

Shenzhen Jiexuntong Wireless Technology Co., Ltd.

Shenzhen Jiexuntong Wireless Technology Co., LTD

Product Specification Sheet

Customer Name: Shenzhen Ruili Acoustic Technology Co., Ltd.

Customer Project Name: B026

Our company material code: 20505022489

Antenna frequency band: 2400–2500 MHz

Version: V1.0

Effective Date: November 24,2025

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1 Scope

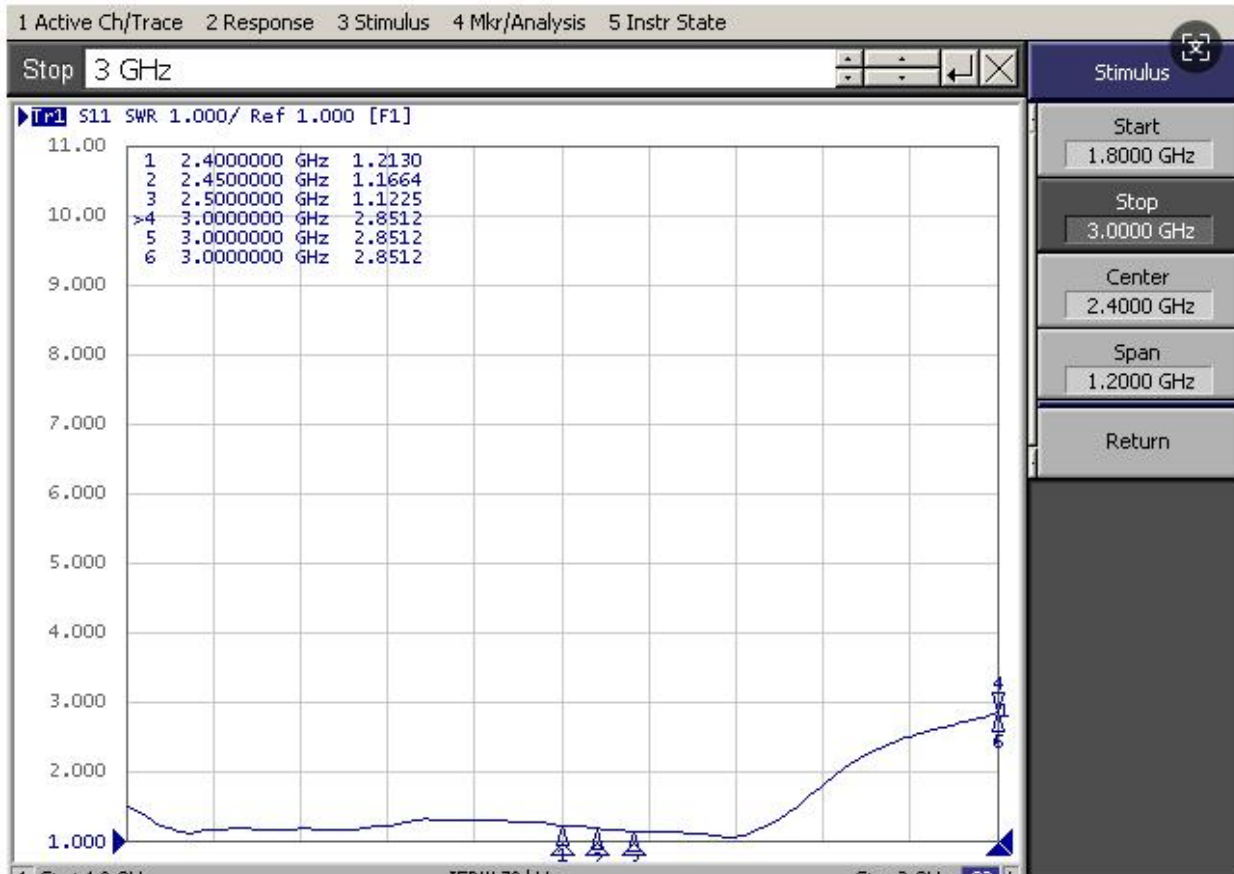
This document specifies the RF technical specifications and the external structural design of the "20505022489 Antenna". It applies to all stages of the "20505022489 Antenna" product lifecycle, including design, verification, manufacturing, and quality inspection. The product identifier is: 20505022489 Antenna.

