

TEST REPORT

Applicant: Haverford Systems, Inc.
Address: 152 Robbins Road, Downingtown, PA 19335, USA

The following sample(s) was/were submitted and identified on behalf of the client as:

Product name: HD Video Camera
Trade: PTZ Optics
Model: PT-STUDIO PRO
Manufacturer: Haverford Systems, Inc.
Address: 152 Robbins Road, Downingtown, PA 19335, USA

Sample Received Date: May. 10, 2023
Testing Period: May. 10, 2023 ~ May. 23, 2023

Test Requirement:

As specified by client, to screen the 233 substances of very high concern (SVHC) under Regulation (EC) No 1907/2006 of REACH in the submitted sample(s).

Summary:

According to the specified scope and evaluation screening, the concentrations of 1,3-propanesultone and Lead are $>0.1\%$ (w/w) in certain component(s), the concentrations of each other SVHCs is $\leq 0.1\%$ (w/w) in the component(s) of submitted sample(s).

Test Method: Please refer to the following page(s);

Test Result(s): Please refer to the following page(s);

Compiled by: _____

Reviewed by: _____

Approved by: _____

Date: _____

2023-06-20

Part Description:

No.	Description	No.	Description
1	Silvery coating of shell	2	Metal base material of shell
3	Silvery label with lettering of shell	4	Black coating of metal cap
5	Metal base material of metal cap	6	Silvery grey metal partition
7	Silvery metal block	8	Black rubber ring with glue
9	Black rubber cover	10	Black rubber pad with glue
11	Black tape	12	Black metal screw 1
13	Black metal screw 2	14	Black metal screw 3
15	Black metal screw 4	16	Silvery metal screw
17	Silvery grey metal handle	18	Black metal shell
19	Black rubber sleeve	20	Black metal clasp
21	Black metal sheet	22	Dark purple plastic sheet
23	Grey foam with glue of plastic sheet	24	Dark blue plastic sheet with glue of plastic sheet
25	Silvery metal screw 1	26	Silvery metal screw 2
27	Silvery metal screw 3	28	Green PCBA (mixed test)
29	Beige plastic of X1 interface	30	Metal plug pin of X1 interface
31	Silvery metal sheet of HL1 receiver	32	Black plastic sheet of HL1 receiver
33	Yellow/green PCBA (mixed test) of HL1 receiver	34	Green PCBA (mixed test)
35	Translucent rubber pad	36	Beige plastic of J1 interface
37	Metal plug pin of J1 interface	38	Silvery metal sheet of HL4 receiver
39	Black plastic sheet of HL4 receiver	40	Yellow/green PCBA (mixed test) of HL4 receiver
41	Black plastic sheet with glue	42	Silvery grey metal plate of partition
43	Silvery metal stud of partition	44	Black metal frame
45	White plastic jacket with lettering of line row	46	Metal wire of line row
47	Blue plastic sheet of line row	48	Golden metal stud
49	Silvery metal screw	50	Black metal screw
51	White plastic terminal	52	Metal plug pin
53	Red wire jacket	54	Metal core of wire
55	Green PCBA (mixed test)	56	White QR code tag
57	Silvery metal shell of IS toggle the switch	58	Black plastic button of IS toggle the switch
59	Brown plastic sheet of IS toggle the switch	60	Metal pin of IS toggle the switch
61	Red transparent body of HL1 light emitting diode	62	Beige plastic of CON4 interface

No.	Description	No.	Description
63	Metal plug pin of CON4 interface	64	Tin solder
65	Green PCBA(mixed test)	66	White QR code label
67	Beige plastic of J1 interface	68	Metal plug pin of J1 interface
69	Black plastic of X2 interface	70	Beige plastic of X2 interface
71	Silvery metal clasp of X2 interface	72	Metal plug pin of X2 interface
73	Black plastic jacket of C29 electrolytic capacitor	74	Aluminum shell of C29 electrolytic capacitor
75	Cathode foil of C29 electrolytic capacitor	76	Anode foil of C29 electrolytic capacitor
77	Electrolytic paper of C29 electrolytic capacitor	78	Rubber blanket of C29 electrolytic capacitor
79	Electrode pin of C29 electrolytic capacitor	80	Light yellow tape of U5 relay
81	Yellow tape of U5 relay	82	Grey magnet core of U5 relay
83	Black plastic sketch of U5 relay	84	Cupreous metal ring of U5 relay
85	Tin solder of U5 relay	86	Aluminum shell of C18 electrolytic capacitor
87	Cathode foil of C18 electrolytic capacitor	88	Anode foil of C18 electrolytic capacitor
89	Electrolytic paper of C18 electrolytic capacitor	90	Rubber blanket of C18 electrolytic capacitor
91	Electrode pin of C18 electrolytic capacitor	92	Black plastic pedestal of C18 electrolytic capacitor
93	Silvery metal shell of X1 network cable interface	94	Black plastic sketch of X1 network cable interface
95	Black plastic of X1 network cable interface	96	Yellow LED of X1 network cable interface
97	Green LED of X1 network cable interface	98	Metal pin of X1 network cable interface
99	Black plastic of U2 interface	100	Silvery metal contact pin of U2 interface
101	Black plastic of U1 interface	102	Silvery metal contact pin of U1 interface
103	Silvery metal plug pin of U1 interface	104	Yellow PCB of U1 interface
105	Metal pin of U1 interface	106	Magnet core of L18 inductance
107	Coil of L18 inductance	108	Black plastic shell
109	White bar code label of black plastic shell	110	Black plastic cover
111	Black plastic bracket	112	Black plastic sheet (thick)
113	Black plastic sheet (thin)	114	Black rubber sleeve
115	Transparent glass 1 with black edge	116	Transparent glass 2 with black edge

No.	Description	No.	Description
117	Transparent glass 3 with black edge	118	Transparent plastic sheet (large)
119	Transparent plastic sheet (small)	120	Black plastic sheet with glue
121	Black plastic film	122	Black metal ring
123	Silvery grey metal clasp	124	Silvery metal rod
125	White plastic	126	Yellow FPC
127	Yellow plastic sheet of yellow FPC	128	Black electronic component of yellow FPC
129	Tin solder of yellow FPC	130	Silvery metal spring 1
131	Silvery metal spring 2	132	Black metal screw 1
133	Black metal screw 2	134	Silvery metal screw
135	Silvery metal shell	136	Silvery metal clasp
137	Silvery sheet metal (thick)	138	Silvery metal sheet (thin)
139	Grey magnet core	140	Black plastic block
141	Black plastic shell	142	Cupreous metal coil
143	Silvery/grey metal screw	144	Black metal sheet
145	Black plastic sheet	146	Silvery metal spring
147	Black plastic shell	148	Silvery metal shell
149	Cupreous metal coil	150	Black plastic
151	White tape	152	Silvery/grey magnet
153	Golden metal plug pin of silvery/grey magnet	154	Black PCBA(mixed test)
155	Blue colloid	156	U2 Black plastic of U2 interface
157	Beige plastic of U2 interface	158	Silvery metal clasp of U2 interface
159	Metal plug pin of U2 interface	160	White QR code label
161	Aluminum shell of C71 electrolytic capacitor	162	Cathode foil of C71 electrolytic capacitor
163	Anode foil of C71 electrolytic capacitor	164	Electrolytic paper of C71 electrolytic capacitor
165	Rubber blanket of C71 electrolytic capacitor	166	Metal pin of C71 electrolytic capacitor
167	Black plastic pedestal of C71 electrolytic capacitor	168	Green PCBA (mixed test)
169	Transparent double-sided adhesive	170	Beige plastic interface of X1 interface
171	Metal plug pin of X1 interface	172	Green PCBA (mixed test)
173	Silvery metal shield	174	Silvery metal bushing of silvery metal shield
175	Yellow FPC	176	Black plastic sheet of yellow FPC
177	Cupreous metal sheet	178	Black metal screw
179	White plastic terminal	180	Metal plug pin

No.	Description	No.	Description
181	Black wire jacket	182	Metal core of wire
183	Pink colloid	184	Beige plastic of X5 interface
185	Metal plug pin of X5 interface	186	Black plastic of U10 interface
187	Beige plastic of U10 interface	188	Silvery metal clasp of U10 interface
189	Metal plug pin of U10 interface	190	Magnetic core of L3 inductance
191	Coil of L3 inductance	192	Black plastic shell of T1 filter
193	Magnet core of T1 filter	194	Green varnished wire of T1filter
195	Red varnished wire of T1 filter	196	Cupreous varnished wire of T1 filter
197	Magnetic core of L44 inductance	198	Coil of L44 inductance
199	White QR code label	200	Silvery metal shell of J4 interface
201	Black plastic of J4 interface	202	Metal plug pin of J4 interface
203	Silvery metal shell of X9 interface	204	White plastic of X9 interface
205	X9 Metal plug pin of X9 interface	206	Silvery metal shell of U3 interface
207	Black plastic of U3 interface	208	U3 Metal plug pin of U3 interface
209	X2 Black plastic of X2 interface	210	Beige plastic of X2 interface
211	X2 Metal plug pin of X2 interface	212	Tin solder
213	Black plastic shell	214	White translucent plastic guide light body
215	White translucent plastic cover	216	Black plastic holder
217	Black plastic ring	218	Black rubber ring
219	Transparent tape	220	Black plastic bolt
221	Golden metal nut	222	Black metal screw
223	Silvery metal screw	224	White PCBA (mixed test)
225	Tin solder	226	White plastic terminal
227	Metal plug pin	228	Red wire jacket
229	Black wire jacket	230	White wire jacket
231	Metal core of wire	232	Green PCBA (mixed test)
233	Silvery metal sheet of SW1 contact switch	234	Black plastic button of SW1 contact switch
235	Black plastic sketch of SW1 contact switch	236	Silvery metal shrapnel of SW1 contact switch
237	Silvery metal shell of CON1 interface	238	Black plastic of CON1 interface
239	Metal plug pin of CON1 interface	240	Beige plastic of beige plastic interface
241	Metal plug pin of beige plastic interface	242	Black plastic sheet of rotary switch
243	Silvery metal sheet of rotary switch	244	Silvery grey metal contact sheet of rotary switch
245	Black/green PCBA (mixed test) of rotary switch	246	Yellow tape
247	White foam glue	248	White plastic of terminal

