

# 产品规格承认书

Product specifications  
acknowledgment

承认厂商： \_\_\_\_\_

(Recognized manufacturers)

制造厂商： \_\_\_\_\_ 深圳市蝙蝠无线技术有限公司

(Manufacturer)

产品名称： \_\_\_\_\_ 北斗\GPS 有源陶瓷天线

(Description)

## 产品选型表：

(Product Type)

| 型号                    | 说明  | 备注     |
|-----------------------|---|--------|
| BWGNSCNX15-15AY4L120  | A 为焊接接口 Y4 有源 4mm 厚陶瓷片<br>线长 120mm          | 参数均可订制 |
| BWGNSCNX15-15B1Y4L120 | B1 IPEX1 端子 Y4 有源 4mm 厚陶瓷片<br>L120 线长 120mm | 参数均可订制 |
| BWGNSCNX15-15B4Y2L120 | B4 IPEX4 端子 Y2 有源 2mm 厚陶瓷片 线<br>长 120mm     | 参数均可订制 |

## 供应商承认签栏

| 制表者 | 审核者 | 核准者 |
|-----|-----|-----|
|     |     |     |

## 客户承认栏

| 审核者 | 核准者 |
|-----|-----|
|     |     |

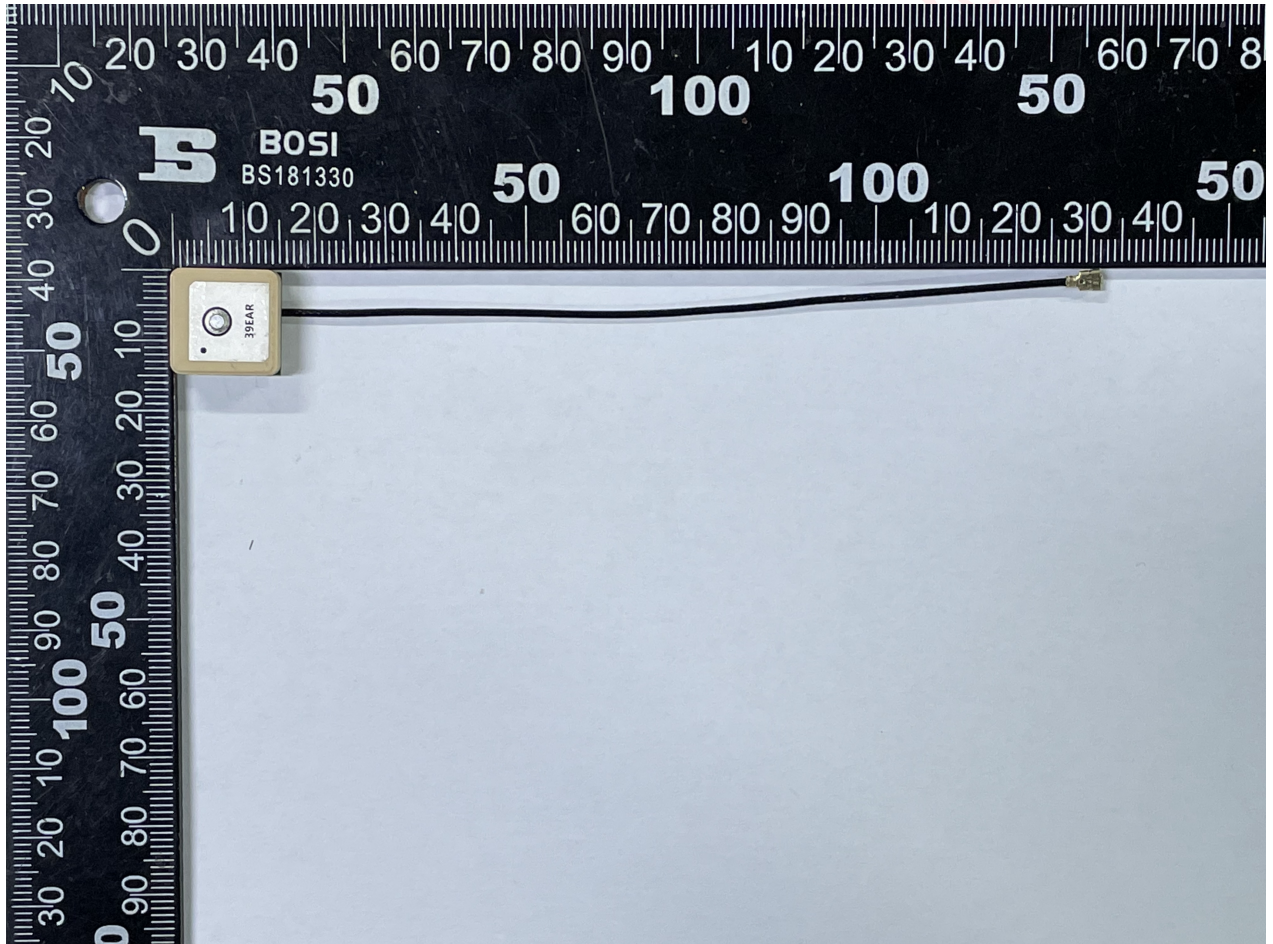


## 1.1 Specifications

|  |                      |
|--|----------------------|
| 天线型号 Antennas Type                         | BWGNXCX15-15B1Y4L120 |
| 频率范围 Frequenc Range (MHz)                  | 1575.42±5MHz         |
| 输入阻抗 Input Impedence ( $\Omega$ )          | 50 $\Omega$          |
| 电压驻波比 V. S. W. R                           | <1.8                 |
| 增益 Gain (dBi)                              | 16-18dBi(可定制)        |
| 极化形式 Polarization Type                     | 右旋圆极化                |
| 功率容量 Power Capacity (w)                    | 50                   |
| 雷电保护 Lingtning Protection                  | None                 |
| 工作电压 DC Voltage (V)                        | 3.3-4.6v             |
| 天线尺寸 Dimension (mm)                        | 15x15x6.5            |
| 接口形式/Connector Type:                       | IPEX-1               |
| 电缆型号 Cable type (mm)                       | $\phi$ 1.13          |
