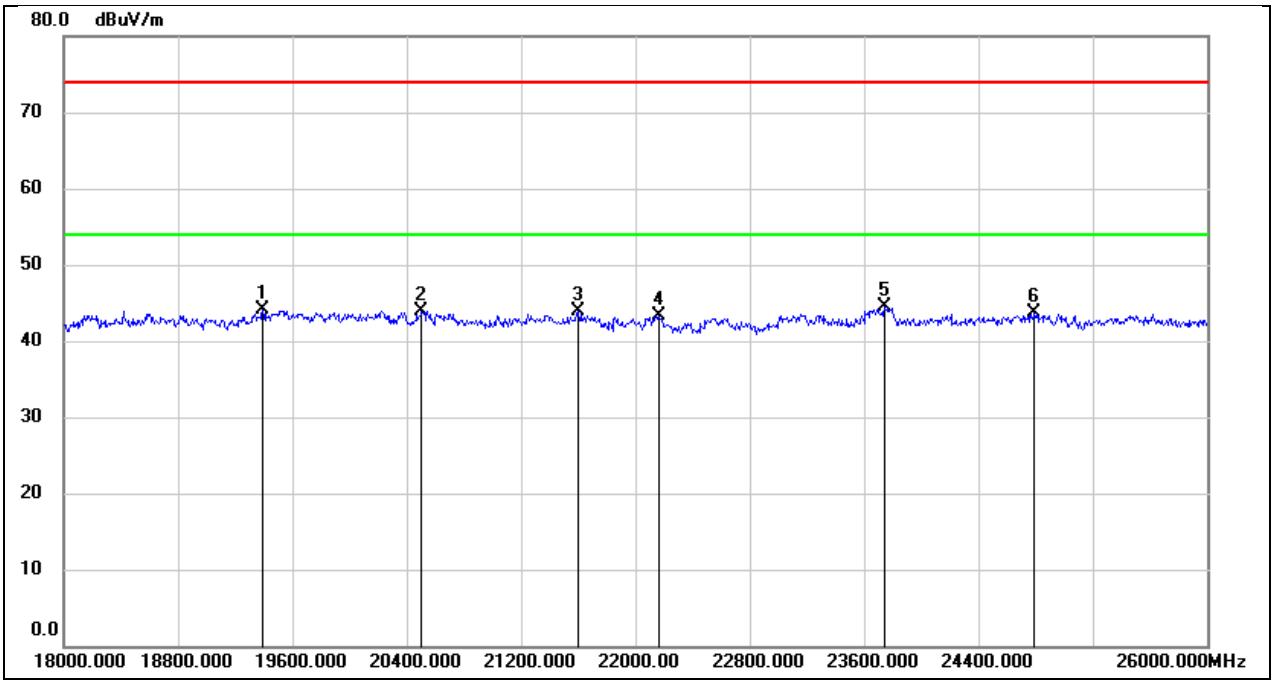
## 8.5. SPURIOUS EMISSIONS(18 GHZ~26 GHZ)

| | | | |
|---|---|---|---|
| Test Mode: | 802.11a 20 | Frequency(MHz): | 5180 |
| Polarity: | Horizontal | Test Voltage: | AC 120, 60 Hz |




| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|---|---|---|---|---|---|---|---|
| 1 | 19392.000 | 49.62 | -5.57 | 44.05 | 74.00 | -29.95 | peak |
| 2 | 20504.000 | 49.21 | -5.35 | 43.86 | 74.00 | -30.14 | peak |
| 3 | 21600.000 | 48.52 | -4.54 | 43.98 | 74.00 | -30.02 | peak |
| 4 | 22160.000 | 47.58 | -4.31 | 43.27 | 74.00 | -30.73 | peak |
| 5 | 23744.000 | 47.65 | -3.20 | 44.45 | 74.00 | -29.55 | peak |
| 6 | 24792.000 | 45.98 | -2.28 | 43.70 | 74.00 | -30.30 | peak |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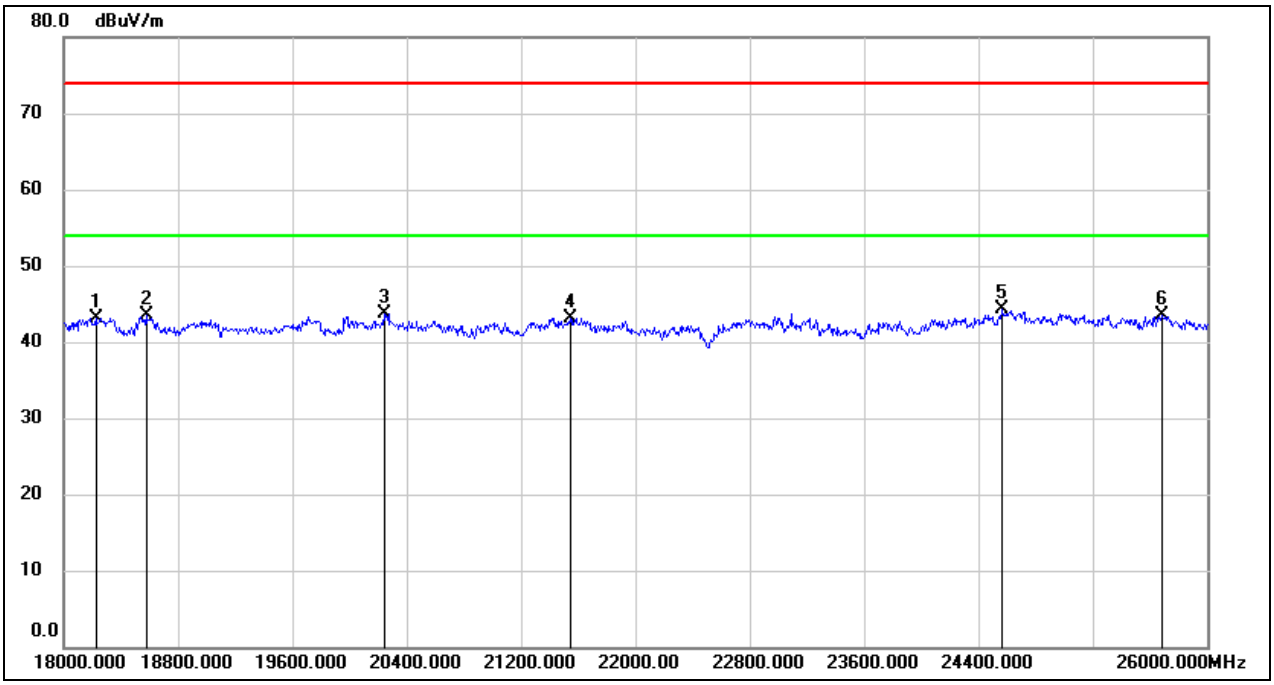
| | | | |
|---|---|---|---|
| Test Mode: | 802.11a 20 | Frequency(MHz): | 5180 |
| Polarity: | Vertical | Test Voltage: | AC 120, 60 Hz |




| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|---|---|---|---|---|---|---|---|
| 1 | 18224.000 | 48.58 | -5.53 | 43.05 | 74.00 | -30.95 | peak |
| 2 | 18576.000 | 48.79 | -5.30 | 43.49 | 74.00 | -30.51 | peak |
| 3 | 20240.000 | 49.32 | -5.61 | 43.71 | 74.00 | -30.29 | peak |
| 4 | 21544.000 | 47.76 | -4.63 | 43.13 | 74.00 | -30.87 | peak |
| 5 | 24568.000 | 46.60 | -2.33 | 44.27 | 74.00 | -29.73 | peak |
| 6 | 25688.000 | 44.31 | -0.90 | 43.41 | 74.00 | -30.59 | peak |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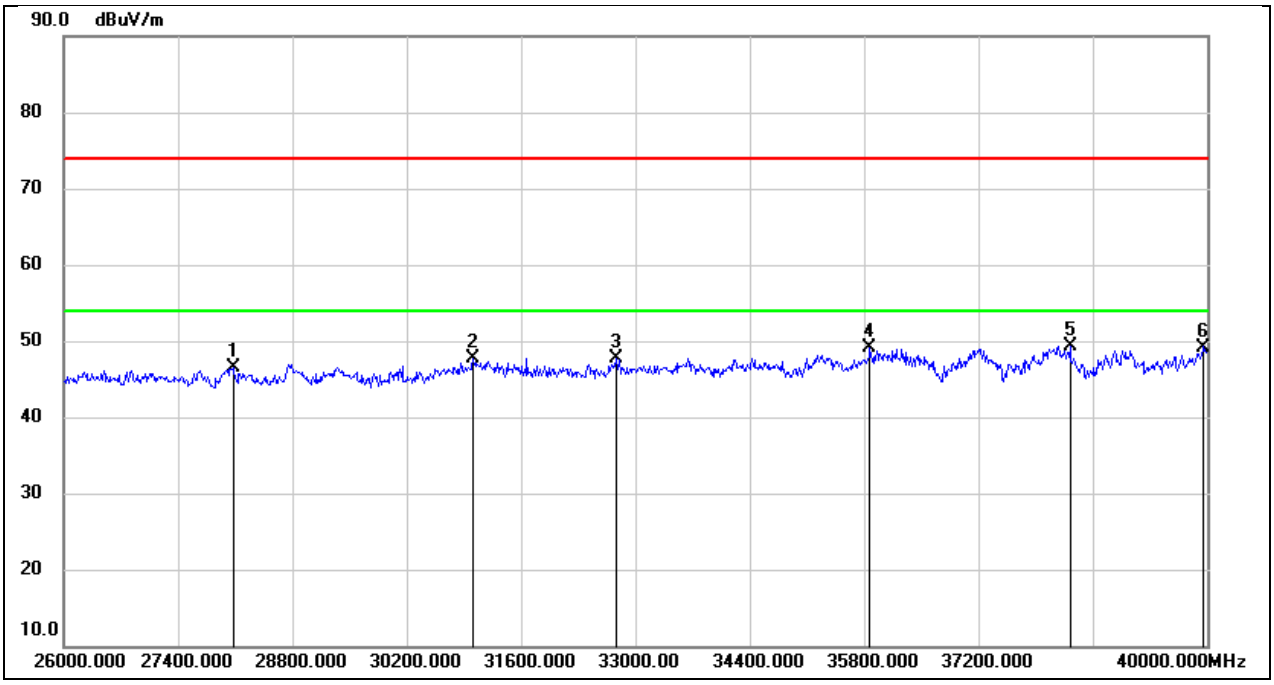
## 8.6. SPURIOUS EMISSIONS(26 GHZ~40 GHZ)

| Test Mode: | 802.11a 20 | Frequency(MHz): | 5180 |
|---|---|---|---|
| Polarity: | Horizontal | Test Voltage: | AC 120, 60 Hz |




| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|---|---|---|---|---|---|---|---|
| 1 | 28072.000 | 50.01 | -3.58 | 46.43 | 74.00 | -27.57 | peak |
| 2 | 31012.000 | 48.33 | -0.71 | 47.62 | 74.00 | -26.38 | peak |
| 3 | 32762.000 | 48.95 | -1.21 | 47.74 | 74.00 | -26.26 | peak |
| 4 | 35870.000 | 45.33 | 3.75 | 49.08 | 74.00 | -24.92 | peak |
| 5 | 38320.000 | 45.56 | 3.77 | 49.33 | 74.00 | -24.67 | peak |
| 6 | 39958.000 | 44.08 | 5.12 | 49.20 | 74.00 | -24.80 | peak |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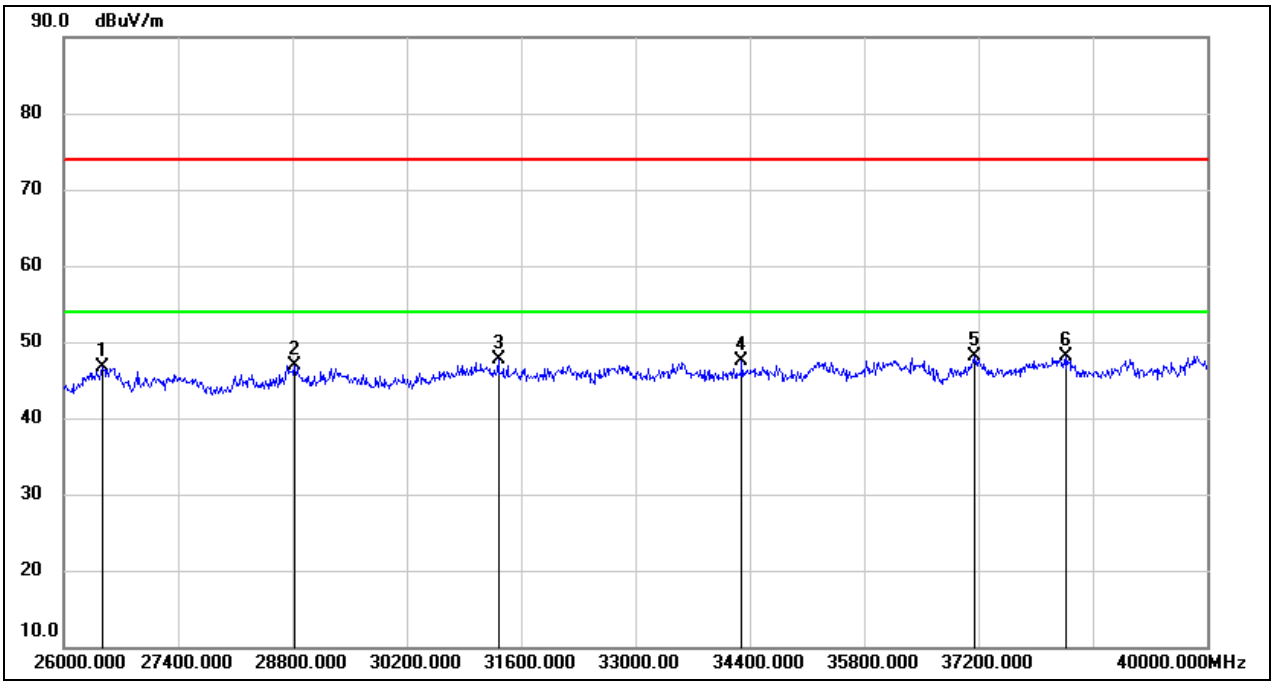
| | | | |
|---|---|---|---|
| Test Mode: | 802.11a 20 | Frequency(MHz): | 5180 |
| Polarity: | Vertical | Test Voltage: | AC 120, 60 Hz |




| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|---|---|---|---|---|---|---|---|
| 1 | 26476.000 | 51.53 | -4.78 | 46.75 | 74.00 | -27.25 | peak |
| 2 | 28828.000 | 47.63 | -0.79 | 46.84 | 74.00 | -27.16 | peak |
| 3 | 31320.000 | 48.61 | -0.93 | 47.68 | 74.00 | -26.32 | peak |
| 4 | 34302.000 | 46.45 | 1.10 | 47.55 | 74.00 | -26.45 | peak |
| 5 | 37158.000 | 44.84 | 3.17 | 48.01 | 74.00 | -25.99 | peak |
| 6 | 38278.000 | 44.32 | 3.82 | 48.14 | 74.00 | -25.86 | peak |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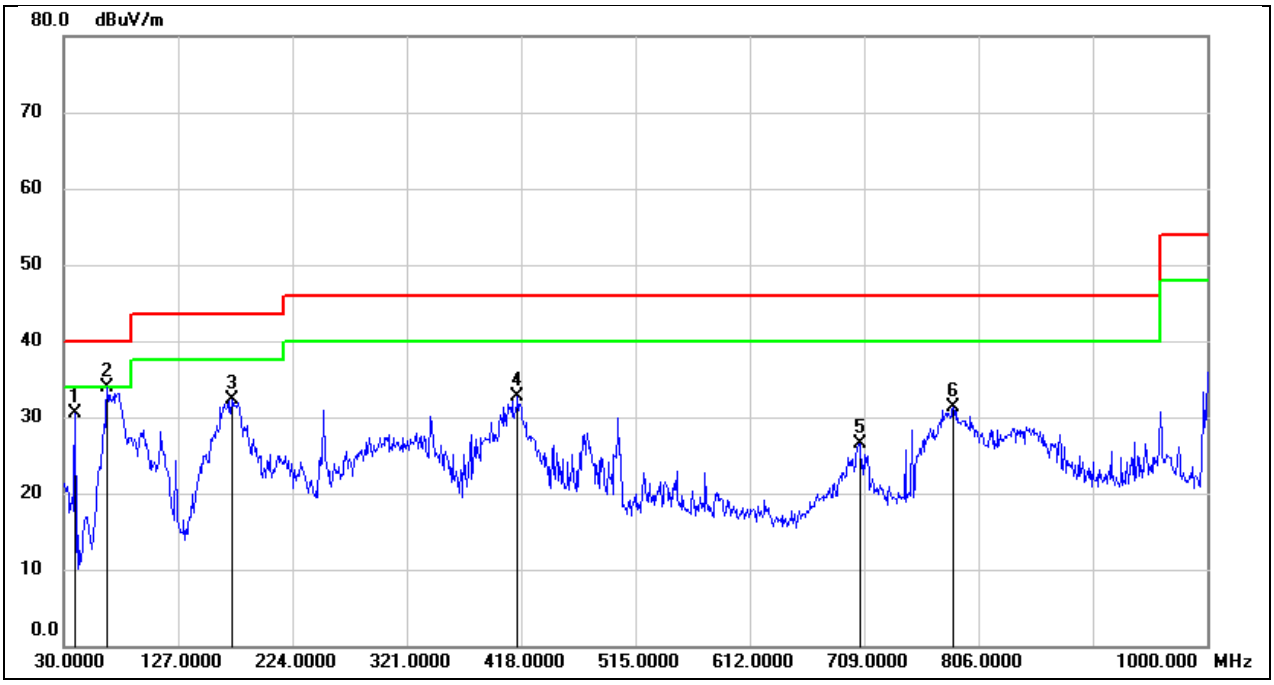
## 8.7. SPURIOUS EMISSIONS(30 MHZ~1 GHZ)

| | | | |
|---|---|---|---|
| Test Mode: | 802.11a 20 | Frequency(MHz): | 5180 |
| Polarity: | Horizontal | Test Voltage: | AC120V_60Hz |




| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|---|---|---|---|---|---|---|---|
| 1 | 39.7000 | 50.28 | -19.84 | 30.44 | 40.00 | -9.56 | QP |
| 2 | 66.8600 | 54.60 | -20.63 | 33.97 | 40.00 | -6.03 | QP |
| 3 | 172.5900 | 49.03 | -16.81 | 32.22 | 43.50 | -11.28 | QP |
| 4 | 415.0900 | 45.26 | -12.59 | 32.67 | 46.00 | -13.33 | QP |
| 5 | 705.1200 | 34.44 | -7.85 | 26.59 | 46.00 | -19.41 | QP |
| 6 | 784.6599 | 38.17 | -6.78 | 31.39 | 46.00 | -14.61 | QP |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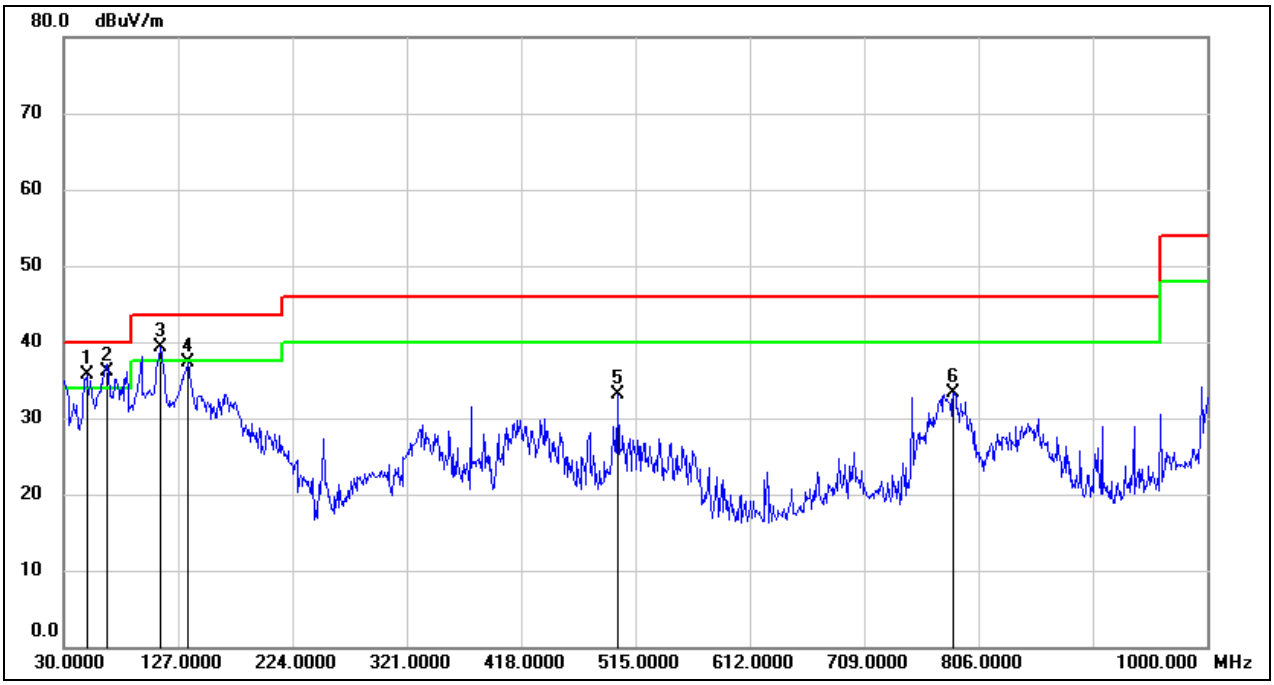
| | | | |
|---|---|---|---|
| Test Mode: | 802.11a 20 | Frequency(MHz): | 5180 |
| Polarity: | Vertical | Test Voltage: | AC120V_60Hz |




| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|---|---|---|---|---|---|---|---|
| 1 | 49.4000 | 56.20 | -20.52 | 35.68 | 40.00 | -4.32 | QP |
| 2 | 66.8600 | 56.64 | -20.63 | 36.01 | 40.00 | -3.99 | QP |
| 3 | 111.4800 | 59.63 | -20.24 | 39.39 | 43.50 | -4.11 | QP |
| 4 | 135.7300 | 56.27 | -19.04 | 37.23 | 43.50 | -6.27 | QP |
| 5 | 500.4500 | 43.78 | -10.67 | 33.11 | 46.00 | -12.89 | QP |
| 6 | 784.6599 | 40.08 | -6.78 | 33.30 | 46.00 | -12.70 | QP |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# 9. AC POWER LINE CONDUCTED EMISSION

