

Test Report No.:

**1160044578r 001**

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**Client:** Hangzhou Hikvision Digital Technology Co., Ltd.  
No.555 Qianmo Road,Binjiang District Hangzhou310052,China

**Test item(s):** Mobile Digital Video Recorder

**Test Model No(s):** DS-MP3504-SD

**Reference Style No(s).** DS-MP5604-SD,DS-MP5YYY-SD,  
DS-MP5YYY-WW/AAA/BBB

**Sample Receiving date:** 2018-06-05, 2018-08-09

**Delivery condition:** Apparent good, Samples tested as received

**Test specification:**

**Test result:**

Overall results according to tests performed

1. Cadmium, Lead, Chromium (VI), Mercury, Polybrominated biphenyls (PBB) and Polybrominated diphenyl ethers (PBDE) Benzylbutyl phthalate (BBP), Dibutyl phthalate (DBP), Bis(2-ethylhexyl) phthalate (DEHP), Diisobutyl phthalate (DIBP) According to RoHS (recast): Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment, 2011/65/EU last amended by (EU) 2015/863

**PASS**

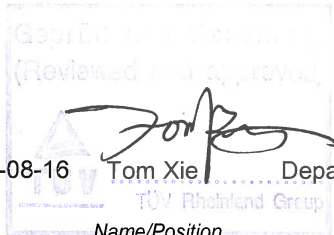
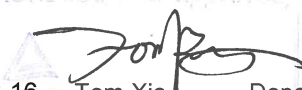
**Other Information:**

Test period: 2018-06-05 ~ 2018-06-14, 2018-08-09 ~ 2018-08-14

The testing items in the report were subcontracted to the lab which complied with ISO17025

For and on behalf of  
TÜV Rheinland / CCIC (Ningbo) Co., Ltd.

2018-08-16 Tom Xie Department Manager  
Date Name/Position



Test result is drawn according to the kind and extent of tests performed.

This test report relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.

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**1. Screening Test by XRF Spectroscopy**

 Test Method: Cadmium, Lead, Mercury, Chromium, Bromine  
 -With reference to IEC 62321-3-1: 2013

Testing Period: 2018-06-05 ~ 2018-06-14, 2018-08-09 ~ 2018-08-14

Material No.	Result (mg/kg)				
	Cd	Pb	Cr <sup>^</sup>	Hg	Br <sup>^</sup>
1-1(grey coating)	n.d.	n.d.	n.d.	n.d.	n.d.
1-2(metal)(substrate)	n.d.	n.d.	n.d.	n.d.	N.A.
2(grey glue)	n.d.	n.d.	n.d.	n.d.	n.d.
3(white gule)	n.d.	n.d.	n.d.	n.d.	n.d.
4(metal)(nut)	n.d.	n.d.	d(^2)	n.d.	N.A.
5(silvery metal)	n.d.	n.d.	d(^2)	n.d.	N.A.
6(silvery metal)	n.d.	n.d.	n.d.	n.d.	N.A.
7(grey glue)	n.d.	n.d.	n.d.	n.d.	n.d.
8(grey glue)	n.d.	n.d.	n.d.	n.d.	n.d.
9(metal)	n.d.	279(P)	n.d.	n.d.	N.A.
10(black plastic)	n.d.	n.d.	n.d.	n.d.	n.d.
11-1(black coating)	n.d.	n.d.	n.d.	n.d.	n.d.
11-2(metal)(substrate)	n.d.	n.d.	n.d.	n.d.	N.A.
12(label)	n.d.	n.d.	n.d.	n.d.	n.d.
13(silvery tape)	n.d.	n.d.	n.d.	n.d.	n.d.
14(metal)(substrate)	n.d.	n.d.	n.d.	n.d.	N.A.
15(silvery metal)	n.d.	n.d.	n.d.	n.d.	N.A.
16(black plastic sticker)	n.d.	n.d.	n.d.	n.d.	n.d.
17-1(black plastic button) (switch)	n.d.	n.d.	n.d.	n.d.	d(^1)
17-2(black plastic shell)	n.d.	n.d.	n.d.	n.d.	d(^1)
17-3(silvery metal)(push rod)	n.d.	n.d.	n.d.	n.d.	N.A.
17-4(metal)(spring)	n.d.	n.d.	n.d.	n.d.	N.A.
17-5(metal)(contact chip)	n.d.	n.d.	n.d.	n.d.	N.A.
17-6(metal)(pins)	n.d.	n.d.	n.d.	n.d.	N.A.
18(soldering tin)	n.d.	345 (P)	n.d.	n.d.	N.A.
19(heat shrink tubing)	n.d.	n.d.	n.d.	n.d.	n.d.
20#(black wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
21#(red wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
22-1(white plastic)(connector)	n.d.	n.d.	n.d.	n.d.	n.d.
22-2(metal)(terminal)	n.d.	n.d.	n.d.	n.d.	N.A.
23(silvery metal)	n.d.	n.d.	n.d.	n.d.	N.A.

Material No.	Result (mg/kg)				
	Cd	Pb	Cr <sup>^</sup>	Hg	Br <sup>^</sup>
24(silvery metal)	n.d.	n.d.	n.d.	n.d.	N.A.
25(silvery metal)	n.d.	n.d.	n.d.	n.d.	N.A.
26(silvery metal)	n.d.	n.d.	d(^2)	n.d.	N.A.
27(metal)(spring)	n.d.	n.d.	d(^2)	n.d.	N.A.
28(silvery metal ball)	n.d.	n.d.	d(^2)	n.d.	N.A.
29(metal)(screw)	n.d.	n.d.	d(^2)	n.d.	N.A.
30(metal)(screw)	n.d.	n.d.	d(^2)	n.d.	N.A.
31(metal)(screw)	n.d.	n.d.	d(^2)	n.d.	N.A.
32(gold metal)(copper)	n.d.	d(^1)	n.d.	n.d.	N.A.
33(metal)(screw)	n.d.	n.d.	d(^2)	n.d.	N.A.
34(SMD capacitor)	n.d.	n.d.	n.d.	n.d.	n.d.
35(SMD resistor)	n.d.	n.d.	n.d.	n.d.	n.d.
36(SMD diode)	n.d.	n.d.	n.d.	n.d.	n.d.
37(SMD audion)	n.d.	n.d.	n.d.	n.d.	n.d.
38(SMD chip)(IC)	n.d.	n.d.	n.d.	n.d.	n.d.
39(SMD chip)(IC)	n.d.	n.d.	n.d.	n.d.	n.d.
40(SMD chip)(IC)	n.d.	n.d.	n.d.	n.d.	n.d.
41(soldering tin)(SMD)	n.d.	200 (P)	n.d.	n.d.	N.A.
42(diode)	n.d.	n.d.	n.d.	n.d.	n.d.
43-1(bright yellow plastic)	n.d.	n.d.	n.d.	n.d.	n.d.
43-2(metal)(fuse)	n.d.	n.d.	n.d.	n.d.	N.A.
44-1(black plastic)(pins head)	n.d.	n.d.	n.d.	n.d.	d(^1)
44-2(metal)(pins)	n.d.	n.d.	n.d.	n.d.	N.A.
45-1(silvery metal shell)	n.d.	n.d.	n.d.	n.d.	N.A.
45-2(black plastic support)	n.d.	n.d.	n.d.	n.d.	d(^1)
45-3(metal)(pins)	n.d.	n.d.	n.d.	n.d.	N.A.
45-4(green plastic)(LED)	n.d.	n.d.	n.d.	n.d.	n.d.
45-5(yellow plsatic)(LED)	n.d.	n.d.	n.d.	n.d.	n.d.
45-6(yellow tape)	n.d.	n.d.	n.d.	n.d.	n.d.
45-7(PCB board)	n.d.	n.d.	n.d.	n.d.	d(^1)
45-8(network transformer)	n.d.	n.d.	n.d.	n.d.	n.d.
45-9(soldering tin)	n.d.	321 (P)	n.d.	n.d.	N.A.
46-1(black plastic shell)(relay)	n.d.	n.d.	n.d.	n.d.	d(^1)
46-2(black plastic) (inner support)	n.d.	n.d.	n.d.	n.d.	d(^1)
46-3(metal)(iron core)	n.d.	n.d.	n.d.	n.d.	N.A.
46-4(copper coil)	n.d.	n.d.	n.d.	n.d.	N.A.

Material No.	Result (mg/kg)				
	Cd	Pb	Cr <sup>^</sup>	Hg	Br <sup>^</sup>
46-5(metal)(magnet yoke)	n.d.	n.d.	n.d.	n.d.	N.A.
46-6(metal)(armature)	n.d.	n.d.	n.d.	n.d.	N.A.
46-7(metal)(contact chip)	n.d.	n.d.	n.d.	n.d.	N.A.
46-8(electrical contacts)	n.d.	n.d.	n.d.	n.d.	N.A.
47-1(black plastic)	n.d.	n.d.	n.d.	n.d.	d(^1)
47-2(metal)(pins)	n.d.	n.d.	n.d.	n.d.	N.A.
48(inductance)	n.d.	n.d.	n.d.	n.d.	N.A.
49-1(light grey plastic)	n.d.	n.d.	n.d.	n.d.	d(^1)
49-2(metal)(terminal)	n.d.	n.d.	n.d.	n.d.	N.A.
50-1(black plastic)	n.d.	n.d.	n.d.	n.d.	d(^1)
50-2(metal)(terminal)	n.d.	n.d.	n.d.	n.d.	N.A.
51(label)	n.d.	n.d.	n.d.	n.d.	n.d.
52-1(green plastic jacket) (electrolytic capacitor)	n.d.	n.d.	n.d.	n.d.	n.d.
52-2(aluminium tubing)	n.d.	n.d.	n.d.	n.d.	n.d.
52-3(inner core)	n.d.	n.d.	n.d.	n.d.	n.d.
52-4(black rubber)	n.d.	n.d.	n.d.	n.d.	n.d.
52-5(metal)(pins)	n.d.	n.d.	n.d.	n.d.	N.A.
53(black plastic) (battery holder)	n.d.	n.d.	n.d.	n.d.	d(^1)
54(glass diode)	n.d.	7(c)-I	n.d.	n.d.	N.A.
55-1(silvery metal)(UBS)	n.d.	n.d.	n.d.	n.d.	N.A.
55-2(white plastic support)	n.d.	n.d.	n.d.	n.d.	d(^1)
55-3(metal)(pins)	n.d.	n.d.	n.d.	n.d.	N.A.
56-1(electrolytic capacitor)	n.d.	n.d.	n.d.	n.d.	n.d.
56-2(black plastic holder)	n.d.	n.d.	n.d.	n.d.	n.d.
57(IR sensor)	n.d.	n.d.	n.d.	n.d.	n.d.
58-1(black plastic)	n.d.	n.d.	n.d.	n.d.	n.d.
58-2(LED light)	n.d.	n.d.	n.d.	n.d.	n.d.
59-1(black plastic shell) (buzzer)	n.d.	n.d.	n.d.	n.d.	n.d.
59-2(buzzer piece)	n.d.	n.d.	n.d.	n.d.	n.d.
59-3(metal)(T-iron)	n.d.	n.d.	n.d.	n.d.	N.A.
59-4(magnet ring)	n.d.	n.d.	n.d.	n.d.	N.A.
59-5(copper coil)	n.d.	n.d.	n.d.	n.d.	N.A.
59-6(PCB board)	n.d.	n.d.	n.d.	n.d.	n.d.
59-7(soldering tin)	n.d.	212 (P)	n.d.	n.d.	N.A.
60-1(blue plastic jacket) (electrolytic capacitor)	n.d.	n.d.	n.d.	n.d.	n.d.

