



**中认信通**

CHINA CERTIFICATION ICT CO., LTD (DONGGUAN)

## ANTENNA TEST REPORT

**Manufacturer:** Aztech Technologies Pte. Ltd.

**Address:** 31 Ubi Road 1, #01-05 Singapore 408694

**Product Name:** Raspberry Pi RM0 Antenna

**Product Model:** Raspberry Pi RM0 PCB Antenna

**Report Number:** 2603W01479E-RF-OT

**Date Of Issue:** 2026/9/2

**Reviewed By :** Luke Yuan

*Luke Yuan*

**Title:** OTA Test Supervisor

**Approved By:** Sun Zhong

*Sun Zhong*

**Title:** Manager



**Test Laboratory:** China Certification ICT Co., Ltd (Dongguan)

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[www.ccttt.com.cn](http://www.ccttt.com.cn)

**Test Facility**

The Test site used by China Certification ICT Co., Ltd (Dongguan) to collect test data is located on the Room 101 & 201, Building 2, 256 Pingdong Road, Dalang Town, Dongguan City, Guangdong, China.

**Declarations**

China Certification ICT Co., Ltd (Dongguan) is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol “▲”. Customer model name, addresses, names, trademarks etc. are not considered data.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

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Each test item follows the test standard(s) without deviation.

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DOCUMENT REVISION HISTORY

| Revision Number | Report Number     | Description of Revision | Date of Revision |
|-----------------|-------------------|-------------------------|------------------|
| 1.0             | 2603W01479E-RF-OT | Original Report         | 2026/9/2         |

## 1. GENERAL INFORMATION

|                              |                                                                                            |
|------------------------------|--------------------------------------------------------------------------------------------|
| <b>Product Name:</b>         | Raspberry Pi RM0 Antenna                                                                   |
| <b>Product Model:</b>        | Raspberry Pi RM0 PCB Antenna                                                               |
| <b>Antenna Type:</b>         | PCB Antenna                                                                                |
| <b>Test Items:</b>           | Gain; Efficiency; Radiation Pattern                                                        |
| <b>Test Frequency (MHz):</b> | 2402/2412/2440/2442/2462/2480 MHz<br>5150/5250/5350/5450/5500/5600/5700/5745/5795/5850 MHz |
| <b>Sample Number:</b>        | 3R0T-1                                                                                     |
| <b>EUT Received Date:</b>    | 2026/8/10                                                                                  |
| <b>EUT Received Status:</b>  | Good                                                                                       |

## 2. TEST CONFIGURATIONS

### 2.1 Test Environment

|                            |            |
|----------------------------|------------|
| Temperature (°C)           | 27.0       |
| Humidity (%RH)             | 56.0       |
| Atmospheric Pressure (kPa) | 99.2       |
| Tester                     | Luke Yuan  |
| Test Date                  | 2026/08/11 |

### 2.2 Test Equipment

| Manufacturer | Description             | Model            | Serial Number       | Calibration Date | Calibrate Due Date |
|--------------|-------------------------|------------------|---------------------|------------------|--------------------|
| R&S          | Vector Network Analyzer | ZNB-8            | 1311601044104250    | 2026/2/7         | 2027/2/6           |
| R&S          | Cross-Pol.Vivald i-ANT  | TC-TA18          | 200256              | N/A              | N/A                |
| R&S          | Switch Controller       | OSP320           | 1528.3111K02\101442 | N/A              | N/A                |
| R&S          | Switch Controller       | OSP320           | 1528.3105K03\101666 | N/A              | N/A                |
| maturio      | Turntable controllers   | NCD/536/3082..01 | N/A                 | N/A              | N/A                |
| R&S          | Test Software           | AMS32            | 11.40.00            | N/A              | N/A                |
| R&S          | Test System             | TS8991           | N/A                 | N/A              | N/A                |

\* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

### 2.3 Test Specification

IEEE Std 149-2021

## 2.4 Test Uncertainty

Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

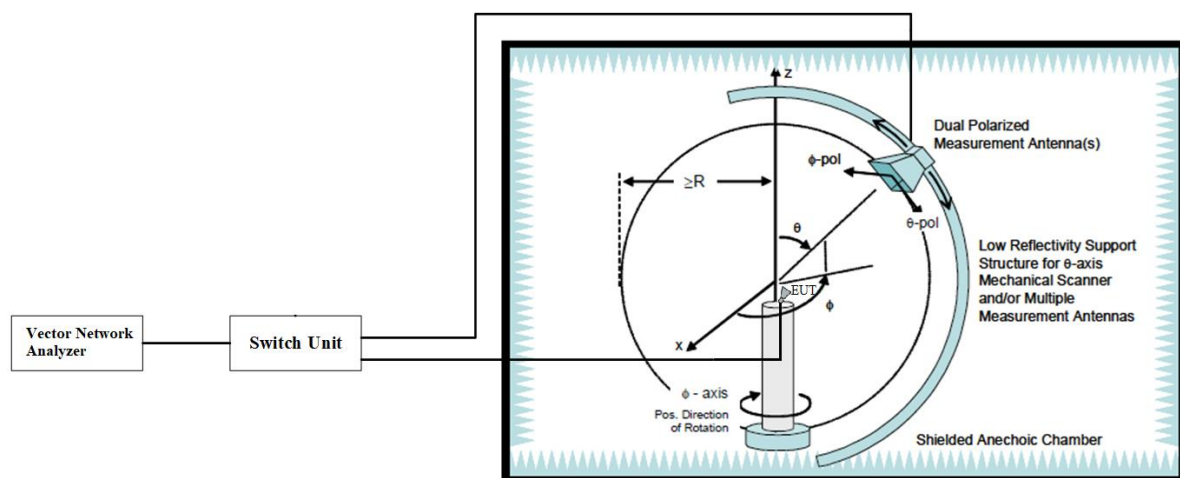
| Parameter | Measurement Uncertainty |
|-----------|-------------------------|
| Passive   | 1.88 dB                 |

## 2.5 Test Measurement System

Conical-cut method is used to measure EUT in OTA qualified anechoic chamber. The Conical Cut method requires the ability of the Measurement Antenna to be physically rotated in the theta plane(overhead) of the EUT for implementations using a single Measurement Antenna. Eleven conical cuts are required to capture data at every 15 degrees from the EUT, with the top (0 degrees) and bottom (180 degrees) cuts not being measured. Typically, the EUT will remain affixed to a turntable during the entire measurement process. The Measurement Antenna will be positioned at a starting theta angle. The EUT will then be rotated around the full 360 degrees of phi rotation. The Measurement Antenna will then be positioned at the next theta angle, and the process repeated.

## 2.6 Test Setup

### 2.6.1 Antenna Gain, Efficiency and Radiation Pattern Test Setup



### 3. TEST RESULTS

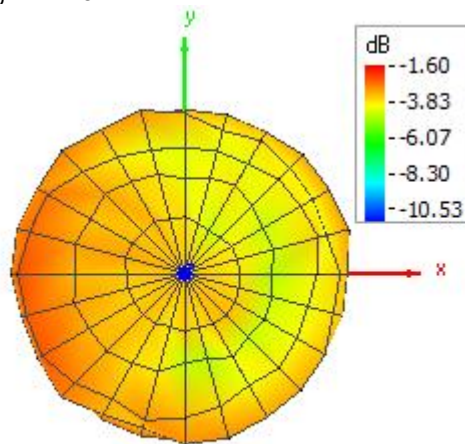
#### 3.1 Gain and Efficiency

| Frequency<br>(MHz) | Efficiency<br>(dB) | Efficiency<br>(%) | Peak Gain<br>(dBi) |
|--------------------|--------------------|-------------------|--------------------|
| 2402.00            | -3.60              | 43.69             | -1.60              |
| 2412.00            | -3.55              | 44.19             | -1.66              |
| 2440.00            | -3.47              | 45.00             | -1.31              |
| 2442.00            | -3.53              | 44.36             | -1.38              |
| 2462.00            | -3.56              | 44.10             | -1.15              |
| 2480.00            | -3.51              | 44.53             | -1.11              |
| 5150.00            | -6.76              | 21.09             | -3.42              |
| 5250.00            | -7.43              | 18.06             | -4.12              |
| 5350.00            | -6.63              | 21.75             | -2.82              |
| 5450.00            | -4.95              | 32.00             | -0.90              |
| 5500.00            | -4.55              | 35.06             | -0.91              |
| 5600.00            | -4.11              | 38.85             | -0.72              |
| 5700.00            | -5.19              | 30.26             | -1.70              |
| 5745.00            | -6.06              | 24.80             | -2.86              |
| 5795.00            | -5.86              | 25.95             | -2.27              |
| 5850.00            | -6.43              | 22.75             | -3.20              |