| 电缆长度 Cable length(mm)                      | 120                  |
| 辐射体 Radiator                               | None                 |
| 天线颜色 Color                                 | 银白色                  |
| 重量 Weight (g)                              | None                 |
| 工作温度 Operating Temperature ( $^{\circ}$ C) | -40~80               |
| 储藏温度 Storage Temperature ( $^{\circ}$ C)   | -20~85               |

\*注：以上数据仅供参考；因天线功能较为敏感，主体周边机构有变更请通知我们评估。

## 1.2 Antenna Picture



上图型号：BWGNSCNX15-15B1

(定制客户中间连接线长度定制，天线形状定制)

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## 2. Electrical Specification

### 2.1 Test Equipment

- A. VSWR and input impedance: Agilent 8753/E5071 Network Analyzer
- B. Antenna gain and efficiency: ETS three-dimensional anechoic chamber

### 2.2 Test Setup

#### 2.2.1 Frequency Range

#### 2.2.2 VSWR

Step 1: The antenna is arranged on the customer provided test fixture.

Step 2: The VSWR of the antenna is measured via Agilent 8720/8753 Network Analyzer (see figure. 1).



Figure.1

#### 2.2.3 Radiation pattern and Gain

- A. The 3D chamber provides less than -40dB reflectivity from 800MHz to 6GHz and a 40cm diameter spherical quiet zone. The measurement results are calibrated using both dipoles and standard gain horns (see figure. 2).
- B. The antenna under tested is arranged in the turned table and a decoupling sleeve is used to reduce feed line radiation (see figure. 3).
- C. The measured results of the radiation patterns and antenna gain are obtained from the control system and showed on the monitor (see figure. 4 and 5).



