



REPORT No.: SZ24110164E01

TEST REPORT

APPLICANT : AKUVOX (XIAMEN) NETWORKS CO., LTD.

PRODUCT NAME : Card Reader BT ANTENNA

MODEL NAME : TB-04

TRADE NAME : Akuvox

BRAND NAME : Akuvox

STANDARD(S) : IEEE Std 149-2021

RECEIPT DATE : 2024-11-19

TEST DATE : 2024-11-20

ISSUE DATE : 2024-11-25



Edited by:

Guo Penghua

Guo Penghua(Rapporteur)

Approved by:

Chi Shide

Chi Shide(Supervisor)

NOTE: This document is issued by Shenzhen Morlab Communications Technology Co., Ltd., the test report shall not be reproduced except in full without prior written permission of the company. The test results apply only to the particular sample(s) tested and to the specific tests carried out which is available on request for validation and information confirmed at our website.

MORLAB

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

Tel: 86-755-36698555

Http://www.morlab.cn

Fax: 86-755-36698525

E-mail: service@morlab.cn





DIRECTORY

1. Technical Information	3
1.1. Applicant and Manufacturer Information	3
1.2. Equipment Under Test (EUT) Description	3
2. Test Results	4
2.1. Applied Reference Documents	4
2.2. Test Conditions	4
2.3. Measurement Uncertainty	4
2.4. Test Results lists	5
Annex A Test Setup Photos	6
Annex B Figures	7
1. 2D Radiation Pattern	7
2. 3D Radiation Pattern	8
Annex C General Information	10
1.1 Identification of the Responsible Testing Laboratory	10
1.2 Identification of the Responsible Testing Location	10
1.3 Test Equipments Utilized	10
1.4 Test Software Utilized	10
Annex D EUT Photos	

Change History		
Version	Date	Reason for change
1.0	2024-11-25	First edition



1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

Applicant:	AKUVOX (XIAMEN) NETWORKS CO., LTD.
Applicant Address:	10/F, No.56 Guanri Road, Software Park II , Xiamen 361009, China
Manufacturer:	AKUVOX (XIAMEN) NETWORKS CO., LTD.
Manufacturer Address:	10/F, No.56 Guanri Road, Software Park II , Xiamen 361009, China

1.2. Equipment Under Test (EUT) Description

Wireless Type	Bluetooth
Frequency	2400MHz-2483.5MHz
Antenna Type	N/A
Product HW Version	N/A
Product SW Version	N/A
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 give the judgment result based on the 95% Confidence intervals.

