# FCC Radio Test Report

## FCC ID: 2AA6ZCR3

**This report concerns: Original Grant**

| | | |
|---|---|---|
| **Project No.** | : | 2312G007 |
| **Equipment** | : | Router |
| **Brand Name** | : | CaptionCall |
| **Test Model** | : | CR3 |
| **Series Model** | : | N/A |
| **Applicant** | : | CaptionCall.LLC |
| **Address** | : | 4215 Riverboat Road Salt Lake City, Utah 84123 |
| **Manufacturer** | : | Suga Electronics(Dongguan)Co.,Ltd |
| **Address** | : | Suga High-tech Industrial Park,No 8, Fulong Road, Sanzhong, Qingxi Town, Dongguan, Guangdong |
| **Factory** | : | Hunan Fullriver Information Technology Co.,Ltd |
| **Address** | : | No. 666, Wangcheng Street, Wangcheng Economic and Technological Development Zone, Changsha City, Hunan Province, P.R. China |
| **Date of Receipt** | : | Dec. 04, 2023 |
| **Date of Test** | : | Dec. 05, 2023 ~ Jan. 16, 2024 |
| **Issued Date** | : | Feb. 22, 2024 |
| **Report Version** | : | R00 |
| **Test Sample** | : | Engineering Sample No.: SSL20231204301-1 for conducted, SSL20231204301 for radiated. |
| **Standard(s)** | : | FCC CFR Title 47, Part 15, Subpart E |

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

**Prepared by** : 

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**Declaration**

**BTL** represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

**BTL**'s reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **BTL** issued reports.

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**BTL**'s laboratory quality assurance procedures are in compliance with the ISO/IEC 17025: 2017 requirements, and accredited by the conformity assessment authorities listed in this test report.

**BTL** is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

**Limitation**

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.
Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

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## REPORT ISSUED HISTORY

| Report No. | Version | Description | Issued Date | Note |
|---|---|---|---|---|
| BTL-FCCP-2-2312G007 | R00 | Original Report. | Feb. 22, 2024 | Valid |

## 1. APPLICABLE STANDARDS

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:
ANSI C63.10-2013
The following reference test guidance is not within the scope of accreditation of NVLAP:
KDB 789033 D02 General UNII Test Procedures New Rules v02r01
KDB 662911 D01 Multiple Transmitter Output v02r01

## 2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

| FCC CFR Title 47, Part 15, Subpart E | | | | |
|---|---|---|---|---|
| Standard(s) Section | Test Item | Test Result | Judgment | Remark |
| 15.207 15.407(b) | AC Power Line Conducted Emissions | APPENDIX A | PASS | ------ |
| 15.407(b) 15.205(a) 15.209(a) | Radiated Emissions | APPENDIX B APPENDIX C APPENDIX D | PASS | ------ |
| 15.407(a) 15.407(e) | Bandwidth | APPENDIX E | PASS | ------ |
| 15.407(a) | Maximum Output Power | APPENDIX F | PASS | ------ |
| 15.407(a) | Power Spectral Density | APPENDIX G | PASS | ------ |
| 15.407(g) | Frequency Stability | APPENDIX H | PASS | ------ |
| 15.203 | Antenna Requirements | ------ | PASS | **NOTE (2)** |
| 15.407(c) | Automatically Discontinue Transmission | ------ | PASS | **NOTE (3)** |

Note:
(1) "N/A" denotes test is not applicable in this test report.
(2) The device what use a permanently attached antenna were considered sufficient to comply with the provisions of 15.203.
(3) During no any information transmission, the EUT can automatically discontinue transmission and become standby mode for power saving. the EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.
(4) For UNII-1 this device was functioned as a
    ☐ Outdoor access point device
    ☒ Indoor access point device
    ☐ Fixed point-to-point access points device
    ☐ Client device

## 2.1 TEST FACILITY

The test facilities used to collect the test data in this report:
For Other Conducted Items:
Room 108, Building 2, No. 1, Yile Road, Songshan Lake Zone, Dongguan City, Guangdong 523000.
BTL's Registration Number for FCC: 568794
BTL's Designation Number for FCC: CN5041


For Conducted Emissions, Radiated Emissions and Output Power Items:
No. 3 Jinshagang 1st Rd. Shixia, Dalang Town, Dongguan City, Guangdong 523792.
BTL's Registration Number for FCC: 162128
BTL's Designation Number for FCC: CN5042


## 2.2 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))
The BTL measurement uncertainty as below table:

A. AC power line conducted emissions test:

| Test Site | Method | Measurement Frequency Range | U,(dB) |
|---|---|---|---|
| DG-C02 | CISPR | 150kHz ~ 30MHz | 2.60 |

B. Radiated emissions test:

| Test Site | Method | Measurement Frequency Range | U,(dB) |
|---|---|---|---|
| DG-CB01 | CISPR | 9kHz ~ 30MHz | 2.36 |

| Test Site | Method | Measurement Frequency Range | Ant. H / V | $U$,(dB) |
|---|---|---|---|---|
| DG-CB03 (3m) | CISPR | 30MHz ~ 200MHz | V | 4.40 |
| | | 30MHz ~ 200MHz | H | 3.62 |
| | | 200MHz ~ 1,000MHz | V | 4.58 |
| | | 200MHz ~ 1,000MHz | H | 3.98 |

| Test Site | Method | Measurement Frequency Range | $U$,(dB) |
|---|---|---|---|
| DG-CB03 (3m) | CISPR | 1GHz ~ 6GHz | 4.08 |
| | | 6GHz ~ 18GHz | 4.62 |

| Test Site | Method | Measurement Frequency Range | $U$,(dB) |
|---|---|---|---|
| DG-CB03 (1m) | CISPR | 18 ~ 26.5 GHz | 3.36 |
| | | 26.5 ~ 40 GHz | 3.58 |

C. Other Measurement test:

| Test Item | Uncertainty |
|---|---|
| Bandwidth | 0.90 % |
| Maximum Output Power | 1.3 dB |
| Power Spectral Density | 1.4 dB |
| Frequency Stability | 2.7 ppm |
| Temperature | 0.8 °C |
| Humidity | 2.2 % |

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

## 2.3 TEST ENVIRONMENT CONDITIONS

| Test Item | Temperature | Humidity | Test Voltage | Tested By |
|---|---|---|---|---|
| AC Power Line Conducted Emissions | 24°C | 50% | AC 120V/60Hz | Hayden Chen |
| Radiated Emissions-9kHz to 30MHz | 22°C | 48% | AC 120V/60Hz | Hayden Chen |
| Radiated Emissions-30MHz to 1000MHz | 24°C | 46% | AC 120V/60Hz | Allen Tong |
| Radiated Emissions-Above 1000 MHz | 23~25°C | 42~45% | AC 120V/60Hz | Max Wang Berton Luo |
| Bandwidth | 24°C | 57% | DC 12V | Tember Zhuang |
| Maximum Output Power | 20~23°C | 49~50% | DC 12V | Gene Yang |
| Power Spectral Density | 24°C | 57% | DC 12V | Tember Zhuang |
| Frequency Stability | Normal & Extreme | 57% | Normal & Extreme | Tember Zhuang |

## 3. GENERAL INFORMATION

### 3.1 GENERAL DESCRIPTION OF EUT

| | |
|---|---|
| Equipment | Router |
| Brand Name | CaptionCall |
| Test Model | CR3 |
| Series Model | N/A |
| Model Difference(s) | N/A |
| HVIN | V1.1 |
| FVIN | v421_D231114 |
| Power Source | DC voltage supplied from AC adapter.<br>Model: F12L46-120100SPAU |
| Power Rating | I/P: 100-240V~ 50/60Hz 0.3A    O/P: 12.0V === 1.0A |
| Operation Frequency Band(s) | UNII-1: 5150 MHz ~ 5250 MHz<br>UNII-2A: 5250 MHz ~ 5350 MHz<br>UNII-2C: 5470 MHz ~ 5725 MHz<br>UNII-3: 5725 MHz ~ 5850 MHz |
| Modulation Type | IEEE 802.11a/n/ac: OFDM<br>IEEE 802.11ax: OFDMA |
| Bit Rate of Transmitter | IEEE 802.11a: 54/48/36/24/18/12/9/6 Mbps<br>IEEE 802.11n: up to 300 Mbps<br>IEEE 802.11ac: up to 866.7 Mbps<br>IEEE 802.11ax: up to 1201 Mbps |
| Maximum Output Power _UNII-1 | IEEE 802.11ax(HE40): 21.51 dBm (0.1416 W) |
| Maximum Output Power _UNII-2A | IEEE 802.11ac(VHT80): 18.88 dBm (0.0773 W) |
| Maximum Output Power _UNII-2C | IEEE 802.11ax(HE80): 20.54 dBm (0.1132 W) |
| Maximum Output Power _UNII-3 | IEEE 802.11ax(HE80): 23.24 dBm (0.2109 W) |

Note:
1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

2. Channel List:

| IEEE 802.11a IEEE 802.11n(HT20) IEEE 802.11ac(VHT20) IEEE 802.11ax(HE20) | | IEEE 802.11n(HT40) IEEE 802.11ac(VHT40) IEEE 802.11ax(HE40) | | IEEE 802.11ac(VHT80) IEEE 802.11ax(HE80) | |
|---|---|---|---|---|---|
| UNII-1 | | UNII-1 | | UNII-1 | |
| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
| 36 | 5180 | 38 | 5190 | 42 | 5210 |
| 40 | 5200 | 46 | 5230 | | |
| 44 | 5220 | | | | |
| 48 | 5240 | | | | |

| IEEE 802.11a IEEE 802.11n(HT20) IEEE 802.11ac(VHT20) IEEE 802.11ax(HE20) | | IEEE 802.11n(HT40) IEEE 802.11ac(VHT40) IEEE 802.11ax(HE40) | | IEEE 802.11ac(VHT80) IEEE 802.11ax(HE80) | |
|---|---|---|---|---|---|
| UNII-2A | | UNII-2A | | UNII-2A | |
| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
| 52 | 5260 | 54 | 5270 | 58 | 5290 |
| 56 | 5280 | 62 | 5310 | | |
| 60 | 5300 | | | | |
| 64 | 5320 | | | | |

| IEEE 802.11a IEEE 802.11n(HT20) IEEE 802.11ac(VHT20) IEEE 802.11ax(HE20) | | IEEE 802.11n(HT40) IEEE 802.11ac(VHT40) IEEE 802.11ax(HE40) | | IEEE 802.11ac(VHT80) IEEE 802.11ax(HE80) | |
|---|---|---|---|---|---|
| UNII-2C | | UNII-2C | | UNII-2C | |
| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
| 100 | 5500 | 102 | 5510 | 106 | 5530 |
| 104 | 5520 | 110 | 5550 | 122 | 5610 |
| 108 | 5540 | 118 | 5590 | | |
| 112 | 5560 | 126 | 5630 | | |
| 116 | 5580 | 134 | 5670 | | |
| 120 | 5600 | | | | |
| 124 | 5620 | | | | |
| 128 | 5640 | | | | |
| 132 | 5660 | | | | |
| 136 | 5680 | | | | |
| 140 | 5700 | | | | |

| IEEE 802.11a IEEE 802.11n(HT20) IEEE 802.11ac(VHT20) IEEE 802.11ax(HE20) | | IEEE 802.11n(HT40) IEEE 802.11ac(VHT40) IEEE 802.11ax(HE40) | | IEEE 802.11ac(VHT80) IEEE 802.11ax(HE80) | |
|---|---|---|---|---|---|
| UNII-3 | | UNII-3 | | UNII-3 | |
| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
| 149 | 5745 | 151 | 5755 | 155 | 5775 |
| 153 | 5765 | 159 | 5795 | | |
| 157 | 5785 | | | | |
| 161 | 5805 | | | | |
| 165 | 5825 | | | | |

3. Antenna Specification:

| Ant. | Brand | P/N | Antenna Type | Connector | Gain (dBi) |
|---|---|---|---|---|---|
| 1 | SLEing® | SLEingA200330160-C03 | Dipole | N/A | 5.92 |
| 2 | SLEing® | SLEingA200330070-C06 | Dipole | N/A | 5.92 |

Note:
1) This EUT supports CDD, and all antennas have the same gain, Directional gain = $G_{ANT}$+Array Gain.
   For power measurements, Array Gain=0dB ($N_{ANT} \leqslant 4$), so the Directional gain=5.92.
   For power spectral density measurements, $N_{ANT}=2$, $N_{SS} = 1$.
   So the Directional gain=$G_{ANT}$+Array Gain=$G_{ANT}$+10log($N_{ANT}/ N_{SS}$)dBi=5.92+10log(2/1)dBi=8.93dBi.
   Then, the UNII-1 power spectral density limit is 17-(8.93-6)=14.07, the UNII-2A, UNII-2C power spectral density limit is 11-(8.93-6)=8.07, the UNII-3 power spectral density limit is 30-(8.93-6)=27.07.
2) The antenna gain is provided by the manufacturer.

4. Table for Antenna Configuration:

| Operating Mode / TX Mode | 2TX |
|---|---|
| IEEE 802.11a | V (Ant. 1 + Ant. 2) |
| IEEE 802.11n(HT20) | V (Ant. 1 + Ant. 2) |
| IEEE 802.11n(HT40) | V (Ant. 1 + Ant. 2) |
| IEEE 802.11ac(VHT20) | V (Ant. 1 + Ant. 2) |
| IEEE 802.11ac(VHT40) | V (Ant. 1 + Ant. 2) |
| IEEE 802.11ac(VHT80) | V (Ant. 1 + Ant. 2) |
| IEEE 802.11ax(HE20) | V (Ant. 1 + Ant. 2) |
| IEEE 802.11ax(HE40) | V (Ant. 1 + Ant. 2) |
| IEEE 802.11ax(HE80) | V (Ant. 1 + Ant. 2) |

### 3.2 TEST MODES

The test system was pre-tested based on the consideration of all possible combinations of EUT operation mode.

| Pretest Mode | Description |
| --- | --- |
| Mode 1 | TX A Mode Channel 36/40/48 (UNII-1) |
| Mode 2 | TX AC(VHT20) Mode Channel 36/40/48 (UNII-1) |
| Mode 3 | TX AC(VHT40) Mode Channel 38/46 (UNII-1) |
| Mode 4 | TX AC(VHT80) Mode Channel 42 (UNII-1) |
| Mode 5 | TX AX(HE20) Mode Channel 36/40/48 (UNII-1) |
| Mode 6 | TX AX(HE40) Mode Channel 38/46 (UNII-1) |
| Mode 7 | TX AX(HE80) Mode Channel 42 (UNII-1) |
| Mode 8 | TX A Mode Channel 52/60/64 (UNII-2A) |
| Mode 9 | TX AC(VHT20) Mode Channel 52/60/64 (UNII-2A) |
| Mode 10 | TX AC(VHT40) Mode Channel 54/62 (UNII-2A) |
| Mode 11 | TX AC(VHT80) Mode Channel 58 (UNII-2A) |
| Mode 12 | TX AX(HE20) Mode Channel 52/60/64 (UNII-2A) |
| Mode 13 | TX AX(HE40) Mode Channel 54/62 (UNII-2A) |
| Mode 14 | TX AX(HE80) Mode Channel 58 (UNII-2A) |
| Mode 15 | TX A Mode Channel 100/116/140 (UNII-2C) |
| Mode 16 | TX AC(VHT20) Mode Channel 100/116/140 (UNII-2C) |
| Mode 17 | TX AC(VHT40) Mode Channel 102/110/134 (UNII-2C) |
| Mode 18 | TX AC(VHT80) Mode Channel 106/122 (UNII-2C) |
| Mode 19 | TX AX(HE20) Mode Channel 100/116/140 (UNII-2C) |
| Mode 20 | TX AX(HE40) Mode Channel 102/110/134 (UNII-2C) |
| Mode 21 | TX AX(HE80) Mode Channel 106/122 (UNII-2C) |
| Mode 22 | TX A Mode Channel 149/157/165 (UNII-3) |
| Mode 23 | TX AC(VHT20) Mode Channel 149/157/165 (UNII-3) |
| Mode 24 | TX AC(VHT40) Mode Channel 151/159 (UNII-3) |
| Mode 25 | TX AC(VHT80) Mode Channel 155 (UNII-3) |
| Mode 26 | TX AX(HE20) Mode Channel 149/157/165 (UNII-3) |
| Mode 27 | TX AX(HE40) Mode Channel 151/159 (UNII-3) |
| Mode 28 | TX AX(HE80) Mode Channel 155 (UNII-3) |

Following mode(s) was (were) found to be the worst case(s) and selected for the final test.

| AC power line conducted emissions test | |
|---|---|
| Final Test Mode | Description |
| Mode 28 | TX AX(HE80) Mode Channel 155 (UNII-3) |

| Radiated Emissions Test - Below 1GHz | |
|---|---|
| Final Test Mode | Description |
| Mode 28 | TX AX(HE80) Mode Channel 155 (UNII-3) |

| Radiated Emissions Test - Above 1GHz | |
|---|---|
| Final Test Mode | Description |
| Mode 1 | TX A Mode Channel 36/40/48 (UNII-1) |
| Mode 2 | TX AC(VHT20) Mode Channel 36/40/48 (UNII-1) |
| Mode 3 | TX AC(VHT40) Mode Channel 38/46 (UNII-1) |
| Mode 4 | TX AC(VHT80) Mode Channel 42 (UNII-1) |
| Mode 5 | TX AX(HE20) Mode Channel 36/40/48 (UNII-1) |
| Mode 6 | TX AX(HE40) Mode Channel 38/46 (UNII-1) |
| Mode 7 | TX AX(HE80) Mode Channel 42 (UNII-1) |
| Mode 8 | TX A Mode Channel 52/60/64 (UNII-2A) |
| Mode 9 | TX AC(VHT20) Mode Channel 52/60/64 (UNII-2A) |
| Mode 10 | TX AC(VHT40) Mode Channel 54/62 (UNII-2A) |
| Mode 11 | TX AC(VHT80) Mode Channel 58 (UNII-2A) |
| Mode 12 | TX AX(HE20) Mode Channel 52/60/64 (UNII-2A) |
| Mode 13 | TX AX(HE40) Mode Channel 54/62 (UNII-2A) |
| Mode 14 | TX AX(HE80) Mode Channel 58 (UNII-2A) |
| Mode 15 | TX A Mode Channel 100/116/140 (UNII-2C) |
| Mode 16 | TX AC(VHT20) Mode Channel 100/116/140 (UNII-2C) |
| Mode 17 | TX AC(VHT40) Mode Channel 102/110/134 (UNII-2C) |
| Mode 18 | TX AC(VHT80) Mode Channel 106/122 (UNII-2C) |
| Mode 19 | TX AX(HE20) Mode Channel 100/116/140 (UNII-2C) |
| Mode 20 | TX AX(HE40) Mode Channel 102/110/134 (UNII-2C) |
| Mode 21 | TX AX(HE80) Mode Channel 106/122 (UNII-2C) |
| Mode 22 | TX A Mode Channel 149/157/165 (UNII-3) |
| Mode 23 | TX AC(VHT20) Mode Channel 149/157/165 (UNII-3) |
| Mode 24 | TX AC(VHT40) Mode Channel 151/159 (UNII-3) |
| Mode 25 | TX AC(VHT80) Mode Channel 155 (UNII-3) |
| Mode 26 | TX AX(HE20) Mode Channel 149/157/165 (UNII-3) |
| Mode 27 | TX AX(HE40) Mode Channel 151/159 (UNII-3) |
| Mode 28 | TX AX(HE80) Mode Channel 155 (UNII-3) |

| Conducted Test | |
|---|---|
| Final Test Mode | Description |
| Mode 1 | TX A Mode Channel 36/40/48 (UNII-1) |
| Mode 2 | TX AC(VHT20) Mode Channel 36/40/48 (UNII-1) |
| Mode 3 | TX AC(VHT40) Mode Channel 38/46 (UNII-1) |
| Mode 4 | TX AC(VHT80) Mode Channel 42 (UNII-1) |
| Mode 5 | TX AX(HE20) Mode Channel 36/40/48 (UNII-1) |
| Mode 6 | TX AX(HE40) Mode Channel 38/46 (UNII-1) |
| Mode 7 | TX AX(HE80) Mode Channel 42 (UNII-1) |
| Mode 8 | TX A Mode Channel 52/60/64 (UNII-2A) |
| Mode 9 | TX AC(VHT20) Mode Channel 52/60/64 (UNII-2A) |
| Mode 10 | TX AC(VHT40) Mode Channel 54/62 (UNII-2A) |
| Mode 11 | TX AC(VHT80) Mode Channel 58 (UNII-2A) |
| Mode 12 | TX AX(HE20) Mode Channel 52/60/64 (UNII-2A) |
| Mode 13 | TX AX(HE40) Mode Channel 54/62 (UNII-2A) |
| Mode 14 | TX AX(HE80) Mode Channel 58 (UNII-2A) |
| Mode 15 | TX A Mode Channel 100/116/140 (UNII-2C) |
| Mode 16 | TX AC(VHT20) Mode Channel 100/116/140 (UNII-2C) |
| Mode 17 | TX AC(VHT40) Mode Channel 102/110/134 (UNII-2C) |
| Mode 18 | TX AC(VHT80) Mode Channel 106/122 (UNII-2C) |
| Mode 19 | TX AX(HE20) Mode Channel 100/116/140 (UNII-2C) |
| Mode 20 | TX AX(HE40) Mode Channel 102/110/134 (UNII-2C) |
| Mode 21 | TX AX(HE80) Mode Channel 106/122 (UNII-2C) |
| Mode 22 | TX A Mode Channel 149/157/165 (UNII-3) |
| Mode 23 | TX AC(VHT20) Mode Channel 149/157/165 (UNII-3) |
| Mode 24 | TX AC(VHT40) Mode Channel 151/159 (UNII-3) |
| Mode 25 | TX AC(VHT80) Mode Channel 155 (UNII-3) |
| Mode 26 | TX AX(HE20) Mode Channel 149/157/165 (UNII-3) |
| Mode 27 | TX AX(HE40) Mode Channel 151/159 (UNII-3) |
| Mode 28 | TX AX(HE80) Mode Channel 155 (UNII-3) |

Note:
(1) For AC power line conducted emissions and radiated emission below 1 GHz test, the TX AX(HE80) Mode Channel 155 (UNII-3) is found to be the worst case and recorded.
(2) For radiated emission above 1 GHz test, the spurious points of 1GHz~26.5GHz and 26.5GHz~40GHz have been pre-tested and in this report only recorded the worst case. The remaining spurious points are all below the limit value of 20dB.
(3) All the bit rate of transmitter have been tested and found the lowest rate is found to be the worst case and recorded.
(4) VHT20/VHT40 covers HT20/HT40, due to same modulation. The power setting for 802.11n HT20 and HT40 are the same or lower than 802.11ac VHT20 and VHT40.
(5) For radiated emission above 1 GHz test, the polarization of Vertical and Horizontal are evaluated, the worst case is Vertical and recorded.
(6) IEEE 802.11ax mode only supports full RU, so only the full RU is evaluated and measured inside report.

### 3.3 PARAMETERS OF TEST SOFTWARE

| UNII-1 | | | |
|---|---|---|---|
| Test Software Version | QATool Dbg 0.0.2.15 | | |
| Frequency (MHz) | 5180 | 5200 | 5240 |
| IEEE 802.11a | 12.5 | 12.5 | 12.5 |
| IEEE 802.11ac(VHT20) | 13.5 | 13.5 | 13.5 |
| IEEE 802.11ax(HE20) | 13.5 | 13.5 | 13.5 |
| Frequency (MHz) | 5190 | 5230 | |
| IEEE 802.11ac(VHT40) | 15.5 | 15.5 | |
| IEEE 802.11ax(HE40) | 15.5 | 15.5 | |
| Frequency (MHz) | 5210 | | |
| IEEE 802.11ac(VHT80) | 15.5 | | |
| IEEE 802.11ax(HE80) | 15.5 | | |

| UNII-2A | | | |
|---|---|---|---|
| Test Software Version | QATool Dbg 0.0.2.15 | | |
| Frequency (MHz) | 5260 | 5300 | 5320 |
| IEEE 802.11a | 8 | 8 | 8 |
| IEEE 802.11ac(VHT20) | 9 | 9 | 9 |
| IEEE 802.11ax(HE20) | 9 | 9 | 9 |
| Frequency (MHz) | 5270 | 5310 | |
| IEEE 802.11ac(VHT40) | 11 | 11 | |
| IEEE 802.11ax(HE40) | 11 | 11 | |
| Frequency (MHz) | 5290 | | |
| IEEE 802.11ac(VHT80) | 14 | | |
| IEEE 802.11ax(HE80) | 14 | | |

| UNII-2C | | | |
|---|---|---|---|
| Test Software Version | QATool Dbg 0.0.2.15 | | |
| Frequency (MHz) | 5500 | 5580 | 5700 |
| IEEE 802.11a | 8 | 7 | 7.5 |
| IEEE 802.11ac(VHT20) | 9 | 8 | 8.5 |
| IEEE 802.11ax(HE20) | 9 | 8 | 8.5 |
| Frequency (MHz) | 5510 | 5550 | 5670 |
| IEEE 802.11ac(VHT40) | 12 | 11 | 10.5 |
| IEEE 802.11ax(HE40) | 12 | 11 | 10 |
| Frequency (MHz) | 5530 | 5610 | |
| IEEE 802.11ac(VHT80) | 14.5 | 14 | |
| IEEE 802.11ax(HE80) | 14.5 | 14.5 | |

| UNII-3 | | | |
|---|---|---|---|
| Test Software Version | QATool Dbg 0.0.2.15 | | |
| Frequency (MHz) | 5745 | 5785 | 5825 |
| IEEE 802.11a | 10.5 | 13 | 9 |
| IEEE 802.11ac(VHT20) | 12 | 13.5 | 10 |
| IEEE 802.11ax(HE20) | 12 | 14 | 9.5 |
| Frequency (MHz) | 5755 | 5795 | |
| IEEE 802.11ac(VHT40) | 15.5 | 16 | |
| IEEE 802.11ax(HE40) | 15 | 14.5 | |
| Frequency (MHz) | 5775 | | |
| IEEE 802.11ac(VHT80) | 16.5 | | |
| IEEE 802.11ax(HE80) | 18 | | |

## 3.4 DUTY CYCLE

If duty cycle is ≥ 98 %, duty factor is not required.
If duty cycle is < 98 %, duty factor shall be considered.
The output power = measured power + duty factor.
The power spectral density = measured power spectral density + duty factor.

### IEEE 802.11a
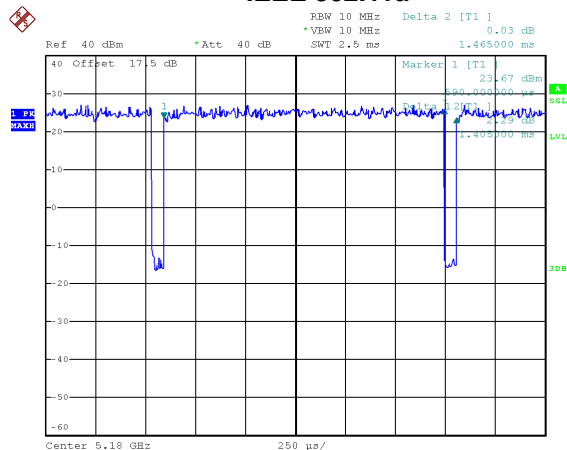


Date: 8.DEC.2023  15:17:21

Duty cycle = 1.405 ms / 1.465 ms = 95.90%
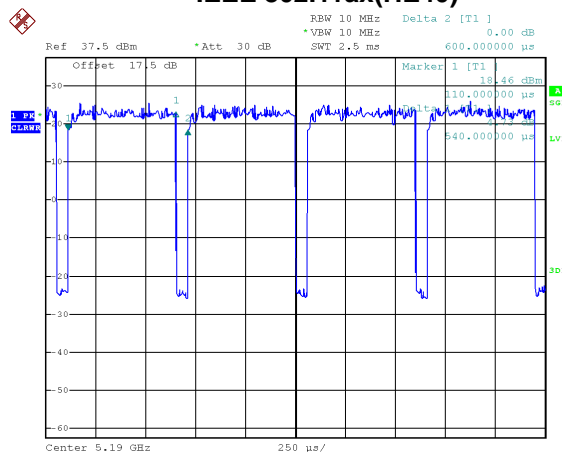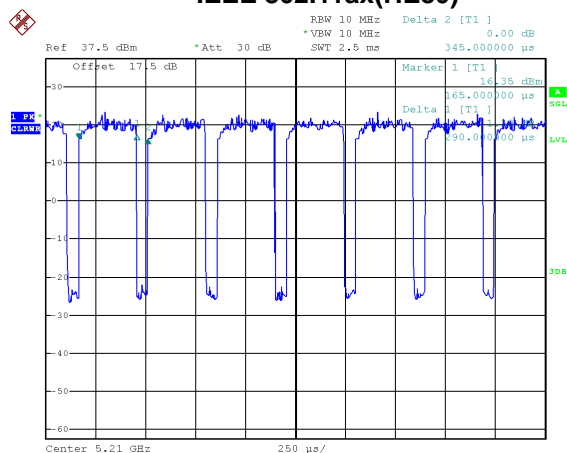Duty Factor = 10 log(1 / Duty cycle) = 0.18

### IEEE 802.11ac(VHT20)
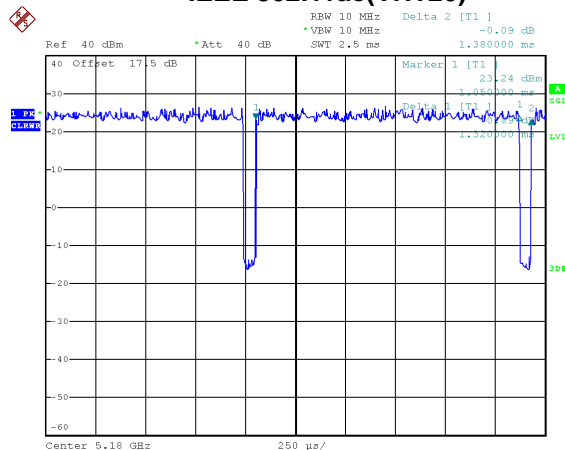


Date: 8.DEC.2023  15:18:41

Duty cycle = 1.320 ms / 1.380 ms = 95.65%
Duty Factor = 10 log(1 / Duty cycle) = 0.19

### IEEE 802.11ac(VHT40)
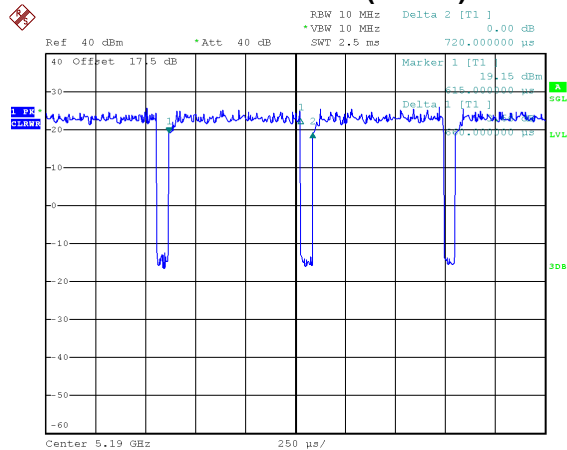


Date: 8.DEC.2023  15:19:22

Duty cycle = 0.660 ms / 0.720 ms = 91.67%
Duty Factor = 10 log(1 / Duty cycle) = 0.38

### IEEE 802.11ac(VHT80)
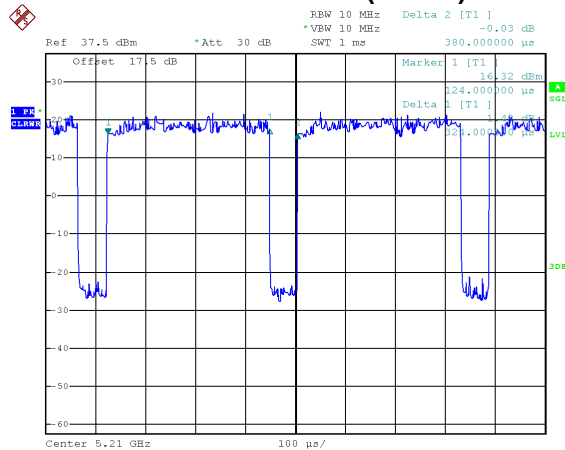


Date: 8.DEC.2023  15:21:27

Duty cycle = 0.324 ms / 0.380 ms = 85.26%
Duty Factor = 10 log(1 / Duty cycle) = 0.69

### IEEE 802.11ax(HE20)
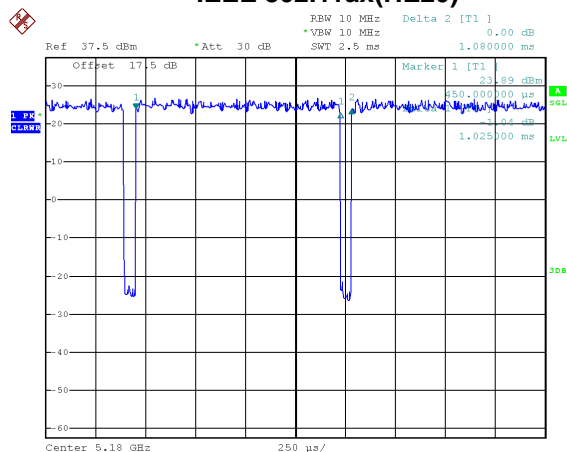


Date: 8.DEC.2023  15:22:09

Duty cycle = 1.025 ms / 1.080 ms = 94.91%
Duty Factor = 10 log(1 / Duty cycle) = 0.23

### IEEE 802.11ax(HE40)



Date: 8.DEC.2023  15:22:36

Duty cycle = 0.540 ms / 0.600 ms = 90.00%
Duty Factor = 10 log(1 / Duty cycle) = 0.46

### IEEE 802.11ax(HE80)



Date: 8.DEC.2023  15:23:07

Duty cycle = 0.290 ms / 0.345 ms = 84.06%
Duty Factor = 10 log(1 / Duty cycle) = 0.75

NOTE:
For IEEE 802.11a:
For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 712 Hz (Duty cycle < 98%).

