

亞 驪 企 業 股 份 有 限 公 司  
ARISTOTLE ENTERPRISES

承 認 申 請 書

客戶名稱: 技嘉科技股份有限公司  
Customer  
廠商料號: RFA-02-C14H1-06-200C  
Part No.  
品名: 2.4GHZ,L=200mm,SW1.13G  
Description  
圖號: RFA-02-C14H1-06-200C.DWG  
Drawing No.  
客戶料號:  
Drawing No.

出廠簽章:

檢 查 TEST BY	核 對 CHECK BY	承 認 APPROVE BY
周沂珮	黃秋芳	廖煥文

承認簽章:

檢 查 TEST BY	核 對 CHECK BY	承 認 APPROVE BY

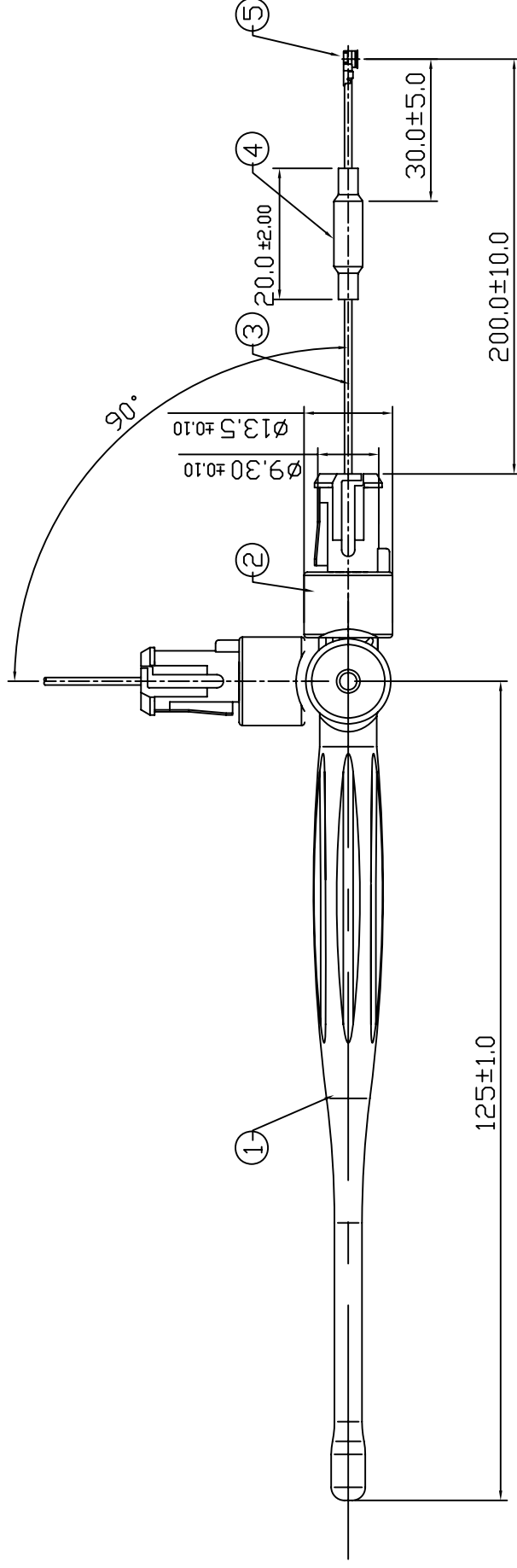
地址:台北縣中和市莒光路 63 號 8 樓



電話:02-2225-8209

傳真:02-2225-7523

1	2	3	4	5

NO.	NAME	FINISH	MAT'L	Q'TY	MEMO
1.	ANT. Shell	BLACK	TPU	1	
2.	Hinge	BLACK	ABS	1	
3.	Cable	BLACK	TEFLON	1	ø1.13黒
4.	Core	BLACK	IRON	1	D4.0Xø2.0X10L
5.	Connector	GOLD PLATED	BRASS	1	



<div> <b>ARISTOTLE</b> ENTERPRISES INC.</div> <div>亞馬麗 企業股份有限公司</div>										D									
							PROJECTION		UNITS		mm		TITLE						
									SCALE		1/1		RFA-02-C14H1-06-200C						
4.									PAPER		A4								
3.							APPD.						DWG NO.						
2.							CHKD												
1.							DESIGN						RFA-02-C14H1-06-200C						
REV			ECN		NAME		DATE		DRAW		J.W. Lee						20/05/08		

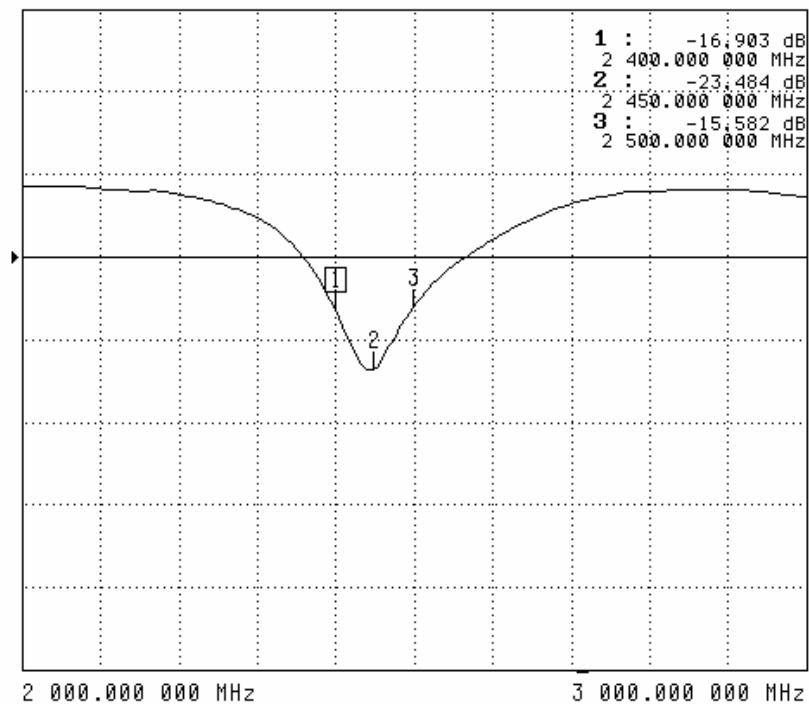
S11 FORWARD REFLECTION  
CHN1

TRANSMISSION/REFLECTION

LOG MAGNITUDE

►REF=-10.000 dB

10.000 dB/DIV



TRACE MEMORY  
CHANNEL 1

VIEW  
DATA

MEMORY

►DATA AND MEMORY

DATA (/) MEMORY

SELECT TRACE MATH

STORE DATA TO  
MEMORY  
(STORED )

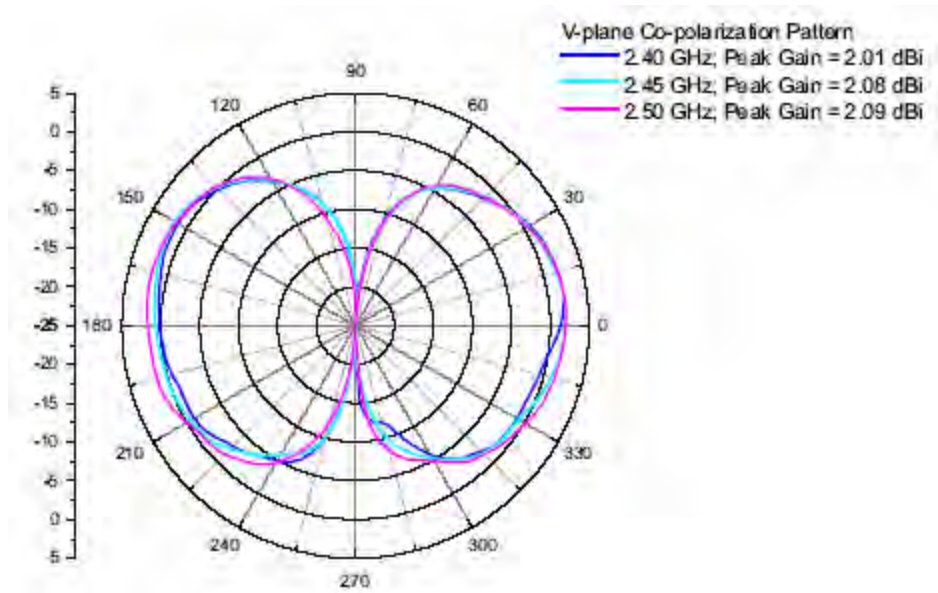
DISK  
OPERATIONS

RETURN

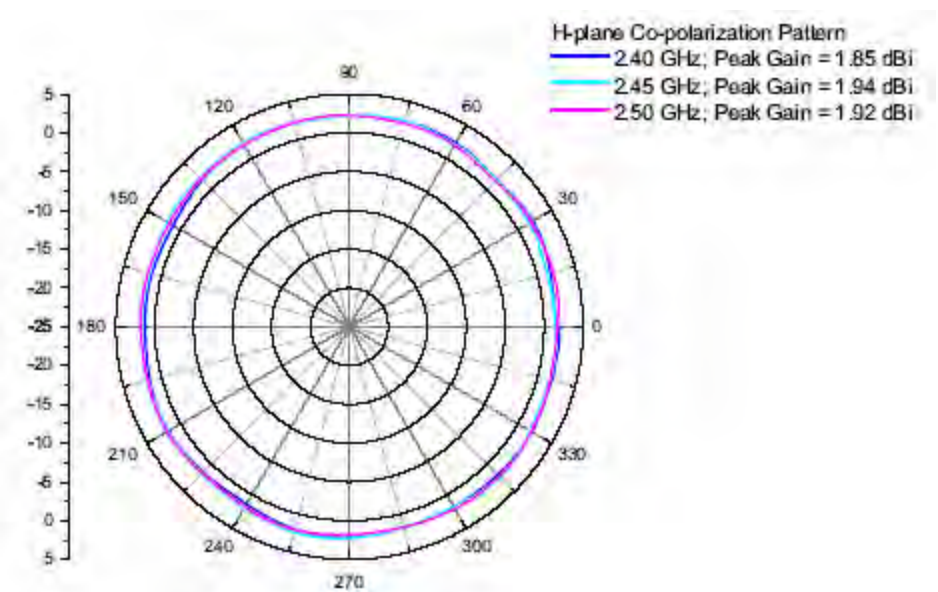
STORED DATA  
IS INVALID

# ANTENNA RADIATION PATTERN

## 11b dipole Antenna Radiation pattern : E-Plane



## 11b dipole Antenna Radiation pattern : H-Plane





# CHI MEI CORPORATION

59-1 SAN CHIA, JEN TE, TAINAN COUNTY, TAIWAN R.O.C.

TEL: 886-6-266-5000,

FAX: 886-6-266-5555-7

## 泛用級 ABS, POLYLAC<sup>®</sup> PA-757

V1W

### 材料特性

特性(Properties)	測試方法(Test Method)	測試條件(Test Condition)	單位(Unit)	PA-757
引張強度 Tensile Strength	ASTM D638	1/8", 6 mm/min	Kg/cm <sup>2</sup> (lb/in <sup>2</sup> )	480(6800)
延伸率 Tensile Elongation	ASTM D638	1/8", 6 mm/min	%	20
彎曲強度 Flexural Strength	ASTM D790	1/4", 2.8 mm/min	Kg/cm <sup>2</sup> (lb/in <sup>2</sup> )	820(11660)
彎曲彈性率 Flexural Modulus	ASTM D790	1/4", 2.8 mm/min	Kg/cm <sup>2</sup> (lb/in <sup>2</sup> )	27000(380000)
IZOD 衝擊強度 Izod Impact Strength	ASTM D256(Notched)	1/4", 23°C	Kg-cm/cm(ft-lb/in)	18(3.3)
		1/8", 23°C	Kg-cm/cm(ft-lb/in)	20(3.7)
流動係數 Melt Flow Index	ASTM D1238	200°C, 5Kg	g/10min	1.8
硬度 Hardness	ASTM D785	1/2"	R Scale	116
比重 Specific Gravity	ASTM D792	23°C	-	1.05
軟化點 Vicat Softening Temp	ASTM D1525	1/8", 50°C/hr	°C (°F)	105(221)
熱變形溫度 H.D.T Annealed(85°C, 8hr)	ASTM D648	1/4", 120°C/hr	°C (°F)	99(210)
Unannealed				88(190)
燃燒率 Flammability	UL 94	-	-	1/16"HB

以上數據僅代表一般通用數據，不代表每一產品的規格值

若有任何疑問請洽產品推廣課 06-2665000, 06-2663000



# 奇美實業股份有限公司

台灣省台南縣仁德鄉三甲村59-1號 電話: 886-6-266-5000, 傳真: 886-6-266-5555~7

1/2(A-GHE)

## 物質安全資料表

VIW

### 1. 物品及廠商資料

產品名稱	Polylac <sup>®</sup>	PA-707 PA-757 PA-757N PA-717C PA-727 PA-747 PA-709
製造商	奇美實業股份有限公司	
地址	台灣省台南縣仁德鄉三甲村59-1號	
電話	886-6-2663000	Ext. 1361 (產品推廣課)
緊急電話	886-6-2663000	Ext. 1361 (產品推廣課)
傳真電話	886-6-2667981	

### 2. 成品辨識資料

單一產品或混合物	單一產品
化學名稱	Acrylonitrile-Butadiene-Styrene Copolymer
含量	>98% (添加劑≤2%)
化學式	(C <sub>3</sub> H <sub>3.5</sub> N, C <sub>4</sub> H <sub>6</sub> , C <sub>8</sub> H <sub>8</sub> ) <sub>x</sub>
CAS No.	9003-56-9
危害性不純物	無

### 3. 危害性分類

健康危害效應	無
環境影響	無
物理性及化學性危害	無
特殊危害	無

### 4. 急救措施

吸入	若吸入熔融樹脂逸出之氣體，將患者移至通風處，立即送醫。
皮膚接觸	若接觸到塑膠粒或塑膠粉末，以清水沖洗。
	若接觸到熔膠，以大量(肥皂)水沖洗患部及衣物，立即送醫。
眼睛接觸	若接觸到塑膠粒或塑膠粉末，以大量清水至少沖洗15分鐘。
	若有不適，立即送醫。
	若接觸到高溫熔融樹脂逸出之氣體，以大量清水至少沖洗15分鐘。
	若有不適，立即送醫。
吞食	催吐，以清水漱口，若有不適，立即送醫。

### 5. 消防措施

適用滅火劑	水、泡沫、乾粉
滅火時可能遭遇之特殊危害	無
特殊滅火程序	移除可燃物
消防人員之特殊防護設備	使用供氧式呼吸防護具

### 6. 洩漏處理方法

個人應注意事項	若塑膠粒或塑膠粉末殘留於地面上，可能會導致人員滑倒。
環境注意事項	為防止鳥類或魚類由排水系統中攝食，須徹底回收。
清理方法	回收或廢棄

### 7. 安全處置與儲存方法

處置	操作處所須嚴禁煙火，做好整理整頓以避免粉塵累積。為防止塵爆，空氣輸送管路、袋濾器及儲槽須加裝靜電消除裝置，並確實接地。袋濾器之濾材採導電性材質。
儲存	存放於陰涼處所，避免直射陽光、雨淋及急遽之溫差。儲存處嚴禁煙火。





# 奇美實業股份有限公司

台灣省台南縣仁德鄉三甲村59-1號 電話: 886-6-266-5000, 傳真: 886-6-266-5555~7

2/2(A-GHE)

## 8. 暴露預防措施

容許濃度(TLV)	未定
通風設備	排除粉塵、煙及氣體時使用
個人防護設備	呼吸防護 清洗成型機時使用防毒面具。 手部防護 接觸熔膠時使用皮手套。 眼睛防護 平時使用安全眼鏡，清洗成型機時使用護目鏡

## 9. 物理及化學性質

物質狀態	米白色膠粒
形狀	粒狀
顏色	米白色
氣味	無
閃火點	404 °C
自燃溫度	466 °C
爆炸界限	45 g/m <sup>3</sup>
最小著火能量	3.6 mJ
最大爆炸壓力	$7 \times 10^5$ Pa
最大壓力上升速度	$3.2 \times 10^3$ Pa/S
比重	1.03-1.10
溶解度	無

## 10. 安定性及反應性

安定性	依一般操作及儲存程序時，安定性佳。
危害性分解物	CO, HCN, AN, SM and NO
燃燒能量	$3.53 \times 10^7$ J/kg (8424 Kcal/kg)

## 11. 毒性資料

刺激性	分解後之塑膠所產生的煙及蒸氣會刺激眼睛。
-----	----------------------

## 12. 生態資料

為防止被海洋生物或鳥類攝食，嚴禁丟棄至海洋或水域。

## 13. 廢棄物處理

適當之焚化爐燃燒或掩埋法。不適當之焚化爐可能會產生有毒氣體如 CO, HCN, AN and SM.

## 14. 運送資料

未分類

## 15. 法規資料

無

## 16. 其他資料

無

## CHI MEI CORPORATION

59-1 SAN CHIA JEN TE TAINAN HSIEN TAIWAN

Material Designation: PA-757 (+)

Product Description: Acrylonitrile Butadiene Styrene (ABS), designated "Polylac" furnished as pellets.

Color	Min. Thick. (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str	IEC GWIT	IEC GWFI
ALL	1.5	HB	4	0	85	80	85	-	-
	3.0	HB	3	0	85	80	85	-	-
CTI: 0	IEC CTI: -	HVTR: 1			D495: 1			IEC Ball Pressure (°C): -	
Dielectric Strength (kV/mm): -		Volume Resistivity (10 <sup>10</sup> ohm-cm): -		Dimensional Stability(%): -					
ISO Tensile Strength (MPa): -		ISO Flexural Strength (MPa): -		ISO Heat Deflection (°C): -					
ISO Tensile Impact (kJ/m <sup>2</sup> ): -		ISO Izod Impact (kJ/m <sup>2</sup> ): -		ISO Charpy Impact (kJ/m <sup>2</sup> ): -					

(+) Optional prefix or suffix may be used to denote 0-0.5% acid scavengers.

Report Date: 6/23/1983

Underwriters Laboratories Inc®

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.





# CHI MEI CORPORATION

59-I SAN CHIA, JEN TE, TAINAN COUNTY, TAIWAN R.O.C.

TEL: 886-6-266-5000, FAX: 886-6-266-5617

Data issued: May 25, 2005

We hereby certify that the follow Polylac ABS resin (list as follow) produced by Chi Mei Corporation

GP-Grade	PA-707, PA-757, PA-717C, PA-727, PA-747, PA-709,
HF-Grade	PA-756, PA-756S, PA-756H, PA-756B, PA-716, PA-746, PA-746H, PA-737
Extrusion Grade	PA-747F, PA-747R, PA-747S, PA-709S
HH-Grade	PA-777B, PA-777D, PA-777E
Transparent Grade	PA-758

conforms to the requirement that no chemicals as following are added.