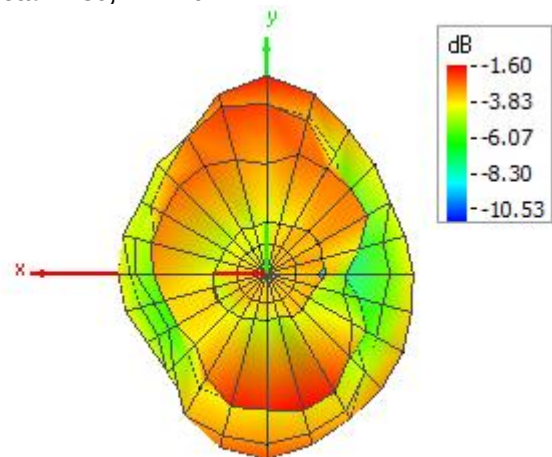
### 3.2 Radiation Pattern

#### 2402 MHz 3D

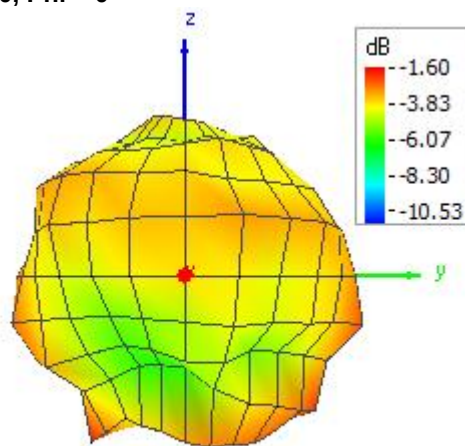
Theta = 0, Phi = 0



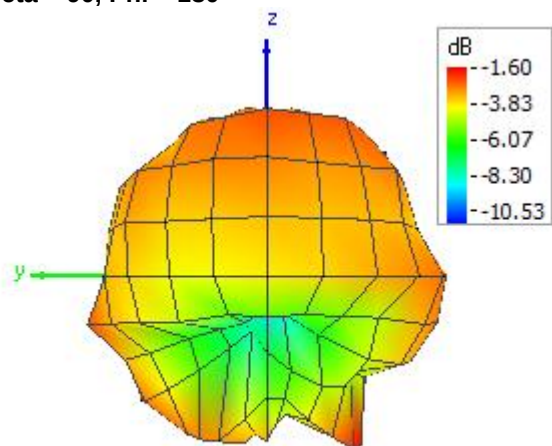
Theta = 180, Phi = 0



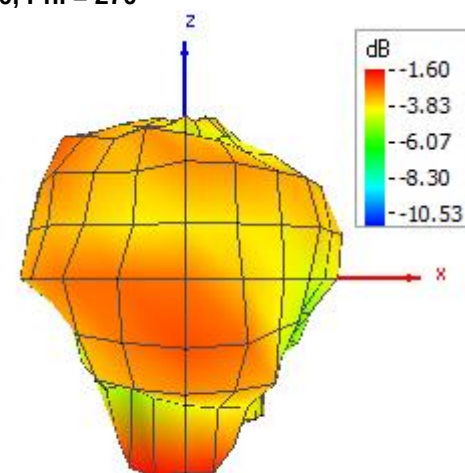
Theta = 90, Phi = 0



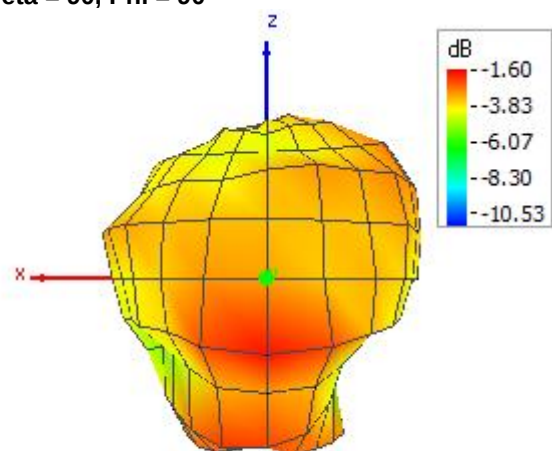
Theta = 90, Phi = 180



Theta = 90, Phi = 270

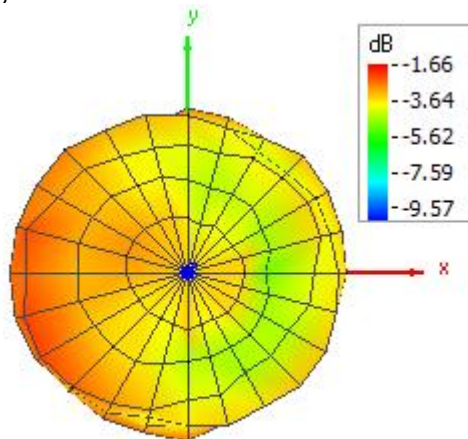


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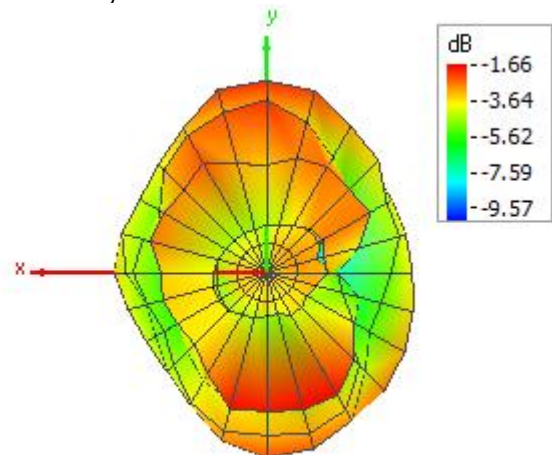


**2412 MHz 3D**

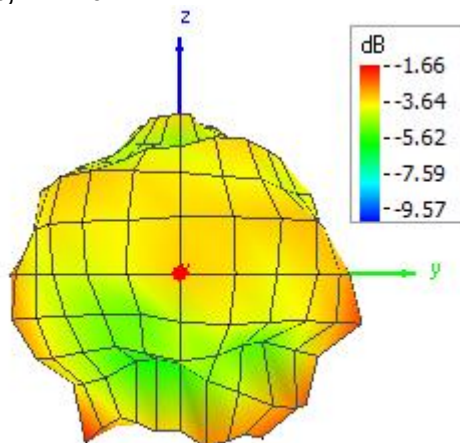
Theta = 0, Phi = 0



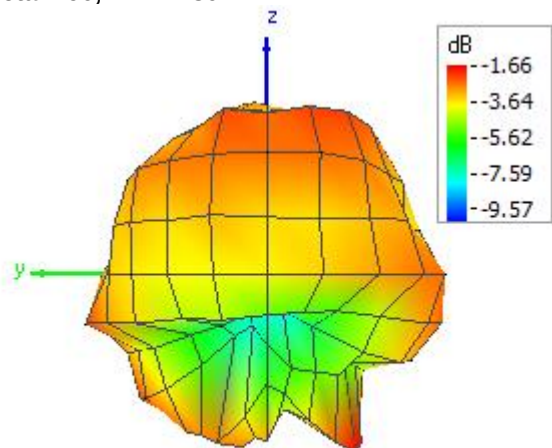
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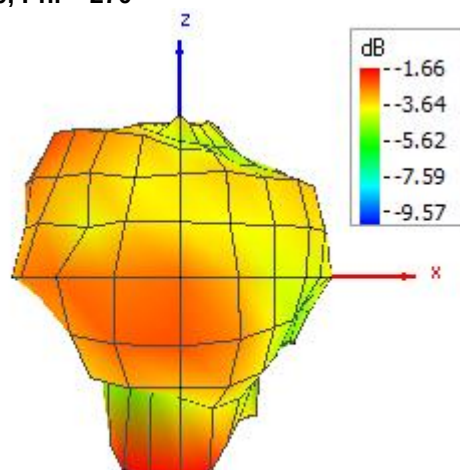
Theta = 90, Phi = 0



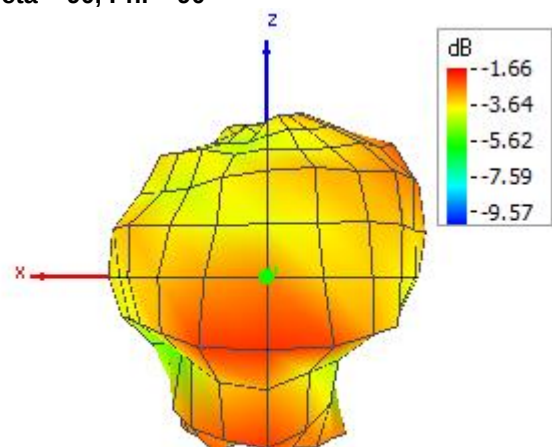
Theta = 90, Phi = 180



Theta = 90, Phi = 270

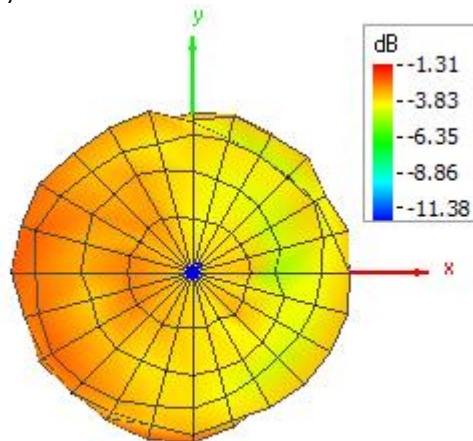


Theta = 90, Phi = 90

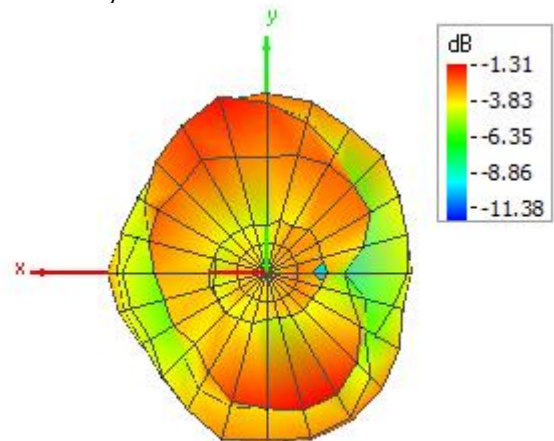


**2440 MHz 3D**

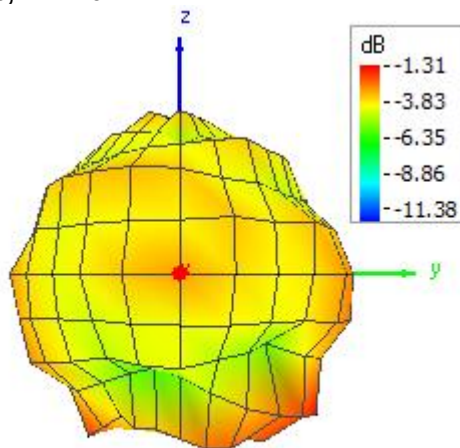
Theta = 0, Phi = 0



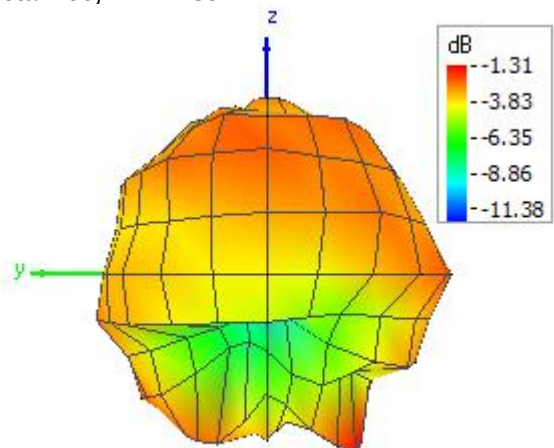
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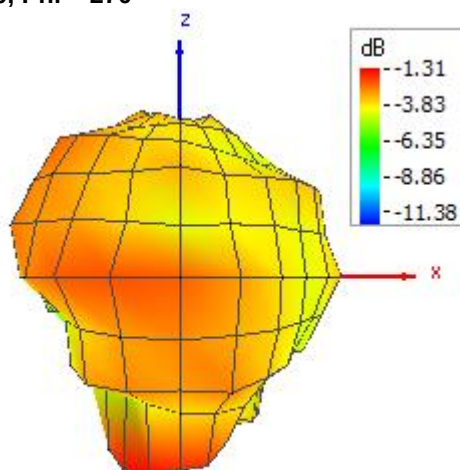
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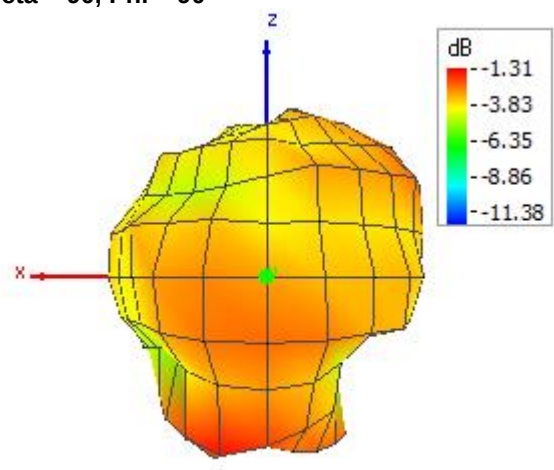
Theta = 90, Phi = 180