For IEEE 802.11ac(VHT20):
For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 758 Hz (Duty cycle < 98%).

For IEEE 802.11ac(VHT40):
For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1515 Hz (Duty cycle < 98%).

For IEEE 802.11ac(VHT80):
For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3086 Hz (Duty cycle < 98%).

For IEEE 802.11ax(HE20):
For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 976 Hz (Duty cycle < 98%).

For IEEE 802.11ax(HE40):
For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1852 Hz (Duty cycle < 98%).

For IEEE 802.11ax(HE80):
For radiated emissions frequency above 1 GHz, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3448 Hz (Duty cycle < 98%).

### 3.5 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED
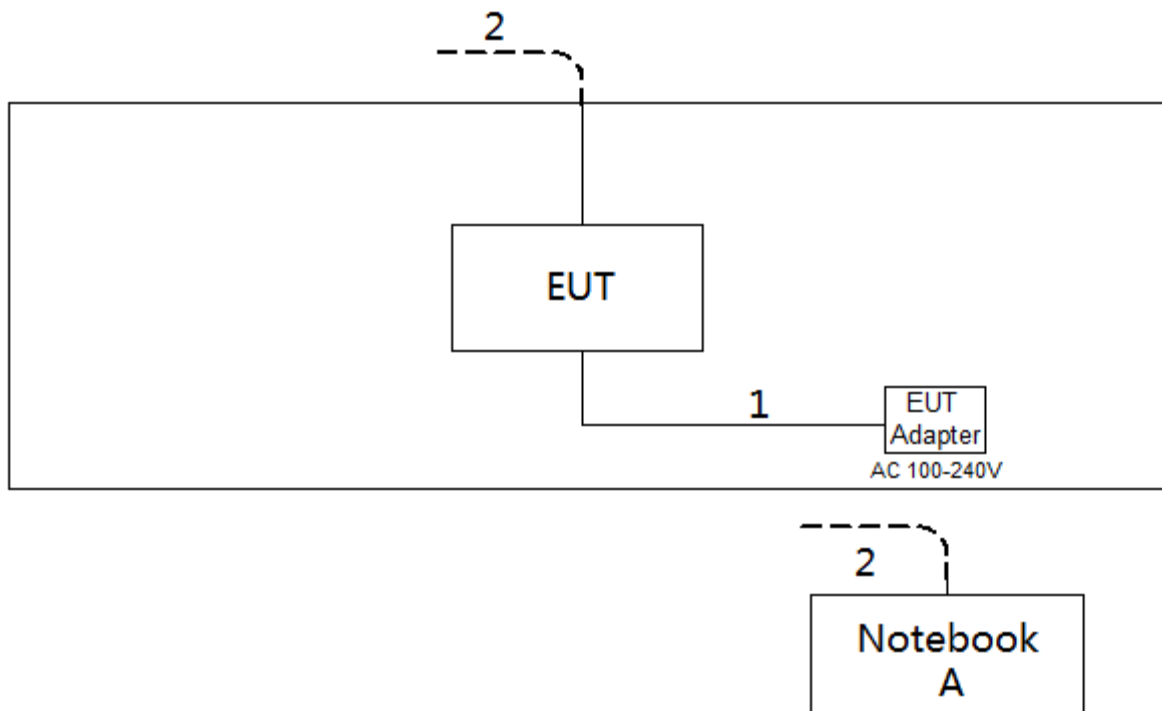


### 3.6 SUPPORT UNITS

| Item | Equipment | Brand | Model No. | Series No. |
|------|-----------|-------|-----------|------------|
| A | Notebook | Dell | Inspiron 15-7559 | N/A |

| Item | Cable Type | Shielded Type | Ferrite Core | Length |
|------|-----------|---------------|--------------|--------|
| 1 | DC Cable | NO | NO | 1.5m |
| 2 | RJ45 Cable | NO | NO | 10m |

## 4. AC POWER LINE CONDUCTED EMISSIONS

### 4.1 LIMIT

| Frequency (MHz) | Limit (dBµV) | |
|---|---|---|
| | Quasi-peak | Average |
| 0.15 - 0.5 | 66 to 56* | 56 to 46* |
| 0.5 - 5.0 | 56 | 46 |
| 5.0 - 30.0 | 60 | 50 |

NOTE:
(1) The tighter limit applies at the band edges.
(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

### 4.2 TEST PROCEDURE

a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
d. LISN at least 80 cm from nearest part of EUT chassis.
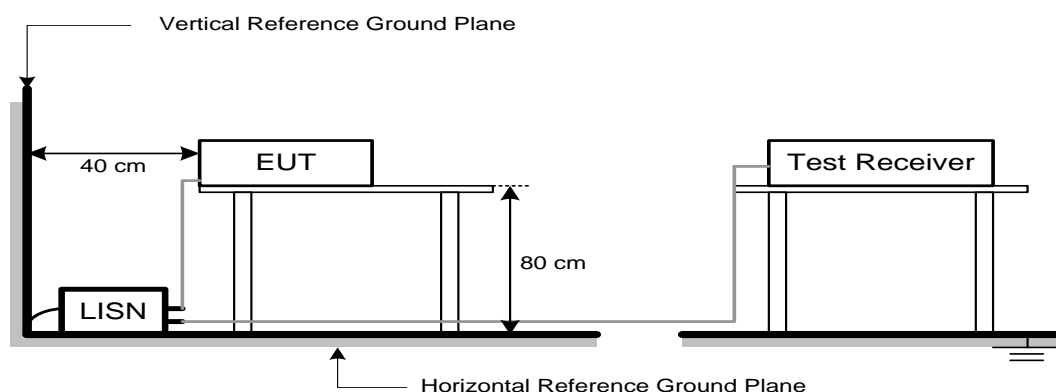e. For the actual test configuration, please refer to the related Item -EUT Test Photos.

The following table is the setting of the receiver:

| Receiver Parameter | Setting |
|---|---|
| Start Frequency | 0.15 MHz |
| Stop Frequency | 30 MHz |
| IF Bandwidth | 9 kHz |

### 4.3 DEVIATION FROM TEST STANDARD

No deviation

### 4.4 TEST SETUP

## 4.5 EUT OPERATION CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.
The EUT was programmed to be in continuously transmitting/TX mode.

## 4.6 TEST RESULTS

Please refer to the APPENDIX A.

## 5. RADIATED EMISSIONS

### 5.1 LIMIT

In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

LIMITS OF RADIATED EMISSIONS MEASUREMENT (9 kHz to 1000 MHz)

| Frequency (MHz) | Field Strength (microvolts/meter) | Measurement Distance (meters) |
|---|---|---|
| 0.009-0.490 | 2400/F(kHz) | 300 |
| 0.490-1.705 | 24000/F(kHz) | 30 |
| 1.705-30.0 | 30 | 30 |
| 30-88 | 100 | 3 |
| 88-216 | 150 | 3 |
| 216-960 | 200 | 3 |
| Above 960 | 500 | 3 |

LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS (Above 1000 MHz)

| Frequency (MHz) | EIRP Limit (dBm/MHz) | Equivalent Field Strength at 3m (dBµV/m) |
|---|---|---|
| 5150-5250 | -27 | 68.2 |
| 5250-5350 | -27 | 68.2 |
| 5470-5725 | -27 | 68.2 |
| 5725-5850 **NOTE (2)** | -27 | 68.2 |
| | 10 | 105.2 |
| | 15.6 | 110.8 |
| | 27 | 122.2 |

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

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

(2) According to 15.407(b)(4)(i), 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.

## 5.2 TEST PROCEDURE

a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1GHz)

b. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1GHz)

c. The height of the equipment or of the substitution antenna shall be 0.8m or 1.5m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).

e. The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.

f. The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.

g. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
(below 1 GHz)

h. All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform. (above 1 GHz)

i. For the actual test configuration, please refer to the related Item –EUT Test Photos.

The following table is the setting of the receiver:

| Spectrum Parameters | Setting |
| --- | --- |
| Start ~ Stop Frequency | 9 kHz~150 kHz for RBW 200 Hz |
| Start ~ Stop Frequency | 0.15 MHz~30 MHz for RBW 9 kHz |
| Start ~ Stop Frequency | 30 MHz~1000 MHz for RBW 100 kHz |

| Spectrum Parameters | Setting |
| --- | --- |
| Start Frequency | 1000 MHz |
| Stop Frequency | 10th carrier harmonic or 40 GHz, whichever is lower |
| RBW / VBW | 1 MHz / 3 MHz for PK value |
| (Emission in restricted band) | 1 MHz / 1/T Hz for AVG value |

| Receiver Parameters | Setting |
| --- | --- |
| Start ~ Stop Frequency | 9 kHz~90 kHz for PK/AVG detector |
| Start ~ Stop Frequency | 90 kHz~110 kHz for QP detector |
| Start ~ Stop Frequency | 110 kHz~490 kHz for PK/AVG detector |
| Start ~ Stop Frequency | 490 kHz~30 MHz for QP detector |
| Start ~ Stop Frequency | 30 MHz~1000 MHz for QP detector |
| Start ~ Stop Frequency | 1 GHz~40 GHz for PK/AVG detector |

## 5.3 DEVIATION FROM TEST STANDARD

No deviation.

## 5.4 TEST SETUP

**9 kHz to 30 MHz**
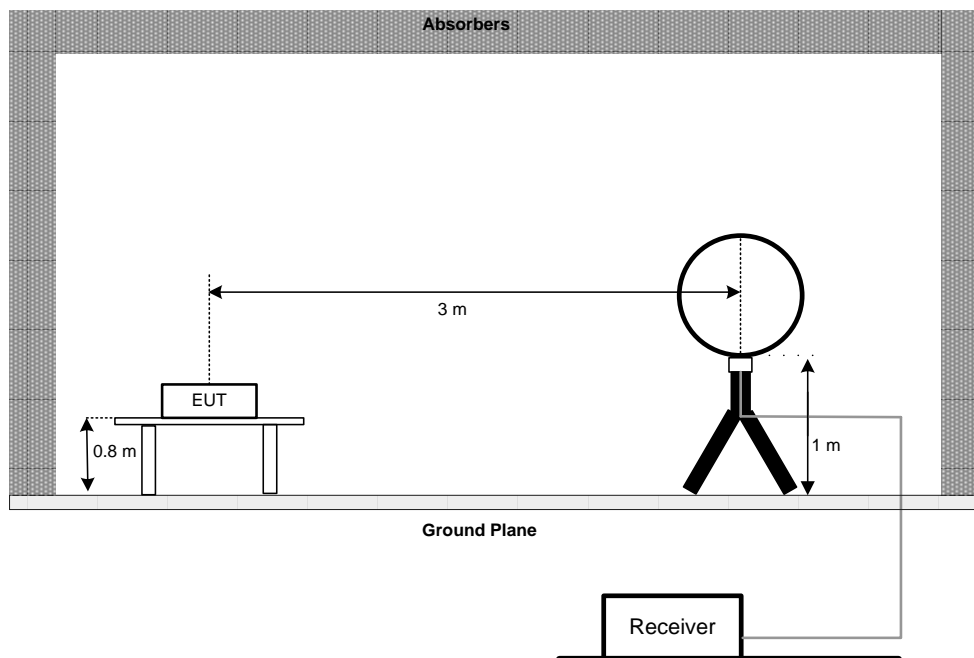


**30 MHz to 1 GHz**

**Above 1 GHz**
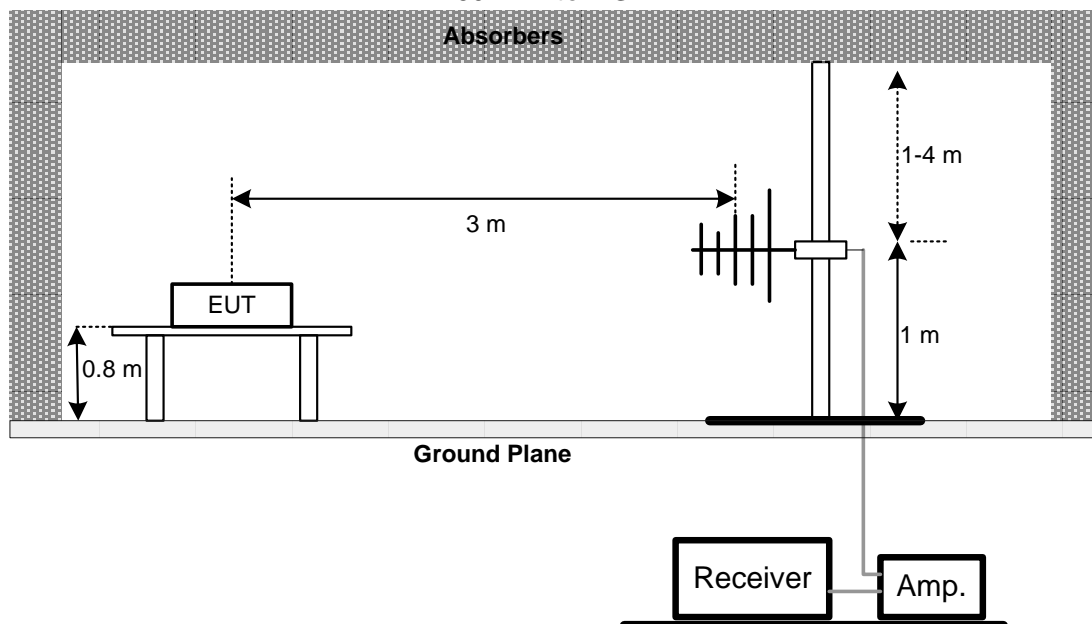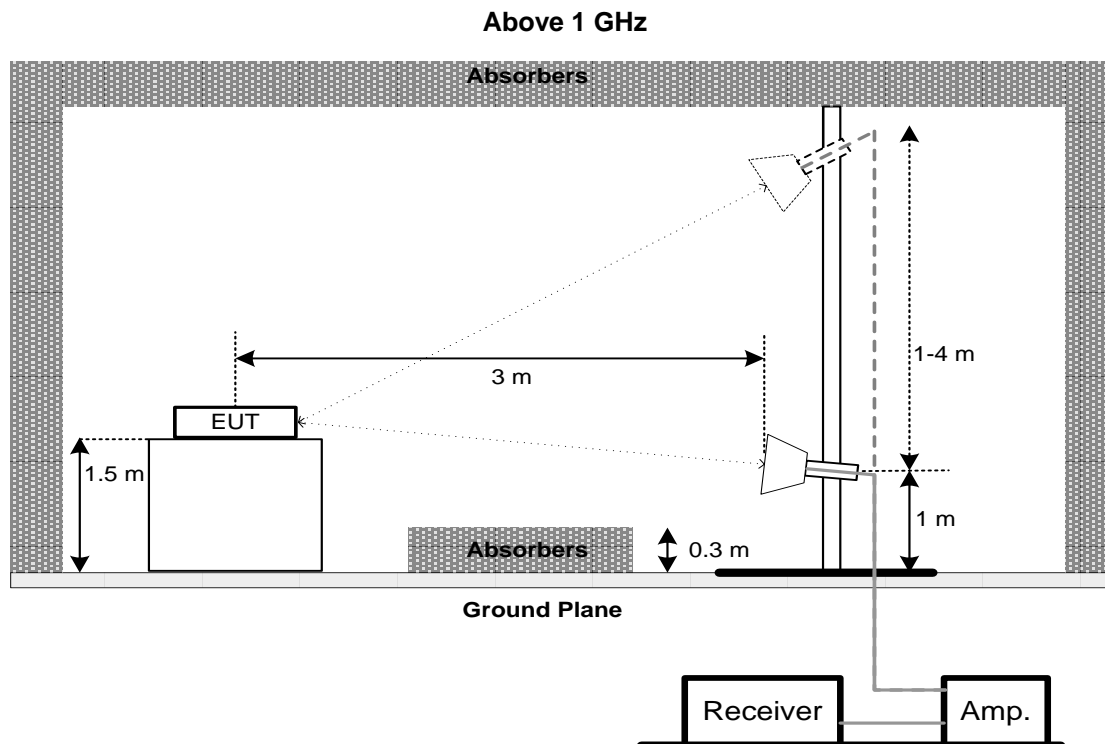


## 5.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 3.5 unless otherwise a special operating condition is specified in the follows during the testing.

## 5.6 TEST RESULTS - 9 KHZ TO 30 MHZ

Please refer to the APPENDIX B.

Remark:

(1) Distance extrapolation factor = 40 log (specific distance / test distance) (dB).
(2) Limit line = specific limits (dBuV) + distance extrapolation factor.

## 5.7 TEST RESULTS - 30 MHZ TO 1000 MHZ

Please refer to the APPENDIX C.

## 5.8 TEST RESULTS - ABOVE 1000 MHZ

Please refer to the APPENDIX D.

Remark:

(1) No limit: This is fundamental signal, the judgment is not applicable.
For fundamental signal judgment was referred to Peak output test.

## 6. BANDWIDTH

### 6.1 LIMIT

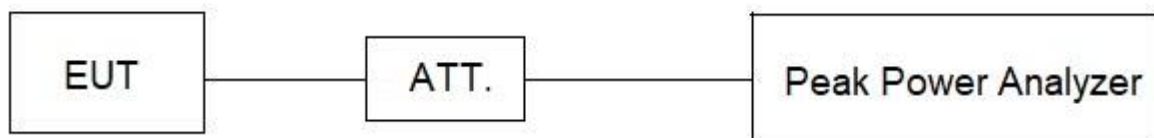| Section | Test Item | Limit | Frequency Range (MHz) |
|---|---|---|---|
| FCC 15.407(a) FCC 15.407(e) | 26 dB Bandwidth | - | 5150-5250 |
| | 26 dB Bandwidth | - | 5250-5350 |
| | 26 dB Bandwidth | - | 5470-5725 |
| | 6 dB Bandwidth | Minimum 500 kHz | 5725-5850 |

### 6.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below

b. Spectrum Setting:
For UNII-1, UNII-2A, UNII-2C:

| Spectrum Parameter | Setting |
|---|---|
| Span Frequency | > 26 dB Bandwidth |
| RBW | Appromiximately 1% of the emission bandwidth |
| VBW | > RBW |
| Detector | Peak |
| Trace | Max Hold |
| Sweep Time | Auto |

For UNII-3:

| Spectrum Parameter | Setting |
|---|---|
| Span Frequency | > 6 dB Bandwidth |
| RBW | 100 kHz |
| VBW | 300 kHz |
| Detector | Peak |
| Trace | Max Hold |
| Sweep Time | Auto |

For 99% Occupied Bandwidth:

| Spectrum Parameter | Setting |
|---|---|
| Span Frequency | 1.5 times to 5 times the OBW |
| RBW | 1% to 5% of the OBW |
| VBW | ≥3*RBW |
| Detector | Peak |
| Trace | Max Hold |
| Sweep Time | Auto |

c. Measured the spectrum width with power higher than 26 dB / 6 dB below carrier.

### 6.3 DEVIATION FROM STANDARD

No deviation.

**6.4 TEST SETUP**



**6.5 EUT OPERATION CONDITIONS**

The EUT was programmed to be in continuously transmitting mode.

**6.6 TEST RESULTS**

Please refer to the APPENDIX E.

## 7. MAXIMUM OUTPUT POWER

### 7.1 LIMIT

| Section | Test Item | Limit | Frequency Range (MHz) |
|---|---|---|---|
| FCC 15.407(a) | Maximum Output Power | AP device: 1 Watt (30 dBm) Client device: 250 mW (23.98 dBm) | 5150-5250 |
| | | 250 mW (23.98 dBm) | 5250-5350 |
| | | 250 mW (23.98 dBm) | 5470-5725 |
| | | 1 Watt (30dBm) | 5725-5850 |

Note:

a. For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

b. For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10log B, where B is the 26dB Bandwidth in megahertz.

### 7.2 TEST PROCEDURE

a. The EUT was directly connected to the peak power analyzer and antenna output port as show in the block diagram below.
b. The test was performed in accordance with method of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

### 7.3 DEVIATION FROM STANDARD

No deviation.

### 7.4 TEST SETUP



### 7.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

### 7.6 TEST RESULTS

Please refer to the APPENDIX F.

## 8. POWER SPECTRAL DENSITY

### 8.1 LIMIT

| Section | Test Item | Limit | Frequency Range (MHz) |
|---|---|---|---|
| FCC 15.407(a) | Power Spectral Density | AP device: 17 dBm/MHz<br>Client device: 11 dBm/MHz | 5150-5250 |
| | | 11 dBm/MHz | 5250-5350 |
| | | 11 dBm/MHz | 5470-5725 |
| | | 30 dBm/500 kHz | 5725-5850 |

### 8.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.

b. Spectrum Setting:
For UNII-1, UNII-2A, UNII-2C:

| Spectrum Parameter | Setting |
|---|---|
| Span Frequency | Encompass the entire emissions bandwidth (EBW) of the signal |
| RBW | 1 MHz. |
| VBW | 3 MHz. |
| Detector | RMS |
| Trace average | 100 trace |
| Sweep Time | Auto |

For UNII-3:

| Spectrum Parameter | Setting |
|---|---|
| Span Frequency | Encompass the entire emissions bandwidth (EBW) of the signal |
| RBW | 100 kHz. |
| VBW | 300 kHz. |
| Detector | RMS |
| Trace average | 100 trace |
| Sweep Time | Auto |

Note:

1. For UNII-3, according to KDB publication 789033 D02 General UNII Test Procedures New Rules v02r01, section II.F.5., it is acceptable to set RBW at 100kHz and VBW at 300kHz if the spectrum analyzer does not have 500 kHz RBW. Then, add 10 log (500 kHz/100 kHz) to the measured result, i.e. 7 dB.

2. During the test of U-NII 3 PSD, the measurement result with RBW=100kHz has been added 7 dB by compensating offset. For example, the cable loss is 18 dB, and the final offset is 18 + 7 = 25 dB when RBW=100kHz is used.

### 8.3 DEVIATION FROM STANDARD

No deviation.

**8.4 TEST SETUP**



**8.5 EUT OPERATION CONDITIONS**

 The EUT was programmed to be in continuously transmitting mode.

**8.6 TEST RESULTS**

Please refer to the APPENDIX G.

## 9. FREQUENCY STABILITY

### 9.1 LIMIT

| Section | Test Item | Limit | Frequency Range (MHz) |
|---------|-----------|-------|-----------------------|
| FCC 15.407(g) | Frequency Stability | An emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual. | 5150-5250 |
| | | | 5250-5350 |
| | | | 5470-5725 |
| | | | 5725-5850 |

### 9.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.

b. Spectrum Setting:

| Spectrum Parameter | Setting |
|--------------------|---------|
| Span Frequency | Entire absence of modulation emissions bandwidth |
| RBW | 10 kHz |
| VBW | 10 kHz |
| Detector | Peak |
| Trace | Max Hold |
| Sweep Time | Auto |

c. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.

d. User manual temperature is 0°C~45°C.

### 9.3 DEVIATION FROM STANDARD

No deviation.

### 9.4 TEST SETUP
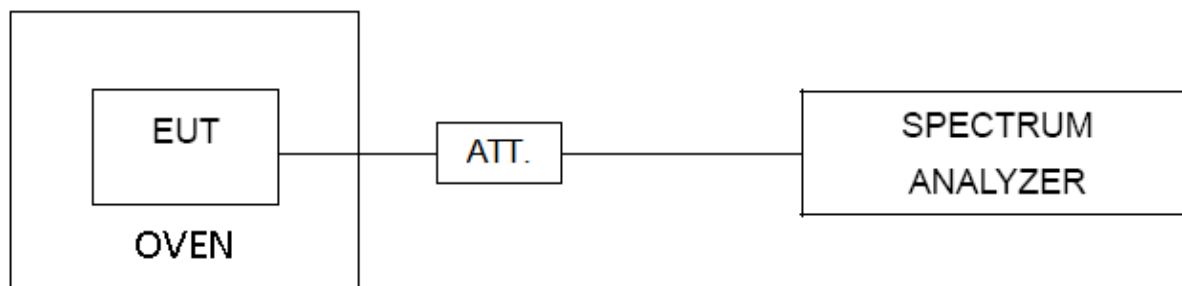


### 9.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

### 9.6 TEST RESULTS

Please refer to the APPENDIX H.

**10. MEASUREMENT INSTRUMENTS LIST**

| | AC Power Line Conducted Emissions | | | | |
|---|---|---|---|---|---|
| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
| 1 | EMI Test Receiver | R&S | ESR3 | 103027 | Jun. 16, 2024 |
| 2 | TWO-LINE V-NETWORK | R&S | ENV216 | 101447 | Jan. 07, 2024 |
| 3 | Measurement Software | Farad | EZ-EMC Ver.NB-03A1-01 | N/A | N/A |
| 4 | Cable | N/A | SFT205-NMNM-9M-001 | 9M | Nov. 27, 2024 |
| 5 | 643 Shield Room | ETS | 6*4*3 | N/A | N/A |

| | Radiated Emissions - 9 kHz to 30 MHz | | | | |
|---|---|---|---|---|---|
| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
| 1 | Active Loop Antenna | Schwarzbeck | FMZB 1513-60B | 1513-60 B-034 | Apr. 01, 2024 |
| 2 | MXE EMI Receiver | Keysight | N9038A | MY56400091 | Jan. 07, 2024 |
| 3 | Cable | N/A | RW2350-3.8A-NMBM-1.5M | N/A | Jun. 10, 2024 |
| 4 | Measurement Software | Farad | EZ-EMC Ver.NB-03A1-01 | N/A | N/A |
| 5 | 966 Chamber room | ETS | 9*6*6 | N/A | Jul. 11, 2024 |

| | Radiated Emissions - 30 MHz to 1 GHz | | | | |
|---|---|---|---|---|---|
| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
| 1 | Trilog-Broadband Antenna | Schwarzbeck | VULB 9168 | 1461 | Nov. 28, 2024 |
| 2 | Attenuator | EMC INSTRUMENT | EMCI-N-6-06 | AT-06010 | Nov. 28, 2024 |
| 3 | Preamplifier | EMC INSTRUMENT | EMC001330 | 980863 | Nov. 17, 2024 |
| 4 | Cable | RegalWay | LMR400-NMNM-12.5m | N/A | Jul. 04, 2024 |
| 5 | Cable | RegalWay | LMR400-NMNM-3m | N/A | Jul. 04, 2024 |
| 6 | Cable | RegalWay | LMR400-NMNM-0.5m | N/A | Jul. 04, 2024 |
| 7 | Receiver | Agilent | N9038A | MY52130039 | Jan. 07, 2024 |
| 8 | Positioning Controller | MF | MF-7802 | N/A | N/A |
| 9 | Measurement Software | Farad | EZ-EMC Ver.NB-03A1-01 | N/A | N/A |
| 10 | 966 Chamber room | CM | 9*6*6 | N/A | May 17,2024 |

## Radiated Emissions - Above 1 GHz

| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
|---|---|---|---|---|---|
| 1 | Receiver | Agilent | N9038A | MY52130039 | Jan. 07, 2024 |
| 2 | Preamplifier | EMC INSTRUMENT | EMC118A45SE | 980888 | Nov. 17, 2024 |
| 3 | EXA Spectrum Analyzer | Keysight | N9010A | MY55150209 | Jun. 16, 2024 |
| 4 | Double Ridged Guide Antenna | ETS | 3115 | 75789 | May 31,2024 |
| 5 | Cable | RegalWay | A81-SMAMSMAM-12.5M | N/A | Aug. 08, 2024 |
| 6 | Cable | RegalWay | RWLP50-4.0A-NM RASM-2.5M | N/A | Aug. 08, 2024 |
| 7 | Cable | RegalWay | RWLP50-4.0A-NM RASMRA-0.8M | N/A | Aug. 08, 2024 |
| 8* | Low Noise Amplifier | CONNPHY | CLN-18G40G-4330-K | 619413 | Jul. 06, 2024 |
| 9 | Cable | RegalWay | RWLP50-2.6A-2.92M2.92M-1.1M | N/A | Jul. 26, 2024 |
| 10 | Cable | Tonscend | HF160-KMKM-3M | N/A | Jul. 26, 2024 |
| 11 | Broad-Band Horn Antenna | Schwarzbeck | BBHA9170(3m) | 9170-319 | Jun.20,2024 |
| 12 | 966 Chamber room | CM | 9*6*6 | N/A | May 17,2024 |
| 13 | Positioning Controller | MF | MF-7802 | N/A | N/A |
| 14 | Measurement Software | Farad | EZ-EMC Ver.NB-03A1-01 | N/A | N/A |

## Bandwidth & Power Spectral Density

| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
|---|---|---|---|---|---|
| 1 | Spectrum Analyzer | R&S | FSP38 | 100852 | Jun. 16, 2024 |
| 2 | Attenuator | RegalWay | RWA-201-S-10 | N/A | Sep. 26, 2024 |
| 3 | Digital Multimeter | FLUKE | 15B PRO | 59056240WS | Sep. 25, 2024 |
| 4 | Measurement Software | BTL | BTL Conducted Test | N/A | N/A |
| 5 | Attenuator | RegalWay | RWA-201-S-6 | N/A | Sep. 26, 2024 |
| 6 | Temperature Chamber | ESPEC CORP | SU-242 | 93018736 | Jul. 07, 2024 |
| 7 | ITECH | DC Power Supply | IT6332C | 8034160117673300 | May 10,2024 |

## Maximum Output Power

| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
|---|---|---|---|---|---|
| 1 | Peak Power Analyzer | Keysight | 8990B | MY51000506 | Jun. 17, 2024 |
| 2 | Wideband power sensor | Keysight | N1923A | MY58310004 | Jun. 17, 2024 |
| 3 | Attenuator | Talent Microwave | TA10A2-S-18 | N/A | N/A |

| Frequency Stability | | | | |
|---|---|---|---|---|
| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
| 1 | Spectrum Analyzer | R&S | FSP38 | 100852 | Jun. 16, 2024 |
| 2 | Attenuator | RegalWay | RWA-201-S-10 | N/A | Sep. 26, 2024 |
| 3 | Digital Multimeter | FLUKE | 15B PRO | 59056240WS | Sep. 25, 2024 |
| 4 | Measurement Software | BTL | BTL Conducted Test | N/A | N/A |
| 5 | Attenuator | RegalWay | RWA-201-S-6 | N/A | Sep. 26, 2024 |
| 6 | Temperature Chamber | ESPEC CORP | SU-242 | 93018736 | Jul. 07, 2024 |
| 7 | DC Power Supply | ITECH | IT6332C | 8034160117673300 | May 10,2024 |

Remark: "N/A" denotes no model name, serial no. or calibration specified.

All calibration period of equipment list is one year.

