Test Report No.: 70.400.19.307.15-01.01
Dated: 2020-07-16

Applicant	:	Ningbo Skyzon Energy Co.,Ltd No.19,Kesan Road,Ninghai,315600,Ningbo,China
Attention	:	Jackie Zhang
Sample Description	:	NA
Style No. / Name / Design No.	:	NA
PO No. / Order No.	:	NA
Test Sample Receipt Date, Location	:	2019-09-21, Shanghai
Test Period, Location	:	From 2019-09-22 to 2019-10-12, Shanghai
Test Result(s)	:	Refer to Section 3

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Purpose Of Examination / Conclusion:

No.	Test Item(s)	Conclusion
	Test according to Restriction of Hazardous Substances (RoHS) Directive 2011/65/EU and its amendment Directive (EU) 2015/863	**Complied**
1.	Quantitative screening of Lead, Cadmium, Mercury, Chromium and Bromine	Inconclusive
2.	Heavy Metals Content Test (Total Cadmium, Total Lead, Total Mercury, Hexavalent Chromium)	Pass
3.	Brominated Flame Retardants (PBBs & PBDEs)	Pass
4.	Phthalates (DEHP, BBP, DBP and DIBP)	Pass

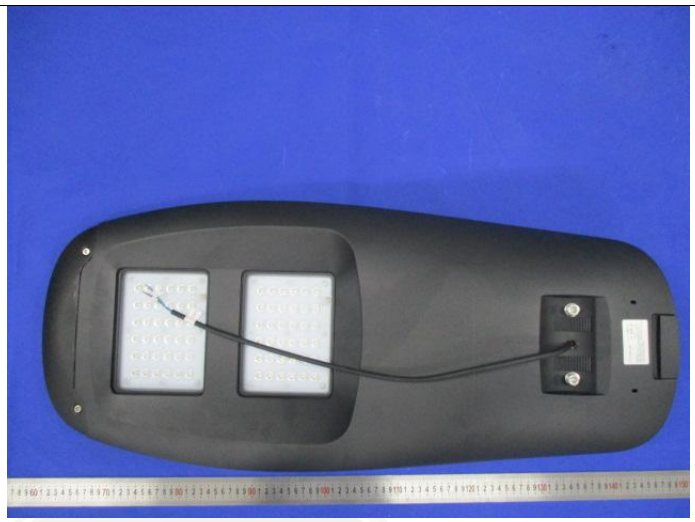
Remarks:

(1) The results relate only to the items tested.

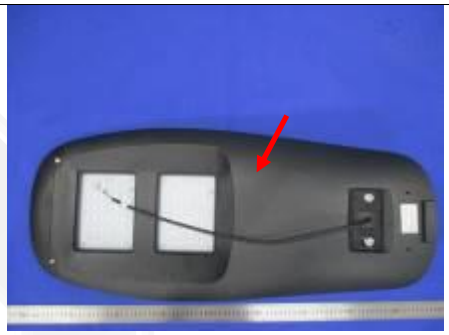
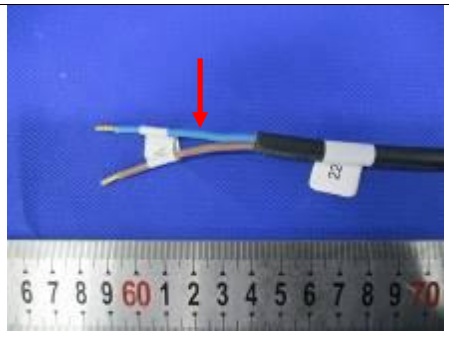
(2) Samples are tested as received.

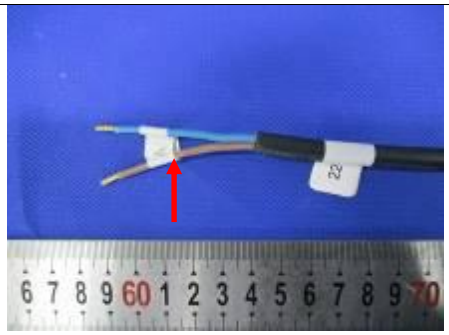
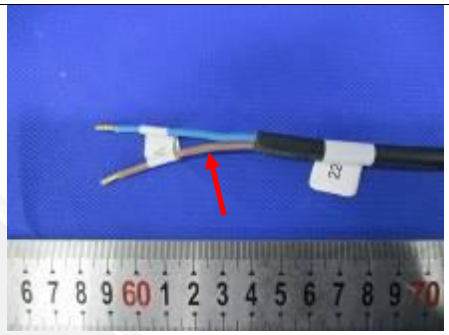
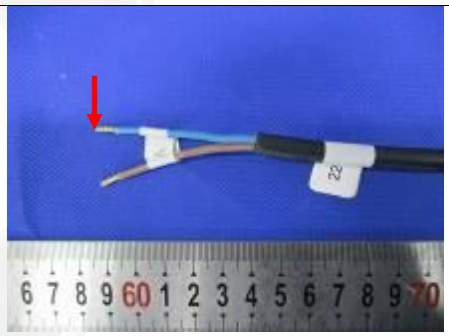
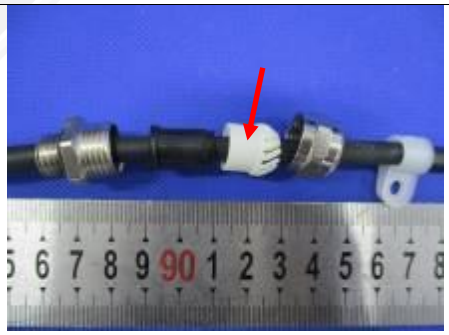
(3) "Pass" means the measured result is within a limit, even when extended by expanded uncertainty. "Fail" means the measured result is beyond a limit, even when extended by expanded uncertainty. "Inconclusive" means the measured result can be within or beyond a limit when extended by expanded uncertainty. The confidence level of the expanded uncertainty for "pass", "Fail" and "Inconclusive" is 95%.

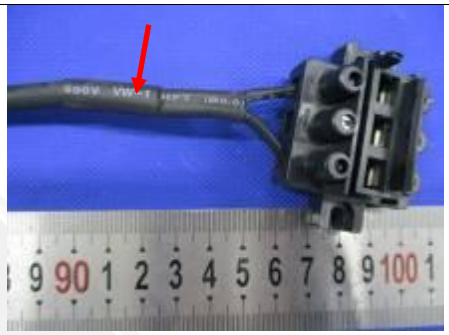
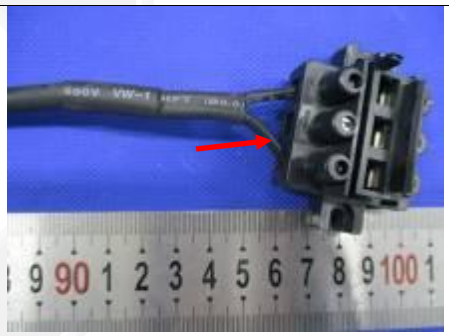
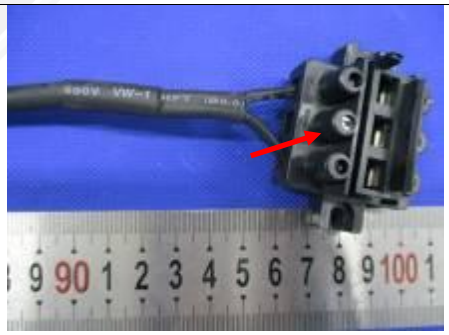
1. Description of the Test Sample:

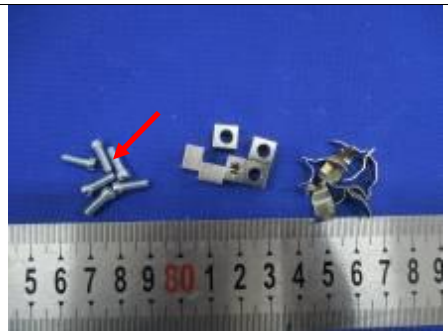
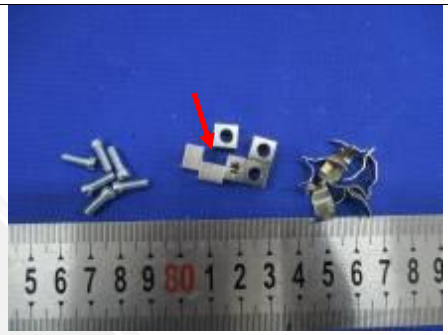
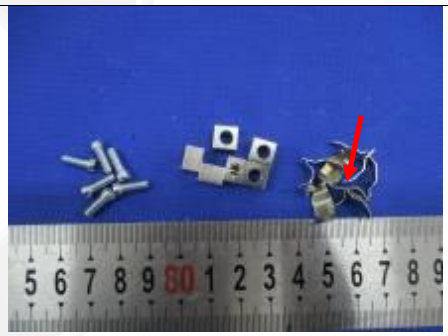
Sample Description	 **EL -SL18(LA)-160W**

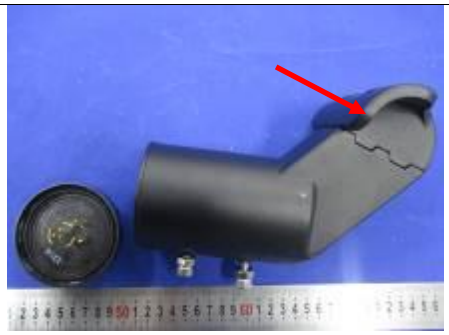
2. List of Materials as identified by the Laboratory:

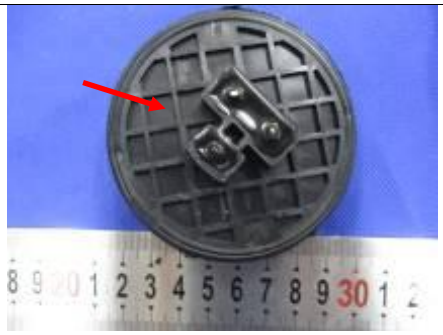
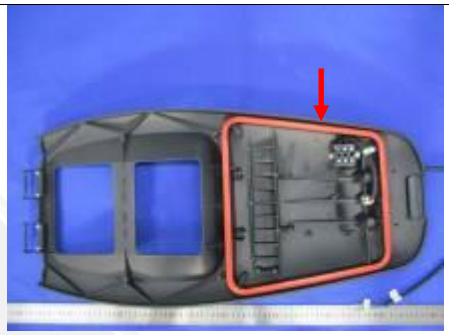
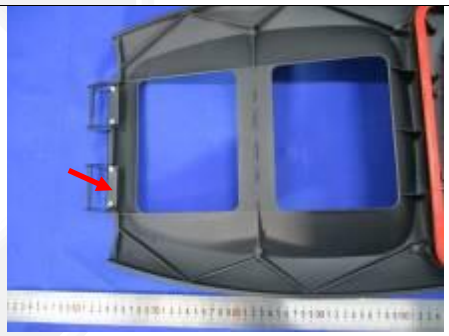
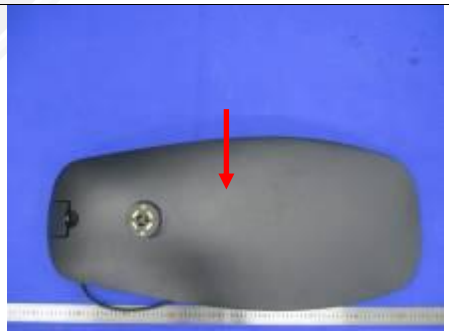
T. No.	Sample No.	Colour and Description	Photograph
T1	001	Black coating	
T2	002	Silver metal base material	
T3	003	Black skin soft plastic	
T4	004	Blue skin soft plastic	

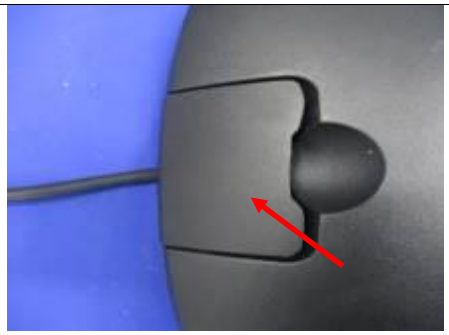
T. No.	Sample No.	Colour and Description	Photograph
T5	005	Brown skin soft plastic	
T6	006	Copper wire core	
T7	007	Copper color metal card	
T8	008	White hard plastic cover	

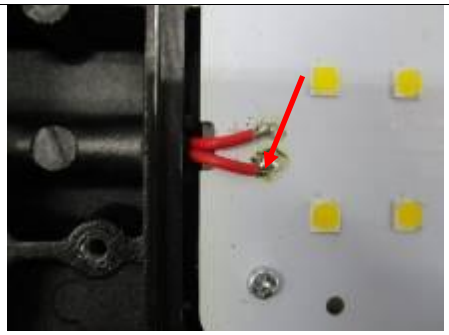
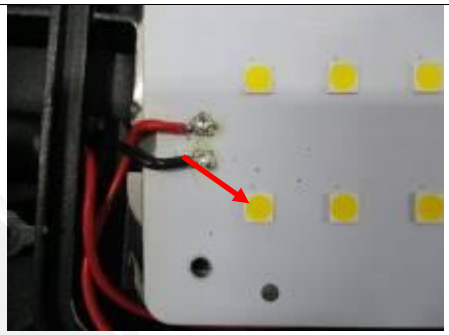
T. No.	Sample No.	Colour and Description	Photograph
T9	009	White hard plastic card	
T10	010	Black heat shrinkable tube	
T11	011	Black heat shrinkable tube	
T12	012	Black hard plastic case	

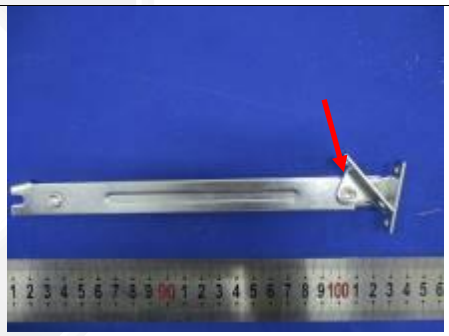
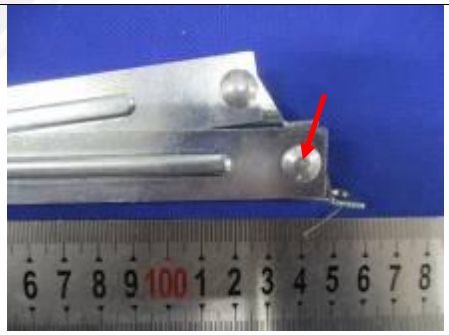
T. No.	Sample No.	Colour and Description	Photograph
T13	013	Silver metal screws	
T14	014	Silver metal	
T15	015	Silver metal	
T16	016	Silver metal base material tube	

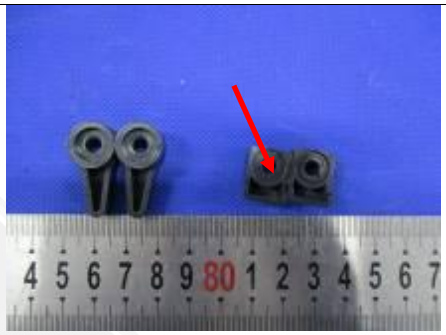
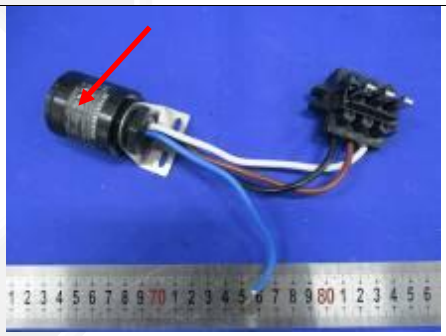
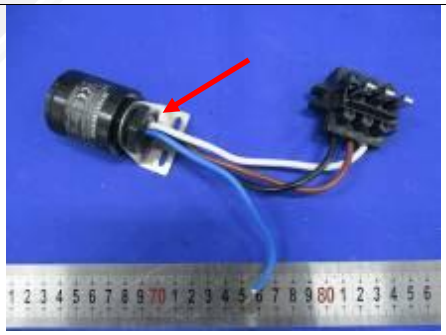
T. No.	Sample No.	Colour and Description	Photograph
T17	017	Silver metal base material	
T18	018	Black hard plastic case	
T19	019	The golden metal	
T20	020	Black soft plastic ring	

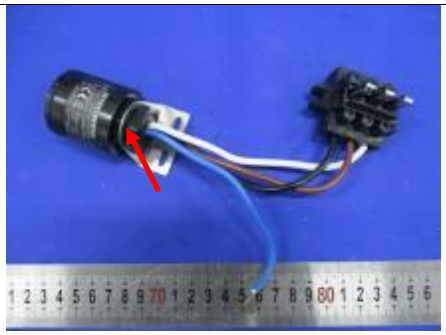
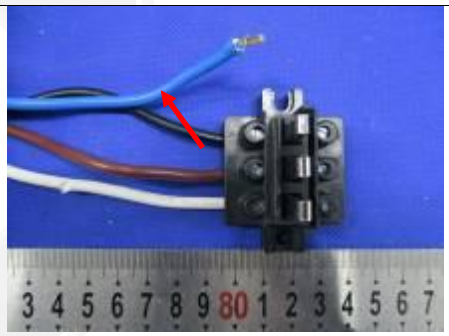
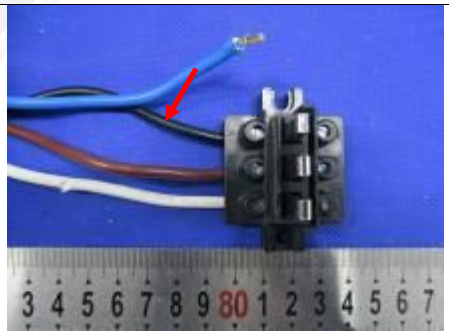
T. No.	Sample No.	Colour and Description	Photograph
T21	021	Black hard plastic	
T22	022	Red soft plastic sealing strip	
T23	023	Silver metal base material	
T24	024	Silver base metal shell	

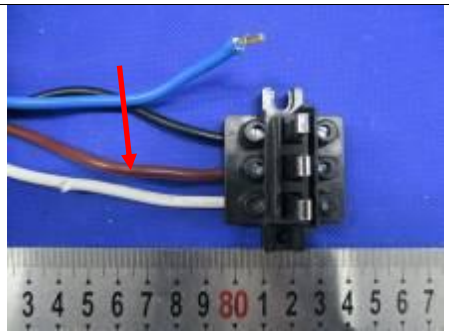
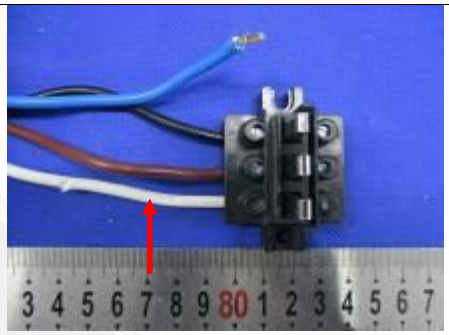
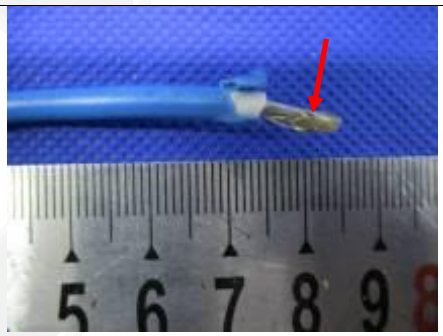
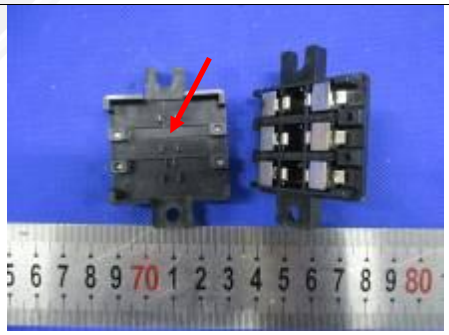
T. No.	Sample No.	Colour and Description	Photograph
T25	025	Silver metal base material	
T26	026	Silver gold frame	
T27	027	White board	
T28	028	Gray soft rubber	

