

(台灣) 謹裕實業股份有限公司

(大陸) 東莞台霖電子通訊有限公司  
蘇州華廣電通有限公司  
普翔電子貿易(上海)有限公司  
東莞倍能電子有限公司

品名：無線網路設備用天線

規格：Antenna+RG-178 Cable+SMA Plug Reverse

料號：C059-510137-A (SSR-90755)

客戶：訊舟科技股份有限公司

客戶料號：3009-00000050-01Z

日期：2009/03/17

謹裕實業地址：No. 326, Sec. 2, Kung Tao 5 Road, Hsin Chu City,  
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傳真：+ 886-3-5713853 + 886-3-5723600

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傳真：+86-769-85655258

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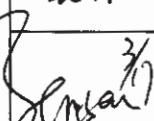
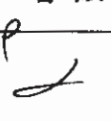
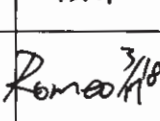
電話：+86-21-64959151

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東莞倍能地址：Hupan Industrial District, Shida Road, Tai Ling Shan  
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| 確認  |   |   |    | 客戶確認 |
|---|---|---|----|------|
| 製作  | 審核  | 核准  | 業務 |      |
|  |  |  |    |      |

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| 2. ....     | 成品圖                 | ..... 2     |
| 3. ....     | 測試報告                | ..... 3~5   |
| 4. ....     | <b>Cable</b> 規格     | ..... 6~7   |
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# RF Antenna Assembly

## Specification

### 1. Electrical Properties :

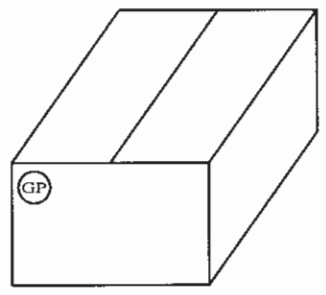
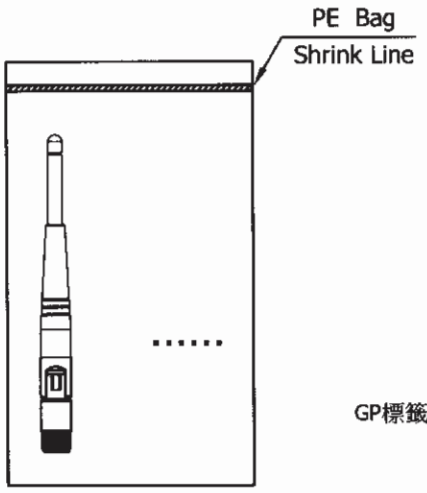
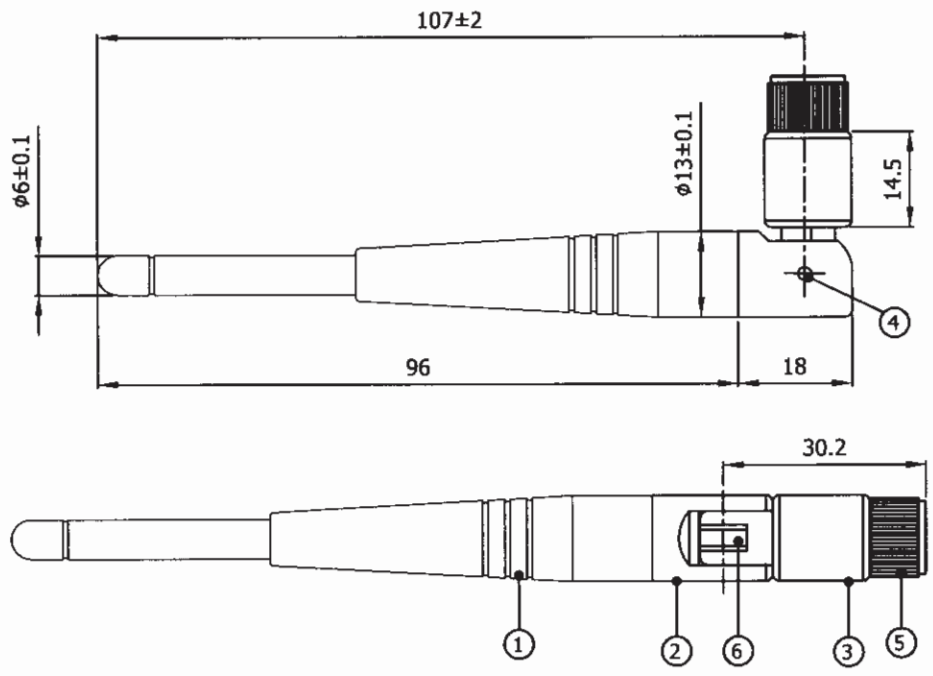
- 1.1 Frequency Range..... 2.4GHz ~ 2.5GHz
- 1.2 Impedance ..... 50Ω Nominal
- 1.3 VSWR ..... 1.92 :1Max.
- 1.4 Return Loss..... -10 dB Max.
- 1.5 Radiation ..... Omni-directional
- 1.6 Gain(peak)..... 3.0dBi
- 1.7 Polarization..... Linear; Vertical
- 1.8 Admitted Power..... 1W
- 1.9 Cable..... RG-178 Cable
- 1.10 Connector..... SMA Plug Reverse