Theta = 90, Phi = 270

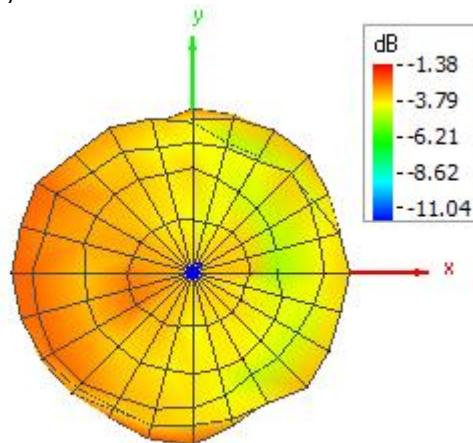


Theta = 90, Phi = 90

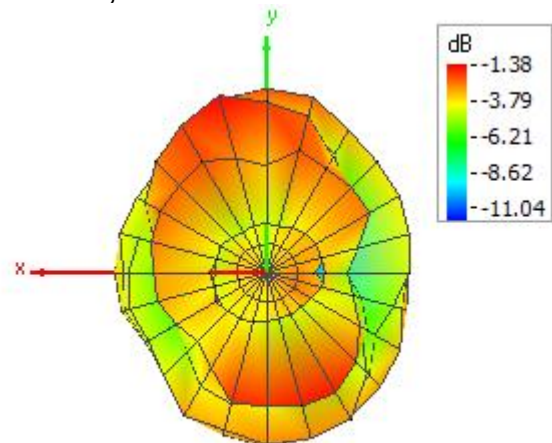


**2442 MHz 3D**

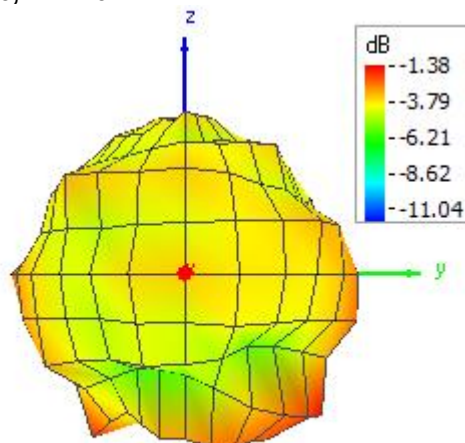
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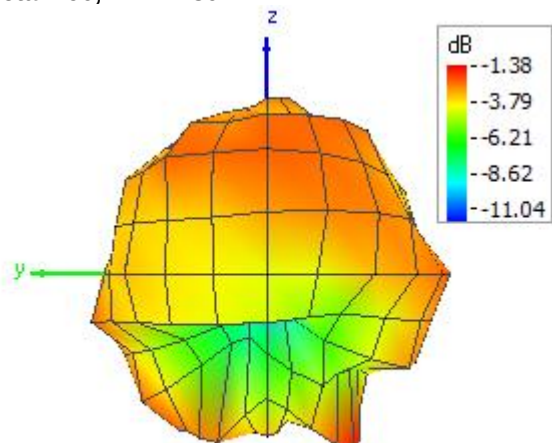
Theta = 180, Phi = 0



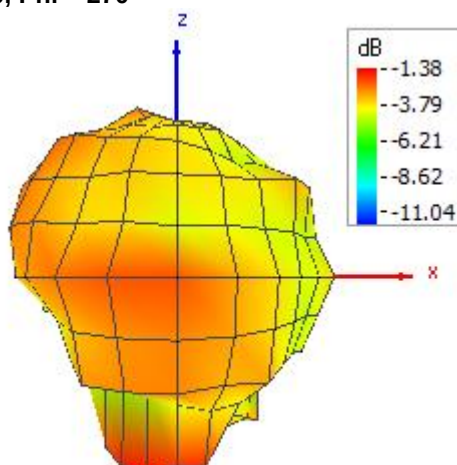
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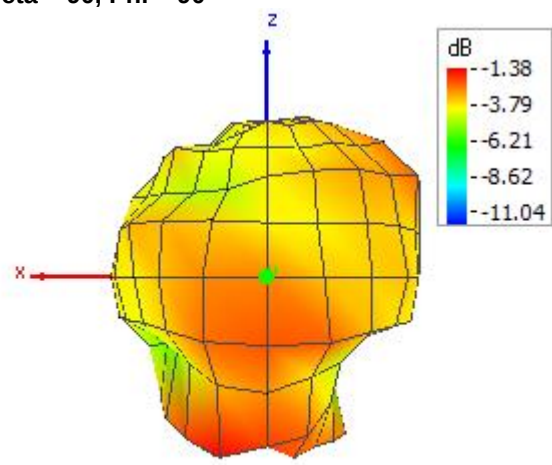
Theta = 90, Phi = 180



Theta = 90, Phi = 270

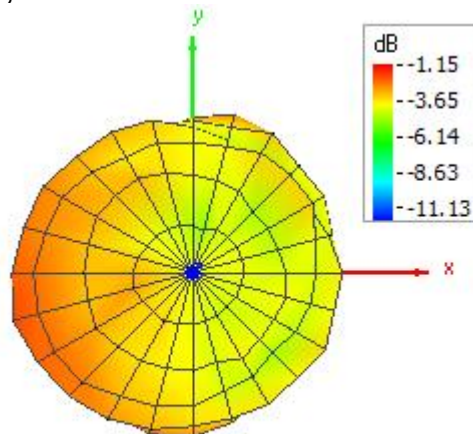


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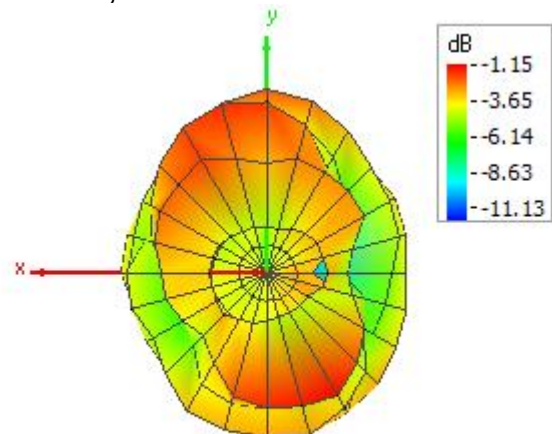


**2462 MHz 3D**

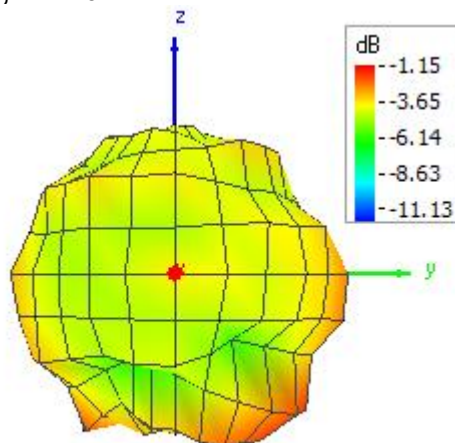
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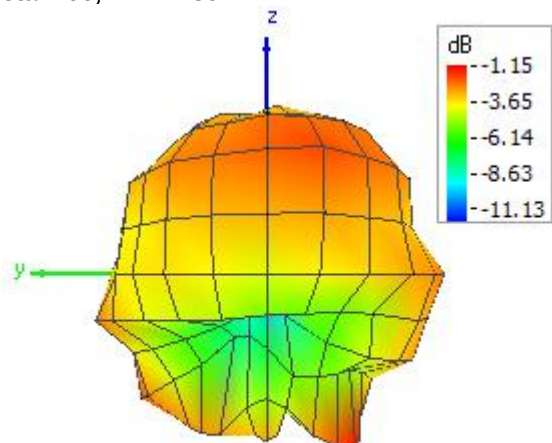
Theta = 180, Phi = 0



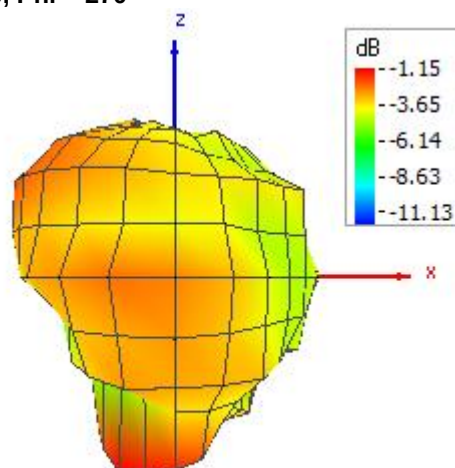
Theta = 90, Phi = 0



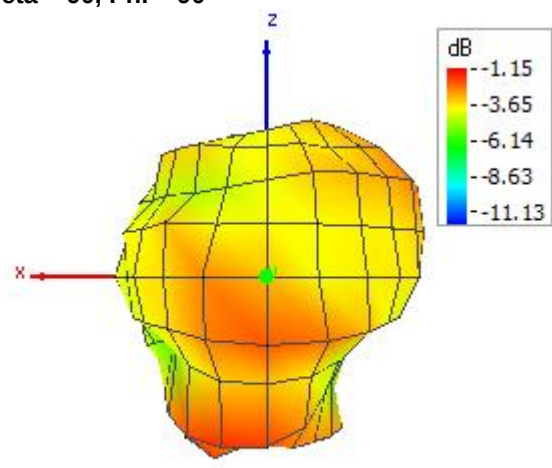
Theta = 90, Phi = 180



Theta = 90, Phi = 270

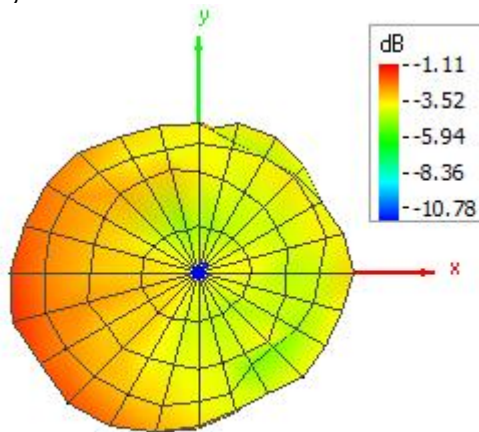


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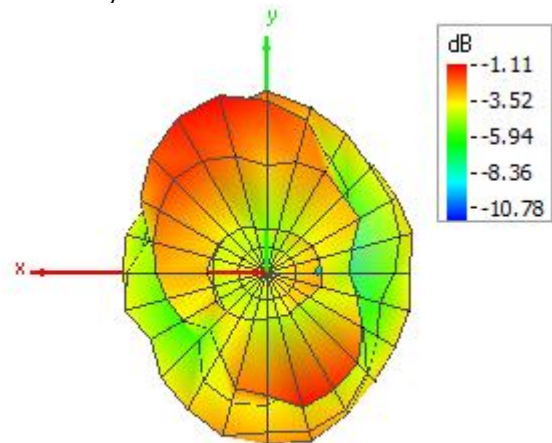


