

# Product Specifications for Approval

customer name:

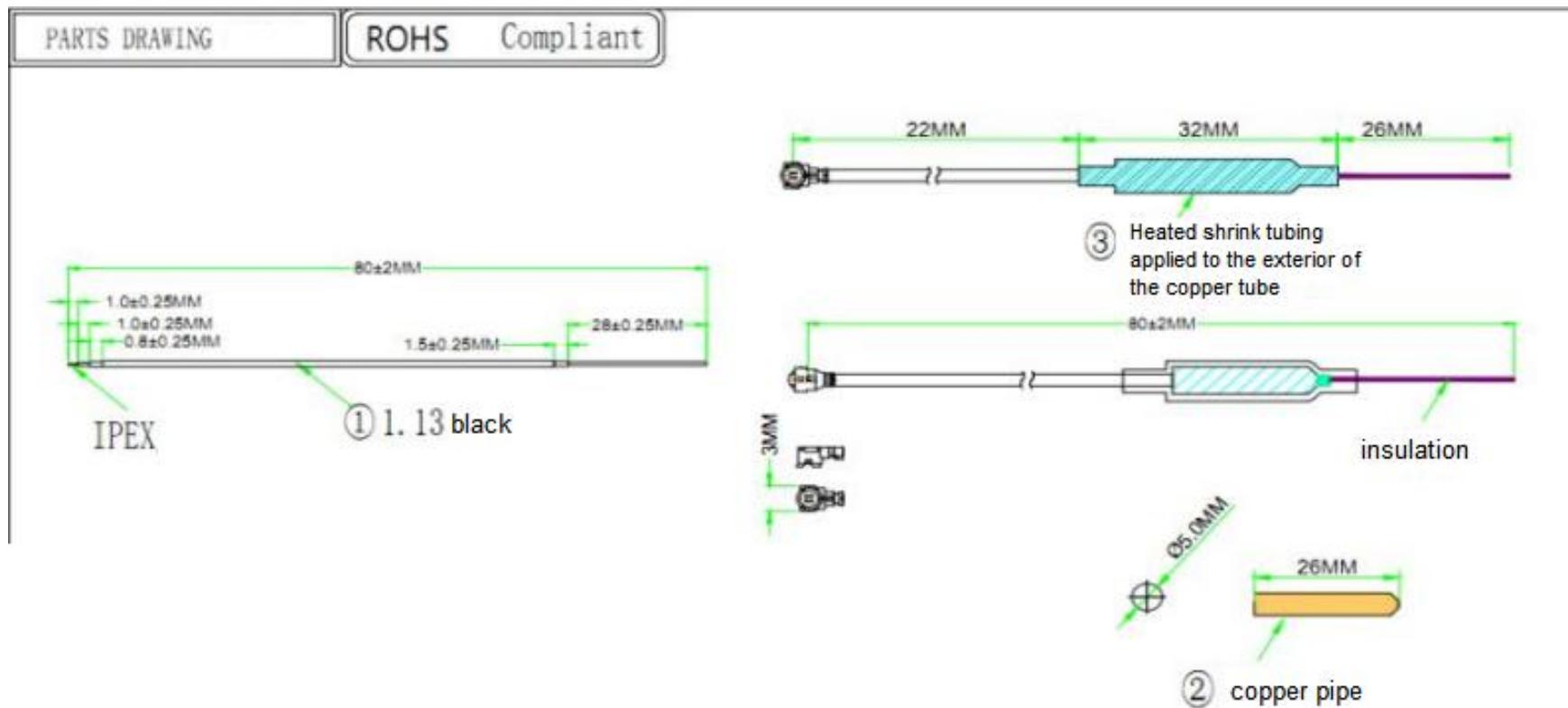
Antenna frequency: 2400–2500MHz

versions: A0

Date: 2025-07-10

structure:	<u>Li Qing</u>	RF:	<u>Rena</u>
check:	<u>Xu Juan</u>	approve:	<u>Xu Juan</u>

Specification drawing:



# Product Feature Specification Sheet

## 一、Product basic characteristics:

<b>Product Type: Copper Tube - WIFI - 1.13 IPEX First Generation Terminal - 1.13 Wire - Double Tin Wire - Black - L = 80MM</b>	
<b>DESCRIPTION</b>	<b>VALUE</b>
<b>Frequency range</b>	2400-2500MHz
<b>Impedance</b>	50 Ω
<b>V.S.W.R</b>	Comparison of sample waveforms
<b>Gain</b>	0DBi
<b>Radiation</b>	Omni-directional
<b>Polarization</b>	linear Vertical
<b>Admitted power</b>	1W
<b>Connector</b>	IPEX CONN
<b>Operating temp</b>	-45°C~+85°C
<b>Storage temp</b>	-45°C~+85°C

