



## TEST REPORT

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REPORT No.: CTB25052303102C01

**Applicant:** Shenzhen Ai-Thinker Technology Co., Ltd  
**Address:** 410,Block C, Huafeng Smart Innovation Port.Gushu 2nd Road,Gushu Community,Xixiang Street,Baoan District,Shenzhen,China

**Manufacturer:** Shenzhen Ai-Thinker Technology Co., Ltd  
**Address:** 410,Block C, Huafeng Smart Innovation Port.Gushu 2nd Road,Gushu Community,Xixiang Street,Baoan District,Shenzhen,China

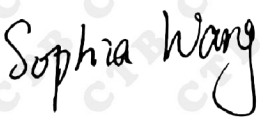


The following samples were submitted and identified on behalf of the clients as:

**Sample name:** WIFI Model  
**Brand:** /  
**Model(s):** See next page  
**Sample received date:** Jun. 04,2025  
**Testing period:** Jun. 04,2025 to Jun. 11,2025  
**Test Method:** Please refer to next page(s).  
**Test Result:** Please refer to next page(s).

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**Result Summary :**

Test Requested	Conclusion
European Regulation (EC) No.1907/2006 (REACH) Article 59(10) on the candidate list of Substances of Very High Concern (SVHC) for authorization (247 items till 21-January-2025)	See test results

<b>Tested By:</b> 	<b>Check By:</b> 	<b>Approve By:</b> 
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Date: Jun. 12, 2025



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## Series models as below:

Model(s)	: Ai-M61-32SU, Ai-M61-CBM, Ai-M61-02S, Ai-M62-12F, Ai-M62-13, Ai-M62-13U, Ai-M62-M2-I, Ai-M62-32S, Ai-M62-07S, Ai-M62-CBS, Ai-M62-M01L, Ai-WB2-01F, Ai-WB2-01N, PWM-A01-1, Ai-WB3-12F, Ai-WB3-01C, Ai-WB1-32S, ESP-01F, ESP-07S, ESP-12S, ESP-13, ESP-13U, ESP32-SU, ESP-C3-M1, ESP-C3-M1-I, ESP-S3-12K, ESP-S3-32S, VC5SL16, BW20-12F, TG-12F, XW-01, XW-01D-S, PB-03, PB-03F, PB-03M, TB-04, TB-05, TG-03, Ra-01SCH-P, Ra-08, Ra-08H, Ra-09H, BU03, BU04, NF-05, NF-05-S, A9G, Ai-BV01-32S, VC-01, VC-02, Rd-03, Rd-03_V2 版, Rd-03D_V2 版, Rd-03E_V2 版, Rd-03L, Rd-03L_V2 版, Rd-03H, Rd-04, Rd-261-Kit, Ai-BS21-32S, Ai-WB2-Collect, BLE-V1.1, IoT CO Sensor, ESP-32S-Adapter, 1LKAA06, WIFI-Model-20240311-A01, WIFI-Model-20240509-B04
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## Tested material list

Main test- IoT CO Sensor

No.	Description	Photo(s) of tested material
1	Black PCB	
2	IC	
3	Silver metal pin	
4	Black triode	
5	SMD resistor	
6	Solder point	
7	Black plastic (Switch button)	
8	Silver metal case(Switch button)	
9	Brown PCB (Switch button)	
10	SMD capacitor	
11	Silvery crystal oscillator	
12	SMD capacitor	
13	IC	
14	Silver metal case	
15	Copper-colored metal spring	
16	Silver metal case	
17	Silver metal pin (wire buckle)	
18	Black plastic (wire buckle)	
19	Black buzzer	
20	White plastic( wire buckle)	
21	Silver metal pin (wire buckle)	

**Difference 1: Ai-WB2-Collect**

No.	Description	Photo(s) of tested material
22	Silver metal case (USB charging)	
23	Blue plastic (USB charging)	
24	Silver metal pin (USB charging)	
25	Black PCB	
26	Solder point	
27	Silvery crystal oscillator	
28	IC	
29	Black plastic (Switch button)	
30	Silver metal sheet (Switch button)	
31	SMD capacitor	
32	Black triode	
33	Black inductor	
34	IC	
35	Silver metal case	

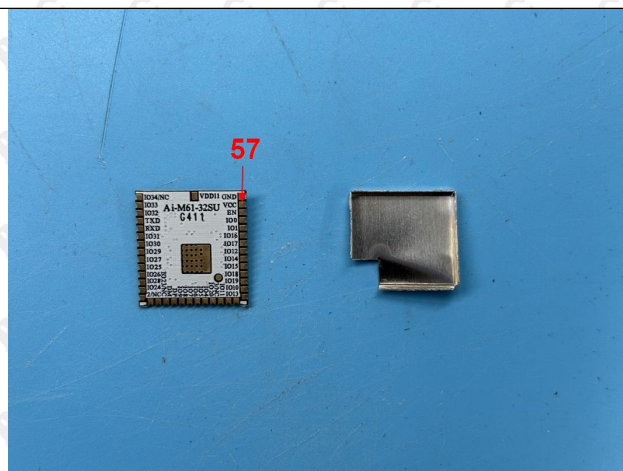
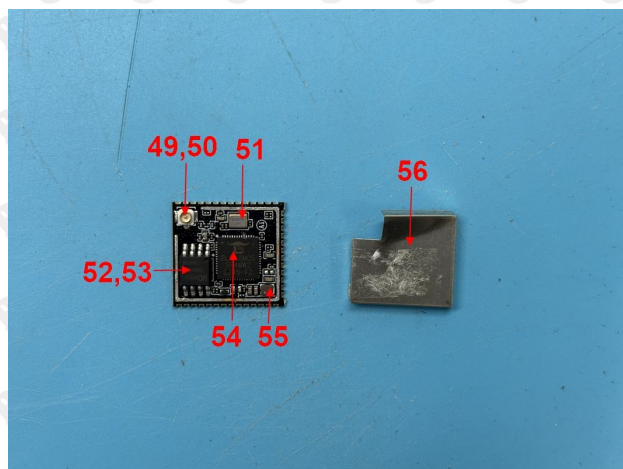
**Difference 2: ESP-32S-Adapter**

36	White plastic( wire buckle)	
37	Silver metal pin (wire buckle)	
38	SMD capacitor	
39	Black body	
40	Black body	
41	IC	
42	SMD capacitor	
43	Black PCB	
44	White ceramic base	
45	Gold metal ring	
46	Silvery crystal oscillator	
47	Solder point	
48	Silver metal case	



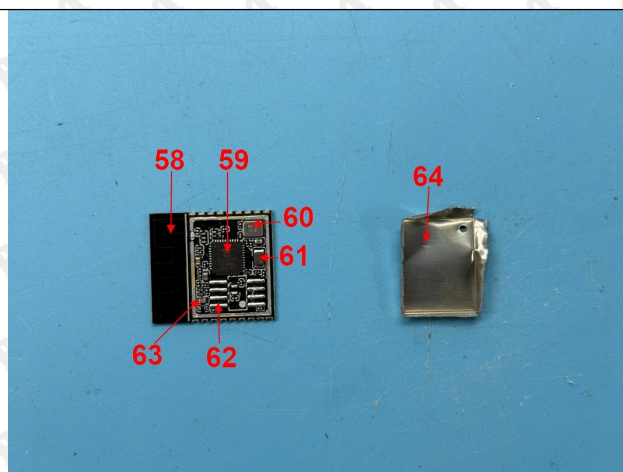
## Difference 3: Ai-M61-32SU

49	White ceramic base
50	Gold metal ring
51	Silvery crystal oscillator
52	IC
53	Silver metal pin
54	IC
55	Black inductor
56	Silver metal case
57	Copper-colored metal foil



