

TEST REPORT

KOTITI NO. : 1614020195
APPLICANT : SUPREMA
DATE IN : May 19, 2016
DATE OUT : June 03, 2016

Product Name	BioEntry W2
Model Name	N/S
Part Name	N/S
Testing Period	May 19, 2016 ~ June 02, 2016
Test Result	For further details, please refer to the following page(s).

* N/S : Not Submitted

AUTHORIZED by :

Young R. Kim

DR. YOUNG RYUL KIM / PRESIDENT

REMARK: SEE ENCLOSED WORKSHEET(S) RESULT

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■ SCREENING

1) XRF screening

- i) X-Ray Fluorescence Spectrometer (XRF)
- ii) Maker : HORIBA
- iii) Model : MESA-50

2) Cr⁶⁺ Spot test

■ PRECISION ANALYSIS(ICP-OES, GC/MS, UV/VIS)

- Test Method:

Reference to IEC 62321-5:2013 by acid digestion and determined by ICP-OES (Pb, Cd)

Reference to IEC 62321-4:2013 by acid digestion and determined by ICP-OES (Hg)

Reference to IEC 62321:2008 (Annex C) by alkaline digestion and determined by UV-VIS (Cr⁶⁺)

Reference to IEC 62321-7-1:2015 by boiling water extraction and determined by UV-VIS (Cr⁶⁺)

Reference to IEC 62321:2008 (Annex A) by solvent extraction and determined by GC-MS (PBBs, PBDEs)

■ SCREENING (ED-XRF, Spot Test)

Restriction of Hazardous Substances Directive (RoHS/2011/65/EU), mg/kg							
Test Item	# 1	# 2-1	# 2-2	# 2-3-1	# 2-3-2	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	167 496	187 252	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	Positive	Negative	N.A.	N.A.	Negative	-	-
Total Br	N.A.	N.A.	N.D.	N.D.	N.A.	50	-
Test Item	# 3	# 4	# 5-1-1	# 5-1-2	# 5-2-1	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	3 030	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	Negative	N.A.	N.A.	Negative	N.A.	-	-
Total Br	N.A.	N.D.	N.D.	N.A.	N.D.	50	-
Test Item	# 5-2-2	# 5-3	# 5-4	# 5-5	# 5-6	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	Negative	N.A.	N.A.	N.A.	N.A.	-	-
Total Br	N.A.	N.D.	N.D.	N.D.	N.D.	50	-

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■ SCREENING (ED-XRF, Spot Test)

<u>Restriction of Hazardous Substances Directive (RoHS/2011/65/EU), mg/kg</u>							
Test Item	# 5-7	# 5-8	# 5-9	# 5-10	# 5-11	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	N.A.	N.A.	N.A.	N.A.	N.A.	-	-
Total Br	N.D.	N.D.	N.D.	N.D.	N.D.	50	-
Test Item	# 5-12	# 5-13	# 6-1-1	# 6-1-2	# 6-1-3	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	N.A.	N.A.	N.A.	N.A.	Negative	-	-
Total Br	N.D.	N.D.	147 611	100 575	N.A.	50	-
Test Item	# 6-2	# 6-3	# 6-4	# 6-5	# 6-6	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	N.A.	N.A.	N.A.	N.A.	N.A.	-	-
Total Br	N.D.	N.D.	N.D.	N.D.	N.D.	50	-

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■ SCREENING (ED-XRF, Spot Test)

<u>Restriction of Hazardous Substances Directive (RoHS/2011/65/EU), mg/kg</u>							
Test Item	# 6-7	# 6-8	# 6-9-1	# 6-9-2	# 7-1-1	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	N.A.	N.A.	N.A.	Negative	N.A.	-	-
Total Br	N.D.	N.D.	N.D.	N.A.	134 831	50	-
Test Item	# 7-1-2	# 7-2	# 7-3-1	# 7-3-2	# 7-4	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	Negative	N.A.	N.A.	Negative	N.A.	-	-
Total Br	N.A.	N.D.	N.D.	N.A.	166 651	50	-
Test Item	# 8-1	# 8-2	# 8-3	# 8-4	# 8-5	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	N.A.	N.A.	N.A.	N.A.	N.A.	-	-
Total Br	N.D.	N.D.	N.D.	N.D.	N.D.	50	-

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■ SCREENING (ED-XRF, Spot Test)

<u>Restriction of Hazardous Substances Directive (RoHS/2011/65/EU), mg/kg</u>							
Test Item	# 9-1	# 9-2	# 9-3	# 9-4	# 9-5	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	92	375	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	328	N.D.	30	50
Spot Test (Cr ⁶⁺)	N.A.	N.A.	N.A.	Negative	Negative	-	-
Total Br	68	N.D.	144 323	N.A.	N.A.	50	-
Test Item	# 9-6-1	# 9-6-2	# 10-1-1	# 10-1-2	# 10-2-1	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	158 985	153 367	181 036	30	50
Spot Test (Cr ⁶⁺)	N.A.	Negative	Negative	Negative	Negative	-	-
Total Br	366 229	N.A.	N.A.	N.A.	N.A.	50	-
Test Item	# 10-2-2	# 10-2-3	# 10-2-4	# 10-2-5	# 10-3-1	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	211	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	173 984	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	N.A.	Negative	N.A.	Negative	N.A.	-	-
Total Br	N.D.	N.A.	103	N.A.	102	50	-

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■ SCREENING (ED-XRF, Spot Test)

<u>Restriction of Hazardous Substances Directive (RoHS/2011/65/EU), mg/kg</u>							
Test Item	# 10-3-2	# 10-4-1	# 10-4-2	# 10-4-3	# 10-4-4	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	Negative	N.A.	N.A.	Negative	Negative	-	-
Total Br	N.A.	N.D.	N.D.	N.A.	N.A.	50	-
Test Item	# 10-5-1	# 10-5-2	# 10-5-3	# 10-6-1	# 10-6-2	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	880	30	50
Spot Test (Cr ⁶⁺)	N.A.	Negative	Negative	N.A.	Negative	-	-
Total Br	377 528	N.A.	N.A.	N.D.	N.A.	50	-
Test Item	# 10-6-3	# 10-6-4	# 10-6-5	# 10-6-6	# 10-6-7	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	412	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	Negative	Negative	N.A.	Negative	Negative	-	-
Total Br	N.A.	N.A.	N.D.	N.A.	N.A.	50	-

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■ SCREENING (ED-XRF, Spot Test)

<u>Restriction of Hazardous Substances Directive (RoHS/2011/65/EU), mg/kg</u>							
Test Item	# 10-7-1	# 10-7-2	# 10-7-3	# 10-8-1	# 10-8-2	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	238	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	507	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	Negative	Negative	Negative	N.A.	Negative	-	-
Total Br	N.A.	N.A.	N.A.	N.D.	N.A.	50	-
Test Item	# 10-8-3	# 10-8-4	# 10-8-5	# 10-8-6	# 10-8-7	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	N.A.	N.A.	Negative	Negative	N.A.	-	-
Total Br	N.D.	N.D.	N.A.	N.A.	N.D.	50	-
Test Item	# 10-8-8	# 10-9-1	# 10-9-2	# 10-9-3	# 10-9-4	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	Negative	N.A.	Negative	Negative	Negative	-	-
Total Br	N.A.	N.D.	N.A.	N.A.	N.A.	50	-

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■ SCREENING (ED-XRF, Spot Test)

<u>Restriction of Hazardous Substances Directive (RoHS/2011/65/EU), mg/kg</u>							
Test Item	# 10-10-1	# 10-10-2	# 10-10-3	# 10-10-4	# 10-10-5	RL	
						Polymer	Metal
Lead	286	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	2 414	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	Negative	N.A.	Negative	Negative	N.A.	-	-
Total Br	N.A.	86 123	N.A.	N.A.	N.D.	50	-
Test Item	# 10-10-6	# 10-10-7	# 10-10-8	# 10-10-9	# 10-10-10	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	N.A.	Negative	N.A.	N.A.	Negative	-	-
Total Br	N.D.	N.A.	N.D.	N.D.	N.A.	50	-
Test Item	# 10-11-1	# 10-11-2	# 10-11-3	# 10-11-4	# 10-11-5	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	N.A.	Negative	N.A.	N.A.	Negative	-	-
Total Br	N.D.	N.A.	N.D.	N.D.	N.A.	50	-

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Test Item	# 10-11-6	# 10-11-7	# 10-11-8	# 10-12-1	# 10-12-2	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	Negative	N.A.	Negative	N.A.	Negative	-	-
Total Br	N.A.	N.D.	N.A.	N.D.	N.A.	50	-
Test Item	# 10-12-3	# 10-13-1	# 10-13-2	# 10-14-1	# 10-14-2	RL	
						Polymer	Metal
Lead	346	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	395	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	397	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	Negative	Negative	Negative	N.A.	N.A.	-	-
Total Br	N.A.	N.A.	N.A.	201 964	135 737	50	-
Test Item	# 10-14-3	# 10-14-4	# 10-14-5	# 10-14-6	# 10-14-7	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	187	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	Negative	Negative	N.A.	Negative	Negative	-	-
Total Br	N.A.	N.A.	N.D.	N.A.	N.A.	50	-

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<u>Restriction of Hazardous Substances Directive (RoHS/2011/65/EU), mg/kg</u>							
Test Item	# 10-14-8	# 10-14-9	# 10-14-10	# 10-14-11	# 10-14-12	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	Negative	Negative	N.A.	Negative	Negative	-	-
Total Br	N.A.	N.A.	146 700	N.A.	N.A.	50	-
Test Item	# 10-14-13	# 10-14-14	# 10-14-15	# 10-14-16	# 10-14-17	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	Negative	Negative	Negative	Negative	Negative	-	-
Total Br	N.A.	N.A.	N.A.	N.A.	N.A.	50	-
Test Item	# 10-15-1	# 10-15-2	# 10-15-3	# 10-15-4	# 10-15-5	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	N.A.	Negative	N.A.	Negative	Negative	-	-
Total Br	N.D.	N.A.	N.D.	N.A.	N.A.	50	-

Remark

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■ SCREENING (ED-XRF, Spot Test)

<u>Restriction of Hazardous Substances Directive (RoHS/2011/65/EU), mg/kg</u>							
Test Item	# 10-15-6	# 10-15-7	# 10-15-8	# 10-16-1	# 10-16-2	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	486	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	271	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	Negative	Negative	Negative	N.A.	Negative	-	-
Total Br	N.A.	N.A.	N.A.	67 458	N.A.	50	-
Test Item	# 10-16-3	# 10-17-1	# 10-17-2	# 10-18	# 10-19	RL	
						Polymer	Metal
Lead	1 906	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	Negative	Negative	Negative	N.A.	Negative	-	-
Total Br	N.A.	N.A.	N.A.	N.D.	N.A.	50	-
Test Item	# 10-20	# 11	# 12	# 13-1	# 13-2	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	189.7	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	2 036	N.D.	126	N.D.	30	50
Spot Test (Cr ⁶⁺)	N.A.	Negative	N.A.	Negative	N.A.	-	-
Total Br	N.D.	N.A.	N.D.	N.A.	N.D.	50	-

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■ SCREENING (ED-XRF, Spot Test)

<u>Restriction of Hazardous Substances Directive (RoHS/2011/65/EU), mg/kg</u>							
Test Item	# 13-3	# 13-4	# 13-5-1	# 13-5-2	# 13-5-3	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	Negative	N.A.	N.A.	Negative	N.A.	-	-
Total Br	N.A.	N.D.	203 464	N.A.	N.D.	50	-
Test Item	# 13-6-1	# 13-6-2	# 13-7	# 13-8-1	# 13-8-2	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	Negative	N.A.	N.A.	N.A.	Negative	-	-
Total Br	N.A.	N.D.	N.D.	159 013	N.A.	50	-
Test Item	# 13-9-1	# 13-9-2	# 13-9-3	# 13-10-1	# 13-10-2	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	N.A.	Negative	Negative	N.A.	N.A.	-	-
Total Br	367 720	N.A.	N.A.	303 992	N.D.	50	-

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■ SCREENING (ED-XRF, Spot Test)

<u>Restriction of Hazardous Substances Directive (RoHS/2011/65/EU), mg/kg</u>							
Test Item	# 13-10-3	# 13-10-4	# 13-11	# 13-12	# 14-1	RL	
						Polymer	Metal
Lead	N.D.	410	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	Negative	Negative	N.A.	N.A.	N.A.	-	-
Total Br	N.A.	N.A.	N.D.	N.D.	N.D.	50	-
Test Item	# 14-2	# 14-3-1	# 14-3-2	# 14-4	# 14-5	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	N.A.	N.A.	N.A.	Negative	N.A.	-	-
Total Br	N.D.	N.D.	N.D.	N.A.	N.D.	50	-
Test Item	# 14-6-1	# 14-6-2	# 14-6-3	# 14-7-1	# 14-7-2	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	607	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	N.A.	Negative	Negative	N.A.	Negative	-	-
Total Br	356 388	N.A.	N.A.	78	N.A.	50	-

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■ SCREENING (ED-XRF, Spot Test)

Restriction of Hazardous Substances Directive (RoHS/2011/65/EU), mg/kg							
Test Item	# 14-7-3	# 14-8	# 14-9	# 14-10	# 14-11	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	Negative	N.A.	N.A.	Negative	N.A.	-	-
Total Br	N.A.	25 879	59 941	N.A.	N.D.	50	-
Test Item	# 14-12-1	# 14-12-2	# 14-12-3	# 14-12-4	# 14-12-5	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	N.A.	N.A.	Negative	N.A.	N.A.	-	-
Total Br	N.D.	N.D.	N.A.	N.D.	N.D.	50	-
Test Item	# 14-12-6	# 14-12-7	# 14-13	# 14-14-1	# 14-14-2	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	N.A.	N.A.	N.A.	N.A.	N.A.	-	-
Total Br	N.D.	N.D.	N.D.	N.D.	N.D.	50	-

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■ SCREENING (ED-XRF, Spot Test)

<u>Restriction of Hazardous Substances Directive (RoHS/2011/65/EU), mg/kg</u>							
Test Item	# 14-15	# 14-16	# 14-17	# 14-18	# 14-19	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	499	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	1 367	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	N.A.	N.A.	Negative	Negative	N.A.	-	-
Total Br	N.D.	N.D.	N.A.	N.A.	N.D.	50	-
Test Item	# 14-20-1	# 14-20-2	# 14-21-1	# 14-21-2	# 14-22	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	N.A.	Negative	Negative	N.A.	N.A.	-	-
Total Br	128 431	N.A.	N.A.	N.D.	N.D.	50	-
Test Item	# 14-23	# 14-24	# 14-25	# 15-1	# 15-2	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	N.A.	N.A.	N.A.	N.A.	N.A.	-	-
Total Br	N.D.	N.D.	99 777	N.D.	N.D.	50	-

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■ SCREENING (ED-XRF, Spot Test)

<u>Restriction of Hazardous Substances Directive (RoHS/2011/65/EU), mg/kg</u>							
Test Item	# 16-1	# 16-2	# 17	# 18	# 19	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	33 892	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	N.A.	N.A.	N.A.	N.A.	Negative	-	-
Total Br	N.D.	N.D.	N.D.	N.D.	N.A.	50	-
Test Item	# 20	# 21	# 22	# 23	# 24	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	N.A.	N.A.	N.A.	N.A.	N.A.	-	-
Total Br	N.D.	N.D.	N.D.	N.D.	N.D.	50	-
Test Item	# 25-1	# 25-2	# 26	# 27	# 28-1-1	RL	
						Polymer	Metal
Lead	N.D.	1 445	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	N.A.	Negative	N.A.	N.A.	Negative	-	-
Total Br	N.D.	N.A.	N.D.	N.D.	N.A.	50	-

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■ SCREENING (ED-XRF, Spot Test)

<u>Restriction of Hazardous Substances Directive (RoHS/2011/65/EU), mg/kg</u>							
Test Item	# 28-1-2	# 28-2	# 28-3	# 28-4	# 28-5	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	646	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	N.A.	Negative	N.A.	Negative	N.A.	-	-
Total Br	N.D.	N.A.	N.D.	N.A.	N.D.	50	-
Test Item	# 28-6-1	# 28-6-2	# 28-7	# 28-8-1	# 28-8-2	RL	
						Polymer	Metal
Lead	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Cadmium	N.D.	N.D.	N.D.	N.D.	N.D.	20	50
Mercury	N.D.	N.D.	N.D.	N.D.	N.D.	50	100
Total Cr	N.D.	N.D.	N.D.	N.D.	N.D.	30	50
Spot Test (Cr ⁶⁺)	N.A.	Negative	Negative	Negative	N.A.	-	-
Total Br	13 246	N.A.	N.A.	N.A.	N.D.	50	-

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PRECISION ANALYSIS

Restriction of Hazardous Substances Directive (RoHS/2011/65/EU), mg/kg							
Test Item	# 1	# 6-1-1	# 6-1-2	# 7-1-1	# 7-4	RL	REQUIREMENTS
Lead	N.A.	N.A.	N.A.	N.A.	N.A.	< 5	1 000
Cadmium	N.A.	N.A.	N.A.	N.A.	N.A.	< 2	100
Mercury	N.A.	N.A.	N.A.	N.A.	N.A.	< 2	1 000
Hexavalent Chromium	Negative	N.A.	N.A.	N.A.	N.A.	< 1	1 000
PBBs	N.A.	N.D.	N.D.	N.D.	N.D.	< 5	1 000
PBDEs	N.A.	N.D.	N.D.	N.D.	N.D.	< 5	1 000
Test Item	# 9-3	# 9-6-1	# 10-5-1	# 10-7-2	# 10-10-2	RL	REQUIREMENTS
Lead	N.A.	N.A.	N.A.	N.A.	N.A.	< 5	1 000
Cadmium	N.A.	N.A.	N.A.	N.D.	N.A.	< 2	100
Mercury	N.A.	N.A.	N.A.	N.A.	N.A.	< 2	1 000
Hexavalent Chromium	N.A.	N.A.	N.A.	N.A.	N.A.	< 1	1 000
PBBs	N.D.	N.D.	N.D.	N.A.	N.D.	< 5	1 000
PBDEs	N.D.	N.D.	N.D.	N.A.	N.D.	< 5	1 000
Test Item	# 10-14-1	# 10-14-2	# 10-14-4	# 10-14-10	# 10-16-1	RL	REQUIREMENTS
Lead	N.A.	N.A.	N.A.	N.A.	N.A.	< 5	1 000
Cadmium	N.A.	N.A.	N.D.	N.A.	N.A.	< 2	100
Mercury	N.A.	N.A.	N.A.	N.A.	N.A.	< 2	1 000
Hexavalent Chromium	N.A.	N.A.	N.A.	N.A.	N.A.	< 1	1 000
PBBs	N.D.	N.D.	N.A.	N.D.	N.D.	< 5	1 000
PBDEs	N.D.	N.D.	N.A.	N.D.	N.D.	< 5	1 000

