

2.4G PCB Antenna Report

1. Model:ESP32-S3-MINI-1

2. Test Results

2.1.Applied Reference Documents

Leading reference documents for testing:

No.	Identity	Document Title
1	IEEE149-1979	IEEE Standard Test Procedures for Antennas

2.2.Test Conditions

Test Environment Conditions:

Relative Humidity:	15 ... 75 %
Temperature:	+10 °C to +30 °C

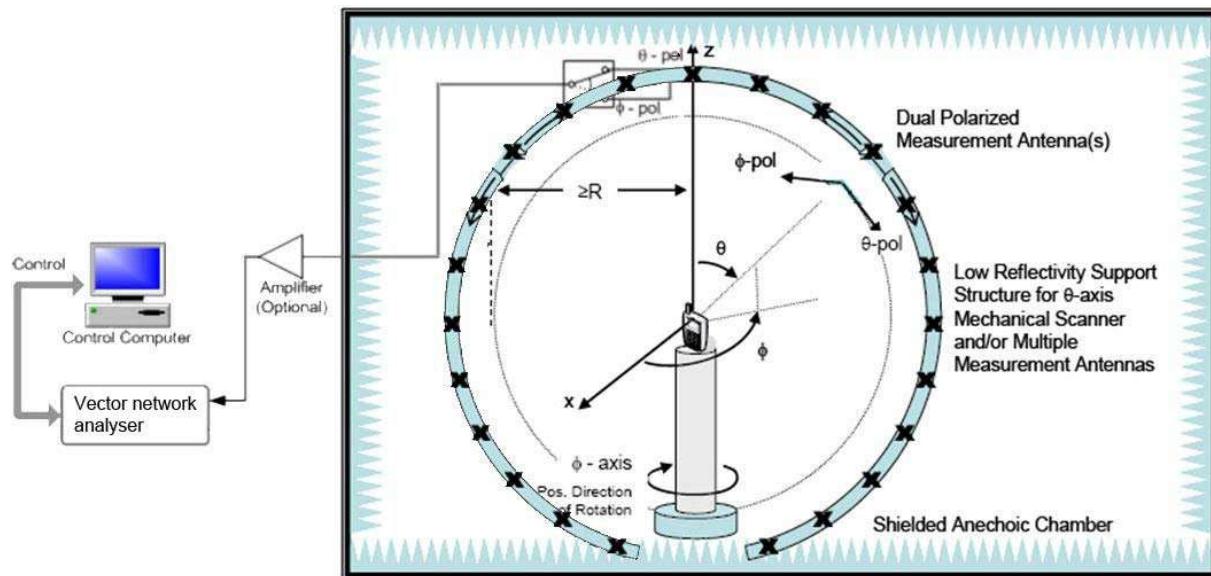
2.3.Test Results lists

2.3.1. Gain

Frequency	Gain(dBi)
2400MHz	0.0000
2410MHz	-0.69588
2420MHz	-0.97422
2430MHz	-1.46593
2440MHz	-1.76019
2450MHz	-2.52949
2460MHz	-2.59129
2470MHz	-2.87039
2480MHz	-3.187
2490MHz	-3.109
2500MHz	-3.3401

