



WHA YU INDUSTRIAL CO., LTD. (HEAD OFFICE)  
TAI HWA ELECTRONIC CO., LTD.(CHINA)  
SHANGHAI HUA YU ELECTRONIC CO., LTD.(CHINA)  
AEON TECH CO., LTD. (CHINA)

## SPECIFICATION FOR APPROVAL

**CUSTOMER:** 中磊科技股份有限公司

**PART NAME:** RF Antenna Cable Assembly

**PART NO.:**

**REVISION:**

**W. Y. P/NO.:** C147-510260-A

**REV.:** X2

|                  | MANUFACTURER<br>SIGNATURE                                                          | CUSTOMER<br>SIGNATURE |
|------------------|------------------------------------------------------------------------------------|-----------------------|
| APPROVED<br>BY : |  |                       |
| DATE :           |                                                                                    |                       |

### WHA YU GROUP

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## **RF Antenna Cable Assembly**

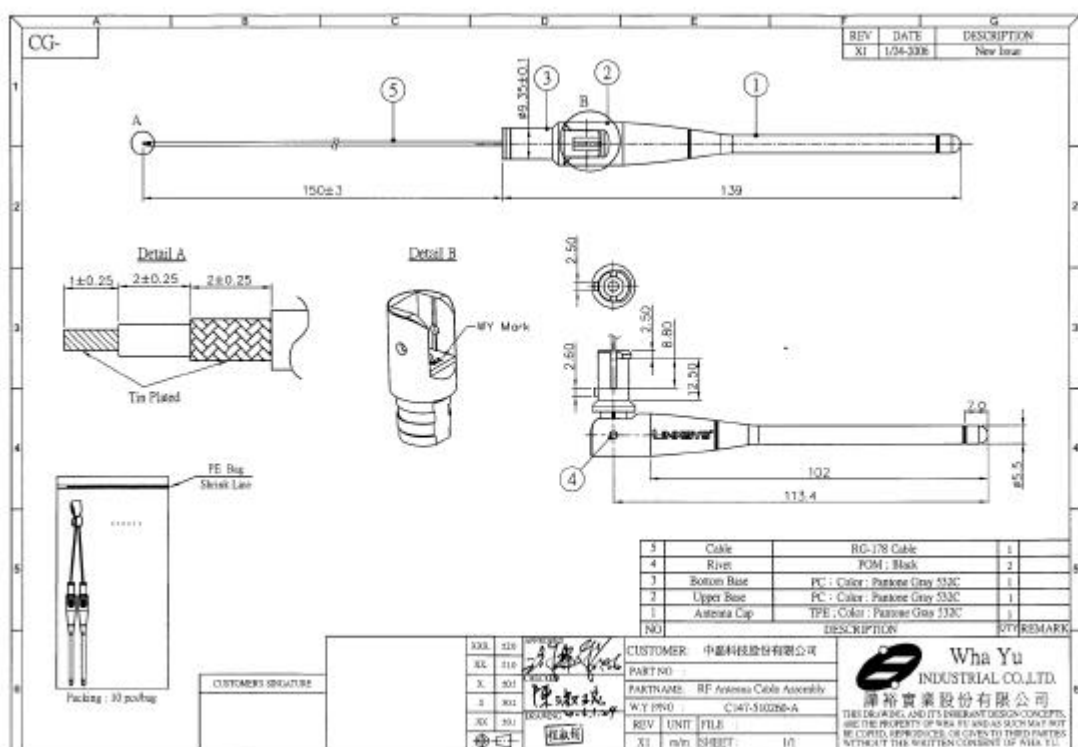
### **Specification**

#### **1. Electrical Properties :**

- 1.1 Frequency Range..... 2.4GHz ~ 2.5GHz
- 1.2 Impedance ..... 50Ω Nominal
- 1.3 VSWR ..... 1.92 Max.
- 1.4 Return Loss.....-10 dB Maximum
- 1.5 Radiation ..... Omni-directional
- 1.6 Gain(peak)..... 3.3dBi (excluding cable loss)
- 1.7 Cable Loss.....0.6dB
- 1.8 Polarization.....Linear Vertical
- 1.9 Admitted Power..... 1W