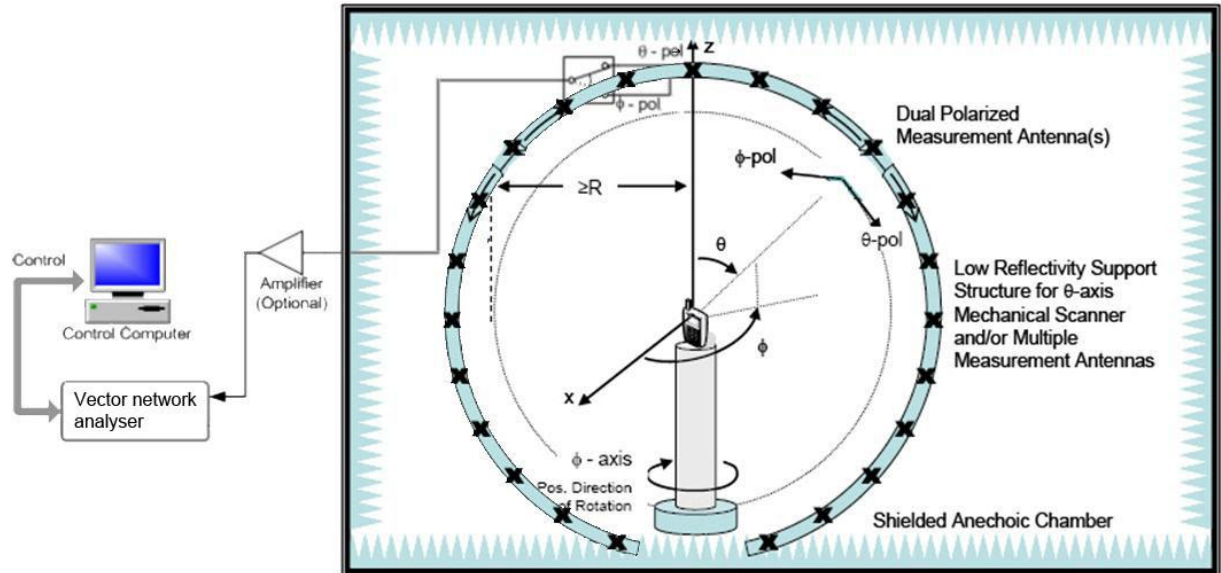


2.4. Test Results lists

2.4.1. Gain

Frequency (MHz)	Gain(dBi)
2400	-2.76
2410	-3.23
2420	-3.78
2430	-4.32
2440	-4.46
2450	-4.72
2460	-5.12
2470	-5.47
2480	-5.91
2483.5	-6.20

