



規格承認書

Specification for Approval

客 戶： 岱 鎔

Customer

品 名： SPI CONNECTOR

Part name

料 號： WIESON P/N: G6179-100000-00



Part No.:

客戶承認印 CUSTOMER APPROVED BY		
APPROVAL	CHIEF	SUPERVISOR
Approval No.		
Model		
Part No.		

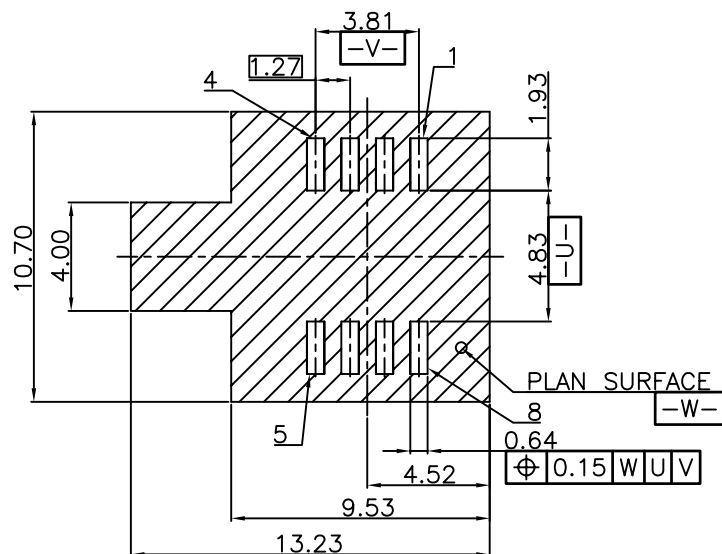
CHIEF	SALES	R&D	DESIGN
<i>Ian.</i>	<i>Ian.</i>	<i>Kevin</i>	<i>Wy</i>
Date: Jul.23.10		Date: Jul.23.10	
驊 陸 科 技 股 份 有 限 公 司 WIESON TECHNOLOGIES CO., LTD.			

SPI FLASH SOCKET FOR SOIC 200mil CHIP

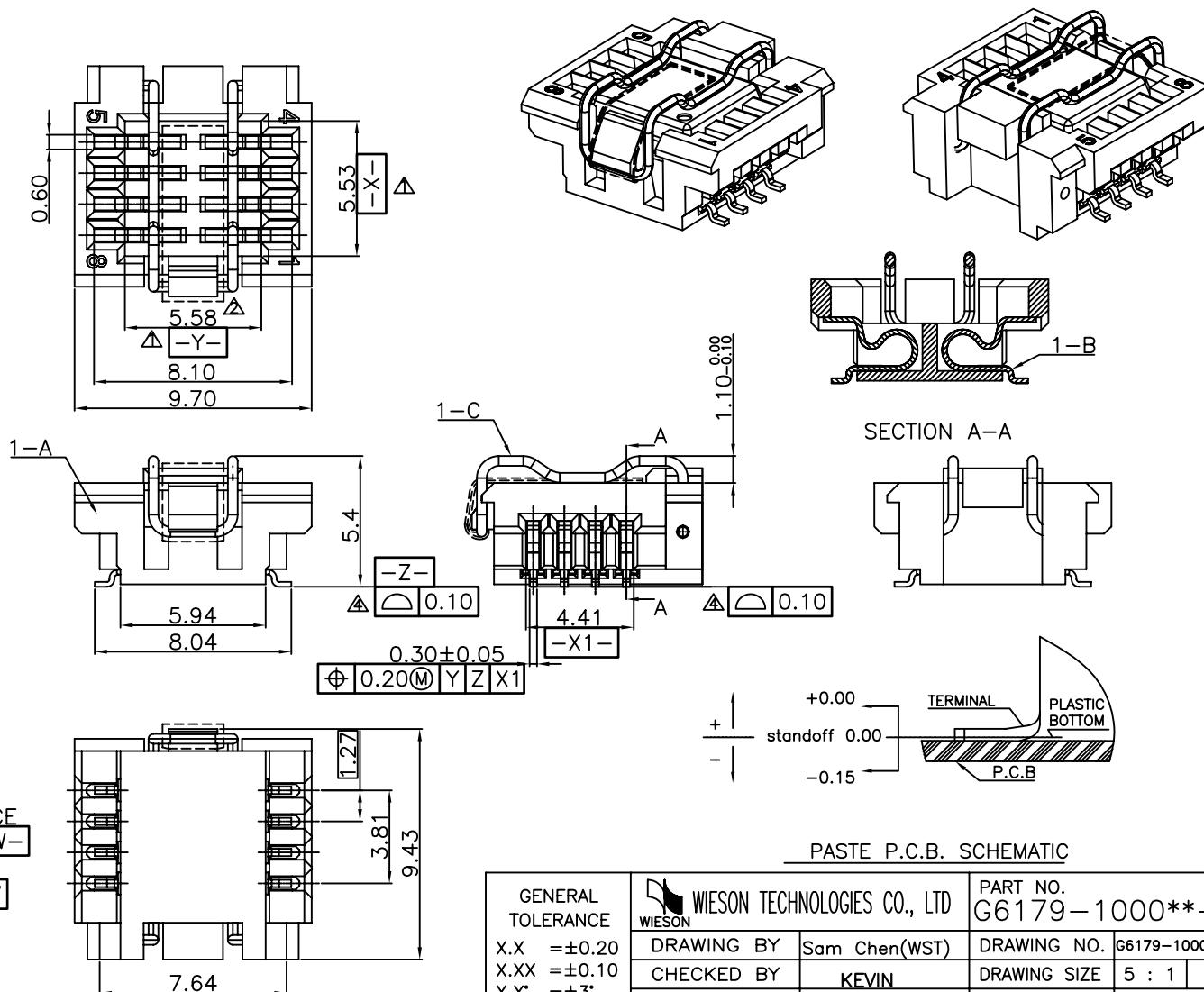
NOTE:

1. MATERIAL:
A. INSULATOR: HIGH TEMPERATURE THERMAL PLASTIC, UL94V-0
B. TERMINAL: COPPER ALLOY
C. COVER: STAINLESS STEEL WIRE
D. CAP: HIGH TEMPERATURE THERMAL PLASTIC, UL94V-0
2. PLATING:
SEE ORDER INFORMATION, NICKEL UNDERPLATED
3. PART NUMBER
G6179-10 00 **--** 
- 00:Rosh
H0:Halogen Free
- PLATING:
00=PURE TIN, 100~200u"
01=GOLD FLASH
- PACKAGE
00=TAPE AND REEL
4. PATENT NUMBER: Taiwan, ROC: M299953 



REV	DATE	DESCRIPTION	ECN NO.	NAME
A	06.05.26	NEW RELEASE		sunny-ga
B	06.08.22	△ MODIFY	CECR06001383	Rain
C	06.11.22	△ ADD PULL TAB	TECR06001758	Rain
D	07.02.24	△ ADD PATENT NUMBER	CECR07001690	LSS
E	09.03.25	△ MODIFY	TECR09002206	songlu
F	09.05.13	△ MODIFY ORDER INFORMATION	CECR09004298	BOB



