



东莞市商旗电子有限公司
山旗电子(香港)实业有限公司
承 认 书

SPECIFICATION FOR APPROVAL

客户名称 (CUSTOMER):

品名规格 (DESCRIPTION): 1. 45H, MICRO. SIM CARD CONNECTOR

客户料号: (PART NO.) :

料 号 (PART NO.): ST-SIM-006M

送样日期 (DATE):

客 户 公 司			东莞市商旗电子有限公司 山旗电子(香港)实业有限公司		
品管部 QC DEP	工程部 ENG DEP	采购部 PUR DEP	品管部 QC DEP	工程部 ENG DEP	营业部 TRA DEP
			方工	曾工	PETER

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- NOTES:

SIM SOCKET CONN.

1. SCOPE

This specification covers the sim socket connector.

1.2. QUALIFICATION

Tests are to be performed by the procedures stated in this specification. All inspections shall be conducted using the inspections plan for this product and product drawing.

2. APPLICABLE DOCUMENT

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

3. REQUIREMENTS

3.1.DESIGN AND CONSTRUCTION

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

3.2.MATERIALS

- A. Housing : High Temperature,Thermoplastic UL94V-0,Black color
- B. Contact : Copper alloy, Gold plating with Nickel underplated.
- C. Shell : Stainless steel , Tim plating over all.

3.3.RATINGS

- A. Voltage: **250** VAC rms.
- B. Current: **1** A Max
- C. Temperature: - **55** °C to +**105**°C

3.4.STORAGE TEMPERATURE:

Storage temperature range is the range of ambient temperature at which the connector housing can be stored without load **-40°C ~ +105°C**

3.5.PERFOMANCE REQUEIREMENT AND TEST DESCRIPTION

The product shall be designed to meet the electrical, mechanical and environmental performance requirements specified in Figure 1. All tests shall be performed at ambient environmental conditions per AMP Specification 109-1TEST REQUIREMENTS AND PROCEDURES SUMMARY.

DR	DATE	APVD	DATE
caiyerong	03/26/10'		03/26/10

3.6.TEST REQUIREMENTS AND PROCEDURES SUMMARY

Test Item		Requirement	Procedure
1	Examination of Product	Meets requirements of product drawing. No physical damage.	Visual inspection.
ELECTRICAL REQUIREMENT			
2	Contact Resistance	50 m Ohm Max(Initial) 100 m Ohm Max(Final)	Subject mated contacts assembled in housing to 20mV Max open circuit at 10mA Max. EIA-364-23A.
3	Dielectric withstanding Voltage	No creeping discharge or flashover shall occur. Current leakage: 0.5 mA MAX	100 VAC for 1minute Test between adjacent circuits of unmated connector. EIA-364-20A
4	Insulation Resistance	100 M Ohm Min.	Impressed voltage 250 VDC. Test between adjacent circuits of unmated connector. EIA-364-21A.
MECHANICAL REQUIREMENT			
5	Vibration	No evidence of physical damage Current discontinuity $\leq 10 \mu s$ Contact Resistance $\leq 100m\Omega$	Frequency span : 10 Hz ~ 55 Hz ~ 10 Hz (in 1 min.) This motion shall be applied for 6 hrs in each of 3 mutually perpendicular direction. Amplitude : 1.52mm Max. EIA-364-28A
6	Mechanical Shock	Appearance : No damage, loose part nor crack Discontinuity: 10 μs MAX Contact Resistance $\leq 100m\Omega$	All contacts shall be connected in series and 5Volt DC 100mA shall be applied. Maximum acceleration: 490 m/s ² Half sine wave.(Duration: 11 ms) Direction: 3 directions (X,Y,Z) 3 times per each direction
7	Durability	No evidence of physical damage Contact Resistance $\leq 100m\Omega$	(pressed and released) 5000 Cycles at 20 Cycles/ minute travelling : specified in the drawing sheet EIA-RS-364-09A
8	Contact retention force	50gf /pin Min.	Measure the contact retention force with Tensile strength tester.
9	Contact Normal Force	60gf/pin min	Measured by means of tensile force test equipment

