


## TEST REPORT

Applicant	Zhejiang Chint Instrument&Meter Co.,Ltd
Address	Wenzhou Bridge Industrial Zone, Yueqing, Zhejiang, China
Manufacturer or Supplier	Zhejiang Chint Instrument&Meter Co.,Ltd
Address	Wenzhou Bridge Industrial Zone, Yueqing, Zhejiang, China

Product	VOLTMETER, AMMETER	
Brand Name	<b>CHINT</b>	
Model	NP72-V, NP72-A	
Additional Model & Model Difference	NP48-V, NP48-A, NP80B-V, NP80B-A, NP96-V and NP96-A were identical except the model name. V:voltmeter, A:ammeter.	
Date of tests	2017-05-18~2016-06-16	

European Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS)

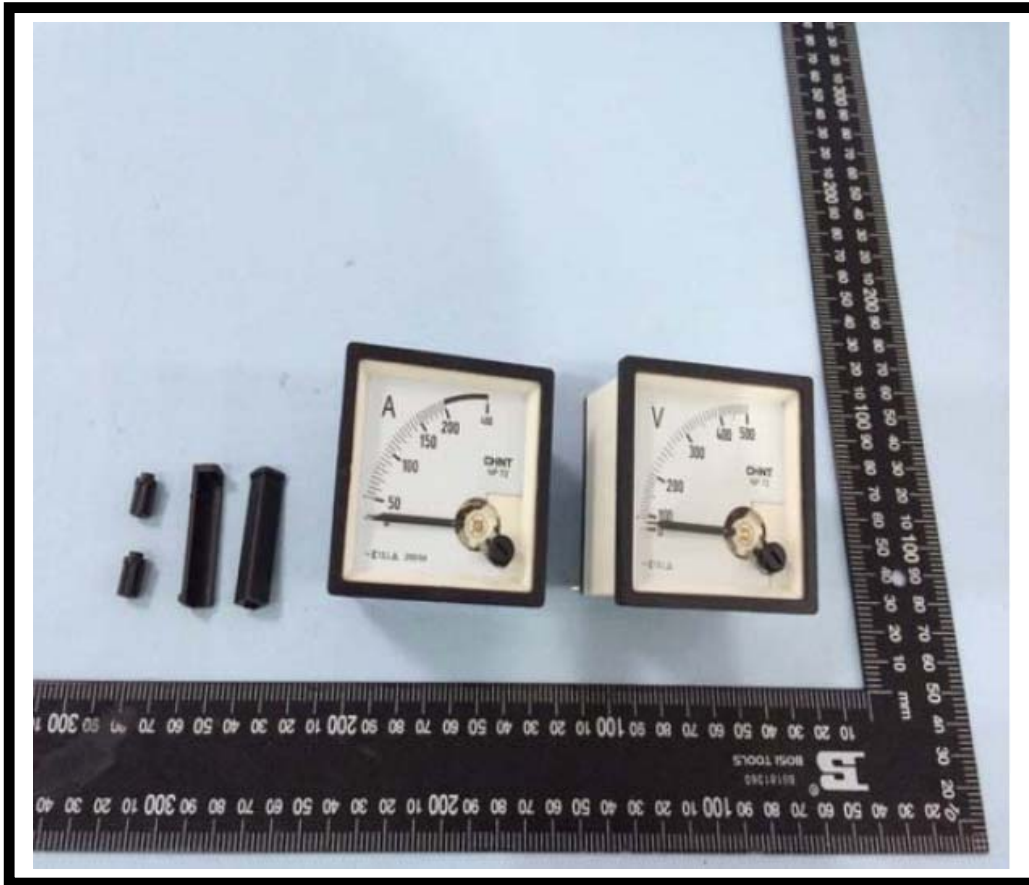
**CONCLUSION:**

The submitted sample was found to comply with the test requirement

Compiled by Joan Li Engineer / Safety Department	Approved by Vincent Fan Manager / LiTest
  Date: June 19, 2017	  Date: June 19, 2017








This report is 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.

