

# FCC Test Report

Product Name : NB-IOT Module Supporting 2, 4, 5, 12, 13, 66

Trade Name : Sequans Communications

Model No. : NB01Q-1

FCC ID. : SDoC

Applicant : Sequans Communications S.A.

Address : 15-55 Boulevard Charles de Gaulle, Colombes, 92700, France

Date of Receipt : May 06, 2019

Issued Date : Jun. 05, 2019

Report No. : 1950052R-RFUSP01V00

Report Version : V1.0



The test results relate only to the samples tested.

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# Test Report Certification

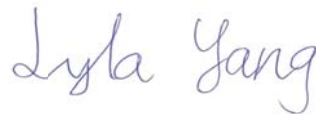
Issued Date : Jun. 05, 2019

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Product Name : NB-IOT Module Supporting 2, 4, 5, 12, 13, 66  
Applicant : Sequans Communications S.A.  
Address : 15-55 Boulevard Charles de Gaulle, Colombes, 92700, France  
Manufacturer : Sequans Communications S.A.  
Model No. : NB01Q-1  
FCC ID. : SDoC  
EUT Test Voltage : DC 3.8V  
Testing Voltage : DC 3.8V  
Trade Name : Sequans Communications  
Applicable Standard : FCC CFR Title 47 Part 15 Subpart B: 2018 Class B,  
CISPR 22: 2008, ICES-003 Issue 6: 2016 Class B,  
ANSI C63.4: 2014  
Laboratory Name : Hsin Chu Laboratory  
Address : No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu  
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TEL: +886-3-582-8001 / FAX: +886-3-582-8958  
Test Result : Complied

Documented By :



( Lyla Yang / Engineering Adm. Specialist )

Tested By :



( Rueyyan Lin / Engineer )

Approved By :



( Louis Hsu / Deputy Manager )

**Revision History**

| Report No.          | Version | Description             | Issued Date   |
|---------------------|---------|-------------------------|---------------|
| 1950052R-RFUSP01V00 | V1.0    | Initial issue of report | Jun. 05, 2019 |
|                     |         |                         |               |
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|                     |         |                         |               |

## TABLE OF CONTENTS

| Description                               | Page      |
|-------------------------------------------|-----------|
| <b>1. General Information.....</b>        | <b>5</b>  |
| 1.1. EUT Description .....                | 5         |
| 1.2. Test Mode .....                      | 6         |
| 1.3. Tested System Details .....          | 7         |
| 1.4. Configuration of tested System ..... | 7         |
| 1.5. EUT Exercise Software .....          | 7         |
| 1.6. Test Facility .....                  | 8         |
| 1.7. List of Test Equipment .....         | 9         |
| 1.8. Uncertainty .....                    | 9         |
| <b>2. Conducted Emission .....</b>        | <b>10</b> |
| 2.1. Test Setup .....                     | 10        |
| 2.2. Limits .....                         | 10        |
| 2.3. Test Procedure .....                 | 11        |
| 2.4. Test Specification .....             | 11        |
| 2.5. Test Result .....                    | 11        |
| <b>3. Radiated Emission.....</b>          | <b>12</b> |
| 3.1. Test Setup .....                     | 12        |
| 3.2. Limits .....                         | 13        |
| 3.3. Test Procedure .....                 | 14        |
| 3.4. Test Specification .....             | 15        |
| 3.5. Test Result .....                    | 16        |
| Attachment 1 .....                        | 40        |
| Test Setup Photograph .....               | 40        |
| Attachment 2 .....                        | 42        |
| EUT External Photograph .....             | 42        |

## 1. General Information

### 1.1. EUT Description

|                          |                                                                                                                                           |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name             | NB-IOT Module Supporting 2, 4, 5, 12, 13, 66                                                                                              |
| Trade Name               | Sequans Communications                                                                                                                    |
| Model No.                | NB01Q-1                                                                                                                                   |
| Uplink Frequency Range   | Band 2: 1850~1910MHz<br>Band 4: 1710~1755MHz<br>Band 5: 824~849MHz<br>Band 12: 699~716MHz<br>Band 13: 777~787MHz<br>Band 66: 1710~1780MHz |
| Downlink Frequency Range | Band 2: 1930~1990MHz<br>Band 4: 2110~2115MHz<br>Band 5: 869~894MHz<br>Band 12: 729~746MHz<br>Band 13: 746~756MHz<br>Band 66: 2110~2200MHz |
| Modulation               | BPSK / QPSK                                                                                                                               |
| IMEI No.                 | TAC 35973809                                                                                                                              |
| HW Version               | NB01Q                                                                                                                                     |
| SW Version               | UE6.0.0.0                                                                                                                                 |

| Antenna Information |                                                                                                         |
|---------------------|---------------------------------------------------------------------------------------------------------|
| MFR. / Model        | Taoglas / TG.08.0113                                                                                    |
| Antenna Type        | Monopole Passive Antenna                                                                                |
| Antenna Gain        | Band 2: 0.94 dBi<br>Band 4: 0.06 dBi<br>Band 5: -4.93 dBi<br>Band 12/13: -6.46 dBi<br>Band 66: 0.06 dBi |

| Accessories Information |                |
|-------------------------|----------------|
| USB Cable               | Shielded, 1.8m |

Note:

1. This NB-IOT Module Supporting 2, 4, 5, 12, 13, 66 supports LTE Band 2/4/5/12/13/66.
2. Regards to the frequency band operation: the lowest, middle and highest frequency of channel were selected to perform the test, then shown on this report.

## 1.2. Test Mode

DERKA has verified the construction and function in typical operation. The preliminary tests were performed in different data rate, and to find the worst condition, which was shown in this test report. The following table is the final test mode.

|    |                            |
|----|----------------------------|
| RX | Mode 1: LTE NB-IOT Band 2  |
|    | Mode 2: LTE NB-IOT Band 4  |
|    | Mode 3: LTE NB-IOT Band 5  |
|    | Mode 4: LTE NB-IOT Band 12 |
|    | Mode 5: LTE NB-IOT Band 13 |
|    | Mode 6: LTE NB-IOT Band 66 |

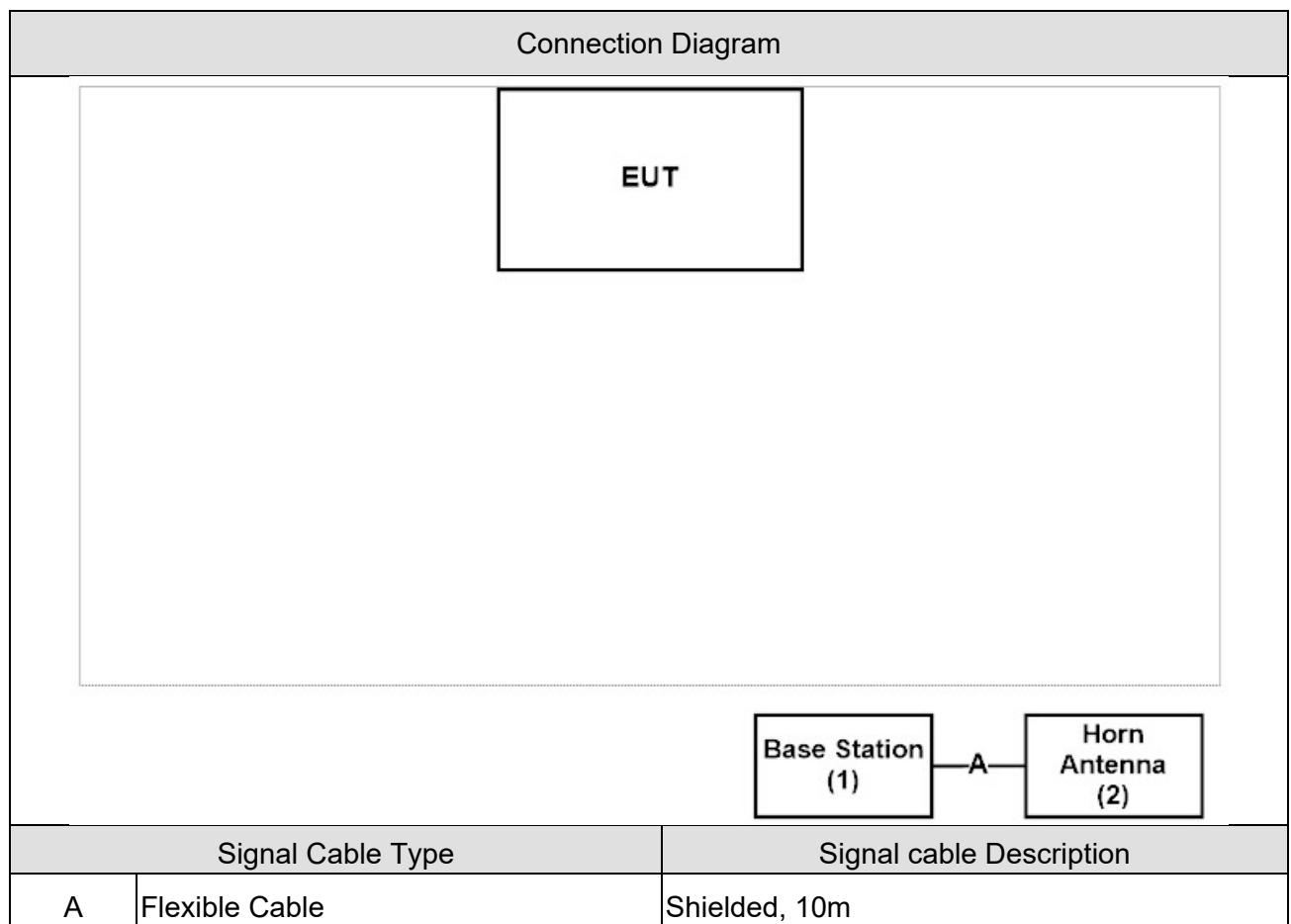
| Test Items         | Result   |
|--------------------|----------|
| Conducted Emission | N/A      |
| Radiated Emission  | Complies |

### 1.3. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

| Product |              | Manufacturer    | Model No. | Serial No. | FCC ID | Power Cord        |
|---------|--------------|-----------------|-----------|------------|--------|-------------------|
| 1       | Base Station | R&S             | CMW500    | 157118     | DoC    | Non-Shielded, 2m. |
| 2       | Horn Antenna | ELECTRO METRICS | EM-6961   | 103326     | DoC    | --                |

### 1.4. Configuration of tested System



### 1.5. EUT Exercise Software

|   |                                                                         |
|---|-------------------------------------------------------------------------|
| 1 | Setup the EUT and simulators as shown on 1.4.                           |
| 2 | Turn on the power of all equipment. Horn link with base station.        |
| 3 | The EUT link with base station and it will continue receive the signal. |
| 4 | Repeat the above procedure.                                             |

## 1.6. Test Facility

Ambient conditions in the laboratory:

| Items                     | Test Item                                  | Required<br>(IEC 68-1) | Actual   | Test Site |
|---------------------------|--------------------------------------------|------------------------|----------|-----------|
| Temperature (°C)          | FCC PART 15 B 15.107<br>Conducted Emission | 15 - 35                | 25       | --        |
| Humidity (%RH)            |                                            | 25 - 75                | 50       |           |
| Barometric pressure mbar) |                                            | 860 - 1060             | 950-1000 |           |
| Temperature (°C)          | FCC PART 15 B 15.109<br>Radiated Emission  | 15 - 35                | 25       | 2         |
| Humidity (%RH)            |                                            | 25 - 75                | 65       |           |
| Barometric pressure mbar) |                                            | 860 - 1060             | 950-1000 |           |

Note: Test site information refers to Laboratory Information.

