

sample INFORMED CONSENT FORM

supplier : Shanghai Shangyuan Communication Technology Co., Ltd. Project Title: W1

Material Name: ring BT antenna Material specifications: Black FPC tape coaxial/screen printing: W1_ZH

BT_V1.0 SY/welded coaxial 4th generation terminal, line length 31mm/ Shangyuan material number: SZ25150IB77 material color black

material code: 207110586 Supplementary Reports: ☐ Standard 2D drawings ☐ Sample test reports (appearance, dimensions, functionality) ☐ Product specifications

☐ Sample Reliability Test Report ☐ List of Critical Materials (Brand & Supplier) ☐ Packaging Method Description

☐ Quality Control Plan (QC Engineering Diagram) ☐ Material Certificate and Material Test Report (must comply with RoHS Submission Date: 2025. 06. 09 Number of samples to be sent: Four copies (each copy must be accompanied by samples) Sample type: ☐ Structural ☐ Electronic ☐ Packaging materials ☐ Others: Reason for sample submission: ☐ New mold ☐ New supplier ☐ Mold modification ☐ Engineering change ☐ Others:-----**The above information is filled by the supplier, and the following information is filled by Yingda Company** Routine performance test: ☐ Qualified ☐ Unqualified ☐ Others: Reliability test: ☐ Pass ☐ Fail ☐ Other: Small batch verification: ☐ Pass ☐ Fail ☐ Other: Evaluation results: ☐ Limited acceptance Limited quantity: ☐ Fully agree ☐ Others: remarks : _____

Supplier sample confirmation: (stamped)

Lay down	Examine and verify	Ratify	Character	Commercial affairs

Yingda Company has approved:

Hardware confirmation	Structure confirmation	Project confirmation	Quality confirmation	Confirm date

Shanghai Shangyuan Communication Technology Co., Ltd.

Skyline Acknowledgement

Customer Name: Yingda		Project Name: W1 Ring
Working frequency: BT		
Hardware version: W1_ZB_V2		
Shangyuan Material Specifications		
Specifications and models	Shangyuan Material Number	Customer part number
BT antenna	SZ25150IB77	207110586

Change resume						
Creation/Change Date		Change content		Altering party	Edition	
2025.06.09		New release		Xiao Kunxiong	A	
Shangyuan co-signature						
Research and development	Structure: Xiao Kunxiong		Review: Xu Wei		Quality Engineer: He Jinzhu	Approved by: Li Bin
	Radio Frequency: He Jinzhu		Review: Huang Xiong			
Customer co-signature field						
Electronic engineer		Project manager		Construction engineer		Quality Engineer

Shangyuan (China) Technology Co., Ltd.

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1. Project Information

1.1 Prototype Diagram



2. Antenna Matching Circuit

Match without changes

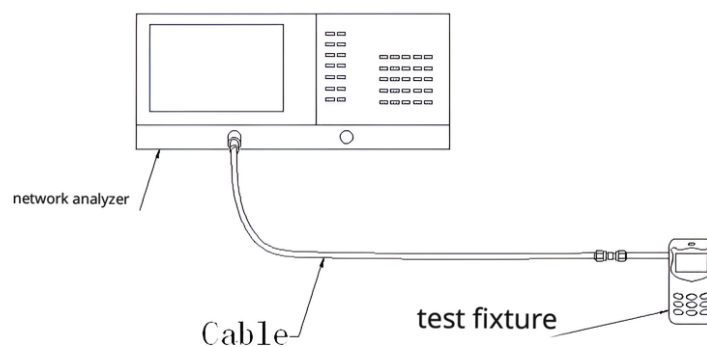
III. Antenna S 11 Parameters

3.1 S 11 Test Method Description

Test equipment: Network analyzer (Agilent E5071C)

The test method is to use a 50 ohm CABLE cable from the instrument test port, and connect the SMA connector of the test fixture after calibration with a calibration piece, and record the return loss and the standing wave ratio corresponding to the relevant frequency.

