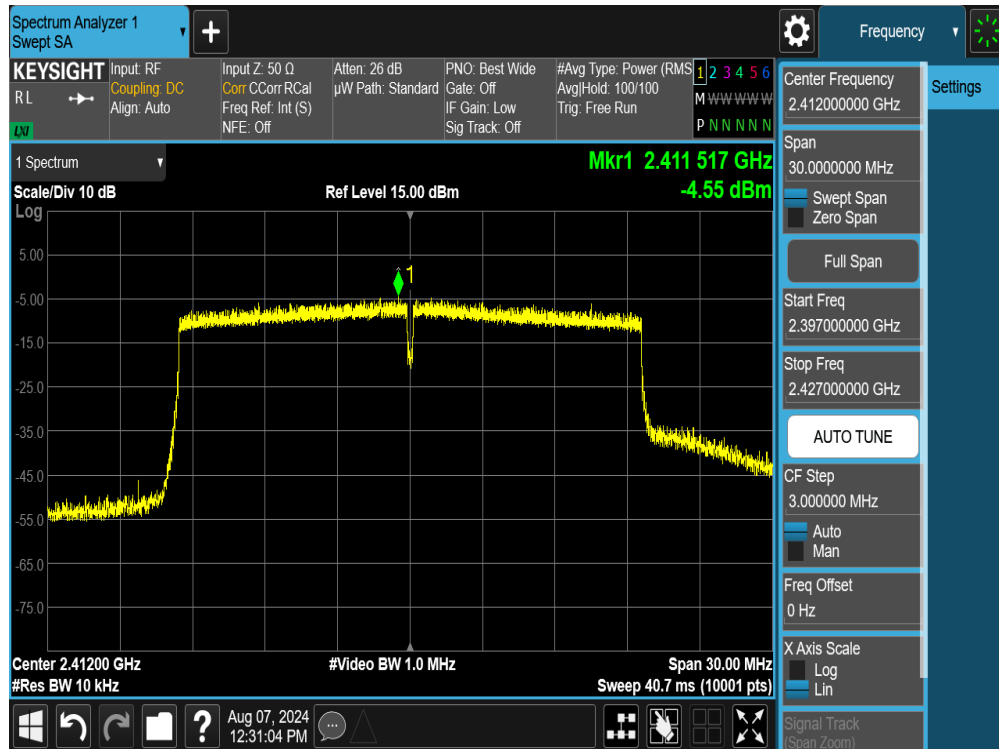
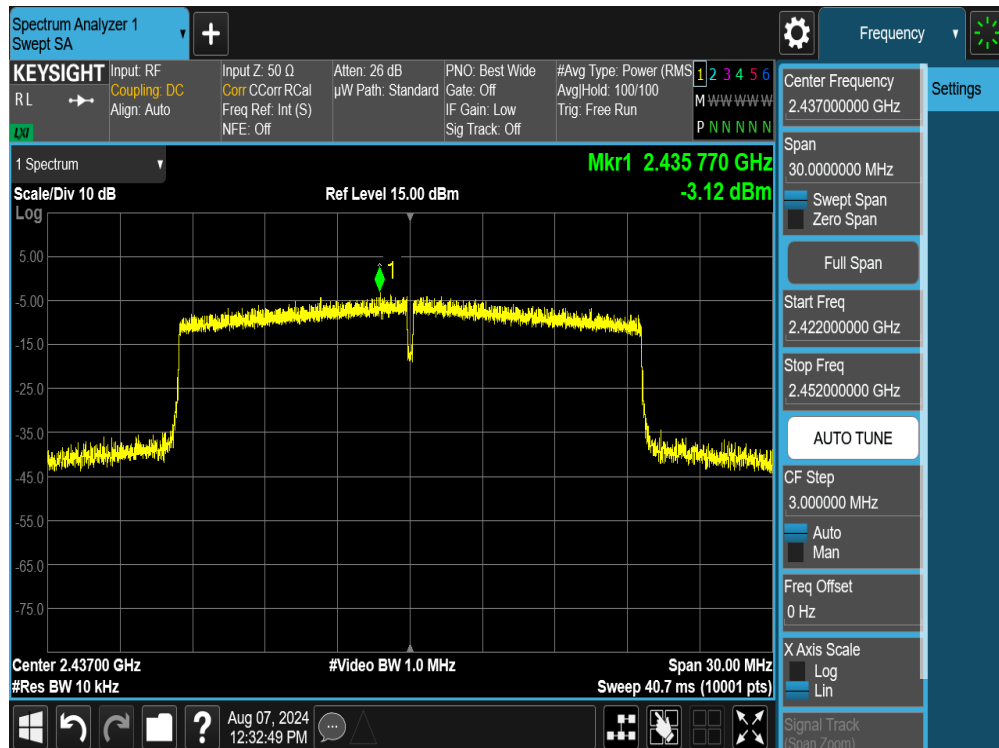


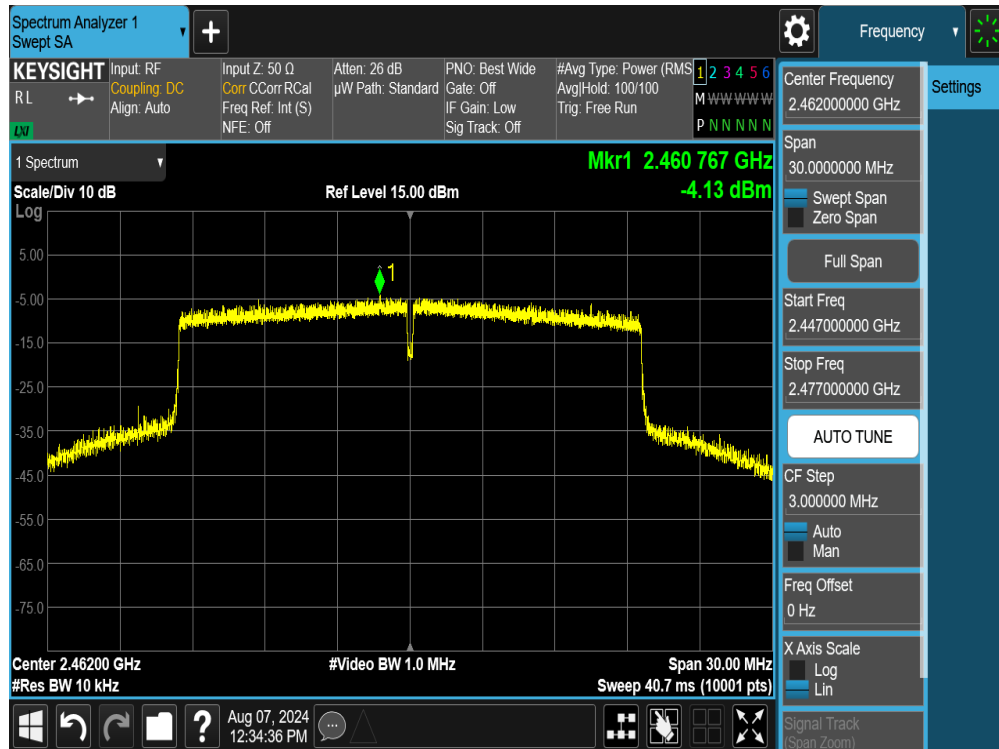


Plot 7-40. Power Spectral Density Plot MIMO ANT1 (802.11ax/be OFDMA – 242 Tones – Ch. 1)

