先進數位科技股份有限公司

文件管制中心 97.5.13 發行章

零 件 承 認 書

部品料號：46-62112-001

部品名稱：ANT Internal 2.4GHZ Standard Module 百展
WBA-240-081-100-IPEX(III)

制定單位：9A1530

製造廠商：百展科技有限公司　代理商：

版　　次：1.0　頁　數：　頁

發行日期：2008/04/14

備　註：

k-HS Report：電子檔.

核　准	會　簽		審　核	製　作
	PE	QC		
				黃奕章

先進數位科技股份有限公司

2.4G Antenna

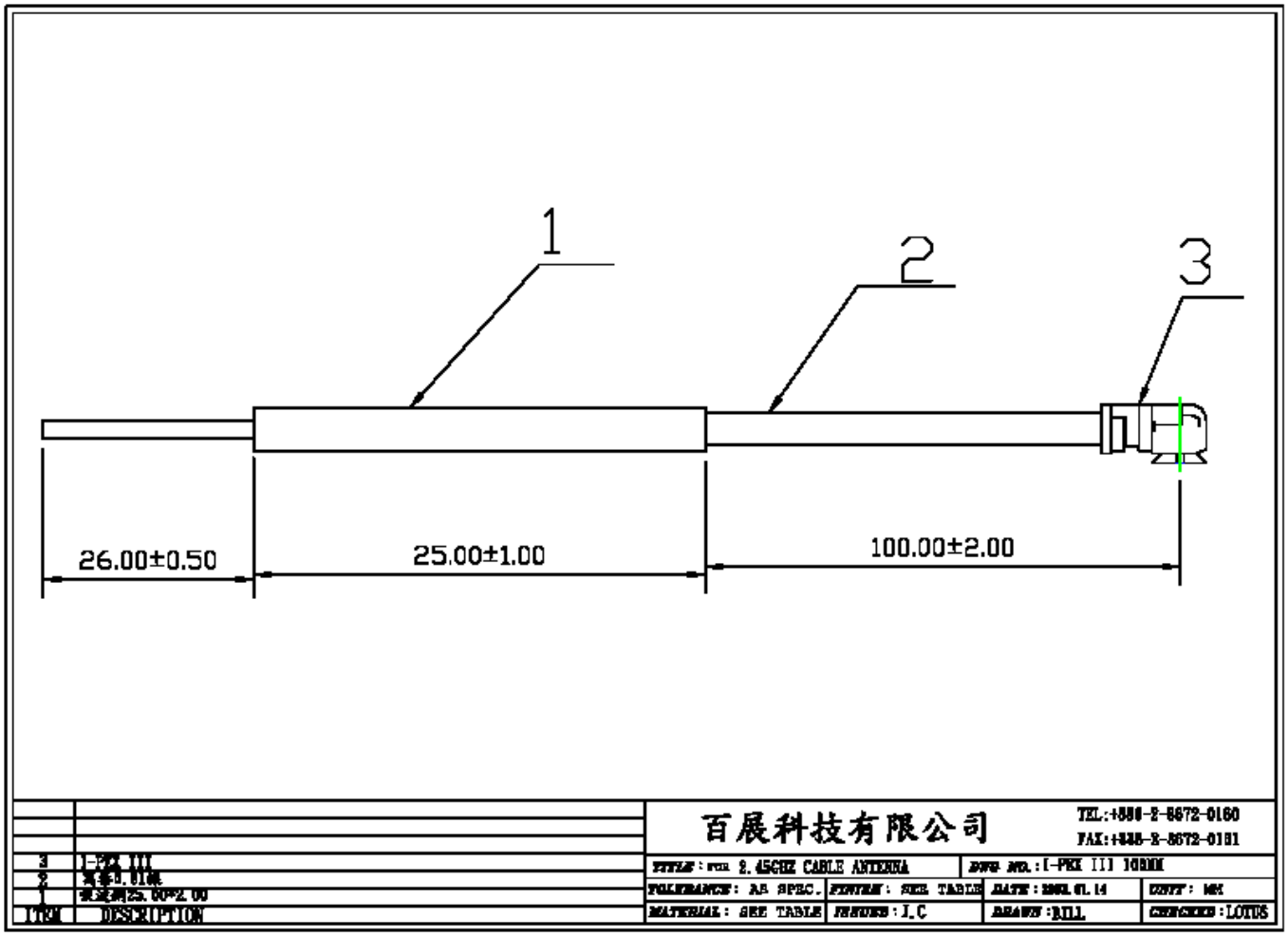
MODEL: WBA-240

P/N:WBA-240-081-100-IPEX(III)

