



# FCC PART 15.231 TEST REPORT

On Behalf of

Chaney Instrument Co.

Unit No. 1, 9/F., Clifford center, No. 782 Cheung Sha Wan Road, Kowloon,  
Hong Kong

FCC ID: RNEVN1TXCA4

Model: 06004MA1, 06014MA1

July 7, 2025

## This Report Concerns:

☒ Original Report

## Equipment Type:

AcuRite Iris™ (5-in-1) Weather Sensor  
(Single Solar Panel), AcuRite Iris™ (5-in-1)  
Weather Sensor(Dual Solar Panel)

Test Engineer:

LBi Li / *LBi Li*

Report Number:

QCT25FR-1608E-01

Test Date:

June 10 ~ July 3, 2025

Test Result:

Pass

Reviewed By:

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Approved By:

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Prepared By:

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## Revision History of This Test Report

[illegible]



## 1. GENERAL INFORMATION

### 1.1 Product Description for Equipment under Test (EUT)

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EUT Description:        | AcuRite Iris™ (5-in-1) Weather Sensor(Single Solar Panel),<br>AcuRite Iris™ (5-in-1) Weather Sensor(Dual Solar Panel)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Model No.               | 06004MA1, 06014MA1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Tested Model:           | 06004MA1, 06014MA1<br>This product offers two solar power options. The AcuRite Iris™ (5-in-1) Weather Sensor (Single Solar Panel) / 06004MA1 is equipped with only one solar panel; while the AcuRite Iris™ (5-in-1) Weather Sensor (Dual Solar Panel) / 06014MA1 is fitted with two solar panels. They are electrical identical including the same software parameter and hardware design (i.e., circuit design, PCB Layout, RF module/circuit, antenna type and antenna location, components on PCB, etc.), same mechanical structure and design (including product enclosure, materials, etc.),<br>We tested all items at the 06004MA1 with Single Solar Panel, and only test the spurious emission (30MHz - 1GHz) at at the 06014MA1 with Dual Solar Panel. |
| Sample(s) Status:       | Engineer sample                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Operation Frequency:    | 433.92 MHz±0.02%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Channel numbers:        | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Modulation type:        | ASK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Antenna Type:           | Spring Antenna                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Antenna gain*1:         | 0dBi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Power supply:           | parallel connection: DC 3V (Powered by 4*1.5V AA battery)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Trade Mark:             | ACURITE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Applicant:              | Chaney Instrument Co.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Address:                | Unit No. 1, 9/F., Clifford center, No. 782 Cheung Sha Wan Road, Kowloon, Hong Kong                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Manufacturer:           | Chaney Instrument Co.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Address:                | Unit No. 1, 9/F., Clifford center, No. 782 Cheung Sha Wan Road, Kowloon, Hong Kong                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Sample No.:             | Y25F1606E01YN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Description of the EUT: | The product is a activated automatically transmitter.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

Note: \*1This information provided by Manufacturer, SZ QC Lab is not responsible for the accuracy of this information.



## 1.2 System Test Configuration

### 1.2.1 Support Equipment

N/A

### 1.2.2 Test mode and voltage

Transmitting mode: The manufacturer provides the engineering sample to set the continuously transmitting mode, and the power level is the default.

Test voltage: DC 3V(All the test modes can be supply by new battery)

|                  |                                                              |
|------------------|--------------------------------------------------------------|
| RF power setting | Default power                                                |
| Test software    | Engineering sample to set the continuously transmitting mode |

## 1.3 Test Facility

Test Firm: Shenzhen QC Testing Laboratory Co., Ltd.

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19. The testing quality system of our laboratory meets with ISO/IEC-17025 requirements. This approval result is accepted by MRA of APLAC.

Our test facility is recognized, certified, or accredited by the following organizations:

CNAS – Registration No.: L8464

The EMC Laboratory has been accredited by CNAS, and in compliance with ISO/IEC 17025:2017 General Requirements for testing Laboratories.

A2LA Certificate Number: 6759.01

The EMC Laboratory has been accredited by A2LA, and in compliance with ISO/IEC 17025:2017 General Requirements for testing Laboratories.

FCC Registration Number: 561109

The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission.

IC Registration Number: 29628

CAB identifier: CN0141

The EMC Laboratory has been registered and fully described in a report filed with the (IC) Industry Canada.



## 1.4 Measurement Uncertainty

| Parameter                                          | Uncertainty                 |
|----------------------------------------------------|-----------------------------|
| Occupied Channel Bandwidth                         | $\pm 1.42 \times 10^{-4}\%$ |
| RF output power, conducted                         | $\pm 1.06\text{dB}$         |
| Power Spectral Density, conducted                  | $\pm 1.06\text{dB}$         |
| Unwanted Emissions, conducted                      | $\pm 2.51\text{dB}$         |
| AC Power Line Conducted Emission                   | $\pm 1.80\text{dB}$         |
| Radiated Spurious Emission test (9kHz-30MHz)       | $\pm 2.66\text{dB}$         |
| Radiated Spurious Emission test (30MHz-1000MHz)    | $\pm 4.04\text{dB}$         |
| Radiated Spurious Emission test (1000MHz-18000MHz) | $\pm 4.70\text{ dB}$        |
| Radiated Spurious Emission test (18GHz-40GHz)      | $\pm 4.80\text{dB}$         |
| Temperature                                        | $\pm 0.8^{\circ}\text{C}$   |
| Humidity                                           | $\pm 3.2\%$                 |
| DC and low frequency voltages                      | $\pm 0.1\%$                 |
| Time                                               | $\pm 5\%$                   |
| Duty cycle                                         | $\pm 5\%$                   |

Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2



## 2. Summary of Test Results

| Test Item                | Section            | Result |
|--------------------------|--------------------|--------|
| Antenna Requirement      | FCC Part 15.203    | Pass   |
| Conduction Emission      | FCC Part 15.207    | N/A    |
| Radiated Emission        | FCC Part 15.231(e) | Pass   |
| 20dB Bandwidth           | FCC Part 15.231(c) | Pass   |
| Release Time Measurement | FCC Part 15.231(e) | Pass   |
| Duty Cycle               | FCC Part 15.231    | N/A    |

Note: 1. "N/A" means "not applicable".