**LIMITS**

Please refer to CFR 47 FCC §15.207 (a) and ISED RSS-Gen Clause 8.8

| FREQUENCY (MHz) | Quasi-peak | Average |
|---|---|---|
| 0.15 -0.5 | 66 - 56 * | 56 - 46 * |
| 0.50 -5.0 | 56.00 | 46.00 |
| 5.0 -30.0 | 60.00 | 50.00 |

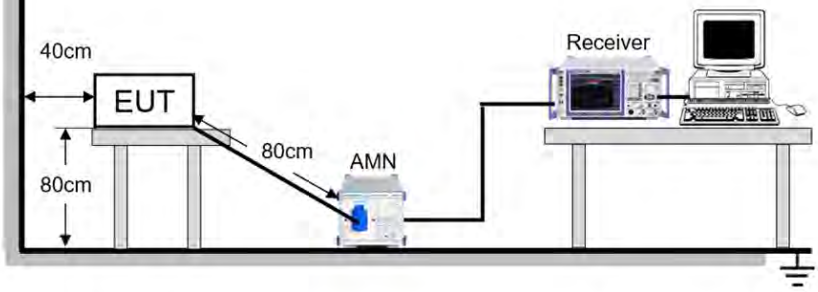
**TEST PROCEDURE**

Refer to ANSI C63.10-2013 clause 6.2.

The EUT is put on a table of non-conducting material that is 80 cm high. The vertical conducting wall of shielding is located 40 cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 6.2 of ANSI C63.10-2013.Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9 kHz.

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

**TEST SETUP**




**TEST ENVIRONMENT**

| | | | |
|---|---|---|---|
| Temperature | 21.7℃ | Relative Humidity | 59.2% |
| Atmosphere Pressure | 101kPa | Test Voltage | |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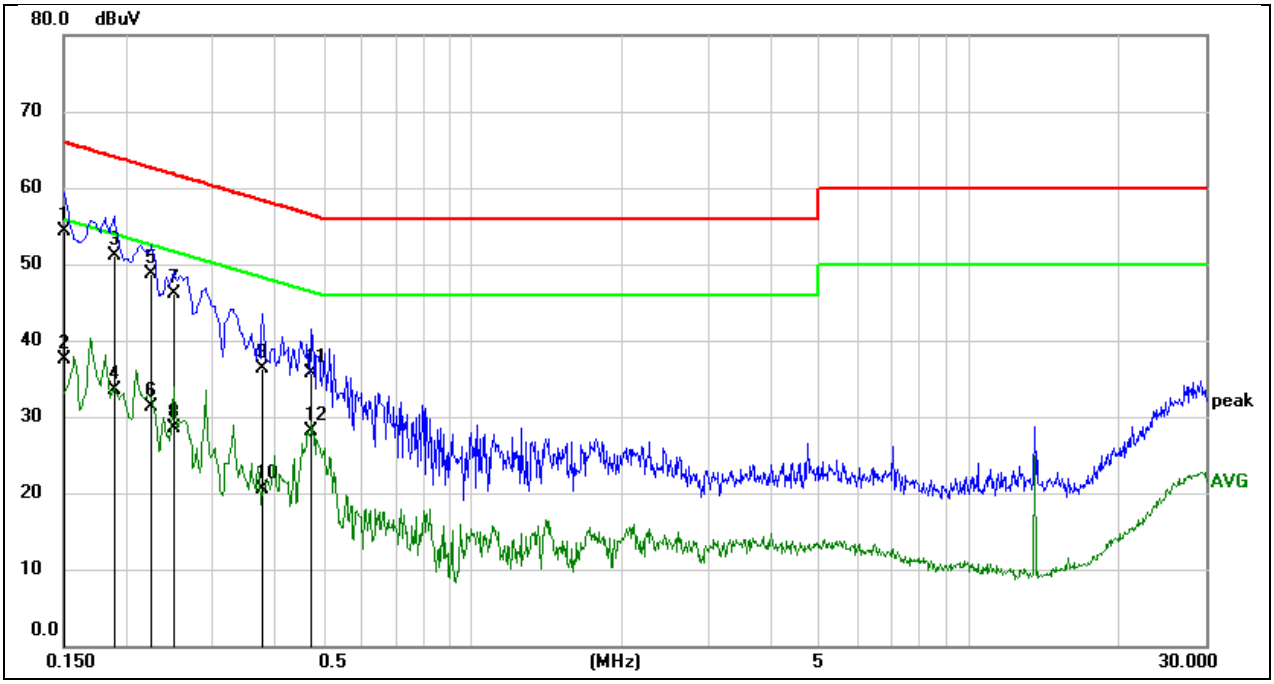
**TEST DATE / ENGINEER**

| Test Date | August 4, 2023 | Test By | Karl Wu |
|---|---|---|---|

**TEST RESULTS**

| Test Mode: | M01 | Line: | Line |
|---|---|---|---|




| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB) | Result (dBuV) | Limit (dBuV) | Margin (dB) | Remark |
|---|---|---|---|---|---|---|---|
| 1 | 0.1500 | 44.80 | 9.59 | 54.39 | 66.00 | -11.61 | QP |
| 2 | 0.1500 | 27.88 | 9.59 | 37.47 | 56.00 | -18.53 | AVG |
| 3 | 0.1904 | 41.52 | 9.59 | 51.11 | 64.02 | -12.91 | QP |
| 4 | 0.1904 | 23.93 | 9.59 | 33.52 | 54.02 | -20.50 | AVG |
| 5 | 0.2259 | 39.10 | 9.59 | 48.69 | 62.60 | -13.91 | QP |
| 6 | 0.2259 | 21.66 | 9.59 | 31.25 | 52.60 | -21.35 | AVG |
| 7 | 0.2493 | 36.47 | 9.59 | 46.06 | 61.78 | -15.72 | QP |
| 8 | 0.2493 | 18.99 | 9.59 | 28.58 | 51.78 | -23.20 | AVG |
| 9 | 0.3778 | 26.75 | 9.59 | 36.34 | 58.33 | -21.99 | QP |
| 10 | 0.3778 | 10.93 | 9.59 | 20.52 | 48.33 | -27.81 | AVG |
| 11 | 0.4726 | 26.03 | 9.60 | 35.63 | 56.47 | -20.84 | QP |
| 12 | 0.4726 | 18.57 | 9.60 | 28.17 | 46.47 | -18.30 | AVG |

Note:
1. Result = Reading + Correct Factor.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz ~ 150 kHz), 9 kHz (150 kHz ~ 30 MHz).
4. Step size: 80 Hz (0.009 MHz ~ 0.15 MHz), 4 kHz (0.15 MHz ~ 30 MHz), Scan time: auto.

Note: All the modes have been tested, only the worst data was recorded in the report.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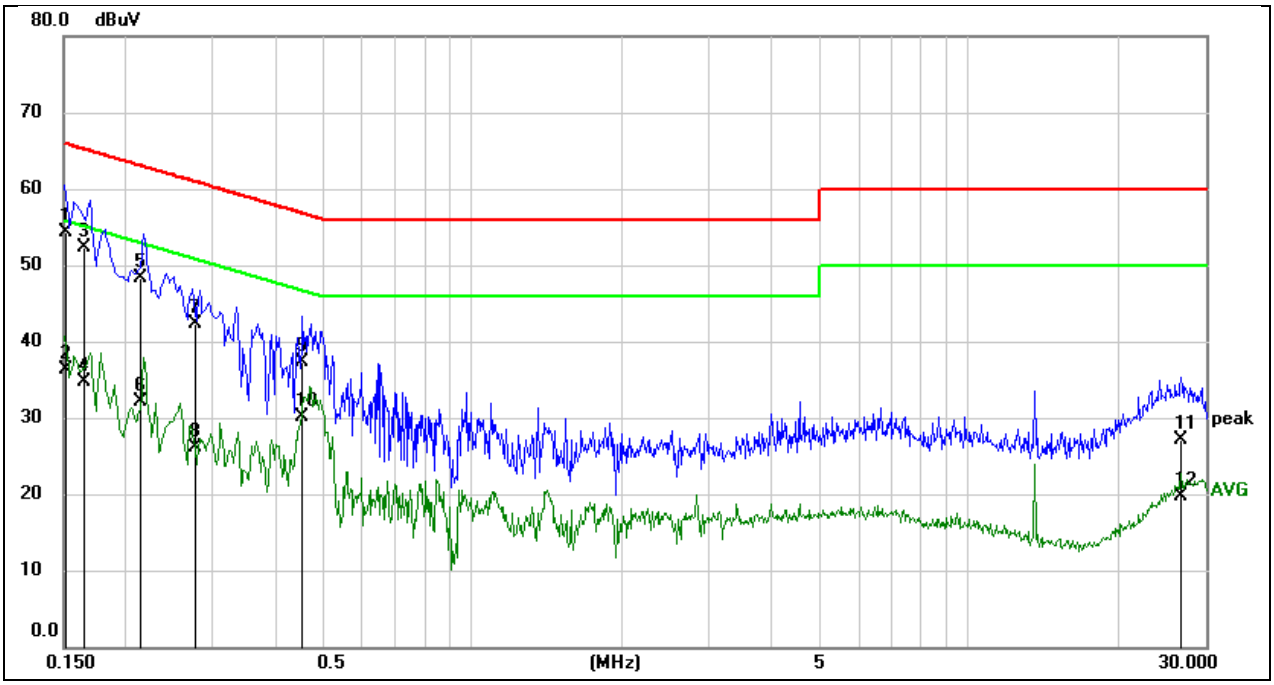
| Test Mode: | M01 | Line: | Neutral |
|---|---|---|---|




| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB) | Result (dBuV) | Limit (dBuV) | Margin (dB) | Remark |
|---|---|---|---|---|---|---|---|
| 1 | 0.1522 | 44.72 | 9.49 | 54.21 | 65.88 | -11.67 | QP |
| 2 | 0.1522 | 26.76 | 9.49 | 36.25 | 55.88 | -19.63 | AVG |
| 3 | 0.1652 | 42.83 | 9.52 | 52.35 | 65.20 | -12.85 | QP |
| 4 | 0.1652 | 25.25 | 9.52 | 34.77 | 55.20 | -20.43 | AVG |
| 5 | 0.2132 | 38.65 | 9.59 | 48.24 | 63.08 | -14.84 | QP |
| 6 | 0.2132 | 22.54 | 9.59 | 32.13 | 53.08 | -20.95 | AVG |
| 7 | 0.2771 | 32.82 | 9.56 | 42.38 | 60.90 | -18.52 | QP |
| 8 | 0.2771 | 16.51 | 9.56 | 26.07 | 50.90 | -24.83 | AVG |
| 9 | 0.4543 | 27.86 | 9.52 | 37.38 | 56.80 | -19.42 | QP |
| 10 | 0.4543 | 20.57 | 9.52 | 30.09 | 46.80 | -16.71 | AVG |
| 11 | 26.7457 | 17.34 | 9.70 | 27.04 | 60.00 | -32.96 | QP |
| 12 | 26.7457 | 9.95 | 9.70 | 19.65 | 50.00 | -30.35 | AVG |