1. PBBEs (Poly Bromo Bisphenyl Ethers)
2. PBBs (Poly Bromo Bisphenyls)
3. Ozone Depleting Chemicals(CFC's&HCFC'S)
4. Chlorinated Paraffin (C10-C13)
5. Polyvinyl Chloride (PVC)
6. Mercury(Hg) and its compounds,
7. Lead(Pb) and its compounds,
8. Cadmium(Cd) and its compounds,
9. Chromium(Cr) and its compounds,
10. Arsenic(As) and its compounds,
11. Antimony(Sb) and its compounds,
12. Selenium(Se) and its compounds,
13. Barium(Ba) and its compounds,
14. Chromium(Cr) VI and its compounds
15. Organic tin compounds
16. Polychlorinated Biphenyls(PCB's) and Terphenyls(PCT's)
17. Poly naphthalenes
18. Azo compounds
19. Polychlorinated biphenyl
20. Polychlorinated naphthalene
21. Asbestos
22. Phthalates

With regard to composition of above grade, they can comply with the Directives of RoHS (2002/95/EC), 2003/11/EC, TCO'99, Blue Angel and SONY (SS-00259)

Sincerely Yours,

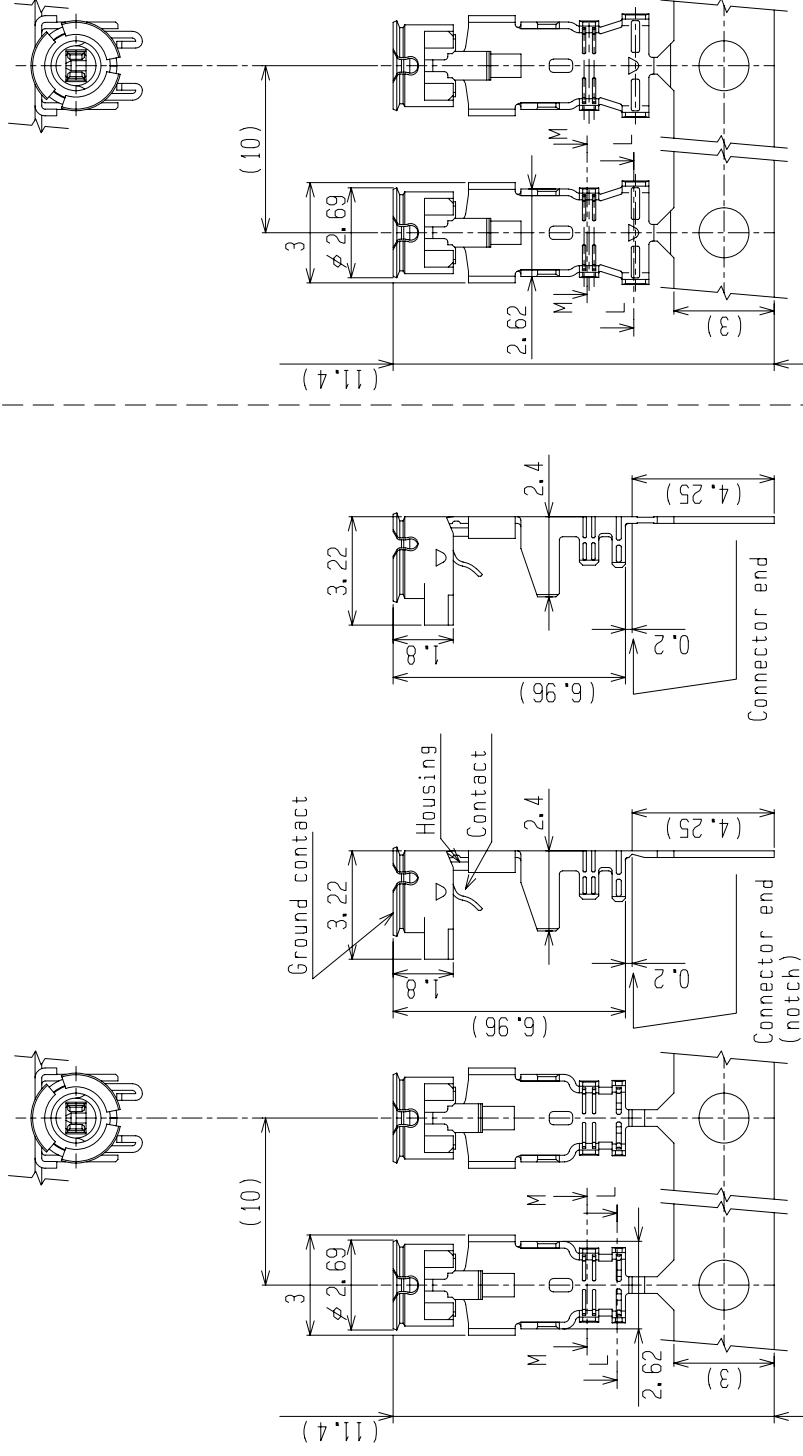
Eric Chou

Manager

Department of Product Strategy & Service

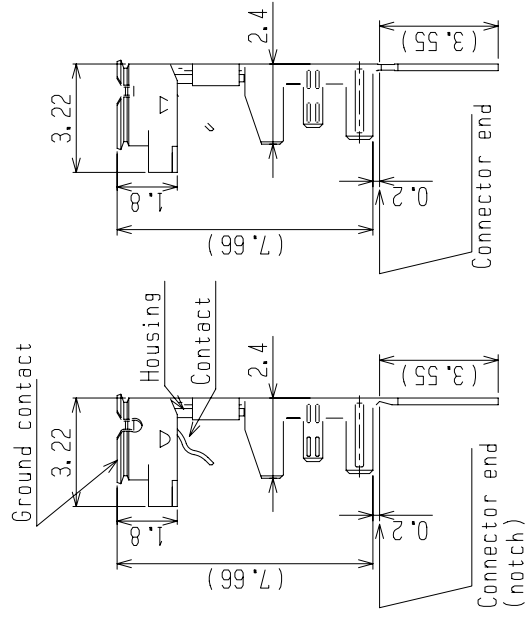
This statement is based on our current level of knowledge and covers the above resins as supplied by CHI MEI CORPORATION at the date of issue. Since conditions of use are outside CHI MEI CORPORATION's control, CHI MEI CORPORATION makes no warranties, express or implied, and assumes no liability in connection with any use of this information.

20278-\*\*\*1R-\*\*\*




For hand tool  
(with notch)

For semi auto  
termination machine  
(without notch)



(with notch)

termination machine  
(without notch)

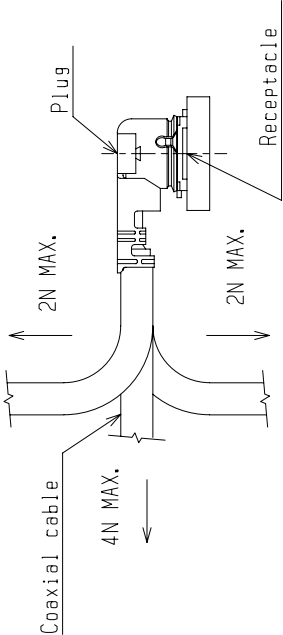
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">  <p><b>I-PEX</b></p> </div> <div style="text-align: center;"> <p>Interconnect and Packaging Electronics TOKYO, JAPAN</p> </div> </div>									
<div style="display: flex; justify-content: space-between;"> <div> <p>DESIGN'D BY</p> <p>K. Ohbayashi</p> <p>CHK'D BY</p> <p>K. K</p> </div> <div> <p>DATE</p> <p>JUN/13/01</p> <p>DATE</p> <p>K. K</p> </div> </div>									
<div style="display: flex; justify-content: space-between;"> <div> <p>APP'D BY</p> <p>K. Katabuchi</p> </div> <div> <p>DATE</p> <p>JUN/13/01</p> </div> </div>									
<div style="display: flex; justify-content: space-between;"> <div> <p>11C Z3041 K. O Mar/24/03 K. K 4 Z2023 K. O JAN/30/02 E. K</p> <p>10C Z3014 K. O JAN/31/03 K. K 3 Z1256 K. O NOV/14/01 K. K</p> <p>9C Z2239 K. O NOV/15/02 E. K 2 Z1197 K. O AUG/27/01 K. K</p> <p>8C Z2224 K. O OCT/17/02 E. K 1 Z1118 K. O JUN/26/01 K. K</p> <p>7B Z2180 K. O JUL/29/02 E. K 0 Z1109 K. O JUN/13/01</p> </div> <div> <p>13C Z3074 A. H May/22/03 K. K 6B Z2146 K. O JUN/24/02 K. K REV ECN BY DATE APP</p> <p>12C Z3052 K. O Apr/16/03 K. K 5B Z2117 A. H MAY/17/02 K. K REV. RECORD</p> </div> </div>									
<div style="display: flex; justify-content: space-between;"> <div> <p>REV ECN BY DATE APP REV ECN BY DATE APP</p> <p>13C Z3074 A. H May/22/03 K. K 6B Z2146 K. O JUN/24/02 K. K REV ECN BY DATE APP</p> <p>12C Z3052 K. O Apr/16/03 K. K 5B Z2117 A. H MAY/17/02 K. K REV. RECORD</p> </div> <div> <p>CUSTOMER</p> <p>COPY</p> </div> </div>									
<div style="display: flex; justify-content: space-between;"> <div> <p>UNIT</p> <p>mm</p> </div> <div> <p>DWG. No.</p> <p>20278</p> </div> <div> <p>SHEET</p> <p>1/3</p> </div> </div>									
<div style="display: flex; justify-content: space-between;"> <div> <p>SCALE</p> <p>6/1</p> </div> <div> <p>PROJECTION</p> <p>1st angle</p> </div> </div>									
<div style="display: flex; justify-content: space-between;"> <div> <p>TITLE</p> <p>MHF series micro coaxial connector plug vertical (ground contact : gold plating)</p> </div> </div>									
<div style="display: flex; justify-content: space-between;"> <div> <p>GENERAL TOLERANCE</p> <p>6 MAX. ±0.2</p> <p>6 OVER MAX. 30 ±0.3</p> <p>30 OVER MAX. 120 ±0.5</p> <p>ANGLE ±2°</p> </div> </div>									



Notes

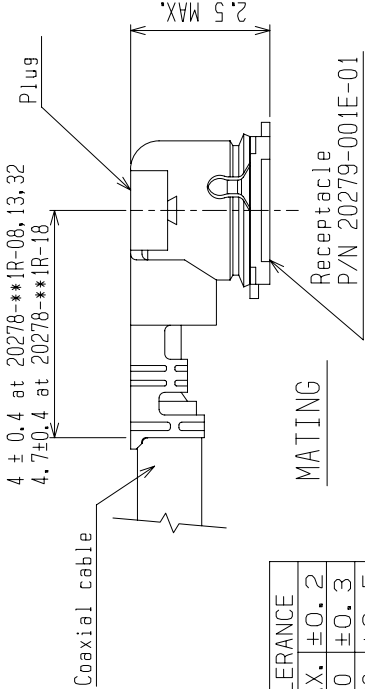
1. Material  
(1) Housing : PBT , UL94V-0 , black  
(2) Contact  
phosphor bronze  
gold plating 0.1 $\mu$ m MIN.  
over nickel 1.27 $\mu$ m MIN.  
(3) Ground contact  
phosphor bronze  
gold plating 0.05 $\mu$ m MIN.  
over nickel 1.27 $\mu$ m MIN.  
Packing : reel  
3. Mating partner part No.  
: 20279-001E-01  
4. Permissible load of cable at mating

1. 材料  
(1) ハウジング:PBT, UL94V-0, 黒色  
(2) コンタクト  
銅  
金メッキ0.1 $\mu$ m MIN.  
下地 ニッケル1.27 $\mu$ m MIN.  
(3) グランドコンタクト  
銅  
金メッキ0.05 $\mu$ m MIN.  
下地 ニッケル1.27 $\mu$ m MIN.  
2. 梱包 : リール  
3. かん合相手 part No.  
: 20279-001E-01  
4. コネクタかん合後のクーブルに対する荷重



5. Suggestions for mating & unmating operation.

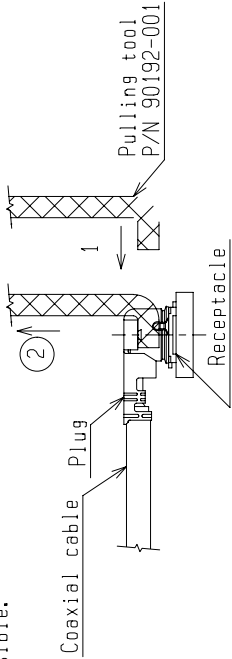
5-1 Mating.  
Please mate the connector straightly to vertical direction as much as possible, adjusting the mating axis of plug and receptacle.  
As excessive slant angle mating may break the connector , please don't do it.



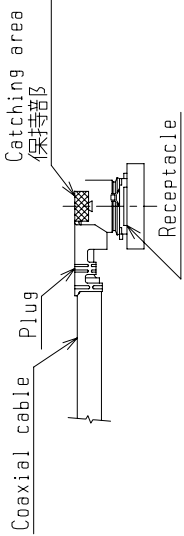
GENERAL TOLERANCE	
6 MAX.	±0.2
6 OVER MAX.	±0.3
30 OVER MAX.	±0.5
ANGLE	±2°

5-2 コネクタ抜き時

- (1) In case of unmating by pulling tool.  
Please use the pulling tool as the following drawing, and please pull plug to vertical direction as directly as possible.



- (2) In case of unmating directly by hand  
Please catch the catching area of plug , and please pull plug to vertical direction as directly as possible.



- 5-3 Crimp over standards of outer conductor

Standards:Less than 10% from total numbers of outer conductor  
(Numbers of outer conductor's crimp over from outer conductor's barrel)

- 5-4 Caution about Heat shrinkage tubes

Please be careful not to melt housing when using heat shrinkage tubes.  
It will become cause of open circuit.

				DESIGN'D BY		DATE	
				CHK'D BY		DATE	
				APP'D BY		DATE	
REV	ECN	BY	DATE	APP			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE			
REV				DATE			
REV. RECORD				2814			
SERIES No.				20278			
CUSTOMER COPY				UNIT			
PROJECTION				SCALE			
TITLE				MHF series micro coaxial connector plug vertical (ground contact : gold plating)			
DESIGN'D BY				DATE			
CHK'D BY				DATE			
APP'D BY				DATE</			

Date :

Our Spec. No. WS03-M051

MESSRS.

SPECIFICATION  
FOR  
HIGH FREQUENCY COAXIAL CABLE  
" KHCX - 32AWG - SB - TA "

SHOWA ELECTRIC WIRE & CABLE CO., LTD.

TORANOMON

TOKYO JAPAN

*James Huang*

LANTRRA INDUSTRIAL CO., LTD.  
F.14, NO. 92, SHING TEH ROAD,  
SAN CHUNG, TAIPEI, TAIWAN  
TEL:886-2-8511-1178  
FAX:886-2-8511-1179  
Email:sales@lanterra.com.tw  
www.lanterra.com.tw  
www.terraview.com.tw

*T. Mori*

T. Mori  
Manager, Engineering Section  
Engineering Dept.  
Electronic Wire Business Unit

Our Spec. No. WS03-M051 (1/2)

## 1. 適用(SCOPE)

本仕様書は電子機器などの内部配線に使用される細径同軸“KHCX-32AWG-SB-TA”の構造と特性について定める。

This specification covers the construction and characteristics of coaxial cable “KHCX-32AWG-SB-TA” for internal wiring of electronic equipment.

## 2. ケーブル型名の説明 (EXPLANATION OF CABLE TYPE)

KHCX-32AWG-SB-TA

(1) (2) (3)

(1) ケーブル略称 (Cable Abbreviation)

(2) 導体サイズ (Conductor Size)

(3) 外部導体タイプ (Outer Conductor Type)

## 3. 構造(CONSTRUCTION)

項目 Item		要求特性 Requirement
内部導体 Inner conductor	材質 Material	銀めっき軟銅線 Silver coated annealed copper wire
	構成 Stranding	7/0.08mm
	外径 Diameter	標準 0.24mm Nom. 0.24mm
絶縁体 Insulation	材質 Material	FEP
	色別 Color	自然色 Natural
	厚さ Thickness	標準 0.22mm Nom. 0.22mm
	外径 Diameter	標準 0.68mm Nom. 0.68mm
外部導体 Outer conductor	材質 Material	錫めっき軟銅線 Tinned annealed copper wire braid shield
	構成 Stranding	16/4/0.05 mm
シース Sheath	材質 Material	FEP
	色別 Color	灰・白・黒 Gray・White・Black
	厚さ Thickness	標準 0.10mm Nom. 0.10mm
仕上外径 Overall diameter		標準 1.13mm Nom. 1.13mm
概算質量 Approximate mass		3 kg/km

Our Spec. No. WS03-M051 (2/2)

4. 電気特性(20℃) (ELECTRICAL CHARACTERISTICS at 20 degree)

項目 Item	単位 Unit	要求特性 Requirements
導体抵抗 Conductor Resistance	Ω/km	520 以下 Max. 520
絶縁抵抗 Insulation Resistance	MΩ km	1,500 以上 (DC 500V 1 分間充電後) Min. 1,500 (After charge DC 500V for 1 min.)
耐電圧 Dielectric Strength	V/1min.	AC 1,000
静電容量 Capacitance	pF/m	標準 97 (at 1kHz) Nom. 97 (at 1kHz)
特性インピーダンス Characteristic Impedance	Ω	標準 50 (TDR にて測定) Nom. 50 (at TDR)

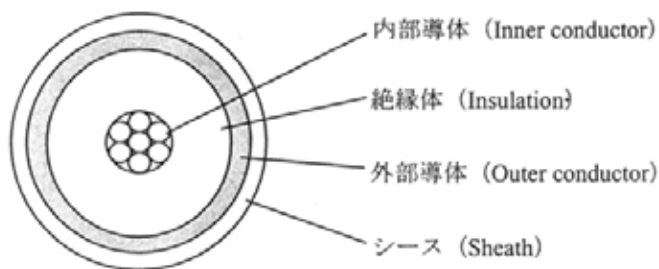


図 1. ケーブル構造図

Fig.1. Cable Cross-Section

5. 梱包及び荷札の表示 (PACKING AND MARKING ON TAG)

完成品は運送中及び保管中に損傷を生じぬ荷造りをする。

また、荷札の表示は以下の通りとする。

The completed cables shall be coiled and packing in such a manner as to be adequately protected from damage during packing, shipping, and normal handling.

The following items shall be marked in the Tag which is attached to the products.

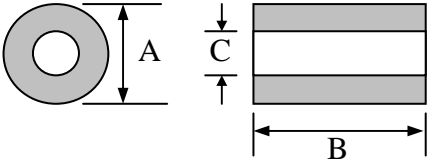
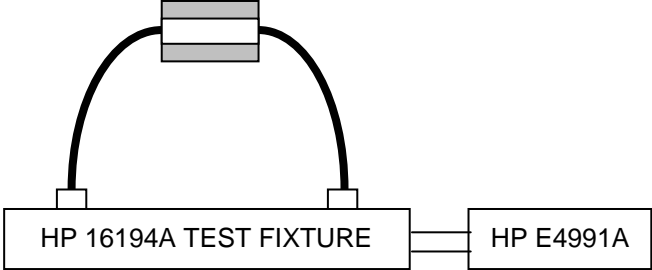

- 1) 品名 (Type of Cable)
- 2) 導体サイズ (Conductor size)
- 3) 条長 (Length)
- 4) 製造者名または略称 (Manufacturer's name or trade mark)
- 5) 製造年月 (The year and month of manufacture)

なお、完成品にはジョイントを有する場合があります。その場合は条長明細を記載する。

Note : The spool may contain joints. In that case, the detail of length is indicated.

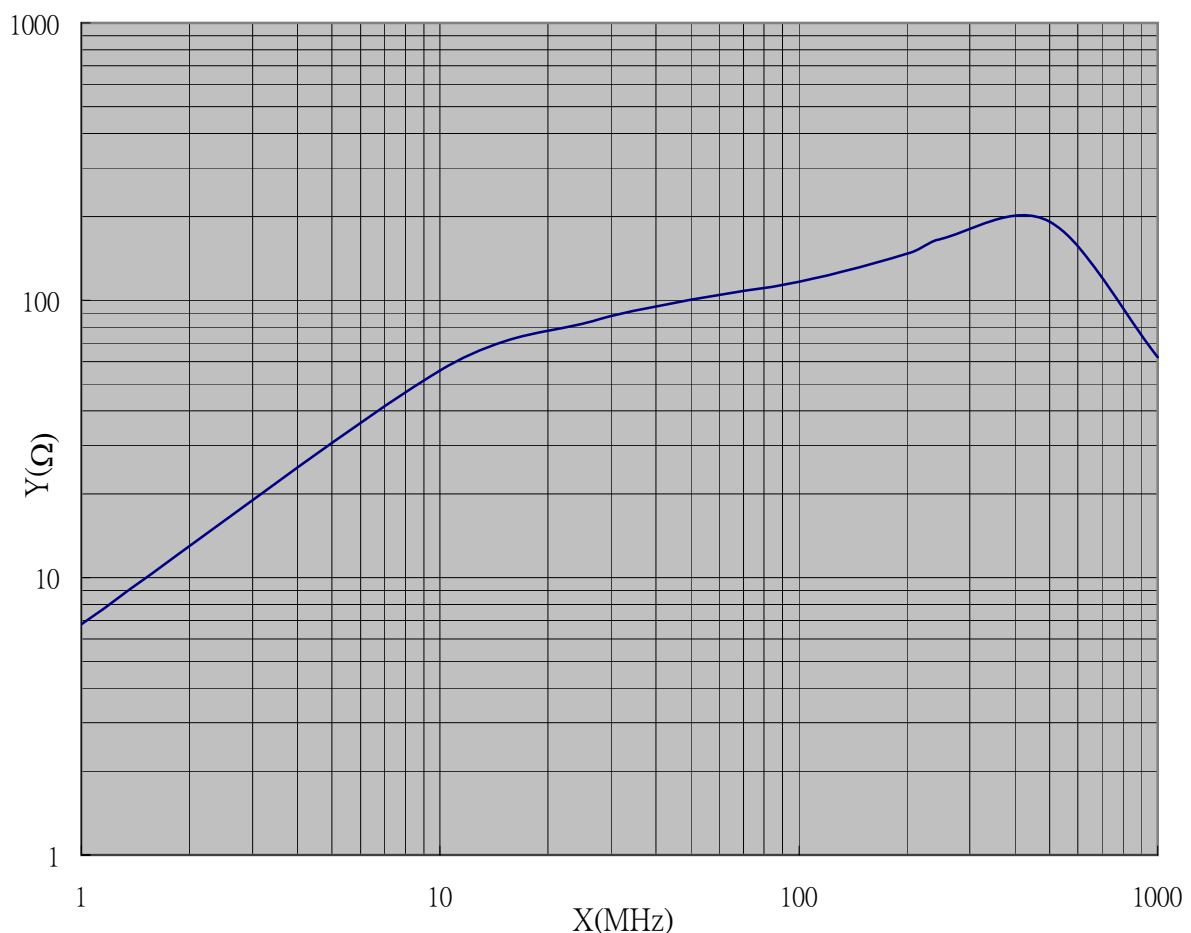


# SPECIFICATION

Customer : 亞 驪		Item : B15 RH 3.5x9x1.3		Date : 1,OCT.05	
Mechanical Assembly			Ref. No : K5B RH 3.5x9x1.3		
			A	3.50	±0.15mm
			B	9.00	±0.30mm
			C	1.30	±0.15mm
			D		
			E		
			F		
			G		
			H		
			Electrical Requirement		
Impedance	MIN 46 Ω	Test Frequency	25 MHz		
Impedance	MIN 72 Ω	Test Frequency	100 MHz		
Impedance		Test Frequency			
Impedance		Test Frequency			
Test equipment : HP E4991A					
			Wire : TCWφ0.65x63mm		
			Winding : 1 Turn		
			Material : B15 Nickel/Zinc		
REMARK :					
Approved by	Checked by	Reported by	Approved by Customer		
 <b>B &amp; F ELECTRONICS CO., LTD.</b>					

# INSPECTION DATA

Customer	亞 驪			Date	1-Nov-05				
Item	B15 RH 3.5x9x1.3			Ref. No.	K5B RH 3.5x9x1.3				
Part No.				Test Frequency	1~1000 MHz				
Test equipment	HPE4991A/16194A			Coil Spec.	TCW $\phi$ 0.65x63mm at 1 turn				
	Impedance				Dimension (Unit : mm)				
FREQ.		25 MHz	100 MHz		A	B	C		
					OD	HT	ID		
SPEC.		MIN	MIN		$\pm 0.15$	$\pm 0.30$	$\pm 0.15$		
		46 $\Omega$	72 $\Omega$		3.50	9.00	1.30		
1		82.5	116.4		3.54	9.11	1.39		
2		82.9	116.8		3.56	9.05	1.37		
3		83.2	117.5		3.55	9.08	1.40		
4		82.6	116.9		3.53	9.09	1.36		
5		82.2	116.5		3.56	9.03	1.38		
6									
7									
8									
9									
10									
X									
R									



