

# **TEST REPORT**

**Applicant:** Run Segura LLC  
**EUT Description:** Wearable Safety Device  
**Model:** RunSegura3.1-1  
**Brand:** N/A  
**FCC ID:** 2BQLL-RUNSEGURA31-1  
**Standards:** FCC 47 CFR Part 15 Subpart B  
**Date of Receipt:** 2025/08/29  
**Date of Test:** 2025/08/29 to 2025/10/10  
**Date of Issue:** 2025/10/10

TOWE. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

the results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of the model are manufactured with identical electrical and mechanical components. All sample tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise. without written approval of TOWE, the test report shall not be reproduced except in full.



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**Jim Huang**  
**Approved By:**



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**Mike Ou**  
**Reviewed By:**

## Revision History

| Rev. | Issue Date | Description | Revised by |
|------|------------|-------------|------------|
| 01   | 2025/10/10 | Original    | Mike Ou    |

## Summary of Test Results

| Test Items                                                     | Test Standard | Result |
|----------------------------------------------------------------|---------------|--------|
| AC Conducted Emissions                                         | §15.107       | N/A    |
| Radiated Emissions                                             | §15.109       | PASS   |
| Test Method: ANSI C63.4-2014                                   |               |        |
| Remark:                                                        |               |        |
| 1. Pass is EUT meets standard requirements.                    |               |        |
| 2. The EUT is DC power supply, "N/A" denotes "not applicable". |               |        |

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# 1 General Description

## 1.1 Lab Information

### 1.1.1 Testing Location

These measurements tests were conducted at the Sushi TOWE Wireless Testing(Shenzhen) Co., Ltd. facility located at F401 and F101, Building E, Hongwei Industrial Zone, Liuxian 3rd Road, Bao'an District, Shenzhen, China. The measurement facility is compliant with the test site requirements specified in ANSI C63.4-2014

Tel.: +86-755-27212361

Contact Email: info@towewireless.com

### 1.1.2 Test Facility / Accreditations

#### A2LA (Certificate Number: 7088.01)

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

#### FCC Designation No.: CN1353

Sushi TOWE Wireless Testing(Shenzhen) Co., Ltd. has been recognized as an accredited testing laboratory. Designation Number: CN1353.

#### ISED CAB identifier: CN0152

Sushi TOWE Wireless Testing(Shenzhen) Co., Ltd. has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0152

Company Number: 31000

## 1.2 Client Information

### 1.2.1 Applicant

|            |                                   |
|------------|-----------------------------------|
| Applicant: | Run Segura LLC                    |
| Address:   | 1829 HWY 72 W Greenwood, SC 29649 |

### 1.2.2 Manufacturer

|               |                                   |
|---------------|-----------------------------------|
| Manufacturer: | Run Segura LLC                    |
| Address:      | 1829 HWY 72 W Greenwood, SC 29649 |

### 1.3 Product Information

|                                                                                                                                                   |                                |               |               |
|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------|---------------|
| EUT Description:                                                                                                                                  | Wearable Safety Device         |               |               |
| Model No.:                                                                                                                                        | RunSegura3.1-1                 |               |               |
| Brand:                                                                                                                                            | N/A                            |               |               |
| Hardware Version:                                                                                                                                 | 3.1                            |               |               |
| Software Version:                                                                                                                                 | v2.5                           |               |               |
| Device Capabilities:                                                                                                                              | LTE Cat M1 + BLE + GNSS        |               |               |
| Frequency bands within 30-960MHz                                                                                                                  | Frequency Bands                | Tx Frequency  | Rx Frequency  |
|                                                                                                                                                   | Cat M1 Band 5                  | 824 ~ 849 MHz | 869 ~ 894 MHz |
|                                                                                                                                                   | Cat M1 Band 12                 | 699 ~ 716 MHz | 729 ~ 746 MHz |
|                                                                                                                                                   | Cat M1 Band 13                 | 777 ~ 787 MHz | 746 ~ 756 MHz |
|                                                                                                                                                   | Cat M1 Band 26 (814 ~ 824 MHz) | 814 ~ 824MHz  | 859 ~ 869 MHz |
|                                                                                                                                                   | Cat M1 Band 26 (824 ~ 849 MHz) | 824 ~ 849 MHz | 869 ~ 894 MHz |
|                                                                                                                                                   | Cat M1 Band 85                 | 698 ~ 716 MHz | 728 ~ 746 MHz |
| Remark: The above EUT's information was declared by applicant, please refer to the specifications or user's manual for more detailed description. |                                |               |               |

