



REPORT No.: SZ23090254E01

TEST REPORT

APPLICANT : Ting Shen Industrial Co., Ltd.

PRODUCT NAME : 433.92MHz Antenna

MODEL NAME : TS-YKQ

TRADE NAME : N/A

BRAND NAME : N/A

STANDARD(S) : IEEE Std 149-2021

RECEIPT DATE : 2023-09-22

TEST DATE : 2023-09-22

ISSUE DATE : 2023-09-26



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MORLAB

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Change History		
Version	Date	Reason for change
1.0	2023-09-26	First edition



1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

Applicant:	Ting Shen Industrial Co., Ltd.
Applicant Address:	Lian Hua Port Industry, Sec.9D, 3rd F1. Lian Hua Processing District, Pan yu Guang Zhou, Guangdong, P. R. China
Manufacturer:	N/A
Manufacturer Address:	N/A

1.2. Equipment Under Test (EUT) Description

Wireless Type	N/A
Test frequency band	433.92MHz
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.

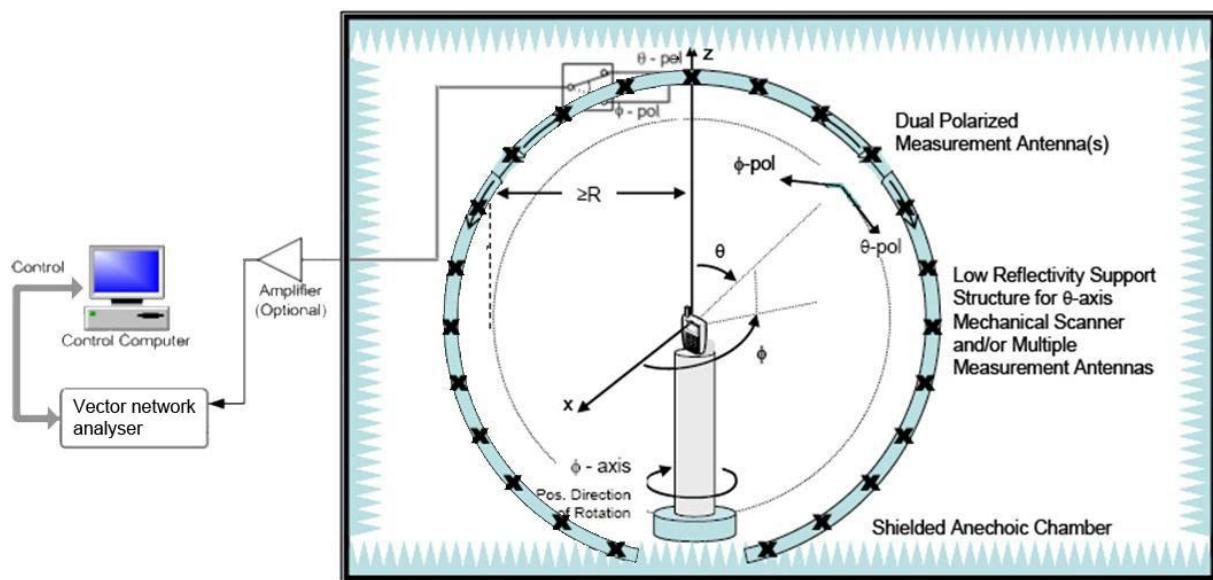


2.4. Test Results lists

2.4.1. Gain

Frequency	Gain(dBi)
433.87MHz	-5.65
433.92MHz	-5.65
433.97MHz	-5.65

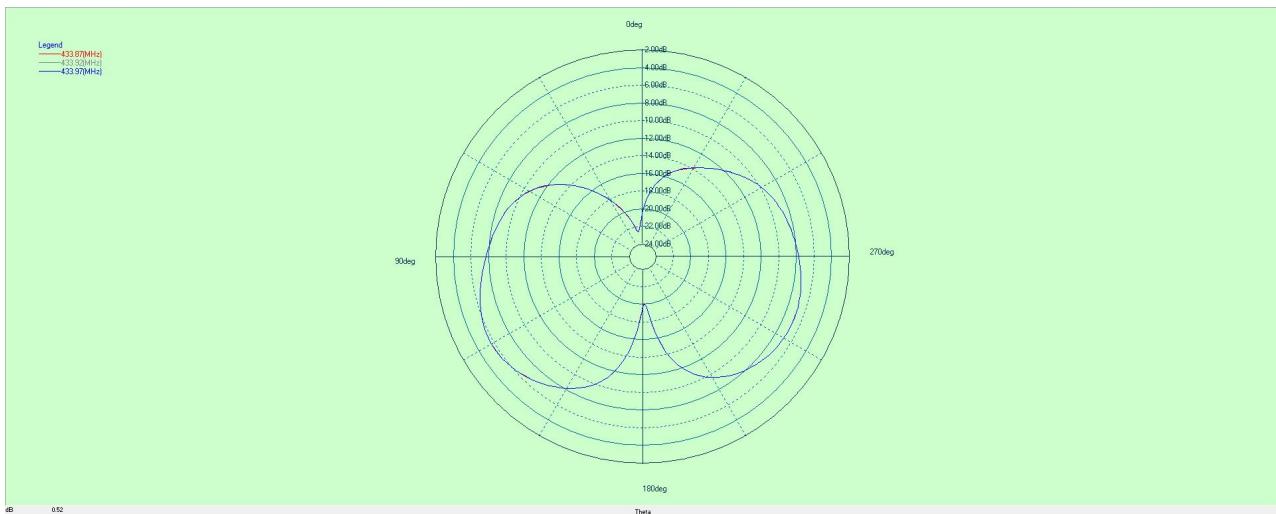
Annex A Test Setup Photos



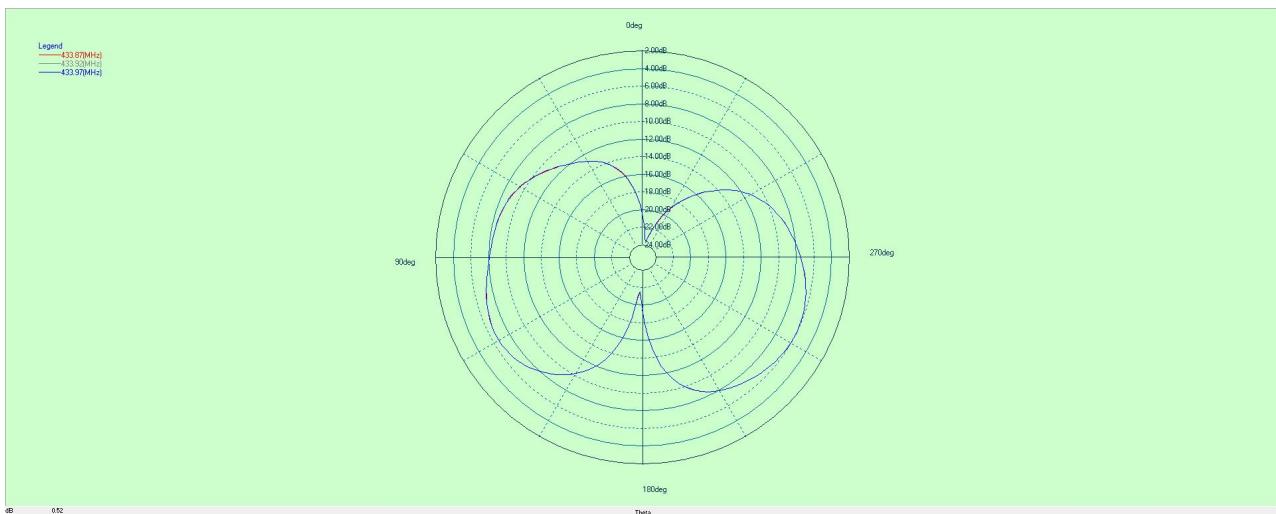
Annex B Figures

1. 2D Radiation Pattern

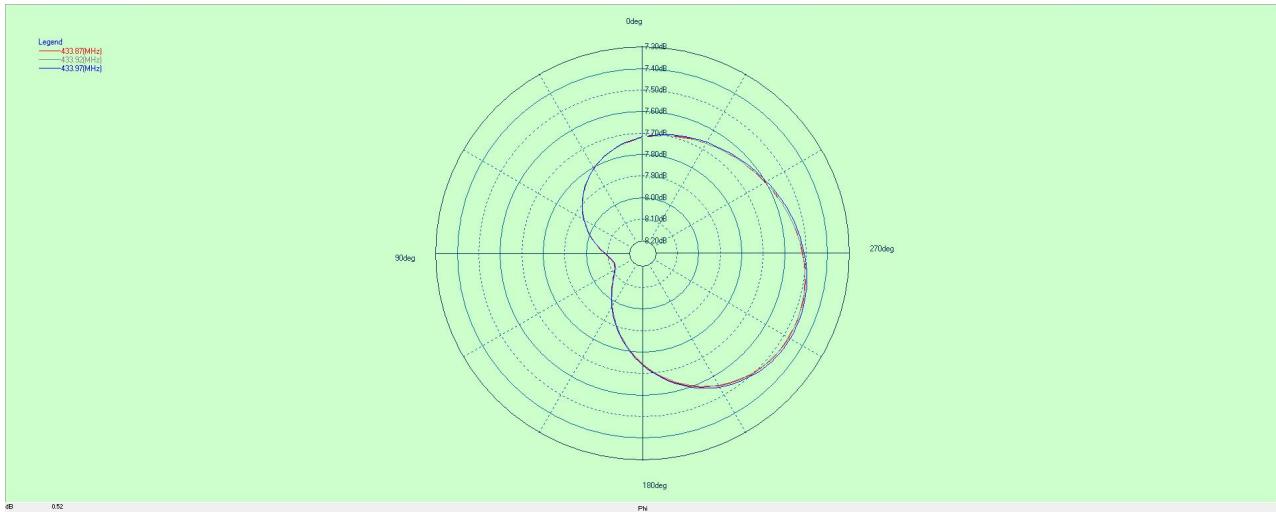
Phi=0°



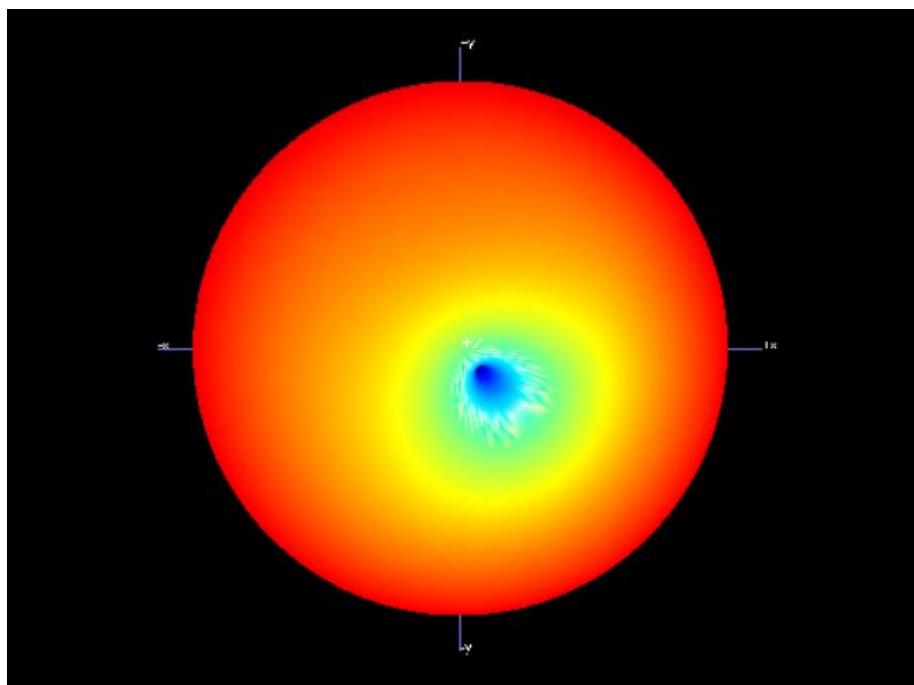
Phi=90°



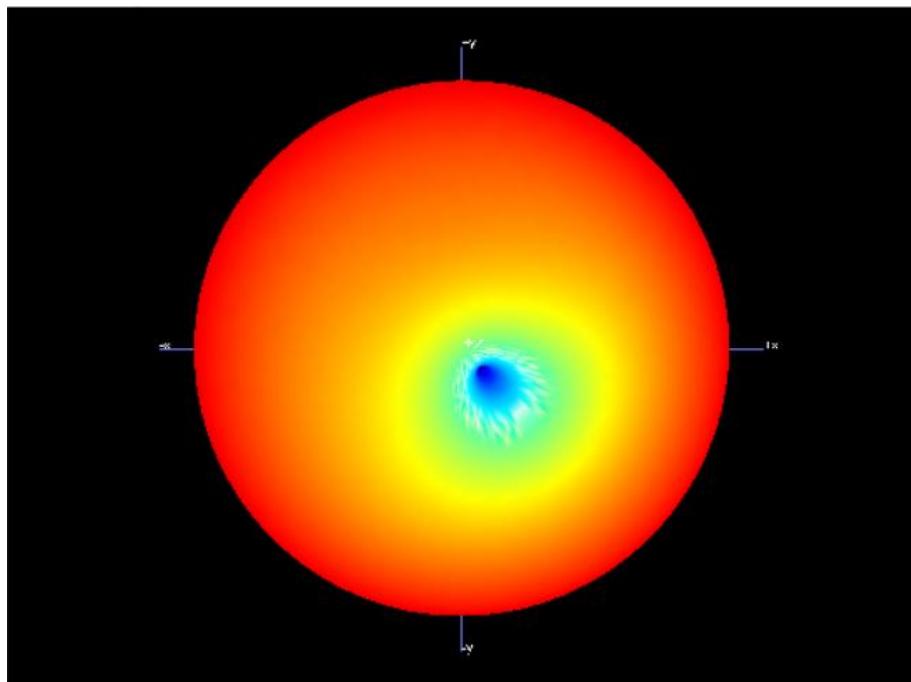