**2480 MHz 3D**

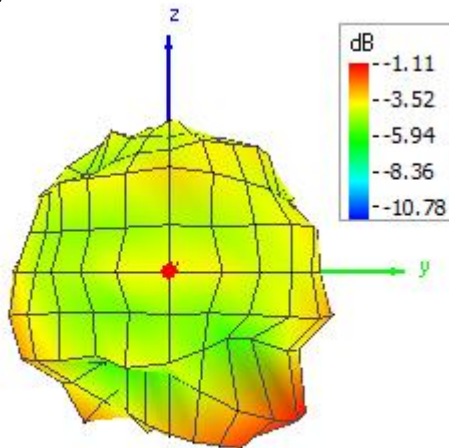
Theta = 0, Phi = 0



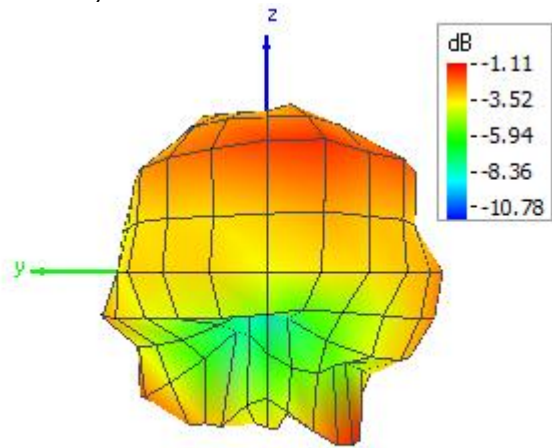
Theta = 180, Phi = 0



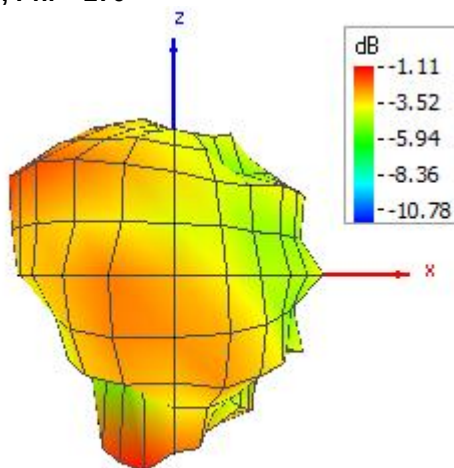
Theta = 90, Phi = 0



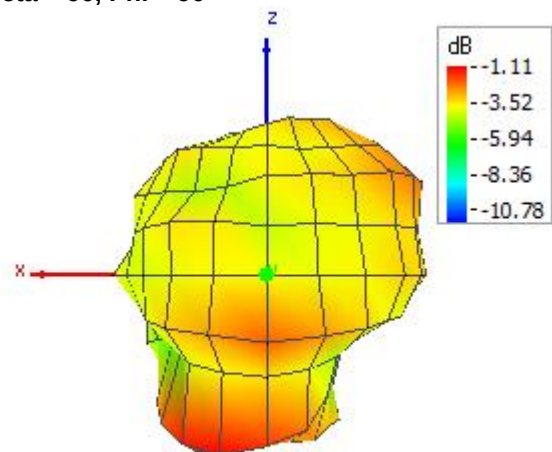
Theta = 90, Phi = 180



Theta = 90, Phi = 270

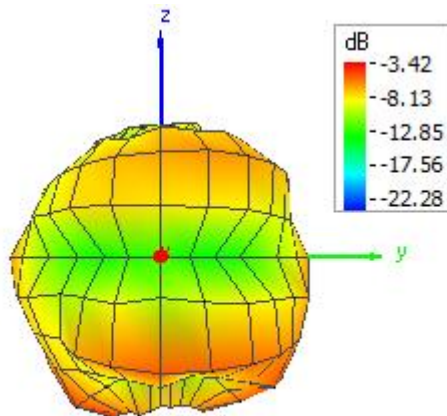


Theta = 90, Phi = 90

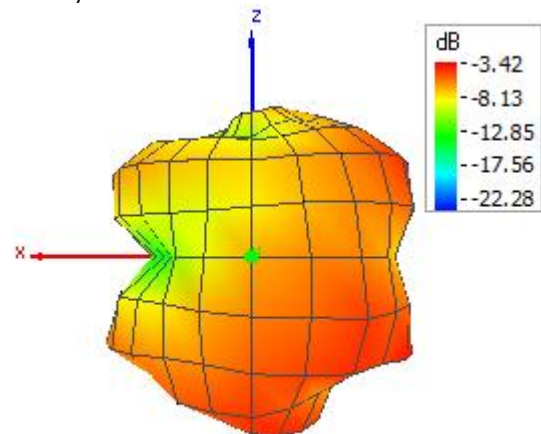


**5150 MHz 3D**

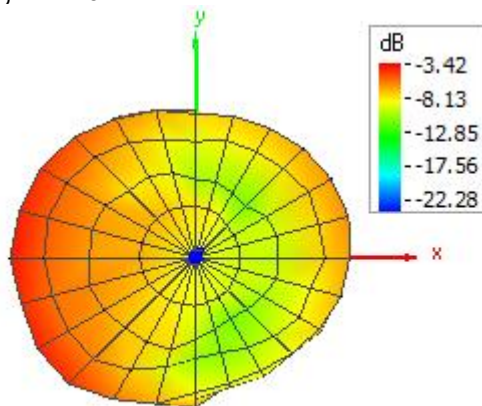
Theta = 90, Phi = 0



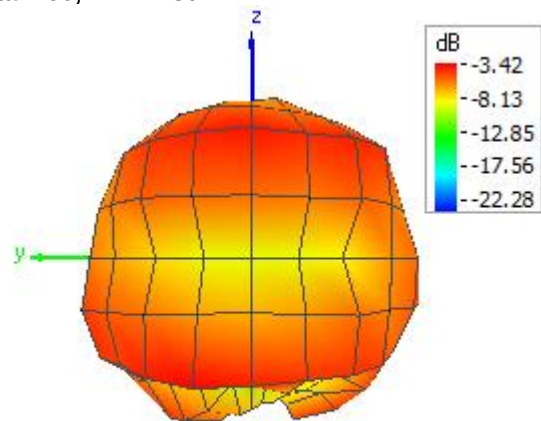
Theta = 90, Phi = 90



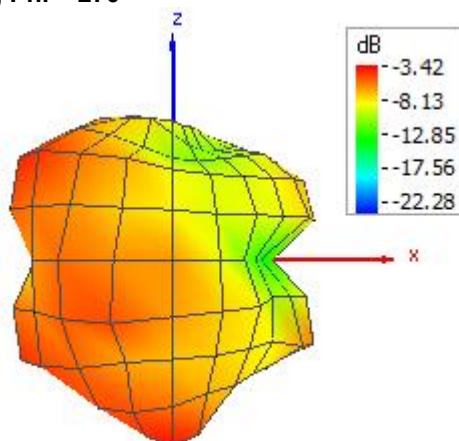
Theta = 0, Phi = 0



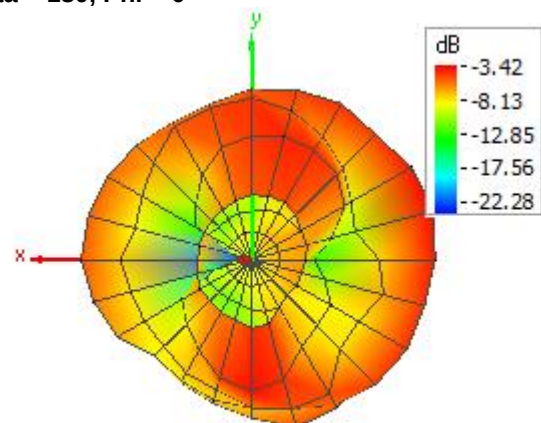
Theta = 90, Phi = 180



Theta = 90, Phi = 270

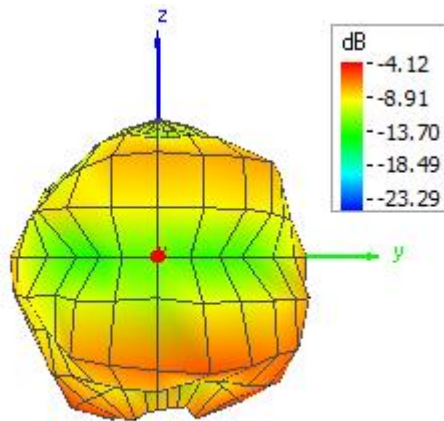


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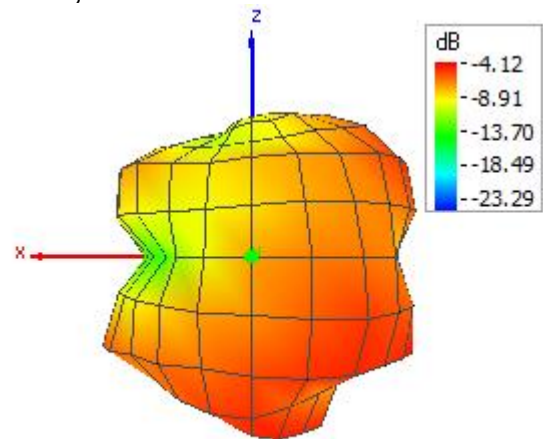


**5250 MHz 3D**

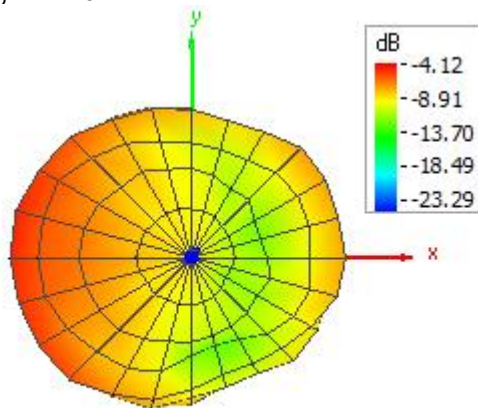
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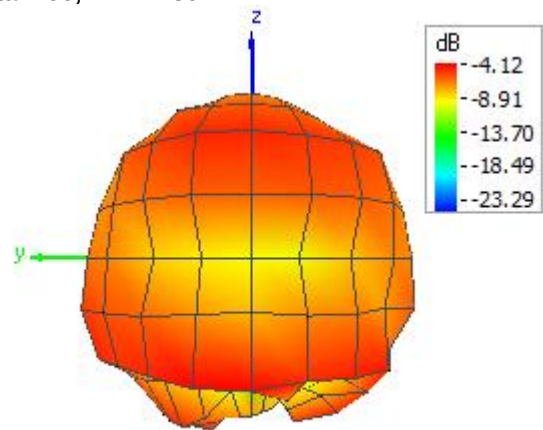
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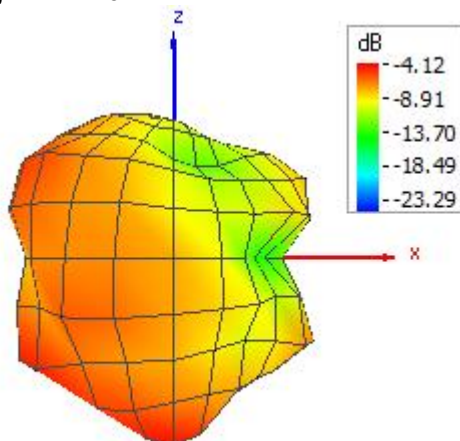
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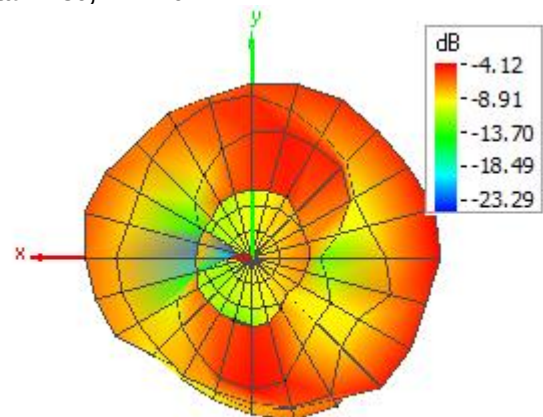
Theta = 90, Phi = 180