Note:
1. Result = Reading + Correct Factor.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz ~ 150 kHz), 9 kHz (150 kHz ~ 30 MHz).
4. Step size: 80 Hz (0.009 MHz ~ 0.15 MHz), 4 kHz (0.15 MHz ~ 30 MHz), Scan time: auto.

Note: All the modes have been tested, only the worst data was recorded in the report.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# 10. ANTENNA REQUIREMENT

**REQUIREMENT**

Please refer to FCC part 15.203
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Please refer to FCC part 15.407(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.

**DESCRIPTION**

Pass


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# 11. TEST DATA

## 11.1. APPENDIX A1: EMISSION BANDWIDTH

### 11.1.1. Test Result

| Test Mode | Antenna | Frequency[MHz] | 26db EBW [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|---|---|---|---|---|---|---|---|
| 11A | Ant0 | 5180 | 21.68 | 5168.68 | 5190.36 | --- | --- |
| | Ant1 | 5180 | 22.76 | 5168.96 | 5191.72 | --- | --- |
| | Ant0 | 5200 | 20.08 | 5190.12 | 5210.20 | --- | --- |
| | Ant1 | 5200 | 21.32 | 5189.28 | 5210.60 | --- | --- |
| | Ant0 | 5240 | 19.20 | 5230.64 | 5249.84 | --- | --- |
| | Ant1 | 5240 | 19.36 | 5230.36 | 5249.72 | --- | --- |
| | Ant0 | 5260 | 19.28 | 5250.56 | 5269.84 | --- | --- |
| | Ant1 | 5260 | 19.48 | 5250.12 | 5269.60 | --- | --- |
| | Ant0 | 5280 | 19.00 | 5270.64 | 5289.64 | --- | --- |
| | Ant1 | 5280 | 19.52 | 5270.12 | 5289.64 | --- | --- |
| | Ant0 | 5320 | 21.60 | 5309.12 | 5330.72 | --- | --- |
| | Ant1 | 5320 | 21.800 | 5308.760 | 5330.560 | --- | --- |
| | Ant0 | 5500 | 20.600 | 5489.600 | 5510.200 | --- | --- |
| | Ant1 | 5500 | 21.560 | 5488.880 | 5510.440 | --- | --- |
| | Ant0 | 5580 | 19.680 | 5570.360 | 5590.040 | --- | --- |
| | Ant1 | 5580 | 20.000 | 5569.880 | 5589.880 | --- | --- |
| | Ant0 | 5700 | 22.080 | 5689.640 | 5711.720 | --- | --- |
| | Ant1 | 5700 | 21.640 | 5689.240 | 5710.880 | --- | --- |
| | Ant0 | 5720 | 19.840 | 5709.840 | 5729.680 | --- | --- |
| | Ant1 | 5720 | 20.000 | 5709.880 | 5729.880 | --- | --- |
| | Ant0 | 5720_UNII-2C | 15.16 | 5709.840 | 5725 | --- | --- |
| | Ant1 | 5720_UNII-2C | 15.12 | 5709.880 | 5725 | --- | --- |
| | Ant0 | 5720_UNII-3 | 4.68 | 5725 | 5729.680 | --- | --- |
| | Ant1 | 5720_UNII-3 | 4.88 | 5725 | 5729.880 | --- | --- |
| | Ant0 | 5745 | 22.480 | 5735.120 | 5757.600 | --- | --- |
| | Ant1 | 5745 | 22.440 | 5734.840 | 5757.280 | --- | --- |
| | Ant0 | 5785 | 21.680 | 5774.480 | 5796.160 | --- | --- |
| | Ant1 | 5785 | 20.520 | 5774.840 | 5795.360 | --- | --- |
| | Ant0 | 5825 | 22.440 | 5813.600 | 5836.040 | --- | --- |
| | Ant1 | 5825 | 22.560 | 5813.440 | 5836.000 | --- | --- |
| 11N20MIMO | Ant0 | 5180 | 22.360 | 5168.400 | 5190.760 | --- | --- |
| | Ant1 | 5180 | 22.440 | 5168.920 | 5191.360 | --- | --- |
| | Ant0 | 5200 | 22.760 | 5188.320 | 5211.080 | --- | --- |
| | Ant1 | 5200 | 22.000 | 5189.080 | 5211.080 | --- | --- |
| | Ant0 | 5240 | 19.520 | 5230.320 | 5249.840 | --- | --- |
| | Ant1 | 5240 | 19.920 | 5230.040 | 5249.960 | --- | --- |
| | Ant0 | 5260 | 20.960 | 5249.480 | 5270.440 | --- | --- |
| | Ant1 | 5260 | 21.080 | 5249.800 | 5270.880 | --- | --- |
| | Ant0 | 5280 | 20.360 | 5269.920 | 5290.280 | --- | --- |
| | Ant1 | 5280 | 19.680 | 5270.280 | 5289.960 | --- | --- |
| | Ant0 | 5320 | 22.680 | 5308.440 | 5331.120 | --- | --- |
| | Ant1 | 5320 | 22.680 | 5309.440 | 5332.120 | --- | --- |
| | Ant0 | 5500 | 22.200 | 5488.400 | 5510.600 | --- | --- |
| | Ant1 | 5500 | 22.680 | 5489.040 | 5511.720 | --- | --- |
| | Ant0 | 5580 | 20.760 | 5569.680 | 5590.440 | --- | --- |
| | Ant1 | 5580 | 20.320 | 5569.840 | 5590.160 | --- | --- |
| | Ant0 | 5700 | 22.280 | 5688.680 | 5710.960 | --- | --- |
| | Ant1 | 5700 | 21.440 | 5689.080 | 5710.520 | --- | --- |
| | Ant0 | 5720 | 21.600 | 5709.400 | 5731.000 | --- | --- |
| | Ant1 | 5720 | 20.640 | 5709.720 | 5730.360 | --- | --- |
| | Ant0 | 5720_UNII-2C | 15.6 | 5709.400 | 5725 | --- | --- |
| | Ant1 | 5720_UNII-2C | 15.28 | 5709.720 | 5725 | --- | --- |
| | Ant0 | 5720_UNII-3 | 6 | 5725 | 5731.000 | --- | --- |
| | Ant1 | 5720_UNII-3 | 5.36 | 5725 | 5730.360 | --- | --- |
| | Ant0 | 5745 | 22.160 | 5734.640 | 5756.800 | --- | --- |
| | Ant1 | 5745 | 22.160 | 5734.800 | 5756.960 | --- | --- |
| | Ant0 | 5785 | 20.880 | 5774.560 | 5795.440 | --- | --- |
| | Ant1 | 5785 | 20.800 | 5774.840 | 5795.640 | --- | --- |
| | Ant0 | 5825 | 21.480 | 5814.280 | 5835.760 | --- | --- |
| | Ant1 | 5825 | 21.400 | 5814.240 | 5835.640 | --- | --- |
| 11N40MIMO | Ant0 | 5190 | 41.680 | 5169.440 | 5211.120 | --- | --- |
| | Ant1 | 5190 | 41.200 | 5169.600 | 5210.800 | --- | --- |


