

Antenna Gain Test Report

Equipment: Watch

Brand Name: ONEPLUS

Model Name: OPWE242

Manufacturer:

Guangdong OPPO Mobile Telecommunications Corp.,
Ltd.

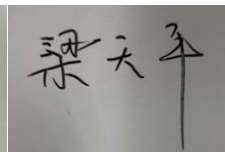
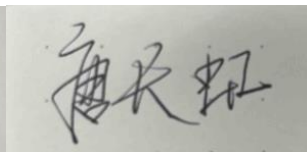
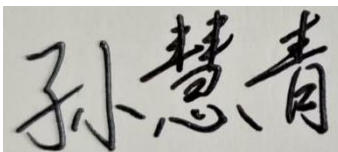
NO.18 Haibin Road, Wusha Village, Chang'an Town,
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Issue Date: December 11th, 2024

Project Engineer:Huiqing Sun Date:2024/12/11

Checked by: Changhong Tang Date: 2024/12/11

Approved by: Tianping Liang Date:2024/12/11



Antenna Gain and Antenna Type specification:

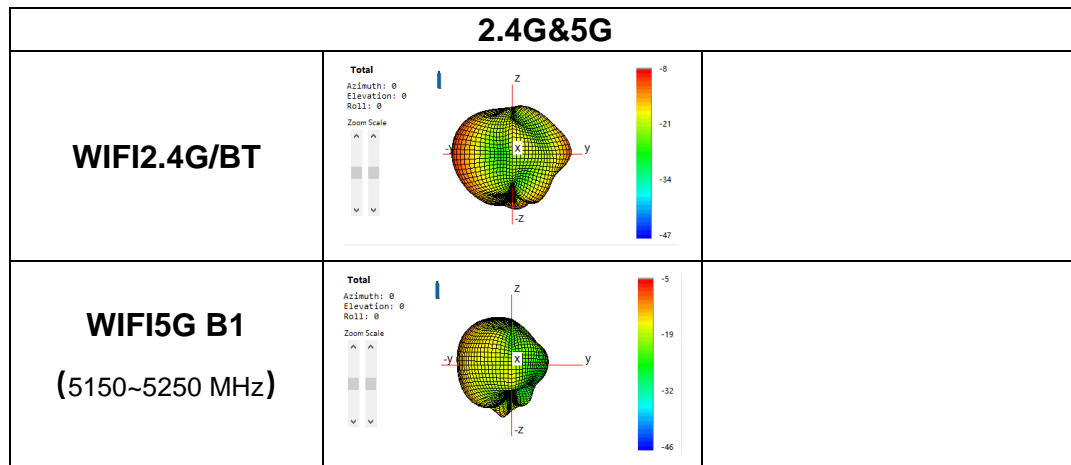
| Band | | Ant | Antenna Gain (dBi) | Antenna model | Antenna Type | Manufacturer |
|-----------|----------------|------|--------------------|-----------------|------------------|---------------------------------------|
| 2.4G WIFI | 2400~2483.5MHz | Ant1 | -3.5 | AC181-TOP-COVER | Monopole antenna | Everwin Precision Technology Co., Ltd |
| 5G WIFI | 5150~5250 MHz | Ant1 | -0.5 | AC181-TOP-COVER | Monopole antenna | |
| | 5250~5350 MHz | Ant1 | -0.5 | AC181-TOP-COVER | Monopole antenna | |
| | 5470~5725 MHz | Ant1 | -0.5 | AC181-TOP-COVER | Monopole antenna | |
| | 5725~5850 MHz | Ant1 | -0.5 | AC181-TOP-COVER | Monopole antenna | |
| BT | 2400~2483.5MHz | Ant1 | -3.5 | AC181-TOP-COVER | Monopole antenna | |

