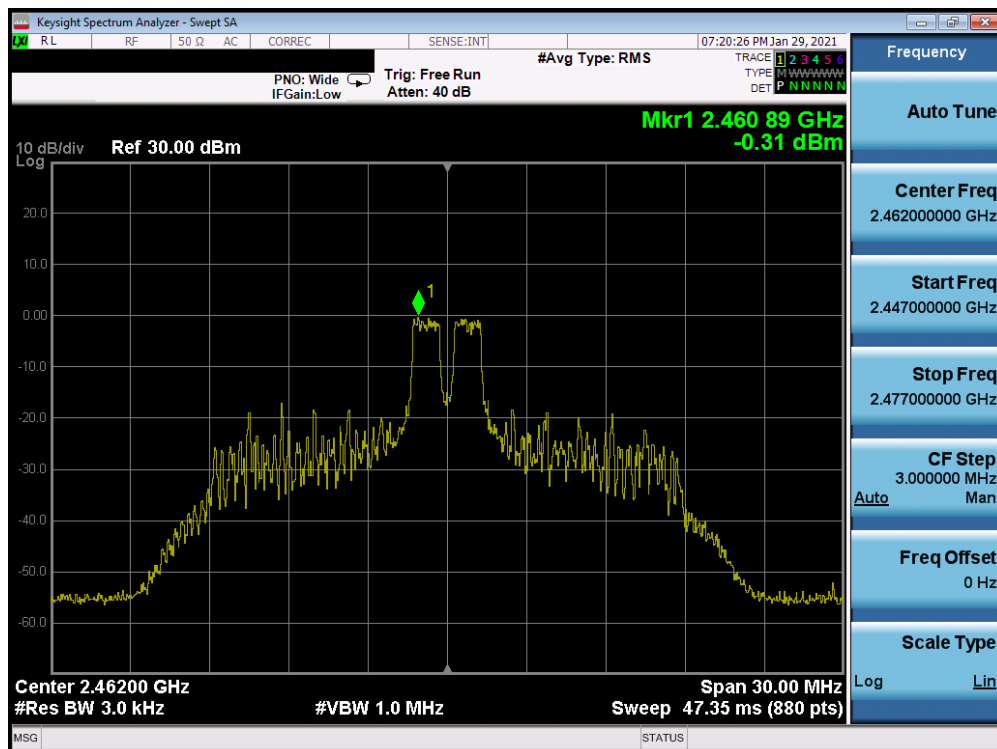
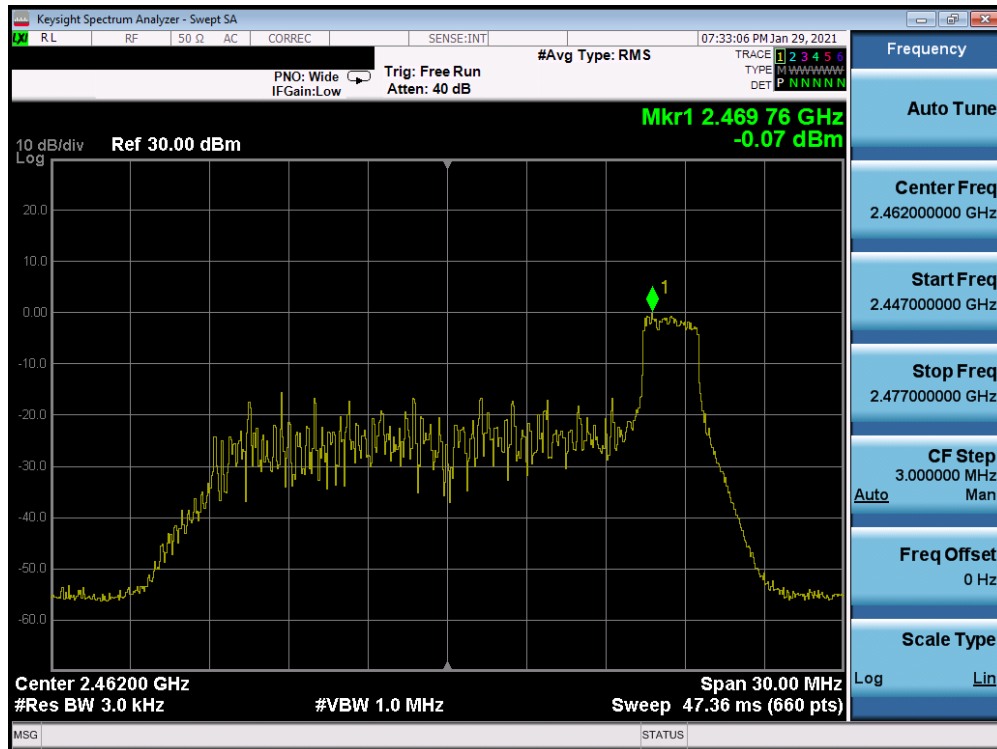


Plot 7-43. Power Spectral Density Plot Antenna 2a (802.11ax OFDMA – RU26 Index 0 – Ch. 11)

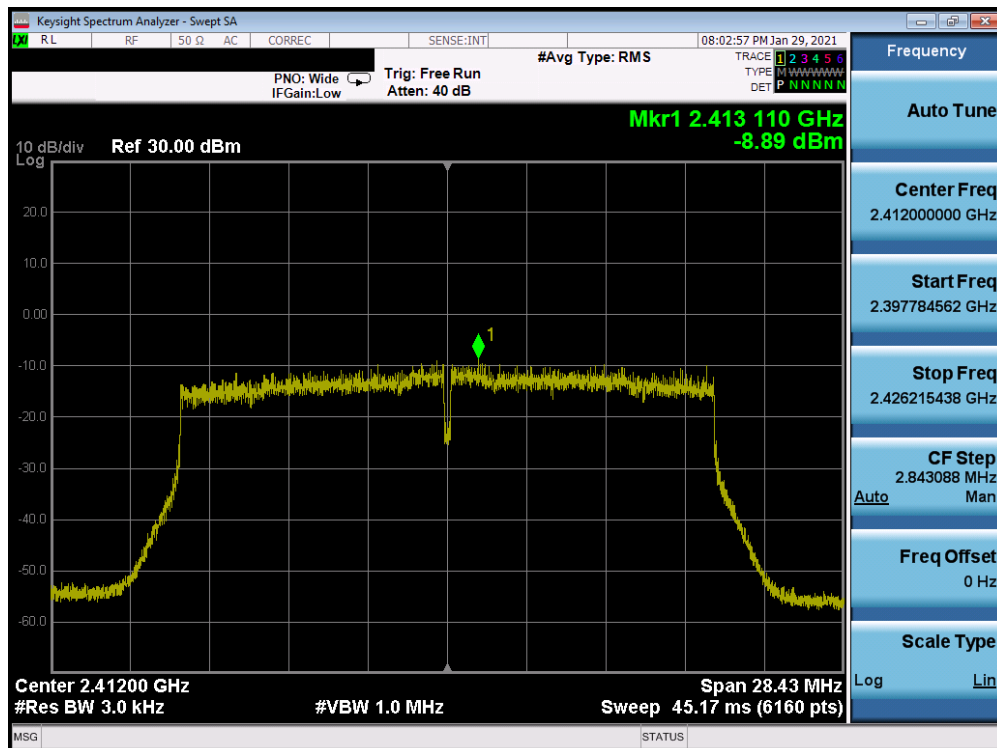


Plot 7-44. Power Spectral Density Plot Antenna 2a (802.11ax OFDMA – RU26 Index 4 – Ch. 11)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 50 of 158 |

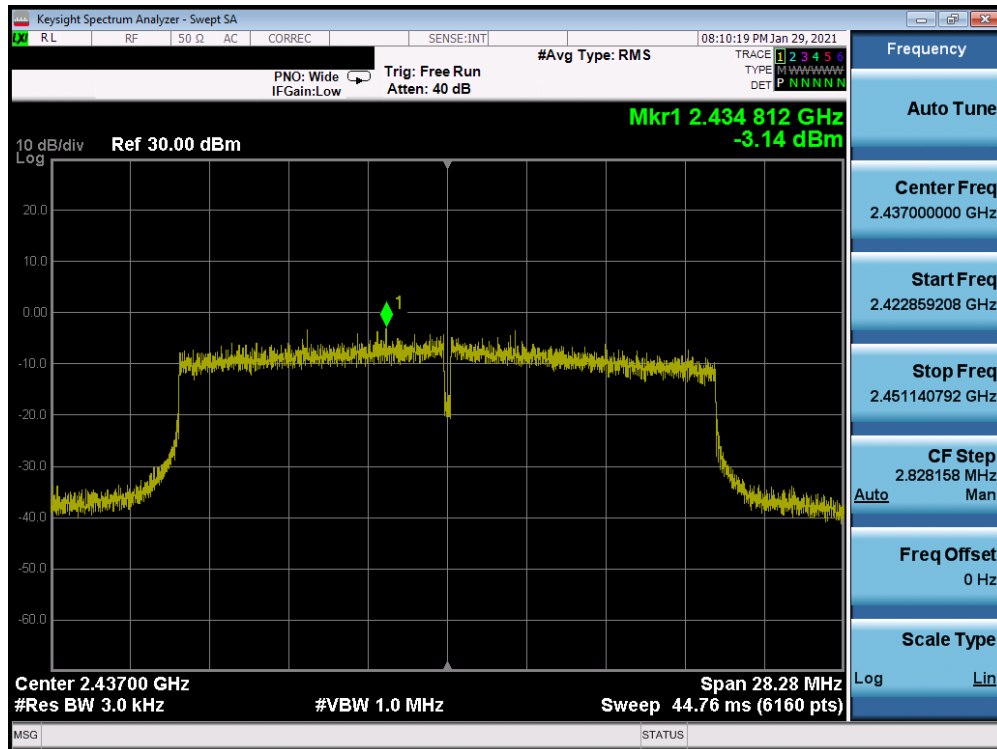


Plot 7-45. Power Spectral Density Plot Antenna 2a (802.11ax OFDMA – RU26 Index 8 – Ch. 11)

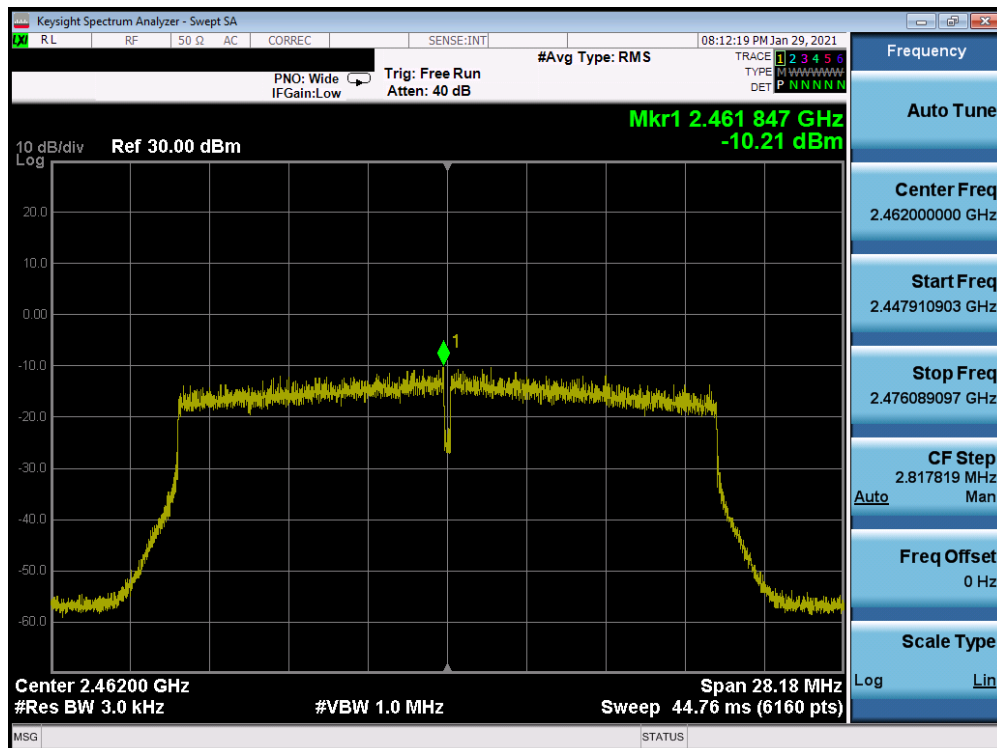


Plot 7-46. Power Spectral Density Plot Antenna 2a (802.11ax OFDMA – RU242 – Ch. 1)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 51 of 158 |



Plot 7-47. Power Spectral Density Plot Antenna 2a (802.11ax OFDMA – RU242 – Ch. 6)



Plot 7-48. Power Spectral Density Plot Antenna 2a (802.11ax OFDMA – RU242 – Ch. 11)

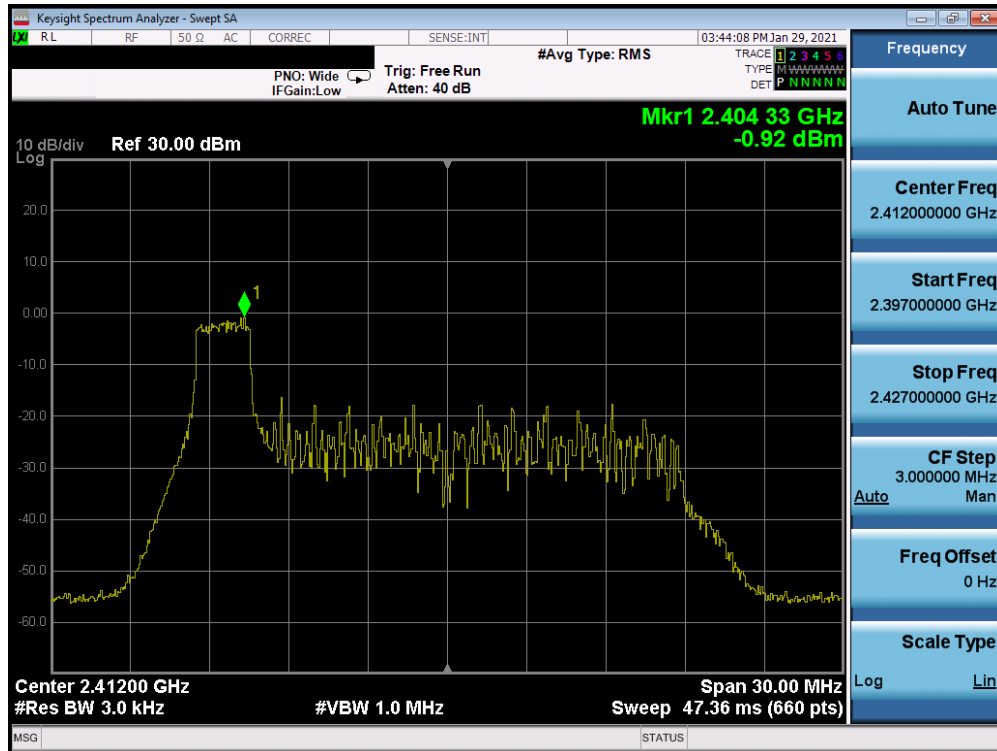
| | | | |
|---|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 |  | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 52 of 158 |

CDD Power Spectral Density Measurements

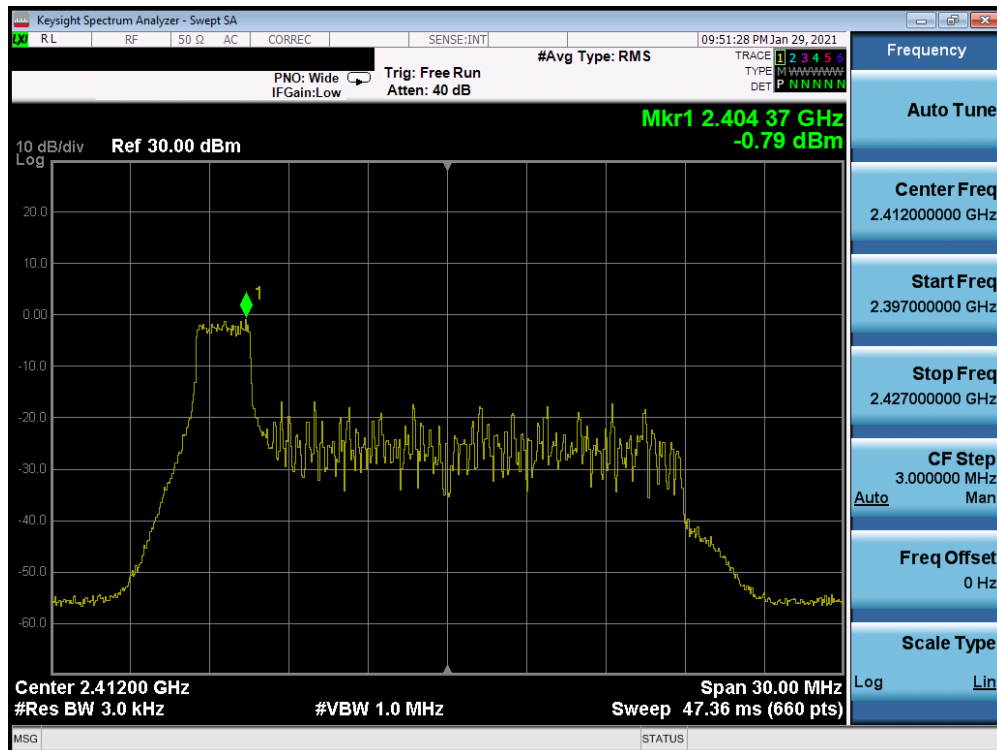
| Frequency [MHz] | Channel No. | 802.11 Mode | RU Size | RU Index | Data Rate [Mbps] | Power Spectral Density [dBm / 3kHz] | | | Maximum Permissible Power Density [dBm / 3kHz] | Margin [dB] | Pass / Fail |
|-----------------|-------------|-------------|---------|----------|------------------|-------------------------------------|------------|--------|--|-------------|-------------|
| | | | | | | Antenna 4a | Antenna 2a | Summed | | | |
| 2412 | 1 | ax | 26 | 0 | 65/68.8 (MCS5) | -0.92 | -0.79 | 2.16 | 8.00 | -5.84 | Pass |
| 2412 | 1 | ax | 26 | 4 | 65/68.8 (MCS5) | 1.08 | 0.05 | 3.61 | 8.00 | -4.39 | Pass |
| 2412 | 1 | ax | 26 | 8 | 65/68.8 (MCS5) | 0.05 | 0.90 | 3.51 | 8.00 | -4.49 | Pass |
| 2437 | 6 | ax | 26 | 0 | 65/68.8 (MCS5) | 3.27 | 3.66 | 6.48 | 8.00 | -1.52 | Pass |
| 2437 | 6 | ax | 26 | 4 | 65/68.8 (MCS5) | 3.22 | 2.95 | 6.10 | 8.00 | -1.90 | Pass |
| 2437 | 6 | ax | 26 | 8 | 65/68.8 (MCS5) | 2.80 | 2.41 | 5.62 | 8.00 | -2.38 | Pass |
| 2462 | 11 | ax | 26 | 0 | 65/68.8 (MCS5) | -1.90 | -1.25 | 1.45 | 8.00 | -6.55 | Pass |
| 2462 | 11 | ax | 26 | 4 | 65/68.8 (MCS5) | 0.26 | -0.91 | 2.72 | 8.00 | -5.28 | Pass |
| 2462 | 11 | ax | 26 | 8 | 65/68.8 (MCS5) | -1.14 | -0.48 | 2.21 | 8.00 | -5.79 | Pass |
| 2412 | 1 | ax | 242 | 61 | 65/68.8 (MCS5) | -9.18 | -9.57 | -6.36 | 8.00 | -14.36 | Pass |
| 2437 | 6 | ax | 242 | 61 | 65/68.8 (MCS5) | -4.15 | -4.33 | -1.23 | 8.00 | -9.23 | Pass |
| 2462 | 11 | ax | 242 | 61 | 65/68.8 (MCS5) | -10.77 | -9.90 | -7.30 | 8.00 | -15.30 | Pass |

Table 7-18.CDD Conducted Power Density Measurements

| | | | | |
|--|---|---|--|--|
| FCC ID: BCGA2301 IC: 579C-A2301 |  | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | | Page 53 of 158 |

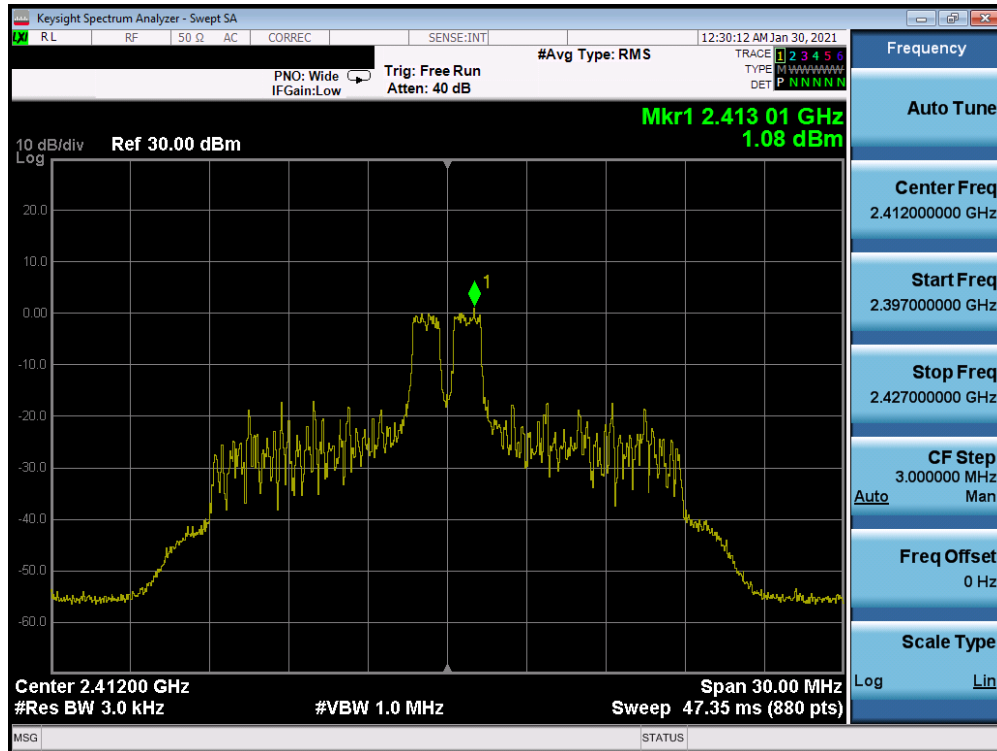


Plot 7-49. Power Spectral Density Plot CDD Antenna 4a (802.11ax OFDMA – RU26 Index 0 – Ch. 1)

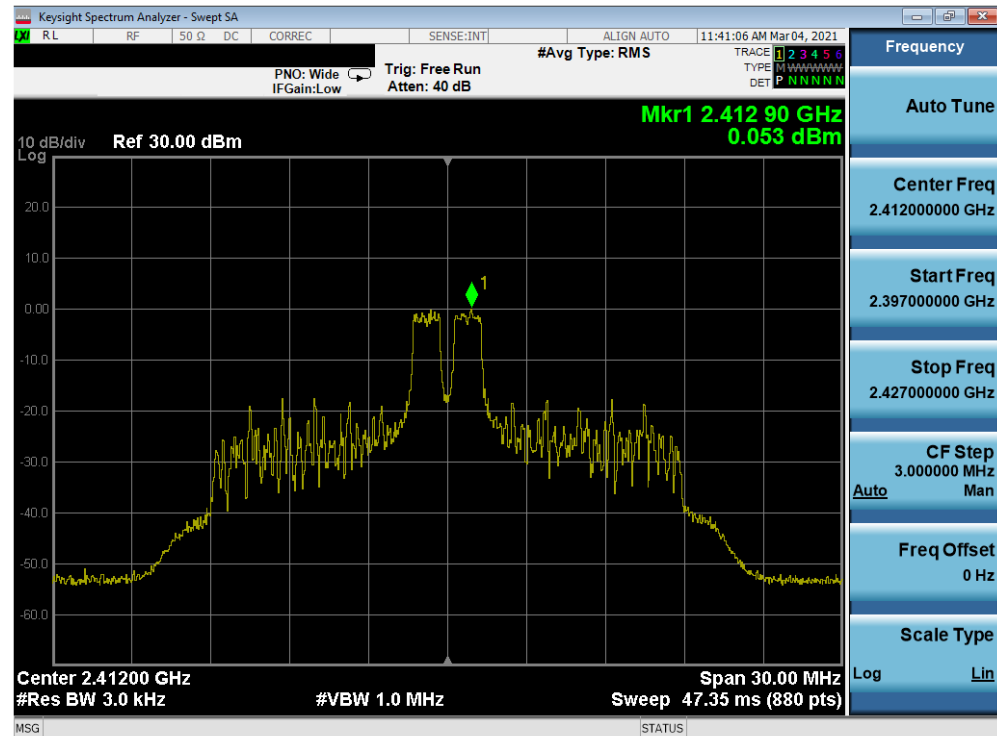


Plot 7-50. Power Spectral Density Plot CDD Antenna 2a (802.11ax OFDMA – RU26 Index 0 – Ch. 1)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 54 of 158 |