## 11. EUT TEST PHOTOS

### AC Power Line Conducted Emissions Test Photos

**Radiated Emissions Test Photos**

**9 kHz to 30 MHz**
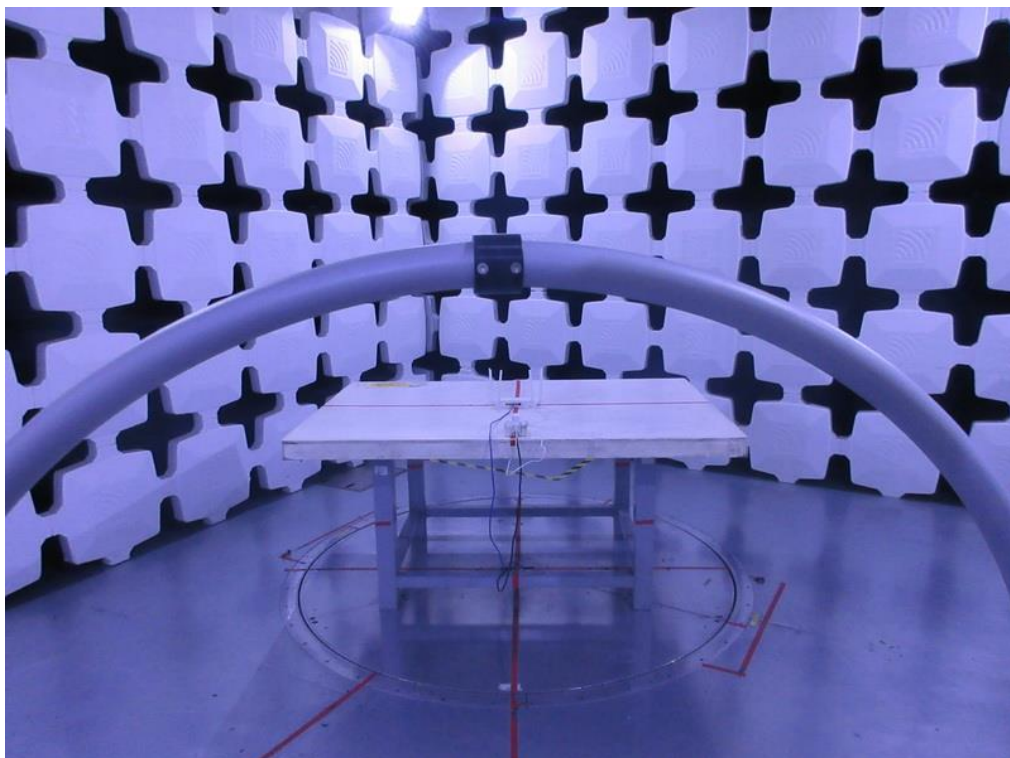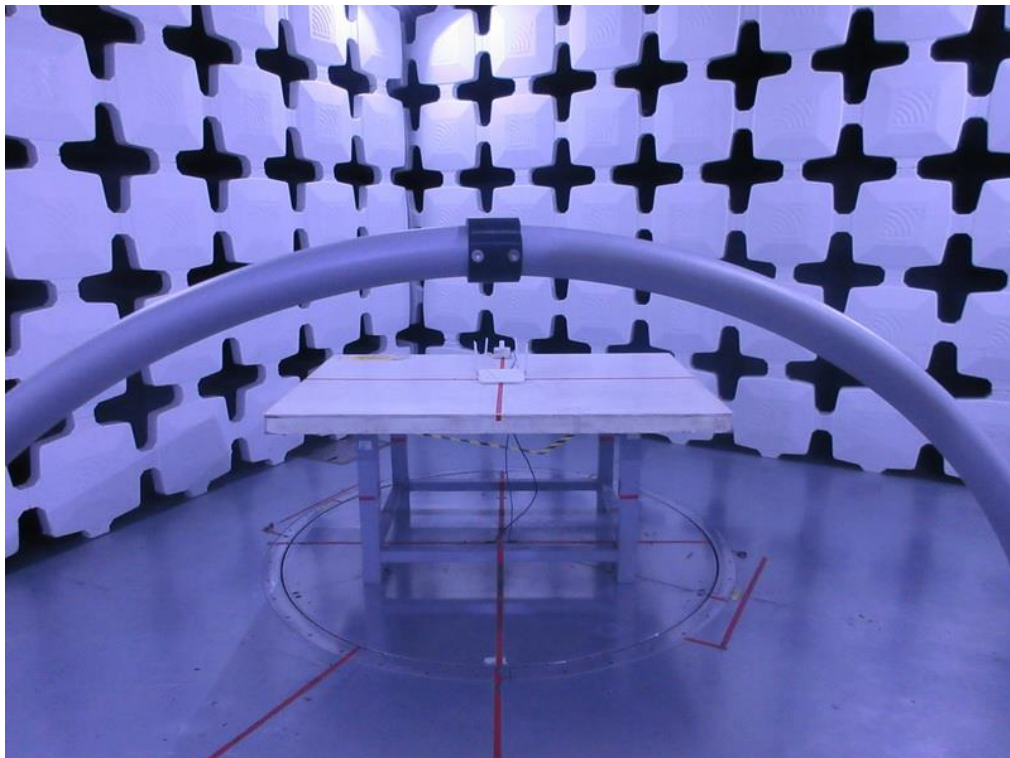
**Radiated Emissions Test Photos**

**30 MHz to 1 GHz**





**Radiated Emissions Test Photos**
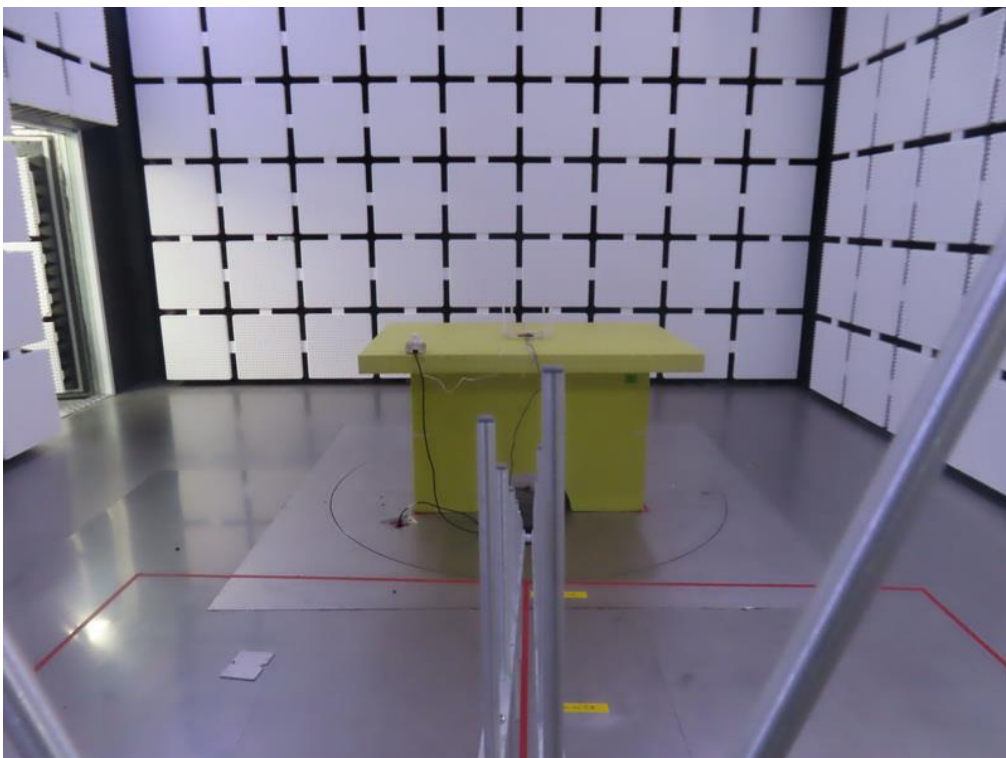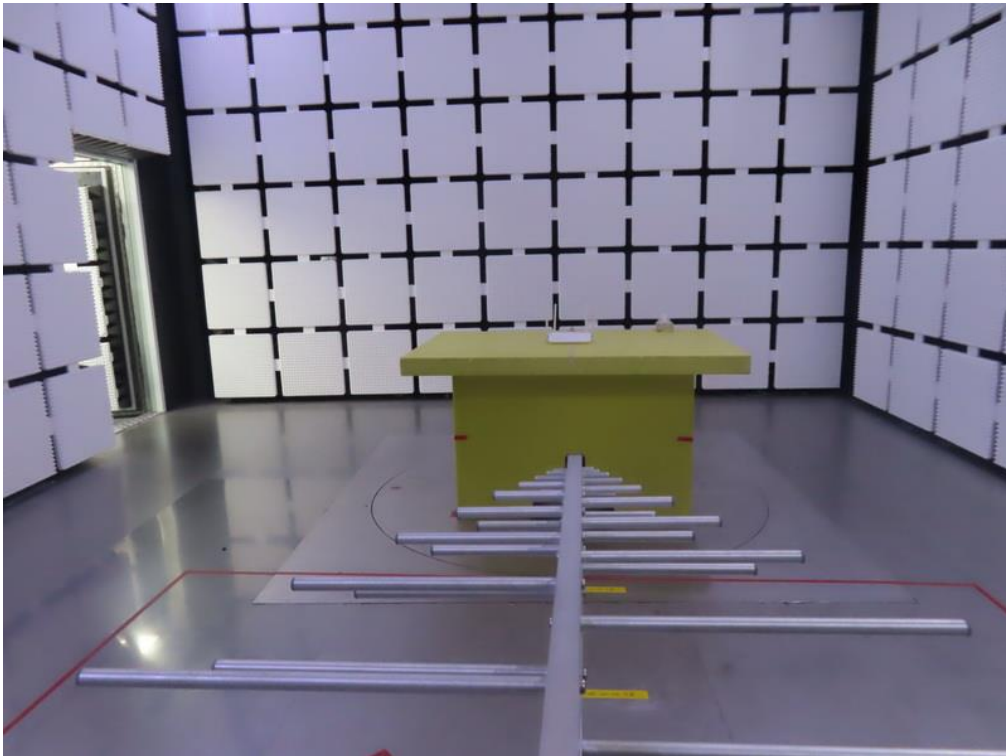
**Radiated Emissions Test Photos**

**Above 1 GHz**





Radiated Emissions Test Photos

**Conducted Test Photos**

# APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

| Test Mode | TX AX(HE80) Mode Channel 155 (UNII-3) | Phase | Line |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | Detector | Comment |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dB | dBuV | dBuV | dB | | |
| 1 | 0.1568 | 47.81 | 9.68 | 57.49 | 65.63 | -8.14 | QP | |
| 2 | 0.1568 | 38.61 | 9.68 | 48.29 | 55.63 | -7.34 | AVG | |
| 3 | 0.2243 | 45.50 | 9.68 | 55.18 | 62.66 | -7.48 | QP | |
| 4 * | 0.2243 | 36.50 | 9.68 | 46.18 | 52.66 | -6.48 | AVG | |
| 5 | 0.3525 | 38.69 | 9.68 | 48.37 | 58.90 | -10.53 | QP | |
| 6 | 0.3525 | 29.50 | 9.68 | 39.18 | 48.90 | -9.72 | AVG | |
| 7 | 0.5010 | 34.61 | 9.70 | 44.31 | 56.00 | -11.69 | QP | |
| 8 | 0.5010 | 25.40 | 9.70 | 35.10 | 46.00 | -10.90 | AVG | |
| 9 | 1.6575 | 25.23 | 9.75 | 34.98 | 56.00 | -21.02 | QP | |
| 10 | 1.6575 | 16.70 | 9.75 | 26.45 | 46.00 | -19.55 | AVG | |
| 11 | 3.1808 | 25.05 | 9.80 | 34.85 | 56.00 | -21.15 | QP | |
| 12 | 3.1808 | 16.29 | 9.80 | 26.09 | 46.00 | -19.91 | AVG | |
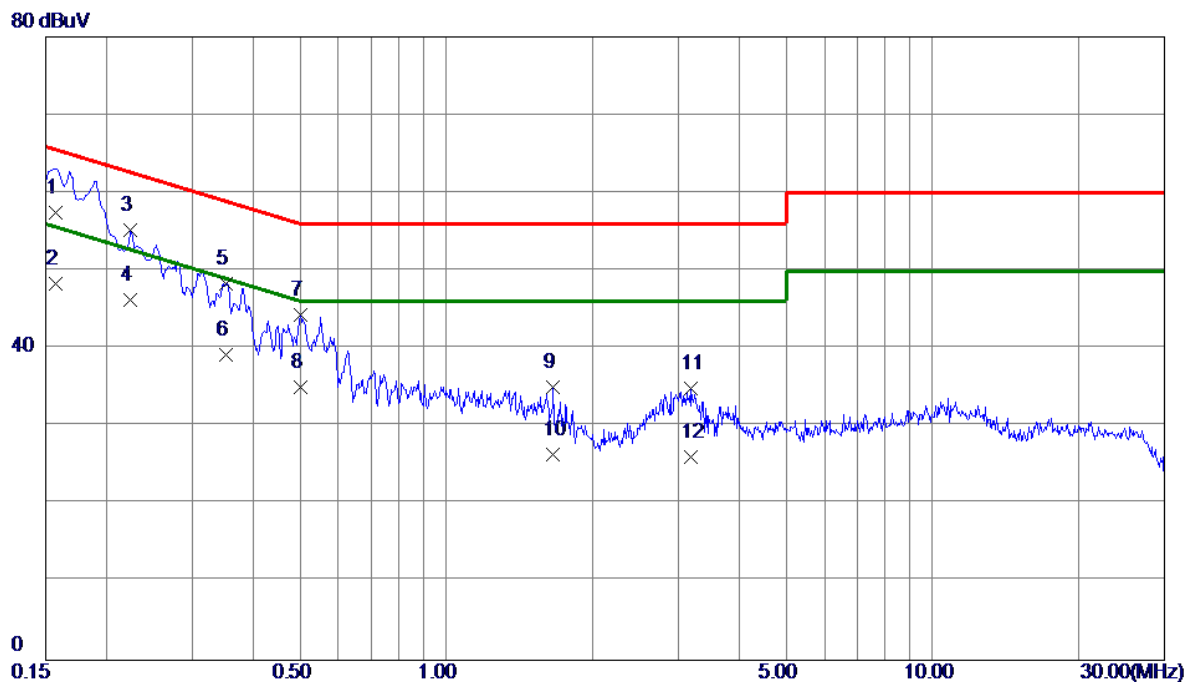
REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) The test result has included the cable loss.

| Test Mode | TX AX(HE80) Mode Channel 155 (UNII-3) | Phase | Neutral |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | Detector | Comment |
|---|---|---|---|---|---|---|---|---|
|  | MHz | dBuV | dB | dBuV | dBuV | dB |  |  |
| 1 | 0.1680 | 42.70 | 9.66 | 52.36 | 65.06 | -12.70 | QP |  |
| 2 | 0.1680 | 33.60 | 9.66 | 43.26 | 55.06 | -11.80 | AVG |  |
| 3 | 0.1905 | 47.61 | 9.65 | 57.26 | 64.01 | -6.75 | QP |  |
| 4 * | 0.1905 | 38.40 | 9.65 | 48.05 | 54.01 | -5.96 | AVG |  |
| 5 | 0.2782 | 42.11 | 9.66 | 51.77 | 60.87 | -9.10 | QP |  |
| 6 | 0.2782 | 33.20 | 9.66 | 42.86 | 50.87 | -8.01 | AVG |  |
| 7 | 0.3344 | 38.96 | 9.65 | 48.61 | 59.34 | -10.73 | QP |  |
| 8 | 0.3344 | 29.30 | 9.65 | 38.95 | 49.34 | -10.39 | AVG |  |
| 9 | 0.5144 | 31.99 | 9.66 | 41.65 | 56.00 | -14.35 | QP |  |
| 10 | 0.5144 | 22.40 | 9.66 | 32.06 | 46.00 | -13.94 | AVG |  |
| 11 | 1.2164 | 24.37 | 9.71 | 34.08 | 56.00 | -21.92 | QP |  |
| 12 | 1.2164 | 15.60 | 9.71 | 25.31 | 46.00 | -20.69 | AVG |  |
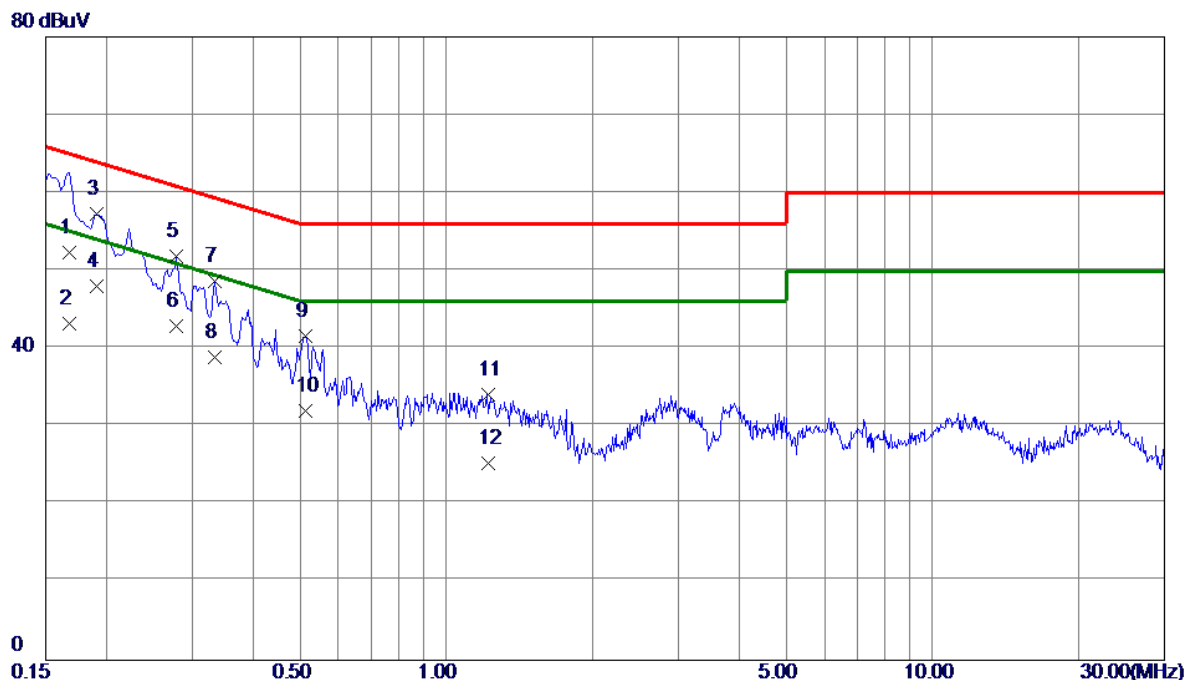
REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
(3) The test result has included the cable loss.

# APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ

| Test Mode | TX AX(HE80) Mode Channel 155 (UNII-3) | Polarization | Ant 0° |
|---|---|---|---|



| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Margin | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | | 0.0156 | 56.35 | 20.59 | 76.94 | 123.74 | -46.80 | AVG | |
| 2 | | 0.0335 | 49.84 | 19.80 | 69.64 | 117.10 | -47.46 | AVG | |
| 3 | * | 0.0840 | 42.65 | 19.88 | 62.53 | 109.12 | -46.59 | AVG | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | TX AX(HE80) Mode Channel 155 (UNII-3) | Polarization | Ant 0° |
|---|---|---|---|



| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Margin | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | | |
| 1 | * | 1.8216 | 23.65 | 19.81 | 43.46 | 69.54 | -26.08 | QP | |
| 2 | | 5.0901 | 16.85 | 19.95 | 36.80 | 69.54 | -32.74 | QP | |
| 3 | | 10.5527 | 15.22 | 20.22 | 35.44 | 69.54 | -34.10 | QP | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | TX AX(HE80) Mode Channel 155 (UNII-3) | Polarization | Ant 90° |
|---|---|---|---|



| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Margin | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | * | 0.0098 | 62.51 | 20.84 | 83.35 | 127.78 | -44.43 | AVG | |
| 2 | | 0.0497 | 45.68 | 19.80 | 65.48 | 113.68 | -48.20 | AVG | |
| 3 | | 0.0638 | 45.32 | 19.85 | 65.17 | 111.51 | -46.34 | AVG | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
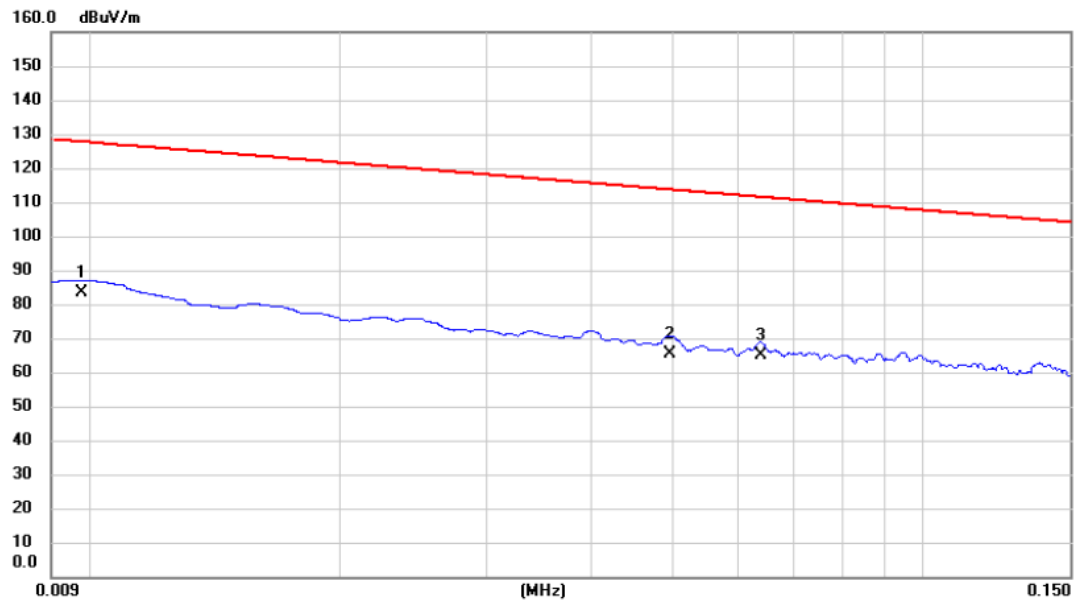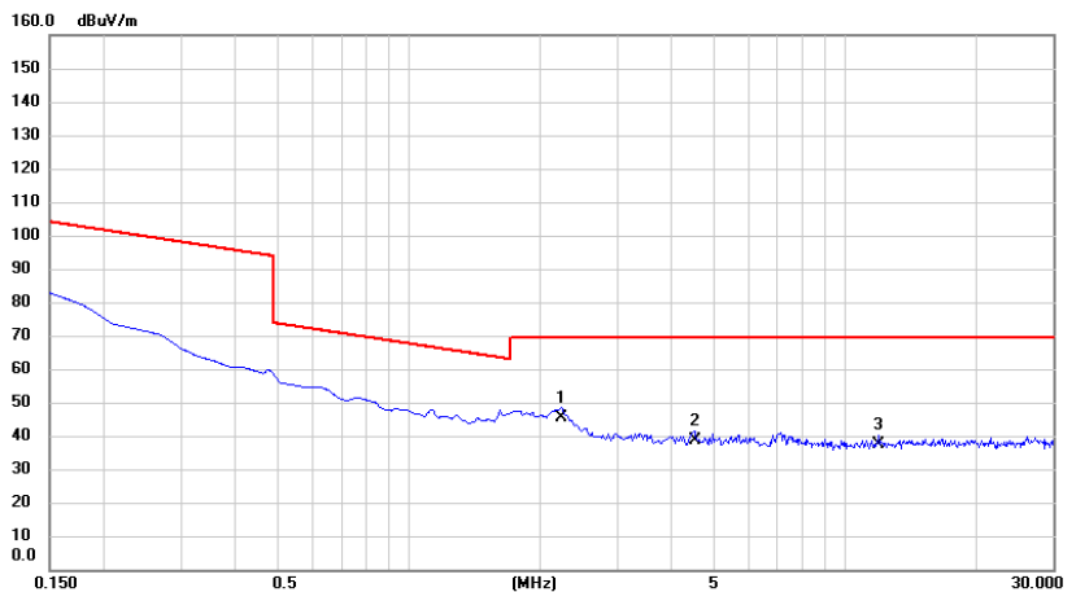
| Test Mode | TX AX(HE80) Mode Channel 155 (UNII-3) | Polarization | Ant 90° |
|---|---|---|---|



| No. | Mk. | Freq. MHz | Reading Level dBuV | Correct Factor dB | Measure-ment dBuV/m | Limit dBuV/m | Margin dB | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| 1 | * | 2.2395 | 25.63 | 19.81 | 45.44 | 69.54 | -24.10 | QP | |
| 2 | | 4.5230 | 18.68 | 19.94 | 38.62 | 69.54 | -30.92 | QP | |
| 3 | | 11.9557 | 17.25 | 20.23 | 37.48 | 69.54 | -32.06 | QP | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

# APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ

| Test Mode | TX AX(HE80) Mode Channel 155 (UNII-3) | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | Detector | Comment |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | |
| 1 | 38.2450 | 41.56 | -11.65 | 29.91 | 40.00 | -10.09 | Peak | |
| 2 | 134.7600 | 46.94 | -12.05 | 34.89 | 43.50 | -8.61 | Peak | |
| 3 * | 250.1900 | 51.58 | -12.09 | 39.49 | 46.00 | -6.51 | Peak | |
| 4 | 499.9650 | 43.45 | -5.97 | 37.48 | 46.00 | -8.52 | Peak | |
| 5 | 549.4350 | 42.89 | -5.18 | 37.71 | 46.00 | -8.29 | Peak | |
| 6 | 977.6900 | 43.40 | 0.72 | 44.12 | 54.00 | -9.88 | Peak | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | TX AX(HE80) Mode Channel 155 (UNII-3) | Polarization | Horizontal |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 147.8550 | 41.62 | -11.26 | 30.36 | 43.50 | -13.14 | Peak | |
| 2 | 250.1900 | 51.76 | -12.09 | 39.67 | 46.00 | -6.33 | Peak | |
| 3 | 547.0100 | 39.82 | -5.22 | 34.60 | 46.00 | -11.40 | Peak | |
| 4 | 618.7900 | 38.52 | -3.38 | 35.14 | 46.00 | -10.86 | Peak | |
| 5 * | 750.2250 | 42.71 | -1.68 | 41.03 | 46.00 | -4.97 | Peak | |
| 6 | 983.5100 | 40.77 | 0.81 | 41.58 | 54.00 | -12.42 | Peak | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