### 2. Physical Properties :

- 2.1 Antenna Body..... TPE
- 2.2 Antenna Base..... PC
- 2.3 Antenna Base..... PBT
- 2.4 Operating Temp. .... -10°C ~ +60°C
- 2.5 Storage Temp. .... -10°C ~ +70°C
- 2.6 Color ..... Black

CG-

| REV | DATE       | DESCRIPTION    |
|-----|------------|----------------|
| X1  | 01/31-2008 | New Issue      |
| X2  | 09/26-2008 | Modify Part NO |



GP 標籤貼於外箱兩邊側麥左上角共2PCS

| NO | DESCRIPTION  | QTY                 | REMARK |
|----|--------------|---------------------|--------|
| 6  | Cable        | RG-178 Cable        | 1      |
| 5  | Connector    | SMA Plug Reverse    | 1      |
| 4  | Rivet        | POM ; Black         | 2      |
| 3  | Antenna Base | PBT ; Color : Black | 1      |
| 2  | Antenna Base | PC ; Color : Black  | 1      |
| 1  | Antenna Body | TPE ; Color : Black | 1      |

|                      |           |             |                               |
|----------------------|-----------|-------------|-------------------------------|
| CUSTOMER'S SIGNATURE | XX. ±5    | APPROVED    | CUSTOMER: 訊舟                  |
|                      | X. ±3.0   | 周東生         |                               |
|                      | .X ±1.0   | CHECKED     | PARTNAME: RF Antenna Assembly |
|                      | .XX ±0.5  | [Signature] | W.Y P/NO : C059-510137-A      |
|                      | .XXX ±0.1 | DRAWING     | REV UNIT FILE :               |
|                      | [Symbol]  | 鄒益伶 9/26-08 | X2 m/m SHEET : 1/1            |

