





Test Report No.: AN2306WDG0153

# ANTENNA TEST REPORT

|           |   |
|-----------|---|
| Applicant | Ruijin Trefan Technology Co., Ltd   |
| Address   | North Jinyuan Road, Economic and Development Zone, Ruijin, Jiangxi Province |

|                          |   |
|--------------------------|---|
| Manufacturer or Supplier | Ruijin Trefan Technology Co., Ltd   |
| Address                  | North Jinyuan Road, Economic and Development Zone, Ruijin, Jiangxi Province |
| Product                  | Antenna   |
| Brand Name               | N/A   |
| Model                    | 1017371   |
| Max. Peak Gain           | -0.59 dBi   |
| Date of tests            | Sep. 05, 2023   |

|   |   |
|---|---|
| Tested by Andy Zhu<br>Supervisor / EMC Department                                   | Approved by Glyn He<br>Assistant Manager / EMC Department   |
|  | <br><br>Date: Sep. 11, 2023 |

This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

Bureau Veritas Shenzhen Co., Ltd.  
Dongguan Branch

No. 96, Guantai Road (Houjie Section), Houjie  
Town, Dongguan City, Guangdong Province.  
523942. People's Republic of China.

Tel.: +86 769 8998 2098  
Fax: +86 769 8593 1080  
Email: [customerservice.dg@bureauveritas.com](mailto:customerservice.dg@bureauveritas.com)



Test Report No.: AN2306WDG0153

## TABLE OF CONTENTS

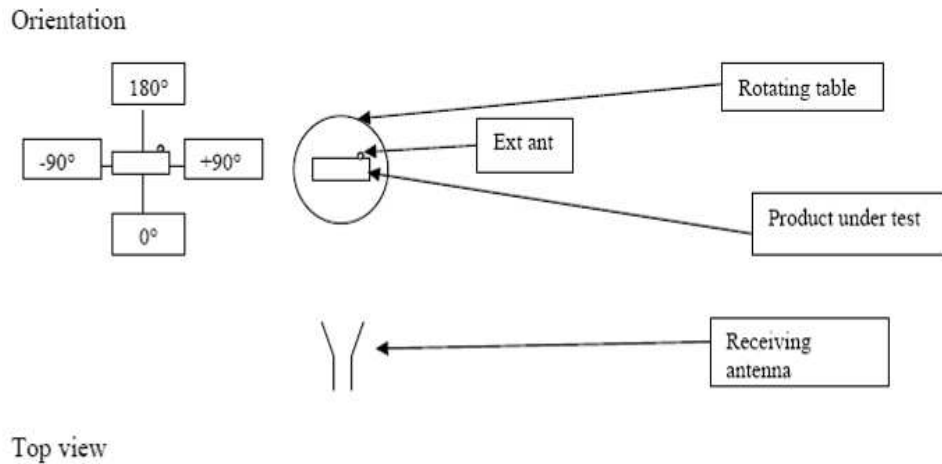
|   |    |
|---|----|
| 1. MEASUREMENTS SETUP .....                   | 3  |
| 2. SIZE OF THE ANTENNA.....                   | 4  |
| 3. TEST INSTRUMENTS .....                     | 5  |
| 4. TEST RESULTS.....                          | 6  |
| 5. PHOTOGRAPHS OF THE TEST CONFIGURATION..... | 13 |

**Bureau Veritas Shenzhen Co., Ltd.**  
**Dongguan Branch**

No. 96, Guantai Road (Houjie Section), Houjie  
Town, Dongguan City, Guangdong Province.  
523942. People's Republic of China.

