



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



Edited by:

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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

Applicant:	XC Tracer GmbH
Applicant Address:	Junkerngasse 53, 3011 Bern, Switzerland
Manufacturer:	XC Tracer GmbH
Manufacturer Address:	Junkerngasse 53, 3011 Bern, Switzerland

1.2. Equipment Under Test (EUT) Description

Wireless Type	N/A
Frequency	868MHz-870MHz, 902MHz-928MHz,
IMEI	N/A
Sample No.	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 to give the judgment result based on the 95% Confidence intervals.

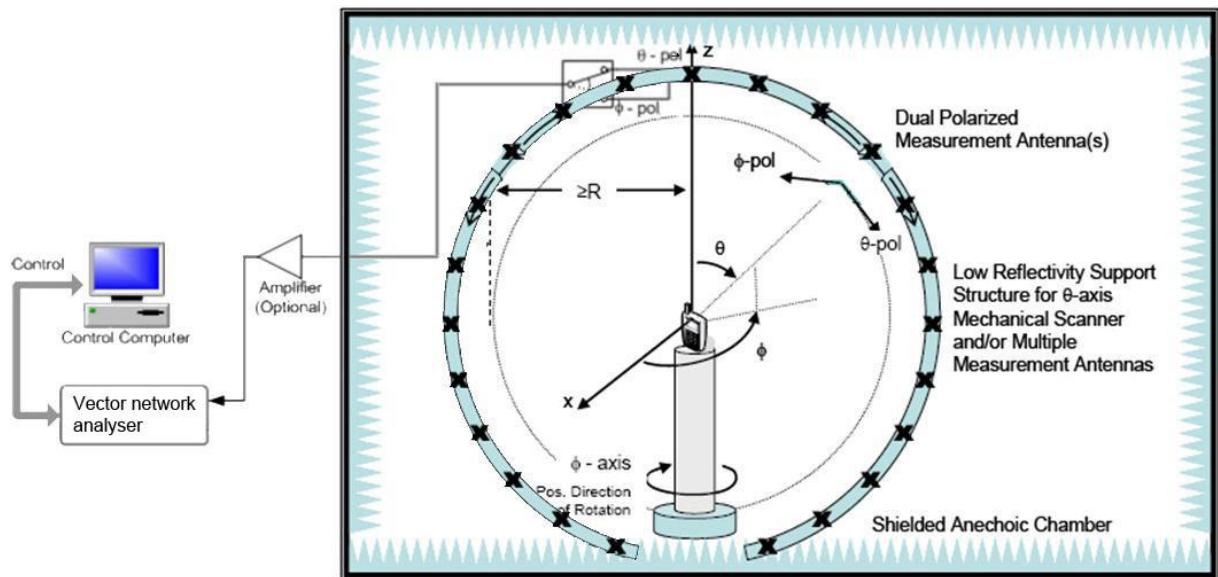


2.4. Test Results lists

2.4.1. Gain

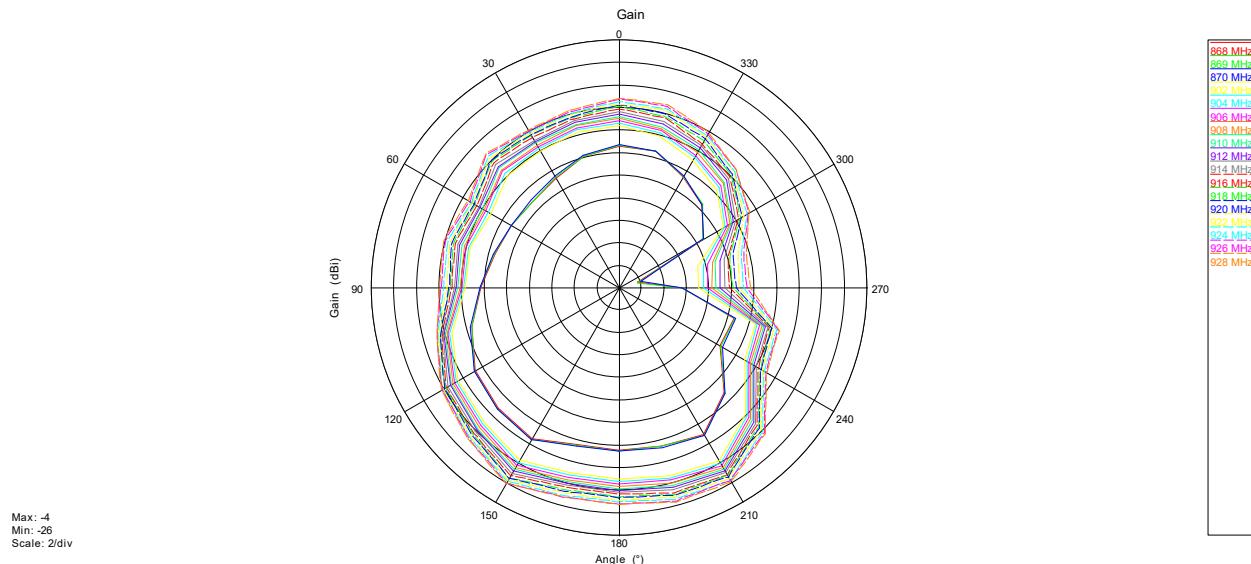
Frequency (MHz)	Gain(dBi)
868	-4.95
869	-4.96
870	-4.95
902	-4.55
904	-4.43
906	-4.30
908	-4.24
910	-4.17
912	-4.07
914	-3.98
916	-3.84
918	-3.77
920	-3.76
922	-3.69
924	-3.60
926	-3.52
928	-3.50