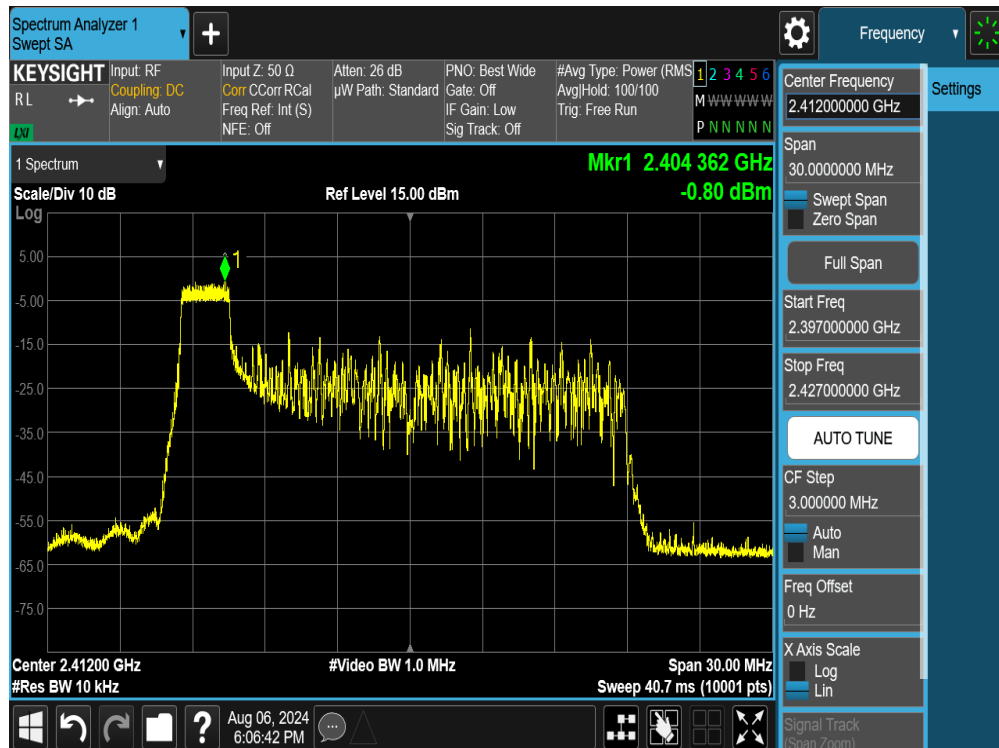


Plot 7-41. Power Spectral Density Plot MIMO ANT1 (802.11ax/be OFDMA – 242 Tones – Ch. 1)

FCC ID: A3LSMX920	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2405140042-04.A3L	Test Dates: 06/17/2024 – 08/08/2024	EUT Type: Portable Tablet	Page 47 of 134

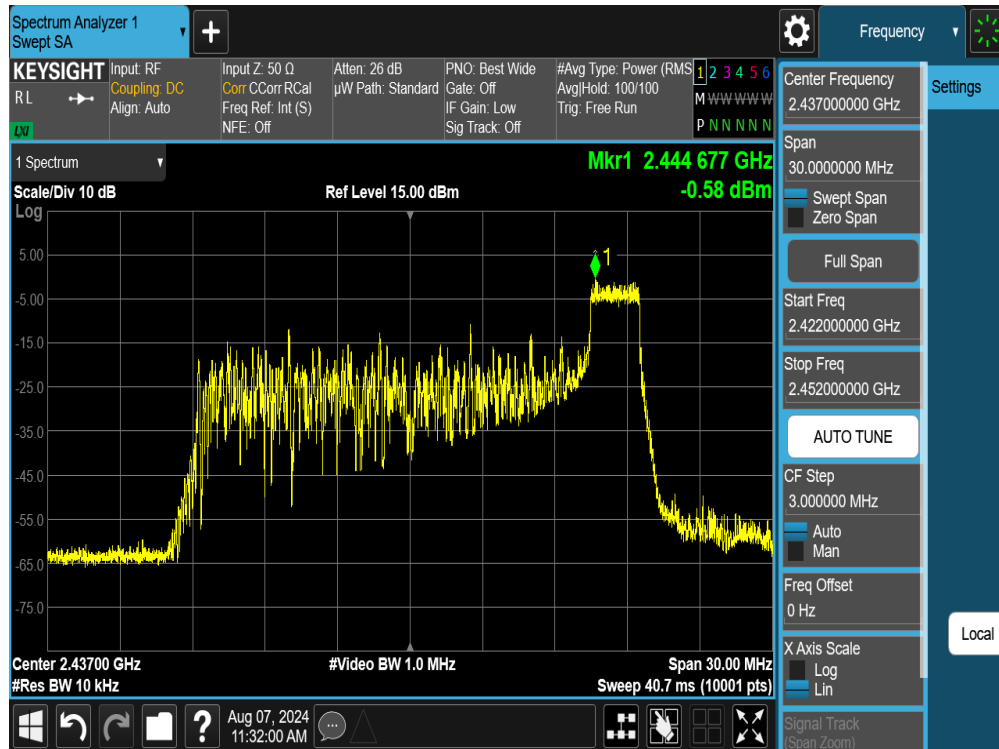


Plot 7-42. Power Spectral Density Plot MIMO ANT1 (802.11ax/be OFDMA – 242 Tones – Ch. 11)

