



TEST REPORT

Prepared for : **NUUO Inc.**

Address : B1, No. 207-1, Sec. 3, Beixin Rd., Xindian Dist., New Taipei City 231, Taiwan

Prepared by : **Shenzhen BCTC Technology Co., Ltd.**

Address : NO.101, Yousong Road, Longhua New District, Shenzhen, Guangdong
P.R.China

Sample name : **Network Video Recorder**

Trademark : **NUUO**

M/N : **NC-2xx0P**
NVC-2xx0P (xx=00,02,04,06,08,10,12,14,16)


Test Requested : As requested by the applicant, submitted sample was screened by XRF spectroscopy and inconclusive items were confirmed by wet chemical method in accordance with EU Directive 2011/65/EU Annex II, for details refer to attached page(s)


Test item : Cd、Pb、Hg、Cr⁶⁺、PBB、PBDE



Report Number : BCTC-151013420

Date of Test : Oct. 29 - Nov. 05, 2015

Date of Report : Nov. 05, 2015

Test by : 

Review by : 

Approve by :  

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Sample Name : **Network Video Recorder**
Manufacturer : **SHENZHEN BAICHUAN SECURITY TECHNOLOGY CO., LTD.**
Address : 5th Floor, Building 7, Tangtou 3rd Industrial Area, Shiyan Town, Bao'an District, Shenzhen City, China
Trademark : **NUUO**
Applicant company : **NUUO Inc.**
Address : B1, No. 207-1, Sec. 3, Beixin Rd., Xindian Dist., New Taipei City 231, Taiwan



1. Test result:

Sample No.	Component Description	Test Item	XRF Screening Result(mg/kg)
A-1	WHITE PLASTIC	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-2	TRANSPARENT PLASTIC	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-3	BLACK PLASTIC	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-4	PCB	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-5	TIN	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.A.
A-6	SCREW	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.A.
A-7	GLUE	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.



Sample No.	Component Description	Test Item	XRF Screening Result(mg/kg)
A-8	HEAT-SHRINKABLE TUBE	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-9	BLACK WIRE	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-10	WHITE WIRE	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-11	YELLOW WIRE	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-12	GRAY WIRE	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-13	RED WIRE	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-14	SWITCH	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-15	DIODE	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.



Sample No.	Component Description	Test Item	XRF Screening Result(mg/kg)
A-16	TRANSISTOR	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-17	PIN HEADER	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-18	METAL OXIDE FILM RESISTOR	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-19	X CAPACITOR	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-20	CERAMIC CAPACITOR	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-21	METALLIZED FILM CAPACITOR	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-22	IC	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-23	MOSFET	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.



Sample No.	Component Description	Test Item	XRF Screening Result(mg/kg)
A-24	HEAT SINK	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.A.
A-25	TRANSFORMER-BOBBIN	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-26	TRANSFORMER-CORE	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-27	TRANSFORMER-YELLOW TAPE	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-28	TRANSFORMER-WHITE NONWOVENS TAPE	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-29	TRANSFORMER-ENAMELLED ROUND COPPER WIRE	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-30	LINE CHOKE-COPPER WIRE	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-31	LINE CHOKE -YELLOW TAPE	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.



Sample No.	Component Description	Test Item	XRF Screening Result(mg/kg)
A-32	LINE CHOKE – CORE	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-33	LINE CHOKE -BOBBIN	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-34	LED	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-35	SMD CAPACITOR	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-36	SMD RESISTOR	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-37	ALUMINUM ELECTROLYTIC CAPACITOR	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-38	METALLIZED FILM CAPACITOR	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.
A-39	CRYSTAL	Cadmium (Cd)	N.D.
		Lead (Pb)	N.D.
		Mercury (Hg)	N.D.
		Chromium (Cr)	N.D.
		Bromine (Br)	N.D.