# APPENDIX D - RADIATED EMISSION - ABOVE 1000 MHZ

| Test Mode | UNII-1_TX A Mode 5180 MHz | | Polarization | Vertical |
|---|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | Detector | Comment |
| 1 | 5150.0000 | 52.15 | 11.75 | 63.90 | 74.00 | -10.10 | | Peak | |
| 2 | 5150.0000 | 40.70 | 11.75 | 52.45 | 54.00 | -1.55 | | AVG | |
| 3 * | 5180.8000 | 98.82 | 11.82 | 110.64 | 68.20 | 42.44 | | Peak | No Limit |
| 4 | 5180.9000 | 92.22 | 11.82 | 104.04 | 999.00 | -894.96 | | AVG | No Limit |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
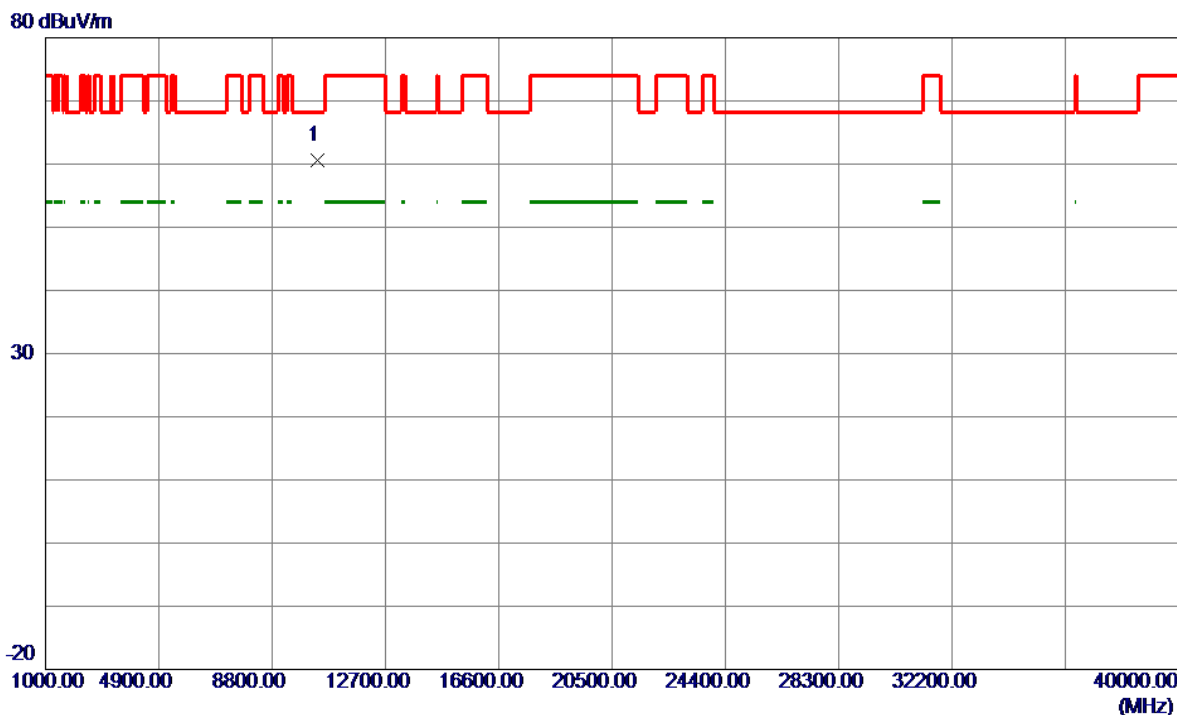
| Test Mode | UNII-1_TX A Mode 5180 MHz | | Polarization | Vertical |
|---|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 * | 10362.0750 | 54.62 | 6.06 | 60.68 | 68.20 | −7.52 | | Peak | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
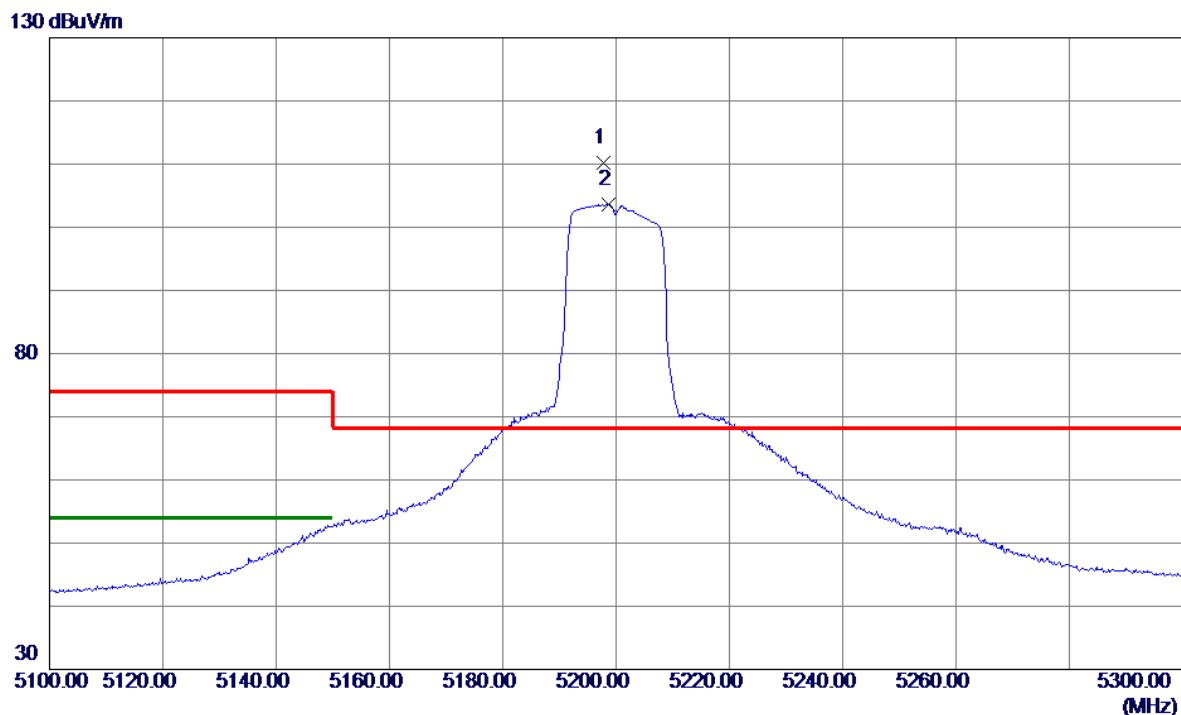
| Test Mode | UNII-1_TX A Mode 5200 MHz | | Polarization | Vertical |
|---|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | Detector | Comment |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | |
| 1 * | 5197.8000 | 98.39 | 11.86 | 110.25 | 68.20 | 42.05 | Peak | No Limit |
| 2 | 5198.7000 | 91.80 | 11.86 | 103.66 | 999.00 | −895.34 | AVG | No Limit |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-1_TX A Mode 5200 MHz | | Polarization | Vertical |
|---|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 * | 10399.9500 | 51.98 | 6.09 | 58.07 | 68.20 | −10.13 | | Peak | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-1_TX A Mode 5240 MHz | | Polarization | Vertical |
|---|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 * | 10480.0000 | 59.96 | 6.15 | 66.11 | 68.20 | −2.09 | | Peak | |
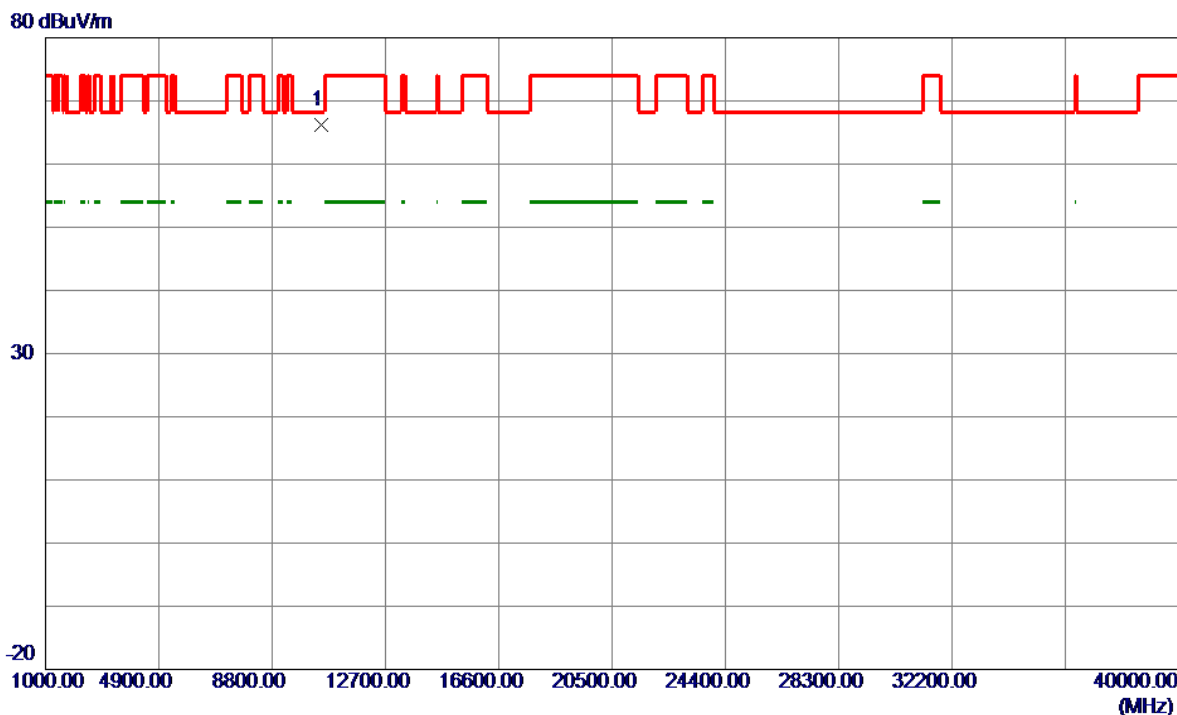
REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
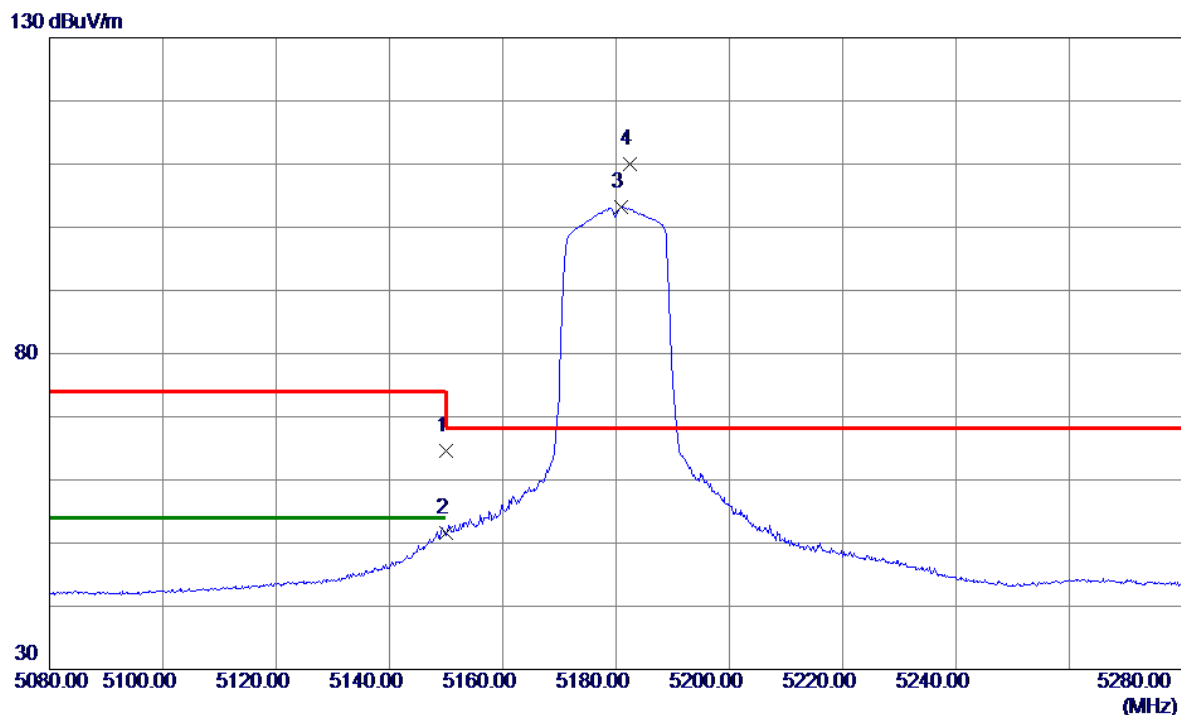
| Test Mode | UNII-1_TX AC(VHT20) Mode 5180 MHz | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | Detector | Comment |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | |
| 1 | 5150.0000 | 52.94 | 11.75 | 64.69 | 74.00 | -9.31 | Peak | |
| 2 | 5150.0000 | 39.93 | 11.75 | 51.68 | 54.00 | -2.32 | AVG | |
| 3 | 5180.9000 | 91.40 | 11.82 | 103.22 | 999.00 | -895.78 | AVG | No Limit |
| 4 * | 5182.4000 | 98.19 | 11.82 | 110.01 | 68.20 | 41.81 | Peak | No Limit |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-1_TX AC(VHT20) Mode 5180 MHz | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 * | 10361.8000 | 51.88 | 6.06 | 57.94 | 68.20 | -10.26 | | Peak | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
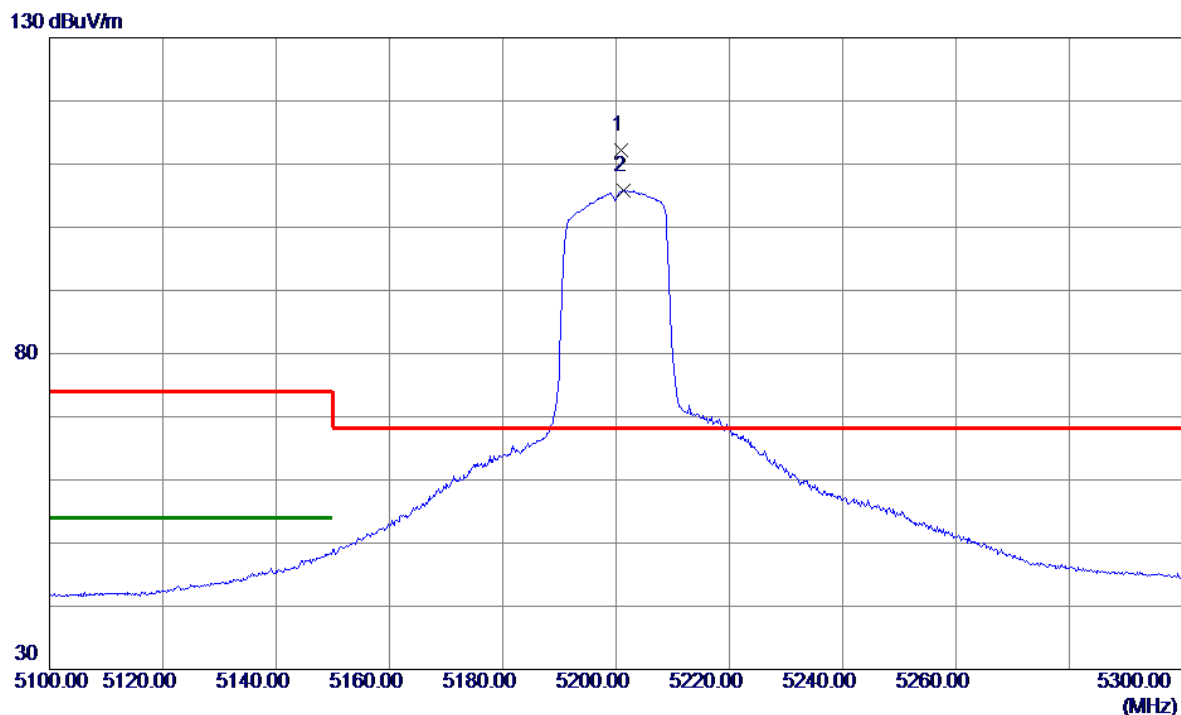
| Test Mode | UNII-1_TX AC(VHT20) Mode 5200 MHz | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | | | |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | Detector | Comment |
| 1 * | 5200.9000 | 100.41 | 11.86 | 112.27 | 68.20 | 44.07 | | Peak | No Limit |
| 2 | 5201.3000 | 93.94 | 11.86 | 105.80 | 999.00 | -893.20 | | AVG | No Limit |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
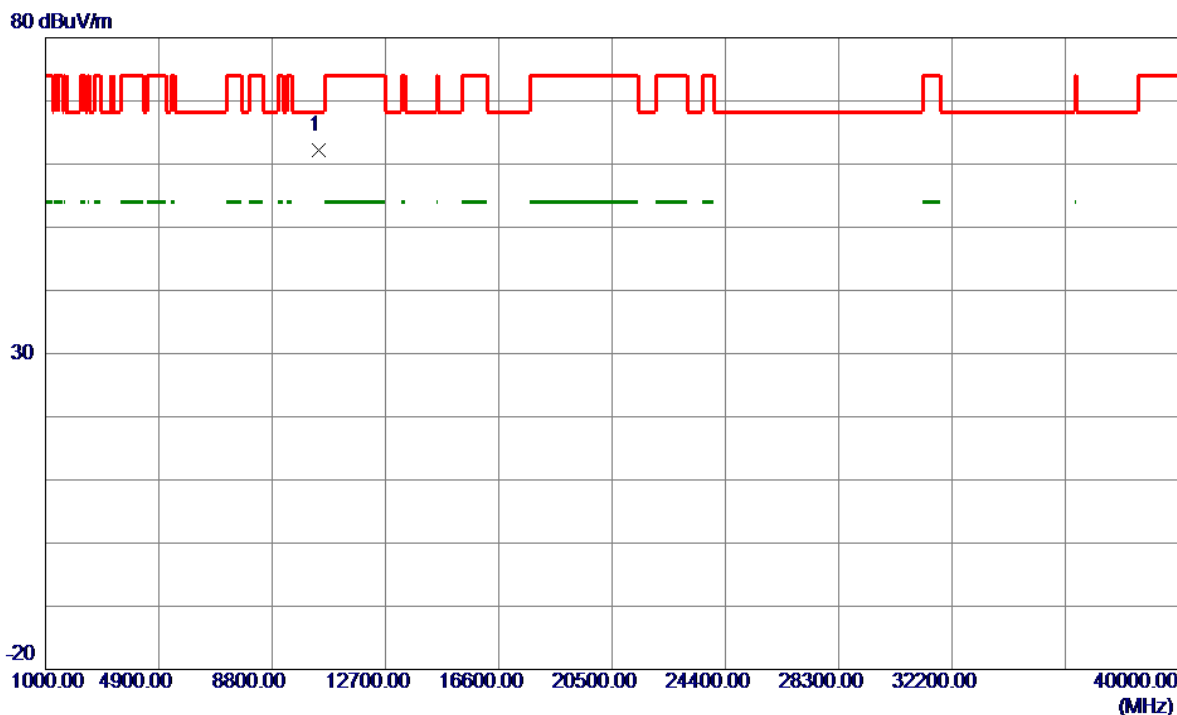
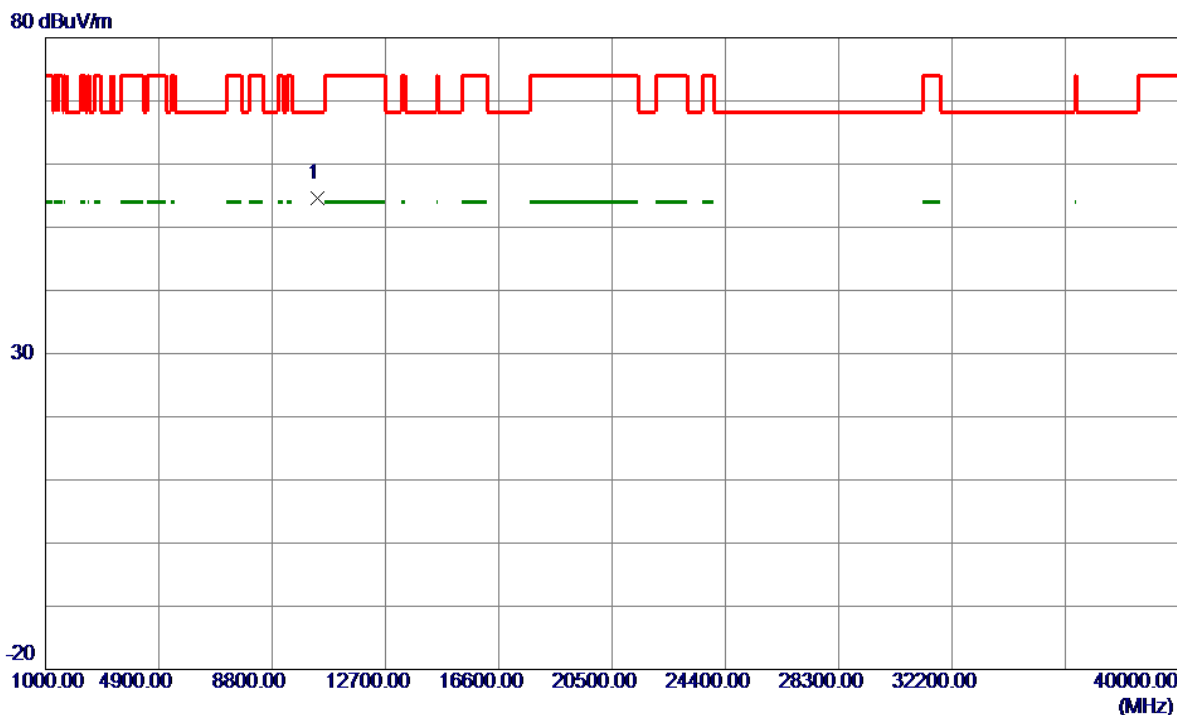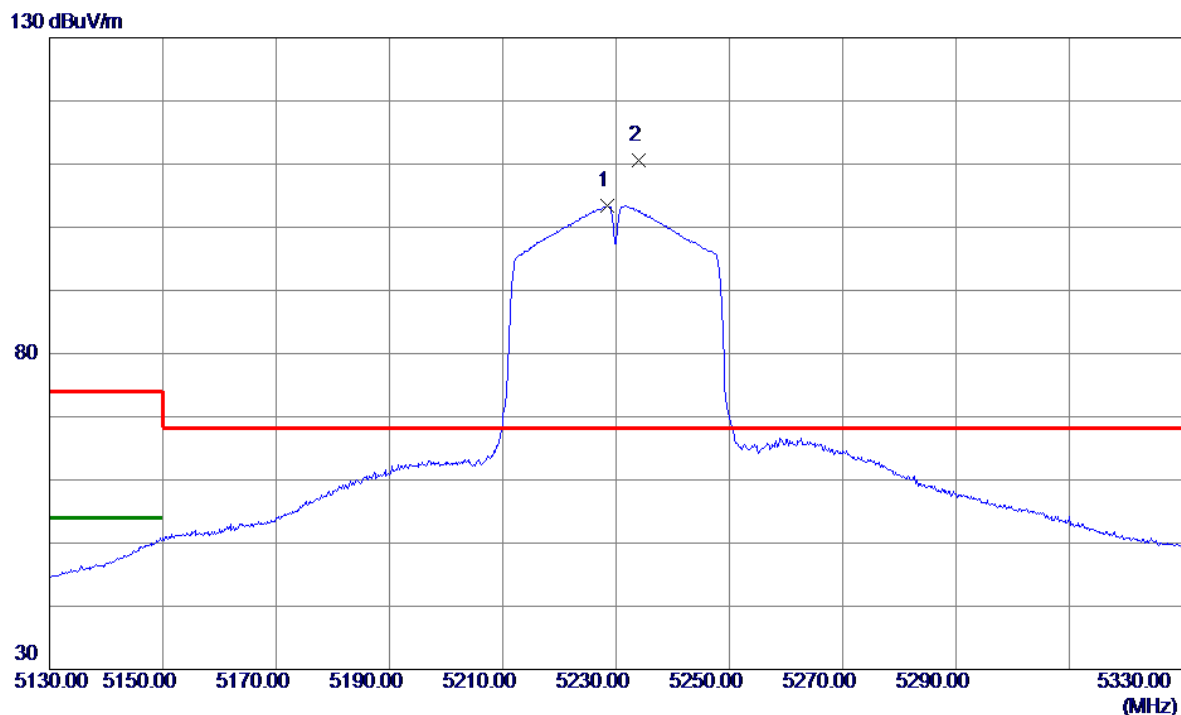| Test Mode | UNII-1_TX AC(VHT20) Mode 5200 MHz | Polarization | Vertical |
|-----------|-----------------------------------|--------------|----------|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | | Detector | Comment |
|-----|-------|---------------|----------------|-------------|-------|--------|---|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 * | 10397.8500 | 56.17 | 6.09 | 62.26 | 68.20 | -5.94 | | Peak | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-1_TX AC(VHT20) Mode 5240 MHz | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 * | 10485.0000 | 58.86 | 6.15 | 65.01 | 68.20 | -3.19 | | Peak | |
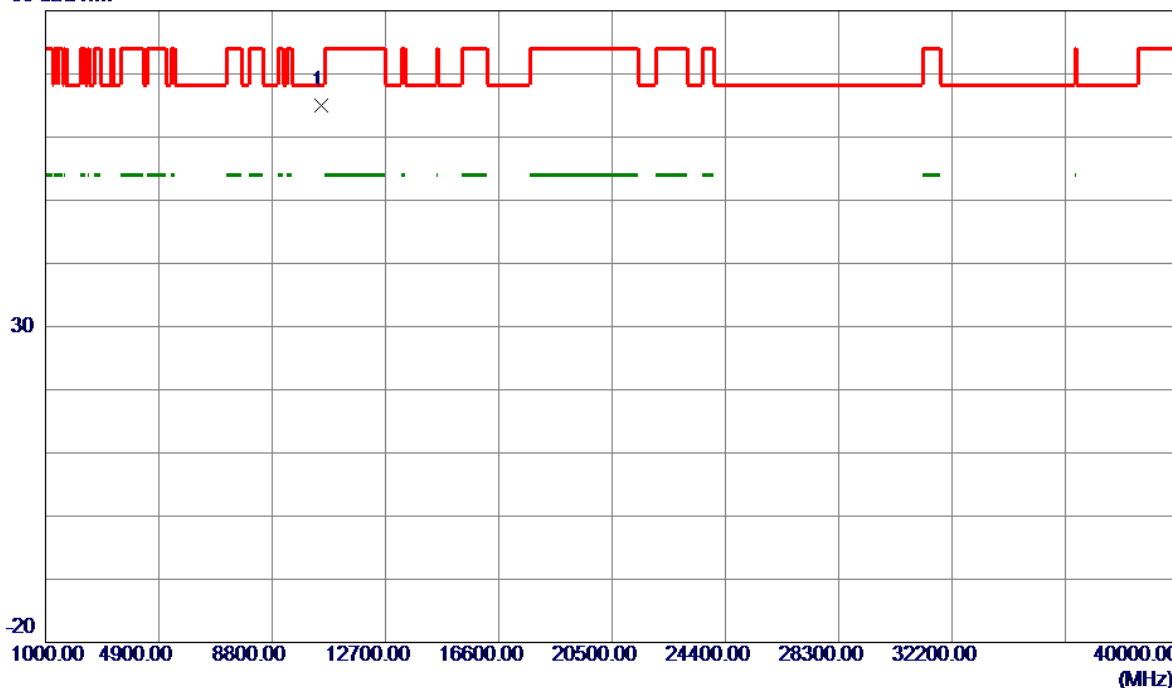
REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
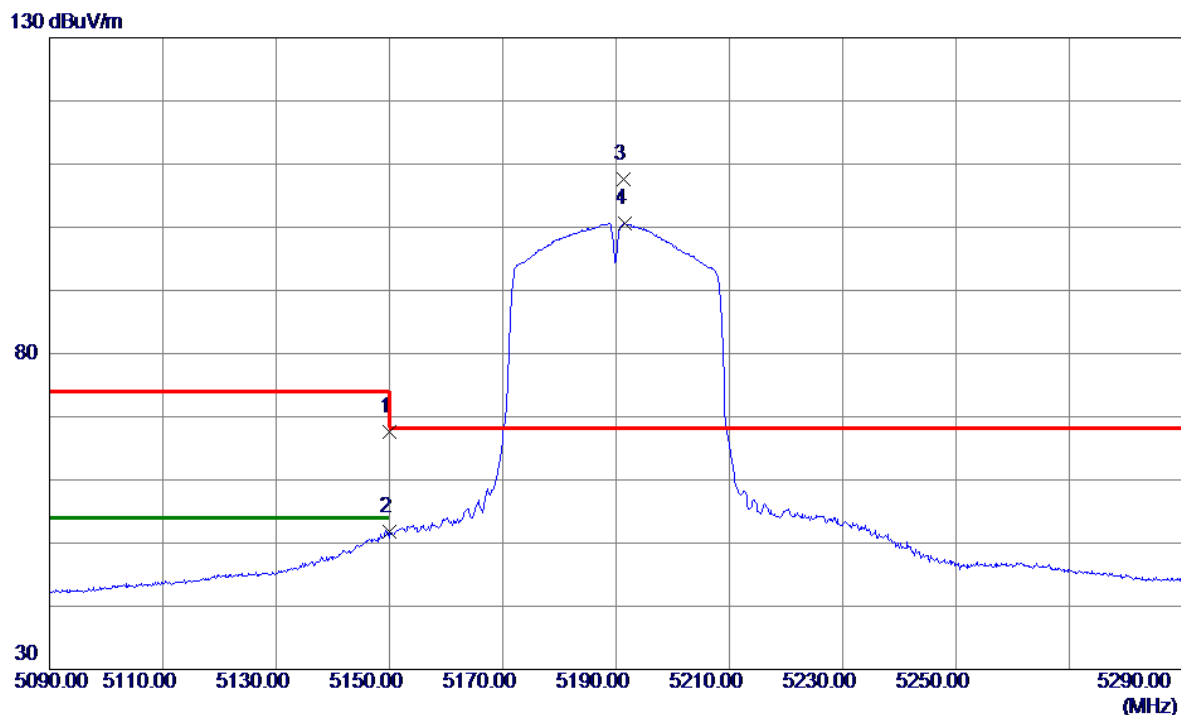
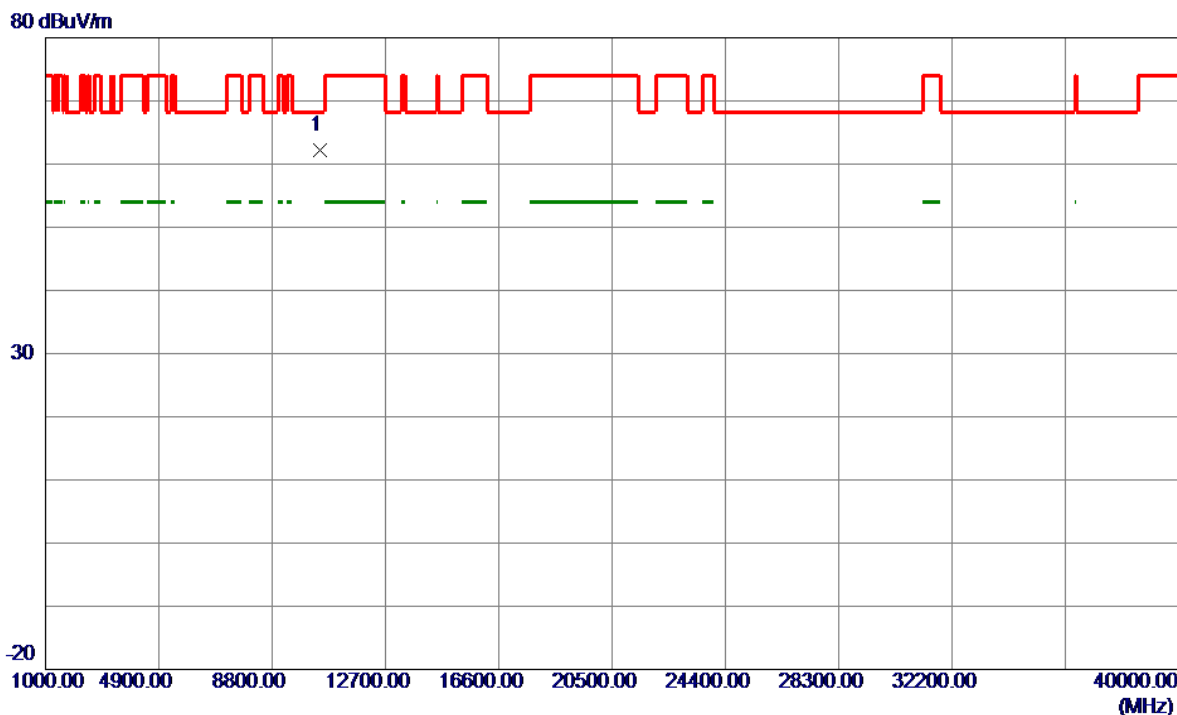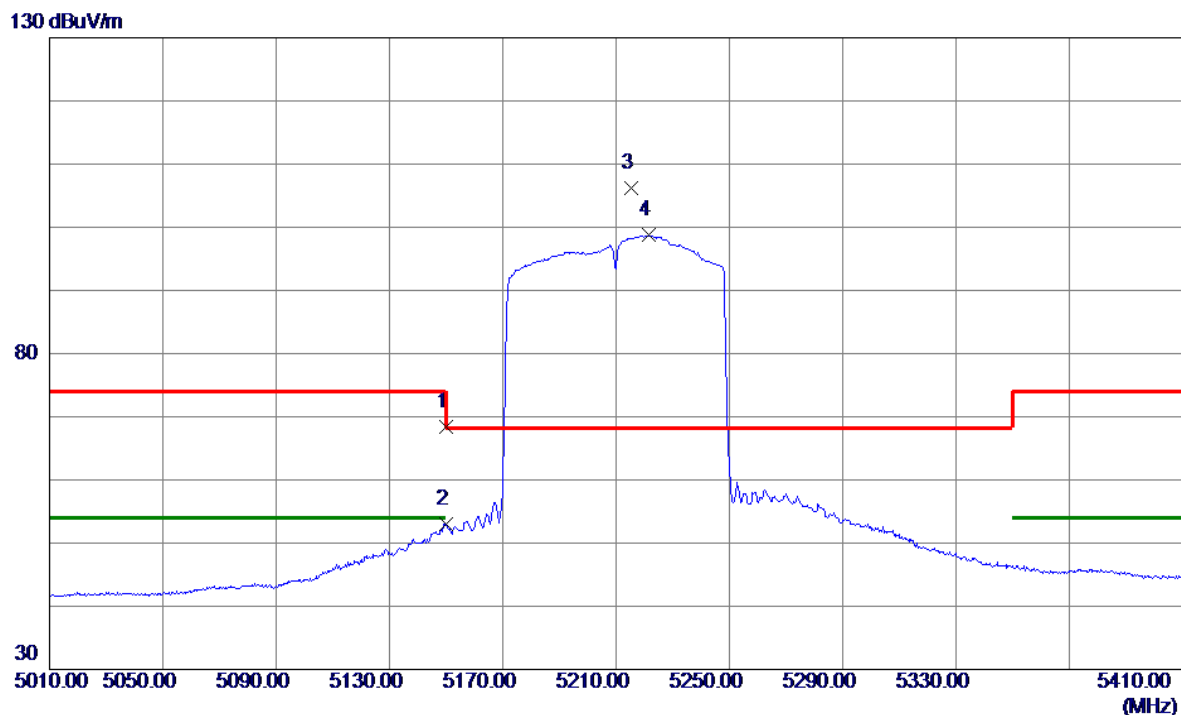| Test Mode | UNII-1_TX AC(VHT40) Mode 5190 MHz | Polarization | Vertical |
|-----------|-----------------------------------|--------------|----------|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | | |
|-----|-------|---------------|----------------|--------------|-------|--------|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment | |
| 1 | 5150.0000 | 55.81 | 11.75 | 67.56 | 74.00 | -6.44 | Peak | | |
| 2 | 5150.0000 | 40.13 | 11.75 | 51.88 | 54.00 | -2.12 | AVG | | |
| 3 * | 5191.4000 | 95.69 | 11.84 | 107.53 | 68.20 | 39.33 | Peak | No Limit | |
| 4 | 5191.5000 | 88.75 | 11.84 | 100.59 | 999.00 | -898.41 | AVG | No Limit | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-1_TX AC(VHT40) Mode 5190 MHz | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | Detector | Comment |
| 1 * | 10380.6000 | 48.55 | 6.07 | 54.62 | 68.20 | −13.58 | | Peak | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-1_TX AC(VHT40) Mode 5230 MHz | | Polarization | Vertical |
|---|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5228.5000 | 91.44 | 11.93 | 103.37 | 999.00 | -895.63 | AVG | No Limit |
| 2 * | 5234.1000 | 98.70 | 11.94 | 110.64 | 68.20 | 42.44 | Peak | No Limit |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

