

Test Report No:  
2450569R-RFUSV17S-B

## TEST REPORT

### FCC Rules&Regulations

|                                 |                                                                                                  |
|---------------------------------|--------------------------------------------------------------------------------------------------|
| Product Name                    | ICL V2                                                                                           |
| Brand Name                      | ICE  CONNECT    |
| Model No.                       | V02RCXITG                                                                                        |
| FCC ID                          | 2AXBO-V02RCXITG                                                                                  |
| Applicant's Name / Address      | Unabiz Co Ltd<br>Neihu District, 618 Ruiguang Road, 10th floor, Taipei, Taiwan                   |
| Manufacturer's Name / Address   | Unabiz Co Ltd<br>Neihu District, 618 Ruiguang Road, 10th floor, Taipei, Taiwan                   |
| Test Method Requested, Standard | FCC CFR Title 47 Part 15 Subpart C Section 15.247<br>ANSI C63.10-2013                            |
| Verdict Summary                 | IN COMPLIANCE                                                                                    |
| Documented By                   | <br>Amelia Wu |
| Approved By                     | <br>Allen Lin |
| Date of Receipt                 | May 23, 2024                                                                                     |
| Date of Issue                   | Dec. 09, 2024                                                                                    |
| Report Version                  | V1.0                                                                                             |

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## Competences and Guarantees

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DEKRA is a testing laboratory competent to carry out the tests described in this report.

In order to assure the traceability to other national and international laboratories, DEKRA has a calibration and maintenance program for its measurement equipment.

DEKRA guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated in the report and it is based on the knowledge and technical facilities available at DEKRA at the time of performance of the test.

DEKRA is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

**IMPORTANT:** No parts of this report may be reproduced or quoted out of context, in any form or by any means, except in full, without the previous written permission of DEKRA.

## General Conditions

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1. The test results relate only to the samples tested.
2. The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.
3. This report must not be used to claim product endorsement by TAF or any agency of the government.
4. The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.
5. Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Revision History

| Version | Description             | Issued Date   |
|---------|-------------------------|---------------|
| V1.0    | Initial issue of report | Dec. 09, 2024 |
|         |                         |               |
|         |                         |               |
|         |                         |               |
|         |                         |               |
|         |                         |               |
|         |                         |               |
|         |                         |               |
|         |                         |               |

## Summary of Test Result

| Report Clause                                                                                                                   | Test Items                             | Result (PASS/FAIL) | Remark |
|---------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|--------------------|--------|
| -                                                                                                                               | AC Power Line Conducted Emission       | N/A                | Note   |
| 3                                                                                                                               | Occupied Bandwidth & DTS Bandwidth     | PASS               | -      |
| 4                                                                                                                               | Maximum Conducted Output Power         | PASS               | -      |
| 5                                                                                                                               | Maximum Power Spectral Density         | PASS               | -      |
| 6                                                                                                                               | Antenna Port Conducted Emission        | PASS               | -      |
| 7                                                                                                                               | Transmitter Radiated Spurious Emission | PASS               | -      |
| <b>Note:</b><br>The EUT was powered by DC 3.6V (battery). It's not necessary to apply to AC Power Line Conducted Emission test. |                                        |                    |        |

### Comments and Explanations

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

## Comments and Remarks

The product specification and testing instructions for the EUT declared in the report are provided by the manufacturer who will take all responsibilities for the accuracy.

## 1. General Information

### 1.1. EUT Description

|                     |                 |
|---------------------|-----------------|
| Frequency Range     | 902 ~ 928 MHz   |
| Operating Frequency | 903 ~ 914.2 MHz |
| Channel Spacing     | 1.6 MHz         |
| Channel Bandwidth   | 500 kHz         |
| Channel Number      | 8 Channels      |
| Type of Modulation  | LoRa-CSS        |

| Accessories Information |                     |                                             |                                |                         |                                  |
|-------------------------|---------------------|---------------------------------------------|--------------------------------|-------------------------|----------------------------------|
| No.                     | Equipment Name      | Brand Name                                  | Model No.                      | Rating                  | Remark                           |
| 1                       | Battery (Blue)      | Sunmoon                                     | ER14505-2CW-S                  | DC 3.6V, 5.2Ah, 18.72wh | Non-rechargeable                 |
| 2                       | EVE Battery (Black) | EVE                                         | F1080B-LF                      | DC 3.6V, 5.4Ah          | Non-rechargeable (Second Source) |
| No.                     | Equipment Name      | Brand Name                                  | Model No.                      | Description             |                                  |
| 3                       | CT Clamp            | Thousand Hundred Industrial CO.,LTD.        | CT241100ML16                   | -                       |                                  |
| 4                       | Temperature sensor  | HUIZHOU JIN YUAN XIANG ELECTRONIC CO., LTD. | JYX-JGX18B20-GK-HT2050-240219C | -                       |                                  |

| Antenna Information |            |                      |      |            |
|---------------------|------------|----------------------|------|------------|
| Ant.                | Brand Name | Model No.            | Type | Gain (dBi) |
| 1                   | ARISTOTLE  | RFA-S89-T355-2.5M-R2 | PIFA | 2.15       |

| Working Frequency of Each Channel (500kHz) |           |
|--------------------------------------------|-----------|
| Channel                                    | Frequency |
| 00                                         | 903 MHz   |
| 01                                         | 904.6 MHz |
| 02                                         | 906.2 MHz |
| 03                                         | 907.8 MHz |
| 04                                         | 909.4 MHz |
| 05                                         | 911 MHz   |
| 06                                         | 912.6 MHz |
| 07                                         | 914.2 MHz |

## 1.2. EUT Information

|                |                                                         |                                         |  |
|----------------|---------------------------------------------------------|-----------------------------------------|--|
| EUT Power Type | From Battery                                            |                                         |  |
| EUT Function   | <input checked="" type="checkbox"/> Point-to-multipoint | <input type="checkbox"/> Point-to-point |  |

## 1.3. Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ 47 CFR FCC Part 15
- ♦ ANSI C63.10-2013

The following reference test guidance is not within the scope of accreditation of TAF:

- ♦ KDB 558074 D01 v05r02
- ♦ KDB 414788 D01 v01r01

## 1.4. Testing Location Information

| Testing Location Information                                                                                                             |                                                                                                                                                                                                                                                                                             |  |
|------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Test Laboratory : DEKRA Testing and Certification Co., Ltd.                                                                              |                                                                                                                                                                                                                                                                                             |  |
| 1<br><br>(TAF: 3024)                                                                                                                     | ADD: No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C.<br><br>TEL: +886-3-582-8001                      FAX: +886-3-582-8958<br><br>Test site Designation No. TW3024 with FCC.<br><br>Conformity Assessment Body Identifier (CABID) TW3024 with ISED. |  |
| 2<br><br>(TAF: 3024)                                                                                                                     | ADD: No.372, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C.<br><br>TEL: +886-3-582-8001                      FAX: +886-3-582-8958<br><br>Test site Designation No. TW3024 with FCC.<br><br>Conformity Assessment Body Identifier (CABID) TW3024 with ISED.   |  |
| Test site number for address 1 includes HC-SR02. Test site number for address 2 includes HC-CB02, HC-CB03, HC-CB04, HC-SR10 and HC-SR12. |                                                                                                                                                                                                                                                                                             |  |

| Test Condition        | Test Site No. | Test Engineer | Test Environment<br>(°C / %) | Test Date             |
|-----------------------|---------------|---------------|------------------------------|-----------------------|
| RF Conducted Emission | HC-SR12       | Max Chang     | 23 / 62                      | 2024/10/22            |
| Radiated Emission     | HC-CB02       | Scott Chang   | 21.1~22.1 / 55~61            | 2024/10/25~2024/10/26 |



## 1.5. Measurement Uncertainty

Uncertainties have been calculated according to the DEKRA internal document with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)).

| Test item                              | Uncertainty                                            |
|----------------------------------------|--------------------------------------------------------|
| Occupied Bandwidth & DTS Bandwidth     | $\pm 105.93$ Hz                                        |
| Maximum Conducted Output Power         | $\pm 1.16$ dB                                          |
| Maximum Power Spectral Density         | $\pm 2.47$ dB                                          |
| Antenna Port Conducted Emission        | $\pm 2.47$ dB                                          |
| Transmitter Radiated Spurious Emission | $\pm 3.52$ dB below 1 GHz<br>$\pm 3.56$ dB above 1 GHz |

## 1.6. List of Test Equipment

### HC-SR12

| Instrument                             | Manufacturer | Model No. | Serial No. | Characteristics | Cal. Date  | Next Cal. Date |
|----------------------------------------|--------------|-----------|------------|-----------------|------------|----------------|
| High Speed Peak Power Meter Dual Input | Anritsu      | ML2496A   | 1602004    | 0.3-40 GHz      | 2023/10/25 | 2024/10/24     |
| Pulse Power Sensor                     | Anritsu      | MA2411B   | 1531043    | 0.3-40 GHz      | 2023/10/25 | 2024/10/24     |
| Signal & Spectrum Analyzer             | R&S          | FSV40     | 101869     | 10Hz-40GHz      | 2024/06/20 | 2025/06/19     |