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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Ant0 | 5230 | 40.000 | 5210.000 | 5250.000 | --- | --- |
| | Ant1 | 5230 | 39.600 | 5210.160 | 5249.760 | --- | --- |
| | Ant0 | 5270 | 39.680 | 5250.480 | 5290.160 | --- | --- |
| | Ant1 | 5270 | 38.720 | 5250.560 | 5289.280 | --- | --- |
| | Ant0 | 5310 | 43.520 | 5287.920 | 5331.440 | --- | --- |
| | Ant1 | 5310 | 40.800 | 5290.080 | 5330.880 | --- | --- |
| | Ant0 | 5510 | 43.600 | 5489.200 | 5532.800 | --- | --- |
| | Ant1 | 5510 | 40.000 | 5490.480 | 5530.480 | --- | --- |
| | Ant0 | 5550 | 40.080 | 5530.160 | 5570.240 | --- | --- |
| | Ant1 | 5550 | 39.520 | 5530.400 | 5569.920 | --- | --- |
| | Ant0 | 5670 | 46.000 | 5650.720 | 5696.720 | --- | --- |
| | Ant1 | 5670 | 40.160 | 5650.400 | 5690.560 | --- | --- |
| | Ant0 | 5710 | 39.920 | 5690.080 | 5730.000 | --- | --- |
| | Ant1 | 5710 | 38.720 | 5690.560 | 5729.280 | --- | --- |
| | Ant0 | 5710_UNII-2C | 34.92 | 5690.080 | 5725 | --- | --- |
| | Ant1 | 5710_UNII-2C | 34.44 | 5690.560 | 5725 | --- | --- |
| | Ant0 | 5710_UNII-3 | 5 | 5725 | 5730.000 | --- | --- |
| | Ant1 | 5710_UNII-3 | 4.28 | 5725 | 5729.280 | --- | --- |
| | Ant0 | 5755 | 46.400 | 5735.080 | 5781.480 | --- | --- |
| | Ant1 | 5755 | 40.000 | 5735.400 | 5775.400 | --- | --- |
| | Ant0 | 5795 | 39.360 | 5775.160 | 5814.520 | --- | --- |
| | Ant1 | 5795 | 38.800 | 5775.800 | 5814.600 | --- | --- |
| 11AC80MIMO | Ant0 | 5210 | 97.440 | 5166.000 | 5263.440 | --- | --- |
| | Ant1 | 5210 | 98.560 | 5164.880 | 5263.440 | --- | --- |
| | Ant0 | 5290 | 92.480 | 5238.320 | 5330.800 | --- | --- |
| | Ant1 | 5290 | 97.920 | 5234.480 | 5332.400 | --- | --- |
| | Ant0 | 5530 | 96.000 | 5489.040 | 5585.040 | --- | --- |
| | Ant1 | 5530 | 80.160 | 5489.680 | 5569.840 | --- | --- |
| | Ant0 | 5610 | 79.200 | 5570.480 | 5649.680 | --- | --- |
| | Ant1 | 5610 | 79.200 | 5570.640 | 5649.840 | --- | --- |
| | Ant0 | 5690 | 79.200 | 5650.640 | 5729.840 | --- | --- |
| | Ant1 | 5690 | 79.360 | 5650.320 | 5729.680 | --- | --- |
| | Ant0 | 5690_UNII-2C | 74.36 | 5650.640 | 5725 | --- | --- |
| | Ant1 | 5690_UNII-2C | 74.68 | 5650.320 | 5725 | --- | --- |
| | Ant0 | 5690_UNII-3 | 4.84 | 5725 | 5729.840 | --- | --- |
| | Ant1 | 5690_UNII-3 | 4.68 | 5725 | 5729.680 | --- | --- |
| | Ant0 | 5775 | 79.520 | 5735.640 | 5815.160 | --- | --- |
| | Ant1 | 5775 | 78.880 | 5735.640 | 5814.520 | --- | --- |
| 11AC160MIMO | Ant0 | 5250 | 162.56 | 5168.72 | 5331.28 | --- | --- |
| | Ant1 | 5250 | 168.96 | 5168.08 | 5337.04 | --- | --- |
| | Ant0 | 5250_UNII-1 | 81.28 | 5168.72 | 5250 | --- | --- |
| | Ant1 | 5250_UNII-1 | 81.92 | 5168.08 | 5250 | --- | --- |
| | Ant0 | 5250_UNII-2A | 81.28 | 5250 | 5331.28 | --- | --- |
| | Ant1 | 5250_UNII-2A | 87.04 | 5250 | 5337.04 | --- | --- |
| | Ant0 | 5570 | 168.32 | 5489.04 | 5657.36 | --- | --- |
| | Ant1 | 5570 | 163.84 | 5488.40 | 5652.24 | --- | --- |
| 11AX20MIMO | Ant0 | 5180 | 21.200 | 5169.400 | 5190.600 | --- | --- |
| | Ant1 | 5180 | 21.680 | 5169.040 | 5190.720 | --- | --- |
| | Ant0 | 5200 | 22.960 | 5188.160 | 5211.120 | --- | --- |
| | Ant1 | 5200 | 22.840 | 5188.120 | 5210.960 | --- | --- |
| | Ant0 | 5240 | 19.720 | 5230.240 | 5249.960 | --- | --- |
| | Ant1 | 5240 | 19.800 | 5230.200 | 5250.000 | --- | --- |
| | Ant0 | 5260 | 21.240 | 5249.440 | 5270.680 | --- | --- |
| | Ant1 | 5260 | 21.280 | 5249.440 | 5270.720 | --- | --- |
| | Ant0 | 5280 | 21.440 | 5269.040 | 5290.480 | --- | --- |
| | Ant1 | 5280 | 21.440 | 5269.440 | 5290.880 | --- | --- |
| | Ant0 | 5320 | 23.160 | 5308.480 | 5331.640 | --- | --- |
| | Ant1 | 5320 | 23.120 | 5308.520 | 5331.640 | --- | --- |
| | Ant0 | 5500 | 23.640 | 5489.240 | 5512.880 | --- | --- |
| | Ant1 | 5500 | 23.680 | 5487.240 | 5510.920 | --- | --- |
| | Ant0 | 5580 | 20.240 | 5569.720 | 5589.960 | --- | --- |
| | Ant1 | 5580 | 21.560 | 5568.920 | 5590.480 | --- | --- |
| | Ant0 | 5700 | 21.800 | 5688.600 | 5710.400 | --- | --- |
| | Ant1 | 5700 | 22.680 | 5687.760 | 5710.440 | --- | --- |
| | Ant0 | 5720 | 20.640 | 5709.560 | 5730.200 | --- | --- |
| | Ant1 | 5720 | 21.480 | 5709.280 | 5730.760 | --- | --- |
| | Ant0 | 5720_UNII-2C | 15.44 | 5709.560 | 5725 | --- | --- |
| | Ant1 | 5720_UNII-2C | 15.72 | 5709.280 | 5725 | --- | --- |
| | Ant0 | 5720_UNII-3 | 5.2 | 5725 | 5730.200 | --- | --- |
| | Ant1 | 5720_UNII-3 | 5.76 | 5725 | 5730.760 | --- | --- |


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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Ant0 | 5745 | 21.600 | 5734.720 | 5756.320 | --- | --- |
| | Ant1 | 5745 | 22.080 | 5734.280 | 5756.360 | --- | --- |
| | Ant0 | 5785 | 21.040 | 5774.680 | 5795.720 | --- | --- |
| | Ant1 | 5785 | 20.920 | 5774.400 | 5795.320 | --- | --- |
| | Ant0 | 5825 | 23.480 | 5813.160 | 5836.640 | --- | --- |
| | Ant1 | 5825 | 23.720 | 5811.800 | 5835.520 | --- | --- |
| 11AX40MIMO | Ant0 | 5190 | 42.400 | 5167.280 | 5209.680 | --- | --- |
| | Ant1 | 5190 | 41.280 | 5170.240 | 5211.520 | --- | --- |
| | Ant0 | 5230 | 39.440 | 5210.320 | 5249.760 | --- | --- |
| | Ant1 | 5230 | 39.280 | 5210.320 | 5249.600 | --- | --- |
| | Ant0 | 5270 | 39.440 | 5250.480 | 5289.920 | --- | --- |
| | Ant1 | 5270 | 39.280 | 5250.400 | 5289.680 | --- | --- |
| | Ant0 | 5310 | 39.920 | 5290.480 | 5330.400 | --- | --- |
| | Ant1 | 5310 | 41.360 | 5290.080 | 5331.440 | --- | --- |
| | Ant0 | 5510 | 42.560 | 5490.400 | 5532.960 | --- | --- |
| | Ant1 | 5510 | 43.360 | 5490.400 | 5533.760 | --- | --- |
| | Ant0 | 5550 | 39.440 | 5530.320 | 5569.760 | --- | --- |
| | Ant1 | 5550 | 39.120 | 5530.480 | 5569.600 | --- | --- |
| | Ant0 | 5670 | 43.280 | 5650.480 | 5693.760 | --- | --- |
| | Ant1 | 5670 | 39.520 | 5650.400 | 5689.920 | --- | --- |
| | Ant0 | 5710 | 39.200 | 5690.480 | 5729.680 | --- | --- |
| | Ant1 | 5710 | 39.280 | 5690.320 | 5729.600 | --- | --- |
| | Ant0 | 5710_UNII-2C | 34.52 | 5690.480 | 5725 | --- | --- |
| | Ant1 | 5710_UNII-2C | 34.68 | 5690.320 | 5725 | --- | --- |
| | Ant0 | 5710_UNII-3 | 4.68 | 5725 | 5729.680 | --- | --- |
| | Ant1 | 5710_UNII-3 | 4.6 | 5725 | 5729.600 | --- | --- |
| | Ant0 | 5755 | 46.400 | 5735.160 | 5781.560 | --- | --- |
| | Ant1 | 5755 | 45.920 | 5735.480 | 5781.400 | --- | --- |
| | Ant0 | 5795 | 39.040 | 5775.560 | 5814.600 | --- | --- |
| | Ant1 | 5795 | 39.680 | 5775.240 | 5814.920 | --- | --- |
| 11AX80MIMO | Ant0 | 5210 | 88.160 | 5166.960 | 5255.120 | --- | --- |
| | Ant1 | 5210 | 89.920 | 5165.200 | 5255.120 | --- | --- |
| | Ant0 | 5290 | 83.680 | 5246.480 | 5330.160 | --- | --- |
| | Ant1 | 5290 | 79.840 | 5250.160 | 5330.000 | --- | --- |
| | Ant0 | 5530 | 82.240 | 5487.920 | 5570.160 | --- | --- |
| | Ant1 | 5530 | 80.160 | 5490.000 | 5570.160 | --- | --- |
| | Ant0 | 5610 | 79.840 | 5570.160 | 5650.000 | --- | --- |
| | Ant1 | 5610 | 80.000 | 5570.000 | 5650.000 | --- | --- |
| | Ant0 | 5690 | 79.840 | 5650.160 | 5730.000 | --- | --- |
| | Ant1 | 5690 | 79.840 | 5650.160 | 5730.000 | --- | --- |
| | Ant0 | 5690_UNII-2C | 74.84 | 5650.160 | 5725 | --- | --- |
| | Ant1 | 5690_UNII-2C | 74.84 | 5650.160 | 5725 | --- | --- |
| | Ant0 | 5690_UNII-3 | 5 | 5725 | 5730.000 | --- | --- |
| | Ant1 | 5690_UNII-3 | 5 | 5725 | 5730.000 | --- | --- |
| | Ant0 | 5775 | 79.840 | 5735.160 | 5815.000 | --- | --- |
| | Ant1 | 5775 | 79.840 | 5735.160 | 5815.000 | --- | --- |
| 11AX160MIMO | Ant0 | 5250 | 163.20 | 5168.40 | 5331.60 | --- | --- |
| | Ant1 | 5250 | 162.88 | 5168.72 | 5331.60 | --- | --- |
| | Ant0 | 5250_UNII-1 | 81.6 | 5168.40 | 5250 | --- | --- |
| | Ant1 | 5250_UNII-1 | 81.28 | 5168.72 | 5250 | --- | --- |
| | Ant0 | 5250_UNII-2A | 81.6 | 5250 | 5331.60 | --- | --- |
| | Ant1 | 5250_UNII-2A | 81.6 | 5250 | 5331.60 | --- | --- |
| | Ant0 | 5570 | 162.88 | 5488.72 | 5651.60 | --- | --- |
| | Ant1 | 5570 | 163.20 | 5488.40 | 5651.60 | --- | --- |