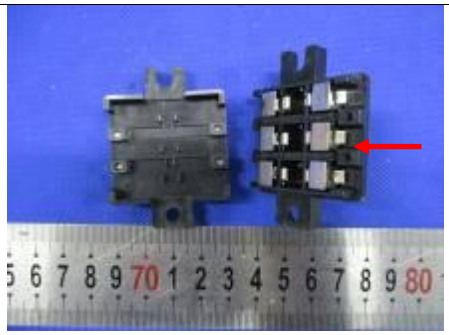
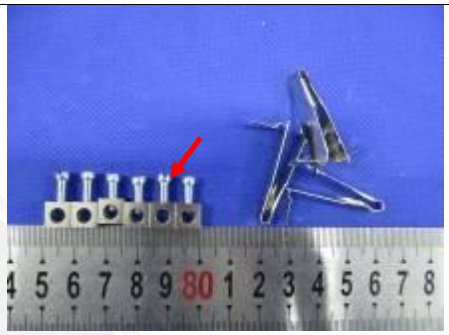
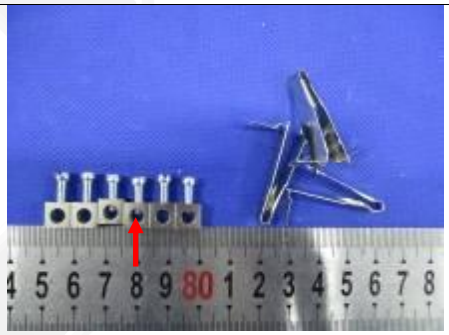
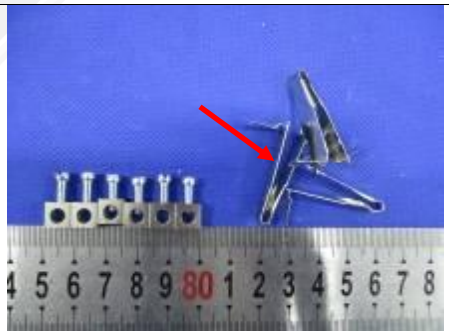
T. No.	Sample No.	Colour and Description	Photograph
T29	029	Silver metal solder joints	
T30	030	Yellow LED	
T31	031	Silver metal base material box	
T32	032	The white hard plastic cover	

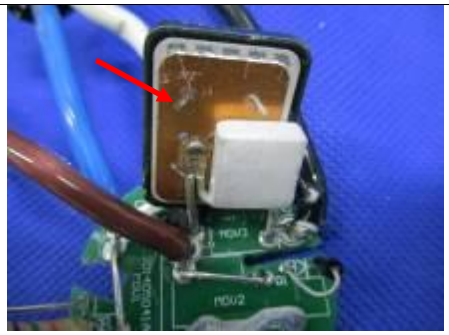
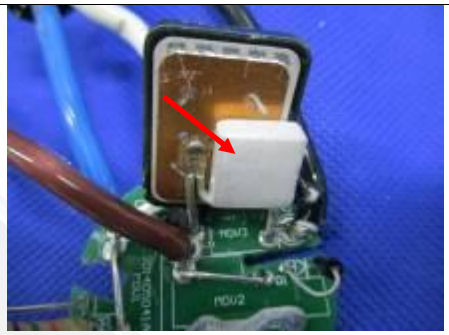
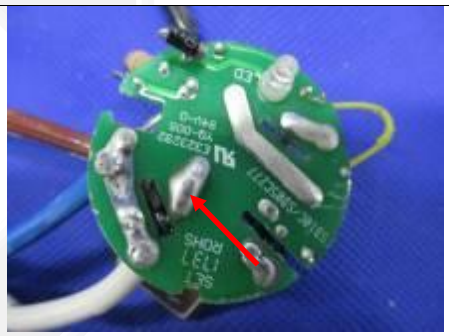
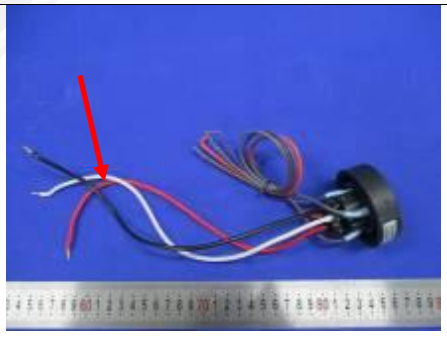
T. No.	Sample No.	Colour and Description	Photograph
T33	033	White soft plastic sealing strip	
T34	034	Silver metal bar	
T35	035	Silver metal parts	
T36	036	Silver metal rivets	

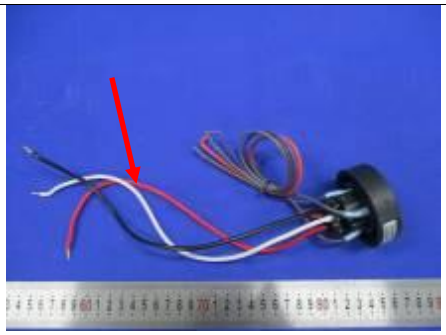
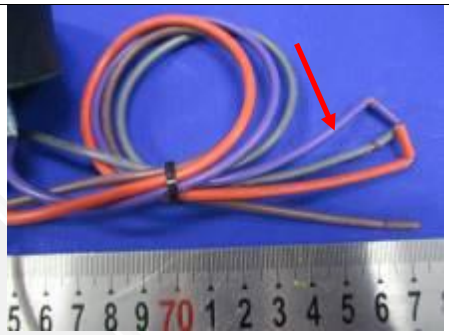
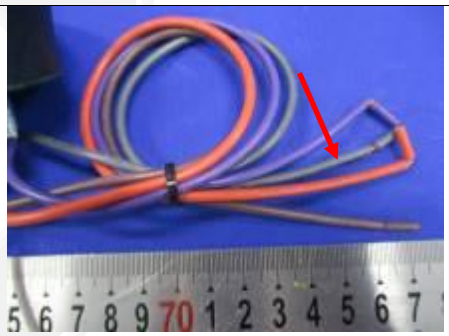
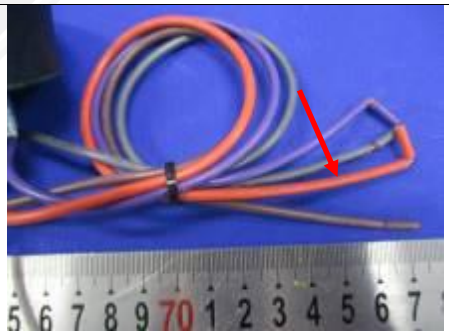
T. No.	Sample No.	Colour and Description	Photograph
T37	037	Black hard plastic	
T38	038	Black hard plastic piece	
T39	039	Black hard plastic case	
T40	040	Silver metal	

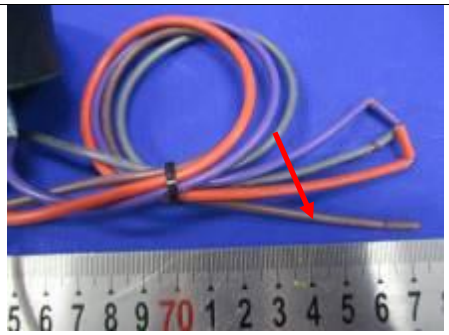
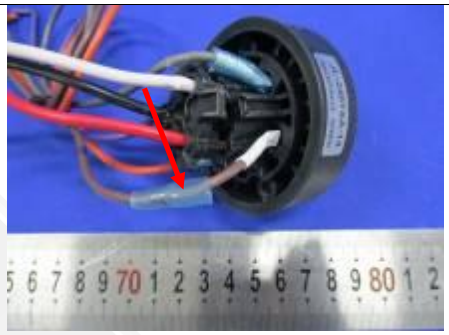
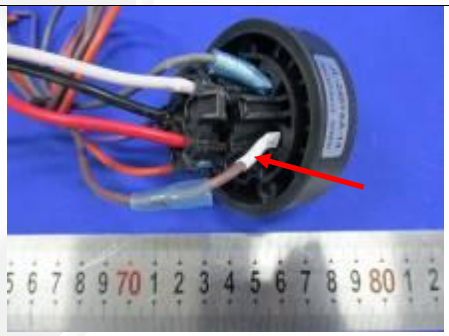
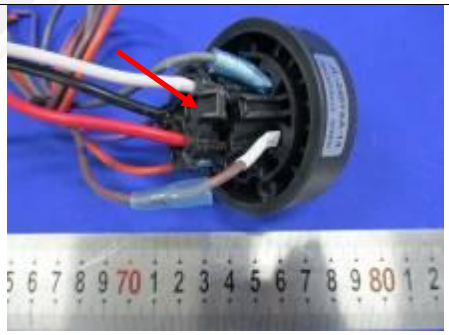
T. No.	Sample No.	Colour and Description	Photograph
T41	041	Black hard plastic ring	
T42	042	The black hard plastic cover	
T43	043	Blue skin soft plastic	
T44	044	Black skin soft plastic	

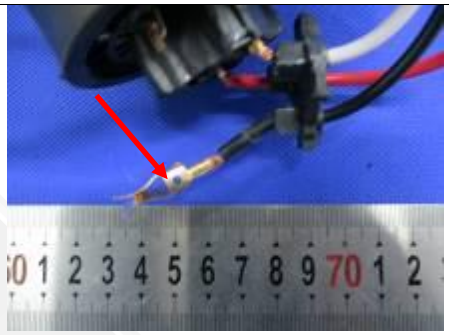
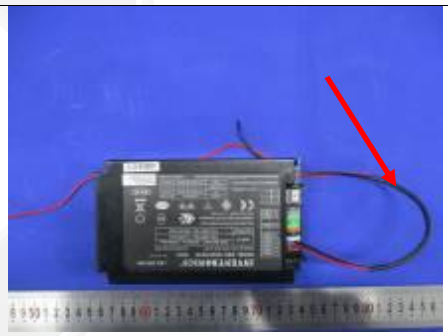
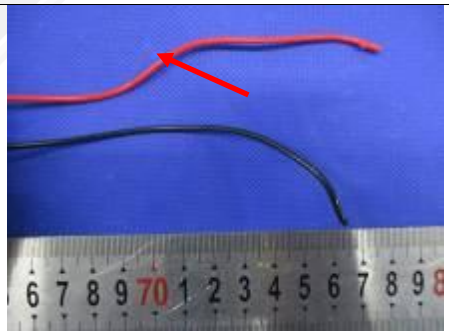
T. No.	Sample No.	Colour and Description	Photograph
T45	045	Brown skin soft plastic	
T46	046	White skin soft plastic	
T47	047	Silver metal wire core	
T48	048	Black hard plastic case	

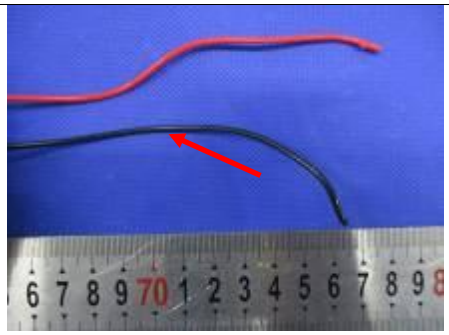
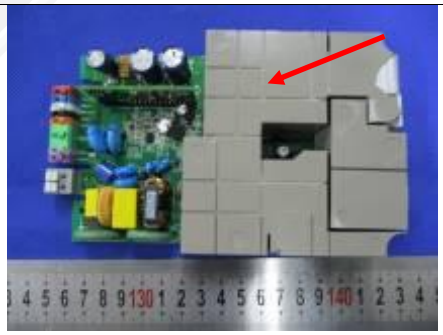
T. No.	Sample No.	Colour and Description	Photograph
T49	049	Black hard plastic case	
T50	050	Silver metal screws	
T51	051	Silver metal	
T52	052	Silver metal	

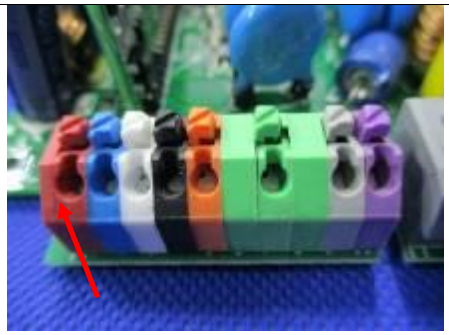
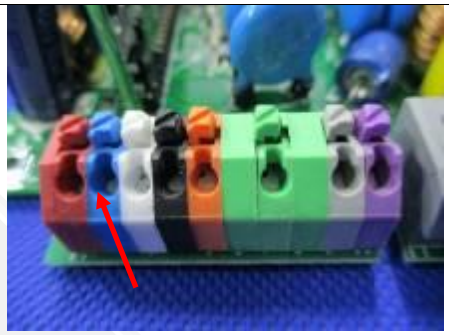
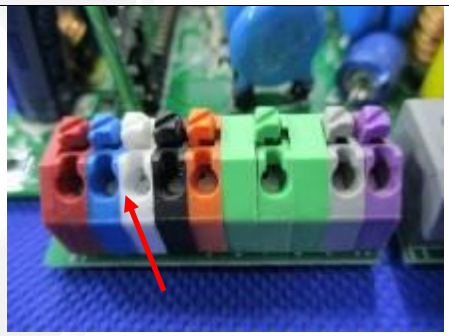
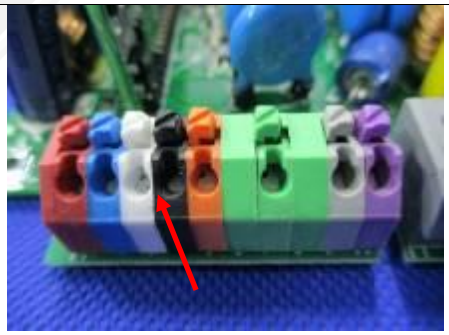
T. No.	Sample No.	Colour and Description	Photograph
T53	053	Copper metal strips	
T54	054	White ceramic	
T55	055	Silver metal solder joints	
T56	056	White skin soft plastic	

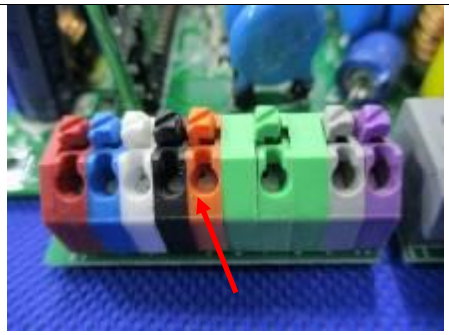
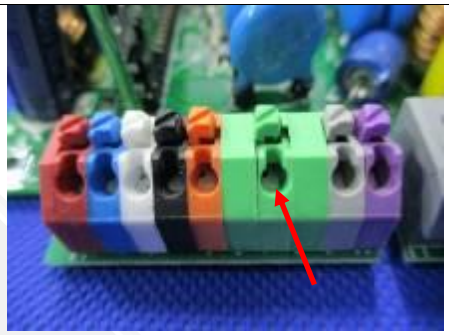
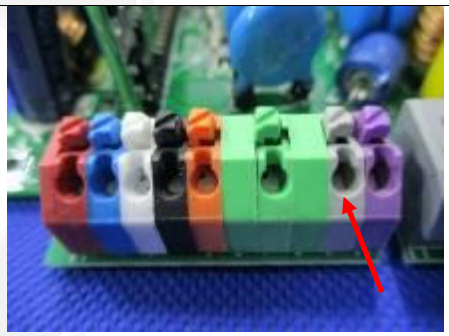
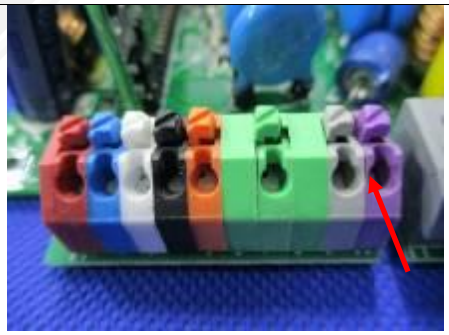
T. No.	Sample No.	Colour and Description	Photograph
T57	057	Red skin soft plastic	
T58	058	Purple skin soft plastic	
T59	059	Gray skin soft plastic	
T60	060	Red skin soft plastic	

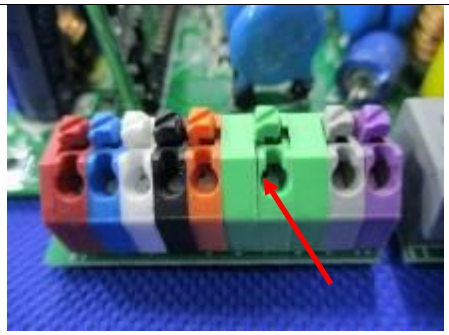
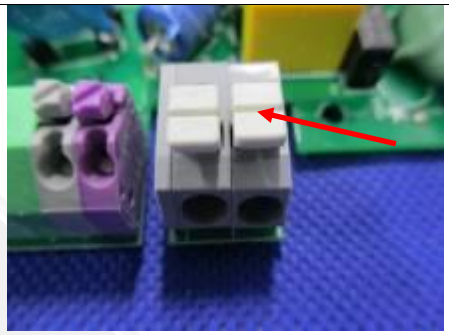
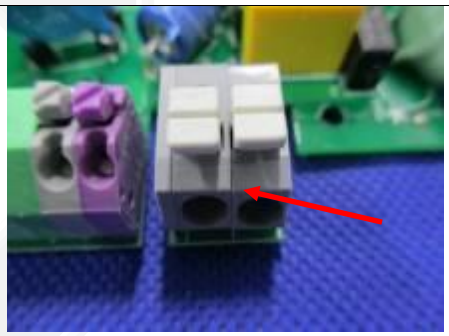
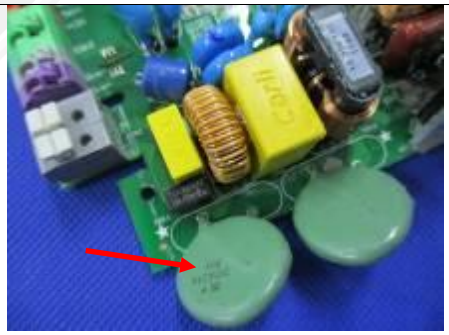
T. No.	Sample No.	Colour and Description	Photograph
T61	061	Brown skin soft plastic	
T62	062	Transparent soft plastic covers	
T63	063	White heat shrink tubing	
T64	064	Black hard plastic frame	

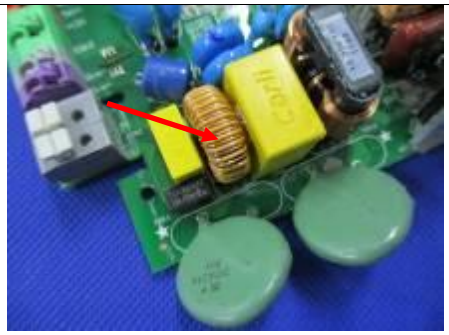
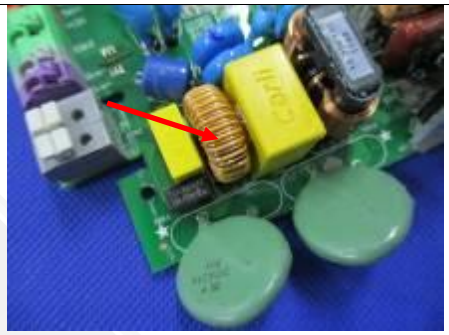
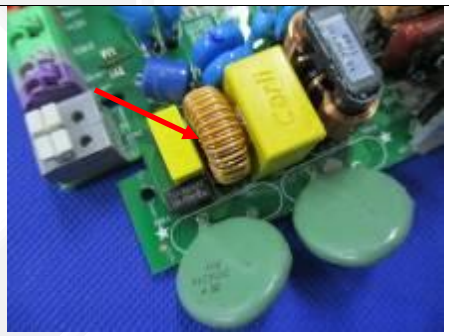
T. No.	Sample No.	Colour and Description	Photograph
T65	065	Copper sheet metal	
T66	066	Copper sheet metal	
T67	067	Black heat shrinkable tube	
T68	068	Red skin soft plastic	

T. No.	Sample No.	Colour and Description	Photograph
T69	069	Black skin soft plastic	
T70	070	Black hard plastic case	
T71	071	The black hard plastic cover	
T72	072	Gray soft rubber	

