

# 亞 驪 企 業 有 限 公 司

## ARISTOTLE ENTERPRISES

### 承 認 申 請 書

客戶名稱: 智邦科技股份有限公司  
Customer  
廠商料號: RFA-02-C2M2-M32-1  
Part No.  
品名: 2.4GHz,2.5dBi  
Description  
圖號: RFA-02-C2M2-M32-1.DWG  
Drawing No.  
客戶料號:  
Drawing No.

出廠簽章:

| 檢 查<br>TEST BY | 核 對<br>CHECK BY | 承 認<br>APPROVE BY |
|----------------|-----------------|-------------------|
| 周沂珮            | 黃秋芳             | 廖煥文               |

承認簽章:

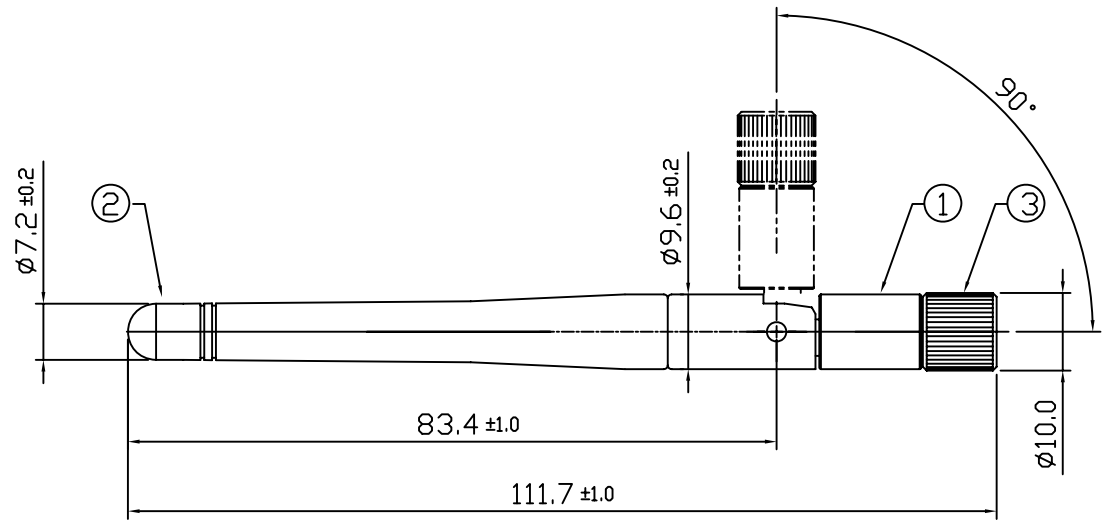
| 檢 查<br>TEST BY | 核 對<br>CHECK BY | 承 認<br>APPROVE BY |
|----------------|-----------------|-------------------|
|                |                 |                   |

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     | WHITE  | ABS   | 1    |             |
| 2.  | Tube      | WHITE  | ABS   | 1    |             |
| 3.  | Connector | SILVER | BRASS | 1    | RP SMA PLUG |



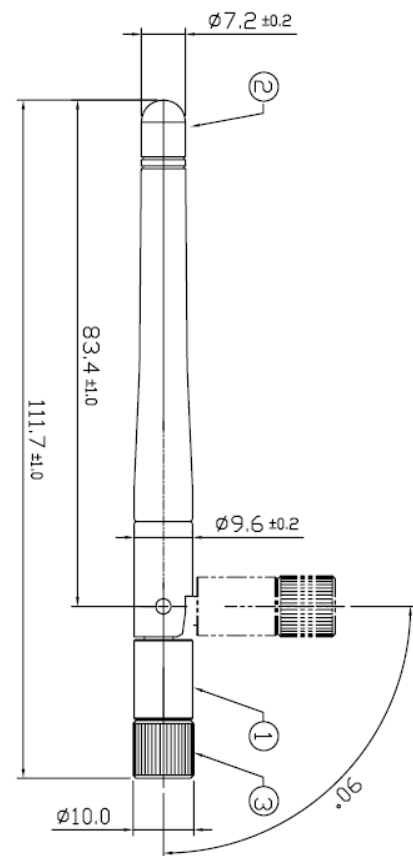
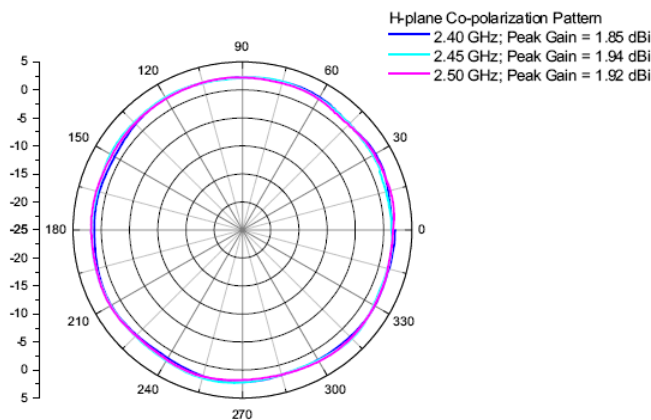
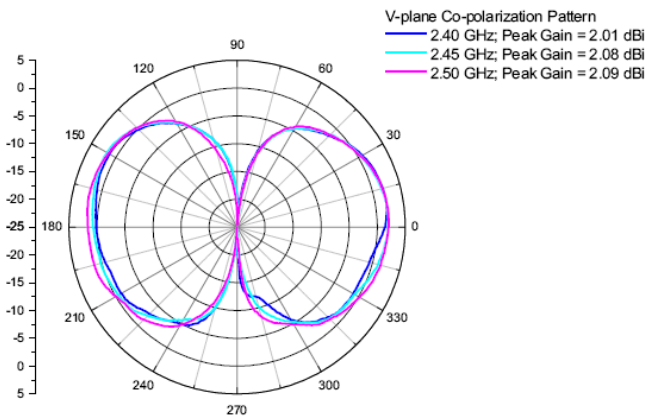
**ARISTOTLE** 亞 驥 企 業 股 份 有 限 公 司  
 ENTERPRISES INC.

