

# **TEST REPORT**

- Applicant : SHANGHAI MOUNTAIN VIEW SILICON CO,. LTD
- **PRODUCT NAME** : MV\_BP10xx PCB Antenna
- MODEL NAME : MV\_BP10
- TRADE NAME : MVSILICON
- BRAND NAME : MVSILICON
- STANDARD(S) : ANSI/IEEE Std 149-2008
- **RECEIPT DATE** : 2019-08-30
- **TEST DATE** : 2019-09-02
- **ISSUE DATE** : 2019-09-03



Edited by:

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Fang Jinshan(Rapporteur)

Approved by:

Chi Shide(Supervisor)

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| Change History               |            |               |  |
|------------------------------|------------|---------------|--|
| Issue Date Reason for change |            |               |  |
| 1.0                          | 2019-09-03 | First edition |  |
|                              |            |               |  |





**Note:** Provide by manufacturer.

## **1.1. Manufacturer and Factory Information**

| Applicant:            | SHANGHAI MOUNTAIN VIEW SILICON CO,. LTD                 |                             |
|-----------------------|---|-----------------------------|
| Applicant Address:    | Suite 4C, Building 3, 1238 Zhangjiang Road, Pudong New  |                             |
|                       | District, Shanghai, China                               |                             |
| Manufacturer:         | SHANGHAI MOUNTAIN VIEW SILICON CO,. LTD                 |                             |
| Manufacturer Address: | Suite 4C, Building 3, 1238<br>District, Shanghai, China | Zhangjiang Road, Pudong New |
|                       | District, Shanghal, China                               |                             |

# **1.2. Equipment Under Test (EUT) Description**

| Wireless Type | N/A |
|---------------|-----|
| Frequency     | N/A |





# 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

| Frequency | Gain(dBi) |
|-----------|-----------|
| 2400MHz   | 2.81      |
| 2410MHz   | 2.74      |
| 2420MHz   | 3.38      |
| 2430MHz   | 2.73      |
| 2440MHz   | 1.01      |
| 2450MHz   | 1.26      |
| 2460MHz   | 1.50      |
| 2470MHz   | 1.49      |
| 2480MHz   | 1.42      |
| 2490MHz   | 0.36      |
| 2500MHz   | 0.33      |



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## 2.3.2. Return Loss/VSWR/Input Impedance

| Frequency | Return Loss<br>(dB) | VSWR | Input<br>Impedance(Ω) |
|-----------|---------------------|------|-----------------------|
| 2400MHz   | -7.23               | 2.53 | 25.37                 |
| 2440MHz   | -6.47               | 2.80 | 17.99                 |
| 2450MHz   | -6.22               | 2.90 | 17.18                 |
| 2480MHz   | -5.18               | 3.44 | 15.55                 |
| 2500MHz   | -4.56               | 3.89 | 15.48                 |



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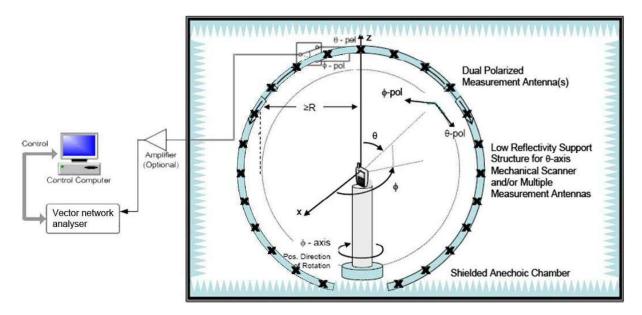
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## Annex A Photographs

#### 1. Test Setup





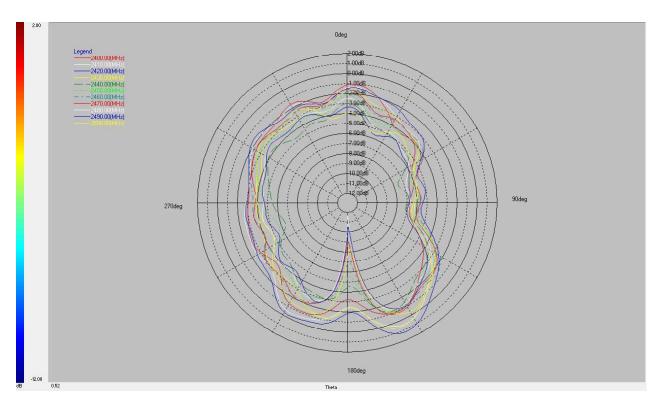
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## Annex B Figures