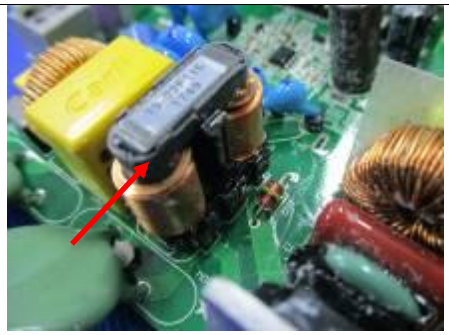
T. No.	Sample No.	Colour and Description	Photograph
T73	073	Red hard plastic pieces	
T74	074	Blue hard plastic pieces	
T75	075	White hard plastic pieces	
T76	076	Black hard plastic piece	

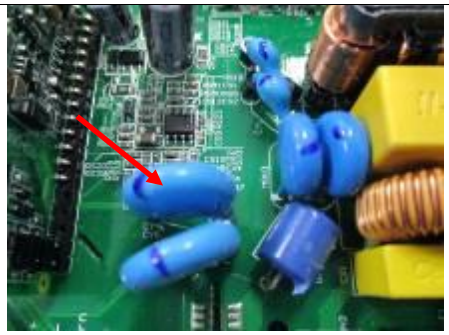
T. No.	Sample No.	Colour and Description	Photograph
T77	077	Orange hard plastic pieces	
T78	078	Green hard plastic pieces	
T79	079	Gray is hard plastic pieces	
T80	080	Purple hard plastic pieces	

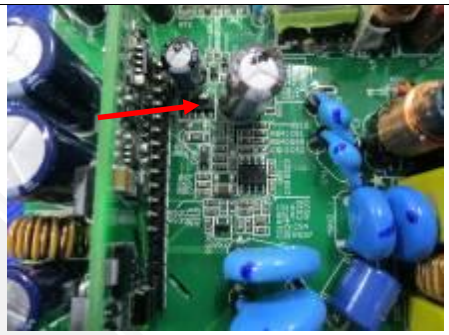
T. No.	Sample No.	Colour and Description	Photograph
T81	081	Silver metal	
T82	082	White hard plastic pieces	
T83	083	Gray hard plastic pieces	
T84	084	Green electronic components	

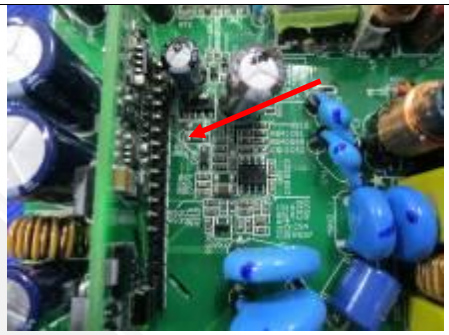
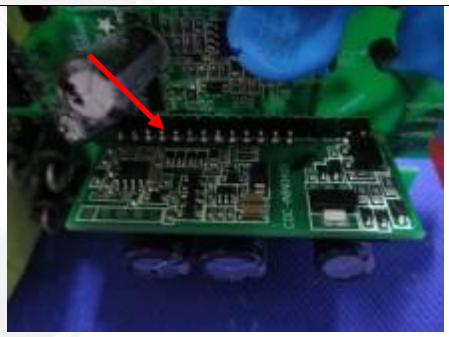
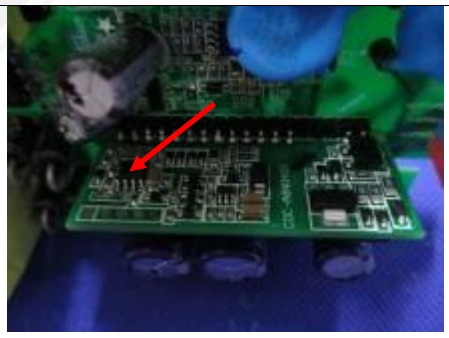
T. No.	Sample No.	Colour and Description	Photograph
T85	085	Yellow enameled wire	
T86	086	Copper wire	
T87	087	Green ring	
T88	088	Black hard plastic case	

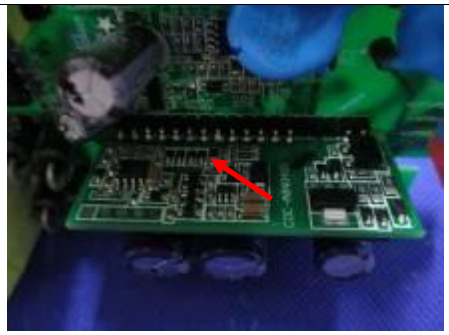
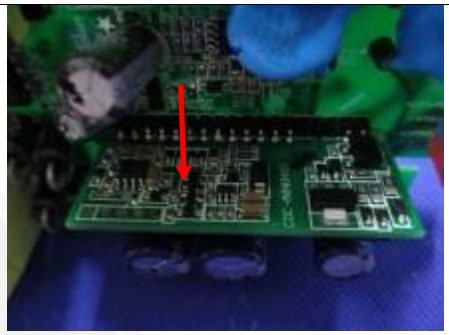
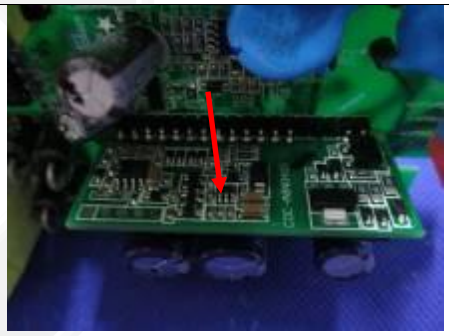
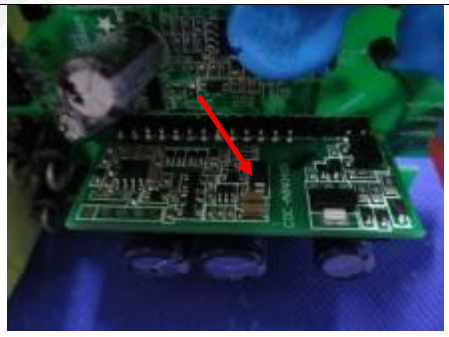
T. No.	Sample No.	Colour and Description	Photograph
T89	089	Silver metal wire	
T90	090	Black hard plastic piece	
T91	091	Yellow hard plastic shell	
T92	092	Black ferrite	

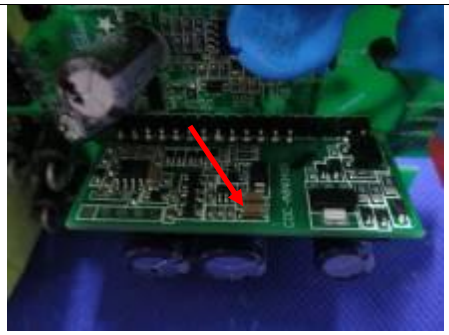
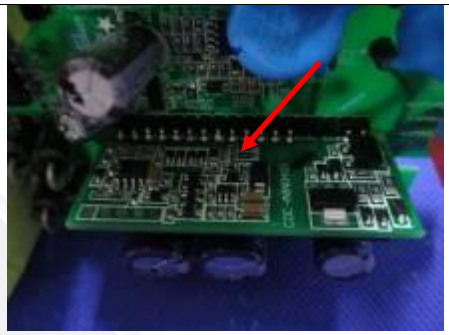
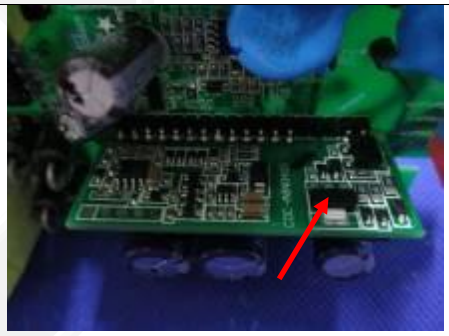
T. No.	Sample No.	Colour and Description	Photograph
T93	093	Gray hard plastic shell	
T94	094	Black hard plastic piece	
T95	095	Copper sheet metal	
T96	096	Red electronic components	

T. No.	Sample No.	Colour and Description	Photograph
T97	097	Blue electronic components	
T98	098	White ceramic	
T99	099	Silver metal	
T100	100	Black ferrite	

T. No.	Sample No.	Colour and Description	Photograph
T101	101	Black electronic components	
T102	102	Black electronic components	
T103	103	Black electronic components	
T104	104	Gray tile capacitance	

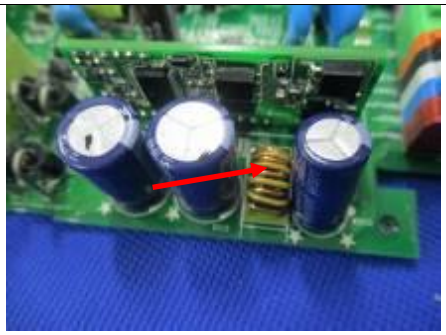
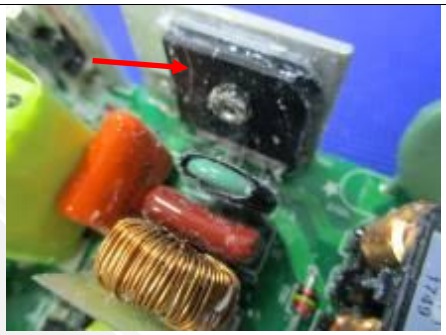
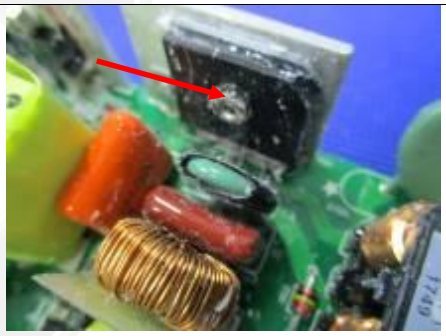
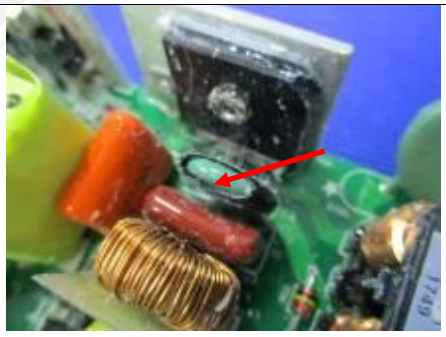
T. No.	Sample No.	Colour and Description	Photograph
T105	105	Black electronic components	
T106	106	Black SMD resistor	
T107	107	Silver metal pins	
T108	108	Black electronic components	

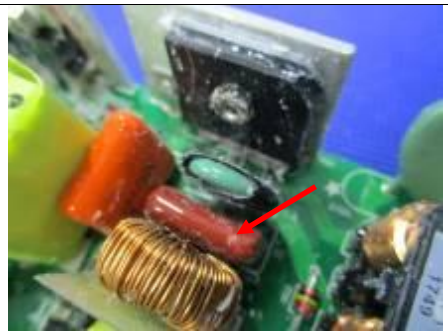
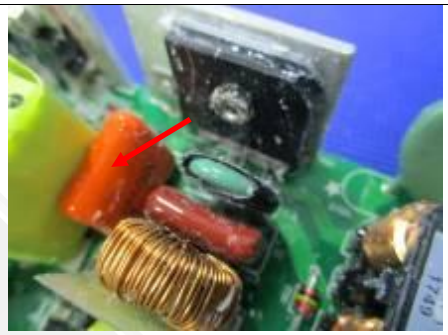
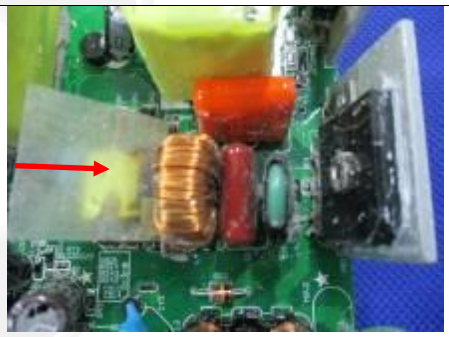
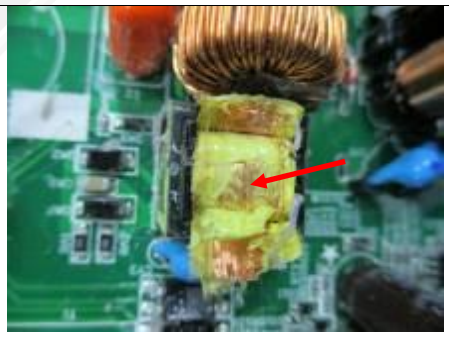
T. No.	Sample No.	Colour and Description	Photograph
T109	109	Black patch capacitance	
T110	110	Black electronic components	
T111	111	Black electronic components	
T112	112	Black electronic components	

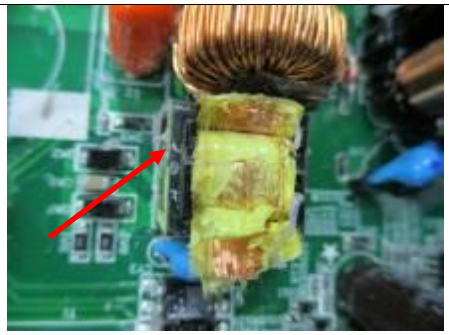
T. No.	Sample No.	Colour and Description	Photograph
T113	113	Gray tiles capacitance	
T114	114	Black SMD resistor	
T115	115	Black electronic components	
T116	116	Black electronic components	

T. No.	Sample No.	Colour and Description	Photograph
T117	117	Black electronic components	
T118	118	Black electronic components	
T119	119	Black electronic components	
T120	120	Gray tiles capacitance	

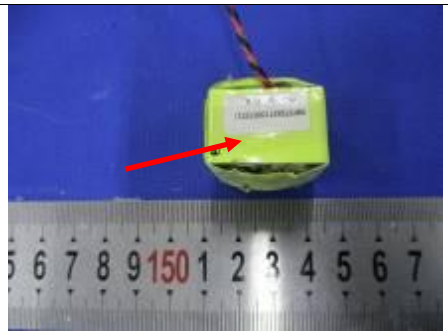
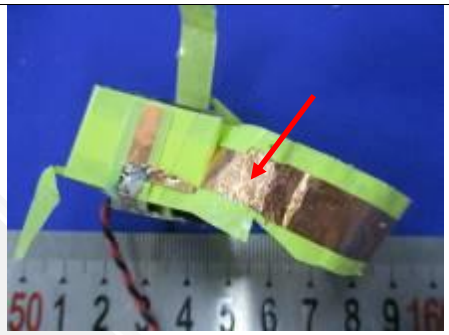
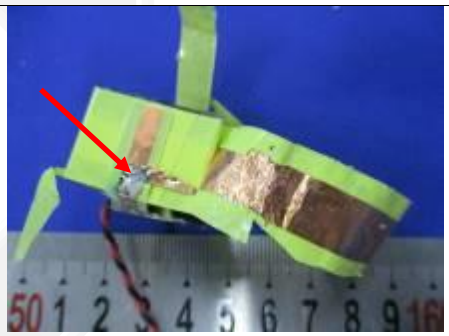
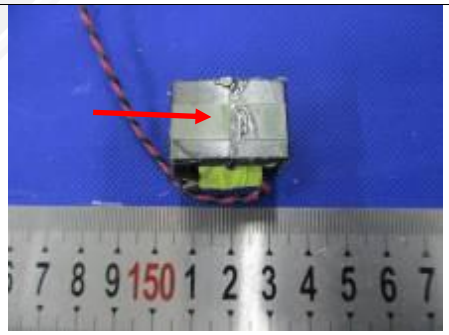
T. No.	Sample No.	Colour and Description	Photograph
T121	121	Green PCB	
T122	122	Black electronic components	
T123	123	Black SMD resistor	
T124	124	The white patch capacitance	

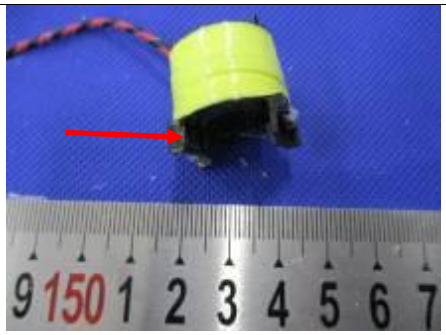
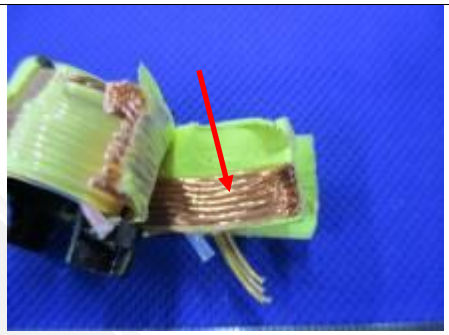
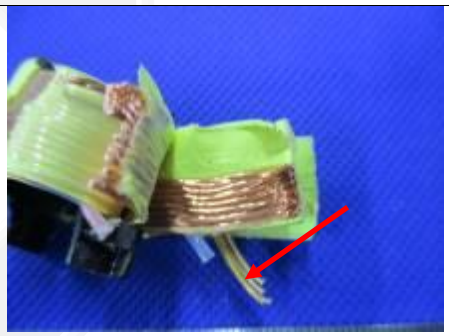
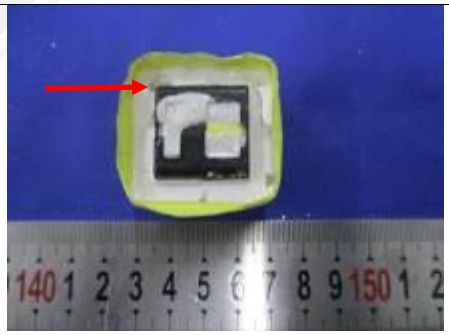
T. No.	Sample No.	Colour and Description	Photograph
T125	125	Yellow enameled wire	
T126	126	Black electronic components	
T127	127	Silver metal nut	
T128	128	Green electronic components	

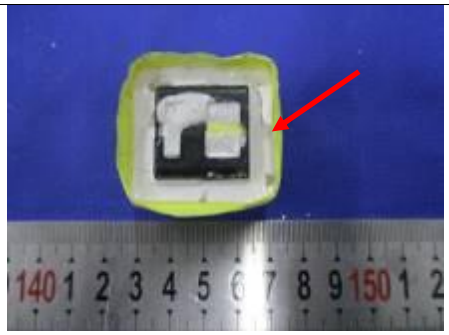
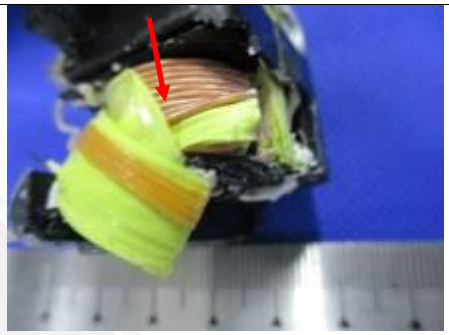
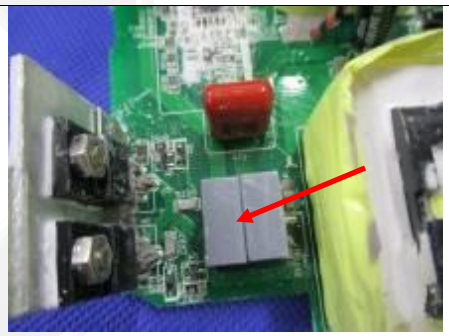
T. No.	Sample No.	Colour and Description	Photograph
T129	129	Red electronic components	
T130	130	Orange electronic components	
T131	131	Transparent plastic sheet	
T132	132	Copper wire	

