SPORTED LAS. RADIO TEST REPORT

Report No. : FR3D0613AB



RADIO TEST REPORT

| FCC ID | : 2ABLK-GPR1027E |
|--------------|--|
| Equipment | : Wi-Fi 6 indoor PoE Mesh |
| Brand Name | : Calix |
| Model Name | : p4 GPR1027E |
| Applicant | : Calix Inc. 1035 N. McDowell Blvd. Petaluma, CA94954 U.S.A. |
| Manufacturer | : NEWEB VIET NAM CO., LTD. Land Lot CN01, Dong Van III Industrial zone, Dong Van Ward, Duy Tien Town, Ha Nam Province, VietNam |
| Standard | : 47 CFR FCC Part 15.407 |

The product was received on Dec. 11, 2023, and testing was started from Dec. 14, 2023 and completed on Dec. 29, 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 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.)

TEL : 886-3-656-9065 FAX : 886-3-656-9085 Report Template No.: CB-A12_1 Ver1.4 Page Number: 1 of 31Issued Date: Jan. 29, 2024Report Version: 01



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Photographs of EUT v01



History of this test report

| Report No. | Version | Description | Issued Date |
|------------|---------|-------------------------|---------------|
| FR3D0613AB | 01 | Initial issue of report | Jan. 29, 2024 |
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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(a) | Emission Bandwidth | PASS | - |
| 3.3 | 15.407(a) | Maximum Output Power | PASS | - |
| 3.4 | 15.407(a) | Power Spectral Density | PASS | - |
| 3.5 | 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/manufacturer 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: Vicky 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), | 5180-5240 | 36-48 [4] |
| 5725-5850 | ax (HEW20) | 5745-5825 | 149-165 [5] |
| 5150-5250 | n (HT40), ac (VHT40), | 5190-5230 | 38-46 [2] |
| 5725-5850 | ax (HEW40) | 5755-5795 | 151-159 [2] |
| 5150-5250 | ac (VHT80), ax (HEW80) | 5210 | 42 [1] |
| 5725-5850 | | 5775 | 155 [1] |

| Band | Mode | BWch (MHz) | Nant |
|---------------|-------------------|------------|------|
| 5.15-5.25GHz | 802.11a | 20 | 2TX |
| 5.15-5.25GHz | 802.11n HT20 | 20 | 2TX |
| 5.15-5.25GHz | 802.11n HT20-BF | 20 | 2TX |
| 5.15-5.25GHz | 802.11ac VHT20 | 20 | 2TX |
| 5.15-5.25GHz | 802.11ac VHT20-BF | 20 | 2TX |
| 5.15-5.25GHz | 802.11ax HEW20 | 20 | 2TX |
| 5.15-5.25GHz | 802.11ax HEW20-BF | 20 | 2TX |
| 5.15-5.25GHz | 802.11n HT40 | 40 | 2TX |
| 5.15-5.25GHz | 802.11n HT40-BF | 40 | 2TX |
| 5.15-5.25GHz | 802.11ac VHT40 | 40 | 2TX |
| 5.15-5.25GHz | 802.11ac VHT40-BF | 40 | 2TX |
| 5.15-5.25GHz | 802.11ax HEW40 | 40 | 2TX |
| 5.15-5.25GHz | 802.11ax HEW40-BF | 40 | 2TX |
| 5.15-5.25GHz | 802.11ac VHT80 | 80 | 2TX |
| 5.15-5.25GHz | 802.11ac VHT80-BF | 80 | 2TX |
| 5.15-5.25GHz | 802.11ax HEW80 | 80 | 2TX |
| 5.15-5.25GHz | 802.11ax HEW80-BF | 80 | 2TX |
| 5.725-5.85GHz | 802.11a | 20 | 2TX |
| 5.725-5.85GHz | 802.11n HT20 | 20 | 2TX |
| 5.725-5.85GHz | 802.11n HT20-BF | 20 | 2TX |
| 5.725-5.85GHz | 802.11ac VHT20 | 20 | 2TX |
| 5.725-5.85GHz | 802.11ac VHT20-BF | 20 | 2TX |
| 5.725-5.85GHz | 802.11ax HEW20 | 20 | 2TX |
| 5.725-5.85GHz | 802.11ax HEW20-BF | 20 | 2TX |
| 5.725-5.85GHz | 802.11n HT40 | 40 | 2TX |

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| Band | Mode | BWch (MHz) | Nant |
|---------------|-------------------|------------|------|
| 5.725-5.85GHz | 802.11n HT40-BF | 40 | 2TX |
| 5.725-5.85GHz | 802.11ac VHT40 | 40 | 2TX |
| 5.725-5.85GHz | 802.11ac VHT40-BF | 40 | 2TX |
| 5.725-5.85GHz | 802.11ax HEW40 | 40 | 2TX |
| 5.725-5.85GHz | 802.11ax HEW40-BF | 40 | 2TX |
| 5.725-5.85GHz | 802.11ac VHT80 | 80 | 2TX |
| 5.725-5.85GHz | 802.11ac VHT80-BF | 80 | 2TX |
| 5.725-5.85GHz | 802.11ax HEW80 | 80 | 2TX |
| 5.725-5.85GHz | 802.11ax HEW80-BF | 80 | 2TX |

Note:

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

1.1.2 Antenna Information

| Ant. | Brand | Model Name | Antenna Type | Connector | Gain (dBi) |
|------|-------|------------|----------------|-----------|------------|
| 1 | HB | 290-50304 | Dipole Antenna | I-PEX | |
| 2 | HB | 290-50305 | Dipole Antenna | I-PEX | Nata 4 |
| 3 | HB | 290-50302 | PIFA Antenna | I-PEX | Note 1 |
| 4 | HB | 290-50303 | PIFA Antenna | I-PEX | |

Note 1:

| | Po | ort | Gain (dBi) | | |
|------|-----------------------|-------------|------------|-----------|-----|
| Ant. | WLAN 2.4GHz WLAN 5GHz | | | WLAN 5GHz | |
| | | WLAN 2.4GHz | UNII 1 | UNII 3 | |
| 1 | 1 | - | 1.7 | - | - |
| 2 | 2 | - | 2.9 | - | - |
| 3 | - | 1 | - | 2.5 | 3.6 |
| 4 | - | 2 | - | 3.3 | 4.9 |

Note 2: The above information was declared by manufacturer.



Note 3: Directional gain information

| Туре | Maximum Output Power | Power Spectral Density |
|--------|--|---|
| Non-BF | Directional gain = Max.gain + array gain. For power measurements on IEEE 802.11 devices Array Gain = 0 dB (i.e., no array gain) for N ANT \leq 4 | $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{W}} \left(\sum_{k=1}^{N_{AWT}} g_{j,k} \right)^2}{N_{ANT}} \right]$ |
| BF | $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{abs}} \left[\sum_{k=1}^{N_{abs}} S_{j,k} \right]^2}{N_{ANT}} \right]$ | $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{m}} \left\{ \sum_{k=1}^{N_{AW}} \boldsymbol{\mathcal{S}}_{j,k} \right\}^{2}}{N_{ANT}} \right]$ |

Ex.

Directional Gain (NSS1) formula :

$$Directional Gain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{gr}} \left\{ \sum_{k=1}^{N_{sNT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$$

NSS1(g1,1) = $10^{G1/20}$; NSS1(g1,2)= $10^{G2/20}$; NSS1(g1,2)= $10^{G3/20}$; NSS1(g1,2)= $10^{G4/20}$ gj,k =(Nss1(g1,1) + Nss1(g1,2) + Nss1(g1,3) + Nss1(g1,4))² DG = $10 \log[(Nss1(g1,1) + Nss1(g1,2) + Nss1(g1,3) + Nss1(g1,4))^2 / N_{ANT}] => 10 \log[(10^{G1/20} + 10^{G2/20} + 10^{G3/20} + 10^{G4/20})^2 / N_{ANT}]$ Where ;

2.4G G1= 1.7 dBi ;G2= 2.9 dBi ; 5G UNII-1 G1 = 2.5 dBi; G2 = 3.3 dBi; 5G UNII-3 G1 = 3.6 dBi; G2 = 4.9 dBi;

2.4G DG = 5.33 dBi

5G UNII-1 DG = 5.92 dBi

5G UNII-3 DG = 7.28 dBi

For 2.4GHz function: For IEEE 802.11b/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 IEEE 802.11a/n/ac/ax (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 Mode Test Duty Cycle

| Mode | DC | DCF(dB) | T(s) | VBW(Hz) ≥ 1/T |
|-------------------|-------|---------|----------------|----------------|
| 802.11a | 0.988 | 0.05 | n/a (DC>=0.98) | n/a (DC>=0.98) |
| 802.11ax HEW20 | 0.997 | 0.01 | n/a (DC>=0.98) | n/a (DC>=0.98) |
| 802.11ax HEW20-BF | 0.997 | 0.01 | n/a (DC>=0.98) | n/a (DC>=0.98) |
| 802.11ax HEW40 | 0.997 | 0.01 | n/a (DC>=0.98) | n/a (DC>=0.98) |
| 802.11ax HEW40-BF | 0.997 | 0.01 | n/a (DC>=0.98) | n/a (DC>=0.98) |
| 802.11ax HEW80 | 0.997 | 0.01 | n/a (DC>=0.98) | n/a (DC>=0.98) |
| 802.11ax HEW80-BF | 0.997 | 0.01 | n/a (DC>=0.98) | n/a (DC>=0.98) |

Note:

• DC is Duty Cycle.

• DCF is Duty Cycle Factor.

1.1.4 EUT Operational Condition

| EUT Power Type From Power Adapter or PoE | | | | |
|--|--|---------------------|-------------|---------------------|
| | \boxtimes | With beamforming | | Without beamforming |
| Beamforming Function | The product has beamforming function for n/VHT/ax in 2.4GHz and n/ac/ax in 5GHz. | | | |
| | | Outdoor P2M | \boxtimes | Indoor P2M |
| Function | | Fixed P2P | | Client |
| | | Point-to-multipoint | | Point-to-point |
| Channel Puncturing Function | | Supported | \boxtimes | Unsupported |
| Support RU | \boxtimes | Full RU | | Partial RU |
| Test Software Version | QSI | PR V5.0-00202 | | |

Note: The above information was declared by manufacturer.

1.1.5 Table for EUT Supports Function

| Function |
|-----------|
| AP Router |
| Bridge |
| Repeater |

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

Note 2: The above information was declared by manufacturer.



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 D01 v02r01
- 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 | Hsinchu ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.) | | | | |
| (TAF: 3787) | TEL: 886-3-656-9065 FAX: 886-3-656-9085 | | | | |
| Test site Designation No. TW3787 with FCC. | | | | | |
| Conformity Assessment Body Identifier (CABID) TW3787 with ISED. | | | | | |

| Test Condition | Test Site No. | Test Engineer | Test Environment (°C / %) | Test Date |
|--------------------------|---------------|---------------|------------------------------|---------------------------------|
| RF Conducted | TH03-CB | Owen Hsu | 21.2-22.7 / 65-69 | Dec. 19, 2023~ Dec. 26, 2023 |
| Radiated (below 1GHz) | 10CH01-CB | Peter Wu | 23-24 / 56-57 | Dec. 29, 2023 |
| Radiated | 03CH03-CB | Faces about | 22.4-23.5 / 55-58 | Dec. 19, 2023~ |
| (above 1GHz) | 03CH05-CB | Eason chen | 21.2-22.3 / 56-59 | Dec. 22, 2023 |
| AC Conduction | CO01-CB | Ryan Huang | 21-22 / 68-69 | Dec. 14, 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) | 5.0 dB | Confidence levels of 95% |
| Radiated Emission (30MHz ~ 1,000MHz) | 5.0 dB | Confidence levels of 95% |
| Radiated Emission (1GHz ~ 18GHz) | 4.1 dB | Confidence levels of 95% |
| Radiated Emission (18GHz ~ 40GHz) | 4.2 dB | Confidence levels of 95% |
| Conducted Emission | 3.1 dB | Confidence levels of 95% |
| Output Power Measurement | 0.8 dB | Confidence levels of 95% |
| Power Density Measurement | 3.1 dB | Confidence levels of 95% |
| Bandwidth Measurement | 2.2% | Confidence levels of 95% |

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2 Test Configuration of EUT

2.1 Test Channel Mode

| Mode |
|-----------------------------------|
| 802.11a_Nss1,(6Mbps)_2TX |
| 5180MHz |
| 5200MHz |
| 5240MHz |
| 5745MHz |
| 5785MHz |
| 5825MHz |
| 802.11ax HEW20_Nss1,(MCS0)_2TX |
| 5180MHz |
| 5200MHz |
| 5240MHz |
| 5745MHz |
| 5785MHz |
| 5825MHz |
| 802.11ax HEW40_Nss1,(MCS0)_2TX |
| 5190MHz |
| 5230MHz |
| 5755MHz |
| 5795MHz |
| 802.11ax HEW80_Nss1,(MCS0)_2TX |
| 5210MHz |
| 5775MHz |
| 802.11ax HEW20-BF_Nss1,(MCS0)_2TX |
| 5180MHz |
| 5200MHz |
| 5240MHz |
| 5745MHz |
| 5785MHz |
| 5825MHz |
| 802.11ax HEW40-BF_Nss1,(MCS0)_2TX |
| 5190MHz |
| 5230MHz |
| 5755MHz |
| 5795MHz |



802.11ax HEW80-BF_Nss1,(MCS0)_2TX

5210MHz

5775MHz

Note:

- HEW20 / HEW40 / HEW80 covers HT20 / HT40 / VHT20 / VHT40 / VHT80 due to similar modulation. The power setting for HT20 / HT40 / VHT20 / VHT40 / VHT80 is the same or lower than HEW20 / HEW40 / HEW80.
- The EUT supports non-beamforming and beamforming modes, after evaluating, the non-beamforming mode has been selected to execute all tests. The beamforming mode evaluates the output power only



2.2 The Worst Case Measurement Configuration

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

| The Worst Case Mode for Following Conformance Tests | | |
|---|--|--|
| Tests Item | Emission Bandwidth Maximum Output Power Power Spectral Density | |
| Test Condition | Conducted measurement at transmit chains | |

| The Worst Case Mode for Following Conformance Tests | | | |
|---|---|--|--|
| Tests Item Unwanted Emissions | | | |
| Test ConditionRadiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in regardless of spatial multiplexing MIMO configuration), the radiated test of be performed with highest antenna gain of each antenna type. | | | |
| | Normal Link | | |
| Operating Mode < 1GHz | After evaluating, and the worst case was found at Z axis, so it was selected perform test and its test result was written in the report. | | |
| 1 | Normal Link_EUT in Z axis + Adapter | | |
| 2 | Normal Link_EUT in Z axis + PoE | | |
| For operating mode 2 is th | e worst case and it was record in this test report. | | |
| | СТХ | | |
| Operating Mode > 1GHz | After evaluating, and the worst case was found at Z axis, so it was selected to perform test and its test result was written in the report. | | |
| 1 | EUT in Z axis | | |

| The Worst Case Mode for Following Conformance Tests | | | |
|--|---------------------------|--|--|
| Tests Item Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation | | | |
| Operating Mode | | | |
| 1 | 1 WLAN 2.4GHz + WLAN 5GHz | | |
| Refer to Sporton Test Report No.: FA3D0613 for Co-location RF Exposure Evaluation. | | | |



2.3 EUT Operation during Test

For CTX Mode:

The EUT was programmed to be in continuously transmitting mode.

For Normal Link Mode:

During the test, the EUT operation to normal function.

2.4 Accessories

| Accessories | | | | |
|---------------------|---------------|------------------|--|--|
| Equipment Name | Brand Name | Model Name | Rating | |
| Adapter | AMIGO | AMS200-1201500FU | Input: 100-240V~50/60Hz, 0.8A Max Output: 12V, 1.5A | |
| other | | | | |
| Wall-mounted rack*1 | | | | |

2.5 Support Equipment

For AC Conduction:

| Support Equipment | | | | | |
|-------------------|--|------|--------|---------------|--|
| No. | No. Equipment Brand Name Model Name FCC ID | | | | |
| А | Ethernet port PC | ASUS | S300TA | TX2-RTL8821CE | |
| В | 2.4G NB | DELL | E6430 | N/A | |
| С | 5G NB | DELL | E6430 | N/A | |

For Radiated (below 1GHz):

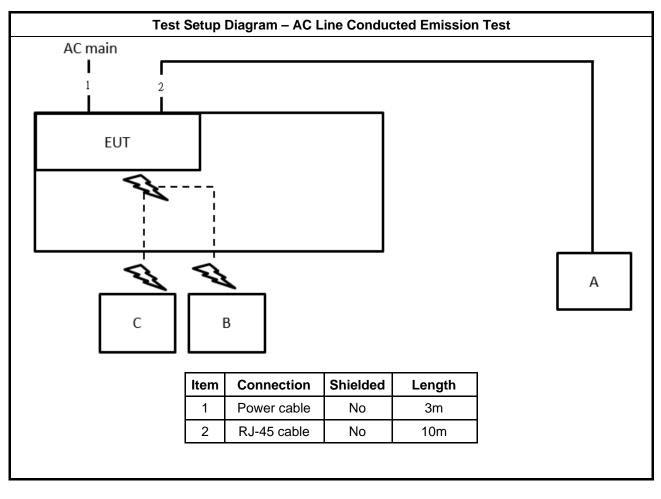
| Support Equipment | | | | | |
|-------------------|--|-------|------------|---------------|--|
| No. | No. Equipment Brand Name Model Name FCC ID | | | | |
| А | PoE | DELTA | ADH-90AR B | N/A | |
| В | 2.4G NB | DELL | E6430 | N/A | |
| С | 5G NB | DELL | E6430 | N/A | |
| D | Ethernet port PC | ASUS | S300TA | TX2-RTL8821CE | |

For Radiated (above 1GHz) and RF Conducted:

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

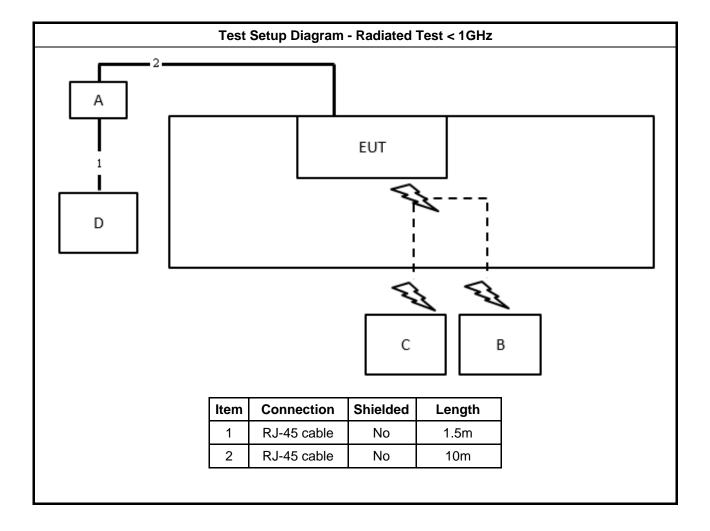


2.6 Test Setup Diagram

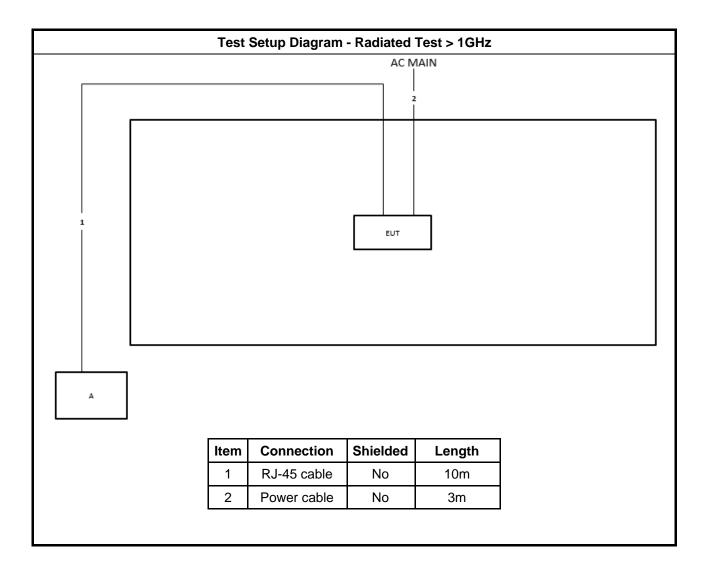














3 Transmitter Test Result

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. | | | |

5

3.1.2 Measuring Instruments

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

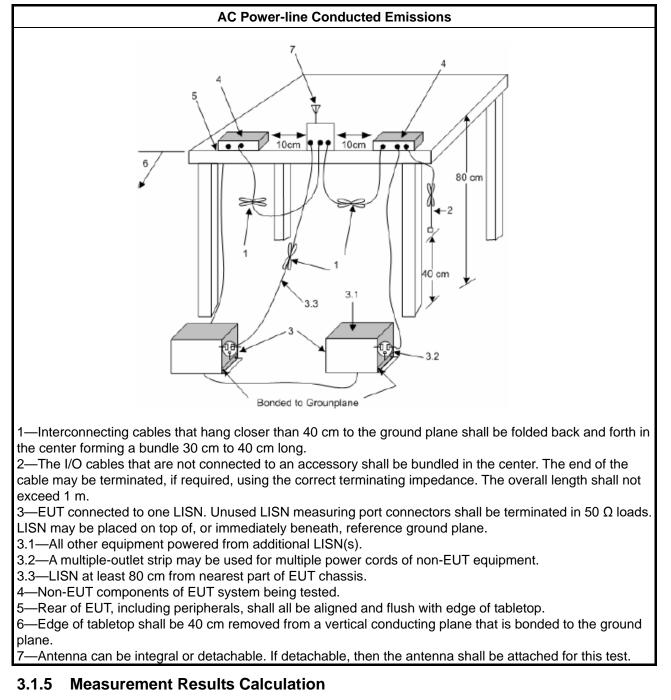
3.1.3 Test Procedures

Test Method

Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.