The test diagram is as follows:



Test diagram

4. Antenna OTA Test Data

4.1 Testing Environment

Test System: Multi-probe OTA Measurement System (XH-IoT)

Test environment: Temperature $22^{\circ}\text{C} \pm 3^{\circ}\text{C}$, humidity $50\% \pm 15\%$

Testing equipment: For passive data testing, use the network analyzer R&S ZND;

for active data testing, use the comprehensive tester Agilent 8960/CMW500/SP9500

E/SP8315.

OTA laboratory



comprehensive
measuring
instrument



SP9500-CTS-5G



CMW500



SP8315 NB-IoT
/eMTC

Other devices



OTA head hand



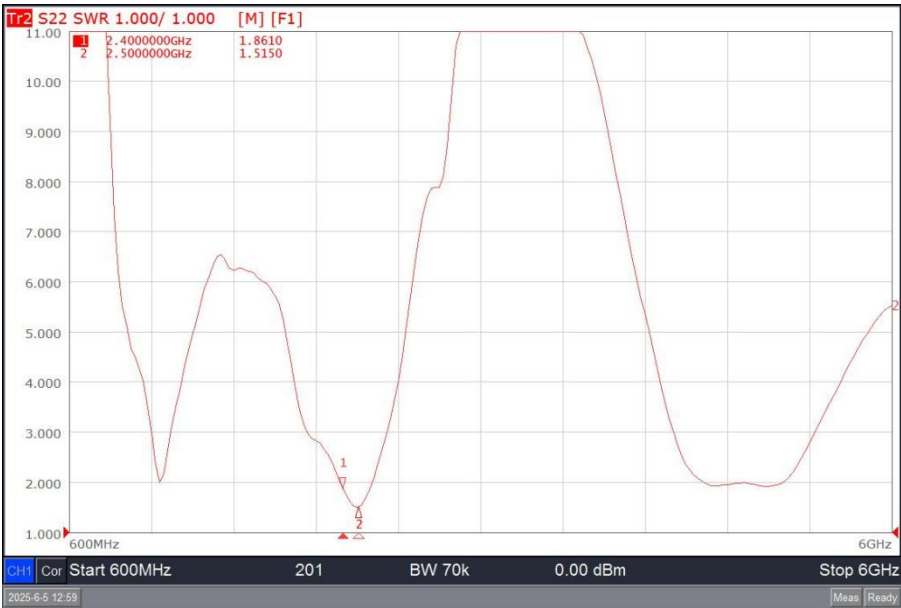
OTA ear hand



OTA arm hand

4.2 S 11 Parameters