No.	Description	No.	Description
249	Metal plug pin of terminal	250	Red plastic jacket
251	Black plastic jacket	252	Metal core of wire
253	Green PCBA(mixed test)	254	Silvery metal sheet
255	Tin solder	256	Cell (mixed test)

Group Description:

Group	No.
T1	3+56+66+80+81+109+151+160+169+199+219+246
T2	8+10
T3	9+19+35+78+90+114+165+218
T4	22+29+32+36+39+41+47+51+58+59+61+62+67+69+70+73+83+92+94+95+96+97+99+101+108+110+111+112+113
T5	115+116+117+118+119+120+121+125+126+127+128+140+141+147+145+150+156+157+167+170+175+176+179+184+186+187+192+194+195+196
T6	201+204+207+209+210+213+214+215+216+217+220+226+234+235+238+240+242+248
T7	11
T8	23+247
T9	155+183
T10	24+45
T11	53+181+228+229+230+250+251
T12	77+89+164
T13	2+5+6+7+12+13+14+15+16+17+18+20+21+25+26+27+30+31+37+38+42+43+44+46+48+49+50+52+54
T14	57+60+63+64+68+71+72+74+75+76+79+82+84+85+86+87+88+91+93+98+100+102+103+105+106+107+123+124+129
T15	130+131+132+133+134+135+136+137+138+139+142+143+146+144+148+149+152+158+159+161+162+163+166+171+173+174+177+178+180
T16	182+185+188+189+190+191+193+197+198+200+202+203+205+206+208+211+212+222
T17	223+225+227+231+233+236+237+239+241+243+244+249+252+254+255
T18	1+4
T19	28+33+34+40+55+65+104+154+168+172+224+232+245+253
T20	256
T21	122
T22	153
T23	221

Test Result(s):

Batch	No.	Test item(s)	CAS No.	Result(s),%			RL (%)
				T1	T2	T3	
/	/	All tested SVHC in candidate list	/	N.D.	N.D.	N.D.	/

Batch	No.	Test item(s)	CAS No.	Result(s),%			RL (%)
				T4	T5	T6	
/	/	All tested SVHC in candidate list	/	N.D.	N.D.	N.D.	/

Batch	No.	Test item(s)	CAS No.	Result(s),%			RL (%)
				T7	T8	T9	
/	/	All tested SVHC in candidate list	/	N.D.	N.D.	N.D.	/

Batch	No.	Test item(s)	CAS No.	Result(s),%			RL (%)
				T10	T11	T12	
/	/	All tested SVHC in candidate list	/	N.D.	N.D.	N.D.	/

Batch	No.	Test item(s)	CAS No.	Result(s),%			RL (%)
				T13	T14	T15	
/	/	All tested SVHC in candidate list	/	N.D.	N.D.	N.D.	/

Batch	No.	Test item(s)	CAS No.	Result(s),%			RL (%)
				T16	T17	T18	
/	/	All tested SVHC in candidate list	/	N.D.	N.D.	N.D.	/

Batch	No.	Test item(s)	CAS No.	Result(s),%	RL (%)
				T19	
/	/	All tested SVHC in candidate list	/	N.D.	/

Batch	No.	Test item(s)	CAS No.	Result(s),%	RL (%)
				T20	
XIV	164	1,3-propanesultone	1120-71-4	0.250	0.050
/	/	Other tested SVHC in candidate list	/	N.D.	/

Batch	No.	Test item(s)	CAS No.	Result(s),%			RL (%)
				T21	T22	T23	
XIX	189	Lead	7439-92-1	3.245	1.123	2.496	0.010
/	/	Other tested SVHC in candidate list	/	N.D.	N.D.	N.D.	/

All tested SVHC in candidate list:

Batch	No.	Substance Name(s)	CAS No.	EC No.	RL (%)
I	1	Anthracene	120-12-7	204-371-1	0.050
I	2	4,4'- Diaminodiphenylmethane	101-77-9	202-974-4	0.050
I	3	Dibutyl phthalate(DBP)	84-74-2	201-557-4	0.050
I	4	Cobalt dichloride*	7646-79-9	231-589-4	0.010
I	5	Diarsenic pentaoxide*	1303-28-2	215-116-9	0.010
I	6	Diarsenic trioxide*	1327-53-3	215-481-4	0.010
I	7	Sodium dichromate*	7789-12-0/ 10588-01-9	234-190-3	0.010
I	8	Musk xylene	81-15-2	201-329-4	0.050
I	9	Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	204-211-0	0.050
I	10	Hexabromocyclododecane (HBCDD)	25637-99-4/ 3194-55-6	247-148-4/ 221-695-9	0.050
I	11	ShortChain ChlorinatedParaffins(SCCPs)	85535-84-8	287-476-5	0.050
I	12	Bis(tributyltin)oxide (TBTO)*	56-35-9	200-268-0	0.050
I	13	Lead hydrogen arsenate*	7784-40-9	232-064-2	0.010
I	14	Benzyl butyl phthalate(BBP)	85-68-7	201-622-7	0.050
I	15	Triethyl arsenate*	15606-95-8	427-700-2	0.010
II	16	^① Anthracene oil	90640-80-5	292-602-7	0.050
II	17	^① Anthracene oil, anthracene paste, distn. Lights	91995-17-4	295-278-5	0.050
II	18	^① Anthracene oil, anthracene paste, anthracene fraction	91995-15-2	295-275-9	0.050
II	19	^① Anthracene oil, anthracene-low	90640-82-7	292-604-8	0.050
II	20	^① Anthracene oil, anthracene paste	90640-81-6	292-603-2	0.050
II	21	^① Coal tar pitch, high temperature	65996-93-2	266-028-2	0.050
II	22	Acrylamide	79-06-1	201-173-7	0.050
II	23	2,4-Dinitrotoluene	121-14-2	204-450-0	0.050
II	24	Diisobutyl phthalate (DIBP)	84-69-5	201-553-2	0.050
II	25	^② Lead chromate	7758-97-6	231-846-0	0.010
II	26	^② Lead chromate molybdate sulphateRed (C.I. Pigment Red 104)	12656-85-8	235-759-9	0.010
II	27	^② Lead sulfochromate yellow(C.I. Pigment Yellow 34)	1344-37-2	215-693-7	0.010
II	28	Tris(2-chloroethyl)phosphate (TCEP)	115-96-8	204-118-5	0.050
III	29	Trichloroethylene	79-01-6	201-167-4	0.050
III	30	^③ Boric acid*	10043-35-3/ 11113-50-1	233-139-2/ 234-343-4	0.010

Batch	No.	Substance Name(s)	CAS No.	EC No.	RL (%)
III	31	^③ Disodium tetraborate, anhydrous*	1330-43-4/ 12179-04-3/ 1303-96-4	215-540-4	0.010
III	32	^③ Tetraboron disodium heptaoxide, hydrate*	12267-73-1	235-541-3	0.010
III	33	Sodium chromate*	7775-11-3	231-889-5	0.010
III	34	Potassium chromate*	7789-00-6	232-140-5	0.010
III	35	Ammonium dichromate*	7789-09-5	232-143-1	0.010
III	36	Potassium dichromate*	7778-50-9	231-906-6	0.010
IV	37	Cobalt(II) sulphate*	10124-43-3	233-334-2	0.010
IV	38	Cobalt(II) dinitrate*	10141-05-6	233-402-1	0.010
IV	39	Cobalt(II) carbonate*	513-79-1	208-169-4	0.010
IV	40	Cobalt(II) diacetate*	71-48-7	200-755-8	0.010
IV	41	2-Methoxyethanol	109-86-4	203-713-7	0.050
IV	42	2-Ethoxyethanol	110-80-5	203-804-1	0.050
IV	43	Chromium trioxide*	1333-82-0	215-607-8	0.010
IV	44	Acids generated from chromium trioxide and their oligomers: Chromic acid, Dichromic acid, Oligomers of chromic acid and dichromic acid*	7738-94-5/ 13530-68-2	231-801-5/ 236-881-5	0.010
V	45	2-ethoxyethyl acetate	111-15-9	203-839-2	0.050
V	46	Strontium chromate*	7789-6-2	232-142-6	0.010
V	47	^① 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	68515-42-4	271-084-6	0.050
V	48	Hydrazine	7803-57-8/ 302-01-2	206-114-9	0.050
V	49	1-methyl-2-pyrrolidone	872-50-4	212-828-1	0.050
V	50	1,2,3-trichloropropane	96-18-4	202-486-1	0.050
V	51	^① 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	71888-89-6	276-158-1	0.050
VI	52	Dichromium tris(chromate)*	24613-89-6	246-356-2	0.010
VI	53	Potassium hydroxyoctaoxodizincatedichromate*	11103-86-9	234-329-8	0.010
VI	54	Pentazinc chromate octahydroxide*	49663-84-5	256-418-0	0.010
VI	55	^② Aluminosilicate Refractory Ceramic Fibres (RCF) **	/	/	0.010
VI	56	^② Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF) **	/	/	0.010

Batch	No.	Substance Name(s)	CAS No.	EC No.	RL (%)
VI	57	^① Formaldehyde, oligomeric reaction products with aniline (technical MDA)	25214-70-4	500-036-1	0.050
VI	58	Bis(2-methoxyethyl) phthalate	117-82-8	204-212-6	0.050
VI	59	2-Methoxyaniline (o-Anisidine)	90-04-0	201-963-1	0.050
VI	60	4-(1,1,3,3-tetramethylbutyl)phenol (4-tert-Octylphenol)	140-66-9	205-426-2	0.050
VI	61	1,2-Dichloroethane	107-06-2	203-458-1	0.050
VI	62	Bis(2-methoxyethyl) ether	111-96-6	203-924-4	0.050
VI	63	Arsenic acid*	7778-39-4	231-901-9	0.010
VI	64	Calcium arsenate*	7778-44-1	231-904-5	0.010
VI	65	Trilead diarsenate*	3687-31-8	222-979-5	0.010
VI	66	N,N-dimethylacetamide (DMAC)	127-19-5	204-826-4	0.050
VI	67	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	202-918-9	0.050
VI	68	Phenolphthalein	77-09-8	201-004-7	0.050
VI	69	Lead diazide*	13424-46-9	236-542-1	0.010
VI	70	Lead 2,4,6-trinitro-m-phenylene dioxide (Lead styphnate)*	15245-44-0	239-290-0	0.010
VI	71	Lead dipicrate*	6477-64-1	229-335-2	0.010
VII	72	1,2-bis(2-methoxyethoxy) ethane (TEGDME; triglyme)	112-49-2	203-977-3	0.050
VII	73	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	203-794-9	0.050
VII	74	^③ Diboron trioxide*	1303-86-2	215-125-8	0.010
VII	75	Formamide	75-12-7	200-842-0	0.050
VII	76	Lead(II) bis methanesulfonate*	17570-76-2	401-750-5	0.010
VII	77	TGIC(1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione)	2451-62-9	219-514-3	0.050
VII	78	β-TGIC (1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione)	59653-74-6	423-400-0	0.050
VII	79	4,4'-bis(dimethylamino) benzophenone (Michler's ketone)	90-94-8	202-027-5	0.050
VII	80	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1	202-959-2	0.050
VII	81	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride(C.I. Basic Violet 3)	548-62-9	208-953-6	0.050

