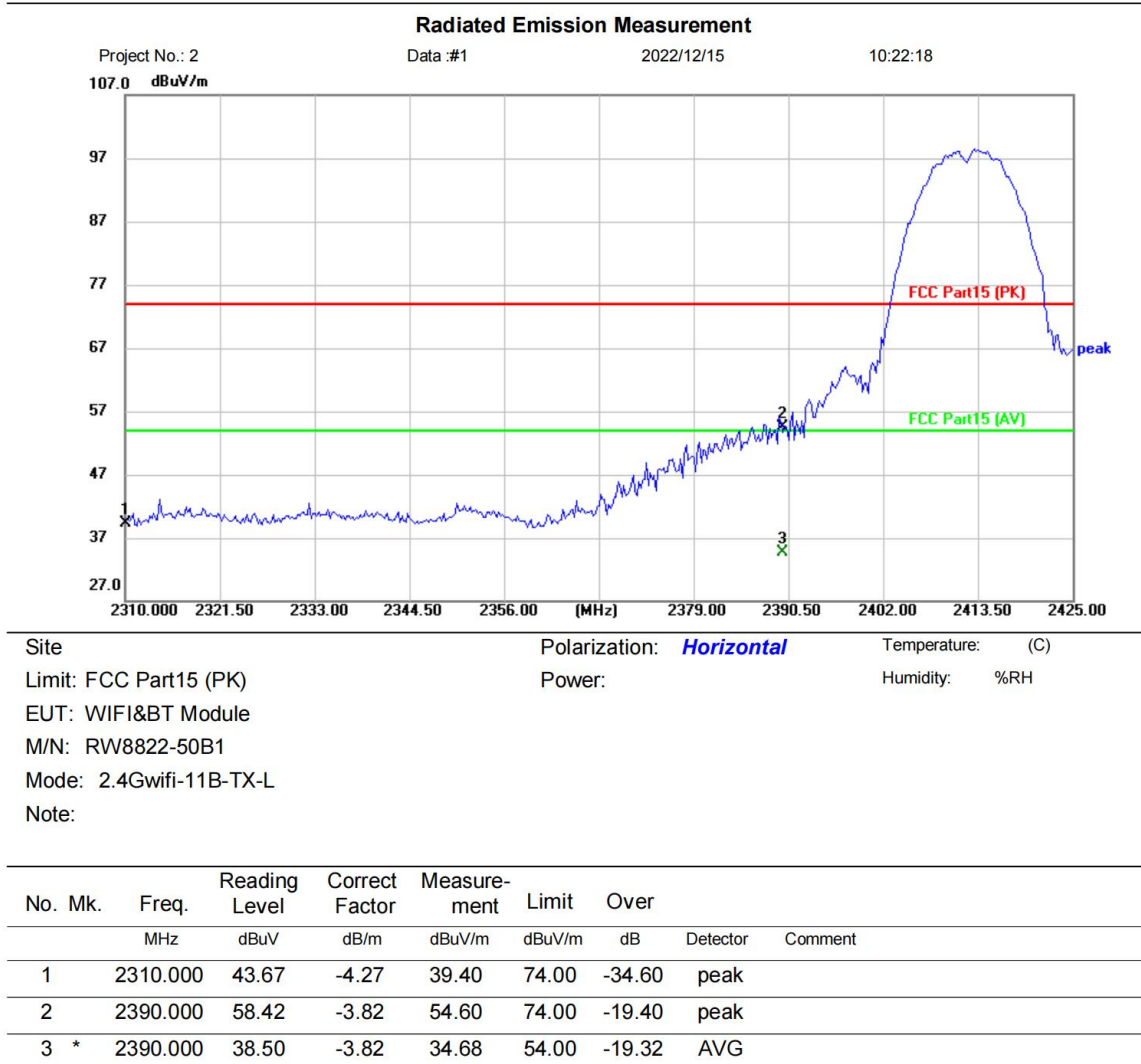


## 14.4 TEST DATA

[TestMode: TX 11B low channel]; [Polarity: Horizontal]

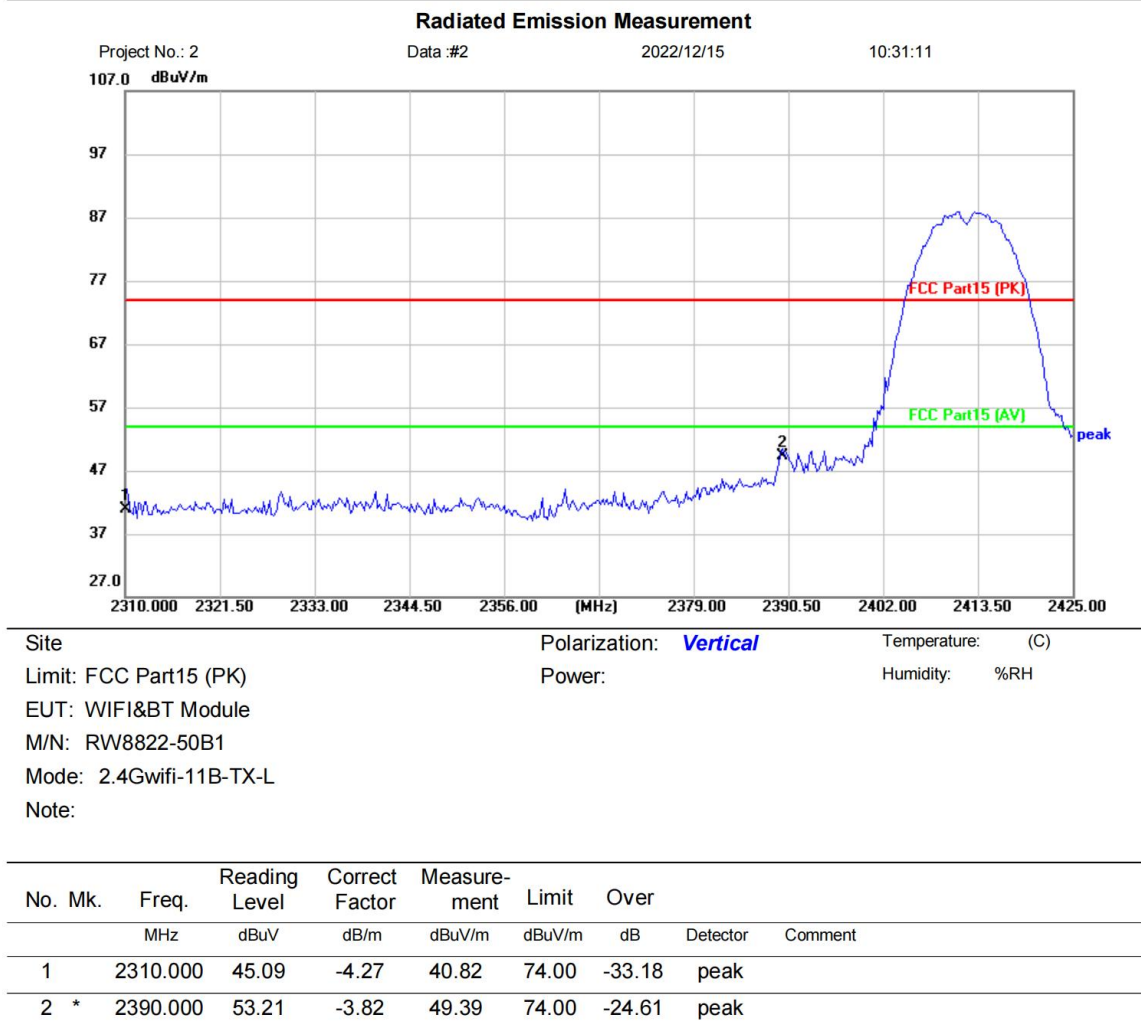


\*:Maximum data    x:Over limit    !:over margin

⟨Reference Only

**Test Result: Pass**

[TestMode: TX 11B low channel]; [Polarity: Vertical]

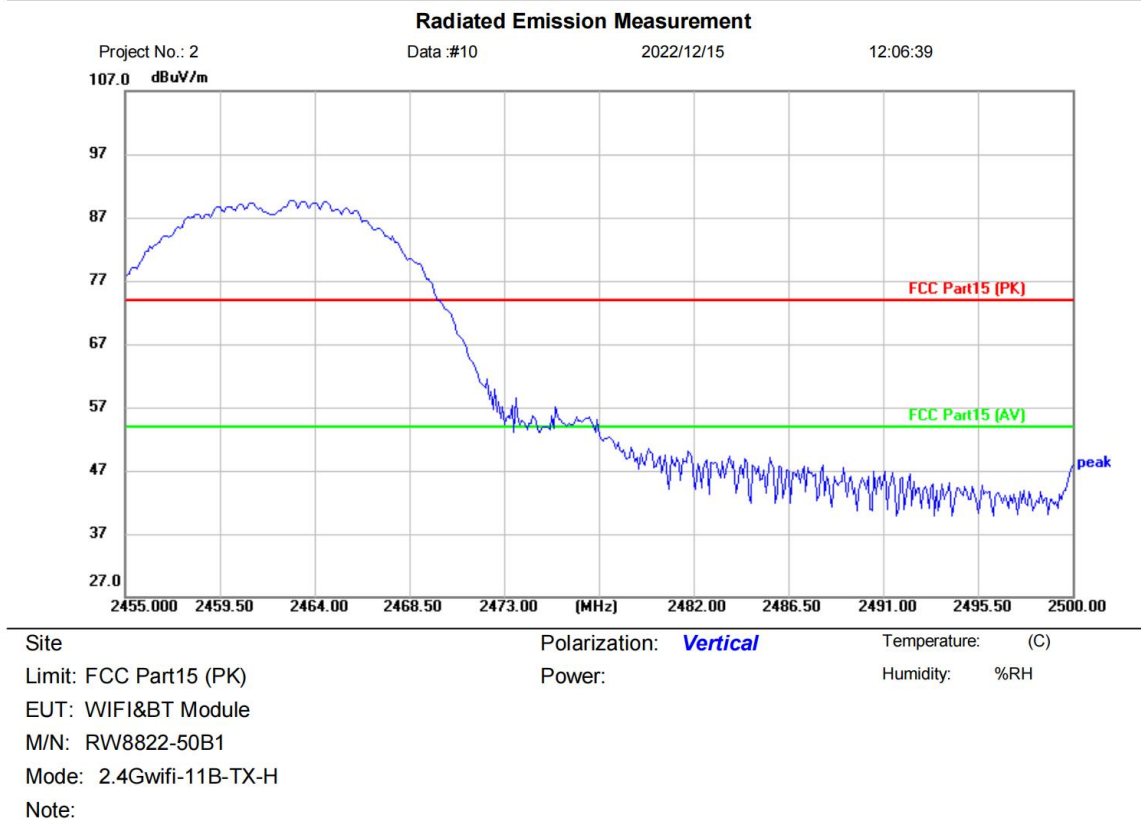


\*:Maximum data    x:Over limit    !:over margin

<Reference Only

**Test Result: Pass**

[TestMode: TX 11B high channel]; [Polarity: Vertical]