## 1. Summary :

This report to account for the measurement setup and result of the Antenna. The measurement setup includes s-parameter, The measured data for Antenna are presented and analysis

## 2. S-Parameter Measurement S :

A. Reflection coefficient :

- (a) Instrument: Network Analyzer.
- (b) Setup :

- (1) Calibrate the Network Analyzer by one port calibration using O.S.L. calibration kits.
- (2) Connect the antenna under test to the Network Analyzer.
- (3) Measure the S11(reflection coefficient) shown in Fig. 1.
- (4) Generally, the S11 is less than -10dB to ensure the 90% VSWR 2.0:1 power into antenna and only less than 10% power back to system.

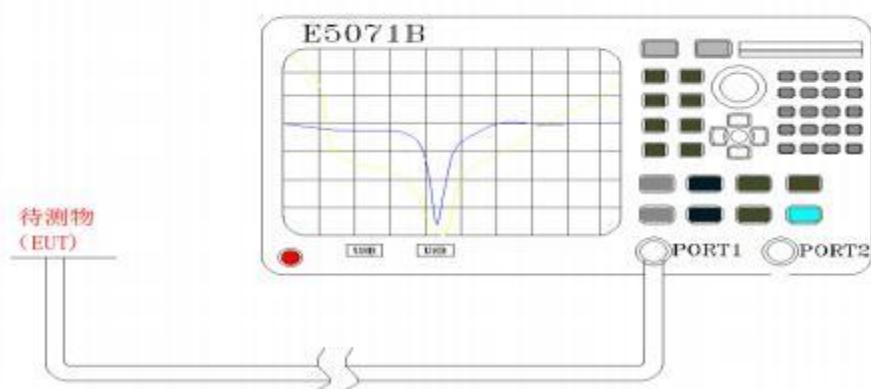


Fig.1 Antenna measured in Network Analyzer

### 3. S-Parameter Measurement Result :

S-Parameter test data S:

Frequency MHz	2400	2450	2500
V.S.W.R 驻波比	1.12	1.43	1.55

S-Parameter test image :



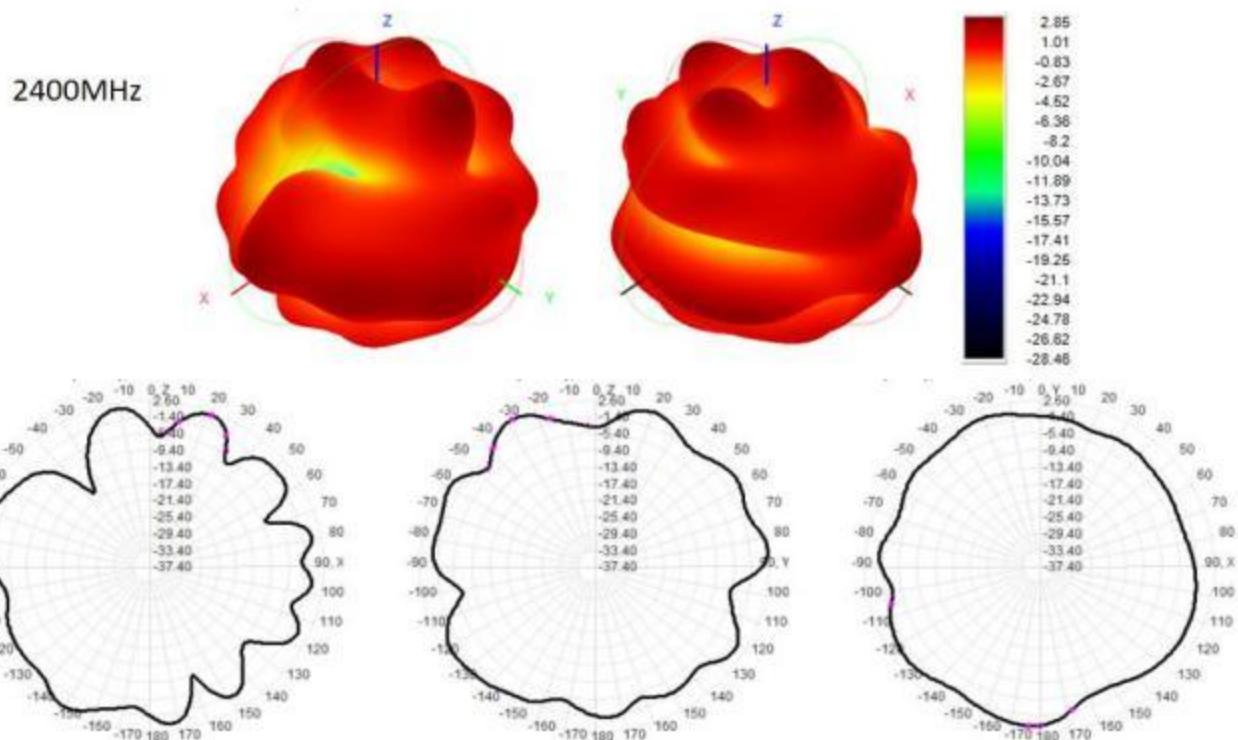
Product appearance:

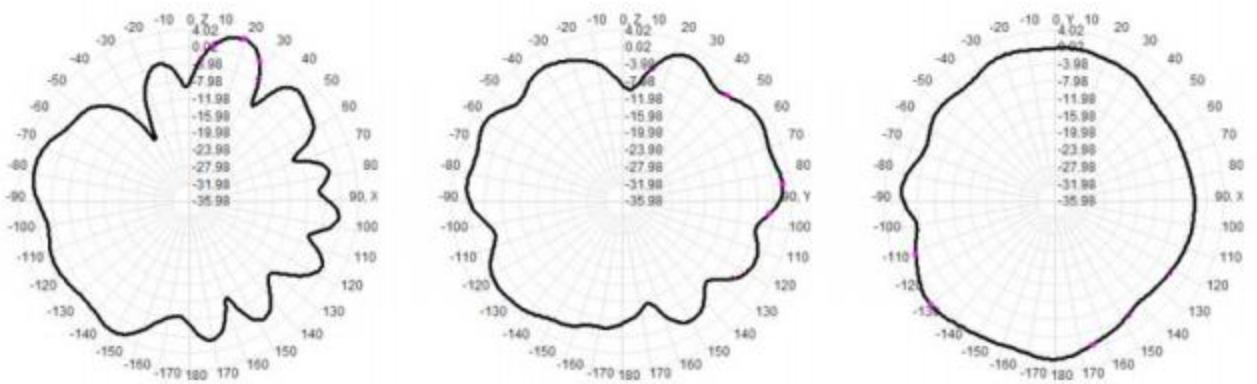
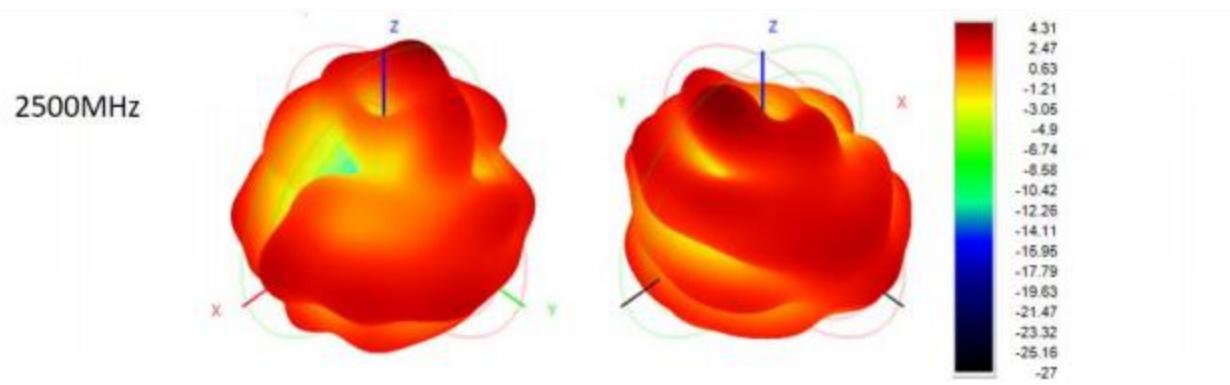
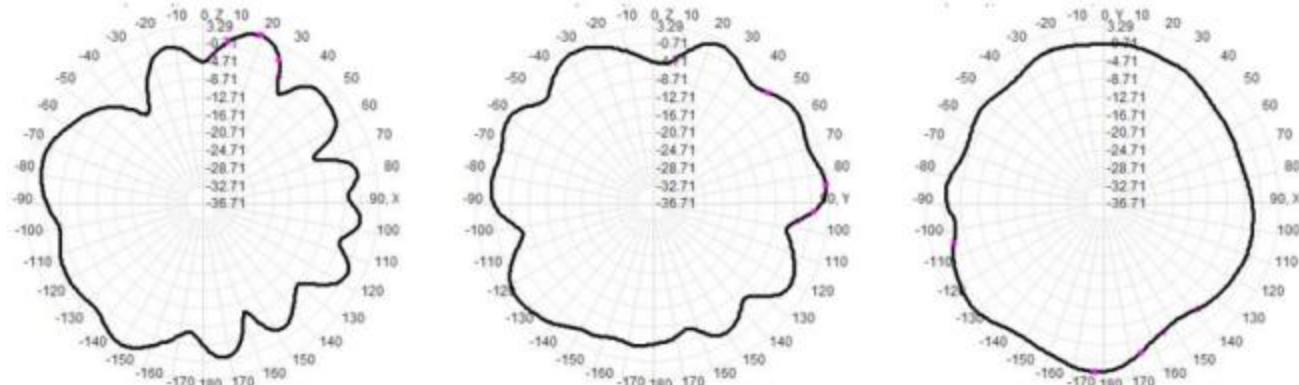
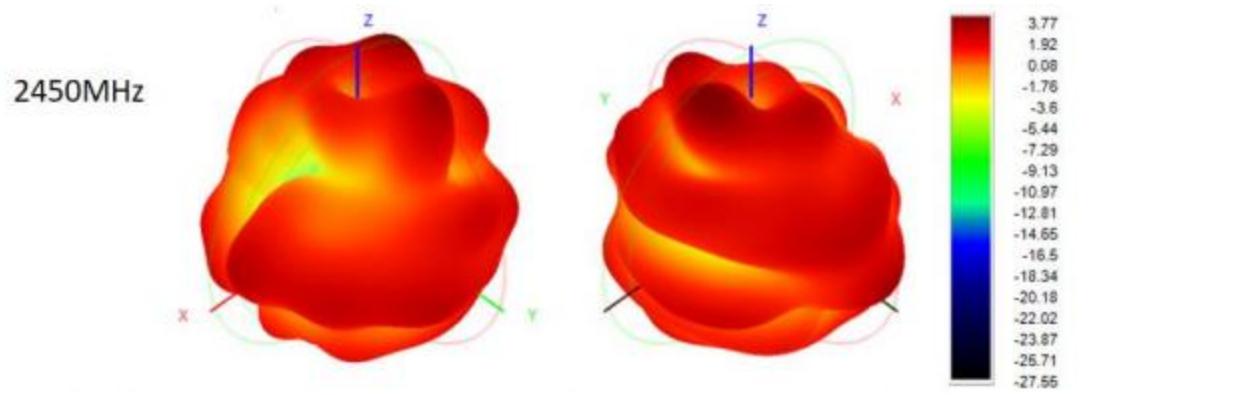


