



Test report No.: 2331032R-RFUSV01S-B

## TEST REPORT (Class II Permissive Change)

|                                                            |                                                                                                    |
|------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Product Name                                               | Intel® Wireless-AC 9260                                                                            |
| Trademark                                                  | Advantech                                                                                          |
| Model and /or type reference                               | EWM-W192K                                                                                          |
| FCC ID                                                     | M82-EWM-W192K                                                                                      |
| Applicant's name / address                                 | Advantech Co Ltd<br>No.1, Alley 20, Lane 26, Rueiguang Road, Neihu District, Taipei<br>114, Taiwan |
| Manufacturer's name                                        | Intel Mobile Communications                                                                        |
| Test method requested, standard                            | FCC CFR Title 47 Part 15 Subpart C<br>ANSI C63.4: 2014, ANSI C63.10: 2013                          |
| Verdict Summary                                            | IN COMPLIANCE                                                                                      |
| Documented By<br>(Senior Project Specialist / Genie Chang) | Genie Chang                                                                                        |
| Tested By<br>(Senior Engineer / Bill Lin)                  | Bill Lin                                                                                           |
| Approved By<br>(Senior Engineer / Alan Chen)               | Alan Chen                                                                                          |
| Date of Receipt                                            | 2023/03/30                                                                                         |
| Date of Issue                                              | 2023/06/05                                                                                         |
| Report Version                                             | V1.0                                                                                               |

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Appendix 1: EUT Test Photographs

Appendix 2: Product Photos-Please refer to the file: 2331032R-Product Photos

## Competences and Guarantees

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

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

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

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

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

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## General conditions

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

Revision History

| Report No.          | Version | Description              | Issued Date |
|---------------------|---------|--------------------------|-------------|
| 2331032R-RFUSV01S-B | V1.0    | Initial issue of report. | 2023/06/05  |

## 1. General Information

### 1.1. EUT Description

|                              |                                                      |
|------------------------------|------------------------------------------------------|
| Product Name                 | Intel® Wireless-AC 9260                              |
| Trademark                    | Advantech                                            |
| Model and /or type reference | EWM-W192K                                            |
| EUT Rated Voltage            | DC 3.3V                                              |
| EUT Test Voltage             | DC 3.3V(Power by Test Platform)                      |
| Frequency Range              | 2402-2480 MHz                                        |
| Channel Number               | 79 CH                                                |
| Type of Modulation           | GFSK(1 Mbps) / $\pi$ /4DQPSK(2 Mbps) / 8DPSK(3 Mbps) |
| Channel Control              | Auto                                                 |

#### Antenna List

| No. | Manufacturer | Part No.                  | Antenna Type | Peak Gain             |
|-----|--------------|---------------------------|--------------|-----------------------|
| 1   | INPAQ        | RFPCA351746EMLB901 (Main) | PCB          | 2.41 dBi for 2400 MHz |
|     |              | RFPCA351455EMLB901 (Aux)  |              | 2.60 dBi for 2400 MHz |

Note: The antenna of EUT conforms to FCC 15.203.

## Center Frequency of Each Channel:

| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
|---------|-----------------|---------|-----------------|---------|-----------------|---------|-----------------|
| 00      | 2402            | 01      | 2403            | 02      | 2404            | 03      | 2405            |
| 04      | 2406            | 05      | 2407            | 06      | 2408            | 07      | 2409            |
| 08      | 2410            | 09      | 2411            | 10      | 2412            | 11      | 2413            |
| 12      | 2414            | 13      | 2415            | 14      | 2416            | 15      | 2417            |
| 16      | 2418            | 17      | 2419            | 18      | 2420            | 19      | 2421            |
| 20      | 2422            | 21      | 2423            | 22      | 2424            | 23      | 2425            |
| 24      | 2426            | 25      | 2427            | 26      | 2428            | 27      | 2429            |
| 28      | 2430            | 29      | 2431            | 30      | 2432            | 31      | 2433            |
| 32      | 2434            | 33      | 2435            | 34      | 2436            | 35      | 2437            |
| 36      | 2438            | 37      | 2439            | 38      | 2440            | 39      | 2441            |
| 40      | 2442            | 41      | 2443            | 42      | 2444            | 43      | 2445            |
| 44      | 2446            | 45      | 2447            | 46      | 2448            | 47      | 2449            |
| 48      | 2450            | 49      | 2451            | 50      | 2452            | 51      | 2453            |
| 52      | 2454            | 53      | 2455            | 54      | 2456            | 55      | 2457            |
| 56      | 2458            | 57      | 2459            | 58      | 2460            | 59      | 2461            |
| 60      | 2462            | 61      | 2463            | 62      | 2464            | 63      | 2465            |
| 64      | 2466            | 65      | 2467            | 66      | 2468            | 67      | 2469            |
| 68      | 2470            | 69      | 2471            | 70      | 2472            | 71      | 2473            |
| 72      | 2474            | 73      | 2475            | 74      | 2476            | 75      | 2477            |
| 76      | 2478            | 77      | 2479            | 78      | 2480            | --      | --              |

## Note:

1. The EUT is an Intel® Wireless-AC 9260 with built-in Bluetooth transceiver, this report for Bluetooth V2.1+EDR.
2. This is to request a Class II permissive change.  
The major change filed under this application is:  
Change #1: Addition a PCB Antenna, the antenna type is different with the original application.
3. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
4. DEKRA has evaluated each test mode. Only the worst case is shown in the report.
5. These tests were conducted on a sample for the purpose of demonstrating compliance of transmitter with Part 15 Subpart C Paragraph 15.247 for spread spectrum devices.
6. The test mode is based on the Bluetooth technology, while testing 1Mbps, 2Mbps and 3Mbps, the worst case is 1Mbps and 3Mbps, and only worse case data is recorded in this report.

|           |        |                 |
|-----------|--------|-----------------|
| Test Mode | Mode 1 | Transmit-1 Mbps |
|           |        | Transmit-2 Mbps |
|           |        | Transmit-3 Mbps |

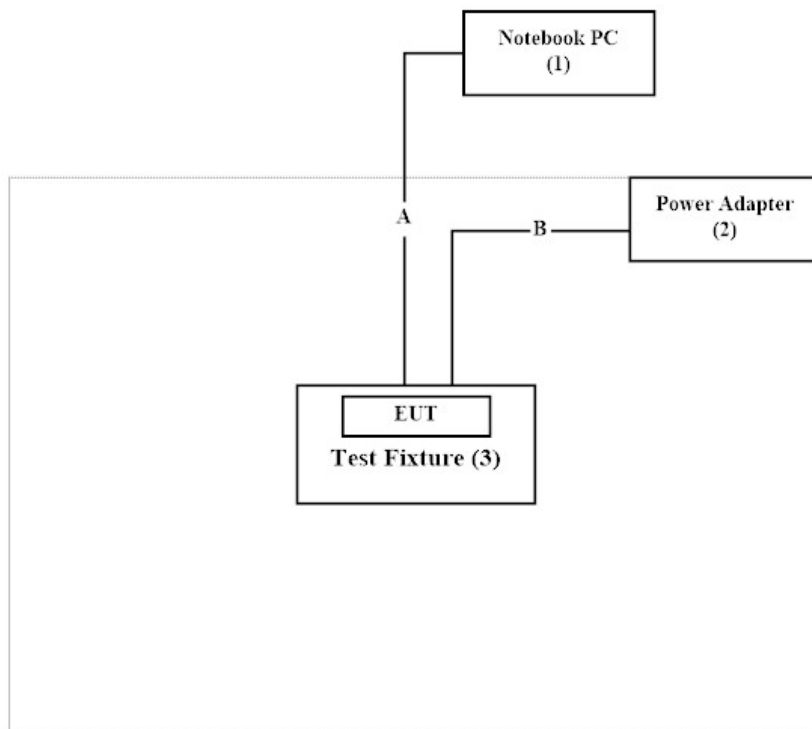
### 1.2. Tested System Details

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. | Power Cord |
|---------|---------------|--------------|-------------|------------|------------|
| 1       | Notebook PC   | Lenovo       | TP00067C    | PF-0EW26J  | N/A        |
| 2       | Power Adapter | FSP          | FSP250M-KHA | N/A        | N/A        |
| 3       | Test Fixture  | Advantech    | N/A         | N/A        | N/A        |

| Cable Type |             | Cable Description                                 |
|------------|-------------|---------------------------------------------------|
| A          | LAN Cable   | Non-shielded, 3m                                  |
| B          | Power Cable | Non-shielded, 0.9m with two ferrite cores bonded. |

### 1.3. Configuration of Tested System



### 1.4. EUT Exercise Software

|    |                                                                    |
|----|--------------------------------------------------------------------|
| 1. | Setup the EUT as shown in Section 1.3.                             |
| 2. | Execute software “DRTU_V 21.350.120.0.0-01117” on the Notebook PC. |
| 3. | Configure the test mode, the test channel, and the data rate.      |
| 4. | Press “OK” to start the continuous transmit.                       |
| 5. | Verify that the EUT works properly.                                |