## 2 Test Configuration During Test

### 2.1 Support Unit used in test

| Description | Manufacturer | Model               | Serial Number |
|-------------|--------------|---------------------|---------------|
| Laptop      | Dell         | P104F               | 19W9NG3       |
| Laptop      | Lenovo       | Thinkbook 14 G4+IAP | YX05AZ13      |

### 2.2 Accessory

N/A

### 2.3 Test Environment

|               |                     |
|---------------|---------------------|
| Temperature:  | Normal: 15°C ~ 35°C |
| Humidity:     | 30-75 % RH Ambient  |
| Test Voltage: | DC 3.7V             |

Remark: The testing environment is within the scope of the EUT user manual and meets the requirements of the standard testing environment.

### 2.4 Modifications

No modifications were made during testing.

### 2.5 EUT Test Mode

| Test Items         | Test mode                                                                                                                                                                                         |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Radiated Emissions | Mode1: RF Idle + PC<br>Mode2: Cat M1 Band 5 Link + PC<br>Mode3: Cat M1 Band 12 Link + PC<br>Mode4: Cat M1 Band 13 Link + PC<br>Mode5: Cat M1 Band 26 Link + PC<br>Mode6: Cat M1 Band 85 Link + PC |

Remark: Only data of worst mode was reported in test result.

### 3 Equipment and Measurement Uncertainty

All test and measuring equipment utilized to perform the tests documented in this report are calibrated on a regular basis, whichever is less, and where applicable is traceable to recognized national standards.

#### 3.1 Test Equipment List

| Radiated Emission                     |                 |             |                |            |            |
|---------------------------------------|-----------------|-------------|----------------|------------|------------|
| Description                           | Manufacturer    | Model       | S.N.           | Last Due   | Cal Due    |
| Biconic Logarithmic Periodic Antennas | Schwarzbeck     | VULB9163    | 1643           | 2023/06/25 | 2026/06/24 |
| Double-Ridged Horn Antennas           | Schwarzbeck     | BBHA 9120D  | 2809           | 2023/06/25 | 2026/06/24 |
| Broad-Band Horn Antenna               | Schwarzbeck     | BBHA 9170   | 1290           | 2023/06/25 | 2026/06/24 |
| Signal Analyzer                       | Keysight        | N9020A      | MY49100252     | 2025/03/11 | 2026/03/10 |
| EXA Signal Analyzer, Multi-touch      | Keysight        | N9010B      | MY63440541     | 2025/05/29 | 2026/05/28 |
| EMI Tester Receiver                   | Rohde & Schwarz | ESR7        | 102719         | 2025/05/29 | 2026/05/28 |
| Low Noise Amplifier                   | Tonscend        | TAP9K3G40   | AP23A8060273   | 2025/03/11 | 2027/03/10 |
| Low Noise Amplifier                   | Tonscend        | TAP01018050 | AP22G806258    | 2025/03/11 | 2027/03/10 |
| Low Noise Amplifier                   | Tonscend        | TAP18040048 | AP22G806247    | 2025/03/11 | 2027/03/10 |
| Band Reject Filter Group              | Townshend       | JS0806-F    | 23A806F0652    | N/A        | N/A        |
| Test Software                         | Tonscend        | TS+         | Version: 5.0.0 | N/A        | N/A        |

N/A: Not applicable, confirmed internally by the laboratory

#### 3.2 Measurement Uncertainty

| Parameter                         | U <sub>lab</sub> |
|-----------------------------------|------------------|
| Radiated Emissions(30MHz~1000MHz) | 4.66dB           |
| Radiated Emissions(1GHz~18GHz)    | 5.42dB           |
| Radiated Emissions(18GHz~40GHz)   | 5.46dB           |