ENVIRONMENTAL REQUIREMENTS			
10	Humidity Test (Steady state)	No evidence of physical damage, Contact resistance $\leq 100 \text{ m}\Omega$ Insulation Resistance $\geq 1000 \text{ M}\Omega$ No evidence of discharge or flashes occur	samples assembly with P.C.B and without P.C.B Exposing in the test chamber at temperature of $40\pm 2^\circ\text{C}$ with 90~95% RH for 96 hours. Then placed in ambient temperature for 1 ~ 2 hrs. EIA-RS-364-31A
11	Thermal Shock	No evidence of physical damage, Contact resistance $\leq 100 \text{ m}\Omega$ Insulation Resistance $\geq 1000 \text{ M}\Omega$ No evidence of discharge or flashes occur	Mated Connector $-55\pm 3^\circ\text{C}$ (30 minutes), $+5^\circ\text{C} \sim +35^\circ\text{C}$ (5 minutes) $+85\pm 2^\circ\text{C}$ (30 minutes), $+5^\circ\text{C} \sim +35^\circ\text{C}$ (5 minutes) Perform this a cycle, repeat 5 cycles EIA-364-32C
12	Temperature Life	No evidence of physical damage, Contact resistance $\leq 100 \text{ m}\Omega$ Insulation Resistance $\geq 1000 \text{ M}\Omega$ No evidence of discharge or flashes occur	Unmated connector. $85\pm 2^\circ\text{C}$ for 96 hours
PHYSICAL			
13	Solderability	No evidence of physical damage Coverage 95% Min.	5 ~ 10 sec. dipped into soldering flux Then subject leads of connector to solder bath , Sn63, at $260 \pm 5^\circ\text{C}$ for 10 ± 0.5 seconds EIA-RS-364-52
14	Salt Spray	No detrimental corrosion allowed in contact area. Contact resistance $\leq 100 \text{ m}\Omega$	samples assembly with P.C.B Salt water concentration : 5 % weight ratio Exposing in the test chamber at temperature of $35\pm 2^\circ\text{C}$ for 16 hours Then placed in ambient temperature for 1 ~ 2 hrs EIA-RS-364-26A
15	Resistance to soldering heat	No evidence of physical damage	Test condition for reflow soldering(Fig 1)

3.7. PRODUCT QUALIFICATION AND REQUALIFICATION TEST

Test or Examination		Test Group(a)										
		A	B	C	D	E	F	G	H	I	J	K
1	Examination of Product	1,5	1, 5	1,5	1, 8	1, 7	1,6	1,4	1,3			
2	Contact Resistance	2,4	2,4	2, 4	2, 6	2,6	2,5					
3	Insulation Resistance				3,5							
4	Dielectric withstanding Voltage			,	7							
5	Mechanical Shock						4					
6	Contact normal force					3,5						
7	Contact retention force							3				
8	Durability					4						
9	Vibration						3					
10	Humidity				4							
11	Salt Spray		3									
12	Temperature Life			3								
13	Thermal Shock	3										
14	Solderability								2			
15	Hot air reflow or IR reflow for SMD curing process							2				
	Numbers(pcs) (sample quantity)	5	5	5	5	5	5	5	5			