Material No.	Result (mg/kg)				
	Cd	Pb	Cr <sup>^</sup>	Hg	Br <sup>^</sup>
60-2(aluminium tubing)	n.d.	n.d.	n.d.	n.d.	n.d.
60-3(inner core)	n.d.	n.d.	n.d.	n.d.	n.d.
60-4(black rubber)	n.d.	n.d.	n.d.	n.d.	n.d.
60-5(metal)(pins)	n.d.	n.d.	n.d.	n.d.	N.A.
61-1(magnet ring)	n.d.	n.d.	n.d.	n.d.	n.d.
61-2(copper coil)	n.d.	n.d.	n.d.	n.d.	N.A.
62(inductance)	n.d.	n.d.	n.d.	n.d.	n.d.
63(Schottky diode)	n.d.	n.d.	n.d.	n.d.	n.d.
64(SMD chip)(IC)	n.d.	n.d.	n.d.	n.d.	n.d.
65(SMD chip)(IC)	n.d.	n.d.	n.d.	n.d.	n.d.
66(crystal oscillator)	n.d.	n.d.	n.d.	n.d.	n.d.
67(soldering tin)(THC)	n.d.	240 (P)	n.d.	n.d.	N.A.
68(PCB board)	n.d.	n.d.	n.d.	n.d.	d(^1)
69(inductance)	n.d.	n.d.	n.d.	n.d.	N.A.
70-1(SMD chip)	n.d.	n.d.	n.d.	n.d.	n.d.
70-2(SMD chip)	n.d.	n.d.	n.d.	n.d.	n.d.
70-3(SMD chip)	n.d.	n.d.	n.d.	n.d.	n.d.
71-1(silvery metal frame)	n.d.	n.d.	n.d.	n.d.	N.A.
71-2(black plastic support)	n.d.	n.d.	n.d.	n.d.	n.d.
71-3(metal)(pins)	n.d.	n.d.	n.d.	n.d.	N.A.
72(white plastic)(connector)	n.d.	n.d.	n.d.	n.d.	n.d.
73(soldering tin)(SMD)	n.d.	153 (p)	n.d.	n.d.	N.A.
74(soldering tin)(THC)	n.d.	156 (p)	n.d.	n.d.	N.A.
75(memory card)	n.d.	n.d.	n.d.	n.d.	n.d.
76(PCB board)	n.d.	n.d.	n.d.	n.d.	d(^1)
77(silvery metal frame)	n.d.	n.d.	n.d.	n.d.	N.A.
78-1(black plastic support)	n.d.	n.d.	n.d.	n.d.	n.d.
78-2(metal)(plug pins)	n.d.	d(^1)	n.d.	n.d.	N.A.
79(soldering tin)(SMD)	n.d.	223 (P)	n.d.	n.d.	N.A.
80(soldering tin)(THC)	n.d.	201 (P)	n.d.	n.d.	N.A.
81-1(transparent plastic)	n.d.	n.d.	n.d.	n.d.	n.d.
81-2(metal)(pins)	n.d.	n.d.	n.d.	n.d.	N.A.
82(PCB board)	n.d.	n.d.	n.d.	n.d.	d(^1)
83(soldering tin)(SMD)	n.d.	180 (P)	n.d.	n.d.	N.A.
84-1(black plastic)	n.d.	n.d.	n.d.	n.d.	n.d.
84-2(metal)(pins)	n.d.	n.d.	n.d.	n.d.	N.A.
85-1(gold metal frame)	n.d.	d(^1)	n.d.	n.d.	N.A.

Material No.	Result (mg/kg)				
	Cd	Pb	Cr <sup>^</sup>	Hg	Br <sup>^</sup>
85-2(white plastic support)	n.d.	n.d.	n.d.	n.d.	n.d.
85-3(metal)(pins)	n.d.	d(^1)	n.d.	n.d.	N.A.
86(metal)(copper nut)	n.d.	d(^1)	n.d.	n.d.	N.A.
87-1(black plastic)	n.d.	n.d.	n.d.	n.d.	d(^1)
87-2(yellow plastic)	n.d.	n.d.	n.d.	n.d.	n.d.
87-3(metal)(spring)	n.d.	n.d.	d(^2)	n.d.	N.A.
88-1(PCB board)	n.d.	n.d.	n.d.	n.d.	d(^1)
88-2(soldering tin)(THC)	n.d.	204 (P)	n.d.	n.d.	N.A.
89(silvery metal cover)	n.d.	n.d.	n.d.	n.d.	N.A.
90(label)	n.d.	n.d.	n.d.	n.d.	n.d.
91(SMD chip)	n.d.	n.d.	n.d.	n.d.	n.d.
92(soldering tin)(SMD)	n.d.	156 (P)	n.d.	n.d.	N.A.
93(PCB)	n.d.	n.d.	n.d.	n.d.	d(^1)
94-1(white plastic)(connector)	n.d.	n.d.	n.d.	n.d.	n.d.
94-2(metal)(terminal)	n.d.	n.d.	n.d.	n.d.	N.A.
95(soldering tin)	n.d.	310 (P)	n.d.	n.d.	N.A.
96-1#(red wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
96-2(silvery metal wire)	n.d.	n.d.	n.d.	n.d.	N.A.
97(yellow wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
98(orange wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
99(black plastic frame)	n.d.	n.d.	n.d.	n.d.	n.d.
100(silvery metal)(terminal)	n.d.	n.d.	n.d.	n.d.	N.A.
101(black wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
102(heat shrink tubing)	n.d.	n.d.	n.d.	n.d.	n.d.
103(white rubber sleeving)	n.d.	n.d.	n.d.	n.d.	n.d.
104(black plastic)(connector)	n.d.	n.d.	n.d.	n.d.	n.d.
105(label)	n.d.	n.d.	n.d.	n.d.	n.d.
106(green wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
107(yellow wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
108(red wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
109(orange wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
110(black wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
111(blue wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
112-1(black plastic)(connector)	n.d.	n.d.	n.d.	n.d.	n.d.
112-2(metal)(terminal)	n.d.	n.d.	n.d.	n.d.	N.A.
113(orange wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
114(black wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.

Material No.	Result (mg/kg)				
	Cd	Pb	Cr <sup>^</sup>	Hg	Br <sup>^</sup>
115(red wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
116(blue wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
117(yellow wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
118-1(black plastic)	n.d.	n.d.	n.d.	n.d.	n.d.
118-2(metal)(pins)	n.d.	n.d.	n.d.	n.d.	N.A.
119(silvery metal)	n.d.	n.d.	n.d.	n.d.	N.A.
120(black plastic frame)	n.d.	n.d.	n.d.	n.d.	n.d.
121(heat shrink tubing)	n.d.	n.d.	n.d.	n.d.	n.d.
122(black wire casing)	n.d.	n.d.	n.d.	n.d.	n.d.
123(silvery metal wire)	n.d.	n.d.	n.d.	n.d.	N.A.
124(blue wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
125(pink wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
126(brown wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
127-1(silvery metal)	n.d.	n.d.	n.d.	n.d.	N.A.
127-2(black plastic support)	n.d.	n.d.	n.d.	n.d.	n.d.
127-3(metal)(plug pins)	n.d.	d(^1)	n.d.	n.d.	N.A.
127-4(soldering tin)	n.d.	274 (P)	n.d.	n.d.	N.A.
128(black plastic frame)	n.d.	n.d.	n.d.	n.d.	n.d.
129(label)	n.d.	n.d.	n.d.	n.d.	n.d.
130(black wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
131(red wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
132(red wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
133(green wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
134(black plastic)(connector)	n.d.	n.d.	n.d.	n.d.	n.d.
135(heat shrink tubing)	n.d.	n.d.	n.d.	n.d.	n.d.
136(black wire casing)	n.d.	n.d.	n.d.	n.d.	n.d.
137(silvery plastic film)	n.d.	n.d.	n.d.	n.d.	n.d.
138(yellow wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
139(orange wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
140(green wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
141(white wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
142(black wire sheath)	n.d.	n.d.	n.d.	n.d.	n.d.
143(silvery metal)(wrench)	n.d.	n.d.	d(^2)	n.d.	N.A.
144(silvery metal)(fuse)	n.d.	n.d.	n.d.	n.d.	N.A.
145(red plastic)	n.d.	n.d.	n.d.	n.d.	n.d.
146(silvery metal ring)	n.d.	n.d.	d(^2)	n.d.	N.A.
147(black plastic)	n.d.	n.d.	n.d.	n.d.	n.d.

Material No.	Result (mg/kg)				
	Cd	Pb	Cr <sup>^</sup>	Hg	Br <sup>^</sup>
148(silvery metal)	n.d.	n.d.	n.d.	n.d.	N.A.

**Abbreviation:**

Pb	denotes Lead
Cd	denotes Cadmium
Hg	denotes Mercury
Cr	denotes Chromium
Cr(VI)	denotes Chromium(VI)
Br	denotes Bromine
PBBs	denotes Total Polybrominated Biphenyls
PBDEs	denotes Total Polybrominated Diphenyl Ethers
<	denotes less than
N.A.	denotes Not Applicable
n.d.	denotes Not Detected
d	denotes Detected

**Remark:**

(<sup>^</sup>1) The screening result was found in the inconclusive region (X), thus the further wet chemistry tests are suggested.

(<sup>^</sup>2) The Chromium (VI) content in surface layer has been confirmed with reference to IEC 62321-7-1: 2015.

