



REPORT No.: SZ23090126E01

# TEST REPORT

**APPLICANT** : XC Tracer GmbH  
**PRODUCT NAME** : XC Tracer Mini V  
**MODEL NAME** : XC Tracer Mini V  
**TRADE NAME** : N/A  
**BRAND NAME** : N/A  
**STANDARD(S)** : IEEE Std 149-2021  
**RECEIPT DATE** : 2023-09-14  
**TEST DATE** : 2023-09-15  
**ISSUE DATE** : 2023-09-19



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**MORLAB**

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Change History		
Version	Date	Reason for change
1.0	2023-09-19	First edition



# 1. Technical Information

**Note:** Provide by applicant.

## 1.1. Applicant and Manufacturer Information

<b>Applicant:</b>	XC Tracer GmbH
<b>Applicant Address:</b>	Junkerngasse 53, 3011 Bern, Switzerland
<b>Manufacturer:</b>	XC Tracer GmbH
<b>Manufacturer Address:</b>	Junkerngasse 53, 3011 Bern, Switzerland

## 1.2. Equipment Under Test (EUT) Description

<b>Wireless Type</b>	N/A
<b>Frequency</b>	868MHz-870MHz,902MHz-928MHz,
<b>IMEI</b>	N/A
<b>Sample No.</b>	1#



## 2. Test Results

### 2.1. Applied Reference Documents

Leading reference documents for testing:

No.	Identity	Document Title
1	IEEE Std 149-2021	IEEE Recommended Practice for Antenna Measurements

### 2.2. Test Conditions

Test Environment Conditions:

Relative Humidity(%):	25 - 75
Temperature(°C):	10 - 30

### 2.3. Measurement Uncertainty

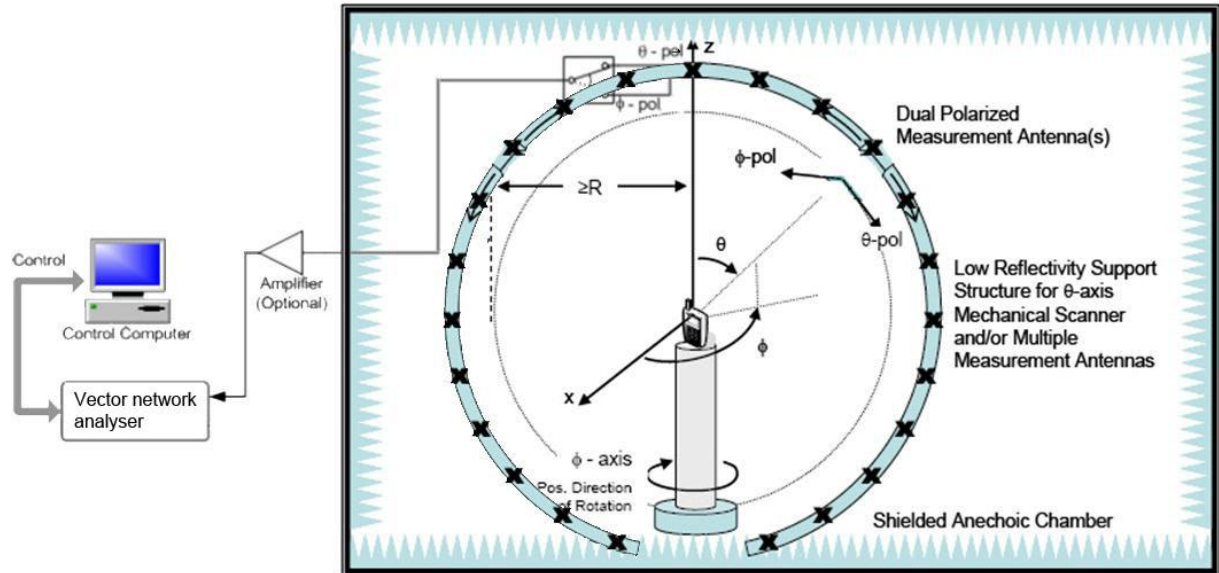
The uncertainty is calculated using the methods suggested in the "Guide to the Expression of Uncertainty in Measurement" (GUM) published by ISO. When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% Confidence intervals.

