

No.:
GJWSZ2022-0321

TEST REPORT

NAME OF SAMPLE : PCB Antenna

CLIENT : Shenzhen Super Global Electronics
Co.,Ltd

CLASSIFICATION OF TEST : N/A

CVC Testing Technology (Shenzhen) Co., Ltd.



Client		Name : Shenzhen Super Global Electronics Co.,Ltd	
		Address : NO.4 Building, Jinpengyuan Fuzhao Industry Zone, No.11 Baihuayuan Road, Guangming New District, Shenzhen City, Guangdong Province, China.	
Manufacturer		Name : Shenzhen Super Global Electronics Co.,Ltd	
		Address : NO.4 Building, Jinpengyuan Fuzhao Industry Zone, No.11 Baihuayuan Road, Guangming New District, Shenzhen City, Guangdong Province, China.	
Equipment Under Test		Name : PCB Antenna	
		Model/Type: MA130	
		Additional Model: /	
		Trade mark : /	
		SerialNO.:N/A	
		Sampe NO.: 2-1	
Date of Receipt.	2022.09.27	Date of Testing	2022.09.27~2022.09.28
Test Specification		Test Result	
IEEE149-1979 IEEE Standard Test Procedures for Antennas		N/A	
Evaluation of Test Result	N/A		
		Seal of CVC	
		Issue Date: 2022.09.29	
Tested by: <u>Huang Meng</u> Name Signature <i>Huang Meng</i>	Reviewed by: <u>Liu Yonghai</u> Name Signature <i>Liu Yonghai</i>	Approved by: <u>Dong Sanbi</u> Name Signature <i>Dong Sanbi</i>	
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
GJWSZ2022-0321	Original release	2022.09.29



1. GENERAL INFORMATION

1.1 General Product Information

PRODUCT	PCB Antenna
BRAND	/
TEST MODEL	MA130
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-2500MHz

1.3 Test Condition

ENVIRONMENT PARAMETER	Ambient Pressure(KPa)	Temperature(°C)	Voltage	Relative Humidity(%)
NORMAL TEMPERATURE,NORMAL VOLTAGE	101	23	N/A	52



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

Post Code: 518110 Tel: 0755-23763060-8805
Fax: 0755-23763060 E-mail: sz-kf@cvc.org.cn
<http://www.cvc.org.cn>