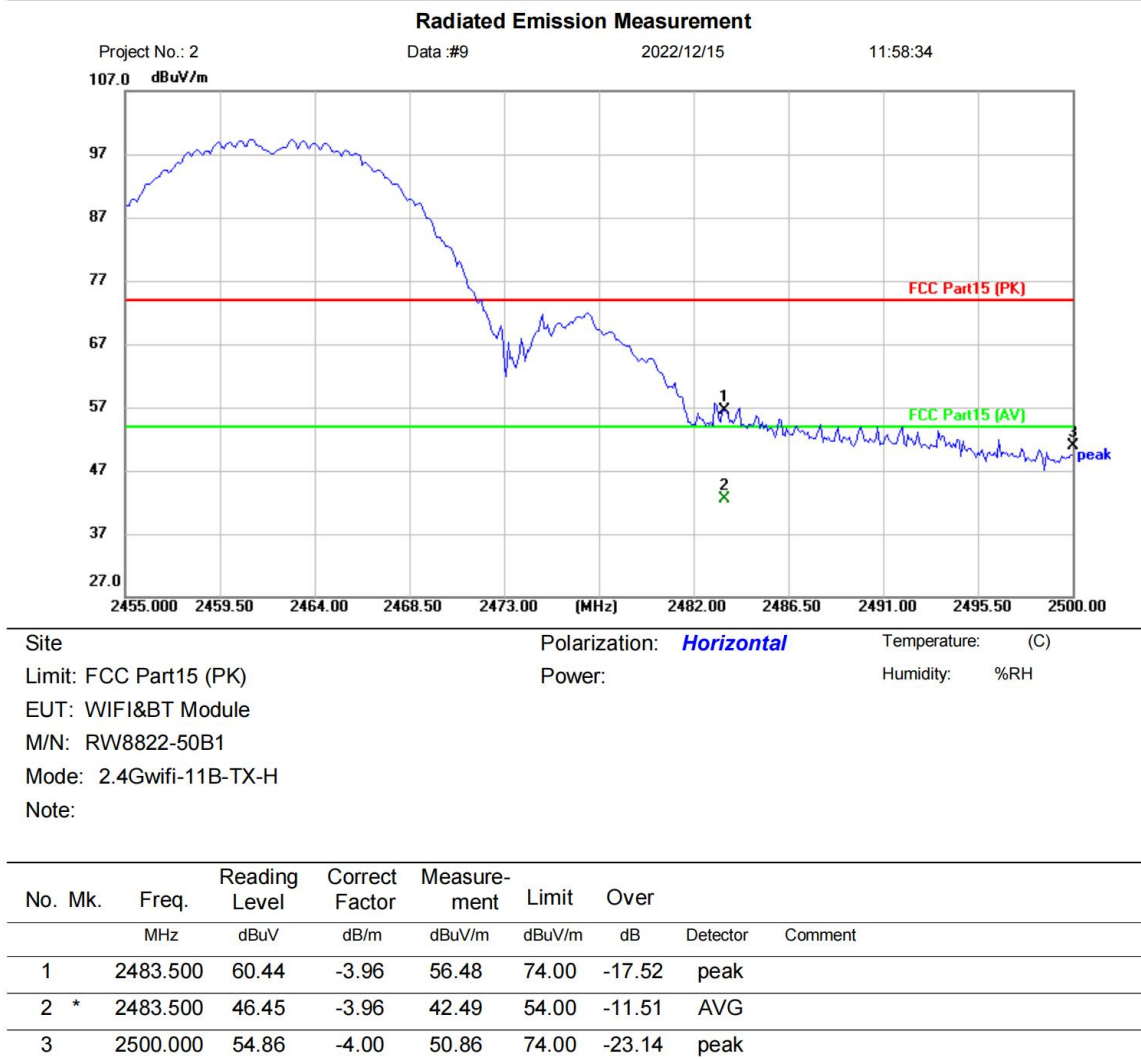
| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit  | Over |          |         |
|-----|-----|-------|---------------|----------------|--------------|--------|------|----------|---------|
|     |     | MHz   | dBuV          | dB/m           | dBuV/m       | dBuV/m | dB   | Detector | Comment |

\*:Maximum data    x:Over limit    !:over margin

⟨Reference Only

**Test Result: Pass**

[TestMode: TX 11B high channel]; [Polarity: Horizontal]

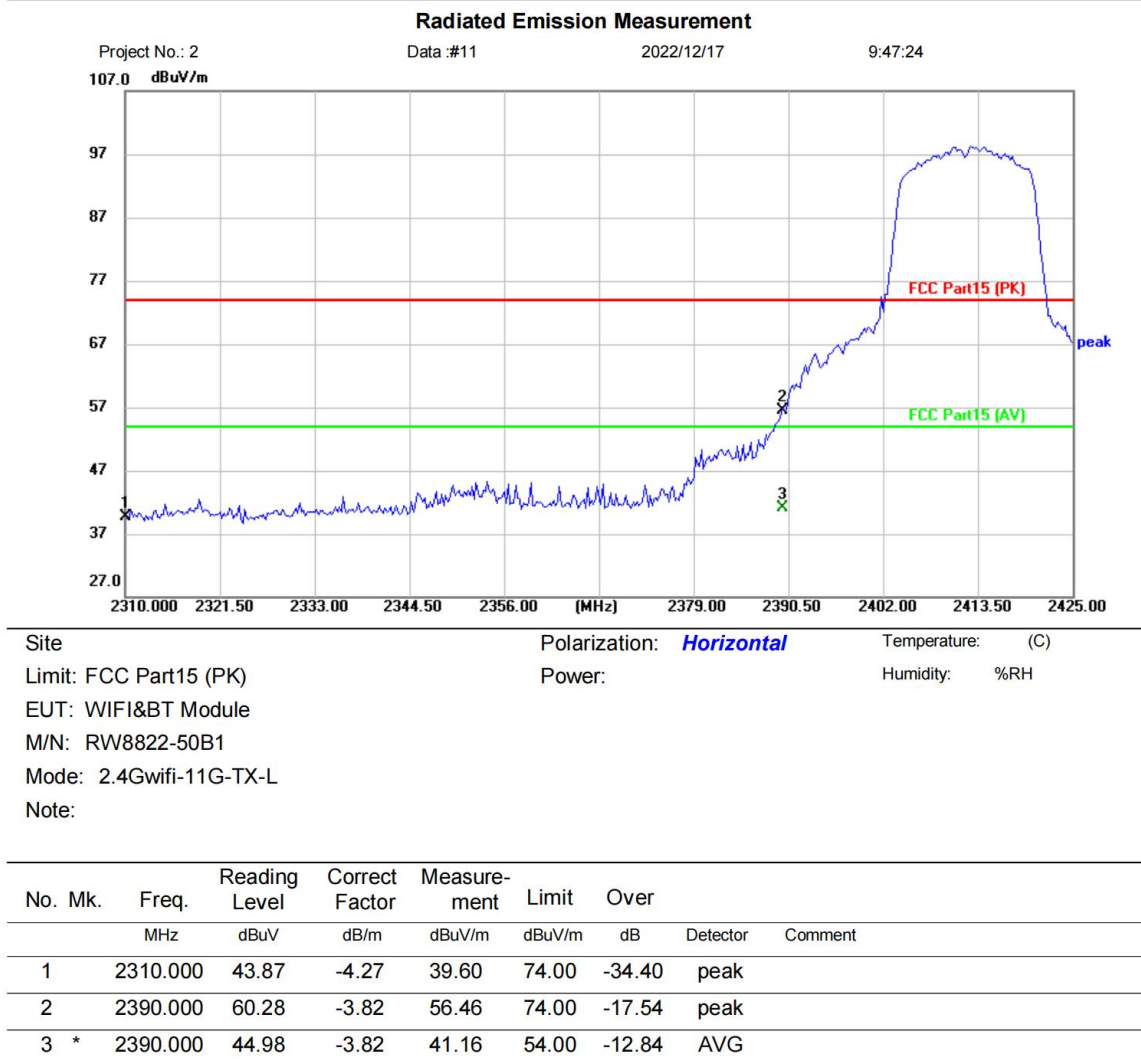


\*:Maximum data    x:Over limit    !:over margin

⟨Reference Only

**Test Result: Pass**

[TestMode: TX 11G low channel]; [Polarity: Horizontal]

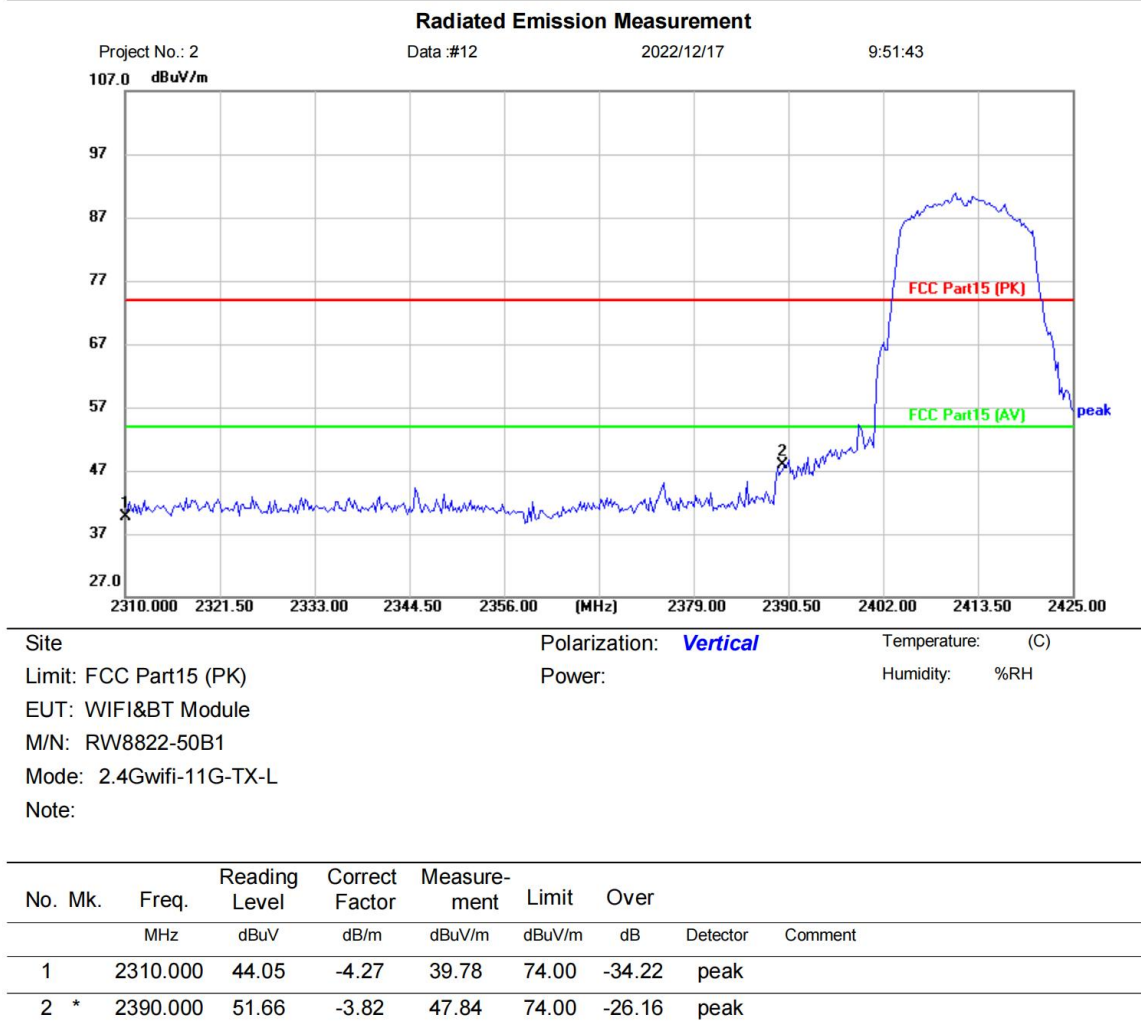


\*:Maximum data    x:Over limit    !:over margin

<Reference Only

**Test Result: Pass**

[TestMode: TX 11G low channel]; [Polarity: Vertical]

