

HANSONG

汉桑(南京)科技有限公司

编号: HS/QR-RD-13-A

样品评估确认单 (电子件)

SEF请于 9.11 前确认完毕

序列号: HS40-New 808V-020

样品基本资料									
应用项目	NEW219	样品数量		送样日期		供方名称	点正	样品P/N:	N29-58901-00
供方联系人	程工	供方传真号	0512-65088773	传真发出日期		供方代码	500168	正式P/N:	29-58901-00
焊接温度: _____ °C. ☐ 适合SMT(245°C ± 3°C, 60s); ☐ 适合波峰焊(250-260°C, 3s~5s); ☐ 以上工艺均不适合,需手焊; ☒ 此栏不适用。		湿敏料管控: ☐ 是, MSL: _____ ☒ 否。		安全件/EMC关键件: ☐ 是, 附安规认证资料; ☒ 否。		保税料(为外币交易时): ☐ 是, 关务主管确认签字; ☒ 否。		提供封样件: ☒ 需要, SEF时Sourcing已提供; ☐ 需要, 首批来料时IQC提供;	
物料规格书: ☐ 网址: _____ ☒ 规格书的文件名: 附件				GP资料: ☐ 符合性声明(仅限大品牌); ☐ REACH宣告表; ☒ RoHS Test Report; ☐ Other: 符合RoHS ☐ 同已有的Part, P/N:				C.E确认签字: 正冬琴 9.14	
原包装保存期限:		允许接受期限:		存储期限:		物料前置期: 30天		采购专员签字:	
		(允许接受供应商物料的期限)		(原包装保存期限-允许接受期限)				9.11	
电子件类别名: 外接天线									
制造商/品牌 厂家型号(须完整) 值 单位 电压 功率 公差 脚长 脚距 成型要求 封装 Pin数 点正 RC12WFI0237A1 (Mini RG OD: 1.13浅灰 CABLE, 一头接WPB227 PCB加SONY G9000 背胶, 另外一头接MHF-13-CON-2 Connector L=230mm)									
其它特殊要求:									
样品认定过程(判定是否可参照IQC通用检验作业指导书执行: ☐ 是; ☐ 否, 则请填写如下项目)									
要求检查/测试/试验项目及判定									
检查/测试项目	检查/测试条件			标准	结果			判定	
(如为机芯, 马达, 遥控器, 电位器, 开关, 接插件, 变压器等, 电子元器件工程师需向PV申请认定试验或自行验证或确认供方提供的可靠性试验报告)									
可靠性试验项目	物料认定试验/可靠性试验条件			标准	结果			判定	
如测试项目较多, 请另附页。 是否附有测试报告: 有 [] 无 []									
C.E签字:									
样品确认结论和签字栏									
结论: ☒ 通过 (可批量) ☐ 样品通过 (未经验证) ☐ 不接受, 原因: ☐ 有条件通过 ☐ 限首批 () PCS ☐ 限第二批 () PCS 重新送样: ☐ 需要 ☐ 不需要									
项目工程师/日期: 李生 9.11			项目负责人/日期: 李生 9.11			RD GL确认: 郭		日期: 10.9.11	
有条件说明:			RD经理裁决			PMM裁决		日期:	
输入ERP系统									
标准化审核/日期: 9.15.9.10			系统输入员/日期: 周 9.10			发文控复核: 张		日期: 9.17	

承 認 書
SPECIFICATION FOR APPROVAL

客 戶
CUSTOMER

Hansong(NanJing)Technology Ltd

日 期
DATE

2015-09-11

品 名
DESCRIPTION

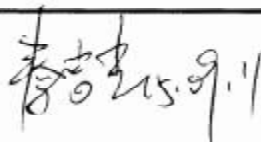
Antenna

客 戶 料 號
CUSTOMER P/N

29-58901-00

成 品 編 號
Model No

RC12WFI0237A1



Suzhou point positive electronic technology co.,ltd

ADD : No 3 XinLang Road ,Yinghu industrial Park. Wangting Town
Xiangcheng district Suzhou City
E_mail: sales@ppteco.com

TEL : 0512--66706846 FAX : 0512-65088773

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SPECIFICATION

- | | |
|-------------------------------|----------------------------------|
| 1. Description | : Antenna |
| 2. Customer | : Hansong(NanJing)Technology Ltd |
| 3. Model No. | : RC12WFI0237A1 |
| 4. Part No. | : 29-58901-00 |
| 5. Standard | : Wlan |
| 6. Antenna Profile | : 2.4G-5.8G PCB ANTENNA |
| 7. Lead Length | : 230MM |
| 8. Electrical Characteristics | |
| Operating Frequency | : 2.4--5.8Ghz |
| VSWR | : 2.0 Max |
| Impedance | : 50 Ohm nominal |
| 9. Mechanical Characteristics | |
| Connector | : MHF-13-N-02 |
| Core | : 4*10*2MM |
| 10. Raw Material | |
| Coaxial Cable | : OD:MINI1.13 GREY |

1		2		3		4		5		6		7	
變更內容履歷簡述 REVISIONS				DESCRIPTION		版次 REV.		年月日 DATE		變更切換方式		作成	
△													
△													
△													

