



REPORT No.: SZ26060501R01

TEST REPORT

Applicant : Orbbec Inc.
Product Name : Orbbec Gemini 305g, Gemini 309g
Model Name : G40351-291, G40351-293
Client Reference Info. : G45351-291
Brand Name : ORBBEC
Test Request : With reference to RoHS Directive 2015/863/EU amending 2011/65/EU.
Receipt Date : 2026-03-23
Test Date : 2026-03-23 to 2026-04-02
Issue Date : 2026-06-26
Conclusion : Based on the performed tests on submitted sample(s), the results of Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs) and Phthalates such as Bis(2-ethylhexyl) phthalate (DEHP), Dibutyl phthalate (DBP), Butyl benzyl phthalate (BBP), Diisobutyl phthalate (DIBP) comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.

Edited by:

Deng Baijian

Deng Baijian (Rapporteur)

Approved by:

Kenny Li

Kenny Li (Supervisor)

NOTE: This document is issued by Shenzhen Morlab Communications Technology Co., Ltd., the Verification report shall not be reproduced except in full without prior written permission of the company. The test results apply only to the particular sample(s) tested and to the specific tests carried out which is available on request for validation and information confirmed at our website.





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1. Applicant Information

Applicant : Orbbec Inc.

Applicant Address : Orbbec Technology Building, No.88 High-tech North 1st Road, Nanshan District, Shenzhen, China

Manufacturer : Orbbec Inc.

Manufacturer Address : Orbbec Technology Building, No.88 High-tech North 1st Road, Nanshan District, Shenzhen, China

2. Test Methods

- (1) There are the results on total Br while test items on restricted substances are PBBs and PBDEs. There are the results on total Cr while test items on restricted substances Cr(VI).
- (2) Results are obtained by EDXRF for primary screening, and further chemical testing by ICP-OES (for Cd, Pb, Hg), UV-Vis (for Cr(VI)) and GC-MS (for PBBs, PBDEs) is recommended to be performed, if the concentration exceeds the below warning value according to IEC62321-3-1:2013 (Unit: mg/kg).

Element	Polymers	Metals	Composite Materials
Cd	$P \leq (70-3\sigma) < D < (130+3\sigma) \leq F$	$P \leq (70-3\sigma) < D < (130+3\sigma) \leq F$	$P \leq (50-3\sigma) < D < (150+3\sigma) \leq F$
Pb	$P \leq (700-3\sigma) < D < (1300+3\sigma) \leq F$	$P \leq (700-3\sigma) < D < (1300+3\sigma) \leq F$	$P \leq (500-3\sigma) < D < (1500+3\sigma) \leq F$
Hg	$P \leq (700-3\sigma) < D < (1300+3\sigma) \leq F$	$P \leq (700-3\sigma) < D < (1300+3\sigma) \leq F$	$P \leq (500-3\sigma) < D < (1500+3\sigma) \leq F$
Br	$P \leq (300-3\sigma) < D$	Not Applicable	$P \leq (250-3\sigma) < D$
Cr	$P \leq (700-3\sigma) < D$	$P \leq (700-3\sigma) < D$	$P \leq (500-3\sigma) < D$

(a) P = Below Limit, F = Over Limit, D = Inconclusive.

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

(3) Chemical Test

Unit and MDL in wet chemical test.

Test Items	Methods	Apparatus	MDL
Hg	IEC 62321-4:2013+AMD1:2017	ICP-OES	10 mg/kg
Cd & Pb	IEC 62321-5:2013	AAS or ICP-OES	10 mg/kg
Cr(VI)	IEC 62321-7-2:2017 (For Polymer and Electronics)	UV-VIS	10 mg/kg
	IEC 62321-7-1:2015 [▲] (For Plating on Metals)		0.10 ug/cm ²
PBBs	IEC 62321-6:2015	GC-MS	100 mg/kg
PBDEs	IEC 62321-6:2015	GC-MS	100 mg/kg
DEHP	IEC 62321-8:2017	GC-MS	100 mg/kg
BBP	IEC 62321-8:2017	GC-MS	100 mg/kg
DBP	IEC 62321-8:2017	GC-MS	100 mg/kg
DIBP	IEC 62321-8:2017	GC-MS	100 mg/kg

(a) The MDL for single compound of PBBs and PBDEs is 100 mg/kg.