|            |       |      |                        |                  |
|------------|-------|------|------------------------|------------------|
| PROJECTION | UNITS | mm   | TITLE                  | SHEET            |
|            | SCALE | 1/1  | RFA-02-C2M2-M32-11 / 1 | 11 / 1           |
|            | PAPER | A4   |                        |                  |
| APPD.      | CHKD  |      | DWG NO.                | REV.             |
| DESIGN     |       |      | RFA-02-C2M2-M32-1.DWG  | A                |
| REV        | ECN   | NAME | DATE                   | DRAW             |
|            |       |      |                        | J.W.Lee 94/07/29 |

## RFA-02-C2M2-M32-1

### Specifications

|                 |                     |
|-----------------|---------------------|
| Frequency range | 2400 MHz – 2500 MHz |
| Antenna gain    | 2.5 dBi             |
| VSWR            | 2.0 : 1 Max.        |
| Polarization    | Linear, vertical    |
| Impedance       | 50 $\Omega$         |
| Temperature     | - 10°C to +55°C     |
| Weight          | 10g                 |
| Connector       | R SMA PLUG          |





Hwa Ya Lab : No.19, Hwa Ya 2nd RD, Kie Is kai, Taoyuan, Taiwan, R.O.C.

Tel (03) 318-3232 Fax (03) 318-5050

Tayuan Lab : 13-1 Lane 19, Wei Sikai 3rd St, Kie Is kai, Taoyuan, Taiwan, R.O.C.

Tel (03) 327-0910 Fax (03) 327-0892

Hsichia Lab: 81-1 Lillackeng, 9th Ln, Wukung Tsien, Chinglin, Hsichia, Taiwan, R.O.C.

Tel (03) 593-5343 Fax (03) 593-5342

Brand / Model : C2M2-L061-1

Remark :

Sample No.

Tested by : LORI

Location: **RF CHAMBER 3**

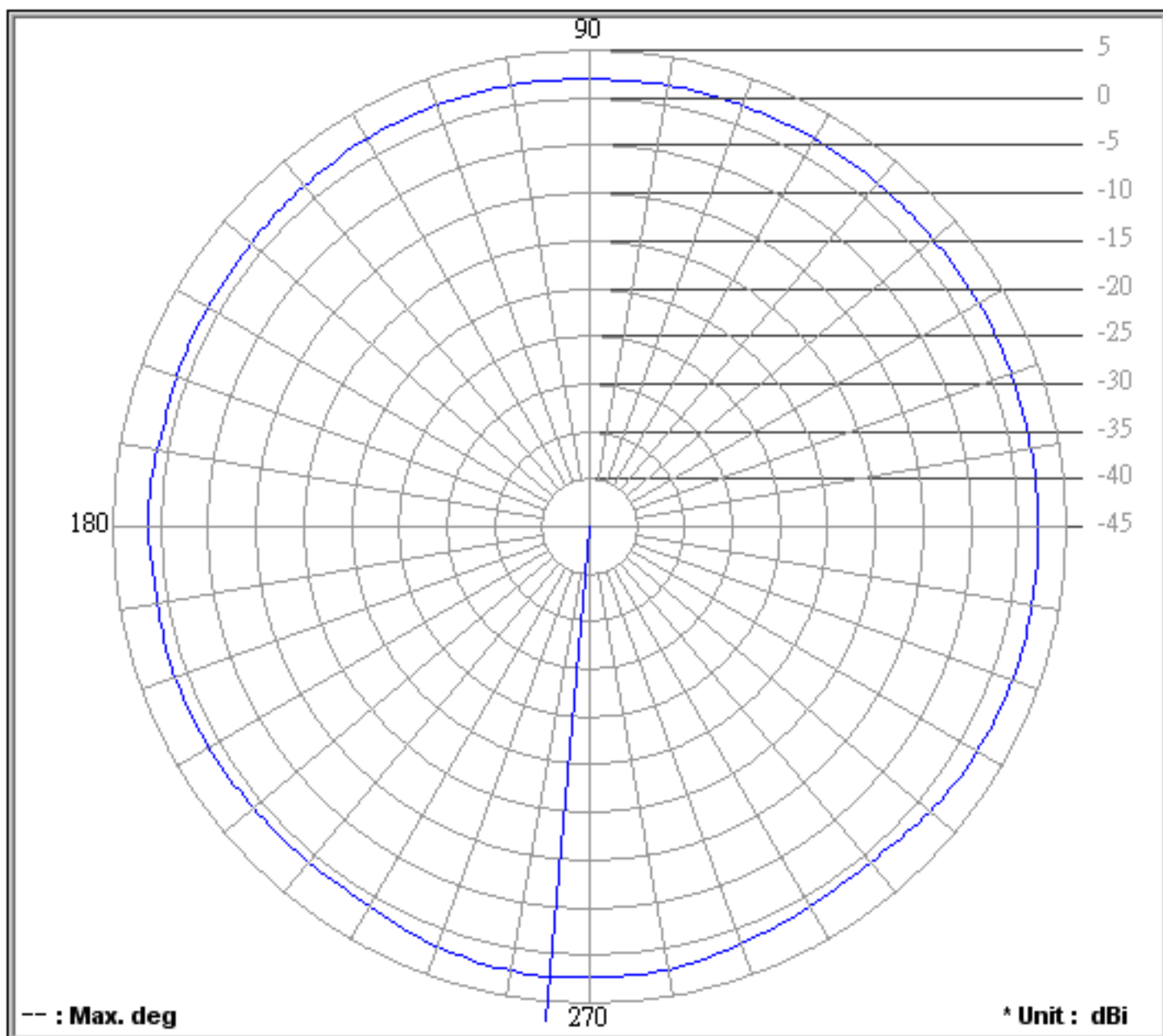
Date: **2008/8/11**

Time: **下午 01:36:48**

Temperature (°C): **25**

Humidity (%): **75**

Approved by:



Frequency (MHz): **2400.00**

Antenna Polarity: **Vertical**

Average Value (dBi): **1.70**

Maximum Value (dBi): **2.40**

Maximum Value (degree): **265**

Minimum Value (dBi): **0.89**

Minimum Value (degree): **233**



Hwa Ya Lab : No.19, Hwa Ya 2nd RD, Kie Is kai, Taoyuan, Taiwan, R.O.C.

