

Shenzhen Hetuo Technology Co., Ltd

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

Sample Approved Sheet

Antenna Type:FPC

Hetuo (R1360-R+Touch) Acknowledgment

Customer Name Dongguan Shui Wo Electronic Technology Co. , Ltd.

Client Type R1360

Brand HT-R1360-R+Touch

Hetuo Judgment Audit Team

Formulate	Check	Ratify	Acknowledge the book completion time
ZhongXiaoMing	HuangZhiLing	Daitingting	2025.5.13

(Ruihe) 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

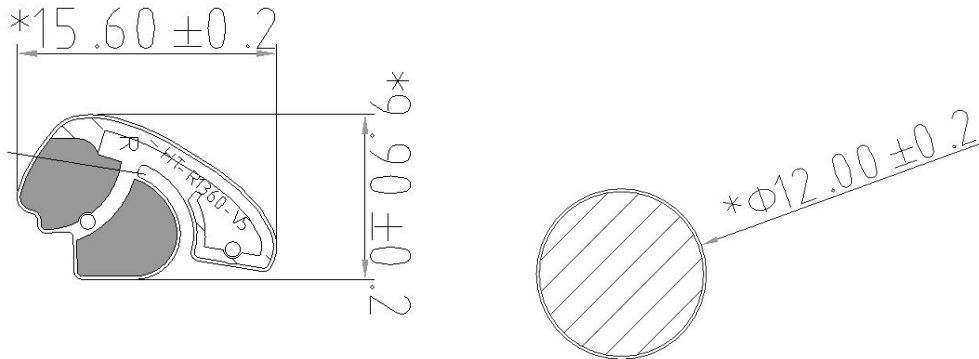
☐Refuse

Confidential Information

Items	Date	Version	The revised notes	Notes
1	2025. 5. 13	A0	For the first time	
2				

1. Antenna picture

The report mainly provides the test status of the electrical properties parameters of **HT-R1360-R+Touch**. The **HT-R1360-R+Touch** antenna is a **BT** 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:

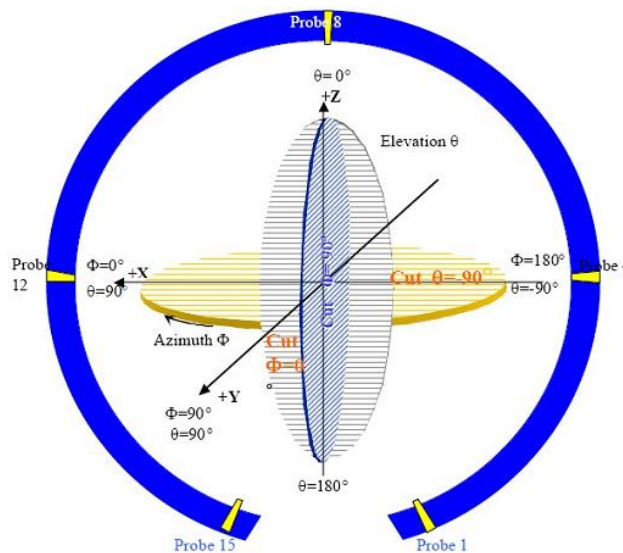


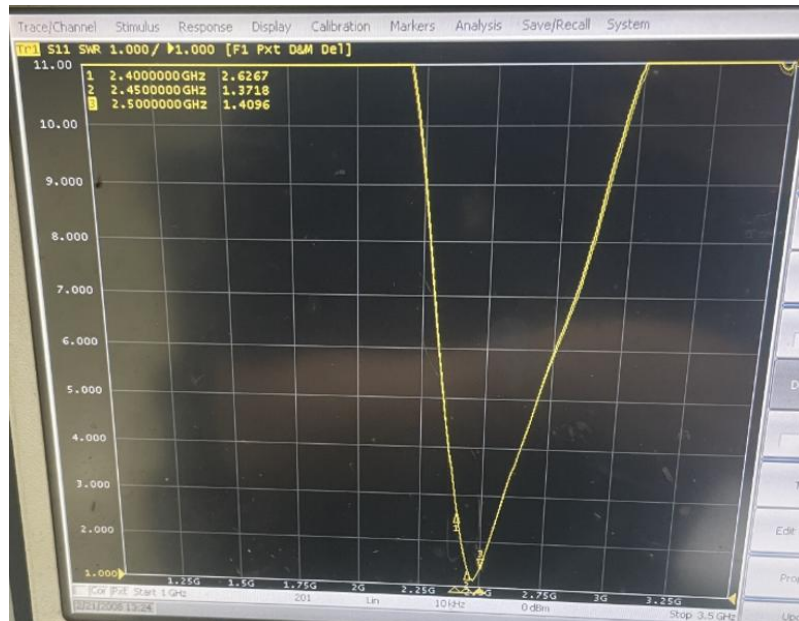
图 4 3D 微波暗室测试坐标系 (back view)