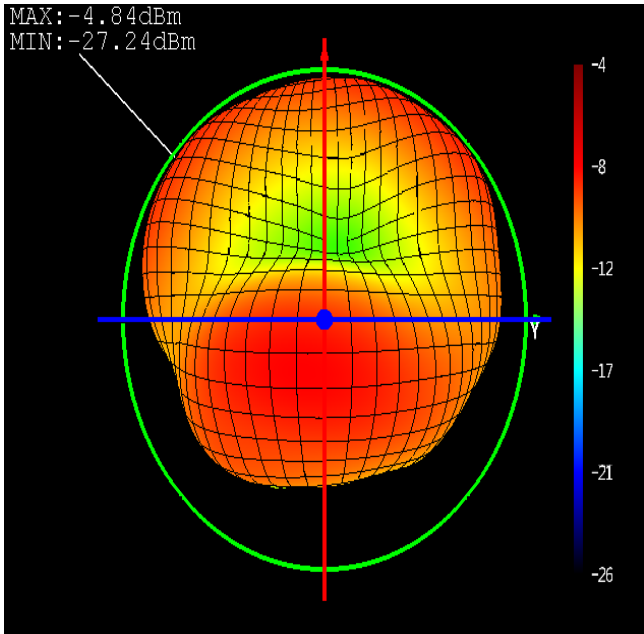


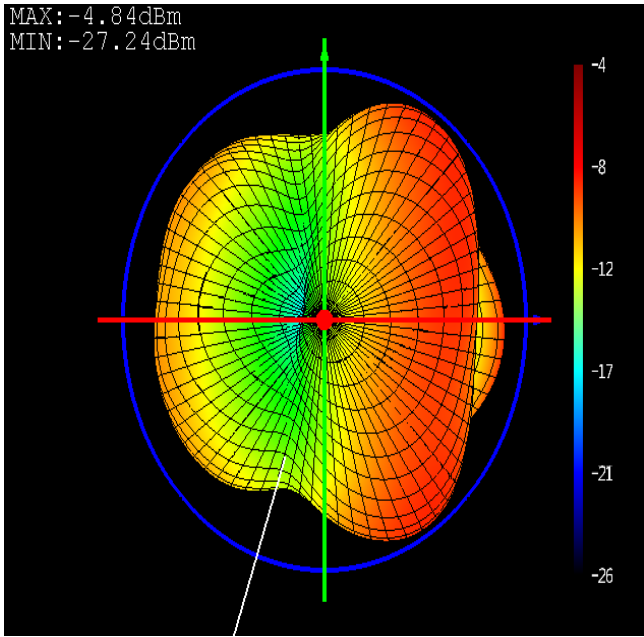
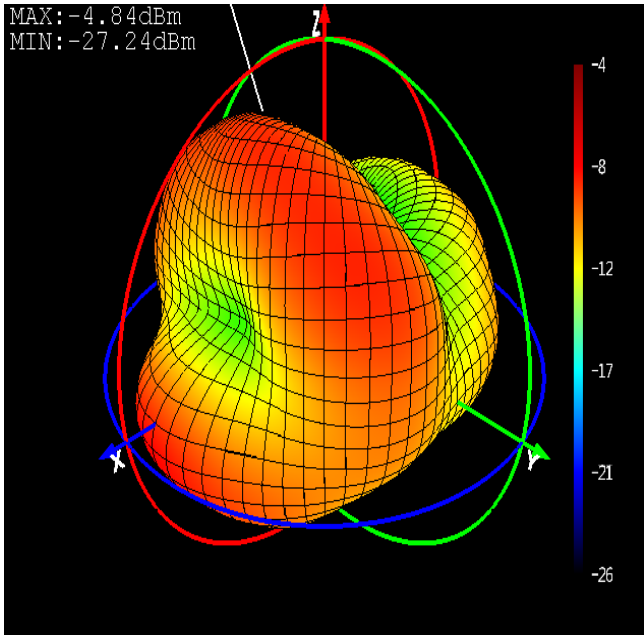
2. GAIN AND EFFICIENCY

2.1 Test Results

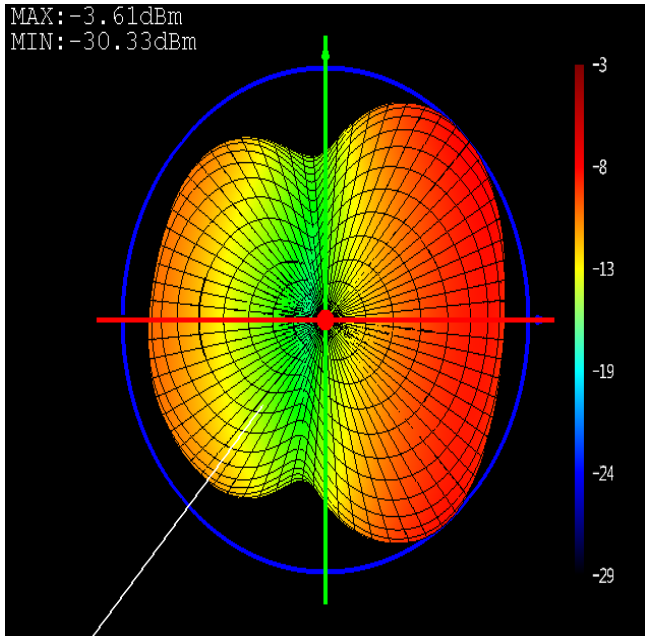
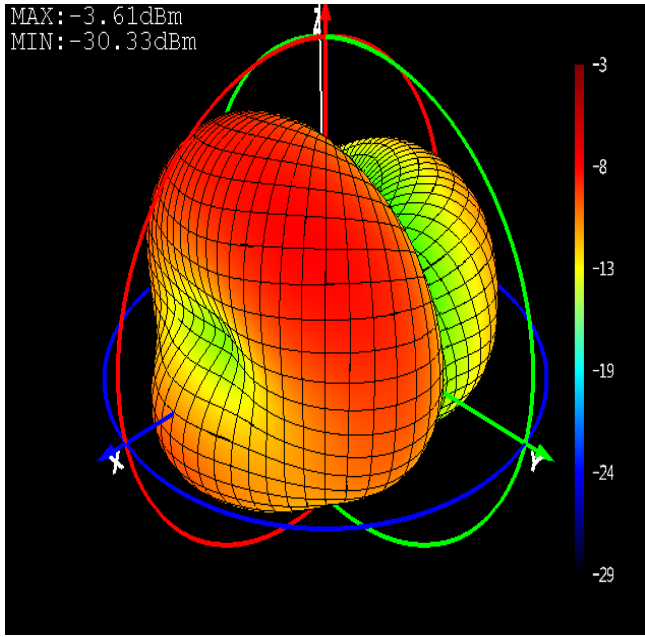
Frequency (MHz)	Peak Gain(dBi)	Efficiency(%)
2400	-5.02	11.15
2410	-4.88	11.32
2420	-4.5	11.48
2430	-4.23	11.69
2440	-3.95	12.01
2450	-3.68	12.23
2460	-3.34	12.75
2470	-3.02	13.28
2480	-2.60	14.19
2490	-2.06	15.23
2500	<u>-1.51</u>	17.02