Annex A Test Setup Photos

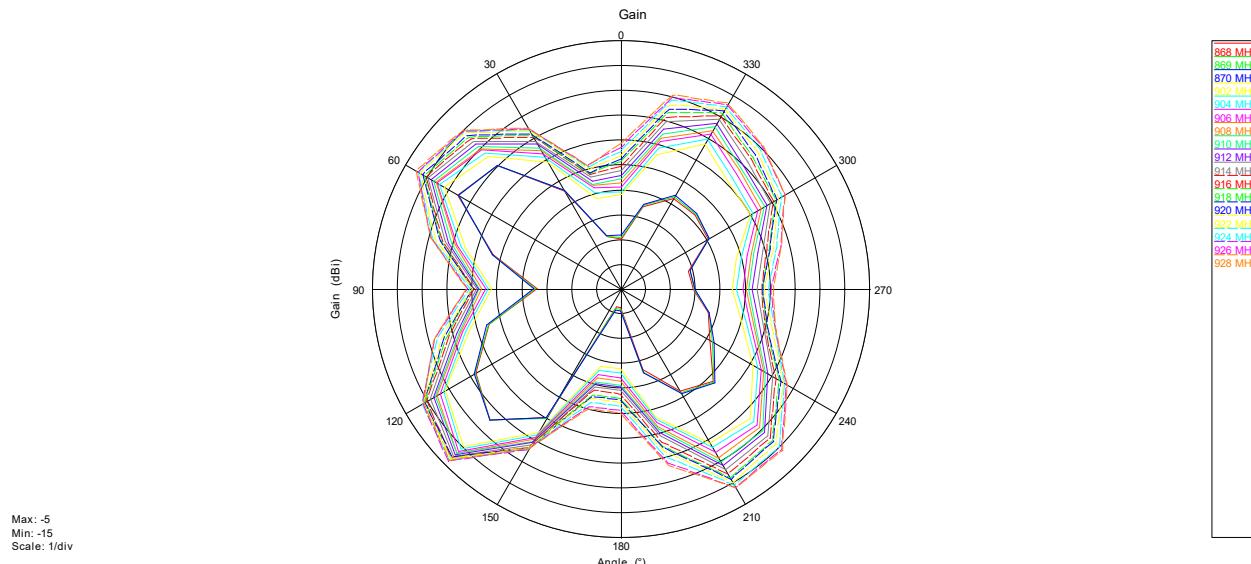


Annex B Figures

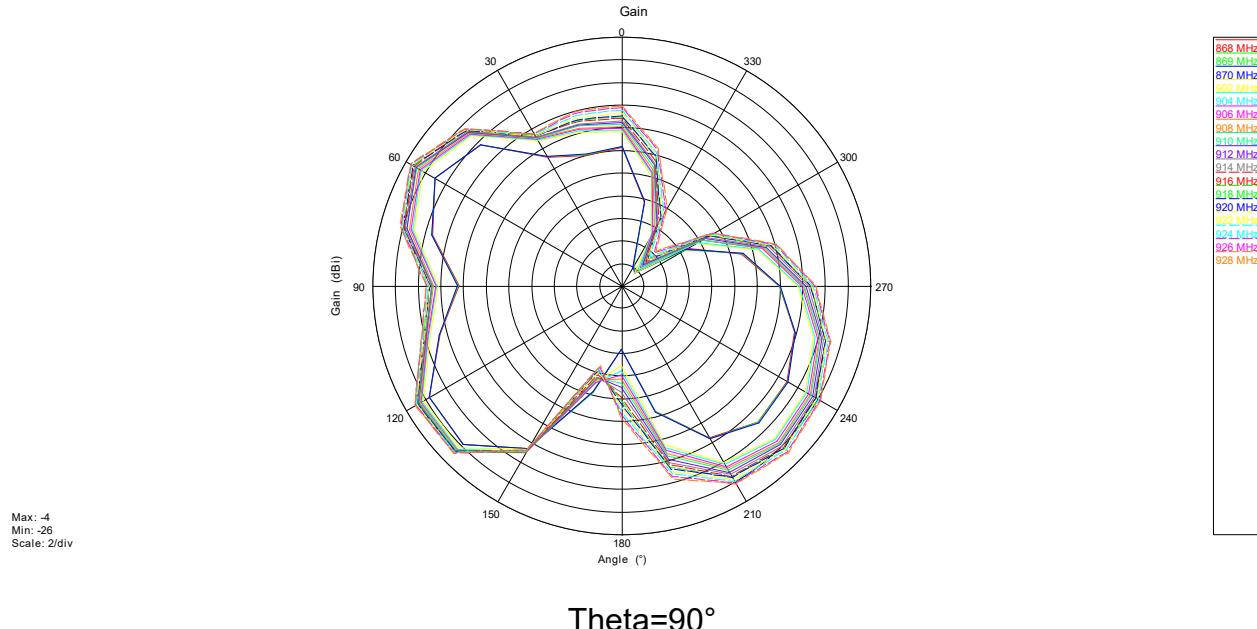
1. 2D Radiation Pattern