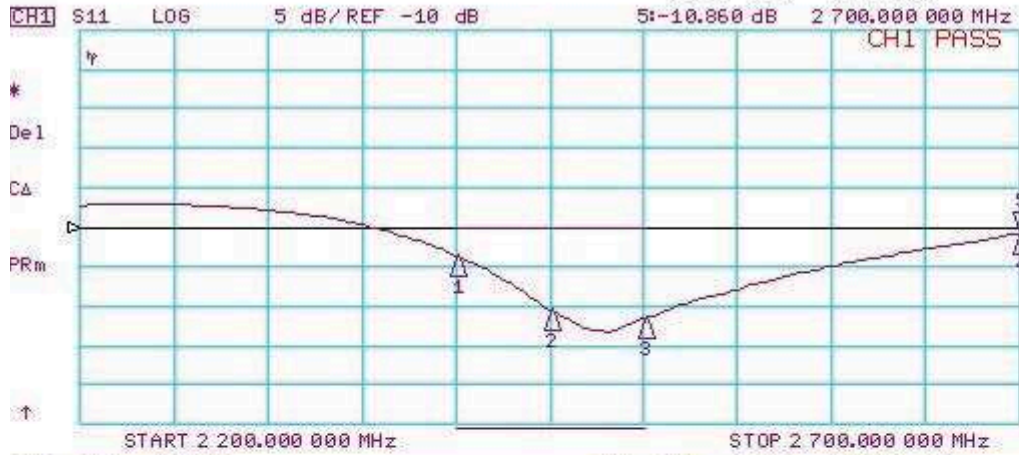
**M.gear** Wha Yu Group

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## RF Antenna Assembly

P/No.C059-510137-A SSR-90755 Spec2.4~2.5GHz

9 Jul 2007 11:10:31

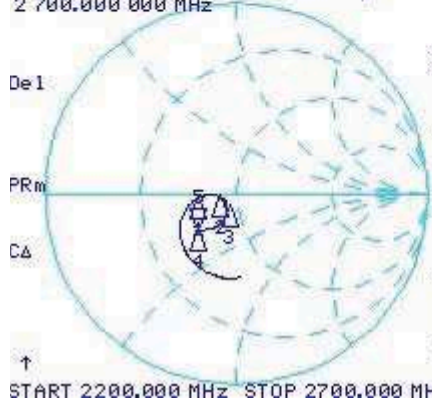


### CH1 Markers

|    |            |             |
|----|------------|-------------|
| 1: | -13.583 dB | 2.40000 GHz |
| 2: | -20.533 dB | 2.45000 GHz |
| 3: | -21.618 dB | 2.50000 GHz |
| 4: | -10.860 dB | 2.70000 GHz |

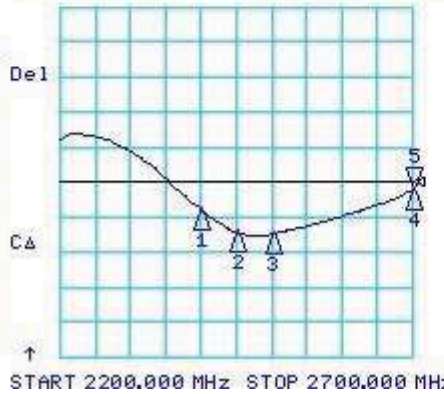
CH2 S11 1 U FS  
 5: 30.479  $\Omega$  -12.798  $\Omega$  4.6060 pF  
 2.700,000 000 MHz