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

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

(d) 1 mg/kg = 0.0001%, MDL = Method Detection Limit, ND = Not Detected (< MDL), “---” = Not Applicable.

(e)[▲] = a. The sample is negative for Cr(VI) if the Cr(VI) is ND (concentration less than 0.10 ug/cm²). The coating is considered a non- Cr(VI) based coating.

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

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

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



3. Test Part Description

Part No.	Sample No.	Sample Description	Sample Material
A	A-1	Silvery Plastic Label	Polymer
A	A-2	Silvery Metal Shell	Metal
A	A-3	Black Soft Plastic	Polymer
A	A-4	Gray Metal	Metal
A	A-5	Black Transparent Glass Lens	Composite
A	A-6	Black Glue	Composite
A	A-7	Silvery Metal Screw	Metal
A	A-8	Black Metal Screw	Metal
A	A-9	Silvery Metal Screw	Metal
A	A-10	Black Metal Screw	Metal
A	A-11	Silvery Metal Spring	Metal
A	A-12	Silvery Metal	Metal
A	A-13	Orange Soft Plastic Ring	Polymer
A	A-14	Golden Metal	Metal
A	A-15	White Plastic	Polymer
A	A-16	Silvery Metal Pin	Metal
A	A-17	Black FPC	Composite
A	A-18	Silvery Metal Sheet	Metal
A	A-19	Yellow Adhesive Sticker	Composite
A	A-20	Black Adhesive Sticker	Composite
A	A-21	Black FPC	Composite
A	A-22	Pink Heat Conduction Silicone Grease	Composite
A	A-23	Gray Heat Conducting Silicone	Composite
A	A-24	Blue Heat Conduction Silicone Grease	Composite
A	A-25	Blue PCB	Composite
A	A-26	Silvery Solder	Metal
A	A-27	Black Glue	Composite
A	A-28	Black Press Port	Polymer
A	A-29	Grey Plastic	Polymer
A	A-30	Black IC	Composite
A	A-31	Black IC	Composite
A	A-32	Black IC	Composite
A	A-33	Black IC	Composite
A	A-34	Black IC	Composite
A	A-35	Black IC	Composite
A	A-36	Black IC	Composite



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Part No.	Sample No.	Sample Description	Sample Material
A	A-37	Black Inductance	Composite
A	A-38	Brown Inductance	Composite
A	A-39	Brown Inductance	Composite
A	A-40	Golden Crystal Oscillator	Composite
A	A-41	Type-C Port Silvery Metal Shell	Metal
A	A-42	Type-C Port Black Plastic	Polymer
A	A-43	Type-C Port Golden Metal Pin	Metal
A	A-44	Blue PCB	Composite
A	A-45	Silvery Solder	Metal
A	A-46	Silvery Metal	Metal
A	A-47	Black IC	Composite
A	A-48	Black IC	Composite
A	A-49	Black IC	Composite
A	A-50	Black IC	Composite
A	A-51	Black Diode	Composite
A	A-52	Black Diode	Composite
A	A-53	Gray Inductance	Composite
A	A-54	Gray Inductance	Composite
A	A-55	Brown Inductance	Composite
A	A-56	Gray Inductance	Composite
A	A-57	Brown Chip Capacitor	Composite
A	A-58	Golden Crystal Oscillator	Composite
A	A-59	Blue PCB	Composite
A	A-60	Black IC	Composite
A	A-61	Black IC	Composite
A	A-62	Silvery Metal Sheet	Metal
A	A-63	Black Adhesive Sticker	Composite
A	A-64	Black Adhesive Sticker	Composite
A	A-65	Gray Metal Block	Metal
A	A-66	White Gel	Composite
A	A-67	Black FPC	Composite
A	A-68	Black IC	Composite
A	A-69	Silvery Metal Sheet	Metal
A	A-70	Black Plastic	Polymer
A	A-71	Transparent Plastic	Polymer
B	B-1	Green Plastic	Polymer
B	B-2	White Plastic	Polymer