RECOMMENDED PCB LAYOUT
TOP VIEW



PASTE P.C.B. SCHEMATIC

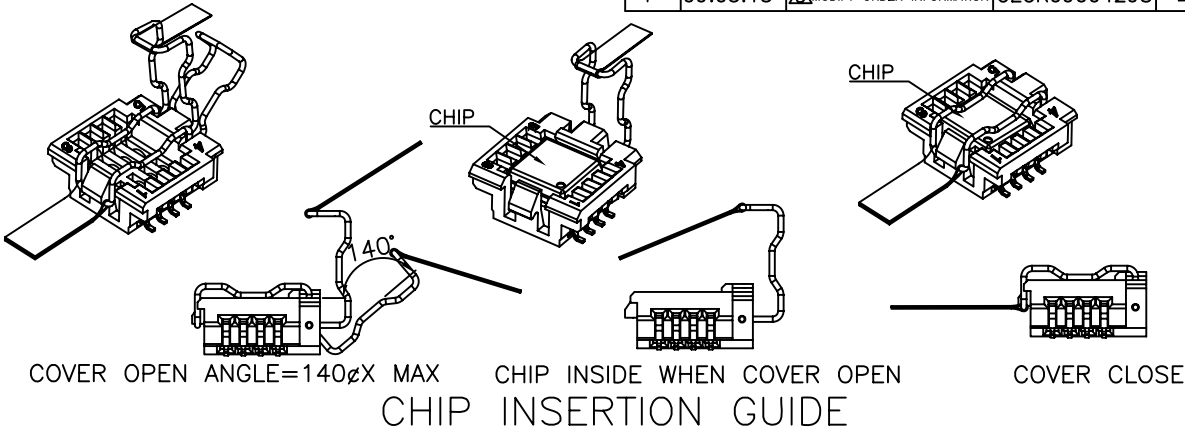
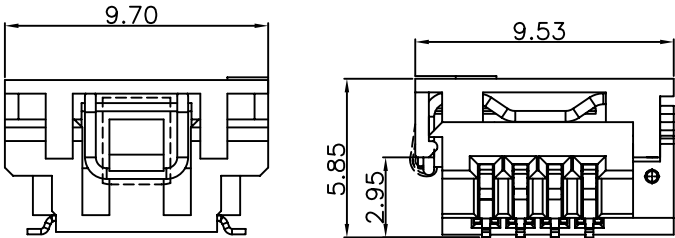
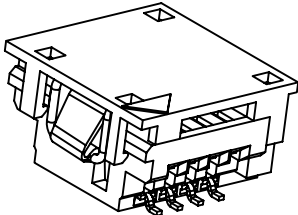
GENERAL TOLERANCE	 WIESON TECHNOLOGIES CO., LTD		PART NO.	
X.X = ±0.20	DRAWING BY	Sam Chen(WST)	G6179-1000**-***	
X.XX = ±0.10	CHECKED BY	KEVIN	DRAWING NO.	G6179-1000XX-X
X.X* = ±3*	APPROVED BY	JERRY	DRAWING SIZE	5 : 1 A4
	SORTING NO.	WSC	UNIT	mm
			PAGE	1 OF 2

ISSUED

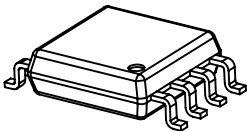
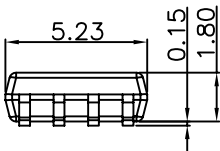
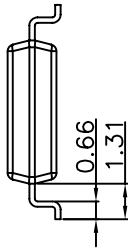
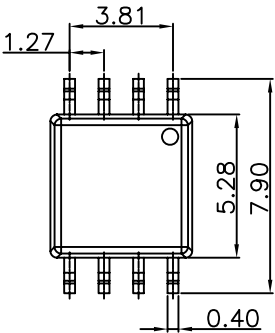
[ARTICLE : 044033 V5]

SPI FLASH SOCKET FOR SOIC 200mil CHIP

REV	DATE	DESCRIPTION	ECN NO.	NAME
A	06.05.26	NEW RELEASE		sunny-gao
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OUTLOOK DIMENSION WITH CAP



RECOMMENDED SOIC 200mil CHIP

STEP 1

Pull tab hidden

SOCKET AFTER MOUNTED ON PCB

STEP 2

Length is 10mm

OPEN THE CAP.THE PULL TAB BOUNCES OUT IN AN EASY-TO-PULL ANGLE

STEP 3

USE FINGERS TO PULL THE TAB



STEP 4

PULL THE TAB UPWARD

STEP 5

LATCH IS OPEND EASILY

UNCLINCH COVER GUIDE

GENERAL TOLERANCE	 WIESON TECHNOLOGIES CO., LTD		PART NO. G6179-1000**-**	
X.X =±0.20	DRAWING BY	Sam Chen(WST)	DRAWING NO.	G6179-1000XX-XX
X.XX =±0.10	CHECKED BY	KEVIN	DRAWING SIZE	5 : 1 A4
X.X' =±3'	APPROVED BY	JERRY	UNIT	mm
	SORTING NO.	WSC	PAGE	2 OF 2

ISSUED



 WIESON TECHNOLOGIES CO., LTD.	SPECIFICATION AND PERFORMANCE	TYPE OF PRODUCT
		SPI Flash Socket

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Rev	Date	Description	Edited by	Approvals
01	2004/10/05	Proposal	Tina	Prepared : <i>Tina</i>
				Checked :
				Approved : <i>Kevin</i>

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 WIESON TECHNOLOGIES CO., LTD.	SPECIFICATION AND PERFORMANCE	TYPE OF PRODUCT
		SPI Flash Socket

1. Scope :

This specification covers the requirements for product performance, test methods and quality assurance provisions of **SPI Flash Socket**.

2. Reference Documents :

The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the latest edition of the document applies. In the event of conflict between the requirements of this specification and the product drawing, the product drawing shall take precedence. In the event of conflict between the requirements of this specification and the referenced documents, this specification shall take precedence.

A. EIA-364 : The Test Sequence and Test Procedures for Electrical Connectors and Sockets.

B. UL Std-94 : Test for Flammability of Plastic material for Parts in Devices and Appliances.

3. Material of Components :

A. Housing : Thermoplastic, UL94V-0 Rated

B. Contact : Copper Alloy

C. Shell: Stainless Steel

4. Design and Construction :

Product shall be of the design, construction and physical dimensions specified in the applicable product drawing.

5. Ratings :


A. Voltage : 50Vrms maximum

B. Current : 1.0A

C. Temperature: -55~85°C


6. Performance and Test Descriptions :

The product is designed to meet the electrical, mechanical and environmental performance requirements specified in paragraph 7. Unless otherwise specified, All tests are performed at ambient environmental conditions.

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7. Test Requirements and Procedures Summary :

Electrical Performance		
Test Description	Test Procedures & Condition	Requirements
Temperature Rise vs Current Rating	EIA 364-70 Method B The object of this procedure is to detail a standard method to assess the current carrying capacity of mated connector contacts. Measure temperature rise vs current at 1.0A when measured at an ambient temperature of $23\pm 3^{\circ}\text{C}$.	The ΔT shall not exceed $+30^{\circ}\text{C}$ at any point in the connector under test.
Low Level Contact Resistance	EIA 364-23 Subject mated contacts assembled in housing to closed circuit current of 100 mA maximum at open circuit at 20 mV maximum.	1. 120 m Ω maximum initial per mated pair. 2. 150 m Ω maximum final per mated pair.
Insulation Resistance	EIA 364-21 Measure by applying test potential between the adjacent contacts, and between the contacts and ground in the mated connector assemblies. Test Voltage : 500 Vdc.	1000 M Ω minimum
Dielectric Withstanding Voltage	EIA 364-20 Measure by applying test potential between the adjacent contacts, and between the contacts and ground in the mated connector assemblies. Test Potential : 500 Vac at sea level Test Duration : 60 seconds	1. No flashover, No sparkover, No excess leakage, No breakdown. 2. Current leakage : < 0.5 mA

 WIESON TECHNOLOGIES CO., LTD.	SPECIFICATION AND PERFORMANCE	TYPE OF PRODUCT
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Mechanical Performance

Test Description	Test Procedures & Condition	Requirements
Durability	<p>The object of this test procedure is to detail a uniform test method for determining the effects caused by subjecting a connector to the conditioning action of insertion and extraction, simulating the expected life of the connectors.</p> <p>Operation Method : manual</p> <p>No. of Cycles : 25 Cycles</p>	<ol style="list-style-type: none"> 1. No evidence of damage. 2. The electrical performances should meet the spec. specified.
Contact Retention	<p>EIA 364-29</p> <p>Subject unmated connector shall be mounted in a position of axial alignment of the contacts with the plunger of the test gauge to measure the withstand ability of the contact retaining system.</p>	<p>200 gf (min.) load per individual contact.</p>
Vibration (Random)	<p>EIA 364-28 Condition V Test letter A</p> <p>Subject mated connectors should be tested according to the condition listed below :</p> <p>Test condition : Random</p> <p>Frequency : 50 ~ 2000 Hz</p> <p>PSD value : 5.35 G_{rms} minimum</p> <p>Duration : 15 minutes/axis</p> <p>Times : Each of three mutually perpendicular planes.</p>	<ol style="list-style-type: none"> 1. No discontinuities of 1μs or longer duration. 2. No evidence of damage. 3. The electrical performances should meet the spec. specified.


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Environmental Performance


Test Description	Test Procedures & Condition	Requirements
Humidity	EIA 364-31 Method II Test Condition A Subject mated and unmated connectors should be tested according to the condition listed below : Temperature : $40\pm 2^{\circ}\text{C}$ Humidity : 90 ~ 95% (R.H) Duration : 96 hours	1. No evidence of damage. 2. The electrical performances should meet the spec. specified.
Thermal Shock	EIA 364-32 Test Condition I Subject mated and unmated connectors should be tested according to the condition listed below : Temperature : $-55 \sim 85^{\circ}\text{C}$ Cycles : 5 cycles Exposure time at temp. extremes : 30 minutes	1. No evidence of damage. 2. The electrical performances should meet the spec. specified.