CH4 SWR 500 m / REF 1.92  
 S11 5: 1.8027 2.700,000 000 MHz



### CH2 Markers

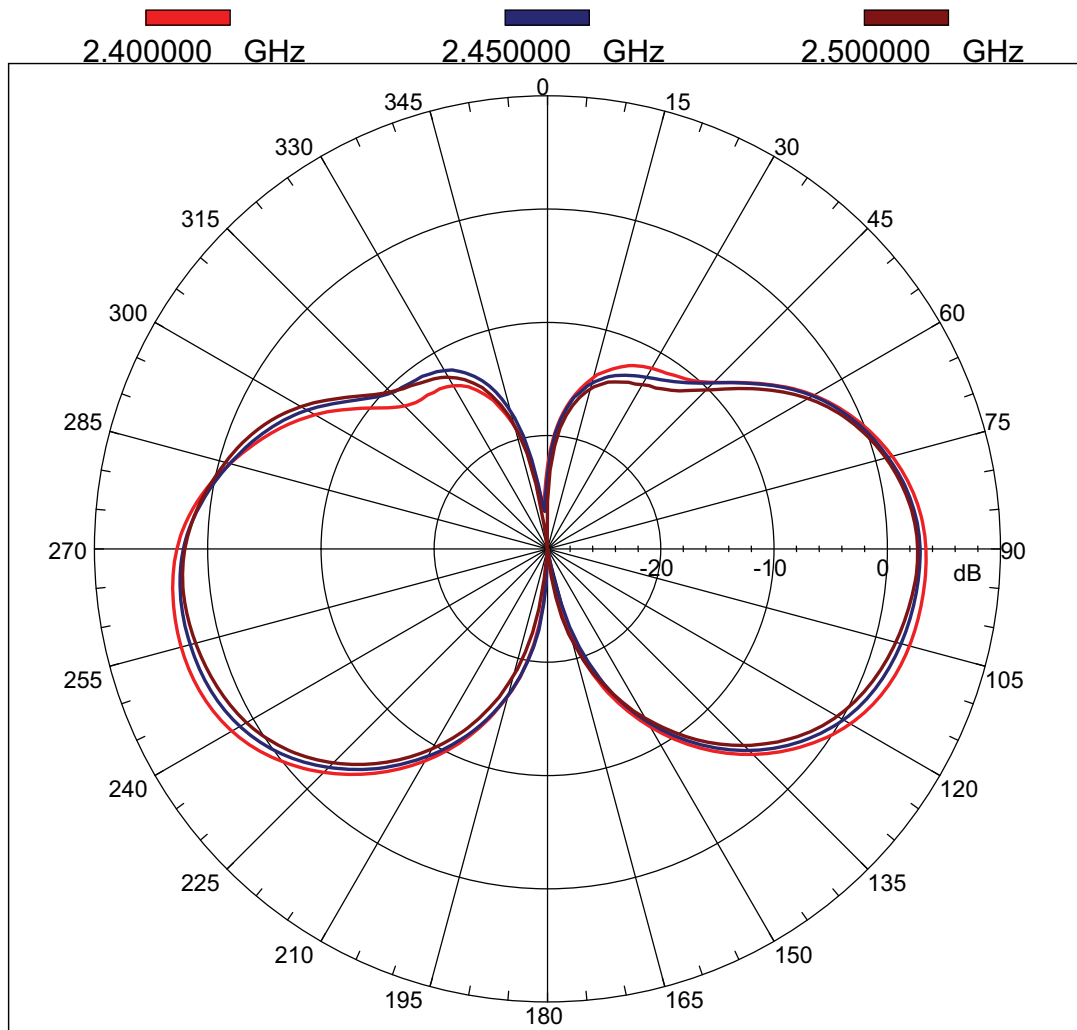
|    |                 |                  |             |
|----|-----------------|------------------|-------------|
| 1: | 32.768 $\Omega$ | -1.8633 $\Omega$ | 2.40000 GHz |
| 2: | 41.473 $\Omega$ | -1.1406 $\Omega$ | 2.45000 GHz |
| 3: | 45.092 $\Omega$ | -6.2051 $\Omega$ | 2.50000 GHz |
| 4: | 30.479 $\Omega$ | -12.798 $\Omega$ | 2.70000 GHz |



