



## 1.1 Specifications

|                                            |               |
|--------------------------------------------|---------------|
| 天线型号 Antennas Type                         | BWGPSCNX8-8B1 |
| 频率范围 Frequenc Range (MHz)                  | 1575.42       |
| 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                     | rhcp          |
| 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)                        | 8x8x6.5       |
| 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)                     | 50            |
| 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: BWGPSCNX8-8B1

(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

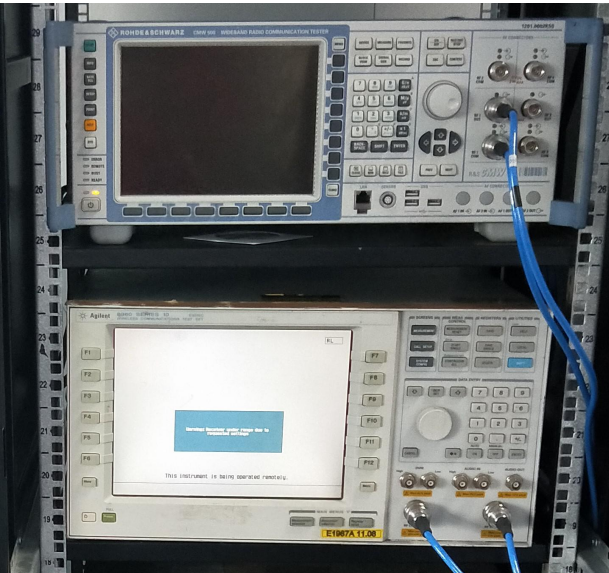


Figure.4

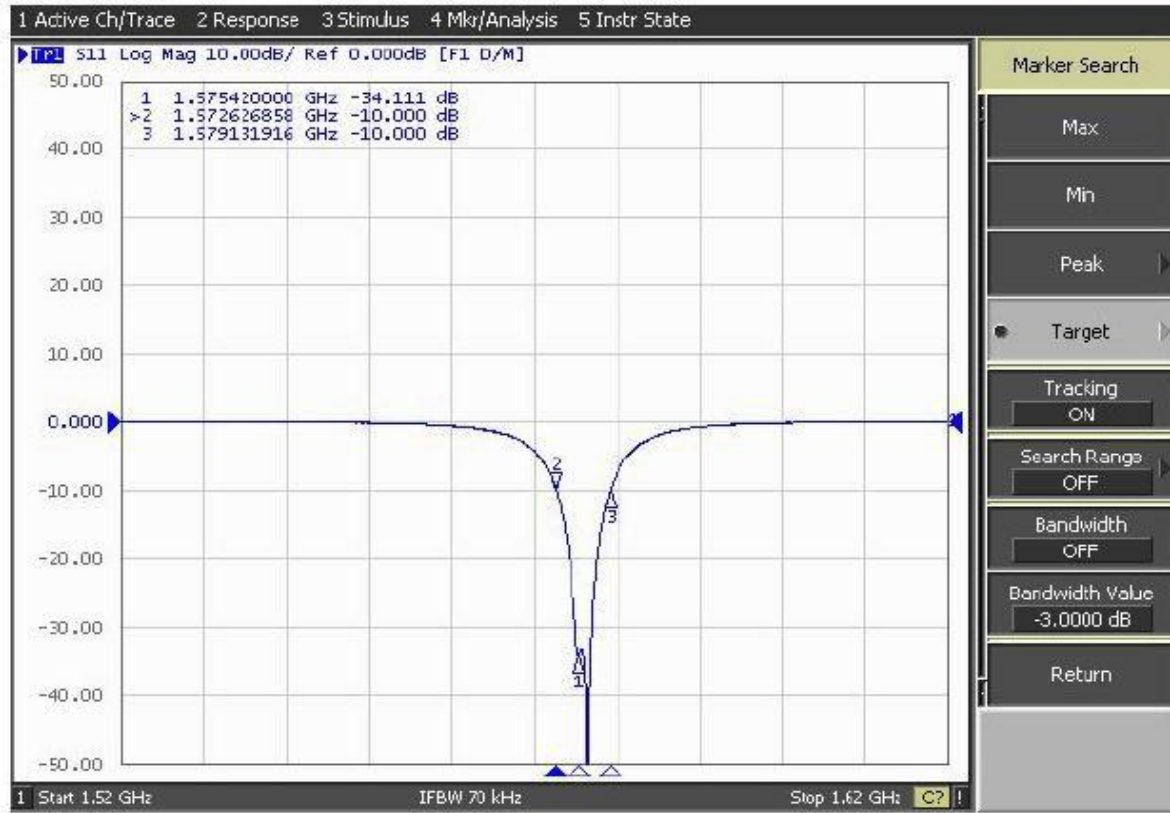


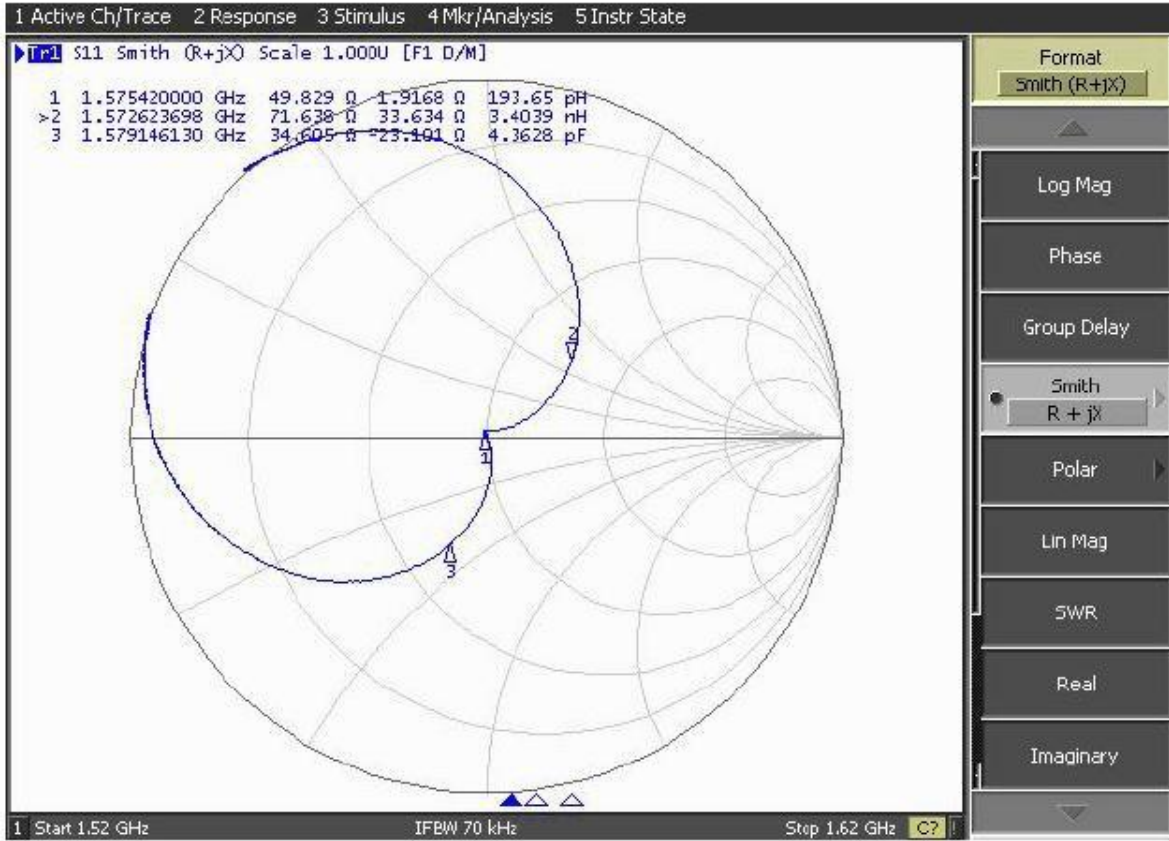
Figure.5

### 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)

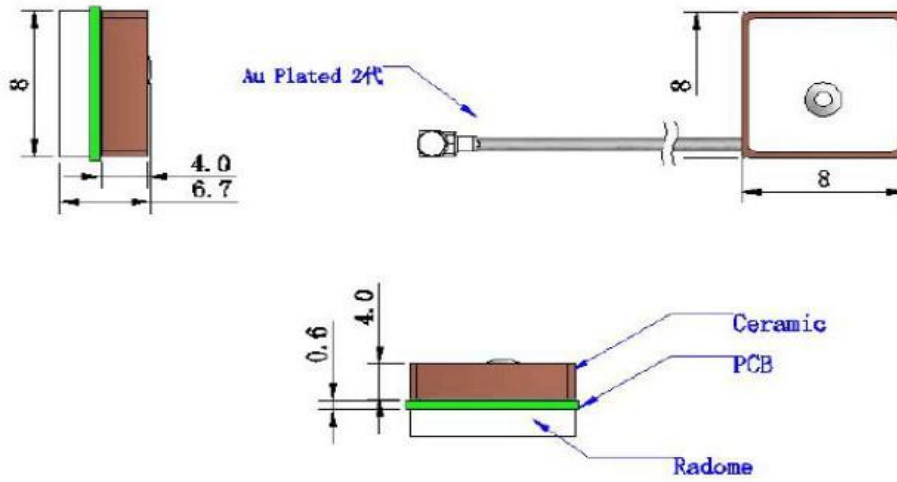




\*注：以上为实测数据，仅供参考；因天线功能较为敏感，主体周边机构有变更请通知我们评估。

## 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

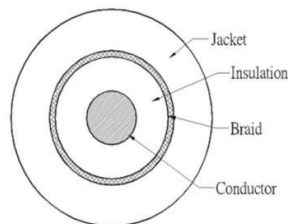
单位/Unit: mm

