

## XRF Screening And Chemical Confirmation Test Report

Applicant:

### Sample Description:

The following submitted sample(s) said to be:

Item Name : **Fan**  
 Model No. : YH-40E  
 YH-40D1-1, YH-40A3, YH-40A3-1, YH-40A3-2, YH-40A3-0,  
 YH-40A3-1-0, YH-40A3--2-0, YH-40I, YH-40I-0; 40W for YH-40x-y,  
 For model YH-40x-y: Variable x= A, B, C, E, F, S, S1, H; Variable  
 y= 0, 1 or 2; Variables x stand for the shape of control box, variable  
 y stand for the construction of stand base.)  
 YH-30D1-1, YH-40D, YH-40D1, YH-40A1, YH-40A1-1,  
 YH-40A1-2, YH-40A1-0, YH-40A1-1-0, YH-40A1--2-0, YH-40A2,  
 Ref. No. : YH-40A2-1, YH-40A2-2, YH-40A2-0, YH-40A2-1-0, YH-40A2--2-0,  
 YH-40I1, YH-40I1-0, YH-40R1-0, YH-40R1-1, YH-40R1-2,  
 H-40R-0, YH-40R-1, YH-40R-2, YH-40J-0, YH-40J-1, YH-40J-2,  
 YH-40LK-0, YH-40LK-1, YH-40LK-2, YH-40D2; 35W for YH-30D,  
 YH-30D1, YH-30D2, YH-30D3; 20W for YH-23D, YH-23D1,  
 YH-23D1-1; 15W for YH-15D, YH-15D1, YH-15C, YH-15C1,  
 YH-12A, YH-12B, YH-12C, YH-12D , YH-32RA, YH-32RB,  
 YH-32A, YH-32TA, YH-29A, YH-29B  
 Date of Sample Received : Dec 27, 2018& Jan 12, 2018& Jan 22, 2018& Jan 29, 2018  
 Testing Period : Jan 27, 2018 to Jan 30, 2018

### Tests conducted:

As requested by the applicant, refer to following page(s) for details.

### Conclusion:

| Tested Sample                         | Standard   | Result |
|---------------------------------------|--|--------|
| Tested components of submitted sample | Screening by XRF spectroscopy and chemical confirmation test for RoHS Directive (2011/65/EU) | Pass   |

### Authorized by:

For Intertek Testing Services Shenzhen Ltd. Guangzhou Branch:

Annie Liang  
Senior Project Engineer



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### Screening Test by XRF Spectroscopy

Cadmium (Cd), Lead (Pb), Mercury (Hg), Chromium (Cr) and Bromine (Br) content were measured with reference to IEC 62321-3-1 Edition 1.0: 2013by XRF spectroscopy and chemical confirmation test for RoHS restricted substances.

#### (A) Results:

| Screened Components | XRF Results |    | Chemical Confirmation Result |
|---------------------|-------------|----|------------------------------|
| (1)                 | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | NT |                              |
| (2)                 | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | NT |                              |
| (3)                 | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | ND |                              |
| (4)                 | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | NT |                              |
| (5)                 | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | NT |                              |
| (6)                 | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | ND |                              |
| (7)                 | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | NT |                              |



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| Screened Components | XRF Results |    | Chemical Confirmation Result |
|---------------------|-------------|----|------------------------------|
| (8)                 | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | ND |                              |
| (9)                 | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | NT |                              |
| (10)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | ND |                              |
| (11)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | ND |                              |
| (12)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | ND |                              |
| (13)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | ND |                              |
| (14)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | ND |                              |
| (15)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | NT |                              |



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| Screened Components | XRF Results |              | Chemical Confirmation Result                           |
|---------------------|-------------|--------------|--|
| (16)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | NT           |  |
| (17)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | ND           |  |
| (18)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | NT           |  |
| (19)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | ND           |  |
| (20)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | NT           |  |
| (21)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | ND           |  |
| (22)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | ND           |  |
| (23)                | Cd          | ND           | Cr <sup>6+</sup> : Negative(<0.10 µg/cm <sup>2</sup> ) |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | Inconclusive |  |
|                     | Br          | NT           |  |



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| Screened Components | XRF Results |              | Chemical Confirmation Result                           |
|---------------------|-------------|--------------|--|
| (24)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | NT           |  |
| (25)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | ND           |  |
| (26)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | NT           |  |
| (27)                | Cd          | ND           | Cr <sup>6+</sup> : Negative(<0.10 µg/cm <sup>2</sup> ) |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | Inconclusive |  |
|                     | Br          | NT           |  |
| (28)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | NT           |  |
| (29)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | NT           |  |
| (30)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | NT           |  |
| (31)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | ND           |  |



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| Screened Components | XRF Results |              | Chemical Confirmation Result                           |
|---------------------|-------------|--------------|--|
| (32)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | Detected     |  |
| (33)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | NT           |  |
| (34)                | Cd          | ND           | PBBs : ND(<5mg/kg)<br>PBDEs : ND(<5mg/kg)              |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | Inconclusive |  |
| (35)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | NT           |  |
| (36)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | ND           |  |
| (37)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | NT           |  |
| (38)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | ND           |  |
| (39)                | Cd          | ND           | Cr <sup>6+</sup> : Negative(<0.10 µg/cm <sup>2</sup> ) |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | Inconclusive |  |
|                     | Br          | NT           |  |



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| Screened Components | XRF Results |              | Chemical Confirmation Result                           |
|---------------------|-------------|--------------|--|
| (40)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | NT           |  |
| (41)                | Cd          | ND           | Cr <sup>6+</sup> : Negative(<0.10 µg/cm <sup>2</sup> ) |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | Inconclusive |  |
|                     | Br          | NT           |  |
| (42)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | NT           |  |
| (43)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | NT           |  |
| (44)                | Cd          | ND           | Cr <sup>6+</sup> : Negative(<0.10 µg/cm <sup>2</sup> ) |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | Inconclusive |  |
|                     | Br          | NT           |  |
| (45)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | NT           |  |
| (46)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | NT           |  |
| (47)                | Cd          | ND           | PBBs : ND(<5mg/kg)<br>PBDEs : ND(<5mg/kg)              |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | Inconclusive |  |



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| Screened Components | XRF Results |    | Chemical Confirmation Result |
|---------------------|-------------|----|------------------------------|
| (48)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | NT |                              |
| (49)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | NT |                              |
| (50)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | ND |                              |
| (51)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | ND |                              |
| (52)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | NT |                              |
| (53)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | NT |                              |
| (54)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | NT |                              |
| (55)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | ND |                              |



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| Screened Components | XRF Results |              | Chemical Confirmation Result                           |
|---------------------|-------------|--------------|--|
| (56)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | ND           |  |
| (57)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | ND           |  |
| (58)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | ND           |  |
| (59)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | ND           |  |
| (60)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | NT           |  |
| (61)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | NT           |  |
| (62)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | ND           |  |
| (63)                | Cd          | ND           | Cr <sup>6+</sup> : Negative(<0.10 µg/cm <sup>2</sup> ) |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | Inconclusive |  |
|                     | Br          | NT           |  |



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| Screened Components | XRF Results |              | Chemical Confirmation Result                           |
|---------------------|-------------|--------------|--|
| (64)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | ND           |  |
| (65)                | Cd          | ND           | PBBs : ND(<5mg/kg)<br>PBDEs : See appendix             |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | Inconclusive |  |
| (66)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | ND           |  |
| (67)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | NT           |  |
| (68)                | Cd          | ND           | Cr <sup>6+</sup> : Negative(<0.10 µg/cm <sup>2</sup> ) |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | Inconclusive |  |
|                     | Br          | NT           |  |
| (69)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | ND           |  |
| (70)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | ND           |  |
| (71)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | Detected     |  |
|                     | Br          | NT           |  |