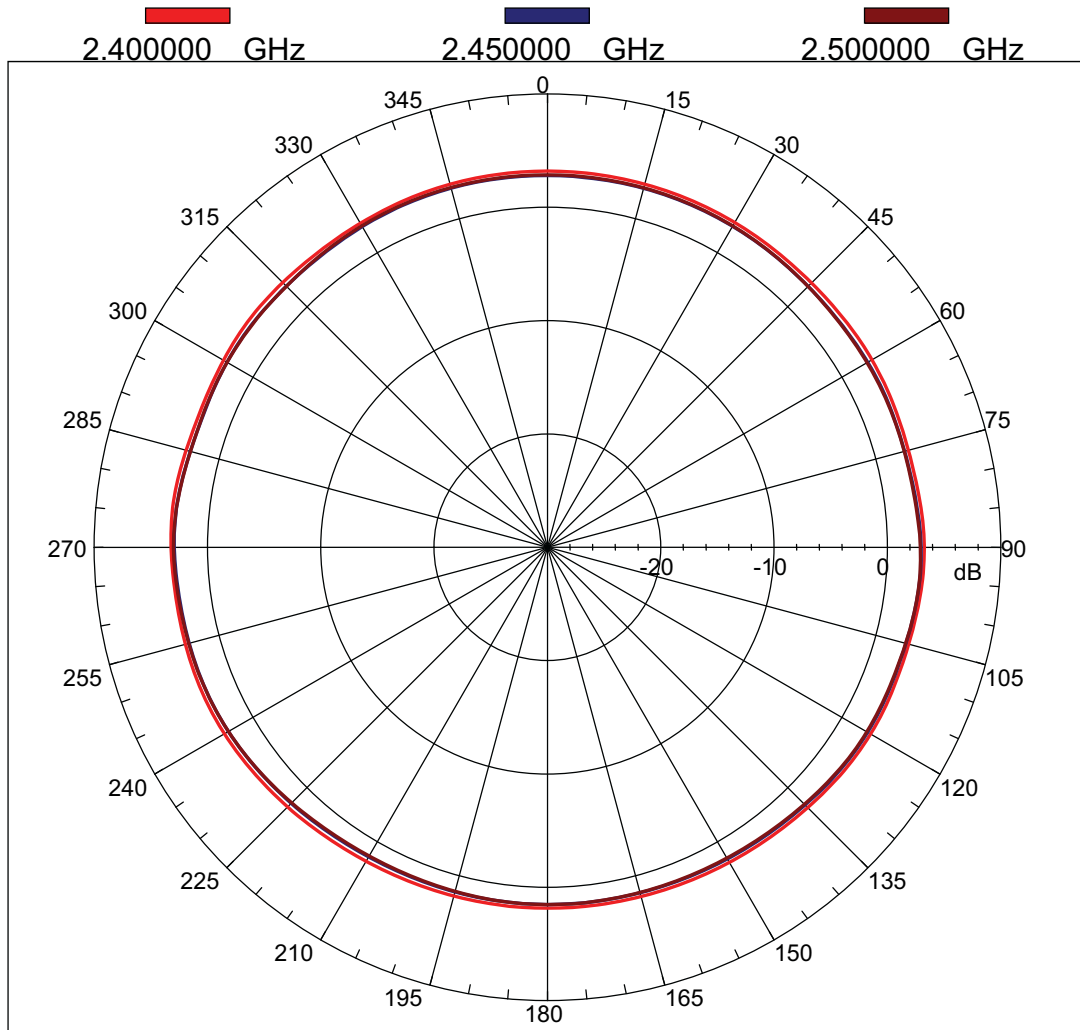
### CH4 Markers

|    |        |             |
|----|--------|-------------|
| 1: | 1.5295 | 2.40000 GHz |
| 2: | 1.2076 | 2.45000 GHz |
| 3: | 1.1810 | 2.50000 GHz |
| 4: | 1.8027 | 2.70000 GHz |

Far-field amplitude of C059-510137-A SSR-90755 E H-PLANE.nsi



Far-field amplitude of C059-510137-A SSR-90755 V H-PLANE.nsi

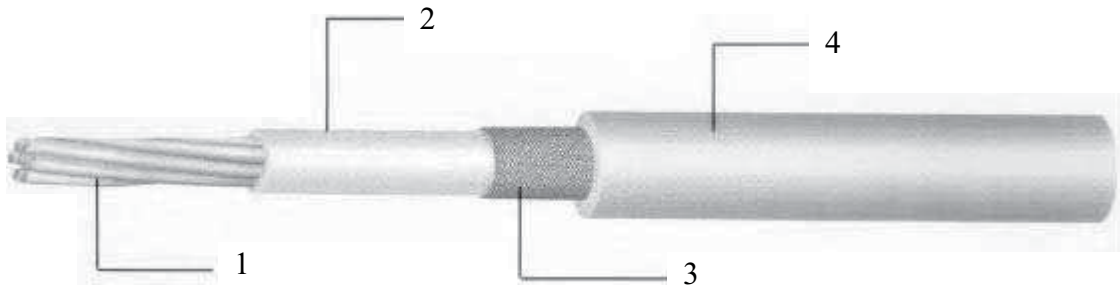


|                     |   |         |               |
|---------------------|---|---------|---------------|
| RG 178 B/U          | <b>FEP INSULATED<br/>HIGH-FREQUENCY COAXIAL<br/>CABLE</b> | PAGE    | 1 / 2         |
| PRODUCT<br>STANDARD |   | ISSUED  | 16. Oct. 2003 |
|                     |   | REVISED |               |

**I - Scope**

This specification presents a FEP insulated high-frequency coaxial cable AWG 30, 1.8 mm O.D. for internal wiring of electronic equipment, such as Computer / Notebook with wireless communication systems.