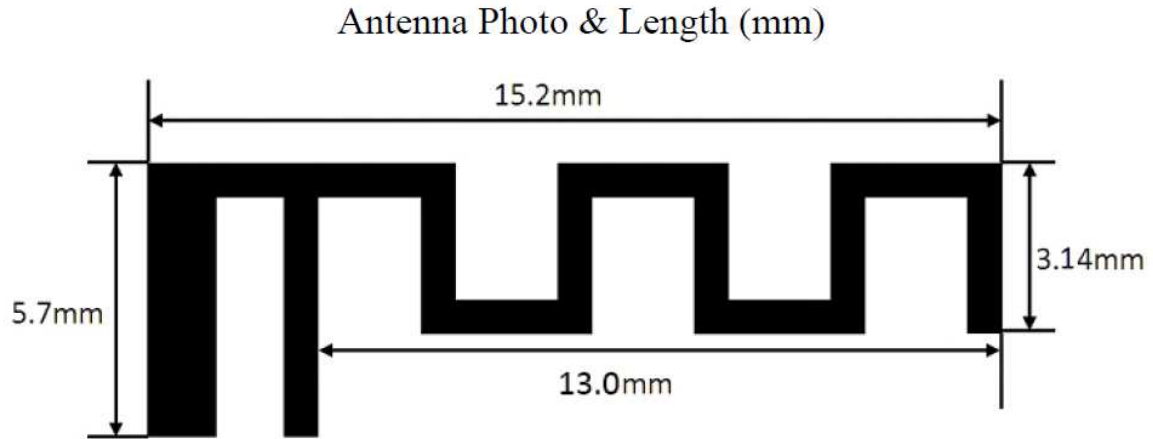
Tel.: +86 769 8998 2098  
Fax: +86 769 8593 1080  
Email: [customerservice.dg@bureauveritas.com](mailto:customerservice.dg@bureauveritas.com)

## 1. MEASUREMENTS SETUP



During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables,

## 2. SIZE OF THE ANTENNA



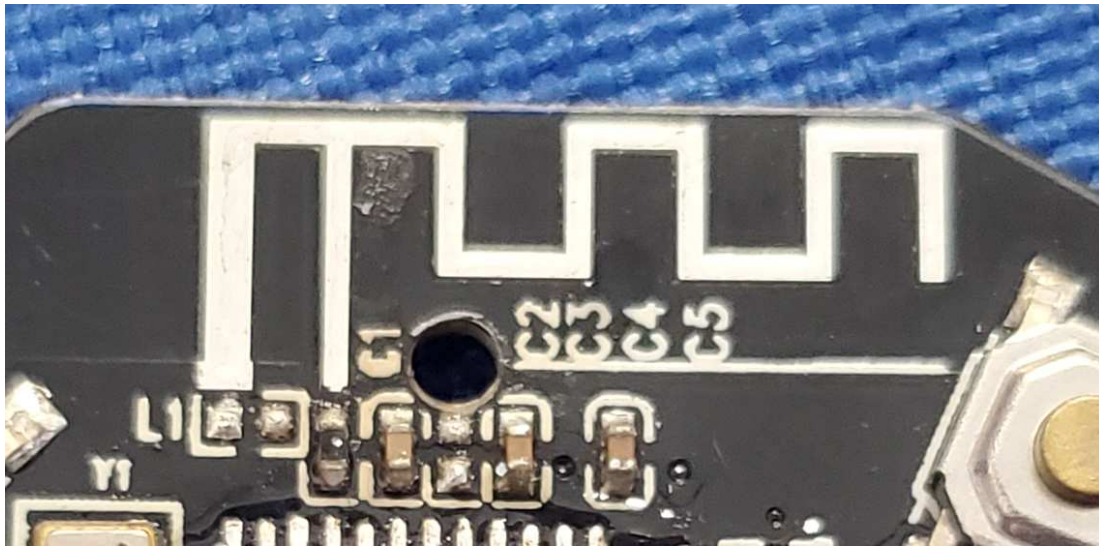
### 3. TEST INSTRUMENTS

| Equipment               | Manufacturer  | Model No.              | Serial No.  | Next Cal.   |
|-------------------------|---------------|------------------------|-------------|-------------|
| Signal Generator        | Agilent       | N5183A                 | MY50140980  | Jul. 11, 24 |
| Spectrum Analyzer       | Rohde&Schwarz | FSV40                  | 101003      | Jan. 11, 24 |
| Broad-Band Horn Antenna | SCHWARZBECK   | BBHA 9120 D            | 9120D-1247  | Apr. 01, 24 |
| Broad-Band Horn Antenna | SCHWARZBECK   | BBHA 9120 B            | 00740       | Jul. 20, 24 |
| Turn Table              | MF            | MF-7802                | MF780208191 | N/A         |
| Controller              | MF            | MF-7802                | MF780208243 | N/A         |
| Test Software           | BV ADT        | BV ADT Antenna Pattern | V6.2        | N/A         |