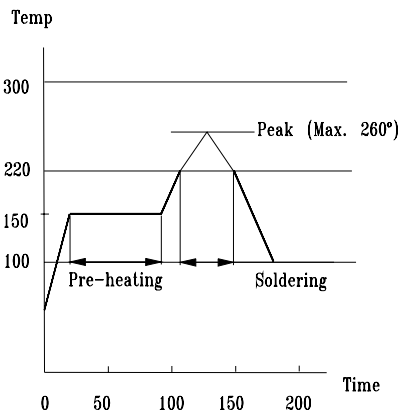


WIESON

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		SPI Flash Socket


Test Description	Test Procedures & Condition	Requirements
Salt Spray	EIA 364-26 Test Condition A Subject mated and unmated connectors should be tested according to the condition listed below : Temperature : $35\pm 1.1^{\circ}\text{C}$ Humidity : 95 ~ 98% (R.H.) PH Value : 6.5 ~ 7.2 Duration : 48 hours	1. No evidence of damage. 2. The electrical performances should meet the spec. specified.
Heat Resistance	Temperature : $85\pm 2^{\circ}\text{C}$ Duration : 96 hours	1. No evidence of damage. 2. The electrical performances should meet the spec. specified.
Cold Resistance	Temperature : $-55\pm 2^{\circ}\text{C}$ Duration : 96 hours	1. No evidence of damage. 2. The electrical performances should meet the spec. specified.
Solderability	Steam Aging Temperature : $90 \sim 96^{\circ}\text{C}$ Steam Aging Duration : 8 hours \pm 5 min. Soldering Temperature : 245 Soldering Time : 5 seconds	Continuous solder coating with a minimum 95% coverage.

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Test Description	Test Procedures & Condition	Requirements
Resistance to Soldering Heat	<p>Subject unmated connectors should be tested according to the condition listed below :</p> <p>Pre-Heat : 100~150°C (60 sec. Min.)</p> <p>Heat : 220°C (30 sec. Max.)</p> <p>Heat Peak : 260°C Max.</p> 	1. No evidence of damage.

Note : Shall meet visual requirements, show no physical damage, and shall meet requirements of additional tests as specified in Test Sequence in paragraph 8.



 WIESON TECHNOLOGIES CO., LTD.	SPECIFICATION AND PERFORMANCE	TYPE OF PRODUCT
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8. Product Qualification and Requalification Test Sequence :


A. Sample Selection :

Test samples shall be prepared in accordance with applicable Instruction Sheets and shall be selected at random from current production.

B. Test Sequence :

The following is an example of how the test sequence works : In Test Group 7, the first test is (1), examination of product, followed by test (2), temperature rise vs current, followed by test (3), examination of product. Six samples are tested in this test group.

Test Description Sequence	Test Group									
	1	2	3	4	5	6	7	8	9	10
Examination of product	1,3	1,5	1,5	1,8	1,9	1,3	1,3	1	1,5	1,3
Low Level Contact Resistance		2,4	2,4		2,6				2,4	
Insulation Resistance				2,6	3,7					
Dielectric Withstanding Voltage				3,7	4,8					
Temperature Rise vs Current							2			
Durability		3								
Solderability						2				
Vibration	2									
Humidity				5						
Thermal Shock				4						
Salt Spray					5					
Heat Resistance			3							
Cold Resistance									3	
Contact Retention								2		
Resistance to Soldering Heat										2
Sample Size per Test Group	6	6	6	6	6	6	6	6	6	6

 WIESON TECHNOLOGIES CO., LTD.	SPECIFICATION AND PERFORMANCE	TYPE OF PRODUCT
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9. Quality Assurance Provisions :

Unless otherwise specified, in the contract or purchase order, we will be responsible for the quality of the part as it is delivered to client. We will be responsible for having controlled processes to ensure product is in total compliance with this specification. Failing lots shall be subject to return or other corrective action.

Further, WIESON will not substitute components of the assembly (connector, cable, etc.) without prior written approval from client. Any such substitutions shall be submitted to client for approval prior to implementation. Substitution shall be deemed as any change in WIESON different than those previously submitted to and approved by client.

A. Re-qualification Testing :

If changes significantly affecting form, fit or function are made to the product or manufacturing process, product assurance shall coordinate requalification testing, consisting of all or part of the original testing sequence as determined by development/product, quality and reliability engineering.

B. Re-testing :

Connectors stored for a period of more than 12 months after the release of the lot shall be tested prior to delivery.

C. Acceptance :

Acceptance is based on verification that the product meets the requirements of paragraph 7. Failures attributed to equipment, test setup or operator deficiencies shall not disqualify the product. When product failure occurs, corrective action shall be taken and samples resubmitted for qualification. Test to confirm corrective action is required before resubmittal.

D. Inspection Data :

Inspection and test data shall be recorded, evaluated, and maintained as evidence of performance to these provisions.

E. Quality Conformance Inspection :

Applicable WIESON quality inspection plan will specify the sampling acceptable quality level to be used. Dimensional and functional requirements shall be in accordance with the applicable product drawing and this specification.

F. Preparation for Delivery :

Overall packaging shall be sufficient to protect against damage or loss during shipment from WIESON to destination specified in the purchase or

QMFZ2 Component - Plastics

Friday, August 10, 2001

E106764

POLYPLASTICS CO LTD

VECTRA DIV, KASUMIGASEKI BLDG, 6TH FL 2-5 KASUMIGASEKI 3-CHOME CHIYODA-KU TOKYO 100-6006 JAPAN

Material Designation: **E130i(d)(e)**

Product Description: Liquid Crystal Polymer (LCP), thermotropic aromatic polyester, designated "Vectra" furnished as pellets.

Color	Min. Thick. (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str	IEC GWIT	IEC GWFI
ALL	0.75	V-0	2	4	240	220	240	-	-
	1.5	V-0	1	4	240	220	240	-	-
	3.0	V-0	0	4	240	220	240	-	-
CTI: 4			HVTR: 0		D495: 5		IEC BP: -		

(d) Virgin and regrind up to 50% by weight incl. have the same basic material characteristics for colors NC and BK.

(e) In addition, regrind at 26 to 50% have the same basic characteristics at a minimum of 1.5mm except RTI's for the Mechanical w/Impact property is 180C.

Report Date: 08/19/1992

Underwriters Laboratories Inc®

593273003

UL94 small-scale test data does not pertain to building materials, furnishings and related contents. UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in components and parts of end-product devices and appliances, where the acceptability of the combination is determined by ULI.

測試報告 Test Report

號碼(No.) : CE/2010/32247 日期(Date) : 2010/03/12 頁數(Page) : 1 of 9

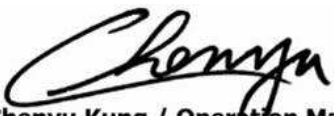
福興實業股份有限公司
FU HSING INDUSTRIAL CO., LTD.
台北市延平南路74號
74, YEN PING SOUTH RD., TAIPEI TAIWAN



以下測試樣品係由客戶送樣，且由客戶聲稱並經客戶確認如下 (The following samples was/were submitted and identified by/on behalf of the client as) :

樣品名稱(Sample Description)	:	VECTRA LCP
樣品型號(Style/Item No.)	:	E130i-VF2201、E471i-VF2201、E473i-VF2201、E481i-VF2201、E463i-VF2201、 A130-VF2201、S135-VF2201、S471-VF2201、S475-VF2201、S476-VF2201、E480i- VF2201、C130-VF2001 (本色) (NATURAL)
收件日期(Sample Receiving Date)	:	2010/03/05
測試期間(Testing Period)	:	2010/03/05 TO 2010/03/12

=====
測試結果(Test Results) : 請見下一頁 (Please refer to next pages).


