

No. CKGEC1700710601

Date: 26 Jul 2017

Page 1 of 5

SUINING CITY, SICHUAN LIPPXIN CORE MICROELECTRONICS CO., LTD SUINING CITY, SICHUAN PROVINCE, XINGNING ROAD, STATE MICROELECTRONICS PARK ON THE 8TH DISTRICT C, ON THE 10TH PLANT

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

SGS Job No. :	18236681 - CQ
Model No. :	SOT-2X
Client Ref. Info. :	TSSOP8
Date of Sample Received :	21 Jul 2017
Testing Period :	21 Jul 2017 - 26 Jul 2017
Test Requested : Test Method :	Selected test(s) as requested by client. Please refer to next page(s).
Test Results :	Please refer to next page(s).

Signed for and on behalf of SGS-CSTC Standards Technical Services Co., Ltd. Chongqing Branch

ess

Tess Lv Approved Signatory



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions appx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions appx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions/Terms-and-Condition

Liangjing Industrial Park, Cuitao Road, Yubei District, Chongqing, China 401120 t (86-23) 6311 0882 f (86-23) 6761 3247 www.sgsgroup.com.cn 中国・重庆・渝北区翠桃路凉井工业园 邮编: 401120 t (86-23) 6311 0882 f (86-23) 6761 3247 e sgs.china@sgs.com



No. CKGEC1700710601

Test Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
SN1	CKG17-007106.001	Said to be" Integrated circuit"(mixed)

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 : (1)With reference to IEC 62321-5:2013, determination of Cadmium by ICP-OES.
(2)With reference to IEC 62321-5:2013, determination of Lead by ICP-OES.
(3)With reference to IEC 62321-4:2013, determination of Mercury by ICP-OES.
(4)With reference to IEC 62321-7-2:2017, determination of Hexavalent Chromium by Colorimetric Method using UV-Vis and/or with reference to IEC 62321-5:2013, determination of Cadmium by ICP-OES.
(5)With reference to IEC 62221 6:2015.

(5)With reference to IEC 62321-6:2015, determination of PBBs and PBDEs by GC-MS.(6) With reference to IEC 62321-8:2017, determination of phthalates by GC-MS.

<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	MDL	<u>001</u>
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1,000	mg/kg	2	9
Mercury (Hg)	1,000	mg/kg	2	ND
Hexavalent Chromium (CrVI)	1,000	mg/kg	8	ND
Sum of PBBs	1,000	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



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, adtention and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Cilent's instructions, if any. The Company's sole responsibility is to its Cilent and this document does not excore a transaction from exercising all their rights and obligations under the transaction documents. This document to econte to reproduced except in full, without prior written approval of the Company. Any unathorized alteration, forgery or faisification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone:(86-755) 8307

1443, of email: Ox.Docchaegess.com Lianging Industrial Park, Cuitao Road, Yubei District, Chongqing, China 401120 t (86-23) 6311 0882 f (86-23) 6761 3247 www.sgsgroup.com.cn 中国・重庆・渝北区翠桃路凉井工业园 邮编: 401120 t (86-23) 6311 0882 f (86-23) 6761 3247 e sgs.china@sgs.com



Test Report	No. CKGEC17007106	No. CKGEC1700710601		6 Jul 2017	Page 3 of 5
<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	MDL	<u>001</u>	
Sum of PBDEs	1,000	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	
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	
Dibutyl phthalate (DBP)	1000	mg/kg	50	ND	
Butyl benzyl phthalate (BBP)	1000	mg/kg	50	ND	
Bis (2-ethylhexyl) 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

http://www.cenelec.eu/dyn/www/f?p=104:30:1742232870351101::::FSP_ORG_ID,FSP_LANG_ID:125863 7,25

(2) The result of Hexavalent Chromium (Cr(VI)) is "ND" as the result of Chromium (Cr) is "ND", and confirmation test of Hexavalent Chromium (Cr(VI)) is not required.

(3) If the Chromium (Cr) content is greater than the MDL of Hexavalent Chromium (Cr(VI)), the confirmation test of Hexavalent Chromium (Cr(VI)) is required.

(4)Test was conducted on composite of random parts of the item as per client's request and the test resul is the overall result.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions/Terms-enDocument. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Cilent's instructions, if any. The Company's sole responsibility is to its Cilent and this document does not exconerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone:(86-755) 8307

Liangjing Industrial Park, Cuitao Road, Yubei District, Chongqing, China 401120 t (86-23) 6311 0882 f (86-23) 6761 3247 www.sgsgroup.com.cn 中国・重庆・渝北区翠桃路凉井工业园 邮编: 401120 t (86-23) 6311 0882 f (86-23) 6761 3247 e sgs.china@sgs.com



No. CKGEC1700710601

ATTACHMENTS

Pb/Cd/Hg/Cr⁶⁺/PBBs/PBDEs/Phthalates Testing Flow Chart

1) Name of the person who made testing: Kyle Xiao/Pheby Duan/Fred Wen

2) Name of the person in charge of testing: Lyra Cheng

3) These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr⁶⁺ and PBBs/PBDEs/Phthalates test method excluded)





Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.gs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.gs.com/en/Terms-and-Conditions/Terms-end-Conditions/Ter

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone:(86-755) 8307 1443, or email: CN.Doccheck@sgs.com [Liangjing Industrial Park, Cuitao Road, Yubei District, Chongqing, China 401120 t (86-23) 6311 0882 f (86-23) 6761 3247 www.sgsgroup.com.cn

Liangjing industrial Park, cuitao Road, Yubei District, Chongqing, China 401120 t (86-23) 631 0882 f (86-23) 6761 3247 e sgs.china@sgs.com



No. CKGEC1700710601

Sample photo:



SGS authenticate the photo on original report only

*** End of Report ***



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at http://www.sgs.com/en/Terms-and-Conditions.aspx and, for electronic format documents, Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not excore the approval of the Company. Any unthorized alteration, forgery or faisification of the company. Any unauthorized alteration, forgery or faisification to content or appearance of this document is unawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone:(86-755) 8307

Handing industrial Park, Cuitao Road, Yubei District, Chongqing, China 401120 t (86-23) 6311 0882 f (86-23) 6761 3247 www.sgsgroup.com.cn 中国・重庆・渝北区翠桃路凉井工业园 邮编: 401120 t (86-23) 6311 0882 f (86-23) 6761 3247 e sgs.china@sgs.com