REPORT No.: SZ22110064E07

TEST REPORT

APPLICANT	:	Chongqing Jingranyouxu Technology Co.,Ltd.
PRODUCT NAME	:	Label Printer
MODEL NAME	:	E1
TRADE NAME	:	MakeID
BRAND NAME	:	N/A
STANDARD(S)	:	IEEE Std 149-2021
RECEIPT DATE	:	2022-11-04
TEST DATE	:	2022-11-07
ISSUE DATE	:	2022-11-18

Edited by: Fang Jinshan

Fang Jinshan(Rapporteur)

Approved by:

Chi Shide(Supervisor)

MORLAB

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DIRECTORY

Change History		
Version	Date	Reason for change
1.0	2022-11-18	First edition

1.Technical Information

Note: Provide by manufacturer.

1.1. Applicant and Manufacturer Information

Applicant:	Chongqing Jingranyouxu Technology Co.,Ltd.
Applicant Address:	No.1th, 6/F, post Office No.5th Huangshan building Mercury Science Avenue, High-techand Technology Building park, Chongqing
Manufacturer:	Chongqing Jingranyouxu Technology Co.,Ltd.
Manufacturer Address:	No.1th, 6/F, post Office No.5th Huangshan building Mercury Science Avenue, High-techand Technology Building park, Chongqing

1.2. Equipment Under Test (EUT) Description

Wireless Type	Bluetooth
Frequency	N/A
IMEI	N/A
Antenna Type	Meander PCB antenna
Sample No.	7#

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:	+10 °C to +30 °C

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.

Item	Measurement Uncertainty(dB)
Gain	±0.5
VSWR	±0.2
Measurement Uncertainty(95% Confidence Interval) K=2	

2.4. Test Results

2.4.1. Gain

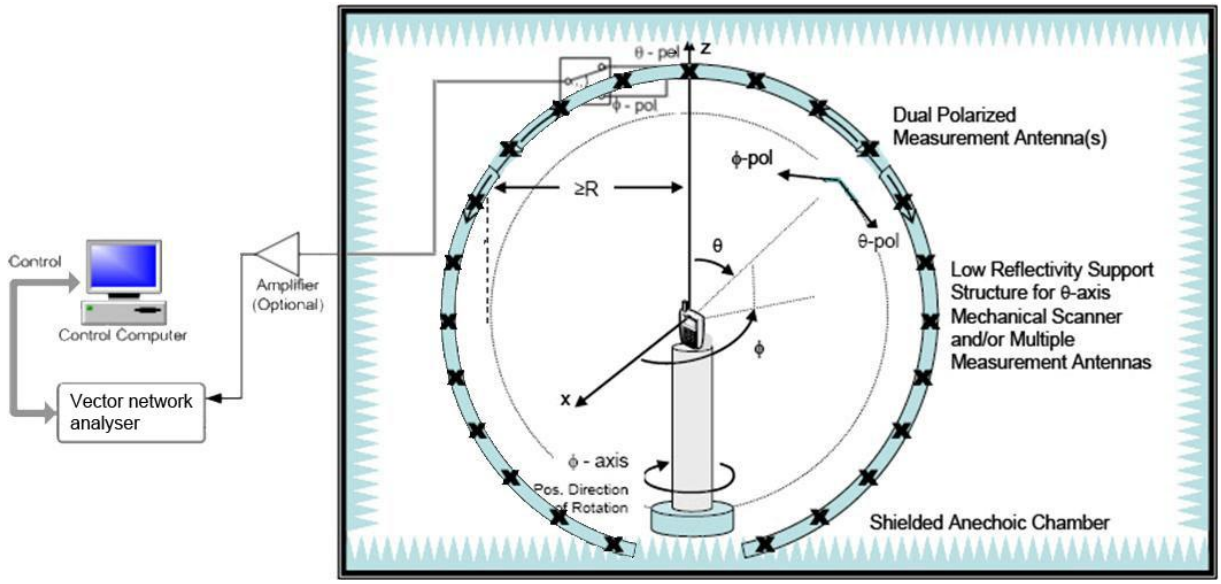
Frequency (MHz)	Gain(dBi)
2400	-0.56
2410	-0.74
2420	-1.07
2430	-1.24
2440	-1.40
2450	-1.42
2460	-1.31
2470	-1.48
2480	-1.50
2490	-1.70
2500	-1.67

