

Test Report No:  
2620398R-RFUSV03S-A

## TEST REPORT

### FCC Rules & Regulations

|                                 |                                                                                                  |
|---------------------------------|--------------------------------------------------------------------------------------------------|
| Product Name                    | Peplink Pepwave Wireless Product                                                                 |
| Brand Name                      |  <b>PEPWAWE</b> |
| Model No.                       | Balance 310 5G<br>BPL-310-5GK-T-PRM                                                              |
| FCC ID                          | 2BVXV-P1BE05                                                                                     |
| Applicant's Name / Address      | PSG TECHNOLOGIES (S) PTE. LIMITED<br>68 CIRCULAR ROAD, #02-01, SINGAPORE 049422                  |
| Manufacturer's Name             | PSG TECHNOLOGIES (S) PTE. LIMITED                                                                |
| Test Method Requested, Standard | FCC CFR Title 47 Part 15 Subpart E Section 15.407                                                |
| Verdict Summary                 | IN COMPLIANCE                                                                                    |
| Documented by Jinn Chen         |              |
| Approved By Steven Tsai         |               |
| Date of Receipt                 | 2026/02/23                                                                                       |
| Date of Issue                   | 2026/07/21                                                                                       |
| Report Version                  | V1.0                                                                                             |

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## Competences and Guarantees

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

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

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

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

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

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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

| Version | Description             | Issued Date |
|---------|-------------------------|-------------|
| V1.0    | Initial issue of report | 2026/07/21  |

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## Summary of Test Result

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| Report Clause | Test Items                       | Result (PASS/FAIL) | Remark |
|---------------|----------------------------------|--------------------|--------|
| 3             | AC Power Line Conducted Emission | PASS               | -      |
| 4             | Emission Bandwidth               | PASS               | -      |
| 5             | Maximum Conducted Output Power   | PASS               | -      |
| 6             | Maximum Power Spectral Density   | PASS               | -      |
| 7             | Radiated Emission                | PASS               | -      |

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

## 1. General Information

### 1.1. EUT Description

|                                      |                                    |                                                              |
|--------------------------------------|------------------------------------|--------------------------------------------------------------|
| Frequency Range                      | 5150 ~ 5250 MHz<br>5725 ~ 5850 MHz |                                                              |
| Operating Frequency / Channel Number | IEEE 802.11a/n/ac/ax/be (20 MHz)   | 5180 ~ 5240 MHz / 4 Channels<br>5745 ~ 5825 MHz / 5 Channels |
|                                      | IEEE 802.11n/ac/ax/be (40 MHz)     | 5190 ~ 5230 MHz / 2 Channels<br>5755 ~ 5795 MHz / 2 Channels |
|                                      | IEEE 802.11ac/ax/be (80 MHz)       | 5210 MHz / 1 Channel<br>5775 MHz / 1 Channel                 |
|                                      |                                    |                                                              |
| Type of Modulation                   | IEEE 802.11a/n                     | OFDM-BPSK, QPSK, 16QAM, 64QAM                                |
|                                      | IEEE 802.11ac                      | OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM                        |
|                                      | IEEE 802.11ax                      | OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM              |
|                                      | IEEE 802.11be                      | OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM     |

| Accessories Information |                |                    |              |                                                                       |                                                                        |
|-------------------------|----------------|--------------------|--------------|-----------------------------------------------------------------------|------------------------------------------------------------------------|
| No.                     | Equipment Name | Brand Name         | Model No.    | Rating                                                                | Remark                                                                 |
| 1                       | Adapter        | FSP                | FSP280-AWAU3 | INPUT:<br>100-240V~,3.3A,<br>50-60Hz<br>OUTPUT:<br>54.0V=5.19A 280.0W | With power cable:<br>Non-shielded, 1.6m, with one ferrite core bonded. |
| No.                     | Equipment Name | Description        |              |                                                                       |                                                                        |
| 2                       | Power Cord     | Non-shielded, 1.8m |              |                                                                       |                                                                        |

The difference for each model is shown as below:

| Model No.         | Description                                                                             |
|-------------------|-----------------------------------------------------------------------------------------|
| Balance 310 5G    | All models are electrically identical, different model names are for marketing purpose. |
| BPL-310-5GK-T-PRM |                                                                                         |

From the above models, model: Balance 310 5G was selected as representative model for the test and its data was recorded in this report.

| Antenna Information |            |                    |                  |            |      |
|---------------------|------------|--------------------|------------------|------------|------|
| Item.               | Brand Name | Part No.           | Type             | Gain (dBi) |      |
| 1                   | WIESON     | ARY121-1976-001-00 | Omni-directional | U-NII 1    | 2.55 |
|                     |            |                    |                  | U-NII 3    | 3.36 |

| Directional Gain (dBi) |         |
|------------------------|---------|
| U-NII 1                | U-NII 3 |
| 5.56                   | 6.37    |

Note:

- 1. The antenna of EUT conforms to FCC 15.203.
- 2. For IEEE 802.11a/n/ac/ax/be Mode: (2TX, 2RX)

## 1.2. EUT Information

|                              |                                     |                               |                                     |                     |
|------------------------------|-------------------------------------|-------------------------------|-------------------------------------|---------------------|
| EUT Power Type               | From Adapter                        |                               |                                     |                     |
| EUT Function                 | <input checked="" type="checkbox"/> | Point-to-multipoint           | <input type="checkbox"/>            | Point-to-point      |
| Beamforming Function         | <input type="checkbox"/>            | With beamforming              | <input checked="" type="checkbox"/> | Without beamforming |
| Resource Unit of 802.11ax/be | <input checked="" type="checkbox"/> | Full RU                       | <input type="checkbox"/>            | Partial RU          |
| Operating Mode               | <input checked="" type="checkbox"/> | Master                        |                                     |                     |
|                              | <input type="checkbox"/>            | Slave with radar detection    |                                     |                     |
|                              | <input checked="" type="checkbox"/> | Slave without radar detection |                                     |                     |

