

antennas such as rfc\ceramic\metal\glue  
stick\suction cup\cabinet etc.

# Product Specification

## Recognition

Product specifications  
acknowledgment

### Recognize vendors:

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(Recognized manufacturers)

**Manufacturer:** \_\_\_\_\_

Shenzhen Bat Wireless Technology Co.

(Manufacturer)

**Product Name:** SMA Antenna Connector

(Description)

### Product Selection Chart:

(Product Type)

model number	clarification	note
BWSMA-KE-Z001	Bore of external screw	

Vendor acknowledgement signature field		
tabulator	checker	approver

Customer acknowledgement column	
checker	approver

R&D, production and sales of RF  
antennas such as FPC\ceramic\metal\glue  
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## 1.1 Specifications

<b>Model Antennas Type</b>	BWSMA-KE-Z001
<b>Impedence (<math>\Omega</math>)</b>	50 $\Omega$
<b>Voltage Standing Wave Ratio V.S.W.R</b>	Straight flexible cable <1.15+0.02f (GHZ)
<b>Frequenc Range(MHz)</b>	0-12.4G (flexible cable)
<b>Operating Voltage DC Voltage (V)</b>	335V max
<b>Dielectric Withstand Voltage(V)</b>	1000Vrms
<b>Contact ()</b>	Inner conductor <3mOhm Outer conductor <2mOhm
<b>Insulation resistance</b>	>5000 megohms
<b>Insert Loss</b>	0.15dB (6GHz)
<b>RF leakage</b>	-60dB/-90dB (flexible/semi-rigid cable)@2-3GHz
<b>Durability(mating)</b>	500 times
<b>PLUG ID/JACK OD</b>	6.5mm/5.4mm
<b>Shell shell</b>	Hard gold plating of brass or passivation of stainless steel surfaces
<b>contact pin</b>	Hard gold plated brass
<b>Socket socket</b>	Beryllium bronze hard gold plated
<b>insulator</b>	polytetrafluoroethylene
<b>sealing</b>	silicone rubber
<b>Crimp ferrule</b>	Copper Alloy Nickel Plating
<b>Weight(g)</b>	None
<b>OperatingTemperature(°C)</b>	-65~+165 (PE) CABLE - 40~+85)
<b>Standard APPLICABLE STANDARD</b>	mil-c-39012, iec169-15, cecc22110

## 1.2 Antenna Picture

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inlet etc.



Model No. above: BWSMA-KE-Z001

**\*Note: Due to the sensitive nature of the antenna function, please notify us of any changes in the organization surrounding the subject for evaluation.**

## **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). 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 figures.

4 and 5).

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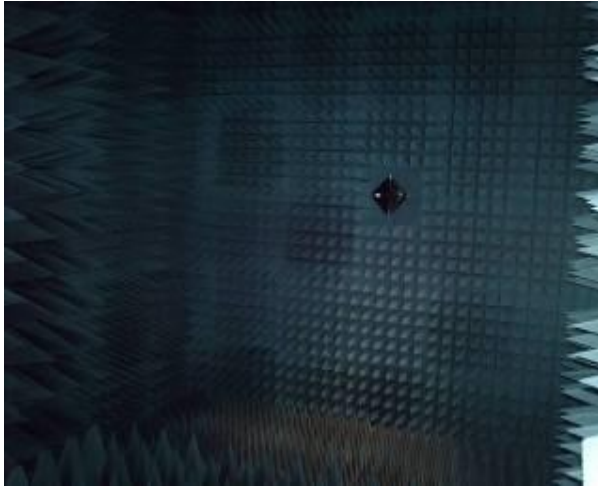


