



Customer	
Project	XYD3018C RX LING V2.0
Antenna Revision	A0
Prepared by	18814303605
Checked by	
Date :	2024. 10. 31

2. Test System

Sequence Number	Test Item	equipment
S parameter	VSWR	Agilent 5071C & Agilent 5071C
OTA Test	TRP&TIS	Agilent 8960 & CMW500
Gain & Efficiency	Gain & Efficiency	Agilent 5071C



Purpose

This report is to measure the performance of antenna for **XYD3018C** The antenna operating frequency at 2400MHz-2500MHz 。 All test data are showed as below.

Content

1. Product Overview & Dimension
2. Test system
3. Antenna specifications
4. Test Result
 - 4.1- S11 Paramete - VSWR***
 - 4.2- S11 Paramete - Log Mag***
 - 4.3- S11 Paramete - Smith***
5. Test Result
 - 5.1 Gain & Efficiency***
 - 5.2 Test coordinate***
 - 5.3 2D Pattern***

3. Antenna specifications

— 1.

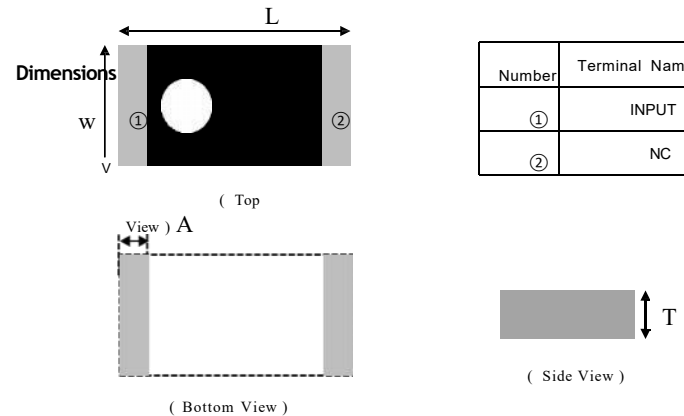
P/N: HLX321605A6

Features

- 1.Surface Mounted Devices with a small dimension of 3.6 x 1.6 x 0.5 mm³ meet future miniaturization trend.
- 2.Embedded and LTCC (Low Temperature Co-fired Ceramic) technology is able to future integrate with system design as well as beautifying the housing of final product.
3. High Stability in Temperature / Humidity Change

Applications

1. Bluetooth
2. Wireless LAN
3. ISMband 2.4GHz wireless applications

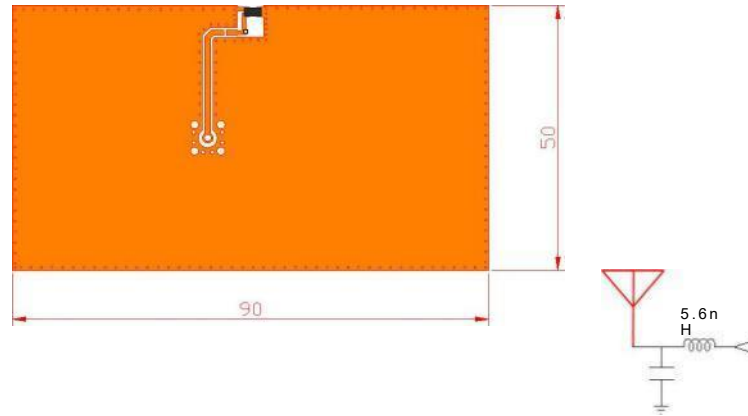
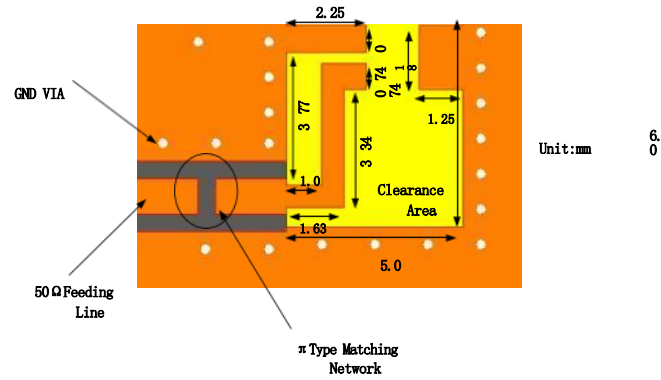


