



**BUREAU  
VERITAS**

# TEST REPORT

LAB NO. : (6624)298-0609  
DATE : November 27, 2024  
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Applicant:  
**ZHEJIANG GEYA ELECTRICAL CO., LTD.**  
WENZHOU BRIDGE INDUSTRIAL ZONE, BEIBAIXIANG TOWN, YUEQING, ZHEJIANG, 325603 - CHINA

Date of Submission: 2024-10-24/2024-11-25  
Test Period: 2024-10-24 to 2024-11-27  
Sample Mode: Sample Presentation  
BV EE Ref. No.: GYB-ESH-Q24102306-A0

Sample Description:	Sample(s) received is(are) stated to be: RCBO		
Manufacturer:	/	Buyer:	/
Style No(s):	GYR9N series	PO No.:	/
Country of Origin:	/	Country of Destination:	Oversea Country

### SUMMARY OF TEST RESULTS

TEST REQUESTED	CONCLUSION
Compliance Test - European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) with its Amendments (EU) 2015/863	PASS

Note: Testing as sample submitted by client, this test report is only responsible for the conformity of the tested items. The client is responsible for the representative and authenticity of the submitted samples.

**REMARK**

If there are questions or concerns on this report, please contact the following persons:

General enquiry and invoicing

Mr. Speed Yu/ Ms. Cabell Chen  
(021) 24166888\*6832/6850

Technical enquiry

Speed.yu @bureauveritas.com/ Cabell.chen@bureauveritas.com  
Mr. Gordon Yu/ Ken He  
(021) 24166888\*6852/6859  
Gorden.yu @bureauveritas.com/ Kenny.he@bureauveritas.com



**BUREAU VERITAS  
CONSUMER PRODUCTS SERVICES DIVISION (SHANGHAI)**

Laboratory Test Location:  
No.368,Guangzhong Road, Zhuanqiao Town, Minhang, Shanghai  
No.168,Guanghua Road, Zhuanqiao Town, Minhang, Shanghai

PREPARED BY: AVA YU

APPROVED BY:   
Gorden Yu  
Lab Manager



Bureau Veritas  
Consumer Products Services Division  
(Shanghai)  
No.168, Guanghua Road , Zhuanqiao Town,  
Minhang, Shanghai, China.  
Post Code: 201108  
Tel: 86-21-24166888 Fax: 86-21-64890042  
Email: bvcps\_sh\_info@cn.bureauveritas.com  
Http: www. bureauveritas.com/cps

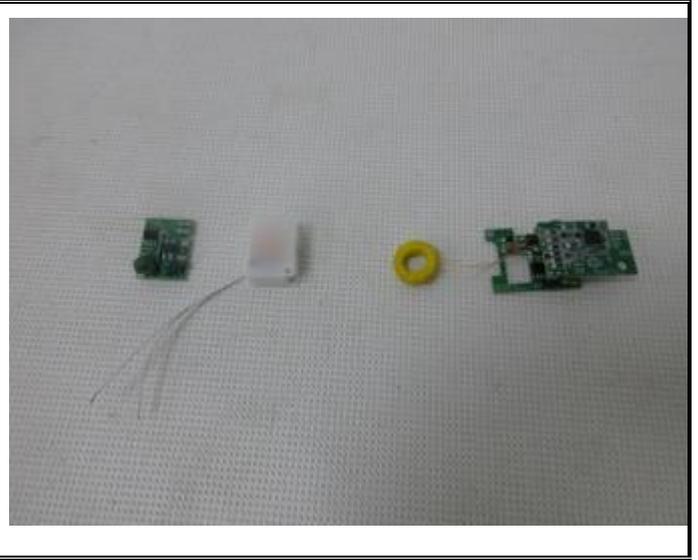
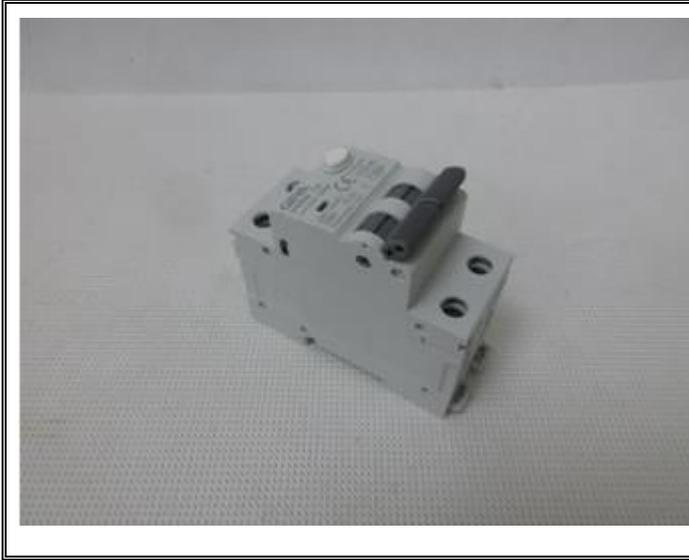
This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