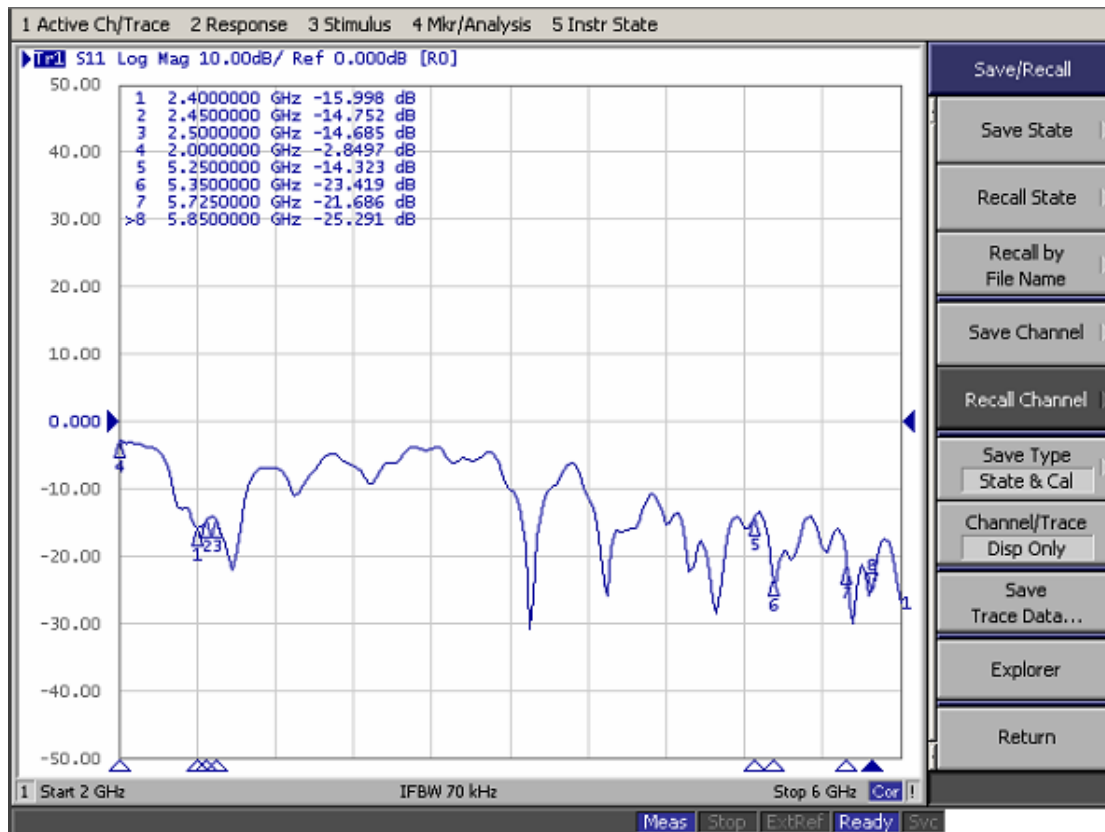
双面背胶

8	TUBE		2.0				
7	TUBE		2.0				
6	TUBE		2.0				
5	CORE		4*10*2MM				
4	双面背胶		SONY G9000	HF			1
3	PCB		WPB227	HF	黑		1
2	MHF Connector		MHF-13-CON-02	HF	金		1
1	MINI 1.13 Coaxial Cable		MINI RG OD:1.13 浅灰	HF	浅灰		1
NO.	材料名稱	廠商	零件規格			顏色	切斷尺寸& 備註
第3角法		圖面不用實測			部品番號		
單位: mm		作成	檢圖	確認	核准	29-58901-00	
比例: FREE		Saint	Hellen	Tak	David	品名	
2015-09-11						PCB Antenna With Cable L:230MM	
						产品分类	
						公司番號	
						RC12WFI0237A1	

页次: 1/2

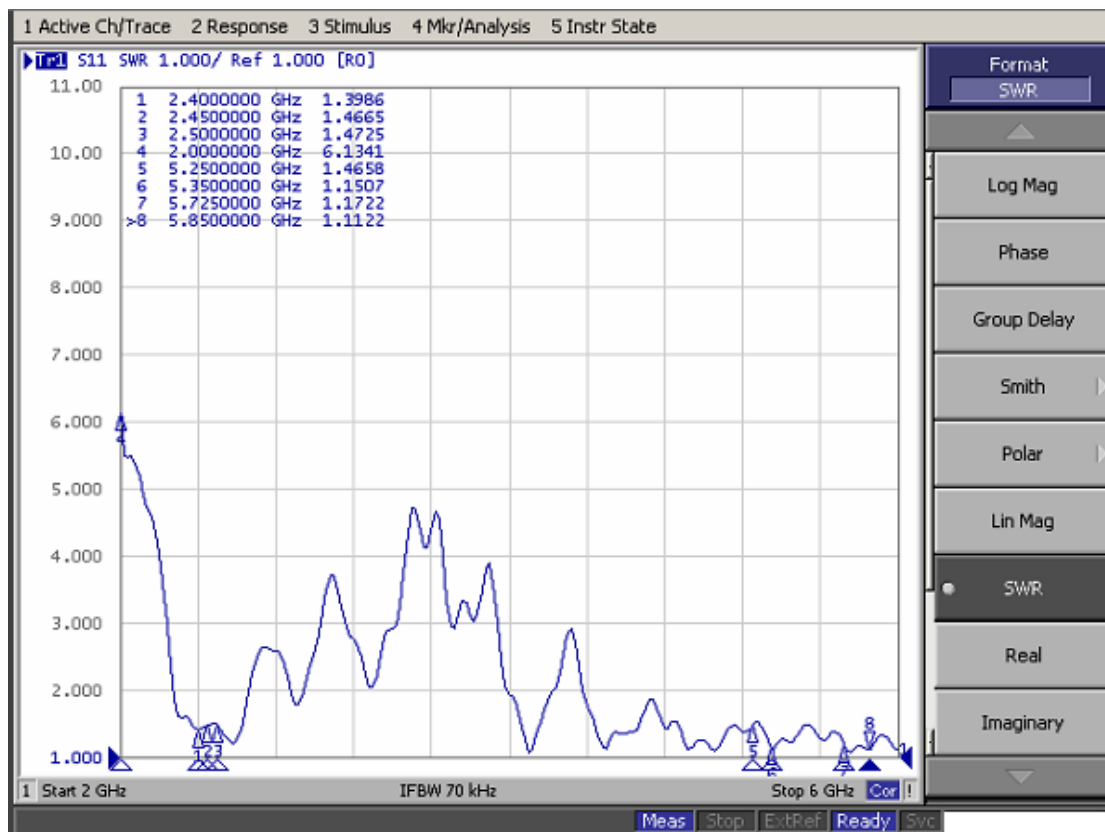
Electrical Properties

Return Loss

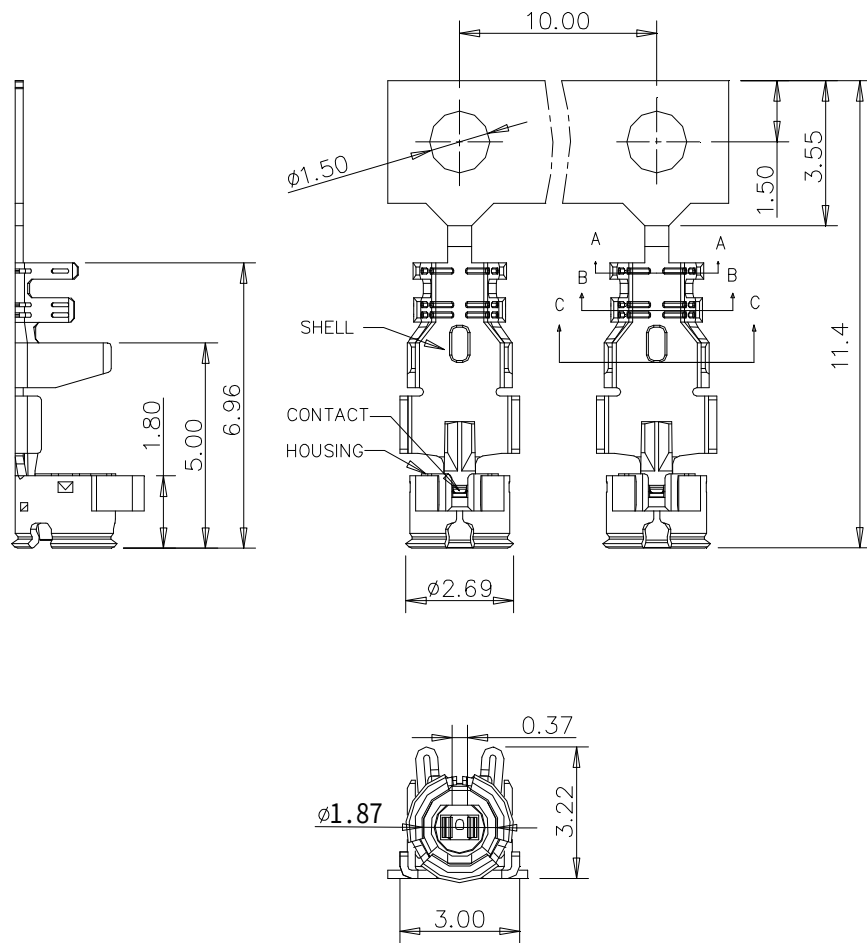


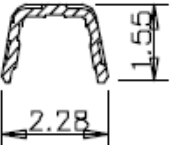
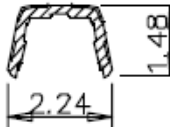
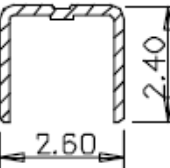
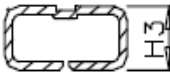
Electrical Properties