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| Screened Components | XRF Results |              | Chemical Confirmation Result                           |
|---------------------|-------------|--------------|--|
| (72)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | NT           |  |
| (73a)               | Cd          | ND           | PBBs : ND(<5mg/kg)<br>PBDEs : See appendix             |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | Inconclusive |  |
| (73b)               | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | ND           |  |
| (73c)               | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | ND           |  |
| (74)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | ND           |  |
| (75)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | NT           |  |
| (76)                | Cd          | ND           | Cr <sup>6+</sup> : Negative(<0.10 µg/cm <sup>2</sup> ) |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | Inconclusive |  |
|                     | Br          | NT           |  |
| (77)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | NT           |  |



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| Screened Components | XRF Results |    | Chemical Confirmation Result |
|---------------------|-------------|----|------------------------------|
| (78)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | NT |                              |
| (79)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | ND |                              |
| (80)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | ND |                              |
| (81)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | NT |                              |
| (82)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | ND |                              |
| (83)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | NT |                              |
| (84)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | NT |                              |
| (85)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | ND |                              |



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| Screened Components | XRF Results |              | Chemical Confirmation Result                           |
|---------------------|-------------|--------------|--|
| (86)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | NT           |  |
| (87)                | Cd          | ND           | Cr <sup>6+</sup> : Negative(<0.10 µg/cm <sup>2</sup> ) |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | Inconclusive |  |
|                     | Br          | NT           |  |
| (88)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | ND           |  |
| (89)                | Cd          | ND           | Cr <sup>6+</sup> : Negative(<0.10 µg/cm <sup>2</sup> ) |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | Inconclusive |  |
|                     | Br          | NT           |  |
| (90)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | NT           |  |
| (91)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | NT           |  |
| (92)                | Cd          | ND           | PBBs : ND(<5mg/kg)<br>PBDEs : ND(<5mg/kg)              |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | Inconclusive |  |
| (93)                | Cd          | ND           | NT   |
|                     | Pb          | ND           |  |
|                     | Hg          | ND           |  |
|                     | Cr          | ND           |  |
|                     | Br          | ND           |  |



## XRF Screening And Chemical Confirmation Test Report

| Screened Components | XRF Results |    | Chemical Confirmation Result |
|---------------------|-------------|----|------------------------------|
| (94)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | ND |                              |
| (95)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | NT |                              |
| (96)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | NT |                              |
| (97)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | NT |                              |
| (98)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | NT |                              |
| (99)                | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | ND |                              |
| (100)               | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | ND |                              |
| (101)               | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | NT |                              |



## XRF Screening And Chemical Confirmation Test Report

| Screened Components | XRF Results |              | Chemical Confirmation Result              |
|---------------------|-------------|--------------|---|
| (102)               | Cd          | ND           | NT  |
|                     | Pb          | ND           |   |
|                     | Hg          | ND           |   |
|                     | Cr          | ND           |   |
|                     | Br          | NT           |   |
| (103)               | Cd          | ND           | NT  |
|                     | Pb          | ND           |   |
|                     | Hg          | ND           |   |
|                     | Cr          | ND           |   |
|                     | Br          | ND           |   |
| (104a)              | Cd          | ND           | PBBs : ND(<5mg/kg)<br>PBDEs : ND(<5mg/kg) |
|                     | Pb          | ND           |   |
|                     | Hg          | ND           |   |
|                     | Cr          | ND           |   |
|                     | Br          | Inconclusive |   |
| (104b)              | Cd          | ND           | NT  |
|                     | Pb          | ND           |   |
|                     | Hg          | ND           |   |
|                     | Cr          | ND           |   |
|                     | Br          | NT           |   |
| (104c)              | Cd          | ND           | NT  |
|                     | Pb          | ND           |   |
|                     | Hg          | ND           |   |
|                     | Cr          | ND           |   |
|                     | Br          | ND           |   |
| (104d)              | Cd          | ND           | NT  |
|                     | Pb          | ND           |   |
|                     | Hg          | ND           |   |
|                     | Cr          | ND           |   |
|                     | Br          | ND           |   |
| (104e)              | Cd          | ND           | NT  |
|                     | Pb          | ND           |   |
|                     | Hg          | ND           |   |
|                     | Cr          | ND           |   |
|                     | Br          | NT           |   |
| (105)               | Cd          | ND           | NT  |
|                     | Pb          | ND           |   |
|                     | Hg          | ND           |   |
|                     | Cr          | ND           |   |
|                     | Br          | ND           |   |



## XRF Screening And Chemical Confirmation Test Report

| Screened Components | XRF Results |              | Chemical Confirmation Result              |
|---------------------|-------------|--------------|---|
| (106)               | Cd          | ND           | NT  |
|                     | Pb          | ND           |   |
|                     | Hg          | ND           |   |
|                     | Cr          | ND           |   |
|                     | Br          | ND           |   |
| (107)               | Cd          | ND           | PBBs : ND(<5mg/kg)<br>PBDEs : ND(<5mg/kg) |
|                     | Pb          | ND           |   |
|                     | Hg          | ND           |   |
|                     | Cr          | ND           |   |
|                     | Br          | Inconclusive |   |
| (108)               | Cd          | ND           | Pb: 27315mg/kg <sup>#</sup>               |
|                     | Pb          | >1300mg/kg   |   |
|                     | Hg          | ND           |   |
|                     | Cr          | ND           |   |
|                     | Br          | NT           |   |
| (109)               | Cd          | ND           | NT  |
|                     | Pb          | ND           |   |
|                     | Hg          | ND           |   |
|                     | Cr          | ND           |   |
|                     | Br          | NT           |   |
| (110)               | Cd          | ND           | NT  |
|                     | Pb          | ND           |   |
|                     | Hg          | ND           |   |
|                     | Cr          | ND           |   |
|                     | Br          | ND           |   |
| (111)               | Cd          | ND           | NT  |
|                     | Pb          | ND           |   |
|                     | Hg          | ND           |   |
|                     | Cr          | ND           |   |
|                     | Br          | ND           |   |
| (112)               | Cd          | ND           | NT  |
|                     | Pb          | ND           |   |
|                     | Hg          | ND           |   |
|                     | Cr          | ND           |   |
|                     | Br          | ND           |   |
| (113)               | Cd          | ND           | NT  |
|                     | Pb          | ND           |   |
|                     | Hg          | ND           |   |
|                     | Cr          | ND           |   |
|                     | Br          | ND           |   |



## XRF Screening And Chemical Confirmation Test Report

| Screened Components | XRF Results |    | Chemical Confirmation Result |
|---------------------|-------------|----|------------------------------|
| (114)               | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | ND |                              |
| (115)               | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | NT |                              |
| (116)               | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | ND |                              |
| (117)               | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | ND |                              |
| (118)               | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | ND |                              |
| (119)               | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | ND |                              |
| (120)               | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | ND |                              |
| (121)               | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | ND |                              |



**XRF Screening And Chemical Confirmation Test Report**

| Screened Components | XRF Results |    | Chemical Confirmation Result |
|---------------------|-------------|----|------------------------------|
| (122)               | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | ND |                              |
| (123)               | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | NT |                              |
| (124)               | Cd          | ND | NT                           |
|                     | Pb          | ND |                              |
|                     | Hg          | ND |                              |
|                     | Cr          | ND |                              |
|                     | Br          | ND |                              |