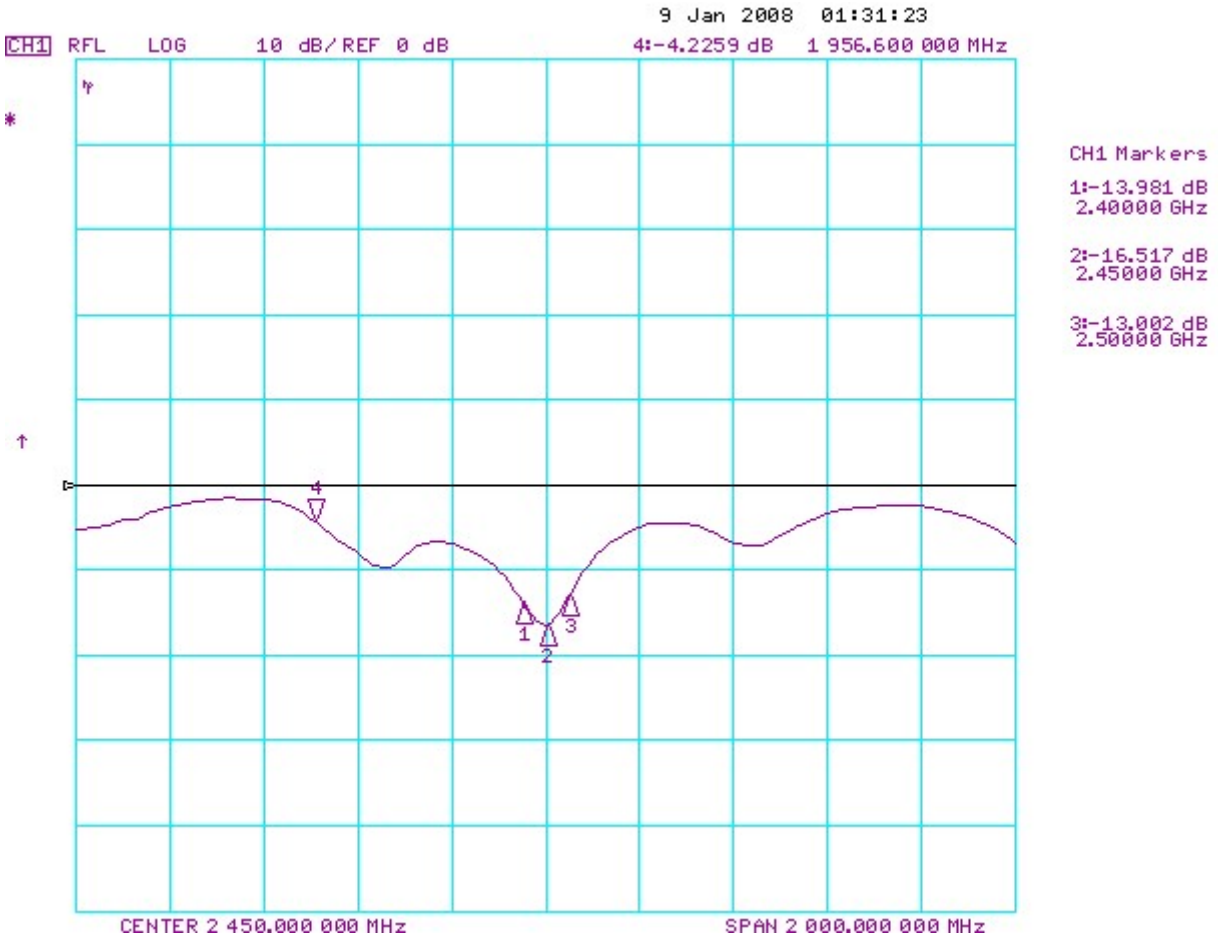
SPECIFICATION-ELECTRIC

1.	WORKING FREQUENCE	2.400-2.500GHz
2.	ELECTRIC WAVE	1/2 λ ：DIPOLE
3.	IMPEDANCE	50 Ohm , Nominal
4.	V.S.W.R	1.8 MAX
5.	GAIN	2.0 dBi
6.	RADIATION	0 mni
7.	POLARIZATION	VERTICAL
8.	POWER HANDLING	1 W MAX
9.	OPERATING TEMPERATURE	-20˚C -- +50˚C

先進數位科技股份有限公司



先進數位科技股份有限公司



SGS REPORT

SUBJECT: Survey for Environmental-Related Substances

I-PEX Co.,Ltd.Japan

This ia applied for the following products:

I-PEX Product Name	I-PEX Part Number
MHF PLUG Connector	20278-111R-08 20278-111R-13 20278-111R-32 20278-111R-18 20351-111R-37

Attachment:

Survey Form on Environmental Impact Substances Contained in Parts and Materials

SGS TEST REPORT for MHF PLUG connector

Please refer to the attached SGS REPORT.

Component name	SGS Report No.
HOUSING (White)	CE_2007_46123
HOUSING (Black)	CE_2007_46124
CONTACT	CE_2007_46148
GROUND CONTACT	CE_2007_46149

Remark:* The SGS Test Report can be applied to a component.

Test Report

I-PEX JP CO., LTD.
6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN

No. : CE/2007/46149
Date : 2007/05/02

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

Sample Description	:	MHF PLUG GROUND CONTACT
Style/Item No.	:	1927-231
Sample Receiving Date	:	2007/04/25
Testing Period	:	2007/04/25 TO 2007/05/02

==========

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

Daniel Yeh, M.R. / Operation Manager
Signed for and on behalf of
SGS TAIWAN LTD.

Test Report

I-PEX JP CO., LTD.
6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN

No. : CE/2007/46149
Date : 2007/05/02

Test Result(s)

PART NAME NO.1 : GOLDEN COLORED METAL

Test Item (s):	Unit	Method	MDL	Result No.1
Cadmium (Cd)	mg/kg	With reference to IEC 62321, Ed.1 111/54/CDV. Determination of Cadmium by ICP-AES.	2	n.d.
Lead (Pb)	mg/kg	With reference to IEC 62321, Ed.1 111/54/CDV. Determination of Lead by ICP-AES.	2	11
Mercury (Hg)	mg/kg	With reference to IEC 62321, Ed.1 111/54/CDV. Determination of Mercury by ICP-AES.	2	n.d.
Hexavalent Chromium Cr(VI) by alkaline extraction	mg/kg	With reference to IEC 62321, Ed.1 111/54/CDV. Determination of Hexavalent Chromium by UV/Vis Spectrometry.	2	n.d.
Copper (Cu)	%	With reference to US EPA Method 3050B for Copper Content. Analysis was performed by ICP-AES.	0.0002	91.845
Gold (Au)	mg/kg	With reference to US EPA Method 3050B for Gold Content. Analysis was performed by ICP-AES.	2	2305
Nickel (Ni)	%	With reference to US EPA Method 3050B for Nickel Content. Analysis was performed by ICP-AES.	0.0002	3.005