V.S.W.R



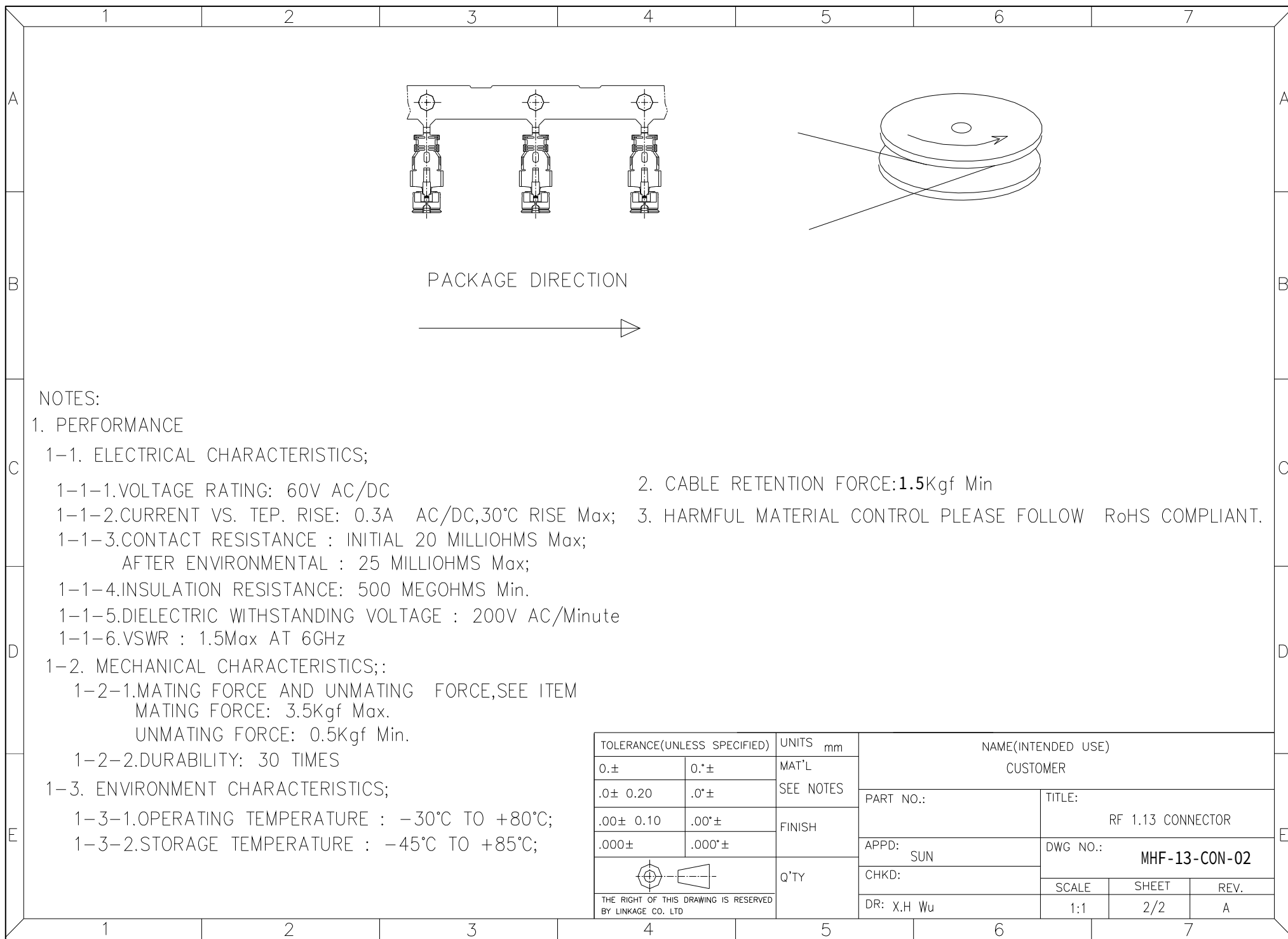
	Peak Gain(dBi)	Efficiency%
2.4GHz	3.94	65
2.45GHz	4.15	75
2.5GHz	4.2	77
5.15GHz	4.2	63
5.25GHz	3.8	62
5.35GHz	3.2	60
5.725GHz	3.9	59
5.85GHz	4.5	60



BEFORE CRIMPING	AFTER CRIMPING
 SECTION A-A	 H1: 1.15~1.35
 SECTION B-B	 H2: 1.06~1.14
 SECTION C-C	 H3: 1.34~1.40
APPLICABLE COAXIAL: AWG #32($\phi 1.13$).	

3	SHELL	COPPER ALLOY	GOLD PLATED OVER NI
2	CONTACT	COPPER ALLOY	GOLD PLATED OVER NI
1	HOUSING	PA66	UL94-0
NO	NAME	MATERIAL	DESCRIPTION

UNITS: mm	PART NO.: ABR-CAB-047-001	NAME: RF 1.13 CONNECTOR
X. $\pm$	X. $\pm$	APPD: Ding Liu
.X ± 0.2	.X $\pm$	CHKD: Hai Hu
.XX ± 0.10	.XX $\pm$	DR: L. L. Wei
.XXX $\pm$	.XXX $\pm$	
		DWG NO.: MHF-13-CON-02
		SCALE: NONE
		SHEET: 1/1
		REV.: A0



First Article Inspection Report

Report Code:CS20120312

Date:2012/03/01

Customer:			Customer P/N					Rev:		
Description:		1.13mm RF connector	Vendor P/N		MHF-13-CON-02			Rev:	A	
Dimension/Appearance Inspection			Measured Dimension					Q. C. Judgement		
Item	Location	Drawing Spec (mm)	1	2	3	4	5	Measure Tools	OK	NG
1	Appearance	Components Location	OK	OK	OK	OK	OK		✓	
2	C1	1.80±0.10mm	1.81	1.82	1.81	1.82	1.81	Ruler	✓	
3	C2	5.00±0.10mm	5.04	5.05	5.04	5.03	5.04	Ruler	✓	
4	C2	6.96±0.10mm	7.00	6.99	6.99	6.98	6.99	Ruler	✓	
5	A3	10.00±0.10mm	10.01	9.99	10.00	9.99	10.00	Ruler	✓	
6	B2	Φ1.50±0.10mm	1.50	1.51	1.51	1.50	1.51	Ruler	✓	
7	C3	Φ2.69±0.10mm	2.65	2.64	2.65	2.66	2.65	Ruler	✓	
8	E3	3.00±0.10mm	3.06	3.07	3.06	3.06	3.07	Ruler	✓	
9	D3	3.22±0.10mm	3.28	3.26	3.27	3.27	3.26	Ruler	✓	
10	B4	1.50±0.10mm	1.50	1.51	1.51	1.50	1.51	Ruler	✓	
11	B4	3.55±0.10mm	3.56	3.55	3.56	3.55	3.56	Ruler	✓	
12	B4	11.4±0.20mm	11.42	11.43	11.42	11.43	11.41	Ruler	✓	
13	D3	0.37±0.05mm	0.39	0.38	0.37	0.39	0.38	Ruler	✓	
14	D2	Φ1.86±0.05mm	1.86	1.85	1.86	1.86	1.87	Ruler	✓	
Remark:										
Approved by:			Checked by:			QE Checked by:				
SUN						Evan Chen				