## 1.5. Test Facility

Ambient conditions in the laboratory:

| Performed Item    | Items            | Required | Actual  |
|-------------------|------------------|----------|---------|
| Radiated Emission | Temperature (°C) | 10~40 °C | 22.8 °C |
|                   | Humidity (%RH)   | 10~90 %  | 58.6 %  |
| Conductive        | Temperature (°C) | 10~40 °C | 22.0 °C |
|                   | Humidity (%RH)   | 10~90 %  | 55.0 %  |

|        |                                                       |
|--------|-------------------------------------------------------|
| USA    | FCC Registration Number: TW0033                       |
| Canada | CAB Identifier Number: TW3023 / Company Number: 26930 |

|                  |                         |
|------------------|-------------------------|
| Site Description | Accredited by TAF       |
|                  | Accredited Number: 3023 |

|                    |                                                                             |
|--------------------|-----------------------------------------------------------------------------|
| Test Laboratory    | DEKRA Testing and Certification Co., Ltd.                                   |
|                    | Linkou Laboratory                                                           |
| Address            | No.5-22, Ruishukeng Linkou District, New Taipei City, 24451, Taiwan, R.O.C. |
| Performed Location | No. 26, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan, R.O.C.   |
| Phone Number       | +886-3-275-7255                                                             |
| Fax Number         | +886-3-327-8031                                                             |

## 1.6. List of Test Equipment

**For Conduction Measurements / HY-SR01**

|  | Equipment          | Manufacturer | Model No. | Serial No. | Cal. Date  | Due Date   |
|--|--------------------|--------------|-----------|------------|------------|------------|
|  | EMI Test Receiver  | R&S          | ESR7      | 101601     | 2022/06/23 | 2023/06/22 |
|  | Two-Line V-Network | R&S          | ENV216    | 101306     | 2023/03/16 | 2024/03/15 |
|  | Two-Line V-Network | R&S          | ENV216    | 101307     | 2022/07/04 | 2023/07/03 |
|  | Coaxial Cable      | SUHNER       | RG400_BNC | RF001      | 2022/05/24 | 2023/05/23 |

Note:

1. All equipments are calibrated every one year.
2. The test instruments marked with “V” are used to measure the final test results.
3. Test Software Version: e3 230303 dekra V9.

**For Conducted Measurements / HY-SR02**

|   | Equipment             | Manufacturer | Model No. | Serial No. | Cal. Date  | Due Date   |
|---|-----------------------|--------------|-----------|------------|------------|------------|
| V | Spectrum Analyzer     | R&S          | FSV30     | 103466     | 2022/12/22 | 2023/12/21 |
| V | Peak Power Analyzer   | KEYSIGHT     | 8990B     | MY51000410 | 2022/08/06 | 2023/08/05 |
| V | Wideband Power Sensor | KEYSIGHT     | N1923A    | MY56080003 | 2022/08/05 | 2023/08/04 |
| V | Wideband Power Sensor | KEYSIGHT     | N1923A    | MY56080004 | 2022/08/05 | 2023/08/04 |

Note:

1. All equipments are calibrated every one year.
2. The test instruments marked with “V” are used to measure the final test results.
3. Test Software Version: RF Conducted Test Tools R3 V3.0.1.14.

**For Radiated Measurements / HY-CB03**

|   | Equipment         | Manufacturer  | Model No.         | Serial No.   | Cal. Date  | Due Date   |
|---|-------------------|---------------|-------------------|--------------|------------|------------|
| V | Loop Antenna      | AMETEK        | HLA6121           | 49611        | 2023/02/21 | 2024/02/20 |
| V | Bi-Log Antenna    | SCHWARZBECK   | VULB9168          | 9168-675     | 2021/08/11 | 2023/08/10 |
| V | Horn Antenna      | RF SPIN       | DRH18-E           | 210508A18ES  | 2022/06/08 | 2023/06/07 |
| V | Horn Antenna      | Com-Power     | AH-840            | 101100       | 2021/10/04 | 2023/10/03 |
| V | Pre-Amplifier     | SGH           | 0301              | 20211007-10  | 2023/01/10 | 2024/01/09 |
| V | Pre-Amplifier     | SGH           | PRAMP118          | 20200701     | 2023/01/10 | 2024/01/09 |
| V | Pre-Amplifier     | EMCI          | EMC05820SE        | 980310       | 2023/01/10 | 2024/01/09 |
|   | Pre-Amplifier     | EMCI          | EMC184045SE       | 980369       | 2023/01/10 | 2024/01/09 |
| V | Coaxial Cable     | EMCI          | EMC102-KM-KM-600  | 1160314      |            |            |
|   | Coaxial Cable     | EMCI          | EMC102-KM-KM-7000 | 170242       |            |            |
| V | Filter            | MICRO TRONICS | BRM50702          | G269         | 2023/01/05 | 2024/01/04 |
|   | Filter            | MICRO TRONICS | BRM50716          | G196         | 2023/01/05 | 2024/01/04 |
| V | EMI Test Receiver | R&S           | ESR3              | 102793       | 2022/12/05 | 2023/12/04 |
| V | Spectrum Analyzer | R&S           | FSV3044           | 101114       | 2023/02/16 | 2024/02/15 |
|   | Coaxial Cable     | SGH           | SGH18             | 2021005-1    | 2023/01/10 | 2024/01/09 |
| V | Coaxial Cable     | SGH           | SGH18             | 202108-4     |            |            |
|   | Coaxial Cable     | SGH           | HA800             | GD20110223-1 |            |            |
|   | Coaxial Cable     | SGH           | HA800             | GD20110222-3 |            |            |

Note:

1. Bi-Log Antenna and Horn Antenna(AH-840) is calibrated every two years, the other equipments are calibrated every one year.
2. The test instruments marked with “V” are used to measure the final test results.
3. Test Software Version: e3 230303 dekra V9.

### 1.7. Uncertainty

Uncertainties have been calculated according to the DEKRA internal document.

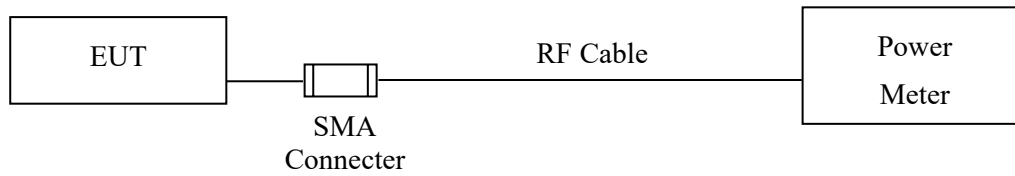
The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95%.

Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

| Test item         | Uncertainty                                                                                                               |
|-------------------|---------------------------------------------------------------------------------------------------------------------------|
| Peak Power Output | Spectrum Analyzer: $\pm 2.14$ dB<br>Power Meter: $\pm 1.05$ dB                                                            |
| Radiated Emission | 9 kHz~30 MHz: $\pm 3.88$ dB<br>30 MHz~1 GHz: $\pm 4.42$ dB<br>1 GHz~18 GHz: $\pm 4.28$ dB<br>18 GHz~40 GHz: $\pm 3.90$ dB |
| Band Edge         | 9 kHz~30 MHz: $\pm 3.88$ dB<br>30 MHz~1 GHz: $\pm 4.42$ dB<br>1 GHz~18 GHz: $\pm 4.28$ dB<br>18 GHz~40 GHz: $\pm 3.90$ dB |
| Duty Cycle        | $\pm 0.53$ %                                                                                                              |

## 2. Peak Power Output

### 2.1. Test Setup



### 2.2. Limit

The maximum peak power shall be less 1 Watt.

### 2.3. Test Procedure

Tested according to FHSS test procedure of KDB 558074 section 9 (b for compliance to FCC 47CFR 15.247 requirements.

#### 2.4. Test Result of Peak Power Output

Product : Intel® Wireless-AC 9260  
Test Item : Peak Power Output  
Test Mode : Transmit-1 Mbps  
Test Date : 2023/04/12

| Channel No. | Frequency<br>(MHz) | Measurement<br>(dBm) | Required Limit | Result |
|-------------|--------------------|----------------------|----------------|--------|
| 00          | 2402               | 10.11                | 1 Watt= 30 dBm | Pass   |
| 39          | 2441               | 10.52                | 1 Watt= 30 dBm | Pass   |
| 78          | 2480               | 11.13                | 1 Watt= 30 dBm | Pass   |

Product : Intel® Wireless-AC 9260  
Test Item : Peak Power Output  
Test Mode : Transmit-2 Mbps  
Test Date : 2023/04/12

| Channel No. | Frequency<br>(MHz) | Measurement<br>(dBm) | Required Limit | Result |
|-------------|--------------------|----------------------|----------------|--------|
| 00          | 2402               | 9.88                 | 1 Watt= 30 dBm | Pass   |
| 39          | 2441               | 10.09                | 1 Watt= 30 dBm | Pass   |
| 78          | 2480               | 10.53                | 1 Watt= 30 dBm | Pass   |

