



Shenzhen Shuodian Electronic Technology Co.,Ltd  
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# SPECIFICATION

for

**IllumusANT1 Antenna**

**Customer No.**

**Product No.**

**KEWT-Illumus-ANT1-Spring**

Author: XiaofengZeng      Review: Liming

Release Date: 2023.12.23

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## 1. Bilateral Confirmation page

### 1.1 Customer signature

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

Separtment/post	Sign	Date
Hardware Engineer/RD		
Mechanical/MD		
Project Manager/PM		
Commercial/Puchasing		
Checker		

### 1.2 Signature of ShuoDian Technology company

Separtment/post	Sign	Date
Antenna Engineer/RD		
Mechanical/MD		
Project Manager/PM		
QA		
Checker		



## 2. General

### 2.1 Scope of application

This specification is only applicable to ILLumus-ANT1 2.4G spring antenna

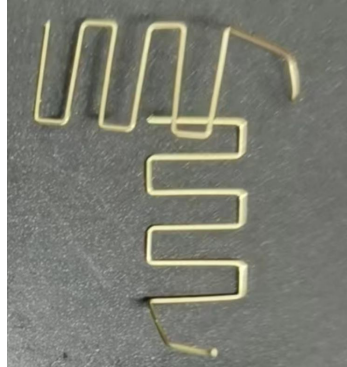
### 2.2 Operating temperature range

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	ILLumus-ANT1
2	Operating Frequency Band	2400-2500MHz
3	VSWR	≤2.5
4	Gain	0dBi
5	Impedance	50Ω
6	Antenna Type	Monopole Antenna
7	Antenna composition	spring
8	Entity Picture	



## 4. Specification Details

### 4.1 Mechanical Properties

#### 4.11 Product Composition:

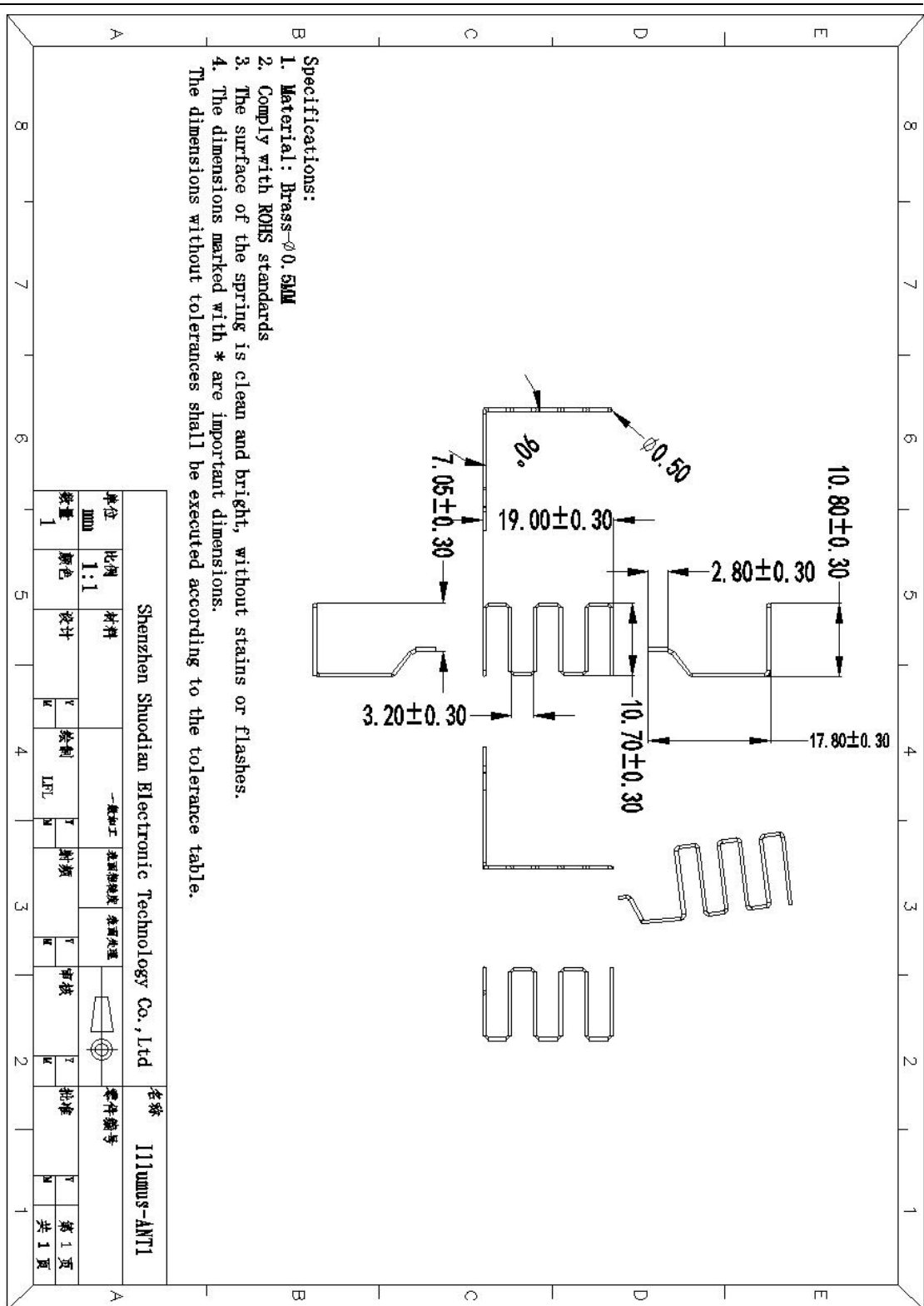
No.	Material	Size (MM)
1	spring	19*10.7*17.8 $\phi$ 0.5