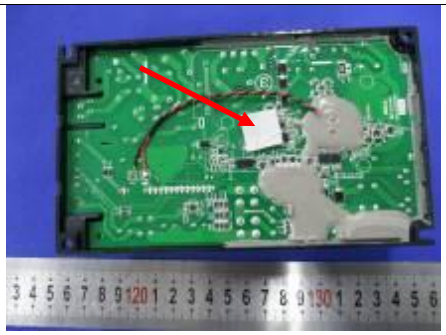
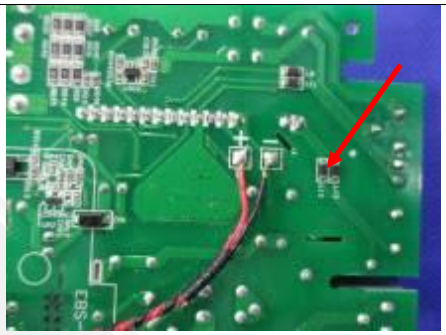
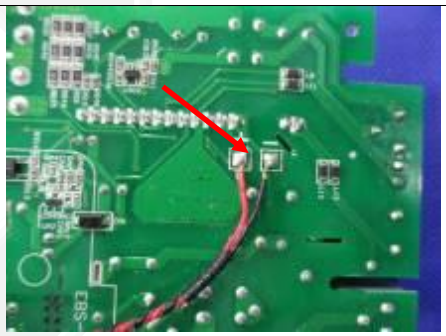
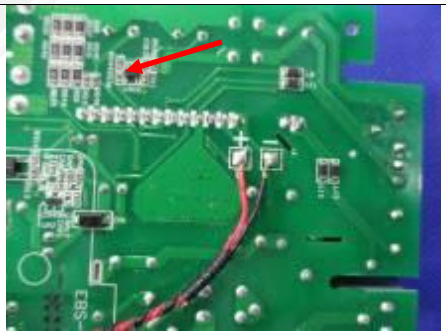
T. No.	Sample No.	Colour and Description	Photograph
T133	133	Black ferrite	
T134	134	Black hard plastic frame	
T135	135	Black electronic components	
T136	136	Black ash double-color plastic skin	

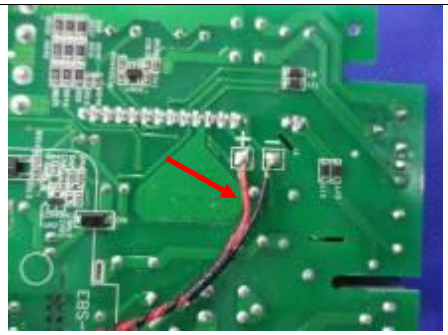
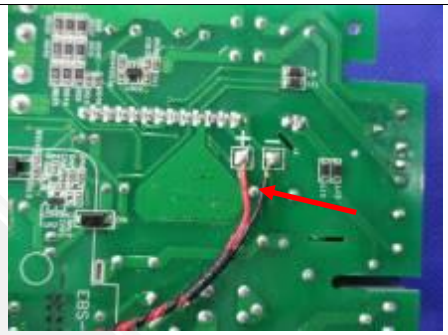
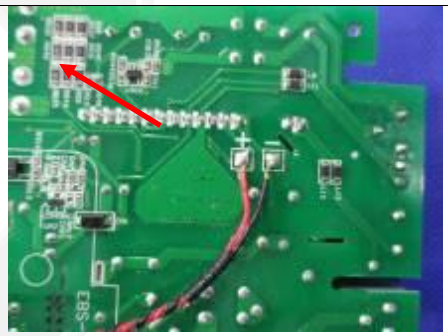
T. No.	Sample No.	Colour and Description	Photograph
T137	137	Black soft plastic piece	
T138	138	Black electronic components	
T139	139	Silver metal	
T140	140	Black electronic components	

T. No.	Sample No.	Colour and Description	Photograph
T141	141	Yellow plastic skin	
T142	142	Copper sheet metal	
T143	143	Silver metal solder joints	
T144	144	Black ferrite	

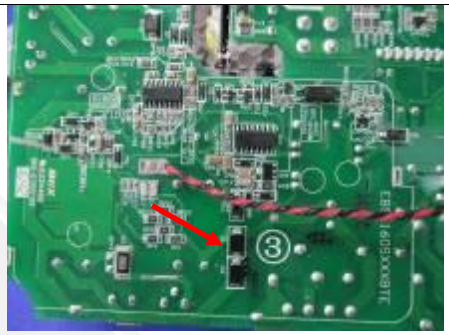
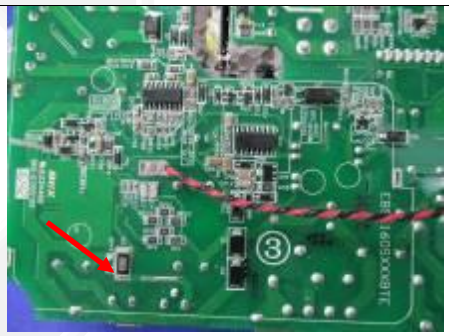
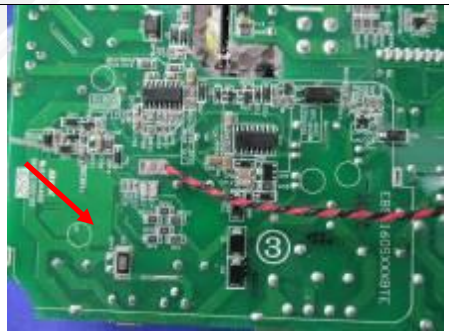
T. No.	Sample No.	Colour and Description	Photograph
T145	145	Black hard plastic stents	
T146	146	Copper wire	
T147	147	Yellow enameled wire	
T148	148	White soft plastic	

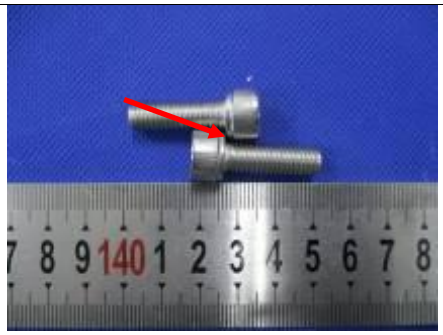
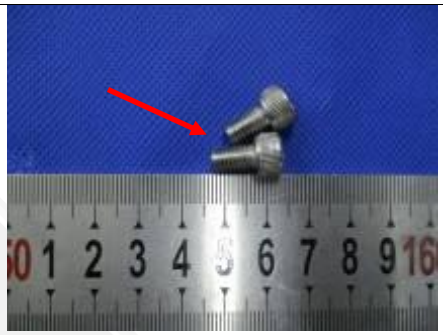
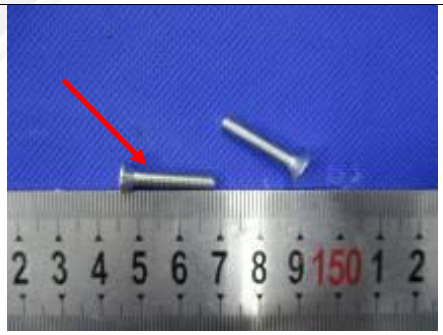
T. No.	Sample No.	Colour and Description	Photograph
T149	149	Yellow plastic skin	
T150	150	Copper enameled wire	
T151	151	Gray is hard plastic shell	
T152	152	White soft rubber	

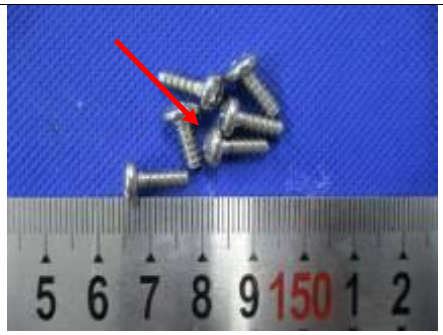
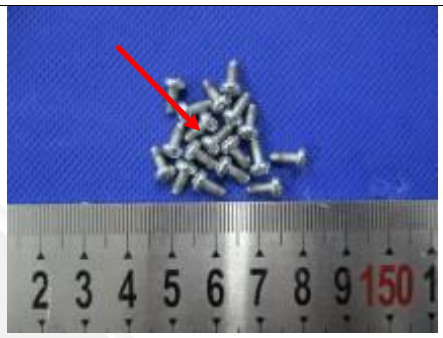
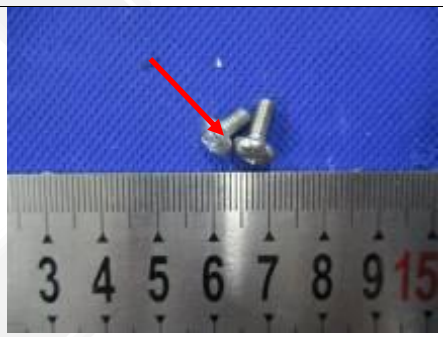
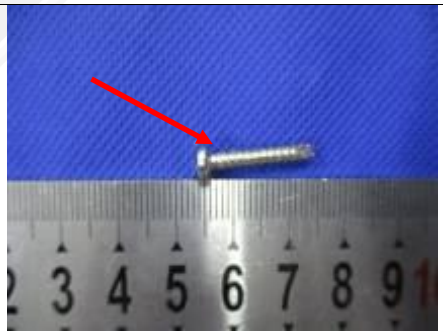
T. No.	Sample No.	Colour and Description	Photograph
T153	153	White soft plastic pad	
T154	154	Black patch capacitance	
T155	155	Silver metal solder	
T156	156	Black electronic components	

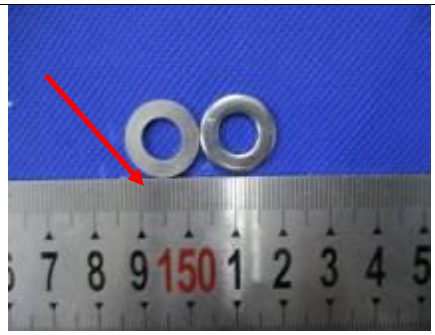
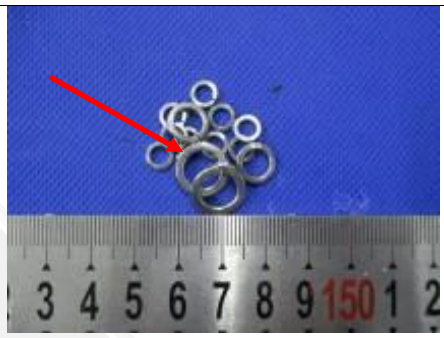
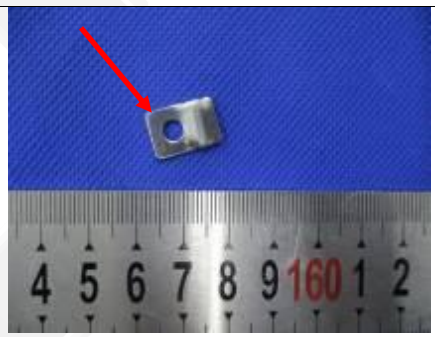
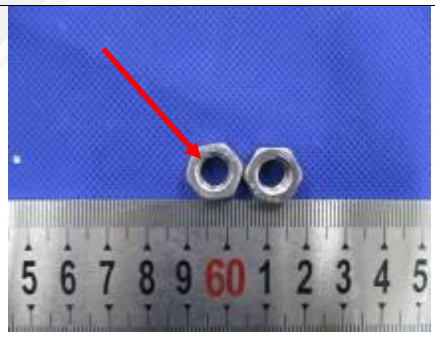
T. No.	Sample No.	Colour and Description	Photograph
T157	157	Red skin soft plastic	
T158	158	Black skin soft plastic	
T159	159	Black SMD resistor	
T160	160	Black electronic components	

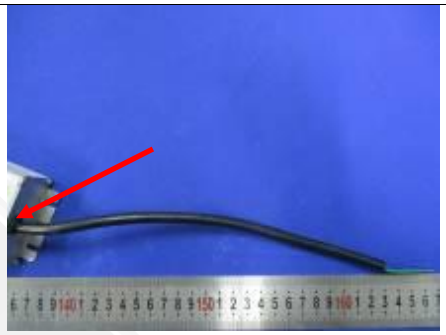
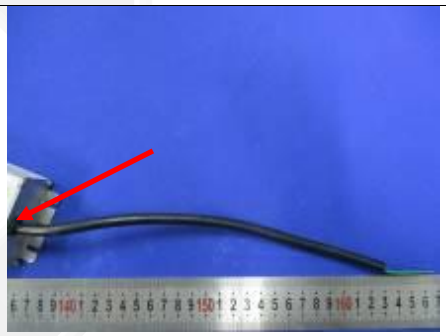
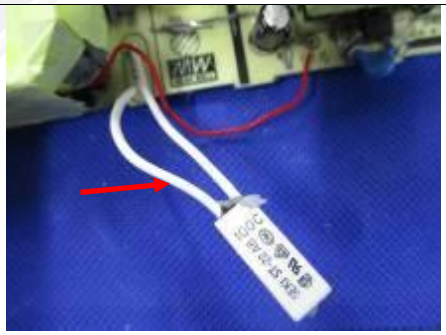
T. No.	Sample No.	Colour and Description	Photograph
T161	161	Black electronic components	
T162	162	Black electronic components	
T163	163	Black electronic components	
T164	164	Gray tile capacitance	

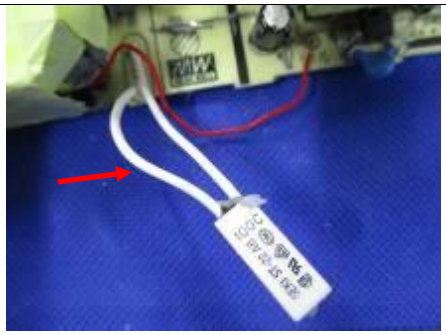
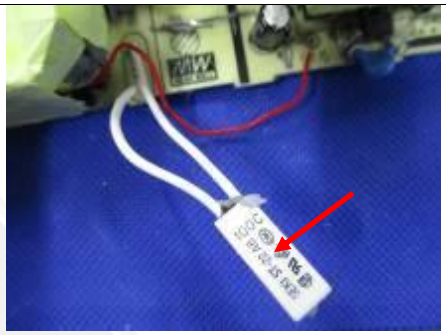
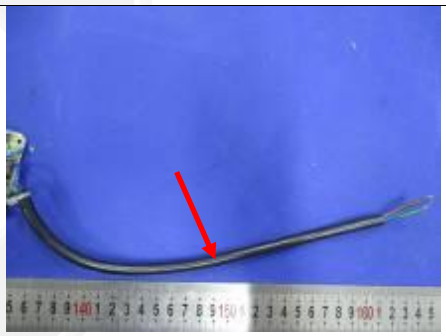
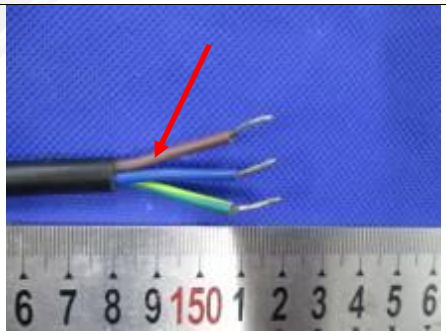
T. No.	Sample No.	Colour and Description	Photograph
T165	165	The white patch capacitance	
T166	166	Black electronic components	
T167	167	Black SMD resistor	
T168	168	Green PCB	

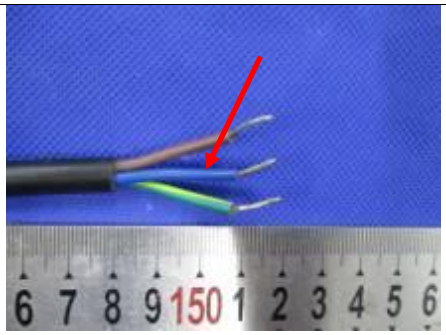
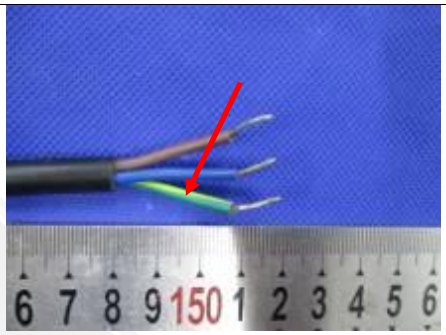
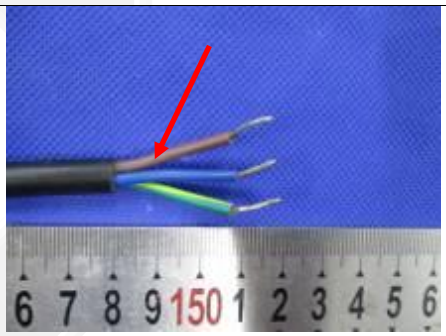
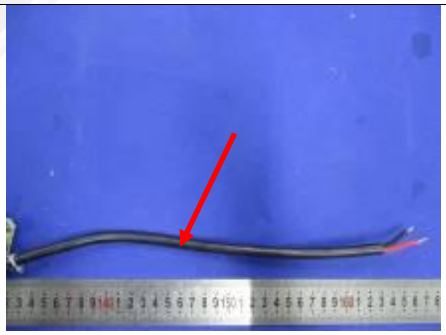
T. No.	Sample No.	Colour and Description	Photograph
T169	169	Silver metal screws	
T170	170	Silver metal screws	
T171	171	Silver metal screws	
T172	172	Silver metal screws	

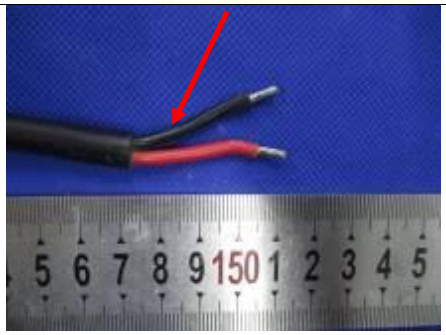
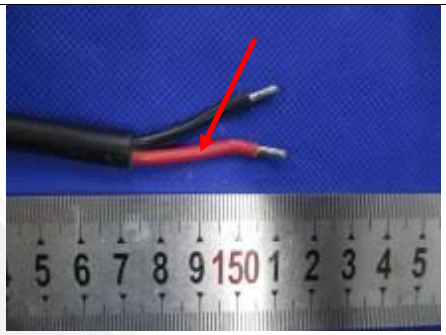
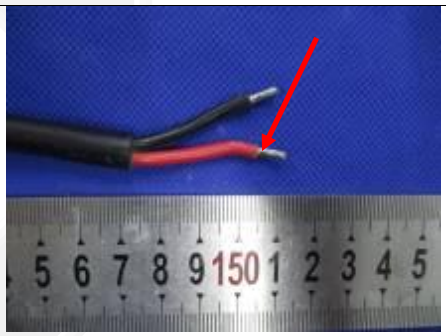
T. No.	Sample No.	Colour and Description	Photograph
T173	173	Silver metal screws	
T174	174	Silver metal screws	
T175	175	Silver metal screws	
T176	176	Silver metal screws	

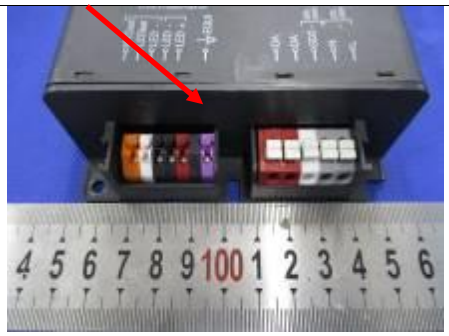
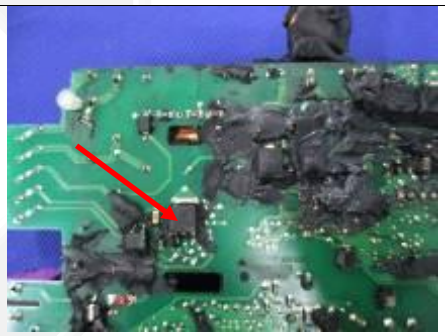
T. No.	Sample No.	Colour and Description	Photograph
T177	177	Silver metal gasket	
T178	178	Silver metal ring gasket	
T179	179	Silver metal gasket	
T180	180	Silver metal nut	