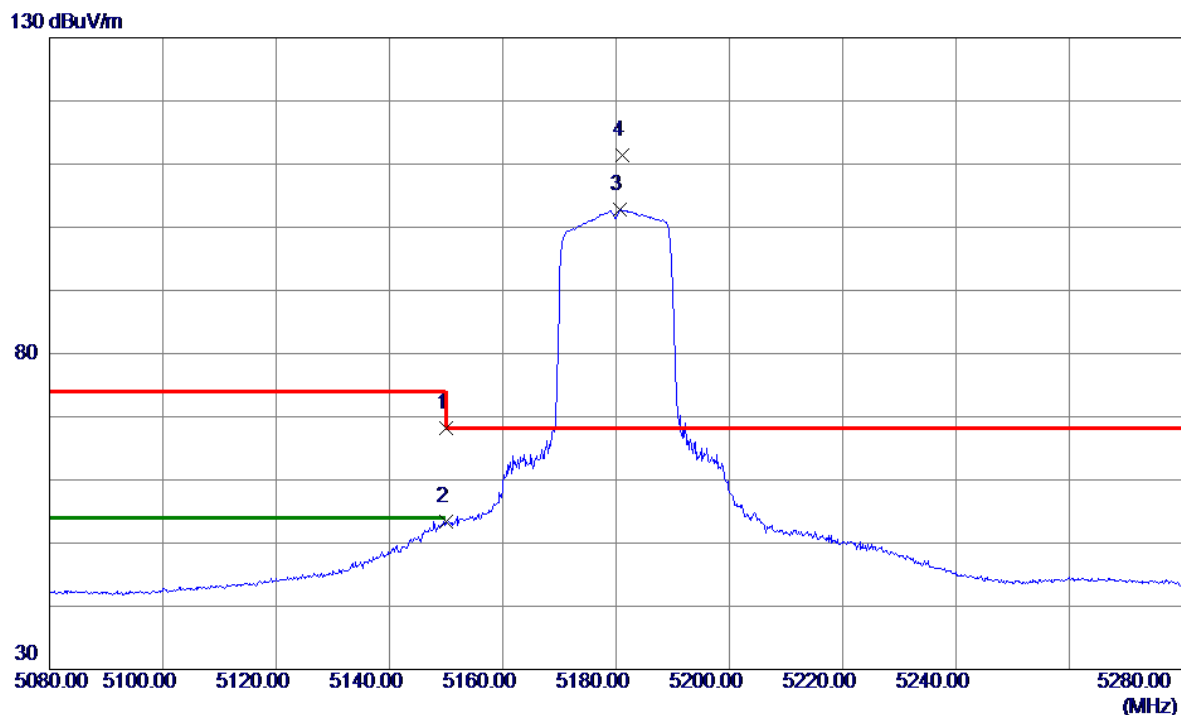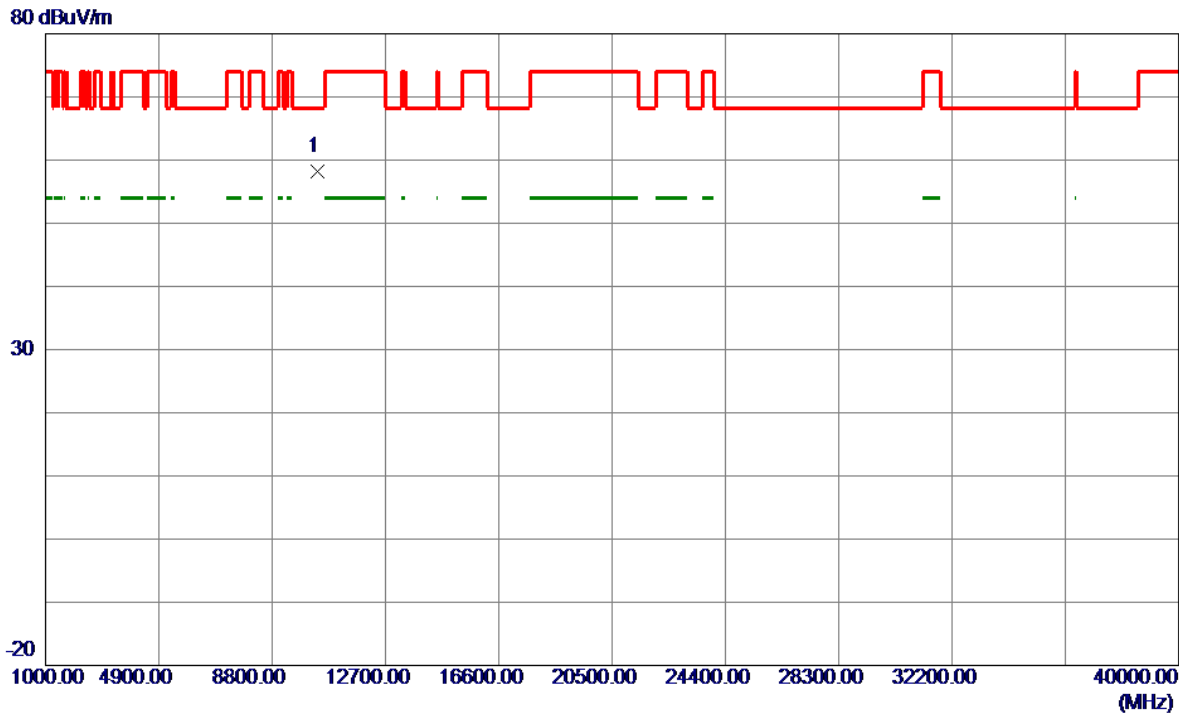| Test Mode | UNII-1_TX AC(VHT40) Mode 5230 MHz | Polarization | Vertical |
|-----------|-----------------------------------|--------------|----------|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | Detector | Comment |
|-----|-------|---------------|----------------|--------------|-------|--------|--|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 * | 10460.4000 | 56.09 | 6.13 | 62.22 | 68.20 | −5.98 | | Peak | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-1_TX AC(VHT80) Mode 5210 MHz | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | Detector | Comment |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | |
| 1 | 5150.0000 | 56.56 | 11.75 | 68.31 | 74.00 | -5.69 | Peak | |
| 2 | 5150.0000 | 41.34 | 11.75 | 53.09 | 54.00 | -0.91 | AVG | |
| 3 * | 5215.4000 | 94.22 | 11.90 | 106.12 | 68.20 | 37.92 | Peak | No Limit |
| 4 | 5221.4000 | 86.93 | 11.91 | 98.84 | 999.00 | -900.16 | AVG | No Limit |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-1_TX AC(VHT80) Mode 5210 MHz | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | Detector | Comment |
| 1 * | 10436.8000 | 49.77 | 6.11 | 55.88 | 68.20 | -12.32 | | Peak | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-1_TX AX(HE20) Mode 5180 MHz | | Polarization | Vertical |
|---|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5150.0000 | 56.53 | 11.75 | 68.28 | 74.00 | -5.72 | Peak | |
| 2 | 5150.0000 | 41.60 | 11.75 | 53.35 | 54.00 | -0.65 | AVG | |
| 3 | 5180.7000 | 90.90 | 11.82 | 102.72 | 999.00 | -896.28 | AVG | No Limit |
| 4 * | 5181.2000 | 99.53 | 11.82 | 111.35 | 68.20 | 43.15 | Peak | No Limit |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-1_TX AX(HE20) Mode 5180 MHz | | Polarization | Vertical |
|---|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 * | 10352.7000 | 52.22 | 6.05 | 58.27 | 68.20 | −9.93 | | Peak | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
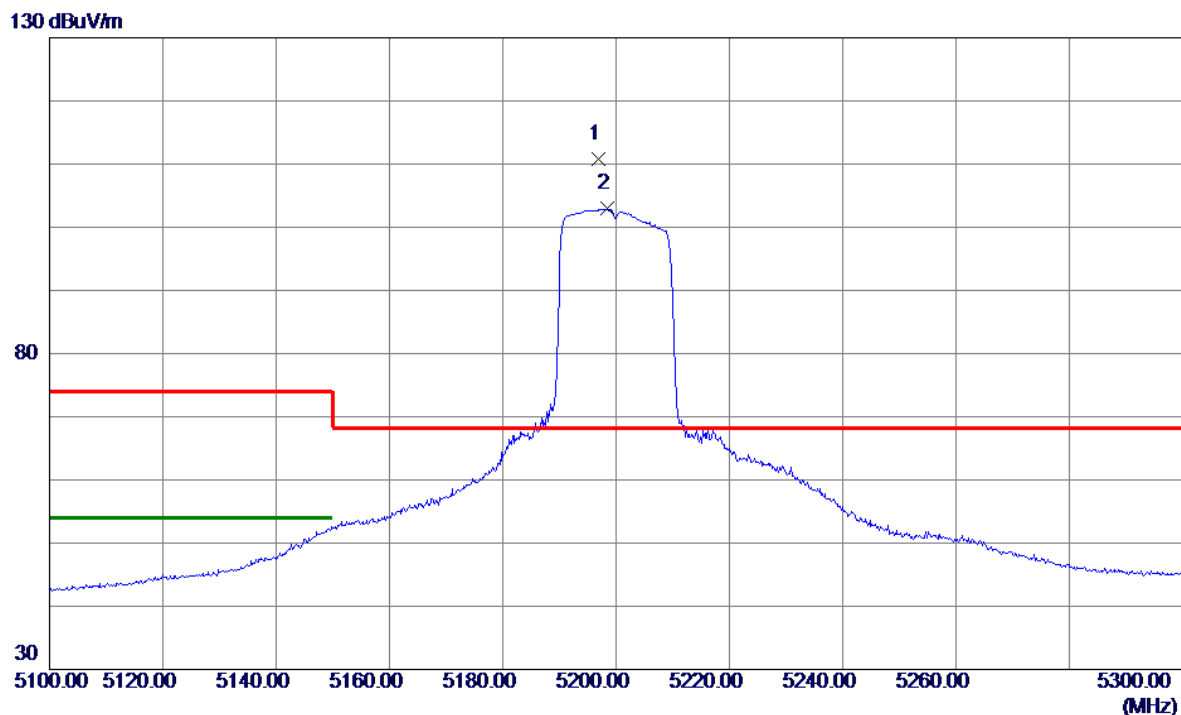
| Test Mode | UNII-1_TX AX(HE20) Mode 5200 MHz | | Polarization | Vertical |
|---|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | Detector | Comment |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | |
| 1 * | 5196.8000 | 98.98 | 11.85 | 110.83 | 68.20 | 42.63 | Peak | No Limit |
| 2 | 5198.4000 | 91.09 | 11.86 | 102.95 | 999.00 | -896.05 | AVG | No Limit |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-1_TX AX(HE20) Mode 5200 MHz | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 * | 10395.1500 | 56.67 | 6.08 | 62.75 | 68.20 | -5.45 | | Peak | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-1_TX AX(HE20) Mode 5240 MHz | | Polarization | Vertical |
|---|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 * | 10481.4000 | 59.30 | 6.15 | 65.45 | 68.20 | −2.75 | | Peak | |
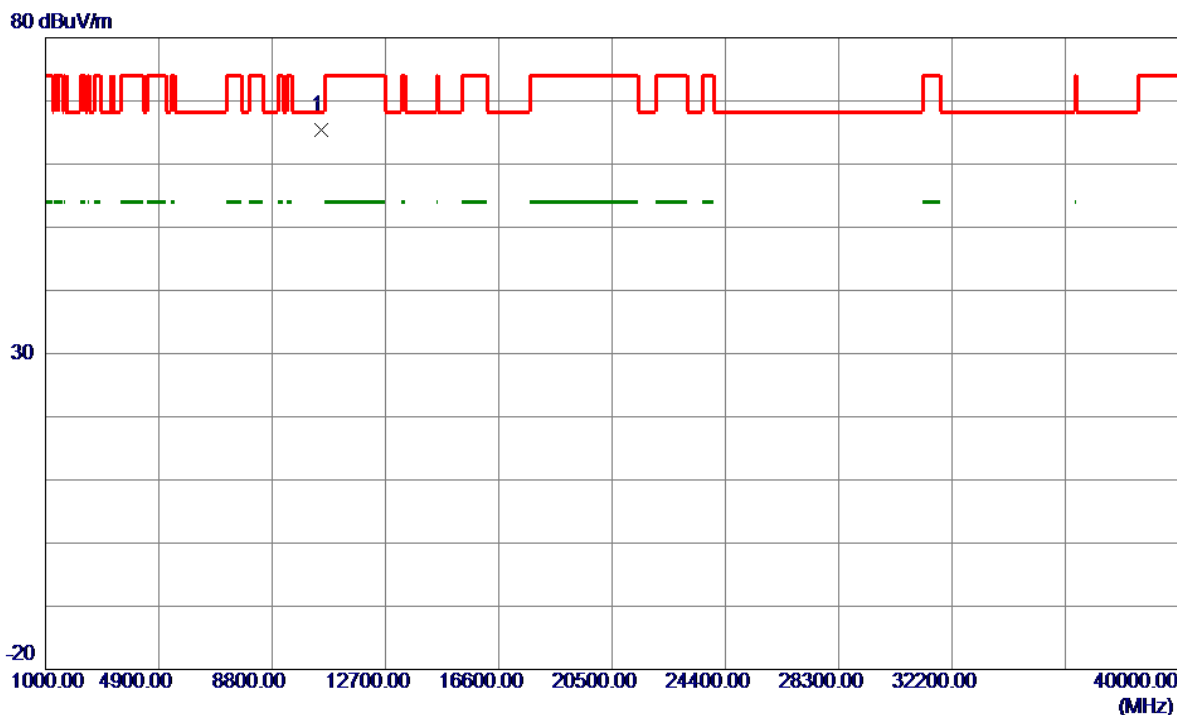
REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-1_TX AX(HE40) Mode 5190 MHz | | Polarization | Vertical |
|---|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 | 5149.5000 | 58.59 | 11.75 | 70.34 | 74.00 | -3.66 | | Peak | |
| 2 | 5149.5000 | 41.60 | 11.75 | 53.35 | 54.00 | -0.65 | | AVG | |
| 3 | 5150.0000 | 56.13 | 11.75 | 67.88 | 74.00 | -6.12 | | Peak | |
| 4 | 5150.0000 | 40.52 | 11.75 | 52.27 | 54.00 | -1.73 | | AVG | |
| 5 * | 5189.0000 | 96.80 | 11.84 | 108.64 | 68.20 | 40.44 | | Peak | No Limit |
| 6 | 5191.2000 | 88.54 | 11.84 | 100.38 | 999.00 | -898.62 | | AVG | No Limit |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
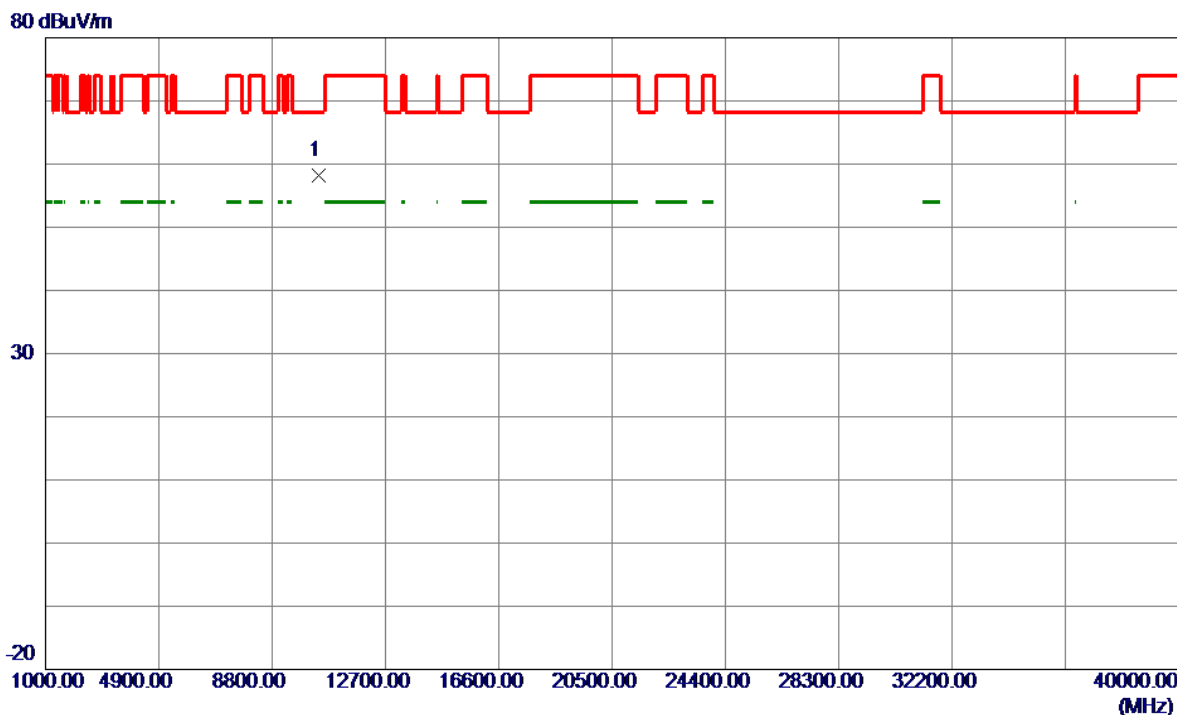
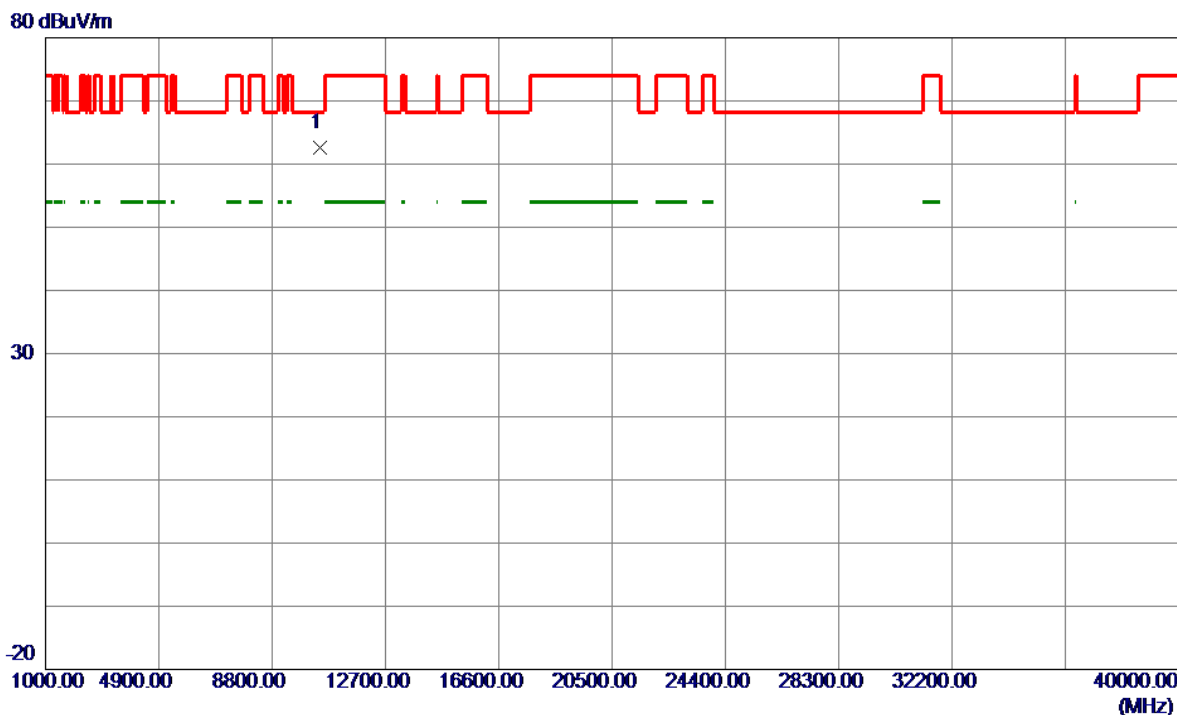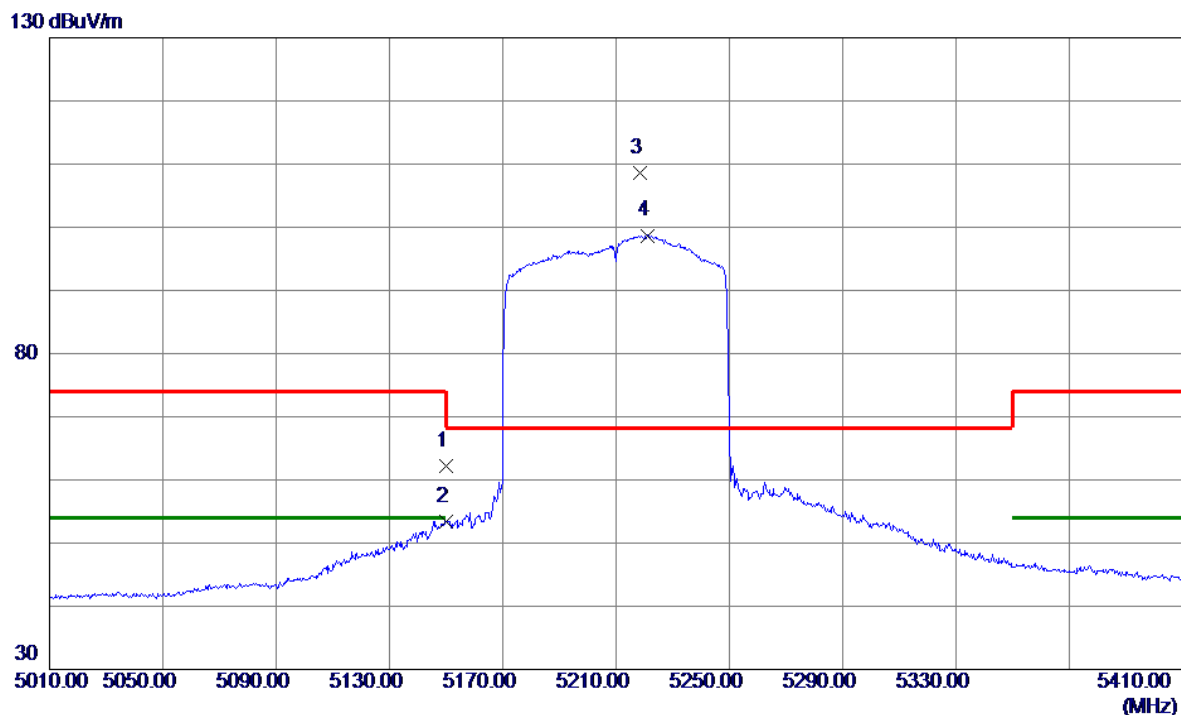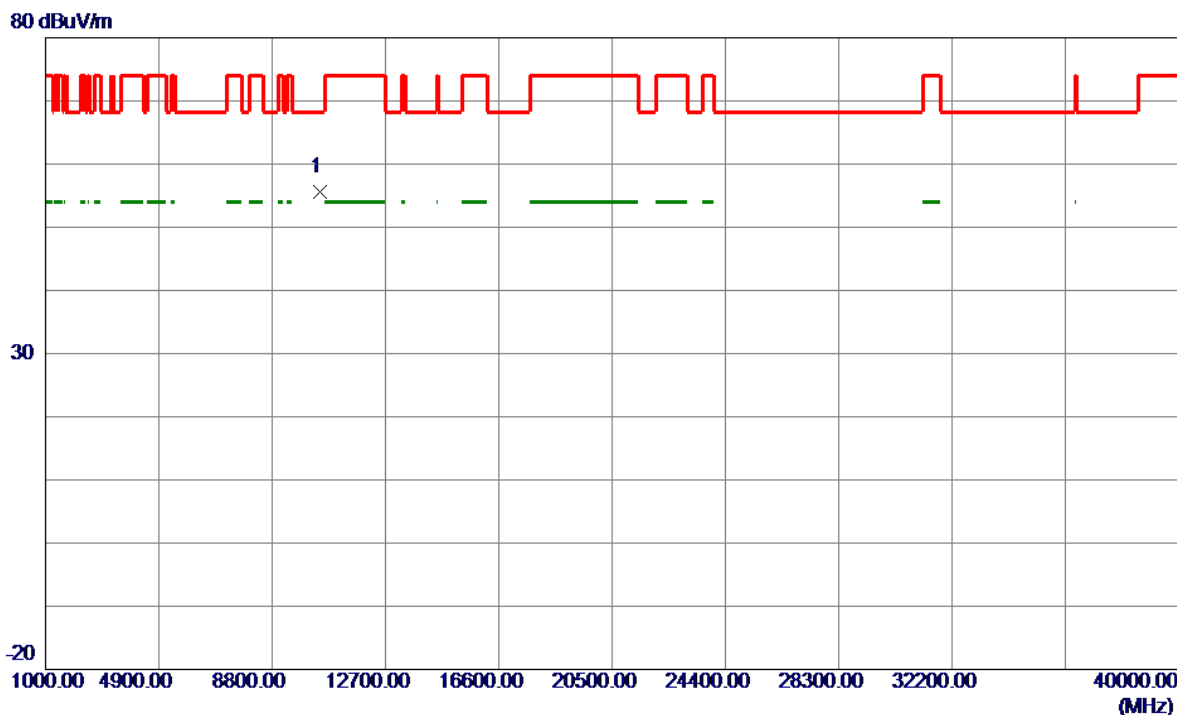| Test Mode | UNII-1_TX AX(HE40) Mode 5190 MHz | Polarization | Vertical |
|-----------|----------------------------------|--------------|----------|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | | Detector | Comment |
|-----|-------|---------------|----------------|-------------|-------|--------|---|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | Detector | Comment |
| 1 * | 10385.8000 | 52.06 | 6.08 | 58.14 | 68.20 | -10.06 | | Peak | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
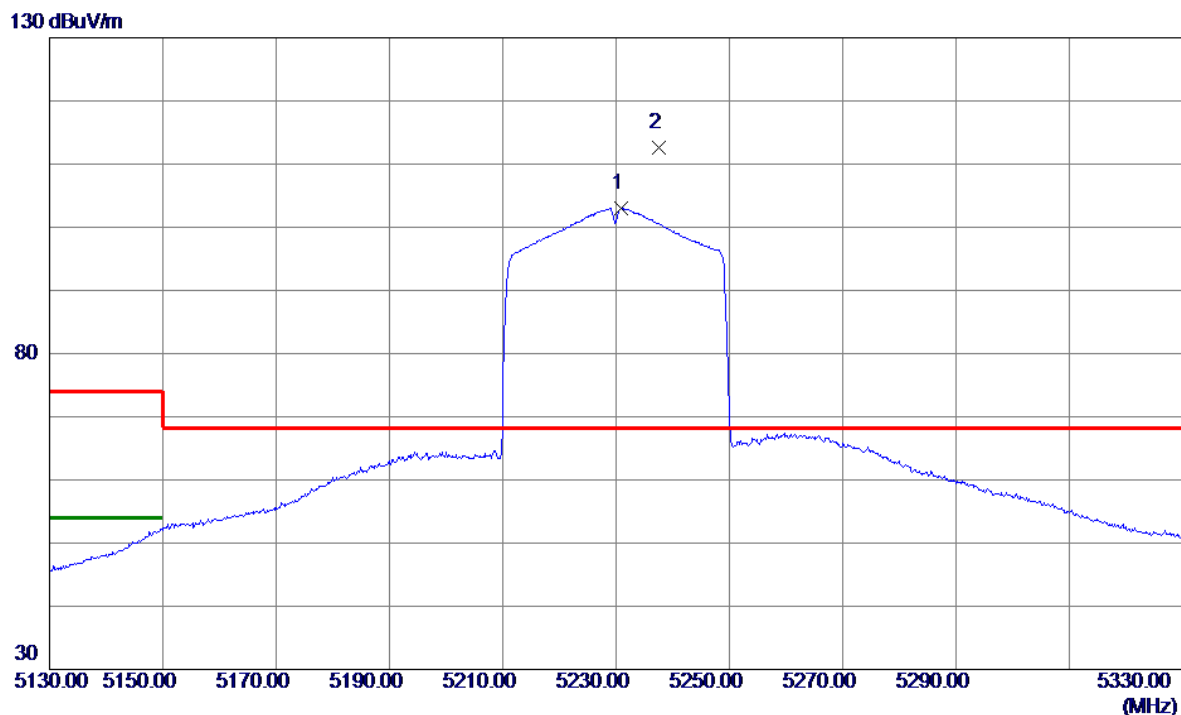
| Test Mode | UNII-1_TX AX(HE40) Mode 5230 MHz | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5230.9000 | 91.11 | 11.93 | 103.04 | 999.00 | -895.96 | AVG | No Limit |
| 2 * | 5237.5000 | 100.61 | 11.95 | 112.56 | 68.20 | 44.36 | Peak | No Limit |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-1_TX AX(HE40) Mode 5230 MHz | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | Detector | Comment |
| 1 * | 10461.0000 | 56.50 | 6.13 | 62.63 | 68.20 | -5.57 | | Peak | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-1_TX AX(HE80) Mode 5210 MHz | | Polarization | Vertical |
|---|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | Detector | Comment |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | |
| 1 | 5150.0000 | 50.45 | 11.75 | 62.20 | 74.00 | −11.80 | Peak | |
| 2 | 5150.0000 | 41.69 | 11.75 | 53.44 | 54.00 | −0.56 | AVG | |
| 3 * | 5218.6000 | 96.62 | 11.90 | 108.52 | 68.20 | 40.32 | Peak | No Limit |
| 4 | 5221.2000 | 86.79 | 11.91 | 98.70 | 999.00 | −900.30 | AVG | No Limit |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-1_TX AX(HE80) Mode 5210 MHz | | Polarization | Vertical |
|---|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 * | 10436.1000 | 49.41 | 6.11 | 55.52 | 68.20 | −12.68 | | Peak | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-2A_TX A Mode 5260 MHz | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 * | 10520.0000 | 60.81 | 6.17 | 66.98 | 68.20 | −1.22 | | Peak | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
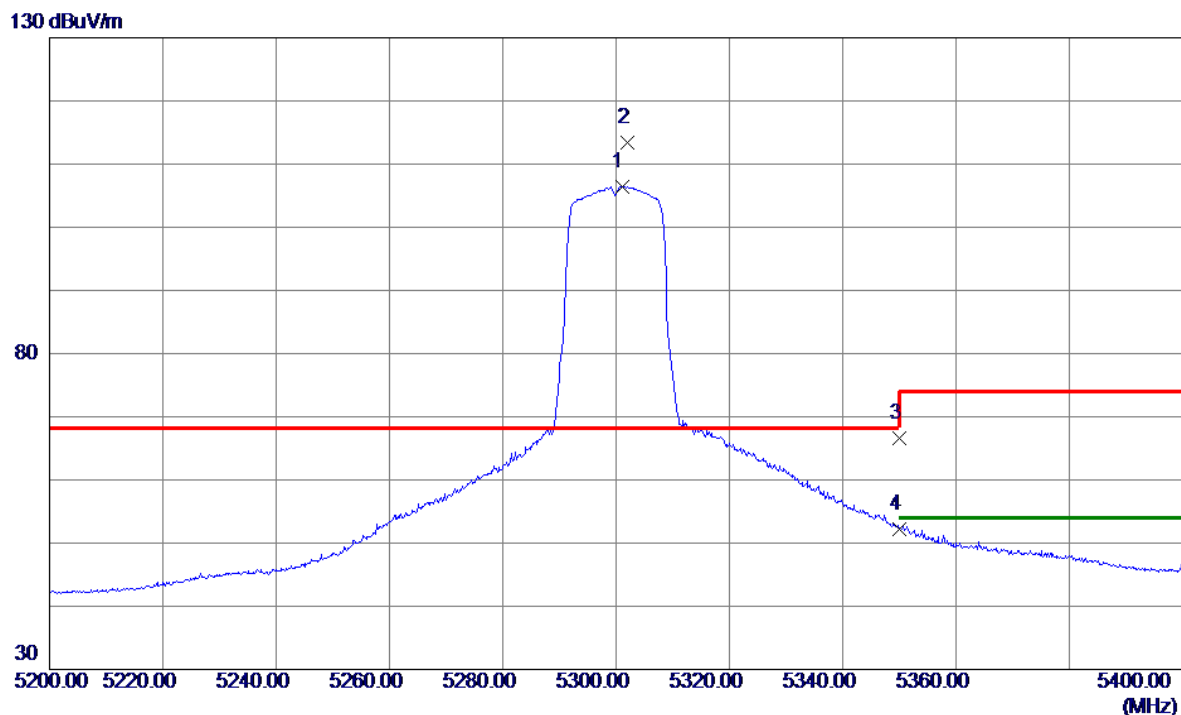
| Test Mode | UNII-2A_TX A Mode 5300 MHz | | Polarization | Vertical |
|---|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5301.0000 | 94.39 | 12.10 | 106.49 | 999.00 | -892.51 | AVG | No Limit |
| 2 * | 5301.9000 | 101.34 | 12.10 | 113.44 | 68.20 | 45.24 | Peak | No Limit |
| 3 | 5350.0000 | 54.38 | 12.21 | 66.59 | 74.00 | -7.41 | Peak | |
| 4 | 5350.0000 | 39.99 | 12.21 | 52.20 | 54.00 | -1.80 | AVG | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
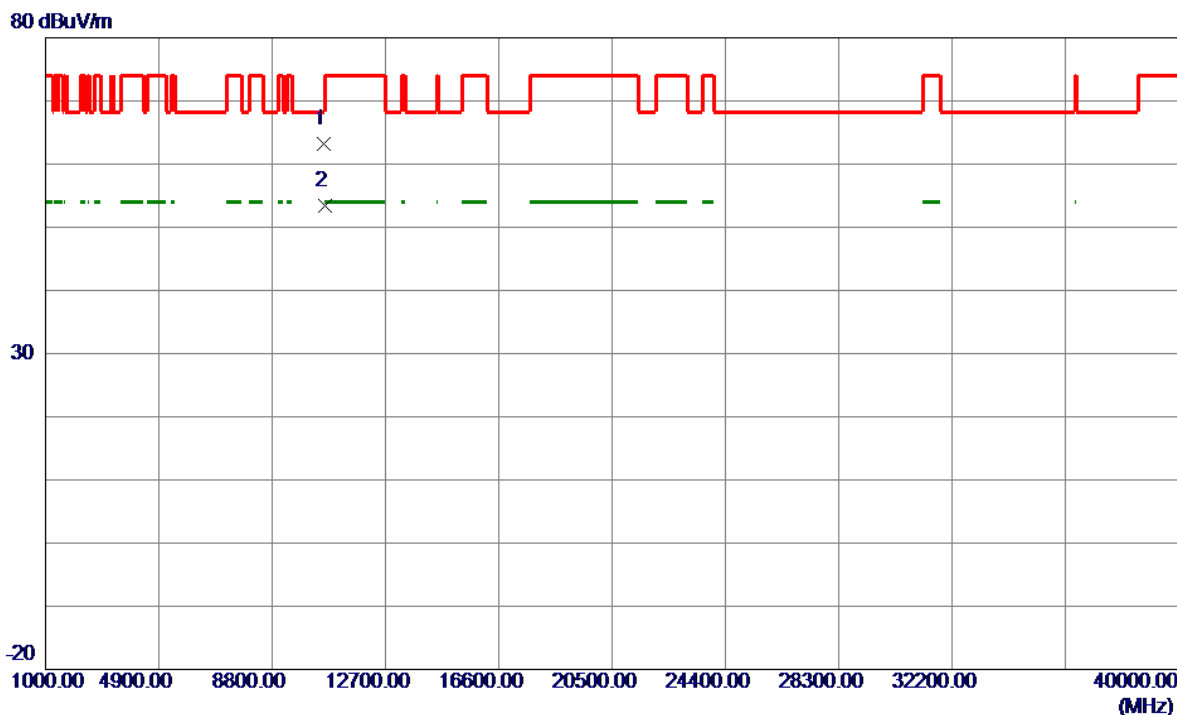
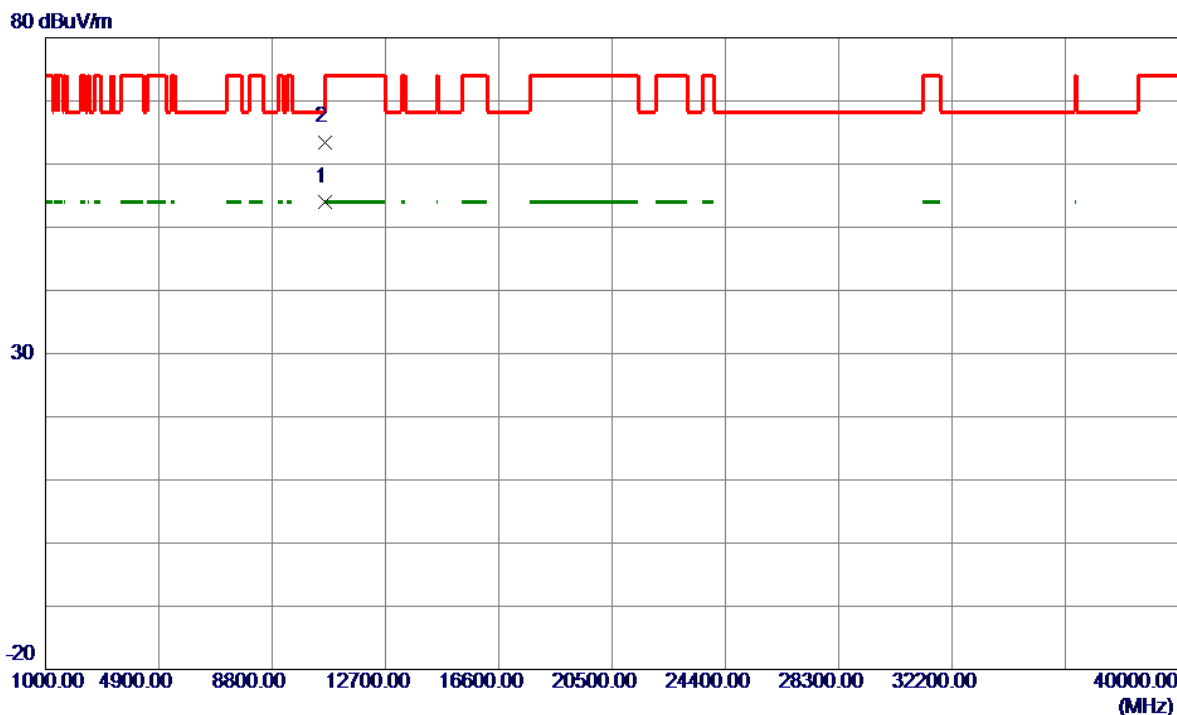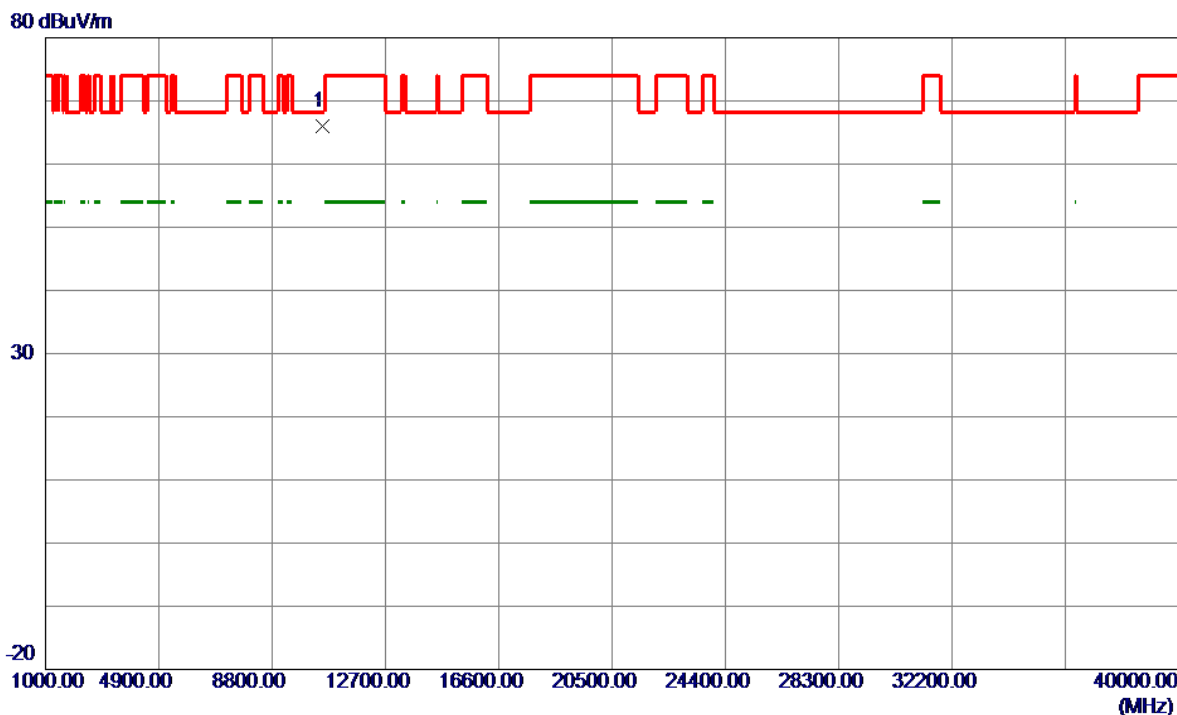| Test Mode | UNII-2A_TX A Mode 5300 MHz | | Polarization | Vertical |
|-----------|---------------------------|--|--------------|----------|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | | | |
|-----|-------|---------------|----------------|-------------|-------|--------|--|--|--|
|     | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment | |
| 1 | 10598.0750 | 57.04 | 6.19 | 63.23 | 68.20 | -4.97 | Peak | | |
| 2 * | 10600.5750 | 47.27 | 6.19 | 53.46 | 54.00 | -0.54 | AVG | | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
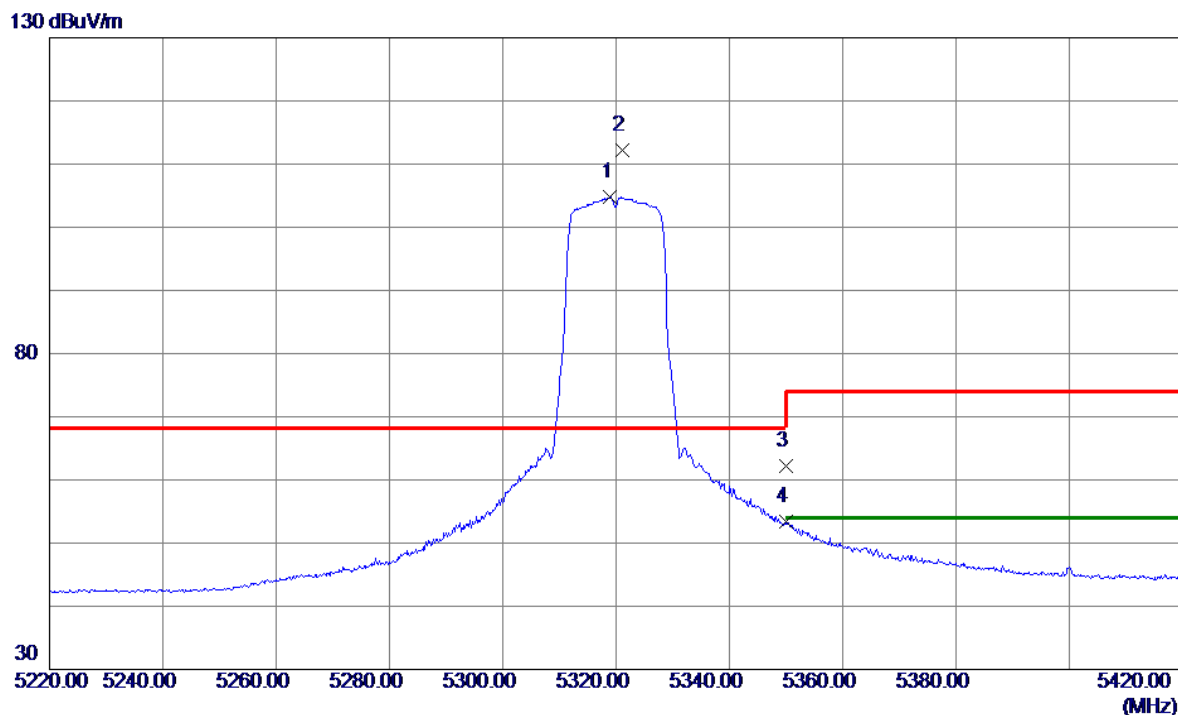
| Test Mode | UNII-2A_TX A Mode 5320 MHz | | Polarization | Vertical |
|---|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | Detector | Comment |
| 1 | 5319.0000 | 92.58 | 12.14 | 104.72 | 999.00 | -894.28 | | AVG | No Limit |
| 2 * | 5321.2000 | 100.04 | 12.14 | 112.18 | 68.20 | 43.98 | | Peak | No Limit |
| 3 | 5350.0000 | 49.99 | 12.21 | 62.20 | 74.00 | -11.80 | | Peak | |
| 4 | 5350.0000 | 41.24 | 12.21 | 53.45 | 54.00 | -0.55 | | AVG | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