## Laboratory Information

**USA : FCC Registration Number: TW3024**

**Canada IC Registration Number: 22397-1 / 22397-2 / 22397-3**

The related certificate for our laboratories about the test site and management system can be downloaded from DEKRA Testing and Certification Co., Ltd. Web Site:

<http://www.dekra.com.tw/english/about/certificates.aspx?bval=5>

The address and introduction of DEKRA Testing and Certification Co., Ltd. laboratories can be founded in our Web site: [http://www.dekra.com.tw/index\\_en.aspx](http://www.dekra.com.tw/index_en.aspx)

If you have any comments, Please don't hesitate to contact us. Our test sites as below:

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- 2 No.372, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C.  
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- 3 No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C.  
TEL: +886-3-582-8001 / FAX: +886-3-582-8958 E-Mail : [info.tw@dekra.com](mailto:info.tw@dekra.com)

## 1.7. List of Test Equipment

Radiated Emission / CB4-H

| Instrument                          | Manufacturer | Model No.         | Serial No. | Cal. Date  | Next Cal. Date |
|-------------------------------------|--------------|-------------------|------------|------------|----------------|
| Horn Antenna                        | Schwarzbeck  | BBHA 9120D        | 639        | 2018/06/01 | 2019/05/31     |
| Bilog Antenna                       | Teseq        | CBL6112D          | 23191      | 2018/06/26 | 2019/06/25     |
| Signal & Spectrum Analyzer          | R&S          | FSV40             | 101049     | 2018/12/21 | 2019/12/20     |
| EXA Signal Analyzer                 | Keysight     | N9010A            | MY51440132 | 2019/03/15 | 2020/03/14     |
| Signal Analyzer                     | R&S          | FSVA40            | 101455     | 2018/11/05 | 2019/11/04     |
| Horn Antenna                        | Schwarzbeck  | BBHA 9170         | 202        | 2019/01/16 | 2020/01/15     |
| Pre-Amplifier                       | DEKRA        | AP-400C           | 201801231  | 2018/12/05 | 2019/12/04     |
| Pre-Amplifier                       | EMCI         | EMC11830I         | 980366     | 2018/12/21 | 2019/12/20     |
| Horn Antenna                        | Schwarzbeck  | BBHA 9120D        | 01656      | 2018/10/17 | 2019/10/16     |
| Pre-Amplifier                       | DEKRA        | AP-025C           | 201801236  | 2019/02/18 | 2020/02/17     |
| Signal Analyzer                     | R&S          | FSV40             | 101435     | 2018/07/19 | 2019/07/18     |
| Wideband Radio Communication Tester | R&S          | CMW500            | 106071     | 2019/01/16 | 2020/01/15     |
| Wireless Conn. Tseter               | R&S          | CMW500            | 157118     | 2018/08/16 | 2019/08/15     |
| Coaxial Cable(23.5m)                | Suhner       | SF102_SF104_SF106 | CB4_1      | 2018/08/21 | 2019/08/20     |

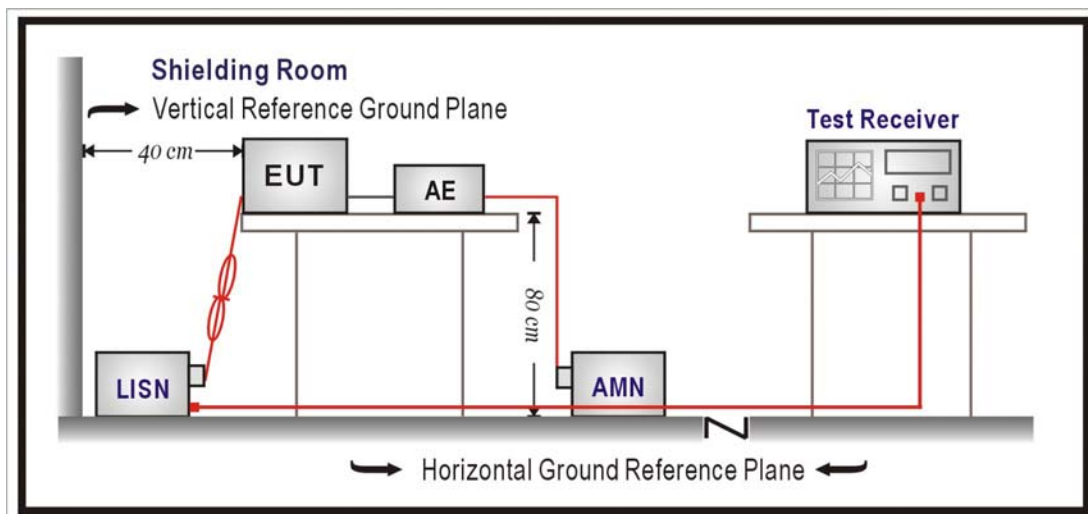
Note: All equipment upon which need to calibrated are with calibration period of 1 year.

## 1.8. Uncertainty

| Test item          | Uncertainty                                                                              |
|--------------------|------------------------------------------------------------------------------------------|
| Conducted Emission | $\pm 2.26\text{dB}$                                                                      |
| Radiated Emission  | Below 1G is defined as $\pm 3.8\text{ dB}$<br>Above 1G is defined as $\pm 3.9\text{ dB}$ |

## 2. Conducted Emission

### 2.1. Test Setup



### 2.2. Limits

| FCC Part 15 Subpart B Paragraph 15.107 Limits (dBuV) |         |    |         |         |
|------------------------------------------------------|---------|----|---------|---------|
| Frequency<br>MHz                                     | Class A |    | Class B |         |
|                                                      | QP      | AV | QP      | AV      |
| 0.15 - 0.50                                          | 79      | 66 | 66 - 56 | 56 - 46 |
| 0.50 - 5.0                                           | 73      | 60 | 56      | 46      |
| 5.0 - 30                                             | 73      | 60 | 60      | 50      |

Remarks : In the above table, the tighter limit applies at the band edges.

### **2.3. Test Procedure**

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2014 on conducted measurement.

Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9KHz.

### **2.4. Test Specification**

According to FCC Part 15 Subpart B: 2018

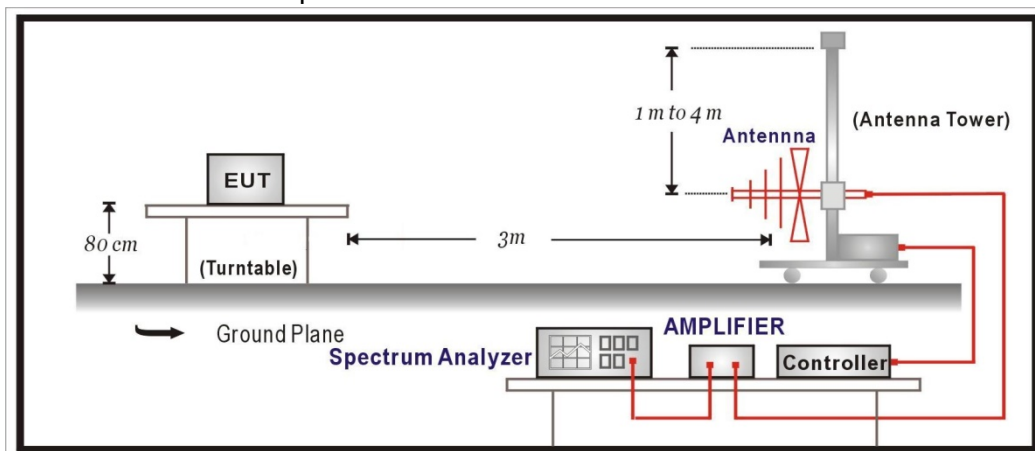
### **2.5. Test Result**

Owing to the DC operation of EUT, this test item is not performed.

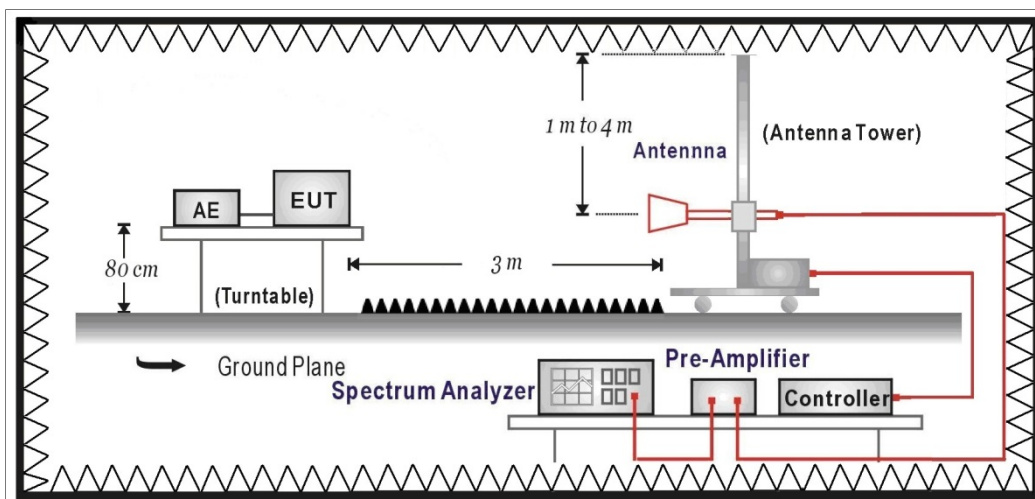
### 3. Radiated Emission

#### 3.1. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



### 3.2. Limits

| CISPR 22 Limits (dBuV/m) |                 |        |                 |        |
|--------------------------|-----------------|--------|-----------------|--------|
| Frequency<br>MHz         | Class A         |        | Class B         |        |
|                          | Distance<br>(m) | dBuV/m | Distance<br>(m) | dBuV/m |
| 30 – 230                 | 10              | 40     | 10              | 30     |
| 230 – 1000               | 10              | 47     | 10              | 37     |

Remark: 1. The tighter limit shall apply at the edge between two frequency bands.

2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

3. RF Voltage (dBuV/m) = 20 log RF Voltage (uV/m)

| FCC Part 15 Subpart B Paragraph 15.109 Limits |                 |        |                 |        |
|-----------------------------------------------|-----------------|--------|-----------------|--------|
| Frequency<br>MHz                              | Class A         |        | Class B         |        |
|                                               | Distance<br>(m) | dBuV/m | Distance<br>(m) | dBuV/m |
| 30 – 88                                       | 10              | 39     | 3               | 40     |
| 88 – 216                                      | 10              | 43.5   | 3               | 43.5   |
| 216 – 960                                     | 10              | 46.4   | 3               | 46     |
| Above 960                                     | 10              | 49.5   | 3               | 54     |

Remark: 1. RF Voltage (dBuV) = 20 log RF Voltage (uV)

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.

Carrier current systems used as unintentional radiators or other unintentional radiators that are designed to conduct their radio frequency emissions via connecting wires or cables and that operate in the frequency range of 9 KHz to 30 MHz, including devices that deliver the radio frequency energy to transducers, such as ultrasonic devices not covered under part 18 of this chapter, shall comply with the radiated emission limits for intentional radiators provided in §15.209 for the frequency range of 9 KHz to 30 MHz. As an alternative, carrier current systems used as unintentional radiators and operating in the frequency range of 525 KHz to 1705 KHz may comply with the radiated emission limits provided in §15.221(a).

### 3.3. Test Procedure

#### Under 30MHz Test:

The EUT and its simulators are placed on a turn table which is 1.0 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum electric field strength. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna which is 1.0 meter above ground. All X-axis, Y-axis and Z-axis polarization of the antenna are set on measurement.

The bandwidth below 30MHz setting on the field strength meter (R&S Test Receiver ESCS 30) is 200Hz and above 30MHz is 9 KHz.

The emission limit shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90KHz, 110-490KHz and above 1000MHz. Radiated emission limit in these three bands are based on measurements employing an average detector.

#### Above 30MHz Test:

The EUT and its simulators are placed on a turn table which is 0.8 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.

For class A, the EUT was positioned such that the distance from antenna to the EUT was 10 meters for under 1GHz and above 1GHz.

For class B, the EUT was positioned such that the distance from antenna to the EUT was 3 or 10 meters for under 1GHz and 3 meters for above 1GHz.

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

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 C63.4: 2013 on radiated measurement.

For an unintentional radiator, including a digital device, the spectrum shall be investigated from the lowest radio frequency signal generated or used in the device, without going below the lowest frequency for which a radiated emission limit is specified, up to the frequency shown in the following table:

| Highest frequency generated or used in the device or on which the device operates or tunes (MHz) | Upper frequency of measurement range (MHz)                                      |
|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Below 1.705                                                                                      | 30                                                                              |
| 1.705 – 108                                                                                      | 1000                                                                            |
| 108 – 500                                                                                        | 2000                                                                            |
| 500 – 1000                                                                                       | 5000                                                                            |
| Above 1000                                                                                       | 5 <sup>th</sup> harmonic of the highest frequency or 40 GHz, whichever is lower |

On any frequency or frequencies below or equal to 1000 MHz, the limits shown are based on measuring equipment employing a CISPR quasi-peak detector function and on any frequency or frequencies above 1000 MHz the radiated limits 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.