$\Phi = 0^\circ$

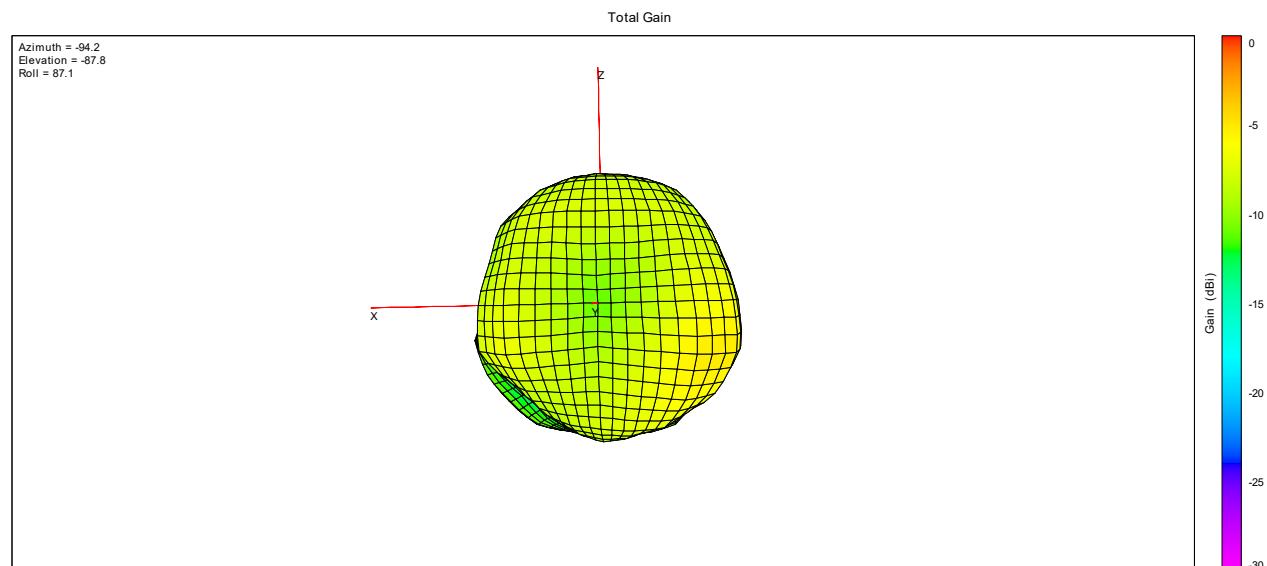


$\Phi = 90^\circ$

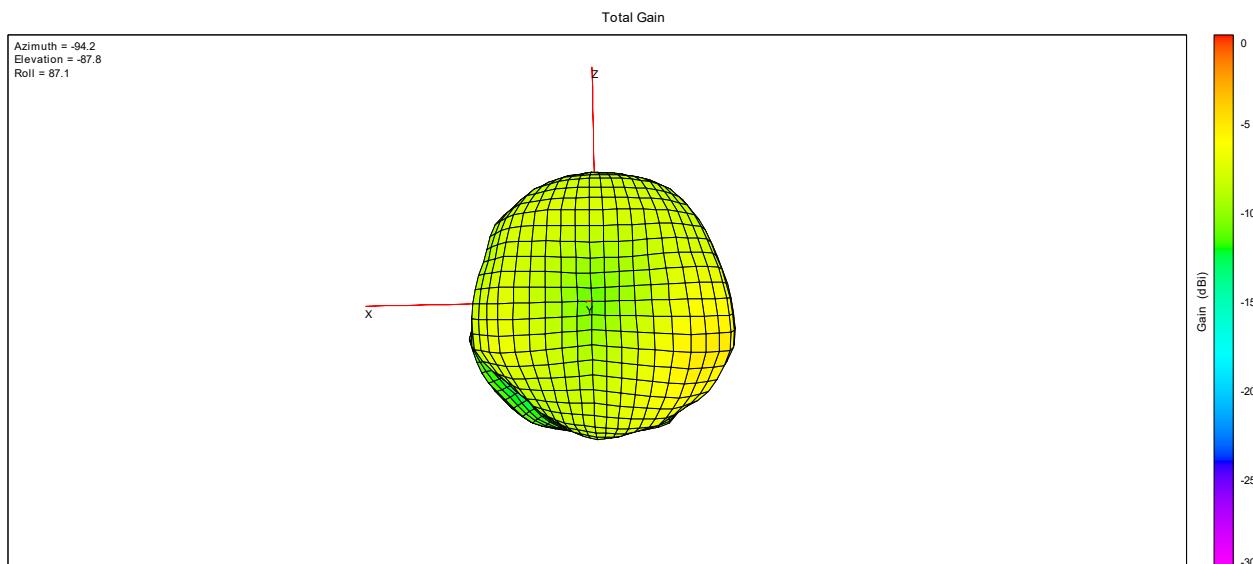


Theta=90°