**Appendix:**

| Testing Item                                  | Result |     |
|---|--------|-----|
|   | 65     | 73a |
| Polybrominated Biphenyls (PBBs)(mg/kg)        |        |     |
| Monobromobiphenyl (MonoBB)                    | ND     | ND  |
| Dibromobiphenyl (DiBB)                        | ND     | ND  |
| Tribromobiphenyl (TriBB)                      | ND     | ND  |
| Tetrabromobiphenyl (TetraBB)                  | ND     | ND  |
| Pentabromobiphenyl (PentaBB)                  | ND     | ND  |
| Hexabromobiphenyl (HexaBB)                    | ND     | ND  |
| Heptabromobiphenyl (HeptaBB)                  | ND     | ND  |
| Octabromobiphenyl (OctaBB)                    | ND     | ND  |
| Nonabromobiphenyl (NonaBB)                    | ND     | ND  |
| Decabromobiphenyl (DecaBB)                    | ND     | ND  |
| Polybrominated Diphenyl Ethers (PBDEs)(mg/kg) |        |     |
| Monobromodiphenyl Ether (MonoBDE)             | ND     | ND  |
| Dibromodiphenyl Ether (DiBDE)                 | ND     | ND  |
| Tribromodiphenyl Ether (TriBDE)               | ND     | ND  |
| Tetrabromodiphenyl Ether (TetraBDE)           | ND     | ND  |
| Pentabromodiphenyl Ether (PentaBDE)           | ND     | ND  |
| Hexabromodiphenyl Ether (HexaBDE)             | ND     | ND  |
| Heptabromodiphenyl Ether (HeptaBDE)           | ND     | ND  |
| Octabromodiphenyl Ether (OctaBDE)             | 12     | ND  |
| Nonabromodiphenyl Ether (NonaBDE)             | 55     | ND  |
| Decabromodiphenyl Ether (DecaBDE)             | 232    | 55  |



## XRF Screening And Chemical Confirmation Test Report

**Detected = Below the lower screening limit of table (B) and pass**

ND = Not detected

NT = Not tested

Negative = The Cr (VI) concentration is less than 0.10 µg/cm<sup>2</sup>. The sample is negative for Cr (VI).

Remark:

(#) = As claimed by the declaration submitted from the applicant, the Lead content of the component comes from Copper alloy only. According to EU RoHS Directive (2011/65/EU), Lead in Copper alloy containing up to 4% (40,000 mg/kg) Lead by weight can be exempted.

(B) XRF Screening Limits in mg/kg for Regulated Elements in Various Matrices

| Element | Polymer Materials              | Metallic Materials             | Composite Materials            |
|---------|--------------------------------|--------------------------------|--------------------------------|
| Cd      | $P \leq 70 < X < 130 \leq F$   | $P \leq 70 < X < 130 \leq F$   | $P \leq 70 < X < 150 \leq F$   |
| Pb      | $P \leq 700 < X < 1300 \leq F$ | $P \leq 700 < X < 1300 \leq F$ | $P \leq 500 < X < 1500 \leq F$ |
| Hg      | $P \leq 700 < X < 1300 \leq F$ | $P \leq 700 < X < 1300 \leq F$ | $P \leq 500 < X < 1500 \leq F$ |
| Cr      | $P \leq 700 < X$               | $P \leq 700 < X$               | $P \leq 500 < X$               |
| Br      | $P \leq 300 < X$               | Not applicable                 | $P \leq 250 < X$               |

P = Pass

X = Inconclusive result

**F = Fail**

mg/kg = milligram per kilogram = ppm

(C) Estimated Detection Limits in mg/kg for Regulated Elements in Various Matrices

| Element | Polymer Materials | Metallic Materials | Composite Materials |
|---------|-------------------|--------------------|---------------------|
| Cd      | 50                | 70                 | 70                  |
| Pb      | 100               | 200                | 200                 |
| Hg      | 100               | 200                | 200                 |
| Cr      | 100               | 200                | 200                 |
| Br      | 200               | Not applicable     | 200                 |

### Disclaimers:

This XRF Screening and Chemical Confirmation Test 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 and Chemical Confirmation Test Report is sufficient for its/his/her purposes.

The results shown in this XRF Screening and Chemical Confirmation Test 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 is required to obtain quantitative data.



**XRF Screening And Chemical Confirmation Test Report**

(D) Chemical Confirmation Test Methods:

| Testing Item   | Testing Method   | Reporting Limit         |
|--|--|-------------------------|
| Lead (Pb) Content  | With reference to IEC 62321-5 Edition 1.0:2013, by acid digestion and determined by ICP - OES  | 2 mg/kg                 |
| Chromium (VI) (Cr <sup>6+</sup> ) Content                                | With reference to IEC 62321-7-1 edition 1.0:2015, by boiling water extraction and determined by UV-VIS spectrophotometer                   | 0.10 µg/cm <sup>2</sup> |
| Polybrominated Biphenyls (PBBs) & Polybrominated Diphenyl Ethers (PBDEs) | With reference to IEC 62321-6 edition 1.0:2015, by solvent extraction and determined by GC/MS and further HPLC confirmation when necessary | 5 mg/kg                 |

(E) 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) |

The above limits were quoted from 2011/65/EU for homogeneous material.



## XRF Screening And Chemical Confirmation Test Report

Screened components:

- (1) Silvery metal excluding coating
- (2) Silvery metal excluding coating(screw)
- (3) White coating on metal
- (4) Silvery metal excluding coating
- (5) Silvery metal excluding coating
- (6) White plastic
- (7) Silvery metal (screw)
- (8) White plastic
- (9) Silvery metal excluding coating
- (10) White plastic
- (11) White plastic
- (12) White plastic
- (13) Dark blue plastic
- (14) White plastic
- (15) Silvery metal excluding coating
- (16) Silvery metal (screw)
- (17) White plastic
- (18) Silvery metal excluding coating
- (19) White plastic
- (20) Silvery metal excluding coating
- (21) White plastic
- (22) Black plastic
- (23) Silvery metal
- (24) Silvery metal (screw)
- (25) White plastic
- (26) Silvery metal (screw)
- (27) Silvery metal
- (28) Silvery metal
- (29) Silvery metal (screw)
- (30) Silvery metal (screw)  
(Received in Jan 12,2018)
- (31) Transparent plastic
- (32) Grey plastic
- (33) Silvery metal (screw)
- (34) Brown plastic
- (35) Silvery metal (screw)
- (36) White plastic
- (37) Silvery metal (spring)
- (38) Beige plastic
- (39) Silvery metal
- (40) Solder(Received in Jan 29,2018)



## XRF Screening And Chemical Confirmation Test Report

- (41) Silvery metal
- (42) Silvery metal (spring)
- (43) Golden metal
- (44) Silvery metal
- (45) Silvery metal
- (46) Golden metal
- (47) White plastic
- (48) Silvery metal
- (49) Silvery metal
- (50) Beige plastic
- (51) Beige plastic
- (52) Silvery metal
- (53) Silvery metal
- (54) Silvery metal
- (55) White plastic
- (56) White plastic
- (57) White plastic
- (58) White plastic
- (59) White plastic
- (60) Silvery metal (point)
- (61) Copper color metal
- (62) Beige plastic
- (63) Silvery metal (screw)
- (64) White plastic
- (65) Black plastic
- (66) White plastic
- (67) Black treated metal
- (68) Silvery metal (screw)
- (69) White plastic
- (70) White plastic
- (71) Silvery metal
- (72) Silvery metal (screw)
- (73) Capacitor
  - (a) Black plastic with white printing
  - (b) Transparent/silvery electrolytic paper
  - (c) Black plastic
- (74) Beige plastic
- (75) Silvery metal (screw)
- (76) Silvery metal
- (77) Silvery metal (screw)
- (78) Silvery metal (screw)
- (79) Transparent plastic



