

承 認 書  
SPECIFICATION FOR APPROVAL

客 戶  
CUSTOMER

研華股份有限公司

日 期  
DATE

2006 / 05 / 04

品 名  
DESCRIPTION

SWIVEL TYPE , 1/4λ DIPOLE ANTENNA  
RP-SMA (M) CONNECTOR (Black)

客 戶 料 號  
CUSTOMER P/N

9680001060

成 品 編 號  
Part No.

TQW0804A1



萬旭電業股份有限公司

WANSHIH ELECTRONIC CO., LTD.

台北縣五股鄉五工六路 72 號 3 樓

3F 72 WU KONG 6TH RD., WU KU INDUSTRIAL DISTRICT

TAIPEI HSIEN, TAIWAN, R.O.C.

TEL : (02) 22988066 (5 LINE) FAX : (02)22981102

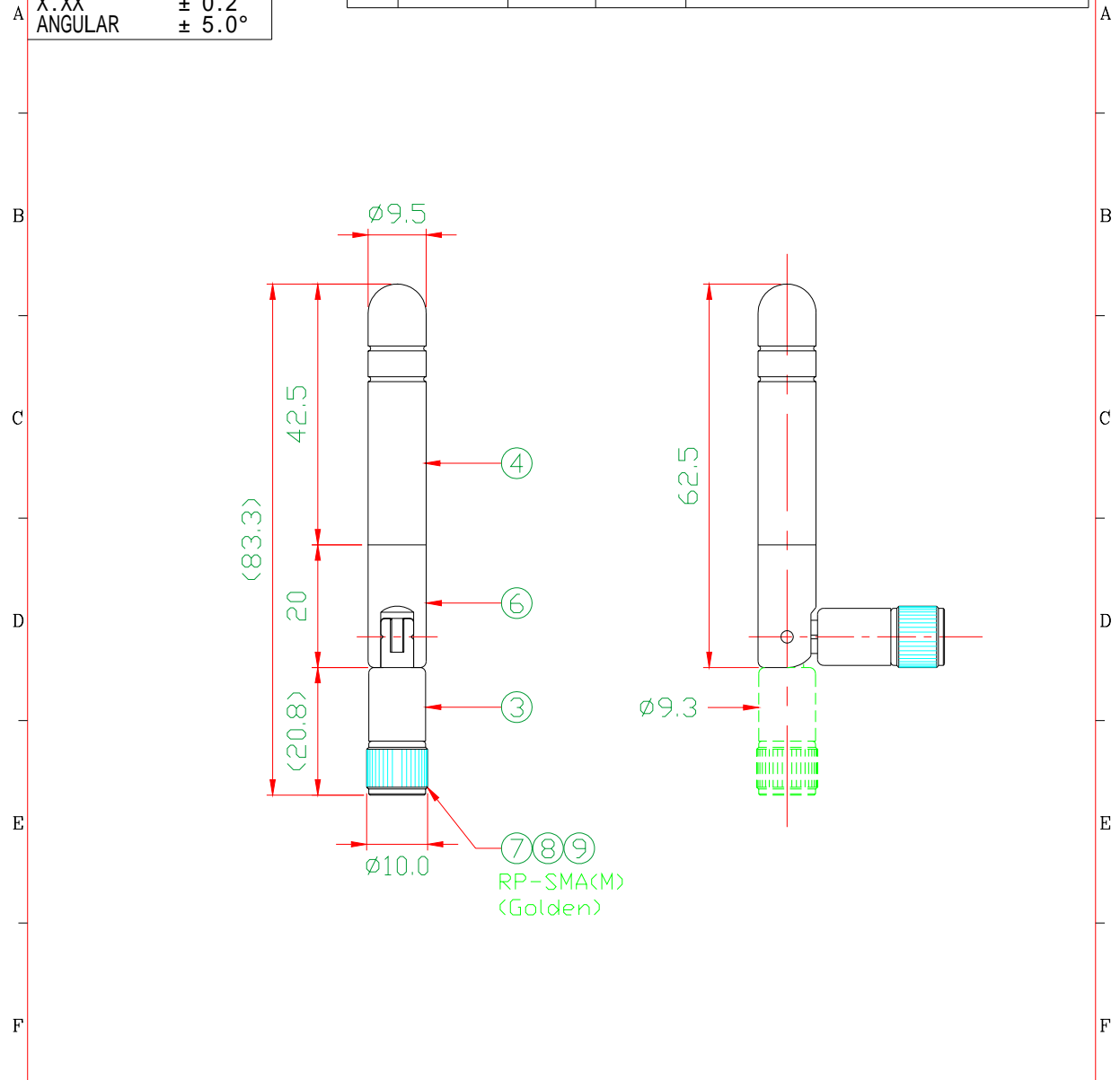
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## SPECIFICATION

- |                               |  |
|-------------------------------|--|
| 1. Description                | : SWIVEL TYPE , 1/4 $\lambda$ DIPOLE<br>ANTENNA RP-SMA (M) |
| 2. Customer                   | : 研華股份有限公司   |
| 3. Model No.                  | : WSS015   |
| 4. Part No.                   | : TQW0804A1  |
| 5. Standard                   | : IEEE 802.11b/g Wireless LAN                              |
| 6. Antenna Profile            | : 83.3 mm length (see Drawing)                             |
| 7. Color                      | : black  |
| 8. Electrical Characteristics |  |
| Operating Frequency           | : 2.4~2.5 GHz  |
| Antenna Type                  | : DIPOLE   |
| Polarization Type             | : Linear   |
| Type of Radiation             | : Toroidal   |
| Peak Gain                     | : 2.0 dBi Max  |
| Impedance                     | : 50 Ohm nominal   |
| V.S.W.R.                      | : 2.0:1 Max.   |
| 9. Mechanical Characteristics |  |
| Action                        | : Swivel Type  |
| Connector                     | : RP-SMA (M)   |
| Core                          | : N/A  |
| 10. Raw Material              |  |
| Coaxial Cable                 | : MIL-C-17 RG-178 B/U                                      |
| Housing                       | : TPU  |
| Hinge                         | : PC+ALLOY   |

|                    |        |    |      |         |    |          |
|--------------------|--------|----|------|---------|----|----------|
| <b>TOLERANCES:</b> |        | 版次 | 修訂日期 | ECR NO. | 作成 | 設計變更內容簡述 |
| X                  | ± 1    |    |      |         |    |          |
| X.X                | ± 0.5  |    |      |         |    |          |
| X.XX               | ± 0.2  |    |      |         |    |          |
| ANGULAR            | ± 5.0° |    |      |         |    |          |



|    |                      |    |  |    |      |    |      |
|----|----------------------|----|--|----|------|----|------|
| 9  | Reverse SMA 10 本體    |    | 0202B-A Body Reverse SMA 10 Connector  |    |      | 1  | 或同級品 |
| 8  | Reverse SMA 10 PIN絕緣 |    | 0062B-B PIN+TEFLON Reverse SMA 10      |    |      | 1  | 或同級品 |
| 7  | Reverse SMA 10 連接軸   |    | 0202B-C1 銀連接軸 Reverse SMA 10 Connector | 銀  |      | 1  | 或同級品 |
| 6  | 外套50.5L<黑>           |    | 9.3 *50.5L 外套<黑>                       | 黑  |      | 1  | 或同級品 |
| 5  | PCB                  |    | PCB                                    |    |      | 1  | 或同級品 |
| 4  | 固定鉚釘                 |    | 23-15-1固定鉚釘鍍黑 1.90 ,3.8L               | 黑  |      | 2  | 或同級品 |
| 3  | 下座                   |    | IY113BK000 9.3 下座<黑>                   | 黑  |      | 1  | 或同級品 |
| 2  | 上座黑                  |    | 9.5 *20.0L 上座黑                         | 黑  |      | 1  | 或同級品 |
| 1  | RG-178 Coaxial Cable |    | RG-178 CABLE 105SV(萬泰)                 | 橙  | 48   | 1  | 或同級品 |
| NO | 材料名稱                 | 環材 | 零件規格                                   | 顏色 | 切斷尺寸 | 用量 | 備註   |

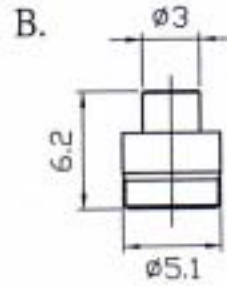
|          |        |                |     |  |          |
|----------|--------|----------------|-----|--|----------|
| 修訂日期:    |        | 制訂日期: 93/10/06 |     | 承認圖號   |          |
| 頁數: 1/1  | 核准     | 審查             | 作成  | 品名   |          |
| 第三角法     | Jim Ju | Arthur         | 易姿岑 | SWIVEL TYPE , 1/4 DIPOLE ANTENNA<br>RP-SMA (M) CONNECTOR (Black) |          |
| 單位: mm   |        |                |     | 成品編號   |          |
| 比例: FREE |        |                |     | TQW0804  | REV<br>A |