## 1.3. Testing Applied Standards

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

- ♦ FCC CFR Title 47 Part 15 Subpart E Section 15.407
- ♦ ANSI C63.10-2020
- ♦ FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01

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

- ♦ FCC KDB 662911 D01 Multiple Transmitter Output v02r01
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01

#### 1.4. Testing Location Information

| Testing Location Information                                |                             |                                                                                         |                      |
|-------------------------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------|----------------------|
| Test Laboratory : DEKRA Testing and Certification Co., Ltd. |                             |                                                                                         |                      |
| V                                                           | Address                     | No. 85, Wenlin St., Linkou Dist., New Taipei City 244017, Taiwan, R.O.C.                |                      |
|                                                             | Performed Location          | No. 26, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan, R.O.C.               |                      |
|                                                             | Phone/Fax Number            | TEL: +886-3-275-7255                                                                    | FAX: +886-3-327-8031 |
|                                                             | USA                         | FCC Designation Number: TW0033 / FCC Registration Number: 647365                        |                      |
|                                                             | Canada                      | CAB Identifier Number: TW3023 / Company Number: 26930                                   |                      |
|                                                             | Site Description            | Accredited by TAF                                                                       |                      |
|                                                             |                             | Accredited Number: 3023                                                                 |                      |
|                                                             | Address/ Performed Location | No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C. |                      |
|                                                             | Phone/Fax Number            | TEL: +886-3-582-8001                                                                    | FAX: +886-3-582-8958 |
|                                                             | USA                         | Test site Designation No. TW3024 with FCC.                                              |                      |
|                                                             | Canada                      | CAB Identifier Number: TW3024 / Company Number: 22397                                   |                      |
|                                                             | Site Description            | Accredited by TAF                                                                       |                      |
|                                                             |                             | Accredited Number: 3024                                                                 |                      |
|                                                             | Address/ Performed Location | No.372, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C.   |                      |
|                                                             | Phone/Fax Number            | TEL: +886-3-582-8001                                                                    | FAX: +886-3-582-8958 |
|                                                             | USA                         | Test site Designation No. TW3024 with FCC.                                              |                      |
|                                                             | Canada                      | CAB Identifier Number: TW3024 / Company Number: 22397                                   |                      |
|                                                             | Site Description            | Accredited by TAF                                                                       |                      |
|                                                             |                             | Accredited Number: 3024                                                                 |                      |

### 1.5. Ambient Conditions In The Laboratory

| Performed Item        | Items            | Required | Actual       | Test Date    | Tested By   |
|-----------------------|------------------|----------|--------------|--------------|-------------|
| AC Power Line         | Temperature (°C) | 10~40 °C | 25.6 °C      | 2026/06/29   | Leo Chen    |
| Conducted Emission    | Humidity (%RH)   | 10~90 %  | 60.6 %       |              |             |
| RF Conducted Emission | Temperature (°C) | 10~40 °C | 22.3~25.2 °C | 2026/06/26 ~ | Kevin Lai   |
|                       | Humidity (%RH)   | 10~90 %  | 61.5~69.6 %  | 2026/06/29   |             |
| Radiated Emission     | Temperature (°C) | 10~40 °C | 22.5~22.9 °C | 2026/06/03~  | Caster Liao |
|                       | Humidity (%RH)   | 10~90 %  | 59.8~60.8 %  | 2026/06/15   |             |

### 1.6. Measurement 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                                                                                                               |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| AC Power Line Conducted Emission | $\pm 3.73$ dB                                                                                                             |
| Emission Bandwidth               | $\pm 1580.61$ Hz                                                                                                          |
| Maximum Conducted Output Power   | Spectrum Analyzer: $\pm 2.13$ dB<br>Power Meter: $\pm 1.06$ dB                                                            |
| Maximum Power Spectral Density   | $\pm 2.13$ dB                                                                                                             |
| Radiated Emission                | 9 kHz~30 MHz: $\pm 3.30$ dB<br>30 MHz~1 GHz: $\pm 5.39$ dB<br>1 GHz~18 GHz: $\pm 4.24$ dB<br>18 GHz~40 GHz: $\pm 3.62$ dB |
| Duty Cycle                       | $\pm 0.65$ %                                                                                                              |

## 1.7. List of Test Equipment

### For Conduction Measurements / HY-SR01

|   | Equipment          | Manufacturer | Model No. | Serial No. | Cal. Date  | Due Date   |
|---|--------------------|--------------|-----------|------------|------------|------------|
| V | EMI Test Receiver  | R&S          | ESR7      | 101601     | 2026/04/20 | 2027/04/19 |
| V | Two-Line V-Network | R&S          | ENV216    | 101306     | 2026/03/27 | 2028/03/26 |
| V | Two-Line V-Network | R&S          | ENV216    | 101307     | 2025/08/06 | 2027/08/05 |
| V | Coaxial Cable      | SUHNER       | RG400_BNC | RF001      | 2026/01/10 | 2027/01/09 |

Note:

1. Two-Line V-Network is calibrated every two years, the other equipment is calibrated every 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     | 103467     | 2026/04/24 | 2027/04/23 |
| V | Spectrum Analyzer     | KEYSIGHT     | N9010A    | MY54510317 | 2025/08/04 | 2026/08/03 |
| V | Peak Power Analyzer   | KEYSIGHT     | 8990B     | MY51000539 | 2026/04/30 | 2027/04/29 |
| V | Wideband Power Sensor | KEYSIGHT     | N1923A    | MY59240002 | 2026/05/06 | 2027/05/05 |
| V | Wideband Power Sensor | KEYSIGHT     | N1923A    | MY59240003 | 2026/05/06 | 2027/05/05 |

Note:

1. All equipment is calibrated every year.
2. The test instruments marked with "V" are used to measure the final test results.
3. Test Software Version : DTC\_RF\_Tool\_Release V2.0.37.

