

Sample Approved Sheet

Jinshang (T3) Acknowledgment

Customer Name Jinshang Technology (Shenzhen) Co., Ltd

Client Type T3

Brand BT0048-V4

Hetuo Judgment Audit Team

Formulate	Check	Ratify	Acknowledge the book completion time
Liyaona	Huxuewen	Daitingting	2024.3.25

(Client) Judgment Audit Team

Acknowledgement Number _____

Proving time

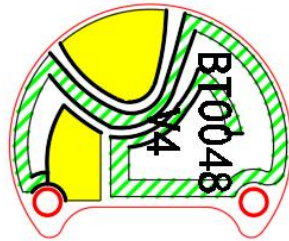
acknowledge	check	ratify	Acknowledge the book completion time

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

Appraisal report☐Accept ☐Conditional acceptance ☐Refuse

1. Antenna picture

The report mainly provides the test status of the electrical properties parameters **T3**.
The **T3** antenna is a **2.4-2.5GHz** 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:

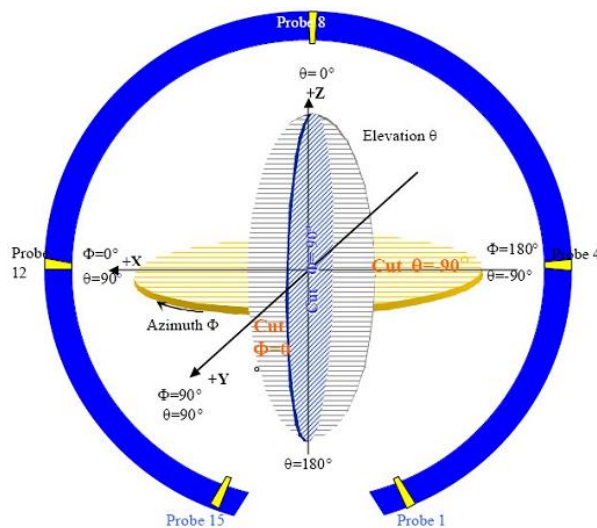


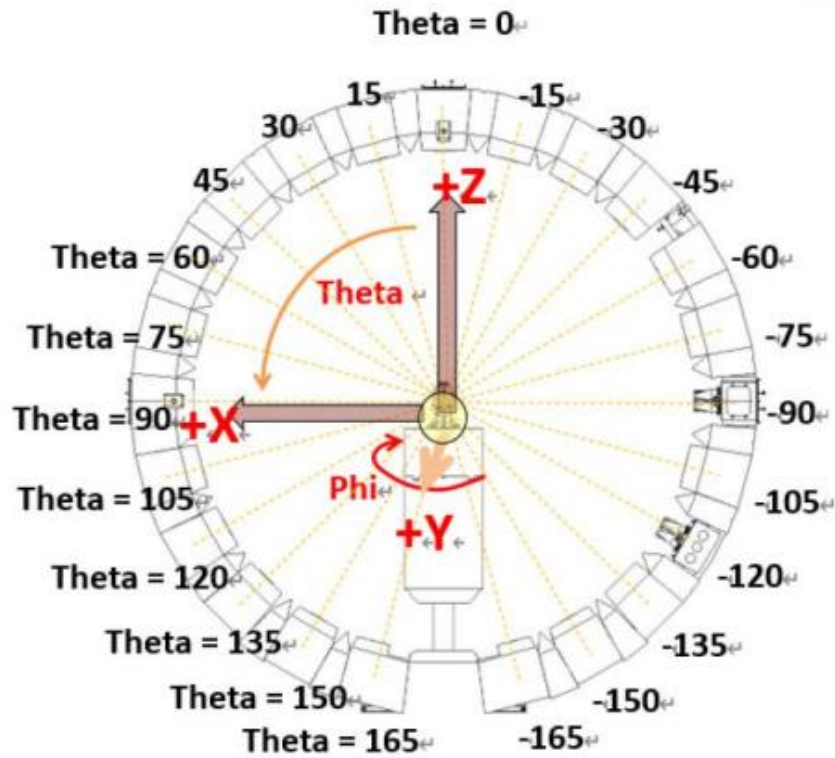
图4 3D微波暗室测试坐标系(back view)