Chenyu Kung / Operation Manager
Signed for and on behalf of
SGS TAIWAN LTD.
Chemical Laboratory – Taipei

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company.
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測試報告

Test Report

號碼(No.) : CE/2010/32247 日期(Date) : 2010/03/12 頁數(Page) : 2 of 9

福興實業股份有限公司
FU HSING INDUSTRIAL CO., LTD.
台北市延平南路74號
74, YEN PING SOUTH RD., TAIPEI TAIWAN



測試結果(Test Results)

測試部位(PART NAME) NO.1 : 本色塑膠粒 (NATURAL PLASTIC PELLETS)

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result)
				NO.1
鎘 / Cadmium (Cd)	mg/kg	參考IEC 62321: 2008方法, 以感應藕合電漿原子發射光譜儀檢測. / With reference to IEC 62321: 2008 and performed by ICP-AES.	2	n.d.
鉛 / Lead (Pb)	mg/kg	參考IEC 62321: 2008方法, 以感應藕合電漿原子發射光譜儀檢測. / With reference to IEC 62321: 2008 and performed by ICP-AES.	2	n.d.
汞 / Mercury (Hg)	mg/kg	參考IEC 62321: 2008方法, 以感應藕合電漿原子發射光譜儀檢測. / With reference to IEC 62321: 2008 and performed by ICP-AES.	2	n.d.
六價鉻 / Hexavalent Chromium Cr(VI) by alkaline extraction	mg/kg	參考IEC 62321: 2008方法, 以UV-VIS檢測. / With reference to IEC 62321: 2008 and performed by UV-VIS.	2	n.d.
全氟辛烷磺酸 / Perfluorooctane sulfonates (PFOS) PFOS — Acid PFOS — Metal Salt PFOS — Amide	mg/kg	參考US EPA 3540C: 1996方法, 以液相層析質譜儀檢測全氟辛烷磺酸含量. / With reference to US EPA 3540C: 1996 method for PFOS Content. Analysis was performed by LC/MS.	10	n.d.
全氟辛酸(銨) / PFOA (CAS No.: 000335-67-1)	mg/kg	參考US EPA 3540C: 1996方法, 以液相層析質譜儀檢測全氟辛酸(銨)含量. / With reference to US EPA 3540C: 1996 method for PFOA Content. Analysis was performed by LC/MS.	10	n.d.

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測試報告

Test Report

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福興實業股份有限公司
FU HSING INDUSTRIAL CO., LTD.
台北市延平南路74號
74, YEN PING SOUTH RD., TAIPEI TAIWAN



測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result) NO.1
鹵素 (氯) / Halogen-Chlorine (Cl) (CAS No.: 022537-15-1)	mg/kg	參考BS EN 14582:2007, 以離子層析儀分析. / With reference to BS EN 14582:2007. Analysis was performed by IC.	50	n.d.
鹵素 (溴) / Halogen-Bromine (Br) (CAS No.: 010097-32-2)			50	n.d.
多溴聯苯總和 / Sum of PBBs	mg/kg	參考IEC 62321: 2008方法, 以氣相層析儀/質譜儀檢測. / With reference to IEC 62321: 2008 and performed by GC/MS.	-	n.d.
一溴聯苯 / Monobromobiphenyl			5	n.d.
二溴聯苯 / Dibromobiphenyl			5	n.d.
三溴聯苯 / Tribromobiphenyl			5	n.d.
四溴聯苯 / Tetrabromobiphenyl			5	n.d.
五溴聯苯 / Pentabromobiphenyl			5	n.d.
六溴聯苯 / Hexabromobiphenyl			5	n.d.
七溴聯苯 / Heptabromobiphenyl			5	n.d.
八溴聯苯 / Octabromobiphenyl			5	n.d.
九溴聯苯 / Nonabromobiphenyl			5	n.d.
十溴聯苯 / Decabromobiphenyl			5	n.d.
多溴聯苯醚總和 / Sum of PBDEs			-	n.d.
一溴聯苯醚 / Monobromodiphenyl ether			5	n.d.
二溴聯苯醚 / Dibromodiphenyl ether			5	n.d.
三溴聯苯醚 / Tribromodiphenyl ether			5	n.d.
四溴聯苯醚 / Tetrabromodiphenyl ether			5	n.d.
五溴聯苯醚 / Pentabromodiphenyl ether			5	n.d.
六溴聯苯醚 / Hexabromodiphenyl ether			5	n.d.
七溴聯苯醚 / Heptabromodiphenyl ether			5	n.d.
八溴聯苯醚 / Octabromodiphenyl ether			5	n.d.
九溴聯苯醚 / Nonabromodiphenyl ether			5	n.d.
十溴聯苯醚 / Decabromodiphenyl ether			5	n.d.

備註(Note) :

1. mg/kg = ppm ; 0.1wt% = 1000ppm
2. n.d. = Not Detected (未檢出)
3. MDL = Method Detection Limit (方法偵測極限值)
4. "-" = Not Regulated (無規格值)

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測試報告

Test Report

號碼(No.) : CE/2010/32247 日期(Date) : 2010/03/12 頁數(Page) : 4 of 9

福興實業股份有限公司
FU HSING INDUSTRIAL CO., LTD.
台北市延平南路74號
74, YEN PING SOUTH RD., TAIPEI TAIWAN



PFOS參考資訊(Reference Information) : 指令 2006/122/EC (Directive 2006/122/EC)

- (1) 該物質不可置於市場上或使用於特殊物質或配置成分重量濃度等於或大於0.005%.

(May not be placed on the market or used as a substance or constituent of preparations in a concentration equal to or higher than 0.005 % by mass.)

- (2) 該物質不可置於市場上的半成品或商品或其物件；假若零件上明顯地具有PFOS並參照結構上及微細構造上計算PFOS重量濃度等於或大於0.1%，而紡織品或其他覆蓋物質，如果PFOS在覆蓋物質中含量等於或大於 $1\mu\text{g}/\text{m}^2$.

(May not be placed on the market in semi-finished products or articles, or parts thereof, if the concentration of PFOS is equal to or higher than 0.1 % by mass calculated with reference to the mass of structurally or microstructurally distinct parts that contain PFOS or, for textiles or other coated materials, if the amount of PFOS is equal to or higher than $1\mu\text{g}/\text{m}^2$ of the coated material.)