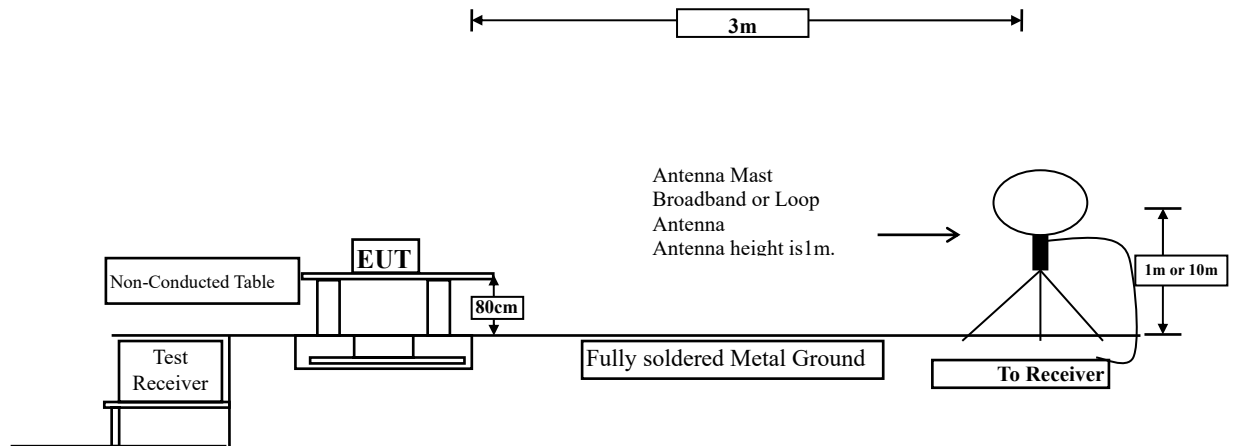
Product : Intel® Wireless-AC 9260  
Test Item : Peak Power Output  
Test Mode : Transmit-3 Mbps  
Test Date : 2023/04/12

| Channel No. | Frequency<br>(MHz) | Measurement<br>(dBm) | Required Limit | Result |
|-------------|--------------------|----------------------|----------------|--------|
| 00          | 2402               | 9.92                 | 1 Watt= 30 dBm | Pass   |
| 39          | 2441               | 10.12                | 1 Watt= 30 dBm | Pass   |
| 78          | 2480               | 10.59                | 1 Watt= 30 dBm | Pass   |

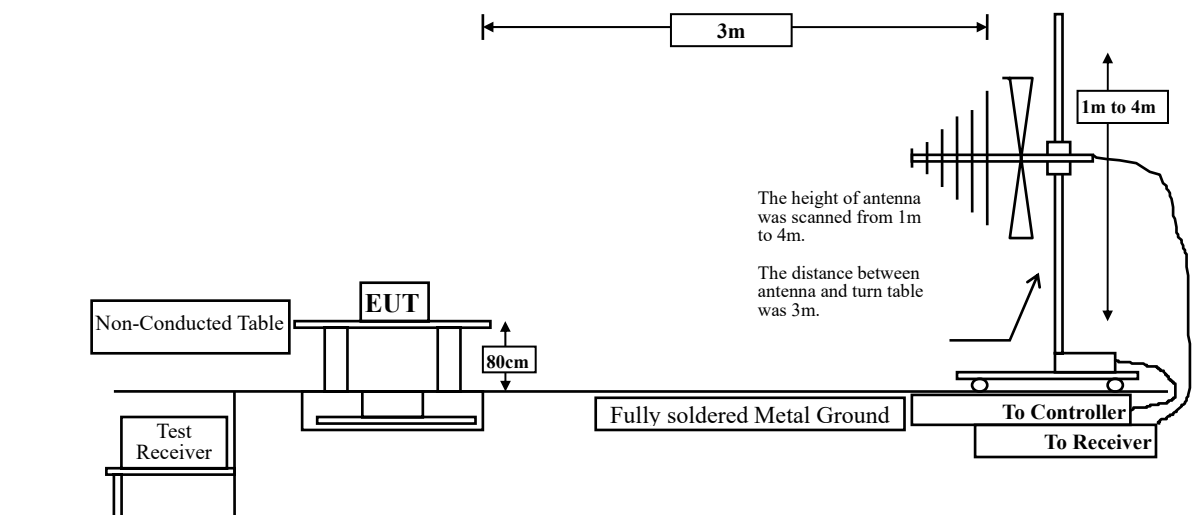
### 3. Radiated Emission

#### 3.1. Test Setup

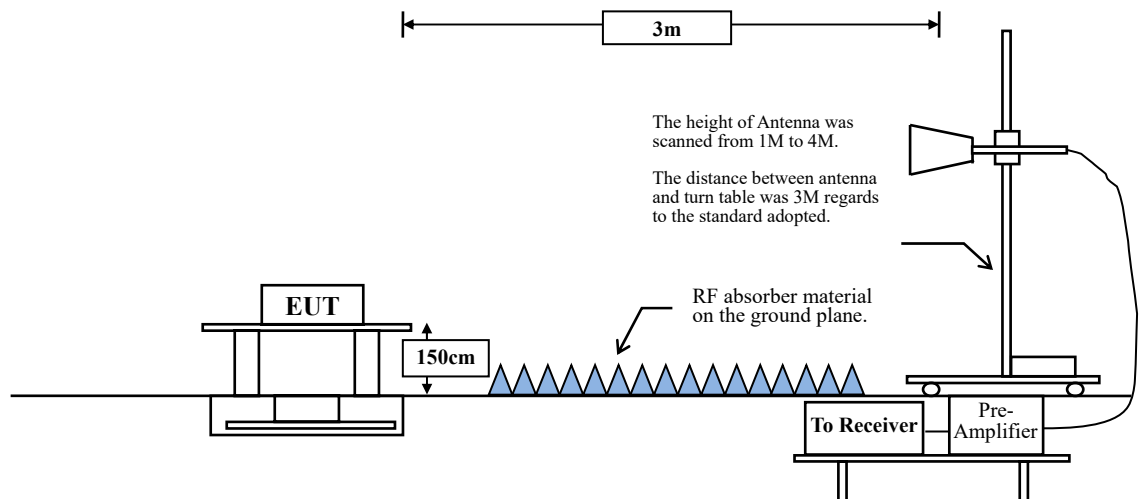
##### Radiated Emission Under 30 MHz



##### Radiated Emission Below 1 GHz



##### Radiated Emission Above 1 GHz



### 3.2. Limits

#### ➤ General Radiated Emission Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

| FCC Part 15 Subpart C Paragraph 15.209 Limits |                                      |                              |
|-----------------------------------------------|--------------------------------------|------------------------------|
| Frequency<br>MHz                              | Field strength<br>(microvolts/meter) | Measurement distance (meter) |
| 0.009-0.490                                   | 2400/F(kHz)                          | 300                          |
| 0.490-1.705                                   | 24000/F(kHz)                         | 30                           |
| 1.705-30                                      | 30                                   | 30                           |
| 30-88                                         | 100                                  | 3                            |
| 88-216                                        | 150                                  | 3                            |
| 216-960                                       | 200                                  | 3                            |
| Above 960                                     | 500                                  | 3                            |

#### Remarks:

1. RF Voltage (dBμV) = 20 log RF Voltage (μV)
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.

### 3.3. Test Procedure

The EUT was setup according to ANSI C63.10, 2013 and tested compliance to FCC 47CFR 15.247 requirements.

Measuring the frequency range below 1 GHz, the EUT is placed on a turn table which is 0.8 meter above ground, when measuring the frequency range above 1GHz, the EUT is placed on a turn table which is 1.5 meter above ground.

The turn table is rotated 360 degrees to determine the position of the maximum emission level.

The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned between 1 meter and 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10: 2013 on radiated measurement.

The resolution bandwidth below 30 MHz setting on the field strength meter is 9kHz and 30 MHz~1 GHz is 120 kHz and above 1 GHz is 1 MHz.

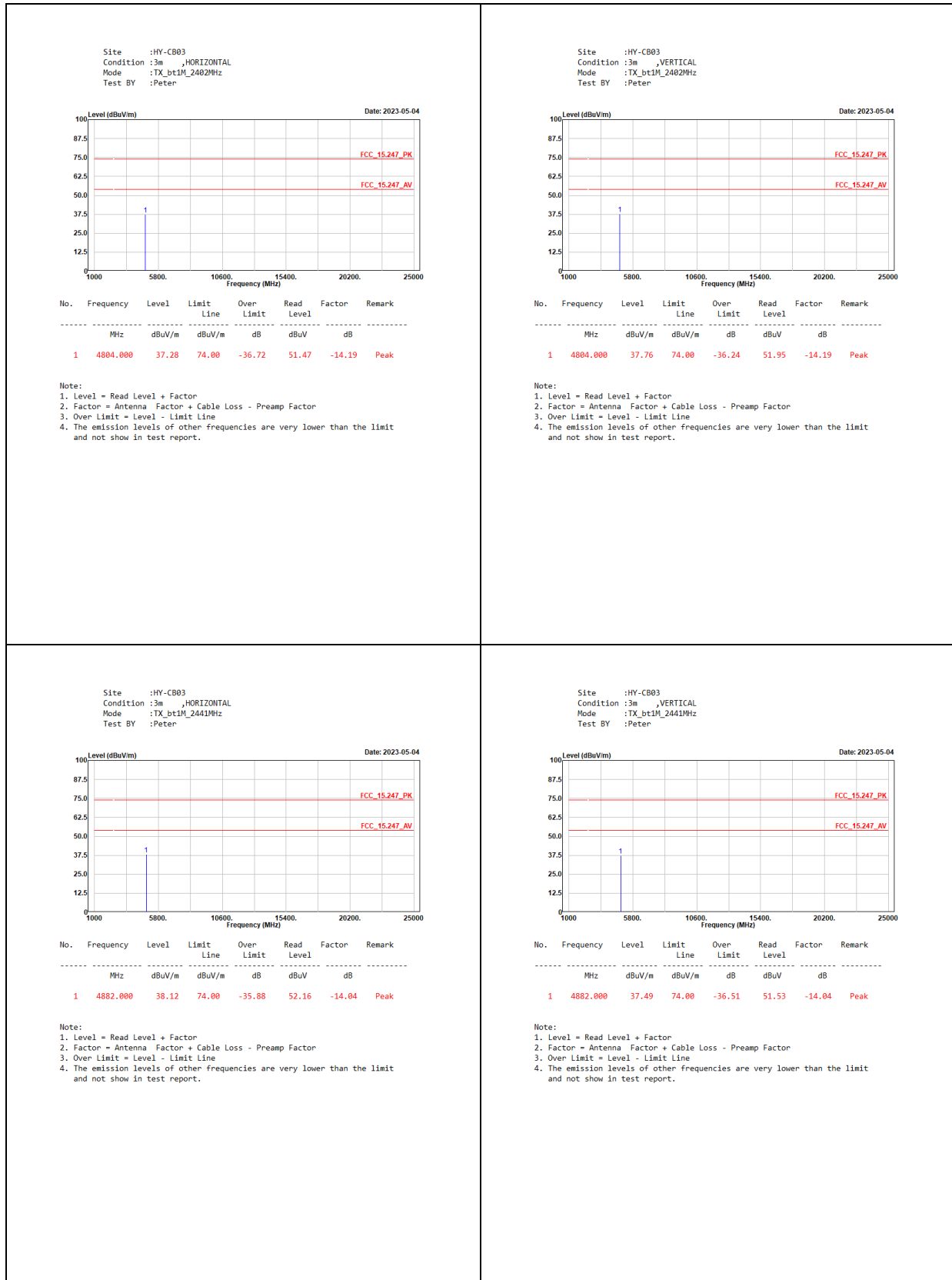
Radiated emission measurements below 30 MHz are made using Loop Antenna and 30 MHz~1 GHz are made using broadband Bilog antenna and above 1 GHz are made using Horn Antennas.

