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LDS 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:

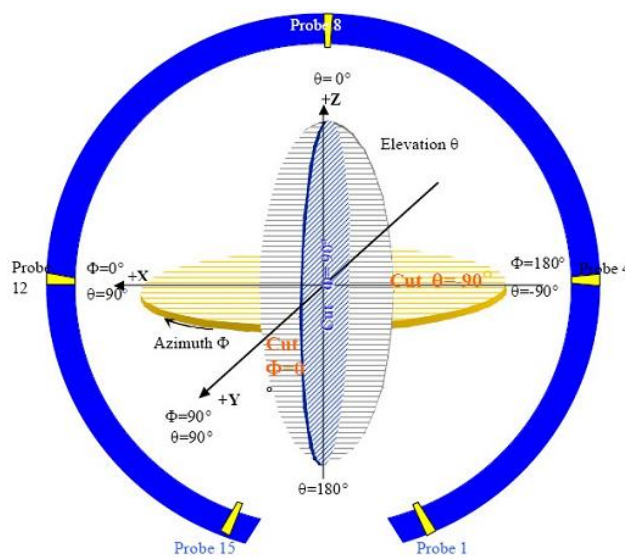


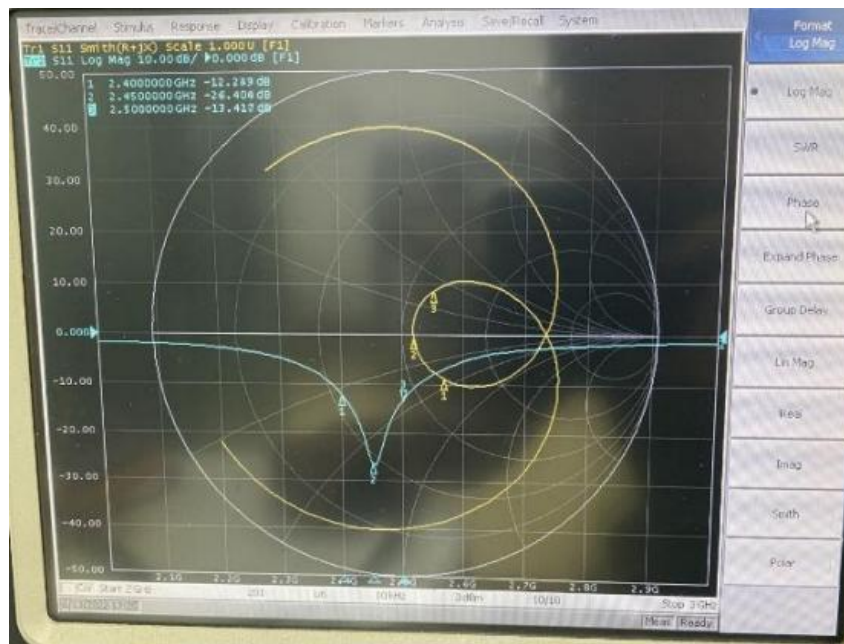
图 4 3D 微波暗室测试坐标系 (back view)