**Photo of the Submitted Sample**



### Test Item Description And Photo List

Test Item(s)	Sample Photo	Item / Component Description(s)	Location(s)	Style(s)
001		Black plastic	Frame of Ampere meter	-
002		Transparent glass	Frame of Ampere meter	-
003		Silvery metal with white and black coating	Frame of Ampere meter	-
004		Silvery metal with black coating	Frame of Ampere meter	-
005		Black plastic	Panel of Ampere meter	-
006		Black plastic seal	Side of Ampere meter	-
007		White plastic seal	Side of Ampere meter	-
008		Silvery screw(long)	Back of Ampere meter	-
009		Silvery screw(big)	Back of Ampere meter	-
010		Metal gasket	Back of Ampere meter	-
011		Black soft plastic	Cap on the Back of Ampere meter	-
012		Black plastic	Back of Ampere meter	-
013		Silvery screw(small)	Back of Ampere meter	-
014		Green sticker	Back of Ampere meter	-
015		Silvery metal screw	Bottom of Ampere meter	-
016		Solder tin	Bottom of Ampere meter	-
017		Gray metal	-	-

Test Item(s)	Sample Photo	Item / Component Description(s)	Location(s)	Style(s)
018		White plastic	-	-
019		Golden metal screw	-	-
020		Black screw	-	-
021		Silvery metal plate	Pointer	-
022		Golden sheet metal	Pointer	-
023		Silvery metal connector	Pointer	-
024		Silver(axle)	Pointer	-
025		Golden metal wire	Pointer	-
026		White metal screw	Pointer	-
027		Golden metal screw	Pointer	-
028		Silvery sheet metal	Pointer	-
029		Silvery metal	-	-
030		Golden metal	-	-
031		Silvery metal	-	-
032		Silvery screw	-	-
033		Silvery screw	-	-
034		Transparent plastic with white fabric	Resistor	-
035		Black plastic	Resistor	-
036		Copper wire	Resistor	-
037		Black plastic(short)	-	-
038		Black plastic(long)	-	-

## TEST RESULT

**European Council Directive 2011/65/EU on the Restriction of the Use  
Certain Hazardous Substances in Electrical and Electronic Equipment  
(RoHs)**

**TEST Method** : See Appendix

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

-	Result(s)						
Parameter	Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Chromium VI (Cr VI)	PBBs	PBDEs	Conclusion
Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
Test Item(s)	-	-	-	-	-	-	-
001	ND	ND	ND	ND	ND	ND	PASS
002	ND	ND	ND	ND	ND	ND	PASS
003	ND	ND	ND	Negative	NA	NA	PASS
004	356*	ND	ND	Negative	NA	NA	PASS
005	ND	ND	ND	ND	ND	ND	PASS
006	ND	ND	ND	ND	ND	ND	PASS
007	ND	ND	ND	ND	ND	ND	PASS
008	ND	ND	ND	Negative	ND	ND	PASS
009	ND	ND	ND	Negative	ND	ND	PASS
010	ND	ND	ND	ND	ND	ND	PASS
011	ND	ND	ND	ND	ND	ND	PASS
012	ND	ND	ND	ND	ND*	ND*	PASS
013	ND	ND	ND	Negative	NA	NA	PASS
014	ND	ND	ND	ND	ND	ND	PASS
015	ND	ND	ND	Negative	NA	NA	PASS
016	142*	ND	ND	Negative	NA	NA	PASS
017	ND	ND	ND	Negative*	NA	NA	PASS
018	ND	ND	ND	ND	ND*	ND*	PASS
019	21912*	ND	ND	Negative	NA	NA	EX-EMPTED
020	ND	ND	ND	Negative	NA	NA	PASS
021	ND	ND	ND	Negative	NA	NA	PASS
022	ND	ND	ND	Negative	NA	NA	PASS
023	ND	ND	ND	Negative	NA	NA	PASS
024	ND	ND	ND	Negative*	NA	NA	PASS
025	ND	ND	ND	Negative	NA	NA	PASS
026	ND	ND	ND	ND	ND	ND	PASS
027	21597*	ND	ND	Negative	NA	NA	EX-EMPTED
028	ND	ND	ND	Negative	NA	NA	PASS
029	ND	ND	ND	Negative	NA	NA	PASS
030	ND	ND	ND	Negative	NA	NA	PASS
031	ND	ND	ND	Negative	NA	NA	PASS
032	ND	ND	ND	Negative	NA	NA	PASS