Theta = 90, Phi = 270

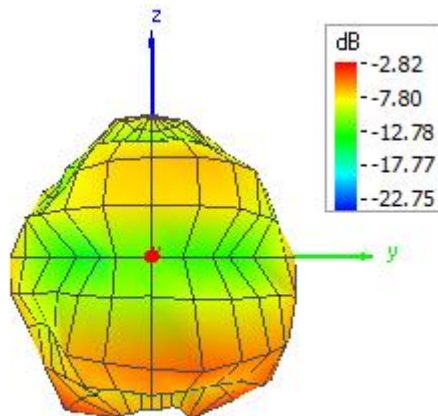


Theta = 180, Phi = 0

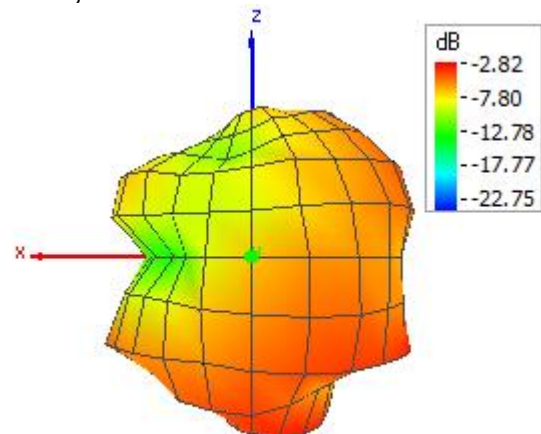


**5350 MHz 3D**

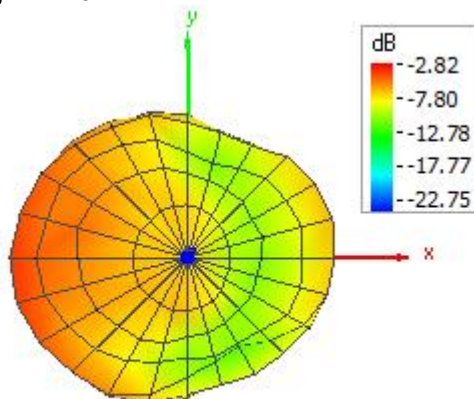
Theta = 90, Phi = 0



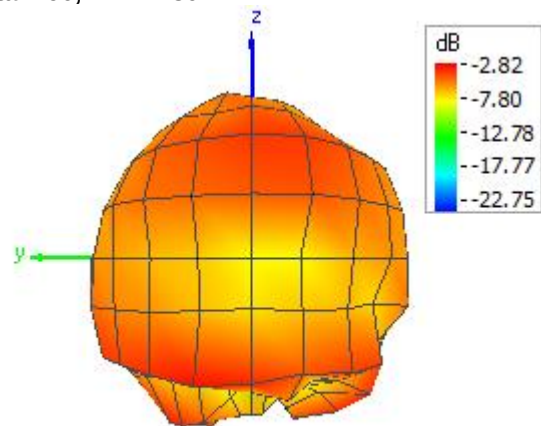
Theta = 90, Phi = 90



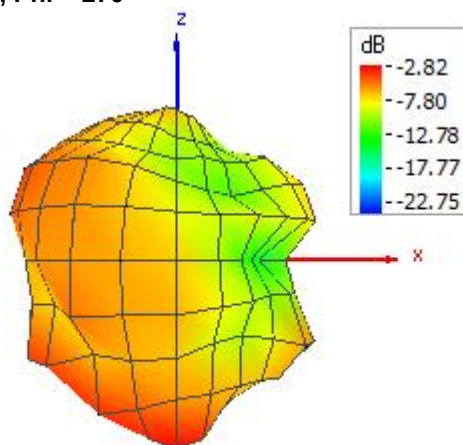
Theta = 0, Phi = 0



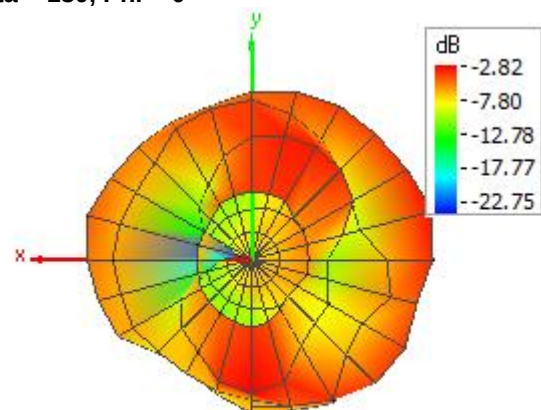
Theta = 90, Phi = 180



Theta = 90, Phi = 270

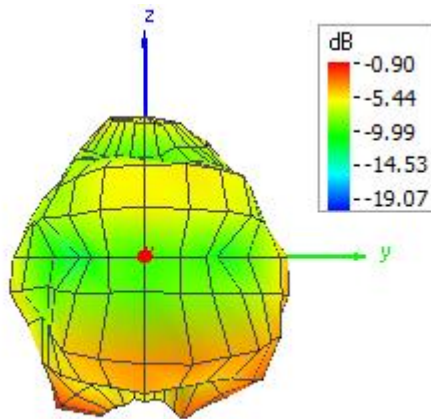


Theta = 180, Phi = 0

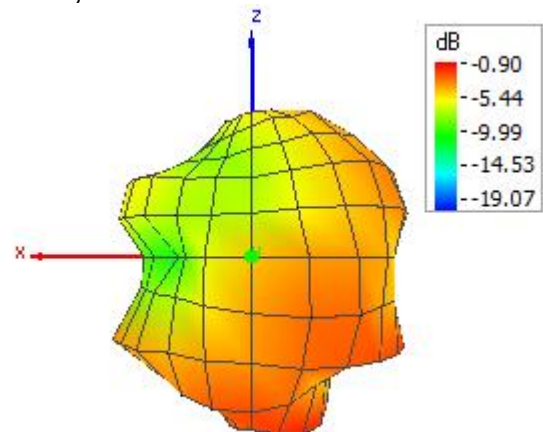


**5450 MHz 3D**

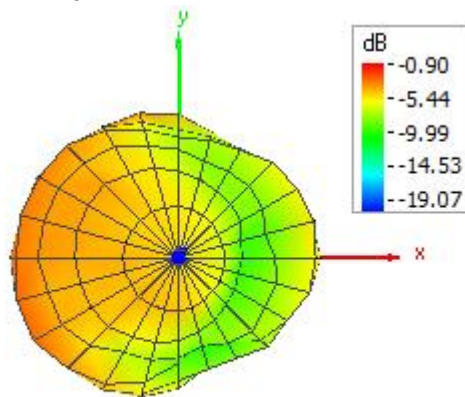
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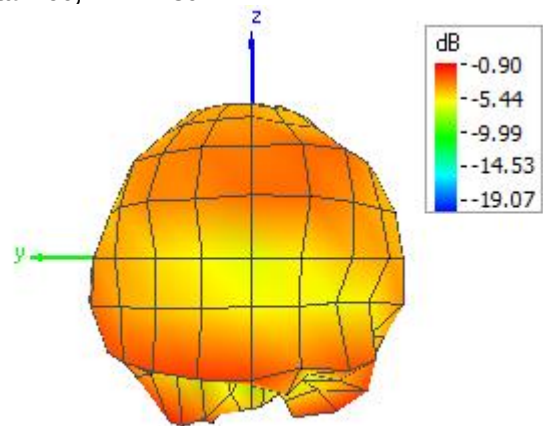
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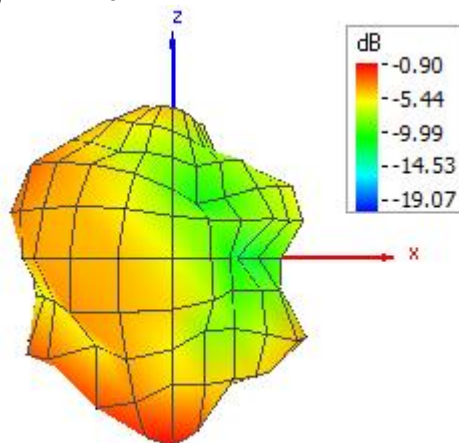
Theta = 0, Phi = 0