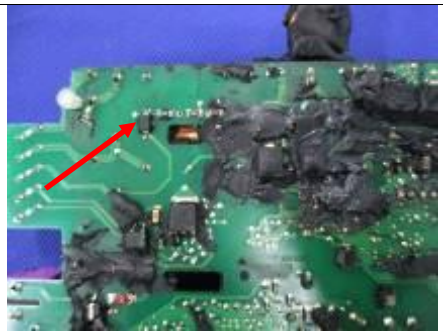
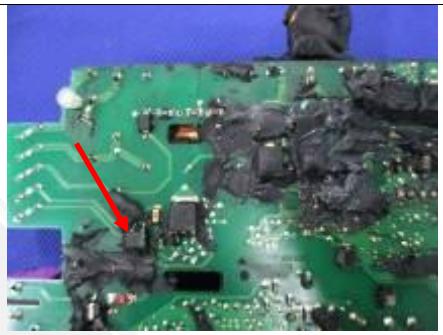
T. No.	Sample No.	Colour and Description	Photograph
T181	181	Silver metal shell	
T182	182	Black soft plastic ring	
T183	183	Silver metal	
T184	184	White skin soft plastic	

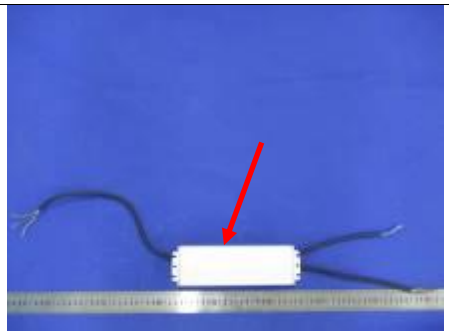
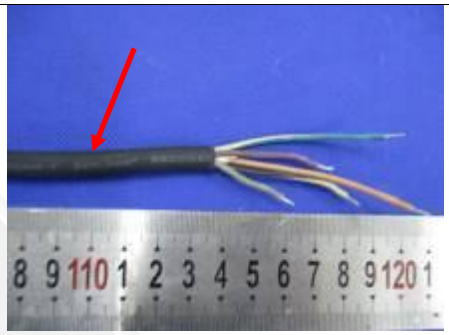
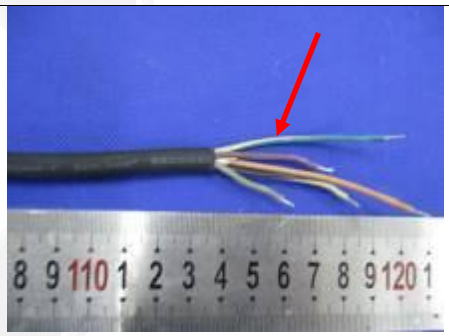
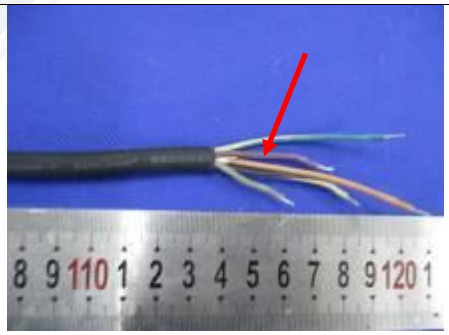
T. No.	Sample No.	Colour and Description	Photograph
T185	185	Silver metal wire core	
T186	186	White electronic components	
T187	187	Black skin soft plastic	
T188	188	Brown skin soft plastic	

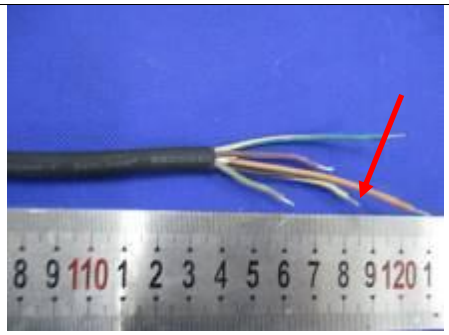
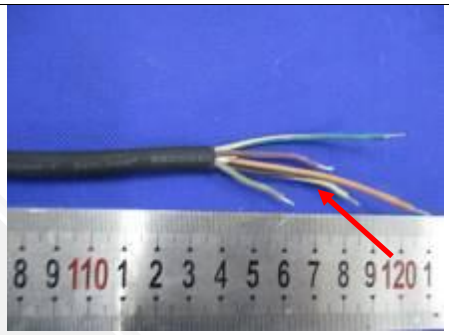
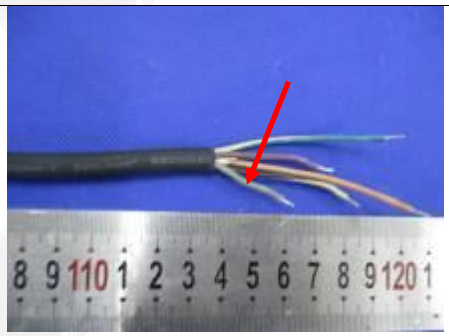
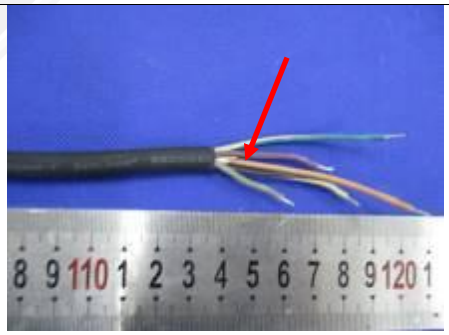
T. No.	Sample No.	Colour and Description	Photograph
T189	189	Blue skin soft plastic	
T190	190	Yellowish skin soft plastic	
T191	191	Copper wire core	
T192	192	Black skin soft plastic	

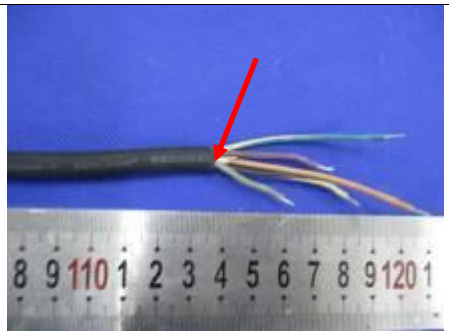
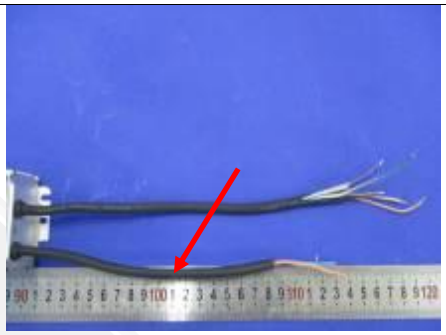
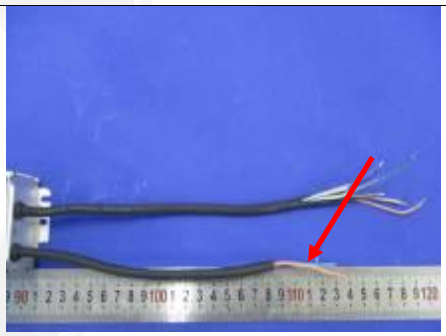
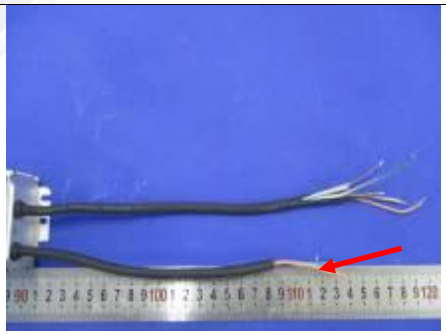
T. No.	Sample No.	Colour and Description	Photograph
T193	193	Black skin soft plastic	
T194	194	Red skin soft plastic	
T195	195	Silver metal wire core	
T196	196	Black plastic shell	

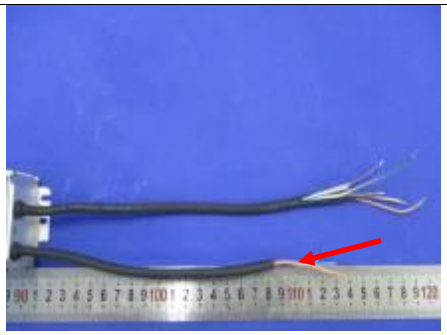
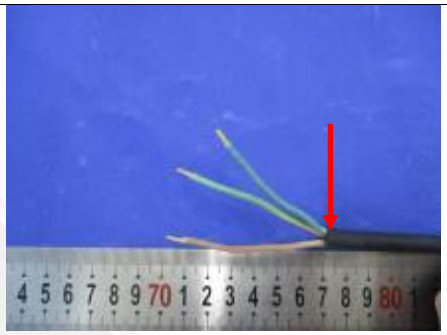
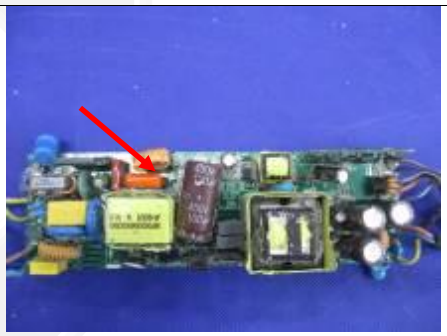
T. No.	Sample No.	Colour and Description	Photograph
T197	197	The black hard plastic cover	
T198	198	Green PCB	
T199	199	Black electronic components	
T200	200	Black electronic components	

T. No.	Sample No.	Colour and Description	Photograph
T201	201	Black electronic components	
T202	202	Black electronic components	
T203	203	Black SMD resistor	
T204	204	White plastic stent	

T. No.	Sample No.	Colour and Description	Photograph
T205	205	Silver metal shell	
T206	206	Black skin soft plastic	
T207	207	Yellow green soft plastic leather	
T208	208	Purple skin soft plastic	

T. No.	Sample No.	Colour and Description	Photograph
T209	209	Pink skin soft plastic	
T210	210	Double color soft plastic skin yellow	
T211	211	Gray skin soft plastic	
T212	212	Copper wire core	

T. No.	Sample No.	Colour and Description	Photograph
T213	213	White woven rope	
T214	214	Black skin soft plastic	
T215	215	Blue skin soft plastic	
T216	216	Pink skin soft plastic	

T. No.	Sample No.	Colour and Description	Photograph
T217	217	Copper wire core	
T218	218	Black skin soft plastic	
T219	219	Green PCB	

3. Test Result

3.1 Quantitative screening of Lead, Cadmium, Mercury, Chromium and Bromine

Test Method: EN 62321-2:2014, EN 62321-3-1:2014, analyzed by Energy-Dispersive X-Ray Fluorescence Spectrometers (XRF)
[Reporting Limit = 60 mg/kg for Cadmium, 300 mg/kg for Bromine, and 600 mg/kg for others]

Sample	Total Cadmium [mg/kg]	Total Lead [mg/kg]	Total Chromium [mg/kg]	Total Mercury [mg/kg]	Total Bromine [mg/kg]
001	BL	BL	BL	BL	BL
002	BL	**Inconclusive**(a)	BL	BL	--
003	BL	BL	BL	BL	BL
004	BL	BL	BL	BL	BL
005	BL	BL	BL	BL	BL
006	BL	**Inconclusive**(a)	BL	BL	--
007	BL	BL	BL	BL	--
008	BL	BL	BL	BL	BL
009	BL	BL	BL	BL	BL
010	BL	BL	BL	BL	BL
011	BL	BL	BL	BL	BL
012	BL	BL	BL	BL	BL
013	BL	BL	**Inconclusive**(a)	BL	--
014	BL	**Inconclusive**(a)	BL	BL	--
015	BL	BL	BL	BL	--
016	BL	**Inconclusive**(a)	BL	BL	--
RoHS Requirement	100	1000	1000	1000	1000

Note 1. “mg/kg” denotes milligram per kilogram
2. “BL” denotes below the limit
3. “OL” denotes over the limit
4. “--” denotes Not Applicable
5. “(a)” denotes further confirmation test was conducted, results are listed in 3.2
6. “(b)” denotes further confirmation test was conducted, results are listed in 3.3

3.1 Quantitative screening of Lead, Cadmium, Mercury, Chromium and Bromine

Test Method: EN 62321-2:2014, EN 62321-3-1:2014, analyzed by Energy-Dispersive X-Ray Fluorescence Spectrometers (XRF)
[Reporting Limit = 60 mg/kg for Cadmium, 300 mg/kg for Bromine, and 600 mg/kg for others]

Sample	Total Cadmium [mg/kg]	Total Lead [mg/kg]	Total Chromium [mg/kg]	Total Mercury [mg/kg]	Total Bromine [mg/kg]
017	BL	**Inconclusive**(a)	**Inconclusive**(a)	BL	--
018	BL	BL	BL	BL	**Inconclusive**(b)
019	BL	BL	BL	BL	--
020	BL	BL	BL	BL	BL
021	BL	BL	BL	BL	**Inconclusive**(b)
022	BL	BL	BL	BL	BL
023	BL	BL	**Inconclusive**(a)	BL	--
024	BL	**Inconclusive**(a)	BL	BL	--
025	BL	BL	BL	BL	--
026	BL	BL	**Inconclusive**(a)	BL	--
027	BL	BL	BL	BL	--
028	BL	BL	BL	BL	--
029	BL	BL	BL	BL	BL
030	BL	BL	BL	BL	BL
031	BL	**Inconclusive**(a)	BL	BL	--
032	BL	BL	BL	BL	BL
033	BL	BL	BL	BL	BL
034	BL	BL	BL	BL	--
035	BL	BL	BL	BL	--
036	BL	BL	BL	BL	--
RoHS Requirement	100	1000	1000	1000	1000

Note 1. “mg/kg” denotes milligram per kilogram
2. “BL” denotes below the limit
3. “OL” denotes over the limit
4. “--” denotes Not Applicable
5. “(a)” denotes further confirmation test was conducted, results are listed in 3.2
6. “(b)” denotes further confirmation test was conducted, results are listed in 3.3

3.1 Quantitative screening of Lead, Cadmium, Mercury, Chromium and Bromine

Test Method: EN 62321-2:2014, EN 62321-3-1:2014, analyzed by Energy-Dispersive X-Ray Fluorescence Spectrometers (XRF)
[Reporting Limit = 60 mg/kg for Cadmium, 300 mg/kg for Bromine, and 600 mg/kg for others]

Sample	Total Cadmium [mg/kg]	Total Lead [mg/kg]	Total Chromium [mg/kg]	Total Mercury [mg/kg]	Total Bromine [mg/kg]
037	BL	BL	BL	BL	**Inconclusive**(b)
038	BL	BL	BL	BL	**Inconclusive**(b)
039	BL	BL	BL	BL	BL
040	BL	BL	**Inconclusive**(a)	BL	--
041	BL	BL	BL	BL	BL
042	BL	BL	BL	BL	BL
043	BL	BL	BL	BL	BL
044	BL	BL	BL	BL	BL
045	BL	BL	BL	BL	BL
046	BL	BL	BL	BL	BL
047	BL	BL	BL	BL	--
048	BL	BL	BL	BL	BL
049	BL	BL	BL	BL	BL
050	BL	BL	**Inconclusive**(a)	BL	--
051	BL	**Inconclusive**(a)	BL	BL	--
052	**Inconclusive**(a)	BL	BL	BL	--
RoHS Requirement	100	1000	1000	1000	1000

Note 1. "mg/kg" denotes milligram per kilogram
2. "BL" denotes below the limit
3. "OL" denotes over the limit
4. "--" denotes Not Applicable
5. "(a)" denotes further confirmation test was conducted, results are listed in 3.2
6. "(b)" denotes further confirmation test was conducted, results are listed in 3.3

3.1 Quantitative screening of Lead, Cadmium, Mercury, Chromium and Bromine

Test Method: EN 62321-2:2014, EN 62321-3-1:2014, analyzed by Energy-Dispersive X-Ray Fluorescence Spectrometers (XRF)
[Reporting Limit = 60 mg/kg for Cadmium, 300 mg/kg for Bromine, and 600 mg/kg for others]

Sample	Total Cadmium [mg/kg]	Total Lead [mg/kg]	Total Chromium [mg/kg]	Total Mercury [mg/kg]	Total Bromine [mg/kg]
053	BL	BL	BL	BL	--
054	BL	BL	BL	BL	BL
055	**Inconclusive**(a)	BL	BL	BL	--
056	BL	BL	BL	BL	BL
057	BL	BL	BL	BL	BL
058	BL	BL	BL	BL	BL
059	BL	BL	BL	BL	BL
060	BL	BL	BL	BL	BL
061	BL	BL	BL	BL	BL
062	BL	BL	BL	BL	BL
063	BL	BL	BL	BL	BL
064	BL	BL	BL	BL	**Inconclusive**(b)
065	BL	BL	BL	BL	--
066	BL	BL	BL	BL	--
067	BL	BL	BL	BL	BL
RoHS Requirement	100	1000	1000	1000	1000

Note 1. “mg/kg” denotes milligram per kilogram
2. “BL” denotes below the limit
3. “OL” denotes over the limit
4. “--” denotes Not Applicable
5. “(a)” denotes further confirmation test was conducted, results are listed in 3.2
6. “(b)” denotes further confirmation test was conducted, results are listed in 3.3

3.1 Quantitative screening of Lead, Cadmium, Mercury, Chromium and Bromine

Test Method: EN 62321-2:2014, EN 62321-3-1:2014, analyzed by Energy-Dispersive X-Ray Fluorescence Spectrometers (XRF)
[Reporting Limit = 60 mg/kg for Cadmium, 300 mg/kg for Bromine, and 600 mg/kg for others]

Sample	Total Cadmium [mg/kg]	Total Lead [mg/kg]	Total Chromium [mg/kg]	Total Mercury [mg/kg]	Total Bromine [mg/kg]
068	BL	BL	BL	BL	BL
069	BL	BL	BL	BL	BL
070	BL	BL	BL	BL	**Inconclusive**(b)
071	BL	BL	BL	BL	**Inconclusive**(b)
072	BL	BL	BL	BL	BL
073	BL	BL	BL	BL	BL
074	BL	BL	BL	BL	BL
075	BL	BL	BL	BL	BL
076	BL	BL	BL	BL	BL
077	BL	BL	BL	BL	BL
078	BL	BL	BL	BL	BL
079	BL	BL	BL	BL	BL
080	BL	BL	BL	BL	BL
081	BL	BL	BL	BL	--
082	BL	BL	BL	BL	BL
083	BL	BL	BL	BL	BL
084	BL	BL	**Inconclusive**(a)	BL	BL
085	BL	BL	BL	BL	BL
086	BL	BL	BL	BL	--
087	BL	BL	BL	BL	--
RoHS Requirement	100	1000	1000	1000	1000

Note 1. “mg/kg” denotes milligram per kilogram
2. “BL” denotes below the limit
3. “OL” denotes over the limit
4. “--” denotes Not Applicable
5. “(a)” denotes further confirmation test was conducted, results are listed in 3.2
6. “(b)” denotes further confirmation test was conducted, results are listed in 3.3

3.1 Quantitative screening of Lead, Cadmium, Mercury, Chromium and Bromine

Test Method: EN 62321-2:2014, EN 62321-3-1:2014, analyzed by Energy-Dispersive X-Ray Fluorescence Spectrometers (XRF)
[Reporting Limit = 60 mg/kg for Cadmium, 300 mg/kg for Bromine, and 600 mg/kg for others]

Sample	Total Cadmium [mg/kg]	Total Lead [mg/kg]	Total Chromium [mg/kg]	Total Mercury [mg/kg]	Total Bromine [mg/kg]
088	BL	BL	BL	BL	BL
089	BL	BL	BL	BL	--
090	BL	BL	BL	BL	BL
091	BL	BL	BL	BL	**Inconclusive**(b)
092	BL	BL	BL	BL	--
093	BL	BL	BL	BL	BL
094	BL	BL	BL	BL	BL
095	BL	BL	BL	BL	--
096	BL	**Inconclusive**(a)	BL	BL	BL
097	BL	BL	BL	BL	BL
098	BL	BL	BL	BL	BL
099	BL	BL	BL	BL	--
100	BL	BL	BL	BL	--
101	BL	BL	BL	BL	BL
102	BL	BL	BL	BL	BL
103	BL	BL	BL	BL	BL
104	BL	BL	BL	BL	BL
105	BL	BL	BL	BL	BL
RoHS Requirement	100	1000	1000	1000	1000

Note 1. “mg/kg” denotes milligram per kilogram
2. “BL” denotes below the limit
3. “OL” denotes over the limit
4. “--” denotes Not Applicable
5. “(a)” denotes further confirmation test was conducted, results are listed in 3.2
6. “(b)” denotes further confirmation test was conducted, results are listed in 3.3