3.1.4 Test Setup



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 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

| | Emission Bandwidth Limit |
|-------------|---|
| UN | II Devices |
| \boxtimes | For the 5.15-5.25 GHz band, N/A |
| | For the 5.25-5.35 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. |
| | For the 5.47-5.725 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. |
| \square | For the 5.725-5.85 GHz band, 26 dB emission bandwidth ,N/A. 6 dB emission bandwidth ≥ 500kHz. |
| LE- | LAN Devices |
| | For the band 5.15-5.25 GHz, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. |
| | For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz |
| | For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz |
| | For the 5.725-5.85 GHz band, 6 dB emission bandwidth \geq 500kHz. |

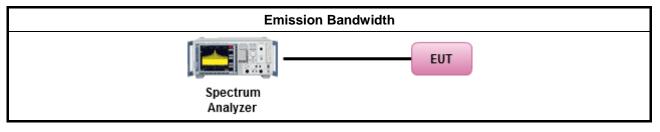
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

| Test Method | | |
|-------------|-------------|---|
| • | For | the emission bandwidth shall be measured using one of the options below: |
| | \boxtimes | Refer as FCC KDB 789033 D02, clause C for EBW and clause D for OBW measurement. |
| | | Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing. |
| | | Refer as IC RSS-Gen, clause 4.6 for bandwidth testing. |

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B



3.3 Maximum Output Power

3.3.1 Limit

| | Maximum Output Power Limit |
|-------------|---|
| UN | I Devices |
| \boxtimes | For the 5.15-5.25 GHz band: |
| | Outdoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 - (G_{TX} - 6). e.i.r.p. at any elevation angle above 30 degrees ≤ 125mW [21dBm] |
| | Indoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 - (G_{TX} - 6) |
| | Point-to-point AP: the maximum conducted output power (Pout) shall not exceed the lesser of 1 W If G_{TX} > 23 dBi, then Pout = 30 - (G_{TX} - 23). |
| | Mobile or Portable Client: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW. If G_{TX} > 6 dBi, then P_{Out} = 24 - (G_{TX} - 6). |
| | For the 5.25-5.35 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$. |
| | For the 5.47-5.725 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$. |
| \boxtimes | For the 5.725-5.85 GHz band: |
| | Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 - (G_{TX} - 6). |
| | Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. |
| LE- | LAN Devices |
| | For the 5.15-5.25 GHz band, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. |
| | For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz |
| | For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz |
| | For the 5.725-5.85 GHz band: |
| | Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If G_{TX} > 6 dBi, then P_{Out} = 30 - (G_{TX} - 6). |
| | Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. |
| | a = maximum conducted output power in dBm, = the maximum transmitting antenna directional gain in dBi. |



3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

| | | Test Method | |
|-------------|---|---|--|
| | Average over on/off periods with duty factor | | |
| | Refer as FCC KDB 789033 D02, clause E Method SA-2 (spectral trace averaging). | | |
| | | Refer as FCC KDB 789033 D02, clause E Method SA-2 Alt. (RMS detection with slow sweep speed) | |
| | Wid | eband RF power meter and average over on/off periods with duty factor | |
| | \square | Refer as FCC KDB 789033 D02, clause E Method PM-G (using an RF average power meter). | |
| \boxtimes | For conducted measurement. | | |
| | • | If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them. | |
| | • | If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) EIRP _{total} = P _{total} + DG | |
| | For radiated measurement. | | |
| | • | Refer as FCC KDB 789033 D02 clause II A.1.F "Antenna-port Conducted versus Radiated Testing" | |
| | | Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz. | |
| | • | Refer as FCC KDB 412172 D01 clause 2.2 for EIRP calculation. | |
| | | | |

3.3.4 Test Setup

| Conducted Measurement (Power Meter) | |
|---|--|
| EUT Power Meter | |

3.3.5 Test Result of Maximum Output Power

Refer as Appendix C



3.4 Power Spectral Density

3.4.1 Limit

| | Peak Power Spectral Density Limit | | |
|-------------|---|--|--|
| UNI | UNII Devices | | |
| \boxtimes | For the 5.15-5.25 GHz band: | | |
| | • Outdoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$. | | |
| | • Indoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$. | | |
| | Point-to-point AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If G_{TX} > 23 dBi, then P_{Out} = 17 – (G_{TX} – 23). | | |
| | Mobile or Portable Client: the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If G_{TX} > 6 dBi, then PPSD= 11 - (G_{TX} - 6) | | |
| | For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) \leq 11 dBm/MHz. If G _{TX} > 6 dBi, then PPSD= 11 - (G _{TX} - 6). | | |
| | For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) \leq 11 dBm/MHz. If G _{TX} > 6 dBi, then PPSD= 11 - (G _{TX} - 6). | | |
| \boxtimes | For the 5.725-5.85 GHz band: | | |
| | Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If G_{TX} > 6 dBi, then PPSD= 30 - (G_{TX} - 6). | | |
| | Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. | | |
| LE- | LAN Devices | | |
| | For the 5.15-5.25 GHz band, the e.i.r.p. peak power spectral density (PPSD) \leq 10 dBm/MHz. | | |
| | For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) \leq 11 dBm/MHz. | | |
| | e.i.r.p. greater than 200 mW shall comply with the following e.i.r.p. at different elevations, where θ is the angle above the local horizontal plane (of the Earth) as shown below: -13 dBW/MHz for 0° ≤ θ < 8°; -13 - 0.716 (θ-8) dBW/MHz for 8° ≤ θ < 40° -35.9 - 1.22 (θ-40) dBW/MHz for 40° ≤ θ ≤ 45°; -42 dBW/MHz for θ > 45° | | |
| | For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the peak power spectral density (PPSD) \leq 11 dBm/MHz. | | |
| | For the 5.725-5.85 GHz band: | | |
| | Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If G_{TX} > 6 dBi, then PPSD= 30 - (G_{TX} - 6). | | |
| | ■ Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. | | |
| pow | SD = peak power spectral density that he same method as used to determine the conducted output ver shall be used to determine the power spectral density. And power spectral density in dBm/MHz = the maximum transmitting antenna directional gain in dBi. | | |

3.4.2 Measuring Instruments

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

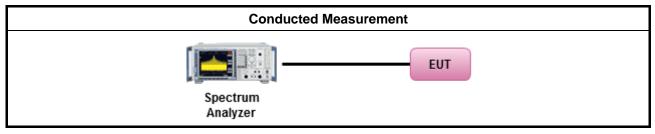


3.4.3 Test Procedures

| | Test Method | | |
|-----------|--|---|--|
| • | outp funct | c power spectral density procedures that the same method as used to determine the conducted ut power shall be used to determine the peak power spectral density and use the peak search tion on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density be measured using below options: | |
| | Refer as FCC KDB 789033 D02, F)5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth | | |
| | [duty | cycle ≥ 98% or external video / power trigger] | |
| | \boxtimes | Refer as FCC KDB 789033 D02, clause E Method SA-1 (spectral trace averaging). | |
| | | Refer as FCC KDB 789033 D02, clause E Method SA-1 Alt. (RMS detection with slow sweep speed) | |
| | duty | cycle < 98% and average over on/off periods with duty factor | |
| | \square | Refer as FCC KDB 789033 D02, clause E Method SA-2 (spectral trace averaging). | |
| | | Refer as FCC KDB 789033 D02, clause E Method SA-2 Alt. (RMS detection with slow sweep speed) | |
| \square | For | conducted measurement. | |
| | • | If the EUT supports multiple transmit chains using options given below: | |
| | | ☑ Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace. | |
| | | Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits, | |
| | | Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit. | |
| | | If multiple transmit chains, EIRP PPSD calculation could be following as methods: PPSD _{total} = PPSD ₁ + PPSD ₂ + + PPSD _n (calculated in linear unit [mW] and transfer to log unit [dBm]) EIRP _{total} = PPSD _{total} + DG | |
| | For radiated measurement. | | |
| | • | Refer as FCC KDB 789033 D02 clause II A.1.F "Antenna-port Conducted versus Radiated Testing" | |
| | • | Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz. | |
| | • | Refer as FCC KDB 412172 D01 clause 2.2 for EIRP calculation. | |



3.4.4 Test Setup



3.4.5 Test Result of Power Spectral Density

Refer as Appendix D



3.5 Unwanted Emissions

3.5.1 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 Dista | | | | | |
| 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 | |
| 🔀 5.15 - 5.25 GHz | e.i.r.p27 dBm [68.2 dBuV/m@3m] | |
| 🔲 5.25 - 5.35 GHz | e.i.r.p27 dBm [68.2 dBuV/m@3m] | |
| 🔲 5.47 - 5.725 GHz | e.i.r.p27 dBm [68.2 dBuV/m@3m] | |
| ⊠ 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). | | |



3.5.2 Measuring Instruments

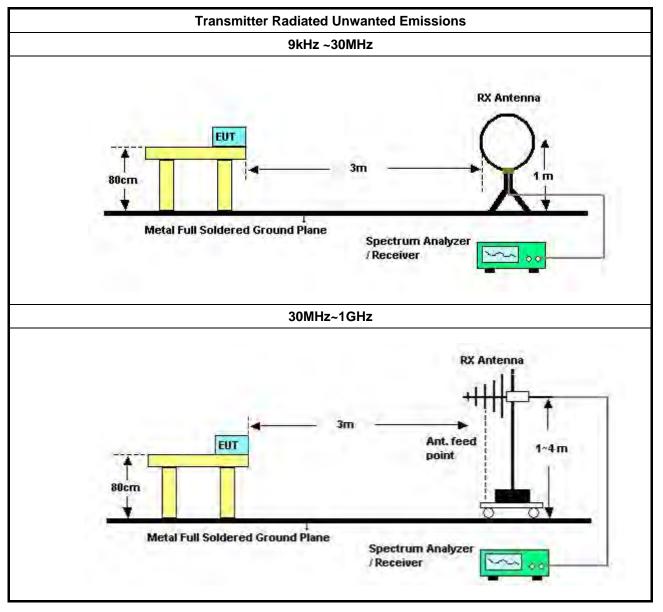
Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

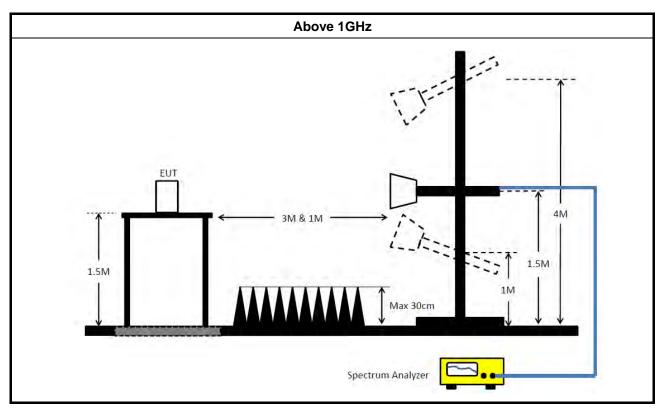
| | Test Method |
|---|--|
| • | Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 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). |
| • | The average emission levels shall be measured in [duty cycle \geq 98 or duty factor]. |
| • | For the transmitter unwanted emissions shall be measured using following options below: |
| | Refer as FCC KDB 789033 D02, clause G)2) for unwanted emissions into non-restricted bands. |
| | Refer as FCC KDB 789033 D02, clause G)1) for unwanted emissions into restricted bands. |
| | Refer as FCC KDB 789033 D02, G)6) Method AD (Trace Averaging). |
| | Refer as FCC KDB 789033 D02, G)6) Method VB (Reduced VBW). |
| | ☐ Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time. |
| | Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions. |
| | Refer as FCC KDB 789033 D02, clause G)5) measurement procedure peak limit. |
| | Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit. |
| | For radiated measurement. |
| | • Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m. |
| | • Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m. |
| | Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz. |
| - | The any unwanted emissions level shall not exceed the fundamental emission level. |
| • | All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported. |



3.5.4 Test Setup







3.5.5 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.

3.5.6 Transmitter Unwanted Emissions (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.

3.5.7 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E



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. 20, 2023 | Feb. 19, 2024 | Conduction (CO01-CB) |
| LISN | F.C.C. | FCC-LISN-50-16-2 | 04083 | 150kHz~ 100MHz | Feb. 16, 2023 | Feb. 15, 2024 | Conduction (CO01-CB) |
| LISN | Schwarzbeck | NSLK 8127 | 8127647 | 9kHz ~ 30MHz | Apr. 27, 2023 | Apr. 26, 2024 | Conduction (CO01-CB) |
| Pulse Limiter | Rohde&Schwarz | ESH3-Z2 | 100430 | 9kHz ~ 30MHz | Feb. 09, 2023 | Feb. 08, 2024 | Conduction (CO01-CB) |
| COND Cable | Woken | Cable | Low cable-CO01 | 9kHz ~ 30MHz | Oct. 17, 2023 | Oct. 16, 2024 | Conduction (CO01-CB) |
| Software | SPORTON | SENSE | V5.10 | - | N.C.R. | N.C.R. | Conduction (CO01-CB) |
| 10m Semi Anechoic Chamber NSA | TDK | SAC-10M | 10CH01-CB | 30MHz~1GHz 10m,3m | Jan. 18, 2023 | Jan. 17, 2024 | Radiation (10CH01-CB) |
| Amplifier | Agilent | 8447D | 2944A10783 | 9kHz ~ 1.3GHz | Mar. 10, 2023 | Mar. 09, 2024 | Radiation (10CH01-CB) |
| Amplifier | Agilent | 8447D | 2944A10784 | 9kHz ~ 1.3GHz | Mar. 10, 2023 | Mar. 09, 2024 | Radiation (10CH01-CB) |
| Low Cable | Woken | SUCOFLEX 104 | low cable-01 | 25MHz ~ 1GHz | Oct. 17, 2023 | Oct. 16, 2024 | Radiation (10CH01-CB) |
| Low Cable | Woken | SUCOFLEX 104 | low cable-02 | 25MHz ~ 1GHz | Oct. 17, 2023 | Oct. 16, 2024 | Radiation (10CH01-CB) |
| EMI Test Receiver | Rohde&Schwarz | ESCI | 100186 | 9kHz ~ 3GHz | Jul. 11, 2023 | Jul. 10, 2024 | Radiation (10CH01-CB) |
| Spectrum Analyzer | Rohde&Schwarz | FSV30 | 101026 | 9kHz ~ 30GHz | Apr. 19, 2023 | Apr. 18, 2024 | Radiation (10CH01-CB) |
| Bilog Antenna with 6dB Attenator | Schaffner & EMCI | CBL6112B& N-6-06 | 2888&AT- N0605 | 30MHz ~ 1GHz | Jan. 19, 2023 | Jan. 18, 2024 | Radiation (10CH01-CB) |
| Amplifier | EM | EM101 | 060703 | 10MHz ~ 1GHz | Oct. 18, 2023 | Oct. 17, 2024 | Radiation (10CH01-CB) |
| Low Cable | TITAN | T318E | low cable-03 | 30MHz ~ 1GHz | Nov. 23, 2023 | Nov. 22, 2024 | Radiation (10CH01-CB) |
| Loop Antenna | Teseq | HLA 6121 | 65417 | 9kHz - 30 MHz | Oct. 13, 2023 | Oct. 12, 2024 | Radiation (10CH01-CB) |
| Software | SPORTON | SENSE | V5.10 | - | N.C.R. | N.C.R. | Radiation (10CH01-CB) |
| 3m Semi Anechoic Chamber VSWR | TDK | SAC-3M | 03CH03-CB | 1GHz ~18GHz 3m | May 04, 2023 | May 03, 2024 | Radiation (03CH03-CB) |
| Horn Antenna | ETS • Lindgren | 3115 | 6821 | 750MHz~ 18GHz | Feb. 03, 2023 | Feb. 02, 2024 | Radiation (03CH03-CB) |

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| Instrument | Brand | Model No. | Serial No. | Characteristics | Calibration Date | Calibration Due Date | Remark |
|--|-------------|------------|---------------------|-----------------------------------|---------------------|-------------------------|--------------------------|
| Horn Antenna | Schwarzbeck | BBHA 9170 | BBHA9170252 | 15GHz ~ 40GHz | Sep. 04, 2023 | Sep. 03, 2024 | Radiation (03CH03-CB) |
| Pre-Amplifier | Agilent | 8449B | 3008A02097 | 1GHz~26.5GHz | Jun. 30, 2023 | Jun. 29, 2024 | Radiation (03CH03-CB) |
| Pre-Amplifier | SGH | SGH184 | 20221107-3 | 18GHz ~ 40GHz | Nov. 24, 2023 | Nov. 23, 2024 | Radiation (03CH03-CB) |
| Spectrum Analyzer | R&S | FSP40 | 100019 | 9kHz ~ 40GHz | Jun. 12, 2023 | Jun. 11, 2024 | Radiation (03CH03-CB) |
| RF Cable-high | Woken | RG402 | High Cable-20+29 | 1GHz ~ 18GHz | Nov. 07, 2023 | Nov. 06, 2024 | Radiation (03CH03-CB) |
| RF Cable-high | Woken | RG402 | High Cable-29 | 1GHz ~ 18GHz | Nov. 07, 2023 | Nov. 06, 2024 | Radiation (03CH03-CB) |
| High Cable | Woken | WCA0929M | 40G#5+6 | 1GHz ~ 40 GHz | Dec. 06, 2023 | Dec. 05, 2024 | Radiation (03CH03-CB) |
| High Cable | Woken | WCA0929M | 40G#5 | 1GHz ~ 40 GHz | Oct. 02, 2023 | Oct. 01, 2024 | Radiation (03CH03-CB) |
| High Cable | Woken | WCA0929M | 40G#6 | 40G#6 1GHz ~ 40 GHz Oct. 02, 2023 | | Oct. 01, 2024 | Radiation (03CH03-CB) |
| Test Software | SPORTON | SENSE | V5.10 | V5.10 - N.C.R. | | N.C.R. | Radiation (03CH03-CB) |
| 3m Semi Anechoic Chamber VSWR | TDK | SAC-3M | 03CH05-CB | 1GHz ~18GHz 3m | Sep. 29, 2023 | Sep. 28, 2024 | Radiation (03CH05-CB) |
| Horn Antenna | SCHWARZBECK | BBHA9120D | BBHA 9120 D-1291 | 1GHz~18GHz | Jun. 08, 2023 | Jun. 07, 2024 | Radiation (03CH05-CB) |
| Horn Antenna | Schwarzbeck | BBHA 9170 | BBHA9170252 | 15GHz ~ 40GHz | Sep. 04, 2023 | Sep. 03, 2024 | Radiation (03CH05-CB) |
| Pre-Amplifier | EMCI | EMC12630SE | 980287 | 1GHz–26.5GHz | Jun. 30, 2023 | Jun. 29, 2024 | Radiation (03CH05-CB) |
| Pre-Amplifier | SGH | SGH184 | 20221107-3 | 18GHz ~ 40GHz | Nov. 24, 2023 | Nov. 23, 2024 | Radiation (03CH05-CB) |
| Spectrum Analyzer | R&S | FSP40 | 100304 | 9kHz ~ 40GHz | Apr. 18, 2023 | Apr. 17, 2024 | Radiation (03CH05-CB) |
| RF Cable-high | Woken | RG402 | High Cable-28 | 1GHz~18GHz | Oct. 02, 2023 | Oct. 01, 2024 | Radiation (03CH05-CB) |
| RF Cable-high | Woken | RG402 | High Cable-04+28 | 1GHz~18GHz | Oct. 02, 2023 | Oct. 01, 2024 | Radiation (03CH05-CB) |
| High Cable | Woken | WCA0929M | 40G#5+6 | 1GHz ~ 40 GHz | Dec. 06, 2023 | Dec. 05, 2024 | Radiation (03CH05-CB) |
| High Cable | Woken | WCA0929M | 40G#5 | 1GHz ~ 40 GHz | Oct. 02, 2023 | Oct. 01, 2024 | Radiation (03CH05-CB) |
| High Cable | Woken | WCA0929M | 40G#6 | 1GHz ~ 40 GHz | Oct. 02, 2023 | Oct. 01, 2024 | Radiation (03CH05-CB) |
| Test Software | SPORTON | SENSE | V5.10 | - | N.C.R. | N.C.R. | Radiation (03CH05-CB) |
| Spectrum analyzer | R&S | FSV40 | 101028 | 9kHz~40GHz | Dec. 30, 2022 | Dec. 29, 2023 | Conducted (TH03-CB) |

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| Instrument | Brand | Model No. | Serial No. | Characteristics | Calibration Date | Calibration Due Date | Remark |
|------------------|---------|-----------|---------------|------------------|---------------------|-------------------------|------------------------|
| Power Sensor | Anritsu | MA2411B | 1726195 | 300MHz~ 40GHz | Sep. 04, 2023 | Sep. 03, 2024 | Conducted (TH03-CB) |
| Power Meter | Anritsu | ML2495A | 1035008 | 300MHz~ 40GHz | Sep. 04, 2023 | Sep. 03, 2024 | Conducted (TH03-CB) |
| RF Cable | Woken | RG402 | High Cable-11 | 30MHz –18 GHz | Oct. 02, 2023 | Oct. 01, 2024 | Conducted (TH03-CB) |
| RF Cable | Woken | RG402 | High Cable-12 | 30MHz –18 GHz | Oct. 02, 2023 | Oct. 01, 2024 | Conducted (TH03-CB) |
| RF Cable | Woken | RG402 | High Cable-13 | 30MHz –18 GHz | Oct. 02, 2023 | Oct. 01, 2024 | Conducted (TH03-CB) |
| RF Cable-high | Woken | RG402 | High Cable-14 | 1 GHz –18 GHz | Oct. 02, 2023 | Oct. 01, 2024 | Conducted (TH03-CB) |
| RF Cable-high | Woken | RG402 | High Cable-15 | 1 GHz –18 GHz | Oct. 02, 2023 | Oct. 01, 2024 | Conducted (TH03-CB) |
| Switch | SPTCB | SP-SWI | SWI-03 | 1 ~26.5 GHz | Oct. 03, 2023 | Oct. 02, 2024 | Conducted (TH03-CB) |
| Test Software | SPORTON | SENSE | V5.10 | - | N.C.R. | N.C.R. | Conducted (TH03-CB) |

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

NCR means Non-Calibration required.



