

No.:
GJWSZ2023-0025-E

TEST REPORT

NAME OF SAMPLE : MirX2 Bluetooth Module

CLIENT : Bosch Laser Equipment (Dongguan)
Limited

CLASSIFICATION OF TEST : N/A

CVC Testing Technology (Shenzhen) Co., Ltd.



Client		Name : Bosch Laser Equipment (Dongguan) Limited Address : 19 Fuda Road, Zhang Yang Community, ZhangMuTou Town,Dongguan, Guangdong Province, China	
Manufacturer		Name : Robert Bosch Power Tools GmbH Address : 70538 Stuttgart, Germany	
Factory		Factory 1 Name : Huizhou Blueway Electronics Co., Ltd. Address : No. 101 Hechang Road 5.W., Zhongkai, High-Tech Industry Development Zone, Huizhou, Guangdong Province, China Factory 2 Name : Elrad Electronics (DongGuan) co. Ltd. Address : 3rd Industrial Zone, Tiantou Village, HengLiTow, Dongguan City, Guangdong Povince, China	
Equipment Under Test		Name : MirX2 Bluetooth Module Model/Type: PTM20,PTM20R Additional Model: / Trade mark : / SerialNO.:N/A Sampe NO.: 2-1, 2-2	
Date of Receipt.	2023.02.03	Date of Testing	2023.02.18~2023.02.21
Test Specification		Test Result	
ANSI/IEEE149-1979 Standard Test Procedures for Antennas		N/A	
Evaluation of Test Result	N/A Seal of CVC Issue Date: 2023.02.21		
Tested by: <i>Huang Meng</i> Huang Meng Name Signature	Reviewed by: <i>Liu Yonghai</i> Liu Yonghai Name Signature	Approved by: <i>Dong Sanbi</i> Dong Sanbi Name Signature	
Other Aspects: NONE.			
Abbreviations:OK, Pass= passed Fail = failed N/A= not applicable EUT= equipment, sample(s) under tested			

This test report relates only to the EUT, and shall not be reproduced except in full, without written approval of CVC.



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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
GJWSZ2023-0025-E	Original release	2023.02.21



1. GENERAL INFORMATION

1.1 General Product Information

PRODUCT	MirX2 Bluetooth Module
BRAND	/
TEST MODEL	PTM20,PTM20R
ADDITIONAL MODEL	/
ANTENNA TYPE (Remark 4)	PCB Antenna
DIMENSIONS	15mm x 6mm
Remark: 1. For more detailed features description, please refer to the manufacturer's specifications or the User's Manual.	

1.2 Technical Information

FREQUENCY RANGE	2400MHz-2500MHz
TEST FREQUENCY	2400MHz

1.3 Test Condition

ENVIRONMENT PARAMETER	Ambient Pressure(KPa)	Temperature(°C)	Voltage	Relative Humidity(%)
NORMAL TEMPERATURE,NORMAL VOLTAGE	101	22	N/A	54



1.4 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT:

Item	Uncertainty
Gain	$\pm 0.8\text{dB}$

1.5 Test Location

The tests and measurements refer to this report were performed by EMC testing Lab. of CVC Testing Technology (Shenzhen) Co., Ltd.

Lab Address: No. 1301, Guanguang Road, Xinlan Community, Guanlan Street, Longhua District, Shenzhen City, Guangdong Province 518110 P.R.China

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Fax: 0755-23763060 E-mail: sz-kf@cvc.org.cn
<http://www.cvc.org.cn>



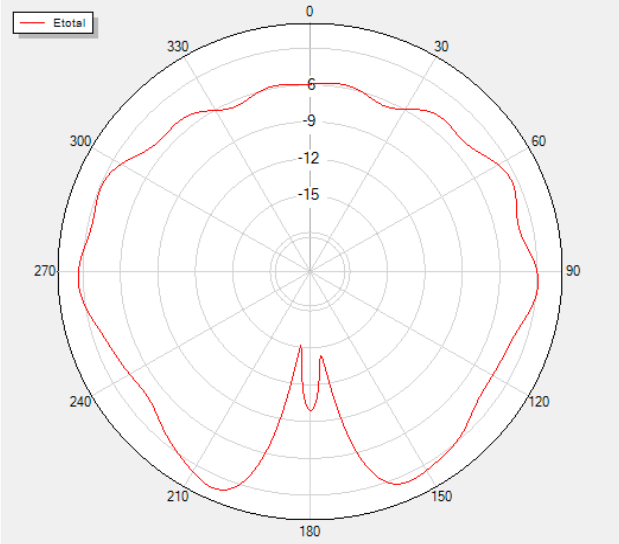
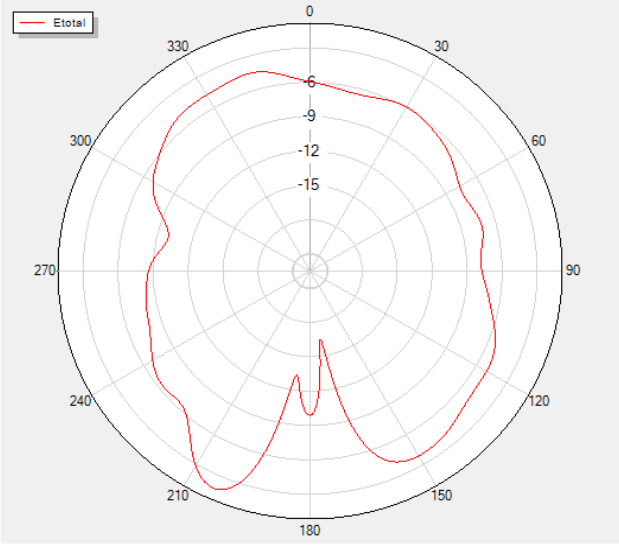
2. GAIN AND EFFICIENCY