萬旭電業股份有限公司

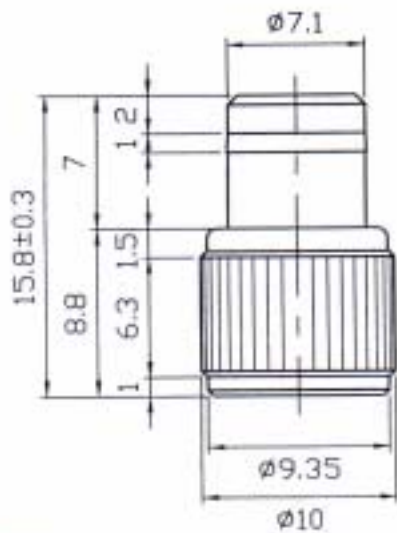
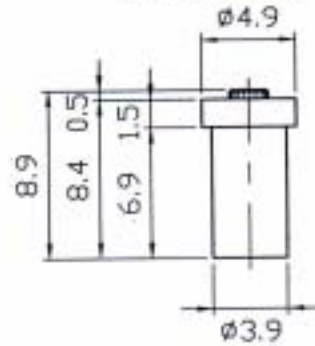
文件編號: FMT-0513-C7

| 主件品名材質一覽表 |      |     |     |
|-----------|------|-----|-----|
| 項次        | 品名   | 材質  | 處理  |
| 1         | 本體-1 | 銅   | 鍍黑鉻 |
| 2         | 本體-2 | 銅   | 鍍黑鋅 |
| 3         | 連接軸  | 銅   | 鍍銀  |
| 4         | PIN  | 磷青銅 | 鍍金  |
| 5         | 絕緣   | 鐵氟龍 | 白色  |

圖號 0202B



C. PIN與絕緣先行組合  
PIN針需縮口處理



|                 |                   |           |                               |
|-----------------|-------------------|-----------|-------------------------------|
| REV DESCRIPTION | UNIT: MM          | MATERIAL: | NAME: RP-SMA(M) $\phi$ 10.0mm |
| $\Delta$ x      | SCALE: 3/1        | FINISH:   | PART NO: 0202B-承認書用           |
| $\Delta$ x      | TOLERANCES:       | DRAWN:    | DATE: 05.25.2003  REV: 00     |
| $\Delta$ x      | X $\pm 0.15$      | DESIGN:   | 萬旭電業股份有限公司                    |
| $\Delta$ x      | X.X $\pm 0.1$     | APPROVE:  |                               |
| $\Delta$ x      | X.XX $\pm 0.05$   |           |                               |
| $\Delta$ x      | ANGULAR $\pm 1.0$ |           |                               |



测试报告

编号: GZSCR050638415/LP

日期: 2005年6月20日 页码 1 of 1

佛山市南海信兴铜业有限公司  
广东省佛山市南海区大沥奇槎铺前工业区

本报告是基于所提供的名称为“C3604 快耐铜支”的样品所做的测试

SGS 参考编号 : GZ050606928EC-3.2

收板日期 : 2005年6月14日

测试日期 : 2005年6月14日至2005年6月20日

测试要求 : 分析委托样品中的铅, 镉, 汞和六价铬含量。

测试方法 : 铅含量 - SGS 内部方法, 参照 EPA 方法 3050B:1996。  
镉含量 - SGS 内部方法, 参照 BS EN1122:2001 方法 B。  
汞含量 - SGS 内部方法, 参照 EPA 方法 3052:1996。  
六价铬含量 - 参照 EPA 方法 3060A:1996 和 7196A:1992。  
分析仪器为火焰原子吸收光谱仪和电感耦合等离子体发射光谱仪/  
紫外分光光度计。

测试结果:

|                | 金色金属件               |
|----------------|---------------------|
| 铅含量 (Pb)(ppm)  | 3.1X10 <sup>4</sup> |
| 镉含量 (Cd)(ppm)  | 9                   |
| 汞含量 (Hg)       | N.D.                |
| 六价铬含量 [Cr(VI)] | N.D.                |

说明: - N.D. = 没有检测到 (< 2 ppm)  
- ppm = 毫克/千克

\*\*\* 报告完 \*\*\*

Signed for and on behalf of  
SGS-CSTC Ltd.

  
He Xiaoyan, Jane  
Tech. Manager

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### Test Report

No.: GZSCR050855719/LP

Date: AUG 05, 2005

Page 1 of 1

SHENZHEN CITY LIAN FENG METAL PLASTIC PRODUCE CO., LTD.  
LIU LIAN LAO WEI VILLAGE INDUSTRIAL AREA,  
PING DI TOWN, LONG GANG DISTRICT, SHEN ZHEN CITY

Report on the submitted sample said to be 金缸水

SGS Ref No. : SZ050815266EC  
Sample Receiving Date : AUG 01, 2005  
Testing Period : AUG 01, 2005 TO AUG 05, 2005

Test Requested : As specified by client, to determine the Lead, Cadmium, Mercury & Hexavalent Chromium content in the submitted sample.

Test Method : Lead content – In house method, With reference to EPA method 3050B: 1996 .  
Cadmium content – In house method, With reference to BS EN1122: 2001 method B .  
Mercury content – In house method, With reference to EPA 3052: 1996.  
Hexavalent Chromium content – With reference to EPA 3060A: 1996 & EPA 7196A: 1992 .  
Analysis was performed by Atomic Absorption Spectrometer and Inductively Coupled Plasma Atomic Emission Spectrometer (ICP-AES) / UV-VIS Spectrophotometer.

### RESULTS

|                                      | No.1 | No.2 |
|--------------------------------------|------|------|
| Lead Content (Pb)                    | N.D. | N.D. |
| Cadmium Content (Cd)                 | N.D. | N.D. |
| Mercury Content (Hg)                 | N.D. | N.D. |
| Hexavalent Chromium Content [Cr(VI)] | N.D. | N.D. |

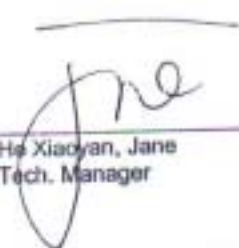
#### Specimen Description:

No.1 Lt-brown liquid  
No.2 Green liquid

Note : - N.D. = Not Detected (< 2 ppm)  
- ppm = mg/kg

\*\*\* End of Report \*\*\*

Signed for and on behalf of  
SGS-CSTC Ltd.

  
He Xiaoyan, Jane  
Tech. Manager

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GZCM 280578

SGS-CSTC Standards Technical Services Co., Ltd.  
Guangzhou Branch Chemical Laboratory

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Test Report

No. GZ6CR050539707/LP

Date: JUN 23, 2005

Page 1 of 2

JIANG MEN XIN HUI CHARMING SCIENCE & TECHNOLOGY CO., LTD.  
NO.3 WEST GANGZHOU ROAD, XIN HUI DISTRICT,  
JIANGMEN CITY, GUANGDONG, CHINA

Report on the submitted sample said to be SILICONE COMPOUND (透明硅橡胶)

SGS Ref No. : GZML050623\*0  
Product or Lot No. : CY-5053  
Color : TRANSPARENT  
Manufacture : JIANG MEN XIN HUI CHARMING SCIENCE & TECHNOLOGY CO., LTD  
Sample Receiving Date : JUN 17, 2005  
Testing Period : JUN 17, 2005 TO JUN 22, 2005

Test Requester : (1) As specified by client, to determine the Lead, Cadmium, Mercury & Hexavalent Chromium content in the submitted sample.  
(2) Determination of PBBs (polybrominated biphenyls), PBDEs (Polybrominated diphenylethers) of the submitted sample.  
(3) To determine of PCBs (Polychlorinated biphenyl) of submitted sample.

Test Method : (1) Lead content - with reference to EPA method 3050B: 1998.  
Cadmium content - with reference to BS EN1122: 2001 method B.  
Mercury content - with reference to EPA 3082: 1998.  
Hexavalent Chromium content - with reference to EPA 3060A & EPA 7163A.  
Analysis was performed by Atomic Absorption Spectrometer and Inductively Coupled Plasma Atomic Emission Spectrometer (ICP-AES) / UV-VIS Spectrophotometer.  
(2) With reference to SGS in-house method. Analysis was performed by GC MS.  
(3) With reference to SGS in-house method. Analysis was performed by GC/ECD.

RESULTS : Please refer to next page.

Signed for and on behalf of  
SGS-CSTC Ltd



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3ZCM 263443

TEST REPORT SERVICE UNIT 23  
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11, Road to Airport's Parking (near Road) Gaoling Rd, Suzhou, Jiangsu Province, China 215000 (86)8621 9521 100 25421955 [www.sgs.com](http://www.sgs.com)  
中国·江苏·苏州工业园区金鸡湖商务园娄葑工业园九路金地 邮编: 215000 (86)8621 9521 100 25421955 [www.sgs.com](http://www.sgs.com)

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### 测试报告

编号: SZTYR060100773/LP 日期: 2006年01月20日 第1页(共1页)

(溢盛)鑫合实业有限公司  
东莞市虎门镇沙角二轻工业城

本报告是基于对客户所提供的据称为“三价铬镀锌”的样品所做的测试。

收样日期 : 2006年01月10日  
测试周期 : 2006年01月11日至2006年01月19日

测试要求 : 1) 分析委托样品中的铅含量。  
2) 分析委托样品中的镉含量。  
3) 分析委托样品中的汞含量。  
4) 分析委托样品中的六价铬含量。

测试方法 : 1) 参照EPA方法3050B:1996/其它酸消解法,分析仪器为原子吸收光谱仪(AAS)。  
2) 参照EN1122:2001方法/其它酸消解法,分析仪器为原子吸收光谱仪(AAS)。  
3) 参照EPA方法3052:1996/其它酸消解法,分析仪器为电感耦合等离子发射光谱仪。  
4) 参照EPA方法3060A:1996及7196A,1992比色法。

### 测试结果

|                | 泛彩金属性 | 检出限   |
|----------------|-------|-------|
| 1) 铅[Pb]       | 36    | 2 ppm |
| 2) 镉[Cd]       | N.D.  | 2 ppm |
| 3) 汞[Hg]       | N.D.  | 2 ppm |
| 4) 六价铬[Cr(VI)] | N.D.  | 2 ppm |

说明: - N.D. = 未检出(低于检出限)  
- ppm = 毫克/千克

\*\*\* 报告完 \*\*\*

Signed for and on behalf of  
SGS-CSTC Ltd.