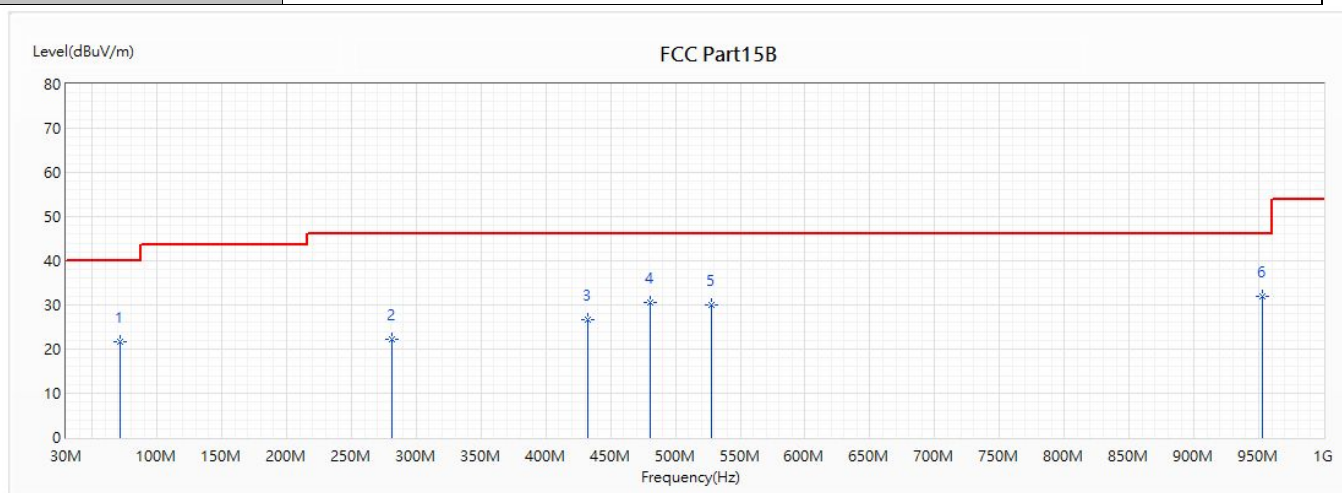
### 3.4. Test Specification

According to FCC Part 15 Subpart B: 2018

### 3.5. Test Result

#### 30MHz-1GHz Spurious:

|                |                           |             |            |
|----------------|---------------------------|-------------|------------|
| Site :         | CB4-H                     | Engineer :  | Lion       |
| Model No :     | NB01Q-1                   | Test Date : | 2019/5/21  |
| Test Voltage : | DC 3.8V                   | Polarity :  | Horizontal |
| Test Mode :    | Mode 1: LTE NB-IOT Band 2 |             |            |
| Note :         |                           |             |            |

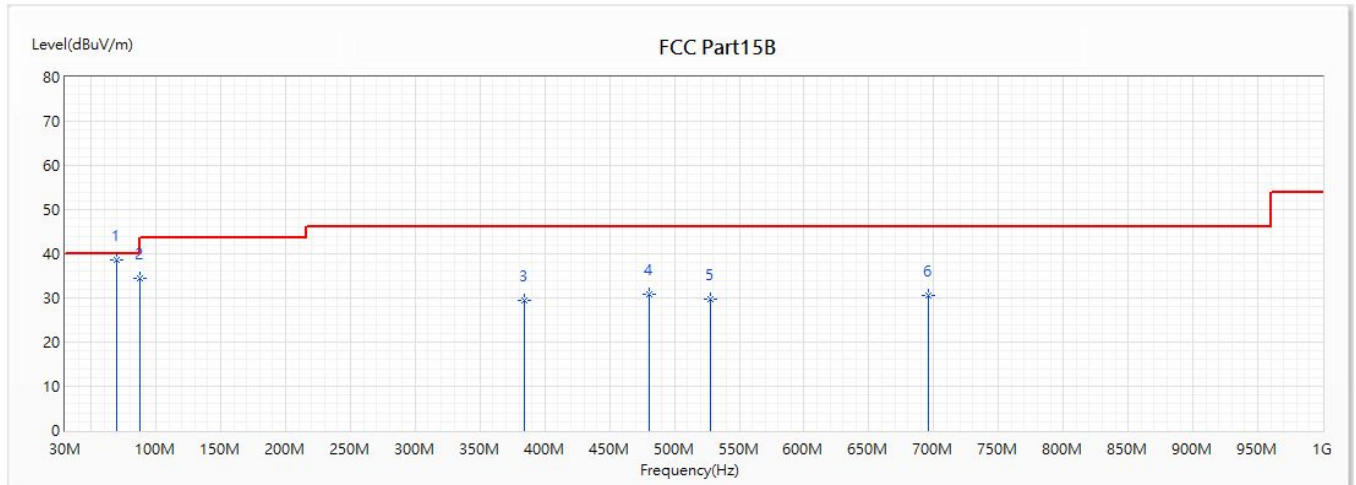


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|---------------------|---------------|
| 1   | 72.001          | 21.59                   | 40.00          | -18.41      | 48.55                | -26.96              | QP            |
| 2   | 280.842         | 22.27                   | 46.00          | -23.73      | 41.47                | -19.20              | QP            |
| 3   | 431.968         | 26.80                   | 46.00          | -19.20      | 41.69                | -14.89              | QP            |
| 4   | 480.08          | 30.56                   | 46.00          | -15.44      | 44.55                | -13.99              | QP            |
| 5   | 527.998         | 29.87                   | 46.00          | -16.13      | 43.16                | -13.29              | QP            |
| * 6 | 952.664         | 31.87                   | 46.00          | -14.13      | 40.20                | -8.33               | QP            |

Note:

1. All reading levels is Quasi-Peak value.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

|                |                           |             |           |
|----------------|---------------------------|-------------|-----------|
| Site :         | CB4-H                     | Engineer :  | Lion      |
| Model No :     | NB01Q-1                   | Test Date : | 2019/5/21 |
| Test Voltage : | DC 3.8V                   | Polarity :  | Vertical  |
| Test Mode :    | Mode 1: LTE NB-IOT Band 2 |             |           |
| Note :         |                           |             |           |

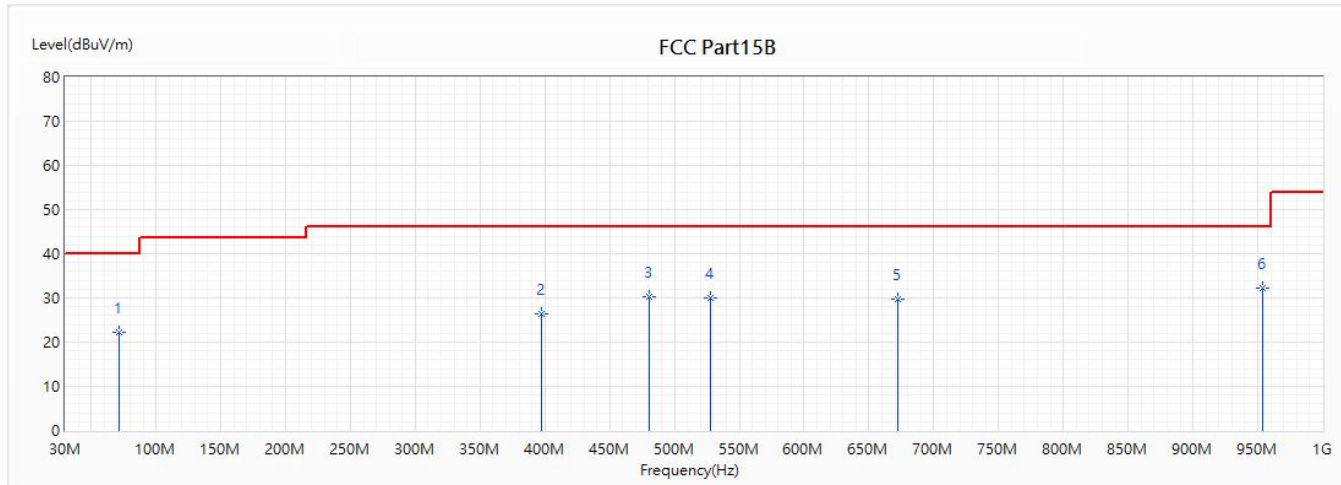


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|---------------------|---------------|
| * 1 | 69.285          | 38.51                   | 40.00          | -1.49       | 65.61                | -27.10              | QP            |
| 2   | 88.006          | 34.43                   | 43.50          | -9.07       | 59.49                | -25.06              | QP            |
| 3   | 383.953         | 29.49                   | 46.00          | -16.51      | 45.53                | -16.04              | QP            |
| 4   | 480.08          | 30.83                   | 46.00          | -15.17      | 44.82                | -13.99              | QP            |
| 5   | 527.998         | 29.77                   | 46.00          | -16.23      | 43.06                | -13.29              | QP            |
| 6   | 696.002         | 30.57                   | 46.00          | -15.43      | 42.25                | -11.68              | QP            |

**Note:**

1. All reading levels is Quasi-Peak value.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

|                |                           |             |            |
|----------------|---------------------------|-------------|------------|
| Site :         | CB4-H                     | Engineer :  | Lion       |
| Model No :     | NB01Q-1                   | Test Date : | 2019/5/21  |
| Test Voltage : | DC 3.8V                   | Polarity :  | Horizontal |
| Test Mode :    | Mode 2: LTE NB-IOT Band 4 |             |            |
| Note :         |                           |             |            |

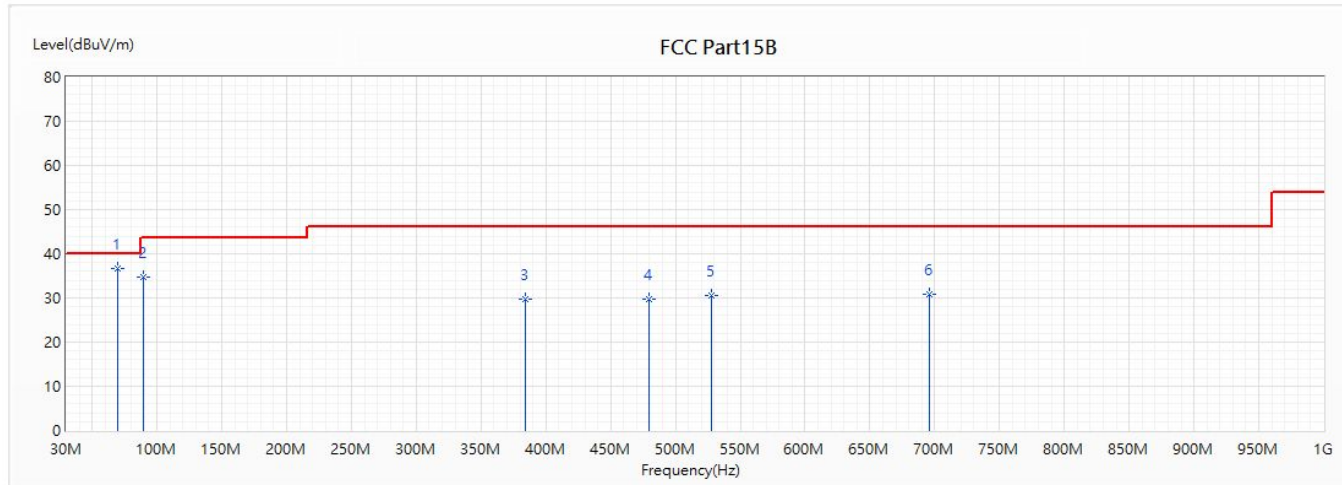


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|---------------------|---------------|
| 1   | 71.322          | 22.12                   | 40.00          | -17.88      | 49.15                | -27.03              | QP            |
| 2   | 397.824         | 26.31                   | 46.00          | -19.69      | 41.89                | -15.58              | QP            |
| 3   | 480.08          | 30.32                   | 46.00          | -15.68      | 44.31                | -13.99              | QP            |
| 4   | 527.998         | 30.13                   | 46.00          | -15.87      | 43.42                | -13.29              | QP            |
| 5   | 672.14          | 29.86                   | 46.00          | -16.14      | 41.72                | -11.86              | QP            |
| * 6 | 953.828         | 32.24                   | 46.00          | -13.76      | 40.54                | -8.30               | QP            |

## Note:

1. All reading levels is Quasi-Peak value.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

|                |                           |             |           |
|----------------|---------------------------|-------------|-----------|
| Site :         | CB4-H                     | Engineer :  | Lion      |
| Model No :     | NB01Q-1                   | Test Date : | 2019/5/21 |
| Test Voltage : | DC 3.8V                   | Polarity :  | Vertical  |
| Test Mode :    | Mode 2: LTE NB-IOT Band 4 |             |           |
| Note :         |                           |             |           |

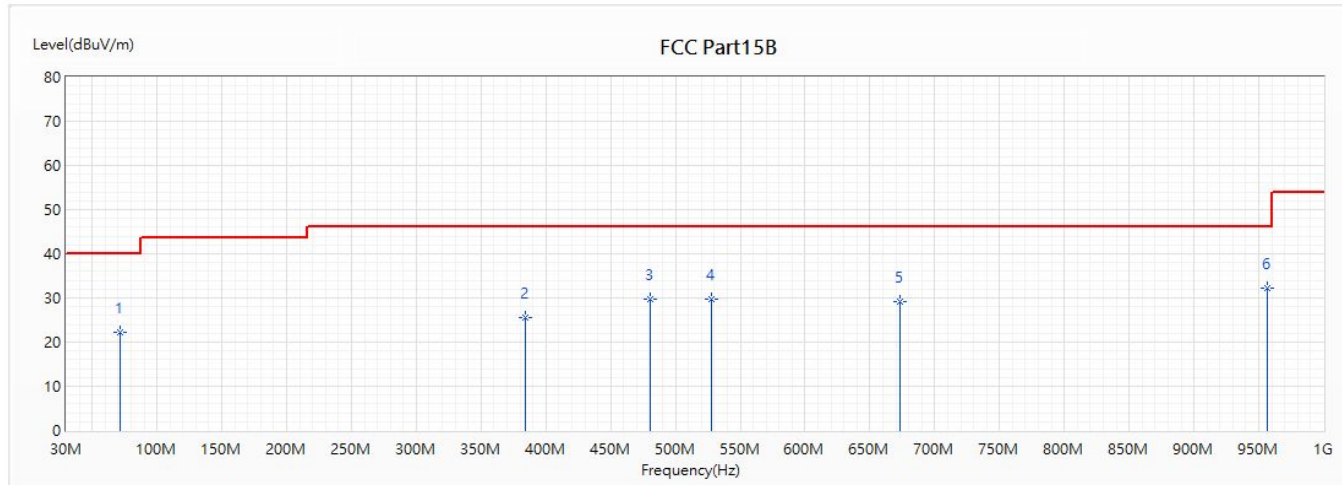


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|---------------------|---------------|
| * 1 | 69.285          | 36.58                   | 40.00          | -3.42       | 63.68                | -27.10              | QP            |
| 2   | 89.17           | 34.84                   | 43.50          | -8.66       | 59.74                | -24.90              | QP            |
| 3   | 384.05          | 29.63                   | 46.00          | -16.37      | 45.67                | -16.04              | QP            |
| 4   | 479.983         | 29.73                   | 46.00          | -16.27      | 43.72                | -13.99              | QP            |
| 5   | 527.998         | 30.62                   | 46.00          | -15.38      | 43.91                | -13.29              | QP            |
| 6   | 696.099         | 30.92                   | 46.00          | -15.08      | 42.60                | -11.68              | QP            |

