Test Report

Report No.: WTH19H08059083C-3 Date: Sep. 23, 2019

Applicant: SHENZHEN AONI ELECTRONIC CO.,LTD

Address : No.5,Bldg.,Honghui Industrial Park,2nd Liuxian Road, Baoan District,Shenzhen,China

Report on the submitted sample(s) said to be:

Sample Name: Webcam

Sample Description: Please refer to the following page(s).

Sample Model: 18679，22097,22096,327,22234,499,22397,455

Sample No.: WTH19H08059083C01

Sample Received Date: Aug. 26, 2019

Testing Period: Aug. 26, 2019 - Sep. 23, 2019

Result Summary: As requested by applicant, the submitted sample(s) was/were tested, which is listed as specimen description in the following page(s).

Test Requested:	Result
In accordance with Directive EU RoHS Directive 2011/65/EU and its amendment Directive EU 2015/863 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.	PASS

******** For Further Details, Please Refer to the following page(s) ********

Signed for and on behalf of HCT

michael Huang

Michael Huang

Shenzhen Hongcai Testing Technology Co., Ltd. 深圳市虹彩检测技术有限公司 报告专用章

Test Report

No.	Sample Description
1	Transparent plastic sheet (light barrier)
2	Black plastic shell
3	Black metal screw
4	Silver metal screw
5	Black/silver coating with adhesive
6	White dry glue
7	Black plastic button (PCB, KD1)
8	Silver metal cover (PCB, KD1)
9	Silver metal shrapnel (PCB, KD1)
10	White plastic shell (PCB, KD1)
11	Silver metal pin (PCB, KD1)
12	Black plastic shell (PCB, U2)
13	Black plastic middle shell (PCB, U2)
14	Transparent iridescent glass sheet (PCB, U2)
15	Black plastic inner shell (PCB, U2)
16	Black plastic thin sheet (PCB, U2)
17	Black plastic ring (PCB, U2)
18	Transparent plastic small round disc(PCB, U2)
19	Black printed green IC (PCB, U2)
20	Black non-woven with adhesive (PCB, microphone)
21	Silver metal shell (PCB, microphone)
22	Silver metal ring (PCB, microphone)
23	Translucent gray plastic film (PCB, microphone)
24	Translucent red plastic thin sheet (PCB, microphone)
25	Translucent white plastic cover (PCB, microphone)
26	Silver metal disc (PCB, microphone)
27	Brown printed black three pins body (PCB, microphone)
28	Silver metal pin (PCB, microphone)
29	Green printed cream PCB board (PCB, microphone)
30	Brown printed black four pins body (PCB, U4)
31	Brown chip capacitor (PCB, CP1, etc.)
32	Black printed white chip resistor (PCB, RS8, etc.)
33	Black chip inductor (PCB, LD1, etc.)
34	Silver body (PCB, YD1)
35	Silver metal pin (PCB, YD1)
36	Black plastic bottom film (PCB, YD1)

Shenzhen Hongcai Testing Technology Co., Ltd. 深圳市虹彩检测技术有限公司 报告专用章

Test Report

No.	Sample Description
37	Black foam with adhesive (PCB)
38	Black eight pins body (PCB, U3)
39	Black IC (PCB, U1)
40	Black electromagnetic beads (PCB, LD3)
41	Silver metal solder (PCB)
42	White printed green surface cream PCB board (PCB)
43	Black plastic head (connector)
44	Black plastic base (connector)
45	Silver-gray coating (bracket LOGO coating)
46	Black plastic bracket shell
47	Black soft plastic bracket sleeve
48	Silver metal sheet (with lining inside)
49	Translucent white plastic tie
50	Black soft plastic heat shrinkable tube
51	White printed black soft plastic outer wire jacket
52	White printed black soft plastic short inner wire jacket
53	Silver metal wire sleeve
54	Silver/blue plastic film
55	Black soft plastic inner wire jacket
56	White soft plastic inner wire jacket
57	Green soft plastic inner thread
58	Red soft plastic inner wire jacket
59	Silver metal wire core
60	Black soft plastic sleeve (magnetic core sleeve)
61	Black magnetic core
62	Black soft plastic plug sleeve
63	Silver metal shell (plug)
64	Light gray plastic (plug inside)
65	Black dry glue (plug inside)
66	Silver/golden metal pin (plug inside)
67	Silver metal solder (plug inside)

Note:

The specimen(s) 7, 29, 36 was(were) submitted on Sep. 3, 2019.

For DBP, BBP, DEHP, DIBP：

The specimen(s) 5, 14, 18, 20, 32, 37, 45, 52 was(were) submitted on Sep. 3, 2019.