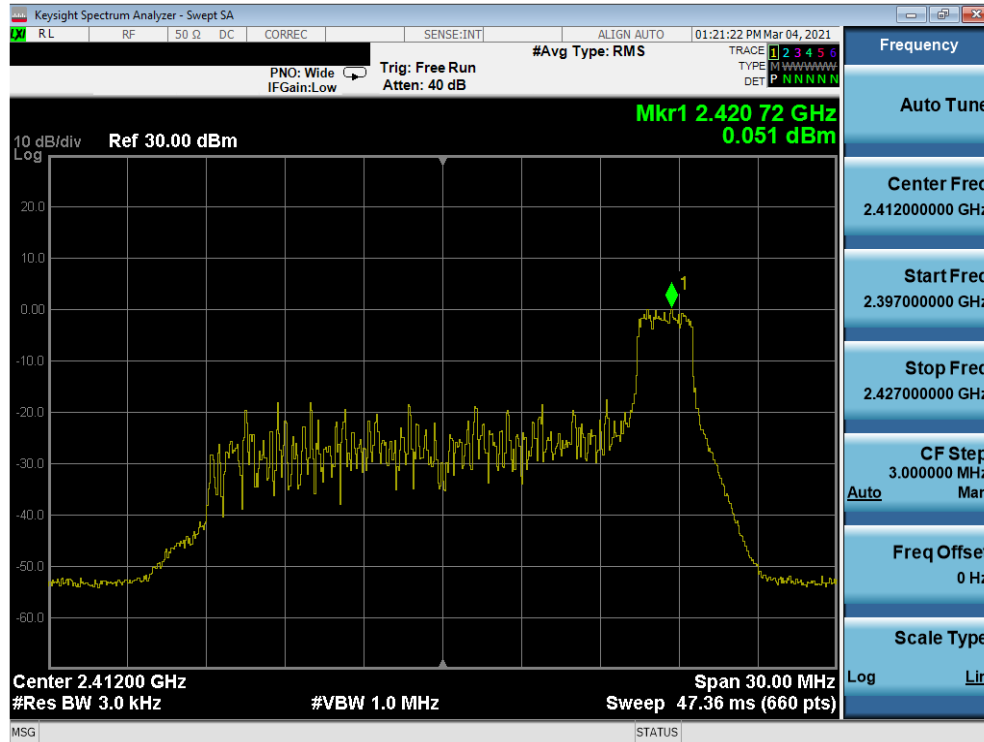


Plot 7-51. Power Spectral Density Plot CDD Antenna 4a (802.11ax OFDMA – RU26 Index 4 – Ch. 1)

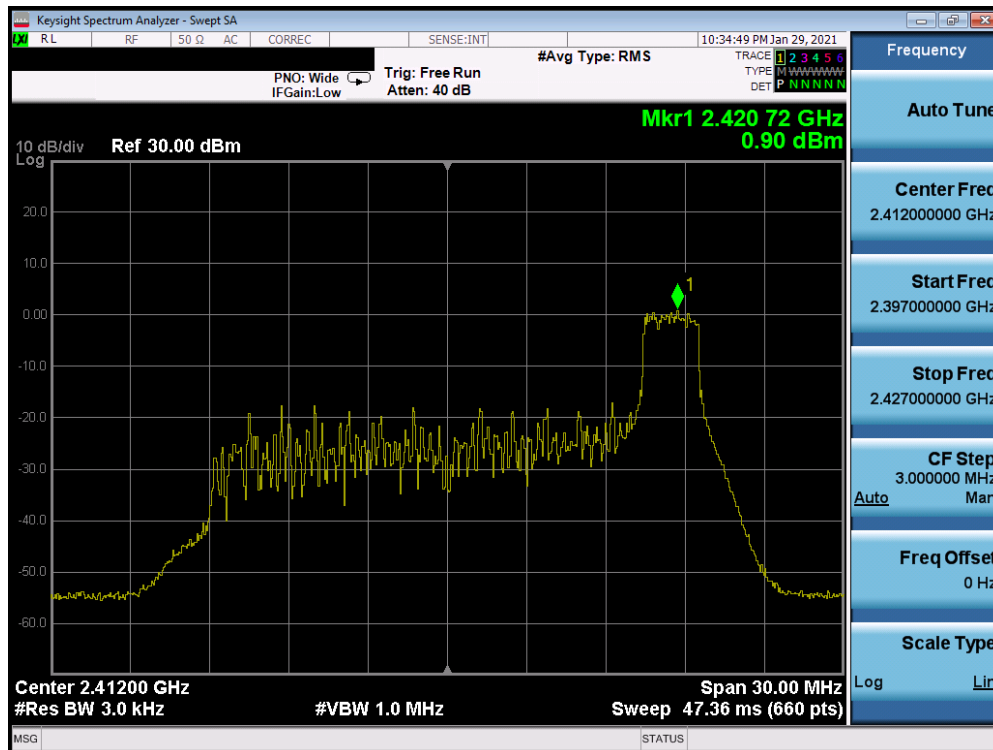


Plot 7-52. Power Spectral Density Plot CDD Antenna 2a (802.11ax OFDMA – RU26 Index 4 – Ch. 1)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 55 of 158 |

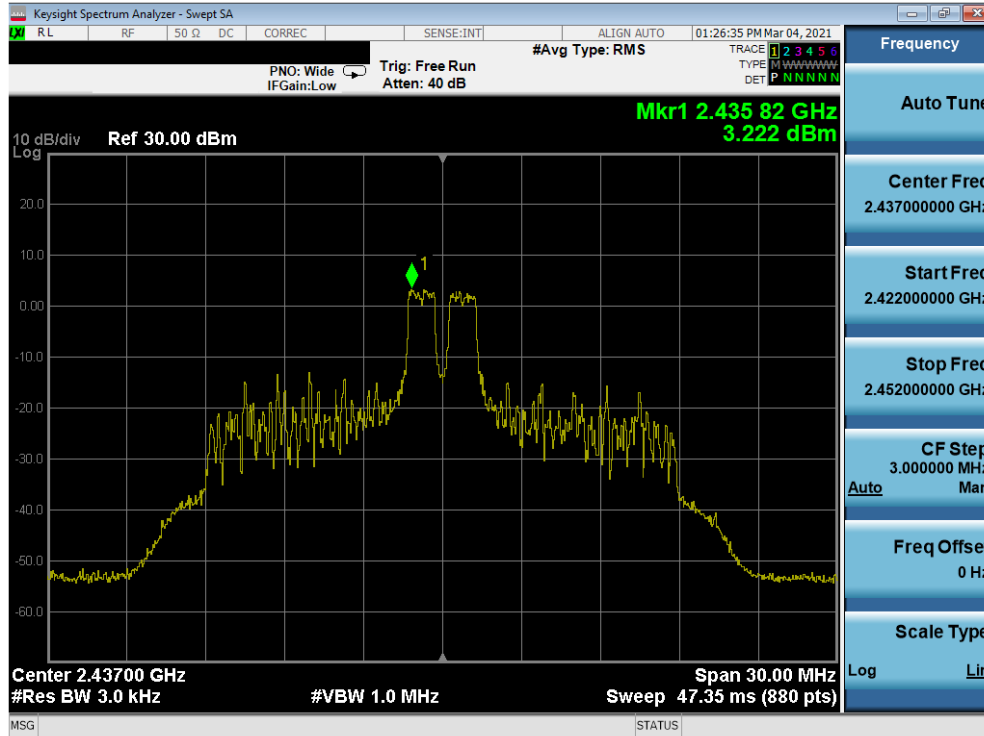


Plot 7-53. Power Spectral Density Plot CDD Antenna 4a (802.11ax OFDMA – RU26 Index 8 – Ch. 1)

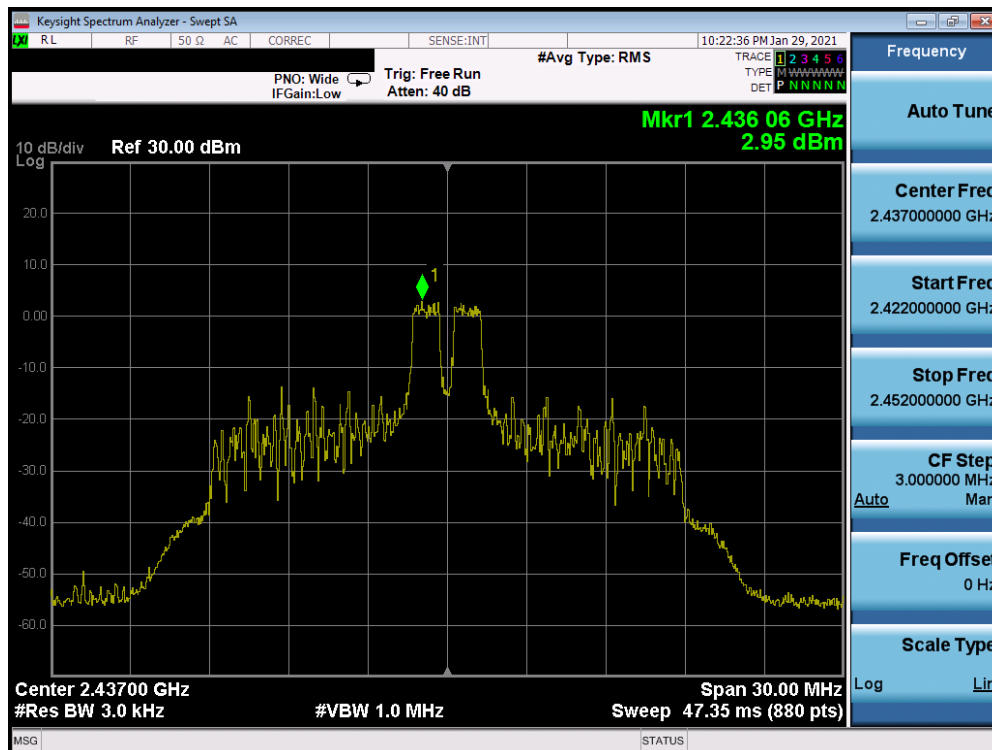


Plot 7-54. Power Spectral Density Plot CDD Antenna 2a (802.11ax OFDMA – RU26 Index 8 – Ch. 1)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 56 of 158 |

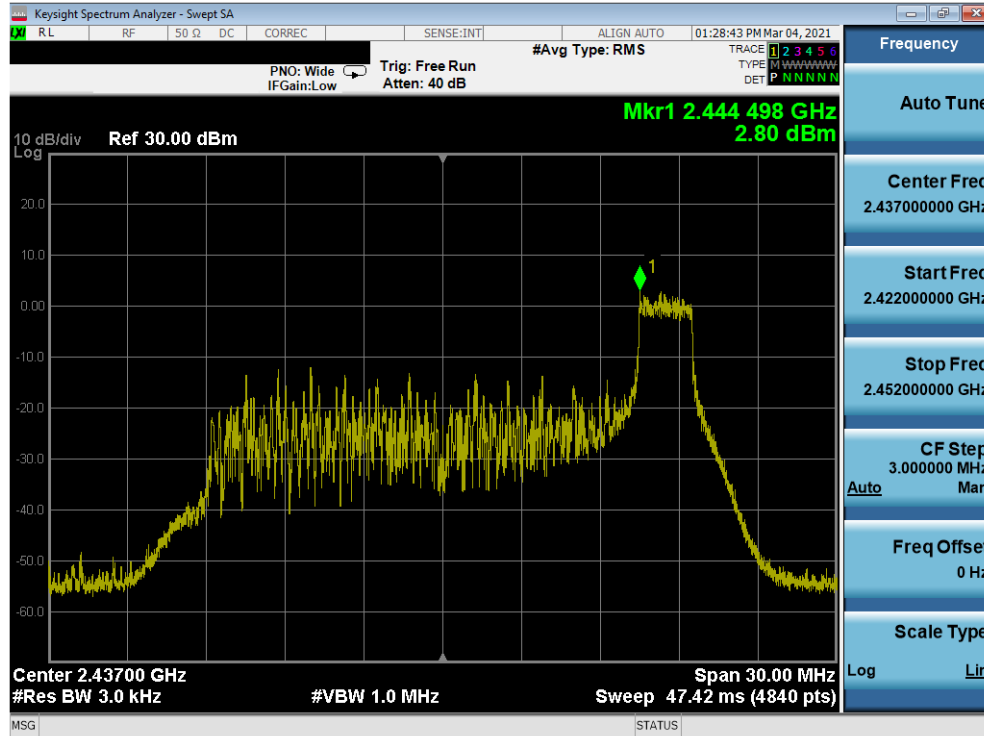


Plot 7-57. Power Spectral Density Plot CDD Antenna 4a (802.11ax OFDMA – RU26 Index 4 – Ch. 6)

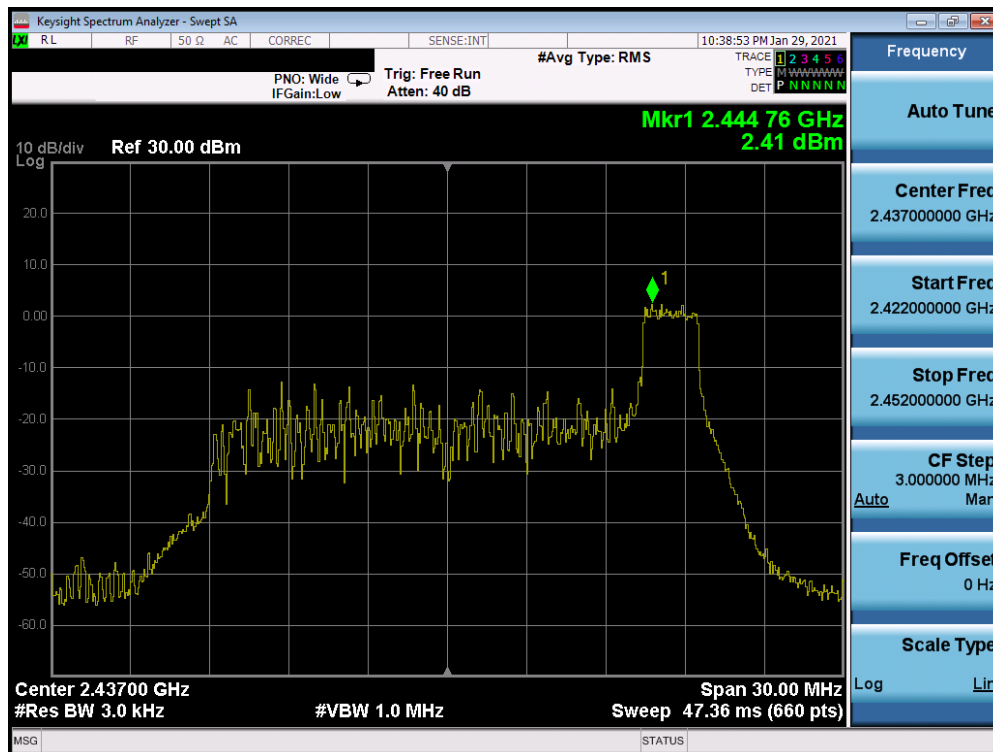


Plot 7-58. Power Spectral Density Plot CDD Antenna 2a (802.11ax OFDMA – RU26 Index 4 – Ch. 6)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 58 of 158 |

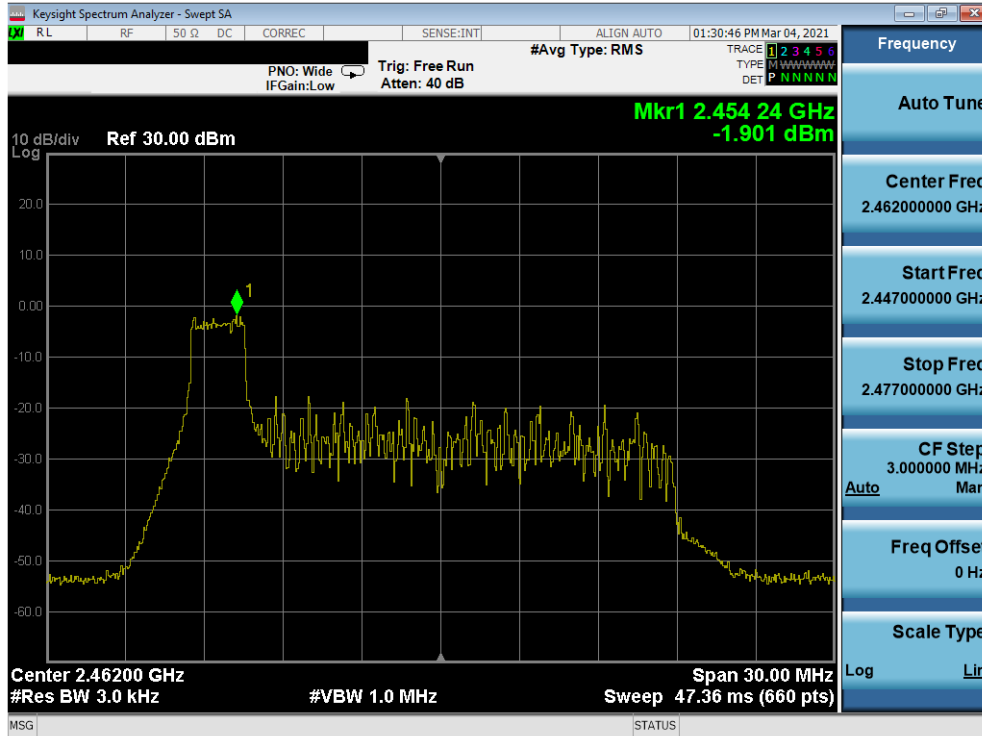


Plot 7-59. Power Spectral Density Plot CDD Antenna 4a (802.11ax OFDMA – RU26 Index 8 – Ch. 6)

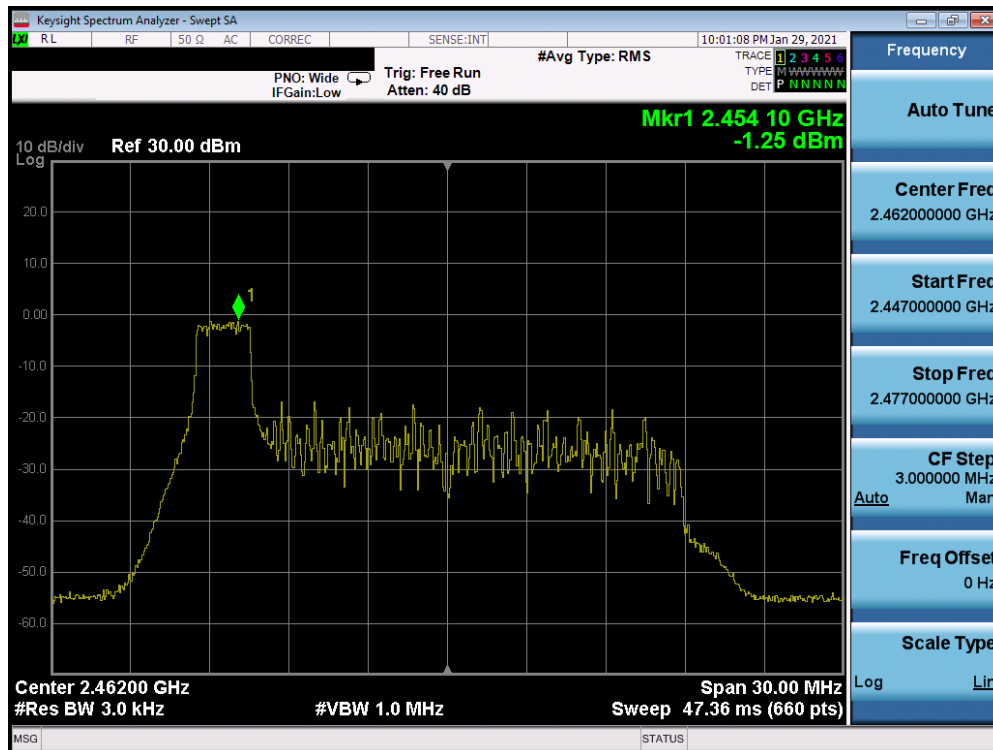


Plot 7-60. Power Spectral Density Plot CDD Antenna 2a (802.11ax OFDMA – RU26 Index 8 – Ch. 6)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 59 of 158 |

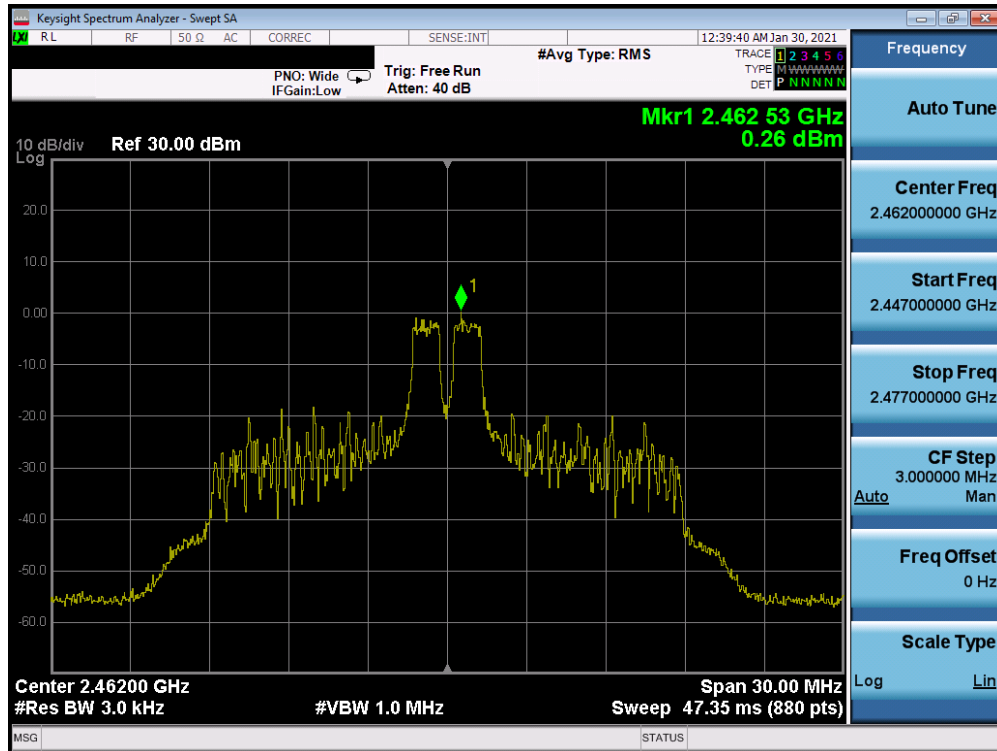


Plot 7-61. Power Spectral Density Plot CDD Antenna 4a (802.11ax OFDMA – RU26 Index 0 – Ch. 11)

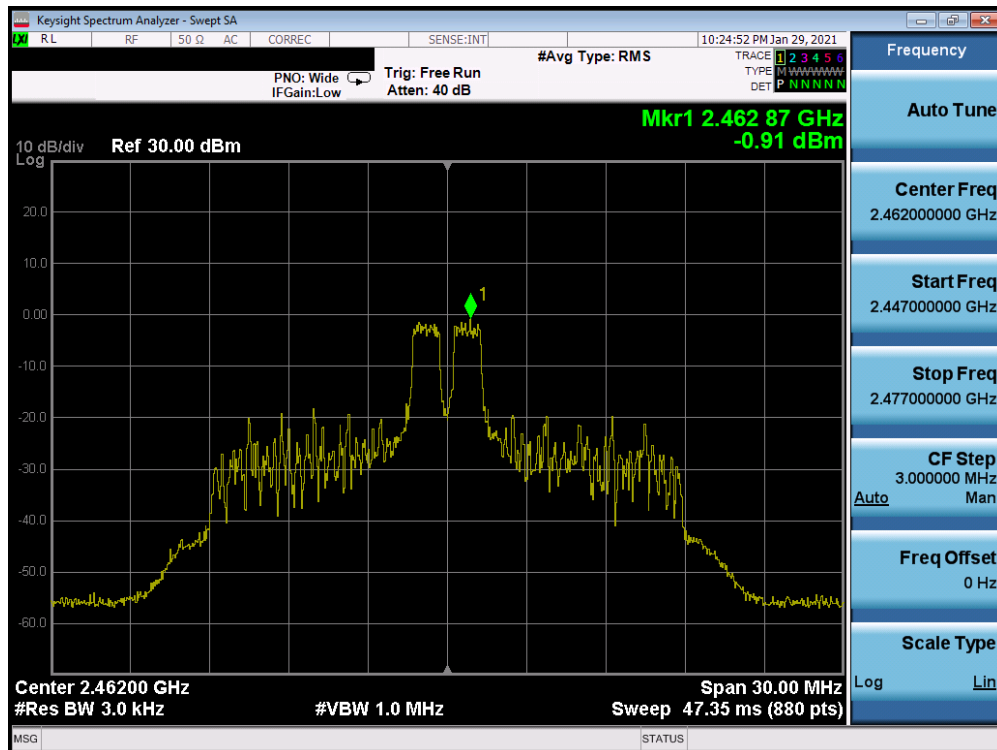


Plot 7-62. Power Spectral Density Plot CDD Antenna 2a (802.11ax OFDMA – RU26 Index 0 – Ch. 11)

| | | | |
|---|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 |  | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 60 of 158 |