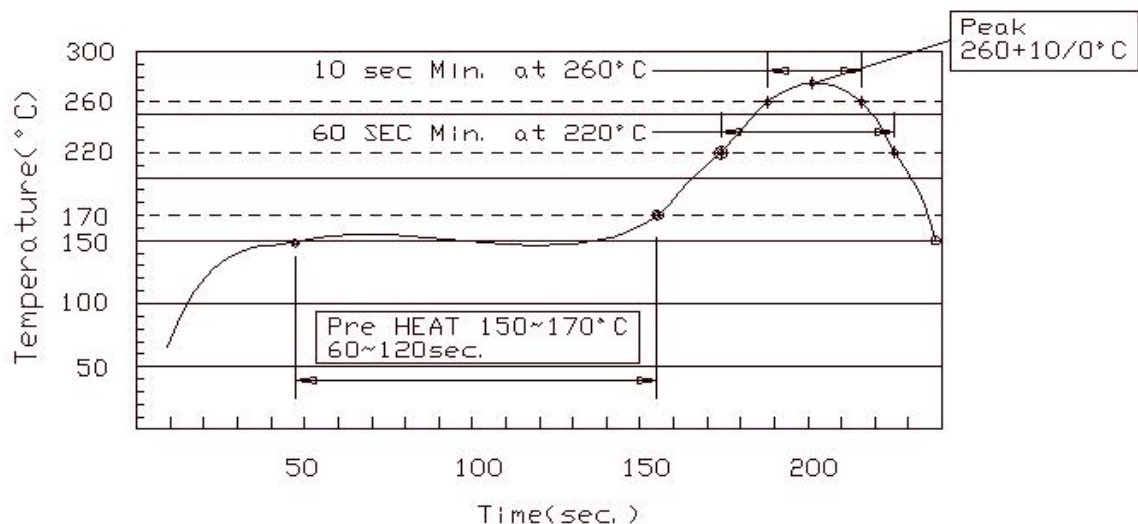


Fig.1 Temperature profile of Infrared Reflow Soldering for evaluation

Test Report

No. CANEC1301487101

Date: 31 Jan 2013

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DONGGUAN GOLDSUN COPPER PRODUCTS CO.,LTD.

NO.8,CHUANGSHENG ROAD,THE SECOND INDUSTRIAL SHANGSHA CHANG'AN TOWN DONGGUAN
CITY
CHINA

The following sample(s) was/were submitted and identified on behalf of the clients as : C5191

SGS Job No. : CP13-004377 - GZ

Date of Sample Received : 28 Jan 2013

Testing Period : 28 Jan 2013 - 31 Jan 2013

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 samples, the results of Lead,
Mercury, Cadmium, Hexavalent chromium 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.



Almay Gao

Approved Signatory

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Test Results :

Test Part Description :

Specimen No.	SGS Sample ID	Description
1	CAN13-014871.001	Copper-colored metal sheet

Remarks :

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

RoHS Directive 2011/65/EU

Test Method : With reference to IEC 62321:2008

- (1) Determination of Cadmium by ICP-OES.
- (2) Determination of Lead by ICP-OES.
- (3) Determination of Mercury by ICP-OES.
- (4) Determination of Hexavalent Chromium by Spot test / Colorimetric Method using UV-Vis.

Test Item(s)	Limit	Unit	MDL	001
Cadmium (Cd)	100	mg/kg	2	ND
Lead (Pb)	1,000	mg/kg	2	11
Mercury (Hg)	1,000	mg/kg	2	ND
Hexavalent Chromium (CrVI)	-	-	◇	Negative

Notes :

