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

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

Area, Shanghai, China, 201203

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-LPT120A

Manufacturer :

Sample received date : Mar. 31, 2016

Testing period : Mar. 31, 2016 to Jul. 04, 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

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

Je Li

Anbotek Dozom Luc





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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 62321-3-1:2013. Unit (mg/kg)		Posek MDPpose	
	Polymers and metals	Composite material	Polymers	Other material
Pb	BL≤(700-3σ) <x <(1300+3σ)="" <(1500+3σ)="" bl≤(500-3σ)<x="" td="" ≤ol<=""><td>10 mg/kg</td><td>50 mg/kg</td></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
Hg	BL≤(700-3σ) <x <(1300+3σ)<br="">≤OL</x>	BL≤(500-3σ) <x <(1500+3σ)<br="">≤OL</x>	10 mg/kg	50 mg/kg
Cr	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	Limit Anbot
Lead (Pb)	IEC 62321-5:2013 Ed.1.0	ICP-OES	2 mg/kg	1000 mg/kg
Cadmium (Cd)	IEC 62321-5:2013 Ed.1.0	ICP-OES	2 mg/kg	100 mg/kg
Mercury (Hg)	IEC 62321-4:2013 Ed.1.0	ICP-OES	2 mg/kg	1000 mg/kg
Have valent Characian Cr(A)	IEC 62321-7-1:2015 Ed.1.0	UV-VIS	And	1000 mg/kg
Hexavalent Chromium Cr(VI)	IEC 62321:2008 Ed.1 Annex C	UV-VIS	2 mg/kg	1000 mg/kg
Polybrominated Biphenyls (PBBs)	IEC 62321-6:2015 Ed.1.0	GC-MS	5 mg/kg	1000 mg/kg
Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321-6:2015 Ed.1.0	GC-MS	5 mg/kg	1000 mg/kg





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Test Results:

Sample No.	Sample Description	Tested Items	XRF Screening Test Unit (mg/kg)	Chemical Test Unit (mg/kg)	Conclusion
Inpotek	abotek Anbo	Pb	upotek Brupe	hotel An	Osc Vue
Mbo Block DOD An	Cd	LOD Mood	VIII TESK	inpotek Au	
Anb Ptek	Black PCB	nbotek Hg.nbo	hote/BL Anbore	And	PASS
Anborer	board hotek	Cr(Cr(VI))	Bk npo	Sek Wpo,	Allorek
4 200		Br(PBBs&PBDEs)	And X	ootek N.D. noote	And
tek hotek Aubotes	potek Anbote	Pb.	IOK MBL	hotek / Anbote	Anb
b.	otek upote	An Cd	Lotek BLbote	Aug FeA	stek Aupor
botek 2	Soldering tin	otek pHg A	atek BL nootek	Anbo	PASS
Anbotek	Aupor Au	Cr(Cr(VI))	Anba sek BL sporek	Aupola	Up Stok
A. botek	Anbore	Br(PBBs&PBDEs)	Aupor Au	y alloce	Anbo
V.	sk Pupojer	And LakPb botek	AnbotBL And	ick I spotek	Anbo
Anbo	Anbors Anborek	Cd	LOD	Les Posek	Anbore
SK 3 Ant	Square IC	Hg	BLorek 1	'upogo / Yus	PASS
otek	Anbore And	Cr(Cr(VI))	BL otek	Anbotes / Anbo	rek no
Yer	Auposek Aupo	Br(PBBs&PBDEs)	Aupola Brau	APOTON AT	Dog Vi
YUR	Sporek A	Pb Sek	Anbore BL Anbo	Porch	Aupolo A
Aupotek	k hotek	Anbor Cd And tek	LOD Ando	A Total	Anbotek
4nbore	Long IC body	Anbore Hg Anbo	R BEK AND	Vun Fek	PASS
K Anb	ter And	Cr(Cr(VI))	BL	ipotek / Anbo	K Potek
Yer	obotek Anbo	Br(PBBs&PBDEs)	BL	Spotek / Aupor	Ans
- ek	Anbotek Anbot	Pb	upotek OFupo.	4209*	oter. Vup.
Upor	Br.	Cd	botek BL Anbot	And	upotek An
Anh5tek	Pin nbote An	abotek Hganbot	Anbore.	And	PASS
nbotek	Anbo	Cr(Cr(VI))	BL nbo	lok Woods	Ann
, ,,,,,	ek Aupore	Br(PBBs&PBDEs)	Anbol	notek / Anbote	Aupa
tek Vu	potek Anbotes	Pb.	KOK WAST WILL	otek / nbote	Anbo
		Cd	LOD OTE	And	tek Anbote
, otek	Chin resistor	Hg A	Tek BL nootek	Mupor 1	PASS
Anbotek	Anbote Anb	Cr(Cr(VI))	Aupa X Potek	N.D.	un. Jok
by, Otok	Aupotek b	Br(PBBs&PBDEs)	Anbot BL Am	K Moter	Anbotek A





