WiFi Antenna Specification

Custome ： Dongda Charm Technology

Product Name：**WiFi Antenna**

Product specifications：FPC+0.81 Cable+RFIV

Date of issue：2023-06-30

Manufacturer Recognition Column：

Proposed	Operations	Structure	Ratification

Customer Recognition Column：

Confirmation	Audit	Ratification

Directory

1 Product Description

The antenna is designed for superior performance， and can be widely used for wireless applications.

We provide comprehensive antenna design support such as simulation, testing and manufacturing for custom antenna solutions to meet your specific application needs.

2 Product Picture

3 Product Specifications

Passive Electrical Specifications	
Frequency Range (MHz)	2400-2500MHz
Input Impendence (Ω)	50
VSWR	≤ 3
Gain (dBi)	1.60
Polarization Type	Linear
Mechanical Specifications	
Height (mm)	44.1*7mm
Cable Length (mm)	60mm 0.81 Cable
Radiator	Cuprum
Connect Type	RF Ⅳ
Working Temperature (°C)	-40 ~ +85
Radome Color	Black

4 Test environment

Network Analyzer: Agilent 5071 B

Comprehensive tester: R&S CMW500(2/3/4G/NB-IoT/WIFI/BT); Anritsu MT8820C

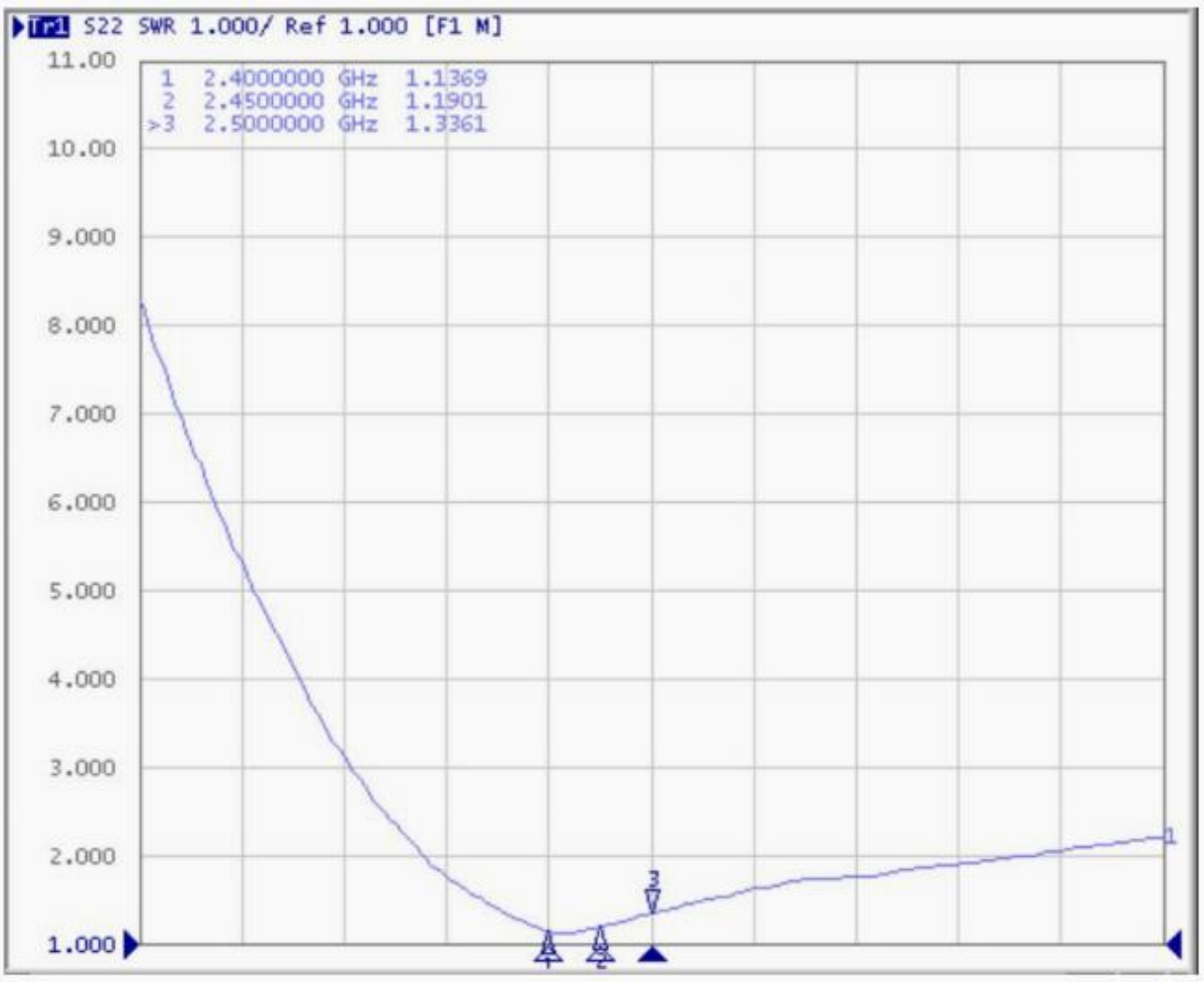
Microwave darkroom :3*3*3 ETS Chamber

5 Environmental Performance