## XRF Screening And Chemical Confirmation Test Report

- (80) Beige plastic
- (81) Silvery metal (screw)
- (82) Beige plastic
- (83) Silvery metal (screw)
- (84) Silvery metal
- (85) Beige plastic
- (86) Silvery metal
- (87) Silvery metal
- (88) Brown material
- (89) Black treated metal
- (90) Dark grey metal
- (91) Silvery metal
- (92) White fiberboard
- (93) Beige thread
- (94) Beige tape
- (95) Silvery metal
- (96) Copper color metal wire
- (97) Silvery metal
- (98) Silvery metal
- (99) Black plastic
- (100) Black plastic
- (101) Silvery metal
- (102) Solder(Received in Jan 12,2018)
- (103) White fiberglass
- (104) Fuse
  - (a) Black plastic
  - (b) Silvery metal(Received in Jan 12,2018)
  - (c) Light yellow glue
  - (d) Yellow glue
  - (e) Silvery metal(pin)
- (105) White/red fiberglass
- (106) White plastic
- (107) White plastic
- (108) Silvery metal
- (109) Copper color metal wire
- (110) Blue plastic(wire covering)
- (111) Brown plastic(wire covering)
- (112) White plastic
- (113) Semi-transparent plastic
- (114) Red plastic with white printing(wire covering)
- (115) Silvery metal
- (116) Semi-transparent plastic



## **XRF Screening And Chemical Confirmation Test Report**

- (117) Blue plastic with white printing(wire covering)
- (118) White plastic with grey printing(wire covering)
- (119) White plastic with black printing(wire covering)
- (120) Black plastic with white printing(wire covering)
- (121) Red plastic with black printing(wire covering)
- (122) Black plastic with grey printing(wire covering)
- (123) Silvery metal wire
- (124) White plastic

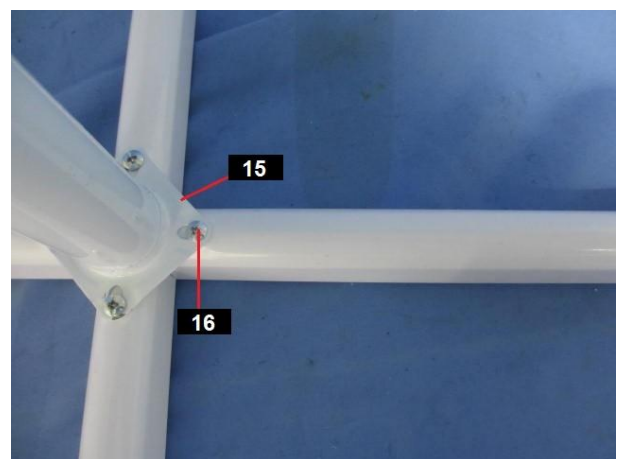
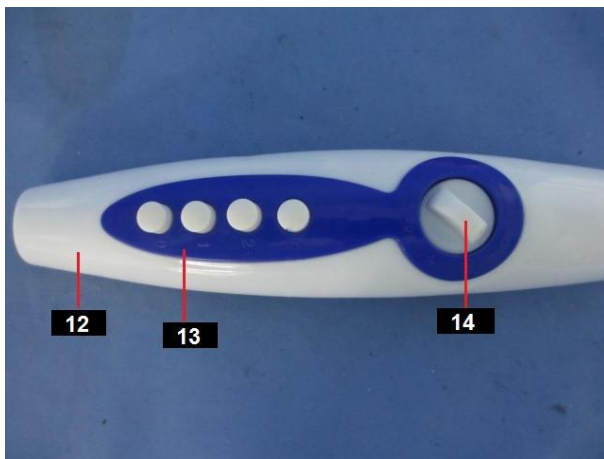
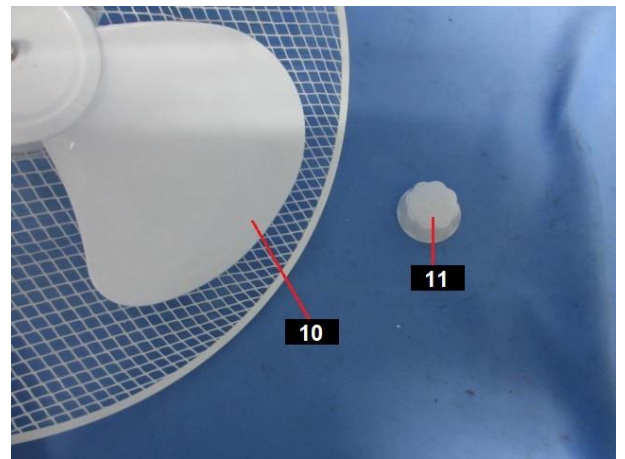
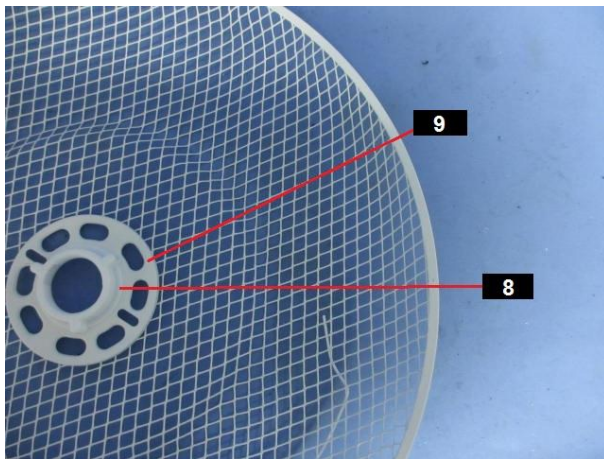
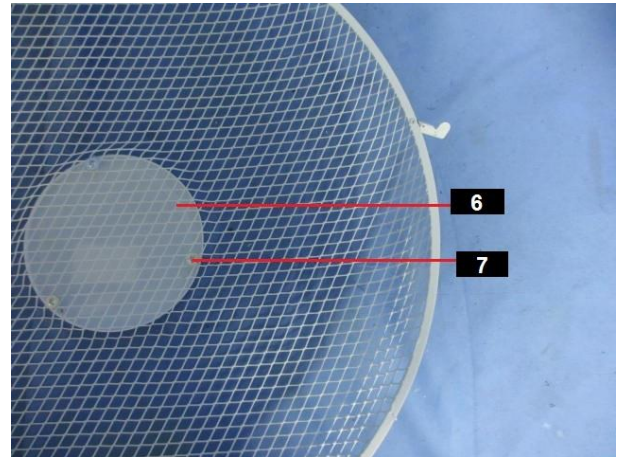
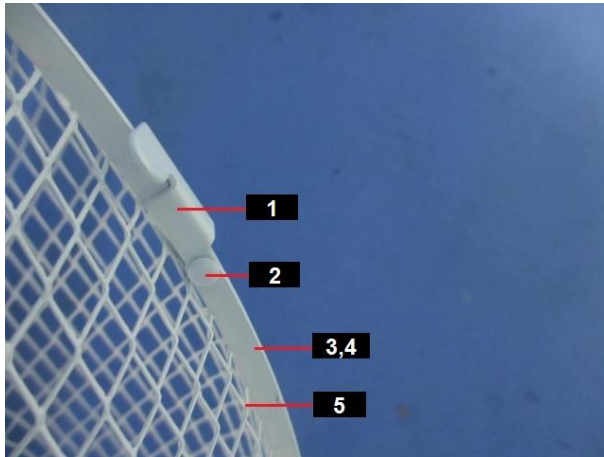