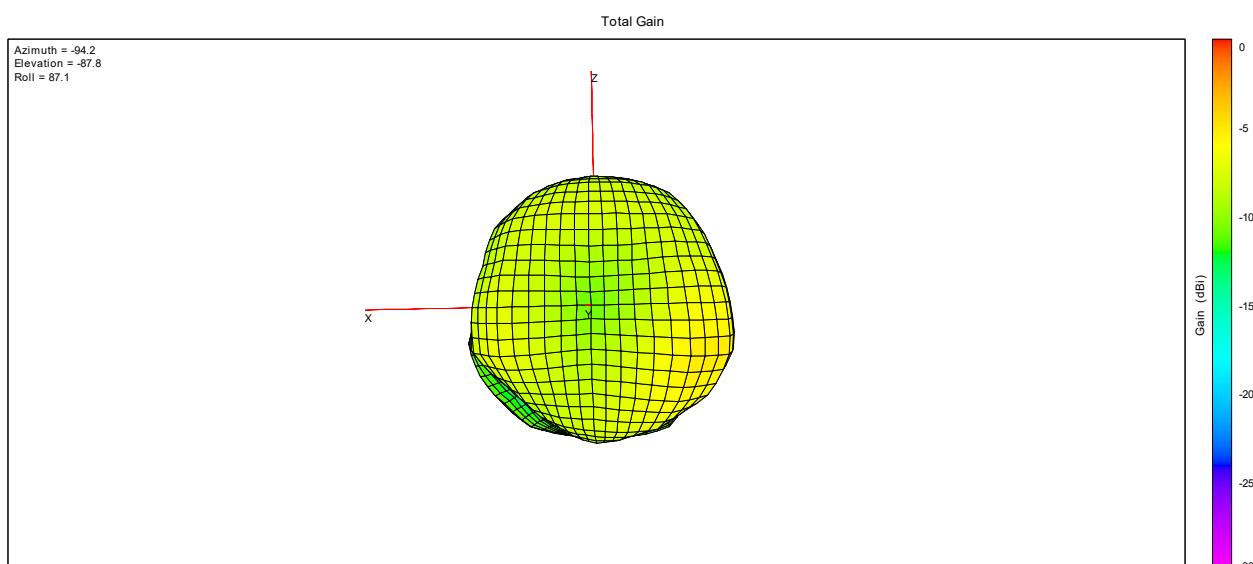
2. 3D Radiation Pattern



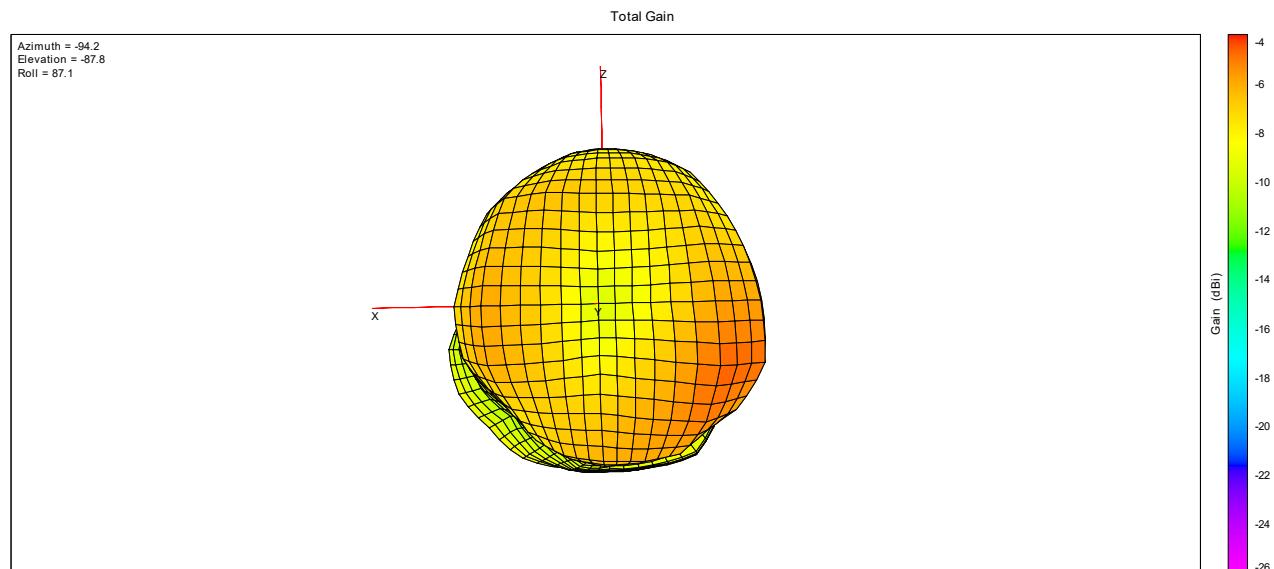
868MHz



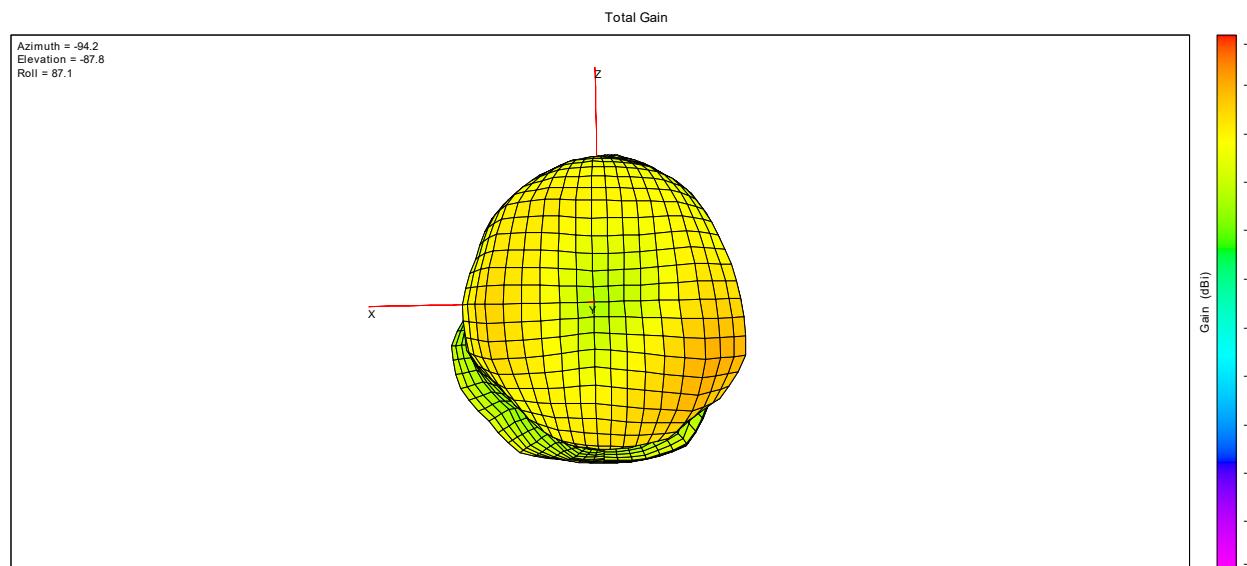