Uncertainty figures are valid to a confidence level of 95%

## 4 Test Results

### 4.1 Radiated Emissions

#### Limits

| Frequency     | Field strength<br>( $\mu\text{V/m}$ ) | Limit (dB $\mu\text{V/m}$ ) | Remark     | Measurement<br>distance (m) |
|---------------|---------------------------------------|-----------------------------|------------|-----------------------------|
| 30MHz-88MHz   | 100                                   | 40.0                        | Quasi-peak | 3                           |
| 88MHz-216MHz  | 150                                   | 43.5                        | Quasi-peak | 3                           |
| 216MHz-960MHz | 200                                   | 46.0                        | Quasi-peak | 3                           |
| 960MHz-1GHz   | 500                                   | 54.0                        | Quasi-peak | 3                           |
| Above 1GHz    | 500                                   | 74.0                        | Peak       | 3                           |
|               |                                       | 54.0                        | Average    |                             |

#### Test Procedure

ANSI C63.4:2014

#### Test Settings

- For radiated emissions measurement, the EUT shall be placed on a RF-transparent table or support at a nominal height of 80cm above the reference ground plane.
- Radiated measurements shall be made with the measurement antenna positioned in both horizontal and vertical polarization. The measurement antenna shall be varied from 1m to 4m in height above the reference ground in a search for the relative positioning that produces the maximum radiated signal level (i.e, field strength or received power), when orienting the measurement antenna in vertical polarization, the minimum height of the lowest element of the antenna shall clear the site reference ground plane by at least 25cm.
- For each suspected emission, the EUT was ranged to its worst case and then tune the antenna tower(from 1~4m) and turntable(from 0~360°) to find the maximum reading. Preamplifier and a high pass filter are used for the test in order to get better signal level to comply with the guidelines.
- Exploratory radiated emissions testing of handheld and/or body-worn devices shall include rotation of the EUT through three orthogonal axes (X/Y/Z Plane) to determine the orientation(attitude) that maximizes the emissions.
- For measurements below 1GHz the resolution bandwidth is set to 100kHz for peak detection measurements or 120kHz for Quasi-peak detection measurements in the 30~1000MHz range.
- If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, peak values of EUT will be reported. Otherwise, the emission will be repeated by using the quasi-peak method and reported for frequency range below 1GHz.
- For measurements above 1GHz the resolution bandwidth is set to 1MHz and the video resolution is set to 3MHz, the peak emission measurement will be measured by the peak detector, the average emission measurement will be measured by the average detector.
- The field strength is calculated by adding the Antenna Factor, Cable Factor. The basic equation with a sample calculation is as follows:  

$$\text{Level} = \text{Reading(dB}\mu\text{V)} + \text{AF(dB/m)} + \text{Factor(dB)}$$