## 3. Electrical Specification

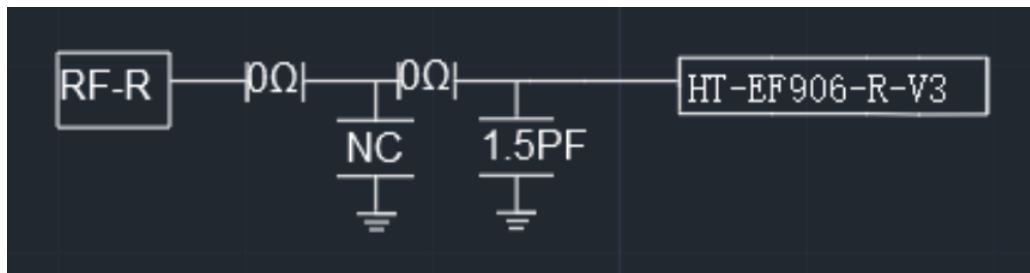
### 3-2 Passive S11 parameter

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

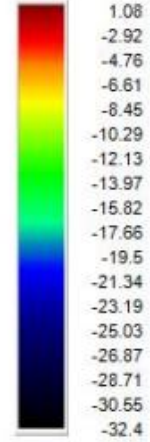
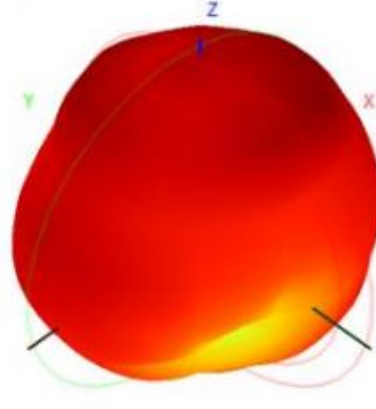
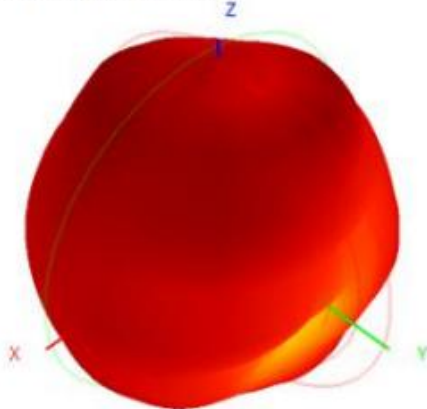


Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	25.87	1.08
2410	27.61	0.88
2420	28.32	0.59
2430	29.67	0.38
2440	31.92	0.47
2450	32.37	1.26
2460	30.91	1.42
2470	29.45	1.11
2480	28.49	1.34
2490	27.18	0.78
2500	26.41	1.38

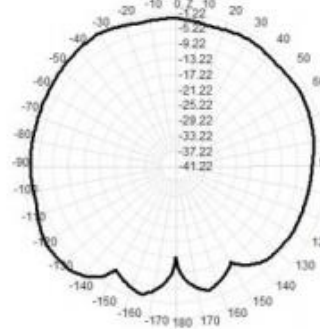
**2D&3D BT- ANT**

2400.0MHz H+V, Eff: 25.9%

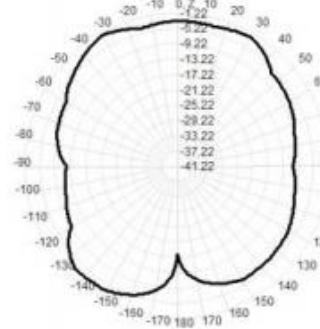
Back View



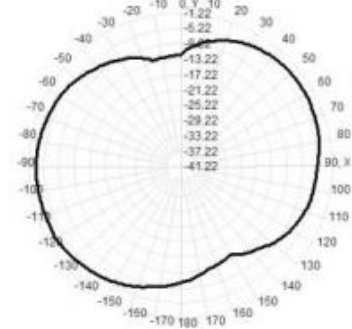
2400.0MHz Total(E1-XZ), Max=-1.22dBi



2400.0MHz Total(E2-YZ), Max=-1.83dBi



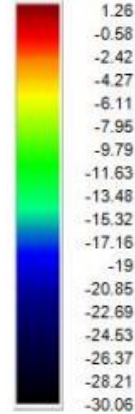
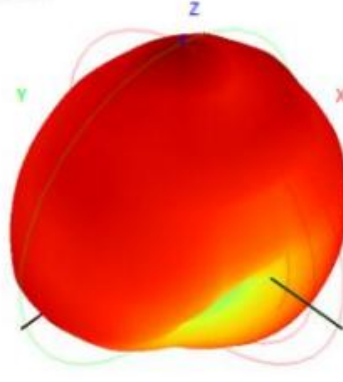
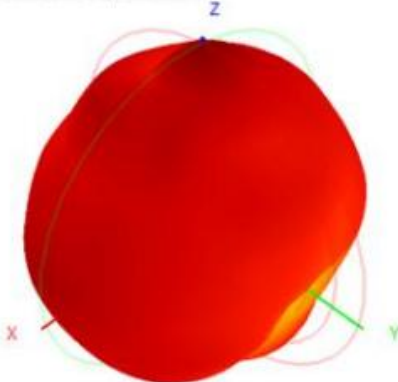
Total(H-XY), Max=-3.21dBi, CrD=11.52