### HC-CB02

| Instrument                   | Manufacturer         | Model No.    | Serial No.   | Characteristics    | Cal. Date  | Next Cal. Date |
|------------------------------|----------------------|--------------|--------------|--------------------|------------|----------------|
| Signal and Spectrum Analyzer | R&S                  | FSVA40       | 101435       | 10 Hz-40 GHz       | 2024/05/17 | 2025/05/16     |
| Trilog Broadband Antenna     | Schwarzbeck          | VULB 9168    | 1272         | 30 MHz-2 GHz       | 2024/04/29 | 2025/04/28     |
| Double Ridged Horn Antenna   | RF SPIN              | DRH18-E      | 211211A18E N | 1G-18GHz           | 2023/11/09 | 2024/11/08     |
| Horn Antenna                 | Schwarzbeck          | BBHA 9170    | 203          | 18G-40GHz          | 2024/02/02 | 2025/02/01     |
| Pre-Amplifier                | EMCI                 | EMC01820I    | 980365       | 30M-8 GHz,20 dB    | 2024/04/02 | 2025/04/01     |
| Pre-Amplifier                | EMEC                 | EM01G18GA    | 060741       | 1G-18 GHz,50 dB    | 2024/04/23 | 2025/04/22     |
| Pre-Amplifier                | DEKRA                | AP-400C      | 201801231    | 18G-40 GHz,48 dB   | 2024/10/15 | 2025/10/14     |
| EMI Test Receiver            | R&S                  | ESR7         | 102260       | 10 Hz-7 GHz        | 2023/11/27 | 2024/11/26     |
| Magnetic Loop Antenna        | Teseq                | HLA 6121     | 44287        | 0.01-30 MHz        | 2024/10/17 | 2025/10/16     |
| Coaxial Cable                | Huber+Suhner         | SF104        | HC-CB02      | 30 MHz-18 GHz, 13m | 2024/08/13 | 2025/08/12     |
| Coaxial Cable                | Huber+Suhner ,Rosnol | SF102_UP0264 | HC-CB02-1    | 18-40 GHz, 3 m     | 2024/08/13 | 2025/08/12     |
| Radiated Software            | Audix                | e3 V9        | HC-CB02_1    | N/A                | N/A        | N/A            |

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

## 2. Test Configuration of EUT

### 2.1. Test Condition

| EUT Operational Condition |         |
|---------------------------|---------|
| Testing Voltage           | DC 3.6V |

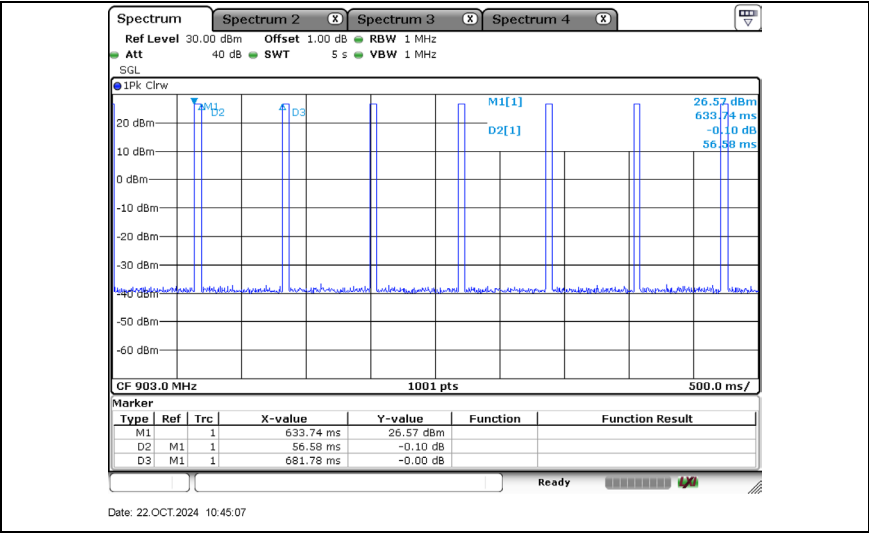
### 2.2. Test Frequency Mode

|                       |                |
|-----------------------|----------------|
| Test Software Version | TeraTerm 4.106 |
|-----------------------|----------------|

| Modulation   | Frequency (MHz) | Power Setting |
|--------------|-----------------|---------------|
| CSS (500kHz) | 903             | 14.0          |
|              | 907.8           | 14.0          |
|              | 914.2           | 14.0          |

2.3. Duty Cycle

| Mode         | On Time (ms) | On+Off Time (ms) | Duty Cycle (%) | Duty Factor (dB) | 1/T Minimum VBW (kHz) |
|--------------|--------------|------------------|----------------|------------------|-----------------------|
| CSS (500kHz) | 56.580       | 681.780          | 8.30           | 10.810           | 0.018                 |



## 2.4. The Worst Case Measurement Configuration

|                |                                                                                                                                           |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Tests Item     | Occupied Bandwidth & DTS Bandwidth<br>Maximum Conducted Output Power<br>Maximum Power Spectral Density<br>Antenna Port Conducted Emission |
| Test Condition | Conducted measurement at transmit chains                                                                                                  |

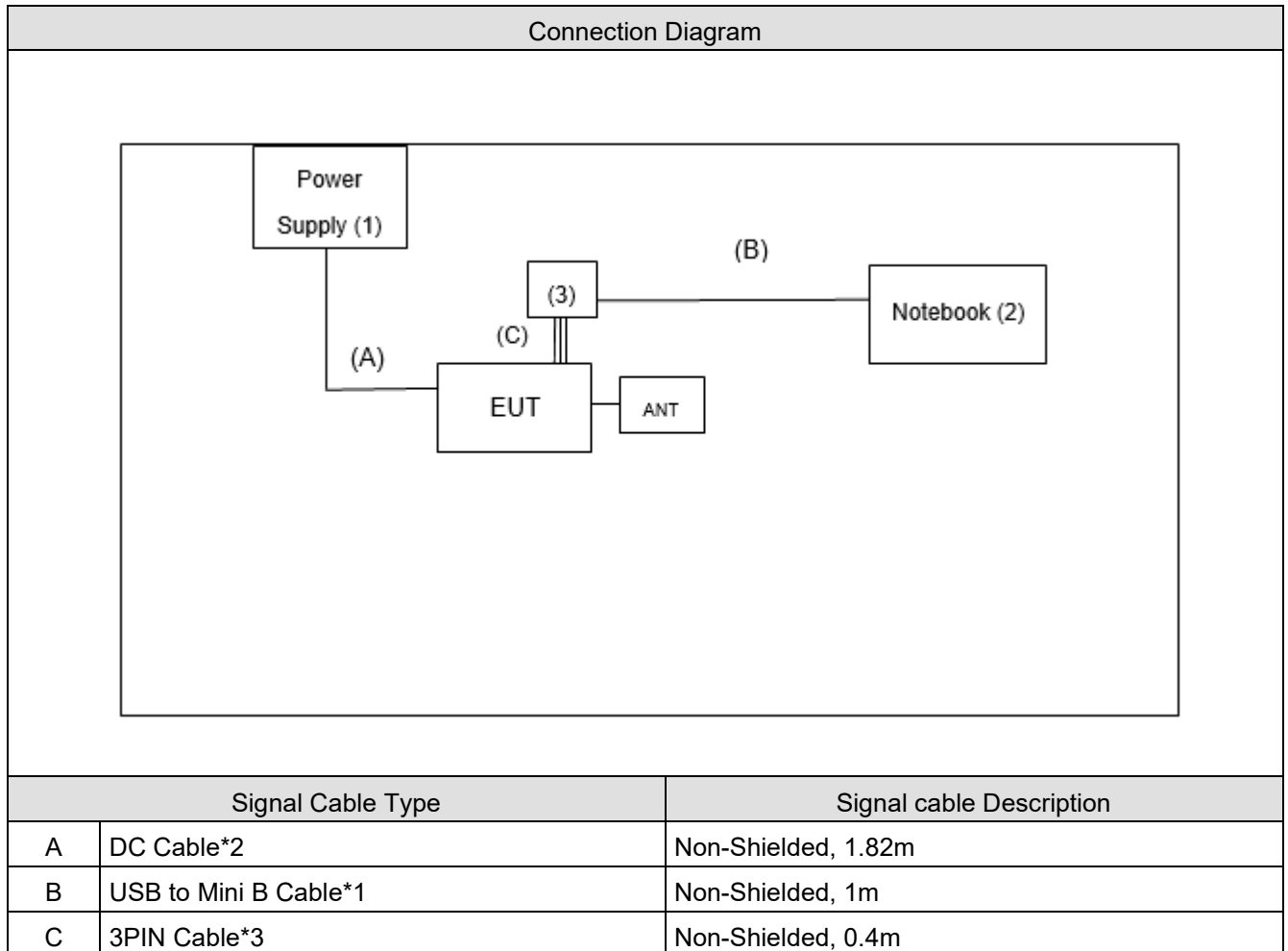
|                                                                                                                                                                                                      |                                                                                                                                                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tests Item                                                                                                                                                                                           | Transmitter Radiated Spurious Emissio                                                                                                                                                                                                               |
| Test Condition                                                                                                                                                                                       | Radiated measurement<br>If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type. |
| Operating Mode < 1GHz                                                                                                                                                                                | Transmit                                                                                                                                                                                                                                            |
| Operating Mode > 1GHz                                                                                                                                                                                | Transmit                                                                                                                                                                                                                                            |
| The EUT was performed at X axis, Y axis and Z axis position for radiated spurious emission test.<br>The worst case was found at Y axis, so the measurement will follow this same test configuration. |                                                                                                                                                                                                                                                     |

Note: Determining compliance shall be based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

## 2.5. Tested System Details

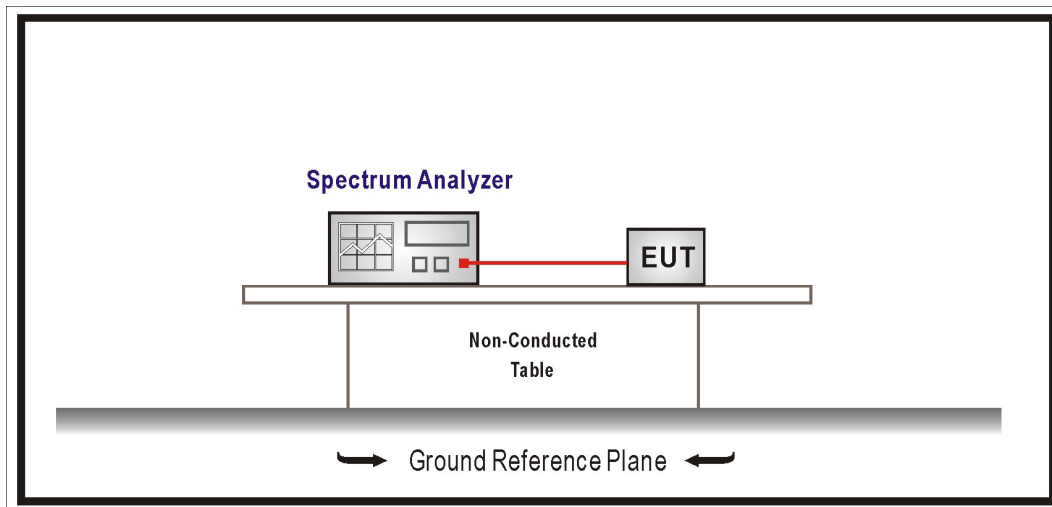
| No. | Equipment                         | Brand Name | Model No.                | Serial No. |
|-----|-----------------------------------|------------|--------------------------|------------|
| 1   | Power Supply                      | Topward    | 6303D                    | 809497     |
| 2   | Notebook                          | Lenovo     | Lenovo Ideapad 110 15IBR | PF01EUZD   |
| 3   | USB to TTL FT232RL<br>+3PIN Cable | N/A        | N/A                      | N/A        |

## 2.6. Configuration of Tested System



### 3. Occupied Bandwidth & DTS Bandwidth

#### 3.1. Test Setup



#### 3.2. Test Limit

The 6 dB bandwidth:  $\geq 500$  kHz.