2.4.2. VSWR

Frequency	VSWR
2400MHz	4.73
2440MHz	4.69
2480MHz	4.41

Annex A Photographs

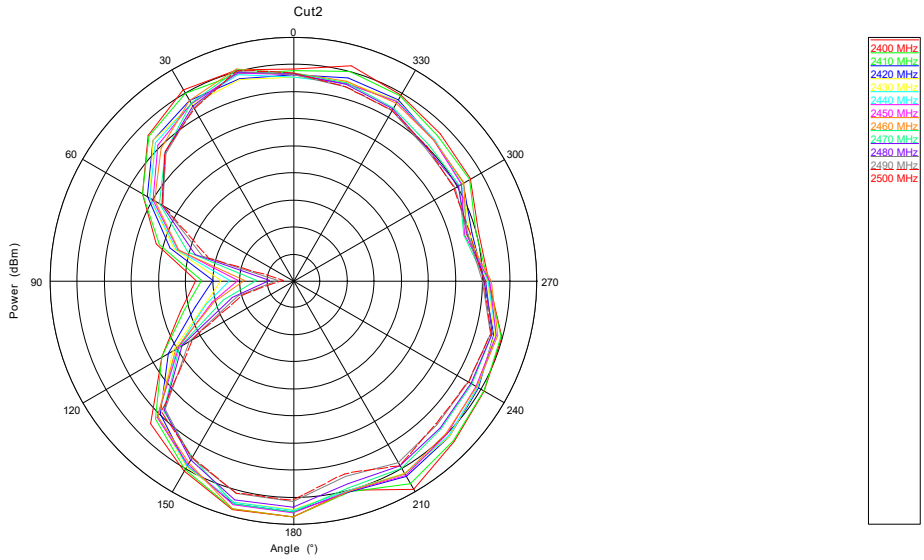
1. Test Setup



Annex B Figures

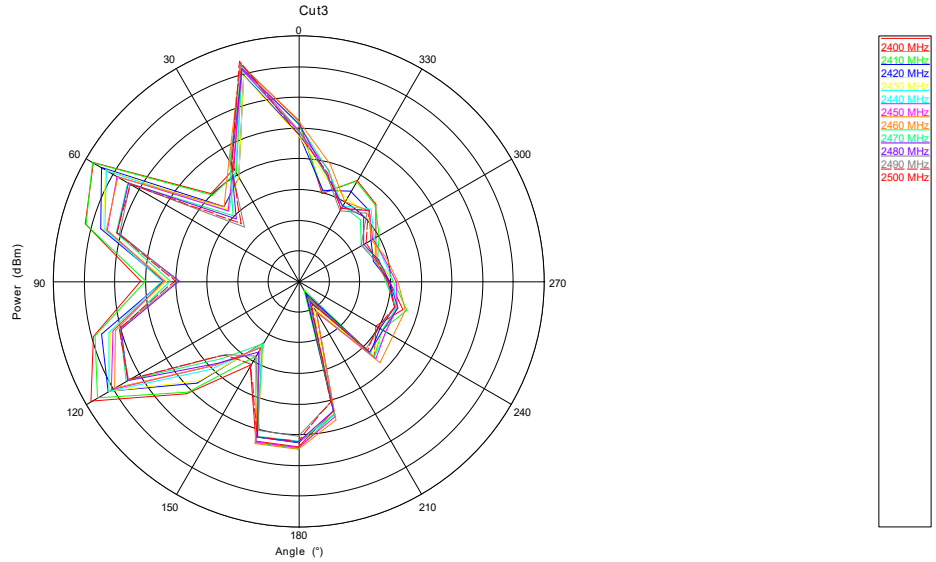
1. 2D Radiation Pattern