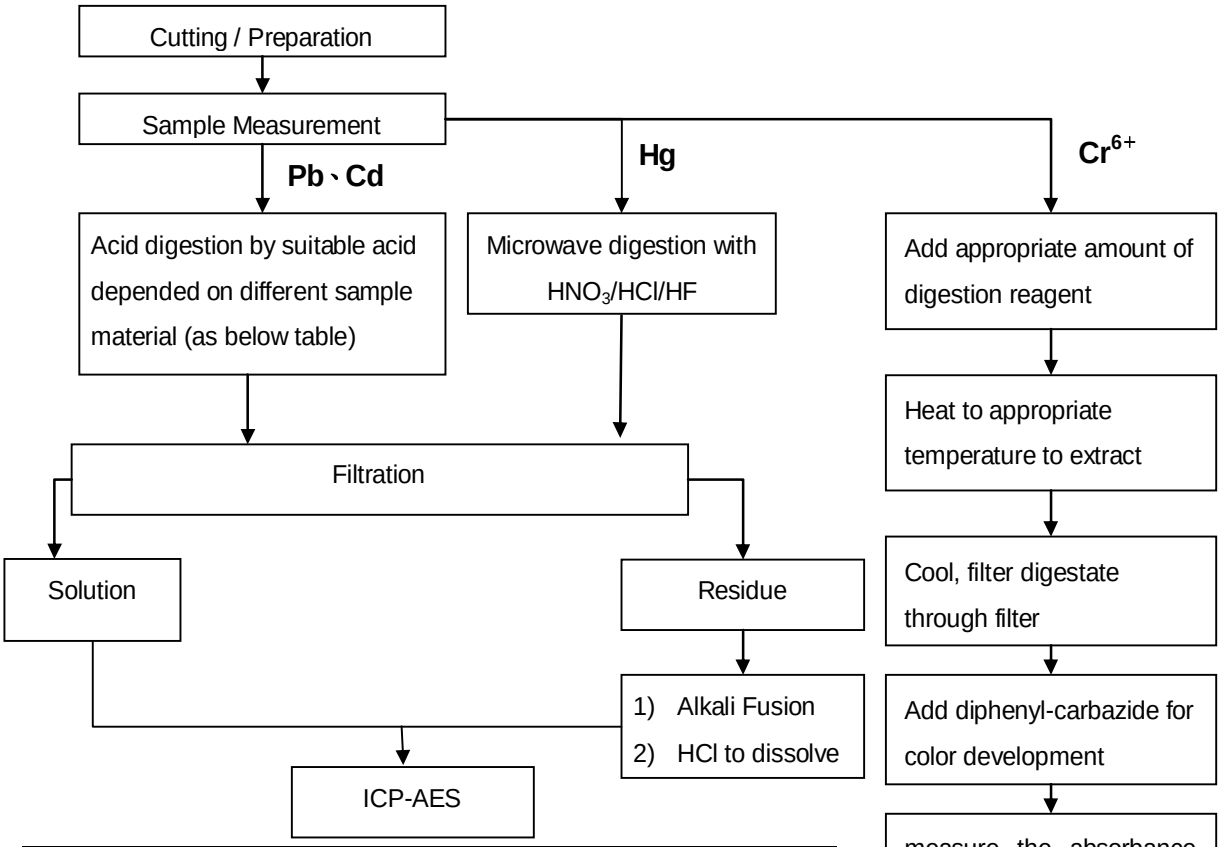
Note： 1. mg/kg = ppm
2. n.d. = Not Detected
3. MDL = Method Detection Limit

Test Report

I-PEX JP CO., LTD.
6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN

No. : CE/2007/46149
Date : 2007/05/02

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: Troy Chang
3) Name of the person in charge of measurement: Daniel Yeh



Sample Material	Digestion Acid
Steel, copper, aluminum, solder	Aqua regia, HNO_3, HCl, HF, H_2O_2
Glass	HNO_3/HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO_3
Plastic	H_2SO_4, H_2O_2, HNO_3, HCl
Others	Any acid to total digestion

Test Report

I-PEX JP CO., LTD.
6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN

No. : CE/2007/46149
Date : 2007/05/02

** End of Report **

Test Report

No. : CE/2007/46123 Date : 2007/04/30 Page : 1 of 5

I-PEX JP CO., LTD.
6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN

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

Sample Description	:	MHF PLUG HOUSING
Style/Item No.	:	1844-012
Sample Receiving Date	:	2007/04/25
Testing Period	:	2007/04/25 TO 2007/04/30

==========

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

Test Method : With reference to IEC 62321, Ed.1 111/54/CDV 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 for non-metallic samples by UV/Vis Spectrometry.
(5) Determination of PBB and PBDE by GC/MS.

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

Daniel Yeh, M.R. / Operation Manager
Signed for and on behalf of
SGS TAIWAN LTD.

Test Report

I-PEX JP CO., LTD.
6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN

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

Test Item (s):	Method (Refer to)	Result No.1	MDL
Cadmium (Cd)	(1)	n.d.	2
Lead (Pb)	(2)	23	2
Mercury (Hg)	(3)	n.d.	2
Hexavalent Chromium Cr(VI) by alkaline extraction	(4)	n.d.	2
Sum of PBBs		n.d.	-
Monobromobiphenyl		n.d.	5
Dibromobiphenyl		n.d.	5
Tribromobiphenyl		n.d.	5
Tetrabromobiphenyl		n.d.	5
Pentabromobiphenyl		n.d.	5
Hexabromobiphenyl		n.d.	5
Heptabromobiphenyl		n.d.	5
Octabromobiphenyl		n.d.	5
Nonabromobiphenyl		n.d.	5
Decabromobiphenyl		n.d.	5
Sum of PBDEs (Mono to Nona) (Note 4)	(5)	n.d.	-
Monobromobiphenyl ether		n.d.	5
Dibromobiphenyl ether		n.d.	5
Tribromobiphenyl ether		n.d.	5
Tetrabromobiphenyl ether		n.d.	5
Pentabromobiphenyl ether		n.d.	5
Hexabromobiphenyl ether		n.d.	5
Heptabromobiphenyl ether		n.d.	5
Octabromobiphenyl ether		n.d.	5
Nonabromobiphenyl ether		n.d.	5
Decabromobiphenyl ether		n.d.	5
Sum of PBDEs (Mono to Deca)		n.d.	-