2.2 3D Patterns

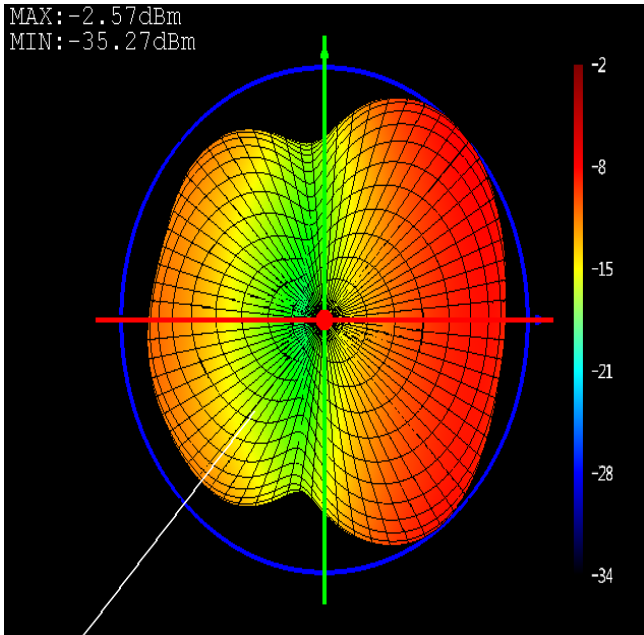
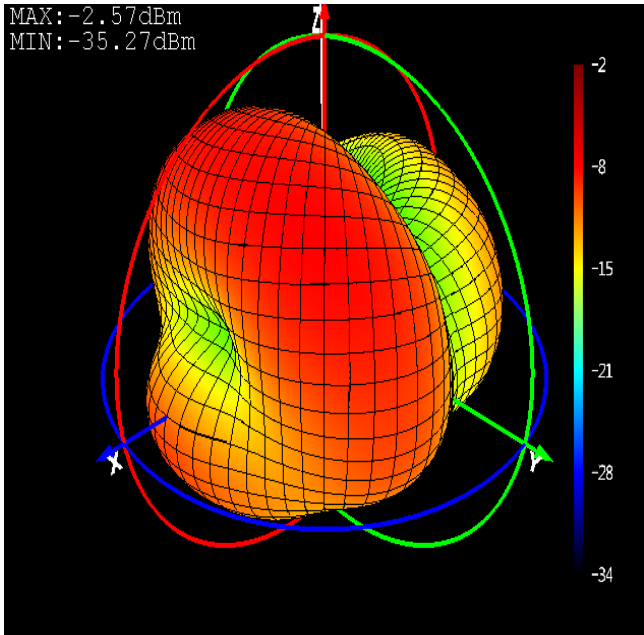
2410MHz	 <p>MAX: -4.84dBm MIN: -27.24dBm</p>
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<p>2410MHz</p>	
<p>2410MHz</p>	