Tel (03) 318-3232 Fax (03) 318-5050

Tayuan Lab : 13-1 Lane 19, Wei Sikai 3rd St, Kie Is kai, Taoyuan, Taiwan, R.O.C.

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Tel (03) 593-5343 Fax (03) 593-5342

Brand / Model : C2M2-L061-1

Remark :

Sample No.

Tested by : LORI

Location: **RF CHAMBER 3**

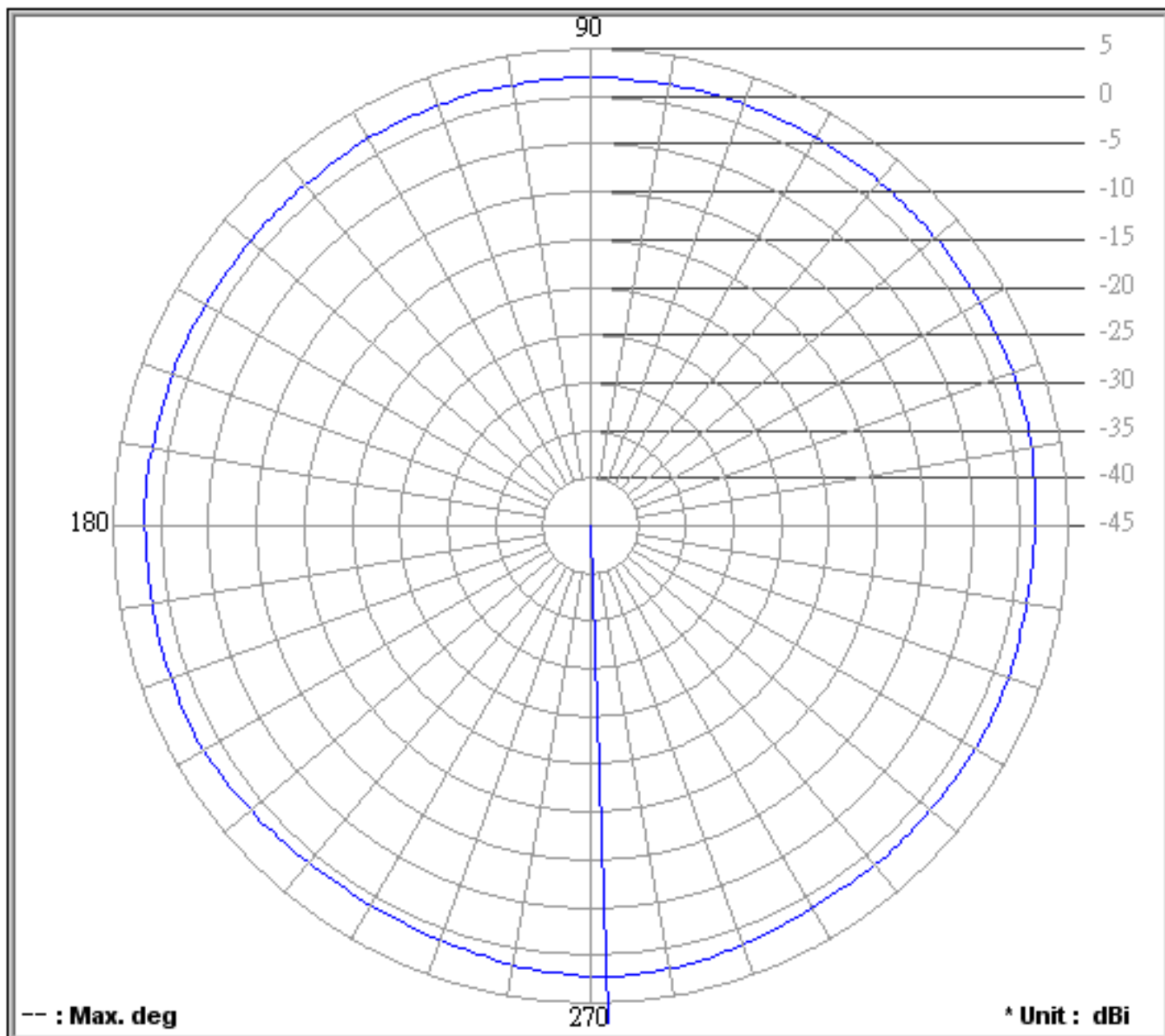
Date: **2008/8/11**

Time: **下午 01:50:05**

Temperature (°C): **25**

Humidity (%): **75**

Approved by:



Frequency (MHz): **2450.00**

Antenna Polarity: **Vertical**

Average Value (dBi): **1.69**

Maximum Value (dBi): **2.26**

Maximum Value (degree): **272**

Minimum Value (dBi): **0.89**

Minimum Value (degree): **239**



Hwa Ya Lab : No.19, Hwa Ya 2nd RD, Kie Is kai, Taoyuan, Taiwan, R.O.C.

Tayuan Lab : 13-1 Lane 19, Wei Sikai 3rd St, Kie Is kai, Taoyuan, Taiwan, R.O.C.

Hsichia Lab: 81-1 Lillackeng, 9th Fl, Wukung Tseu, Chinglin, Hsichia, Taiwan, R.O.C.

http://www.adt.com.tw/ E-mail: service@adt.com.tw

Tel (03) 318-3232 Fax (03) 318-5050

Tel (03) 327-0910 Fax (03) 327-0892

Tel (03) 593-5343 Fax (03) 593-5342

Brand / Model : C2M2-L061-1

Remark :

Sample No.

