

# **BT Antenna Test Report Prepared for Godox Project**

**Author** Ken

**Date** 2024.1.19

**Client Information**

|                    |                                                                                                                                          |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Client             | 神牛(Godox)                                                                                                                                |
| Engineer of Client |                                                                                                                                          |
| Project Name       |                                                                                                                                          |
| Project Stage      | <input type="checkbox"/> Evaluation <input checked="" type="checkbox"/> EVT<br><input type="checkbox"/> DVT <input type="checkbox"/> PVT |
| Antenna Type       | Linear Polarization                                                                                                                      |
| Antenna Band       | 2400~2500MHz                                                                                                                             |
| Antenna Engineer   | Ken                                                                                                                                      |

**Tuning Note**

| Version | Date      | Revision Description | Designer |
|---------|-----------|----------------------|----------|
| 01      | 2024/1/19 | Version 1            | Ken      |
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**Antenna Info**

| LNA Name | Material | Dimension | Feed-In Location | PIN Length |
|----------|----------|-----------|------------------|------------|
|          |          |           |                  |            |

## 1.Test Content :

BT Antenna in pattern measurement

## 2.Test Item :

Efficiency 、 Radiation Pattern 、 Total Gain 、 Average Gain

## 3.Test Setting :

Network Analyzer : Agilent E5071C

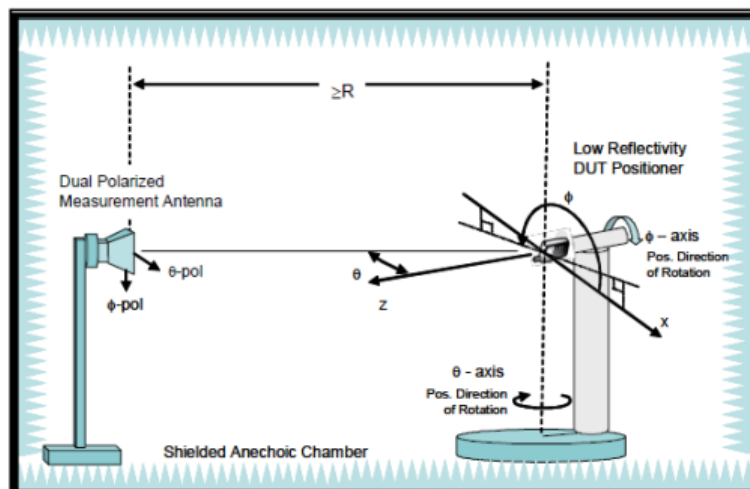
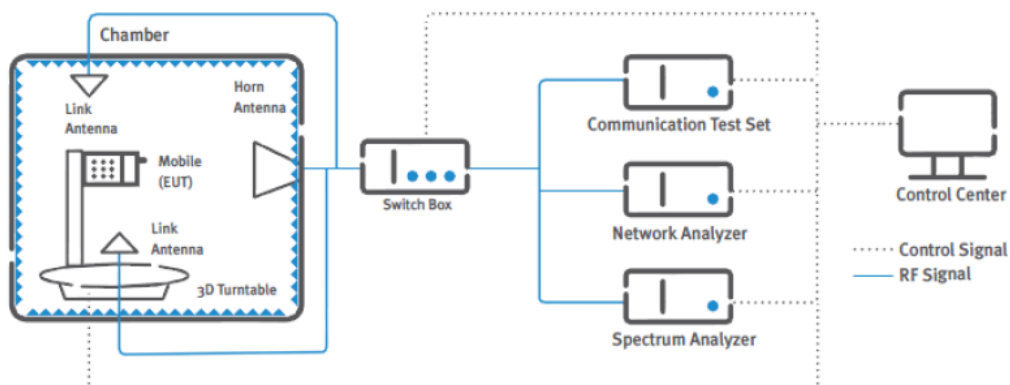
Source Antenna : Dual Polarization Horn Antenna