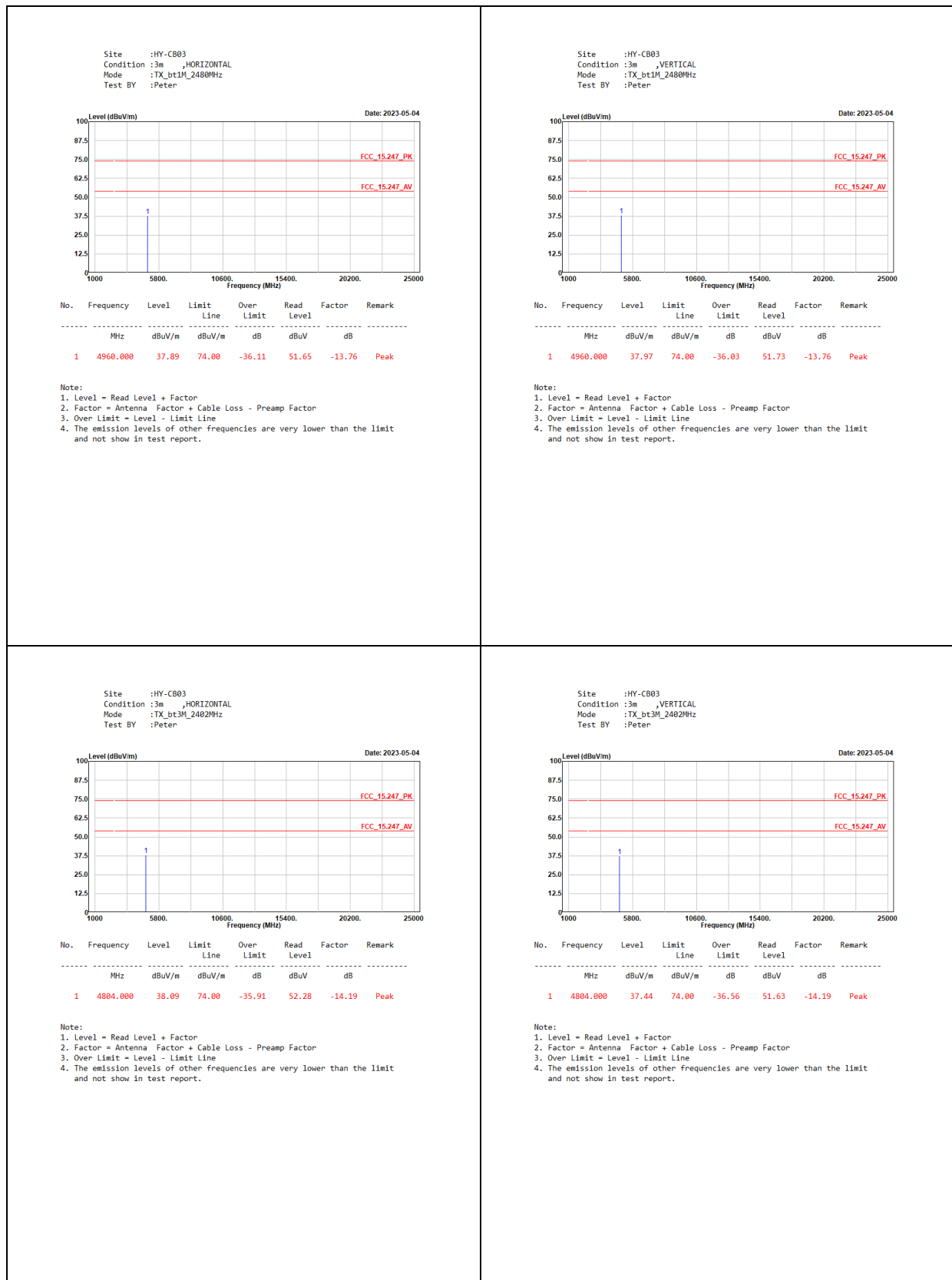
The measurement is divided into the Preliminary Measurement and the Final Measurement.

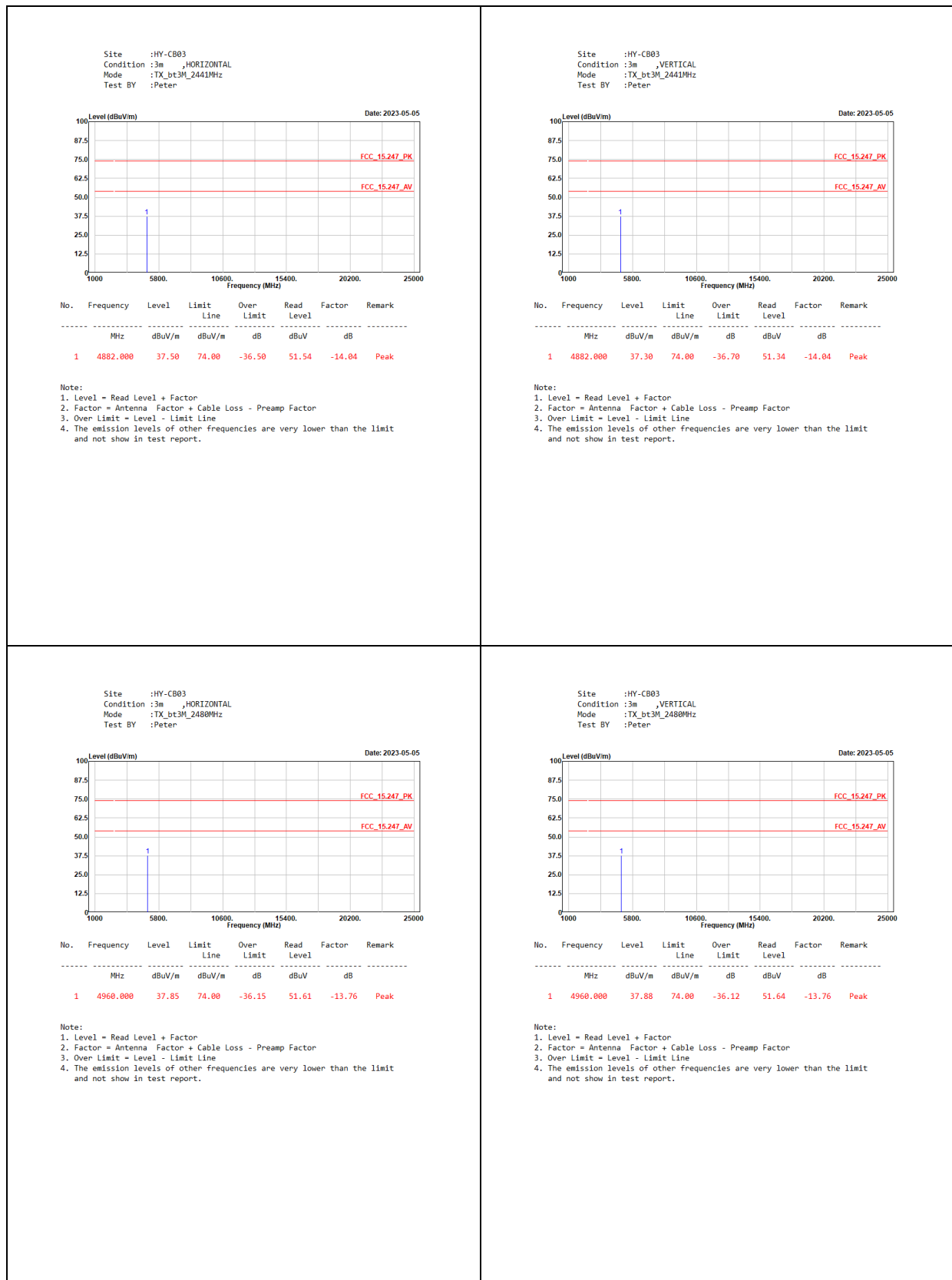
The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna.