2. Test according to ANSI C63.10: 2020

3. In the configuration tested, the EUT complied with the standards specified above.

4. All indications of Pass/Fail in this report are opinions expressed by Shenzhen QC Testing Laboratory Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.

5. The EUT is powered by the battery, and Conduction Emission is not applicable.

6. Since the peak value is less than the average limit, the average value does not need to be tested, Therefore, there is no need to test the duty cycle.



### 3. List of Test and Measurement Instruments

#### 3.1 Radiated Emission Test

| Item | Equipment                     | Manufacturer  | Model No.           | Serial No.   | Last Cal.  | Cal.Due    |
|------|-------------------------------|---------------|---------------------|--------------|------------|------------|
| 1.   | EMI Test Receiver             | Rohde&Schwarz | ESIB 7              | 2277573376   | 2025.03.17 | 2026.03.16 |
| 2.   | EMI Test Receiver             | Rohde&Schwarz | ESPI3               | 101131       | 2025.03.17 | 2026.03.16 |
| 3.   | Spectrum Analyzer             | Rohde&Schwarz | FSV 40              | 101458       | 2025.03.18 | 2026.03.17 |
| 4.   | TRILOG Broadband Test-Antenna | SCHWARZBECK   | VULB9168            | VULB9168-588 | 2025.03.22 | 2026.03.21 |
| 5.   | Loop Antenna                  | EMCO          | 6502                | 2133         | 2025.03.19 | 2026.03.18 |
| 6.   | horn antenna                  | SCHWARZBECK   | BBHA9120D           | 2069         | 2024.08.10 | 2025.08.09 |
| 7.   | Horn Antenna                  | COM-MW        | ZLB7-18-40G-950     | 12221225     | 2024.08.10 | 2025.08.09 |
| 8.   | Pre-amplifier                 | MITEQ         | TTA0001-18          | 2063645      | 2025.03.17 | 2026.03.16 |
| 9.   | Pre-amplifier                 | MITEQ         | TTA1800-30-HG       | 2063644      | 2025.03.17 | 2026.03.16 |
| 10.  | Pre-amplifier                 | COM-MW        | DLAN-18000-40000-02 | 10229104     | 2025.03.22 | 2026.03.21 |
| 11.  | 966 Camber                    | ZhongYU       | 9*6*6               | /            | 2023.05.08 | 2026.05.07 |

Radiated Emission Measurement Software: EZ EMC Ver QCT03A2 RE+

#### 3.2 RF Conducted test

| Item | Equipment                | Manufacturer  | Model No.                | Serial No. | Last Cal.  | Cal.Due    |
|------|--------------------------|---------------|--------------------------|------------|------------|------------|
| 1.   | Spectrum Analyzer        | ROHDE&SCHWARZ | FSV 40                   | 101458     | 2025.03.18 | 2026.03.17 |
| 2.   | Signal Generator         | Agilent       | N5182A                   | MY50141563 | 2025.03.18 | 2026.03.17 |
| 3.   | RF Automatic Test System | MW            | MW100-RFCB/<br>MW100-PSB | MW2007004  | 2025.03.18 | 2026.03.17 |

RF Conducted Measurement Software: MTS 8310 Ver 2.0.0.0



## 4. Antenna requirement

**Standard requirement:** FCC Part15 C Section 15.203

15.203 requirement:

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.

**EUT Antenna:** The antenna is Spring Antenna, reference to the Internal Photos for details.

## 5. Radiated Emission Method

### 5.1 Applicable Standard

FCC Part15 C Section 15.231 (e) & Section 15.209

### 5.2 Limit

In addition to the provisions of Section 15.205, the field strength of emissions from intentional radiators operated under this Section shall not exceed the following:

| Fundamental Frequency (MHz) | Field Strength of Fundamental (microvolt/meter) at 3m | Field Strength of Spurious Emissions (microvolt/meter) at 3m |
|-----------------------------|-------------------------------------------------------|--------------------------------------------------------------|
| 40.66~40.70                 | 1000                                                  | 100                                                          |
| 70~130                      | 500                                                   | 50                                                           |
| 130~174                     | 500 to 1500(**)                                       | 50 to 150(**)                                                |
| 174~260                     | 1500                                                  | 150                                                          |
| 260~470                     | 1500 to 5000(**)                                      | 150 to 500(**)                                               |
| Above 470                   | 5000                                                  | 500                                                          |

\*\* Linear interpolations, the formulas for calculating the maximum permitted fundamental field strengths are as follows:

- (1) for the band 130~174 MHz,  $\mu\text{V/m}$  at 3 meters =  $22.7273(F) - 2454.5455$ ;
- (2) for the band 260~470 MHz,  $\mu\text{V/m}$  at 3 meter =  $16.6667(F) - 2833.3333$ .
- (3) The maximum permitted unwanted emissions level is 20 dB below the maximum permitted fundamental level. In addition field strength of any emissions which appear inside of the restriction band shall not exceed the general radiated emissions limits in FCC Part15.209.

| Frequency (MHz) | Field Strength (microvolt/meter) | Measurement Distance (meters) |
|-----------------|----------------------------------|-------------------------------|
| 0.009~0.490     | 2400/F(KHz)                      | 300                           |
| 0.490~1.705     | 24000/F(KHz)                     | 30                            |
| 1.705~30.0      | 30                               | 30                            |
| 30~88           | 100                              | 3                             |
| 88~216          | 150                              | 3                             |
| 216~960         | 200                              | 3                             |
| Above 960       | 500                              | 3                             |

Note:

- (1) The tighter limit applies at the band edges.
- (2) For above 30MHz:  
Emission Level(dBuV/m)=20log Emission Level( $\mu\text{V/m}$ )  
For 0.009~0.490MHz:

Emission Level(dBuV/m)=20log Emission Level(uV/m) +40log(300/3)

For 0.049~30MHz:

Emission Level(dBuV/m)=20log Emission Level(uV/m) +40log(30/3)

So the field strength of emission limits have been calculated in below table.

