

# **SPECIFICATION**

for

**GY-AN Antenna**

**Customer No.**

**Product No.**

**YX-BBM-TX-RF1.13-57MM-V2.0**

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Release Date: 2022.11.05

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## 1. Bilateral Confirmation page

### 1.1 Customer signature

**Customer:** Woan Technology (Shenzhen) Co., Ltd

| Seapartment/post     | Sign | Date |
|----------------------|------|------|
| Hardware Engineer/RD |      |      |
| Mechanical/MD        |      |      |
| Project Manager/PM   |      |      |
| Commercial/Puchasing |      |      |
| Checker              |      |      |

### 1.2 Signature of ShuoDian Technology company

| Seapartment/post    | Sign | Date |
|---------------------|------|------|
| Antenna Engineer/RD |      |      |
| Mechanical/MD       |      |      |
| Project Manager/PM  |      |      |
| QA                  |      |      |
| Checker             |      |      |

## 2. General

### 2.1 Scope of application

GY-RX-915 antenna

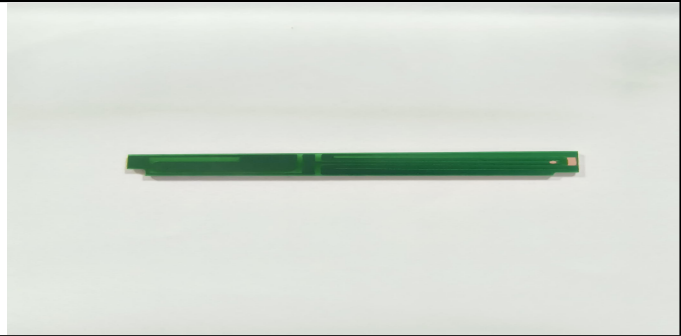
### 2.2 Operating temperature range

Temperature range of this product: -20 ~ +65 °C

### 2.3 Storage temperature range:

This product is stored at - 30 ~ + 75 °C

## 3. General product specifications

| NO. | ITEMS                    | DETAILS                                                                              |
|-----|--------------------------|--------------------------------------------------------------------------------------|
| 1   | Type                     | TX-AN-915 antenna                                                                    |
| 2   | Operating Frequency Band | 915MHZ                                                                               |
| 3   | VSWR                     | $\leq 2.0$                                                                           |
| 4   | Gain                     | $1.0 \pm 0.5 \text{dBi}$                                                             |
| 5   | Radiation Efficiency     | $\geq 40\%$                                                                          |
| 6   | Impedance                | $50\Omega$                                                                           |
| 7   | Antenna Type             | Dipole                                                                               |
| 8   | Polarization mode        | Linear polarization                                                                  |
| 9   | Antenna composition      | PCB+1.13 Coaxial line+IPEX1 generation terminal                                      |
| 10  | Entity Picture           |  |

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## 4. Specification Detials

### 4.1 Mechanical Properties

#### 4.11 Product Composition:

| No. | Material     | Size (MM)                                                   |
|-----|--------------|-------------------------------------------------------------|
| 1   | PCB          | 74.38*4.43*0.8MM green                                      |
| 2   | Coaxial line | 1.13White coaxial line+IPex1 terminal<br>+Total length 57MM |

#### 4.12 Apperance

Good appearance without scars 、dirts、protuberances, etc.

#### 4.13 Antenna Picture and Structure Dimension

Refer to product drawings:

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**Page number 6-10**

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**Product drawings:**

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## 4.2 Electric Performance

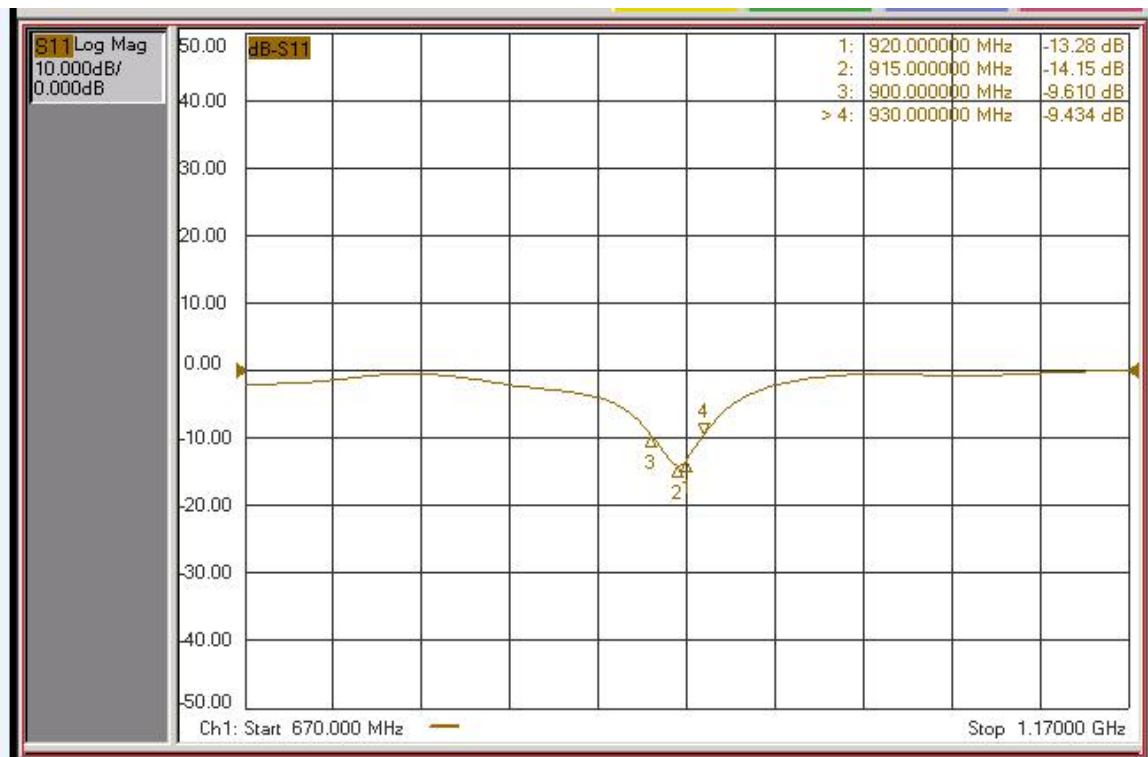
### 4.21 Test condition

|                           |                                  |
|---------------------------|----------------------------------|
| Environment:              | Equipment:                       |
| Temperature: 10℃——+30℃    | Network Analyzer: Agilent E8358A |
| Humidity: ≤80% (+40℃)     | Anechior Chamber: ETS            |
| Atmospher: 750mmkg±30mmkg |                                  |

### 4.22 Test Data for Electrical Performance:

#### 4.22.1 S11 of the Antenna:

| Marker     | 900MHz | 915MHz | 920Mhz | 930MHz |
|------------|--------|--------|--------|--------|
| Returnloss | -9.61  | -14.15 | -13.28 | -9.43  |
| VSWR       | 1.94   | 1.50   | 1.59   | 2.08   |



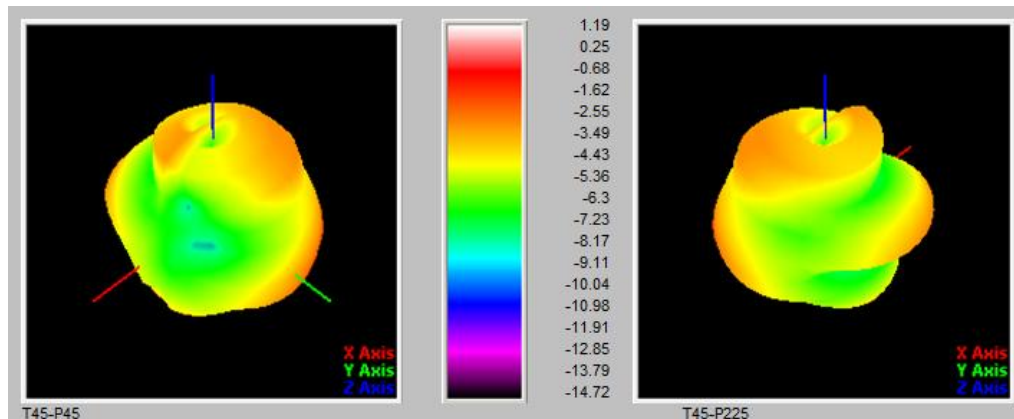




#### 4. 22. 2 Passive gain、 efficiency and Radiation Pattern:

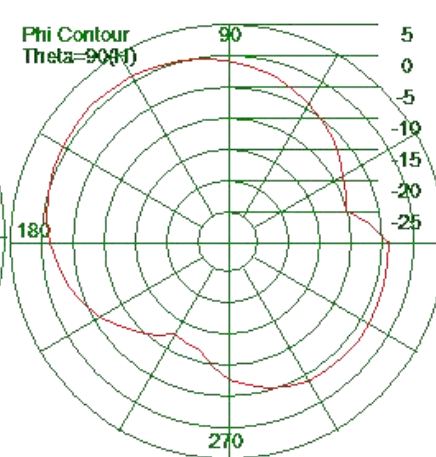
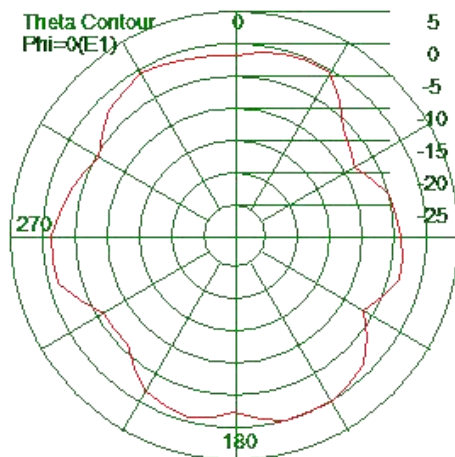
| Freq. (MHz) | Gain (dBi) | Efficiency (%) |
|-------------|------------|----------------|
| 900         | 0.71       | 47.9           |
| 910         | 0.60       | 45.5           |
| 915         | 1.19       | 51.0           |
| 920         | 0.73       | 48.2           |
| 930         | 0.48       | 40.3           |

### 4.22.3 Radiation pattern of antenna, frequency: 915MHz

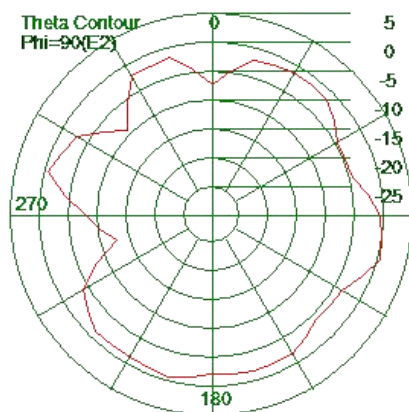


E1 side

H plane



E2 side



## 5. Product Packaging

Manner of packing:

Packed in self sealed bags, 200 pcs each.

## 6. Document Resume

|              |             |
|--------------|-------------|
| Document No. |             |
| Release Date | 2022/11/05  |
| Author       | XiofengZeng |
| Review       | WH          |

## Revised History

| Date       | Version | Revised Record |
|------------|---------|----------------|
| 2022/11/05 | 1.00    | New Project    |
|            |         |                |