Phi=0°



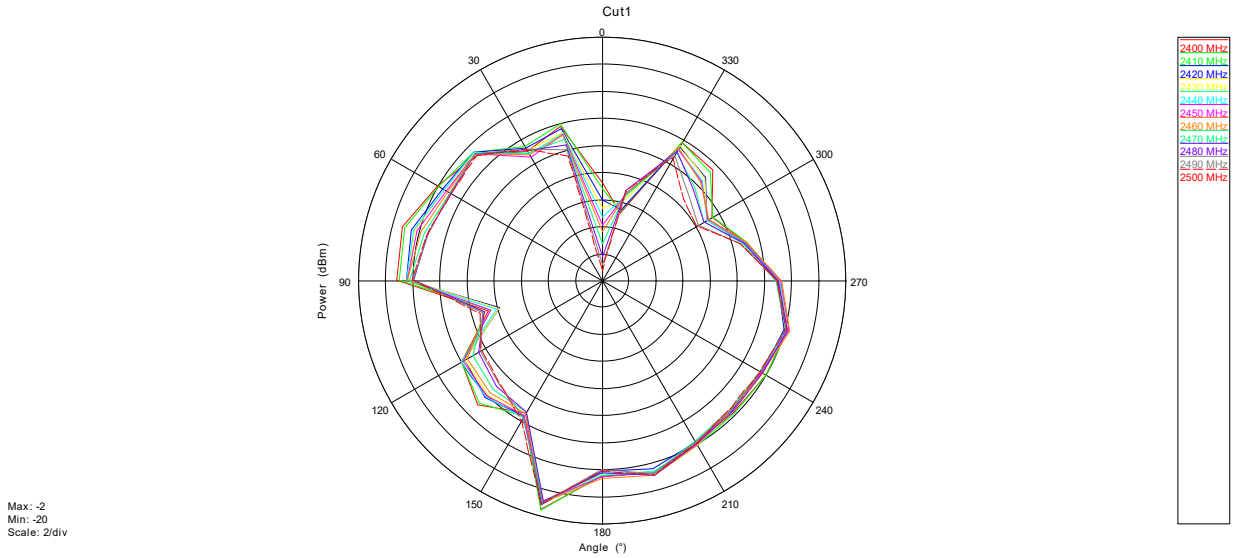
Max: -2
Min: -20
Scale: 2/div

Phi=90°

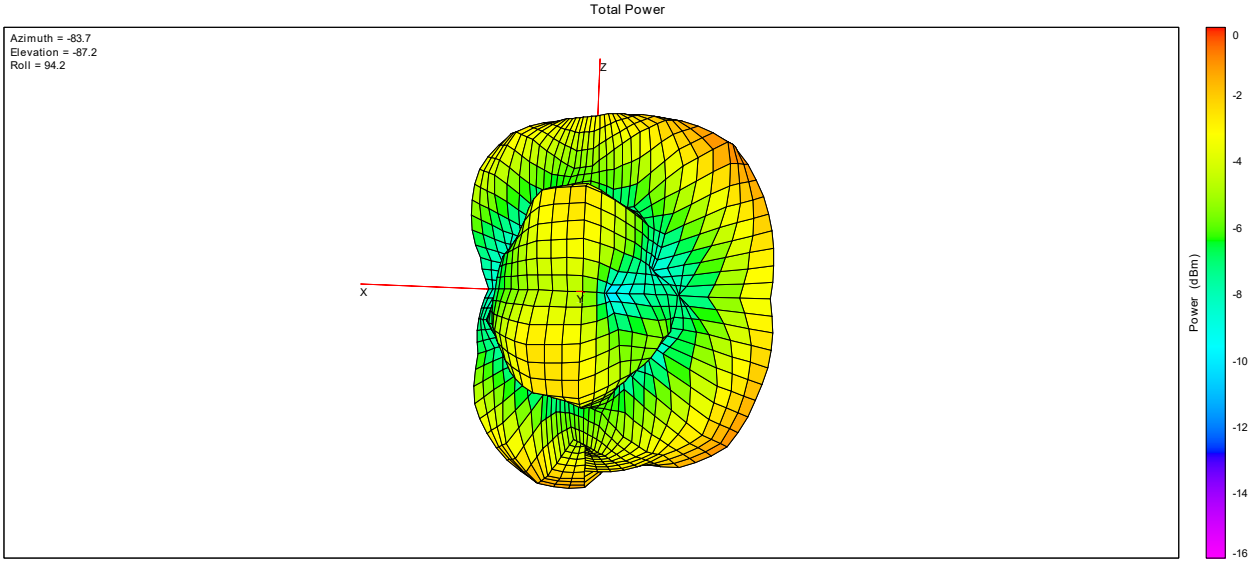


Max: -2
Min: -10
Scale: 1/div

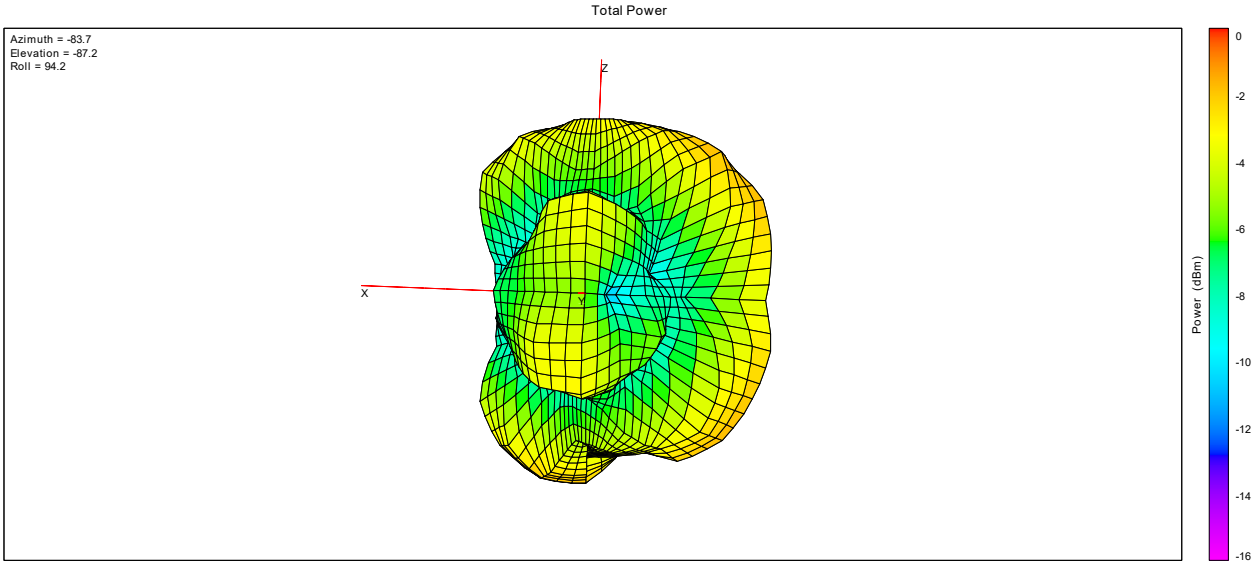
Theta=90°