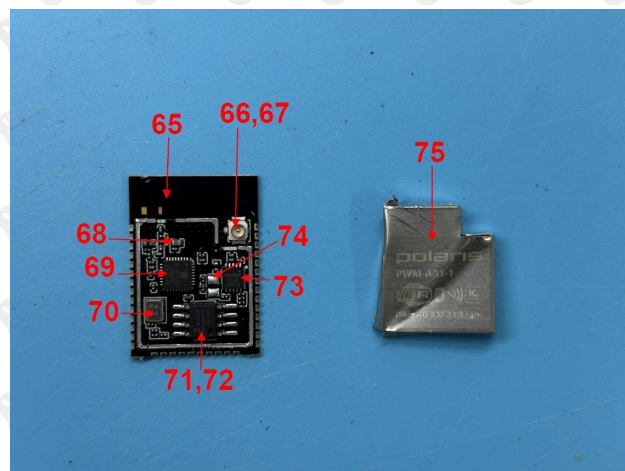
## Difference 4: Ai-M62-13

58	Black PCB
59	IC
60	Silvery crystal oscillator
61	Black inductor
62	Solder point
63	SMD capacitor
64	Silver metal case



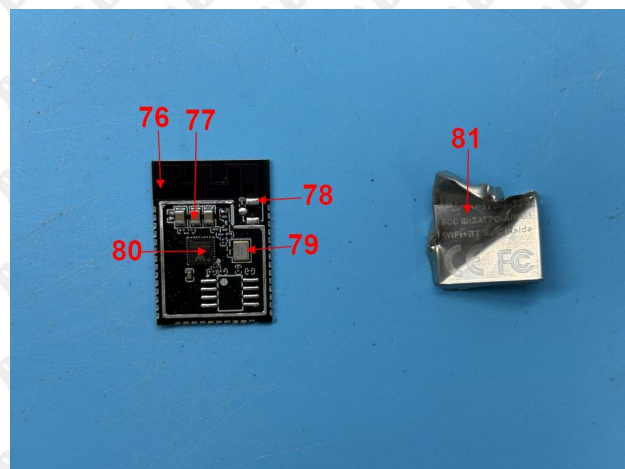
## Difference 5: PWM-A01-1

65	Black PCB
66	White ceramic base
67	Gold metal ring
68	SMD capacitor
69	IC
70	Silvery crystal oscillator
71	IC
72	Silver metal pin
73	IC
74	Solder point
75	Silver metal case



## Difference 6: Ai-WB1-32S

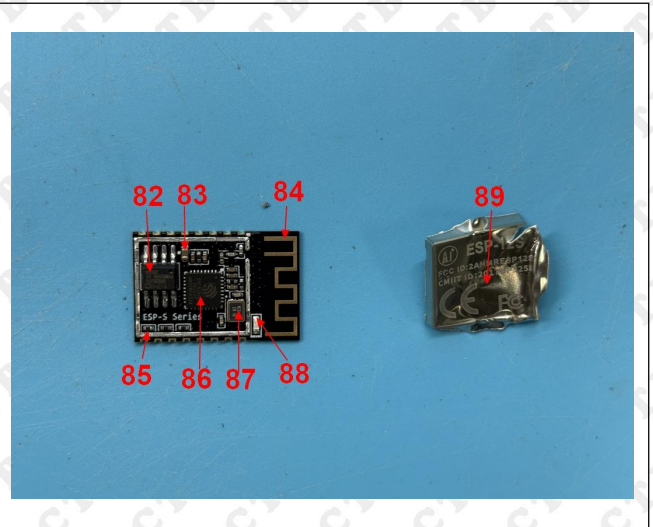
76	Black PCB
77	SMD capacitor
78	Solder point
79	Silvery crystal oscillator
80	IC
81	Silver metal case





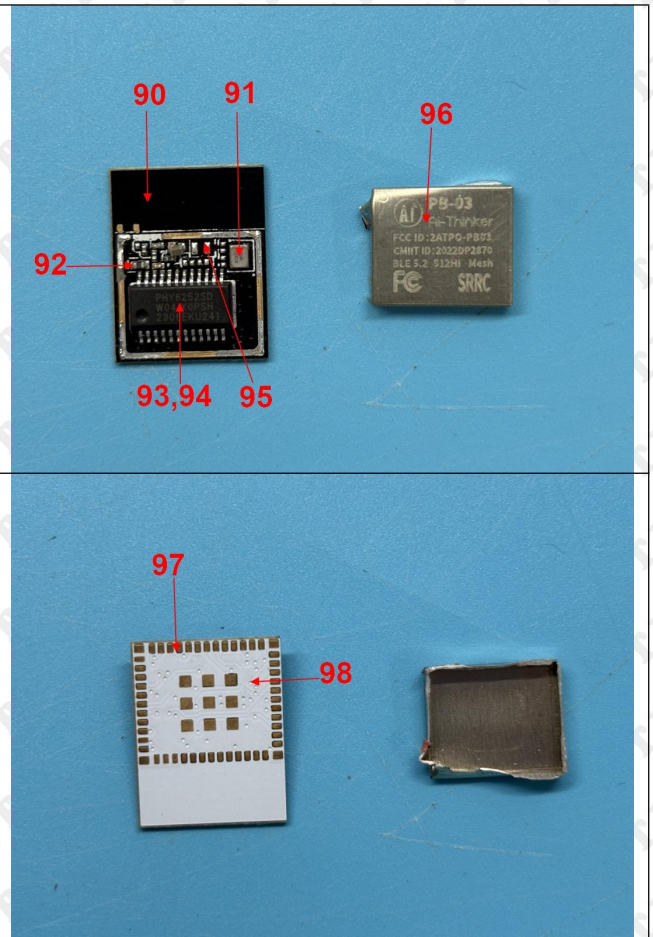
## Difference 7: ESP-12S

82	IC
83	Black PCB
84	Copper metal foil
85	SMD capacitor
86	IC
87	Silvery crystal oscillator
88	White LED
89	Silver metal case



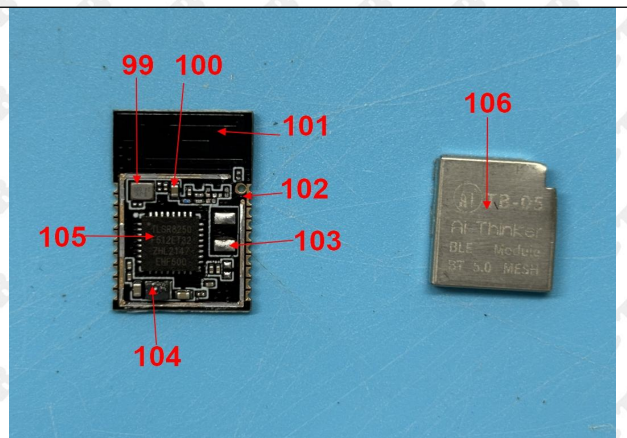
## Difference 8: PB-03

90	Black PCB
91	Silvery crystal oscillator
92	SMD capacitor
93	IC
94	Silver metal pin
95	Solder point
96	Silver metal case
97	White coating
98	Copper-colored metal foil



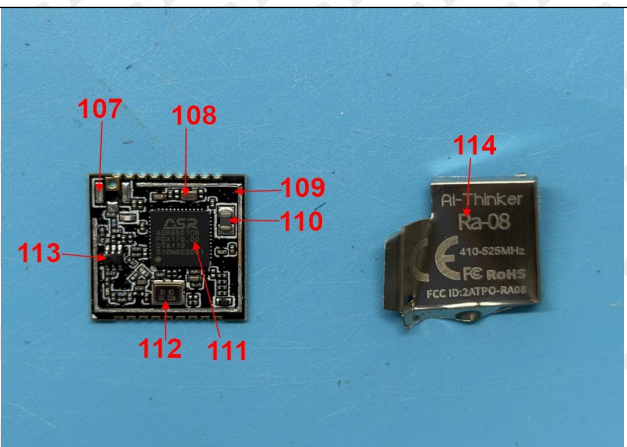
## Difference 9: TB-05

99	Silvery crystal oscillator
100	SMD capacitor
101	Black PCB
102	Copper-colored metal foil
103	Solder point
104	Black inductor
105	IC
106	Silver metal case



