亞 驪 企 業 股 份 有 限 公 司
ARISTOTLE ENTERPRISES
承 認 申 請 書

客戶名稱: Customer	瑞傳科技股份有限公司
廠商料號: Part No.	RFA-02-C2M2-03
品名: Description	ANTENNA, 2.4GHz, 無鉛製程
圖號: Drawing No.	RFA-02-C2M2-03.DWG
客戶料號: Drawing No.	B4722310

出廠簽章:

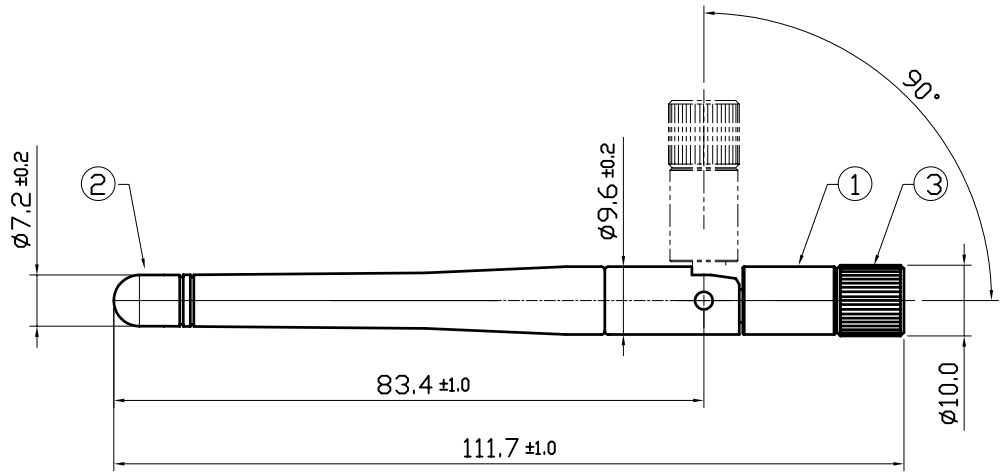
檢　　查 TEST BY	核　　對 CHECK BY	承　　認 APPROVE BY
周沂珮	黃秋芳	廖煥文

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

NO.	NAME	FINISH	MAT'L	Q'TY	MEMO
1.	Hinge	BLACK	ABS	1	
2.	Tube	BLACK	ABS	1	
3.	Connector	BLACK	BRASS	1	RP SMA PLUG



ARISTOTLE ENTERPRISES INC. 亞驪企業股份有限公司

PROJECTION		UNITS	mm	TITLE		SHEET	
		SCALE	1/1	RFA-02-C2M2-03		1/1	
		PAPER	A4				
4.				APPD.			
3.				CHKD		DWG NO.	REV.
2.				DESIGN		RFA-02-C2M2-03.DWG	B
1.				DRAW	J.W.Lee 94/07/29		
REV	ECN	NAME	DATE				

(0,0)

Specification

Part NO.:RFA-02-C2M2-03

Electrical specification

1. Frequency range: 2400 – 2500MHz
2. Gain: 2.0dBi （Omni, Average gain）
3. VSWR: ＜＝ 2.0
4. Polarization: Linear, vertical
5. Impedance: 50 Ohm
6. Connector: RP plug

(Reverse Polarity meets FCC part 15. 203 Requirement)

Mechanical Testing Results

Condition：Non operating during test.

1 Endurance test result:

1). Number of connection/disconnection of the connector：**500 cycles**

2). Number of 360° rotation of the connector：**1000 cycles**

Mandatory：Guaranty of functionalities after test.

2 Resistance test result: (tests are applicable to all parts and both sides.)

2-1 Traction test result:

1). Traction force applied 3 times on plugs during 15 second：**1 kg**

Mandatory：No mechanical damage tolerated. Guaranty of functionalities after testing.

2-2 Bending force test result:

1). Number of 90° at the hinge parts and bending on one direction with 1 lbs force: **1000 cycles.**

2). Bending at the antenna hinge parts reversely guaranteed the quality under **1 kgw** force.

2-3 Top cover & joint Tensility test result

Test equipment: IMADA FB-50K

A). Minimum pull test force: 8kgw

B). Maximum pull test force: 15.5kgw

C). Average pull test force over 10kgw

Testing items	1	2	3	4
Reference force specification	**8kg ↑**			
Torsion test data	15.5kg	10.5kg	12kg	15kg
Decision (Result)	**OK**	**OK**	**OK**	**OK**

Mandatory：No mechanicaldamage tolerated. Guaranty of functionalities after testing.

3 Environmental Testing Results

3-1 Storage test results

Condition： Non operating during test.

Cold: -40℃ during 72h (IEC 68-2-1 standard Ab/Ad test)

Dry heat: +60℃ during 96h (IEC 68-2-2 standard Bb/Bd test)

Humidity: +25℃ at 95%R.H. during 4 days (IEC 68-2-56 standard Cb test)

Mandatory：No mechanical or visible damage tolerated. Guaranty of functionalities after test

3-2 Operation test results

Condition：Operating during test.

Cold: -10℃ during 48h (IEC 68-2-1 standard Ab/Ad test)