<p>2450MHz</p>	<p>MAX: -3.61dBm MIN: -30.33dBm</p>
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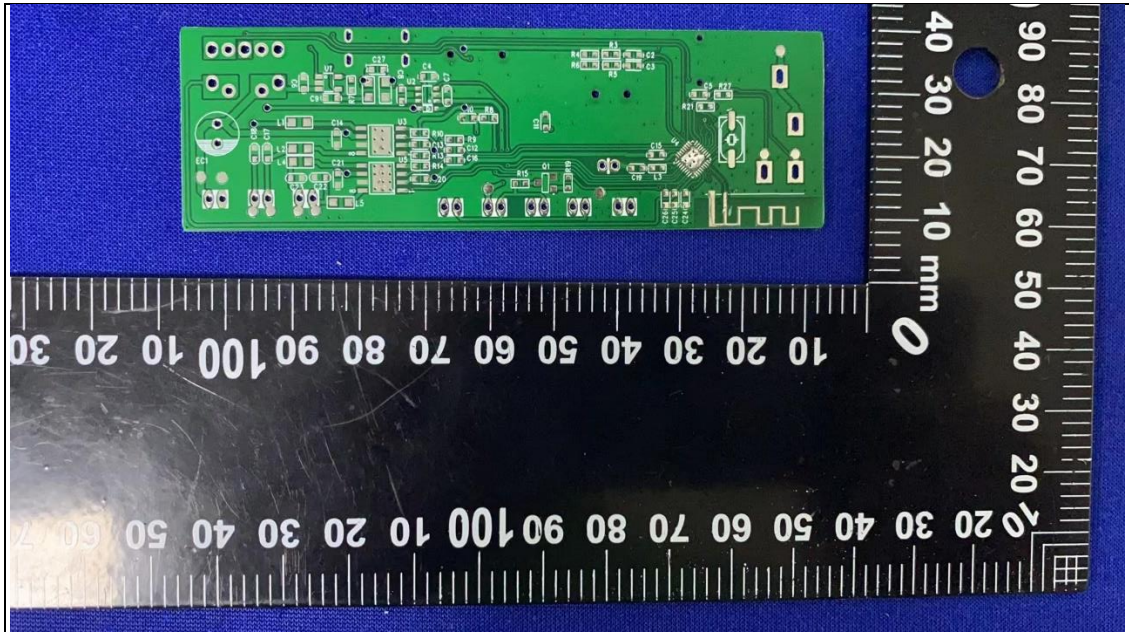
<p>2450MHz</p>	
<p>2450MHz</p>	

<p>2480MHz</p>	<p>MAX: -2.57dBm MIN: -35.27dBm</p>
<p>2480MHz</p>	<p>MAX: -2.57dBm MIN: -35.27dBm</p>