### For Radiated Measurements /HY-CB01

|   | Equipment                        | Manufacturer  | Model No.              | Serial No.  | Cal. Date  | Due Date   |
|---|----------------------------------|---------------|------------------------|-------------|------------|------------|
| V | Loop Antenna                     | TESEQ         | HLA6121                | 49611       | 2026/02/04 | 2027/02/03 |
| V | Bi-Log Antenna                   | SCHWARZBECK   | VULB9168               | 9168-0675   | 2025/08/14 | 2027/08/13 |
| V | Horn Antenna                     | RF SPIN       | DRH18-E                | 210802A18ES | 2026/03/26 | 2028/03/25 |
| V | Horn Antenna                     | Com-Power     | AH-840                 | 101100      | 2025/10/07 | 2027/10/06 |
| V | Pre-Amplifier                    | SGH           | SGH0301                | 20230308-1  | 2026/01/10 | 2027/01/09 |
| V | Pre-Amplifier                    | EMCI          | EMC051845SE            | 980632      | 2026/01/10 | 2027/01/09 |
| V | Pre-Amplifier                    | EMCI          | EMC05820SE             | 980362      | 2026/01/10 | 2027/01/09 |
| V | Pre-Amplifier                    | EMCI          | EMC184045SE            | 980369      | 2026/01/10 | 2027/01/09 |
| V | Coaxial Cable                    | EMCI          | EMC102-KM-KM-600       | 160311      | 2026/01/10 | 2027/01/09 |
| V | Coaxial Cable                    | SGH           | HC360-2.92M/2.92M-7.0M | 202108-1    | 2026/01/10 | 2027/01/09 |
|   | Filter                           | MICRO TRONICS | BRM20887               | G001        | 2026/01/05 | 2027/01/04 |
| V | Filter                           | MICRO TRONICS | BRM50716               | 067         | 2026/01/05 | 2027/01/04 |
| V | EMI Test Receiver                | R&S           | ESR3                   | 102793      | 2025/12/01 | 2026/11/30 |
| V | Spectrum Analyzer                | R&S           | FSV3044                | 101115      | 2025/12/22 | 2026/12/21 |
| V | Coaxial Cable                    | SUHNER        | SUCOFLEX 106           | 25450/6     | 2026/01/10 | 2027/01/09 |
| V | Coaxial Cable                    | SUHNER        | SUCOFLEX 106           | 36738-6     | 2026/01/10 | 2027/01/09 |
| V | Coaxial Cable                    | SGH           | HA800                  | 202212-5    | 2026/01/10 | 2027/01/09 |
| V | Coaxial Cable                    | EMCI          | EMC106                 | 151113      | 2026/01/10 | 2027/01/09 |
| V | Radio communication test station | Anritsu       | MT8000A                | 6262134961  | 2026/05/04 | 2027/05/03 |
| V | Radio communication test station | Anritsu       | 8820C                  | 6201091166  | 2026/04/13 | 2027/04/12 |

Note:

1. Bi-Log Antenna and Horn Antenna are calibrated every two years, the other equipment is calibrated every year.
2. The test instruments marked with "V" are used to measure the final test results.
3. Test Software Version: e3 230303 dekra V9.

## 2. Test Configuration of EUT

### 2.1. Test Condition

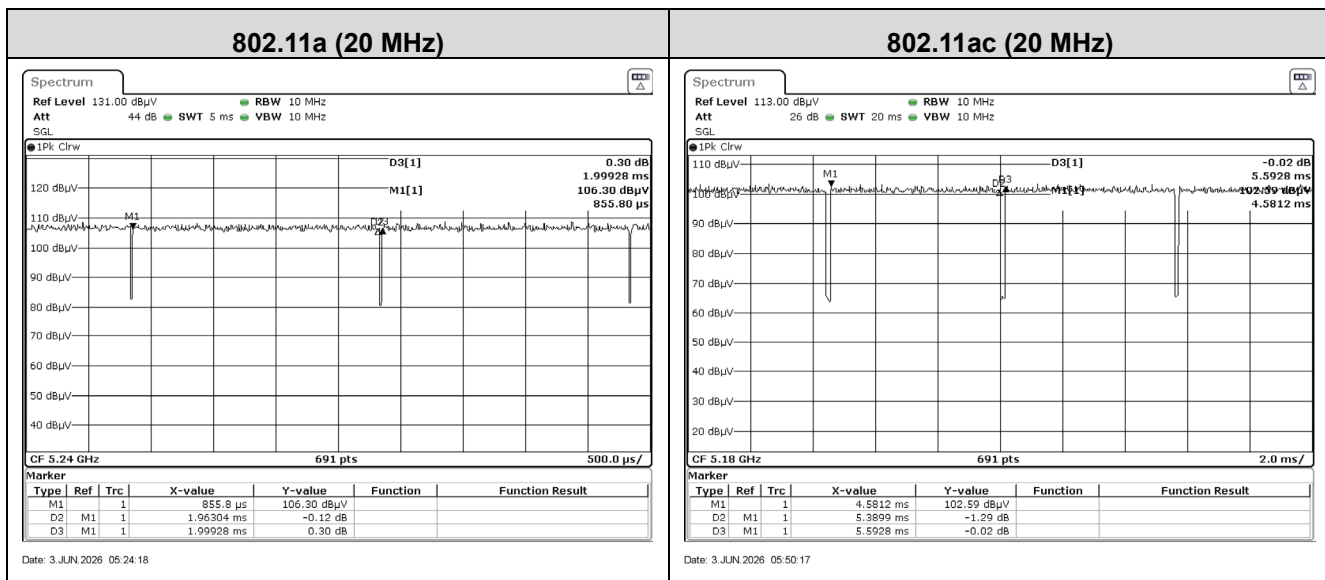
| EUT Operational Condition |                                     |
|---------------------------|-------------------------------------|
| Testing Voltage           | AC 120V/60Hz to DC 54V (AC Adapter) |