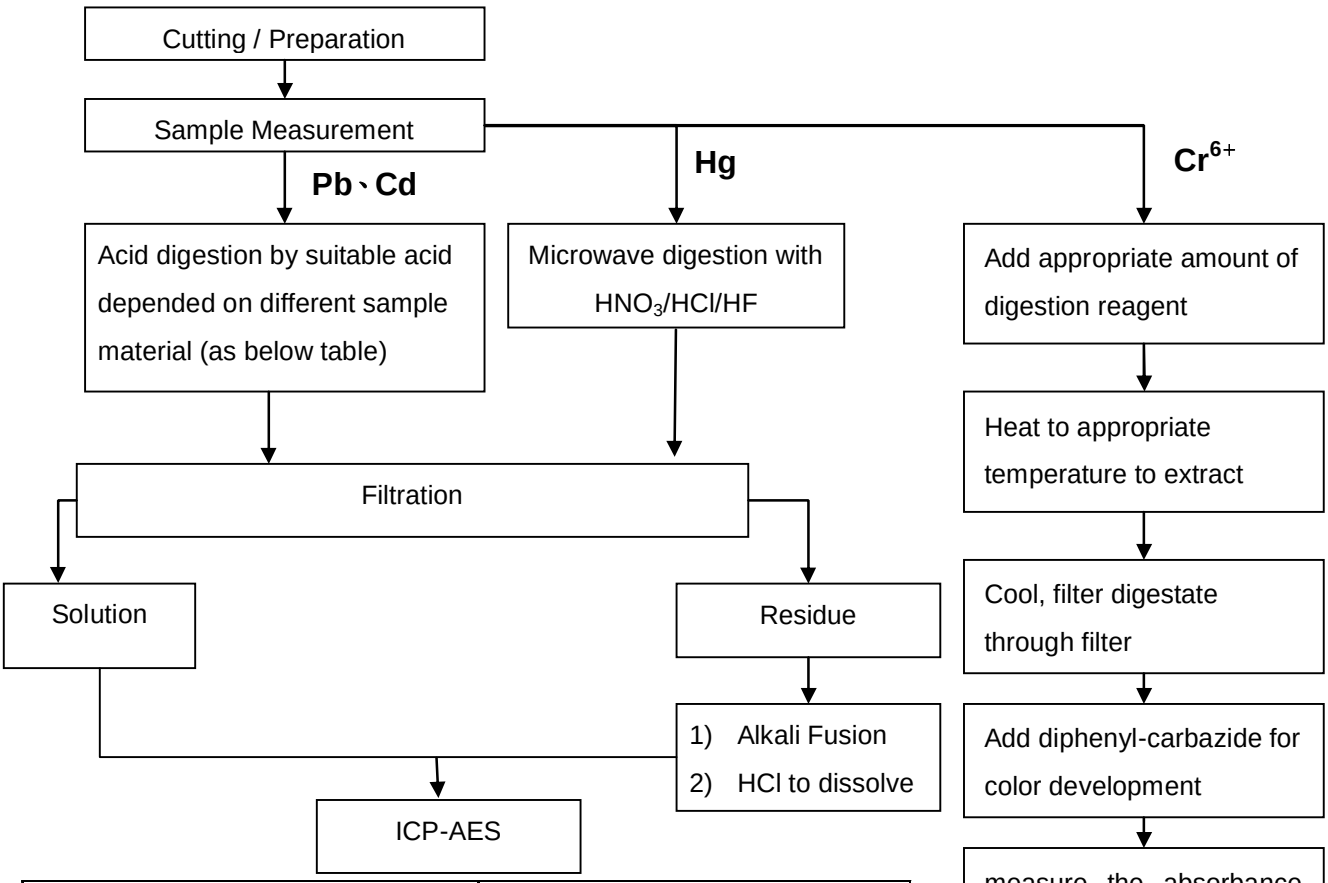
TEST PART DESCRIPTION:

NO.1 : WHITE PLASTIC

Note： 1. mg/kg = ppm
2. n.d. = Not Detected
3. MDL = Method Detection Limit
4. According to 2005/717/EC DecaBDE is exempt.
5. "-" = Not Regulated