~

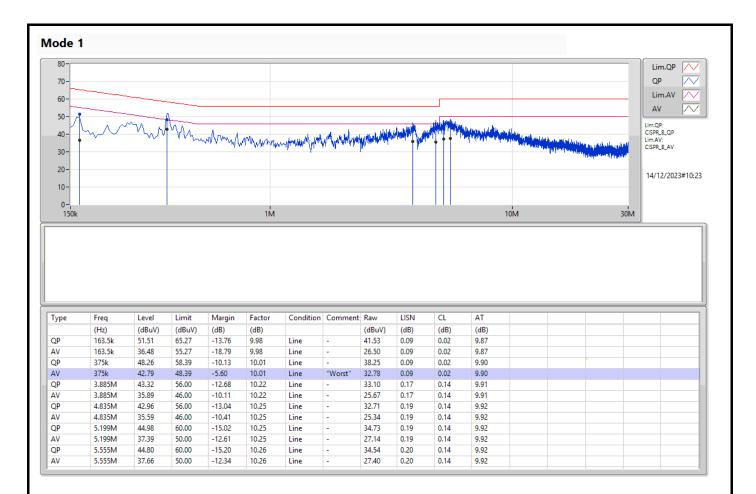
Conducted Emissions at Powerline

Appendix A

| Summary | | | | | | | | | |
|---------|--------|------|------|--------|--------|--------|-----------|--|--|
| Mode | Result | Туре | Freq | Level | Limit | Margin | Condition | | |
| | | | (Hz) | (dBuV) | (dBuV) | (dB) | | | |
| Mode 1 | Pass | AV | 375k | 42.79 | 48.39 | -5.60 | Line | | |

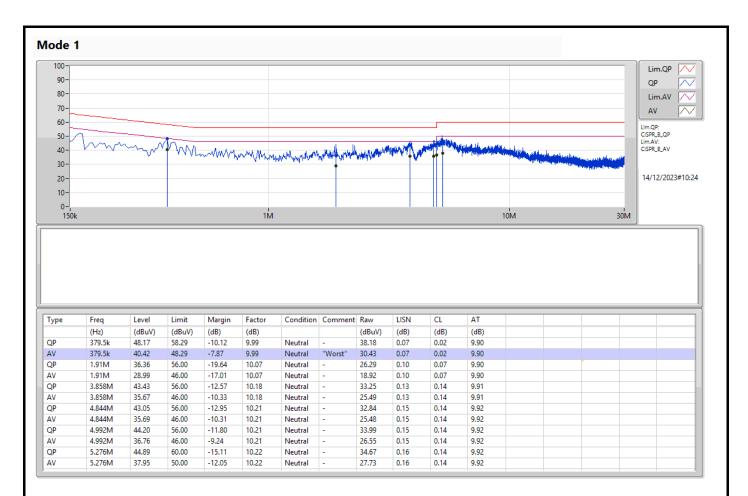














Summary

| Mode | Max-N dB | Max-OBW | ITU-Code | Min-N dB | Min-OBW |
|--------------------------------|----------|---------|----------|----------|---------|
| | (Hz) | (Hz) | | (Hz) | (Hz) |
| 5.15-5.25GHz | - | - | - | - | - |
| 802.11a_Nss1,(6Mbps)_2TX | 22.44M | 16.372M | 16M4D1D | 18.095M | 16.27M |
| 802.11ax HEW20_Nss1,(MCS0)_2TX | 28.93M | 19.022M | 19M0D1D | 20.185M | 18.765M |
| 802.11ax HEW40_Nss1,(MCS0)_2TX | 39.49M | 37.409M | 37M4D1D | 38.94M | 37.32M |
| 802.11ax HEW80_Nss1,(MCS0)_2TX | 80.08M | 76.82M | 76M8D1D | 79.86M | 76.51M |
| 5.725-5.85GHz | - | - | - | - | - |
| 802.11a_Nss1,(6Mbps)_2TX | 16.335M | 22.605M | 22M6D1D | 12.32M | 16.448M |
| 802.11ax HEW20_Nss1,(MCS0)_2TX | 18.81M | 22.414M | 22M4D1D | 17.6M | 18.791M |
| 802.11ax HEW40_Nss1,(MCS0)_2TX | 38.06M | 54.623M | 54M6D1D | 34.54M | 37.681M |
| 802.11ax HEW80_Nss1,(MCS0)_2TX | 60.72M | 76.462M | 76M5D1D | 54.78M | 76.362M |

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band; Max-OBW = Maximum 99% occupied bandwidth; Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band; Min-OBW = Minimum 99% occupied bandwidth



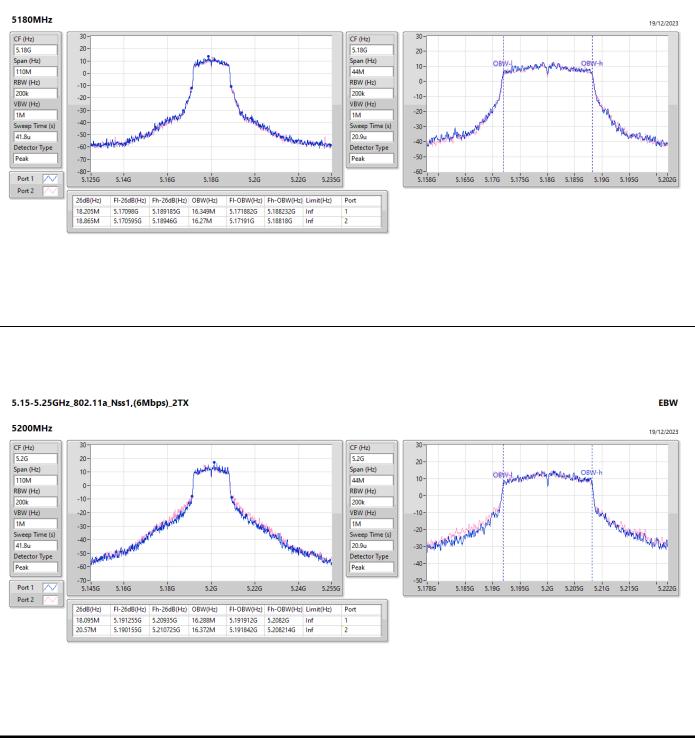
Result

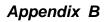
| Mode | Result | Limit | Port 1-N dB | Port 1-OBW | Port 2-N dB | Port 2-OBW |
|--------------------------------|--------|-------|-------------|------------|-------------|------------|
| | | (Hz) | (Hz) | (Hz) | (Hz) | (Hz) |
| 802.11a_Nss1,(6Mbps)_2TX | - | - | - | - | - | - |
| 5180MHz | Pass | Inf | 18.205M | 16.349M | 18.865M | 16.27M |
| 5200MHz | Pass | Inf | 18.095M | 16.288M | 20.57M | 16.372M |
| 5240MHz | Pass | Inf | 19.36M | 16.349M | 22.44M | 16.353M |
| 5745MHz | Pass | 500k | 15.51M | 16.492M | 16.28M | 16.448M |
| 5785MHz | Pass | 500k | 16.28M | 22.605M | 16.335M | 21.791M |
| 5825MHz | Pass | 500k | 12.32M | 19.614M | 13.42M | 22.407M |
| 802.11ax HEW20_Nss1,(MCS0)_2TX | - | - | - | - | - | - |
| 5180MHz | Pass | Inf | 20.185M | 18.777M | 20.185M | 18.765M |
| 5200MHz | Pass | Inf | 22.385M | 18.871M | 25.96M | 19.008M |
| 5240MHz | Pass | Inf | 24.2M | 18.931M | 28.93M | 19.022M |
| 5745MHz | Pass | 500k | 18.205M | 18.841M | 18.81M | 18.791M |
| 5785MHz | Pass | 500k | 18.59M | 22.414M | 18.48M | 21.164M |
| 5825MHz | Pass | 500k | 17.6M | 20.115M | 17.765M | 21.364M |
| 802.11ax HEW40_Nss1,(MCS0)_2TX | - | - | - | - | - | - |
| 5190MHz | Pass | Inf | 39.49M | 37.409M | 38.94M | 37.339M |
| 5230MHz | Pass | Inf | 38.94M | 37.409M | 39.38M | 37.32M |
| 5755MHz | Pass | 500k | 37.4M | 37.931M | 34.54M | 37.681M |
| 5795MHz | Pass | 500k | 35.97M | 54.073M | 38.06M | 54.623M |
| 802.11ax HEW80_Nss1,(MCS0)_2TX | - | - | - | - | - | - |
| 5210MHz | Pass | Inf | 79.86M | 76.82M | 80.08M | 76.51M |
| 5775MHz | Pass | 500k | 54.78M | 76.462M | 60.72M | 76.362M |

Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band Port X-OBW = Port X 99% occupied bandwidth



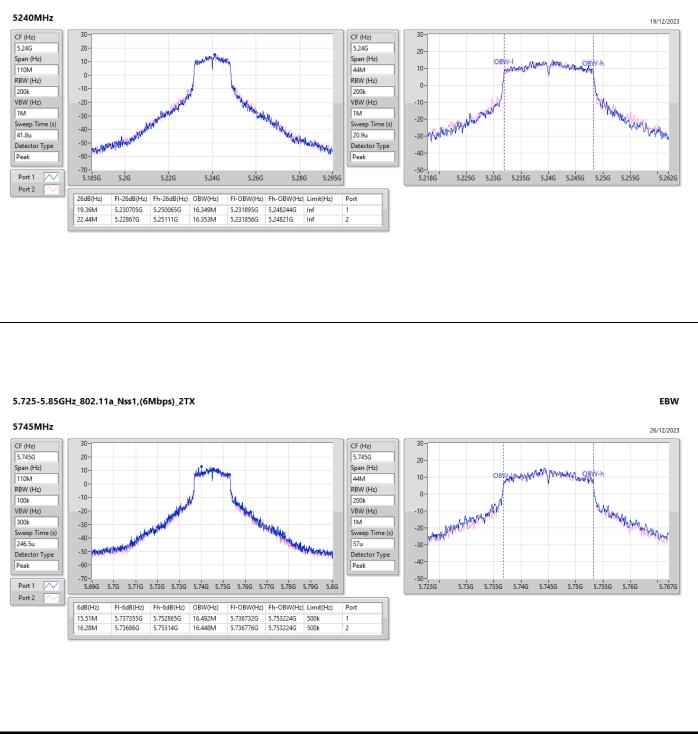
5.15-5.25GHz_802.11a_Nss1,(6Mbps)_2TX



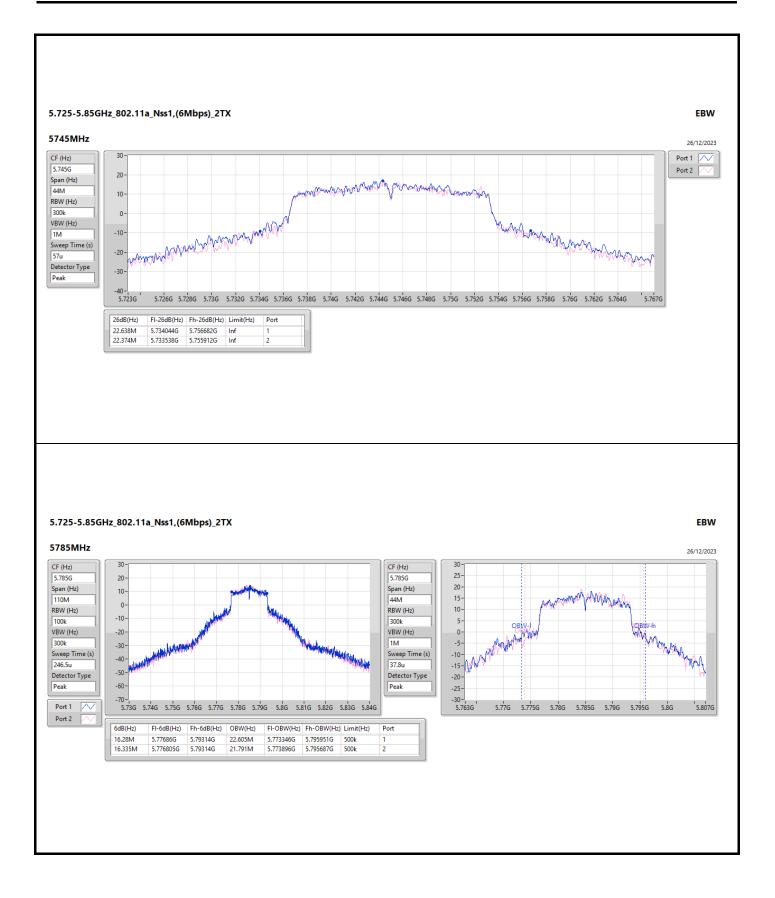




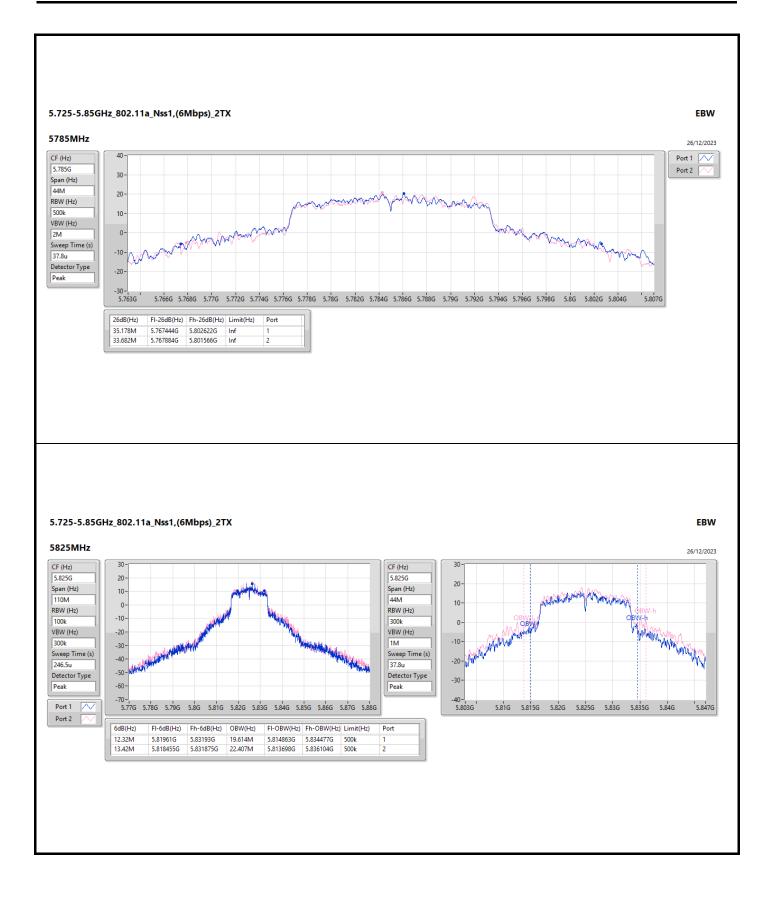
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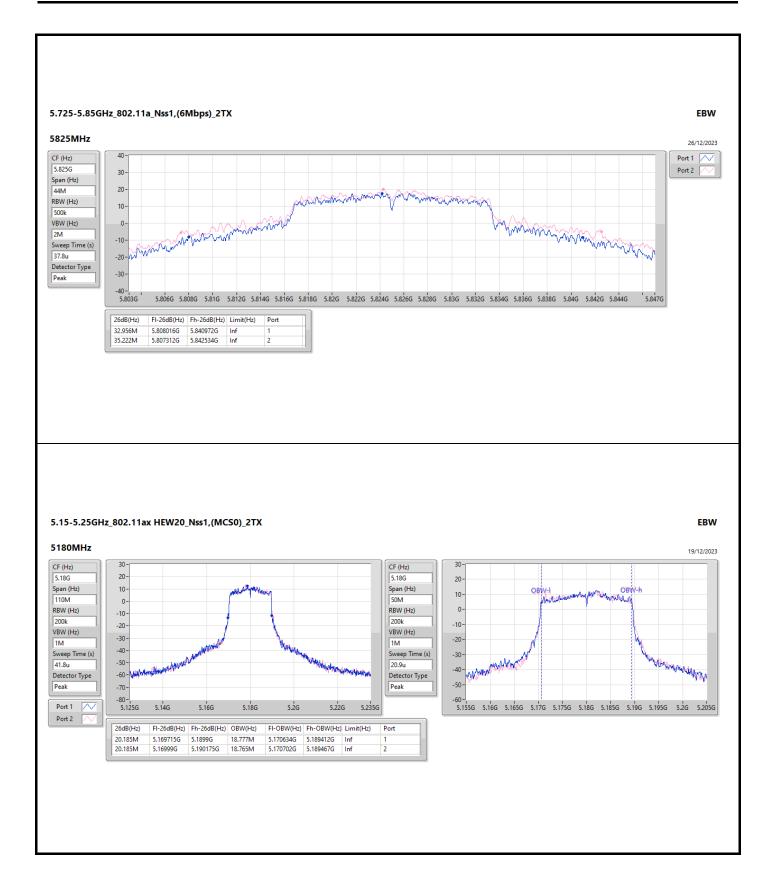






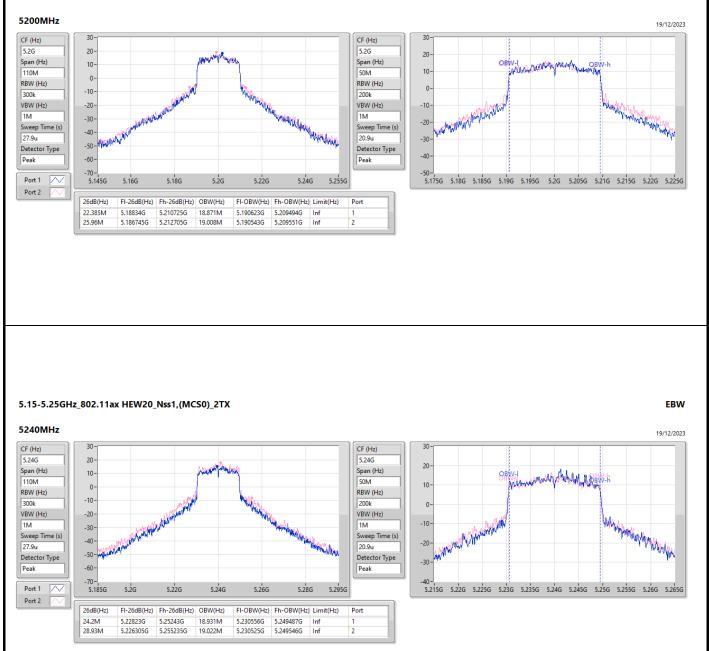






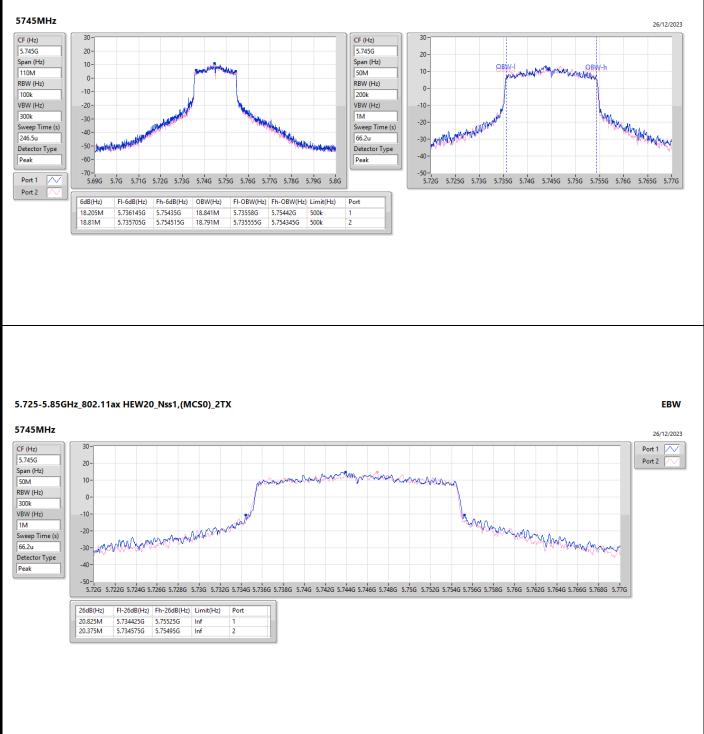


5.15-5.25GHz_802.11ax HEW20_Nss1,(MCS0)_2TX



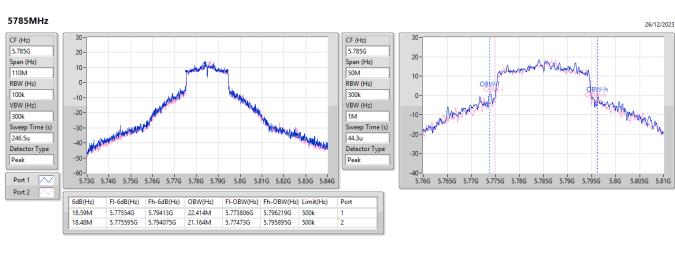


5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

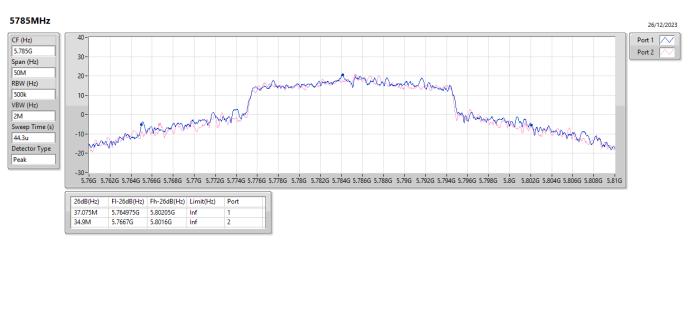




5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_2TX



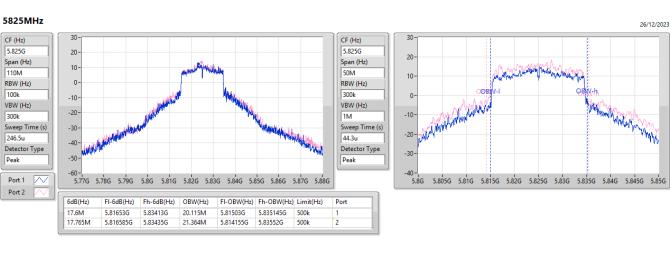
5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_2TX