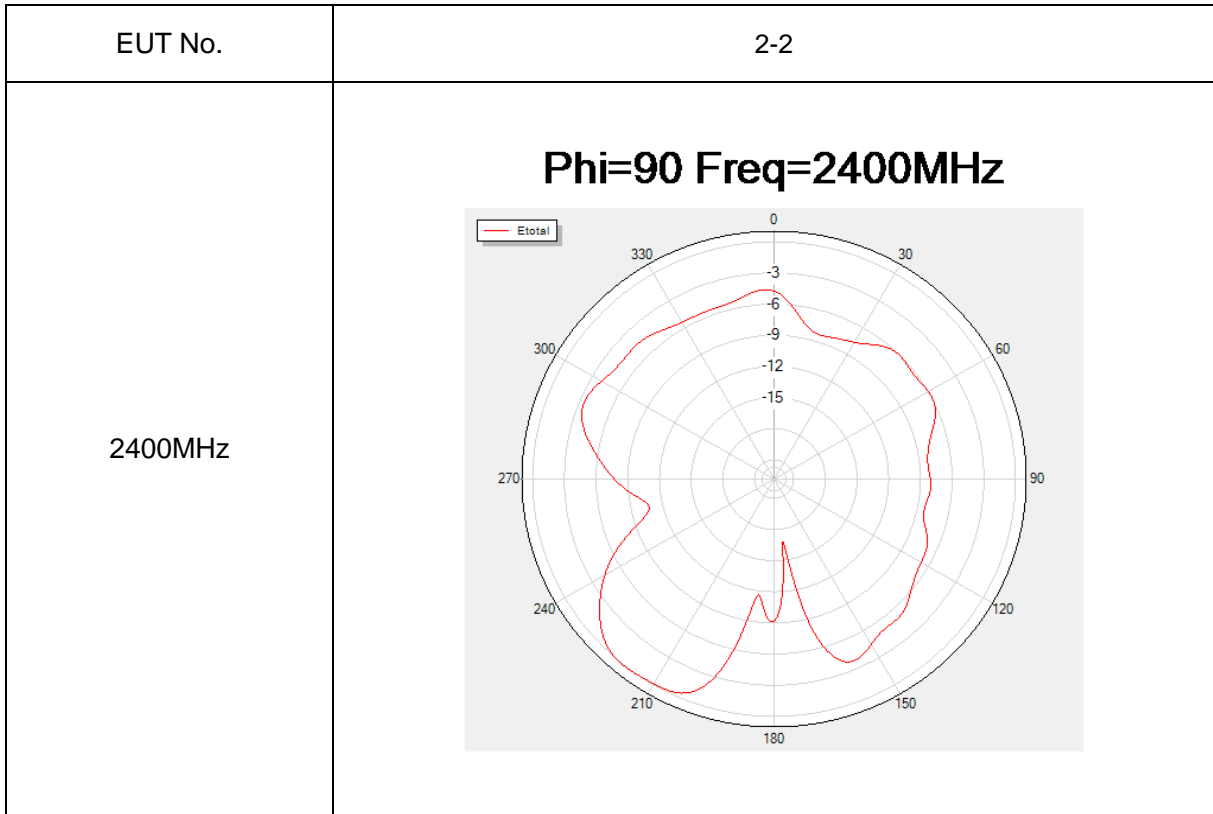
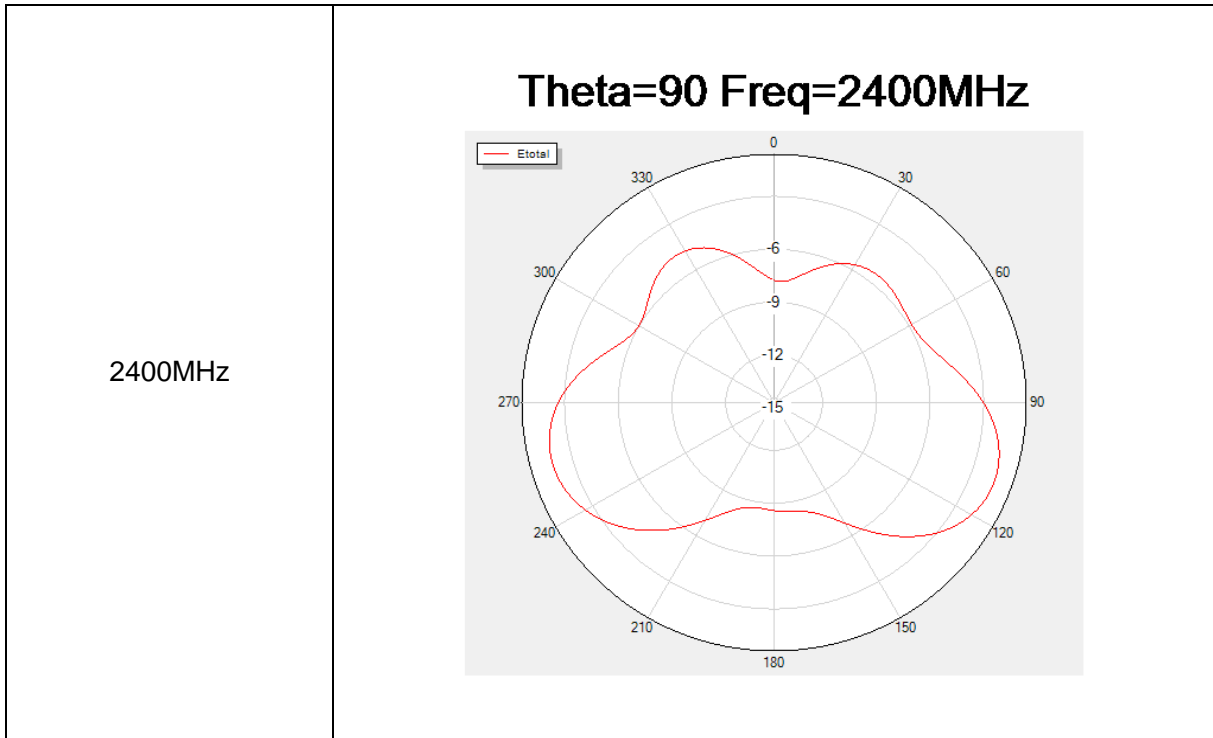
2.1 Test Results