I-PEX JP CO., LTD.
6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN

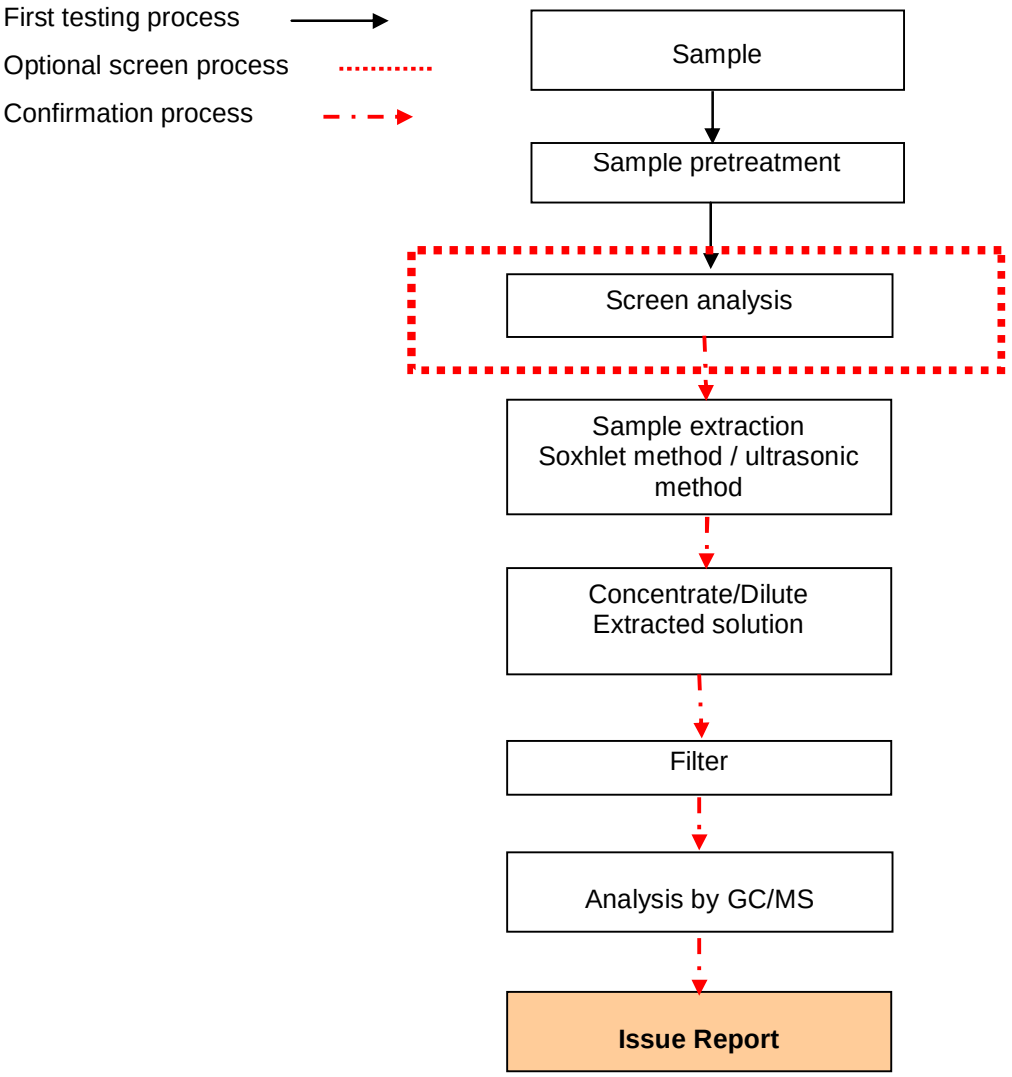
1) These samples were dissolved totally by pre-conditioning method according to below flow chart.
（Cr6+ test method excluded）
2) Name of the person who made measurement: Troy Chang
3) Name of the person in charge of measurement: Daniel Yeh



Sample Material	Digestion Acid
Steel, copper, aluminum, solder	Aqua regia, HNO_3, HCl, HF, H_2O_2
Glass	HNO_3/HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO_3
Plastic	H_2SO_4, H_2O_2, HNO_3, HCl
Others	Any acid to total digestion

I-PEX JP CO., LTD.
6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN

PBB/PBDE analytical FLOW CHART



I-PEX JP CO., LTD.
6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN

** End of Report **

Test Report

No. : CE/2007/46124 Date : 2007/04/30 Page : 1 of 5

I-PEX JP CO., LTD.
6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN

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

Sample Description	:	MHF PLUG HOUSING
Style/Item No.	:	1844-011
Sample Receiving Date	:	2007/04/25
Testing Period	:	2007/04/25 TO 2007/04/30

==========

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

Test Method : With reference to IEC 62321, Ed.1 111/54/CDV 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 for non-metallic samples by UV/Vis Spectrometry.
(5) Determination of PBB and PBDE by GC/MS.

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

Daniel Yeh, M.R. / Operation Manager
Signed for and on behalf of
SGS TAIWAN LTD.

I-PEX JP CO., LTD.
6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN

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

Test Item (s):	Method (Refer to)	Result No.1	MDL
Cadmium (Cd)	(1)	n.d.	2
Lead (Pb)	(2)	23	2
Mercury (Hg)	(3)	n.d.	2
Hexavalent Chromium Cr(VI) by alkaline extraction	(4)	n.d.	2
Sum of PBBs	(5)	n.d.	-
Monobromobiphenyl		n.d.	5
Dibromobiphenyl		n.d.	5
Tribromobiphenyl		n.d.	5
Tetrabromobiphenyl		n.d.	5
Pentabromobiphenyl		n.d.	5
Hexabromobiphenyl		n.d.	5
Heptabromobiphenyl		n.d.	5
Octabromobiphenyl		n.d.	5
Nonabromobiphenyl		n.d.	5
Decabromobiphenyl		n.d.	5
Sum of PBDEs (Mono to Nona) (Note 4)		n.d.	-
Monobromobiphenyl ether		n.d.	5
Dibromobiphenyl ether		n.d.	5
Tribromobiphenyl ether		n.d.	5
Tetrabromobiphenyl ether		n.d.	5
Pentabromobiphenyl ether		n.d.	5
Hexabromobiphenyl ether		n.d.	5
Heptabromobiphenyl ether		n.d.	5
Octabromobiphenyl ether		n.d.	5
Nonabromobiphenyl ether		n.d.	5
Decabromobiphenyl ether		n.d.	5
Sum of PBDEs (Mono to Deca)		n.d.	-