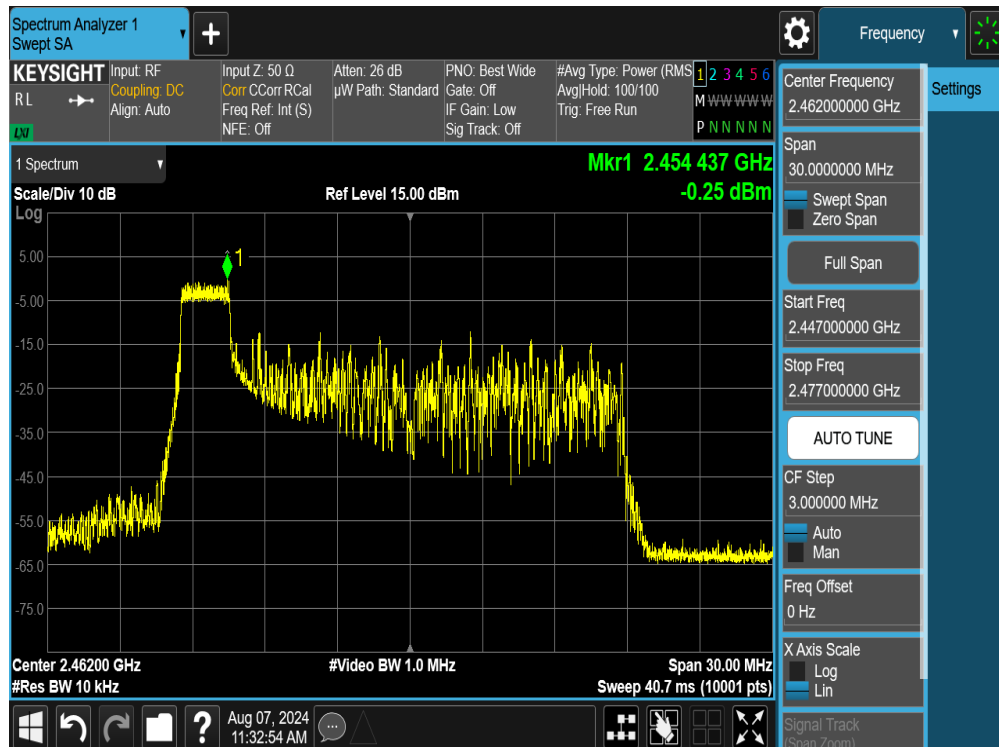


Plot 7-43. Power Spectral Density Plot MIMO ANT2 (802.11ax/be OFDMA – 26 Tones – Ch. 1)

FCC ID: A3LSMX920	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2405140042-04.A3L	Test Dates: 06/17/2024 – 08/08/2024	EUT Type: Portable Tablet	Page 48 of 134

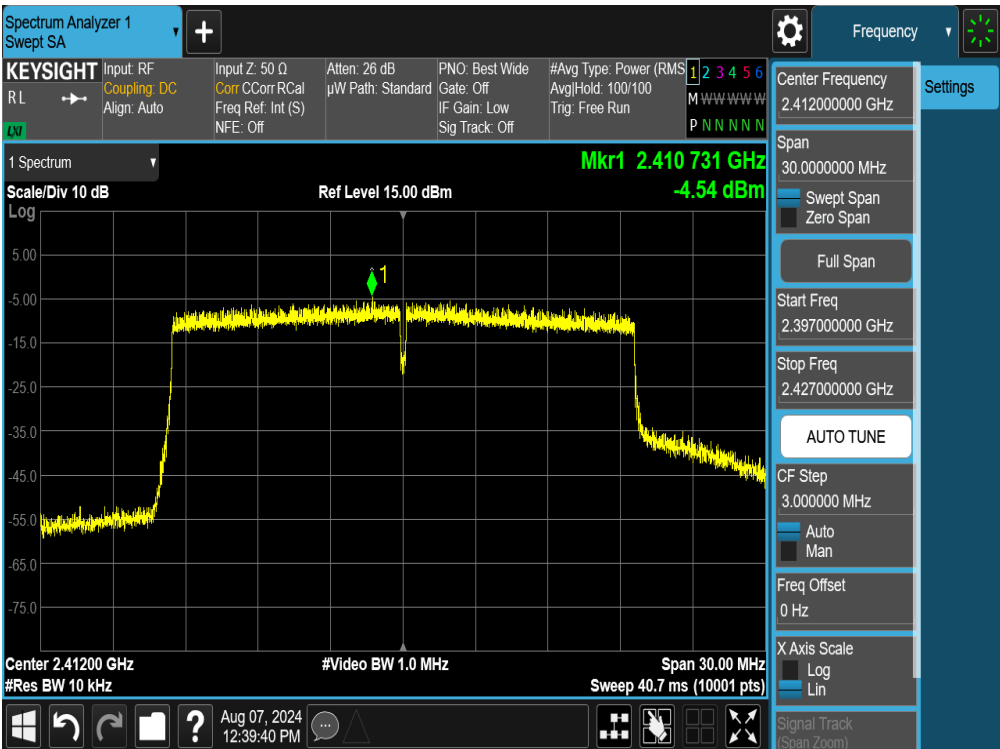


Plot 7-44. Power Spectral Density Plot MIMO ANT2 (802.11ax/be OFDMA – 26 Tones – Ch. 6)

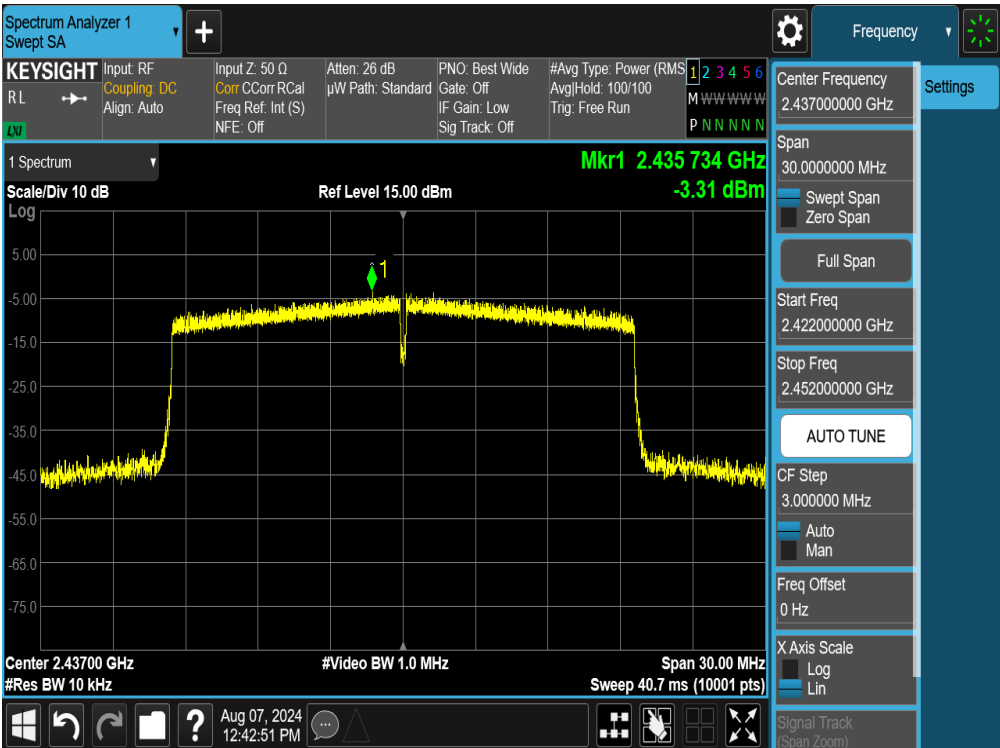


Plot 7-45. Power Spectral Density Plot MIMO ANT2 (802.11ax/be OFDMA – 26 Tones – Ch. 11)

FCC ID: A3LSMX920	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2405140042-04.A3L	Test Dates: 06/17/2024 – 08/08/2024	EUT Type: Portable Tablet	Page 49 of 134