Figure.2



Figure.3

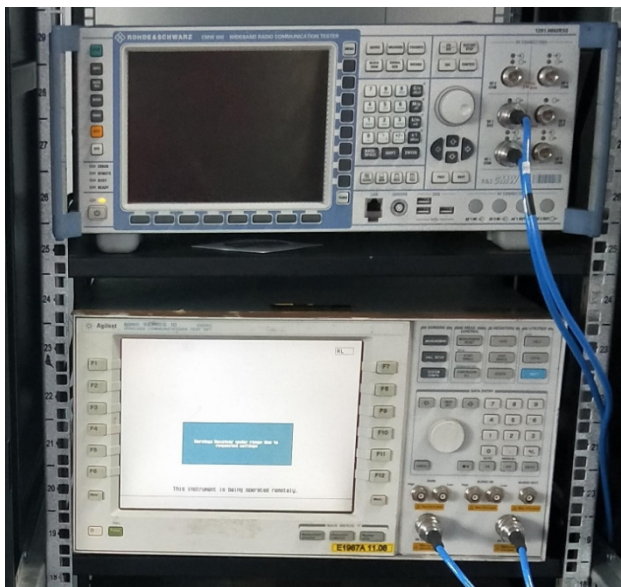


Figure.4

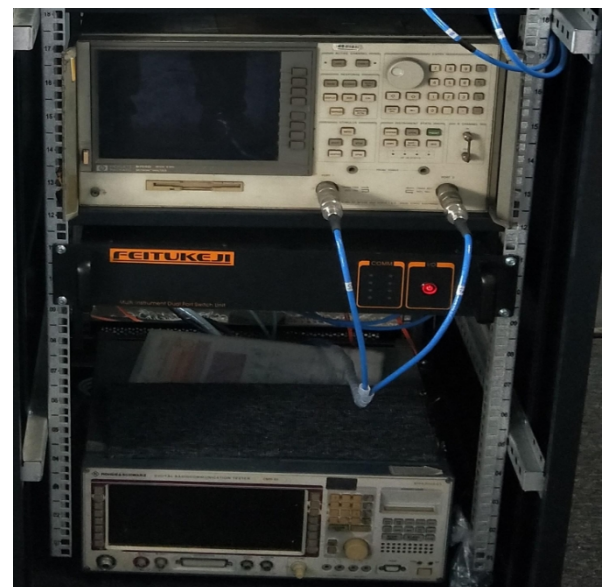


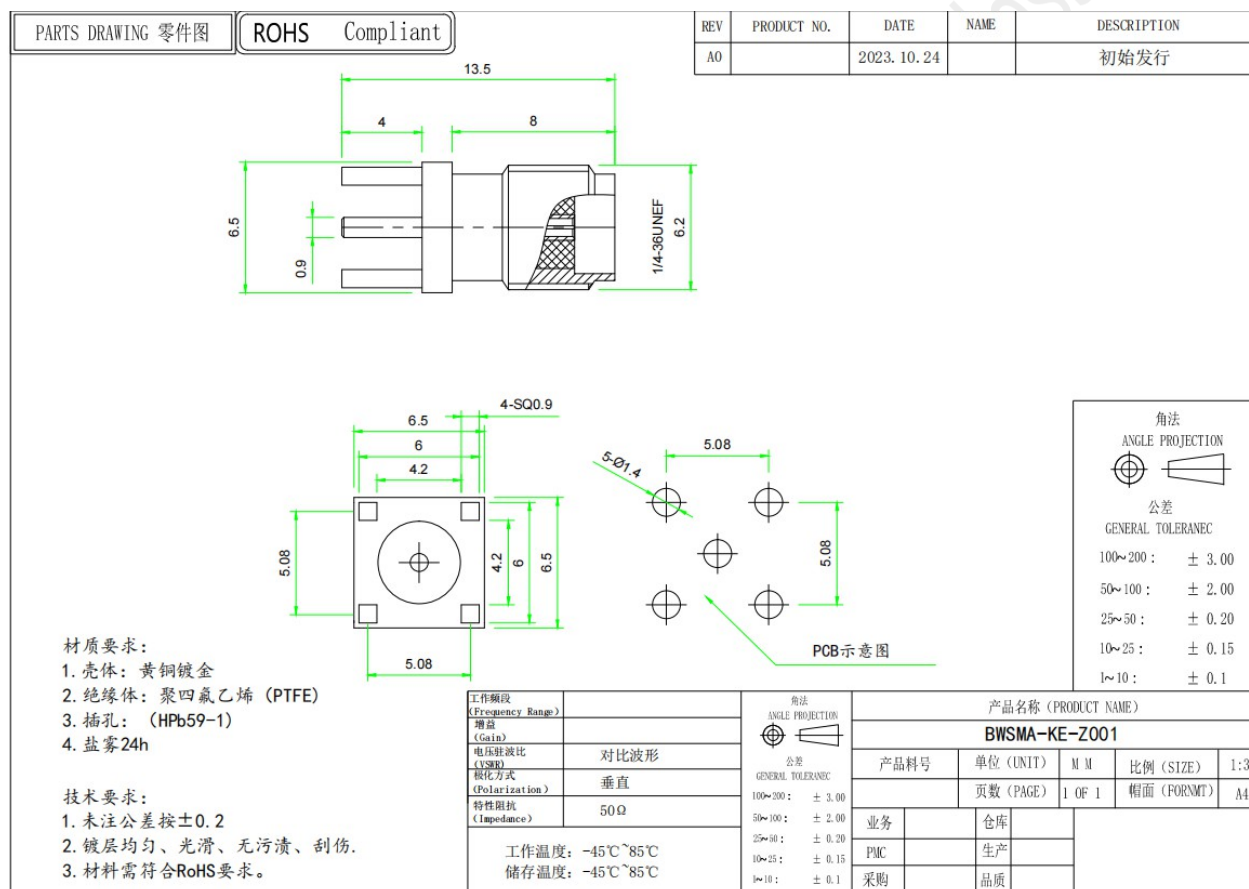
Figure.5



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## 4. Mechanical Specification

### 4.1 Assembly Drawing



## 5. Disclaimer:

In line with the principle of providing users with better service, Shenzhen Bat Wireless Technology Limited Company (hereinafter referred to as "Bat Wireless") in this manual as far as possible for the user to present detailed and accurate product information. However, as the contents of this manual are time-sensitive, Bat Wireless cannot guarantee the timeliness and applicability of this document at any time. Bat Wireless reserves the right to update the contents of this manual without notice. In order to get the latest version of the information, please visit the official website of Bat Wireless or contact the staff of Bat Wireless regularly. Thank you for your tolerance and support!

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