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**Photo of the Submitted Sample**





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**TEST RESULT**

**Compliance Test - European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) with its Amendments (EU) 2015/863**

Test Method : See Appendix.

**See Analytes and their corresponding Maximum Allowable Limit in Appendix**

-			Result									
Parameter			Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Chromium VI (Cr VI)	PBBs & PBDEs	DBP	BBP	DEHP	DIBP	Conclusion
Unit			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
Test Item	Description	Location	-	-	-	-	-	-	-	-	-	-
1	Silvery metal	Housing	ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
2	Grey plastic		ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
3	Grey plastic		ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
4	Grey plastic		ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
5	Silvery metal		ND	ND	ND	Negative*	NA	NA	NA	NA	NA	PASS
6	Silvery metal screw	Inside	ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
7	Silvery metal		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
8	Silvery metal		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
9	Beige plastic		ND	ND	ND	ND	ND*	ND*	ND*	ND*	ND*	PASS
10	Silvery metal spring		ND	ND	ND	Negative*	NA	NA	NA	NA	NA	PASS
11	Silvery metal		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
12	Coppery metal		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
13	Silvery metal solder		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
14	White plastic		ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
15	White plastic		ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
16	Red plastic		ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
17	Brown plastic		ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
18	Grey plastic		ND	ND	ND	ND	ND*	ND*	ND*	ND*	ND*	PASS
19	White plastic		ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
20	Beige plastic		ND	ND	ND	ND	ND*	ND*	ND*	ND*	ND*	PASS
21	Silvery metal		ND	ND	ND	Negative*	NA	NA	NA	NA	NA	PASS
22	Silvery metal		ND	ND	ND	Negative*	NA	NA	NA	NA	NA	PASS
23	Silvery metal		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
24	Silvery metal screw with black plating		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
25	Silvery metal		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
26	Coppery metal contact point with silvery plating		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
27	Coppery metal		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
28	Coppery metal		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
29	Grey plastic		ND	ND	ND	ND	ND*	ND*	ND*	ND*	ND*	PASS
30	Silvery metal		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
31	Silvery metal		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
32	Silvery metal spring		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
33	Silvery metal		ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
34	White plastic		ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS



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Parameter		Result									Conclusion
		Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Chromium VI (Cr VI)	PBBs & PBDEs	DBP	BBP	DEHP	DIBP	
Unit		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
35	Silvery metal	ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
36	Coppery metal	ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
37	Beige plastic	ND	ND	ND	ND	ND*	ND*	ND*	ND*	ND*	PASS
38	Silvery metal spring	ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
39	Silvery metal	ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
40	White plastic	ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
41	Grey plastic	ND	ND	ND	ND	ND*	ND*	ND*	ND*	ND*	PASS
42	Brown plastic	ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
43	Silvery metal spring	ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
44	Green plastic wire jacket	ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
45	Red plastic wire jacket	ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
46	Coppery metal wire	ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
47	Blue sponge	ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
48	White plastic	ND	ND	ND	ND	ND*	ND*	ND*	ND*	ND*	PASS
49	Silvery metal	ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
50	Black plastic	ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
51	Silvery metal solder	ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
52	Blue plastic wire jacket	ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
53	Transparent plastic	ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
54	Brown resistor	ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
55	Black EC	ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
56	Brown chip capacitor	ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
57	Silvery metal solder R1	ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
58	Green PCB	ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
59	Silvery metal	ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
60	White plastic	ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
61	White plastic	ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
62	Red plastic	ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
63	Silvery metal	ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
64	Silvery metal spring	ND	ND	ND	Negative*	NA	NA	NA	NA	NA	PASS
65	Coppery metal	ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
66	Silvery metal	ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
67	Silvery metal	ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
68	White plastic	ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
69	Black plastic	ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
70	Silvery metal solder R1	ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
71	White plastic wire jacket	ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS
72	Silvery metal	ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
73	Silvery metal	ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
74	Silvery metal spring	ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
75	Silvery metal	ND	ND	ND	ND	NA	NA	NA	NA	NA	PASS
76	White plastic	ND	ND	ND	ND	ND	ND*	ND*	ND*	ND*	PASS