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Sample No.	Sample Description	Tested Items	XRF Screening Test Unit (mg/kg)	Chemical Test Unit (mg/kg)	Conclusion
otek	upoter Aup	ek Bpk Mup	BL Tek	upotek / Anbo.	rek Wo
nbotek	"potek Vupo,	Cd	LOD	potek An	Ofe VUR
nbo 7	Chip capacitor	Hg	Spotek BL Anbot	P. Crek	PASS
Anbotek L	Aug	Cr(Cr(VI))	hote BL Anbore	Vug FEK	Sporek
Aupoter	Aug.	Br(PBBs&PBDEs)	Bk nbo	SK WPO	Work K
Anbo	Cox Aupon	hotePb Anbote	And BL.	ootek / Anbore	Aug
ek k.	botek Anbote	Cd	LOD	"Otek Vupote	Anbo
8	Crystal oscillator	And Hg	hotek Blooter	And tel	PASS
porer	And tek ab	Cr(Cr(VI))	otek BL nbotek	Vupa 1	hotek Anb
"posek Vupo,	Aupo, ok Wi.	Br(PBBs&PBDEs)	Yup * 6K Sporek	Anboy	Ve Stek
Anbotek	Anbore	nek Pb nbotek	Anbox BL Not	k Woses	VUD.
to the same of the	sk Aupoter	And Lovek	LOD	tek Inpotek	Aupor
9Anbor	Green inductor	And Hg	ok AUBLE AU	botel botel	PASS
ek Auk	or ar poter	Cr(Cr(VI))	BLorek	'upor I bu	iek Aupore
otek	tek Aupore Aug	Br(PBBs&PBDEs)	BL botek	Anbore / Ans	sek no
Anbotek	Anbore. And	Pb otek	Anbor BLAM Otek	Vuposty Ve	oo k
Ann	Tambinal black	Cd Stek	Anbore BL Anb	Votek	Aupore A
10	Terminal black plastic	Anbott Hg And	nboteBL Anbo	or Will Polek	PASS
Aupor	plastic m	Cr(Cr(VI))	K PBEK VUP.	Vun Jek	hotek
K Anb	.00	Br(PBBs&PBDEs)	X sek	bote N.D.Anbo	K Potek
otek A	upotek Anbor	Pb/k Anb	BL LOK	" Sporek Aupor	-k
	abotek Anbot	Cd	upotek Bland	W. March Wul	otek Anboi
nbotek	Terminal pin	Hg	abotek BL Anbote	Vun 1 FOK	PASS
Anbotek	And	Cr(Cr(VI))	Wate BT Wholes	And	potek
nbotek	Anbo	Br(PBBs&PBDEs)	And tek	Cok Wooter	Vu. Ofek

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.





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-4209*= According to the customer statement, samples to the EU RoHS directive 2011/65/EU and 2011/534/EU exemption No. 6(C): Copper alloy containing up to 4% lead by weight.

- The test report SZR160331006001M1 supersedes the test report SZR160331006001 which is withdrawn.