# CHARIOT TECHNOLOGY CORP

9F, No7, Lane48, Hsin Ho St, Hsin Tien City,  
231 Taipei Hsien, Taiwan, ROC  
TEL(886)2-2941-9818 FAX(886)2-2941-9722

## PRODUCT SPECIFICATION

FEBULARY 16, 2001

1st Edition

### 1. APPLICABLE SPECIFICATION

- (1) This specification covers the requirements for  
Flexible Heat-Shrinkable Polyolefin Cross-Link  
Tubing Class I
- (2) Voltage 150V Temperature 125°C Rating

### 2. REFERENCE STANDARD

- (1) UL224 : Extruded Insulating Tubing
- (2) CSA C22.2 NO.198.1-99 : Extruded Insulating Tubing

### 3. SHRIKABLE PROPERTIES

- (1) Radial shrinkage : 50% min.
- (2) Longitudinal shrinkage : -10% max.
- (3) Minimum shrink temperature : 90°C

### 4. Product Name

- (1) Heat-Shrinkable Tubing LHS-125FR-4

### 5. STANDARD SIZE

Nominal Size (mm)	Size as supplies (mm)		Size as recovered (mm)		Standard Length (M)
	Inside Diameter	Wall Thickness	Maximum Inside Dimeter	Minimum Wall Thickness	
0.8 X 0.1	1.25 ± 0.15	0.10	0.40	0.20	200
1.0 X 0.1	1.4 ± 0.2	0.10	0.50	0.20	200
1.5 X 0.1	1.9 ± 0.2	0.10	0.75	0.20	200
2.0 X .01	2.4 ± 0.2	0.10	1.00	0.20	200
2.5 X 0.15	2.9 ± 0.2	0.15	1.25	0.25	200
3.0 X 0.15	3.4 ± 0.2	0.15	1.50	0.25	200
3.5 X 0.15	3.9 ± 0.3	0.15	1.75	0.25	200
4.0 X 0.15	4.4 ± 0.3	0.15	2.00	0.25	200
5.0 X 0.15	5.4 ± 0.3	0.15	2.50	0.25	100
6.0 X 0.15	6.5 ± 0.4	0.15	3.00	0.28	100
7.0 X 0.15	7.5 ± 0.4	0.15	3.50	0.28	100
8.0 X 0.15	8.5 ± 0.4	0.15	4.00	0.28	100
9.0 X 0.15	9.5 ± 0.4	0.15	4.50	0.28	100
10.0 X 0.15	10.5 ± 0.4	0.15	5.00	0.28	100

6. CHARACTERISTICS		
Property	Test Condition	Values
Specific gravity		1.31
Tensile strength		1.05kg/mn <sup>2</sup>
Elongation		200% min.
Tensile strength after aging	158℃ x 7days and 134℃ x 60days	Retains min.70% of original value
Elongation after aging		100% min.
Flexibility		No crack
Deformation	125℃ x 1hr	50% max.
Heat shock	136℃ x 1hr	No crack
Cold bend	-30℃ x 1hr	No crack
Corrosion of bare copper	Aging at 158℃ x 7days after humidity conditioned for 1day	No discoloration or corrosion of copper
Copper stability		100% min. elongation
Flammability		Self-extinguish satisfied VW-1
Dielectric withstand		No breakdown for 60 sec. At 2.5kV (AC)
Breakdown voltage		2.5kV (AC) min.
Dielectric withstand after aging	158℃ x 7days and 134℃ x 60days	No breakdown for 60 sec. At 2.5kV (AC)
breakdown voltage after aging		2.5kV (AC) min. and retains min. 40% of original value
Volumn resistivity		10 <sup>14</sup> Ω -CM min.
7. MARKING		
The following information shall be legible cleanly by durably ink-printed on the surface of the tubing.		
(1) UL FILE NO.		
(2) Manufactue's name		
(3) Flame retardant test class		
(4) Temperature Rating		
(5) Nominal Size of the tubing		
(6) Maximum recovered inside diameter		
(7) Type designation		
(Example)		
<div> <div></div> <div>                     5A E56118 LHS-125FR-4 VW-1 125℃ LONGWELL CSA "HS X PO" ( A/B )                 </div> <div></div> </div>		
8.PACKING		
This standard length given in the Construction table. Other length are available upon special need not to be damaged during transporting and storage.		



# P.T. NEW CROWN METAL WORKS

JL. INDUSTRI 32 (MASUK JL. SUCI) CIRACAS - JAKARTA TIMUR (13750) - INDONESIA

TELEP. : 8400374 (HUNTING), 8401589 - 8402531 - 8403604

FAX : (62-21) 8400895 - 87791167

## Report of goods analyzed internal

2005-2007

customer : **SHIN TAY LONG FIVE Metal Product Co., Ltd**

date : 16 September 2002.

kind of goods : **BRASS TUBE**

size : **25 mm x 1.5 mm**

product standard : **JIS H3300 - C2700 T-O**

net weight : **20.000 Kgs.**

Chemical composition	Standard (%)	Tested (%)
<b>Cu</b>	63.0 - 67.0	<b>65.18</b>
<b>Fe</b>	0.05	<b>0.01</b>
<b>Pb</b>	0.05	<b>0.02</b>
<b>Zn</b>	residual	<b>residual</b>
<b>Tensile strength</b>	<b>295</b>	<b>388</b>
<b>Outer diameter</b>	<b>25 mm</b>	<b>25.05 mm</b>
<b>Wall thickness</b>	<b>1.5 mm</b>	<b>1.55 mm</b>



台灣塑膠工業股份有限公司

台北市敦化北路 201 號

FORMOSA PLASTIC CORPORATION

201, TUNG-HWA NORTH ROAD, TAIPEI

TAIWAN, REPUBLIC OF CHINA

TEL: (02)2712-2211 FAX: (02)2718-1230

林園廠：高雄縣林園鄉石化一路一之一號

TEL: (07)641-9911 FAX: (07)642-5581

## **CERTIFICATION**

This is to certify that, according to Yungsox Additive Package and Company laboratory test result,

### **YUNGSOX 1040F**

grade(s) POLYPROPYLENE meet(s) the specification promulgated by the Food and Drug Administration of United States of America (FDA) for olefin polymers in 21 code of Federal Regulation Section 177.1520, and may be safely used in articles or compounds of articles intended for use in contact with food.

Very Truly Yours

*H. C. Chung*

Polypropylene Division  
Technic Dept.



台灣塑膠工業股份有限公司 林園廠  
中華民國臺灣省高雄縣林園鄉石化一路一號  
FORMOSA PLASTICS CORPORATION  
LIN-YUAN PLANT: 1, HSIH-HWA 1ST ROAD,  
LIN-YUAN HSIAN, KAOHSIUNG COUNTY,  
TAIWAN, R.O.C.

TO WHOM IT MAY CONCERN

Our Ref:TC85003

## HEALTH CERTIFICATION

This is to certify that, according to Taisox Additive Package and Company laboratory test result, Taisox 9001, Taisox 9002, Taisox 9003, Taisox 8003, Taisox 8010, Taisox 8050, and Taisox 7200 grades Polyethylene meet the specifications promulgated by the Food and Drug Administration of United States of America ( F D A ) for olefin polymers in 21 code of Federal Regulation Section 177. 1520, and may be safely used in articles or compounds of articles intended for use in contact with food.

Very Truly Yours

Polyolefin Division  
Manager Technical Dept.  
Tong Kuen Wu



# RoHS REPORT INDEX-RFA-02-C14H1-06-200C

	NAME	供應商	RoHS report
1	Antenna Shell/Hinge-ABS PA757	CHI MEI CORPORATION	KA/2007C2081
2	MHF SERIES CONNECTORS-20278-111R-13(I-PEX)		
2-1	MHF RECE. CONTACT-GOLDEN COLORED METAL	I-PEX JP CO., LTD.	CS/2007/46149
2-2	MHF PLUG HOUSING-WHITE PLASTIC	I-PEX JP CO., LTD.	CS/2007/46123
2-3	MHF PLUG HOUSING-BLACK PLASTIC	I-PEX JP CO., LTD.	CS/2007/46124
2-4	MHF RECE. GROUND CONTACT-GOLDEN COLORED METAL	I-PEX JP CO., LTD.	CS/2007/46148
3	Cable-1.13		
3-1	GRAY PLASTIC JACKET	SWCC SHOWA DEVICE TECHNOLOGY CO., LTD.	CE/2007A4663
3-2	SILVER COLORED METAL FOIL	SWCC SHOWA DEVICE TECHNOLOGY CO., LTD.	CE/2007A4664
3-3	TRANSPARENT PLASTIC	SWCC SHOWA DEVICE TECHNOLOGY CO., LTD.	CE/2007A4665
3-4	SILVER COLORED METAL WIRE	SWCC SHOWA DEVICE TECHNOLOGY CO., LTD.	CE/2007A4666
4	Ferrite Core-4x10x2	B&F ELECTRONICS CO., LTD.	CE/2007/75462
5	POLYOLEFIN HEAT SHRINKABLE TUBE(LONGWELL)	ZHI YAN ELECTRONICS CO., LTD	CE/2006/63742
6	COOPER TUBE	唐正企業有限公司	CE/2007/72824
7	固定座-PE	ARISTOTLE ENTERPRISES INC.	KA/2007/A2730

# Test Report

No. :KA/2007/C2081

Date: 2008/01/02 Page: 1 of 5



CHI MEI CORPORATION.  
59-1 SAN CHIA,JEN TE TAINAN COUNTY,TAIWAN.

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

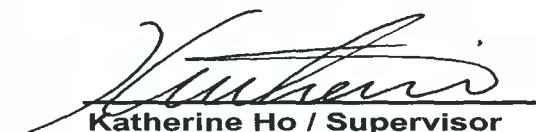
Sample Description : ACRYLONYTRILE-BUTADIENE-STYRENE COPOLYMER  
Style/Item No. : POLYLAC® PA-757  
Color : NATURE  
Sample Receiving Date : 2007/12/20  
Testing Period : 2007/12/20 TO 2008/1/2

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

**Test Method** :

- (1) With reference to US EPA 3052 for Cadmium Content. Analysis was performed by ICP-AES.
- (2) With reference to US EPA Method 3052 for Lead Content. Analysis was performed by ICP-AES.
- (3) With reference to US EPA Method 3052 for Mercury Content. Analysis was performed by ICP-AES.
- (4) With reference to IEC 62321, Ed.1 111/54/CDV. Determination of Hexavalent Chromium for non-metallic samples by UV/Vis Spectrometry.
- (5) With reference to US EPA 3540C for PBBs/PBDEs Content. Analysis was performed by GC/MS.

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

  
**Katherine Ho / Supervisor**  
**Signed for and on behalf of**  
**SGS Taiwan Limited**

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf or available on request and accessible at [www.sgs.com](http://www.sgs.com). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. 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. Any unauthorized alteration, forgery or falsification of the content or appearance of this report is unlawful and offenders may be prosecuted to the fullest extent of the law. 此報告是遵循本公司訂定之通用服務條款所製作發放，請注意此條款列印於背面，亦可在[www.sgs.com](http://www.sgs.com)中查閱。將本公司之義務，免責，管轄權皆明確規範之。除非另有說明，此報告結果僅對檢驗之樣品負責。本報告未經本公司書面許可，不可部份複製。對本報告內容或外觀之任何未經授權之變更、偽造、竄改皆屬非法，違犯者將會被依法追訴。

TW5950925

# Test Report

No. :KA/2007/C2081

Date: 2008/01/02 Page: 2 of 5



CHI MEI CORPORATION.

59-1 SAN CHIA JEN TE TAINAN COUNTY, TAIWAN.

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)	n.d.	2
Mercury (Hg)	(3)	n.d.	2
Hexavalent Chromium Cr(VI) by alkaline extraction	(4)	n.d.	2
<b>Sum of PBBs</b>	(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
<b>Sum of PBDEs (Mono to Nona)(Note 4)</b>		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
<b>Sum of PBDEs (Mono to Deca)</b>		n.d.	-

## TEST PART DESCRIPTION:

NO.1

: NATURE PLASTIC PELLETS

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf or available on request and accessible at [www.sgs.com](http://www.sgs.com). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. 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. Any unauthorized alteration, forgery or falsification of the content or appearance of this report is unlawful and offenders may be prosecuted to the fullest extent of the law. 此報告是遵循本公司訂定之通用服務條款所製作發放，請注意此條款列印於背面，亦可在[www.sgs.com](http://www.sgs.com)中查閱。將本公司之義務，免責，管轄權皆明確規範之。除非另有說明，此報告結果僅對檢驗之樣品負責。本報告未經本公司書面許可，不可部份複製。對本報告內容或外觀之任何未經授權之變更、偽造、竄改皆屬非法，違犯者將會被依法追訴。

TW5950924



# Test Report

No. :KA/2007/C2081

Date: 2008/01/02 Page: 3 of 5



CHI MEI CORPORATION.  
59-1 SAN CHIA,JEN TE TAINAN COUNTY,TAIWAN.

- 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

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf or available on request and accessible at [www.sgs.com](http://www.sgs.com). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. 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. Any unauthorized alteration, forgery or falsification of the content or appearance of this report is unlawful and offenders may be prosecuted to the fullest extent of the law. 此報告是遵循本公司訂定之通用服務條款所製作發放，請注意此條款列印於背面，亦可在[www.sgs.com](http://www.sgs.com)中查閱。將本公司之義務，免責，管轄權皆明確規範之。除非另有說明，此報告結果僅對檢驗之樣品負責。本報告未經本公司書面許可，不可部份複製。對本報告內容或外觀之任何未經授權之變更、偽造、竄改皆屬非法，違犯者將會被依法追訴。

TW 5950923

# Test Report

No. :KA/2007/C2081

Date: 2008/01/02 Page: 4 of 5

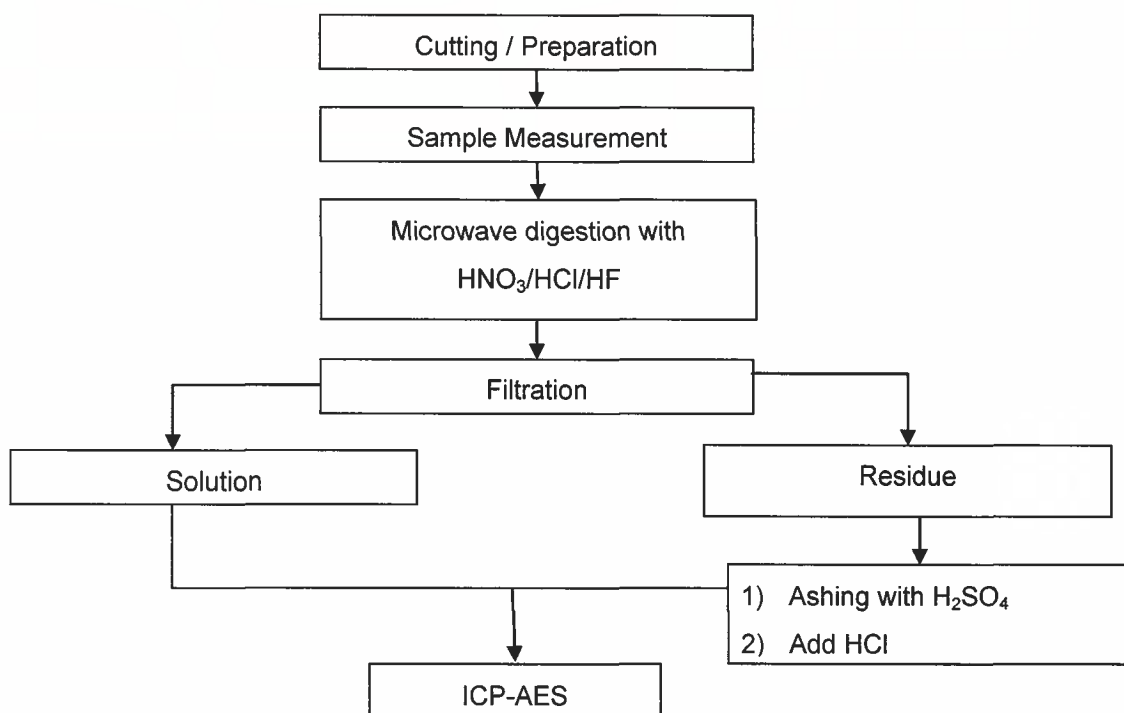


CHI MEI CORPORATION.  
59-1 SAN CHIA,JEN TE TAINAN COUNTY,TAIWAN.

Per requirements of SONY QAR-05-002:

- 1) These samples were dissolved totally by pre-conditioning method according to below flow chart.
- 2) Name of the person who made measurement: Hungming Li
- 3) Name of the person in charge of measurement: George Huang

## Flow Chart of Digestion for Plastic –EPA3052 for Pb、Cd (residue left)



This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf or available on request and accessible at [www.sgs.com](http://www.sgs.com). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. 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. Any unauthorized alteration, forgery or falsification of the content or appearance of this report is unlawful and offenders may be prosecuted to the fullest extent of the law. 此報告是遵循本公司訂定之通用服務條款所製作發放，請注意此條款列印於背面，亦可在[www.sgs.com](http://www.sgs.com)中查閱。將本公司之義務，免責，管轄權皆明確規範之。除非另有說明，此報告結果僅對檢驗之樣品負責。本報告未經本公司書面許可，不可部份複製。對本報告內容或外觀之任何未經授權之變更、偽造、竄改皆屬非法，違犯者將會被依法追訴。

TW5950922

## Test Report

No. :KA/2007/C2081

Date: 2008/01/02 Page: 5 of 5



CHI MEI CORPORATION.

59-1 SAN CHIA,JEN TE TAINAN COUNTY,TAIWAN.



\*\* End of Report \*\*

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf or available on request and accessible at [www.sgs.com](http://www.sgs.com). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. 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. Any unauthorized alteration, forgery or falsification of the content or appearance of this report is unlawful and offenders may be prosecuted to the fullest extent of the law. 此報告是遵循本公司訂定之通用服務條款所製作發放，請注意此條款列印於背面，亦可在[www.sgs.com](http://www.sgs.com)中查閱。將本公司之義務，免責，管轄權皆明確規範之。除非另有說明，此報告結果僅對檢驗之樣品負責。本報告未經本公司書面許可，不可部份複製。對本報告內容或外觀之任何未經授權之變更、偽造、竄改皆屬非法，違犯者將會被依法追訴。

TW5950921

## 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-Black	CE_2008_31207
HOUSING-White	CE_2008_31209
CONTACT	CE_2008_31217
GROUND CONTACT	CE_2008_31216

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



# Test Report

No. : CE/2008/31207    Date : 2008/03/10    Page : 1 of 10

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	:	2008/03/05
Testing Period	:	2008/03/05 TO 2008/03/10

=====

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



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

# Test Report

No. : CE/2008/31207 Date : 2008/03/10 Page : 2 of 10

I-PEX JP CO., LTD.

6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN



## Test Result(s)

PART NAME NO.1 : BLACK PLASTIC

Test Item (s):	Unit	Method	MDL	Result
				No.1
Cadmium (Cd)	mg/kg	With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of Cadmium by ICP-AES.	2	n.d.
Lead (Pb)	mg/kg	With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of Lead by ICP-AES.	2	23
Mercury (Hg)	mg/kg	With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of Mercury by ICP-AES.	2	n.d.
Hexavalent Chromium Cr(VI) by alkaline extraction	mg/kg	With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of Hexavalent Chromium for non-metallic samples by UV/Vis Spectrometry.	2	n.d.
Antimony (Sb)	mg/kg	With reference to US EPA Method 3050B for Antimony Content. Analysis was performed by ICP-AES.	2	43800
Antimony trioxide (Sb <sub>2</sub> O <sub>3</sub> )	mg/kg	With reference to US EPA Method 3050B for Antimony Content. Analysis was performed by ICP-AES. (See Note 7)	2.4	52433
PFOA	mg/kg	With reference to US EPA 3540C : 1996 method for PFOA Content. Analysis was performed by LC/MS.	1	n.d.

# Test Report

No. : CE/2008/31207 Date : 2008/03/10 Page : 3 of 10

I-PEX JP CO., LTD.

6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN



Test Item (s):	Unit	Method	MDL	Result
				No.1
PFOS	mg/kg	With reference to US EPA 3540C : 1996 method for PFOS Content. Analysis was performed by LC/MS.	1	n.d.
<b>Sum of PBBs</b>	mg/kg	With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of PBB and PBDE by GC/MS.	-	n.d.
Monobromobiphenyl			5	n.d.
Dibromobiphenyl			5	n.d.
Tribromobiphenyl			5	n.d.
Tetrabromobiphenyl			5	n.d.
Pentabromobiphenyl			5	n.d.
Hexabromobiphenyl			5	n.d.
Heptabromobiphenyl			5	n.d.
Octabromobiphenyl			5	n.d.
Nonabromobiphenyl			5	n.d.
Decabromobiphenyl			5	n.d.
<b>Sum of PBDEs (Mono to Nona) (Note 4)</b>			-	n.d.
Monobromobiphenyl ether			5	n.d.
Dibromobiphenyl ether			5	n.d.
Tribromobiphenyl ether			5	n.d.
Tetrabromobiphenyl ether			5	n.d.
Pentabromobiphenyl ether			5	n.d.
Hexabromobiphenyl ether			5	n.d.
Heptabromobiphenyl ether			5	n.d.
Octabromobiphenyl ether			5	n.d.
Nonabromobiphenyl ether			5	n.d.
Decabromobiphenyl ether			5	n.d.
<b>Sum of PBDEs (Mono to Deca)</b>			-	n.d.

# Test Report

No. : CE/2008/31207 Date : 2008/03/10 Page : 4 of 10

I-PEX JP CO., LTD.

