**Job No.** ..... : FSW2507241242CJ  
**Applicant** ..... : Mid Ocean Brands B.V.  
**Address** ..... : Unit 711-716, 7/F., Tower A, 83 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong.  
**Manufacturer** ..... : 114768  
**Sample Name** ..... : TWS earbuds  
**Sample Model** ..... : MO6946  
**Test Requested** ..... : With reference to EU RoHS Directive 2011/65/EU and its amendment Directive EU 2015/863, to determine the Pb, Cd, Hg, Cr<sup>6+</sup>, PBBs, PBDEs, DBP, BBP, DEHP, DIBP content in the submitted sample.  
**Test Method** ..... : Refer to next page (s)  
**Test Conclusion** ..... : **Pass**  
**Date of Receipt Sample** ..... : 2025-06-27 & 2025-07-08 & 2025-07-15 & 2025-07-24  
**Testing Period** ..... : 2025-06-27 to 2025-07-11 & 2025-07-15 to 2025-07-18 & 2025-07-24 to 2025-07-31  
**Date of Issue** ..... : 2025-08-01  
**Test Result** ..... : Refer to next page (s)

## Prepared By:

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

Swing Liang



WTF25F07184509C

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**Sample photo:**



**MO6946**



**MO6946**

**WALTEK**



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

Test Method/Equipment:

- 1) With reference to IEC 62321-2:2021, disassembly, disjunction and mechanical sample preparation
- 2) With reference to IEC 62321-3-1:2013, screening –Lead, mercury, cadmium, total chromium and total bromine by X-ray fluorescence spectrometry
- 3) With reference to IEC 62321-4:2013+AMD1:2017 CSV, determination of Mercury by ICP-OES
- 4) With reference to IEC 62321-5:2013, determination of Lead and Cadmium by ICP-OES
- 5) With reference to IEC 62321-7-2: 2017 and IEC 62321-7-1: 2015, determination of Hexavalent Chromium by UV-Vis
- 6) With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS

| Part No. | Part Description                        | Result of XRF |    |    |    |    | Result of Wet Chemical Testing (mg/kg) | Note                             |
|----------|---|---------------|----|----|----|----|--|----------------------------------|
|          |   | Cd            | Pb | Hg | Cr | Br |  |                                  |
| 1        | White plastic shell                     | BL            | BL | BL | BL | BL | NA                                     | •                                |
| 2        | Black transparent plastic shell         | BL            | BL | BL | BL | BL | NA                                     | •                                |
| 3        | Golden metal shell                      | IN            | OL | BL | BL | -- | Cd :38<br>#Pb :2.50×10 <sup>4</sup>    | •                                |
| 4        | Silvery metal spring                    | BL            | BL | BL | IN | -- | Cr <sup>6+</sup> : Negative            | •                                |
| 5        | Brown transparent plastic adhesive tape | BL            | BL | BL | BL | BL | NA                                     | Same<br>WTF25F06145388A<br>1C-28 |
| 6        | Black plastic wire covering             | BL            | BL | BL | BL | BL | NA                                     | Same<br>WTF25F06145388A<br>1C-57 |
| 7        | Silvery metal wire                      | BL            | BL | BL | BL | -- | NA                                     | Same<br>WTF25F06145388A<br>1C-58 |
| 8        | Black sponge with adhesive              | BL            | BL | BL | BL | BL | NA                                     | •                                |



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| Part No. | Part Description                       | Result of XRF |    |    |    |    | Result of Wet Chemical Testing (mg/kg) | Note                             |
|----------|--|---------------|----|----|----|----|--|----------------------------------|
|          |  | Cd            | Pb | Hg | Cr | Br |  |                                  |
| 9        | Solder                                 | BL            | IN | BL | BL | -- | Pb :176                                | •                                |
| 10       | Silvery metal sheet                    | BL            | BL | BL | BL | -- | NA                                     | •                                |
| 11       | Red plastic wire covering              | BL            | BL | BL | BL | BL | NA                                     | Same<br>WTF25F06145388A<br>1C-59 |
| 12       | Silvery metal screw with black surface | BL            | BL | BL | IN | -- | Cr <sup>6+</sup> : Negative            | •                                |
| 13       | Black plastic core(socket)             | BL            | BL | BL | BL | BL | NA                                     | •                                |
| 14       | Silvery metal shell(socket)            | BL            | BL | BL | BL | -- | NA                                     | •                                |
| 15       | Silvery metal pin(socket)              | BL            | BL | BL | BL | -- | NA                                     | •                                |
| 16       | Chip IC                                | BL            | BL | BL | BL | BL | NA                                     | •                                |
| 17       | Green PCB                              | BL            | BL | BL | BL | IN | PBBs : ND<br>PBDEs : ND                | •                                |
| 18       | Chip resistor                          | BL            | BL | BL | IN | BL | Cr <sup>6+</sup> : ND                  | •                                |
| 19       | Chip capacitor                         | BL            | BL | BL | BL | BL | NA                                     | •                                |
| 20       | Green PCB                              | BL            | BL | BL | BL | IN | PBBs : ND<br>PBDEs : ND                | •                                |



