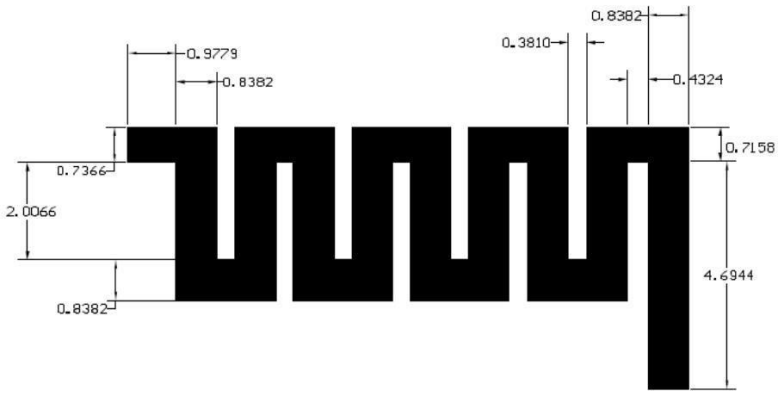
# General Description for Equipment under Test (EUT)

| | |
|---|---|
| EUT Name | PCB Onboard Antenna |
| Model Name Under Test | |
| Antenna Type | PCB Antenna |
| Dimensions | 11.8*5.4 mm |




## 1.1 Technical Information

| | |
|---|---|
| Test Frequencies | 2400MHz, 2410MHz, 2420MHz, 2430MHz, 2440MHz, 2450MHz, 2460MHz, 2470MHz, 2480MHz, 2490MHz, 2500MHz |

## 1.2 Test Standards

| No. | Identity | Document Title |
|---|---|---|
| 1 | ANSI/IEEE Std 149-1979 | IEEE Standard Test Procedures for Antennas |

## 1.3 Test Verdict

| Report Section | Description | Remark |
|---|---|---|
| ANNEX A.1 | Gain and Efficiency | -- |
| ANNEX B | Radiation Pattern | -- |

## 1.4 Test Uncertainty

The uncertainty is calculated using the methods suggested in the "Guide to the Expression of Uncertainty in Measurement" (GUM) published by ISO.

| Item | Uncertainty |
|---|---|
| Gain | ±1.92dB |

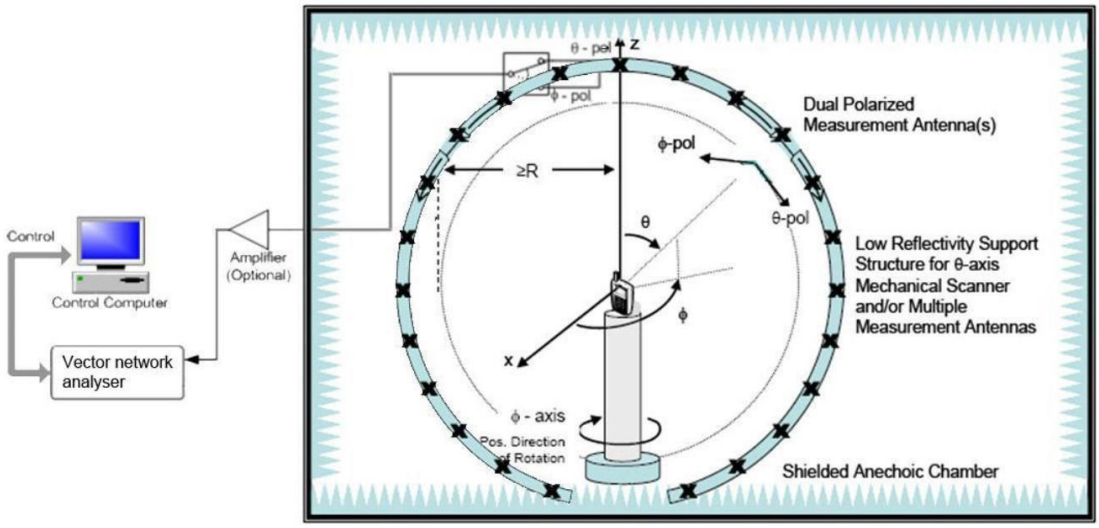
# 2 GENERAL TEST CONFIGURATIONS

## 2.1 Test Condition

| Environment Parameter | Selected Values During Tests | | | |
|---|---|---|---|---|
| | Ambient Pressure(KPa) | Temperature(℃) | Voltage | Relative Humidity (%) |
| Normal Temperature, Normal Voltage (NTNV) | 101 | 25 | N/A | 50 |