The measurement frequency range form 9 kHz - 10th Harmonic of fundamental was investigated.

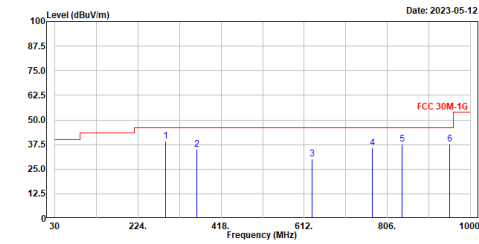
### 3.4. Test Result of Radiated Emission







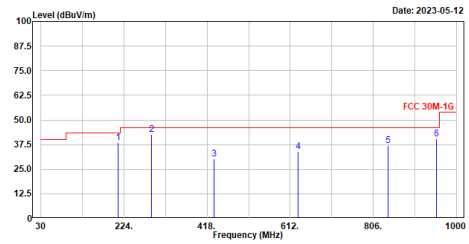
Site :HY-CB03  
Condition :3m ,HORIZONTAL  
Mode :TX\_bt3M\_2441MHz  
Test BY :Peter



| No. | Frequency | Level  | Limit  | Over   | Read  | Factor | Remark |
|-----|-----------|--------|--------|--------|-------|--------|--------|
|     | MHz       | dBuV/m | dBuV/m | dB     | dBuV  | dB     |        |
| 1   | 288.990   | 39.11  | 46.00  | -6.89  | 63.08 | -23.97 | QP     |
| 2   | 361.740   | 35.00  | 46.00  | -11.00 | 57.09 | -22.09 | QP     |
| 3   | 630.430   | 30.02  | 46.00  | -15.98 | 45.84 | -15.82 | QP     |
| 4   | 771.080   | 35.93  | 46.00  | -10.07 | 49.58 | -13.65 | QP     |
| 5   | 840.920   | 37.85  | 46.00  | -8.15  | 50.78 | -12.93 | QP     |
| 6   | 952.470   | 37.79  | 46.00  | -8.21  | 49.41 | -11.62 | QP     |

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

Site :HY-CB03  
Condition :3m ,VERTICAL  
Mode :TX\_bt3M\_2441MHz  
Test BY :Peter



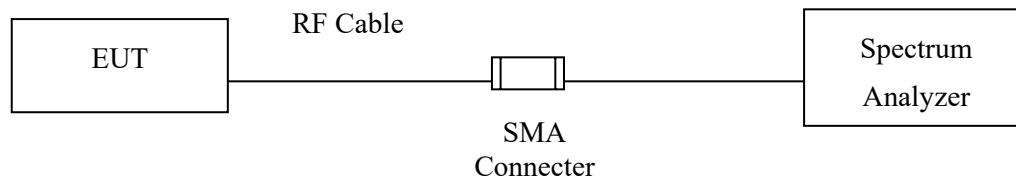
| No. | Frequency | Level  | Limit  | Over   | Read  | Factor | Remark |
|-----|-----------|--------|--------|--------|-------|--------|--------|
|     | MHz       | dBuV/m | dBuV/m | dB     | dBuV  | dB     |        |
| 1   | 210.420   | 38.42  | 43.50  | -5.08  | 65.43 | -27.01 | QP     |
| 2   | 288.990   | 42.77  | 46.00  | -3.23  | 66.74 | -23.97 | QP     |
| 3   | 433.520   | 30.17  | 46.00  | -15.83 | 50.30 | -20.13 | QP     |
| 4   | 630.430   | 34.04  | 46.00  | -11.96 | 49.86 | -15.82 | QP     |
| 5   | 840.920   | 37.13  | 46.00  | -8.87  | 50.06 | -12.93 | QP     |
| 6   | 953.440   | 40.51  | 46.00  | -5.49  | 52.12 | -11.61 | QP     |

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

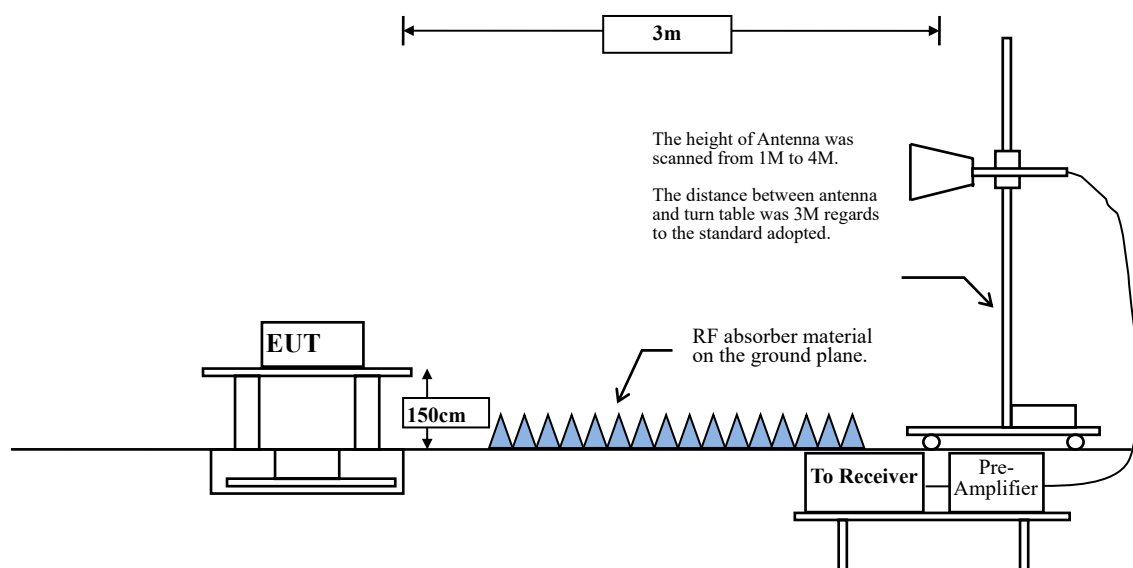
## 4. Band Edge

### 4.1. Test Setup

#### RF Conducted Measurement



#### RF Radiated Measurement:



#### 4.2. Limit

According to FCC Section 15.247(d). 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 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, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

#### 4.3. Test Procedure

The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

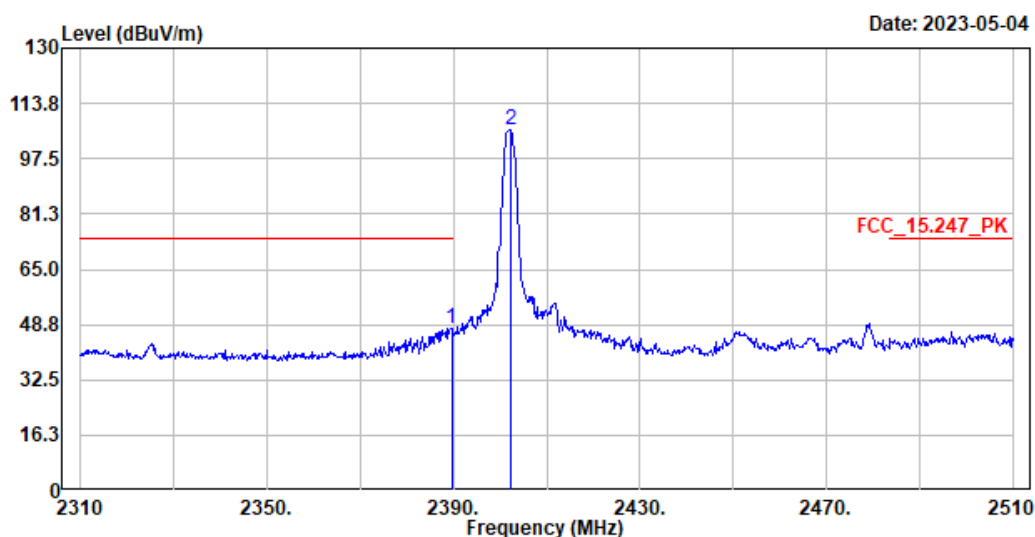
The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

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

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

## 4.4. Test Result of Band Edge

Site :HY-CB03  
 Condition :3m ,Horizontal  
 Mode :TX\_bt1M\_2402MHz  
 Test BY :Peter



| No. | Frequency | Level  | Limit  | Over   | Read  | Factor | Remark |
|-----|-----------|--------|--------|--------|-------|--------|--------|
|     | MHz       | dBuV/m | dBuV/m | Limit  | Level | dB     |        |
| 1   | 2389.600  | 47.52  | 74.00  | -26.48 | 40.58 | 6.94   | Peak   |
| 2   | 2402.200  | 106.09 | -----  | -----  | 99.17 | 6.92   | Peak   |