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| Part No. | Part Description                             | Result of XRF |    |    |    |    | Result of Wet Chemical Testing (mg/kg) | Note |
|----------|--|---------------|----|----|----|----|--|------|
|          |  | Cd            | Pb | Hg | Cr | Br |  |      |
| 21       | Off-white plastic shell                      | BL            | BL | BL | BL | BL | NA                                     | •    |
| 22       | Solder                                       | BL            | IN | BL | BL | -- | Pb :204                                | •    |
| 23       | Silvery magnetic block                       | BL            | BL | BL | IN | -- | Cr <sup>6+</sup> : ND                  | •    |
| 24       | Transparent plastic sheet with black surface | BL            | BL | BL | BL | BL | NA                                     | •    |
| 25       | Coppery varnished wire(inductor)             | BL            | BL | BL | BL | BL | NA                                     | •    |
| 26       | Black magnetic core(inductor)                | BL            | IN | BL | IN | -- | Cr <sup>6+</sup> : ND<br>Pb :325       | •    |
| 27       | Chip IC                                      | BL            | IN | BL | BL | BL | Pb :345                                | •    |
| 28       | Transparent dry glue                         | BL            | BL | BL | BL | IN | PBBs : ND<br>PBDEs : ND                | •    |
| 29       | Black PCB                                    | BL            | BL | BL | BL | IN | PBBs : ND<br>PBDEs : ND                | •    |
| 30       | Chip IC                                      | BL            | IN | BL | BL | BL | Pb :503                                | •    |
| 31       | Chip resistor                                | BL            | OL | BL | BL | BL | <sup>^</sup> Pb : 7.14×10 <sup>4</sup> | •    |
| 32       | Chip resistor                                | BL            | OL | BL | BL | BL | <sup>^</sup> Pb : 4.46×10 <sup>4</sup> | •    |





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| Part No. | Part Description                | Result of XRF |    |    |    |    | Result of Wet Chemical Testing (mg/kg) | Note                             |
|----------|---------------------------------|---------------|----|----|----|----|--|----------------------------------|
|          |                                 | Cd            | Pb | Hg | Cr | Br |  |                                  |
| 33       | Chip capacitor                  | BL            | OL | BL | BL | BL | $^{A}Pb : 5.93 \times 10^4$            | •                                |
| 34       | White plastic shell             | BL            | BL | BL | BL | BL | NA                                     | •                                |
| 35       | Golden metal pin                | IN            | OL | BL | BL | -- | Cd :44<br>#Pb :2.66 $\times 10^4$      | •                                |
| 36       | Silvery metal net with adhesive | BL            | BL | BL | IN | -- | Cr <sup>6+</sup> : Negative            | •                                |
| 37       | White plastic shell             | BL            | BL | BL | BL | BL | NA                                     | •                                |
| 38       | Silvery metal net with adhesive | BL            | BL | BL | IN | -- | Cr <sup>6+</sup> : Negative            | •                                |
| 39       | White plastic shell             | BL            | BL | BL | BL | -- | NA                                     | •                                |
| 40       | Black plastic wire covering     | BL            | BL | BL | BL | BL | NA                                     | Same<br>WTF25F06145388A<br>1C-86 |
| 41       | Silvery metal wire              | BL            | BL | BL | BL | -- | NA                                     | Same<br>WTF25F06145388A<br>1C-72 |
| 42       | Red plastic wire covering       | BL            | BL | BL | BL | BL | NA                                     | Same<br>WTF25F06145388A<br>1C-87 |
| 43       | White plastic wire covering     | BL            | BL | BL | BL | BL | NA                                     | Same<br>WTF25F06145388A<br>1C-73 |
| 44       | Blue plastic wire covering      | BL            | BL | BL | BL | BL | NA                                     | Same<br>WTF25F06145388A<br>1C-71 |



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| Part No. | Part Description                 | Result of XRF |    |    |    |    | Result of Wet Chemical Testing (mg/kg) | Note |
|----------|----------------------------------|---------------|----|----|----|----|--|------|
|          |                                  | Cd            | Pb | Hg | Cr | Br |  |      |
| 45       | White plastic adhesive tape      | BL            | BL | BL | BL | BL | NA                                     | •    |
| 46       | Silvery metal shell              | BL            | BL | BL | IN | -- | Cr <sup>6+</sup> : Negative            | •    |
| 47       | Green PCB                        | BL            | BL | BL | BL | BL | NA                                     | •    |
| 48       | Solder                           | BL            | IN | BL | BL | -- | Pb :175                                | •    |
| 49       | Yellow dry glue                  | BL            | BL | BL | BL | BL | NA                                     | •    |
| 50       | Transparent plastic film         | BL            | BL | BL | BL | BL | NA                                     | •    |
| 51       | Red-coppery metal wire           | BL            | BL | BL | BL | -- | NA                                     | •    |
| 52       | Silvery magnetic block           | BL            | BL | BL | IN | -- | Cr <sup>6+</sup> : ND                  | •    |
| 53       | White double faced adhesive tape | BL            | BL | BL | BL | BL | NA                                     | •    |
| 54       | Chip crystal oscillator          | BL            | BL | BL | BL | BL | NA                                     | •    |
| 55       | Green PCB                        | BL            | BL | BL | BL | IN | PBBs : ND<br>PBDEs : ND                | •    |
| 56       | Solder                           | BL            | BL | BL | BL | -- | NA                                     | •    |