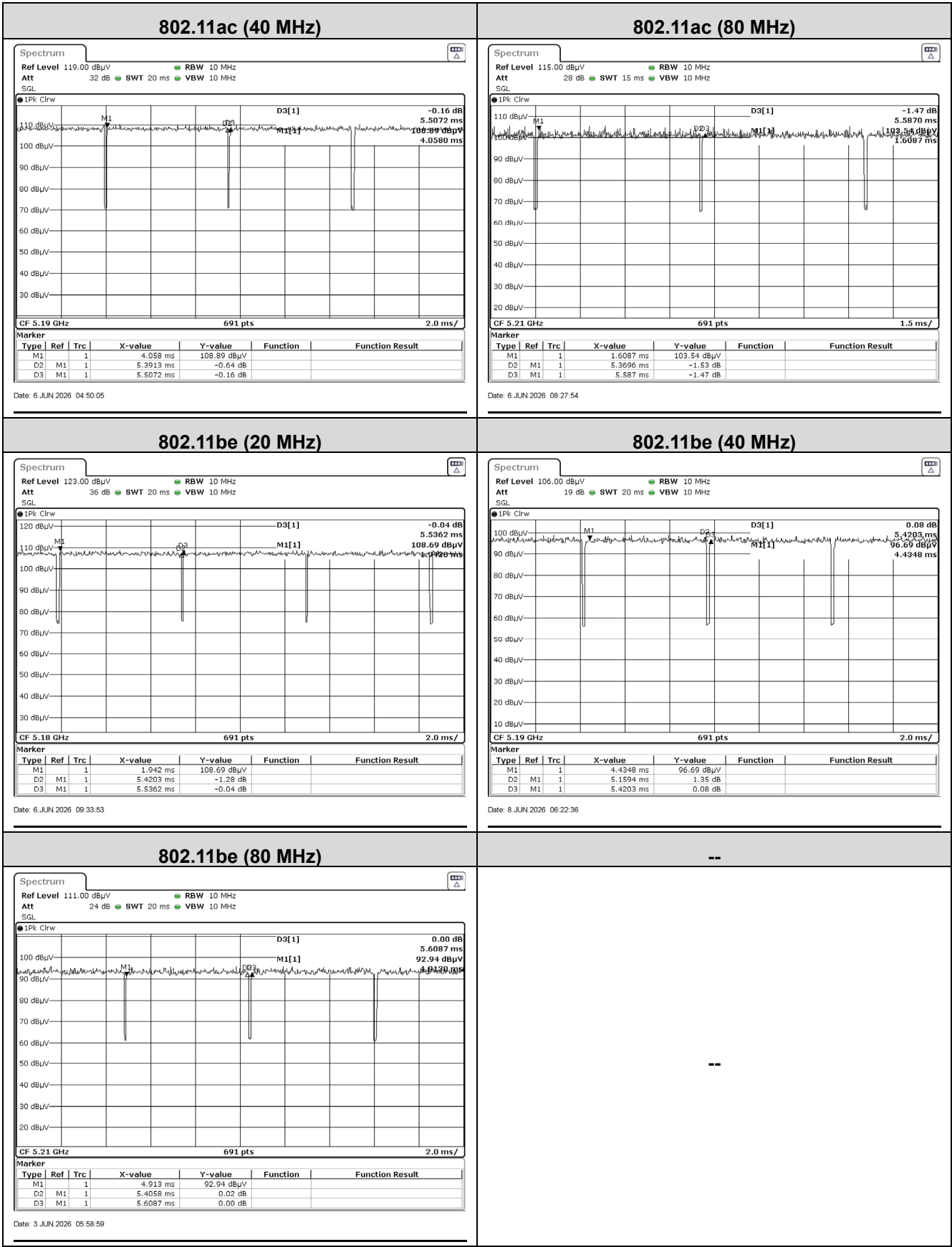
### 2.2. Test Frequency Mode

|                       |                             |
|-----------------------|-----------------------------|
| Test Software Version | QSPR / Version 6.00.00215.1 |
|-----------------------|-----------------------------|

### 2.3. Duty Cycle

| Modulation        | On Time (ms) | On+Off Time (ms) | Duty Cycle (%) | Duty Factor (dB) | 1/T Minimum VBW (Hz) |
|-------------------|--------------|------------------|----------------|------------------|----------------------|
| 802.11a (20 MHz)  | 1.9630       | 1.9993           | 98.19          | 0.08             | 10                   |
| 802.11ac (20 MHz) | 5.3899       | 5.5928           | 96.37          | 0.16             | 200                  |
| 802.11ac (40 MHz) | 5.3913       | 5.5072           | 97.90          | 0.09             | 200                  |
| 802.11ac (80 MHz) | 5.3696       | 5.5870           | 96.11          | 0.17             | 200                  |
| 802.11be (20 MHz) | 5.4203       | 5.5362           | 97.91          | 0.09             | 200                  |
| 802.11be (40 MHz) | 5.1594       | 5.4203           | 95.19          | 0.21             | 200                  |
| 802.11be (80 MHz) | 5.4058       | 5.6087           | 96.38          | 0.16             | 200                  |