The specimen(s) 16~17, 23~24 was(were) submitted on Sep. 17, 2019.

Shenzhen Hongcai Testing Technology Co., Ltd. 深圳市虹彩检测技术有限公司 报告专用章

Test Report

Report No.: WTH19H08059083C-3 Date: Sep. 23, 2019

Test Result(s):

IEC 62321-3-1:2013, screening by ED-XRF Spectroscopy.

No.	Results				
	Pb	Cd	Cr	Hg	Br
1	BL	BL	BL	BL	BL
2	BL	BL	BL	BL	BL
3	BL	BL	IN	BL	NC
4	BL	BL	IN	BL	NC
5	BL	BL	BL	BL	BL
6	BL	BL	BL	BL	BL
7	BL	BL	BL	BL	IN
8	BL	BL	BL	BL	NC
9	BL	BL	IN	BL	NC
10	BL	BL	BL	BL	BL
11	BL	BL	BL	BL	NC
12	BL	BL	BL	BL	BL
13	BL	BL	BL	BL	BL
14	BL	BL	BL	BL	BL
15	BL	BL	BL	BL	BL
16	BL	BL	BL	BL	BL
17	BL	BL	BL	BL	BL
18	BL	BL	BL	BL	BL
19	BL	BL	IN	BL	BL
20	BL	BL	BL	BL	BL
21	BL	BL	BL	BL	NC
22	BL	BL	BL	BL	NC
23	BL	BL	BL	BL	BL
24	BL	BL	BL	BL	BL
25	BL	BL	BL	BL	BL
26	BL	BL	BL	BL	NC
27	BL	BL	BL	BL	BL
28	BL	BL	BL	BL	NC
29	BL	BL	BL	BL	BL
30	BL	BL	BL	BL	BL
31	BL	BL	BL	BL	BL
32	IN	BL	BL	BL	BL
33	BL	BL	BL	BL	BL
34	BL	BL	BL	BL	BL

Shenzhen Hongcai Testing Technology Co., Ltd. 深圳市虹彩检测技术有限公司 报告专用章

Test Report

No.	Results				
	Pb	Cd	Cr	Hg	Br
35	BL	BL	BL	BL	NC
36	BL	BL	BL	BL	BL
37	BL	BL	BL	BL	BL
38	BL	BL	BL	BL	BL
39	BL	BL	BL	BL	BL
40	BL	BL	BL	BL	BL
41	IN	BL	BL	BL	NC
42	BL	BL	BL	BL	IN
43	BL	BL	BL	BL	BL
44	BL	BL	BL	BL	BL
45	BL	BL	BL	BL	BL
46	BL	BL	BL	BL	BL
47	BL	BL	BL	BL	BL
48	BL	BL	IN	BL	NC
49	BL	BL	BL	BL	BL
50	BL	BL	BL	BL	BL
51	BL	BL	BL	BL	BL
52	BL	BL	BL	BL	BL
53	BL	BL	BL	BL	NC
54	BL	BL	BL	BL	BL
55	BL	BL	BL	BL	BL
56	BL	BL	BL	BL	BL
57	BL	BL	BL	BL	BL
58	BL	BL	BL	BL	BL
59	BL	BL	BL	BL	NC
60	BL	BL	BL	BL	BL
61	BL	BL	IN	BL	BL
62	BL	BL	BL	BL	BL
63	BL	BL	BL	BL	NC
64	BL	BL	BL	BL	IN
65	BL	BL	BL	BL	BL
66	BL	BL	BL	BL	NC
67	BL	BL	BL	BL	NC

Note: BL = Below Limit by ED-XRF analysis
IN = Inconclusive (questionable, need further chemical analysis)
NC = Not Conducted

Shenzhen Hongcai Testing Technology Co., Ltd. 深圳市虹彩检测技术有限公司 报告专用章

Test Report

Remark:

(1) Results were obtained by ED-XRF for primary screening, and further chemical testing by ICP/AAS (for Cd, Pb, Hg), UV-VIS (for CrVI) and GC/MS (for PBBs/PBDEs) are recommended to be performed, if the concentration exceeds the below warning value according to IEC 62321-3-1:2013.