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| Part No. | Part Description               | Result of XRF |    |    |    |    | Result of Wet Chemical Testing (mg/kg) | Note                              |
|----------|--------------------------------|---------------|----|----|----|----|--|-----------------------------------|
|          |                                | Cd            | Pb | Hg | Cr | Br |  |                                   |
| 57       | Chip MIC                       | BL            | BL | BL | BL | IN | PBBs : ND<br>PBDEs : ND                | •                                 |
| 58       | Chip IC                        | BL            | BL | BL | BL | BL | NA                                     | •                                 |
| 59       | Chip EC                        | BL            | BL | BL | BL | IN | PBBs : ND<br>PBDEs : ND                | •                                 |
| 60       | Silvery magnetic block         | BL            | BL | BL | IN | -- | Cr <sup>6+</sup> : ND                  | •                                 |
| 61       | Chip LED                       | BL            | BL | BL | BL | IN | PBBs : ND<br>PBDEs : ND                | •                                 |
| 62       | Chip resistor                  | BL            | BL | BL | BL | BL | NA                                     | •                                 |
| 63       | Chip capacitor                 | BL            | BL | BL | BL | BL | NA                                     | •                                 |
| 64       | Silvery metal shell(USB plug)  | BL            | BL | BL | BL | -- | NA                                     | Same<br>WTF25F06145388A<br>1C-101 |
| 65       | White plastic jacket(USB plug) | BL            | BL | BL | BL | BL | NA                                     | Same<br>WTF25F06145388A<br>1C-100 |
| 66       | White plastic wire jacket      | BL            | BL | BL | BL | BL | NA                                     | Same<br>WTF25F06145388A<br>1C-99  |
| 67       | Silvery metal pin(USB plug)    | BL            | BL | BL | BL | -- | NA                                     | Same<br>WTF25F06145388A<br>1C-104 |
| 68       | Solder(USB plug)               | BL            | IN | BL | BL | -- | Pb :248                                | Same<br>WTF25F06145388A<br>1C-103 |





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| Part No. | Part Description                  | Result of XRF |    |    |    |    | Result of Wet Chemical Testing (mg/kg) | Note                              |
|----------|-----------------------------------|---------------|----|----|----|----|--|-----------------------------------|
|          |                                   | Cd            | Pb | Hg | Cr | Br |  |                                   |
| 69       | White plastic core(USB plug)      | BL            | BL | BL | BL | BL | NA                                     | Same<br>WTF25F06145388A<br>1C-102 |
| 70       | Red plastic wire covering         | BL            | BL | BL | BL | BL | NA                                     | Same<br>WTF25F06145388A<br>1C-105 |
| 71       | Coppery metal wire                | BL            | BL | BL | BL | -- | NA                                     | Same<br>WTF25F06145388A<br>1C-107 |
| 72       | Black plastic wire covering       | BL            | BL | BL | BL | BL | NA                                     | Same<br>WTF25F06145388A<br>1C-106 |
| 73       | White plastic jacket(Type-C plug) | BL            | BL | BL | BL | BL | NA                                     | Same<br>WTF25F06145388A<br>1C-108 |
| 74       | Silvery metal shell(Type-C plug)  | BL            | BL | BL | IN | -- | Cr <sup>6+</sup> : Negative            | Same<br>WTF25F06145388A<br>1C-109 |
| 75       | Solder(Type-C plug)               | BL            | BL | BL | BL | -- | NA                                     | Same<br>WTF25F06145388A<br>1C-110 |
| 76       | Black plastic core(Type-C plug)   | BL            | BL | BL | BL | BL | NA                                     | Same<br>WTF25F06145388A<br>1C-111 |
| 77       | Green PCB(Type-C plug)            | BL            | BL | BL | BL | IN | PBBs : ND<br>PBDEs : ND                | Same<br>WTF25F06145388A<br>1C-113 |
| 78       | Silvery metal pin(Type-C plug)    | BL            | BL | BL | IN | -- | Cr <sup>6+</sup> : Negative            | Same<br>WTF25F06145388A<br>1C-112 |
| 79       | Chip EC(Type-C plug)              | BL            | OL | BL | BL | BL | *Pb : 1195                             | Same<br>WTF25F06145388A<br>1C-114 |



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## 2. Phthalates

Test Method/Equipment:

1) With reference to IEC 62321-8:2017, determination of DBP, BBP, DEHP, DIBP by GC-MS