**II - Construction**



| Item               |                | Unit   | Details                        |
|--------------------|----------------|--------|--------------------------------|
| 1. Inner Conductor | Material       | —      | CP-AG                          |
|                    | Composition    | No./mm | AWG 30 or 7 ×0.1               |
|                    | Dia. (approx.) | mm     | 0.305                          |
| 2. Dielectric      | Material       | —      | Extruded FEP                   |
|                    | Nom. O.D.      | mm     | 0.84 ± 0.05                    |
|                    | Color          | —      | Natural                        |
| 3. Outer Conductor | Material       | —      | Silver coated copper           |
|                    | Composition    | —      | Braided (16 / 3 / 0.1)         |
|                    | Dia. (approx)  | mm     | 1.29 ±0.01                     |
| 4. Jacket          | Material       | —      | Extruded FEP                   |
|                    | Dia.           | mm     | 1.80 ±0.1                      |
|                    | Color          | —      | Standard color is Light Orange |

|        |           |  |
|--------|-----------|--|
| Note : | MADE BY   |  |
|        | APPROVALS |  |



|                     |  |         |               |
|---------------------|--|---------|---------------|
| RG 178 B/U          | FEP INSULATED<br>HIGH-FREQUENCY COAXIAL<br>CABLE | PAGE    | 2 / 2         |
| PRODUCT<br>STANDARD |  | ISSUED  | 16. Oct. 2003 |
|                     |  | REVISED |               |

**III – Characteristics**

| Item                     | Unit     | Specified Value  | Note       |
|--------------------------|----------|--|------------|
| Temperature Rating       | °C       | -55 ~ +200   |            |
| Voltage Lasting          | V        | 1000   |            |
| Dielectric strength      | —        | Dielectric core: No breakdown at<br>AC 3 kv for 0.2 sec. | Spark test |
|                          |          | Jacket: No breakdown at<br>AC 3 kv for 0.2 sec.          | Spark test |
| Characteristic Impedance | Ω        | 50 ± 2   | TDR method |
| Capacitance              | pF / m   | 29.4   | at 1 kHz   |
| Attenuation. (Max.)      | dB / 30m | 52.0   | 1.0 GHz    |
|                          |          | 94.0   | 3.0 GHz    |
|                          |          | -  | 5.0 GHz    |
|                          |          | 16.0   | 100.0 GHz  |
|                          |          | 33.0   | 400.0 GHz  |
| Approx. Weight           | g / m    | 7.68   |            |

