



# RADIO TEST REPORT

**FCC ID** : Z3WAIR4985  
**Equipment** : Wi-Fi 6E Smart Mesh System  
**Brand Name** : Airties  
**Model Name** : Air 4985  
**Applicant** : Airties Wireless Networks  
Sehit Mehmet Mikdat Uluunlu Sokagi No:23  
Esentepe, Sisli İstanbul, 34394 Turkey  
**Manufacturer** : Airties Wireless Networks  
Sehit Mehmet Mikdat Uluunlu Sokagi No:23  
Esentepe, Sisli İstanbul, 34394 Turkey  
**Standard** : 47 CFR FCC Part 15.407

The product was received on Jan. 06, 2023, and testing was started from Jan. 06, 2023 and completed on Jan. 19, 2023. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The test results in this variant report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

**Sporton International Inc. Hsinchu Laboratory**

No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)



## Table of Contents

|                                                                      |           |
|----------------------------------------------------------------------|-----------|
| <b>History of this test report.....</b>                              | <b>3</b>  |
| <b>Summary of Test Result.....</b>                                   | <b>4</b>  |
| <b>1 General Description .....</b>                                   | <b>5</b>  |
| 1.1 Information.....                                                 | 5         |
| 1.2 Applicable Standards .....                                       | 12        |
| 1.3 Testing Location Information .....                               | 12        |
| 1.4 Measurement Uncertainty .....                                    | 12        |
| <b>2 Test Configuration of EUT .....</b>                             | <b>13</b> |
| 2.1 The Worst Case Measurement Configuration .....                   | 13        |
| 2.2 EUT Operation during Test .....                                  | 14        |
| 2.3 Accessories .....                                                | 15        |
| 2.4 Support Equipment.....                                           | 15        |
| 2.5 Test Setup Diagram .....                                         | 17        |
| <b>3 Transmitter Test Result .....</b>                               | <b>21</b> |
| 3.1 AC Power-line Conducted Emissions .....                          | 21        |
| 3.2 Unwanted Emissions.....                                          | 23        |
| <b>4 Test Equipment and Calibration Data .....</b>                   | <b>27</b> |
| <b>Appendix A. Test Results of AC Power-line Conducted Emissions</b> |           |
| <b>Appendix B. Test Results of Unwanted Emissions</b>                |           |
| <b>Appendix C. Test Photos</b>                                       |           |
| <b>Photographs of EUT v01</b>                                        |           |



## History of this test report

TEL : 886-3-656-9065  
FAX : 886-3-656-9085  
Report Template No.: CB-A12\_1 Ver1.4

Page Number : 3 of 28  
Issued Date : Jun. 12, 2023  
Report Version : 01



## Summary of Test Result

| Report Clause | Ref Std. Clause | Test Items                        | Result (PASS/FAIL) | Remark |
|---------------|-----------------|-----------------------------------|--------------------|--------|
| 1.1.2         | 15.203          | Antenna Requirement               | PASS               | -      |
| 3.1           | 15.207          | AC Power-line Conducted Emissions | PASS               | -      |
| 3.2           | 15.407(b)       | Unwanted Emissions                | PASS               | -      |

**Conformity Assessment Condition:**

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the chapter "Measurement Uncertainty".

**Disclaimer:**

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

**Reviewed by: Sam Chen**

**Report Producer: Viola Huang**



# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

| Frequency Range (MHz) | IEEE Std. 802.11                       | Ch. Frequency (MHz) | Channel Number |
|-----------------------|----------------------------------------|---------------------|----------------|
| 5150-5250             | a, n (HT20), ac (VHT20),<br>ax (HEW20) | 5180-5240           | 36-48 [4]      |
| 5250-5350             |                                        | 5260-5320           | 52-64 [4]      |
| 5470-5725             |                                        | 5500-5720           | 100-144 [12]   |
| 5725-5850             |                                        | 5745-5825           | 149-165 [5]    |
| 5150-5250             | n (HT40), ac (VHT40),<br>ax (HEW40)    | 5190-5230           | 38-46 [2]      |
| 5250-5350             |                                        | 5270-5310           | 54-62 [2]      |
| 5470-5725             |                                        | 5510-5710           | 102-142 [6]    |
| 5725-5850             |                                        | 5755-5795           | 151-159 [2]    |
| 5150-5250             | ac (VHT80), ax (HEW80)                 | 5210                | 42 [1]         |
| 5250-5350             |                                        | 5290                | 58 [1]         |
| 5470-5725             |                                        | 5530-5690           | 106-138 [3]    |
| 5725-5850             |                                        | 5775                | 155 [1]        |
| 5150-5350             | ac (VHT160),<br>ax (HEW160)            | 5250                | 50 [1]         |
| 5470-5725             |                                        | 5570                | 114 [1]        |

| Band         | Mode              | BWch (MHz) | Nant |
|--------------|-------------------|------------|------|
| 5.15-5.25GHz | 802.11a           | 20         | 4TX  |
| 5.15-5.25GHz | 802.11n HT20      | 20         | 4TX  |
| 5.15-5.25GHz | 802.11n HT20-BF   | 20         | 4TX  |
| 5.15-5.25GHz | 802.11ac VHT20    | 20         | 4TX  |
| 5.15-5.25GHz | 802.11ac VHT20-BF | 20         | 4TX  |
| 5.15-5.25GHz | 802.11ax HEW20    | 20         | 4TX  |
| 5.15-5.25GHz | 802.11ax HEW20-BF | 20         | 4TX  |
| 5.15-5.25GHz | 802.11n HT40      | 40         | 4TX  |
| 5.15-5.25GHz | 802.11n HT40-BF   | 40         | 4TX  |
| 5.15-5.25GHz | 802.11ac VHT40    | 40         | 4TX  |
| 5.15-5.25GHz | 802.11ac VHT40-BF | 40         | 4TX  |
| 5.15-5.25GHz | 802.11ax HEW40    | 40         | 4TX  |
| 5.15-5.25GHz | 802.11ax HEW40-BF | 40         | 4TX  |
| 5.15-5.25GHz | 802.11ac VHT80    | 80         | 4TX  |
| 5.15-5.25GHz | 802.11ac VHT80-BF | 80         | 4TX  |
| 5.15-5.25GHz | 802.11ax HEW80    | 80         | 4TX  |



| Band          | Mode               | BWch (MHz) | Nant |
|---------------|--------------------|------------|------|
| 5.15-5.25GHz  | 802.11ax HEW80-BF  | 80         | 4TX  |
| 5.15-5.35GHz  | 802.11ac VHT160    | 160        | 4TX  |
| 5.15-5.35GHz  | 802.11ac VHT160-BF | 160        | 4TX  |
| 5.15-5.35GHz  | 802.11ax HEW160    | 160        | 4TX  |
| 5.15-5.35GHz  | 802.11ax HEW160-BF | 160        | 4TX  |
| 5.25-5.35GHz  | 802.11a            | 20         | 4TX  |
| 5.25-5.35GHz  | 802.11n HT20       | 20         | 4TX  |
| 5.25-5.35GHz  | 802.11n HT20-BF    | 20         | 4TX  |
| 5.25-5.35GHz  | 802.11ac VHT20     | 20         | 4TX  |
| 5.25-5.35GHz  | 802.11ac VHT20-BF  | 20         | 4TX  |
| 5.25-5.35GHz  | 802.11ax HEW20     | 20         | 4TX  |
| 5.25-5.35GHz  | 802.11ax HEW20-BF  | 20         | 4TX  |
| 5.25-5.35GHz  | 802.11n HT40       | 40         | 4TX  |
| 5.25-5.35GHz  | 802.11n HT40-BF    | 40         | 4TX  |
| 5.25-5.35GHz  | 802.11ac VHT40     | 40         | 4TX  |
| 5.25-5.35GHz  | 802.11ac VHT40-BF  | 40         | 4TX  |
| 5.25-5.35GHz  | 802.11ax HEW40     | 40         | 4TX  |
| 5.25-5.35GHz  | 802.11ax HEW40-BF  | 40         | 4TX  |
| 5.25-5.35GHz  | 802.11ac VHT80     | 80         | 4TX  |
| 5.25-5.35GHz  | 802.11ac VHT80-BF  | 80         | 4TX  |
| 5.25-5.35GHz  | 802.11ax HEW80     | 80         | 4TX  |
| 5.25-5.35GHz  | 802.11ax HEW80-BF  | 80         | 4TX  |
| 5.47-5.725GHz | 802.11a            | 20         | 4TX  |
| 5.47-5.725GHz | 802.11n HT20       | 20         | 4TX  |
| 5.47-5.725GHz | 802.11n HT20-BF    | 20         | 4TX  |
| 5.47-5.725GHz | 802.11ac VHT20     | 20         | 4TX  |
| 5.47-5.725GHz | 802.11ac VHT20-BF  | 20         | 4TX  |
| 5.47-5.725GHz | 802.11ax HEW20     | 20         | 4TX  |
| 5.47-5.725GHz | 802.11ax HEW20-BF  | 20         | 4TX  |
| 5.47-5.725GHz | 802.11n HT40       | 40         | 4TX  |
| 5.47-5.725GHz | 802.11n HT40-BF    | 40         | 4TX  |
| 5.47-5.725GHz | 802.11ac VHT40     | 40         | 4TX  |
| 5.47-5.725GHz | 802.11ac VHT40-BF  | 40         | 4TX  |
| 5.47-5.725GHz | 802.11ax HEW40     | 40         | 4TX  |
| 5.47-5.725GHz | 802.11ax HEW40-BF  | 40         | 4TX  |
| 5.47-5.725GHz | 802.11ac VHT80     | 80         | 4TX  |
| 5.47-5.725GHz | 802.11ac VHT80-BF  | 80         | 4TX  |
| 5.47-5.725GHz | 802.11ax HEW80     | 80         | 4TX  |
| 5.47-5.725GHz | 802.11ax HEW80-BF  | 80         | 4TX  |
| 5.47-5.725GHz | 802.11ac VHT160    | 160        | 4TX  |



| Band          | Mode               | BWch (MHz) | Nant |
|---------------|--------------------|------------|------|
| 5.47-5.725GHz | 802.11ac VHT160-BF | 160        | 4TX  |
| 5.47-5.725GHz | 802.11ax HEW160    | 160        | 4TX  |
| 5.47-5.725GHz | 802.11ax HEW160-BF | 160        | 4TX  |
| 5.725-5.85GHz | 802.11a            | 20         | 4TX  |
| 5.725-5.85GHz | 802.11n HT20       | 20         | 4TX  |
| 5.725-5.85GHz | 802.11n HT20-BF    | 20         | 4TX  |
| 5.725-5.85GHz | 802.11ac VHT20     | 20         | 4TX  |
| 5.725-5.85GHz | 802.11ac VHT20-BF  | 20         | 4TX  |
| 5.725-5.85GHz | 802.11ax HEW20     | 20         | 4TX  |
| 5.725-5.85GHz | 802.11ax HEW20-BF  | 20         | 4TX  |
| 5.725-5.85GHz | 802.11n HT40       | 40         | 4TX  |
| 5.725-5.85GHz | 802.11n HT40-BF    | 40         | 4TX  |
| 5.725-5.85GHz | 802.11ac VHT40     | 40         | 4TX  |
| 5.725-5.85GHz | 802.11ac VHT40-BF  | 40         | 4TX  |
| 5.725-5.85GHz | 802.11ax HEW40     | 40         | 4TX  |
| 5.725-5.85GHz | 802.11ax HEW40-BF  | 40         | 4TX  |
| 5.725-5.85GHz | 802.11ac VHT80     | 80         | 4TX  |
| 5.725-5.85GHz | 802.11ac VHT80-BF  | 80         | 4TX  |
| 5.725-5.85GHz | 802.11ax HEW80     | 80         | 4TX  |
| 5.725-5.85GHz | 802.11ax HEW80-BF  | 80         | 4TX  |

**Note:**

- ♦ 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ VHT20, VHT40, VHT80 and VHT160 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- ♦ HEW20, HEW40, HEW80 and HEW160 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- ♦ BWch is the nominal channel bandwidth.

