

Shenzhen Hetuo Technology Co., Ltd

Building 1202B, Building C 6, Hengfeng industrial city, Hezhou, xixiang, Baoan District, Shenzhen City

Sample Approved Sheet

Hetuo (EC04) Acknowledgment

Customer Name Shenzhen Tongchuang Yinuo Technology Co., Ltd.

Client Type EC04

Brand EC04-V2

Hetuo Judgment Audit Team

Formulate	Check	Ratify	Acknowledge the book completion time
Zongxiaoming	Huangzhilin	wangxuesen	2025.8.27

(Tongchuang Yinuo) Judgment Audit Team

Acknowledgement Number _____ Proving time

acknowledge	check	ratify	Acknowledge the book completion time

Project Review

☐Three acknowledgements☐Specifications/drawings
☐examining report☐Specimen PCS☐Safety standard☐HSF

Appraisal report

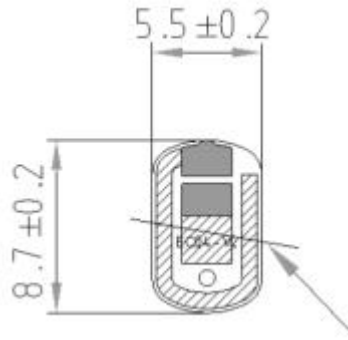
☐Accept☐Conditional acceptance☐Refuse

Confidential Information

[illegible]

1. Antenna picture

The report mainly provides the test status of the electrical properties parameters of **EC04-V2**. The **EC04-V2** antenna is a **(2400-2500MHZ)** Band . The antenna Picture and assembly are shown below.



Antenna picture & assembly picture

2. Antenna Test Equipment Introduction

Test of antenna input characteristics using **Agilent E5071C** and **Agilent 5062A** vector network analyzer; The radiation pattern of the antenna are tested using the Satimo starlab 3D near field Anechoic Chamber , and the instrument is used to agilent8960 E5515 and Agilent E4438C. The test coordinates of the darkroom are as follows:

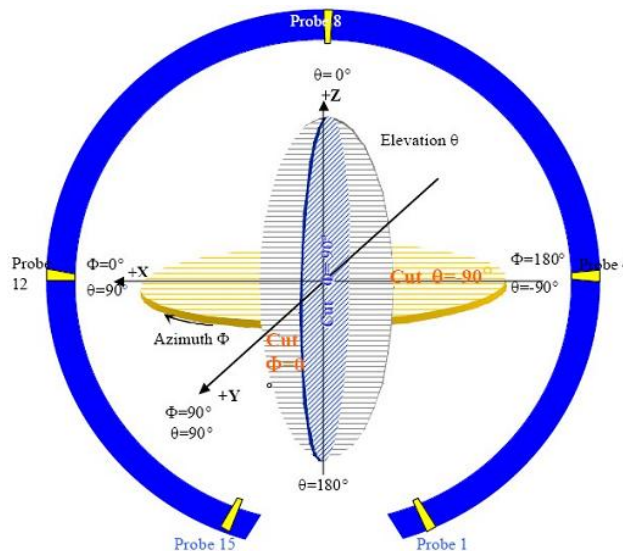


图 4 3D 微波暗室测试坐标系 (back view)

3. Electrical Specification

3-2 Passive S11 parameter

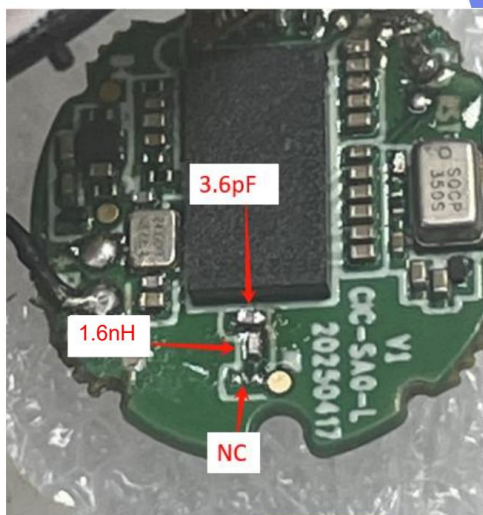
Measuring Method is a 50 Ω coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the S11 parameter, Keeping this fixture away from metal at least 20cm.

