

No.SZR160412005002 Date: Apr. 18, 2016 Page 1 of 8

Applicant : Shanghai High-Flying Electronics Technology Co., Ltd

Address : Room 1002, Building 1, No. 3000, Longdong Avenue, Pudong New

Area, Shanghai

The submitted sample and sample information was/were submitted and identified by/on the behalf

of the client

Sample name : Wi-Fi Module

Type /model : HF-LPT220

Manufacturer : /

Sample received date : Apr. 12, 2016

Testing period : Apr. 12, 2016 to Apr. 18, 2016

Test requested : 1. As specified by client, to screen Lead(Pb), Cadmium(Cd),

Mercury(Hg), Chromium(Cr) and Bromine(Br) in the submitted

sample(s) by XRF.

2. As specified by client, when screening results exceed the XRF screening limit in IEC 62321-3-1:2013, further use of chemical methods are required to test the Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr(VI)), Polybrominated Biphenyls(PBBs), Polybrominated Diphenyl Ethers(PBDEs) in the

Ambodel

submitted samples.

According to the RoHS Directive 2011/65/EU

Test Method: Please refer to the following page(s).

Test Result(s): Please refer to the following page(s).

Tested by) when Chan

Inspected by

Hotline 400-003-0500 www.anbotek.com



No.SZR160412005002 Date: Apr. 18, 2016 Page 2 of 8

Test Method:

A. Screening test by XRF spectroscopy

XRF screening limits in mg/kg for regulated elements according to IEC 62321-3-1:2013.

Element	Limit of IEC 62321-3	Anbore MDL Otek		
	Polymers and metals	Composite material	Polymers	Other material
Pb	BL≤(700-3σ) <x <(1300+3σ)<br="">≤OL</x>	BL≤(500-3σ) <x <(1500+3σ)<br="">≤OL</x>	10 mg/kg	50 mg/kg
Cd	BL≤(70-3σ) <x <(130+3σ)<br="">≤OL</x>	LOD≤(50-3σ) <x <(150+3σ)<br="">≤OL</x>	10 mg/kg	50 mg/kg
bore Hg M	BL≤(700-3σ) <x <(1300+3σ)<br="">≤OL</x>	BL≤(500-3σ) <x <(1500+3σ)<br="">≤OL</x>	10 mg/kg	50 mg/kg
₽upo CL	BL≤(700-3σ)< X	BL≤(500-3σ)< X	10 mg/kg	50 mg/kg
Br	BL≤(300-3σ)< X	BL≤(250-3σ)< X	10 mg/kg	50 mg/kg

Note:

- -BL = Under the XRF screening limit
- -OL = Further chemical test will be conducted while result is above the screening limit
- -X= The symbol "X" marks the region where further investigation is necessary
- -3σ= The reproducibility of analytical instruments
- -LOD= Detection limit

B. Chemical Test

Test Item(s)	Test Method	Measured Equipment(s)	MDL
Lead (Pb)/ Cadmium (Cd)	IEC 62321-5:2013 Ed.1.0	ICP-OES	2 mg/kg
Mercury (Hg)	IEC 62321-4:2013 Ed.1.0	ICP-OES	2 mg/kg
Liava valant Othernium Cn(/I)	IEC 62321-7-1:2015 Ed.1.0	UV-VIS	otek / Anh
Hexavalent Chromium Cr(VI)	IEC 62321:2008 Ed.1 Annex C	UV-VIS	2 mg/kg
Polybrominated Biphenyls (PBBs)	IEC 62321-6:2015 Ed.1.0	GC-MS	5 mg/kg
Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321-6:2015 Ed.1.0	GC-MS	5 mg/kg



No.SZR160412005002 Date: Apr. 18, 2016 Page 3 of 8

Test Results:

Sample No.	Sample Description	Tested Items	XRF Screening Test Unit (mg/kg)	Chemical Test Unit (mg/kg)	Conclusion
nbotek	Aupo. Mr.	potek Ppotek	And tek BL nbotek	Anbox	LOYEK A
Silvery metal shell	Cilvery metal	otek Cd nbotek	Anb BL hote	K ANYOTE	And
	200	And Lek Hg botek	Anbot BL Am	tek Inbotek	PASS
Anbote	10 po	Cr(Cr(VI))	M And BL And	tok / botek	Anbore
Anbe		Br(PBBs&PBDEs)	rek bosek b	por I Am	ek Anbotek
COK P.	por Mu-	ek niPb Anb	BL Stok	Anbote. Anb	otek Anbo
botek	Anboten Anbo	Cdotok p	upor BL rek	anbotek An	0, V.
Anborek	White paster	Hg Nex	Aupoter BL Aupo	plek	PASS
Anbo	Workey.	Cr(Cr(VI))	abote BL Anbot	K AN Josek	Anbotek
Anbore	K Ans Otok	Br(PBBs&PBDEs)	BL Anbo	Aug sek	abotek
Anbo	YUP.	abotePb Anbot	BLok	Dofek Vupor	K POLOK
. Ys	Diesk DCD	Cd	LOD	botek / Anbot	YUR OF
3	Black PCB board	Hg	BLbo	Mr. Otek Wup	PASS
		Cr(Cr(VI))	hotek BLAnbore	And	abotek An
		Br(PBBs&PBDEs)	All Otek X Subotek	N.D.	" notek
Anbotek	Vupo. V	hotek Pb Anbote	BL bott	K MOOL	Ans
	k Aupore	And tekCd nbotek	LOD	otek Inbotes	Anbotek
4nbor	Quadrate IC	And Hg	ek AnBL An	tek / abote	PASS
Anb	tek spotek	Cr(Cr(VI))	Nek BLoter	"upo "ek "	lek Aupor
tok b	Upo, Y.	Br(PBBs&PBDEs)	tek X botek	Anbor N.D.	stek anb
botek	Aupolo Aug	Pbotek	Anbo BL Lotek	Anboten Ar	lo. h
"Otek	Anbotek An	Cd Johek	LOD ATT	4 Notek	Anbotek
Anbotek 5	Crystal oscillator	Anbot HgAm otek	Anbote BL Anbo	rek hotek	PASS
Aupo	lek Vupotek	Cr(Cr(VI))	BL And	Y Vu.	Nupotek
Anbo	Aupole, Aup	Br(PBBs&PBDEs)	ak hotek A	upote / Aup	ek botel
ek a	poter Anbo	K BPK AUP	BL	Aupotek Aupo	otek Anbe
potek	Anbotek Anbot	Cd	LOD	botel An'	
Anbotek	Long IC	Hg	nbotek BL Anbote	A. Otok	PASS
	otek Anbotek	Cr(Cr(VI))	hote/BL Anbore	Aug.	Anbotek
upotek		Br(PBBs&PBDEs)	BL 100	lek Wpoyer	Aur



No.SZR160412005002 Date: Apr. 18, 2016 Page 4 of 8

Sample No.	Sample Description	Tested Items	XRF Screening Test Unit (mg/kg)	Chemical Test Unit (mg/kg)	Conclusion
Anbotek Anbotek	potek Anbo	APD AT	hotek BLAnboten	YUD TEK	botek Anbo
	Anbo	Cd Cd	LOD nbolek	Aupol	botek Ar
Aut Stek	Chip capacitor	Hg nbotek	Anbo BL hote	r Anyore	PASS
Note!	Ant Anbotek	Cr(Cr(VI))	Anbor BL Ans	tek Inpoten	Anbo
And tek abotek	Br(PBBs&PBDEs)	K Anb BL Anb	tek / abotek	Anbore	
And ak hot	hotek Anbotek	Anbot Pb And	tek Blotek A	upos I Am	ek Anboten
otek A	por K All	Cd And	LOD	Anbort / Ant	stek spot
8 stode	Chip resistor	Hgo ^{tok}	nbot BL Crek	Anboten An	PASS
		Cr(Cr(VI))	Anbote BL Anb	ab tek	Anbore An
Anbotek		Br(PBBs&PBDEs)	nbote BL Anbo	-k hotek	Anboten
Aupor	ek Vupotek	Anboten Pb Anbo	BE Anbo	Ala sek	nbotek
Anbo	W. OK	Cd Anbo	LOD	potek / Anbo.	k Potek
ek 9	Green	Hg	A'BL LOK	spotek / Aupot	PASS
Potek	components	Cr(Cr(VI))	Potek Braga	Anb	Pier Wupp
	Aur Otek Vup.	Br(PBBs&PBDEs)	botek BLAnbore	Vun Tek	abotek Anb
Anbote	And	botek Pb/bot	All notek	Anbo	Anbotek A
nbotek	Mhite chip	hotek Cd Anbore	LOD	K Moor	Ann
10	White chip	And stekHg nbotek	Anbo BL A	otek Anbotes	PASS
capacitor	Cr(Cr(VI))	ek AUBL AU	tek I mbotek	Aupor	
Vup.	eek spotek	Br(PBBs&PBDEs)	otek Blootek	Wpo PK No	lek Aupoter

Note:

- -MDL = Method Detection Limit
- -N.D. = Not Detected (<MDL)
- -mg/kg = ppm = parts per million
- -Negative = Absence of Cr(VI), the detected Cr(VI) concentration in the boiling water extraction solution is less than 0.02 mg/kg with $50cm^2$ sample surface area used.
- -Positive = Presence of Cr(VI), the detected Cr(VI) concentration in the boiling water extraction solution is equal to or greater than 0.02 mg/kg with 50cm² sample surface area used.

Remark:

- The screening results are only used for reference.
- When conducting the test for PBBs&PBDEs, XRF was introduced to screen Br Exclusively; When conducting the test for Hexavalent Chromium, XRF was introduced to screen Chromium exclusively.