Batch	No.	Substance Name(s)	CAS No.	EC No.	RL (%)
VII	82	[4-[[4-anilino-1-naphthyl] [4-(dimethylamino)phenyl]methylene]cycl ohexa-2,5- dien-1-ylidene] dimethylammonium chloride(C.I. Basic Blue 26)	2580-56-5	219-943-6	0.050
VII	83	α,α -Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C .I. Solvent Blue 4)	6786-83-0	229-851-8	0.050
VII	84	4,4'-bis(dimethylamino)-4''-(methylamino)t rityl alcohol	561-41-1	209-218-2	0.050
VIII	85	Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	1163-19-5	214-604-9	0.050
VIII	86	4-Nonylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]	/	/	0.050
VIII	87	Diazeno-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	204-650-8	0.050
VIII	88	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]	/	/	0.050
VIII	89	Henicosafuoroundecanoic acid	2058-94-8	218-165-4	0.050
VIII	90	Pentacosafuorotridecanoic acid	72629-94-8	276-745-2	0.050
VIII	91	Cyclohexane-1,2-dicarboxylic anhydride, cis-cyclohexane- 1,2- dicarboxylic anhydride, trans- cyclohexane-1,2-dicarboxylic anhydride	85-42-7/ 13149-00-3/ 14166-21-3	201-604-9/ 236-086-3/ 238-009-9	0.050
VIII	92	Hexahydromethylphthalic anhydride, Hexahydro-4-methylphthalic anhydride, Hexahydro-1-methylphthalic anhydride, Hexahydro-3-methylphthalic anhydride	25550-51-0/ 19438-60-9/ 48122-14-1/ 57110-29-9	247-094-1/ 243-072-0/ 256-356-4/ 260-566-1	0.050
VIII	93	Heptacosafuorotetradecanoic acid	376-06-7	206-803-4	0.050
VIII	94	Diisopentylphthalate(DIPP)	605-50-5	210-088-4	0.050

Batch	No.	Substance Name(s)	CAS No.	EC No.	RL (%)
VIII	95	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	284-032-2	0.050
VIII	96	N-pentyl-isopentylphthalate	776297-69-9	/	0.050
VIII	97	Methoxyacetic acid	625-45-6	210-894-6	0.050
VIII	98	Tricosafuorododecanoic acid	307-55-1	206-203-2	0.050
VIII	99	1,2-Diethoxyethane	629-14-1	211-076-1	0.050
VIII	100	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	421-150-7	0.050
VIII	101	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	95-80-7	202-453-1	0.050
VIII	102	N-methylacetamide	79-16-3	201-182-6	0.050
VIII	103	Pentalead tetraoxide sulphate*	12065-90-6	235-067-7	0.010
VIII	104	Biphenyl-4-ylamine	92-67-1	202-177-1	0.050
VIII	105	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7	201-861-7	0.050
VIII	106	Dioxobis(stearato)trilead*	12578-12-0	235-702-8	0.010
VIII	107	Lead dinitrate*	10099-74-8	233-245-9	0.010
VIII	108	Tetralead trioxide sulphate*	12202-17-4	235-380-9	0.010
VIII	109	Lead monoxide (lead oxide)*	1317-36-8	215-267-0	0.010
VIII	110	Lead titanium trioxide*	12060-00-3	235-038-9	0.010
VIII	111	4,4'-methylenedi-o-toluidine	838-88-0	212-658-8	0.050
VIII	112	Acetic acid, lead salt, basic*	51404-69-4	257-175-3	0.010
VIII	113	Dimethyl sulphate	77-78-1	201-058-1	0.050
VIII	114	Furan	110-00-9	203-727-3	0.050
VIII	115	Pyrochlore, antimony lead yellow*	8012-00-8	232-382-1	0.010
VIII	116	Tetraethyllead*	78-00-2	201-075-4	0.010
VIII	117	[Phthalato(2-)]dioxotrilead*	69011-06-9	273-688-5	0.010
VIII	118	Diethyl sulphate	64-67-5	200-589-6	0.050
VIII	119	Lead cyanamidate*	20837-86-9	244-073-9	0.010
VIII	120	Silicic acid (H ₂ Si ₂ O ₅), barium salt (1:1), lead-doped*	68784-75-8	272-271-5	0.010
VIII	121	Trilead dioxide phosphonate*	12141-20-7	235-252-2	0.010
VIII	122	o-Toluidine	95-53-4	202-429-0	0.050
VIII	123	o-aminoazotoluene	97-56-3	202-591-2	0.050
VIII	124	4-aminoazobenzene	60-09-3	200-453-6	0.050
VIII	125	6-methoxy-m-toluidine (p-cresidine)	120-71-8	204-419-1	0.050
VIII	126	Dibutyltin dichloride (DBTC)	683-18-1	211-670-0	0.050
VIII	127	Lead titanium zirconium oxide*	12626-81-2	235-727-4	0.010
VIII	128	Methyloxirane (Propylene oxide)	75-56-9	200-879-2	0.050

Batch	No.	Substance Name(s)	CAS No.	EC No.	RL (%)
VIII	129	1-bromopropane (n-propyl bromide)	106-94-5	203-445-0	0.050
VIII	130	Trilead bis(carbonate)dihydroxide*	1319-46-6	215-290-6	0.010
VIII	131	Fatty acids, C16-18, lead salts*	91031-62-8	292-966-7	0.010
VIII	132	Orange lead (lead tetroxide)*	1314-41-6	215-235-6	0.010
VIII	133	Sulfurous acid, lead salt, dibasic*	62229-08-7	263-467-1	0.010
VIII	134	4,4'-oxydianiline and its salts	101-80-4	202-977-0	0.050
VIII	135	Lead oxide sulfate*	12036-76-9	234-853-7	0.010
VIII	136	Lead bis(tetrafluoroborate)*	13814-96-5	237-486-0	0.010
VIII	137	Silicic acid, lead salt*	11120-22-2	234-363-3	0.010
VIII	138	N,N-dimethylformamide	68-12-2	200-679-5	0.050
IX	139	Cadmium	7440-43-9	231-152-8	0.010
IX	140	Cadmium oxide*	1306-19-0	215-146-2	0.010
IX	141	Dipentyl phthalate (DPP)	131-18-0	205-017-9	0.050
IX	142	4-Nonylphenol, branched and linear, ethoxylated[substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof]	/	/	0.050
IX	143	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	223-320-4	0.050
IX	144	Pentadecafluorooctanoic acid (PFOA)	335-67-1	206-397-9	0.050
X	145	^① Trixylyl phosphate	25155-23-1	246-677-8	0.050
X	146	Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38)	1937-37-7	217-710-3	0.050
X	147	Diethyl phthalate	84-75-3	201-559-5	0.050
X	148	Cadmium sulphide*	1306-23-6	215-147-8	0.010
X	149	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0	209-358-4	0.050
X	150	Lead di(acetate)*	301-04-2	206-104-4	0.010
X	151	Imidazolidine-2-thione; 2-imidazoline-2-thiol	96-45-7	202-506-9	0.050

Batch	No.	Substance Name(s)	CAS No.	EC No.	RL (%)
XI	152	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	271-093-5	0.050
XI	153	Cadmium chloride	10108-64-2	233-296-7	0.010
XI	154	③ Sodium peroxometaborate perboric acid, sodium salt*	/	239-172-9/ 234-390-0	0.010
XI	155	③ Sodium peroxometaborate*	7632-04-4	231-556-4	0.010
XII	156	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	247-384-8	0.050
XII	157	2-(2'-Hydroxy-3',5'-di-tert-butylphenyl)benzotriazole (UV-320)	3846-71-7	223-346-6	0.050
XII	158	Cadmium fluoride*	7790-79-6	232-222-0	0.010
XII	159	Cadmium sulphate*	10124-36-4/ 31119-53-6	233-331-6	0.010
XII	160	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate; DOTE	15571-58-1	239-622-4	0.050
XII	161	Reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE)	/	/	0.050
XIII	162	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate (EC No. 201-559-5)	68515-51-5/ 68648-93-1	271-094-0/ 272-013-1	0.050
XIII	163	5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2] [covering any of the individual stereoisomers of [1] and [2] or any combination thereof]	/	/	0.050
XIV	164	1,3-propanesultone	1120-71-4	214-317-9	0.050
XIV	165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	223-383-8	0.050