**XRF Screening And Chemical Confirmation Test Report**

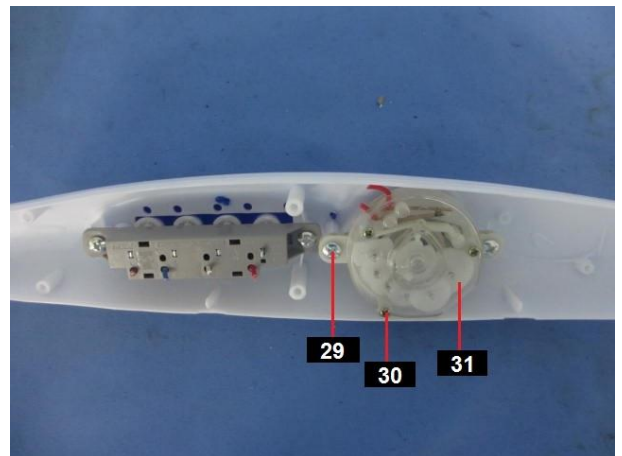
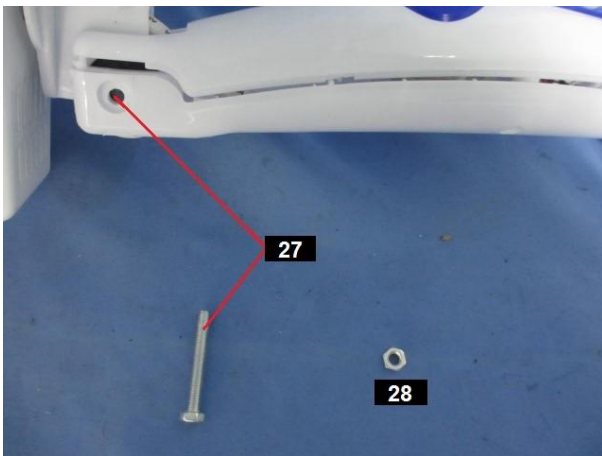
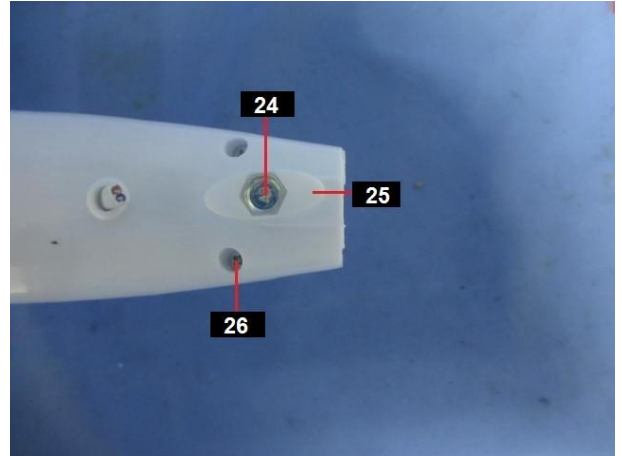
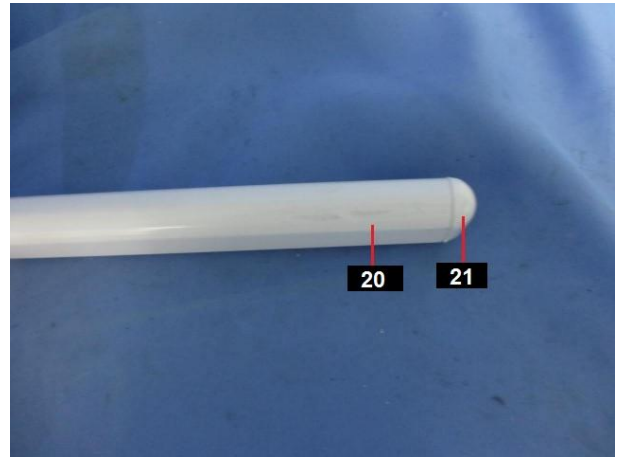
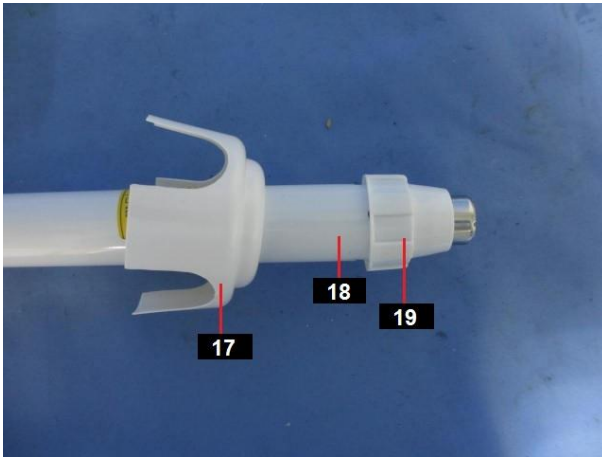
**Sample photo**



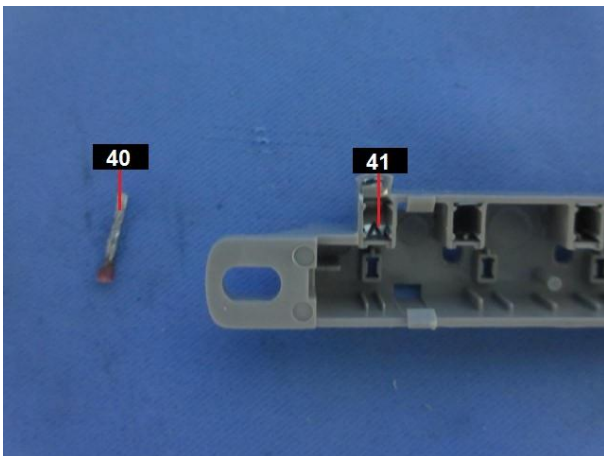
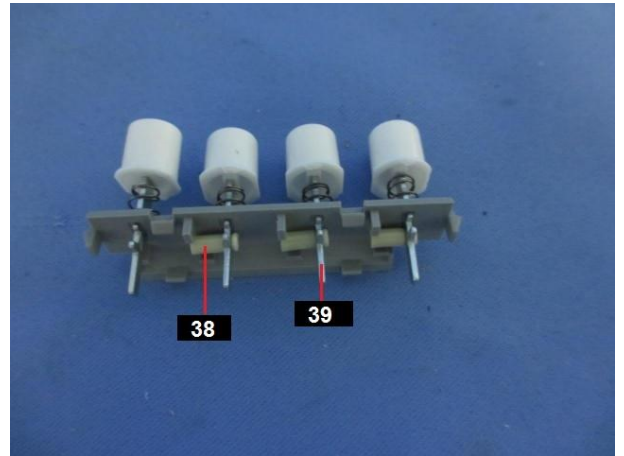
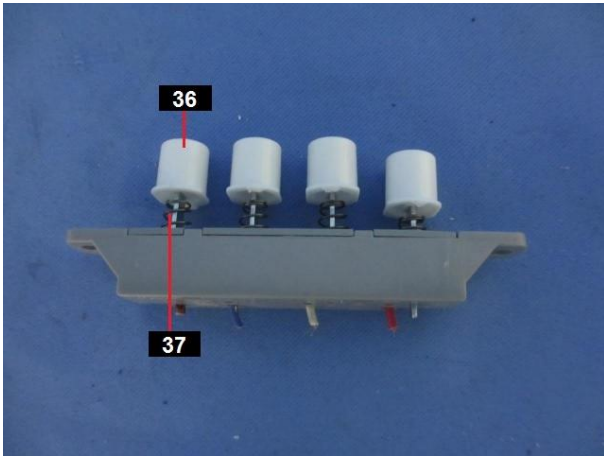
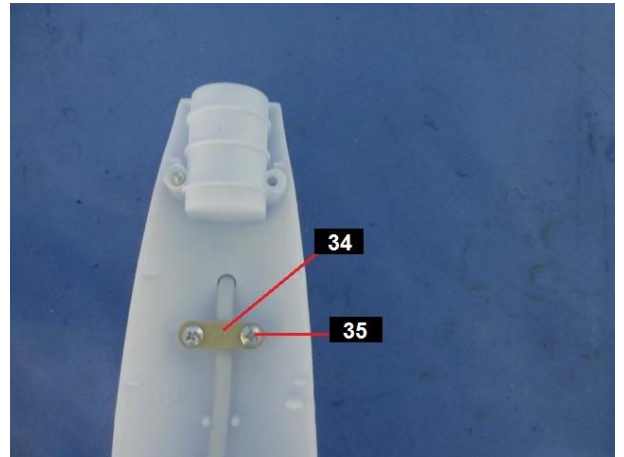
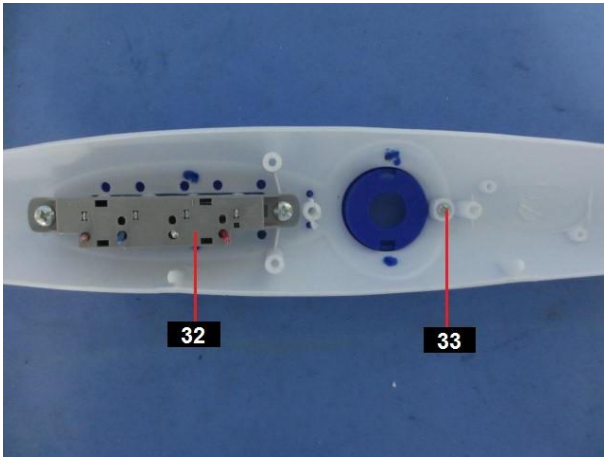
**XRF Screening And Chemical Confirmation Test Report**