2. Chemical confirmation test

Sample No.	Component Description	Test Item	Chemical confirmation Result(mg/kg)
-	-	-	-

Remark:

- (1) P=Pass; F=Fail; IC=Inconclusive; N.A.=Not Applicable
- (2) N.D.= not detected, less than MDL
- (3) mg/kg = milligram per kilogram
- (4) MDL = method detection limit
- (5) IC[#] represents a region, the value fell on this area need further confirmation.
- (6) *1 Exceeds XRF screening limits, need further chemical confirmation.
- (7) #1 The test result is detected in the boiling-water-extraction solution and should not be interpreted as the Cr⁶⁺ concentration in the surface of the sample.
- (8) #2 This value is based on the concentration of extraction of 50 cm² area of the sample.
- (9) XRF screening result for reference only.
- (10) The product photo was in the report provided by the applicant



Test Method

1. XRF screening test

IEC 62321-1: 2013 for XRF screening limits in mg/kg for regulated elements in various material

Element	Polymer	Metal	Composite Materials
Cd	P≤70<IC< 130≤ F	P≤70< IC < 130≤ F	P≤70< IC <150≤ F
Pb	P≤700< IC < 1300≤ F	P≤700< IC < 1300≤ F	P≤500< IC < 1500≤ F
Hg	P≤700< IC < 1300≤ F	P≤700< IC < 1300≤ F	P≤500< IC < 1500≤ F
Cr	P≤500< IC	P≤700< IC	P≤500< IC
Br	P≤300< IC	---	P≤250< IC

Method Detection Limits in mg/kg for regulated elements in various material

Element	MDL		
	Polymer	Metal	Composite Materials
Cd	50	70	70
Pb	100	200	200
Hg	100	200	200
Cr	100	200	200
Br	200	--	200

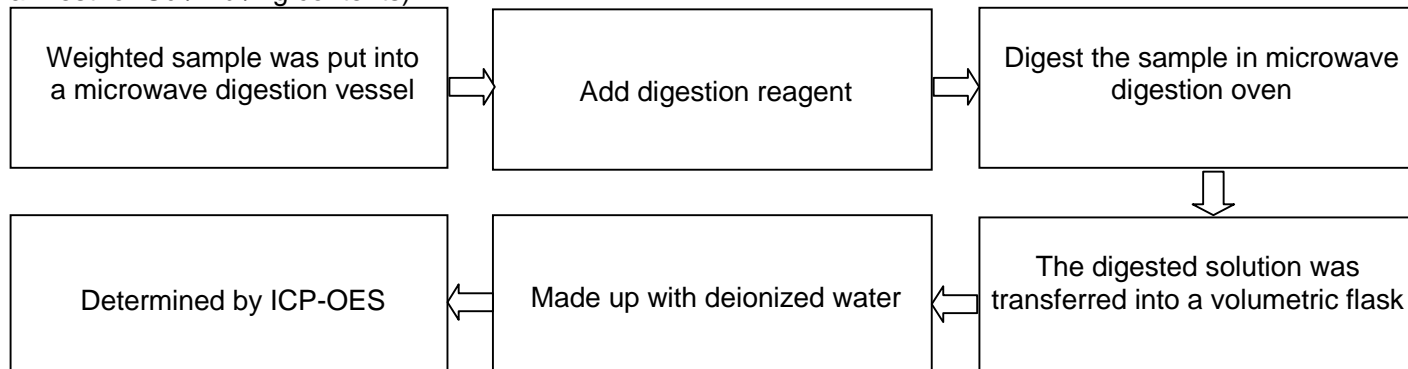
2. Chemical confirmation test

Test Item	Test method	Test instrument	MDL (mg/kg)	EU RoHS Limit (mg/kg)
Cd	IEC 62321-1:2013	ICP-OES	2	100
Pb	IEC 62321-1:2013	ICP-OES	2	1000
Hg	IEC 62321-1:2013	ICP-OES	2	1000
Cr ⁶⁺ (for non-metal)	IEC 62321-1:2013	UV-Vis	1	1000
Cr ⁶⁺ (for metal)	IEC 62321-1:2013	UV-Vis	0.02 ^{#2}	-----
PBBs	IEC 62321-1:2013	GC-MS	5	1000
PBDEs	IEC 62321-1:2013	GC-MS	5	1000