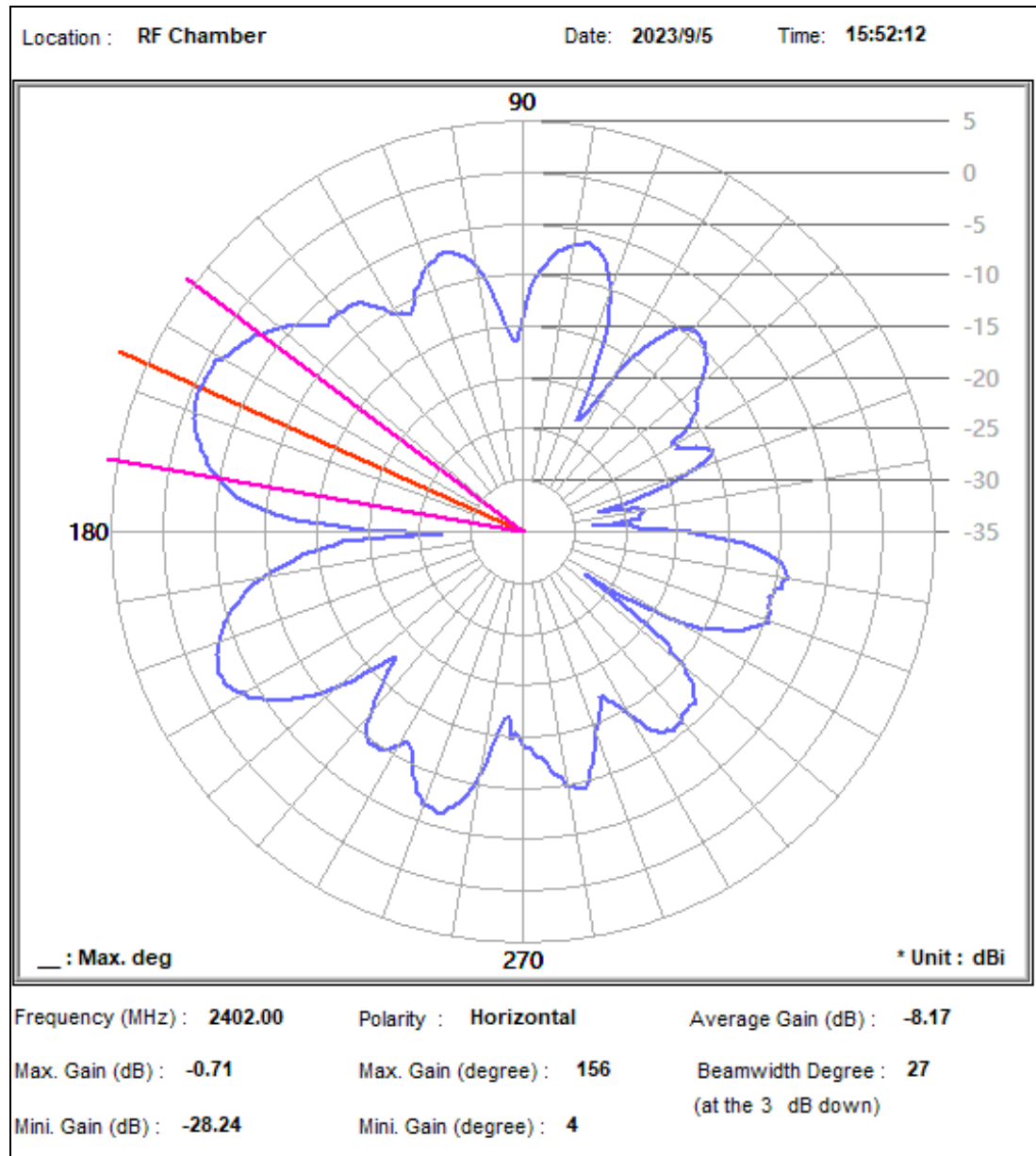
- NOTE:** 1. The test was performed in Fully Anechoic Room.  
 2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.