Occupied Bandwidth: N/A

#### 3.3. Test Procedures

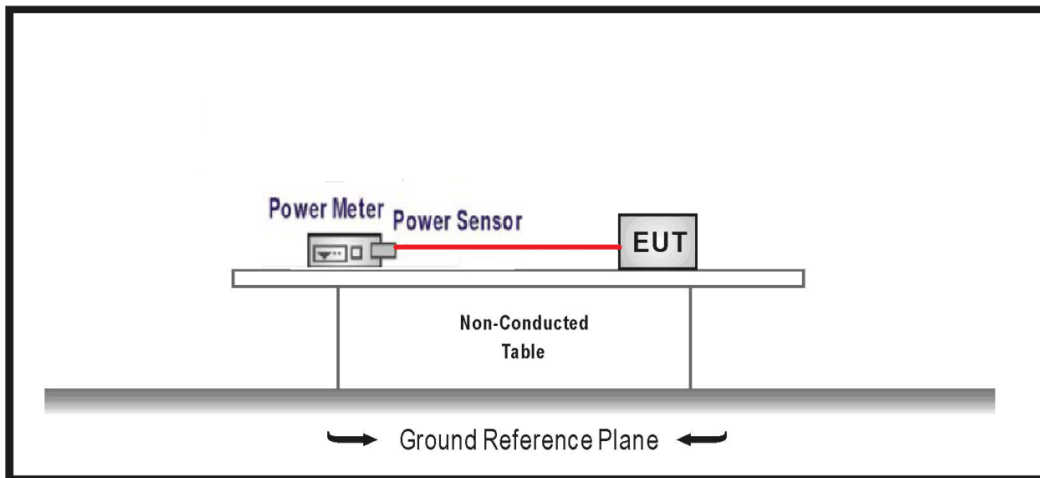
The EUT was setup according to ANSI C63.10: 2013; tested according to DTS test procedure of KDB 558074.

#### 3.4. Test Result of Occupied Bandwidth & DTS Bandwidth

Refer as Appendix A

## 4. Maximum Conducted Output Power

### 4.1. Test Setup



### 4.2. Test Limit

The Maximum Conducted Output Power shall be less 1 Watt.

### 4.3. Test Procedures

The EUT was setup according to ANSI C63.10: 2013; tested according to DTS test procedure of KDB 558074.

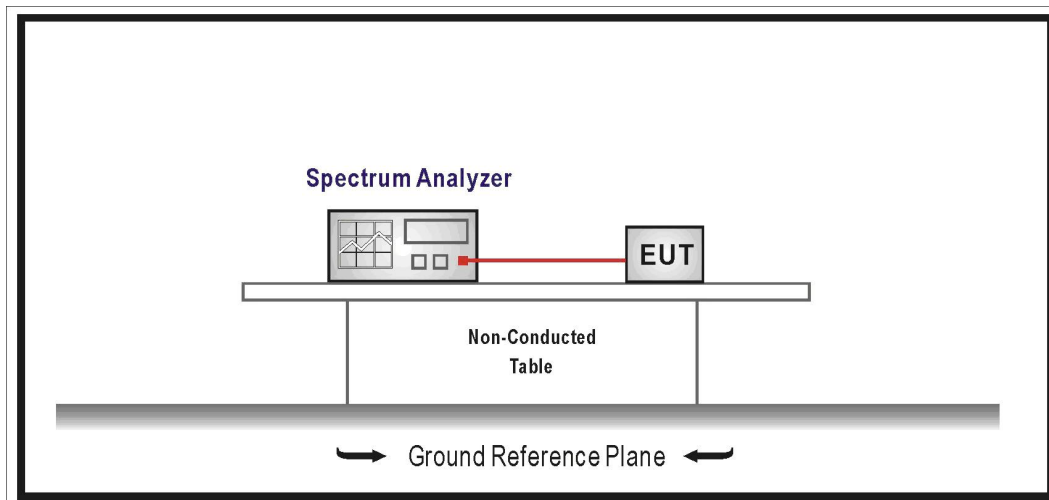
### 4.4. Test Result of Maximum Conducted Output Power

Refer as Appendix B



## 5. Maximum Power Spectral Density

### 5.1. Test Setup



### 5.2. Test Limit

The peak power spectral density conducted from the intentional radiated to the antenna shall not be greater than +8 dBm in any 3 kHz band during any time interval of continuous transmission.

### 5.3. Test Procedures

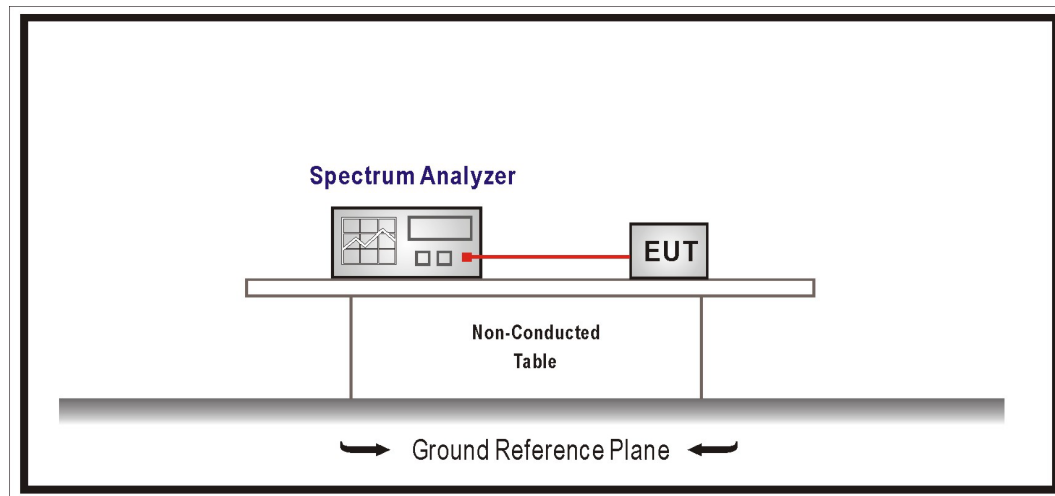
The EUT was setup according to ANSI C63.10: 2013; tested according to DTS test procedure of KDB 558074.

### 5.4. Test Result of Maximum Power Spectral Density

Refer as Appendix C

## 6. Antenna Port Conducted Emission

### 6.1. Test Setup



### 6.2. Test Limit

| RF output power procedure      | Limit (dBc) |
|--------------------------------|-------------|
| Peak output power procedure    | 20          |
| Average output power procedure | 30          |

Remarks:

1. In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limit.
2. If the transmitter complies with the conducted power limit based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

### 6.3. Test Procedure

The EUT was setup according to ANSI C63.10: 2013 and tested according to DTS test procedure of KDB 558074.

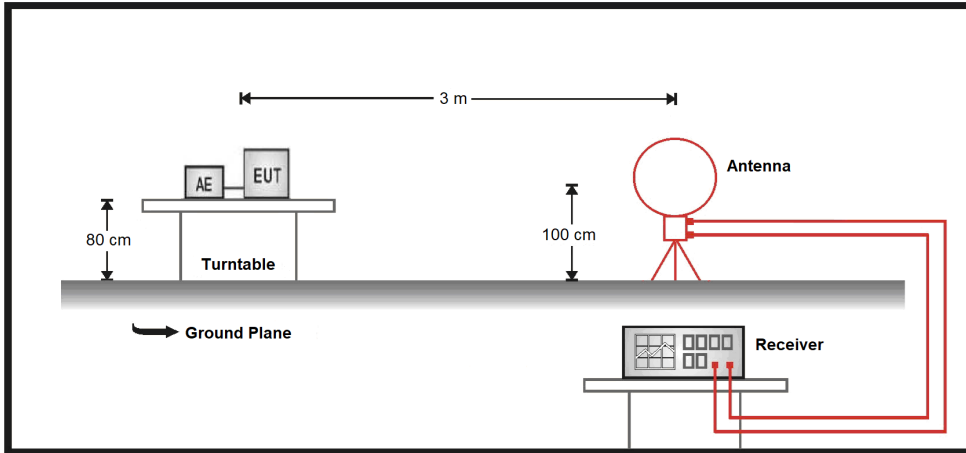
### 6.4. Test Result of Antenna Port Conducted Emission

Refer as Appendix D

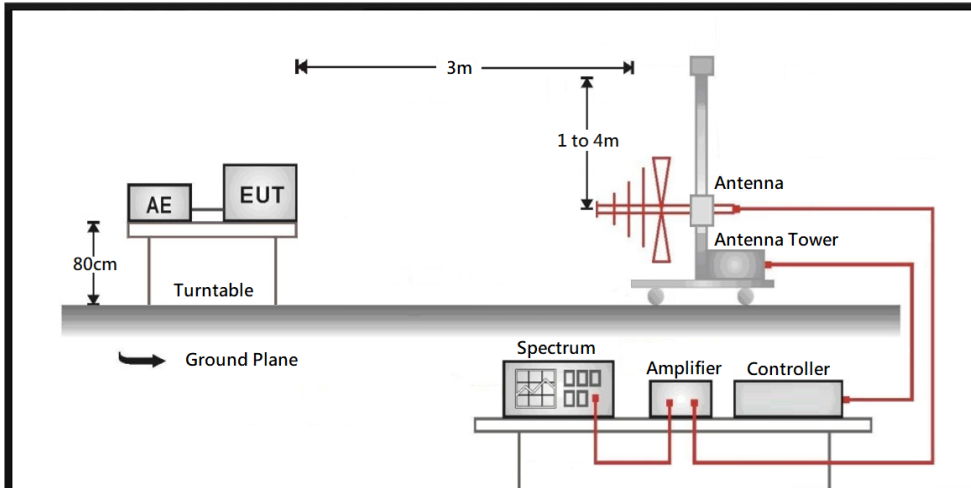
## 7. Transmitter Radiated Spurious Emission