| 项目/Item            |                           | 单位/Unit  | 详细资料/Details                        |
|--------------------|---------------------------|----------|-------------------------------------|
| Conductor<br>导体    | 材料/Material               | -        | 绞合镀银铜丝<br>Silver-coated copper wire |
|                    | 构成/Composition            | (No./mm) | 7/0.08                              |
|                    | 外径/OD.                    | mm       | 0.24                                |
|                    | 绞向/Orientation            | -        | S                                   |
| Insulation<br>绝缘层  | 材料/Material               | -        | FEP(进口料)                            |
|                    | 绝缘颜色/Insulation color     | -        | 本色/Natural                          |
|                    | 标称绝缘厚度/<br>Nom. Thickness | mm       | 0.22                                |
|                    | 绝缘线径/OD.                  | mm       | 0.69                                |
| Braid Shield<br>编织 | 材料/Material               | -        | 镀锡铜丝<br>Tinned copper wire          |
|                    | 构成/Composition            | (No./mm) | 16/4/0.05                           |
|                    | 编织密度/Coverage             | (%)      | >=90                                |
| Jacket<br>外被       | 材料/Material               | -        | FEP                                 |
|                    | 标称绝缘厚度/<br>Nom. Thickness | mm       | 0.12                                |
|                    | 外径/OD.                    | mm       | 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        | $\Omega/\text{km}$               | 571 (Max.)   |
| 绝缘电阻/Insulation Resistance       | $\text{M}\Omega \cdot \text{km}$ | 100 (Min.)   |
| 耐压强度(AC)/Dielectric Strength(AC) | V/ 1 Min                         | 500          |
| 特性阻抗/Impedance                   | $\Omega$                         | 50±3         |
| 耐温等级/ Temperature                | $^{\circ}\text{C}$               | 200          |
| 额定电压/rated voltage               | V                                | 30           |

### 4. 电线截面图示如下:



## 6.免责声明(Disclaimer)：

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