3. Electrical Specification

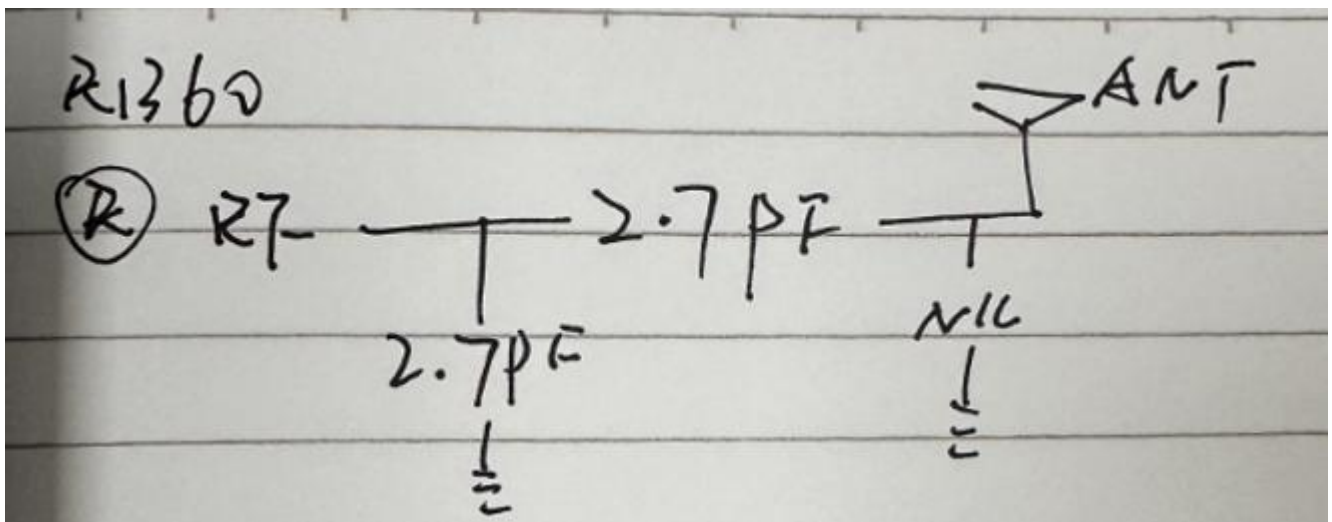
3-2 Passive S11 parameter

Measuring Method is a $50\ \Omega$ 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.