Li Ying, Susan  
Section Manager



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02L 402880

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测试报告

编号: GZSCR050641770/LP

日期: 2005年6月30日 页码 1 of 3

广州市志精泰化学有限公司  
广州市天河区东圃珠村关山路裕丰工业园八栋四楼

本报告是基于所提供的名称为“电泳涂料槽液”的样品所做的测试

SGS 报告编号 : GZ050607521EC-2.1

客户名称 : 索尼

委托日期 : 2005年6月23日

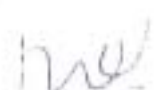
测试日期 : 2005年6月23日至2005年6月30日

测试要求 : (1) 委托样品中的铅、镉、汞和六价铬含量。  
(2) 委托样品中的多环联苯、多环联苯醚的含量。

测试方法 : (1) 铅和镉含量 - 参照 EPA 方法 3050B:1996, 见流程图。  
汞含量 - SGS 内部方法, 参照 EPA 方法 3052: 1996。  
六价铬含量 - 参照 EPA 方法 3060A:1996 和 7196A:1992。  
分析仪器为电感耦合等离子体发射光谱仪/紫外分光光度计。  
(2) SGS 内部方法, 分析仪器为 GC/MS。

测试结果: 请参见下一页

Signed for and on behalf of  
SGS CSTC Ltd.

  
He Xiaoyan, Jane  
Tech Manager

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GZCM 257693

4F, Block 8, Yu Jing Industrial Park, Ling Dao Road, Zhu Guo Dong Pu Area, Tianhe District, Guangzhou, China. 510660 (Tel: 86-20) 8538 1100 Fax: 86-20 8538 1101 [www.sgs.com](http://www.sgs.com)  
中国广州天河区东圃珠村关山路裕丰工业园八栋四楼 邮编: 510660 (电话: 86-20) 8538 1100 (传真: 86-20) 8538 1101

Member of SGS Group (Societa General de Servicos)





## Test Report

No. SH540484/CHEM

Date: 7.7.2005

Page 1 of 4

SHANGHAI VALQUA FLUOROCARBON PRODUCTS CO., LTD.  
NO.255 JIANGTIAN ROAD (E), SONGJIANG INDUSTRIAL ZONE, SHANGHAI CHINA

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

Sample Name : VALFLONROD  
SGS Ref No. : SHEC0050615081  
Model :  $\Phi 5 \times 1000L$   
Material : PTFE

Sample Receiving Date : June 24, 2005  
Testing Period : June 24 to July 07, 2005

Test Requested :

- 1) \*To determine the Cadmium Content of the submitted sample.
- 2) \*To determine the Lead content of the submitted sample.
- 3) \*To determine Mercury Content of the submitted sample.
- 4) To determine Hexavalent Chromium content of the submitted sample.
- 5) To determine the PBBs(Polybrominated biphenyls) PBBEs(PBOEs) (Polybrominated biphenyl ethers) Content of the submitted sample.
- 6) To determine the PCBs(Polychlorinated Biphenyls) Content of the submitted sample.
- 7) To determine the Polychlorinated Naphthalene Content of the submitted sample.
- 8) To determine the Chlorinated Paraffin content of the submitted sample.
- 9) To determine the Mirex(CAS NO:002385-85-5) Content of the submitted sample.
- 10) \*To determine the Asbestos Content of the submitted sample.
- 11) \*\*\*As specified by client, to detection and determination of certain listed aromatic amines derived from Azo Colorants (EN14362-2:2003)

Test method/Test Results: Please refer to next page

Conclusion : 11) \*\*\*According to the analysis as carried out, azo colorants which can release one or more of certain listed amines by cleavage of their azo group/s were not detected in the commodity submitted.

Signed for and on behalf of  
SGS-CSTC Chemical Laboratory

Ella Zhang  
Supervisor



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SHCH 298688



# Test Report

No. SH540484/CHEM

Date: 7.7.2005

Page 2 of 4

## Test method

- 1) \*ICP-AES after reference to EN 1122, method B:2001 or other acid digestion.
- 2) \*ICP-AES after reference to US EPA 3050B or other acid digestion.
- 3) \*ICP-AES after reference to US EPA 3052 or other acid digestion.
- 4) With reference to US EPA3060A and US EPA7196A  
Analysis was performed by UV-VIS Spectrometric method.
- 5) With reference to USEPA 8081/8270C/3540C/3550B, Analysis was performed by GC/MS.
- 6) With reference to US EPA 8062, Analysis was performed by GC/MS.
- 7) With reference to US EPA 8081, Analysis was performed by GC/MS.
- 8) With reference to US EPA 8081, Analysis was performed by GC/MS.
- 9) With reference to US EPA 8081, Analysis was performed by GC/MS.
- 10) \*As per NIOSH 9000 method. Analysis was performed by XRD.
- 11) \*\*\* Extraction test on coloured textile – Detection of the use of certain azo colorants in fibres with extractable dyes with the use of Gas Chromatographic Mass Spectrometry (GC-MS) / Thin Layer Chromatography (TLC) Technique.

## Test Results

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

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SHCH 296689



|   |  |     |     |      |
|---|--|-----|-----|------|
|   | PBBEs(PBDEs)(Hexabromobiphenyl ether)  | ppm | 5   | N.D. |
|   | PBBEs(PBDEs)(Heptabromobiphenyl ether) | ppm | 5   | N.D. |
|   | PBBEs(PBDEs)(Octabromobiphenyl ether)  | ppm | 5   | N.D. |
|   | PBBEs(PBDEs)(Nonabromobiphenyl ether)  | ppm | 5   | N.D. |
|   | PBBEs(PBDEs)(Decabromobiphenyl ether)  | ppm | 5   | N.D. |
| 6 | PCBs(Polychlorinated Biphenyls)        | ppm | 0.5 | N.D. |
| 7 | Polychlorinated Naphthalene            | ppm | 5   | N.D. |
| 8 | Chlorinated Paraffin                   | ppm | 30  | N.D. |
| 9 | Mirex                                  | ppm | 0.5 | N.D. |

**10) \*Asbestos content**

| Test Item(s):  | Unit | MDL | Result   |
|----------------|------|-----|----------|
|                |      |     | Δ        |
| Asbestos       |      |     |          |
| Anthrophyllite | **   | -   | Negative |
| Crocidolite    | **   | -   | Negative |
| Amosite        | **   | -   | Negative |
| Tremolite      | **   | -   | Negative |
| Chrysotile     | **   | -   | Negative |
| Actinolite     | **   | -   | Negative |

11) \*\*\*To detection and determination of certain listed aromatic amines derived from Azo Colorants (EN14362-2:2003)

| No. | Amines Substances  | CAS-No.  | Result |
|-----|--|----------|--------|
|     |  |          | Δ      |
| 1.  | 4-aminodiphenyl/xylenamine/<br>Biphenyl-4-ylamine                                  | 92-67-1  | n.d.   |
| 2.  | Benzidin   | 92-87-5  | n.d.   |
| 3.  | 4-chlor-o-toluidine  | 95-69-2  | n.d.   |
| 4.  | 2-naphthylamine  | 91-59-8  | n.d.   |
| 5.  | o-aminoazotoluene/<br>4-o-tolylazo-o-toluidine/<br>4-amino-2',3-dimethylazobenzene | 97-56-3  | n.d.   |
| 6.  | 2-amino-4-nitrotoluol/5-nitro-o-toluidine  | 99-55-8  | n.d.   |
| 7.  | p-chloranilin/4-chloroaniline  | 106-47-8 | n.d.   |
| 8.  | 2,4-diaminoanisol/<br>4-methoxy-m-phenylenediamine                                 | 615-05-4 | n.d.   |
| 9.  | 4,4'-diaminodiphenylmethane/<br>4,4'-methylenedianiline                            | 101-77-9 | n.d.   |
| 10. | 3,3'-dichlorobenzidine/<br>3,3'dichlorobiphenyl-4,4'-ylenediamine                  | 91-94-1  | n.d.   |
| 11. | 3,3'-dimethoxybenzidine/o-dianisidine  | 119-90-4 | n.d.   |
| 12. | 3,3'-dimethylbenzidine/4,4'-bi-o-Toluidine   | 119-93-7 | n.d.   |

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|     |  |          |      |
|-----|--|----------|------|
| 13. | 3,3'-dimethyl-4,4'-diaminodiphenylmethane/<br>4,4'-methylenedi-o-toluidine     | 838-88-0 | n.d. |
| 14. | p-cresidin/6-methoxy-m-toluidine   | 120-71-8 | n.d. |
| 15. | 4,4'-methylen-bis-(2-chloro-aniline)/<br>2,2'-dichloro-4,4'methylene-dianiline | 101-14-4 | n.d. |
| 16. | 4,4'-oxydianiline  | 101-80-4 | n.d. |
| 17. | 4,4'-thiodianiline   | 139-65-1 | n.d. |
| 18. | o-toluidine/2-aminotoluene   | 95-53-4  | n.d. |
| 19. | 2,4-toluylendiamin/<br>4-methyl-m-phenylenediamine                             | 95-80-7  | n.d. |
| 20. | 2,4,5-trimethylaniline   | 137-17-7 | n.d. |
| 21. | 4-aminoazobenzene  | 60-09-3  | n.d. |
| 22. | o-arisidine/ 2-methoxyaniline  | 90-04-0  | n.d. |
| 23. | 2,4-Xylidin  | 95-68-1  | n.d. |
| 24. | 2,6-Xylidin  | 87-62-7  | n.d. |

**Overall Rating**

PASS

Note : n.d. = not detectable  
 Detection Limit = 5 ppm (mg/kg)  
 Requirement: no relevant amine exceeding 30 ppm (mg/kg).