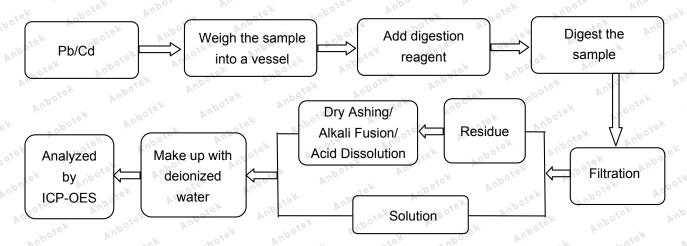
Remark:

- 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.

Test Process:

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

♦ IEC 62321-5:2013 Ed.1.0



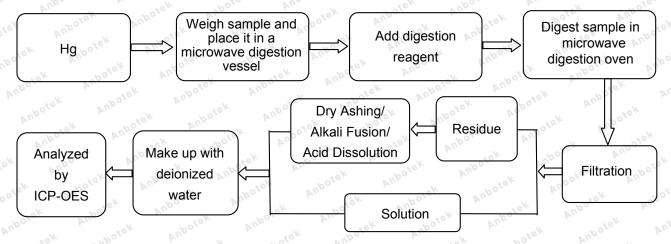


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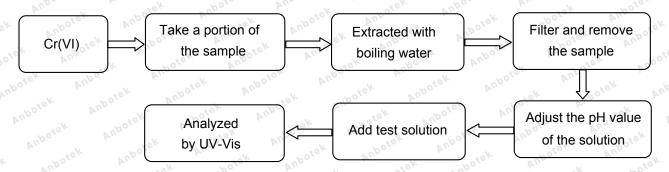
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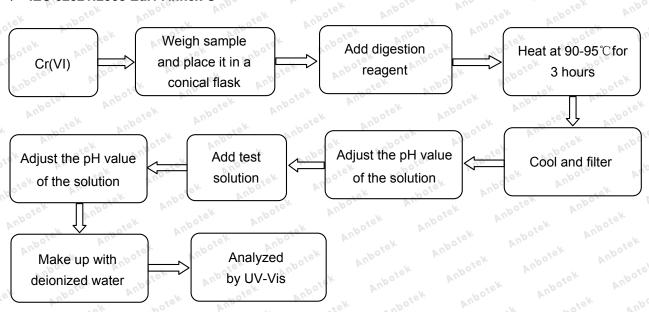
♦ IEC 62321-4:2013 Ed.1.0



◆ IEC 62321-7-1:2015 Ed.1.0



♦ IEC 62321:2008 Ed.1 Annex C



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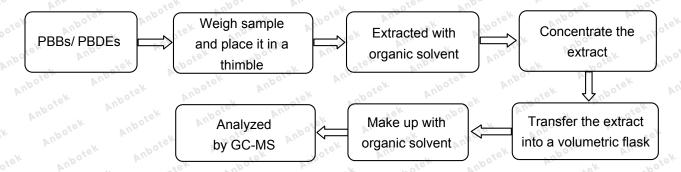


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♦ IEC 62321-6:2015 Ed.1.0



Photograph of Sample



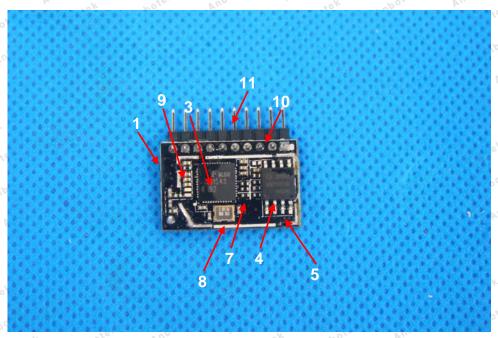


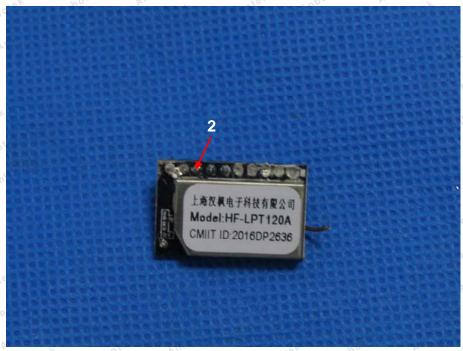
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Photo(s) of the tested component(s)





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

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