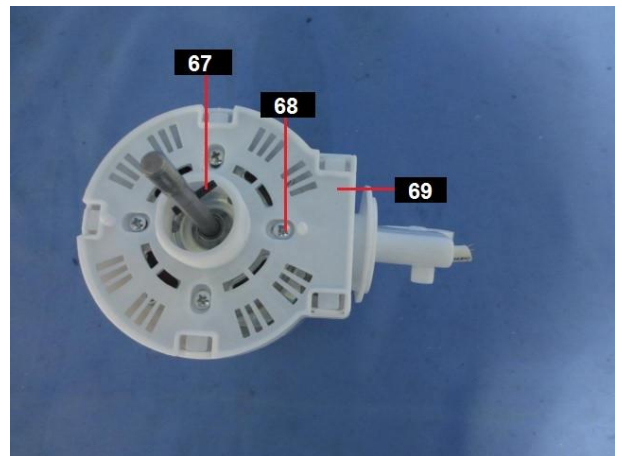
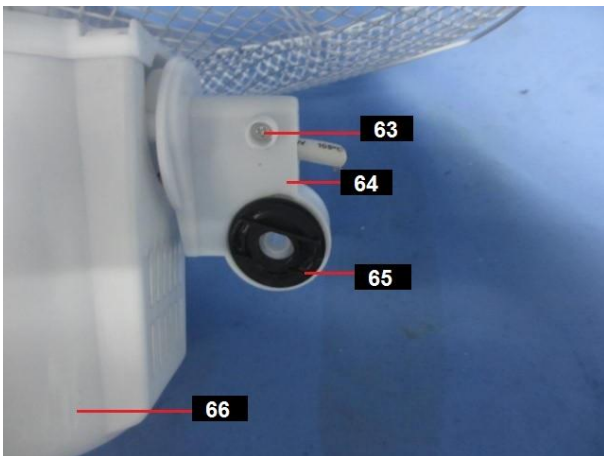
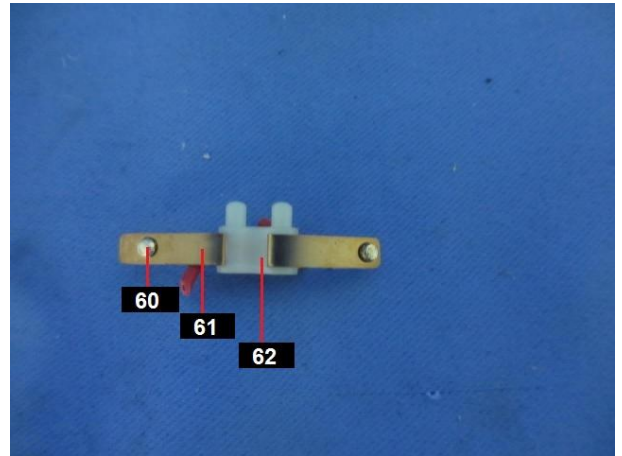
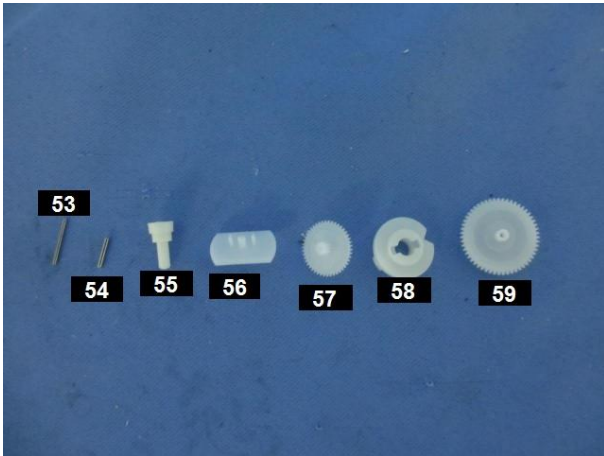
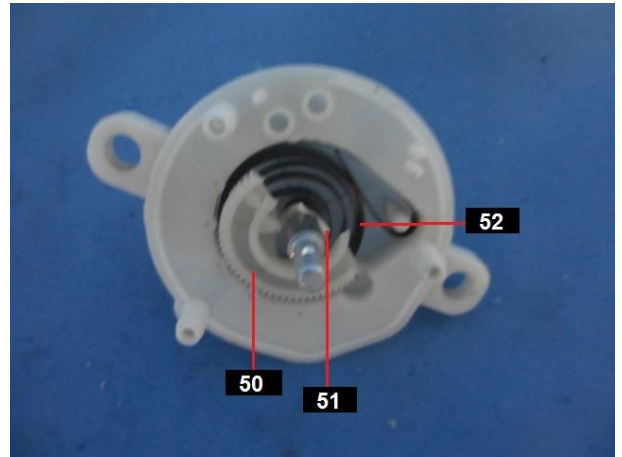
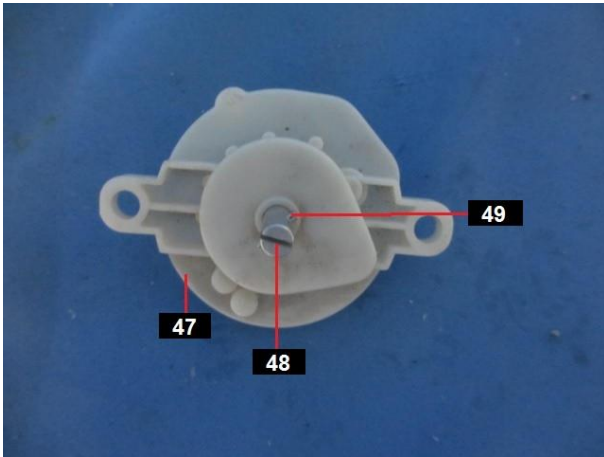
**XRF Screening And Chemical Confirmation Test Report**