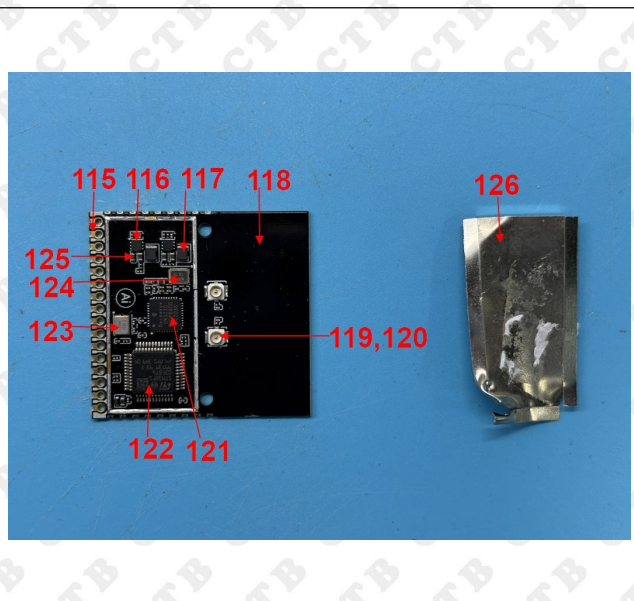
## Difference 10: Ra-08

107	Solder point
108	Silvery small crystal oscillator
109	Black PCB
110	SMD capacitor
111	IC
112	Silvery crystal oscillator
113	Black body
114	Silver metal case



## Difference 11: BU04

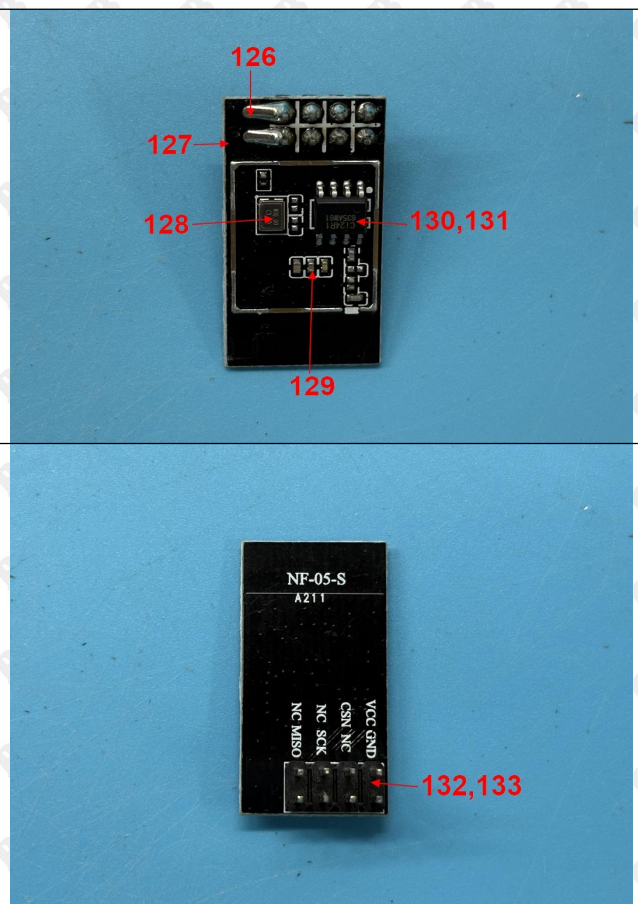
115	Copper metal foil
116	Black inductor (small)
117	Black inductor
118	Black PCB
119	White ceramic base
120	Gold metal ring
121	IC
122	IC
123	Silvery crystal oscillator
124	Silvery crystal oscillator
125	Silver metal case





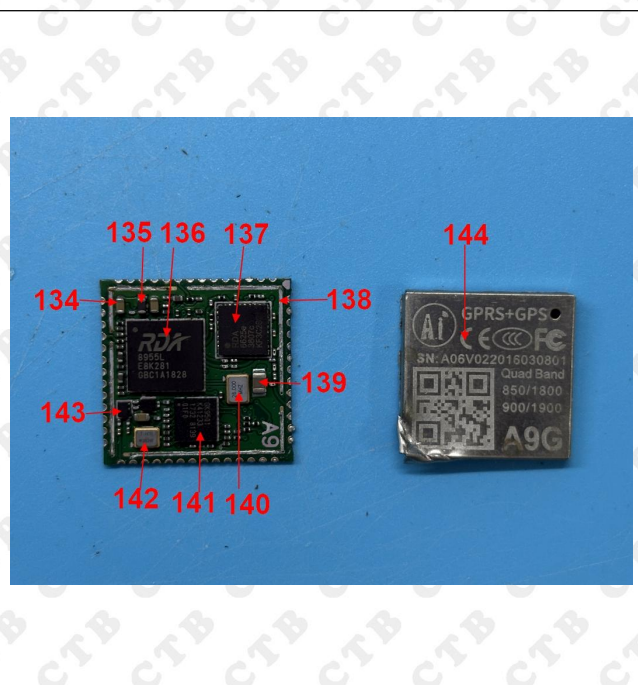
## Difference 12: NF-05-S

126	Solder point
127	Black PCB
128	Silvery crystal oscillator
129	SMD capacitor
130	IC
131	Silver metal pin
132	Black plastic( wire buckle)
133	Silver metal pin (wire buckle)



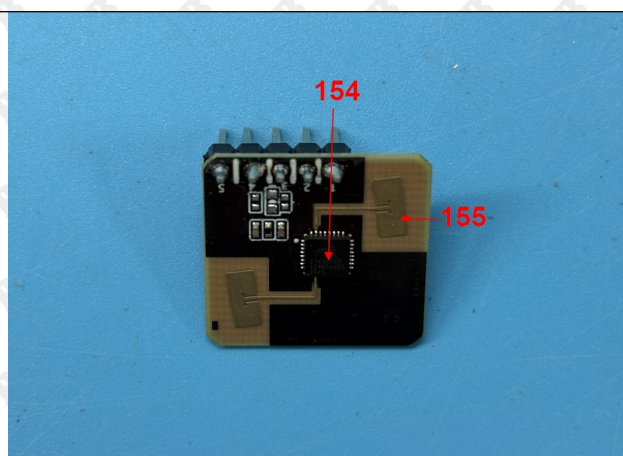
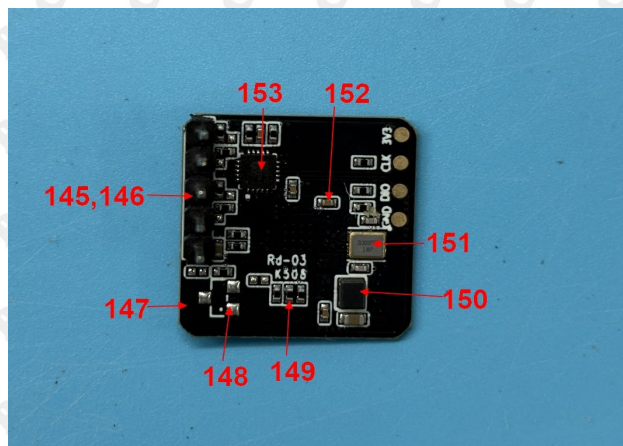
## Difference 13: A9G

134	Brown capacitor
135	Black capacitor
136	IC
137	IC
138	Green PCB
139	Brown capacitor
140	Silvery crystal oscillator
141	IC
142	Silvery crystal oscillator
143	Black inductor
144	Silver metal case