## 2.4. Test Results lists

### 2.4.1. Gain

Frequency (MHz)	Gain(dBi)
868	-4.95
869	-4.96
870	-4.95
902	-4.55
904	-4.43
906	-4.30
908	-4.24
910	-4.17
912	-4.07
914	-3.98
916	-3.84
918	-3.77
920	-3.76
922	-3.69
924	-3.60
926	-3.52
928	-3.50

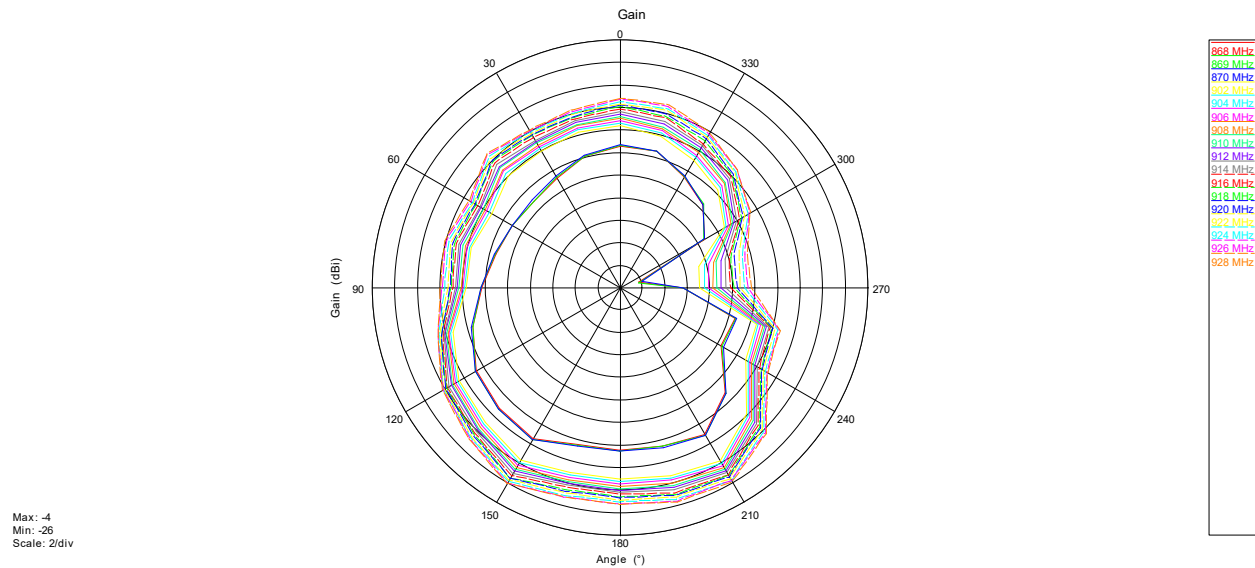
