

# FCC RF Test Report

**Applicant:** Remote Tech LLC  
**Address of Applicant:** 310 ALDER RD, DOVER DE 19904 USA  
**Equipment Under Test (EUT)**  
**Product Name:** Smart Key  
**Model No.:** RT-HK4F28  
**FCC ID:** 2AOKM-HK18  
**Applicable Standards:** FCC CFR Title 47 Part 15C (§15.231)  
**Date of Sample Receipt:** 24 Jul., 2023  
**Date of Test:** 25 Jul., to 18 Aug., 2023  
**Date of Report Issue:** 18 Aug., 2023  
**Test Result:** PASS

|                     |                |              |                      |
|---------------------|----------------|--------------|----------------------|
| <b>Tested by:</b>   | <u>June Li</u> | <b>Date:</b> | <u>18 Aug., 2023</u> |
| <b>Reviewed by:</b> | <u>anet</u>    | <b>Date:</b> | <u>18 Aug., 2023</u> |
| <b>Approved by:</b> | <u>Manager</u> | <b>Date:</b> | <u>18 Aug., 2023</u> |

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in above the application standard version. Test results reported herein relate only to the item(s) tested.

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## 1 Version

| Version No. | Date          | Description |
|-------------|---------------|-------------|
| 00          | 18 Aug., 2023 | Original    |
|             |               |             |
|             |               |             |
|             |               |             |
|             |               |             |

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### 3 General Information

#### 3.1 Client Information

|               |                                  |
|---------------|----------------------------------|
| Applicant:    | Remote Tech LLC                  |
| Address:      | 310 ALDER RD, DOVER DE 19904 USA |
| Manufacturer: | Remote Tech LLC                  |
| Address:      | 310 ALDER RD, DOVER DE 19904 USA |

#### 3.2 General Description of E.U.T.

|                        |   |
|------------------------|---|
| Product Name:          | Smart Key   |
| Model No.:             | RT-HK4F28   |
| Operation Frequency:   | 433.92 MHz  |
| Channel Numbers:       | 1   |
| Modulation Type:       | ASK   |
| Antenna Type:          | PCB Antenna   |
| Antenna Gain:          | -12.88 dBi  |
| Power Supply:          | DC 3V (CR2032 battery)  |
| Test Sample Condition: | The test samples were provided in good working order with no visible defects. |

### 3.3 Test Mode and Environment

| Test Mode:  |   |
|---|---|
| Transmitting mode:  | Keep the EUT in transmitting mode with modulation |
| <i>Remark: The EUT was placed on three different polar directions tested: i.e. X axis, Y axis, Z axis, and found the test results are both the "worst case" and "worst setup": Y axis, so the report only reflects the test data of worst mode.</i> |   |
| Operating Environment:  |   |
| Temperature:  | 15°C ~ 35°C                                       |
| Humidity:   | 20 % ~ 75 % RH                                    |
| Atmospheric Pressure:   | 1008 mbar   |

### 3.4 Description of Test Auxiliary Equipment

| Manufacturer | Description | Model | Serial Number | FCC ID/DoC |
|--------------|-------------|-------|---------------|------------|
| N/A          |             |       |               |            |

### 3.5 Measurement Uncertainty

| Parameter                                 | Expanded Uncertainty<br>(Confidence of 95%(U = 2Uc(y))) |
|---|---|
| Radiated Emission (9kHz ~ 30MHz) (3m SAC) | 3.2 dB  |
| Radiated Emission (30MHz ~ 1GHz) (3m SAC) | 3.8 dB  |
| Radiated Emission (1GHz ~ 18GHz) (3m SAC) | 3.6 dB  |

*Remark: All the measurement uncertainty value were shown with a coverage k=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.*

### 3.6 Additions to, Deviations, or Exclusions From the Method

|    |
|----|
| No |
|----|

### 3.7 Laboratory Facility

|  |
|--|
| <p>The test facility is recognized, certified, or accredited by the following organizations:</p> <ul style="list-style-type: none"> <li>● <b>FCC - Designation No.: CN1211</b><br/>JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.</li> <li>● <b>ISED – CAB identifier.: CN0021</b><br/>The 3m Semi-anechoic chamber and 10m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.</li> <li>● <b>CNAS - Registration No.: CNAS L15527</b><br/>JianYan Testing Group Shenzhen Co., Ltd. is accredited to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L15527.</li> <li>● <b>A2LA - Registration No.: 4346.01</b><br/>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. The test scope can be found as below link: <a href="https://portal.a2la.org/scopepdf/4346-01.pdf">https://portal.a2la.org/scopepdf/4346-01.pdf</a></li> </ul> |
|--|

### 3.8 Laboratory Location

|   |
|---|
| <p>JianYan Testing Group Shenzhen Co., Ltd.<br/>Address: No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.<br/>Tel: +86-755-23118282, Fax: +86-755-23116366<br/>Email: info-JYTee@lets.com, Website: <a href="http://jyt.lets.com">http://jyt.lets.com</a></p> |
|---|