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PRECISION ANALYSIS

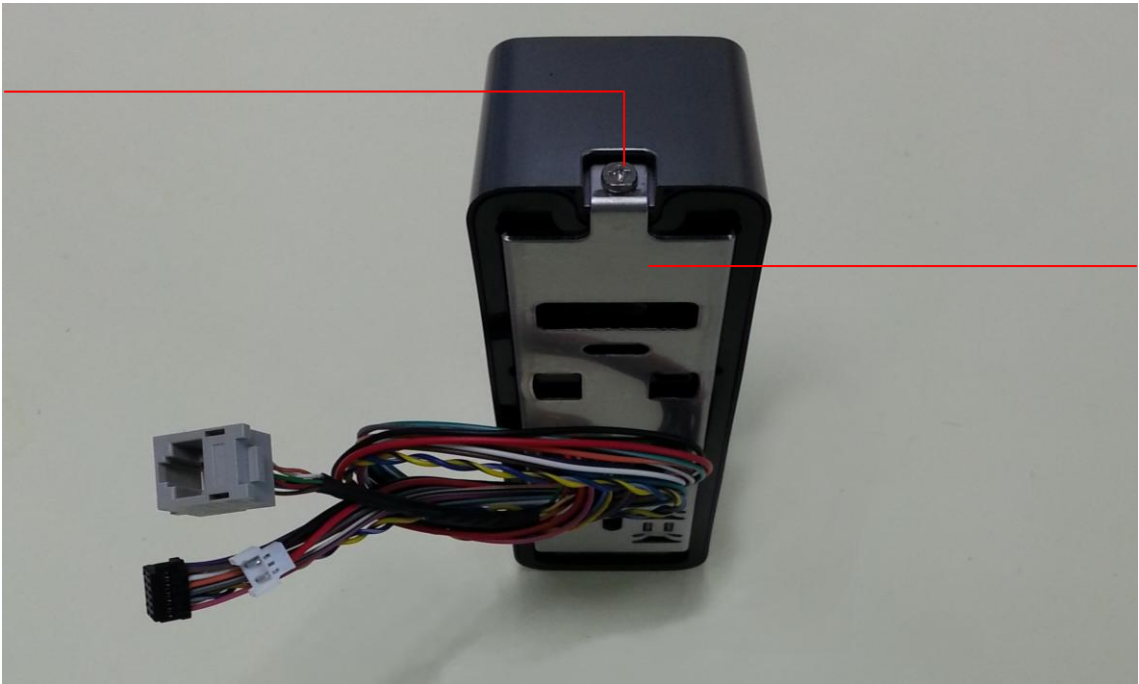
<u>Restriction of Hazardous Substances Directive (RoHS/2011/65/EU), mg/kg</u>							
Test Item	# 10-16-3	# 13-5-1	# 13-8-1	# 13-9-1	# 13-10-1	RL	REQUIREMENTS
Lead	136	N.A.	N.A.	N.A.	N.A.	< 5	1 000
Cadmium	N.A.	N.A.	N.A.	N.A.	N.A.	< 2	100
Mercury	N.A.	N.A.	N.A.	N.A.	N.A.	< 2	1 000
Hexavalent Chromium	N.A.	N.A.	N.A.	N.A.	N.A.	< 1	1 000
PBBs	N.A.	N.D.	N.D.	N.D.	N.D.	< 5	1 000
PBDEs	N.A.	N.D.	N.D.	N.D.	N.D.	< 5	1 000
Test Item	# 14-6-1	# 14-6-3	# 14-8	# 14-9	# 14-16	RL	REQUIREMENTS
Lead	N.A.	N.A.	N.A.	N.A.	N.A.	< 5	1 000
Cadmium	N.A.	N.D.	N.A.	N.A.	N.A.	< 2	100
Mercury	N.A.	N.A.	N.A.	N.A.	N.A.	< 2	1 000
Hexavalent Chromium	N.A.	N.A.	N.A.	N.A.	N.D.	< 1	1 000
PBBs	N.D.	N.A.	N.D.	N.D.	N.A.	< 5	1 000
PBDEs	N.D.	N.A.	N.D.	N.D.	N.A.	< 5	1 000
Test Item	# 14-20-1	# 14-25	# 19	# 25-2	# 28-6-1	RL	REQUIREMENTS
Lead	N.A.	N.A.	26 260	61	N.A.	< 5	1 000
Cadmium	N.A.	N.A.	N.A.	N.A.	N.A.	< 2	100
Mercury	N.A.	N.A.	N.A.	N.A.	N.A.	< 2	1 000
Hexavalent Chromium	N.A.	N.A.	N.A.	N.A.	N.A.	< 1	1 000
PBBs	N.D.	N.D.	N.A.	N.A.	N.D.	< 5	1 000
PBDEs	N.D.	N.D.	N.A.	N.A.	N.D.	< 5	1 000

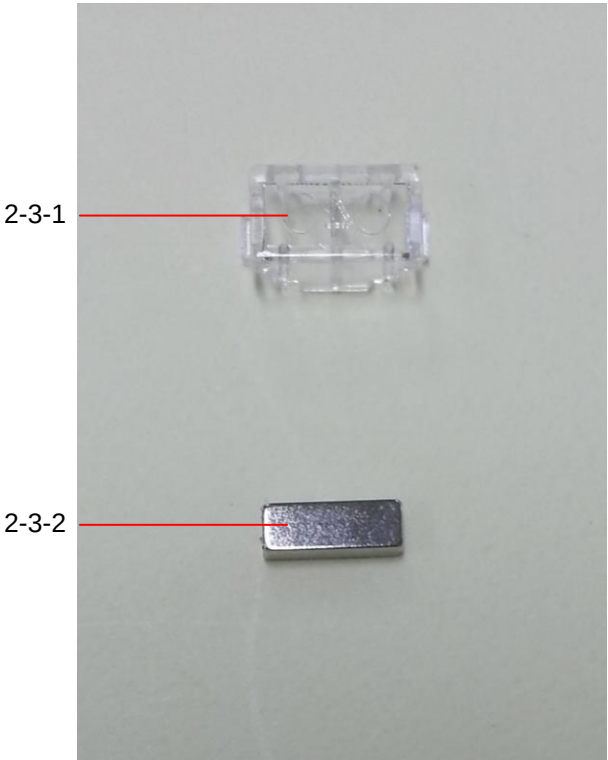
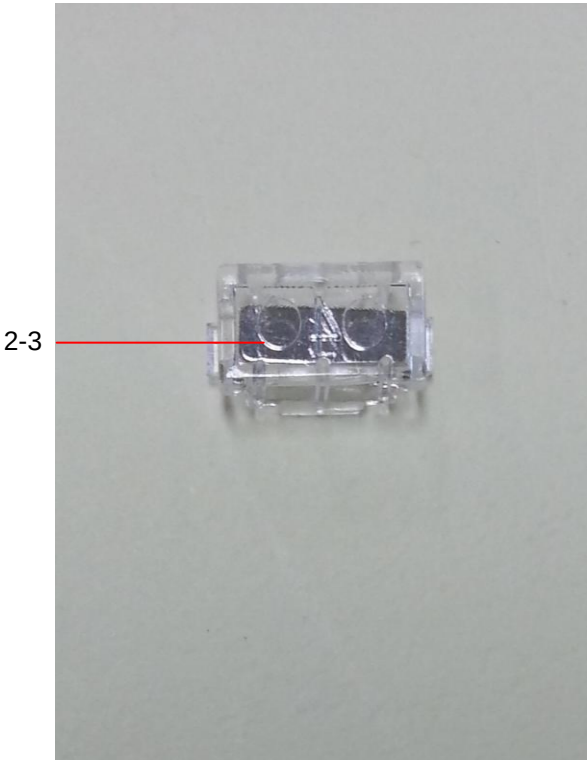
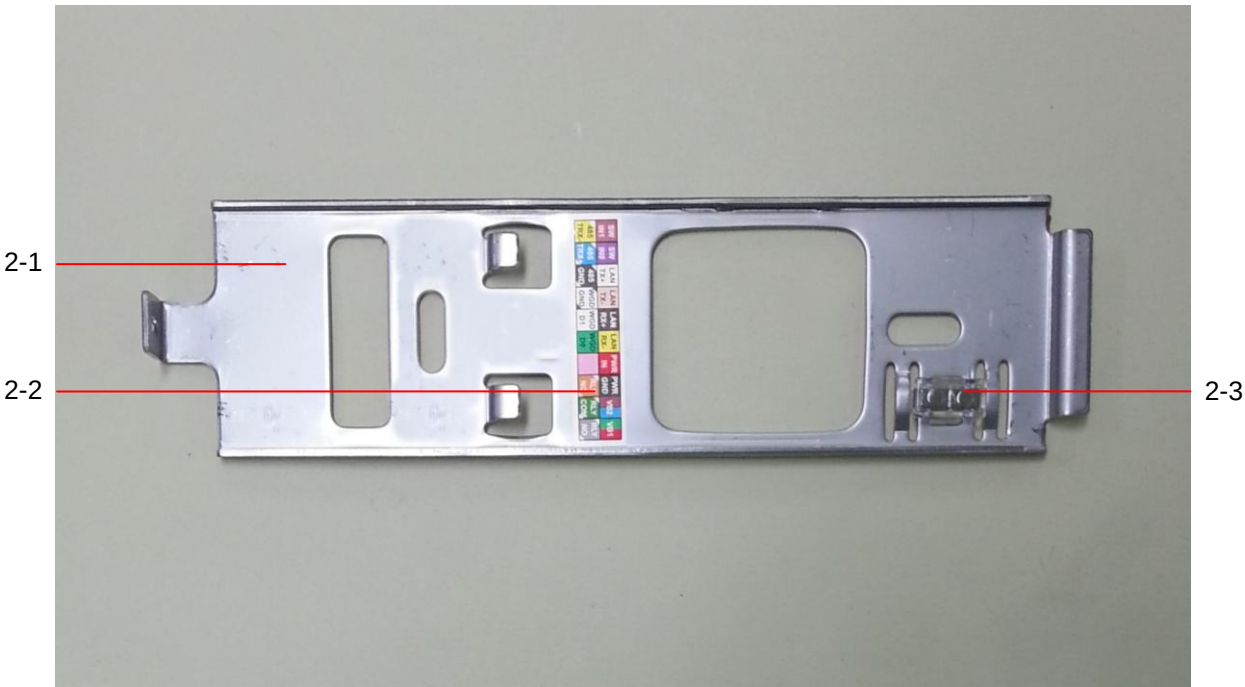
Remark

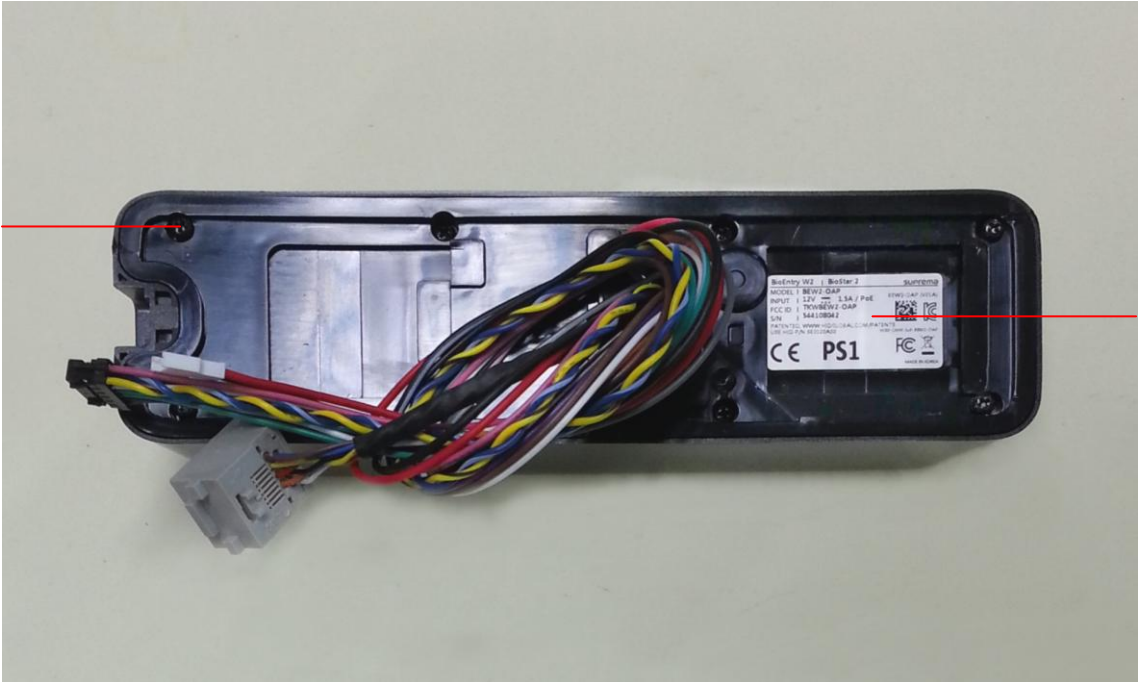
- < = less than
- N.D. = not detected (concentration of analyte lower than the laboratory reporting limit)
- N.A. = not applicable
- RL = Reporting Limit
- Negative = A negative test result indicates above positive observation was not found at the testing
- Positive = A positive test result indicated the presence of Cr⁶⁺

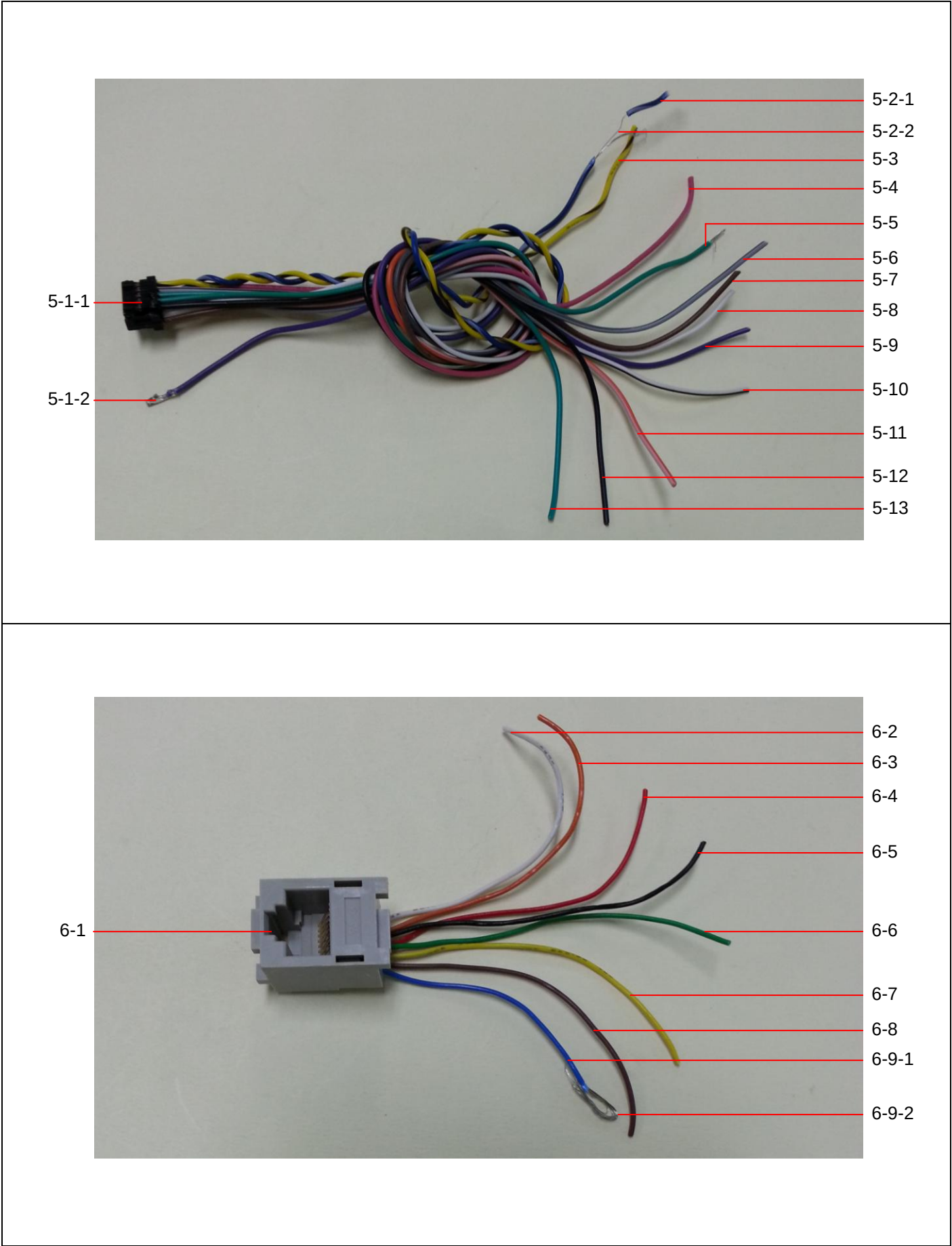
SAMPLE PICTURE

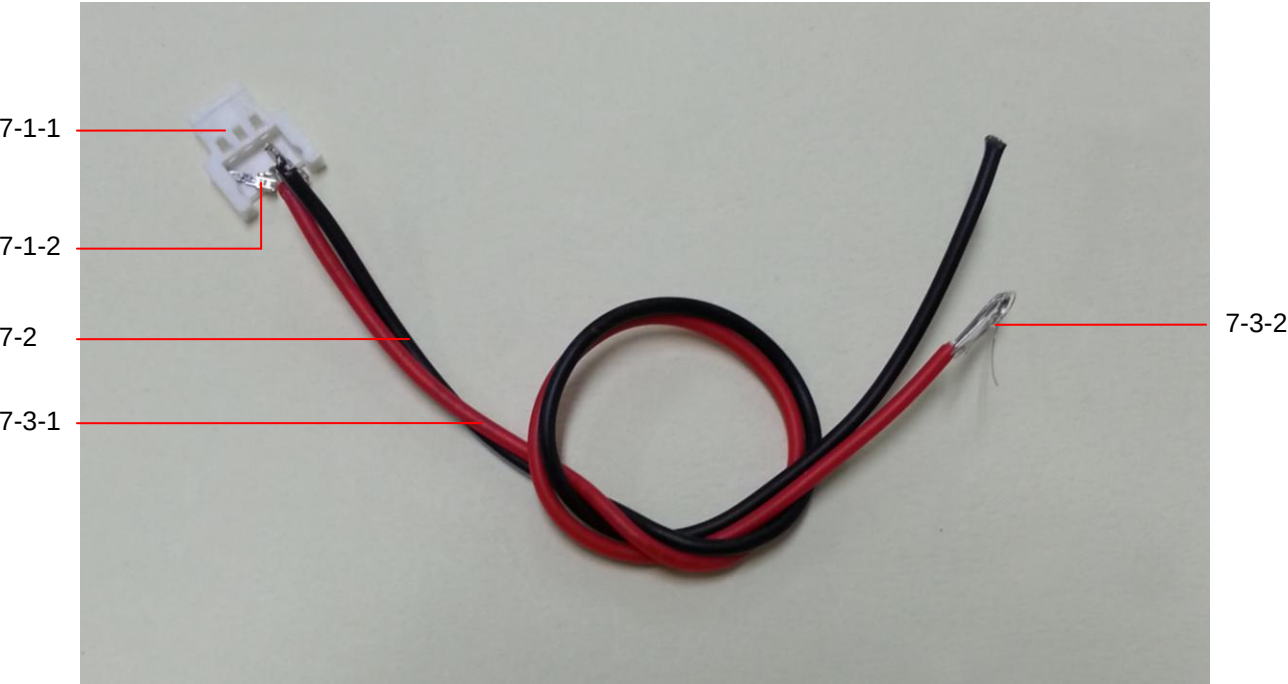
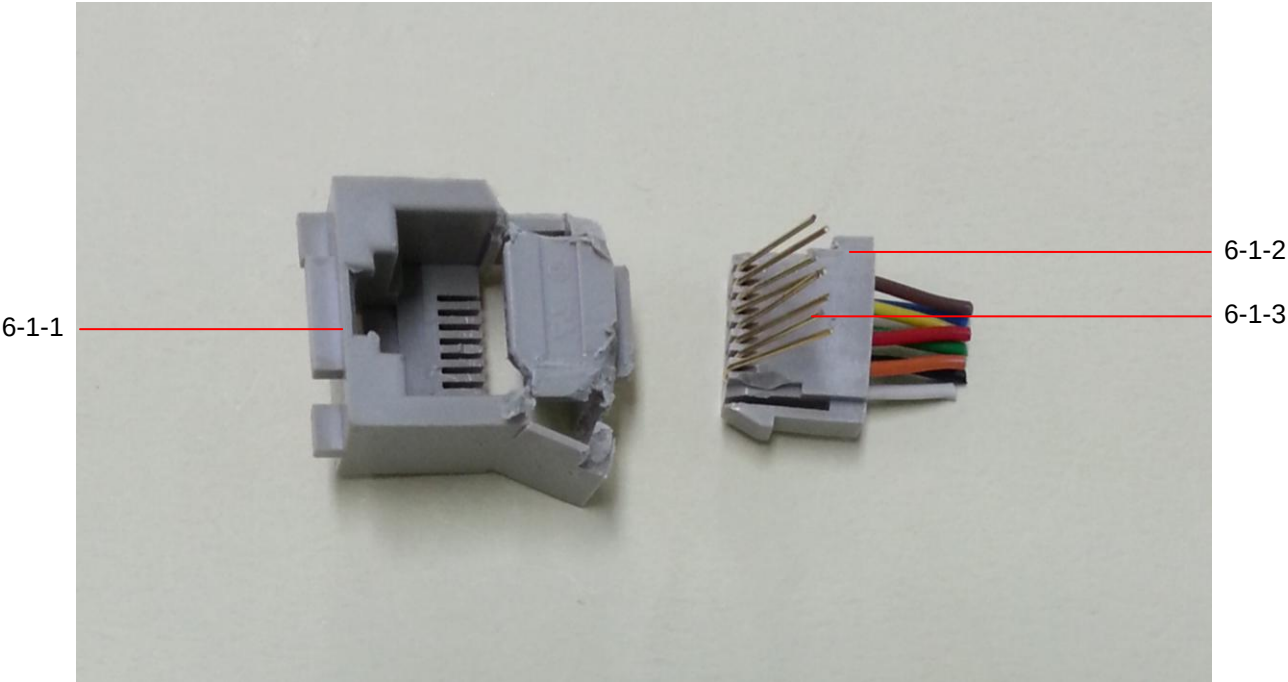
Remark	
●	S = SOLDER
	P = PAINT
	M = METAL