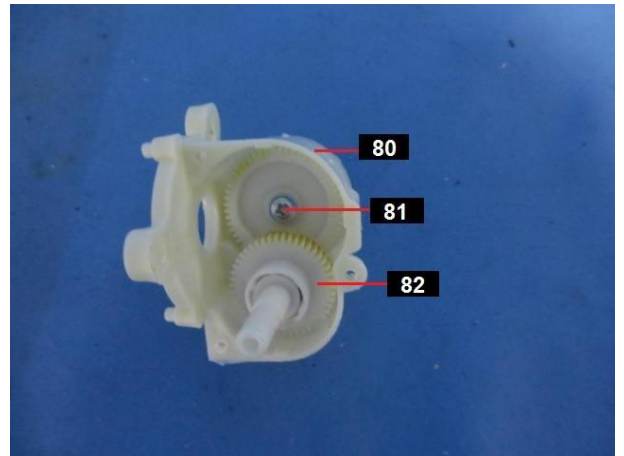
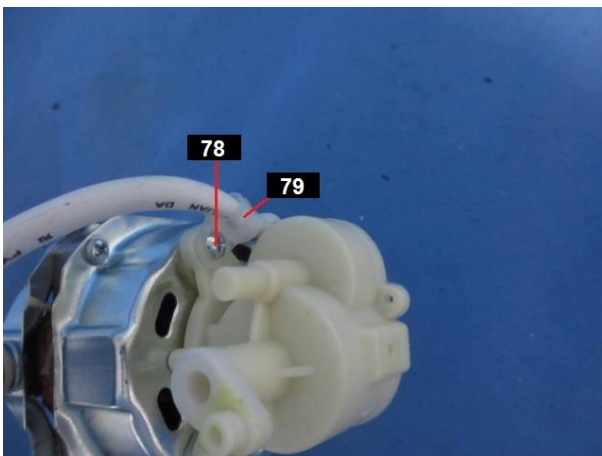
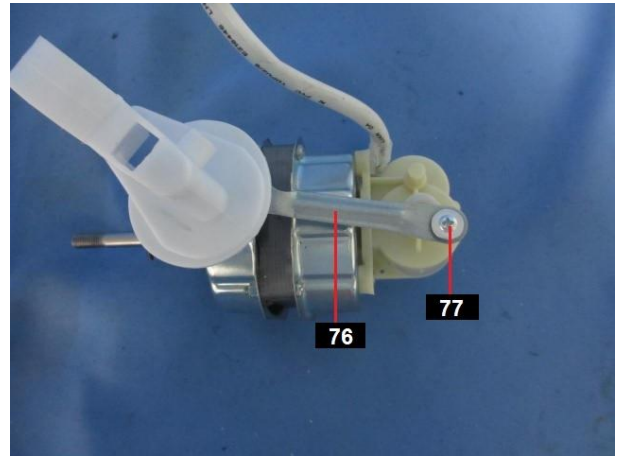
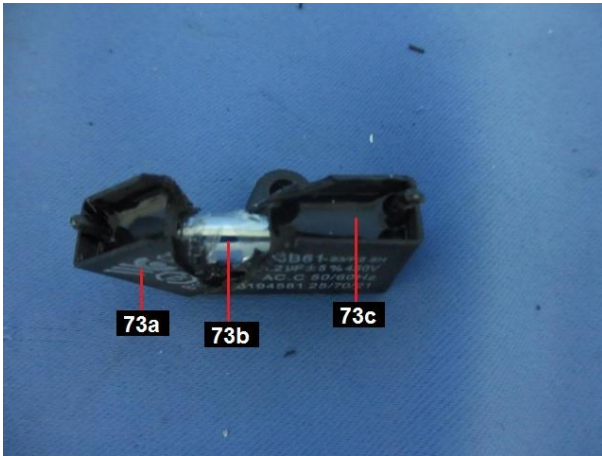
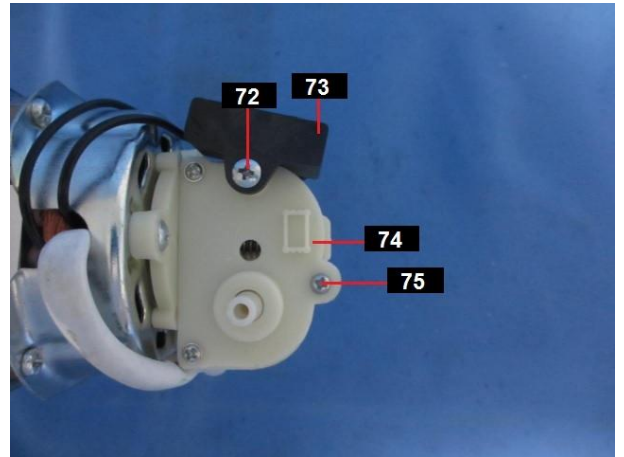
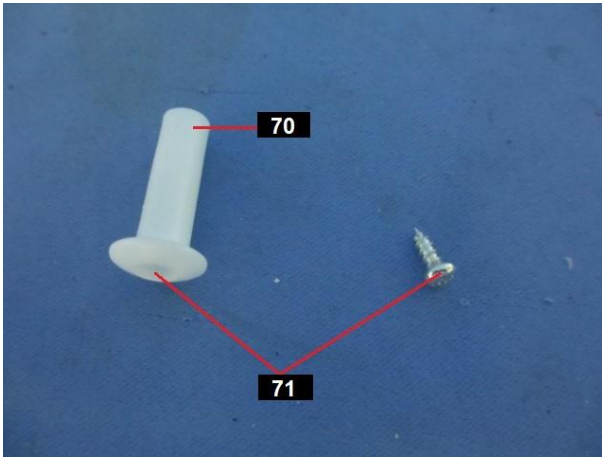
**XRF Screening And Chemical Confirmation Test Report**



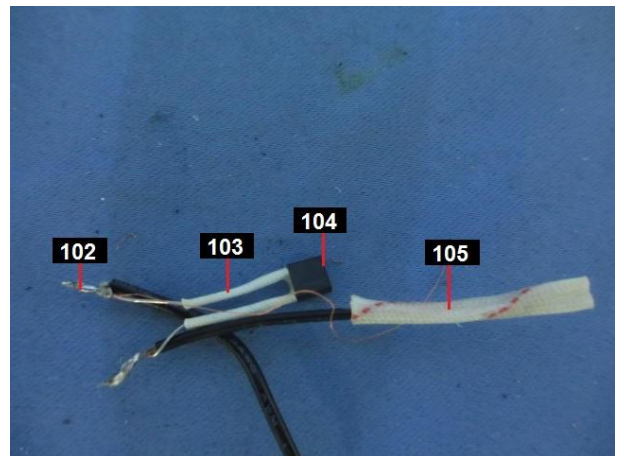
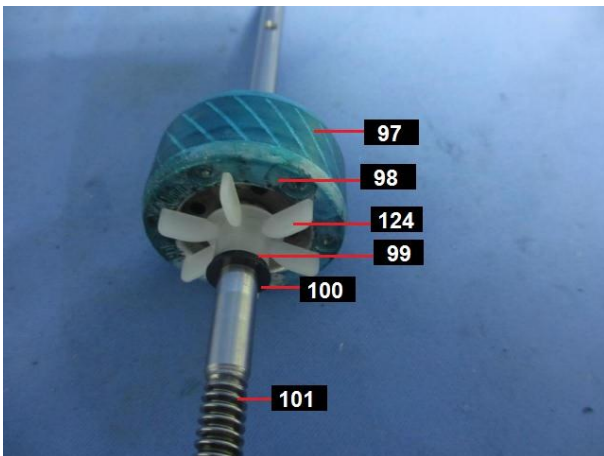
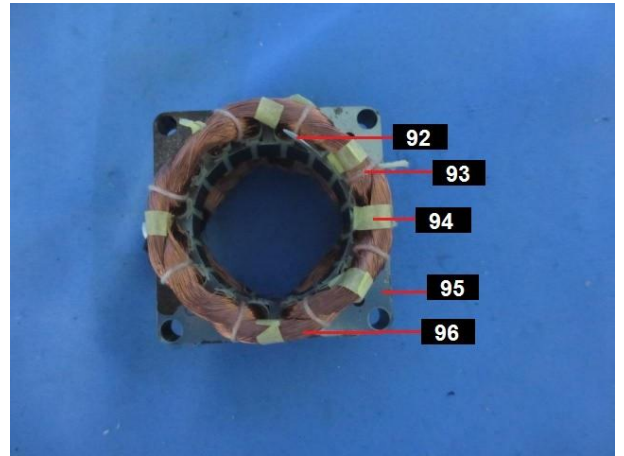
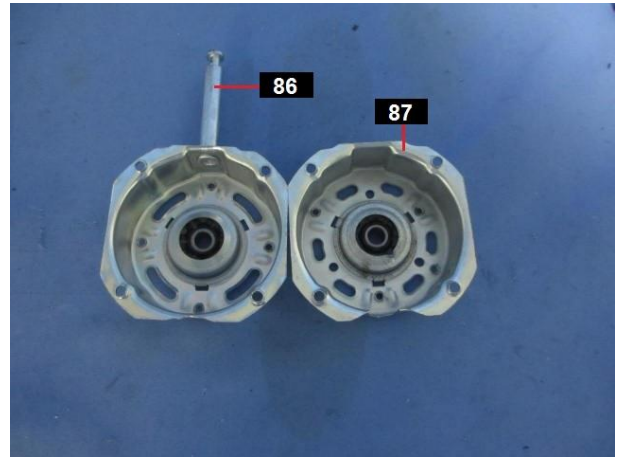
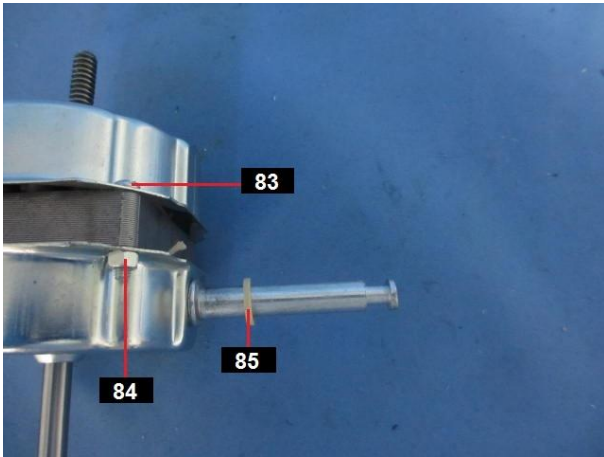
**XRF Screening And Chemical Confirmation Test Report**