Note:

1. All reading levels is Quasi-Peak value.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

|                |                           |             |            |
|----------------|---------------------------|-------------|------------|
| Site :         | CB4-H                     | Engineer :  | Lion       |
| Model No :     | NB01Q-1                   | Test Date : | 2019/5/21  |
| Test Voltage : | DC 3.8V                   | Polarity :  | Horizontal |
| Test Mode :    | Mode 3: LTE NB-IOT Band 5 |             |            |
| Note :         |                           |             |            |

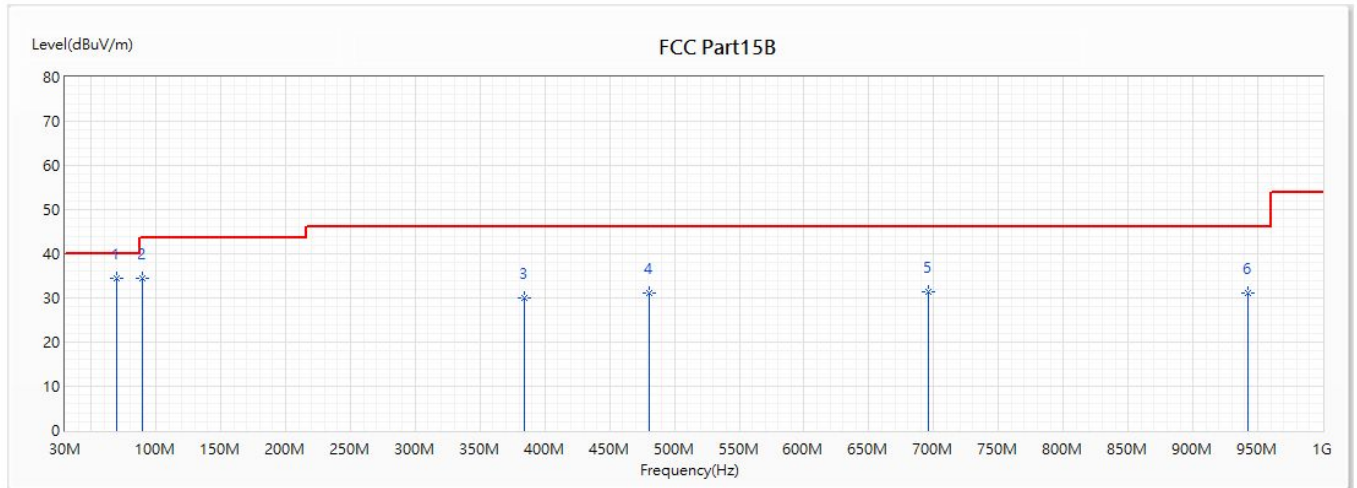


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|---------------------|---------------|
| 1   | 72.001          | 22.25                   | 40.00          | -17.75      | 49.21                | -26.96              | QP            |
| 2   | 384.05          | 25.63                   | 46.00          | -20.37      | 41.67                | -16.04              | QP            |
| 3   | 480.08          | 29.86                   | 46.00          | -16.14      | 43.85                | -13.99              | QP            |
| 4   | 527.998         | 29.82                   | 46.00          | -16.18      | 43.11                | -13.29              | QP            |
| 5   | 673.498         | 29.21                   | 46.00          | -16.79      | 41.04                | -11.83              | QP            |
| * 6 | 956.156         | 32.14                   | 46.00          | -13.86      | 40.41                | -8.27               | QP            |

Note:

1. All reading levels is Quasi-Peak value.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

|                |                           |             |           |
|----------------|---------------------------|-------------|-----------|
| Site :         | CB4-H                     | Engineer :  | Lion      |
| Model No :     | NB01Q-1                   | Test Date : | 2019/5/21 |
| Test Voltage : | DC 3.8V                   | Polarity :  | Vertical  |
| Test Mode :    | Mode 3: LTE NB-IOT Band 5 |             |           |
| Note :         |                           |             |           |

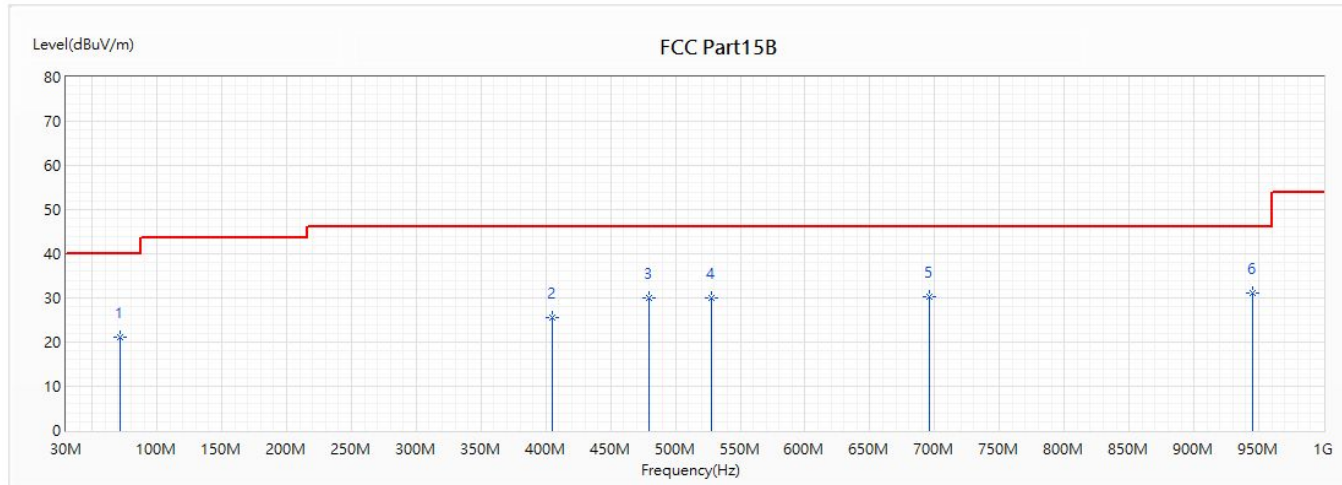


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|---------------------|---------------|
| * 1 | 69.285          | 34.37                   | 40.00          | -5.63       | 61.47                | -27.10              | QP            |
| 2   | 89.17           | 34.54                   | 43.50          | -8.96       | 59.44                | -24.90              | QP            |
| 3   | 384.05          | 30.06                   | 46.00          | -15.94      | 46.10                | -16.04              | QP            |
| 4   | 480.08          | 31.02                   | 46.00          | -14.98      | 45.01                | -13.99              | QP            |
| 5   | 696.002         | 31.34                   | 46.00          | -14.66      | 43.02                | -11.68              | QP            |
| 6   | 942.479         | 31.17                   | 46.00          | -14.83      | 39.65                | -8.48               | QP            |

Note:

1. All reading levels is Quasi-Peak value.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

|                |                            |             |            |
|----------------|----------------------------|-------------|------------|
| Site :         | CB4-H                      | Engineer :  | Lion       |
| Model No :     | NB01Q-1                    | Test Date : | 2019/5/21  |
| Test Voltage : | DC 3.8V                    | Polarity :  | Horizontal |
| Test Mode :    | Mode 4: LTE NB-IOT Band 12 |             |            |
| Note :         |                            |             |            |

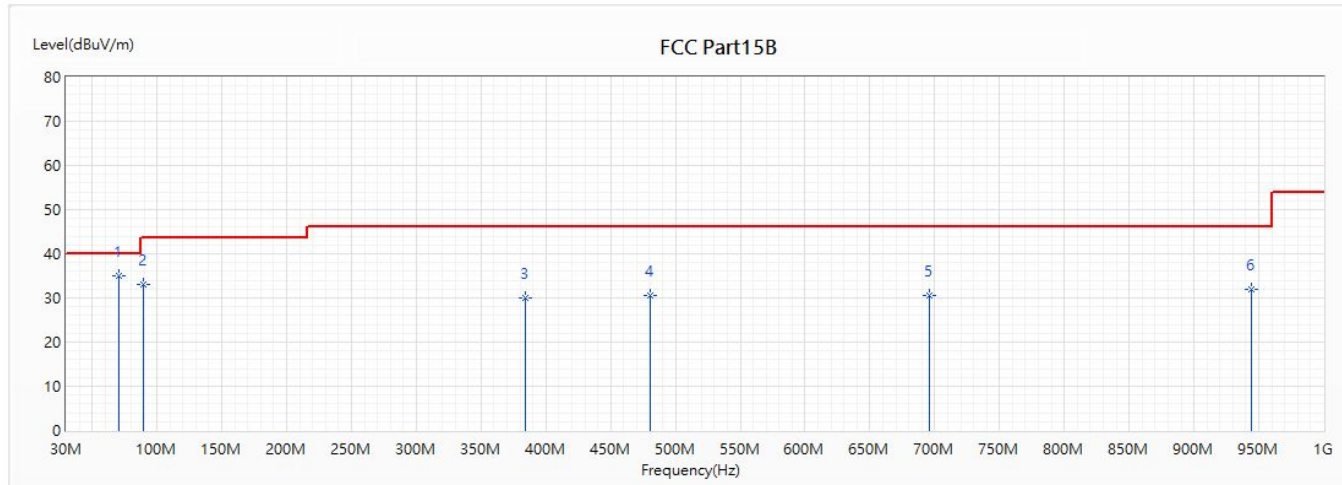


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|---------------------|---------------|
| 1   | 71.128          | 21.02                   | 40.00          | -18.98      | 48.07                | -27.05              | QP            |
| 2   | 405.099         | 25.68                   | 46.00          | -20.32      | 41.08                | -15.40              | QP            |
| 3   | 479.983         | 30.07                   | 46.00          | -15.93      | 44.06                | -13.99              | QP            |
| 4   | 527.998         | 29.98                   | 46.00          | -16.02      | 43.27                | -13.29              | QP            |
| 5   | 696.002         | 30.39                   | 46.00          | -15.61      | 42.07                | -11.68              | QP            |
| * 6 | 945.68          | 31.18                   | 46.00          | -14.82      | 39.61                | -8.43               | QP            |

Note:

1. All reading levels is Quasi-Peak value.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

|                |                            |             |           |
|----------------|----------------------------|-------------|-----------|
| Site :         | CB4-H                      | Engineer :  | Lion      |
| Model No :     | NB01Q-1                    | Test Date : | 2019/5/21 |
| Test Voltage : | DC 3.8V                    | Polarity :  | Vertical  |
| Test Mode :    | Mode 4: LTE NB-IOT Band 12 |             |           |
| Note :         |                            |             |           |

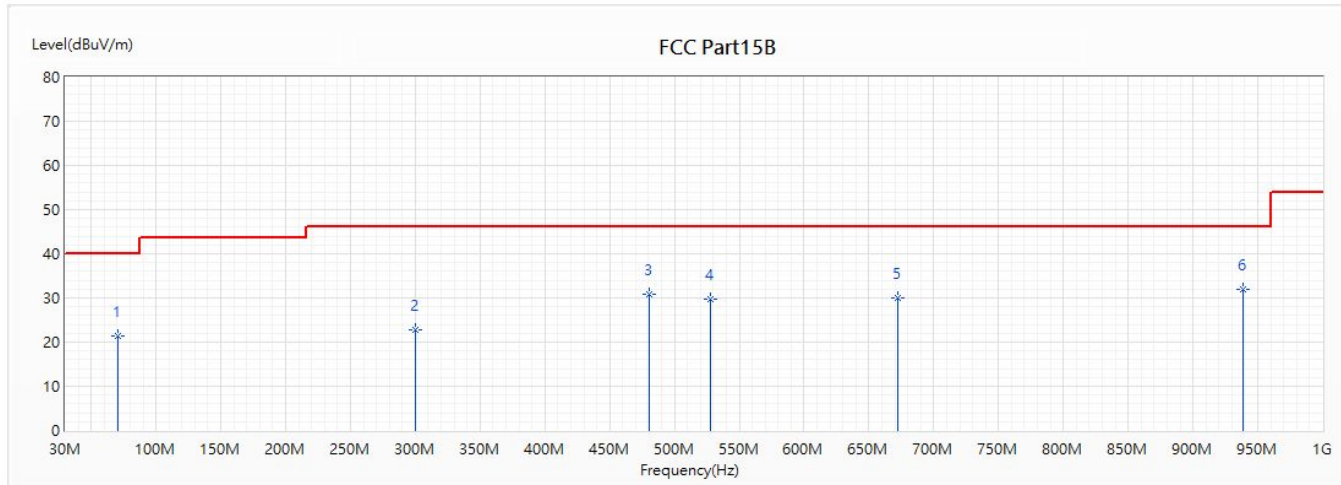


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|---------------------|---------------|
| * 1 | 70.255          | 34.99                   | 40.00          | -5.01       | 62.08                | -27.09              | QP            |
| 2   | 89.073          | 33.09                   | 43.50          | -10.41      | 58.00                | -24.91              | QP            |
| 3   | 384.05          | 30.03                   | 46.00          | -15.97      | 46.07                | -16.04              | QP            |
| 4   | 480.08          | 30.57                   | 46.00          | -15.43      | 44.56                | -13.99              | QP            |
| 5   | 696.099         | 30.67                   | 46.00          | -15.33      | 42.35                | -11.68              | QP            |
| 6   | 944.516         | 32.05                   | 46.00          | -13.95      | 40.51                | -8.46               | QP            |