869MHz



870MHz



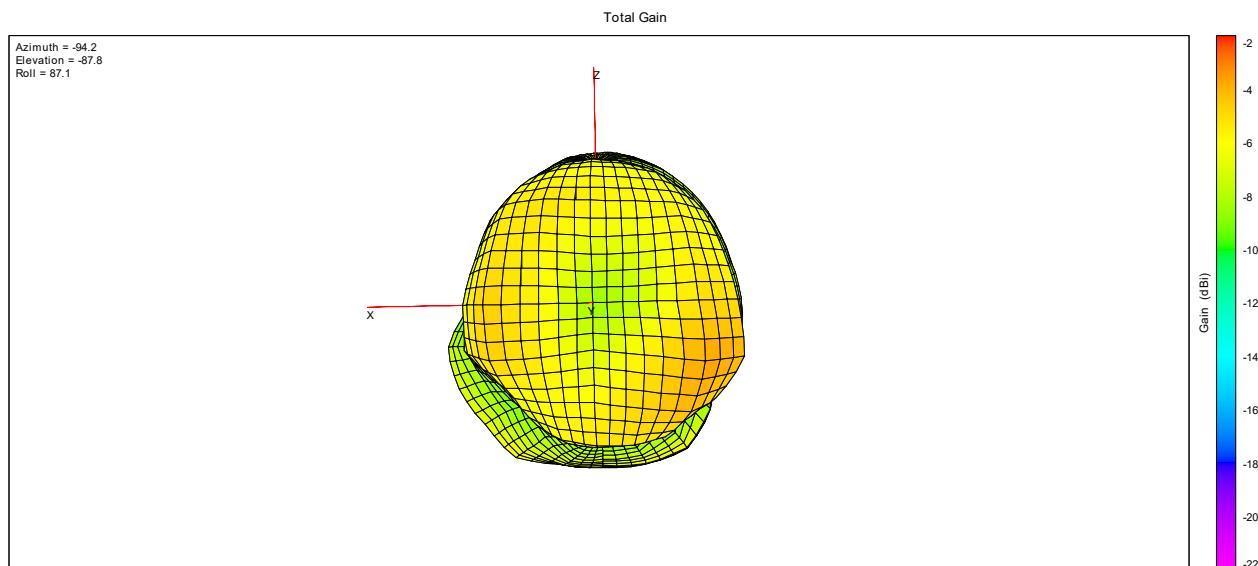
902MHz



916MHz



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928MHz

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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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