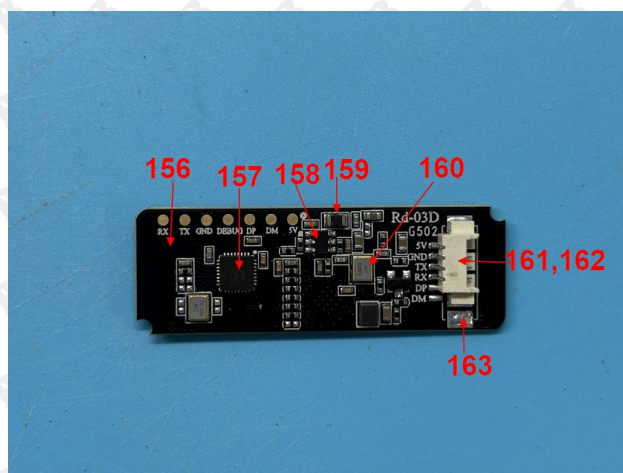
## Difference 14: Rd-03\_V2 版

145	Black plastic( wire buckle)
146	Silver metal pin (wire buckle)
147	Black PCB
148	Solder point
149	SMD resistor
150	Black inductor
151	Silvery crystal oscillator
152	SMD capacitor
153	IC
154	IC
155	Copper-colored metal foil



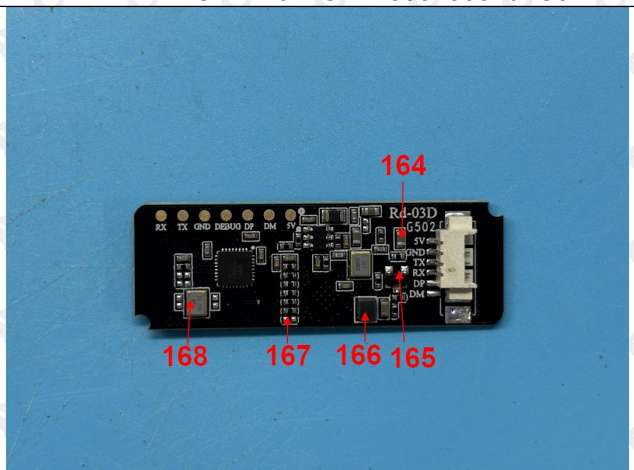
## Difference 15: Rd-03D\_V2 版

156	Black PCB
157	IC
158	Black body
159	Black capacitor
160	Silvery crystal oscillator
161	White plastic( wire buckle)
162	Silver metal pin (wire buckle)
163	Solder point



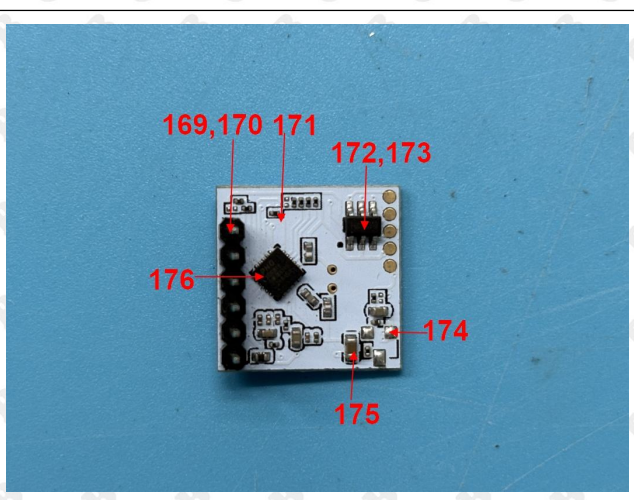


164	SMD capacitor
165	Black triode
166	Black inductor
167	SMD resistor
168	Silvery crystal oscillator



## Difference 16: Rd-04

169	Black plastic( wire buckle)
170	Silver metal pin (wire buckle)
171	White PCB
172	Black body
173	Silver metal pin
174	Solder point
175	SMD capacitor
176	IC



Note: test samples were specified by applicant.

Group no.:	Tested material list no.
001	3+6+8+11+14+15+16+17+21+22+24+26+27+30+33+35+37+45+46+47+48+50+51+53+55+57+56+60+61+62+64+67+70+72+74
002	75+79+78+81+84+87+88+94+94+95+96+98+99+102+103+104+106+107+108+112+114+115+116+117
003	120+123+124+125+126+128+131+133+140+142+143+144+146+148+150+151+155+160+162+163+166+168+170+173+174
004	1+2+4+5+7+9+10+12+13+18+19+20+23+25+28+29+31+32+34+35+36+38+39+40+41+42+43+44+49+52+54+58+59
005	63+65+66+68+69+71+73+76+77+80+82+83+85+86+88+90+92+93+97+100+101+105+109+110+111+113+115+118+119

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006	121+122+127+129+130+132+134+135+136+137+138+139+141+145+147+149+152+153+154+156+157+158+159+161+164+165+167+169+171+172+175+176
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**REACH SVHCs Test Results:**

Test method used: acid digestion, solvent extraction, screening method

Instrument used for analysis: ICP-OES, GC-MS, LC-MS, HS-GC-MS, IC, UV-vis, XRF

**Test results:**

Sample description (Group no.)	Substance name(s)	CAS No.	EC No.	Result (%)
001	All tested SVHC in candidate list	/	/	N.D
002	All tested SVHC in candidate list	/	/	N.D
003	All tested SVHC in candidate list	/	/	N.D
004	All tested SVHC in candidate list	/	/	N.D
005	All tested SVHC in candidate list	/	/	N.D
006	All tested SVHC in candidate list	/	/	N.D

**Note:**

- N.D = Not Detected (< report limit)
- 0.1% = 1000mg/kg
- mg/kg = ppm = parts per million

The full list of SVHC substances in candidate list is shown in following pages.



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## List of tested SVHC:

Batch	No.	Substance Name	CAS No.	RL (%)
I	1	4,4' -Diaminodiphenylmethane(MDA)	101-77-9	0.050
I	2	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2	0.050
I	3	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins).	85535-84-8	0.050
I	4	Anthracene	120-12-7	0.050
I	5	Benzyl butyl phthalate (BBP)	85-68-7	0.050
I	6	Bis (2-ethylhexyl)phthalate (DEHP)	117-81-7	0.050
I	7	Bis(tributyltin)oxide (TBTO)	56-35-9	0.050
I	8	Cobalt dichloride*	7646-79-9	0.005
I	9	Diarsenic pentaoxide*	1303-28-2	0.005
I	10	Diarsenic trioxide*	1327-53-3	0.005
I	11	Dibutyl phthalate (DBP)	84-74-2	0.050
I	12	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified ( $\alpha$ -HBCDD, $\beta$ -HBCDD, $\gamma$ -HBCDD) $\Delta$ .	25637-99-4, 3194- 55-6	0.050
I	13	Lead hydrogen arsenate*	7784-40-9	0.005
I	14	Sodium dichromate*	7789-12-0, 10588-01-9	0.005
I	15	Triethyl arsenate*	15606-95-8	0.005
II	16	2,4-Dinitrotoluene	121-14-2	0.050
II	17	Acrylamide	79-06-1	0.050
II	18	Anthracene oil**.	90640-80-5	0.050
II	19	Anthracene oil, anthracene paste**	90640-81-6	0.050
II	20	Anthracene oil, anthracene paste, anthracene fraction**	91995-15-2	0.050

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## List of tested SVHC:

Batch	No.	Substance Name	CAS No.	RL (%)
II	21	Anthracene oil, anthracene paste, distn. lights**	91995-17-4	0.050
II	22	Anthracene oil, anthracene-low**	90640-82-7	0.050
II	23	Diisobutyl phthalate (DIBP)	84-69-5	0.050
II	24	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)*	12656-85-8	0.005
II	25	Lead chromate*	7758-97-6	0.005
II	26	Lead sulfochromate yellow (C.I. Pigment Yellow 34)*	1344-37-2	0.005
II	27	Pitch, coal tar, high temp**	65996-93-2	0.050
II	28	Tris(2-chloroethyl)phosphate	115-96-8	0.050
III	29	Ammonium dichromate*	7789-09-5	0.005
III	30	Boric acid*	10043-35-3, 11113-50-1	0.005
III	31	Disodium tetraborate, anhydrous*	1303-96-4, 1330-43-4, 12179-04-3	0.005
III	32	Potassium chromate*	7789-00-6	0.005
III	33	Potassium dichromate*	7778-50-9	0.005
III	34	Sodium chromate*	7775-11-3	0.005
III	35	Tetraboron disodium heptaoxide, hydrate*	12267-73-1	0.005
III	36	Trichloroethylene	79-01-6	0.050
IV	37	2-Ethoxyethanol	110-80-5	0.050
IV	38	2-Methoxyethanol	109-86-4	0.050
IV	39	Chromic acid, Oligomers of chromic acid and dichromic acid, Dichromic acid*	7738-94-5 - 13530-68-2	0.050



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## List of tested SVHC:

Batch	No.	Substance Name	CAS No.	RL (%)
IV	40	Chromium trioxide*	1333-82-0	0.005
IV	41	Cobalt(II) carbonate*	513-79-1	0.005
IV	42	Cobalt(II) diacetate*	71-48-7	0.005
IV	43	Cobalt(II) dinitrate*	10141-05-6	0.005
IV	44	Cobalt(II) sulphate*	10124-43-3	0.005
V	45	1,2,3-trichloropropane	96-18-4	0.050
V	46	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	71888-89-6	0.050
V	47	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	68515-42-4	0.050
V	48	1-methyl-2-pyrrolidone	872-50-4	0.050
V	49	2-ethoxyethyl acetate	111-15-9	0.050
V	50	Hydrazine	7803-57-8, 302-01-2	0.050
V	51	Strontium chromate*	7789-06-2	0.005
VI	52	1,2-Dichloroethane	107-06-2	0.050
VI	53	2,2'-dichloro-4,4'-methylenedianiline	101-14-4	0.050
VI	54	2-Methoxyaniline; o-Anisidine	90-04-0	0.050
VI	55	4-(1,1,3,3-tetramethylbutyl)phenol	140-66-9	0.050
VI	56	Aluminosilicate Refractory Ceramic Fibres *	650-017-00-8	0.005
VI	57	Arsenic acid*	7778-39-4	0.005
VI	58	Bis(2-methoxyethyl) ether	111-96-6	0.050
VI	59	Bis(2-methoxyethyl) phthalate	117-82-8	0.050
VI	60	Calcium arsenate*	7778-44-1	0.005

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## List of tested SVHC:

Batch	No.	Substance Name	CAS No.	RL (%)
VI	61	Dichromium tris(chromate) *	24613-89-6	0.005
VI	62	Formaldehyde, oligomeric reaction products with aniline	25214-70-4	0.050
VI	63	Lead diazide, Lead azide*	13424-46-9	0.005
VI	64	Lead dipicrate*	6477-64-1	0.005
VI	65	Lead styphnate*	15245-44-0	0.005
VI	66	N,N-dimethylacetamide	127-19-5	0.050
VI	67	Pentazinc chromate octahydroxide*	49663-84-5	0.005
VI	68	Phenolphthalein	77-09-8	0.050
VI	69	Potassium hydroxyoctaoxodizincatedichromate*	11103-86-9	0.005
VI	70	Trilead diarsenate*	3687-31-8	0.005
VII	71	Zirconia Aluminosilicate Refractory Ceramic Fibres*	650-017-00-8	0.005
VII	72	[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26)§	2580-56-5	0.050
VII	73	[4-[4,4'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3)§	548-62-9	0.050
VII	74	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	0.050
VII	75	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME).	110-71-4	0.050
VII	76	4,4'-bis(dimethylamino) benzophenone (Michler's Ketone)	90-94-8	0.050
VII	77	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol§	561-41-1	0.050
VII	78	Diboron trioxide*	1303-86-2	0.005



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## List of tested SVHC:

Batch	No.	Substance Name	CAS No.	RL (%)
VII	79	Formamide	75-12-7	0.050
VII	80	Lead(II) bis(methanesulfonate)*	17570-76-2	0.005.
VII	81	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1	0.050
VII	82	TGIC(1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione)	2451-62-9	0.050
VII	83	$\alpha,\alpha$ -Bis[4-(dimethylamino)phenyl]-4-(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)§	6786-83-0	0.050
VII	84	$\beta$ -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	0.050
VIII	85	[Phthalato(2-)]dioxotrilead*	69011-06-9	0.005
VIII	86	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	0.050
VIII	87	1,2-Diethoxyethane	629-14-1	0.050
VIII	88	1-Bromopropane	106-94-5	0.050
VIII	89	3-Ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	0.050
VIII	90	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated	-	0.050
VIII	91	4,4'-Methylenedi-o-toluidine	838-88-0	0.050
VIII	92	4,4'-Oxydianiline and its salts	101-80-4	0.050
VIII	93	4-Aminoazobenzene	60-09-3	0.050
VIII	94	4-Methyl-m-phenylenediamine	95-80-7	0.050
VIII	95	4-Nonylphenol, branched and linear	-	0.050
VIII	96	6-Methoxy-m-toluidine	120-71-8	0.050
VIII	97	Acetic acid, lead salt, basic*	51404-69-4	0.005

## List of tested SVHC:

Batch	No.	Substance Name	CAS No.	RL (%)
VIII	98	Biphenyl-4-ylamine	92-67-1	0.050
VIII	99	Bis(pentabromophenyl) ether (DecaBDE)	1163-19-5	0.050
VIII	100	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	0.050
VIII	101	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	0.050
VIII	102	Dibutyltin dichloride (DBTC)	683-18-1	0.050
VIII	103	Diethyl sulphate	64-67-5	0.050
VIII	104	Diisopentylphthalate	605-50-5	0.050
VIII	105	Dimethyl sulphate	77-78-1	0.050
VIII	106	Dinoseb	88-85-7	0.050
VIII	107	Dioxobis(stearato)trilead*	12578-12-0	0.005
VIII	108	Fatty acids, C16-18, lead salts*	91031-62-8	0.005
VIII	109	Furan	110-00-9	0.050
VIII	110	Henicosafluoroundecanoic acid	2058-94-8	0.050
VIII	111	Heptacosafuorotetradecanoic acid	376-06-7	0.050
VIII	112	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	0.050
VIII	113	Lead bis(tetrafluoroborate)*	13814-96-5	0.005
VIII	114	Lead cyanamidate*	20837-86-9	0.005
VIII	115	Lead dinitrate*	10099-74-8	0.005
VIII	116	Lead monoxide*	1317-36-8	0.005



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## List of tested SVHC:

Batch	No.	Substance Name	CAS No.	RL (%)
VIII	117	Lead oxide sulfate*	12036-76-9	0.005
VIII	118	Lead tetroxide (orange lead)*	1314-41-6	0.005
VIII	119	Lead titanium trioxide*	12060-00-3	0.005
VIII	120	Lead titanium zirconium oxide*	12626-81-2	0.005
VIII	121	Methoxyacetic acid	625-45-6	0.050
VIII	122	Methyloxirane (Propylene oxide)	75-56-9	0.050
VIII	123	N,N-dimethylformamide	68-12-2	0.050
VIII	124	N-Methylacetamide	79-16-3	0.050
VIII	125	N-Pentyl-isopentylphthalate	776297-69-9	0.050
VIII	126	o-Aminoazotoluene	97-56-3	0.050
VIII	127	o-Toluidine	95-53-4	0.050
VIII	128	Pentacosfluorotridecanoic acid	72629-94-8	0.050
VIII	129	Pentalead tetraoxide sulphate*	12065-90-6	0.005
VIII	130	Pyrochlore, antimony lead yellow*	8012-00-8	0.005
VIII	131	Silicic acid, barium salt, lead-doped*	68784-75-8	0.005
VIII	132	Silicic acid, lead salt*	11120-22-2	0.005
VIII	133	Sulfurous acid, lead salt, dibasic*	62229-08-7	0.005
VIII	134	Tetraethyllead*	78-00-2	0.005
VIII	135	Tetralead trioxide sulphate*	12202-17-4	0.005
VIII	136	Tricosfluorododecanoic acid	307-55-1	0.050
VIII	137	Trilead bis(carbonate)dihydroxide (basic lead carbonate)*	1319-46-6	0.005
VIII	138	Trilead dioxide phosphonate*	12141-20-7	0.005

## List of tested SVHC:

Batch	No.	Substance Name	CAS No.	RL (%)
IX	139	4-Nonylphenol, branched and linear, ethoxylated	-	0.050
IX	140	Ammonium pentadecafluorooctanoate (APFO)**	3825-26-1	0.050
IX	141	Cadmium oxide*	1306-19-0	0.005
IX	142	Cadmium	7440-43-9	0.005
IX	143	Dipentyl phthalate (DPP)	131-18-0	0.050
IX	144	Pentadecafluorooctanoic acid (PFOA)	335-67-1	0.050
X	145	Cadmium sulphide*	1306-23-6	0.005
X	146	Dihexyl phthalate	84-75-3	0.050
X	147	Disodium 3,3'-[[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0	0.050
X	148	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 Black38)	1937-37-7	0.050
X	149	Imidazolidine-2-thione; (2-imidazoline-2-thiol)	96-45-7	0.050
X	150	Lead di(acetate)*	301-04-2	0.005
X	151	Trixylyl phosphate	25155-23-1	0.050
XI	152	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	0.050
XI	153	Cadmium chloride*	10108-64-2	0.005
XI	154	Sodium perborate; perboric acid, sodium salt*	-	0.005
XI	155	Sodium peroxometaborate*	7632-04-4	0.005
XII	156	2-(2H-Benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	0.050
XII	157	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	0.050



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## List of tested SVHC:

Batch	No.	Substance Name	CAS No.	RL (%)
XII	158	2-Ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecan oate; DOTE	15571-58-1	0.050
XII	159	Cadmium fluoride*	7790-79-6	0.005
XII	160	Cadmium sulphate*	10124-36-4, 31119-53-6	0.005
XII	161	Reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecan oate & 2-ethylhexyl 10-ethyl-4-[[2- [(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dith ia-4-stannatetradecanoate (reaction mass of DOTE & 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 $\geq 0.3\%$ of dihexyl phthalate	68515-51-5, 68648-93-1	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 isomers of [1] and [2] or any combination thereof].	-	0.050
XIV	164	1,3-propanesultone	1120-71-4	0.050
XIV	165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	0.050
XIV	166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	0.050
XIV	167	Nitrobenzene	98-95-3	0.050
XIV	168	Perfluorononan-1-oic-acid and its sodium and ammonium salts	375-95-1, 21049-39-8, 4149-60-4	0.050
XV	169	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8	0.050
XVI	170	4,4'-isopropylidenediphenol (bisphenol A)	80-05-7	0.050
XVI	171	4-Heptylphenol, branched and linear	-	0.050

## List of tested SVHC:

Batch	No.	Substance Name	CAS No.	RL (%)
XVI	172	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	3108-42-7, 335-76-2, 3830-45-3	0.050
XVI	173	p-(1,1-dimethylpropyl)phenol	80-46-6	0.050
XVII	174	Perfluorohexane-1-sulphonic acid and its salts	-	0.050
XVIII	175	Dodecachloropentacyclo[12.2.1.16,9.02,13.05,10]octadeca-7,15-diene ("Dechlorane Plus"™) [covering any of its individual anti- and syn-isomers or any combination thereof]	-	0.050
XVIII	176	Benz[a]anthracene	56-55-3, 1718-53-2	0.050
XVIII	177	Cadmium nitrate*	10022-68-1, 10325-94-7	0.005
XVIII	178	Cadmium carbonate*	513-78-0	0.005
XVIII	179	Cadmium hydroxide*	21041-95-2	0.005
XVIII	180	Chrysene	218-01-9, 1719-03-5	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)	552-30-7	0.050
XIX	183	Benzo[ghi]perylene	191-24-2	0.050
XIX	184	Decamethylcyclopentasiloxane (D5).	541-02-6	0.050
XIX	185	Dicyclohexyl phthalate (DCHP)	84-61-7	0.050
XIX	186	Disodium octaborate*	12008-41-2	0.005
XIX	187	Dodecamethylcyclohexasiloxane (D6)	540-97-6	0.050
XIX	188	Ethylenediamine	107-15-3	0.050
XIX	189	Lead (Pb)	7439-92-1	0.005



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## List of tested SVHC:

Batch	No.	Substance Name	CAS No.	RL (%)
XIX	190	Octamethylcyclotetrasiloxane (D4)	556-67-2	0.050
XIX	191	Terphenylhydrogenate	61788-32-7	0.050
XX	192	1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one (3-benzylidenecamphor)	15087-24-8	0.050
XX	193	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	0.050
XX	194	Benzo[k]fluoranthene	207-08-9	0.050
XX	195	Fluoranthene	206-44-0	0.050
XX	196	Phenanthrene	85-01-8	0.050
XX	197	Pyrene	129-00-0	0.050
XXI	198	4-tert-Butylphenol	98-54-4	0.050
XXI	199	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
XXI	200	2-methoxyethyl acetate	110-49-6	0.050
XXI	201	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with $\geq 0.1\%$ ( w/w) of 4-nonylphenol, branched and linear (4-NP)	-	0.050
XXII	202	2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	0.050
XXII	203	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	0.050
XXII	204	Diisohexyl phthalate	71850-09-4	0.050
XXII	205	Perfluorobutane sulfonic acid (PFBS) and its salts	-	0.050
XXIII	206	1-vinylimidazole	1072-63-5	0.050
XXIII	207	2-methylimidazole	693-98-1	0.050
XXIII	208	Butyl 4-hydroxybenzoate	94-26-8	0.050

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## List of tested SVHC:

Batch	No.	Substance Name	CAS No.	RL (%)
XXIII	209	Dibutylbis(pentane-2,4-dionato- O,O')tin	22673-19-4	0.050
XXIV	210	bis(2-(2-methoxyethoxy)ethyl) ether	143-24-8	0.050
XXIV	211	Diocetyl tin 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	0.050
XXV	213	2,2-bis(bromomethyl)propane-1,3-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)	1522-92-5; 36483-57-5; 3296-90-0; 96-13-9	0.050
XXV	214	2-(4-tert-butylbenzyl)propionaldehyde and its individual stereoisomers	75166-31-3; 80-54-6; 75166-30-2	0.050
XXV	215	4,4'-(1-methylpropylidene)bisphenol	77-40-7	0.050
XXV	216	glutaral	111-30-8	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	orthoboric acid, sodium salt	-	0.050
XXV	219	Phenol, alkylation products (mainly in para position) with C12-rich branched 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



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## List of tested SVHC:

Batch	No.	Substance Name	CAS No.	RL (%)
XXVI	221	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol	119-47-1	0.010
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	0.050
XXVI	223	tris(2-methoxyethoxy)vinylsilane	1067-53-4	0.010
XXVII	224	N-(hydroxymethyl)acrylamide	924-42-5	0.010
XXVIII	225	1,1'-[ethane-1,2-diylbis(oxy)]bis[2,4,6-tribromobenzene]	37853-59-1	0.010
XXVIII	226	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol	79-94-7	0.050
XXVIII	227	4,4'-sulphonyldiphenol	80-09-1	0.010
XXVIII	228	Barium diboron tetraoxide	13701-59-2	0.010
XXVIII	229	Bis(2-ethylhexyl)tetrabromophthalate covering any of the individual isomers and/or combinations thereof	-	0.010
XXVIII	230	Isobutyl 4-hydroxybenzoate	4247-02-3	0.010
XXVIII	231	Melamine	108-78-1	0.050
XXVIII	232	Perfluoroheptanoic acid and its salts	-	0.050
XXVIII	233	2,2,3,3,5,5,6,6-octafluoro-4-(1,1,1,2,3,3,3-heptafluoropropan-2-yl) morpholine and 2,2,3,3,5,5,6,6-octafluoro-4-(heptafluoropropyl)morpholine	-	0.050
XXIX	234	Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	75980-60-8	0.050
XXIX	235	Bis(4-chlorophenyl) sulphone	80-07-9	0.050
XXX	236	2,4,6-tri-tert-butylphenol	732-26-3	0.050
XXX	237	2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol	3147-75-9	0.050
XXX	238	2-(dimethylamino)-2-[(4-methylphenyl)methyl]-1-[4-(morpholin-4-yl)phenyl]butan-1-one	119344-86-4	0.050
XXX	239	Bumetizole	3896-11-5	0.050
XXX	240	Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol	-	0.050
XXXI	241	Bis(a,adimethylbenzyl)peroxide	80-43-3	0.050

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XXXII	242	Triphenyl phosphate (TPP)	115-86-6	0.050
XXXIII	243	Octamethyltrisiloxane	107-51-7	0.050
XXXIII	244	O,O,O-triphenyl phosphorothioate	597-82-0	0.050
XXXIII	245	Reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	192268-65-8	0.050
XXXIII	246	Perfluamine	338-83-0	0.050
XXXIII	247	6-[(C10-C13)-alkyl-(branched,unsaturated)-2,5-dioxopyrrolidin-1-yl]hexanoic acid	2156592-54-8	0.050

**Note:**

-0.1%=1000mg/kg=1000ppm

-\*:Inorganic SVHC compounds are obtained by converting the test results of corresponding elements, and confirmed through the appropriate solvent extraction. At the same time, customers are suggested to check the chemical formula table, to further confirm whether above materials are contained.

-\*\*: 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).

-\*\*\*: C.I.:Colour Index

-\*\*\*\*: Light fractions from distillation

-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.

-②:In view of the substances contain variable substances, the test results are calculated based on main constituents of the representative compounds for the substances, and the test results of the representative compounds are calculated based on the results of specified heavy metal elements.



**Appendix:****1. According to the Article 33 of the Regulation (EC) No 1907/2006(REACH)-Duty to communication information on substances in articles.**

—Any supplier of an article containing a substance meeting the criteria in Article 57 and identified in accordance with Article 59(1) in a Result 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.

—On request by a consumer, any supplier of an article containing a substance meeting the criteria in Article 57 and identified in Article 59(1) in a Result 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. The relevant information shall be provided, free of charge, within 45 days of receipt of the request.

**2. According to the Article 33 of the Regulation (EC) No 1907/2006(REACH)-Notification of the Substance in Article.**

—If a substance meets the criteria in Article 57 and is identified in accordance with Article 59(1), EU and EEA producers or importers of articles have to notify ECHA when their article contains a substance on the Candidate List. This obligation applies if the substance is present above 0.1%(w/w) and its quantities in the produced/imported articles are above 1 tonne in total per year.

**3. According to the other articles of the Regulation (EC) No 1907/2006(REACH), The relevant obligation for the substance on its own or in preparation.****—OBLIGATIONS:SUBSTANCES**

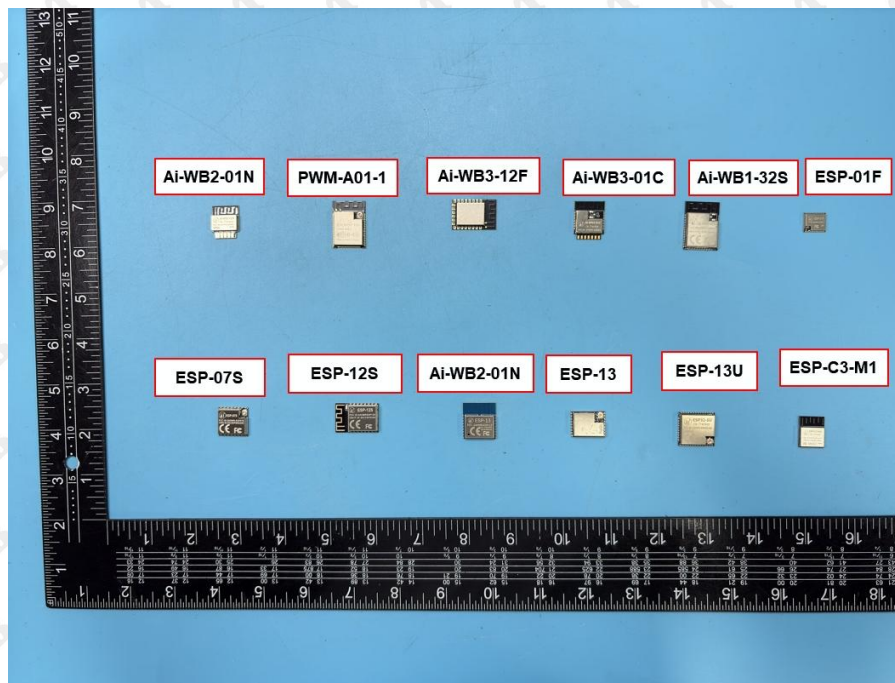
From 28 October 2008, EU&EEA suppliers of a substance have to provide a safety data sheet to their customers when the substance is in the Candidate List.

**—OBLIGATIONS:PREPARATIONS**

From 28 October 2008, EU&EEA suppliers of a preparation not classified as dangerous according to Directive 1999/45/EC have to provide the recipients, at their request, with a safety data sheet if the preparation contains at least one substance on the Candidate List and its individual Result is at least 0.1%(w/w) for non gaseous preparations and at least 0.2% by volume for gaseous preparations.

4. From 5 January 2021, if SVHC substances are present in an article placed on the EU market in a concentration above 0.1 % w/w, the EU supplier of that article needs to submit a SCIP notification to ECHA under the EU Waste Framework Directive (WFD, Directive 2008/98/EC). After 5 January 2021, if substances present in an article as such or in a complex object placed on the EU market in a concentration above 0.1 % w/w are added to the Candidate List, the supplier of that article need to submit a new SCIP notification or update a previous submitted SCIP notification for that article at the time of the next supply or placement on the market to any customer or as a result of an import, after the substance has been included in the Candidate List.