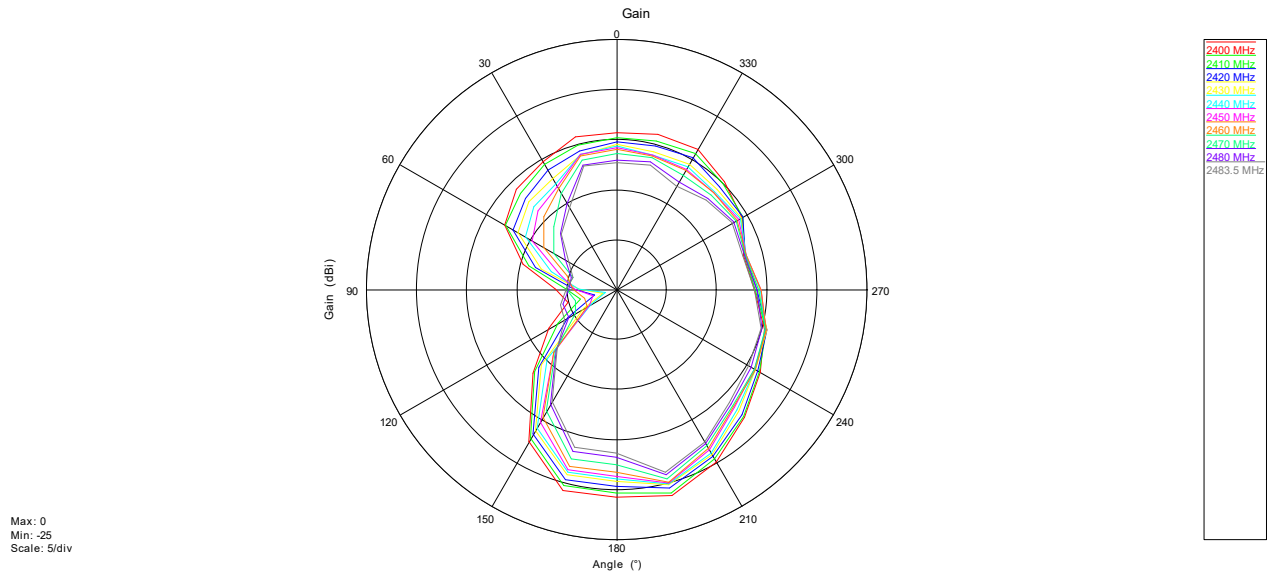
Annex A Test Setup Photos



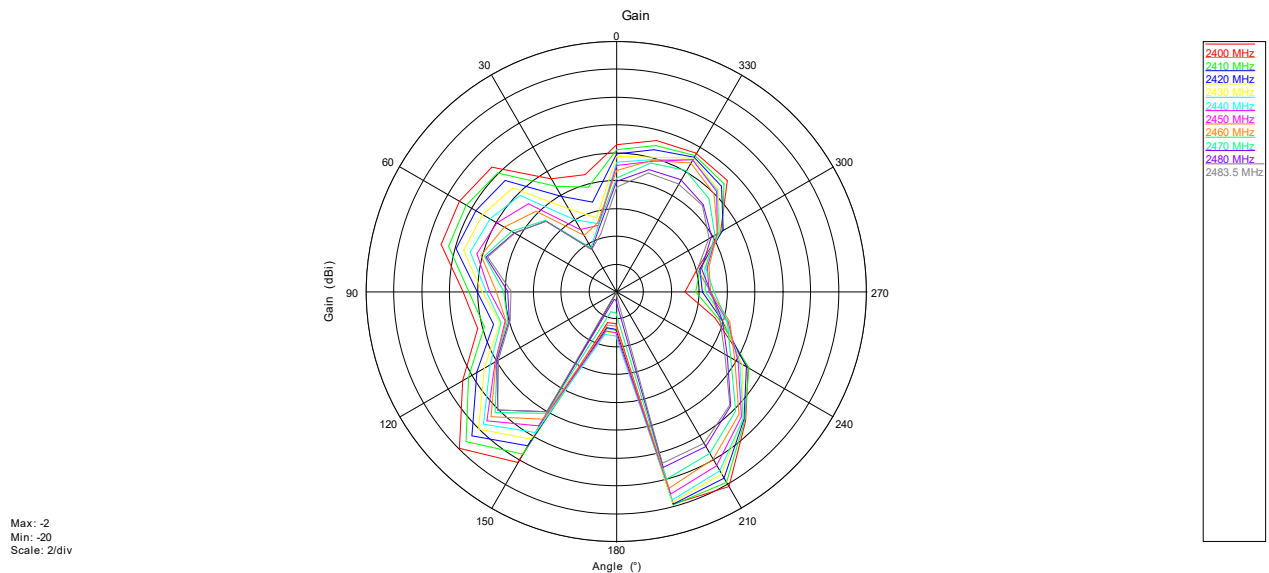


Annex B Figures

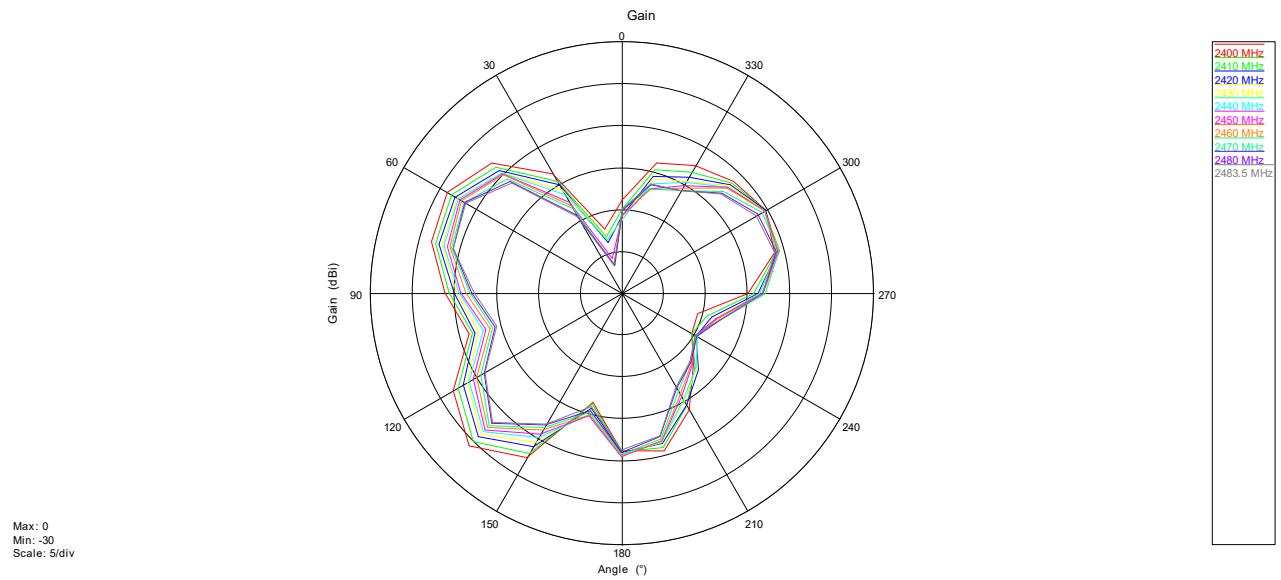
1. 2D Radiation Pattern



Phi=0°

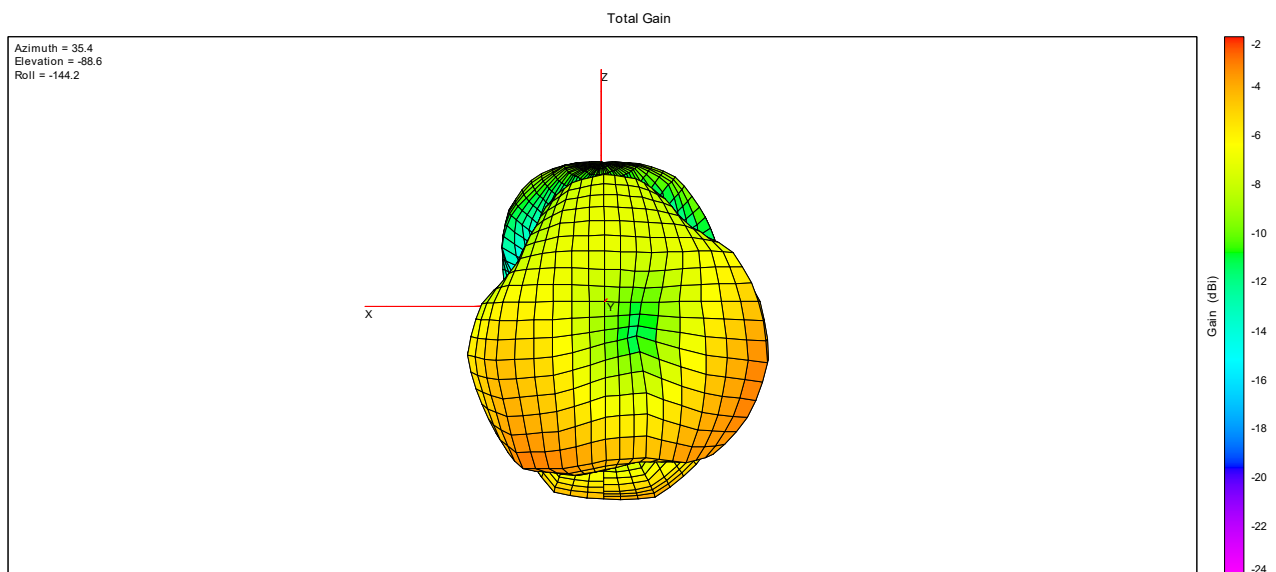


Phi=90°

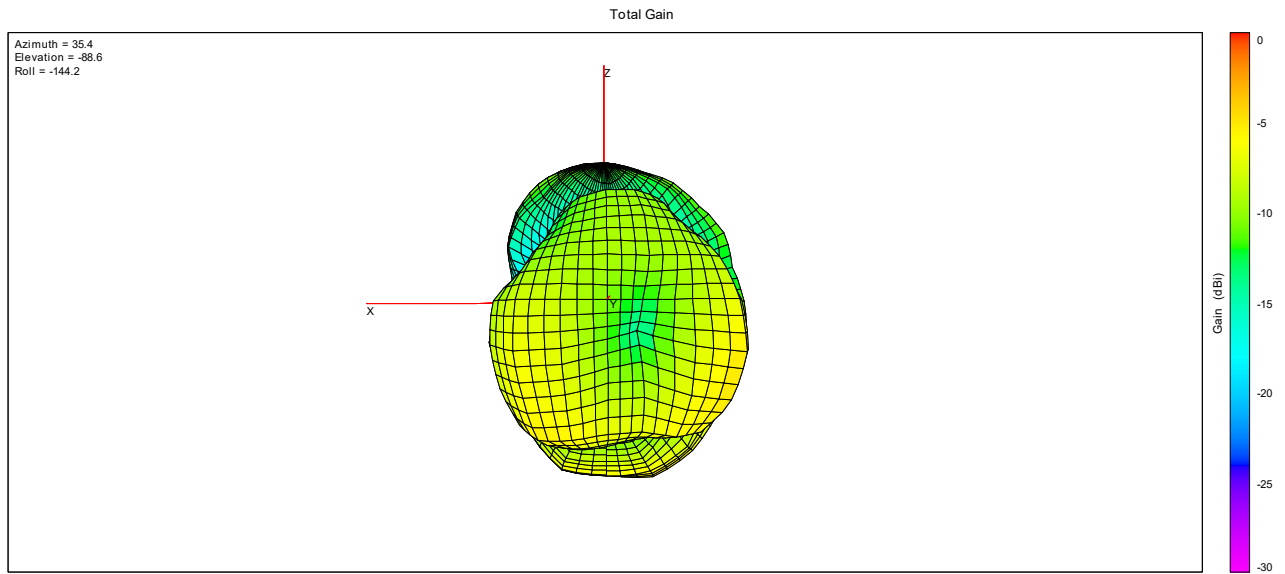


Theta=90°