## 2.2 Test Setup

### 2.2.1 Antenna gain, efficiency and radiation pattern test setup



# ANNEX A TEST RESULTS

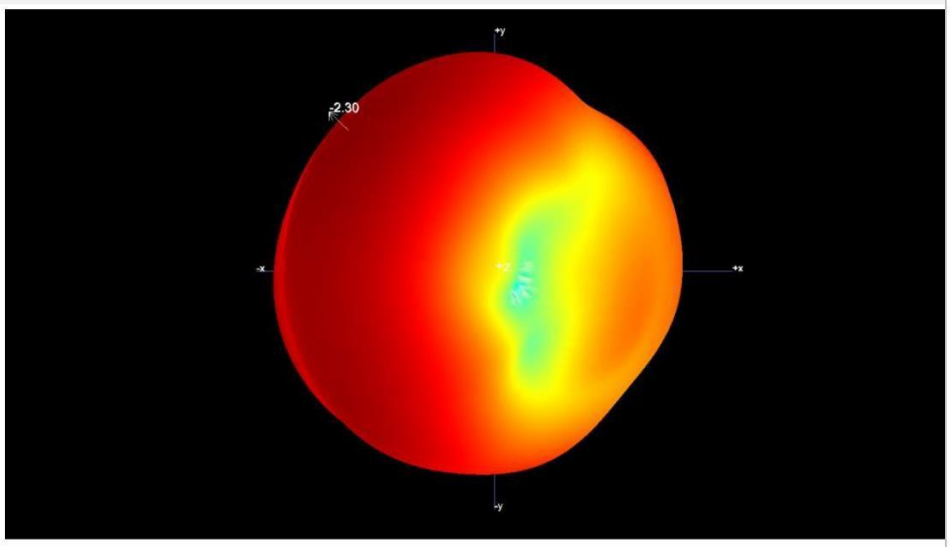
## A.1 Gain and Efficiency

| Frequency | Gain (dBi) | Efficiency (%) |
|---|---|---|
| 2400MHz | **-2.30** | 20 |
| 2410MHz | -2.40 | 20 |
| 2420MHz | -2.49 | **21** |
| 2430MHz | -2.57 | 20 |
| 2440MHz | -2.69 | 19 |
| 2450MHz | -2.86 | 19 |
| 2460MHz | -3.06 | 19 |
| 2470MHz | -3.23 | 19 |
| 2480MHz | -3.29 | 18 |
| 2490MHz | -3.22 | 18 |
| 2500MHz | -3.58 | 18 |