**XRF Screening limits for different materials:**

Materials	Concentration (mg/kg)				
	Cd	Cr	Pb	Hg	Br
<b>Metallic material</b>	P ≤ 60 < X ≤ 140 < F	P ≤ 640 < X	P ≤ 670 < X ≤ 1360 < F	P ≤ 660 < X ≤ 1340 < F	NA
<b>Polymeric material</b>	P ≤ 60 < X ≤ 140 < F	P ≤ 640 < X	P ≤ 670 < X ≤ 1360 < F	P ≤ 660 < X ≤ 1340 < F	P ≤ 290 < X
<b>Electronic material</b>	P ≤ 40 < X ≤ 160 < F	P ≤ 440 < X	P ≤ 470 < X ≤ 1640 < F	P ≤ 460 < X ≤ 1540 < F	P ≤ 240 < X



## 2. Confirmation Test by Wet Chemistry

Test Method: Total Cadmium, Lead, Mercury, Chromium  
 -Ref. to IEC 62321-4: 2013 & IEC 62321-5: 2013  
 Chromium (VI)  
 - For Metal material - Ref. to IEC 62321-7-1: 2015  
 - For Plastic or Electronic material – Ref. to IEC 62321-7-2: 2017  
 - For Leather material - Ref. to ISO 17075: 2007  
 PBBs, PBDEs – Ref. to IEC 62321-6: 2015

Testing Period: 2018-06-05 ~ 2018-06-14

Material list:

Material No.	Material	Color	Test Plan
			A=Test HM only B=Test FR only C=Test HM+FR
4	metal	silvery	A
5	metal	silvery	A
17-1	plastic	black	B
17-2	plastic	black	B
26	metal	silvery	A
27	metal	silvery	A
28	metal	silvery	A
29	metal	silvery	A
30	metal	black	A
31	metal	silver grey	A
32	metal(copper)	gold	A
33	metal	silvery	A
44-1	plastic	black	B
45-2	plastic	black	B
45-7	PCB	green	B
46-1	plastic	black	B
46-2	plastic	black	B
47-1	plastic	black	B
49-1	plastic	light grey	B
50-1	plastic	black	B
53	plastic	black	B
55-2	plastic	white	B

Material No.	Material	Color	Test Plan
			A=Test HM only B=Test FR only C=Test HM+FR
68	PCB	green	B
76	PCB	green	B
78-2	metal(copper)	gold metal with silvery plating	A
82	PCB	green	B
85-1	metal(copper)	gold	A
85-3	metal(copper)	gold	A
86	metal(copper)	gold metal with silvery plating	A
87-1	plastic	black	B
87-3	metal	silvery	A
88-1	PCB	green	B
93	PCB	green	B
127-3	metal(copper)	gold metal with silvery plating	A
143	metal	silvery	A
146	metal	silvery	A

Abbreviation: HM (Heavy metal) = Cd, Pb, Hg, Cr (VI)  
 FR (Flame Retardant) = PBBs, PBDEs

**Test result:**

	Cd	Pb	Cr (VI)	Hg	PBBs	PBDEs
Maximum Permissible Limit ppm (mg/kg)	100	1000	1000	1000	1000	1000

Material No.	Ppm (mg/kg)					
	Cd	Pb	Cr <sup>^</sup>	Hg	PBBs	PBDEs
	MDL (mg/kg)					
	2	2	2	2	--(^3)	--(^3)
17-1	N.A.	N.A.	N.A.	N.A.	N.D.	N.D.
17-2	N.A.	N.A.	N.A.	N.A.	N.D.	N.D.
32	10	23548 <sup>[6(c)]</sup>	N.A.	N.A.	N.A.	N.A.
44-1	N.A.	N.A.	N.A.	N.A.	N.D.	N.D.

Material No.	Ppm (mg/kg)					
	Cd	Pb	Cr <sup>^</sup>	Hg	PBBs	PBDEs
	MDL (mg/kg)					
	2	2	2	2	--(^3)	--(^3)
45-2	N.A.	N.A.	N.A.	N.A.	N.D.	N.D.
45-7	N.A.	N.A.	N.A.	N.A.	N.D.	N.D.
46-1	N.A.	N.A.	N.A.	N.A.	N.D.	N.D.
46-2	N.A.	N.A.	N.A.	N.A.	N.D.	N.D.
47-1	N.A.	N.A.	N.A.	N.A.	N.D.	N.D.
49-1	N.A.	N.A.	N.A.	N.A.	N.D.	N.D.
50-1	N.A.	N.A.	N.A.	N.A.	N.D.	N.D.
53	N.A.	N.A.	N.A.	N.A.	N.D.	N.D.
55-2	N.A.	N.A.	N.A.	N.A.	N.D.	N.D.
68	N.A.	N.A.	N.A.	N.A.	N.D.	N.D.
76	N.A.	N.A.	N.A.	N.A.	N.D.	N.D.
78-2	20	19720 <sup>[6(c)]</sup>	N.A.	N.A.	N.A.	N.A.
82	N.A.	N.A.	N.A.	N.A.	N.D.	N.D.
85-1	30	24076 <sup>[6(c)]</sup>	N.A.	N.A.	N.A.	N.A.
85-3	13	24730 <sup>[6(c)]</sup>	N.A.	N.A.	N.A.	N.A.
86	35	21580 <sup>[6(c)]</sup>	N.A.	N.A.	N.A.	N.A.
87-1	N.A.	N.A.	N.A.	N.A.	N.D.	N.D.
88-1	N.A.	N.A.	N.A.	N.A.	N.D.	N.D.
93	N.A.	N.A.	N.A.	N.A.	N.D.	N.D.
127-3	18	21570 <sup>[6(c)]</sup>	N.A.	N.A.	N.A.	N.A.

Material no.	Hexavalent Chromium Content ( $\mu\text{g}/\text{cm}^2$ ) <sup>(*)</sup>
	RL: 0.10 $\mu\text{g}/\text{cm}^2$
4	Negative
5	Negative
26	Negative
27	Negative
28	Negative
29	Negative
30	Negative
31	Negative
33	Negative
87-3	Negative
143	Negative

Material no.	Hexavalent Chromium Content ( $\mu\text{g}/\text{cm}^2$ ) <sup>(*1)</sup>
	RL: 0.10 $\mu\text{g}/\text{cm}^2$
146	Negative

**Abbreviation:**

Pb	denotes Lead
Cd	denotes Cadmium
Hg	denotes Mercury
Cr	denotes Chromium
Cr(VI)	denotes Chromium(VI)
PBBs	denotes Total Polybrominated Biphenyls
PBDEs	denotes Total Polybrominated Diphenyl Ethers
N.D.	denotes Not Detected
MDL	denotes Method Detection Limit
N.A.	denotes Not Applicable
^	The total Chromium have been determined

**Remark:**

- Component(s)/ materials(s) with an area of less than 2mm x 2mm will not be selected for testing according to RoHS Directive 2011/65/EU due to technical reason.
- For the test sample does not have detail materials information provided by client, visually identical materials (e.g. wire insulation, solder points, etc.) will be considered as the same material.
- Solder points on a printing circuit board will be examined several times based on optical anomalies or discoloration of the solder point(s) unless the solder point(s) is obviously generated automatically during production.
- All other materials will be sampled and tested at one test point representatively.

(\*1) The total chromium content in Metal sample was found to be exceeded the maximum permissible limit (1000mg/kg). Thus, the Chromium (VI) content in surface layer have been confirmed with reference to IEC 62321-7-1: 2015 Annex.

	Chromium (VI) concentration	Qualitative result
Negative	$<0.1 \mu\text{g}/\text{cm}^2$	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.
Inconclusive	$\geq 0.1 \mu\text{g}/\text{cm}^2$ and $\leq 0.13 \mu\text{g}/\text{cm}^2$	The result is considered to be inconclusive. –Unavoidable coating variations may influence the determination. Recommendation: if additional samples are available, perform a total of 3 trials to increase sampling surface area. Use the averaged result of the 3 trails for the final determination.
Positive	$>0.13 \mu\text{g}/\text{cm}^2$	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).

(\*2) The total chromium content in plastic sample or electronic sample was found to be exceeded the maximum permissible limit (1000mg/kg). Thus, the Chromium (VI) content have been confirmed with reference to IEC 62321-7-2: 2017.

(\*3) The total chromium content in leather sample was found to be exceeded the maximum permissible limit (1000mg/kg). Thus, the Chromium (VI) content have been confirmed with reference to ISO 17075: 2007.

(^3) The method detection limit for each individual PBBs and individual PBDEs are:

Method Detection Limit in ppm (mg/kg)		
PBBs	Monbromobiphenyl	5
	Dibromobiphenyl	5
	Tribromobiphenyl	5
	Tetrabromobiphenyl	5
	Pentabromobiphenyl	5
	Hexabromobiphenyl	5
	Heptabromobiphenly	5
	Octabromobiphenyl	5
	Nonabromobiphenyl	5
	Decabromobiphenyl	5
	PBDEs	Monbromodiphenyl ether
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

6(c) Copper alloy containing up to 4 % lead by weight.

7(c)-I Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound.

### 3. BBP, DBP, DEHP, DIBP content

Test method: Organic solvent extraction, analyzed by GCMS (Ref. to IEC 62321-8: 2017)

Testing Period: 2018-06-05 ~ 2018-06-14, 2018-08-09 ~ 2018-08-13

#### Test result:

	<b>BBP</b>	<b>DBP</b>	<b>DEHP</b>	<b>DIBP</b>
<b>Maximum permissible Limit (mg/kg)</b>	1000	1000	1000	1000

Test No.	Material No.	(mg/kg)			
		BBP	DBP	DEHP	DIBP
		RL (mg/kg)			
		50	50	50	50
T001	1-1+11-1	n.d.	n.d.	n.d.	n.d.
T002	2+3	n.d.	n.d.	n.d.	n.d.
T003	7+8	n.d.	n.d.	n.d.	n.d.
T004	10+17-1+17-2	n.d.	n.d.	n.d.	n.d.
T005	12+51+90	n.d.	n.d.	n.d.	n.d.
T006	13	n.d.	n.d.	n.d.	n.d.
T007	16	n.d.	n.d.	n.d.	n.d.
T008	19+102+135	n.d.	n.d.	n.d.	n.d.
T009	20#+21#	n.d.	n.d.	n.d.	n.d.
T010	22-1+72+81-1	n.d.	n.d.	n.d.	n.d.
T011	43-1+44-1+50-1	n.d.	n.d.	n.d.	n.d.
T012	45-2+47-1+49-1	n.d.	n.d.	n.d.	n.d.
T013	45-7+59-6	n.d.	n.d.	n.d.	n.d.
T014	46-1+46-2+59-1	n.d.	n.d.	n.d.	n.d.
T015	52-1+60-1	n.d.	n.d.	n.d.	n.d.
T016	52-4+60-4	n.d.	n.d.	n.d.	n.d.
T017	53+55-2+58-1	n.d.	n.d.	n.d.	n.d.
T018	68+76+82	n.d.	n.d.	n.d.	n.d.
T019	71-2+75	n.d.	n.d.	n.d.	n.d.
T020	84-1+87-1+87-2	n.d.	n.d.	n.d.	n.d.
T021	88-1+93	n.d.	n.d.	n.d.	n.d.
T022	94-1+104+112-1	n.d.	n.d.	n.d.	n.d.
T023	96-1#	n.d.	n.d.	n.d.	n.d.
T024	97+98+101	n.d.	n.d.	n.d.	n.d.
T025	99	n.d.	n.d.	123	n.d.
T026	103	n.d.	167	n.d.	n.d.
T027	105+129	n.d.	n.d.	n.d.	n.d.
T028	106+107+108	n.d.	n.d.	n.d.	n.d.
T029	109+110+111	n.d.	n.d.	n.d.	n.d.