## 1. 2D Radiation Pattern

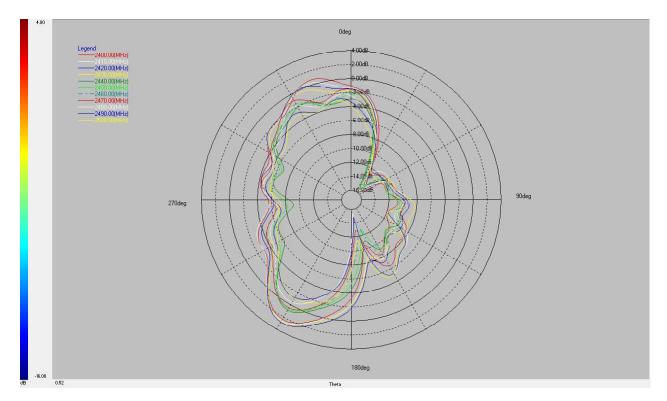
Phi=0°



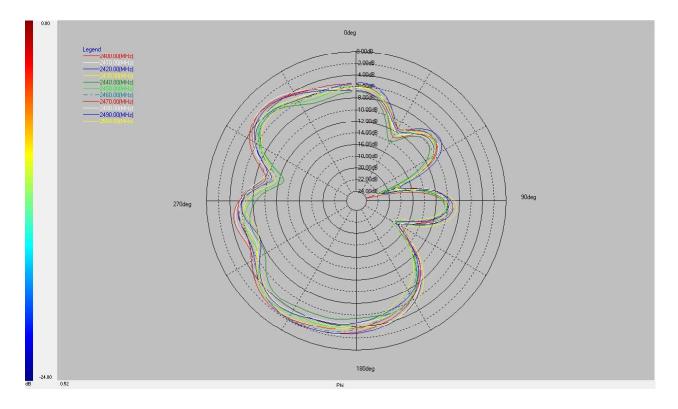


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Theta=90°

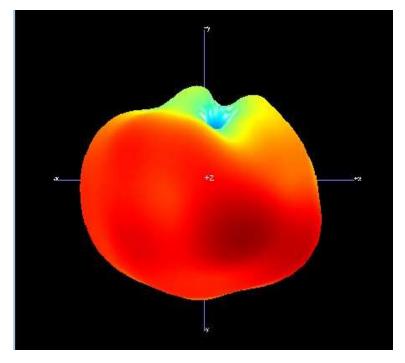




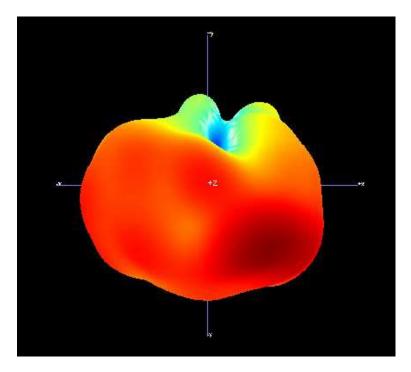
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## 2. 3D Radiation Pattern



2400MHz



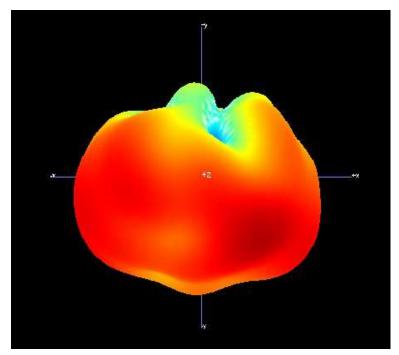
#### 2450MHz



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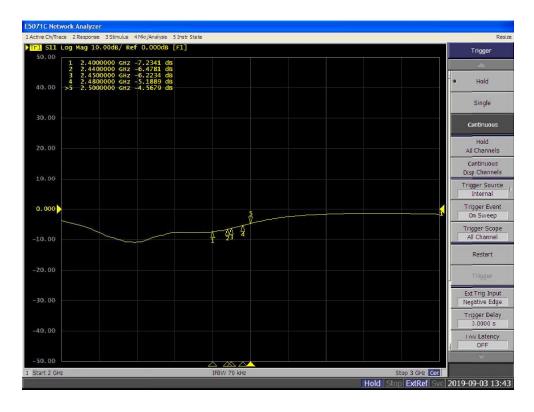
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2500MHz