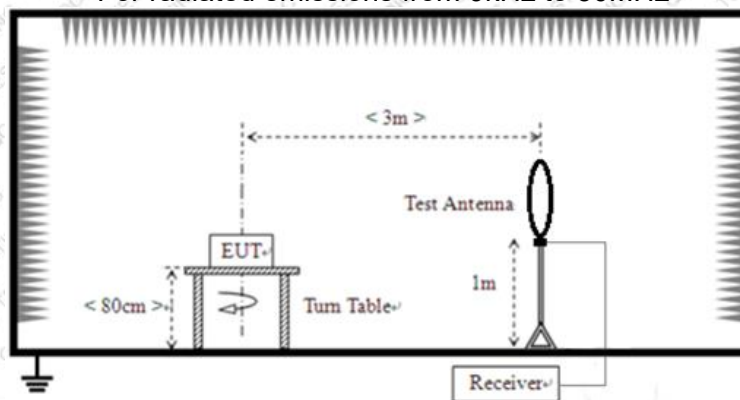
| Fundamental Frequency<br>(MHz) | Field Strength of Fundamental<br>(microvolt/meter) at 3m |
|--------------------------------|----------------------------------------------------------|
| 433.92 MHz                     | 72.87 (Average)                                          |
| 433.92 MHz                     | 92.87 (Peak)                                             |

### 5.3 Receiver setup

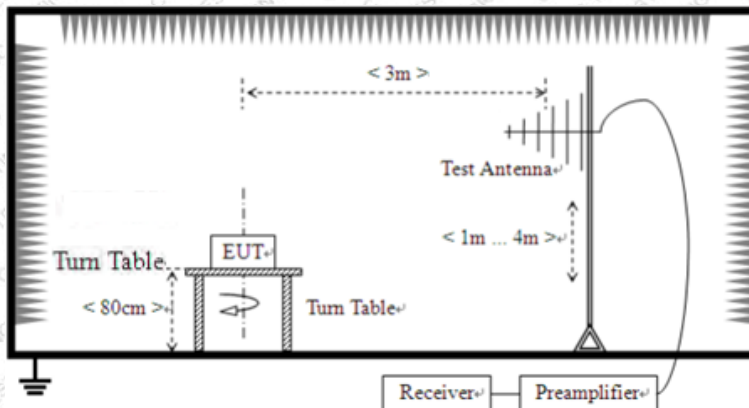
| Frequency    | Detector   | RBW    | VBW    | Value      |
|--------------|------------|--------|--------|------------|
| 9KHz-150KHz  | Quasi-peak | 200Hz  | 600Hz  | Quasi-peak |
| 150KHz-30MHz | Quasi-peak | 9KHz   | 30KHz  | Quasi-peak |
| 30MHz-1GHz   | Quasi-peak | 100KHz | 300KHz | Quasi-peak |
| Above 1GHz   | Peak       | 1MHz   | 3MHz   | Peak       |
|              | Peak       | 1MHz   | 10Hz   | Average    |

### 5.4 Test setup

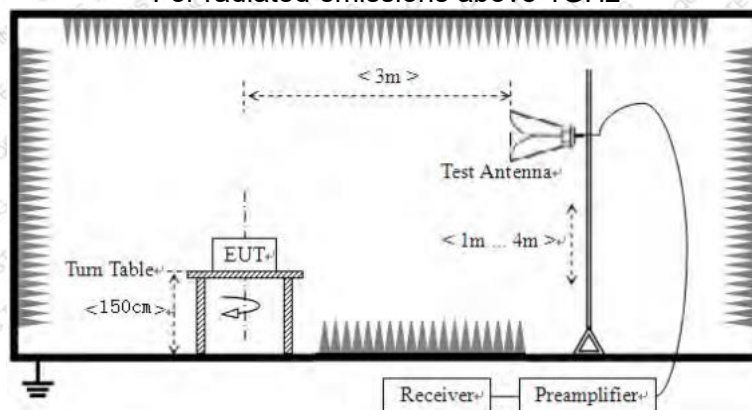
For radiated emissions from 9kHz to 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



## 5.5 Test Procedure

1. The EUT was placed on the top of a rotating table (0.8 meters for below 1GHz and 1.5 meters for above 1GHz) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

## 5.6 Test Data

|              |         |              |        |
|--------------|---------|--------------|--------|
| Temperature  | 25-26°C | Humidity     | 49-54% |
| ATM Pressure | 101kPa  | Antenna Gain | 0dBi   |
| Test by      | LBi Li  | Test result  | PASS   |