### 7.1. Test Setup

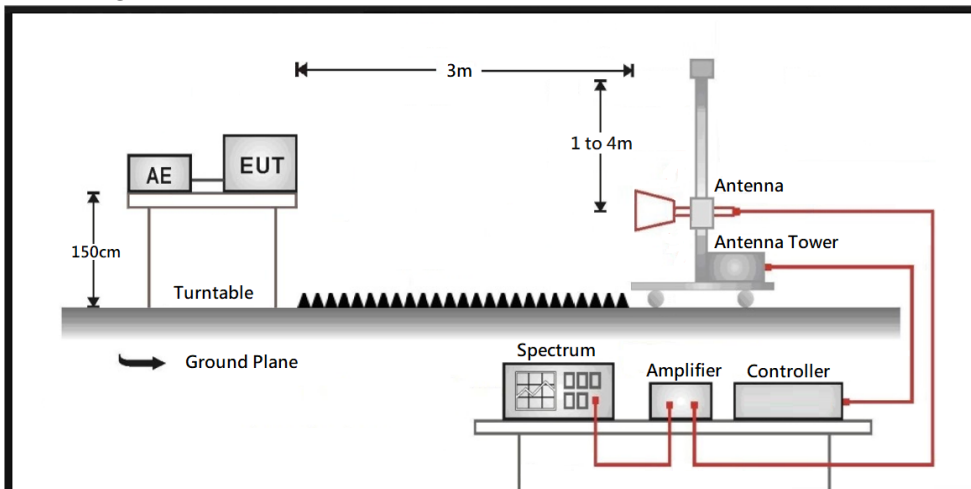
9 kHz ~ 30 MHz



30 MHz ~ 1 GHz



Above 1 GHz



## 7.2. Test Limit

| Frequency (MHz) | Field strength (uV/m) | Field strength (dBuV/m) | Measurement distance (m) |
|-----------------|-----------------------|-------------------------|--------------------------|
| 0.009 – 0.490   | 2400/F(kHz)           | 20 log (2400/F(kHz))    | 300                      |
| 0.490 – 1.705   | 24000/F(kHz)          | 20 log (24000/F(kHz))   | 30                       |
| 1.705 - 30      | 30                    | 29.5                    | 30                       |
| 30 - 88         | 100                   | 40                      | 3                        |
| 88 - 216        | 150                   | 43.5                    | 3                        |
| 216 - 960       | 200                   | 46                      | 3                        |
| Above 960       | 500                   | 54                      | 3                        |

Remarks:

1. Field strength (dBuV/m) = 20 log Field strength (uV/m)
2. In the Above Table, the tighter limit applies at the band edges.
3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

## 7.3. Test Procedure

The EUT was setup according to ANSI C63.10: 2013 and tested according to DTS test procedure of KDB 558074.

The EUT and its simulators are placed on a turn table which is 0.8 or 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10: 2013 on radiated measurement.

On any frequency or frequencies from 9 kHz(include The the lowest oscillator frequency generated within the device up to the 10th harmonic) to 1000 MHz, the limit shown are based on measuring equipment employing a quasi-peak detector function and on any frequency or frequencies above 1000 MHz the radiated limit shown are based upon the use of measurement instrumentation employing an average detector function. When average radiated emission measurement are included emission measurement below 1000 MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit.

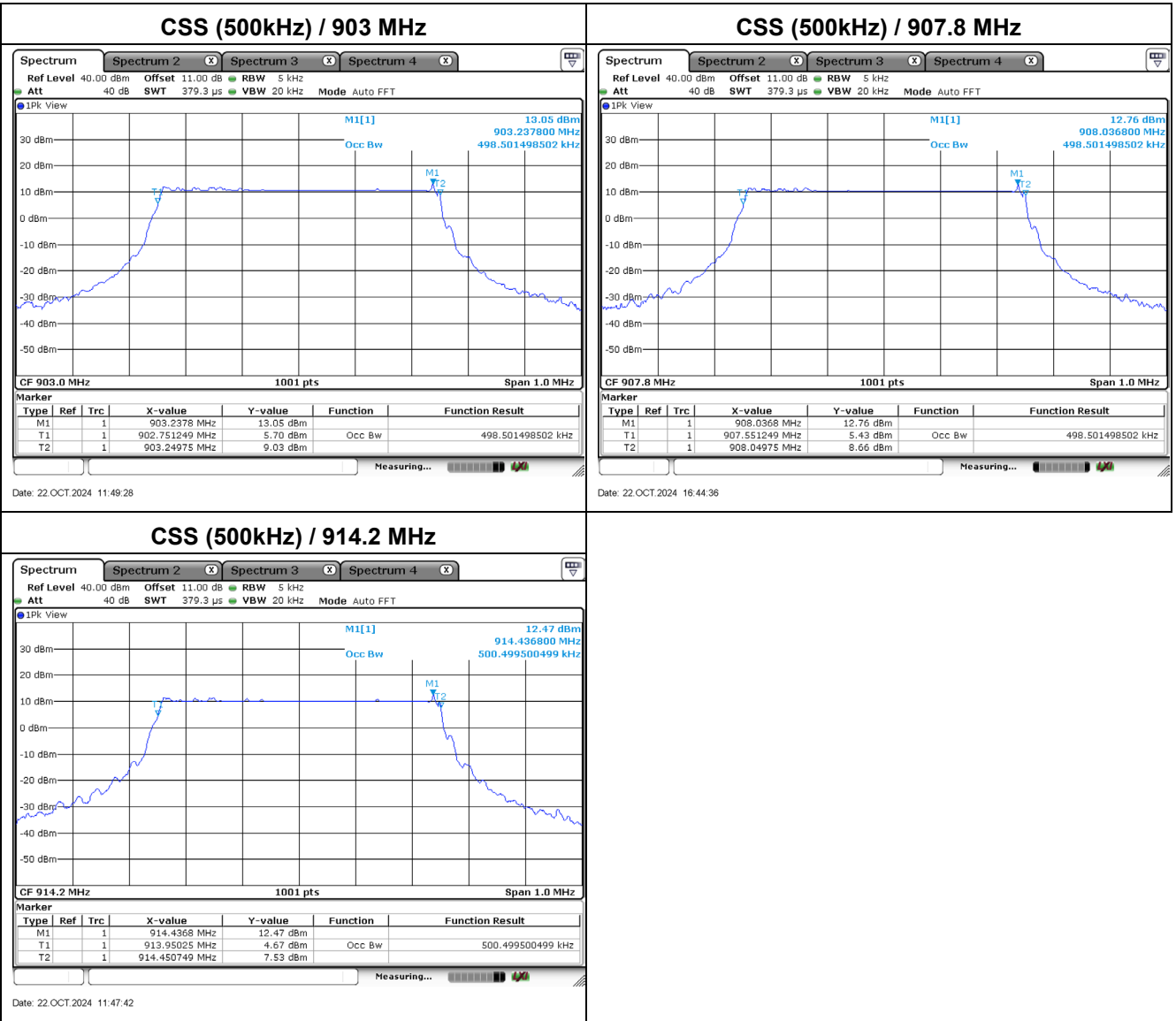
The bandwidth below 1 GHz setting on the field strength meter is 120 kHz and above 1 GHz is 1 MHz.

## 7.4. Test Result of Transmitter Radiated Spurious Emission

Refer as Appendix E

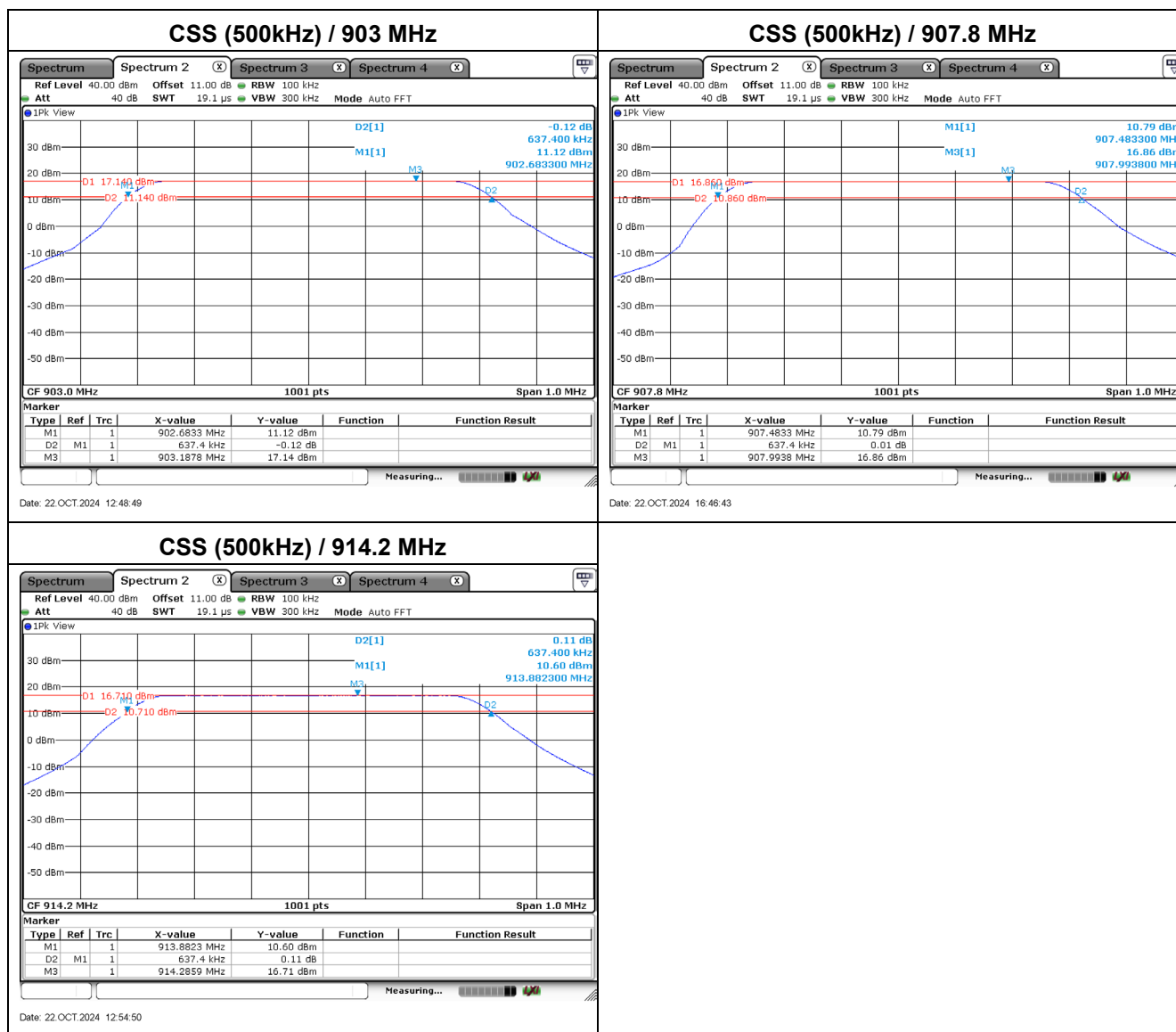
Appendix A.1 Test Result of Occupied Bandwidth