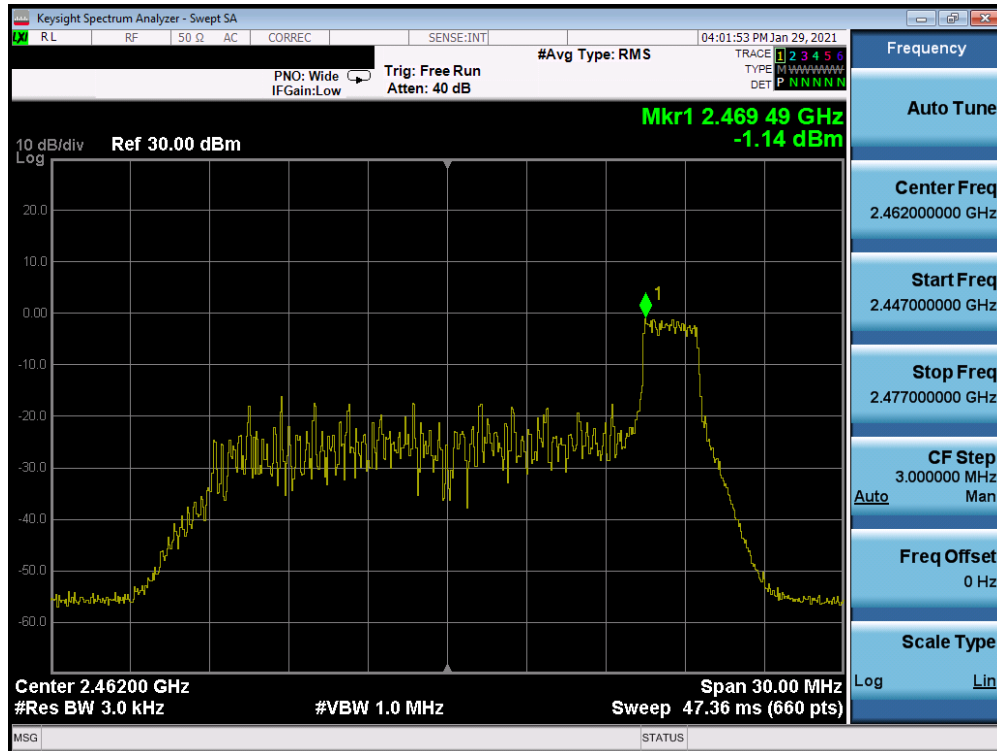


Plot 7-63. Power Spectral Density Plot CDD Antenna 4a (802.11ax OFDMA – RU26 Index 4 – Ch. 11)

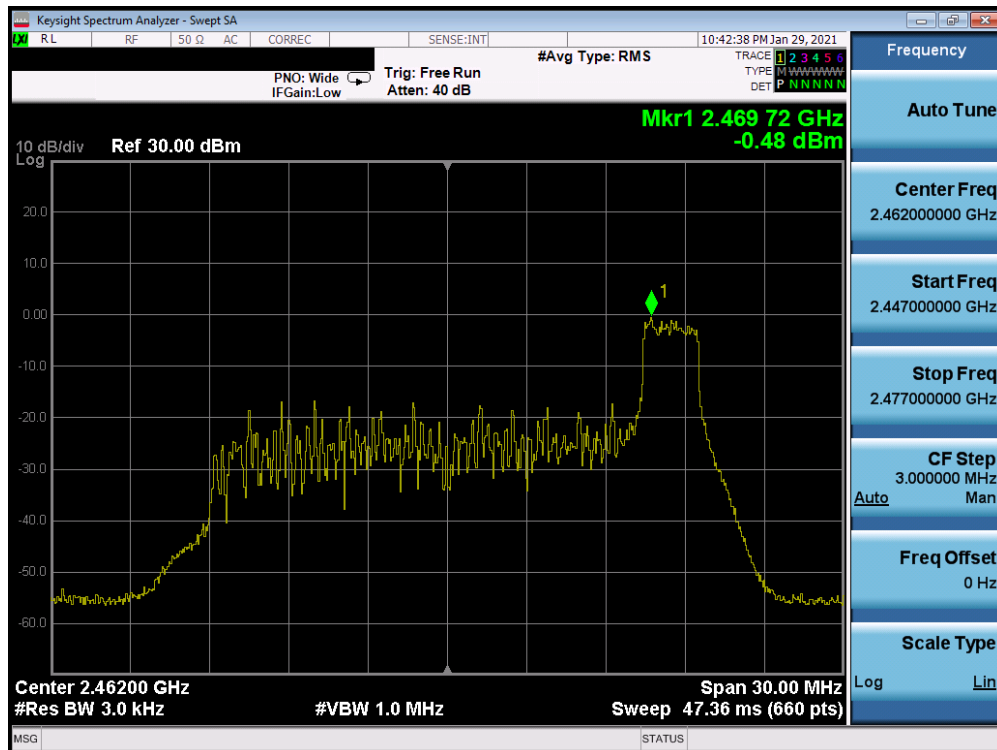


Plot 7-64. Power Spectral Density Plot CDD Antenna 2a (802.11ax OFDMA – RU26 Index 4 – Ch. 11)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 61 of 158 |

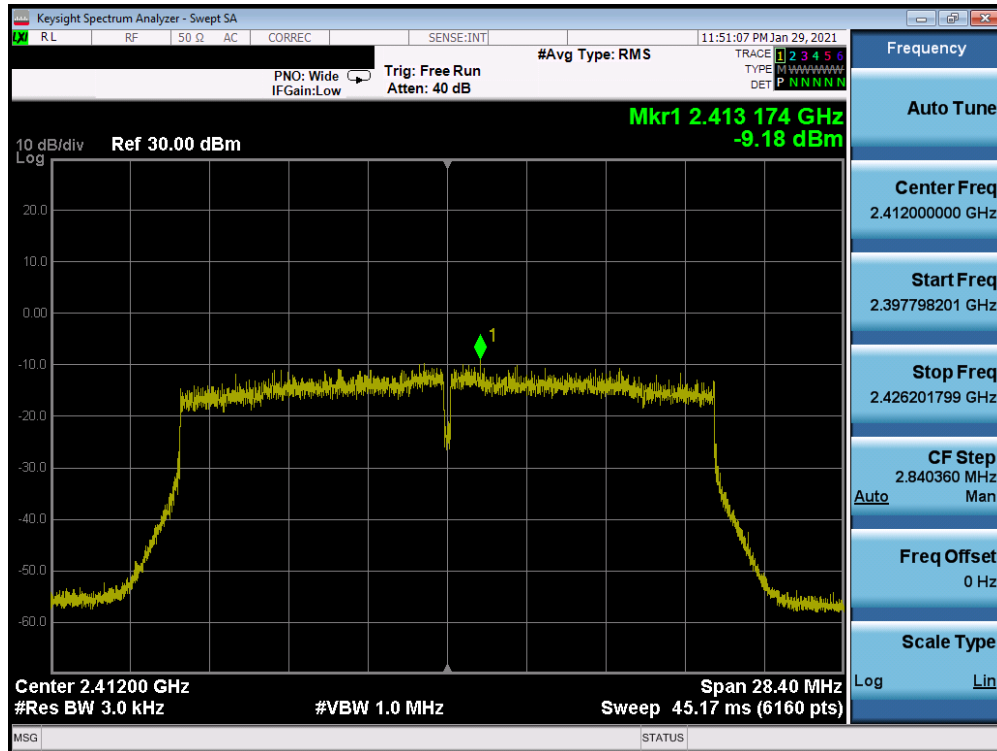


Plot 7-65. Power Spectral Density Plot CDD Antenna 4a (802.11ax OFDMA – RU26 Index 8 – Ch. 11)

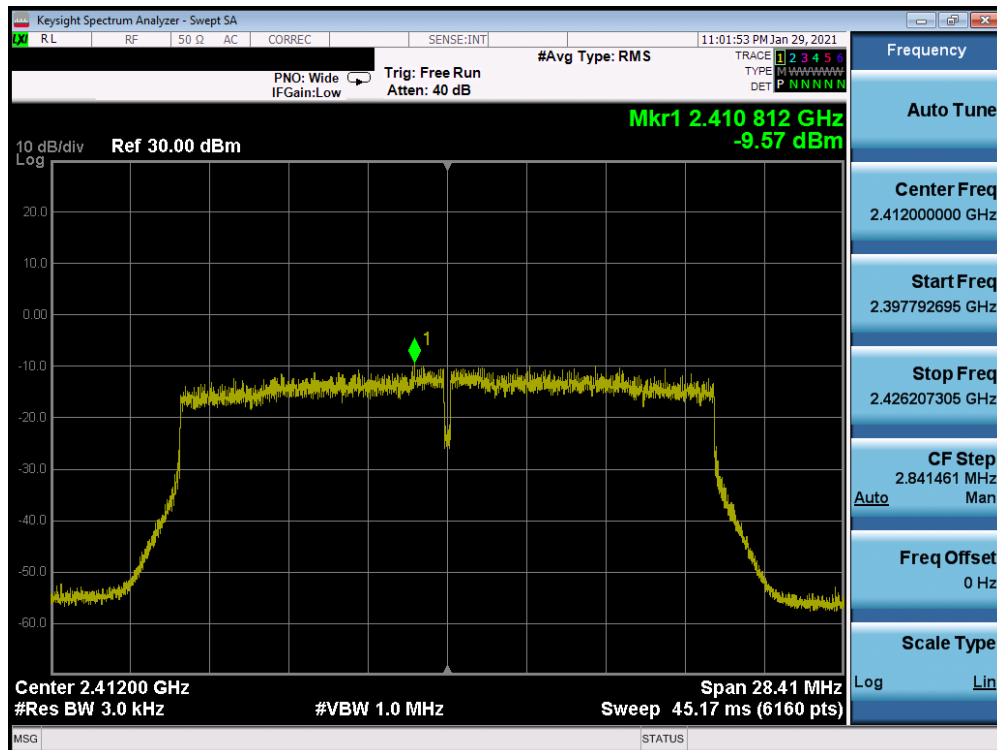


Plot 7-66. Power Spectral Density Plot CDD Antenna 2a (802.11ax OFDMA – RU26 Index 8 – Ch. 11)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 62 of 158 |

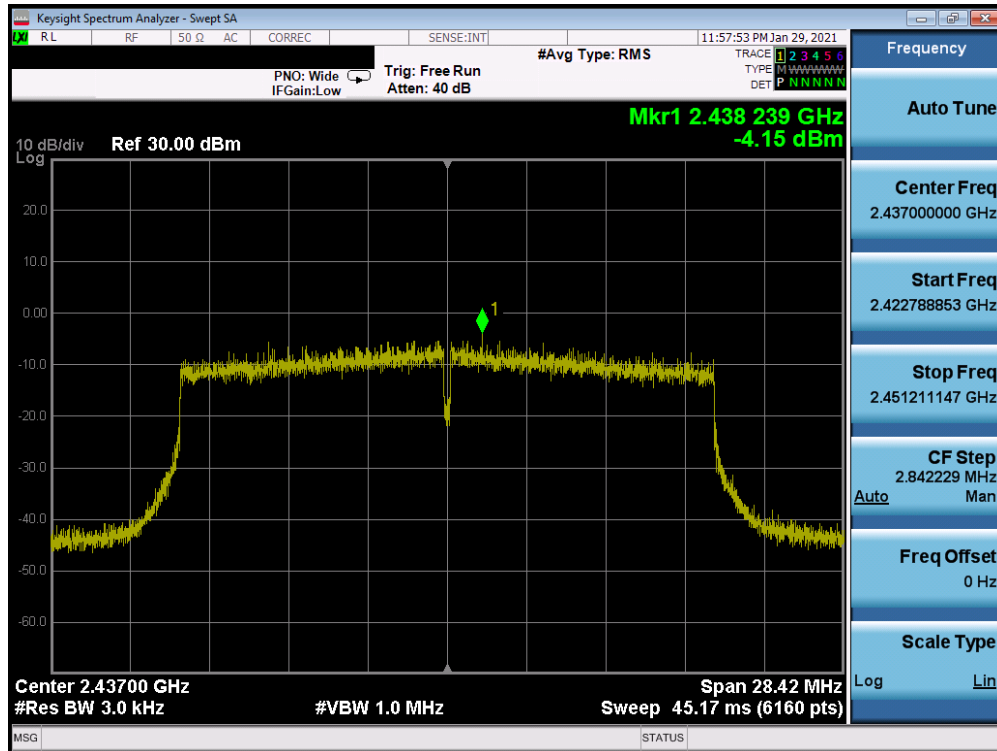


Plot 7-67. Power Spectral Density Plot CDD Antenna 4a (802.11ax OFDMA – RU242 – Ch. 1)

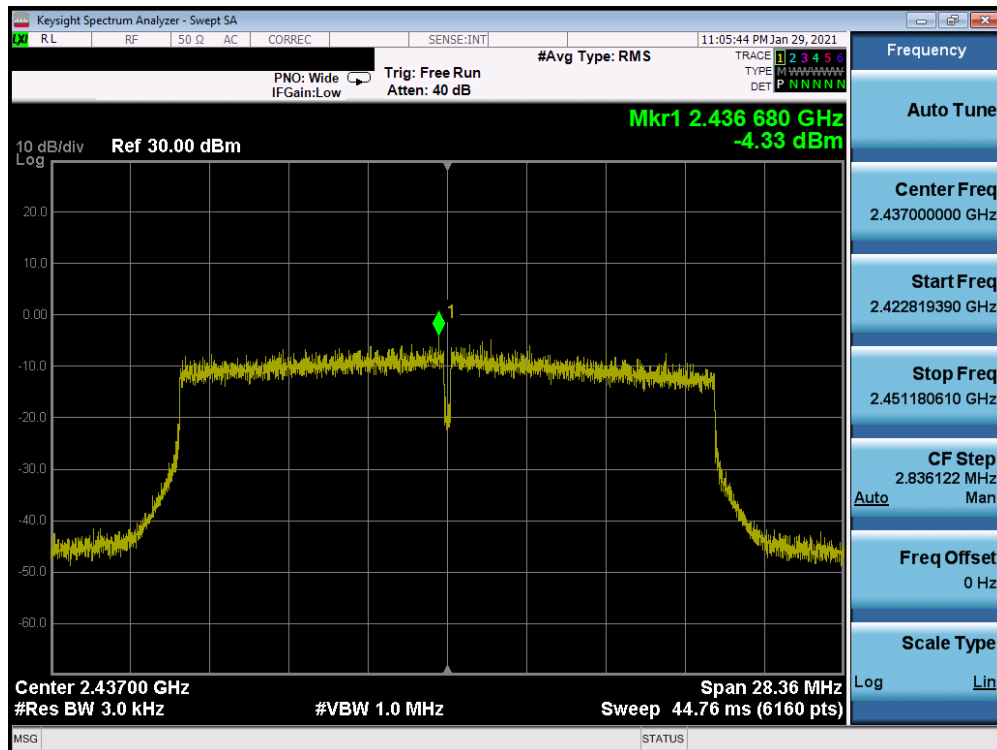


Plot 7-68. Power Spectral Density Plot CDD Antenna 2a (802.11ax OFDMA – RU242 – Ch. 1)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 63 of 158 |

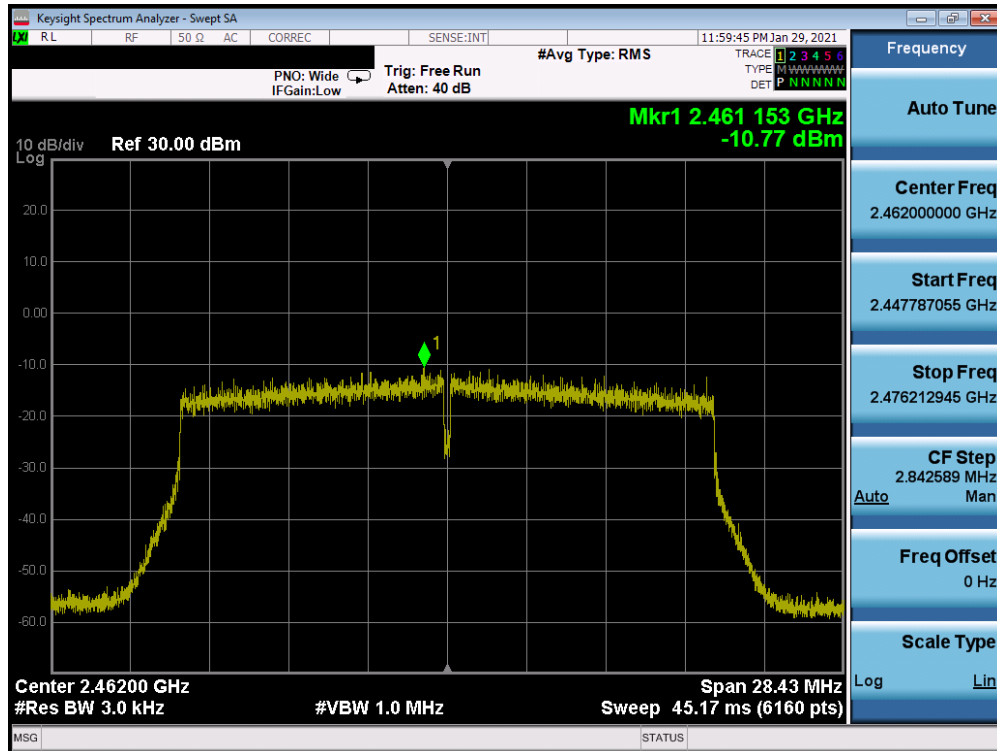


Plot 7-69. Power Spectral Density Plot CDD Antenna 4a (802.11ax OFDMA – RU242 – Ch. 6)

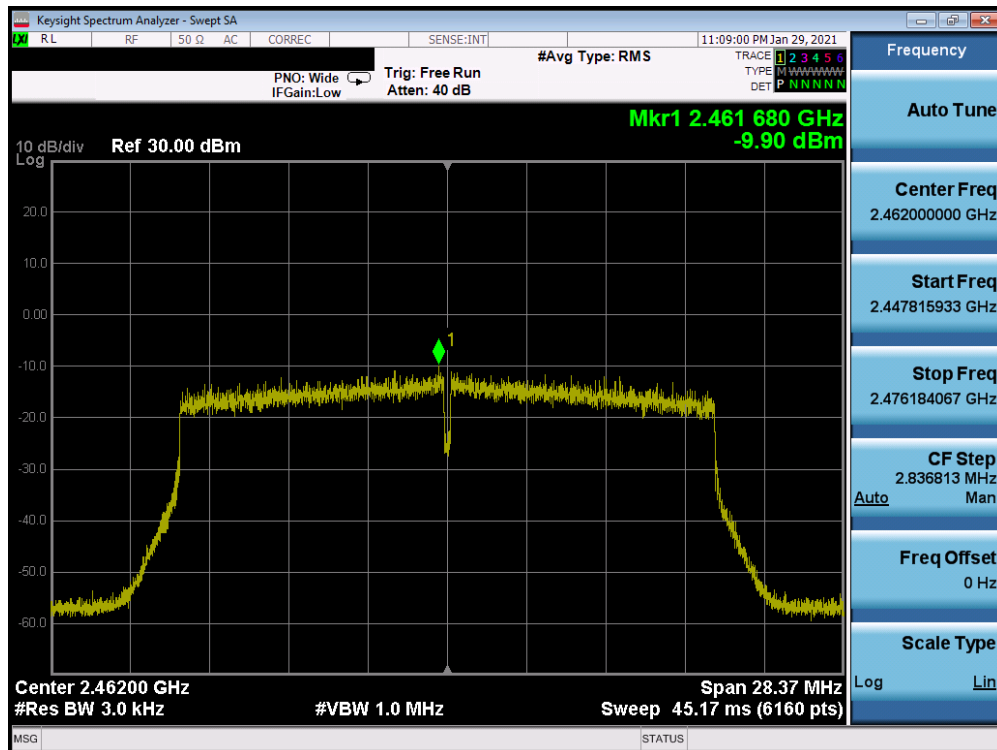


Plot 7-70. Power Spectral Density Plot CDD Antenna 2a (802.11ax OFDMA – RU242 – Ch. 6)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 64 of 158 |



Plot 7-71. Power Spectral Density Plot CDD Antenna 4a (802.11ax OFDMA – RU242 – Ch. 11)



Plot 7-72. Power Spectral Density Plot CDD Antenna 2a (802.11ax OFDMA – RU242 – Ch. 11)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 65 of 158 |

Note:

Per ANSI C63.10-2013 Section 14.3.2.2 and KDB 662911 D01 v02r01 Section E)2), the power spectral density at Antenna 4a and Antenna 2a were first measured separately as shown in the section above. The measured values were then summed in linear power units then converted back to dBm.

Sample CDD Calculation:

At 2412MHz the average conducted power spectral density was measured to be -0.92 dBm for Antenna 4a and -0.79 dBm for Antenna 2a.

$$\text{Antenna 4a} + \text{Antenna 2a} = \text{CDD}$$

$$(-0.92 \text{ dBm} + -0.79 \text{ dBm}) = (0.81 \text{ mW} + 0.83 \text{ mW}) = 1.64 \text{ mW} = 2.16 \text{ dBm}$$

| | | | | |
|--|--|---|--|--|
| FCC ID: BCGA2301 IC: 579C-A2301 |  PCTEST Proud to be part of  element | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | | Page 66 of 158 |

7.5 Conducted Authorized Band Edge

§15.247(d); RSS-247 [5.5]

Test Overview and Limit

All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates, tone configurations, and RU indices were investigated to determine the worst case configuration. For the following out of band conducted emissions plots at the band edge, the EUT was set to a data rate of MCS5 in 802.11ax-RU mode as this setting produced the worst-case emissions.

The limit for out-of-band spurious emissions at the band edge is 20dB below the fundamental emission level, as determined from the in-band power measurement of the DTS channel performed in a 100kHz bandwidth per the PSD procedure (Section 7.4).

Test Procedure Used

ANSI C63.10-2013 – Section 11.11.3
KDB 558074 D01 v05r02 – Section 8.7.2

Test Settings

1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
2. Span was set large enough so as to capture all out of band emissions near the band edge
3. RBW = 100kHz
4. VBW = 1MHz
5. Detector = Peak
6. Number of sweep points $\geq 2 \times \text{Span/RBW}$
7. Trace mode = max hold
8. Sweep time = auto couple
9. The trace was allowed to stabilize

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



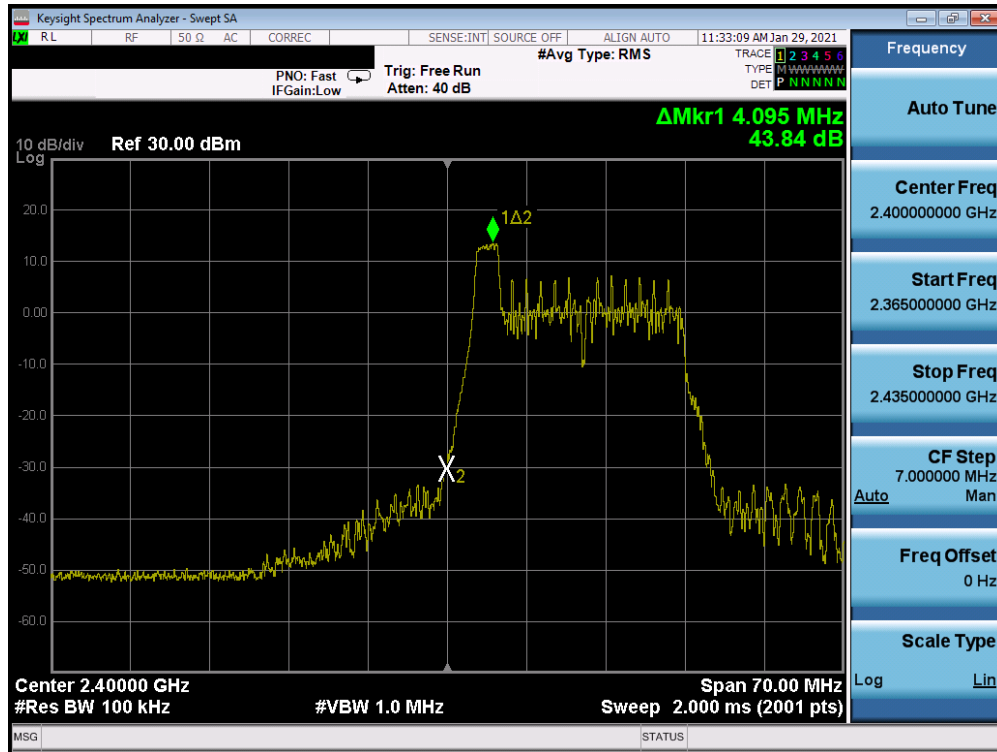
Figure 7-4. Test Instrument & Measurement Setup

Test Notes

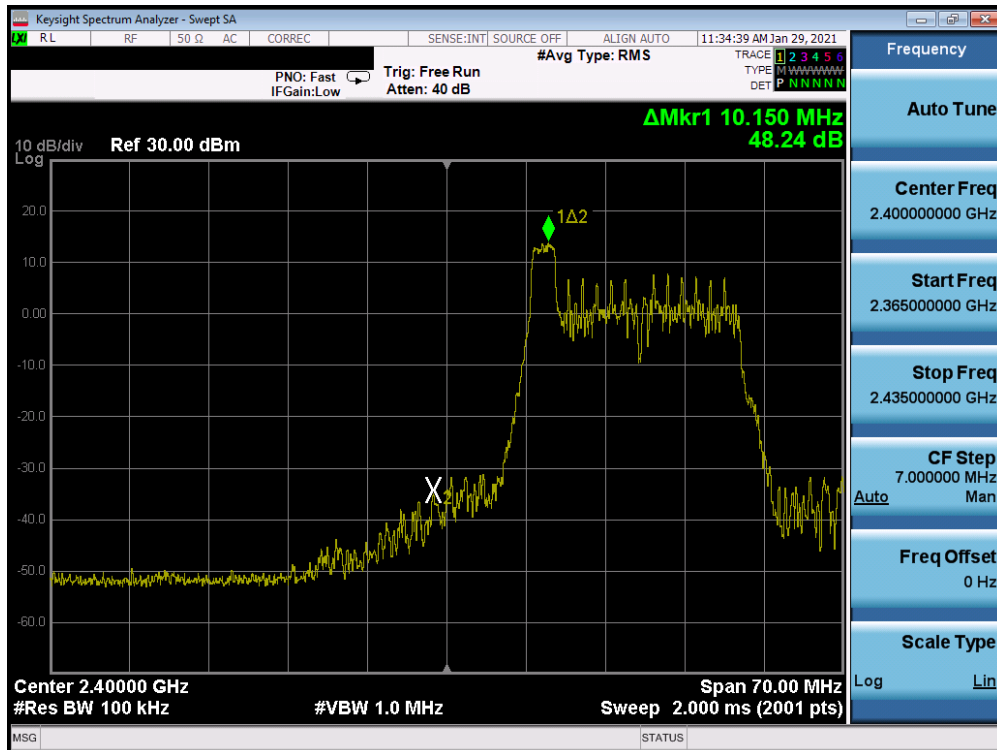
1. All antenna configurations and data rates were investigated and only the worst case are reported.
2. All RU's were investigated and only worst case partially-loaded and fully-loaded RU's are reported.