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測試報告

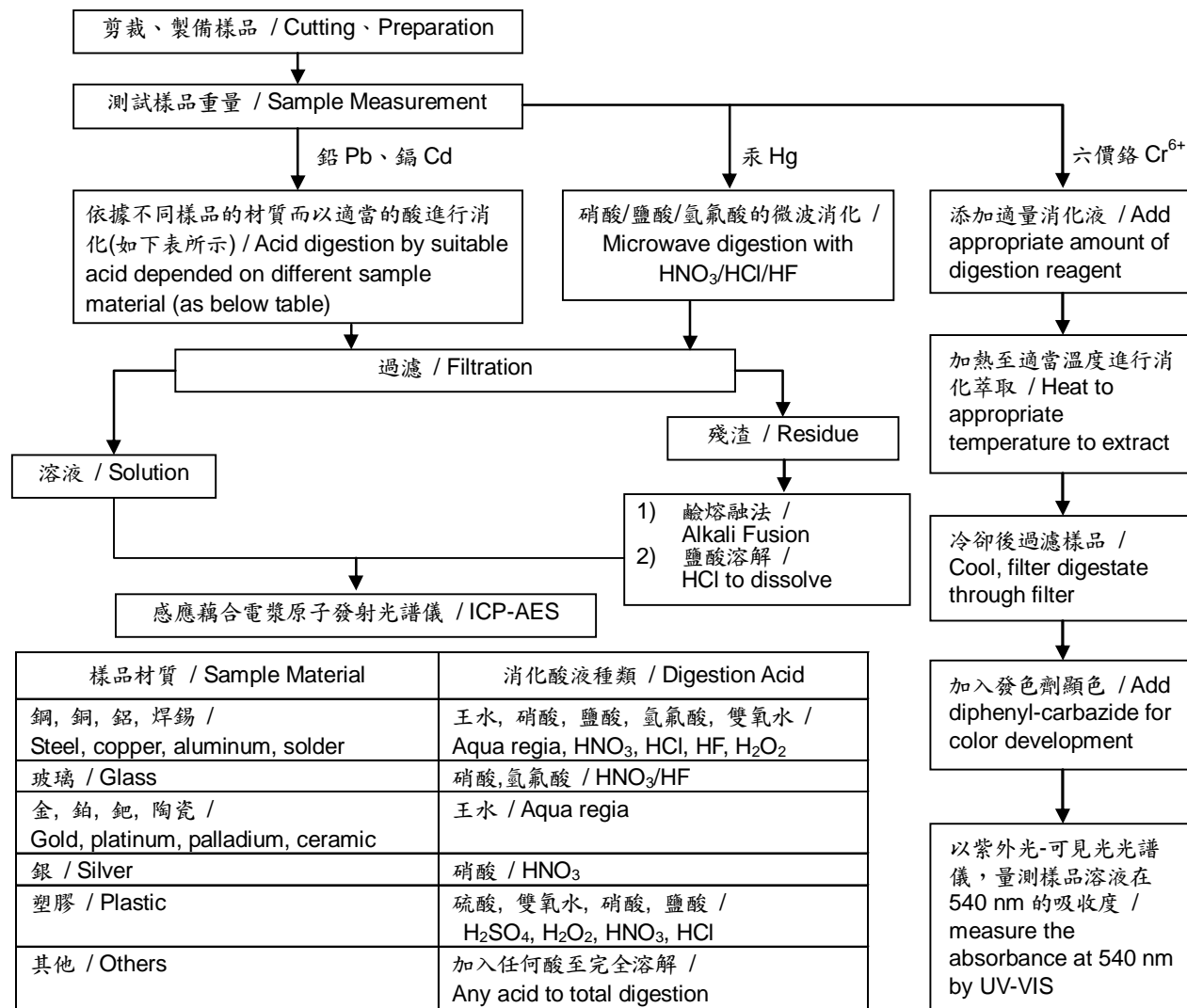
Test Report

號碼(No.) : CE/2010/32247 日期(Date) : 2010/03/12 頁數(Page) : 5 of 9

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台北市延平南路74號
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- 1) 根據以下的流程圖之條件，樣品已完全溶解。(六價鉻測試方法除外) / These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr⁶⁺ test method excluded)
- 2) 測試人員：楊登偉 / Name of the person who made measurement: Climbgreat Yang
- 3) 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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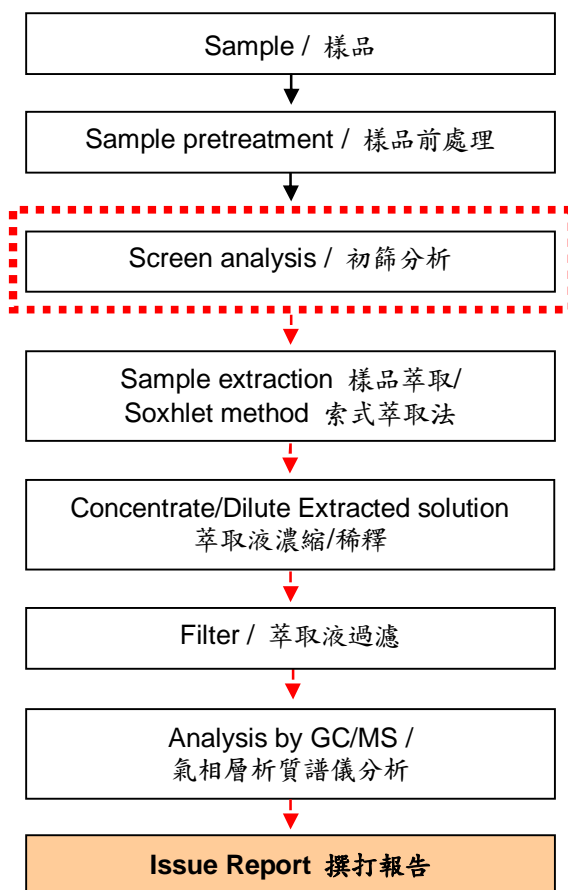
多溴聯苯/多溴聯苯醚分析流程圖 / PBB/PBDE analytical FLOW CHART

- 1) 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
2) 測試負責人：陳新智 / Name of the person in charge of measurement: Shinjyh Chen

初次測試程序 / First testing process —————>

選擇性篩檢程序 / Optional screen process>

確認程序 / Confirmation process - - - ->



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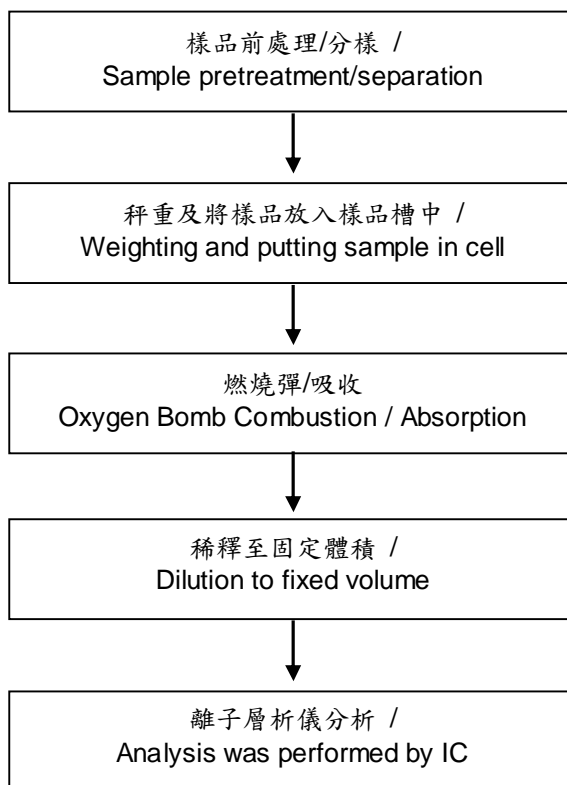
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鹵素分析流程圖 / Analytical flow chart of halogen content

- 1) 測試人員：陳恩臻 / Name of the person who made measurement: Rita Chen
- 2) 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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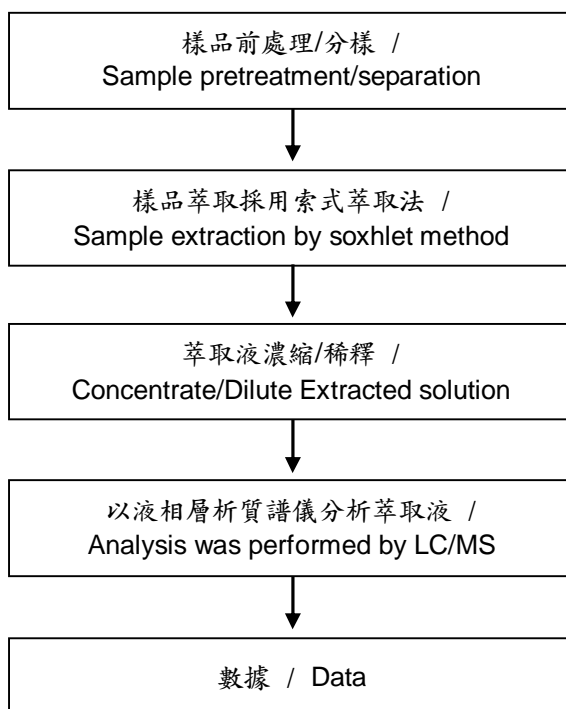
號碼(No.) : CE/2010/32247 日期(Date) : 2010/03/12 頁數(Page) : 8 of 9



索式萃取(LC/MS)分析流程圖 /

Analytical flow chart of Soxhlet extraction (LC/MS) procedure

- 1) 測試人員：傅莉雅 / Name of the person who made measurement: Lydia Fu
 - 2) 測試負責人：陳新智 / Name of the person in charge of measurement: Shinjyh Chen
- 測試項目(Test Items): 全氟辛烷磺酸/全氟辛酸(銨)、苯並三唑類化合物 /
PFOS/PFOA、Benzotriazole



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測試報告 Test Report

號碼(No.) : CE/2010/32247 日期(Date) : 2010/03/12 頁數(Page) : 9 of 9

福興實業股份有限公司
FU HSING INDUSTRIAL CO., LTD.
台北市延平南路74號
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** 報告結尾(End of Report) **

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Test Report

No. CANEC0904259405

Date: 19 Aug 2009

Page 1 of 3

TONG PENG METAL PRODUCTS(DONGGUAN)CO.,LTD
XI XING JIE,XI HU,LIN CUN.TANG XIA ZHEN.DONG GUAN SHI.GUANG DONG PROVINCE.CHINA

The following sample(s) was/were submitted and identified on behalf of the clients as :
C5210R

SGS Job No. : 12084895 - SZ
Client Reference Information : 高质磷青铜
Buyer : TONG PONG METAL PRODUCTS (DONG GUAN)CO.,LTD
Supplier : 日矿金属
SGS Internal Reference No. : 15.5
Style No. : NA
Date of Sample Received : 14 Aug 2009
Testing Period : 14 Aug 2009 - 19 Aug 2009

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).

Signed for and on behalf of
SGS-CSTC Ltd.