**Forbidden Arylamines for Azo Dye Regulations**

No. 1-22-Commission of the European Communities: Directive 2002/61/EC adopted by the Council on 19 July 2002

No. 1-20, 22-24- Greening Label: Oko-Tex Standard 100-2002 edition (European Countries)

Remarks : Azo colorants that are able to form 4-aminoazobenzene (CASN: 60-09-3),  
 generate under the testing condition into aniline and 1, 4-phenylenediamine.  
 The detection of it can only be ascertained with the chemical structure of the  
 colorant used.

**Sample Appearance Description:**

A. White plastic bar

Note : ppm=mg/kg

MDL= Method Detection Limit

N.D. = Not detected. (<MDL)

\* - = Not Regulation

\*\*= Qualitative analysis(No Unit)

Negative = Undetectable / Positive = Detectable.

\*\*\*These tests were subcontracted to SGS-SHSL TEXTLIE LAB (Date of testing: 2005/06/24-06/28).

\*These tests were subcontracted to SGS Taiwan Ltd (Date of testing: 2005/06/27-07/06).

\*\*\* End of Report \*\*\*

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SHCH 296691



测试报告

编号: SZTYR060100775/LP, 日期: 2006年01月19日 第1页(共1页)

盈盛鑫合实业有限公司  
东莞市虎门镇沙角二轻工业城

本报告是基于对客户所提供的据称为“铁锅镀锌”的样品所做的测试。

收样日期 : 2006年01月10日  
测试周期 : 2006年01月11日至2006年01月18日

- 测试要求 :
- 1) 分析委托样品中的铅含量。
  - 2) 分析委托样品中的镉含量。
  - 3) 分析委托样品中的汞含量。
  - 4) 分析委托样品中的六价铬含量。

- 测试方法 :
- 1) 参照EPA方法3050B:1996/其它酸消解法,分析仪器为原子吸收光谱仪(AAS)。
  - 2) 参照EN1122:2001方法/其它酸消解法,分析仪器为电感耦合等离子发射光谱仪(ICP-AES)。
  - 3) 参照EPA方法3052:1996/其它酸消解法,分析仪器为电感耦合等离子发射光谱仪。
  - 4) 参照EPA方法3060A:1996及7196A:1992比色法。

测试结果

|                 | 检出限   |
|-----------------|-------|
| 1) 铅 [Pb]       | 2 ppm |
| 2) 镉 [Cd]       | 2 ppm |
| 3) 汞 [Hg]       | 2 ppm |
| 4) 六价铬 [Cr(VI)] | 2 ppm |

说明: N.D. = 未检出(低于检出限)  
ppm = 毫克/千克

\*\*\* 报告完 \*\*\*

Signed for and on behalf of  
SGS-CSTC Ltd.

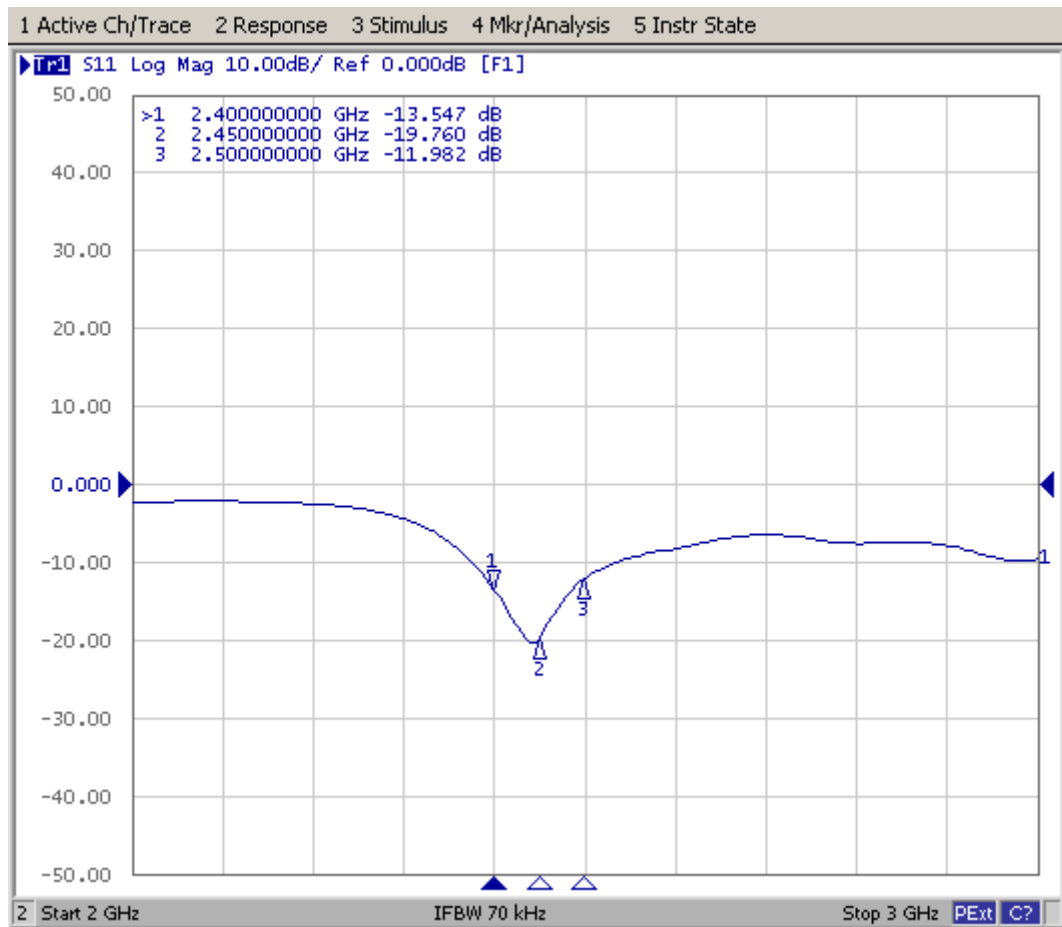
  
Li Ying, Susan  
Section Manager



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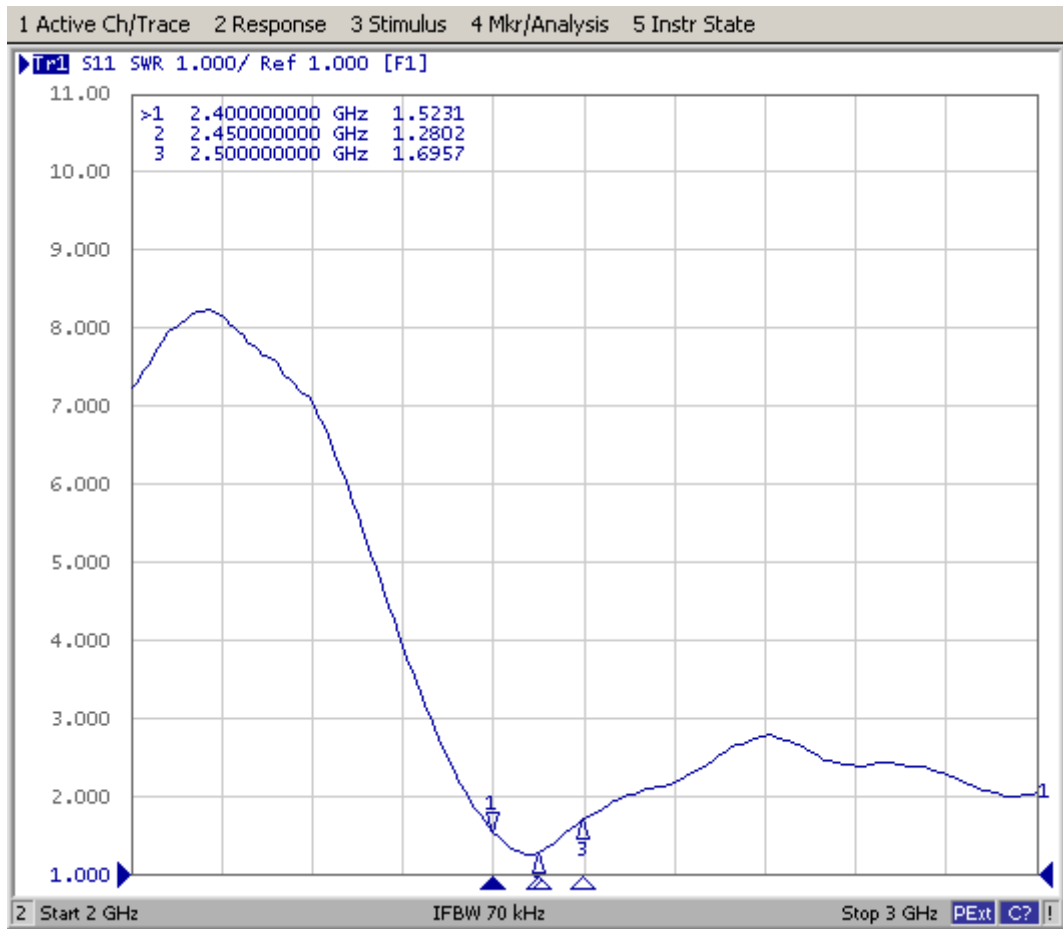
# Electrical Properties