**1.1.2 Antenna Information**

| Ant. | Port        |           |           | Brand   | Model Name | Antenna Type | Connector | Gain (dBi) |
|------|-------------|-----------|-----------|---------|------------|--------------|-----------|------------|
|      | WLAN 2.4GHz | WLAN 5GHz | WLAN 6GHz |         |            |              |           |            |
| 1    | 1           | -         | 1         | AirTies | ANT A00    | PCB          | N/A       | Note 1     |
| 2    | 2           | -         | 2         | AirTies | ANT A11    | PCB          | N/A       |            |
| 3    | -           | 1         | -         | AirTies | ANT A0X    | PCB          | N/A       |            |
| 4    | -           | 2         | -         | AirTies | ANT A1X    | PCB          | N/A       |            |
| 5    | -           | 3         | -         | AirTies | ANT A2X    | PCB          | N/A       |            |
| 6    | -           | 4         | -         | AirTies | ANT A3X    | PCB          | N/A       |            |

Note 1:

**<Antenna Gain>**

| Ant. | Port        |           |           | Antenna Gain (dBi) |           |         |         |        |           |        |        |        |
|------|-------------|-----------|-----------|--------------------|-----------|---------|---------|--------|-----------|--------|--------|--------|
|      | WLAN 2.4GHz | WLAN 5GHz | WLAN 6GHz | WLAN 2.4GHz        | WLAN 5GHz |         |         |        | WLAN 6GHz |        |        |        |
|      |             |           |           |                    | UNII 1    | UNII 2A | UNII 2C | UNII 3 | UNII 5    | UNII 6 | UNII 7 | UNII 8 |
| 1    | 1           | -         | 1         | 4.21               | -         | -       | -       | -      | 1.32      | 1.46   | 1.76   | 2.61   |
| 2    | 2           | -         | 2         | 4.42               | -         | -       | -       | -      | 1.62      | 1.98   | 2.47   | 2.12   |
| 3    | -           | 1         | -         | -                  | 3.49      | 3.27    | 2.85    | 2.09   | -         | -      | -      | -      |
| 4    | -           | 2         | -         | -                  | 3.58      | 2.61    | 4.52    | 2.72   | -         | -      | -      | -      |
| 5    | -           | 3         | -         | -                  | 2.41      | 2.6     | 3.51    | 5.47   | -         | -      | -      | -      |
| 6    | -           | 4         | -         | -                  | 4.45      | 4.89    | 4.53    | 4.93   | -         | -      | -      | -      |

**< Directional Gain>**

| Directional Gain (dBi) |             |           |         |         |        |           |        |        |        |
|------------------------|-------------|-----------|---------|---------|--------|-----------|--------|--------|--------|
| Item                   | WLAN 2.4GHz | WLAN 5GHz |         |         |        | WLAN 6GHz |        |        |        |
|                        |             | UNII 1    | UNII 2A | UNII 2C | UNII 3 | UNII 5    | UNII 6 | UNII 7 | UNII 8 |
| 2T1S                   | 4.52        | -         | -       | -       | -      | 3.75      | 3.57   | 4.12   | 4.26   |
| 4T1S                   | -           | 4.57      | 4.92    | 5.39    | 5.58   | -         | -      | -      | -      |

Note 2: The above information (except gain) was declared by manufacturer.

The directional gain is measured which follows the procedure of KDB 662911 D03.

Note 3: The EUT has six antennas.:

**For 2.4GHz function:****For 802.11 b/g/n/VHT/ax (2TX/2RX):**

Port 1 and Port 2 can be used as transmitting/receiving antenna.

Port 1 and Port 2 could transmit/receive simultaneously.

**For 5GHz function:****For 802.11a/n/ac/ax (4TX/4RX):**

Port 1, Port 2, Port 3 and Port 4 can be used as transmitting/receiving antenna.

Port 1, Port 2, Port 3 and Port 4 could transmit/receive simultaneously.

**For 6GHz function:****For 802.11ax (2TX/2RX):**

Port 1 and Port 2 can be used as transmitting/receiving antenna.

Port 1 and Port 2 could transmit/receive simultaneously.

**1.1.3 EUT Operational Condition**

|                                    |                                                                                              |                     |                                     |                      |
|------------------------------------|----------------------------------------------------------------------------------------------|---------------------|-------------------------------------|----------------------|
| <b>EUT Power Type</b>              | From Power Adapter                                                                           |                     |                                     |                      |
| <b>Beamforming Function</b>        | <input checked="" type="checkbox"/>                                                          | With beamforming    | <input type="checkbox"/>            | Without beamforming  |
|                                    | The product has beamforming function for n/VHT/ax in 2.4GHz, n/ac/ax in 5GHz and ax in 6GHz. |                     |                                     |                      |
| <b>Weather Band</b>                | <input checked="" type="checkbox"/>                                                          | With 5600~5650MHz   | <input type="checkbox"/>            | Without 5600~5650MHz |
| <b>Function</b>                    | <input type="checkbox"/>                                                                     | Outdoor P2M         | <input checked="" type="checkbox"/> | Indoor P2M           |
|                                    | <input type="checkbox"/>                                                                     | Fixed P2P           | <input type="checkbox"/>            | Client               |
|                                    | <input checked="" type="checkbox"/>                                                          | Point-to-multipoint | <input type="checkbox"/>            | Point-to-point       |
| <b>TPC Function</b>                | <input checked="" type="checkbox"/>                                                          | With TPC            | <input type="checkbox"/>            | Without TPC          |
| <b>Channel Puncturing Function</b> | <input type="checkbox"/>                                                                     | Supported           | <input checked="" type="checkbox"/> | Unsupported          |
| <b>Support RU</b>                  | <input checked="" type="checkbox"/>                                                          | Full RU             | <input type="checkbox"/>            | Partial RU           |
| <b>Test Software Version</b>       | Access Manual Tool 3.2.1.3                                                                   |                     |                                     |                      |
| <b>Serial Number</b>               | AW2862239000027                                                                              |                     |                                     |                      |
| <b>SW version</b>                  | 4.144.8.0_wltest                                                                             |                     |                                     |                      |
| <b>HW version</b>                  | PCB-4985-D01-M01-R03                                                                         |                     |                                     |                      |

Note: The above information was declared by manufacturer.

**1.1.4 Table for EUT supports functions**

| Function  | Support Band                                              |
|-----------|-----------------------------------------------------------|
| AP Router | WLAN 2.4GHz, WLAN 5GHz UNII 1~3<br>and WLAN 6GHz UNII 5~8 |
| Mesh      | WLAN 5GHz UNII 1~3 and WLAN 6GHz UNII 5~8                 |

Note 1: After evaluating, AP Router was selected to test and record in the report.

Note 2: The above information was declared by manufacturer.

**1.1.5 Mode Test Duty Cycle**

| Mode               | DC    | DCF(dB) | T(s)   | VBW(Hz) ≥ 1/T |
|--------------------|-------|---------|--------|---------------|
| 802.11a            | 0.947 | 0.24    | 2.064m | 1k            |
| 802.11ax HEW160-BF | 0.931 | 0.31    | 4.813m | 300           |

Note:

- ♦ DC is Duty Cycle.
- ♦ DCF is Duty Cycle Factor.



### 1.1.6 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FR281911AB

Below is the table for the change of the product with respect to the original one.

| Modifications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Performance Checking                                                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"><li>Adding one adapter model name: NBS24M120200VU</li><li>PCB layout and P/N changed from PCB-4985-D01-M01-R02 to PCB-4985-D01-M01-R03<br/>PCB layout and P/N changed from PCB-4985-D01-M01-R02 to PCB-4985-D01-M01-R03.</li><li>Layout change for adding capacitors new brand: Richtek, model NO. RT6278BHGQUF, and change power inductor, old brand: TAI-TECH, model No : TMPF0402LR-1R2MN-ABD, new brand: MAGLAYERS, model NO: MNR-8040-2R0N-CP.</li><li>Layout changed for 3.3V DC switcher.</li><li>Layout change for new DC switcher design , power inductor changed, old brand: Chilisin, model NO. BMMA000606301R2MX1, new brand : MAGLAYERS, model No. MNR-8040-1R4M-BL.</li><li>Layout change for new 5V DC switcher design</li><li>The RJ45 connector changed, The old Part Number: SK01-G110060NL ,brand: CSAK, and the new part number is SK01-G110067NL, brand: CSAK.</li><li>MLCCs have been added to CPU Core regulator output and Radio IC Core regulator output according to Broadcom suggestion.( C1091, C1092,C1094).<br/>Brand : Taiyo Yuden , model No: JMK107BC6106MA-T.</li><li>Reserved MLCCs have been added according to 1.8V power rail measurements, brand :Yageo , model NO. : CC0402KRX5R6BB104.</li><li>JTAG_SEL function of the Radio IC has been cancelled, and the component at position R178 has been removed.</li><li>Co-existence filters have been removed(by passed) from 2.4G RX Chains (U17, U19).</li></ol> | <ol style="list-style-type: none"><li>AC Conducted Emissions.</li><li>Unwanted Emissions Below 1GHz.</li></ol> |



|                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>12. MLCC capacitor packages have been removed for 6G &amp; 5G FEM supply circuitry, the placement is C412, C384, C356, C328.</p> <p>13. 6 GHZ Co-existence filters have been removed (by passed) from 5G RX Chains (FL1, FL4, FL7, FL10).</p> | <ol style="list-style-type: none"><li>1. AC Conducted Emissions.</li><li>2. Unwanted Emissions Below 1GHz.</li><li>3. Unwanted Emissions Above 1GHz,<br/>After evaluating, the worst case is found at 802.11a CH48 (5240MHz), 802.11ax HEW160-BF CH50 (5250MHz) and retest these channels only and for above 1GHz will be based on original output power to retest.</li></ol> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



## 1.2 Applicable Standards

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

- ♦ 47 CFR FCC Part 15
- ♦ ANSI C63.10-2013
- ♦ FCC KDB 789033 D02 v02r01

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

- ♦ FCC KDB 662911 D03 v01
- ♦ FCC KDB 412172 D01 v01r01
- ♦ FCC KDB 414788 D01 v01r01

## 1.3 Testing Location Information

| Testing Location Information                              |                                                                                                                                                                                                                                                 |
|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Lab. : Sporton International Inc. Hsinchu Laboratory |                                                                                                                                                                                                                                                 |
| Hsinchu<br>(TAF: 3787)                                    | ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)<br>TEL: 886-3-656-9065 FAX: 886-3-656-9085<br>Test site Designation No. TW3787 with FCC.<br>Conformity Assessment Body Identifier (CABID) TW3787 with ISCED. |

| Test Condition      | Test Site No. | Test Engineer | Test Environment (°C / %) | Test Date                   |
|---------------------|---------------|---------------|---------------------------|-----------------------------|
| Radiated Below 1GHz | 03CH05-CB     | Ederson Huang | 21.5~22.9 / 64~68         | Jan. 06, 2023~Jan. 18, 2023 |
| Radiated Above 1GHz | 03CH03-CB     | Wendy Hsu     | 23.8~24.9 / 55~58         | Jan. 10, 2023~Jan. 11, 2023 |
| AC Conduction       | CO01-CB       | Tum Chen      | 23~24 / 58~59             | Jan. 09, 2023~Jan. 19, 2023 |

## 1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

| Test Items                           | Uncertainty | Remark                   |
|--------------------------------------|-------------|--------------------------|
| Conducted Emission (150kHz ~ 30MHz)  | 3.4 dB      | Confidence levels of 95% |
| Radiated Emission (9kHz ~ 30MHz)     | 3.4 dB      | Confidence levels of 95% |
| Radiated Emission (30MHz ~ 1,000MHz) | 5.6 dB      | Confidence levels of 95% |
| Radiated Emission (1GHz ~ 18GHz)     | 5.2 dB      | Confidence levels of 95% |
| Radiated Emission (18GHz ~ 40GHz)    | 4.7 dB      | Confidence levels of 95% |

## 2 Test Configuration of EUT

### 2.1 The Worst Case Measurement Configuration

| The Worst Case Mode for Following Conformance Tests                           |                                                                                         |
|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| <b>Tests Item</b>                                                             | AC power-line conducted emissions                                                       |
| <b>Condition</b>                                                              | AC power-line conducted measurement for line and neutral<br>Test Voltage: 120Vac / 60Hz |
| <b>Operating Mode</b>                                                         | Normal Link                                                                             |
| 1                                                                             | AP Router Mode: EUT + Adapter 1                                                         |
| 2                                                                             | AP Router Mode: EUT + Adapter 2                                                         |
| For operating mode 2 is the worst case and it was record in this test report. |                                                                                         |

| The Worst Case Mode for Following Conformance Tests                                                                         |                                                                                                                                                                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tests Item</b>                                                                                                           | Unwanted Emissions                                                                                                                                                                                                                                  |
| <b>Test Condition</b>                                                                                                       | 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. |
| <b>Operating Mode &lt; 1GHz</b>                                                                                             | Normal Link                                                                                                                                                                                                                                         |
| 1                                                                                                                           | AP Router Mode: EUT in X axis + Adapter 1                                                                                                                                                                                                           |
| 2                                                                                                                           | AP Router Mode: EUT in Y axis + Adapter 1                                                                                                                                                                                                           |
| 3                                                                                                                           | AP Router Mode: EUT in Z axis + Adapter 1                                                                                                                                                                                                           |
| Mode 2 has been evaluated to be the worst case among Mode 1~3, thus measurement for Mode 4 will follow this same test mode. |                                                                                                                                                                                                                                                     |
| 4                                                                                                                           | AP Router Mode: EUT in Y axis + Adapter 2                                                                                                                                                                                                           |
| Mode 4 generated the worst test result, so it was recorded in this report.                                                  |                                                                                                                                                                                                                                                     |
| <b>Operating Mode &gt; 1GHz</b>                                                                                             | CTX<br>The EUT was performed at X axis, Y axis and Z axis position. The worst case was found at Y axis, thus the measurement will follow this same test                                                                                             |
| 1                                                                                                                           | EUT in Y axis                                                                                                                                                                                                                                       |



## **2.2 EUT Operation during Test**

For CTX Mode:

non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

beamforming mode:

During the test, the following programs under WIN XP were executed.

The program was executed as follows:

1. During the test, the EUT operation to normal function.
2. Executed command fixed test channel under DOS.
3. Executed "Lantest.exe" to link with the remote workstation to transmit and receive packet by WLAN module and transmit duty cycle no less than 98%.

For Normal Link:

During the test, the EUT operation to normal function.