Figure.2



Figure.3

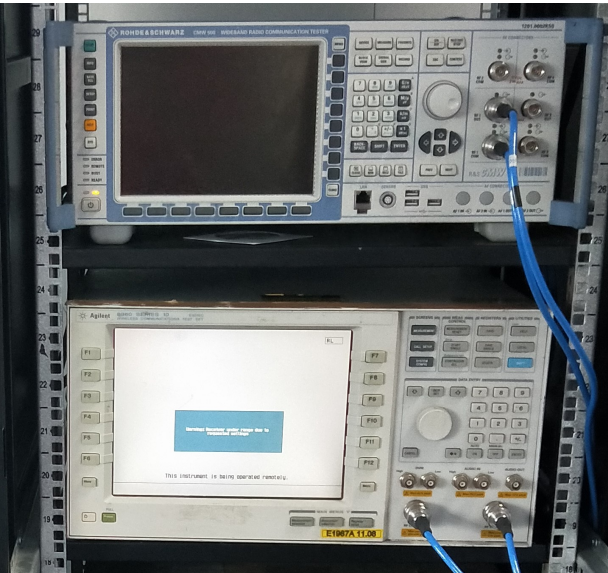


Figure.4

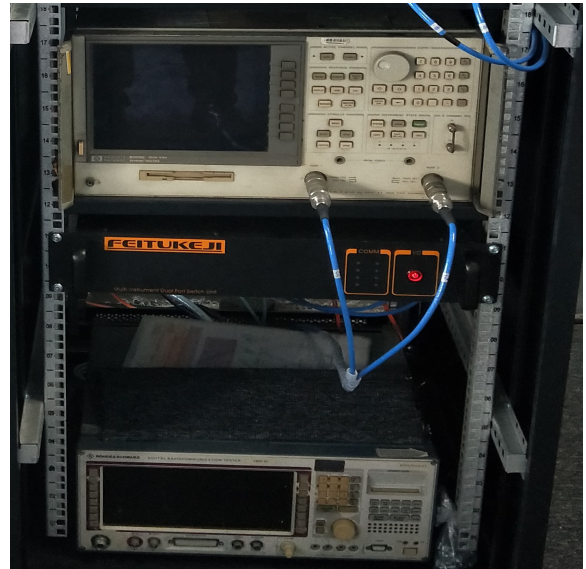
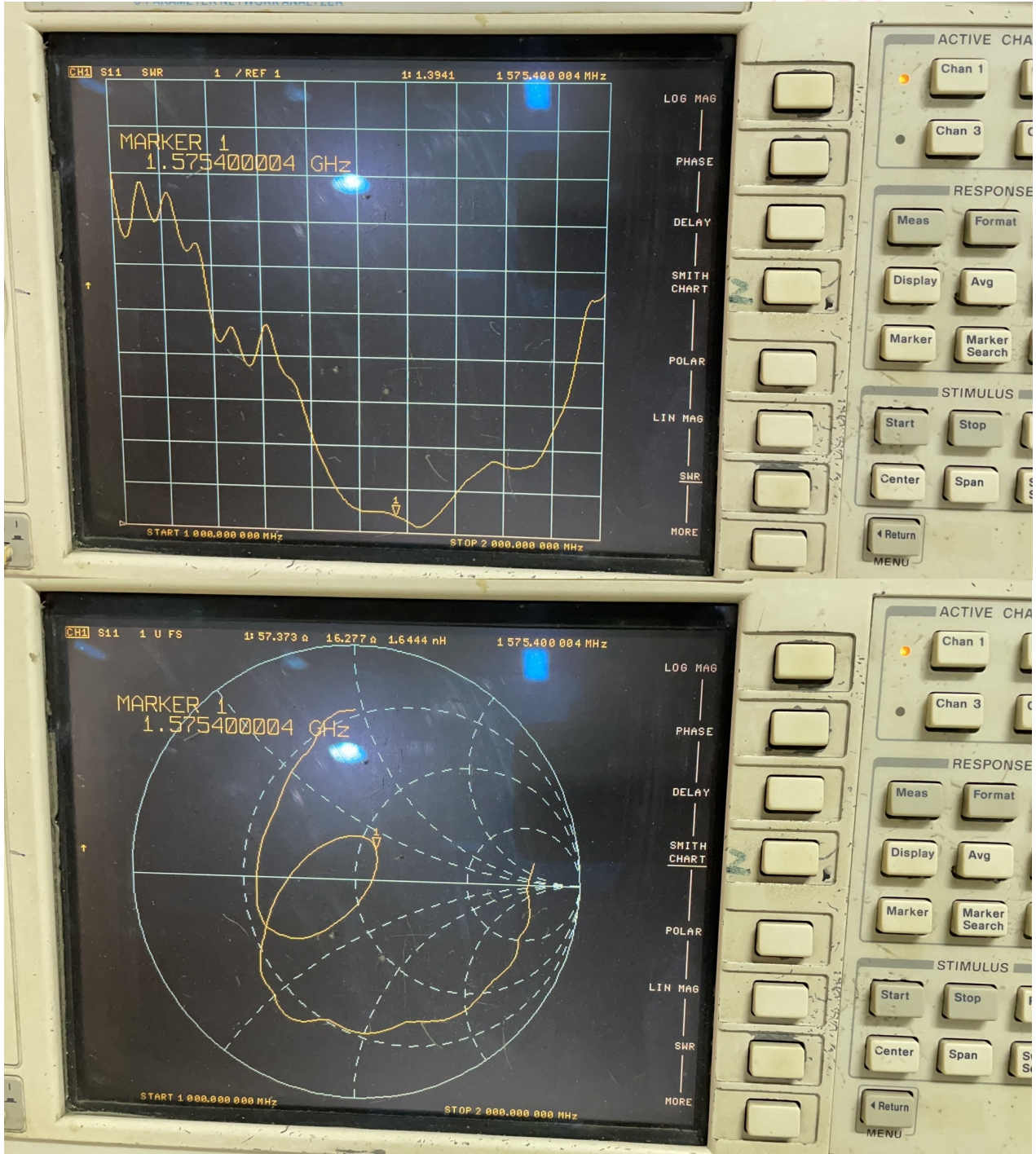