## Return Loss



# Electrical Properties

## V.S.W.R





# Electrical Properties

## Radiation Pattern – H Plane

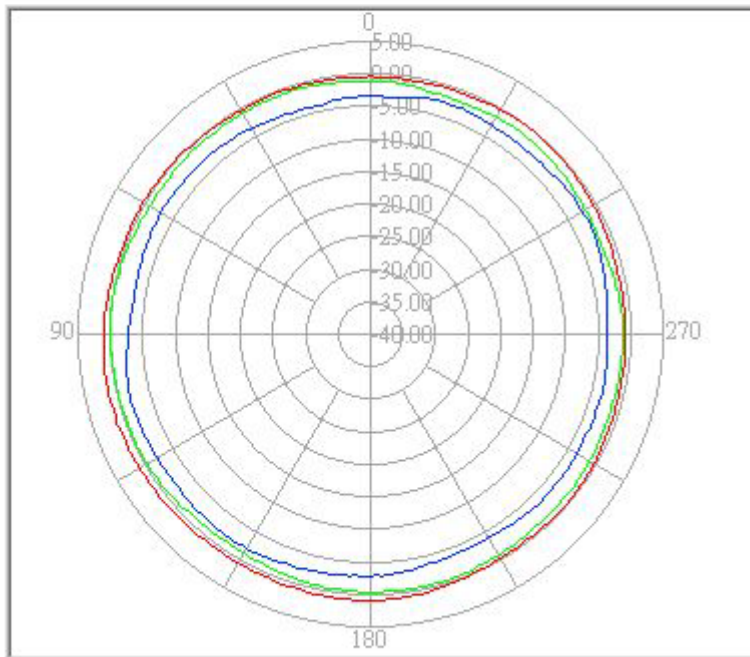


萬旭電業股份有限公司

**Model No:** Q BAND FL 1.13

**Antenna Position:** Vertical

**Test Mode:** H-PLANE



| Freq(MHz) | peak(dBi) | Angle(o) | Avg(dBi) |
|-----------|-----------|----------|----------|
| 2400.00   | 0.12      | 274.29   | -0.83    |
| 2450.00   | 1.28      | 258.37   | 0.20     |
| 2500.00   | -1.80     | 254.69   | -2.87    |



# Electrical Properties

## Radiation Pattern – E Plane

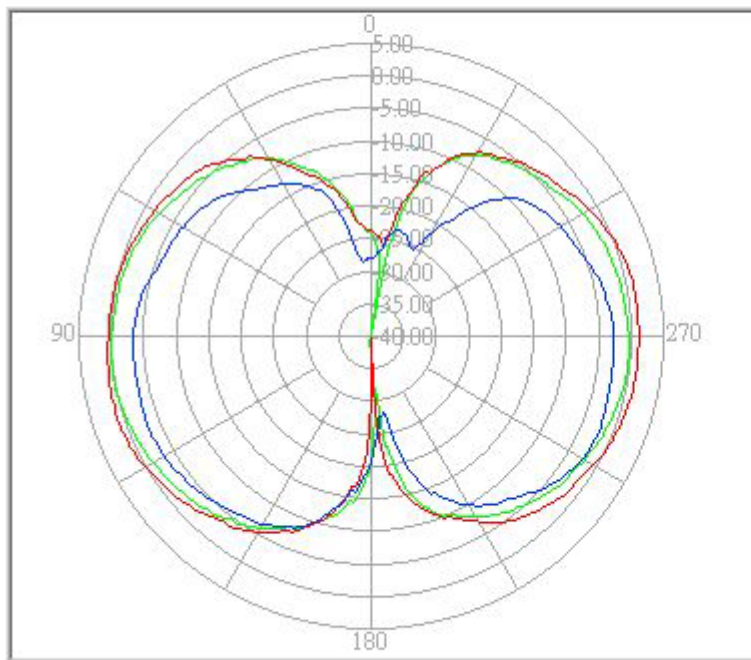


# 萬旭電業股份有限公司

**Model No:** Q BAND FL 1.13

**Antenna Position:** Horizontal

**Test Mode:** E-PLANE



| Freq (MHz) | peak (dBi) | Angle (o) | Avg (dBi) |
|------------|------------|-----------|-----------|
| 2400.00    | 0.19       | 262.04    | -3.61     |
| 2450.00    | 1.20       | 97.96     | -2.45     |
| 2500.00    | -2.06      | 113.88    | -6.30     |

# Coaxial Cable Data Sheet

RG-178

## SPECIFICATION FOR APPROVAL

DOCUMENT: A30178B001

---

STYLE : 105°C 30V  
RG-178B/U

---

SIZE: 7/0.102 SCCS

---

RECOGNIZED: UL 1979

---



WONDERFUL HI-TECH 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 HI-TECH CO., LTD**  
**SPECIFICATION**

|                     |   |                                 |                                    |
|---------------------|---|---------------------------------|------------------------------------|
| STYLE               | 105°C 30V<br>UL1979   | DOCUMENT NO :<br>A30178B001     |                                    |
| SIZE                | RG-178B/U   | ESTABLISHED DATE:<br>2004/03/22 |                                    |
| 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 ±0.03                         |
|                     | 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             |   |                                 |                                    |
| Drawing             |  |                                 |                                    |

AK001/210X297/1.0

PAGE : 1

EDITION : 1.2

MAKER : C.Y.CHEN

CONFIRM : S.N.WONG

APPROVAL : W.J.WANG

 **WONDERFUL HI-TECH CO., LTD.**  
**SPECIFICATION**

| Electrical & Physical Properties |        |                       |   |        |        |      |
|----------------------------------|--------|-----------------------|---|--------|--------|------|
| Item                             |        | RG-178B/U             |   |        |        |      |
| Rating Temp Voltage              |        | 105°C 30V             |   |        |        |      |
| Conductor Resistance             |        | 838 OHM/KM/20°C MAX.  |   |        |        |      |
| Insulation Resistance            |        | 3000 MEGA OHM/KM MIN. |   |        |        |      |
| Dielectric Strength              |        | AC 500V/Minute        |   |        |        |      |
| Spark Test                       |        | 2.5 KV                |   |        |        |      |
| Insulation                       | Unaged | Tensile Strength      | 2500 PSI MIN.( 1.76 Kg / m <sup>2</sup> ) |        |        |      |
|                                  |        | Elongation            | 200% MIN.                                 |        |        |      |
|                                  | Aged   | Tensile Strength      | UNAGED MIN 75%(168HRS×232°C)              |        |        |      |
|                                  |        | Elongation            | UNAGED MIN 75%(168HRS×232°C)              |        |        |      |
| Jacket                           | Unaged | Tensile Strength      | 2500 PSI MIN.( 1.76 Kg / m <sup>2</sup> ) |        |        |      |
|                                  |        | Elongation            | 200% MIN.                                 |        |        |      |
|                                  | Aged   | Tensile Strength      | UNAGED MIN.75%(168HRS×232°C)              |        |        |      |
|                                  |        | Elongation            | UNAGED MIN.75%(168HRS×232°C)              |        |        |      |
| Nom. Impedance                   |        | 50 Ohms               |   |        |        |      |
| Nom. Capacitance                 |        | 95.8 pF/m             |   |        |        |      |
| Nom. Vel. of Prop.               |        | 69.5%                 |   |        |        |      |
| VSWR (0 – 6 GHZ)                 |        | UNDER 1.3             |   |        |        |      |
| Attenuation<br>(dB/100m)         | 100MHz | 1GHz                  | 1.8GHz                                    | 2.4GHz | 5.2GHz | 6GHz |
|                                  | 46     | 155                   | 295                                       | 340    | 505    | 550  |

AK001/210X297/1.0

PAGE : 2

EDITION : 1.2

MAKER : C.Y.CHEN

CONFIRM : S.N.WONG

APPROVAL : W.J.WANG



## Test Report

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

Report No. : CE/2006/10628  
Date : 2006/01/10  
Page : 1 of 5

**The following merchandise was (were) submitted and identified by the client as :**

Type of Product : RF COAXIAL CABLE  
Style/Item No : RG-316/U, RG-179/U, RG-178B/U, RF-405A  
Sample Received : 2006/01/03  
Testing Date : 2006/01/03 TO 2006/01/10

---

**Test Result** : - Please see the next page -

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

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WONDERFUL HI-TECH CO., LTD.  
NO. 17, PEI-YUAN ROAD, CHUNG-LI IND., PARK,  
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### Test Result

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

| Test Item (s):  | Unit | Method  | MDL   | Result |      |      |      |
|---|------|---|---|--------|------|------|------|
|   |      |   |   | No.1   | No.2 | No.3 | No.4 |
| Monobromobiphenyl   | %    | With reference to USEPA3540C or USEPA3550C. Analysis was performed by HPLC/DAD, LC/MS or GC/MS. (prohibited by 2002/95/EC (RoHS), 83/264/EEC, and 76/769/EEC) | 0.0005  | ---    | N.D. | ---  | N.D. |
| Dibromobiphenyl   | %    |   | 0.0005  | ---    | N.D. | ---  | N.D. |
| Tribromobiphenyl  | %    |   | 0.0005  | ---    | N.D. | ---  | N.D. |
| Tetrabromobiphenyl  | %    |   | 0.0005  | ---    | N.D. | ---  | N.D. |
| Pentabromobiphenyl  | %    |   | 0.0005  | ---    | N.D. | ---  | N.D. |
| Hexabromobiphenyl   | %    |   | 0.0005  | ---    | N.D. | ---  | N.D. |
| Heptabromobiphenyl  | %    |   | 0.0005  | ---    | N.D. | ---  | N.D. |
| Octabromobiphenyl   | %    |   | 0.0005  | ---    | N.D. | ---  | N.D. |
| Nonabromobiphenyl   | %    |   | 0.0005  | ---    | N.D. | ---  | N.D. |
| Decabromobiphenyl   | %    |   | 0.0005  | ---    | N.D. | ---  | N.D. |
| <b>Total PBBs (Polybrominated biphenyls)/Sum of above</b>               | %    |   | -   | ---    | N.D. | ---  | N.D. |
| Monobromobiphenyl ether   | %    |   | With reference to USEPA3540C or USEPA3550C. Analysis was performed by HPLC/DAD, LC/MS or GC/MS. (prohibited by 2002/95/EC (RoHS), 83/264/EEC, and 76/769/EEC) | 0.0005 | ---  | N.D. | ---  |
| Dibromobiphenyl ether   | %    | 0.0005  |   | ---    | N.D. | ---  | N.D. |
| Tribromobiphenyl ether  | %    | 0.0005  |   | ---    | N.D. | ---  | N.D. |
| Tetrabromobiphenyl ether  | %    | 0.0005  |   | ---    | N.D. | ---  | N.D. |
| Pentabromobiphenyl ether  | %    | 0.0005  |   | ---    | N.D. | ---  | N.D. |
| Hexabromobiphenyl ether   | %    | 0.0005  |   | ---    | N.D. | ---  | N.D. |
| Heptabromobiphenyl ether  | %    | 0.0005  |   | ---    | N.D. | ---  | N.D. |
| Octabromobiphenyl ether   | %    | 0.0005  |   | ---    | N.D. | ---  | N.D. |
| Nonabromobiphenyl ether   | %    | 0.0005  |   | ---    | N.D. | ---  | N.D. |
| Decabromobiphenyl ether   | %    | 0.0005  |   | ---    | N.D. | ---  | N.D. |
| <b>Total PBBEs(PBDEs) (Polybrominated biphenyl ethers)/Sum of above</b> | %    | -   |   | ---    | N.D. | ---  | N.D. |
| <b>Total of Mono to Nona-brominated biphenyl ether. (Note 4)</b>        | %    | -   |   | ---    | N.D. | ---  | N.D. |