SPECIFICATION FOR APPROVAL

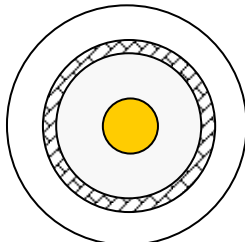
DOCUMENT: A3132TS001

STYLE : COAXIAL CABLE
105°C 30V

SIZE: 32AWG×1C
BRAID : TS

RECOGNIZED: UL 1979

SPECIFICATION

STYLE	105℃ 30V UL 1979	DOCUMENT NO : A3132TS001	
SIZE	32AWG	ESTABLISHED DATE: 2005/05/11	
STANDARD :			
Conductor	Size	AWG	32
	Material	----	Silver Cover Copper
	Conductors No.	----	7
	Conductors Size	mm	0.080
	O.D.	mm	0.240
Insulation	Average Thickness	mm	0.22
	Diameter	mm	0.68 ± 0.02
	Material	----	FEP
	Color	----	Clear
Braid	Material	----	Tinned Copper
	Construction	mm	16 / 4 / 0.050
	Coverage	%	90
Jacket	Average Thickness	mm	0.13
	Diameter	mm	1.13 ±0.05
	Material	----	FEP
	Color	----	According to custom
Marking	Non		
Drawing			

SPECIFICATION

Electrical & Physical Properties						
Item		32AWG				
Rating Temp Voltage		105°C 30V				
Conductor Resistance		545 OHM/KM/20°C MAX.				
Insulation Resistance		1000 MEGA OHM/KM MIN.				
Dielectric Strength		AC 500 V/Minute				
Spark Test		2.5 KV				
Insulation	Unaged	Tensile Strength	2500 PSI MIN.(1.76 Kg / m m ²)			
		Elongation	200% MIN.			
	Aged	Tensile Strength	UNAGED MIN. 75%(168HRS×232°C)			
		Elongation	UNAGED MIN. 75%(168HRS×232°C)			
Jacket	Unaged	Tensile Strength	2500 PSI MIN.(1.76 Kg / m m ²)			
		Elongation	200% MIN.			
	Aged	Tensile Strength	UNAGED MIN.75%(168HRS×232°C)			
		Elongation	UNAGED MIN.75%(168HRS×232°C)			
Nom. Impedance		50 ± 5 Ohms				
Nom. Capacitance		96 ± 3 pF/m				
Nom. Vel. of Prop.		69%				
VSWR Test (0 – 6 GHZ)		Less 1.3				
HEAT SHOCK TEST		232°C X 1HR NO CRACK				
COLD BEND TEST		-40°C X 1HR NO CRACK				
Flame Test		VW-1 OK				
Attenuation (dB/1m)		2.0GHZ	2.4GHZ	2.5GHZ	5.0GHZ	6.0 GHZ
		2.80	3.10	3.15	4.85	5.30

AK001/210X297/1.0

PAGE : 2

EDITION : 1.1

MAKER : C.Y.CHEN

CONFIRM :S.N.WONG

APPROVAL : W.J.WANG

Test Report

Report No. ECL01G02231900601

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Applicant JIANGSU YUANDA OF CABLE TECHNOLOGY CO.,LTD.

Address HANGKONG ROAD NO.5,JIANHU COUNTY YANCHENG CITY,JIANGSU PROVINCE.

The following sample(s)and sample information was/were submitted and identified by/on the behalf of the client

No.	Sample Name	Part No.	Material
1	Coaxial cable	RF0.81,RF1.13,RF1.32,RF1.37,RG142,RG174, RG178,RG179,RG180,RG187,RG188,RG316, RG316D,RG195,RG196,RG302,RG303, RG179D,RG223,RG304, RG393,RG400,RG402,RG405	Silvery metal wire
2			Colorless transparent plastic
3			Silvery metal wire
4			Brown jacket

Sample Received Date Oct.29,2014

Testing Period Oct.29,2014 to Nov.1,2014

Test Requested As specified by client, to test Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium (Cr(VI)) , Polybrominated Biphenyls (PBBs) , Polybrominated Diphenyl Ethers (PBDEs), Fluorine (F), Chlorine (Cl), Bromine (Br), Iodine (I), Antimony (Sb), Tetrabromobisphenol-A (TBBP-A), Hexabromocyclododecane (HBCDD) , Perfluorooctanoic Acid (PFOA), Perfluorooctane Sulfonates(PFOS) in the submitted sample(s).

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

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

Tested by

Chen Lijuan

Reviewed by

Chen Kaimin

A

Su Hongwei

Date

Nov.1,2014



Su Hongwei
Laboratory Manager

No. R187779480

Centre Testing International Co.,Ltd. Shanghai Branch No.1996,New Jinqiao Road, Pudong District,Shanghai,China

Test Report

Report No. ECL01G02231900601

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Test Method

Tested Item(s)	Test Method	Measured Equipment(s)
Lead (Pb)	IEC 62321-5:2013 Ed.1.0	ICP-OES
Cadmium (Cd)	IEC 62321-5:2013 Ed.1.0	ICP-OES
Mercury (Hg)	IEC 62321-4:2013 Ed.1.0	ICP-OES
Hexavalent Chromium (Cr(VI))	IEC 62321:2008 Ed.1 Annex B	UV-Vis
	IEC 62321:2008 Ed.1 Annex C	
Polybrominated Biphenyls (PBBs)	IEC 62321:2008 Ed.1 Annex A	GC-MS
Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321:2008 Ed.1 Annex A	GC-MS
Fluorine (F)	Refer to BS EN 14582:2007	IC
Chlorine (Cl)	Refer to BS EN 14582:2007	IC
Bromine (Br)	Refer to BS EN 14582:2007	IC
Iodine (I)	Refer to BS EN 14582:2007	IC
Antimony (Sb)	Refer to US EPA 3052:1996 & US EPA 6010C:2007	ICP-OES
Tetrabromobisphenol-A (TBBP-A)	Refer to US EPA 3540C:1996 & US EPA 8270D:2007	GC-MS
Hexabromocyclododecane (HBCDD)	Refer to US EPA 3550C:2007 & US EPA 8270D:2007	GC-MS
Perfluorooctanoic Acid (PFOA)	Refer to US EPA 3550C:2007 & US EPA 8321B:2007	LC-MS-MS
Perfluorooctane Sulfonates (PFOS)	Refer to US EPA 3550C:2007 & US EPA 8321B:2007	LC-MS-MS

Test Report

Report No. ECL01G02231900601

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Test Result(s)

Tested Item(s)	Result(Unit: mg/kg)				MDL
	1	2	3	4	
Lead (Pb)	N.D.	N.D.	N.D.	N.D.	2 mg/kg
Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	2 mg/kg
Mercury (Hg)	N.D.	N.D.	N.D.	N.D.	2 mg/kg
Hexavalent Chromium (Cr(VI))	—	N.D.	—	N.D.	2 mg/kg
	Negative	—	Negative	—	/
Polybrominated Biphenyls(PBBs)					
Monobromobiphenyl	—	N.D.	—	N.D.	5 mg/kg
Dibromobiphenyl	—	N.D.	—	N.D.	5 mg/kg
Tribromobiphenyl	—	N.D.	—	N.D.	5 mg/kg
Tetrabromobiphenyl	—	N.D.	—	N.D.	5 mg/kg
Pentabromobiphenyl	—	N.D.	—	N.D.	5 mg/kg
Hexabromobiphenyl	—	N.D.	—	N.D.	5 mg/kg
Heptabromobiphenyl	—	N.D.	—	N.D.	5 mg/kg
Octabromobiphenyl	—	N.D.	—	N.D.	5 mg/kg
Nonabromobiphenyl	—	N.D.	—	N.D.	5 mg/kg
Decabromobiphenyl	—	N.D.	—	N.D.	5 mg/kg
Polybrominated Diphenyl Ethers(PBDEs)					
Monobromodiphenyl ether	—	N.D.	—	N.D.	5 mg/kg
Dibromodiphenyl ether	—	N.D.	—	N.D.	5 mg/kg
Tribromodiphenyl ether	—	N.D.	—	N.D.	5 mg/kg
Tetrabromodiphenyl ether	—	N.D.	—	N.D.	5 mg/kg
Pentabromodiphenyl ether	—	N.D.	—	N.D.	5 mg/kg
Hexabromodiphenyl ether	—	N.D.	—	N.D.	5 mg/kg
Heptabromodiphenyl ether	—	N.D.	—	N.D.	5 mg/kg
Octabromodiphenyl ether	—	N.D.	—	N.D.	5 mg/kg
Nonabromodiphenyl ether	—	N.D.	—	N.D.	5 mg/kg
Decabromodiphenyl ether	—	N.D.	—	N.D.	5 mg/kg