Tested by : LORI

Location: **RF CHAMBER 3**

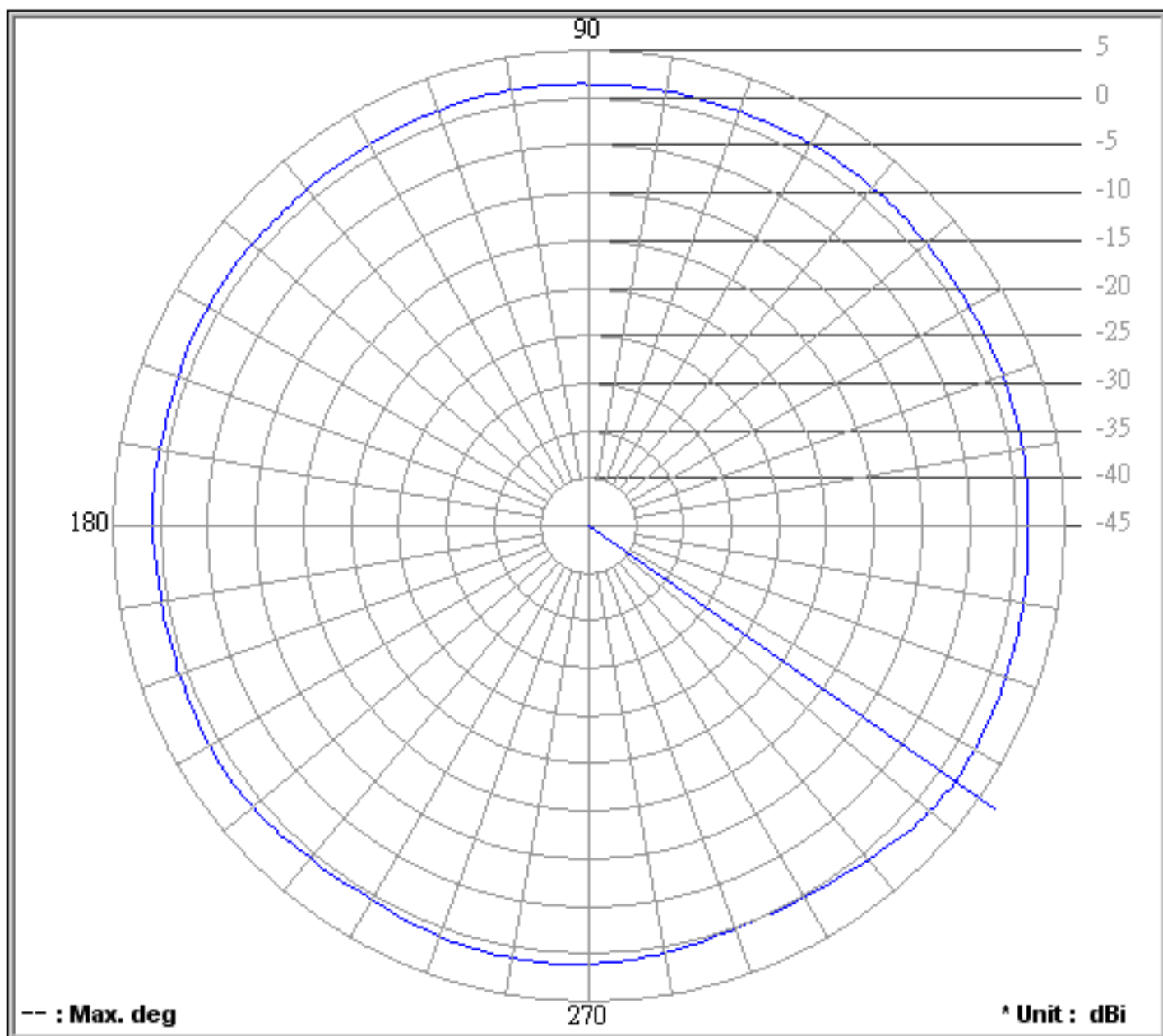
Date: **2008/8/11**

Time: **下午 02:03:47**

Temperature (°C): **25**

Humidity (%): **75**

Approved by:



Frequency (MHz): **2500.00**

Antenna Polarity: **Vertical**

Average Value (dBi): **1.10**

Maximum Value (dBi): **1.87**

Maximum Value (degree): **325**

Minimum Value (dBi): **-0.00**

Minimum Value (degree): **294**

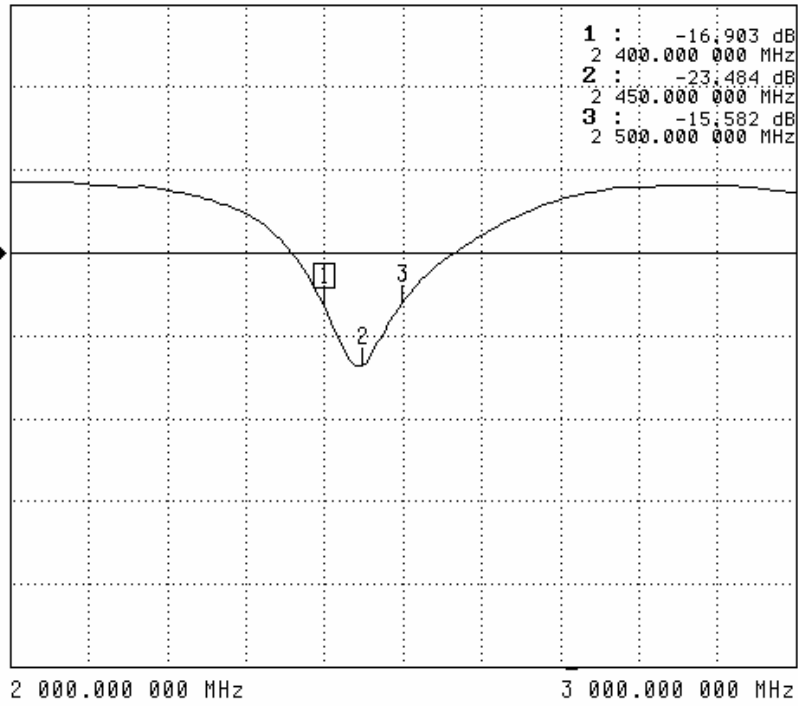
S11 FORWARD REFLECTION  
CHN1

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

# 亞驪企業股份有限公司

|          |                   |           |                             |      |        |             |      |   |    |   |
|----------|-------------------|-----------|-----------------------------|------|--------|-------------|------|---|----|---|
| 文件編號     | QP-1105           | 文件名稱      | C065—RFA-02-C2M2-M32-1 包裝規範 |      |        |             | 發行版本 | A | 頁次 | 1 |
| 客戶代號:    | C065              | 成品單重      | 10g                         | 最小包裝 | 10pcs  | 8 號夾鏈袋      |      |   |    |   |
| 客戶料號/品名: |                   | 紙板料號      | PCA007(42.5*40.5cm)         | 中包裝  | 50pcs  | A4(31*29cm) |      |   |    |   |
| 亞驪料號/品名: | RFA-02-C2M2-M32-1 | 紙板數量/放置位置 | 3 個/天 中 地                   | 大包裝  | 500pcs | 10 包 A4 中袋  |      |   |    |   |
| 相關配件     | ---               | 紙箱料號      | PCA007(43.5*26*24cm)        | 備註   |        |             |      |   |    |   |