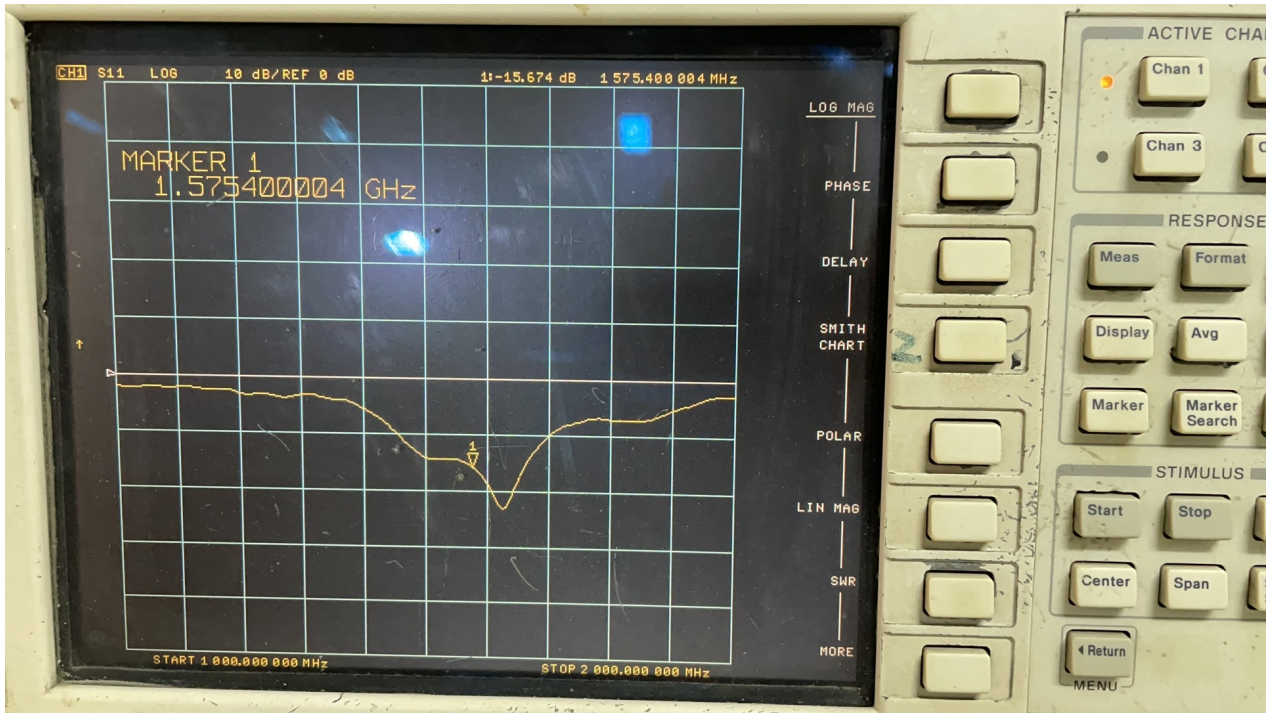
Figure.5

### 3. Performance Data

#### 3.1 Passive data

VSWR (电压驻波比) / Return Loss (回波损耗) / Smith Chart (史密斯圆图)