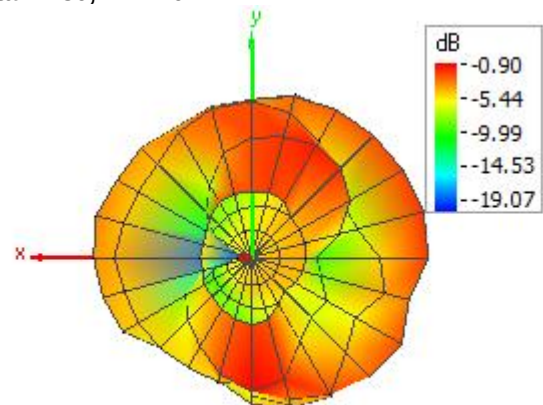
Theta = 90, Phi = 180



Theta = 90, Phi = 270

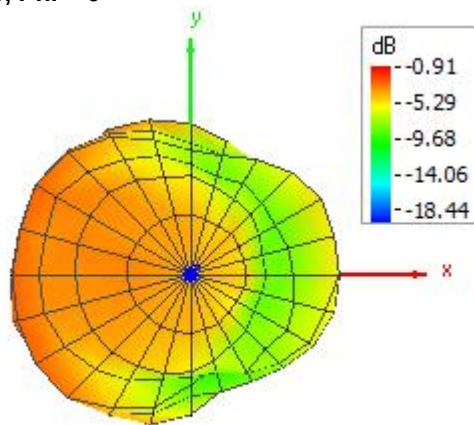


Theta = 180, Phi = 0

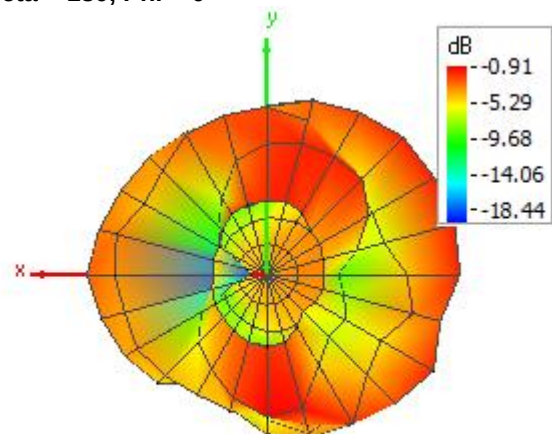


**5500 MHz 3D**

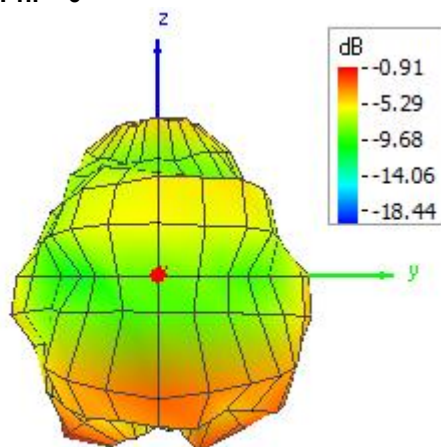
Theta = 0, Phi = 0



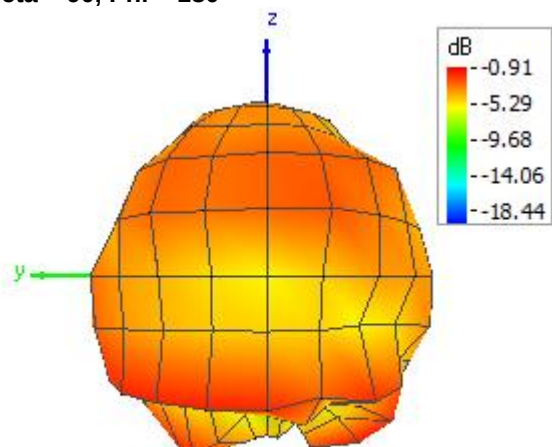
Theta = 180, Phi = 0



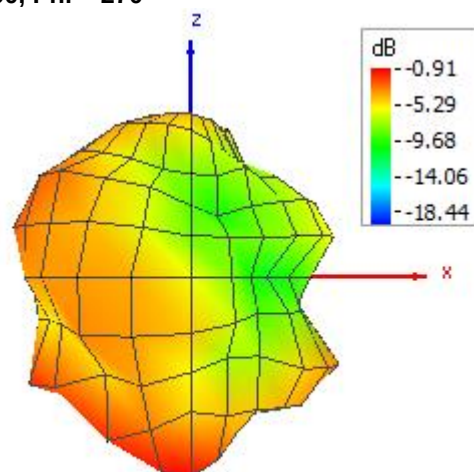
Theta = 90, Phi = 0



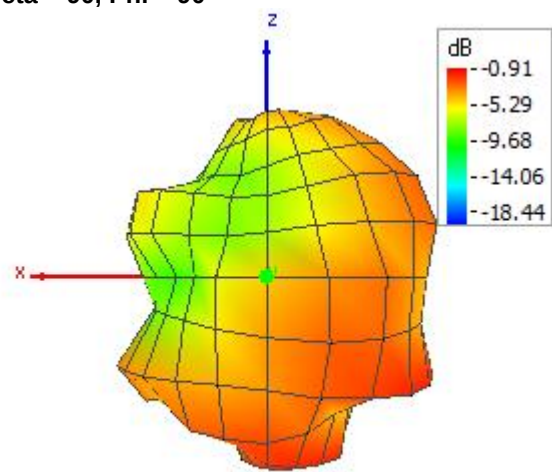
Theta = 90, Phi = 180



Theta = 90, Phi = 270

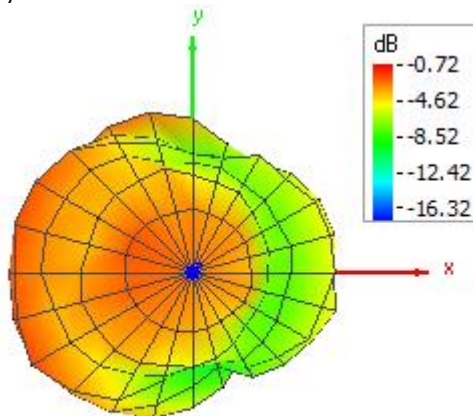


Theta = 90, Phi = 90

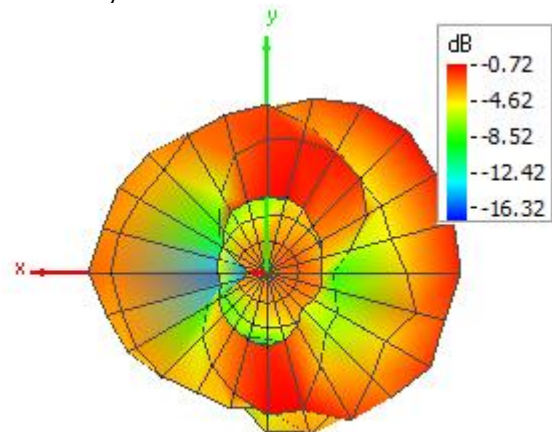


**5600 MHz 3D**

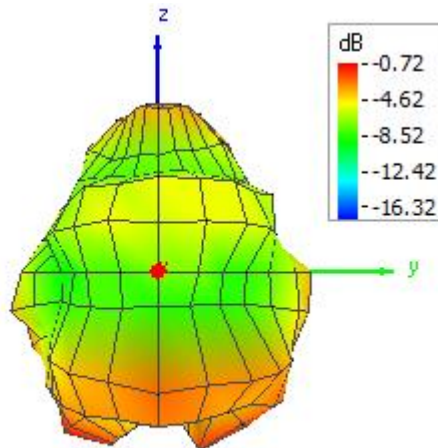
Theta = 0, Phi = 0



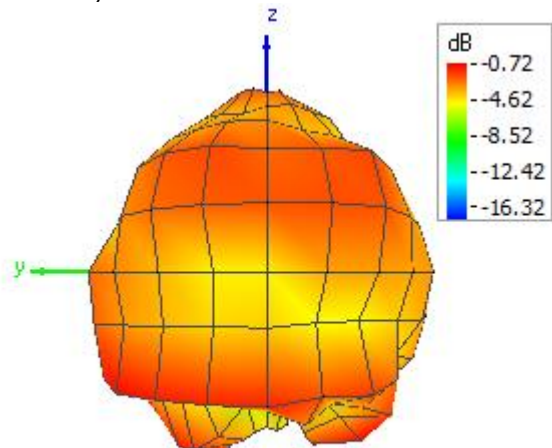
Theta = 180, Phi = 0



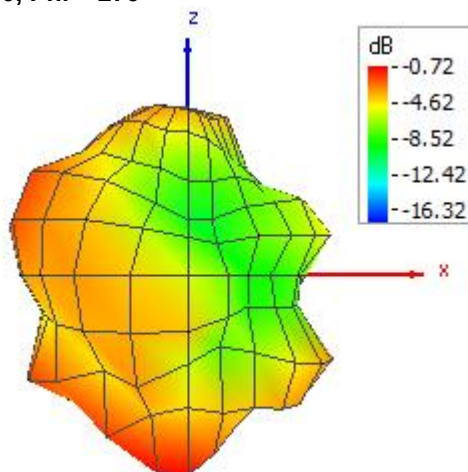
Theta = 90, Phi = 0



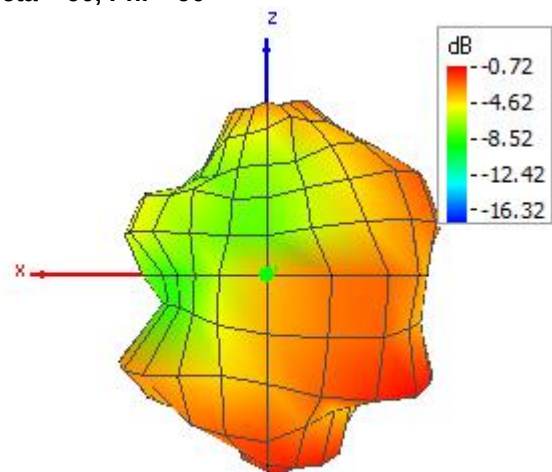
Theta = 90, Phi = 180



Theta = 90, Phi = 270

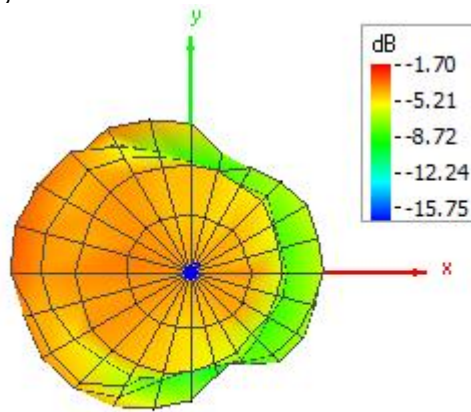