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 67 of 158 |

Antenna 4a Conducted Emissions at the Band Edge

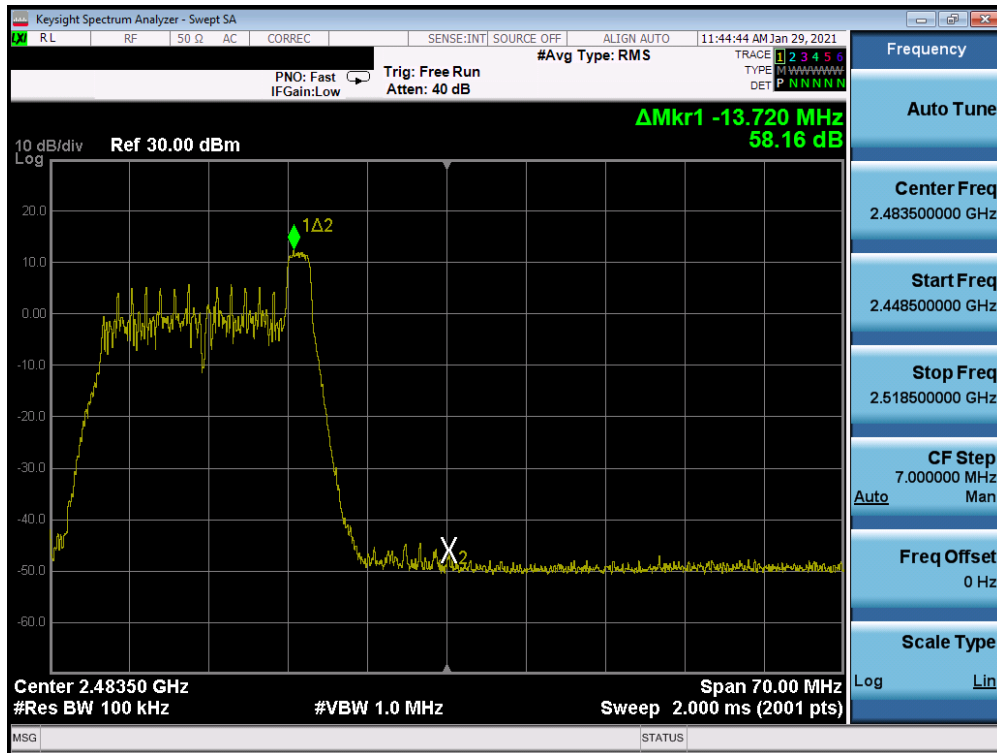


Plot 7-73. Band Edge Antenna 4a (802.11ax OFDMA – RU26 Index 0 – Ch. 1)

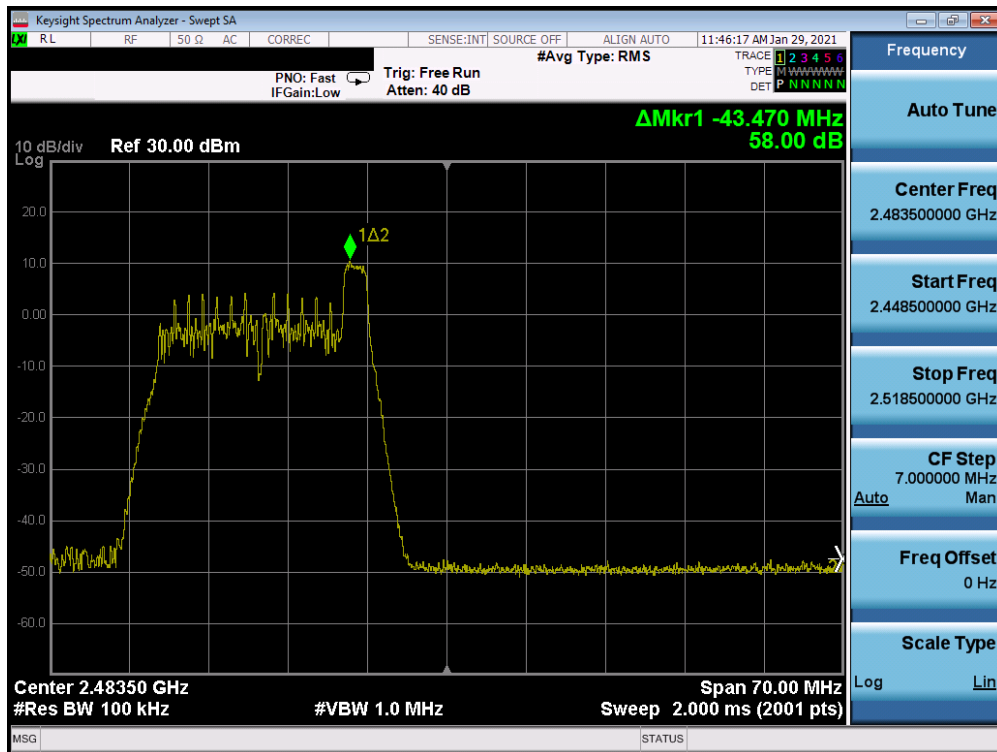


Plot 7-74. Band Edge Antenna 4a (802.11ax OFDMA – RU26 Index 0 – Ch. 2)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 68 of 158 |

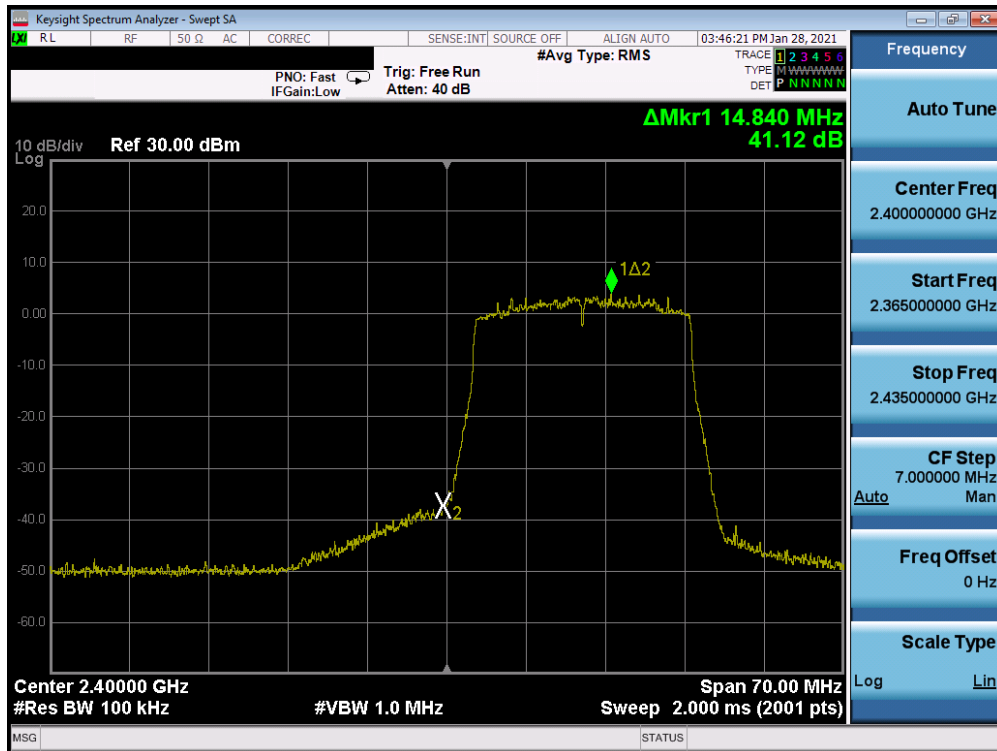


Plot 7-79. Band Edge Antenna 4a (802.11ax OFDMA – RU26 Index 8 – Ch. 11)

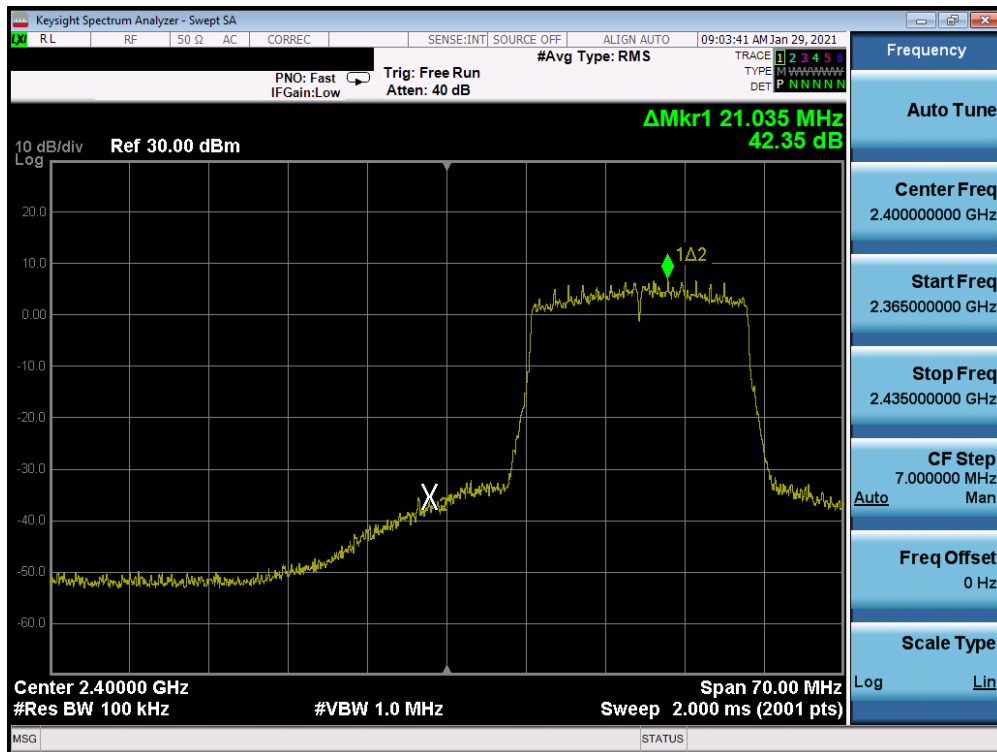


Plot 7-80. Band Edge Antenna 4a (802.11ax OFDMA – RU26 Index 8 – Ch. 12)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 71 of 158 |

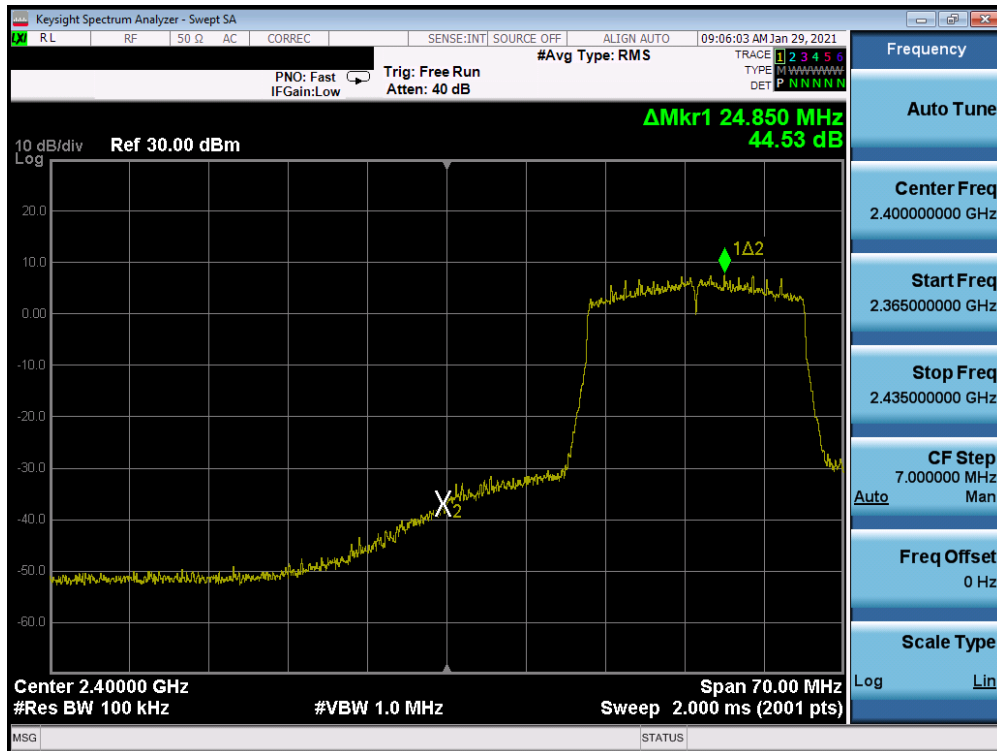


Plot 7-81. Band Edge Antenna 4a (802.11ax OFDMA – RU242 – Ch. 1)

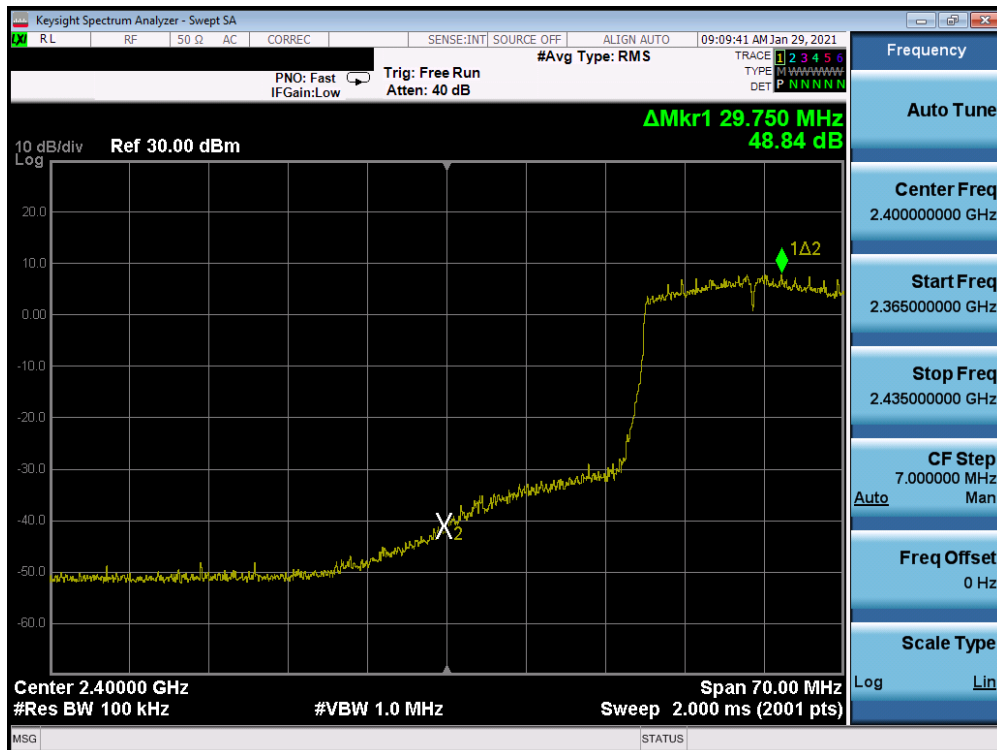


Plot 7-82. Band Edge Antenna 4a (802.11ax OFDMA – RU242 – Ch. 2)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 72 of 158 |

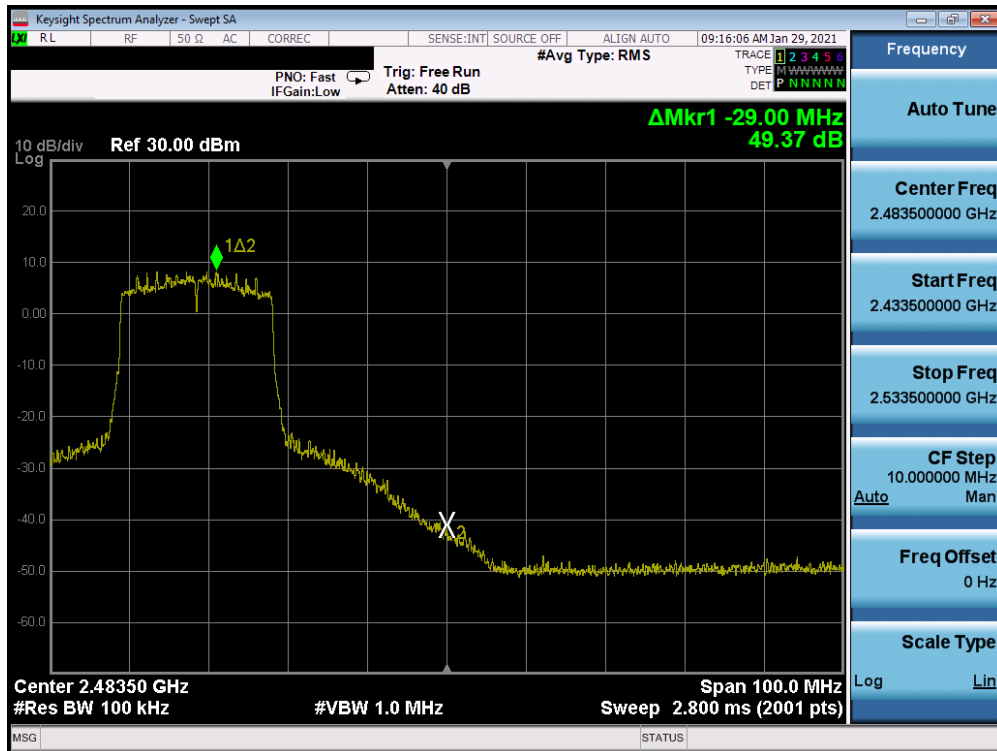


Plot 7-83. Band Edge Antenna 4a (802.11ax OFDMA – RU242 – Ch. 3)

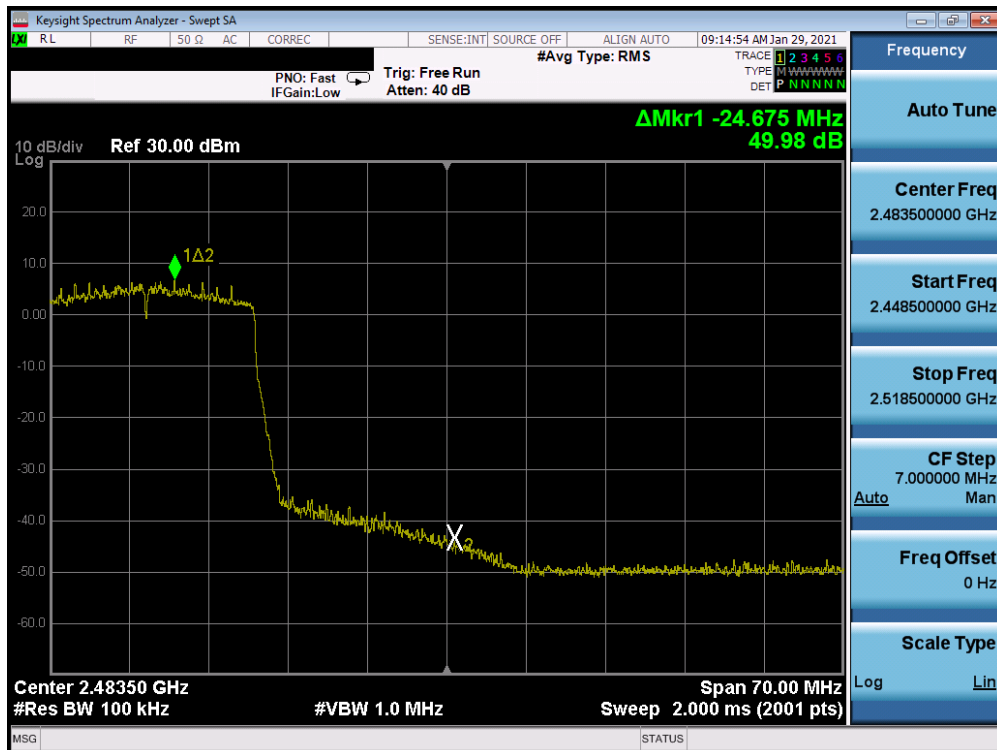


Plot 7-84. Band Edge Antenna 4a (802.11ax OFDMA – RU242 – Ch. 4)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 73 of 158 |

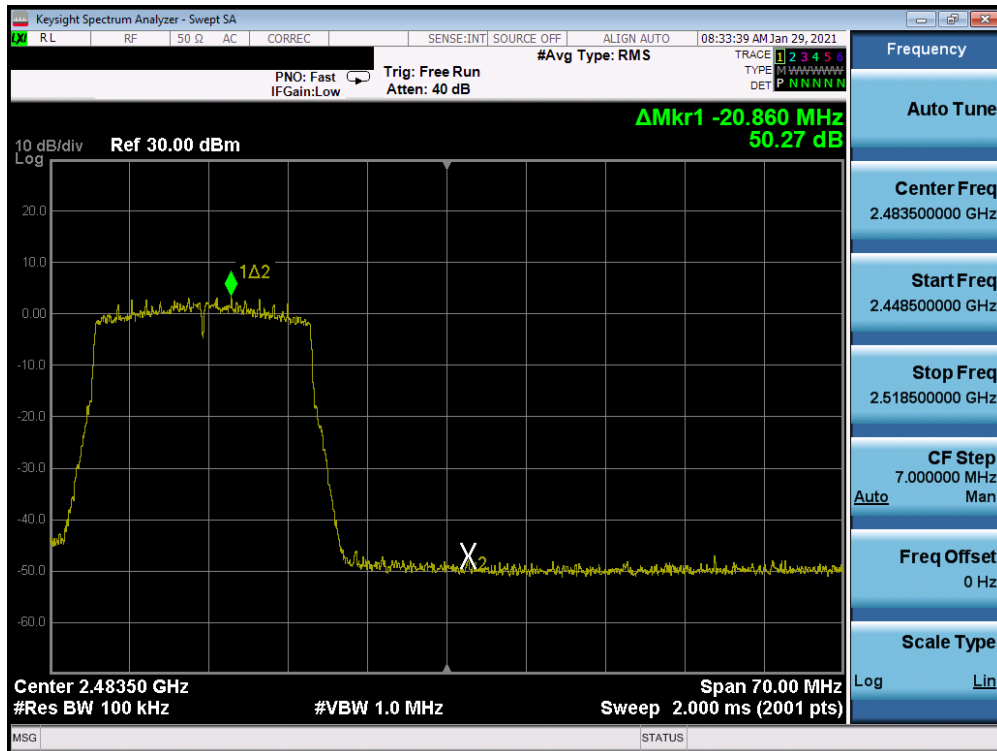


Plot 7-85. Band Edge Antenna 4a (802.11ax OFDMA – RU242 – Ch. 9)

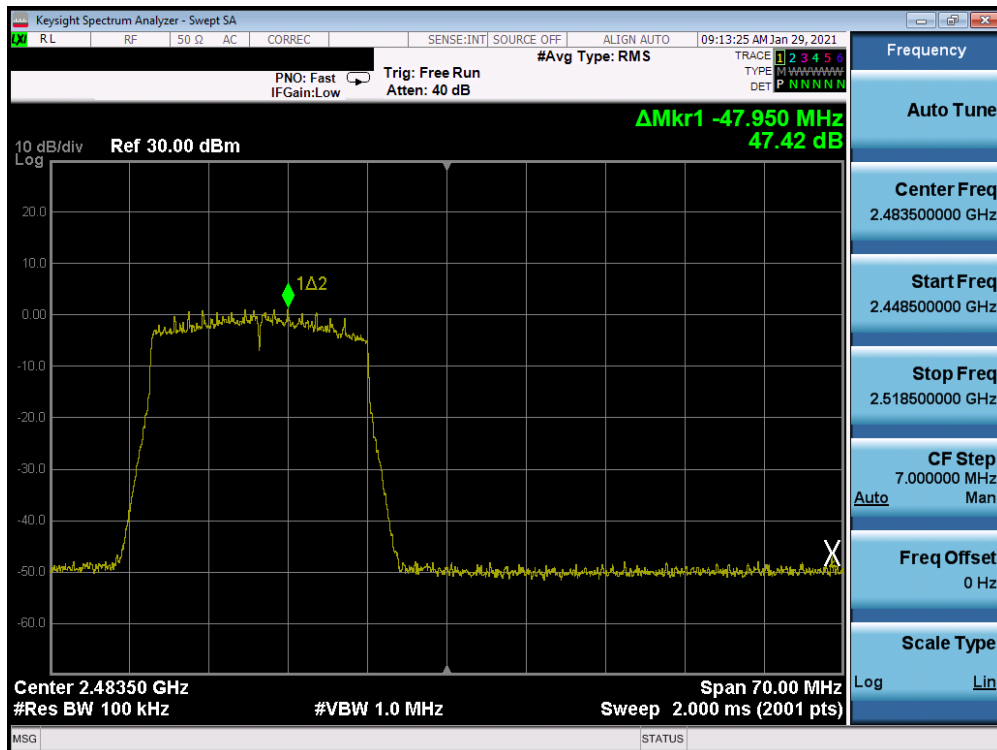


Plot 7-86. Band Edge Antenna 4a (802.11ax OFDMA – RU242 – Ch. 10)

| | | | |
|---|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 |  | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 74 of 158 |