| Serial No. | Part No.                    | Result (mg/kg) |     |      |      | Note                       |
|------------|-----------------------------|----------------|-----|------|------|----------------------------|
|            |                             | DBP            | BBP | DEHP | DIBP |                            |
| T01        | 1+2+13+21+24 <sup>△</sup>   | ND             | ND  | 126  | ND   | •                          |
| T02        | 8                           | ND             | ND  | ND   | ND   | •                          |
| T03        | 16+18+19+27+30 <sup>△</sup> | ND             | ND  | ND   | ND   | •                          |
| T04        | 17+20+29+47+55 <sup>△</sup> | ND             | ND  | ND   | ND   | •                          |
| T05        | 25                          | ND             | ND  | ND   | ND   | •                          |
| T06        | 28+49 <sup>△</sup>          | ND             | ND  | ND   | ND   | •                          |
| T07        | 31+32+33+54+57 <sup>△</sup> | ND             | ND  | ND   | ND   | •                          |
| T08        | 34+37+39 <sup>△</sup>       | ND             | ND  | ND   | ND   | •                          |
| T09        | 45                          | ND             | ND  | ND   | ND   | •                          |
| T10        | 50                          | ND             | ND  | ND   | ND   | •                          |
| T11        | 53                          | ND             | ND  | ND   | ND   | •                          |
| T12        | 58+59+61+62+63 <sup>△</sup> | ND             | ND  | ND   | ND   | •                          |
| T13        | 5                           | --             | --  | --   | --   | Same WTF25F06145388A1C-28  |
| T14        | 6                           | --             | --  | --   | --   | Same WTF25F06145388A1C-57  |
| T15        | 11                          | --             | --  | --   | --   | Same WTF25F06145388A1C-59  |
| T16        | 40                          | --             | --  | --   | --   | Same WTF25F06145388A1C-86  |
| T17        | 43                          | --             | --  | --   | --   | Same WTF25F06145388A1C-73  |
| T18        | 44                          | --             | --  | --   | --   | Same WTF25F06145388A1C-71  |
| T19        | 42                          | --             | --  | --   | --   | Same WTF25F06145388A1C-87  |
| T20        | 65                          | --             | --  | --   | --   | Same WTF25F06145388A1C-100 |
| T21        | 66                          | --             | --  | --   | --   | Same WTF25F06145388A1C-99  |
| T22        | 69                          | --             | --  | --   | --   | Same WTF25F06145388A1C-102 |
| T23        | 70                          | --             | --  | --   | --   | Same WTF25F06145388A1C-105 |
| T24        | 72                          | --             | --  | --   | --   | Same WTF25F06145388A1C-106 |
| T26        | 73                          | --             | --  | --   | --   | Same WTF25F06145388A1C-108 |
| T27        | 76                          | --             | --  | --   | --   | Same WTF25F06145388A1C-111 |
| T28        | 77                          | --             | --  | --   | --   | Same WTF25F06145388A1C-113 |
| T29        | 79                          | ND             | ND  | ND   | ND   | Same WTF25F06145388A1C-114 |
| T30        | 3                           | --             | --  | --   | --   | •                          |
| T31        | 4                           | --             | --  | --   | --   | •                          |
| T32        | 7                           | --             | --  | --   | --   | Same WTF25F06145388A1C-58  |
| T33        | 9                           | --             | --  | --   | --   | •                          |
| T34        | 10                          | --             | --  | --   | --   | •                          |
| T35        | 12                          | --             | --  | --   | --   | •                          |



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| Serial No. | Part No. | Result (mg/kg) |     |      |      | Note                       |
|------------|----------|----------------|-----|------|------|----------------------------|
|            |          | DBP            | BBP | DEHP | DIBP |                            |
| T36        | 14       | --             | --  | --   | --   | •                          |
| T37        | 15       | --             | --  | --   | --   | •                          |
| T38        | 22       | --             | --  | --   | --   | •                          |
| T39        | 23       | --             | --  | --   | --   | •                          |
| T40        | 26       | --             | --  | --   | --   | •                          |
| T41        | 35       | --             | --  | --   | --   | •                          |
| T42        | 36       | --             | --  | --   | --   | •                          |
| T43        | 38       | --             | --  | --   | --   | •                          |
| T44        | 41       | --             | --  | --   | --   | Same WTF25F06145388A1C-72  |
| T45        | 46       | --             | --  | --   | --   | •                          |
| T46        | 48       | --             | --  | --   | --   | •                          |
| T47        | 51       | --             | --  | --   | --   | •                          |
| T48        | 52       | --             | --  | --   | --   | •                          |
| T49        | 56       | --             | --  | --   | --   | •                          |
| T50        | 60       | --             | --  | --   | --   | •                          |
| T51        | 64       | --             | --  | --   | --   | Same WTF25F06145388A1C-101 |
| T52        | 67       | --             | --  | --   | --   | Same WTF25F06145388A1C-104 |
| T53        | 68       | --             | --  | --   | --   | Same WTF25F06145388A1C-103 |
| T54        | 71       | --             | --  | --   | --   | Same WTF25F06145388A1C-107 |
| T55        | 74       | --             | --  | --   | --   | Same WTF25F06145388A1C-109 |
| T56        | 75       | --             | --  | --   | --   | Same WTF25F06145388A1C-110 |
| T57        | 78       | --             | --  | --   | --   | Same WTF25F06145388A1C-112 |



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**Remark:**

- (1) Results are obtained by XRF 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

- (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 centimetre.
- (5) ND = Not Detected or lower than limit of quantitation.
- (6) NA = Not Applicable, as the XRF screening test result was below the limit or as the XRF screening directly determine that test result was over the limit, it was not need to conduct the wet chemical testing.
- (7) -- = Not Regulated
- (8) LOQ = Limit of quantitation.

| Test Items | Pb    | Cd    | Hg    | Cr <sup>6+</sup> |                           | PBB   | PBDE  | DBP   | BBP   | DEHP  | DIBP  |
|------------|-------|-------|-------|------------------|---------------------------|-------|-------|-------|-------|-------|-------|
| Units      | mg/kg | mg/kg | mg/kg | mg/kg            | $\mu\text{g}/\text{cm}^2$ | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg |
| LOQ        | 2     | 2     | 2     | 8                | 0.1                       | 5     | 5     | 50    | 50    | 50    | 50    |

The LOQ for single compound of PBBs and PBDEs is 5mg/kg, LOQ of Cr<sup>6+</sup> for polymer and composite sample is 8mg/kg and LOQ of Cr<sup>6+</sup> for metal sample is 0.1 $\mu\text{g}/\text{cm}^2$ .

- (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 $\mu\text{g}/\text{cm}^2$ .