Note:

1. All reading levels is Quasi-Peak value.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

|                |                            |             |            |
|----------------|----------------------------|-------------|------------|
| Site :         | CB4-H                      | Engineer :  | Lion       |
| Model No :     | NB01Q-1                    | Test Date : | 2019/5/21  |
| Test Voltage : | DC 3.8V                    | Polarity :  | Horizontal |
| Test Mode :    | Mode 5: LTE NB-IOT Band 13 |             |            |
| Note :         |                            |             |            |

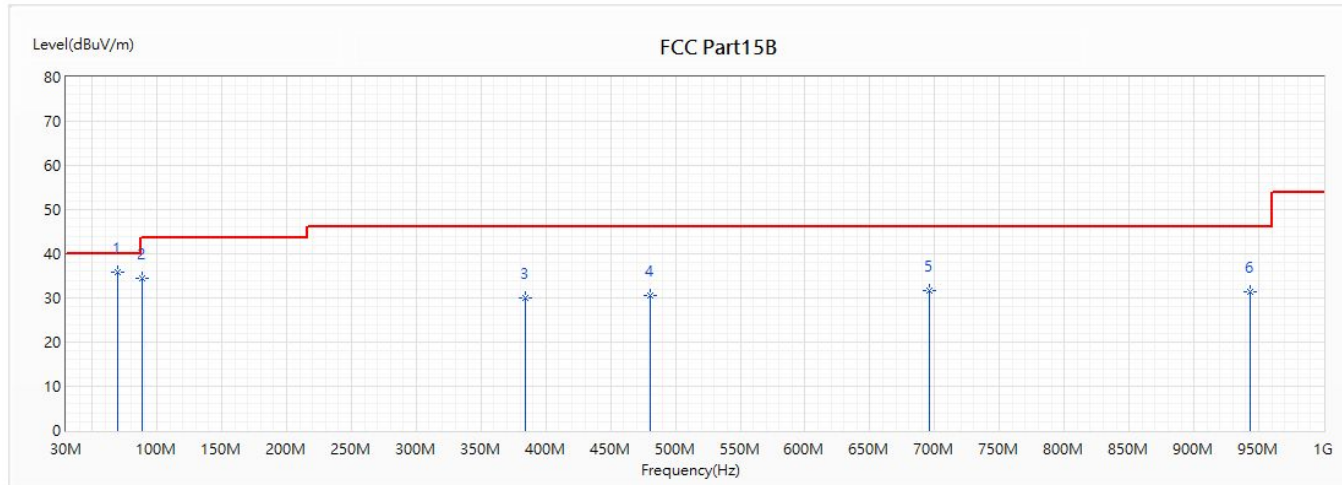


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|---------------------|---------------|
| 1   | 70.449          | 21.30                   | 40.00          | -18.70      | 48.38                | -27.08              | QP            |
| 2   | 300.048         | 22.70                   | 46.00          | -23.30      | 41.52                | -18.82              | QP            |
| 3   | 480.08          | 30.70                   | 46.00          | -15.30      | 44.69                | -13.99              | QP            |
| 4   | 527.998         | 29.64                   | 46.00          | -16.36      | 42.93                | -13.29              | QP            |
| 5   | 672.043         | 29.97                   | 46.00          | -16.03      | 41.83                | -11.86              | QP            |
| * 6 | 938.696         | 31.85                   | 46.00          | -14.15      | 40.39                | -8.54               | QP            |

Note:

1. All reading levels is Quasi-Peak value.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

|                |                            |             |           |
|----------------|----------------------------|-------------|-----------|
| Site :         | CB4-H                      | Engineer :  | Lion      |
| Model No :     | NB01Q-1                    | Test Date : | 2019/5/21 |
| Test Voltage : | DC 3.8V                    | Polarity :  | Vertical  |
| Test Mode :    | Mode 5: LTE NB-IOT Band 13 |             |           |
| Note :         |                            |             |           |

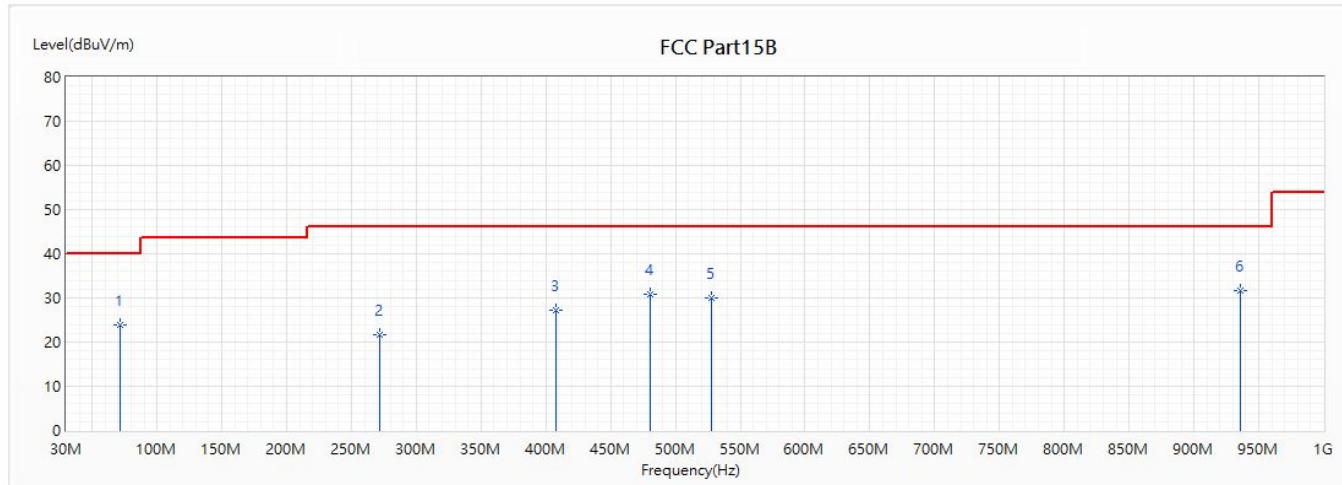


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|---------------------|---------------|
| * 1 | 69.382          | 35.75                   | 40.00          | -4.25       | 62.85                | -27.10              | QP            |
| 2   | 88.103          | 34.44                   | 43.50          | -9.06       | 59.49                | -25.05              | QP            |
| 3   | 384.05          | 30.11                   | 46.00          | -15.89      | 46.15                | -16.04              | QP            |
| 4   | 480.08          | 30.59                   | 46.00          | -15.41      | 44.58                | -13.99              | QP            |
| 5   | 696.002         | 31.62                   | 46.00          | -14.38      | 43.30                | -11.68              | QP            |
| 6   | 943.449         | 31.37                   | 46.00          | -14.63      | 39.84                | -8.47               | QP            |

Note:

1. All reading levels is Quasi-Peak value.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

|                |                            |             |            |
|----------------|----------------------------|-------------|------------|
| Site :         | CB4-H                      | Engineer :  | Lion       |
| Model No :     | NB01Q-1                    | Test Date : | 2019/5/21  |
| Test Voltage : | DC 3.8V                    | Polarity :  | Horizontal |
| Test Mode :    | Mode 6: LTE NB-IOT Band 66 |             |            |
| Note :         |                            |             |            |

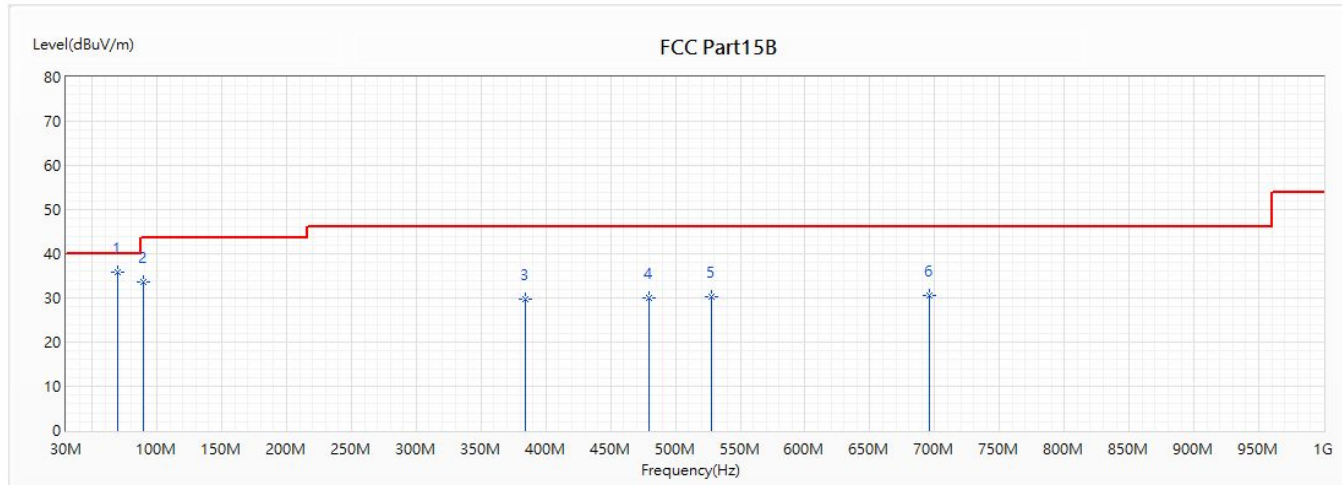


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|---------------------|---------------|
| 1   | 71.904          | 23.84                   | 40.00          | -16.16      | 50.81                | -26.97              | QP            |
| 2   | 271.724         | 21.79                   | 46.00          | -24.21      | 41.17                | -19.38              | QP            |
| 3   | 408.106         | 27.15                   | 46.00          | -18.85      | 42.50                | -15.35              | QP            |
| 4   | 480.08          | 30.79                   | 46.00          | -15.21      | 44.78                | -13.99              | QP            |
| 5   | 527.998         | 30.04                   | 46.00          | -15.96      | 43.33                | -13.29              | QP            |
| * 6 | 936.077         | 31.65                   | 46.00          | -14.35      | 40.23                | -8.58               | QP            |

Note:

1. All reading levels is Quasi-Peak value.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

|                |                            |             |           |
|----------------|----------------------------|-------------|-----------|
| Site :         | CB4-H                      | Engineer :  | Lion      |
| Model No :     | NB01Q-1                    | Test Date : | 2019/5/21 |
| Test Voltage : | DC 3.8V                    | Polarity :  | Vertical  |
| Test Mode :    | Mode 6: LTE NB-IOT Band 66 |             |           |
| Note :         |                            |             |           |



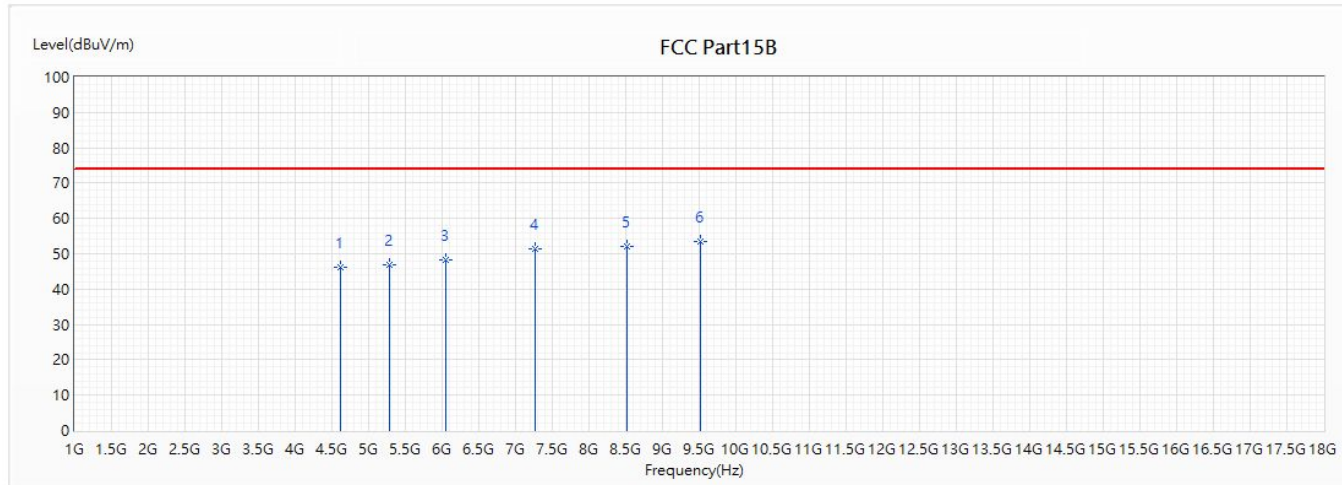
| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|---------------------|---------------|
| * 1 | 69.285          | 35.77                   | 40.00          | -4.23       | 62.87                | -27.10              | QP            |
| 2   | 89.073          | 33.50                   | 43.50          | -10.00      | 58.41                | -24.91              | QP            |
| 3   | 384.05          | 29.70                   | 46.00          | -16.30      | 45.74                | -16.04              | QP            |
| 4   | 479.983         | 30.12                   | 46.00          | -15.88      | 44.11                | -13.99              | QP            |
| 5   | 527.998         | 30.25                   | 46.00          | -15.75      | 43.54                | -13.29              | QP            |
| 6   | 696.196         | 30.53                   | 46.00          | -15.47      | 42.21                | -11.68              | QP            |