Theta = 90, Phi = 90

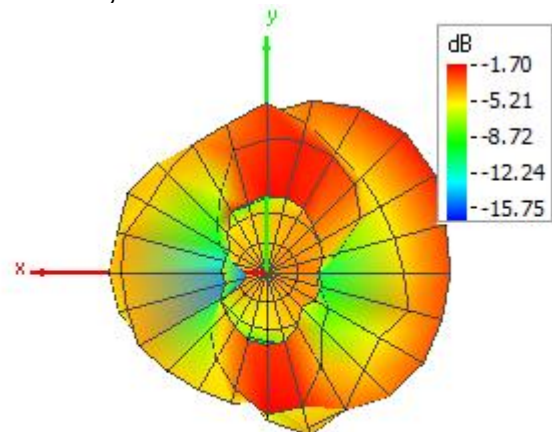


**5700 MHz 3D**

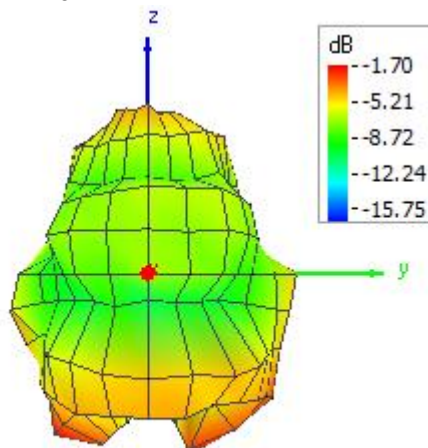
Theta = 0, Phi = 0



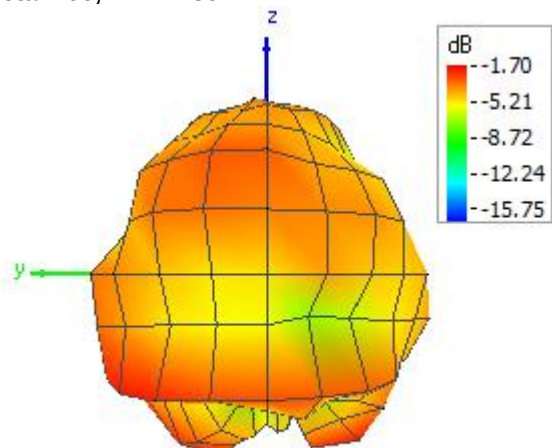
Theta = 180, Phi = 0



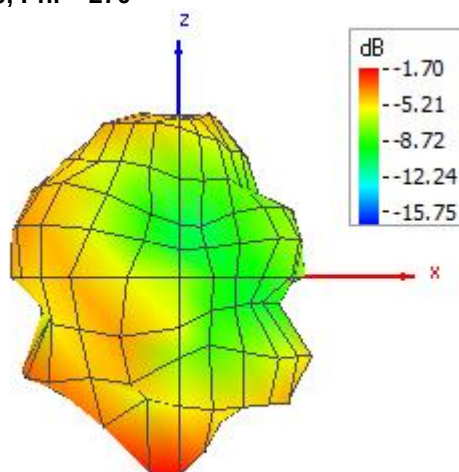
Theta = 90, Phi = 0



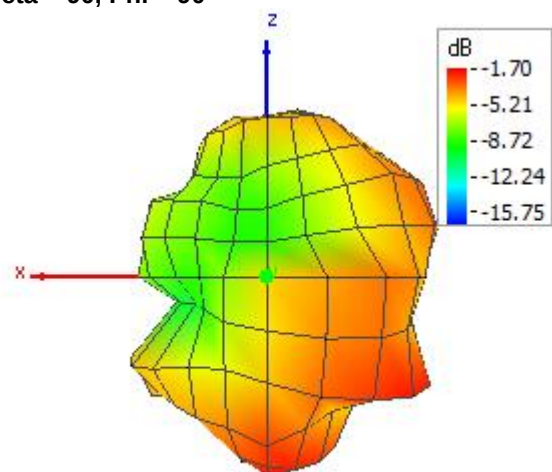
Theta = 90, Phi = 180



Theta = 90, Phi = 270

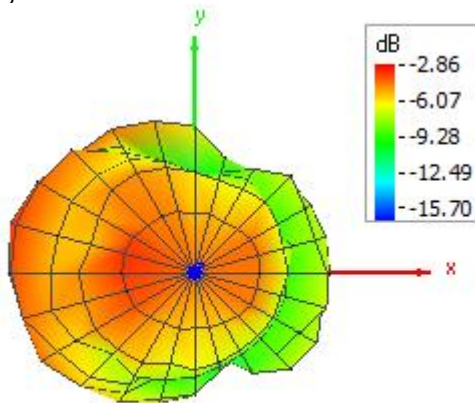


Theta = 90, Phi = 90

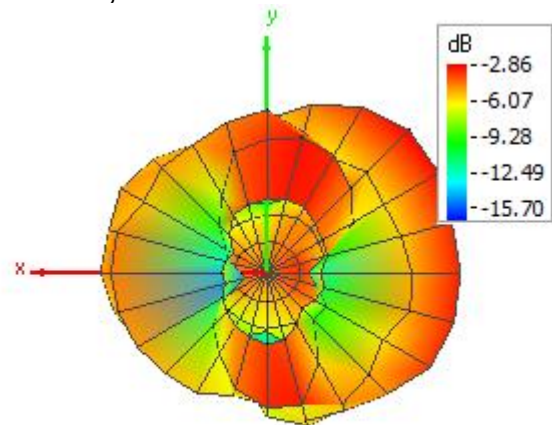


**5745 MHz 3D**

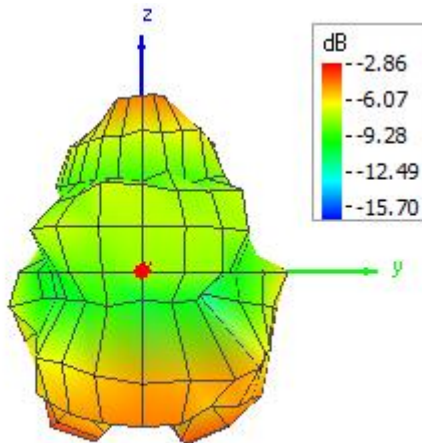
Theta = 0, Phi = 0



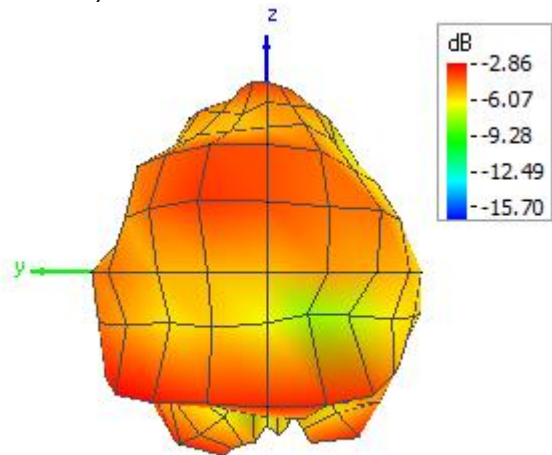
Theta = 180, Phi = 0



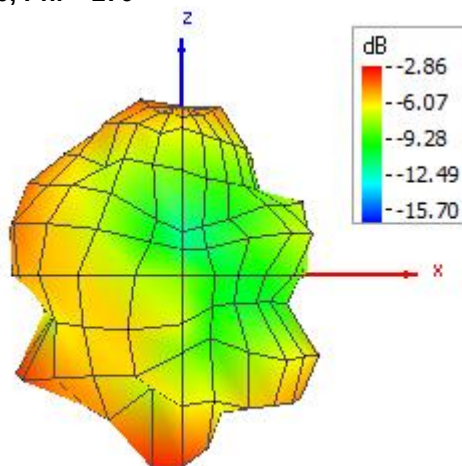
Theta = 90, Phi = 0



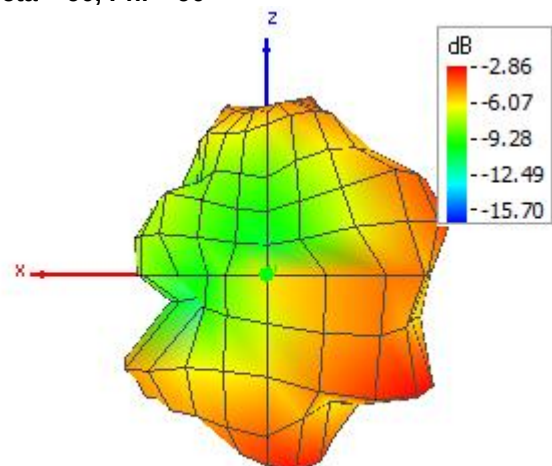
Theta = 90, Phi = 180



Theta = 90, Phi = 270

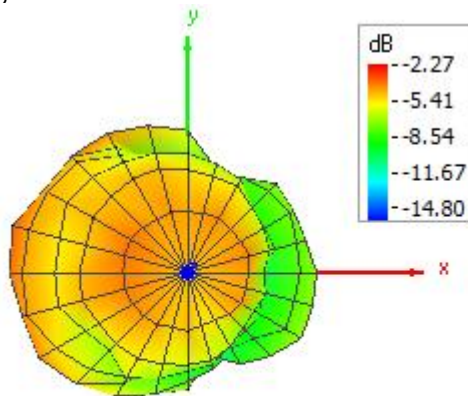


Theta = 90, Phi = 90

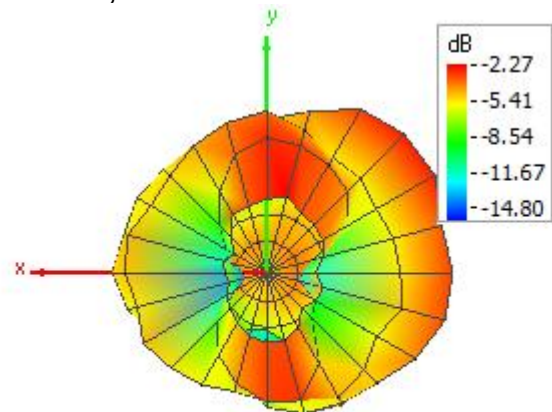


**5795 MHz 3D**

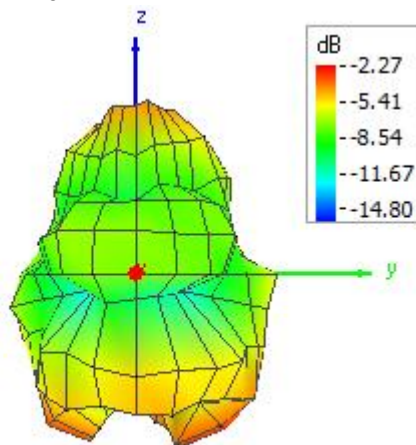