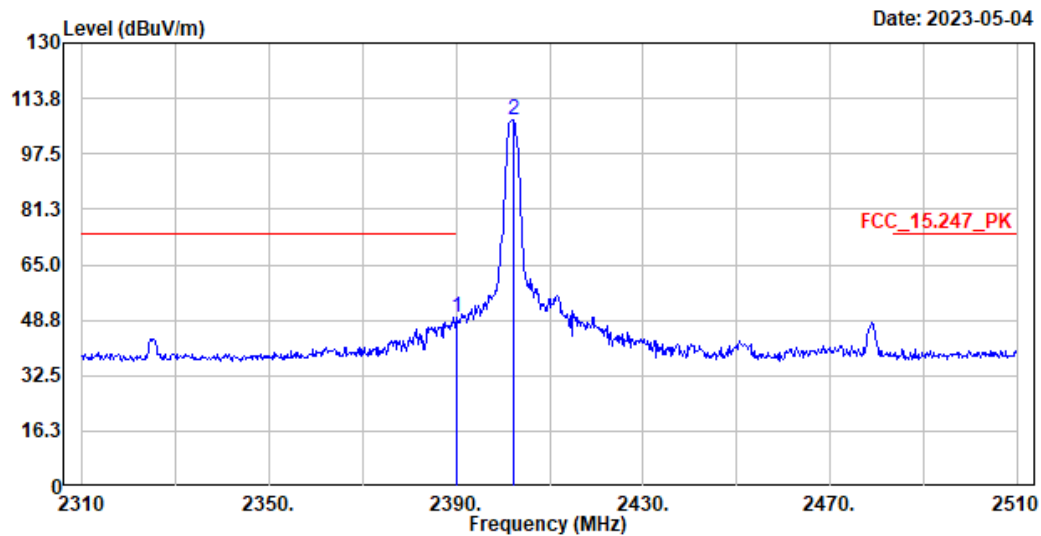
## Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

## Horizontal-Average Detector:

| Frequency<br>(MHz) | Peak Measurement<br>(dBμV/m) | Duty Cycle Factor<br>(dB) | Measurement Level<br>(dBμV/m) | Margin<br>(dB) | Limit<br>(dBμV/m) |
|--------------------|------------------------------|---------------------------|-------------------------------|----------------|-------------------|
| 2389.6             | 47.52                        | -21.210                   | 26.310                        | -27.690        | 54.000            |
| 2402.2             | 106.09                       | -21.210                   | 84.880                        | --             | --                |

Site :HY-CB03  
 Condition :3m ,Vertical  
 Mode :TX\_bt1M\_2402MHz  
 Test BY :Peter



| No. | Frequency | Level  | Limit  | Over   | Read   | Factor | Remark |
|-----|-----------|--------|--------|--------|--------|--------|--------|
|     | MHz       | dBuV/m | Line   | Limit  | Level  |        |        |
|     |           |        | dBuV/m | dB     | dBuV   | dB     |        |
| 1   | 2390.000  | 49.76  | 74.00  | -24.24 | 42.82  | 6.94   | Peak   |
| 2   | 2402.200  | 107.51 | -----  | -----  | 100.59 | 6.92   | Peak   |

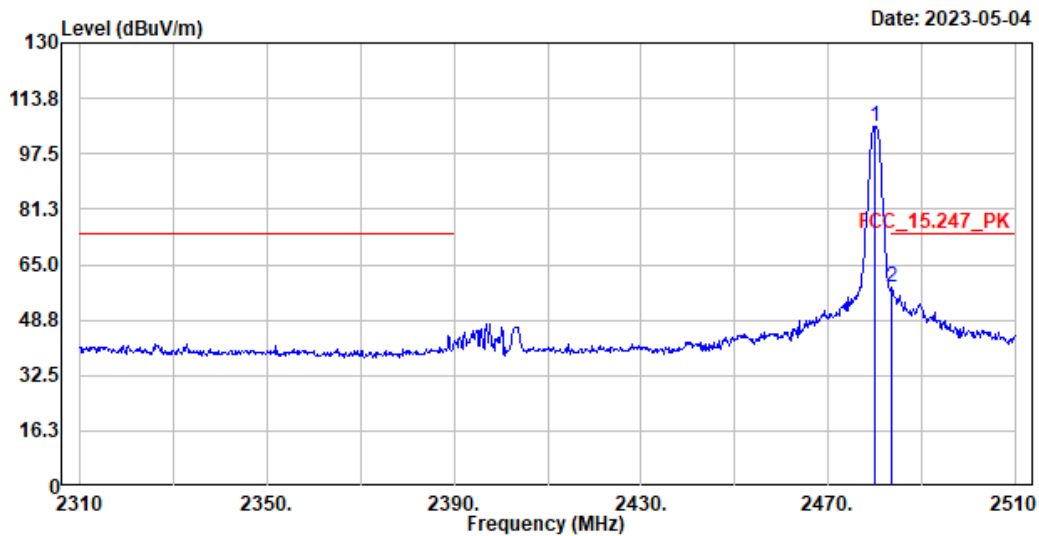
**Note:**

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

**Vertical-Average Detector:**

| Frequency<br>(MHz) | Peak Measurement<br>(dBμV/m) | Duty Cycle Factor<br>(dB) | Measurement Level<br>(dBμV/m) | Margin<br>(dB) | Limit<br>(dBμV/m) |
|--------------------|------------------------------|---------------------------|-------------------------------|----------------|-------------------|
| 2390               | 49.76                        | -21.210                   | 28.550                        | -25.450        | 54.000            |
| 2402.2             | 107.51                       | -21.210                   | 86.300                        | --             | --                |

Site :HY-CB03  
 Condition :3m ,Horizontal  
 Mode :TX\_bt1M\_2480MHz  
 Test BY :Peter



| No. | Frequency | Level  | Limit<br>Line | Over<br>Limit | Read<br>Level | Factor | Remark |
|-----|-----------|--------|---------------|---------------|---------------|--------|--------|
|     | MHz       | dBuV/m | dBuV/m        | dB            | dBuV          | dB     |        |
| 1   | 2480.000  | 105.32 | -----         | -----         | 98.42         | 6.90   | Peak   |
| 2   | 2483.600  | 58.40  | 74.00         | -15.60        | 51.50         | 6.90   | Peak   |

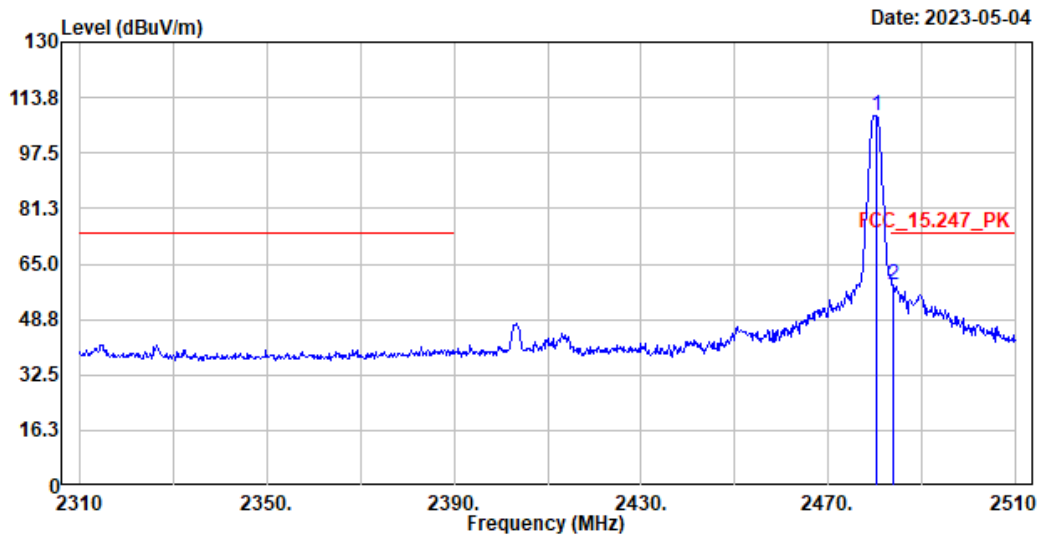
Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

**Horizontal-Average Detector:**

| Frequency<br>(MHz) | Peak Measurement<br>(dBμV/m) | Duty Cycle Factor<br>(dB) | Measurement Level<br>(dBμV/m) | Margin<br>(dB) | Limit<br>(dBμV/m) |
|--------------------|------------------------------|---------------------------|-------------------------------|----------------|-------------------|
| 2480               | 105.32                       | -21.210                   | 84.110                        | --             | --                |
| 2483.6             | 58.4                         | -21.210                   | 37.190                        | -16.810        | 54.000            |

Site :HY-CB03  
 Condition :3m ,Vertical  
 Mode :TX\_bt1M\_2480MHz  
 Test BY :Peter



| No. | Frequency | Level  | Limit  | Over   | Read   | Factor | Remark |
|-----|-----------|--------|--------|--------|--------|--------|--------|
|     | MHz       | dBuV/m | dBuV/m | Limit  | Level  | dB     |        |
| 1   | 2480.200  | 108.51 | -----  | -----  | 101.61 | 6.90   | Peak   |
| 2   | 2484.000  | 58.90  | 74.00  | -15.10 | 52.00  | 6.90   | Peak   |