$$\text{AF} = \text{Antenna Factor(dB/m)}$$

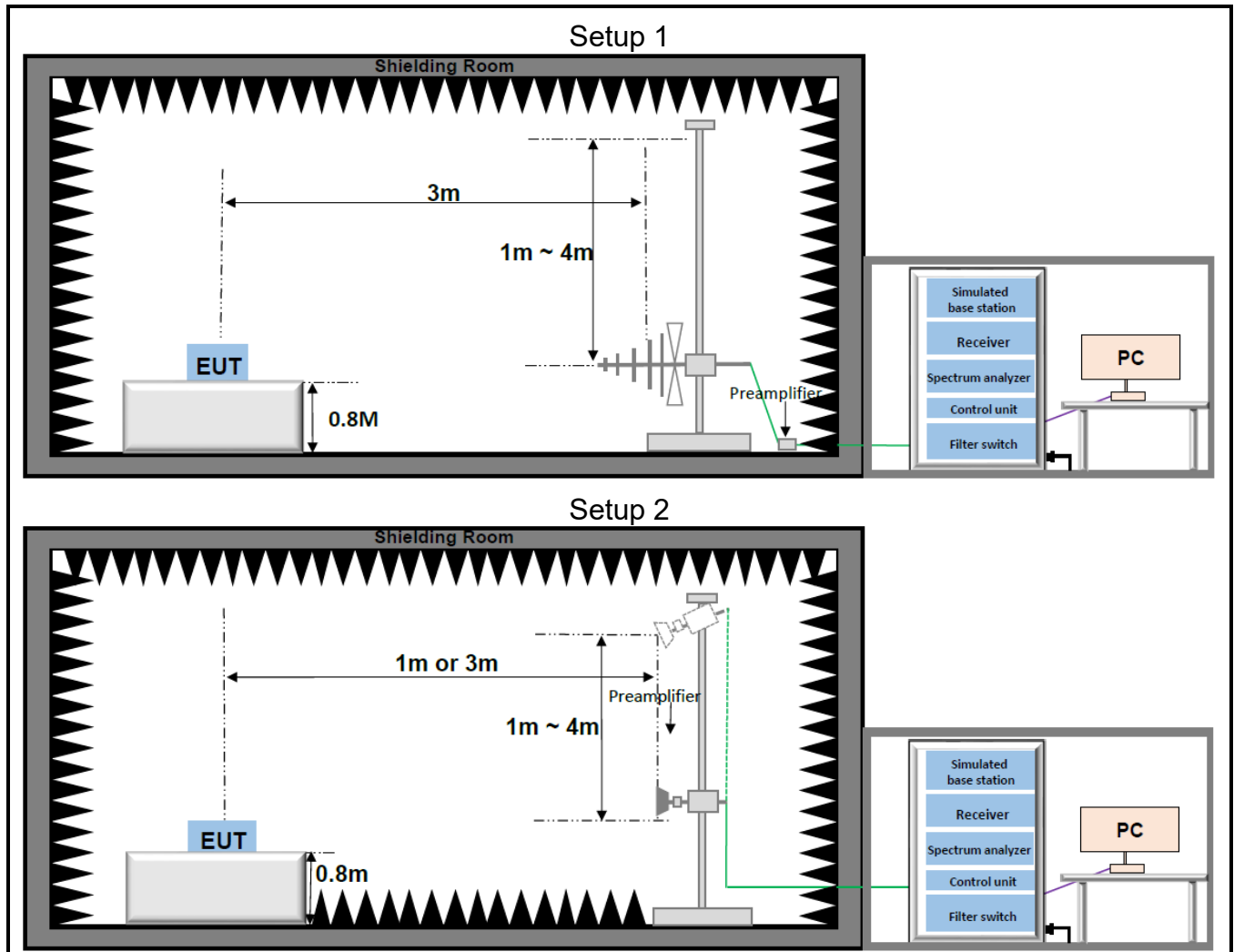
$$\text{Factor} = \text{Cable Factor(dB)} - \text{Preamplifier gain(dB)}$$

$$\text{Margin} = \text{Limit(dB}\mu\text{V/m)} - \text{Level(dB}\mu\text{V/m)}$$
- Repeat above procedures until all frequencies measured was complete.
- Measure and record the results in the test report.

## Test notes

1. Radiated emissions were measured from 30MHz - 40GHz to ensure that the provisions of 15.33(b)(1) are satisfied with respect to the upper frequency scanning range. No Spurious emissions were detected within 20dB of the limit above 18GHz.

## Test Setup

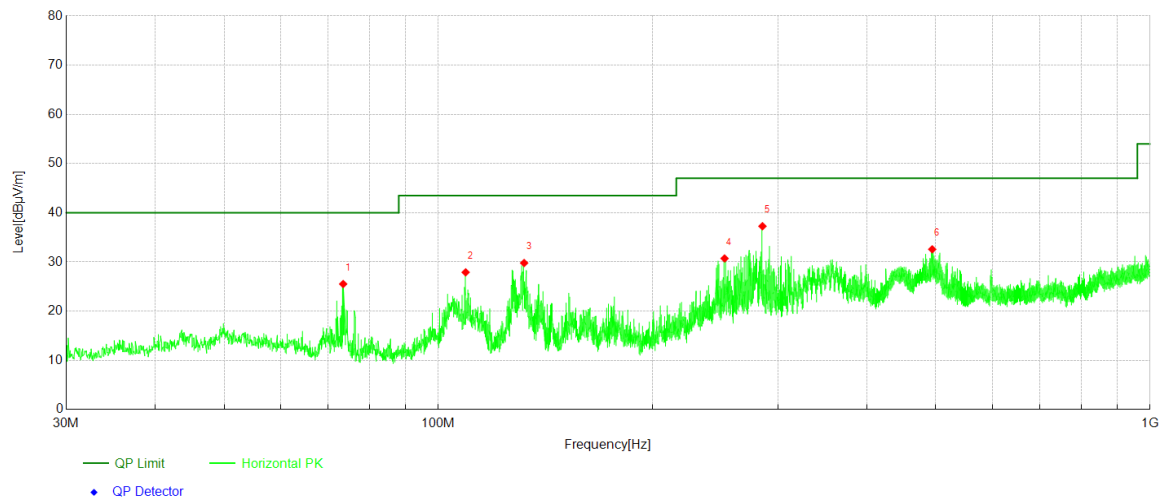


## Measuring Instruments

The measuring equipment is listed in the section 3.1 of this test report.