Parameter:

Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	30.51	0.0
2450	25.47	0.0
2500	22.17	0.0

2D、3D





Environmental performance test:

ITEM	TEST CONDITION	TEST RESULT
The storage environment	<p>In the absence of the specified circumstances test temperature, humidity, air pressure is as follows:</p> <p>1 temperature is -30 °C ~ +80 °C</p> <p>2 relative humidity for 45%-85%</p> <p>The 3 pressure is 86kpa-106kpa</p>	Electrical and mechanical properties of normal
Thermocycling ;	<p>5 cycles between 70 °C and 40 °C, then under normal conditions</p> <p>1-2H, appearance quality inspection.</p>	<p>Dimensions should meet the requirements and shall satisfy</p> <p>In the mechanical, electrical properties</p>
Resistance to damp heat Test	<p>Relative humidity is 95 ± 3%, test temperature: 40 °C. Continue after 2H,</p> <p>Test within the product after removing the 5min determination of the electrical properties, in the normal sample</p> <p>Under 1-2H, the appearance of quality inspection</p>	<p>Dimensions should meet the requirements and shall satisfy</p> <p>In the mechanical, electrical properties</p>
vibration test ;	<p>Displacement amplitude of vibration frequency range: 10-55HZ, 0.35MM, the amplitude of acceleration: 50.0M/S, sweep cycle times: 30 times</p>	Electrical and mechanical properties of normal
fall-down test ;	1M high altitude in accordance with the perpendicular axis free fall 3	Electrical and mechanical properties of normal