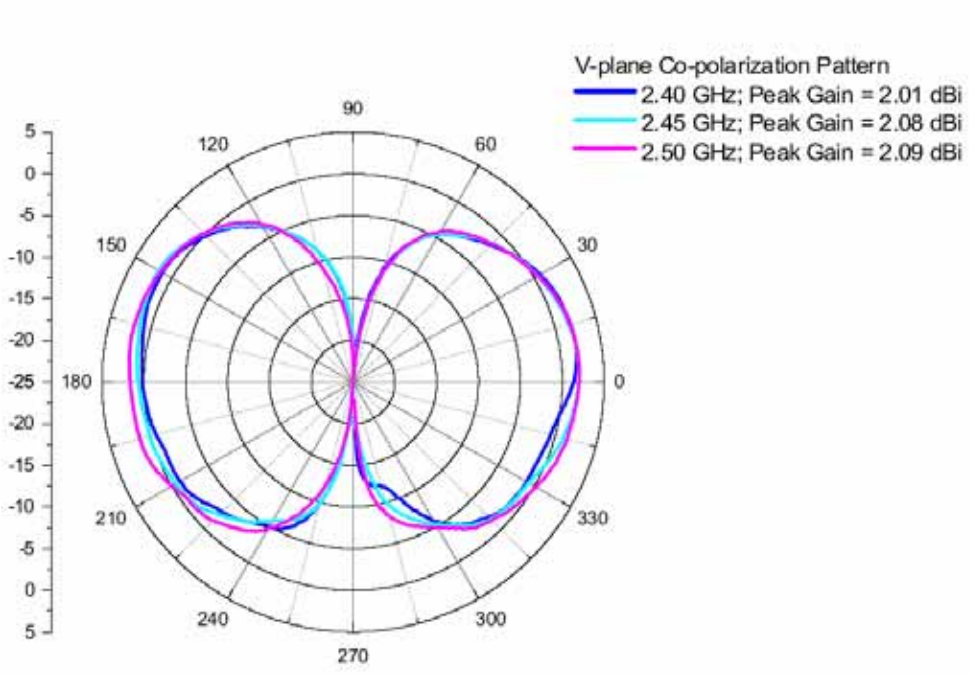
Dry heat: +55℃ during 48h (IEC 68-2-2 standard Bb/Bd test)

Composite: -10℃to +55℃ 95%R.H 4 cycles(IEC 68-2-30 standard Nb test)

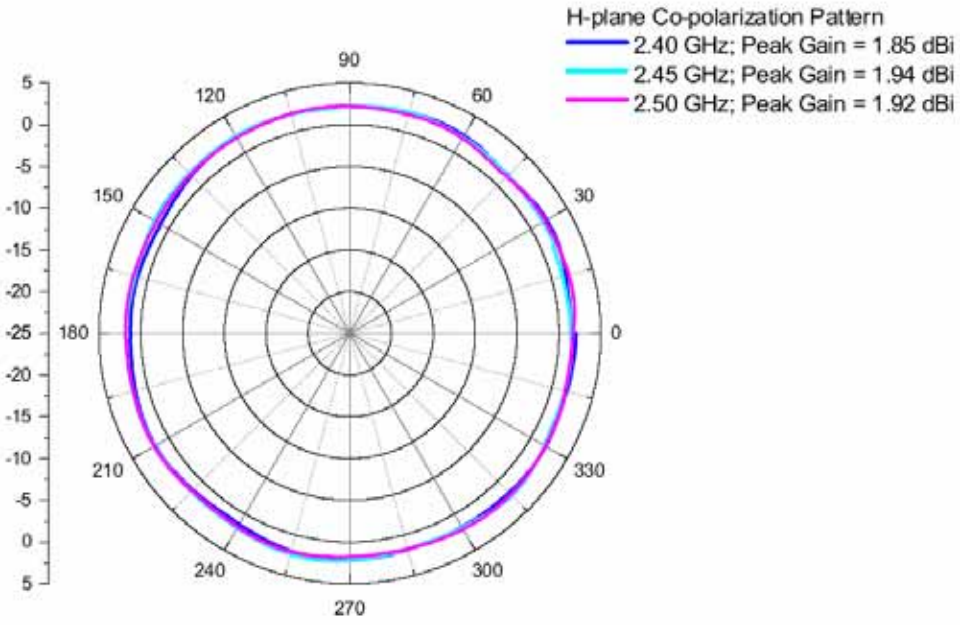
Mandatory：No mechanical or visible damage tolerated. Guaranty of functionalities during and after test