Sunny Huang
Lab Sr. Supervisor



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Test Report

No. CANEC0904259406

Date: 19 Aug 2009

Page 2 of 3

Test Results:

ID for specimen 1 : CAN09-042594.006
Description for specimen 1 : Copper-colored metal sheet

Elementary Analysis

Test Item(s)	Unit	Test Method (Reference)	Result	MDL
Cadmium (Cd)	mg/kg	IEC 62321:2008, ICP-OES	N.D.	2
Lead (Pb)	mg/kg	IEC 62321:2008, ICP-OES	30	2
Mercury (Hg)	mg/kg	IEC 62321:2008, ICP-OES	N.D.	2
Hexavalent Chromium (CrVI) by boiling water extraction	-	IEC 62321:2008, UV-Vis	Negative	◇

Note:

1. mg/kg = ppm
2. N.D. = Not Detected (< MDL)
3. MDL = Method Detection Limit
4. ◇ = Spot-Test:

Negative = Absence of CrVI coating, Positive = Presence of CrVI coating;

(The tested sample should be further verified by boiling-water-extraction method if the spot test result is negative or cannot be confirmed.)

Boiling-water-extraction:

Negative = Absence of CrVI coating

Positive = Presence of CrVI coating; the detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm² sample surface area.

Storage conditions and production date of the tested sample are unavailable and thus results of Cr(VI) represent status of the sample at the time of testing.

5. "-" = Not regulated



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SGS-CTC Standards Technical Services Co., Ltd.
Guangzhou Branch, Chemical Laboratory

198 Kezhu Road, Science Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663
中国·广州·经济技术开发区科学城科珠路198号

邮编: 510663 t (86-20) 82155555 f (86-20) 82075113 e sgs.china@sgs.com

GZCM3237655

Member of the SGS Group (SGS SA)

SGS

Test Report

No. CANEC0904259406

Date: 19 Aug 2009

Page 3 of 3

Sample photo:



SGS authenticate the photo on original report only

*** End of Report ***



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SGS
SGS-CTI Standards Technical Services Co., Ltd.
Guangzhou Branch - Chemical Laboratory

198 Kazhu Road, Solentech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075113 www.cn.sgs.com
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075113 e sgs.china@sgs.com

GZCM3237656

Member of the SGS Group (SGS SA)

Test Report

No. : CE/2009/A5138

Date : 2009/11/03

Page : 1 of 4

HONG XIN YUAN INDUSTRY COMMERCE CO., LTD.

FUYING INDUSTRIAL AREA, QIAOTOU VILLAGE, FUYONG TOWN, BAOAN

DISTRICT, SHENZHEN



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

Sample Description : TIN-PLATED LAYER
 SGS Ref. No. : GZ12224598EC-5.3
 Sample Receiving Date : 2009/10/27
 Testing Period : 2009/10/27 TO 2009/11/03

=====

Test Requested : In accordance with the RoHS Directive 2002/95/EC, and its amendment directives.

Test Method : With reference to IEC 62321: 2008
 Procedures for the Determination of Levels of Regulated Substances in Electrotechnical Products.

(1) Determination of Cadmium by ICP-AES.
 (2) Determination of Lead by ICP-AES.
 (3) Determination of Mercury by ICP-AES.
 (4) Determination of Hexavalent Chromium by Spot test / boiling water extraction Method.

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

Nicole Chien
Nicole Chien / Supervisor
Signed for and on behalf of
SGS TAIWAN LTD.
Chemical Laboratory - Taipei

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Test Report

No. : CE/2009/A5138

Date : 2009/11/03

Page : 2 of 4

HONG XIN YUAN INDUSTRY COMMERCE CO., LTD.

FUYING INDUSTRIAL AREA, QIAOTOU VILLAGE, FUYONG TOWN, BAOAN

DISTRICT, SHENZHEN



Test results by chemical method (Unit: mg/kg)

Test Item (s):	Method (Refer to)	Result	MDL
		No.1	
Cadmium (Cd)	(1)	n.d.	2
Lead (Pb)	(2)	59	2
Mercury (Hg)	(3)	n.d.	2
Hexavalent Chromium Cr(VI) by Spot test / boiling water extraction	(4)	Negative	See Note 4

TEST PART DESCRIPTION:

NO.1 : PLATING LAYER OF SILVER COLORED METAL

Note : 1. mg/kg = ppm; 0.1wt% = 1000ppm

2. n.d. = Not Detected

3. MDL = Method Detection Limit

4. Spot-test:

Negative = Absence of Cr(VI) coating / surface layer,

Positive = Presence of Cr(VI) coating / surface layer;

(The tested sample should be further verified by boiling-water-extraction method if the spot test result cannot be confirmed.)

Boiling-water-extraction:

Negative = Absence of Cr(VI) coating / surface layer.

Positive = Presence of Cr(VI) coating / surface layer;

the detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm² sample surface area.

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SGS Taiwan Ltd.

台灣檢驗科技股份有限公司

Chemical-Taipei 33 WuChyuan Road, Wuku Industrial Zone, Taipei County, Taiwan / 台北縣五股工業區五權路33號 t + 886 (02)2299 3279 f + 886 (02)2299 3237 www.sgs.com

Test Report

No. : CE/2009/A5138

Date : 2009/11/03

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HONG XIN YUAN INDUSTRY COMMERCE CO., LTD.

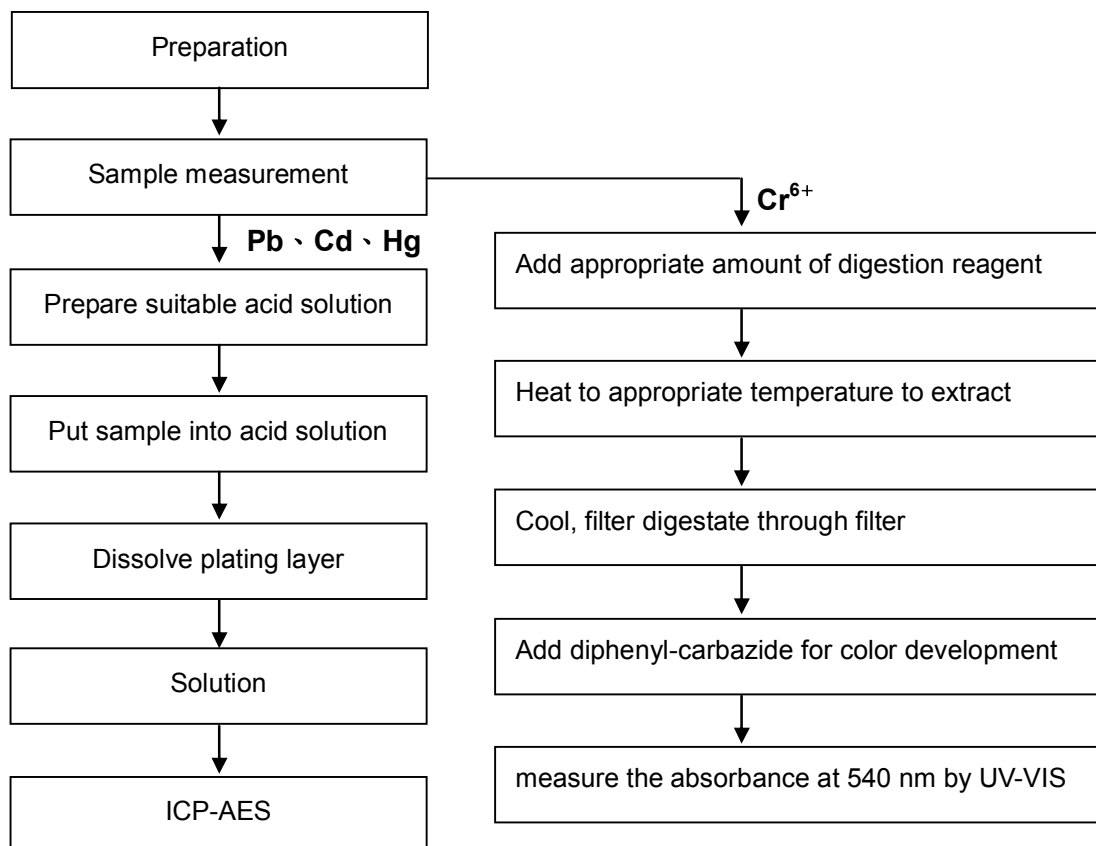
FUYING INDUSTRIAL AREA, QIAOTOU VILLAGE, FUYONG TOWN, BAOAN

DISTRICT, SHENZHEN



- 1) These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr⁶⁺ test method excluded)
- 2) Name of the person who made measurement: Climbgreat Yang
- 3) Name of the person in charge of measurement: Troy Chang

Flow Chart of Stripping method for metal analysis



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Test Report

No. : CE/2009/A5138

Date : 2009/11/03

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HONG XIN YUAN INDUSTRY COMMERCE CO., LTD.