Test Frequency : 2400~2500MHz

## 4.Test Environment :

Room temperature : 22°C Humidity : 31%

## 5.Test Schematic Drawing of Setting :

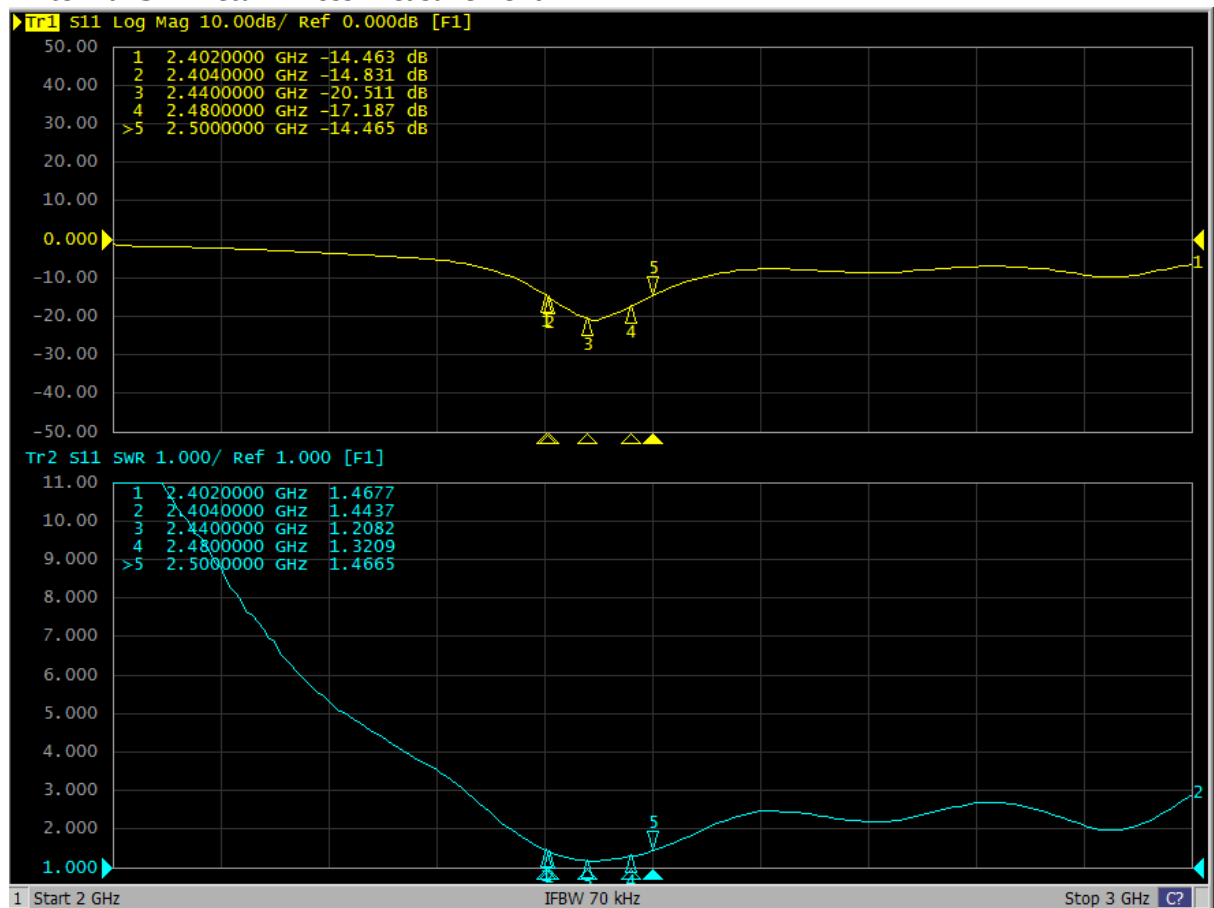


## 6. Test Data

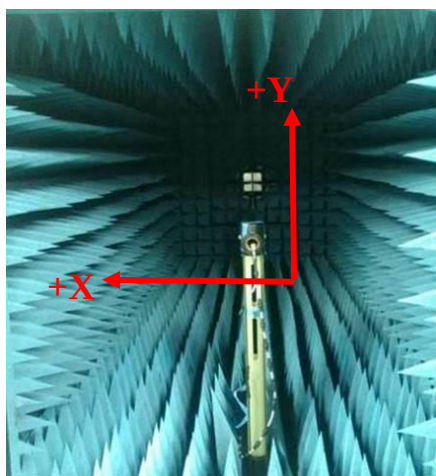
Environment



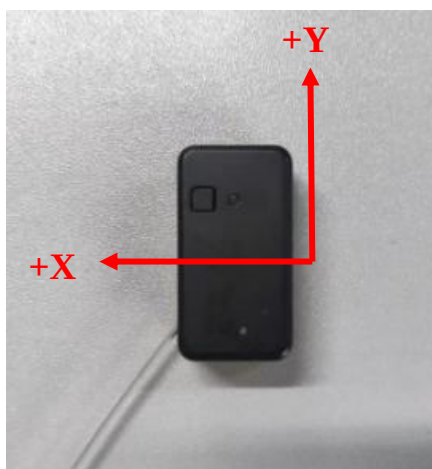
### Antenna S11 Return Loss Measurement



## Coordinate



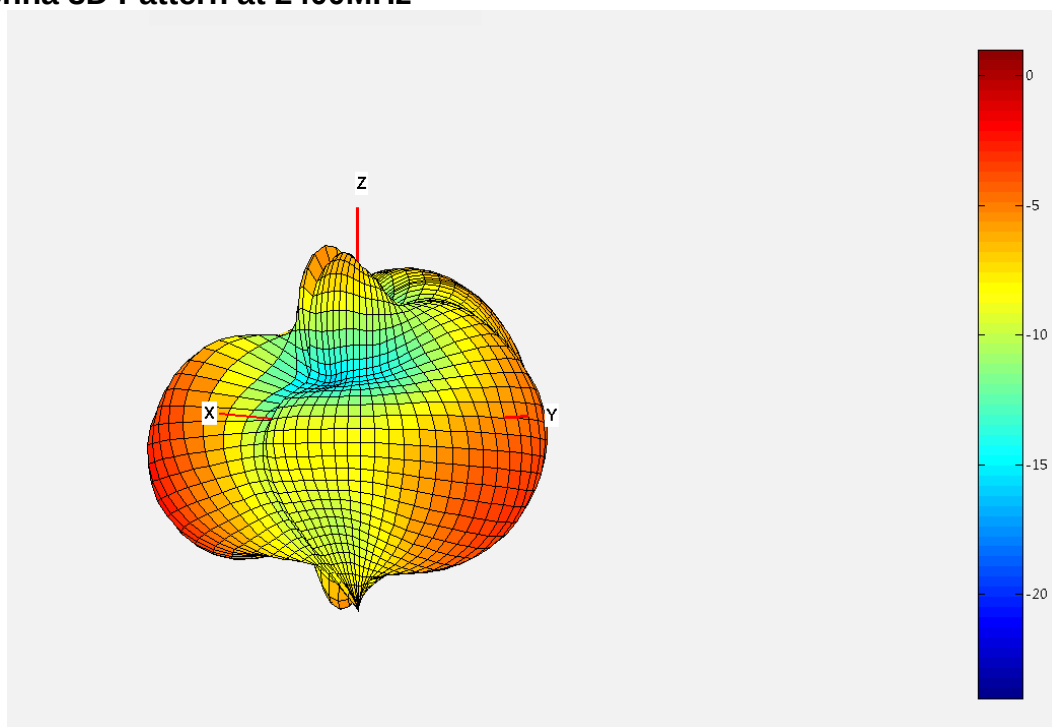
Chamber coordinate