2 Qualification

2.1 Electrical specification

Qualification	
Frequency range (MHz)	2400–2500
Polarization mode	Linear polarization
Gain(dBi)	≤ 3
Voltage standing-wave ratio	≤ 2
Input impedance(Ω)	50
Terminal type	IPEX
Antenna color	Black
Antenna dimensions (mm)	65.6*15
Antenna Type	FPC antenna

2.2 VSWR

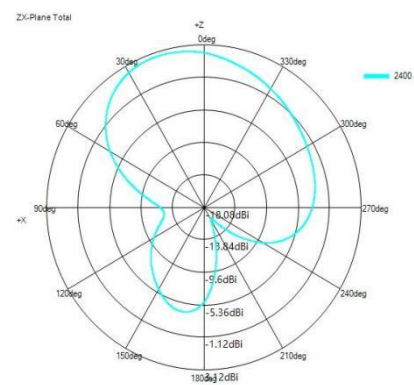
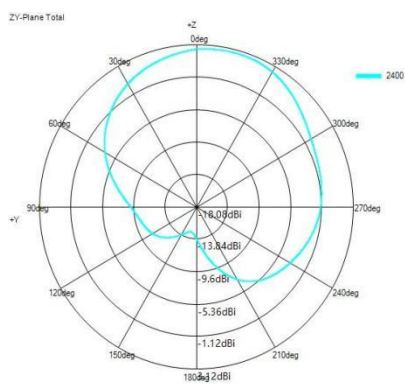
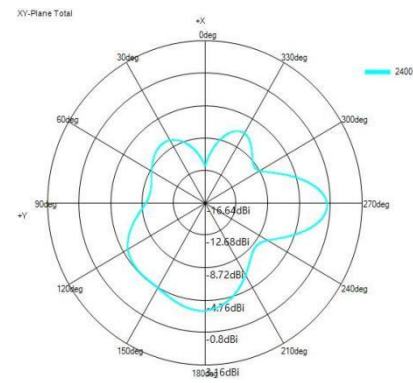
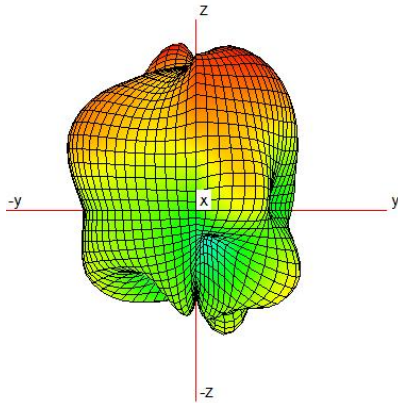


2.3 Gain&Efficiency

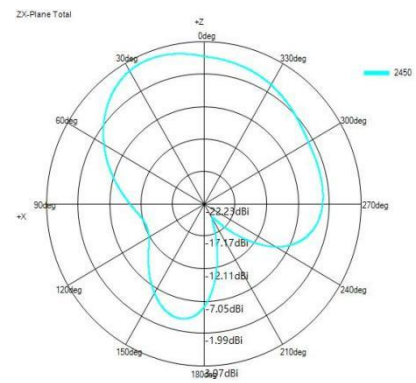
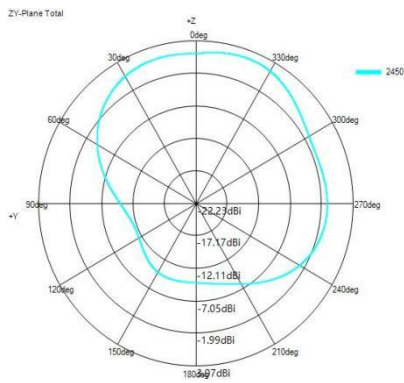
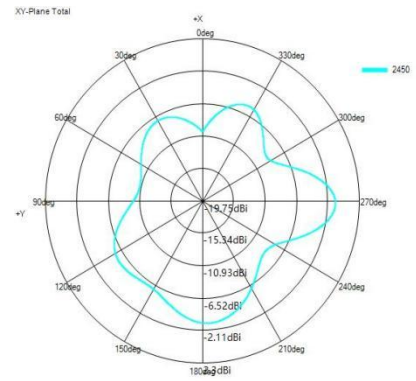
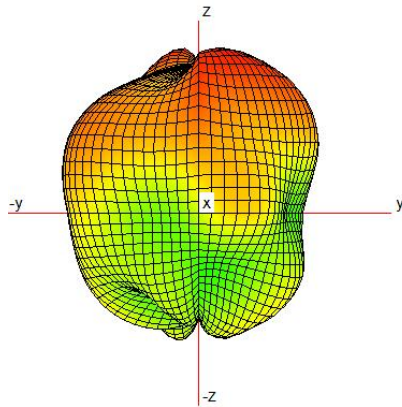
Freq (MHz)	Gain (dBi)	Efficiency (%)
2400	2.69	48.02
2410	2.23	47.37
2420	2.08	47.07
2430	2.04	46.81
2440	1.90	45.35
2450	1.82	45.56
2460	1.99	46.44
2470	2.14	47.16
2480	2.15	45.96
2490	2.19	45.89
2500	2.24	45.85