#### 4.12 Apperance

Good appearance without scars 、 dirt、 protuberances, etc.

#### 4.13 Antenna Picture and Structure Dimension

**Product drawings:**





## 4.2 Electric Performance

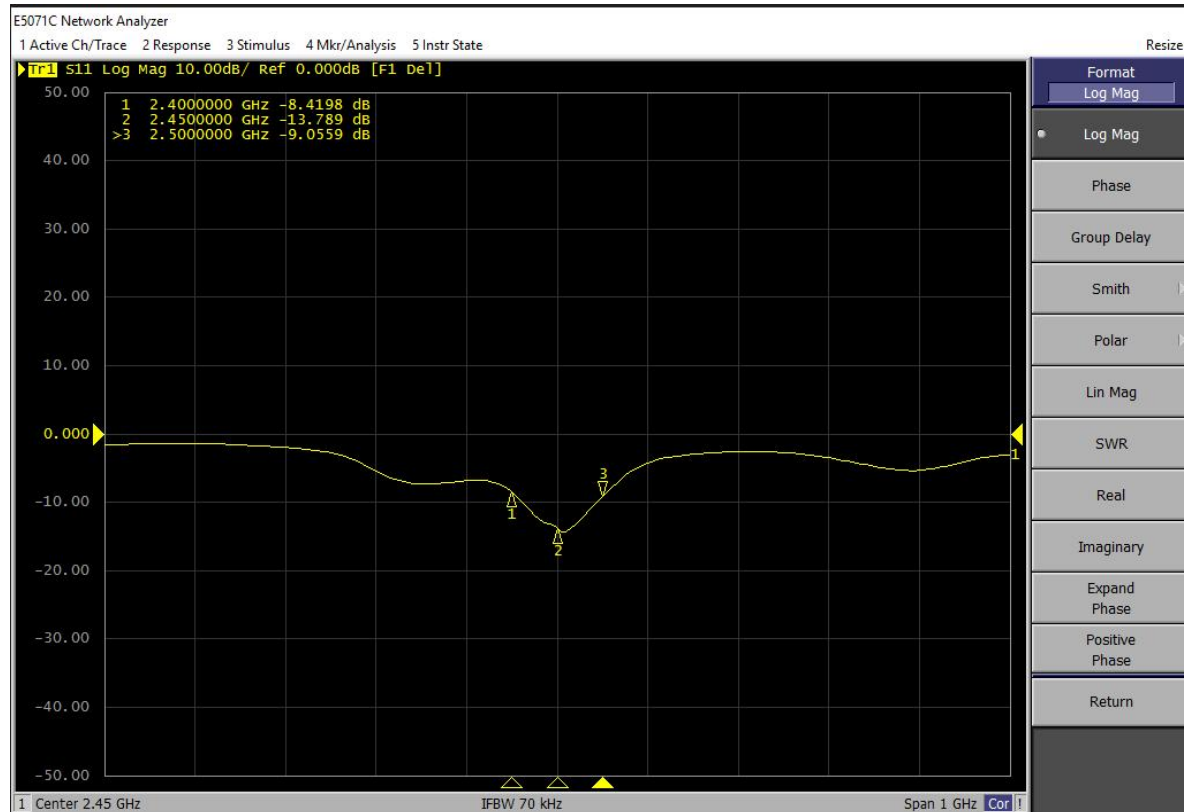