Positive = Presence of Cr<sup>6+</sup> 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 Cr<sup>6+</sup> results represent status of the sample at the time of testing.



## (10) RoHS Requirement

| 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) |
| Dibutyl phthalate (DBP)                | 0.1% (1000 mg/kg) |
| Benzyl butyl phthalate (BBP)           | 0.1% (1000 mg/kg) |
| Di(2-ethylhexyl) phthalate (DEHP)      | 0.1% (1000 mg/kg) |
| Di-iso-butyl phthalate (DIBP)          | 0.1% (1000 mg/kg) |

## (11) Abbreviation:

"Pb" denotes Lead, "Cd" denotes Cadmium, "Hg" denotes Mercury, "Cr" denotes Chromium, "Cr<sup>6+</sup>" denotes Hexavalent Chromium, "Br" denotes Bromine, "PBBs" denotes Total Polybrominated Biphenyls, "PBDEs" denotes Total Polybrominated Diphenyl Ethers.

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

(12) "△" = As per applicant's requirement, the testing was conducted based on mixed components by weight in equal ratio, results are calculated by the minimum weight of mixed components.

(13) "●" = Actual tested sample. Chemical tests were performed for the samples indicated by the photo in this report.

(14) "Same" = It means that as per client's requirement, the sample and the actual tested sample are of the same material (or results of the sample are quoted from corresponding number report) and have not been tested.

(15)\* = According to the declaration from client, the source of lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages is exempted by Directive 2011/65/EU ANNEX III-15.

(16)^ = According to the declaration from client, the source of lead in test sample is from the glass or ceramic material of that electronic component which is exempted by Directive 2011/65/EU ANNEX III-7(c)-I.

(17)# = According to the declaration from client, the source of lead in test sample is from copper alloy while lead as copper alloy containing up to 4% lead by weight is exempted by Directive 2011/65/EU ANNEX III-6(c).

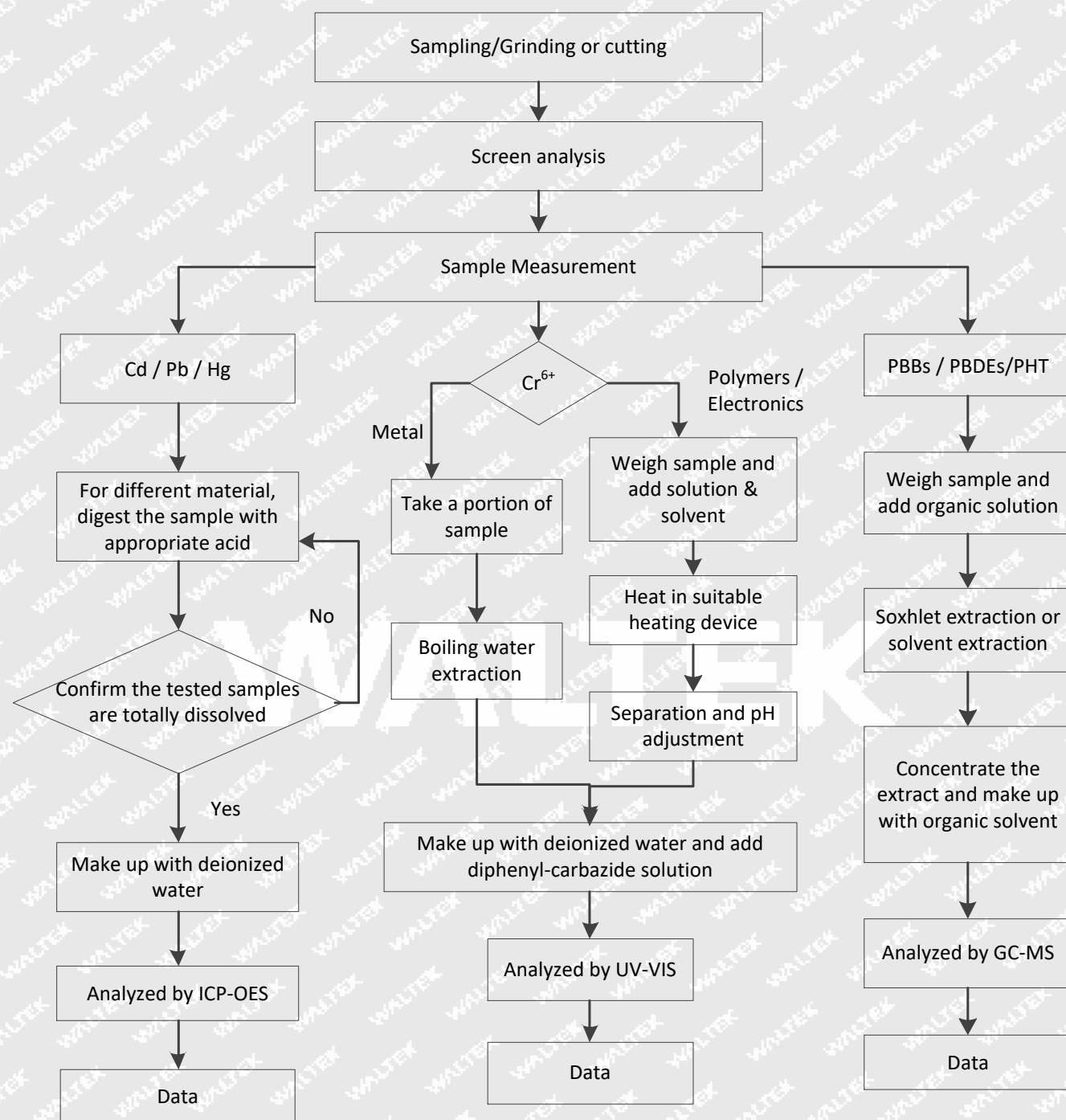




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### Testing Flow chart:

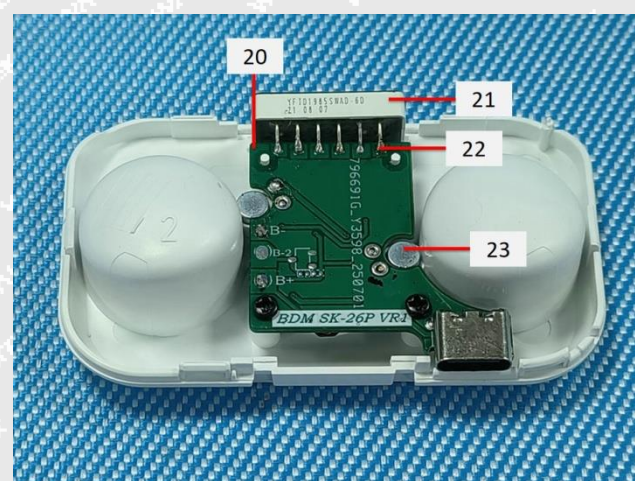
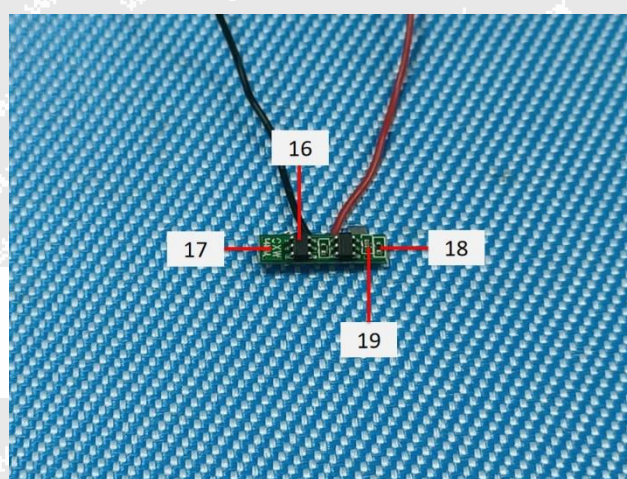
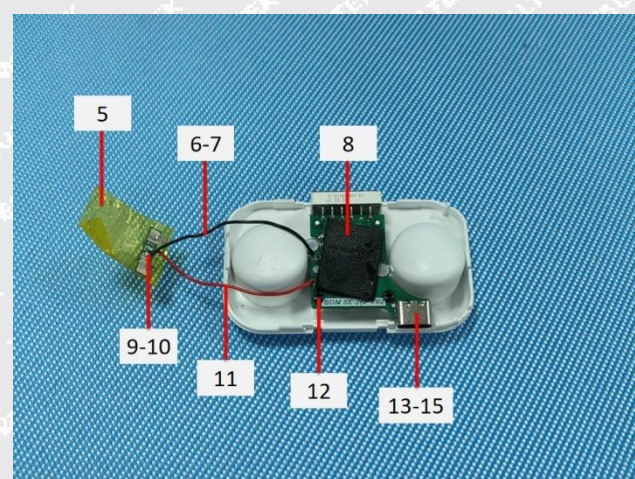
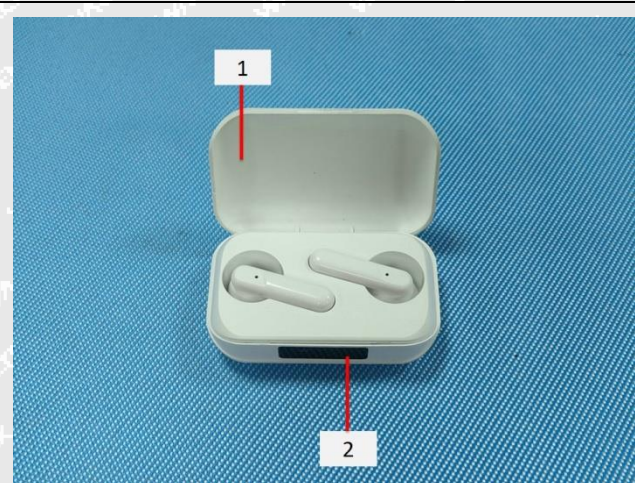




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**Photograph of parts tested:**