Unit: mg/kg

Element	Non-metal	Metal	Composite Material
Cd	BL ≤ 30 < X < 120≤ OL	BL ≤ 30 < X < 120≤ OL	BL ≤ 30 < X < 120≤ OL
Pb	BL ≤ 100 < X < 1200 ≤ OL	BL ≤ 100 < X < 1200 ≤ OL	BL ≤ 80< X < 1300 ≤ OL
Hg	BL ≤ 100 < X < 1200 ≤ OL	BL ≤ 100 < X < 1200 ≤ OL	BL ≤ 80< X < 1300 ≤ OL
Br	BL ≤ 200 < X	--	BL ≤ 200 < X
Cr	BL ≤ 200< X	BL ≤ 200 < X	BL ≤ 150< X

BL=Below Limit by ED-XRF analysis
OL=Over Limit by ED-XRF analysis
X = Inconclusive

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

(3) The maximum permissible limit is quoted from Directive EU RoHS Directive 2011/65/EU and its amendment Directive EU 2015/863:

RoHS Restricted Substances	Maximum Concentration Value (by weight in homogenous materials)
Lead (Pb)	1000 mg/kg
Cadmium (Cd)	100 mg/kg
Mercury (Hg)	1000 mg/kg
Hexavalent Chromium (Cr VI)	1000 mg/kg
Polybrominated biphenyls (PBBs)	1000 mg/kg
Polybrominated diphenylethers (PBDEs)	1000 mg/kg

Shenzhen Hongcai Testing Technology Co., Ltd. 深圳市虹彩检测技术有限公司 报告专用章

Test Report

Test results by Chemical method:

Lead(Pb) test result: Unit: mg/kg

Test Item(s)	**Lead(Pb)**
Test Method/Equipment	IEC 62321-5:2013, ICP-OES/AAS
RoHS Limit	1000
MDL	2
No.	**Test Result(s)**
32	86
41	367

Hexavalent Chromium(Cr(VI)) (non-metal) test result: Unit: mg/kg

Test Item(s)	**Hexavalent Chromium(Cr(VI))**
Test Method/Equipment	IEC 62321-7-2:2017, UV-VIS
RoHS Limit	1000
MDL	8
No.	**Test Result(s)**
19	N.D.
61	N.D.

Note:

mg/kg=ppm= parts per million

MDL = Method Detection Limit

N.D.=not detected (less than method detection limit)

Shenzhen Hongcai Testing Technology Co., Ltd. 深圳市虹彩检测技术有限公司 报告专用章

Test Report

Hexavalent Chromium(Cr(VI)) (metal) test result: Unit: μg/cm²

Test Item(s)	**Hexavalent Chromium(Cr(VI)♦**	
Test Method/Equipment	IEC 62321-7-1:2015, UV-VIS	
RoHS Limit	—	
MDL	0.10	
No.	**Test Result(s)**	**Qualitative Result(s)**
3	N.D.	Negative
4	N.D.	Negative
9	N.D.	Negative
48	N.D.	Negative

Note:

"—"=Not regulated

MDL=method detection limit

N.D.=not detected (less than method detection limit)

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

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

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

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.

Shenzhen Hongcai Testing Technology Co., Ltd. 深圳市虹彩检测技术有限公司 报告专用章

Test Report

PBBs and PBDEs test results: Unit: mg/kg

Test Items	Test Method/ Equipment	MDL	RoHS Limit
Sum of PBBs	IEC 62321-6:2015. GC-MS	—	**1000**
Monobromobiphenyl		5	—
Dibromobiphenyl		5	
Tribromobiphenyl		5	
Tetrabromobiphenyl		5	
Pentabromobiphenyl		5	
Hexabromobiphenyl		5	
Heptabromobiphenyl		5	
Octabromobiphenyl		5	
Nonabromobiphenyl		5	
Decabromobiphenyl		5	
Sum of PBDEs		—	**1000**
Monobromodiphenyl ether		5	—
Dibromodiphenyl ether		5	
Tribromodiphenyl ether		5	
Tetrabromodiphenyl ether		5	
Pentabromodiphenyl ether		5	
Hexabromodiphenyl ether		5	
Heptabromodiphenyl ether		5	
Octabromodiphenyl ether		5	
Nonabromodiphenyl ether		5	
Decabromodiphenyl ether		5	