Annex A Test Setup

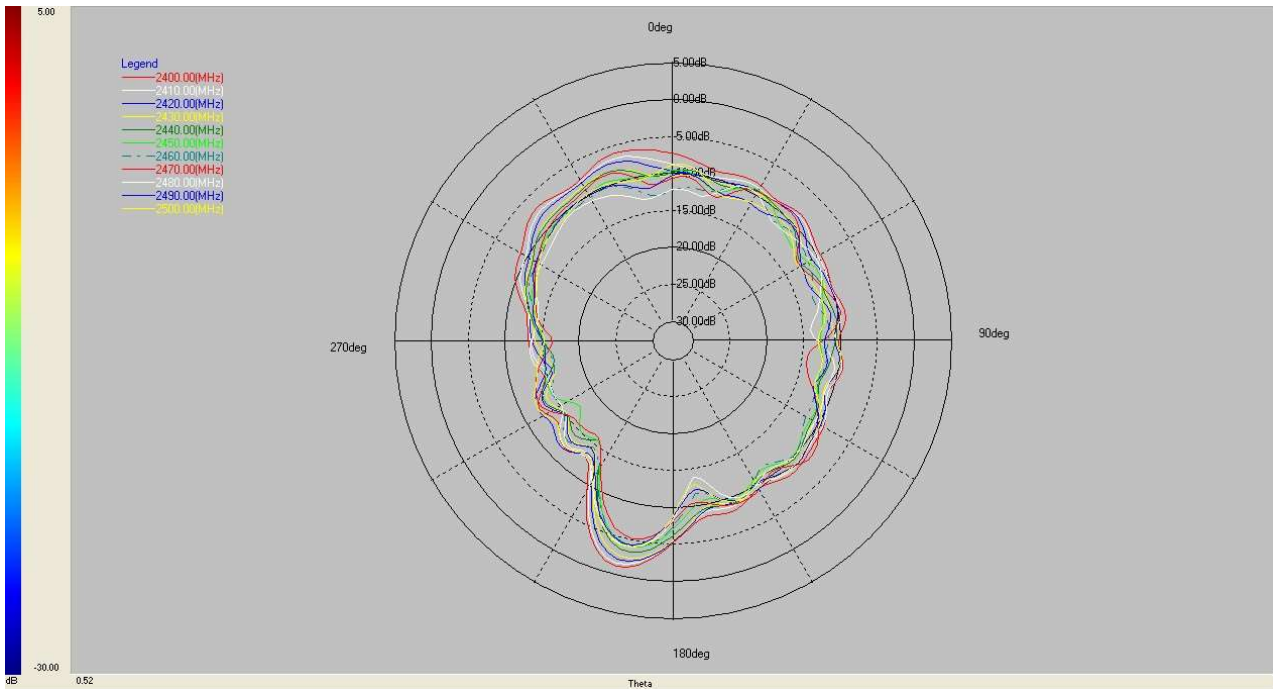
1. Test Setup



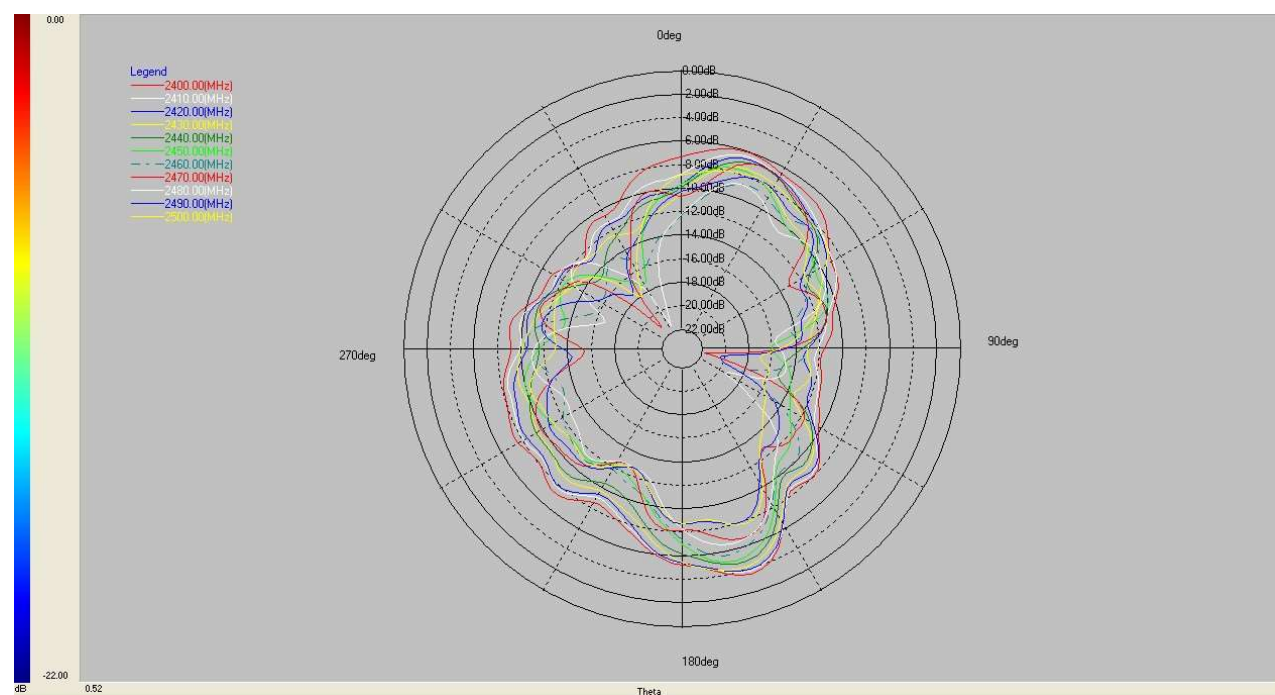
Annex B Figures