Note:

1. All reading levels is Quasi-Peak value.
2. “ \* ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

**Above 1GHz Spurious:**

|                |                           |             |            |
|----------------|---------------------------|-------------|------------|
| Site :         | CB4-H                     | Engineer :  | Lion       |
| Model No :     | NB01Q-1                   | Test Date : | 2019/5/21  |
| Test Voltage : | DC 3.8V                   | Polarity :  | Horizontal |
| Test Mode :    | Mode 1: LTE NB-IOT Band 2 |             |            |
| Note :         |                           |             |            |

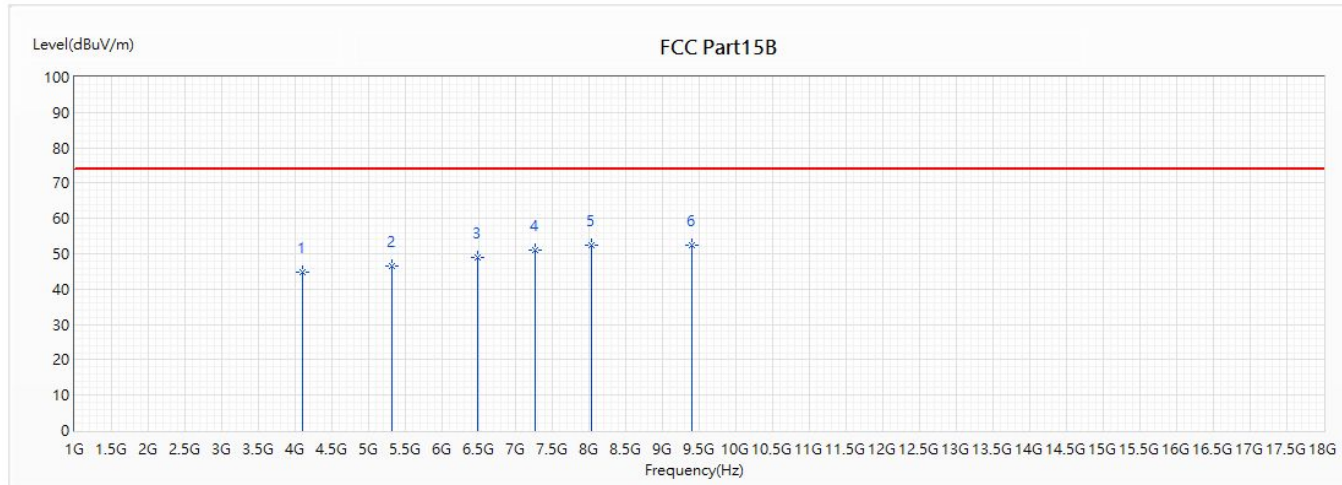


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|---------------------|---------------|
| 1   | 4609.1          | 46.03                   | 74.00          | -27.97      | 36.70                | 9.33                | PK            |
| 2   | 5278.9          | 46.89                   | 74.00          | -27.11      | 35.92                | 10.97               | PK            |
| 3   | 6043.9          | 48.41                   | 74.00          | -25.59      | 35.72                | 12.69               | PK            |
| 4   | 7264.5          | 51.32                   | 74.00          | -22.68      | 34.77                | 16.55               | PK            |
| 5   | 8519.1          | 52.03                   | 74.00          | -21.97      | 33.86                | 18.17               | PK            |
| * 6 | 9517            | 53.34                   | 74.00          | -20.66      | 32.97                | 20.37               | PK            |

**Note:**

1. All reading levels is PEAK value.
2. “ \* ”, means this data is the worst value.
3. Emission Level= Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

|                |                           |             |           |
|----------------|---------------------------|-------------|-----------|
| Site :         | CB4-H                     | Engineer :  | Lion      |
| Model No :     | NB01Q-1                   | Test Date : | 2019/5/21 |
| Test Voltage : | DC 3.8V                   | Polarity :  | Vertical  |
| Test Mode :    | Mode 1: LTE NB-IOT Band 2 |             |           |
| Note :         |                           |             |           |

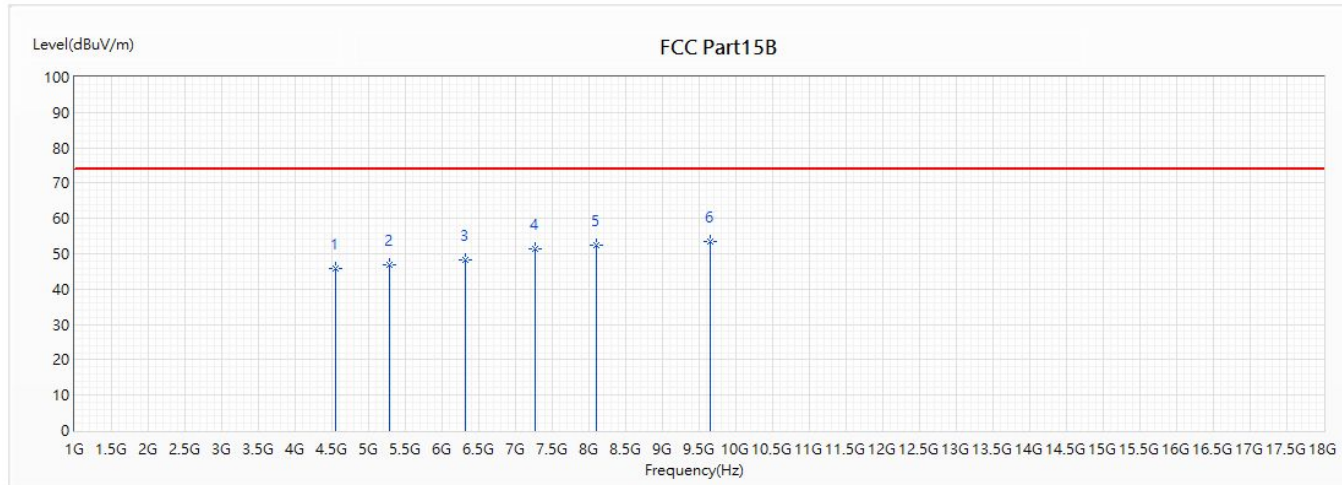


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|---------------------|---------------|
| 1   | 4104.2          | 44.81                   | 74.00          | -29.19      | 36.91                | 7.90                | PK            |
| 2   | 5312.9          | 46.68                   | 74.00          | -27.32      | 35.63                | 11.05               | PK            |
| 3   | 6479.1          | 48.95                   | 74.00          | -25.05      | 35.10                | 13.85               | PK            |
| 4   | 7264.5          | 51.00                   | 74.00          | -23.00      | 34.45                | 16.55               | PK            |
| 5   | 8029.5          | 52.30                   | 74.00          | -21.70      | 34.05                | 18.25               | PK            |
| * 6 | 9392.9          | 52.57                   | 74.00          | -21.43      | 32.47                | 20.10               | PK            |

Note:

1. All reading levels is PEAK value.
2. “ \* ”, means this data is the worst value.
3. Emission Level= Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

|                |                           |             |            |
|----------------|---------------------------|-------------|------------|
| Site :         | CB4-H                     | Engineer :  | Lion       |
| Model No :     | NB01Q-1                   | Test Date : | 2019/5/21  |
| Test Voltage : | DC 3.8V                   | Polarity :  | Horizontal |
| Test Mode :    | Mode 2: LTE NB-IOT Band 4 |             |            |
| Note :         |                           |             |            |

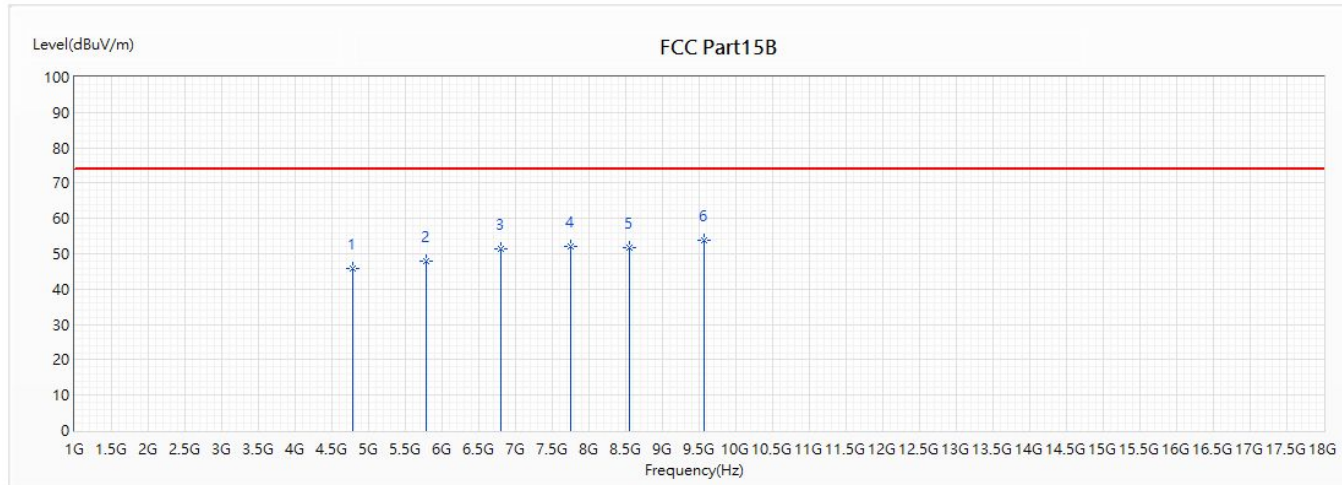


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|---------------------|---------------|
| 1   | 4542.8          | 45.99                   | 74.00          | -28.01      | 36.96                | 9.03                | PK            |
| 2   | 5282.3          | 46.97                   | 74.00          | -27.03      | 35.99                | 10.98               | PK            |
| 3   | 6314.2          | 48.28                   | 74.00          | -25.72      | 35.07                | 13.21               | PK            |
| 4   | 7259.4          | 51.54                   | 74.00          | -22.46      | 34.99                | 16.55               | PK            |
| 5   | 8107.7          | 52.43                   | 74.00          | -21.57      | 34.27                | 18.16               | PK            |
| * 6 | 9653            | 53.61                   | 74.00          | -20.39      | 32.88                | 20.73               | PK            |

Note:

1. All reading levels is PEAK value.
2. “ \* ”, means this data is the worst value.
3. Emission Level= Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

|                |                           |             |           |
|----------------|---------------------------|-------------|-----------|
| Site :         | CB4-H                     | Engineer :  | Lion      |
| Model No :     | NB01Q-1                   | Test Date : | 2019/5/21 |
| Test Voltage : | DC 3.8V                   | Polarity :  | Vertical  |
| Test Mode :    | Mode 2: LTE NB-IOT Band 4 |             |           |
| Note :         |                           |             |           |

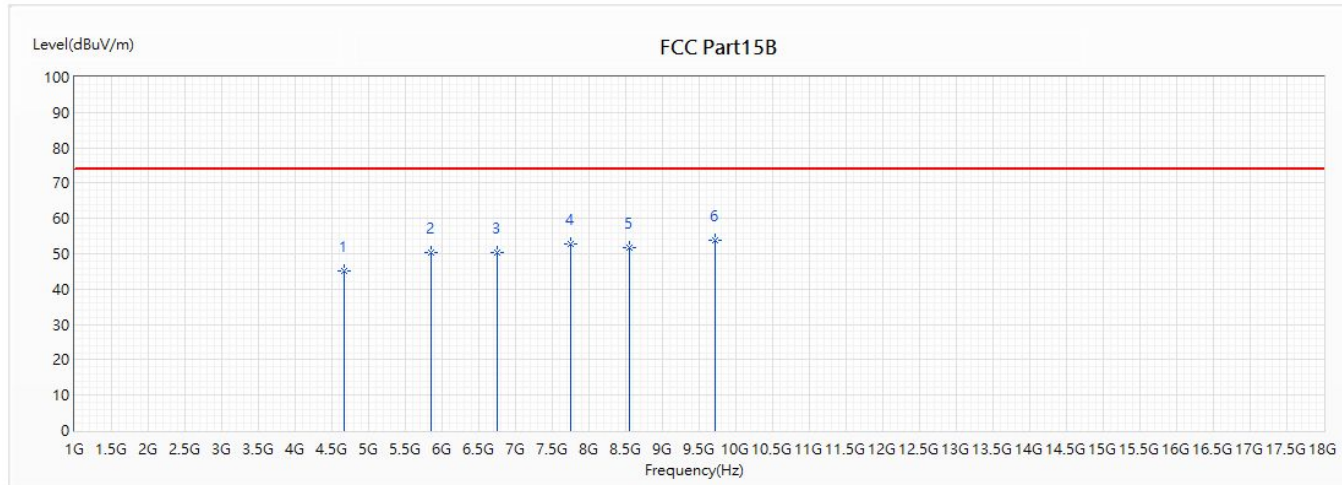


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|---------------------|---------------|
| 1   | 4782.5          | 45.80                   | 74.00          | -28.20      | 36.05                | 9.75                | PK            |
| 2   | 5787.2          | 47.78                   | 74.00          | -26.22      | 35.84                | 11.94               | PK            |
| 3   | 6798.7          | 51.37                   | 74.00          | -22.63      | 36.18                | 15.19               | PK            |
| 4   | 7752.4          | 52.20                   | 74.00          | -21.80      | 34.48                | 17.72               | PK            |
| 5   | 8548            | 51.73                   | 74.00          | -22.27      | 33.47                | 18.26               | PK            |
| * 6 | 9571.4          | 53.81                   | 74.00          | -20.19      | 33.14                | 20.67               | PK            |