## 4. TEST RESULTS

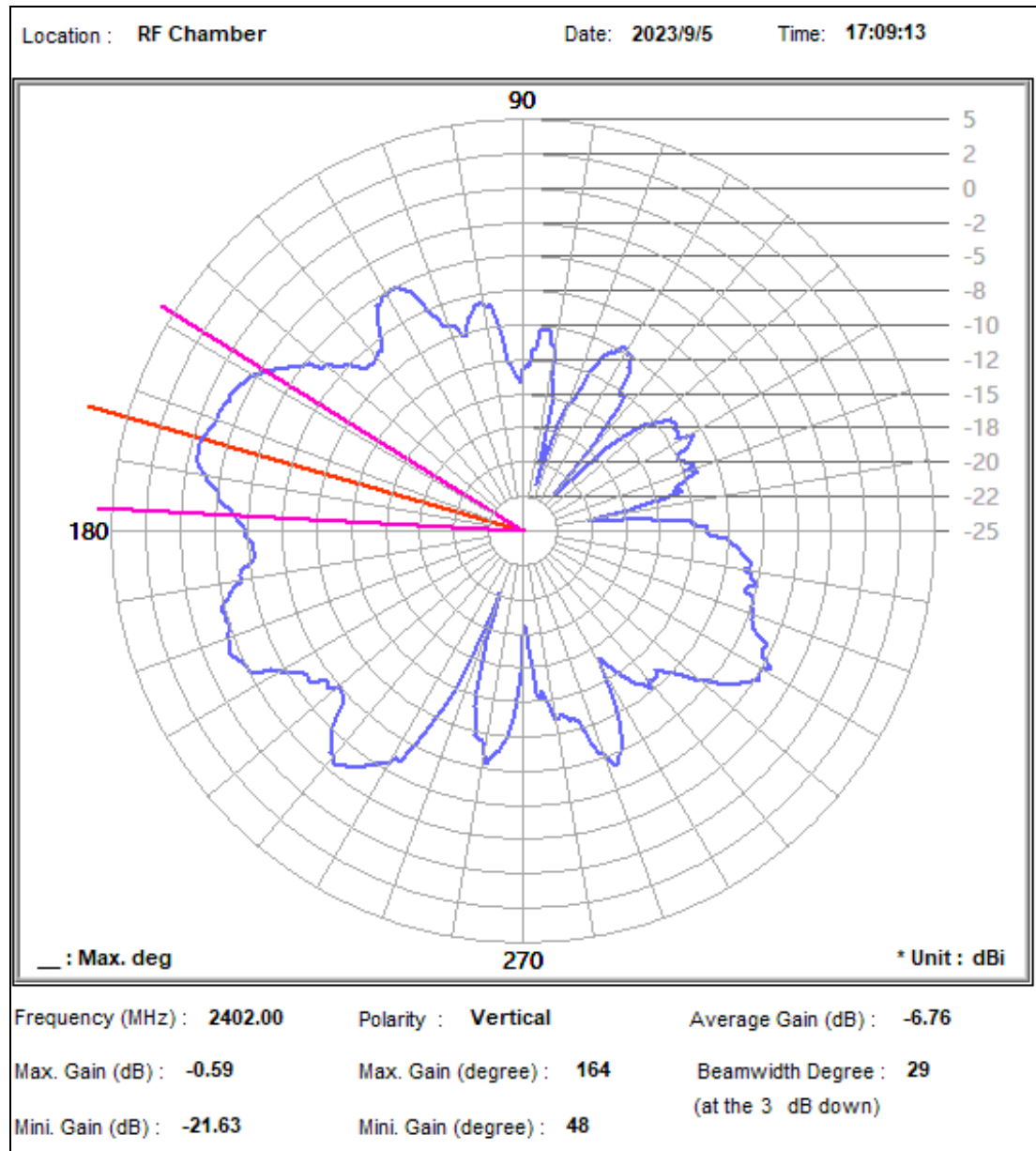
| ANTENNA | FREQUENCY (MHz) | ANTENNA POLARITY | MAX. PEAK GAIN (dBi) |
|---------|-----------------|------------------|----------------------|
| PCB     | 2402            | Horizontal       | -0.71                |
|         |                 | Vertical         | <b>-0.59</b>         |
|         | 2441            | Horizontal       | -0.82                |
|         |                 | Vertical         | -0.76                |
|         | 2480            | Horizontal       | -0.79                |
|         |                 | Vertical         | -0.75                |



