



# TEST REPORT

**APPLICANT** : Shanghai Zenchant Electronics Co.,LTD  
**PRODUCT NAME** : Dual Bluetooth Module  
**MODEL NAME** : ZEN-BDM10  
**TRADE NAME** : Zenchant  
**BRAND NAME** : Zenchant  
**STANDARD(S)** : ANSI/IEEE Std 149-2008  
**RECEIPT DATE** : 2020-08-18  
**TEST DATE** : 2020-08-18  
**ISSUE DATE** : 2020-08-20

Edited by: Ke Zhiqing  
Ke Zhiqing(Rapporteur)

Approved by: Chi Shide  
Chi Shide(Supervisor)

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Change History		
Version	Date	Reason for change
1.0	2020-08-20	First edition



# 1. Technical Information

**Note:** Provide by manufacturer.

## 1.1. Applicant and Manufacturer Information

<b>Applicant:</b>	Shanghai Zenchant Electornics Co.,LTD
<b>Applicant Address:</b>	Room 1202, building a, Noble international, 908 Xiuwen Road, Minhang District, ShangHai
<b>Manufacturer:</b>	N/A
<b>Manufacturer Address:</b>	N/A

## 1.2. Equipment Under Test (EUT) Description

Wireless Type	Bluetooth
Hardware Version	N/A
Software Version	N/A

# 2. Test Results

## 2.1. Applied Reference Documents

Leading reference documents for testing:

No.	Identity	Document Title
1	ANSI/IEEE Std 149-2008	IEEE Standard Test Procedures for Antennas

## 2.2. Test Conditions

Test Environment Conditions:

Relative Humidity:	25 ... 75 %
Temperature:	+10 °C to +30 °C

## 2.3. Test Results lists

### 2.3.1. Gain and Efficiency

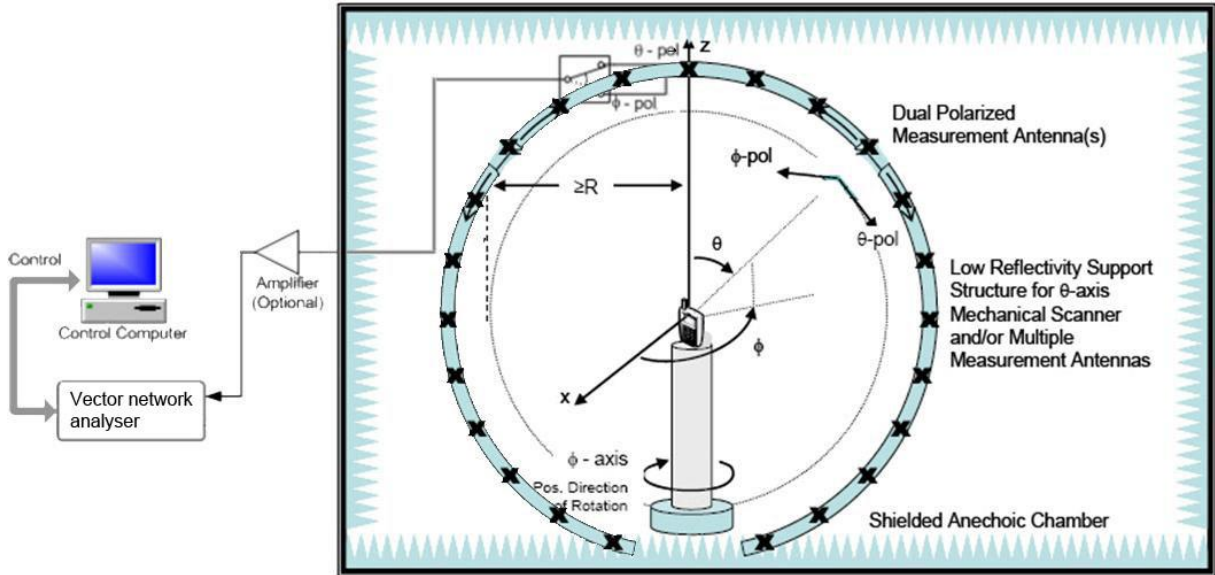
Frequency	Gain(dBi)	Efficiency
2400MHz	-1.80	10.52%
2410MHz	-1.39	14.88%
2420MHz	-1.92	11.13%
2430MHz	-1.77	11.44%
2440MHz	-1.76	10.77%
2450MHz	-1.72	9.78%
2460MHz	-2.73	8.47%
2470MHz	-2.10	9.98%
2480MHz	-1.99	8.77%
2490MHz	-2.28	8.15%
2500MHz	-3.23	6.49%