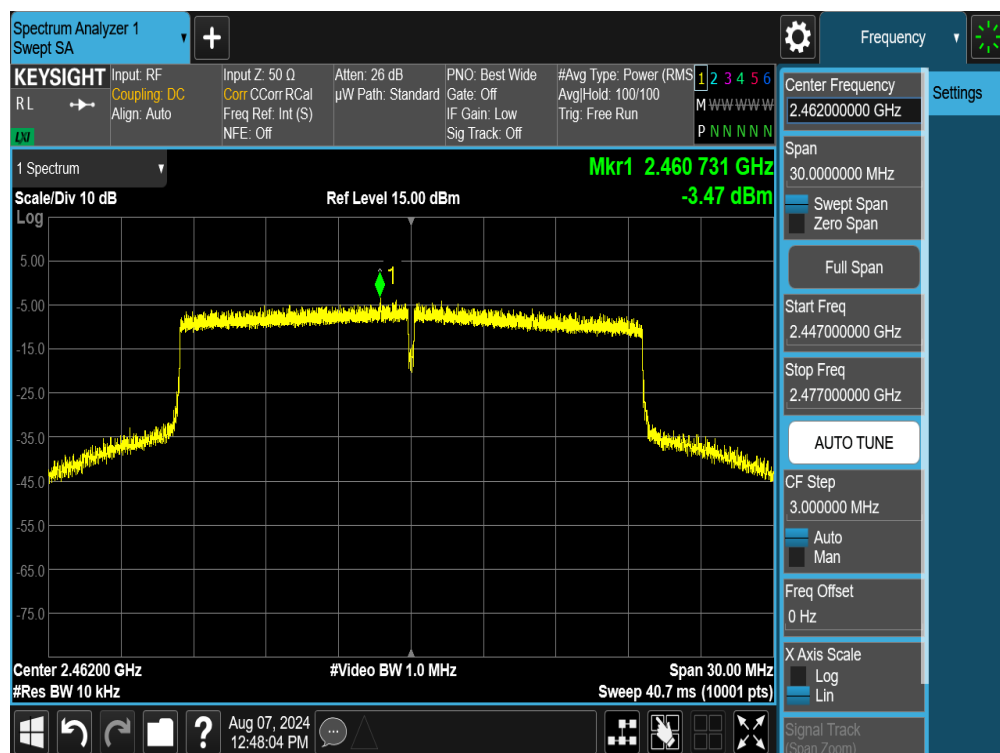


Plot 7-46. Power Spectral Density Plot MIMO ANT2 (802.11ax/be OFDMA – 242 Tones – Ch. 1)



Plot 7-47. Power Spectral Density Plot MIMO ANT2 (802.11ax/be OFDMA – 242 Tones – Ch. 6)

FCC ID: A3LSMX920	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2405140042-04.A3L	Test Dates: 06/17/2024 – 08/08/2024	EUT Type: Portable Tablet	Page 50 of 134



Plot 7-48. Power Spectral Density Plot MIMO ANT2 (802.11ax/be OFDMA – 242 Tones – Ch. 11)

FCC ID: A3LSMX920	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2405140042-04.A3L	Test Dates: 06/17/2024 – 08/08/2024	EUT Type: Portable Tablet	Page 51 of 134



Note:

Per ANSI C63.10-2013 Section 14.3.1, the power spectral density at Antenna 1 and Antenna 2 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 MIMO Calculation:

At 2412MHz the average conducted power spectral density was measured to be -1.17 dBm for Antenna 1 and -0.80 dBm for Antenna 2.

Antenna 1 + Antenna 2 = MIMO

$$(-1.17 \text{ dBm} + (-0.80) \text{ dBm}) = (0.76 \text{ mW} + 0.83 \text{ mW}) = 1.60 \text{ mW} = 2.03 \text{ dBm}$$

FCC ID: A3LSMX920	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2405140042-04.A3L	Test Dates: 06/17/2024 – 08/08/2024	EUT Type: Portable Tablet	Page 52 of 134

7.5 Conducted Band Edge Emissions

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 MCS0 in 802.11ax 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

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.



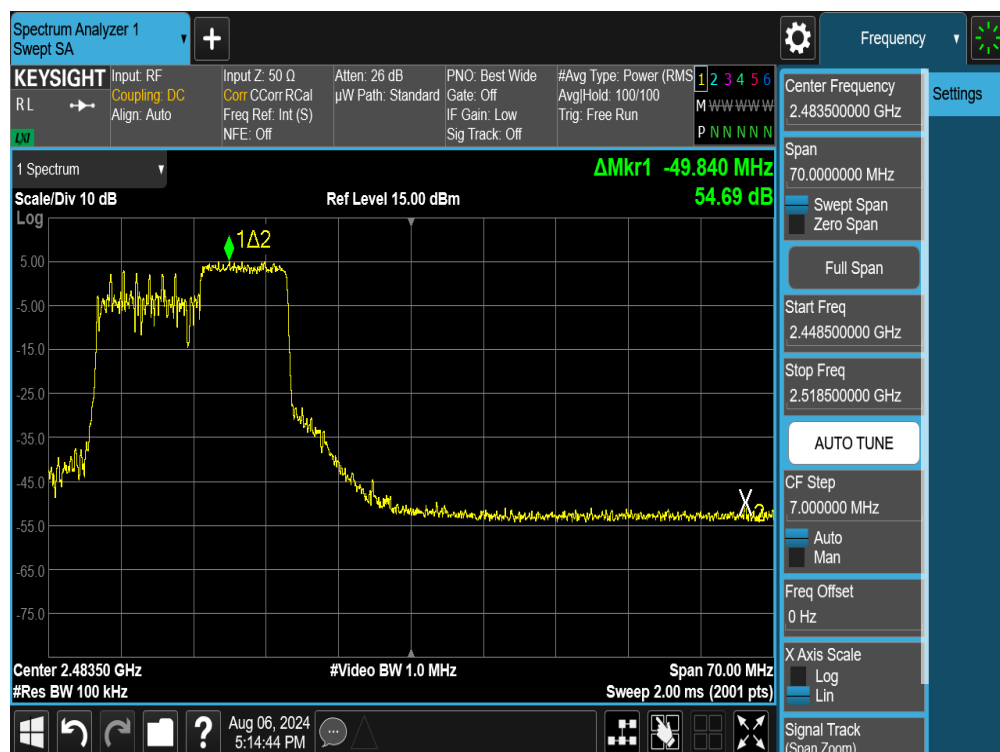
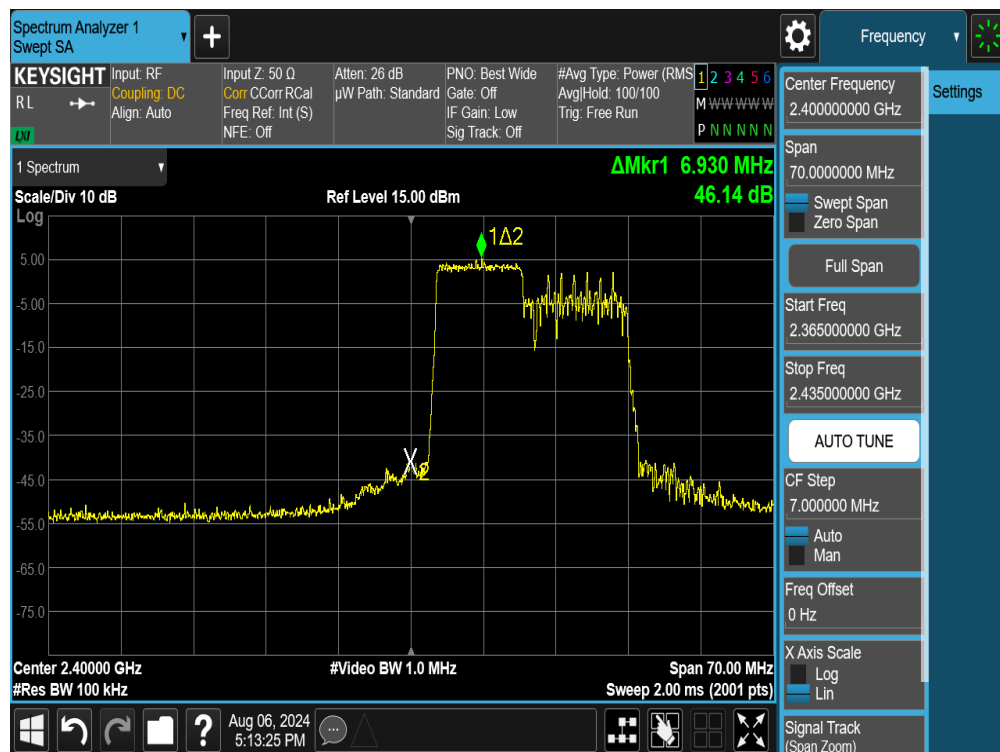
Figure 7-4. Test Instrument & Measurement Setup