6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN



Test Item (s):	Unit	Method	MDL	Result
				No.1
<b>Halogen</b>	---	With reference to BS EN 14582:2007. Analysis was performed by IC method for F , Cl , Br, I content.	---	---
Halogen-Fluorine (F) (CAS No.: 007782-41-4)	mg/kg	With reference to BS EN 14582:2007. Analysis was performed by IC method for Fluorine content.	50	1520
Halogen-Chlorine (Cl) (CAS No.: 007782-50-5)	mg/kg	With reference to BS EN 14582:2007. Analysis was performed by IC method for Chlorine content.	50	n.d.
Halogen-Bromine (Br) (CAS No.: 007726-95-6)	mg/kg	With reference to BS EN 14582:2007. Analysis was performed by IC method for Bromine content.	50	56900
Halogen-Iodine (I) (CAS No.: 007553-56-2)	mg/kg	With reference to BS EN 14582:2007. Analysis was performed by IC method for Iodine content.	50	n.d.

- 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 Conducted
  6. " - " = Not Regulated
  7. Antimony trioxide( $\text{Sb}_2\text{O}_3$ ): Calculate from antimony content multiply 1.197 factor.

# Test Report

No. : CE/2008/31207 Date : 2008/03/10 Page : 5 of 10

I-PEX JP CO., LTD.

6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN

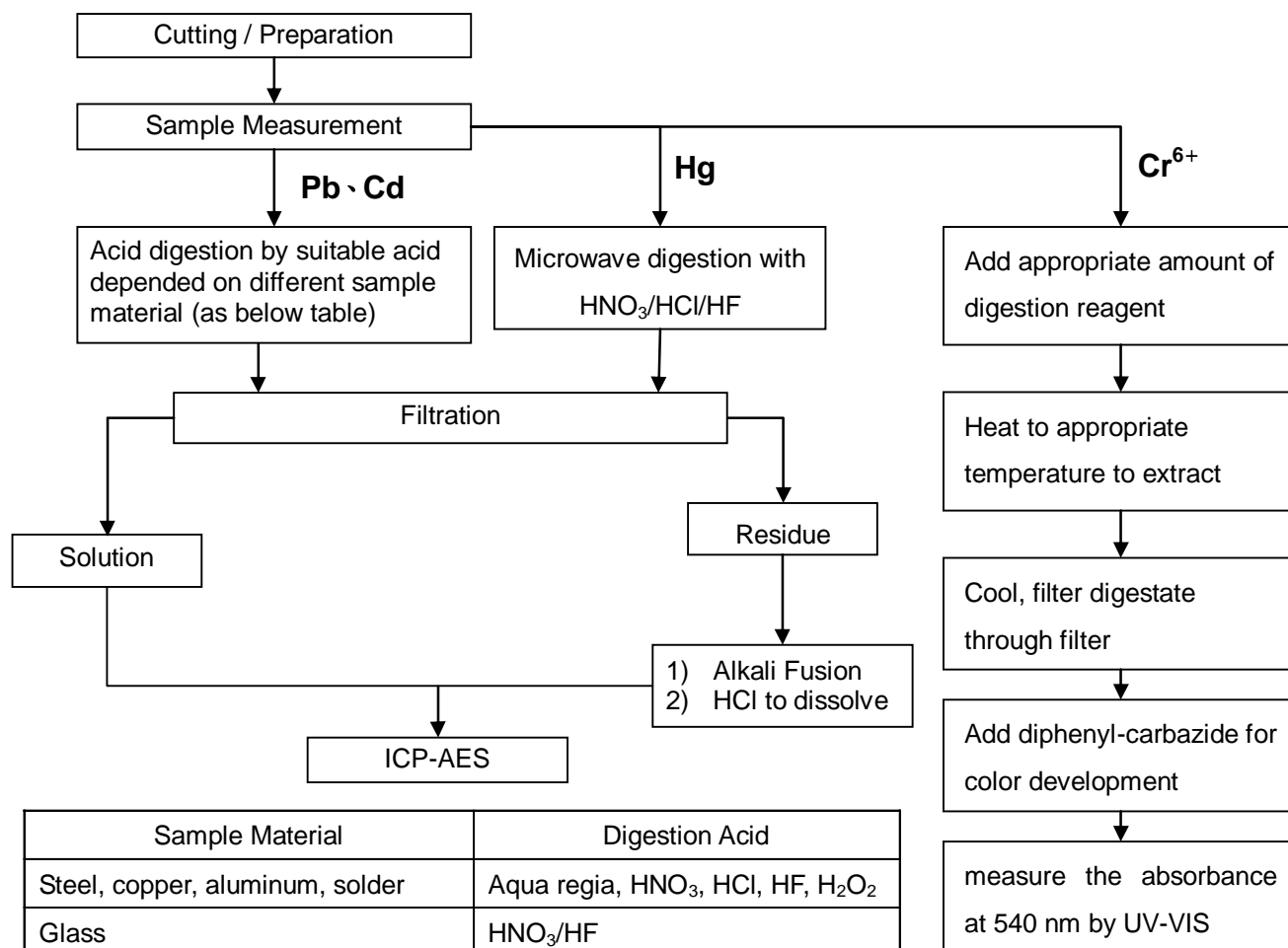


1) These samples were dissolved totally by pre-conditioning method according to below flow chart.

(Cr<sup>6+</sup> test method excluded)

2) Name of the person who made measurement: Troy Chang

3) Name of the person in charge of measurement: Chenyu Kung



Sample Material	Digestion Acid
Steel, copper, aluminum, solder	Aqua regia, HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub>
Glass	HNO <sub>3</sub> /HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO <sub>3</sub>
Plastic	H <sub>2</sub> SO <sub>4</sub> , H <sub>2</sub> O <sub>2</sub> , HNO <sub>3</sub> , HCl
Others	Any acid to total digestion



# Test Report

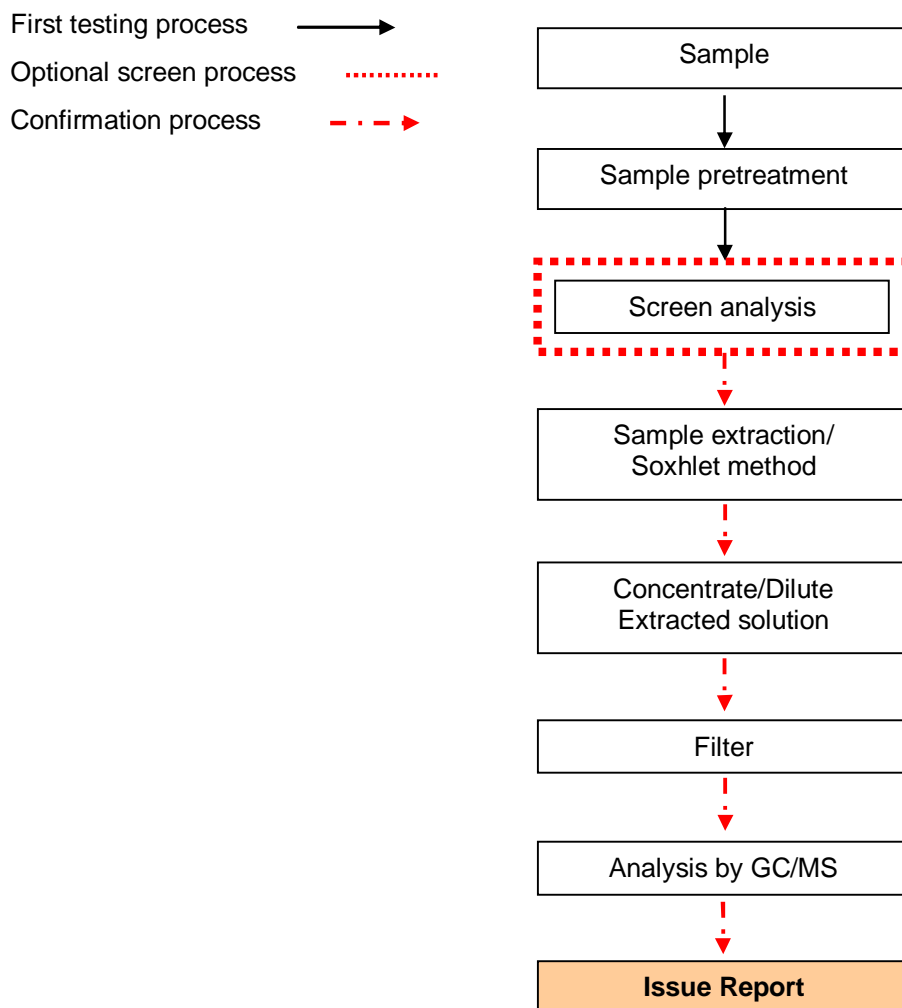
No. : CE/2008/31207    Date : 2008/03/10    Page : 6 of 10

I-PEX JP CO., LTD.

6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN



## PBB/PBDE analytical FLOW CHART





# Test Report

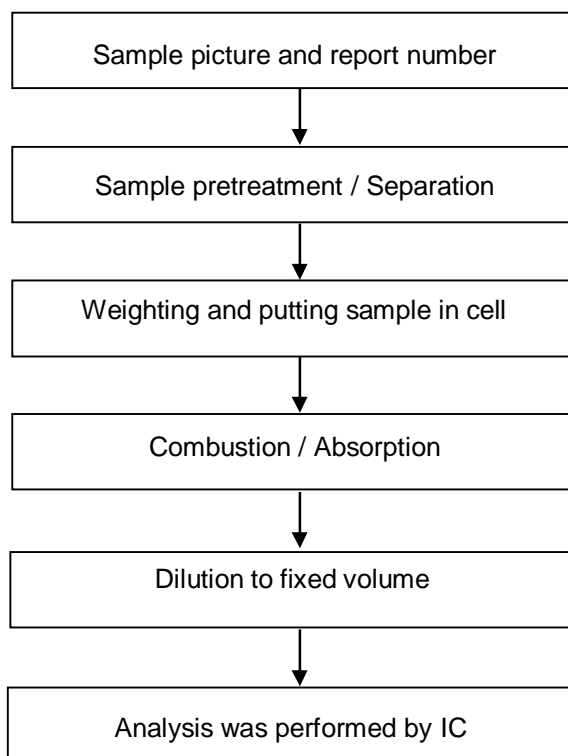
No. : CE/2008/31207    Date : 2008/03/10    Page : 7 of 10

I-PEX JP CO., LTD.

6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN



## Analytical flow chart of halogen content







# Test Report

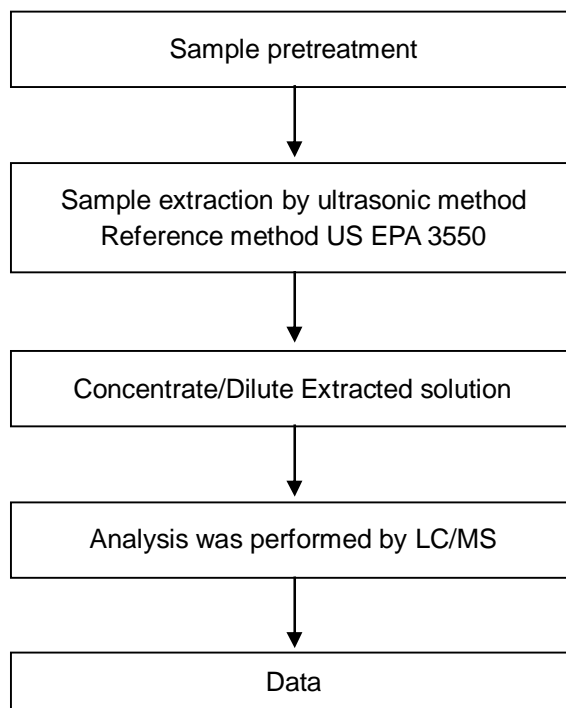
No. : CE/2008/31207    Date : 2008/03/10    Page : 8 of 10

I-PEX JP CO., LTD.

6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN



## Analytical flow chart of PFOA/PFOS content



# Test Report

No. : CE/2008/31207 Date : 2008/03/10 Page : 9 of 10

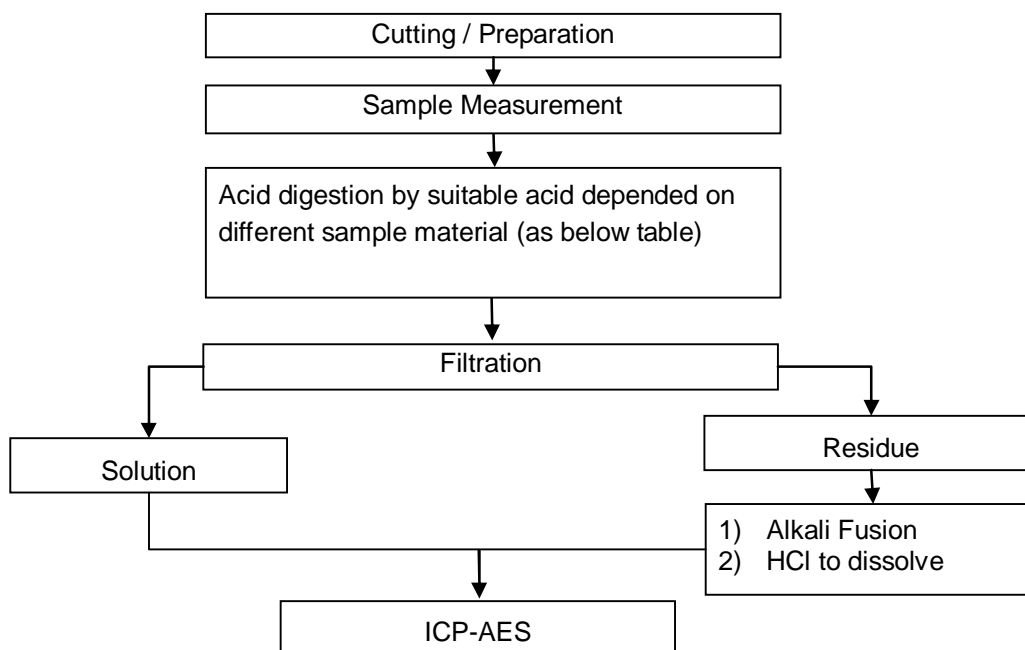
I-PEX JP CO., LTD.

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.
- 2) Name of the person who made measurement: Troy Chang
- 3) Name of the person in charge of measurement: Chenyu Kung

## Flow Chart of Digestion for elements analysis



Steel, copper, aluminum, solder	Aqua regia, HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub>
Glass	HNO <sub>3</sub> /HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO <sub>3</sub>
Plastic	H <sub>2</sub> SO <sub>4</sub> , H <sub>2</sub> O <sub>2</sub> , HNO <sub>3</sub> , HCl
Others	Any acid to total digestion

## Test Report

No. : CE/2008/31207    Date : 2008/03/10    Page : 10 of 10

I-PEX JP CO., LTD.

6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN



\*\* End of Report \*\*

# Test Report

No. : CE/2008/31209 Date : 2008/03/10 Page : 1 of 10

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.	:	1844-013
Sample Receiving Date	:	2008/03/05
Testing Period	:	2008/03/05 TO 2008/03/10

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

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

# Test Report

No. : CE/2008/31209 Date : 2008/03/10 Page : 2 of 10

I-PEX JP CO., LTD.

6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN



## Test Result(s)

PART NAME NO.1 : WHITE PLASTIC

Test Item (s):	Unit	Method	MDL	Result
				No.1
Cadmium (Cd)	mg/kg	With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of Cadmium by ICP-AES.	2	n.d.
Lead (Pb)	mg/kg	With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of Lead by ICP-AES.	2	20
Mercury (Hg)	mg/kg	With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of Mercury by ICP-AES.	2	n.d.
Hexavalent Chromium Cr(VI) by alkaline extraction	mg/kg	With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of Hexavalent Chromium for non-metallic samples by UV/Vis Spectrometry.	2	n.d.
Antimony (Sb)	mg/kg	With reference to US EPA Method 3050B for Antimony Content. Analysis was performed by ICP-AES.	2	42400
Antimony trioxide (Sb <sub>2</sub> O <sub>3</sub> )	mg/kg	With reference to US EPA Method 3050B for Antimony Content. Analysis was performed by ICP-AES. (See Note 7)	2.4	50757
PFOA	mg/kg	With reference to US EPA 3540C : 1996 method for PFOA Content. Analysis was performed by LC/MS.	1	n.d.

# Test Report

No. : CE/2008/31209 Date : 2008/03/10 Page : 3 of 10

I-PEX JP CO., LTD.

6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN



Test Item (s):	Unit	Method	MDL	Result
				No.1
PFOS	mg/kg	With reference to US EPA 3540C : 1996 method for PFOS Content. Analysis was performed by LC/MS.	1	n.d.
<b>Sum of PBBs</b>	mg/kg	With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of PBB and PBDE by GC/MS.	-	n.d.
Monobromobiphenyl			5	n.d.
Dibromobiphenyl			5	n.d.
Tribromobiphenyl			5	n.d.
Tetrabromobiphenyl			5	n.d.
Pentabromobiphenyl			5	n.d.
Hexabromobiphenyl			5	n.d.
Heptabromobiphenyl			5	n.d.
Octabromobiphenyl			5	n.d.
Nonabromobiphenyl			5	n.d.
Decabromobiphenyl			5	n.d.
<b>Sum of PBDEs (Mono to Nona) (Note 4)</b>			-	n.d.
Monobromobiphenyl ether			5	n.d.
Dibromobiphenyl ether			5	n.d.
Tribromobiphenyl ether			5	n.d.
Tetrabromobiphenyl ether			5	n.d.
Pentabromobiphenyl ether			5	n.d.
Hexabromobiphenyl ether			5	n.d.
Heptabromobiphenyl ether			5	n.d.
Octabromobiphenyl ether			5	n.d.
Nonabromobiphenyl ether			5	n.d.
Decabromobiphenyl ether			5	n.d.
<b>Sum of PBDEs (Mono to Deca)</b>			-	n.d.

# Test Report

No. : CE/2008/31209 Date : 2008/03/10 Page : 4 of 10

I-PEX JP CO., LTD.

6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN



Test Item (s):	Unit	Method	MDL	Result
				No.1
<b>Halogen</b>	---	With reference to BS EN 14582:2007. Analysis was performed by IC method for F , Cl , Br, I content.	---	---
Halogen-Fluorine (F) (CAS No.: 007782-41-4)	mg/kg	With reference to BS EN 14582:2007. Analysis was performed by IC method for Fluorine content.	50	1460
Halogen-Chlorine (Cl) (CAS No.: 007782-50-5)	mg/kg	With reference to BS EN 14582:2007. Analysis was performed by IC method for Chlorine content.	50	n.d.
Halogen-Bromine (Br) (CAS No.: 007726-95-6)	mg/kg	With reference to BS EN 14582:2007. Analysis was performed by IC method for Bromine content.	50	41400
Halogen-Iodine (I) (CAS No.: 007553-56-2)	mg/kg	With reference to BS EN 14582:2007. Analysis was performed by IC method for Iodine content.	50	n.d.

- 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 Conducted
  6. " - " = Not Regulated
  7. Antimony trioxide( $\text{Sb}_2\text{O}_3$ ): Calculate from antimony content multiply 1.197 factor.

# Test Report

No. : CE/2008/31209 Date : 2008/03/10 Page : 5 of 10

I-PEX JP CO., LTD.

6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN

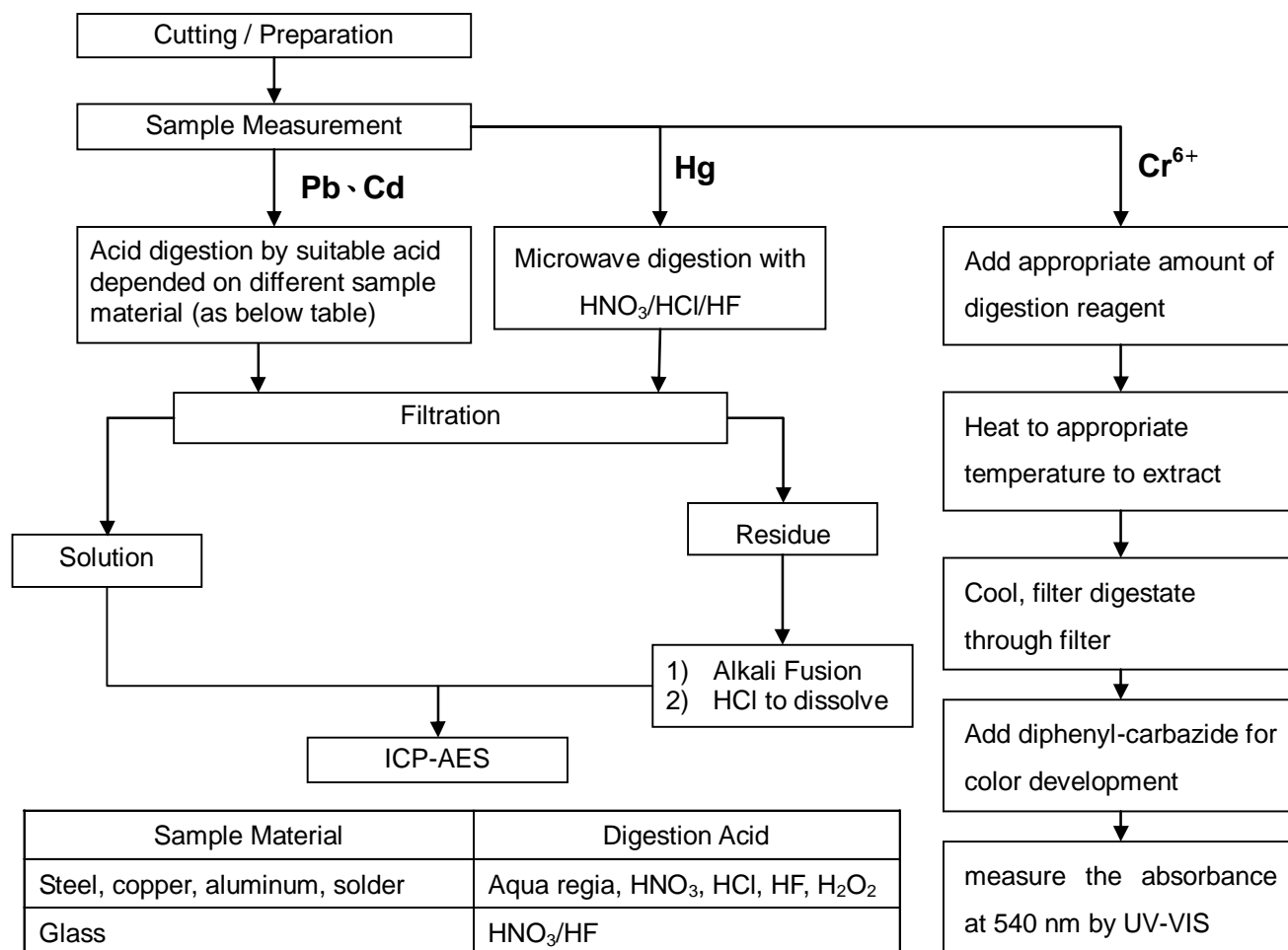


1) These samples were dissolved totally by pre-conditioning method according to below flow chart.