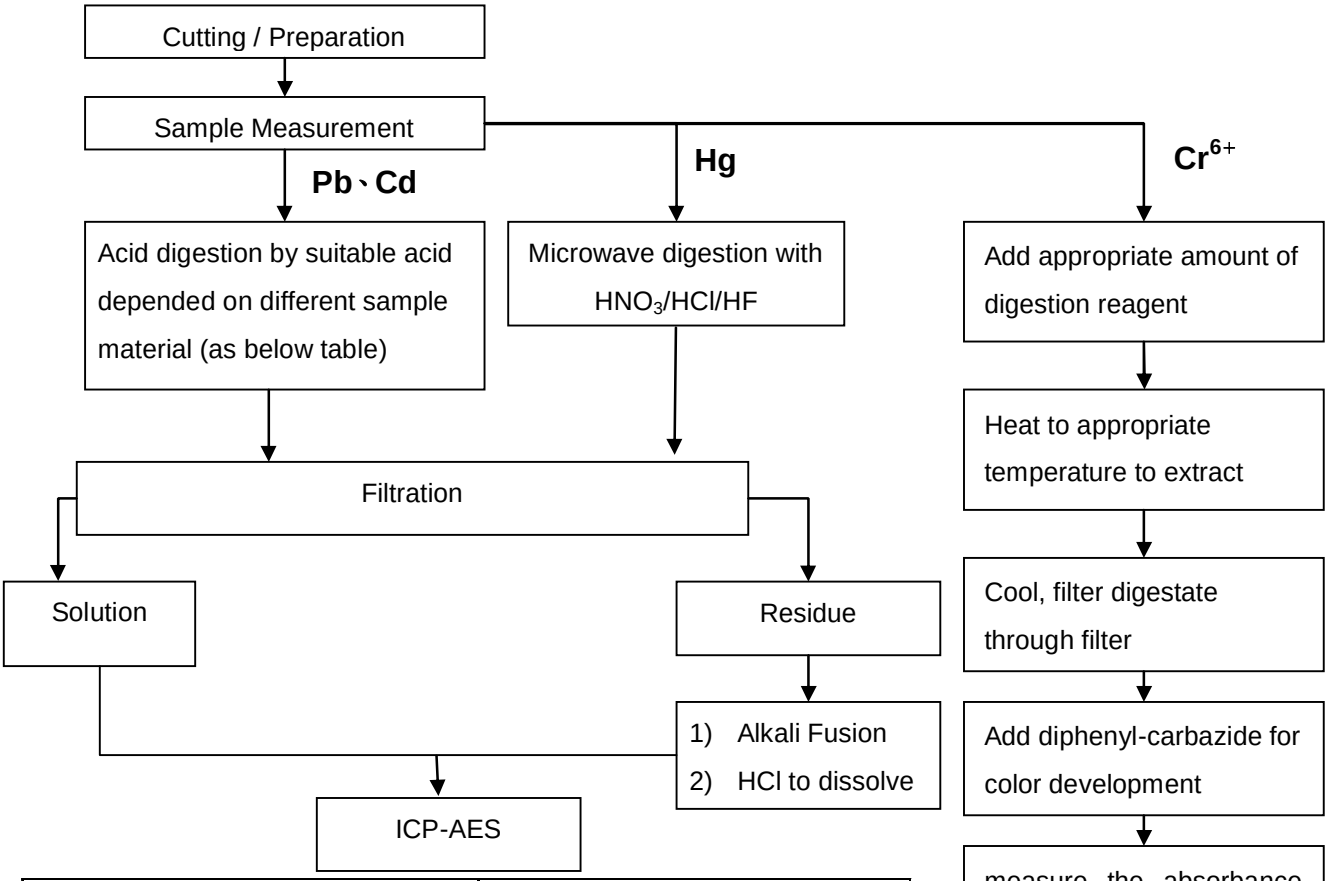
TEST PART DESCRIPTION:

NO.1 : BLACK PLASTIC

Note : 1. mg/kg = ppm
2. n.d. = Not Detected
3. MDL = Method Detection Limit
4. According to 2005/717/EC DecaBDE is exempt.
5. "-" = Not Regulated

I-PEX JP CO., LTD.
6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN

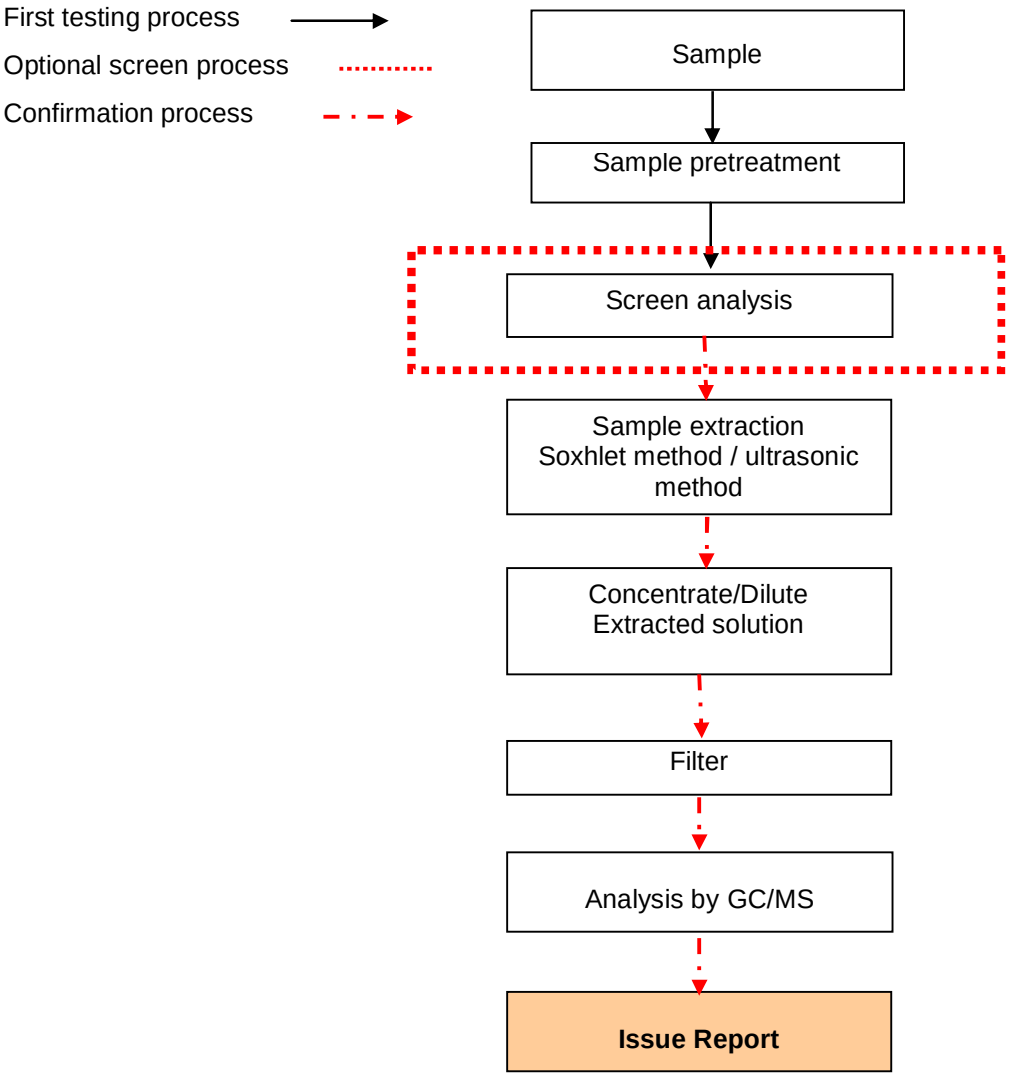
1) These samples were dissolved totally by pre-conditioning method according to below flow chart.
（Cr6+ test method excluded）
2) Name of the person who made measurement: Troy Chang
3) Name of the person in charge of measurement: Daniel Yeh



