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TESTING
CNAS L5954

# GUANGDONG WONDER TESTING INTERNATIONAL CO., LTD.

# TEST REPORT

Report No.: WDX24030673EN

Applicant: Memory Range Technology co., Ltd.

Address: Room 702, 7/F, SPA Centre, NO. 53-55 Lockhart Road, Wan Chai, Hong Kong.

Date: Apr. 09, 2024

Traceability

# TEST REPORT

**Report No.:** WDX24030673EN **Date:** Apr. 09, 2024 **Page:** 1 / 8

**Applicant:** Memory Range Technology co., Ltd.

**Address:** Room 702, 7/F, SPA Centre, NO. 53-55 Lockhart Road, Wan Chai, Hong Kong.

The following merchandise was (were) submitted and identified by client as:

**Sample Name:** USB 2.0 A to Type C PVC Cable

**Number of Sample:** 2pc

**Style of Sample:** BYT23

**Sample Received Date:** Mar. 28, 2024

**Completed Date:** Apr. 05, 2024

**Test Result(s):** Please refer to next page(s).

**Test Requested and Conclusion(s):**

| No. | Test Sample | Standard(s) and Requirement(s) | Conclusion(s) | Signed by |
|---|---|---|---|---|
| 1 | Tested materials of submitted samples | RoHS 2.0 Directive 2011/65/EU and its Commission delegated Directive (EU) 2015/863 | PASS | Andy zhu |

**Test Result(s):**

**RoHS - Lead (Pb)/Cadmium(Cd)/Mercury(Hg)/Hexavalent Chromium($Cr^{6+}$)/PBBs/PBDEs**

Method: With reference to IEC 62321-3-1: 2013/ IEC 62321-4: 2013+AMD1:2017/ IEC 62321-5: 2013/ IEC 62321-6: 2015 Appendix A/ IEC 62321-7-1: 2015/ IEC 62321-7-2:2017, analyzed by EDXRF & ICP-OES & GC-MS & UV-Vis.

| Material No. | Test Substance(s) | EDXRF Result(s)* | Chemical Result(s)# (mg/kg) | Conclusion(s) |
|---|---|---|---|---|
| 1C | Pb | BL | -- | PASS |
| | Cd | BL | -- | PASS |
| | Hg | BL | -- | PASS |
| | $Cr^{6+}$ | BL | -- | PASS |
| | PBBs | BL | -- | PASS |
| | PBDEs | | -- | PASS |
| 2C | Pb | BL | -- | PASS |
| | Cd | BL | -- | PASS |
| | Hg | BL | -- | PASS |
| | $Cr^{6+}$▼ | IN | Negative | PASS |
| | PBBs | -- | -- | NA |
| | PBDEs | | -- | NA |
| 3C | Pb | BL | -- | PASS |
| | Cd | BL | -- | PASS |
| | Hg | BL | -- | PASS |
| | $Cr^{6+}$ | BL | -- | PASS |
| | PBBs | BL | -- | PASS |
| | PBDEs | | -- | PASS |
| 4 | Pb | BL | -- | PASS |
| | Cd | BL | -- | PASS |
| | Hg | BL | -- | PASS |
| | $Cr^{6+}$ | BL | -- | PASS |
| | PBBs | -- | -- | NA |
| | PBDEs | | -- | NA |
| 5 | Pb | BL | -- | PASS |
| | Cd | BL | -- | PASS |
| | Hg | BL | -- | PASS |
| | $Cr^{6+}$ | BL | -- | PASS |
| | PBBs | BL | -- | PASS |
| | PBDEs | | -- | PASS |

**Test Result(s):**

**RoHS - Lead (Pb)/Cadmium(Cd)/Mercury(Hg)/Hexavalent Chromium($Cr^{6+}$)/PBBs/PBDEs**

Method: With reference to IEC 62321-3-1: 2013/ IEC 62321-4: 2013+AMD1:2017/ IEC 62321-5: 2013/ IEC 62321-6: 2015 Appendix A/ IEC 62321-7-1: 2015/ IEC 62321-7-2:2017, analyzed by EDXRF & ICP-OES & GC-MS & UV-Vis.