(Cr<sup>6+</sup> test method excluded)

2) Name of the person who made measurement: Troy Chang

3) Name of the person in charge of measurement: Chenyu Kung



Sample Material	Digestion Acid
Steel, copper, aluminum, solder	Aqua regia, HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub>
Glass	HNO <sub>3</sub> /HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO <sub>3</sub>
Plastic	H <sub>2</sub> SO <sub>4</sub> , H <sub>2</sub> O <sub>2</sub> , HNO <sub>3</sub> , HCl
Others	Any acid to total digestion



# Test Report

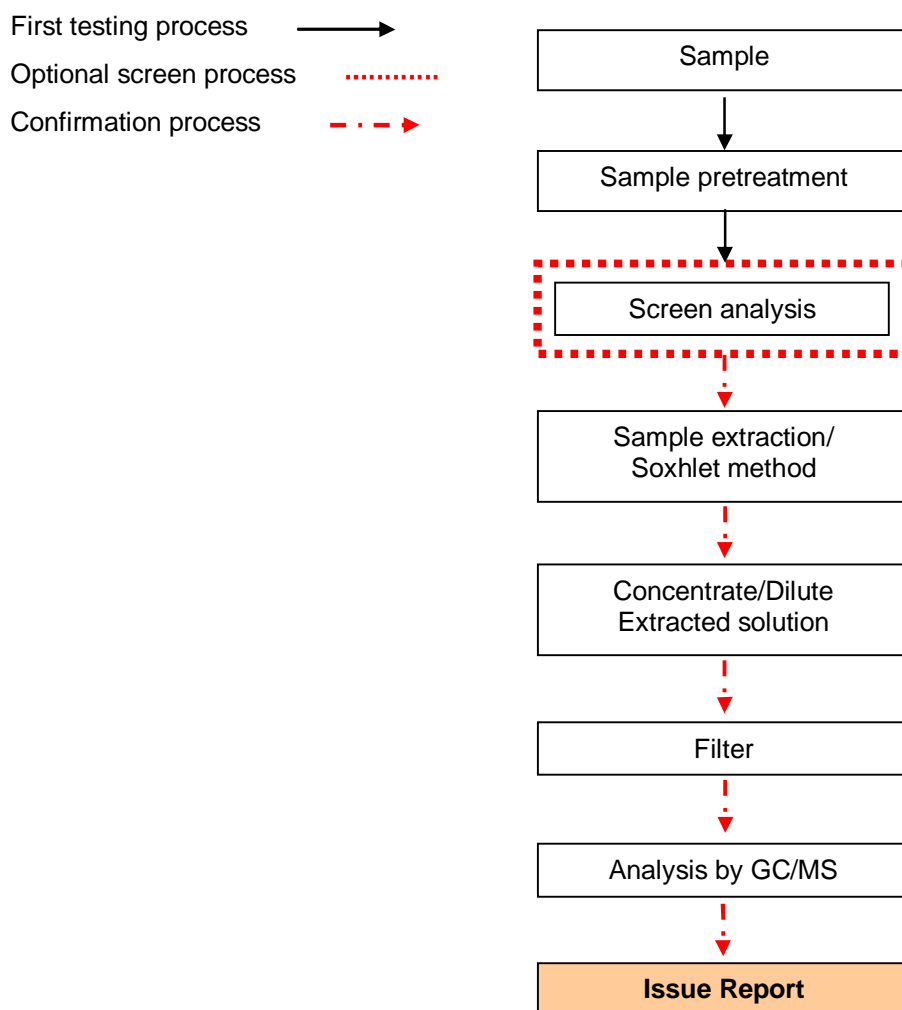
No. : CE/2008/31209    Date : 2008/03/10    Page : 6 of 10

I-PEX JP CO., LTD.

6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN



## PBB/PBDE analytical FLOW CHART



# Test Report

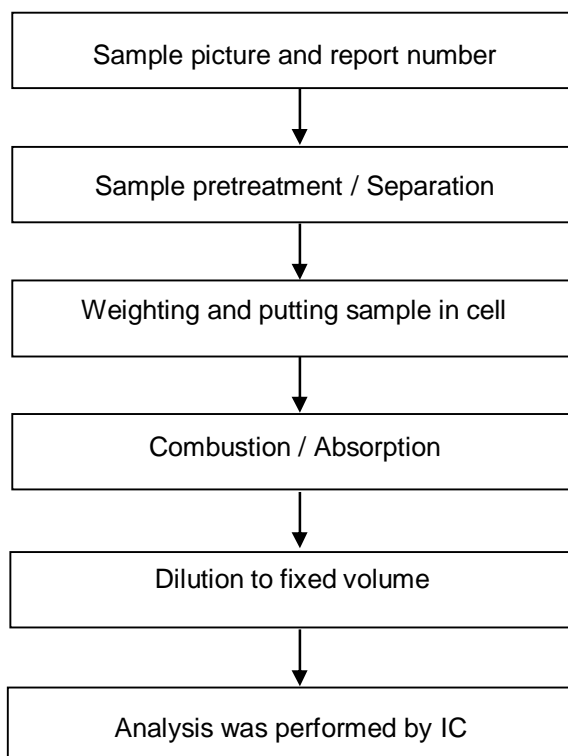
No. : CE/2008/31209 Date : 2008/03/10 Page : 7 of 10

I-PEX JP CO., LTD.

6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN



## Analytical flow chart of halogen content





# Test Report

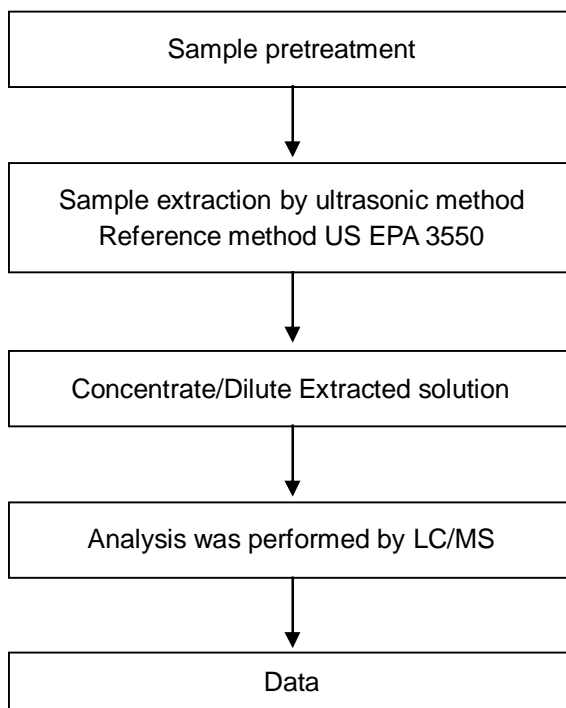
No. : CE/2008/31209 Date : 2008/03/10 Page : 8 of 10

I-PEX JP CO., LTD.

6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN



## Analytical flow chart of PFOA/PFOS content



# Test Report

No. : CE/2008/31209 Date : 2008/03/10 Page : 9 of 10

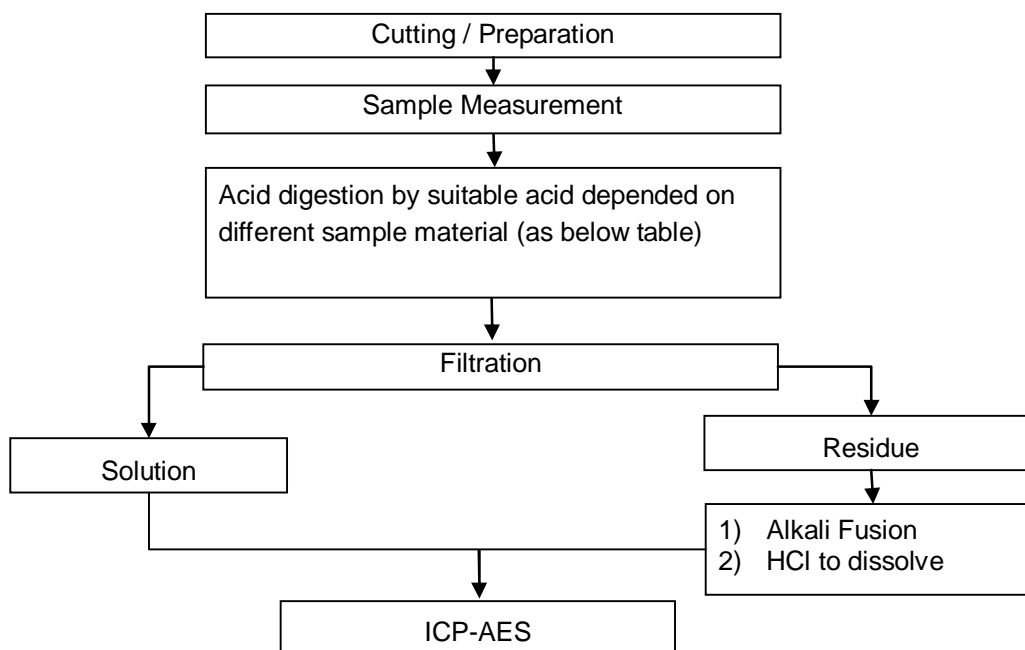
I-PEX JP CO., LTD.

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.
- 2) Name of the person who made measurement: Troy Chang
- 3) Name of the person in charge of measurement: Chenyu Kung

## Flow Chart of Digestion for elements analysis



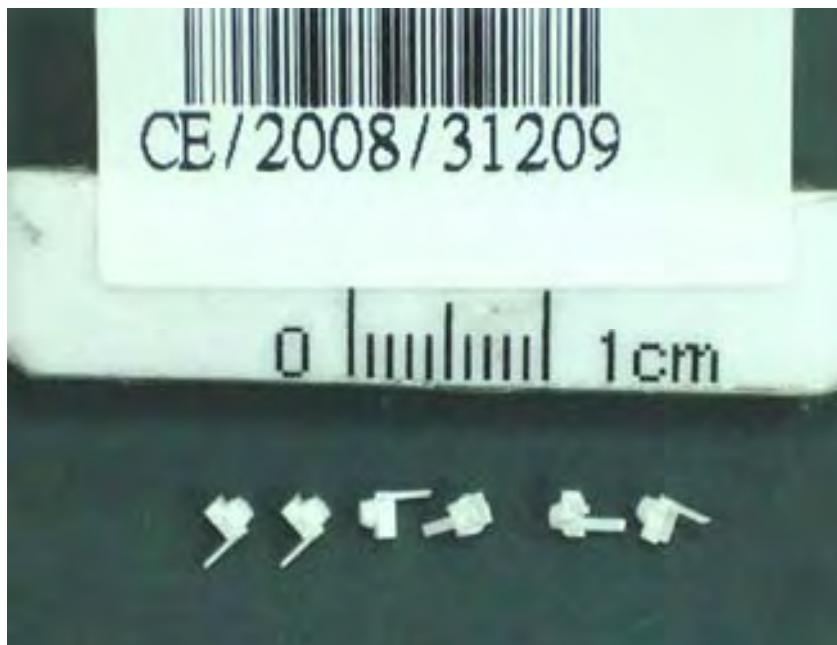
Steel, copper, aluminum, solder	Aqua regia, HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub>
Glass	HNO <sub>3</sub> /HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO <sub>3</sub>
Plastic	H <sub>2</sub> SO <sub>4</sub> , H <sub>2</sub> O <sub>2</sub> , HNO <sub>3</sub> , HCl
Others	Any acid to total digestion

## Test Report

No. : CE/2008/31209 Date : 2008/03/10 Page : 10 of 10

I-PEX JP CO., LTD.

6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN



\*\* End of Report \*\*

# Test Report

No. : CE/2008/31217 Date : 2008/03/10 Page : 1 of 5

I-PEX JP CO., LTD.

6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN

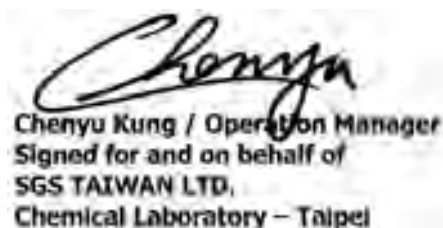


The following sample(s) was/were submitted and identified by/on behalf of the client as :

Sample Description	:	MHF PLUG CONTACT
Style/Item No.	:	1845-0**
Sample Receiving Date	:	2008/03/05
Testing Period	:	2008/03/05 TO 2008/03/10

=====

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



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

# Test Report

No. : CE/2008/31217 Date : 2008/03/10 Page : 2 of 5

I-PEX JP CO., LTD.

6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN



## Test Result(s)

PART NAME NO.1 : GOLDEN COLORED METAL (INCLUDING THE PLATING LAYER)

Test Item (s):	Unit	Method	MDL	Result
				No.1
Cadmium (Cd)	mg/kg	With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of Cadmium by ICP-AES.	2	n.d.
Lead (Pb)	mg/kg	With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of Lead by ICP-AES.	2	20
Mercury (Hg)	mg/kg	With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of Mercury by ICP-AES.	2	n.d.
Hexavalent Chromium Cr(VI) by alkaline extraction	mg/kg	With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of Hexavalent Chromium by UV/Vis Spectrometry.	2	n.d.
Gold (Au)	mg/kg	With reference to US EPA Method 3050B for Gold Content. Analysis was performed by ICP-AES.	2	6390
Nickel (Ni)	mg/kg	With reference to US EPA Method 3050B for Nickel Content. Analysis was performed by ICP-AES.	2	47400

- Note :
1. mg/kg = ppm
  2. n.d. = Not Detected
  3. MDL = Method Detection Limit
  4. The sample(s) was/were analyzed on behalf of the applicant as mixing sample in one testing.  
The above result(s) was/were only given as the informality value.

# Test Report

No. : CE/2008/31217 Date : 2008/03/10 Page : 3 of 5

I-PEX JP CO., LTD.

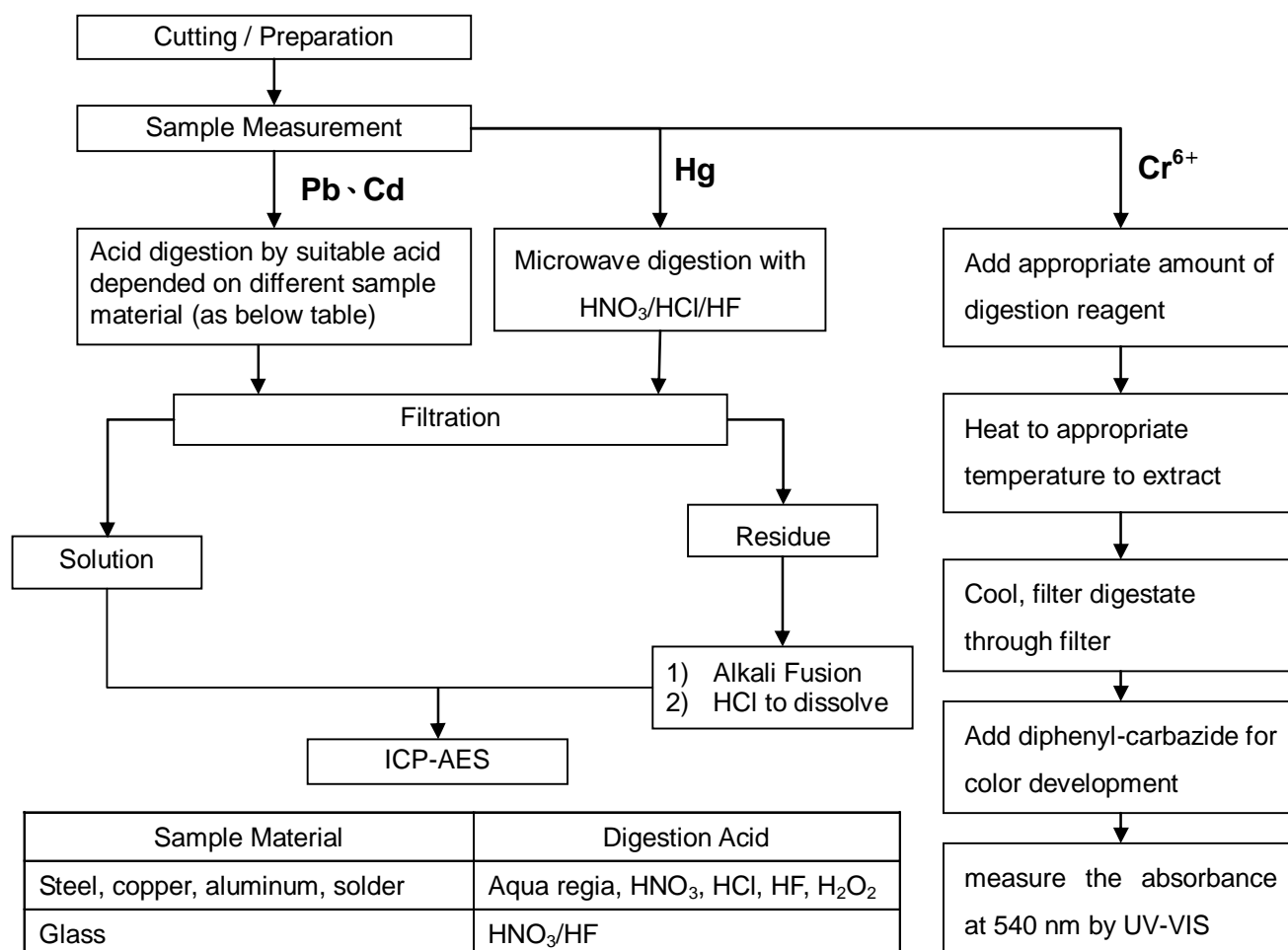
6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN



- 1) These samples were dissolved totally by pre-conditioning method according to below flow chart.  
(Cr<sup>6+</sup> test method excluded)

2) Name of the person who made measurement: Troy Chang

3) Name of the person in charge of measurement: Chenyu Kung



Sample Material	Digestion Acid
Steel, copper, aluminum, solder	Aqua regia, HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub>
Glass	HNO <sub>3</sub> /HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO <sub>3</sub>
Plastic	H <sub>2</sub> SO <sub>4</sub> , H <sub>2</sub> O <sub>2</sub> , HNO <sub>3</sub> , HCl
Others	Any acid to total digestion



# Test Report

No. : CE/2008/31217 Date : 2008/03/10 Page : 4 of 5

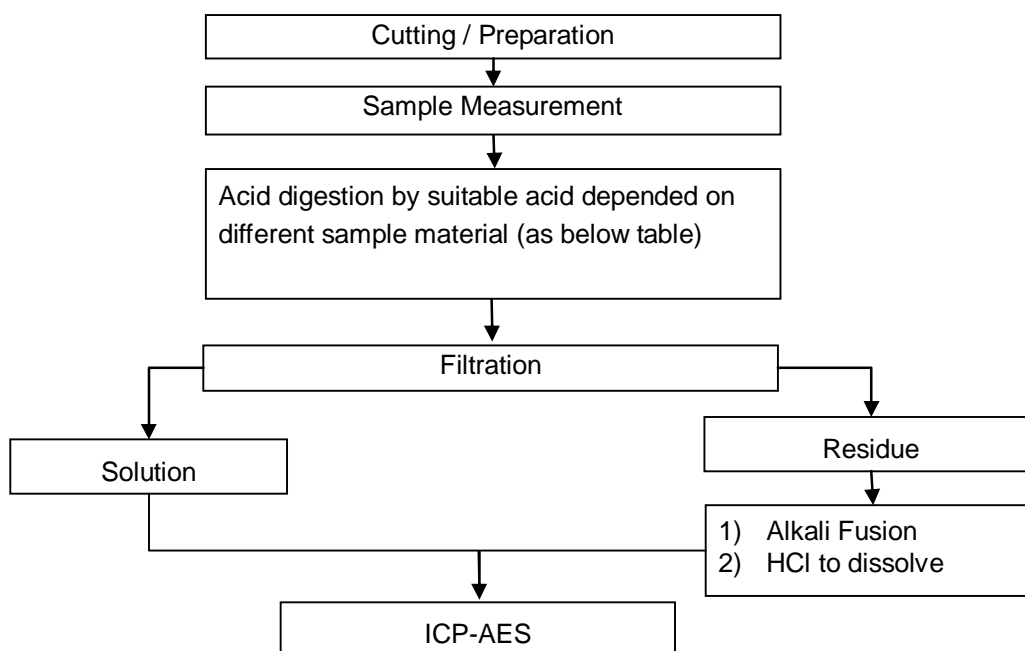
I-PEX JP CO., LTD.

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.
- 2) Name of the person who made measurement: Troy Chang
- 3) Name of the person in charge of measurement: Chenyu Kung

## Flow Chart of Digestion for elements analysis



Steel, copper, aluminum, solder	Aqua regia, HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub>
Glass	HNO <sub>3</sub> /HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO <sub>3</sub>
Plastic	H <sub>2</sub> SO <sub>4</sub> , H <sub>2</sub> O <sub>2</sub> , HNO <sub>3</sub> , HCl
Others	Any acid to total digestion

## Test Report

No. : CE/2008/31217 Date : 2008/03/10 Page : 5 of 5

I-PEX JP CO., LTD.