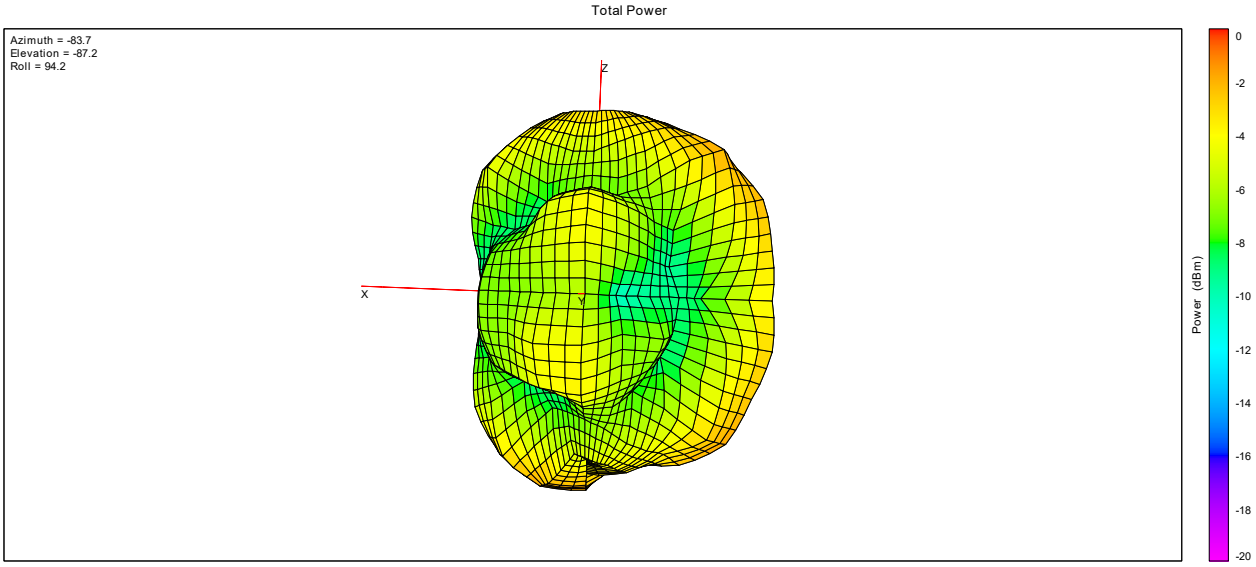
2. 3D Radiation Pattern



2400MHz

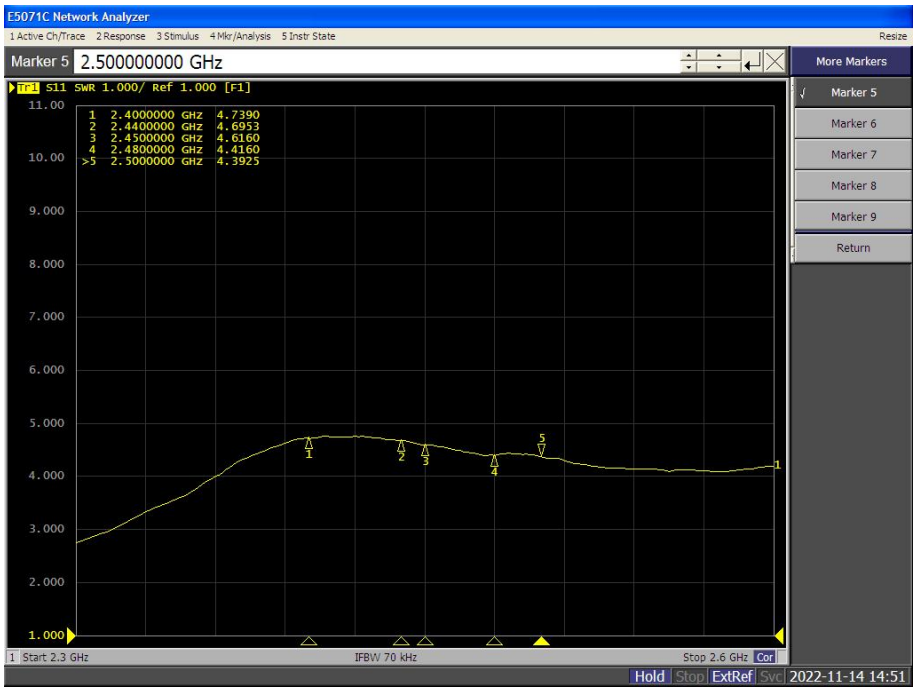


2440MHz



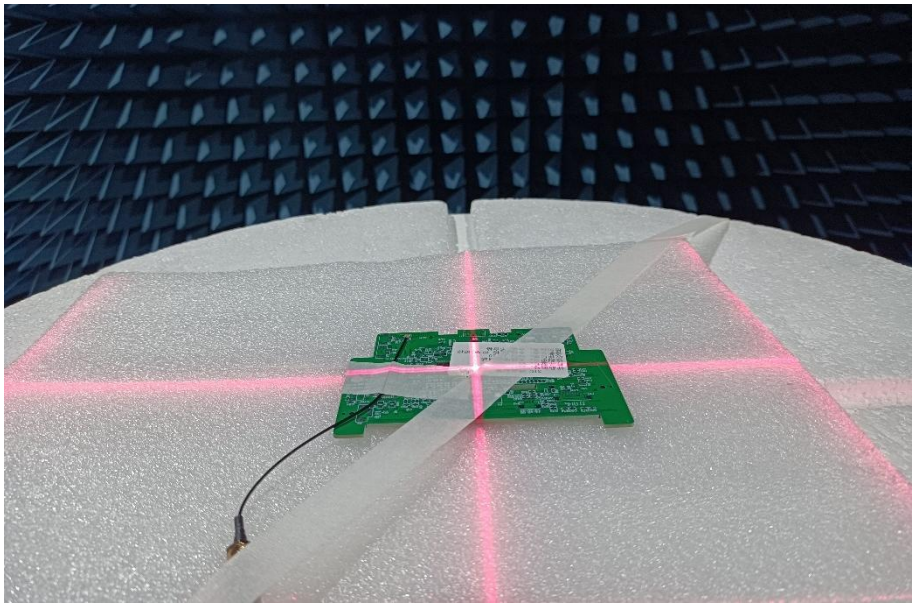
2480MHz

3. VSWR

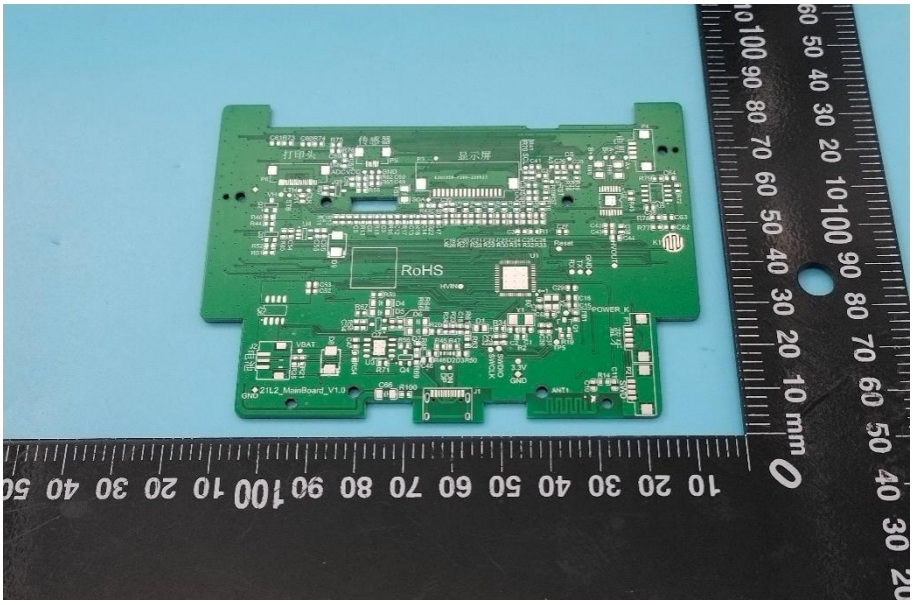

E5071C Network Analyzer
1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State
Resize
Marker 5 2.500000000 GHz
More Markers
Marker 5
Marker 6
Marker 7
Marker 8
Marker 9
Return
Tr1 S11 SWR 1.000/ Ref 1.000 [F1]
1 2.4000000 GHz 4.7390
2 2.4400000 GHz 4.6953
3 2.4500000 GHz 4.6160
4 2.4800000 GHz 4.4160
>5 2.5000000 GHz 4.3925
11.00
10.00
9.000
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
1 Start 2.3 GHz
IFBW 70 kHz
Stop 2.6 GHz
Cor
Hold
Stop
ExtRef
Svc
2022-11-14 14:51