**Frequency: 2402 MHz (Horizontal)**

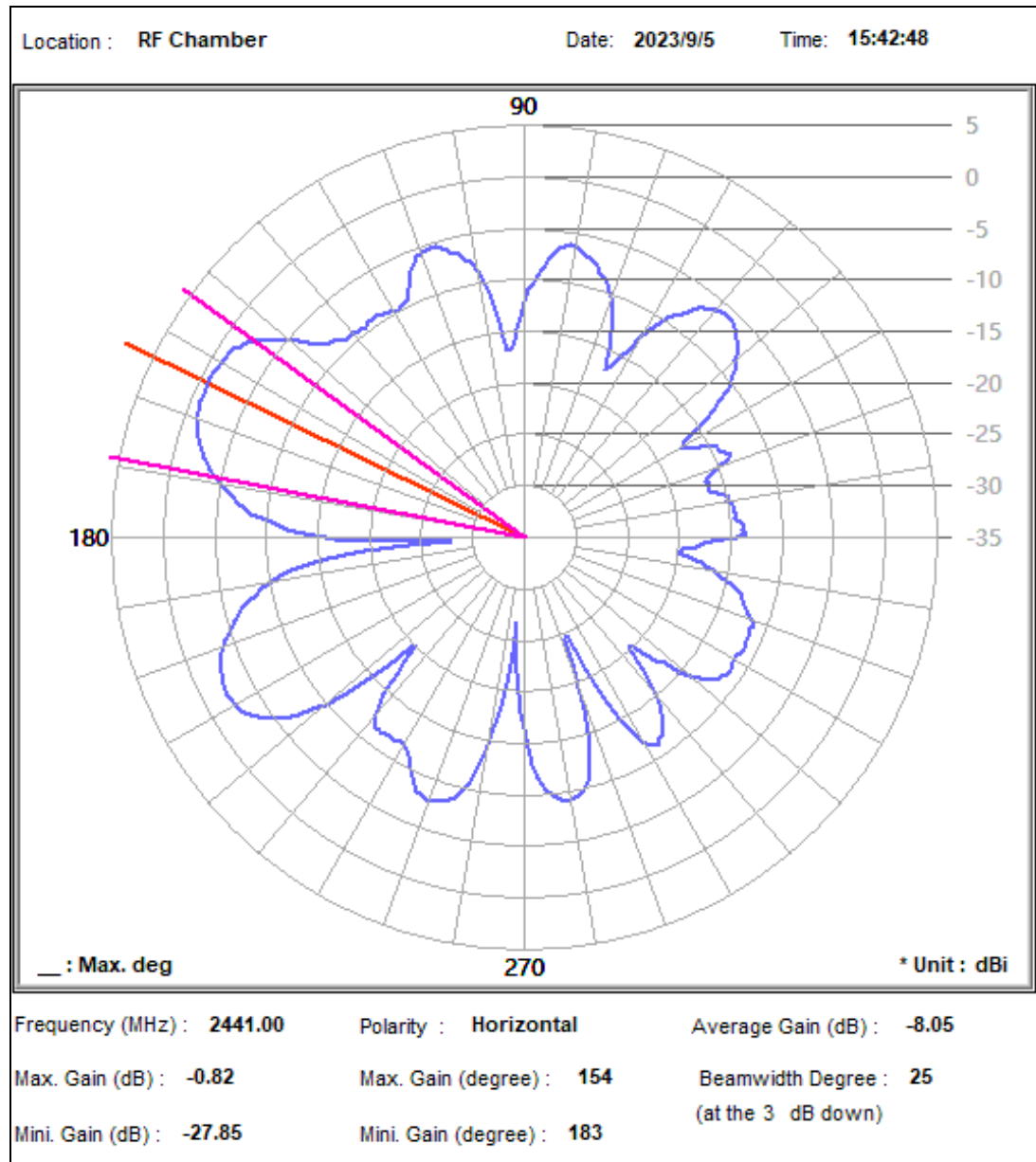


Frequency: 2402 MHz (Vertical)