### 4.21 Test condition

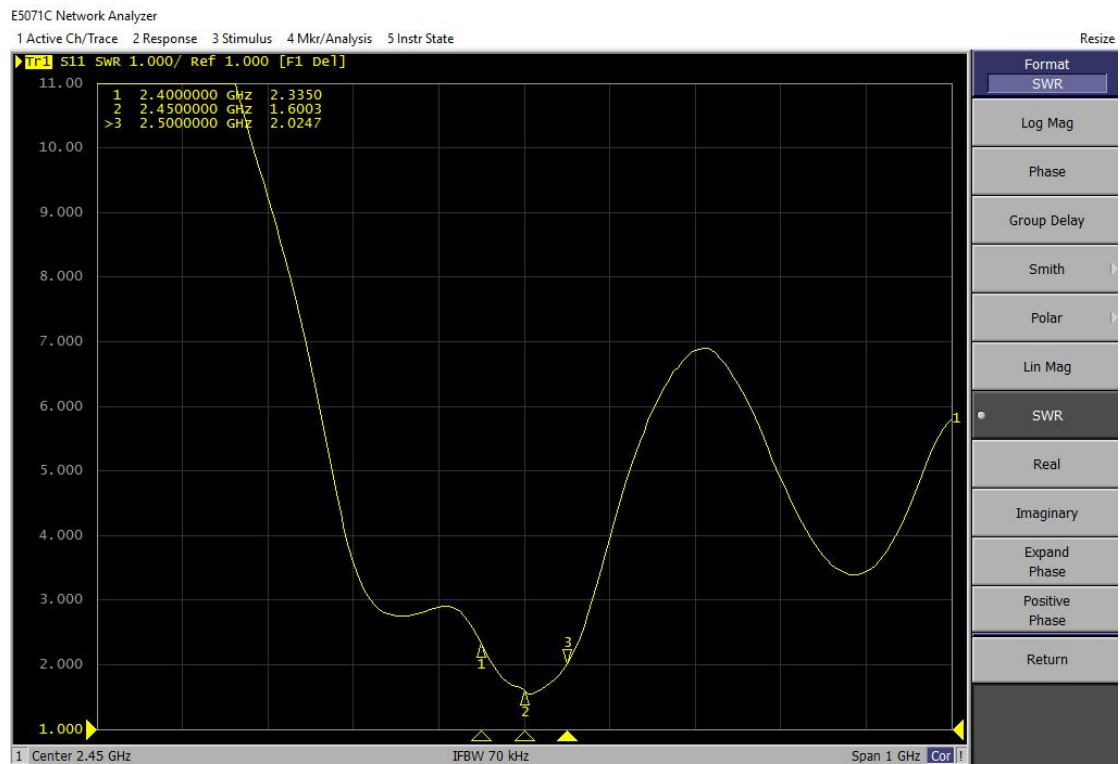
Environment:	Equipment:
Temperature: 10℃——+30℃	NetworkAnalyzer: KEYSIGHT E5071C
Humidity: ≤80% (+40℃)	Anechior Chamber: ETS
Atmospher: 750mmkg±30mmkg	