Shenzhen Hongcai Testing Technology Co., Ltd. 深圳市虹彩检测技术有限公司 报告专用章

Test Report

Test Items	Content		
	7	42	64
Sum of PBBs	**N.D.**	**N.D.**	**N.D.**
Monobromobiphenyl	N.D.	N.D.	N.D.
Dibromobiphenyl	N.D.	N.D.	N.D.
Tribromobiphenyl	N.D.	N.D.	N.D.
Tetrabromobiphenyl	N.D.	N.D.	N.D.
Pentabromobiphenyl	N.D.	N.D.	N.D.
Hexabromobiphenyl	N.D.	N.D.	N.D.
Heptabromobiphenyl	N.D.	N.D.	N.D.
Octabromobiphenyl	N.D.	N.D.	N.D.
Nonabromobiphenyl	N.D.	N.D.	N.D.
Decabromobiphenyl	N.D.	N.D.	N.D.
Sum of PBDEs	**N.D.**	**N.D.**	**N.D.**
Monobromodiphenyl ether	N.D.	N.D.	N.D.
Dibromodiphenyl ether	N.D.	N.D.	N.D.
Tribromodiphenyl ether	N.D.	N.D.	N.D.
Tetrabromodiphenyl ether	N.D.	N.D.	N.D.
Pentabromodiphenyl ether	N.D.	N.D.	N.D.
Hexabromodiphenyl ether	N.D.	N.D.	N.D.
Heptabromodiphenyl ether	N.D.	N.D.	N.D.
Octabromodiphenyl ether	N.D.	N.D.	N.D.
Nonabromodiphenyl ether	N.D.	N.D.	N.D.
Decabromodiphenyl ether	N.D.	N.D.	N.D.

Note:

"—" Not regulated

mg/kg=ppm= parts per million

MDL=method detection limit

N.D.=not detected (less than method detection limit)

Results shown as N.D. are ignored in the sum calculation.

Shenzhen Hongcai Testing Technology Co., Ltd. 深圳市虹彩检测技术有限公司 报告专用章

Test Report

DBP, BBP, DEHP, DIBP test results Unit: mg/kg

Test Items	Test Method/ Equipment	MDL	RoHS Limit
Dibutyl phthalate (DBP)	IEC 62321-8:2017, GC-MS	30	1000
Butylbenzyl phthalate (BBP)		30	1000
Di-(2-ethylhexyl) Phthalate (DEHP)		30	1000
Di-iso-butyl phthalate (DIBP)		30	1000

Test Items	Content									
	1	2	5	6	7	10	12	13	14	15
Dibutyl phthalate (DBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Butylbenzyl phthalate (BBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Di-(2-ethylhexyl) Phthalate (DEHP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Di-iso-butyl phthalate (DIBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Test Items	Content									
	16	17	18	19	20	23	24	25	27	29
Dibutyl phthalate (DBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Butylbenzyl phthalate (BBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Di-(2-ethylhexyl) Phthalate (DEHP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Di-iso-butyl phthalate (DIBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Shenzhen Hongcai Testing Technology Co., Ltd. 深圳市虹彩检测技术有限公司 报告专用章

Test Report

Test Items	Content									
	30	31	32	33	34	36	37	38	39	40
Dibutyl phthalate (DBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Butylbenzyl phthalate (BBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Di-(2-ethylhexyl) Phthalate (DEHP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Di-iso-butyl phthalate (DIBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Test Items	Content									
	42	43	44	45	46	47	49	50	51	52
Dibutyl phthalate (DBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Butylbenzyl phthalate (BBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Di-(2-ethylhexyl) Phthalate (DEHP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Di-iso-butyl phthalate (DIBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Test Items	Content									
	54	55	56	57	58	60	61	62	64	65
Dibutyl phthalate (DBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Butylbenzyl phthalate (BBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Di-(2-ethylhexyl) Phthalate (DEHP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Di-iso-butyl phthalate (DIBP)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Note:

mg/kg=ppm= parts per million

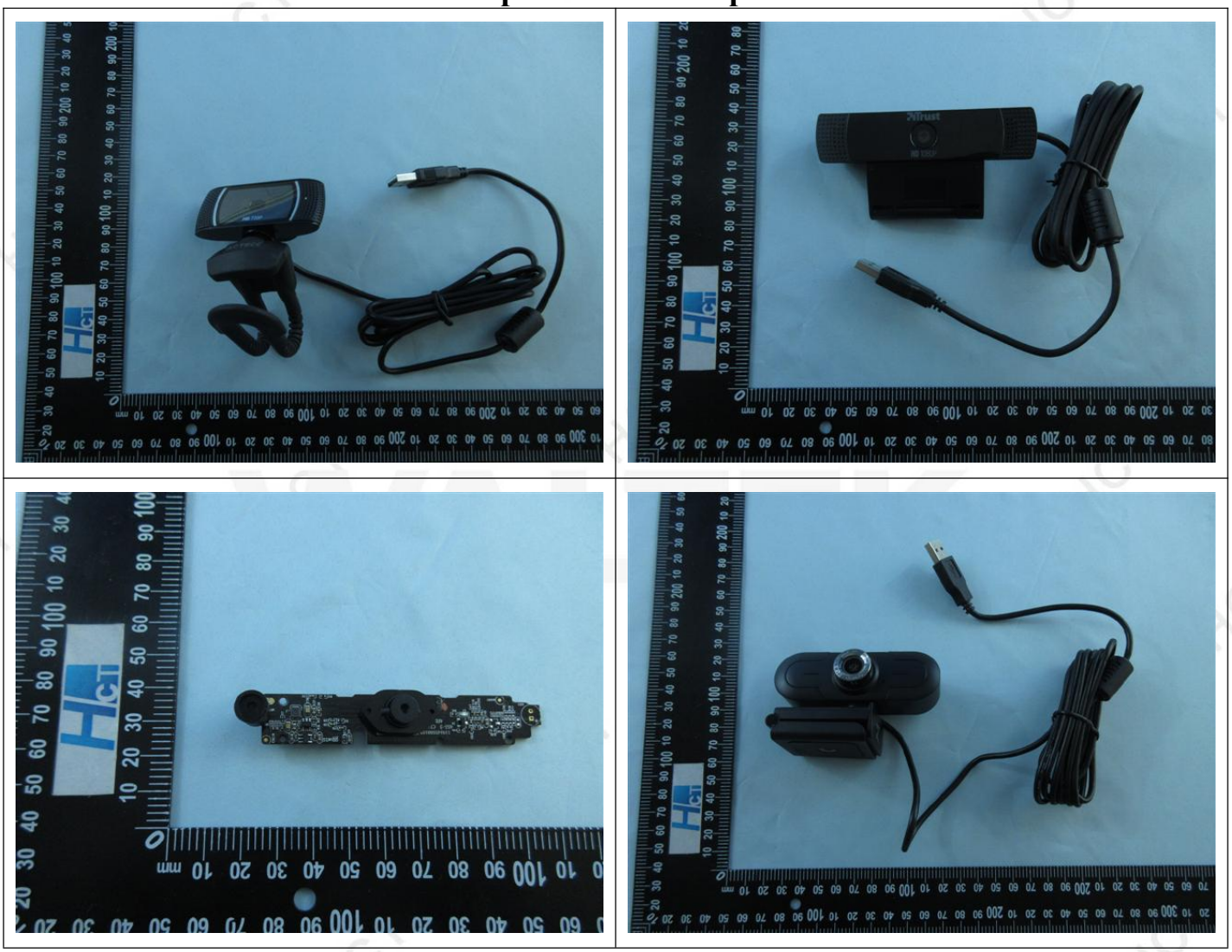
MDL=method detection limit

N.D.=not detected (less than method detection limit)