## Annex A Test Setup Photos



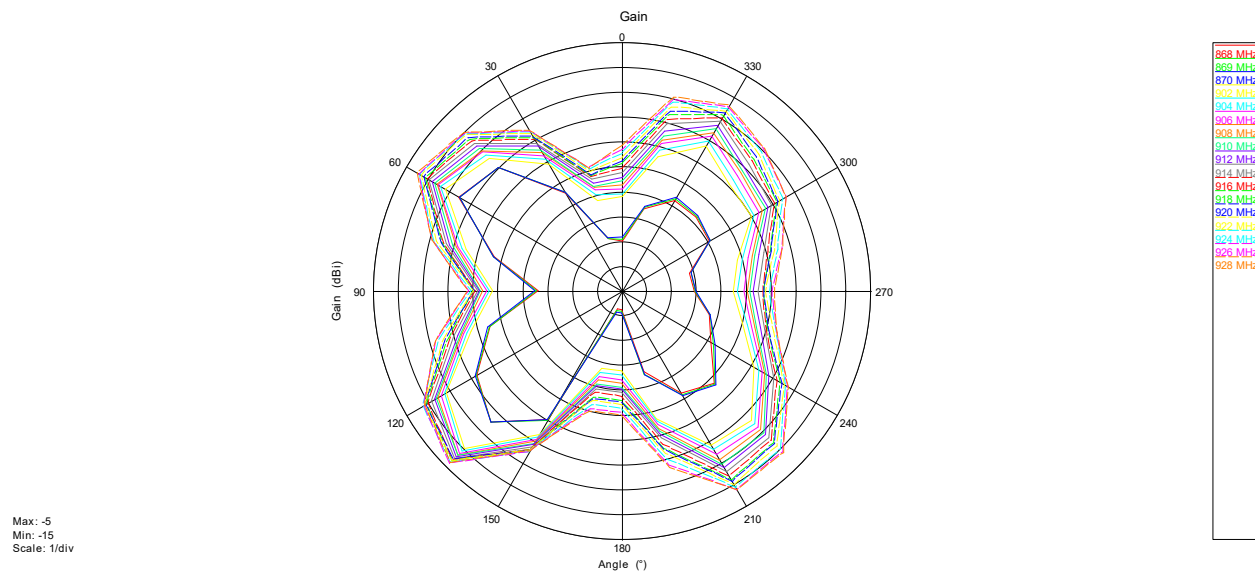


## Annex B Figures

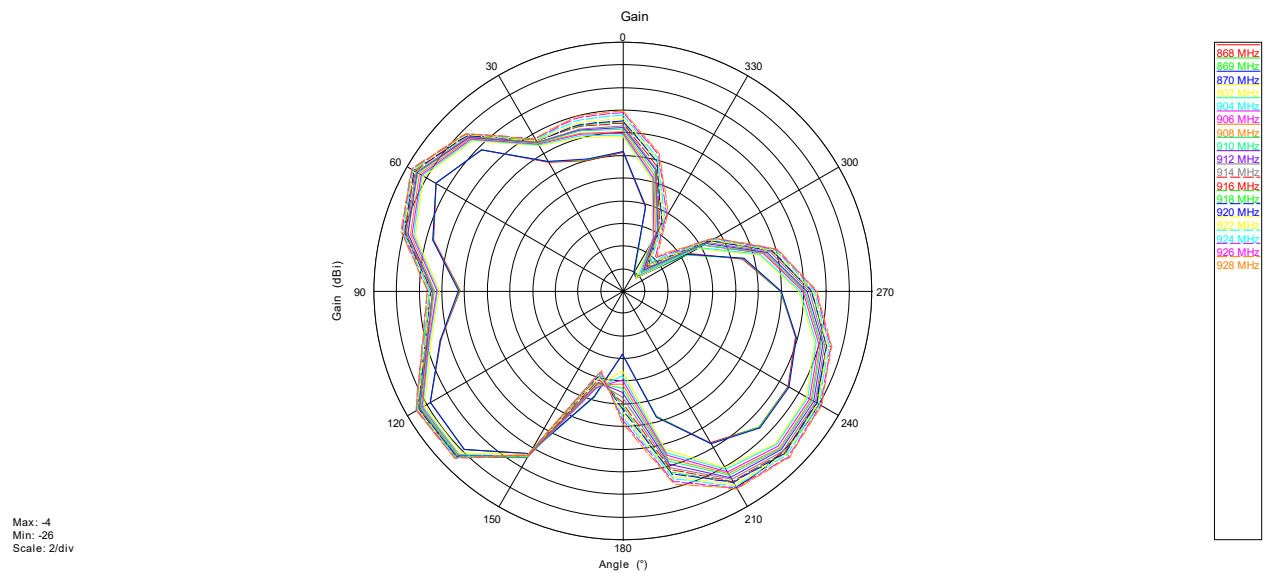
### 1. 2D Radiation Pattern



Phi=0°

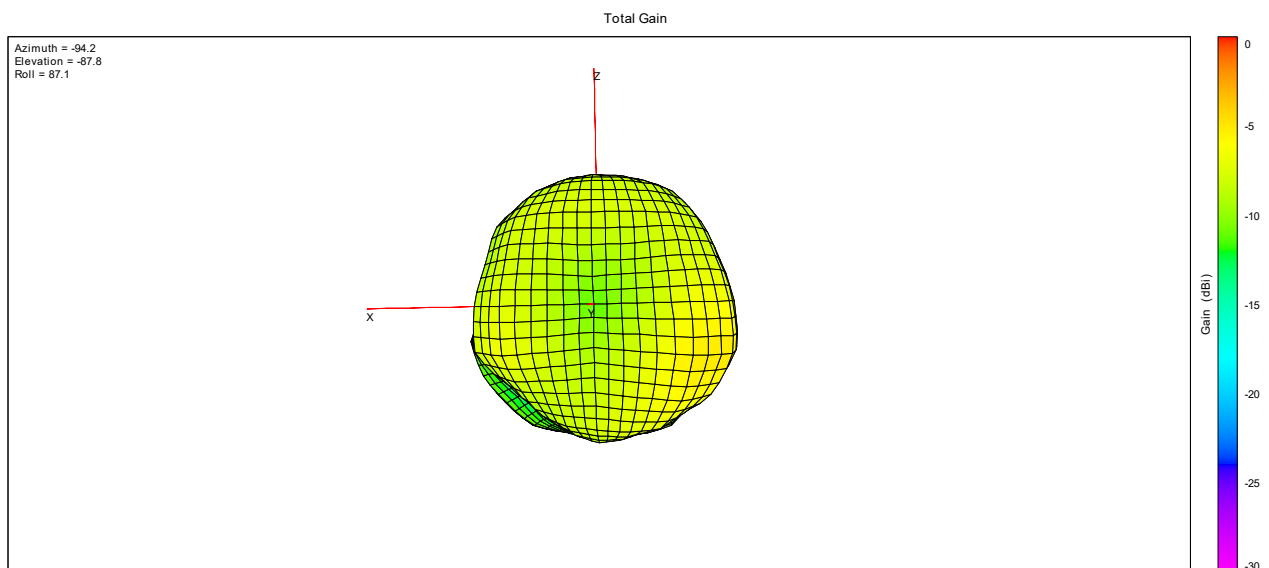


Phi=90°



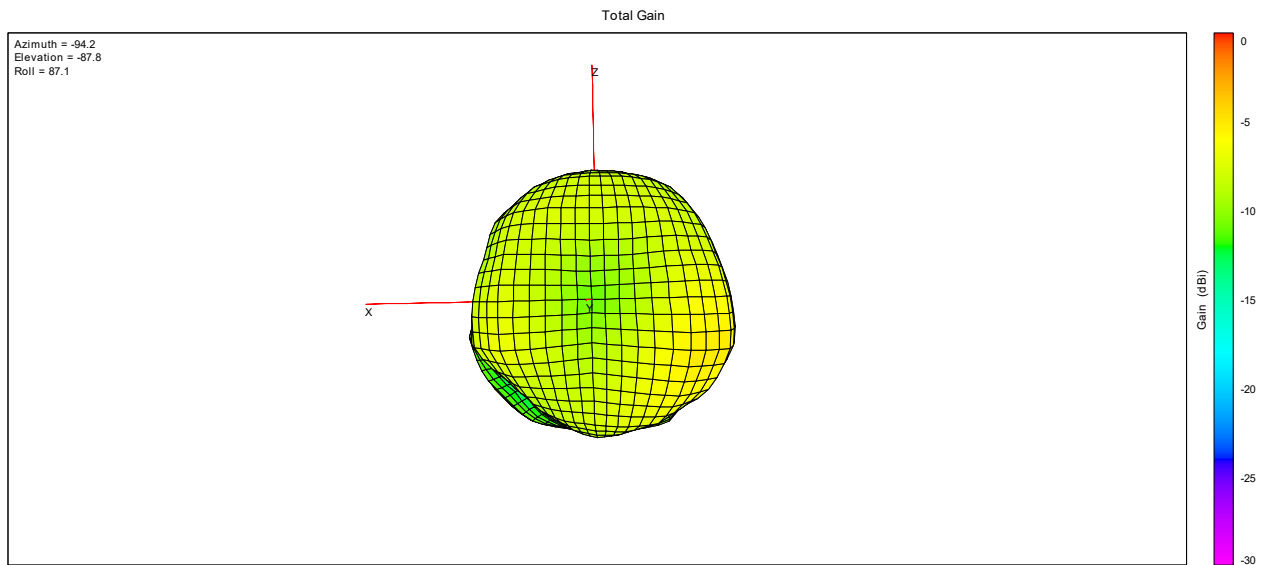
Theta=90°

