



# CCAW710B

## Passive Data

2026/05/12

# Test Condition

## 1. Test Condition

\* CCAW710B Chip Antenna

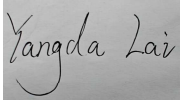
- Test Chamber: Aplustech OTA Chamber

(Address: R&D Building No.9, Main Park, Taohuayuan Science &Technology Innovation Park, Shenzhen, China)

- Network Analyzer : Return Loss

- 3D Passive Chamber : Gain and Efficiency

- Measured by Yangda Lai 2026/05/12



# Antenna Gain Measurement Procedure and Software

## OTA measurement system

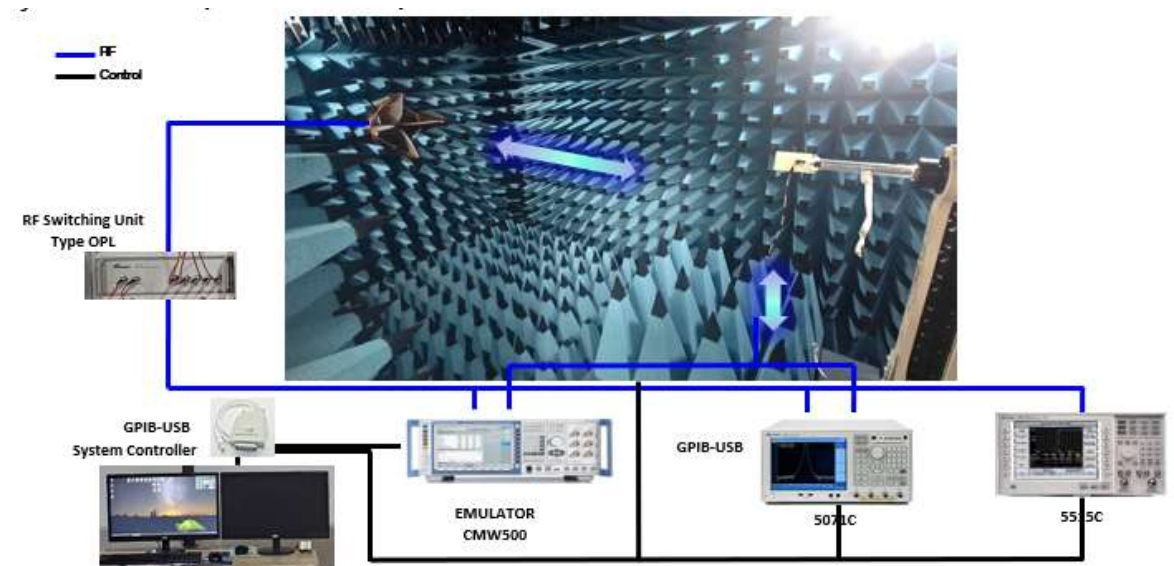
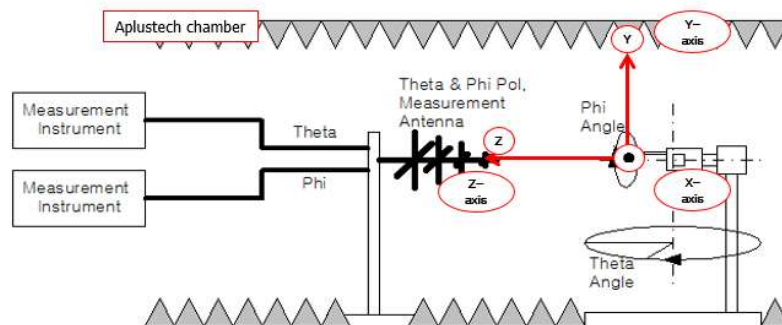
- Test Frequency : Support 400 MHz to 7.5 GHz
- Chamber Size: 4m x 2.5m x 2.5m

## Support

- LTE Support ALL Band (FDD/TDD)
- CDMA, GSM, WCDMA Support ALL Band
- Passive Efficiency Measurement (400 MHz ~ 7.5GHz)

## Measurement specifications

- Test Plan for RF Performance Evaluation for LTE Mobile
- Converged Devices
- Test Plan for Wireless Device Over-the-Air Performance