## 2.4. Measurement Configuration

|                |                                                          |
|----------------|----------------------------------------------------------|
| Tests Item     | AC Power Line Conducted Emission                         |
| Test Condition | AC power line conducted measurement for line and neutral |
| Operating Mode | Transmit                                                 |

|                |                                                                                        |
|----------------|----------------------------------------------------------------------------------------|
| Tests Item     | Emission Bandwidth<br>Maximum Conducted Output Power<br>Maximum Power Spectral Density |
| Test Condition | Conducted measurement at transmit chains                                               |
| Operating Mode | Transmit                                                                               |

|                       |                                                                                                                                                                                                                                                     |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tests Item            | Radiated Emission                                                                                                                                                                                                                                   |
| Test Condition        | Radiated measurement<br>If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type. |
| Operating Mode < 1GHz | Transmit                                                                                                                                                                                                                                            |
| Operating Mode > 1GHz | Transmit                                                                                                                                                                                                                                            |

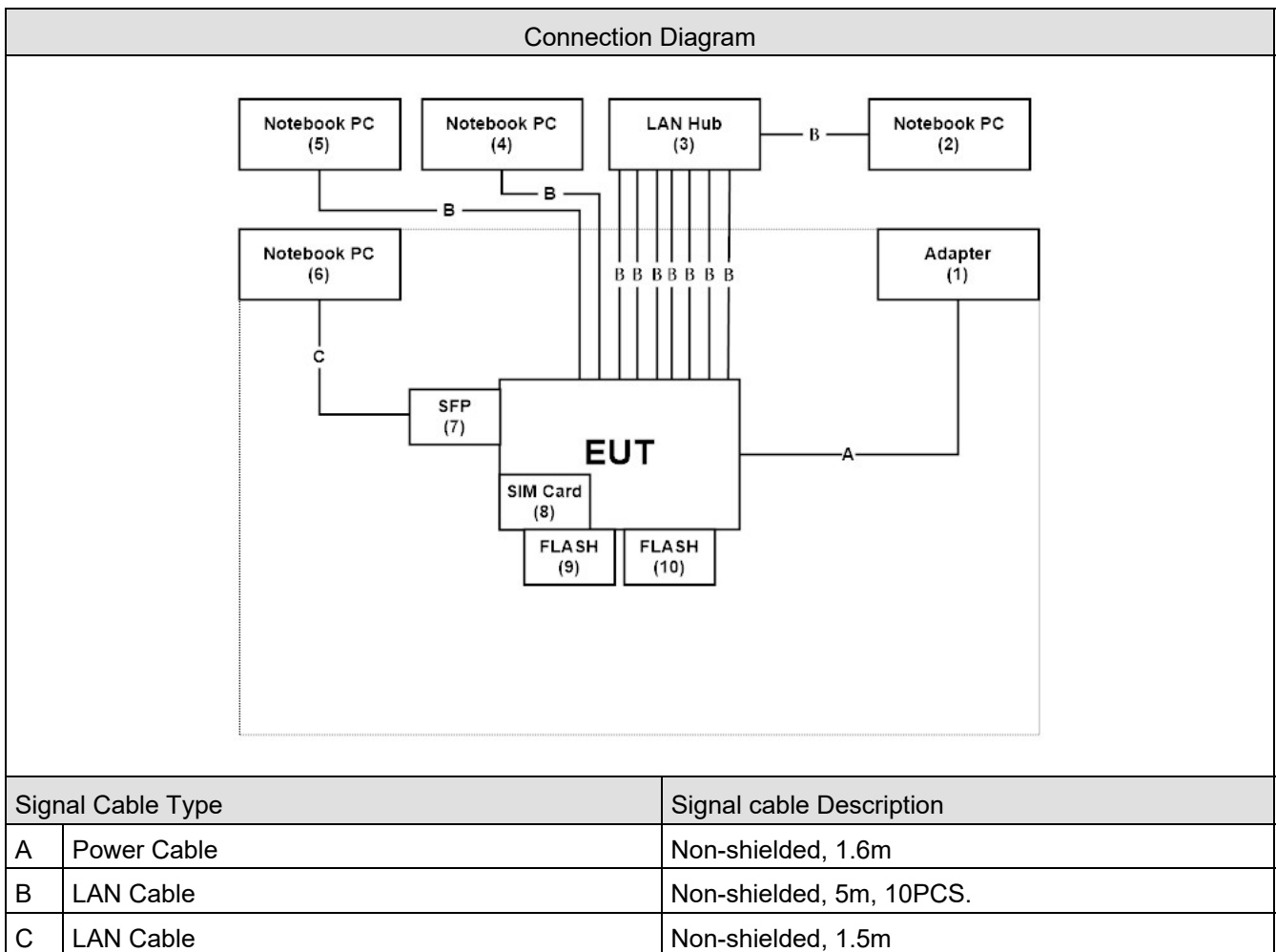
### Note:

1. Determining compliance shall be based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. For radiated emission below 1 GHz and AC power line conducted emission have performed all modes of operation were investigated and the worst-case emissions are reported.
3. Lowest data rates are tested in each mode. Only worst case is shown in the report.  
(802.11a is 6 Mbps, 802.11n is MCS0, 802.11ac is MCS0, 802.11ax is MCS0, 802.11be is MCS0.)
4. The modulation and bandwidth are similar across 802.11n mode, 802.11ac mode, 802.11ax mode, and 802.11be mode. Therefore, the worst case was evaluated and selected to represent the 802.11ac and 802.11be modes in the test report.