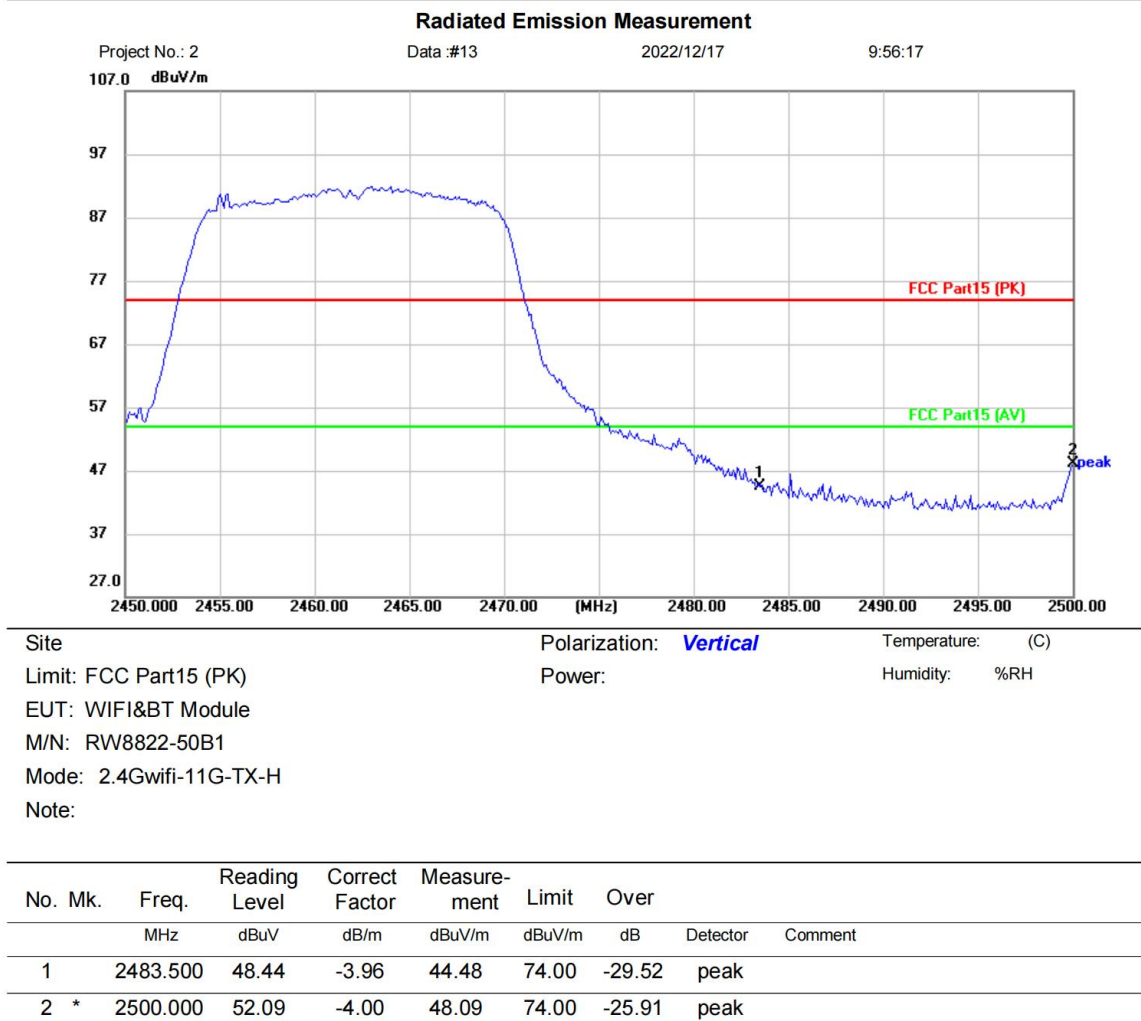


\*:Maximum data    x:Over limit    !:over margin

⟨Reference Only

**Test Result: Pass**

[TestMode: TX 11G high channel]; [Polarity: Vertical]

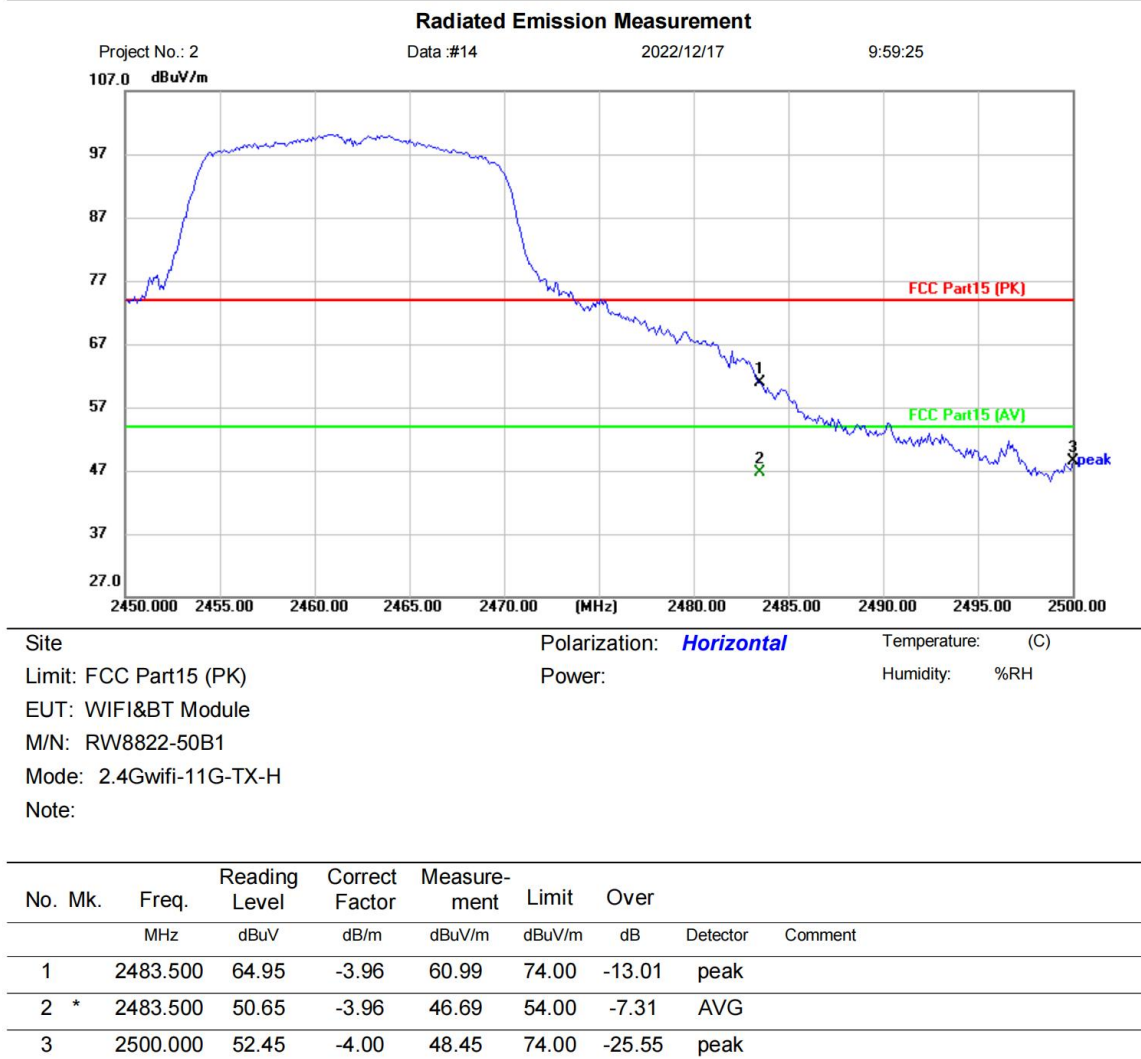


\*:Maximum data    x:Over limit    !:over margin

<Reference Only

**Test Result: Pass**

[TestMode: TX 11G high channel]; [Polarity: Horizontal]



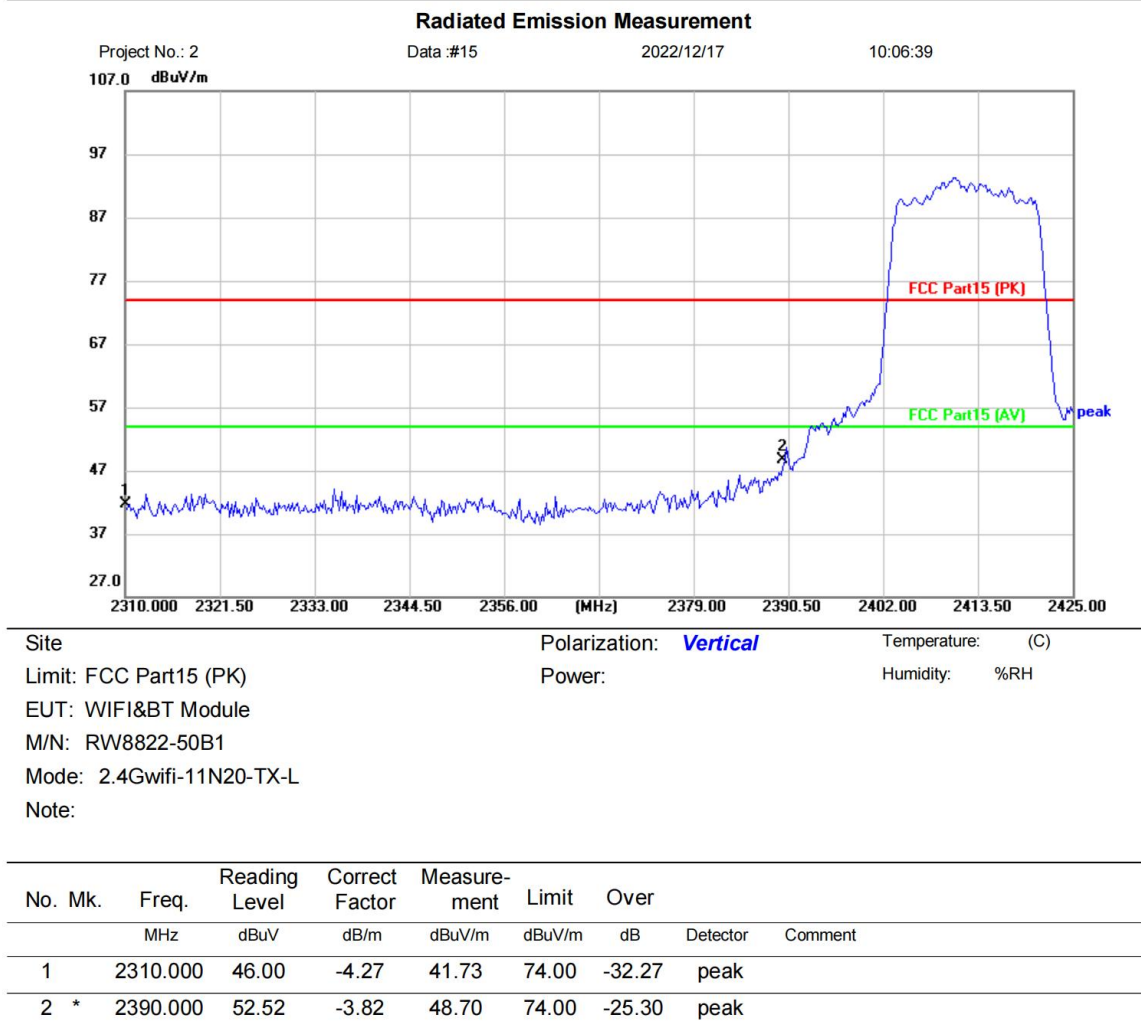
\*:Maximum data    x:Over limit    !:over margin