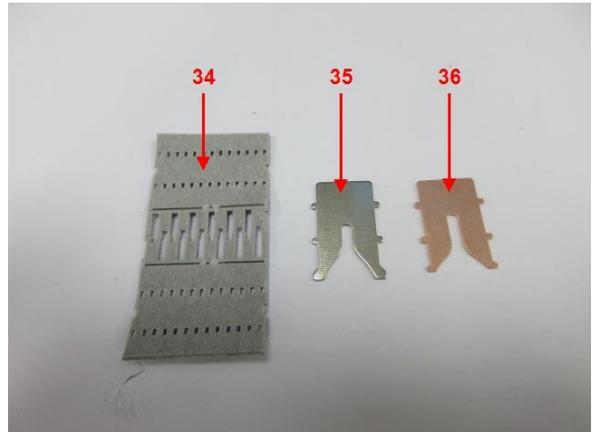
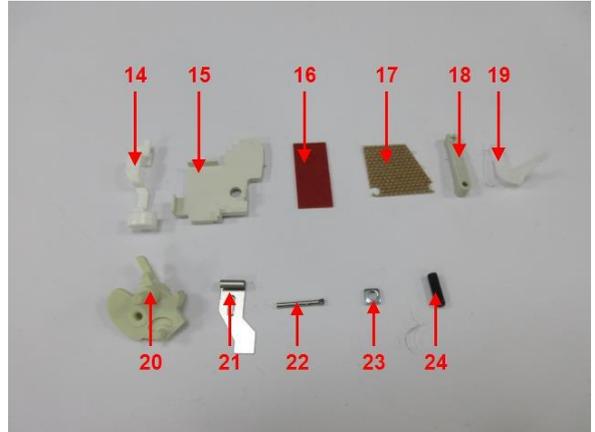
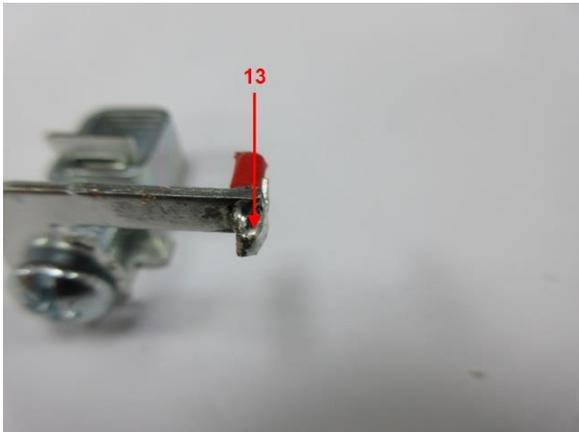
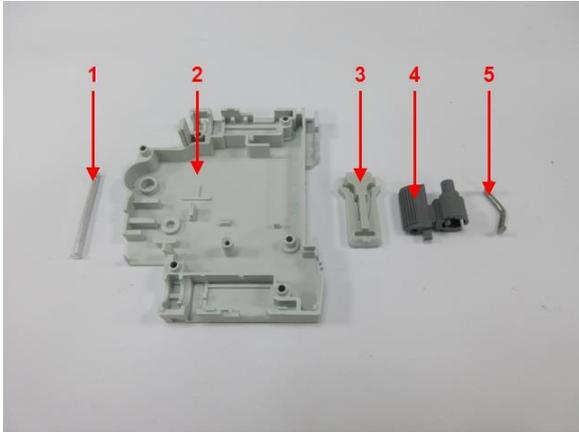