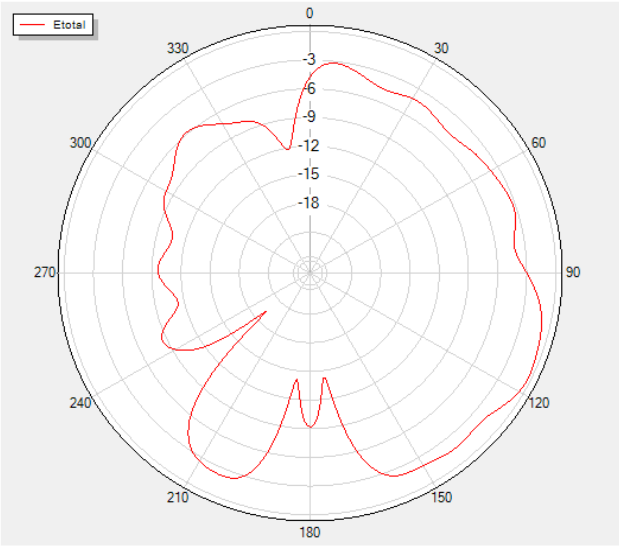
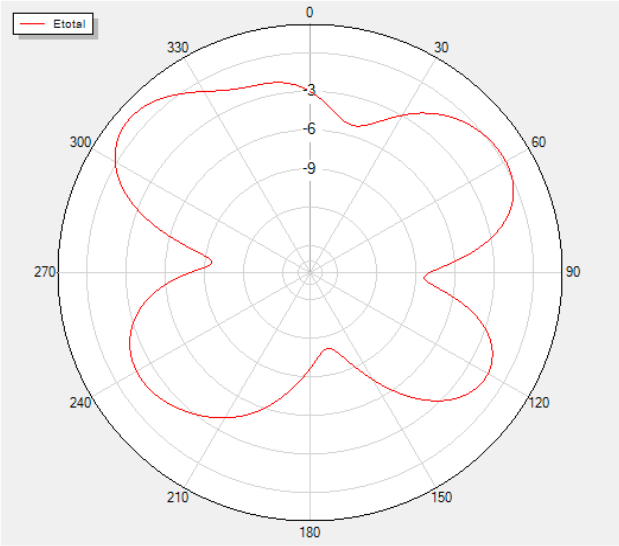
EUT NO.	2-1			
Frequency (MHz)	Peak Gain(dBi)	Efficiency(dB)	Efficiency(%)	Directivity(dBi)
2400	-1.24	-5.07	31.12	3.83