**Test Result:**

|                |               |                  |            |
|----------------|---------------|------------------|------------|
| Test Frequency | Below 1000MHz | Final Test mode: | Mode1      |
| Test Voltage:  | DC 3.7V       | Polarization:    | Horizontal |

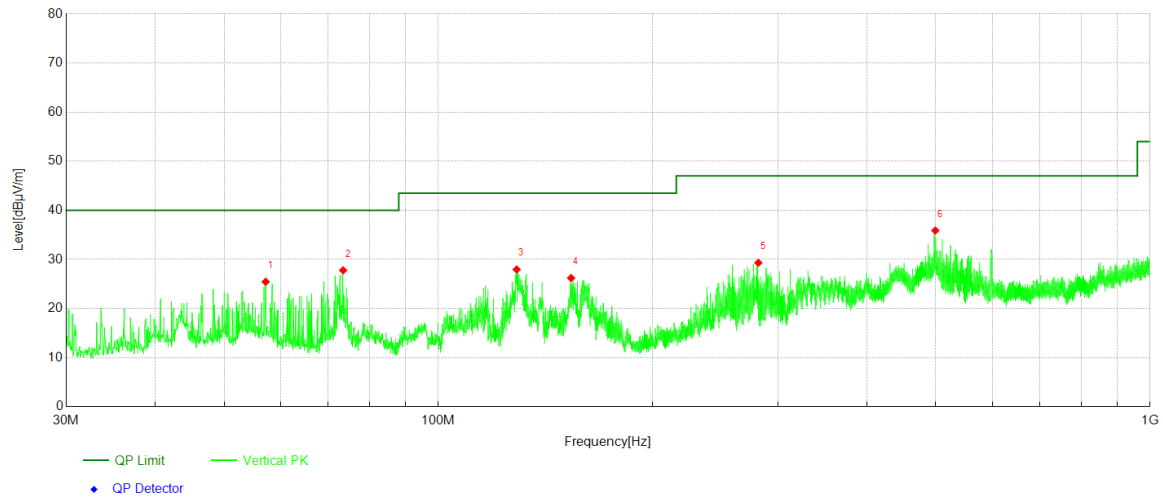
**Data List**

| NO. | Freq. [MHz] | Reading [dBμV] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Polarity   | Verdict |
|-----|-------------|----------------|-------------|----------------|----------------|-------------|------------|---------|
| 1   | 73.50       | 52.31          | -26.80      | 25.51          | 40.00          | 14.49       | Horizontal | PASS    |
| 2   | 109.25      | 50.38          | -22.49      | 27.89          | 43.50          | 15.61       | Horizontal | PASS    |
| 3   | 132.00      | 56.26          | -26.48      | 29.78          | 43.50          | 13.72       | Horizontal | PASS    |
| 4   | 252.47      | 51.76          | -21.05      | 30.71          | 47.00          | 16.29       | Horizontal | PASS    |
| 5   | 285.40      | 57.10          | -19.84      | 37.26          | 47.00          | 9.74        | Horizontal | PASS    |
| 6   | 494.29      | 40.77          | -8.20       | 32.57          | 47.00          | 14.43       | Horizontal | PASS    |

**Note:**

1. Level = Reading(dBμV) + Factor(dB):
2. Factor = Cable Factor(dB) + AF(dB/m) - Preamplifier gain(dB)
3. AF = Antenna Factor(dB/m)
4. Margin = Limit(dBμV/m) - Value(dBμV/m)

|                |               |                  |          |
|----------------|---------------|------------------|----------|
| Test Frequency | Below 1000MHz | Final Test mode: | Mode1    |
| Test Voltage:  | DC 3.7V       | Polarization:    | Vertical |

