

# Antenna Test Report

**Report No.** : SSP24040070-2A

**Manufacturer** : Dongguan Couso Technology Co.,Ltd.

**Product Name** : 2.4GHz Antenna

**Model Name** : W2

**Test Standard** : IEEE 149-1979

**Tested Date** : 2024-04-17

**Issued Date** : 2024-04-18

**Tested By** : William Liu William Liu(Engineer)

**Approved By** : Lahm Peng Lahm Peng (Manager)



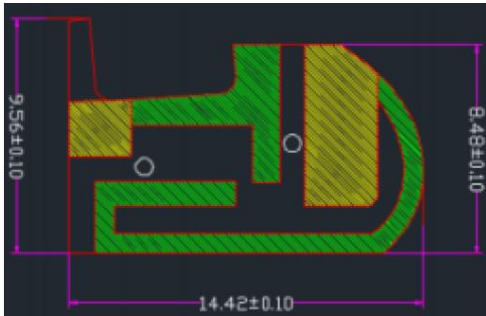
**Shenzhen CCUT Quality Technology Co., Ltd.**

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Guangdong, China; (Tel.:+86-755-23406590 website: [www.ccuttest.com](http://www.ccuttest.com))

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## 1. General Information

### 1.1 Product Information

|                          |                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Manufacturer:            | Dongguan Couso Technology Co.,Ltd.                                                                                                                                                                                                                                                                                                                                                                |
| Address of Manufacturer: | No.26 Minye Road, Tangxia town, Dongguan City, Guangdong Province, China                                                                                                                                                                                                                                                                                                                          |
| Product Name:            | 2.4GHz Antenna                                                                                                                                                                                                                                                                                                                                                                                    |
| Model Name:              | W2                                                                                                                                                                                                                                                                                                                                                                                                |
| Frequency Range:         | 2402MHz - 2480MHz                                                                                                                                                                                                                                                                                                                                                                                 |
| Type of Antenna:         | FPCB Antenna                                                                                                                                                                                                                                                                                                                                                                                      |
| Antenna Gain:            | 0dBi (Max.)                                                                                                                                                                                                                                                                                                                                                                                       |
| Impedance:               | 50 ohm                                                                                                                                                                                                                                                                                                                                                                                            |
| Antenna View:            | <p>Length * Width (mm)</p>  <p>The diagram shows a green conductive antenna pattern on a dark substrate. The overall dimensions are 14.42±0.10 mm in width and 9.56±0.10 mm in height. A specific section on the right is dimensioned as 8.48±0.10 mm. Two small circular vias are visible on the pattern.</p> |

### 1.2 Test Facilities

|                                                                                                                                                                                                      |                                                                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Laboratory Name:                                                                                                                                                                                     | <b>Shenzhen CCUT Quality Technology Co., Ltd.</b><br>1F, Building 35, Changxing Technology Industrial Park, Yutang Street,<br>Guangming District, Shenzhen, Guangdong, China |
| All measurement facilities used to collect the measurement data are located at 1F, Building 35, Changxing Technology Industrial Park, Yutang Street, Guangming District, Shenzhen, Guangdong, China. |                                                                                                                                                                              |

1.3 List of Measurement Instruments

| Description       | Manufacturer | Model      | Serial Number | Cal. Date  | Due. Date  |
|-------------------|--------------|------------|---------------|------------|------------|
| Horn Antenna      | SCHWARZBECK  | BBHA 9120D | 02553         | 2023-08-05 | 2024-08-04 |
| Spectrum Analyzer | KEYSIGHT     | N9020A     | MY48030972    | 2023-07-31 | 2024-07-30 |
| Amplifier         | Agilent      | 8449B      | 3008A01520    | 2023-07-31 | 2024-07-30 |