### 3.9 Test Instruments List

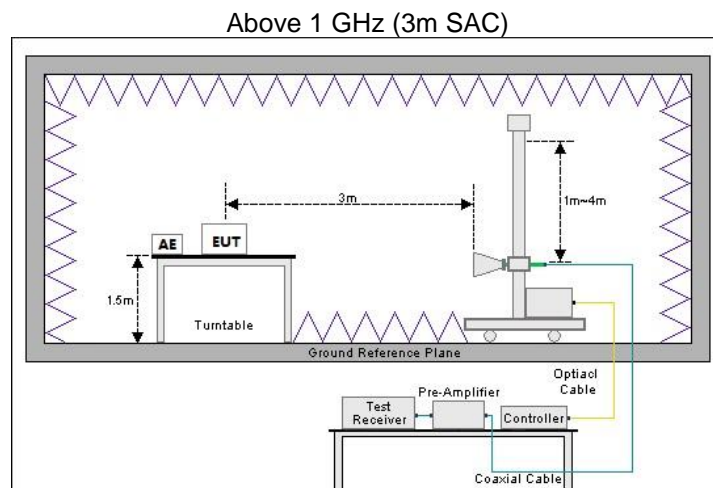
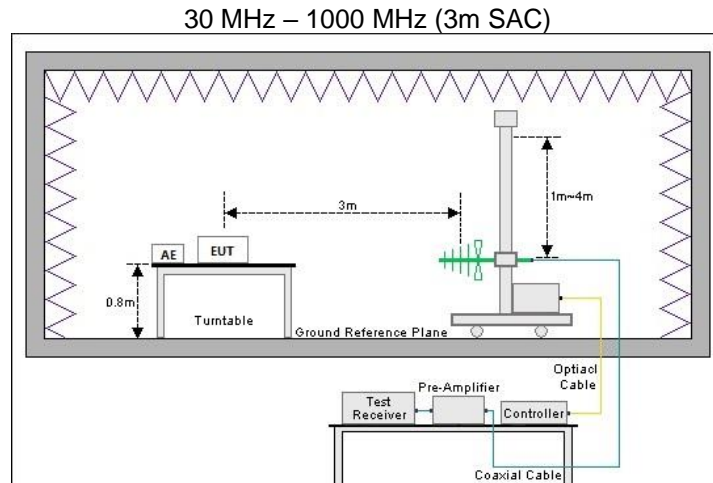
| Radiated Emission(3m SAC):   |                 |                 |                  |                      |                          |
|------------------------------|-----------------|-----------------|------------------|----------------------|--------------------------|
| Test Equipment               | Manufacturer    | Model No.       | Manage No.       | Cal. Date (mm-dd-yy) | Cal. Due date (mm-dd-yy) |
| 3m SAC                       | ETS             | 9m*6m*6m        | WXJ001-1         | 04-14-2021           | 04-13-2024               |
| BiConiLog Antenna            | Schwarzbeck     | VULB9163        | WXJ002           | 02-09-2023           | 02-08-2024               |
| Horn Antenna                 | Schwarzbeck     | BBHA9120D       | WXJ002-2         | 02-09-2023           | 02-08-2024               |
| Pre-amplifier (30MHz ~ 1GHz) | Schwarzbeck     | BBV9743B        | WXJ001-2         | 01-10-2023           | 01-09-2024               |
| Pre-amplifier (1GHz ~ 18GHz) | SKET            | LNPA_0118G-50   | WXJ001-3         | 01-10-2023           | 01-09-2024               |
| EMI Test Receiver            | Rohde & Schwarz | ESRP7           | WXJ003-1         | 01-11-2023           | 01-10-2024               |
| Spectrum Analyzer            | Rohde & Schwarz | FSP 30          | WXJ004           | 01-10-2023           | 01-09-2024               |
| Coaxial Cable (30MHz ~ 1GHz) | JYTSZ           | JYT3M-1G-NN-8M  | WXG001-4         | 01-18-2023           | 01-17-2024               |
| Coaxial Cable (1GHz ~ 18GHz) | JYTSZ           | JYT3M-18G-NN-8M | WXG001-5         | 01-18-2023           | 01-17-2024               |
| Band Reject Filter Group     | Tonscend        | JS0806-F        | WXJ089           | N/A                  |                          |
| Test Software                | Tonscend        | TS+             | Version: 3.0.0.1 |                      |                          |

| Conducted Method: |              |           |            |                      |                          |
|-------------------|--------------|-----------|------------|----------------------|--------------------------|
| Test Equipment    | Manufacturer | Model No. | Manage No. | Cal. Date (mm-dd-yy) | Cal. Due date (mm-dd-yy) |
| Spectrum Analyzer | Keysight     | N9020B    | WXJ081-1   | 06-13-2023           | 06-12-2024               |

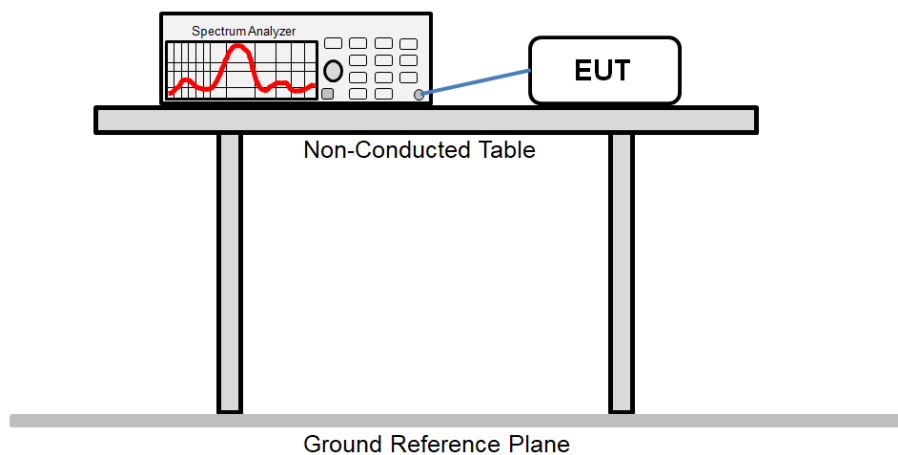
## 4 Measurement Setup and Procedure

### 4.1 Test Setup

Radiated emission measurement:



Conducted test method:



## 4.2 Test Procedure

| Test method           | Test step  |
|-----------------------|--|
| Radiated emission     | <ol style="list-style-type: none"> <li>1. The EUT was placed on the tabletop of a rotating table 0.8 m the ground at a 3 m semi anechoic chamber. The measurement distance from the EUT to the receiving antenna is 3 m.</li> <li>2. EUT works in each mode of operation that needs to be tested, and having the EUT continuously working, respectively on 3 axis (X, Y &amp; Z) and considered typical configuration to obtain worst position. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations.</li> <li>3. Open the test software to control the test antenna and test turntable. Perform the test, save the test results, and export the test data.</li> </ol> |
| Conducted test method | <ol style="list-style-type: none"> <li>1. The antenna port of EUT was connected to the RF port of the spectrum analyzer through an RF cable.</li> <li>2. The EUT is keeping in continuous transmission mode and tested in all modulation modes.</li> <li>3. The test data is saved by the screenshot function of the spectrum analyzer.</li> </ol>   |



## 5 Test Results

### 5.1 Summary

#### 5.1.1 Clause and Data Summary

| Test items  | Standard clause                     | Test data       | Result |
|---|-------------------------------------|-----------------|--------|
| Antenna Requirement   | 15.203                              | See Section 5.2 | Pass   |
| AC Power Line Conducted Emission  | 15.207                              | N/A             | N/A    |
| 20dB Bandwidth  | 15.231 (c)                          | See Section 5.3 | Pass   |
| Field Strength of Fundamental   | 15.231 (b)                          | See Section 5.4 | Pass   |
| Field Strength of Spurious Emissions  | 15.209<br>15.231 (b)                | See Section 5.5 | Pass   |
| Duration Time   | 15.231 (a)(1)                       | See Section 5.6 | Pass   |
| <b>Remark:</b><br>1. Pass: The EUT complies with the essential requirements in the standard.<br>2. N/A: Not Applicable. |                                     |                 |        |
| <b>Test Method:</b>   | ANSI C63.4-2014<br>ANSI C63.10-2013 |                 |        |