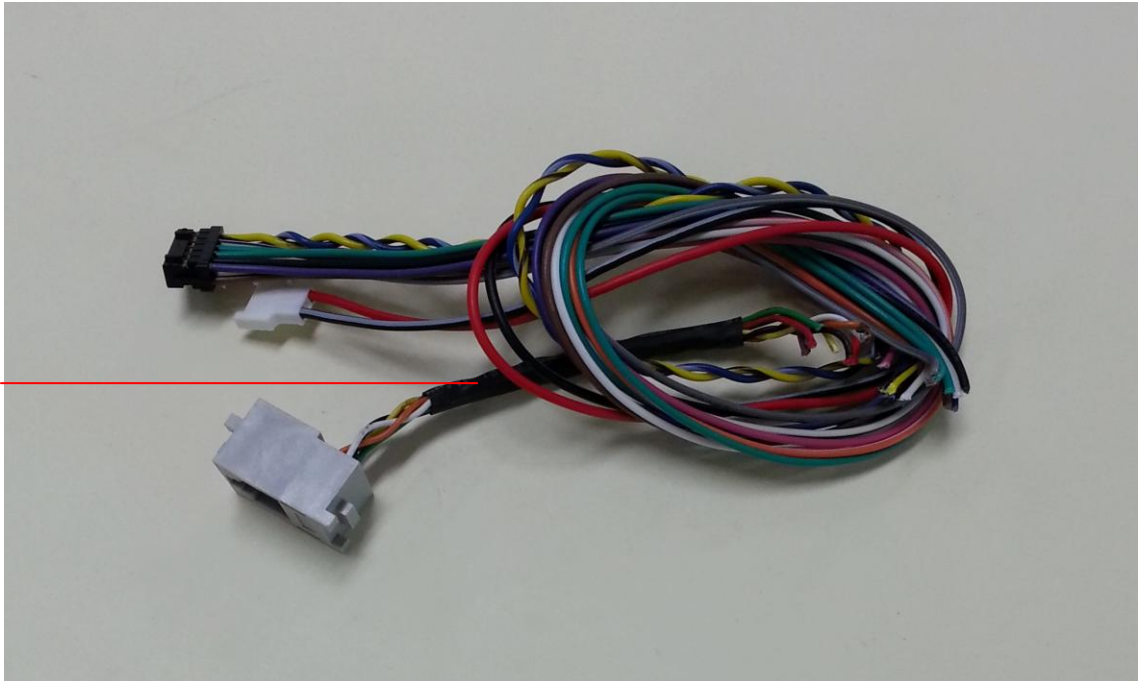








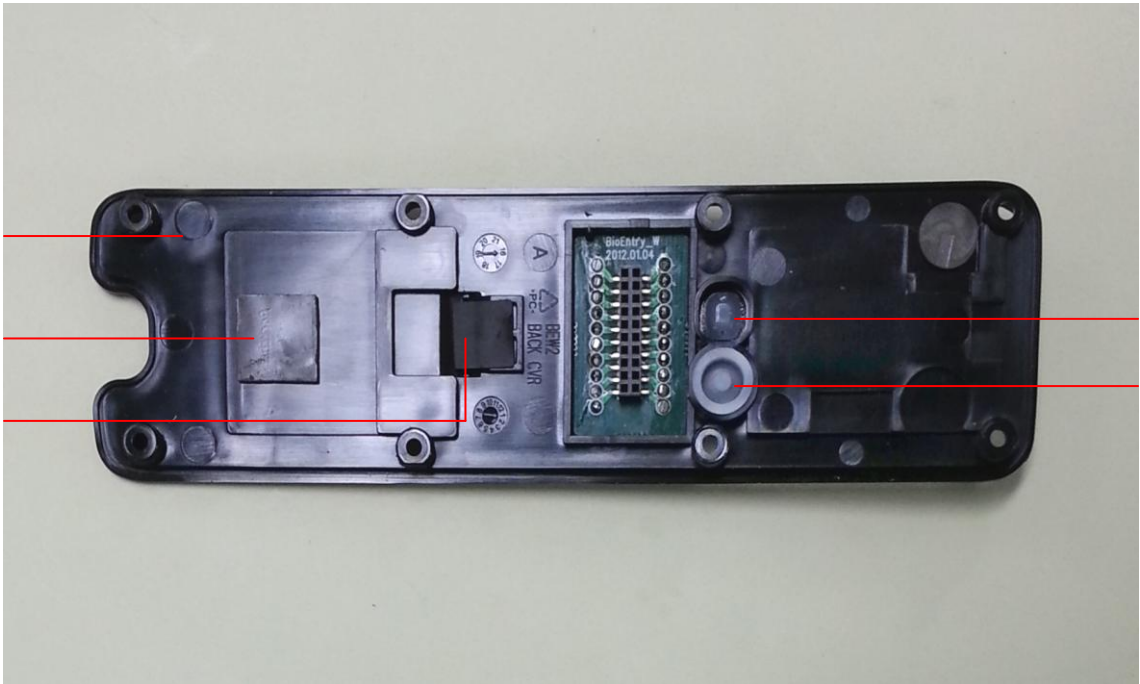
7-4



8-1

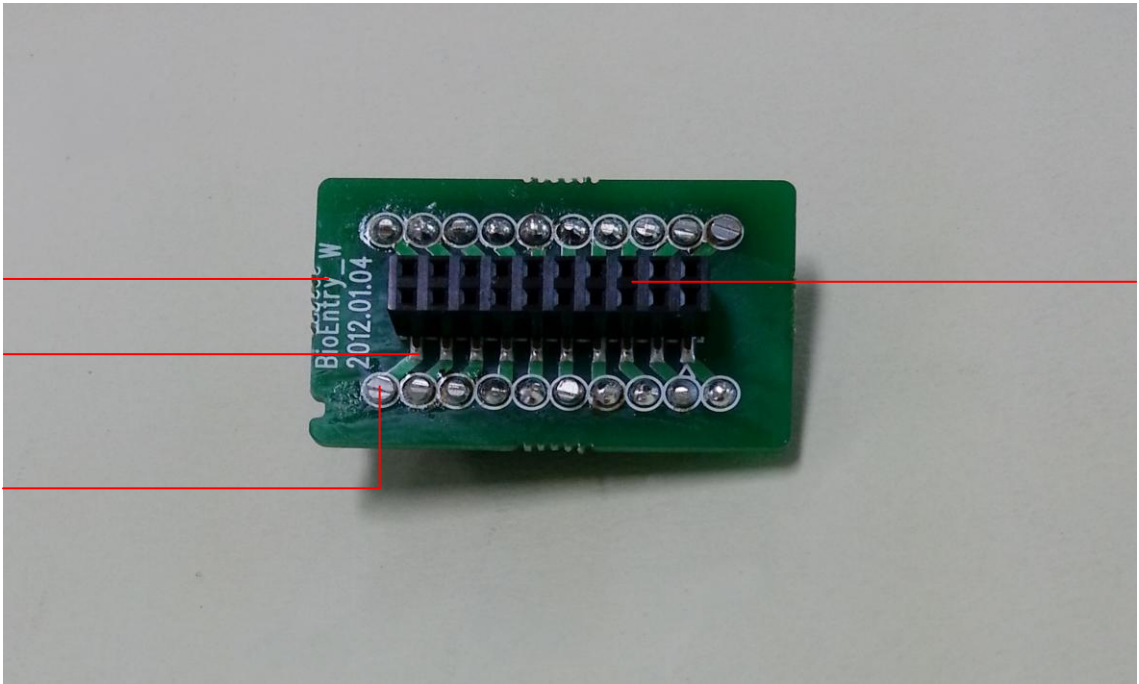
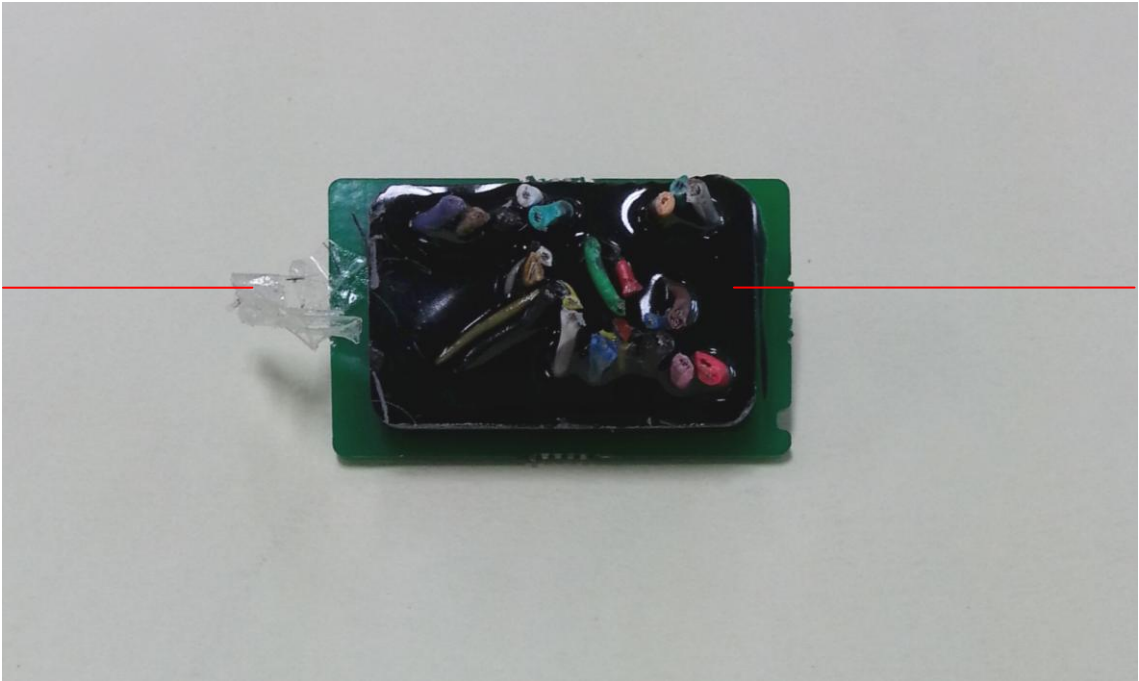
8-2

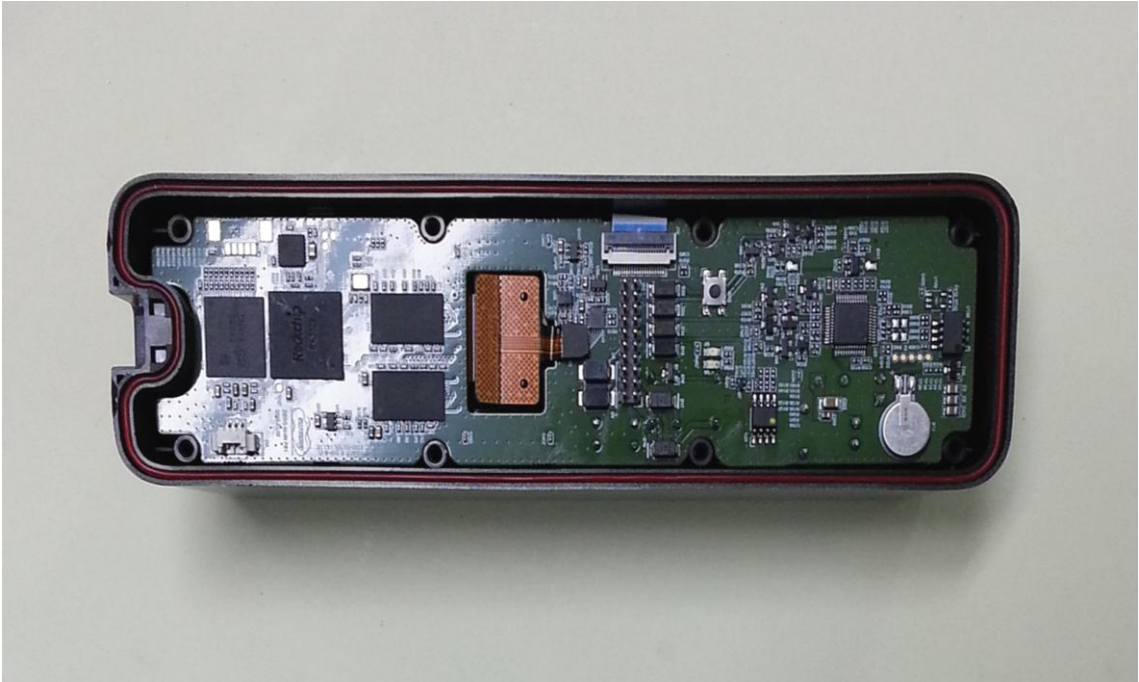
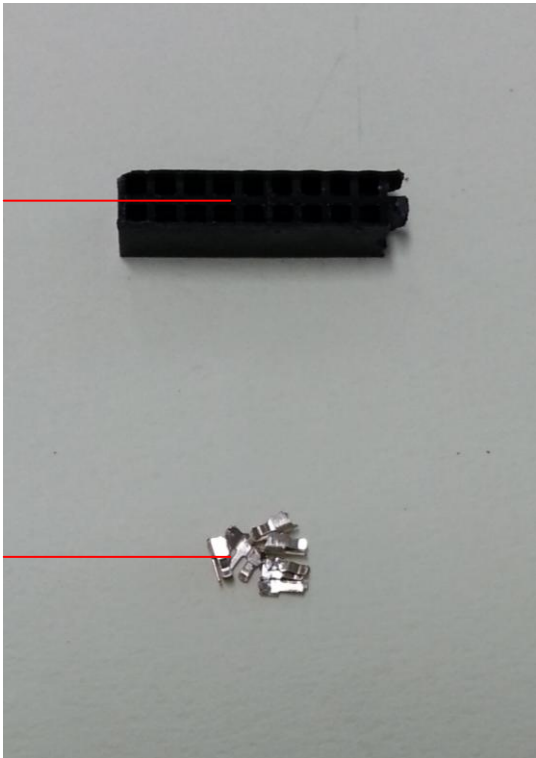
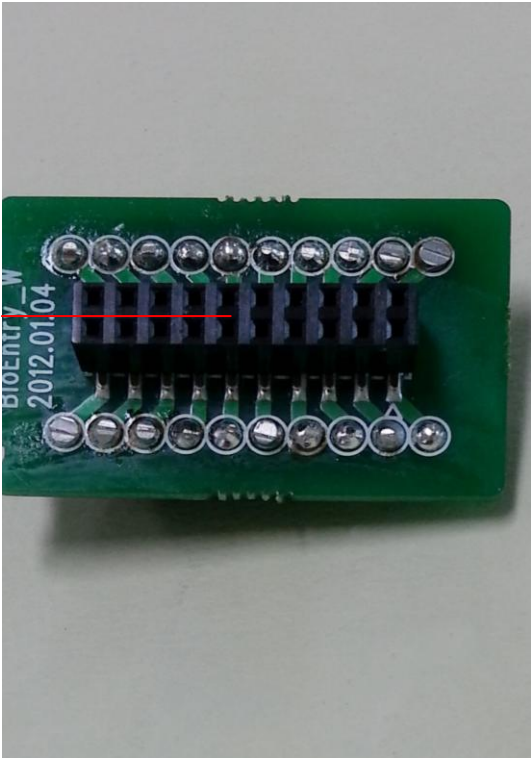
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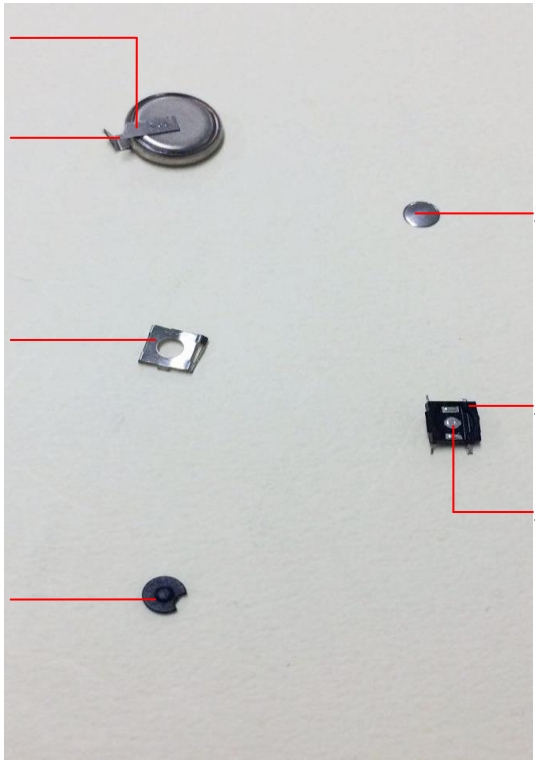
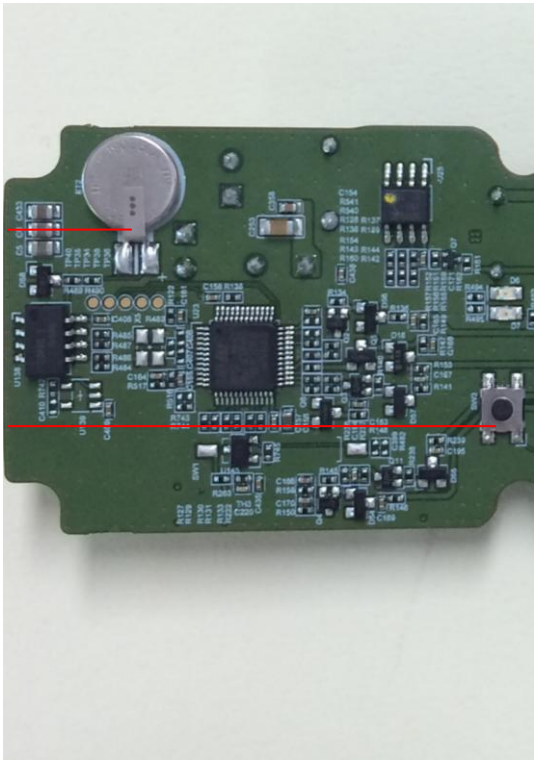
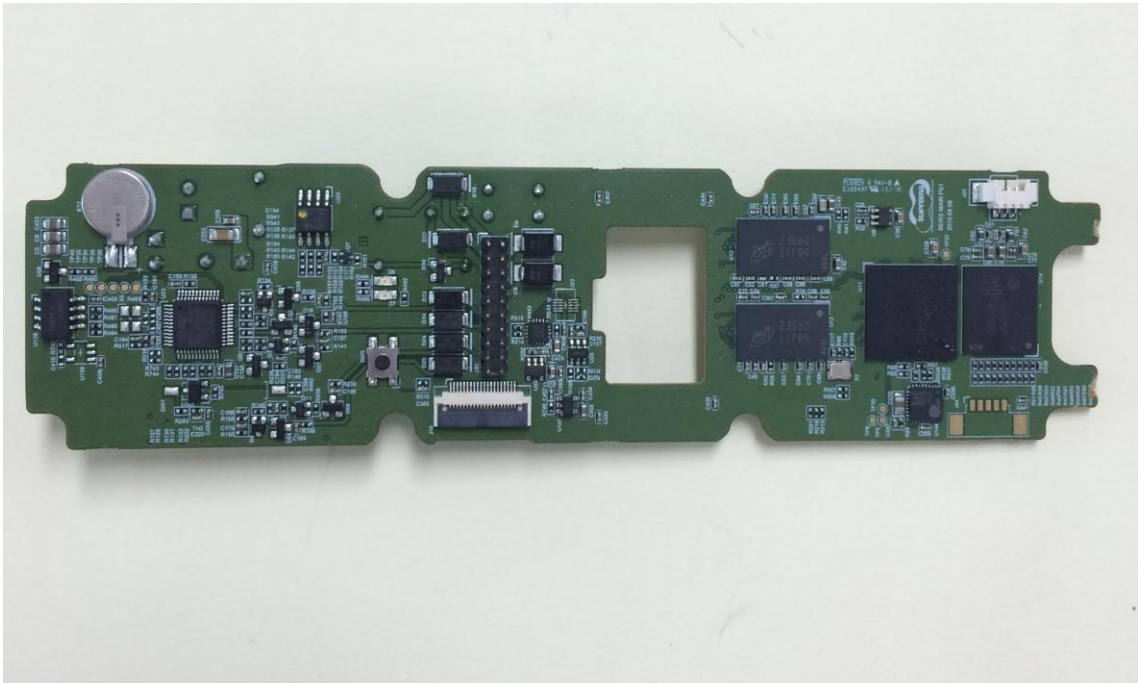