## 2.5. Tested System Details

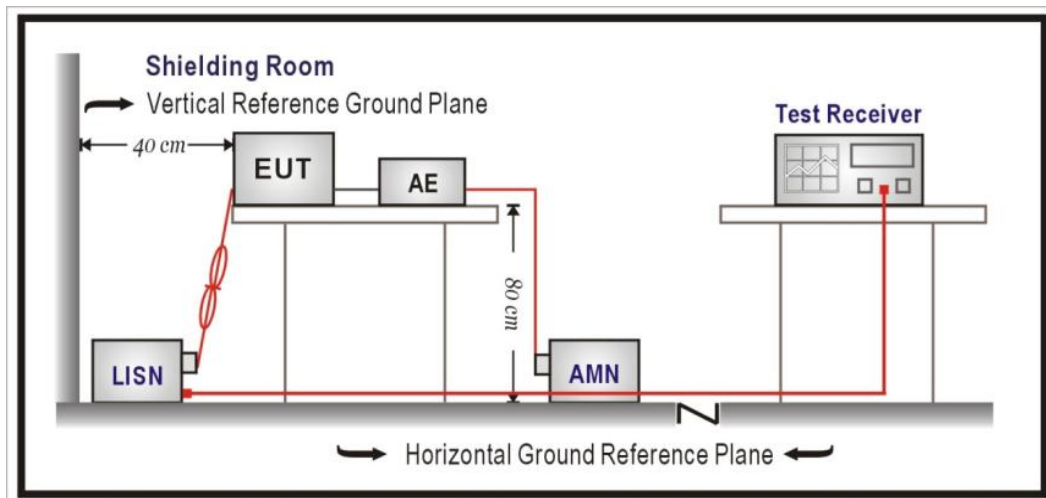
| No. | Equipment   | Brand Name | Model No.          | Serial No.    | Power Cord |
|-----|-------------|------------|--------------------|---------------|------------|
| 1   | Adapter     | FSP        | FSP280-AWAU3       | N/A           | N/A        |
| 2   | Notebook PC | ACER       | N19Q7              | N/A           | N/A        |
| 3   | LAN Hub     | TP-LINK    | TL-SG108           | 2161597000471 | N/A        |
| 4   | Notebook PC | DELL       | P62G               | CY9FJC2       | N/A        |
| 5   | Notebook PC | DELL       | Latitude 5501      | GS9GL13       | N/A        |
| 6   | Notebook PC | DELL       | Latitude E5440     | FS9TK32       | N/A        |
| 7   | SFP         | Dawnray    | SFP+10G-T          | N/A           | N/A        |
| 8   | SIM Card    | R&S        | CMW-Z06            | N/A           | N/A        |
| 9   | FLASH       | Transcend  | JetFlash 790C/64GB | N/A           | N/A        |
| 10  | FLASH       | Transcend  | JetFlash 790C/64GB | N/A           | N/A        |

## 2.6. Configuration of Tested System



### 3. AC Power Line Conducted Emission

#### 3.1. Test Setup



#### 3.2. Test Limit

| Frequency (MHz) | QP (dBuV) | AV (dBuV) |
|-----------------|-----------|-----------|
| 0.15 - 0.50     | 66 - 56   | 56 - 46   |
| 0.50 - 5.0      | 56        | 46        |
| 5.0 - 30        | 60        | 50        |

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

#### 3.3. Test Procedure

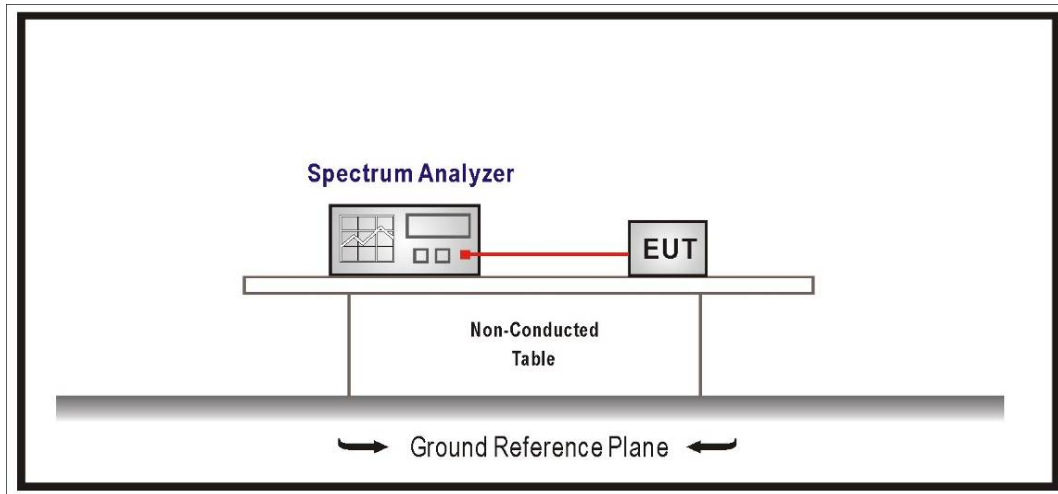
The EUT was setup according to ANSI C63.10-2020 for AC Power Line Conducted Emissions.