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Part No.	Sample No.	Sample Description	Sample Material
B	B-3	Black Plastic	Polymer
B	B-4	Orange Soft Plastic	Polymer
B	B-5	Silvery Metal	Metal
B	B-6	Silvery Metal	Metal
B	B-7	White Plastic	Polymer
B	B-8	Silvery Metal Pin	Metal
B	B-9	White Sticker	Composite
B	B-10	Black Plastic	Polymer
B	B-11	Silvery Metal	Metal
B	B-12	Silver Shielding Layer	Composite
B	B-13	Transparent Plastic	Polymer
B	B-14	Copper-Colored Metal Core	Metal
B	B-15	Black Plastic	Polymer
B	B-16	Black Cotton	Composite



4. Test Results

The results of EDXRF screening and chemical test (Unit: mg/kg)

Sample No.	Cd	Pb	Hg	Cr(VI) [▲]	PBBs	PBDEs	DBP	BBP	DEHP	DIBP	Conclusion
A-1	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-2	P	P	P	P	---	---	---	---	---	---	PASS
A-3	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-4	P	P	P	ND	---	---	---	---	---	---	PASS
A-5	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-6	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-7	P	P	P	P	---	---	---	---	---	---	PASS
A-8	P	P	P	ND	---	---	---	---	---	---	PASS
A-9	P	P	P	ND	---	---	---	---	---	---	PASS
A-10	P	P	P	ND	---	---	---	---	---	---	PASS
A-11	P	P	P	P	---	---	---	---	---	---	PASS
A-12	P	P	P	P	---	---	---	---	---	---	PASS
A-13	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-14	P	21357 [#]	P	P	---	---	---	---	---	---	PASS
A-15	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-16	P	ND	P	P	---	---	---	---	---	---	PASS
A-17	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-18	P	P	P	ND	---	---	---	---	---	---	PASS
A-19	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-20	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-21	P	P	P	ND	P	P	ND	ND	ND	ND	PASS
A-22	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-23	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-24	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-25	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-26	P	P	P	P	---	---	---	---	---	---	PASS
A-27	P	P	P	P	P	P	ND	ND	ND	ND	PASS



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Sample No.	Cd	Pb	Hg	Cr(VI) [▲]	PBBs	PBDEs	DBP	BBP	DEHP	DIBP	Conclusion
A-28	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-29	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-30	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-31	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-32	P	P	P	ND	P	P	ND	ND	ND	ND	PASS
A-33	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-34	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-35	P	P	P	ND	P	P	ND	ND	ND	ND	PASS
A-36	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-37	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-38	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-39	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-40	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-41	P	P	P	ND	---	---	---	---	---	---	PASS
A-42	P	P	P	ND	P	P	ND	ND	ND	ND	PASS
A-43	P	P	P	ND	---	---	---	---	---	---	PASS
A-44	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-45	P	P	P	P	---	---	---	---	---	---	PASS
A-46	P	P	P	P	---	---	---	---	---	---	PASS
A-47	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-48	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-49	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-50	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-51	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-52	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-53	P	P	P	ND	P	P	ND	ND	ND	ND	PASS
A-54	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-55	P	P	P	ND	P	P	ND	ND	ND	ND	PASS
A-56	P	P	P	ND	P	P	ND	ND	ND	ND	PASS
A-57	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-58	P	P	P	ND	P	P	ND	ND	ND	ND	PASS



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Sample No.	Cd	Pb	Hg	Cr(VI) [▲]	PBBs	PBDEs	DBP	BBP	DEHP	DIBP	Conclusion
A-59	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-60	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-61	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-62	P	P	P	ND	---	---	---	---	---	---	PASS
A-63	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-64	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-65	P	P	P	ND	---	---	---	---	---	---	PASS
A-66	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-67	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-68	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-69	P	P	P	ND	---	---	---	---	---	---	PASS
A-70	P	P	P	P	P	P	ND	ND	ND	ND	PASS
A-71	P	P	P	P	P	P	ND	ND	ND	ND	PASS
B-1	P	P	P	P	P	P	ND	ND	ND	ND	PASS
B-2	P	P	P	P	ND	ND	ND	ND	ND	ND	PASS
B-3	P	P	P	P	ND	ND	ND	ND	ND	ND	PASS
B-4	P	P	P	P	P	P	ND	ND	ND	ND	PASS
B-5	P	18769 [#]	P	P	---	---	---	---	---	---	PASS
B-6	P	P	P	P	---	---	---	---	---	---	PASS
B-7	P	P	P	P	P	P	ND	ND	ND	ND	PASS
B-8	P	P	P	P	---	---	---	---	---	---	PASS
B-9	P	P	P	P	P	P	ND	ND	ND	ND	PASS
B-10	P	P	P	P	P	P	ND	ND	ND	ND	PASS
B-11	P	P	P	P	---	---	---	---	---	---	PASS
B-12	P	P	P	P	P	P	ND	ND	ND	ND	PASS
B-13	P	P	P	P	P	P	ND	ND	ND	ND	PASS
B-14	P	P	P	P	---	---	---	---	---	---	PASS
B-15	P	P	P	P	P	P	ND	ND	ND	ND	PASS
B-16	P	P	P	P	P	P	ND	ND	ND	ND	PASS