6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN



\*\* End of Report \*\*

# Test Report

No. : CE/2008/31216 Date : 2008/03/10 Page : 1 of 5

I-PEX JP CO., LTD.

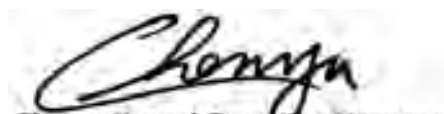
6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN



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

Sample Description	:	MHF PLUG GROUND CONTACT
Style/Item No.	:	1846-0**
Sample Receiving Date	:	2008/03/05
Testing Period	:	2008/03/05 TO 2008/03/10

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

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

# Test Report

No. : CE/2008/31216 Date : 2008/03/10 Page : 2 of 5

I-PEX JP CO., LTD.

6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN



## Test Result(s)

PART NAME NO.1 : GOLDEN COLORED METAL (INCLUDING THE PLATING LAYER)

Test Item (s):	Unit	Method	MDL	Result
				No.1
Cadmium (Cd)	mg/kg	With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of Cadmium by ICP-AES.	2	n.d.
Lead (Pb)	mg/kg	With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of Lead by ICP-AES.	2	17
Mercury (Hg)	mg/kg	With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of Mercury by ICP-AES.	2	n.d.
Hexavalent Chromium Cr(VI) by alkaline extraction	mg/kg	With reference to IEC 62321/2nd CDV (111/95/CDV). Determination of Hexavalent Chromium by UV/Vis Spectrometry.	2	n.d.
Gold (Au)	mg/kg	With reference to US EPA Method 3050B for Gold Content. Analysis was performed by ICP-AES.	2	2070
Nickel (Ni)	mg/kg	With reference to US EPA Method 3050B for Nickel Content. Analysis was performed by ICP-AES.	2	20600

- Note :
1. mg/kg = ppm
  2. n.d. = Not Detected
  3. MDL = Method Detection Limit
  4. The sample(s) was/were analyzed on behalf of the applicant as mixing sample in one testing.  
The above result(s) was/were only given as the informality value.

# Test Report

No. : CE/2008/31216 Date : 2008/03/10 Page : 3 of 5

I-PEX JP CO., LTD.

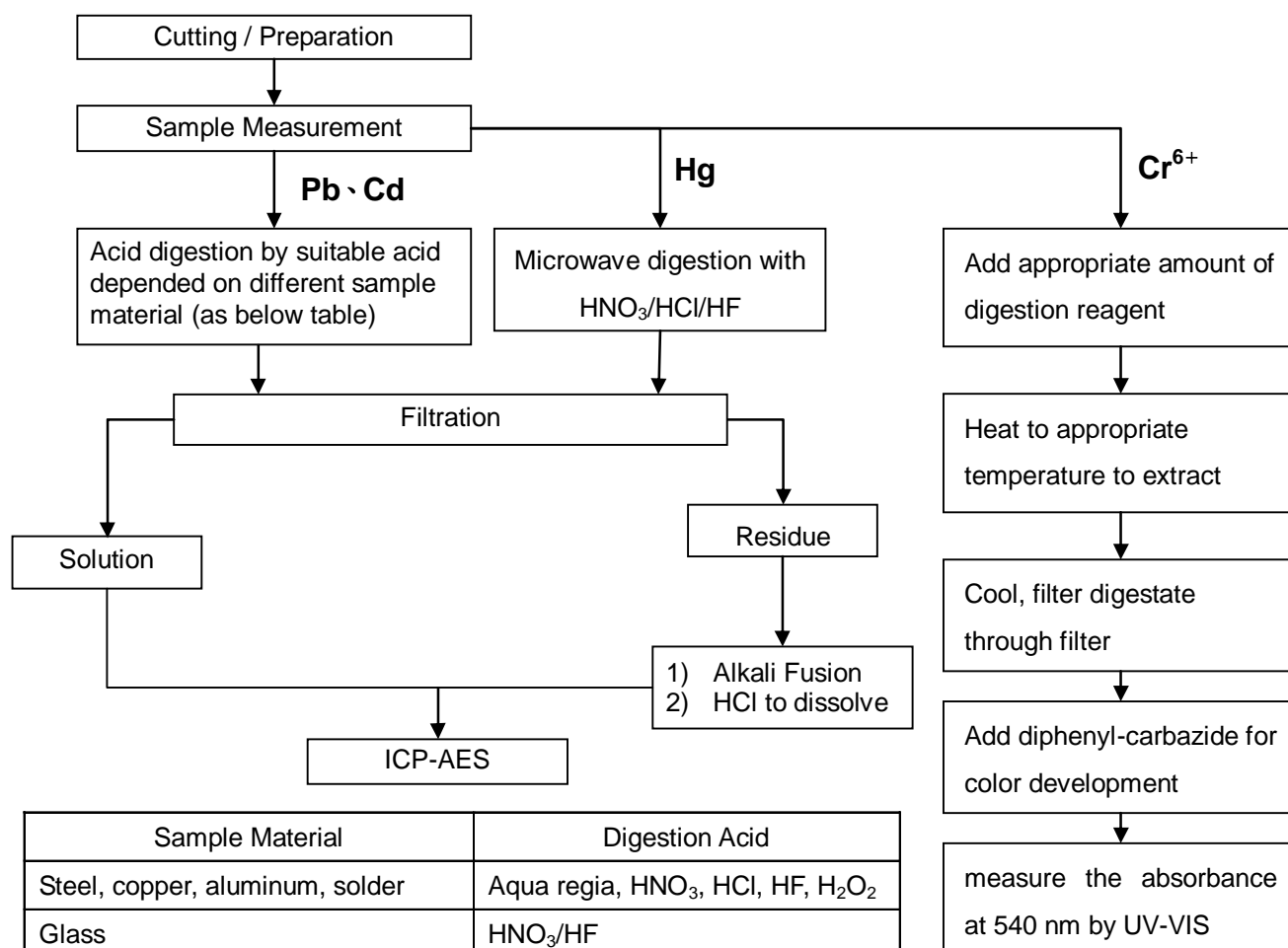
6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN



- 1) These samples were dissolved totally by pre-conditioning method according to below flow chart.  
(Cr<sup>6+</sup> test method excluded)

2) Name of the person who made measurement: Troy Chang

3) Name of the person in charge of measurement: Chenyu Kung



Sample Material	Digestion Acid
Steel, copper, aluminum, solder	Aqua regia, HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub>
Glass	HNO <sub>3</sub> /HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO <sub>3</sub>
Plastic	H <sub>2</sub> SO <sub>4</sub> , H <sub>2</sub> O <sub>2</sub> , HNO <sub>3</sub> , HCl
Others	Any acid to total digestion

# Test Report

No. : CE/2008/31216 Date : 2008/03/10 Page : 4 of 5

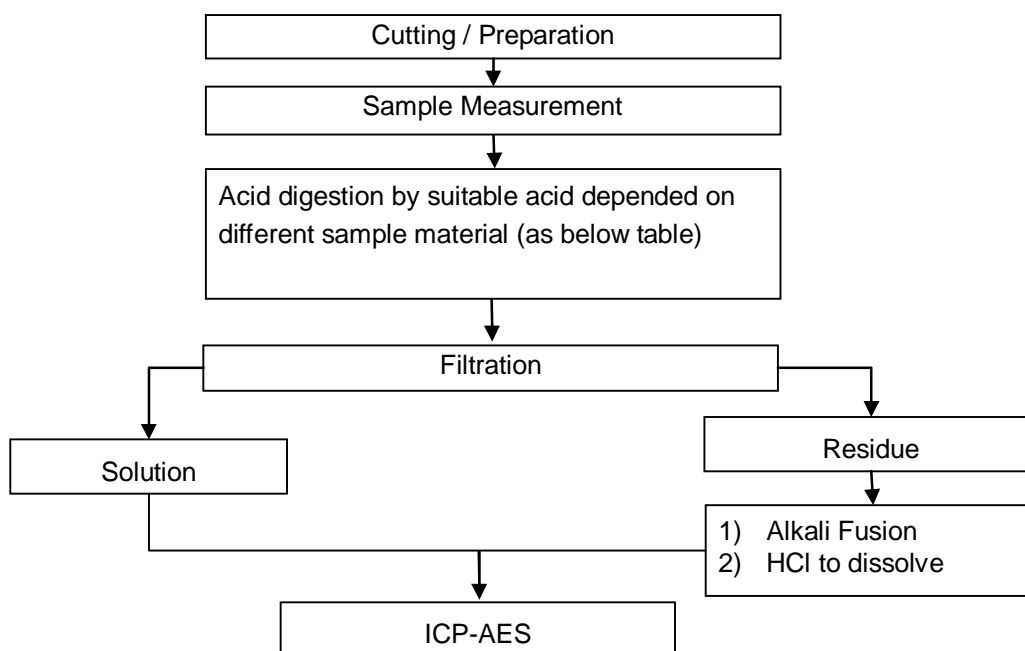
I-PEX JP CO., LTD.

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.
- 2) Name of the person who made measurement: Troy Chang
- 3) Name of the person in charge of measurement: Chenyu Kung

## Flow Chart of Digestion for elements analysis



Steel, copper, aluminum, solder	Aqua regia, HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub>
Glass	HNO <sub>3</sub> /HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO <sub>3</sub>
Plastic	H <sub>2</sub> SO <sub>4</sub> , H <sub>2</sub> O <sub>2</sub> , HNO <sub>3</sub> , HCl
Others	Any acid to total digestion

## Test Report

No. : CE/2008/31216 Date : 2008/03/10 Page : 5 of 5

I-PEX JP CO., LTD.

6-27-19 HARAMACHIDA MACHIDA-CITY TOKYO 194-0013 JAPAN



\*\* End of Report \*\*



## Test Report

No. : CE/2007/A4663 Date : 2007/10/31

Page : 1 of 5

LANTERRA INDUSTRIAL CO., LTD.

F. 14, NO. 92, SHING TEH RD., SAN CHUNG CITY, TAIPEI, TAIWAN



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

Sample Description : KHCX-32AWG-SB-TA, KHCX-30AWG-SB-TA,  
KHCX-36AWG-SB-TA  
Style/Item No. : KHCX-32AWG-SB-TA, KHCX-30AWG-SB-TA,  
KHCX-36AWG-SB-TA  
Other Info. : GRAY JACKET  
Sample Receiving Date : 2007/10/22  
Testing Period : 2007/10/22 TO 2007/10/31

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).

Conclusion : Based on the performed tests on submitted samples, the test results are **compliant with** the limits of RoHS Directive 2002/95/EC and its subsequent amendments.

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



# Test Report

No. : CE/2007/A4663

Date : 2007/10/31

Page : 2 of 5

LAN TERRA INDUSTRIAL CO., LTD.

F. 14, NO. 92, SHING TEH RD., SAN CHUNG CITY, TAIPEI, TAIWAN



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

Test Item (s):	Method (Refer to)	Result	MDL	RoHS Limit
		No.1		
Cadmium (Cd)	(1)	n.d.	2	100
Lead (Pb)	(2)	n.d.	2	1000
Mercury (Hg)	(3)	n.d.	2	1000
Hexavalent Chromium Cr(VI) by alkaline extraction	(4)	n.d.	2	1000
<b>Sum of PBBs</b>	(5)	n.d.	-	1000
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	-
<b>Sum of PBDEs (Mono to Nona) (Note 4)</b>		n.d.	-	1000
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	-
<b>Sum of PBDEs (Mono to Deca)</b>		n.d.	-	-

## TEST PART DESCRIPTION:

NO.1 : GRAY PLASTIC JACKET

- 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

The content of this PDF file is in accordance with the original issued reports for reference only. This Test Report cannot be reproduced, except in full, without prior written permission of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this report is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS TAIWAN LIMITED | NO. 136-1, Wu Kung Road, WuKu Industrial Zone, Taipei county, Taiwan.  
t(886-2) 22993939 f(886-2) 2299-3237 www.sgs.com.tw

# Test Report

No. : CE/2007/A4663

Date : 2007/10/31

Page : 3 of 5

LANTERRA INDUSTRIAL CO., LTD.

F. 14, NO. 92, SHING TEH RD., SAN CHUNG CITY, TAIPEI, TAIWAN

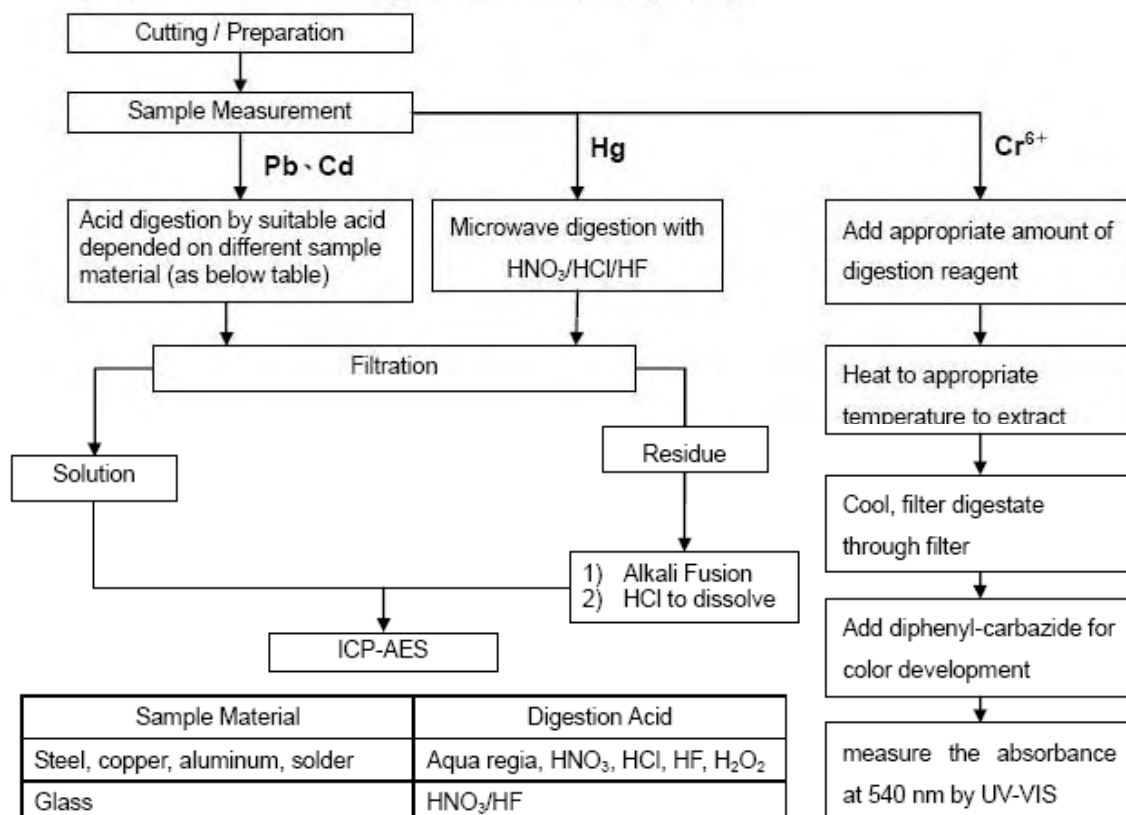


1) These samples were dissolved totally by pre-conditioning method according to below flow chart.

(Cr6+ test method excluded)

2) Name of the person who made measurement: Troy Chang

3) Name of the person in charge of measurement: Chenyu Kung



The content of this PDF file is in accordance with the original issued reports for reference only. This Test Report cannot be reproduced, except in full, without prior written permission of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this report is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS TAIWAN LIMITED

NO. 136-1, Wu Kung Road, WuKu Industrial Zone, Taipei county, Taiwan.  
t(886-2) 22993939 f(886-2) 2299-3237 www.sgs.com.tw

# Test Report

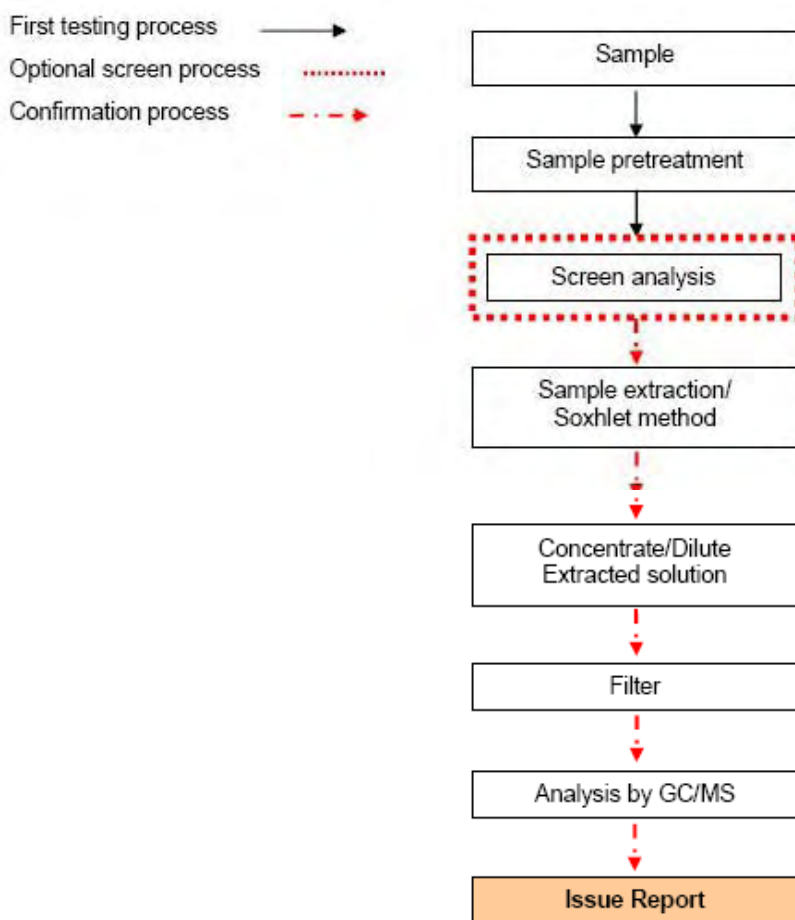
No. : CE/2007/A4663 Date : 2007/10/31

Page : 4 of 5

LANTERRA INDUSTRIAL CO., LTD.  
F. 14, NO. 92, SHING TEH RD., SAN CHUNG CITY, TAIPEI, TAIWAN



## PBB/PBDE analytical FLOW CHART



## Test Report

No. : CE/2007/A4663 Date : 2007/10/31

Page : 5 of 5

LANTERRA INDUSTRIAL CO., LTD.

F. 14, NO. 92, SHING TEH RD., SAN CHUNG CITY, TAIPEI, TAIWAN



\*\* End of Report \*\*



## Test Report

No. : CE/2007/A4664

Date : 2007/10/29

Page : 1 of 4

LANTERRA INDUSTRIAL CO., LTD.

F. 14, NO. 92, SHING TEH RD., SAN CHUNG CITY, TAIPEI, TAIWAN



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

Sample Description	:	KHCX-32AWG-SB-TA, KHCX-30AWG-SB-TA, KHCX-36AWG-SB-TA
Style/Item No.	:	KHCX-32AWG-SB-TA, KHCX-30AWG-SB-TA, KHCX-36AWG-SB-TA
Other Info.	:	SILVER COLORED METAL FOIL
Sample Receiving Date	:	2007/10/22
Testing Period	:	2007/10/22 TO 2007/10/29


=====

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

Test Method	:	With reference to IEC 62321, Ed.1 11/154/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 metallic samples by Spot test / Colorimetric Method.
-------------	---	--

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

Conclusion	:	Based on the performed tests on submitted samples, the test results are <b>compliant with</b> the limits of RoHS Directive 2002/95/EC and its subsequent amendments.
------------	---	--

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

The content of this PDF file is in accordance with the original issued reports for reference only. This Test Report cannot be reproduced, except in full, without prior written permission of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this report is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS TAIWAN LIMITED

NO. 136-1, Wu Kung Road, WuKu Industrial Zone, Taipei County, Taiwan.  
TEL: 886-2-27007610 FAX: 886-2-27007617 E-MAIL: cnc@sgs.com.tw



# Test Report

No. : CE/2007/A4664

Date : 2007/10/29

Page : 2 of 4

LAN TERRA INDUSTRIAL CO., LTD.

F. 14, NO. 92, SHING TEH RD., SAN CHUNG CITY, TAIPEI, TAIWAN



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

Test Item (s):	Method (Refer to)	Result	MDL	RoHS Limit
		No.1		
Cadmium (Cd)	(1)	n.d.	2	100
Lead (Pb)	(2)	11	2	1000
Mercury (Hg)	(3)	n.d.	2	1000
Hexavalent Chromium Cr(VI) by Spot test / boiling water extraction	(4)	Negative	See Note 4	#

## TEST PART DESCRIPTION:

NO.1 : SILVER COLORED METAL

Note : 1. mg/kg = ppm

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 cm<sup>2</sup> sample surface area.

5. # = Positive indicates the presence of Cr(VI) on the tested areas

and result be regarded as not comply with RoHS requirement.

Negative indicates the absence of Cr(VI) on the tested areas and result be regarded as comply with RoHS requirement.

# Test Report

No. : CE/2007/A4664

Date : 2007/10/29

Page : 3 of 4

LAN TERRA INDUSTRIAL CO., LTD.