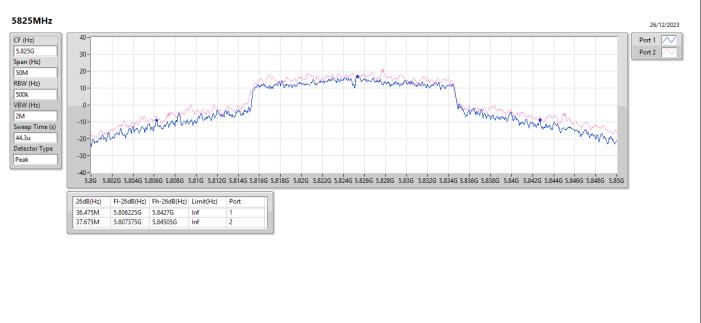
EBW



5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_2TX



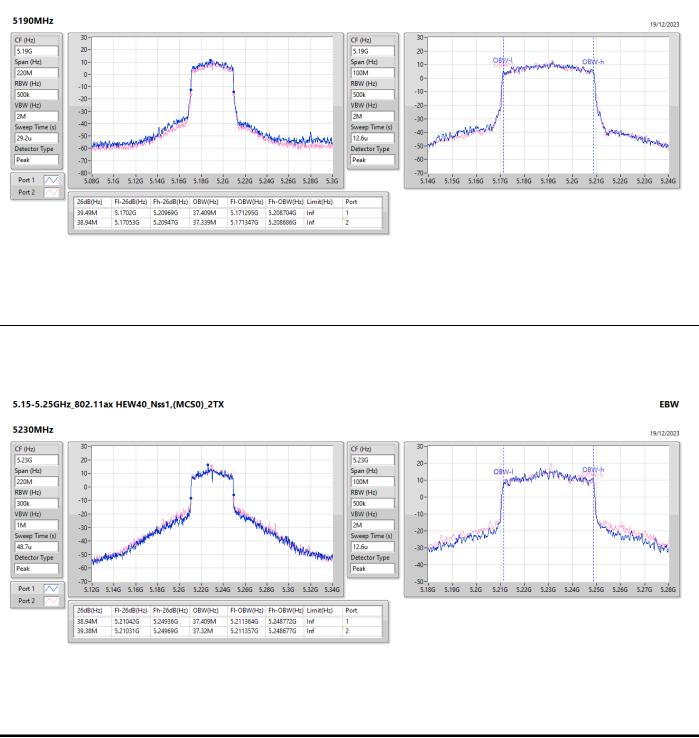
5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_2TX



EBW

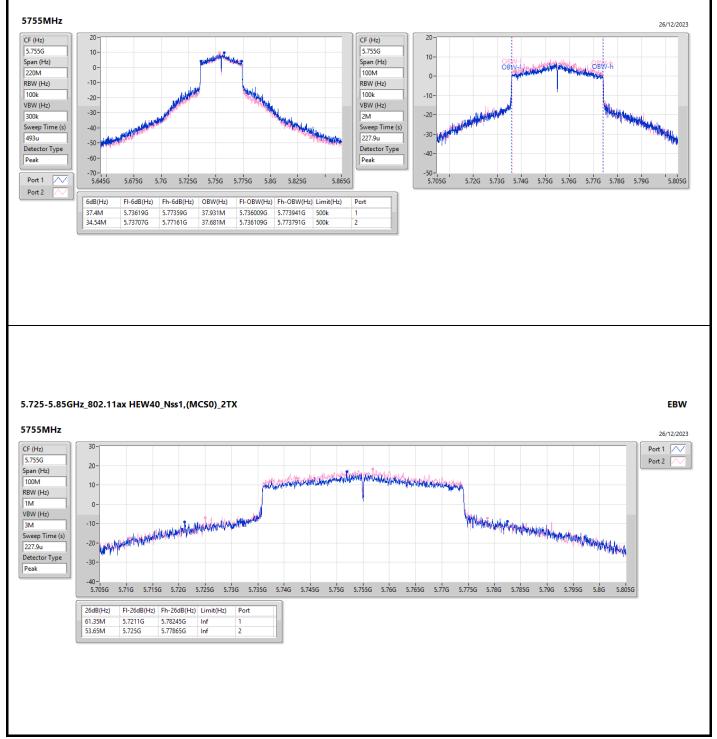


5.15-5.25GHz_802.11ax HEW40_Nss1,(MCS0)_2TX



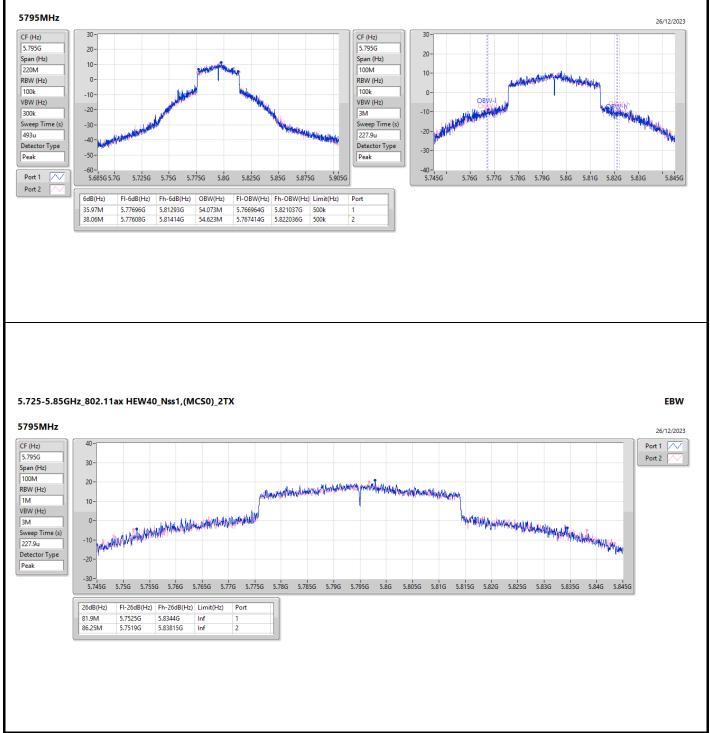


5.725-5.85GHz_802.11ax HEW40_Nss1,(MCS0)_2TX



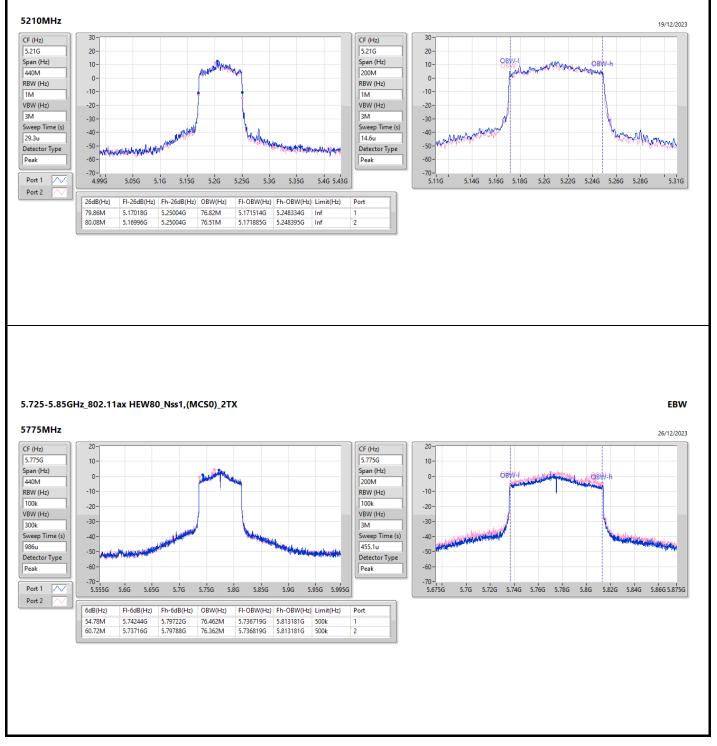


5.725-5.85GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

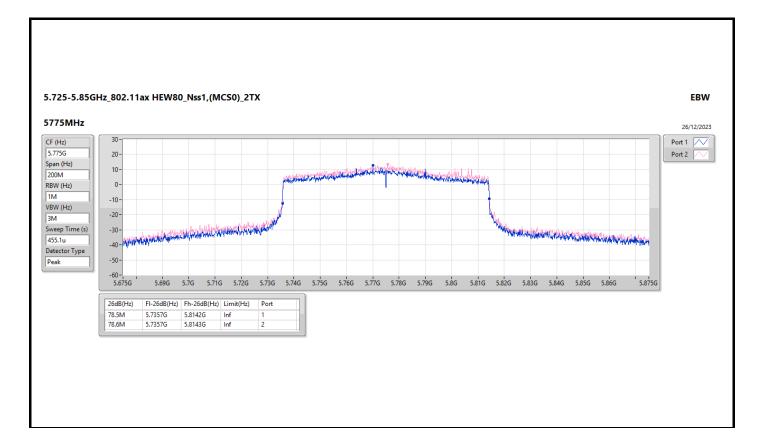




5.15-5.25GHz_802.11ax HEW80_Nss1,(MCS0)_2TX









Average Power

Appendix C

Summary

| Mode | Total Power | Total Power | | |
|-----------------------------------|-------------|-------------|--|--|
| | (dBm) | (W) | | |
| 5.15-5.25GHz | - | - | | |
| 802.11a_Nss1,(6Mbps)_2TX | 28.04 | 0.63680 | | |
| 802.11ax HEW20_Nss1,(MCS0)_2TX | 28.97 | 0.78886 | | |
| 802.11ax HEW20-BF_Nss1,(MCS0)_2TX | 28.97 | 0.78886 | | |
| 802.11ax HEW40_Nss1,(MCS0)_2TX | 27.60 | 0.57544 | | |
| 802.11ax HEW40-BF_Nss1,(MCS0)_2TX | 27.60 | 0.57544 | | |
| 802.11ax HEW80_Nss1,(MCS0)_2TX | 22.16 | 0.16444 | | |
| 802.11ax HEW80-BF_Nss1,(MCS0)_2TX | 22.16 | 0.16444 | | |
| 5.725-5.85GHz | - | - | | |
| 802.11a_Nss1,(6Mbps)_2TX | 29.69 | 0.93111 | | |
| 802.11ax HEW20_Nss1,(MCS0)_2TX | 29.54 | 0.89950 | | |
| 802.11ax HEW20-BF_Nss1,(MCS0_2TX | 28.34 | 0.68234 | | |
| 802.11ax HEW40_Nss1,(MCS0)_2TX | 29.91 | 0.97949 | | |
| 802.11ax HEW40-BF_Nss1,(MCS0)_2TX | 28.49 | 0.70632 | | |
| 802.11ax HEW80_Nss1,(MCS0)_2TX | 25.42 | 0.34834 | | |
| 802.11ax HEW80-BF_Nss1,(MCS0)_2TX | 25.42 | 0.34834 | | |



Average Power

Result

| Mode | Result | DG (dBi) | Port 1 (dBm) | Port 2 (dBm) | Total Power (dBm) | Power Limit (dBm) |
|-----------------------------------|--------|-------------|-----------------|-----------------|----------------------|----------------------|
| 802.11a_Nss1,(6Mbps)_2TX | - | - | - | - | - | - |
| 5180MHz | Pass | 3.30 | 23.02 | 22.73 | 25.89 | 30.00 |
| 5200MHz | Pass | 3.30 | 25.09 | 24.97 | 28.04 | 30.00 |
| 5240MHz | Pass | 3.30 | 25.09 | 24.86 | 27.99 | 30.00 |
| 5745MHz | Pass | 4.90 | 25.33 | 25.14 | 28.25 | 30.00 |
| 5785MHz | Pass | 4.90 | 26.74 | 26.61 | 29.69 | 30.00 |
| 5825MHz | Pass | 4.90 | 26.52 | 26.71 | 29.63 | 30.00 |
| 802.11ax HEW20_Nss1,(MCS0)_2TX | - | - | - | - | - | - |
| 5180MHz | Pass | 3.30 | 22.27 | 22.17 | 25.23 | 30.00 |
| 5200MHz | Pass | 3.30 | 25.92 | 25.99 | 28.97 | 30.00 |
| 5240MHz | Pass | 3.30 | 25.97 | 25.93 | 28.96 | 30.00 |
| 5745MHz | Pass | 4.90 | 23.94 | 23.73 | 26.85 | 30.00 |
| 5785MHz | Pass | 4.90 | 26.56 | 26.49 | 29.54 | 30.00 |
| 5825MHz | Pass | 4.90 | 26.41 | 26.58 | 29.51 | 30.00 |
| 802.11ax HEW40_Nss1,(MCS0)_2TX | - | - | - | - | - | - |
| 5190MHz | Pass | 3.30 | 20.48 | 20.45 | 23.48 | 30.00 |
| 5230MHz | Pass | 3.30 | 24.6 | 24.58 | 27.60 | 30.00 |
| 5755MHz | Pass | 4.90 | 25.68 | 25.26 | 28.49 | 30.00 |
| 5795MHz | Pass | 4.90 | 26.97 | 26.83 | 29.91 | 30.00 |
| 802.11ax HEW80_Nss1,(MCS0)_2TX | - | - | - | - | - | - |
| 5210MHz | Pass | 3.30 | 19.31 | 18.98 | 22.16 | 30.00 |
| 5775MHz | Pass | 4.90 | 22.44 | 22.38 | 25.42 | 30.00 |
| 802.11ax HEW20-BF_Nss1,(MCS0)_2TX | - | - | - | - | - | - |
| 5180MHz | Pass | 5.92 | 22.27 | 22.17 | 25.23 | 30.00 |
| 5200MHz | Pass | 5.92 | 25.92 | 25.99 | 28.97 | 30.00 |
| 5240MHz | Pass | 5.92 | 25.97 | 25.93 | 28.96 | 30.00 |
| 5745MHz | Pass | 7.28 | 23.94 | 23.73 | 26.85 | 28.72 |
| 5785MHz | Pass | 7.28 | 25.34 | 25.28 | 28.32 | 28.72 |
| 5825MHz | Pass | 7.28 | 25.19 | 25.46 | 28.34 | 28.72 |
| 802.11ax HEW40-BF_Nss1,(MCS0)_2TX | | - | - | - | - | - |
| 5190MHz | Pass | 5.92 | 20.48 | 20.45 | 23.48 | 30.00 |
| 5230MHz | Pass | 5.92 | 24.6 | 24.58 | 27.60 | 30.00 |
| 5755MHz | Pass | 7.28 | 25.68 | 25.26 | 28.49 | 28.72 |
| 5795MHz | Pass | 7.28 | 25.40 | 25.21 | 28.31 | 28.72 |
| 802.11ax HEW80-BF_Nss1,(MCS0)_2TX | - | - | | - | | |
| 5210MHz | Pass | 5.92 | 19.31 | 18.98 | 22.16 | 30.00 |
| 5775MHz | Pass | 7.28 | 22.44 | 22.38 | 25.42 | 28.72 |

DG = Directional Gain; Port X = Port X output power



Summary

| Mode | PD (dBm/RBW) | | | |
|--------------------------------|-----------------|--|--|--|
| 5.15-5.25GHz | - | | | |
| 802.11a_Nss1,(6Mbps)_2TX | 16.74 | | | |
| 802.11ax HEW20_Nss1,(MCS0)_2TX | 16.95 | | | |
| 802.11ax HEW40_Nss1,(MCS0)_2TX | 13.23 | | | |
| 802.11ax HEW80_Nss1,(MCS0)_2TX | 5.51 | | | |
| 5.725-5.85GHz | - | | | |
| 802.11a_Nss1,(6Mbps)_2TX | 16.84 | | | |
| 802.11ax HEW20_Nss1,(MCS0)_2TX | 16.10 | | | |
| 802.11ax HEW40_Nss1,(MCS0)_2TX | 13.81 | | | |
| 802.11ax HEW80_Nss1,(MCS0)_2TX | 6.88 | | | |

RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

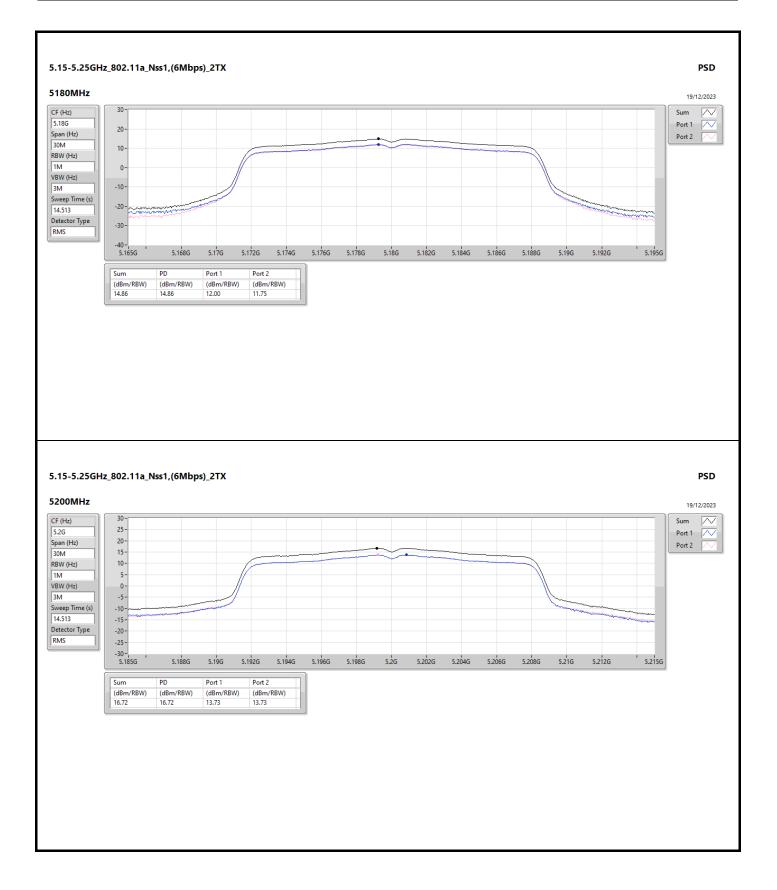


Result

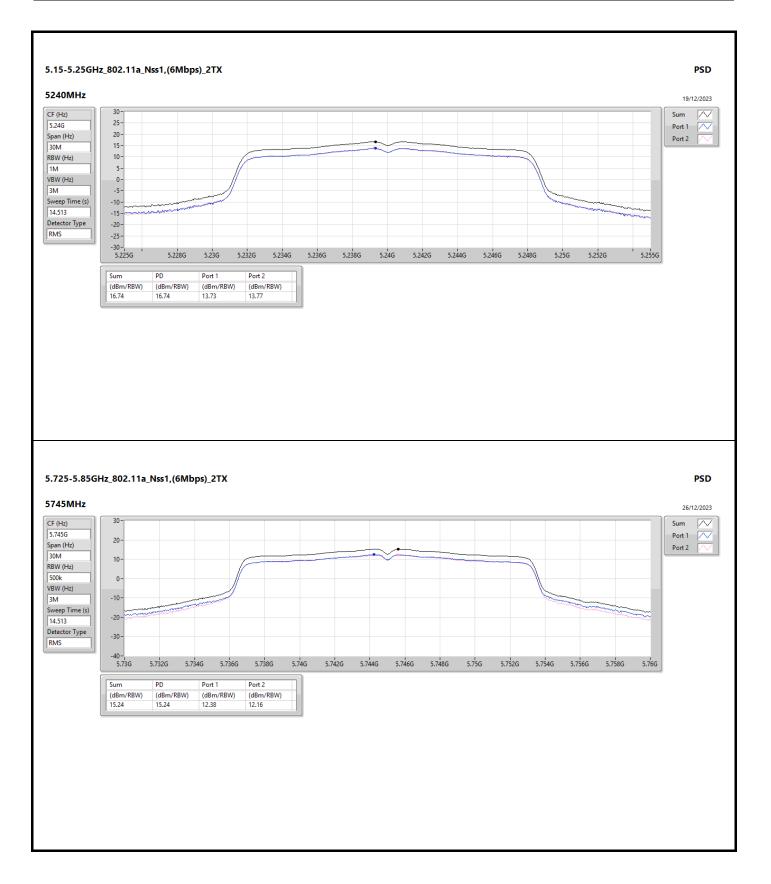
| Mode | Result | DG | Port 1 | Port 2 | PD | PD Limit | |
|--------------------------------|--------|-------|-----------|-----------|-----------|-----------|--|
| | | (dBi) | (dBm/RBW) | (dBm/RBW) | (dBm/RBW) | (dBm/RBW) | |
| 802.11a_Nss1,(6Mbps)_2TX | - | - | - | - | - | - | |
| 5180MHz | Pass | 5.92 | 12.00 | 11.75 | 14.86 | 17.00 | |
| 5200MHz | Pass | 5.92 | 13.73 | 13.73 | 16.72 | 17.00 | |
| 5240MHz | Pass | 5.92 | 13.73 | 13.77 | 16.74 | 17.00 | |
| 5745MHz | Pass | 7.28 | 12.38 | 12.16 | 15.24 | 28.72 | |
| 5785MHz | Pass | 7.28 | 13.93 | 13.77 | 16.84 | 28.72 | |
| 5825MHz | Pass | 7.28 | 13.44 | 13.69 | 16.54 | 28.72 | |
| 802.11ax HEW20_Nss1,(MCS0)_2TX | - | - | - | - | - | - | |
| 5180MHz | Pass | 5.92 | 10.92 | 10.76 | 13.80 | 17.00 | |
| 5200MHz | Pass | 5.92 | 13.93 | 14.01 | 16.95 | 17.00 | |
| 5240MHz | Pass | 5.92 | 13.90 | 13.97 | 16.91 | 17.00 | |
| 5745MHz | Pass | 7.28 | 10.66 | 10.28 | 13.43 | 28.72 | |
| 5785MHz | Pass | 7.28 | 13.19 | 13.01 | 16.10 | 28.72 | |
| 5825MHz | Pass | 7.28 | 12.70 | 12.94 | 15.78 | 28.72 | |
| 802.11ax HEW40_Nss1,(MCS0)_2TX | - | - | - | - | - | - | |
| 5190MHz | Pass | 5.92 | 6.32 | 6.31 | 9.32 | 17.00 | |
| 5230MHz | Pass | 5.92 | 10.27 | 10.27 | 13.23 | 17.00 | |
| 5755MHz | Pass | 7.28 | 9.66 | 9.08 | 12.37 | 28.72 | |
| 5795MHz | Pass | 7.28 | 10.88 | 10.77 | 13.81 | 28.72 | |
| 802.11ax HEW80_Nss1,(MCS0)_2TX | - | - | - | - | - | - | |
| 5210MHz | Pass | 5.92 | 2.72 | 2.35 | 5.51 | 17.00 | |
| 5775MHz | Pass | 7.28 | 4.02 | 3.78 | 6.88 | 28.72 | |

DG = Directional Gain; RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band; PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;