EUT NO.	2-2			
Frequency (MHz)	Peak Gain(dBi)	Efficiency(dB)	Efficiency(%)	Directivity(dBi)
2400	-1.24	-5.07	31.12	3.83

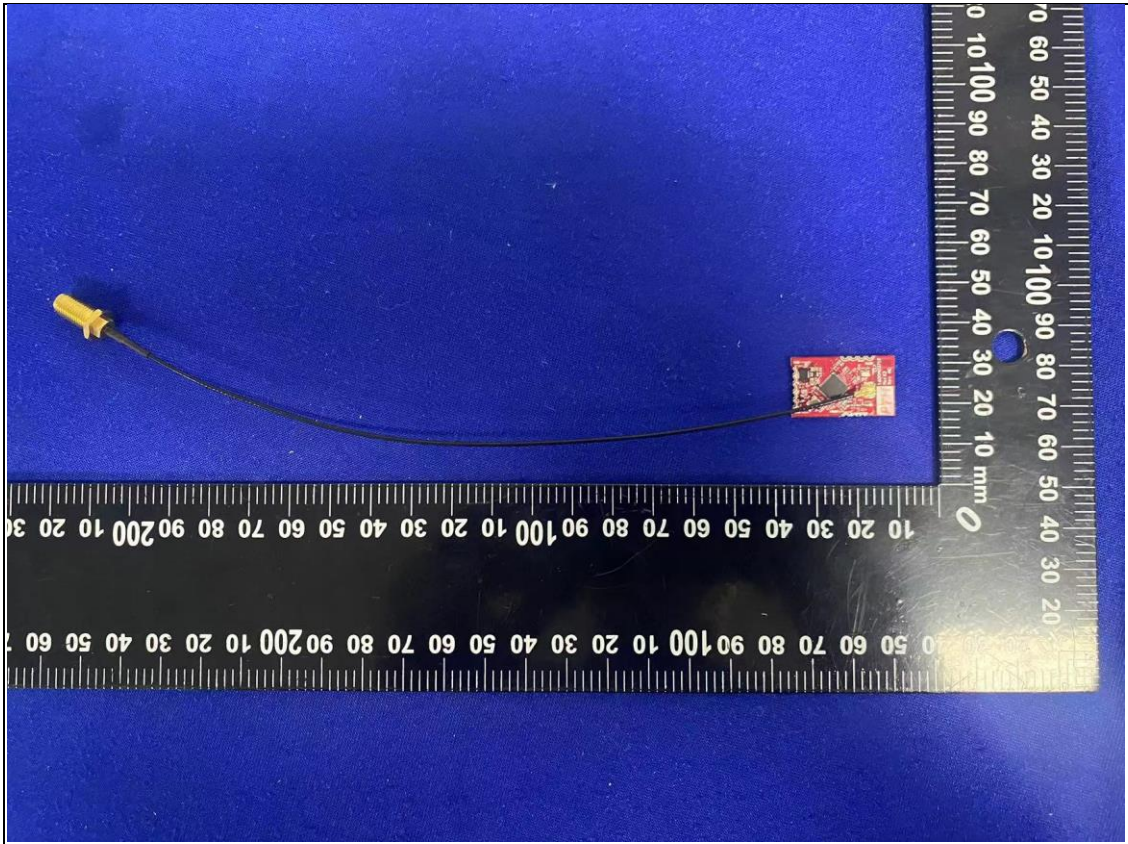
2.2 Antenna Patterns

EUT No.	2-1
2400MHz	<p style="text-align: center;">Phi=90 Freq=2400MHz</p> 
2400MHz	<p style="text-align: center;">Phi=0 Freq=2400MHz</p> 

