

	2502M-R	 RoHS Compliant
Date of Issue: 2025-9-13		dipole antenna
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Specification Approval Sheet

Vender Name	Shenzhen i-Top Technology Co., Ltd
Supplier address	Room 711, Building 2, Phase II of Gaoxinqi, Longchang Road, Xin'an Sub-district, Bao'an District, Shenzhen City
Project Name	2502M
Part Name	2502M-R
Part Number	2502M-R-V1.2
Part Version	V1.2
Part Spec.	

The materials meet the following environmental requirements:
☐ Banned and Monitored Substances Control Standard(Latest Edition)
☐ Halogen-free technical standard

Vender Confirm (Stamp)	Prepared by	Checked by	Approved by

Customer Approved (Stamp)	Sourcing	DQ	RD	Approved by

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1. Antenna picture

The report mainly provides the test status of the electrical properties parameters of 2502-M-R-V1.2. The 2502-M-R-V1.2 antenna is a **BT** Band. The antenna Picture and assembly are shown below.



FPC Antenna picture & assembly picture

Prototype position:



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:

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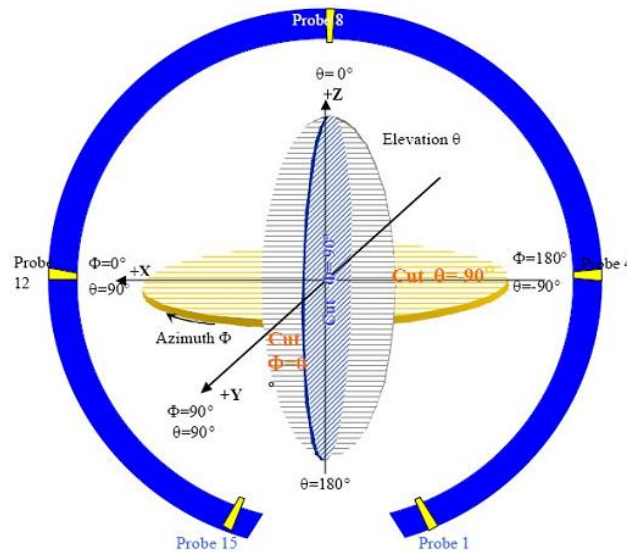


图 4 3D 微波暗室测试坐标系 (back view)

3. Electrical Specification

3-2 Passive S11 parameter

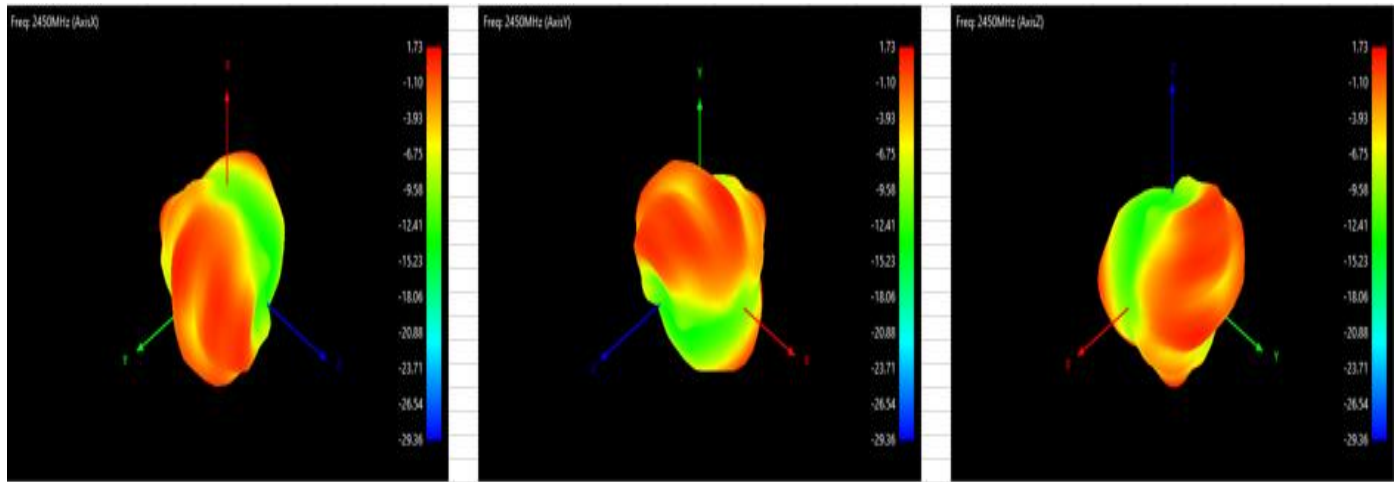
Measuring Method is a 50 Ω coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the S11 parameter, Keeping this fixture away from metal at least 20cm.



VSWR

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3-3 2D/3D field pattern diagram



3-4 Passive efficiency & Gain

Frequency(MHz)	Gain(dBi)	Efficiency(%)
2400	1.38	31
2410	1.31	30.86
2420	1.32	30.93
2430	1.42	31.3
2440	1.61	31.53
2450	1.73	31.73
2460	1.92	31.78
2470	2.13	31.77
2480	2.32	31.98
2490	2.43	31.97
2500	2.47	31.63

3-5 OTA active

FS		BT TEST	L
CH	TRP	TIS	
0	5.26	-90.36	
39	6.38	-90.38	
78	7.25	-91.74	
BH		BT TEST	L
CH	TRP	TIS	
0	4.25	-88.74	
39	5.86	-88.69	
78	6.02	-89.65	

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4. Mechanical Specification:

Mechanical Configuration (Unit: mm) he appearance of the antenna is according to drawing Figure 10