|        |           |  |
|--------|-----------|--|
| Note : | MADE BY   |  |
|        | APPROVALS |  |



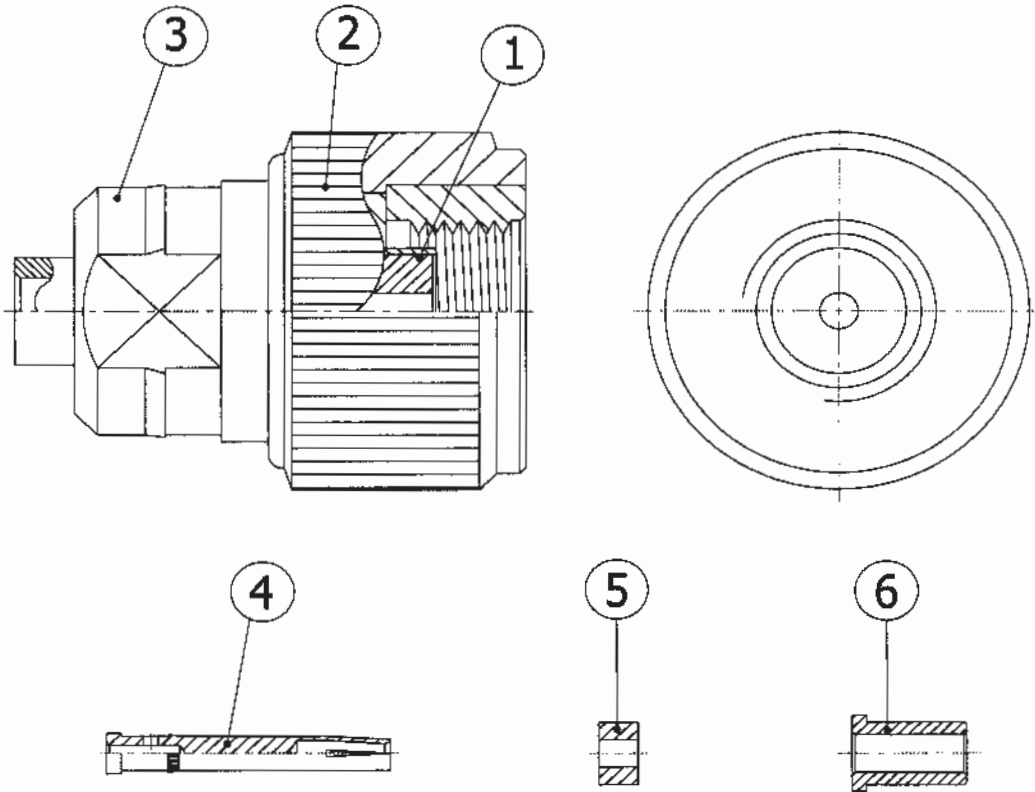
# 華裕實業股份有限公司

WHA YU INDUSTRIAL CO., LTD

## Connector Material Data Sheet

|                   |                |                      |   |
|-------------------|----------------|----------------------|---|
| 華裕料號<br>Whayu P/N | 100-2001247-AZ | 產品名稱<br>Product Name | Big SMA Straight Plug Reverse<br>For RG-178 |
|-------------------|----------------|----------------------|---|

### Structural Drawing



| Material |            |                 |        |    |    |       |    |    | Surface       |
|----------|------------|-----------------|--------|----|----|-------|----|----|---------------|
| 1        | Dielectric | Teflon          | PTFE   |    |    |       |    |    | N/A           |
| 2        | Shell      | Plastic         | PBT+FB |    |    |       |    |    | Black         |
| 3        | Bady       | Zinc Alloy      | Zn     | Fe | Al | Mg    | Cu | Pb | Nickel Plated |
| 4        | Pin        | Phosphor Bronze | Cu     | Sn | P  | Zn    | Pb |    | Gold Plated   |
| 5        | Dielectric | Teflon          | PTFE   |    |    |       |    |    | N/A           |
| 6        | Ferrule    | Brass           | Cu     | Pb | Fe | Fe+Sn | Zn |    | Nickel Plated |

Remark :



# SGS Test Report

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## Product : RF Antenna Assembly Content

| No | Description  |                     | Report No.  | Page                            |
|----|--------------|---------------------|---|---------------------------------|
| 1  | Cable        | RG-178 Cable        | CE/2009/11501C<br>CE/2008/C7175<br>CE/2008/C4566  | P.10~49                         |
| 2  | Antenna Body | TPE                 | CE/2009/27405<br>SZHH00237604   | P.50~59                         |
| 3  | Antenna Base | PC                  | KA/2008/C2022<br>SZHH00237604   | P.60~65<br>P.57~59              |
| 4  | Antenna Base | PBT                 | EC408442500<br>SZHH00237604   | P.66~71<br>P.57~59              |
| 5  | Rivet        | POM                 | CANEC0802431101<br>SZHH00237604   | P.72~74<br>P.57~59              |
| 6  | Connector    | SMA Plug Reverse    | CANEC0804900401<br>SH8054131-2/CHEM<br>CANEC0802557501<br>CANEC0805672902<br>CANEC0806170701<br>CANEC0801344101<br>SH8058060/CHEM | P.75~102                        |
| 7  | Signal Tube  | Brass;Plated-Gold   | CANEC0804900401<br>CANEC0802557501  | P.75~77<br>P.82~84              |
| 8  | Ground Tube  | Brass,Plated-Ni POM | CANEC0804900401<br>CANEC0805672902<br>KE/2008/C2794   | P.75~77<br>P.85~91<br>P.103~108 |
| 9  | H.S. Tube    | Heat Shrink Tube    | CE/2008/38467<br>CE/2007/C7382B   | P.109~124                       |

**Result for RoHS : PASS**