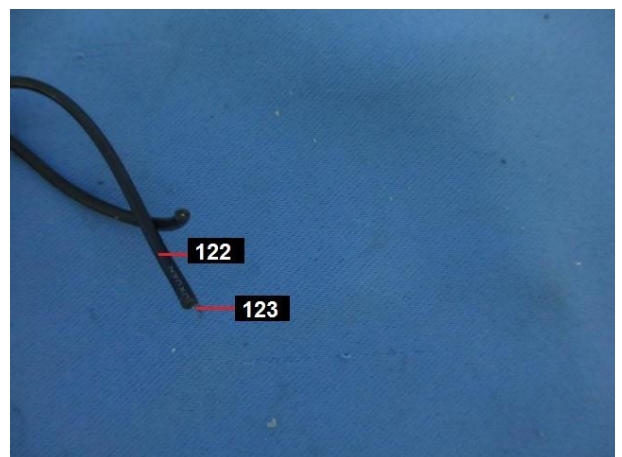
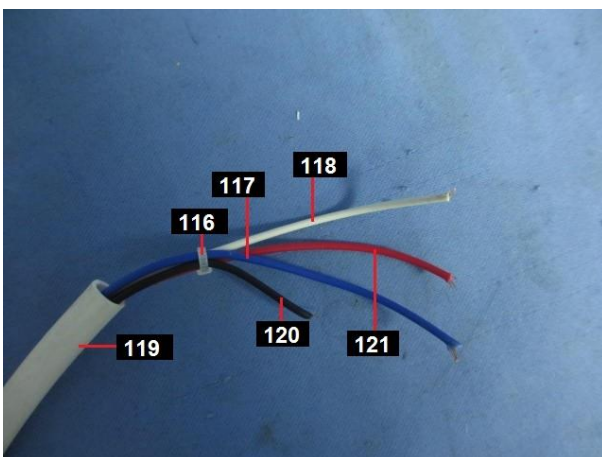
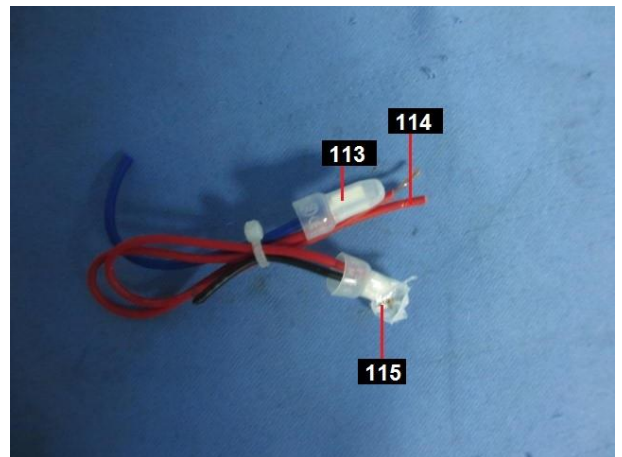
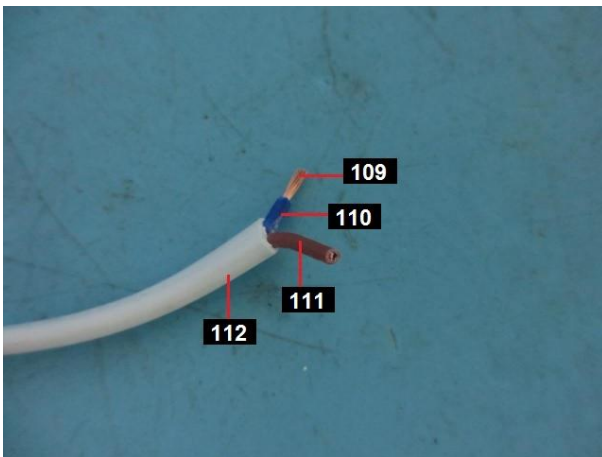
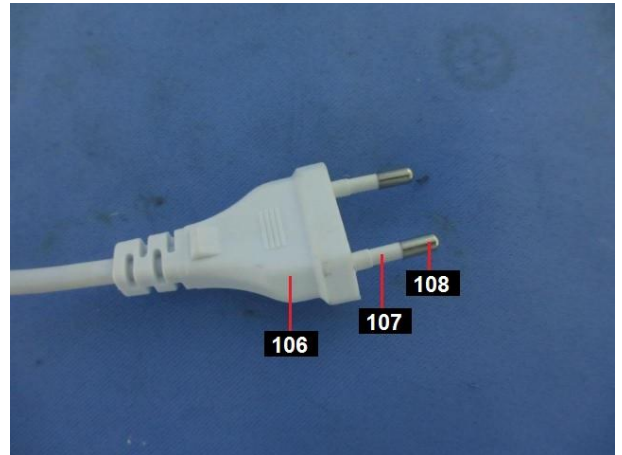
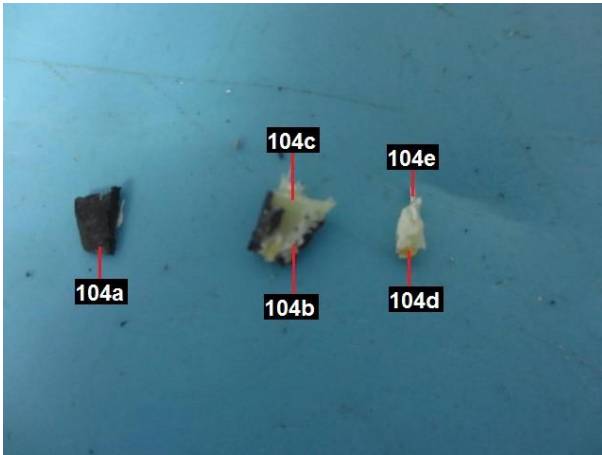
**XRF Screening And Chemical Confirmation Test Report**



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End of report

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