<Reference Only

**Test Result: Pass**



[TestMode: TX N20 low channel]; [Polarity: Vertical]

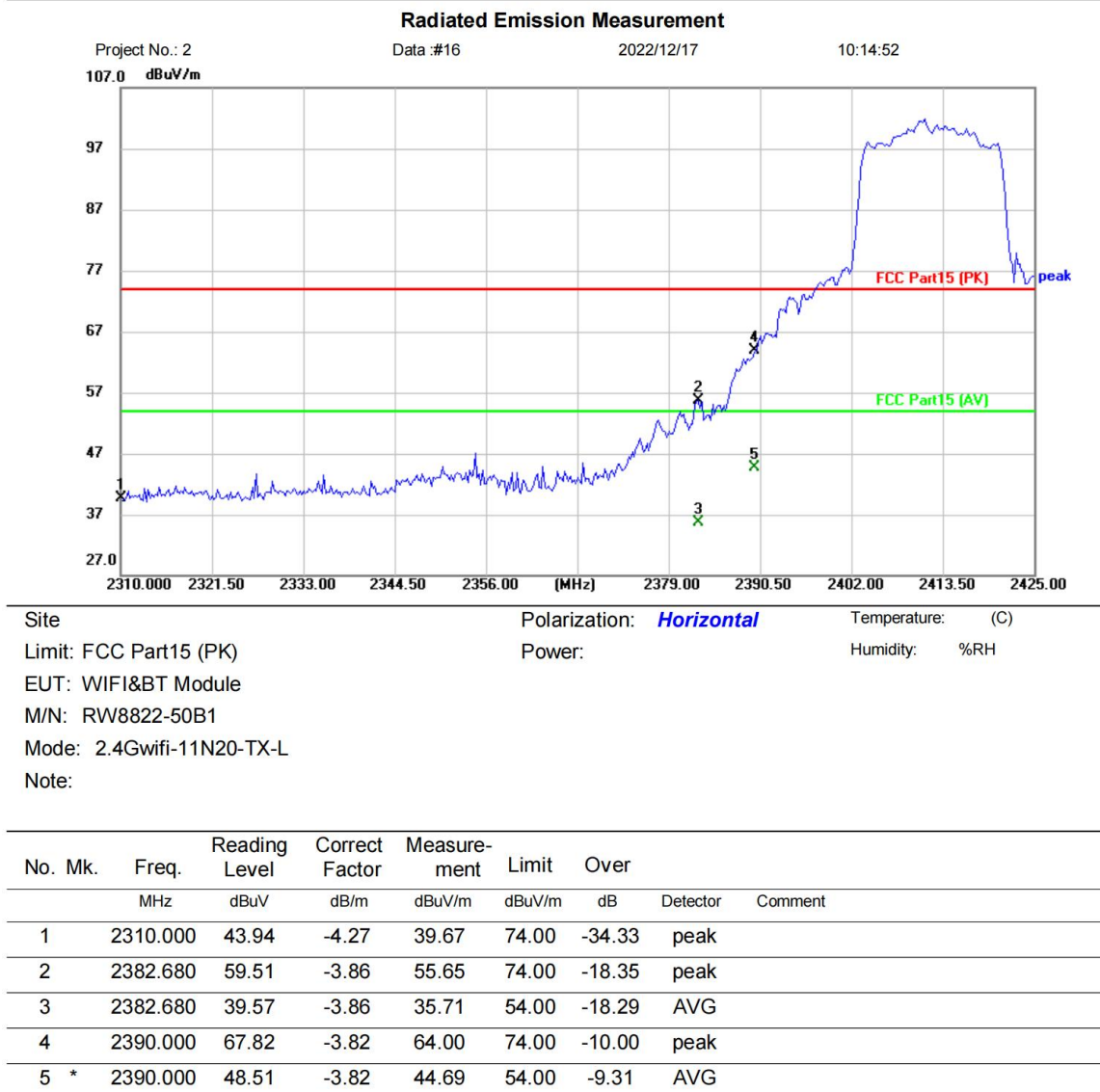


\*:Maximum data    x:Over limit    !:over margin

⟨Reference Only

**Test Result: Pass**

[TestMode: TX N20 low channel]; [Polarity: Horizontal]

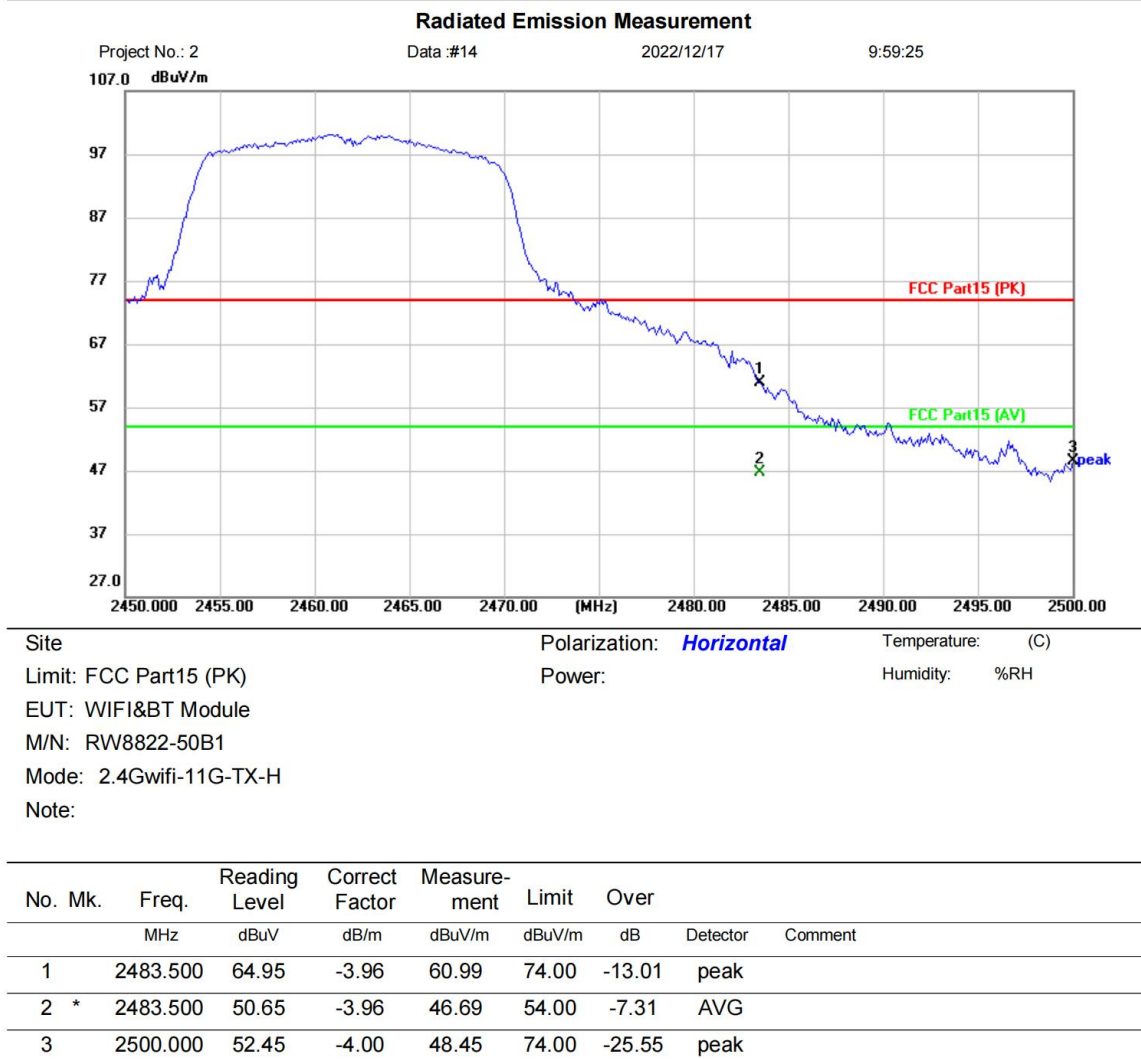


\*:Maximum data    x:Over limit    !:over margin

<Reference Only

**Test Result: Pass**

[TestMode: TX N20 high channel]; [Polarity: Horizontal]

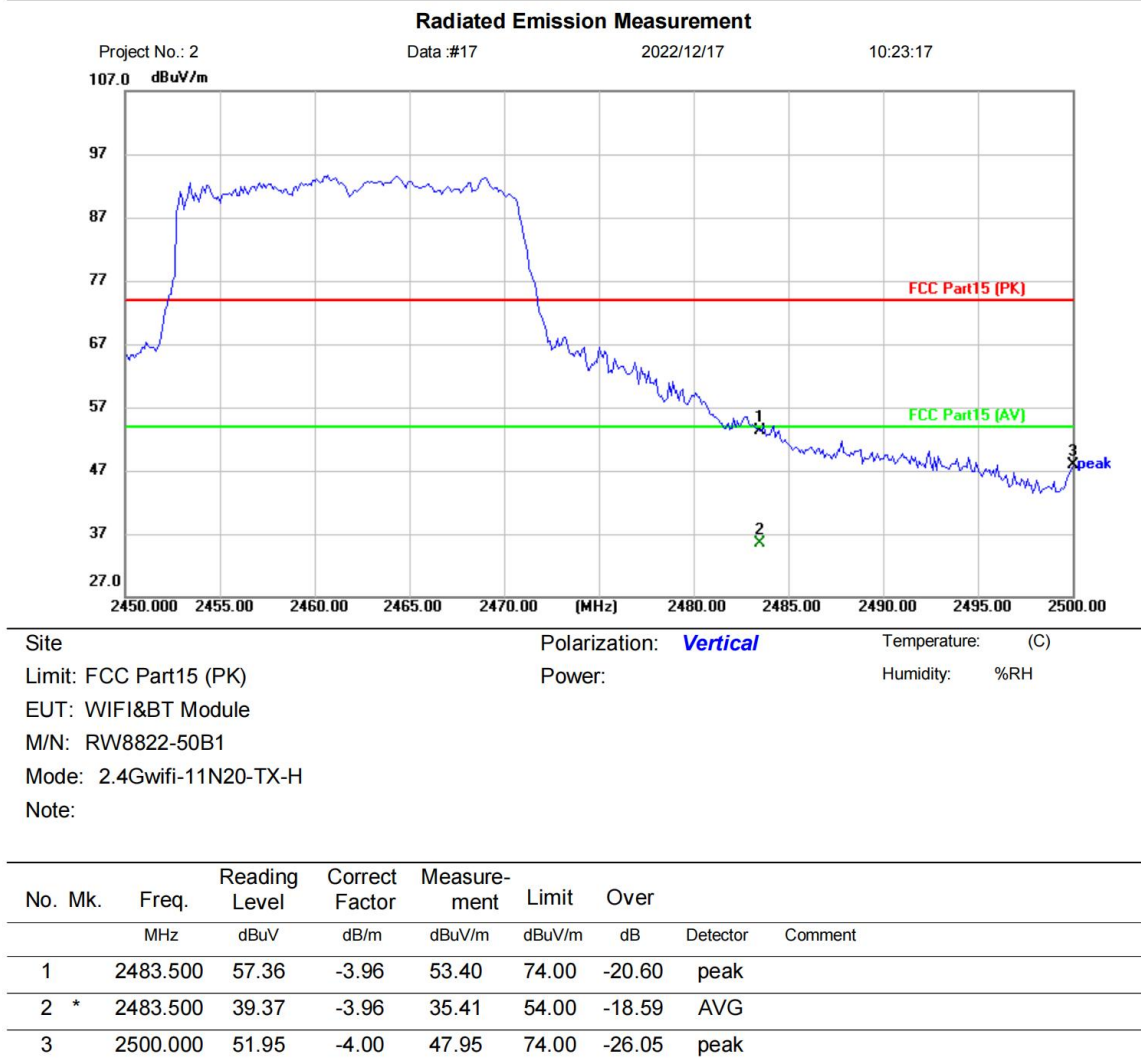


\*:Maximum data    x:Over limit    !:over margin

<Reference Only

**Test Result: Pass**

[TestMode: TX N20 high channel]; [Polarity: Vertical]