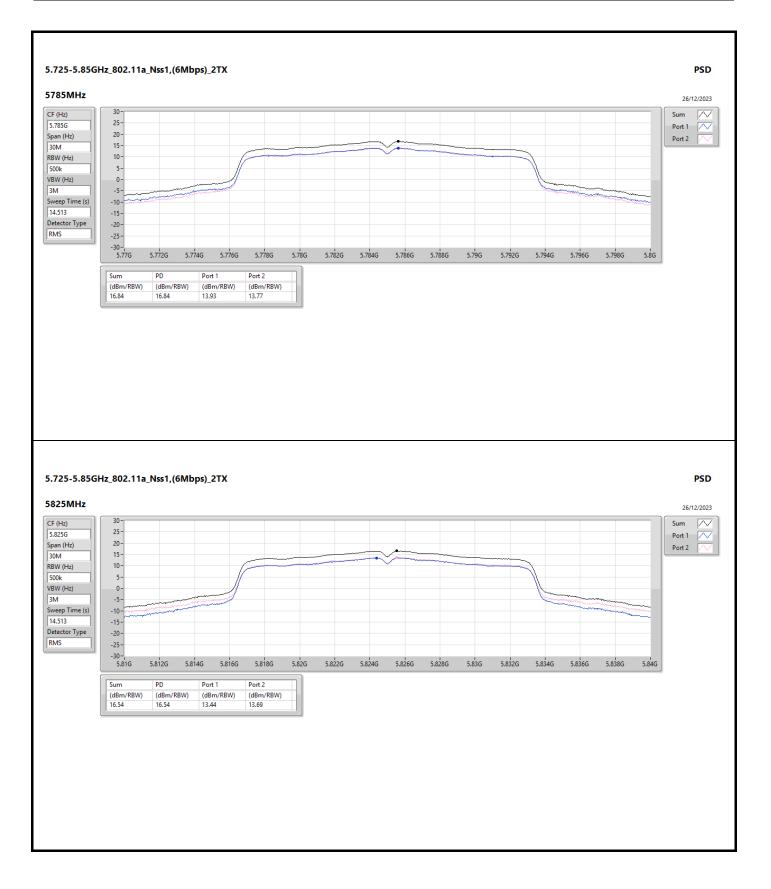




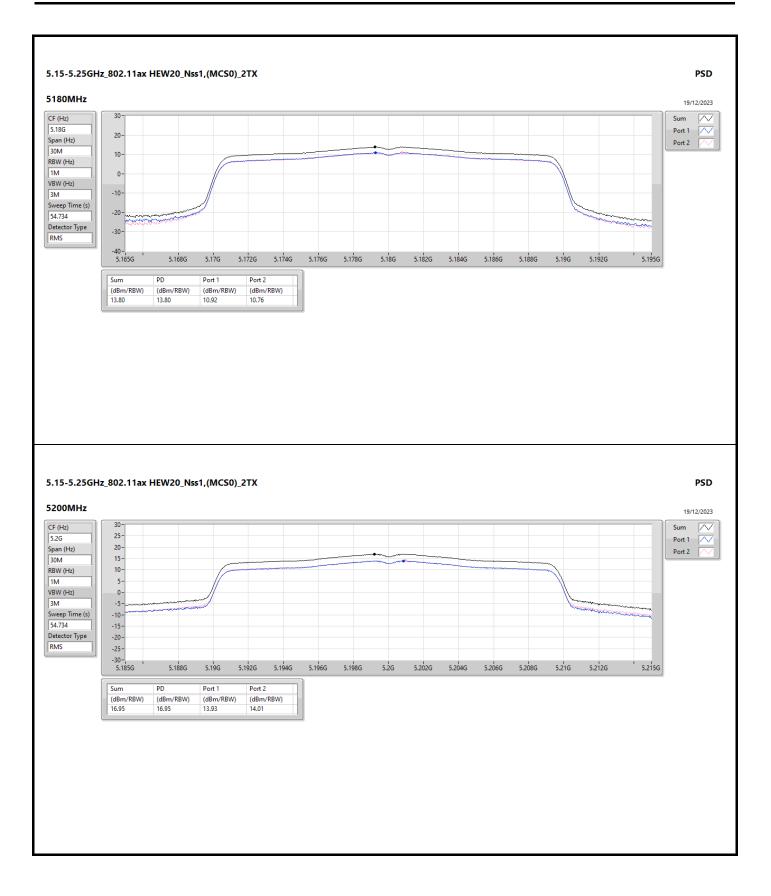








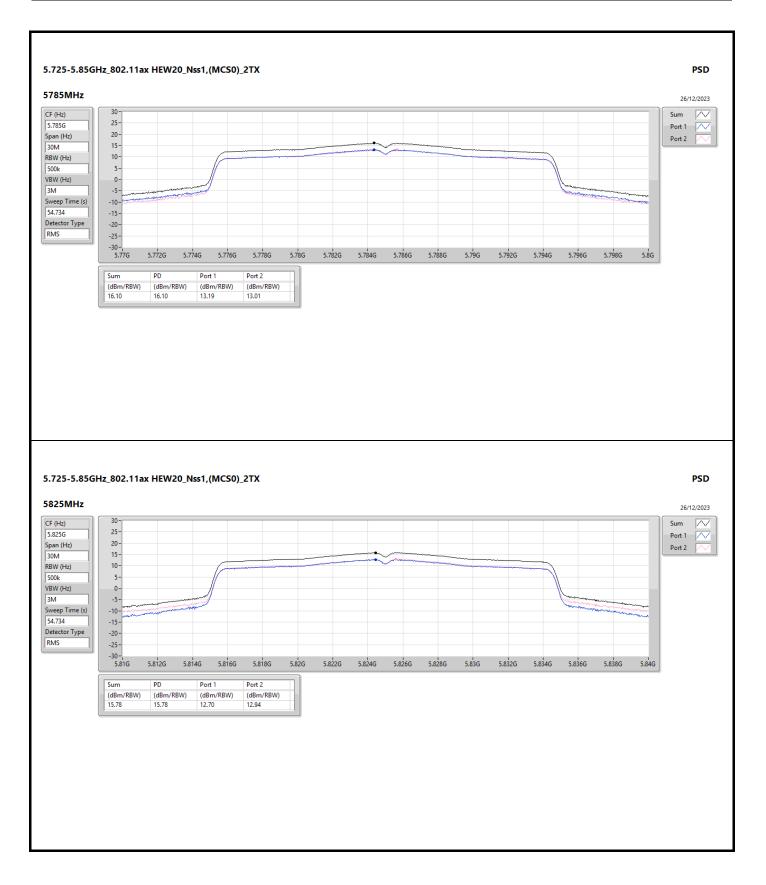




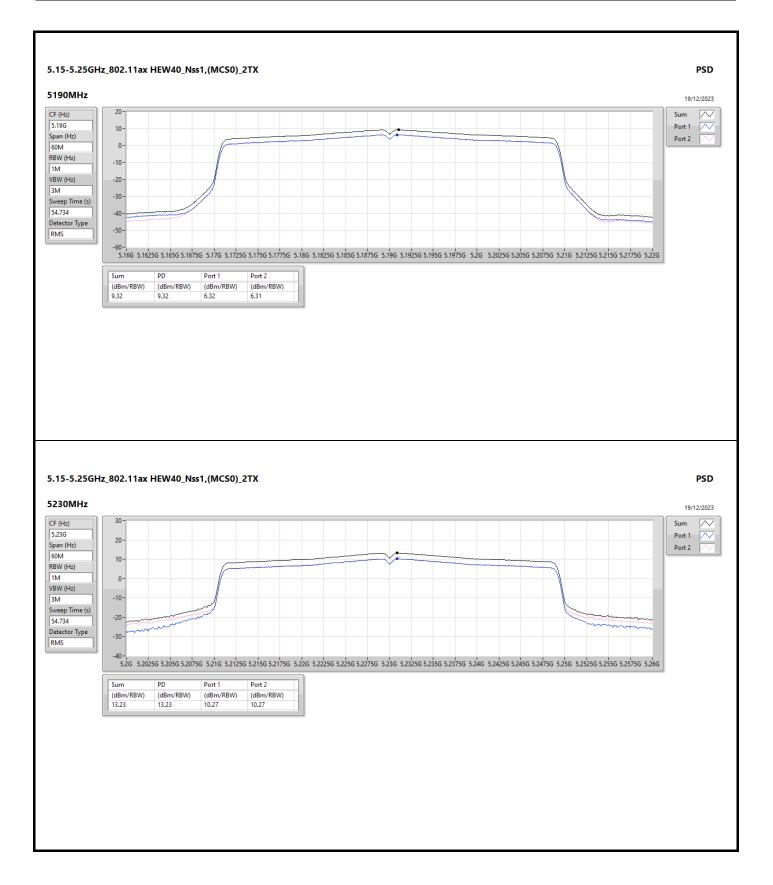




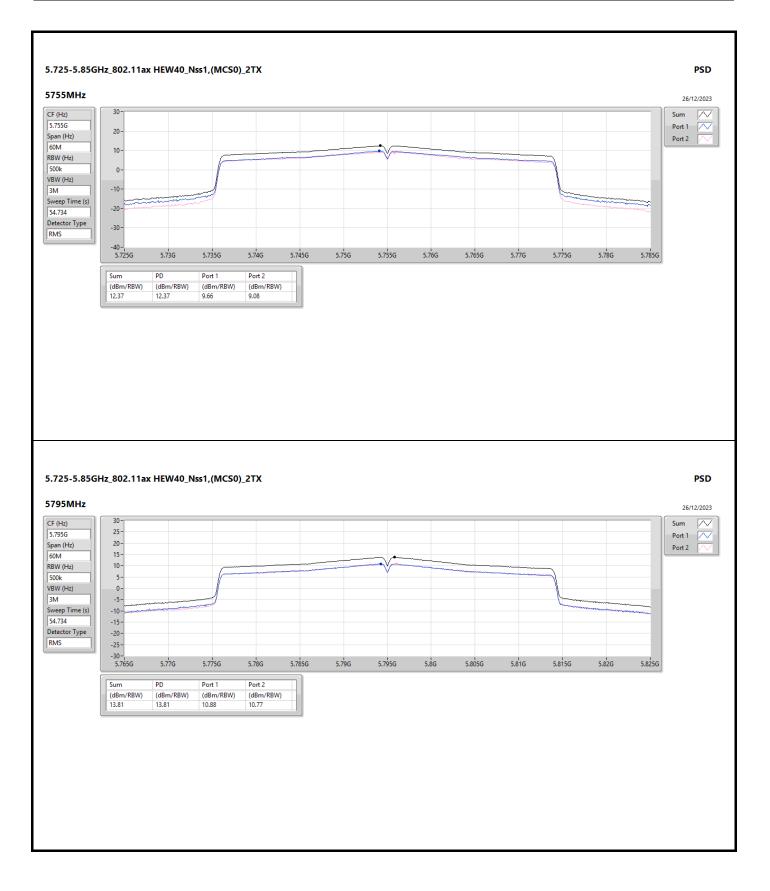




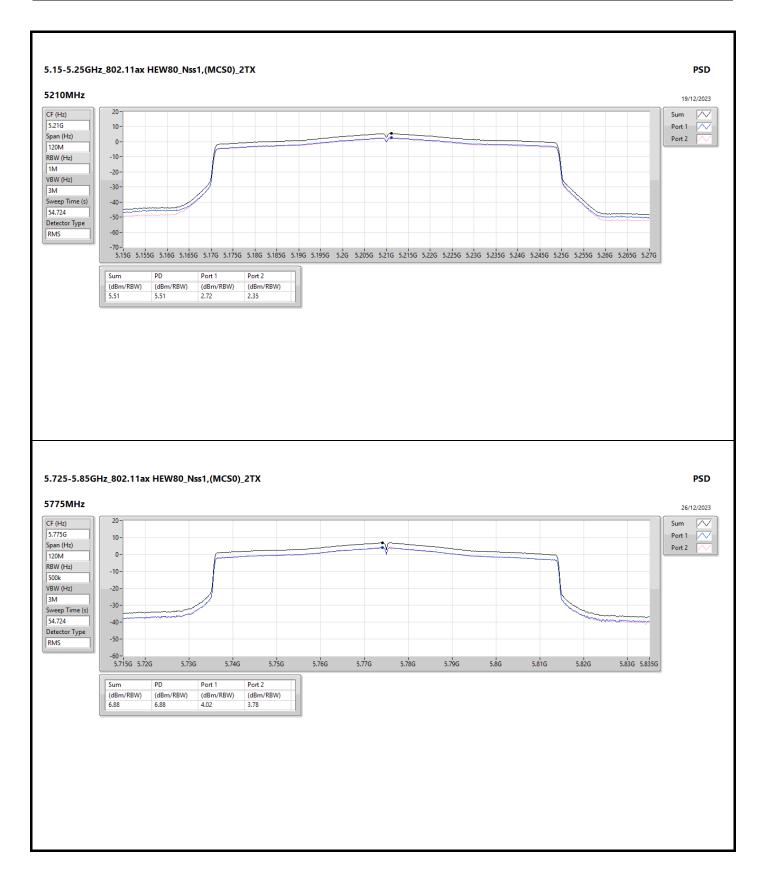












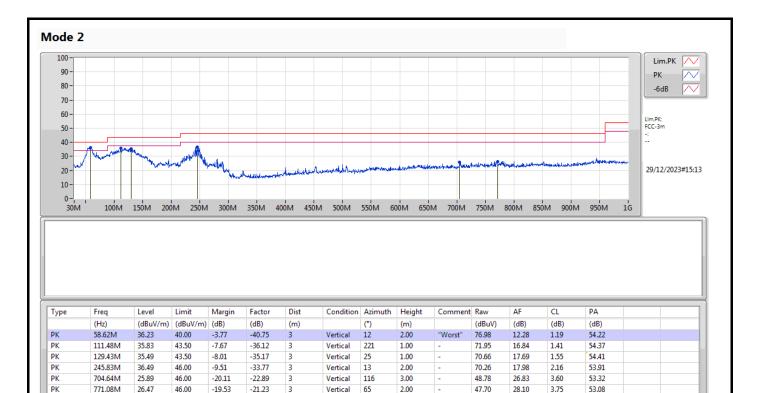


Radiated Emissions below 1GHz

| Summary | | | | | | | |
|---------|--------|------|--------|----------|----------|--------|-----------|
| Mode | Result | Туре | Freq | Level | Limit | Margin | Condition |
| | | | (Hz) | (dBuV/m) | (dBuV/m) | (dB) | |
| Mode 2 | Pass | PK | 58.62M | 36.23 | 40.00 | -3.77 | Vertical |

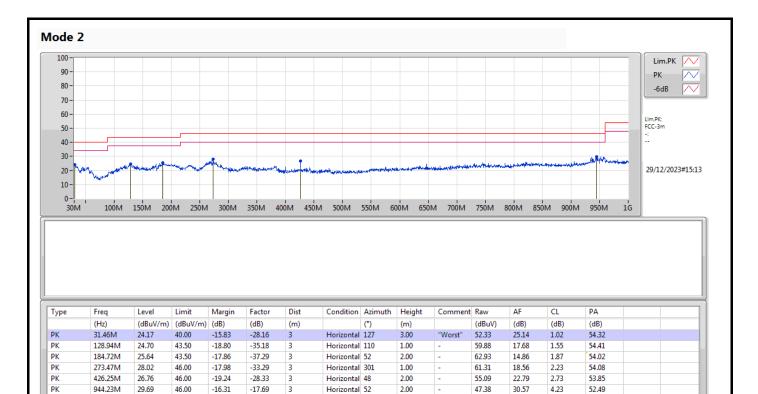


Radiated Emissions below 1GHz





Radiated Emissions below 1GHz





RSE TX above 1GHz

Appendix E.2

Summary

| Mode | Result | Туре | Freq (Hz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Dist (m) | Condition | Azimuth (°) | Height (m) | Comments |
|--------------------------------|--------|------|--------------|-------------------|-------------------|----------------|-------------|-----------|----------------|---------------|----------|
| 5.725-5.85GHz | - | - | - | | | - | - | - | - | - | |
| 802.11ax HEW20_Nss1,(MCS0)_2TX | Pass | PK | 17.23806G | 68.10 | 68.20 | -0.10 | 3 | Vertical | 52 | 1.90 | - |



PK

AV

5.1792G

5.1788G

121.82

113.46

Inf

Inf

-Inf

-Inf

116.84

108.48

3

3

Vertical

Vertical

19

19

2.52

2.52

33.06

33.06

7.43

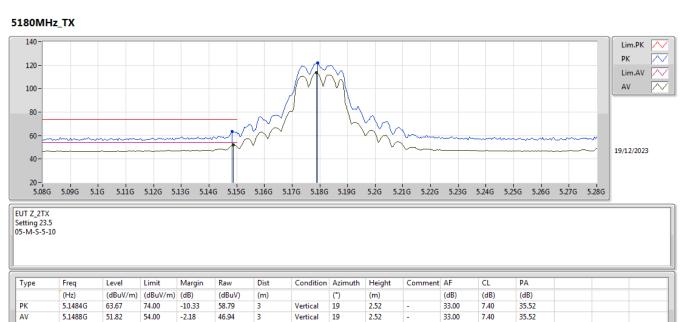
7.43

35.51

35.51

Appendix E.2

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_2TX





PK

AV

5.182G

5.1816G

117.96

109.46

Inf

Inf

-Inf

-Inf

112.98

104.48

3

3

Horizontal 209

Horizontal 209

1.00

1.00

33.06

33.06

7.43

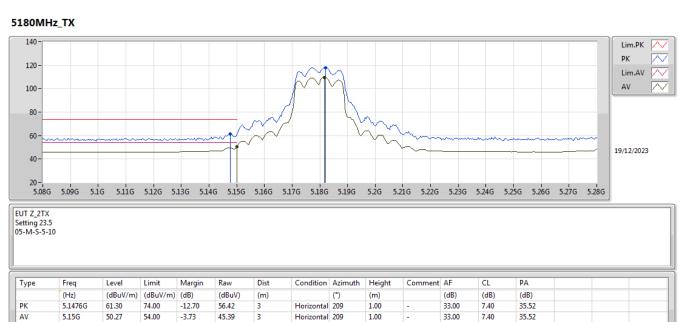
7.43

35.51

35.51

Appendix E.2

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_2TX





AV

15.53074G

43.80

54.00

-10.20

26.75

3

Vertical

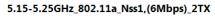
290

2.48

38.32

12.27

33.54







AV

15.52G

45.90

54.00

-8.10

28.81

3

Horizontal 55

2.36

38.38

12.27

33.56

Appendix E.2

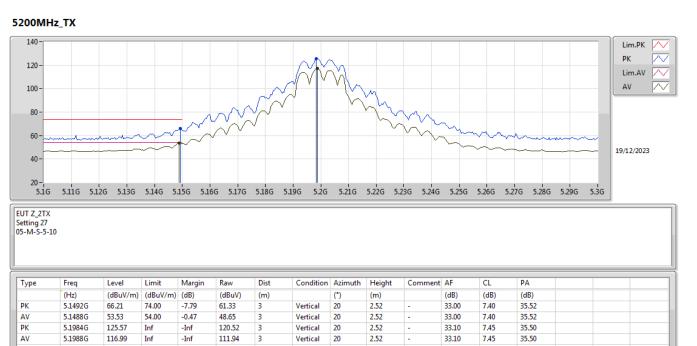
5.15-5.25GHz_802.11a_Nss1,(6Mbps)_2TX



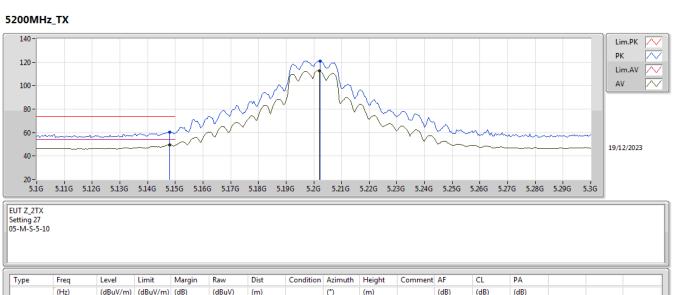


Appendix E.2

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_2TX

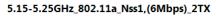






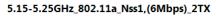
| Freq | Level | Limit | Margin | Raw | Dist | Condition | Azimuth | Height | Comment | AF | CL | PA |
|---------|-------------------------------------|--|---|---|---|--|--|--|---|---|--|--|
| (Hz) | (dBuV/m) | (dBuV/m) | (dB) | (dBuV) | (m) | | (°) | (m) | | (dB) | (dB) | (dB) |
| 5.148G | 60.52 | 74.00 | -13.48 | 55.64 | 3 | Horizontal | 209 | 1.00 | - | 33.00 | 7.40 | 35.52 |
| 5.148G | 49.38 | 54.00 | -4.62 | 44.50 | 3 | Horizontal | 209 | 1.00 | - | 33.00 | 7.40 | 35.52 |
| 5.2024G | 121.12 | Inf | -Inf | 116.07 | 3 | Horizontal | 209 | 1.00 | - | 33.10 | 7.45 | 35.50 |
| 5.202G | 112.55 | Inf | -Inf | 107.50 | 3 | Horizontal | 209 | 1.00 | - | 33.10 | 7.45 | 35.50 |
| | (Hz) 5.148G 5.148G 5.2024G | (Hz) (dBuV/m) 5.148G 60.52 5.148G 49.38 5.2024G 121.12 | (Hz) (dBuV/m) (dBuV/m) 5.148G 60.52 74.00 5.148G 49.38 54.00 5.2024G 121.12 Inf | (Hz) (dBuV/m) (dB) 5.148G 60.52 74.00 -13.48 5.148G 49.38 54.00 -4.62 5.2024G 121.12 Inf -Inf | (Hz) (dBuV/m) (dBuV/m) (dB (dBuV/m) 5.148G 60.52 74.00 -13.48 55.64 5.148G 49.38 54.00 -4.62 44.50 5.2024G 121.12 Inf -Inf 116.07 | (Hz) (dBuV/m) (dBuV/m) (dBuV (m) 5.148G 60.52 74.00 -13.48 55.64 3 5.148G 49.38 54.00 -4.62 44.50 3 5.2024G 121.12 Inf -Inf 116.07 3 | (Hz) (dBuV/m) (dBu/) (dB (dBuV) (m) 5.148G 60.52 74.00 -13.48 55.64 3 Horizontal 5.148G 49.38 54.00 -4.62 44.50 3 Horizontal 5.2024G 121.12 Inf -Inf 116.07 3 Horizontal | (Hz) (dBuV/m) (dB) (dBuV) (m) (*) 5.148G 60.52 74.00 -13.48 55.64 3 Horizontal 209 5.148G 49.38 54.00 -4.62 44.50 3 Horizontal 209 5.2024G 121.12 Inf -Inf 116.07 3 Horizontal 209 | (Hz) (dBuV/m) (dB) (dBuV) (m) (*) (m) 5.148G 60.52 74.00 -13.48 55.64 3 Horizontal 209 1.00 5.148G 49.38 54.00 -4.62 44.50 3 Horizontal 209 1.00 5.2024G 121.12 Inf -Inf 116.07 3 Horizontal 209 1.00 | (Hz) (dBuV/m) (dBu/m) (dBu/m) (dBu/m) (m) (°) (m) 5.148G 60.52 74.00 -13.48 55.64 3 Horizontal 209 1.00 - 5.148G 49.38 54.00 -4.62 44.50 3 Horizontal 209 1.00 - 5.2024G 121.12 Inf -Inf 116.07 3 Horizontal 209 1.00 - | (Hz) (dBuV/m) (dB) (dBuV) (m) (°) (m) (dB) 5.148G 60.52 74.00 -13.48 55.64 3 Horizontal 209 1.00 - 33.00 5.148G 49.38 54.00 -4.62 44.50 3 Horizontal 209 1.00 - 33.00 5.2024G 121.12 Inf -Inf 116.07 3 Horizontal 209 1.00 - 33.10 | (Hz) (dBuV/m) (dB) (dBuV) (m) (*) (m) (dB) (dB) 5.148G 60.52 74.00 -13.48 55.64 3 Horizontal 209 1.00 - 33.00 7.40 5.148G 49.38 54.00 -4.62 44.50 3 Horizontal 209 1.00 - 33.00 7.40 5.2024G 121.12 Inf -Inf 116.07 3 Horizontal 209 1.00 - 33.10 7.45 |