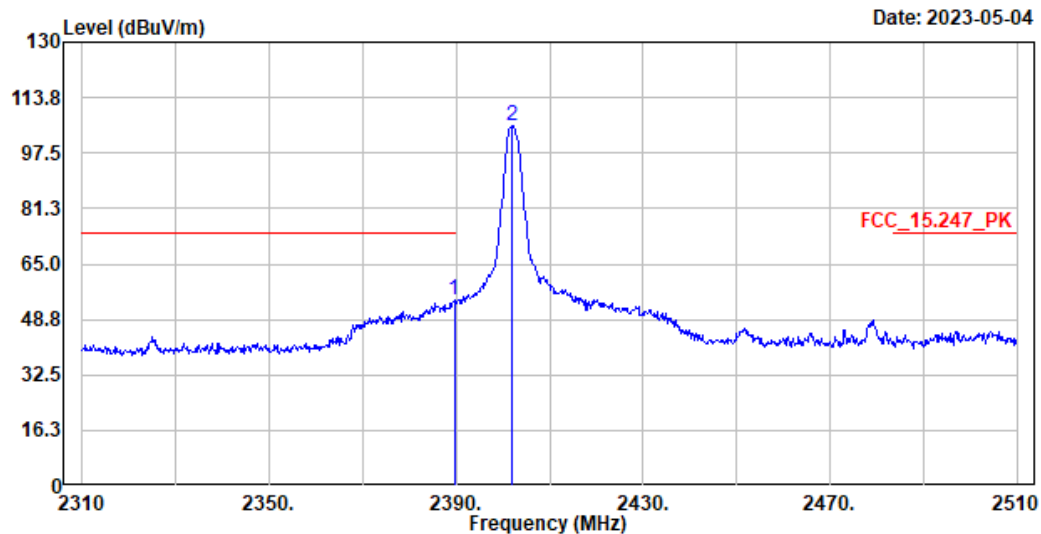
Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

**Vertical-Average Detector:**

| Frequency<br>(MHz) | Peak Measurement<br>(dBμV/m) | Duty Cycle Factor<br>(dB) | Measurement Level<br>(dBμV/m) | Margin<br>(dB) | Limit<br>(dBμV/m) |
|--------------------|------------------------------|---------------------------|-------------------------------|----------------|-------------------|
| 2480.2             | 108.51                       | -21.210                   | 87.300                        | --             | --                |
| 2484               | 58.9                         | -21.210                   | 37.690                        | -16.310        | 54.000            |

Site :HY-CB03  
 Condition :3m ,Horizontal  
 Mode :TX\_bt3M\_2402MHz  
 Test BY :Peter



| No. | Frequency | Level  | Limit  | Over   | Read  | Factor | Remark |
|-----|-----------|--------|--------|--------|-------|--------|--------|
|     | MHz       | dBuV/m | Line   | Limit  | Level |        |        |
|     |           |        | dBuV/m | dB     | dBuV  | dB     |        |
| 1   | 2389.600  | 54.46  | 74.00  | -19.54 | 47.52 | 6.94   | Peak   |
| 2   | 2402.000  | 105.36 | -----  | -----  | 98.44 | 6.92   | Peak   |

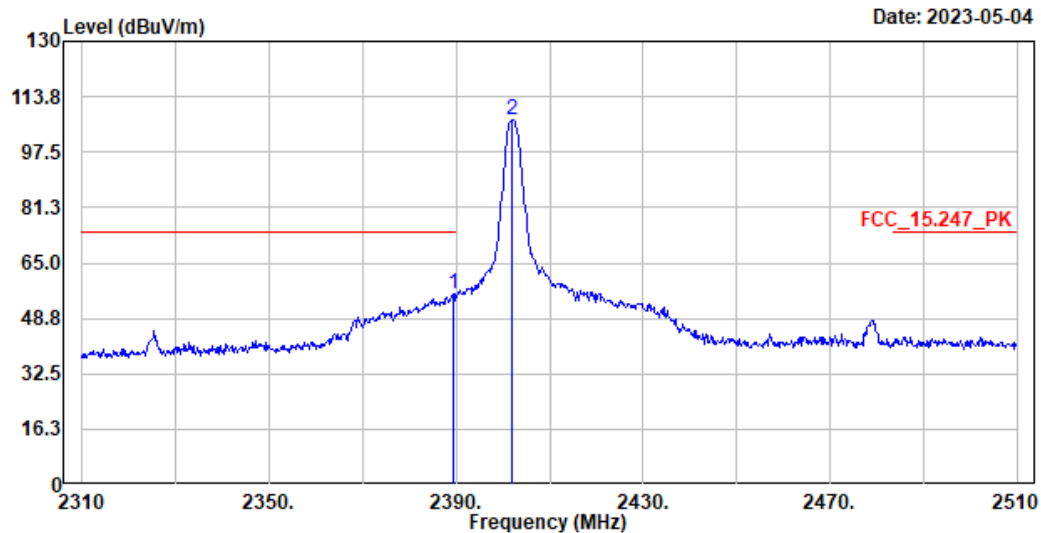
**Note:**

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

**Horizontal-Average Detector:**

| Frequency<br>(MHz) | Peak Measurement<br>(dBμV/m) | Duty Cycle Factor<br>(dB) | Measurement Level<br>(dBμV/m) | Margin<br>(dB) | Limit<br>(dBμV/m) |
|--------------------|------------------------------|---------------------------|-------------------------------|----------------|-------------------|
| 2389.6             | 54.46                        | -21.210                   | 33.250                        | -20.750        | 54.000            |
| 2402               | 105.36                       | -21.210                   | 84.150                        | --             | --                |

Site :HY-CB03  
 Condition :3m ,Vertical  
 Mode :TX\_bt3M\_2402MHz  
 Test BY :Peter



| No. | Frequency | Level  | Limit  | Over   | Read   | Factor | Remark |
|-----|-----------|--------|--------|--------|--------|--------|--------|
|     | MHz       | dBuV/m | Line   | Limit  | Level  |        |        |
|     |           |        | dBuV/m | dB     | dBuV   | dB     |        |
| 1   | 2389.400  | 55.79  | 74.00  | -18.21 | 48.85  | 6.94   | Peak   |
| 2   | 2402.000  | 106.96 | -----  | -----  | 100.04 | 6.92   | Peak   |

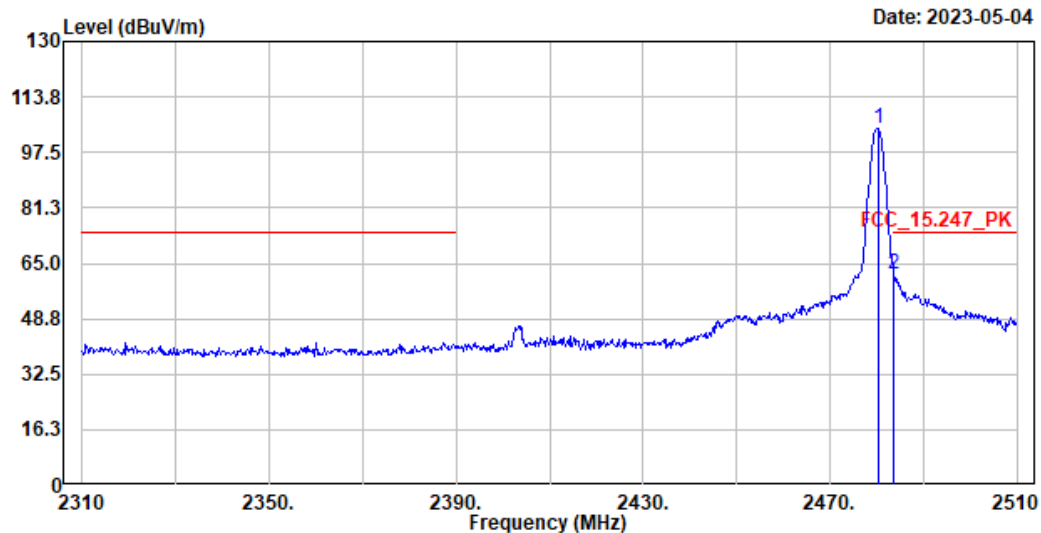
Note:

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

**Vertical-Average Detector:**

| Frequency<br>(MHz) | Peak Measurement<br>(dBμV/m) | Duty Cycle Factor<br>(dB) | Measurement Level<br>(dBμV/m) | Margin<br>(dB) | Limit<br>(dBμV/m) |
|--------------------|------------------------------|---------------------------|-------------------------------|----------------|-------------------|
| 2389.4             | 55.79                        | -21.210                   | 34.580                        | -19.420        | 54.000            |
| 2402               | 106.96                       | -21.210                   | 85.750                        | --             | --                |

Site :HY-CB03  
 Condition :3m ,Horizontal  
 Mode :TX\_bt3M\_2480MHz  
 Test BY :Peter



| No. | Frequency | Level  | Limit  | Over   | Read  | Factor | Remark |
|-----|-----------|--------|--------|--------|-------|--------|--------|
|     | MHz       | dBuV/m | dBuV/m | dB     | dBuV  | dB     |        |
| 1   | 2480.200  | 104.37 | -----  | -----  | 97.47 | 6.90   | Peak   |
| 2   | 2483.600  | 61.84  | 74.00  | -12.16 | 54.94 | 6.90   | Peak   |