### 2.3.2. VSWR and Impedance

Frequency	VSWR	Impedance ( $\Omega$ )
2400MHz	2.79	30.01
2440MHz	2.80	30.02
2450MHz	3.02	29.31
2480MHz	3.59	27.56
2500MHz	4.08	27.74

## Annex A Photographs

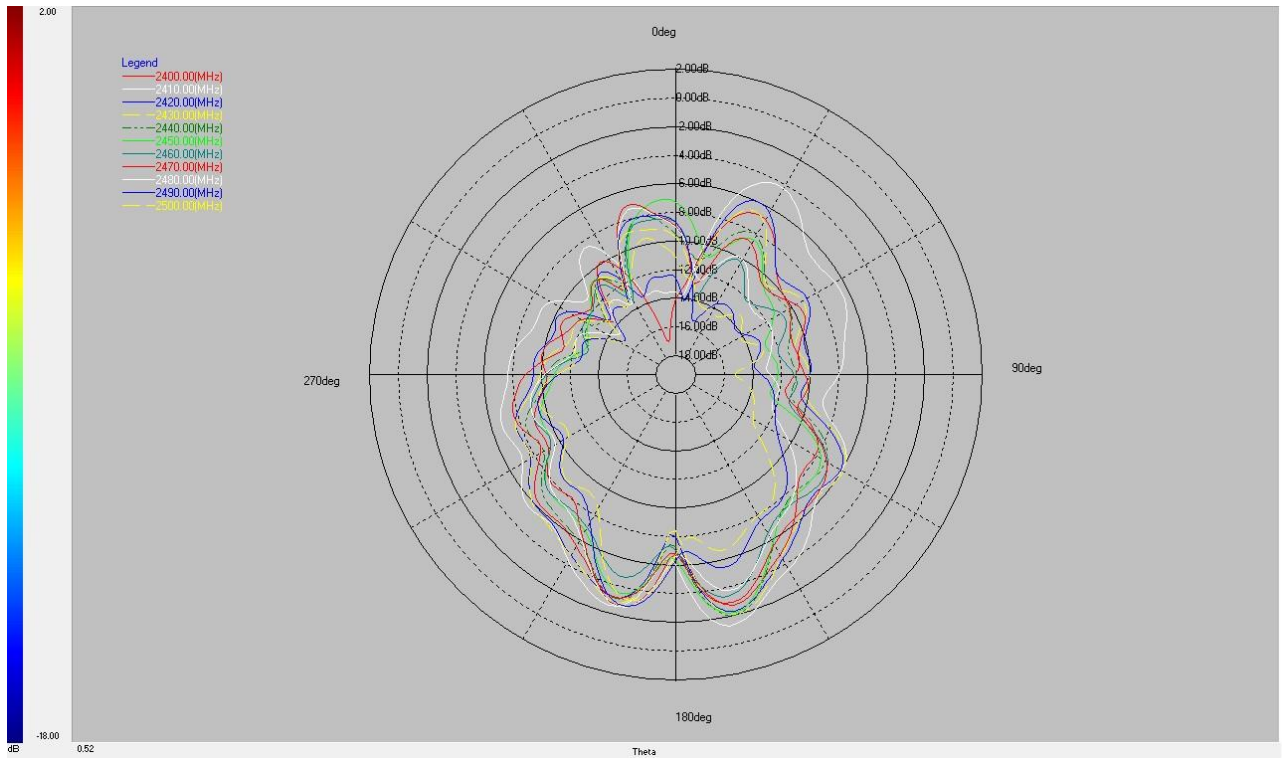
### 1. Test Setup



## Annex B Figures

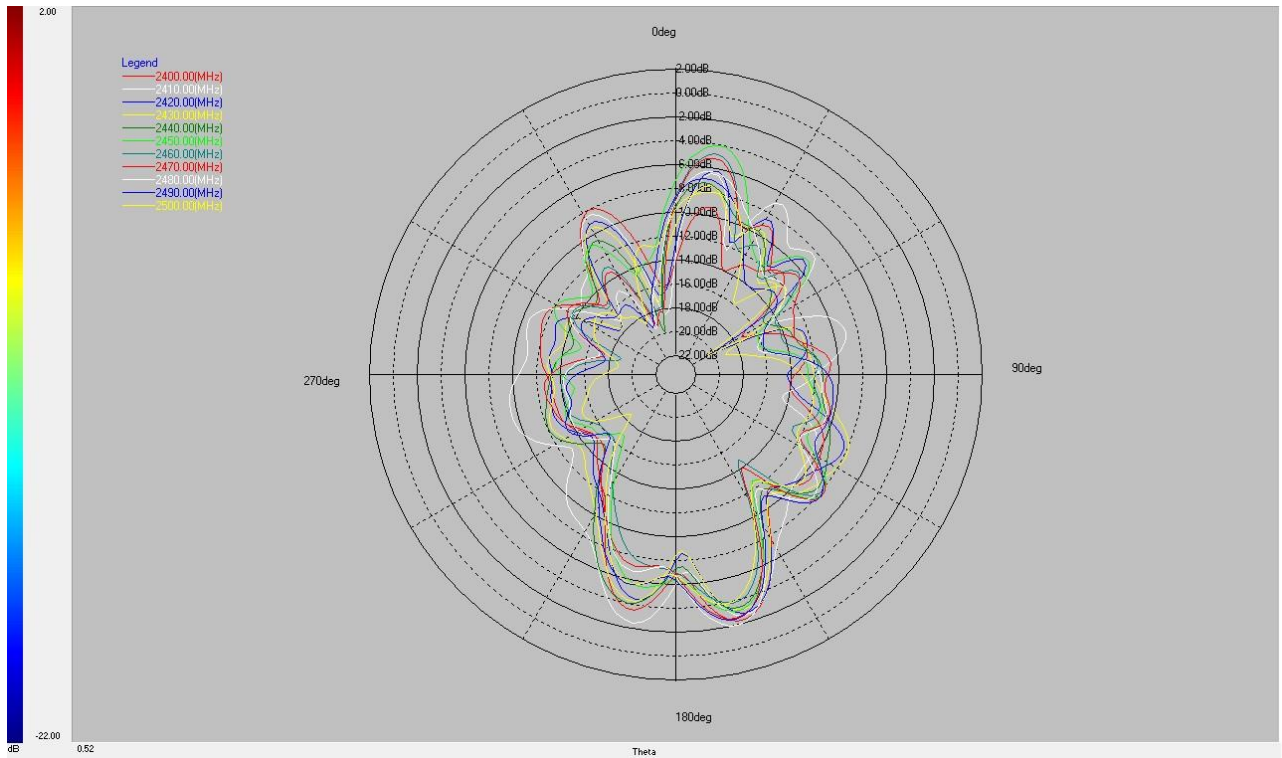