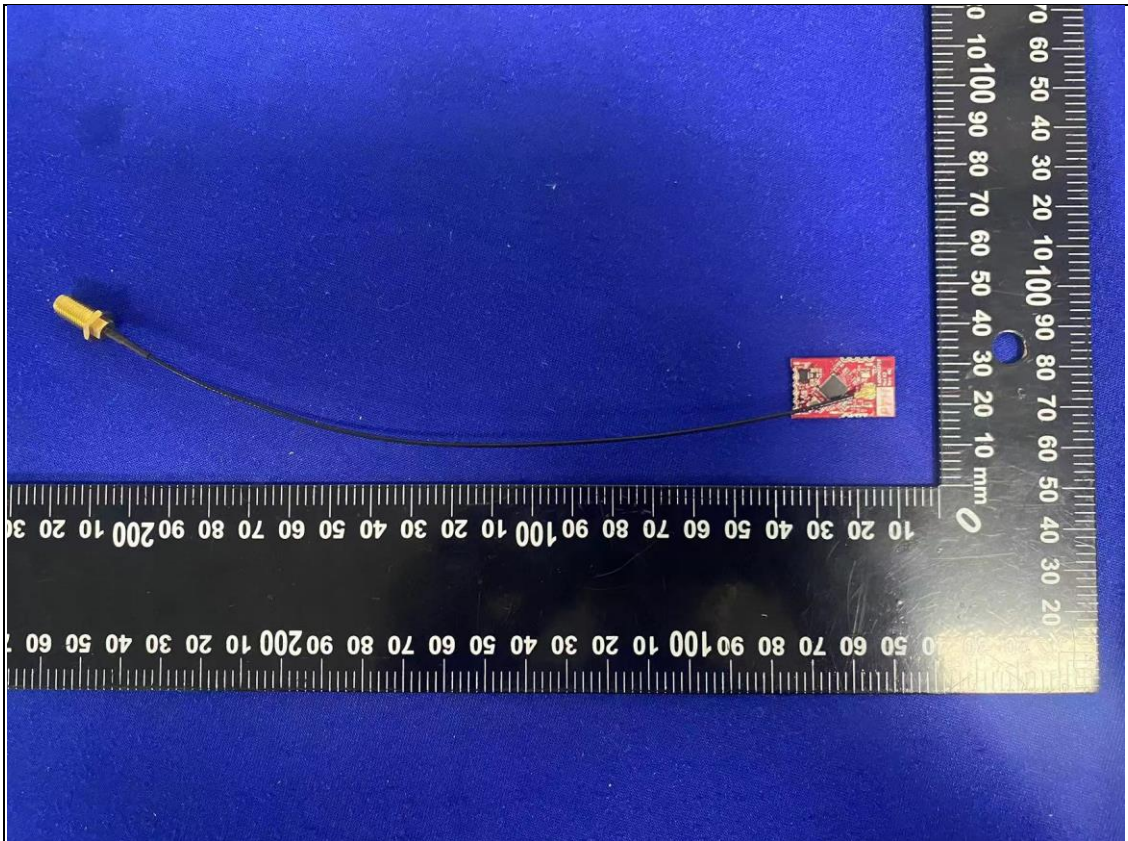


<p>2400MHz</p>	<p>Phi=0 Freq=2400MHz</p> 
<p>2400MHz</p>	<p>Theta=90 Freq=2400MHz</p> 