### Remarks:

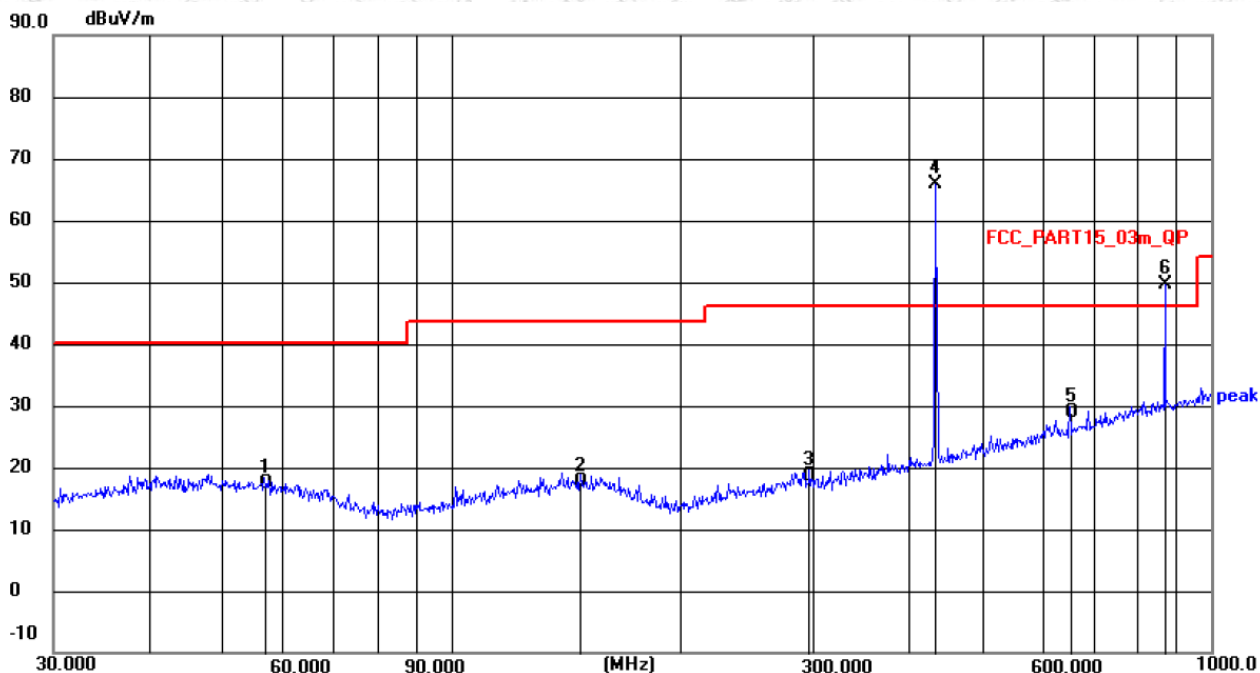
1. Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis which it is worse case.
2. Data of measurement within frequency range 9kHz-30MHz, 1-6GHz are the noise floor or attenuated more than 20dB below the permissible limits or the field strength is too small to be measured, so test data does not present in this report.



AcuRite Iris™ (5-in-1) Weather Sensor (Single Solar Panel) / 06004MA1

Below 1GHz:

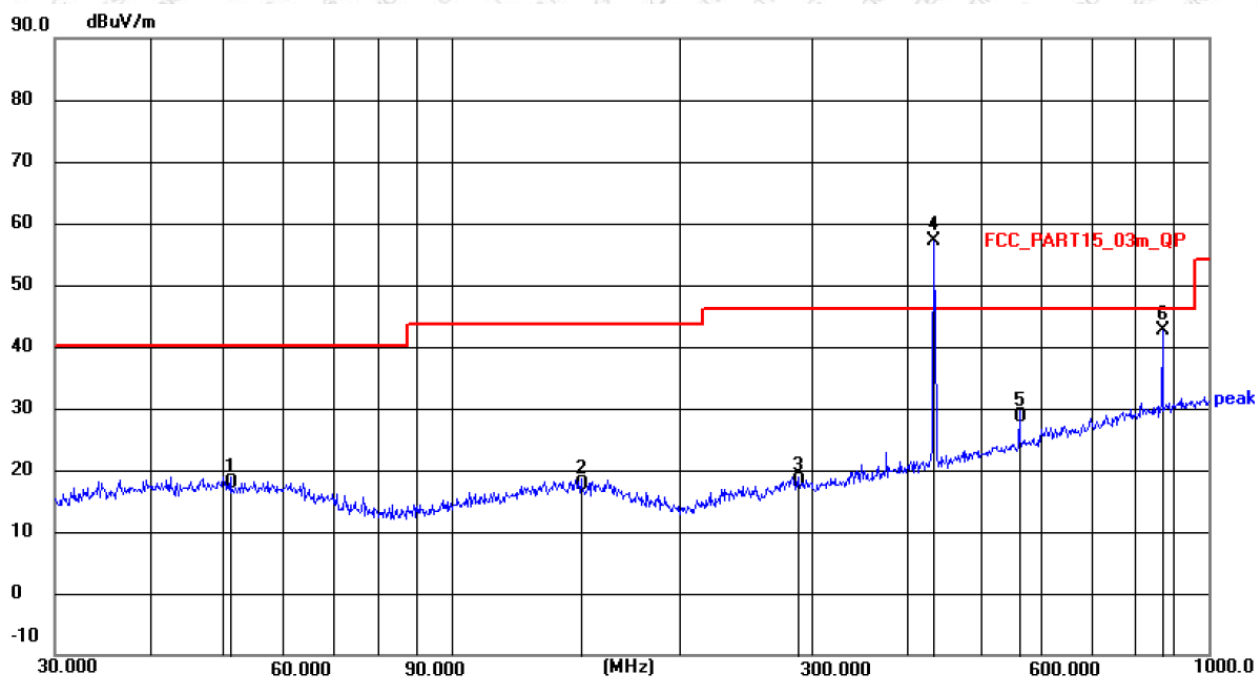
Horizontal



| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|
| 1   | 56.7917         | 3.56           | 13.86         | 17.42          | 40.00          | 22.58       | QP       |
| 2   | 147.9214        | 3.40           | 14.35         | 17.75          | 43.50          | 25.75       | QP       |
| 3   | 296.1836        | 4.29           | 14.36         | 18.65          | 46.00          | 27.35       | QP       |
| 4 * | 433.9200        | 47.69          | 18.57         | 66.26          | /              | /           | peak     |
| 5   | 651.9417        | 6.68           | 22.09         | 28.77          | 46.00          | 17.23       | QP       |
| 6   | 867.8400        | 24.02          | 25.87         | 49.89          | /              | /           | peak     |