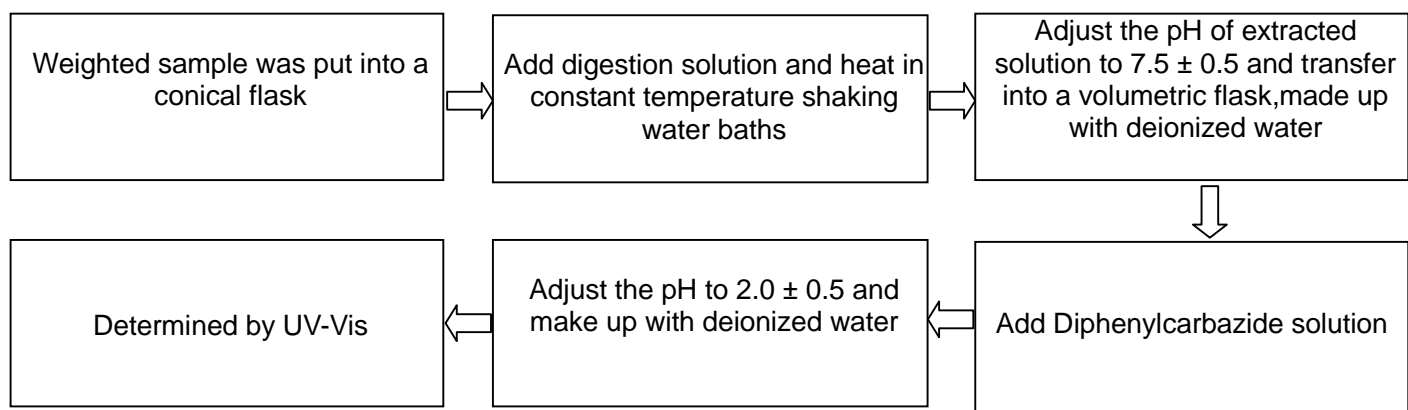


Measurement Flowchart

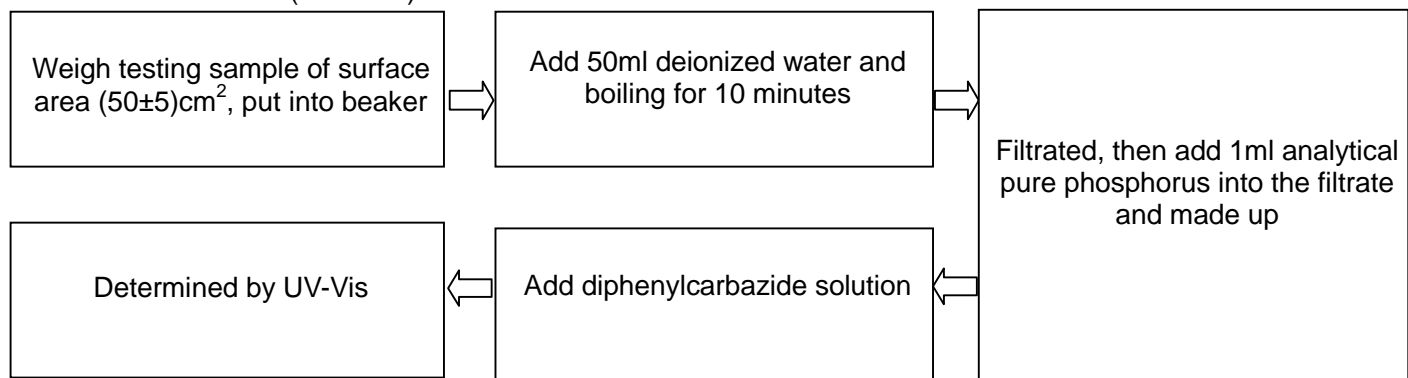
a. Test for Cd / Pb /Hg contents)