| 最小包裝(10pcs)   | 敘述                   | 中包裝(50pcs)   | 敘述                                      |
|---|----------------------|--|---|
|  | <p>10 支包裝，放入夾鏈袋。</p> |  | <p>將 10 支包裝好的 C2M2*50pcs, 放入 A4 袋中。</p> |



# 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<br>vendor name           | 茂豐精密工業股份有限公司<br>Mawfong Precision Industrial Co., Ltd. |                            |                      | 日期:<br>DATE                  | 95年05月08日<br>2006.05.08    |
|                                | 試材名稱<br>Material                                       | 銅合金<br>Copper Alloys       | 合金編號<br>Alloys No.   | C3604BD                      | 試材編號<br>Material No.       |
| 化學試驗 (Chemical Testing)        |  |                            |                      |                              |                            |
| 試驗方法<br>Experimental Condition | X一線光譜分析法(X one line spectra analysis method )          |                            |                      |                              |                            |
| 使用儀器名稱<br>Instrumentation name | X光電腦分析儀(VACUUM X RAY SPECTROGRAPH)                     |                            |                      |                              |                            |
| 元素名稱<br>Element name           | 標準含量(%)<br>Standard contents                           | 試片含量(%)<br>Sample contents | 元素名稱<br>Element name | 標準含量(%)<br>Standard contents | 試片含量(%)<br>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<br>(Remarks)                | DLA.5.5mm  |                            |                      |                              |                            |
|                                |  |                            |                      |                              |                            |
| 分析員<br>(Analyze a member)      | 蔡聰銘  |                            | 主管<br>(Supervisor)   | 張國桐                          |                            |

材質證明-磷青銅

QM-QCT-4-002A

**HTS** 新泰伸科技股份有限公司  
HTS TECHNOLOGY CO., LTD.

# INSPECTION CERTIFICATE

台灣省桃園縣楊梅鎮民權路8號  
No.8, Ming Liang Road, Yang Mei Chen,  
Tao Yuan Hsien, Taiwan  
TEL : 886-3-472-8788 FAX : 886-3-472-8789

Customer: 亞松貿易有限公司  
Specification: C5210R-H JIS H3130(2007)

Our Order No:

Your P/O No:

Your Part No:

Date: 2008/1/9  
Weight: 0 Kg

| Lot No.       | Standard<br>Dimension | Property Test                           |   |   |                   |                      |                         |                             |                    |                |
|---------------|-----------------------|---|---|---|-------------------|----------------------|-------------------------|-----------------------------|--------------------|----------------|
|               |                       | Yield strength<br>(Kg/mm <sup>2</sup> ) | Tensile strength<br>(Kg/mm <sup>2</sup> ) | Young's strength<br>(Kg/mm <sup>2</sup> ) | Elongation<br>(%) | Hardness<br>(Hv 3)   | Conductivity<br>(%IACS) | Bead Test<br>Bead way(180°) | Grain Size<br>(mm) | Weight<br>(Kg) |
| STB-9610496-2 | 0.2 x 380             | 56.35                                   | 63.1                                      | 13487                                     | ≥ 20<br>25        | 190 ~ 210<br>200-202 | —<br>13                 | R/T=1.5 No Crack<br>Good    | ≤ 0.01<br>0.01     | 0              |
|               |                       |   |   |   |                   |                      |                         |                             |                    |                |
|               |                       |   |   |   |                   |                      |                         |                             |                    |                |
|               |                       |   |   |   |                   |                      |                         |                             |                    |                |

| Lot No.       | Standard | Composition (wt%) |                 |                       |                 |                   |                    | Surface<br>Roughness<br>Ra(μm) | Sur<br>face | Dimension          |                      |
|---------------|----------|-------------------|-----------------|-----------------------|-----------------|-------------------|--------------------|--------------------------------|-------------|--------------------|----------------------|
|               |          | Ca                | So              | P                     | Zn              | Fe                | Pb                 |                                |             | Thickness(mm)      | Width(mm)            |
| STB-9610496-2 | 92.1488  | —                 | 7 ~ 9<br>7.7239 | 0.03 ~ 0.35<br>0.0832 | ≤ 0.2<br>0.0019 | 0 ≤ 0.1<br>0.0152 | 0 ≤ 0.009<br>0.003 | ≤ 0.15<br>0.096                | Good        | 0.19 ~ 0.21<br>0.2 | 379.8 ~ 380.2<br>380 |
|               |          |                   |                 |                       |                 |                   |                    |                                |             |                    |                      |
|               |          |                   |                 |                       |                 |                   |                    |                                |             |                    |                      |

Remark: 1. Mechanical properties shall be determined in accordance with ASTM E8 · ISO 6892 ·  
2. Conductivity shall be determined in accordance with ISO 1337 ·  
3. The results shown in the certificate refer only to the specimens of the lot number stated above and the contents are issued for reference only.  
4. This certificate cannot be reproduced, except in full, without prior written permission of this company. Any unauthorized alteration, forgery or falsification of the content or appearance of this certificate is unlawful and offenders may be prosecuted to the fullest extent of the law.



Approved by:

Checked by:





**USI CORPORATION**  
KAOHSIUNG PLANT Q.C. LABORATORY  
TEST REPORT

Report No. : LID-C-071924 Requested by : 冠勤公司  
Report Date : 2007/9/11  
Object of this report : Certificate of PE resin quality

| <u>Test Item</u>              | <u>Test Result</u> |
|-------------------------------|--------------------|
| 1. Type                       | LH606              |
| 2. Lot No.                    | 791588             |
| 3. Density, g/cm <sup>3</sup> | 0.961              |
| 4. MI, g/10min                | 5.6                |
| 5. Order No.                  | 7013821            |
| 6. Customer PO                |                    |

Chemist : 林良謀 Approved : 曾顯龍



FROM :

I H S K O U .