Shenzhen Hongcai Testing Technology Co., Ltd. 深圳市虹彩检测技术有限公司 报告专用章

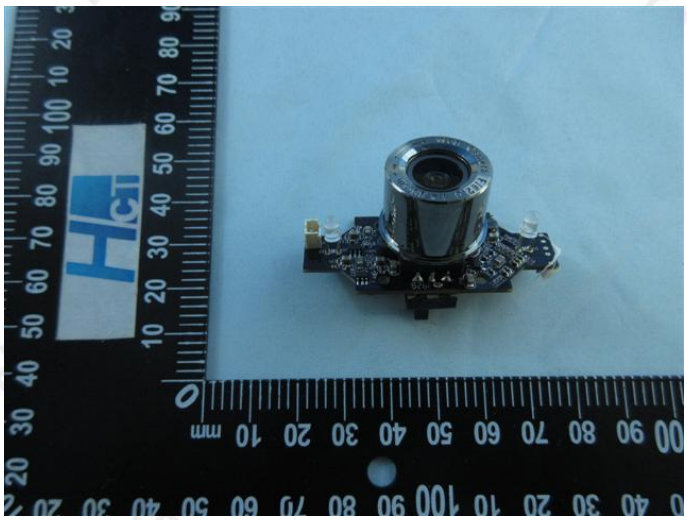
Test Report

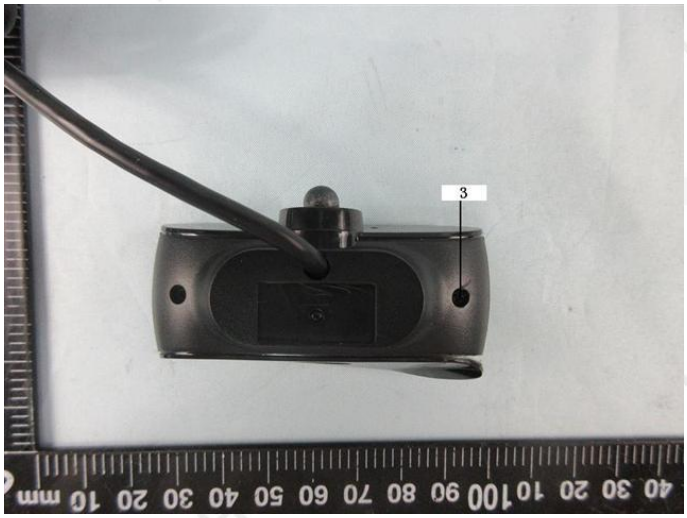
The photo of the sample

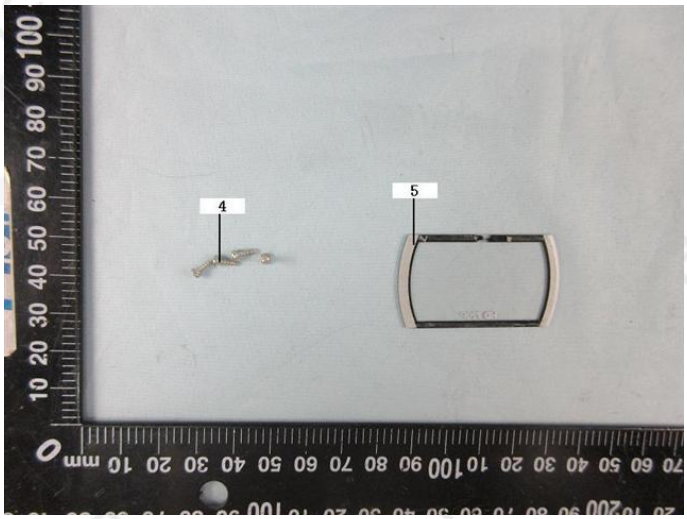


WTH19H08059083C01

Test Report

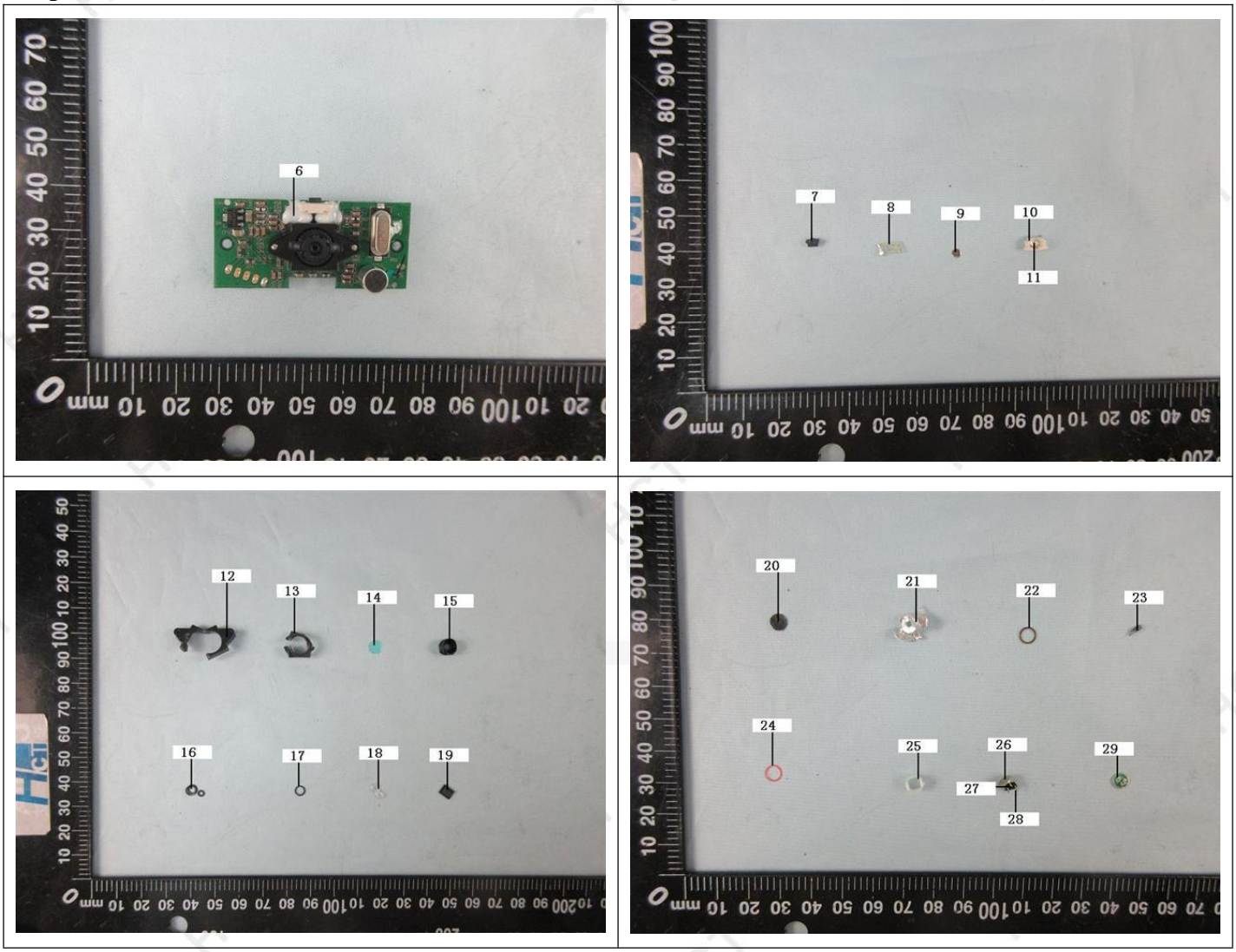