5.351G

5.3834G

AV

74.00

54.00

58.30

46.70

-15.70

-7.30

53.43

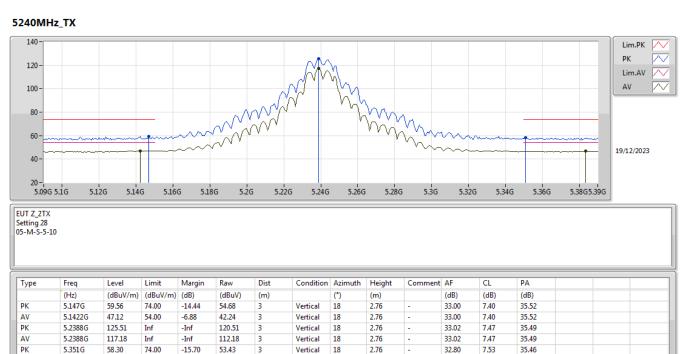
41.74

3

3

Appendix E.2

5.15-5.25GHz_802.11a_Nss1,(6Mbps)_2TX



7.53

7.54

35.46

35.45

32.80

32.87

Vertical

Vertical

18

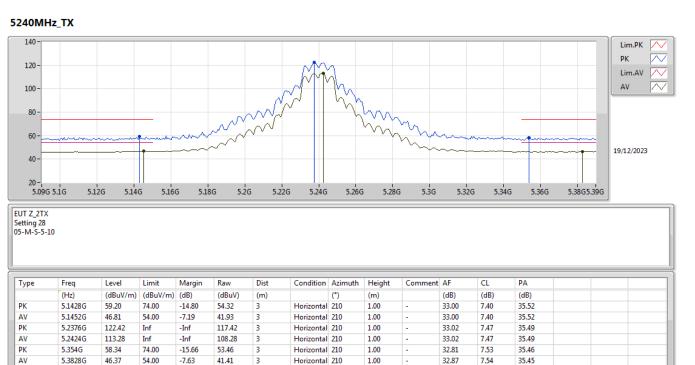
18

2.76

2.76



5.15-5.25GHz_802.11a_Nss1,(6Mbps)_2TX



3



AV

15.7204G

48.30

54.00

-5.70

31.47

3

Vertical

117.4

1.80

37.74

12.34

33.25

Appendix E.2





PK

AV

15.71476G

15.72008G

59.61

46.69

74.00

54.00

-14.39

-7.31

42.81

29.87

3

3

Horizontal 308

Horizontal 308

2.92

2.92

37.73

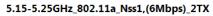
37.74

12.33

12.34

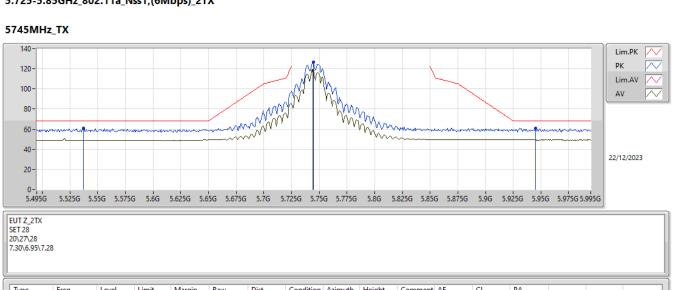
33.26

33.26



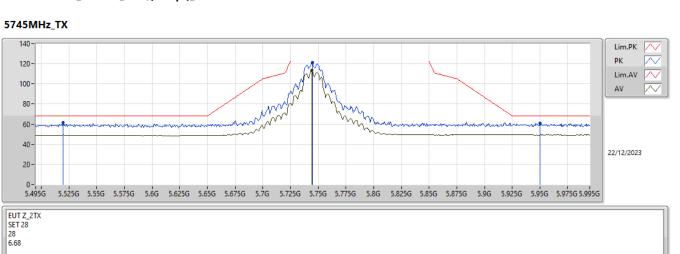






| Туре | Freq | Level | Limit | Margin | Raw | Dist | Condition | Azimuth | Height | Comment | AF | CL | PA | |
|------|---------|----------|----------|--------|--------|------|-----------|---------|--------|---------|-------|------|-------|--|
| | (Hz) | (dBuV/m) | (dBuV/m) | (dB) | (dBuV) | (m) | | (°) | (m) | | (dB) | (dB) | (dB) | |
| РК | 5.537G | 60.66 | 68.20 | -7.54 | 54.09 | 3 | Vertical | 84 | 2.21 | 28 | 34.60 | 6.89 | 34.92 | |
| РК | 5.7445G | 126.91 | Inf | -Inf | 120.80 | 3 | Vertical | 84 | 2.21 | 28 | 34.20 | 6.93 | 35.02 | |
| AV | 5.744G | 118.01 | Inf | -Inf | 111.90 | 3 | Vertical | 84 | 2.21 | 28 | 34.20 | 6.93 | 35.02 | |
| PK | 5.945G | 60.92 | 68.20 | -7.28 | 54.47 | 3 | Vertical | 84 | 2.21 | 28 | 34.59 | 6.97 | 35.11 | |





| Туре | 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) | | |
| РК | 5.5195G | 61.52 | 68.20 | -6.68 | 54.95 | 3 | Horizontal | 214 | 1.00 | 28 | 34.60 | 6.88 | 34.91 | | |
| PK | 5.7445G | 121.01 | Inf | -Inf | 114.90 | 3 | Horizontal | 214 | 1.00 | 28 | 34.20 | 6.93 | 35.02 | | |
| AV | 5.744G | 113.15 | Inf | -Inf | 107.04 | 3 | Horizontal | 214 | 1.00 | 28 | 34.20 | 6.93 | 35.02 | | |
| PK | 5.95G | 61.14 | 68.20 | -7.06 | 54.69 | 3 | Horizontal | 214 | 1.00 | 28 | 34.60 | 6.97 | 35.12 | | |







PK

17.2298G

67.92

68.20

-0.28

75.08

3

Horizontal 298

2.70

40.62

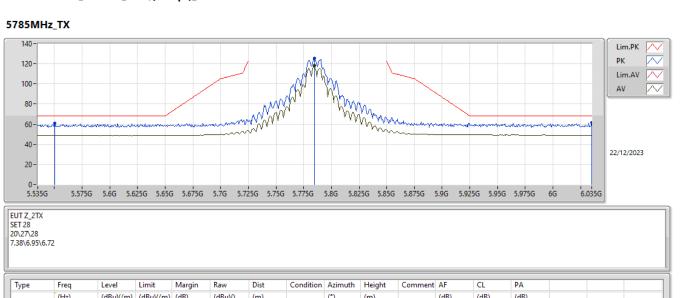
14.54

62.32

Appendix E.2







| Туре | 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 | 5.5505G | 60.73 | 68.20 | -7.47 | 54.16 | 3 | Vertical | 80 | 2.28 | 28 | 34.60 | 6.89 | 34.92 | | | |
| PK | 5.7845G | 125.55 | Inf | -Inf | 119.38 | 3 | Vertical | 80 | 2.28 | 28 | 34.27 | 6.94 | 35.04 | | | |
| AV | 5.7845G | 117.99 | Inf | -Inf | 111.82 | 3 | Vertical | 80 | 2.28 | 28 | 34.27 | 6.94 | 35.04 | | | |
| PK | 6.035G | 61.48 | 68.20 | -6.72 | 54.83 | 3 | Vertical | 80 | 2.28 | 28 | 34.77 | 7.01 | 35.13 | | | |
| 1 | 1 | 1 | | | | | | | | | | | - | 1 | 1 | _ |



PK

PK

AV PK

5.58G

5.7845G

5.784G

6.035G

60.55

120.00

112.08

60.32

68.20

Inf

Inf

68.20

-7.65

-Inf

-Inf

-7.88

54.11

113.83

105.91

53.67

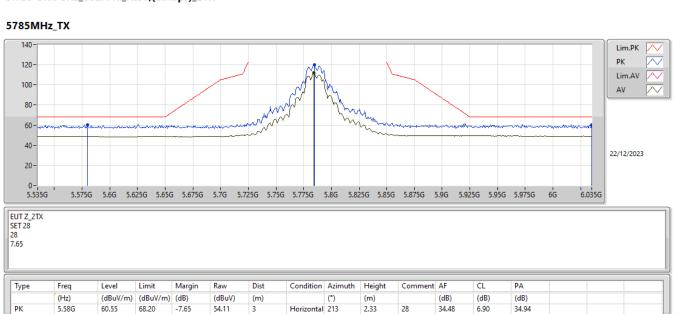
3

3

3

3

5.725-5.85GHz_802.11a_Nss1,(6Mbps)_2TX



2.33

2.33

2.33

2.33

Horizontal 213

Horizontal 213

Horizontal 213

28

28

28

28

34.48

34.27

34.27

34.77

6.90

6.94

6.94

7.01

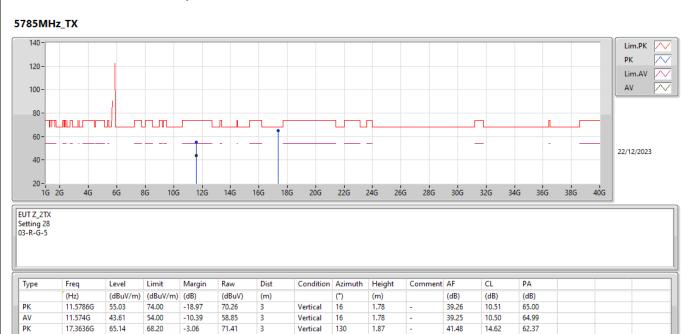
34.94

35.04

35.04

35.13







PK

17.341G

66.00

68.20

-2.20

72.43

3

Horizontal 299

2.65

41.33

14.60

62.36

Appendix E.2





5.9375G

68.20

-6.91

54.85

3

Vertical

81

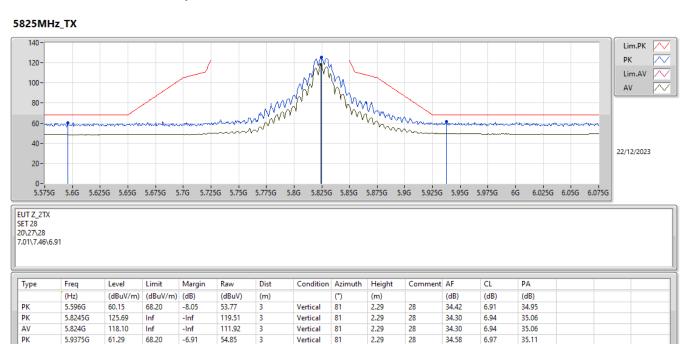
2.29

28

61.29

Appendix E.2

5.725-5.85GHz_802.11a_Nss1,(6Mbps)_2TX

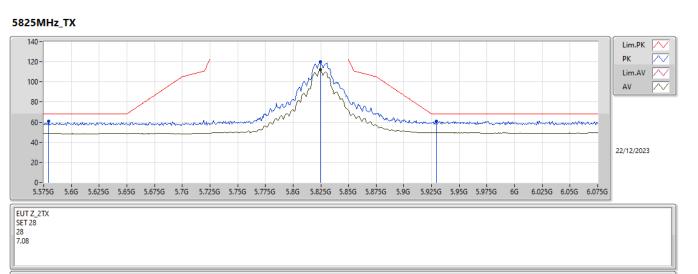


6.97

35.11

34.58





| Туре | 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) | | |
| РК | 5.5795G | 60.65 | 68.20 | -7.55 | 54.21 | 3 | Horizontal | 215 | 1.00 | 28 | 34.48 | 6.90 | 34.94 | | |
| РК | 5.8245G | 120.12 | Inf | -Inf | 113.94 | 3 | Horizontal | 215 | 1.00 | 28 | 34.30 | 6.94 | 35.06 | | |
| AV | 5.8245G | 112.10 | Inf | -Inf | 105.92 | 3 | Horizontal | 215 | 1.00 | 28 | 34.30 | 6.94 | 35.06 | | |
| PK | 5.9295G | 61.12 | 68.20 | -7.08 | 54.70 | 3 | Horizontal | 215 | 1.00 | 28 | 34.56 | 6.97 | 35.11 | | |

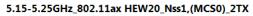














| Туре | Freq | Level | Limit | Margin | Raw | Dist | Condition | Azimuth | Height | Comment | AF | CL | PA | | |
|------|---------|----------|----------|--------|--------|------|-----------|---------|--------|---------|-------|------|-------|--|--|
| | (Hz) | (dBuV/m) | (dBuV/m) | (dB) | (dBuV) | (m) | | (°) | (m) | | (dB) | (dB) | (dB) | | |
| PK | 5.1492G | 67.09 | 74.00 | -6.91 | 62.21 | 3 | Vertical | 18 | 2.55 | - | 33.00 | 7.40 | 35.52 | | |
| AV | 5.1496G | 53.53 | 54.00 | -0.47 | 48.65 | 3 | Vertical | 18 | 2.55 | - | 33.00 | 7.40 | 35.52 | | |
| PK | 5.1776G | 123.71 | Inf | -Inf | 118.73 | 3 | Vertical | 18 | 2.55 | - | 33.06 | 7.43 | 35.51 | | |
| AV | 5.178G | 112.13 | Inf | -Inf | 107.15 | 3 | Vertical | 18 | 2.55 | - | 33.06 | 7.43 | 35.51 | | |



AV

5.1828G

107.32

Inf

-Inf

102.33

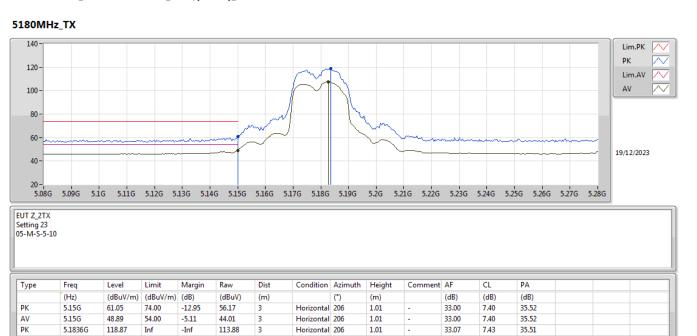
3

Horizontal 206

1.01

Appendix E.2

5.15-5.25GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

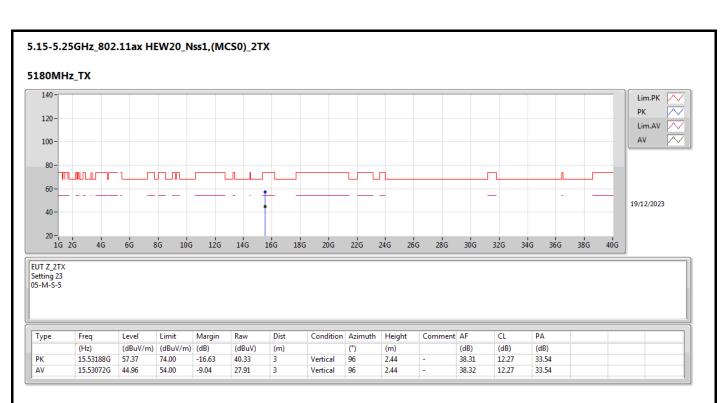


7.43

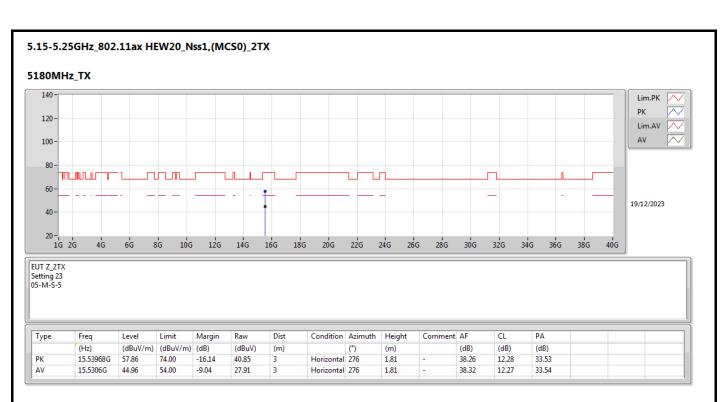
35.51

33.07











AV

5.1984G

115.89

Inf

-Inf

110.84

3

Vertical 17

Appendix E.2

5.15-5.25GHz_802.11ax HEW20_Nss1,(MCS0)_2TX



2.65

7.45

35.50

33.10



5.15-5.25GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

110.73

Inf

-Inf

3

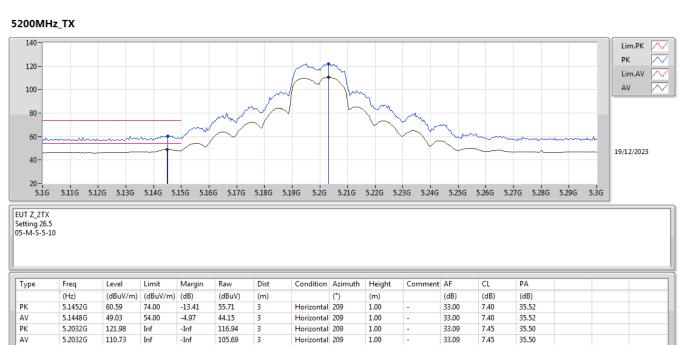
Horizontal 209

1.00

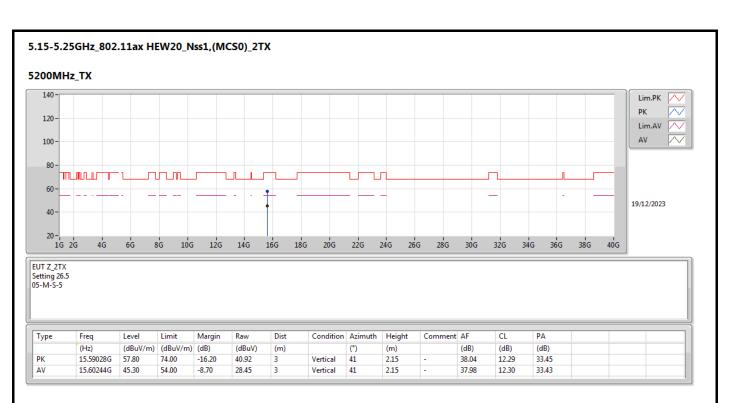
33.09

7.45

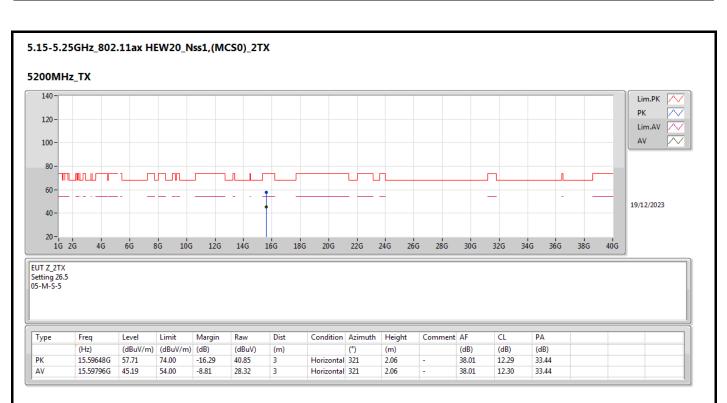
35.50

















| PK 5.1422G 59.32 74.00 -14.68 54.44 3 Vertical 18 2.37 - 33.00 74.00 35.52 (1) AV 5.1482G 47.26 54.00 -6.74 42.38 3 Vertical 18 2.37 - 33.00 74.00 35.52 (1) PK 5.2386 126.00 Inf 213.00 74.00 35.20 (1) (1) AV 5.2386 18.62 Inf 23.00 74.00 35.49 (1) AV 5.2386 16.63 Inf 11.32 3 Vertical 18 2.37 - 3.02 74.7 35.49 AV 5.3768G 58.77 74.00 -15.23 5.32 3 Vertical 18 2.37 - 3.02 74.7 35.49 AV 5.3786G 58.77 74.00 -15.23 5.23 3 Vertical 18 2.37 - 32.87 7.5 | (H: | Hz) | (dBuV/m) | (dBuV/m) | (dB) | (dBuV) | (m) | | (°) | (m) | | (dB) | (dB) | (dB) | | |
|---|-----|--------|----------|----------|--------|--------|-----|----------|-----|------|---|-------|------|-------|--|--|
| PK 5.2386 128.06 Inf -Inf 123.06 3 Vertical 18 2.37 - 33.02 7.47 35.49 - AV 5.2386 16.32 Inf -Inf 111.32 3 Vertical 18 2.37 - 33.02 7.47 35.49 - PK 5.3768 8.77 7.40 -Inf 111.32 3 Vertical 18 2.37 - 33.02 7.47 35.49 - PK 5.37686 58.77 74.00 -15.23 53.83 3 Vertical 18 2.37 - 3 32.45 7.54 35.45 | 5.1 | .1422G | 59.32 | 74.00 | -14.68 | 54.44 | 3 | Vertical | 18 | 2.37 | - | 33.00 | 7.40 | 35.52 | | |
| AV 5.2386 116.32 Inf -Inf 111.32 3 Vertical 18 2.37 - 33.02 7.47 35.49 PK 5.3766 58.77 74.00 -15.23 53.83 3 Vertical 18 2.37 - 32.85 7.54 35.49 | 5.1 | .1482G | 47.26 | 54.00 | -6.74 | 42.38 | 3 | Vertical | 18 | 2.37 | - | 33.00 | 7.40 | 35.52 | | |
| PK 5.3768G 58.77 74.00 -15.23 53.83 3 Vertical 18 2.37 - 32.85 7.54 35.45 | 5.2 | .2388G | 128.06 | Inf | -Inf | 123.06 | 3 | Vertical | 18 | 2.37 | - | 33.02 | 7.47 | 35.49 | | |
| | 5.2 | .2388G | 116.32 | Inf | -Inf | 111.32 | 3 | Vertical | 18 | 2.37 | - | 33.02 | 7.47 | 35.49 | | |
| AV 5.3828G 46.54 54.00 -7.46 41.58 3 Vertical 18 2.37 - 32.87 7.54 35.45 | 5.3 | .3768G | 58.77 | 74.00 | -15.23 | 53.83 | 3 | Vertical | 18 | 2.37 | - | 32.85 | 7.54 | 35.45 | | |
| | 5.3 | .3828G | 46.54 | 54.00 | -7.46 | 41.58 | 3 | Vertical | 18 | 2.37 | - | 32.87 | 7.54 | 35.45 | | |