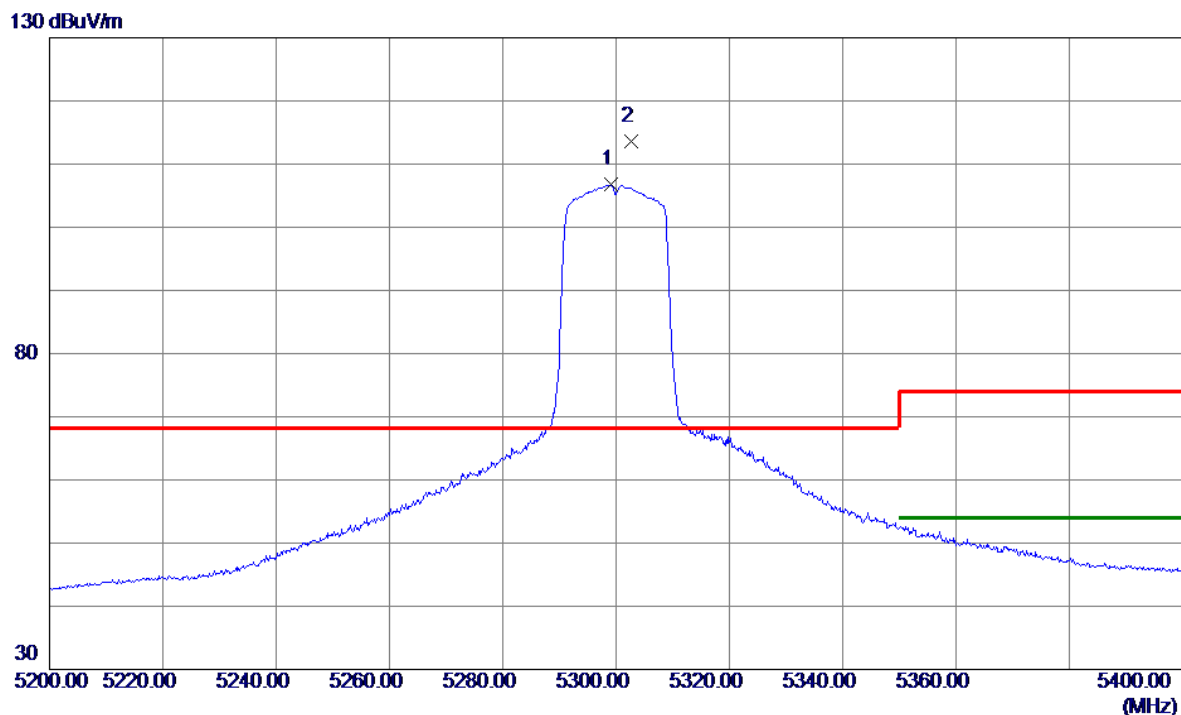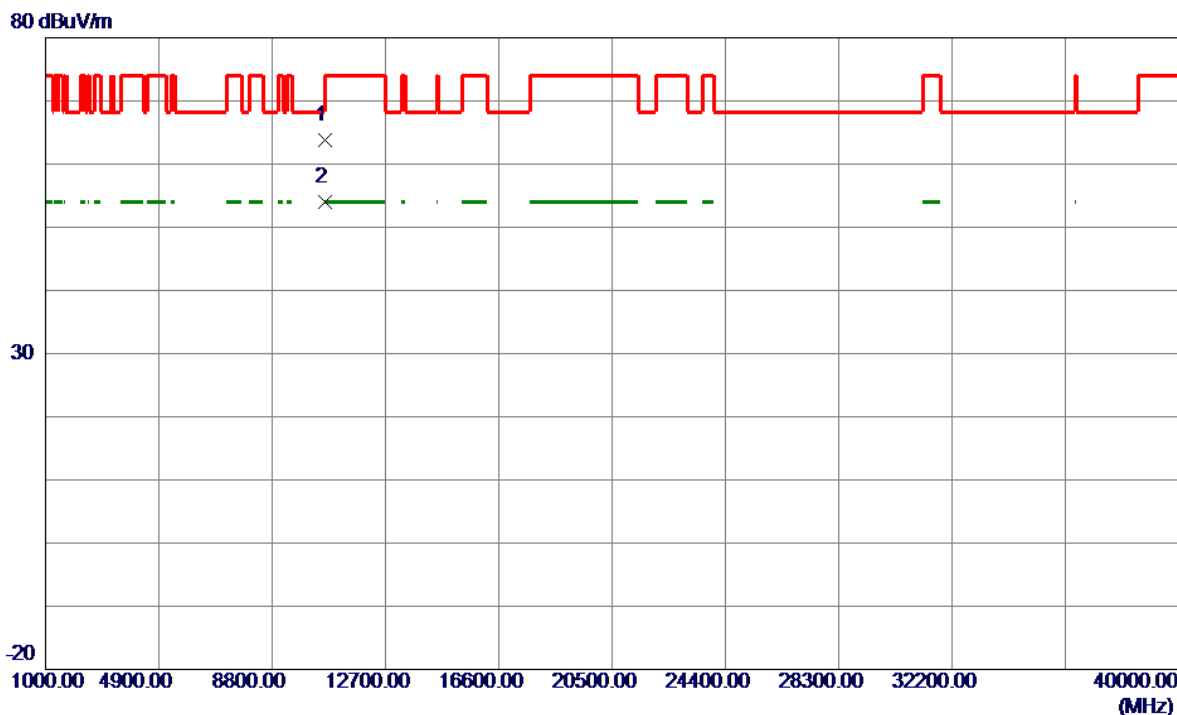| Test Mode | UNII-2A_TX A Mode 5320 MHz | | Polarization | Vertical |
|-----------|----------------------------|---|--------------|----------|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | | |
|-----|-------|---------------|----------------|--------------|-------|--------|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | Detector | Comment |
| 1 * | 10637.3000 | 47.72 | 6.20 | 53.92 | 54.00 | −0.08 | | AVG | |
| 2 | 10641.5250 | 57.30 | 6.20 | 63.50 | 74.00 | −10.50 | | Peak | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-2A_TX AC(VHT20) Mode 5260 MHz | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 * | 10520.0000 | 59.74 | 6.17 | 65.91 | 68.20 | -2.29 | | Peak | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-2A_TX AC(VHT20) Mode 5300 MHz | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5299.1000 | 94.64 | 12.09 | 106.73 | 999.00 | -892.27 | AVG | No Limit |
| 2 * | 5302.7000 | 101.58 | 12.10 | 113.68 | 68.20 | 45.48 | Peak | No Limit |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-2A_TX AC(VHT20) Mode 5300 MHz | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | Detector | Comment |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | |
| 1 | 10598.6750 | 57.58 | 6.19 | 63.77 | 68.20 | -4.43 | Peak | |
| 2 * | 10600.6750 | 47.72 | 6.19 | 53.91 | 54.00 | -0.09 | AVG | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
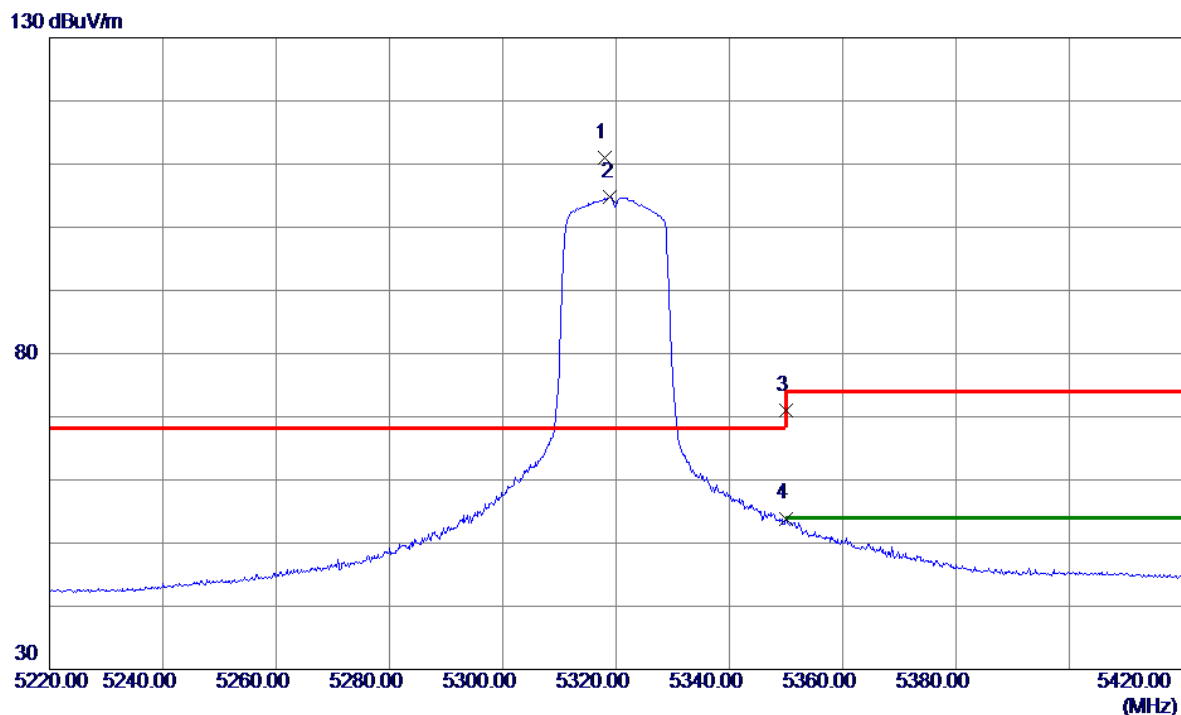
| Test Mode | UNII-2A_TX AC(VHT20) Mode 5320 MHz | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 * | 5318.1000 | 98.80 | 12.13 | 110.93 | 68.20 | 42.73 | Peak | No Limit |
| 2 | 5319.0000 | 92.62 | 12.14 | 104.76 | 999.00 | -894.24 | AVG | No Limit |
| 3 | 5350.0000 | 58.71 | 12.21 | 70.92 | 74.00 | -3.08 | Peak | |
| 4 | 5350.0000 | 41.69 | 12.21 | 53.90 | 54.00 | -0.10 | AVG | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
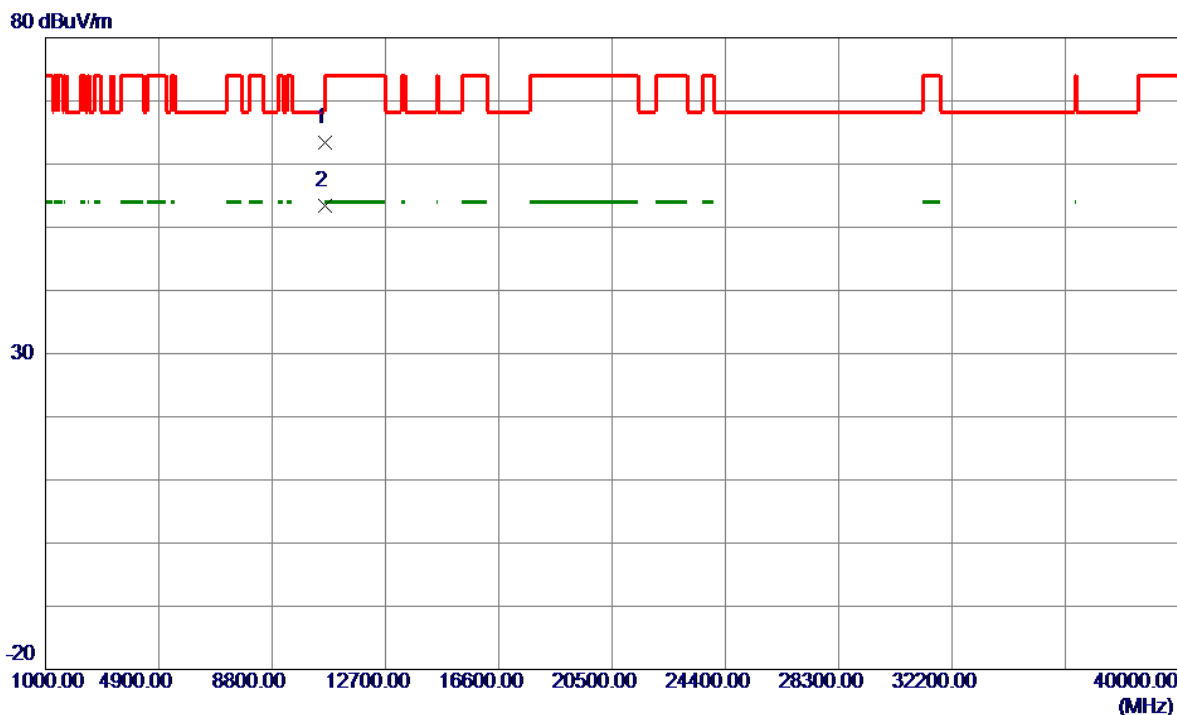
| Test Mode | UNII-2A_TX AC(VHT20) Mode 5320 MHz | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | Detector | Comment |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | |
| 1 | 10638.8000 | 57.11 | 6.20 | 63.31 | 74.00 | -10.69 | Peak | |
| 2 * | 10640.9750 | 47.18 | 6.20 | 53.38 | 54.00 | -0.62 | AVG | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

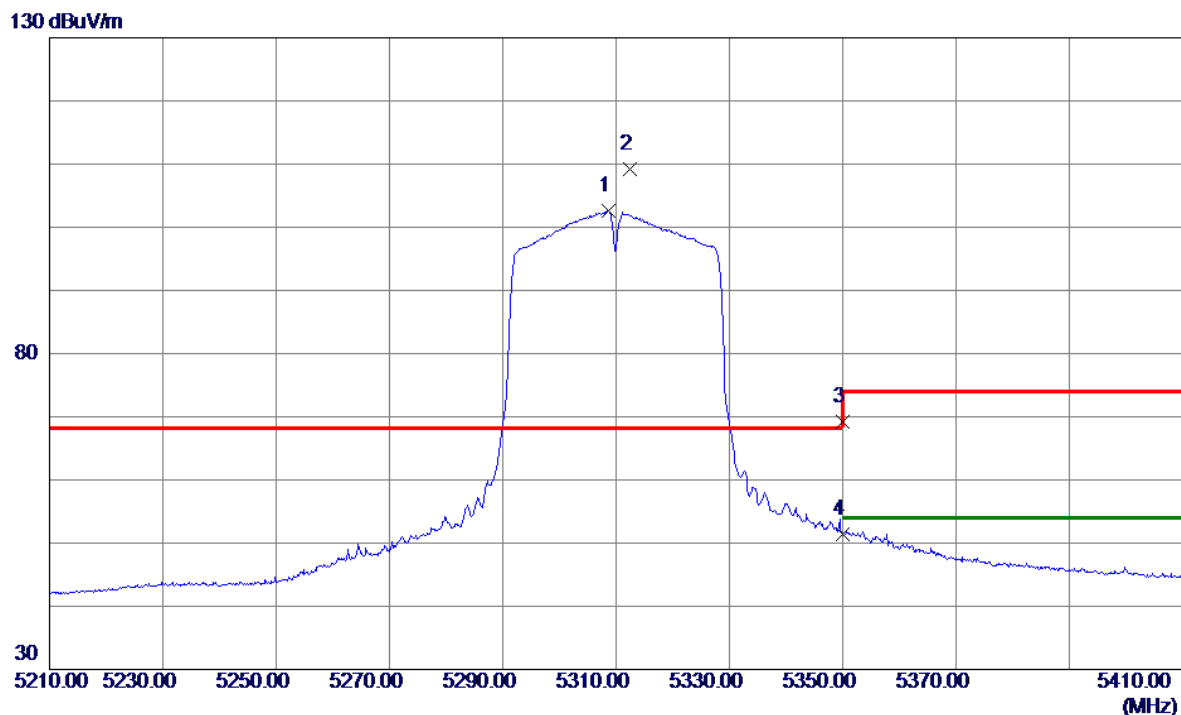| Test Mode | UNII-2A_TX AC(VHT40) Mode 5270 MHz | Polarization | Vertical |
|-----------|-------------------------------------|--------------|----------|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | Detector | Comment |
|-----|-------|---------------|----------------|--------------|-------|--------|---|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 * | 10539.4000 | 55.87 | 6.17 | 62.04 | 68.20 | −6.16 | | Peak | |
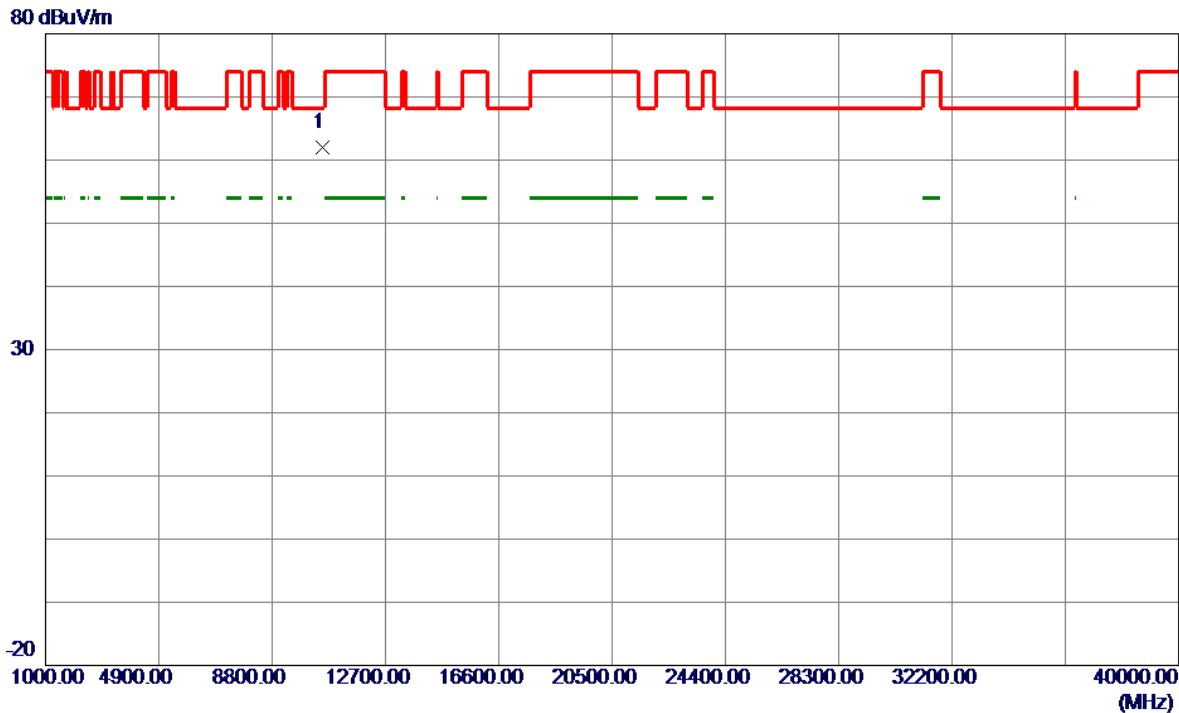
REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