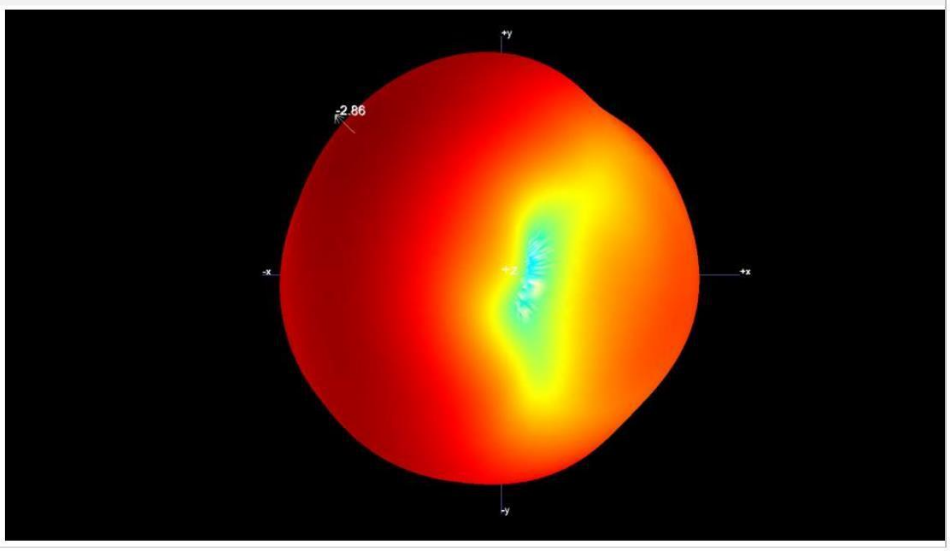
# ANNEX B RADIATION PATTERN

## B.1 3D Pattern

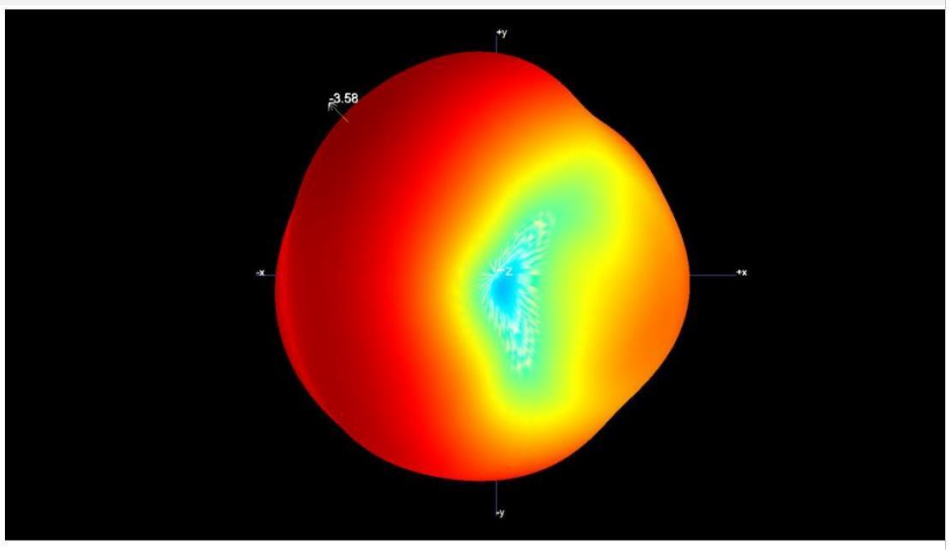
B1.1 3D Pattern for 2400MHz




B1.2 3D Pattern for 2450MHz

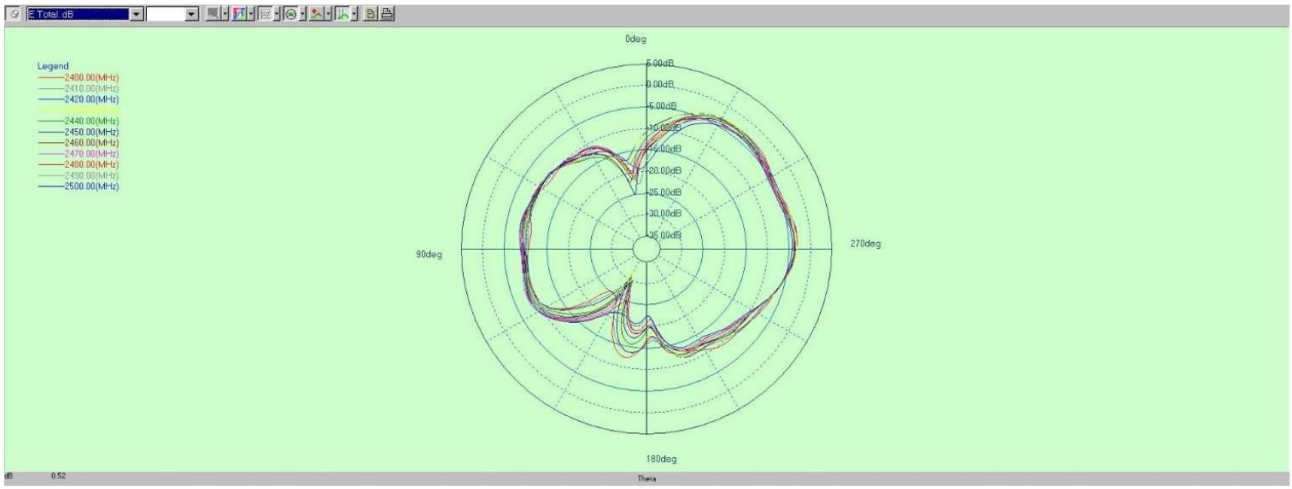


## B1.3 3D Pattern for 2500MHz

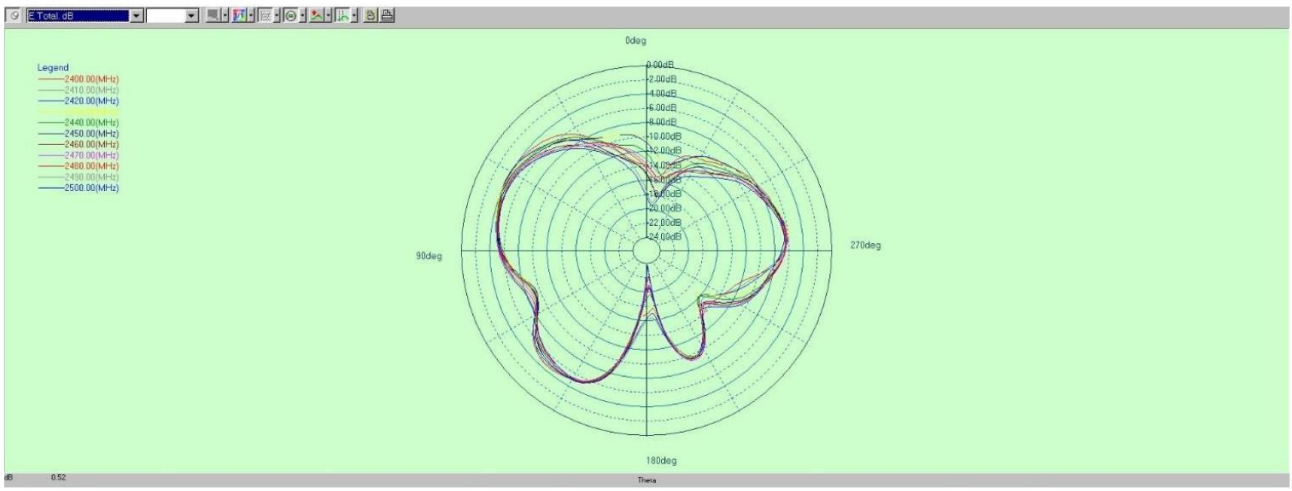


## B.2 1D Radiation Pattern

### B2.1 PHI=0




### B2.2 PHI=90




### B2.3 THETA=90