Tested Item(s)	Result(Unit: mg/kg)		MDL
	2	4	
Halogen			
Fluorine (F)	409433	446271	10 mg/kg
Chlorine (Cl)	N.D.	N.D.	10 mg/kg
Bromine (Br)	N.D.	N.D.	10 mg/kg
Iodine (I)	N.D.	N.D.	10 mg/kg

Test Report

Report No. ECL01G02231900601

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Tested Item(s)	Result(Unit: mg/kg)		MDL
	2	4	
Antimony (Sb)	N.D.	N.D.	5 mg/kg
Tetrabromobisphenol-A (TBBP-A)	N.D.	N.D.	5mg/kg
Hexabromocyclododecane (HBCDD)	N.D.	N.D.	5 mg/kg
Perfluorooctanoic Acid (PFOA)	N.D.	N.D.	5mg/kg
Perfluorooctane Sulfonates(PFOS)	N.D.	N.D.	5mg/kg

Tested Sample/Part Description

- 1.Silvery metal wire
- 2.Colorless transparent plastic
- 3.Silvery metal wire
4. Brown plastic wire jacket

Note: The sample had been dissolved totally tested for Lead, Cadmium, Mercury, Antimony.

-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 50cm² sample surface area used.

-According to the client's statement, the material of sample No.1, No.2, No.3, No.4 in this report is the same as the sample No.1, No.2, No.3, No.5 in report ECL01G022319006, so the test result(s) is presented in reference to that one.

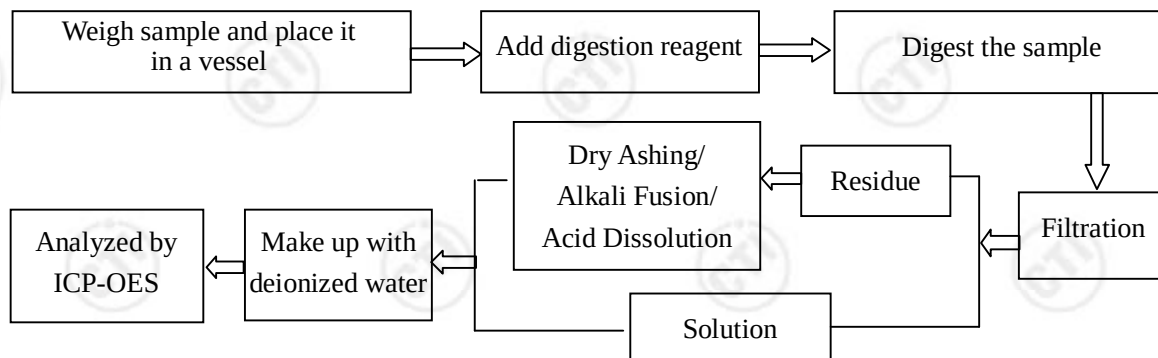
Test Report

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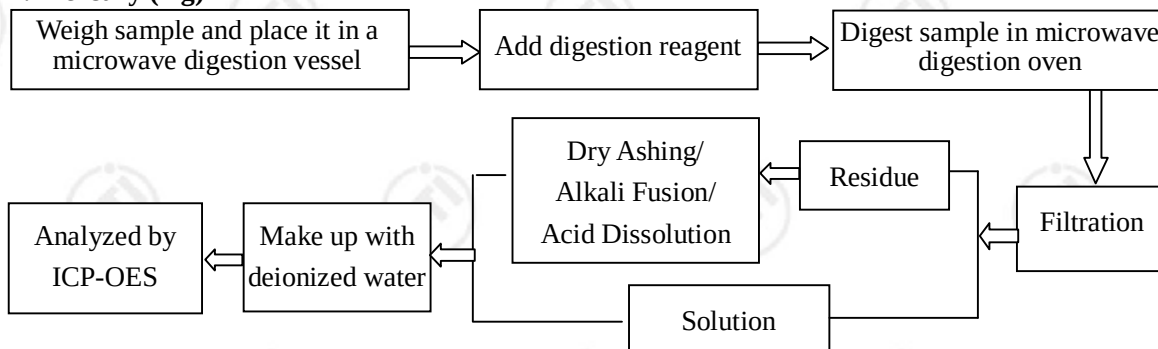
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Test Process