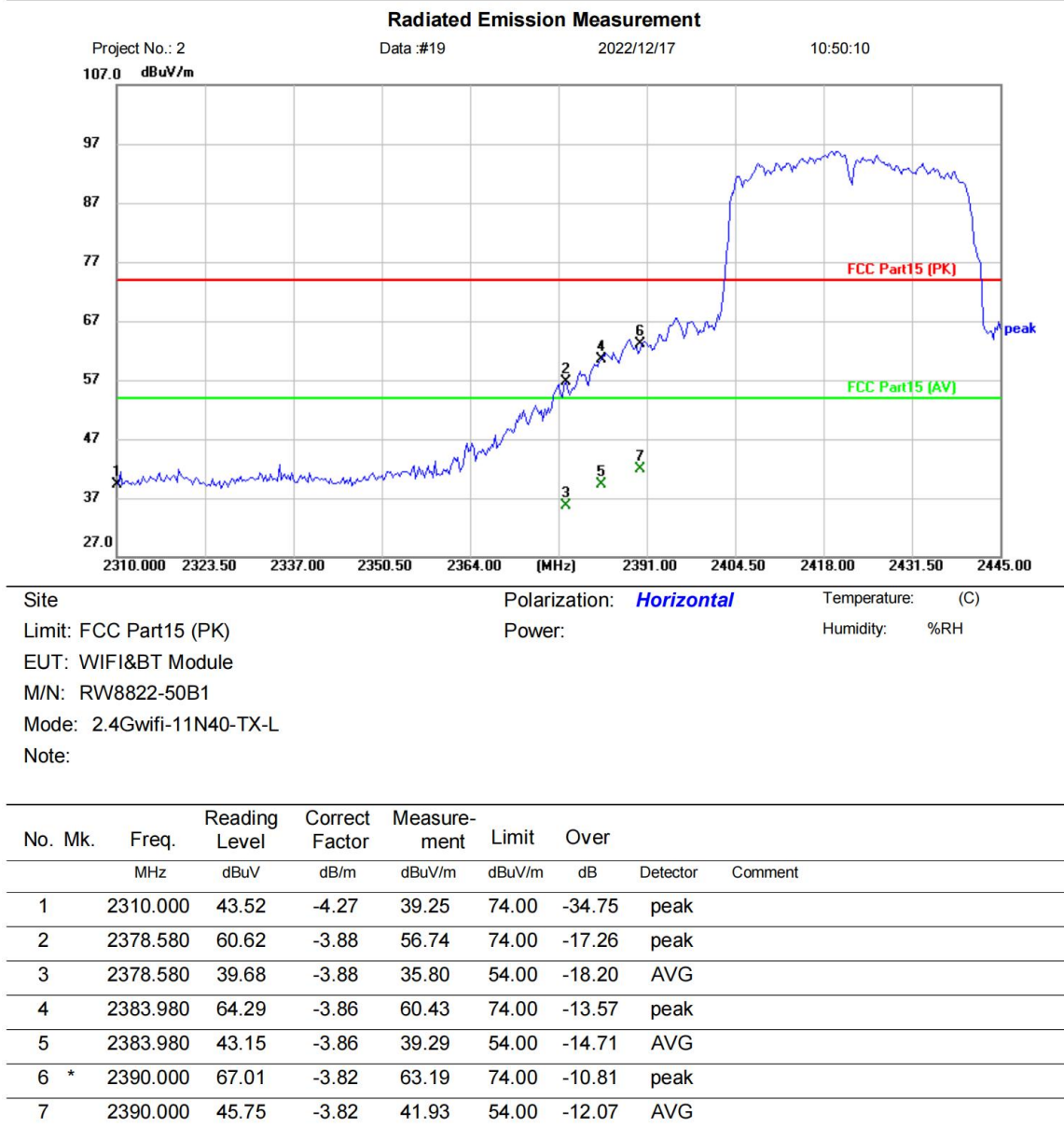


\*:Maximum data    x:Over limit    !:over margin

<Reference Only

**Test Result: Pass**

[TestMode: TX N40 low channel]; [Polarity: Horizontal]

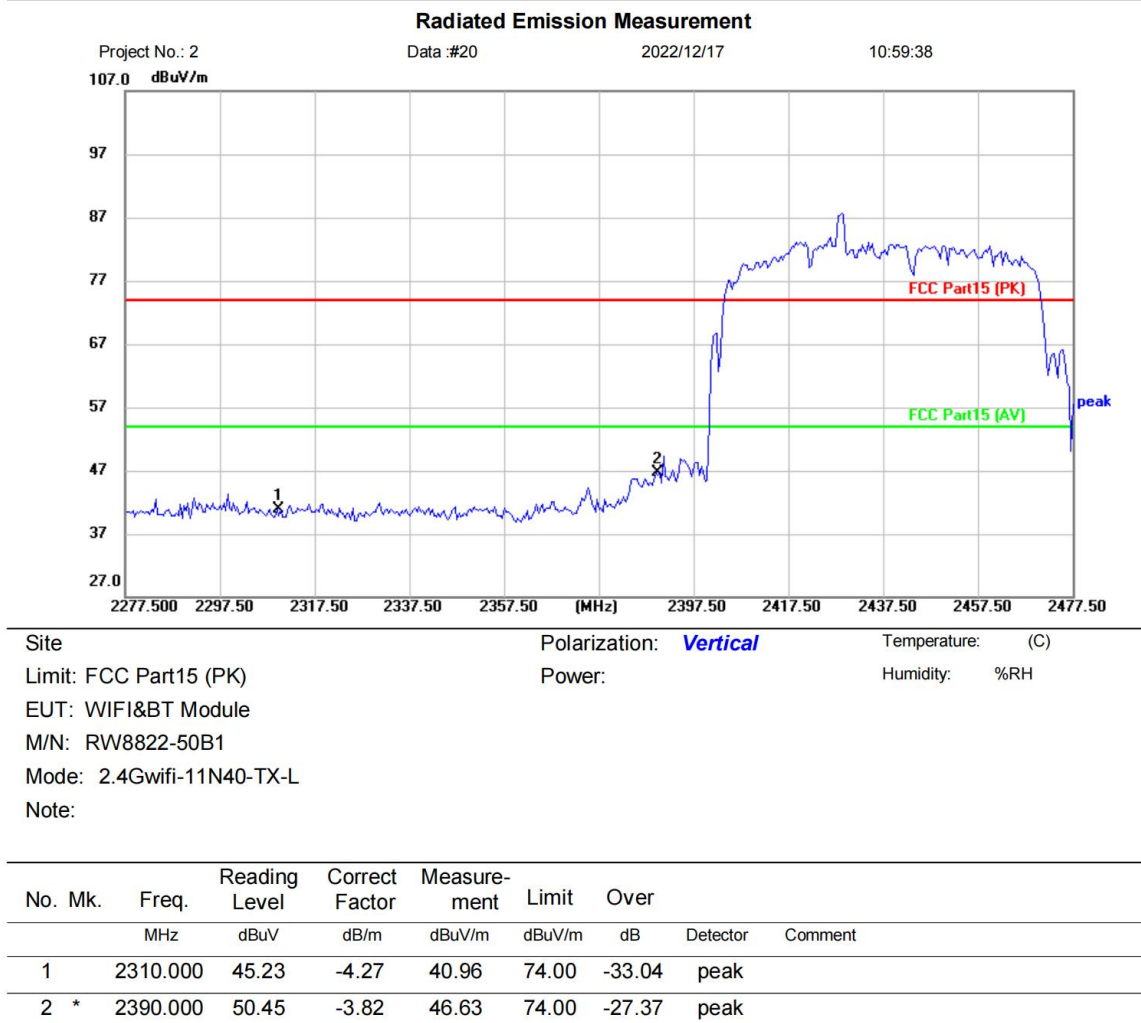


\*:Maximum data    x:Over limit    !:over margin

⟨Reference Only

**Test Result: Pass**

[TestMode: TX N40 low channel]; [Polarity: Vertical]