Shenzhen Anbotek Compliance Laboratory Limited



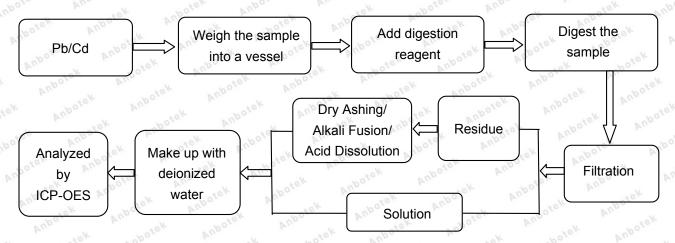


No.SZR160412005002 Date: Apr. 18, 2016 Page 5 of 8

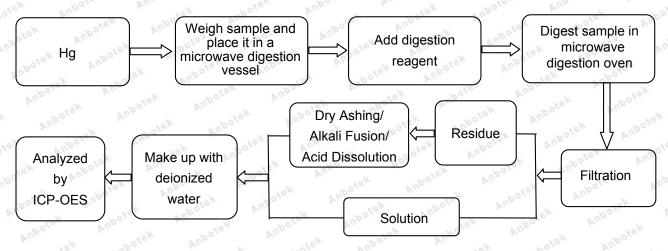
Test Process:

The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.

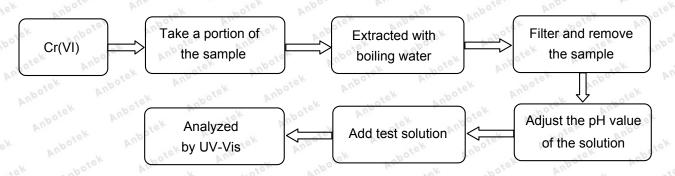
♦ IEC 62321-5:2013 Ed.1.0



♦ IEC 62321-4:2013 Ed.1.0



♦ IEC 62321-7-1:2015 Ed.1.0



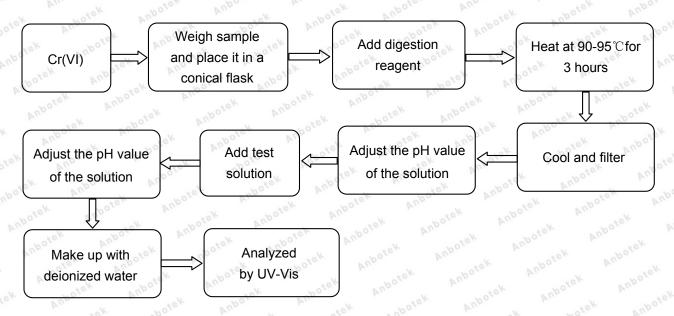
Shenzhen Anbotek Compliance Laboratory Limited



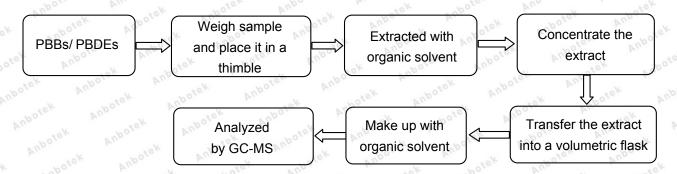


No.SZR160412005002 Date: Apr. 18, 2016 Page 6 of 8

♦ IEC 62321:2008 Ed.1 Annex C



♦ IEC 62321-6:2015 Ed.1.0





No.SZR160412005002

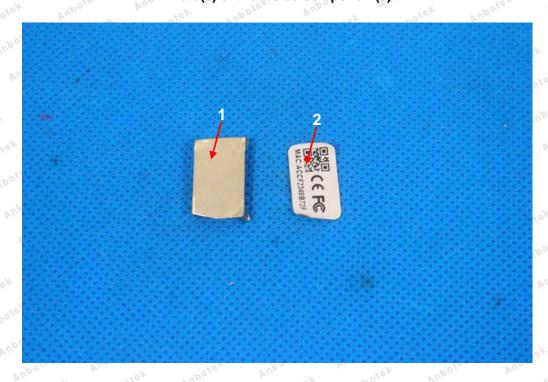
Date: Apr. 18, 2016

Page 7 of 8

Photograph of Sample



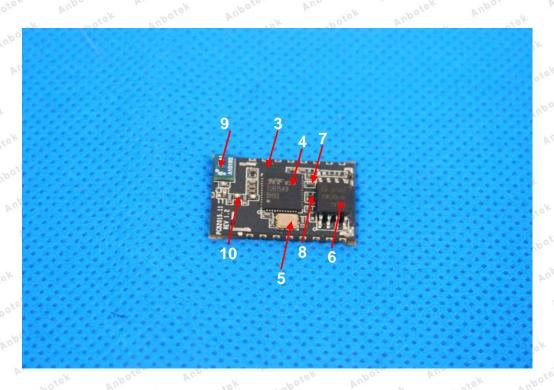
Photo(s) of the tested component(s)



Shenzhen Anbotek Compliance Laboratory Limited



No.SZR160412005002 Date: Apr. 18, 2016 Page 8 of 8



***** End of Report *****

The test report is effective only with both signature and specialized stamp. The result(s) shown in this report refer only to the sample(s) tested. Without written approval of Anbotek, this report can't be reproduced except in full.