Antenna Radiation Patterns

11b dipole Antenna Radiation Pattern：E-Plane

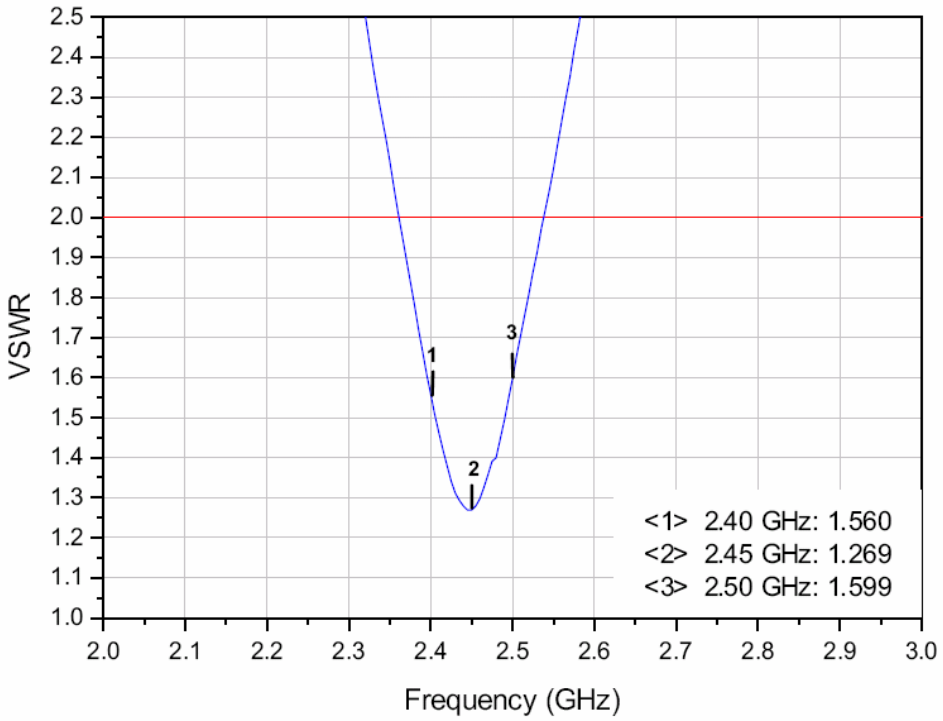


11b dipole Antenna Radiation Pattern：H-Plane

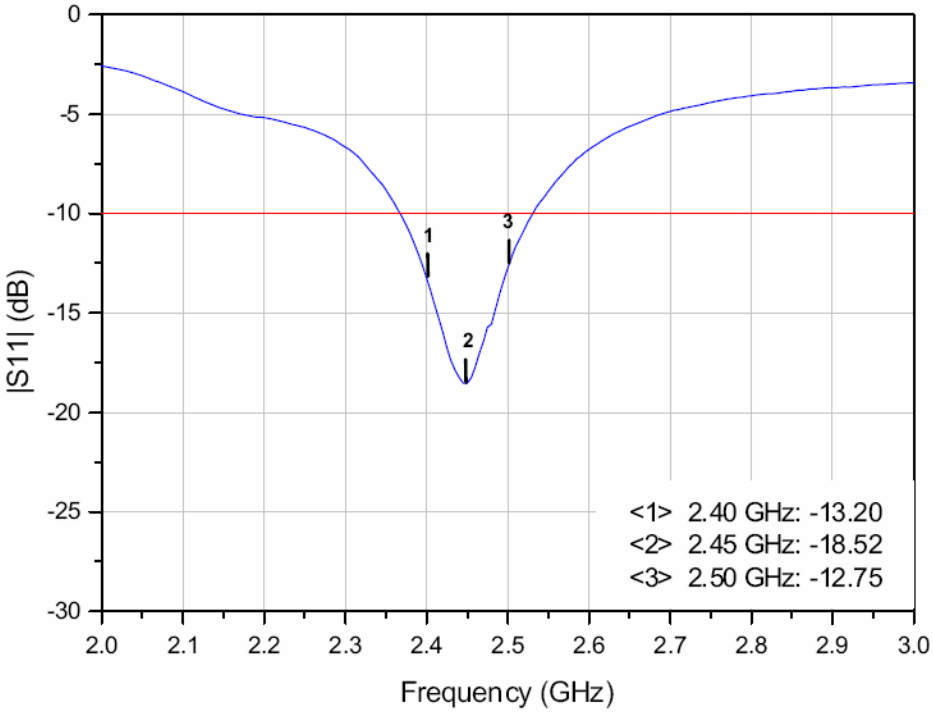


Antenna VSWR / Return Loss

11b Antenna dipole VSWR



11b Antenna Return Loss



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® 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	$Kg/cm^2(lb/in^2)$	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	$Kg/cm^2(lb/in^2)$	820(11660)
彎曲彈性率 Flexural Modulus	ASTM D790	1/4",2.8 mm/min	$Kg/cm^2(lb/in^2)$	27000(380000)
IZOD 衝擊強度 Izod Impact Strength	ASTM D256(Notched)	1/4",23℃ 1/8",23℃	Kg-cm/cm(ft-lb/in) Kg-cm/cm(ft-lb/in)	18(3.3) 20(3.7)
流動係數 Melt Flow Index	ASTM D1238	200℃ , 5Kg	g/10min	1.8
硬度 Hardness	ASTM D785	1/2"	R Scale	116
比重 Specific Gravity	ASTM D792	23℃	-	1.05
軟化點 Vicat Softening Temp	ASTM D1525	1/8",50℃ /hr	℃ (℉)	105(221)
熱變形溫度 H.D.T Annealed(85℃ , 8hr) Unannealed	ASTM D648	1/4",120℃ /hr	℃ (℉)	99(210) 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

物質安全資料表

V1W

1. 物品及廠商資料

產品名稱	**Polylac ®** 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	$(C_3H_3N, C_4H_6, C_8H_8)_x$
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

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 ℃
自燃溫度	466 ℃
爆炸界限	45 g/m^3
最小著火能量	3.6 mJ
最大爆炸壓力	7×10^5 Pa
最大壓力上升速度	3.2×10^7 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	3.53×10^7 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): -
ISO Tensile Strength (MPa): -
ISO Tensile Impact (kJ/m²): -

Volume Resistivity (10*ohm-cm): -
ISO Flexural Strength (MPa): -
ISO Izod Impact (kJ/m²): -

Dimensional Stability(%): -
ISO Heat Deflection (°C): -
ISO Charpy Impact (kJ/m²): -

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

Report Date: 6/23/1983 Underwriters Laboratories Inc®

CHI MEI CORPORATION

59-1 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

元祥金屬工業股份有限公司

材質證明-黃銅

YUANG-HSIAN METAL INDUSTRIAL CORP.

彰 化 市 5 0 0 4 2 彰 水 路 1 7 5 號

175,CHANG SHOEI ROAD,CHANG HUA TAIWAN R.O.C

TEL:(04)7524626-8 FAX:886-4-7611717

試 驗 報 告 表

TEST REPORT

供應商名稱 vendor name	茂豐精密工業股份有限公司 Mawfong Precision Industrial Co., Ltd.			日期: DATE	95年05月08日 2006.05.08
試材名稱 Material	銅合金 Copper Alloys	合金編號 Alloys No.	C3604BD	試材編號 Material No.	

化 學 試 驗 (Chemical Testing)

試驗方法 Experimental Coudition	X一線光譜分析法(X one line spectra analysis method)
使用儀器名稱 Instrumentation name	X光電腦分析儀(VACUUM X RAY SPECTROGRAPH)

元素名稱 Element name		標準含量(%) Standard contents	試片含量(%) Sample contents	元素名稱 Element name		標準含量(%) Standard contents	試片含量(%) Sample contents
銅	(Cu)	57.0-61.0	58.8±0.1	鐵	(Fe)	<0.5	0.3±0.1
鋅	(Zn)	REM	REM	矽	(Si)	_____	_____
錫	(Sn)	Fe+Sn<1.2	0.3±0.1	錳	(Mn)	_____	_____
鉛	(Pb)	1.8-3.7	3.3±0.1	銻	(Sb)	_____	_____
鎳	(Ni)	_____	_____	鋁	(Al)	_____	_____
磷	(P)	_____	_____	其他	(Others)	_____	_____