| Material No. | Test Substance(s) | EDXRF Result(s)* | Chemical Result(s)# (mg/kg) | Conclusion(s) |
|---|---|---|---|---|
| 6 | Pb | BL | -- | PASS |
| | Cd | BL | -- | PASS |
| | Hg | BL | -- | PASS |
| | $Cr^{6+}$ | BL | -- | PASS |
| | PBBs | BL | -- | PASS |
| | PBDEs | | -- | PASS |
| 7 | Pb | BL | -- | PASS |
| | Cd | BL | -- | PASS |
| | Hg | BL | -- | PASS |
| | $Cr^{6+}$ | IN | ND | PASS |
| | PBBs | BL | -- | PASS |
| | PBDEs | | -- | PASS |
| 8 | Pb | BL | -- | PASS |
| | Cd | BL | -- | PASS |
| | Hg | BL | -- | PASS |
| | $Cr^{6+}$ | BL | -- | PASS |
| | PBBs | BL | -- | PASS |
| | PBDEs | | -- | PASS |
| 9 | Pb | BL | -- | PASS |
| | Cd | BL | -- | PASS |
| | Hg | BL | -- | PASS |
| | $Cr^{6+}$ | BL | -- | PASS |
| | PBBs | BL | -- | PASS |
| | PBDEs | | -- | PASS |
| 10 | Pb | BL | -- | PASS |
| | Cd | BL | -- | PASS |
| | Hg | BL | -- | PASS |
| | $Cr^{6+}$ | BL | -- | PASS |
| | PBBs | -- | -- | NA |
| | PBDEs | | -- | NA |

**Test Result(s):**

**RoHS - Lead (Pb)/Cadmium(Cd)/Mercury(Hg)/Hexavalent Chromium($Cr^{6+}$)/PBBs/PBDEs**

Method: With reference to IEC 62321-3-1: 2013/ IEC 62321-4: 2013+AMD1:2017/ IEC 62321-5: 2013/ IEC 62321-6: 2015 Appendix A/ IEC 62321-7-1: 2015/ IEC 62321-7-2:2017, analyzed by EDXRF & ICP-OES & GC-MS & UV-Vis.

| Material No. | Test Substance(s) | EDXRF Result(s)* | Chemical Result(s)#（mg/kg） | Conclusion(s) |
|---|---|---|---|---|
| 11 | Pb | BL | -- | PASS |
| | Cd | BL | -- | PASS |
| | Hg | BL | -- | PASS |
| | $Cr^{6+}$ | BL | -- | PASS |
| | PBBs | BL | -- | PASS |
| | PBDEs | | -- | PASS |
| 12 | Pb | BL | -- | PASS |
| | Cd | BL | -- | PASS |
| | Hg | BL | -- | PASS |
| | $Cr^{6+}$ | BL | -- | PASS |
| | PBBs | BL | -- | PASS |
| | PBDEs | | -- | PASS |
| $13^{C}$ | Pb | BL | -- | PASS |
| | Cd | BL | -- | PASS |
| | Hg | BL | -- | PASS |
| | $Cr^{6+}$ | BL | -- | PASS |
| | PBBs | BL | -- | PASS |
| | PBDEs | | -- | PASS |

**Note:**

1. RL(Report Limit): 10mg/kg for Pb/ Cd/ Hg/ $Cr^{6+}$(Nonmetal material); 100mg/kg for PBBs & PBDEs.
2. LOQ(limit of quantification)($Cr^{6+}$)=0.10μg/$cm^2$.
3. "▼"=a. when Cr(VI) in a sample is detected above 0.13 μg/$cm^2$, the sample is considered to be **Positive** for Cr(VI).
   b. when Cr(VI) in a sample is detected below 0.10 μg/$cm^2$, the sample is considered to be **Negative** for Cr(VI).
   c. when Cr(VI) in a sample is detected between 0.10 μg/$cm^2$ and 0.13 μg/$cm^2$ , the result was **Inconclusive**.
4. "*" = It is the result on total Cr and Br while test substances are $Cr^{6+}$ and PBBs & PBDEs.
5. "#" = Result are obtained by EDXRF for primary screening, if the result exceeds the below limit (BL), and further chemical testing.