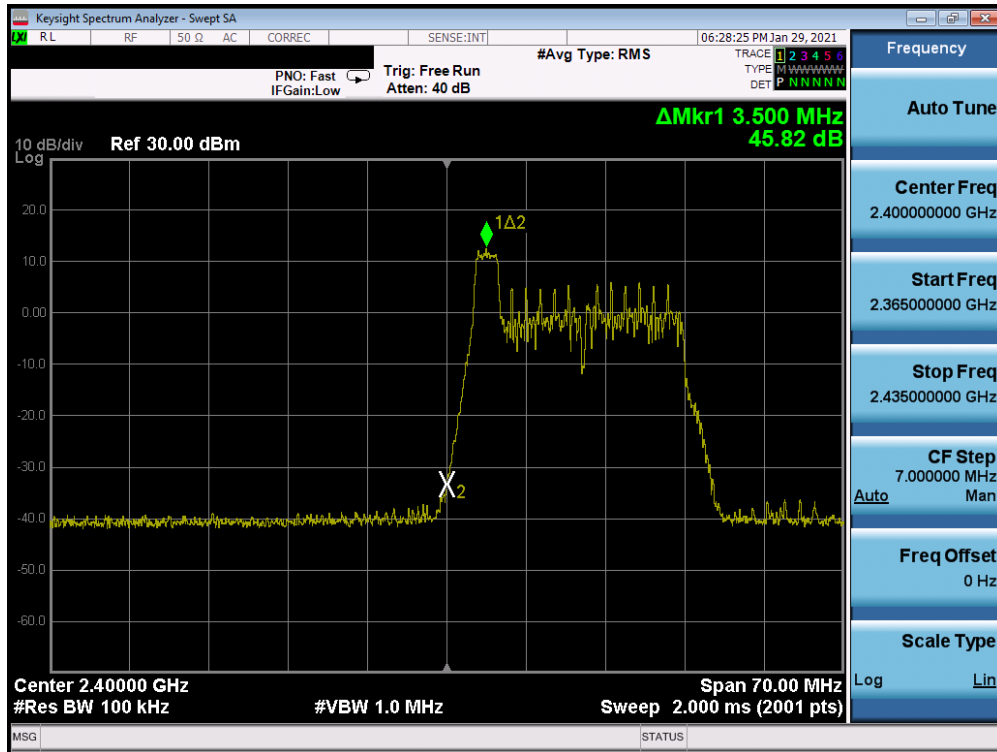
Plot 7-87. Band Edge Antenna 4a (802.11ax OFDMA – RU242 – Ch. 11)



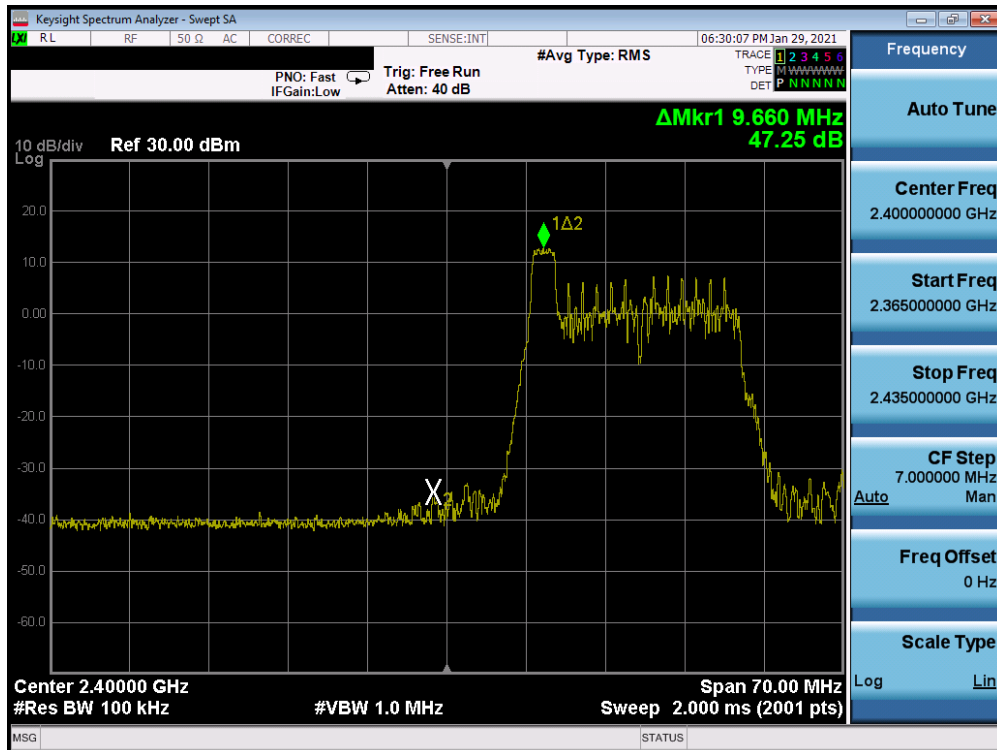
Plot 7-88. Band Edge Antenna 4a (802.11ax OFDMA – RU242 – Ch. 12)

| | | | |
|---|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 |  | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 75 of 158 |

Antenna 2a Conducted Emissions at the Band Edge

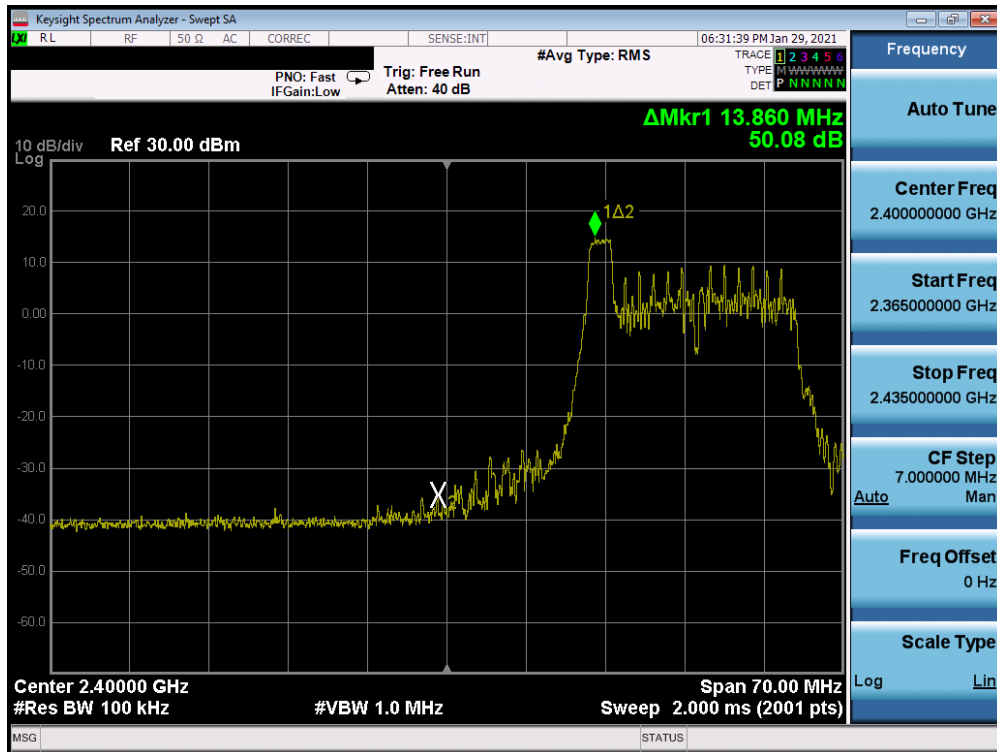


Plot 7-89. Band Edge Antenna 2a (802.11ax OFDMA – RU26 Index 0 – Ch. 1)

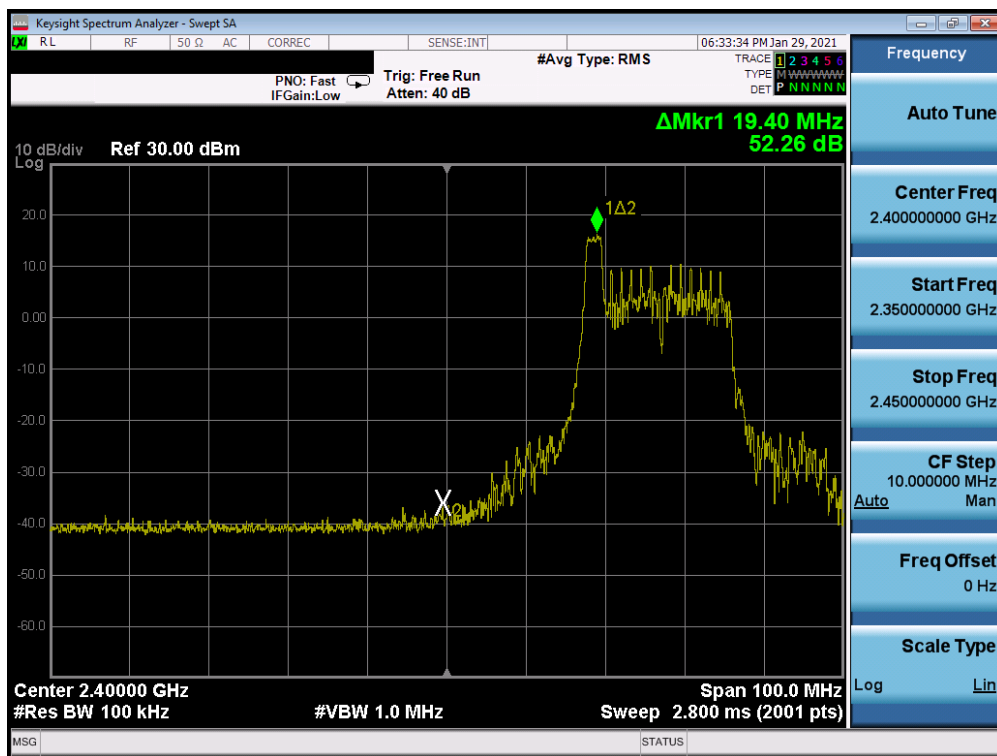


Plot 7-90. Band Edge Antenna 2a (802.11ax OFDMA – RU26 Index 0 – Ch. 2)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 76 of 158 |

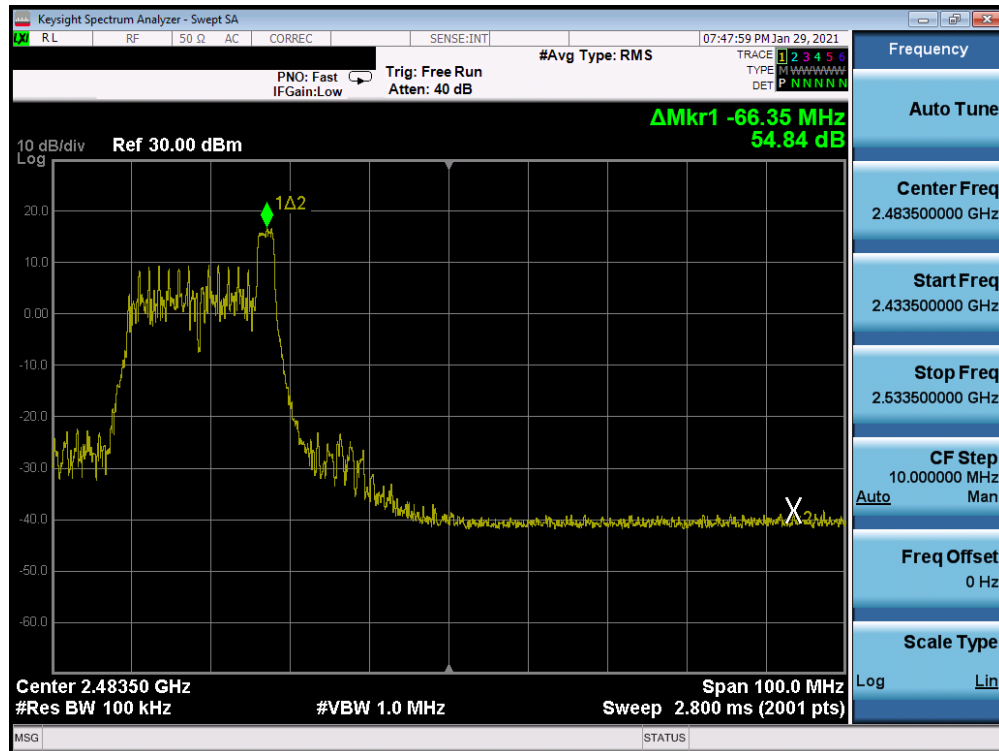


Plot 7-91. Band Edge Antenna 2a (802.11ax OFDMA – RU26 Index 0 – Ch. 3)

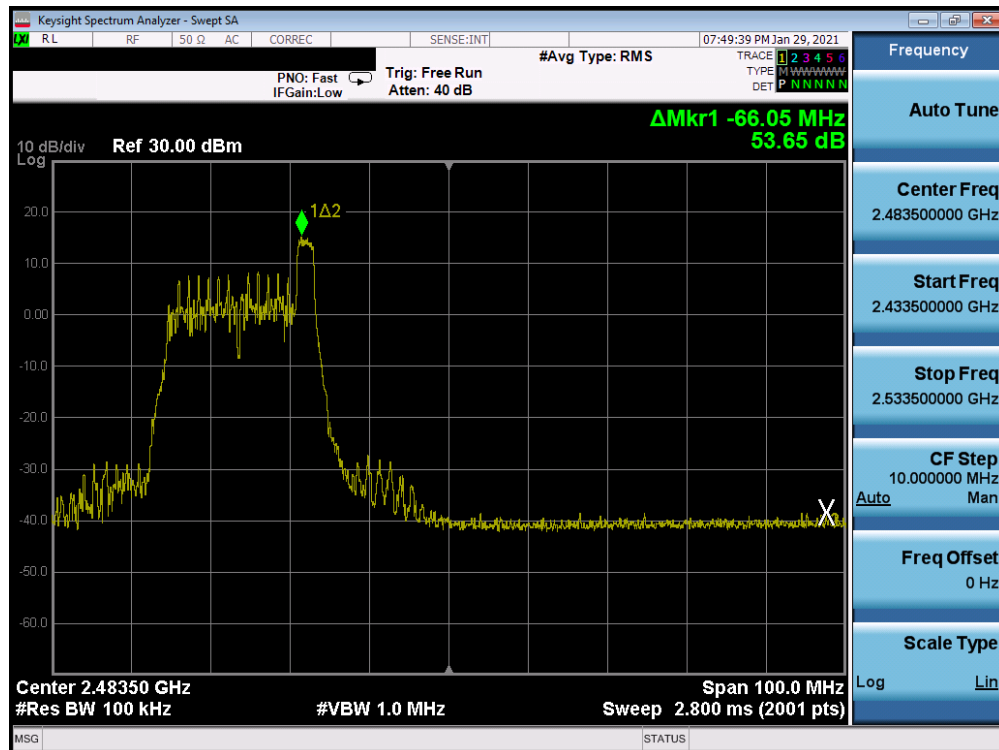


Plot 7-92. Band Edge Antenna 2a (802.11ax OFDMA – RU26 Index 0 – Ch. 4)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 77 of 158 |

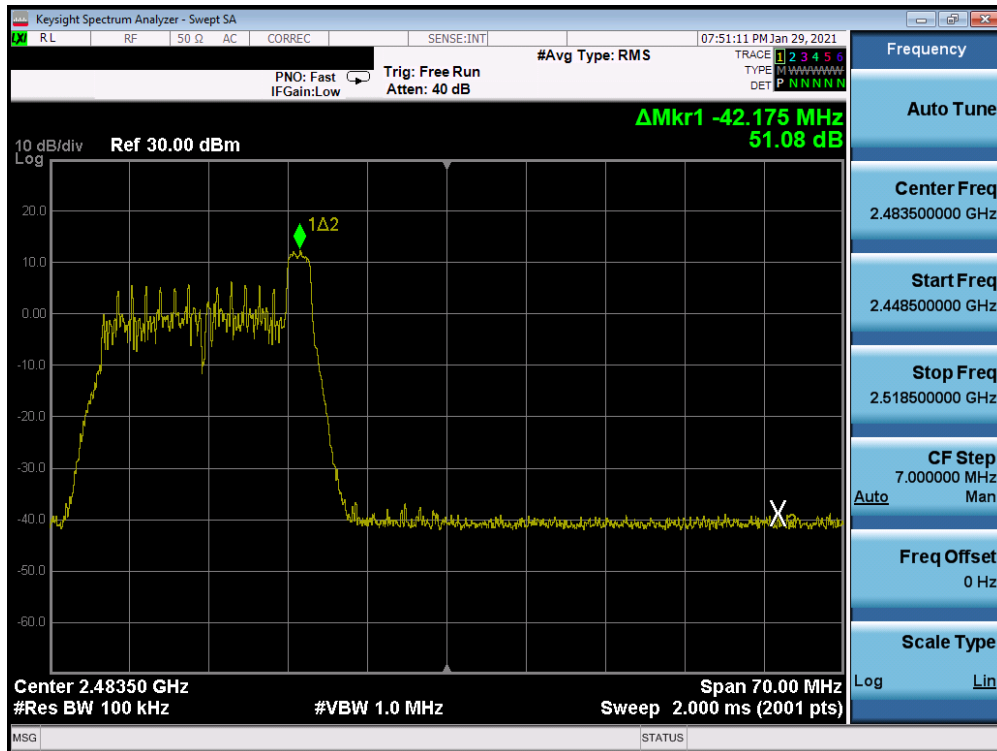


Plot 7-93. Band Edge Antenna 2a (802.11ax OFDMA – RU26 Index 8 – Ch. 9)

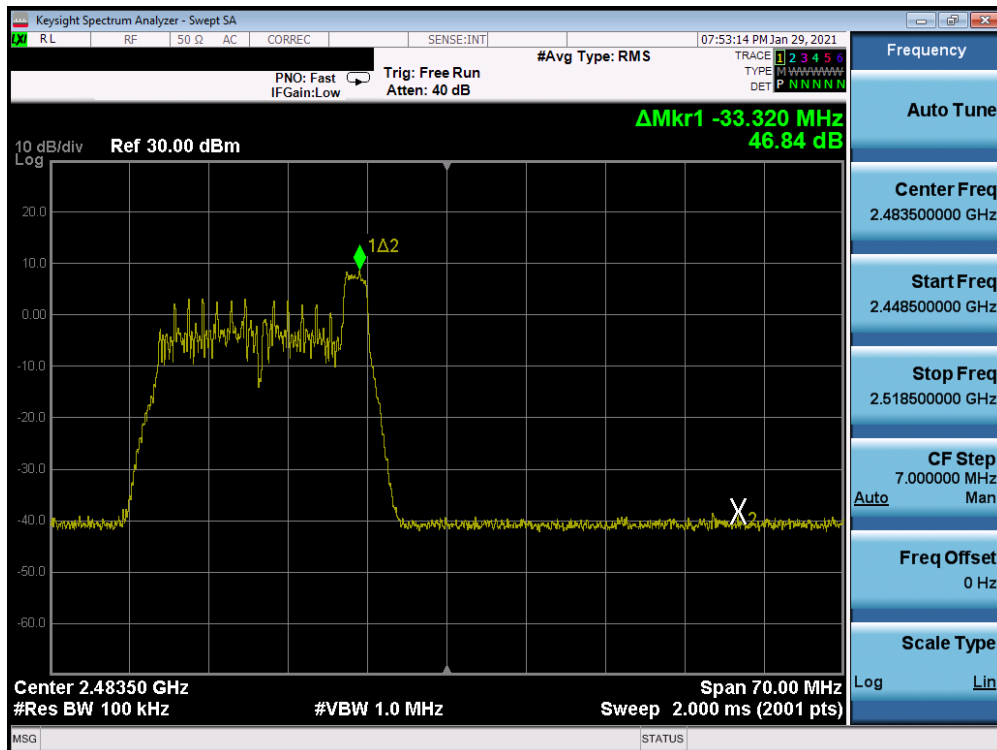


Plot 7-94. Band Edge Antenna 2a (802.11ax OFDMA – RU26 Index 8 – Ch. 10)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 78 of 158 |

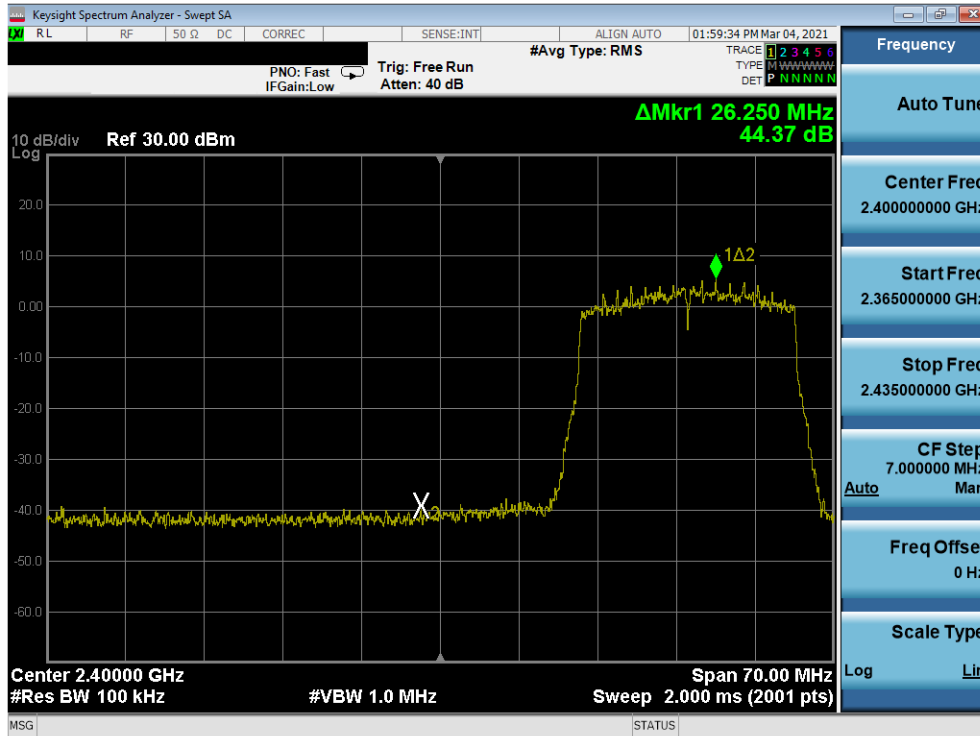


Plot 7-95. Band Edge Antenna 2a (802.11ax OFDMA – RU26 Index 8 – Ch. 11)

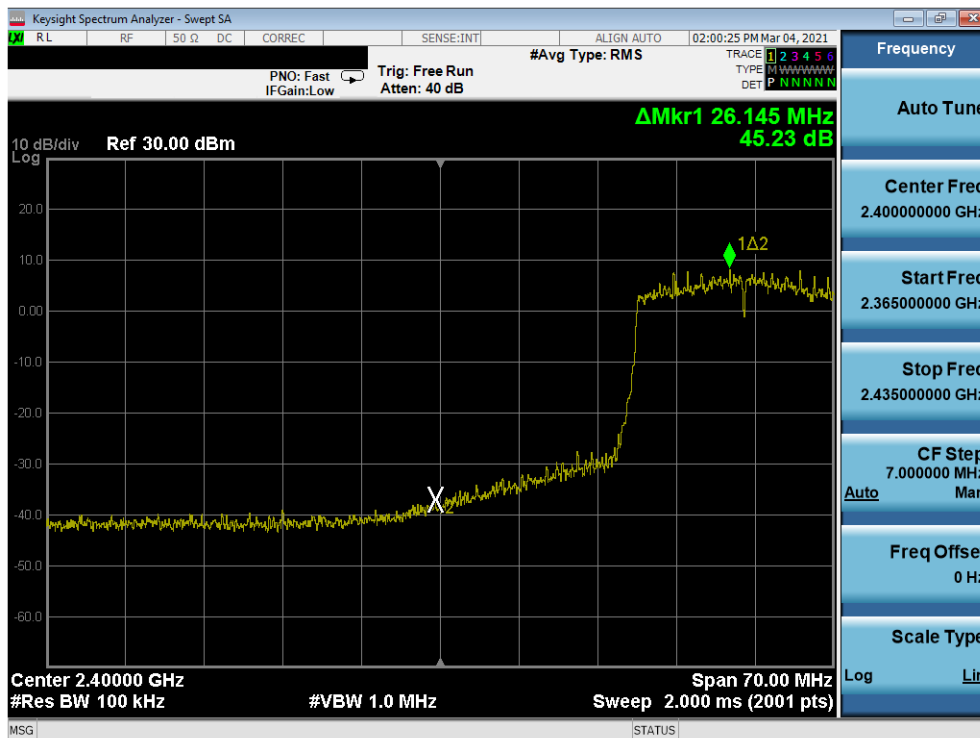


Plot 7-96. Band Edge Antenna 2a (802.11ax OFDMA – RU26 Index 8 – Ch. 12)

| | | | |
|---|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 |  | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 79 of 158 |

