



BW433SNX21-5W2

R&amp;D, production and sales of FPC\PCB\metal\glue stick\suction cup\cabinet and other RF antennas

### Product Specifications Approval

Product specifications  
acknowledgment

Approved manufacturers: \_\_\_\_\_

(Recognized manufacturers)

Shenzhen Bat Wireless Technology Co., Ltd.

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

1301, No. 8, Langhua Road, Xinshi Community, Dalang Street, Longhua District, Shenzhen

(Manufacturer)

Product Name: \_\_\_\_\_

433 Spring Antenna

(Description)

### Product selection table:

(Product Type)

model	illustrate	Remark
BW433SNX21-5W2		Customizable

### Supplier Approval Signature

Watchmaker

Reviewer

Approver

### Customer Acknowledgement Column

Reviewer

Approver

## 1.1 Specifications

<b>Antenna Model</b>	<b>Antennas Type</b>
<b>Frequency Range(MHz)</b>	433
<b>Input Impedance (Ω)</b>	50Ω
<b>Voltage Standing Wave Ratio VSWR</b>	<1.8
<b>Gain (dBi)</b>	2dBi
<b>Polarization Type</b>	Vertical
<b>Power Capacity Power Capacity (w)</b>	50
<b>Lightning Protection</b>	None
<b>Working voltage DC Voltage (V)</b>	None
<b>Antenna size (mm)</b>	18x5
<b>Interface type/Connector Type:</b>	None
<b>Cable type (mm)</b>	None
<b>Cable length(mm)</b>	None
<b>Radiator Radiator</b>	copper
<b>Antenna Color</b>	yellow
<b>Weight(g)</b>	None
<b>Operating Temperature (°C)</b>	- 40~80
<b>Storage Temperature (°C)</b>	- 20~85

\* Note: The above data is for reference only. Since the antenna function is relatively sensitive, please inform us for evaluation if there are any changes to the peripheral structure of the main body.

## 1.2 Antenna Picture



**Model in the picture above:BW433SNX21-5W2**

**(Customized length of the middle connecting line and antenna shape)**

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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).