<p>2480MHz</p>	
<p>2480MHz</p>	

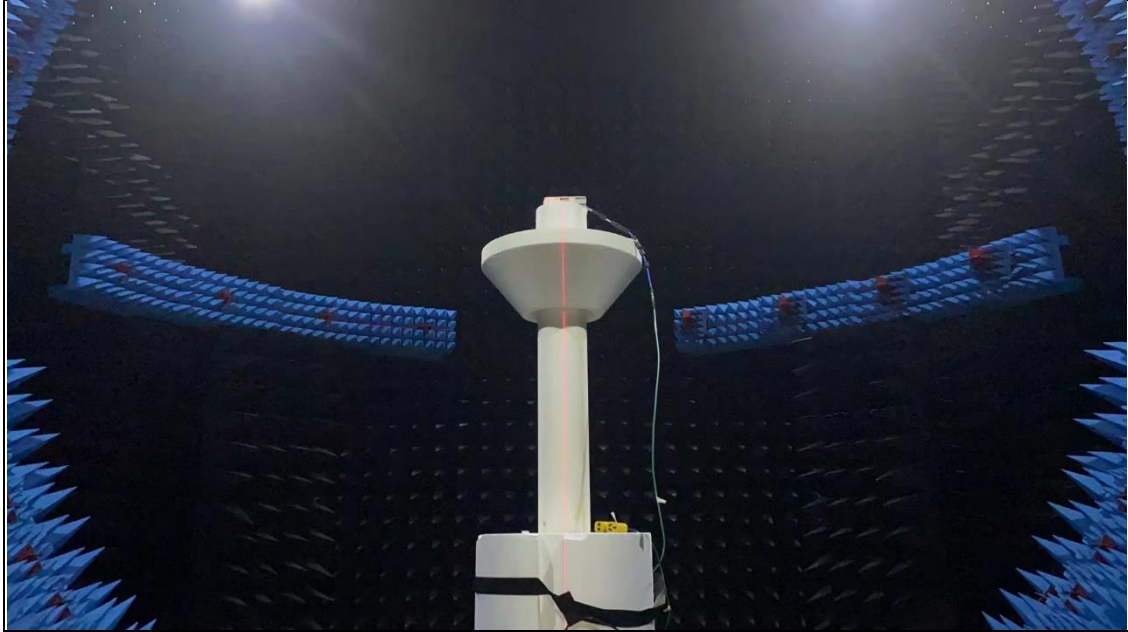


3. PHOTOGRAPH OF EUT

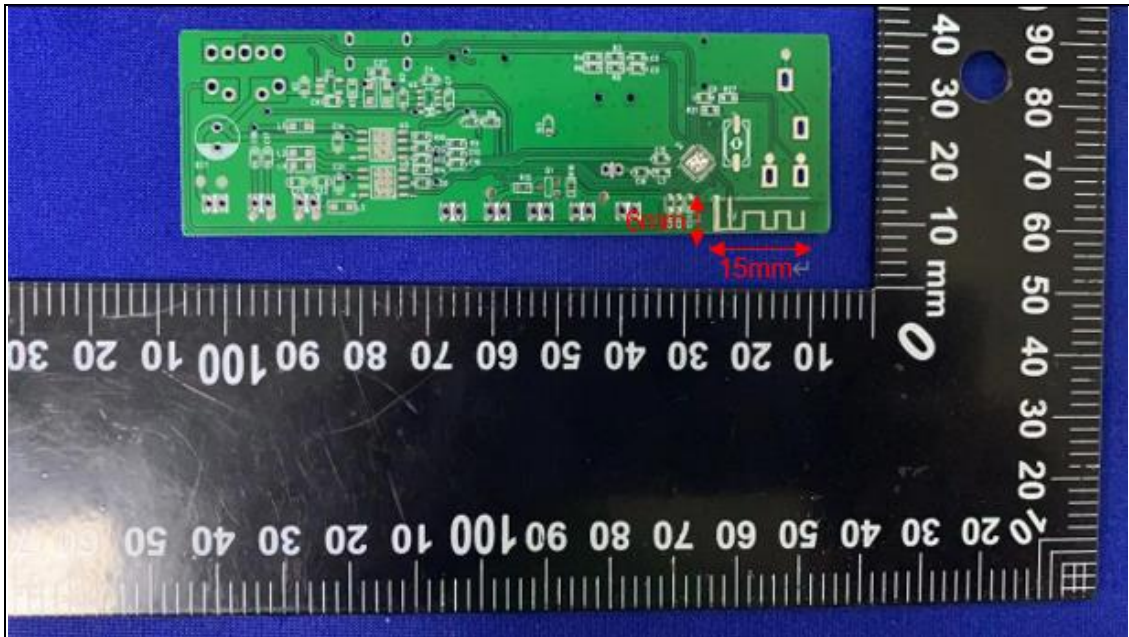




4. PHOTOGRAPH OF TEST SET UP



5. ANTENNA DIMENSIONS

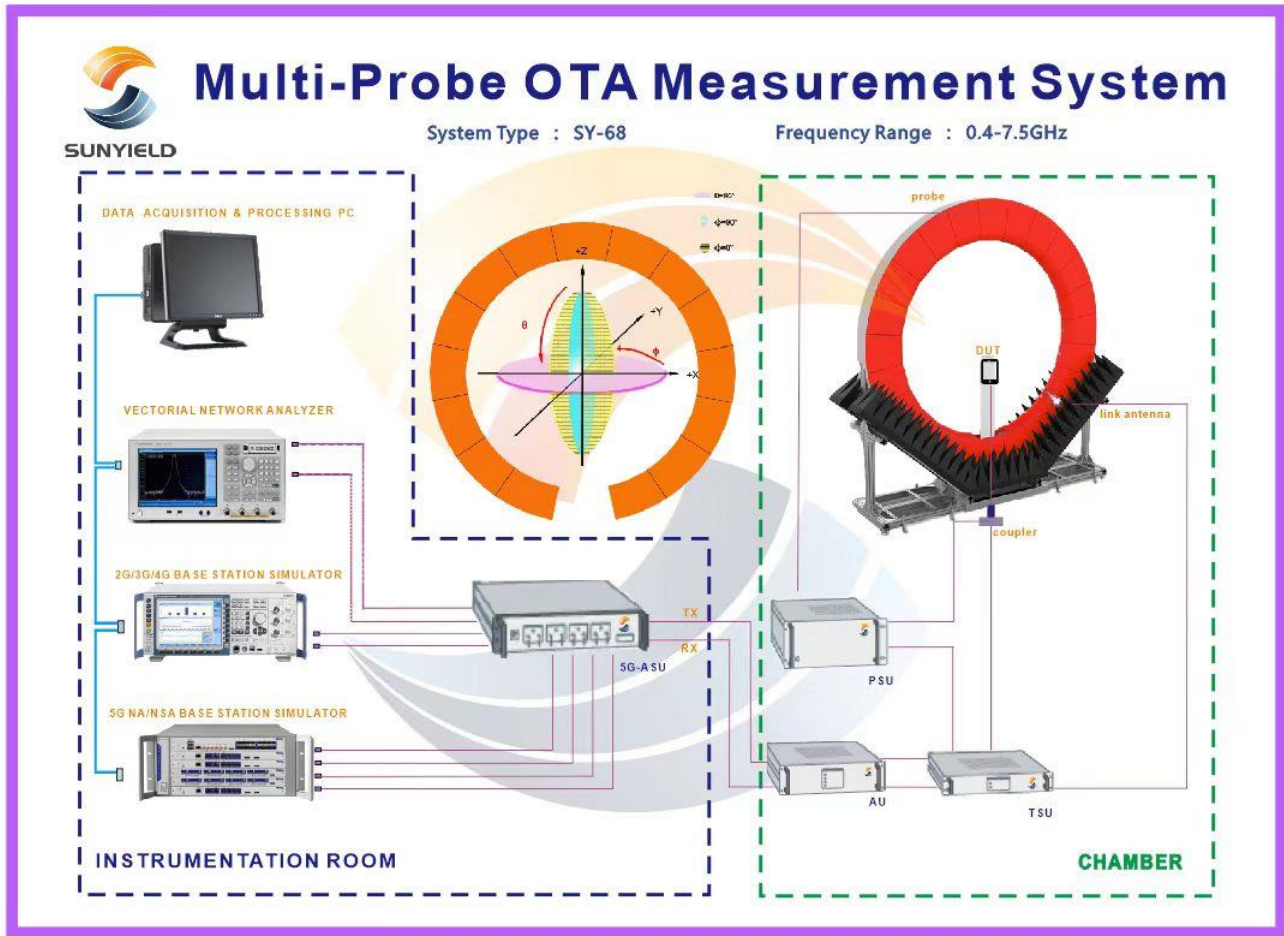




APPENDIX A

Test Equipment	Equipment No.	Serial No.	Manufacturer	Type/Model	Cal.Due	Using
Shielded Room	CS0300038	20211221	MORI	6m*6m*6m	2022/12/20	√
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	/	√

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.

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