Sample Material	Digestion Acid
Steel, copper, aluminum, solder	Aqua regia, HNO_3, HCl, HF, H_2O_2
Glass	HNO_3/HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO_3
Plastic	H_2SO_4, H_2O_2, HNO_3, HCl
Others	Any acid to total digestion

I-PEX JP CO., LTD.
6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN

PBB/PBDE analytical FLOW CHART



I-PEX JP CO., LTD.
6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN

** End of Report **

Test Report

I-PEX JP CO., LTD.
6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN

No. : CE/2007/46148
Date : 2007/05/02

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

Sample Description	:	MHF PLUG CONTACT
Style/Item No.	:	1845-011
Sample Receiving Date	:	2007/04/25
Testing Period	:	2007/04/25 TO 2007/05/02

==========

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

Daniel Yeh, M.R. / Operation Manager
Signed for and on behalf of
SGS TAIWAN LTD.

Test Report

I-PEX JP CO., LTD.
6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN

No. : CE/2007/46148
Date : 2007/05/02

Test Result(s)

PART NAME NO.1 : GOLDEN COLORED METAL

Test Item (s):	Unit	Method	MDL	Result No.1
Cadmium (Cd)	mg/kg	With reference to IEC 62321, Ed.1 111/54/CDV. Determination of Cadmium by ICP-AES.	2	n.d.
Lead (Pb)	mg/kg	With reference to IEC 62321, Ed.1 111/54/CDV. Determination of Lead by ICP-AES.	2	16
Mercury (Hg)	mg/kg	With reference to IEC 62321, Ed.1 111/54/CDV. Determination of Mercury by ICP-AES.	2	n.d.
Hexavalent Chromium Cr(VI) by alkaline extraction	mg/kg	With reference to IEC 62321, Ed.1 111/54/CDV. Determination of Hexavalent Chromium by UV/Vis Spectrometry.	2	n.d.
Copper (Cu)	%	With reference to US EPA Method 3050B for Copper Content. Analysis was performed by ICP-AES.	0.0002	90.56
Gold (Au)	mg/kg	With reference to US EPA Method 3050B for Gold Content. Analysis was performed by ICP-AES.	2	3320
Nickel (Ni)	%	With reference to US EPA Method 3050B for Nickel Content. Analysis was performed by ICP-AES.	0.0002	3.525

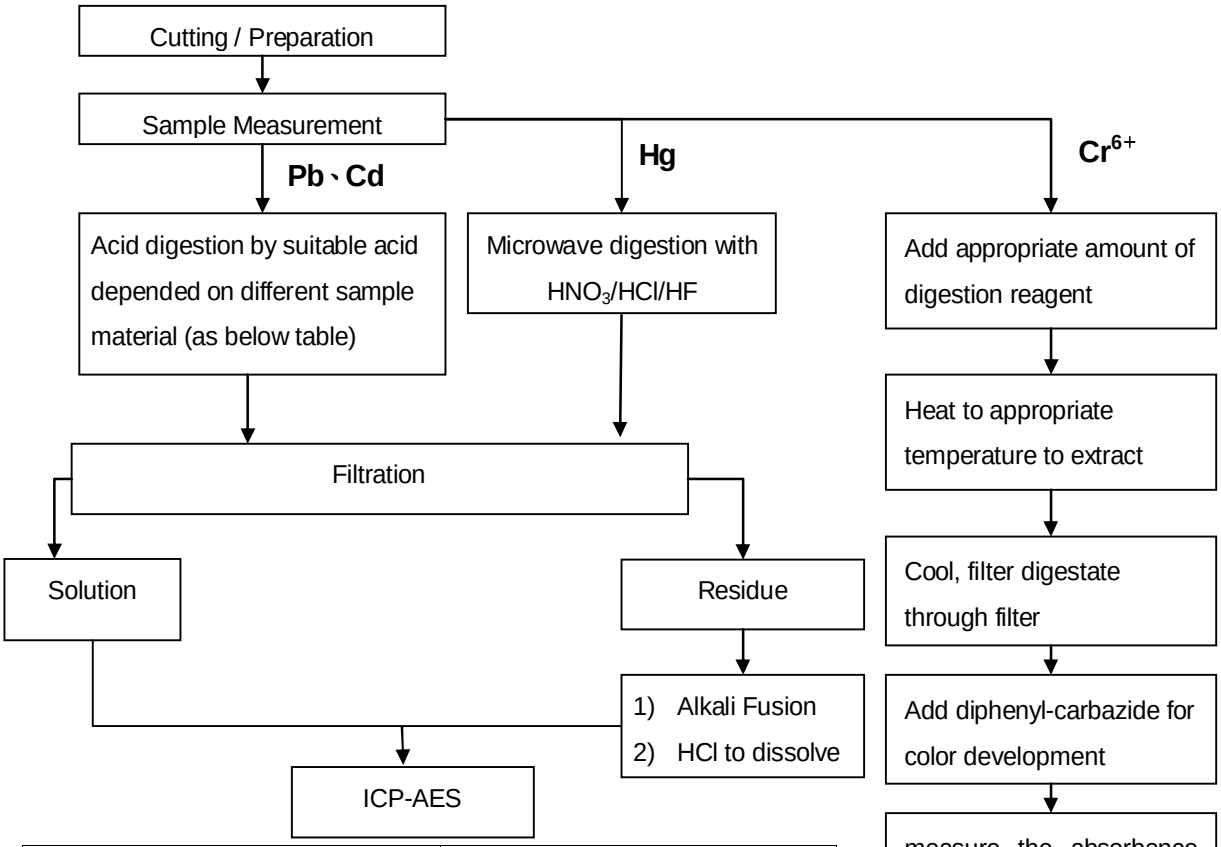
Note： 1. mg/kg = ppm
2. n.d. = Not Detected
3. MDL = Method Detection Limit

