



Test Report

Report No. GTS181112ZA0078-EN

Date: Nov. 22, 2018

The following information was submitted and identified by/on behalf of the client:

Applicant : Changzhou Halee Electronic Co.,Ltd
Address : Gaojia Industrial Park Niutang Wujin Changzhou Jiangsu
Sample Name : HDMI CABLE
Sample Model : HD001
Receive Date : Nov. 12, 2018
Testing period : Nov. 13, 2018 - Nov. 22, 2018
Test Requested : As requested by client, determination of Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(CrVI), Polybrominated biphenyls(PBBs), Polybrominated diphenyl ethers(PBDEs) and Dibutyl phthalate(DBP), Butyl benzyl phthalate(BBP), Di-2-ethylhexyl phthalate(DEHP) and Di-iso-butyl phthalate(DIBP) content in the submitted sample(s) assigned by applicant according to RoHS Directive 2011/65/EU and its amendment (EU) 2015/863 -The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment.
Test Method : Please refer to the next page(s).
Test Result(s) : Please refer to the next page(s).
Conclusion(s) : The test result(s) in the submitted sample(s) assigned by applicant **Complies with** requirements as set by RoHS Directive 2011/65/EU and its amendment (EU) 2015/863.

Authorized Signature



on behalf of
Shanghai Global Testing Services Co., Ltd.

Shi Lei/Kevin

Approved signatory -GTS/SHO

Page 1 of 5

This document is issued subject to GTS CENERAL CONDITIONS OF SERVICE, and shall not be reproduced except in full or with written approval by GTS Testing.

Shanghai Global Testing Services Co., Ltd.

Floor 2nd, Building D-1, No. 128, Shenfu Road, Minhang District, Shanghai, China.

Tel: (86-21) 3363 7866 Fax: (86-21) 3363 7858 E-mail: info@gts-lab.com



Test Report

Report No. GTS181112ZA0078-EN

Date: Nov. 22, 2018

Test Result(s):

Test Sample Description

Material No.	Material Description
01	Black wire sheath
02	Metal USB socket
03	Black plastic socket

RoHS(Pb, Cd, Hg, CrVI, PBBs, PBDEs and Phthalates(DBP, BBP, DEHP, DIBP))

Test Method: Lead(Pb), Cadmium(Cd) – With reference to IEC 62321-5: 2013

Mercury(Hg) – With reference to IEC 62321-4: 2013

Chromium VI(CrVI) – With reference to IEC 62321-7-2: 2017

PBBs, PBDEs – With reference to IEC 62321-6: 2015

DBP, BBP, DEHP, DIBP – With reference to IEC 62321-8: 2017

<u>Test item</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>01</u>	<u>02</u>
Lead(Pb)	1000	mg/kg	2	N.D.	N.D.
Cadmium(Cd)	100	mg/kg	2	N.D.	N.D.
Mercury(Hg)	1000	mg/kg	2	N.D.	N.D.
Chromium VI(CrVI)	1000	mg/kg	2	N.D.	Negative
Dibutyl phthalate(DBP)	1000	mg/kg	50	N.D.	N.A.
Butyl benzyl phthalate(BBP)	1000	mg/kg	50	N.D.	N.A.
Di-2-ethylhexyl phthalate(DEHP)	1000	mg/kg	50	N.D.	N.A.
Di-iso-butyl phthalate(DIBP)	1000	mg/kg	50	N.D.	N.A.
Monobromobiphenyls	--	mg/kg	5	N.D.	N.A.
Dibromobiphenyls	--	mg/kg	5	N.D.	N.A.
Tribromobiphenyls	--	mg/kg	5	N.D.	N.A.
Tetrabromobiphenyls	--	mg/kg	5	N.D.	N.A.
Pentabromobiphenyls	--	mg/kg	5	N.D.	N.A.
Hexabromobiphenyls	--	mg/kg	5	N.D.	N.A.
Heptabromobiphenyls	--	mg/kg	5	N.D.	N.A.
Octabromobiphenyls	--	mg/kg	5	N.D.	N.A.
Nonabromobiphenyls	--	mg/kg	5	N.D.	N.A.
Decabromobiphenyl	--	mg/kg	5	N.D.	N.A.
Group PBBs	1000	mg/kg	--	N.D.	N.A.

Page 2 of 5

This document is issued subject to GTS GENERAL CONDITIONS OF SERVICE, and shall not be reproduced except in full or with written approval by GTS Testing.

Shanghai Global Testing Services Co., Ltd.

Floor 2nd, Building D-1, No. 128, Shenfu Road, Minhang District, Shanghai, China.