### 4.22 Test Data for Electrical Performance:

#### 4.22.1 S11 of the Antenna:

Marker	2400MHz	2450MHz	2500MHz
Returnloss	-8.41	-13.78	-9.05
VSWR	2.33	1.60	2.02





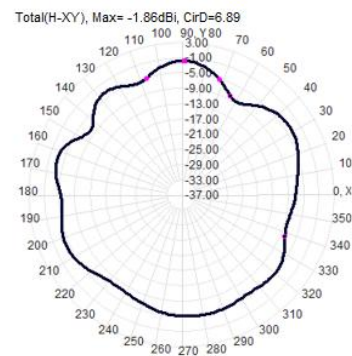
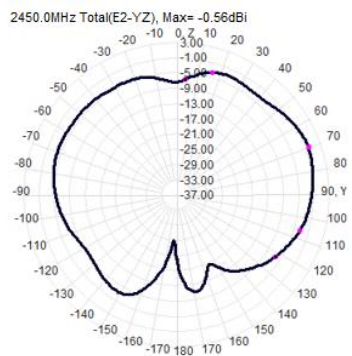
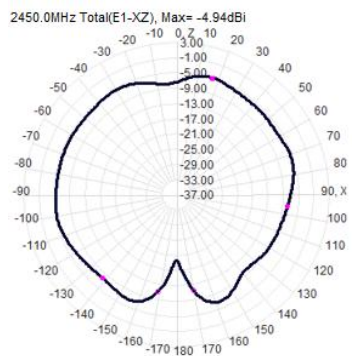
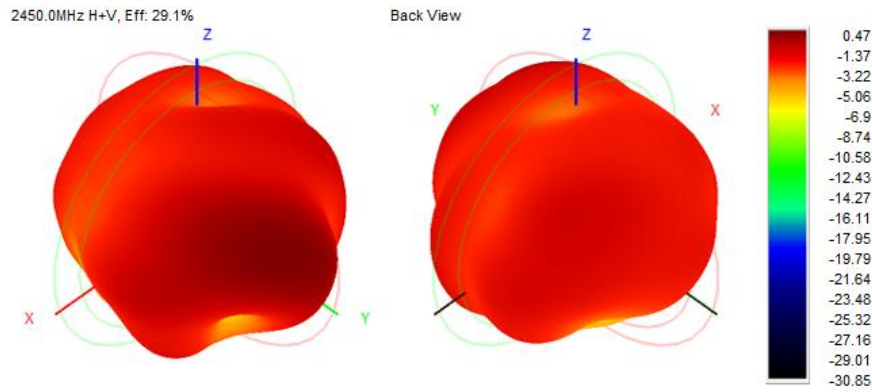
**4. 22. 2 Passive gain、 efficiency and Radiation Pattern:**

Freq (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	-0.88	-0.72	-0.30	-0.13	-0.01	0.47	0.15	-0.09	-0.02	-0.71	-0.87
Efficency (%)	25.1	26.4	28.5	28.7	29.1	29.1	29.7	32.5	35.6	34.2	34.9





**Radiation Pattern@2450MHz**



## 5. Product Packaging

Manner of packing:

Packed in self sealed bags, 200 pcs each.



## 6. Document Resume

Document No.	
Release Date	2023/12/23
Author	XiofengZeng
Review	LiMing

## Revised History

Date	Version	Revised Record
2023/12/23	1.00	New Project