**Screening limits in mg/kg for regulated elements in various matrices**

| Elements | Polymer | Metal | Composite Materials |
|---|---|---|---|
| **Pb** | BL≤(700-3σ)<X<(1300+3σ)≤ OL | BL≤(700-3σ)<X<(1300+3σ)≤ OL | BL≤(500-3σ)<X<(1500+3σ)≤ OL |
| **Cd** | BL≤(70-3σ)<X<(130+3σ)≤ OL | BL≤(70-3σ)<X<(130+3σ)≤ OL | LOD<X<(150+3σ)≤OL |
| **Hg** | BL≤(700-3σ)<X<(1300+3σ)≤ OL | BL≤(700-3σ)<X<(1300+3σ)≤ OL | BL≤(500-3σ)<X<(1500+3σ)≤ OL |
| **Cr** | BL≤(700-3σ)<X | BL≤(700-3σ)<X | BL≤(500-3σ)<X |
| **Br** | BL≤(300-3σ)<X | -- | BL≤(250-3σ)<X |

BL = Below Limit, OL = Over Limit, IN = Inconclusive, LOD = Limit of Detection

**ROHS Limit**

| Test Item(s) | Pb | Cd | Hg | $Cr^{6+}$ | PBBs | PBDEs |
|---|---|---|---|---|---|---|
| **Limit（mg/kg）** | 1000 | 100 | 1000 | 1000 | 1000 | 1000 |

**Test Result(s):**

**Phthalates**

Method: With reference to IEC 62321-8: 2017, analyzed by Gas Chromatograph-Mass Spectrometry (GC-MS).

| Test Substance(s) | DBP | BBP | DEHP | DIBP | Conclusion(s) |
|---|---|---|---|---|---|
| **CAS No.** | 84-74-2 | 85-68-7 | 117-81-7 | 84-69-5 | |
| **RL（mg/kg）** | 30 | 30 | 30 | 30 | |
| **Limit(s)（mg/kg）** | 1000 | 1000 | 1000 | 1000 | |
| **Material No.** | **Result(s)（mg/kg）** | | | | |
| 1[C] | ND | ND | ND | ND | PASS |
| 3[C] | ND | ND | ND | ND | PASS |
| 5+11 | ND | ND | ND | ND | PASS |
| 6+7 | ND | ND | ND | ND | PASS |
| 8+9+12 | ND | ND | ND | ND | PASS |
| 13[C] | ND | ND | ND | ND | PASS |

**Remark :**

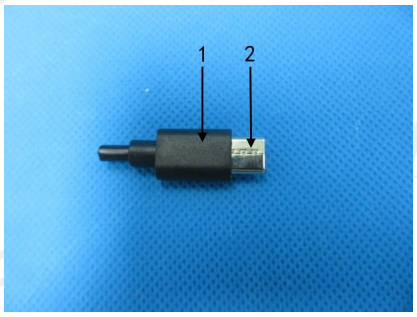
1. mg/kg = milligram per kilogram (ppm).
2. ND = Not Detected (< RL).
3. RL = Report Limit.
4. NA = Not Applicable.
5. "--" = Not Regulated.
6. "+" = This data is obtained from composite testing on more than one materials, it is possible that result obtained from individual testing on any one of the materials is substantially higher. Please be cautious when using this data for compliance evaluation.
7. As per client's request, only the appointed points and items have been tested.
8. "C" = The data of this report is refer to WDX24030670EN.

**Test Material List**

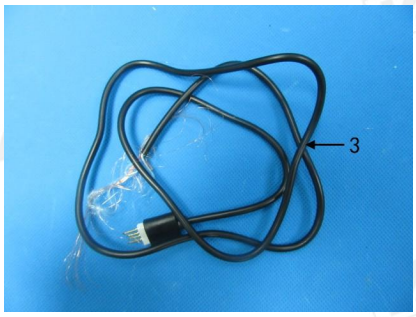
| Material No. | Description(s) | Location(s) |
|---|---|---|
| 1 | Black plastic | Type-C interface wrap |
| 2 | Silver metal | Type-C interface |
| 3 | Black plastic | Wire jacket |
| 4 | Silver metal | USB interface |
| 5 | Black plastic | Inner of USB interface |
| 6 | Black plastic | Inner wire jacket |
| 7 | Green plastic | Inner wire jacket |
| 8 | White plastic | Inner wire jacket |
| 9 | Red plastic | Inner wire jacket |
| 10 | Coppery metal | Wire core |
| 11 | White plastic | Type-C interface wrap |
| 12 | White plastic | Wire jacket |
| 13 | Black plastic | Inner of Type-C interface |