Tel: (86-21) 3363 7866 Fax: (86-21) 3363 7858 E-mail: info@gts-lab.com



Test Report

Report No. GTS181112ZA0078-EN

Date: Nov. 22, 2018

<u>Test item</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>01</u>	<u>02</u>
Monobromodiphenyl ethers	--	mg/kg	5	N.D.	N.A.
Dibromodiphenyl ethers	--	mg/kg	5	N.D.	N.A.
Tribromodiphenyl ethers	--	mg/kg	5	N.D.	N.A.
Tetrabromodiphenyl ethers	--	mg/kg	5	N.D.	N.A.
Pentabromodiphenyl ethers	--	mg/kg	5	N.D.	N.A.
Hexabromodiphenyl ethers	--	mg/kg	5	N.D.	N.A.
Heptabromodiphenyl ethers	--	mg/kg	5	N.D.	N.A.
Octabromodiphenyl ethers	--	mg/kg	5	N.D.	N.A.
Nonabromodiphenyl ethers	--	mg/kg	5	N.D.	N.A.
Decabromodiphenyl ether	--	mg/kg	5	N.D.	N.A.
Group PBDEs	1000	mg/kg	--	N.D.	N.A.
Conclusion(s)				PASS	PASS

<u>Test item</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>03</u>
Lead(Pb)	1000	mg/kg	2	N.D.
Cadmium(Cd)	100	mg/kg	2	N.D.
Mercury(Hg)	1000	mg/kg	2	N.D.
Chromium VI(CrVI)	1000	mg/kg	2	N.D.
Dibutyl phthalate(DBP)	1000	mg/kg	50	N.D.
Butyl benzyl phthalate(BBP)	1000	mg/kg	50	N.D.
Di-2-ethylhexyl phthalate(DEHP)	1000	mg/kg	50	N.D.
Di-iso-butyl phthalate(DIBP)	1000	mg/kg	50	N.D.
Monobromobiphenyls	--	mg/kg	5	N.D.
Dibromobiphenyls	--	mg/kg	5	N.D.
Tribromobiphenyls	--	mg/kg	5	N.D.
Tetrabromobiphenyls	--	mg/kg	5	N.D.
Pentabromobiphenyls	--	mg/kg	5	N.D.
Hexabromobiphenyls	--	mg/kg	5	N.D.
Heptabromobiphenyls	--	mg/kg	5	N.D.
Octabromobiphenyls	--	mg/kg	5	N.D.
Nonabromobiphenyls	--	mg/kg	5	N.D.
Decabromobiphenyl	--	mg/kg	5	N.D.
Group PBBs	1000	mg/kg	--	N.D.

Page 3 of 5

This document is issued subject to GTS GENERAL CONDITIONS OF SERVICE, and shall not be reproduced except in full or with written approval by GTS Testing.

Shanghai Global Testing Services Co., Ltd.

Floor 2nd, Building D-1, No. 128, Shenfu Road, Minhang District, Shanghai, China.

Tel: (86-21) 3363 7866 Fax: (86-21) 3363 7858 E-mail: info@gts-lab.com



Test Report

Report No. GTS181112ZA0078-EN

Date: Nov. 22, 2018

<u>Test item</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>Q3</u>
Monobromodiphenyl ethers	--	mg/kg	5	N.D.
Dibromodiphenyl ethers	--	mg/kg	5	N.D.
Tribromodiphenyl ethers	--	mg/kg	5	N.D.
Tetrabromodiphenyl ethers	--	mg/kg	5	N.D.
Pentabromodiphenyl ethers	--	mg/kg	5	N.D.
Hexabromodiphenyl ethers	--	mg/kg	5	N.D.
Heptabromodiphenyl ethers	--	mg/kg	5	N.D.
Octabromodiphenyl ethers	--	mg/kg	5	N.D.
Nonabromodiphenyl ethers	--	mg/kg	5	N.D.
Decabromodiphenyl ether	--	mg/kg	5	N.D.
Group PBDEs	1000	mg/kg	--	N.D.
Conclusion(s)				PASS

- Note:**
1. MDL = Method Detection Limit.
 2. N.D. = Not detected, less than MDL.
 3. N.A. = Not applicable
 4. According to IEC 62321-7-1: 2015, result on Cr(VI) for metal sample is shown as Negative, Inconclusive or Positive:
Negative = Absence of Cr(VI), Inconclusive = Maybe exist Cr(VI), Positive = Presence of Cr(VI).

Colorimetric result (Cr(VI) concentration)	Qualitative result
The sample solution is < the 0.10 ug/cm ² equivalent comparison standard solution	The sample is negative for Cr(VI)-The Cr(VI) concentration is below the limit of quantification. The coating is considered a non-Cr(VI) based coating.
The sample solution is ≥ the 0.10 ug/cm ² and ≤ the 0.13 ug/cm ² equivalent comparison standard solutions	The result is considered to be inconclusive - Unavoidable coating variations may influence the determination. Recommendation: if addition samples are available, perform a total of 3 trials to increase sampling surface area. Use the averaged result of the 3 trials for the final determination.
The sample solution is > the 0.13 ug/cm ² equivalent comparison standard solution	The sample is positive for Cr(VI)-The Cr(VI) concentration is above the limit of quantification and the statistical margin of error. The sample coating is considered to contain Cr(VI).

Test Report

Report No. GTS181112ZA0078-EN

Date: Nov. 22, 2018

Sample Photo(s):