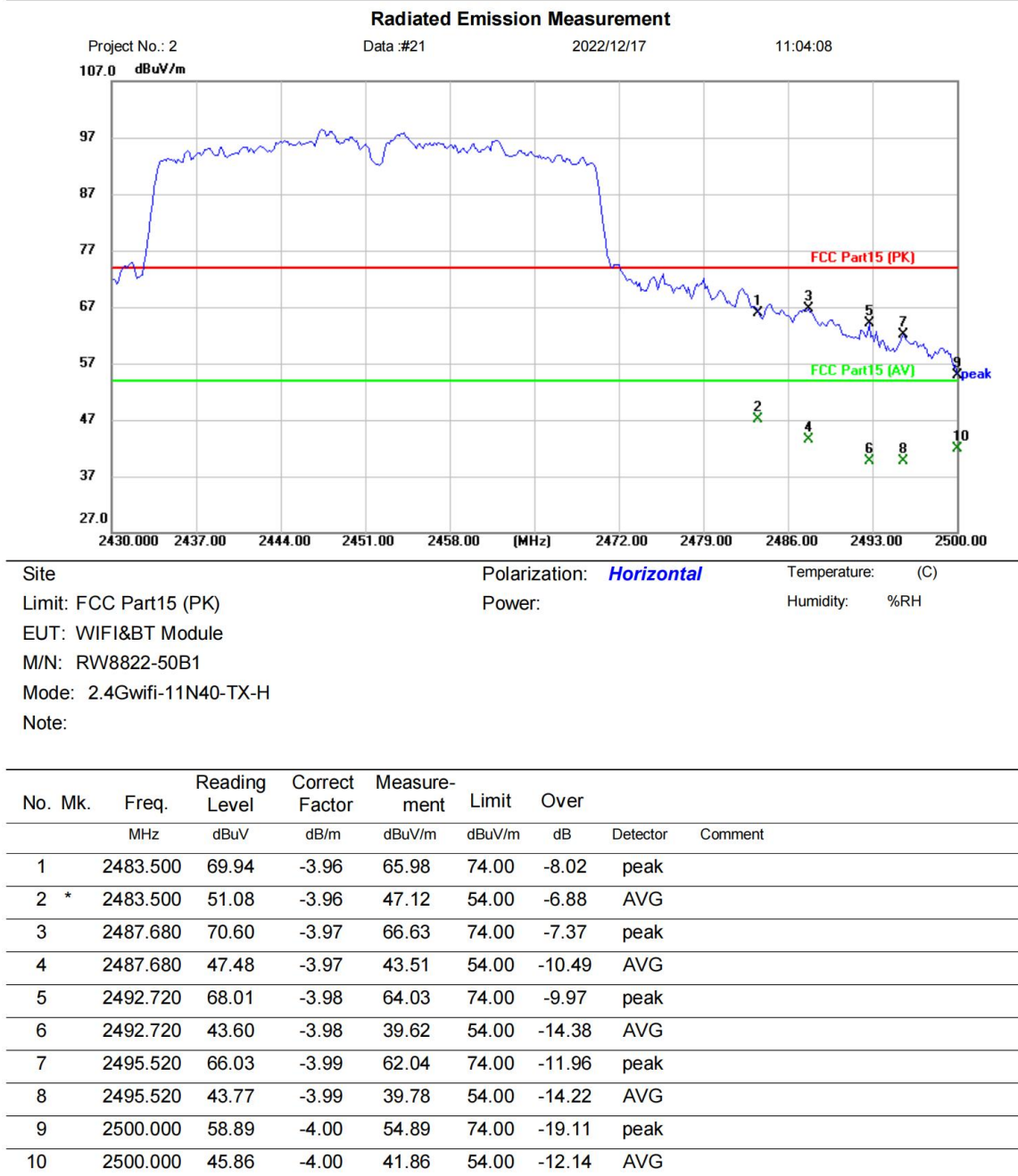


\*:Maximum data    x:Over limit    !:over margin

⟨Reference Only

**Test Result: Pass**

[TestMode: TX N40 high channel]; [Polarity: Horizontal]



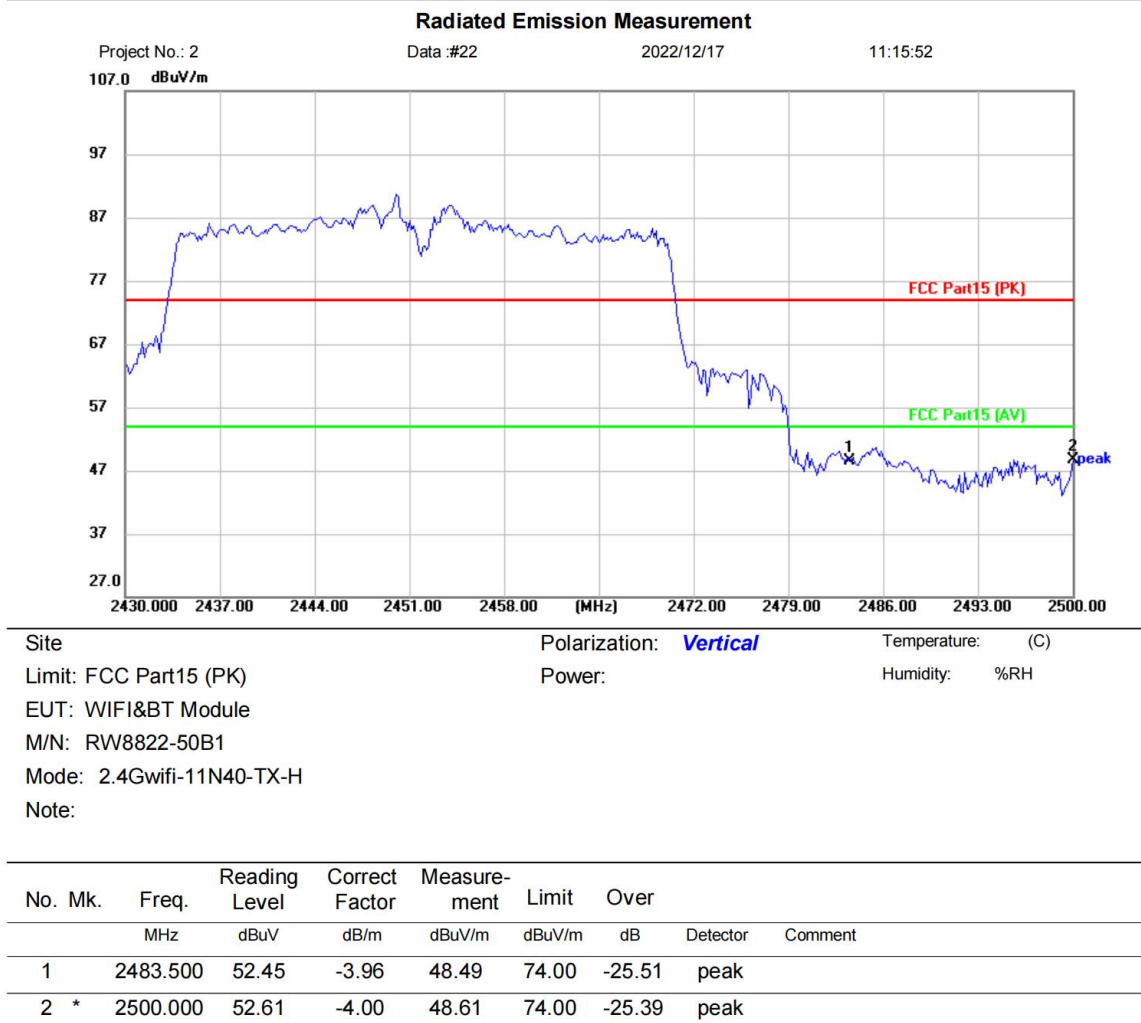
\*:Maximum data    x:Over limit    !:over margin

<Reference Only

**Test Result: Pass**



[TestMode: TX N40 high channel]; [Polarity: Vertical]



\*:Maximum data    x:Over limit    !:over margin

⟨Reference Only

**Test Result: Pass**



## Remark:

1. Final Level = Receiver Read level + Correct factor
2. Correct factor = Antenna Factor + Cable Loss – Preamplifier Factor
3. The emission levels of other frequencies are very lower than the limit and not show in test report.

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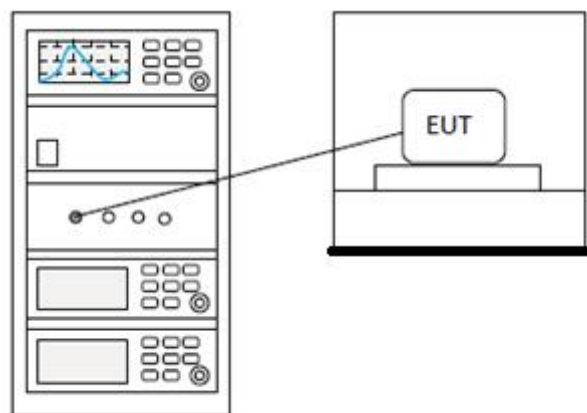
## 15 CONDUCTED SPURIOUS EMISSIONS

|                               |  |
|-------------------------------|--|
| <b>Test Standard</b>          | 47 CFR Part 15, Subpart C 15.247                 |
| <b>Test Method</b>            | ANSI C63.10 (2013) Section 7.8.6 & Section 11.11 |
| <b>Test Mode (Pre-Scan)</b>   | TX   |
| <b>Test Mode (Final Test)</b> | TX   |
| <b>Tester</b>                 | Jozu   |
| <b>Temperature</b>            | 25°C   |
| <b>Humidity</b>               | 60%  |

### 15.1 LIMITS

|               |  |
|---------------|--|
| <b>Limit:</b> | 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 limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)). |
|---------------|--|

### 15.2 BLOCK DIAGRAM OF TEST SETUP



**15.3 TEST DATA****Pass: Please Refer To Appendix: Appendix1 For Details**

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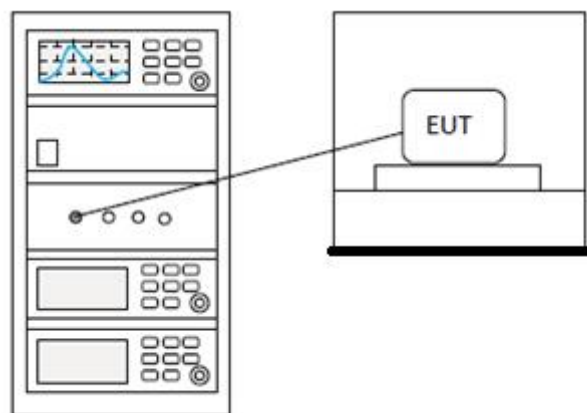
## 16 CONDUCTED BAND EDGES MEASUREMENT

|                               |  |
|-------------------------------|--|
| <b>Test Standard</b>          | 47 CFR Part 15, Subpart C 15.247                     |
| <b>Test Method</b>            | ANSI C63.10 (2013) Section 7.8.8 & Section 11.13.3.2 |
| <b>Test Mode (Pre-Scan)</b>   | TX   |
| <b>Test Mode (Final Test)</b> | TX   |
| <b>Tester</b>                 | Jozu   |
| <b>Temperature</b>            | 25°C   |
| <b>Humidity</b>               | 60%  |

### 16.1 LIMITS

|               |  |
|---------------|--|
| <b>Limit:</b> | 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 limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)). |
|---------------|--|

### 16.2 BLOCK DIAGRAM OF TEST SETUP



**16.3 TEST DATA**

**Pass: Please Refer To Appendix: Appendix1 For Details**

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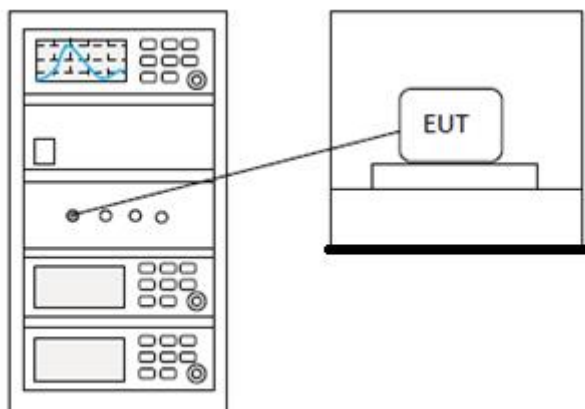
## 17 MINIMUM 6DB BANDWIDTH

|                        |                                   |
|------------------------|-----------------------------------|
| Test Standard          | 47 CFR Part 15, Subpart C 15.247  |
| Test Method            | ANSI C63.10 (2013) Section 11.8.1 |
| Test Mode (Pre-Scan)   | TX                                |
| Test Mode (Final Test) | TX                                |
| Tester                 | Jozu                              |
| Temperature            | 25℃                               |
| Humidity               | 60%                               |

### 17.1 LIMITS

|        |                |
|--------|----------------|
| Limit: | $\geq 500$ kHz |
|--------|----------------|

### 17.2 BLOCK DIAGRAM OF TEST SETUP



### 17.3 TEST DATA

**Pass: Please Refer To Appendix: Appendix1 For Details**

## 18 CONDUCTED EMISSIONS AT AC POWER LINE (150KHZ-30MHZ)

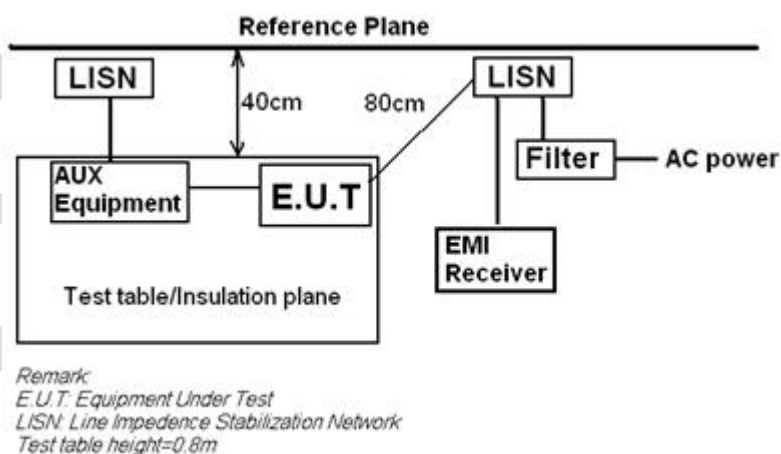
|                        |                                  |
|------------------------|----------------------------------|
| Test Standard          | 47 CFR Part 15, Subpart C 15.247 |
| Test Method            | ANSI C63.10 (2013) Section 6.2   |
| Test Mode (Pre-Scan)   | Transmitting mode                |
| Test Mode (Final Test) | Transmitting mode                |
| Tester                 | Jozu                             |
| Temperature            | 25℃                              |
| Humidity               | 60%                              |

### 18.1 LIMITS

| Frequency of emission(MHz) | Conducted limit(dBμV) |           |
|----------------------------|-----------------------|-----------|
|                            | Quasi-peak            | Average   |
| 0.15-0.5                   | 66 to 56*             | 56 to 46* |
| 0.5-5                      | 56                    | 46        |
| 5-30                       | 60                    | 50        |

\*Decreases with the logarithm of the frequency.