1. Lead(Pb), Cadmium(Cd)

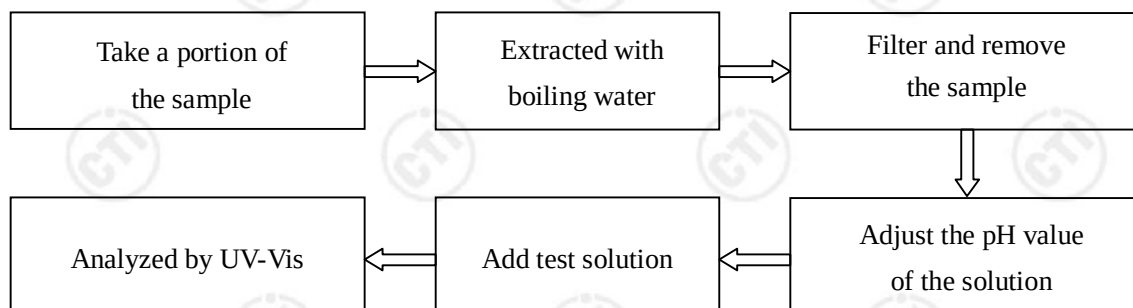


2. Mercury (Hg)

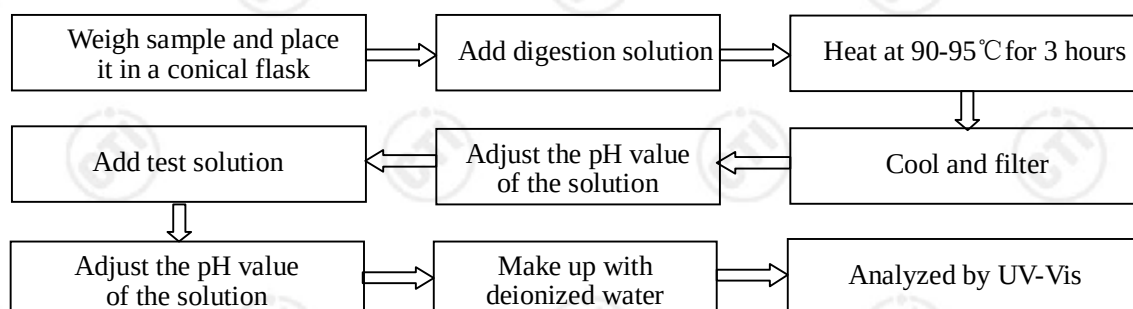


3. Hexavalent Chromium (Cr(VI))

(1) IEC 62321:2008 Ed.1 Annex B



(2) IEC 62321:2008 Ed.1 Annex C

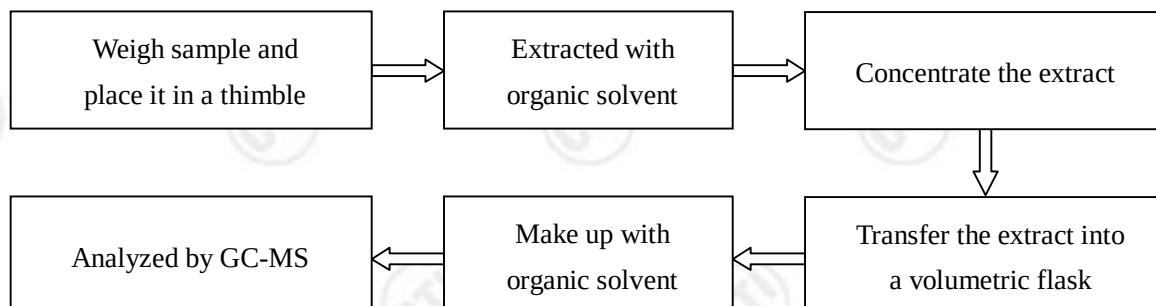


Test Report

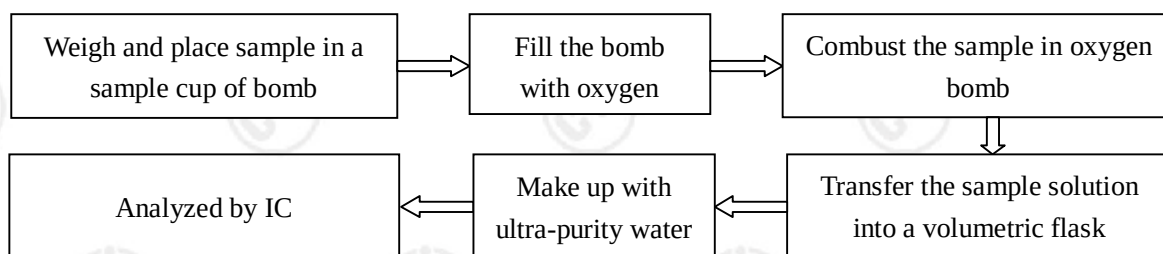
Report No. ECL01G02231900601

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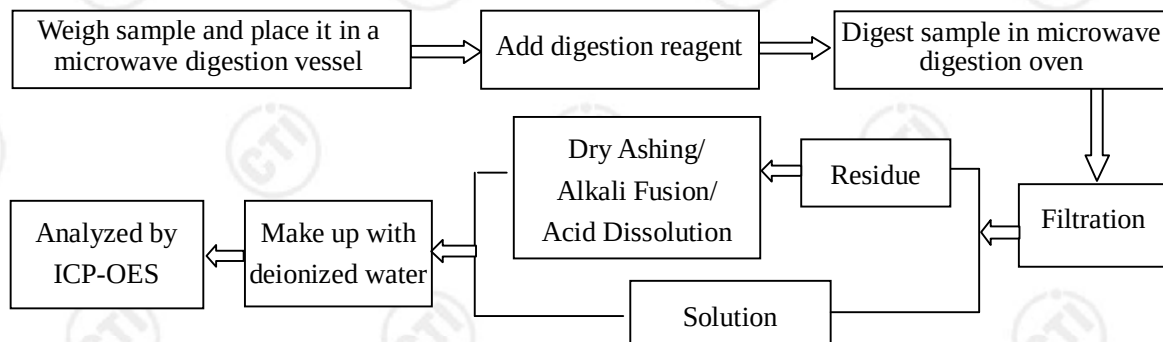
4. Polybrominated Biphenyls(PBBs), Polybrominated Diphenyl Ethers(PBDEs)



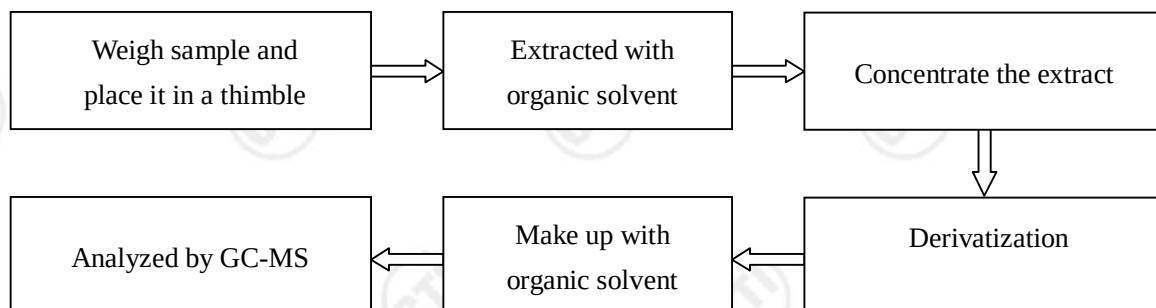
5. Fluorine(F), Chlorine(Cl) , Bromine(Br), Iodine(I)



6. Antimony (Sb)



7. Tetrabromobisphenol-A (TBBP-A)

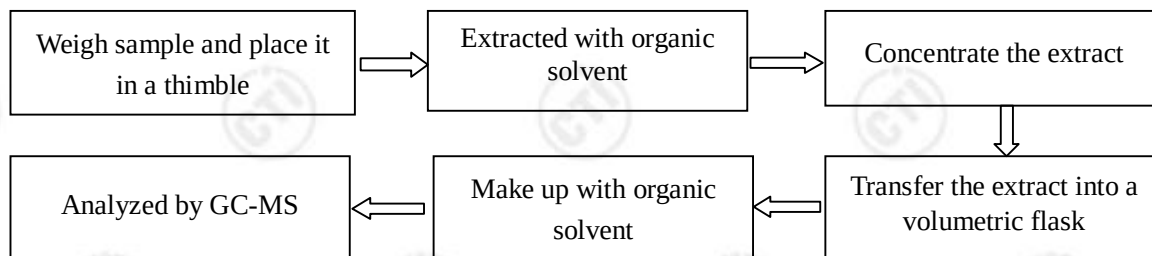


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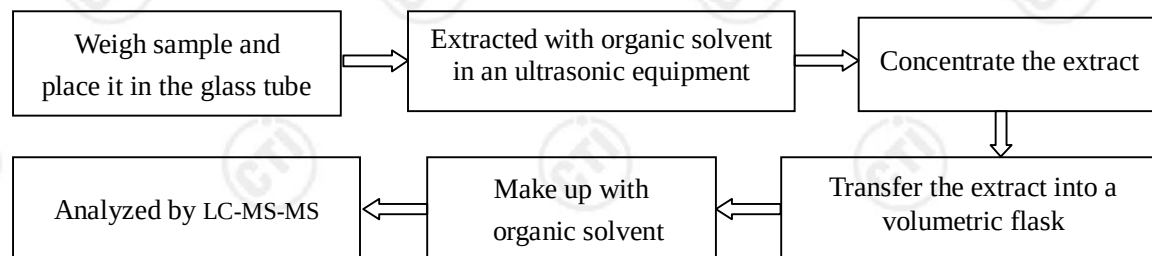
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8. Hexabromocyclododecane (HBCDD)



9. Perfluorooctanoic Acid (PFOA), Perfluorooctane Sulfonates (PFOS)

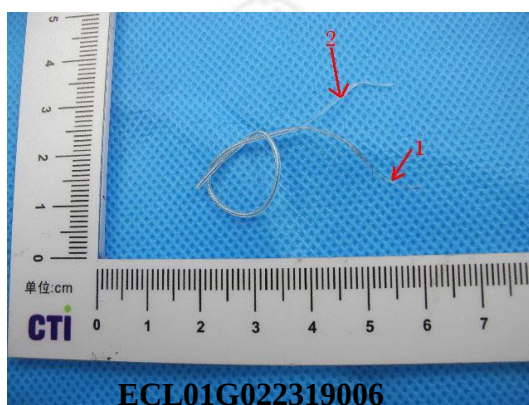


Test Report

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Photo(s) of the sample(s)



*** End of Report ***

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33#, BAOSHENG ROAD. SONGJIANG AREA, SHANGHAI P.R CHINA

The following sample(s) was/were submitted and identified on behalf of the clients as : Halogen free Laminate

SGS Job No. : SP14-039919 - SH

Date of Sample Received : 31 Dec 2014

Testing Period : 31 Dec 2014 - 06 Jan 2015

Test Requested : Selected test(s) as requested by client.

