

Verification Report No.: SHAEC26024706401 Date: Aug 25, 2026 Page 1 of 7

Client Name: Shanghai Hualun Instruments & Electronics Co., Ltd.
Client Address: Building1 & 3, Jinjiang Industrial Park, Qianyang Rd271, Shanghai

Sample Name: Back Panel Mounting
Tested Basic Model No.: M20212HY5M0.25—PG9
Client Ref. Information: M12HYA5M0.25-PG9
M12HYA5F-0.5-PG9
M12QYA5FM16 0.4+FG
M12HYTA4M
M12HYA5MPG9-0.265(0.3mm²)
M12HYA5MPG9-0.23

The above sample(s) and information were provided by the client.

SGS Job No.: SHP26-030581
Sample Receiving Date: Aug 07, 2026
Verification Period: Aug 07, 2026 ~ Aug 21, 2026
Verification Requested: With reference to RoHS Directive (EU) 2015/863 amending 2011/65/EU.
Verification Method(s): Please refer to next page(s).
Verification Result(s): Please refer to next page(s).

Test Result Summary:

Test Items	Conclusion
EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU - Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)	Pass

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

Jessica Chen

Jessica Chen
Approved Signatory

Scan to see the report



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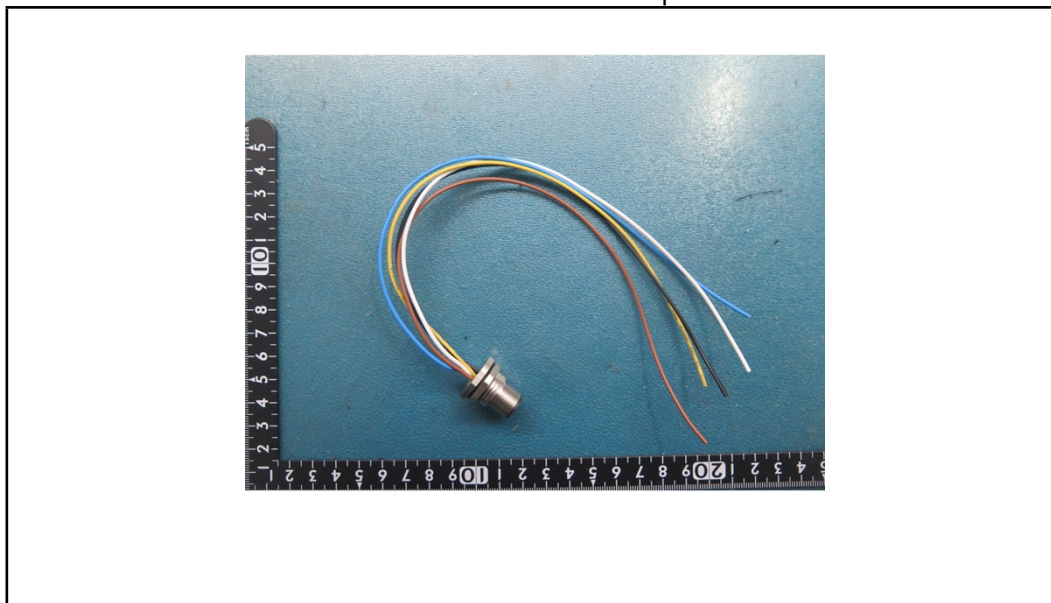
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Photo of Submitted Sample



Verification Method(s):

1. With reference to IEC 62321-2:2021, disassembly and disjointment were performed for the submitted samples.
2. With reference to IEC 62321-1:2013, tests were performed for the samples indicated by the photos in this report.
 - (1) With reference to IEC 62321-3-1:2026, screening by EDXRF spectroscopy.
 - (2) Wet chemical test method: With reference to IEC 62321-4:2013+A1:2017, IEC62321-5:2013, IEC 62321-7-1:2015, IEC 62321-7-2:2017, IEC 62321-12:2023, IEC 62321-6:2015 and IEC62321-8:2017, analyzed by ICP-OES,UV-Vis and GC-MS.



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Verification Part Description:

SN ID	Sample No.	SGS Sample ID	Description
SN1	A1	SHA26-0247064-0001.C001	Black rubber
SN2	A2	SHA26-0247064-0001.C002	Silvery metal
SN3	A3	SHA26-0247064-0001.C003	Silvery metal
SN4	A4	SHA26-0247064-0001.C004	Black epoxy
SN5	A5	SHA26-0247064-0001.C005	Golden metal
SN6	A6	SHA26-0247064-0001.C006	Black soft plastic
SN7	A7	SHA26-0247064-0001.C007	Blue soft plastic
SN8	A8	SHA26-0247064-0001.C008	White soft plastic
SN9	A9	SHA26-0247064-0001.C009	Brown soft plastic
SN10	A10	SHA26-0247064-0001.C010	Yellow/Green soft plastic
SN11	A11	SHA26-0247064-0001.C011	Silvery metal



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Verification Result(s):

In accordance with the result of material risk assessment, the following disjointed parts in the submitted sample have been verified. (Unless otherwise specified, the unit is mg/kg).