## 2.3 Accessories

| Accessories                       |            |                       |                                                           |
|-----------------------------------|------------|-----------------------|-----------------------------------------------------------|
| Equipment Name                    | Brand Name | Model Name            | Rating                                                    |
| Adapter 1                         | MOSO       | MS-V2000R120-024H0-US | Input: 100-240V~50/60Hz, 0.7A max.<br>Output: 12.0V, 2.0A |
| Adapter 2                         | NetBit     | NBS24M120200VU        | Input: 100-120V~50/60Hz, 0.6A<br>Output: 12.0V, 2.0A      |
| Others                            |            |                       |                                                           |
| RJ-45 cable*1: Non-shielded, 1.5m |            |                       |                                                           |

## 2.4 Support Equipment

For AC Conduction:

| Support Equipment |             |            |            |        |
|-------------------|-------------|------------|------------|--------|
| No.               | Equipment   | Brand Name | Model Name | FCC ID |
| A                 | 2.5G WAN NB | DELL       | E6430      | N/A    |
| B                 | LAN NB      | DELL       | E6430      | N/A    |
| C                 | 2.4G NB     | DELL       | E6430      | N/A    |
| D                 | 5G NB       | DELL       | E6430      | N/A    |
| E                 | 6G NB       | DELL       | E6430      | N/A    |
| F                 | 6G Client   | INTEL      | AX210      | N/A    |

For Radiated (below 1GHz):

| Support Equipment |                     |            |            |            |
|-------------------|---------------------|------------|------------|------------|
| No.               | Equipment           | Brand Name | Model Name | FCC ID     |
| A                 | Notebook(LAN)       | DELL       | E4300      | N/A        |
| B                 | 2.5G PC(WAN)        | DELL       | T3400      | N/A        |
| C                 | Notebook(WIFI 2.4G) | DELL       | E4300      | N/A        |
| D                 | Notebook(WIFI 5G)   | DELL       | E4300      | N/A        |
| E                 | Notebook(WIFI 6E)   | DELL       | E4300      | N/A        |
| F                 | WLAN module         | Intel      | AX210NGW   | PD9AX210NG |



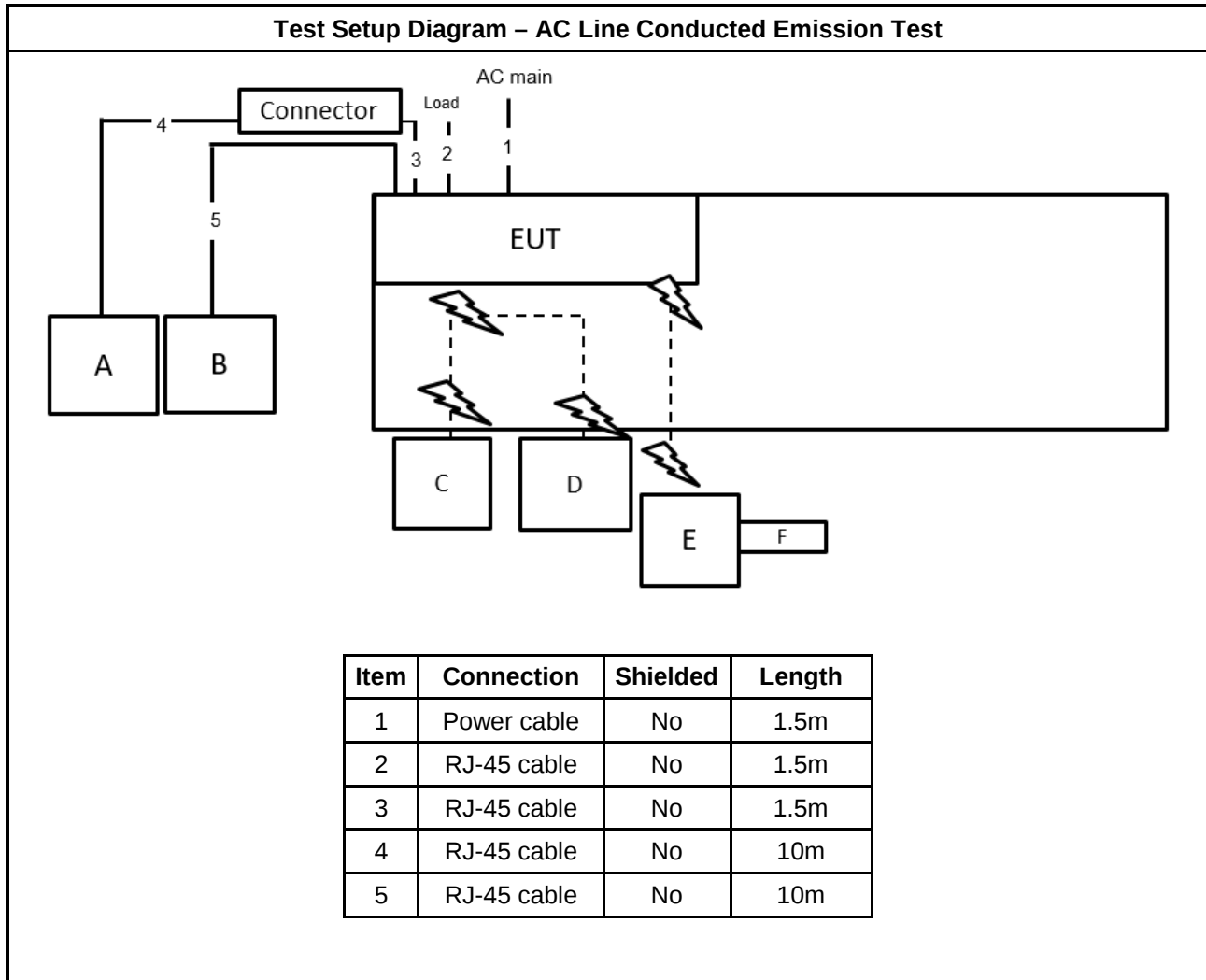
**For Radiated (above 1GHz):  
For non beamforming mode**

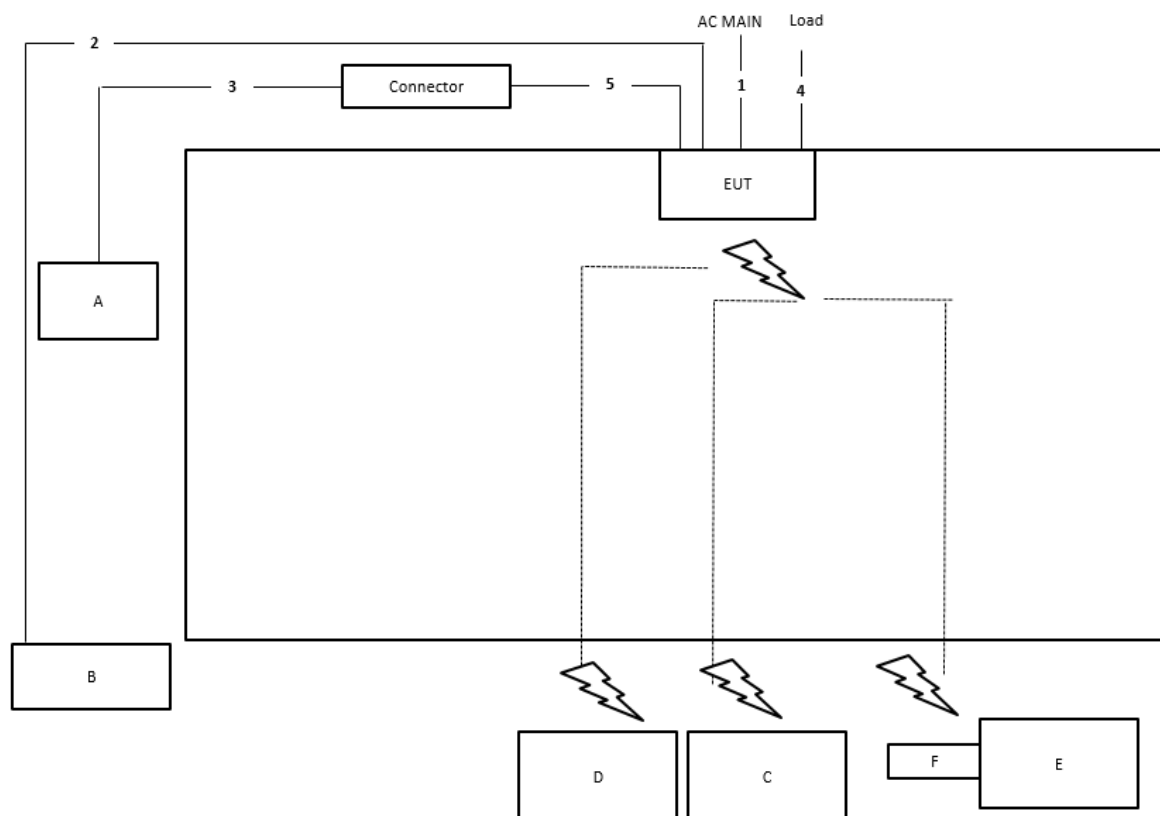
| Support Equipment |           |            |            |        |
|-------------------|-----------|------------|------------|--------|
| No.               | Equipment | Brand Name | Model Name | FCC ID |
| A                 | Notebook  | DELL       | E4300      | N/A    |

**For Beamforming mode**

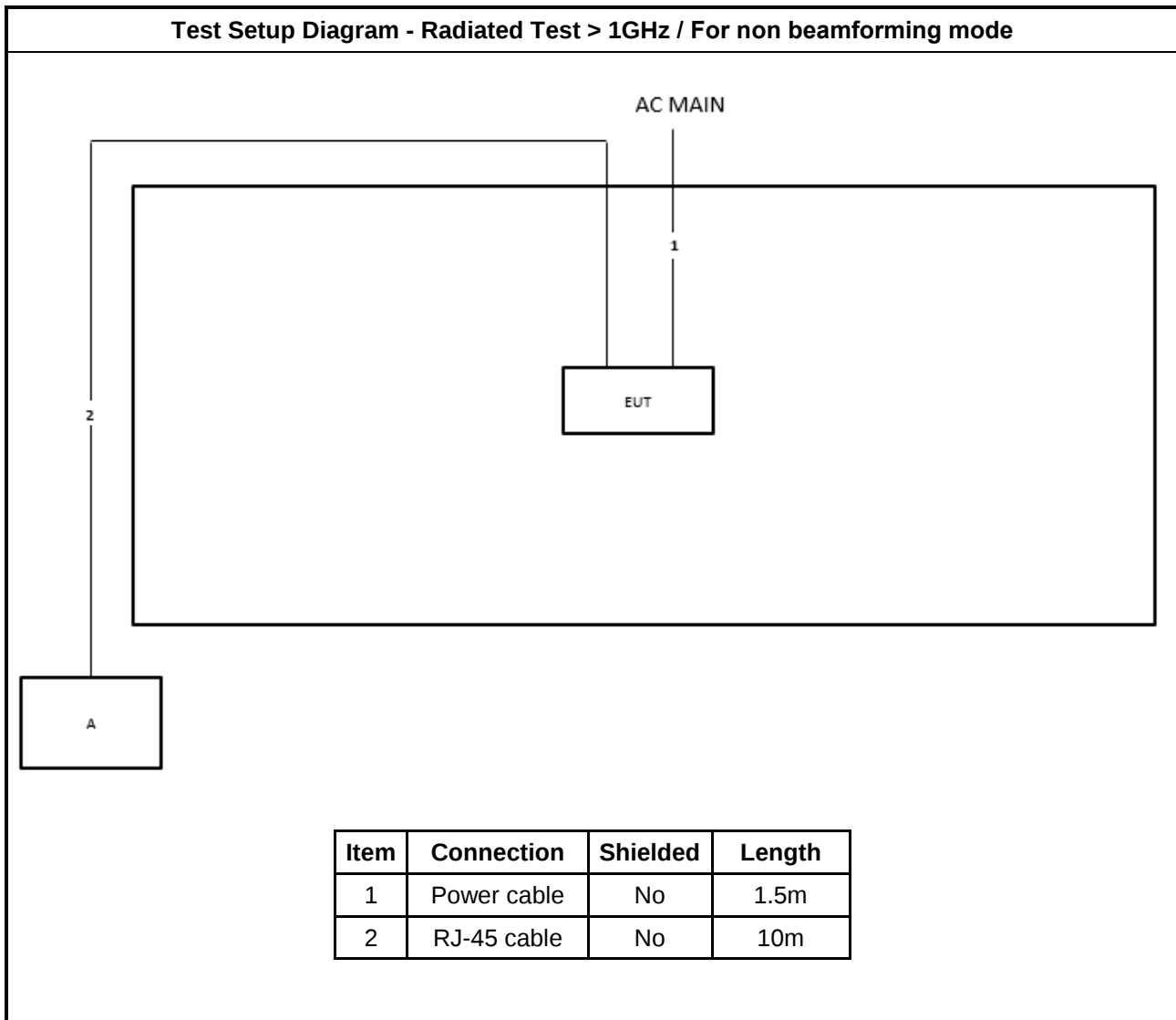
| Support Equipment |             |            |            |        |
|-------------------|-------------|------------|------------|--------|
| No.               | Equipment   | Brand Name | Model Name | FCC ID |
| A                 | Notebook    | DELL       | E4300      | N/A    |
| B                 | WLAN module | Intel      | AX210      | N/A    |
| C                 | Notebook    | DELL       | E4300      | N/A    |