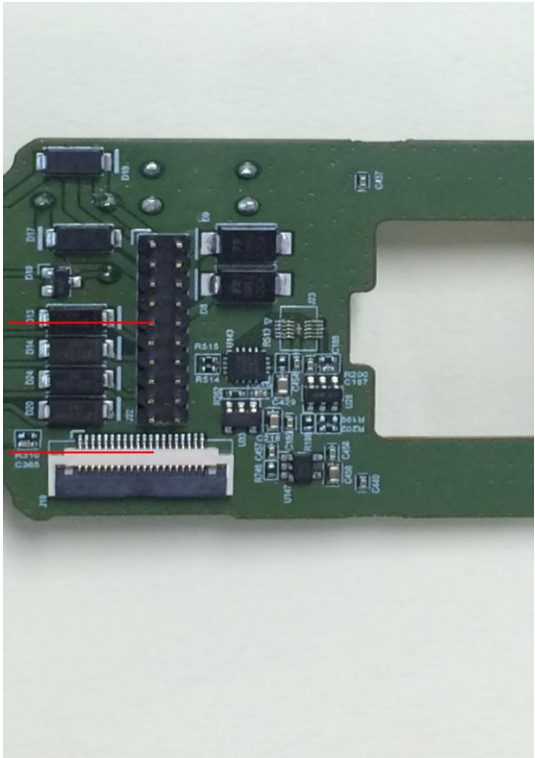
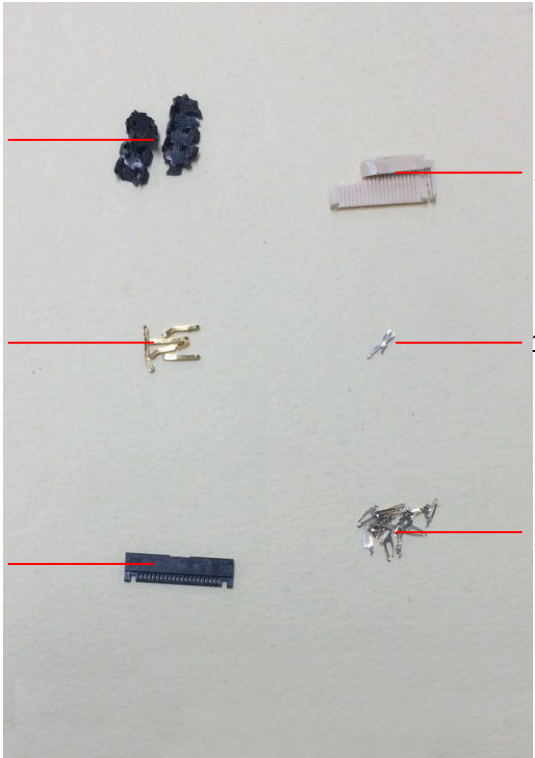
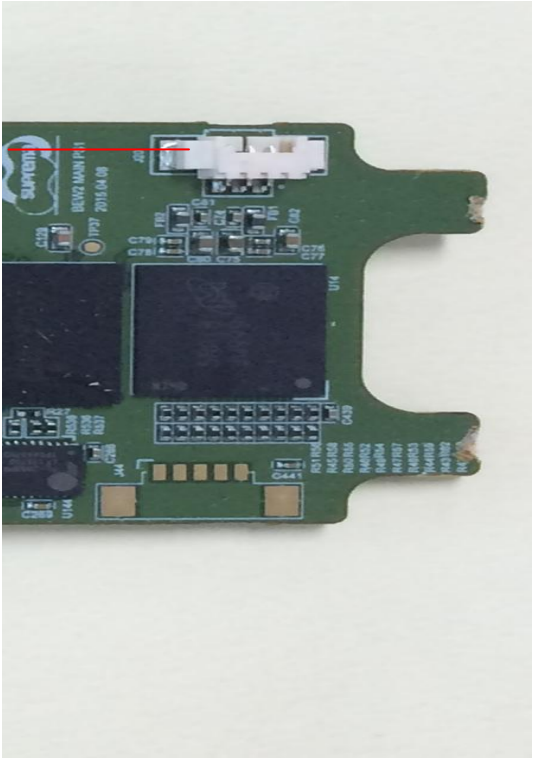
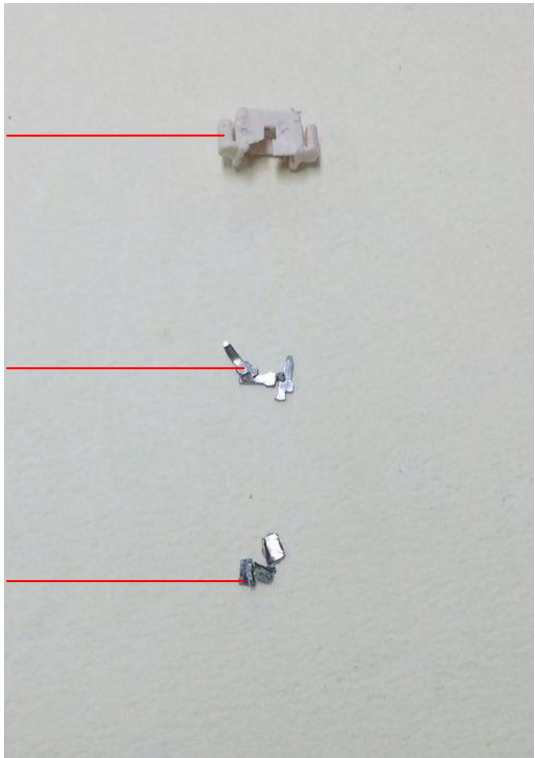
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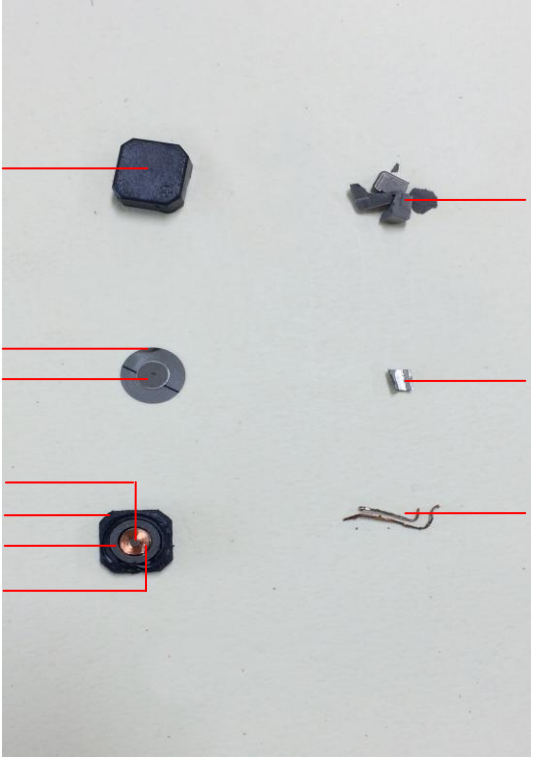
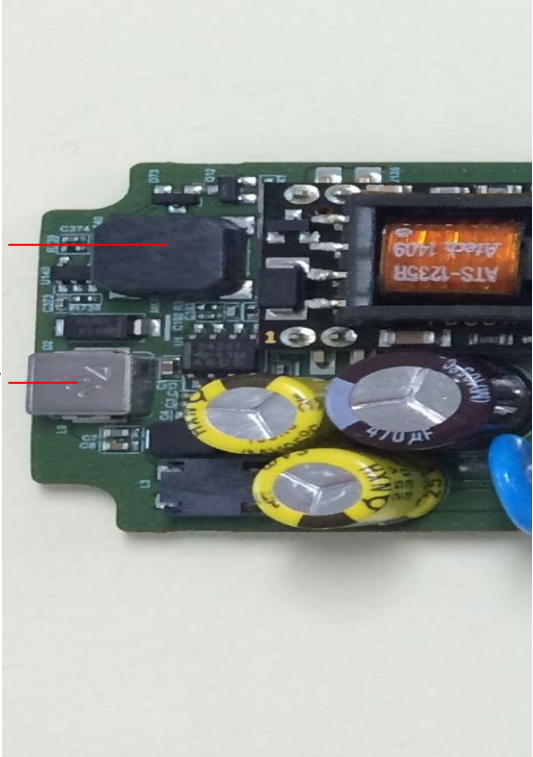
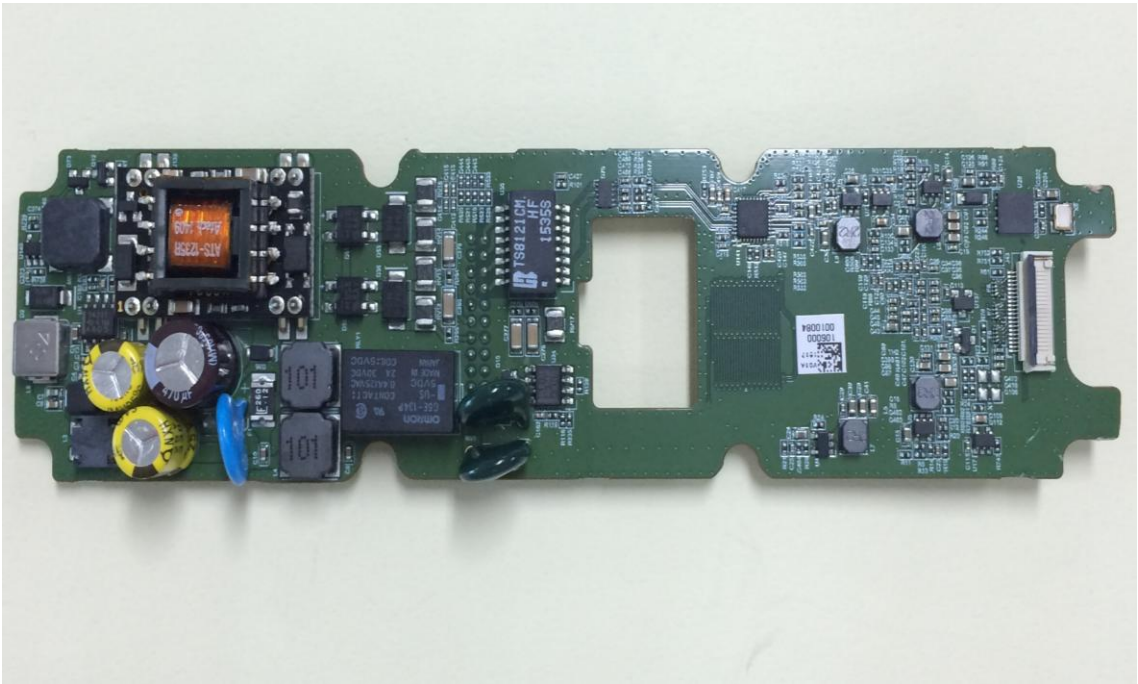
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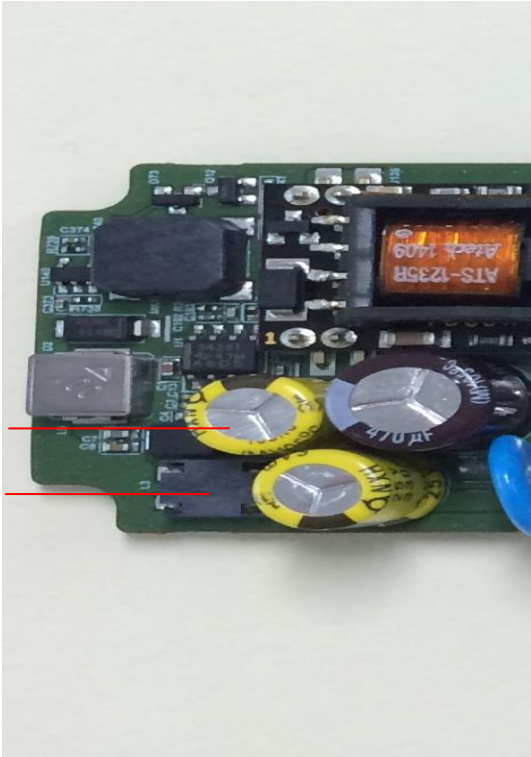
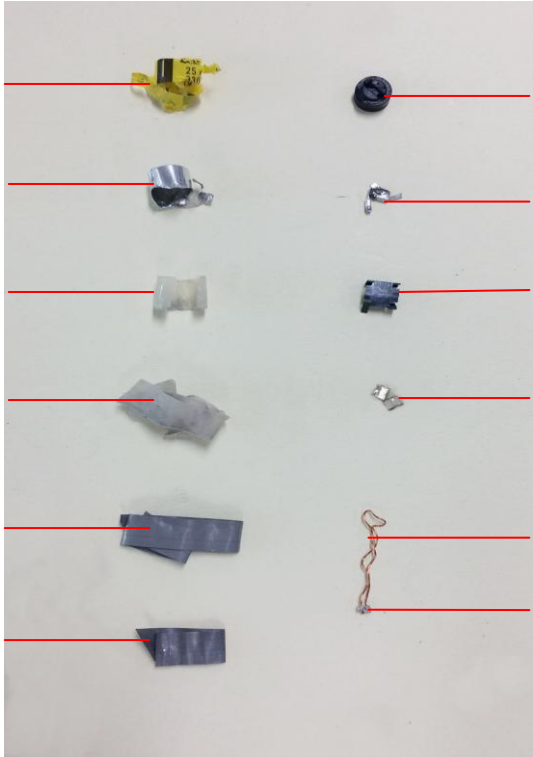
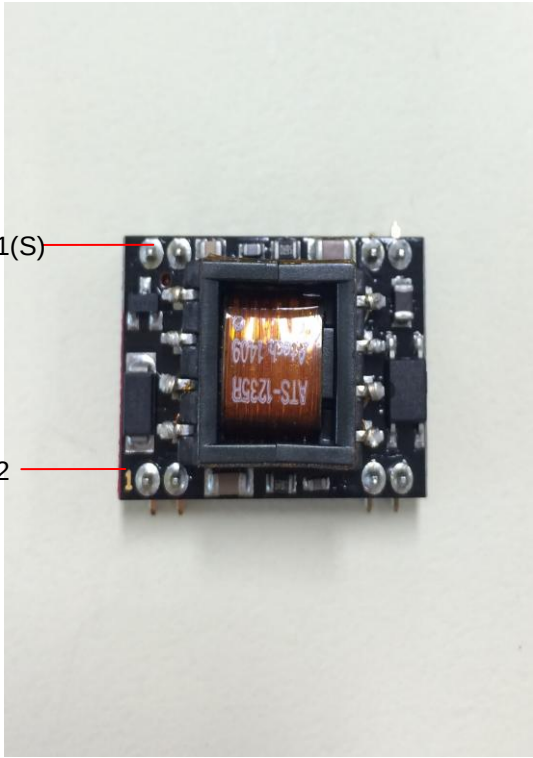


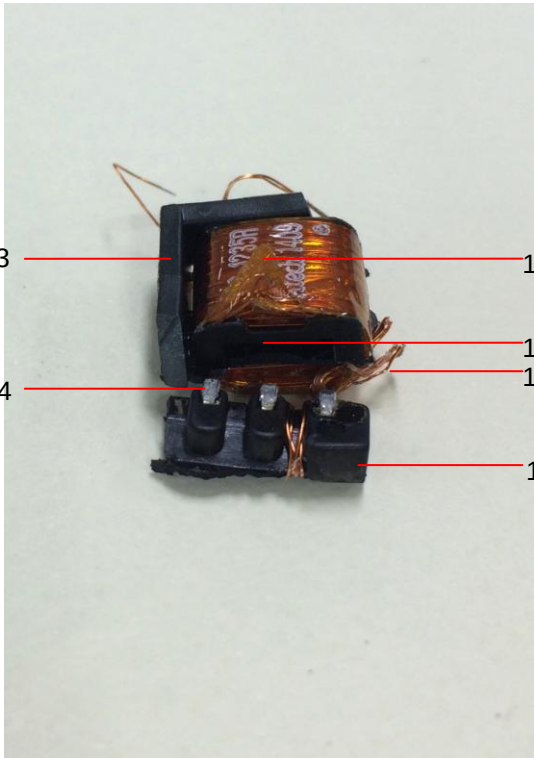
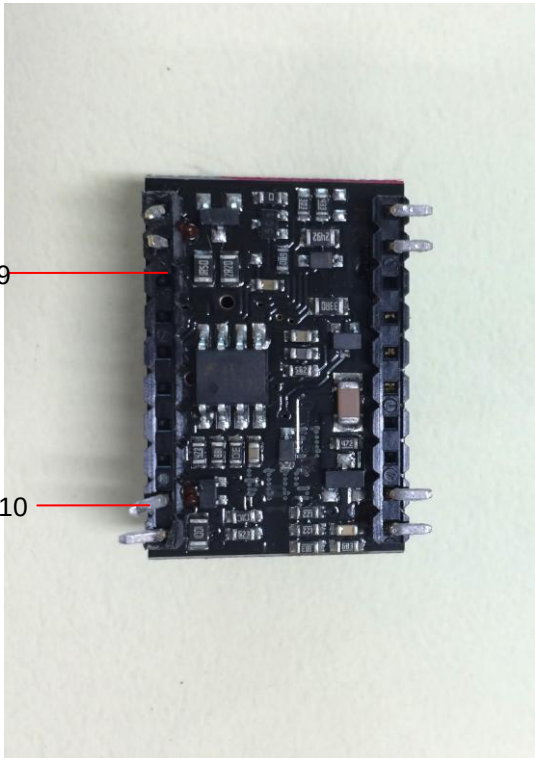


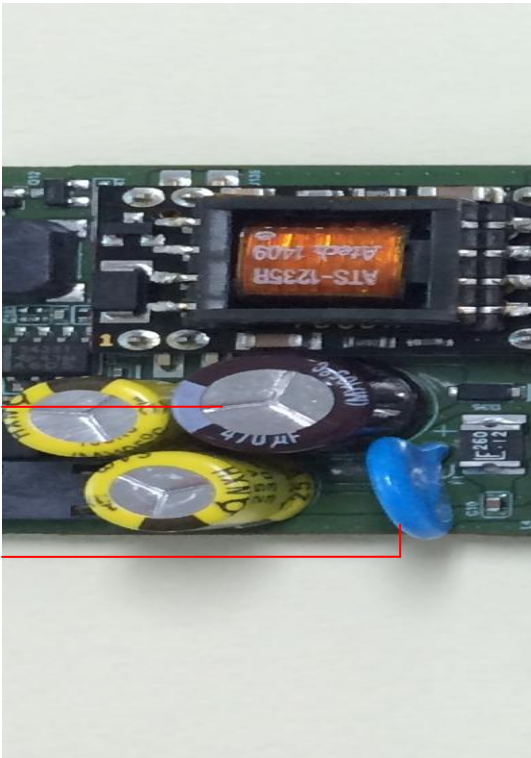
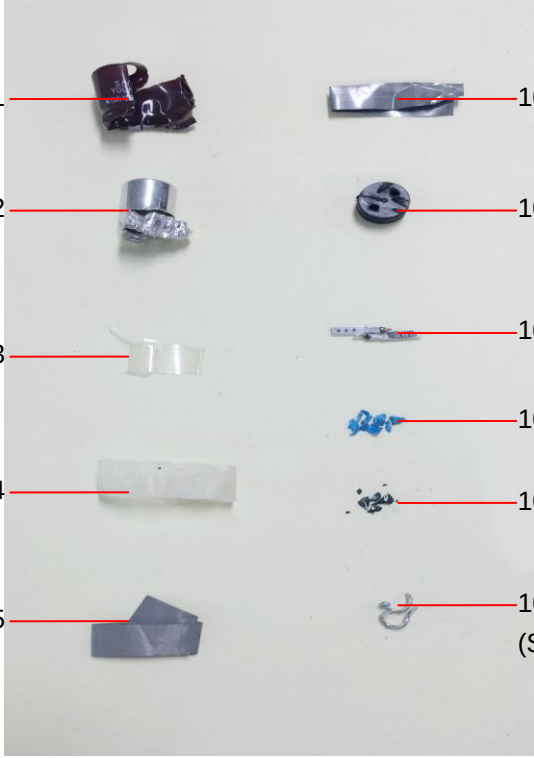
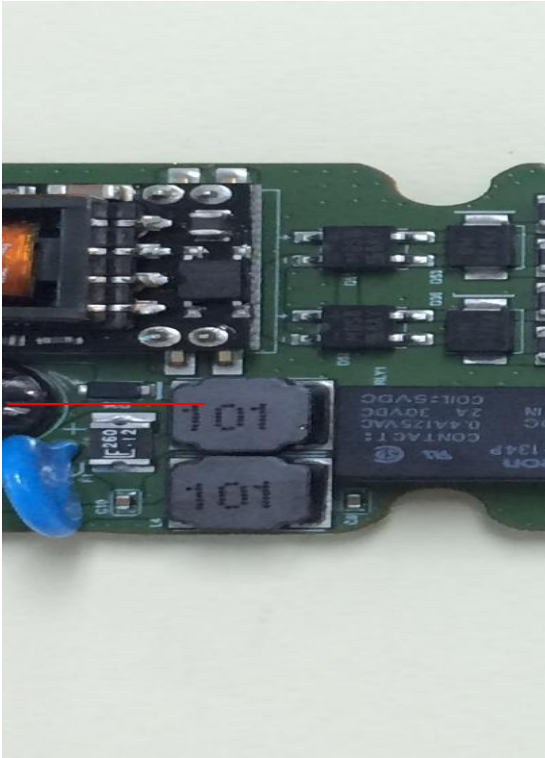
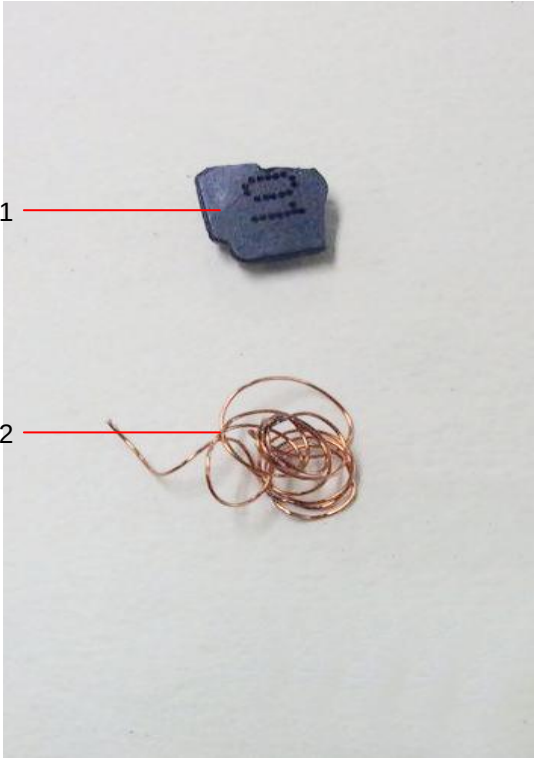