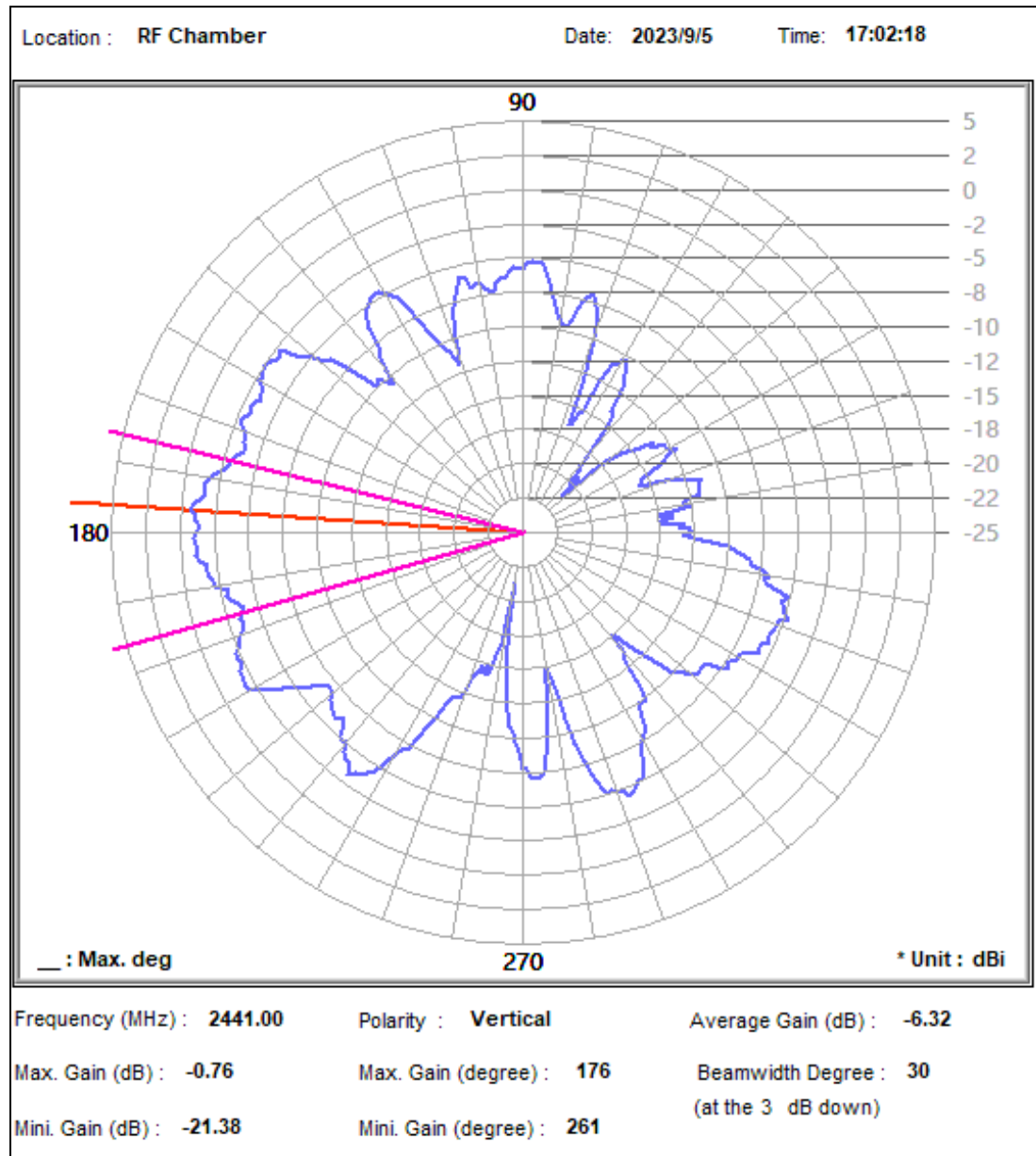




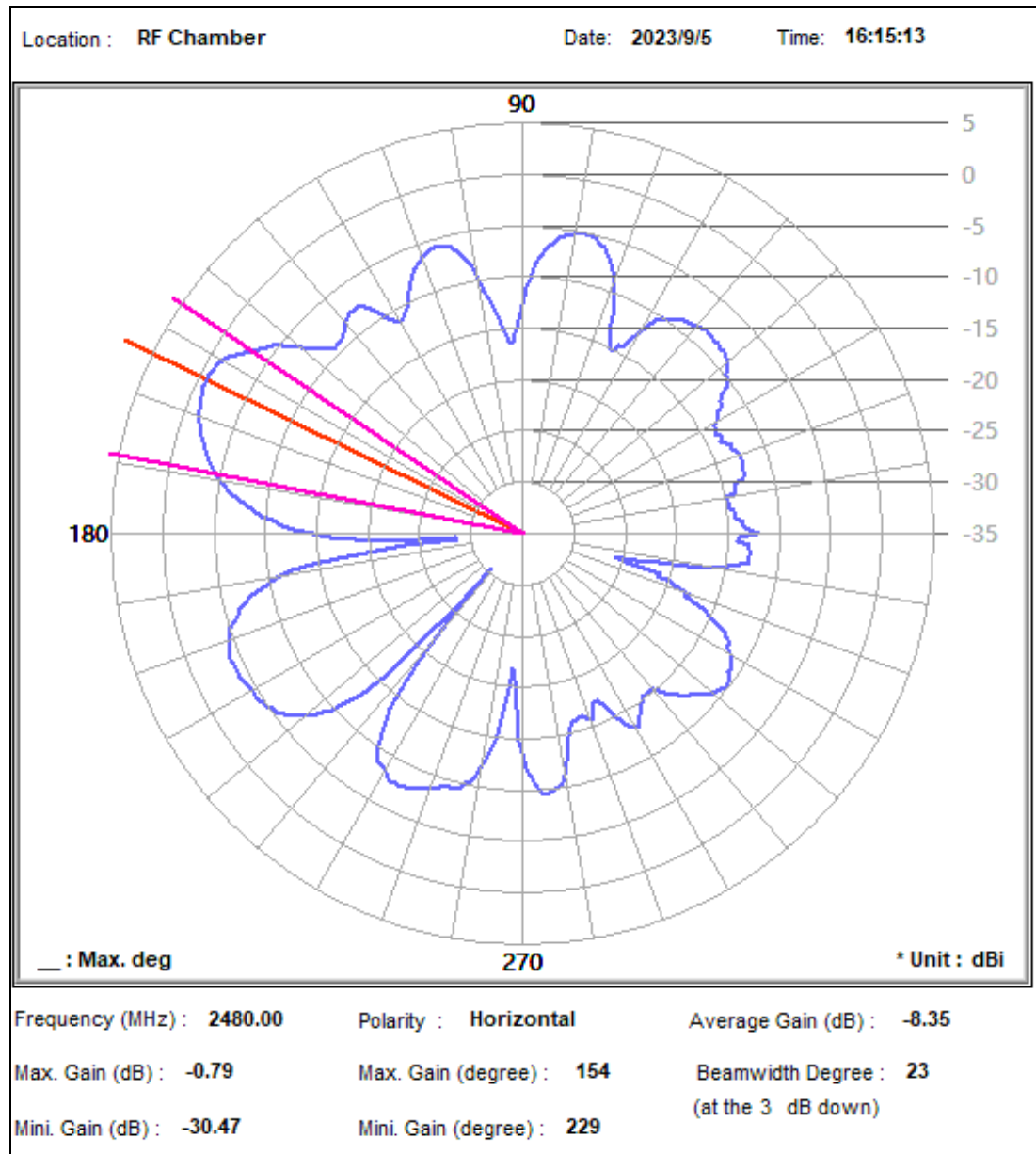
**Frequency: 2441 MHz (Horizontal)**



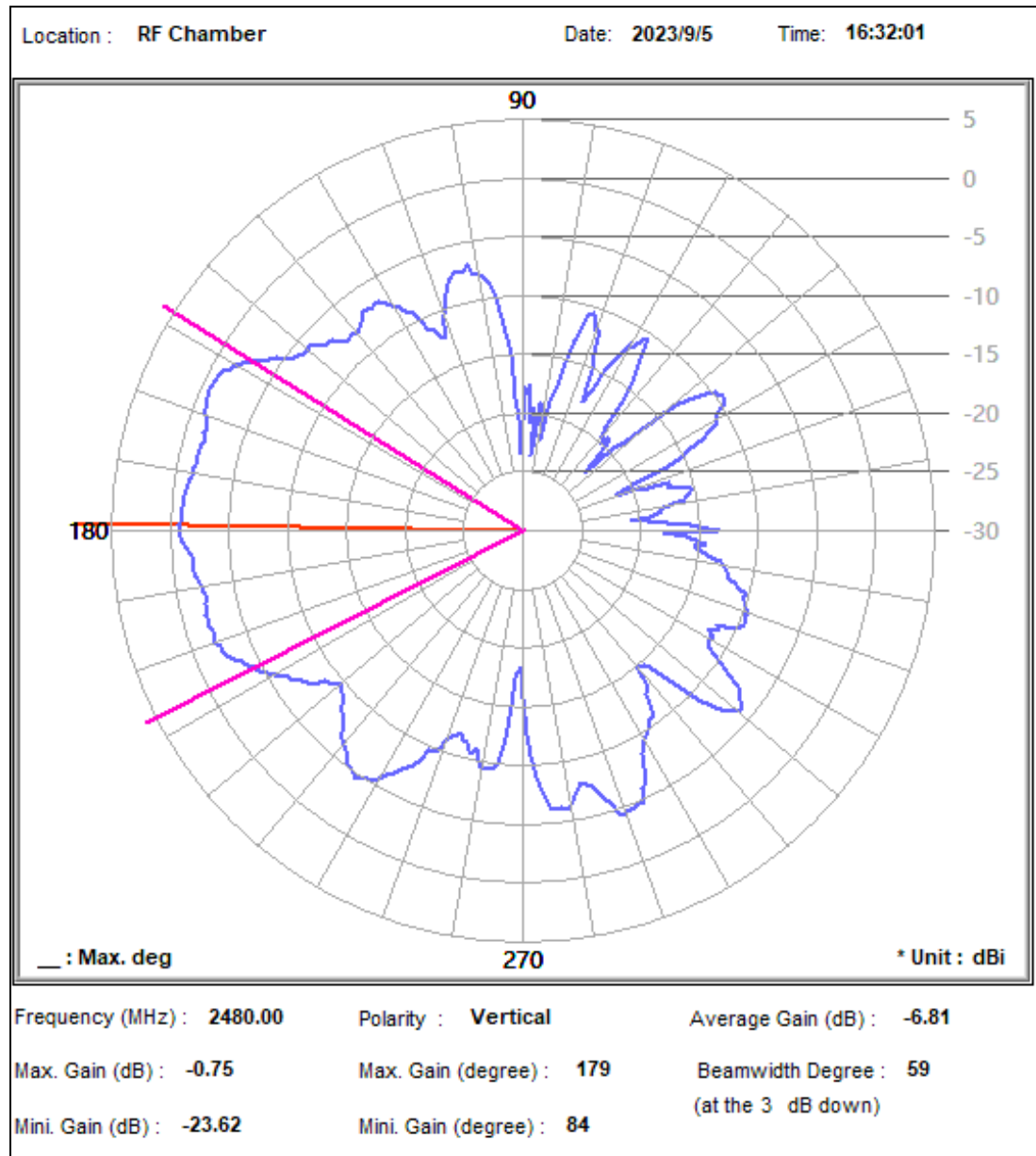
**Frequency: 2441 MHz (Vertical)**



**Frequency: 2480 MHz (Horizontal)**



Frequency: 2480 MHz (Vertical)



## 5. PHOTOGRAPHS OF THE TEST CONFIGURATION