Lim.PK РК

Lim.AV AV

19/12/2023

5.36G

5.38G5.39G

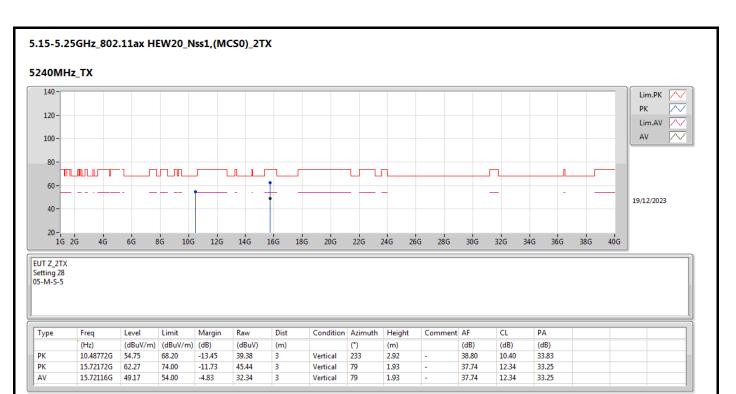


60 -40 -20-5.09G 5.1G 5.12G 5.14G 5.16G 5.18G 5.2G 5.22G 5.24G 5.26G 5.28G 5.3G 5.32G 5.34G

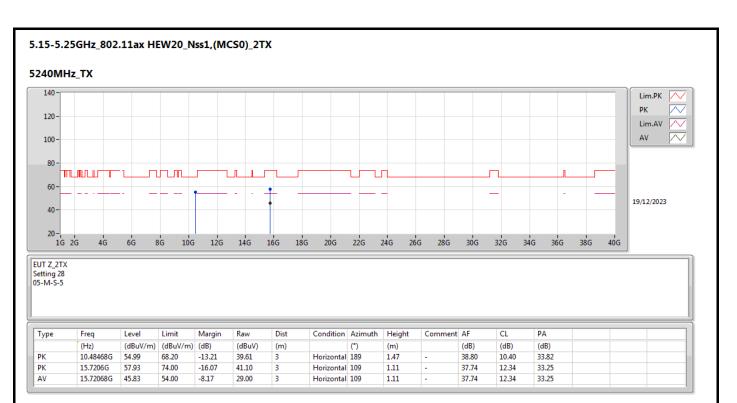
EUT Z_2TX Setting 28 05-M-S-5-10

| Туре | 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) | | |
| РК | 5.0954G | 58.41 | 74.00 | -15.59 | 53.58 | 3 | Horizontal | 207 | 1.01 | - | 33.01 | 7.35 | 35.53 | | |
| AV | 5.141G | 46.65 | 54.00 | -7.35 | 41.78 | 3 | Horizontal | 207 | 1.01 | - | 33.00 | 7.39 | 35.52 | | |
| РК | 5.2424G | 123.64 | Inf | -Inf | 118.64 | 3 | Horizontal | 207 | 1.01 | - | 33.02 | 7.47 | 35.49 | | |
| AV | 5.243G | 112.05 | Inf | -Inf | 107.06 | 3 | Horizontal | 207 | 1.01 | - | 33.01 | 7.47 | 35.49 | | |
| РК | 5.3702G | 58.29 | 74.00 | -15.71 | 53.37 | 3 | Horizontal | 207 | 1.01 | - | 32.84 | 7.54 | 35.46 | | |
| AV | 5.3534G | 46.37 | 54.00 | -7.63 | 41.49 | 3 | Horizontal | 207 | 1.01 | - | 32.81 | 7.53 | 35.46 | | |



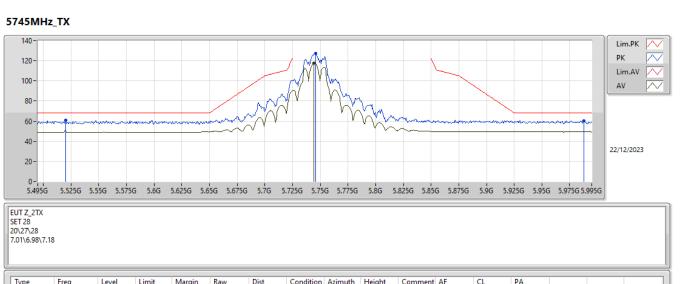








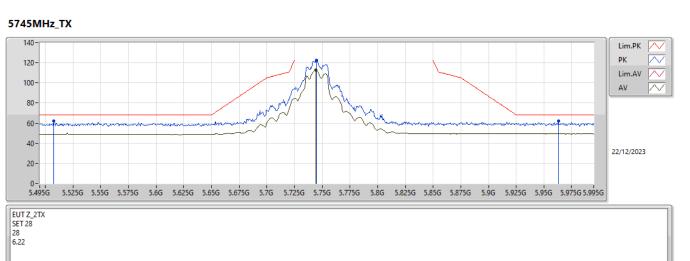
5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_2TX



| Туре | 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) | | |
| РК | 5.52G | 61.02 | 68.20 | -7.18 | 54.45 | 3 | Vertical | 78 | 2.26 | 28 | 34.60 | 6.88 | 34.91 | | |
| РК | 5.746G | 127.20 | Inf | -Inf | 121.09 | 3 | Vertical | 78 | 2.26 | 28 | 34.20 | 6.93 | 35.02 | | |
| AV | 5.744G | 117.59 | Inf | -Inf | 111.48 | 3 | Vertical | 78 | 2.26 | 28 | 34.20 | 6.93 | 35.02 | | |
| PK | 5.988G | 60.53 | 68.20 | -7.67 | 54.00 | 3 | Vertical | 78 | 2.26 | 28 | 34.68 | 6.98 | 35.13 | | |

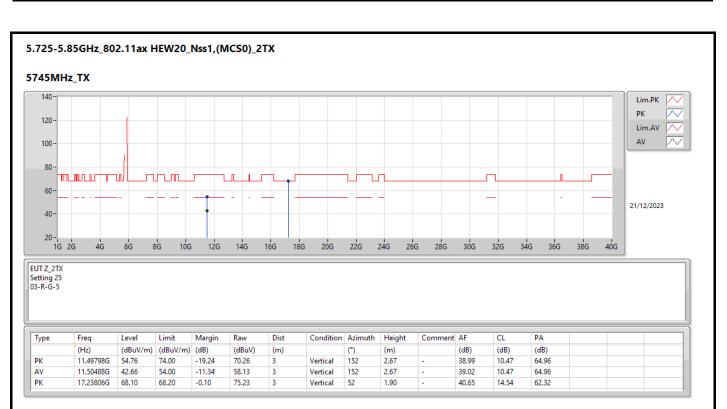


5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

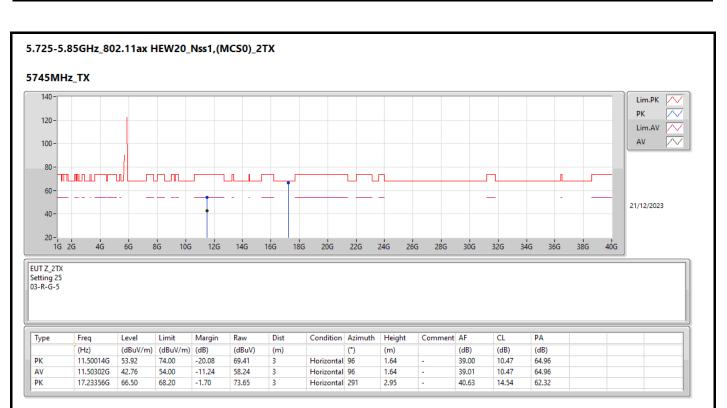


| Туре | Freq | Level | Limit | Margin | Raw | Dist | Condition | Azimuth | Height | Comment | AF | CL | PA | | |
|------|---------|----------|----------|--------|--------|------|------------|---------|--------|---------|-------|------|-------|--|--|
| | (Hz) | (dBuV/m) | (dBuV/m) | (dB) | (dBuV) | (m) | | (°) | (m) | | (dB) | (dB) | (dB) | | |
| РК | 5.5075G | 61.90 | 68.20 | -6.30 | 55.32 | 3 | Horizontal | 216 | 1.00 | 28 | 34.60 | 6.88 | 34.90 | | |
| РК | 5.7445G | 122.61 | Inf | -Inf | 116.50 | 3 | Horizontal | 216 | 1.00 | 28 | 34.20 | 6.93 | 35.02 | | |
| AV | 5.744G | 112.84 | Inf | -Inf | 106.73 | 3 | Horizontal | 216 | 1.00 | 28 | 34.20 | 6.93 | 35.02 | | |
| PK | 5.963G | 61.98 | 68.20 | -6.22 | 55.50 | 3 | Horizontal | 216 | 1.00 | 28 | 34.63 | 6.97 | 35.12 | | |











5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

68.20

60.96

5.972G

-7.24

54.48

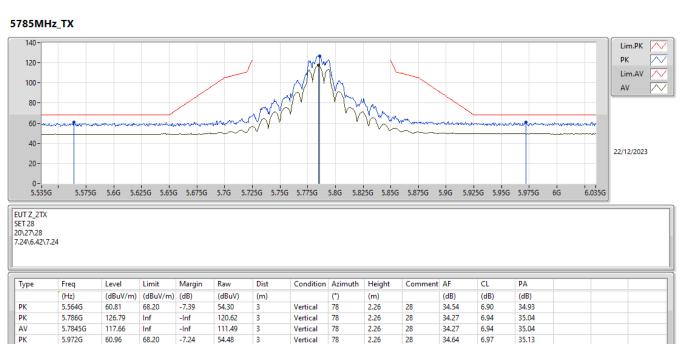
3

Vertical

78

2.26

28



6.97

35.13

34.64



PK

AV PK 5.7845G

5.784G

5.949G

122.05

112.12

60.78

Inf

Inf

68.20

-Inf

-Inf

-7.42

115.88

105.95

54.33

3

3

3

Horizontal 216

Horizontal 216

Horizontal 216

1.00

1.00

1.00

28

28

28

34.27

34.27

34.60

6.94

6.94

6.97

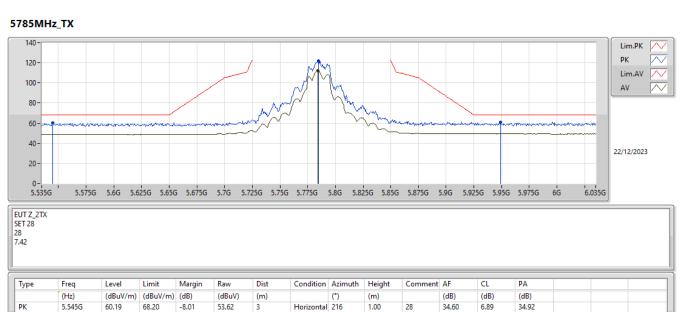
35.04

35.04

35.12

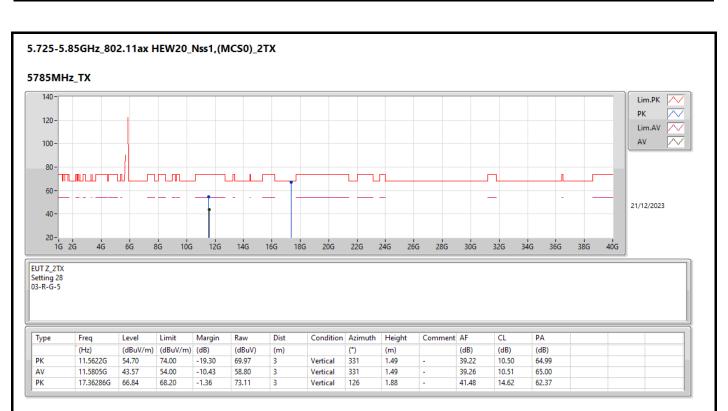
Appendix E.2

5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

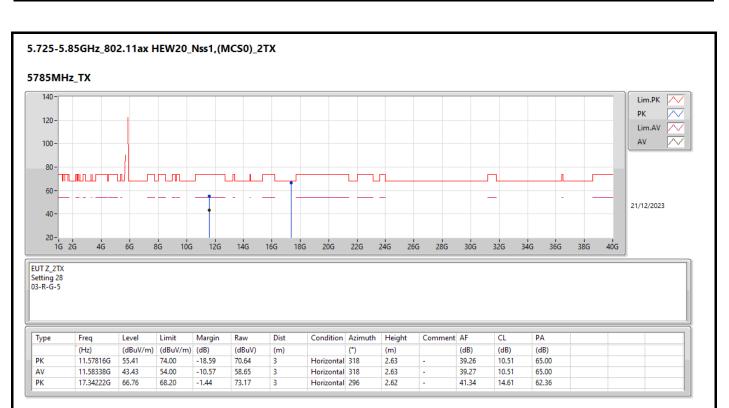


| Sporton International Inc. | Hsinchu Laboratory |
|----------------------------|--------------------|
|----------------------------|--------------------|



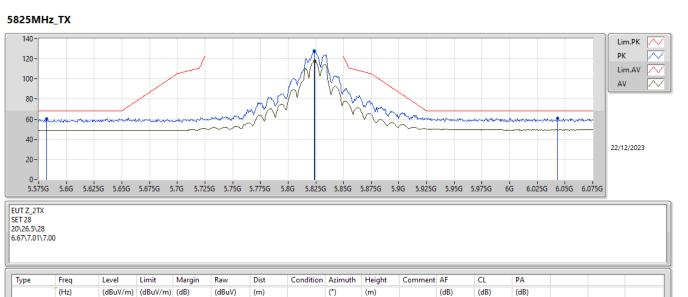








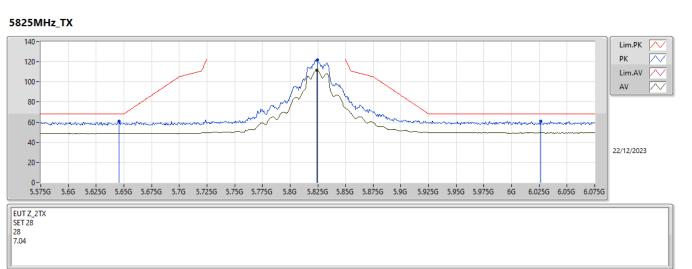
5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_2TX



| Туре | 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 | 5.582G | 60.39 | 68.20 | -7.81 | 53.96 | 3 | Vertical | 81 | 2.28 | 28 | 34.47 | 6.90 | 34.94 | | |
| PK | 5.8235G | 127.84 | Inf | -Inf | 121.66 | 3 | Vertical | 81 | 2.28 | 28 | 34.30 | 6.94 | 35.06 | | |
| AV | 5.824G | 117.74 | Inf | -Inf | 111.56 | 3 | Vertical | 81 | 2.28 | 28 | 34.30 | 6.94 | 35.06 | | |
| PK | 6.0435G | 61.20 | 68.20 | -7.00 | 54.51 | 3 | Vertical | 81 | 2.28 | 28 | 34.79 | 7.02 | 35.12 | | |

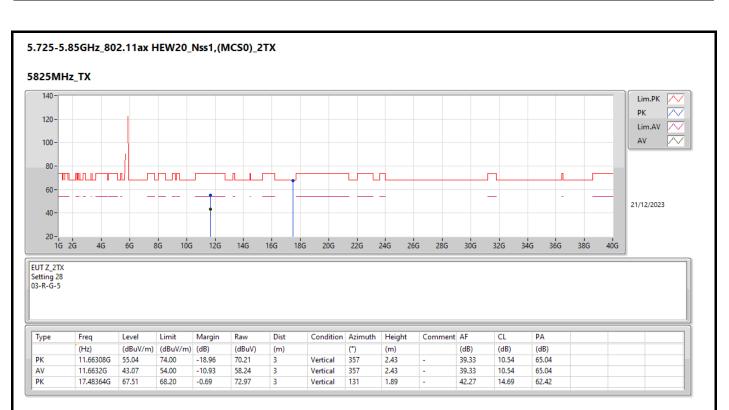




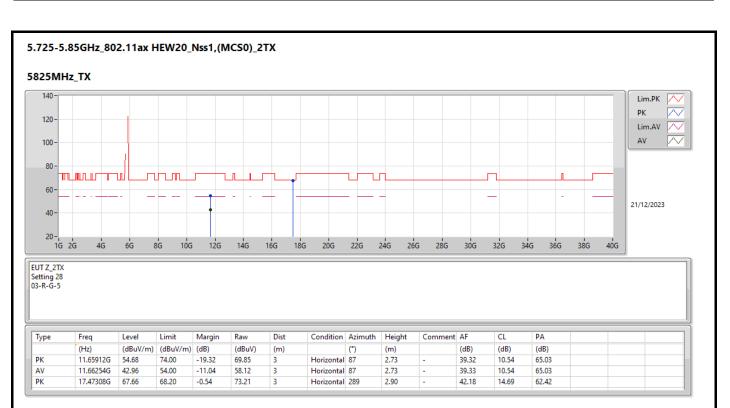


| Туре | Freq | Level | Limit | Margin | Raw | Dist | Condition | Azimuth | Height | Comment | AF | CL | PA | | |
|------|---------|----------|----------|--------|--------|------|------------|---------|--------|---------|-------|------|-------|--|--|
| | (Hz) | (dBuV/m) | (dBuV/m) | (dB) | (dBuV) | (m) | | (°) | (m) | | (dB) | (dB) | (dB) | | |
| PK | 5.6455G | 60.74 | 68.20 | -7.46 | 54.39 | 3 | Horizontal | 215 | 1.00 | 28 | 34.40 | 6.92 | 34.97 | | |
| PK | 5.8245G | 121.68 | Inf | -Inf | 115.50 | 3 | Horizontal | 215 | 1.00 | 28 | 34.30 | 6.94 | 35.06 | | |
| AV | 5.824G | 111.74 | Inf | -Inf | 105.56 | 3 | Horizontal | 215 | 1.00 | 28 | 34.30 | 6.94 | 35.06 | | |
| PK | 6.0265G | 61.16 | 68.20 | -7.04 | 54.54 | 3 | Horizontal | 215 | 1.00 | 28 | 34.75 | 7.00 | 35.13 | | |











РК

AV PK

AV

5.1468G

5.1462G

5.1876G

5.1876G

65.42

53.54

119.97

108.31

74.00

54.00

Inf

Inf

-8.58

-0.46

-Inf

-Inf

60.54

48.66

114.96

103.30

3

3

3

3

Vertical

Vertical

Vertical

Vertical

19

19

19

19

2.53

2.53

2.53

2.53

_

33.00

33.00

33.08

33.08

7.40

7.40

7.44

7.44

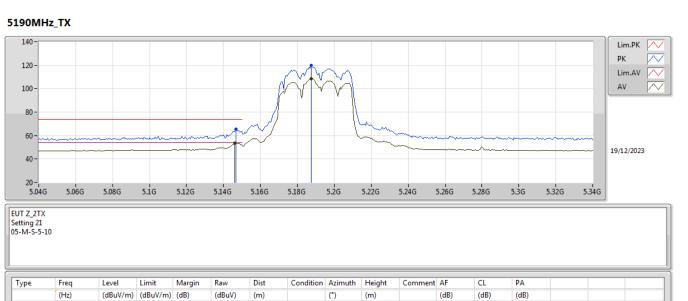
35.52

35.52

35.51

35.51

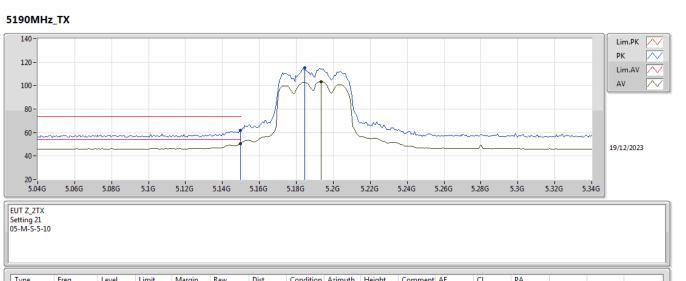




| Sporton International | I Inc. Hsinchu Laboratory |
|-----------------------|---------------------------|
|-----------------------|---------------------------|