備註 (Remarks)	DLA.5.5mm

分析員 (Analyze a member)	蔡聰銘	主管 (Supervisor)	張國桐

材質證明-鈹銅

鈹銅

BRUSHWELLMAN
ENGINEERED MATERIALS

Shoemakersville Road, Shoemakersville, PA 19555
Phone: 610-562-2211 ; Fax: 610-562-6810

Material Certificate

Date
06/08/2006
Purchase order item/date
882922 / 05/09/1960
Delivery item/date shipped
80308052 900001 / 06/08/2006
Order item/date
183350 000010 / 05/09/2006
Customer nbr Customer part nbr
11817
Customer spec

Rev	Type	Comp	Class	Grade

2/1112

EW 0298 - R

Brush Wellman Singapore (S) Pte. Ltd.
110 Paya Lebar Road, #02-01
409009 SINGAPORE
SINGAPORE

Our Material: K554480400 ROD CD M25 H .08268 X 42.1

"Brush Wellman Inc. declares that this product is in conformance with Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)."

Brush Wellman testing for chemical composition (by Optical Emission Spectrometry), is conducted at our Elmore, OH Laboratories. Testing of mechanical, or physical properties is conducted at Laboratories which are accredited by American Association for Laboratory Accreditation.

This material was inspected and tested for conformity as required in accordance with the noted part, specification, and revision number. The quantitative test data obtained from these tests are available for review by the buyer.

Batch 0000509849 / Quantity 85.275 KG

Characteristic	Unit	Value	Specification Limits Lower	Upper
CDA (UNS) Alloy	-	C17300		
ASTM Temper	-	TD04		
Brush Spec Nbr.	-	BWJ-RW5.00-2		
Dimensional Attributes				
Diameter	-	0.08260		
Diameter Plus	-	0.00000		
Diameter Minus	-	0.00039		
Length	-	98.42525		
Mechanical/Physical Properties				
Grain Size	mm	0.017 0.026		0.050
Tensile	kg/mm2	77.0	63.0	86.0
Yield @ 0.2% Offset	kg/mm2	62.0	52.0	74.0
Elongation (4D or 2")	%	13.0	10.0	
Hardness Scale	-	HV		
Hardness Value		251.0	200.0	270.0

The material supplied with this certification has not been heat treated. The following properties were achieved in Brush Wellman's laboratory. They represent what you may expect after heat treating the material, using the time and temperatures shown.

R1 Temper	-	HT		
R1 Heat Treat Time	hrs	2.00	2.00	2.00
R1 Heat Treat Temp	°C	316	316	316

材質證明-鈹銅

鈹銅

BRUSHWELLMAN
ENGINEERED MATERIALS

EW0298-R

Brush Wellman Singapore (S) Pte. Ltd.
110 Paya Lebar Road, #02-01
409009 SINGAPORE

Delivery Item/date
80308052 900001 / 06/08/2006

R1 Tensile	kg/mm2	145.0	130.0	158.0
R1 Yield	kg/mm2	136.0	112.0	141.0
R1 Elongation	%	2.0	2.0	9.0
R1 Hardness Scale	-	HV		
R1 Hardness Value		409.0	383.0	445.0
Chemistry Composition				
Beryllium	%	1.85	1.80	2.00
Ni+Co	%	0.25		0.35
Ni+Co+Fe	%	0.29		0.60
Silicon	%	0.05		0.15
Aluminum	%	0.03		0.10
Lead	%	0.36	0.20	0.40
Alloy Balance	-	COPPER		
Lot Identification				
Heat Number	-	20033		
Piece Lot/Coil No.	-	18335001		

Quality Representative

收發章 TEL:89003818

APPENDIX

Fluo-Tech PTFE Rod is manufactured with virgin PTFE powder by ram extrusion or compression molding and is conformed to meet the requirement of ASTM.

TABLE 1 Detail Specification for PTFE Rod

ITEM	PROPERTY	ASTM TEST METHOD	VALUE
1	Specific gravity	D792	2.15 - 2.2
2	Tensile strength	D638	280 - 350 kg/cm^2
3	Elongation	D638	200 - 400 %
4	Dielectric strength	D149	30 KV/mm
5	Deformation under load. 6.9Mpa,50c, %	D621	3.5 - 6
6	Dissipetion factor 1 KHz	D150	Less than 0.0005
7	Dielectric constant 1 KHz	D150	2.0-2.1
8	Volume resistivity	D257	>10 ^ 16
9	Surface resistivity	D257	10 ^ 17
10	Flexural modulus	D790	430 - 500Mpa
11	Compressibility	D1147	16 - 20 %
12	Hardness, durometer	D2240	D53 - D60
13	Impact strength	D256	16 kg-cm/cm
14	Coefficient of linear thermal expansion,per C. 30C to 80C, 10^-5C	D696	12.3 to 11.6

SPECIFICATION FOR APPROVAL

DOCUMENT: A30178B001

STYLE： 200℃ 30V
RG-178B/U

SIZE: 7/0.102 SCCS

RECOGNIZED:

WONDERFUL WIRE CABLE CO.,LTD

OFFICE：72WU KONG 6TH ROAD,
WU KU IND. DISTRICT
TAIPEI HSIEN,TAIWAN

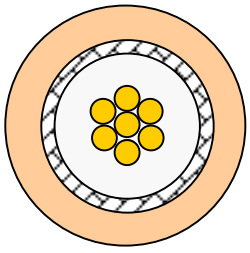
TEL：(02)22988033
FAX：(02)22988031-2

FACTORY：17 PEI YUAN ROAD,
CHUNG-LI IND. PARK
TAIWAN, R.O.C.