3.1 Quantitative screening of Lead, Cadmium, Mercury, Chromium and Bromine

Test Method: EN 62321-2:2014, EN 62321-3-1:2014, analyzed by Energy-Dispersive X-Ray Fluorescence Spectrometers (XRF)
[Reporting Limit = 60 mg/kg for Cadmium, 300 mg/kg for Bromine, and 600 mg/kg for others]

Sample	Total Cadmium [mg/kg]	Total Lead [mg/kg]	Total Chromium [mg/kg]	Total Mercury [mg/kg]	Total Bromine [mg/kg]
106	BL	BL	BL	BL	BL
107	BL	BL	BL	BL	--
108	BL	BL	BL	BL	BL
109	BL	BL	BL	BL	BL
110	BL	BL	BL	BL	BL
111	BL	BL	BL	BL	BL
112	BL	BL	BL	BL	BL
113	BL	BL	BL	BL	BL
114	BL	**Inconclusive**[a]	**Inconclusive**[a]	BL	BL
115	BL	BL	BL	BL	BL
116	BL	BL	BL	BL	BL
117	BL	BL	BL	BL	**Inconclusive**[b]
118	BL	BL	BL	BL	BL
119	BL	**Inconclusive**[a]	BL	BL	BL
120	BL	BL	BL	BL	BL
121	BL	BL	BL	BL	**Inconclusive**[b]
122	BL	BL	BL	BL	**Inconclusive**[b]
123	BL	BL	**Inconclusive**[a]	BL	BL
RoHS Requirement	100	1000	1000	1000	1000

Note 1. “mg/kg” denotes milligram per kilogram
2. “BL” denotes below the limit
3. “OL” denotes over the limit
4. “--” denotes Not Applicable
5. “(a)” denotes further confirmation test was conducted, results are listed in 3.2
6. “(b)” denotes further confirmation test was conducted, results are listed in 3.3

3.1 Quantitative screening of Lead, Cadmium, Mercury, Chromium and Bromine

Test Method: EN 62321-2:2014, EN 62321-3-1:2014, analyzed by Energy-Dispersive X-Ray Fluorescence Spectrometers (XRF)
[Reporting Limit = 60 mg/kg for Cadmium, 300 mg/kg for Bromine, and 600 mg/kg for others]

Sample	Total Cadmium [mg/kg]	Total Lead [mg/kg]	Total Chromium [mg/kg]	Total Mercury [mg/kg]	Total Bromine [mg/kg]
124	**Inconclusive**[(a)]	BL	BL	BL	BL
125	BL	BL	BL	BL	BL
126	BL	**Inconclusive**[(a)]	BL	BL	**Inconclusive**[(b)]
127	BL	BL	BL	BL	--
128	BL	BL	**Inconclusive**[(a)]	BL	BL
129	BL	BL	BL	BL	BL
130	BL	BL	BL	BL	BL
131	BL	BL	BL	BL	**Inconclusive**[(b)]
132	BL	BL	BL	BL	--
133	BL	BL	BL	BL	--
134	BL	BL	BL	BL	BL
135	BL	BL	BL	BL	BL
136	BL	BL	BL	BL	BL
137	BL	BL	BL	BL	BL
138	BL	**Inconclusive**[(a)]	BL	BL	BL
139	BL	BL	BL	BL	--
RoHS Requirement	100	1000	1000	1000	1000

Note 1. “mg/kg” denotes milligram per kilogram
2. “BL” denotes below the limit
3. “OL” denotes over the limit
4. “--” denotes Not Applicable
5. “(a)” denotes further confirmation test was conducted, results are listed in 3.2
6. “(b)” denotes further confirmation test was conducted, results are listed in 3.3

3.1 Quantitative screening of Lead, Cadmium, Mercury, Chromium and Bromine

Test Method: EN 62321-2:2014, EN 62321-3-1:2014, analyzed by Energy-Dispersive X-Ray Fluorescence Spectrometers (XRF)
[Reporting Limit = 60 mg/kg for Cadmium, 300 mg/kg for Bromine, and 600 mg/kg for others]

Sample	Total Cadmium [mg/kg]	Total Lead [mg/kg]	Total Chromium [mg/kg]	Total Mercury [mg/kg]	Total Bromine [mg/kg]
140	BL	BL	BL	BL	BL
141	BL	BL	BL	BL	BL
142	BL	BL	BL	BL	--
143	BL	BL	BL	BL	--
144	BL	BL	BL	BL	--
145	BL	BL	BL	BL	BL
146	BL	BL	BL	BL	--
147	BL	BL	BL	BL	--
148	BL	BL	BL	BL	BL
149	BL	BL	BL	BL	BL
150	BL	BL	BL	BL	--
151	BL	BL	BL	BL	**Inconclusive**(b)
152	BL	BL	BL	BL	BL
153	BL	BL	BL	BL	BL
154	BL	BL	BL	BL	BL
155	BL	BL	BL	BL	--
156	BL	BL	BL	BL	BL
157	BL	BL	BL	BL	BL
158	BL	BL	BL	BL	BL
RoHS Requirement	100	1000	1000	1000	1000

Note 1. “mg/kg” denotes milligram per kilogram
2. “BL” denotes below the limit
3. “OL” denotes over the limit
4. “--” denotes Not Applicable
5. “(a)” denotes further confirmation test was conducted, results are listed in 3.2
6. “(b)” denotes further confirmation test was conducted, results are listed in 3.3

3.1 Quantitative screening of Lead, Cadmium, Mercury, Chromium and Bromine

Test Method: EN 62321-2:2014, EN 62321-3-1:2014, analyzed by Energy-Dispersive X-Ray Fluorescence Spectrometers (XRF)
[Reporting Limit = 60 mg/kg for Cadmium, 300 mg/kg for Bromine, and 600 mg/kg for others]

Sample	Total Cadmium [mg/kg]	Total Lead [mg/kg]	Total Chromium [mg/kg]	Total Mercury [mg/kg]	Total Bromine [mg/kg]
159	BL	BL	BL	BL	BL
160	BL	BL	BL	BL	BL
161	BL	BL	BL	BL	BL
162	BL	**Inconclusive**[(a)]	BL	BL	**Inconclusive**[(b)]
163	BL	BL	BL	BL	BL
164	BL	BL	BL	BL	BL
165	BL	BL	BL	BL	BL
166	BL	BL	BL	BL	**Inconclusive**[(b)]
167	BL	**Inconclusive**[(a)]	BL	BL	BL
168	BL	BL	BL	BL	**Inconclusive**[(b)]
169	BL	BL	**Inconclusive**[(a)]	BL	--
170	BL	BL	**Inconclusive**[(a)]	BL	--
171	BL	BL	**Inconclusive**[(a)]	BL	--
172	BL	BL	**Inconclusive**[(a)]	BL	--
173	BL	BL	**Inconclusive**[(a)]	BL	--
174	BL	BL	**Inconclusive**[(a)]	BL	--
175	BL	BL	**Inconclusive**[(a)]	BL	--
176	BL	BL	BL	BL	--
177	BL	BL	**Inconclusive**[(a)]	BL	--
178	BL	BL	**Inconclusive**[(a)]	BL	--
RoHS Requirement	100	1000	1000	1000	1000

Note 1. “mg/kg” denotes milligram per kilogram
2. “BL” denotes below the limit
3. “OL” denotes over the limit
4. “--” denotes Not Applicable
5. “(a)” denotes further confirmation test was conducted, results are listed in 3.2
6. “(b)” denotes further confirmation test was conducted, results are listed in 3.3

3.1 Quantitative screening of Lead, Cadmium, Mercury, Chromium and Bromine

Test Method: EN 62321-2:2014, EN 62321-3-1:2014, analyzed by Energy-Dispersive X-Ray Fluorescence Spectrometers (XRF)
[Reporting Limit = 60 mg/kg for Cadmium, 300 mg/kg for Bromine, and 600 mg/kg for others]

Sample	Total Cadmium [mg/kg]	Total Lead [mg/kg]	Total Chromium [mg/kg]	Total Mercury [mg/kg]	Total Bromine [mg/kg]
179	BL	BL	**Inconclusive**(a)	BL	--
180	BL	BL	**Inconclusive**(a)	BL	--
181	BL	BL	BL	BL	--
182	BL	BL	BL	BL	BL
183	BL	BL	BL	BL	--
184	BL	BL	BL	BL	**Inconclusive**(b)
185	**Inconclusive**(a)	BL	BL	BL	--
186	BL	BL	BL	BL	**Inconclusive**(b)
187	BL	BL	BL	BL	BL
188	BL	BL	BL	BL	BL
189	BL	BL	BL	BL	BL
190	BL	BL	BL	BL	BL
191	BL	BL	BL	BL	--
192	BL	BL	BL	BL	BL
193	BL	BL	BL	BL	BL
194	BL	BL	BL	BL	BL
195	BL	BL	BL	BL	--
196	BL	BL	BL	BL	**Inconclusive**(b)
RoHS Requirement	100	1000	1000	1000	1000

Note 1. “mg/kg” denotes milligram per kilogram
2. “BL” denotes below the limit
3. “OL” denotes over the limit
4. “--” denotes Not Applicable
5. “(a)” denotes further confirmation test was conducted, results are listed in 3.2
6. “(b)” denotes further confirmation test was conducted, results are listed in 3.3

3.1 Quantitative screening of Lead, Cadmium, Mercury, Chromium and Bromine

Test Method: EN 62321-2:2014, EN 62321-3-1:2014, analyzed by Energy-Dispersive X-Ray Fluorescence Spectrometers (XRF)
[Reporting Limit = 60 mg/kg for Cadmium, 300 mg/kg for Bromine, and 600 mg/kg for others]

Sample	Total Cadmium [mg/kg]	Total Lead [mg/kg]	Total Chromium [mg/kg]	Total Mercury [mg/kg]	Total Bromine [mg/kg]
197	BL	BL	BL	BL	**Inconclusive**(b)
198	BL	BL	BL	BL	**Inconclusive**(b)
199	BL	BL	BL	BL	BL
200	BL	BL	BL	BL	**Inconclusive**(b)
201	BL	BL	BL	BL	**Inconclusive**(b)
202	BL	**Inconclusive**(a)	BL	BL	BL
203	BL	**Inconclusive**(a)	**Inconclusive**(a)	BL	BL
204	BL	BL	BL	BL	BL
205	BL	BL	BL	BL	--
206	BL	BL	BL	BL	BL
207	BL	BL	BL	BL	BL
208	BL	BL	BL	BL	BL
209	BL	BL	BL	BL	BL
210	BL	BL	BL	BL	BL
211	BL	BL	BL	BL	BL
212	BL	BL	BL	BL	BL
213	BL	BL	BL	BL	BL
214	BL	BL	BL	BL	BL
215	BL	BL	BL	BL	BL
216	BL	BL	BL	BL	BL
RoHS Requirement	100	1000	1000	1000	1000

Note 1. “mg/kg” denotes milligram per kilogram
2. “BL” denotes below the limit
3. “OL” denotes over the limit
4. “--” denotes Not Applicable
5. “(a)” denotes further confirmation test was conducted, results are listed in 3.2
6. “(b)” denotes further confirmation test was conducted, results are listed in 3.3

3.1 Quantitative screening of Lead, Cadmium, Mercury, Chromium and Bromine

Test Method: EN 62321-2:2014, EN 62321-3-1:2014, analyzed by Energy-Dispersive X-Ray Fluorescence Spectrometers (XRF)
[Reporting Limit = 60 mg/kg for Cadmium, 300 mg/kg for Bromine, and 600 mg/kg for others]

Sample	Total Cadmium [mg/kg]	Total Lead [mg/kg]	Total Chromium [mg/kg]	Total Mercury [mg/kg]	Total Bromine [mg/kg]
217	BL	BL	BL	BL	BL
218	BL	BL	BL	BL	BL
219	BL	BL	BL	BL	**Inconclusive**(b)
RoHS Requirement	100	1000	1000	1000	1000

Note 1. "mg/kg" denotes milligram per kilogram
2. "BL" denotes below the limit
3. "OL" denotes over the limit
4. "--" denotes Not Applicable
5. "(a)" denotes further confirmation test was conducted, results are listed in 3.2
6. "(b)" denotes further confirmation test was conducted, results are listed in 3.3

XRF screening limits in mg/kg for regulated elements in various matrices

ELEMENT	POLYMER		
	BL	INCONCLUSIVE	OL
Cd	X<(70-3σ)	(70-3σ)<X<(130+3σ)	X>(130+3σ)
Pb	X<(700-3σ)	(700-3σ)<X<(1300+3σ)	X>(1300+3σ)
Hg	X<(700-3σ)	(700-3σ)<X<(1300+3σ)	X>(1300+3σ)
Br	X<(300-3σ)	X>(300-3σ)	NA
Cr	X<(700-3σ)	X>(700-3σ)	NA

ELEMENT	METAL		
	BL	INCONCLUSIVE	OL
Cd	X<(70-3σ)	(70-3σ)<X<(130+3σ)	X>(130+3σ)
Pb	X<(700-3σ)	(700-3σ)<X<(1300+3σ)	X>(1300+3σ)
Hg	X<(700-3σ)	(700-3σ)<X<(1300+3σ)	X>(1300+3σ)
Cr	X<(700-3σ)	X>(700-3σ)	NA

ELEMENT	COMPLEX MATERIAL		
	BL	INCONCLUSIVE	OL
Cd	X<(50-3σ)	(50-3σ)<X<(150+3σ)	X>(150+3σ)
Pb	X<(500-3σ)	(500-3σ)<X<(1500+3σ)	X>(1500+3σ)
Hg	X<(500-3σ)	(500-3σ)<X<(1500+3σ)	X>(1500+3σ)
Br	X<(250-3σ)	X>(250-3σ)	NA
Cr	X<(500-3σ)	X>(500-3σ)	NA

3.2 Heavy Metals Content Test (Total Cadmium, Total Lead, Total Mercury, Hexavalent Chromium)

Test method: Microwave digestion / Acid digestion by ICP-OES with reference to EN 62321-4:2014/A1:2017, EN 62321-5:2014 EN 62321-7-1:2015 and EN 62321-7-2:2017 (For Hexavalent Chromium)

[Reporting Limit= 10.0 mg/kg for Lead and Mercury, 2.0 mg/kg for Cadmium and 5.0 mg/kg for Chromium VI, 0.1 μg/cm² for Chromium VI]

Sample	Total Cadmium [mg/kg]	Total Lead [mg/kg]	Total Mercury [mg/kg]	Hexavalent Chromium [mg/kg]	Conclusion
013	--	--	--	<0.1	Pass
017	--	--	--	<0.1	Pass
023	--	--	--	<0.1	Pass
026	--	--	--	<0.1	Pass
040	--	--	--	<0.1	Pass
050	--	--	--	<0.1	Pass
169	--	--	--	<0.1	Pass
170	--	--	--	<0.1	Pass
171	--	--	--	<0.1	Pass
172	--	--	--	<0.1	Pass
173	--	--	--	<0.1	Pass
174	--	--	--	<0.1	Pass
175	--	--	--	<0.1	Pass
177	--	--	--	<0.1	Pass
178	--	--	--	<0.1	Pass
179	--	--	--	<0.1	Pass
180	--	--	--	<0.1	Pass
RoHS Requirement	--	--	--	0.1	--

Note 1. "< " denotes less than.
2. "mg/kg" denotes milligram per kilogram.
3. "μg/cm²" denotes microgram per square centimeters

Hexavalent Chromium [μg/cm²]	Conclusion
< 0.1	Pass
0.10 - 0.13	Inconclusive
>0.13	Positive

3.2 Heavy Metals Content Test (Total Cadmium, Total Lead, Total Mercury, Hexavalent Chromium)

Test method: Microwave digestion / Acid digestion by ICP-OES with reference to EN 62321-4:2014/A1:2017, EN 62321-5:2014 EN 62321-7-1:2015 and EN 62321-7-2:2017 (For Hexavalent Chromium)

[Reporting Limit= 10.0 mg/kg for Lead and Mercury, 2.0 mg/kg for Cadmium and 5.0 mg/kg for Chromium VI, 0.1 µg/cm² for Chromium VI]

Sample	Total Cadmium [mg/kg]	Total Lead [mg/kg]	Total Mercury [mg/kg]	Hexavalent Chromium [mg/kg]	Conclusion
084	--	--	--	<5.0	Pass
128	--	--	--	<5.0	Pass
203	--	--	--	<5.0	Pass
RoHS Requirement	--	--	--	1000	--

Note 1. "< " denotes less than.
2. "mg/kg" denotes milligram per kilogram.

3.2 Heavy Metals Content Test (Total Cadmium, Total Lead, Total Mercury, Hexavalent Chromium)

Test method: Microwave digestion / Acid digestion by ICP-OES with reference to EN 62321-4:2014, EN 62321-5:2014
EN 62321-7-1:2015 and EN 62321-7-2;2017 (For Hexavalent Chromium)
[Reporting Limit= 10.0 mg/kg for Lead and Mercury, 2.0 mg/kg for Cadmium and 5.0 mg/kg for Chromium VI, 0.1 μg/cm² for Chromium VI]

Sample	Total Cadmium [mg/kg]	Total Lead [mg/kg]	Total Mercury [mg/kg]	Hexavalent Chromium [mg/kg]	Hexavalent Chromium [μg/cm²]	Conclusion
002	--	678	--	--	--	Pass
006	--	480	--	--	--	Pass
014	--	**24639**(iii)	--	--	--	Pass
016	--	489	--	--	--	Pass
017	--	464	--	--	--	Pass
024	--	532	--	--	--	Pass
031	--	27	--	--	--	Pass
051	--	**24662**(iii)	--	--	--	Pass
052	<2.0	--	--	--	--	Pass
055	<2.0	--	--	--	--	Pass
096	--	**33200**(iiii)	--	--	--	Pass
114	--	63	--	--	--	Pass
119	--	**7000**(iii)	--	--	--	Pass
124	<2.0	--	--	--	--	Pass
126	--	374	--	--	--	Pass
138	--	11	--	--	--	Pass
162	--	313	--	--	--	Pass
167	--	47	--	--	--	Pass
185	<2.0	--	--	--	--	Pass
202	--	**3540**(iiii)	--	--	--	Pass
203	--	28	--	--	--	Pass
RoHS Requirement	100	1000	--	--	--	--

Note 1. "< " denotes less than
2. "mg/kg" denotes milligram per kilogram
3. "μg/cm²" denotes microgram per square centimeters
4. (iii) denotes the exempt item according to Directive 2011/65/EU Annex III item 6(c) "Copper alloy containing up to 4 % lead by weight".
5. (iiii) denotes the exempt item according to Directive 2011/65/EU Annex III item 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.