| Modulation   | Frequency (MHz) | Measure Level (MHz) | Limit (MHz) |
|--------------|-----------------|---------------------|-------------|
| CSS (500kHz) | 903             | 0.498               | -           |
|              | 907.8           | 0.498               | -           |
|              | 914.2           | 0.500               | -           |



## Appendix A.2 Test Result of DTS Bandwidth

| Modulation   | Frequency (MHz) | Measure Level (MHz) | Limit (MHz) | Result |
|--------------|-----------------|---------------------|-------------|--------|
| CSS (500kHz) | 903             | 0.637               | 0.50        | Pass   |
|              | 907.8           | 0.637               | 0.50        | Pass   |
|              | 914.2           | 0.637               | 0.50        | Pass   |

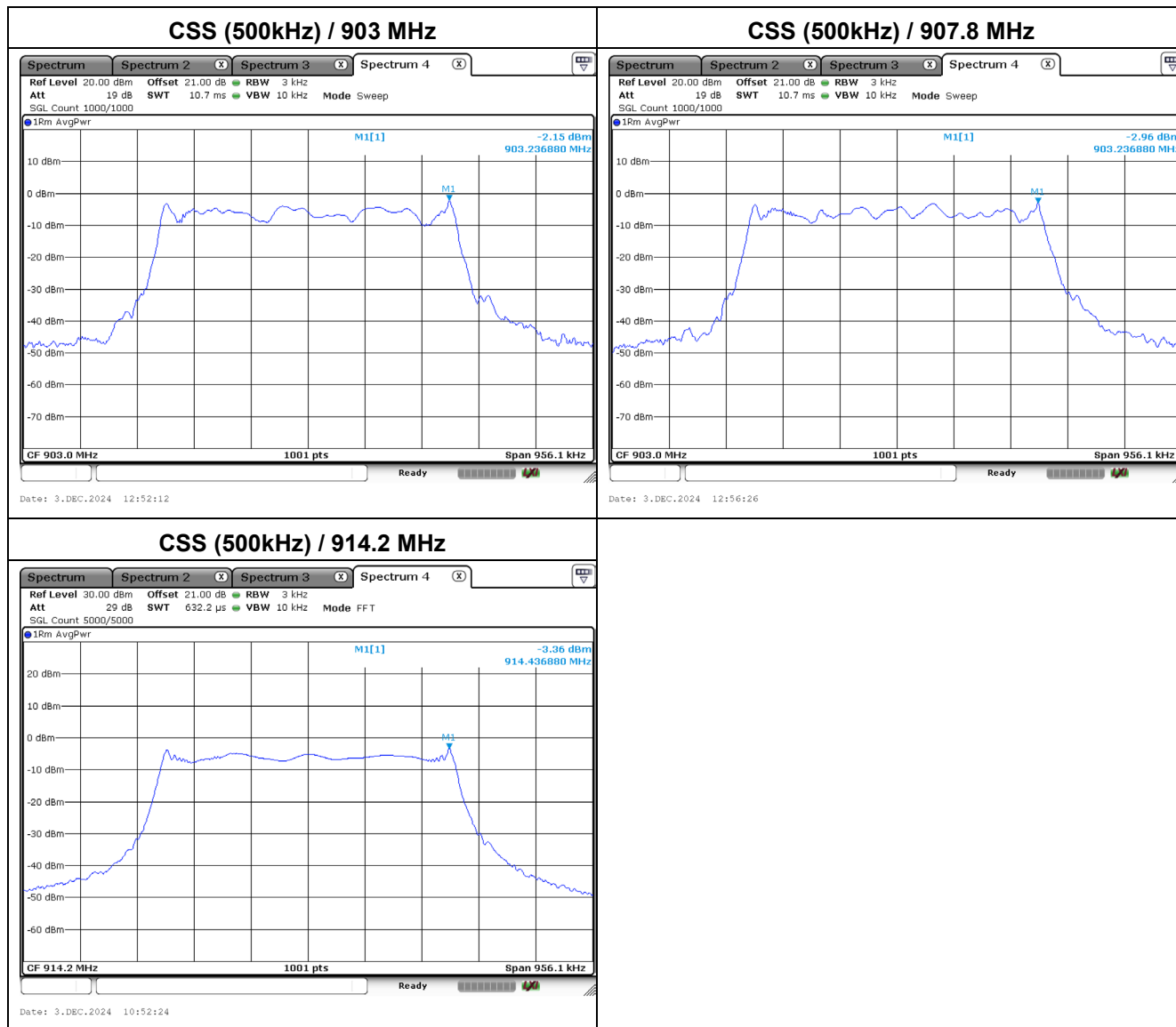


**Appendix C. Test Result of Maximum Conducted Output Power**

| Modulation   | Frequency (MHz) | Maximum Conducted Peak Output Power (dBm) | Limit (dBm) | Result |
|--------------|-----------------|-------------------------------------------|-------------|--------|
| CSS (500kHz) | 903             | 27.24                                     | 30.00       | Pass   |
|              | 907.8           | 27.15                                     | 30.00       | Pass   |
|              | 914.2           | 27.01                                     | 30.00       | Pass   |

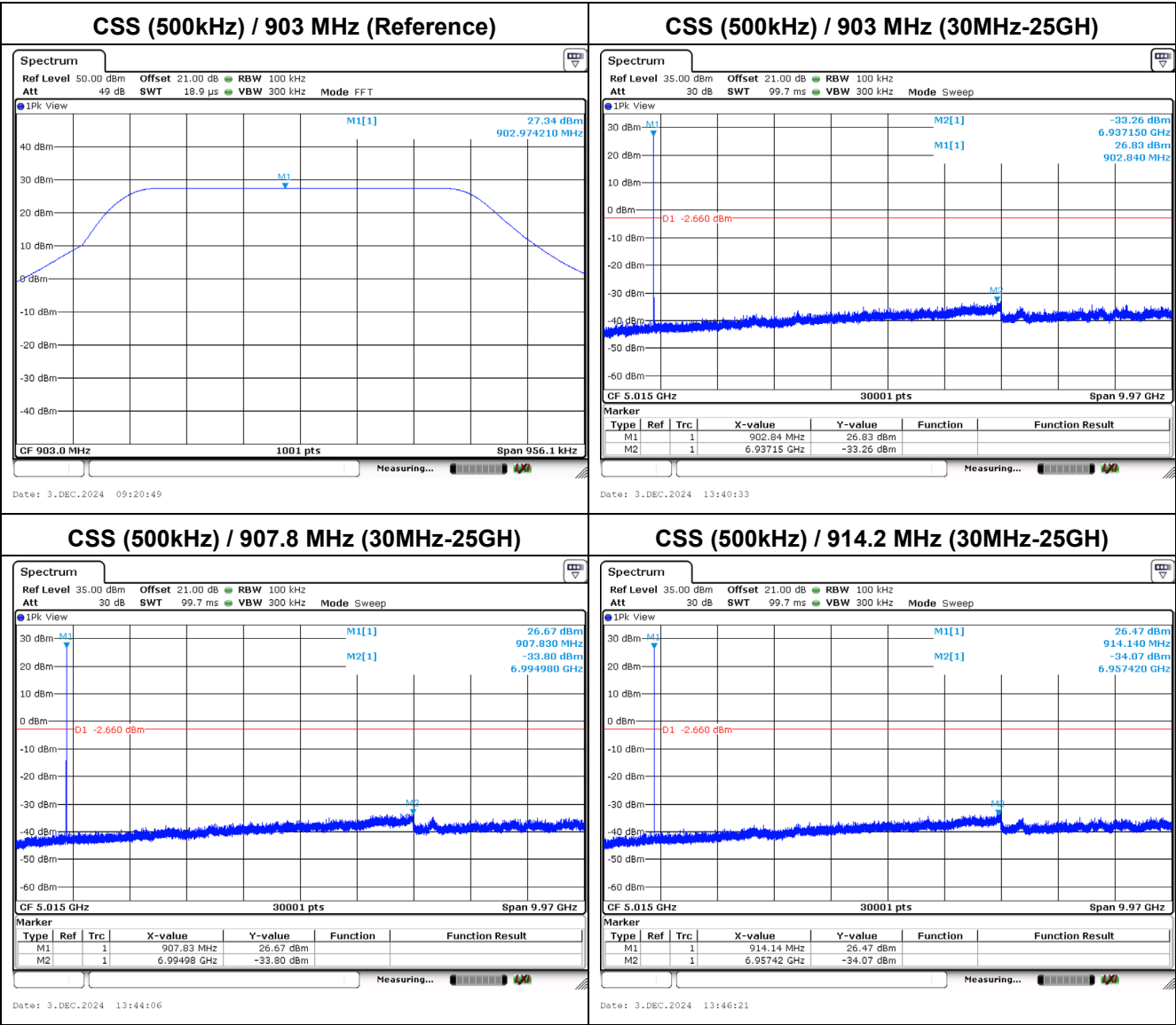
## Appendix D. Test Result of Maximum Power Spectral Density

