



Heyuan City Xunwei communication technology Co., LTD

# QCC5181

# Antenna Test Report

Test date: 2023.03.16

# Contents:

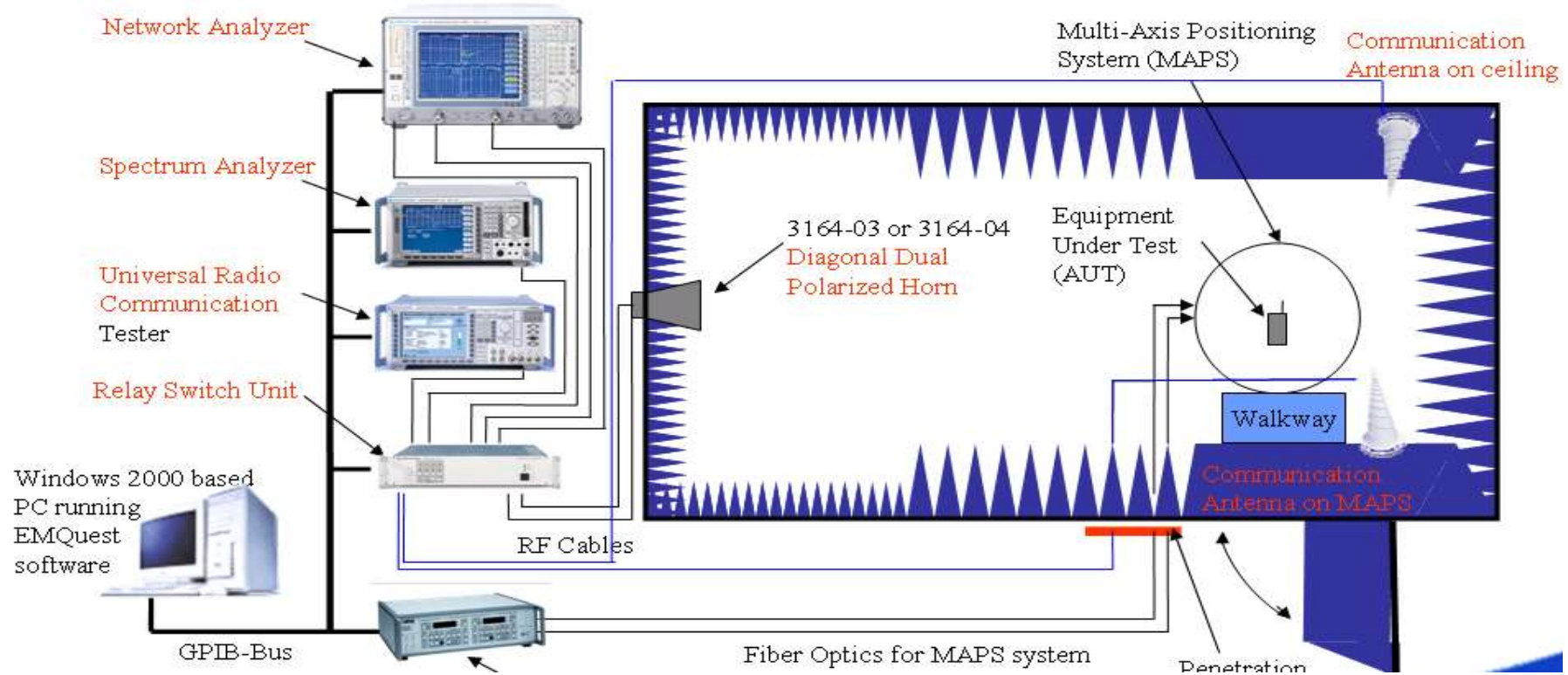
- 1、 Test Equipment
- 2、 Information
- 3、 Active test data
- 4、 Passive test data
- 5、 Wave Pattern
- 6、 2D / 3D Pattern