### 5.1.2 Test Limit

| Test items   | Limit   |   |  |   |               |      |     |                |      |     |                 |                           |                         |                 |      |     |                 |                            |                          |              |       |      |                 |                     |          |         |      |            |          |      |            |           |      |            |            |      |            |           |                     |  |         |       |             |      |      |
|--|---|---|--|---|---------------|------|-----|----------------|------|-----|-----------------|---------------------------|-------------------------|-----------------|------|-----|-----------------|----------------------------|--------------------------|--------------|-------|------|-----------------|---------------------|----------|---------|------|------------|----------|------|------------|-----------|------|------------|------------|------|------------|-----------|---------------------|--|---------|-------|-------------|------|------|
| 20dB Bandwidth   | The bandwidth of the emission shall be no wider than 0.25% of the center frequency for devices operating above 70 MHz and below 900 MHz. For devices operating above 900 MHz, the emission shall be no wider than 0.5% of the center frequency. Bandwidth is determined at the points 20 dB down from the modulated carrier.  |   |  |   |               |      |     |                |      |     |                 |                           |                         |                 |      |     |                 |                            |                          |              |       |      |                 |                     |          |         |      |            |          |      |            |           |      |            |            |      |            |           |                     |  |         |       |             |      |      |
| <p>Field Strength of Fundamental</p> <p>Field Strength of Spurious Emissions</p> | <table border="1" data-bbox="518 450 1453 723"> <thead> <tr> <th>Fundamental Frequency (MHz)</th> <th>Field strength of fundamental (microvolts/meter)</th> <th>Field strength of spurious emissions (microvolts/meter)</th> </tr> </thead> <tbody> <tr> <td>40.66 – 40.70</td> <td>2250</td> <td>225</td> </tr> <tr> <td>70.00 – 130.00</td> <td>1250</td> <td>125</td> </tr> <tr> <td>130.00 – 174.00</td> <td><sup>1</sup>1250 to 3750</td> <td><sup>1</sup>125 to 375</td> </tr> <tr> <td>174.00 – 260.00</td> <td>3750</td> <td>375</td> </tr> <tr> <td>260.00 – 470.00</td> <td><sup>1</sup>3750 to 12500</td> <td><sup>1</sup>375 to 1250</td> </tr> <tr> <td>Above 470.00</td> <td>12500</td> <td>1250</td> </tr> </tbody> </table> <p><sup>1</sup>Linear interpolations.</p> <p>(1) The above field strength limits are specified at a distance of 3 meters. The tighter limits apply at the band edges.</p> <p>(2) Intentional radiators operating under the provisions of this section shall demonstrate compliance with the limits on the field strength of emissions, as shown in the above table, based on the average value of the measured emissions. As an alternative, compliance with the limits in the above table may be based on the use of measurement instrumentation with a CISPR quasi-peak detector. The specific method of measurement employed shall be specified in the application for equipment authorization. If average emission measurements are employed, the provisions in § 15.35 for averaging pulsed emissions and for limiting peak emissions apply. Further, compliance with the provisions of § 15.205 shall be demonstrated using the measurement instrumentation specified in that section.</p> <p>(3) The limits on the field strength of the spurious emissions in the above table are based on the fundamental frequency of the intentional radiator. Spurious emissions shall be attenuated to the average (or, alternatively, CISPR quasi-peak) limits shown in this table or to the general limits shown in § 15.209, whichever limit permits a higher field strength:</p> <table border="1" data-bbox="582 1332 1385 1668"> <thead> <tr> <th>Frequency (MHz)</th> <th>Limit (dBµV/m) @ 3m</th> <th>Detector</th> </tr> </thead> <tbody> <tr> <td>30 – 88</td> <td>40.0</td> <td>Quasi-peak</td> </tr> <tr> <td>88 – 216</td> <td>43.5</td> <td>Quasi-peak</td> </tr> <tr> <td>216 – 960</td> <td>46.0</td> <td>Quasi-peak</td> </tr> <tr> <td>960 – 1000</td> <td>54.0</td> <td>Quasi-peak</td> </tr> </tbody> </table> <p><b>Note:</b> The more stringent limit applies at transition frequencies.</p> <table border="1" data-bbox="582 1541 1385 1641"> <thead> <tr> <th rowspan="2">Frequency</th> <th colspan="2">Limit (dBµV/m) @ 3m</th> </tr> <tr> <th>Average</th> <th>Peake</th> </tr> </thead> <tbody> <tr> <td>Above 1 GHz</td> <td>54.0</td> <td>74.0</td> </tr> </tbody> </table> <p><b>Note:</b> The measurement bandwidth shall be 1 MHz or greater.</p> | Fundamental Frequency (MHz)                             | Field strength of fundamental (microvolts/meter) | Field strength of spurious emissions (microvolts/meter) | 40.66 – 40.70 | 2250 | 225 | 70.00 – 130.00 | 1250 | 125 | 130.00 – 174.00 | <sup>1</sup> 1250 to 3750 | <sup>1</sup> 125 to 375 | 174.00 – 260.00 | 3750 | 375 | 260.00 – 470.00 | <sup>1</sup> 3750 to 12500 | <sup>1</sup> 375 to 1250 | Above 470.00 | 12500 | 1250 | Frequency (MHz) | Limit (dBµV/m) @ 3m | Detector | 30 – 88 | 40.0 | Quasi-peak | 88 – 216 | 43.5 | Quasi-peak | 216 – 960 | 46.0 | Quasi-peak | 960 – 1000 | 54.0 | Quasi-peak | Frequency | Limit (dBµV/m) @ 3m |  | Average | Peake | Above 1 GHz | 54.0 | 74.0 |
| Fundamental Frequency (MHz)  | Field strength of fundamental (microvolts/meter)  | Field strength of spurious emissions (microvolts/meter) |  |   |               |      |     |                |      |     |                 |                           |                         |                 |      |     |                 |                            |                          |              |       |      |                 |                     |          |         |      |            |          |      |            |           |      |            |            |      |            |           |                     |  |         |       |             |      |      |
| 40.66 – 40.70  | 2250  | 225   |  |   |               |      |     |                |      |     |                 |                           |                         |                 |      |     |                 |                            |                          |              |       |      |                 |                     |          |         |      |            |          |      |            |           |      |            |            |      |            |           |                     |  |         |       |             |      |      |
| 70.00 – 130.00   | 1250  | 125   |  |   |               |      |     |                |      |     |                 |                           |                         |                 |      |     |                 |                            |                          |              |       |      |                 |                     |          |         |      |            |          |      |            |           |      |            |            |      |            |           |                     |  |         |       |             |      |      |
| 130.00 – 174.00  | <sup>1</sup> 1250 to 3750   | <sup>1</sup> 125 to 375                                 |  |   |               |      |     |                |      |     |                 |                           |                         |                 |      |     |                 |                            |                          |              |       |      |                 |                     |          |         |      |            |          |      |            |           |      |            |            |      |            |           |                     |  |         |       |             |      |      |
| 174.00 – 260.00  | 3750  | 375   |  |   |               |      |     |                |      |     |                 |                           |                         |                 |      |     |                 |                            |                          |              |       |      |                 |                     |          |         |      |            |          |      |            |           |      |            |            |      |            |           |                     |  |         |       |             |      |      |
| 260.00 – 470.00  | <sup>1</sup> 3750 to 12500  | <sup>1</sup> 375 to 1250                                |  |   |               |      |     |                |      |     |                 |                           |                         |                 |      |     |                 |                            |                          |              |       |      |                 |                     |          |         |      |            |          |      |            |           |      |            |            |      |            |           |                     |  |         |       |             |      |      |
| Above 470.00   | 12500   | 1250  |  |   |               |      |     |                |      |     |                 |                           |                         |                 |      |     |                 |                            |                          |              |       |      |                 |                     |          |         |      |            |          |      |            |           |      |            |            |      |            |           |                     |  |         |       |             |      |      |
| Frequency (MHz)  | Limit (dBµV/m) @ 3m   | Detector  |  |   |               |      |     |                |      |     |                 |                           |                         |                 |      |     |                 |                            |                          |              |       |      |                 |                     |          |         |      |            |          |      |            |           |      |            |            |      |            |           |                     |  |         |       |             |      |      |
| 30 – 88  | 40.0  | Quasi-peak  |  |   |               |      |     |                |      |     |                 |                           |                         |                 |      |     |                 |                            |                          |              |       |      |                 |                     |          |         |      |            |          |      |            |           |      |            |            |      |            |           |                     |  |         |       |             |      |      |
| 88 – 216   | 43.5  | Quasi-peak  |  |   |               |      |     |                |      |     |                 |                           |                         |                 |      |     |                 |                            |                          |              |       |      |                 |                     |          |         |      |            |          |      |            |           |      |            |            |      |            |           |                     |  |         |       |             |      |      |
| 216 – 960  | 46.0  | Quasi-peak  |  |   |               |      |     |                |      |     |                 |                           |                         |                 |      |     |                 |                            |                          |              |       |      |                 |                     |          |         |      |            |          |      |            |           |      |            |            |      |            |           |                     |  |         |       |             |      |      |
| 960 – 1000   | 54.0  | Quasi-peak  |  |   |               |      |     |                |      |     |                 |                           |                         |                 |      |     |                 |                            |                          |              |       |      |                 |                     |          |         |      |            |          |      |            |           |      |            |            |      |            |           |                     |  |         |       |             |      |      |
| Frequency  | Limit (dBµV/m) @ 3m   |   |  |   |               |      |     |                |      |     |                 |                           |                         |                 |      |     |                 |                            |                          |              |       |      |                 |                     |          |         |      |            |          |      |            |           |      |            |            |      |            |           |                     |  |         |       |             |      |      |
|  | Average   | Peake   |  |   |               |      |     |                |      |     |                 |                           |                         |                 |      |     |                 |                            |                          |              |       |      |                 |                     |          |         |      |            |          |      |            |           |      |            |            |      |            |           |                     |  |         |       |             |      |      |
| Above 1 GHz  | 54.0  | 74.0  |  |   |               |      |     |                |      |     |                 |                           |                         |                 |      |     |                 |                            |                          |              |       |      |                 |                     |          |         |      |            |          |      |            |           |      |            |            |      |            |           |                     |  |         |       |             |      |      |
| Duration Time  | A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.  |   |  |   |               |      |     |                |      |     |                 |                           |                         |                 |      |     |                 |                            |                          |              |       |      |                 |                     |          |         |      |            |          |      |            |           |      |            |            |      |            |           |                     |  |         |       |             |      |      |