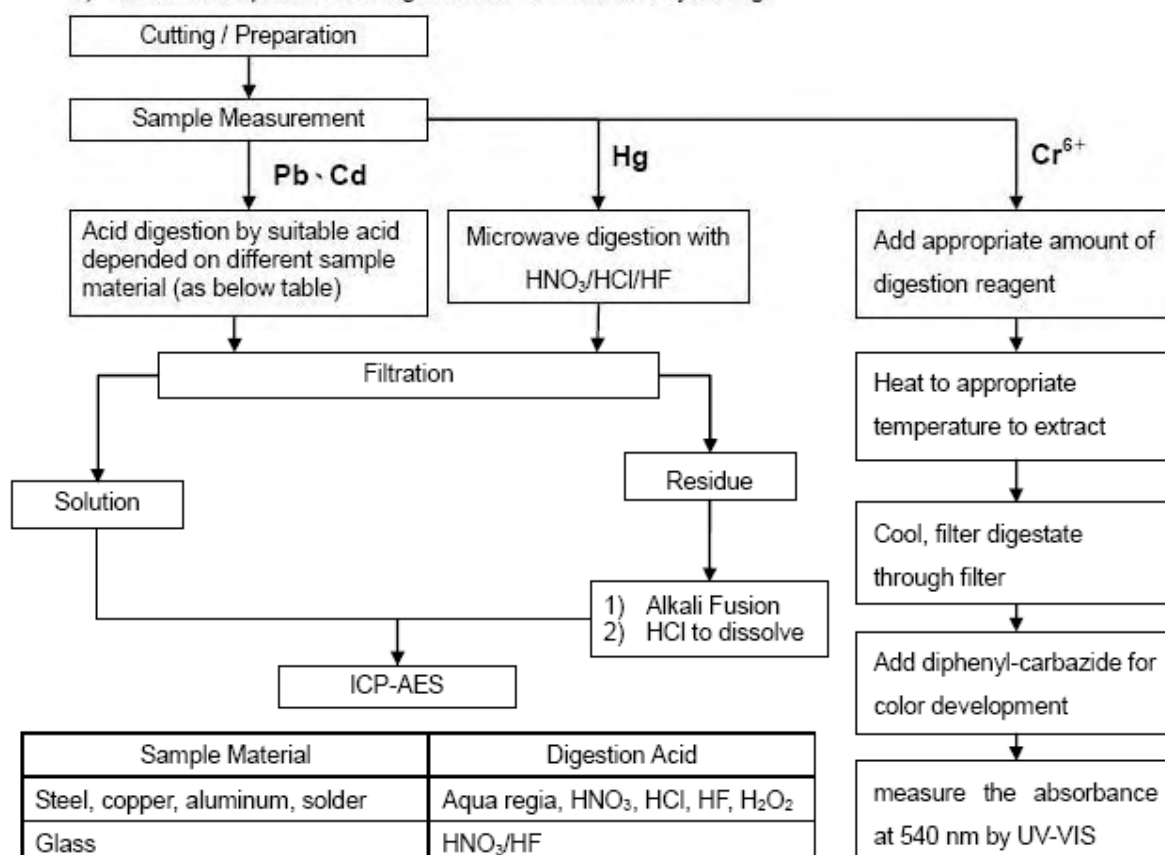
F. 14, NO. 92, SHING TEH RD., SAN CHUNG CITY, TAIPEI, TAIWAN



- 1) These samples were dissolved totally by pre-conditioning method according to below flow chart.  
(Cr<sup>6+</sup> test method excluded)

2) Name of the person who made measurement: Troy Chang

3) Name of the person in charge of measurement: Chenyu Kung



Sample Material	Digestion Acid
Steel, copper, aluminum, solder	Aqua regia, HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub>
Glass	HNO <sub>3</sub> /HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO <sub>3</sub>
Plastic	H <sub>2</sub> SO <sub>4</sub> , H <sub>2</sub> O <sub>2</sub> , HNO <sub>3</sub> , HCl
Others	Any acid to total digestion

# Test Report

No. : CE/2007/A4664 Date : 2007/10/29

Page : 4 of 4

LANTERRA INDUSTRIAL CO., LTD.

F. 14, NO. 92, SHING TEH RD., SAN CHUNG CITY, TAIPEI, TAIWAN



\*\* End of Report \*\*





## Test Report

No. : CE/2007/A4665

Date : 2007/10/29

Page : 1 of 5

LANTERRA INDUSTRIAL CO., LTD.

F. 14, NO. 92, SHING TEH RD., SAN CHUNG CITY, TAIPEI, TAIWAN



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


Sample Description : KHCX-32AWG-SB-TA, KHCX-30AWG-SB-TA,  
KHCX-36AWG-SB-TA  
Style/Item No. : KHCX-32AWG-SB-TA, KHCX-30AWG-SB-TA,  
KHCX-36AWG-SB-TA  
Other Info. : TRANSPARENT PLASTIC  
Sample Receiving Date : 2007/10/22  
Testing Period : 2007/10/22 TO 2007/10/29

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

Test Method : With reference to IEC 62321, Ed.1 11/54/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).

Conclusion : Based on the performed tests on submitted samples, the test  
results are **compliant with** the limits of RoHS Directive  
2002/95/EC and its subsequent amendments.

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

The content of this PDF file is in accordance with the original issued reports for reference only. This Test Report cannot be reproduced, except in full, without prior written permission of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this report is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS TAIWAN LIMITED | NO. 136-1, Wu Kung Road, Wu Ku Industrial Zone, Taipei County, Taiwan.  
TEL: 886-2-22061010 / FAX: 886-2-2206-7777 | WWW.SGS.COM.TW

# Test Report

No. : CE/2007/A4665

Date : 2007/10/29

Page : 2 of 5

LANTERRA INDUSTRIAL CO., LTD.

F. 14, NO. 92, SHING TEH RD., SAN CHUNG CITY, TAIPEI, TAIWAN



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

Test Item (s):	Method (Refer to)	Result	MDL	RoHS Limit
		No.1		
Cadmium (Cd)	(1)	n.d.	2	100
Lead (Pb)	(2)	n.d.	2	1000
Mercury (Hg)	(3)	n.d.	2	1000
Hexavalent Chromium Cr(VI) by alkaline extraction	(4)	n.d.	2	1000
<b>Sum of PBBs</b>	(5)	n.d.	-	1000
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	-
<b>Sum of PBDEs (Mono to Nona) (Note 4)</b>		n.d.	-	1000
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	-
<b>Sum of PBDEs (Mono to Deca)</b>		n.d.	-	-

## TEST PART DESCRIPTION:

NO.1 : TRANSPARENT 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

The content of this PDF file is in accordance with the original issued reports for reference only. This Test Report cannot be reproduced, except in full, without prior written permission of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this report is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS TAIWAN LIMITED

NO. 136-1, Wu Kung Road, WuKu Industrial Zone, Taipei county, Taiwan.  
t(886-2) 22993939 f(886-2) 2299-3237 www.sgs.com.tw

# Test Report

No. : CE/2007/A4665

Date : 2007/10/29

Page : 3 of 5

LANTERRA INDUSTRIAL CO., LTD.

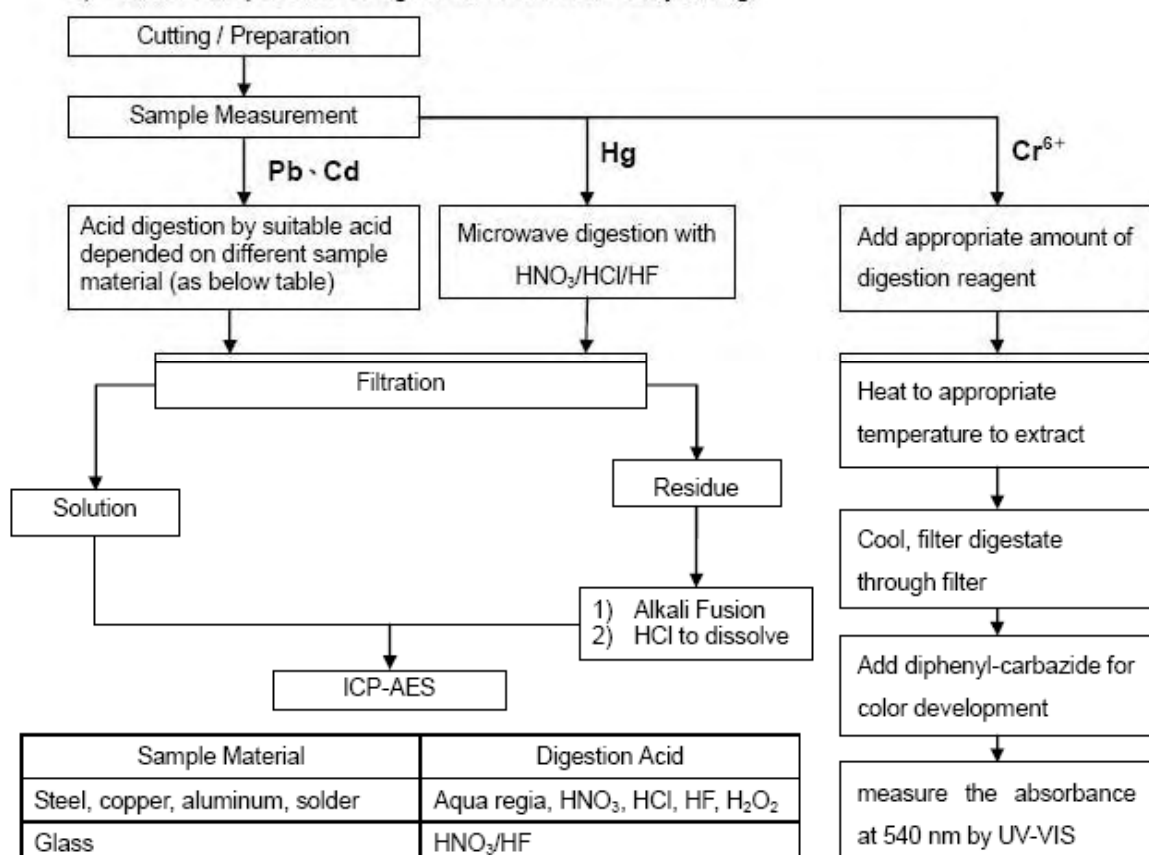
F. 14, NO. 92, SHING TEH RD., SAN CHUNG CITY, TAIPEI, TAIWAN



- 1) These samples were dissolved totally by pre-conditioning method according to below flow chart.  
(Cr<sup>6+</sup> test method excluded)

2) Name of the person who made measurement: Troy Chang

3) Name of the person in charge of measurement: Chenyu Kung



Sample Material	Digestion Acid
Steel, copper, aluminum, solder	Aqua regia, HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub>
Glass	HNO <sub>3</sub> /HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO <sub>3</sub>
Plastic	H <sub>2</sub> SO <sub>4</sub> , H <sub>2</sub> O <sub>2</sub> , HNO <sub>3</sub> , HCl
Others	Any acid to total digestion

# Test Report

No. : CE/2007/A4665 Date : 2007/10/29

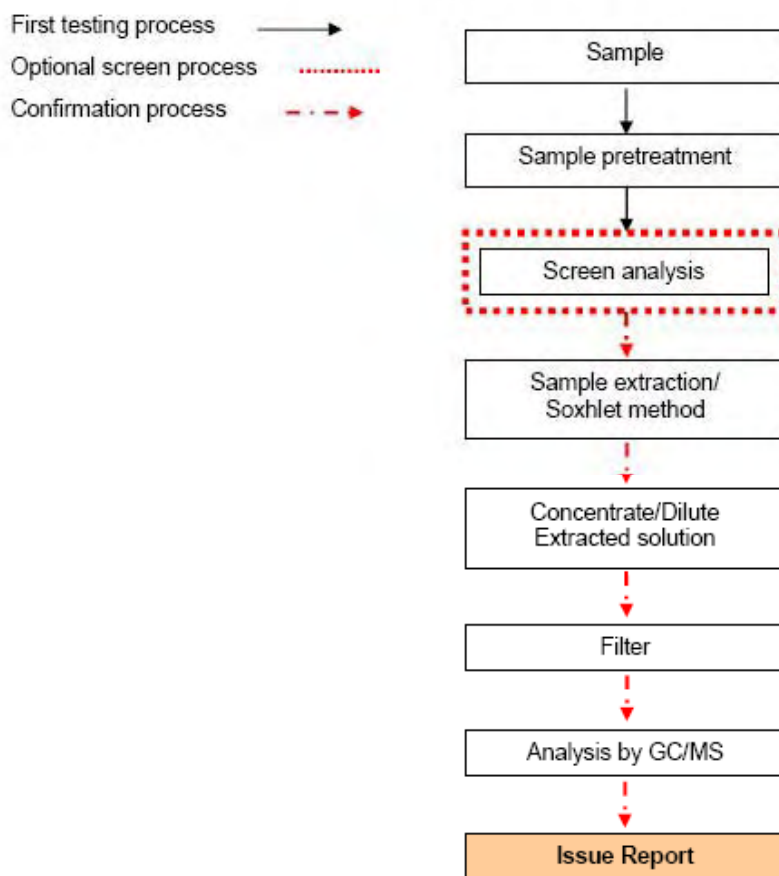
Page : 4 of 5

LANTERRA INDUSTRIAL CO., LTD.

F. 14, NO. 92, SHING TEH RD., SAN CHUNG CITY, TAIPEI, TAIWAN



## PBB/PBDE analytical FLOW CHART



## Test Report

No. : CE/2007/A4665 Date : 2007/10/29

Page : 5 of 5

LANTERRA INDUSTRIAL CO., LTD.

F. 14, NO. 92, SHING TEH RD., SAN CHUNG CITY, TAIPEI, TAIWAN



\*\* End of Report \*\*

The content of this PDF file is in accordance with the original issued reports for reference only. This Test Report cannot be reproduced, except in full, without prior written permission of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this report is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS TAIWAN LIMITED

NO. 136-1, Wu Kung Road, WuKu Industrial Zone, Taipei county, Taiwan.  
t(886-2) 22993939 f(886-2) 2299-3237 [www.sgs.com.tw](http://www.sgs.com.tw)





## Test Report

No. : CE/2007/A4666

Date : 2007/10/29

Page : 1 of 4

LANTERRA INDUSTRIAL CO., LTD.

F. 14, NO. 92, SHING TEH RD., SAN CHUNG CITY, TAIPEI, TAIWAN



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


Sample Description : KHCX-32AWG-SB-TA, KHCX-30AWG-SB-TA,  
KHCX-36AWG-SB-TA  
Style/Item No. : KHCX-32AWG-SB-TA, KHCX-30AWG-SB-TA,  
KHCX-36AWG-SB-TA  
Other Info. : SILVER COLORED METAL WIRE  
Sample Receiving Date : 2007/10/22  
Testing Period : 2007/10/22 TO 2007/10/29

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

Test Method : With reference to IEC 62321, Ed. ( 11 )/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 metallic samples by Spot test / Colorimetric Method.

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

Conclusion : Based on the performed tests on submitted samples, the test results are **compliant with** the limits of RoHS Directive 2002/95/EC and its subsequent amendments.

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

The content of this PDF file is in accordance with the original issued reports for reference only. This Test Report cannot be reproduced, except in full, without prior written permission of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this report is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS TAIWAN LIMITED NO. 136-1, Wu Kung Road, WuKu Industrial Zone, Taipei county, Taiwan.  
t(886-2) 22963939 f(886-2) 2299-3237 www.sgs.com.tw

# Test Report

No. : CE/2007/A4666

Date : 2007/10/29

Page : 2 of 4

LANTERRA INDUSTRIAL CO., LTD.

F. 14, NO. 92, SHING TEH RD., SAN CHUNG CITY, TAIPEI, TAIWAN



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

Test Item (s):	Method (Refer to)	Result	MDL	RoHS Limit
		No.1		
Cadmium (Cd)	(1)	n.d.	2	100
Lead (Pb)	(2)	n.d.	2	1000
Mercury (Hg)	(3)	n.d.	2	1000
Hexavalent Chromium Cr(VI) by Spot test / boiling water extraction	(4)	Negative	See Note 4	#

## TEST PART DESCRIPTION:

NO.1 : SILVER COLORED METAL WIRE

Note : 1. mg/kg = ppm

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 cm<sup>2</sup> sample surface area.

5. # = Positive indicates the presence of Cr(VI) on the tested areas

and result be regarded as not comply with RoHS requirement.

Negative indicates the absence of Cr(VI) on the tested areas and result be regarded as comply with RoHS requirement.

# Test Report

No. : CE/2007/A4666

Date : 2007/10/29

Page : 3 of 4

LANTERRA INDUSTRIAL CO., LTD.

F. 14, NO. 92, SHING TEH RD., SAN CHUNG CITY, TAIPEI, TAIWAN

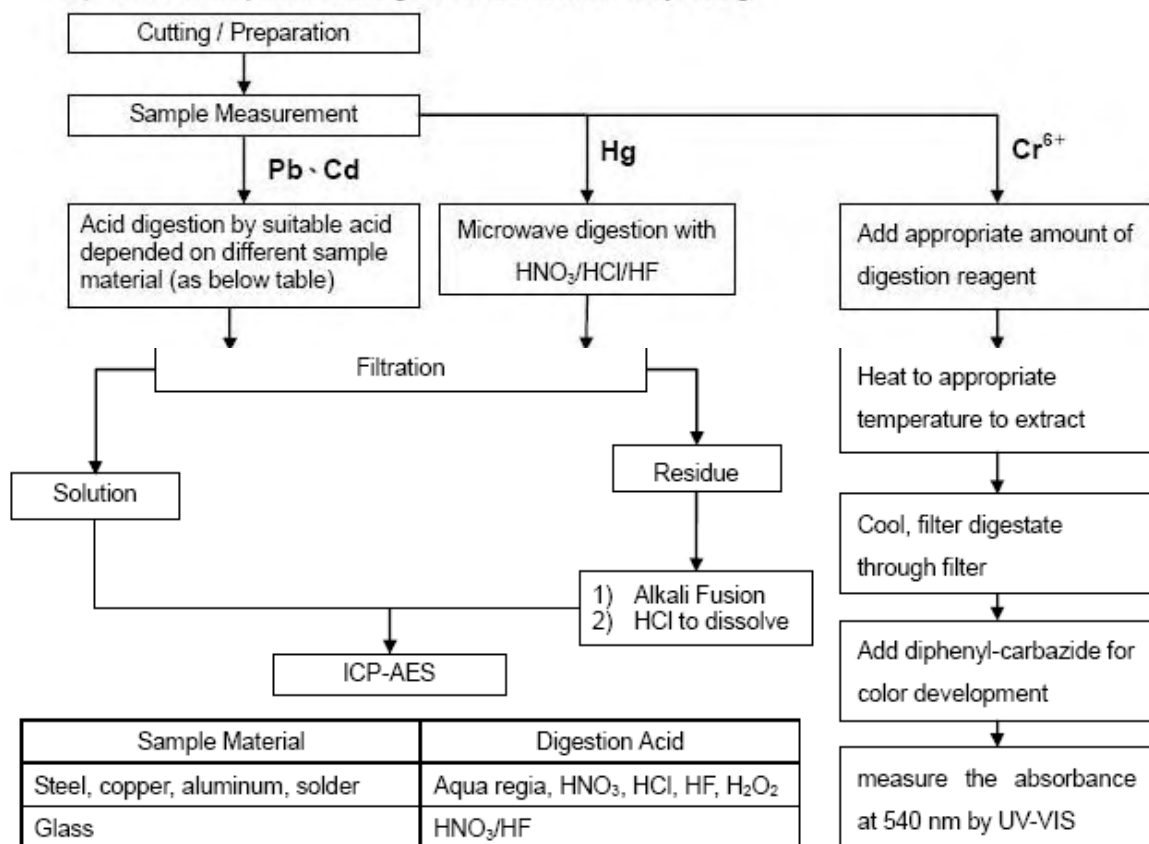


1) These samples were dissolved totally by pre-conditioning method according to below flow chart.

(Cr6+ test method excluded)

2) Name of the person who made measurement: Troy Chang

3) Name of the person in charge of measurement: Chenyu Kung



Sample Material	Digestion Acid
Steel, copper, aluminum, solder	Aqua regia, HNO <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub>
Glass	HNO <sub>3</sub> /HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO <sub>3</sub>
Plastic	H <sub>2</sub> SO <sub>4</sub> , H <sub>2</sub> O <sub>2</sub> , HNO <sub>3</sub> , HCl
Others	Any acid to total digestion



## Test Report

No. : CE/2007/A4666

Date : 2007/10/29

Page : 4 of 4

LANTERRA INDUSTRIAL CO., LTD.

F. 14, NO. 92, SHING TEH RD., SAN CHUNG CITY, TAIPEI, TAIWAN



\*\* End of Report \*\*



## Test Report

No. : CE/2007/75462 Date : 2007/07/30

Page : 1 of 4

B&F ELECTRONICS CO., LTD.

3 LANE 240, CHUNG YANG RD. SEC. 3 TU-CHENG TAIPEI HSIEN TAIWAN



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

Sample Description : B15  
Style/Item No. : FERRITE MATERIAL  
Sample Receiving Date : 2007/07/23  
Testing Period : 2007/07/23 TO 2007/07/30

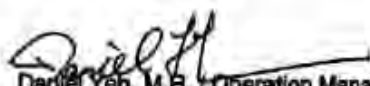
=====

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 metallic samples by Spot test / Colorimetric Method.

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

  
Daniel Yeh, M.R., Operation Manager  
Signed for and on behalf of  
SGS TAIWAN LTD.  
Chemical Laboratory - Taipei

The content of this PDF file is in accordance with the original issued reports for reference only. This Test Report cannot be reproduced, except in full, without prior written permission of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this report is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS TAIWAN LIMITED

NO. 136-1, Wu Kung Road, WuKu Industrial Zone, Taipei county, Taiwan.  
t(886-2) 22993939 t(886-2) 2299-3237 www.sgs.com.tw

# Test Report

No. : CE/2007/75462 Date : 2007/07/30

Page : 2 of 4

B&F ELECTRONICS CO., LTD.  
3 LANE 240, CHUNG YANG RD. SEC. 3 TU-CHENG TAIPEI HSIEN TAIWAN



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)	28	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 : IRON-GRAY METAL

Note : 1. mg/kg = ppm

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 cm<sup>2</sup> sample surface area.

# Test Report

No. : CE/2007/75462

Date : 2007/07/30

Page : 3 of 4

B&F ELECTRONICS CO., LTD.