**Photo(s) of Sample(s):**

**1,2**




**3**

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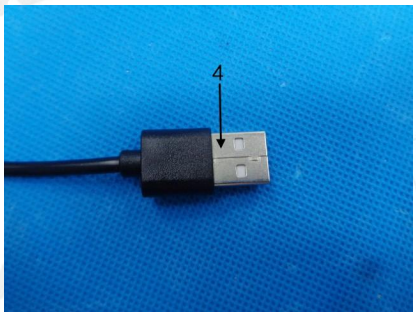


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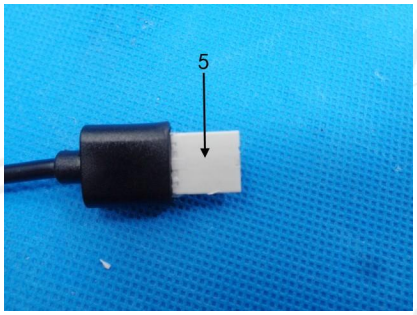
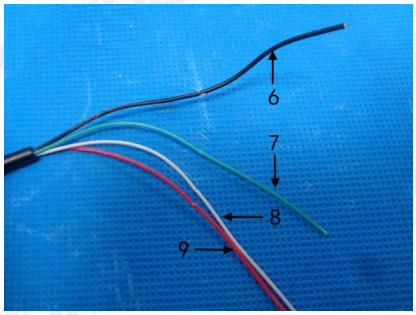
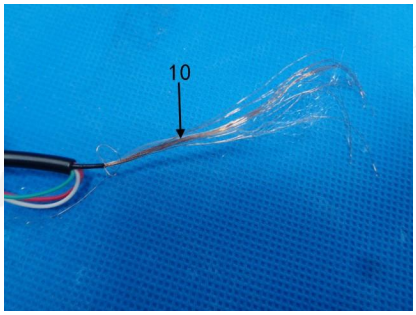


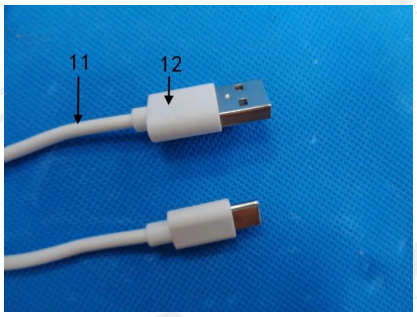

**6-9**



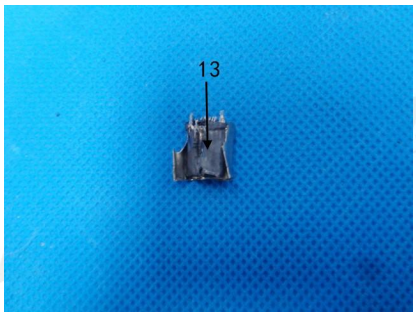

**10**



**11,12**




**13**




***End of Report***

# Report Remark

1. The company guarantees the scientificity, impartiality and accuracy, is responsible for test data, and keeps confidential for the samples and technical data provided.
2. The information of the samples submitted for inspection is provided by applicant, and the company is not responsible for its authenticity or integrity.
3. The results shown in this report refer only to the sample(s) submitted.
4. This report is invalid without signature of approver, is invalid if not affixed with Authorized Stamp of Test and Paging Seal. The data/results in reports without an CMA stamp are not in the accredited scope of CMA cannot be as domestic social impartiality proof data. It can only used for research and development, teaching, internal quality control, and only for internal reference.
5. Any unauthorized reproduced in part, Any way of piracy, alteration forgery of this report is unlawful.
6. If there are any questions about the report, please contact us.
7. Any dispute of this report must be raised to the center within 10 workdays since the date of receipt, or it will not be accepted.
8. For samples with unstable performance, re-inspection will not be accepted.


CONTACT US

| | |
|---|---|
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