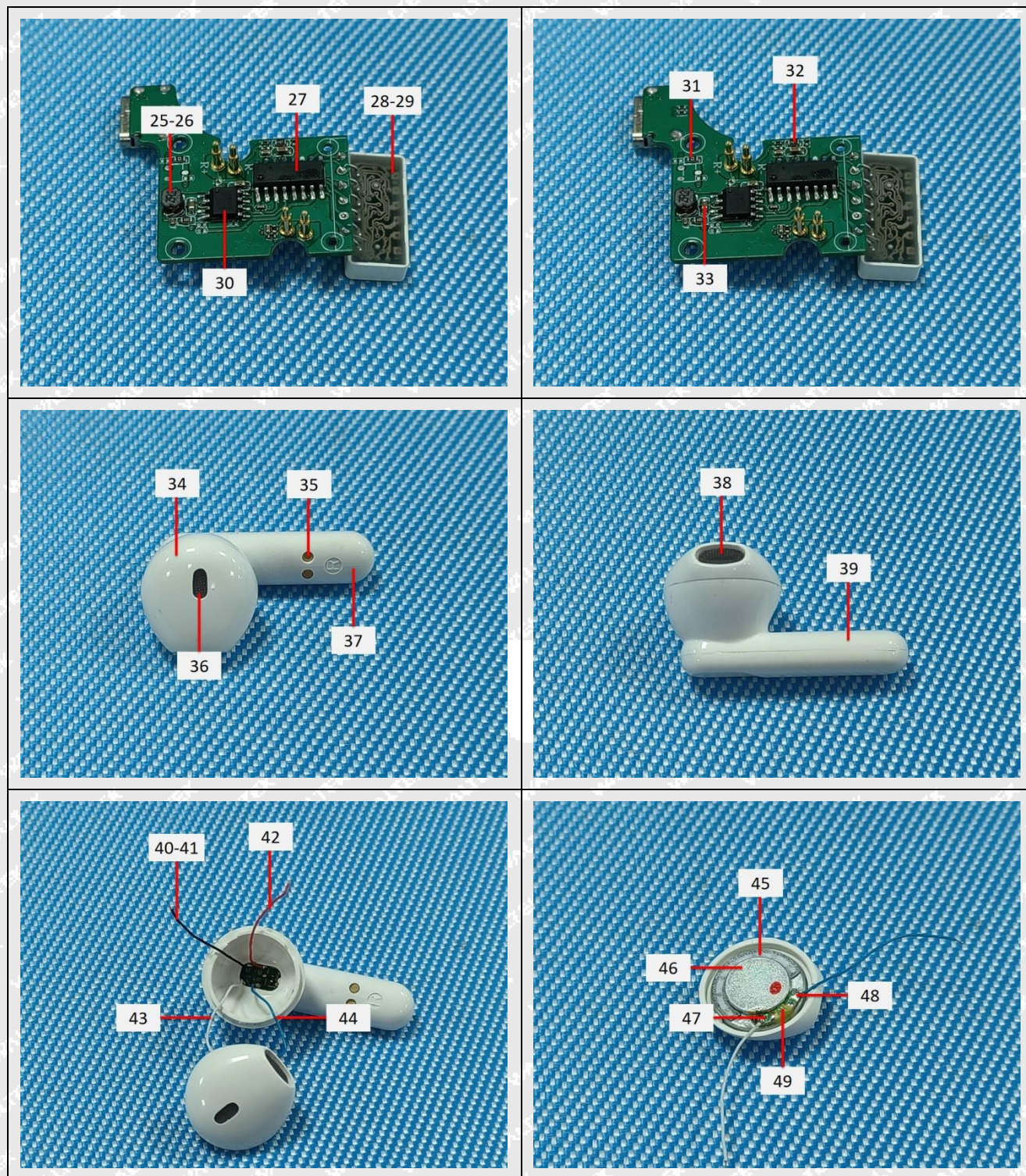






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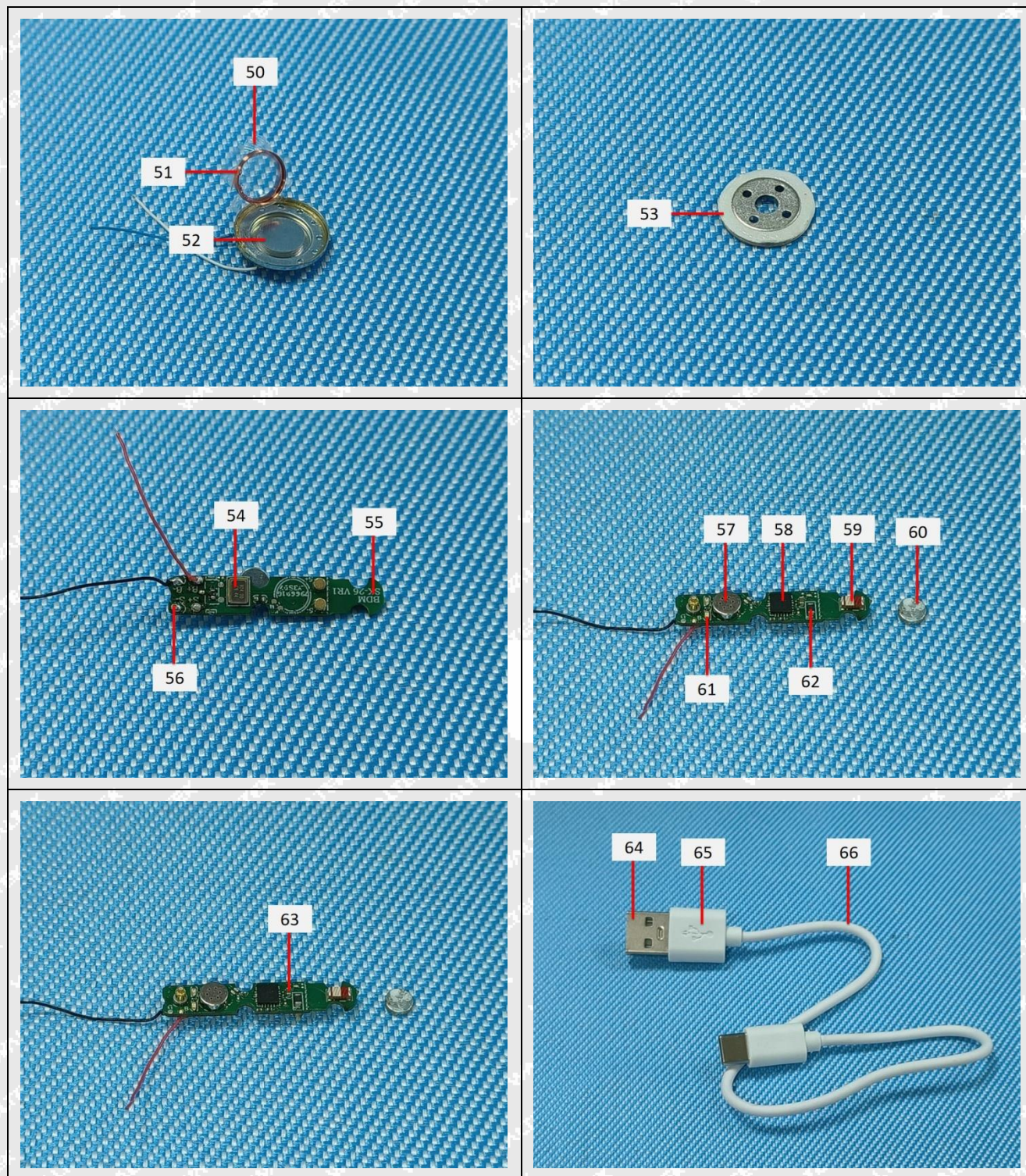