1. 2D Radiation Pattern

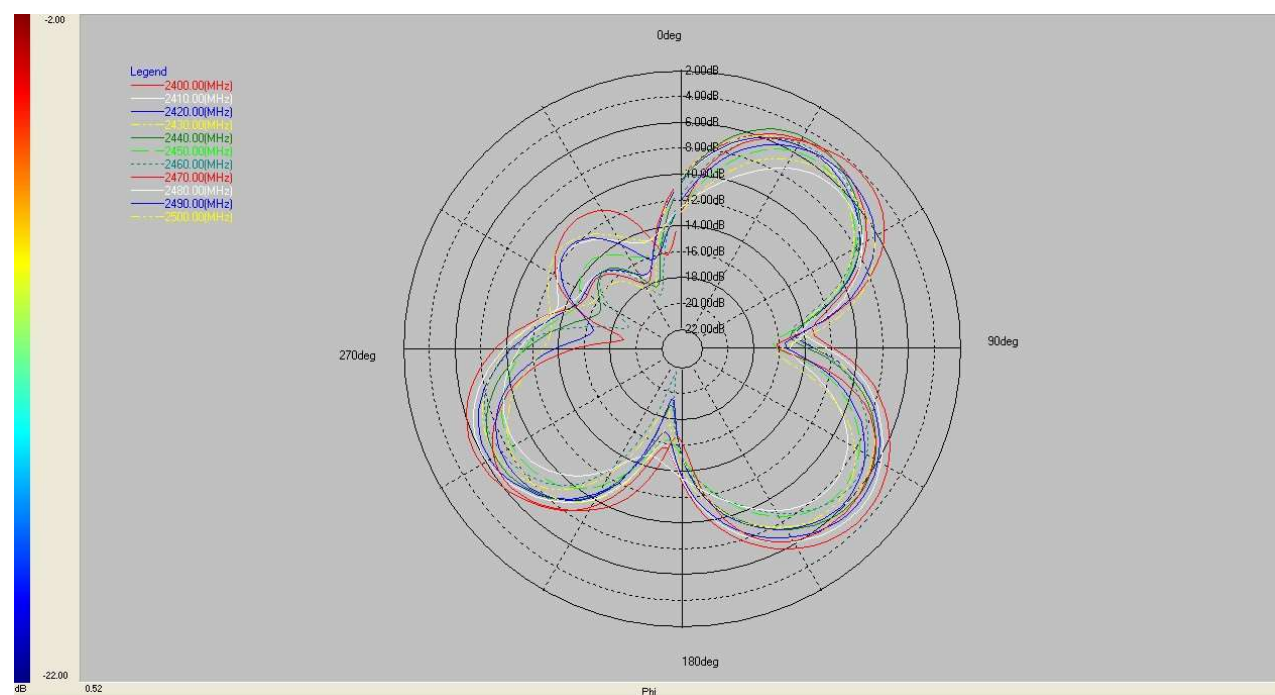
Phi=0°



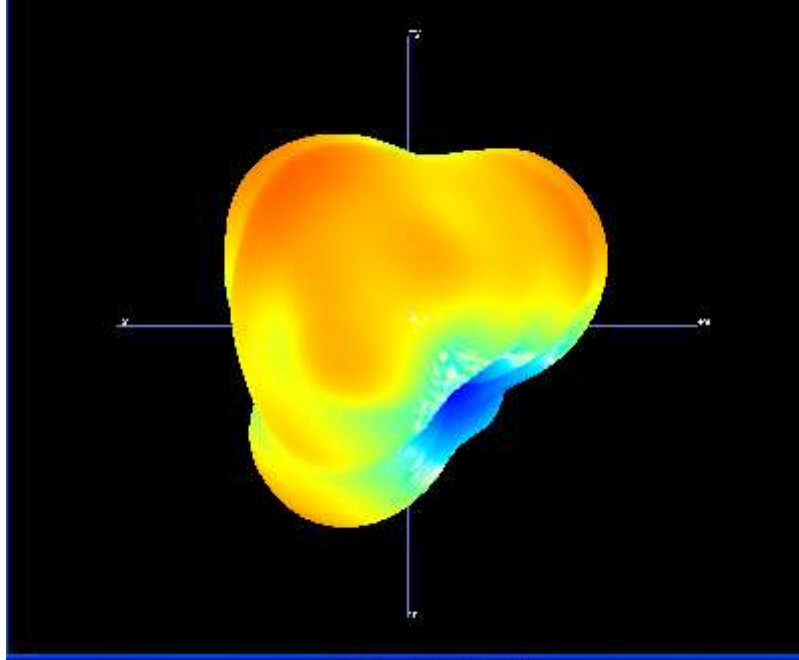
Phi=90°



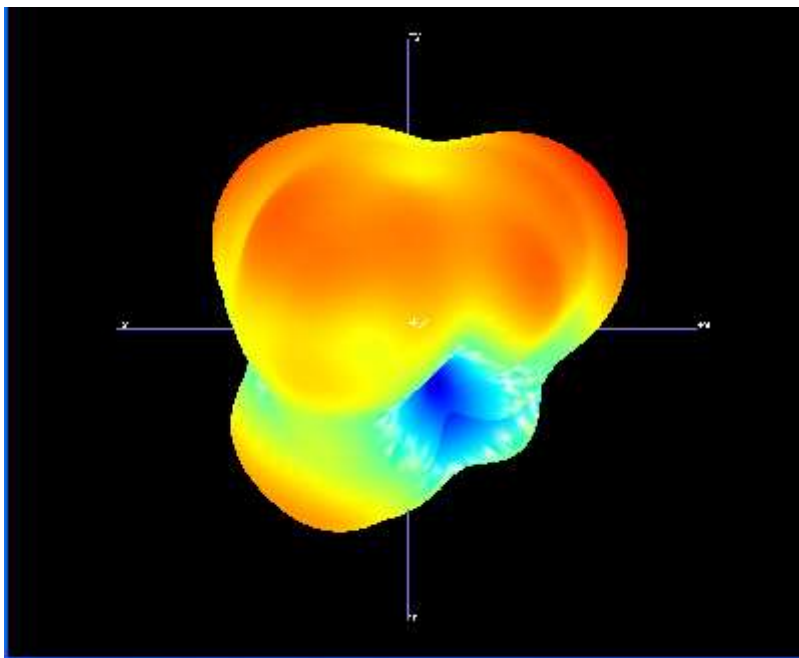