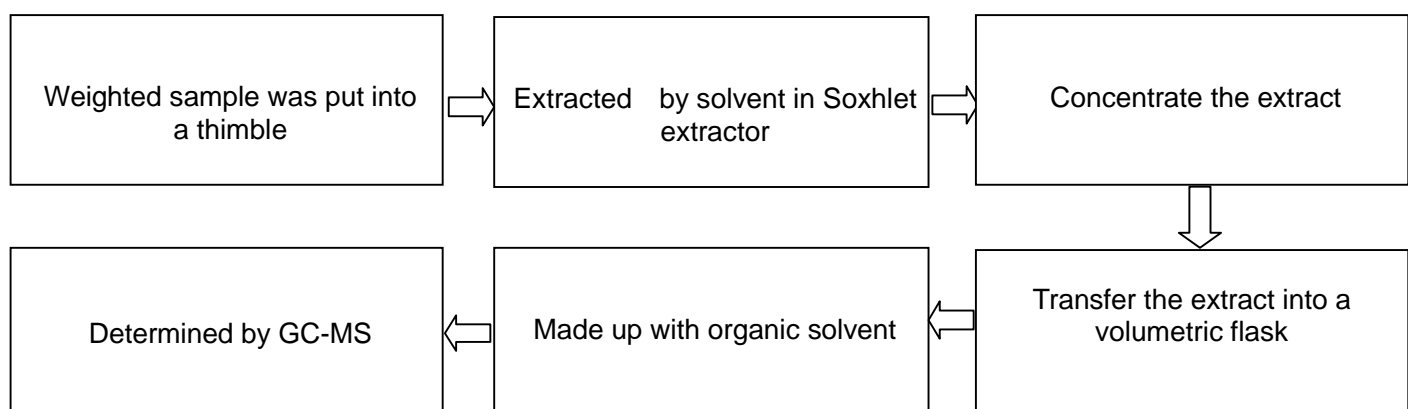
b. Test for Cr⁶⁺ content (for non-metal)



c. Test for Cr⁶⁺ content (for metal)



d. Test for PBBs/PBDEs contents



Annex: Photo of Sample

Photo 1



Photo 2



Photo 3



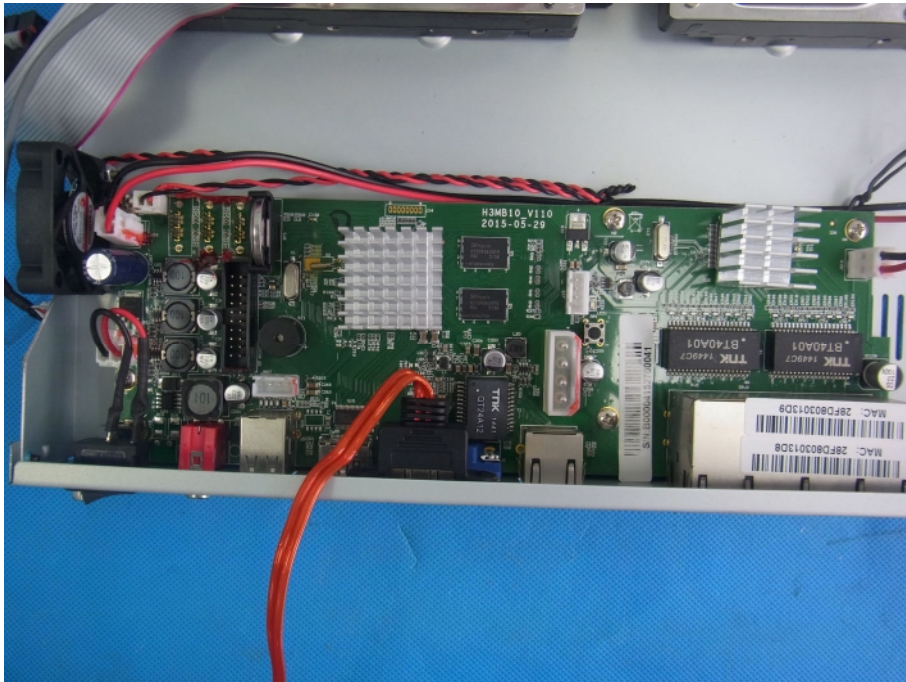
Photo 4



Photo 5



Photo 6



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