3. Electrical Specification

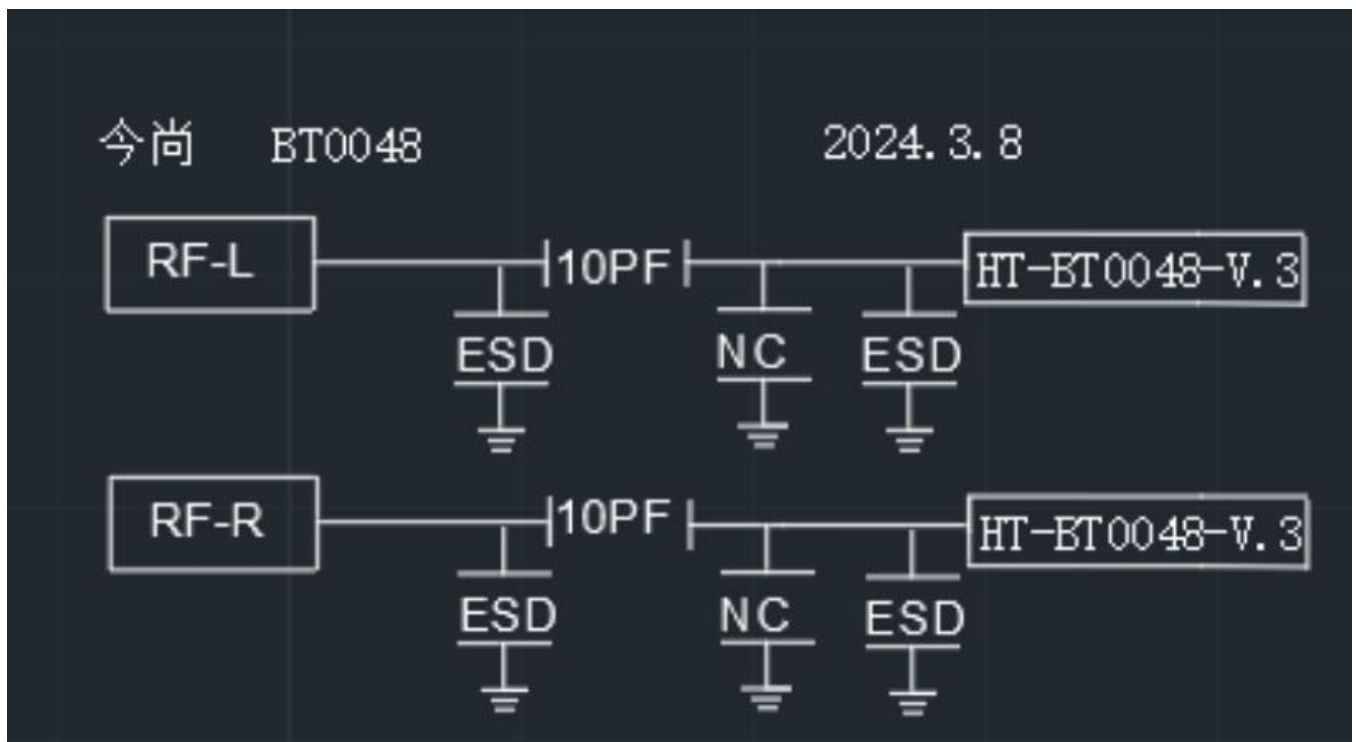
3-2 Passive S11 parameter

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.