Test Method : Please refer to next page(s).

Test Results : Please refer to next page(s).

Conclusion : Based on the performed tests on submitted sample(s), the results of Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBBs), Polybrominated diphenyl ethers (PBDEs) comply with the limits as set by RoHS Directive 2011/65/EU Annex II; recasting 2002/95/EC.

Signed for and on behalf of
SGS-CSTC Ltd.

Marry Ma

Marry Ma
Approved Signatory



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Test Results :

Test Part Description :

SN1 SHA14-250256.004 Yellow solid sheet

Remarks :

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected (< MDL)
- (4) "-" = Not Regulated

Test Method : (1) With reference to IEC 62321-5:2013, determination of Cadmium by ICP-OES.
 (2) With reference to IEC 62321-5:2013, determination of Lead by ICP-OES.
 (3) With reference to IEC 62321-4:2013, determination of Mercury by ICP-OES.
 (4) With reference to IEC 62321:2008, determination of Hexavalent Chromium by Colorimetric Method using UV-Vis.
 (5) With reference to IEC 62321:2008, determination of PBBs and PBDEs by GC-MS.

Test Item(s)	Limit	Unit	MDL	004
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1000	mg/kg	2	11
Mercury (Hg)	1000	mg/kg	2	ND
Hexavalent Chromium (Cr(VI))	1000	mg/kg	2	ND
Sum of PBBs	1000	mg/kg	-	ND
Monobromobiphenyl	-	mg/kg	5	ND
Dibromobiphenyl	-	mg/kg	5	ND
Tribromobiphenyl	-	mg/kg	5	ND
Tetrabromobiphenyl	-	mg/kg	5	ND
Pentabromobiphenyl	-	mg/kg	5	ND
Hexabromobiphenyl	-	mg/kg	5	ND
Heptabromobiphenyl	-	mg/kg	5	ND
Octabromobiphenyl	-	mg/kg	5	ND
Nonabromobiphenyl	-	mg/kg	5	ND
Decabromobiphenyl	-	mg/kg	5	ND
Sum of PBDEs	1000	mg/kg	-	ND
Monobromodiphenyl ether	-	mg/kg	5	ND



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<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>004</u>
Dibromodiphenyl ether	-	mg/kg	5	ND
Tribromodiphenyl ether	-	mg/kg	5	ND
Tetrabromodiphenyl ether	-	mg/kg	5	ND
Pentabromodiphenyl ether	-	mg/kg	5	ND
Hexabromodiphenyl ether	-	mg/kg	5	ND
Heptabromodiphenyl ether	-	mg/kg	5	ND
Octabromodiphenyl ether	-	mg/kg	5	ND
Nonabromodiphenyl ether	-	mg/kg	5	ND
Decabromodiphenyl ether	-	mg/kg	5	ND

Notes :

- (1) The maximum permissible limit is quoted from the directive 2011/65/EU, Annex II

Test Method : With reference to EN 14582: 2007, analysis was performed by Ion Chromatograph (IC).

<u>Test Item(s)</u>	<u>Unit</u>	<u>MDL</u>	<u>004</u>
Fluorine (F)	mg/kg	50	855
Chlorine (Cl)	mg/kg	50	295
Bromine (Br)	mg/kg	50	ND
Iodine (I)	mg/kg	50	ND

Test Method : Determination of phthalates by GC-MS based on EN 14372:2004.

<u>Test Item(s)</u>	<u>CAS NO.</u>	<u>Unit</u>	<u>MDL</u>	<u>004</u>
Dibutyl Phthalate (DBP)	84-74-2	%	0.003	ND
Benzylbutyl Phthalate (BBP)	85-68-7	%	0.003	ND
Bis-(2-ethylhexyl) Phthalate (DEHP)	117-81-7	%	0.003	ND

Notes :

- (1) Reference Information: Directive 2011/65/EU recasting RoHS directive 2002/95/EC:
Bis (2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP) and Dibutyl phthalate (DBP) are considered as a priority for risk evaluation and substance restriction.



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Test Method : Determination of HBCDD by GC-MS based on IEC 62321:2008.

Test Item(s)	Unit	MDL	004
Hexabromocyclododecane (HBCDD)	mg/kg	10	ND

Notes :

- (1) Reference Information: Directive 2011/65/EU recasting RoHS directive 2002/95/EC:
Hexabromocyclododecane (HBCDD) is considered as a priority for risk evaluation and substance restriction.



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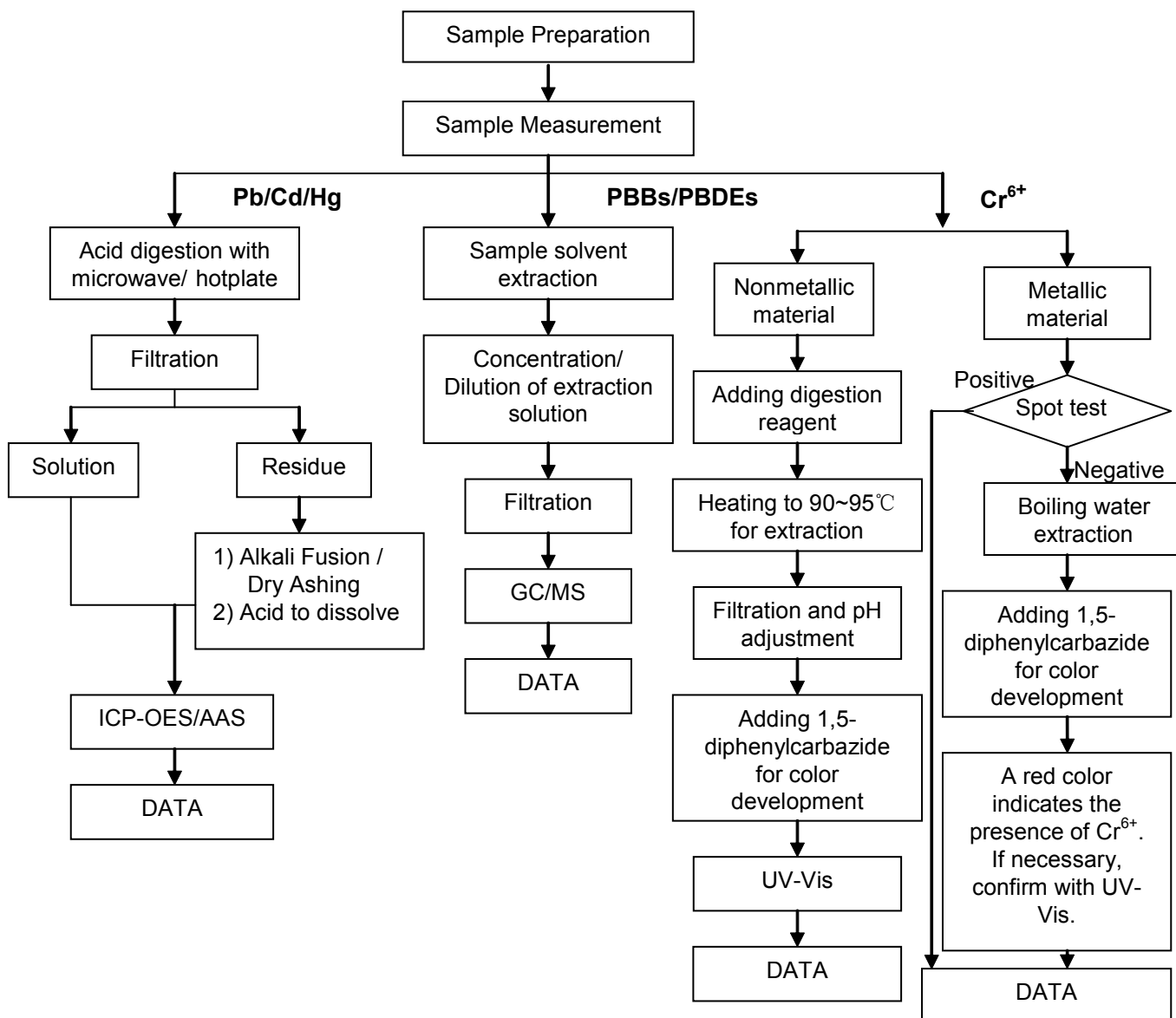
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RoHS Testing Flow Chart