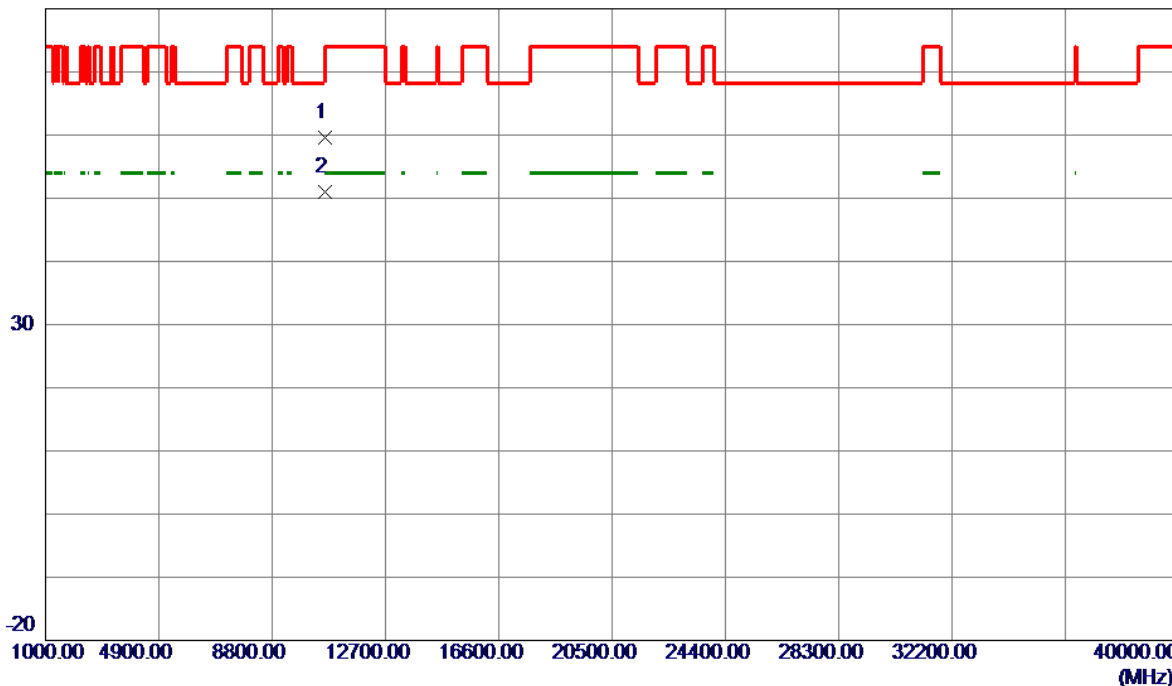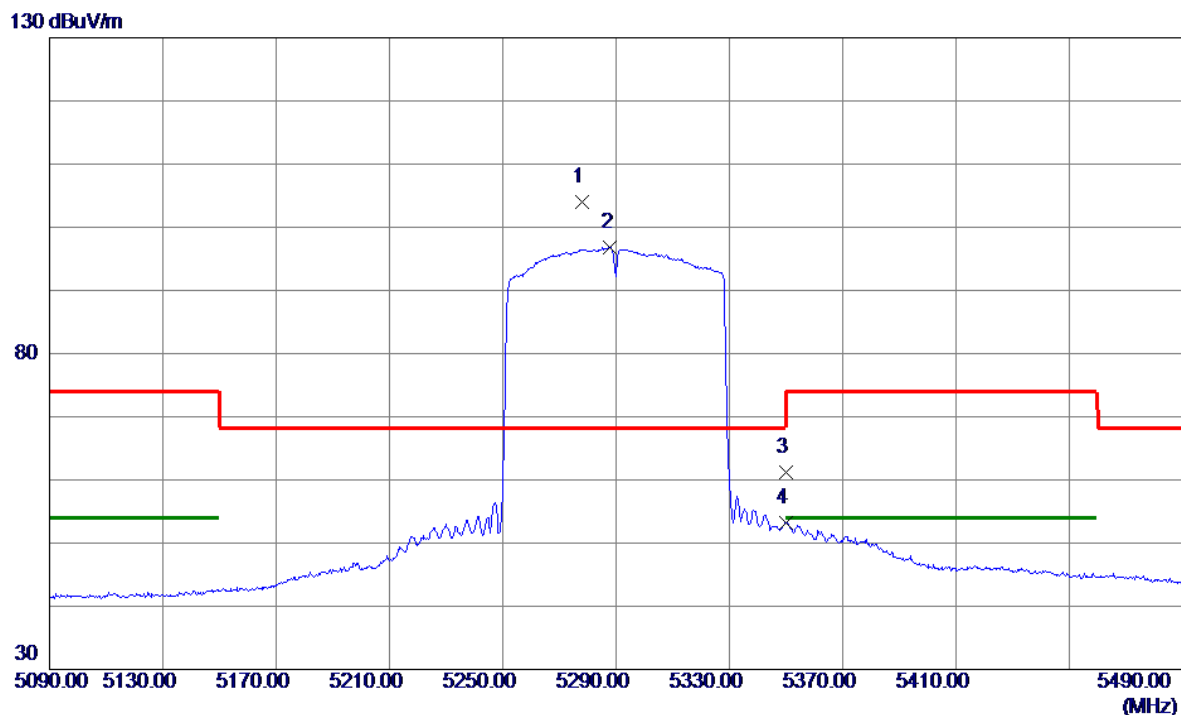| Test Mode | UNII-2A_TX AC(VHT40) Mode 5310 MHz | Polarization | Vertical |
|-----------|------------------------------------|--------------|----------|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | Detector | Comment |
|-----|-------|---------------|----------------|-------------|-------|--------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | |
| 1 | 5308.6000 | 90.50 | 12.11 | 102.61 | 999.00 | -896.39 | AVG | No Limit |
| 2 * | 5312.4000 | 97.04 | 12.12 | 109.16 | 68.20 | 40.96 | Peak | No Limit |
| 3 | 5350.0000 | 56.97 | 12.21 | 69.18 | 74.00 | -4.82 | Peak | |
| 4 | 5350.0000 | 39.17 | 12.21 | 51.38 | 54.00 | -2.62 | AVG | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

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| Test Mode | UNII-2A_TX AC(VHT40) Mode 5310 MHz | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 10616.4000 | 53.43 | 6.19 | 59.62 | 74.00 | -14.38 | Peak | |
| 2 * | 10616.5000 | 44.88 | 6.19 | 51.07 | 54.00 | -2.93 | AVG | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-2A_TX AC(VHT80) Mode 5290 MHz | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | Detector | Comment |
| 1 * | 5278.2000 | 92.00 | 12.04 | 104.04 | 68.20 | 35.84 | | Peak | No Limit |
| 2 | 5288.0000 | 84.76 | 12.07 | 96.83 | 999.00 | -902.17 | | AVG | No Limit |
| 3 | 5350.0000 | 49.01 | 12.21 | 61.22 | 74.00 | -12.78 | | Peak | |
| 4 | 5350.0000 | 41.08 | 12.21 | 53.29 | 54.00 | -0.71 | | AVG | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-2A_TX AC(VHT80) Mode 5290 MHz | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 * | 10576.2000 | 51.99 | 6.18 | 58.17 | 68.20 | -10.03 | | Peak | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-2A_TX AX(HE20) Mode 5260 MHz | Polarization | Vertical |
|---|---|---|---|

| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | Detector | Comment |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | |
| 1 * | 10523.7500 | 61.67 | 6.17 | 67.84 | 68.20 | -0.36 | Peak | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
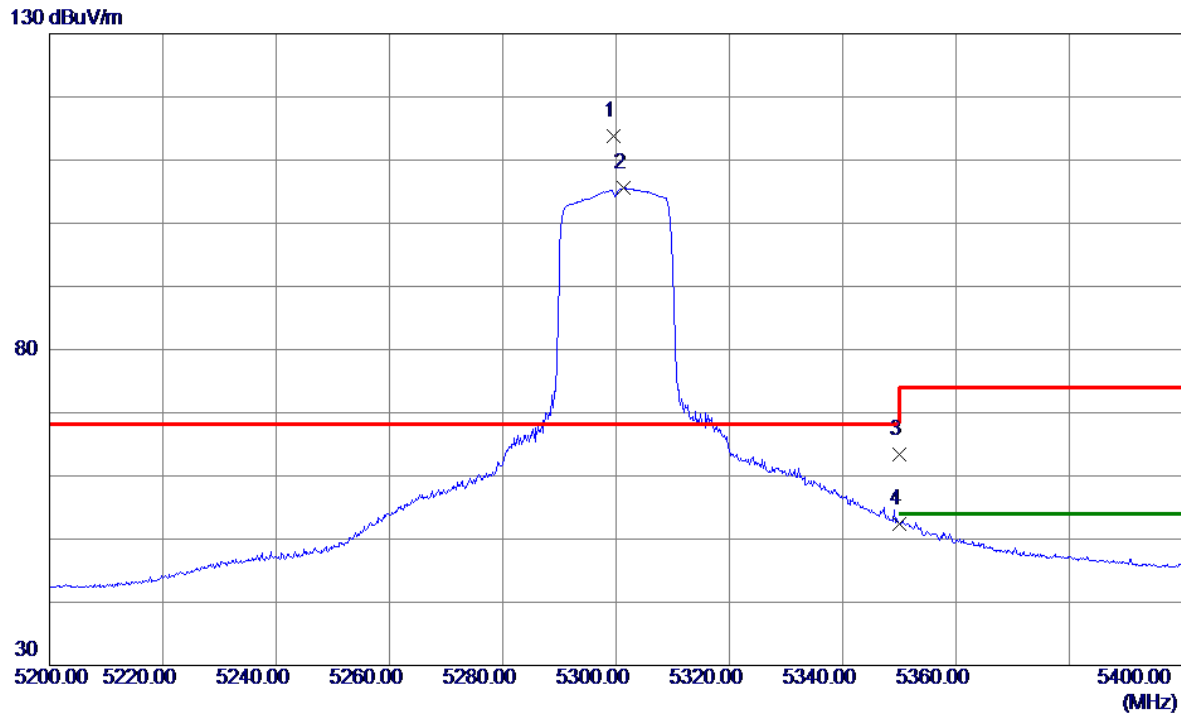
| Test Mode | UNII-2A_TX AX(HE20) Mode 5300 MHz | | Polarization | Vertical |
|---|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 * | 5299.5000 | 101.64 | 12.09 | 113.73 | 68.20 | 45.53 | | Peak | No Limit |
| 2 | 5301.3000 | 93.57 | 12.10 | 105.67 | 999.00 | -893.33 | | AVG | No Limit |
| 3 | 5350.0000 | 51.25 | 12.21 | 63.46 | 74.00 | -10.54 | | Peak | |
| 4 | 5350.0000 | 40.26 | 12.21 | 52.47 | 54.00 | -1.53 | | AVG | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
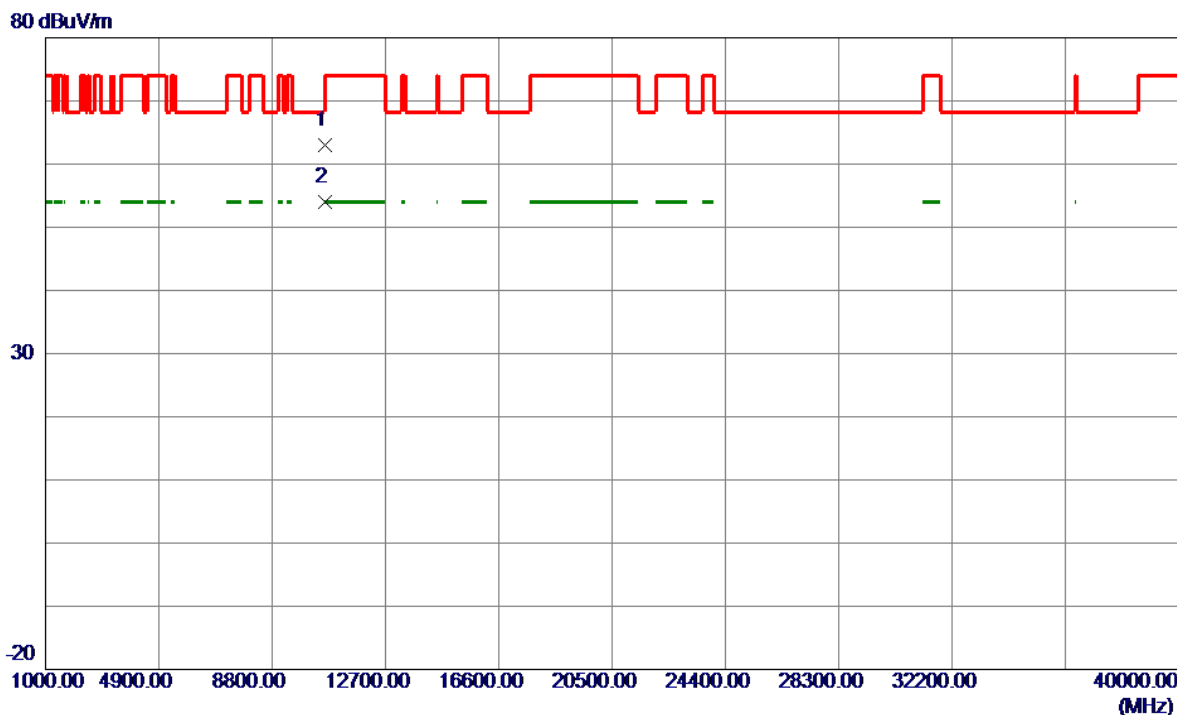
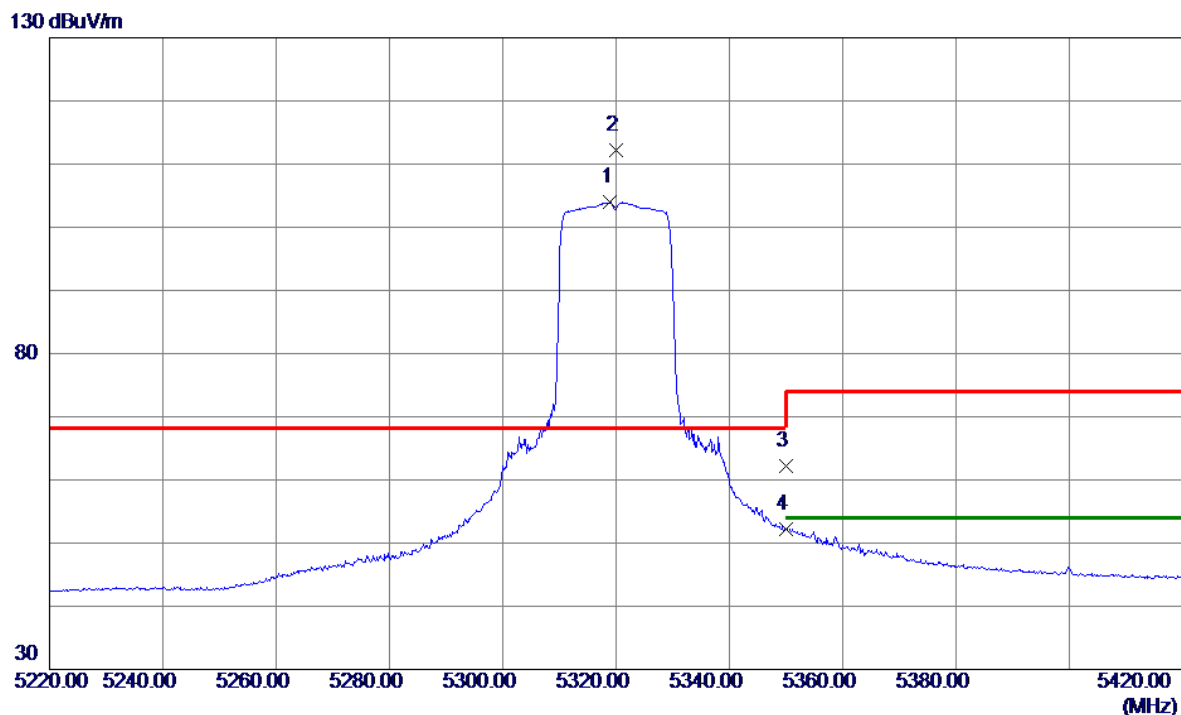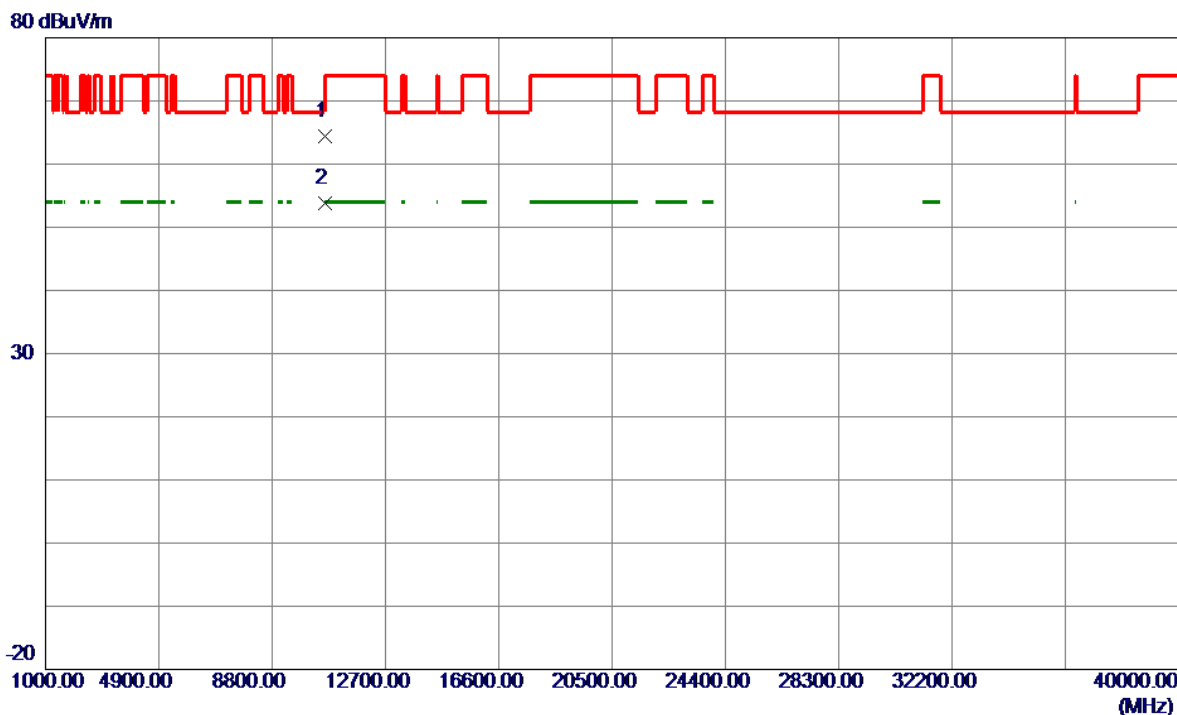| Test Mode | UNII-2A_TX AX(HE20) Mode 5300 MHz | Polarization | Vertical |
|-----------|-----------------------------------|--------------|----------|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | | Detector | Comment |
|-----|-------|---------------|----------------|-------------|-------|--------|---|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 | 10598.6500 | 56.80 | 6.19 | 62.99 | 68.20 | −5.21 | | Peak | |
| 2 * | 10601.2500 | 47.78 | 6.19 | 53.97 | 54.00 | −0.03 | | AVG | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-2A_TX AX(HE20) Mode 5320 MHz | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | Detector | Comment |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | |
| 1 | 5319.0000 | 91.79 | 12.14 | 103.93 | 999.00 | -895.07 | AVG | No Limit |
| 2 * | 5319.9000 | 100.11 | 12.14 | 112.25 | 68.20 | 44.05 | Peak | No Limit |
| 3 | 5350.0000 | 49.92 | 12.21 | 62.13 | 74.00 | -11.87 | Peak | |
| 4 | 5350.0000 | 40.05 | 12.21 | 52.26 | 54.00 | -1.74 | AVG | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-2A_TX AX(HE20) Mode 5320 MHz | | Polarization | Vertical |
|---|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 | 10636.4000 | 58.25 | 6.20 | 64.45 | 74.00 | -9.55 | | Peak | |
| 2 * | 10638.6500 | 47.56 | 6.20 | 53.76 | 54.00 | -0.24 | | AVG | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
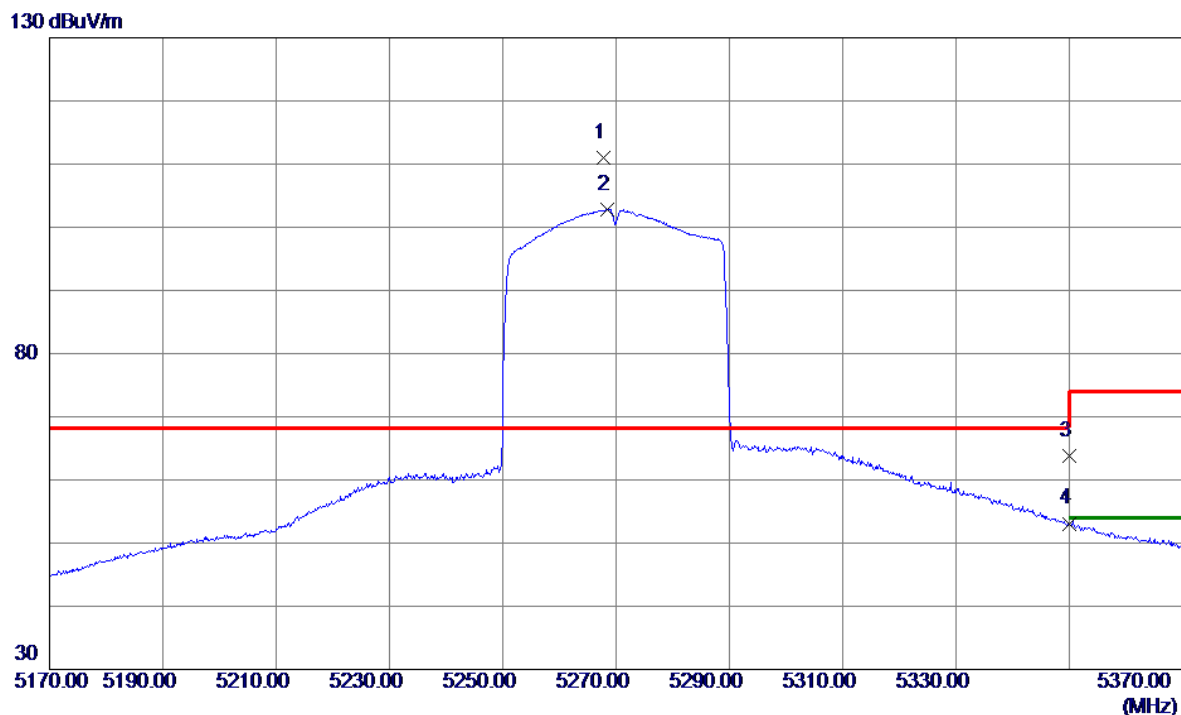
| Test Mode | UNII-2A_TX AX(HE40) Mode 5270 MHz | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 * | 5267.7000 | 99.06 | 12.02 | 111.08 | 68.20 | 42.88 | | Peak | No Limit |
| 2 | 5268.5000 | 90.85 | 12.02 | 102.87 | 999.00 | -896.13 | | AVG | No Limit |
| 3 | 5350.0000 | 51.58 | 12.21 | 63.79 | 74.00 | -10.21 | | Peak | |
| 4 | 5350.0000 | 40.89 | 12.21 | 53.10 | 54.00 | -0.90 | | AVG | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
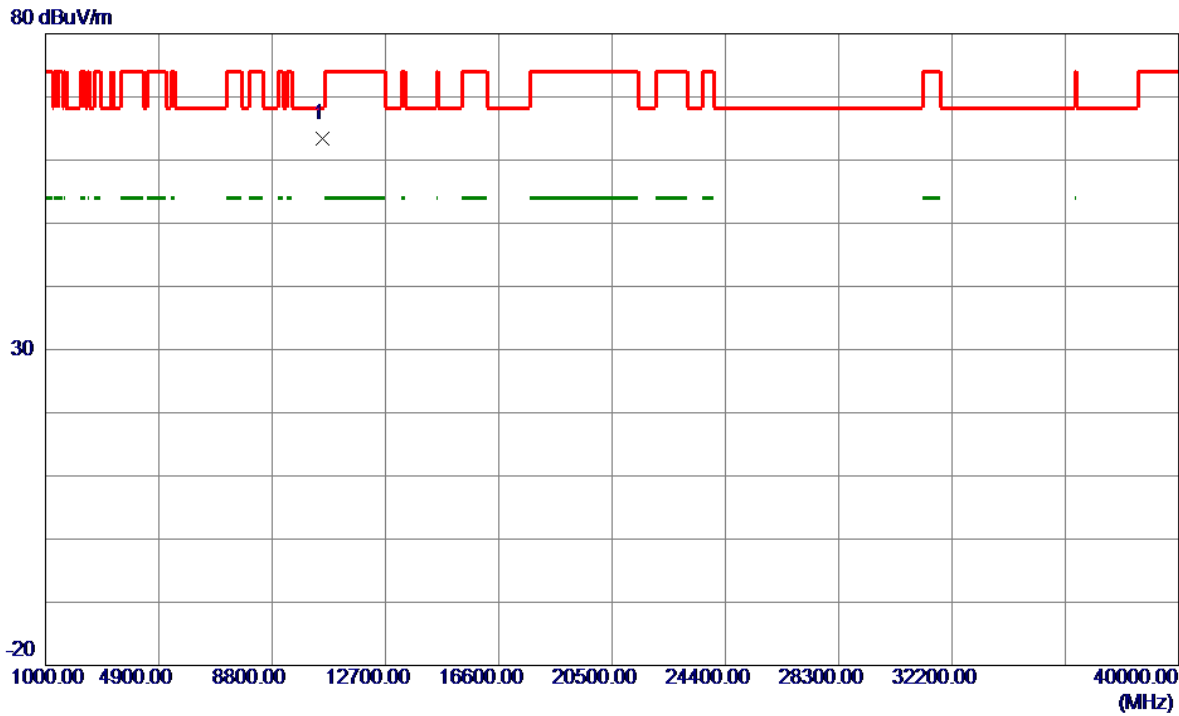
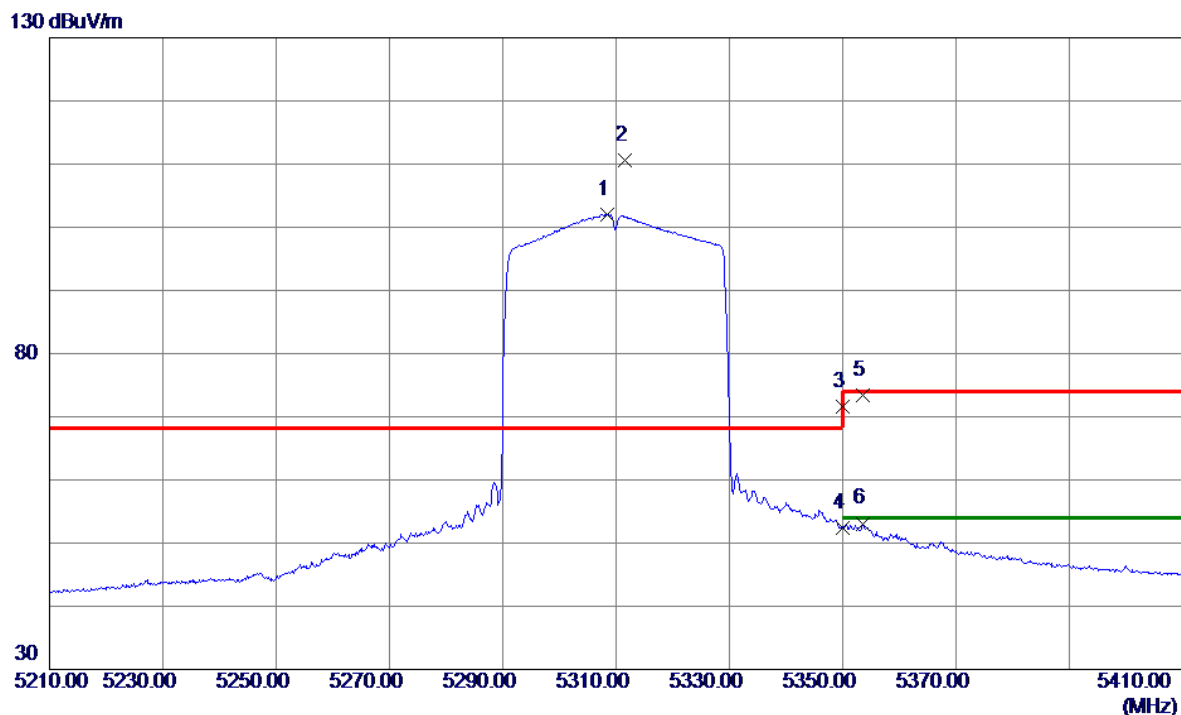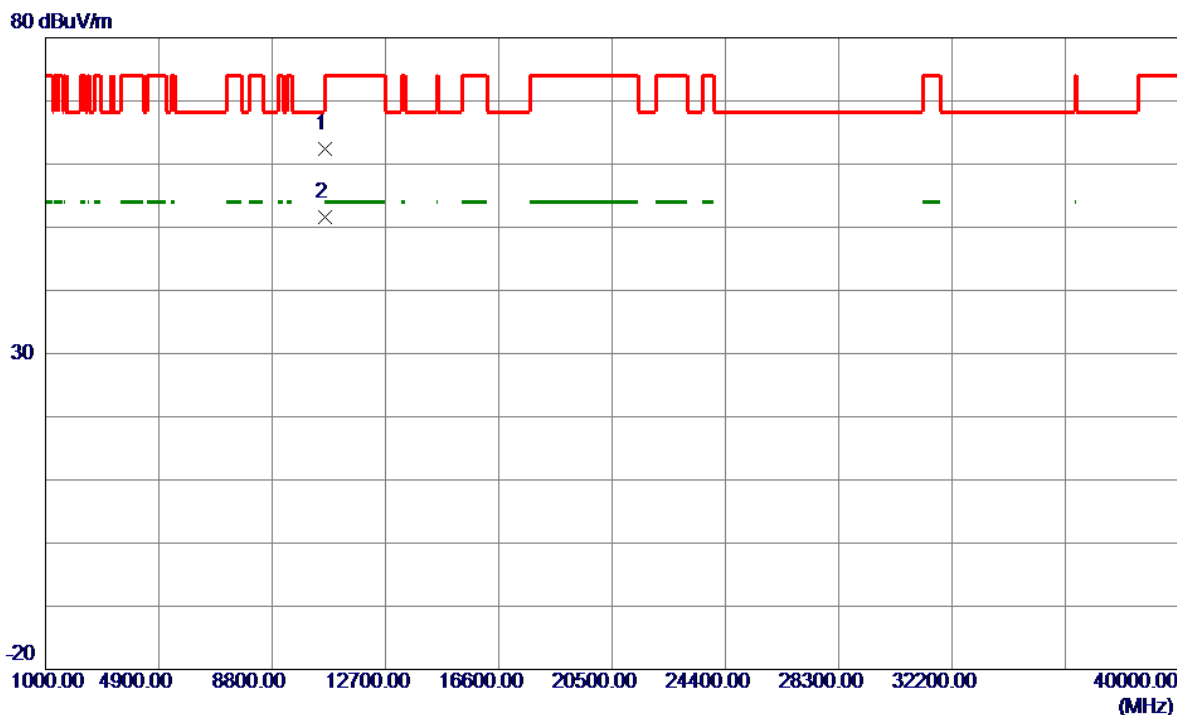| Test Mode | UNII-2A_TX AX(HE40) Mode 5270 MHz | Polarization | Vertical |
|-----------|-----------------------------------|--------------|----------|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | Detector | Comment |
|-----|-------|---------------|----------------|-------------|-------|--------|----------|---------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | |
| 1 * | 10543.0500 | 57.17 | 6.17 | 63.34 | 68.20 | -4.86 | Peak | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-2A_TX AX(HE40) Mode 5310 MHz | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | Detector | Comment |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | |
| 1 | 5308.5000 | 89.87 | 12.11 | 101.98 | 999.00 | -897.02 | AVG | No Limit |
| 2 * | 5311.5000 | 98.41 | 12.12 | 110.53 | 68.20 | 42.33 | Peak | No Limit |
| 3 | 5350.0000 | 59.39 | 12.21 | 71.60 | 74.00 | -2.40 | Peak | |
| 4 | 5350.0000 | 40.28 | 12.21 | 52.49 | 54.00 | -1.51 | AVG | |
| 5 | 5353.6000 | 61.25 | 12.22 | 73.47 | 74.00 | -0.53 | Peak | |
| 6 | 5353.6000 | 40.88 | 12.22 | 53.10 | 54.00 | -0.90 | AVG | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-2A_TX AX(HE40) Mode 5310 MHz | | Polarization | Vertical |
|---|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 | 10616.1000 | 56.15 | 6.19 | 62.34 | 74.00 | −11.66 | | Peak | |
| 2 * | 10618.8000 | 45.34 | 6.19 | 51.53 | 54.00 | −2.47 | | AVG | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
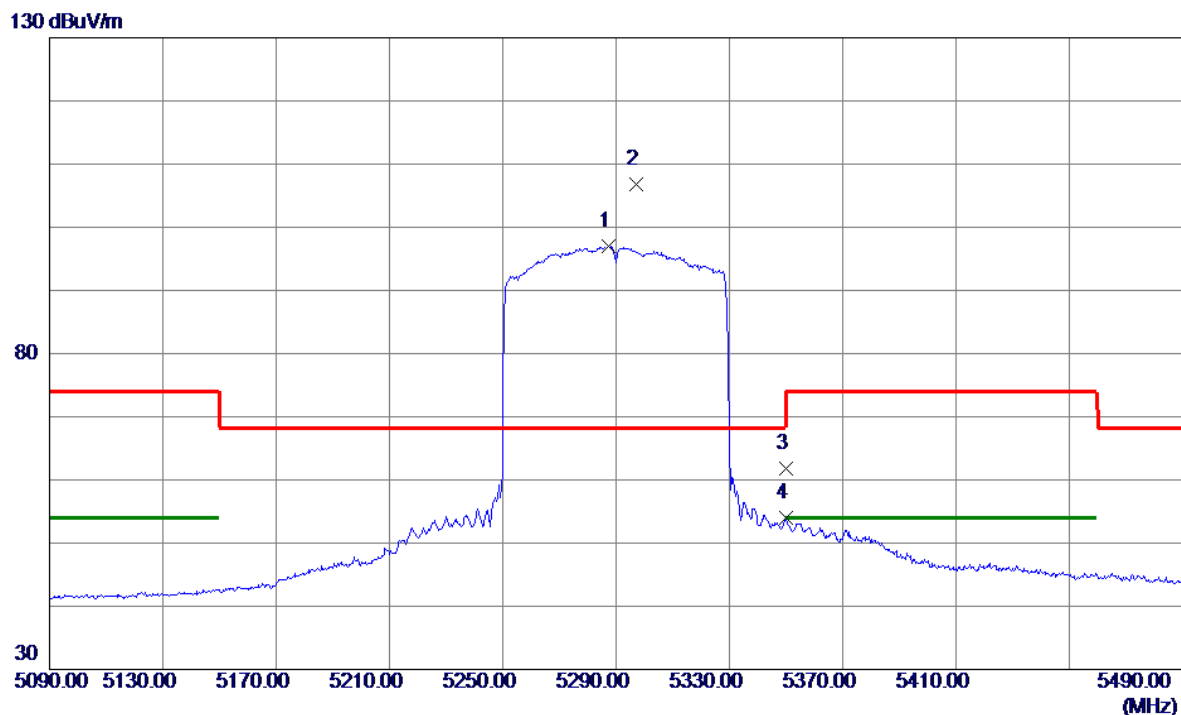
| Test Mode | UNII-2A_TX AX(HE80) Mode 5290 MHz | | Polarization | Vertical |
|---|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | Detector | Comment |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | |
| 1 | 5287.4000 | 84.93 | 12.06 | 96.99 | 999.00 | -902.01 | AVG | No Limit |
| 2 * | 5297.0000 | 94.79 | 12.09 | 106.88 | 68.20 | 38.68 | Peak | No Limit |
| 3 | 5350.0000 | 49.63 | 12.21 | 61.84 | 74.00 | -12.16 | Peak | |
| 4 | 5350.0000 | 41.72 | 12.21 | 53.93 | 54.00 | -0.07 | AVG | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
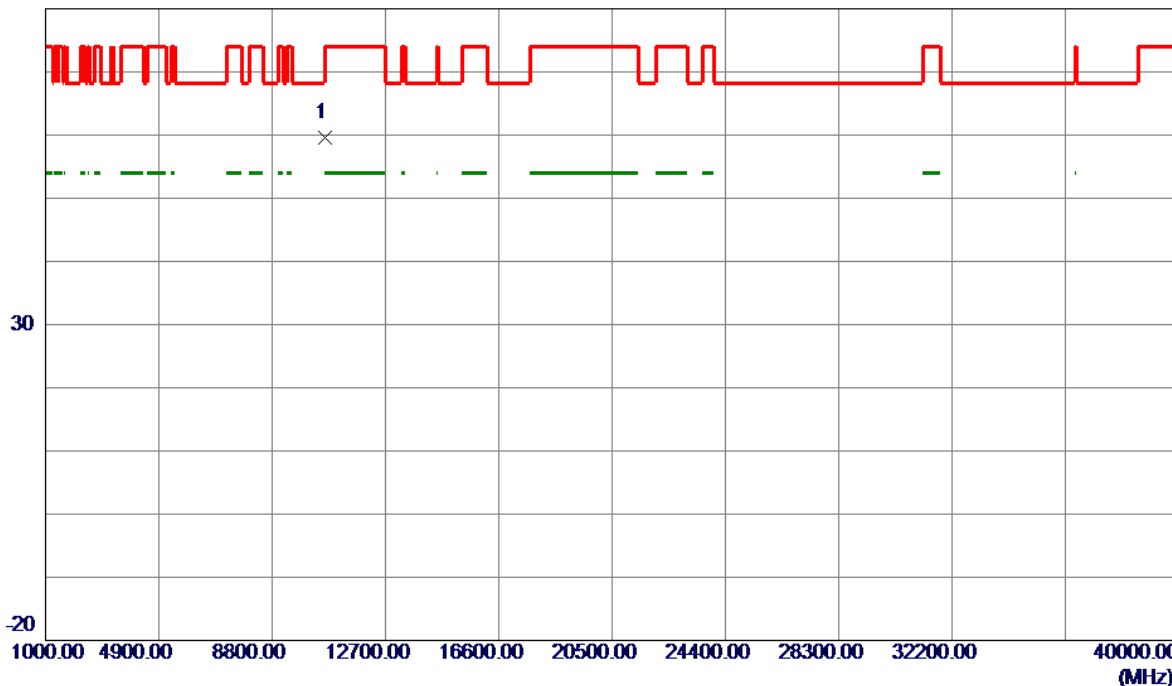
| Test Mode | UNII-2A_TX AX(HE80) Mode 5290 MHz | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 * | 10598.7000 | 53.46 | 6.19 | 59.65 | 68.20 | −8.55 | | Peak | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
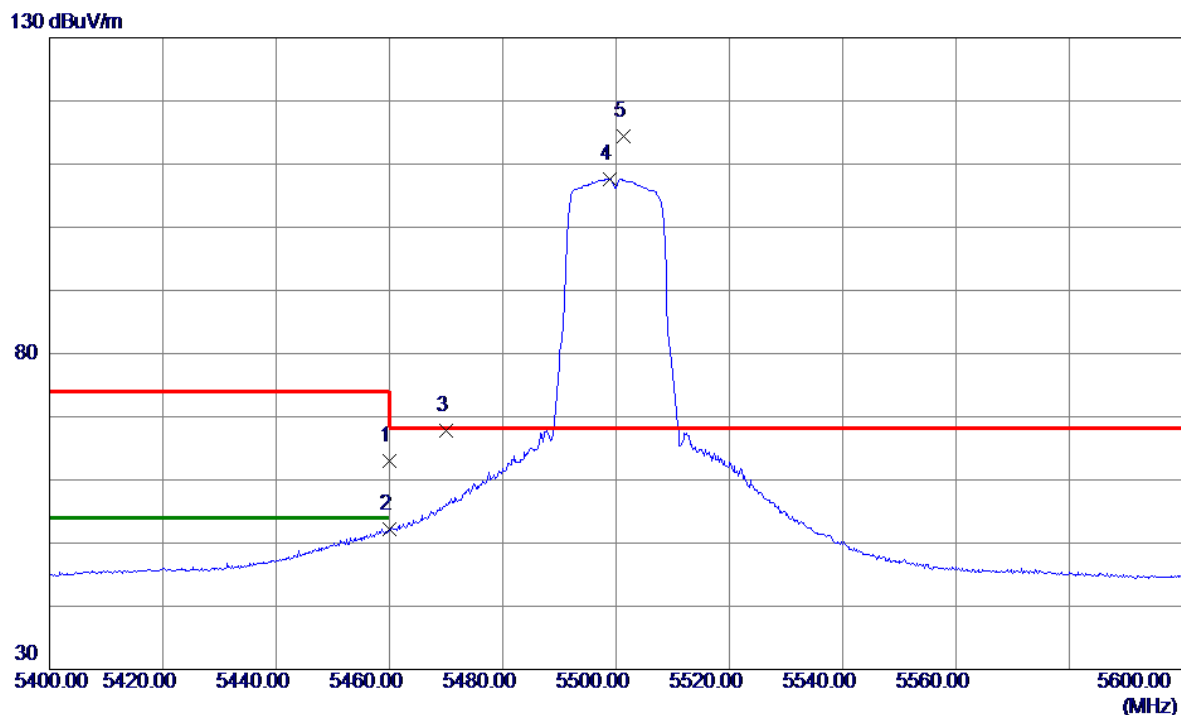
| Test Mode | UNII-2C_TX A Mode 5500 MHz | | Polarization | Vertical |
|---|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 | 5460.0000 | 50.48 | 12.46 | 62.94 | 74.00 | -11.06 | | Peak | |
| 2 | 5460.0000 | 39.82 | 12.46 | 52.28 | 54.00 | -1.72 | | AVG | |
| 3 | 5470.0000 | 55.40 | 12.49 | 67.89 | 68.20 | -0.31 | | Peak | |
| 4 | 5498.9000 | 95.14 | 12.55 | 107.69 | 999.00 | -891.31 | | AVG | No Limit |
| 5 * | 5501.4000 | 101.82 | 12.56 | 114.38 | 68.20 | 46.18 | | Peak | No Limit |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
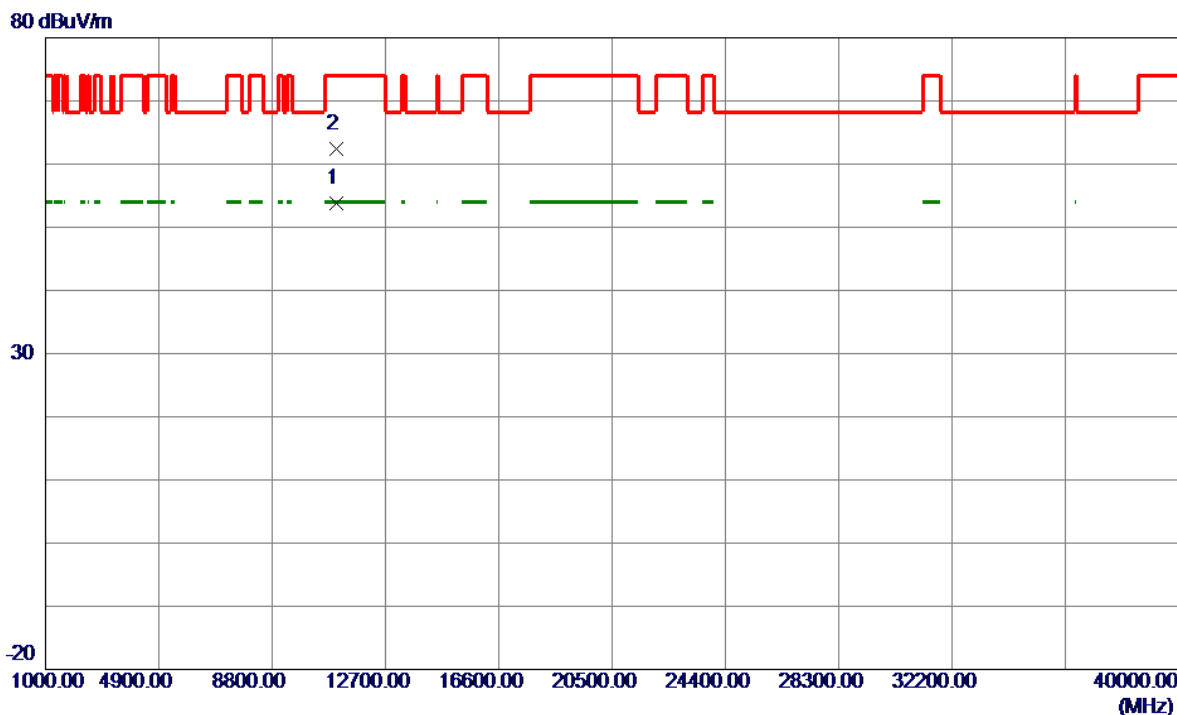
| Test Mode | UNII-2C_TX A Mode 5500 MHz | | Polarization | Vertical |
|---|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 * | 11001.0000 | 47.41 | 6.30 | 53.71 | 54.00 | -0.29 | | AVG | |
| 2 | 11006.0000 | 56.11 | 6.31 | 62.42 | 74.00 | -11.58 | | Peak | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-2C_TX A Mode 5580 MHz | | Polarization | Vertical |
|---|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 | 11160.5000 | 56.65 | 6.45 | 63.10 | 74.00 | −10.90 | | Peak | |
| 2 * | 11160.9000 | 47.42 | 6.45 | 53.87 | 54.00 | −0.13 | | AVG | |
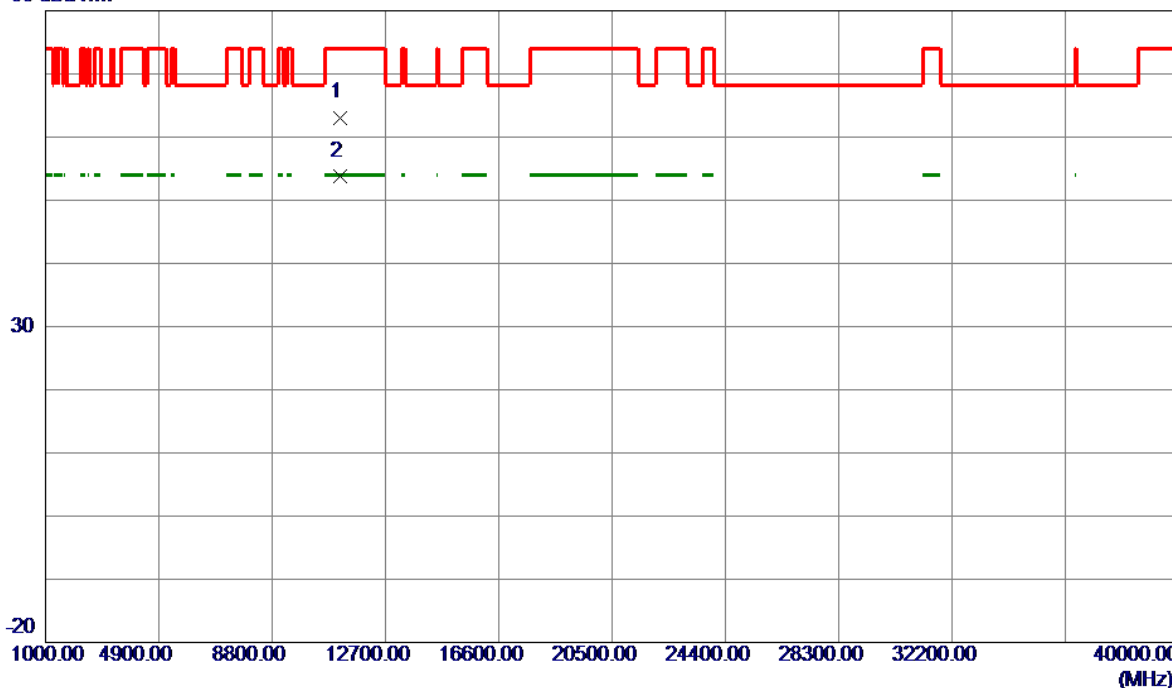
REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
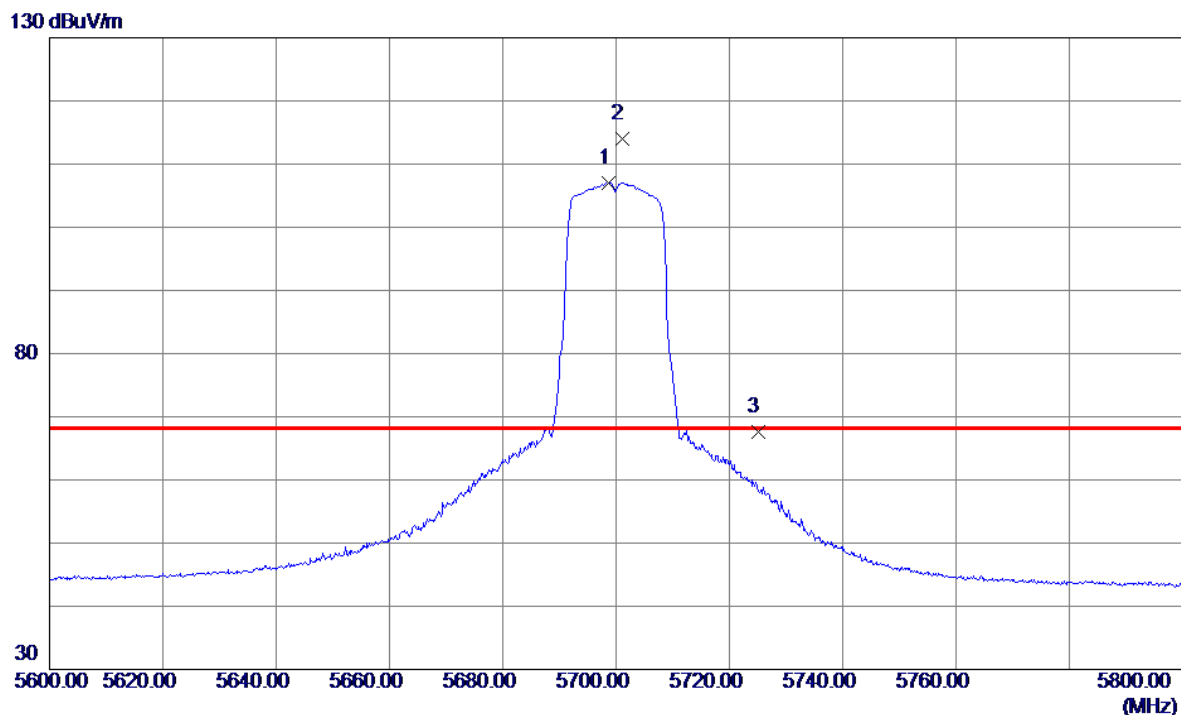
| Test Mode | UNII-2C_TX A Mode 5700 MHz | | Polarization | Vertical |
|---|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5698.6000 | 93.89 | 13.16 | 107.05 | 999.00 | -891.95 | AVG | No Limit |
| 2 * | 5701.0000 | 100.76 | 13.16 | 113.92 | 68.20 | 45.72 | Peak | No Limit |
| 3 | 5725.0000 | 54.36 | 13.24 | 67.60 | 68.20 | -0.60 | Peak | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
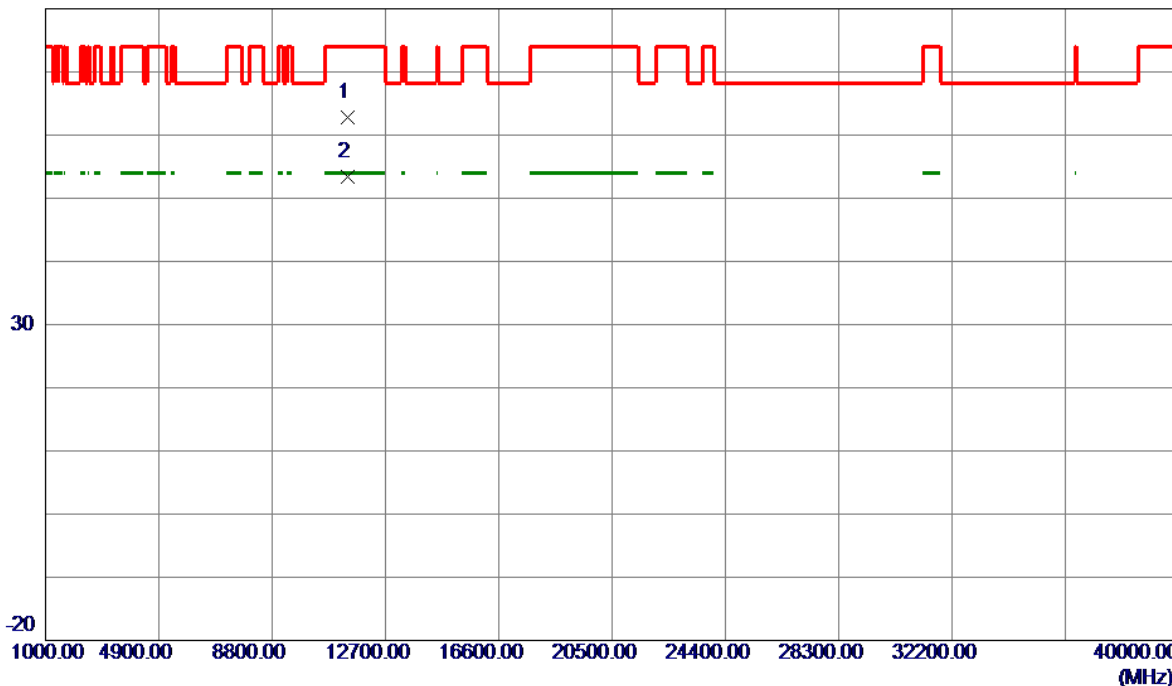
| Test Mode | UNII-2C_TX A Mode 5700 MHz | | Polarization | Vertical |
|---|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 | 11395.4000 | 56.13 | 6.66 | 62.79 | 74.00 | −11.21 | | Peak | |
| 2 * | 11400.6000 | 46.66 | 6.66 | 53.32 | 54.00 | −0.68 | | AVG | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
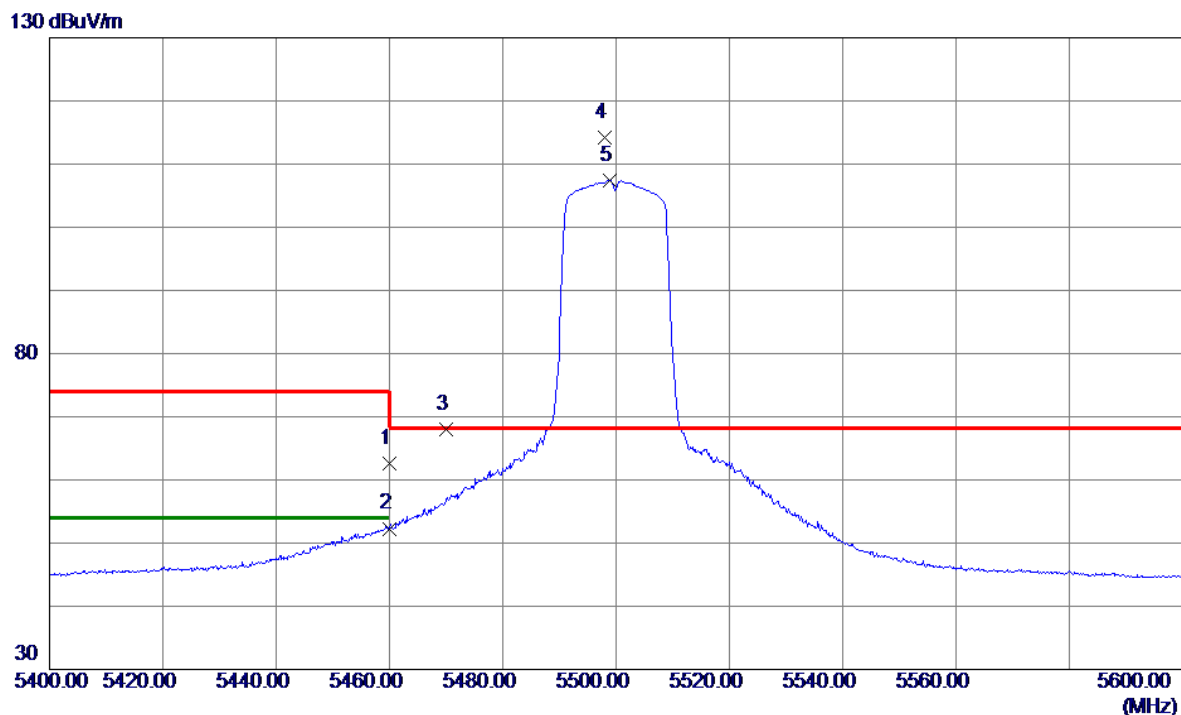
| Test Mode | UNII-2C_TX AC(VHT20) Mode 5500 MHz | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | Detector | Comment |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | |
| 1 | 5460.0000 | 50.15 | 12.46 | 62.61 | 74.00 | -11.39 | Peak | |
| 2 | 5460.0000 | 39.84 | 12.46 | 52.30 | 54.00 | -1.70 | AVG | |
| 3 | 5470.0000 | 55.44 | 12.49 | 67.93 | 68.20 | -0.27 | Peak | |
| 4 * | 5498.0000 | 101.61 | 12.55 | 114.16 | 68.20 | 45.96 | Peak | No Limit |
| 5 | 5498.8000 | 94.90 | 12.55 | 107.45 | 999.00 | -891.55 | AVG | No Limit |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.
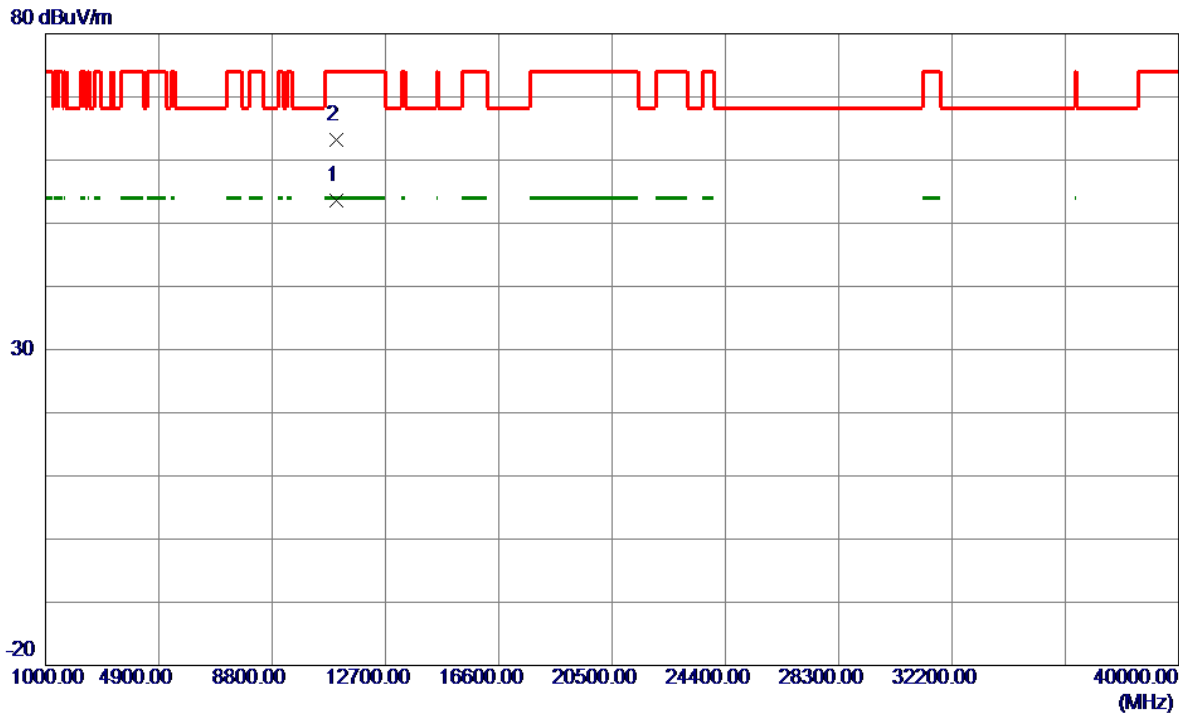
| Test Mode | UNII-2C_TX AC(VHT20) Mode 5500 MHz | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Margin | | | |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment | |
| 1 * | 10998.9000 | 47.37 | 6.30 | 53.67 | 54.00 | −0.33 | AVG | | |
| 2 | 11006.1000 | 56.86 | 6.31 | 63.17 | 74.00 | −10.83 | Peak | | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-2C_TX AC(VHT20) Mode 5580 MHz | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 * | 11160.5000 | 47.43 | 6.45 | 53.88 | 54.00 | −0.12 | | AVG | |
| 2 | 11162.6000 | 56.67 | 6.45 | 63.12 | 74.00 | −10.88 | | Peak | |
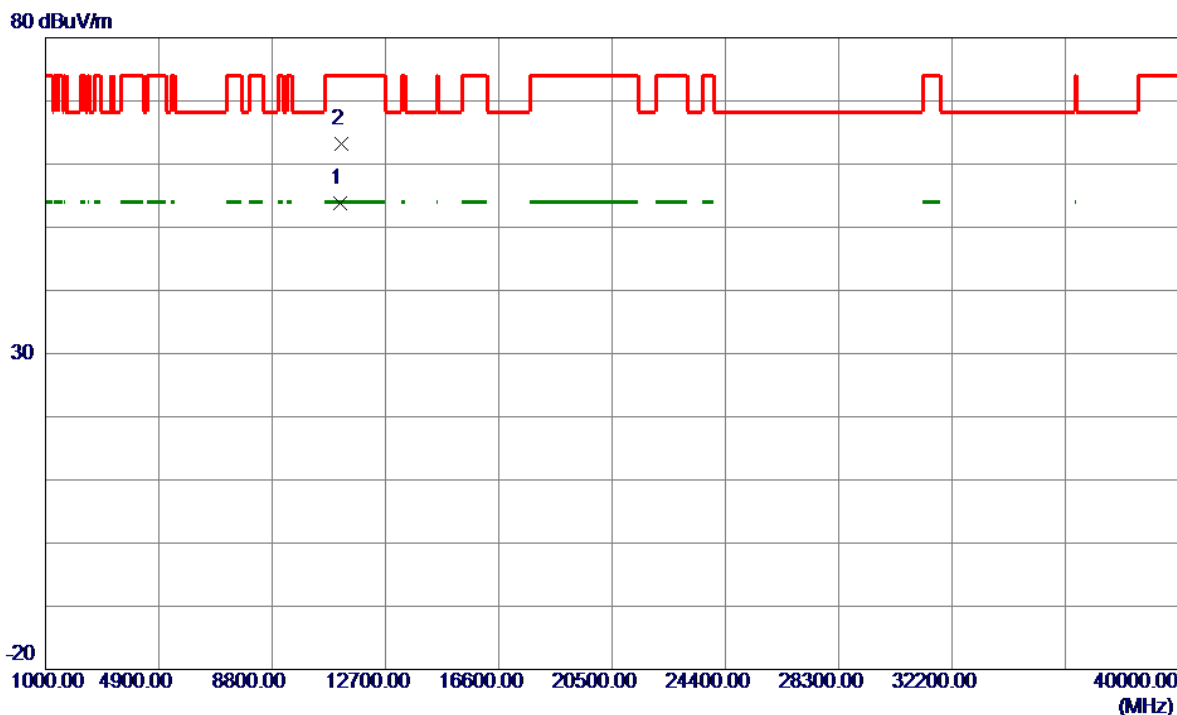
REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | UNII-2C_TX AC(VHT20) Mode 5700 MHz | Polarization | Vertical |
|---|---|---|---|



| No. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | | Detector | Comment |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | | |
| 1 | 5698.7000 | 92.27 | 13.16 | 105.43 | 999.00 | -893.57 | | AVG | No Limit |
| 2 * | 5699.0000 | 98.94 | 13.16 | 112.10 | 68.20 | 43.90 | | Peak | No Limit |
| 3 | 5725.0000 | 53.86 | 13.24 | 67.10 | 68.20 | -1.10 | | Peak | |
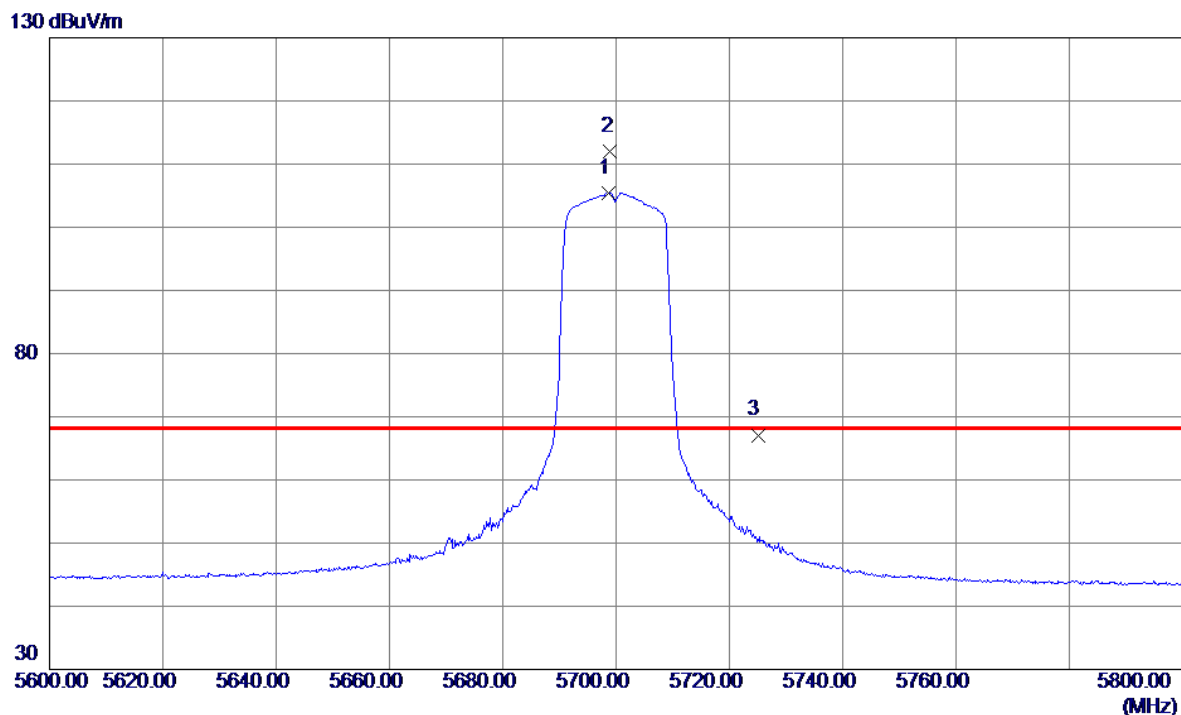
REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.