Great Circle Cut Method



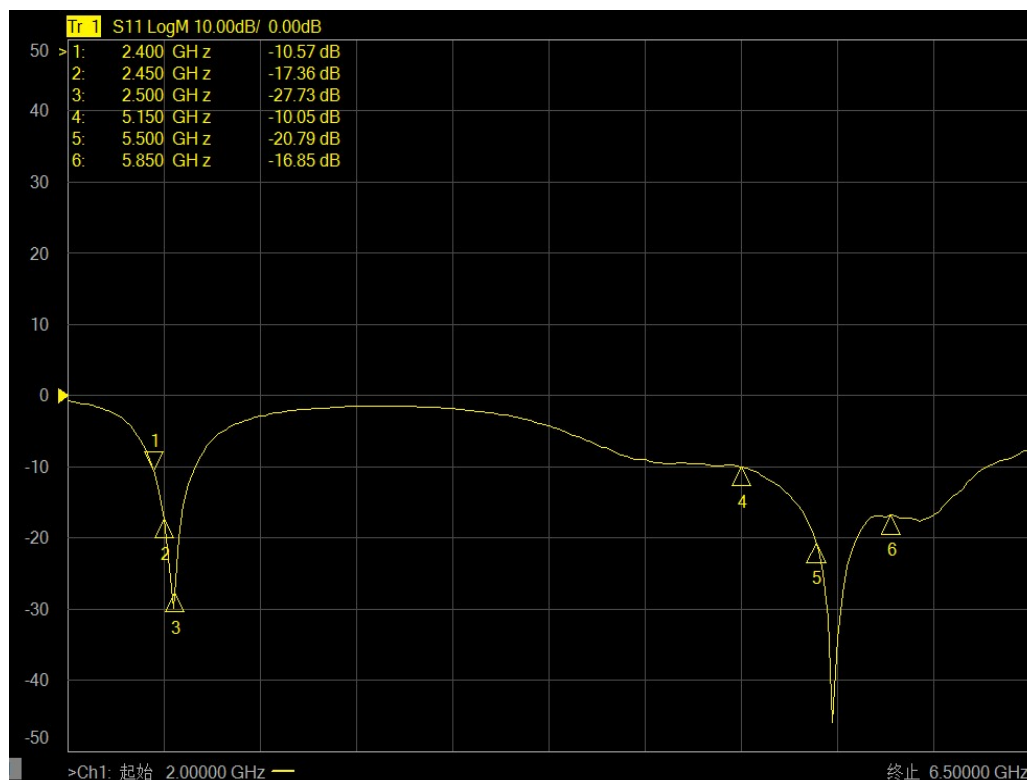
# Measuring Instruments

| Item | Measuring Instruments              | Latest Calibration Schedule |
|------|------------------------------------|-----------------------------|
| 1    | OTA Chamber                        | 2026/01/12                  |
| 2    | Network Analyzer<br>Keysight 5071c | 2026/04/15                  |

# Electrical Characteristics

| Item               | Specification ANT |         |
|--------------------|-------------------|---------|
| Antenna Type       | Chip Antenna      |         |
| Central Frequency  | 2440MHz           | 5500MHz |
| Band Width         | 80MHz             | 700MHz  |
| Peak Gain          | 1.89dBi           | 1.98dBi |
| Return Loss        | <-10dB            |         |
| Polarization       | Linear            |         |
| Azimuth Beam width | Omni-directional  |         |
| Impedance          | 50Ω               |         |
| Dimension          | 15*7*0.55mm       |         |