### 1. 2D Radiation Pattern

Phi=0°

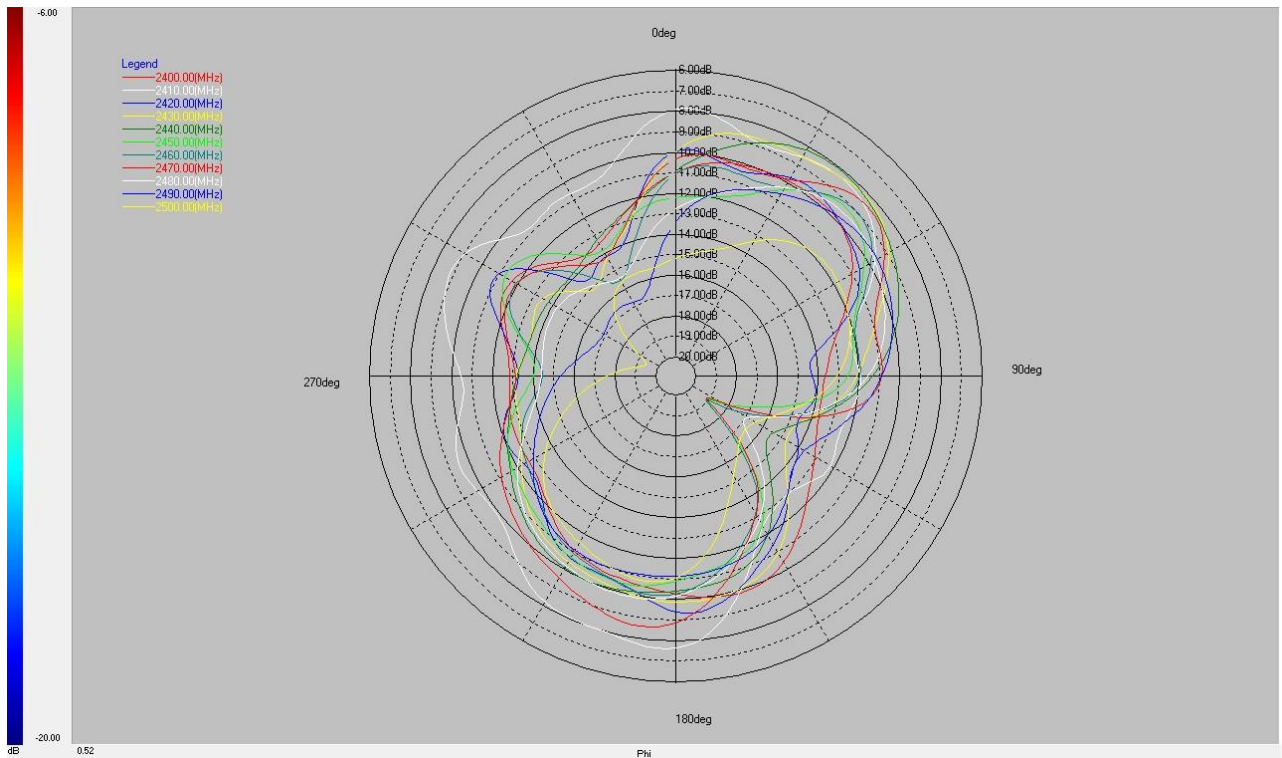




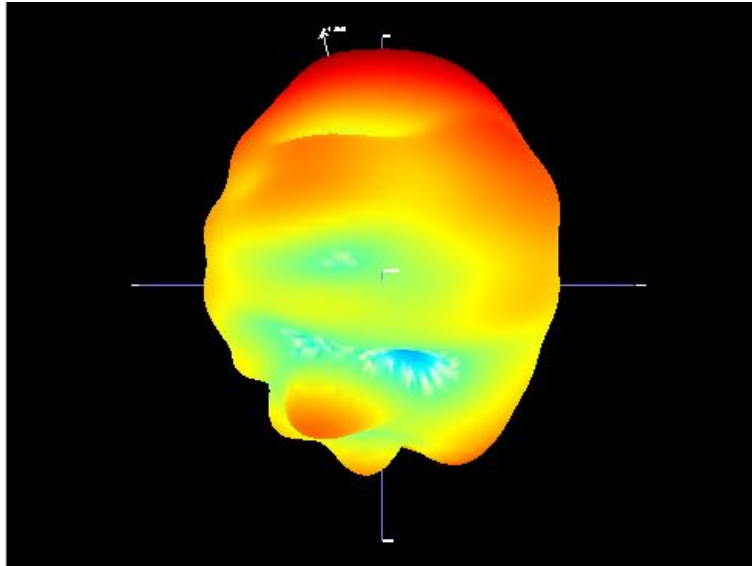
Phi=90°



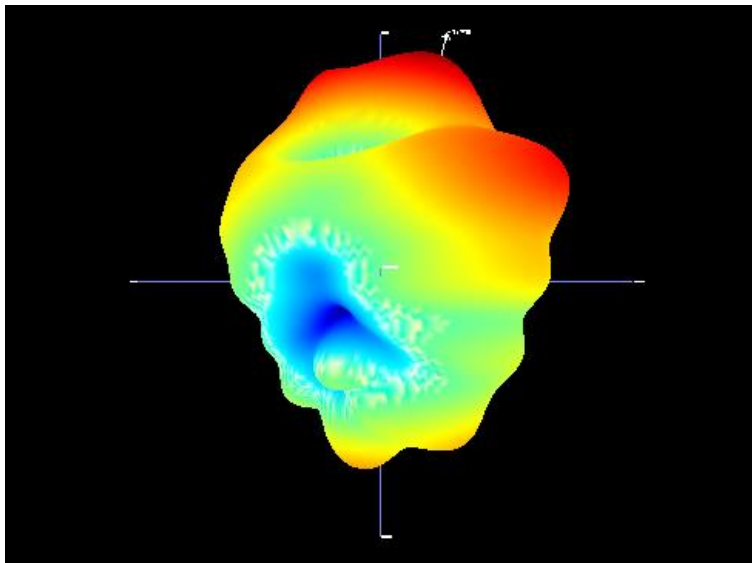
Theta=90°



2. 3D Radiation Pattern