Batch	No.	Substance Name(s)	CAS No.	EC No.	RL (%)
XIV	166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	253-037-1	0.050
XIV	167	Nitrobenzene	98-95-3	202-716-0	0.050
XIV	168	Perfluorononan-1-oic-acid and its sodium and ammonium salts	375-95-1/ 21049-39-8/ 4149-60-4	206-801-3	0.050
XV	169	Benzo[def]chrysene	50-32-8	200-028-5	0.050
XVI	170	Bisphenol(BPA)	80-05-7	201-245-8	0.050
XVI	171	4-Heptylphenol, branched and linear (substances with a linear and/or branched alkyl chain with a carbon number of 7 covalently bound predominantly in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof)	/	/	0.050
XVI	172	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	3108-42-7/ 335-76-2/ 3830-45-3	206-400-3/ 221-470-5	0.050
XVI	173	4-tert-amylphenol	80-46-6	201-280-9	0.050
XVII	174	Perfluorohexane-1-sulphonic acid and its salts (PFHxS)	/	/	0.050
XVIII	175	Dechlorane plus (including any of its individual anti- and syn-isomers or any combination thereof)	13560-89-9/ 135821-74-8/ 135821-03-3	/	0.050
XVIII	176	Benzo[a]anthracene	56-55-3	200-280-6	0.050
XVIII	177	Cadmium nitrate*	10325-94-7	233-710-6	0.010
XVIII	178	Cadmium carbonate*	513-78-0	208-168-9	0.010
XVIII	179	Cadmium hydroxide*	21041-95-2	244-168-5	0.010
XVIII	180	Chrysene	218-01-9	205-923-4	0.050
XVIII	181	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) [with ≥0.1% w/w 4-heptylphenol, branched and linear]	/	/	0.050
XIX	182	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride (trimellitic anhydride, TMA)	552-30-7	209-008-0	0.050
XIX	183	Dicyclohexyl phthalate (DCHP)	84-61-7	201-545-9	0.050

Batch	No.	Substance Name(s)	CAS No.	EC No.	RL (%)
XIX	184	Benzo[ghi]perylene	191-24-2	205-883-8	0.050
XIX	185	Decamethylcyclopentasiloxane (D5)	541-02-6	208-764-9	0.050
XIX	186	[®] Disodium octaborate*	12008-41-2	234-541-0	0.010
XIX	187	Dodecamethylcyclohexasiloxane (D6)	540-97-6	208-762-8	0.050
XIX	188	Ethylenediamine (EDA)	107-15-3	203-468-6	0.050
XIX	189	Lead	7439-92-1	231-100-4	0.010
XIX	190	Octamethylcyclotetrasiloxane (D4)	556-67-2	209-136-7	0.050
XIX	191	Terphenyl, hydrogenated	61788-32-7	262-967-7	0.050
XX	192	1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one (3-benzylidene camphor)	15087-24-8	239-139-9	0.050
XX	193	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	401-720-1	0.050
XX	194	Benzo[k]fluoranthene	207-08-9	205-916-6	0.050
XX	195	Fluoranthene	206-44-0	205-912-4	0.050
XX	196	Phenanthrene	85-01-8	201-581-5	0.050
XX	197	Pyrene	129-00-0	204-927-3	0.050
XXI	198	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥0.1% w/w of 4-nonylphenol, branched and linear (4-NP)	/	/	0.050
XXI	199	4-tert-butylphenol	98-54-4	202-679-0	0.050
XXI	200	2-methoxyethyl acetate	110-49-6	203-772-9	0.050
XXI	201	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy) propionic acid, its salts and its acyl halides(covering any of their individual isomers and combinations thereof)	/	/	0.050
XXII	202	2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	404-360-3	0.050
XXII	203	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	400-600-6	0.050
XXII	204	Diisohexyl phthalate	71850-09-4	276-090-2	0.050
XXII	205	Perfluorobutane sulfonic acid (PFBS) and its salts	/	/	0.050
XXIII	206	1-vinylimidazole	1072-63-5	214-012-0	0.050
XXIII	207	2-methylimidazole	693-98-1	211-765-7	0.050
XXIII	208	Butyl 4-hydroxybenzoate	94-26-8	202-318-7	0.050
XXIII	209	Dibutylbis(pentane-2,4-dionato-O,O')tin	22673-19-4	245-152-0	0.050
XXIV	210	Bis(2-(2-methoxyethoxy)ethyl) ether	143-24-8	205-594-7	0.050

Batch	No.	Substance Name(s)	CAS No.	EC No.	RL (%)
XXIV	211	Dioctyltin dilaurate, stannane, dioctyl-, bis(coco acyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety	/	/	0.050
XXV	212	1,4-dioxane	123-91-1	204-661-8	0.050
XXV	213	2,2-bis(bromomethyl)propane1,3-diol (BMP); 2,2-dimethylpropan-1-ol, tribromo derivative/3-bromo-2,2-bis(bromomethyl)-1-propanol (TBNPA); 2,3-dibromo-1-propanol (2,3-DBPA)	3296-90-0/ 36483-57-5, 1522-92-5/ 96-13-9	221-967-7/ 253-057-0/ 202-480-9	0.050
XXV	214	2-(4-tert-butylbenzyl)propionaldehyde and its individual stereoisomers	/	/	0.050
XXV	215	4,4'-(1-methylpropylidene) bisphenol (bisphenol B)	77-40-7	201-025-1	0.050
XXV	216	Glutaral	111-30-8	203-856-5	0.050
XXV	217	Medium-chain chlorinated paraffins (MCCP) [UVCB substances consisting of more than or equal to 80% linear chloroalkanes with carbon chain lengths within the range from C14 to C17]	/	/	0.050
XXV	218	③ Orthoboric acid, sodium salt (Group) *	/	/	0.010
XXV	219	Phenol, alkylation products (mainly in para position) with C12-rich branched or linear alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP)	/	/	0.050
XXVI	220	(±)-1,7,7-trimethyl-3-[(4-methylphenyl)methylene]bicyclo[2.2.1]heptan-2-one covering any of the individual isomers and/or combinations thereof (4-MBC)	/	/	0.050
XXVI	221	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol	119-47-1	204-327-1	0.050
XXVI	222	S-(tricyclo[5.2.1.0'2,6]deca-3-en-8(or 9)-yl) O-(isopropyl or isobutyl or 2-ethylhexyl) O-(isopropyl or isobutyl or 2-ethylhexyl) phosphorodithioate	255881-94-8	401-850-9	0.050
XXVI	223	tris(2-methoxyethoxy)vinylsilane	1067-53-4	213-934-0	0.050
XXVII	224	N-(hydroxymethyl)acrylamide	924-42-5	213-103-2	0.050

Batch	No.	Substance Name(s)	CAS No.	EC No.	RL (%)
XXVIII	225	1,1'-[ethane-1,2-diylbisoxo]bis[2,4,6-tribromobenzene]	37853-59-1	253-692-3	0.050
XXVIII	226	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol	79-94-7	201-236-9	0.050
XXVIII	227	4,4'-sulphonyldiphenol	80-09-1	201-250-5	0.050
XXVIII	228	③ Barium diboron tetraoxide*	13701-59-2	237-222-4	0.010
XXVIII	229	bis(2-ethylhexyl) tetrabromophthalate covering any of the individual isomers and/or combinations thereof	/	/	0.050
XXVIII	230	Isobutyl 4-hydroxybenzoate	4247-02-3	224-208-8	0.050
XXVIII	231	Melamine	108-78-1	203-615-4	0.050
XXVIII	232	Perfluoroheptanoic acid and its salts	/	/	0.050
XXVIII	233	reaction mass of 2,2,3,3,5,5,6,6-octafluoro-4-(1,1,1,2,3,3,3-heptafluoropropyl)morpholine and 2,2,3,3,5,5,6,6-octafluoro-4-(heptafluoropropyl)morpholine	/	473-390-7	0.050

Test Method:

With reference to NTEK in-house method, Analysis is performed by Liquid Chromatography Mass Spectrometry/ Mass Spectrometry (LC-MS/MS), Gas Chromatography and Mass Spectrometry (GC-MS), headspace GC-MS, Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES), UV-Vis spectrophotometer.

Note:

1. “%” = percent by weight, 0.1% = 1000 mg/kg = 1000 ppm
2. RL = Report Limit, N.D. = Not Detected (<RL), / = Not Regulated or Not Applicable
3. *: Concentration value of the substance by the conversion from the test results of certain elements.
Concentration value of Bis(tributyltin)oxide by the conversion from the test results of Tributyl Tins.
4. **: All refractory ceramic fibres are covered by index number 650-017-00-8 in Annex VI of the Regulation on Classification, Labeling and Packaging of chemical substances and mixtures, the so called CLP Regulation (Regulation (EC) No 1272/2008).
5. ①: In view of the substances are established as UVCB substances (substances of unknown or variable composition, complex reaction products or biological materials) consisting of different and variable constituents, the test results are calculated based on the main constituents of the representative compounds for substances.
6. ②: In view of the substance contain variable substances, the test results are calculated based on main constituents of the representative compounds for the substances, and the test results of therepresentative compounds are calculated based on the result of specified heavy metal elements.
7. ③: Concentration value of Boric acid; Disodium tetraborate, anhydrous; Tetraboron disodium heptaoxide, hydrate; Diboron trioxide; Sodium perborate; perboric acid, sodium salt; Sodium peroxometaborate; Disodium octaborate; Orthoboric acid, sodium salt (Group) ; Barium diboron tetraoxide is calculated by the conversion from the test results of certain elements and confirmed by appropriate solvent extraction, meanwhile the book of materials is suggested to be checked for further confirmation.
8. REACH regulations related to obligations
 - (a) The chemical analysis of SVHC is performed by means of currently available analytical Techniques against the list published by ECHA, and shall refer to <http://echa.europa.eu/web/guest/candidate-list-table>. This list is under evaluation by ECHA and may subject to change in the future;
 - (b) Concerning article(s):

Notification: In accordance with Regulation (EC) No 1907/2006, any producer or importer of articles shall notify ECHA, in accordance with paragraph 4 of Article 7, if a substance meets the criteria in Article 57 and is identified in accordance with Article 59(1) of the Regulation, if (i) the substance is present in those articles in quantities totaling over one tonne per producer or importer per year; and (ii) the substance is present in those articles above a concentration of 0.1% weight by weight (w/w);

Inform: Article 33 of Regulation (EC) No 1907/2006 requires supplier of an article containing a substance meeting the criteria in Article 57 and identified in accordance with Article 59(1) in a concentration above 0.1% weight by weight (w/w) shall provide the recipient of the article with

sufficient information, available to the supplier, to allow safe use of the article including, as a minimum, the name of that substance;

(c) Concerning material(s):

Test results in this report are based on the tested sample. This report refers to testing result of tested sample submitted as homogenous material(s). In case such material is being used to compose an article, the results indicated in this report may not represent SVHC concentration in such article. If this report refers to testing result of composite material group by equal weight proportion, the material in each composite test group may come from more than one article.

