

Test Report No. SHAEC2104269301 Date: 22 Mar 2021 Page 1 of 8

LEADEMC ELECTRONICS CO.,LTD.

207-209, BUILDING A, XINQIAO BUSINESS CENTER, 2163 WANYUAN ROAD, MINHANG DISTRICT, SHANGHAI

The following sample(s) was/were submitted and identified on behalf of the clients as: DIE

SGS Job No.: SP21-006718 - SH

Date of Sample Received: 15 Mar 2021

Testing Period: 15 Mar 2021 - 22 Mar 2021

Test Requested: Selected test(s) as requested by client.

Test Method : Please refer to next page(s).

Test Results: Please refer to next page(s).

Conclusion: Based on the performed tests on submitted sample(s), the results of Cadmium,

Lead, Mercury, Hexavalent chromium, Polybrominated biphenyls (PBBs),

Polybrominated diphenyl ethers (PBDEs) and Phthalates such as

Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP) comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

Signed for and on behalf of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

has Yu

Lucy Yu

Approved Signatory





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## **Test Report** No. SHAEC2104269301 Date: 22 Mar 2021 Page 2 of 8

Test Results:

### **Test Part Description:**

Specimen No. SGS Sample ID Description
SN1 SHA21-042693.001 Silvery/gray chip

#### Remarks:

- (1) 1 mg/kg = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected ( < MDL)
- (4) "-" = Not Regulated

## RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU

Test Method: With reference to IEC 62321-4:2013+AMD1:2017, IEC62321-5:2013, IEC62321-7-2:2017, IEC 62321-6:2015 and IEC62321-8:2017, analyzed by ICP-OES, AAS, UV-Vis and GC-MS.

Test Item(s)	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>001</u>
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1000	mg/kg	2	ND
Mercury (Hg)	1000	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))	1000	mg/kg	8	ND
Sum of PBBs	1000	mg/kg	-	ND
Monobromobiphenyl	-	mg/kg	5	ND
Dibromobiphenyl	-	mg/kg	5	ND
Tribromobiphenyl	-	mg/kg	5	ND
Tetrabromobiphenyl	-	mg/kg	5	ND
Pentabromobiphenyl	-	mg/kg	5	ND
Hexabromobiphenyl	-	mg/kg	5	ND
Heptabromobiphenyl	-	mg/kg	5	ND
Octabromobiphenyl	-	mg/kg	5	ND
Nonabromobiphenyl	-	mg/kg	5	ND
Decabromobiphenyl	-	mg/kg	5	ND
Sum of PBDEs	1000	mg/kg	-	ND
Monobromodiphenyl ether	-	mg/kg	5	ND
Dibromodiphenyl ether	-	mg/kg	5	ND
Tribromodiphenyl ether	-	mg/kg	5	ND
Tetrabromodiphenyl ether	-	mg/kg	5	ND

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Test Report	No. SHAEC21042693	01	Date: 2	22 Mar 2021	Page 3 of 8
Test Item(s)	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>001</u>	
Pentabromodiphenyl ether	-	mg/kg	5	ND	
Hexabromodiphenyl ether	-	mg/kg	5	ND	
Heptabromodiphenyl ether	-	mg/kg	5	ND	
Octabromodiphenyl ether	-	mg/kg	5	ND	
Nonabromodiphenyl ether	-	mg/kg	5	ND	
Decabromodiphenyl ether	-	mg/kg	5	ND	
Di-butyl Phthalate (DBP)	1000	mg/kg	50	ND	
Benzyl Butyl Phthalate (BBP)	1000	mg/kg	50	ND	
Di-2-Ethyl Hexyl Phthalate (DEHP)	1000	mg/kg	50	ND	
Diisobutyl Phthalates (DIBP)	1000	mg/kg	50	ND	

#### Notes:

- (1) The maximum permissible limit is quoted from RoHS Directive (EU) 2015/863. IEC 62321 series is equivalent to EN 62321 series https://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101::::FSP\_ORG\_ID,FSP\_LANG\_ID: 1258637,25
- (2) The restriction of DEHP, BBP, DBP and DIBP shall apply to medical devices, including in vitro medical devices, and monitoring and control instruments, including industrial monitoring and control instruments, from 22 July 2021.



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## **Test Report**

No. SHAEC2104269301

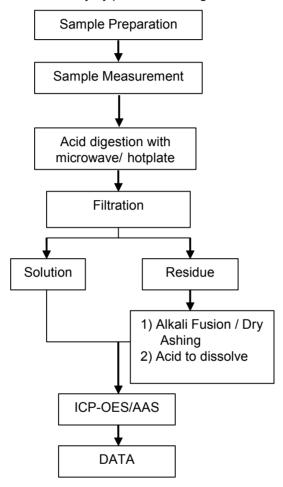
#### Page 4 of 8

Date: 22 Mar 2021

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## **Elements (IEC62321) Testing Flow Chart**

1) These samples were dissolved totally by pre-conditioning method according to below flow chart.





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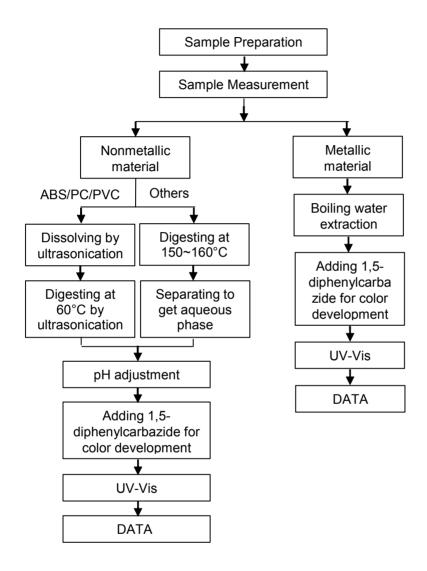
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#### Page 5 of 8

Date: 22 Mar 2021

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## Hexavalent Chromium (Cr(VI)) Testing Flow Chart





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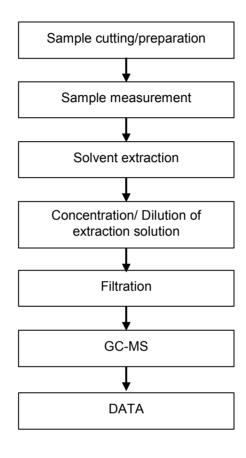
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No. SHAEC2104269301

#### Page 6 of 8

Date: 22 Mar 2021

## PBBs/PBDEs Testing Flow Chart





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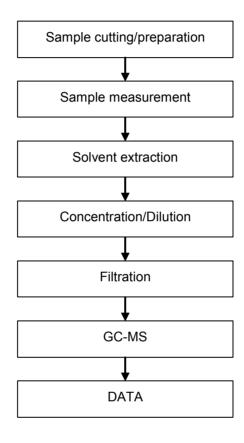
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No. SHAEC2104269301

#### Page 7 of 8

Date: 22 Mar 2021

## **Phthalates Testing Flow Chart**





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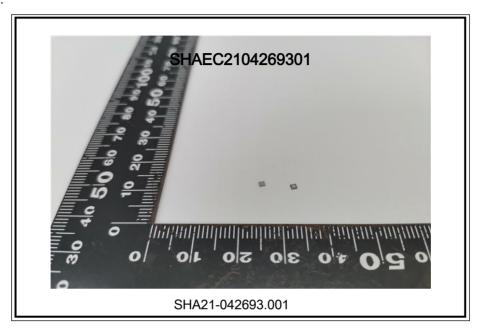
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No. SHAEC2104269301

Page 8 of 8

Date: 22 Mar 2021

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