



No.: EG201027002C01MVer.1 Date: Oct.30, 2020 Page 1 of 8 Applicant LEDTECH ELECTRONICS CORPORATION • Address 2nd Floor, Research and Development Building 1 (Zone 22) Guiyuan Rd. North, Jixi Rd. 5 West, Duanzhou District, Zhaoqing City, Guangdong Province China The sample and sample information tested below are provided and confirmed by the applicant Sample Name LED DISPLAY : Model ٠ 1 **Received Date** Oct.27, 2020 : **Test Period** Oct.27, 2020~Oct.30, 2020 : **Test Summary** 2 Test Item Conclusion Directive 2011/65/EU (RoHS) and its Amendments Pass

Remark: Pass: Meet the requirement; Fail: Doesn't meet the requirement; N/A: Without conclusions or provide test results only.

Prepared by:

Reviewed by:

Assistant engineer

Ma Lin.Linda

Technical supervisor

Stamp For Te Approved by:

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Signed for and on behalf o

**EMTEK(Suzh** 

Jiang Yufeng, Jason Authorized signatory Oct.30, 2020

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No.: EG201027002C01MVer.1

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Page 2 of 8

### Sample Description (The sample and sample information tested below are provided and confirmed by the applicant)

| Sample No. | Sample Number | Sample Name | Quantity |
|------------|---------------|-------------|----------|
| 1          |               | LED DISPLAY | 1рс      |
| 1.1        |               | Shell       |          |
| 1.2        | EG20102700201 | Seal grease |          |
| 1.3        |               | PCB         |          |
| 1.4        |               | Pin         |          |

#### **Summary of Test Results**

#### 1. RoHS

#### 1.1 Test Method

| Test Item                  | Test Method              |  |  |
|----------------------------|--------------------------|--|--|
| Lead (Pb), Cadmium (Cd)    | IEC 62321-5:2013         |  |  |
| Mercury (Hg)               | IEC 62321-4:2013+A1:2017 |  |  |
| Hexavalent Chromium (Cr6+) | IEC 62321-7-1:2017       |  |  |
| PBBs, PBDEs                | IEC 62321-6:2015         |  |  |
| DEHP, BBP, DBP, DIBP       | IEC 62321-8:2017         |  |  |

#### **1.2 Test Instrument**

| Instrument Name | Manufacturer | Instrument Model |
|-----------------|--------------|------------------|
| ICP-OES         | Agilent      | 720              |
| UV-Vis          | SHIMADZU     | UV-1800          |
| GC-MS           | Agilent      | 7890B-5977A      |
| GC-MS           | SHIMADZU     | QP2010 Ultra     |

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No.: EG201027002C01MVer.1

Date: Oct.30, 2020

Page 3 of 8

#### 1.3 Test Results: Limit according to Directive 2011/65/EU (RoHS) and its Amendments

| Test Item                  |      | Result(mg/kg) |      |      | MDL                              | Limit   |
|----------------------------|------|---------------|------|------|----------------------------------|---------|
| reschem                    | 1.1  | 1.2           | 1.3  | 1.4  | (mg/kg)                          | (mg/kg) |
| Lead (Pb)                  | N.D. | N.D.          | N.D. | N.D. | 2                                | 1000    |
| Cadmium (Cd)               | N.D. | N.D.          | N.D. | N.D. | 2                                | 100     |
| Mercury (Hg)               | N.D. | N.D.          | N.D. | N.D. | 2                                | 1000    |
|                            |      |               |      |      | Non-metal: 8                     | 1000    |
| Hexavalent Chromium (Cr6+) | N.D. | N.D.          | N.D. | N.D. | Metal:<br>0.10µg/cm <sup>2</sup> | /       |

| Test Item   | 1.1  | Result<br>(mg/kg)<br>1.2 | 1.3  | MDL<br>(mg/kg) | Limit<br>(mg/kg) |
|---|------|--------------------------|------|----------------|------------------|
| (1 – 10)<br>Polybrominated Biphenyls(Mono – Deca)<br>(PBBs) | N.D. | N.D.                     | N.D. |                | 1000             |
| Monobromobiphenyl   | N.D. | N.D.                     | N.D. | 5              |                  |
| Dibromobiphenyl   | N.D. | N.D.                     | N.D. | 5              |                  |
| Tribromobiphenyl  | N.D. | N.D.                     | N.D. | 5              |                  |
| Tetrabromobiphenyl  | N.D. | N.D.                     | N.D. | 5              |                  |
| Pentabromobiphenyl  | N.D. | N.D.                     | N.D. | 5              |                  |
| Hexabromobiphenyl   | N.D. | N.D.                     | N.D. | 5              |                  |
| Heptabromobiphenyl  | N.D. | N.D.                     | N.D. | 5              |                  |
| Octabromobiphenyl   | N.D. | N.D.                     | N.D. | 5              |                  |
| Nonabromobiphenyl   | N.D. | N.D.                     | N.D. | 5              |                  |
| Decabromobiphenyl   | N.D. | N.D.                     | N.D. | 5              |                  |
| Polybrominated Diphenylethers(Mono – Deca)<br>(PBDEs)       | N.D. | N.D.                     | N.D. |                | 1000             |
| Monobromodiphenyl ether                                     | N.D. | N.D.                     | N.D. | 5              |                  |
| Dibromodiphenyl ether                                       | N.D. | N.D.                     | N.D. | 5              |                  |
| Tribromodiphenyl ether                                      | N.D. | N.D.                     | N.D. | 5              |                  |