If the sample is a substance or mixture, and it directly exports to EU, client has the obligation to comply with the supply chain communication obligation under Article 31 of Regulation (EC) No. 1907/2006 and the conditions of Authorization of substance of very high concern included in the Annex XIV of the Regulation (EC) No. 1907/2006.

(d) Concerning substance and preparation:

If a SVHC is found over 0.1% (w/w) and/or the specific concentration limit which is set in Regulation (EC) No 1272/2008 and No 790/2009, client is suggested to prepare a Safety Data Sheet (SDS) against the SVHC to comply with the supply chain communication obligation under Regulation (EC) No 1907/2006.

Sample photo(s):



Fig.1



Fig.2

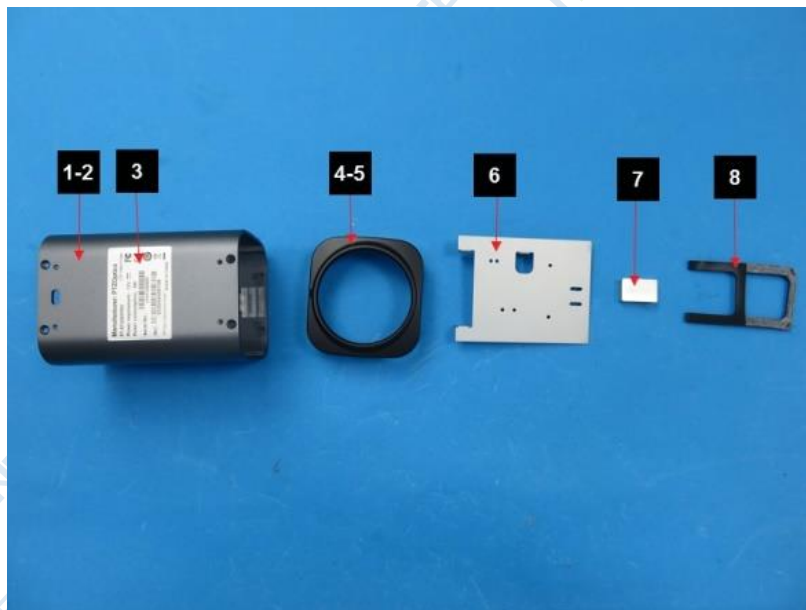


Fig.3

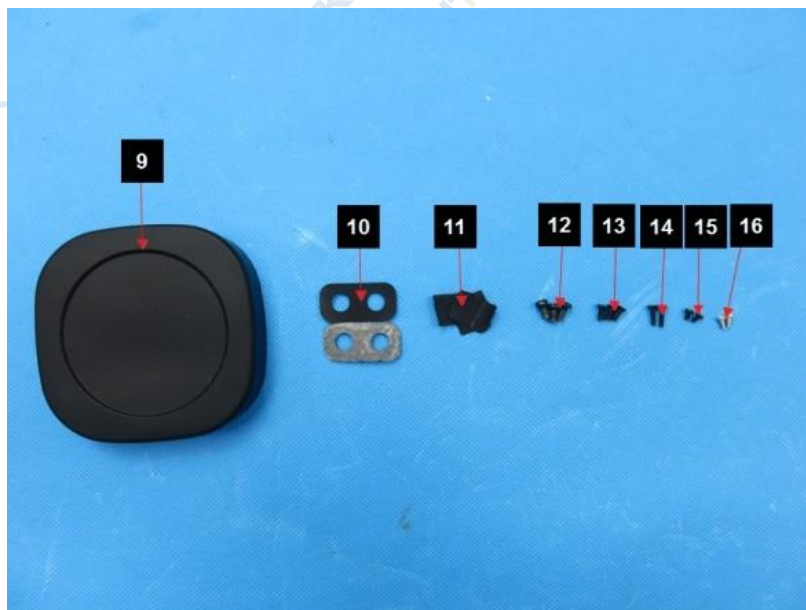


Fig.4

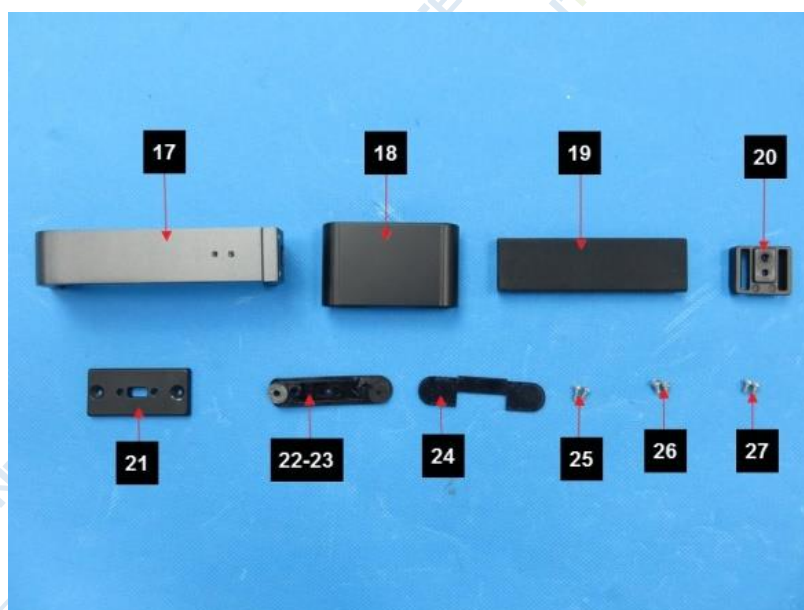


Fig.5

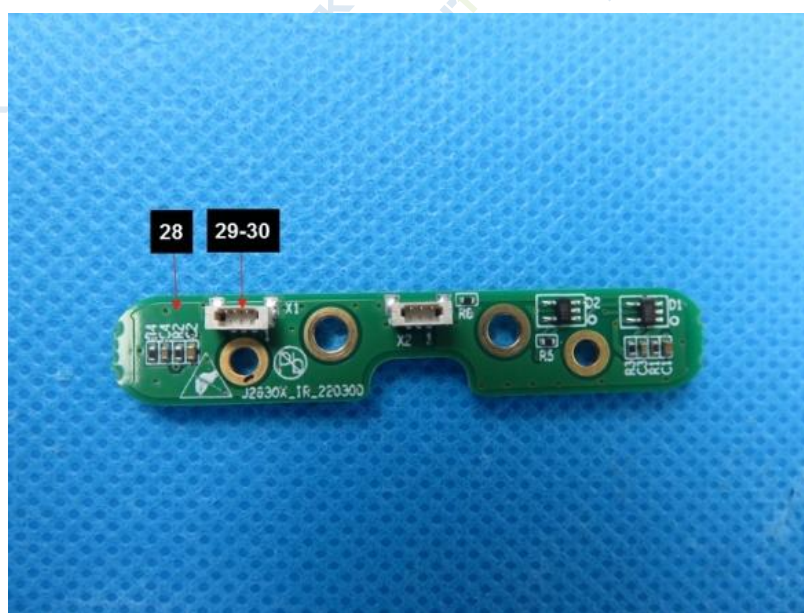


Fig.6



Fig.7

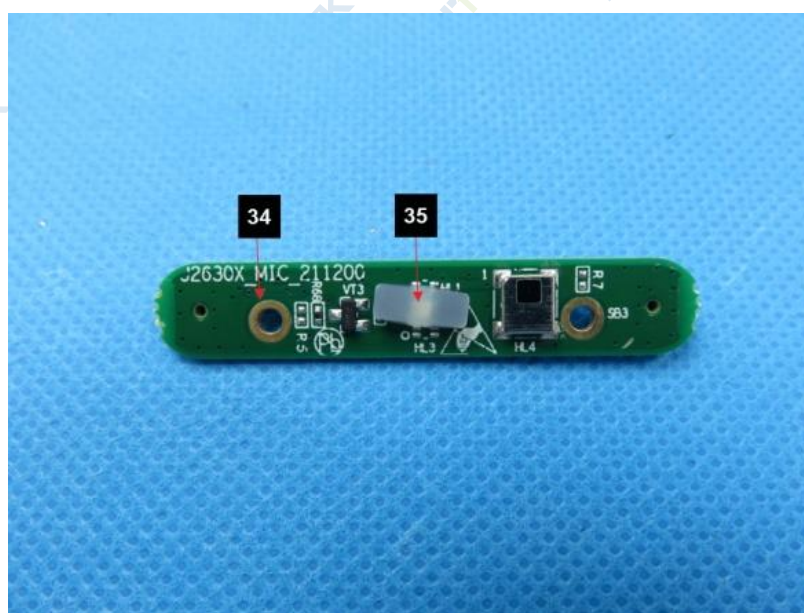


Fig.8

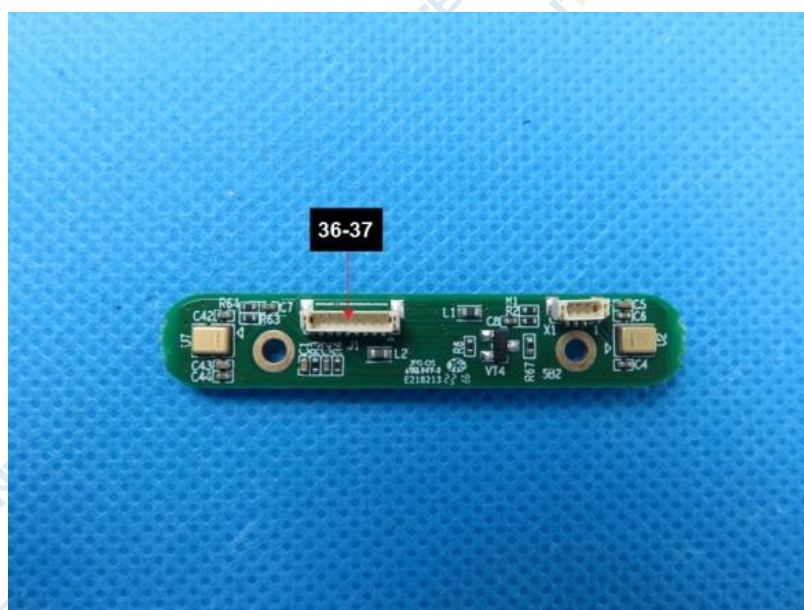


Fig.9

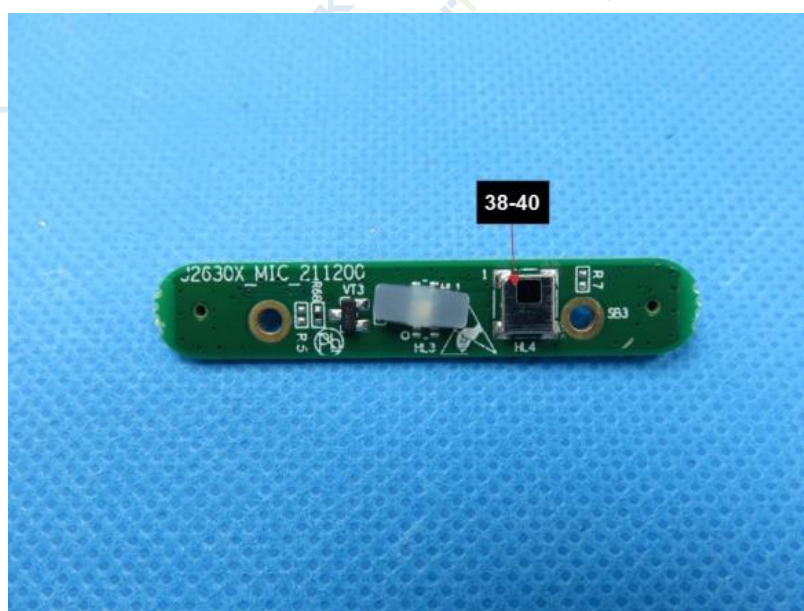


Fig.10

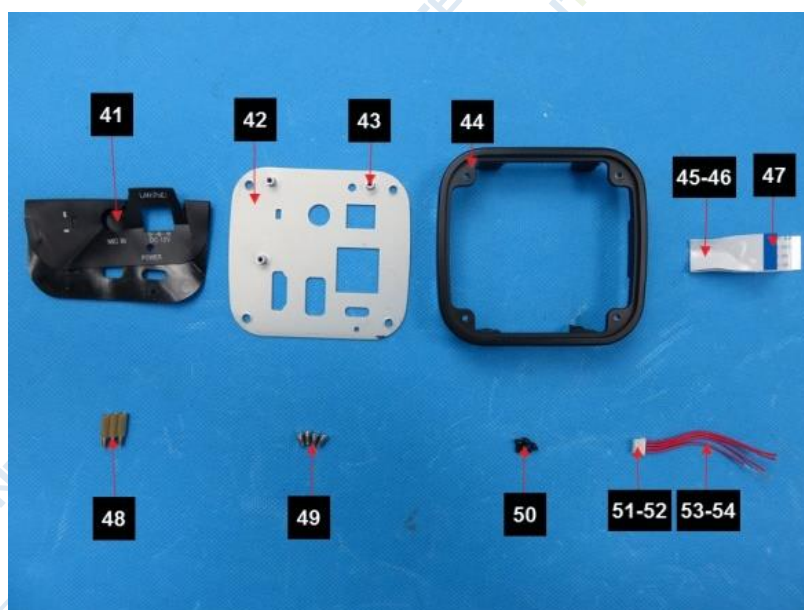