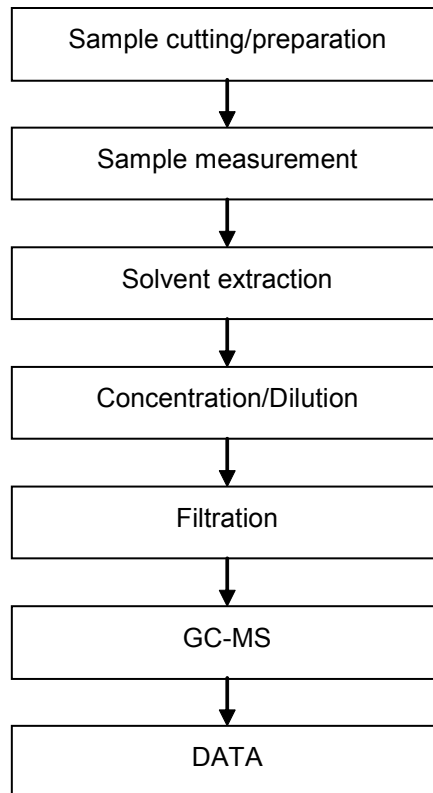
- 1) Name of the person who made testing: Bob Zhang/Gary Xu/Stone Chen/Sunny Qin
- 2) Name of the person in charge of testing: Jan Shi/Summer Jin/Jessy Huang
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart.
(Cr⁶⁺ and PBBs/PBDEs test method excluded)



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Phthalates Testing Flow Chart

- 1) Name of the person who made testing: Elyn Yao
- 2) Name of the person in charge of testing: Myra Ma



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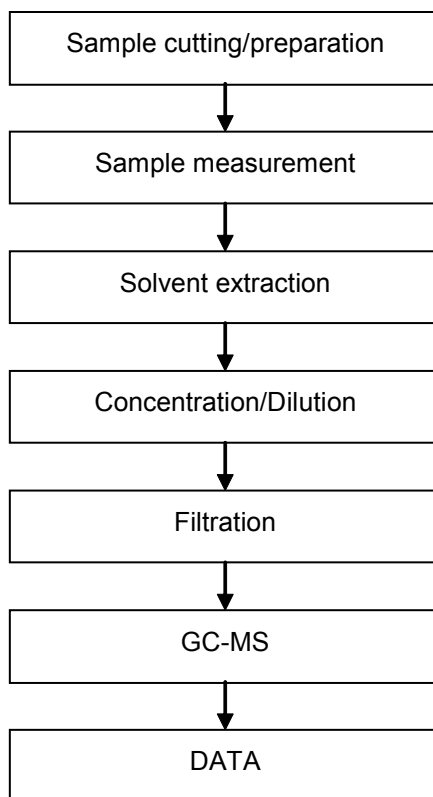
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HBCDD Testing Flow Chart

- 1) Name of the person who made testing: Gary Xu
- 2) Name of the person in charge of testing: Jessy Huang



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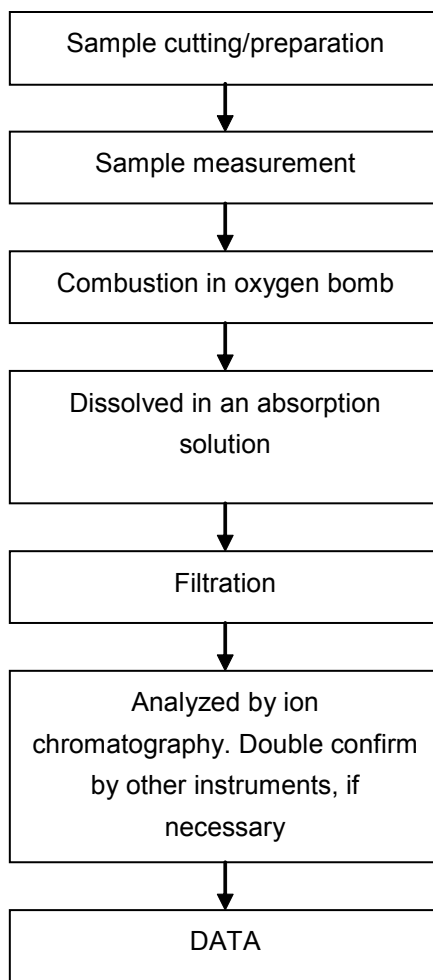
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Halogen Testing (oxygen bomb) Flow Chart

- 1) Name of the person who made testing: Sisily Yin
- 2) Name of the person in charge of testing: Linda Li



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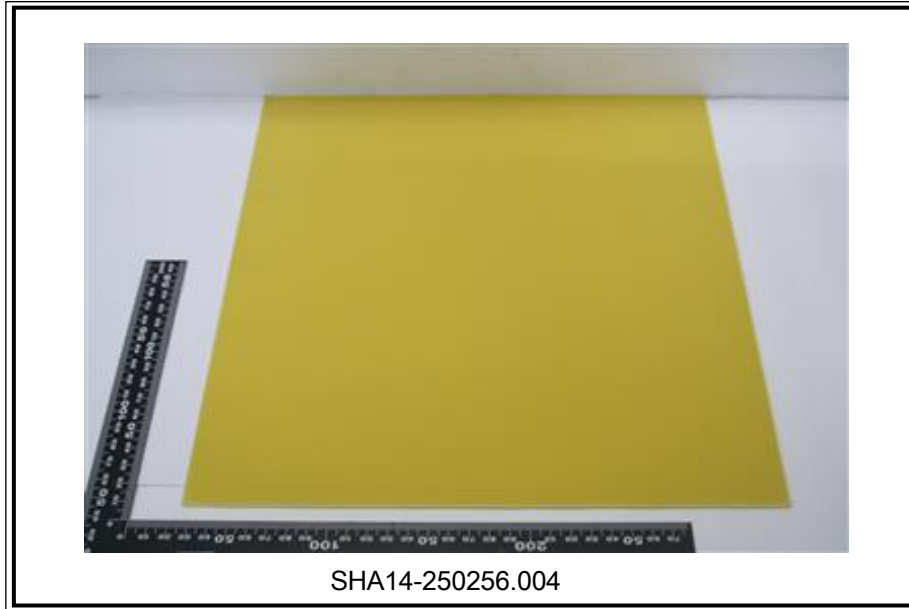
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