2.4 3D&2D Graph

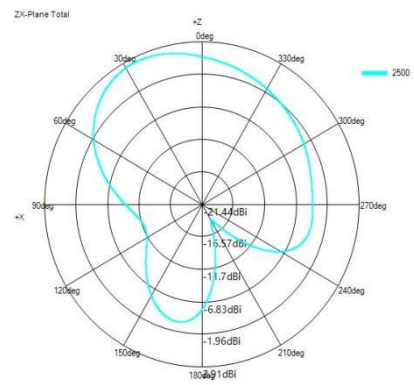
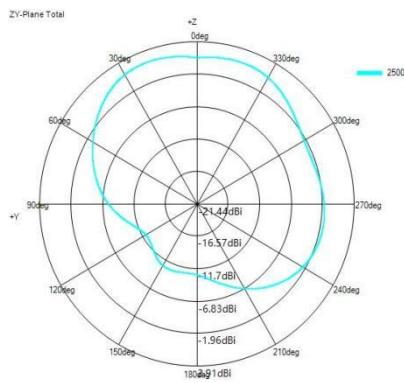
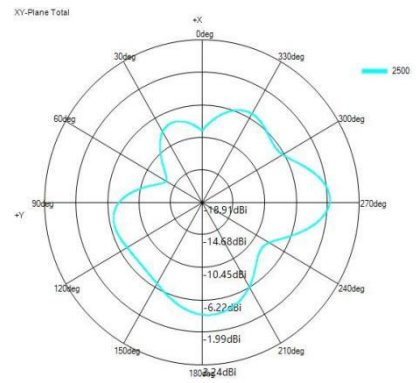
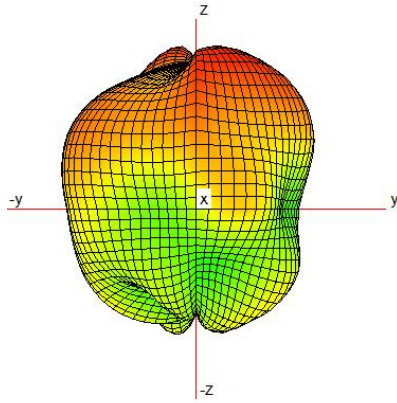
2400MHz