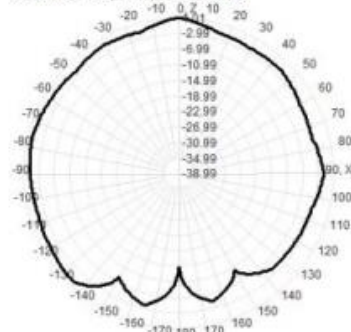
**2D&3D BT- ANT**

2450.0MHz H+V, Eff: 32.4%

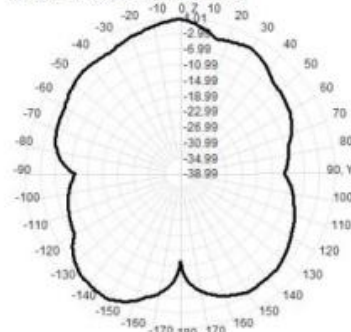
Back View



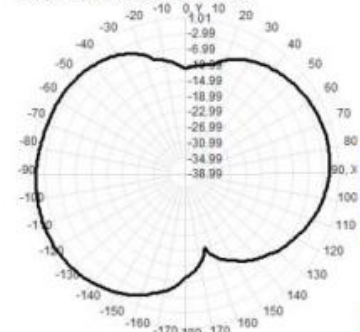
2450.0MHz Total(E1-XZ), Max= 1.01dBi



2450.0MHz Total(E2-YZ), Max= 0.76dBi



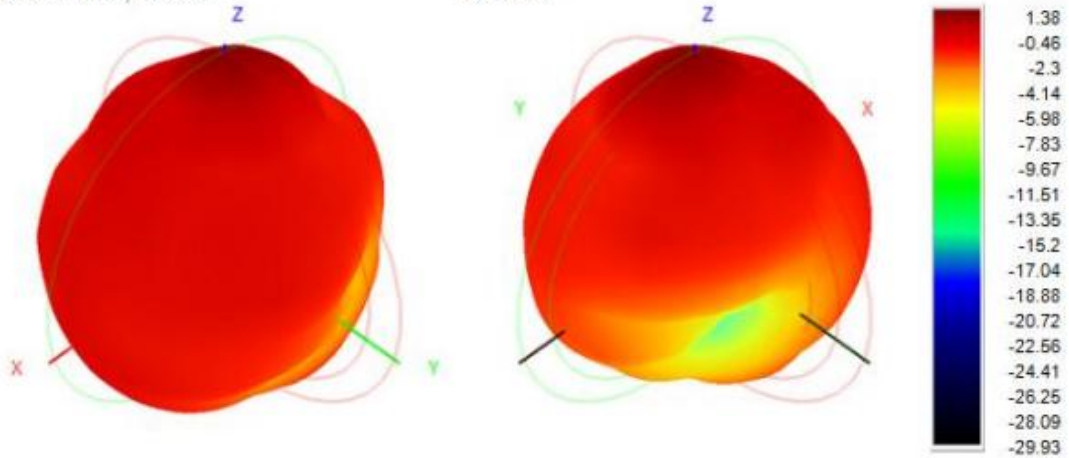
Total(H-XY), Max=-0.55dBi, CrD=18.83



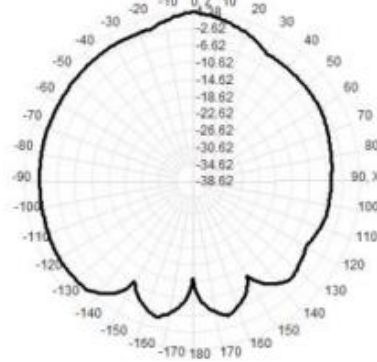
# 2D&3D BT-ANT

2500.0MHz H+V, Eff: 26.4%

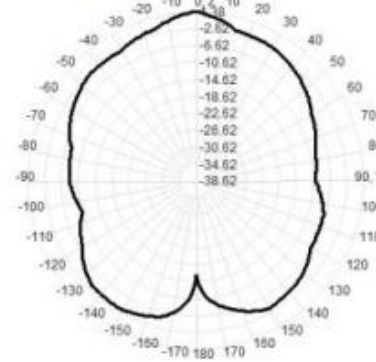
Back View



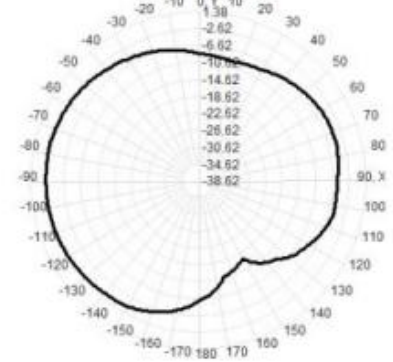
2500.0MHz Total(E1-XZ), Max= 1.31dBi



2500.0MHz Total(E2-YZ), Max= 1.38dBi



Total(H-XY), Max=- 2.24dBi, CrD=16.13



## 4. Mechanical Specification:

Mechanical Configuration (Unit: mm)

The appearance of the antenna is according to drawing Figure 8