Environmental Performance		
Test Description	Test Procedures & Condition	Requirements
Salt Spray Test	In a 35℃± 2℃ airtight environment, humidity> 85%, PH in the range 6.5-7.2, with 5% ± 1% Nacl solution Duration	1， No evidence of damage 2， The electrical performances should meet the spec. specified
High temperature test	Decay Test Conditions： Temperature:85℃， Duration : 24 hours	1. No evidence of damage 2. The electrical performances should meet the spec. specified
Low Temperature test	Decay Test Conditions： Temperature:-40±2℃， Duration : 10 Minute	1.No evidence of damage 2.The electrical performances should meet the spec.specified

6 Test data

VSWR



驻波比

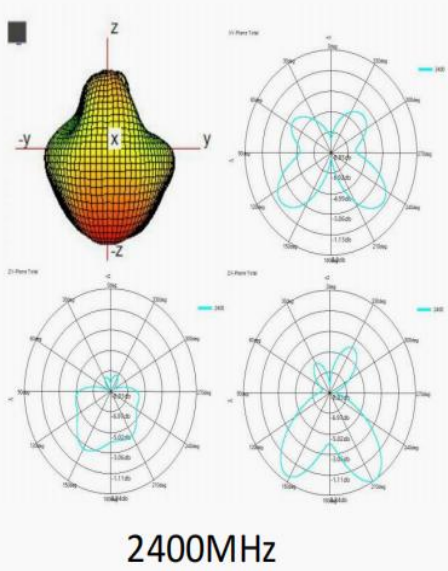
Frequency(MHz)	2400	2450	2500
VSWR	1.14	1.19	1.34

Efficiency&Gain

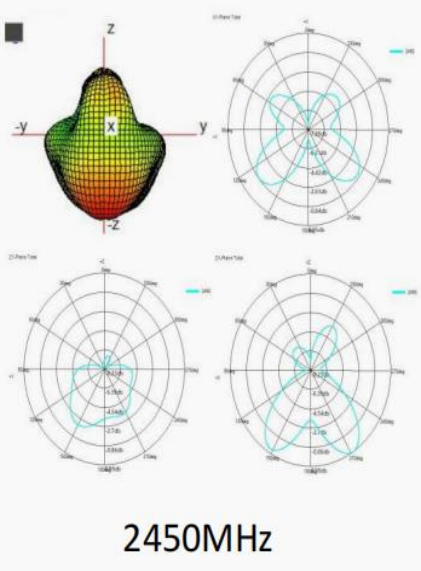
Freq(MHz)	Gain(dBi)	Efficiency(dB)	Efficiency(%)
2400	0.80	-3.77	41.93
2410	0.66	-3.85	41.25
2420	0.59	-3.78	41.83
2430	0.65	-3.64	43.29
2440	0.85	-3.40	45.76
2450	0.95	-3.25	47.30
2460	1.05	-3.17	48.14
2470	1.16	-3.13	48.69
2480	1.28	-3.03	49.83
2490	1.41	-2.90	51.32
2500	1.60	-2.68	53.90

Frequency(MHz)	2400	2450	2500
Efficiency(dB)	41.93	47.30	53.90
Gain(dBi)	0.80	0.95	1.60