**SDchem<sup>®</sup>****聖的化學工業原料行  
力橋國際有限公司**

SENDANEX CHEMICAL INDUSTRY &amp; RICHEMAX INTERNATIONAL CO., LTD.

TEL: (02)2290-0950 台北縣五股鄉 248 五工五路 32 之 1 號 (五股工業區)

FAX: (02)2290-1138 No.32-1, Wugong 5th Rd., Wugu Township, Taipei County 248, Taiwan (R.O.C.)

**產 品 檢 驗 報 告**

產品名稱: GS-228 BTR

報告編號: R07101702

產品批號: GH41016071

數 量: 60L

進貨日期: 96.10.16

檢驗日期: 96.10.16

製造日期: 2007/10

保存期限: 2008/10

| 檢驗項目              | 標準值    | 檢驗結果  | 備 註 |
|-------------------|--------|-------|-----|
| 外觀                | 粉紅色澄清液 | PASS  |     |
| pH 值              | 4~7    | 5.87  |     |
| 比重(波美)            | 1~5    | 1     |     |
| 金屬不純物<br>ppm      | 銅      | <2    |     |
|                   | 鎳      | <2    |     |
|                   | 鉛      | <0.5  |     |
|                   | 鐵      | <0.5  |     |
|                   | 鋅      | <0.5  |     |
|                   | 錳      | <0.01 | ND  |
|                   | 總銻     | <0.2  | ND  |
| 雜質<br>ppm         | 懸浮固體   | <2    |     |
|                   | 氯離子    | <0.5  |     |
|                   | 硫酸根    | <5    |     |
| 哈氏片 test 結果: PASS |        |       |     |

備註:

- (1). 本表檢驗結果僅對送檢驗樣品負責, 請惠予參考。
- (2). 樣品保存期限自檢驗日起30天。
- (3). 本報告不得摘錄複製。

核准:



檢驗員:



FROM :

FAX NO. :

**SDchem®****聖的化學工業原料行  
力橋國際有限公司****SENDANEX CHEMICAL INDUSTRY & RICHEMAX INTERNATIONAL CO., LTD.**

TEL: (02)2290-0950 台北縣五股鄉248五工五路32之1號(五股工業區)

FAX: (02)2290-1138 No.32-1, Wugong 5th Rd., Wugu Township, Taipei County 248, Taiwan (R.O.C.)

**產品檢驗報告**

產品名稱: GS-228 M/U

報告編號: R08030606

產品批號: GH10306081

數量: 60 L

進貨日期: 97.03.06

檢驗日期: 97.03.06

製造日期: 2008/03

保存期限: 2009/03

| 檢驗項目         | 標準值     | 檢驗結果 | 備註 |
|--------------|---------|------|----|
| 外觀           | 淡粉紅色澄清液 | PASS |    |
| pH 值         | 3.8~4.5 | 4.38 |    |
| 比重(波美)       | 13~15   | 15   |    |
| 金屬不純物<br>ppm | 銅       | ND   | ND |
|              | 鎳       | ND   | ND |
|              | 鉛       | ND   | ND |
|              | 鐵       | ND   | ND |
|              | 鋅       | ND   | ND |
|              | 鎘       | ND   | ND |
|              | 總鎘      | ND   | ND |

備註:

- (1).本表檢驗結果僅對送檢驗樣品負責,請惠予參考。
- (2).樣品保存期限自檢驗日起30天。
- (3).本報告不得摘錄複製。

核准:



檢驗員:



# SPECIFICATION FOR APPROVAL

DOCUMENT: A30178B001

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STYLE : 200°C 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

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

TEL : (02)22988033  
FAX : (02)22988031-2

TEL : (03)4527777  
FAX : (03)4517214

WONDERFUL WIRE CABLE CO., LTD

# SPECIFICATION

|                     |   |                                 |                                    |
|---------------------|---|---------------------------------|------------------------------------|
| STYLE               | 200°C 30V<br>COAXIAL  | DOCUMENT NO :<br>A30178B001     |                                    |
| SIZE                | RG-178B/U   | ESTABLISHED DATE:<br>2000/06/29 |                                    |
| STANDARD : MIL-C-17 |   |                                 |                                    |
| Conductor           | Size  | AWG                             | 30                                 |
|                     | Material  | ----                            | Silver-Coated Copper<br>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             |  |                                 |                                    |

AK001/210X297/1.0

PAGE : 1

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°C 30V              |   |        |        |       |
| Conductor Resistance             |        | 838.0 OHM/KM/20°C 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 / m m <sup>2</sup> ) |        |        |       |
|                                  |        | Elongation             | 200% MIN.                                   |        |        |       |
|                                  | Aged   | Tensile Strength       | <b>UNAGED MIN.75%(168HRS×232°C)</b>         |        |        |       |
|                                  |        | Elongation             | <b>UNAGED MIN.75%(168HRS×232°C)</b>         |        |        |       |
| Jacket                           | Unaged | Tensile Strength       | 2500 PSI MIN.( 1.76 Kg / m m <sup>2</sup> ) |        |        |       |
|                                  |        | Elongation             | 200% MIN.                                   |        |        |       |
|                                  | Aged   | Tensile Strength       | <b>UNAGED MIN.75%(168HRS×232°C)</b>         |        |        |       |
|                                  |        | Elongation             | <b>UNAGED MIN.75%(168HRS×232°C)</b>         |        |        |       |
| Nom. Impedance                   |        | 50 Ohms                |   |        |        |       |
| VSWR                             |        | MAX. 1.3 at 0.4G~3GHz  |   |        |        |       |
| Nom. Vel. of Prop.               |        | 69.5%                  |   |        |        |       |
| Flame Test                       |        | VW-1 OK                |   |        |        |       |
| Attenuation<br>(dB/100m)         | 50MHz  | 100MHz                 | 400MHz                                      | 900MHz | 1.8GHz | 3GHz  |
|                                  | 34.4   | 45.9                   | 91.8  | 139.4  | 207.5  | 308.2 |