## 5.2 Antenna Requirement

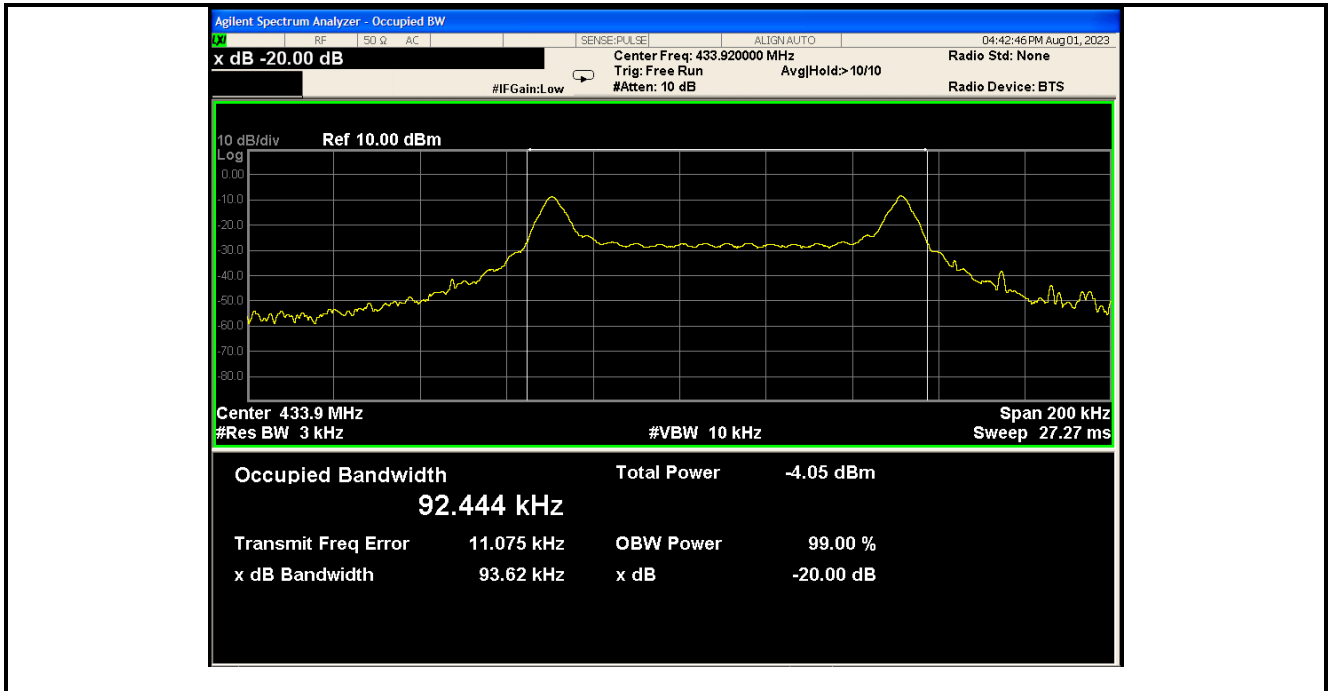
|   |                             |
|---|-----------------------------|
| <b>Standard requirement:</b>  | FCC Part15 C Section 15.203 |
| <p><b>15.203 requirement:</b><br/>           An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.</p> |                             |
| <b>E.U.T Antenna:</b>   |                             |
| <p>The antenna of EUT is a PCB Antenna which cannot replace by end-user. See product internal photos for details.</p>   |                             |