# Passive test-Return Loss

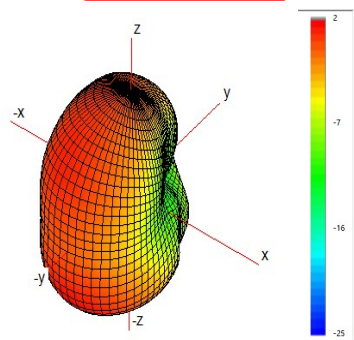


# ANT Passive Test-Antenna 3D Gain

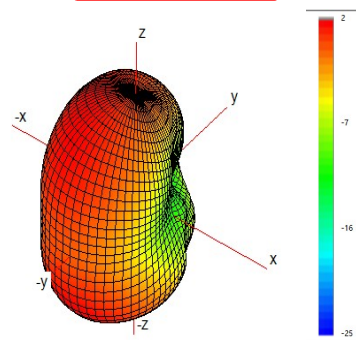
| Frequency | Efficiency | Average Gain |           |           | Max Gain |          |          |
|-----------|------------|--------------|-----------|-----------|----------|----------|----------|
|           |            | Ver          | Hor       | Total     | Ver      | Hor      | Total    |
| 2400MHz   | 60.81 %    | -7.90 dBi    | -3.51 dBi | -2.16 dBi | 0.18 dBi | 1.21 dBi | 1.52 dBi |
| 2410MHz   | 62.64 %    | -7.70 dBi    | -3.40 dBi | -2.03 dBi | 0.34 dBi | 1.51 dBi | 1.68 dBi |
| 2420MHz   | 63.47 %    | -7.58 dBi    | -3.37 dBi | -1.97 dBi | 0.57 dBi | 1.40 dBi | 1.74 dBi |
| 2430MHz   | 64.19 %    | -7.58 dBi    | -3.30 dBi | -1.93 dBi | 0.65 dBi | 1.50 dBi | 1.75 dBi |
| 2440MHz   | 65.43 %    | -7.49 dBi    | -3.22 dBi | -1.84 dBi | 0.80 dBi | 1.50 dBi | 1.81 dBi |
| 2450MHz   | 66.78 %    | -7.36 dBi    | -3.15 dBi | -1.75 dBi | 1.01 dBi | 1.64 dBi | 1.86 dBi |
| 2460MHz   | 67.81 %    | -7.27 dBi    | -3.09 dBi | -1.69 dBi | 1.20 dBi | 1.75 dBi | 1.89 dBi |
| 2470MHz   | 67.83 %    | -7.22 dBi    | -3.11 dBi | -1.69 dBi | 1.30 dBi | 1.65 dBi | 1.88 dBi |
| 2480MHz   | 66.85 %    | -7.26 dBi    | -3.18 dBi | -1.75 dBi | 1.30 dBi | 1.55 dBi | 1.84 dBi |
| 5150MHz   | 60.85 %    | -8.15 dBi    | -3.42 dBi | -2.16 dBi | 0.10 dBi | 1.66 dBi | 1.85 dBi |
| 5200MHz   | 61.82 %    | -8.17 dBi    | -3.32 dBi | -2.09 dBi | 0.05 dBi | 1.75 dBi | 1.92 dBi |
| 5250MHz   | 63.02 %    | -8.07 dBi    | -3.24 dBi | -2.01 dBi | 0.03 dBi | 1.52 dBi | 1.83 dBi |
| 5300MHz   | 64.18 %    | -7.94 dBi    | -3.18 dBi | -1.93 dBi | 0.13 dBi | 1.52 dBi | 1.84 dBi |
| 5350MHz   | 65.52 %    | -7.77 dBi    | -3.12 dBi | -1.84 dBi | 0.31 dBi | 1.65 dBi | 1.96 dBi |
| 5400MHz   | 63.96 %    | -7.75 dBi    | -3.26 dBi | -1.94 dBi | 0.40 dBi | 1.64 dBi | 1.95 dBi |
| 5450MHz   | 61.56 %    | -7.83 dBi    | -3.46 dBi | -2.11 dBi | 0.48 dBi | 1.48 dBi | 1.78 dBi |
| 5500MHz   | 61.64 %    | -7.81 dBi    | -3.46 dBi | -2.10 dBi | 0.58 dBi | 1.59 dBi | 1.83 dBi |
| 5550MHz   | 63.43 %    | -7.82 dBi    | -3.29 dBi | -1.98 dBi | 0.52 dBi | 1.58 dBi | 1.85 dBi |
| 5600MHz   | 67.82 %    | -7.61 dBi    | -2.97 dBi | -1.69 dBi | 0.64 dBi | 1.64 dBi | 1.87 dBi |
| 5650MHz   | 67.91 %    | -7.64 dBi    | -2.95 dBi | -1.68 dBi | 0.50 dBi | 1.63 dBi | 1.95 dBi |
| 5700MHz   | 68.85 %    | -7.63 dBi    | -2.87 dBi | -1.62 dBi | 0.47 dBi | 1.83 dBi | 1.98 dBi |
| 5750MHz   | 65.87 %    | -7.80 dBi    | -3.07 dBi | -1.81 dBi | 0.31 dBi | 1.64 dBi | 1.88 dBi |
| 5800MHz   | 64.32 %    | -7.95 dBi    | -3.16 dBi | -1.92 dBi | 0.24 dBi | 1.63 dBi | 1.86 dBi |
| 5850MHz   | 64 %       | -8.01 dBi    | -3.18 dBi | -1.94 dBi | 0.19 dBi | 1.61 dBi | 1.85 dBi |

# ANT Passive Test-Antenna 3D Radiation Pattern

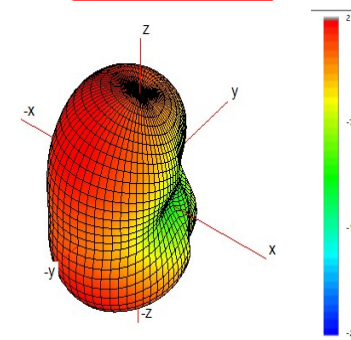
2400MHz



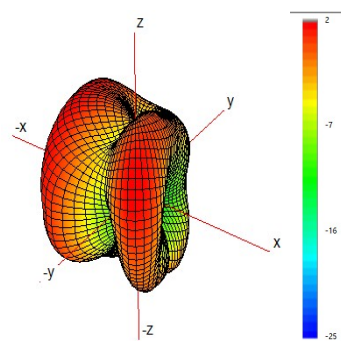
2440MHz



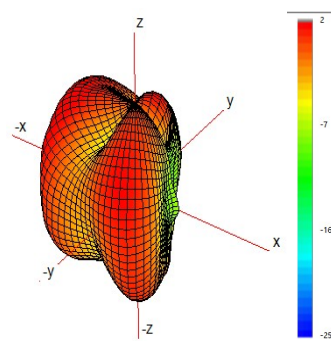
2480MHz



5150MHz



5500MHz



5850MHz