VSWR



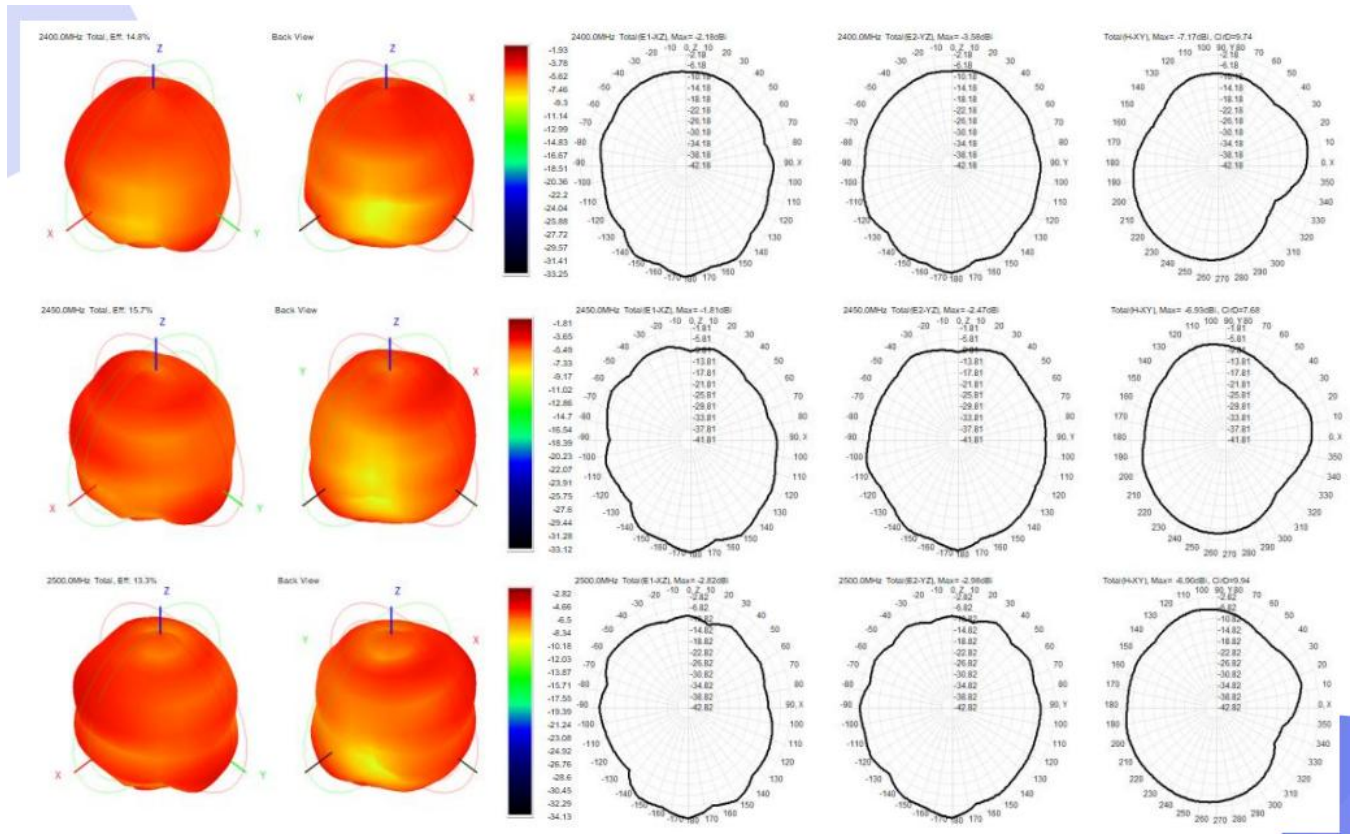
3-3 Antenna Matching Network

匹配 L&R相同



Confidential Information

Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Efficiency (dBi)	-8.30	-8.66	-7.80	-8.35	-7.91	-8.04	-7.65	-7.85	-7.87	-8.70	-8.77
Gain (dBi)	-1.93	-2.25	-1.41	-2.07	-1.68	-1.81	-1.24	-1.32	-1.29	-2.42	-2.82
Efficiency (%)	14.78	13.62	16.60	14.63	16.20	15.69	17.18	16.39	16.33	13.48	13.28



BT ANT-FS-L/R

Test Equipment:	R&S CMW500					
Test Condition:	3D chamber					
Band	Wireless Protocol	Channel	FS-L		FS-R	
			TRP(dbm)	TIS(dbm)	TRP(dbm)	TIS(dbm)
BT	CLASS 1	0	2.05	-85.21	1.89	-85.12
		39	2.33	-83.2	2.25	-83.18
		78	2.12	-83.16	2.58	-83.77

BT ANT-BH-L/R

Test Equipment:	R&S CMW500					
Test Condition:	3D chamber					
Band	Wireless Protocol	Channel	BH-L		BH-R	
			TRP(dbm)	TIS(dbm)	TRP(dbm)	TIS(dbm)
BT	CLASS 1	0	-0.73	-83.69	-0.92	-82.82
		39	-0.38	-81.22	-0.17	-81.51
		78	-0.61	-81.18	0.24	-81.29