### 5.3 20dB Bandwidth

| 20dB bandwidth (MHz) | Limit (MHz) | Results |
|----------------------|-------------|---------|
| 0.09362              | 1.0848      | Passed  |

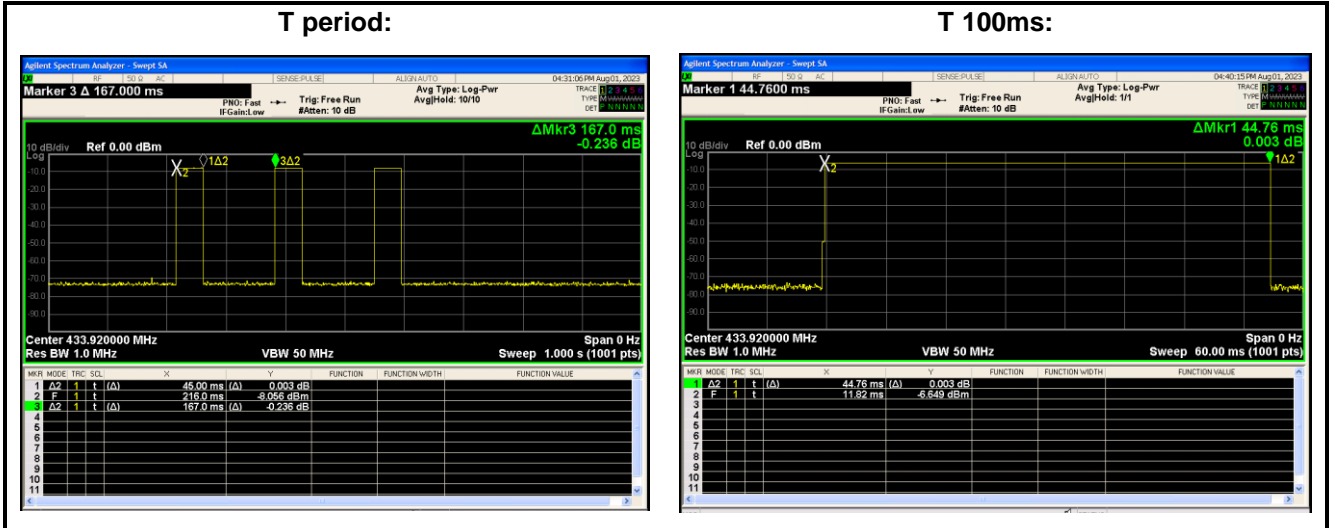
**Note:** Limit = Fundamental frequency $\times$ 0.25%=433.92 $\times$ 0.25%=1.0848MHz.

Test plot as follows:



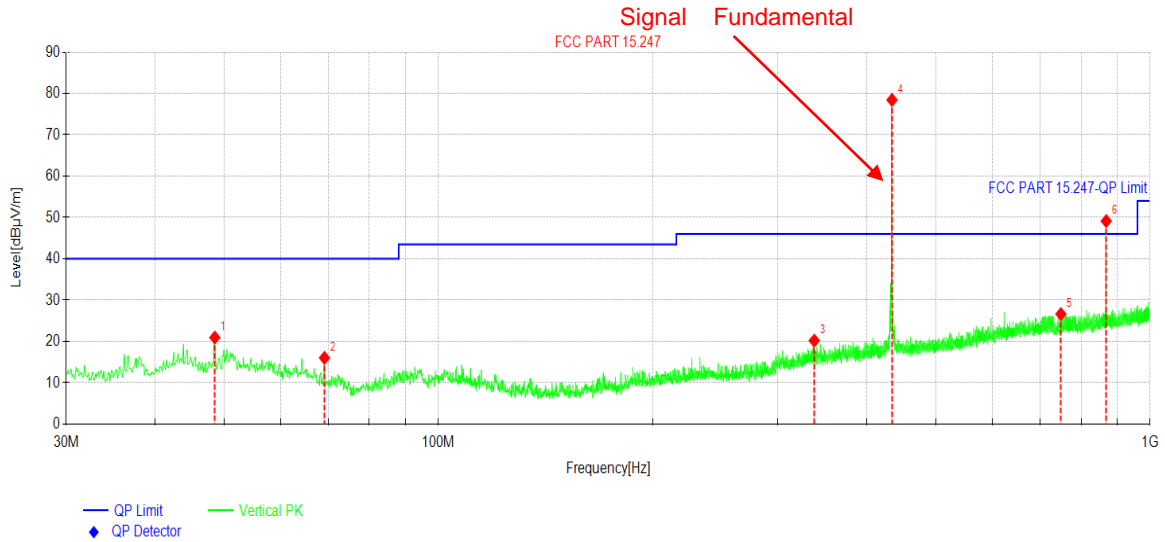
## 5.4 Field Strength of Fundamental

| Peak value  |  |                    |                        |                |                 |              |
|---|--|--------------------|------------------------|----------------|-----------------|--------------|
| Frequency (MHz)   | Read level (dBuV)  | Ant. factor (dB/m) | Level (dBuV/m)         | Limit (dBuV/m) | Over limit (dB) | Polarization |
| 433.948   | 88.26  | -9.81              | 78.45                  | 100.83         | 22.38           | Vertical     |
| 433.948   | 92.68  | -9.81              | 82.87                  | 100.83         | 17.96           | Horizontal   |
| Average value   |  |                    |                        |                |                 |              |
| Frequency (MHz)   | Level (dBuV/m)   | Duty cycle factor  | Average value (dBuV/m) | Limit (dBuV/m) | Over limit (dB) | Polarization |
| 433.948   | 78.45  | -6.98              | 71.47                  | 80.83          | 9.36            | Vertical     |
| 433.948   | 82.87  | -6.98              | 75.89                  | 80.83          | 4.94            | Horizontal   |
| Duty Cycle Factor<br>Calculate Formula:                 | Average value = Peak value + Duty Cycle Factor                     |                    |                        |                |                 |              |
|   | Duty cycle factor = $20\log(\text{Duty cycle})$                    |                    |                        |                |                 |              |
|   | Duty cycle = on time/100 milliseconds or period, whichever is less |                    |                        |                |                 |              |
|   | T on time =44.76(ms)   |                    |                        |                |                 |              |
|   | T period = 100(ms)   |                    |                        |                |                 |              |
|   | Duty cycle =44.76%   |                    |                        |                |                 |              |
| Duty cycle factor = $20\log(\text{Duty cycle}) = -6.98$ |  |                    |                        |                |                 |              |