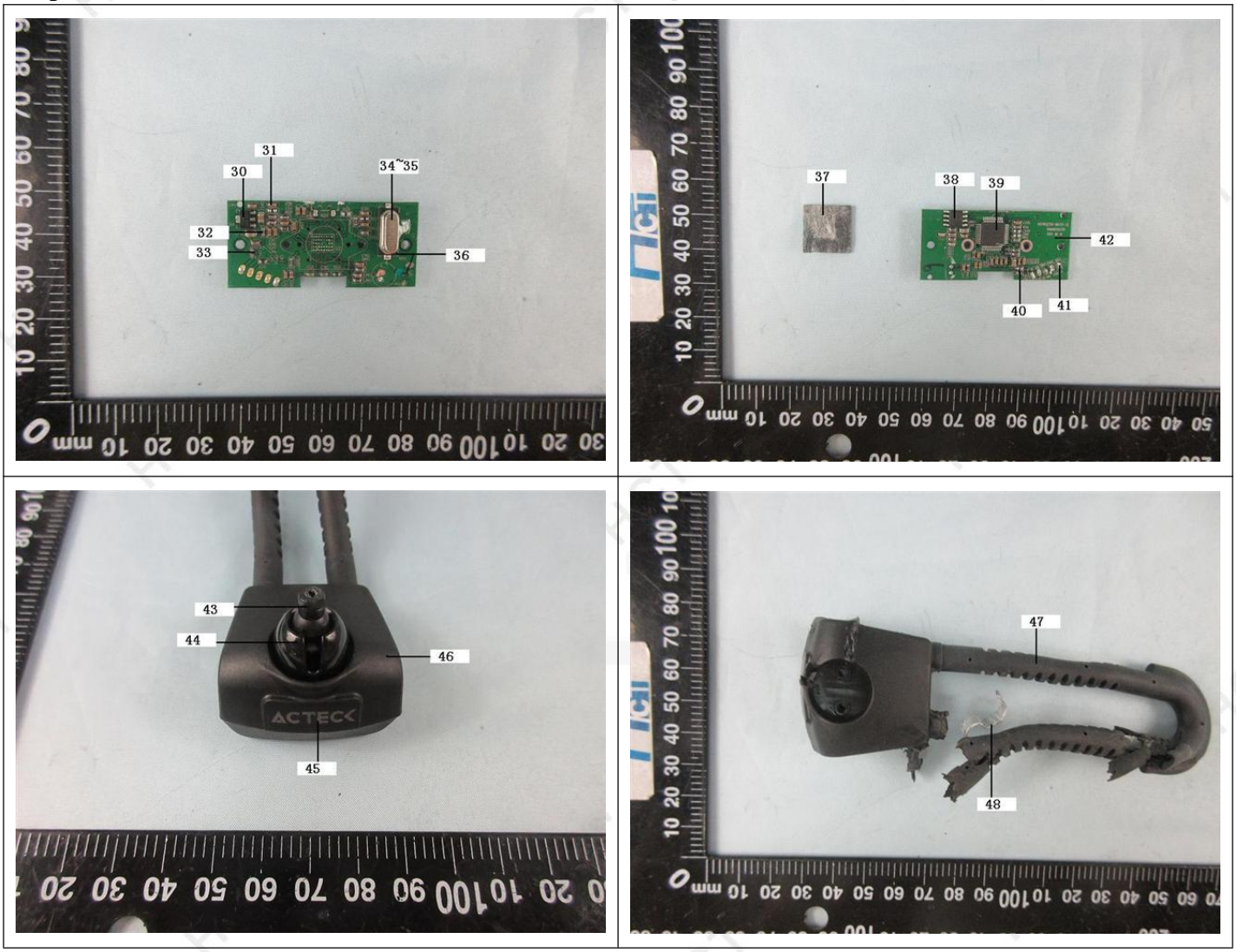
WTH19H08059083C01

Test Report



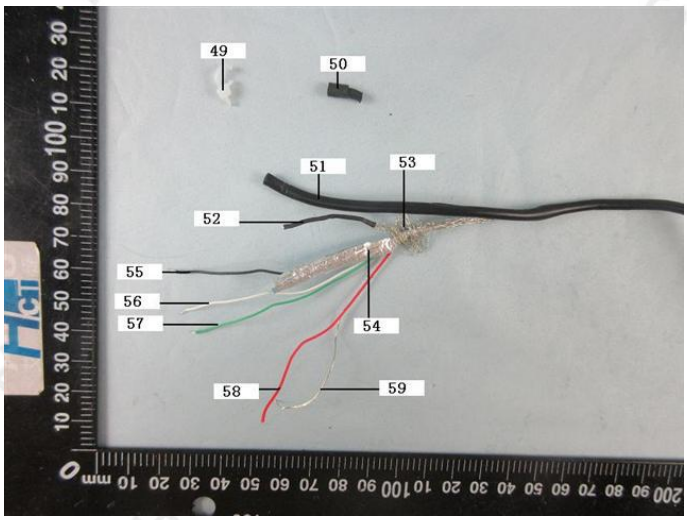
WTH19H08059083C01

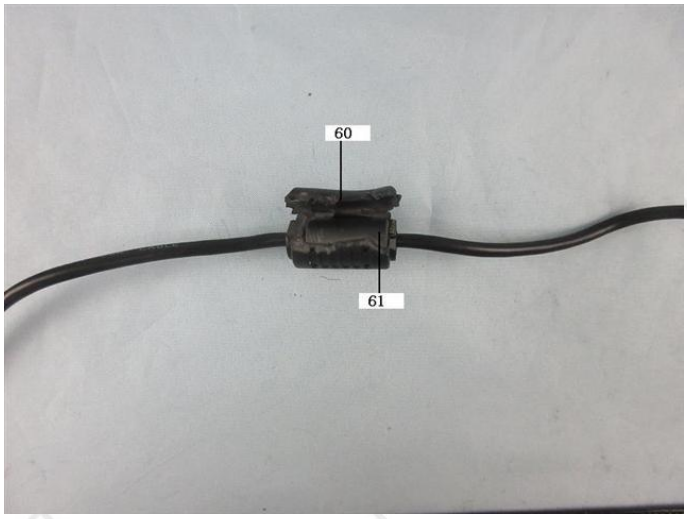
Test Report

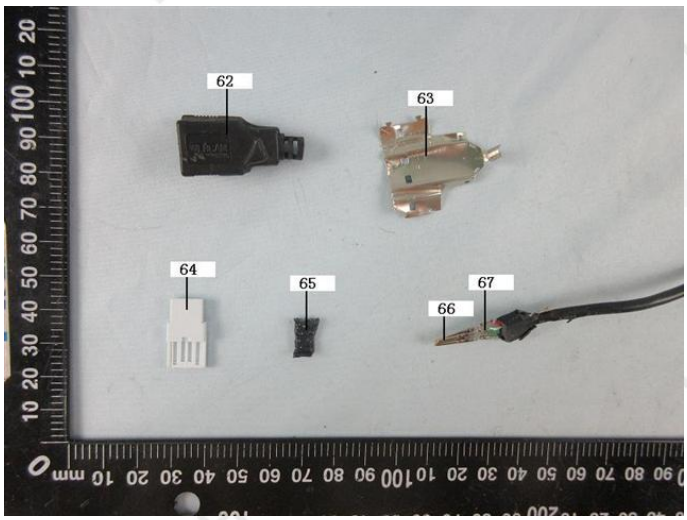


WTH19H08059083C01

Test Report







/

WTH19H08059083C01

*****End *****

This report will go into effect with HCT stamp. This report could not be revised. This report is only responsible for the test result of submitted samples. Without written authorization, any copy of this report for propaganda is invalid.

Shenzhen Hongcai Testing Technology Co., Ltd. 深圳市虹彩检测技术有限公司 报告专用章