Test No.	Material No.	(mg/kg)			
		BBP	DBP	DEHP	DIBP
		RL (mg/kg)			
		50	50	50	50
T030	113	n.d.	424	n.d.	n.d.
T031	114	n.d.	672	n.d.	n.d.
T032	115	n.d.	865	n.d.	n.d.
T033	116	n.d.	426	n.d.	n.d.
T034	117	n.d.	532	n.d.	n.d.
T035	118-1+127-2+134	n.d.	n.d.	n.d.	n.d.
T036	120+128	n.d.	n.d.	n.d.	n.d.
T037	121	n.d.	n.d.	n.d.	n.d.
T038	122+136	n.d.	n.d.	n.d.	n.d.
T039	124+125+126	n.d.	n.d.	n.d.	n.d.
T040	130+131+142	n.d.	n.d.	n.d.	n.d.
T041	132+133+138	n.d.	n.d.	n.d.	n.d.
T042	139+140+141	n.d.	n.d.	n.d.	n.d.
T043	145+147	n.d.	n.d.	n.d.	n.d.

**Abbreviation:** BBP= Benzylbutyl phthalate  
 DBP= Dibutyl phthalate  
 DEHP= Bis(2-ethylhexyl) phthalate  
 DIBP= Diisobutyl phthalate  
 n.d.= Not Detected (< Reporting Limit)  
 RL = Reporting Limit  
 N.A. = Not Applicable  
 mg/kg= milligram per kilogram

**Remark:**

Hangzhou Hikvision Digital Technology Co., Ltd.declared that:  
 The following models and test model DS-MP3504-SD are the same serials, all components were made by the same raw material but different in shapes and sizes. Hangzhou Hikvision Digital Technology Co., Ltd. will be responsible for this statement.

DS-MP5604-SD,DS-MP5YYY-SD, DS-MP5YYY-WW/AAA/BBB

Test Report No.:

**1160044578r 001**

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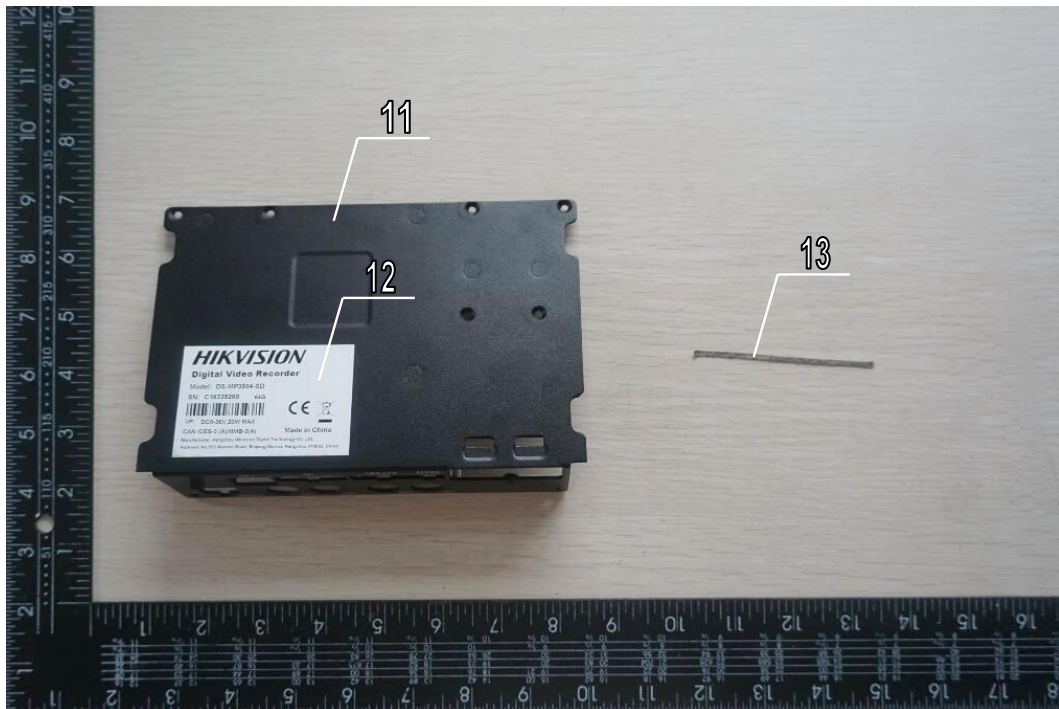
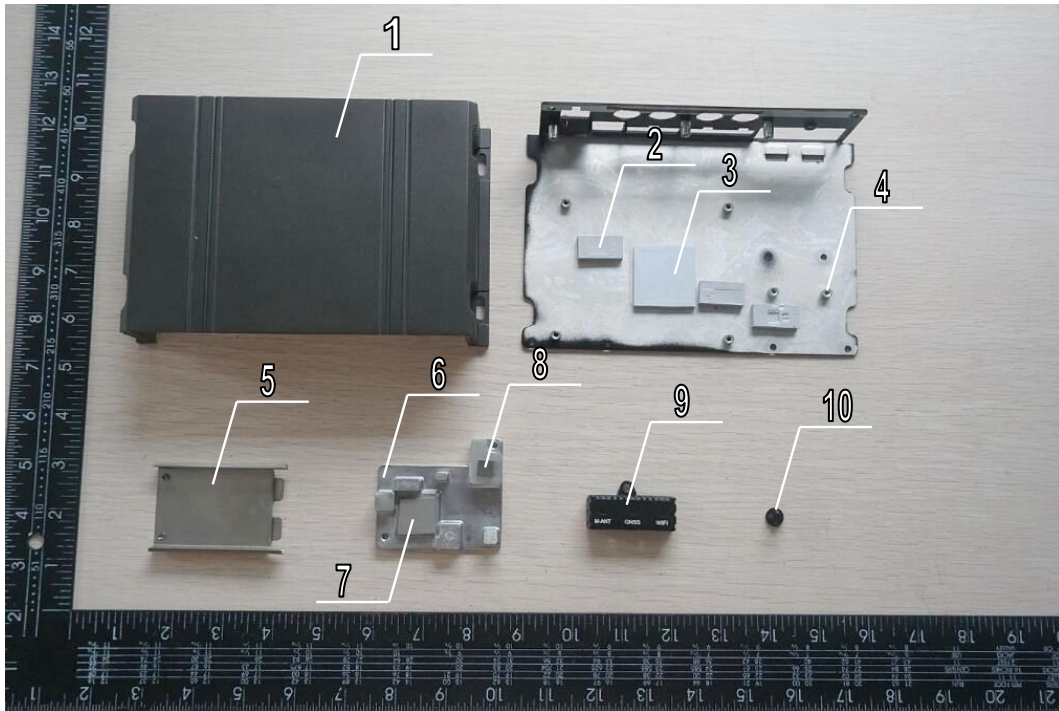
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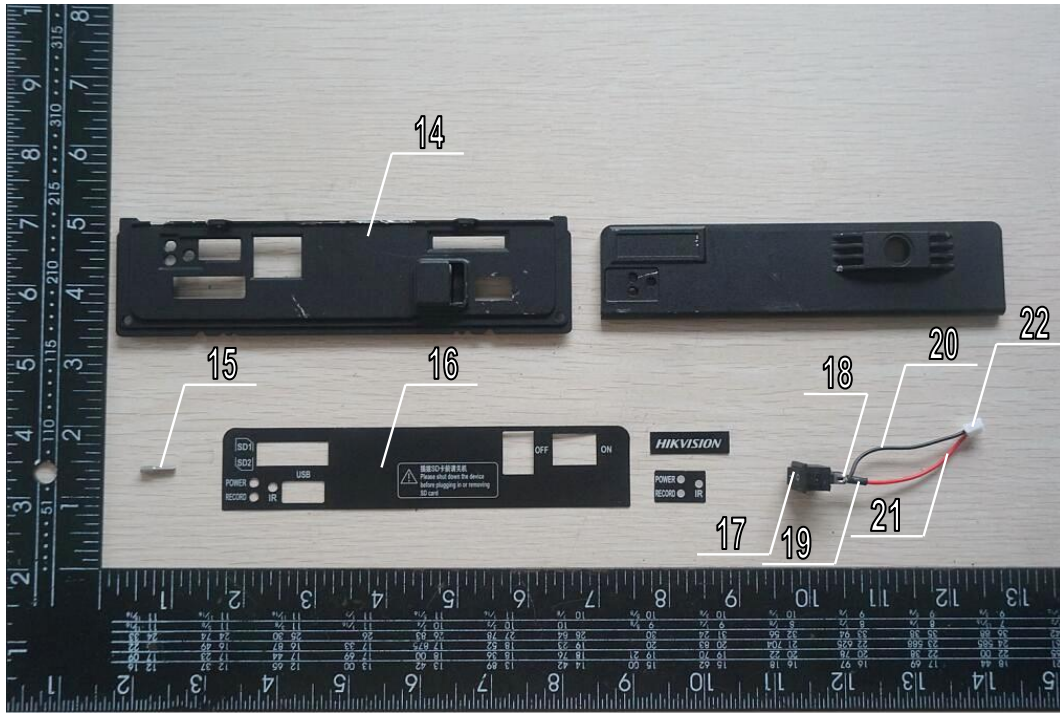