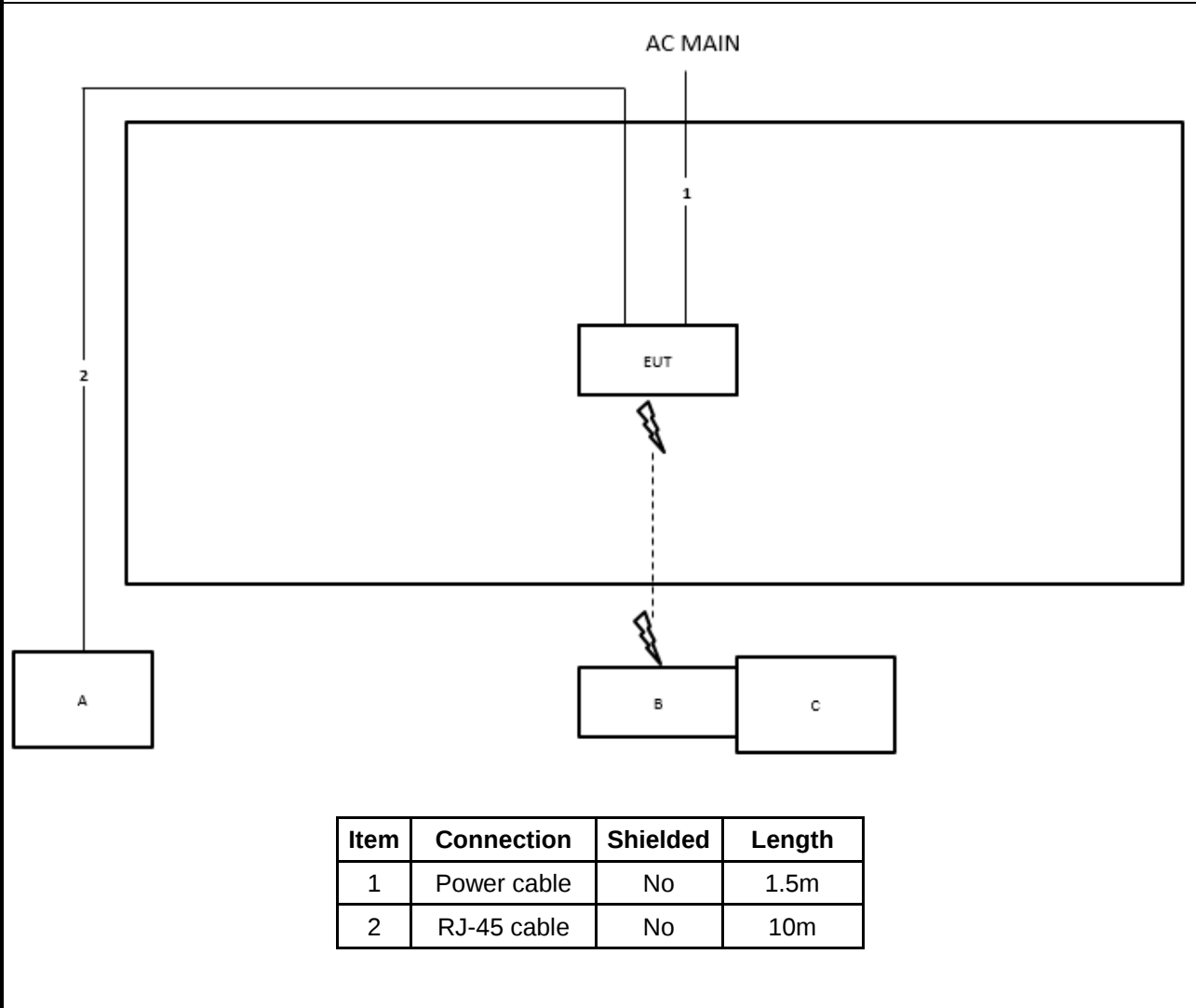
## 2.5 Test Setup Diagram



**Test Setup Diagram - Radiated Test < 1GHz**


| Item | Connection  | Shielded | Length |
|------|-------------|----------|--------|
| 1    | Power cable | No       | 1.5m   |
| 2    | RJ-45 cable | No       | 10m    |
| 3    | RJ-45 cable | No       | 10m    |
| 4    | RJ-45 cable | No       | 1.0m   |
| 5    | RJ-45 cable | No       | 1.5m   |

**Test Setup Diagram - Radiated Test > 1GHz / For non beamforming mode**


**Test Setup Diagram - Radiated Test > 1GHz / For beamforming mode**




### 3 Transmitter Test Result

#### 3.1 AC Power-line Conducted Emissions

##### 3.1.1 AC Power-line Conducted Emissions Limit

| AC Power-line Conducted Emissions Limit                  |            |           |
|----------------------------------------------------------|------------|-----------|
| Frequency Emission (MHz)                                 | Quasi-Peak | Average   |
| 0.15-0.5                                                 | 66 - 56 *  | 56 - 46 * |
| 0.5-5                                                    | 56         | 46        |
| 5-30                                                     | 60         | 50        |
| Note 1: * Decreases with the logarithm of the frequency. |            |           |

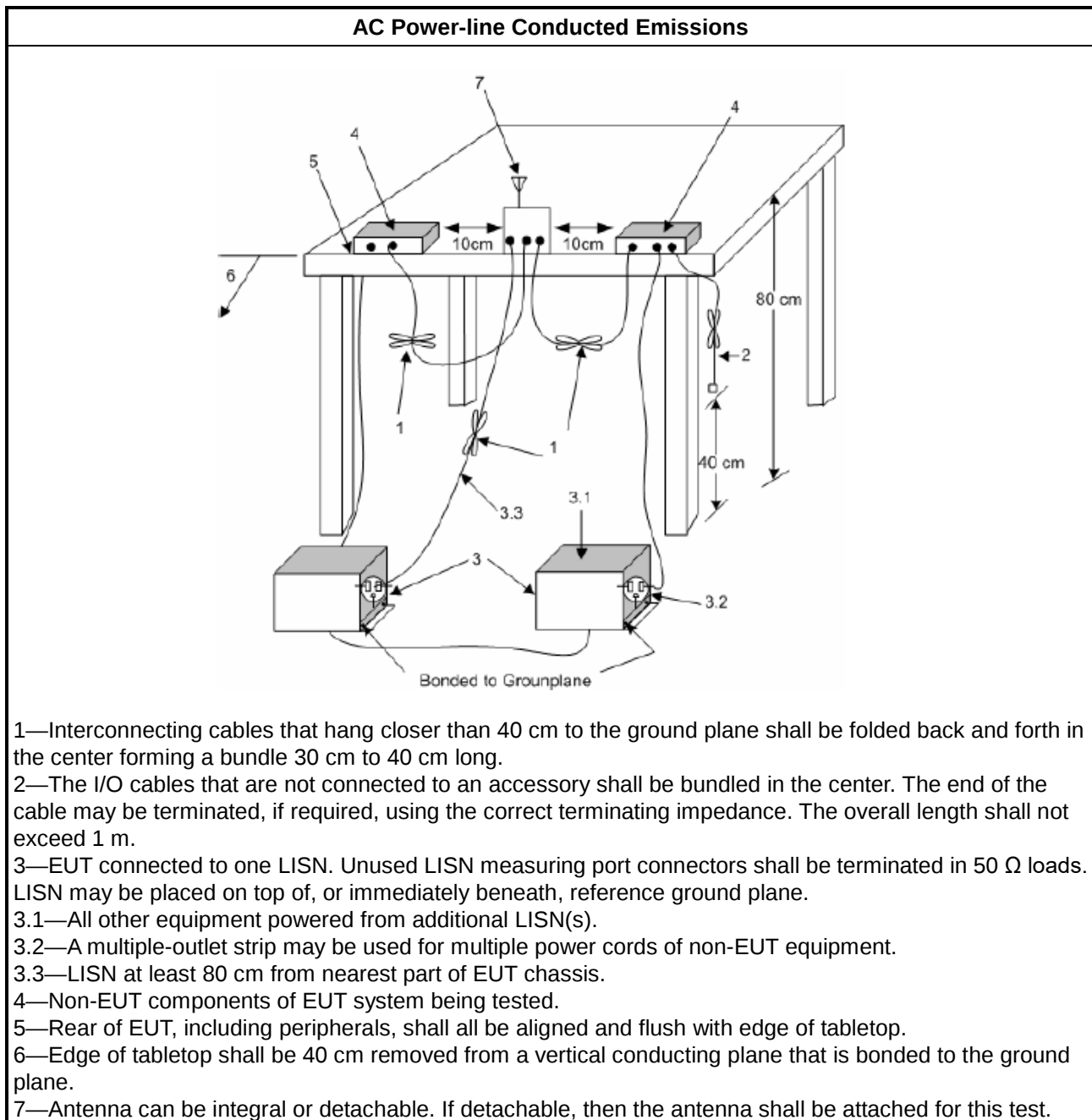
##### 3.1.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

##### 3.1.3 Test Procedures

| Test Method                                                                                                      |
|------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions. |

### 3.1.4 Test Setup



### 3.1.5 Measurement Results Calculation

The measured Level is calculated using:

- a. Corrected Reading: LISN Factor (LISN) + Attenuator (AT/AUX) + Cable Loss (CL) + Read Level (Raw) = Level
- b. Margin = -Limit + Level

### 3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A



## 3.2 Unwanted Emissions

### 3.2.1 Transmitter Unwanted Emissions Limit

| Unwanted emissions below 1 GHz and restricted band emissions above 1GHz limit |                       |                         |                      |
|-------------------------------------------------------------------------------|-----------------------|-------------------------|----------------------|
| Frequency Range (MHz)                                                         | Field Strength (uV/m) | Field Strength (dBuV/m) | Measure Distance (m) |
| 0.009~0.490                                                                   | 2400/F(kHz)           | 48.5 - 13.8             | 300                  |
| 0.490~1.705                                                                   | 24000/F(kHz)          | 33.8 - 23               | 30                   |
| 1.705~30.0                                                                    | 30                    | 29                      | 30                   |
| 30~88                                                                         | 100                   | 40                      | 3                    |
| 88~216                                                                        | 150                   | 43.5                    | 3                    |
| 216~960                                                                       | 200                   | 46                      | 3                    |
| Above 960                                                                     | 500                   | 54                      | 3                    |

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

| Un-restricted band emissions above 1GHz Limit        |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating Band                                       | Limit                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <input checked="" type="checkbox"/> 5.15 - 5.25 GHz  | e.i.r.p. -27 dBm [68.2 dBuV/m@3m]                                                                                                                                                                                                                                                                                                                                                                                               |
| <input checked="" type="checkbox"/> 5.25 - 5.35 GHz  | e.i.r.p. -27 dBm [68.2 dBuV/m@3m]                                                                                                                                                                                                                                                                                                                                                                                               |
| <input checked="" type="checkbox"/> 5.47 - 5.725 GHz | e.i.r.p. -27 dBm [68.2 dBuV/m@3m]                                                                                                                                                                                                                                                                                                                                                                                               |
| <input checked="" type="checkbox"/> 5.725 - 5.85 GHz | all emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge. |