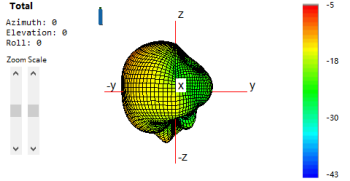
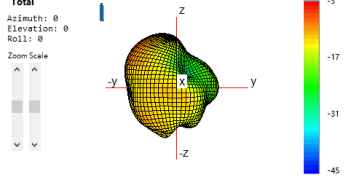
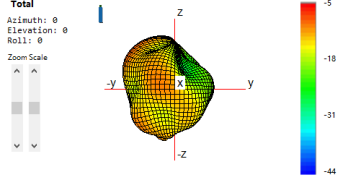
Table1 Antenna Gain and Antenna Type specification

Note: Antenna gain was measured in the anechoic chamber, 3D scan was exercised, and the highest numbers are reported in this document.

According to Test standard: IEEE Std 149-2021, we measure antenna gain.

Antenna Radiation Pattern:



| | | |
|---|--|--|
| <p>WIFI5G B2 (5250~5350 MHz)</p> |  | |
| <p>WIFI5G B3 (5470~5725 MHz)</p> |  | |
| <p>WIFI5G B4 (5725~5850 MHz)</p> |  | |

List of Test and Measurement Instruments

TEST EQUIPMENT

| NO. | Equipment | Manufacturer | Model No. | Cal date | Test Software |
|-----|-------------------------|--------------|-----------|------------|---------------|
| 1 | AMS-8923 | ETS-Lingen | SN1702 | 2024/12/11 | EMQuest |
| 2 | Network Analyzer E5071C | Keysight | MY4690575 | 2024/12/11 | |

I. Measurement Setup:

A. Reflection Coefficient Measurement:

Instrument: Network Analyzer (Keysight E5071C).

Setup:

1. Calibrate the Network Analyzer by one port calibration using Keysight 85093C Electronic calibration module.
2. Connect the antenna under test to the Network Analyzer.
3. Measure the S11(reflection coefficient), Return Loss....

B. Pattern Measurement:

A Fully Anechoic Chamber is used to simulate free-space conditions.

A Fully Anechoic Chamber is a shielded room lined with RF/microwave absorber on all walls, ceiling, and floor.

RF/microwave absorber reduces reflections from the inner walls of the shield. Absorber performance depends on the depth and design of the absorber and the angle of incidence of the field.

Normal incidence is best, shallower angles are worse.

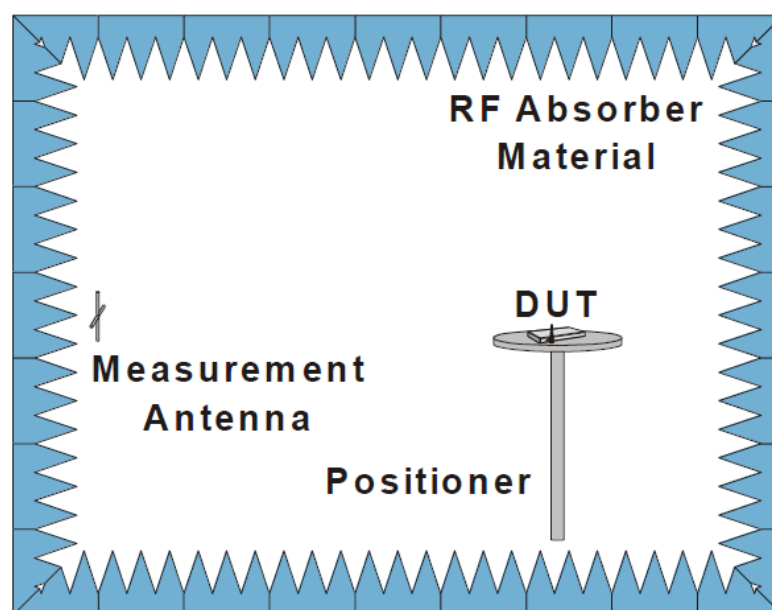


Fig. 4. The fully anechoic chamber