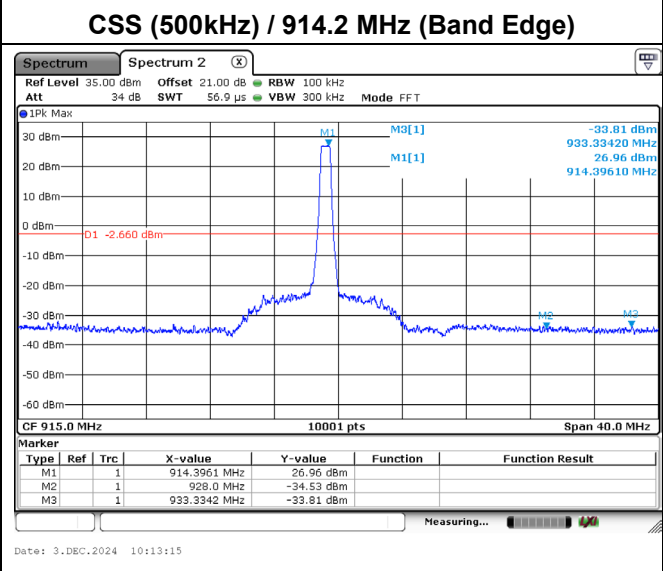
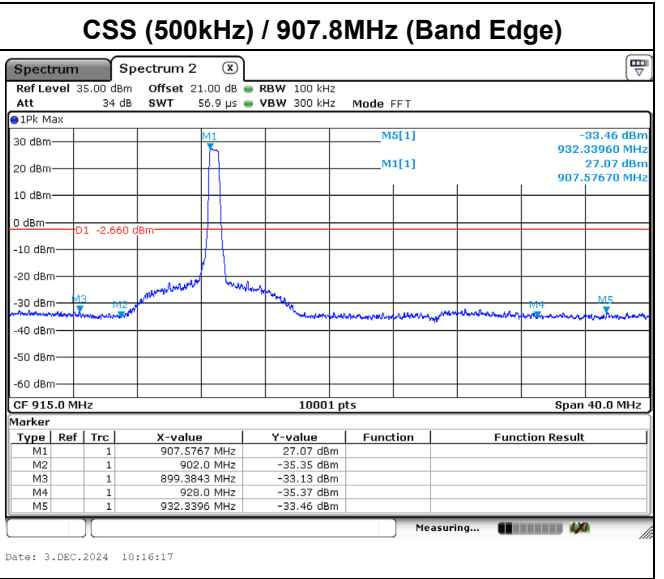
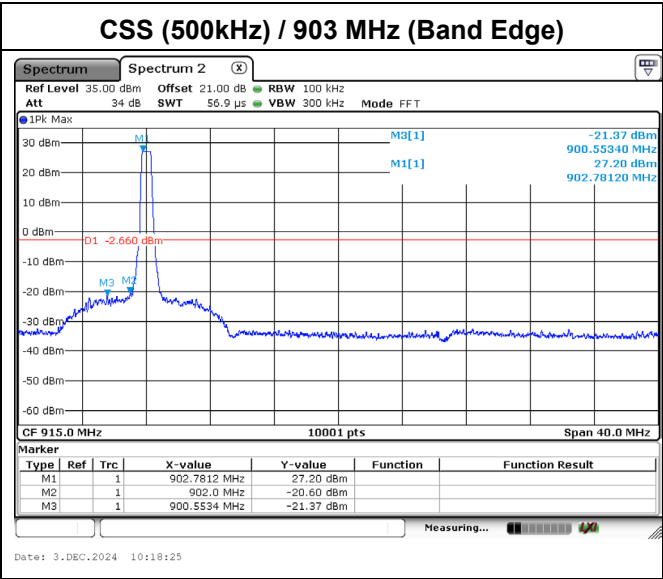
| Modulation   | Frequency (MHz) | Measure Value (dBm/3kHz) | Limit (dBm/3kHz) | Result |
|--------------|-----------------|--------------------------|------------------|--------|
| CSS (500kHz) | 903             | 7.85                     | 8.00             | Pass   |
|              | 907.8           | 7.52                     | 8.00             | Pass   |
|              | 914.2           | 7.45                     | 8.00             | Pass   |





Appendix E. Test Result of Antenna Port Conducted Emission

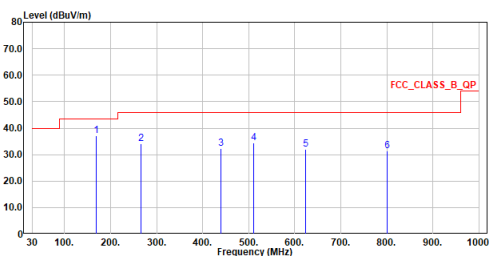




## Appendix F. Test Result of Transmitter Radiated Spurious Emission

### 30 MHz ~ 1 GHz

Site :HC-CB02  
Condition :3m Horizontal  
Mode :LF\_LoRa\_500k\_TX\_907.8MHz  
Test by :Scott Chang

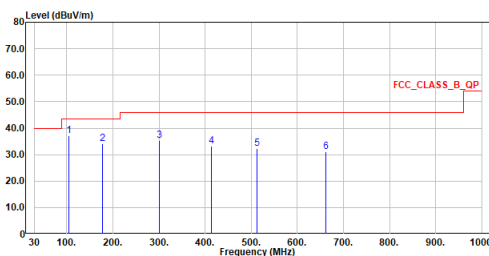


| No. | Frequency<br>MHz | Level<br>dBuV/m | Limit<br>Line<br>dBuV/m | Over<br>Limit<br>dB | Read<br>Level<br>dBuV | Factor<br>dB | Remark |
|-----|------------------|-----------------|-------------------------|---------------------|-----------------------|--------------|--------|
| 1   | 168.031          | 36.99           | 43.50                   | -6.51               | 39.96                 | -2.97        | QP     |
| 2   | 266.486          | 34.19           | 46.00                   | -11.81              | 37.20                 | -3.01        | QP     |
| 3   | 439.243          | 32.43           | 46.00                   | -13.57              | 30.60                 | 1.83         | QP     |
| 4   | 510.538          | 34.56           | 46.00                   | -11.44              | 31.36                 | 3.20         | QP     |
| 5   | 624.125          | 32.14           | 46.00                   | -13.86              | 26.40                 | 5.74         | QP     |
| 6   | 799.986          | 31.40           | 46.00                   | -14.60              | 22.88                 | 8.52         | QP     |

**Note:**

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.
5. The other emission levels were very low against the limit.

Site :HC-CB02  
Condition :3m Vertical  
Mode :LF\_LoRa\_500k\_TX\_907.8MHz  
Test by :Scott Chang



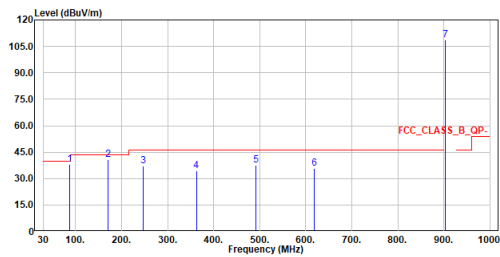
| No. | Frequency<br>MHz | Level<br>dBuV/m | Limit<br>Line<br>dBuV/m | Over<br>Limit<br>dB | Read<br>Level<br>dBuV | Factor<br>dB | Remark |
|-----|------------------|-----------------|-------------------------|---------------------|-----------------------|--------------|--------|
| 1   | 104.787          | 37.23           | 43.50                   | -6.27               | 43.56                 | -6.33        | QP     |
| 2   | 177.731          | 34.25           | 43.50                   | -9.25               | 38.11                 | -3.86        | QP     |
| 3   | 299.951          | 35.43           | 46.00                   | -10.57              | 37.49                 | -2.06        | QP     |
| 4   | 413.441          | 33.21           | 46.00                   | -12.79              | 32.31                 | 0.90         | QP     |
| 5   | 512.866          | 32.40           | 46.00                   | -13.60              | 29.14                 | 3.26         | QP     |
| 6   | 661.858          | 31.09           | 46.00                   | -14.91              | 24.64                 | 6.45         | QP     |

**Note:**

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.
5. The other emission levels were very low against the limit.

## Above 1 GHz

Site :HC-CB02  
Condition :3m Horizontal  
Mode :LF\_LoRa\_500k\_TX\_903MHz  
Test by :Scott Chang

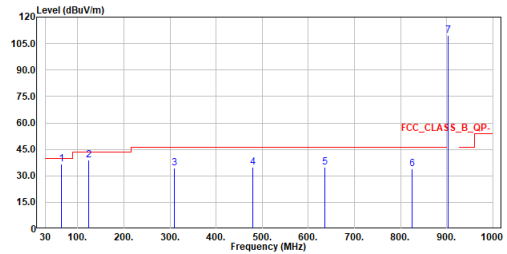


| No. | Frequency | Level  | Limit  | Over   | Read  | Factor | Remark |
|-----|-----------|--------|--------|--------|-------|--------|--------|
|     | MHz       | dBuV/m | dBuV/m | dB     | dBuV  | dB     |        |
| 1   | 87.036    | 37.92  | 40.00  | -2.08  | 46.29 | -8.37  | QP     |
| 2   | 169.680   | 40.62  | 43.50  | -2.88  | 43.72 | -3.10  | QP     |
| 3   | 246.601   | 37.34  | 46.00  | -8.66  | 41.08 | -3.74  | QP     |
| 4   | 362.225   | 34.40  | 46.00  | -11.60 | 35.14 | -0.74  | QP     |
| 5   | 491.914   | 37.40  | 46.00  | -8.60  | 34.57 | 2.83   | QP     |
| 6   | 618.887   | 35.99  | 46.00  | -10.01 | 30.18 | 5.81   | QP     |
| 7   | 902.903   | 108.67 | -----  | -----  | 98.94 | 9.73   | QP     |

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.
5. The other emission levels were very low against the limit.