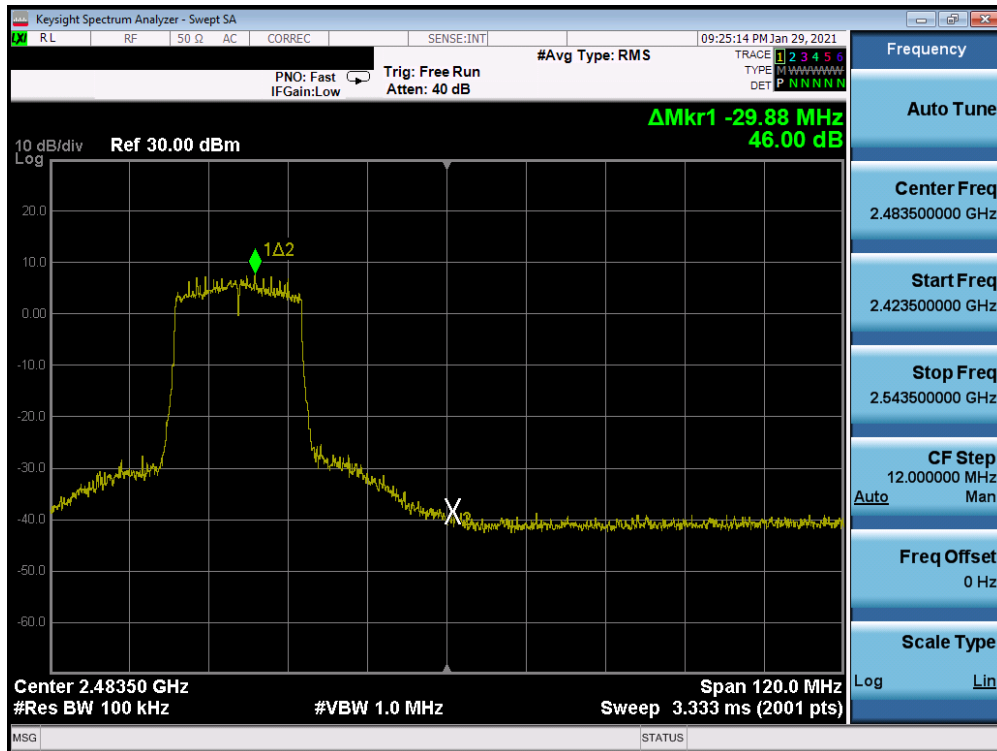


Plot 7-99. Band Edge Antenna 2a (802.11ax OFDMA – RU242 – Ch. 3)

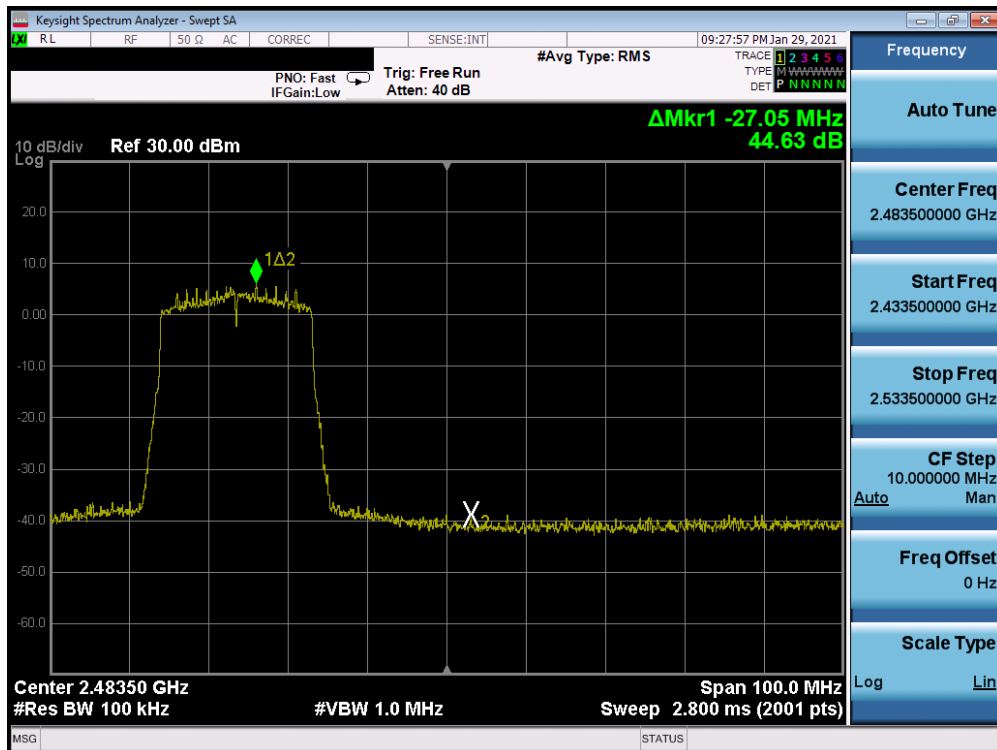


Plot 7-100. Band Edge Antenna 2a (802.11ax OFDMA – RU242 – Ch. 4)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 81 of 158 |

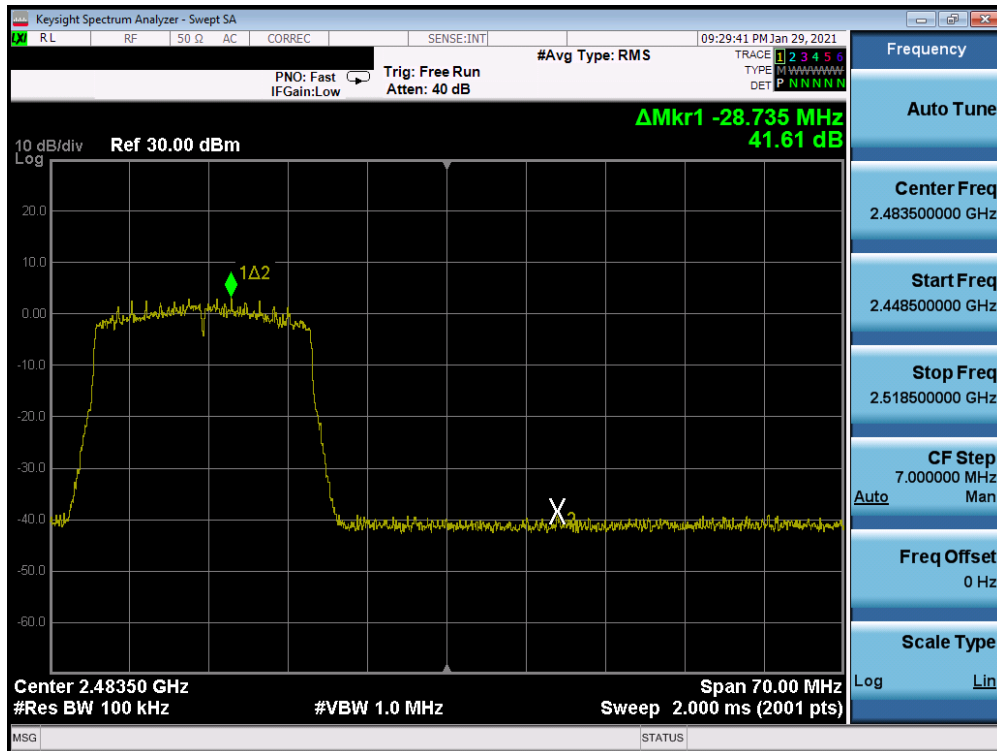


Plot 7-101. Band Edge Antenna 2a (802.11ax OFDMA – RU242 – Ch. 9)

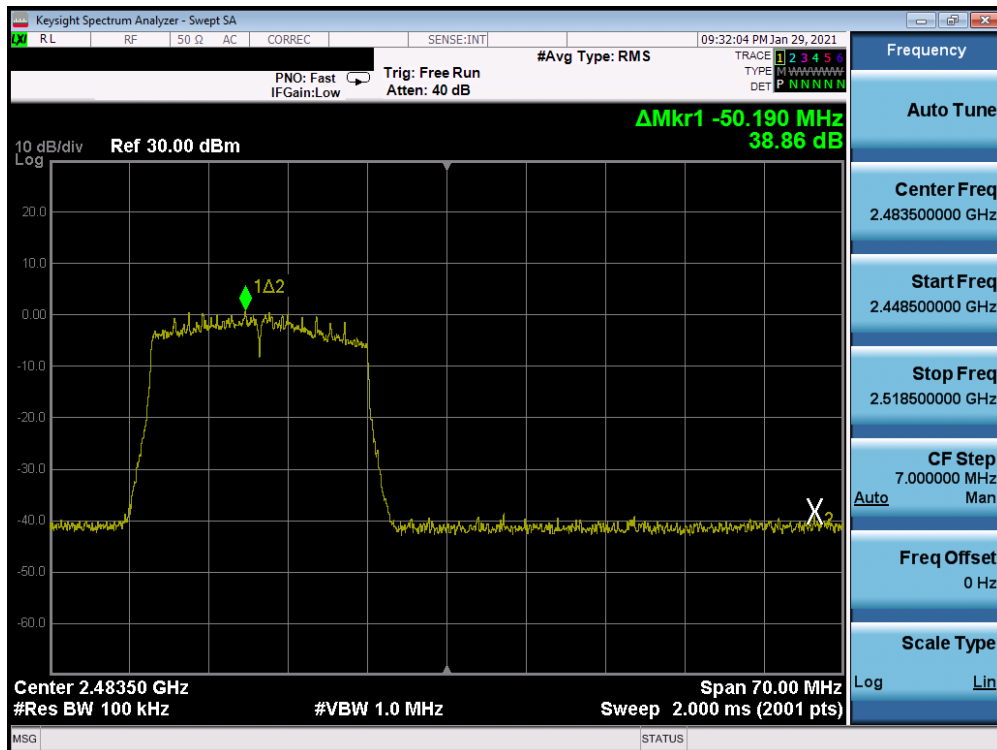


Plot 7-102. Band Edge Antenna 2a (802.11ax OFDMA – RU242 – Ch. 10)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 82 of 158 |



Plot 7-103. Band Edge Antenna 2a (802.11ax OFDMA – RU242 – Ch. 11)



Plot 7-104. Band Edge Antenna 2a (802.11ax OFDMA – RU242 – Ch. 12)

| | | | |
|---|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 |  | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 83 of 158 |

7.6 Conducted Spurious Emissions

§15.247(d); RSS-247 [5.5]

Test Overview and Limit

All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates, tone configurations, and RU indices were investigated to determine the worst case configuration. For the following out of band conducted emissions plots, the EUT was set to a data rate of MCS5 in 802.11ax-RU mode as this setting produced the worst-case emissions.

The limit for out-of-band spurious emissions at the band edge is 20dB below the fundamental emission level, as determined from the in-band power measurement of the DTS channel performed in a 100kHz bandwidth per the procedure in Section 11.11 of ANSI C63.10-2013 and KDB 558074 D01 v05r02.

Test Procedure Used

ANSI C63.10-2013 – Section 11.11.3
KDB 558074 D01 v05r02 – Section 8.5
ANSI C63.10-2013 – Section 14.3.3
KDB 662911 D01 v02r01 – Section E)3)b)

Test Settings

1. Start frequency was set to 30MHz and stop frequency was set to 25GHz (separated into two plots per channel)
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = Peak
5. Trace mode = max hold
6. Sweep time = auto couple
7. The trace was allowed to stabilize

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



Figure 7-5. Test Instrument & Measurement Setup

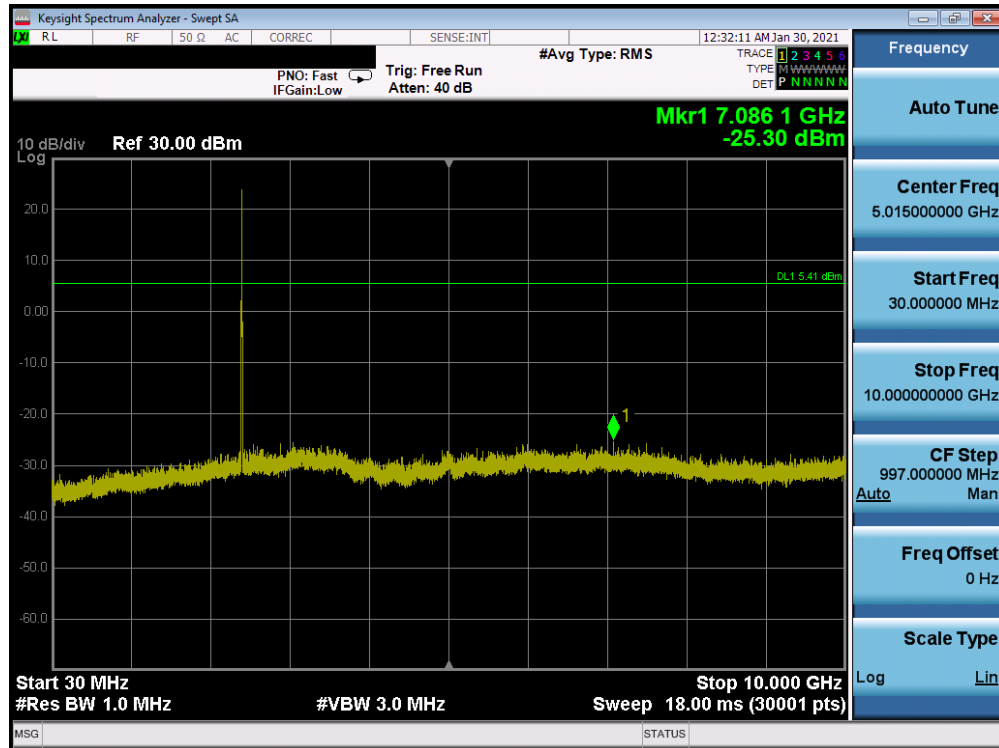
| | | | | |
|---|--|---|--|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | | Page 84 of 158 |

Test Notes

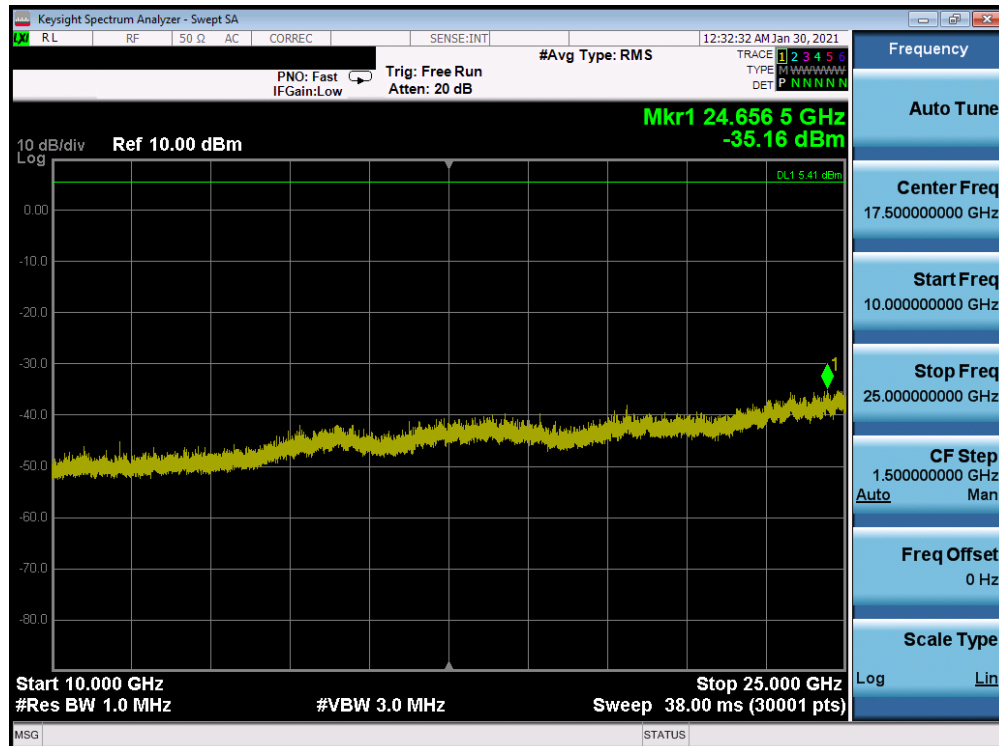
1. RBW was set to 1MHz rather than 100kHz in order to increase the measurement speed.
2. The display line shown in the following plots denotes the limit at 20dB below the fundamental emission level measured in a 100kHz bandwidth. However, since the traces in the following plots are measured with a 1MHz RBW, the display line may not necessarily appear to be 20dB below the level of the fundamental in a 1MHz bandwidth.
3. For plots showing conducted spurious emissions near the limit, the frequencies were investigated with a reduced RBW to ensure that no emissions were present.
4. The conducted spurious emissions were measured to relative limits. Therefore, in accordance with ANSI C63.10-2013 and KDB 662911 D01 v02r01 Section E)3)b), it was unnecessary to show compliance through the summation of test results of the individual outputs.
5. All antenna configurations and data rates were investigated and only the worst case are reported.
6. All RU's were investigated and only worst case partially-loaded and fully-loaded RU's are reported.

| | | | |
|--|--|---|--|
| FCC ID: BCGA2301 IC: 579C-A2301 |  PCTEST Proud to be part of  | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 85 of 158 |

Antenna 4a Conducted Spurious Emission

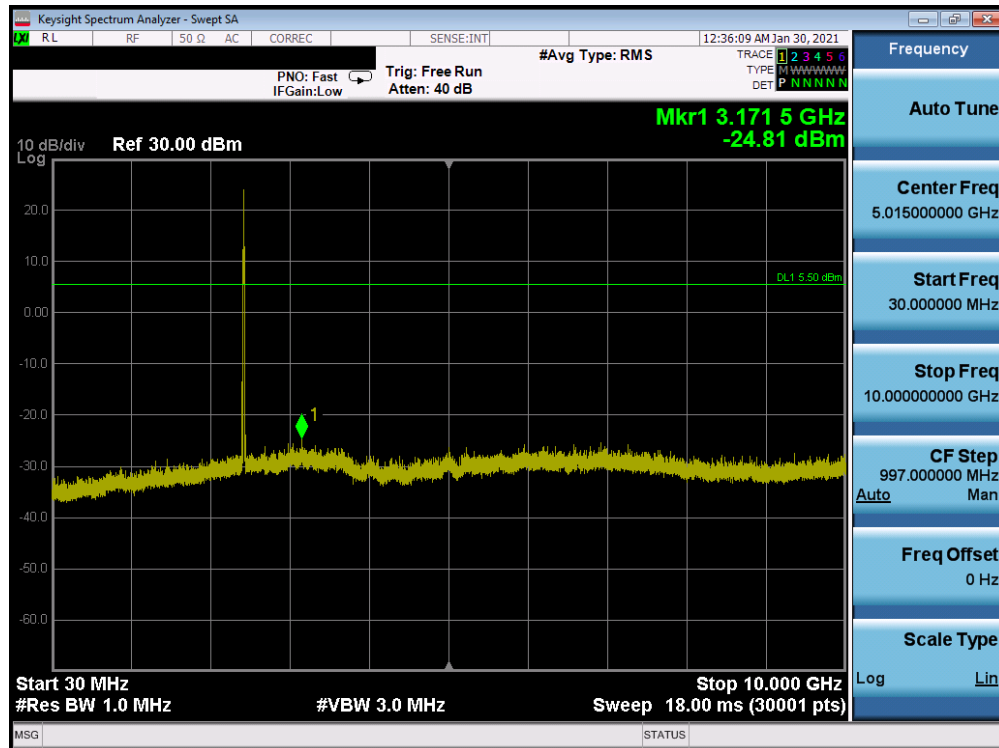


Plot 7-105. Conducted Spurious Plot Antenna 4a (802.11ax OFDMA – RU26 – Ch. 1)

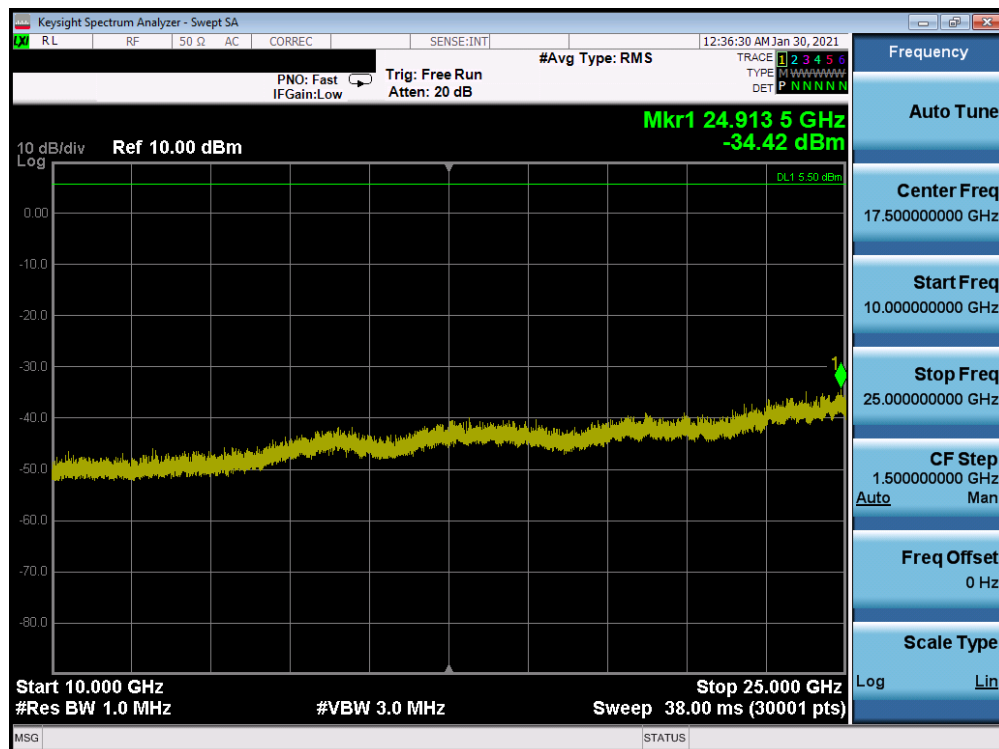


Plot 7-106. Conducted Spurious Plot Antenna 4a (802.11ax OFDMA – RU26 – Ch. 1)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 86 of 158 |

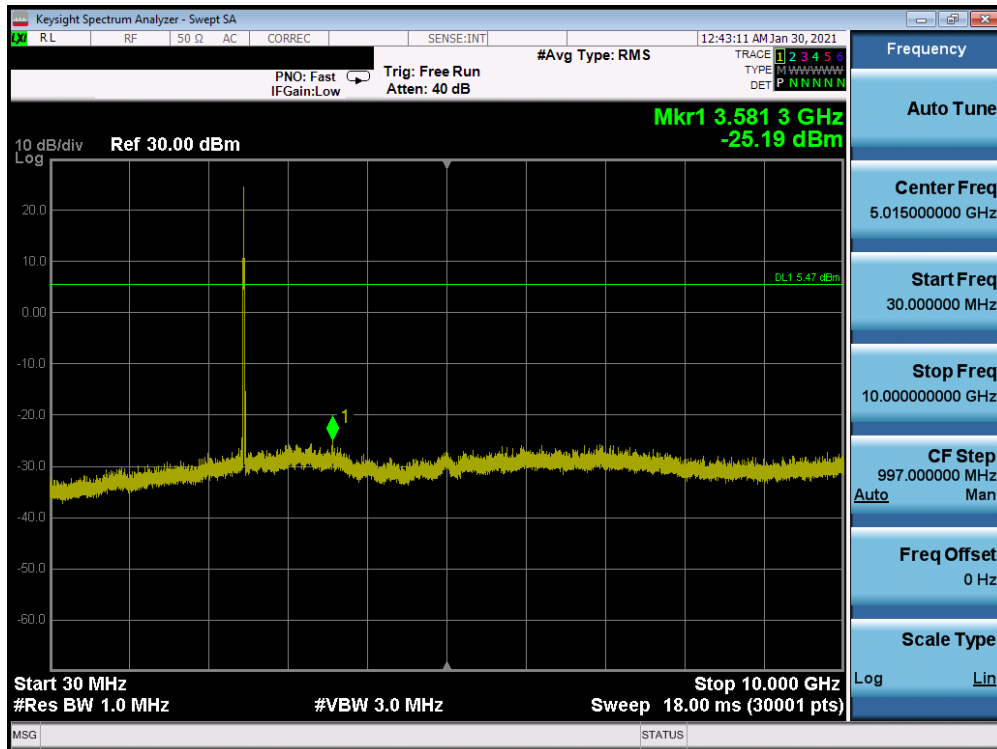


Plot 7-107. Conducted Spurious Plot Antenna 4a (802.11ax OFDMA – RU26 – Ch. 6)