### 5.5 Field Strength of Spurious Emissions

|                        |                   |                       |           |
|------------------------|-------------------|-----------------------|-----------|
| <b>Product Name:</b>   | Smart Key         | <b>Product Model:</b> | RT-HK4F28 |
| <b>Test By:</b>        | June              | <b>Test mode:</b>     | Tx mode   |
| <b>Test Frequency:</b> | 30 MHz – 1000 MHz | <b>Polarization:</b>  | Vertical  |
| <b>Test Voltage:</b>   | DC 3V             |                       |           |



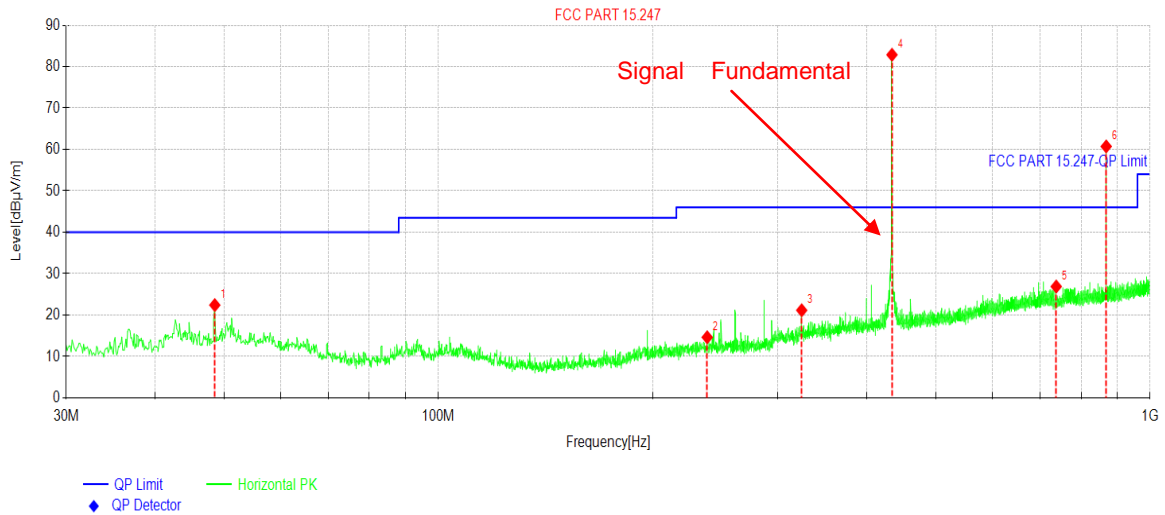
| Suspected Data List |             |                  |                |             |                |             |       |          |
|---------------------|-------------|------------------|----------------|-------------|----------------|-------------|-------|----------|
| NO.                 | Freq. [MHz] | Reading [dBµV/m] | Level [dBµV/m] | Factor [dB] | Limit [dBµV/m] | Margin [dB] | Trace | Polarity |
| 1                   | 48.5289     | 33.63            | 20.95          | -12.68      | 40.00          | 19.05       | PK    | Vertical |
| 2                   | 69.1919     | 32.79            | 16.04          | -16.75      | 40.00          | 23.96       | PK    | Vertical |
| 3                   | 337.423     | 31.71            | 20.20          | -11.51      | 46.00          | 25.80       | PK    | Vertical |
| 4                   | 433.948     | 88.26            | 78.45          | -9.81       | 100.83         | 22.38       | PK    | Vertical |
| 5                   | 749.521     | 30.60            | 26.64          | -3.96       | 46.00          | 19.36       | PK    | Vertical |
| 6                   | 867.775     | 52.13            | 49.14          | -2.99       | 80.83          | 31.69       | PK    | Vertical |

| Suspected Data List |             |                |                   |                        |                |             |       |          |
|---------------------|-------------|----------------|-------------------|------------------------|----------------|-------------|-------|----------|
| NO.                 | Freq. [MHz] | Level (dBµV/m) | Duty cycle factor | Average value (dBµV/m) | Limit [dBµV/m] | Margin [dB] | Trace | Polarity |
| 1                   | 433.948     | 78.45          | -6.98             | 71.47                  | 80.83          | 9.36        | Av    | Vertical |
| 2                   | 867.775     | 49.14          | -6.98             | 42.16                  | 60.83          | 18.67       | Av    | Vertical |

**Remark:**

1. Level = Reading + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).

|                        |                   |                       |            |
|------------------------|-------------------|-----------------------|------------|
| <b>Product Name:</b>   | Smart Key         | <b>Product Model:</b> | RT-HK4F28  |
| <b>Test By:</b>        | June              | <b>Test mode:</b>     | Tx mode    |
| <b>Test Frequency:</b> | 30 MHz – 1000 MHz | <b>Polarization:</b>  | Horizontal |
| <b>Test Voltage:</b>   | DC 3V             |                       |            |



| Suspected Data List |             |                  |                |             |                |             |       |            |
|---------------------|-------------|------------------|----------------|-------------|----------------|-------------|-------|------------|
| NO.                 | Freq. [MHz] | Reading [dBµV/m] | Level [dBµV/m] | Factor [dB] | Limit [dBµV/m] | Margin [dB] | Trace | Polarity   |
| 1                   | 48.5289     | 35.09            | 22.41          | -12.68      | 40.00          | 17.59       | PK    | Horizontal |
| 2                   | 238.667     | 28.54            | 14.63          | -13.91      | 46.00          | 31.37       | PK    | Horizontal |
| 3                   | 324.036     | 33.24            | 21.16          | -12.08      | 46.00          | 24.84       | PK    | Horizontal |
| 4                   | 433.948     | 92.68            | 82.87          | -9.81       | 100.83         | 17.96       | PK    | Horizontal |
| 5                   | 738.267     | 31.27            | 26.89          | -4.38       | 46.00          | 19.11       | PK    | Horizontal |
| 6                   | 867.775     | 63.72            | 60.73          | -2.99       | 80.83          | 20.10       | PK    | Horizontal |