**Test item: Mobile Digital Video Recorder**

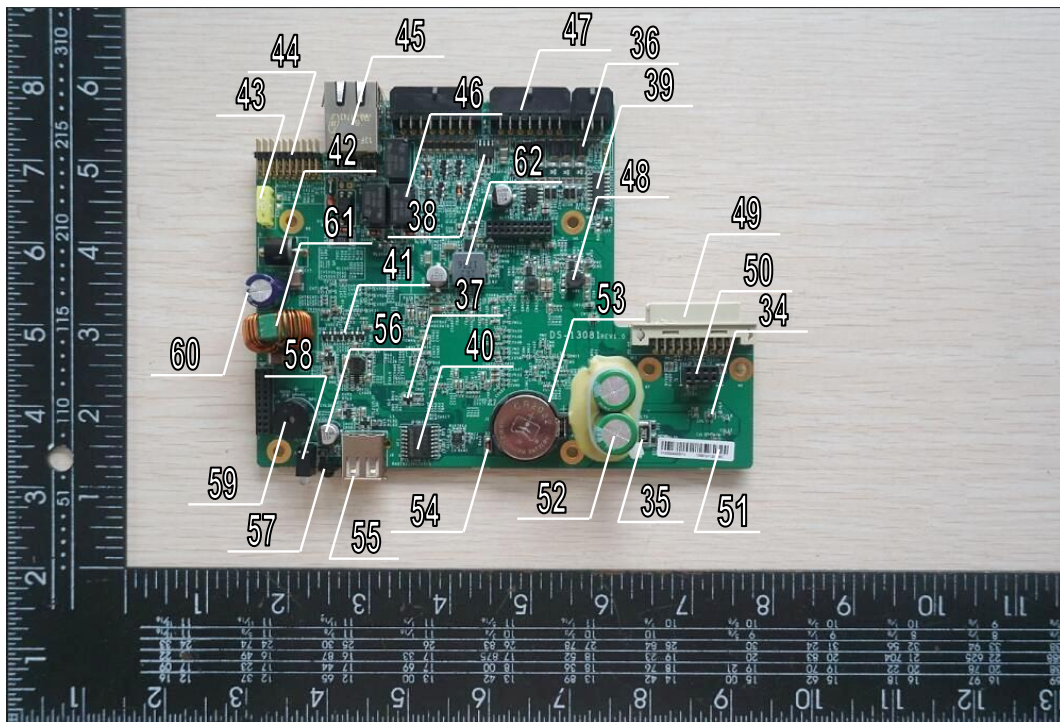
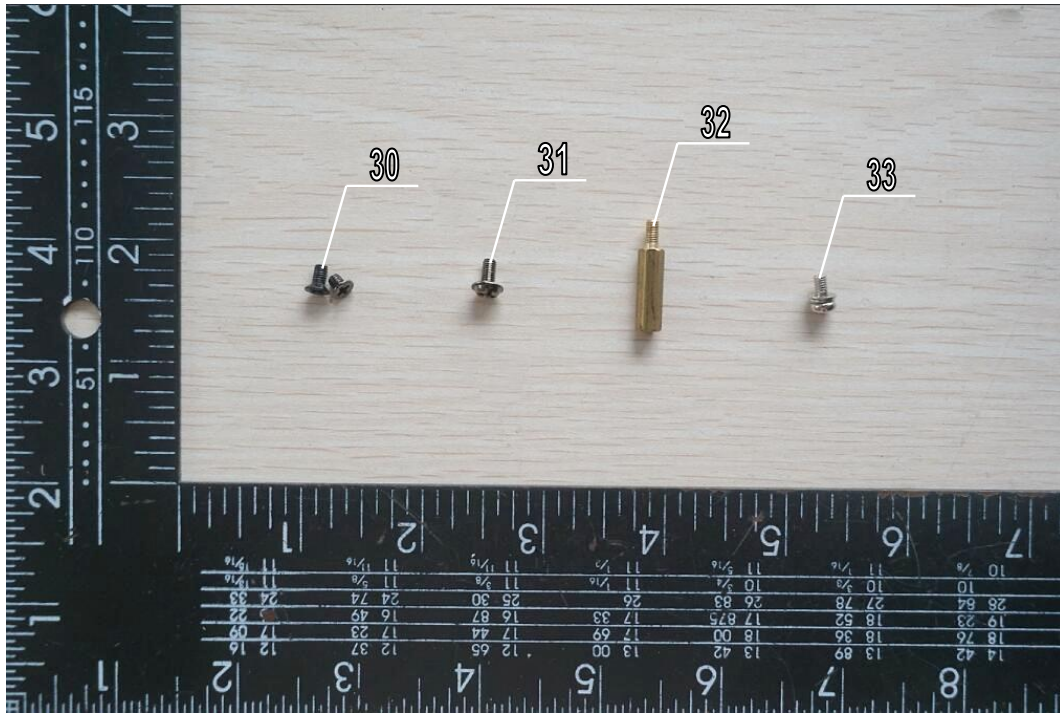
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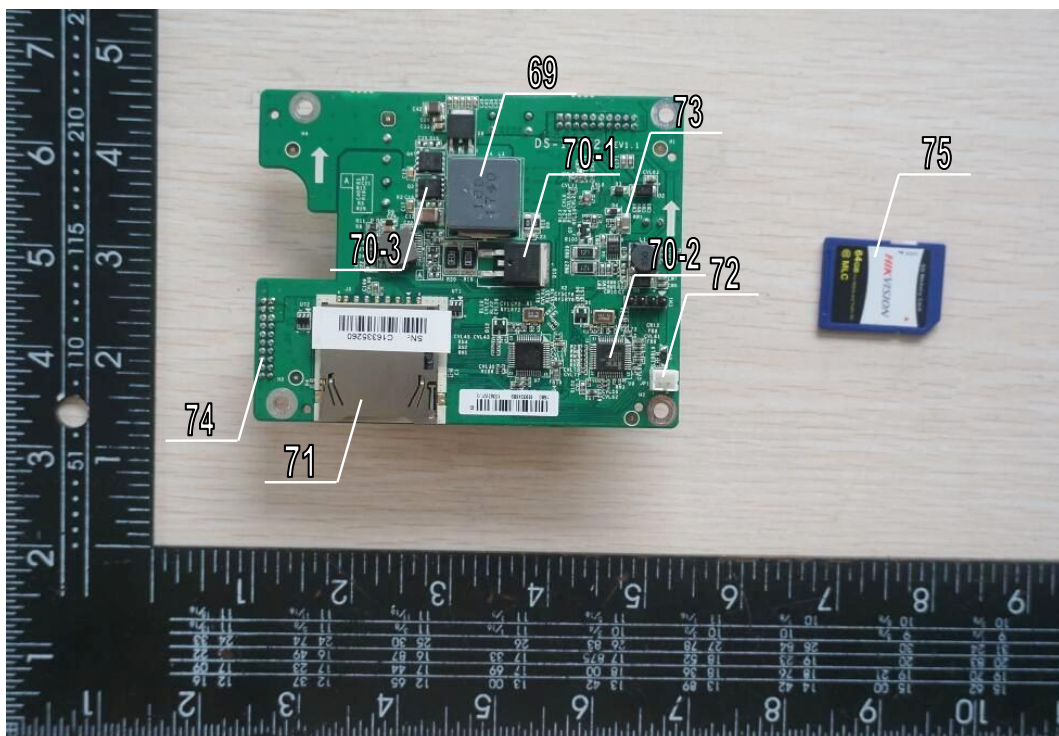
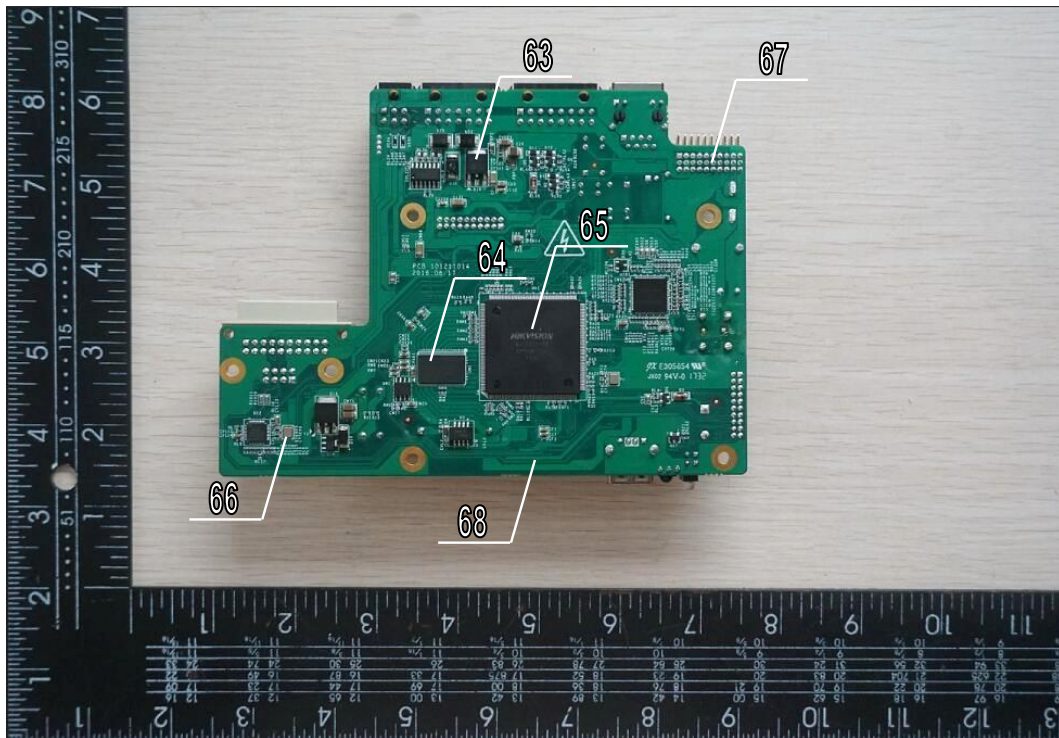