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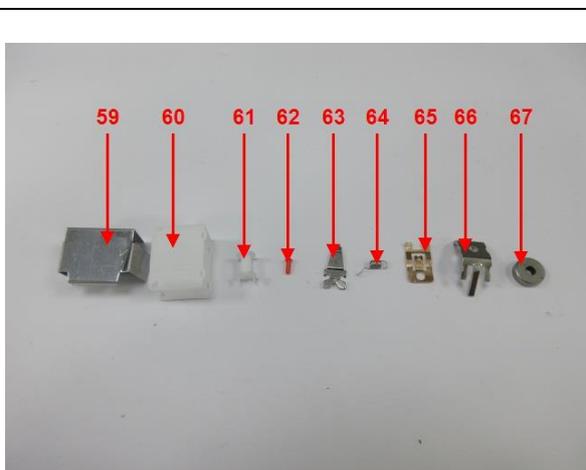
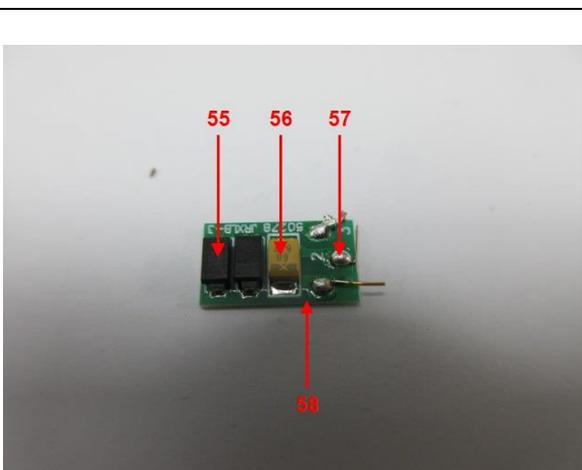
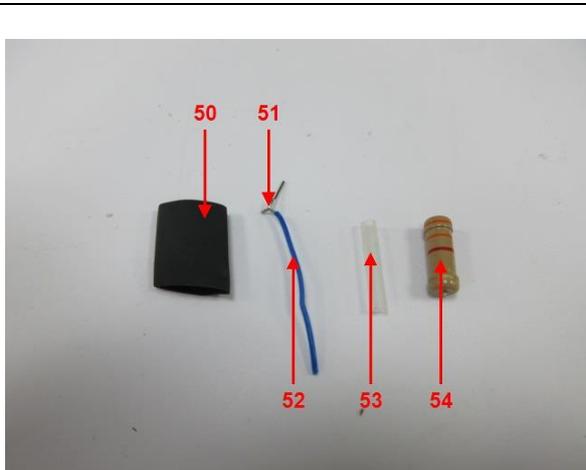
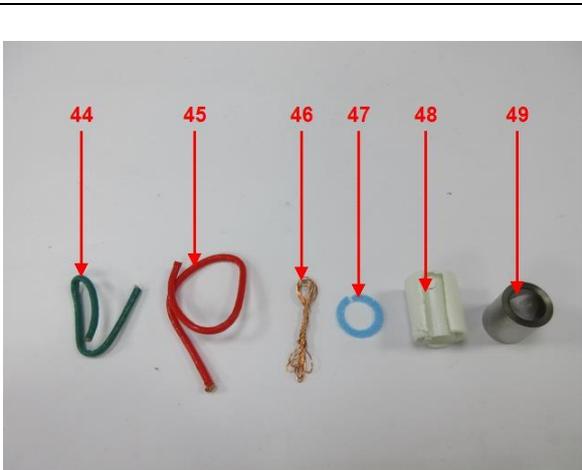
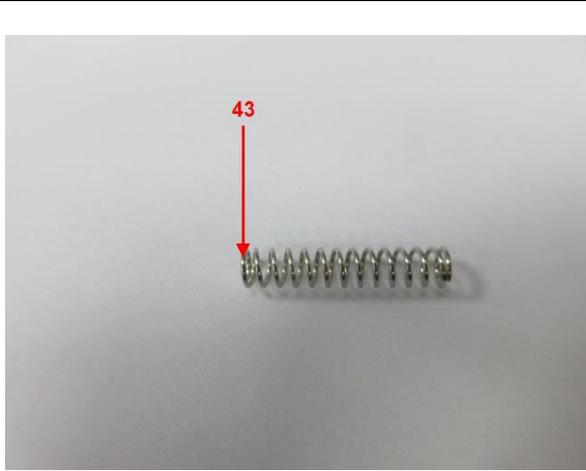
Photograph depicting Test Item(s)