Symbols	L	W	T	A
Dimensions	3.2+/-0.2	1.6+/-0.2	0.5+/-0.1	0.4+/-0.1

3. Antenna specifications — 2.

P/N: HLX321605A6

Evaluation Board and Matching Circuits



05
a
F

3. Antenna specifications

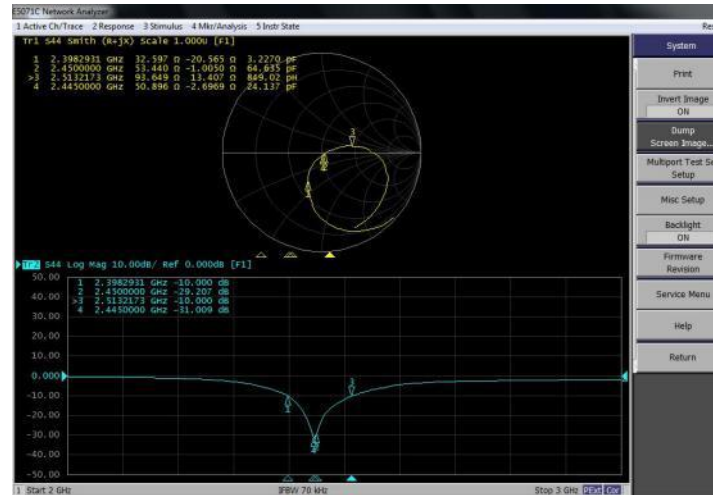
— 3.

P/N: HLX321605A6

Electrical Characteristics

No.	Item	Specifications
1	Central Frequency	2 450 MHz
2	BandWidth	100 MHz typ.
3	Peak Gain	4.08 dBi
4	Return Loss	≤2.0
5	Polarization	Linear
6	Azimuth Beam width	Omni-directional
7	Impedance	50 Ω

Characteristic curve



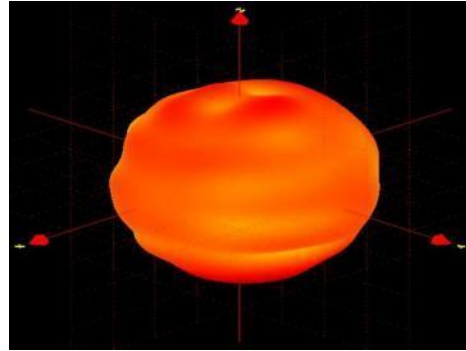
3. Antenna specifications

—5.

P/N: HLX321605A6

3D Radiation Pattern

2450MHz



Frequency (MHz)	2400	2450	2500
Avg. Gain (dBi)	-1.91	-1.30	-1.48
Peak Gain (dBi)	1.76	4.08	2.53
Efficiency (%)	72.1	78.2	71.8