Note 1: Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of



linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

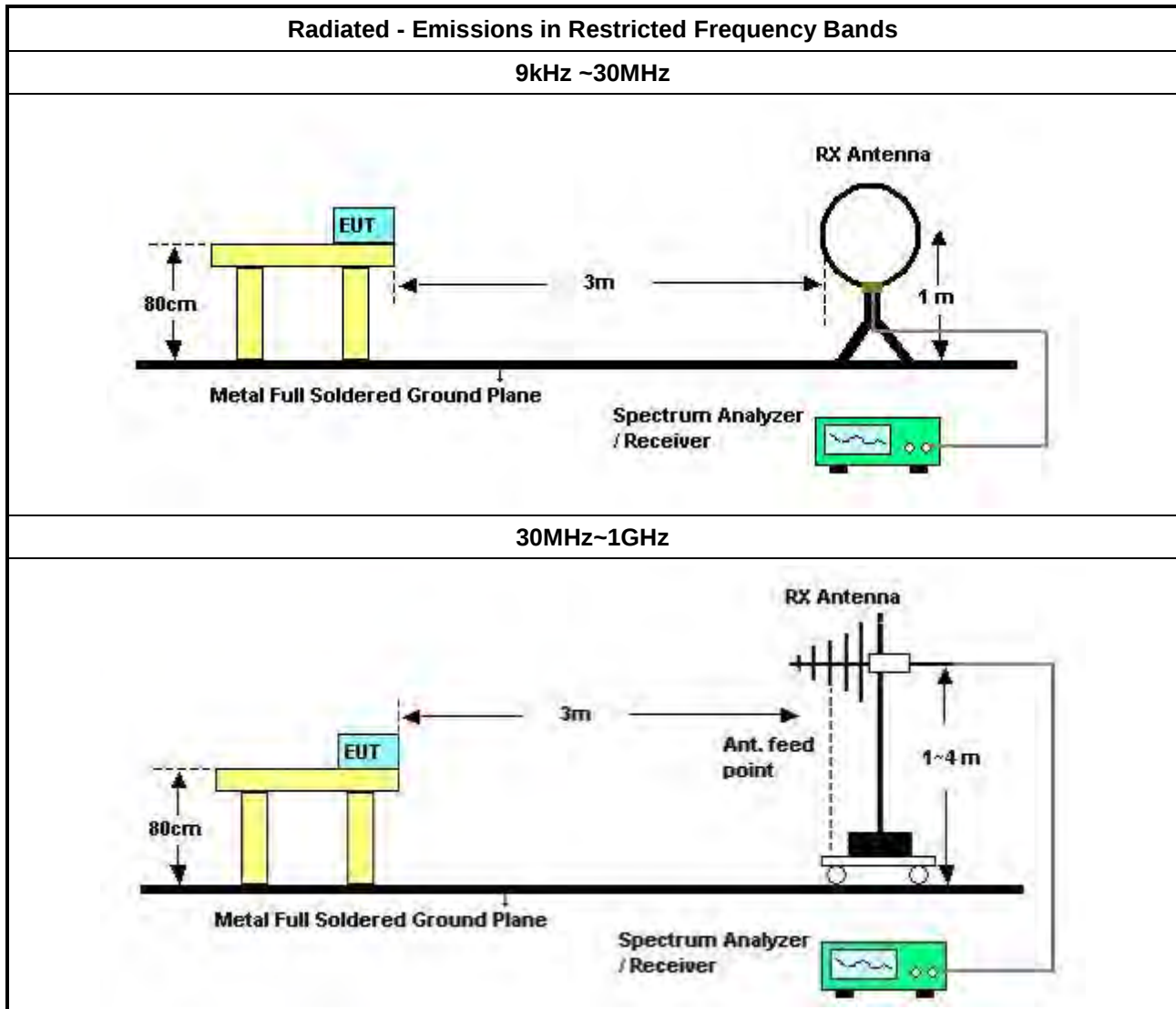
### 3.2.2 Measuring Instruments

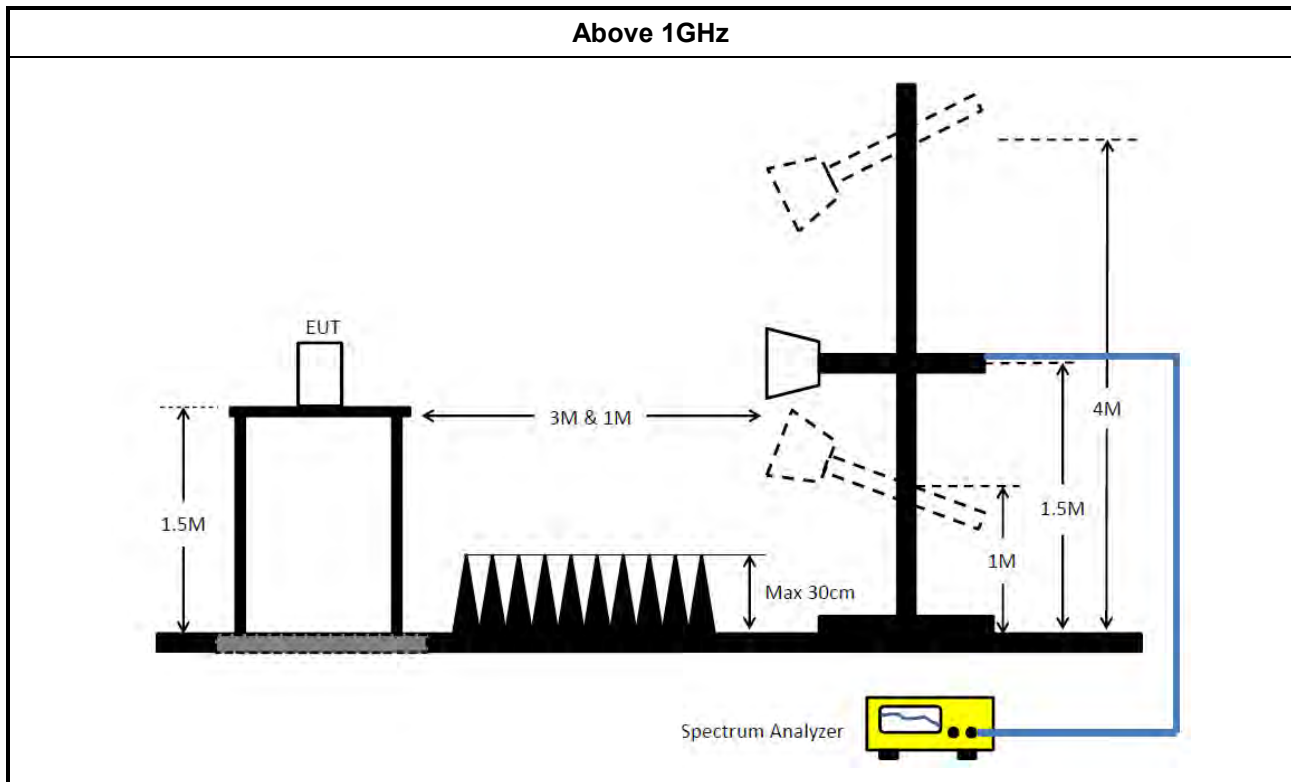
Refer a test equipment and calibration data table in this test report.

### 3.2.3 Test Procedures

| Test Method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).</li></ul> |                                                                                                                                                  |
| <ul style="list-style-type: none"><li>The average emission levels shall be measured in [duty cycle <math>\geq</math> 98 or duty factor].</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                  |
| <ul style="list-style-type: none"><li>For the transmitter unwanted emissions shall be measured using following options below:</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"><li>Refer as FCC KDB 789033 D02, clause G)2) for unwanted emissions into non-restricted bands.</li></ul>       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"><li>Refer as FCC KDB 789033 D02, clause G)1) for unwanted emissions into restricted bands.</li></ul>           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <input type="checkbox"/> Refer as FCC KDB 789033 D02, G)6) Method AD (Trace Averaging).                                                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <input checked="" type="checkbox"/> Refer as FCC KDB 789033 D02, G)6) Method VB (Reduced VBW).                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <input type="checkbox"/> Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW $\geq$ 1/T, where T is pulse time.                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <input type="checkbox"/> Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <input checked="" type="checkbox"/> Refer as FCC KDB 789033 D02, clause G)5) measurement procedure peak limit.                                   |
| <input type="checkbox"/> Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                  |
| <ul style="list-style-type: none"><li>For radiated measurement.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"><li>Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.</li></ul>    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"><li>Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.</li></ul> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"><li>Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.</li></ul>                              |
| <ul style="list-style-type: none"><li>The any unwanted emissions level shall not exceed the fundamental emission level.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                  |
| <ul style="list-style-type: none"><li>All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                  |

### 3.2.4 Test Setup





### 3.2.5 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Antenna factor (AF) + Cable loss (CL) + Read level (Raw) - Preamp factor (PA)(if applicable) = Level.

### 3.2.6 Emissions in Restricted Frequency Bands (Below 30MHz)

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to KDB414788 Radiated Test Site, and the result came out very similar.

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

The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10th harmonic or 40 GHz, whichever is appropriate.

### 3.2.7 Test Result of Transmitter Unwanted Emissions

Refer as Appendix B



## 4 Test Equipment and Calibration Data

| Instrument                        | Brand           | Model No.          | Serial No.       | Characteristics | Calibration Date | Calibration Due Date | Remark                |
|-----------------------------------|-----------------|--------------------|------------------|-----------------|------------------|----------------------|-----------------------|
| EMI Receiver                      | Agilent         | N9038A             | My52260123       | 9kHz ~ 8.4GHz   | Feb. 22, 2022    | Feb. 21, 2023        | Conduction (CO01-CB)  |
| LISN                              | F.C.C.          | FCC-LISN-50-16-2   | 04083            | 150kHz ~ 100MHz | Feb. 09, 2022    | Feb. 08, 2023        | Conduction (CO01-CB)  |
| LISN                              | Schwarzbeck     | NSLK 8127          | 8127647          | 9kHz ~ 30MHz    | Apr. 12, 2022    | Apr. 11, 2023        | Conduction (CO01-CB)  |
| Pulse Limiter                     | Rohde & Schwarz | ESH3-Z2            | 100430           | 9kHz ~ 30MHz    | Feb. 10, 2022    | Feb. 09, 2023        | Conduction (CO01-CB)  |
| COND Cable                        | Woken           | Cable              | Low cable-CO01   | 9kHz ~ 30MHz    | Oct. 18, 2022    | Oct. 17, 2023        | Conduction (CO01-CB)  |
| Software                          | SPORTON         | SENSE              | V5.10            | -               | N.C.R.           | N.C.R.               | Conduction (CO01-CB)  |
| Loop Antenna                      | Teseq           | HLA 6120           | 24155            | 9kHz - 30 MHz   | May 14, 2022     | May 13, 2023         | Radiation (05CH05-CB) |
| Spectrum Analyzer                 | R&S             | FSP40              | 100304           | 9kHz ~ 40GHz    | Mar. 14, 2022    | Mar. 13, 2023        | Radiation (05CH05-CB) |
| Pre-Amplifier                     | EMCI            | EMC330N            | 980331           | 20MHz ~ 3GHz    | Apr. 26, 2022    | Apr. 25, 2023        | Radiation (05CH05-CB) |
| Bilog Antenna with 6dB Attenuator | TESEQ & EMCI    | CBL 6112D & N-6-06 | 35236 & AT-N0610 | 30MHz ~ 2GHz    | Mar. 25, 2022    | Mar. 24, 2023        | Radiation (05CH05-CB) |
| CABLE                             | Woken           | N/A                | Low Cable-06     | 25MHz ~ 1GHz    | Dec. 13, 2022    | Dec. 12, 2023        | Radiation (05CH05-CB) |
| RF Cable-high                     | Woken           | RG402              | High Cable-28    | 1GHz~18GHz      | Oct. 03, 2022    | Oct. 02, 2023        | Radiation (05CH05-CB) |
| RF Cable-high                     | Woken           | RG402              | High Cable-04+28 | 1GHz~18GHz      | Oct. 03, 2022    | Oct. 02, 2023        | Radiation (05CH05-CB) |
| Test Software                     | SPORTON         | SENSE              | V5.10            | -               | N.C.R.           | N.C.R.               | Radiation (03CH05-CB) |
| 3m Semi Anechoic Chamber VSWR     | TDK             | SAC-3M             | 03CH03-CB        | 1GHz ~18GHz 3m  | May 05, 2022     | May 04, 2023         | Radiation (03CH03-CB) |
| Horn Antenna                      | ETS • Lindgren  | 3115               | 6821             | 750MHz~18GHz    | Jan. 21, 2022    | Jan. 20, 2023        | Radiation (03CH03-CB) |
| Horn Antenna                      | Schwarzbeck     | BBHA 9170          | BBHA9170252      | 15GHz ~ 40GHz   | Aug. 22, 2022    | Aug. 21, 2023        | Radiation (03CH03-CB) |
| Pre-Amplifier                     | Agilent         | 8449B              | 3008A02097       | 1GHz ~ 26.5GHz  | Jul. 01, 2022    | Jun. 30, 2023        | Radiation (03CH03-CB) |
| Pre-Amplifier                     | SGH             | SGH184             | 20221107-3       | 18GHz ~ 40GHz   | Nov. 16, 2022    | Nov. 15, 2023        | Radiation (03CH03-CB) |
| Spectrum Analyzer                 | R&S             | FSP40              | 100019           | 9kHz ~ 40GHz    | Jun. 10, 2022    | Jun. 09, 2023        | Radiation (03CH03-CB) |
| RF Cable-high                     | Woken           | RG402              | High Cable-20+29 | 1GHz ~ 18GHz    | Oct. 03, 2022    | Oct. 02, 2023        | Radiation (03CH03-CB) |



| Instrument    | Brand   | Model No. | Serial No.    | Characteristics | Calibration Date | Calibration Due Date | Remark                |
|---------------|---------|-----------|---------------|-----------------|------------------|----------------------|-----------------------|
| RF Cable-high | Woken   | RG402     | High Cable-29 | 1GHz ~ 18GHz    | Oct. 03, 2022    | Oct. 02, 2023        | Radiation (03CH03-CB) |
| Test Software | SPORTON | SENSE     | V5.10         | -               | N.C.R.           | N.C.R.               | Radiation (03CH03-CB) |
| High Cable    | Woken   | WCA0929M  | 40G#5+6       | 1GHz ~ 40 GHz   | Dec. 07, 2022    | Dec. 06, 2023        | Radiation (03CH03-CB) |
| High Cable    | Woken   | WCA0929M  | 40G#5         | 1GHz ~ 40 GHz   | Dec. 07, 2022    | Dec. 06, 2023        | Radiation (03CH03-CB) |
| High Cable    | Woken   | WCA0929M  | 40G#6         | 1GHz ~ 40 GHz   | Dec. 07, 2022    | Dec. 06, 2023        | Radiation (03CH03-CB) |

Note: Calibration Interval of instruments listed above is one year.

N.C.R. means Non-Calibration required.