Note:

1. All reading levels is PEAK value.
2. “ \* ”, means this data is the worst value.
3. Emission Level= Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

|                |                           |             |            |
|----------------|---------------------------|-------------|------------|
| Site :         | CB4-H                     | Engineer :  | Lion       |
| Model No :     | NB01Q-1                   | Test Date : | 2019/5/21  |
| Test Voltage : | DC 3.8V                   | Polarity :  | Horizontal |
| Test Mode :    | Mode 3: LTE NB-IOT Band 5 |             |            |
| Note :         |                           |             |            |

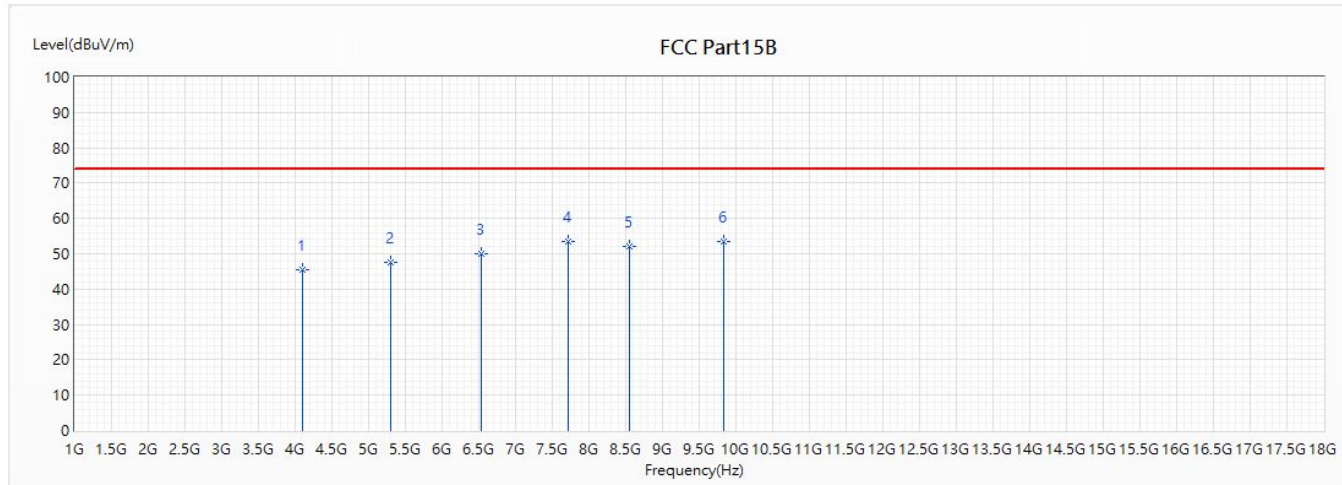


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|---------------------|---------------|
| 1   | 4673.7          | 45.16                   | 74.00          | -28.84      | 35.66                | 9.50                | PK            |
| 2   | 5848.4          | 50.40                   | 74.00          | -23.60      | 38.28                | 12.12               | PK            |
| 3   | 6754.5          | 50.45                   | 74.00          | -23.55      | 35.44                | 15.01               | PK            |
| 4   | 7754.1          | 52.94                   | 74.00          | -21.06      | 35.21                | 17.73               | PK            |
| 5   | 8544.6          | 51.63                   | 74.00          | -22.37      | 33.39                | 18.24               | PK            |
| * 6 | 9721            | 53.66                   | 74.00          | -20.34      | 33.08                | 20.58               | PK            |

Note:

1. All reading levels is PEAK value.
2. “ \* ”, means this data is the worst value.
3. Emission Level= Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

|                |                           |             |           |
|----------------|---------------------------|-------------|-----------|
| Site :         | CB4-H                     | Engineer :  | Lion      |
| Model No :     | NB01Q-1                   | Test Date : | 2019/5/21 |
| Test Voltage : | DC 3.8V                   | Polarity :  | Vertical  |
| Test Mode :    | Mode 3: LTE NB-IOT Band 5 |             |           |
| Note :         |                           |             |           |

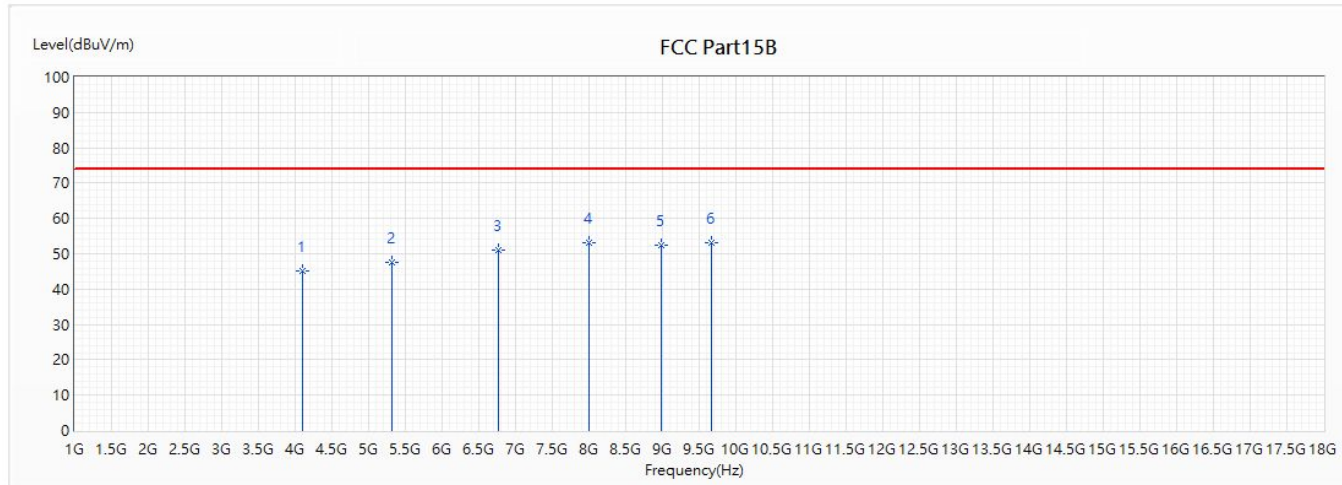


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|---------------------|---------------|
| 1   | 4099.1          | 45.46                   | 74.00          | -28.54      | 37.56                | 7.90                | PK            |
| 2   | 5294.2          | 47.67                   | 74.00          | -26.33      | 36.67                | 11.00               | PK            |
| 3   | 6531.8          | 49.99                   | 74.00          | -24.01      | 35.81                | 14.18               | PK            |
| 4   | 7723.5          | 53.58                   | 74.00          | -20.42      | 35.96                | 17.62               | PK            |
| 5   | 8553.1          | 51.99                   | 74.00          | -22.01      | 33.72                | 18.27               | PK            |
| * 6 | 9833.2          | 53.63                   | 74.00          | -20.37      | 32.93                | 20.70               | PK            |

Note:

1. All reading levels is PEAK value.
2. “ \* ”, means this data is the worst value.
3. Emission Level= Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

|                |                            |             |            |
|----------------|----------------------------|-------------|------------|
| Site :         | CB4-H                      | Engineer :  | Lion       |
| Model No :     | NB01Q-1                    | Test Date : | 2019/5/21  |
| Test Voltage : | DC 3.8V                    | Polarity :  | Horizontal |
| Test Mode :    | Mode 4: LTE NB-IOT Band 12 |             |            |
| Note :         |                            |             |            |

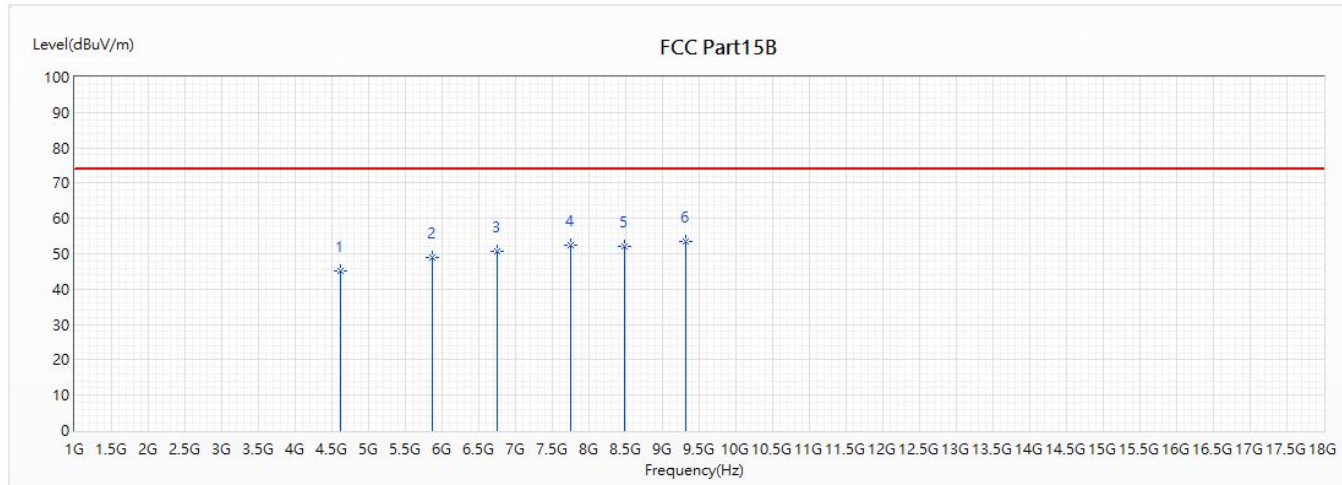


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|---------------------|---------------|
| 1   | 4100.8          | 45.16                   | 74.00          | -28.84      | 37.26                | 7.90                | PK            |
| 2   | 5324.8          | 47.53                   | 74.00          | -26.47      | 36.46                | 11.07               | PK            |
| 3   | 6773.2          | 50.97                   | 74.00          | -23.03      | 35.84                | 15.13               | PK            |
| 4   | 7998.9          | 53.15                   | 74.00          | -20.85      | 34.91                | 18.24               | PK            |
| 5   | 8986.6          | 52.43                   | 74.00          | -21.57      | 33.50                | 18.93               | PK            |
| * 6 | 9659.8          | 53.18                   | 74.00          | -20.82      | 32.45                | 20.73               | PK            |

Note:

1. All reading levels is PEAK value.
2. “ \* ”, means this data is the worst value.
3. Emission Level= Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

|                |                            |             |           |
|----------------|----------------------------|-------------|-----------|
| Site :         | CB4-H                      | Engineer :  | Lion      |
| Model No :     | NB01Q-1                    | Test Date : | 2019/5/21 |
| Test Voltage : | DC 3.8V                    | Polarity :  | Vertical  |
| Test Mode :    | Mode 4: LTE NB-IOT Band 12 |             |           |
| Note :         |                            |             |           |

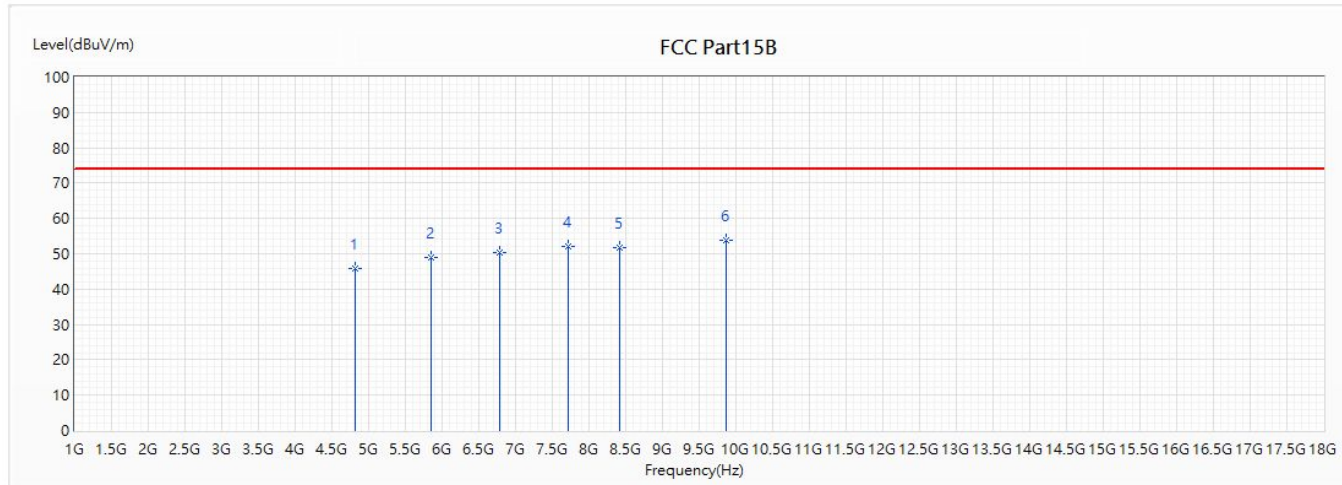


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|---------------------|---------------|
| 1   | 4621            | 45.09                   | 74.00          | -28.91      | 35.72                | 9.37                | PK            |
| 2   | 5865.4          | 48.90                   | 74.00          | -25.10      | 36.71                | 12.19               | PK            |
| 3   | 6756.2          | 50.75                   | 74.00          | -23.25      | 35.73                | 15.02               | PK            |
| 4   | 7754.1          | 52.31                   | 74.00          | -21.69      | 34.58                | 17.73               | PK            |
| 5   | 8490.2          | 52.19                   | 74.00          | -21.81      | 34.09                | 18.10               | PK            |
| * 6 | 9309.6          | 53.51                   | 74.00          | -20.49      | 33.37                | 20.14               | PK            |