Receiver
接收器

5.3 OTA Data

有源测试数据

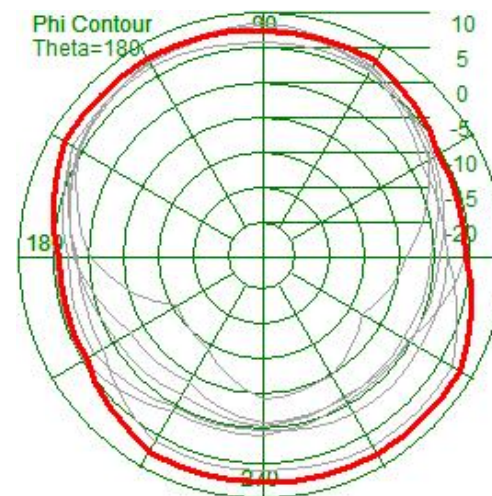
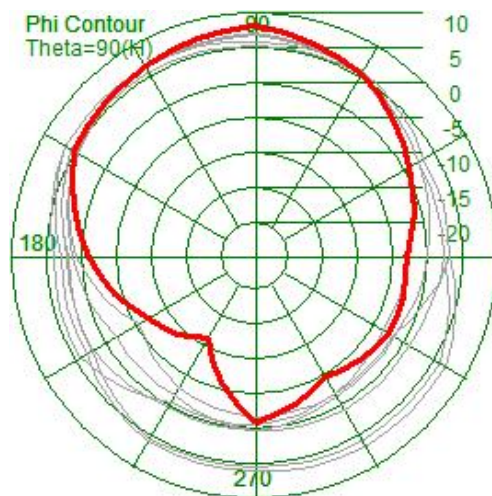
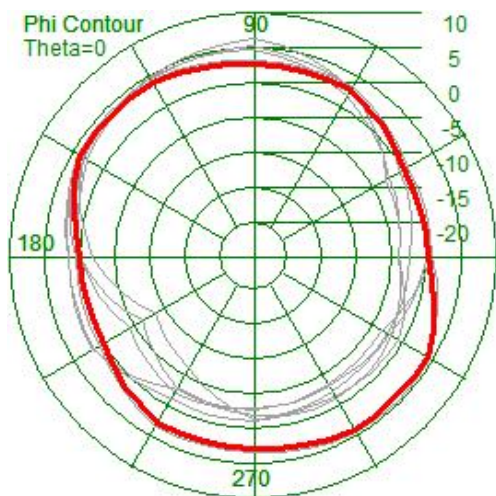
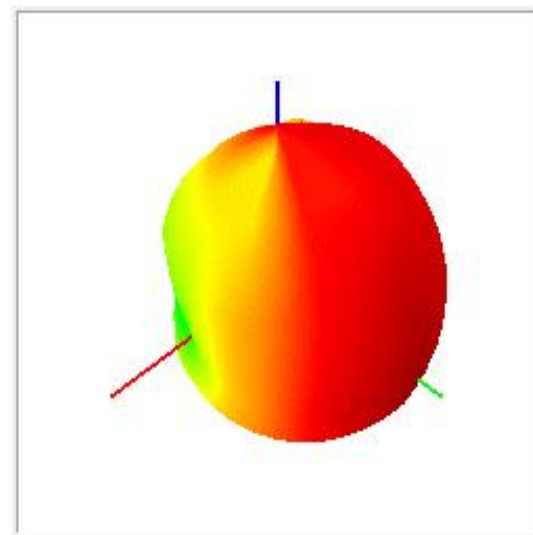
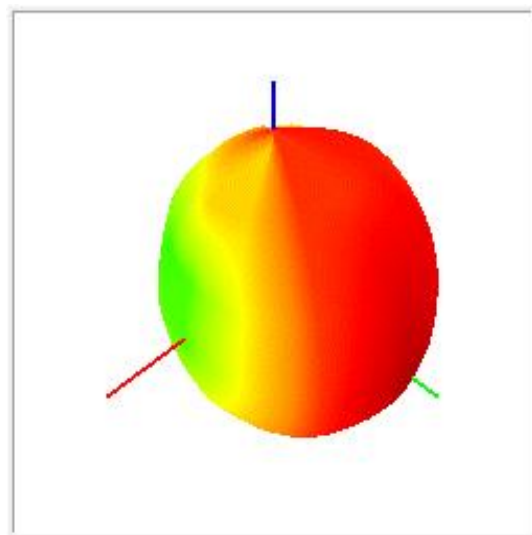
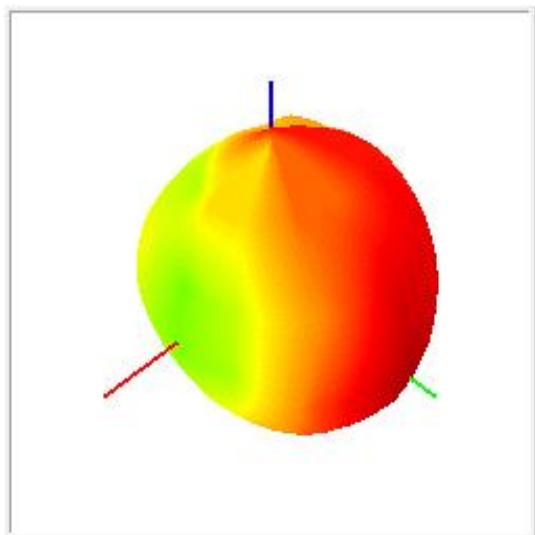
Test Equipment:	R&S CMW500		
Test Condition:	2 D chamber		
Band	Channel	TRP(dBm)功率	TIS(dBm)灵敏度
BT-Receiver	0	0.87	-86.61
	39	2.74	-87.80
	78	3.60	-88.37