3. PHOTOGRAPH OF EUT

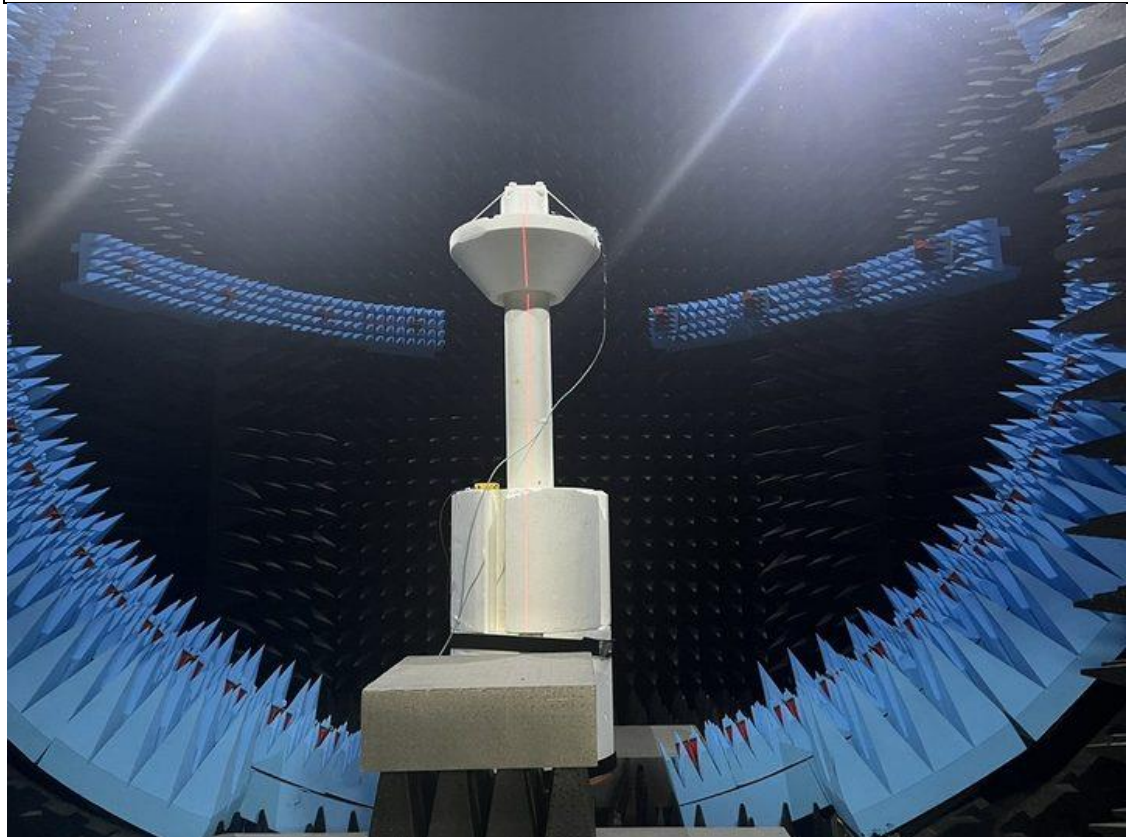
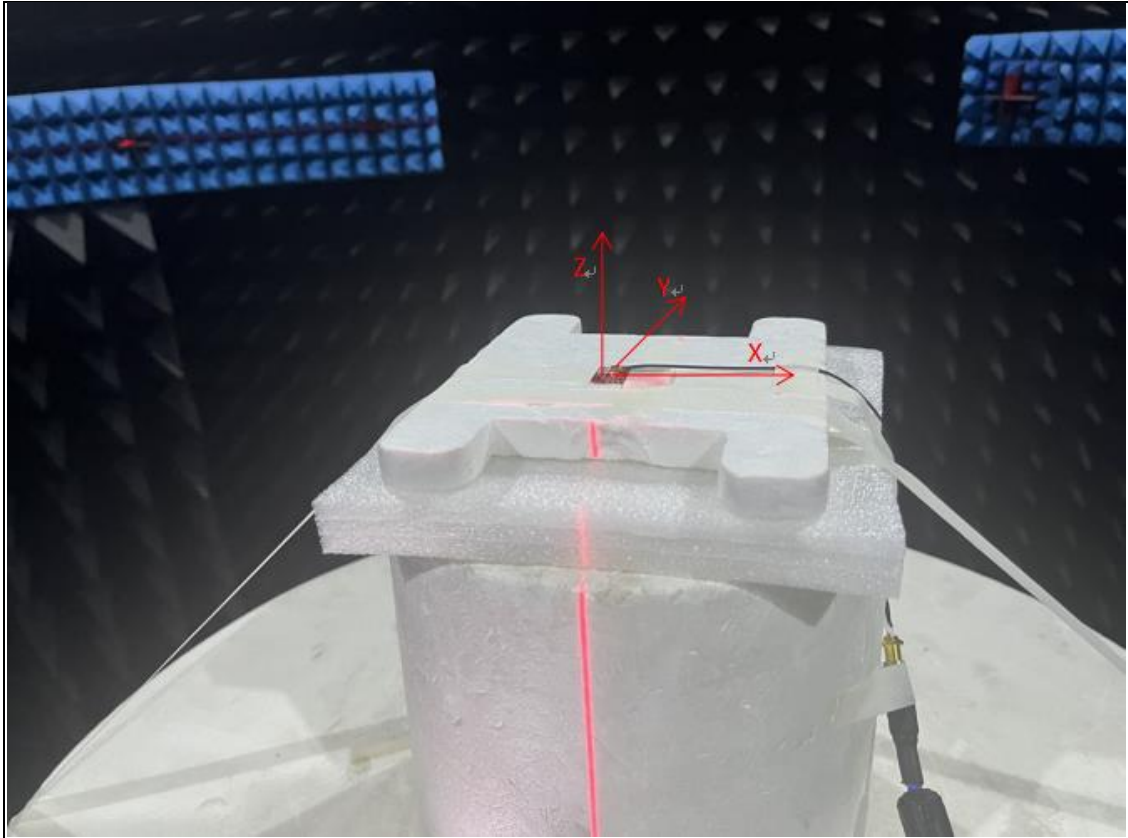