## 3. Return Loss

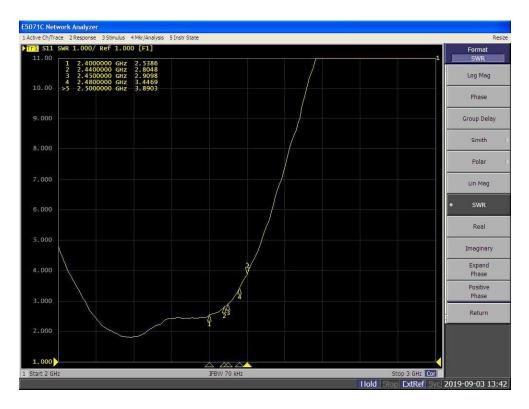




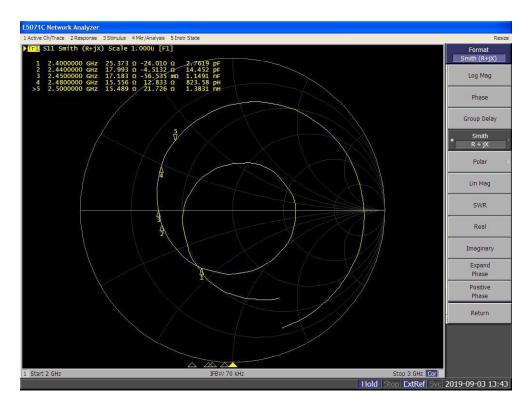
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4. VSWR



# 5. Input Impedance



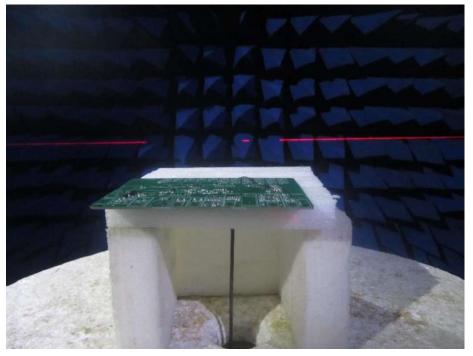


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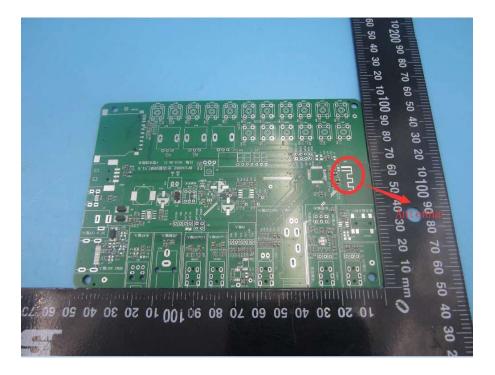


#### **Photographs** Annex C

1. Test environment



2. EUT



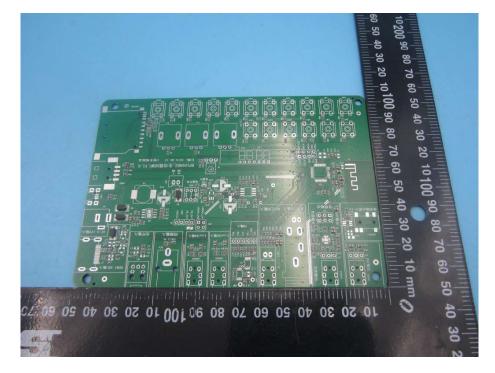


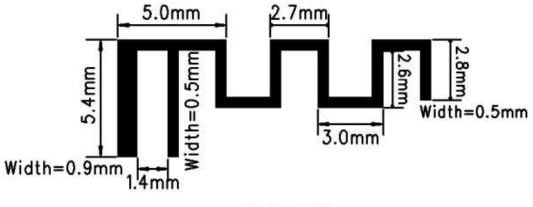
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Actual Size



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# Annex D General Information

# **1.1 Identification of the Responsible Testing Laboratory**

| Company Name:                 | Shenzhen Morlab Communications Technology Co., Ltd.    |
|-------------------------------|--|
| Department:                   | Morlab Laboratory                                      |
| Address:                      | FL.3, Building A, FeiYang Science Park, No.8 LongChang |
|                               | Road, Block 67, BaoAn District, ShenZhen, GuangDong    |
|                               | Province, P. R. China                                  |
| Responsible Test Lab Manager: | Mr. Su Feng  |
| 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: | FL.3, Building A, FeiYang Science Park, No.8 LongChang |
|          | Road, Block 67, BaoAn District, ShenZhen, GuangDong    |
|          | Province, P. R. China                                  |

## **1.3 Test Equipments Utilized**

## 1.3.1 List of Test Equipment

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

– END OF REPORT ——