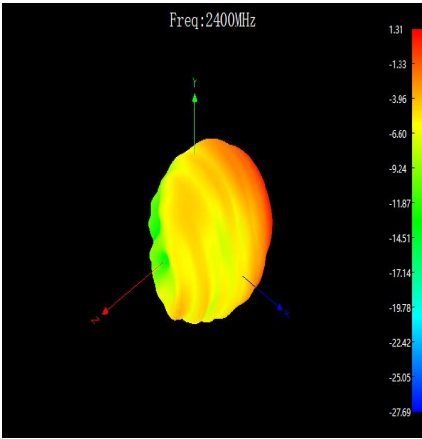
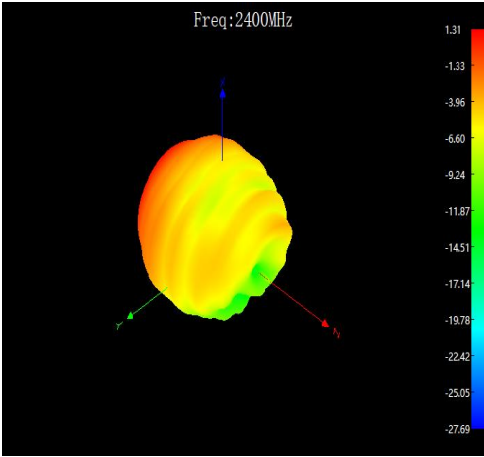
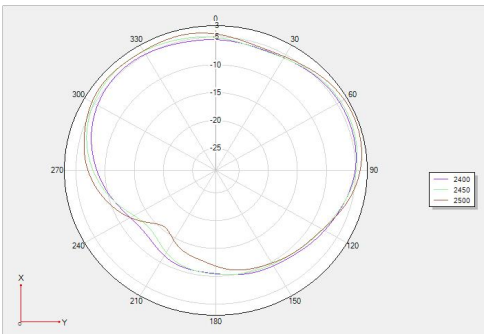
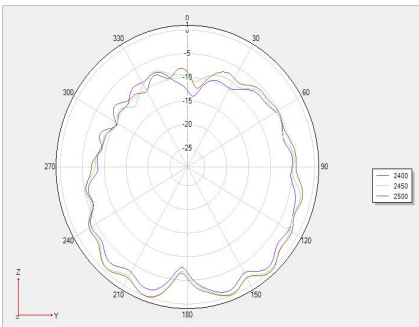
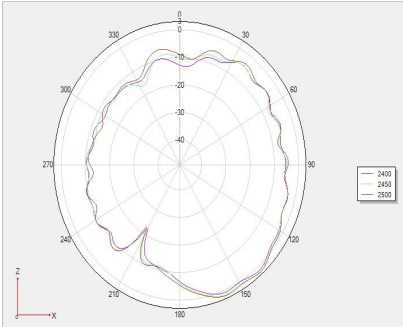
VSWR



4.3 Passive Test Data

Frequency/Mhz	MaxGain/dBi	Efficiency / %
2400	1.31	39.08
2410	1.52	40.46
2420	0.74	34.99
2430	1.03	35.81
2440	1.22	36.56
2450	2.06	42.66
2460	1.82	40.09
2470	2	41.21
2480	1.92	41.21
2490	2.25	42.17
2500	2.09	40.74

4.3.1 Directional Diagram



4.4 Active Test Data

Measurement	Band	Channel	Total
TRP	BLUETOOTH	0	2.23
TRP	BLUETOOTH	19	2.34
TRP	BLUETOOTH	39	2.78
TIS(EIRP)	BLUETOOTH	0	-88.66
TIS(EIRP)	BLUETOOTH	19	-89.94
TIS(EIRP)	BLUETOOTH	39	-89.57