TEL：(03)4527777
FAX：(03)4517214

WONDERFUL WIRE CABLE CO., LTD

SPECIFICATION

STYLE	200℃ 30V COAXIAL	DOCUMENT NO : A30178B001	
SIZE	RG-178B/U	ESTABLISHED DATE: 2000/06/29	
STANDARD : MIL-C-17			
Conductor	Size	AWG	30
	Material	----	Silver-Coated Copper Clad Steel
	Conductors No.	----	7
	Conductors Size	mm	0.102
	O.D.	mm	0.30
Insulation	Average Thickness	mm	0.28
	Diameter	mm	0.86
	Material	----	FEP
	Color	----	Clear
Braid	Material	----	Silver-Coated Copper
	Construction	mm	16 / 3 / 0.10
	Coverage	%	95
Jacket	Average Thickness	mm	0.25
	Diameter	mm	1.80 ±0.05
	Material	----	FEP
	Color	----	Brown
Marking	M17/93-RG178B/U WONDERFUL		
Drawing			

EDITION : 1.0 REVISED DATE :

MAKER : CONFIRM : APPROVAL :

WONDERFUL WIRE CABLE CO., LTD

SPECIFICATION

Electrical & Physical Properties			
Item			RG-178B/U
Rating Temp Voltage			200℃ 30V
Conductor Resistance			838.0 OHM/KM/20℃ MAX.
Insulation Resistance			100 MEGA OHM/KM MIN.
Dielectric Strength			AC 1.0 KV/Minute
Spark Test			0.5 KV
Insulation	Unaged	Tensile Strength	2500 PSI MIN.(1.76 Kg / ㎟)
		Elongation	200% MIN.
	Aged	Tensile Strength	**UNAGED MIN.75%(168HRS×232℃)**
		Elongation	**UNAGED MIN.75%(168HRS×232℃)**
Jacket	Unaged	Tensile Strength	2500 PSI MIN.(1.76 Kg / ㎟)
		Elongation	200% MIN.
	Aged	Tensile Strength	**UNAGED MIN.75%(168HRS×232℃)**
		Elongation	**UNAGED MIN.75%(168HRS×232℃)**
Nom. Impedance			50 Ohms
VSWR			MAX. 1.3 at 0.4G~3GHz
Nom. Vel. of Prop.			69.5%
Flame Test			VW-1 OK

Attenuation (dB/100m)	50MHz	100MHz	400MHz	900MHz	1.8GHz	3GHz
	34.4	45.9	91.8	139.4	207.5	308.2

RoHS REPORT INDEX-**RFA-02-C2M2-03**

	NAME	供應商	**RoHS report**
1	ANTENNA HOUSING / HINGE-PA757	CHI MEI CORPORATION	KA/2007/10032
2	CON		
2-1	黃銅	葵谷科技實業有限公司	CE/2006/C0196
2-2	鈹銅	葵谷科技實業有限公司	CE/2006/C0198
2-3	PTFE-鐵弗龍	FLUO-TECH ELEC. INDUSTRIAL	SH6076809/CHEM
3	CABLE-RG178	WONDERFUL HI-TECH CO., LTD.	CE/2007/11112

Test Report

No. :KA/2007/10032 Date: 20070109 Page: 1 of 5

CHI MEI CORPORATION.
NO.59-1, SANJIA VILLAGE, RENDE TOWNSHIP, TAINAN COUNTY 717, TAIWAN (R.O.C.)

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 J01
Color	:	BLACK
Sample Receiving Date	:	2007/01/02
Testing Period	:	2007/01/02 TO 2007/1/9

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

Test Report

CHI MEI CORPORATION.
NO.59-1, SANJIA VILLAGE, RENDE TOWNSHIP, TAINAN COUNTY 717, TAIWAN
(R.O.C.)

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

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

TEST PART DESCRIPTION:
NO.1 : BLACK PLASTIC PELLETS

TWA127727

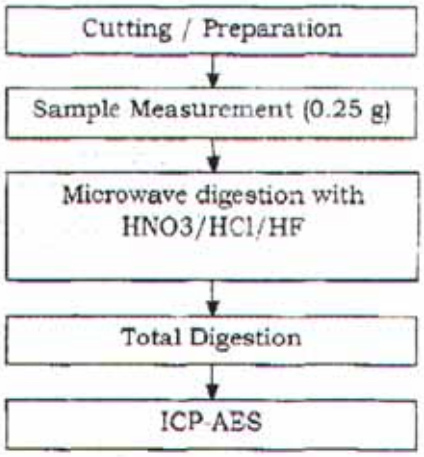
CHI MEI CORPORATION.
NO.59-1, SANJIA VILLAGE, RENDE TOWNSHIP, TAINAN COUNTY 717, TAIWAN
(R.O.C.)

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

CHI MEI CORPORATION.
NO 59-1, SANJIA VILLAGE, RENDE TOWNSHIP, TAINAN COUNTY 717, TAIWAN
(R.O.C.)

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 (without residue)



Test Report

CHI MEI CORPORATION,
NO.59-1, SANJIA VILLAGE, RENDE TOWNSHIP, TAINAN COUNTY 717, TAIWAN
(R.O.C.)

** End of Report **

測試報告

號碼 : CE/2006/C0196　日期 : 2006/12/08　頁數 : 1 of 3

葵谷科技實業有限公司
F TIME TECHNOLOGY INDUSTRIAL CO., LTD.
台北縣中和市立德街148巷16號5樓
5F, NO. 6, LANE 148, LIDE ST., JHONGHE CITY, TAIPEI COUNTRY 235, TAIWAN (R. O. C.)

本報告爲客户所委託的樣品，樣品名稱爲"黃銅（鍍金）"所做的測試.
Report on the submitted sample said to be BRASS GOLD PRINTED.

收件日期(Sample Receiving Date) : 2006/12/01
測試期間(Testing Period) : 2006/12/01 TO 2006/12/08

==========

測試需求 / Test Requested : 參照 RoHS 2002/95/EC 及其修定指令要求. / In accordance with the RoHS Directive 2002/95/EC, and its amendment directives.

測試方法 / Test Method :

(1) 參考BS EN 1122方法B:2001, 用感應耦合電漿原子發射光譜儀檢測鎘含量. / With reference to BS EN 1122:2001, Method B for Cadmium Content. Analysis was performed by ICP-AES.