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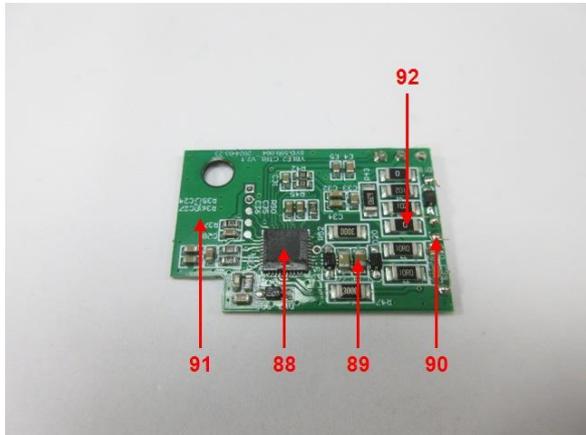
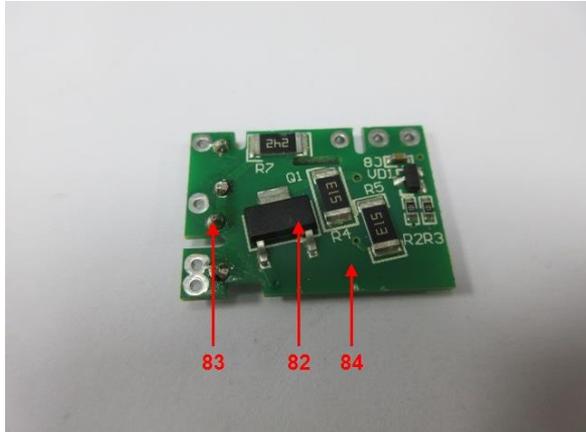
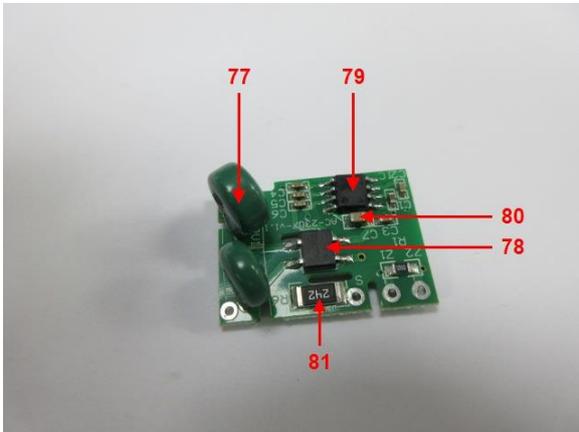
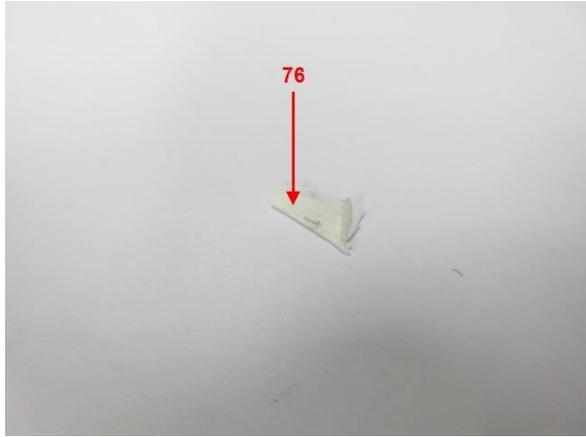