5.3 Test Result

接收器

1. 2D Pattern——BTANT

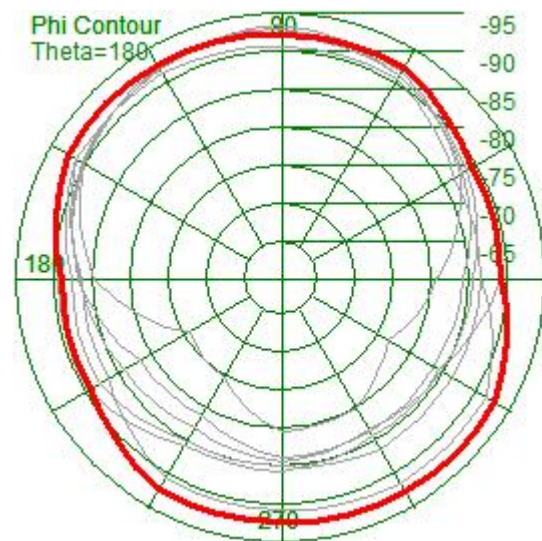
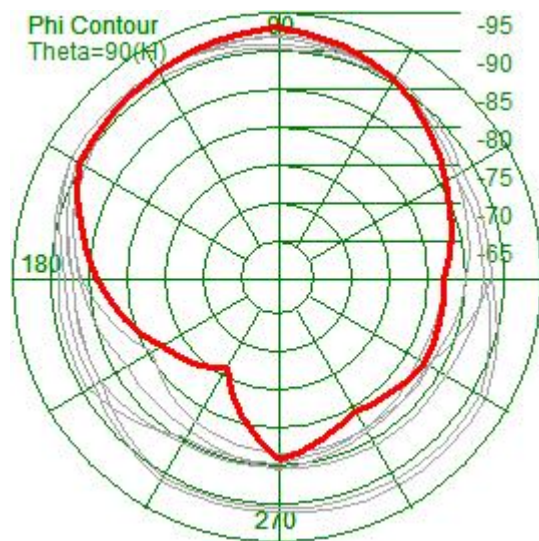
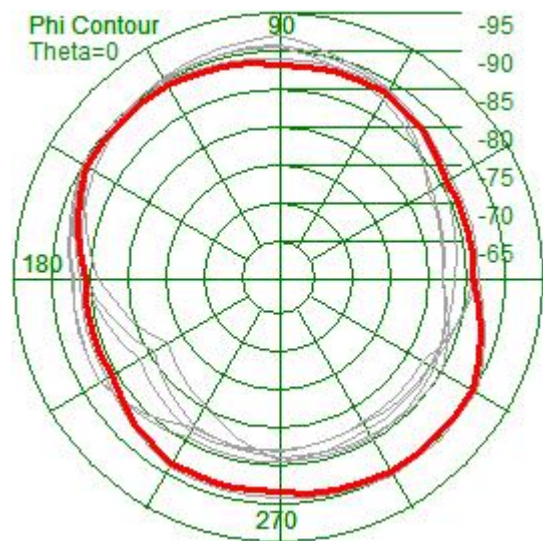
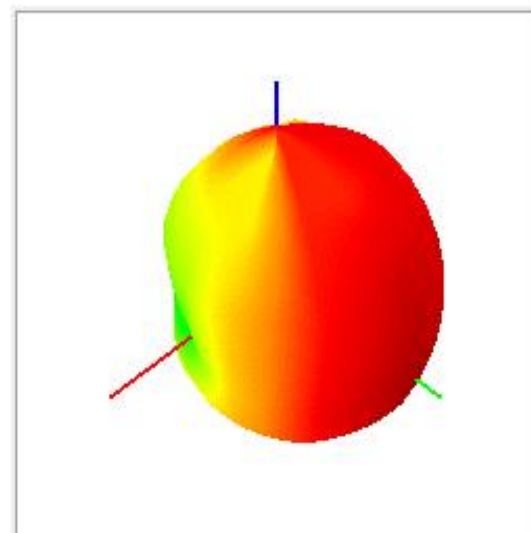
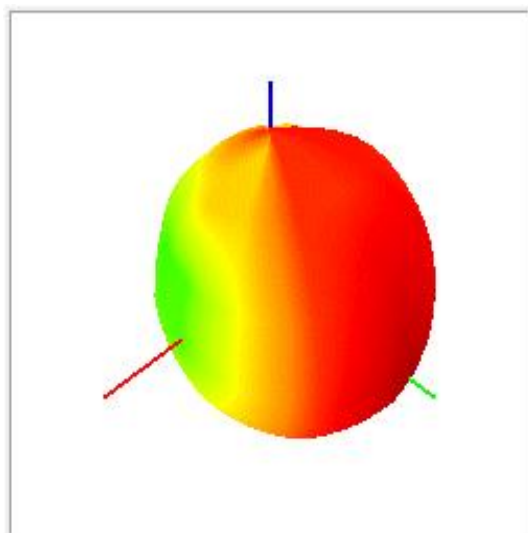
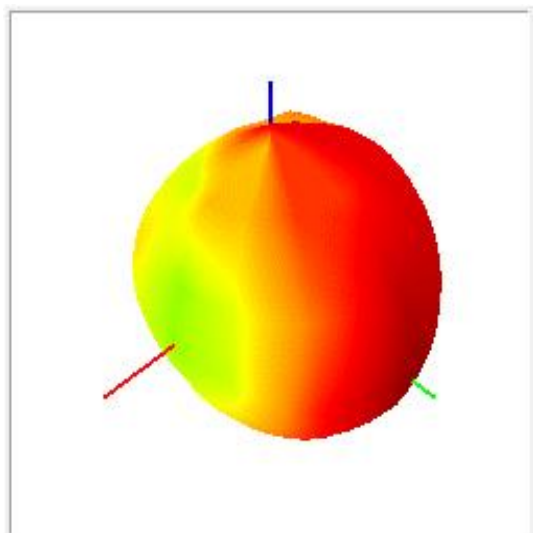
TRP (功率)



5.3 Test Result

2. 2D Pattern——BTANT

TIS (灵敏度)



Thank you!