(2) 參考US EPA 3050B方法, 用感應耦合電漿原子發射光譜儀檢測鉛含量. / With reference to US EPA Method 3050B for Lead Content. Analysis was performed by ICP-AES.

(3) 參考US EPA 3052方法, 用感應耦合電漿原子發射光譜儀檢測汞含量. / With reference to US EPA Method 3052 for Mercury Content. Analysis was performed by ICP-AES.

(4) 針對金屬材質之樣品, 參考IEC 62321, Ed. 1 111/54/CDV方法檢測, 用Spot test / Colorimetric方法檢測六價鉻含量. / With reference to IEC 62321, Ed.1 111/54/CDV. Determination of Hexavalent Chromium for metallic samples by Spot test / Colorimetric Method.

測試結果 / Test Result(s) : 請見下一頁.

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

測試報告

號碼 : CE/2006/C0196　日期 : 2006/12/08　頁數 : 2 of 3

葵谷科技實業有限公司
F TIME TECHNOLOGY INDUSTRIAL CO., LTD.
台北縣中和市立德街148巷16號5樓
5F, NO. 6, LANE 148, LIDE ST., JHONGHE CITY, TAIPEI COUNTRY 235,
TAIWAN (R. O. C.)

測試結果 (單位: mg/kg) / Test Result(s)

測試項目 / Test Item (s):	測試方法 Method (Refer to)	結果 / Result		方法偵測極限值 (MDL)
		No.1	No.2	
鎘 / Cadmium (Cd)	(1)	48.6	---	2
鉛 / Lead (Pb)	(2)	36800.4	---	2
汞 / Mercury (Hg)	(3)	n.d.	---	2
六價鉻 / Hexavalent Chromium (CrVI) by Spot test / boiling water extraction	(4)	---	Negative	See Note 4

測試部位描述 / Test Part Description:

NO.1 : 金色金屬 / GOLDEN COLORED METAL
NO.2 : 金色金屬鍍層 / PLATING LAYER OF GOLDEN COLORED METAL

Note: 1. mg/kg = ppm
2. n.d. = Not Detected / 未檢出
3. MDL = Method Detection Limit / 方法偵測極限值
4. Spot-test:
Negative = Absence of CrVI coating, Positive = Presence of CrVI coating;
(The tested sample should be further verified by boiling-water-extraction method if the spot test result cannot be confirmed.)
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 = Absence of CrVI coating
Positive = Presence of CrVI coating; the detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm^2 sample surface area.
Negative=鍍層中偵測不到六價鉻, Positive=鍍層中偵測到六價鉻;
該濃度溶液≧0.02 mg/kg with 50 cm^2 (sample surface area)
5. "---" = Not Conducted / 未測項目

測試報告

號碼 : CE/2006/C0196　日期 : 2006/12/08　頁數 : 3 of 3

葵谷科技實業有限公司

F TIME TECHNOLOGY INDUSTRIAL CO., LTD.

台北縣中和市立德街148巷16號5樓

5F, NO. 6, LANE 148, LIDE ST., JHONGHE CITY, TAIPEI COUNTRY 235, TAIWAN (R. O. C.)

** 報告結尾 **

測試報告

號碼 : CE/2006/C0198　日期 : 2006/12/08　頁數 : 1 of 3

蔡谷科技實業有限公司
F TIME TECHNOLOGY INDUSTRIAL CO., LTD.
台北縣中和市立德街148巷16號5樓
5F, NO. 6, LANE 148, LIDE ST., JHONGHE CITY, TAIPEI COUNTRY 235, TAIWAN (R. O. C.)

本報告爲客户所委託的樣品，樣品名稱爲"鈹銅（鍍金)"所做的測試.
Report on the submitted sample said to be BE-CU GOLD PRINTED.

收件日期(Sample Receiving Date) : 2006/12/01
測試期間(Testing Period) : 2006/12/01 TO 2006/12/08

==========

測試需求 / Test Requested : 參照 RoHS 2002/95/EC 及其修定指令要求. / In accordance with the RoHS Directive 2002/95/EC, and its amendment directives.

測試方法 / Test Method :

(1) 參考BS EN 1122方法B:2001, 用感應耦合電漿原子發射光譜儀檢測鎘含量. / With reference to BS EN 1122:2001, Method B for Cadmium Content. Analysis was performed by ICP-AES.

(2) 參考US EPA 3050B方法, 用感應耦合電漿原子發射光譜儀檢測鉛含量. / With reference to US EPA Method 3050B for Lead Content. Analysis was performed by ICP-AES.

(3) 參考US EPA 3052方法, 用感應耦合電漿原子發射光譜儀檢測汞含量. / With reference to US EPA Method 3052 for Mercury Content. Analysis was performed by ICP-AES.

(4) 針對金屬材質之樣品, 參考IEC 62321, Ed. 1 111/54/CDV方法檢測, 用Spot test / Colorimetric方法檢測六價鉻含量. / With reference to IEC 62321, Ed.1 111/54/CDV. Determination of Hexavalent Chromium for metallic samples by Spot test / Colorimetric Method.

測試結果 / Test Result(s) : 請見下一頁.

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

測試報告

號碼 : CE/2006/C0198　日期 : 2006/12/08　頁數 : 2 of 3

蔡谷科技實業有限公司
F TIME TECHNOLOGY INDUSTRIAL CO., LTD.
台北縣中和市立德街148巷16號5樓
5F, NO. 6, LANE 148, LIDE ST., JHONGHE CITY, TAIPEI COUNTRY 235, TAIWAN (R. O. C.)