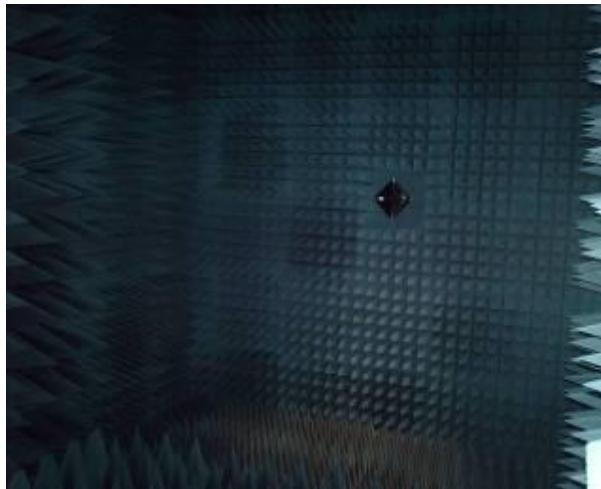


Figure.2

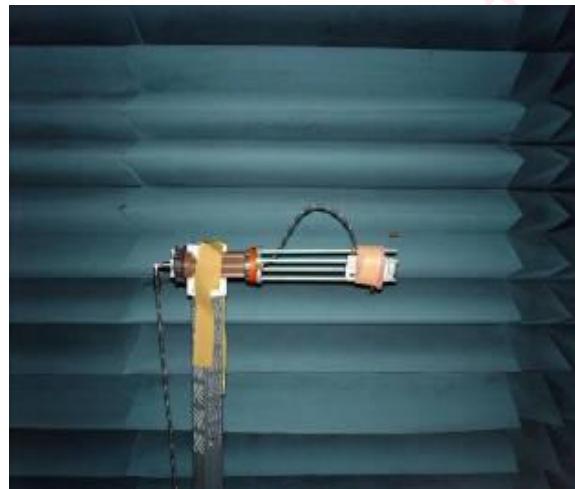


Figure.3



Figure.4

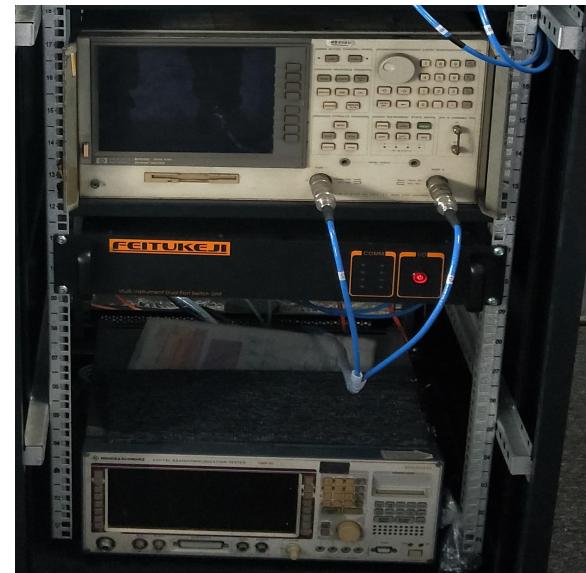
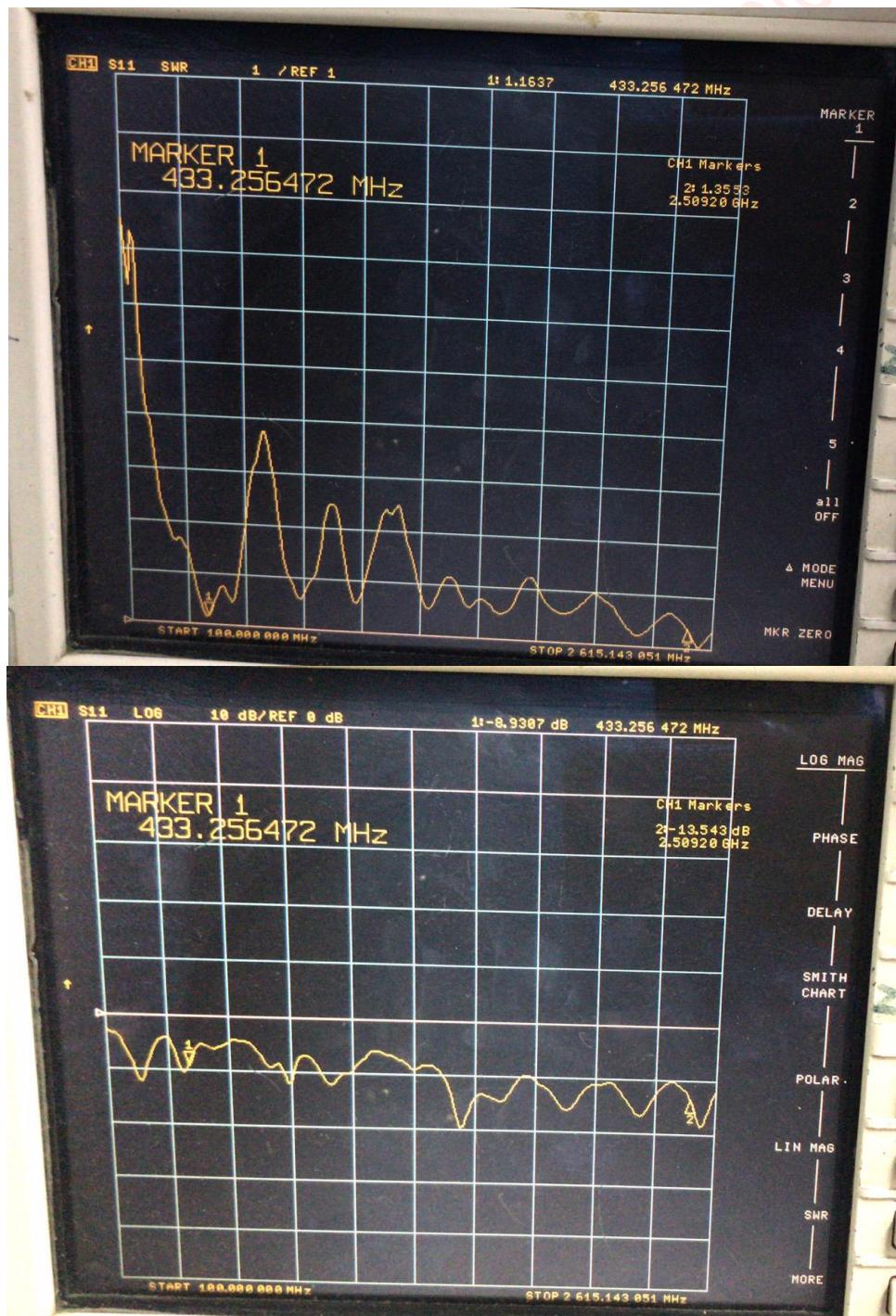