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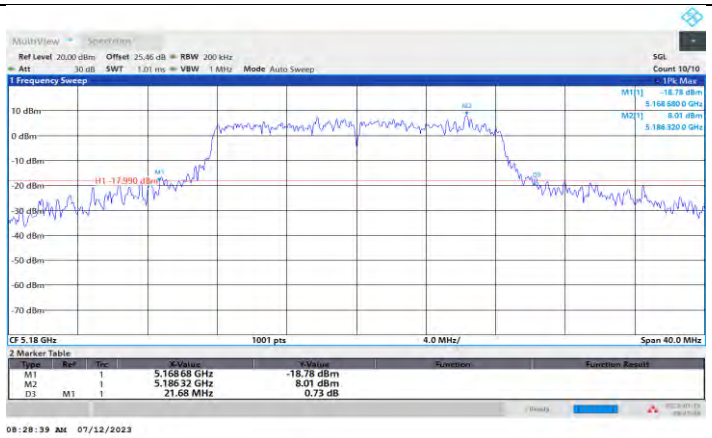
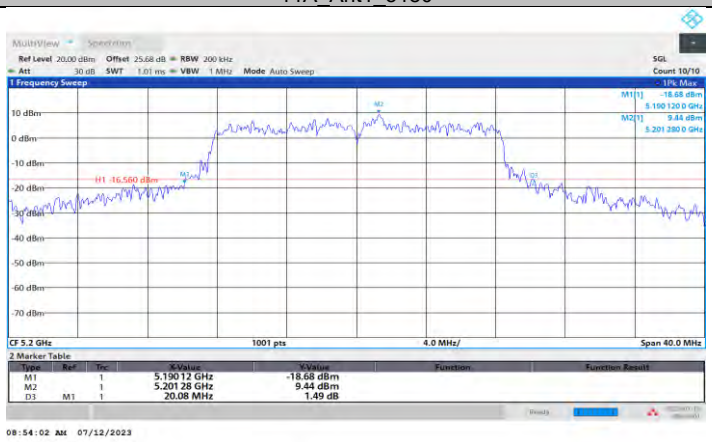
### 11.1.2. Test Graphs




11A_Ant0_5180

11A_Ant1_5180




11A_Ant0_5200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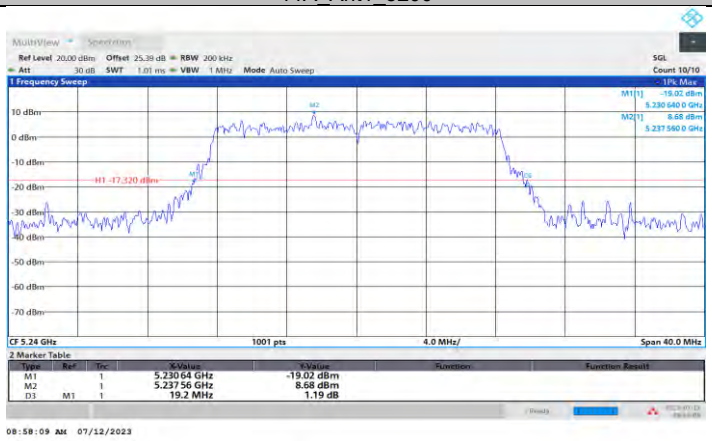
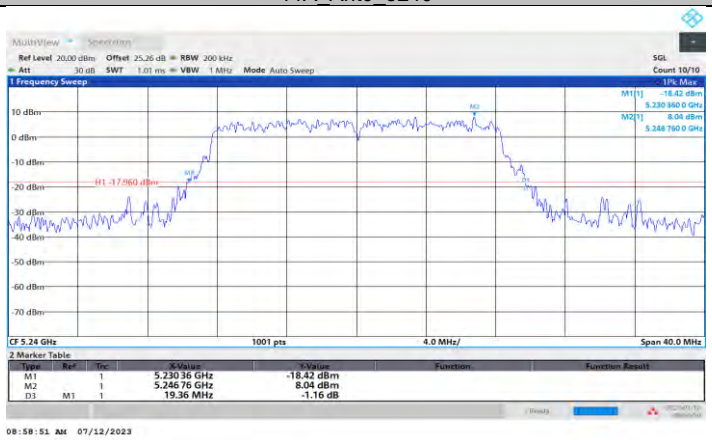
11A_Ant1_5200




11A_Ant0_5240




11A_Ant1_5240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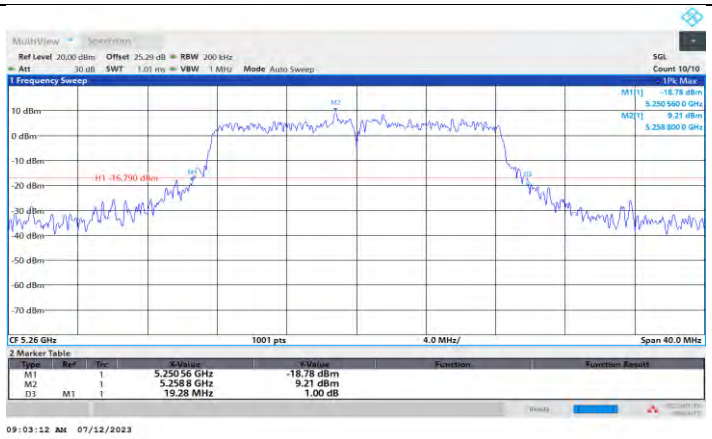
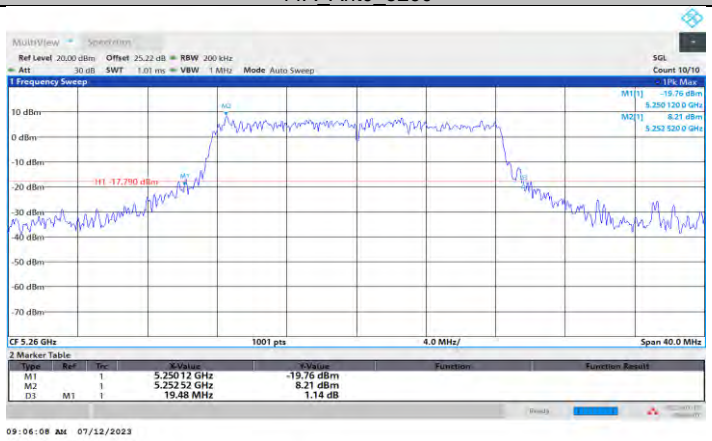
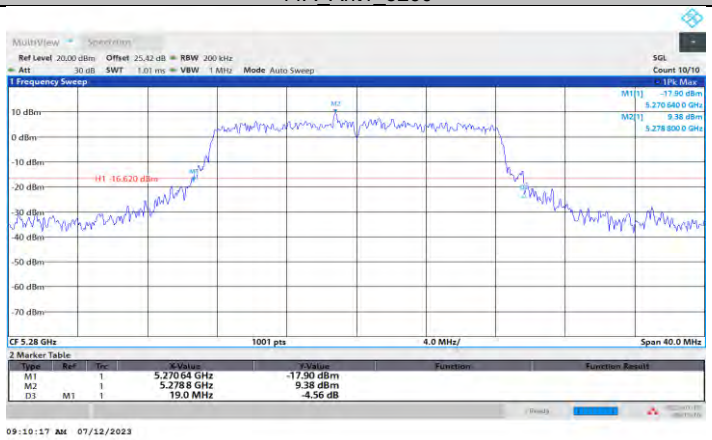



11A_Ant0_5260




11A_Ant1_5260




11A_Ant0_5280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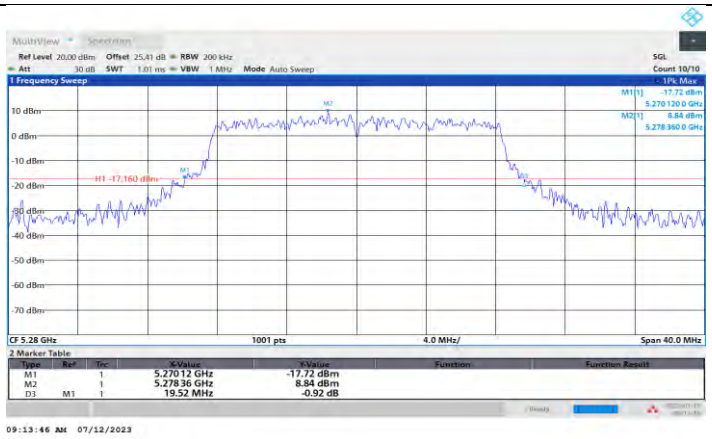
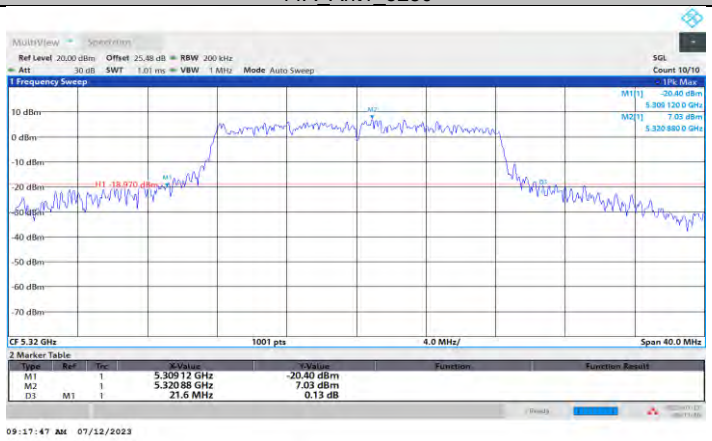



11A_Ant1_5280




11A_Ant0_5320

11A_Ant1_5320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11A_Ant0_5500

11A_Ant1_5500

11A_Ant0_5580


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11A_Ant1_5580

11A_Ant0_5700

11A_Ant1_5700


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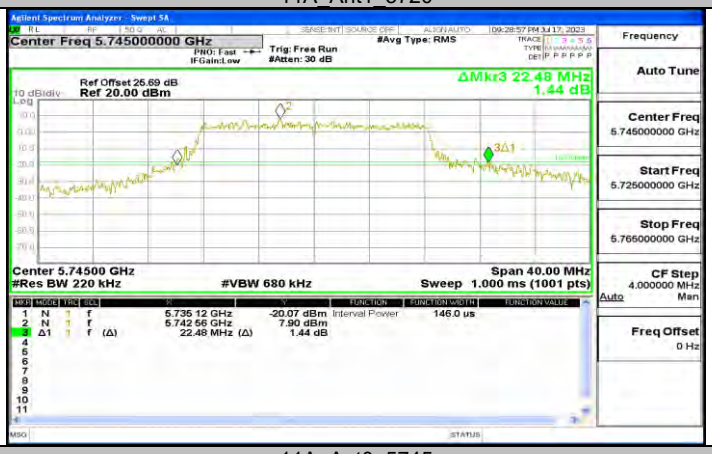
11A_Ant0_5720

11A_Ant1_5720




11A_Ant0_5745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11A_Ant1_5745

11A_Ant0_5785

11A_Ant1_5785


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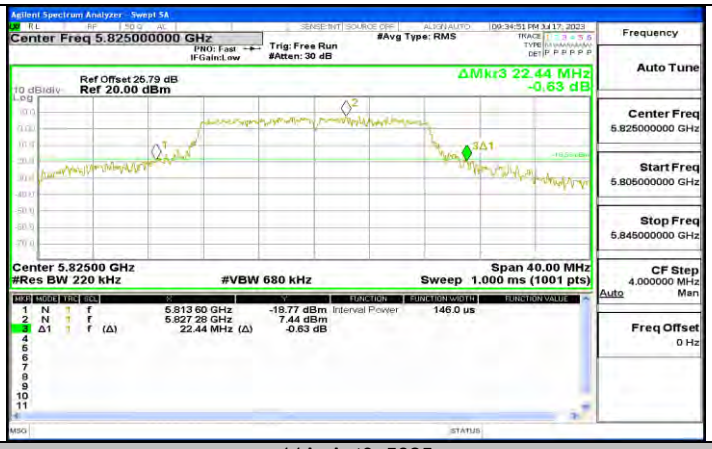