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## Test Report

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

Report No. : CE/2006/10628  
Date : 2006/01/10  
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| Test Item (s)      | Unit | Method   | MDL | Result |      |      |      |
|--------------------|------|--|-----|--------|------|------|------|
|                    |      |  |     | No.1   | No.2 | No.3 | No.4 |
| Chromium VI (Cr+6) | ppm  | UV-VIS after reference to US EPA 3060A.                                    | 2   | N.D.   | N.D. | N.D. | N.D. |
| Cadmium (Cd)       | ppm  | ICP-AES after reference to EN 1122, method B:2001 or other acid digestion. | 2   | N.D.   | N.D. | N.D. | N.D. |
| Mercury (Hg)       | ppm  | ICP-AES after reference to US EPA 3052 or other acid digestion.            | 2   | N.D.   | N.D. | N.D. | N.D. |
| Lead (Pb)          | ppm  | ICP-AES after reference to US EPA 3050B or other acid digestion.           | 2   | N.D.   | N.D. | N.D. | N.D. |

- NOTE: (1) N.D. = Not detected (<MDL)  
(2) ppm = mg/kg  
(3) MDL = Method Detection Limit  
(4) Decabromodiphenyl ether (DecaBDE) in polymeric applications is exempted by Commission Decision of 13 Oct 2005 amending Directive 2002/95/EC notified under document 2005/717/EC.  
(5) PBBEs=PBDEs=Polybrominated Diphenyl Ethers=PBDOs=PBBOs,  
(6) " - " = Not Regulation  
(7) " --- " = Not Applicable

## Test Report

WONDERFUL HI-TECH CO., LTD.  
NO. 17, PEI-YUAN ROAD, CHUNG-LI IND., PARK,  
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Date : 2006/01/10  
Page : 5 of 5



# Housing Material Data Sheet

## ● Housing - TPU

# TPU

熱塑性聚脲脂



Desmopan®

| Items<br>項目   | Test Methods<br>試驗方法                                  |      | Unit<br>單位        | 192  | 385  | 588  | KU 2-8600            |
|---|---|------|-------------------|--|--|--|----------------------|
|   | DIN   | ISO  |                   | 8092   | 8085   |  |                      |
| <b>Mechanical Properties 機械特性</b>   |   |      |                   |  |  |  |                      |
| Tensile Yield Strength 拉伸屈服強度   | 53504   | 37   | MPa               | 45   | 40   | 30   | 40                   |
| Elongation at Break 延伸率   | 53504   | 37   | %                 | 450  | 450  | 500  | 500                  |
| Compression Set 壓縮變形<br>70 hr at 22°C   | 53517   | -    | %                 | 25   | 30   | 30   | 25                   |
|   | 53517   | -    | %                 | 60   | 55   | 65   | 42                   |
| <b>Physical Properties 物理特性</b>   |   |      |                   |  |  |  |                      |
| Shore A Hardness 硬度   | 53505   | 868  | -                 | 94   | 85   | 88   | 82                   |
| Shore D Hardness 硬度   | 53505   | 868  | -                 | 42   | 32   | 33   | 31                   |
| Modulus of Elasticity   | 53455   | -    | MPa               | 45   | 15   | 30   | 12                   |
| Abrasion Resistance(Loss)   | 53516   | 4649 | mm <sup>3</sup>   | 30   | 30   | 60   | 20                   |
| Rebound Resilience  | 53512   | 4662 | %                 | 30   | 42   | 36   | 45                   |
| Tear Propagation Resistance   | 53515   | -    | kN/m              | 90   | 70   | 55   | 50                   |
| Density 密度  | 53479   | 1183 | g/cm <sup>3</sup> | 1.23   | 1.20   | 1.15   | 1.11                 |
| <b>Electrical Properties 電氣特性</b>   |   |      |                   |  |  |  |                      |
| Dielectric Strength 耐電平<br>(50Hz,0.5kV/s)<br>1. Dry<br>2. 4 days at 80% r.h.<br>3. 24 h immersion in water    | IEC 243,<br>VDE 0303/part 2<br>95mm Ø-1mm             |      | kV/mm             | 14.8<br>13.7<br>13.9   | 17.5<br>17.6<br>17.7   | 20.2<br>20.0<br>20.1   | NA<br>NA<br>NA       |
|   | IEC 93,<br>VDE 0303/part 3<br>Standard test piece     |      | Ohm               | 1-10 <sup>12</sup><br>2-10 <sup>11</sup><br>2-10 <sup>11</sup> | 5-10 <sup>11</sup><br>8-10 <sup>11</sup><br>5-10 <sup>11</sup> | 6-10 <sup>11</sup><br>7-10 <sup>10</sup><br>7-10 <sup>10</sup> | NA<br>NA<br>NA       |
|   | IEC 167,<br>VDE 0303/part 3<br>Standard test piece    |      | Ohm               | 5-10 <sup>12</sup><br>1-10 <sup>12</sup><br>2-10 <sup>11</sup> | 4-10 <sup>11</sup><br>7-10 <sup>10</sup><br>7-10 <sup>10</sup> | 1-10 <sup>12</sup><br>1-10 <sup>11</sup><br>1-10 <sup>10</sup> | NA<br>NA<br>NA       |
| Volume Resistivity<br>1,000V, 1-minute Value<br>1. Dry<br>2. 4 days at 80% r.h.<br>3. 24 h immersion in water | IEC 93,<br>VDE 0303/part 3<br>95mm Ø-1mm              |      | Ohm-cm            | 5-10 <sup>12</sup><br>7-10 <sup>12</sup><br>2-10 <sup>11</sup> | 8-10 <sup>11</sup><br>2-10 <sup>11</sup><br>1-10 <sup>11</sup> | 3-10 <sup>12</sup><br>2-10 <sup>11</sup><br>8-10 <sup>10</sup> | NA<br>NA<br>NA       |
|   | IEC 250,<br>VDE 0303/part 4<br>95mm and 50mmØ-<br>1mm |      |                   | 6.6<br>6.3<br>5.1<br>3.6                                       | 6.5<br>6.4<br>5.6<br>3.8                                       | 6.3<br>6.1<br>5.0<br>3.4                                       | NA<br>NA<br>NA<br>NA |
|   | IEC 250,<br>VDE 0303/part 4<br>95mm and 50mmØ-<br>1mm |      |                   | 0.025<br>0.034<br>0.075<br>0.022                               | 0.029<br>0.018<br>0.060<br>0.032                               | 0.024<br>0.025<br>0.084<br>0.024                               | NA<br>NA<br>NA<br>NA |
| Comparative Tracking Index(CTI)<br>(test solution A)  | IEC 112,<br>VDE 0303/part 1<br>20mm-15mm-4mm          |      | Grading           | 500  | 500  | 500  | NA                   |
| <b>Raw Material Groups 原料分類</b>   |   |      |                   | Ester  |  | Special Ester  | Ether                |

UL File No.:E41613(M)

The data are intended as a general guide only, makes no guarantee of results and assumes no obligation or liability. 以上數據僅供參考，不保證數據的準確性。

011-7



10. 杜士 (S) 高字  
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化學實驗室 - 高雄

試驗報告

報告號碼: KE/2005/B1411  
日期: 2005/11/25  
頁數: 1 OF 2

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申請廠商 : 南亞塑膠工業股份有限公司樹林一廠.  
樣品名稱 : TPU(如樣品卡).  
樣品顏色 : 透明.  
樣品型號 : TI90AA.  
樣品材質 : 二元醇, 二異氰酸鹽.  
測試執行日期 : 2005/11/21 TO 2005/11/25.  
送樣日期 : 2005/11/21.  
送樣廠商 : 南亞塑膠工業股份有限公司樹林一廠.