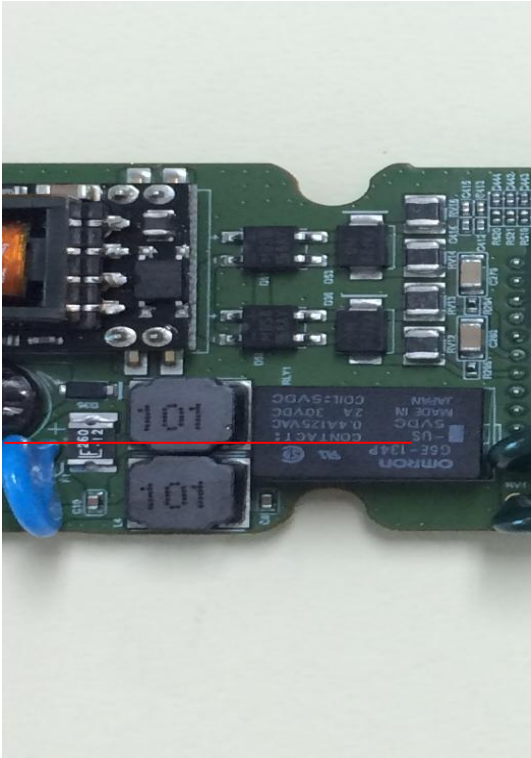
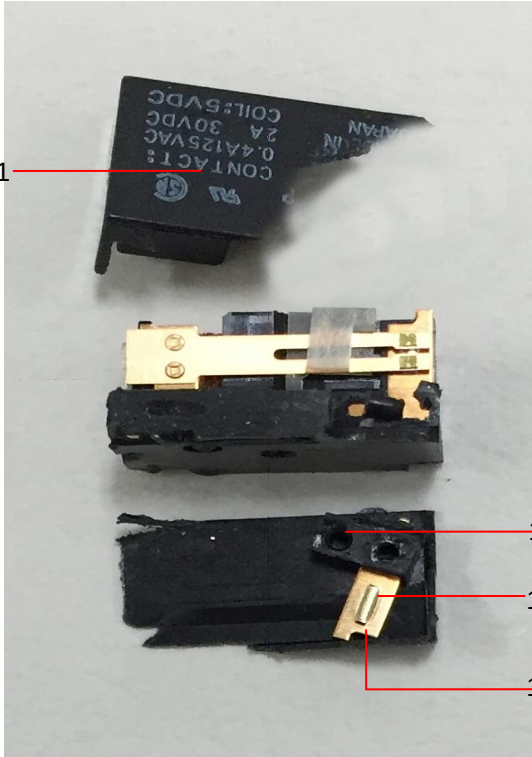
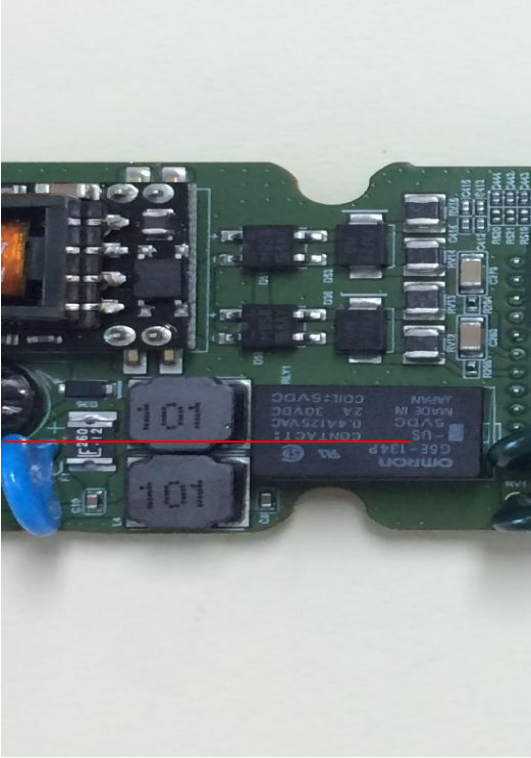
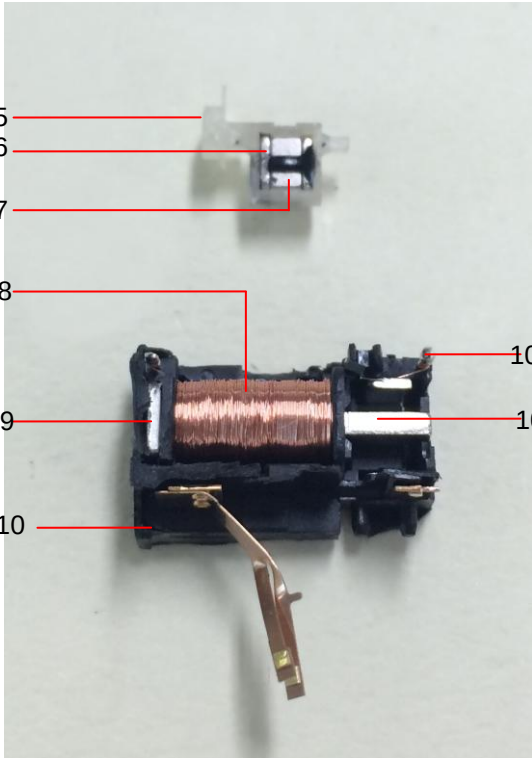
 10-3 10-4	 10-3-1 10-3-2 10-4-1 10-4-2 10-4-3 10-4-4
 10-5	 10-5-1 10-5-2 10-5-3

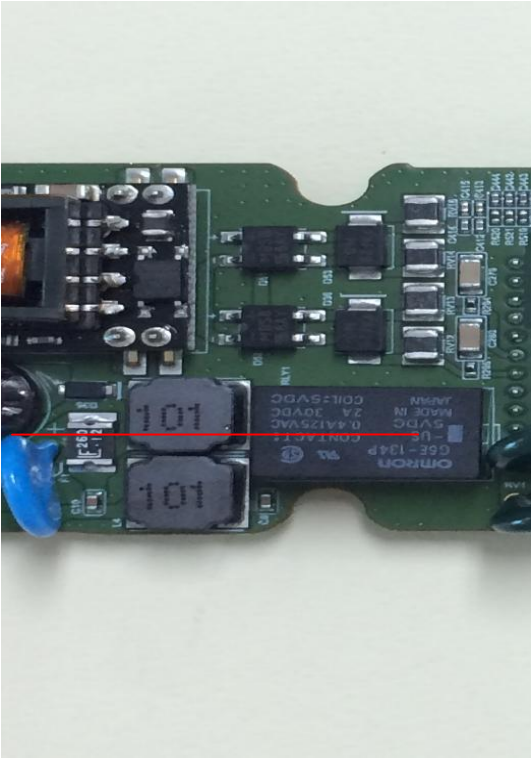
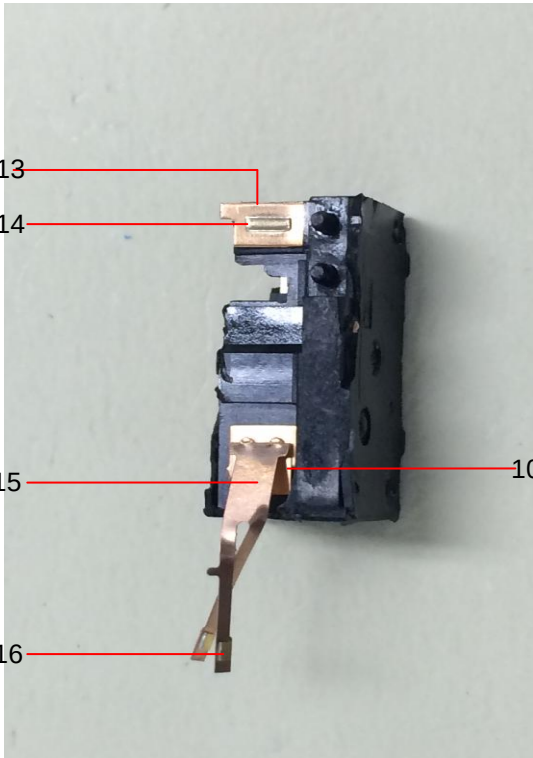
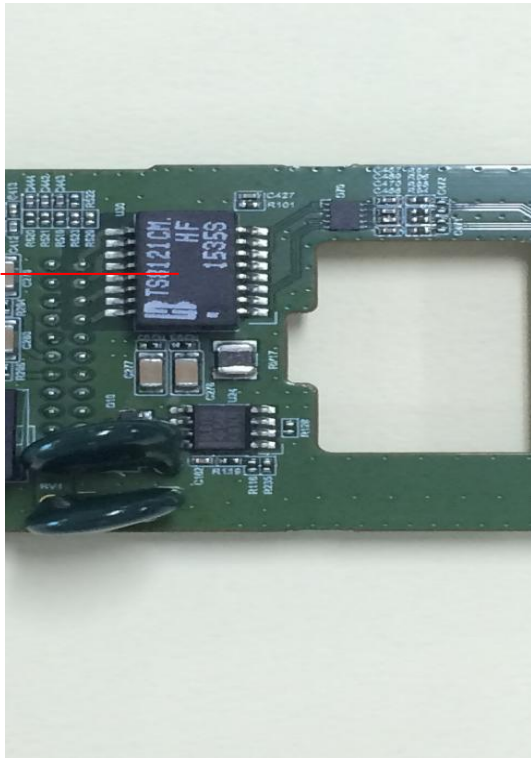
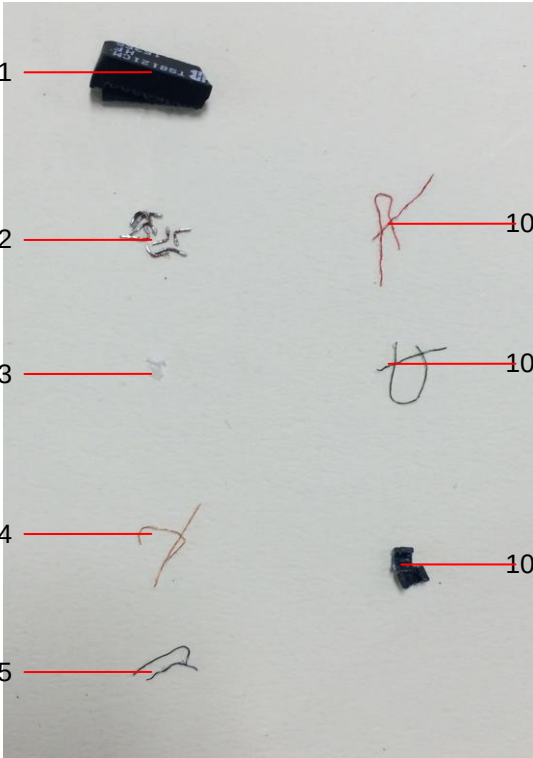


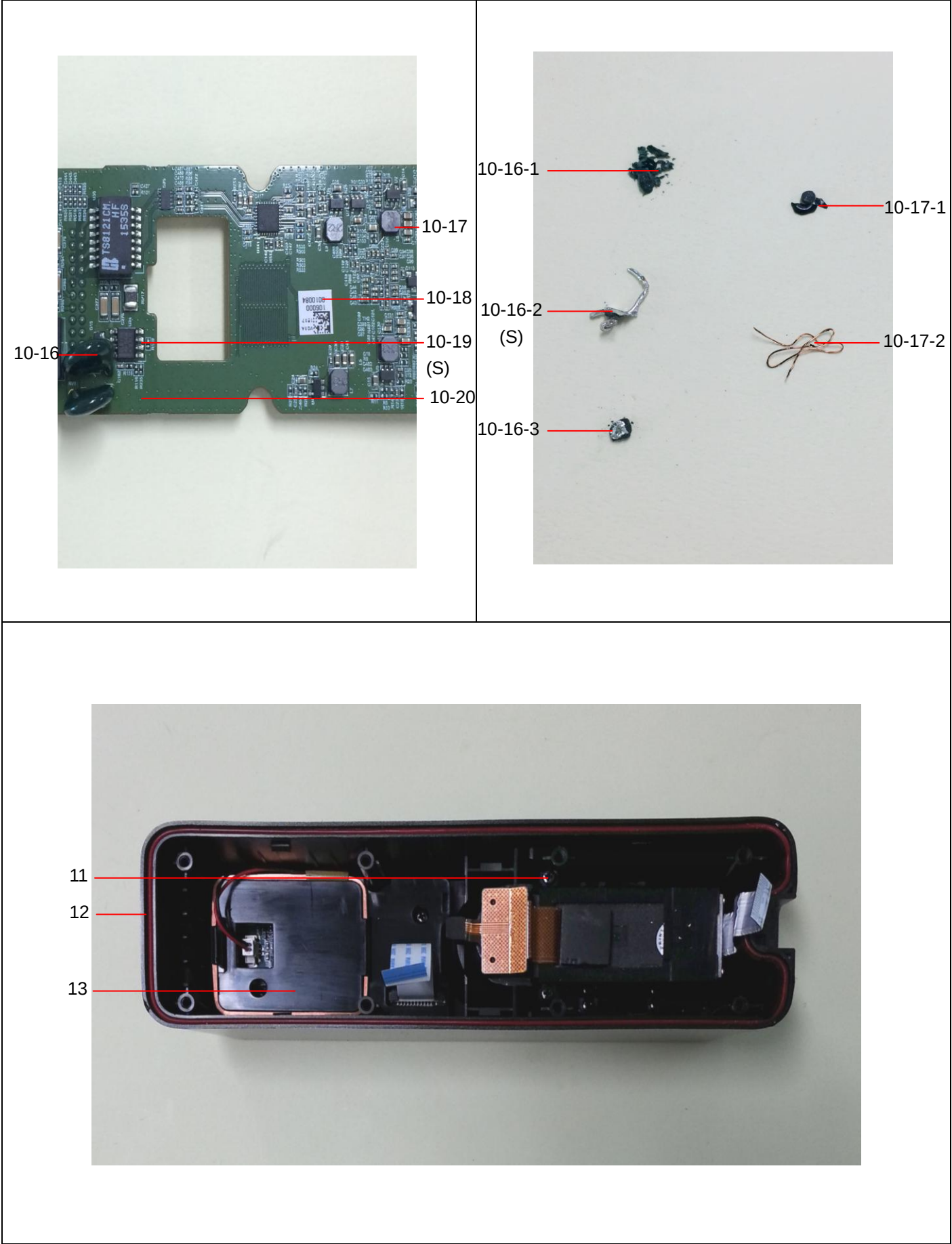
 10-8 10-9	 10-8-1 10-8-2 10-8-3 10-8-4 10-8-5 10-8-6 10-8-7 10-8-8 10-9-1 10-9-2 10-9-3 10-9-4 (S)
 10-10	 10-10-1(S) 10-10-2

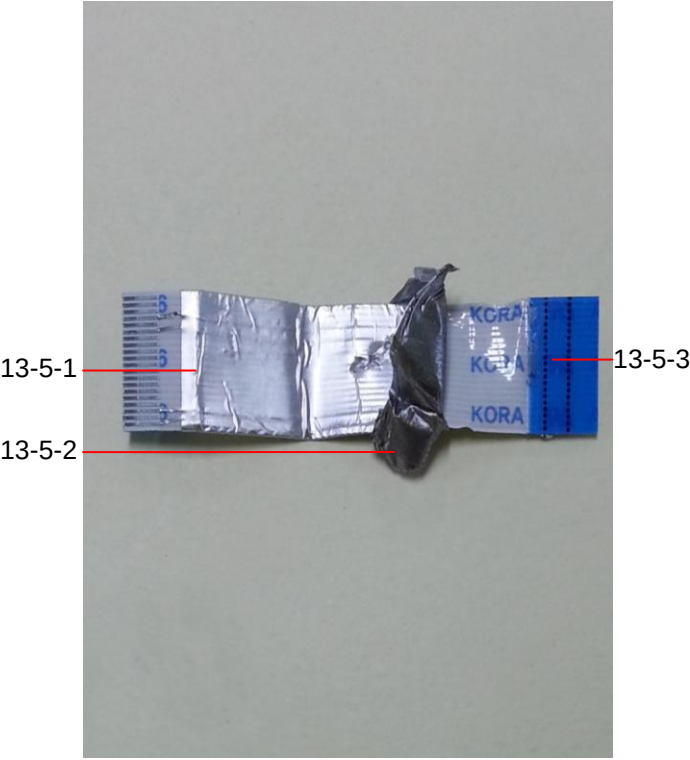
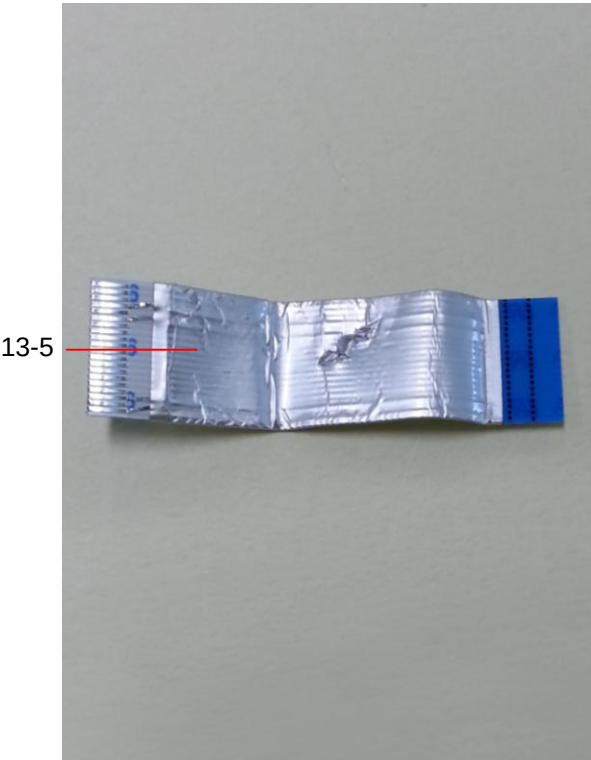
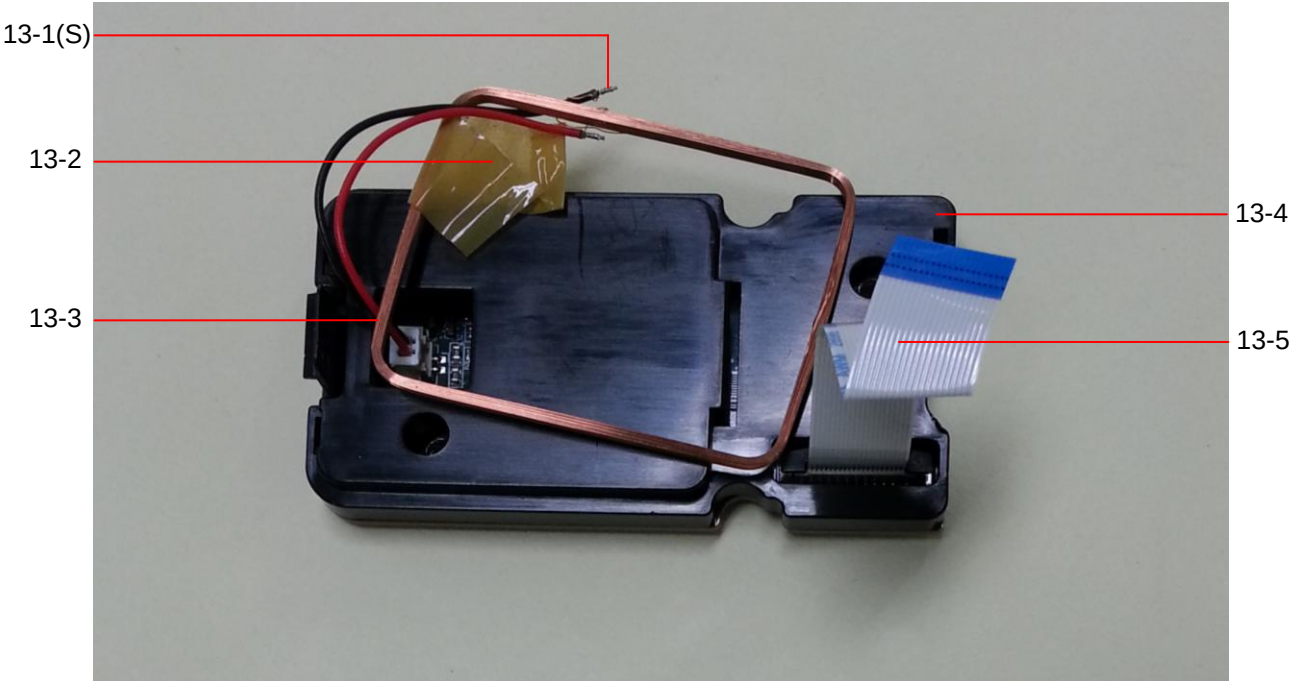
10-10 	10-10-3 10-10-5 10-10-6 10-10-7 10-10-4 (S) 10-10-8 
10-10 	10-10-9 10-10-10 