FUYING INDUSTRIAL AREA, QIAOTOU VILLAGE, FUYONG TOWN, BAOAN

DISTRICT, SHENZHEN



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Test Report No. F690501/LF-CTSAYAU09-03600

Issued Date: August 04, 2009

Page 1 of 4

To: KOS LIMITED.
40-134,
Hangangro-3ka,
Yongsan-ku,
SEOUL
KOREA

The following merchandise was submitted and identified by the client as :

Product Name : Stainless Steel Wire 304 WPB DU S-CO
SGS File No. : AYAU09-03600
Received Date : July 30, 2009
Test Performing Date : July 31, 2009
Test Performed : SGS Testing Korea tested the sample(s) selected by applicant with following results
Test Results : For further details, please refer to following page(s)

SGS Testing Korea Co. Ltd. / Gimhae Laboratory

Sharpless Park
Annie Lim
Helen Yeo /Testing Person

Thomas Hwang / Gimhae Lab. Mgr

KOS WIRE LTD.

MANAGING DIRECTOR S. P. HONG



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(Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and each sample(s) are analyzed for 100 days only)

**Test Report No. F690501/LF-CTSAYAU09-03600**

Issued Date: August 04, 2009

Page 2 of 4

Sample No. : AYAU09-03600.001
 Sample Description : Stainless Steel Wire 304 WPB DU S-CO
 Item No./Part No. : N/A
 Comments : Material is Stainless Steel.

Heavy Metals

Test Items	Unit	Test Method	MDL	Results
Cadmium (Cd)	mg/kg	With reference to IEC 62321:2008, ICP	1	N.D.
Lead (Pb)	mg/kg	With reference to IEC 62321:2008, ICP	5	N.D.
Mercury (Hg)	mg/kg	With reference to IEC 62321:2008, ICP	2	N.D.
Hexavalent Chromium (Cr VI) By boiling water extraction*	**	With reference to IEC 62321:2008	-	Negative

Flame Retardants-PBBs/PBDEs

Test Items	Unit	Test Method	MDL	Results
Monobromobiphenyl	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Dibromobiphenyl	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Tribromobiphenyl	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Tetrabromobiphenyl	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Pentabromobiphenyl	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Hexabromobiphenyl	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Heptabromobiphenyl	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Octabromobiphenyl	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Nonabromobiphenyl	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Decabromobiphenyl	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Monobromodiphenyl ether	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Dibromodiphenyl ether	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Tribromodiphenyl ether	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Tetrabromodiphenyl ether	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Pentabromodiphenyl ether	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Hexabromodiphenyl ether	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Heptabromodiphenyl ether	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Octabromodiphenyl ether	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.

- NOTE: (1) N.D. = Not detected. (<MDL)
 (2) mg/kg = ppm
 (3) MDL = Method Detection Limit
 (4) - = No regulation
 (5) ** = Qualitative analysis (No Unit)
 (6) * = Boiling-water-extraction:

Negative = Absence of CrVI coating

Positive = Presence of CrVI coating; the detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm² sample surface area.

KOS WIRE LTD.

J. P. Hong

MANAGING DIRECTOR J. P. HONG



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Results reference listed the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 180 days only.

Sample No. : AYAU09-03600.001
 Sample Description : Stainless Steel Wire 304 WPB DU S-CO
 Item No./Part No. : N/A
 Comments : Material is Stainless Steel.

Flame Retardants-PBBs/PBDEs

Test Items	Unit	Test Method	MDL	Results
Nonabromodiphenyl ether	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.
Decabromodiphenyl ether	mg/kg	With reference to IEC 62321:2008, GC-MS	5	N.D.

Picture of Sample as Received:



- NOTE: (1) N.D. = Not detected. (<MDL)
 (2) mg/kg = ppm
 (3) MDL = Method Detection Limit
 (4) - = No regulation
 (5) ** = Qualitative analysis (No Unit)
 (6) * = Boiling-water-extraction:
 Negative = Absence of CrVI coating
 Positive = Presence of CrVI coating; the detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm² sample surface area.

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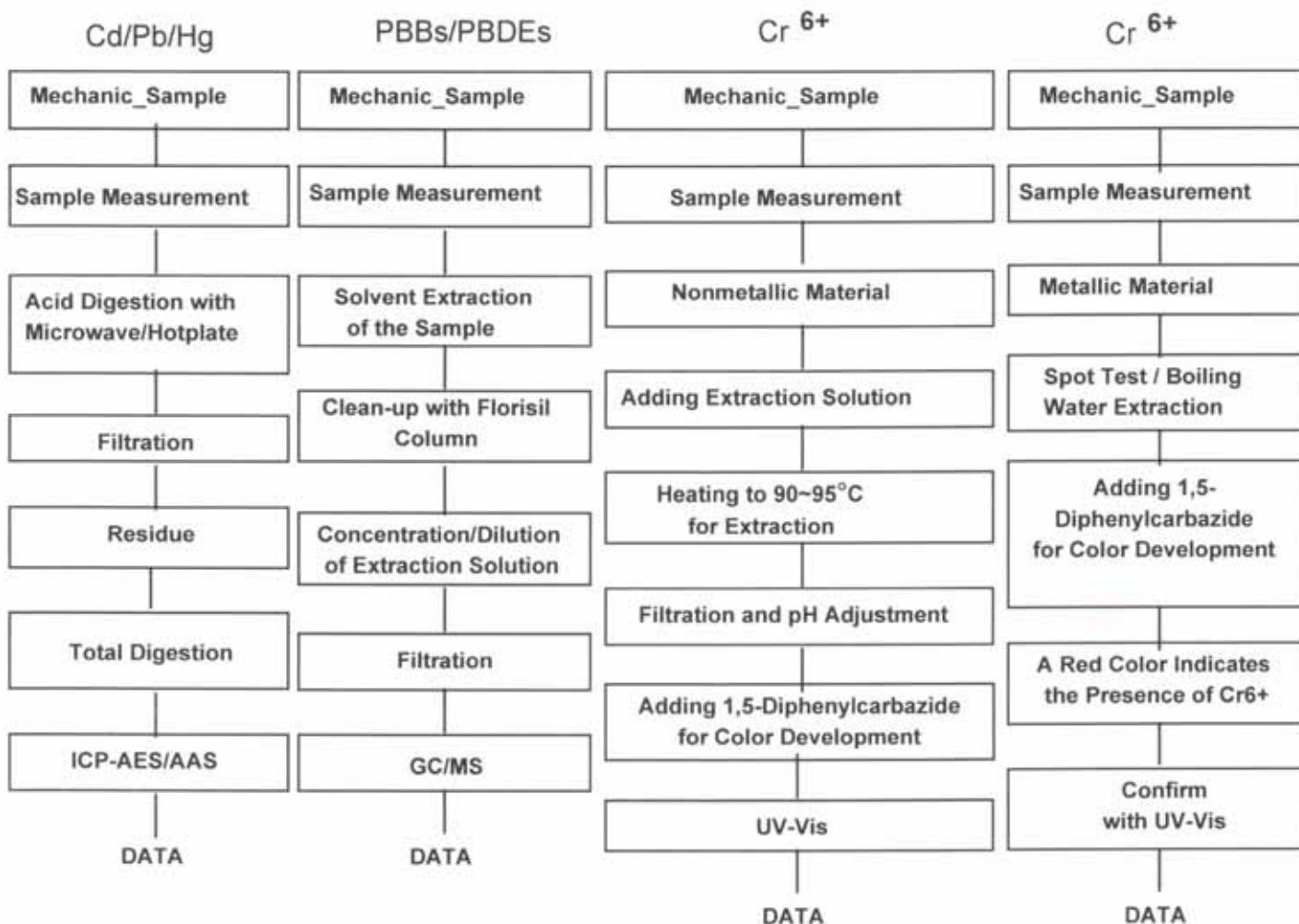
S. P. Hong

MANAGING DIRECTOR S. P. HONG



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Testing Flow Chart for RoHS: Cd/Pb/Hg/Cr⁶⁺/PBBs/PBDEs Testing



The samples were dissolved totally by pre-conditioning method according to above flow chart for Cd,Pb,Hg.

