

Antenna SPEC

Supplier Name	Sunnyway				
Material Name	BT Antenna				
Specifications	Black PIFA, 9.3*15.83mm, spectrum:BT, screen printing: SY-VL04NA-BT-V1.0(JM -V L04NA / Sunnyway)				
Project Model	VL502	Pigment	Black		
Material code/material number					
Environmental requirements	<input checked="" type="checkbox"/> RoHS compliant <input type="checkbox"/> no-RoHS <input type="checkbox"/> Confirmed to REACH <input type="checkbox"/> no-REACH				
Type	<input type="checkbox"/> New product recognition <input type="checkbox"/> Material change will be admitted <input type="checkbox"/> Specification changes will be admitted				
State	<input type="checkbox"/> Structure sample qualified <input type="checkbox"/> Appearance sample qualified <input type="checkbox"/> Color samples qualified				
Description of replacement material					
Date	Change description			Signature	
Fill in by supplier					
Producer/Date		Reviewer/Date		Approver/Date	
Fill in by the company					
Structural recognition	Project recognition	Procurement recognition	Quality recognition	Hardware recognition	



尚远科技（中国）有限公司

Sunnyway Technology (China) Co. Ltd.

Antenna SPEC

Customer name: JimiloT		Entry name: VL04NA
Working frequency band:BT		
Motherboard version:		
Sunnyway Material specification		
Specification type	Sunnyway number	Customer number
BT Antenna	SZ23098IB75-2	

Revision history			
Date of preparation/change	Change content	Altered person	Edition
203.07.27	New issue	Chen min	A

Sunnyway Countersign column				
RD	ME:	To examine:	QE:	Approval:
	RF:	To examine:		
Customer will sign the column				
Electronic Engineer	Project manager	Structural Engineer	Quality Engineer	

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ITEM

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1. PROJECT PICTURES

project pictures shown below:



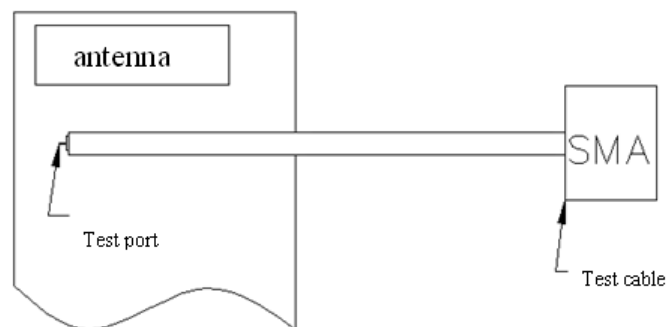
PS:

To ensure that the antenna shipment quality, the final prototype Clients validated the antenna's performance, should be kept in our company for at least a year time, facilitate solving antenna amount during abnormal situation,

2. TEST FIXTURE

Purpose: To test antenna passive parameters as accurately as possible.

methods: the fixture is to use a 50 ohm coaxial cable, one end is connected to the pad after the antenna's matching circuit (the front of the antenna switch) , and the other end is connected to the SMA connector.



3. MATCHING CIRCUIT



item	Matching parameters
C205	2.7nH
L4	0Ω
C206	N/C

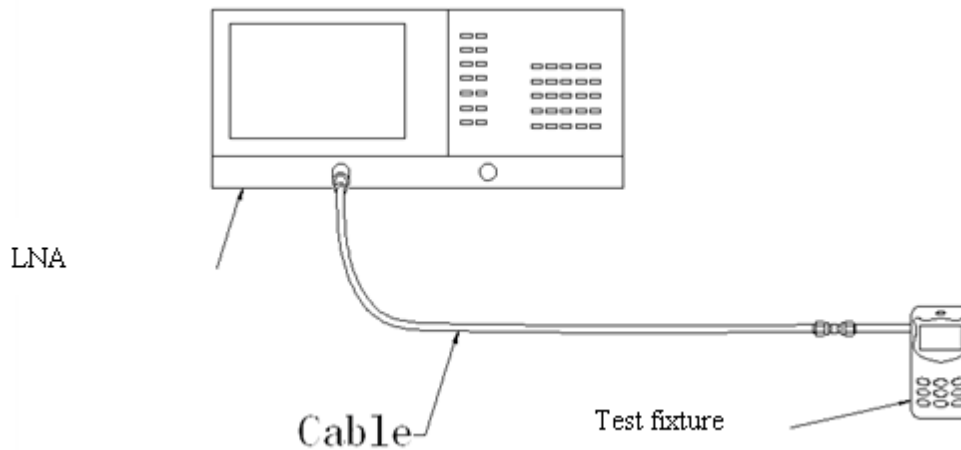
4. S11 test

4.0 S11 test method instructions

Test equipment: LNA (Agilent E5071B)

Test method: With a 50 ohm CABLE ,CABLE export from instrument testing port , After the calibration with calibration Key, connected to the SMA connector, Records the return loss and VSWR of the related frequency points.