Test Item(s)	A1	A2	A3	A4	A5	A6	A7	A8
Pb	BL	22098▲	22368▲	BL	BL	BL	BL	BL
Hg	BL	BL	BL	BL	BL	BL	BL	BL
Cd	BL	41	80	BL	BL	BL	BL	BL
Cr(VI)▼	BL	BL	BL	BL	BL	BL	BL	BL
PBB	BL	---	---	ND	---	BL	BL	BL
PBDE	BL	---	---	ND	---	BL	BL	BL
DEHP	ND	---	---	ND	---	BL	BL	BL
BBP	ND	---	---	ND	---	BL	BL	BL
DBP	ND	---	---	ND	---	BL	BL	BL
DIBP	ND	---	---	ND	---	BL	BL	BL
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS

Test Item(s)	A9	A10	A11
Pb	BL	BL	BL
Hg	BL	BL	BL
Cd	BL	BL	BL
Cr(VI)▼	BL	BL	BL
PBB	BL	BL	---
PBDE	BL	BL	---
DEHP	BL	BL	---
BBP	BL	BL	---
DBP	BL	BL	---
DIBP	BL	BL	---
Conclusion	PASS	PASS	PASS



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Notes:

(1) Interpretation of screening results by X-ray fluorescence spectrometry (XRF):

(a) Screening limits in mg/kg for regulated elements in various matrices according to IEC 62321-3-1:2026 Annex A as below table.

Element / Substance	Plastics	Metals	Composite Material
Cd	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$LOD < X < (150+3\sigma) \leq OL$
Pb	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Hg	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
PBB / PBDE	Br: $BL \leq (700-3\sigma) < X$	Not applicable	Br: $BL \leq (500-3\sigma) < X$
Cr	$BL \leq (700-3\sigma) < X$	$BL \leq (700-3\sigma) < X$	$BL \leq (500-3\sigma) < X$

(b) If the maximum allowed level restricts PBB/PBDE and Cr(VI) rather than Br and Cr, the exceptions are the XRF determinations of Br and Cr. If the quantitative results for the elements Br and/or Cr are higher than the limit (for Br calculated based on the stoichiometry of Br in the most common congeners of PBB/PBDE), the sample is "inconclusive".

(c) Results are obtained by EDXRF for primary screening, LOD = Limit of Detection, BL = Below Limit, OL = Over Limit, IN (The symbol X marks the region) = Inconclusive, where further investigation is necessary, and further chemical testing by ICP-OES (for Cd, Pb, Hg), UV-Vis (for Cr(VI)) and GC-MS (for PBB/PBDE) are recommended to be performed.

(d) The EDXRF screening test for elements – The reading may be different to the actual content in the sample be of non-uniformity composition.

(2) Screening results of Phthalates (PHTH) below the limits are shown as "BL". Further chemical testing by GC-MS is to be performed if the results exceed limits.

Test Items	CAS No.
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7
Butyl benzyl phthalate (BBP)	85-68-7
Dibutyl phthalate (DBP)	84-74-2
Diisobutyl phthalate (DIBP)	84-69-5

(3) Interpretation of results by chemical tests:

(a) mg/kg = 0.0001%, MDL = Method detection Limit, ND = Not Detected (<MDL), --- = Not Applicable.

(b) Unit and MDL in wet chemical test

Test Items	Pb	Hg	Cd	DEHP	BBP	DBP	DIBP
Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
MDL	10	10	10	100	100	100	100

The MDL for single compound of PBB and PBDE is 100 mg/kg,

MDL of Cr(VI) for polymer, composite and leather sample is 10 mg/kg.

MDL of Cr(VI) for metal sample is 0.10 µg/cm².

(c) ▼ = Metal sample

a. The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than 0.13 µg/cm². The sample coating is considered to contain Cr(VI).

b. The sample is negative for Cr(VI) if Cr(VI) is ND (concentration less than 0.10 µg/cm²). The coating is considered a non-Cr(VI) based coating

c. The result between 0.10 µg/cm² and 0.13 µg/cm² is considered to be inconclusive-unavoidable coating variations may influence the determination



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Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.

(4) Restricted substances and maximum concentration values tolerated by weight in homogeneous materials under RoHS Directive: Cd: 0.01%, Pb/Hg/Cr(VI)/PBB/PBDE/DEHP/BBP/DBP/DIBP: 0.1%. The limit is quoted from RoHS Directive (EU) 2015/863.

(5) IEC 62321 series is equivalent to EN 62321 series.

(6) ▲=According to the declaration from the client,
Lead (Pb) in No.A2, A3 is exempted by EU RoHS directive 2011/65/EU based on [ANNEX III 6(c)]: Copper alloy containing up to 4 % lead by weight.

More information about exemption can be found via the following link:

<https://rohs.sgsonline.com.cn/PDFLinks/en/RSTS-TP-037%20RoHS%20Exemption%20%28EN%29.pdf>

Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule ($w=0$) stated in ILAC-G8:09/2019.



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Sample photos:



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