測試結果 (單位: mg/kg) / Test Result(s)

測試項目 / Test Item (s):	測試方法 Method (Refer to)	結果 / Result		方法偵測極限值 (MDL)
		No.1	No.2	
鎘 / Cadmium (Cd)	(1)	n.d.	---	2
鉛 / Lead (Pb)	(2)	29271.3	---	2
汞 / Mercury (Hg)	(3)	n.d.	---	2
六價鉻 / Hexavalent Chromium (CrVI) by Spot test / boiling water extraction	(4)	---	Negative	See Note 4

測試部位描述 / Test Part Description:

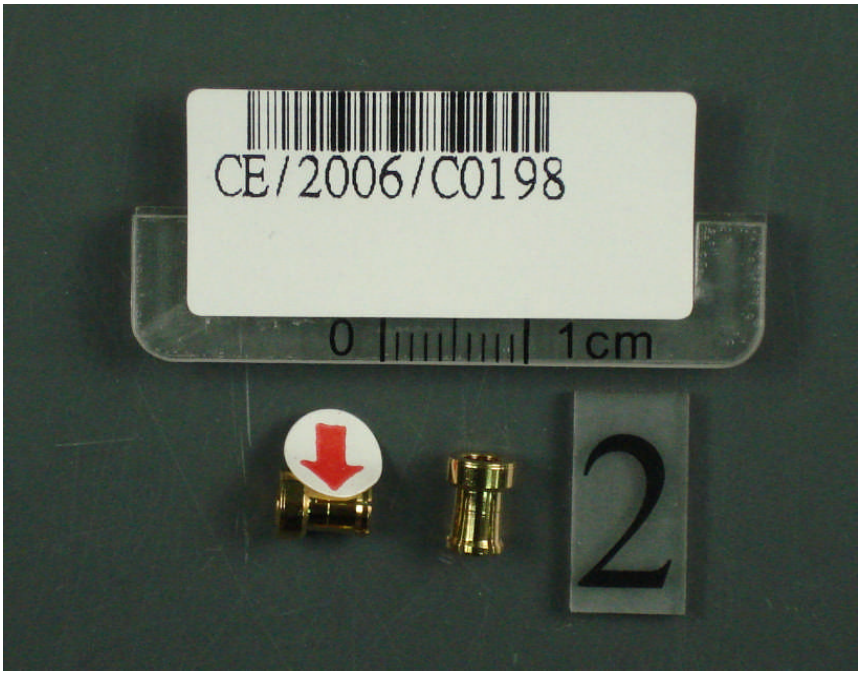
NO.1 : 金色金屬 / GOLDEN COLORED METAL
NO. 2 : 金色金屬鍍層 / PLATING LAYER OF GOLDEN COLORED METAL

Note: 1. mg/kg = ppm
2. n.d. = Not Detected / 未檢出
3. MDL = Method Detection Limit / 方法偵測極限值
4. Spot-test:
Negative = Absence of CrVI coating, Positive = Presence of CrVI coating;
(The tested sample should be further verified by boiling-water-extraction method if the spot test result cannot be confirmed.)
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 = Absence of CrVI coating
Positive = Presence of CrVI coating; the detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm^2 sample surface area.
Negative=鍍層中偵測不到六價鉻, Positive=鍍層中偵測到六價鉻;
該濃度溶液≧0.02 mg/kg with 50 cm^2 (sample surface area)
5. "---" = Not Conducted / 未測項目

測試報告

號碼 : CE/2006/C0198　日期 : 2006/12/08　頁數 : 3 of 3

葵谷科技實業有限公司
F TIME TECHNOLOGY INDUSTRIAL CO., LTD.
台北縣中和市立德街148巷16號5樓
5F, NO. 6, LANE 148, LIDE ST., JHONGHE CITY, TAIPEI COUNTRY 235,
TAIWAN (R. O. C.)



** 報告結尾 **

SGS

Test Report

No. SH6076809/CHEM Date: Jun. 28, 2006 Page 1 of 2

FLUO-TECH ELEC.INDUSTRIAL

Report on the submitted sample said to be PTFE PART(RED&BLACK&WHITE).

SGS Ref No.	: SHEC0060629542
Model No.	: ROD/TUBE
Material	: PTFE
Main substance	: FLUOROPOLYMER
Supplier	: DAIKIN
Sample Receiving Date	: Jun.21, 2006
Testing Period	: Jun.21 – 28, 2006

Test Requested : 1) To determine the Cadmium, Lead Content in the submitted sample.
2) To determine the Mercury Content in the submitted sample.
3) To determine the Hexavalent Chromium Content on the submitted sample.
4) To determine the PBBs(Polybrominated biphenyls) PBBEs(PBDEs) (Polybrominated biphenyl ethers) Content of the submitted sample.

Test Method : 1) In house method,
Analysis was performed by Inductively Coupled Argon Plasma-Atomic Emission Spectrometry (ICP-AES) or Atomic Absorption Spectrometry.
2) In house method,
Analysis was performed by Inductively Coupled Argon Plasma – Atomic Emission Spectrometry (ICP-AES) or US EPA7473 Analysis was performed by Hg Analyzer.
3) With reference to EPA Method 3060A & 7196A.
The samples were alkaline digested by using EPA Method 3060A, and then analyzed by using Colorimetric method 7196A.
4)With reference to USEPA 8081A/8270D/3540C/3550C, Analysis was performed by GC-MS.