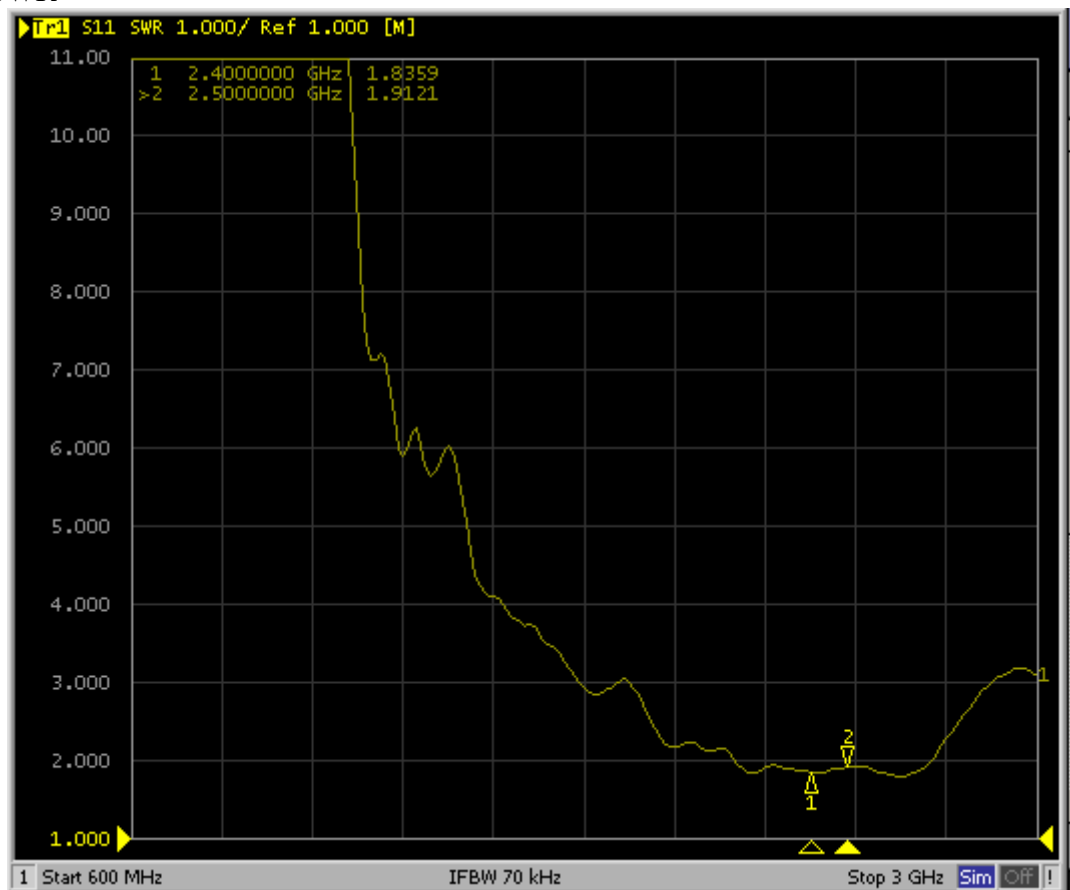
Test schematic diagram is as follows:



Test schematic diagram

4.1 S11 parameter

BT ANT VSWR



frequency (MHZ)	2400	2500
VSWR	1.83	1.91

5. CHAMBER TEST DATA

Test equipment

Test system: chamber

Test environment: the temperature of 22 °C + 3 °C, humidity of 50% plus or minus 15%

Test equipment: to test passive status , use Agilent 5071C to test active status, use CMW500.