Test Notes

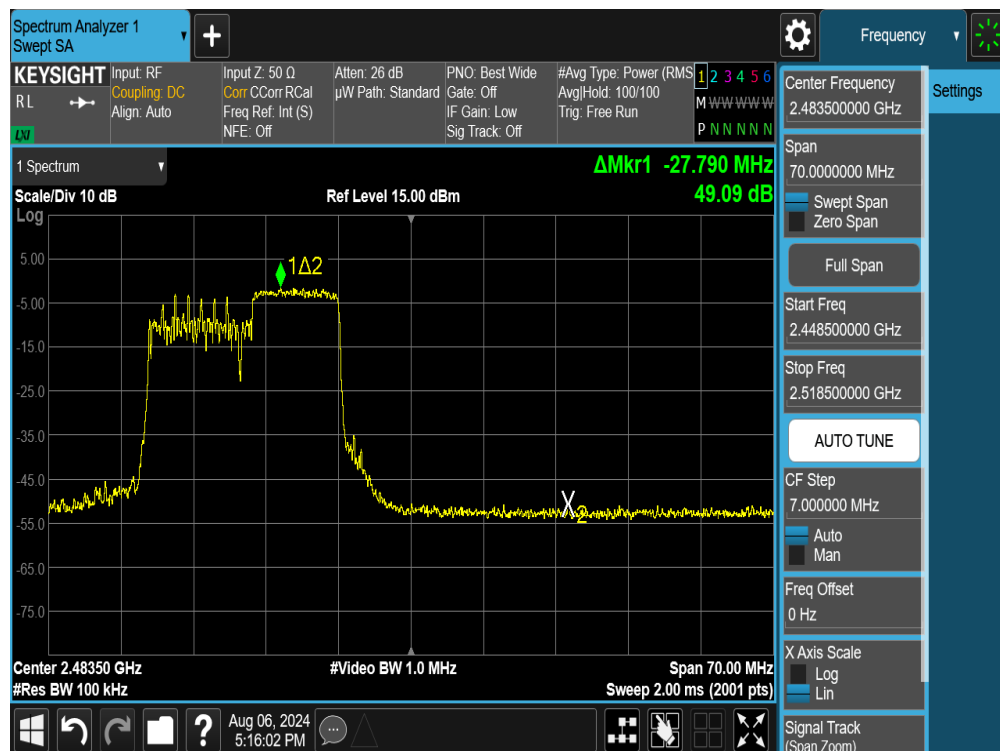
None.

FCC ID: A3LSMX920	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2405140042-04.A3L	Test Dates: 06/17/2024 – 08/08/2024	EUT Type: Portable Tablet	Page 53 of 134

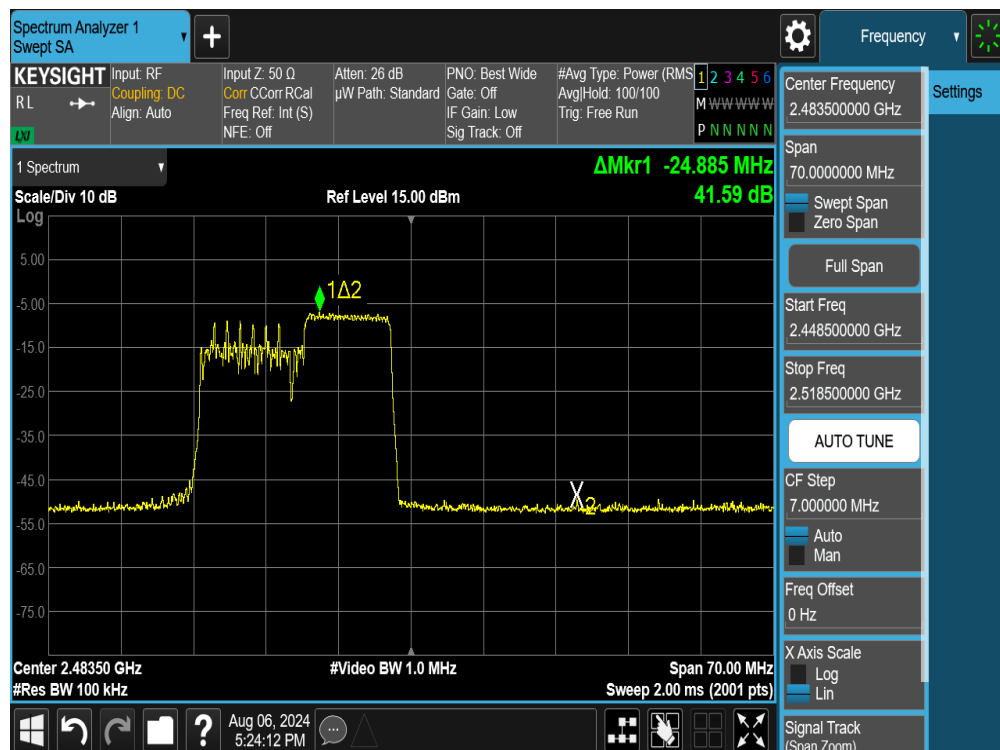
7.5.1 SISO Antenna-1 Conducted Band Edge Emissions



FCC ID: A3LSMX920	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2405140042-04.A3L	Test Dates: 06/17/2024 – 08/08/2024	EUT Type: Portable Tablet	Page 54 of 134