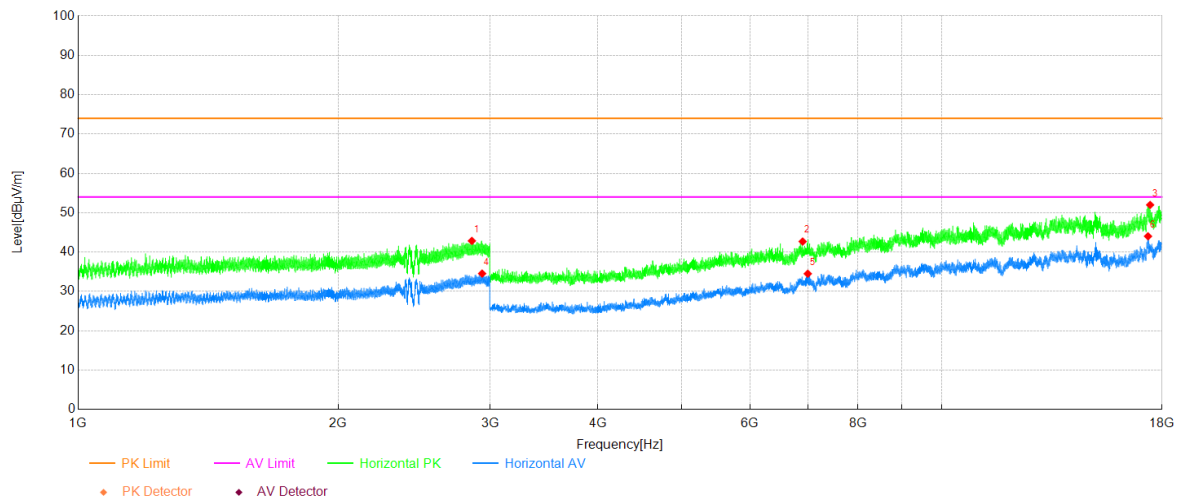
**Data List**

| NO. | Freq. [MHz] | Reading [dBμV] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Polarity | Verdict |
|-----|-------------|----------------|-------------|----------------|----------------|-------------|----------|---------|
| 1   | 57.21       | 48.62          | -23.17      | 25.45          | 40.00          | 14.55       | Vertical | PASS    |
| 2   | 73.50       | 54.23          | -26.45      | 27.78          | 40.00          | 12.22       | Vertical | PASS    |
| 3   | 128.84      | 54.09          | -26.13      | 27.96          | 43.50          | 15.54       | Vertical | PASS    |
| 4   | 153.68      | 52.57          | -26.36      | 26.21          | 43.50          | 17.29       | Vertical | PASS    |
| 5   | 281.62      | 49.84          | -20.53      | 29.31          | 47.00          | 17.69       | Vertical | PASS    |
| 6   | 499.24      | 44.30          | -8.41       | 35.89          | 47.00          | 11.11       | Vertical | PASS    |

**Note:**

1. Level = Reading(dBμV) + Factor(dB):
2. Factor = Cable Factor(dB) + AF(dB/m) - Preamplifier gain(dB)
3. AF = Antenna Factor(dB/m)
4. Margin = Limit(dBμV/m) - Value(dBμV/m)

|                |               |                  |            |
|----------------|---------------|------------------|------------|
| Test Frequency | Above 1000MHz | Final Test mode: | Mode1      |
| Test Voltage:  | DC 3.7V       | Polarization:    | Horizontal |