Vertical



| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|
| 1   | 51.1209         | 3.57           | 14.35         | 17.92          | 40.00          | 22.08       | QP       |
| 2   | 148.4410        | 3.28           | 14.35         | 17.63          | 43.50          | 25.87       | QP       |
| 3   | 286.9823        | 3.42           | 14.59         | 18.01          | 46.00          | 27.99       | QP       |
| 4 * | 433.9200        | 38.99          | 18.26         | 57.25          | /              | /           | peak     |
| 5   | 562.6624        | 7.91           | 20.66         | 28.57          | 46.00          | 17.43       | QP       |
| 6   | 867.8400        | 16.91          | 25.69         | 42.60          | /              | /           | peak     |



| Frequency (MHz) | Read Level (dB $\mu$ V) | polarization | Factor (dB/m) | Peak value (dB $\mu$ V/m) | Average Limit (dB $\mu$ V/m) | Margin (dB) |
|-----------------|-------------------------|--------------|---------------|---------------------------|------------------------------|-------------|
| 433.92          | 47.69                   | H            | 18.57         | 66.26                     | 72.87                        | 6.61        |
| 867.84          | 24.02                   | H            | 25.87         | 49.89                     | 52.87                        | 2.98        |
| 433.92          | 38.99                   | V            | 18.26         | 57.25                     | 72.87                        | 15.62       |
| 867.84          | 16.91                   | V            | 25.69         | 42.6                      | 52.87                        | 10.27       |

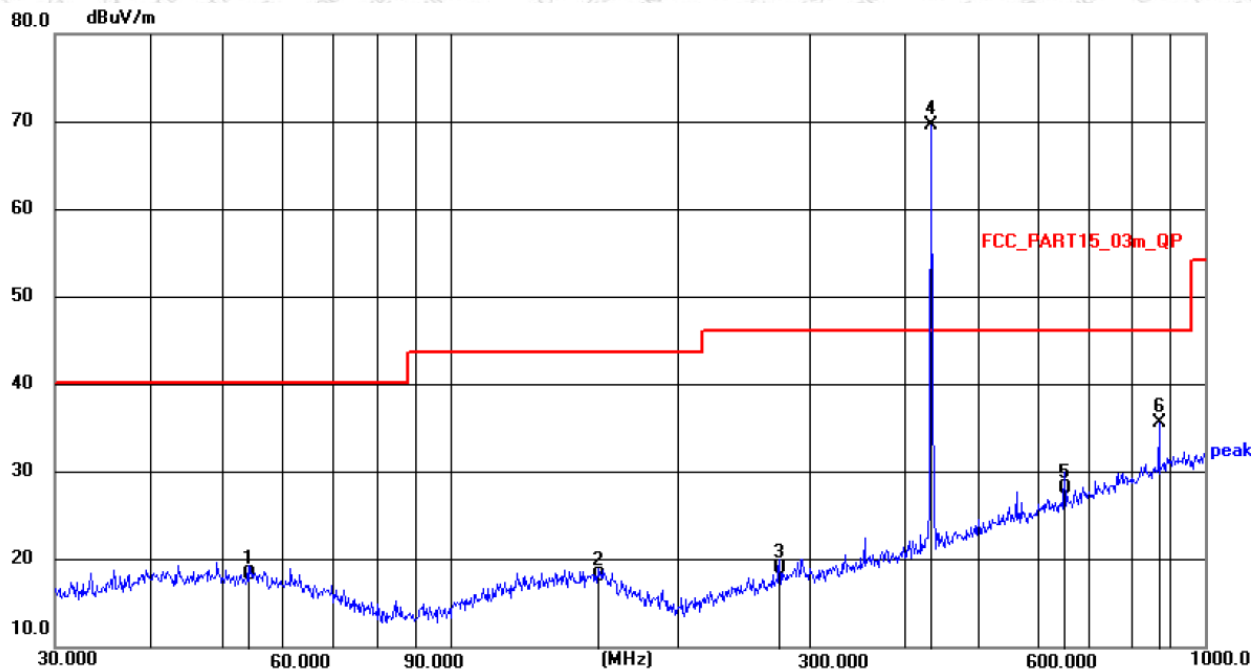
**Above 1G:**

| Frequency (MHz) | Read Level (dB $\mu$ V) | polarization | Factor (dB/m) | Peak value (dB $\mu$ V/m) | Average Limit (dB $\mu$ V/m) | Margin (dB) | Detector |
|-----------------|-------------------------|--------------|---------------|---------------------------|------------------------------|-------------|----------|
| 1301.76         | 65.56                   | H            | -15.21        | 50.35                     | 52.87                        | 2.52        | peak     |
| 1735.68         | 67.52                   | H            | -14.68        | 52.84                     | 52.87                        | 0.03        | peak     |
| 2603.52         | 63.14                   | H            | -11.88        | 51.26                     | 52.87                        | 1.61        | peak     |
| 3905.28         | 62.29                   | H            | -10.99        | 51.3                      | 52.87                        | 1.57        | peak     |
| 1301.76         | 67.07                   | V            | -15.21        | 51.86                     | 52.87                        | 1.01        | peak     |
| 1735.68         | 58.36                   | V            | -14.68        | 43.68                     | 52.87                        | 9.19        | peak     |
| 2169.6          | 61.53                   | V            | -12.83        | 48.7                      | 52.87                        | 4.17        | peak     |
| 2603.52         | 64.27                   | V            | -11.88        | 52.39                     | 52.87                        | 0.48        | peak     |
| 3037.44         | 58.83                   | V            | -10.79        | 48.04                     | 52.87                        | 4.83        | peak     |
| 3905.28         | 60.07                   | V            | -10.99        | 49.08                     | 52.87                        | 3.79        | peak     |



AcuRite Iris™ (5-in-1) Weather Sensor (Dual Solar Panel) / 06014MA1

Horizontal:

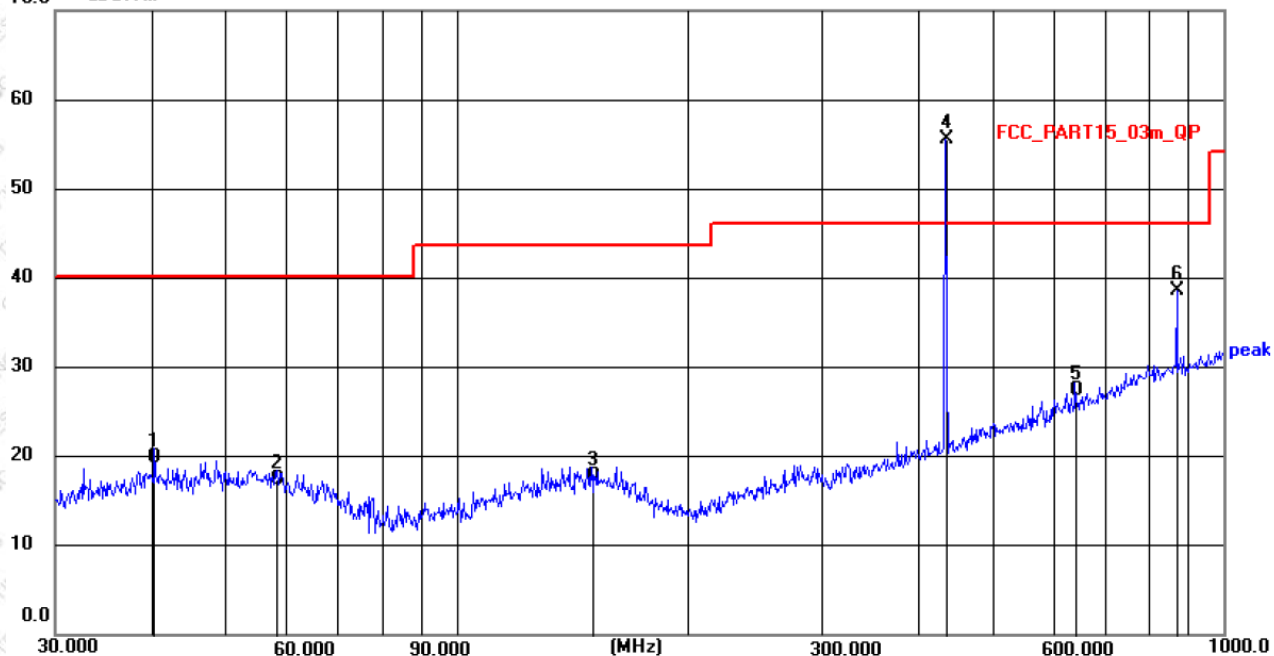


| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|
| 1   | 54.0709         | 3.96           | 14.33         | 18.29          | 40.00          | 21.71       | QP       |
| 2   | 157.0072        | 3.40           | 14.68         | 18.08          | 43.50          | 25.42       | QP       |
| 3   | 273.2339        | 4.80           | 14.15         | 18.95          | 46.00          | 27.05       | QP       |
| 4 * | 433.9200        | 50.96          | 18.57         | 69.53          | /              | /           | peak     |
| 5   | 651.9415        | 5.97           | 22.14         | 28.11          | 46.00          | 17.89       | QP       |
| 6   | 867.8400        | 9.71           | 25.87         | 35.58          | /              | /           | peak     |



Vertical:

70.0 dBuV/m



| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|
| 1   | 40.4170         | 5.28           | 14.59         | 19.87          | 40.00          | 20.13       | QP       |
| 2   | 58.4074         | 3.72           | 13.73         | 17.45          | 40.00          | 22.55       | QP       |
| 3   | 150.0108        | 3.36           | 14.37         | 17.73          | 43.50          | 25.77       | QP       |
| 4 * | 433.9200        | 37.32          | 18.26         | 55.58          | /              | /           | peak     |
| 5   | 640.6110        | 5.41           | 21.92         | 27.33          | 46.00          | 18.67       | QP       |
| 6   | 867.8400        | 12.84          | 25.69         | 38.53          | /              | /           | peak     |



| Frequency (MHz) | Read Level (dBμV) | polarization | Factor (dB/m) | Peak value (dBμV/m) | Average Limit (dBμV/m) | Margin (dB) |
|-----------------|-------------------|--------------|---------------|---------------------|------------------------|-------------|
| 433.92          | 50.96             | H            | 18.57         | 69.53               | 72.87                  | 3.34        |
| 867.84          | 9.71              | H            | 25.87         | 35.58               | 52.87                  | 17.29       |
| 433.92          | 37.32             | V            | 18.26         | 55.58               | 72.87                  | 17.29       |
| 867.84          | 12.84             | V            | 25.69         | 38.53               | 52.87                  | 14.34       |

Remarks:

1. Level = Receiver Read level + Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.
3. If the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement, so AV emission value did not show in above table if the peak value complies with average limit.

## 6. 20dB Occupy Bandwidth

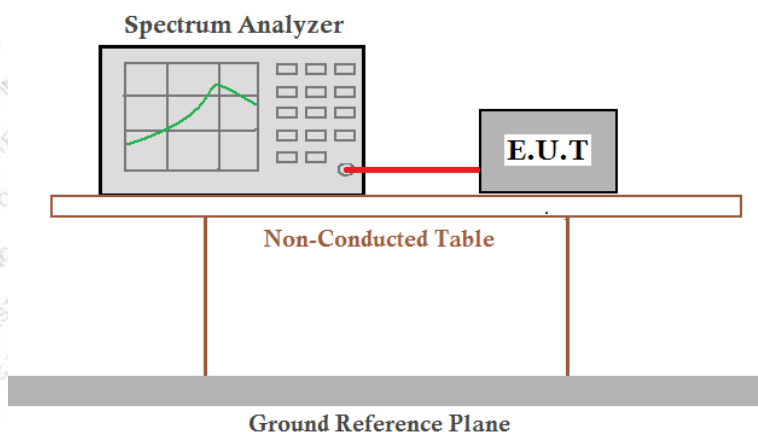
### 6.1 Applicable Standard

FCC Part15 C Section 15.231 (c)

### 6.2 Limit

The bandwidth of the emission shall be no wider than 0.25% of the center frequency for devices operating above 70 MHz and below 900MHz. 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.