## 2. 3D Radiation Pattern

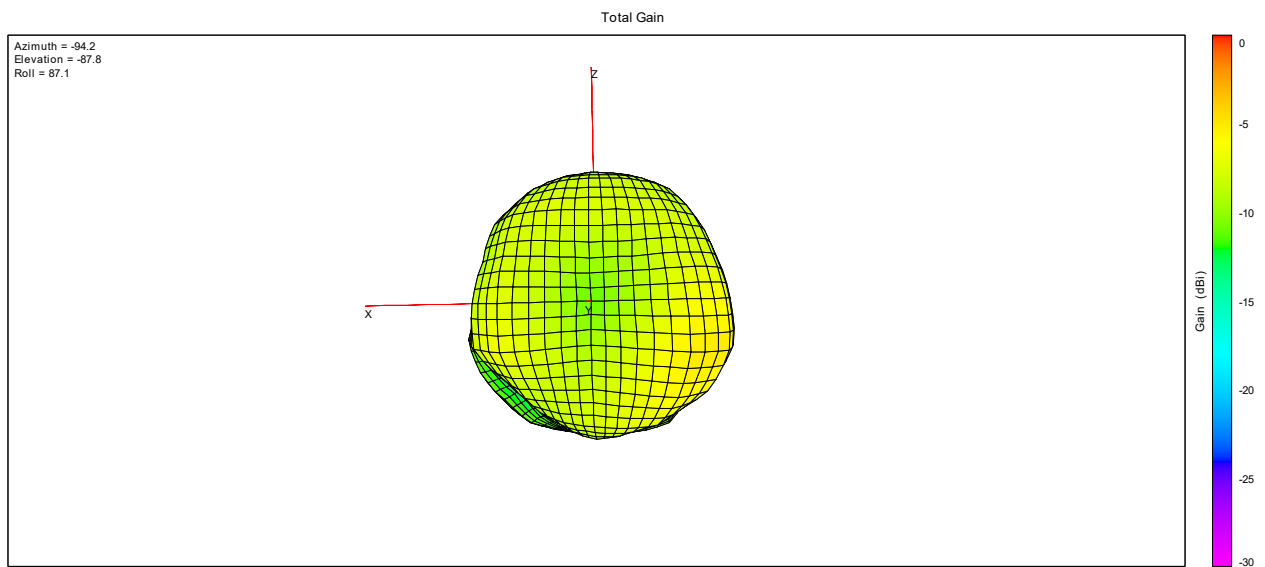


868MHz

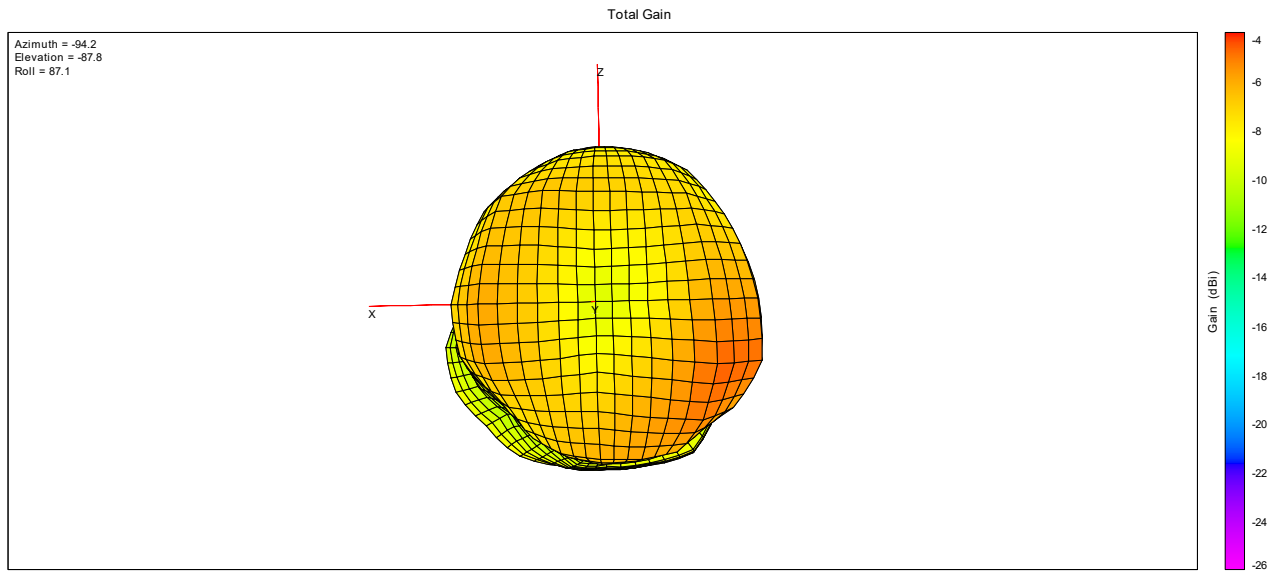




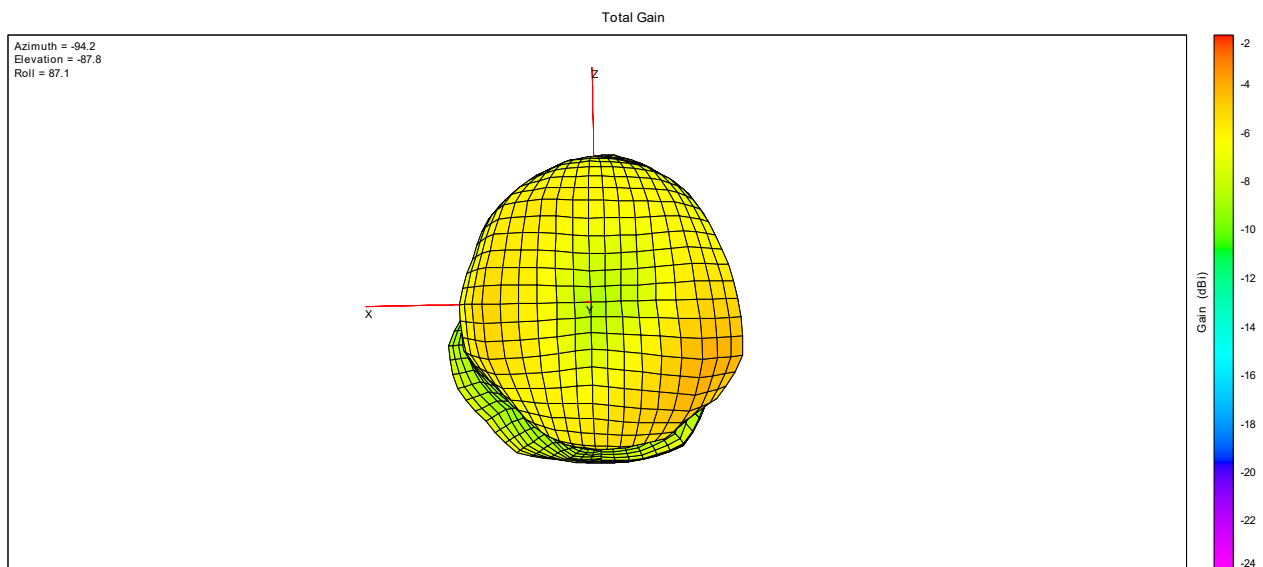
869MHz



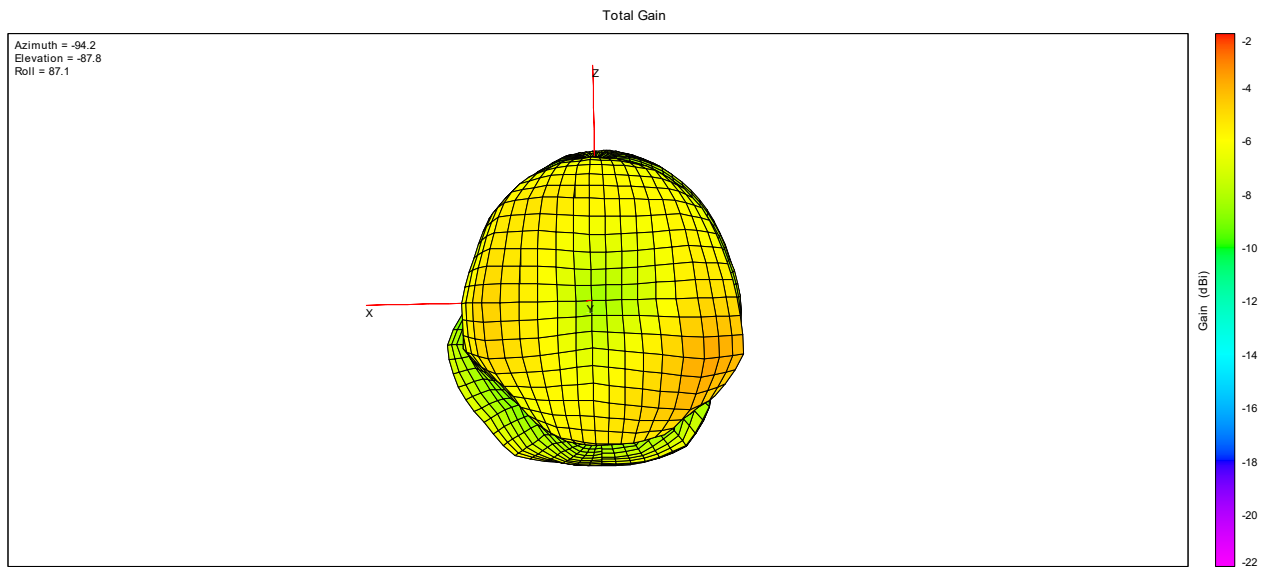
870MHz



902MHz



916MHz



928MHz



## Annex D General Information

### 1.1 Identification of the Responsible Testing Laboratory

Laboratory Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Laboratory Address:	FL.1-3, Building A, FeiYang Science Park, No.8 LongChang Road, Block67, BaoAn District, ShenZhen , GuangDong Province, P. R. China
Telephone:	+86 755 36698555
Facsimile:	+86 755 36698525

### 1.2 Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Address:	FL.1-3, Building A, FeiYang Science Park, No.8 LongChang Road, Block67, BaoAn District, ShenZhen , GuangDong Province, P. R. China

### 1.3 Test Equipments Utilized

No.	Equipement Name	Serial No.	Type	Manufacturer	Cal.Date	Cal.Due Date
1	Network Analyzer	MY46110140	E5071C	Agilent	2023.06.21	2024.06.20
2	OTA Chamber	TJ2235-Q1793	AMS-8923 -150	ETS	2022.11.30	2025.11.29
3	Antenna Measurement System	1685	EMQuest EMQ-100 V 1.13 Build 21267	ETS	N/A	N/A

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