### 18.2 BLOCK DIAGRAM OF TEST SETUP



### 18.3 PROCEDURE

- 1) The mains terminal disturbance voltage test was conducted in a shielded room.
- 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50ohm/50H + 5ohm linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.

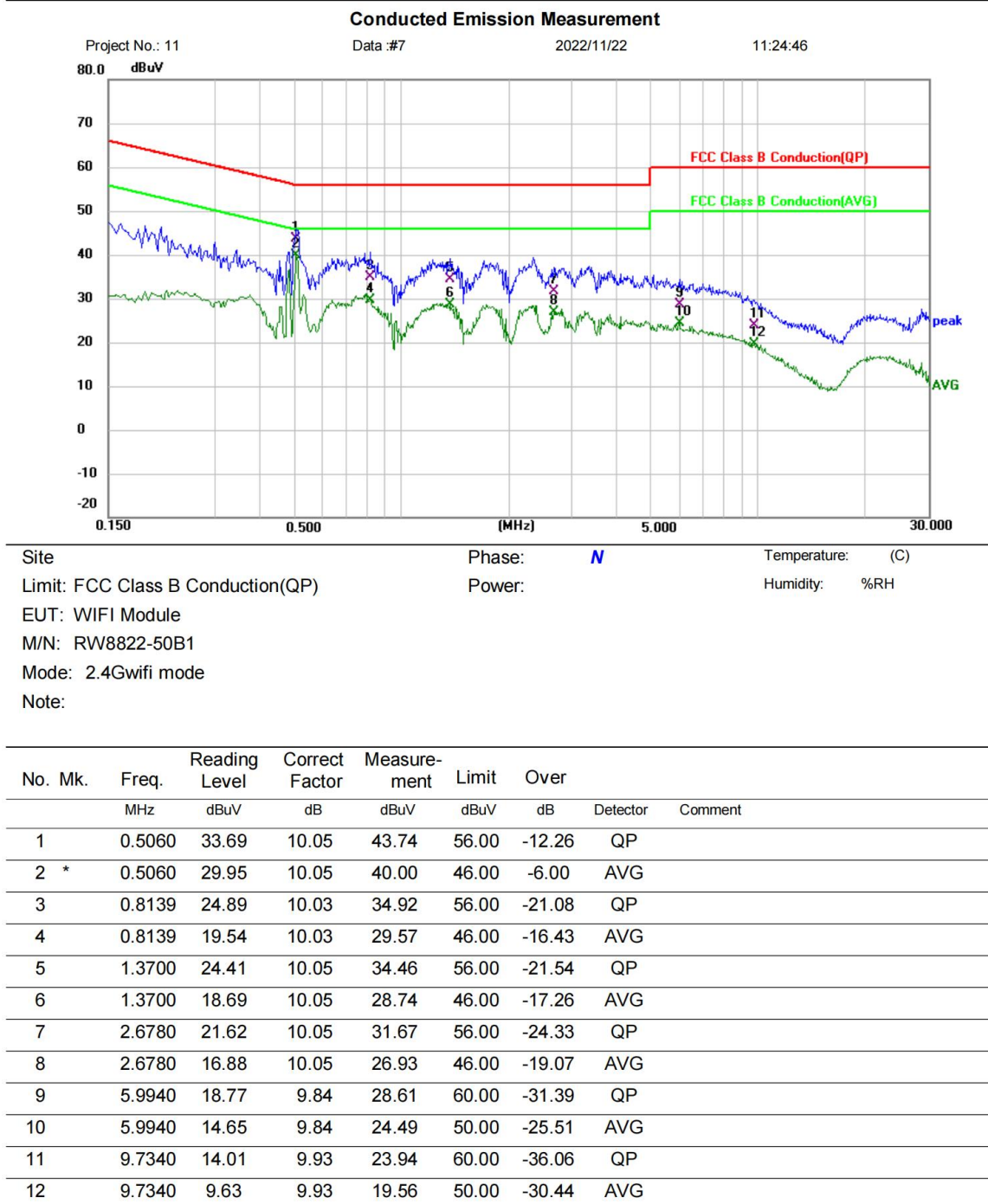
- 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,
- 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.
- 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

Remark:  $LISN = Read\ Level + Cable\ Loss + LISN\ Factor$



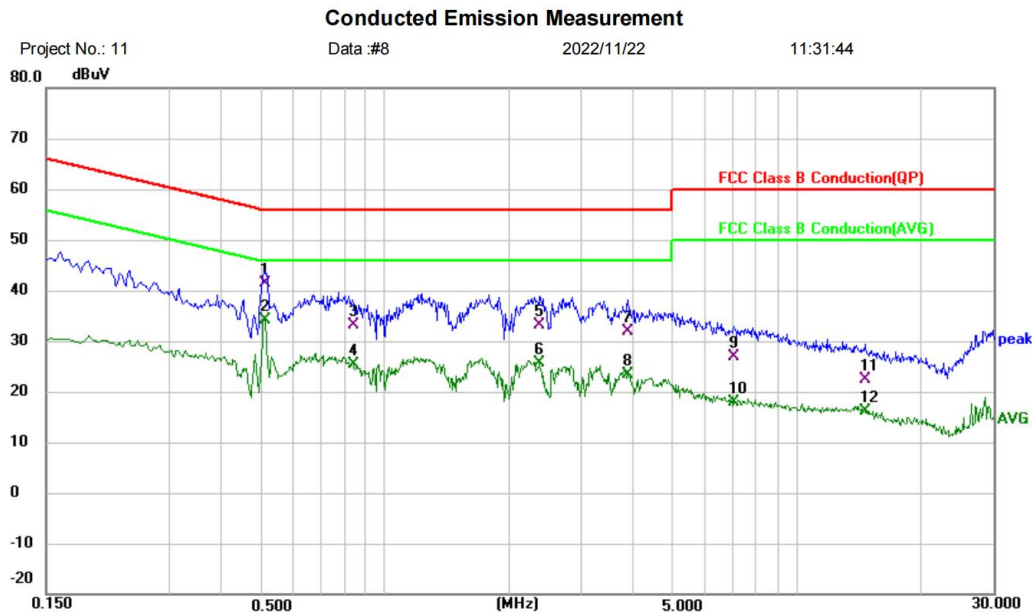
## 18.4 TEST DATA

[TestMode: Transmitting mode]; [Line: Neutral];[Power:AC120V/60Hz]



**Test Result: Pass**

[TestMode: Transmitting mode]; [Line: Line] ;[Power:AC120V/60Hz]



Site:      Phase: **L1**      Temperature: (C)

Limit: FCC Class B Conduction(QP)      Power:      Humidity: %RH

EUT: WIFI Module

M/N: RW8822-50B1

Mode: 2.4Gwifi mode

Note:

| No. Mk. | Freq.   | Reading Level | Correct Factor | Measurement | Limit | Over   | Detector | Comment |
|---------|---------|---------------|----------------|-------------|-------|--------|----------|---------|
|         | MHz     | dBuV          | dB             | dBuV        | dBuV  | dB     |          |         |
| 1       | 0.5100  | 31.33         | 10.08          | 41.41       | 56.00 | -14.59 | QP       |         |
| 2 *     | 0.5100  | 24.16         | 10.08          | 34.24       | 46.00 | -11.76 | AVG      |         |
| 3       | 0.8380  | 23.06         | 10.10          | 33.16       | 56.00 | -22.84 | QP       |         |
| 4       | 0.8380  | 15.33         | 10.10          | 25.43       | 46.00 | -20.57 | AVG      |         |
| 5       | 2.3780  | 22.94         | 10.27          | 33.21       | 56.00 | -22.79 | QP       |         |
| 6       | 2.3780  | 15.28         | 10.27          | 25.55       | 46.00 | -20.45 | AVG      |         |
| 7       | 3.8820  | 21.70         | 10.11          | 31.81       | 56.00 | -24.19 | QP       |         |
| 8       | 3.8820  | 13.31         | 10.11          | 23.42       | 46.00 | -22.58 | AVG      |         |
| 9       | 7.0580  | 16.82         | 10.07          | 26.89       | 60.00 | -33.11 | QP       |         |
| 10      | 7.0580  | 7.78          | 10.07          | 17.85       | 50.00 | -32.15 | AVG      |         |
| 11      | 14.6420 | 12.47         | 9.97           | 22.44       | 60.00 | -37.56 | QP       |         |
| 12      | 14.6420 | 6.21          | 9.97           | 16.18       | 50.00 | -33.82 | AVG      |         |

**Test Result: Pass**

## Notes:

1. An initial pre-scan was performed on the line and neutral lines with peak detector.
2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Final Level = Receiver Read level + LISN Factor + Cable Loss.