Theta=90°



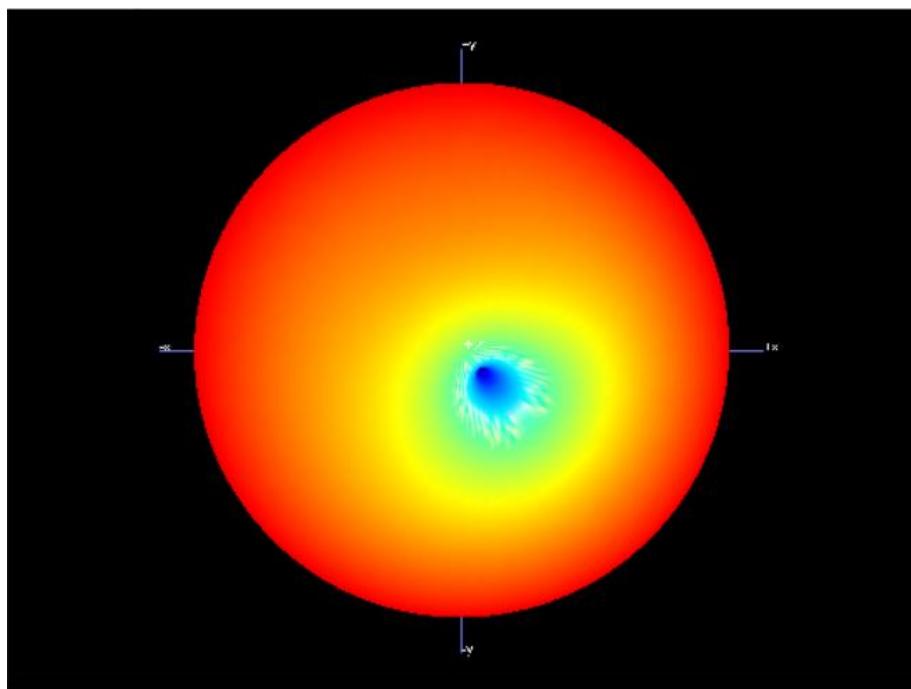
2. 3D Radiation Pattern



433.87MHz



433.92MHz



433.97MHz



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	Vector Network Analyzer	MY46214666	E5071C	Agilent	2023.02.09	2024.02.08
2	OTA Chamber	N/A	SG24	Satimo	2021.01.12	2024.01.11
3	SatEnv	N/A	2.0.1.5 build 12	Satimo	N/A	N/A
4	SPM	N/A	1.11	Satimo	N/A	N/A

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

———— END OF MAIN REPORT ————