Test Results : Please refer to next page

Signed for and on behalf of
SGS-CSTC Chemical Laboratory

Ella Zhang
Sr. Section Head

SGS

Test Report

No. SH6076809/CHEM

Date: Jun. 28, 2006

Test Results

No.	Item	Unit	DL	No.1	No.2	No.3
1	Cadmium (Cd)*	mg/kg	2	N.D.	N.D.	N.D.
	Lead (Pb)*	mg/kg	2	N.D.	N.D.	N.D.
2	Mercury (Hg)*	mg/kg	2	N.D.	N.D.	N.D.
3	Hexavalent Chromium (Cr VI)	mg/kg	2	N.D.	N.D.	N.D.
4	Polybrominated biphenyls (PBBs)	---	---	---	---	---
	Monobromobiphenyl	mg/kg	5	N.D.	N.D.	N.D.
	Dibromobiphenyl	mg/kg	5	N.D.	N.D.	N.D.
	Tribromobiphenyl	mg/kg	5	N.D.	N.D.	N.D.
	Tetrabromobiphenyl	mg/kg	5	N.D.	N.D.	N.D.
	Pentabromobiphenyl	mg/kg	5	N.D.	N.D.	N.D.
	Hexabromobiphenyl	mg/kg	5	N.D.	N.D.	N.D.
	Heptabromobiphenyl	mg/kg	5	N.D.	N.D.	N.D.
	Octabromobiphenyl	mg/kg	5	N.D.	N.D.	N.D.
	Nonabromobiphenyl	mg/kg	5	N.D.	N.D.	N.D.
	Decabromobiphenyl	mg/kg	5	N.D.	N.D.	N.D.
	Polybrominated biphenyl ethers (PBBEs(PBDEs))	---	---	---	---	---
	Monobromobiphenyl ether	mg/kg	5	N.D.	N.D.	N.D.
	Dibromobiphenyl ether	mg/kg	5	N.D.	N.D.	N.D.
	Tribromobiphenyl ether	mg/kg	5	N.D.	N.D.	N.D.
	Tetrabromobiphenyl ether	mg/kg	5	N.D.	N.D.	N.D.
	Pentabromobiphenyl ether	mg/kg	5	N.D.	N.D.	N.D.
	Hexabromobiphenyl ether	mg/kg	5	N.D.	N.D.	N.D.
	Heptabromobiphenyl ether	mg/kg	5	N.D.	N.D.	N.D.
	Octabromobiphenyl ether	mg/kg	5	N.D.	N.D.	N.D.
	Nonabromobiphenyl ether	mg/kg	5	N.D.	N.D.	N.D.
	Decabromobiphenyl ether	mg/kg	5	N.D.	N.D.	N.D.

Sample Appearance Description(Photo see appendix):
No.1 Red solid tube
No.2 Black solid tube
No.3 White solid tube

Note : 1mg/kg=1ppm=0.0001%
DL= Detection Limit
N.D. = Not detected
Not Detected is reported when the reading is less than detection limit value.
*Only for reference

*** End of Report ***

Test Report

No. : CE/2007/11112 Date : 2007/01/11 Page : 1 of 5

WONDERFUL HI-TECH CO., LTD.
NO. 17, PEI-YUAN ROAD, CHUNG-LI IND. PARK, TAOYUAN,
TAIWAN, R. O. C.

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

Sample Description	:	RF COAXIAL CABLE
Style/Item No.	:	RG-316/U, RG-179/U, RG-178B/U, RF405A MINI 1.13mm RF, MINI 1.32mm RF, MINI 1.37mm RF, MINI 0.8mm RF
Sample Receiving Date	:	2007/01/04
Testing Period	:	2007/01/04 TO 2007/01/11

==========

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. Analysis was performed by UV/Vis Spectrometry.

(5) With reference to US EPA Method 3060A & 7196A for Hexavalent Chromium for non-metallic samples. Analysis was performed by UV/Vis Spectrometry.

(6) 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).

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

WONDERFUL HI-TECH CO., LTD.
NO. 17, PEI-YUAN ROAD, CHUNG-LI IND. PARK, TAOYUAN,
TAIWAN, R. O. C.

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

Test Item (s):	Method (Refer to)	Result				MDL
		No.1	No.2	No.3	No.4	
Cadmium (Cd)	(1)	n.d.	n.d.	n.d.	n.d.	2
Lead (Pb)	(2)	9.6	n.d.	8.7	n.d.	2
Mercury (Hg)	(3)	n.d.	n.d.	n.d.	n.d.	2
Hexavalent Chromium Cr(VI)	(4)	n.d.	---	n.d.	---	2
	(5)	---	n.d.	---	n.d.	2
Sum of PBBs	(6)	---	n.d.	---	n.d.	-
Monobromobiphenyl		---	n.d.	---	n.d.	5
Dibromobiphenyl		---	n.d.	---	n.d.	5
Tribromobiphenyl		---	n.d.	---	n.d.	5
Tetrabromobiphenyl		---	n.d.	---	n.d.	5
Pentabromobiphenyl		---	n.d.	---	n.d.	5
Hexabromobiphenyl		---	n.d.	---	n.d.	5
Heptabromobiphenyl		---	n.d.	---	n.d.	5
Octabromobiphenyl		---	n.d.	---	n.d.	5
Nonabromobiphenyl		---	n.d.	---	n.d.	5
Decabromobiphenyl		---	n.d.	---	n.d.	5
Sum of PBDEs (Mono to Nona) (Note 4)		---	n.d.	---	n.d.	-
Monobromobiphenyl ether		---	n.d.	---	n.d.	5
Dibromobiphenyl ether		---	n.d.	---	n.d.	5
Tribromobiphenyl ether		---	n.d.	---	n.d.	5
Tetrabromobiphenyl ether		---	n.d.	---	n.d.	5
Pentabromobiphenyl ether		---	n.d.	---	n.d.	5
Hexabromobiphenyl ether		---	n.d.	---	n.d.	5
Heptabromobiphenyl ether		---	n.d.	---	n.d.	5
Octabromobiphenyl ether		---	n.d.	---	n.d.	5
Nonabromobiphenyl ether		---	n.d.	---	n.d.	5
Decabromobiphenyl ether		---	n.d.	---	n.d.	5
Sum of PBDEs (Mono to Deca)		---	n.d.	---	n.d.	-

TEST PART DESCRIPTION:

NO.1 : SILVER COLORED METAL WIRE
NO.2 : TRANSPARENT PLASTIC INSULATION
NO.3 : SILVER COLORED METAL WIRE (WEAVED)
NO.4 : BROWN PLASTIC JACKET

WONDERFUL HI-TECH CO., LTD.
NO. 17, PEI-YUAN ROAD, CHUNG-LI IND. PARK, TAOYUAN,
TAIWAN, R. O. C.

Note : 1. mg/kg = ppm
2. n.d. = Not Detected
3. MDL = Method Detection Limit
4. Sum of Mono to NonaBDE & according to 2005/717/EC DecaBDE is exempt.
5. "-" = Not Regulated
6. "---" = Not Conducted

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** End of Report **