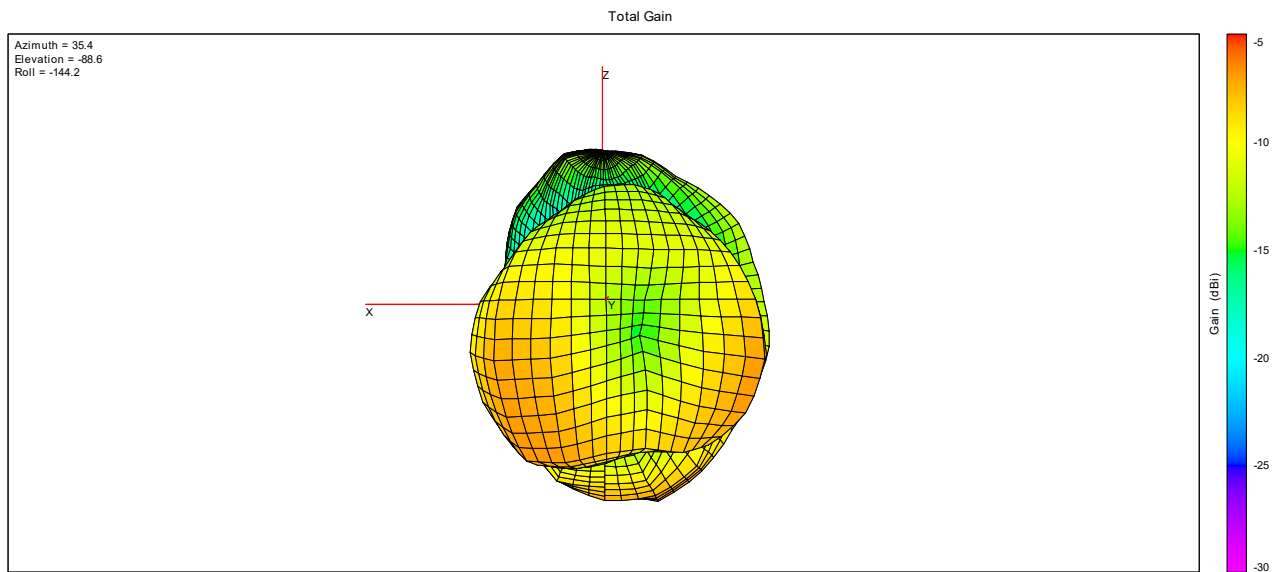
2. 3D Radiation Pattern



2400MHz



2440MHz



2483.5MHz



Annex C 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.	Equipment Name	Serial No.	Type	Manufacturer	Cal.Date	Cal.Due Date
1	Network Analyzer	MY46110140	E5071C	Agilent	2024.05.30	2025.05.29
2	OTA Chamber	TJ2235-Q1793	AMS-8923 -150	ETS	2022.11.30	2025.11.29

1.4 Test Software Utilized

No.	Software Name	Serial No.	Version	Manufacturer
1	Antenna Measurement System	1685	EMQuest EMQ-100 V 1.13 Build 21267	ETS

Note:The Main report is end here and the other Annex D will be submitted separately.

————— END OF MIAN REPORT —————