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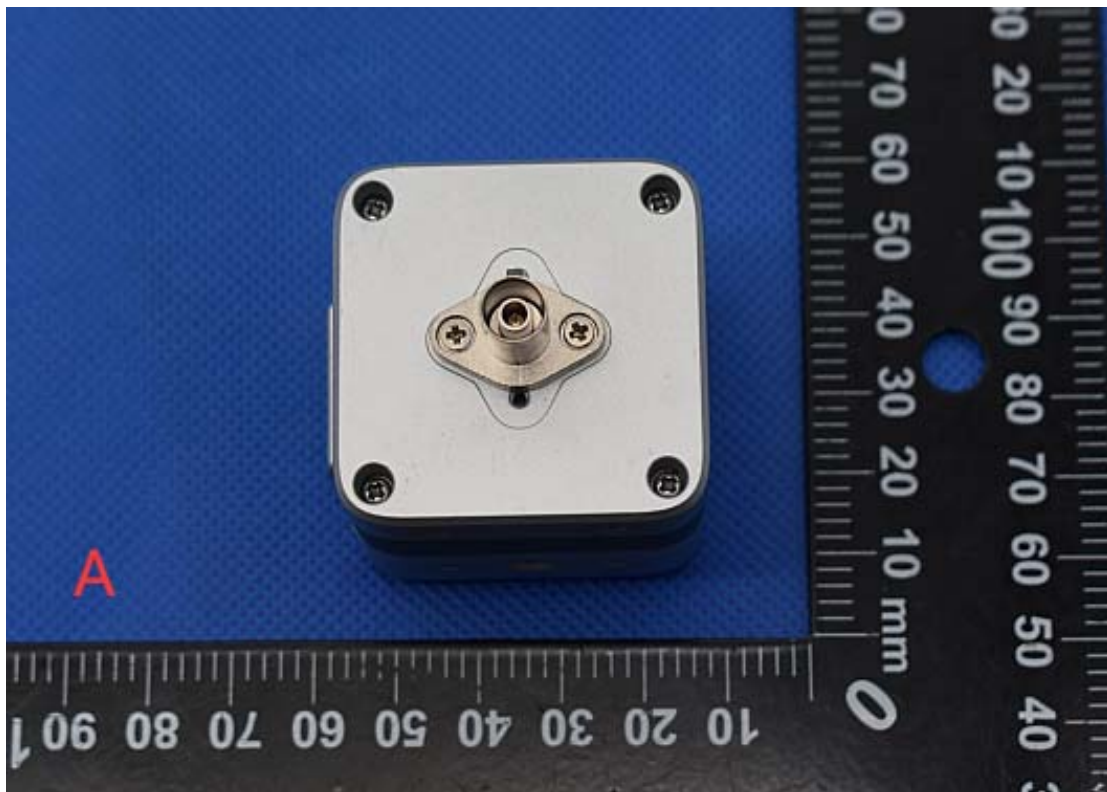
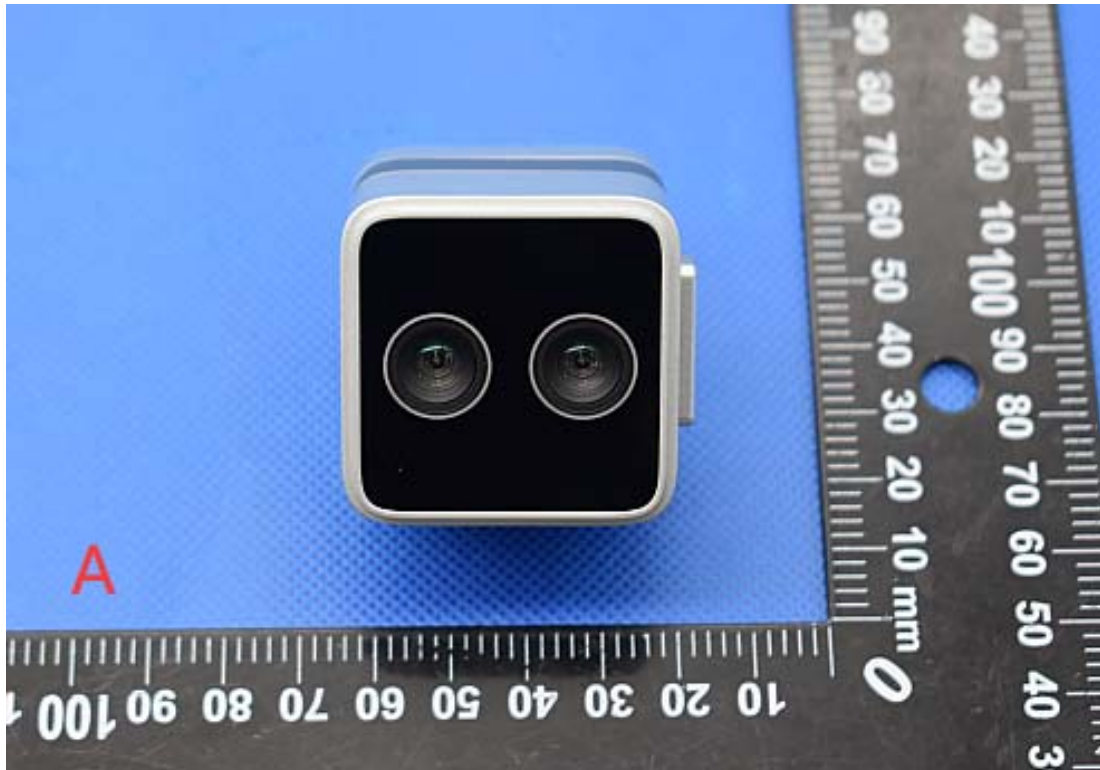
Remark:

(1) # = Lead in copper alloy containing up to 4% lead by weight. The item is exempted from the requirements of the item 6(c) in ANNEX III (Directive 2011/65/EU).

(2) This test report is variant from the original report (Report No.: SZ26030342R01, Model.: G40351-291), the changes are as follows:

Modification Table of Test Report		
Report No:	Report date	Reason for issue
SZ26030342R01	2026-04-07	Original report
SZ26060501R01	This report	Change application information

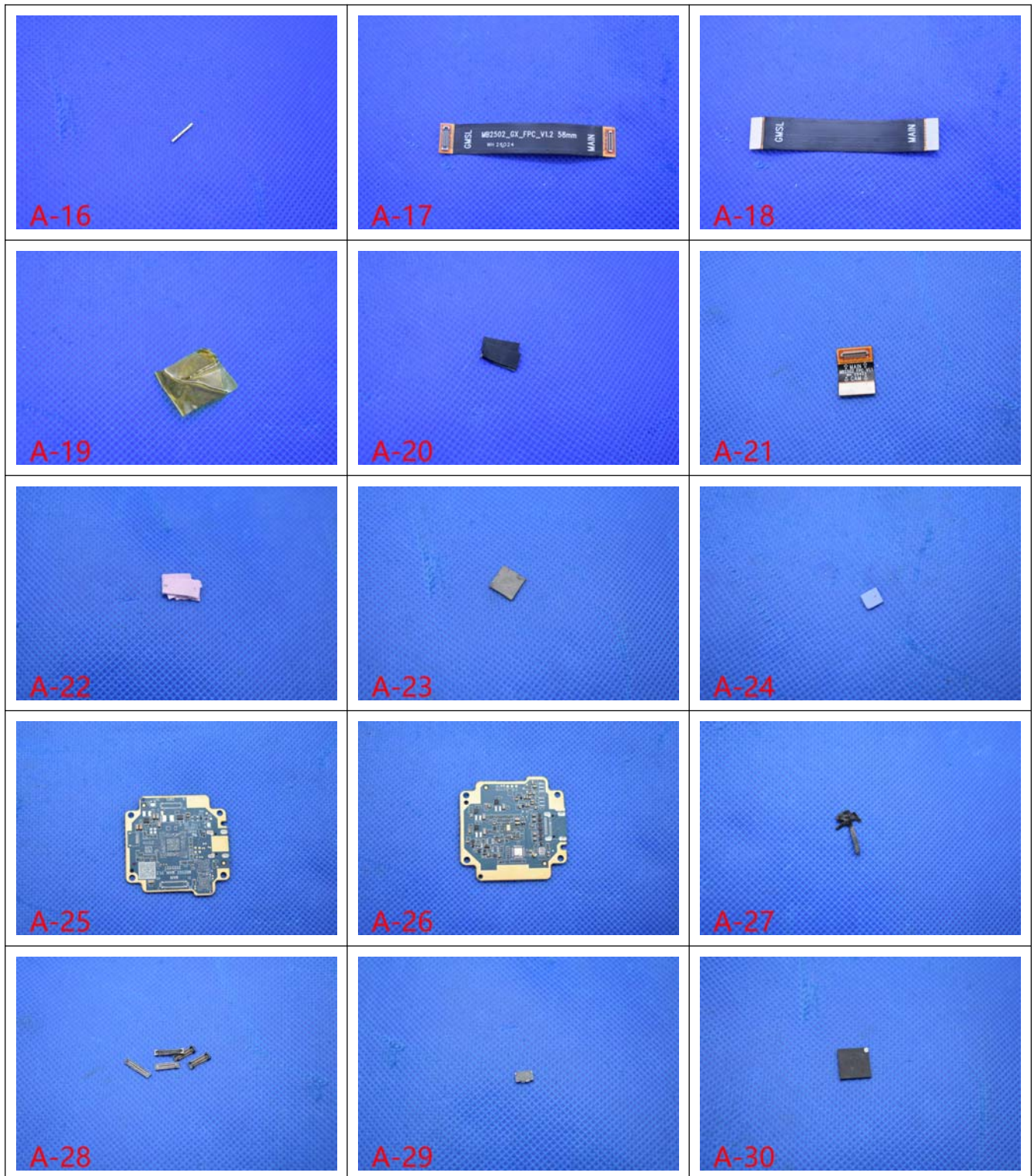
5. Photo of Sample

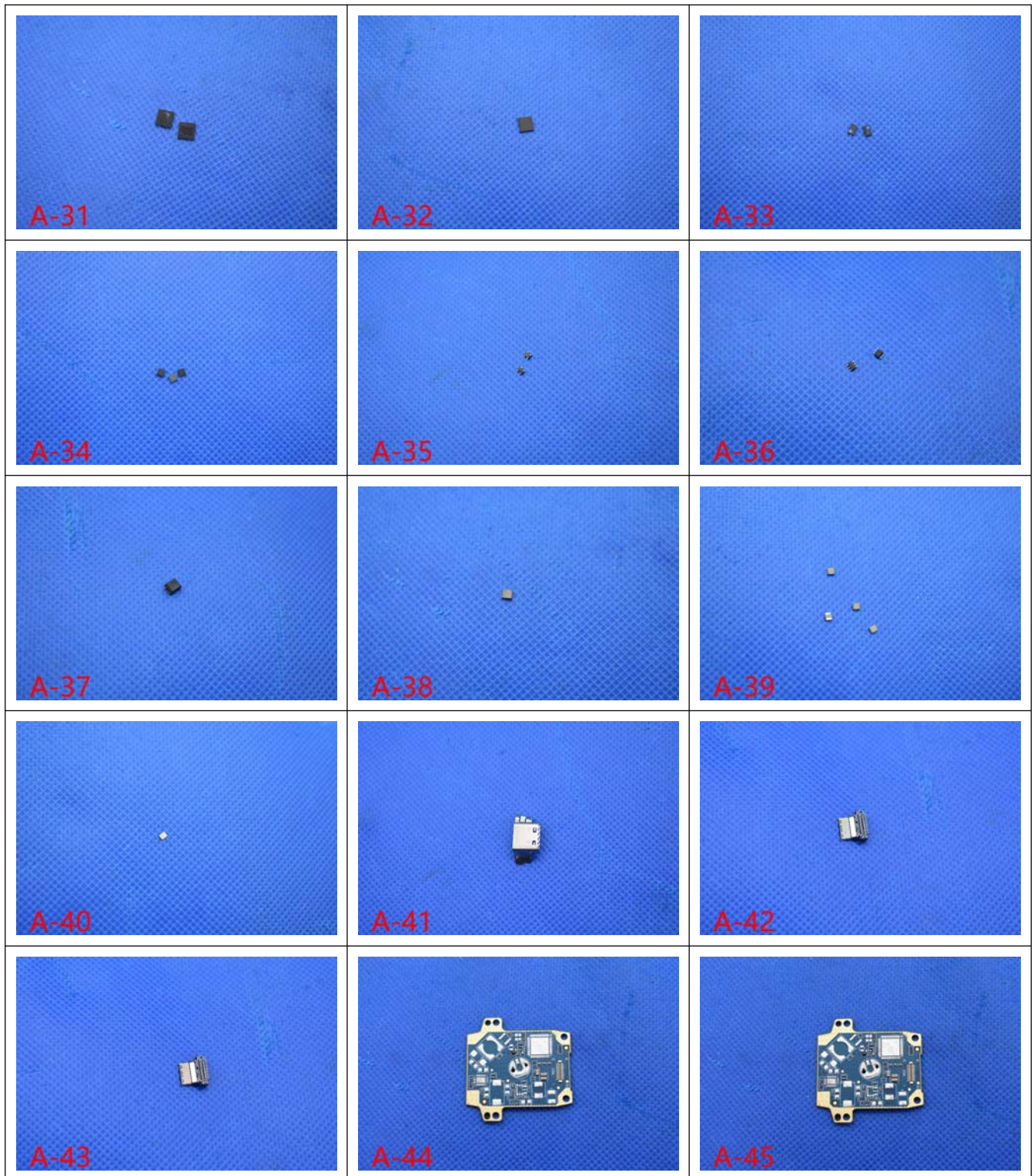


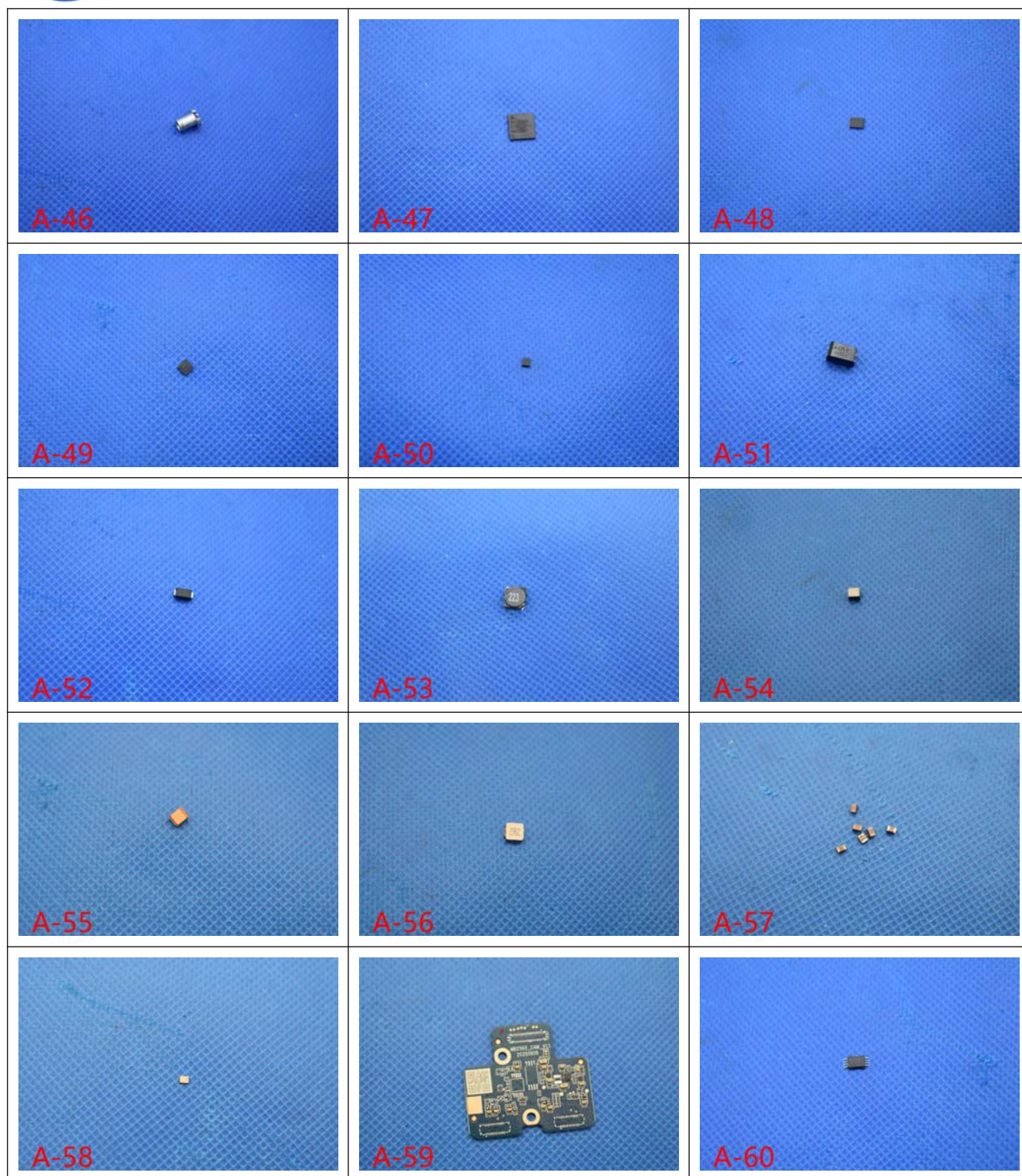


6. Photo of Test Part















Annex A General Information

1.1 Identification of the Responsible Testing Laboratory