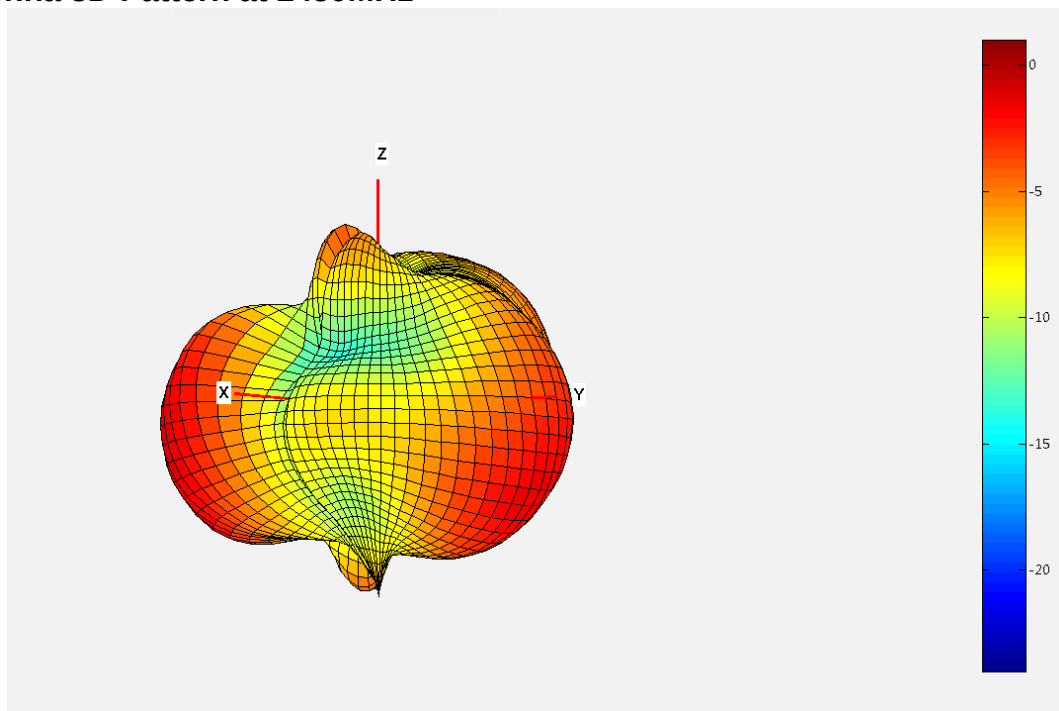
Antenna mounted on chamber coordinate

## Radiation Pattern

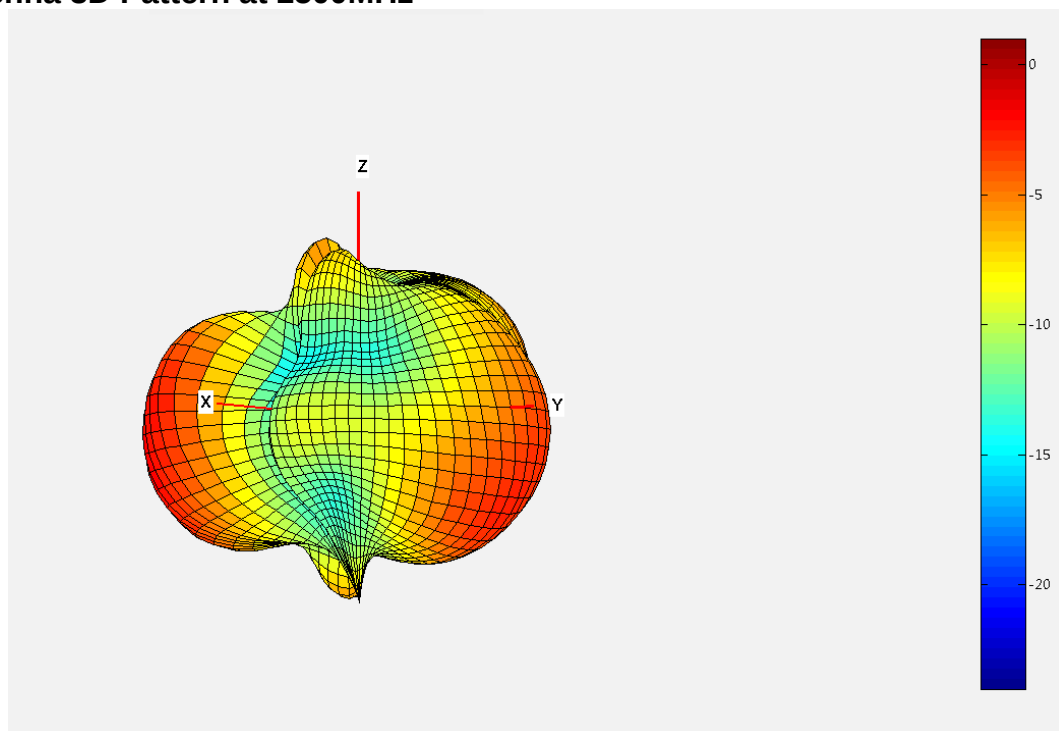
### Antenna 3D Pattern at 2400MHz



### Antenna 3D Pattern at 2450MHz



### Antenna 3D Pattern at 2500MHz



## Measurements summary

| Frequency | Efficiency (dB) | Efficiency (%) | Gain (dBi) |
|-----------|-----------------|----------------|------------|
| 2402MHz   | -4.58           | 34.83          | -0.25      |
| 2404MHz   | -4.55           | 35.08          | -0.17      |
| 2440MHz   | -4.31           | 37.07          | 0.19       |
| 2441MHz   | -4.29           | 37.24          | 0.21       |
| 2472MHz   | -4.47           | 35.73          | -0.12      |
| 2480MHz   | -4.51           | 35.4           | -0.15      |

ANT size:3.05\*1.6\*0.55mm