11A_Ant0_5825

11A_Ant1_5825

11N20MIMO_Ant0_5180


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11N20MIMO_Ant1_5180

11N20MIMO_Ant0_5200

11N20MIMO_Ant1_5200


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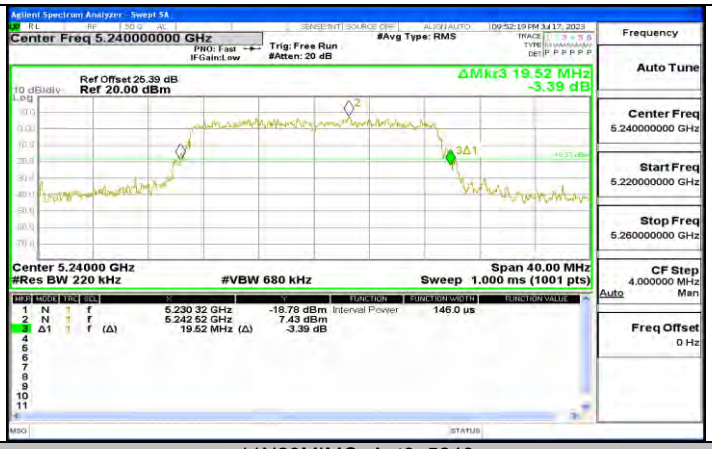


11N20MIMO_Ant0_5240

11N20MIMO_Ant1_5240

11N20MIMO_Ant0_5260


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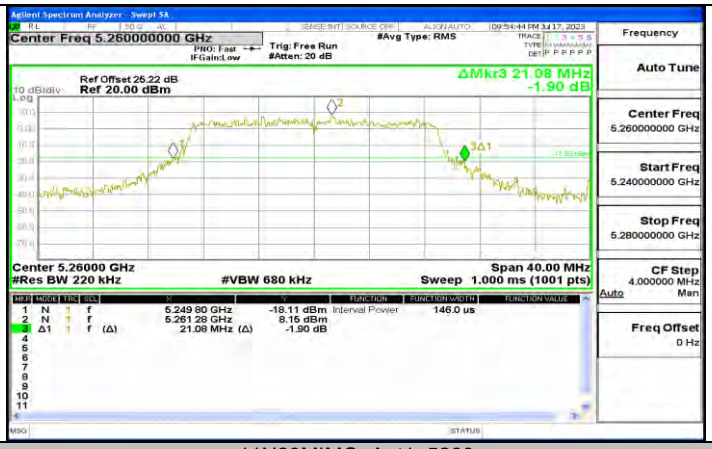


11N20MIMO_Ant1_5260

11N20MIMO_Ant0_5280

11N20MIMO_Ant1_5280


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11N20MIMO_Ant0_5320

11N20MIMO_Ant1_5320

11N20MIMO_Ant0_5500


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11N20MIMO_Ant1_5500

11N20MIMO_Ant0_5580

11N20MIMO_Ant1_5580


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11N20MIMO_Ant0_5700

11N20MIMO_Ant1_5700

11N20MIMO_Ant0_5720


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11N20MIMO_Ant1_5720

11N20MIMO_Ant0_5745

11N20MIMO_Ant1_5745


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11N20MIMO_Ant0_5785

11N20MIMO_Ant1_5785

11N20MIMO_Ant0_5825


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11N20MIMO_Ant1_5825

11N40MIMO_Ant0_5190

11N40MIMO_Ant1_5190


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11N40MIMO_Ant0_5230

11N40MIMO_Ant1_5230

11N40MIMO_Ant0_5270


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11N40MIMO_Ant1_5270

11N40MIMO_Ant0_5310

11N40MIMO_Ant1_5310


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11N40MIMO_Ant0_5510

11N40MIMO_Ant1_5510

11N40MIMO_Ant0_5550


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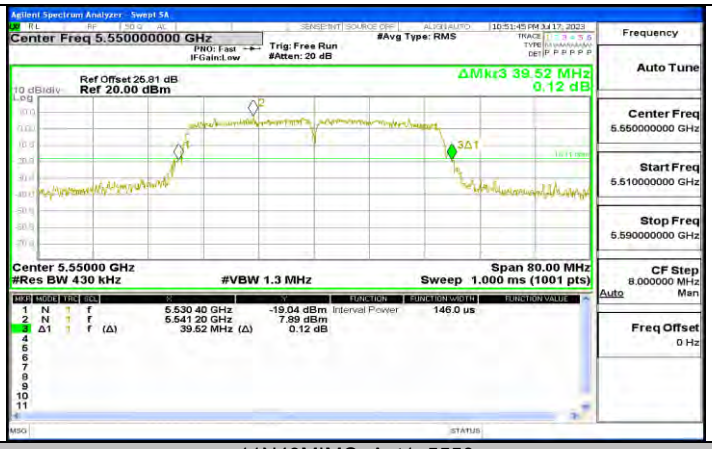


11N40MIMO_Ant1_5550

11N40MIMO_Ant0_5670

11N40MIMO_Ant1_5670


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11N40MIMO_Ant0_5710

11N40MIMO_Ant1_5710

11N40MIMO_Ant0_5755


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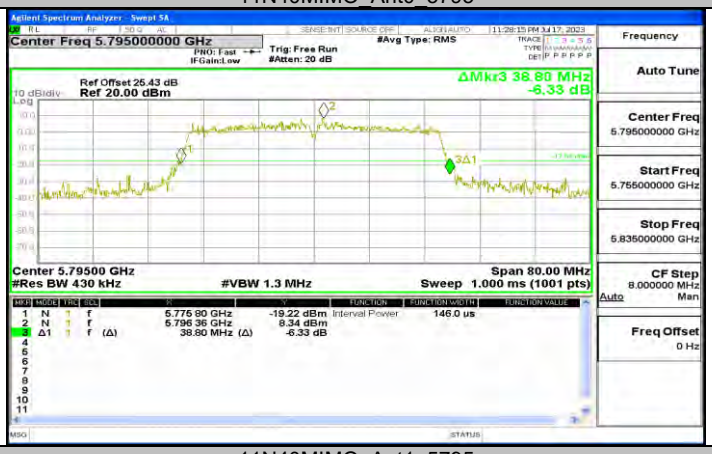
11N40MIMO_Ant1_5755

11N40MIMO_Ant0_5795




11N40MIMO_Ant1_5795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11AC80MIMO_Ant0_5210

11AC80MIMO_Ant1_5210

11AC80MIMO_Ant0_5290


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11AC80MIMO_Ant1_5290

11AC80MIMO_Ant0_5530

11AC80MIMO_Ant1_5530


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11AC80MIMO_Ant0_5610

11AC80MIMO_Ant1_5610

11AC80MIMO_Ant0_5690


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11AC80MIMO_Ant1_5690

11AC80MIMO_Ant0_5775

11AC80MIMO_Ant1_5775


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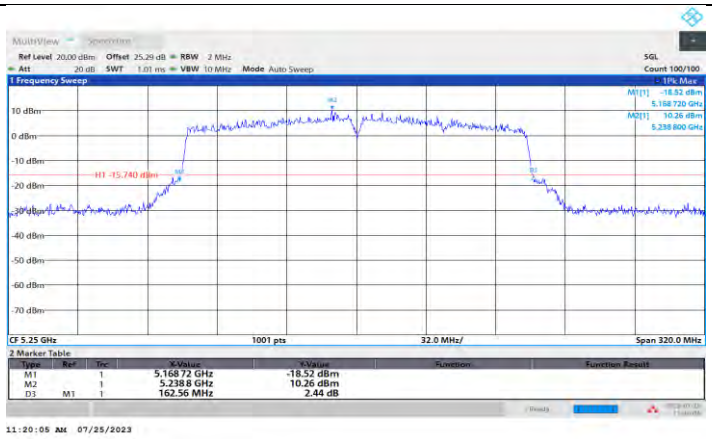
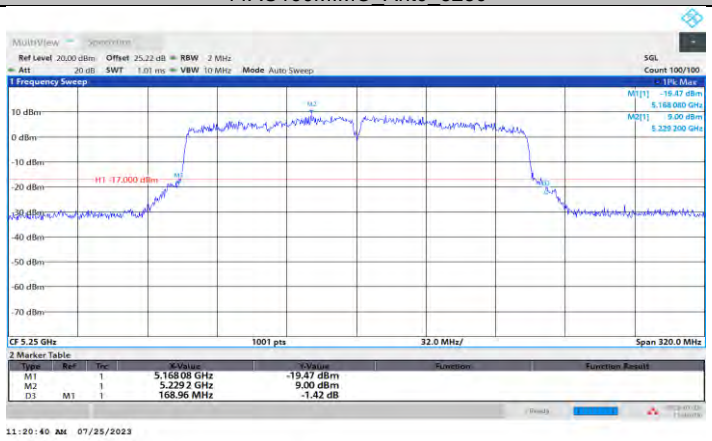
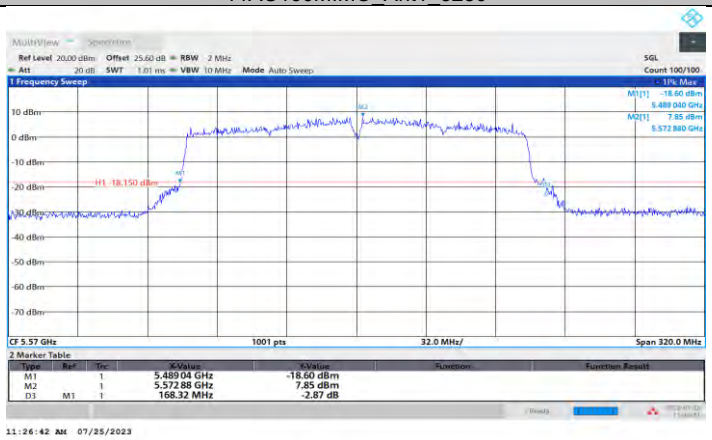