### 6.3 Test setup



### 6.4 Test Data

|              |        |              |      |
|--------------|--------|--------------|------|
| Temperature  | 23.5°C | Humidity     | 48%  |
| ATM Pressure | 101kPa | Antenna Gain | 0dBi |
| Test by      | LBi Li | Test result  | PASS |

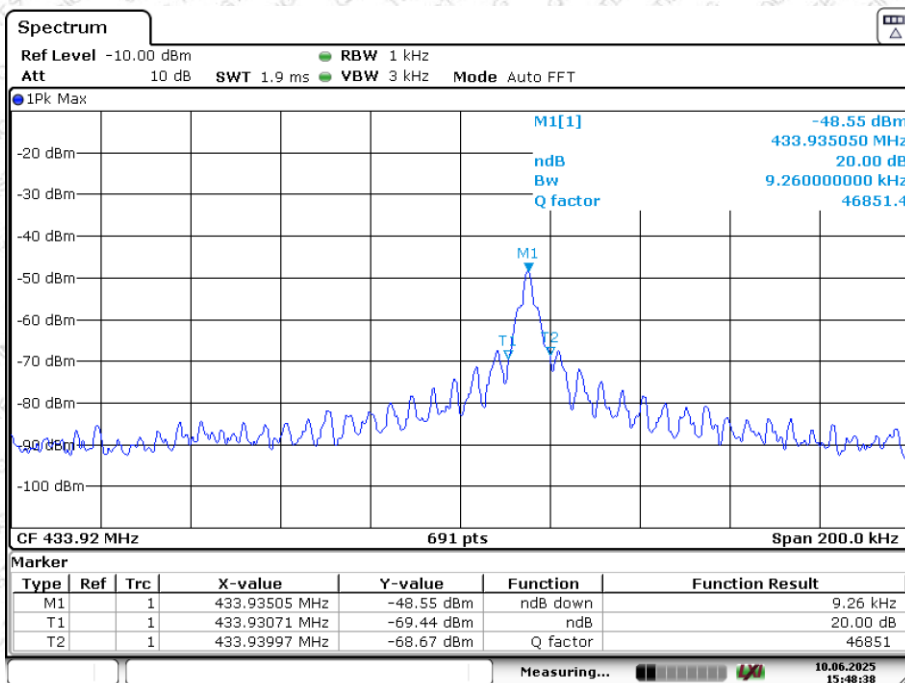
Please refer to following table and plots.



| Test Frequency (MHz) | 20dB bandwidth (MHz) | Limit (MHz) | Result |
|----------------------|----------------------|-------------|--------|
| 433.92               | 0.009                | 1.085       | Pass   |

Note: Limit= Fundamental frequency×0.25%  
 $433.92 \times 0.25\% = 1.085\text{MHz}$

Test plot as follows:



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## 7. Release Time Measurement

### 7.1 Applicable Standard

FCC Part15 C Section 15.231 (e)

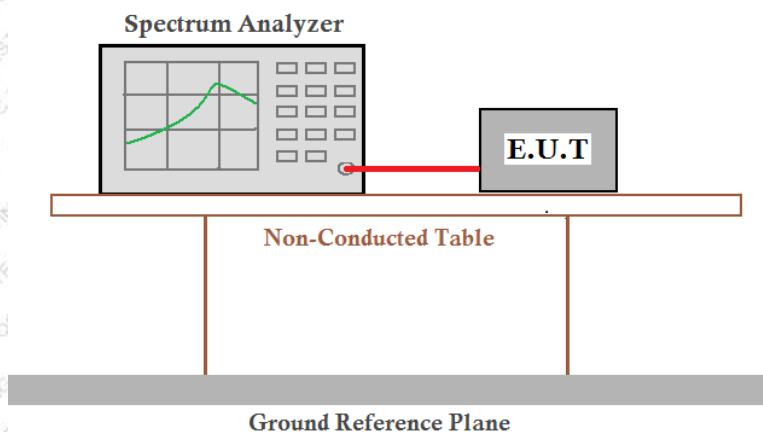
### 7.2 Limit

According to FCC §15.231(e), Section 15.231(e) devices operated under the provisions of this paragraph shall be provided with a means for automatically limiting operation so that the duration of each transmission shall not be greater than one second and the silent period between transmissions shall be at least 30 times the duration of the transmission but in no case less than 10seconds.

### 7.3 Test Procedure

1. Set SPA Center Frequency = Fundamental frequency, RBW = 100 kHz, VBW = 300 kHz, Span = 0 Hz.
2. Set EUT as normal operation and press Transmitter button.
3. Set SPA View. Delta Mark time.