測試結果:

| 測試項目 | 單位  | 測試方法      | 儀器偵測極限 | 測試結果 |
|------|-----|-----------|--------|------|
| 銅    | ppm | DIN 54020 | 0.020  | n.d. |
| 鎘    | ppm | DIN 54020 | 0.025  | n.d. |
| 鉛    | ppm | DIN 54020 | 0.020  | n.d. |
| 鉍    | ppm | DIN 54020 | 0.020  | n.d. |
| 鎘    | ppm | DIN 54020 | 0.015  | n.d. |
| 鎳    | ppm | DIN 54020 | 0.010  | n.d. |
| 鉻    | ppm | DIN 54020 | 0.050  | n.d. |

陳桂蘭  
陳桂蘭/副主任



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2005-12-13 14:07 FROM TO 27138248 P.01

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試驗報告

報告號碼: KE/2005/B1411  
日期: 2005/11/25  
頁數: 2 OF 2

| 測試項目                 | 單位  | 測試方法                                  | 方法偵測極限 | 測試結果 |
|----------------------|-----|---------------------------------------|--------|------|
| 三丁基錫 (TBT)           | ppm | DIN 38407-13                          | 0.015  | n.d. |
| 可塑劑                  | --- | ---                                   | ---    | ---  |
| 苯二甲酸二(2-乙己基)酯 (DEHP) | ppm | CHROMATOGRAPHIA<br>VOL.47,NO.784,1998 | 30     | n.d. |
| 苯二甲酸二異癸酯 (DIDP)      | ppm | CHROMATOGRAPHIA<br>VOL.47,NO.784,1998 | 30     | n.d. |
| 苯二甲酸正辛酯 (DNOP)       | ppm | CHROMATOGRAPHIA<br>VOL.47,NO.784,1998 | 30     | n.d. |
| 苯二甲酸二丁酯 (DBP)        | ppm | CHROMATOGRAPHIA<br>VOL.47,NO.784,1998 | 30     | n.d. |
| 鄰-苯二甲酸丁酞苯甲酯 (BBP)    | ppm | CHROMATOGRAPHIA<br>VOL.47,NO.784,1998 | 30     | n.d. |
| 苯二甲酸二異壬酯 (DINP)      | ppm | CHROMATOGRAPHIA<br>VOL.47,NO.784,1998 | 30     | n.d. |

備註: n.d. = 未偵測出

<END>



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|--------|-----------------------------|
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| 樣品名稱   | : TPU(如樣品卡).                |
| 樣品顏色   | : 透明.                       |
| 樣品型號   | : TI95AA.                   |
| 樣品材質   | : 二元醇, 二異氰酸鹽.               |
| 測試執行日期 | : 2005/11/21 TO 2005/11/25. |
| 送樣日期   | : 2005/11/21.               |
| 送樣廠商   | : 南亞塑膠工業股份有限公司樹林一廠.         |

測試結果:

| 測試項目 | 單位  | 測試方法      | 儀器偵測極限 | 測試結果 |
|------|-----|-----------|--------|------|
| 銅    | ppm | DIN 54020 | 0.020  | n.d. |
| 鎘    | ppm | DIN 54020 | 0.025  | n.d. |
| 鉛    | ppm | DIN 54020 | 0.020  | n.d. |
| 鉍    | ppm | DIN 54020 | 0.020  | n.d. |
| 鎘    | ppm | DIN 54020 | 0.015  | n.d. |
| 鎳    | ppm | DIN 54020 | 0.010  | n.d. |
| 鉻    | ppm | DIN 54020 | 0.050  | n.d. |



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試驗報告

報告號碼: KE/2005/B1412

日期: 2005/11/25

頁數: 2 OF 2

| 測試項目                 | 單位  | 測試方法                                  | 方法偵測極限 | 測試結果 |
|----------------------|-----|---------------------------------------|--------|------|
| 三丁基錫 (TBT)           | ppm | DIN 38407-13                          | 0.015  | n.d. |
| 可塑劑                  | --- | ---                                   | ---    | ---  |
| 苯二甲酸二(2-乙己基)酯 (DEHP) | ppm | CHROMATOGRAPHIA<br>VOL.47,NO.784,1998 | 30     | n.d. |
| 苯二甲酸二異癸酯 (DIDP)      | ppm | CHROMATOGRAPHIA<br>VOL.47,NO.784,1998 | 30     | n.d. |
| 苯二甲酸正辛酯 (DNOP)       | ppm | CHROMATOGRAPHIA<br>VOL.47,NO.784,1998 | 30     | n.d. |
| 苯二甲酸二丁酯 (DBP)        | ppm | CHROMATOGRAPHIA<br>VOL.47,NO.784,1998 | 30     | n.d. |
| 鄰-苯二甲酸丁酯苯甲酯 (BBP)    | ppm | CHROMATOGRAPHIA<br>VOL.47,NO.784,1998 | 30     | n.d. |
| 苯二甲酸二異壬酯 (DINP)      | ppm | CHROMATOGRAPHIA<br>VOL.47,NO.784,1998 | 30     | n.d. |

備註: n.d. = 未偵測出

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|   |   |
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| <b>SHINBLEND®</b><br><b>ALLOY</b><br>ENGINEERING PLASTIC DIVISION | <b>SHINKONG SYNTHETIC FIBERS CORPORATION</b><br>新光合成纖維股份有限公司<br>No. 77, 123, Sec. 2, Nanjing Road, Taipei, Taiwan<br>Tel: 886-2-2507-9131 886-2-2507-1111 886-2-2507-9720<br>Fax: 886-2-2506-8117 886-2-2506-8541 |
|---|---|

Technical Data

|   |
|---|
| <b>SHINBLEND®</b><br><b>A724NA</b><br>High Impact Grade / 高衝擊級 - AD4011 |
|---|

|                                   |       | Unit               | Test Method | Values  |
|-----------------------------------|-------|--------------------|-------------|---------|
| <b>Mechanical properties</b> 機械性質 |       |                    |             |         |
| Izod Impact(Notched) 23°C         | 衝擊強度  | Kg-cm/cm           | ASTM D256   | 85      |
| -20°C                             | 衝擊強度  | Kg-cm/cm           | ASTM D256   | 70      |
| -40°C                             | 衝擊強度  | Kg-cm/cm           | ASTM D256   | 65      |
| Tensile Strength                  | 拉伸強度  | Kg/cm <sup>2</sup> | ASTM D638   | 540     |
| Elongation                        | 拉伸率   | %                  | ASTM D638   | 100     |
| Flexural Strength                 | 彎曲強度  | Kg/cm <sup>2</sup> | ASTM D790   | 800     |
| Flexural Modulus                  | 彎曲模數  | Kg/cm <sup>2</sup> | ASTM D790   | 20000   |
| <b>Thermal properties</b> 熱性質     |       |                    |             |         |
| Heat Deflection Temperature       | 熱變形溫度 |                    | ASTM D648   |         |
| 66psi                             |       | °C                 |             | -       |
| 264psi                            |       | °C                 |             | 100     |
| Flammability                      | 防火性   | -                  | UL94        | -       |
| Melting Point                     | 熔點    | °C                 | DSC         | 223     |
| <b>Electrical properties</b> 電氣性質 |       |                    |             |         |
| Dielectric Strength               | 介電強度  | KV/MM              | ASTM D149   | -       |
| Dielectric Constant               | 介電常數  | ...                | ASTM D150   | -       |
| Volume Resistivity                | 體積電阻  | Ω-CM               | ASTM D257   | -       |
| <b>Other properties</b> 其它性質      |       |                    |             |         |
| Specific Gravity                  | 比重    | -                  | ASTM D792   | 1.19    |
| Water Absorption                  | 吸水率   | %                  | ASTM D570   | 0.14    |
| Mold Shrinkage                    | 成形收縮率 |                    | ASTM D955   |         |
| Flow                              | 流動方向  | %                  |             | 0.4-0.6 |
| Cross Flow                        | 垂直方向  | %                  |             | 0.5-0.7 |

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# Test Report

SHINKONG SYNTHETIC FIBERS CORPORATION  
BF., NO.123, SEC. 2, NANKING E. RD., TAIPEI, TAIWAN

Report No. : CE/2006/13401  
Date : 2006/01/19  
Page : 1 of 5

The following merchandise was (were) submitted and identified by the client as :

|                     |   |                                       |
|---------------------|---|---------------------------------------|
| Type of Product     | : | THERMOPLASTIC POLYESTER RESIN         |
| Style/Item No       | : | A724NA                                |
| Manufacturer/Vendor | : | SHINKONG SYNTHETIC FIBERS CORPORATION |
| Sample Received     | : | 2006/01/12                            |
| Testing Date        | : | 2006/01/12 TO 2006/01/19              |

Test Result : - Please see the next page -

  
Daniel Yen, M.A., Operation Manager  
Signed for and on behalf of  
SGS TAIWAN LTD.

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204 TAIWAN (R.O.C.) | NO. 123, SEC. 2, NANKING E. RD., TAIPEI, TAIWAN  
1099-01 12318101 13401 13401 www.sgs.com.tw