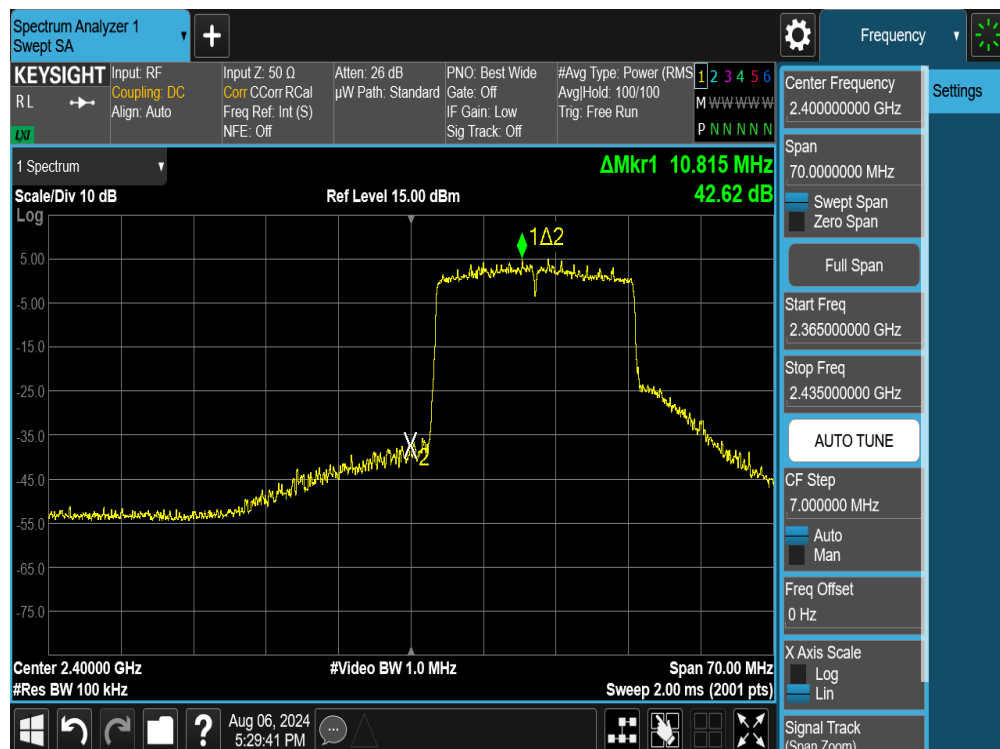


Plot 7-51. Band Edge Plot SISO ANT1 (802.11ax/be OFDMA – 106 Tones – Ch. 12)

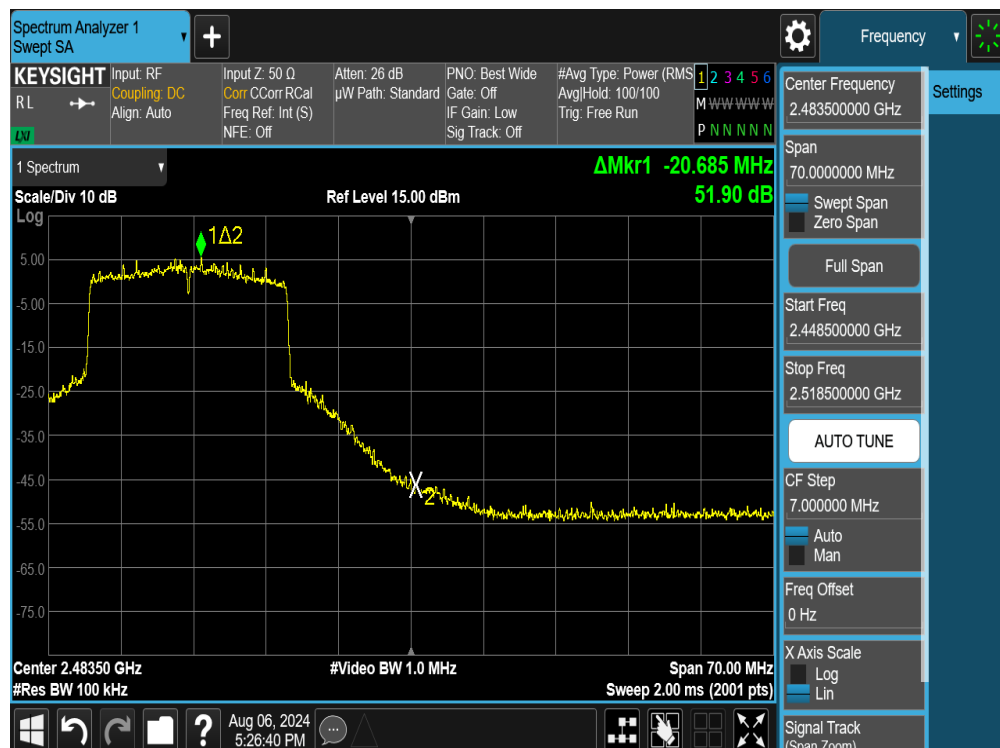


Plot 7-52. Band Edge Plot SISO ANT1 (802.11ax/be OFDMA – 106 Tones – Ch. 13)

FCC ID: A3LSMX920	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2405140042-04.A3L	Test Dates: 06/17/2024 – 08/08/2024	EUT Type: Portable Tablet	Page 55 of 134

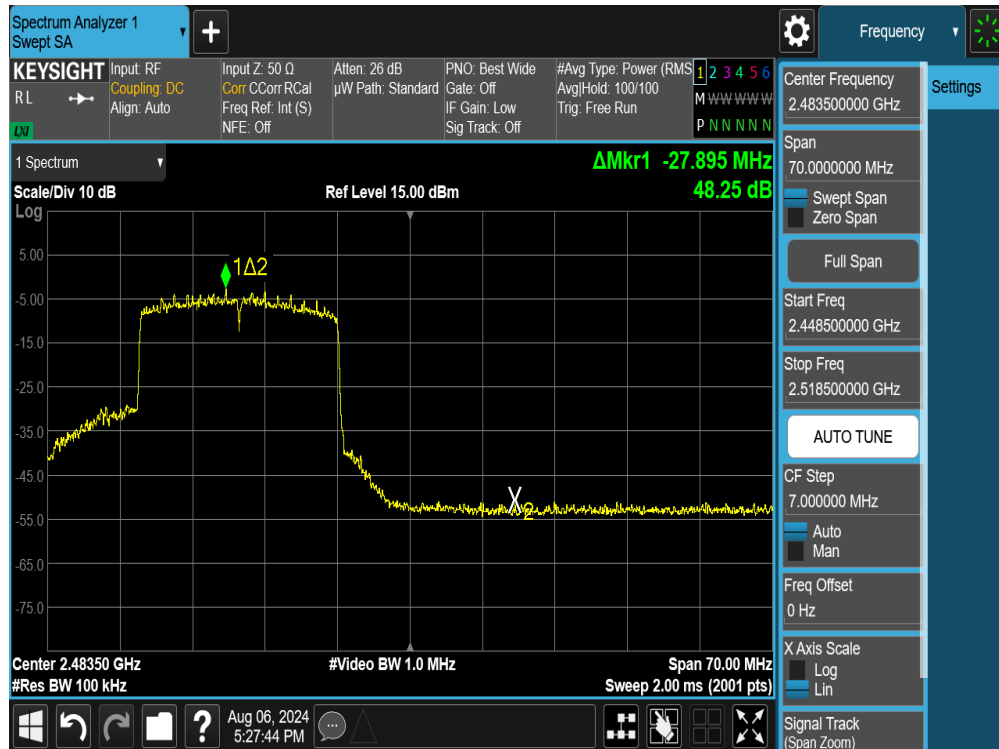


Plot 7-53. Band Edge Plot SISO ANT1 (802.11ax/be OFDMA – 242 Tones – Ch. 1)