Theta=90°



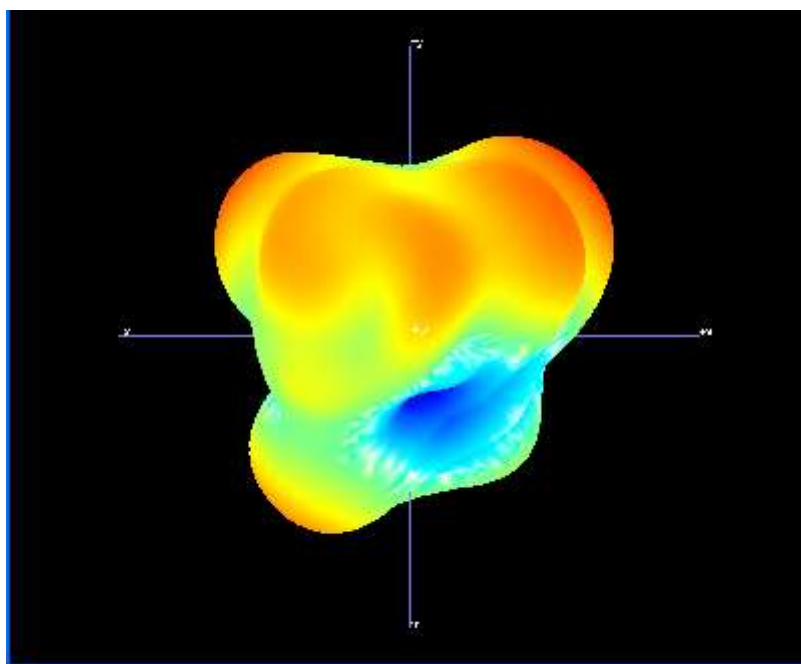
2. 3D Radiation Pattern



2400MHz



2450MHz



2500MHz

Antenna Size (mm)