11AC160MIMO_Ant0_5250




11AC160MIMO_Ant1_5250




11AC160MIMO_Ant0_5570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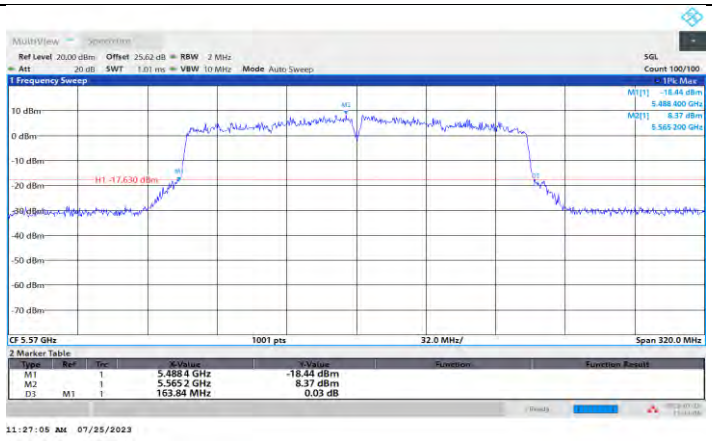


11AC160MIMO_Ant1_5570

11AX20MIMO_Ant0_5180

11AX20MIMO_Ant1_5180


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11AX20MIMO_Ant0_5200

11AX20MIMO_Ant1_5200

11AX20MIMO_Ant0_5240


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11AX20MIMO_Ant1_5240

11AX20MIMO_Ant0_5260

11AX20MIMO_Ant1_5260


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11AX20MIMO_Ant0_5280

11AX20MIMO_Ant1_5280

11AX20MIMO_Ant0_5320


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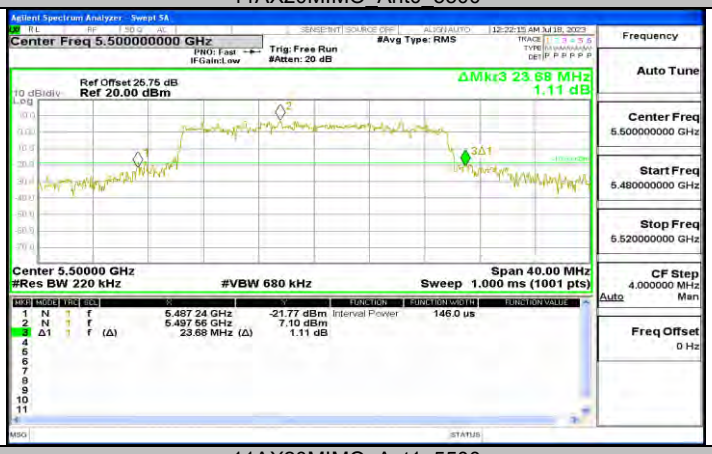
11AX20MIMO_Ant1_5320

11AX20MIMO_Ant0_5500




11AX20MIMO_Ant1_5500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11AX20MIMO_Ant0_5580

11AX20MIMO_Ant1_5580

11AX20MIMO_Ant0_5700


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11AX20MIMO_Ant1_5700

11AX20MIMO_Ant0_5720

11AX20MIMO_Ant1_5720


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11AX20MIMO_Ant0_5745

11AX20MIMO_Ant1_5745

11AX20MIMO_Ant0_5785


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11AX20MIMO_Ant1_5785

11AX20MIMO_Ant0_5825

11AX20MIMO_Ant1_5825


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11AX40MIMO_Ant0_5190

11AX40MIMO_Ant1_5190

11AX40MIMO_Ant0_5230


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11AX40MIMO_Ant1_5230

11AX40MIMO_Ant0_5270

11AX40MIMO_Ant1_5270


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11AX40MIMO_Ant0_5310

11AX40MIMO_Ant1_5310

11AX40MIMO_Ant0_5510


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11AX40MIMO_Ant1_5510

11AX40MIMO_Ant0_5550

11AX40MIMO_Ant1_5550


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11AX40MIMO_Ant0_5670

11AX40MIMO_Ant1_5670

11AX40MIMO_Ant0_5710


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11AX40MIMO_Ant1_5710

11AX40MIMO_Ant0_5755

11AX40MIMO_Ant1_5755


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11AX40MIMO_Ant0_5795

11AX40MIMO_Ant1_5795

11AX80MIMO_Ant0_5210


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11AX80MIMO_Ant1_5210

11AX80MIMO_Ant0_5290

11AX80MIMO_Ant1_5290


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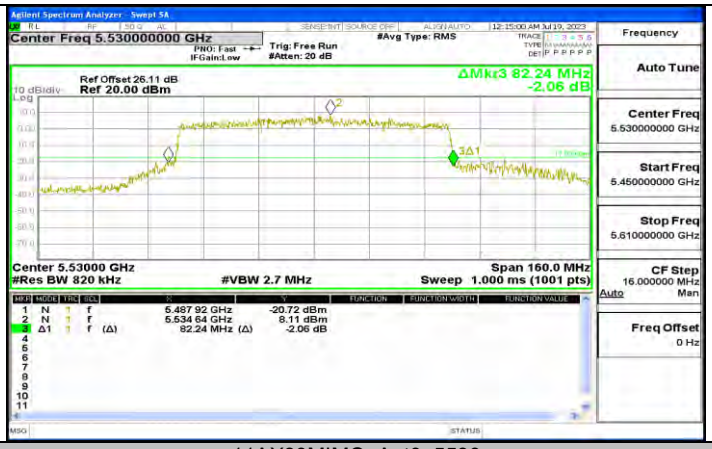
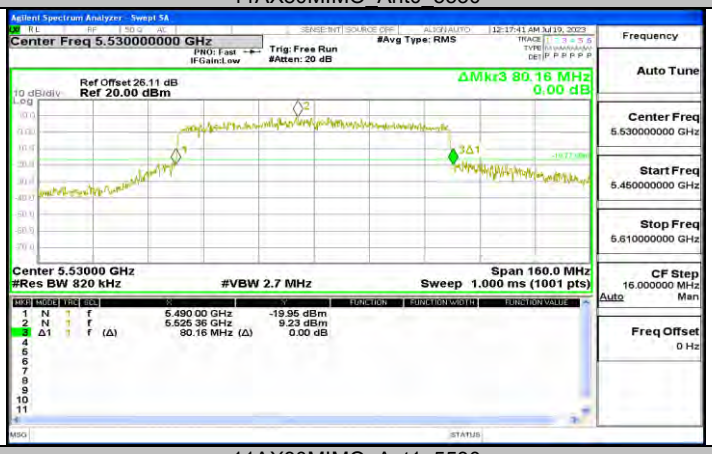



11AX80MIMO_Ant0_5530




11AX80MIMO_Ant1_5530

11AX80MIMO_Ant0_5610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11AX80MIMO_Ant1_5610

11AX80MIMO_Ant0_5690

11AX80MIMO_Ant1_5690


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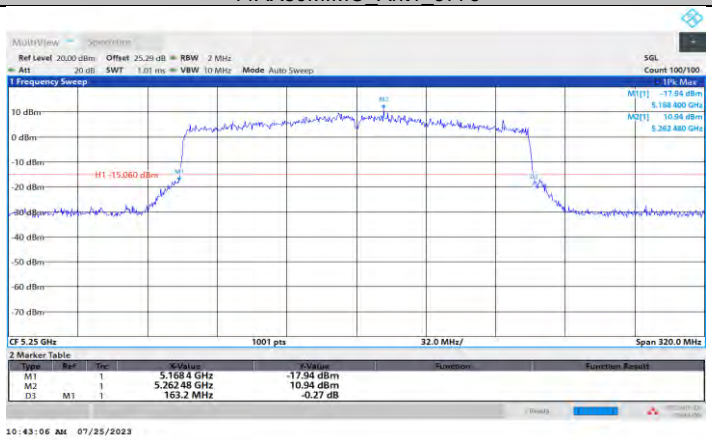
11AX80MIMO_Ant0_5775

11AX80MIMO_Ant1_5775




11AX160MIMO_Ant0_5250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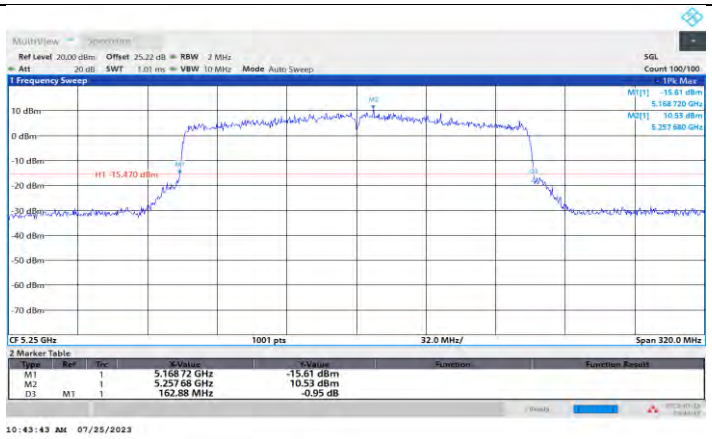
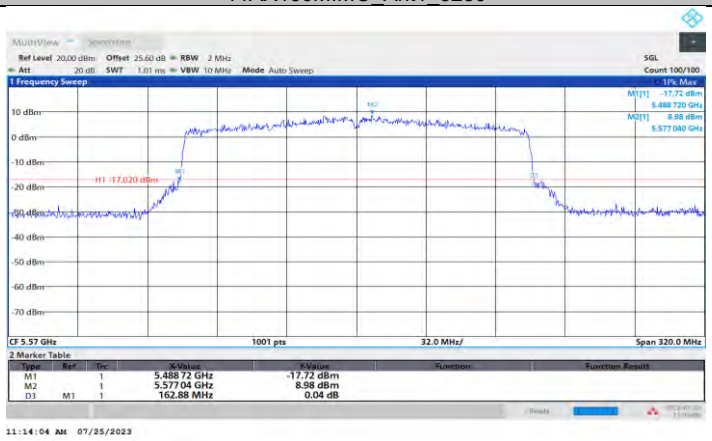
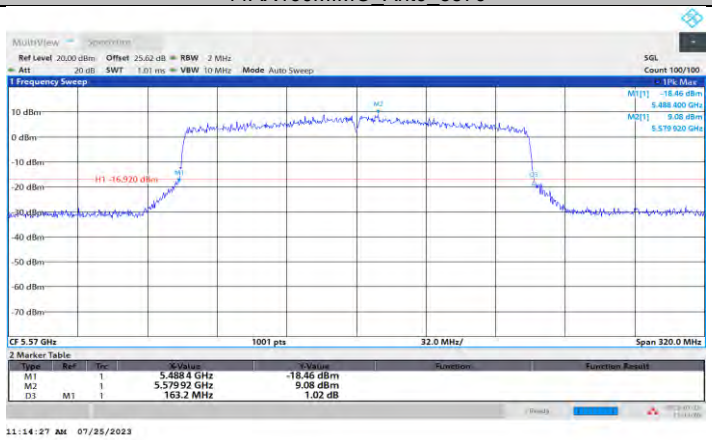



11AX160MIMO_Ant1_5250




11AX160MIMO_Ant0_5570




11AX160MIMO_Ant1_5570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