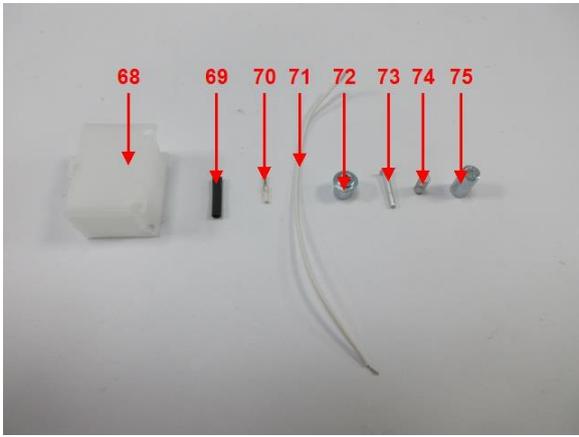
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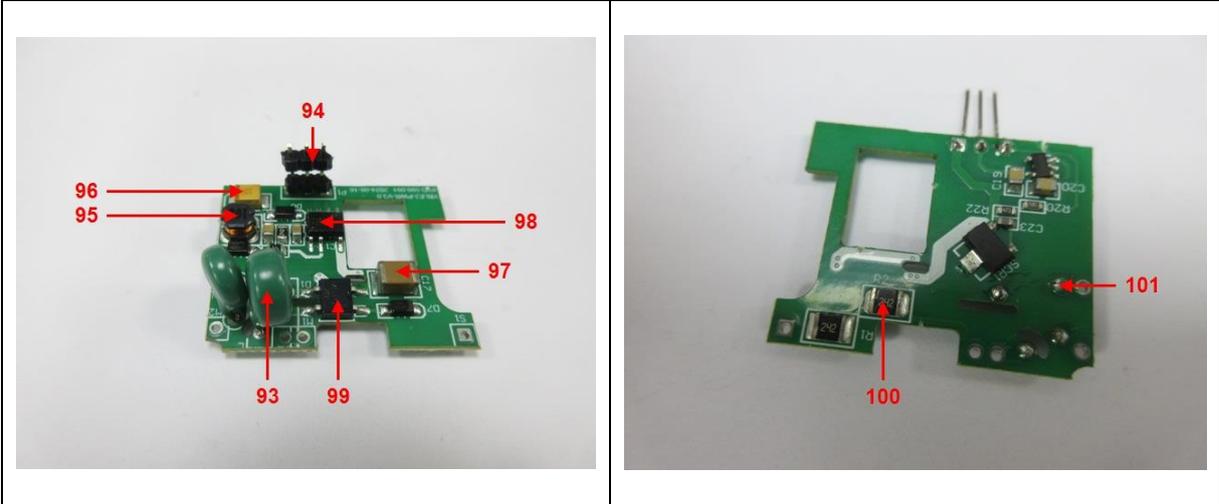
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END