Test Report

I-PEX JP CO., LTD.
6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN

No. : CE/2007/46148
Date : 2007/05/02

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: Troy Chang
3) Name of the person in charge of measurement: Daniel Yeh



Sample Material	Digestion Acid
Steel, copper, aluminum, solder	Aqua regia, HNO_3, HCl, HF, H_2O_2
Glass	HNO_3/HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO_3
Plastic	H_2SO_4, H_2O_2, HNO_3, HCl
Others	Any acid to total digestion

Test Report

I-PEX JP CO., LTD.
6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN

No. : CE/2007/46148
Date : 2007/05/02

** End of Report **

測試報告

號碼 : CE/2007/14591C　　日期 : 2007/05/24　　頁數 : 1 of 4

焊王有限公司
*236 台北縣土城市中正路56巷19號

以下測試樣品係由客户送樣，且由客户聲稱並經客户確認如下：

樣品名稱	:	無鉛合金（錫銅）
樣品型號	:	Sn 99.3 / Cu 0.7
收件日期	:	2007/01/17
測試期間	:	2007/01/17 TO 2007/01/24

==========

測試需求 : 參照 RoHS 2002/95/EC 及其修定指令要求.

測試方法 : 參考IEC 62321, Ed. 1 111/54/CDV方法檢測.

(1) 用感應藕合電漿原子發射光譜儀(ICP-AES)檢測鎘含量.
(2) 用感應藕合電漿原子發射光譜儀(ICP-AES)檢測鉛含量.
(3) 用感應藕合電漿原子發射光譜儀(ICP-AES)檢測汞含量.
(4) 針對金屬材質之樣品, 用Spot test / Colorimetric方法檢測六價鉻含量.
(5) 以氣相層析儀/質譜儀(GC/MS)檢測多溴聯苯和多溴聯苯醚含量.

測試結果 : 請見下一頁.

Daniel Yeh, M.R. / Operation Manager
Signed for and on behalf of
SGS TAIWAN LTD.

測試報告

號碼 : CE/2007/14591C　　日期 : 2007/05/24　　頁數 : 2 of 4

焊王有限公司
*236 台北縣土城市中正路56巷19號

測試結果（單位: mg/kg）

測試項目	測試方法（請參考）	結果 No.1	方法偵測極限值
鎘	(1)	n.d.	2
鉛	(2)	224.1	2
汞	(3)	n.d.	2
六價鉻 (Spot test / boiling water extraction)	(4)	Negative	備註 5
多溴聯苯總和(PBBs)	(5)	n.d.	-
一溴聯苯		n.d.	5
二溴聯苯		n.d.	5
三溴聯苯		n.d.	5
四溴聯苯		n.d.	5
五溴聯苯		n.d.	5
六溴聯苯		n.d.	5
七溴聯苯		n.d.	5
八溴聯苯		n.d.	5
九溴聯苯		n.d.	5
十溴聯苯		n.d.	5
多溴聯苯醚總和(PBDEs)(一至九溴)(備註4)		n.d.	-
一溴聯苯醚		n.d.	5
二溴聯苯醚		n.d.	5
三溴聯苯醚		n.d.	5
四溴聯苯醚		n.d.	5
五溴聯苯醚		n.d.	5
六溴聯苯醚		n.d.	5
七溴聯苯醚		n.d.	5
八溴聯苯醚		n.d.	5
九溴聯苯醚		n.d.	5
十溴聯苯醚		n.d.	5
多溴聯苯醚總和(PBDEs)（一至十溴)		n.d.	-

測試部位描述：

NO.1　　：　銀色金屬

焊王有限公司
*236 台北縣土城市中正路56巷19號

備註：1. mg/kg = ppm
2. n.d. = Not Detected / 未檢出
3. MDL = Method Detection Limit / 方法偵測極限值
4. 根據2005年10月13日歐盟會議公佈2005/717/EC，修訂2002/95/EC內容，通過解除高分子材質中十溴聯苯醚之使用限制。
5. Spot-test:
Negative=鍍層中偵測不到六價鉻, Positive=鍍層中偵測到六價鉻;
當該測項無法確認時, 測試樣品可藉由boiling-water-extraction測試方法進一步確認

Boiling-water-extraction:
Negative=鍍層中偵測不到六價鉻, Positive=鍍層中偵測到六價鉻;
該濃度溶液≧0.02 mg/kg with 50 cm^2 (sample surface area)
6. "-" = Not Regulated / 無規格值

測試報告

號碼 : CE/2007/14591C　　日期 : 2007/05/24　　頁數 : 4 of 4

焊王有限公司

*236 台北縣土城市中正路56巷19號

** 報告結尾 **