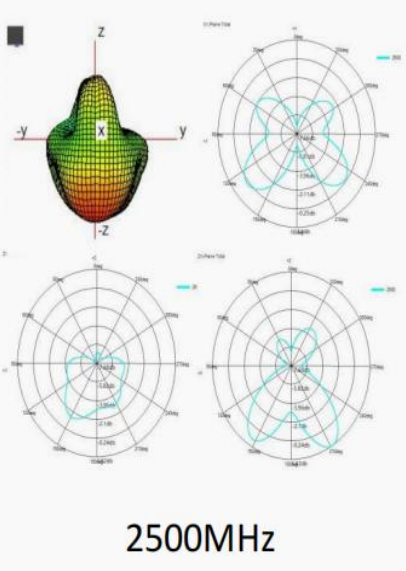
Radiation Patterns



2400MHz



2450MHz

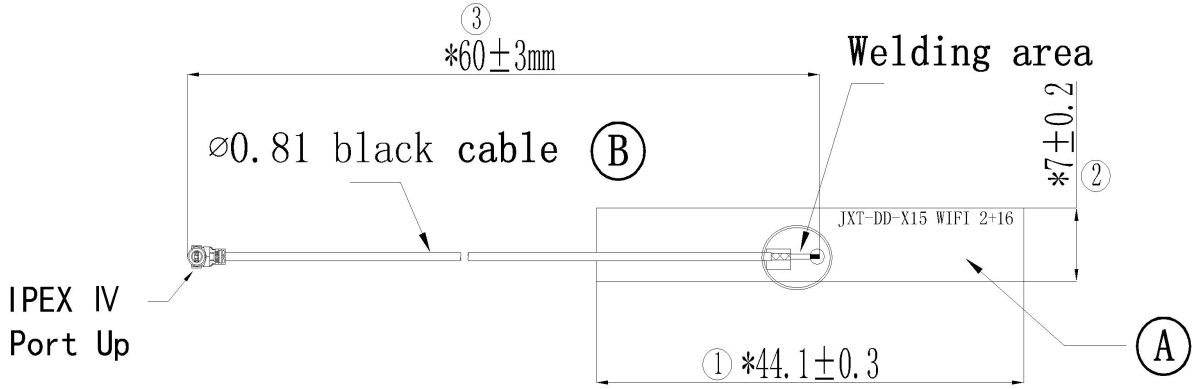


2500MHz

7 Engineering drawings

Date	Modification content	Edition

RoHS



technical requirement

FPC

1. The key control dimension is marked with *, and the unmarked chamfer is 0.2, and the process edge is 0.15mm;
2. The surface of the copper pool is coated with black oil, and the screen is printed with matte white characters in Song typeface, with a height of 1.3mm;
3. Use 3M 9471 adhesive for the back glue, with a thickness of 0.05mm;
4. Base material PI+electrolytic copper one and a half, with a thickness of 0.05mm;
5. The exposed copper area is nickel plated with a thickness of 3-6um. Please keep the electroplating area clean and free from stains, finger marks, etc;
6. Unmarked tolerances shall be in accordance with the general tolerance table.

Coaxial line

1. Key control dimensions with *;
2. The total length tolerance of the wire stripping head is ± 0.3mm. The wire stripping head should be coated with tin (lead-free) and comply with ROHS standards;

assemble

1. The tin wire used must be lead-free and comply with ROHS standards;
2. Please control the temperature of the soldering iron at 400 ± 50 ℃;
3. After welding, the height of the tin point shall not exceed 3.0mm;
4. The welding effect shall be inspected and accepted according to the Welding Instructions.

Ⓑ		Coaxial Cable	
Ⓐ		Shell	
Drawing No	Product code	Product name/Specification	

Shenzhen JieXunTong Wireless Technology Co.,Ltd.

0~9.99	±0.05	○	0.02	Product Name:	WIFI Antenna	DATE:	2023.06.29
10~19.99	±0.10	◎	⌀0.03	Project name:	DD-X15-2+16	Engineer:	
20~39.99	±0.15	⊥	0.02	Product Code:	20605013521	RF:	
40~	±0.20	▱	0.04	Material:	FPC+Cable	Assembly drawing	
X.	±0.10	⌿	0.02	Color:			
.XX	±0.05						
.X°	± 2°			UNIT: mm	Proportion: 1:1	Page: 1/1	Edition: R:A