#### 3.4. Test Result of AC Power Line Conducted Emission

Refer as Appendix A

## 4. Emission Bandwidth

### 4.1. Test Setup



### 4.2. Test Limit

26dB Bandwidth & 99% Occupied Bandwidth : No Required

DTS Bandwidth  $\geq$  500kHz

### 4.3. Test Procedure

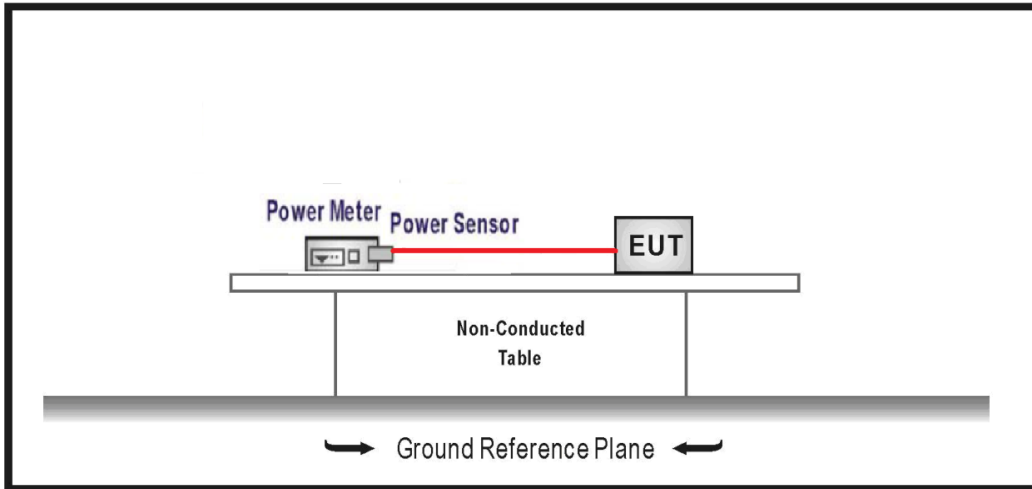
The EUT was setup to ANSI C63.10-2020; tested to U-NII test procedure of KDB 789033.

### 4.4. Test Result of Emission Bandwidth

Refer as Appendix B

## 5. Maximum Conducted Output Power

### 5.1. Test Setup



### 5.2. Test Limit

1. For an outdoor access point and an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
2. For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or  $11 \text{ dBm} + 10 \log B$ , where B is the 26 dB emission bandwidth in megahertz. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
3. For the band 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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### **5.3. Test Procedure**

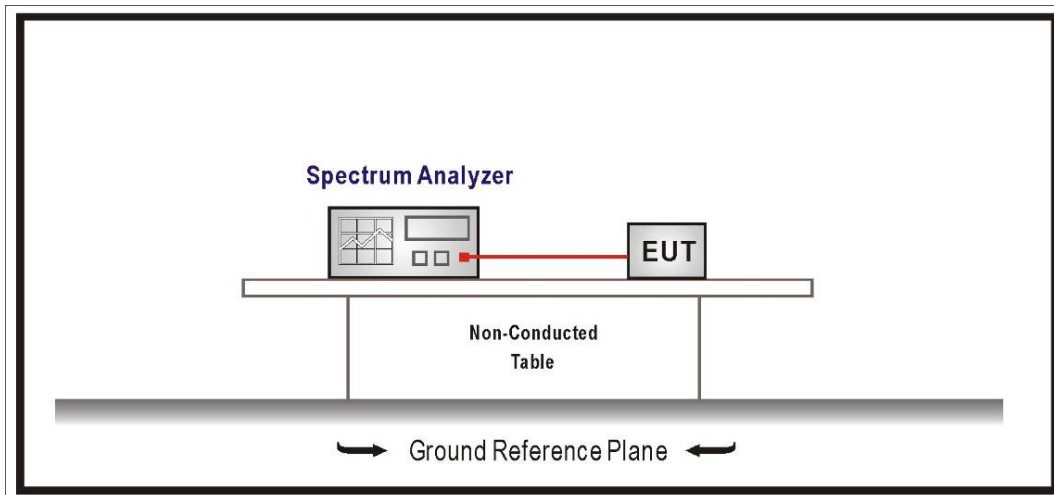
The EUT was setup to ANSI C63.10-2020; tested to U-NII test procedure of KDB 789033.

### **5.4. Test Result of Maximum Conducted Output Power**

Refer as Appendix C

## 6. Maximum Power Spectral Density

### 6.1. Test Setup



### 6.2. Test Limit

1. For the band 5.15 ~ 5.25 GHz, the peak power spectral density shall not exceed 17 dBm in any 1 MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
2. For client devices in the 5.15 ~ 5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi
3. For the 5.25 ~ 5.35 GHz ,5470 ~ 5600 MHz and 5650 ~ 5725 MHz, the peak power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
4. For the band 5.725 ~ 5.850 GHz, the peak power spectral density shall not exceed 30 dBm in any 500 kHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.

### 6.3. Test Procedure

The EUT was setup to ANSI C63.10-2020; tested to U-NII test procedure of KDB 789033.

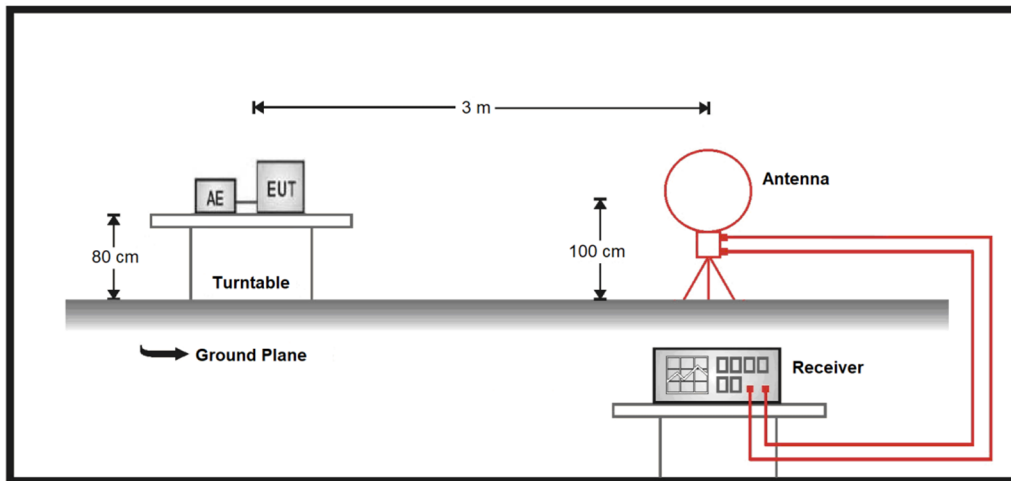
### 6.4. Test Result of Maximum Power Spectral Density