Efficiency & gain

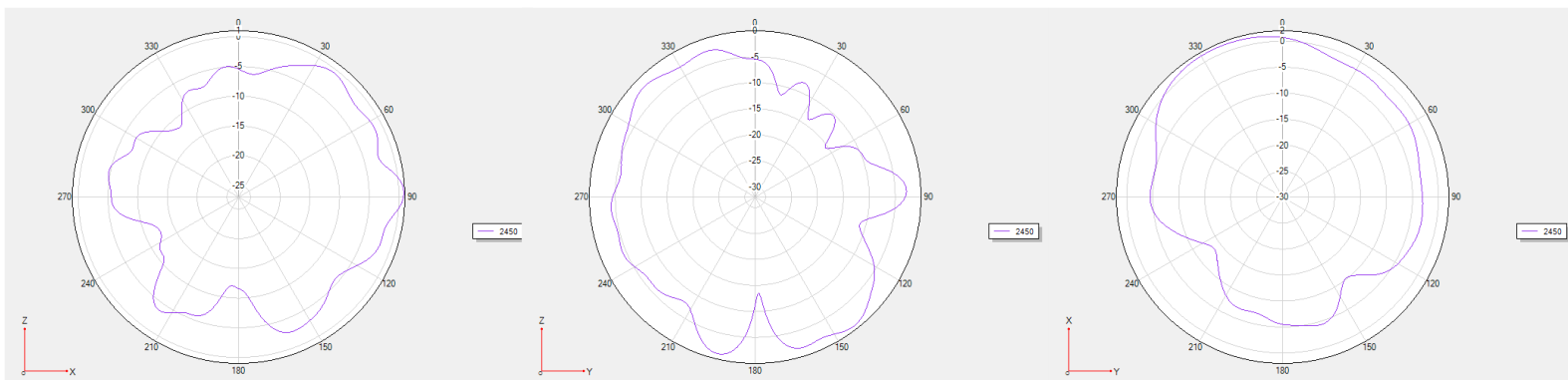
Frequency/Mhz	MaxGain/dBi	Efficiency
2400	2.4	45.1
2410	2.4	44.98
2420	2.4	46.03
2430	2.4	45.39
2440	2.4	44.46
2450	2.4	43.95
2460	2.4	42.56
2470	2.4	45.71
2480	2.4	45.19
2490	2.4	45.39
2500	2.4	43.95

Radiation pattern

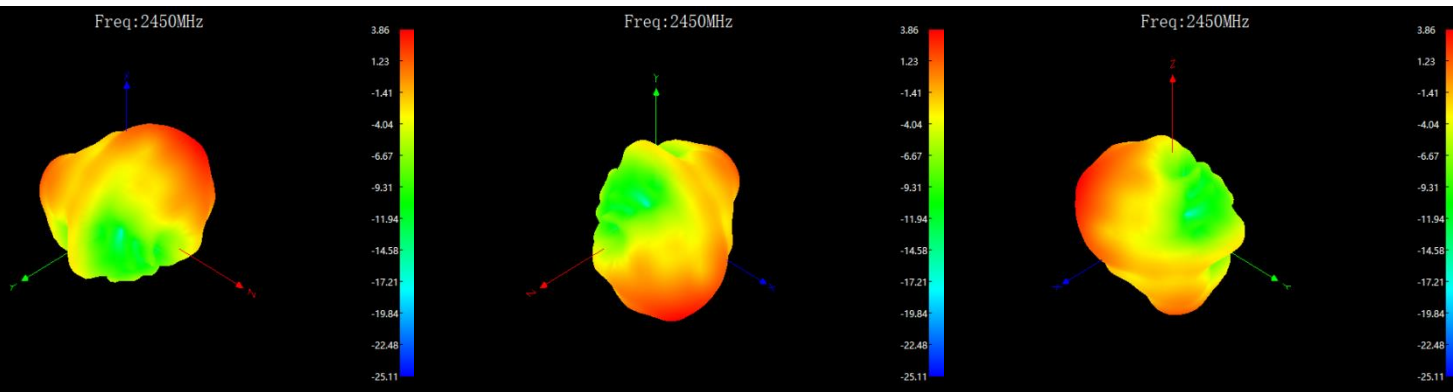
Phi0°

Phi90

Theta90°



3D For 24500MHz



6. The model environment processing mode



The two places are connected with conductive foam and the upper main board, so that it is fully grounded.

6. Ground handling

Environmental treatment is not added, according to the customer's original environmental treatment.

7. Mass production antenna Spec

During Mass production, to test VSWR as production test standard

According to the difference of the project itself, the following specification:

Frequency	SPEC , Mass Production
2400-2500MHz	VSWR (MP performance) <VSWR(Verify performance)+0.5

8. Structural drawings