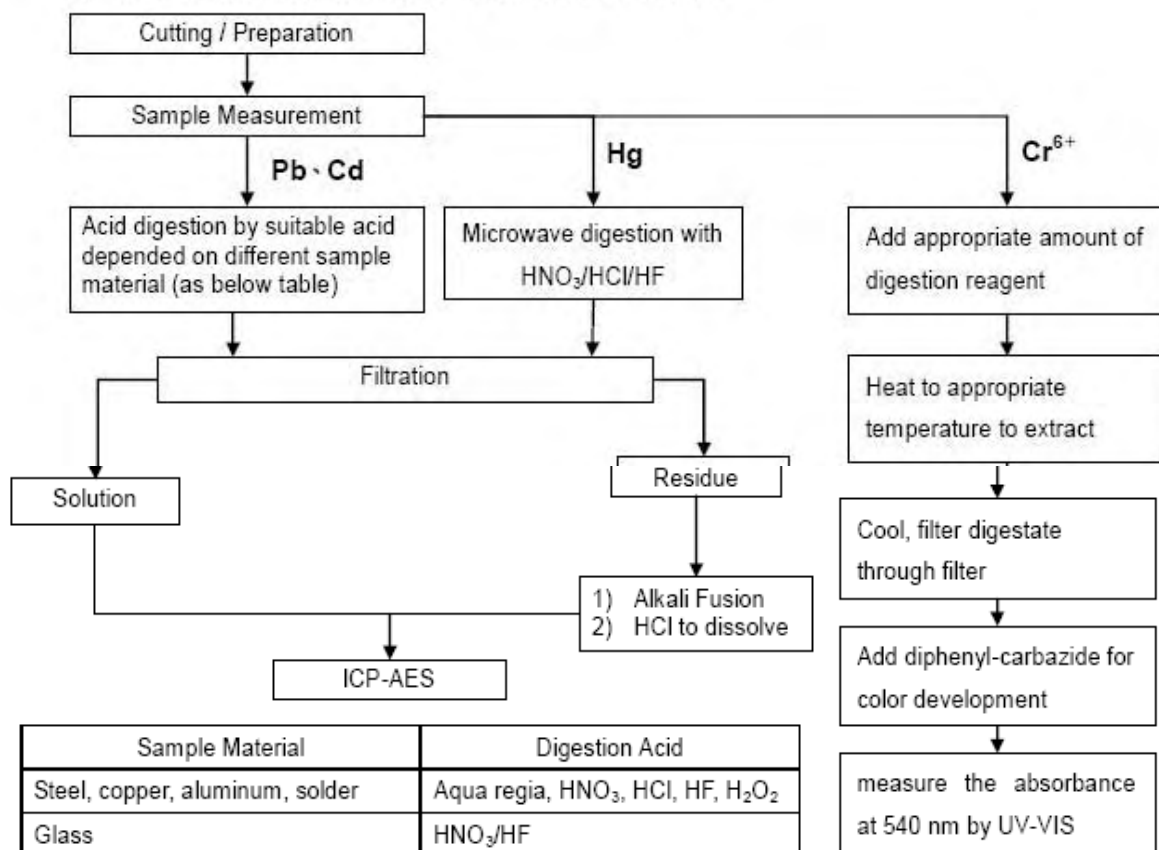
3 LANE 240, CHUNG YANG RD. SEC. 3 TU-CHENG TAIPEI HSIEN TAIWAN



- 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 <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub>
Glass	HNO <sub>3</sub> /HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO <sub>3</sub>
Plastic	H <sub>2</sub> SO <sub>4</sub> , H <sub>2</sub> O <sub>2</sub> , HNO <sub>3</sub> , HCl
Others	Any acid to total digestion

## Test Report

No. : CE/2007/75462 Date : 2007/07/30

Page : 4 of 4

B&F ELECTRONICS CO., LTD.

3 LANE 240, CHUNG YANG RD. SEC. 3 TU-CHENG TAIPEI HSIEN TAIWAN



\*\* End of Report \*\*

The content of this PDF file is in accordance with the original issued reports for reference only. This Test Report cannot be reproduced, except in full, without prior written permission of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this report is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS TAIWAN LIMITED

NO. 136-1, Wu Kung Road, WuKu Industrial Zone, Taipei county, Taiwan.  
t(886-2) 22993939 f(886-2) 2299-3237 www.sgs.com.tw



## Test Report

No. : CE/2007/63742

Date : 2007/06/25

Page : 1 of 5

ZHI YAN ELECTRONICS CO., LTD.

11F-8, NO. 109, SEC. 1, JHONGSHAN RD., SINJHUANG CITY, TAIPEI

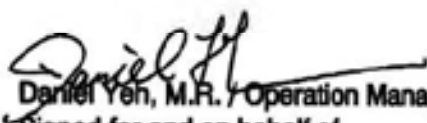
COUNTY 242, TAIWAN (R.O.C)



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

Sample Description	:	TUBE
Style/Item No.	:	LHS-125FR, LHS-125 FR4, GT2, GT4, GT0
Sample Receiving Date	:	2007/06/15
Testing Period	:	2007/06/15 TO 2007/06/25

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).
Conclusion	:	Based on the performed tests on submitted samples, the test results are <b>compliant with</b> the limits of RoHS Directive 2002/95/EC and its subsequent amendments.

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

# Test Report

No. : CE/2007/63742 Date : 2007/06/25

Page : 2 of 5

ZHI YAN ELECTRONICS CO., LTD.

11F-8, NO. 109, SEC. 1, JHONGSHAN RD., SINJHUANG CITY, TAIPEI

COUNTY 242, TAIWAN (R.O.C)



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

Test Item (s):	Method (Refer to)	Result	MDL	RoHS Limit
		No.1		
Cadmium (Cd)	(1)	n.d.	2	100
Lead (Pb)	(2)	9	2	1000
Mercury (Hg)	(3)	n.d.	2	1000
Hexavalent Chromium Cr(VI) by alkaline extraction	(4)	n.d.	2	1000
<b>Sum of PBBs</b>	(5)	n.d.	-	1000
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	-
<b>Sum of PBDEs (Mono to Nona) (Note 4)</b>		n.d.	-	1000
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	-
<b>Sum of PBDEs (Mono to Deca)</b>		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

## Test Report

No. : CE/2007/63742

Date : 2007/06/25

Page : 3 of 5

ZHI YAN ELECTRONICS CO., LTD.

11F-8, NO. 109, SEC. 1, JHONGSHAN RD., SINJHUANG CITY, TAIPEI

COUNTY 242, TAIWAN (R.O.C)

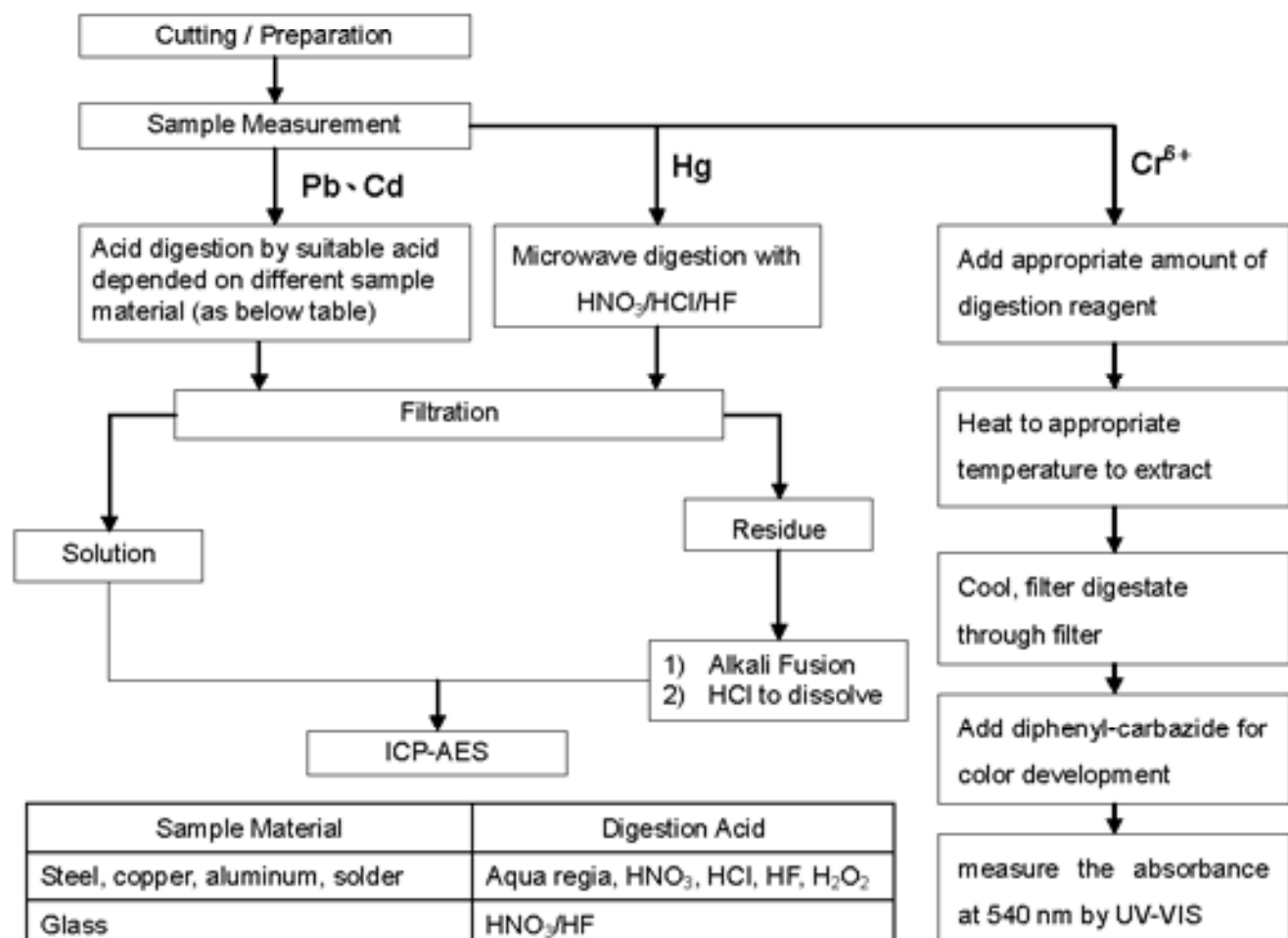


1) These samples were dissolved totally by pre-conditioning method according to below flow chart.

(Cr<sup>6+</sup> 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 <sub>3</sub> , HCl, HF, H <sub>2</sub> O <sub>2</sub>
Glass	HNO <sub>3</sub> /HF
Gold, platinum, palladium, ceramic	Aqua regia
Silver	HNO <sub>3</sub>
Plastic	H <sub>2</sub> SO <sub>4</sub> , H <sub>2</sub> O <sub>2</sub> , HNO <sub>3</sub> , HCl
Others	Any acid to total digestion



## Test Report

No. : CE/2007/63742 Date : 2007/06/25

Page : 4 of 5

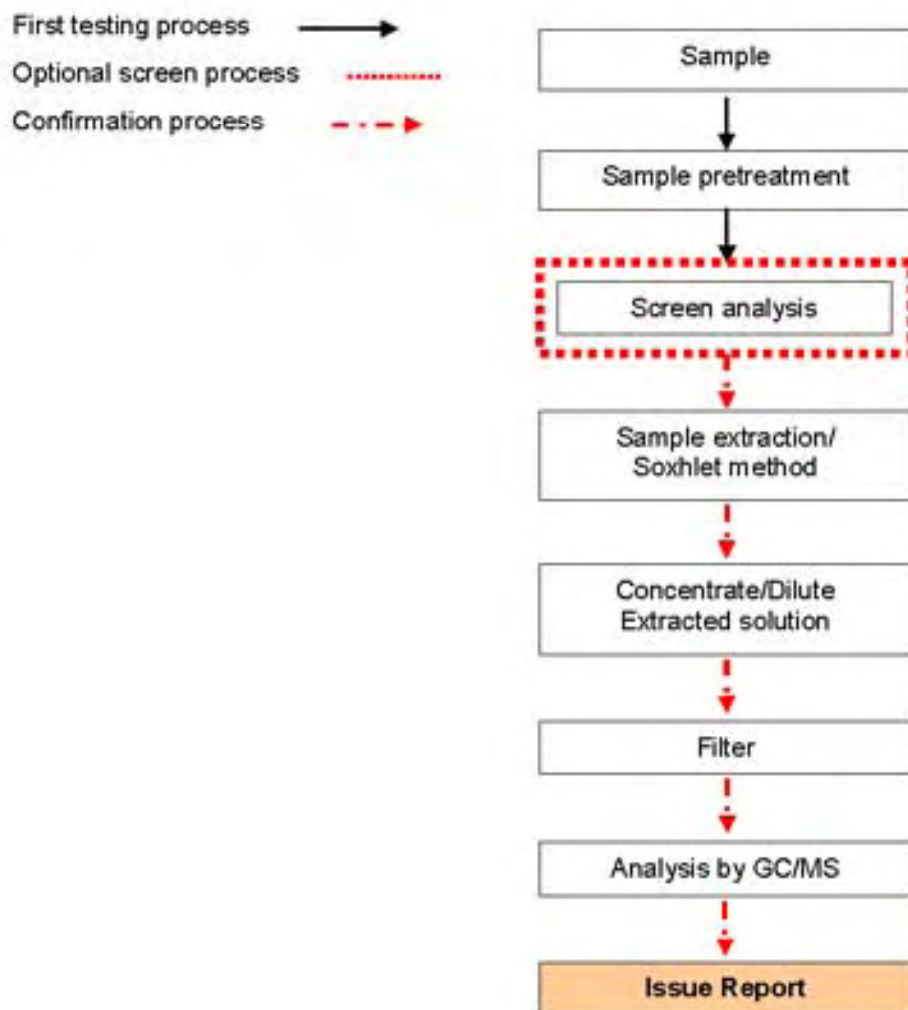
ZHI YAN ELECTRONICS CO., LTD.

11F-8, NO. 109, SEC. 1, JHONGSHAN RD., SINJHUANG CITY, TAIPEI

COUNTY 242, TAIWAN (R.O.C)



### PBB/PBDE analytical FLOW CHART



## Test Report

No. : CE/2007/63742 Date : 2007/06/25

Page : 5 of 5

ZHI YAN ELECTRONICS CO., LTD.

11F-8, NO. 109, SEC. 1, JHONGSHAN RD., SINJHUANG CITY, TAIPEI

COUNTY 242, TAIWAN (R.O.C)



\*\* End of Report \*\*

## 測試報告

號碼 : CE/2007/72824 日期 : 2007/07/18 頁數 : 1 of 3


唐正企業有限公司  
台北縣中和市中正路861巷11號



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：

樣品名稱 : 空心管實心針之黃銅材質裸面處理  
收件日期 : 2007/07/11  
測試期間 : 2007/07/11 TO 2007/07/18

=====  
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) 用感應耦合電漿原子發射光譜儀(ICP-AES)檢測鎘含量。  
(2) 用感應耦合電漿原子發射光譜儀(ICP-AES)檢測鉛含量。  
(3) 用感應耦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。  
測試結果 : 請見下一頁。

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

# 測試報告

號碼：CE/2007/72824

日期：2007/07/18

頁數：2 of 3

唐正企業有限公司

台北縣中和市中正路861巷11號



測試結果 (單位: ug/kg)

測試項目	測試方法 (請參考)	結果	方法偵測 極限值
		No.1	
鎘	(1)	3	2
鉛	(2)	64	2
汞	(3)	n.d.	2
六價鉻 (Spot test / boiling water extraction)	(4)	Negative	備註 4

## 測試部位描述:

NO.1 : 黃色金屬

備註: 1. ug/kg = ppm

2. n.d. = Not Detected / 未檢出

3. MDL = Method Detection Limit / 方法偵測極限值

4. 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 $\geq 0.02$  mg/kg with  $50\text{ cm}^2$  (sample surface area)

## 測試報告

號碼：CE/2007/72824

日期：2007/07/18

頁數：3 of 3

唐正企業有限公司

台北縣中和市中正路861巷11號



\*\* 報告結尾 \*\*



# Test Report

No. :KE/2007/A2730

Date: 2007/11/01 Page: 1 of 4



ARISTOTLE ENTERPRISES INC.

8FL, NO.63, JIU GUANG ROAD, CHUNG HO CITY, TAIPEI HSIEN, TAIWAN.

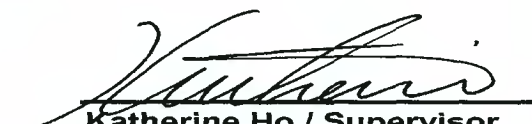
The following sample(s) was/were submitted and identified by/on behalf of the client as :

Sample Description : PE MASTERBATCH  
Style/Item No. : PE-6910  
Color : BLACK  
Sample Submitted By : JANIE COLOR WORKS LTD.  
Sample Receiving Date : 2007/10/29  
Testing Period : 2007/10/29 TO 2007/11/1

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

Test Method : (1) With reference to BS EN 1122:2001, Method B for Cadmium Content. Analysis was performed by ICP-AES.  
(2) With reference to US EPA Method 3050B for Lead Content. Analysis was performed by ICP-AES.  
(3) With reference to US EPA Method 3052 for Mercury Content. Analysis was performed by ICP-AES.  
(4) With reference to US EPA Method 3060A & 7196A for Hexavalent Chromium for non-metallic samples. Analysis was performed by UV/Vis Spectrometry.  
(5) With reference to US EPA 3540C for PBBs/PBDEs Content. Analysis was performed by GC/MS.

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

  
Katherine Ho / Supervisor  
Signed for and on behalf of  
SGS Taiwan Limited

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf or available on request and accessible at [www.sgs.com](http://www.sgs.com). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. 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. Any unauthorized alteration, forgery or falsification of the content or appearance of this report is unlawful and offenders may be prosecuted to the fullest extent of the law. 此報告是遵循本公司訂定之通用服務條款所製作發放，請注意此條款列印於背面，亦可在[www.sgs.com](http://www.sgs.com)中查閱。將本公司之義務，免責，管轄權皆明確規範之。除非另有說明，此報告結果僅對檢驗之樣品負責。本報告未經本公司書面許可，不可部份複製。對本報告內容或外觀之任何未經授權之變更、偽造、竄改皆屬非法，違犯者將會被依法追訴。

TW5728883



# Test Report

No. :KE/2007/A2730

Date: 2007/11/01 Page: 2 of 4



ARISTOTLE ENTERPRISES INC.

8FL, NO.63, JIU GUANG ROAD, CHUNG HO CITY, TAIPEI HSIEN, TAIWAN.

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)	n.d.	2
Mercury (Hg)	(3)	n.d.	2
Hexavalent Chromium Cr(VI)	(4)	n.d.	2
<b>Sum of PBBs</b>	(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
<b>Sum of PBDEs (Mono to Nona)(Note 4)</b>		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
<b>Sum of PBDEs (Mono to Deca)</b>		n.d.	-

## TEST PART DESCRIPTION:

NO.1

: BLACK PE MASTERBATCH

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf or available on request and accessible at [www.sgs.com](http://www.sgs.com). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. 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. Any unauthorized alteration, forgery or falsification of the content or appearance of this report is unlawful and offenders may be prosecuted to the fullest extent of the law. 此報告是遵循本公司訂定之通用服務條款所製作發放，請注意此條款列印於背面，亦可在[www.sgs.com](http://www.sgs.com)中查閱。將本公司之義務，免責，管轄權皆明確規範之。除非另有說明，此報告結果僅對檢驗之樣品負責。本報告未經本公司書面許可，不可部份複製。對本報告內容或外觀之任何未經授權之變更、偽造、竄改皆屬非法，違犯者將會被依法追訴。

TW5728882



# Test Report

No. :KE/2007/A2730

Date: 2007/11/01 Page: 3 of 4



ARISTOTLE ENTERPRISES INC.

8FL, NO.63, JIU GUANG ROAD, CHUNG HO CITY, TAIPEI HSIEN, TAIWAN.

- 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

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf or available on request and accessible at [www.sgs.com](http://www.sgs.com). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. 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. Any unauthorized alteration, forgery or falsification of the content or appearance of this report is unlawful and offenders may be prosecuted to the fullest extent of the law. 此報告是遵循本公司訂定之通用服務條款所製作發放，請注意此條款列印於背面，亦可在[www.sgs.com](http://www.sgs.com)中查閱。將本公司之義務，免責，管轄權皆明確規範之。除非另有說明，此報告結果僅對檢驗之樣品負責。本報告未經本公司書面許可，不可部份複製。對本報告內容或外觀之任何未經授權之變更、偽造、竄改皆屬非法，違犯者將會被依法追訴。

TW5728881

SGS Taiwan Ltd.  
台灣檢驗科技股份有限公司

No. 208, Chung Hwa 2nd Road San Min District Kaohsiung, Taiwan. / 高雄市三民區中華二路208號  
t (886-7) 323-0920 f (886-7) 315-7484

[www.tw.sgs.com](http://www.tw.sgs.com)  
Member of SGS Group



## Test Report

No. :KE/2007/A2730

Date: 2007/11/01 Page: 4 of 4



ARISTOTLE ENTERPRISES INC.

8FL, NO.63, JIU GUANG ROAD, CHUNG HO CITY, TAIPEI HSIEN, TAIWAN.



\*\* End of Report \*\*

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf or available on request and accessible at [www.sgs.com](http://www.sgs.com). Attention is drawn to the limitations of liability, indemnification and jurisdictional issues defined therein. 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. Any unauthorized alteration, forgery or falsification of the content or appearance of this report is unlawful and offenders may be prosecuted to the fullest extent of the law. 此報告是遵循本公司訂定之通用服務條款所製作發放，請注意此條款列印於背面，亦可在[www.sgs.com](http://www.sgs.com)中查閱。將本公司之義務，免責，管轄權皆明確規範之。除非另有說明，此報告結果僅對檢驗之樣品負責。本報告未經本公司書面許可，不可部份複製。對本報告內容或外觀之任何未經授權之變更、偽造、竄改皆屬非法，違犯者將會被依法追訴。

TW5728880