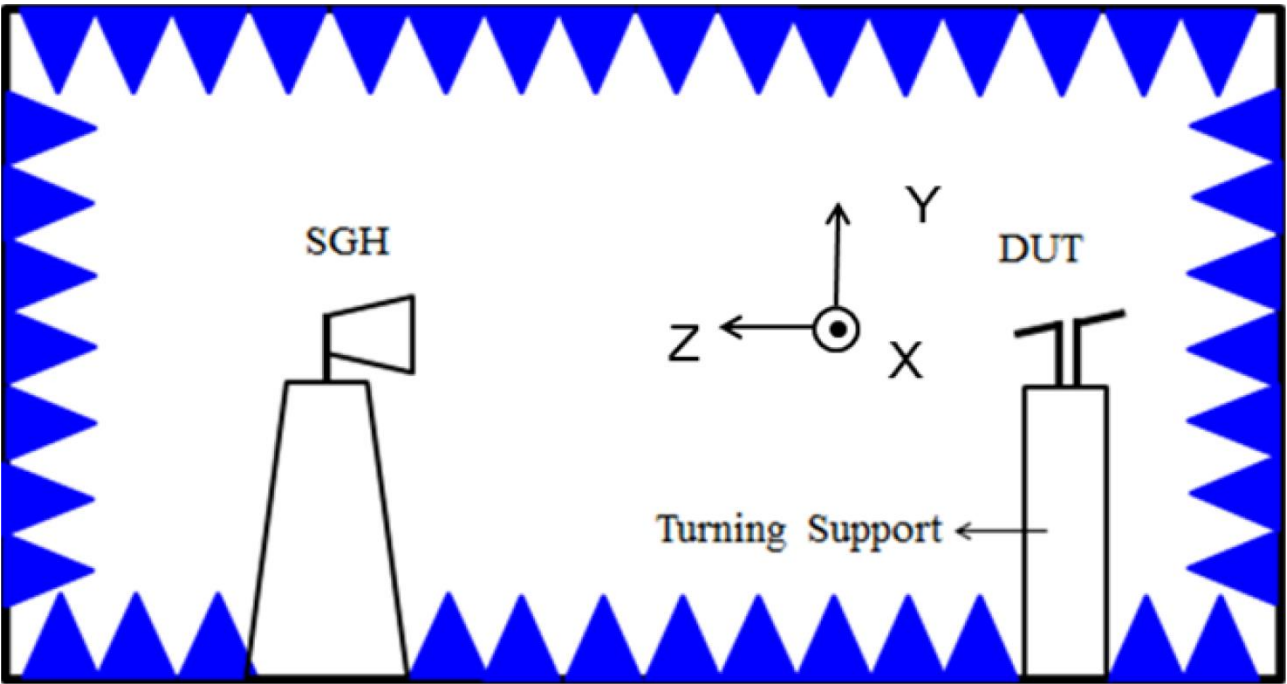
1.4 Measurement Uncertainty

| Parameter          | Conditions | Uncertainty |
|--------------------|------------|-------------|
| Radiated Emissions | 1Hz ~ 6GHz | ±3.38 dB    |

1.5 Test Methodology

All measurements contained in this report were conducted with standards IEEE 149-1979 for IEEE Standard Test Procedures for Antennas.

1.6 Test Setup



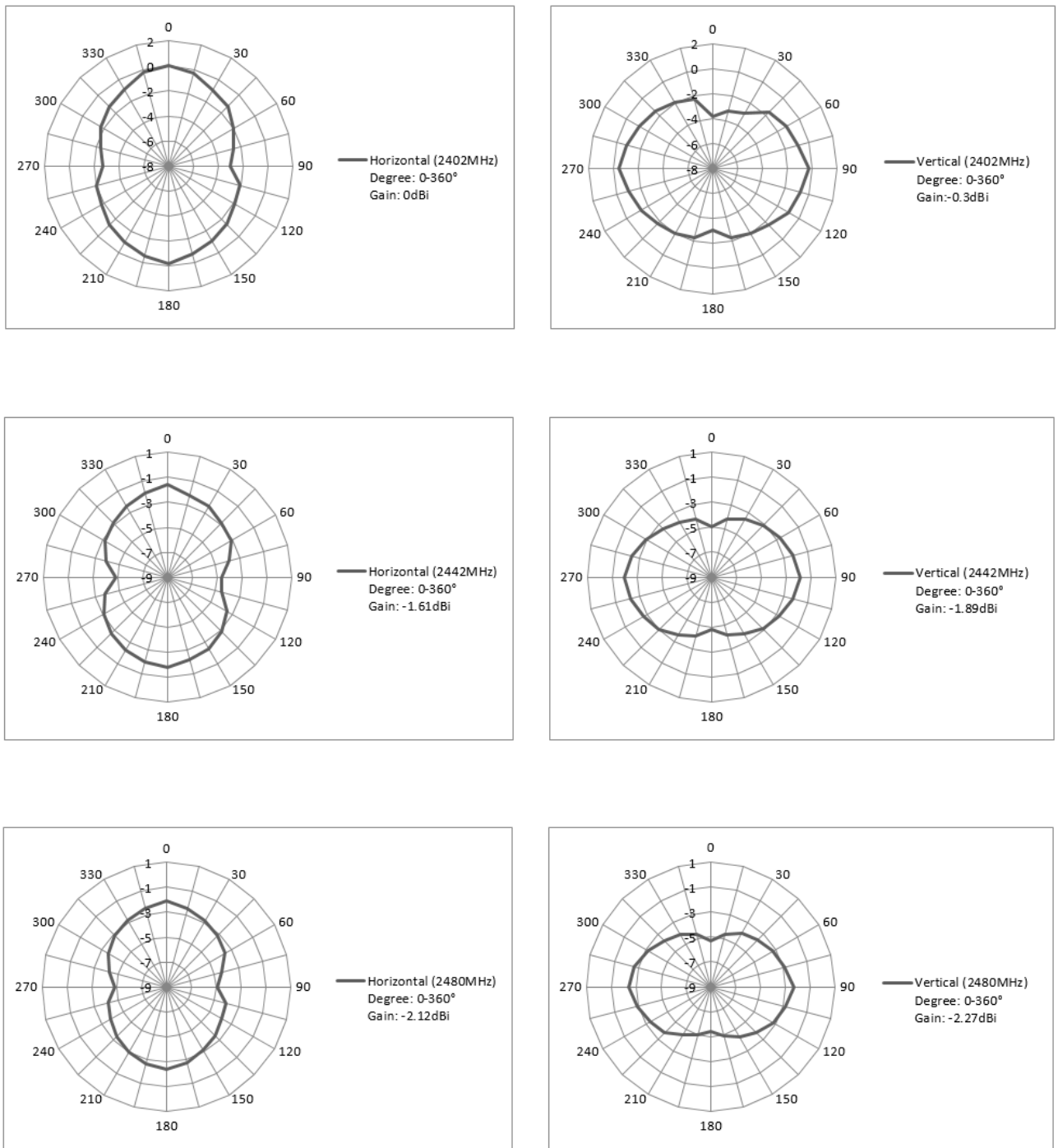
## 2. OTA Test

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### 2.1 Gain

| Frequency | Peak Gain (dBi) | Polarity   |
|-----------|-----------------|------------|
| 2402MHz   | 0               | Horizontal |
| 2402MHz   | -0.3            | Vertical   |
| 2442MHz   | -1.61           | Horizontal |
| 2442MHz   | -1.89           | Vertical   |
| 2480MHz   | -2.12           | Horizontal |
| 2480MHz   | -2.27           | Vertical   |

2.2 Radiation Pattern View



\*\*\*\*\* END OF REPORT \*\*\*\*\*