## Photo documentation

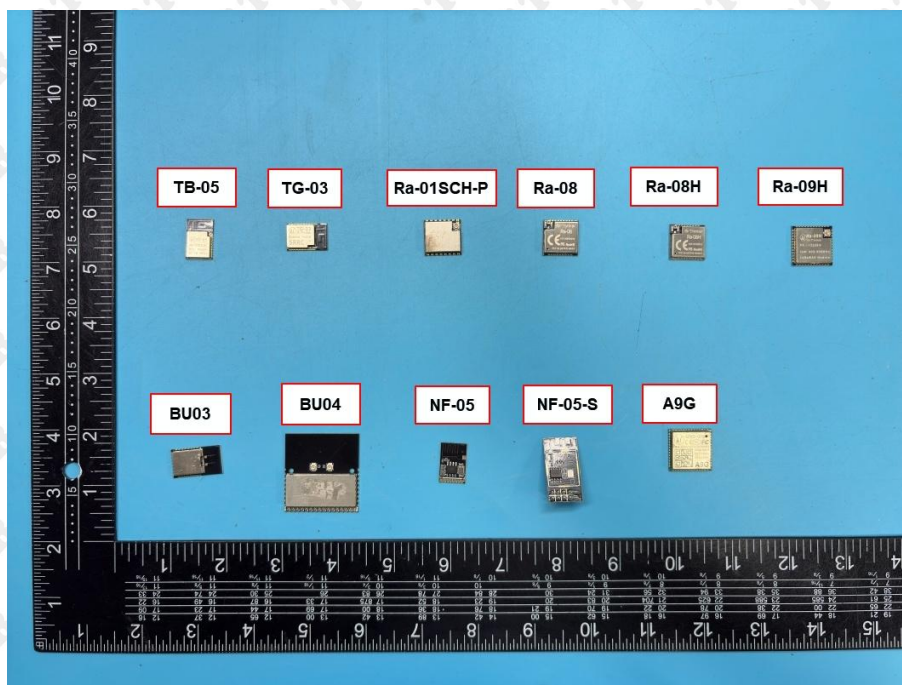
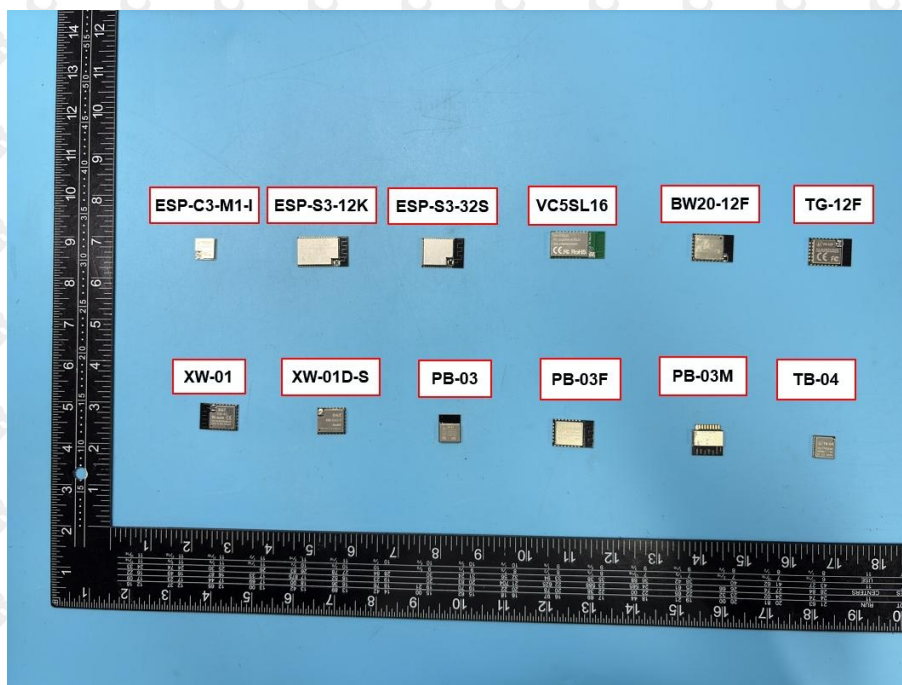




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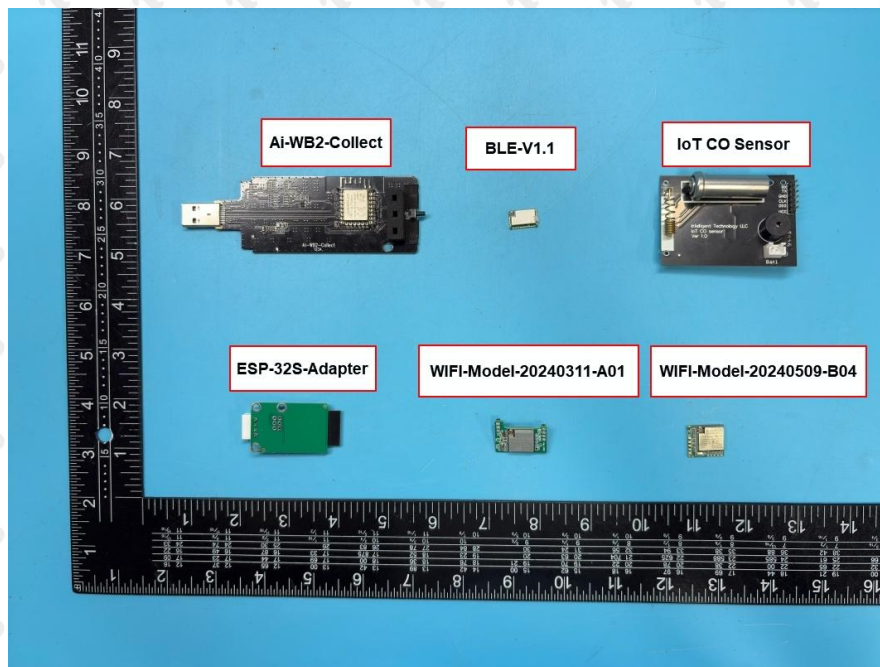
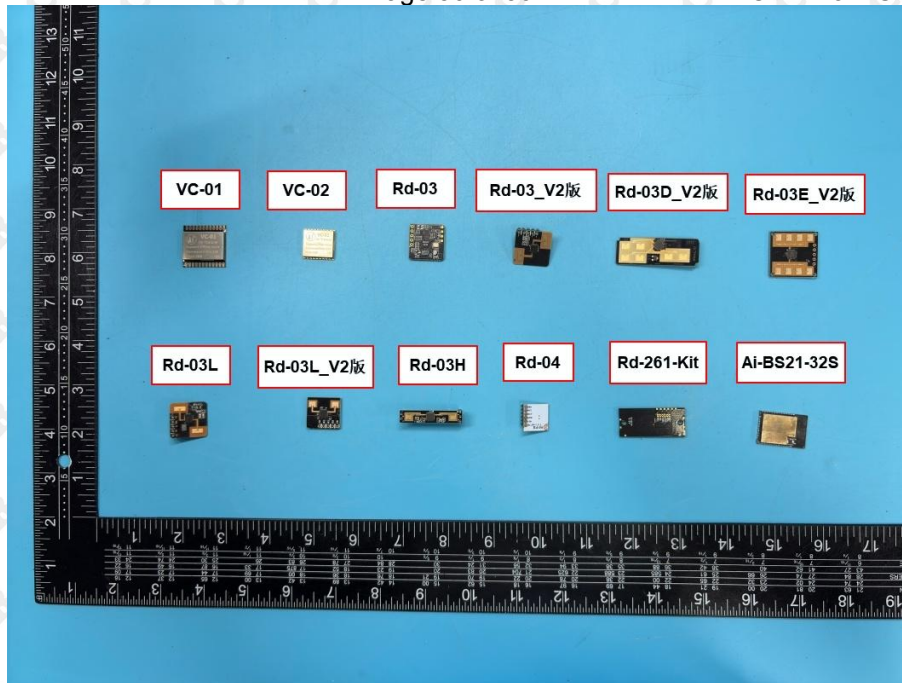
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\*\*\* End of Report \*\*\*

Note: If there is any objection to the inspection results in this report, please submit a written report to the company within 15 days from the date of receiving the report. The test report is effective only with both signature and specialized stamp. This result(s) shown in this report refer only to the sample(s) tested. Without written approval of Shenzhen CTB Testing Technology Co., Ltd. this report can't be reproduced except in full. The tested sample(s) and the sample information are provided by the client. "★" indicates the testing items were fulfilled by subcontracted lab. "☞" indicates the items are not in CNAS accreditation scope.

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