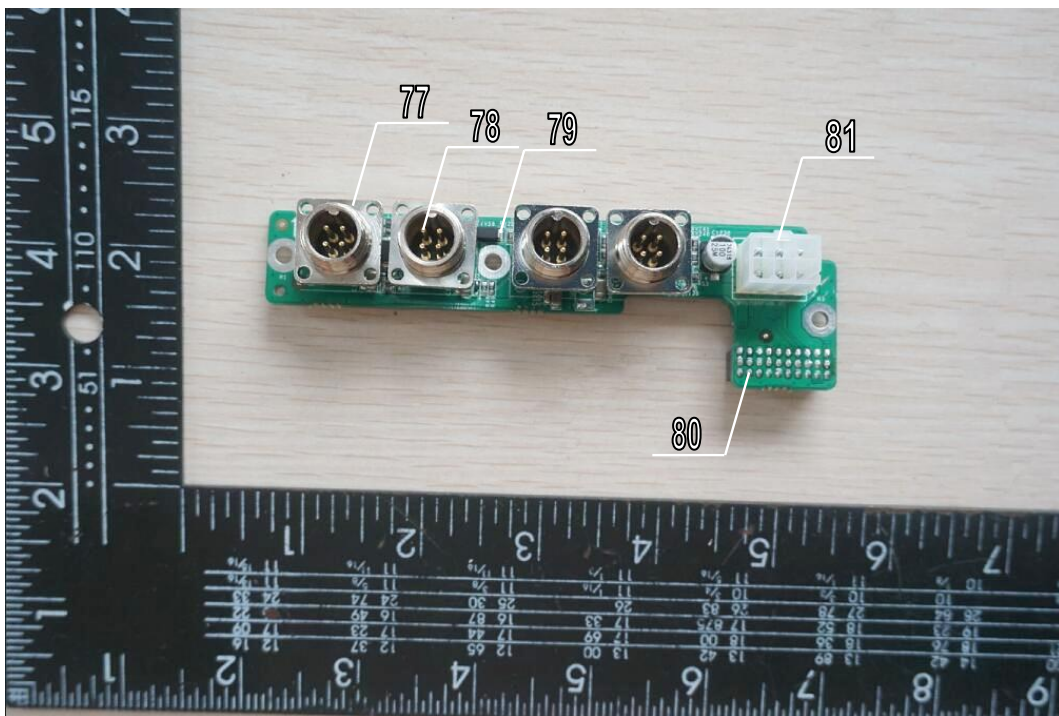
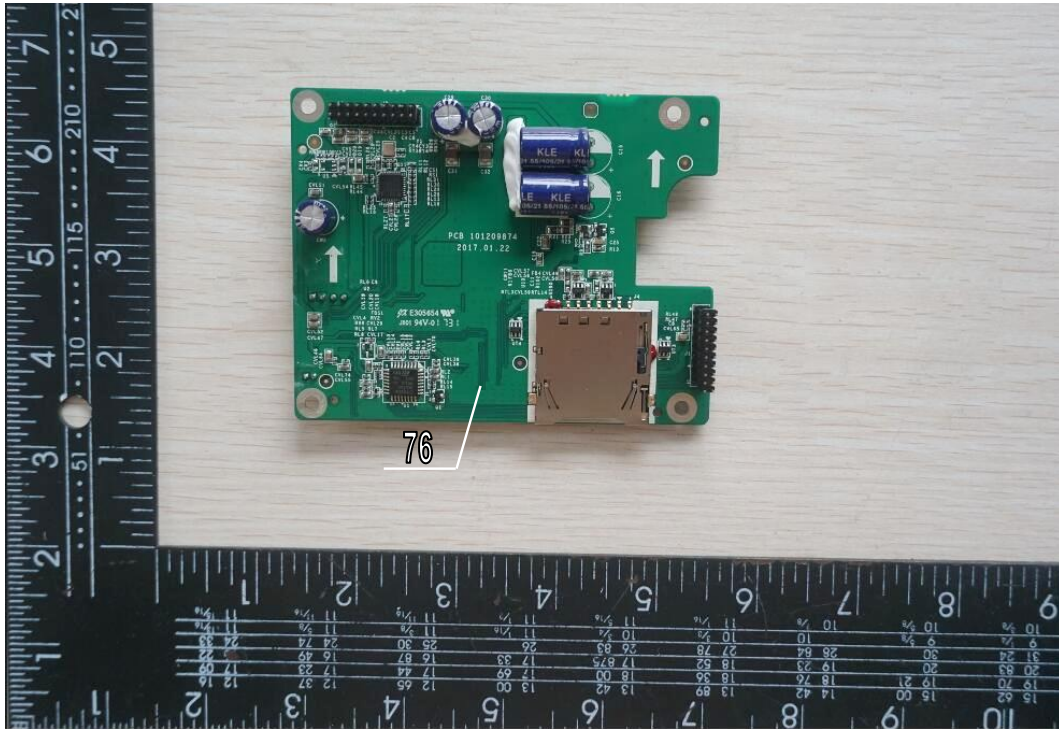


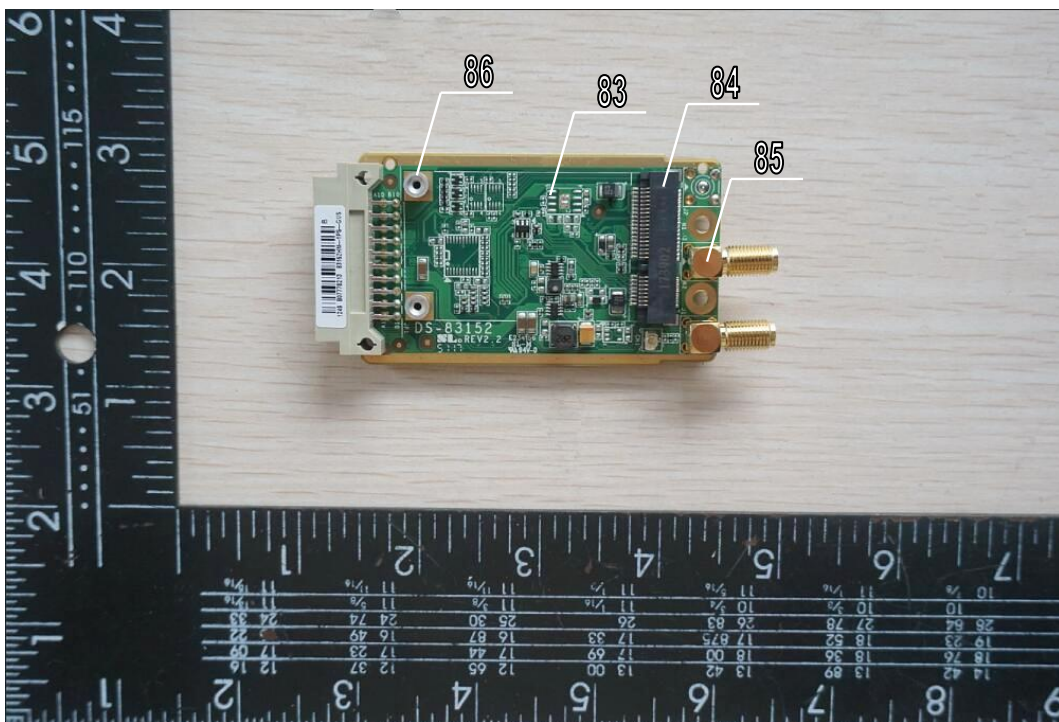
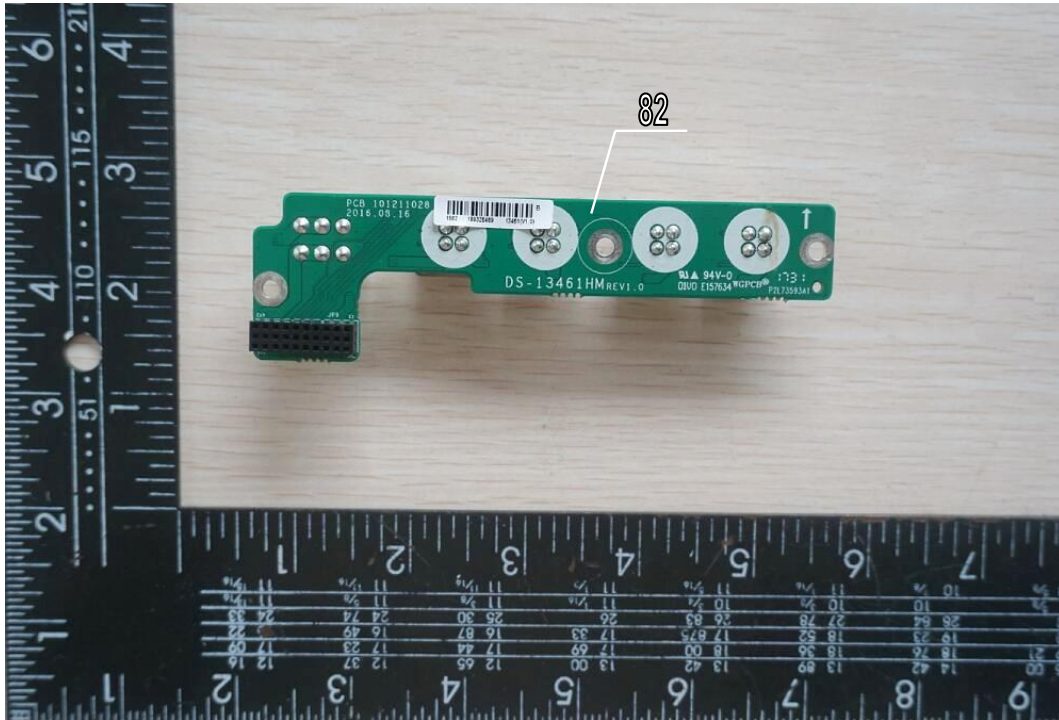




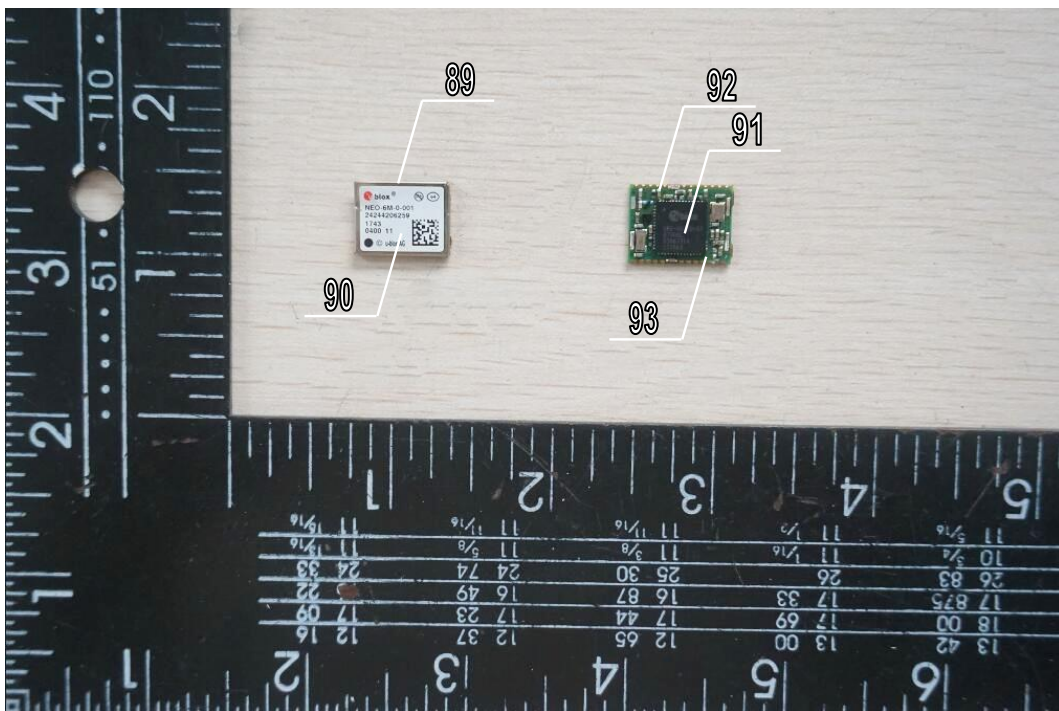
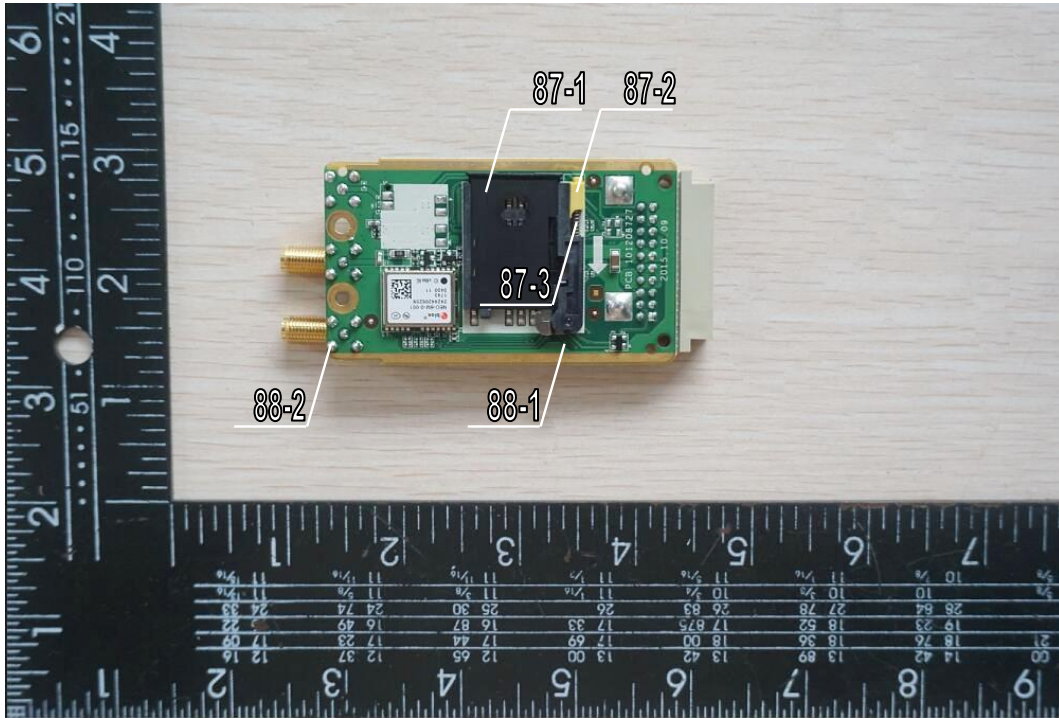