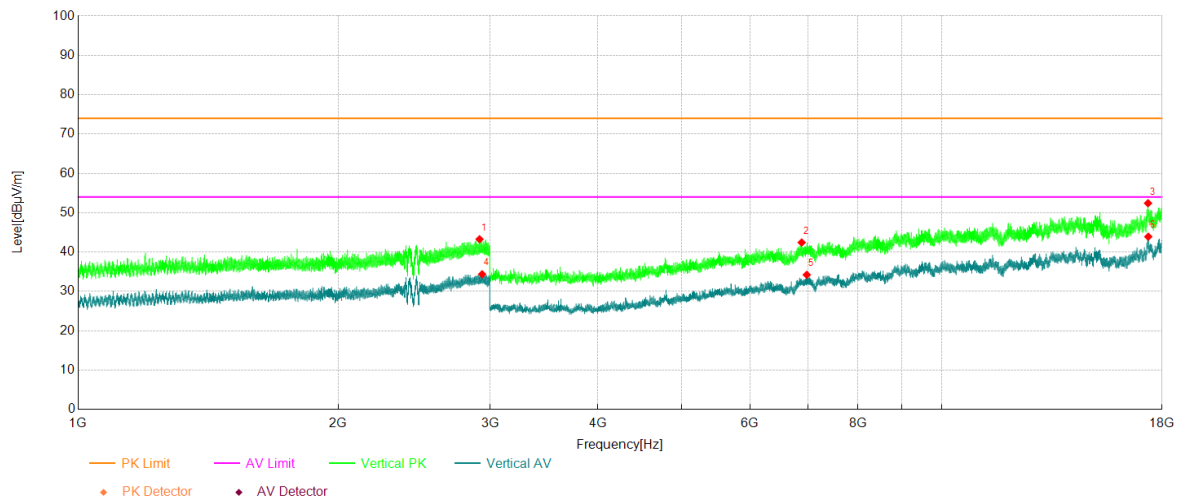
## Data List

| NO. | Freq. [MHz] | Reading [dBμV] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Polarity   | Verdict |
|-----|-------------|----------------|-------------|----------------|----------------|-------------|------------|---------|
| 1   | 2857.70     | 37.77          | 5.08        | 42.85          | 74.00          | 31.15       | Horizontal | PASS    |
| 2   | 6903.75     | 44.84          | -2.15       | 42.69          | 74.00          | 31.31       | Horizontal | PASS    |
| 3   | 17437.50    | 40.46          | 11.54       | 52.00          | 74.00          | 22.00       | Horizontal | PASS    |
| 4   | 2936.70     | 29.08          | 5.47        | 34.55          | 54.00          | 19.45       | Horizontal | PASS    |
| 5   | 6998.25     | 36.29          | -1.79       | 34.50          | 54.00          | 19.50       | Horizontal | PASS    |
| 6   | 17340.00    | 31.62          | 12.40       | 44.02          | 54.00          | 9.98        | Horizontal | PASS    |

## Note:

1. Level = Reading(dBμV) + Factor(dB):
2. Factor = Cable Factor(dB) + AF(dB/m) - Preamplifier gain(dB)
3. AF = Antenna Factor(dB/m)
4. Margin = Limit(dBμV/m) - Value(dBμV/m)

|                |               |                  |          |
|----------------|---------------|------------------|----------|
| Test Frequency | Above 1000MHz | Final Test mode: | Mode1    |
| Test Voltage:  | DC 3.7V       | Polarization:    | Vertical |

**Data List**

| NO. | Freq. [MHz] | Reading [dBμV] | Factor [dB] | Level [dBμV/m] | Limit [dBμV/m] | Margin [dB] | Polarity | Verdict |
|-----|-------------|----------------|-------------|----------------|----------------|-------------|----------|---------|
| 1   | 2916.40     | 37.90          | 5.37        | 43.27          | 74.00          | 30.73       | Vertical | PASS    |
| 2   | 6885.00     | 44.62          | -2.18       | 42.44          | 74.00          | 31.56       | Vertical | PASS    |
| 3   | 17340.75    | 39.98          | 12.44       | 52.42          | 74.00          | 21.58       | Vertical | PASS    |
| 4   | 2936.80     | 28.90          | 5.47        | 34.37          | 54.00          | 19.63       | Vertical | PASS    |
| 5   | 6979.50     | 36.33          | -2.10       | 34.23          | 54.00          | 19.77       | Vertical | PASS    |
| 6   | 17351.25    | 31.11          | 12.81       | 43.92          | 54.00          | 10.08       | Vertical | PASS    |

**Note:**

1. Level = Reading(dBμV) + Factor(dB):
2. Factor = Cable Factor(dB) + AF(dB/m) - Preamplifier gain(dB)
3. AF = Antenna Factor(dB/m)
4. Margin = Limit(dBμV/m) - Value(dBμV/m)

## 5 Test Setup Photos

The detailed test data see: **Appendix-C 15B Setup Photos**

~The End~