Site :HC-CB02  
Condition :3m Vertical  
Mode :LF\_LoRa\_500k\_TX\_903MHz  
Test by :Scott Chang

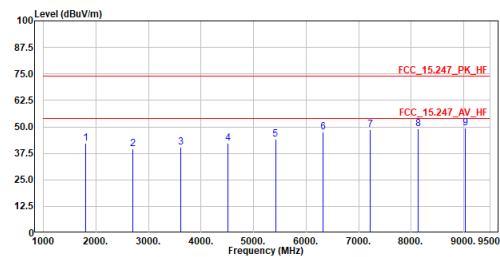


| No. | Frequency | Level  | Limit  | Over   | Read  | Factor | Remark |
|-----|-----------|--------|--------|--------|-------|--------|--------|
|     | MHz       | dBuV/m | dBuV/m | dB     | dBuV  | dB     |        |
| 1   | 64.047    | 36.63  | 40.00  | -3.37  | 39.77 | -3.14  | QP     |
| 2   | 122.926   | 38.84  | 43.50  | -4.66  | 43.82 | -4.98  | QP     |
| 3   | 308.778   | 34.22  | 46.00  | -11.78 | 36.00 | -1.78  | QP     |
| 4   | 479.983   | 34.93  | 46.00  | -11.07 | 32.34 | 2.59   | QP     |
| 5   | 635.862   | 34.98  | 46.00  | -11.02 | 29.10 | 5.88   | QP     |
| 6   | 824.721   | 33.85  | 46.00  | -12.15 | 24.96 | 8.89   | QP     |
| 7   | 902.903   | 109.56 | -----  | -----  | 99.83 | 9.73   | QP     |

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.
5. The other emission levels were very low against the limit.

Site :HC-CB02  
Condition :3m Horizontal  
Mode :LoRa\_500k\_TX\_903MHz  
Test by :Scott Chang

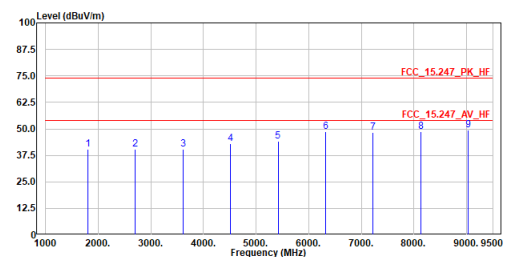


| No. | Frequency | Level  | Limit  | Over   | Read  | Factor | Remark |
|-----|-----------|--------|--------|--------|-------|--------|--------|
|     | MHz       | dBuV/m | dBuV/m | dB     | dBuV  | dB     |        |
| 1   | 1806.000  | 42.13  | 74.00  | -31.87 | 67.86 | -25.73 | Peak   |
| 2   | 2709.000  | 39.46  | 74.00  | -34.54 | 61.95 | -22.49 | Peak   |
| 3   | 3612.000  | 40.26  | 74.00  | -33.74 | 59.72 | -19.46 | Peak   |
| 4   | 4515.000  | 42.44  | 74.00  | -31.56 | 58.34 | -15.90 | Peak   |
| 5   | 5418.000  | 44.33  | 74.00  | -29.67 | 58.22 | -13.89 | Peak   |
| 6   | 6321.000  | 47.46  | 74.00  | -26.54 | 57.84 | -10.38 | Peak   |
| 7   | 7224.000  | 48.56  | 74.00  | -25.44 | 56.53 | -7.97  | Peak   |
| 8   | 8127.000  | 48.99  | 74.00  | -25.01 | 56.05 | -7.06  | Peak   |
| 9   | 9030.000  | 49.35  | 74.00  | -24.65 | 54.50 | -5.15  | Peak   |

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
5. The other emission levels were very low against the limit.

Site :HC-CB02  
Condition :3m Vertical  
Mode :LoRa\_500k\_TX\_903MHz  
Test by :Scott Chang

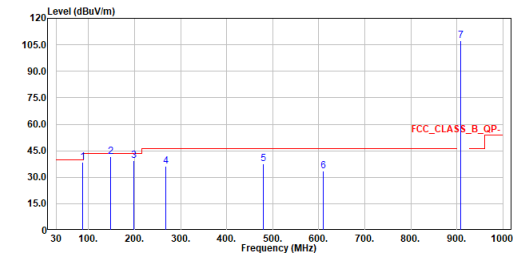


| No. | Frequency | Level  | Limit  | Over   | Read  | Factor | Remark |
|-----|-----------|--------|--------|--------|-------|--------|--------|
|     | MHz       | dBuV/m | dBuV/m | dB     | dBuV  | dB     |        |
| 1   | 1806.000  | 40.34  | 74.00  | -33.66 | 66.07 | -25.73 | Peak   |
| 2   | 2709.000  | 40.45  | 74.00  | -33.55 | 62.94 | -22.49 | Peak   |
| 3   | 3612.000  | 40.24  | 74.00  | -33.76 | 59.70 | -19.46 | Peak   |
| 4   | 4515.000  | 43.13  | 74.00  | -30.87 | 59.03 | -15.90 | Peak   |
| 5   | 5418.000  | 44.26  | 74.00  | -29.74 | 58.15 | -13.89 | Peak   |
| 6   | 6321.000  | 48.56  | 74.00  | -25.44 | 58.94 | -10.38 | Peak   |
| 7   | 7224.000  | 48.22  | 74.00  | -25.78 | 56.19 | -7.97  | Peak   |
| 8   | 8127.000  | 48.76  | 74.00  | -25.24 | 55.82 | -7.06  | Peak   |
| 9   | 9030.000  | 49.52  | 74.00  | -24.48 | 54.67 | -5.15  | Peak   |

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
5. The other emission levels were very low against the limit.

Site :HC-CB02  
Condition :3m Horizontal  
Mode :LF\_LoRa\_500k\_TX\_907.8MHz  
Test by :Scott Chang

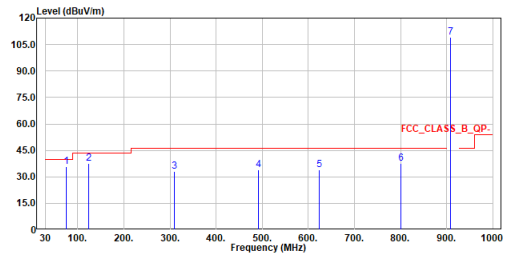


| No. | Frequency | Level  | Limit  | Over   | Read  | Factor | Remark |
|-----|-----------|--------|--------|--------|-------|--------|--------|
|     | MHz       | dBuV/m | dBuV/m | dB     | dBuV  | dB     |        |
| 1   | 86.260    | 38.59  | 40.00  | -1.41  | 46.91 | -8.32  | QP     |
| 2   | 148.146   | 41.59  | 43.50  | -1.91  | 44.39 | -2.80  | QP     |
| 3   | 197.810   | 39.44  | 43.50  | -4.06  | 45.38 | -5.94  | QP     |
| 4   | 268.038   | 36.16  | 46.00  | -9.84  | 39.11 | -2.95  | QP     |
| 5   | 479.983   | 37.42  | 46.00  | -8.58  | 34.83 | 2.59   | QP     |
| 6   | 610.157   | 33.31  | 46.00  | -12.69 | 27.53 | 5.78   | QP     |
| 7   | 907.753   | 107.47 | -----  | -----  | 97.64 | 9.83   | QP     |

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.
5. The other emission levels were very low against the limit.

Site :HC-CB02  
Condition :3m Vertical  
Mode :LF\_LoRa\_500k\_TX\_907.8MHz  
Test by :Scott Chang

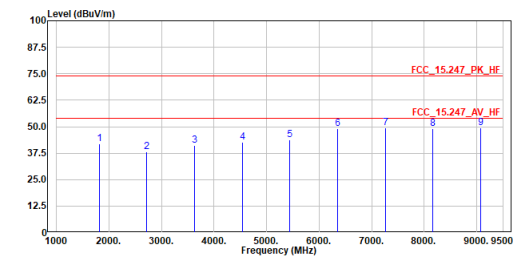


| No. | Frequency | Level  | Limit  | Over   | Read  | Factor | Remark |
|-----|-----------|--------|--------|--------|-------|--------|--------|
|     | MHz       | dBuV/m | dBuV/m | dB     | dBuV  | dB     |        |
| 1   | 75.590    | 35.89  | 40.00  | -4.11  | 41.65 | -5.76  | QP     |
| 2   | 123.023   | 37.73  | 43.50  | -5.77  | 42.70 | -4.97  | QP     |
| 3   | 309.748   | 33.18  | 46.00  | -12.82 | 34.92 | -1.74  | QP     |
| 4   | 491.914   | 33.91  | 46.00  | -12.09 | 31.08 | 2.83   | QP     |
| 5   | 623.640   | 33.81  | 46.00  | -12.19 | 28.06 | 5.75   | QP     |
| 6   | 799.986   | 37.75  | 46.00  | -8.25  | 29.23 | 8.52   | QP     |
| 7   | 907.947   | 109.24 | -----  | -----  | 99.41 | 9.83   | QP     |

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.
5. The other emission levels were very low against the limit.