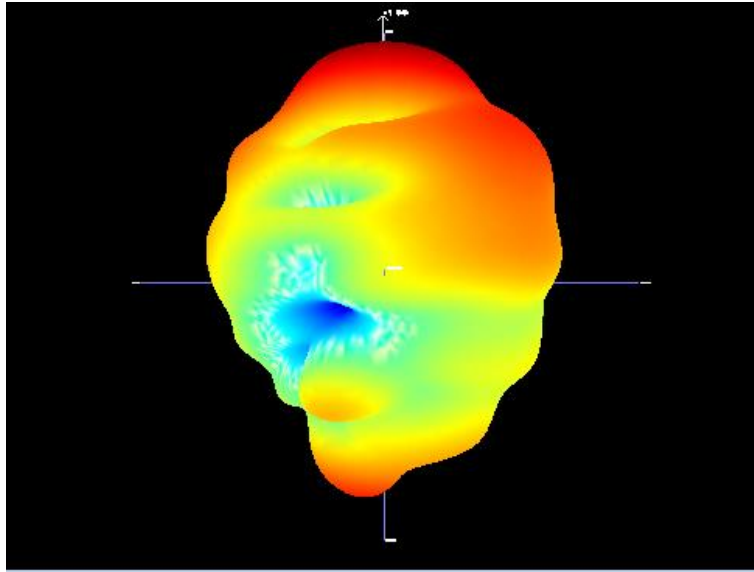


2400MHz



2440MHz

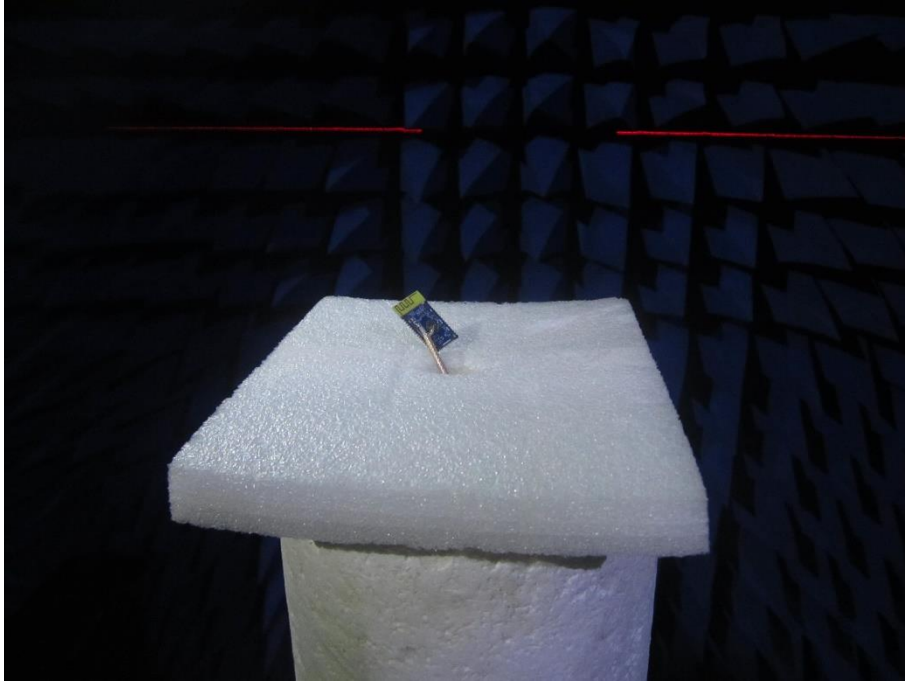




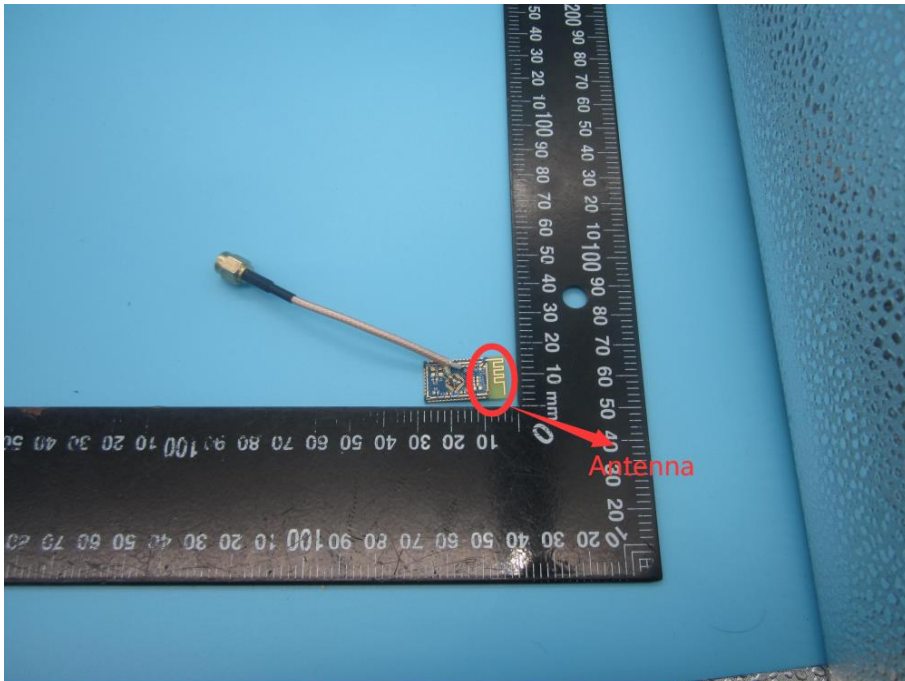
2480MHz

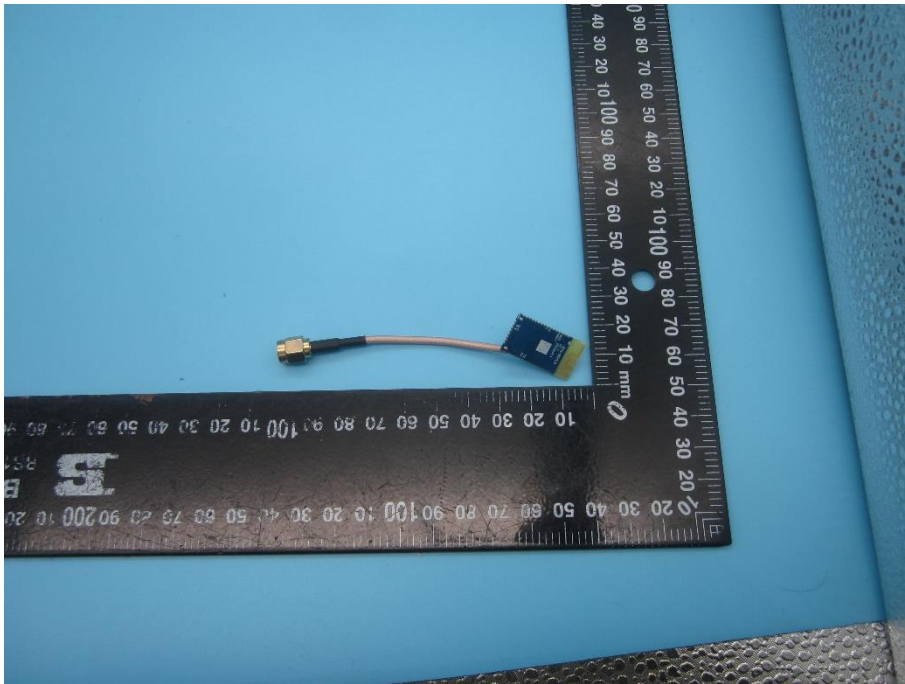
## Annex C Photographs

### 1. Test environment



### 2. EUT







## Annex D General Information

### 1.1 Identification of the Responsible Testing Laboratory

Laboratory Name:	Shenzhen Morlab Communications Technology Co., Ltd. Morlab Laboratory
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. Morlab Laboratory
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

#### 1.3.1 List of Test Equipment

No.	Type	Specification
1	E5071C Vector Network Analyzer	Manufacturer: Agilent
2	4*4*4 Full Anechoic Chamber	Manufacturer: Satimo
3	SG24 Multi-probe Antenna Measurement System	Manufacturer: Satimo

————— END OF REPORT —————