Laboratory Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Laboratory Address:	FL.1-3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
Telephone:	+86 755 36698555
Facsimile:	+86 755 36698525

1.2 Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Address:	FL.1-3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China

1.3 Test Equipment Utilized

No.	Equipment Name	Serial No.	Type	Manufacturer	Cal.Date	Cal.Due Date
1	X-Ray Fluorescence Spectroscopy(XRF)	100180017-00 406A	EDX-1800B	Skyray	2025.09.02	2026.09.01
2	X-Ray Fluorescence Spectroscopy(XRF)	100180017-01 151A	EDX-1800B	Skyray	2025.05.15	2026.05.14
3	Gas Chromatography-Mass Spectrometer (GC-MS)	CN10617090	6890-5975I	Agilent	2025.01.06	2027.01.05
4	Ultraviolet and visible spectrophotometry (UV-Vis)	723S18011	DP-733S	Delp	2025.05.13	2026.05.12
5	Inductive Coupled Plasma Emission Spectrometer (ICP-OES)	IC72DC160825	ICAP7200	Thermo	2025.01.06	2027.01.05
6	Gas Chromatography-Mass Spectrometer (GC-MS)	C70504400059 SA	QP2010 PLus	SHIMADZU	2025.01.06	2027.01.05
7	Gas Chromatography-Mass Spectrometer (GC-MS)	021745700818 SA	QP2020 NX	SHIMADZU	2025.09.03	2027.09.02
8	Atomic Absorption Spectrometer (AAS)	1812-011	Z-2000	Hitachi	2025.01.06	2027.01.05



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1.4 Change History

Change History		
Version	Date	Reason for change
1.0	2026-06-26	First edition

Note: the latest revision of the report supersedes all previous version.



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Notes

1. The report shall have report stamp or our company stamp.
2. The report shall be invalid without all the signatures of the editor and approver.
3. The report shall not be changed.
4. Any objections must be raised to Morlab within 15 days since the date when the report is received. It will not be taken into consideration beyond this limit.
5. Conformity declaration:
 - ☒ Morlab issues a statement of conformity based on the corresponding standards (default)
 - ☐ Morlab issues a statement of conformity based on the applicant requirement
6. Use of uncertainty of measurement for decisions on conformity (decision rule):

No decision rule is specified by the testing standard, when comparing the measurement result with the applicable limit according to the specification in that standard. The decisions on conformity are made without applying the measurement uncertainty ("simple acceptance" decision rule).

***** END OF REPORT *****