#### **2. Physical Properties :**

- 2.1 Cable..... RG-178 Coaxial Cable
- 2.2 Antenna Cover..... TPE
- 2.3 Antenna Base..... PC
- 2.4 Operating Temp. .... -20°C ~ +65°C
- 2.5 Storage Temp. .... -30°C ~ +75°C
- 2.6 Color ..... Gray

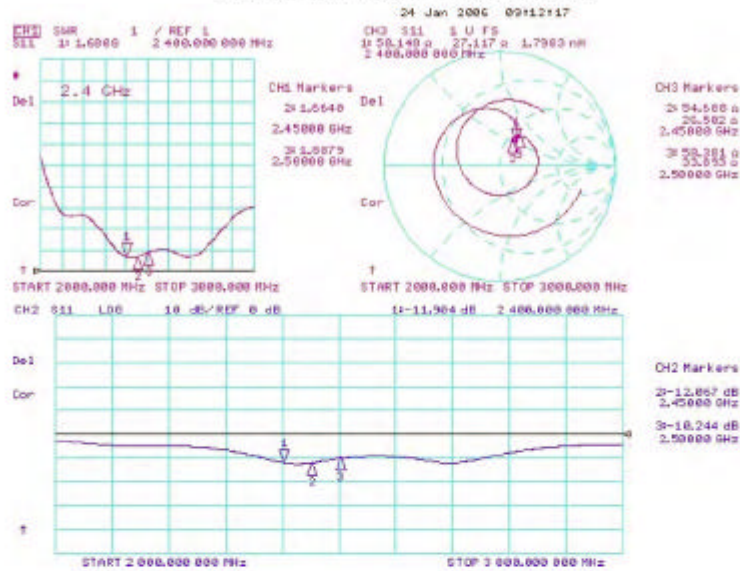




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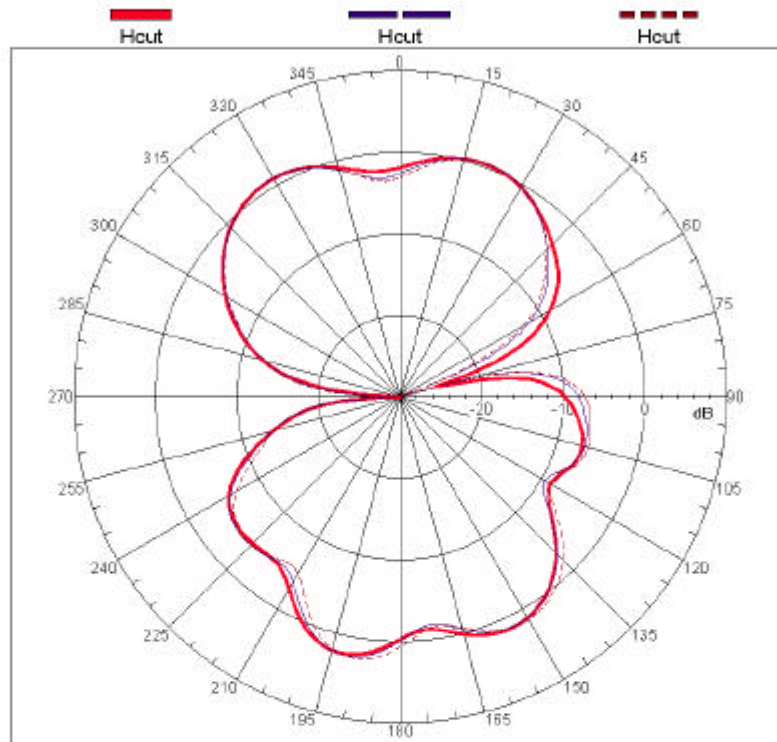
RF Antenna Assembly