3.3 Brominated Flame Retardants (PBBs & PBDEs)

Test Method: With reference to EN 62321-6:2015, extraction with toluene and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS).
[Reporting Limit = 5mg/kg]

Test Item		Results [mg/kg]			RoHS Requirement [mg/kg]
		Sample 018	Sample 021	Sample 037	
PBBs	Monobromobiphenyl	<5	<5	<5	Sum of PBBs < 1000
	Dibromobiphenyl	<5	<5	<5	
	Tribromobiphenyl	<5	<5	<5	
	Tetrabromobiphenyl	<5	<5	<5	
	Pentabromobiphenyl	<5	<5	<5	
	Hexabromobiphenyl	<5	<5	<5	
	Heptabromobiphenyl	<5	<5	<5	
	Octabromobiphenyl	<5	<5	<5	
	Nonabromobiphenyl	<5	<5	<5	
	Decabromobiphenyl	<5	<5	<5	
	Sum of detected PBBs	<50	<50	<50	
PBDEs	Monobromodiphenyl ether	<5	<5	<5	Sum of PBDEs < 1000
	Dibromodiphenyl ether	<5	<5	<5	
	Tribromodiphenyl ether	<5	<5	<5	
	Tetrabromodiphenyl ether	<5	<5	<5	
	Pentabromodiphenyl ether	<5	<5	<5	
	Hexabromodiphenyl ether	<5	<5	<5	
	Heptabromodiphenyl ether	<5	<5	<5	
	Octabromodiphenyl ether	<5	<5	<5	
	Nonabromodiphenyl ether	<5	<5	<5	
	Decabromodiphenyl ether	<5	<5	<5	
	Sum of detected PBDEs	<50	<50	<50	

Note 1. “<” denotes less than
2. “mg/kg” denotes milligram per kilogram

3.3 Brominated Flame Retardants (PBBs & PBDEs)

Test Method: With reference to EN 62321-6:2015, extraction with toluene and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS).
[Reporting Limit = 5mg/kg]

Test Item		Results [mg/kg]		RoHS Requirement [mg/kg]
		Sample 038	**Sample 064**	
PBBs	Monobromobiphenyl	<5	<5	Sum of PBBs < 1000
	Dibromobiphenyl	<5	<5	
	Tribromobiphenyl	<5	<5	
	Tetrabromobiphenyl	<5	<5	
	Pentabromobiphenyl	<5	<5	
	Hexabromobiphenyl	<5	<5	
	Heptabromobiphenyl	<5	<5	
	Octabromobiphenyl	<5	<5	
	Nonabromobiphenyl	<5	<5	
	Decabromobiphenyl	<5	<5	
	Sum of detected PBBs	<50	<50	
PBDEs	Monobromodiphenyl ether	<5	<5	Sum of PBDEs < 1000
	Dibromodiphenyl ether	<5	<5	
	Tribromodiphenyl ether	<5	<5	
	Tetrabromodiphenyl ether	<5	<5	
	Pentabromodiphenyl ether	<5	<5	
	Hexabromodiphenyl ether	17	<5	
	Heptabromodiphenyl ether	<5	<5	
	Octabromodiphenyl ether	<5	<5	
	Nonabromodiphenyl ether	<5	<5	
	Decabromodiphenyl ether	12	<5	
	Sum of detected PBDEs	<50	<50	

Note 1. "<" denotes less than
2. "mg/kg" denotes milligram per kilogram

3.3 Brominated Flame Retardants (PBBs & PBDEs)

Test Method: With reference to EN 62321-6:2015, extraction with toluene and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS).
[Reporting Limit = 5mg/kg]

Test Item		Results [mg/kg]			RoHS Requirement [mg/kg]
		Sample 070	Sample 071	Sample 091	
PBBs	Monobromobiphenyl	<5	<5	<5	Sum of PBBs < 1000
	Dibromobiphenyl	<5	<5	<5	
	Tribromobiphenyl	<5	<5	<5	
	Tetrabromobiphenyl	<5	<5	<5	
	Pentabromobiphenyl	<5	<5	<5	
	Hexabromobiphenyl	<5	<5	<5	
	Heptabromobiphenyl	<5	<5	<5	
	Octabromobiphenyl	<5	<5	<5	
	Nonabromobiphenyl	<5	<5	<5	
	Decabromobiphenyl	<5	<5	<5	
	Sum of detected PBBs	<50	<50	<50	
PBDEs	Monobromodiphenyl ether	<5	<5	<5	Sum of PBDEs < 1000
	Dibromodiphenyl ether	<5	<5	<5	
	Tribromodiphenyl ether	<5	<5	<5	
	Tetrabromodiphenyl ether	<5	<5	<5	
	Pentabromodiphenyl ether	<5	<5	<5	
	Hexabromodiphenyl ether	<5	<5	<5	
	Heptabromodiphenyl ether	<5	<5	<5	
	Octabromodiphenyl ether	<5	<5	<5	
	Nonabromodiphenyl ether	<5	<5	<5	
	Decabromodiphenyl ether	<5	<5	<5	
	Sum of detected PBDEs	<50	<50	<50	

Note 1. "<" denotes less than
2. "mg/kg" denotes milligram per kilogram

3.3 Brominated Flame Retardants (PBBs & PBDEs)

Test Method: With reference to EN 62321-6:2015, extraction with toluene and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS).
[Reporting Limit = 5mg/kg]

Test Item		Results [mg/kg]			RoHS Requirement [mg/kg]
		Sample 117	Sample 121	Sample 122	
PBBs	Monobromobiphenyl	<5	<5	<5	Sum of PBBs < 1000
	Dibromobiphenyl	<5	<5	<5	
	Tribromobiphenyl	<5	<5	<5	
	Tetrabromobiphenyl	<5	<5	<5	
	Pentabromobiphenyl	<5	<5	<5	
	Hexabromobiphenyl	<5	<5	<5	
	Heptabromobiphenyl	<5	<5	<5	
	Octabromobiphenyl	<5	<5	<5	
	Nonabromobiphenyl	<5	<5	<5	
	Decabromobiphenyl	<5	<5	<5	
	Sum of detected PBBs	<50	<50	<50	
PBDEs	Monobromodiphenyl ether	<5	<5	<5	Sum of PBDEs < 1000
	Dibromodiphenyl ether	<5	<5	<5	
	Tribromodiphenyl ether	<5	<5	<5	
	Tetrabromodiphenyl ether	<5	<5	<5	
	Pentabromodiphenyl ether	<5	<5	<5	
	Hexabromodiphenyl ether	<5	<5	<5	
	Heptabromodiphenyl ether	<5	<5	<5	
	Octabromodiphenyl ether	<5	<5	<5	
	Nonabromodiphenyl ether	<5	<5	<5	
	Decabromodiphenyl ether	<5	<5	<5	
	Sum of detected PBDEs	<50	<50	<50	

Note 1. “<” denotes less than
2. “mg/kg” denotes milligram per kilogram

3.3 Brominated Flame Retardants (PBBs & PBDEs)

Test Method: With reference to EN 62321-6:2015, extraction with toluene and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS).
[Reporting Limit = 5mg/kg]

Test Item		Results [mg/kg]			RoHS Requirement [mg/kg]
		Sample 123	Sample 126	Sample 131	
PBBs	Monobromobiphenyl	<5	<5	<5	Sum of PBBs < 1000
	Dibromobiphenyl	<5	<5	<5	
	Tribromobiphenyl	<5	<5	<5	
	Tetrabromobiphenyl	<5	<5	<5	
	Pentabromobiphenyl	<5	<5	<5	
	Hexabromobiphenyl	<5	<5	<5	
	Heptabromobiphenyl	<5	<5	<5	
	Octabromobiphenyl	<5	<5	<5	
	Nonabromobiphenyl	<5	<5	<5	
	Decabromobiphenyl	<5	<5	<5	
	Sum of detected PBBs	<50	<50	<50	
PBDEs	Monobromodiphenyl ether	<5	<5	<5	Sum of PBDEs < 1000
	Dibromodiphenyl ether	<5	<5	<5	
	Tribromodiphenyl ether	<5	<5	<5	
	Tetrabromodiphenyl ether	<5	<5	<5	
	Pentabromodiphenyl ether	<5	<5	<5	
	Hexabromodiphenyl ether	<5	<5	<5	
	Heptabromodiphenyl ether	<5	<5	<5	
	Octabromodiphenyl ether	<5	<5	<5	
	Nonabromodiphenyl ether	<5	<5	<5	
	Decabromodiphenyl ether	<5	<5	<5	
	Sum of detected PBDEs	<50	<50	<50	

Note 1. "<" denotes less than
2. "mg/kg" denotes milligram per kilogram

3.3 Brominated Flame Retardants (PBBs & PBDEs)

Test Method: With reference to EN 62321-6:2015, extraction with toluene and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS).
[Reporting Limit = 5mg/kg]

Test Item		Results [mg/kg]			RoHS Requirement [mg/kg]
		Sample 151	Sample 162	Sample 166	
PBBs	Monobromobiphenyl	<5	<5	<5	Sum of PBBs < 1000
	Dibromobiphenyl	<5	<5	<5	
	Tribromobiphenyl	<5	<5	<5	
	Tetrabromobiphenyl	<5	<5	<5	
	Pentabromobiphenyl	<5	<5	<5	
	Hexabromobiphenyl	<5	<5	<5	
	Heptabromobiphenyl	<5	<5	<5	
	Octabromobiphenyl	<5	<5	<5	
	Nonabromobiphenyl	<5	<5	<5	
	Decabromobiphenyl	<5	<5	<5	
	Sum of detected PBBs	<50	<50	<50	
PBDEs	Monobromodiphenyl ether	<5	<5	<5	Sum of PBDEs < 1000
	Dibromodiphenyl ether	<5	<5	<5	
	Tribromodiphenyl ether	<5	<5	<5	
	Tetrabromodiphenyl ether	<5	<5	<5	
	Pentabromodiphenyl ether	<5	<5	<5	
	Hexabromodiphenyl ether	<5	<5	<5	
	Heptabromodiphenyl ether	<5	<5	<5	
	Octabromodiphenyl ether	<5	<5	<5	
	Nonabromodiphenyl ether	<5	<5	<5	
	Decabromodiphenyl ether	<5	<5	<5	
	Sum of detected PBDEs	<50	<50	<50	

Note 1. “<” denotes less than
2. “mg/kg” denotes milligram per kilogram

3.3 Brominated Flame Retardants (PBBs & PBDEs)

Test Method: With reference to EN 62321-6:2015, extraction with toluene and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS).
[Reporting Limit = 5mg/kg]

Test Item		Results [mg/kg]			RoHS Requirement [mg/kg]
		Sample 168	Sample 184	Sample 186	
PBBs	Monobromobiphenyl	<5	<5	<5	Sum of PBBs < 1000
	Dibromobiphenyl	<5	<5	<5	
	Tribromobiphenyl	<5	<5	<5	
	Tetrabromobiphenyl	<5	<5	<5	
	Pentabromobiphenyl	<5	<5	<5	
	Hexabromobiphenyl	<5	<5	<5	
	Heptabromobiphenyl	<5	<5	<5	
	Octabromobiphenyl	<5	<5	<5	
	Nonabromobiphenyl	<5	<5	<5	
	Decabromobiphenyl	<5	<5	<5	
	Sum of detected PBBs	<50	<50	<50	
PBDEs	Monobromodiphenyl ether	<5	<5	<5	Sum of PBDEs < 1000
	Dibromodiphenyl ether	<5	<5	<5	
	Tribromodiphenyl ether	<5	<5	<5	
	Tetrabromodiphenyl ether	<5	<5	<5	
	Pentabromodiphenyl ether	<5	<5	<5	
	Hexabromodiphenyl ether	<5	<5	<5	
	Heptabromodiphenyl ether	<5	<5	<5	
	Octabromodiphenyl ether	<5	<5	<5	
	Nonabromodiphenyl ether	<5	<5	<5	
	Decabromodiphenyl ether	<5	<5	<5	
	Sum of detected PBDEs	<50	<50	<50	

Note 1. “<” denotes less than
2. “mg/kg” denotes milligram per kilogram

3.3 Brominated Flame Retardants (PBBs & PBDEs)

Test Method: With reference to EN 62321-6:2015, extraction with toluene and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS).
[Reporting Limit = 5mg/kg]

Test Item		Results [mg/kg]			RoHS Requirement [mg/kg]
		Sample 196	Sample 197	Sample 198	
PBBs	Monobromobiphenyl	<5	<5	<5	Sum of PBBs < 1000
	Dibromobiphenyl	<5	<5	<5	
	Tribromobiphenyl	<5	<5	<5	
	Tetrabromobiphenyl	<5	<5	<5	
	Pentabromobiphenyl	<5	<5	<5	
	Hexabromobiphenyl	<5	<5	<5	
	Heptabromobiphenyl	<5	<5	<5	
	Octabromobiphenyl	<5	<5	<5	
	Nonabromobiphenyl	<5	<5	<5	
	Decabromobiphenyl	<5	<5	<5	
	Sum of detected PBBs	<50	<50	<50	
PBDEs	Monobromodiphenyl ether	<5	<5	<5	Sum of PBDEs < 1000
	Dibromodiphenyl ether	<5	<5	<5	
	Tribromodiphenyl ether	<5	<5	<5	
	Tetrabromodiphenyl ether	<5	<5	<5	
	Pentabromodiphenyl ether	<5	<5	<5	
	Hexabromodiphenyl ether	<5	<5	<5	
	Heptabromodiphenyl ether	<5	<5	<5	
	Octabromodiphenyl ether	<5	<5	<5	
	Nonabromodiphenyl ether	<5	<5	<5	
	Decabromodiphenyl ether	<5	<5	<5	
	Sum of detected PBDEs	<50	<50	<50	

Note 1. "<" denotes less than
2. "mg/kg" denotes milligram per kilogram

3.3 Brominated Flame Retardants (PBBs & PBDEs)

Test Method: With reference to EN 62321-6:2015, extraction with toluene and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS).
[Reporting Limit = 5mg/kg]

Test Item		Results [mg/kg]			RoHS Requirement [mg/kg]
		Sample 200	Sample 201	Sample 219	
PBBs	Monobromobiphenyl	<5	<5	<5	Sum of PBBs < 1000
	Dibromobiphenyl	<5	<5	<5	
	Tribromobiphenyl	<5	<5	<5	
	Tetrabromobiphenyl	<5	<5	<5	
	Pentabromobiphenyl	<5	<5	<5	
	Hexabromobiphenyl	<5	<5	<5	
	Heptabromobiphenyl	<5	<5	<5	
	Octabromobiphenyl	<5	<5	<5	
	Nonabromobiphenyl	<5	<5	<5	
	Decabromobiphenyl	<5	<5	<5	
	Sum of detected PBBs	<50	<50	<50	
PBDEs	Monobromodiphenyl ether	<5	<5	<5	Sum of PBDEs < 1000
	Dibromodiphenyl ether	<5	<5	<5	
	Tribromodiphenyl ether	<5	<5	<5	
	Tetrabromodiphenyl ether	<5	<5	<5	
	Pentabromodiphenyl ether	<5	<5	<5	
	Hexabromodiphenyl ether	<5	<5	<5	
	Heptabromodiphenyl ether	<5	<5	<5	
	Octabromodiphenyl ether	<5	<5	<5	
	Nonabromodiphenyl ether	<5	<5	<5	
	Decabromodiphenyl ether	<5	<5	<5	
	Sum of detected PBDEs	<50	<50	<50	

Note 1. “<” denotes less than
2. “mg/kg” denotes milligram per kilogram

3.4 Phthalates (DEHP, BBP, DBP and DIBP)

Test Method: with reference to EN 62321-8:2017, extracted by organic solvent and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS).
[Reporting Limit = 50mg/kg]

Test Item	CAS No.	Result [mg/kg]	
		Sample 001+003+004	Sample 005
Di-iso-butyl Phthalate (DIBP)	84-69-5	<50	<50
Di-butyl Phthalate (DBP)	84-74-2	<50	<50
Butyl-benzyl Phthalate (BBP)	85-68-7	<50	<50
Di-(2-ethyl-hexyl) Phthalate (DEHP)	117-81-7	154	<50
RoHS Requirement		Each < 1000	

Test Item	CAS No.	Result [mg/kg]	
		Sample 008+009+012+018+021	Sample 010
Di-iso-butyl Phthalate (DIBP)	84-69-5	<50	<50
Di-butyl Phthalate (DBP)	84-74-2	<50	<50
Butyl-benzyl Phthalate (BBP)	85-68-7	<50	<50
Di-(2-ethyl-hexyl) Phthalate (DEHP)	117-81-7	<50	<50
RoHS Requirement		Each < 1000	

Note 1. "<" denotes less than
2. "mg/kg" denotes milligram per kilogram

3.4 Phthalates (DEHP, BBP, DBP and DIBP)

Test Method: with reference to EN 62321-8:2017, extracted by organic solvent and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS).
[Reporting Limit = 50mg/kg]

Test Item	CAS No.	Result [mg/kg]		
		Sample 011+020+022	Sample 028+033+043	Sample 030+032+037 +038
Di-iso-butyl Phthalate (DIBP)	84-69-5	<50	285	<50
Di-butyl Phthalate (DBP)	84-74-2	<50	<50	<50
Butyl-benzyl Phthalate (BBP)	85-68-7	<50	<50	<50
Di-(2-ethyl-hexyl) Phthalate (DEHP)	117-81-7	<50	<50	<50
RoHS Requirement		Each < 1000		

Test Item	CAS No.	Result [mg/kg]		
		Sample 039+041+042 +048+049	Sample 044+045+046	Sample 056+057+058
Di-iso-butyl Phthalate (DIBP)	84-69-5	<50	<50	<50
Di-butyl Phthalate (DBP)	84-74-2	<50	<50	<50
Butyl-benzyl Phthalate (BBP)	85-68-7	<50	<50	<50
Di-(2-ethyl-hexyl) Phthalate (DEHP)	117-81-7	<50	<50	<50
RoHS Requirement		Each < 1000		

Note 1. “<” denotes less than
2. “mg/kg” denotes milligram per kilogram

3.4 Phthalates (DEHP, BBP, DBP and DIBP)

Test Method: with reference to EN 62321-8:2017, extracted by organic solvent and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS).
[Reporting Limit = 50mg/kg]

Test Item	CAS No.	Result [mg/kg]		
		Sample 059+060+061	Sample 062+063+067	Sample 064+070+071 +073+074
Di-iso-butyl Phthalate (DIBP)	84-69-5	<50	<50	<50
Di-butyl Phthalate (DBP)	84-74-2	<50	<50	<50
Butyl-benzyl Phthalate (BBP)	85-68-7	<50	<50	<50
Di-(2-ethyl-hexyl) Phthalate (DEHP)	117-81-7	<50	<50	<50
RoHS Requirement		Each < 1000		

Test Item	CAS No.	Result [mg/kg]		
		Sample 068+069+072	Sample 075+076+077 +078+079	Sample 080+082+083 +084+088
Di-iso-butyl Phthalate (DIBP)	84-69-5	<50	<50	<50
Di-butyl Phthalate (DBP)	84-74-2	<50	<50	<50
Butyl-benzyl Phthalate (BBP)	85-68-7	<50	<50	<50
Di-(2-ethyl-hexyl) Phthalate (DEHP)	117-81-7	<50	<50	<50
RoHS Requirement		Each < 1000		

Note 1. "<" denotes less than
2. "mg/kg" denotes milligram per kilogram

3.4 Phthalates (DEHP, BBP, DBP and DIBP)

Test Method: with reference to EN 62321-8:2017, extracted by organic solvent and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS).
[Reporting Limit = 50mg/kg]

Test Item	CAS No.	Result [mg/kg]		
		Sample 090+091+093 +094+096	Sample 097+101+102 +103+104	Sample 105+106+108 +109
Di-iso-butyl Phthalate (DIBP)	84-69-5	<50	<50	<50
Di-butyl Phthalate (DBP)	84-74-2	<50	<50	<50
Butyl-benzyl Phthalate (BBP)	85-68-7	<50	<50	<50
Di-(2-ethyl-hexyl) Phthalate (DEHP)	117-81-7	<50	<50	<50
RoHS Requirement		Each < 1000		

Test Item	CAS No.	Result [mg/kg]		
		Sample 110+111+112 +113+114	Sample 115+116+117 +118+119	Sample 120+121+122 +123+124
Di-iso-butyl Phthalate (DIBP)	84-69-5	<50	<50	<50
Di-butyl Phthalate (DBP)	84-74-2	<50	<50	<50
Butyl-benzyl Phthalate (BBP)	85-68-7	<50	<50	<50
Di-(2-ethyl-hexyl) Phthalate (DEHP)	117-81-7	<50	<50	<50
RoHS Requirement		Each < 1000		

Note 1. "<" denotes less than
2. "mg/kg" denotes milligram per kilogram

3.4 Phthalates (DEHP, BBP, DBP and DIBP)

Test Method: with reference to EN 62321-8:2017, extracted by organic solvent and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS).
[Reporting Limit = 50mg/kg]

Test Item	CAS No.	Result [mg/kg]		
		Sample 126+128+129 +130+131	Sample 134+135+138 +140+145	Sample 148+149+152
Di-iso-butyl Phthalate (DIBP)	84-69-5	<50	<50	<50
Di-butyl Phthalate (DBP)	84-74-2	<50	<50	<50
Butyl-benzyl Phthalate (BBP)	85-68-7	<50	<50	<50
Di-(2-ethyl-hexyl) Phthalate (DEHP)	117-81-7	<50	<50	<50
RoHS Requirement		Each < 1000		