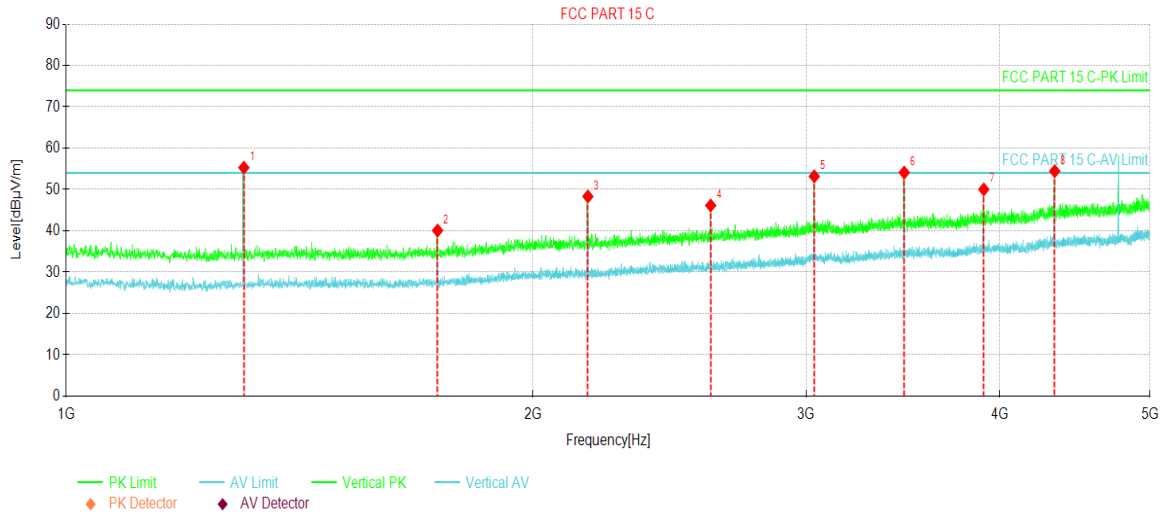
| Suspected Data List |             |                |                   |                        |                |             |       |            |
|---------------------|-------------|----------------|-------------------|------------------------|----------------|-------------|-------|------------|
| NO                  | Freq. [MHz] | Level (dBuV/m) | Duty cycle factor | Average value (dBuV/m) | Limit [dBµV/m] | Margin [dB] | Trace | Polarity   |
| 1                   | 433.948     | 82.87          | -6.98             | 71.47                  | 80.83          | 9.36        | Av    | Horizontal |
| 2                   | 867.775     | 60.73          | -6.98             | 53.75                  | 60.83          | 7.08        | Av    | Horizontal |

**Remark:**

1. Level = Reading + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).



|                        |                     |                       |           |
|------------------------|---------------------|-----------------------|-----------|
| <b>Product Name:</b>   | Smart Key           | <b>Product Model:</b> | RT-HK4F28 |
| <b>Test By:</b>        | June                | <b>Test mode:</b>     | Tx mode   |
| <b>Test Frequency:</b> | 1000 MHz – 5000 MHz | <b>Polarization:</b>  | Vertical  |
| <b>Test Voltage:</b>   | DC 3V               |                       |           |



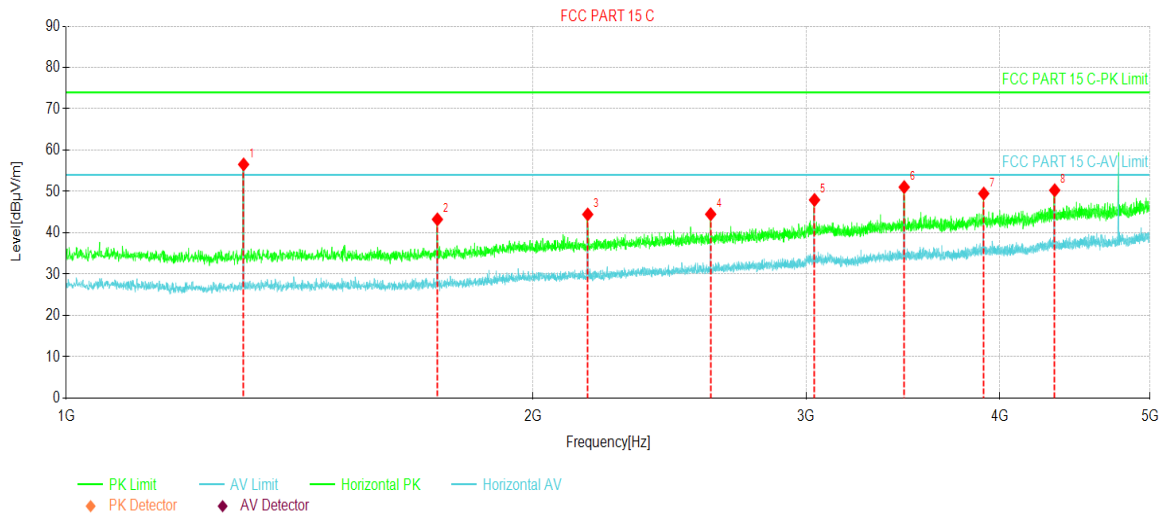
| Suspected Data List |             |                  |                |             |                |             |       |          |
|---------------------|-------------|------------------|----------------|-------------|----------------|-------------|-------|----------|
| NO.                 | Freq. [MHz] | Reading [dBµV/m] | Level [dBµV/m] | Factor [dB] | Limit [dBµV/m] | Margin [dB] | Trace | Polarity |
| 1                   | 1302.00     | 78.25            | 55.30          | -22.95      | 74.00          | 18.70       | PK    | Vertical |
| 2                   | 1736.00     | 62.47            | 40.07          | -22.40      | 80.83          | 40.76       | PK    | Vertical |
| 3                   | 2170.00     | 68.77            | 48.32          | -20.45      | 80.83          | 32.51       | PK    | Vertical |
| 4                   | 2604.00     | 64.92            | 46.13          | -18.79      | 80.83          | 34.70       | PK    | Vertical |
| 5                   | 3037.00     | 70.40            | 53.18          | -17.22      | 80.83          | 27.65       | PK    | Vertical |
| 6                   | 3471.00     | 70.00            | 54.10          | -15.90      | 80.83          | 26.73       | PK    | Vertical |
| 7                   | 3906.00     | 64.27            | 50.02          | -14.25      | 74.00          | 23.98       | PK    | Vertical |
| 8                   | 4340.00     | 66.67            | 54.44          | -12.23      | 74.00          | 19.56       | PK    | Vertical |

| Suspected Data List(Average) |             |                |                   |                        |                |             |       |          |
|------------------------------|-------------|----------------|-------------------|------------------------|----------------|-------------|-------|----------|
| NO.                          | Freq. [MHz] | Level (dBuV/m) | Duty cycle factor | Average value (dBuV/m) | Limit [dBµV/m] | Margin [dB] | Trace | Polarity |
| 1                            | 1736.00     | 40.07          | -6.98             | 33.09                  | 60.83          | 40.07       | Av    | Vertical |
| 2                            | 2170.00     | 48.32          | -6.98             | 41.34                  | 60.83          | 48.32       | Av    | Vertical |
| 3                            | 2604.00     | 46.13          | -6.98             | 39.15                  | 60.83          | 46.13       | Av    | Vertical |
| 4                            | 3037.00     | 53.18          | -6.98             | 46.20                  | 60.83          | 53.18       | Av    | Vertical |
| 5                            | 3471.00     | 54.10          | -6.98             | 47.12                  | 60.83          | 54.10       | Av    | Vertical |