# 1、 Test Setup and Equipment

Spectrum Analyzer: Agilent 8960

Network Analyzer: Agilent 8753ES

3D chamber: 7x4x3m




Spectrum Analyzer: CMW500

Network Analyzer: Agilent 5071B 3D

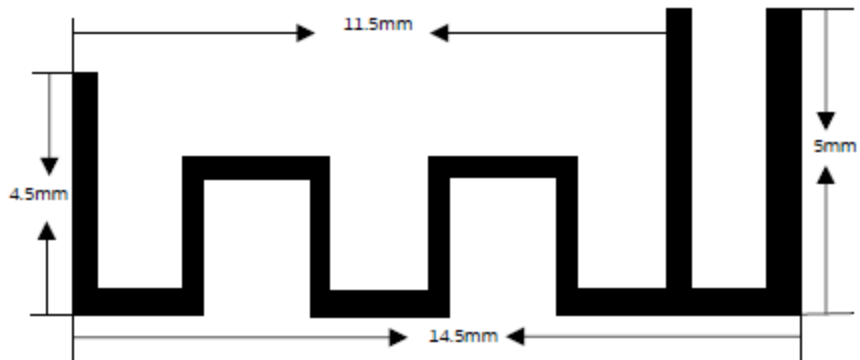
Chamber: SATIMO SG24



## 2、 Information

|                 |   |
|-----------------|---|
| Product name    | PCB Antenna   |
| Product number  | QCC5181   |
| Antenna Gain    | 2 dBi   |
| Antenna Version | V1.0  |
| Antenna Design  |  |
| Antenna Size    | Refer to next page  |

## Antenna Size:



### 3、 Active test data

| Band | Channel | TRP   | TIS    | Conducted power | Gain |
|------|---------|-------|--------|-----------------|------|
| 1    | 1       | 14.81 | -85.21 | 12.89           | 1.92 |
|      | 7       | 14.89 | -85.35 | 12.96           | 1.93 |
|      | 13      | 14.92 | -85.40 | 12.92           | 2    |
| 2    | 1       |       |        |                 |      |
|      | 7       |       |        |                 |      |
|      | 13      |       |        |                 |      |