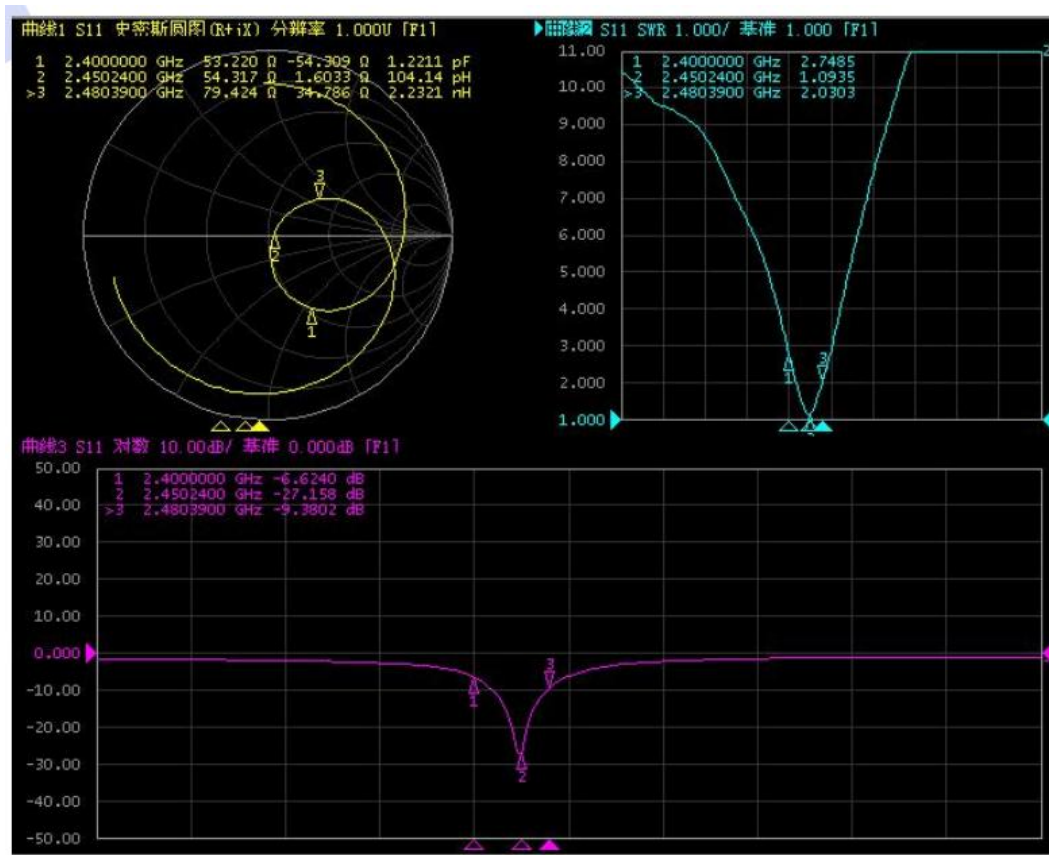
Sample status & coordinates



VSWR



S11--(BT ANT)-(L/R)



3-3 Antenna Matching Network

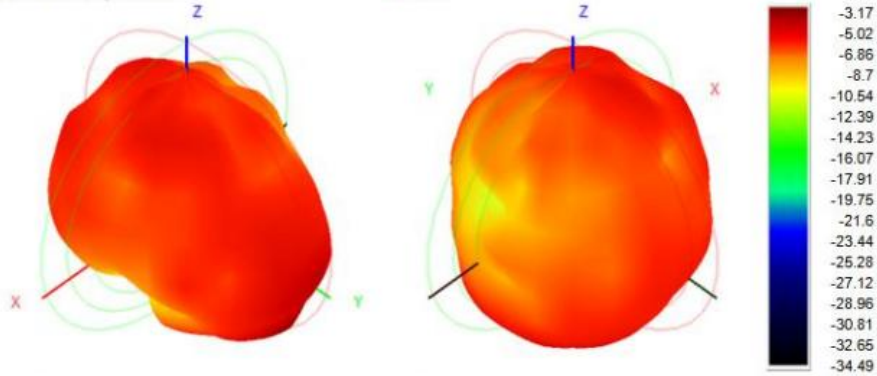
Gain & Efficiency-BT-ANT(L/R)

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)	-9.51	-9.55	-9.54	-9.53	-9.40	-9.54	-9.61	-9.82	-9.89	-9.81	-9.84
Gain (dBi)	-3.17	-2.72	-3.06	-3.08	-3.14	-3.48	-3.62	-3.24	-3.32	-2.68	-2.52
Efficiency (%)	11.19	11.09	11.11	11.14	11.48	11.10	10.95	10.41	10.25	10.44	10.38
Directivity (dB)	6.34	6.83	6.48	6.45	6.26	6.06	5.99	6.58	6.57	7.13	7.32
Peak Gain Position (Theta)	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Peak Gain Position (Phi)	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
Efficiency ThetaPol (%)	4.82	4.77	4.78	4.86	5.00	4.92	4.79	4.63	4.56	4.74	4.91
Efficiency PhiPol (%)	6.37	6.33	6.33	6.28	6.48	6.19	6.15	5.78	5.69	5.70	5.47
Upper Hem. Efficiency (%)	4.89	4.74	4.86	4.86	4.96	4.74	4.71	4.29	4.21	4.19	4.15
Lower Hem. Efficiency (%)	6.30	6.35	6.25	6.28	6.52	6.36	6.23	6.12	6.04	6.24	6.23