# Test Report

SHINKONG SYNTHETIC FIBERS CORPORATION  
 8F., NO.123, SEC. 2, NANKING E. RD., TAIPEI, TAIWAN

Report No. : CE/2006/13401  
 Date : 2006/01/19  
 Page : 2 of 5

## Test Result

PART NAME NO. 1 : WHITE PLASTIC PELLETS

| Test Item (s):  | Unit | Method   | MDL    | Result |
|---|------|--|--------|--------|
|   |      |  |        | No. 1  |
| Monobromobiphenyl   | %    | With reference to USEPA3540C or USEPA3550C. Analysis was performed by HPLC/DAD, LC/MS or GC/MS (prohibited by 2002/95/EC (RoHS), 83/264/EEC, and 76/769/EEC) | 0.0005 | N.D.   |
| Dibromobiphenyl   | %    |  | 0.0005 | N.D.   |
| Tri bromobiphenyl   | %    |  | 0.0005 | N.D.   |
| Tetrabromobiphenyl  | %    |  | 0.0005 | N.D.   |
| Pentabromobiphenyl  | %    |  | 0.0005 | N.D.   |
| Hexabromobiphenyl   | %    |  | 0.0005 | N.D.   |
| Heptabromobiphenyl  | %    |  | 0.0005 | N.D.   |
| Octabromobiphenyl   | %    |  | 0.0005 | N.D.   |
| Nonabromobiphenyl   | %    |  | 0.0005 | N.D.   |
| Decabromobiphenyl   | %    |  | 0.0005 | N.D.   |
| Total PBBs (Polybrominated biphenyls)/Sum of above                | %    |  | 0.0005 | N.D.   |
| Monobromobiphenyl ether   | %    | With reference to USEPA3540C or USEPA3550C. Analysis was performed by HPLC/DAD, LC/MS or GC/MS (prohibited by 2002/95/EC (RoHS), 83/264/EEC, and 76/769/EEC) | 0.0005 | N.D.   |
| Dibromobiphenyl ether   | %    |  | 0.0005 | N.D.   |
| Tri bromobiphenyl ether   | %    |  | 0.0005 | N.D.   |
| Tetrabromobiphenyl ether  | %    |  | 0.0005 | N.D.   |
| Pentabromobiphenyl ether  | %    |  | 0.0005 | N.D.   |
| Hexabromobiphenyl ether   | %    |  | 0.0005 | N.D.   |
| Heptabromobiphenyl ether  | %    |  | 0.0005 | N.D.   |
| Octabromobiphenyl ether   | %    |  | 0.0005 | N.D.   |
| Nonabromobiphenyl ether   | %    |  | 0.0005 | N.D.   |
| Decabromobiphenyl ether   | %    |  | 0.0005 | N.D.   |
| Total PBDEs (PBDEs) (Polybrominated biphenyl ethers)/Sum of above | %    |  | 0.0005 | N.D.   |
| Total of Mono to Nona-brominated biphenyl ether. (Note 4)         | %    |  |        | N.D.   |

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SGS Taiwan Branch Ltd. NO. 123-1, Wu Kong Road, Wu Kong Industrial Zone, Taipei 10699, Taiwan. TEL: 886-2-27822222 FAX: 886-2-27822227 www.sgs.com.tw



## Test Report

SHINKONG SYNTHETIC FIBERS CORPORATION  
8F., NO.123, SEC. 2, NANKING R. RD., TAIPEI, TAIWAN

Report No. : CE/2006/13401  
Date : 2006/01/19  
Page : 3 of 5

| Test Item (s)      | Unit | Method  | MDL | Result |
|--------------------|------|---|-----|--------|
|                    |      |   |     | No.1   |
| Chromium VI (Cr+6) | ppm  | UV-VIS after reference to US EPA 3060A.                         | 2   | N.D.   |
| Cadmium (Cd)       | ppm  | ICP-AES after reference to US EPA 3052 or other acid digestion. | 2   | N.D.   |
| Mercury (Hg)       | ppm  | ICP-AES after reference to US EPA 3052 or other acid digestion. | 2   | N.D.   |
| Lead (Pb)          | ppm  | ICP-AES after reference to US EPA 3052 or other acid digestion. | 2   | N.D.   |

- NOTE: (1) N.D. = Not detected (<MDL)  
(2) ppm = mg/kg  
(3) MDL = Method Detection Limit  
(4) Decabromodiphenyl ether (DecaBDE) in polymeric applications is exempted by Commission Decision of 13 Oct 2005 amending Directive 2002/95/EC notified under document 2005/717/EC.  
(5) PBBEs=PBDEs=Polybrominated Diphenyl Ethers=PBDOs=PBBOs  
(6) " - " = Not Regulation

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SGS  
No. 123-1, W. Kang Road, Wuku Industrial Zone, Taipei 10028, Taiwan  
886-2-27083031 (ext. 3229-3237) www.sgs.com.tw

00 XVA YVJ 11:51 C102 80 21  
10:01 9002/20 01







## Test Report

SHINKONG SYNTHETIC FIBERS CORPORATION  
8F., NO.123, SEC. 2, NANKING S. RD., TAIPEI, TAIWAN

Report No. : CE/2006/13401  
Date : 2006/01/19  
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SGS TESTING LIMITED | NO. 136-1, Wu Kang Road, Wu Kang Industrial Zone, Taipei county, Taiwan  
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5000  
03

17:09 2013 10:12 FAX 00  
15/02/2006 13:01 FAX 00

# PCB



## Test Report

No.: GZSCR050105457/LP

Date: FEB 04, 2005

Page 1 of 1

HIP WAH P.C.B. LTD.  
72 LIAN YUAN DONG ROAD,  
SHIQI, ZHONGSHAN CITY,  
GUANGDONG PROVINCE P.R.C.

Report on the submitted sample said to be P.C.B (001-00030-002) 产品类型: 松香板

SGS Ref No. : SZ050101718EC-3.2  
Sample Receiving Date : JAN 31, 2005  
Testing Period : JAN 31, 2005 TO FEB 04, 2005

Test Requested : As specified by client, to determine the Lead, Cadmium, Mercury & Hexavalent Chromium content in the submitted sample.

Test Method : Lead content - In house method, with reference to EPA method 3050B: 1996.  
Cadmium content - In house method, with reference to BS EN1122: 2001 method B.  
Mercury content - In house method, with reference to EPA 3052: 1996.  
Hexavalent Chromium content - With reference to EPA 3090A: 1996 & EPA 7196A: 1992.  
Analysis was performed by Inductively Coupled Plasma Atomic Emission Spectrometer (ICP-AES) / UV-VIS Spectrophotometer.

### RESULTS

|                                      | PCB  |
|--------------------------------------|------|
| Lead Content (Pb) (ppm)              | 4    |
| Cadmium Content (Cd)                 | N.D. |
| Mercury Content (Hg)                 | N.D. |
| Hexavalent Chromium Content [Cr(VI)] | N.D. |

Note: - N.D. = Not Detected (< 2 ppm)  
- ppm = mg/kg

\*\*\* End of Report \*\*\*

Signed for and on behalf of  
SGS-CSTC Ltd.

  
He Xiaoyan, Jane  
Tech. Manager

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SGS-CSTC (Shenzhen) Technical Service Co., Ltd.  
Shenzhen Branch (General Laboratory)

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中国广东省深圳市宝安区西乡街道铁岗社区铁岗山1号 电话: 510882 511882

GTIM 192002

8-01 1-03 www.sgs.com  
1-36-21 1-0300 +86 755 8169 8888



Test Report

No. 2032963.00

Date: Aug 18 2005

Page 1 of 1

HIP WAH P.C.B. LTD.
72 LAN YUAN DONG ROAD, SHANGHAI, CHINA GUANG DONG PROVINCE P.R.C.

Report on the submitted sample 88210000 P.C.B. 88210000

SGS Job No. : 1837658
SGS Ref. No. : SZEC0050818108EC-3.1
Sample Receiving Date : AUG 10 2005
Testing Period : AUG 11 - 16 2005

Test Requested : To determine PBBs (polybrominated biphenyls) and PBDEs (Polybrominated diphenylethers) of the submitted sample.

Test Method : With reference to SGS in-house method. Analysis was performed by GC/MS or LC/MS

Test Results

Table with 3 columns: Flame Retardants, Result, and Detection Limit. Rows include Polybrominated Biphenyls (PBBs) from Monobromobiphenyl to Decabromobiphenyl, and Polybrominated Diphenylethers (PBDEs) from Monobromodiphenyl ether to Decabromodiphenyl ether. All results are ND (Not Detected).

Note : ppm = mg/kg
ND = Not Detected
Not detected was reported when the reading is less than detection limit value

Sample Description:

1. Pale yellow Glass Fiber (PCB) w/ Black, White and Green Printing w/ Bronze Metal

Remark : Test was conducted in SGS Hong Kong Limited

Signed for and on behalf of
SGS Hong Kong Limited

Wen Chi Wai, Leo
Technical Manager

\*\*\* End of Report \*\*\*

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# Rivet



## Test Report

WANSEIE ELECTRONIC CO., LTD.  
3F 72 WU KONG 6TH RD., WU KU INDUSTRIAL DISTRICT  
TAIPEI HSIEN, TAIWAN, R. O. C.

報告號碼 : CE/2005/B4807  
日期 : 2005/11/28  
頁數 : 1 of 2

以下測試樣品乃供應廠商所提供及確認：

樣品名稱 : 固定鉚釘 (黑鍍)  
收件日期 : 2005/11/21.  
測試日期 : 2005/11/21 TO 2005/11/28

### 測試結果

測試部位 NO.1 : 黑色鉚釘

| 測試項目 | 單位  | 測試方法  | 偵測極限值 | 結果   |
|------|-----|---|-------|------|
|      |     |   |       | NO.1 |
| 六價鉻  | ppm | 依照US EPA 3060A方法, 用UV-VIS做分析                          | 2     | N.D. |
| 鎘    | ppm | 依照 EN1122 方法B:2001或其他酸消化方法,用感應耦合電漿原子發射光譜儀(ICP-AES)做分析 | 2     | N.D. |
| 汞    | ppm | 依照 US EPA 3052 方法或其他酸消化方法,用感應耦合電漿原子發射光譜儀(ICP-AES)做分析  | 2     | N.D. |
| 鉛    | ppm | 依照 US EPA 3050B 方法或其他酸消化方法,用感應耦合電漿原子發射光譜儀(ICP-AES)做分析 | 2     | 28.5 |

備註: (1) N.D. = Not detected, (<MDL) / 未檢出(低於偵測極限值)

(2) ppm = ug/kg / 百萬分之一

(3) MDL = Method Detection Limit(偵測極限值)

  
Daniel Yen, M.P., Operation Manager  
Signed for and on behalf of  
SGS TAIWAN LTD.

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SGS TAIWAN LTD. NO. 126-1, Wu Kong Road, Wu Ku Industrial Zone, Taipei County, Taiwan  
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## Test Report

WANSHIH ELECTRONIC CO., LTD.  
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TAIPEI HSIEN, TAIWAN, R. O. C.

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