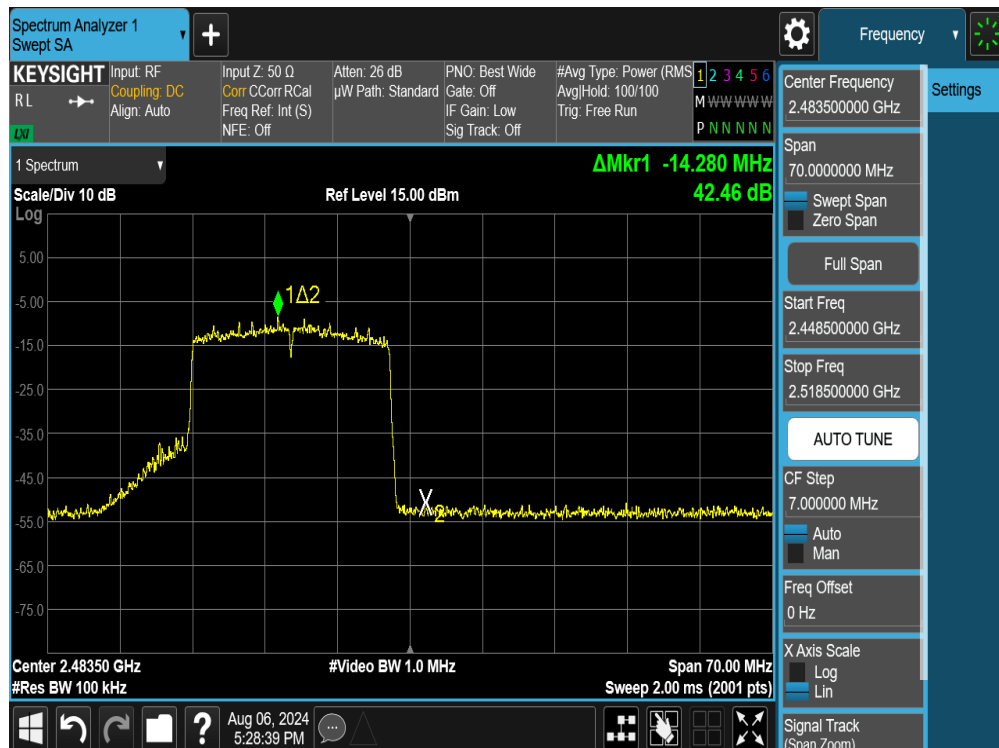


Plot 7-54. Band Edge Plot SISO ANT1 (802.11ax/be OFDMA – 242 Tones – Ch. 11)

FCC ID: A3LSMX920	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2405140042-04.A3L	Test Dates: 06/17/2024 – 08/08/2024	EUT Type: Portable Tablet	Page 56 of 134



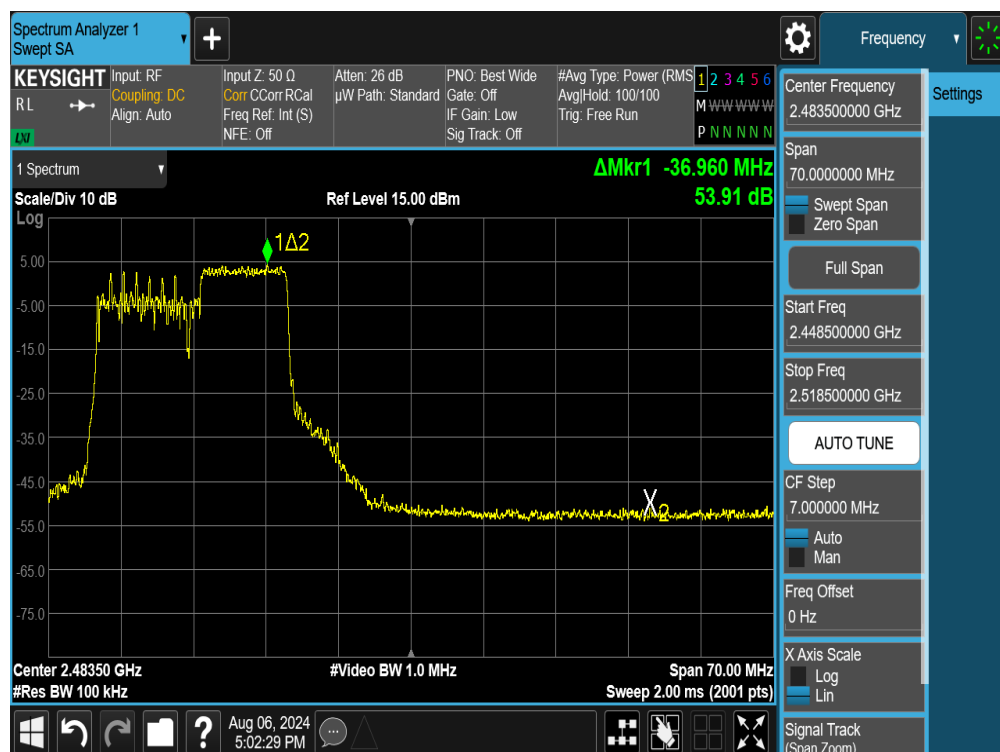
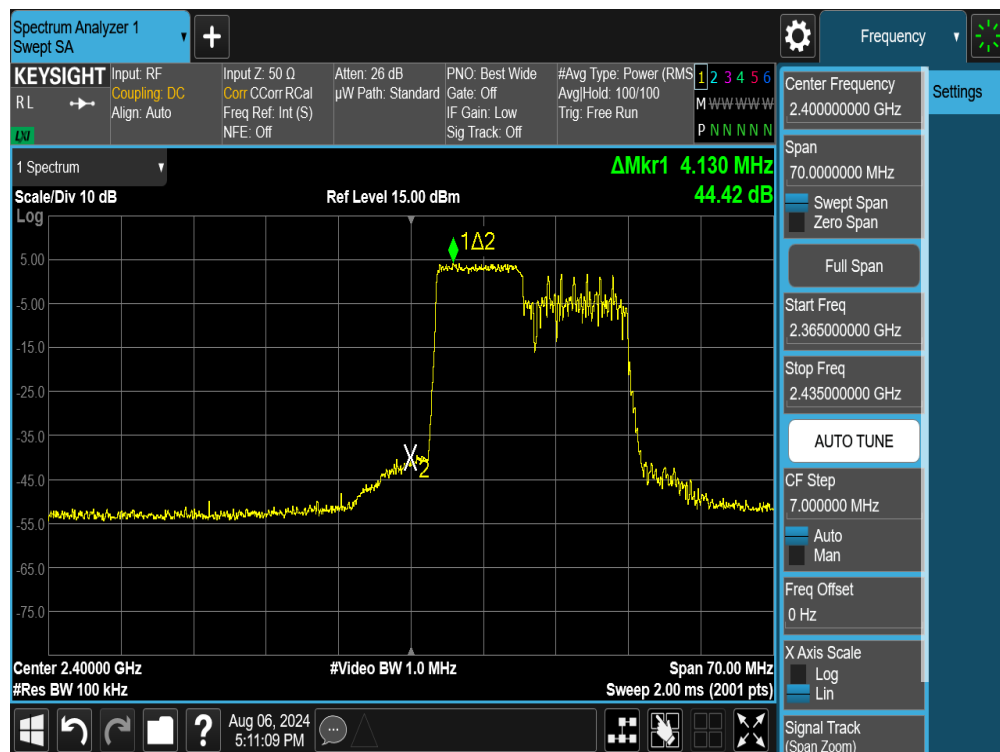
Plot 7-55. Band Edge Plot SISO ANT1 (802.11ax/be OFDMA – 242 Tones – Ch. 12)