Test Item	CAS No.	Result [mg/kg]		
		Sample 151+154+156 +159+160	Sample 153+157+158	Sample 161+162+163 +164+165
Di-iso-butyl Phthalate (DIBP)	84-69-5	<50	<50	<50
Di-butyl Phthalate (DBP)	84-74-2	<50	<50	<50
Butyl-benzyl Phthalate (BBP)	85-68-7	<50	<50	<50
Di-(2-ethyl-hexyl) Phthalate (DEHP)	117-81-7	<50	<50	<50
RoHS Requirement		Each < 1000		

Note 1. “<” denotes less than
2. “mg/kg” denotes milligram per kilogram

3.4 Phthalates (DEHP, BBP, DBP and DIBP)

Test Method: with reference to EN 62321-8:2017, extracted by organic solvent and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS).
[Reporting Limit = 50mg/kg]

Test Item	CAS No.	Result [mg/kg]		
		Sample 166+167+168 +186+196	Sample 182+184+187	Sample 188+189+190
Di-iso-butyl Phthalate (DIBP)	84-69-5	<50	<50	115
Di-butyl Phthalate (DBP)	84-74-2	<50	<50	<50
Butyl-benzyl Phthalate (BBP)	85-68-7	<50	<50	<50
Di-(2-ethyl-hexyl) Phthalate (DEHP)	117-81-7	<50	<50	51.8
RoHS Requirement		Each < 1000		

Test Item	CAS No.	Result [mg/kg]		
		Sample 192+193+194	Sample 197+198+199 +200+201	Sample 202+203+204 +219
Di-iso-butyl Phthalate (DIBP)	84-69-5	<50	<50	<50
Di-butyl Phthalate (DBP)	84-74-2	<50	<50	<50
Butyl-benzyl Phthalate (BBP)	85-68-7	<50	<50	<50
Di-(2-ethyl-hexyl) Phthalate (DEHP)	117-81-7	<50	<50	<50
RoHS Requirement		Each < 1000		

Note 1. “<” denotes less than
2. “mg/kg” denotes milligram per kilogram

3.4 Phthalates (DEHP, BBP, DBP and DIBP)

Test Method: with reference to EN 62321-8:2017, extracted by organic solvent and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS).
[Reporting Limit = 50mg/kg]

Test Item	CAS No.	Result [mg/kg]		
		Sample 206+207+208	Sample 209+210+211	Sample 213
Di-iso-butyl Phthalate (DIBP)	84-69-5	<50	<50	<50
Di-butyl Phthalate (DBP)	84-74-2	<50	79.7	<50
Butyl-benzyl Phthalate (BBP)	85-68-7	<50	<50	<50
Di-(2-ethyl-hexyl) Phthalate (DEHP)	117-81-7	<50	<50	<50
RoHS Requirement		Each < 1000		

Test Item	CAS No.	Result [mg/kg]	
		Sample 214	Sample 215
Di-iso-butyl Phthalate (DIBP)	84-69-5	<50	236
Di-butyl Phthalate (DBP)	84-74-2	<50	<50
Butyl-benzyl Phthalate (BBP)	85-68-7	<50	<50
Di-(2-ethyl-hexyl) Phthalate (DEHP)	117-81-7	53.6	<50
RoHS Requirement		Each < 1000	

Note 1. "<" denotes less than
2. "mg/kg" denotes milligram per kilogram

3.4 Phthalates (DEHP, BBP, DBP and DIBP)

Test Method: with reference to EN 62321-8:2017, extracted by organic solvent and analyzed by Gas Chromatography and Mass Spectrometry (GC-MS).
[Reporting Limit = 50mg/kg]

Test Item	CAS No.	Result [mg/kg]
		Sample 216+218
Di-iso-butyl Phthalate (DIBP)	84-69-5	215
Di-butyl Phthalate (DBP)	84-74-2	<50
Butyl-benzyl Phthalate (BBP)	85-68-7	<50
Di-(2-ethyl-hexyl) Phthalate (DEHP)	117-81-7	<50
RoHS Requirement		Each < 1000

Note 1. "<" denotes less than
2. "mg/kg" denotes milligram per kilogram

TÜV SÜD Certification and Testing (China) Co., Ltd.
Shanghai Branch Chemical Lab

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Reviewed by:

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Project Engineer

~ End Of Report ~

APPENDIX I: Additional Style.
The client declared that the materials used of below styles are same as tested style EL -SL18(LA)-160W.

No.	Description
1	EL-SL11(MINI)-20 20W, EL-SL11(MINI)-30 30W, EL-SL11(MINI)-40 40W, EL-SL11(S)-50 50W, EL-SL11(S)-60 60W, EL-SL11(S)-70 70W, EL-SL11(S)-80 80W, EL-SL11(M)-90 90W , EL-SL11(M)-100 100W, EL-SL11(M)-120 120W, EL-SL11(L)-150 150W, EL-SL11(L)-160 160W, EL-SL11(L)-180 180W, EL-SL11(L)-200 200W, EL-SL11(L)-220 220W, EL-SL11(L)-240 240W, EL-SL68(MINI)-20 20W, EL-SL68(MINI)-30 30W, EL-SL68(MINI)-40 40W, EL-SL68(S)-40 40W, EL-SL68(S)-50 50W, EL-SL68(S)-60 60W, EL-SL68(S)-70 70W, EL-SL68(S)-80 80W, EL-SL68(M)-90 90W, EL-SL68(M)-100 100W, EL-SL68(M)-120 120W, EL-SL68(L)-150 150W, EL-SL68(L)-160 160W, EL-SL68(L)-180 180W, EL-SL68(L)-200 200W ,EL-SL68(L)-220 220W, EL-SL68(L)-240 240W, EL-SL20(S)-20 20W, EL-SL20(S)-30 30W, EL-SL20(S)-40 40W, EL-SL20(M)-60 60W ,EL-SL20(M)-80 80W ,EL-SL20(M)-90 90W ,EL-SL20(L)-100 100W, EL-SL20(L)-120 120W ,EL-SL20(L)-150 150W ,EL-SL20(L)-160 160W ,EL-SL20(L)-180 180W, EL-SL08(1S)-20 20W ,EL-SL08(1S)-30 30W ,EL-SL08(1S)-40 40W ,EL-SL08(1S)-50 50W, EL-SL08(1L)-60 60W ,EL-SL08(1L)-70 70W ,EL-SL08(1L)-80 80W ,EL-SL08(2)-90 90W, EL-SL08(2)-100 100W ,EL-SL08(2)-120 120W ,EL-SL08(2)-150 150W ,EL-SL08(3)-150 150W, EL-SL08(3)-180 180W ,EL-SL08(3)-200 200W ,EL-SL09(1S)-30 30W ,EL-SL09(1L)-50 50W, EL-SL09(1L)-60 60W ,EL-SL09(1L)-80 80W ,EL-SL09(2)-100 100W ,EL-SL09(2)-120 120W, EL-SL09(3)-120 120W ,EL-SL09(3)-150 150W ,EL-SL09(3)-180 180W ,EL-SL09(4)-200 200W, EL-SL09(4)-240 240W ,EL-SL09(4)-280 280W ,EL-SL10(1)-30 30W ,EL-SL10(1)-40 40W, EL-SL10(1)-50 50W ,EL-SL10(1)-60 60W ,EL-SL10(1)-70 70W ,EL-SL10(1)-80 80W, EL-SL10(2)-90 90W ,EL-SL10(2)-100 100W ,EL-SL10(2)-120 120W ,EL-SL10(3)-150 150W, EL-SL10(3)-180 180W ,EL-SL10(3)-200 200W ,EL-SL18MA-20 20W ,EL-SL18MA-30 30W, EL-SL18MA-40 40W ,EL-SL18MA-50 50W ,EL-SL18MA-60 60W ,EL-SL18MA-70 70W, EL-SL18MA-80 80W ,EL-SL18MA-90 90W ,EL-SL18MB-20 20W ,EL-SL18MB-30 30W, EL-SL18MB-40 40W ,EL-SL18MB-50 50W ,EL-SL18MB-60 60W ,EL-SL18LA-90 90W, EL-SL18LA-100 100W ,EL-SL18LA-120 120W ,EL-SL18LA-150 150W ,EL-SL18LA-160 160W, EL-SL18LB-80 80W ,EL-SL18LB-90 90W ,EL-SL18LB-100 100W ,EL-SL18LB-120 120W, EL-SL58(S)-20 20W ,EL-SL58(S)-30 30W ,EL-SL58(S)-40 40W ,EL-SL58(S)-50 50W, EL-SL58(S)-60 60W ,EL-SL58-30 30W ,EL-SL58-40 40W ,EL-SL58-50 50W ,EL-SL58-60 60W, EL-SL58-70 70W ,EL-SL58-80 80W ,EL-SL58-90 90W ,EL-SL58-100 100W ,EL-SL58-120 120W, EL-GL01-20 20W ,EL-GL01-30 30W ,EL-GL01-40 40W ,EL-GL01-50 50W ,EL-GL01-60 60W, EL-GL01-80 80W ,EL-GL01-100 100W ,EL-SL20A(S)-30 30W ,EL-SL20A(S)-40 40W, EL-SL20A(S)-50 50W ,EL-SL20A(M)-60 60W ,EL-SL20A(M)-80 80W ,EL-SL20A(M)-90 90W, EL-SL20A(L)-100 100W ,EL-SL20A(L)-120 120W ,EL-SL20A(L)-150 150W ,EL-SL20A(L)-160 160W, EL-GL607-15,EL-GL607-20,EL-GL607-25,EL-GL607-30.

Remark：

1. The report covers material testing on specified samples
2. The tested materials covered by the report were declared by the manufacturer to be used on the models listed in the APPENDIX of the report.

General Terms and Conditions

of TÜV SÜD Certification and Testing (China) Co., Ltd. and its affiliated branch offices in the P.R.C.
(hereinafter referred to as *the company*)

1. General Information and Definitions

(1.1) In the event that an order for any services is placed, the Client shall accept the General Terms and Conditions. The General Terms and Conditions shall be applicable to all orders ,resulting contracts and other arrangements, including all offers made or services provided by the Company or any of its affiliated companies They are not applicable if and as far as they are in conflict with the regulations on services performed on behalf of governments, government bodies or any other public entity, or they are in conflict with mandatory provisions of local law. The Client's placement of orders as well as the conclusion of contracts with the Company shall be regarded as awareness and acceptance of these General Terms and Conditions.

(1.2) The Company strongly recommends any Client or potential Client to read the full text of these General Terms and Conditions prior to placement of any order to or conclusion of any contract with the Company. Ancillary agreements, promises and other statements made on the part of the Company staff or the experts called upon by them shall be binding only if they are expressly confirmed by the Company in writing. This shall also apply to any modifications of this clause.

2. Provision of Services

(2.1) With due care and skill, the Company will provide services according to Client's specific instructions as made available by the Client. In the absence of Client's specific instructions, the following is deemed as instructions given to the Company:
- (a) The terms of any standard specification sheet or standard order form provided by the Company; and/or
- (b) Any relevant usage, practice or trade custom; and/or
- (c) Such methods the Company considers technically, operationally and/or on financial grounds appropriate.

(2.2) No other party is entitled to give any instructions particularly on the scope and type of the services or the reports delivered, or on the resulting certificates (the "Reports of Findings"), unless the Company receives prior written instructions to the contrary from the Client. The Client hereby irrevocably authorizes the Company to deliver Reports of Findings to a third party where so instructed by the Client or, at the Company's discretion, where it implicitly follows from circumstances, trade custom, usage or practice.

(2.3) The Information stated in the Report of Findings is derived from the results of inspection or testing procedures carried out in accordance with the instructions and/or Company's assessment of such results on the basis of any technical standards, trade custom or practice, or other circumstances which should in Company's professional experience be taken into account.

(2.4) Reports of Findings issued after the testing of samples refer the Company's opinion only on samples under testing and not to the lot from which the samples were drawn.

(2.5) Client agrees that the Company's sole responsibility is to be present at the time of the third party's intervention and to forward the results, or confirm the occurrence of the intervention, in case Client requests the Company to witness any third party's intervention. Client agrees that the Company will use the test methods for analysis as requested in the request form, and if none is stated in the form, the Company will choose the appropriate test methods for analysis.

(2.6) The Reports of Findings issued by the Company will reflect the facts as recorded by it at the time of its intervention only and within the limits of the instructions received or, in the absence of such instructions, within the limits of the alternative parameters applied as provided for in Clause 2.1. The Company is under no obligation to refer to, or report upon, any facts or circumstances, which are outside the specific instructions received or alternative parameters applied.

(2.7) The performance of all or part of the services may be delegated to an agent or subcontractor by the Company. The Client authorizes the Company to disclose all information necessary for such performance to the agent or subcontractor.

(2.8) Documents reflecting engagements contracted between the Client and third parties or third party documents, e.g. sales contract copies, letters of credit, bills of lading, etc. should be made available to the Company. These are considered to be for information only, and do not extend or restrict the scope of the services or the obligations accepted by the Company.

(2.9) The Company agrees that, by providing the services to the Client, it neither takes the place of Client or any third party, nor otherwise assumes, abridges, abrogates or undertakes to discharge any duty of the Client to any third party or that of any third party to the Client. Also, it does not release the Client or any third party from any of their obligations.

(2.10) Depending on the nature of each sample, all samples given to the Company shall be retained for a maximum of 3 months or for such other shorter time period as the nature of the sample permits, and then sent back to Client or otherwise disposed of at the Company's discretion. After that time the Company will not be responsible for the samples. Storage of samples for more than 3 months shall incur a storage fee payable by the Client. If samples are returned to the Client, the Client will be billed a handling and freight fees. Special disposal charges will be billed to the Client if incurred.

3. Client's Obligations

The Client shall:

(3.1) ensure that all required supporting documents, information and instructions as submitted are accurate, trueful and complete. These information are to be submitted in a timely not later than 2 working days from the date of which the services are requested by the Client

(3.2) ensure to give all necessary access for the Company's representatives to the premises where the services are to be performed and to take all necessary steps to eliminate or remedy any obstacles to, or interruptions in the performance of the services;

(3.3) make available any special equipment and personnel necessary for the performance of the services, if required;

(3.4) ensure that for the safety and security of working conditions, sites and installations, all necessary measures are taken during the performance of services. In this respect, the Client will not rely on the Company's advice whether required or not;

(3.5) inform the Company of any known hazards or dangers, actual or potential, associated with any order, samples, testing or any other service rendered by the Company well in advance. Those are, but are not limited to the presence or risk of radiation, environmental pollution or poisons- toxic or noxious or explosive elements or materials;

(3.6) fully exercise all its rights and discharge all its liabilities under any relevant sales or other contract with a third party.

4. Fees and Payment

(4.1) All Fees not agreed on between the Company and Client at the time the order is placed or a contract is concluded shall be determined by the Company's Schedule of Fees (which are subject to change). All applicable taxes shall be paid by Client, as far as mandatory laws do not provide otherwise.

(4.2) Unless a specific period is established in the invoice, the Client shall pay upon receiving the invoice, but not later than 30 days from the relevant invoice date or within such other period as may be established by the Company in the invoice (the "Due Date").

(4.3) The Client shall not be entitled to retain or defer due payment of any sums to the Company on account of any dispute, counter claim or set-off against the Company. The Company reserves the right to retain or defer any due payments if any dispute arises with or it raises any counterclaim against the Client. The Company is entitled to set off due payments against payments of the Client.

(4.4) For the collection of unpaid fees, the Company may decide to bring action in any court with competent jurisdiction. The corresponding collection costs, including attorney's fees and related costs, shall be borne by the Client, as far as the mandatory local law does not provide otherwise.

(4.5) In case of any unforeseen problems or expenses arise while carrying out the services, the Company informs the Client. In such cases, the Company shall be entitled to charge additional fees to cover extra time and to invoice extra costs necessarily incurred to complete the services.

(4.6) If the Company is unable to perform all or parts of the services for any cause whatsoever beyond the Company's control, including the failure by Client to comply with any of its obligations provided for in the foregoing Clause 3, the Company shall nevertheless be entitled to payments of:
- (1) The amount of all non-refundable expenses incurred by the Company; and
- (2) A proportion of the agreed fee equal to the proportion of the services actually carried out.

5. Suspension or Termination of Services

In any case mentioned below, the Company shall be entitled to either suspend or terminate the provision of the services immediately and without any liability:

(5.1) Failure by the Client to comply with any of its obligations under these General Terms and Conditions and such failure is not remedied within 10 days after a notice of such failure has been delivered to the Client; or

(5.2) Any suspension of payment, arrangement with creditors, bankruptcy, insolvency, receivership or cessation of business by Client.

6. Liability and Indemnification

(6.1) Limitation of Liability:
- (1) Clients seeking a guarantee against loss or damage should obtain appropriate insurance. The Company is neither an insurer nor a guarantor and disclaims all liability in such capacity.
- (2) Reports of Findings are issued on the basis of the information, documents and/or samples provided by, or on behalf of the Client and solely for the benefit of the Client who is obliged to act on the basis of such Reports of Findings. Neither the Company nor any of its staff, agents or subcontractors shall be liable to the Client nor to any third party for any actions taken or not taken on the basis of such Reports of Findings, or for any incorrect results arising from unclear, erroneous, incomplete, misleading or false information provided to the Company.
- (3) For any delayed, total or partial non-performance of the services arising directly or indirectly from any event beyond the Company's control, including failure by Client to comply with any of its obligations hereunder, the Company shall not be liable.
- (4) The liability of the Company in respect of any claim for loss, damage or expense of any nature and howsoever arising shall in no circumstances exceed a total aggregate sum equal to 10 times the amount of the fee paid in respect of the specific service which gives rise to such claim, and shall in any case not exceed the equivalent of 25,000 EUR in CNY.
- (5) For any indirect or consequential loss (including loss of profits), the Company shall not have any liabilities.
- (6) In case of any claim, the Client must give written notice to the Company within 30 days of discovery of the facts with all necessary documents to justify such claim. In any case, the Company shall be discharged from all liability for all claims for loss, damage or expense unless a lawsuit is brought within two years from:
  - (i) the performance date of the Company for its services which refers to the claim; or
  - (ii) the date when the service should have been completed in the event of any alleged non-performance.

(6.2) Indemnification: Against all claims (actual or threatened) by any third party for loss, damage or expenses of whatsoever nature including all legal expenses and related costs and howsoever arising relating to the performance, purported performance or non-performance of any services, the Client shall guarantee, hold harmless and indemnify the Company and its officers, employees, agents or subcontractors.

7. Obligation of Confidentiality, Copyright, Data Privacy Protection

(7.1) The Company shall be authorized to make file copies of written documents, which have been made available to it for review and which are important for processing the order.

(7.2) Insofar as Reports of Findings are prepared in the course of processing the order and which are subject to the protection of copyright, then the Company shall grant the Client a simple, non-transferable right to use, insofar as this is necessary and in accordance with the contractually presupposed purpose. Other rights shall not be transferred; in particular, the customer shall not be entitled to modify and/or edit audit reports or to make use of such outside of his business premises.

(7.3) The Company and its staff which may be called in shall not disclose or use trade and business matters about which they have gained knowledge during the performance of their work without proper authorization, or unless instructed by a court or authorized body (e.g. regulatory authority, accreditation body or certification scheme owner) or otherwise legally required.

8. Miscellaneous

(8.1) The validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired, even if any one or more provisions of these General Conditions are found to be illegal or unenforceable in any respect.

(8.2) Client shall not directly or indirectly entice, encourage or make any offer to Company's employees to leave their employment with the Company, during the course of providing the services and for a period of one year thereafter.

(8.3) Use of the Company's corporate name or registered marks for advertising purposes is not permitted without the Company's prior written authorization.

9. Governing Law, Jurisdiction and Dispute Settlement

(9.1) Unless specifically agreed otherwise, all disputes arising out or in connection with contractual relationship(s) hereunder shall be governed by the applicable laws and regulations of the People's Republic of China.

(9.2) Place of performance for any obligation arising out of this contract shall be Shanghai, the Place of the TÜV SÜD Certification and Testing (China) Co., Ltd., Shanghai branch, unless otherwise expressly agreed by the parties.

10. Languages

In the event of any discrepancy between the English and the Chinese version of these General Terms and Conditions, the English version shall prevail.