AK001/210X297/1.0

PAGE : 2

EDITION : 1.0

REVISED DATE :

MAKER :

CONFIRM :

APPROVAL :



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|     | NAME                | 供應商                         | RoHS report       |
|-----|---------------------|-----------------------------|-------------------|
| 1   | Housing/Hinge-PA757 | CHI MEI CORPORATION         | KA/2007C2081      |
| 2   | CONNECTOR           |                             |                   |
| 2-1 | BRASS               | 新泰伸科技股份有限公司                 | CE/2007/95060     |
| 2-2 | 端子                  | 新泰伸科技股份有限公司                 | CE/2007/95061     |
| 2-3 | HDPE                | 台灣聚合化學品股份有限公司               | KA2007/C11500A-01 |
| 3   | CABLE-RG178         | WONDERFUL HI-TECH CO., LTD. | CE/2007/C7040     |

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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**

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

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

| Test Item (s):                                    | Method<br>(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>                                |                      | 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>        | (5)                  | n.d.   | -   |
| Monobromobiphenyl ether                           |                      | n.d.   | 5   |
| Dibromobiphenyl ether                             |                      | n.d.   | 5   |
| Tribromobiphenyl ether                            |                      | n.d.   | 5   |
| Tetrabromobiphenyl ether                          |                      | n.d.   | 5   |
| Pentabromobiphenyl ether                          |                      | n.d.   | 5   |
| Hexabromobiphenyl ether                           |                      | n.d.   | 5   |
| Heptabromobiphenyl ether                          |                      | n.d.   | 5   |
| Octabromobiphenyl ether                           |                      | n.d.   | 5   |
| Nonabromobiphenyl ether                           |                      | n.d.   | 5   |
| Decabromobiphenyl ether                           |                      | n.d.   | 5   |
| <b>Sum of PBDEs (Mono to Deca)</b>                |                      | n.d.   | -   |

## TEST PART DESCRIPTION:

NO.1

: NATURE PLASTIC PELLETS

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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

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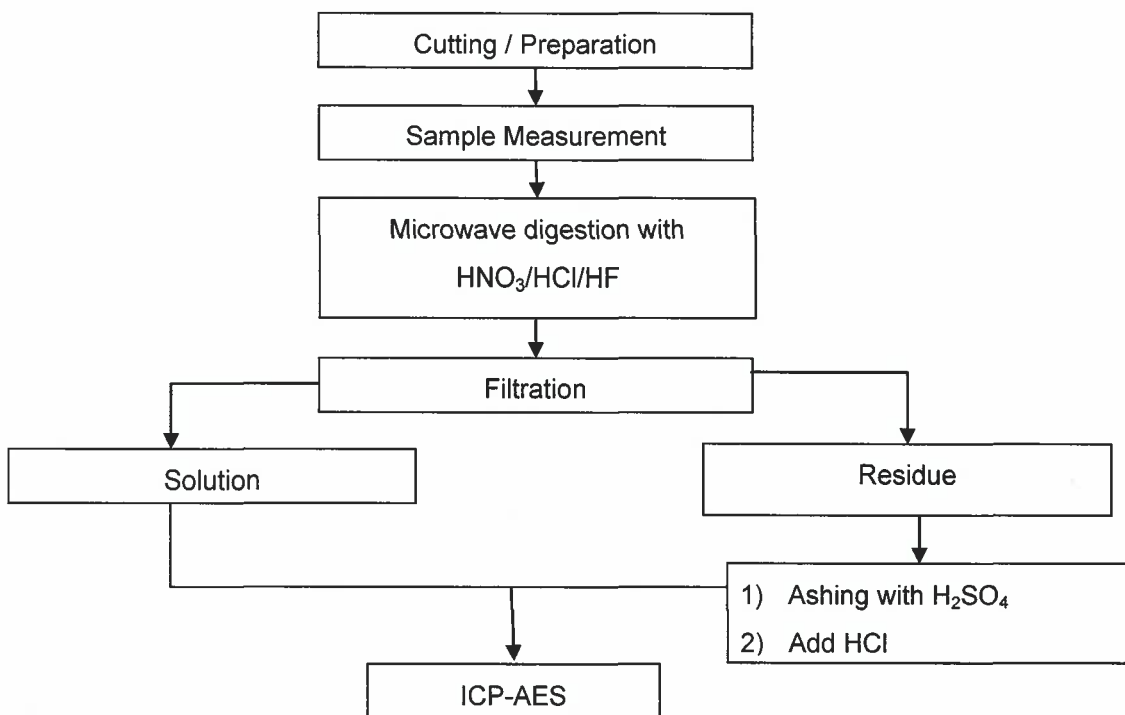


CHI MEI CORPORATION.  
59-1 SAN CHIA,JEN TE TAINAN COUNTY,TAIWAN.

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)**



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



\*\* End of Report \*\*

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TW5950921



## 測試報告 Test Report

號碼(No.): CE/2007/95060 日期(Date): 2007/10/02 頁數(Page): 1 of 6

新泰伸科技股份有限公司  
HTS TECHNOLOGY CO., LTD.  
326 桃園縣楊梅鎮民隆路8號  
8, MING LUNG RD., YANG MEI JEN, TAO YUAN, TAIWAN 326, R. O. C.



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

樣品名稱(Sample Description) : 黃銅 (BRASS)  
收件日期(Sample Receiving Date) : 2007/09/26  
測試期間(Testing Period) : 2007/09/26 TO 2007/10/02


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) : 參考 IEC 62321, Ed. 1 111/54/CDV 方法檢測。(With reference to IEC 62321, Ed.1 111/54/CDV. Procedures for the Determination of Levels of Regulated Substances in Electrotechnical Products).