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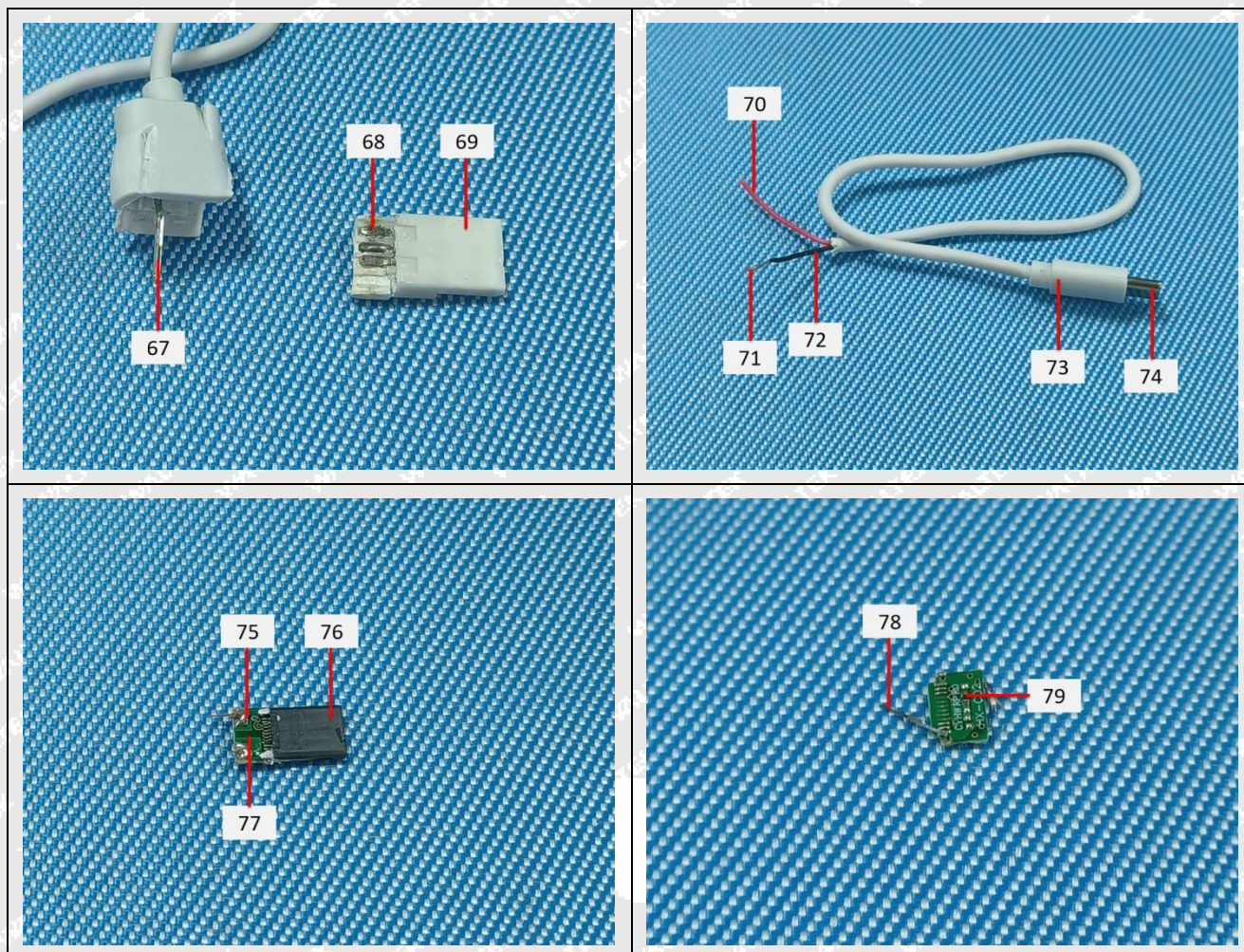






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===== End of Report =====