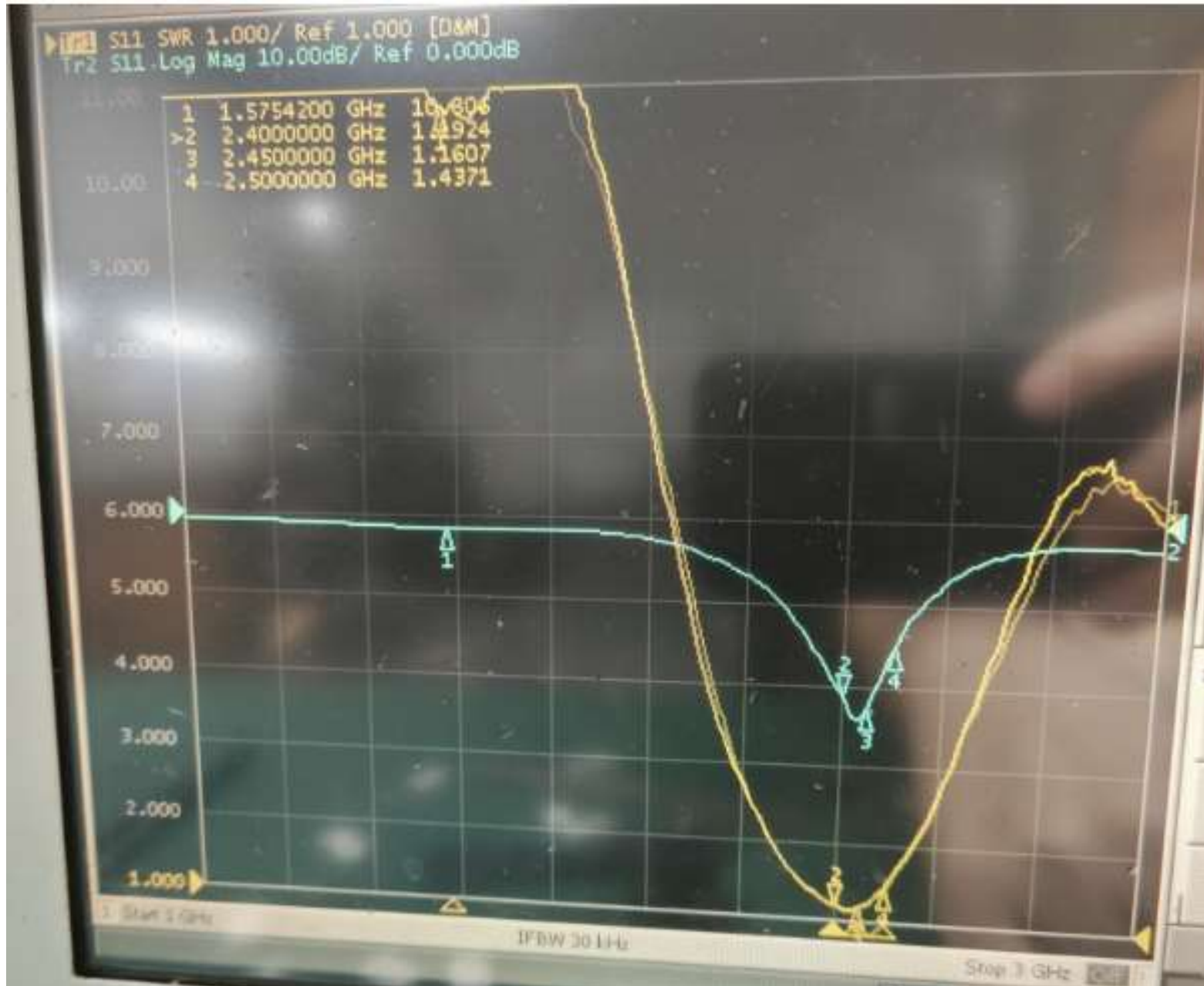
Note: Gain = TRP - Conducted power

# 4、Passive test data

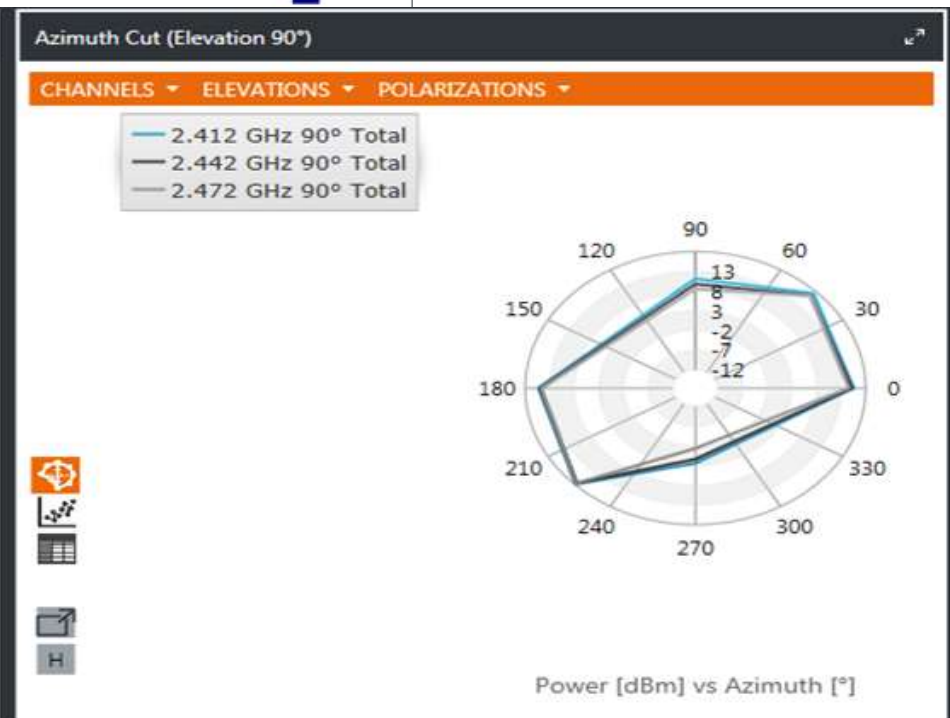
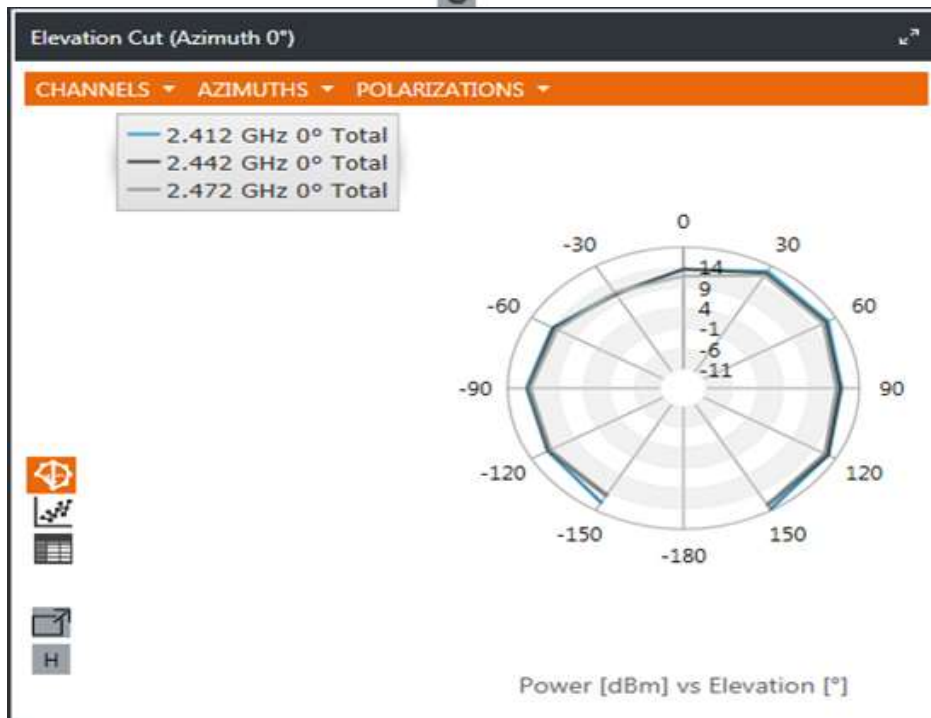
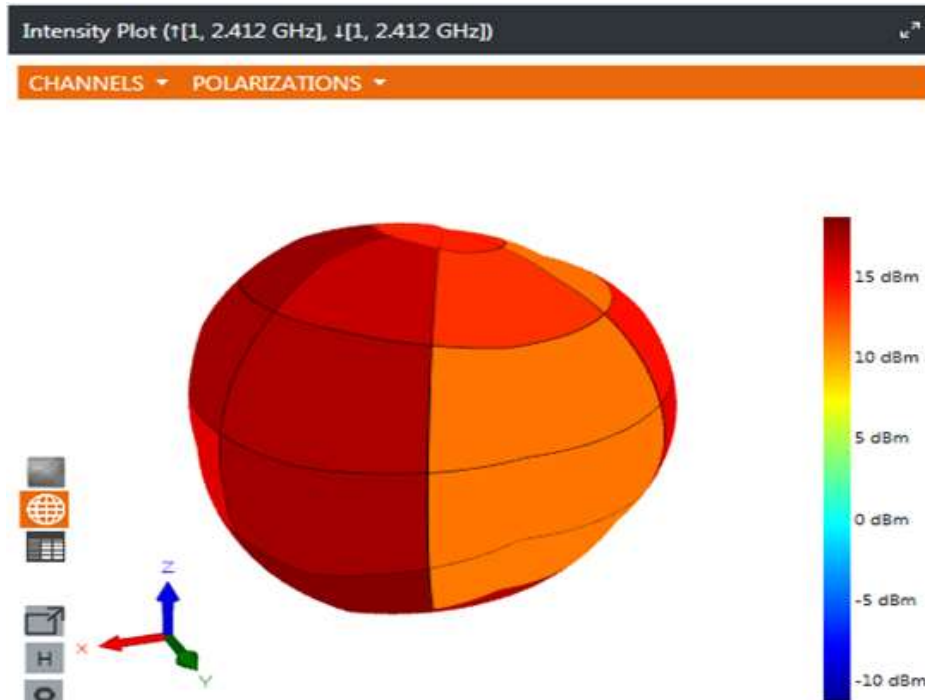
| Passive Test For 2.4G Efficiency |                |                  |
|----------------------------------|----------------|------------------|
| Frequency(MHZ)                   | Efficiency (%) | Efficiency . dbi |
| 2400                             | 53             | 3.55             |
| 2410                             | 55             | 4.04             |
| 2420                             | 56             | 4.31             |
| 2430                             | 58             | 4.54             |
| 2440                             | 58             | 4.76             |
| 2450                             | 59             | 5.06             |
| 2460                             | 59             | 4.80             |
| 2470                             | 60             | 5.06             |
| 2480                             | 60             | 5.24             |
| 2490                             | 62             | 5.23             |
| 2500                             | 61             | 5.38             |