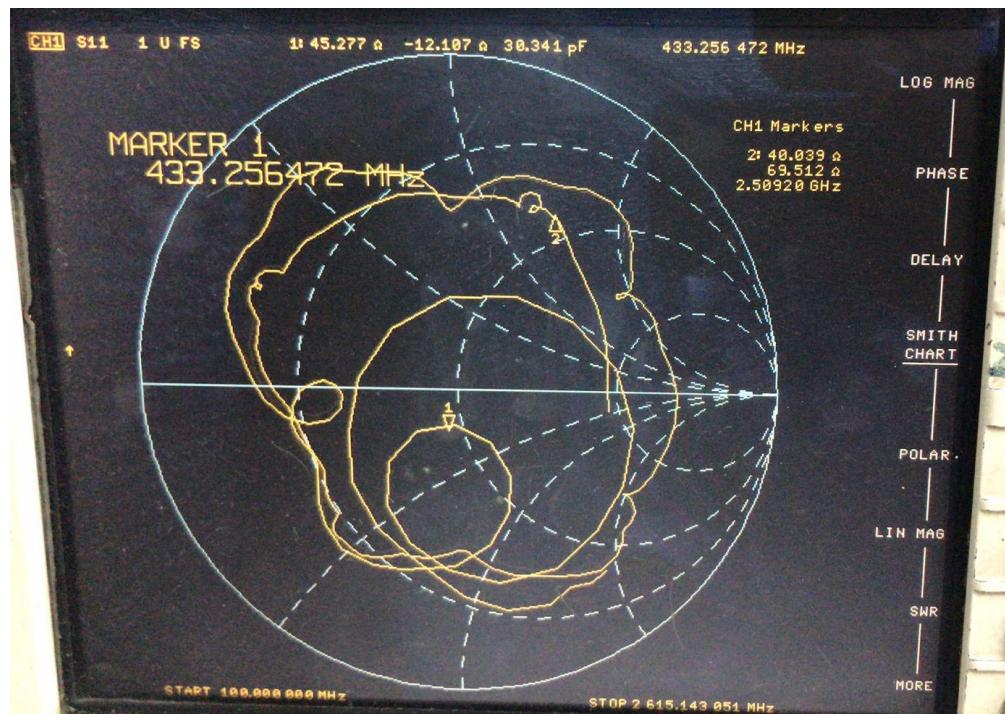
Figure.5

### 3. Performance Data

#### 3.1 Passive data

VSWR(voltage standing wave ratio)/Return Loss(Return loss)/Smith Chart(Smith Chart)





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## 4. Mechanical Specification

### 4.1 Assembly Drawing

## 5.Disclaimer(Disclaimer):

In line with the principle of providing better services to users, Shenzhen Bat Wireless Technology Co., Ltd. (hereinafter referred to as "Bat Wireless") will try its best to present detailed and accurate product information to users in this manual. However, since the contents of this manual have a certain timeliness, Bat Wireless cannot fully guarantee the timeliness and applicability of this document at any time. Bat Wireless has the right to update the contents of this manual without prior notice. In order to obtain the latest version of information, please visit the official website of Bat Wireless regularly or contact Bat Wireless staff. Thank you for your tolerance and support!

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