P/NO :C147-510260-A SPEC : 2.4GHz



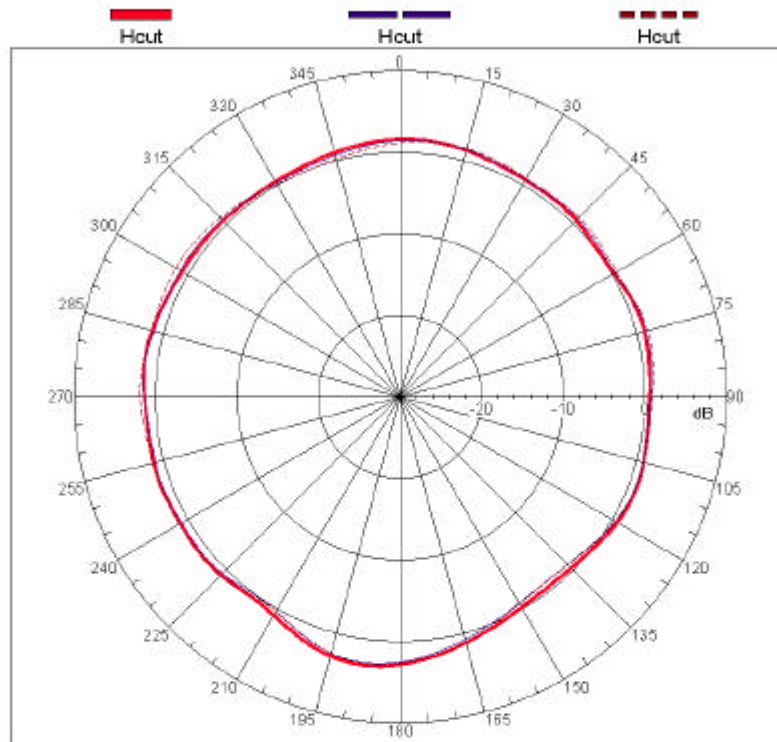
1/24/2006

Far-field amplitude of C147-510260-A-MARTY VERSION-H .nsi



2006/2/10

Far-field amplitude of C147-510260-A-MARTY VERSION-V .nsi



2006/2/10

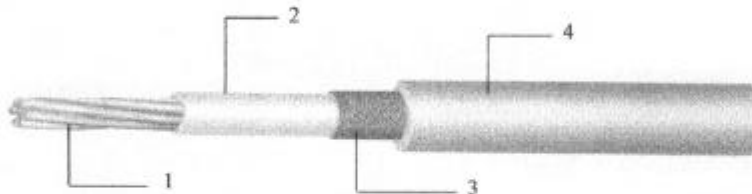
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|                     |                                                  |         |               |
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| RG 178 B/U          | FEP INSULATED<br>HIGH-FREQUENCY COAXIAL<br>CABLE | PAGE    | 1 / 2         |
| PRODUCT<br>STANDARD |                                                  | ISSUED  | 21. 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 ± 0.07                    |
| 4. Jacket          | Material       | —      | Extruded FEP                   |
|                    | Dia.           | mm     | 1.80 ± 0.08                    |
|                    | Color          | —      | Standard color is Light Orange |

Note :



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# **Nizing Electric Co., Ltd.**

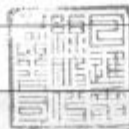
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## **III – Characteristics**

| 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 / ft  | 29.4                                                     |            |
| Attenuation. (Max.)      | dB/100ft | 16.0                                                     | 100.0 MHz  |
|                          |          | 33.0                                                     | 400.0 MHz  |
|                          |          | 52.0                                                     | 1.0 GHz    |
|                          |          | 94.0                                                     | 3.0 GHz    |
| Approx. Weight           | g / m    | 7.68                                                     |            |

Note :



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