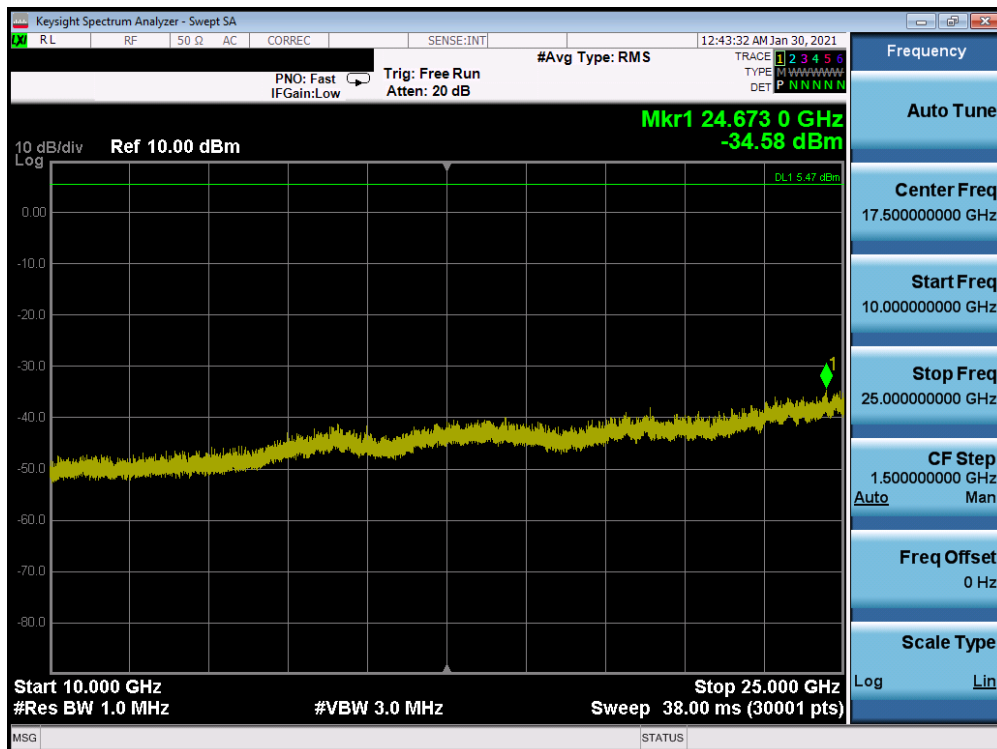


Plot 7-108. Conducted Spurious Plot Antenna 4a (802.11ax OFDMA – RU26 – Ch. 6)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 87 of 158 |

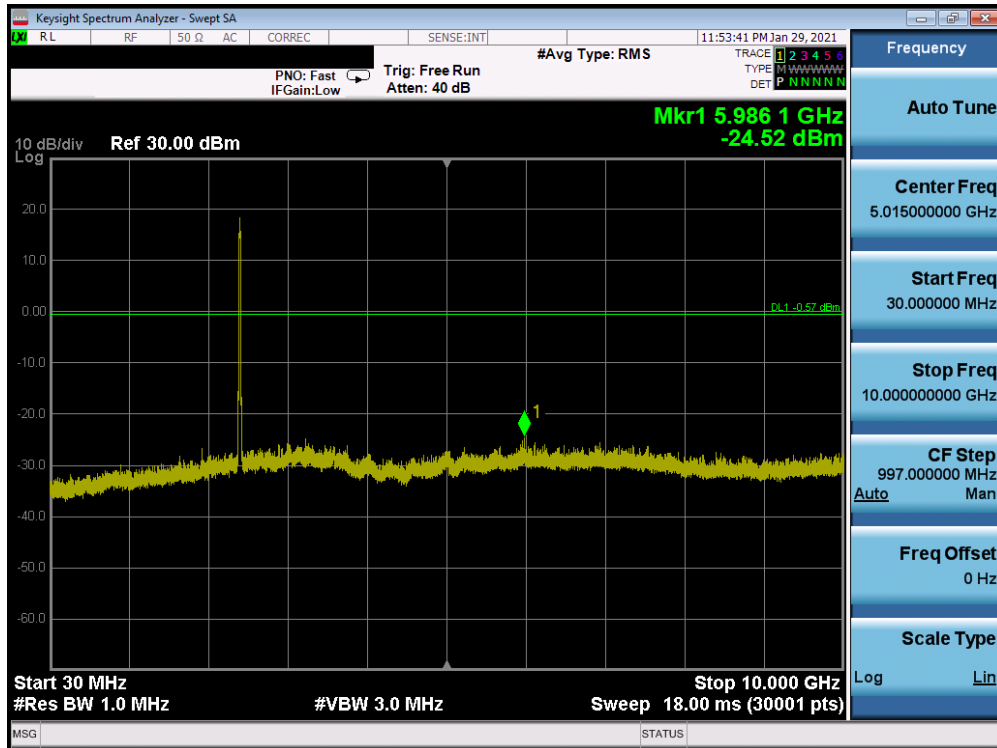


Plot 7-109. Conducted Spurious Plot Antenna 4a (802.11ax OFDMA – RU26 – Ch. 11)

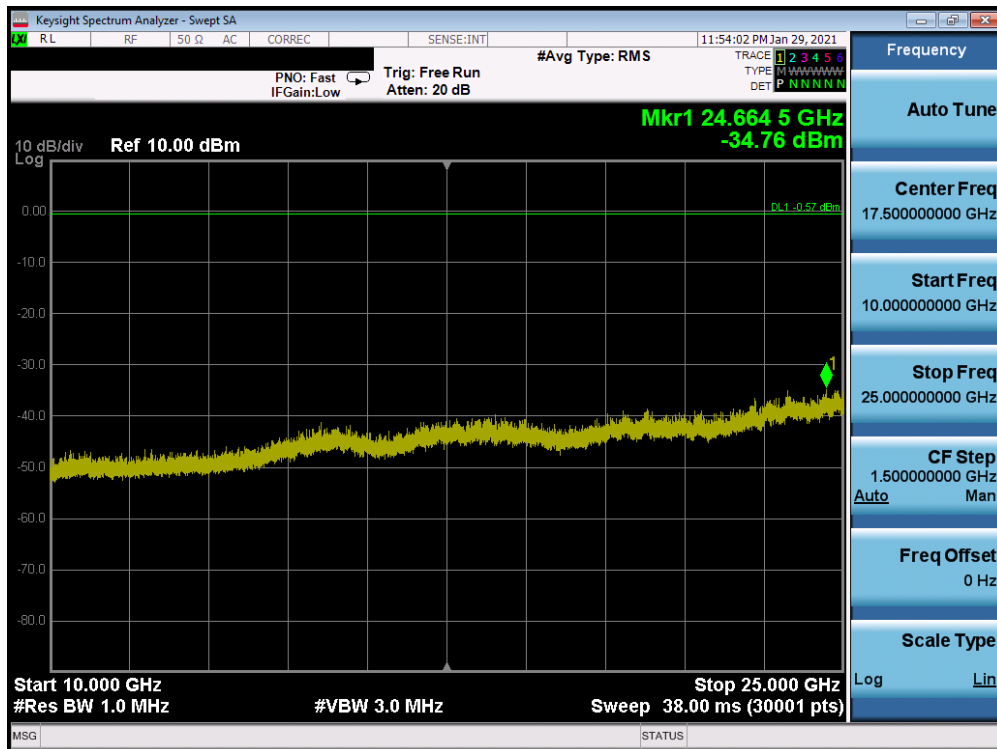


Plot 7-110. Conducted Spurious Plot Antenna 4a (802.11ax OFDMA – RU26 – Ch. 11)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 88 of 158 |

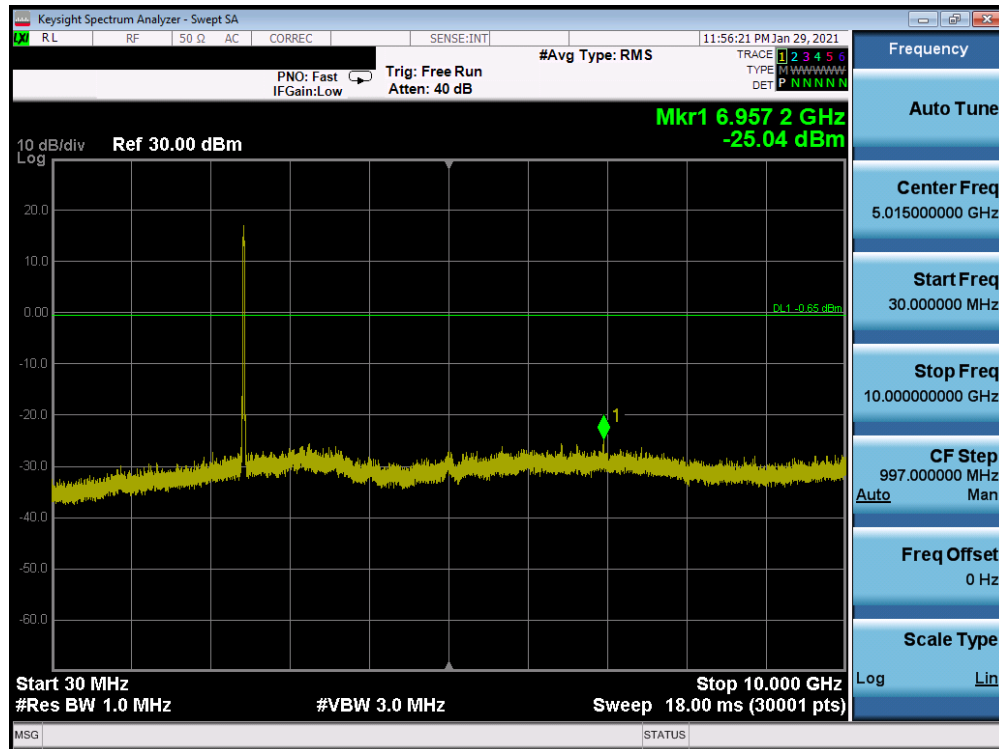


Plot 7-111. Conducted Spurious Plot Antenna 4a (802.11ax OFDMA – RU242 – Ch. 1)

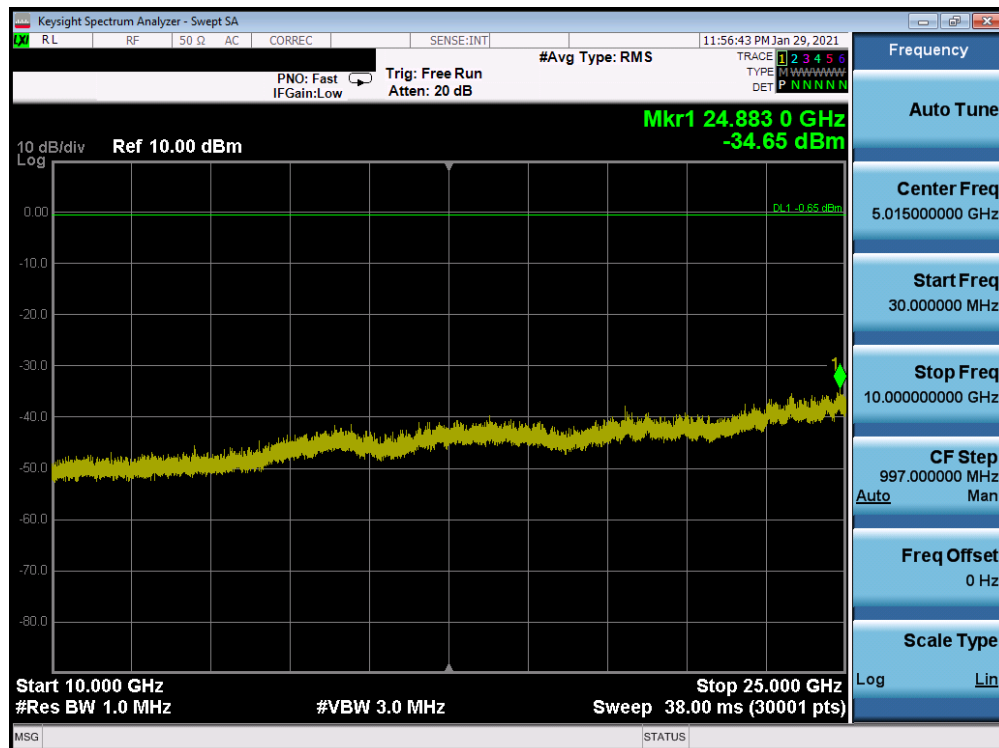


Plot 7-112. Conducted Spurious Plot Antenna 4a (802.11ax OFDMA – RU242 – Ch. 1)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 89 of 158 |

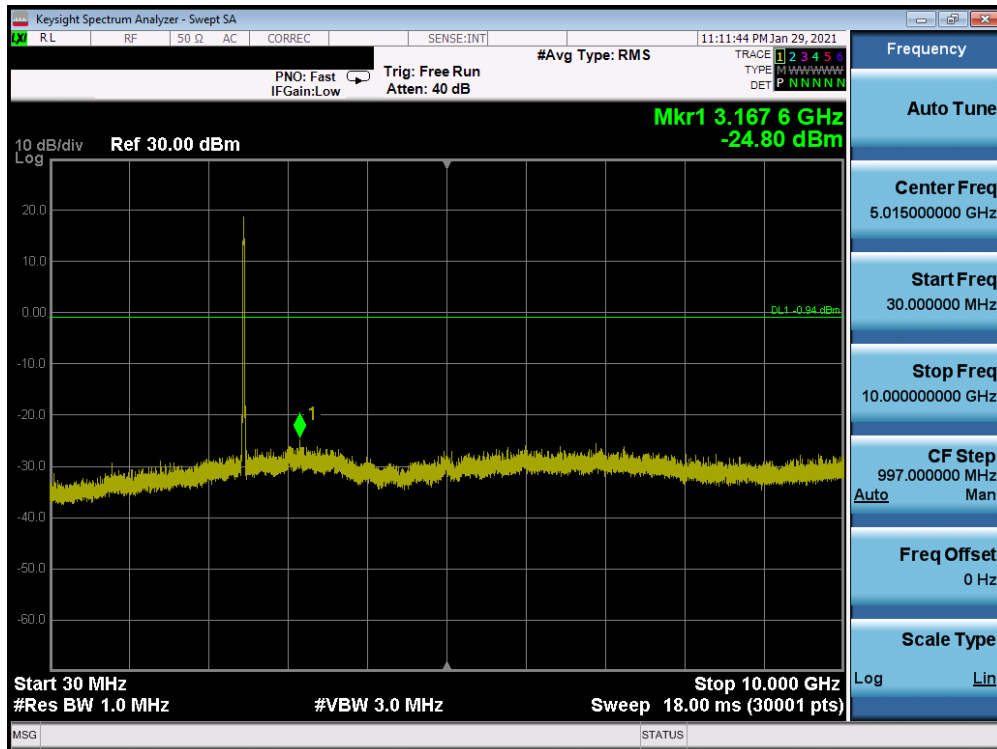


Plot 7-113. Conducted Spurious Plot Antenna 4a (802.11ax OFDMA – RU242 – Ch. 6)

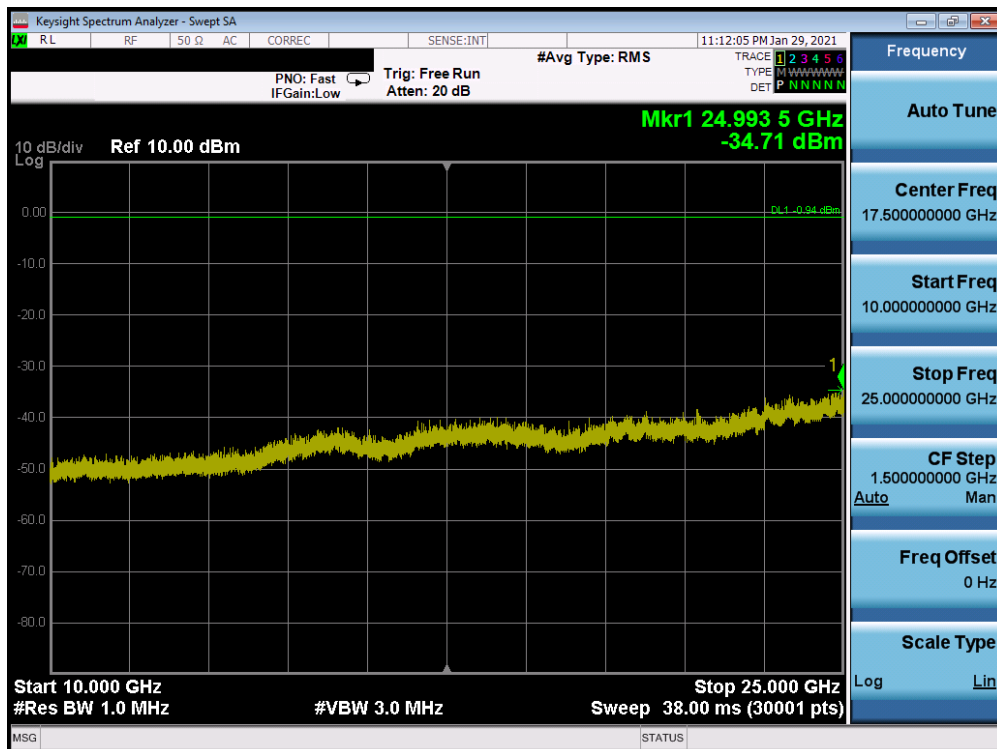


Plot 7-114. Conducted Spurious Plot Antenna 4a (802.11ax OFDMA – RU242 – Ch. 6)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 90 of 158 |



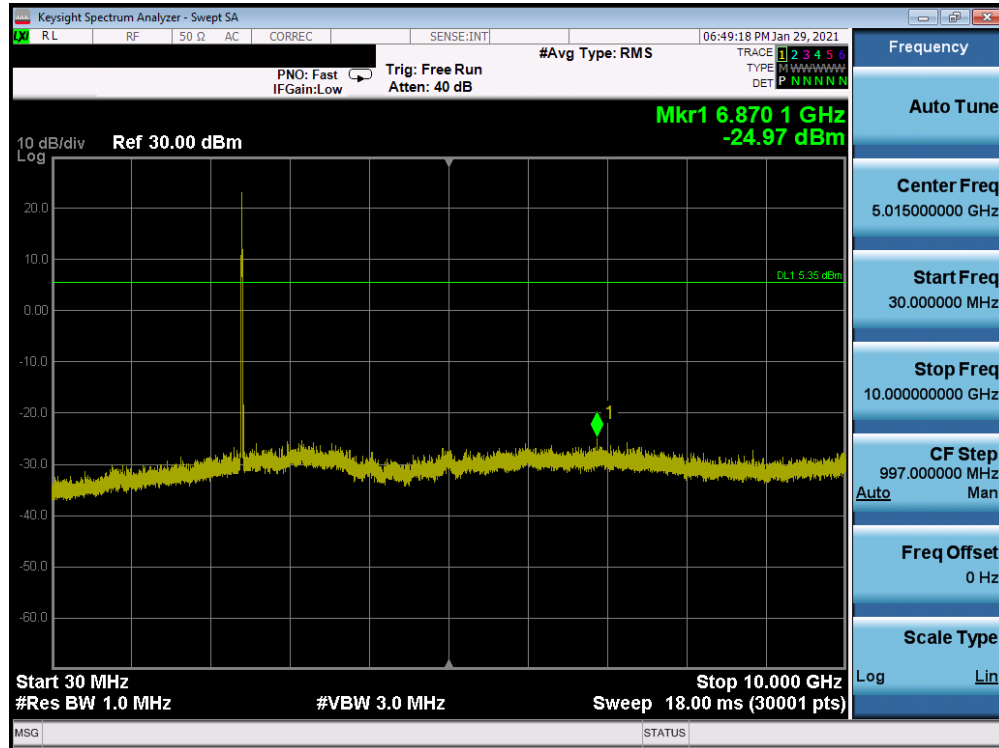
Plot 7-115. Conducted Spurious Plot Antenna 4a (802.11ax OFDMA – RU242 – Ch. 11)



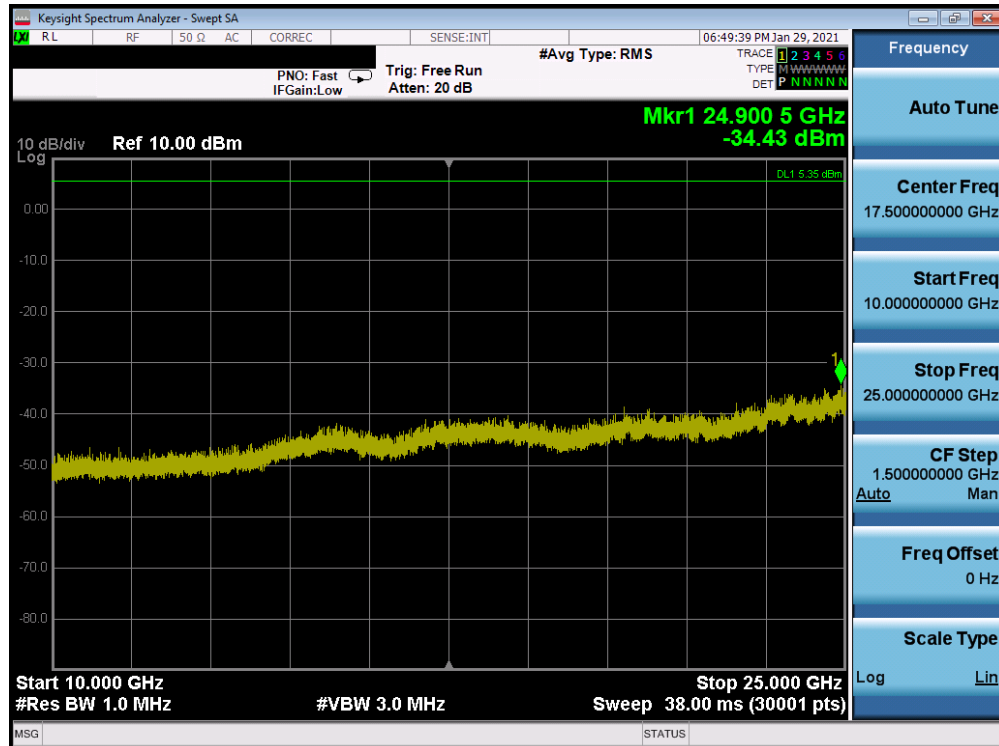
Plot 7-116. Conducted Spurious Plot Antenna 4a (802.11ax OFDMA – RU242 – Ch. 11)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 91 of 158 |

Antenna 2a Conducted Spurious Emissions

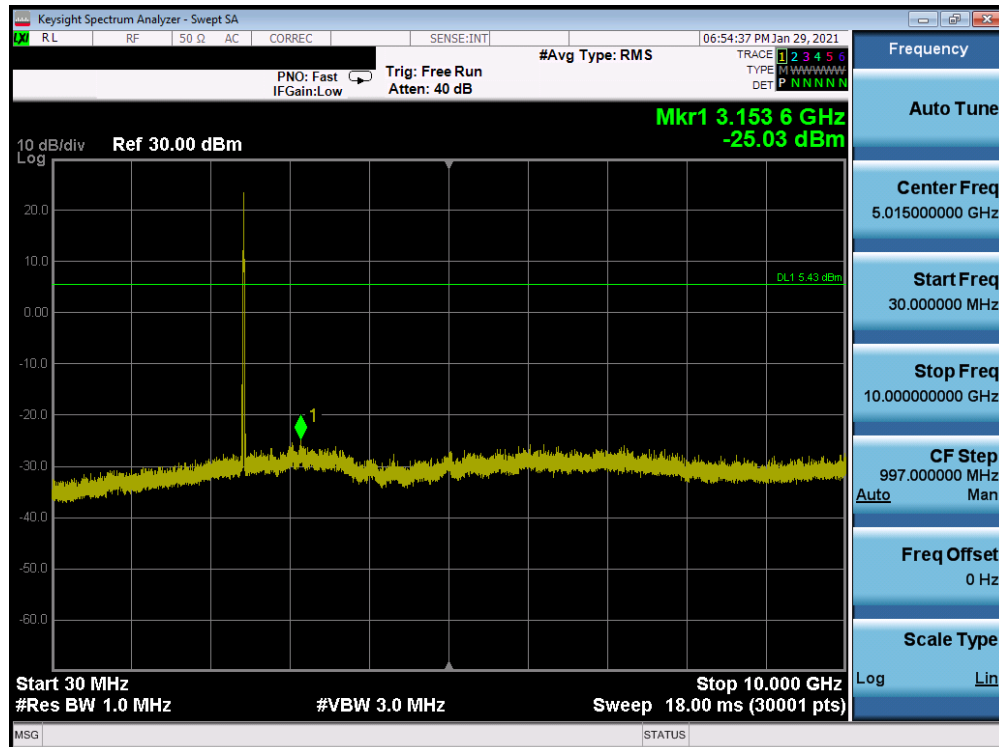


Plot 7-117. Conducted Spurious Plot Antenna 2a (802.11ax OFDMA – RU26 – Ch. 1)

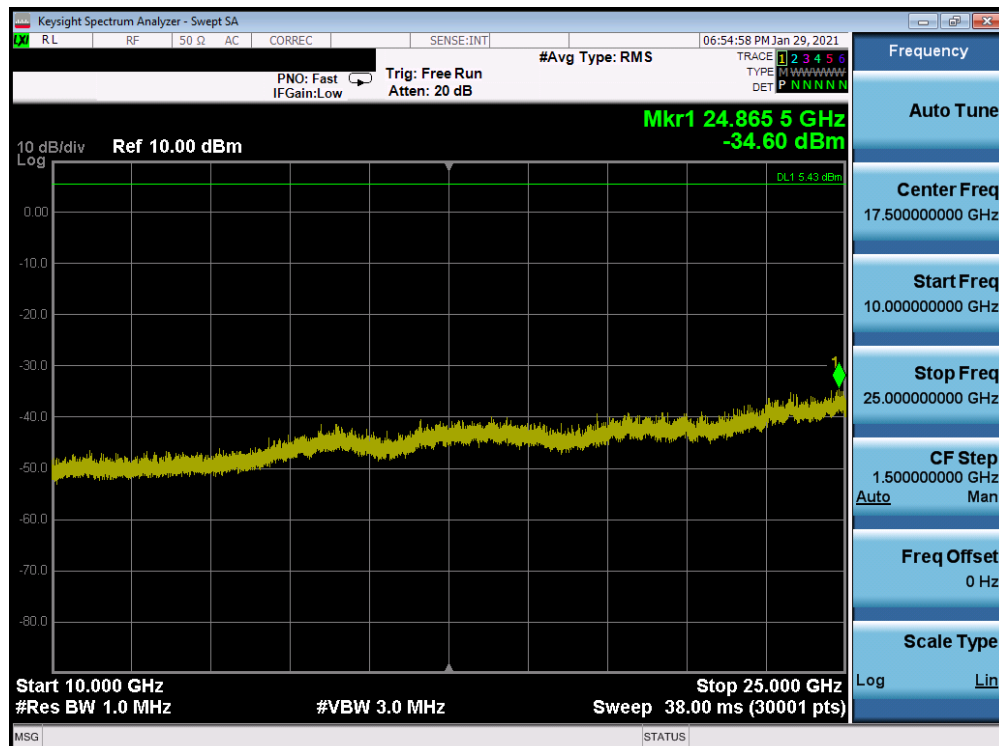


Plot 7-118. Conducted Spurious Plot Antenna 2a (802.11ax OFDMA – RU26 – Ch. 1)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 92 of 158 |