Note:

1. All reading levels is PEAK value.
2. “ \* ”, means this data is the worst value.
3. Emission Level= Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

|                |                            |             |            |
|----------------|----------------------------|-------------|------------|
| Site :         | CB4-H                      | Engineer :  | Lion       |
| Model No :     | NB01Q-1                    | Test Date : | 2019/5/21  |
| Test Voltage : | DC 3.8V                    | Polarity :  | Horizontal |
| Test Mode :    | Mode 5: LTE NB-IOT Band 13 |             |            |
| Note :         |                            |             |            |

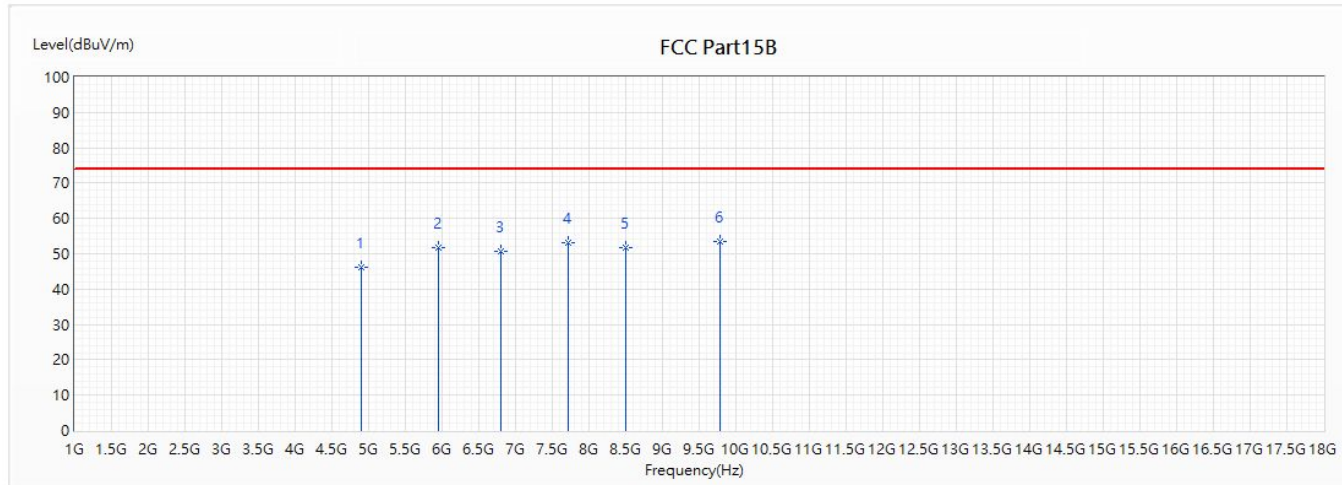


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|---------------------|---------------|
| 1   | 4811.4          | 45.88                   | 74.00          | -28.12      | 36.01                | 9.87                | PK            |
| 2   | 5845            | 48.81                   | 74.00          | -25.19      | 36.71                | 12.10               | PK            |
| 3   | 6778.3          | 50.32                   | 74.00          | -23.68      | 35.15                | 15.17               | PK            |
| 4   | 7720.1          | 51.95                   | 74.00          | -22.05      | 34.35                | 17.60               | PK            |
| 5   | 8420.5          | 51.69                   | 74.00          | -22.31      | 33.29                | 18.40               | PK            |
| * 6 | 9870.6          | 53.77                   | 74.00          | -20.23      | 33.12                | 20.65               | PK            |

Note:

1. All reading levels is PEAK value.
2. “ \* ”, means this data is the worst value.
3. Emission Level= Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

|                |                            |             |           |
|----------------|----------------------------|-------------|-----------|
| Site :         | CB4-H                      | Engineer :  | Lion      |
| Model No :     | NB01Q-1                    | Test Date : | 2019/5/21 |
| Test Voltage : | DC 3.8V                    | Polarity :  | Vertical  |
| Test Mode :    | Mode 5: LTE NB-IOT Band 13 |             |           |
| Note :         |                            |             |           |

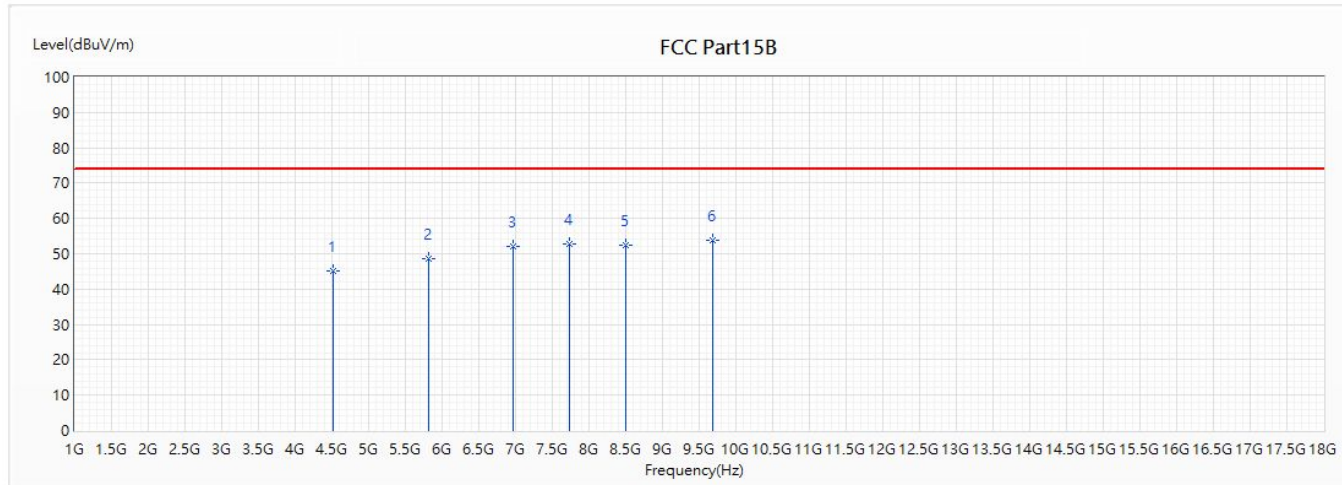


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|---------------------|---------------|
| 1   | 4904.9          | 46.22                   | 74.00          | -27.78      | 35.73                | 10.49               | PK            |
| 2   | 5948.7          | 51.78                   | 74.00          | -22.22      | 39.25                | 12.53               | PK            |
| 3   | 6802.1          | 50.82                   | 74.00          | -23.18      | 35.63                | 15.19               | PK            |
| 4   | 7720.1          | 52.97                   | 74.00          | -21.03      | 35.37                | 17.60               | PK            |
| 5   | 8495.3          | 51.83                   | 74.00          | -22.17      | 33.73                | 18.10               | PK            |
| * 6 | 9775.4          | 53.46                   | 74.00          | -20.54      | 32.92                | 20.54               | PK            |

Note:

1. All reading levels is PEAK value.
2. “ \* ”, means this data is the worst value.
3. Emission Level= Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

|                |                            |             |            |
|----------------|----------------------------|-------------|------------|
| Site :         | CB4-H                      | Engineer :  | Lion       |
| Model No :     | NB01Q-1                    | Test Date : | 2019/5/21  |
| Test Voltage : | DC 3.8V                    | Polarity :  | Horizontal |
| Test Mode :    | Mode 6: LTE NB-IOT Band 66 |             |            |
| Note :         |                            |             |            |

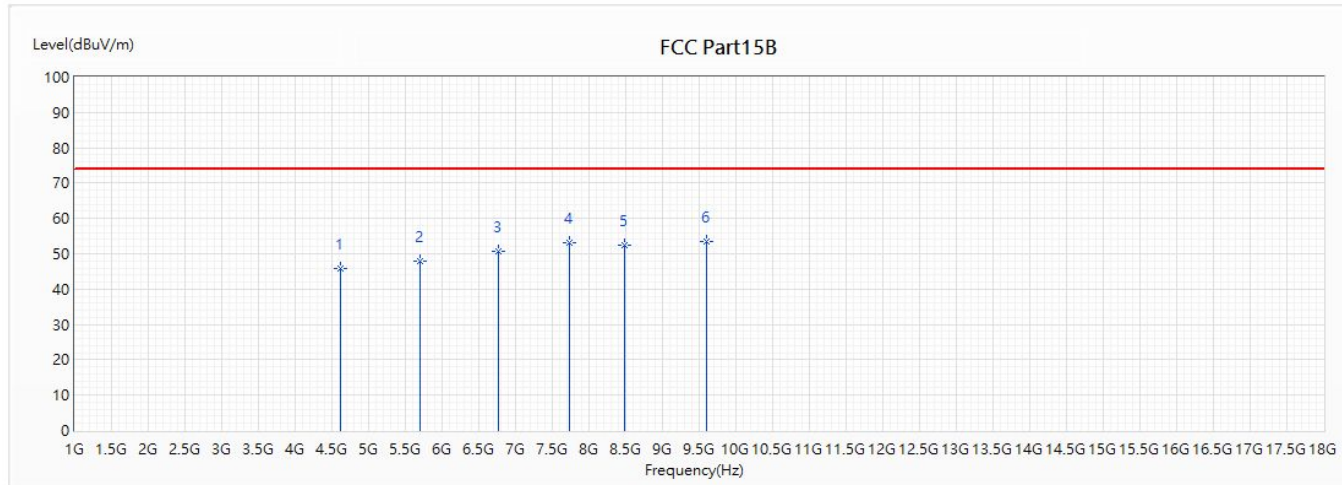


| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|---------------------|---------------|
| 1   | 4522.4          | 45.03                   | 74.00          | -28.97      | 36.13                | 8.90                | PK            |
| 2   | 5819.5          | 48.52                   | 74.00          | -25.48      | 36.49                | 12.03               | PK            |
| 3   | 6965.3          | 51.94                   | 74.00          | -22.06      | 36.29                | 15.65               | PK            |
| 4   | 7728.6          | 52.71                   | 74.00          | -21.29      | 35.07                | 17.64               | PK            |
| 5   | 8502.1          | 52.47                   | 74.00          | -21.53      | 34.35                | 18.12               | PK            |
| * 6 | 9685.3          | 53.79                   | 74.00          | -20.21      | 33.11                | 20.68               | PK            |

Note:

1. All reading levels is PEAK value.
2. “ \* ”, means this data is the worst value.
3. Emission Level= Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 13GHz were not included is because their levels are lower than 20dB form limit.

|                |                            |             |           |
|----------------|----------------------------|-------------|-----------|
| Site :         | CB4-H                      | Engineer :  | Lion      |
| Model No :     | NB01Q-1                    | Test Date : | 2019/5/21 |
| Test Voltage : | DC 3.8V                    | Polarity :  | Vertical  |
| Test Mode :    | Mode 6: LTE NB-IOT Band 66 |             |           |
| Note :         |                            |             |           |



| No  | Frequency (MHz) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Reading Level (dBuV) | Correct Factor (dB) | Detector Type |
|-----|-----------------|-------------------------|----------------|-------------|----------------------|---------------------|---------------|
| 1   | 4614.2          | 45.69                   | 74.00          | -28.31      | 36.34                | 9.35                | PK            |
| 2   | 5702.2          | 47.77                   | 74.00          | -26.23      | 36.12                | 11.65               | PK            |
| 3   | 6773.2          | 50.84                   | 74.00          | -23.16      | 35.71                | 15.13               | PK            |
| 4   | 7728.6          | 53.02                   | 74.00          | -20.98      | 35.38                | 17.64               | PK            |
| 5   | 8476.6          | 52.28                   | 74.00          | -21.72      | 34.16                | 18.12               | PK            |
| * 6 | 9595.2          | 53.37                   | 74.00          | -20.63      | 32.62                | 20.75               | PK            |

Note:

1. All reading levels is PEAK value.
2. “ \* ”, means this data is the worst value.
3. Emission Level= Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 13GHz were not included is because their levels are lower than 20dB form limit.