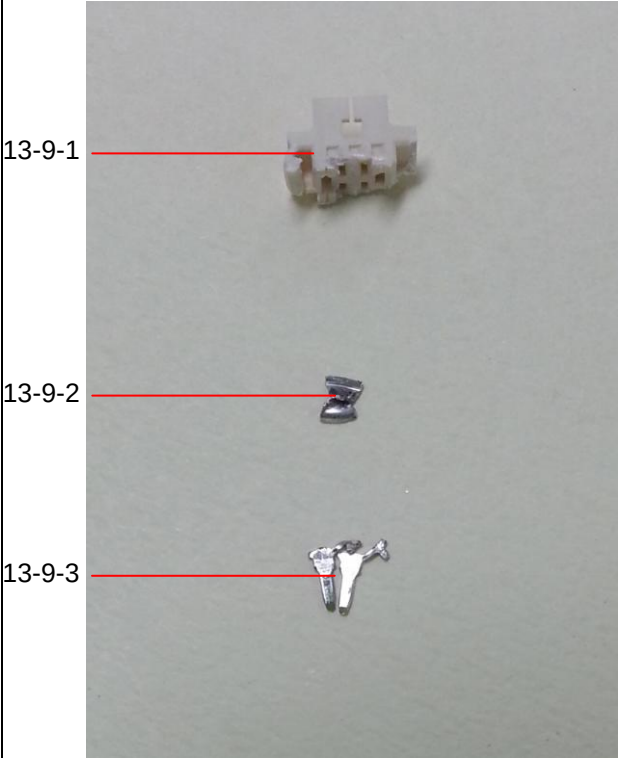
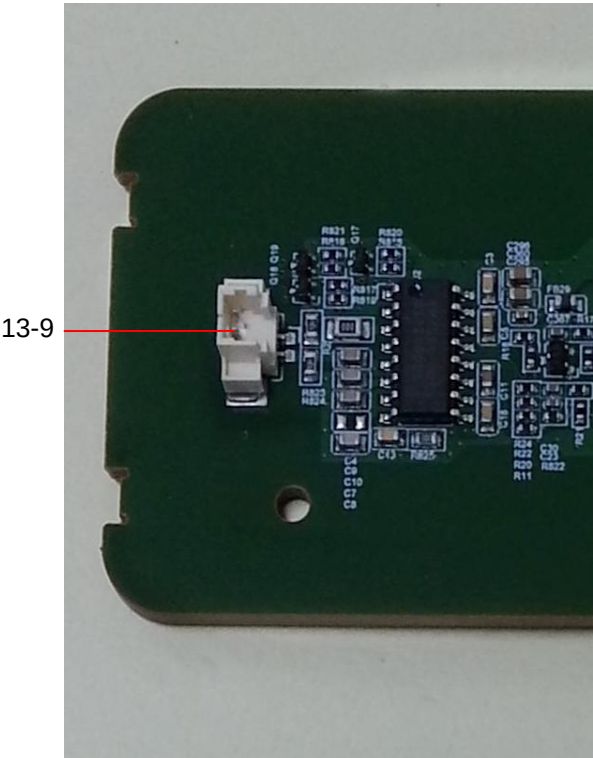
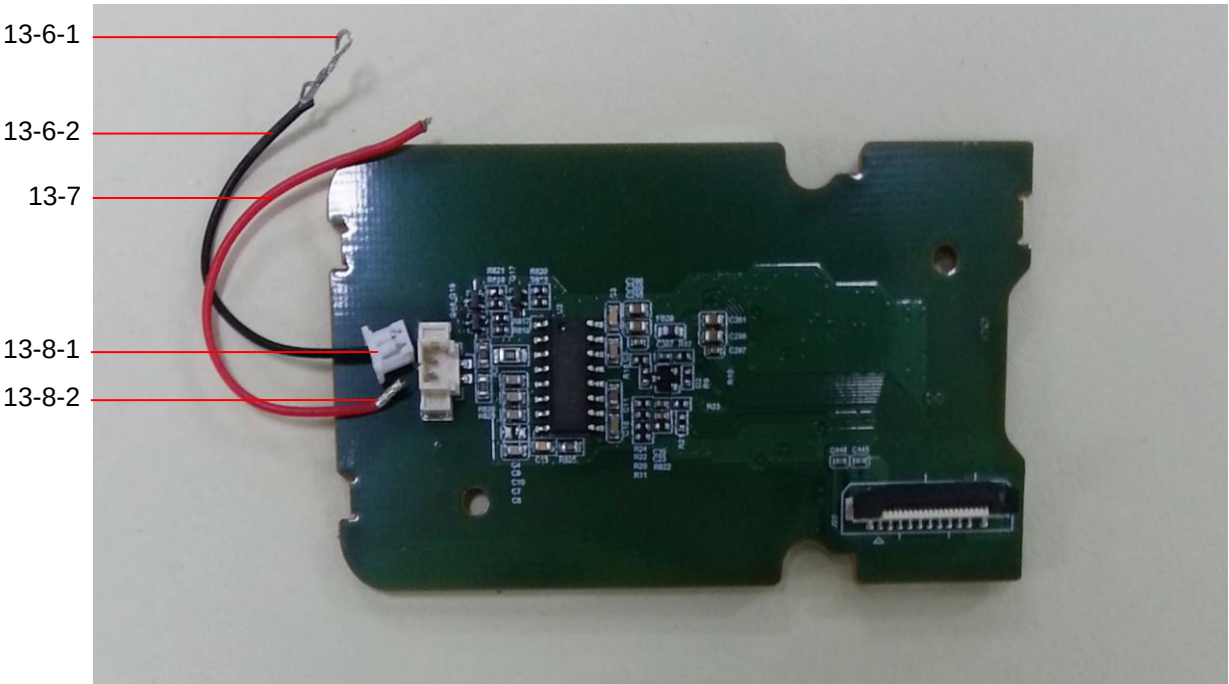
 10-11 10-12	 10-11-1 10-11-2 10-11-3 10-11-4 10-11-5 10-11-6 10-11-7 10-11-8 10-12-1 10-12-2 10-12-3 (S)
 10-13	 10-13-1 10-13-2

 10-14	 10-14-1 10-14-2 10-14-3 10-14-4
 10-14	 10-14-5 10-14-6 10-14-7 10-14-8 10-14-9 10-14-10 10-14-11 10-14-12

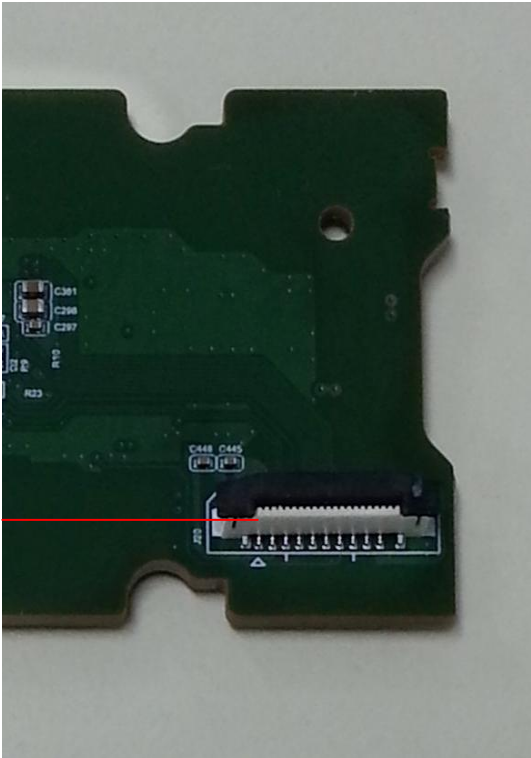
 10-14	 10-14-13 10-14-14 10-14-15 10-14-16 10-14-17
 10-15	 10-15-1 10-15-2 10-15-3 10-15-4 10-15-5 10-15-6 10-15-7 10-15-8







13-10

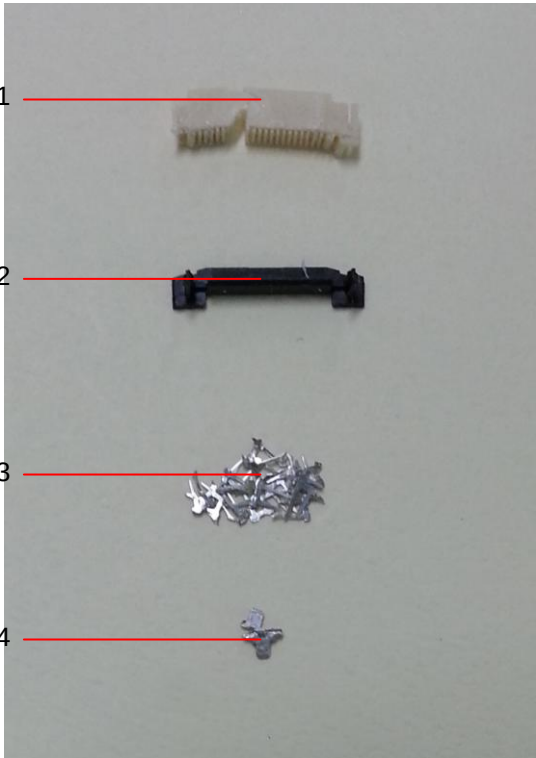


13-10-1

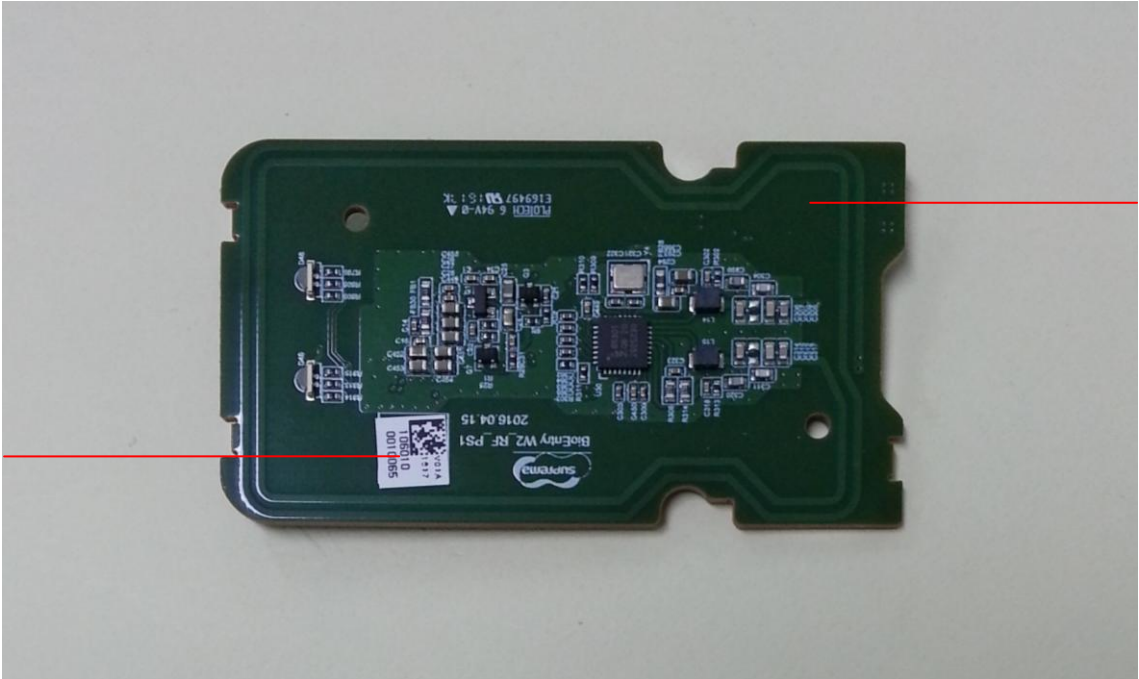
13-10-2

13-10-3

13-10-4
(S)