### 7.4 Test setup



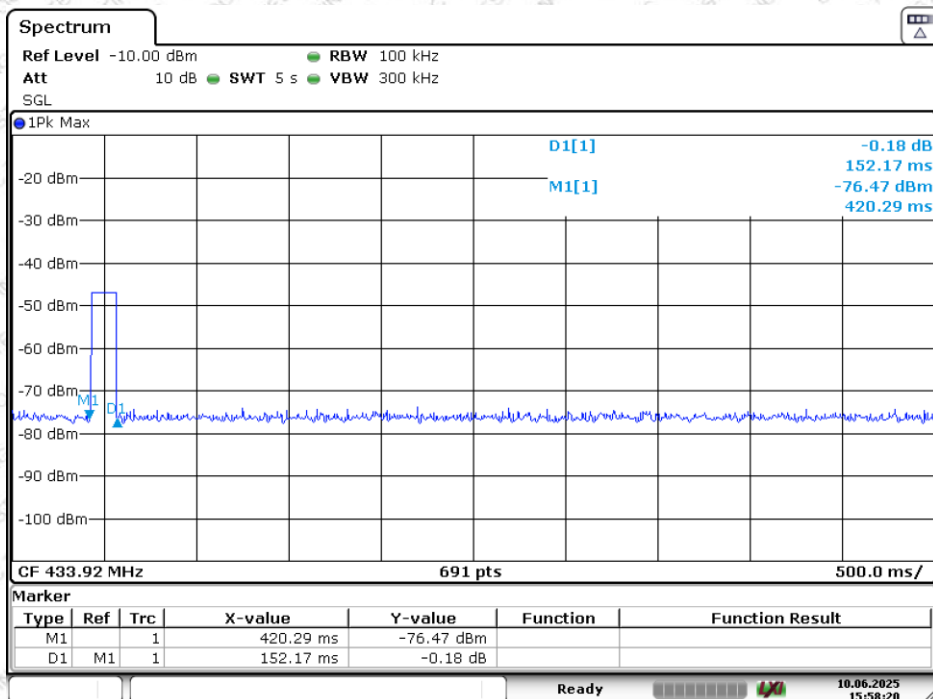
### 7.5 Test Data

|              |        |              |      |
|--------------|--------|--------------|------|
| Temperature  | 23.5℃  | Humidity     | 48%  |
| ATM Pressure | 101kPa | Antenna Gain | 0dBi |
| Test by      | LBi Li | Test result  | PASS |

Please refer to following table and plots.

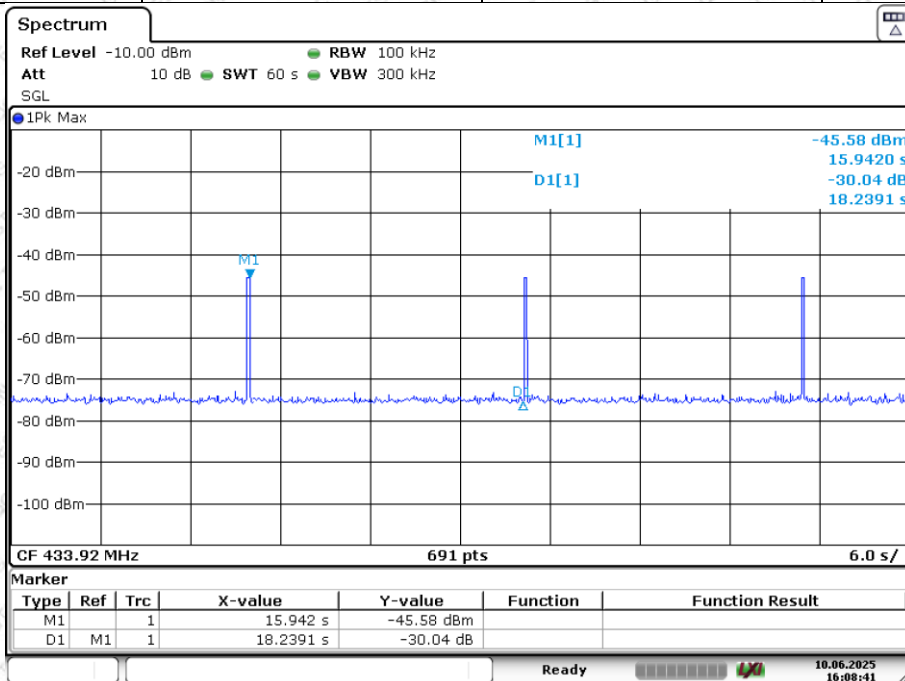


| Frequency (MHz) | Duration of each TX (second) | Limit (second) | Result |
|-----------------|------------------------------|----------------|--------|
| 433.92          | 0.152                        | <1             | Pass   |



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| Frequency (MHz) | Silent time (second) | Limit (second)             | Result |
|-----------------|----------------------|----------------------------|--------|
| 433.92          | 15.94                | >10s<br>>30* Duration time | Pass   |



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## 8. Duty Cycle

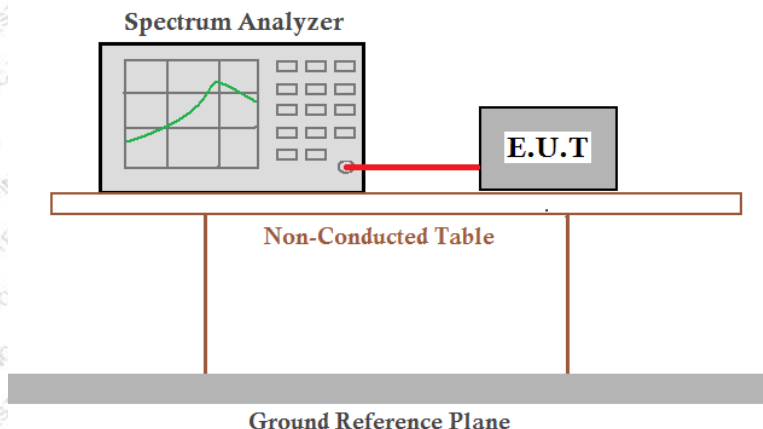
### 8.1 Applicable Standard

FCC Part15 C Section 15.231

### 8.2 Limit

No dedicated limit specified in the Rules.

### 8.3 Test setup



### 8.4 Test Procedure

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set centre frequency of spectrum analyzer=operating frequency.
4. Set the spectrum analyzer as RBW=100kHz, VBW=300KHz, Span=0Hz, Adjust Sweep=100ms to obtain the "worst-case" pulse on time
5. Repeat above procedures until all frequency measured was complete.

### 8.5 Test Dat

N/A

Remarks: Since the peak value is less than the average limit, the average value does not need to be tested.

----- THE END OF TEST REPORT -----