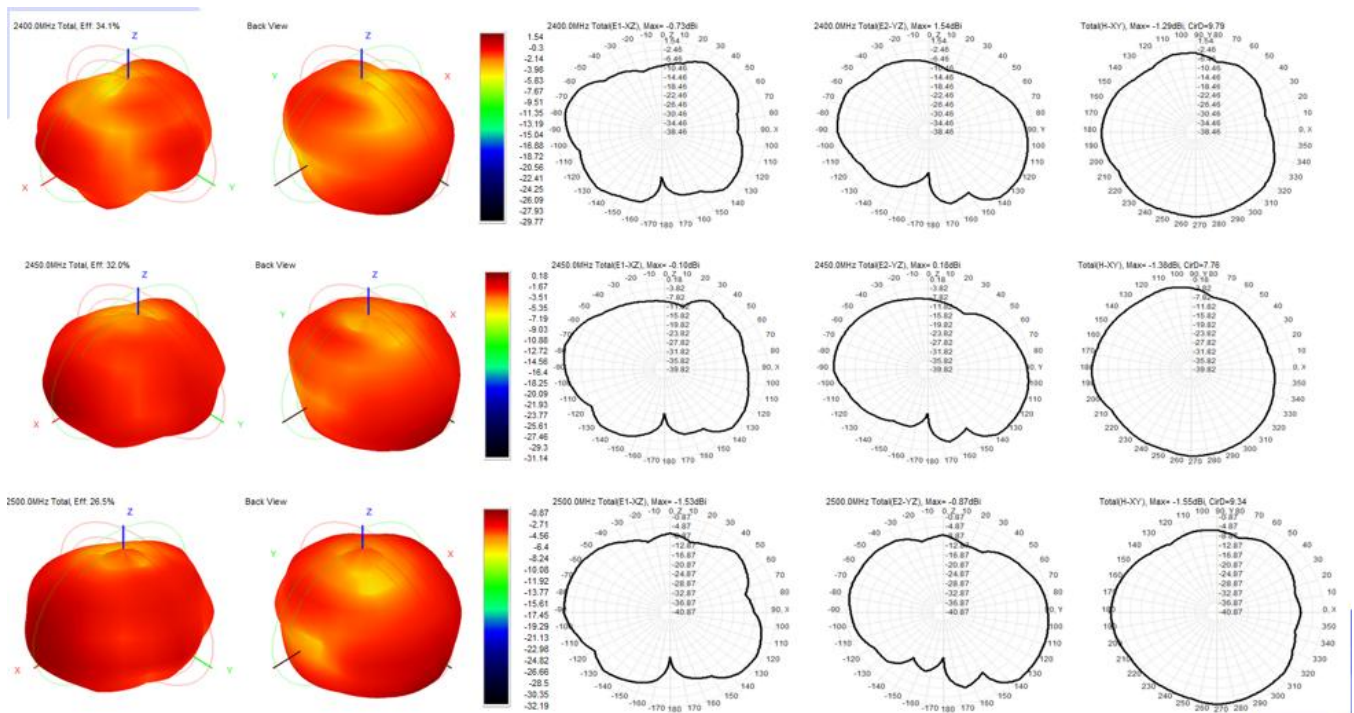
VSWR



3-3 Antenna Matching Network



Frequency (MHz)	Efficiency (%)	Gain (dBi)
2400	29.05	1.54
2410	29.28	1.41
2420	28.15	1.09
2430	28.09	0.79
2440	27.34	0.41
2450	27.24	0.18
2460	27.07	-0.03
2470	26.20	-0.37
2480	25.80	-0.70
2490	25.10	-0.75
2500	24.52	-0.87



BT-R_{ANT}-FS

Test Equipment:	R&S CMW500			
Test Condition:	3D chamber			
Band	Wireless Protocol	Channel	TRP(dBm)	TIS(dBm)
BT	CLASS 1	0	2.87	-88.56
		39	3.57	-87.51
		78	4.12	-87.65

BT-R_{ANT}-BH

Test Equipment:	R&S CMW500			
Test Condition:	3D chamber			
Band	Wireless Protocol	Channel	TRP(dBm)	TIS(dBm)
BT	CLASS 1	0	0.09	-84.47
		39	0.51	-83.38
		78	0.18	-83.16

Confidential Information

报价 FOR QUOTATION

开模 FOR TOOLING

检测 FOR EVALUATION

出图 APPROVED DWG

参考 REFERENCE

MODIFICATION		
VER	DESCRIPTION	DATE

*Ø12.00 ± 0.2

Technical requirements:

1. It must comply with EU RoHS and REACH, as detailed in the appendix;
2. Single machine usage: 2PCS
3. FPC copper wiring section on side A, while side B represents the use of 3M 9471 adhesive backing
4. The total thickness of FPC is 0.11-1.15mm (excluding adhesive release paper), and the contact point needs to be processed with a 3-mil gold deposition process
5. Please use PI 1 to 1 substrate, electrolytic copper; Surface black ink line printed in white
6. The ink does not contain carbon or metal particles, and the surface is UV resistant and UV resistant;

Shenzhen Hetuo Technology Co., Ltd		Drawn																	
		Designed																	
		Checked																	
		Approved																	
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