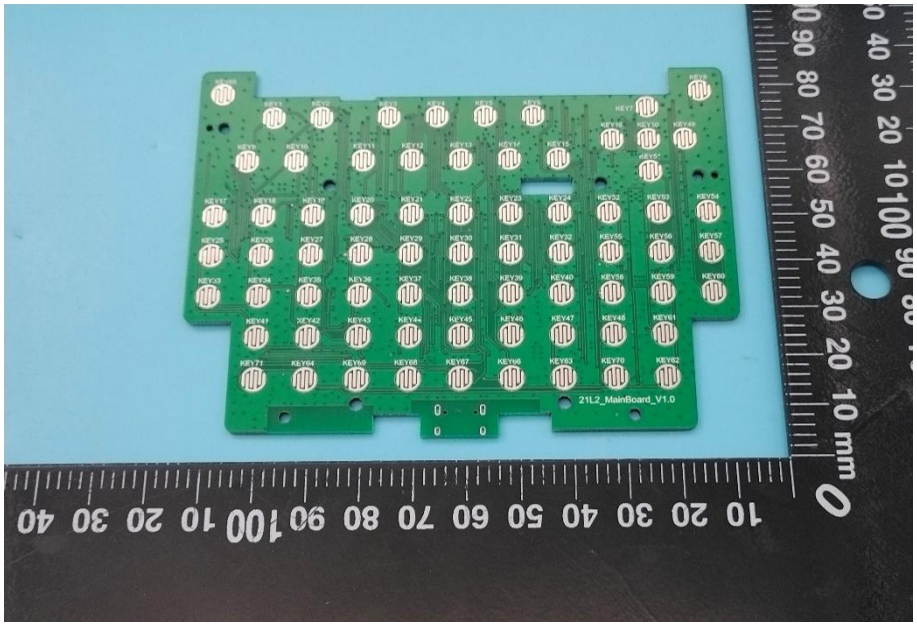
Annex C Photographs

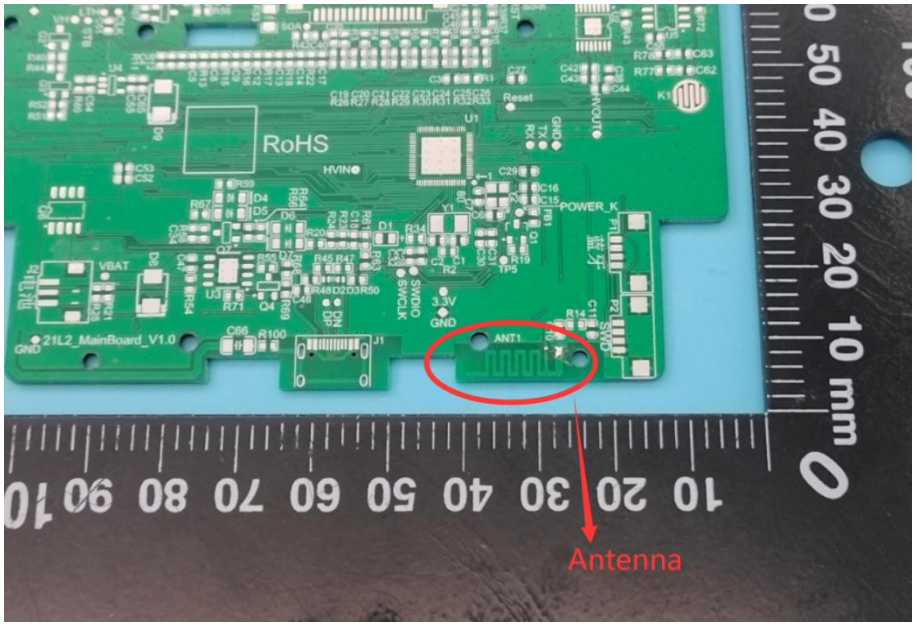
1. Test environment



2. EUT




21L2_MainBoard_V1.0


RoHS
21L2_MainBoard_V1.0
Antenna

Annex D General Information

1.1 Identification of the Responsible Testing Laboratory

Laboratory Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Laboratory Address:	FL1-3, 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:	FL1-3, 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	2022.07.04	2023.07.03
2	OTA Chamber	TJ2235-Q1793	AMS-8923-150	ETS	2020.01.06	2023.01.05
3	Antenna Measurement System	1685	EMQuest EMQ-100 V 1.13 Build 21267	ETS	N/A	N/A

END OF REPORT