Fig.11



Fig.12



Fig.13

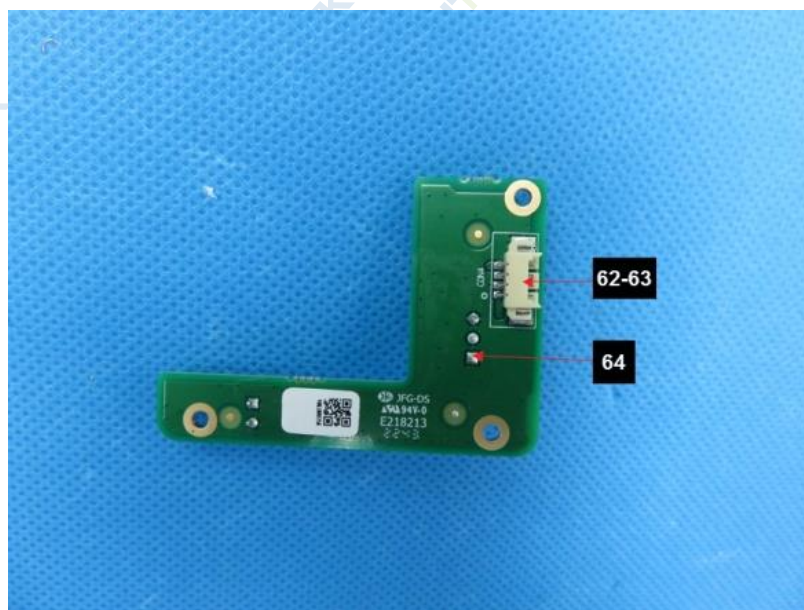


Fig.14



Fig.15



Fig.16

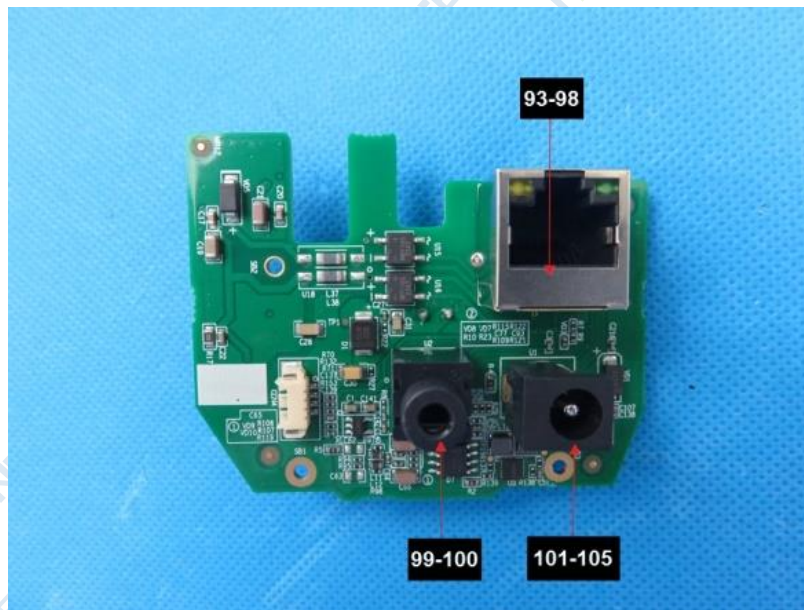


Fig.17

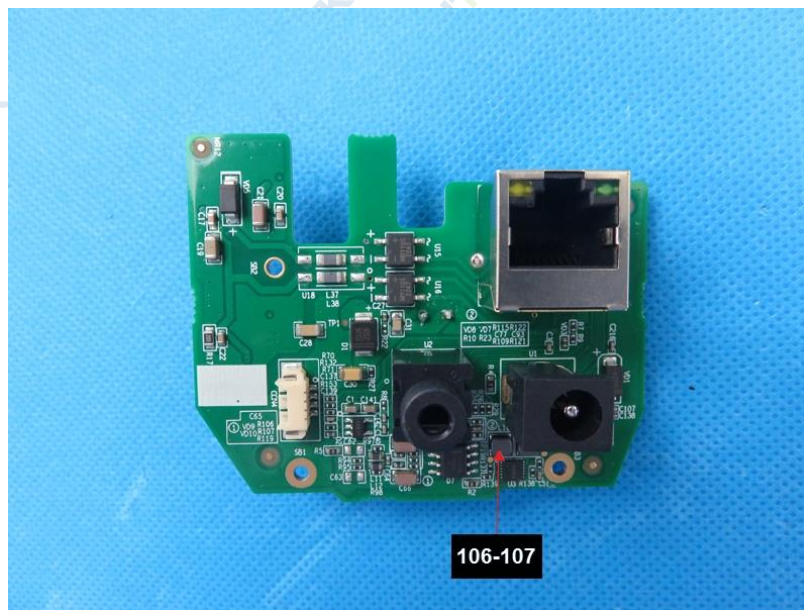


Fig.18



Fig.19



Fig.20

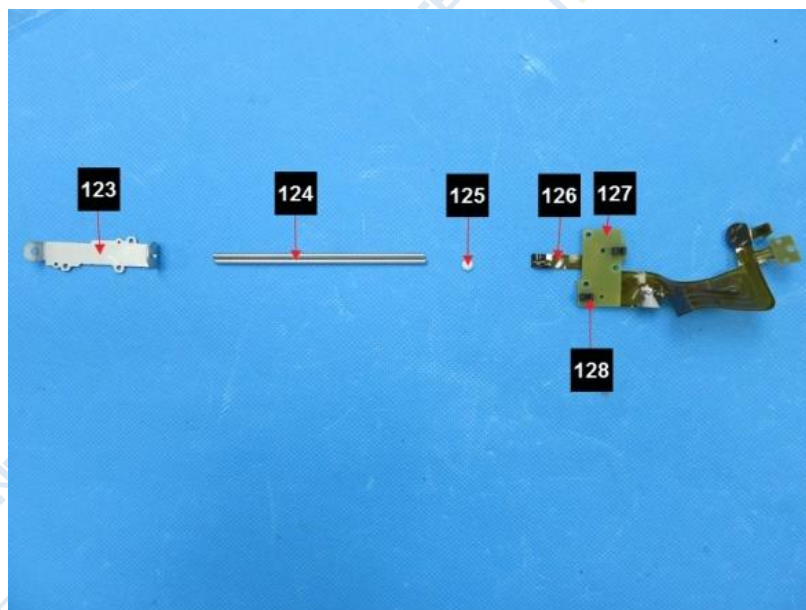


Fig.21



Fig.22

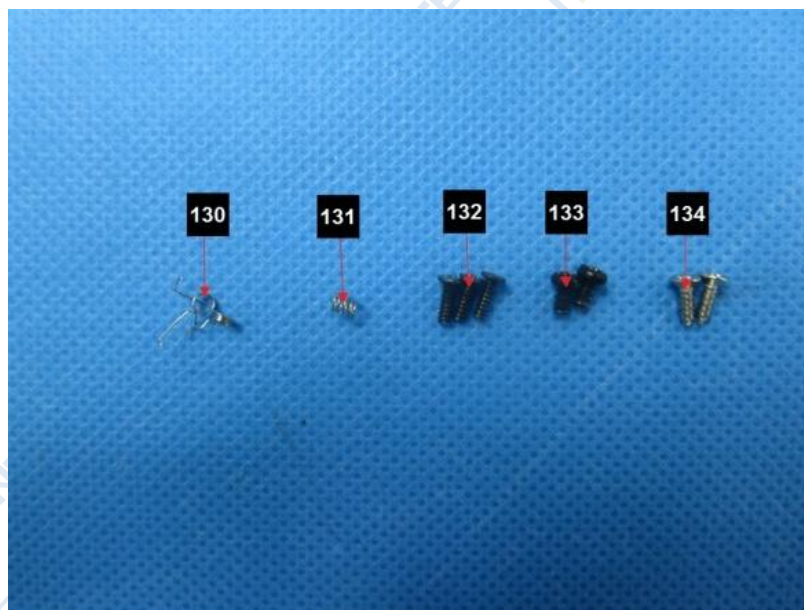


Fig.23



Fig.24



Fig.25

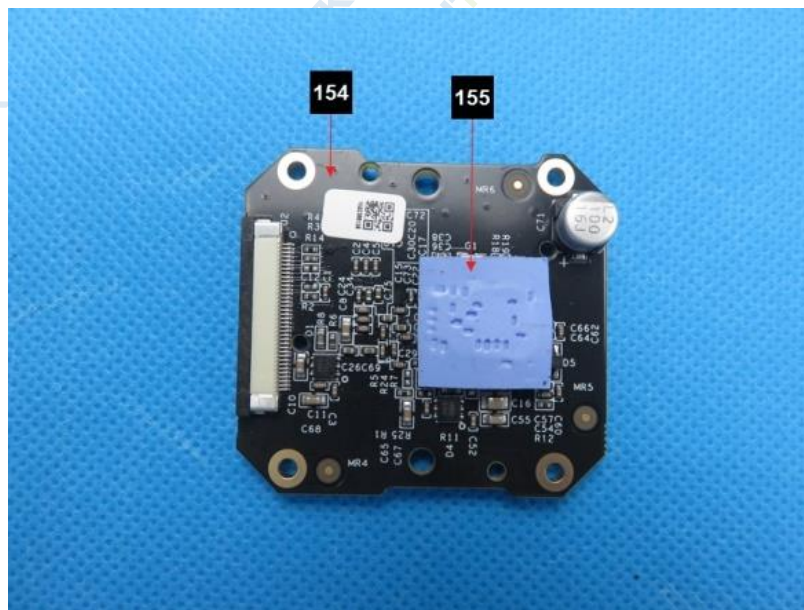


Fig.26



Fig.27

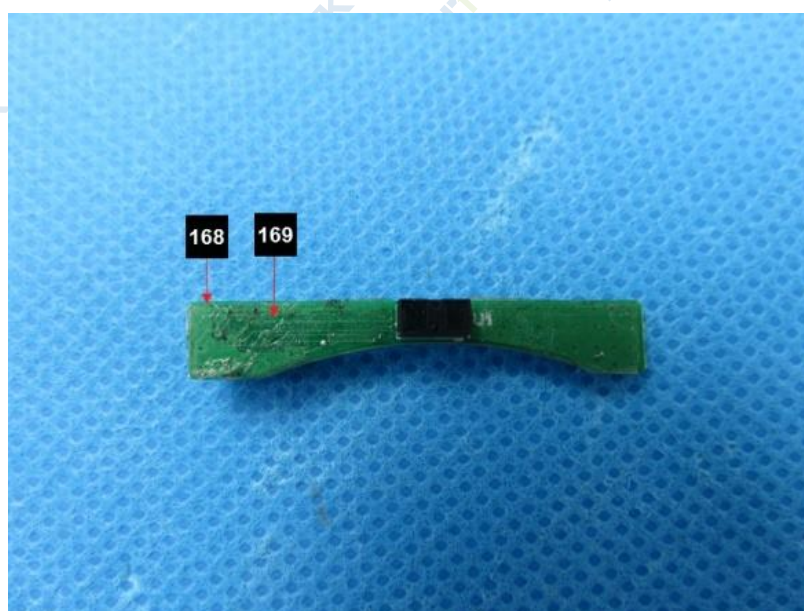


Fig.28



Fig.29

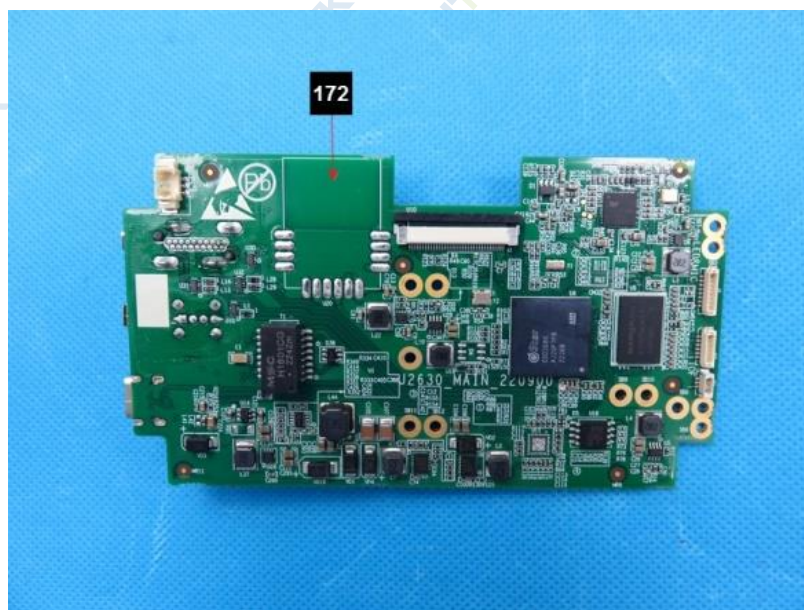


Fig.30



Fig.31