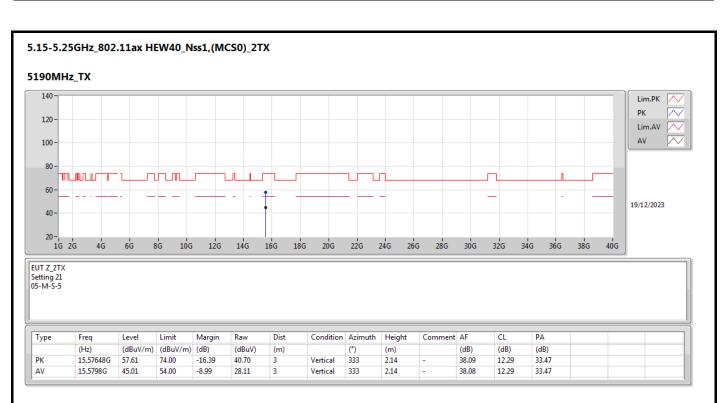




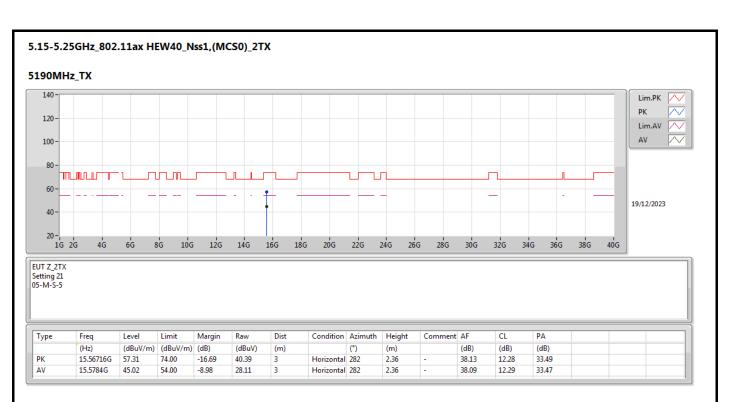


| Туре | Freq | Level | Limit | Margin | Raw | Dist | Condition | Azimuth | Height | Comment | AF | CL | PA | | |
|------|---------|----------|----------|--------|--------|------|------------|---------|--------|---------|-------|------|-------|--|--|
| | (Hz) | (dBuV/m) | (dBuV/m) | (dB) | (dBuV) | (m) | | (°) | (m) | | (dB) | (dB) | (dB) | | |
| РК | 5.1498G | 62.00 | 74.00 | -12.00 | 57.12 | 3 | Horizontal | 207 | 1.02 | - | 33.00 | 7.40 | 35.52 | | |
| AV | 5.1498G | 50.58 | 54.00 | -3.42 | 45.70 | 3 | Horizontal | 207 | 1.02 | - | 33.00 | 7.40 | 35.52 | | |
| РК | 5.1846G | 115.02 | Inf | -Inf | 110.02 | 3 | Horizontal | 207 | 1.02 | - | 33.07 | 7.44 | 35.51 | | |
| AV | 5.1936G | 103.52 | Inf | -Inf | 98.50 | 3 | Horizontal | 207 | 1.02 | - | 33.09 | 7.44 | 35.51 | | |











5.15-5.25GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

47.85

54.00

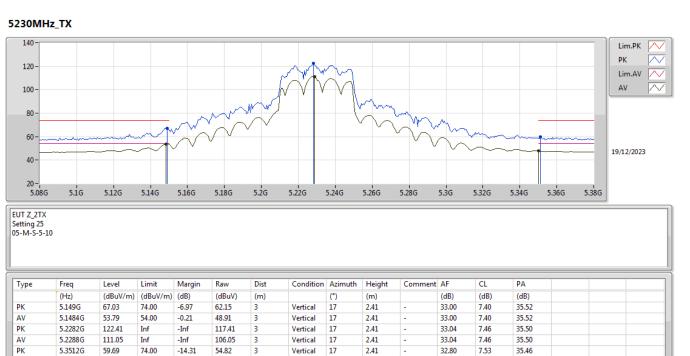
-6.15

5.35G

AV

42.98

3



Vertical

17

2.41

32.80

7.53

35.46



AV PK

AV

5.2342G

5.3746G

5.3578G

107.64

58.72

47.08

Inf

74.00

54.00

-Inf

-15.28

-6.92

102.63

53,79

42.19

3

3

3

Horizontal 208

Horizontal 208

Horizontal 208

1.00

1.00

1.00

33.03

32.85

32.82

7.47

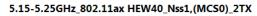
7.54

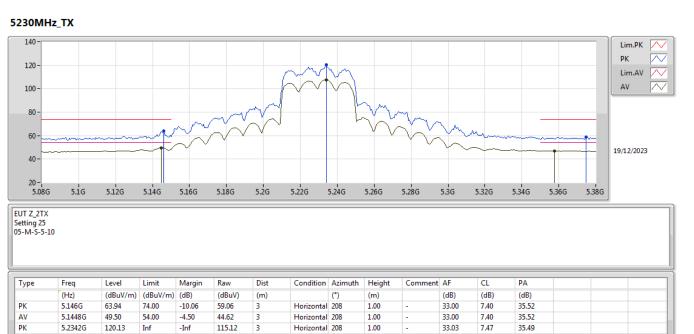
7.53

35.49

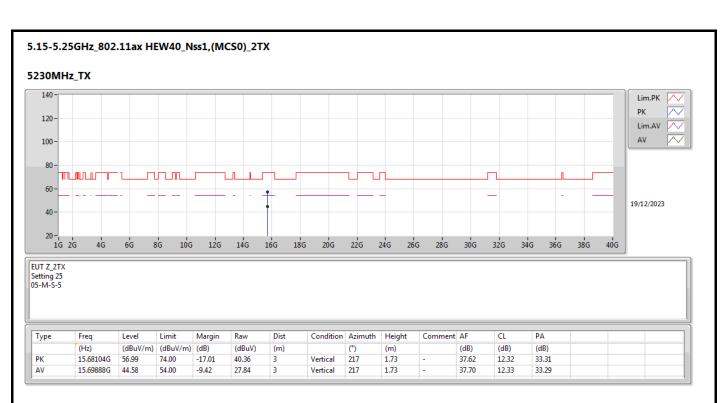
35.46

35.46

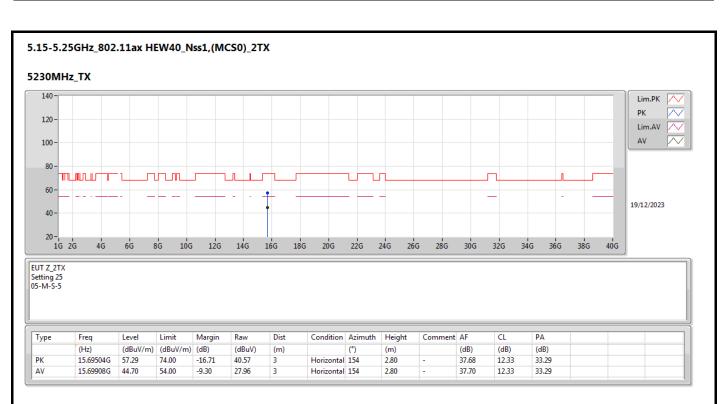






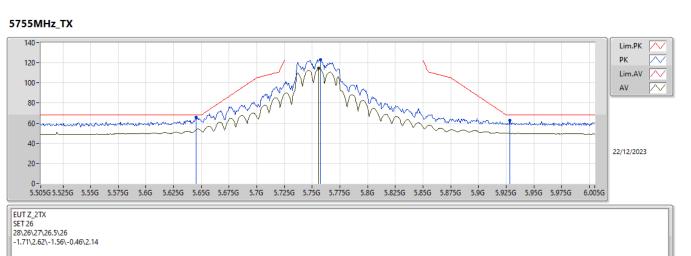








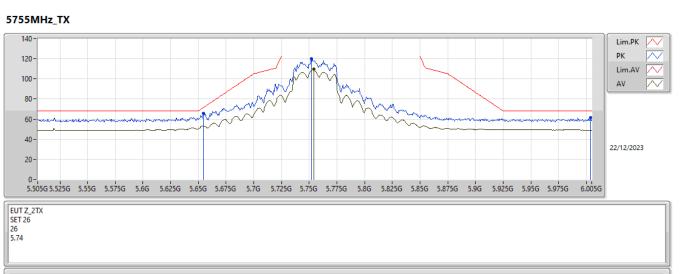
5.725-5.85GHz_802.11ax HEW40_Nss1,(MCS0)_2TX



| Туре | 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) | | |
| РК | 5.645G | 66.06 | 68.20 | -2.14 | 59.71 | 3 | Vertical | 72 | 2.26 | 26 | 34.40 | 6.92 | 34.97 | | |
| РК | 5.7575G | 122.98 | Inf | -Inf | 116.86 | 3 | Vertical | 72 | 2.26 | 26 | 34.21 | 6.93 | 35.02 | | |
| AV | 5.756G | 114.78 | Inf | -Inf | 108.66 | 3 | Vertical | 72 | 2.26 | 26 | 34.21 | 6.93 | 35.02 | | |
| РК | 5.9285G | 62.67 | 68.20 | -5.53 | 56.25 | 3 | Vertical | 72 | 2.26 | 26 | 34.56 | 6.97 | 35.11 | | |

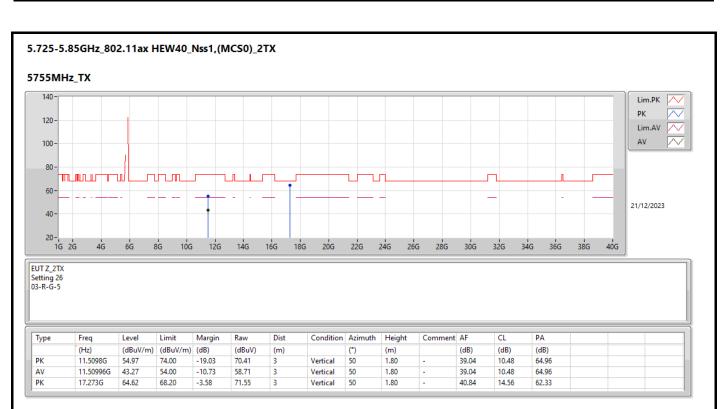


5.725-5.85GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

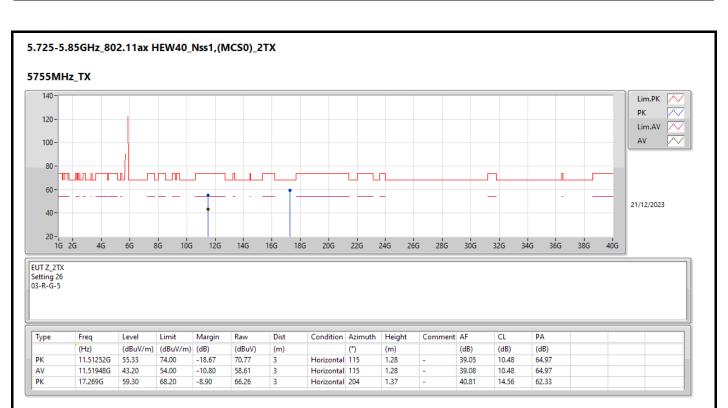


| Туре | Freq | Level | Limit | Margin | Raw | Dist | Condition | Azimuth | Height | Comment | AF | CL | PA | | |
|------|---------|----------|----------|--------|--------|------|------------|---------|--------|---------|-------|------|-------|--|--|
| | (Hz) | (dBuV/m) | (dBuV/m) | (dB) | (dBuV) | (m) | | (°) | (m) | | (dB) | (dB) | (dB) | | |
| РК | 5.6545G | 65.79 | 71.53 | -5.74 | 59.46 | 3 | Horizontal | 216 | 1.00 | 26 | 34.38 | 6.92 | 34.97 | | |
| РК | 5.752G | 119.89 | Inf | -Inf | 113.78 | 3 | Horizontal | 216 | 1.00 | 26 | 34.20 | 6.93 | 35.02 | | |
| AV | 5.754G | 109.57 | Inf | -Inf | 103.45 | 3 | Horizontal | 216 | 1.00 | 26 | 34.21 | 6.93 | 35.02 | | |
| PK | 6.004G | 61.28 | 68.20 | -6.92 | 54.73 | 3 | Horizontal | 216 | 1.00 | 26 | 34.71 | 6.98 | 35.14 | | |



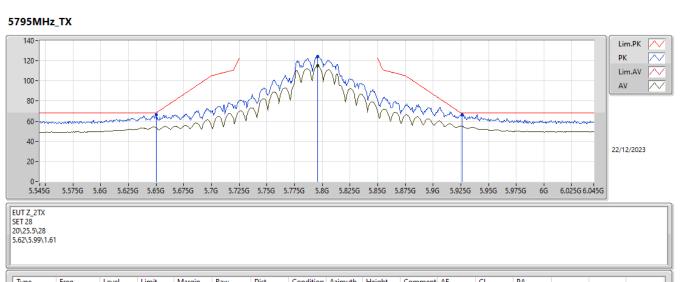








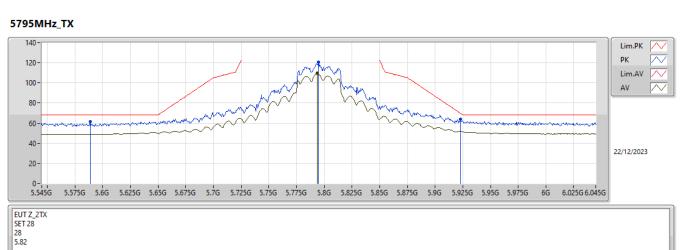
5.725-5.85GHz_802.11ax HEW40_Nss1,(MCS0)_2TX



| Туре | 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 | 5.65G | 66.59 | 68.20 | -1.61 | 60.24 | 3 | Vertical | 73 | 2.26 | 28 | 34.40 | 6.92 | 34.97 | | |
| PK | 5.796G | 124.45 | Inf | -Inf | 118.26 | 3 | Vertical | 73 | 2.26 | 28 | 34.29 | 6.94 | 35.04 | | |
| AV | 5.796G | 115.12 | Inf | -Inf | 108.93 | 3 | Vertical | 73 | 2.26 | 28 | 34.29 | 6.94 | 35.04 | | |
| PK | 5.926G | 66.17 | 68.20 | -2.03 | 59.75 | 3 | Vertical | 73 | 2.26 | 28 | 34.55 | 6.97 | 35.10 | | |

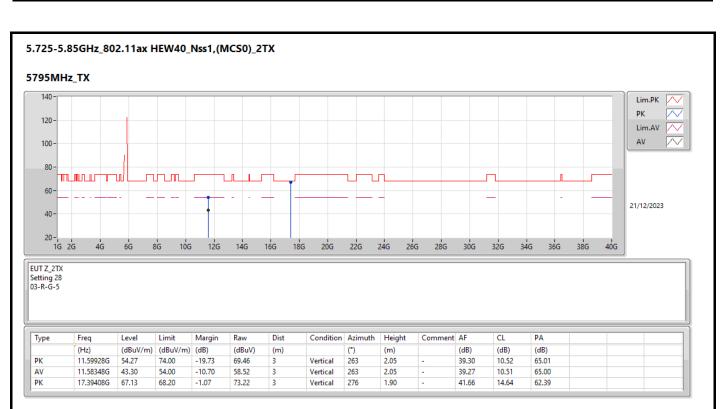


5.725-5.85GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

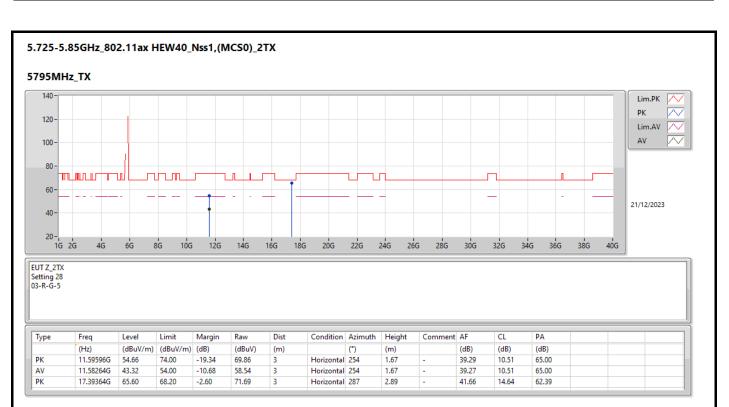


| Туре | Freq | Level | Limit | Margin | Raw | Dist | Condition | Azimuth | Height | Comment | AF | CL | PA | | |
|------|---------|----------|----------|--------|--------|------|------------|---------|--------|---------|-------|------|-------|--|--|
| | (Hz) | (dBuV/m) | (dBuV/m) | (dB) | (dBuV) | (m) | | (°) | (m) | | (dB) | (dB) | (dB) | | |
| РК | 5.589G | 61.27 | 68.20 | -6.93 | 54.86 | 3 | Horizontal | 215 | 1.00 | 28 | 34.44 | 6.91 | 34.94 | | |
| PK | 5.7945G | 120.59 | Inf | -Inf | 114.40 | 3 | Horizontal | 215 | 1.00 | 28 | 34.29 | 6.94 | 35.04 | | |
| AV | 5.7935G | 109.56 | Inf | -Inf | 103.37 | 3 | Horizontal | 215 | 1.00 | 28 | 34.29 | 6.94 | 35.04 | | |
| РК | 5.923G | 63.86 | 69.68 | -5.82 | 57.45 | 3 | Horizontal | 215 | 1.00 | 28 | 34.55 | 6.96 | 35.10 | | |











AV PK

AV

5.208G

5.449G

5.457G

104.32

58.21

46.93

Inf

74.00

54.00

-Inf

-15.79

-7.07

99.29

53.25

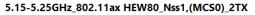
41.95

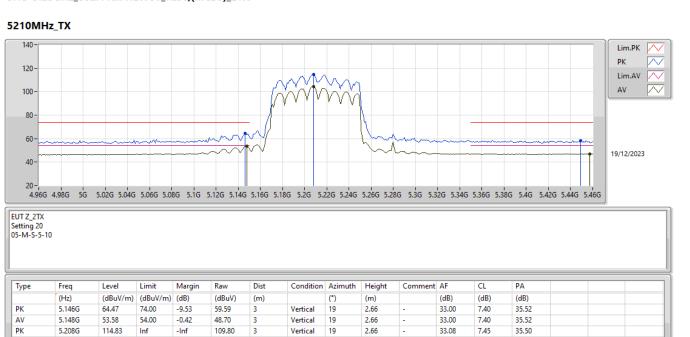
3

3

3

Appendix E.2





Vertical

Vertical

Vertical

19

19

19

2.66

2.66

2.66

33.08

32.80

32.81

7.45

7.59

7.60

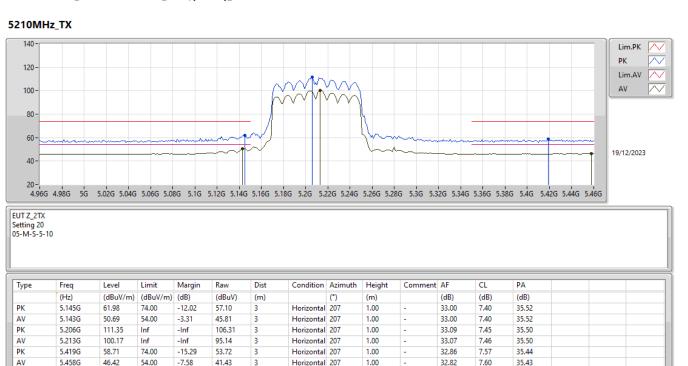
35.50

35.43

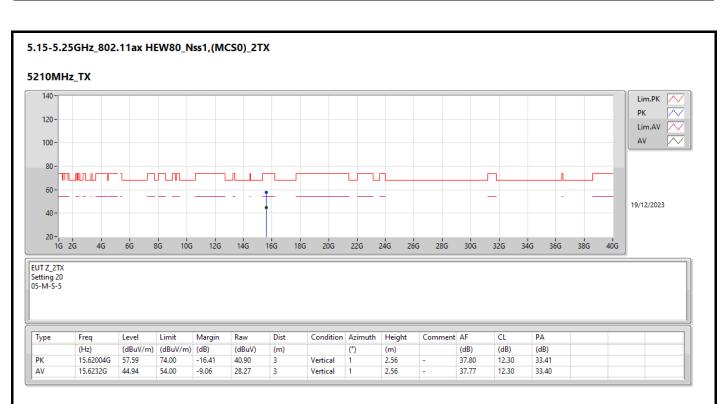
35.43



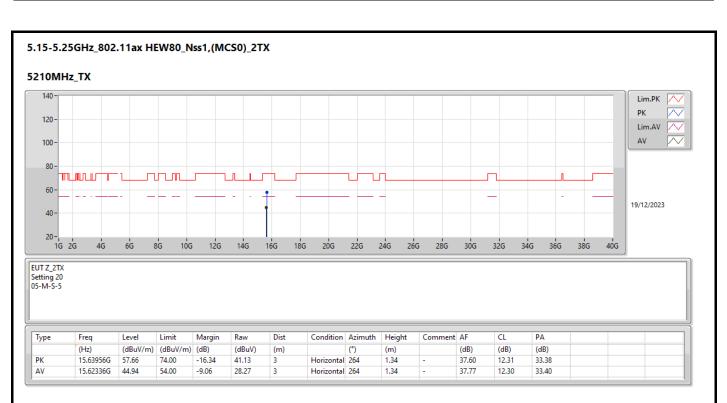






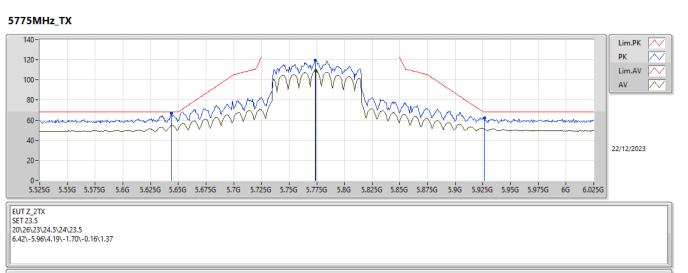








5.725-5.85GHz_802.11ax HEW80_Nss1,(MCS0)_2TX



| Туре | 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) | | |
| РК | 5.644G | 66.83 | 68.20 | -1.37 | 60.48 | 3 | Vertical | 79 | 2.24 | 23.5 | 34.40 | 6.92 | 34.97 | | |
| РК | 5.7735G | 119.41 | Inf | -Inf | 113.25 | 3 | Vertical | 79 | 2.24 | 23.5 | 34.25 | 6.94 | 35.03 | | |
| AV | 5.774G | 109.33 | Inf | -Inf | 103.17 | 3 | Vertical | 79 | 2.24 | 23.5 | 34.25 | 6.94 | 35.03 | | |
| PK | 5.9265G | 62.19 | 68.20 | -6.01 | 55.77 | 3 | Vertical | 79 | 2.24 | 23.5 | 34.55 | 6.97 | 35.10 | | |



5.725-5.85GHz_802.11ax HEW80_Nss1,(MCS0)_2TX