Theta = 0, Phi = 0



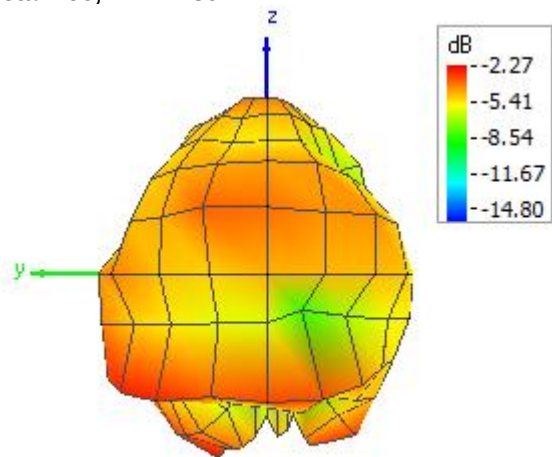
Theta = 180, Phi = 0



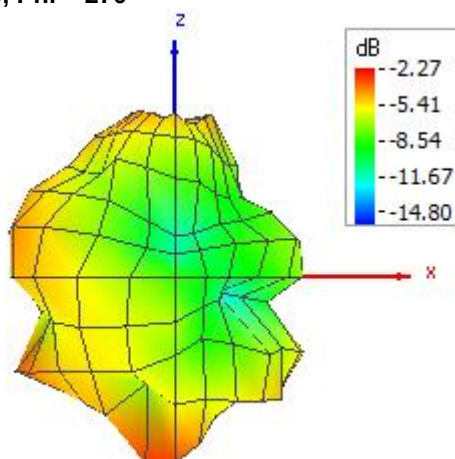
Theta = 90, Phi = 0



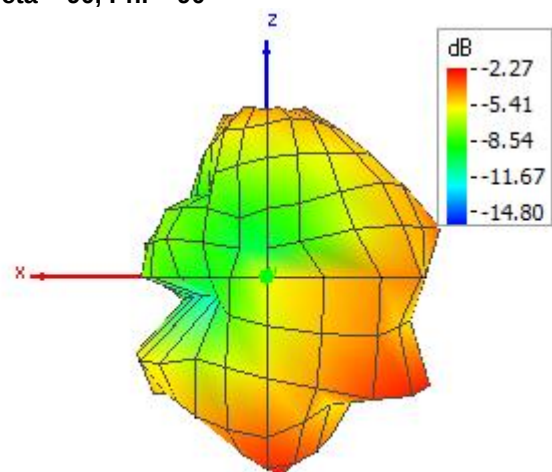
Theta = 90, Phi = 180



Theta = 90, Phi = 270

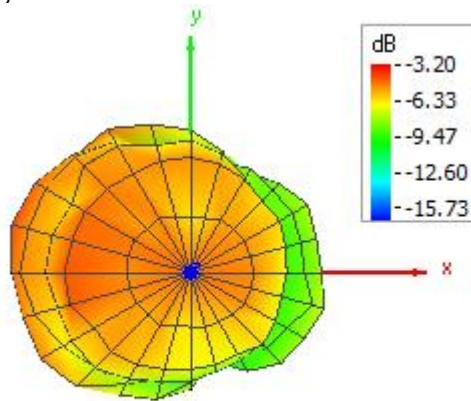


Theta = 90, Phi = 90

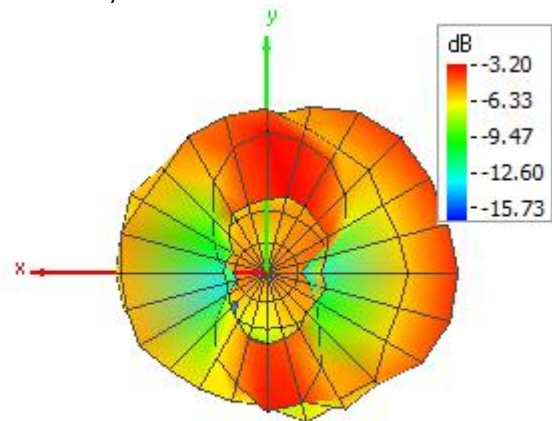


**5850 MHz 3D**

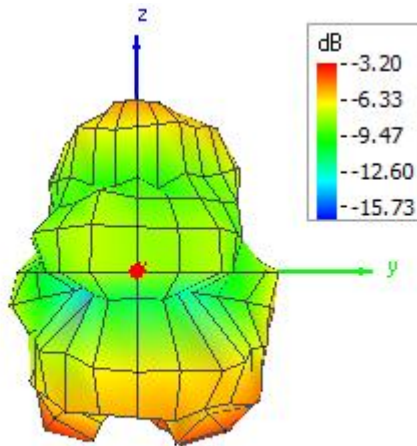
Theta = 0, Phi = 0



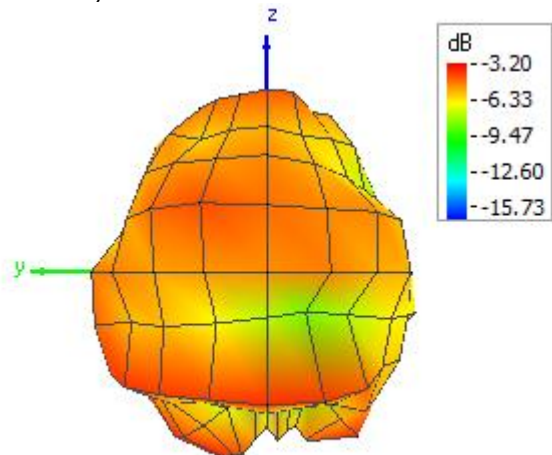
Theta = 180, Phi = 0



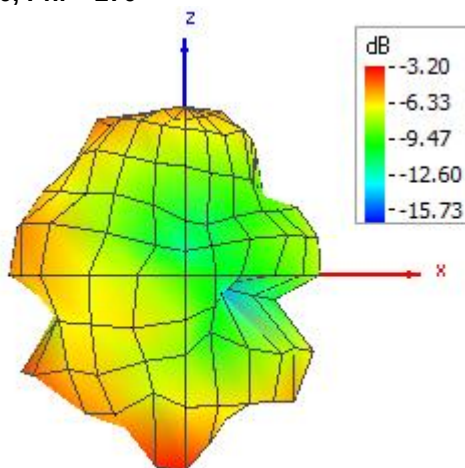
Theta = 90, Phi = 0



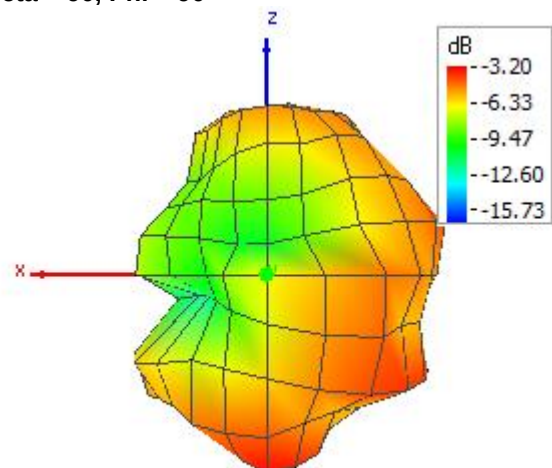
Theta = 90, Phi = 180



Theta = 90, Phi = 270



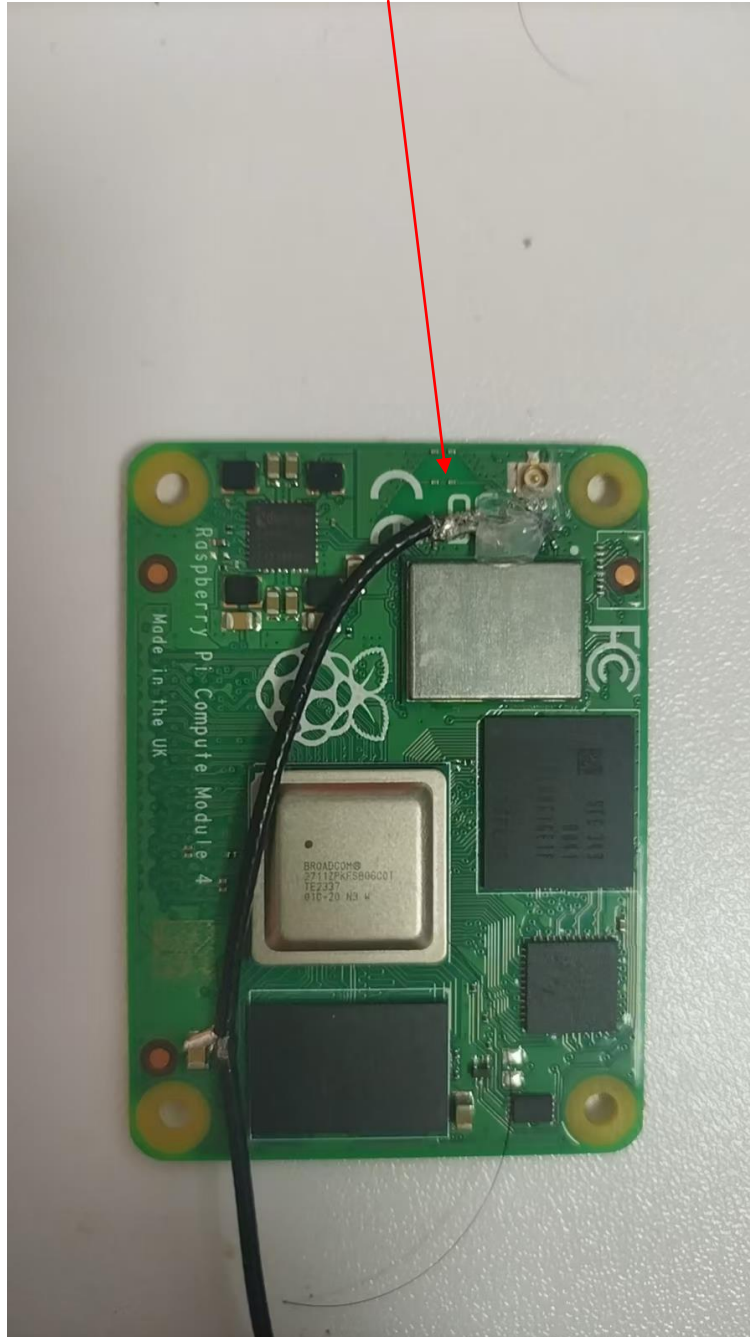
Theta = 90, Phi = 90



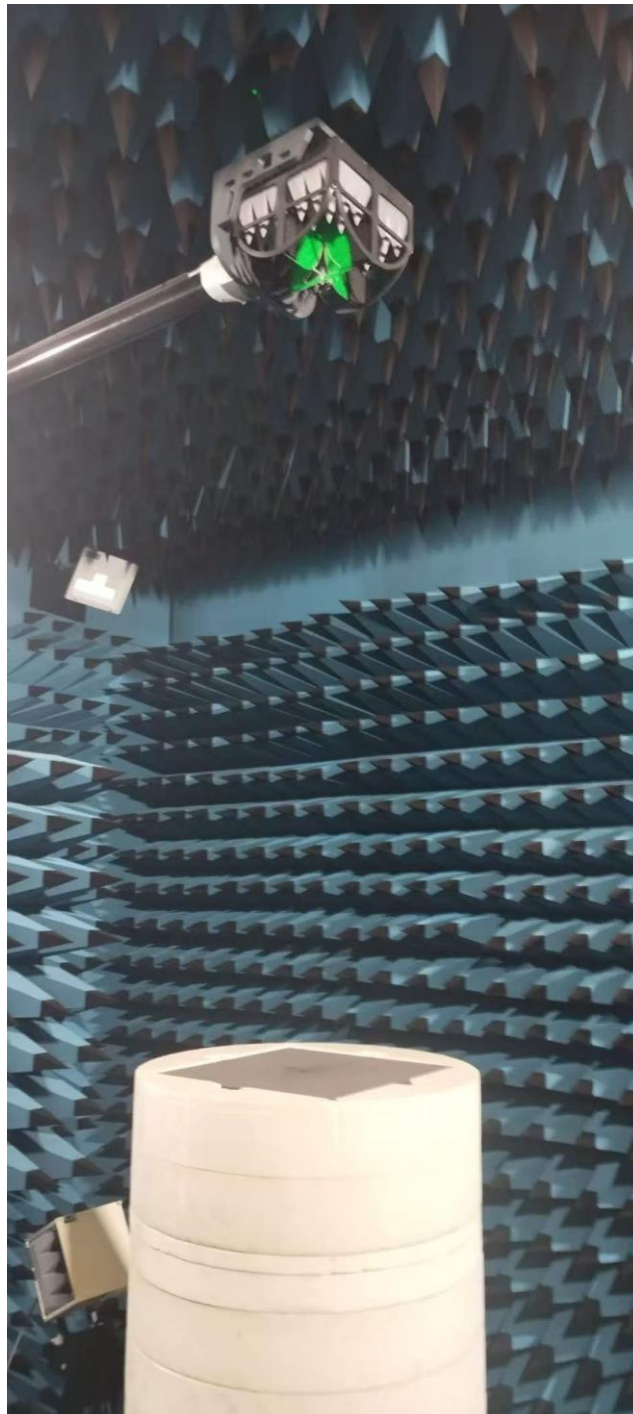
#### 4. EUT PHOTOGRAPHS

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Antenna



## 5. TEST SETUP PHOTOGRAPHS



===== END OF REPORT =====