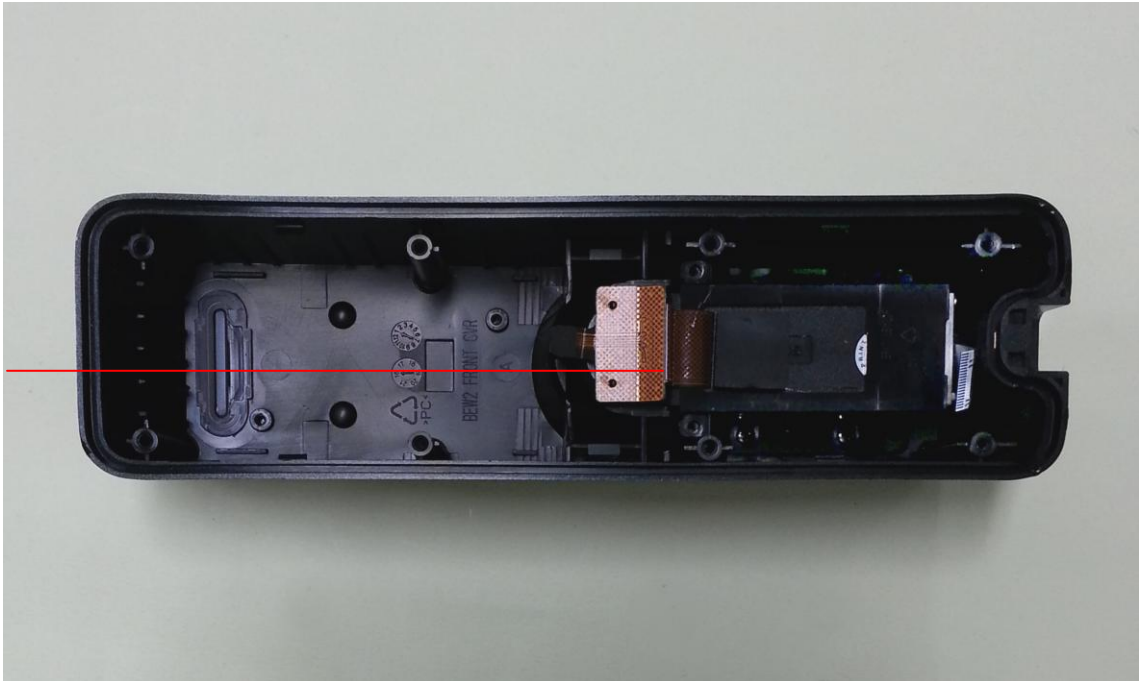


13-11



13-12

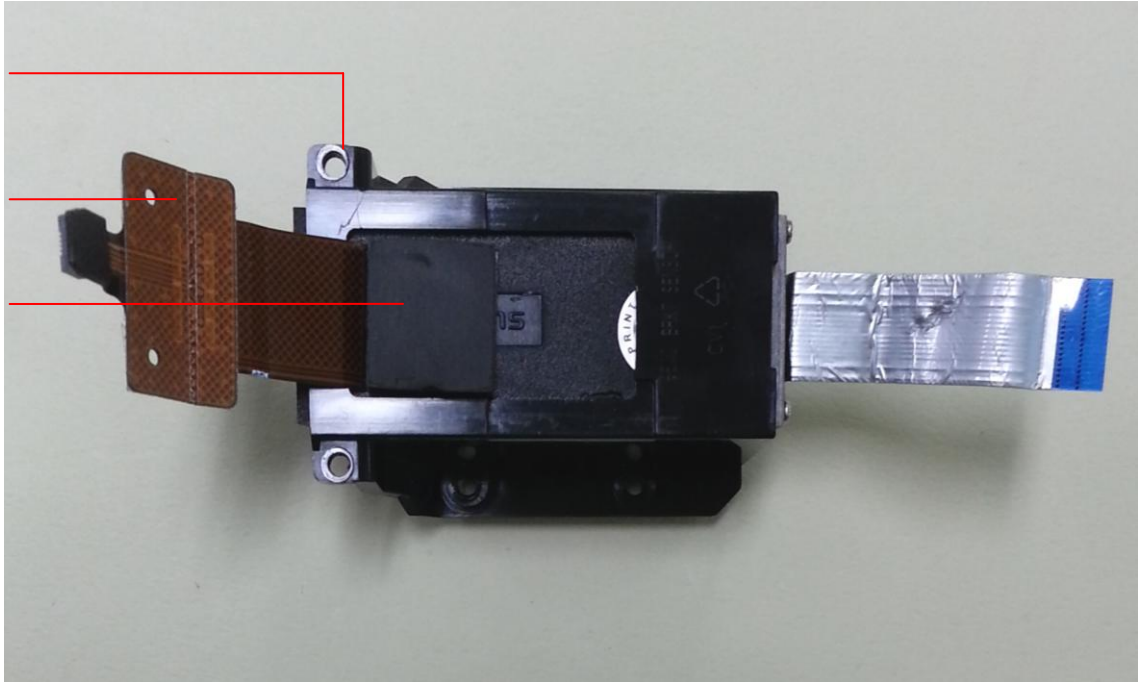
14



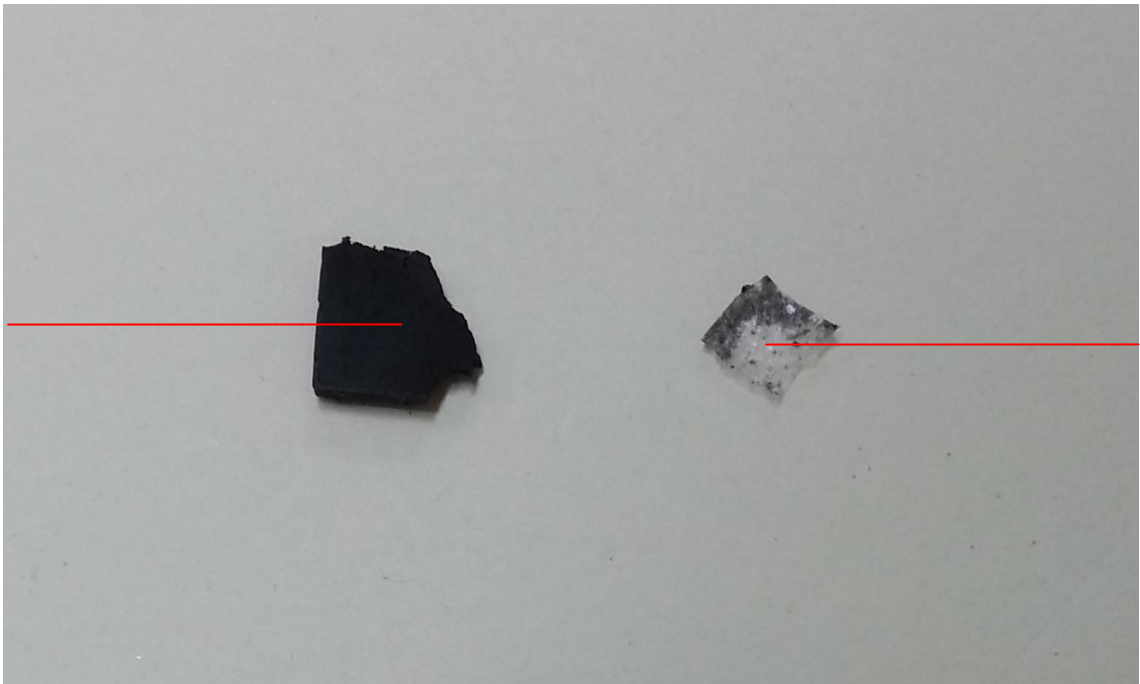
14-1

14-2

14-3

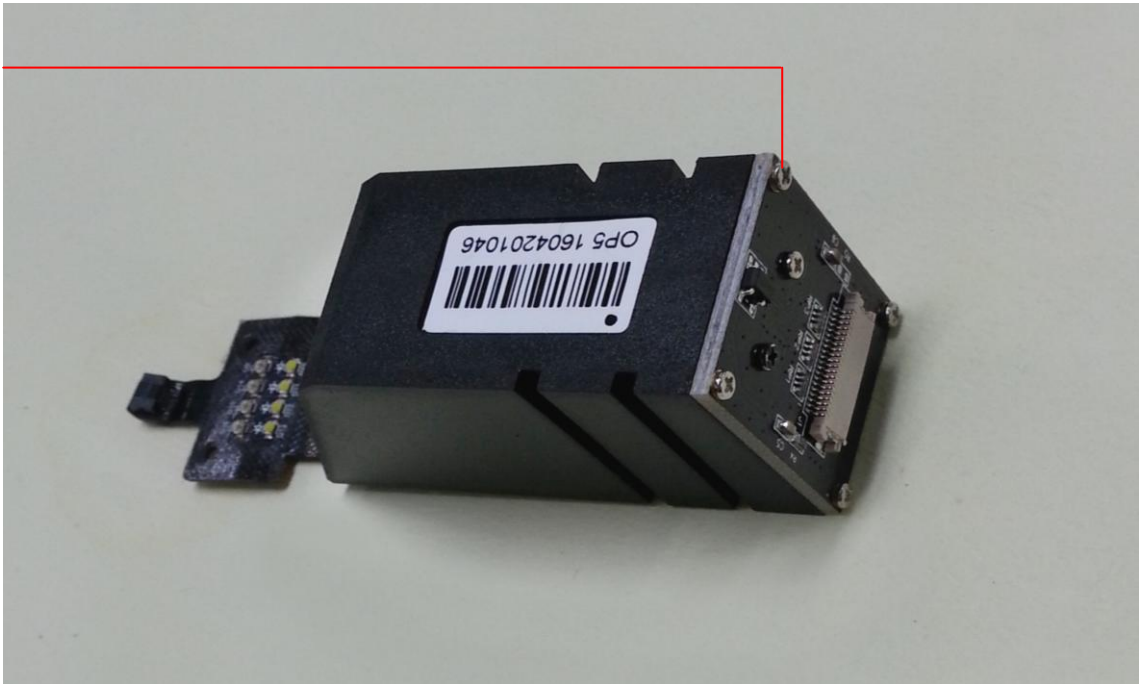


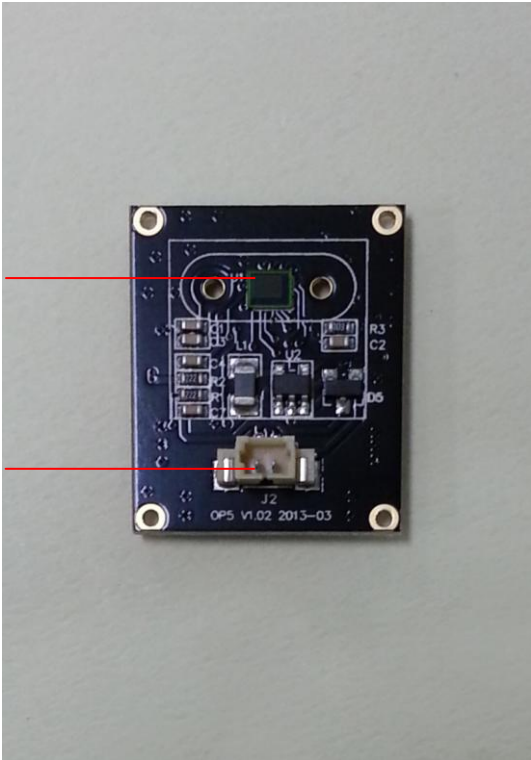
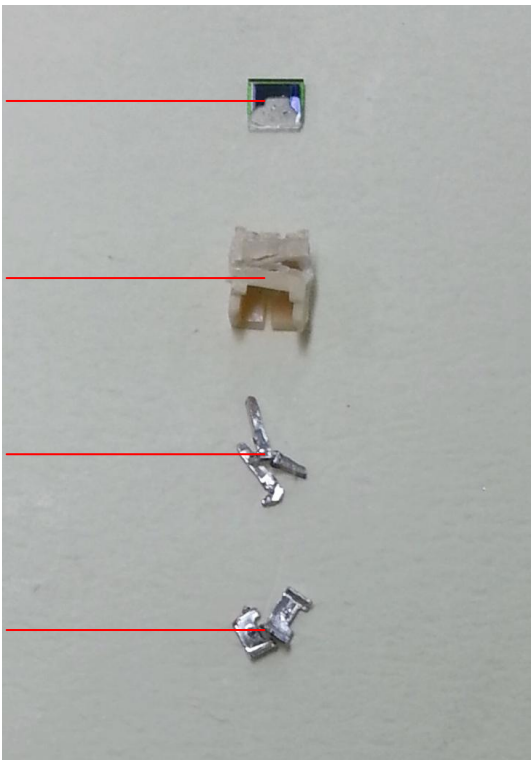
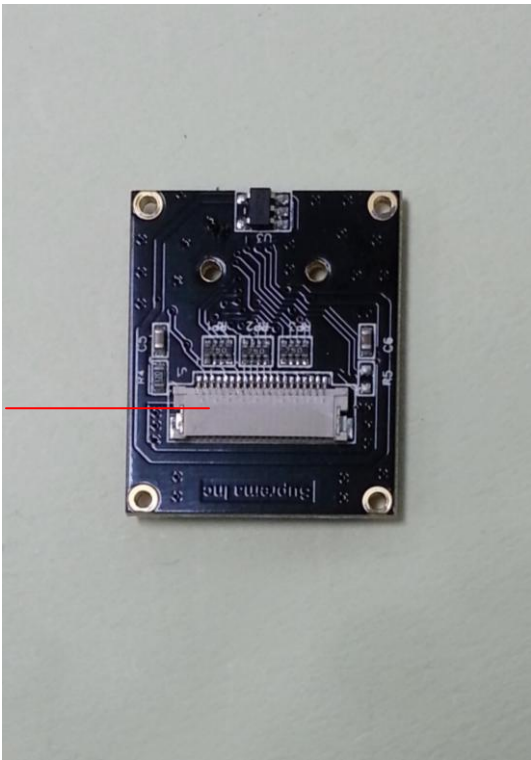
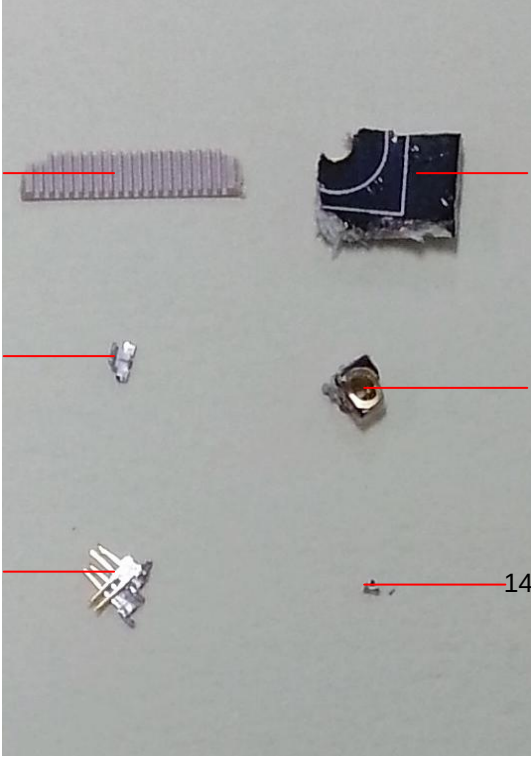
14-3-1



14-3-2

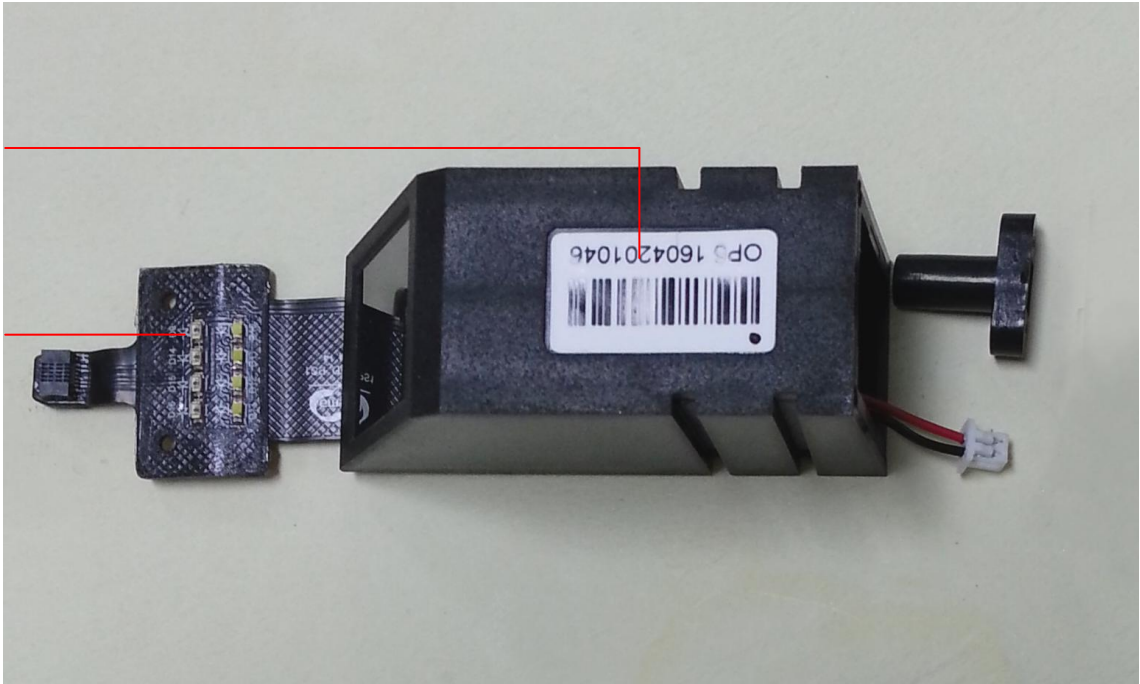
14-4



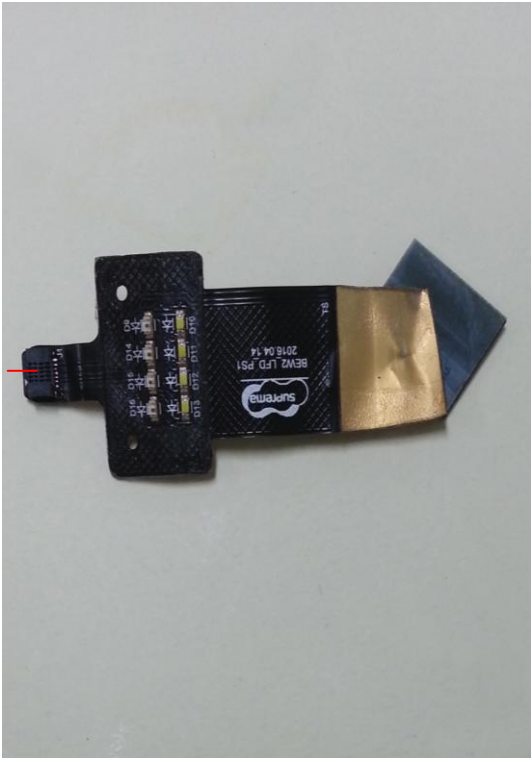
 14-5 14-6	 14-5 14-6-1 14-6-2 14-6-3
 14-7	 14-7-1 14-7-2 14-7-3 14-8 14-9 14-10(S)

14-11

14-12



14-12



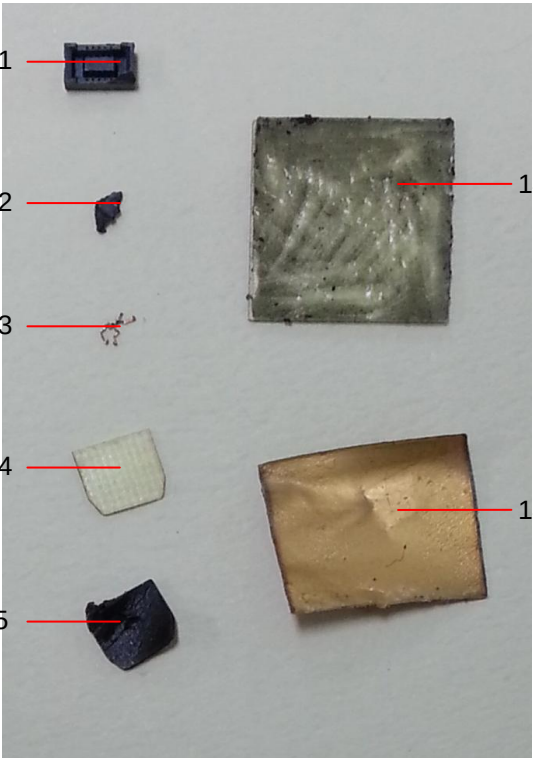
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14-12-2

14-12-3

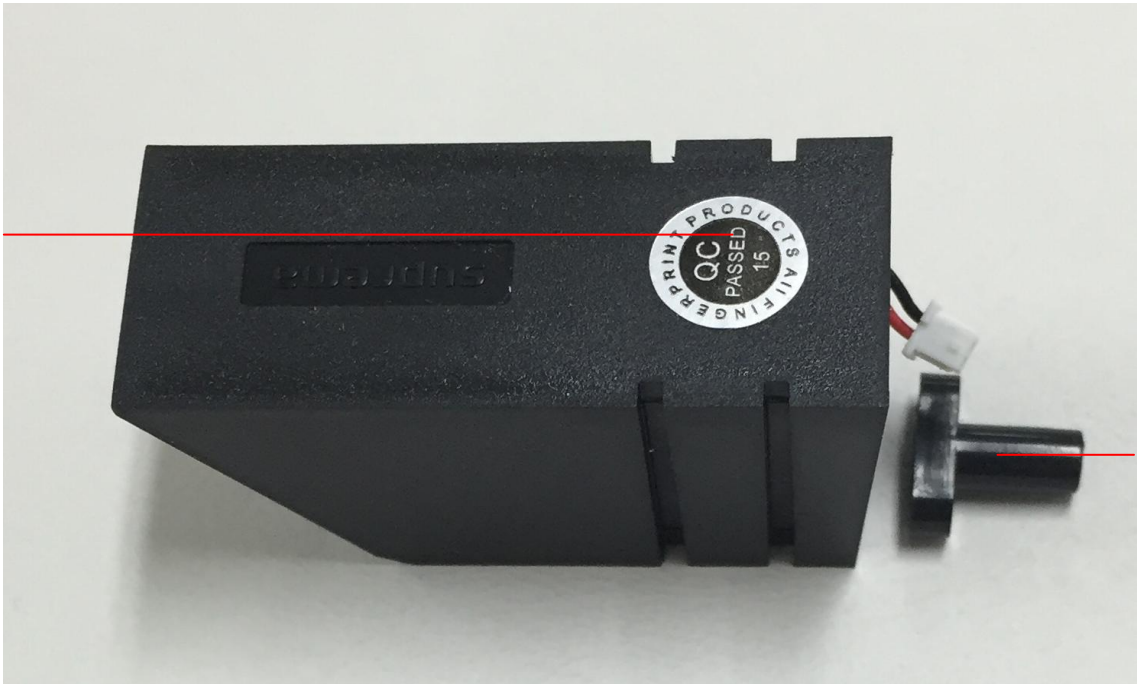
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14-12-5



14-12-6

14-12-7

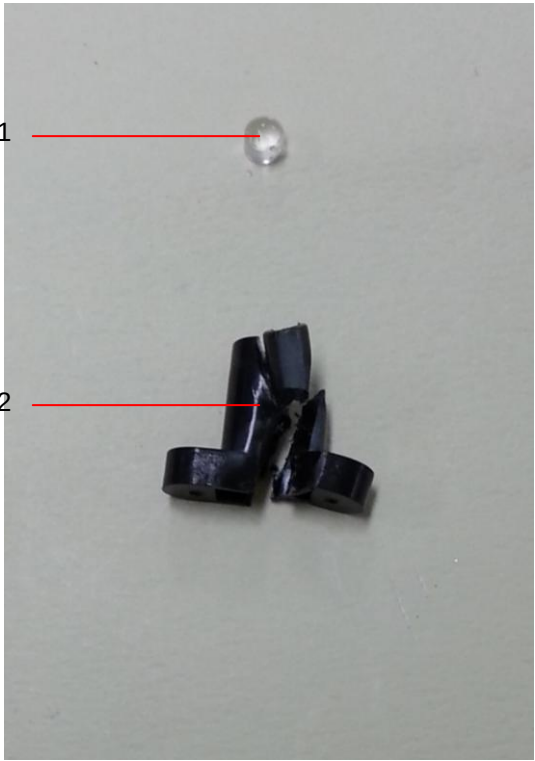


14-13

14-14

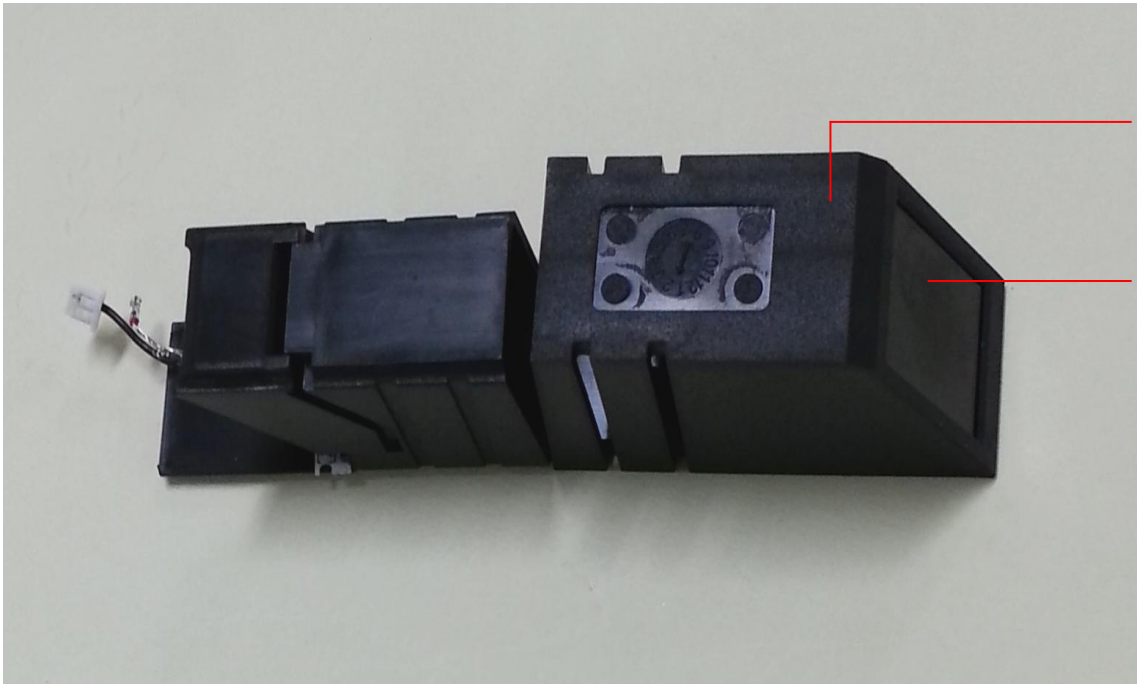


14-14



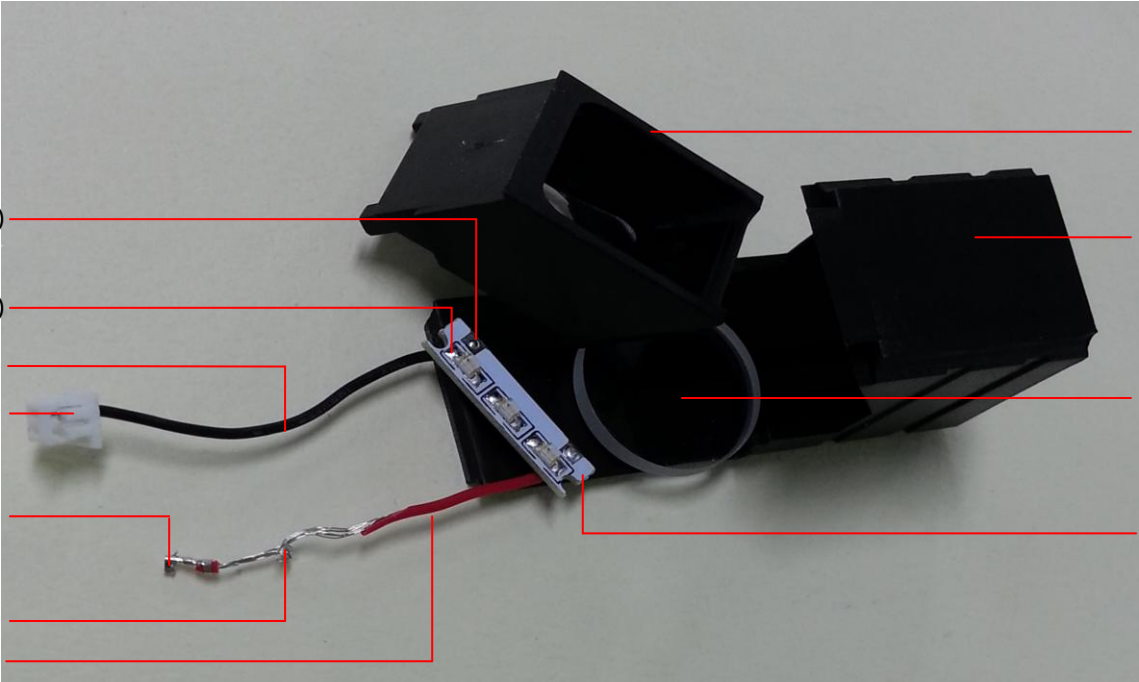
14-14-1

14-14-2



14-15

14-16



14-22

14-23

14-24

14-25

14-17(S)