V. Environmental Treatment Methods for Sample Machines

No Additional Environmental Treatment Was Added

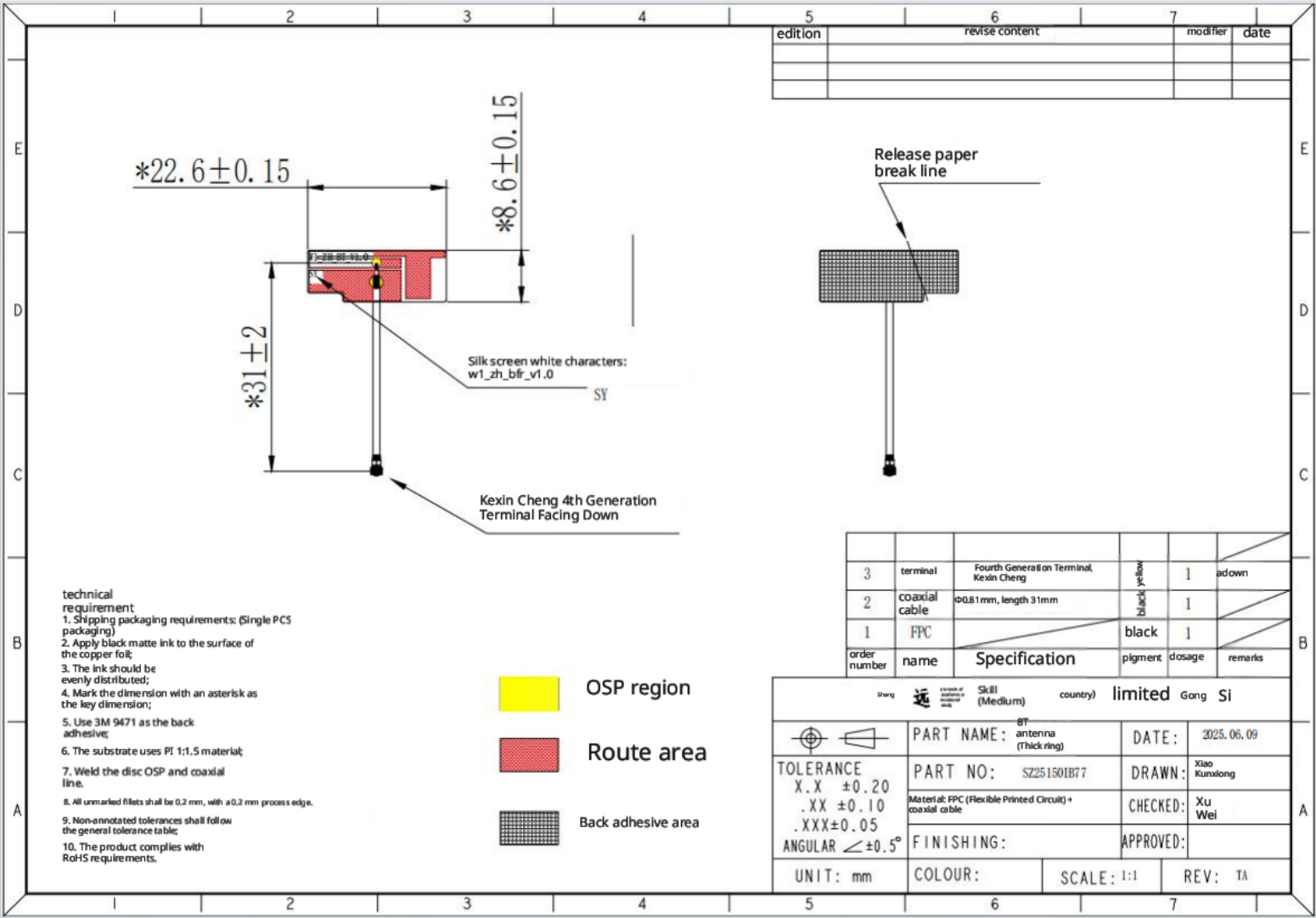
VI. Mass Production Antenna Specifications

The standing wave ratio is used as the standard for the mass production of antennas.

Provide the following criteria based on the project's specific differences:

Frequency (MHz)	Mass production standard
2400-2500	VSWR (production performance) < VSWR (acknowledged performance) ± 0.5

VII. Engineering Drawings



VIII. Packaging Method

Shenzhen Shangyuan Communication Technology Co., Ltd.					
Product Packaging Operation Specifications					
YY	Lot: Although it has reached...	Package name:	finger ring	Packaging Number: SNC-HZ-001	Package version: TEST: A
Packaging materials details	Indication	name of a part	specifications	dosage	
	PE	seal the bag			
	SNC-HZ-01	carton			
Job step	1. Prepare the required packaging materials for the favorable working position. 2. Package according to the SNC-IDD1 specifications using cardboard boxes and PE sealing bags. 3. Before each round of yellow wine, seal the bottles with transparent corks.				1. Decorative and practical operations. 2. Pay attention to the number of marks inside, avoid frequent or infrequent markings, and ensure the marking quantity is sufficient. 3. All non-essential or commonly assumed prior important assumptions.
Shipping label					
graphic	 Quantity: The actual amount of glaze coating shall be taken as the standard, which serves as the reference quantity.				
checked by		video check		by do	
				Chen Xiaoping	
				2025.05.09	

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