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**APPENDIX**

**List of Analytes and their Corresponding Test Methods, Detection Limit and Maximum Allowable Limit [ Compliance Test for European Parliament and Council Directive 2011/65/EU with its Amendments (EU) 2015/863 ] :**

No.	Name of Analyte(s)	Detection Limit (mg/kg)				Maximum Allowable Limit (mg/kg)
		X-ray fluorescence (XRF) <sup>[a]</sup>			Wet Chemistry	
		Plastic	Metallic / glass / ceramic	Others		
1	Lead (Pb)	100	200	200	10 <sup>[b]</sup>	1000
2	Cadmium (Cd)	50	50	50	10 <sup>[b]</sup>	100
3	Mercury (Hg)	100	200	200	10 <sup>[c]</sup>	1000
4	Chromium (Cr)	100	200	200	NA	NA
5	Chromium VI (Cr VI)	NA	NA	NA	3 <sup>[g, h]</sup> / 10 <sup>[d]</sup> / See <sup>[e, i]</sup>	1000 / Negative <sup>[i]</sup>
6	Bromine (Br)	200	NA	200	NA	NA
7	Polybromobiphenyls (PBBs) - Bromobiphenyl (MonoBB) - Dibromobiphenyl (DiBB) - Tribromobiphenyl (TriBB) - Tetrabromobiphenyl (TetraBB) - Pentabromobiphenyl (PentaBB) - Hexabromobiphenyl (HexaBB) - Heptabromobiphenyl (HeptaBB) - Octabromobiphenyl (OctaBB) - Nonabromobiphenyl (NonaBB) - Decabromobiphenyl (DecaBB)	NA	NA	NA	Each 50 <sup>[f]</sup>	Sum 1000
8	Polybromodiphenyl ethers (PBDEs) - Bromodiphenyl ether (MonoBDE) - Dibromodiphenyl ether (DiBDE) - Tribromodiphenyl ether (TriBDE) - Tetrabromodiphenyl ether (TetraBDE) - Pentabromodiphenyl ether (PentaBDE) - Hexabromodiphenyl ether (HexaBDE) - Heptabromodiphenyl ether (HeptaBDE) - Octabromodiphenyl ether (OctaBDE) - Nonabromodiphenyl ether (NonaBDE) - Decabromodiphenyl ether (DecaBDE)	NA	NA	NA	Each 50 <sup>[f]</sup>	Sum 1000
9	Dibutyl phthalate (DBP) Butyl benzyl phthalate (BBP) Di-2-ethylhexyl phthalate (DEHP) Diisobutyl phthalate (DIBP)	NA	NA	NA	Each 500 <sup>[j]</sup>	Each 1000

NA = Not applicable IEC = International Electrotechnical Commission  
<sup>[a]</sup> Test method with reference to International Standard IEC 62321-3-1: 2013.  
<sup>[b]</sup> Test method with reference to International Standard IEC 62321-5: 2013.  
<sup>[c]</sup> Test method with reference to International Standard IEC 62321-4: 2013+AMD1: 2017.  
<sup>[d]</sup> Polymers and Electronics - Test method with reference to International Standard IEC 62321-7-2: 2017.  
<sup>[e]</sup> Metal - Test method with reference to International Standard IEC 62321-7-1: 2015.  
<sup>[f]</sup> Test method with reference to International Standard IEC 62321-6: 2015.  
<sup>[g]</sup> Leather - Test method International Standard ISO 17075: 2017.  
<sup>[h]</sup> Other Than Metal, Leather, Polymers and Electronics - Test method with reference to International Standard ISO 17075: 2017.  
<sup>[i]</sup> Result(s) of Cr VI for metallic material(s) was (were) expressed in term of positive and negative. Negative means the absence of Cr VI on the tested areas and the result(s) was (were) regarded as in compliance with European Parliament and Council Directive 2011/65/EU, Article 4(1). While, positive means the presence of Cr VI on tested areas and the result(s) was (were) regarded as in conflict with European Parliament and Council Directive 2011/65/EU, Article 4(1).  
<sup>[j]</sup> Test method with reference to International Standard IEC 62321-8: 2017

**Testing Approach [ Compliance Test for European Parliament and Council Directive 2011/65/EU ] :**

The testing approach was with reference to the following document(s).

1	International Standards IEC 62321-1: 2013 and IEC 62321-2: 2021
2	“RoHS Enforcement Guidance Document Version 1” by EU RoHS Enforcement Authorities Informal Network. (May 2006)
3	“RoHS Regulations - Government Guidance Notes” by United Kingdom Department for Business Innovation & Skills. (February 2011)
4	“Final Report to RoHS substances (Hg, Pb, Cr(VI), Cd, PBB and PBDE) in electrical and electronic equipment in Belgium” by Belgium Federal Public Service Health, Food Chain Safety and Environment. (November 2005)



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Annex

The client declared that below model(s) consist(s) of above tested different components and part components of the tested model(s) GYR9NM.

GYR9NE, GYR9NE-B 型

Remark:

Since the client was not able to provide the sample of additional Style, above additional Style(s) hasn't been tested, but only based on the guarantee letter provided by the client. Bureau Veritas-CPS takes no responsibility for any mistakes and the problems of product consistency caused by inaccurate and/or invalid information submitted by the client. The client will take the responsibility of all discrepancy and risk.