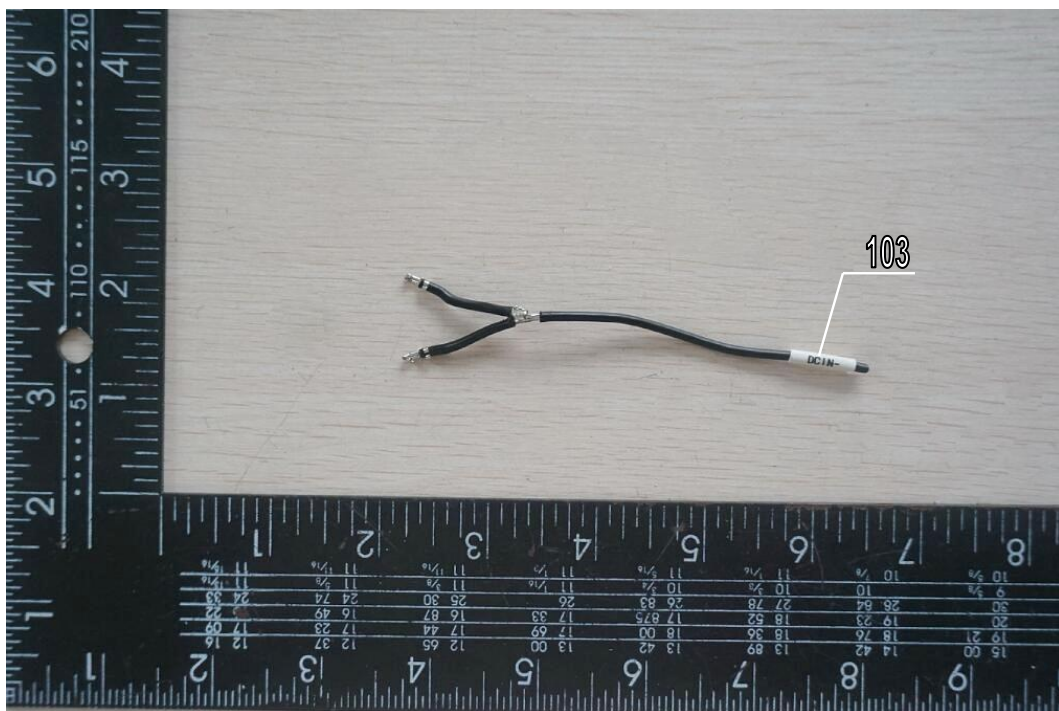
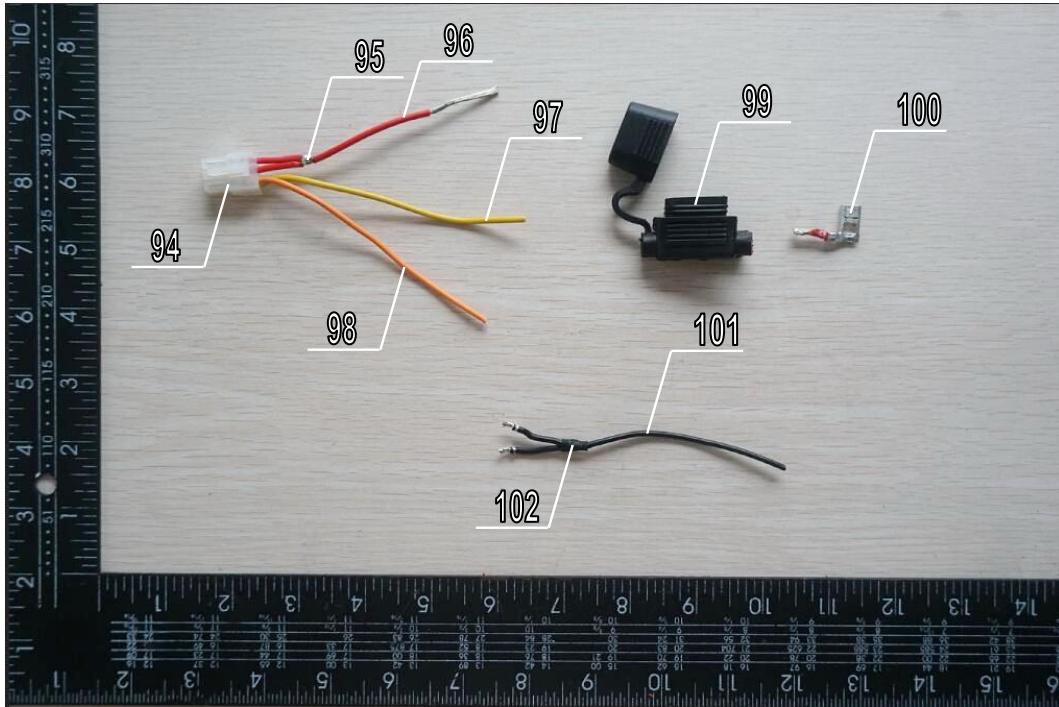




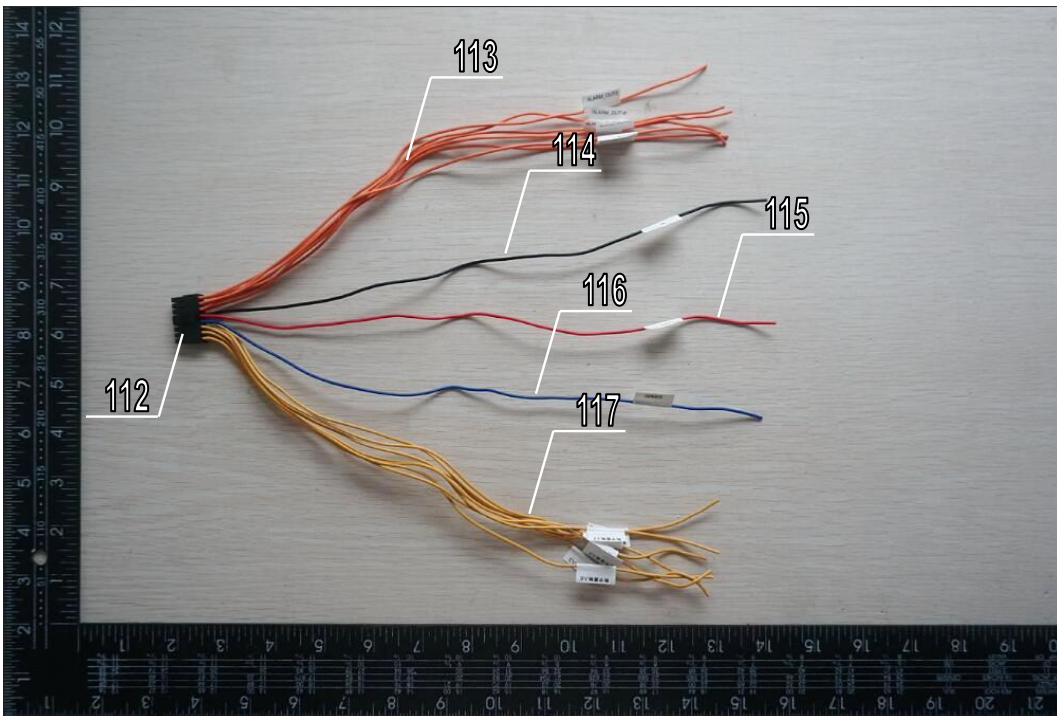
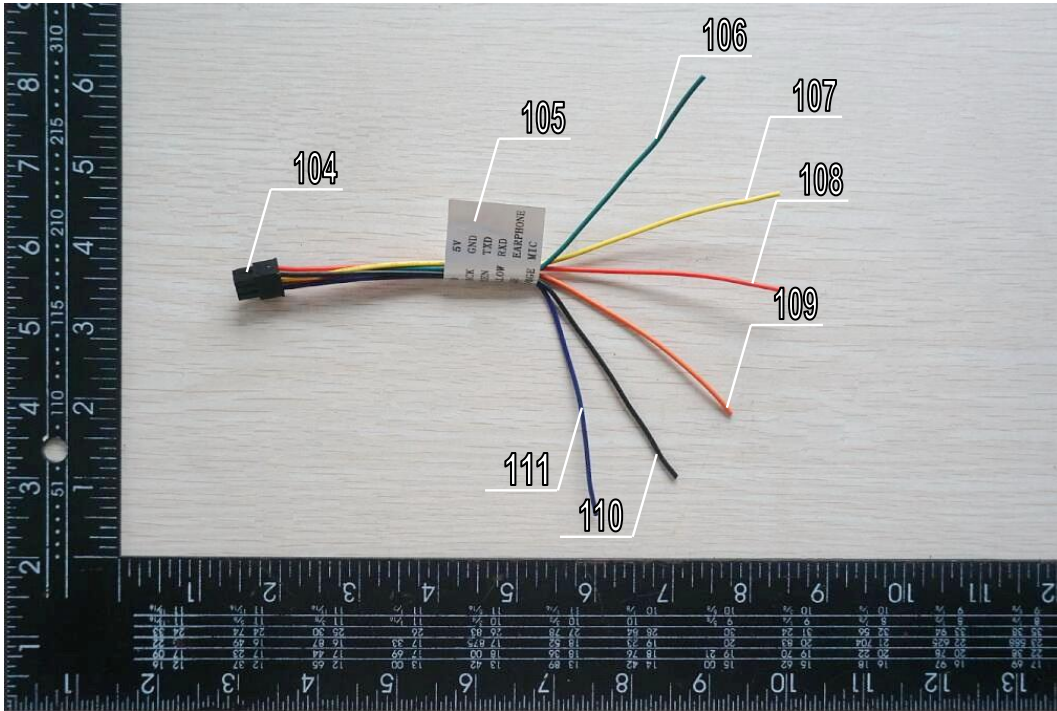