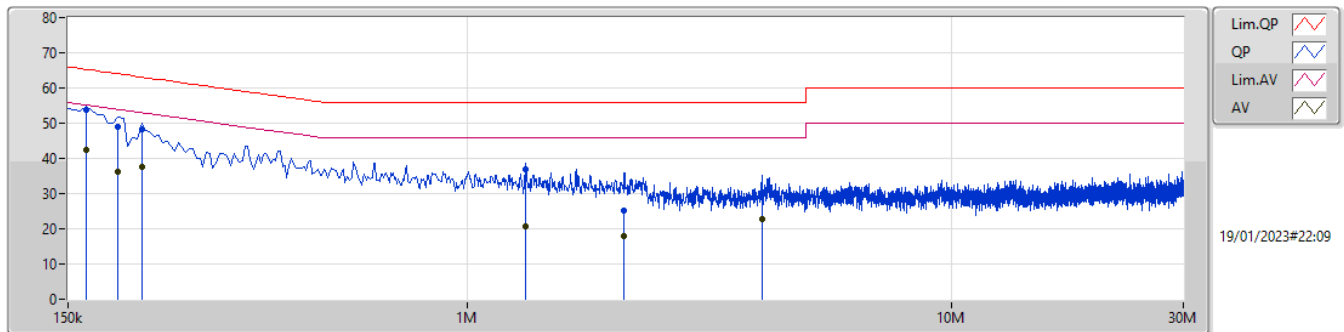
## Conducted Emissions at Powerline

## Appendix A

### Summary

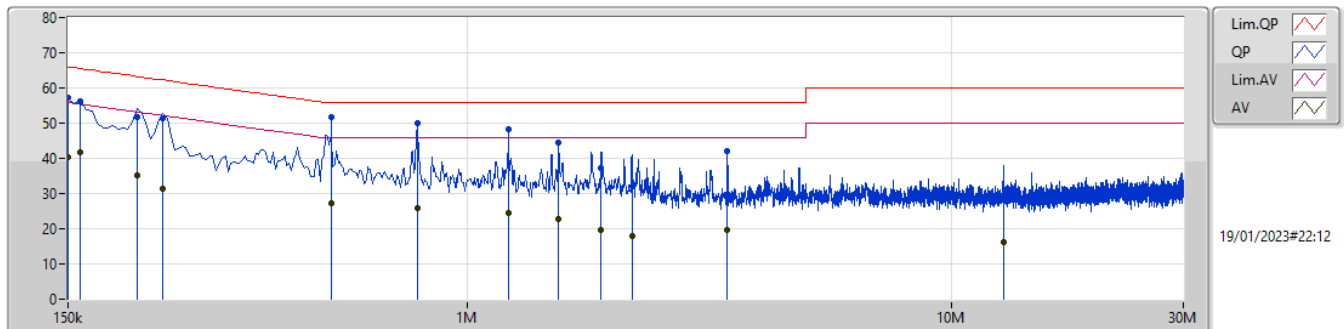
| Mode   | Result | Type | Freq<br>(Hz) | Level<br>(dBuV) | Limit<br>(dBuV) | Margin<br>(dB) | Condition |
|--------|--------|------|--------------|-----------------|-----------------|----------------|-----------|
| Mode 2 | Pass   | QP   | 523.5k       | 51.66           | 56.00           | -4.34          | Neutral   |

### Mode 2



| Type | Freq<br>(Hz) | Level<br>(dBuV) | Limit<br>(dBuV) | Margin<br>(dB) | Factor<br>(dB) | Condition | Comment | Raw<br>(dBuV) | LISN<br>(dB) | CL<br>(dB) | AT<br>(dB) |  |  |  |  |  |  |
|------|--------------|-----------------|-----------------|----------------|----------------|-----------|---------|---------------|--------------|------------|------------|--|--|--|--|--|--|
| QP   | 163.5k       | 53.84           | 65.27           | -11.43         | 9.99           | Line      | "Worst" | 43.85         | 0.06         | 0.04       | 9.89       |  |  |  |  |  |  |
| AV   | 163.5k       | 42.55           | 55.27           | -12.72         | 9.99           | Line      | -       | 32.56         | 0.06         | 0.04       | 9.89       |  |  |  |  |  |  |
| QP   | 190.5k       | 48.97           | 64.01           | -15.04         | 9.99           | Line      | -       | 38.98         | 0.06         | 0.04       | 9.89       |  |  |  |  |  |  |
| AV   | 190.5k       | 36.16           | 54.01           | -17.85         | 9.99           | Line      | -       | 26.17         | 0.06         | 0.04       | 9.89       |  |  |  |  |  |  |
| QP   | 213k         | 48.20           | 63.09           | -14.89         | 9.99           | Line      | -       | 38.21         | 0.06         | 0.04       | 9.89       |  |  |  |  |  |  |
| AV   | 213k         | 37.69           | 53.09           | -15.40         | 9.99           | Line      | -       | 27.70         | 0.06         | 0.04       | 9.89       |  |  |  |  |  |  |
| QP   | 1.32M        | 36.78           | 56.00           | -19.22         | 10.03          | Line      | -       | 26.75         | 0.08         | 0.06       | 9.89       |  |  |  |  |  |  |
| AV   | 1.32M        | 20.83           | 46.00           | -25.17         | 10.03          | Line      | -       | 10.80         | 0.08         | 0.06       | 9.89       |  |  |  |  |  |  |
| QP   | 2.108M       | 25.12           | 56.00           | -30.88         | 10.07          | Line      | -       | 15.05         | 0.09         | 0.09       | 9.89       |  |  |  |  |  |  |
| AV   | 2.108M       | 17.92           | 46.00           | -28.08         | 10.07          | Line      | -       | 7.85          | 0.09         | 0.09       | 9.89       |  |  |  |  |  |  |
| QP   | 4.052M       | 29.66           | 56.00           | -26.34         | 10.11          | Line      | -       | 19.55         | 0.12         | 0.10       | 9.89       |  |  |  |  |  |  |
| AV   | 4.052M       | 22.90           | 46.00           | -23.10         | 10.11          | Line      | -       | 12.79         | 0.12         | 0.10       | 9.89       |  |  |  |  |  |  |

### Mode 2



| Type | Freq<br>(Hz) | Level<br>(dBuV) | Limit<br>(dBuV) | Margin<br>(dB) | Factor | Condition | Comment | Raw<br>(dBuV) | LISN<br>(dB) | CL<br>(dB) | AT<br>(dB) |  |  |  |  |  |  |
|------|--------------|-----------------|-----------------|----------------|--------|-----------|---------|---------------|--------------|------------|------------|--|--|--|--|--|--|
| QP   | 150k         | 57.27           | 66.00           | -8.73          | 10.00  | Neutral   | -       | 47.27         | 0.07         | 0.04       | 9.89       |  |  |  |  |  |  |
| AV   | 150k         | 40.26           | 56.00           | -15.74         | 10.00  | Neutral   | -       | 30.26         | 0.07         | 0.04       | 9.89       |  |  |  |  |  |  |
| QP   | 159k         | 56.31           | 65.52           | -9.21          | 10.00  | Neutral   | -       | 46.31         | 0.07         | 0.04       | 9.89       |  |  |  |  |  |  |
| AV   | 159k         | 41.78           | 55.52           | -13.74         | 10.00  | Neutral   | -       | 31.78         | 0.07         | 0.04       | 9.89       |  |  |  |  |  |  |
| QP   | 208.5k       | 51.63           | 63.27           | -11.64         | 10.00  | Neutral   | -       | 41.63         | 0.07         | 0.04       | 9.89       |  |  |  |  |  |  |
| AV   | 208.5k       | 35.04           | 53.27           | -18.23         | 10.00  | Neutral   | -       | 25.04         | 0.07         | 0.04       | 9.89       |  |  |  |  |  |  |
| QP   | 235.5k       | 51.35           | 62.25           | -10.90         | 10.00  | Neutral   | -       | 41.35         | 0.07         | 0.04       | 9.89       |  |  |  |  |  |  |
| AV   | 235.5k       | 31.25           | 52.25           | -21.00         | 10.00  | Neutral   | -       | 21.25         | 0.07         | 0.04       | 9.89       |  |  |  |  |  |  |
| QP   | 523.5k       | 51.66           | 56.00           | -4.34          | 10.01  | Neutral   | "Worst" | 41.65         | 0.07         | 0.05       | 9.89       |  |  |  |  |  |  |
| AV   | 523.5k       | 27.24           | 46.00           | -18.76         | 10.01  | Neutral   | -       | 17.23         | 0.07         | 0.05       | 9.89       |  |  |  |  |  |  |
| QP   | 789k         | 50.10           | 56.00           | -5.90          | 10.02  | Neutral   | -       | 40.08         | 0.08         | 0.05       | 9.89       |  |  |  |  |  |  |
| AV   | 789k         | 25.75           | 46.00           | -20.25         | 10.02  | Neutral   | -       | 15.73         | 0.08         | 0.05       | 9.89       |  |  |  |  |  |  |
| QP   | 1.217M       | 48.14           | 56.00           | -7.86          | 10.03  | Neutral   | -       | 38.11         | 0.09         | 0.05       | 9.89       |  |  |  |  |  |  |
| AV   | 1.217M       | 24.51           | 46.00           | -21.49         | 10.03  | Neutral   | -       | 14.48         | 0.09         | 0.05       | 9.89       |  |  |  |  |  |  |
| QP   | 1.541M       | 44.57           | 56.00           | -11.43         | 10.05  | Neutral   | -       | 34.52         | 0.09         | 0.07       | 9.89       |  |  |  |  |  |  |
| AV   | 1.541M       | 22.90           | 46.00           | -23.10         | 10.05  | Neutral   | -       | 12.85         | 0.09         | 0.07       | 9.89       |  |  |  |  |  |  |
| QP   | 1.887M       | 37.08           | 56.00           | -18.92         | 10.08  | Neutral   | -       | 27.00         | 0.10         | 0.09       | 9.89       |  |  |  |  |  |  |
| AV   | 1.887M       | 19.51           | 46.00           | -26.49         | 10.08  | Neutral   | -       | 9.43          | 0.10         | 0.09       | 9.89       |  |  |  |  |  |  |
| QP   | 2.184M       | 31.91           | 56.00           | -24.09         | 10.08  | Neutral   | -       | 21.83         | 0.10         | 0.09       | 9.89       |  |  |  |  |  |  |
| AV   | 2.184M       | 17.98           | 46.00           | -28.02         | 10.08  | Neutral   | -       | 7.90          | 0.10         | 0.09       | 9.89       |  |  |  |  |  |  |
| QP   | 3.435M       | 42.14           | 56.00           | -13.86         | 10.11  | Neutral   | -       | 32.03         | 0.12         | 0.10       | 9.89       |  |  |  |  |  |  |
| AV   | 3.435M       | 19.63           | 46.00           | -26.37         | 10.11  | Neutral   | -       | 9.52          | 0.12         | 0.10       | 9.89       |  |  |  |  |  |  |
| QP   | 12.764M      | 29.63           | 60.00           | -30.37         | 10.36  | Neutral   | -       | 19.27         | 0.26         | 0.17       | 9.93       |  |  |  |  |  |  |
| AV   | 12.764M      | 16.12           | 50.00           | -33.88         | 10.36  | Neutral   | -       | 5.76          | 0.26         | 0.17       | 9.93       |  |  |  |  |  |  |



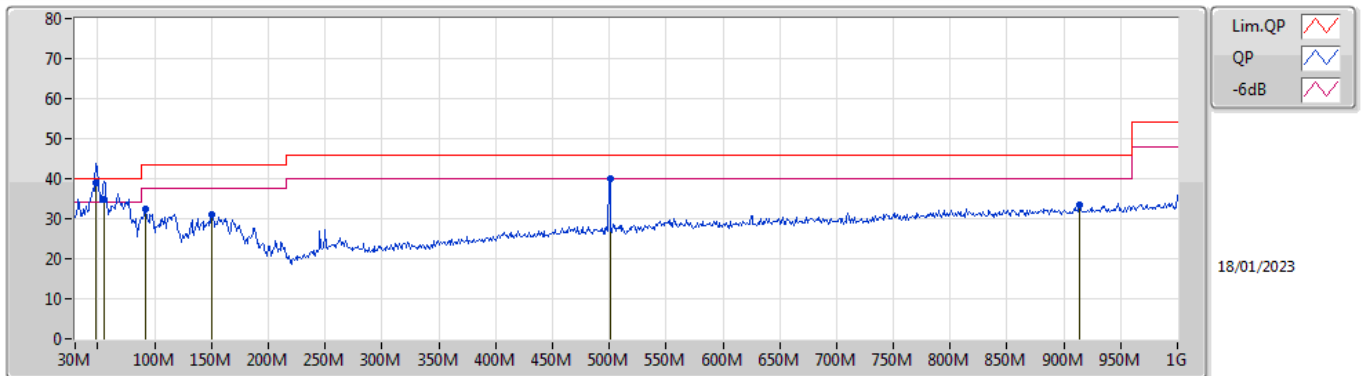
## ***Radiated Emissions below 1GHz***

## ***Appendix B.1***

### **Summary**

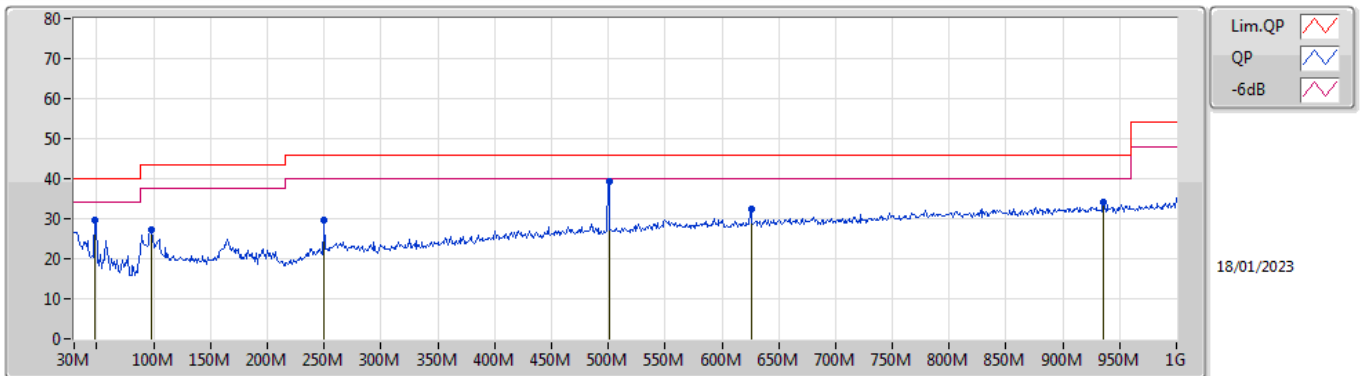
| Mode   | Result | Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Condition |
|--------|--------|------|--------------|-------------------|-------------------|----------------|-----------|
| Mode 4 | Pass   | QP   | 48.43M       | 39.08             | 40.00             | -0.92          | Vertical  |