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No.: EG201027002C01MVer.1

Date: Oct.30, 2020

Page 4 of 8

| Test Item                | Result<br>(mg/kg) |      |      | MDL     | Limit   |
|--------------------------|-------------------|------|------|---------|---------|
|                          | 1.1               | 1.2  | 1.3  | (mg/kg) | (mg/kg) |
| Tetrabromodiphenyl ether | N.D.              | N.D. | N.D. | 5       |         |
| Pentabromodiphenyl ether | N.D.              | N.D. | N.D. | 5       |         |
| Hexabromodiphenyl ether  | N.D.              | N.D. | N.D. | 5       |         |
| Heptabromodiphenyl ether | N.D.              | N.D. | N.D. | 5       |         |
| Octabromodiphenyl ether  | N.D.              | N.D. | N.D. | 5       |         |
| Nonabromodiphenyl ether  | N.D.              | N.D. | N.D. | 5       |         |
| Decabromodiphenyl ether  | N.D.              | N.D. | N.D. | 5       |         |

| Test Item                         | CAS No.   | Result<br>(mg/kg) |      |      | MDL     | Limit (mg/kg) |
|-----------------------------------|-----------|-------------------|------|------|---------|---------------|
| rest terr                         | 0/10/110. | 1.1               | 1.2  | 1.3  | (mg/kg) |               |
| Bis(2-ethylhexyl) phthalate(DEHP) | 117-81-7  | N.D.              | N.D. | N.D. | 50      | 1000          |
| Butyl benzyl phthalate (BBP)      | 85-68-7   | N.D.              | N.D. | N.D. | 50      | 1000          |
| Dibutyl phthalate (DBP)           | 84-74-2   | N.D.              | N.D. | N.D. | 50      | 1000          |
| Diisobutyl phthalate (DIBP)       | 84-69-5   | N.D.              | N.D. | N.D. | 50      | 1000          |

#### Note

1) N.D. = Not Detected (Less than Detection Limit).

2) MDL = Method Detection Limit.

3) Because it is difficult to measure the weight of the anticorrosion in plating accurately, the content of hexavalent chromium in plating shows in its quality of unit area.

Unit: µg/cm<sup>2</sup>. Because the storage conditions and production date of the test samples are unknown, the test results of Cr(VI) are only represent its state during test period.

a.When sample Cr(VI) concentration is less than 0,10 µg/cm<sup>2</sup>, the sample is negative for Cr(VI), the sample not contain Cr(VI), the test result is Pass.

b.When sample Cr(VI) concentration between 0,10 µg/cm<sup>2</sup> and 0,13 µg/cm<sup>2</sup>, the result need to reconfirm, the test result is not judge.

c.When sample Cr(VI) concentration greater than 0,13  $\mu$ g/cm<sup>2</sup>, the sample is positive for Cr(VI), the sample contain Cr(VI), the test result is Fail.

4)Specimens, which requested to determine Lead, Cadmium and Mercury content, have been dissolved completely.

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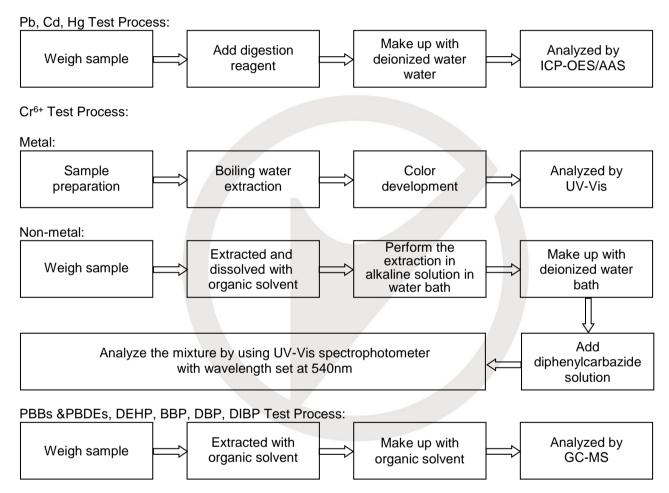


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Page 5 of 8

#### 1.4 Test Flowchart



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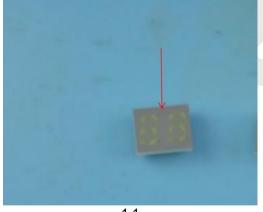
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Page 6 of 8

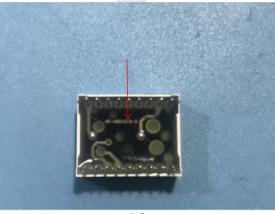
#### **Product Photo**



#### **Sample Photos**



1.1



1.2

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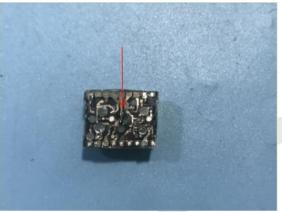
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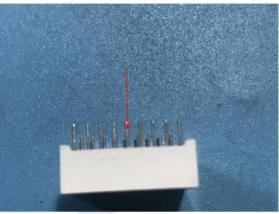
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Page 7 of 8



1.3



1.4

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Date: Oct.30, 2020

Page 8 of 8

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