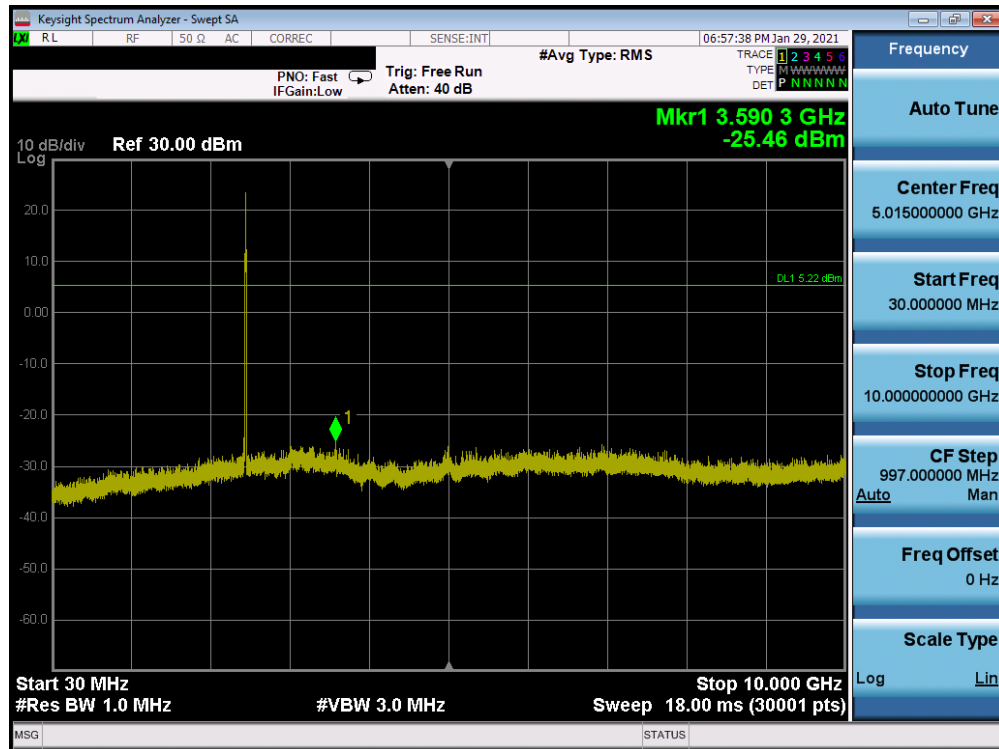


Plot 7-119. Conducted Spurious Plot Antenna 2a (802.11ax OFDMA – RU26 – Ch. 6)

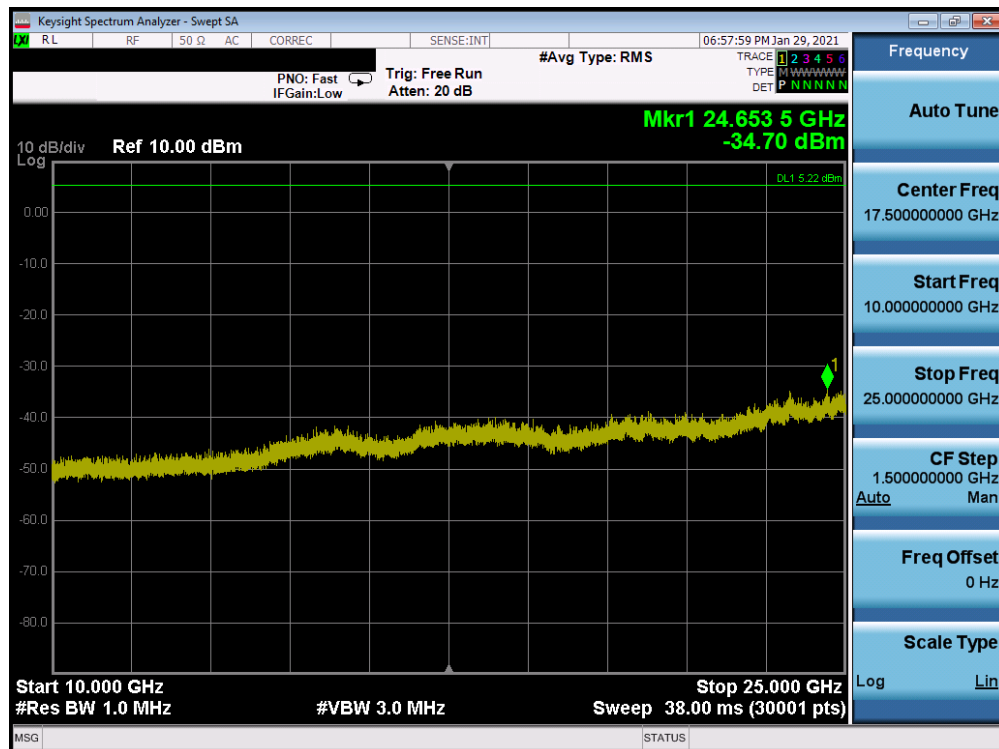


Plot 7-120. Conducted Spurious Plot Antenna 2a (802.11ax OFDMA – RU26 – Ch. 6)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 93 of 158 |

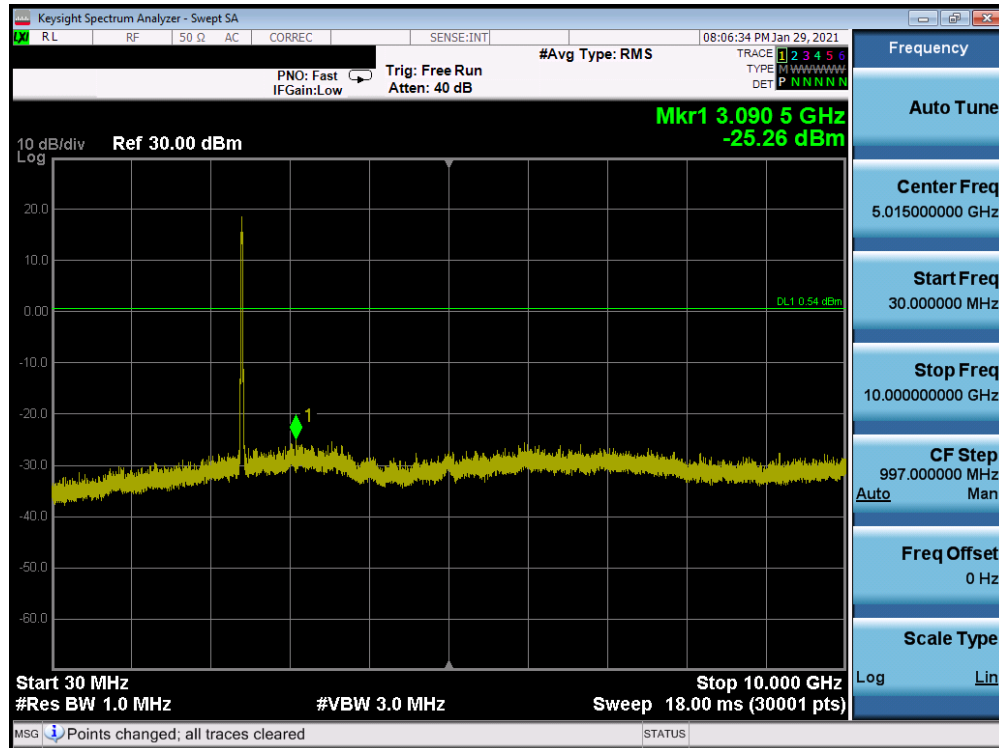


Plot 7-121. Conducted Spurious Plot Antenna 2a (802.11ax OFDMA – RU26 – Ch. 11)

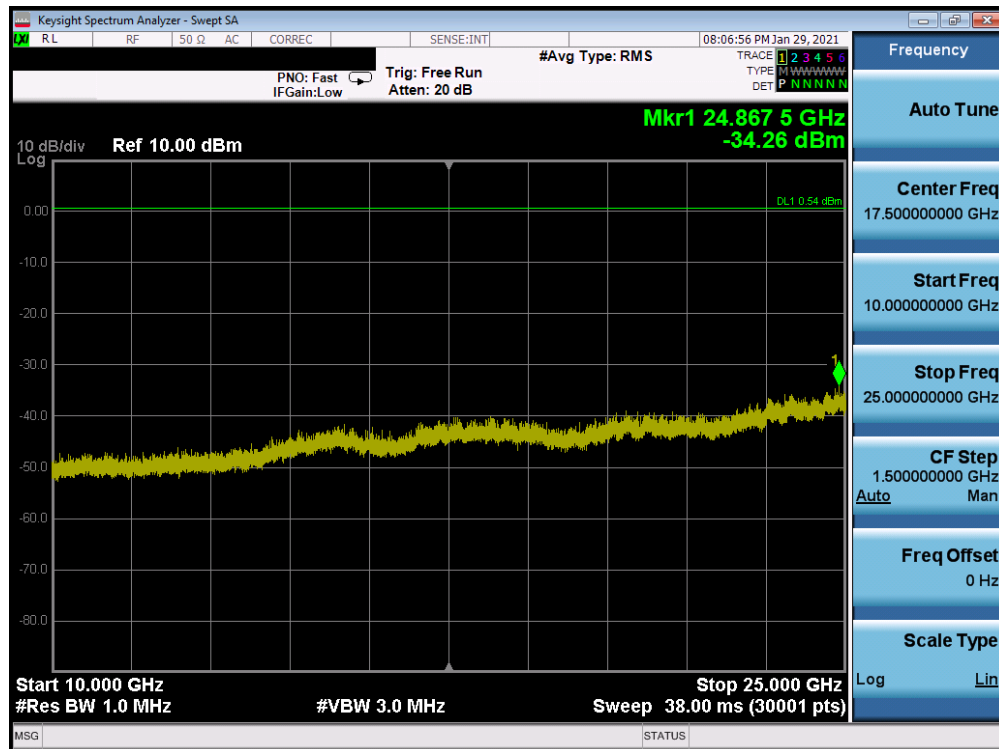


Plot 7-122. Conducted Spurious Plot Antenna 2a (802.11ax OFDMA – RU26 – Ch. 11)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 94 of 158 |

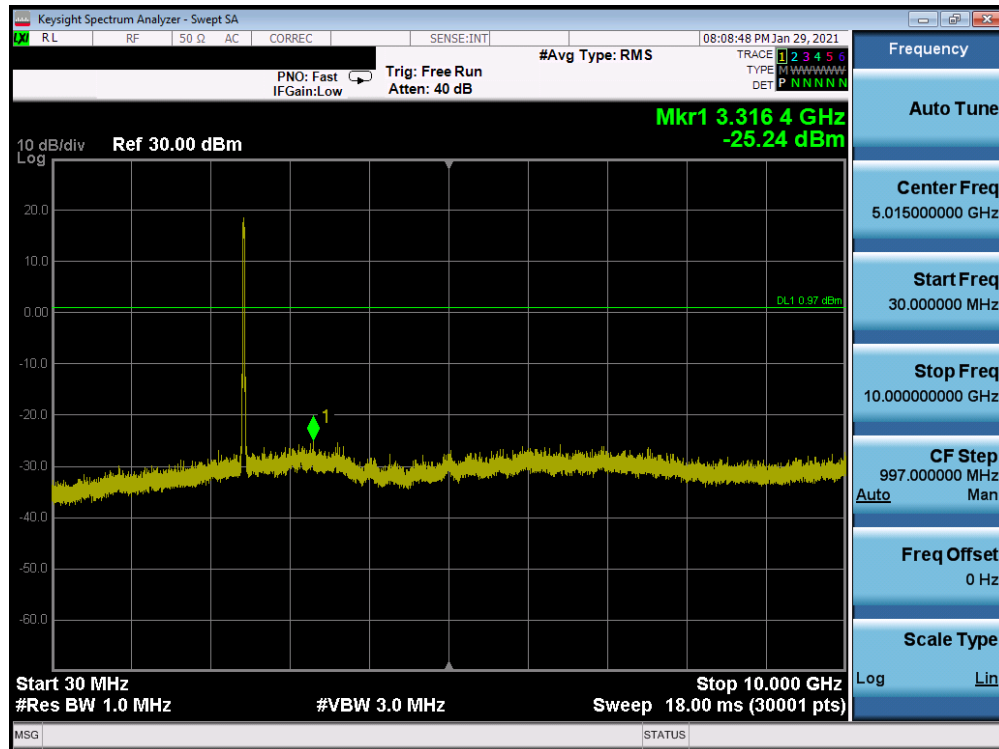


Plot 7-123. Conducted Spurious Plot Antenna 2a (802.11ax OFDMA – RU242 – Ch. 1)

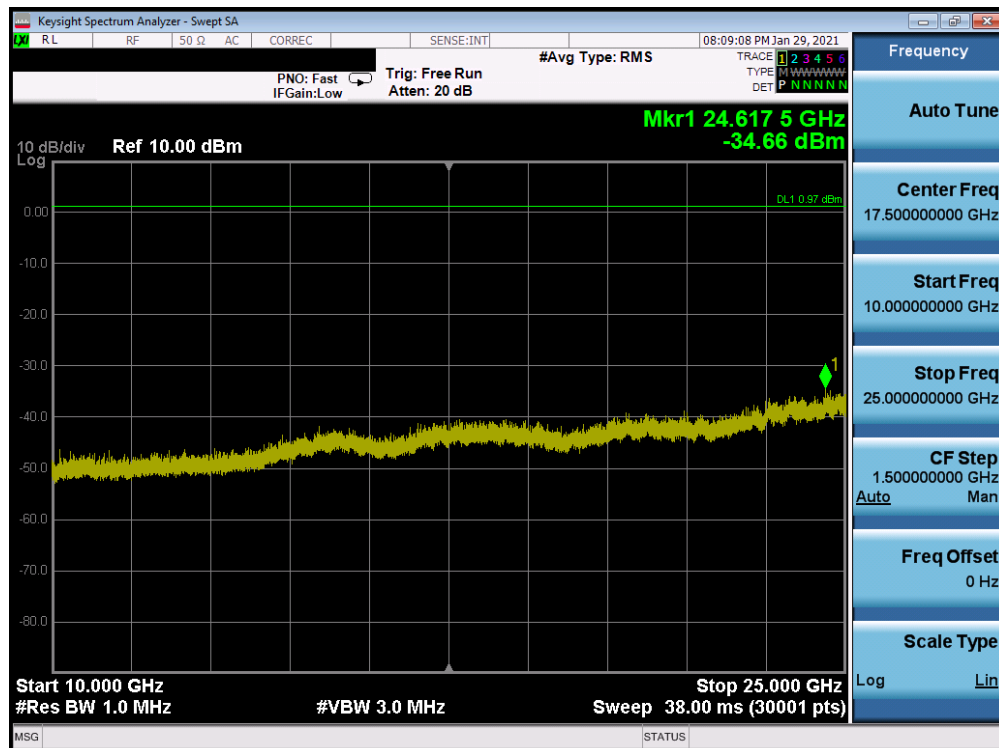


Plot 7-124. Conducted Spurious Plot Antenna 2a (802.11ax OFDMA – RU242 – Ch. 1)

| | | | |
|---|---|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 |  | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 95 of 158 |

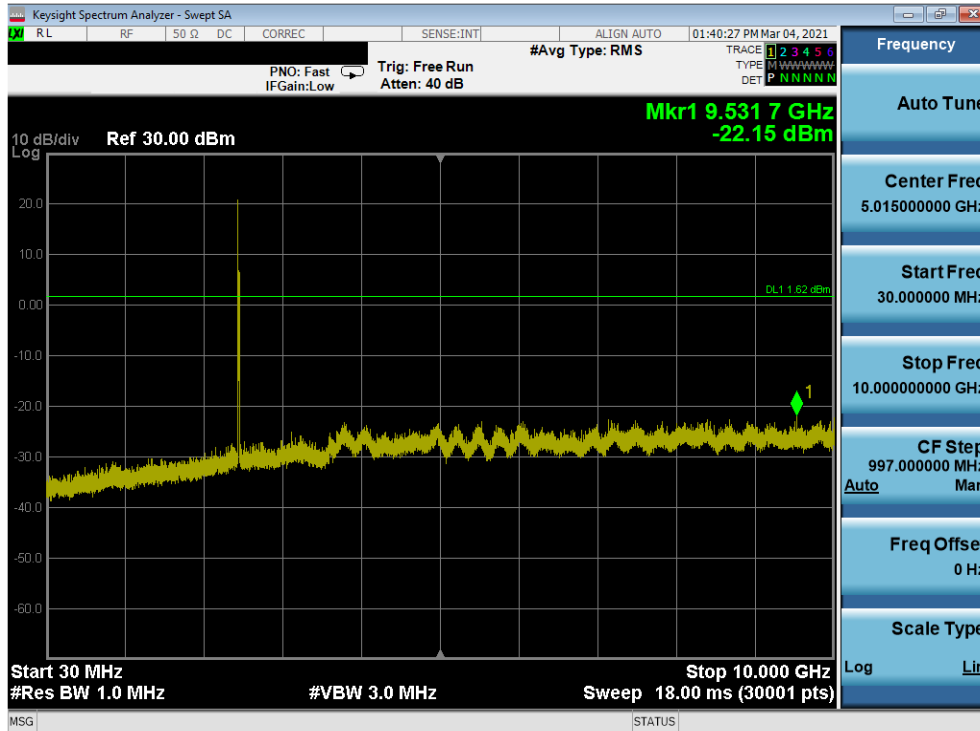


Plot 7-125. Conducted Spurious Plot Antenna 2a (802.11ax OFDMA – RU242 – Ch. 6)

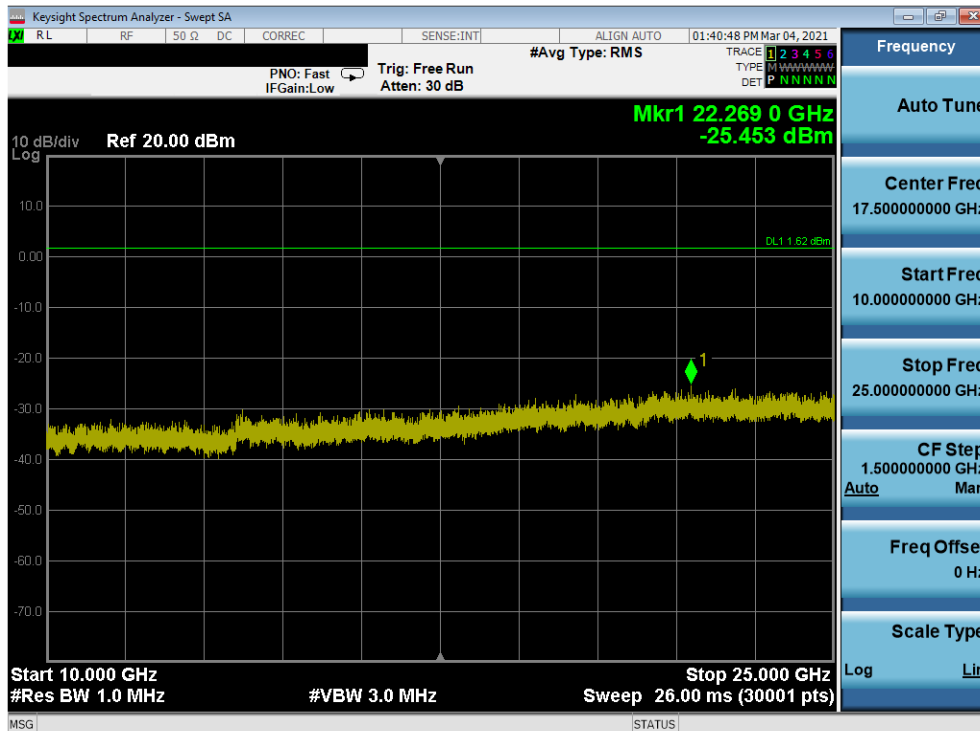


Plot 7-126. Conducted Spurious Plot Antenna 2a (802.11ax OFDMA – RU242 – Ch. 6)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 96 of 158 |



Plot 7-127. Conducted Spurious Plot Antenna 2a (802.11ax OFDMA – RU242 – Ch. 11)



Plot 7-128. Conducted Spurious Plot Antenna 2a (802.11ax OFDMA – RU242 – Ch. 11)

| | | | |
|---|--|---------------------------------------|---------------------------------|
| FCC ID: BCGA2301 IC: 579C-A2301 | PCTEST Proud to be part of element | MEASUREMENT REPORT (CERTIFICATION) | Approved by: Quality Manager |
| Test Report S/N: 1C2101020002-10.BCG | Test Dates: 12/15/2020 – 3/4/2021 | EUT Type: Tablet Device | Page 97 of 158 |

7.7 Radiated Spurious Emissions – Above 1 GHz

§15.247(d) §15.205 & §15.209; RSS-Gen [8.9]

Test Overview and Limit

All out of band radiated spurious emissions are measured with a spectrum analyzer connected to a receive antenna while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates and modes were investigated for radiated spurious emissions. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR and Table 7 of RSS-Gen (8.10) must not exceed the limits shown in Table 7-19 per Section 15.209 and RSS-Gen (8.9).

| Frequency | Field Strength [$\mu\text{V/m}$] | Measured Distance [Meters] |
|-----------------|---------------------------------------|-------------------------------|
| Above 960.0 MHz | 500 | 3 |

Table 7-19. Radiated Limits

Test Procedures Used

ANSI C63.10-2013 – Section 6.6.4.3

KDB 558074 D01 v05r02 – Sections 8.6, 8.7

Test Settings

Average Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = power average (RMS)
5. Number of measurement points = 1001 (Number of points must be $\geq 2 \times \text{span/RBW}$)
6. Sweep time = auto
7. Trace (RMS) averaging was performed over at least 100 traces

Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

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Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

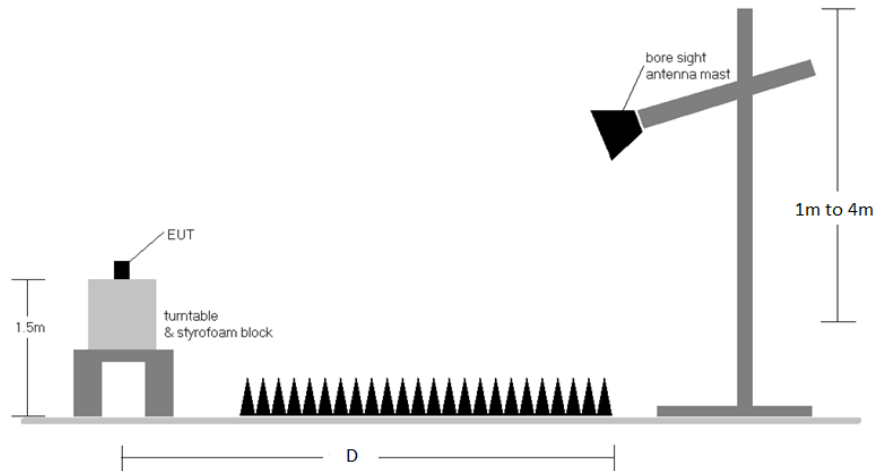


Figure 7-6. Radiated Measurement Setup

Test Notes

1. The optional test procedures for antenna port conducted measurements of unwanted emissions per the guidance of KDB 558074 D01 v05r02 were not used to evaluate this device for compliance to radiated limits. All Radiated Spurious Emissions levels were measured in a radiated test setup.
2. All emissions lying in restricted bands specified in Section 15.205 and Section 8.10 of RSS-Gen are below the limit shown in Table 7-19.
3. The antenna is manipulated through typical positions, polarity and length during the tests. The EUT is manipulated through three orthogonal planes.
4. The unit was tested with its standard battery.
5. The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter using CISPR quasi peak detector below 1GHz. Above 1 GHz, average and peak measurements were taken using linearly polarized horn antennas. The worst-case emissions are reported however emissions whose levels were not within 20dB of the respective limits were not reported.
6. D is the measurement test distance and emissions 1-18GHz were measured at a 3 meters test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.
7. The wide spectrum spurious emissions plots shown on the following pages are used only for the purpose of emission identification. Any emissions found to be within 20dB of the limit are fully investigated and the results are shown in this section.
8. The "-" shown in the following RSE tables are used to denote a noise floor measurement.
9. All data rates were investigated and only the worst case is reported.
10. For radiated measurements, emissions were investigated for the fully-loaded RU configuration and for all the partially-loaded RU configurations. Among all of the available partially-loaded RU configurations, only the configuration with the worst case emissions is reported.

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