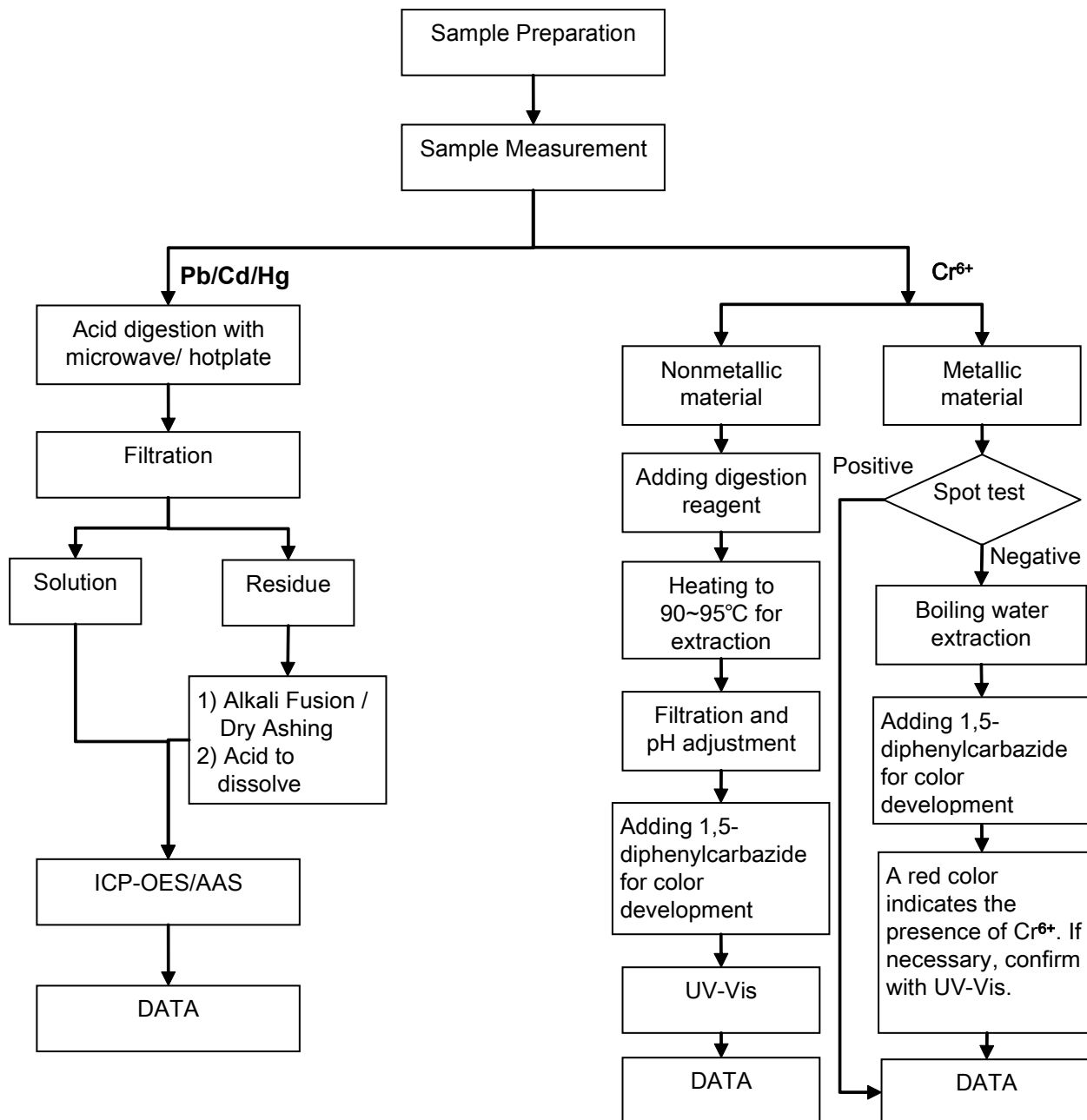
- (1) The maximum permissible limit is quoted from the directive 2011/65/EU, Annex II
- (2) ◇Spot-test:
Negative = Absence of CrVI coating, Positive = Presence of CrVI coating;
(The tested sample should be further verified by boiling-water-extraction method if the spot test result is Negative or cannot 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.
Information on storage conditions and production date of the tested sample is unavailable and thus results of Cr(VI) represent status of the sample at the time of testing.

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ATTACHMENTS

RoHS Testing Flow Chart

- 1) Name of the person who made testing: Michael Tso
- 2) Name of the person in charge of testing: Adams Yu
- 3) These samples were dissolved totally by pre-conditioning method according to below flow chart (Cr⁶⁺ test method excluded).



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Sample photo:



SGS authenticate the photo on original report only

*** End of Report ***

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TEST REPORT

REPORT NO.JP/2013/011640

DATE: Jan 11,2013

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CLIENT : Polyplastics Co.,Ltd.
18-1 Konan 2-home, Minato-ku,
Tokyo 108-8280 JP
SAMPLE DESCRIPTION : Liquid Crystal Polymer (LCP)
CLIENT REF.NO : VECTRA® E130I
SAMPLE RECEIVED : 2013/01/07
TESTING DATE : 2013/01/07 TO 2013/01/11

TEST SAMPLE(S) : THE ABOVE SAMPLE(S) WAS/WERE SUBMITTED AND IDENTIFIED
BY/ON BEHALF OF THE CLIENT,

TEST METHOD(S) : ALL THE TESTING REGARDING TO 6 SUBSTANCES IN ACCORDANCE WITH RoHS
DIRECTIVE ARE BASED ON IEC62321/2nd CDV.