Refer as Appendix D

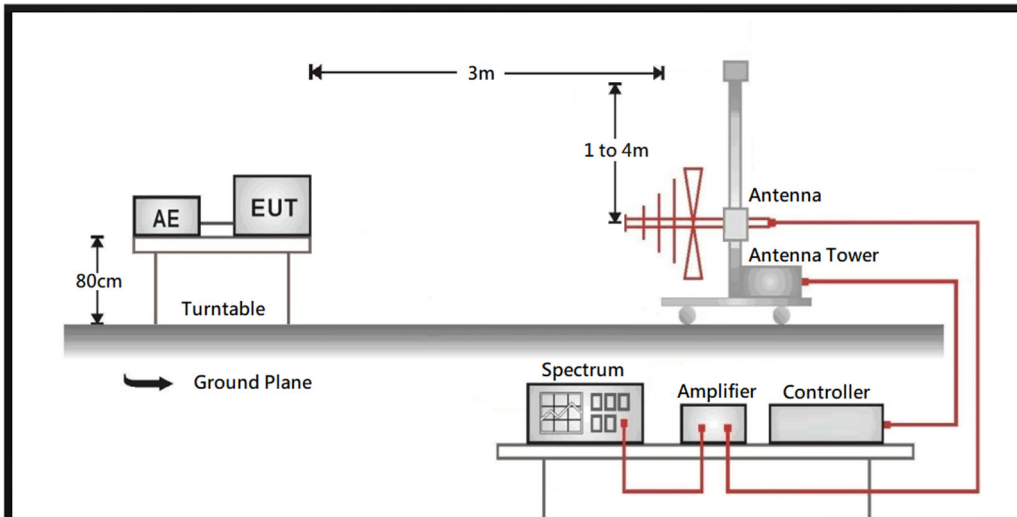
## 7. Radiated Emission

### 7.1. Test Setup

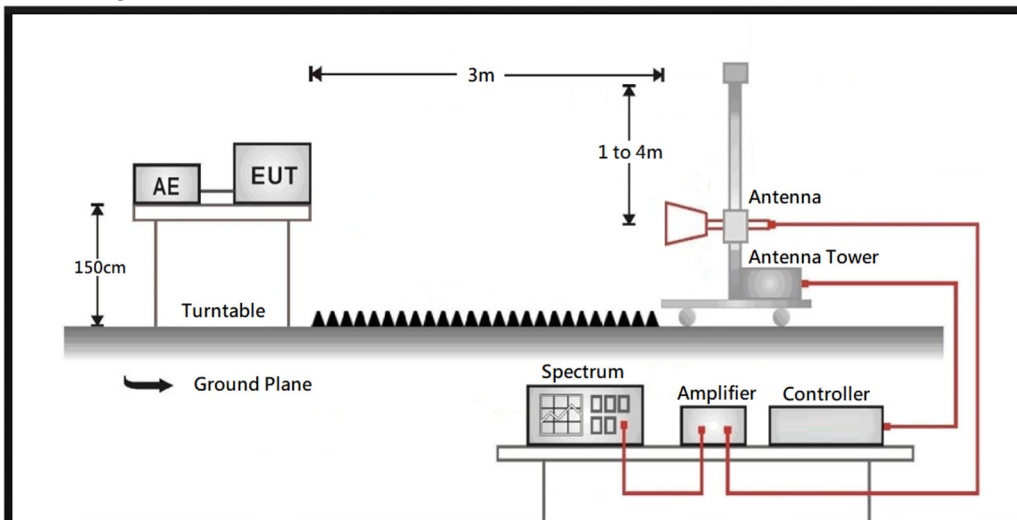
9 kHz ~ 30 MHz



30 MHz ~ 1 GHz



Above 1 GHz



## 7.2. Test Limit

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

Remarks:

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

### Unwanted Emission out of the restricted bands Test Limit

| Frequency (MHz) | EIRP Limit (dBm/MHz) | Equivalent Field Strength (dBμV/m@3m) |
|-----------------|----------------------|---------------------------------------|
| 5150 – 5250     | -27                  | 68.2                                  |
| 5250 – 5350     | -27                  | 68.2                                  |
| 5470 – 5725     | -27                  | 68.2                                  |
| 5725 – 5850     | -27 <sup>*1</sup>    | 68.2 <sup>*1</sup>                    |
|                 | 10 <sup>*2</sup>     | 105.2 <sup>*2</sup>                   |
|                 | 15.6 <sup>*3</sup>   | 110.8 <sup>*3</sup>                   |
|                 | 27 <sup>*4</sup>     | 122.2 <sup>*4</sup>                   |

<sup>\*1</sup> beyond 75 MHz or more above of the band edge.

<sup>\*2</sup> below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.

<sup>\*3</sup> below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.

<sup>\*4</sup> from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Remark:

The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000\sqrt{30P}}{3} \text{ uV/m, where P is the eirp (Watts).}$$

### **7.3. Test Procedure**

The EUT and all the supporting units are placed on a turn table which is 0.8 or 1.5 meters above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10-2020 on radiated measurement.

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

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

### **7.4. Test Result of Radiated Emission (Below 30 MHz)**

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

### **7.5. Test Result of Radiated Emission**

Refer as Appendix E