- (1) 用感應耦合電漿原子發射光譜儀檢測鎘含量。 / Determination of Cadmium by ICP-AES.
- (2) 用感應耦合電漿原子發射光譜儀檢測鉛含量。 / Determination of Lead by ICP-AES.
- (3) 用感應耦合電漿原子發射光譜儀檢測汞含量。 / Determination of Mercury by ICP-AES.
- (4) 針對金屬材質之樣品，用 Spot test / Colorimetric 方法檢測六價鉻含量。 / Determination of Hexavalent Chromium for metallic samples by Spot test / Colorimetric Method.
- (5) 以氣相層析儀/質譜儀檢測多溴聯苯和多溴聯苯醚含量。 / Determination of PBB and PBDE by GC/MS.

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

結論(Conclusion) : 根據客戶所提供樣品的測試結果，符合 RoHS(2002/95/EC) 及其修定指令之要求 (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





# 測試報告 Test Report

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新泰伸科技股份有限公司  
HTS TECHNOLOGY CO., LTD.  
326 桃園縣楊梅鎮民隆路8號



8, MING LUNG RD., YANG MEI JEN, TAO YUAN, TAIWAN 326, R. O. C.

測試結果(Test Results) 單位(Unit): mg/kg

| 測試項目<br>(Test Items)  | 測試方法<br>Method<br>(Refer to) | 結果 (Result) | 方法偵測<br>極限值<br>(MDL) | RoHS<br>限值<br>(Limit) |
|---|------------------------------|-------------|----------------------|-----------------------|
|   |                              | No.1        |                      |                       |
| 鎘 / Cadmium (Cd)  | (1)                          | n.d.        | 2                    | 100                   |
| 鉛 / Lead (Pb)   | (2)                          | 17          | 2                    | 1000                  |
| 汞 / Mercury (Hg)  | (3)                          | n.d.        | 2                    | 1000                  |
| 六價鉻 / Hexavalent Chromium Cr(VI) by<br>Spot test / boiling water extraction | (4)                          | Negative    | See Note 5           | #                     |
| 多溴聯苯總和 / Sum of PBBs  | (5)                          | n.d.        | -                    | 1000                  |
| 一溴聯苯 / Monobromobiphenyl  |                              | n.d.        | 5                    | -                     |
| 二溴聯苯 / Dibromobiphenyl  |                              | n.d.        | 5                    | -                     |
| 三溴聯苯 / Tribromobiphenyl   |                              | n.d.        | 5                    | -                     |
| 四溴聯苯 / Tetrabromobiphenyl   |                              | n.d.        | 5                    | -                     |
| 五溴聯苯 / Pentabromobiphenyl   |                              | n.d.        | 5                    | -                     |
| 六溴聯苯 / Hexabromobiphenyl  |                              | n.d.        | 5                    | -                     |
| 七溴聯苯 / Heptabromobiphenyl   |                              | n.d.        | 5                    | -                     |
| 八溴聯苯 / Octabromobiphenyl  |                              | n.d.        | 5                    | -                     |
| 九溴聯苯 / Nonabromobiphenyl  |                              | n.d.        | 5                    | -                     |
| 十溴聯苯 / Decabromobiphenyl  |                              | n.d.        | 5                    | -                     |
| 多溴聯苯醜總和 (一至九溴) / Sum of<br>PBDEs (Mono to Nona) (Note 4)                    |                              | n.d.        | -                    | 1000                  |
| 一溴聯苯醜 / Monobromobiphenyl ether   |                              | n.d.        | 5                    | -                     |
| 二溴聯苯醜 / Dibromobiphenyl ether   |                              | n.d.        | 5                    | -                     |
| 三溴聯苯醜 / Tribromobiphenyl ether  |                              | n.d.        | 5                    | -                     |
| 四溴聯苯醜 / Tetrabromobiphenyl ether  |                              | n.d.        | 5                    | -                     |
| 五溴聯苯醜 / Pentabromobiphenyl ether  |                              | n.d.        | 5                    | -                     |
| 六溴聯苯醜 / Hexabromobiphenyl ether   |                              | n.d.        | 5                    | -                     |
| 七溴聯苯醜 / Heptabromobiphenyl ether  |                              | n.d.        | 5                    | -                     |
| 八溴聯苯醜 / Octabromobiphenyl ether   |                              | n.d.        | 5                    | -                     |
| 九溴聯苯醜 / Nonabromobiphenyl ether   | n.d.                         | 5           | -                    |                       |
| 十溴聯苯醜 / Decabromobiphenyl ether   | n.d.                         | 5           | -                    |                       |
| 多溴聯苯醜總和 (一至十溴) / Sum of<br>PBDEs (Mono to Deca)                             | n.d.                         | -           | -                    |                       |

**測試部位描述 (TEST PART DESCRIPTION):**

NO.1 : 金色金屬 (GOLDEN COLORED METAL)



# 測試報告 Test Report

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新泰仲科技股份有限公司  
HTS TECHNOLOGY CO., LTD.  
326 桃園縣楊梅鎮民隆路8號  
8, MING LUNG RD., YANG MEI JEN, TAO YUAN, TAIWAN 326, R. O. C.



## 備註(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. 根據2005年10月13日歐盟會議公佈2005/717/EC, 修訂2002/95/EC內容, 通過解除高分子材質中十溴聯苯醚之使用限制。(According to 2005/717/EC DecaBDE is exempt.)
5. Spot-test:  
Negative = Absence of Cr(VI) coating / surface layer(鍍層中偵測不到六價鉻),  
Positive = Presence of Cr(VI) coating / surface layer(鍍層中偵測到六價鉻);  
The tested sample should be further verified by boiling-water-extraction method if the spot test result cannot be confirmed.  
(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 Cr(VI) coating / surface layer(鍍層中偵測不到六價鉻),  
Positive = Presence of Cr(VI) coating / surface layer(鍍層中偵測到六價鉻);  
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.  
該溶液濃度 $\geq$ 0.02 mg/kg with 50 cm<sup>2</sup> (sample surface area)
6. # = Positive indicates the presence of Cr(VI) on the tested areas and result be regarded as not comply with RoHS requirement. (Positive表示測試區域之六價鉻不符合RoHS要求)  
Negative indicates the absence of Cr(VI) on the tested areas and result be regarded as comply with RoHS requirement. (Negative表示測試區域之六價鉻符合RoHS要求)
7. "-" = Not Regulated (無規格值)