TEST RESULT(S) : PLEASE REFER TO ATTACHED PAGE(S)

後藤 邦之
Kuniyuki Goto / Laboratory Manager
SGS Far East Ltd.,Green Testing Center

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TEST RESULT(S) AND METHOD(S)

TEST ITEM(S)	UNIT	RESULT	METHOD	INSTRUMENT	MDL
CADMIUM(Cd)	ppm	N.D.	Microwave digestion with HNO ₃ /HCl/HF	ICP-OES	2
LEAD(Pb)	ppm	N.D.	Microwave digestion with HNO ₃ /HCl/HF	ICP-OES	2
MERCURY(Hg)	ppm	N.D.	Microwave digestion with HNO ₃ /HCl/HF	ICP-OES	2
CHROMIUM VI(Cr(VI))	ppm	N.D.	Alkaline extraction	UV-Vis	2
Polybrominated biphenyls(PBBs)					
Monobromobiphenyl	ppm	N.D.	Solvent extraction method	GC/MS	5
Dibromobiphenyl	ppm	N.D.			5
Tribromobiphenyl	ppm	N.D.			5
Tetrabromobiphenyl	ppm	N.D.			5
Pentabromobiphenyl	ppm	N.D.			5
Hexabromobiphenyl	ppm	N.D.			5
Heptabromobiphenyl	ppm	N.D.			5
Octabromobiphenyl	ppm	N.D.			5
Nonabromobiphenyl	ppm	N.D.			5
Decabromobiphenyl	ppm	N.D.			5
Polybrominated diphenyl ethers(PBDEs)					
Monobromodiphenyl ether	ppm	N.D.	Solvent extraction method	GC/MS	5
Dibromodiphenyl ether	ppm	N.D.			5
Tribromodiphenyl ether	ppm	N.D.			5
Tetrabromodiphenyl ether	ppm	N.D.			5
Pentabromodiphenyl ether	ppm	N.D.			5
Hexabromodiphenyl ether	ppm	N.D.			5
Heptabromodiphenyl ether	ppm	N.D.			5
Octabromodiphenyl ether	ppm	N.D.			5
Nonabromodiphenyl ether	ppm	N.D.			5
Decabromodiphenyl ether	ppm	N.D.			5

NOTES: UNIT: ppm = mg/kg
RESULT: N.D. = Not Detected
MDL: Method Detection Limit

REMARK: Test process and/or expression of test result have been specified by client.

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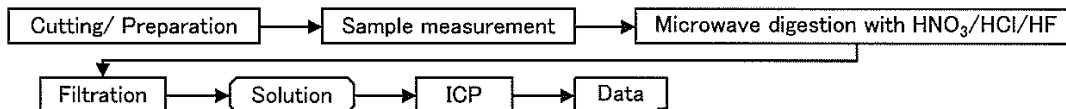
DATE: Jan 11, 2013

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MEASUREMENT FLOW CHART

Cd and/or Pb

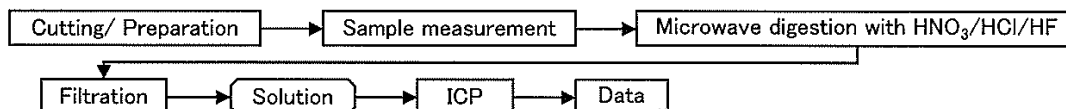
/ Microwave digestion method



The samples were dissolved totally by pre-conditioning method according to above flow chart.

Hg

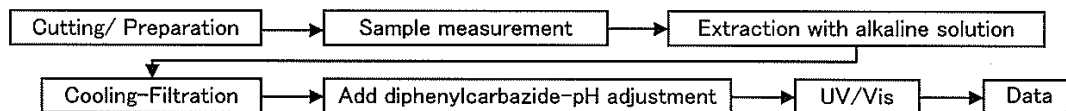
/ Microwave digestion method



The samples were dissolved totally by pre-conditioning method according to above flow chart.

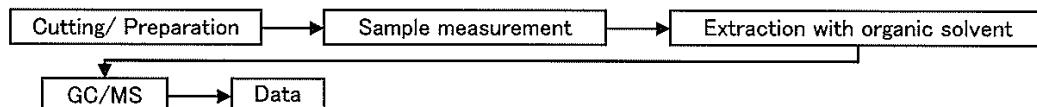
Cr(VI) -Hexavalent Chromium-

/ Alkaline extraction method



PBBs/PBDEs

/ Solvent extraction method



Section chief Yukihiro Ouchi

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SAMPLE IMAGE



<END>

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