## TEST RESULT

### European Council Directive 2011/65/EU on the Restriction of the Use Certain Hazardous Substances in Electrical and Electronic Equipment (RoHs)

**TEST Method** : See Appendix

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

	<b>Result(s)</b>						
<b>Parameter</b>	Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Chromium VI (Cr VI)	PBBs	PBDEs	<b>Conclusion</b>
<b>Unit</b>	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
<b>Test Item(s)</b>	-	-	-	-	-	-	-
033	ND	ND	ND	Negative	NA	NA	PASS
034	ND	ND	ND	ND	ND	ND	PASS
035	ND	ND	ND	ND	ND*	ND*	PASS
036	ND	ND	ND	Negative	NA	NA	PASS
037	ND	ND	ND	ND	ND	ND^	PASS
038	ND	ND	ND	ND	ND	ND	PASS

Note :

ND = Not detected  
NA = Not Applicable  
% = percent

">" = Greater than  
mg/kg = milligram(s) per kilogram = ppm = part(s) per million  
10000 mg/kg=1%  
"<" = Less than  
Detection Limit : See Appendix.

Remark :

- The testing approach is listed in table of Appendix.
- \* denotes as reported result(s) was (were) performed by wet chemistry method. Others were screened by XRF. For XRF screening, the result(s) of Cr VI was (were) reported as total chromium and the result(s) of PBBs and PBDEs was (were) reported as total bromine. Also, the XRF result(s) may be different to the actual content based on various factors including, but not limit to, sample size, thickness, area, non-uniformity composition, surface flatness.
- Only selected example(s) is (are) indicated on the photograph(s) in Comment.
- According to European Council Directive 2011/65/EU, Article 5 "Adaptation of the Annexes to scientific and technical progress", exemption(s) should be granted to the materials and components of Test Item(s) in the lists in Annexes III and IV of this directive.
- 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 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 Council Directive 2011/65/EU, Article 4(1).
- According to Annex III of European Council Directive 2011/65/EU, exemptions were granted a few materials and Clause 6(c) is reiterated here "Copper alloy containing up to 4 % lead by weight.". Test Item(s) 019,027 was (were) claimed as is by client (received as is). Therefore, this (these) Test Item(s) containing the found lead level should be exempted.
- ^= The retest sample was plastic material and provided by client on June 12, 2017.

## APPENDIX

List of Analytes and their Corresponding Test Methods, Detection Limit and Allowable Limit [Compliance Test for European Council Directive 2011/65/ EU ]:							
No	Name of Analytes	Detection Limit(mg/kg)				Wet Chemistry	Maximum Allowable Limit(mg/kg)
		X-ray fluorescence(XRF)[a]					
		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	10 <sup>[d]</sup> / see <sup>[e,h]</sup>	1000 / Negative <sup>[h]</sup>	
6	Bromine (Br)	200	NA	200	NA	NA	
7	Poly bromobiphenyls (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>	Sum1000	
8	Poly bromobiphenyls (PBDEs) -Bromobiphenyl (MonoBDE) -Dibromobiphenyl (DiBDE) -Tribromobiphenyl (TriBDE) -Tetrabromobiphenyl (TetraBDE) -Pentabromobiphenyl (PentaBDE) -Hexabromobiphenyl (HexaBDE) -Heptabromobiphenyl (HeptaBDE) -Octabromobiphenyl (OctaBDE) -Nonabromobiphenyl (NonaBDE) -Decabromobiphenyl (DecaBDE)	NA	NA	NA	Each 50 <sup>[f]</sup>	Sum1000	
NA=Not applicable [a] Test method with reference to IEC 62321-3-1:2013 [b] Test method with reference to IEC 62321-5:2013 [c] Test method with reference to IEC 62321-4:2013 [d] Polymers and Electronic-Test method with reference to European standard IEC 62321:2008 Annex C [e] Metal –Test method with reference to European standard IEC 62321-7-1:2015 [f] Test method with reference to European standard IEC 62321-6:2015							

**\*\*\* END OF REPORT \*\*\***