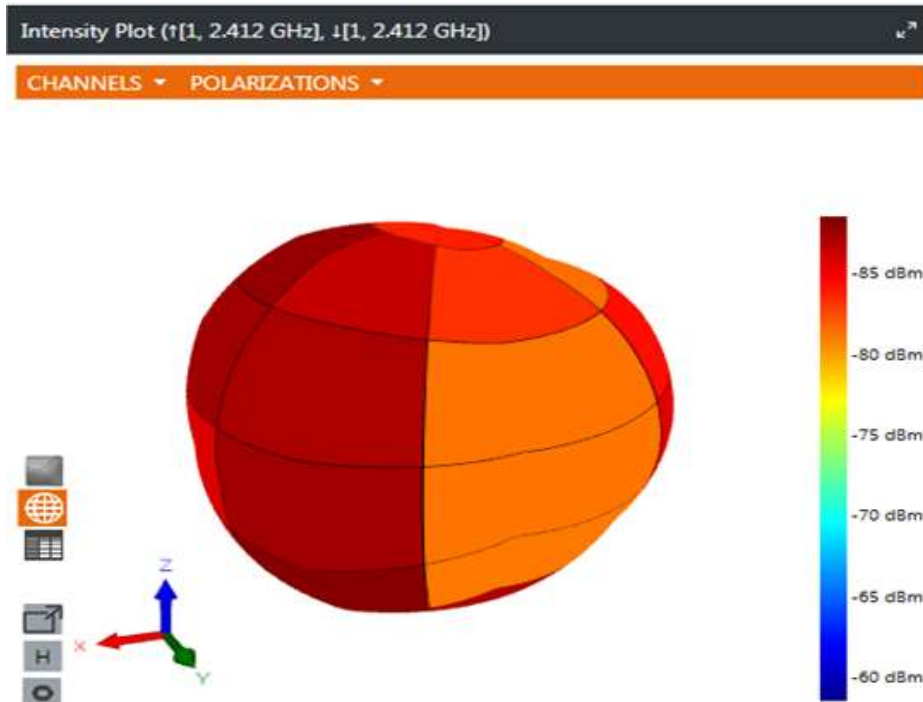
# 5、Wave pattern



# 6、 2D / 3D Pattern (TRP)



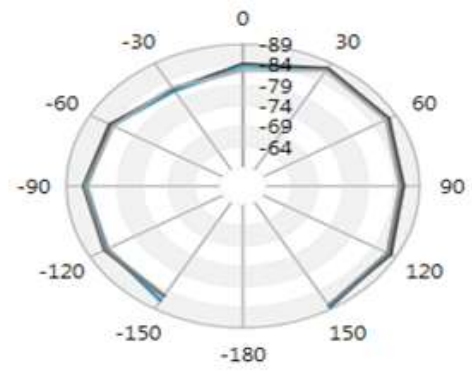
# 2D / 3D Pattern (TIS)



Elevation Cut (Azimuth 0°)

CHANNELS ▾ AZIMUTHS ▾ POLARIZATIONS ▾

- 2.412 GHz 0° Total
- 2.442 GHz 0° Total
- 2.472 GHz 0° Total



Azimuth Cut (Elevation 90°)

CHANNELS ▾ ELEVATIONS ▾ POLARIZATIONS ▾

- 2.412 GHz 90° Total
- 2.442 GHz 90° Total
- 2.472 GHz 90° Total