Site :HC-CB02  
Condition :3m Horizontal  
Mode :LoRa\_500k\_TX\_907.8MHz  
Test by :Scott Chang

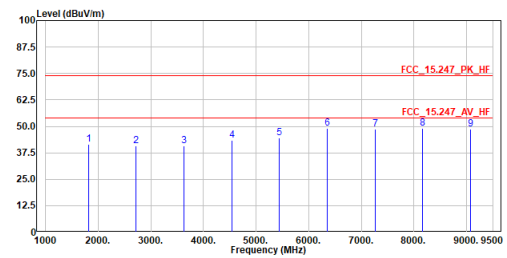


| No. | Frequency | Level  | Limit  | Over   | Read  | Factor | Remark |
|-----|-----------|--------|--------|--------|-------|--------|--------|
|     | MHz       | dBuV/m | dBuV/m | dB     | dBuV  | dB     |        |
| 1   | 1815.600  | 41.86  | 74.00  | -32.14 | 67.55 | -25.69 | Peak   |
| 2   | 2723.400  | 38.25  | 74.00  | -35.75 | 60.70 | -22.45 | Peak   |
| 3   | 3631.200  | 41.12  | 74.00  | -32.88 | 60.50 | -19.38 | Peak   |
| 4   | 4539.000  | 42.50  | 74.00  | -31.50 | 58.31 | -15.81 | Peak   |
| 5   | 5446.800  | 43.82  | 74.00  | -30.18 | 57.70 | -13.88 | Peak   |
| 6   | 6354.600  | 49.13  | 74.00  | -24.87 | 59.31 | -10.18 | Peak   |
| 7   | 7262.400  | 49.29  | 74.00  | -24.71 | 57.22 | -7.93  | Peak   |
| 8   | 8170.200  | 49.22  | 74.00  | -24.78 | 56.19 | -6.97  | Peak   |
| 9   | 9078.000  | 49.50  | 74.00  | -24.50 | 54.61 | -5.11  | Peak   |

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
5. The other emission levels were very low against the limit.

Site :HC-CB02  
Condition :3m Vertical  
Mode :LoRa\_500k\_TX\_907.8MHz  
Test by :Scott Chang

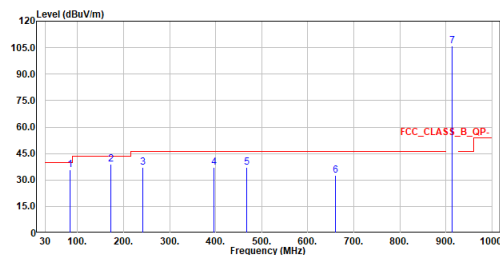


| No. | Frequency | Level  | Limit  | Over   | Read  | Factor | Remark |
|-----|-----------|--------|--------|--------|-------|--------|--------|
|     | MHz       | dBuV/m | dBuV/m | dB     | dBuV  | dB     |        |
| 1   | 1815.600  | 41.60  | 74.00  | -32.40 | 67.29 | -25.69 | Peak   |
| 2   | 2723.400  | 40.66  | 74.00  | -33.34 | 63.11 | -22.45 | Peak   |
| 3   | 3631.200  | 40.60  | 74.00  | -33.40 | 59.98 | -19.38 | Peak   |
| 4   | 4539.000  | 43.37  | 74.00  | -30.63 | 59.18 | -15.81 | Peak   |
| 5   | 5446.800  | 44.61  | 74.00  | -29.39 | 58.49 | -13.88 | Peak   |
| 6   | 6354.600  | 49.00  | 74.00  | -25.00 | 59.18 | -10.18 | Peak   |
| 7   | 7262.400  | 48.78  | 74.00  | -25.22 | 56.71 | -7.93  | Peak   |
| 8   | 8170.200  | 49.20  | 74.00  | -24.80 | 56.17 | -6.97  | Peak   |
| 9   | 9078.000  | 48.69  | 74.00  | -25.31 | 53.80 | -5.11  | Peak   |

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
5. The other emission levels were very low against the limit.

Site :HC-CB02  
Condition :3m Horizontal  
Mode :LF\_LoRa\_500k\_TX\_914.2MHz  
Test by :Scott Chang

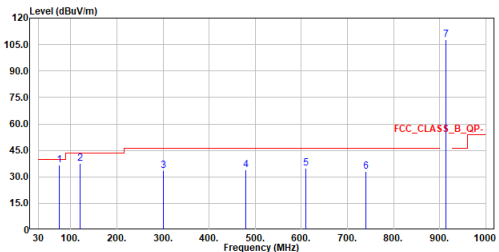


| No. | Frequency | Level  | Limit  | Over   | Read  | Factor | Remark |
|-----|-----------|--------|--------|--------|-------|--------|--------|
|     | MHz       | dBuV/m | Line   | Limit  | Level |        |        |
|     | MHz       | dBuV/m | dBuV/m | dB     | dBuV  | dB     |        |
| 1   | 83.932    | 35.97  | 40.00  | -4.03  | 43.83 | -7.86  | QP     |
| 2   | 172.590   | 39.09  | 43.50  | -4.41  | 42.32 | -3.23  | QP     |
| 3   | 240.781   | 37.36  | 46.00  | -8.64  | 41.37 | -4.01  | QP     |
| 4   | 396.078   | 36.99  | 46.00  | -9.01  | 36.39 | 0.60   | QP     |
| 5   | 468.052   | 36.93  | 46.00  | -9.07  | 34.48 | 2.45   | QP     |
| 6   | 659.724   | 32.68  | 46.00  | -13.32 | 26.25 | 6.43   | QP     |
| 7   | 914.155   | 105.77 | -----  | -----  | 95.84 | 9.93   | QP     |

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.
5. The other emission levels were very low against the limit.

Site :HC-CB02  
Condition :3m Vertical  
Mode :LF\_LoRa\_500k\_TX\_914.2MHz  
Test by :Scott Chang

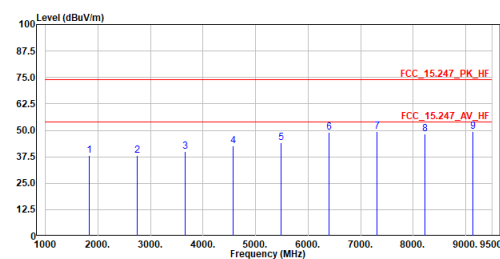


| No. | Frequency | Level  | Limit  | Over   | Read  | Factor | Remark |
|-----|-----------|--------|--------|--------|-------|--------|--------|
|     | MHz       | dBuV/m | Line   | Limit  | Level |        |        |
|     | MHz       | dBuV/m | dBuV/m | dB     | dBuV  | dB     |        |
| 1   | 75.687    | 36.54  | 40.00  | -3.46  | 42.32 | -5.78  | QP     |
| 2   | 120.016   | 37.77  | 43.50  | -5.73  | 42.94 | -5.17  | QP     |
| 3   | 299.951   | 33.29  | 46.00  | -12.71 | 35.35 | -2.06  | QP     |
| 4   | 480.080   | 33.83  | 46.00  | -12.17 | 31.24 | 2.59   | QP     |
| 5   | 609.963   | 34.94  | 46.00  | -11.06 | 29.16 | 5.78   | QP     |
| 6   | 739.070   | 32.90  | 46.00  | -13.10 | 25.13 | 7.77   | QP     |
| 7   | 914.155   | 107.56 | -----  | -----  | 97.63 | 9.93   | QP     |

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.
5. The other emission levels were very low against the limit.

Site :HC-CB02  
Condition :3m Horizontal  
Mode :LoRa\_500k\_TX\_914.2MHz  
Test by :Scott Chang

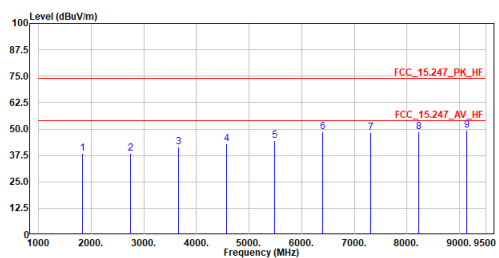


| No. | Frequency | Level  | Limit  | Over   | Read  | Factor | Remark |
|-----|-----------|--------|--------|--------|-------|--------|--------|
|     | MHz       | dBuV/m | Line   | Limit  | Level |        |        |
|     | MHz       | dBuV/m | dBuV/m | dB     | dBuV  | dB     |        |
| 1   | 1828.400  | 38.12  | 74.00  | -35.88 | 63.76 | -25.64 | Peak   |
| 2   | 2742.600  | 37.97  | 74.00  | -36.03 | 60.34 | -22.37 | Peak   |
| 3   | 3656.800  | 40.06  | 74.00  | -33.94 | 59.31 | -19.25 | Peak   |
| 4   | 4571.000  | 42.60  | 74.00  | -31.40 | 58.27 | -15.67 | Peak   |
| 5   | 5485.200  | 44.01  | 74.00  | -29.99 | 57.88 | -13.87 | Peak   |
| 6   | 6399.400  | 48.96  | 74.00  | -25.04 | 58.87 | -9.91  | Peak   |
| 7   | 7313.600  | 49.25  | 74.00  | -24.75 | 57.12 | -7.87  | Peak   |
| 8   | 8227.800  | 48.25  | 74.00  | -25.75 | 55.07 | -6.82  | Peak   |
| 9   | 9142.000  | 49.48  | 74.00  | -24.52 | 54.53 | -5.05  | Peak   |

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
5. The other emission levels were very low against the limit.

Site :HC-CB02  
Condition :3m Vertical  
Mode :LoRa\_500k\_TX\_914.2MHz  
Test by :Scott Chang



| No. | Frequency | Level  | Limit  | Over   | Read  | Factor | Remark |
|-----|-----------|--------|--------|--------|-------|--------|--------|
|     | MHz       | dBuV/m | Line   | Limit  | Level |        |        |
|     | MHz       | dBuV/m | dBuV/m | dB     | dBuV  | dB     |        |
| 1   | 1828.400  | 38.34  | 74.00  | -35.66 | 63.98 | -25.64 | Peak   |
| 2   | 2742.600  | 38.60  | 74.00  | -35.40 | 60.97 | -22.37 | Peak   |
| 3   | 3656.800  | 41.45  | 74.00  | -32.55 | 60.70 | -19.25 | Peak   |
| 4   | 4571.000  | 43.13  | 74.00  | -30.87 | 58.80 | -15.67 | Peak   |
| 5   | 5485.200  | 44.37  | 74.00  | -29.63 | 58.24 | -13.87 | Peak   |
| 6   | 6399.400  | 48.83  | 74.00  | -25.17 | 58.74 | -9.91  | Peak   |
| 7   | 7313.600  | 48.19  | 74.00  | -25.81 | 56.06 | -7.87  | Peak   |
| 8   | 8227.800  | 48.67  | 74.00  | -25.33 | 55.49 | -6.82  | Peak   |
| 9   | 9142.000  | 49.30  | 74.00  | -24.70 | 54.35 | -5.05  | Peak   |

Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The peak result complies with AVG limit, AVG result is deemed to comply with AVG limit.
5. The other emission levels were very low against the limit.