14-18(S)

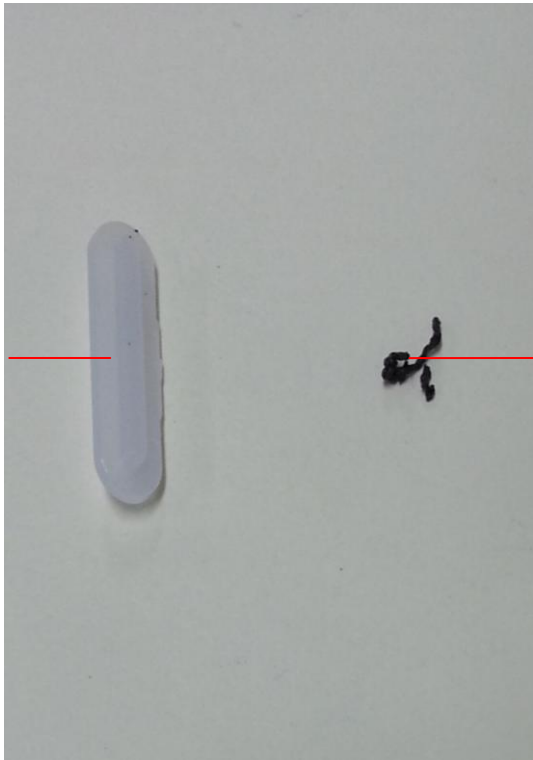
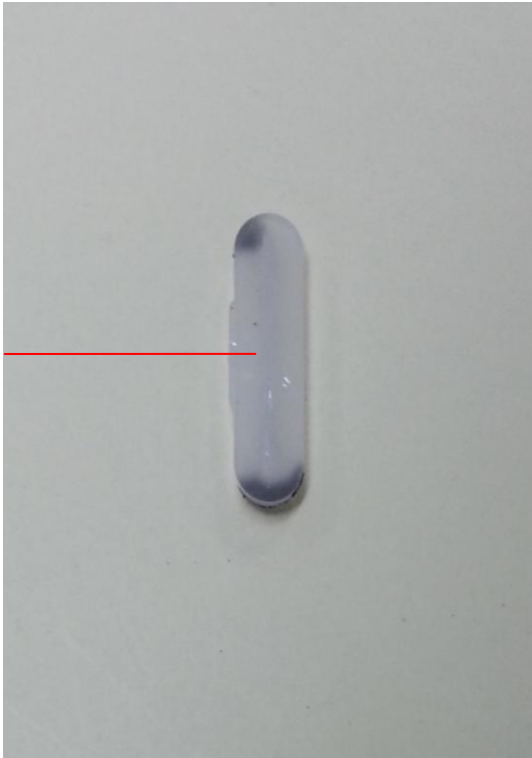
14-19

14-20-1

14-20-2

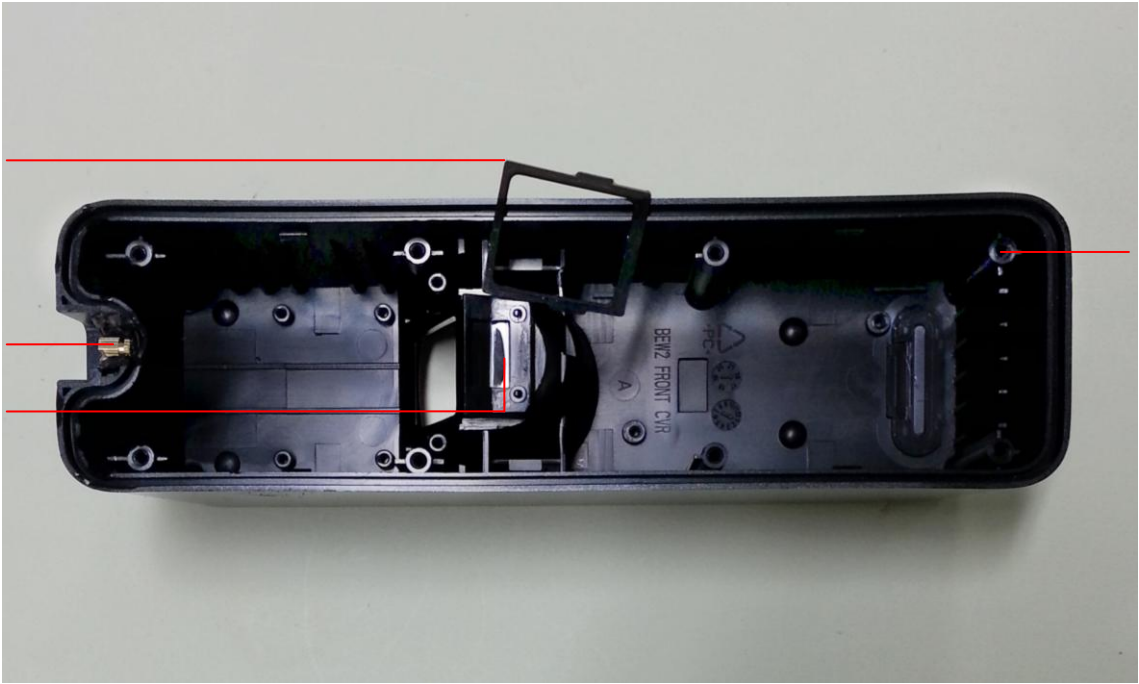
14-21-1

14-21-2





17(P)



18

19

20

21

22



23

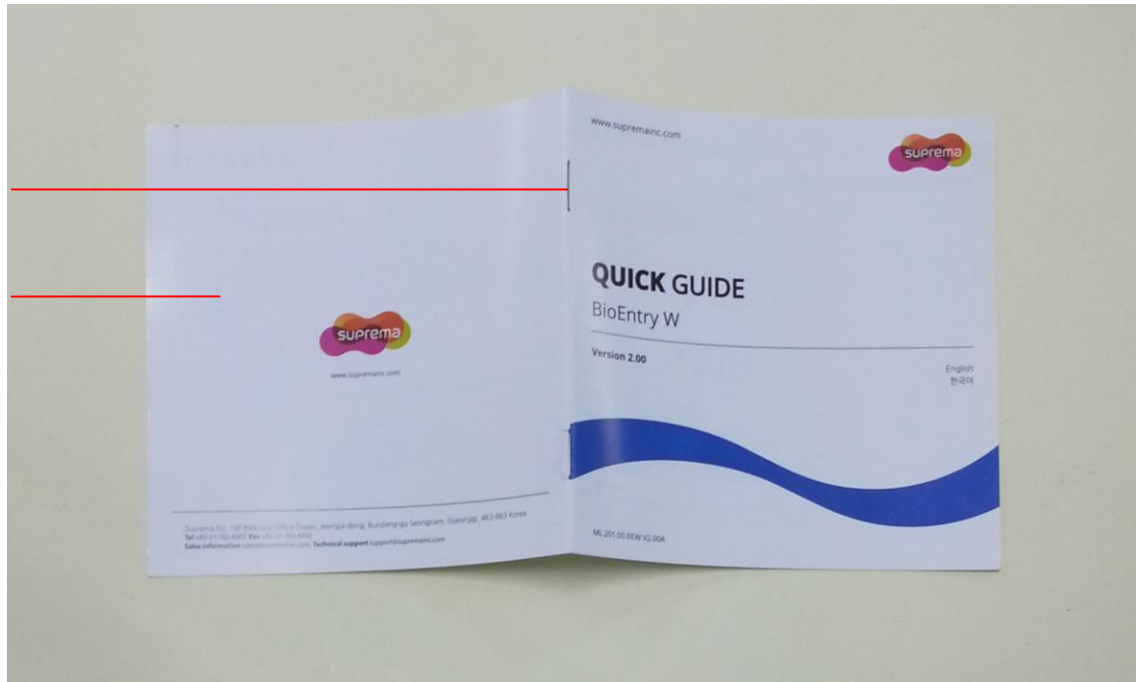
24



25

25-1

25-2



26

27

28

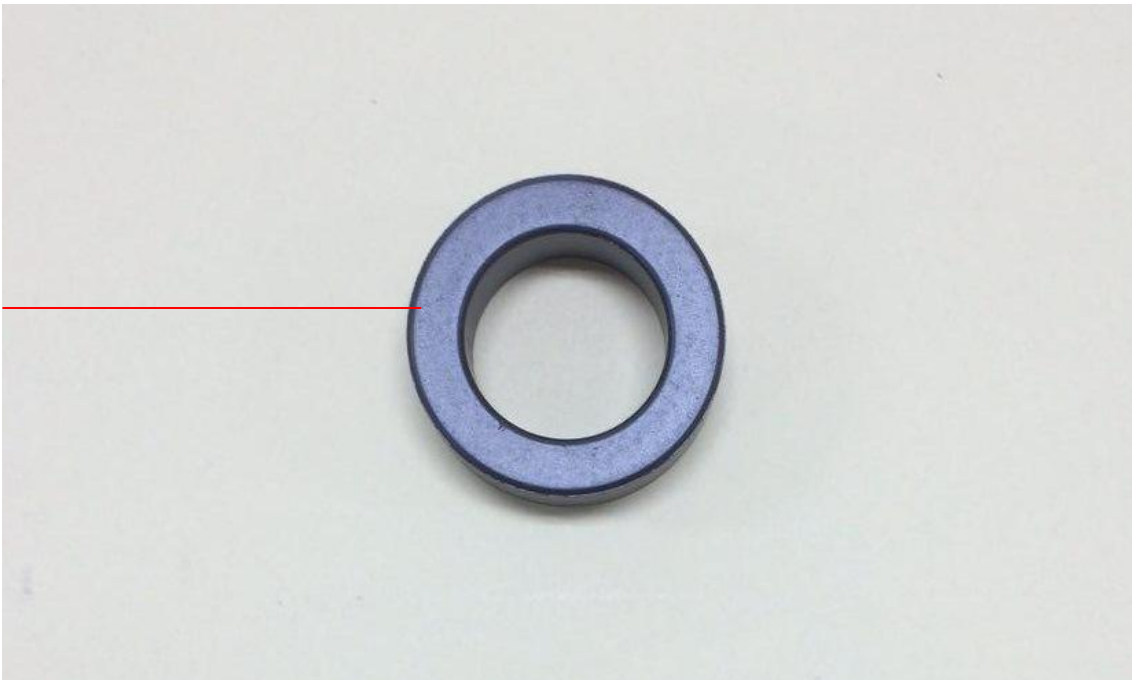


28-1-1

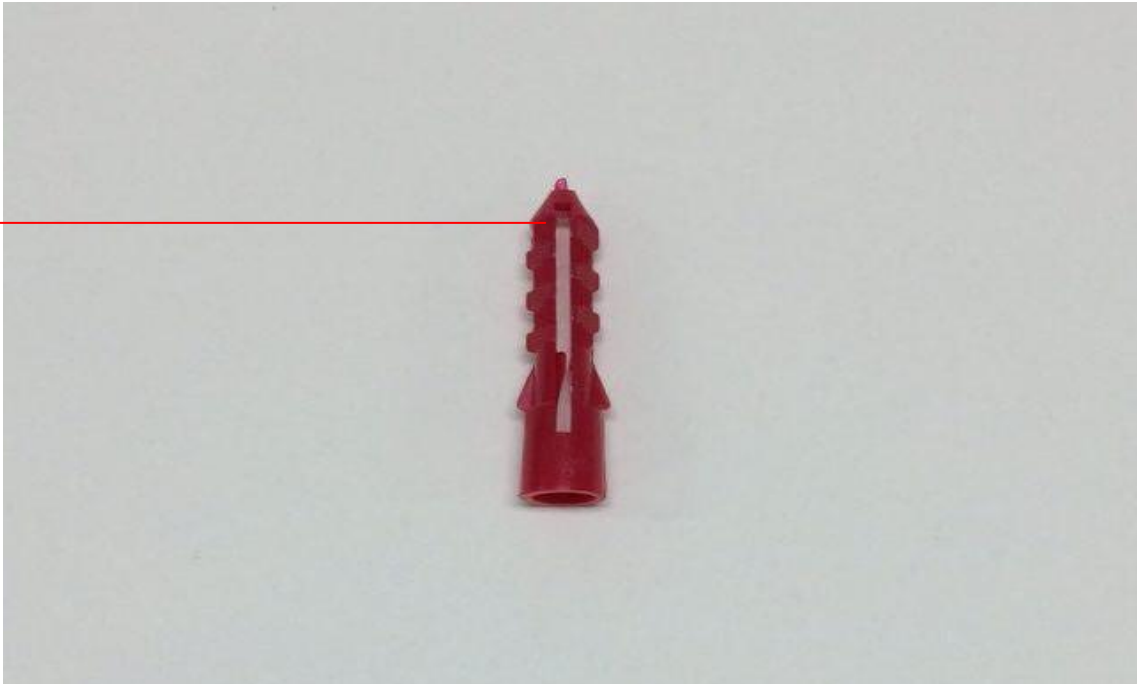


28-1-2

28-2



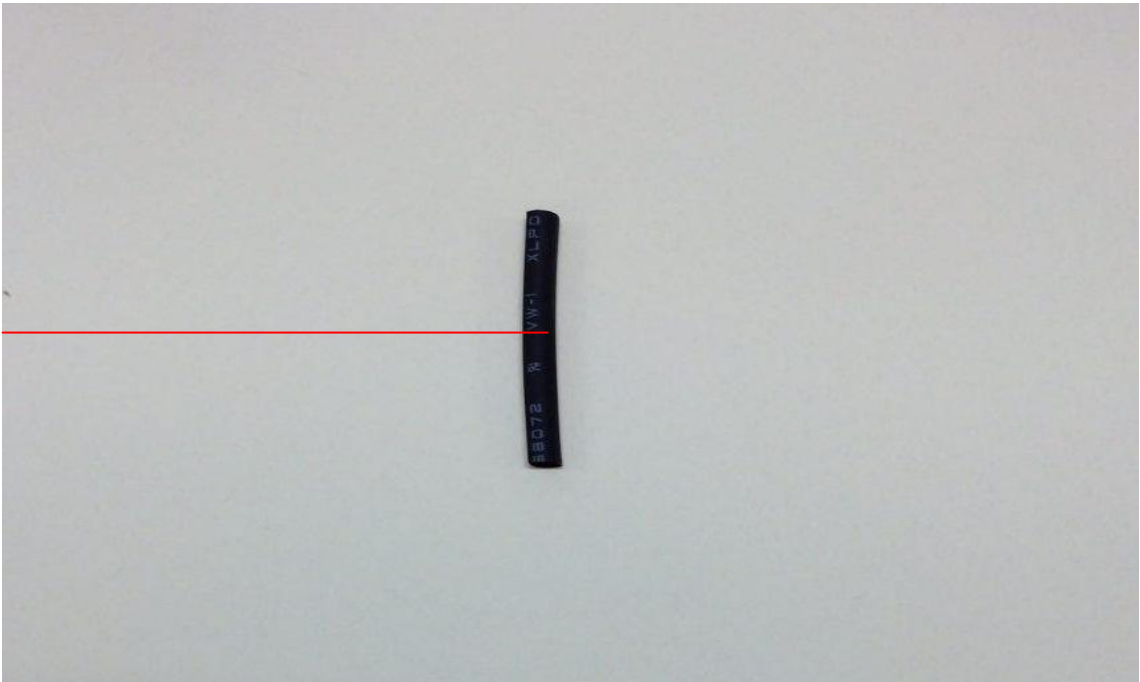
28-3



28-4

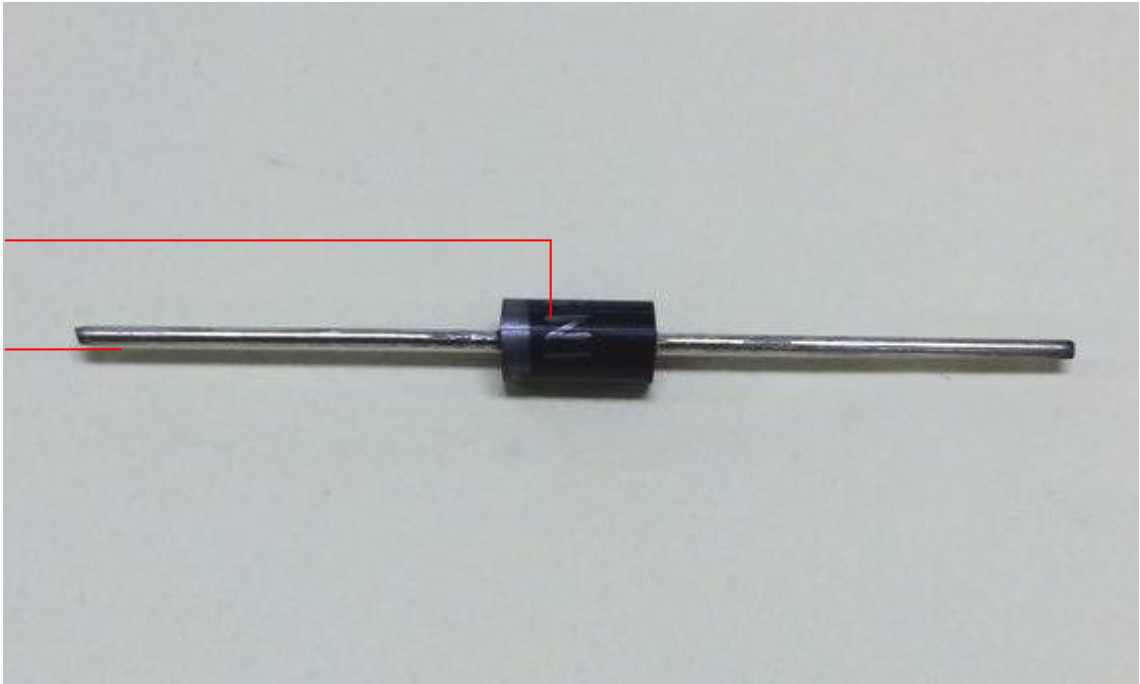


28-5

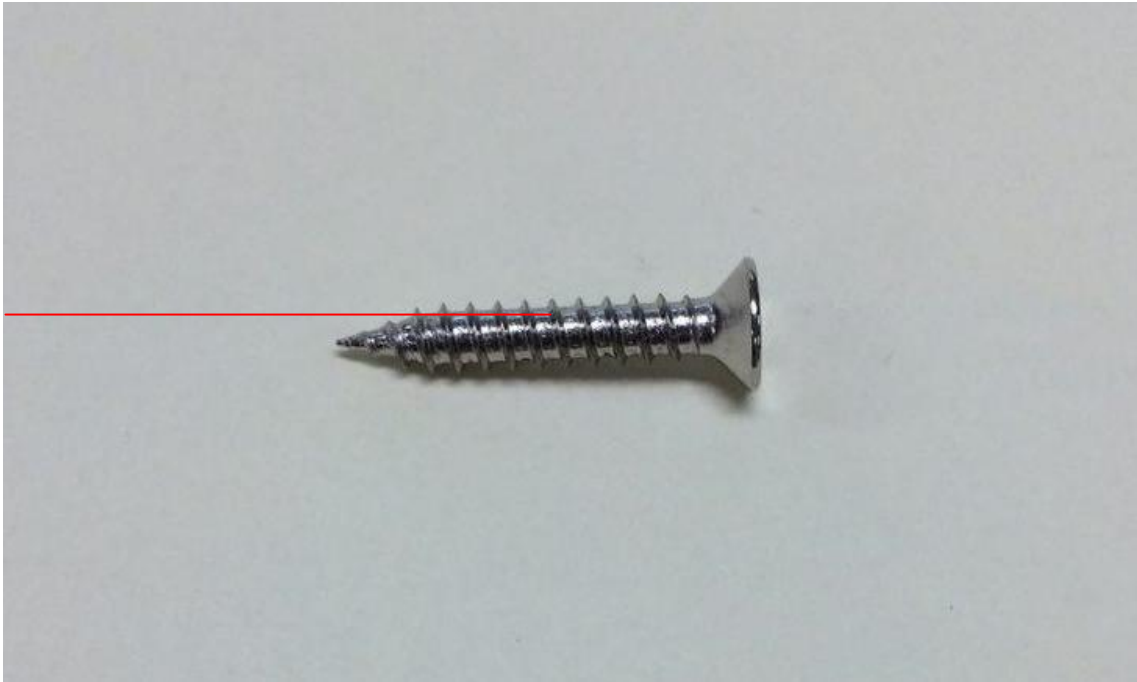


28-6-1

28-6-2



28-7



28-8-1

28-8-2