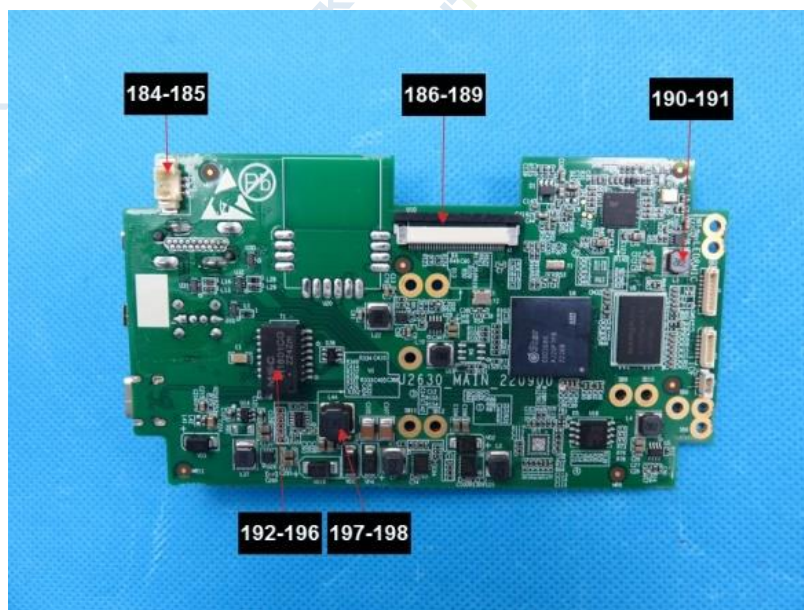


Fig.32

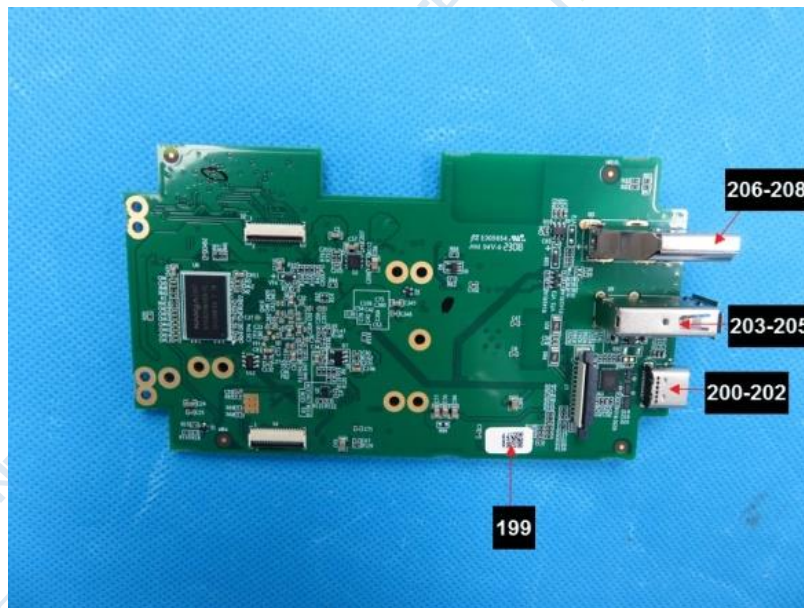


Fig.33



Fig.34

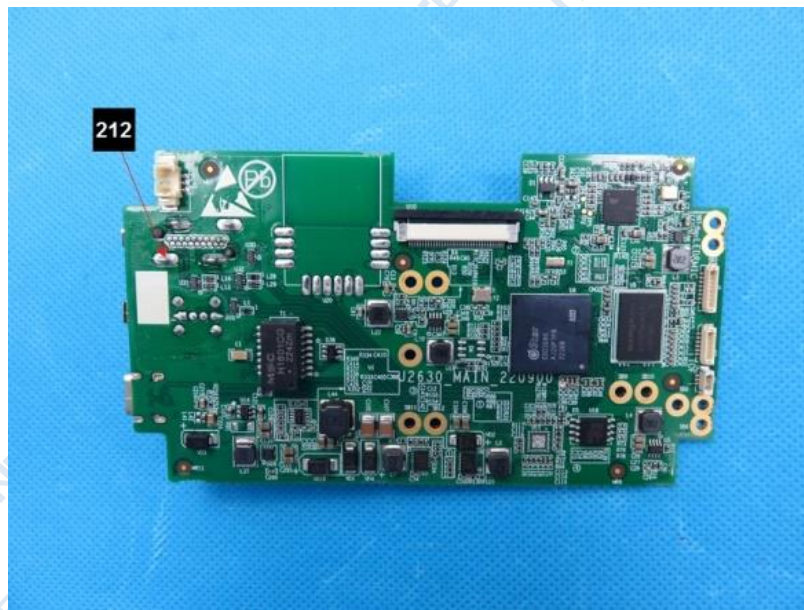


Fig.35



Fig.36

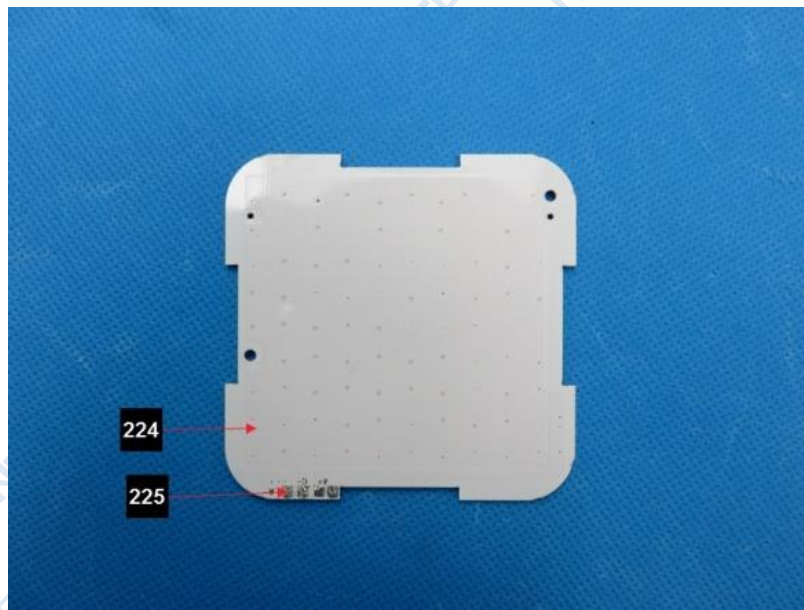


Fig.37

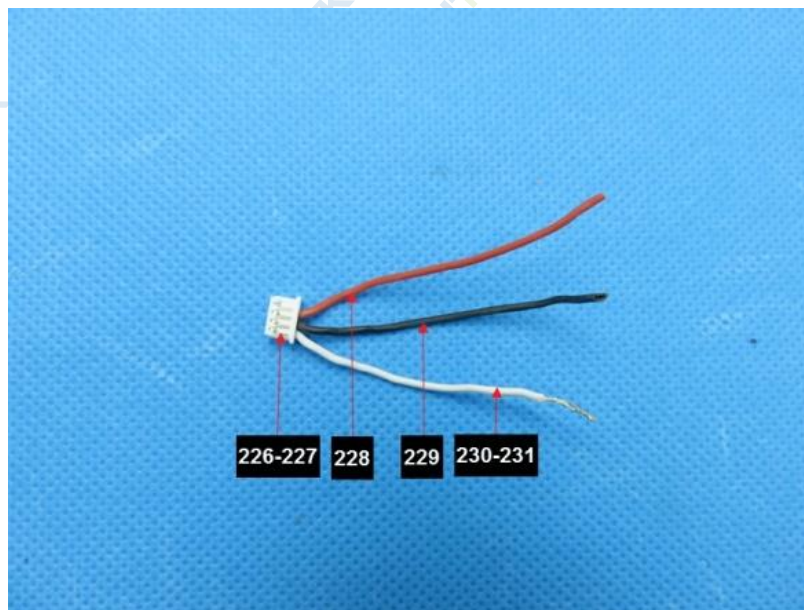


Fig.38

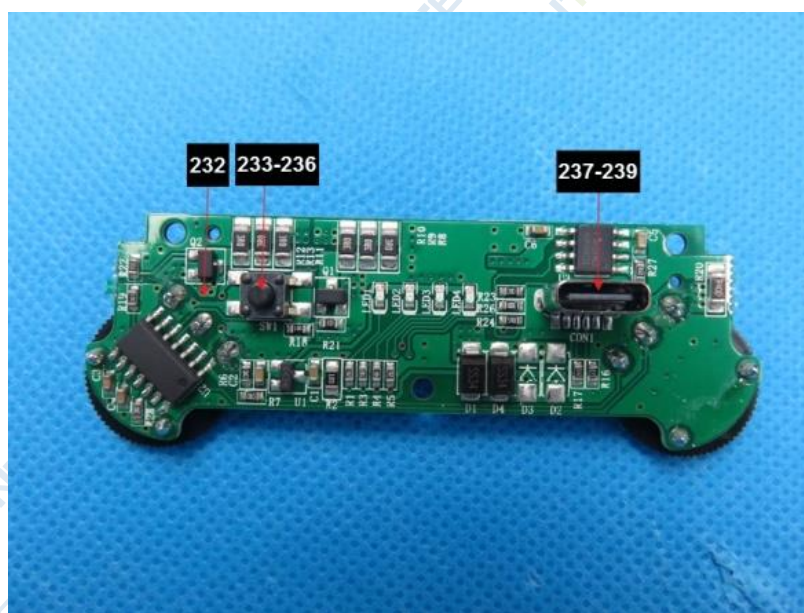


Fig.39

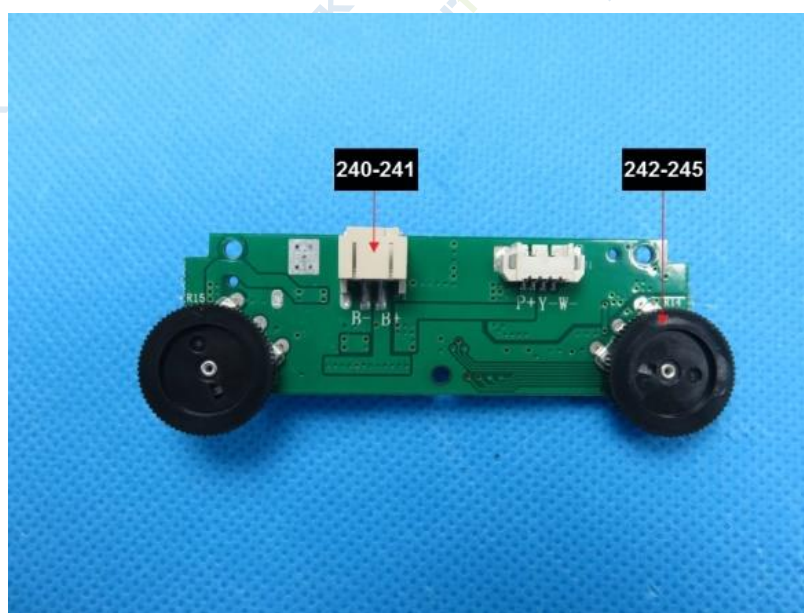


Fig.40

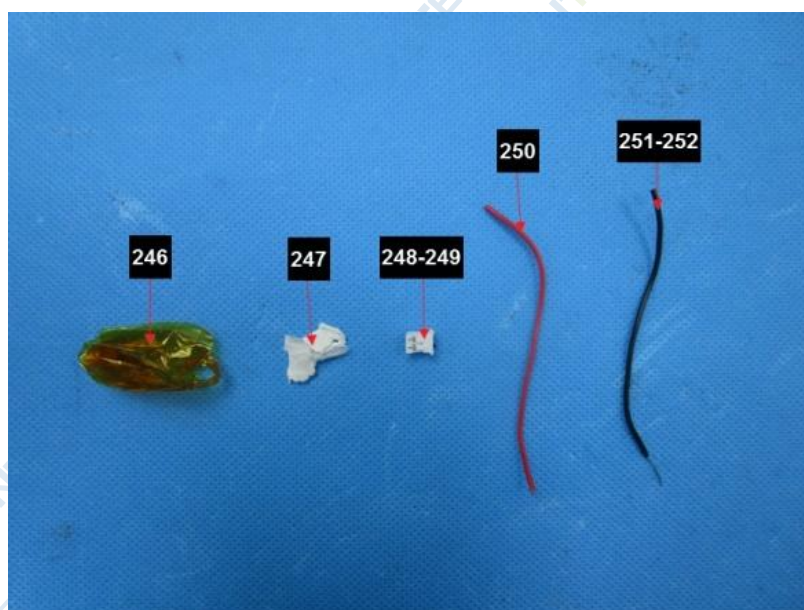


Fig.41

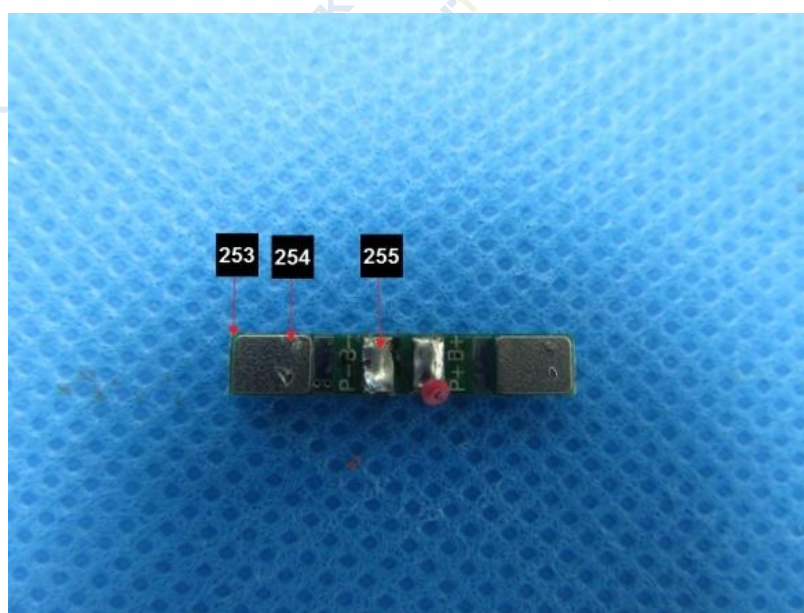


Fig.42



Fig.43

****End of Report****

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