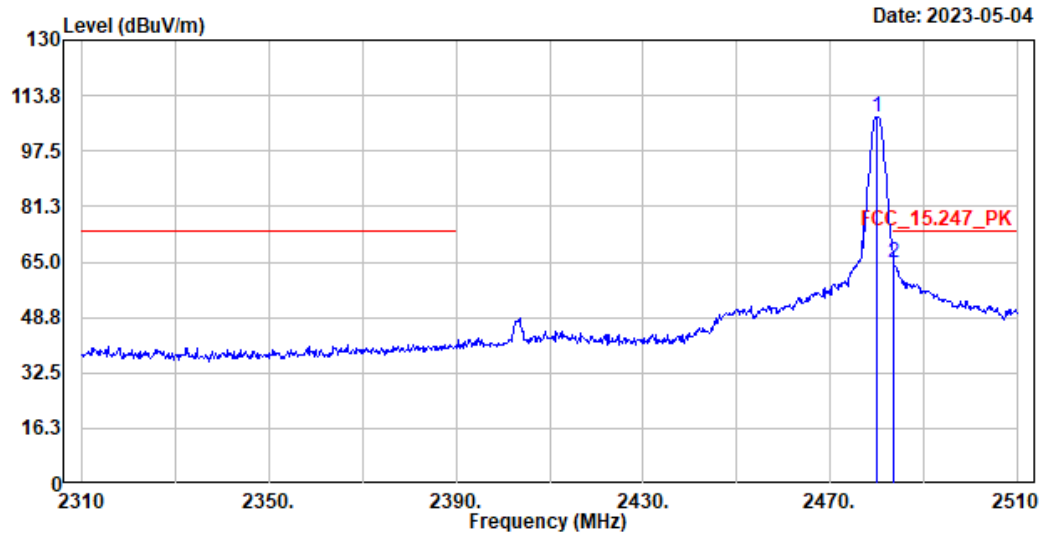
**Note:**

1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

**Horizontal-Average Detector:**

| Frequency<br>(MHz) | Peak Measurement<br>(dBμV/m) | Duty Cycle Factor<br>(dB) | Measurement Level<br>(dBμV/m) | Margin<br>(dB) | Limit<br>(dBμV/m) |
|--------------------|------------------------------|---------------------------|-------------------------------|----------------|-------------------|
| 2480.2             | 104.37                       | -21.210                   | 83.160                        | --             | --                |
| 2483.6             | 61.84                        | -21.210                   | 40.630                        | -13.370        | 54.000            |

Site :HY-CB03  
 Condition :3m ,Vertical  
 Mode :TX\_bt3M\_2480MHz  
 Test BY :Peter



| No. | Frequency | Level  | Limit<br>Line | Over<br>Limit | Read<br>Level | Factor | Remark |
|-----|-----------|--------|---------------|---------------|---------------|--------|--------|
|     | MHz       | dBuV/m | dBuV/m        | dB            | dBuV          | dB     |        |
| 1   | 2480.000  | 107.52 | -----         | -----         | 100.62        | 6.90   | Peak   |
| 2   | 2483.600  | 64.62  | 74.00         | -9.38         | 57.72         | 6.90   | Peak   |

Note:

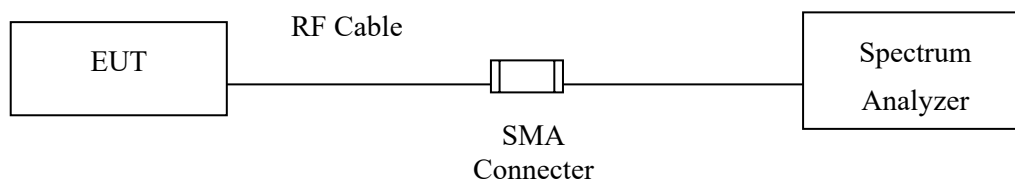
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

**Vertical-Average Detector:**

| Frequency<br>(MHz) | Peak Measurement<br>(dBμV/m) | Duty Cycle Factor<br>(dB) | Measurement Level<br>(dBμV/m) | Margin<br>(dB) | Limit<br>(dBμV/m) |
|--------------------|------------------------------|---------------------------|-------------------------------|----------------|-------------------|
| 2480               | 107.52                       | -21.210                   | 86.310                        | --             | --                |
| 2483.6             | 64.62                        | -21.210                   | 43.410                        | -10.590        | 54.000            |

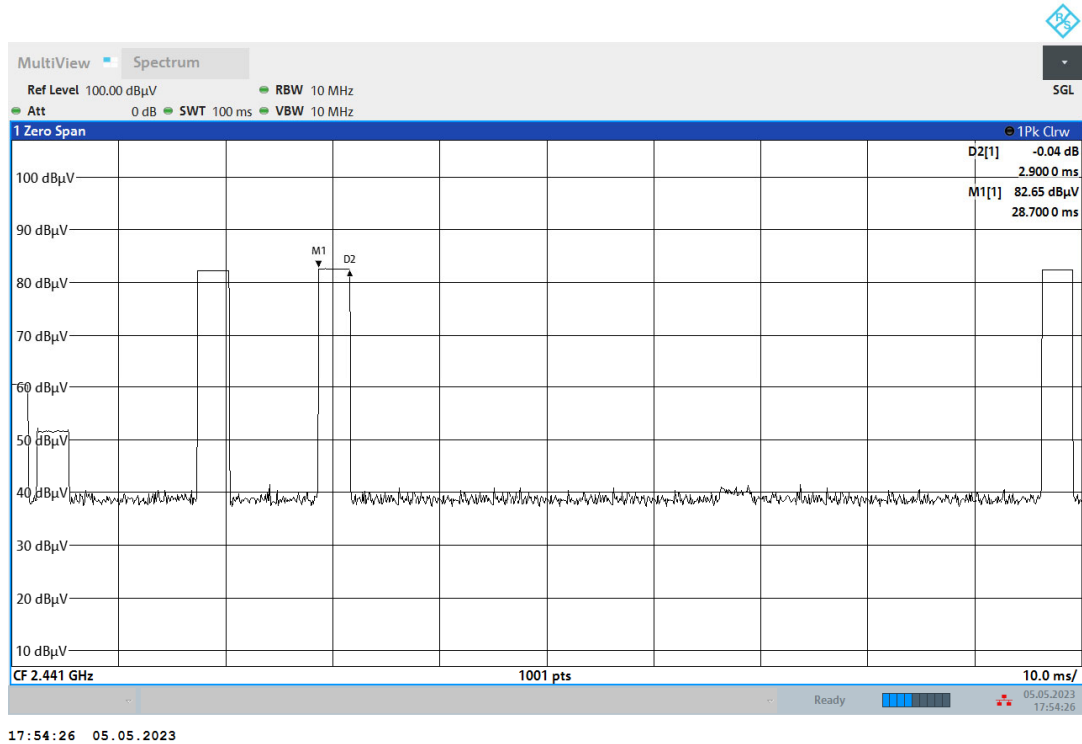
## 5. Duty Cycle

### 5.1. Test Setup



## 5.2. Test Result of Duty Cycle

Product : Intel® Wireless-AC 9260  
 Test Item : Duty Cycle Data  
 Test Mode : Transmit-1 Mbps



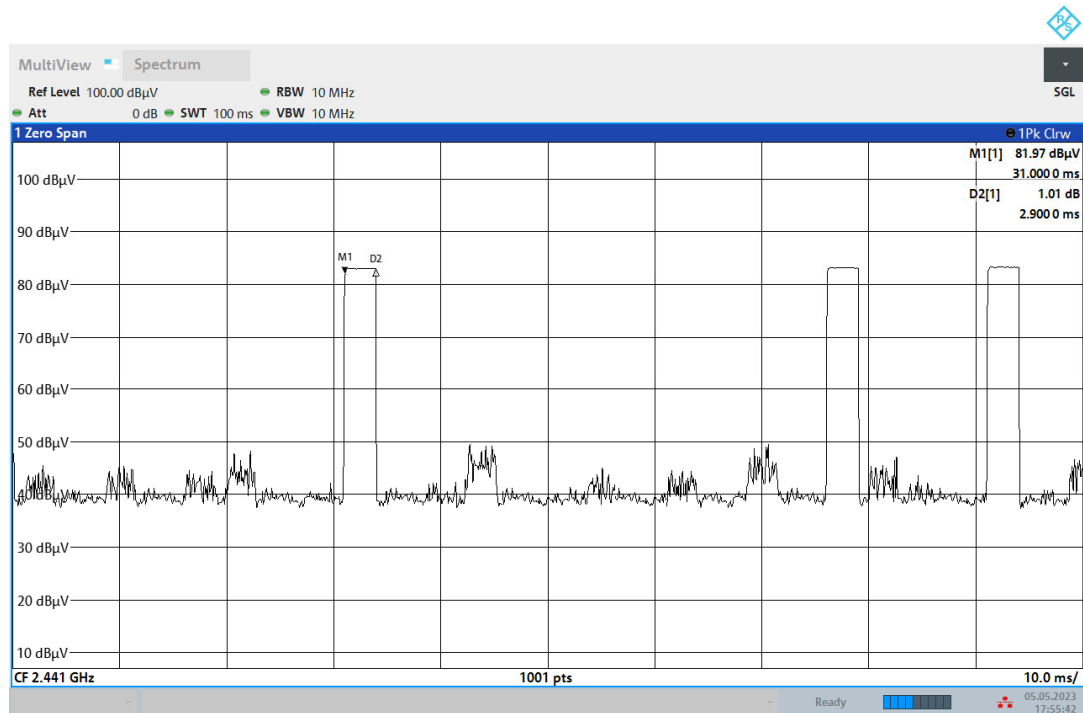
Time on of 100ms = 8.7ms

Duty Cycle =  $8.7\text{ms} / 100\text{ms} = 0.087$

Duty Cycle correction factor =  $20 \text{ LOG } 0.087 = -21.210 \text{ dB}$

**Duty Cycle correction factor** -21.210 dB

Product : Intel® Wireless-AC 9260  
 Test Item : Duty Cycle Data  
 Test Mode : Transmit-3 Mbps



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Time on of 100ms = 8.7ms

Duty Cycle =  $8.7\text{ms} / 100\text{ms} = 0.087$

Duty Cycle correction factor =  $20 \text{ LOG } 0.087 = -21.210 \text{ dB}$

**Duty Cycle correction factor** -21.210 dB