Operator Sharpless Park

Section Chief Thomas Hwang

*** End ***

FOS WIRE LTD.

Thomas Hwang
MANAGING DIRECTOR F. P. HONG

NOTE:

- (1) N.D. = Not detected.(<MDL)
- (2) mg/kg = ppm
- (3) MDL = Method Detection Limit
- (4) - = No regulation
- (5) ** = Qualitative analysis (No Unit)
- (6) * = Boiling-water-extraction;
Negative = Absence of CrVI coating
Positive = Presence of CrVI coating; the detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm² sample surface area.



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测试报告

No. SHAEC1002283801

日期: 2010年03月16日

第2页,共6页

测试结果:

样品部件外观描述:

样品编号	SGS样品ID	描述
1	SHA10-022838.001	棕色胶带

备注:

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL = 检测极限值
- (3) ND = 未检出 (< MDL)
- (4) "-" = 未规定

RoHS指令2002/95/EC

测试方法: 参照IEC 62321:2008:

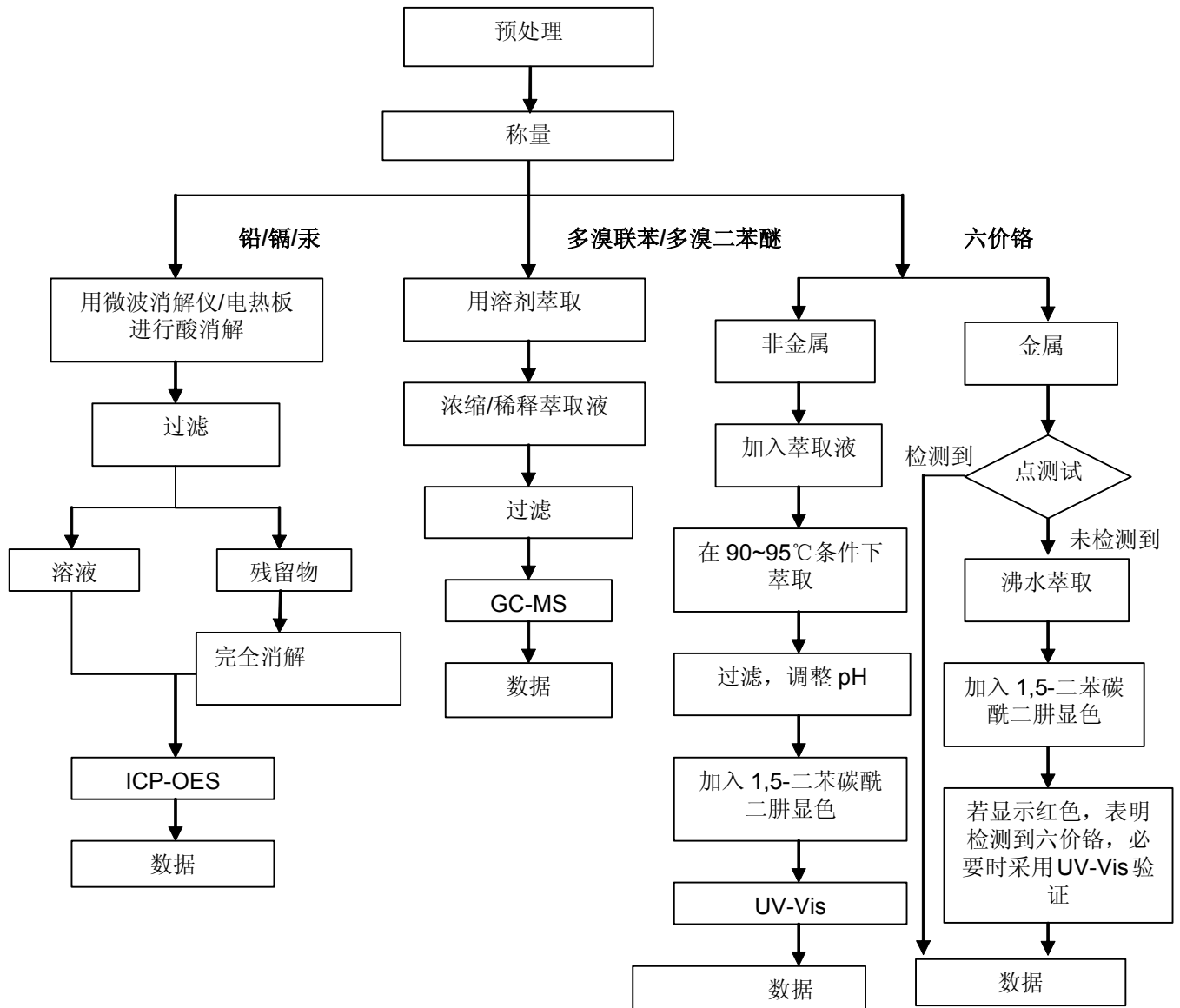
- (1) 用ICP-OES测定镉的含量.
- (2) 用ICP-OES测定铅的含量.
- (3) 用ICP-OES测定汞的含量.
- (4) 用紫外-可见分光光度计比色法测定六价铬的含量.
- (5) 用GC-MS测定PBBs(多溴联苯)和PBDEs(多溴二苯醚)的含量.

测试项目	限值	单位	MDL	001
镉(Cd)	100	mg/kg	2	ND
铅(Pb)	1,000	mg/kg	2	ND
汞(Hg)	1,000	mg/kg	2	ND
六价铬(CrVI)	1,000	mg/kg	2	ND
多溴联苯之和(PBBs)	1,000	mg/kg	-	ND
一溴联苯	-	mg/kg	5	ND
二溴联苯	-	mg/kg	5	ND
三溴联苯	-	mg/kg	5	ND
四溴联苯	-	mg/kg	5	ND
五溴联苯	-	mg/kg	5	ND
六溴联苯	-	mg/kg	5	ND
七溴联苯	-	mg/kg	5	ND
八溴联苯	-	mg/kg	5	ND
九溴联苯	-	mg/kg	5	ND
十溴联苯	-	mg/kg	5	ND
多溴二苯醚之和(PBDEs)	1,000	mg/kg	-	ND
一溴二苯醚	-	mg/kg	5	ND

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附件

- 1) 分析人员: 韩玮/方何裔/左克春/林以琳
- 2) 项目负责人: 王卫/沈建萍
- 3) 样品按照下述流程被完全消解(六价铬和多溴联苯/多溴二苯醚测试除外)。



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BUREAU VERITAS
Certification



Certification

Awarded to

WIESON TECHNOLOGIES (DONG GUAN) CO., LTD.

HUAN GANG, HOUJIE TOWN, DONGGUAN CITY, GUANGDONG, P.R. CHINA.

Bureau Veritas Certification certify that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

STANDARD

ISO 9001 : 2008

SCOPE OF SUPPLY

DESIGNING, MANUFACTURING AND SALES OF ELECTRONIC AND AUTOMOTIVE CONNECTORS, CABLES, WIRE HARNESS, FIBER PASSIVE COMPONENTS, RF AND ANTENNA PRODUCTS, CAR AUDIO AND VIDEO, PLASTIC INJECTION, STAMPING PARTS, TOOLING MOLD, LED LIGHTING, HOME STERO.

Original Approval Date: **20 MARCH 2006**

Subject to the continued satisfactory operation of the organisation's Management System, this certificate is valid until: **23 DECEMBER 2011**

To check this certificate validity please call (+86 20 8130 0800)

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation

Certificate Number: 272375

Date : 22 JANUARY 2009

Fanny Zou
South District Manager



Certification Authority Office:
Bureau Veritas Certification (HK) Limited
Rm 23- 25,10/F., Pacific Trade Centre, 2 Kai Hing Road,
Kowloon Bay, Kowloon, Hong Kong

Managing Office:
Bureau Veritas Certification
Rm.1802 Bank of America Plaza,
No.555 Ren Min Zhong Road, Guangzhou, China.



Green Products' management

- Distinguish Green Products and normal ones by obvious and special part number, and manage production, quality assurance, warehouse and shipment by P/N.
- **Finished products:** A “G” will be marked ahead original P/N.
e.g. G3281-030201
- **Materials:** A “G” will be marked ahead original P/N if there's specified materials(environmental materials)or specified process(e.g. Pb-free plating) e.g.GM3281-050304
- **Standard:** Green Product is compliant with [Specification for Wieson's Green Products(WSC-WG-QU-148)], which is based on the SS-00259 and RoHS (2002/95/EC) Directive.