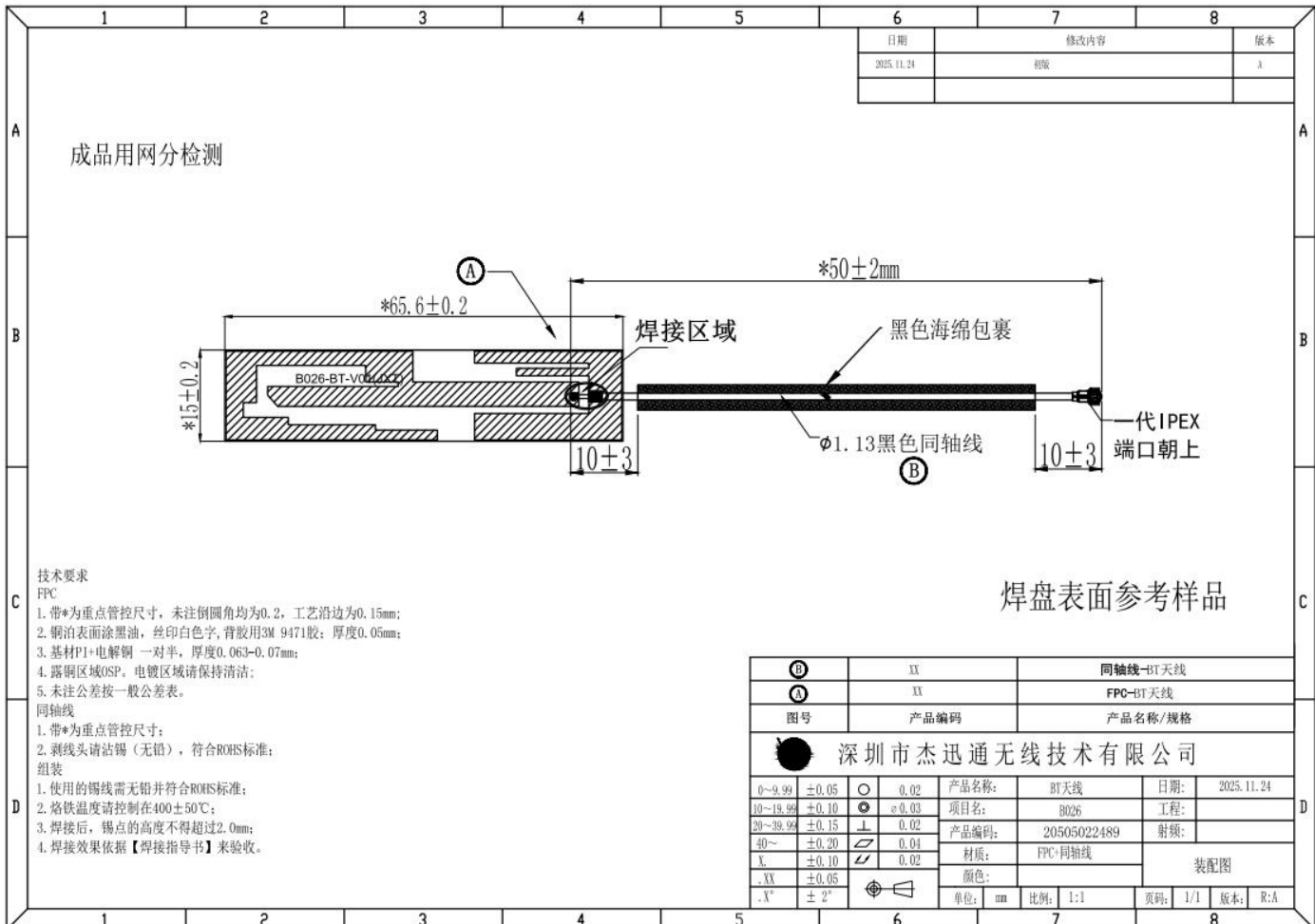
2450MHz



2500MHz



3 Structural Dimension Specifications



4 General Technical Requirements

- Operating temperature: -30°C to +70°C; Humidity: ≤95%.
- Storage temperature: -30°C to +70°C; Humidity: 20% to 80%
- Test temperature: 15°C to +30°C; Humidity: 40% to 70%
- Atmospheric pressure: 86–106 kPa
- Transportation requirements: The packaging shall be rainproof and shockproof; the outer packaging shall be labeled with warnings for fire resistance, moisture resistance, and chemical resistance.
- Packaging Drop Test and Random Vibration Test Requirements: Refer to Table 6 (FALL/VIBRATION/RANDOM, etc.) in EN 30001-90202V020102P (Environmental Engineering (EE); Environmental Conditions and Environmental Testing for Telecommunications Equipment; Part 2-2: Environmental Test Specifications; Transportation).

5 Reliability Characteristics

The feasibility test shall be conducted in accordance with *GB/T 5080.7—1986 "Test schemes for verifying failure rate and mean time between failures under the assumption of constant failure rate – Equipment reliability testing"*, with the mean time between failures (MTBF) used to assess product reliability.

The average Mean Time Between Failures (MTBF) of the product shall not be less than 100,000 hours.

6 Product Packaging, Storage, and Transportation

6.1 Product Packaging

The product or its packaging shall bear the following information: product name, model and specifications, applicable standard number, name and address of the manufacturer; the outer packaging container shall display the manufacturer's name, product name, product model, and manufacturing date, along with transportation markings such as "Handle with care" or "Keep dry"; such transportation markings shall comply with the provisions of "*GB 191—1990 Packaging, Storage and Transportation – Graphic Symbols for Marking*". The packaging container shall meet the requirements for moisture resistance, dust protection, and shock resistance; the interior of the packaging container shall contain the inspection certificate, spare accessories, the product user manual, and other relevant accompanying documents.

6.2 Save and Preserve

The product shall be stored in its original packaging box. The warehouse ambient temperature shall range from -25°C to $+60^{\circ}\text{C}$, and the relative humidity shall be between 30% and 95%. The warehouse shall be free from harmful gases, flammable or explosive substances, and corrosive chemicals; it shall also be free from severe mechanical vibration, impact, or strong magnetic fields. The packaging box shall be placed at a height of at least 20 cm above the ground and at least 50 cm away from walls, heat sources, windows, or air inlets. The shelf life under these specified conditions is generally one year; upon expiration of this period, a new acceptance inspection shall be conducted.

6.3 Transport

The packaged product shall be capable of being transported by any means of transport to any destination. During transportation, the product shall not be mixed or loaded together with flammable, explosive, or corrosive materials; furthermore, the product shall not be exposed to rain, snow, liquid substances, or mechanical damage.