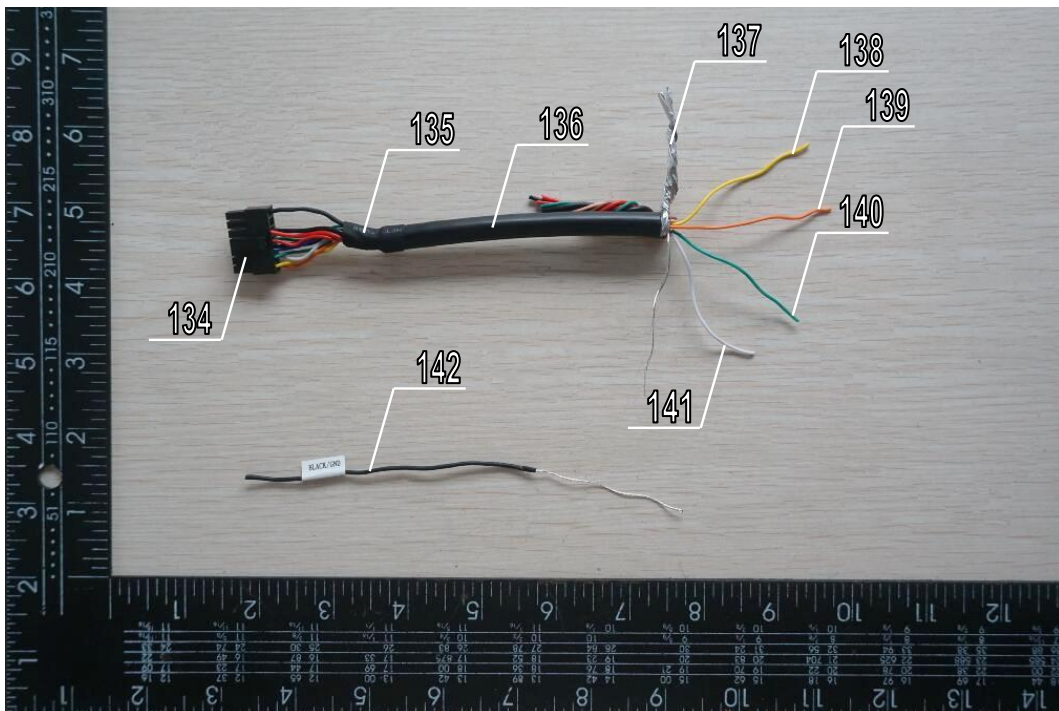
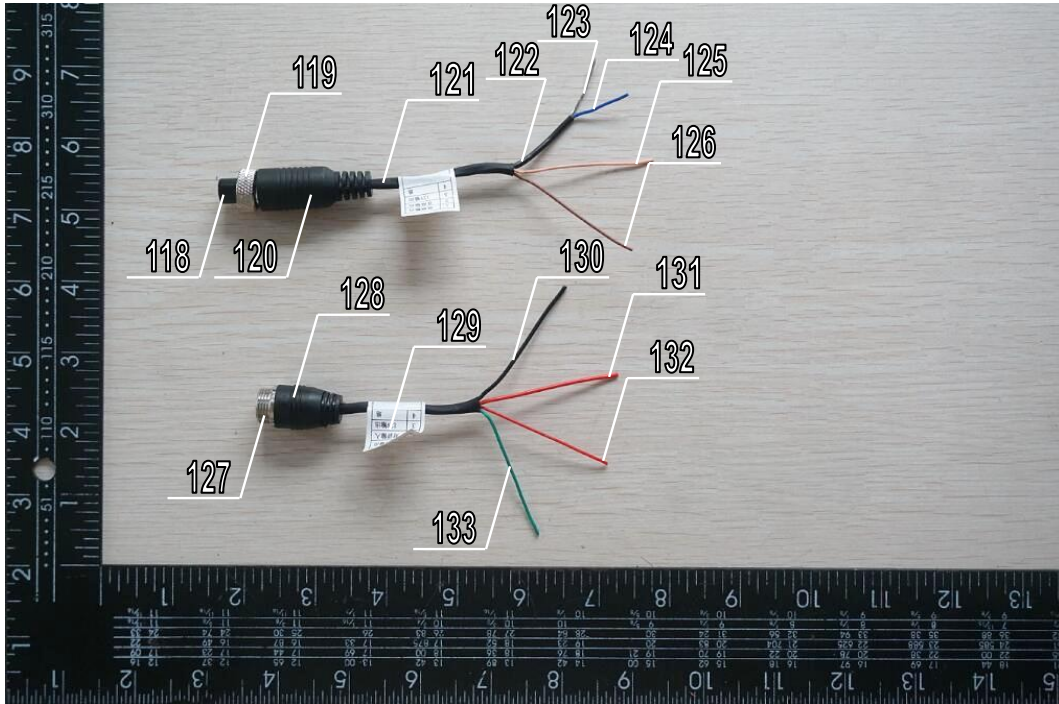




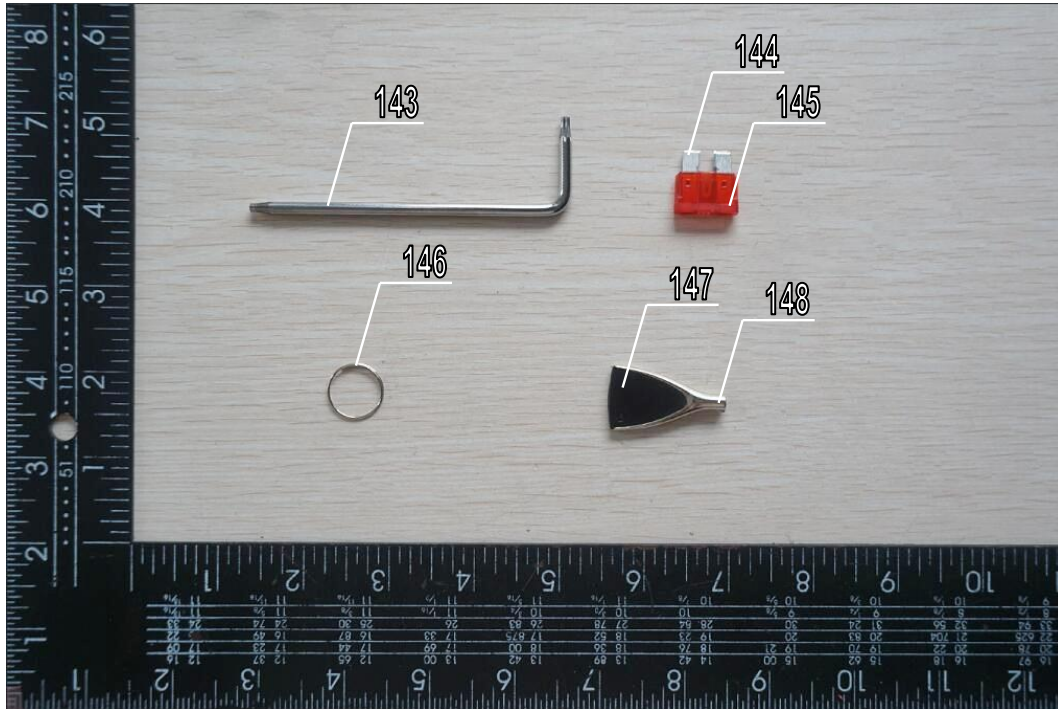




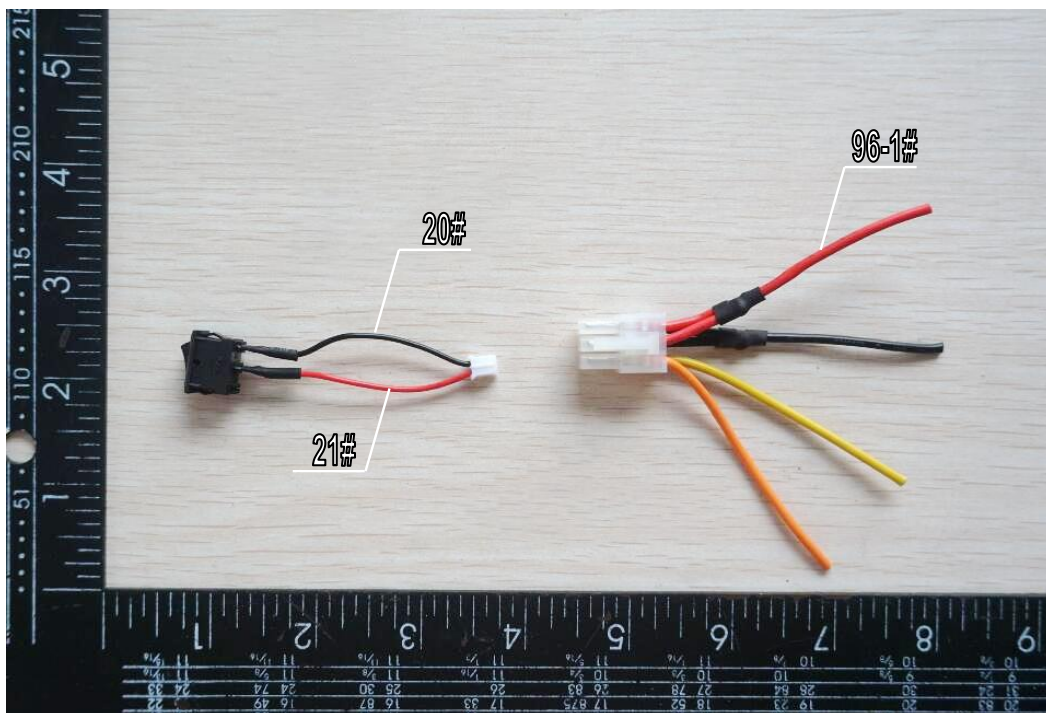








The following sample(s) were resubmitted on 2018-08-09



**\*\*\*\*End of Report\*\*\*\***