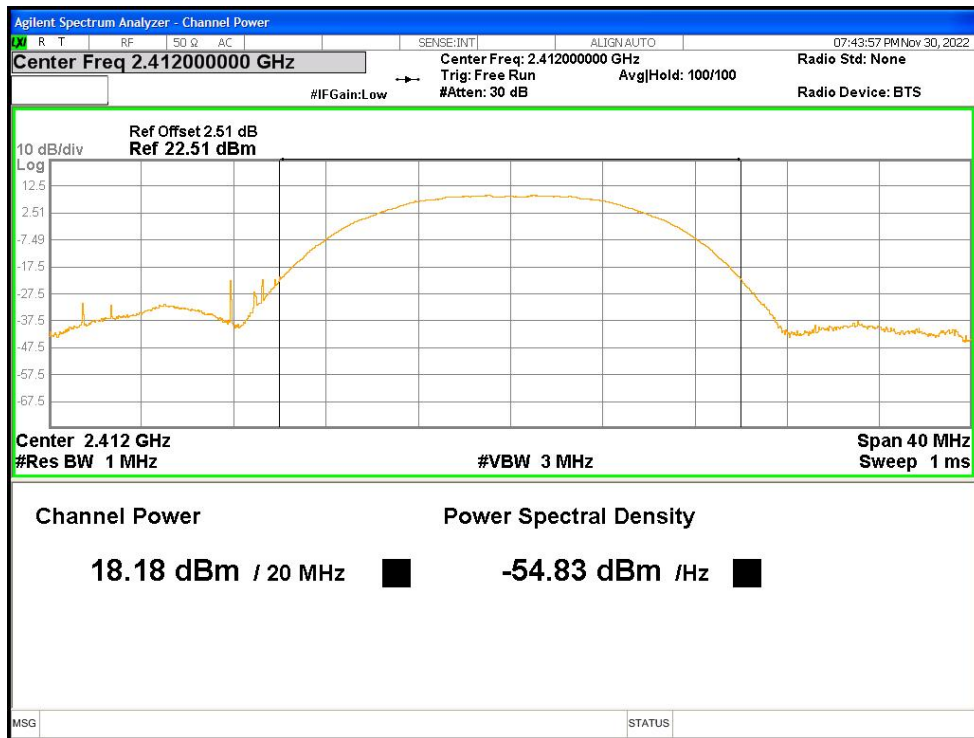
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## 19 APPENDIX

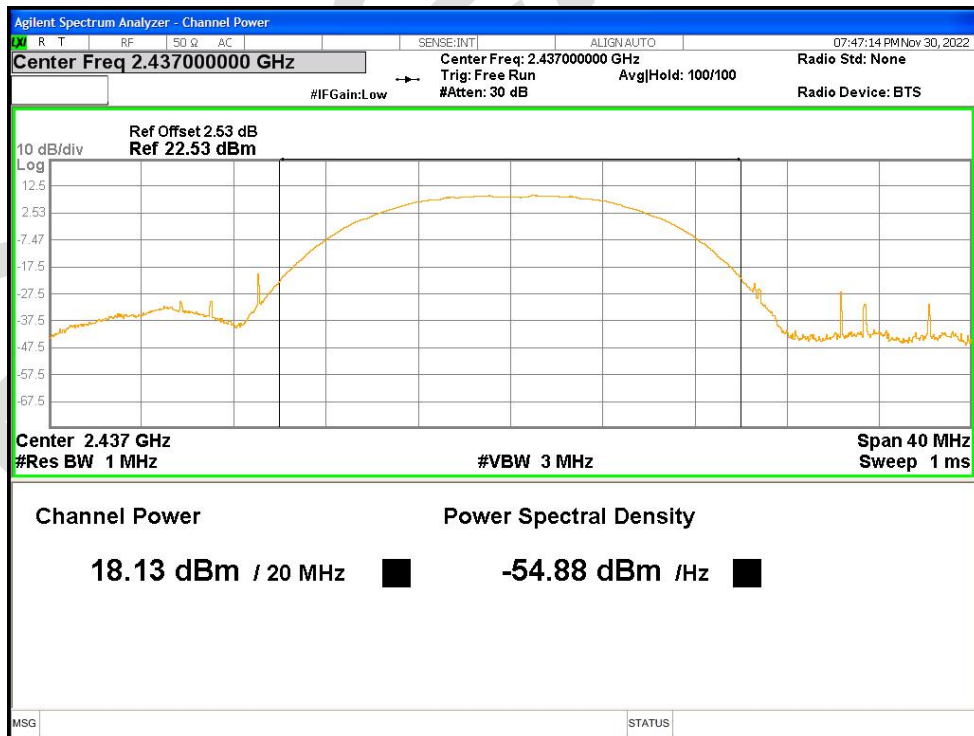
### Maximum Conducted Output Power

| Condition | Mode | Frequency (MHz) | Antenna | Conducted Power (dBm) | Limit (dBm) | Verdict |
|-----------|------|-----------------|---------|-----------------------|-------------|---------|
| NVNT      | b    | 2412            | Ant1    | 18.184                | 30          | Pass    |
| NVNT      | b    | 2437            | Ant1    | 18.134                | 30          | Pass    |
| NVNT      | b    | 2462            | Ant1    | 18.149                | 30          | Pass    |
| NVNT      | b    | 2412            | Ant2    | 17.696                | 30          | Pass    |
| NVNT      | b    | 2437            | Ant2    | 17.056                | 30          | Pass    |
| NVNT      | b    | 2462            | Ant2    | 18.18                 | 30          | Pass    |
| NVNT      | g    | 2412            | Ant1    | 19.101                | 30          | Pass    |
| NVNT      | g    | 2437            | Ant1    | 20.051                | 30          | Pass    |
| NVNT      | g    | 2462            | Ant1    | 20.546                | 30          | Pass    |
| NVNT      | g    | 2412            | Ant2    | 18.702                | 30          | Pass    |
| NVNT      | g    | 2437            | Ant2    | 18.858                | 30          | Pass    |
| NVNT      | g    | 2462            | Ant2    | 19.958                | 30          | Pass    |
| NVNT      | n20  | 2412            | Ant1    | 18.114                | 29.69       | Pass    |
| NVNT      | n20  | 2412            | Ant2    | 17.712                | 29.69       | Pass    |
| NVNT      | n20  | 2412            | Sum     | 20.928                | 29.69       | Pass    |
| NVNT      | n20  | 2437            | Ant1    | 17.918                | 29.69       | Pass    |
| NVNT      | n20  | 2437            | Ant2    | 17.715                | 29.69       | Pass    |
| NVNT      | n20  | 2437            | Sum     | 20.828                | 29.69       | Pass    |
| NVNT      | n20  | 2462            | Ant1    | 18.705                | 29.69       | Pass    |
| NVNT      | n20  | 2462            | Ant2    | 18.713                | 29.69       | Pass    |
| NVNT      | n20  | 2462            | Sum     | 21.719                | 29.69       | Pass    |
| NVNT      | n40  | 2422            | Ant1    | 18.617                | 29.69       | Pass    |
| NVNT      | n40  | 2422            | Ant2    | 18.419                | 29.69       | Pass    |
| NVNT      | n40  | 2422            | Sum     | 21.529                | 29.69       | Pass    |
| NVNT      | n40  | 2437            | Ant1    | 19.002                | 29.69       | Pass    |
| NVNT      | n40  | 2437            | Ant2    | 18.529                | 29.69       | Pass    |
| NVNT      | n40  | 2437            | Sum     | 21.782                | 29.69       | Pass    |
| NVNT      | n40  | 2452            | Ant1    | 18.123                | 29.69       | Pass    |
| NVNT      | n40  | 2452            | Ant2    | 18.46                 | 29.69       | Pass    |
| NVNT      | n40  | 2452            | Sum     | 21.305                | 29.69       | Pass    |

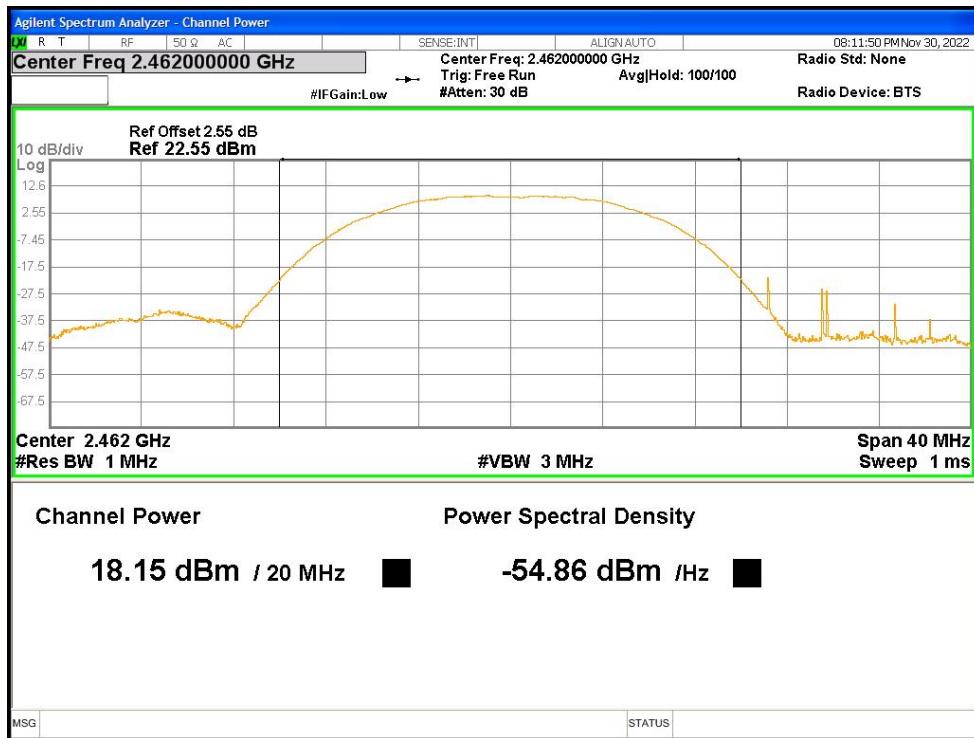
Power NVNT b 2412MHz Ant1



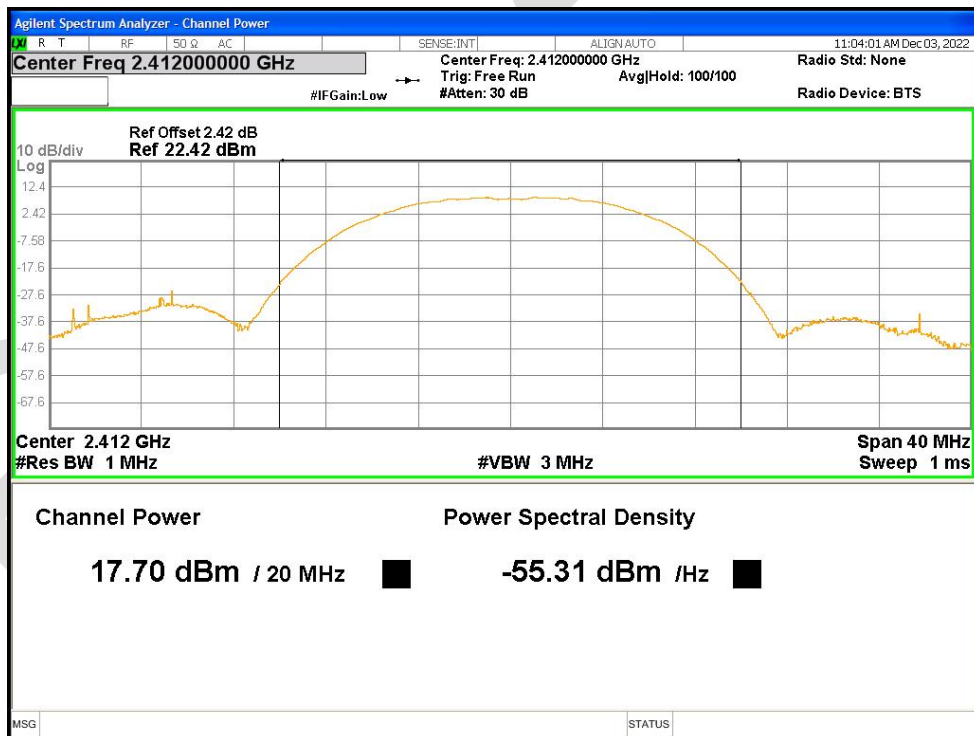
Power NVNT b 2437MHz Ant1



Power NVNT b 2462MHz Ant1



Power NVNT b 2412MHz Ant2



Power NVNT b 2437MHz Ant2