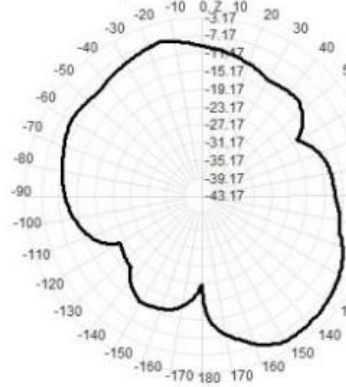
2D&3D BT- ANT

2400.0MHz H+V, Eff: 11.2%

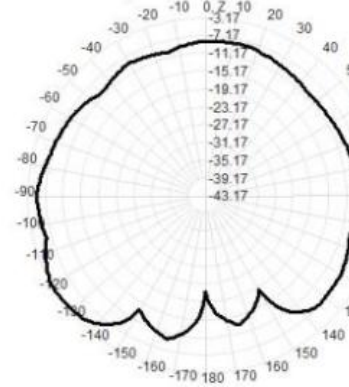
Back View



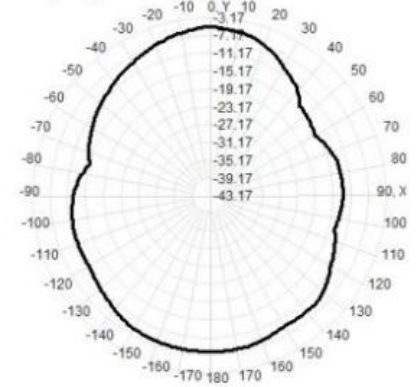
2400.0MHz Total(E1-XZ), Max= -5.43dBi



2400.0MHz Total(E2-YZ), Max= -3.17dBi



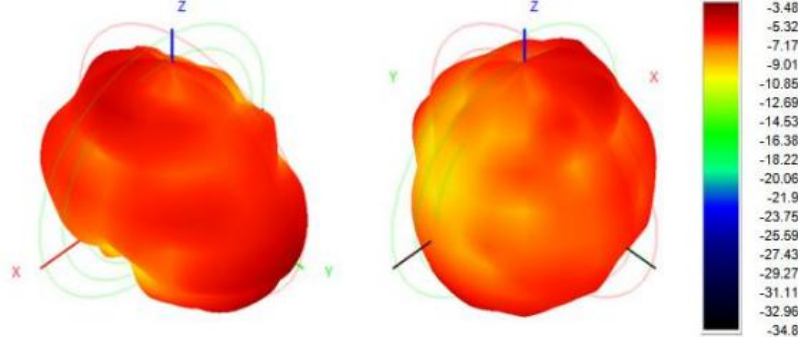
Total(H-XY), Max= -5.19dBi, CirD=10.66



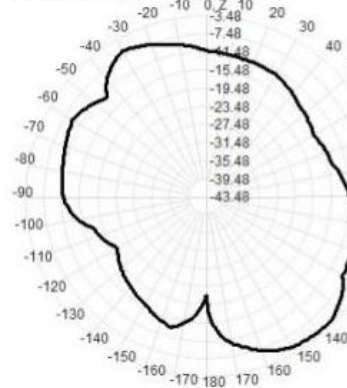
2D&3D BT- ANT

2450.0MHz H+V, Eff: 11.1%

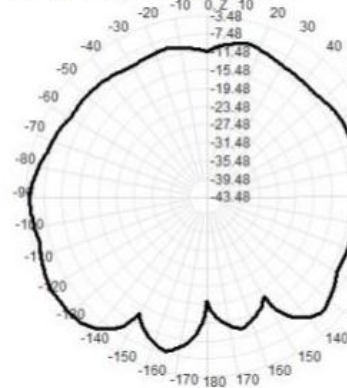
Back View



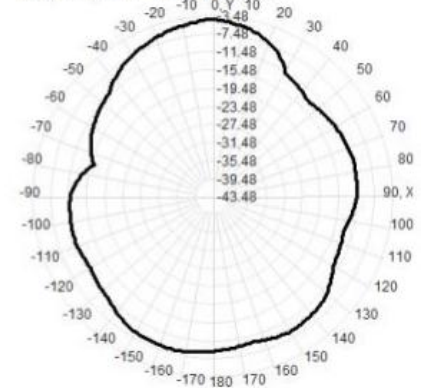
2450.0MHz Total(E1-XZ), Max= -4.44dBi

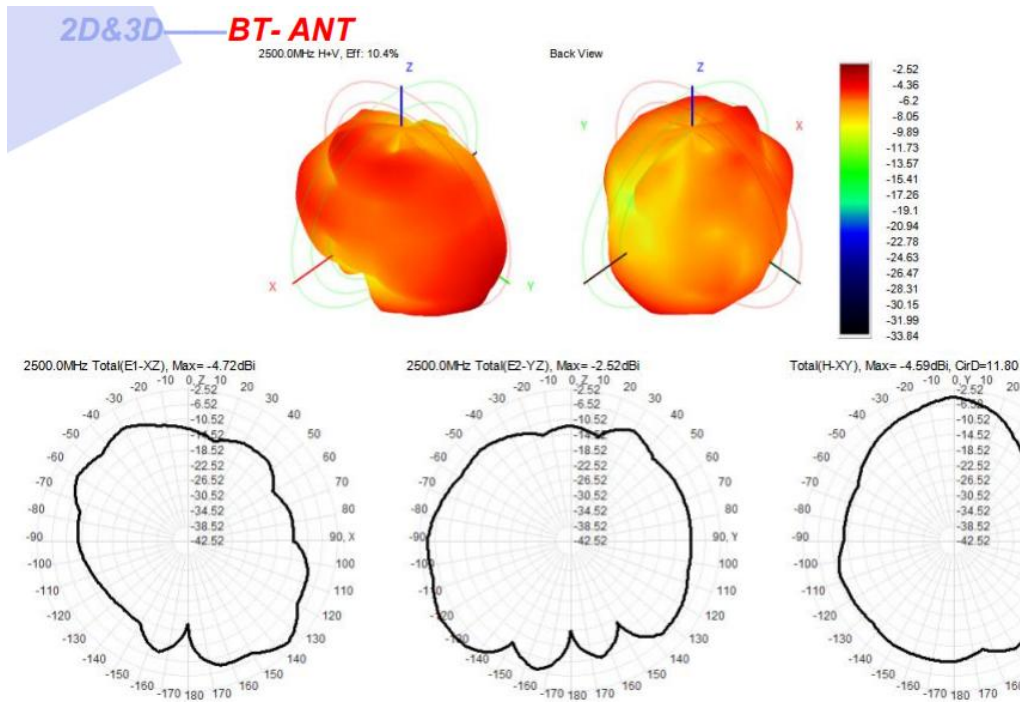


2450.0MHz Total(E2-YZ), Max= -3.48dBi



Total(H-XY), Max= -4.23dBi, CirD=12.00





OTA DATA(L)--free space

Test Equipment:	R&S CMW500			
Test Condition:				
Band	Wireless Protocol	Channel	TRP(dBm)	TIS(dBm)
BT		0	-0.75	-82.09
		39	-0.99	-82.36
		78	-2.84	-80.41

OTA DATA(R)--free space

Test Equipment:	R&S CMW500			
Test Condition:				
Band	Wireless Protocol	Channel	TRP(dBm)	TIS(dBm)
BT		0	-0.83	-82.34
		39	-1.14	-82.56
		78	-2.67	-81.17

OTA DATA(L)--headform

Test Equipment:	R&S CMW500			
Test Condition:				
Band	Wireless Protocol	Channel	TRP(dBm)	TIS(dBm)
BT		0	-2.84	-80.02
		39	-2.43	-80.33
		78	-4.47	-79.28

OTA DATA(R)--headform

Test Equipment:	R&S CMW500			
Test Condition:				
Band	Wireless Protocol	Channel	TRP(dBm)	TIS(dBm)
BT		0	-2.67	-73.25
		39	-3.15	-80.47
		78	-4.84	-78.73

4. Mechanical Specification:

Mechanical Configuration (Unit: mm)

The appearance of the antenna is according to drawing Figure 8

The drawing shows a semi-circular component with the following features and dimensions:

- Dimensions:**
 - Overall width: 8.5 ± 0.2
 - Overall height: 7 ± 0.2
- Labels:**
 - Y4**: Located near the top center of the semi-circle.
 - B70048**: Located near the bottom center of the semi-circle.
- Annotations:**
 - through-hole**: A label with an arrow pointing to a small circular feature on the left side of the component.
 - Position of adhesive cutting line**: A label with an arrow pointing to a dashed line along the outer edge of the component.