### Mode 4



| Type | Freq    | Level    | Limit    | Margin | Factor | Dist | Condition | Azimuth | Height | Comment | Raw      | AF     | CL   | PA    |
|------|---------|----------|----------|--------|--------|------|-----------|---------|--------|---------|----------|--------|------|-------|
|      | (Hz)    | (dBuV/m) | (dBuV/m) | (dB)   | (dB/m) | (m)  |           | (°)     | (m)    |         | (dBuV/m) | (dB/m) | (dB) | (dB)  |
| QP   | 48.43M  | 39.08    | 40.00    | -0.92  | -16.02 | 3    | Vertical  | 346     | 1.50   | "Worst" | 55.10    | 14.59  | 1.24 | 31.85 |
| QP   | 55.22M  | 34.71    | 40.00    | -5.29  | -17.89 | 3    | Vertical  | 112     | 1.25   | -       | 52.60    | 12.69  | 1.31 | 31.89 |
| PK   | 92.08M  | 32.34    | 43.50    | -11.16 | -15.18 | 3    | Vertical  | 336     | 1.25   | -       | 47.52    | 15.14  | 1.64 | 31.96 |
| PK   | 150.28M | 30.87    | 43.50    | -12.63 | -13.74 | 3    | Vertical  | 170     | 1.00   | -       | 44.61    | 16.18  | 2.08 | 32.00 |
| PK   | 500.45M | 40.14    | 46.00    | -5.86  | -5.21  | 3    | Vertical  | 1       | 1.25   | -       | 45.35    | 23.20  | 3.99 | 32.40 |
| PK   | 913.67M | 33.55    | 46.00    | -12.45 | -0.61  | 3    | Vertical  | 29      | 2.00   | -       | 34.16    | 26.20  | 5.68 | 32.49 |

### Mode 4



| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Factor<br>(dB/m) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | Raw<br>(dBuV/m) | AF<br>(dB/m) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|------------------|-------------|------------|----------------|---------------|---------|-----------------|--------------|------------|------------|
| PK   | 48.43M       | 29.53             | 40.00             | -10.47         | -16.02           | 3           | Horizontal | 216            | 1.00          | -       | 45.55           | 14.59        | 1.24       | 31.85      |
| PK   | 97.9M        | 27.29             | 43.50             | -16.21         | -13.99           | 3           | Horizontal | 30             | 1.50          | -       | 41.28           | 16.28        | 1.69       | 31.96      |
| PK   | 250.19M      | 29.50             | 46.00             | -16.50         | -11.06           | 3           | Horizontal | 222            | 1.00          | -       | 40.56           | 18.22        | 2.72       | 32.00      |
| PK   | 500.45M      | 39.34             | 46.00             | -6.66          | -5.21            | 3           | Horizontal | 59             | 2.00          | "Worst" | 44.55           | 23.20        | 3.99       | 32.40      |
| PK   | 625.58M      | 32.45             | 46.00             | -13.55         | -3.47            | 3           | Horizontal | 251            | 1.00          | -       | 35.92           | 24.53        | 4.52       | 32.52      |
| PK   | 935.98M      | 34.01             | 46.00             | -11.99         | -0.47            | 3           | Horizontal | 308            | 1.50          | -       | 34.48           | 26.33        | 5.68       | 32.48      |

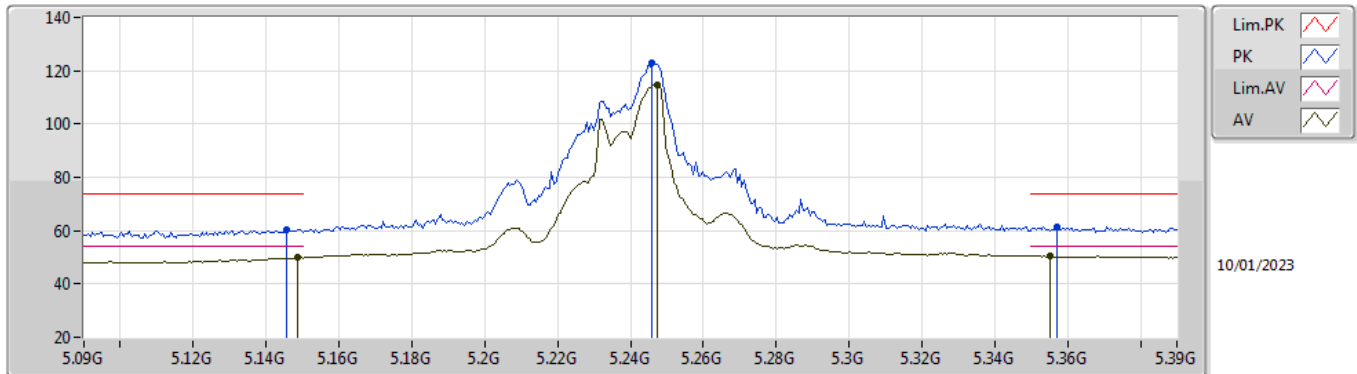


**Summary**

| Mode                               | Result | Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comments |
|------------------------------------|--------|------|--------------|-------------------|-------------------|----------------|-------------|-----------|----------------|---------------|----------|
| 5.15-5.25GHz                       | -      | -    | -            | -                 | -                 | -              | -           | -         | -              | -             | -        |
| 802.11a_Nss1.(6Mbps)_4TX           | Pass   | PK   | 10.47852G    | 66.56             | 68.20             | -1.64          | 3           | Vertical  | 4              | 1.90          | -        |
| 5.25-5.35GHz                       | -      | -    | -            | -                 | -                 | -              | -           | -         | -              | -             | -        |
| 802.11ax HEW160-BF_Nss1.(MCS0)_4TX | Pass   | AV   | 5.3508G      | 52.07             | 54.00             | -1.93          | 3           | Vertical  | -0             | 1.01          | -        |

# 5.15-5.25GHz\_802.11a\_Nss1,(6Mbps)\_4TX

## 5240MHz\_TX

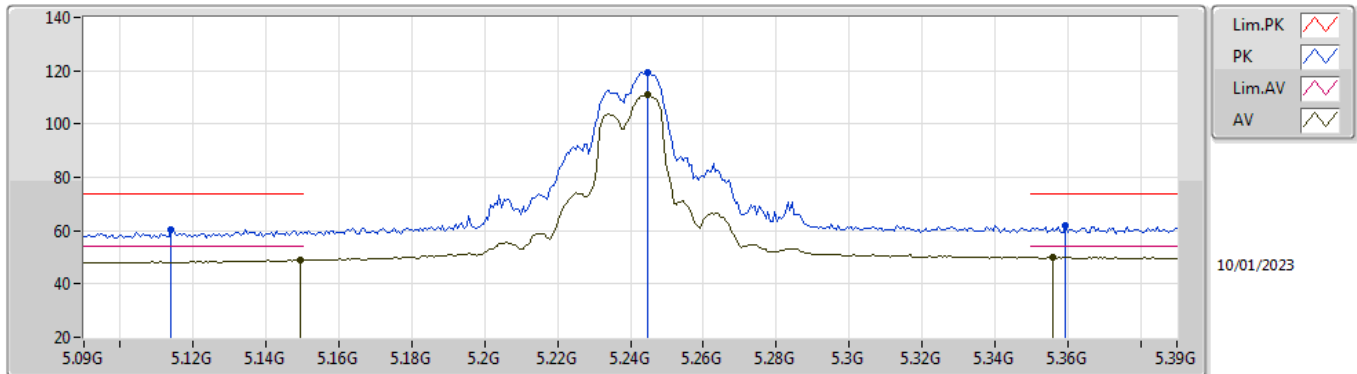


EUT Y\_4TX  
Setting 93  
03-I-S-5-10

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|-----------|----------------|---------------|---------|------------|------------|------------|
| PK   | 5.1458G      | 60.53             | 74.00             | -13.47         | 54.67         | 3           | Vertical  | 188            | 2.00          | -       | 33.99      | 6.75       | 34.88      |
| AV   | 5.1488G      | 49.81             | 54.00             | -4.19          | 43.94         | 3           | Vertical  | 188            | 2.00          | -       | 34.00      | 6.75       | 34.88      |
| PK   | 5.246G       | 122.75            | Inf               | -Inf           | 116.43        | 3           | Vertical  | 188            | 2.00          | -       | 34.38      | 6.82       | 34.88      |
| AV   | 5.2472G      | 114.52            | Inf               | -Inf           | 108.19        | 3           | Vertical  | 188            | 2.00          | -       | 34.39      | 6.82       | 34.88      |
| PK   | 5.357G       | 61.34             | 74.00             | -12.66         | 54.82         | 3           | Vertical  | 188            | 2.00          | -       | 34.51      | 6.88       | 34.87      |
| AV   | 5.3552G      | 50.35             | 54.00             | -3.65          | 43.83         | 3           | Vertical  | 188            | 2.00          | -       | 34.51      | 6.88       | 34.87      |

# 5.15-5.25GHz\_802.11a\_Nss1,(6Mbps)\_4TX

## 5240MHz\_TX

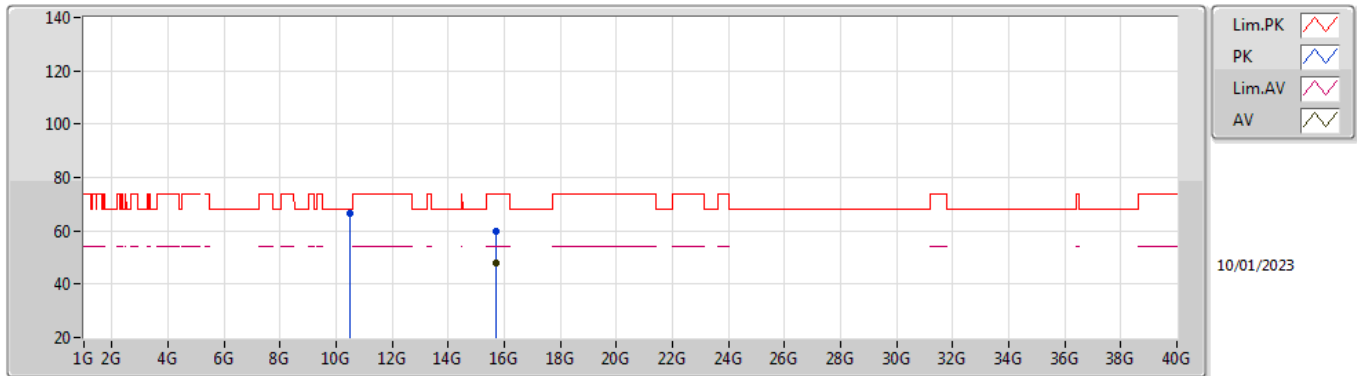


EUT Y\_4TX  
Setting 93  
03-I-S-5-10

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|------------|----------------|---------------|---------|------------|------------|------------|
| PK   | 5.114G       | 60.45             | 74.00             | -13.55         | 54.69         | 3           | Horizontal | 269            | 1.90          | -       | 33.93      | 6.71       | 34.88      |
| AV   | 5.1494G      | 48.93             | 54.00             | -5.07          | 43.06         | 3           | Horizontal | 269            | 1.90          | -       | 34.00      | 6.75       | 34.88      |
| PK   | 5.2448G      | 119.48            | Inf               | -Inf           | 113.16        | 3           | Horizontal | 269            | 1.90          | -       | 34.38      | 6.82       | 34.88      |
| AV   | 5.2448G      | 111.05            | Inf               | -Inf           | 104.73        | 3           | Horizontal | 269            | 1.90          | -       | 34.38      | 6.82       | 34.88      |
| PK   | 5.3594G      | 61.80             | 74.00             | -12.20         | 55.27         | 3           | Horizontal | 269            | 1.90          | -       | 34.52      | 6.88       | 34.87      |
| AV   | 5.3558G      | 50.19             | 54.00             | -3.81          | 43.67         | 3           | Horizontal | 269            | 1.90          | -       | 34.51      | 6.88       | 34.87      |

## 5.15-5.25GHz\_802.11a\_Nss1,(6Mbps)\_4TX

### 5240MHz\_TX

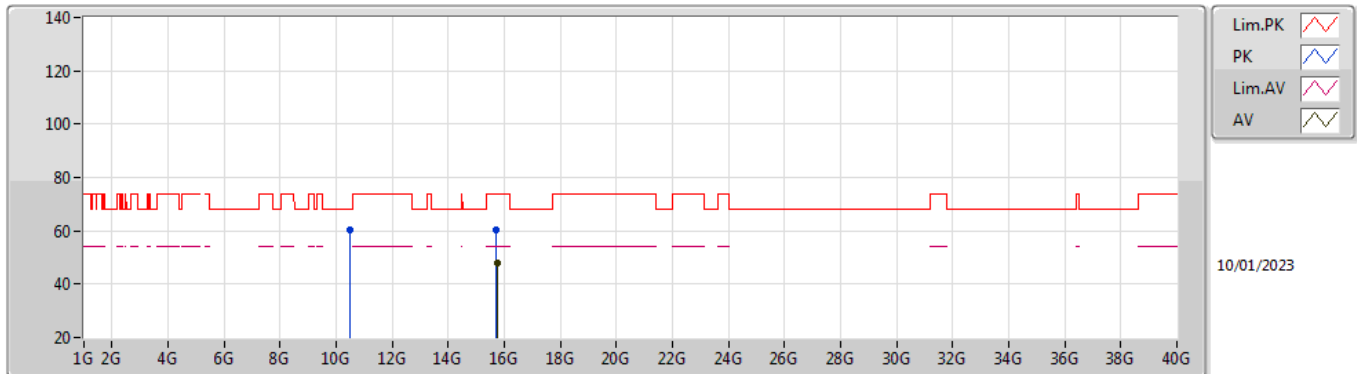


EUT Y\_4TX  
Setting 93  
03-I-S-5

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|-----------|----------------|---------------|---------|------------|------------|------------|
| PK   | 10.47852G    | 66.56             | 68.20             | -1.64          | 58.70         | 3           | Vertical  | 4              | 1.90          | -       | 38.20      | 12.26      | 42.60      |
| PK   | 15.72412G    | 59.90             | 74.00             | -14.10         | 47.79         | 3           | Vertical  | 348            | 1.80          | -       | 37.60      | 16.42      | 41.91      |
| AV   | 15.71708G    | 48.06             | 54.00             | -5.94          | 35.98         | 3           | Vertical  | 348            | 1.80          | -       | 37.57      | 16.42      | 41.91      |