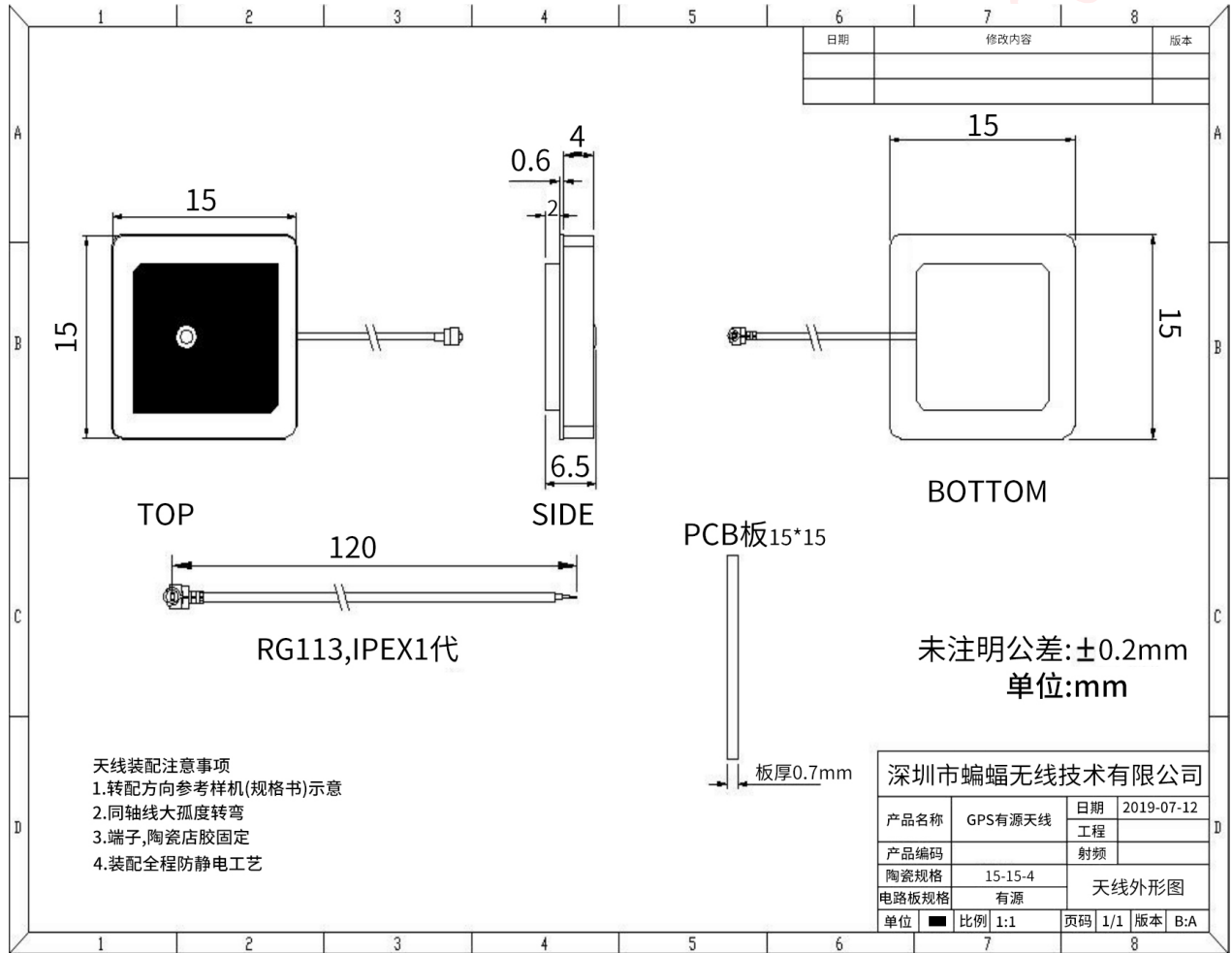




\*注：以上为实测数据，仅供参考；因天线功能较为敏感，主体周边机构有变更请通知我们评估。

## 4. Mechanical Specification

### 4.1 Assembly Drawing





## 5. RF113

### 1. 适用范围

本规格书制定了电线的结构和电气特性

同轴线

AWG 32

### 1. Scope

This specification covers the construction and the electrical properties of wire.

Coaxial Wire

AWG 32

### 2. 结构/Construction

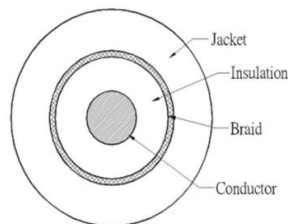
单位/Unit: mm

| 项目/Item            | 单位/Unit                   | 详细资料/Details                             |
|--------------------|---------------------------|--|
| Conductor<br>导体    | 材料/Material               | -<br>绞合镀银铜丝<br>Silver-coated copper wire |
|                    | 构成/Composition            | (No./mm)<br>7/0.08                       |
|                    | 外径/OD.                    | mm<br>0.24                               |
|                    | 绞向/Orientation            | -<br>S                                   |
| Insulation<br>绝缘层  | 材料/Material               | -<br>FEP(进口料)                            |
|                    | 绝缘颜色/Insulation color     | -<br>本色/Natural                          |
|                    | 标称绝缘厚度/<br>Nom. Thickness | mm<br>0.22                               |
|                    | 绝缘线径/OD.                  | mm<br>0.69                               |
| Braid Shield<br>编织 | 材料/Material               | -<br>镀锡铜丝<br>Tinned copper wire          |