**Remark:**

1. Level = Reading + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).

|                        |                     |                       |            |
|------------------------|---------------------|-----------------------|------------|
| <b>Product Name:</b>   | Smart Key           | <b>Product Model:</b> | RT-HK4F28  |
| <b>Test By:</b>        | June                | <b>Test mode:</b>     | Tx mode    |
| <b>Test Frequency:</b> | 1000 MHz – 5000 MHz | <b>Polarization:</b>  | Horizontal |
| <b>Test Voltage:</b>   | DC 3V               |                       |            |


**Suspected Data List**

| NO. | Freq. [MHz] | Reading [dBµV/m] | Level [dBµV/m] | Factor [dB] | Limit [dBµV/m] | Margin [dB] | Trace | Polarity   |
|-----|-------------|------------------|----------------|-------------|----------------|-------------|-------|------------|
| 1   | 1301.50     | 79.51            | 56.55          | -22.96      | 74.00          | 17.45       | PK    | Horizontal |
| 2   | 1735.50     | 65.66            | 43.26          | -22.40      | 80.83          | 37.57       | PK    | Horizontal |
| 3   | 2169.50     | 64.90            | 44.45          | -20.45      | 80.83          | 36.38       | PK    | Horizontal |
| 4   | 2604.00     | 63.29            | 44.50          | -18.79      | 80.83          | 36.33       | PK    | Horizontal |
| 5   | 3038.00     | 65.16            | 47.95          | -17.21      | 80.83          | 32.88       | PK    | Horizontal |
| 6   | 3471.00     | 66.96            | 51.06          | -15.90      | 80.83          | 29.77       | PK    | Horizontal |
| 7   | 3906.00     | 63.74            | 49.49          | -14.25      | 74.00          | 24.51       | PK    | Horizontal |
| 8   | 4340.00     | 62.53            | 50.30          | -12.23      | 74.00          | 23.70       | PK    | Horizontal |

**Suspected Data List(Average)**

| NO | Freq. [MHz] | Level (dBuV/m) | Duty cycle factor | Average value (dBuV/m) | Limit [dBµV/m] | Margin [dB] | Trace | Polarity   |
|----|-------------|----------------|-------------------|------------------------|----------------|-------------|-------|------------|
| 1  | 1735.50     | 43.26          | -6.98             | 36.28                  | 60.83          | 24.55       | Av    | Horizontal |
| 2  | 2169.50     | 44.45          | -6.98             | 37.47                  | 60.83          | 23.36       | Av    | Horizontal |
| 3  | 2604.00     | 44.50          | -6.98             | 37.52                  | 60.83          | 23.31       | Av    | Horizontal |
| 4  | 3038.00     | 47.95          | -6.98             | 40.97                  | 60.83          | 19.86       | Av    | Horizontal |
| 5  | 3471.00     | 51.06          | -6.98             | 44.08                  | 60.83          | 16.75       | Av    | Horizontal |

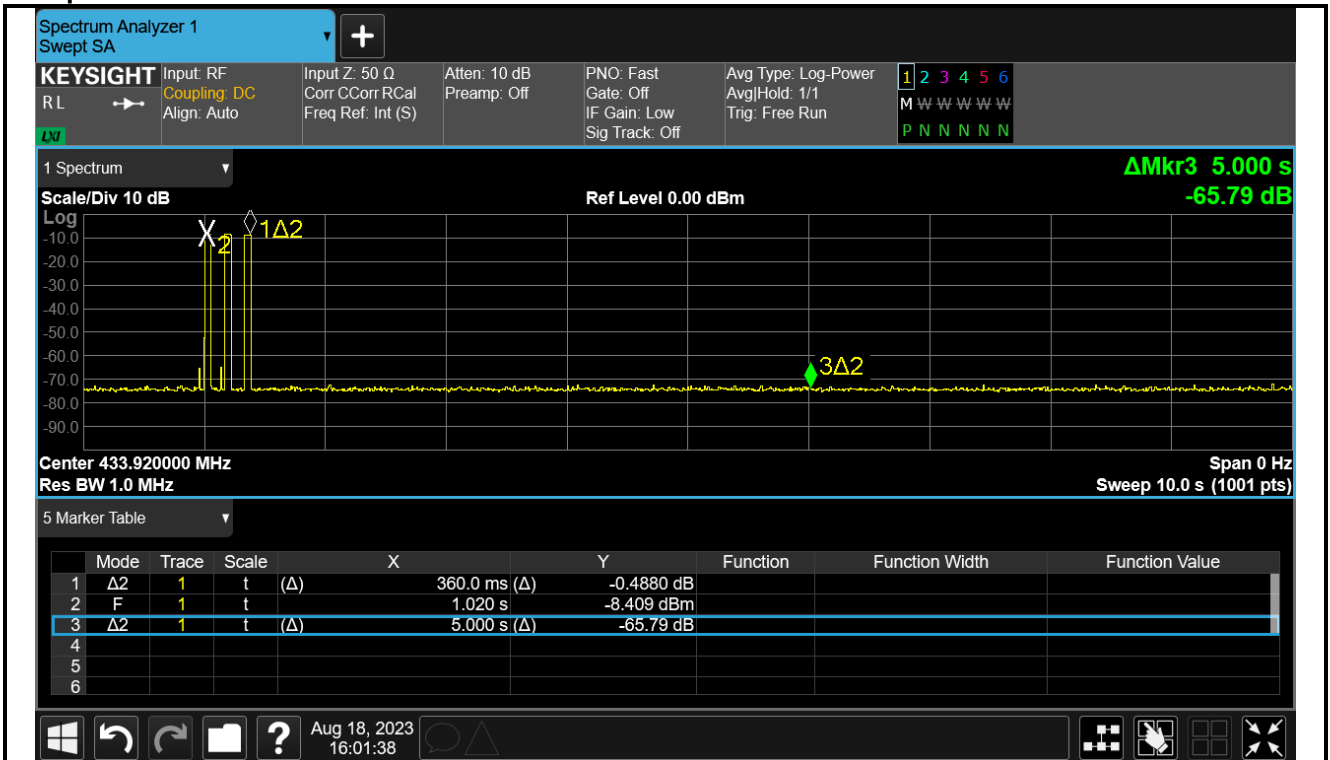
**Remark:**

1. Level = Reading + Factor(Antenna Factor + Cable Loss – Preamplifier Factor).

### 5.6 Duration Time

| Measurement monitoring  | Result |
|---|--------|
| The EUT automatically deactivate the transmitter within 5 seconds of switch being released. | Pass   |

Test plot as follows:



-----End of report-----