2-1

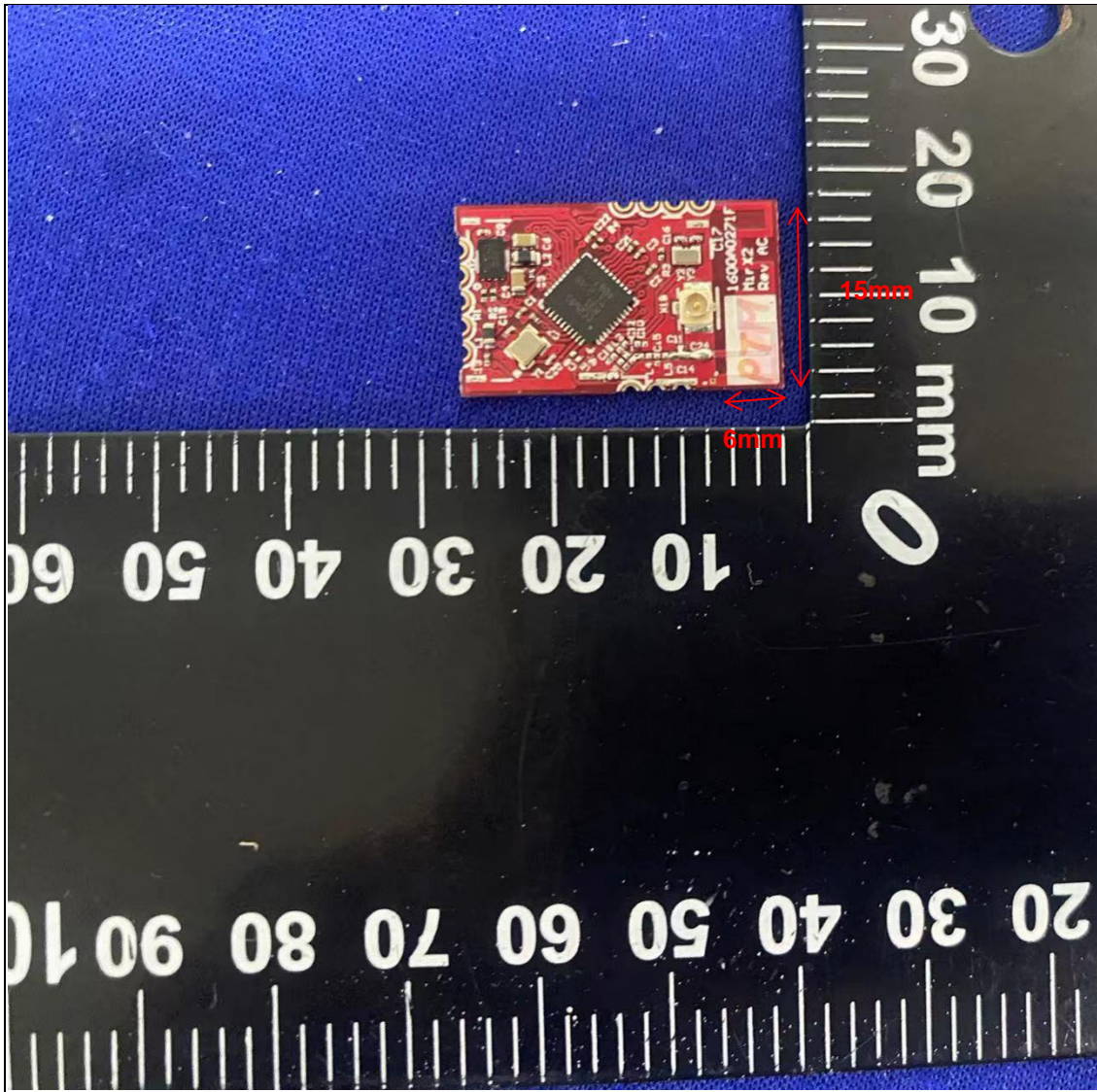


2-2

4. PHOTOGRAPH OF TEST SET UP



5. ANTENNA DIMENSIONS



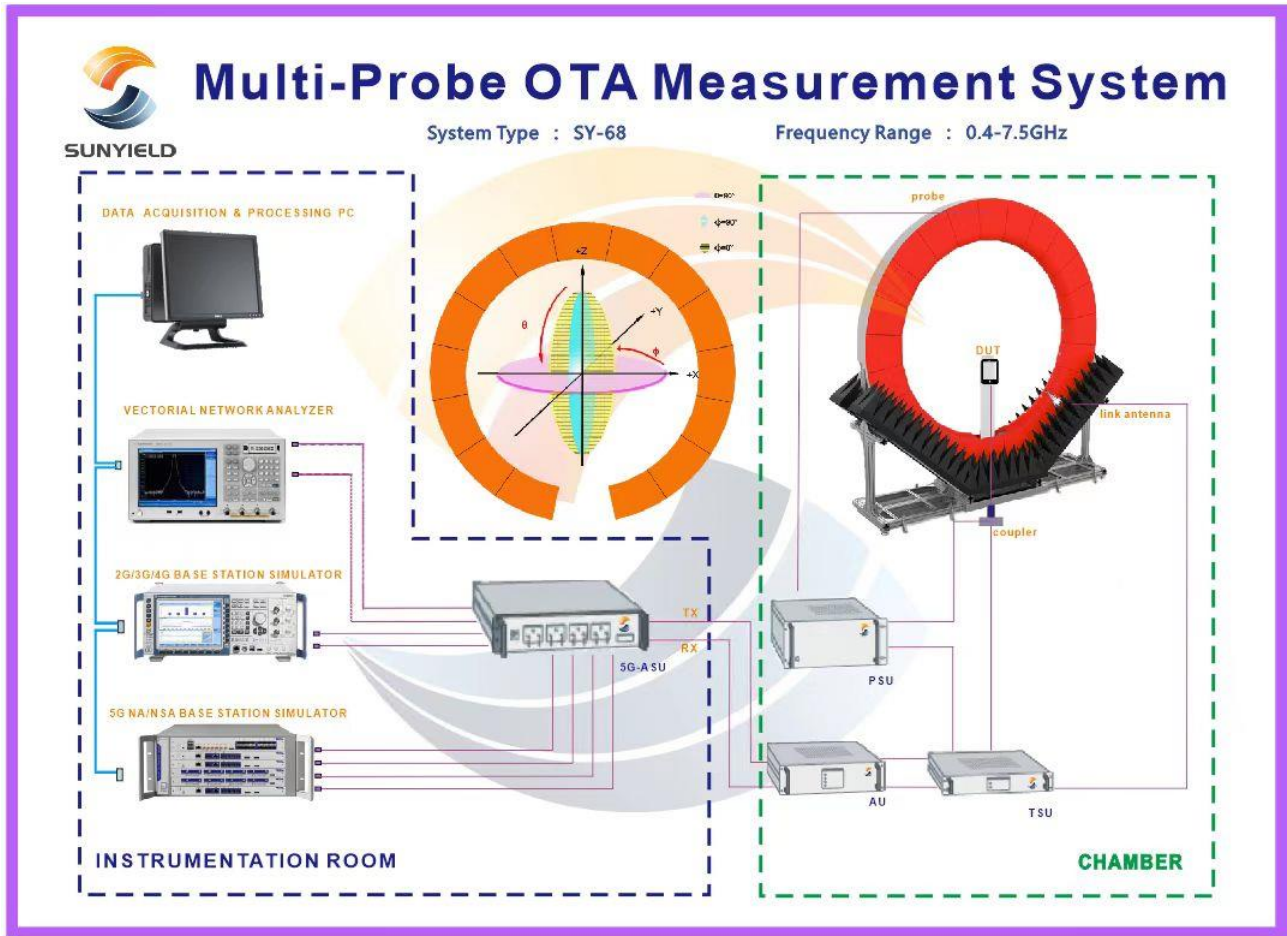


APPENDIX A

Test Equipment	Equipment No.	Serial No.	Manufacturer	Type/Model	Cal.Due	Using
Shielded Room	CS0300038	20211221	MORI	6m*6m*6m	2024/12/20	√
Wideband Radio Communication Tester	CS0300068	102635	R&S	CMW270	2023/7/5	×
Vector Network Analyzer	CS0300067	101544	R&S	ZNB40	2023/6/27	√
Automatic switching unit	CS0300039	81612472	/	5G ACTIVE SWITCHING UNIT	/	√

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APPENDIX B





Important

- (1) The test report is valid without the official stamp of CVC;
- (2) Any part photocopies of the test report are forbidden without the written permission from CVC;
- (3) The test report is invalid without the signatures of Approval and Reviewer;
- (4) The test report is invalid if altered;
- (5) Objections to the test report must be submitted to CVC within 15 days.
- (6) Generally, commission test is responsible for the tested samples only.
- (7) As for the test result “-” or “N” means “not applicable”, “/” means “not test”, “P” means “pass” and “F” means “fail”

Address of the laboratory:

CVC Testing Technology (Shenzhen) Co., Ltd.

Address: No. 1301, Guanguang Road, Xinlan Community, Guanlan Street,
Longhua District, Shenzhen, Guangdong, 518110, P. R. China

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