## 5.15-5.25GHz\_802.11a\_Nss1,(6Mbps)\_4TX

### 5240MHz\_TX

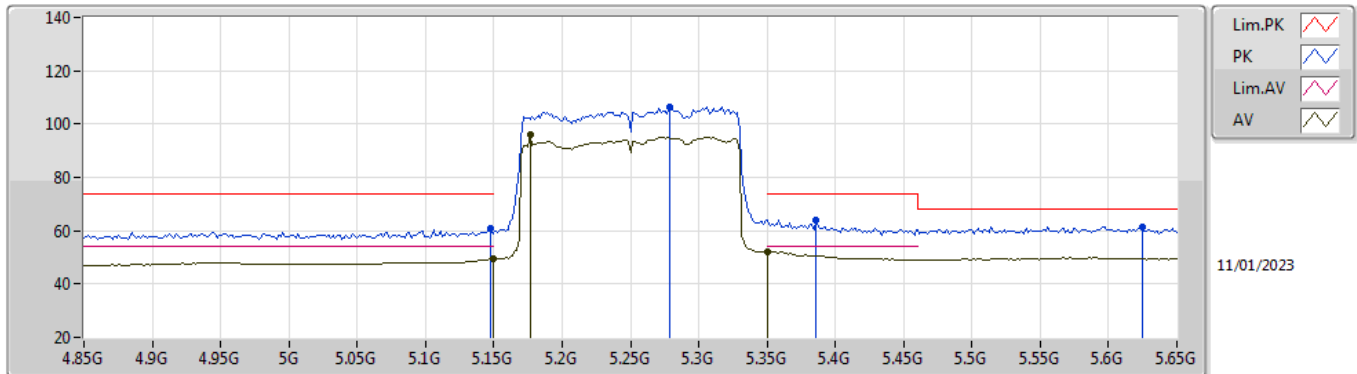


EUT Y\_4TX  
Setting 93  
03-I-S-5

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|------------|----------------|---------------|---------|------------|------------|------------|
| PK   | 10.47972G    | 60.55             | 68.20             | -7.65          | 52.69         | 3           | Horizontal | 19             | 1.78          | -       | 38.20      | 12.26      | 42.60      |
| PK   | 15.7218G     | 60.09             | 74.00             | -13.91         | 47.99         | 3           | Horizontal | 56             | 1.80          | -       | 37.59      | 16.42      | 41.91      |
| AV   | 15.72956G    | 48.18             | 54.00             | -5.82          | 36.04         | 3           | Horizontal | 56             | 1.80          | -       | 37.62      | 16.43      | 41.91      |

# 5.25-5.35GHz\_802.11ax HEW160-BF\_Nss1,(MCS0)\_4TX

## 5250MHz Straddle 5.25-5.35GHz\_TX

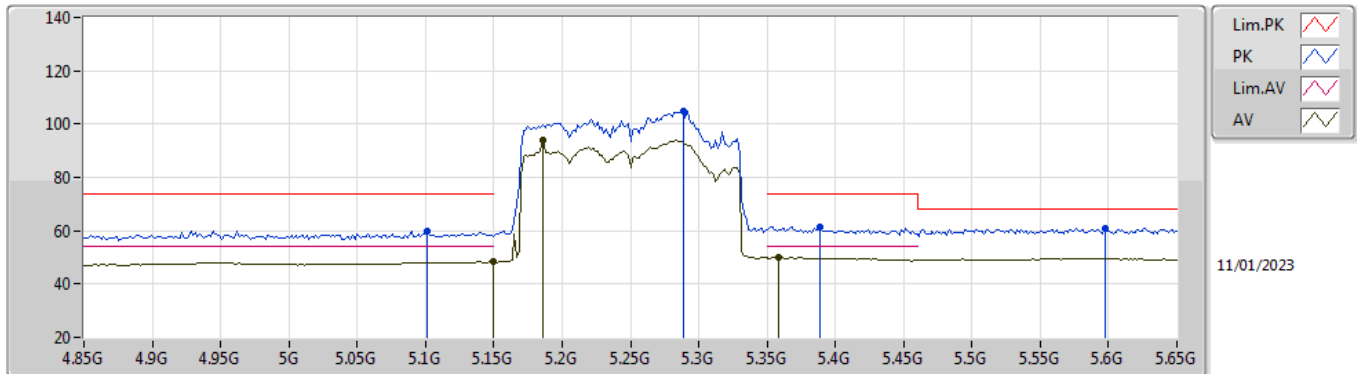


EUT Y\_4TX  
Setting 55  
03-I-S-5-10

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|-----------|----------------|---------------|---------|------------|------------|------------|
| PK   | 5.1476G      | 60.65             | 74.00             | -13.35         | 54.78         | 3           | Vertical  | -0             | 1.01          | -       | 34.00      | 6.75       | 34.88      |
| AV   | 5.1492G      | 49.47             | 54.00             | -4.53          | 43.60         | 3           | Vertical  | -0             | 1.01          | -       | 34.00      | 6.75       | 34.88      |
| AV   | 5.1764G      | 95.85             | Inf               | -Inf           | 89.84         | 3           | Vertical  | -0             | 1.01          | -       | 34.11      | 6.78       | 34.88      |
| PK   | 5.2788G      | 106.57            | Inf               | -Inf           | 100.14        | 3           | Vertical  | -0             | 1.01          | -       | 34.46      | 6.84       | 34.87      |
| PK   | 5.386G       | 64.11             | 74.00             | -9.89          | 57.52         | 3           | Vertical  | -0             | 1.01          | -       | 34.57      | 6.89       | 34.87      |
| AV   | 5.3508G      | 52.07             | 54.00             | -1.93          | 45.56         | 3           | Vertical  | -0             | 1.01          | -       | 34.50      | 6.88       | 34.87      |
| PK   | 5.6244G      | 61.50             | 68.20             | -6.70          | 54.73         | 3           | Vertical  | -0             | 1.01          | -       | 34.55      | 7.11       | 34.89      |

# 5.25-5.35GHz\_802.11ax HEW160-BF\_Nss1,(MCS0)\_4TX

## 5250MHz Straddle 5.25-5.35GHz\_TX

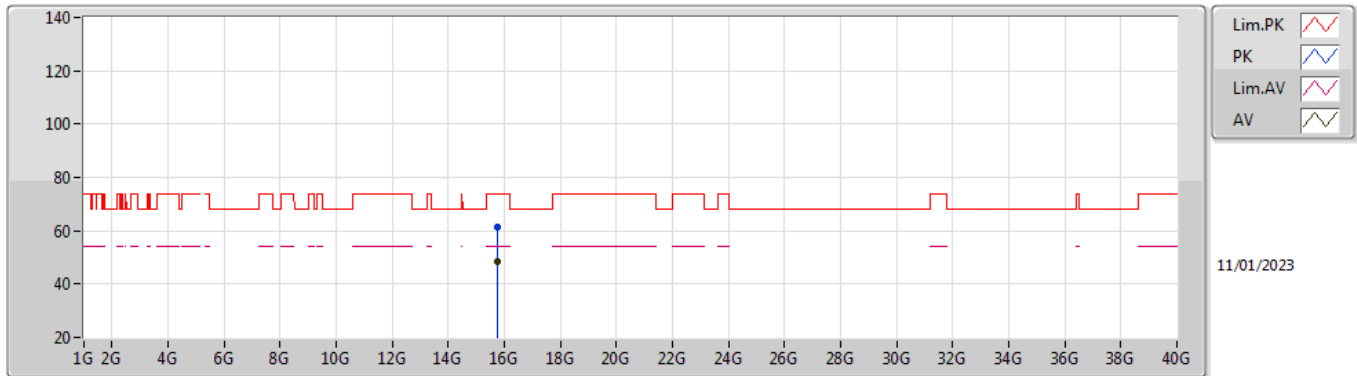


EUT Y\_4TX  
Setting 55  
03-I-S-5-10

| Type | Freq<br>(Hz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Raw<br>(dBuV) | Dist<br>(m) | Condition  | Azimuth<br>(°) | Height<br>(m) | Comment | AF<br>(dB) | CL<br>(dB) | PA<br>(dB) |
|------|--------------|-------------------|-------------------|----------------|---------------|-------------|------------|----------------|---------------|---------|------------|------------|------------|
| PK   | 5.1012G      | 59.98             | 74.00             | -14.02         | 54.26         | 3           | Horizontal | 265.8          | 1.80          | -       | 33.90      | 6.70       | 34.88      |
| AV   | 5.1492G      | 48.36             | 54.00             | -5.64          | 42.49         | 3           | Horizontal | 265.8          | 1.80          | -       | 34.00      | 6.75       | 34.88      |
| AV   | 5.186G       | 93.97             | Inf               | -Inf           | 87.92         | 3           | Horizontal | 265.8          | 1.80          | -       | 34.14      | 6.79       | 34.88      |
| PK   | 5.2884G      | 104.78            | Inf               | -Inf           | 98.33         | 3           | Horizontal | 265.8          | 1.80          | -       | 34.48      | 6.84       | 34.87      |
| PK   | 5.3892G      | 61.52             | 74.00             | -12.48         | 54.92         | 3           | Horizontal | 265.8          | 1.80          | -       | 34.58      | 6.89       | 34.87      |
| AV   | 5.3588G      | 49.88             | 54.00             | -4.12          | 43.35         | 3           | Horizontal | 265.8          | 1.80          | -       | 34.52      | 6.88       | 34.87      |
| PK   | 5.5972G      | 60.99             | 68.20             | -7.21          | 54.17         | 3           | Horizontal | 265.8          | 1.80          | -       | 34.60      | 7.10       | 34.88      |

## 5.25-5.35GHz\_802.11ax HEW160-BF\_Nss1,(MCS0)\_4TX

### 5250MHz Straddle 5.25-5.35GHz\_TX

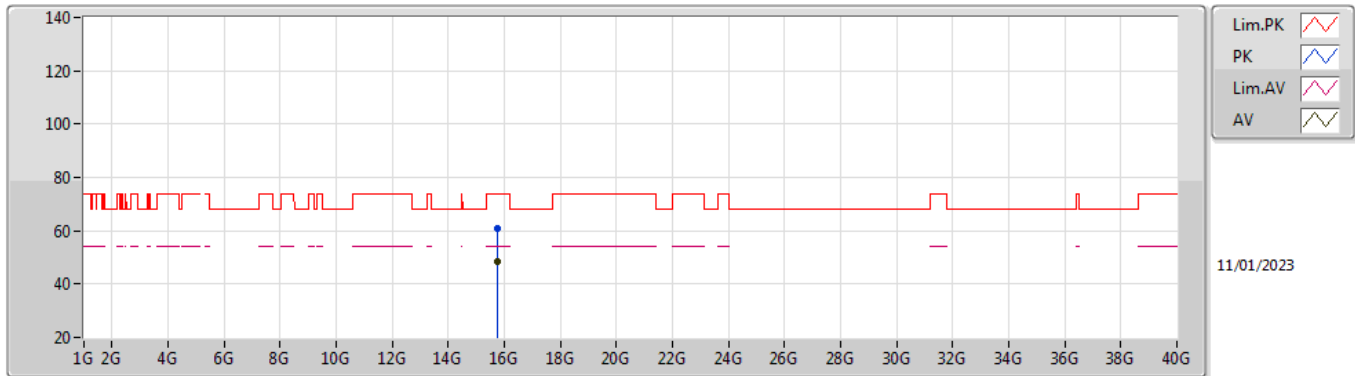


EUT Y\_4TX  
Setting 55  
03-I-S-5

| Type | Freq      | Level    | Limit    | Margin | Raw    | Dist | Condition | Azimuth | Height | Comment | AF    | CL    | PA    |
|------|-----------|----------|----------|--------|--------|------|-----------|---------|--------|---------|-------|-------|-------|
|      | (Hz)      | (dBuV/m) | (dBuV/m) | (dB)   | (dBuV) | (m)  |           | (°)     | (m)    |         | (dB)  | (dB)  | (dB)  |
| PK   | 15.74636G | 61.32    | 74.00    | -12.68 | 49.08  | 3    | Vertical  | 311     | 3.00   | -       | 37.69 | 16.45 | 41.90 |
| AV   | 15.74576G | 48.63    | 54.00    | -5.37  | 36.40  | 3    | Vertical  | 311     | 3.00   | -       | 37.68 | 16.45 | 41.90 |

## 5.25-5.35GHz\_802.11ax HEW160-BF\_Nss1,(MCS0)\_4TX

### 5250MHz Straddle 5.25-5.35GHz\_TX



EUT Y\_4TX  
Setting 55  
03-I-S-5

| Type | Freq      | Level    | Limit    | Margin | Raw    | Dist | Condition  | Azimuth | Height | Comment | AF    | CL    | PA    |
|------|-----------|----------|----------|--------|--------|------|------------|---------|--------|---------|-------|-------|-------|
|      | (Hz)      | (dBuV/m) | (dBuV/m) | (dB)   | (dBuV) | (m)  |            | (°)     | (m)    |         | (dB)  | (dB)  | (dB)  |
| PK   | 15.74284G | 60.75    | 74.00    | -13.25 | 48.54  | 3    | Horizontal | 193     | 2.34   | -       | 37.67 | 16.44 | 41.90 |
| AV   | 15.75952G | 48.55    | 54.00    | -5.45  | 36.25  | 3    | Horizontal | 193     | 2.34   | -       | 37.74 | 16.46 | 41.90 |