|                    | 构成/Composition            | (No./mm)<br>16/4/0.05                    |
|                    | 编织密度/Coverage             | (%)<br>≥90                               |
| Jacket<br>外被       | 材料/Material               | -<br>FEP                                 |
|                    | 标称绝缘厚度/<br>Nom. Thickness | mm<br>0.12                               |
|                    | 外径/OD.                    | mm<br>1.13±0.10                          |

### 3. Electrical Properties (at 20°C) /电气特性(20°C时)

| 项目/Item                          | 单位/Unit  | 详细资料/Details |
|----------------------------------|----------|--------------|
| 导体电阻/Conductor Resistance        | Ω/km     | 571 (Max.)   |
| 绝缘电阻/Insulation Resistance       | MΩ · km  | 100 (Min.)   |
| 耐压强度(AC)/Dielectric Strength(AC) | V/ 1 Min | 500          |
| 特性阻抗/Impedance                   | Ω        | 50±3         |
| 耐温等级/ Temperature                | °C       | 200          |
| 额定电压/rated voltage               | V        | 30           |

### 4. 电线截面图示如下:



## 6.免责声明(Disclaimer)：

本着为用户提供更好服务的原则，深圳市蝙蝠无线技术有限公司（下称“蝙蝠无线”）在本手册中将尽可能地为用户呈现详实、准确的产品信息。但鉴于本手册的内容具有一定的时效性，蝙蝠无线不能完全保证该文档在任何时段的时效性与适用性。蝙蝠无线有权在没有通知的情况下对本手册上的内容进行更新，恕不另行通知。为了得到最新版本的信息，请尊敬的用户定时访问蝙蝠无线官方网站或者与蝙蝠无线工作人员联系。感谢您的包容与支持！

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