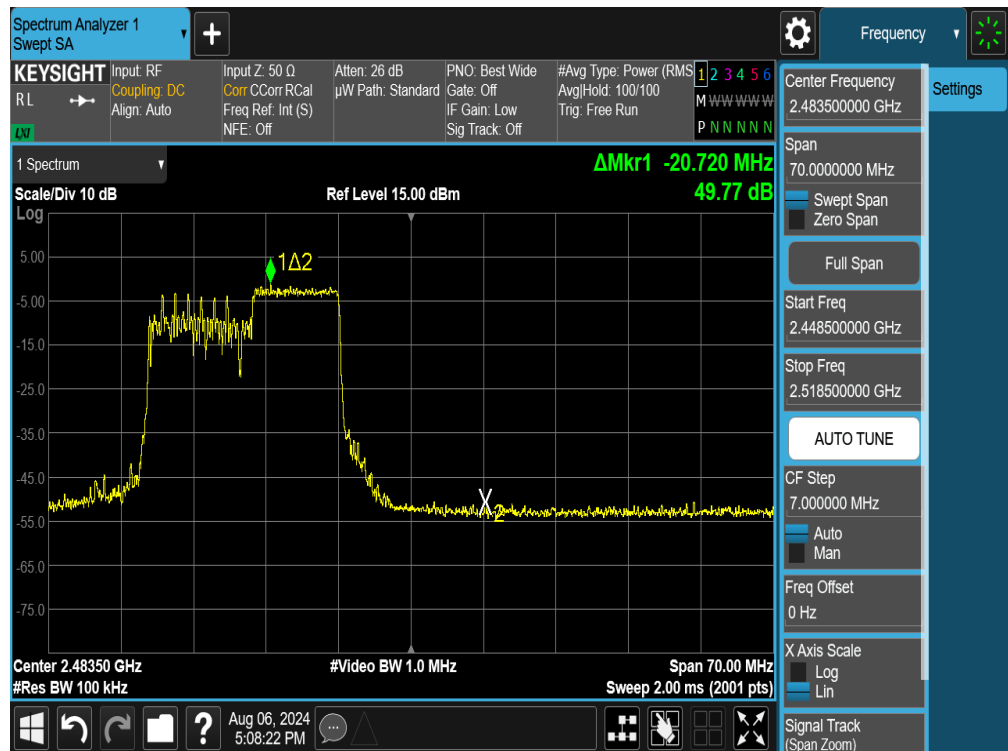
Plot 7-56. Band Edge Plot SISO ANT1 (802.11ax/be OFDMA – 242 Tones – Ch. 13)

FCC ID: A3LSMX920	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2405140042-04.A3L	Test Dates: 06/17/2024 – 08/08/2024	EUT Type: Portable Tablet	Page 57 of 134

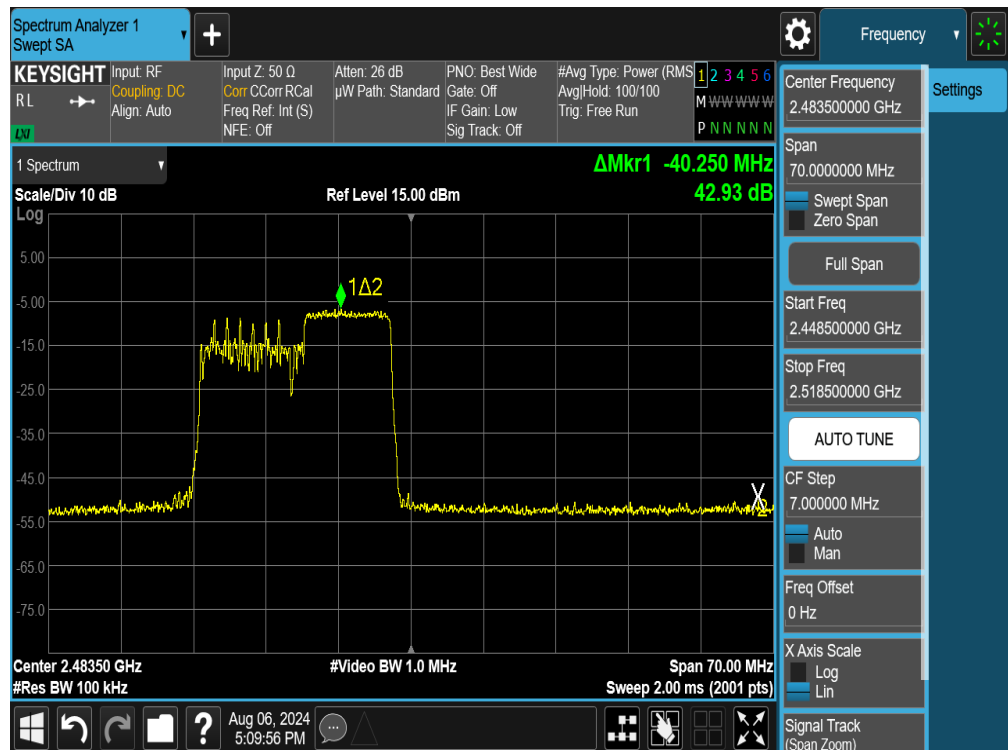
7.5.2 SISO Antenna-2 Conducted Band Edge Emissions



FCC ID: A3LSMX920	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2405140042-04.A3L	Test Dates: 06/17/2024 – 08/08/2024	EUT Type: Portable Tablet	Page 58 of 134

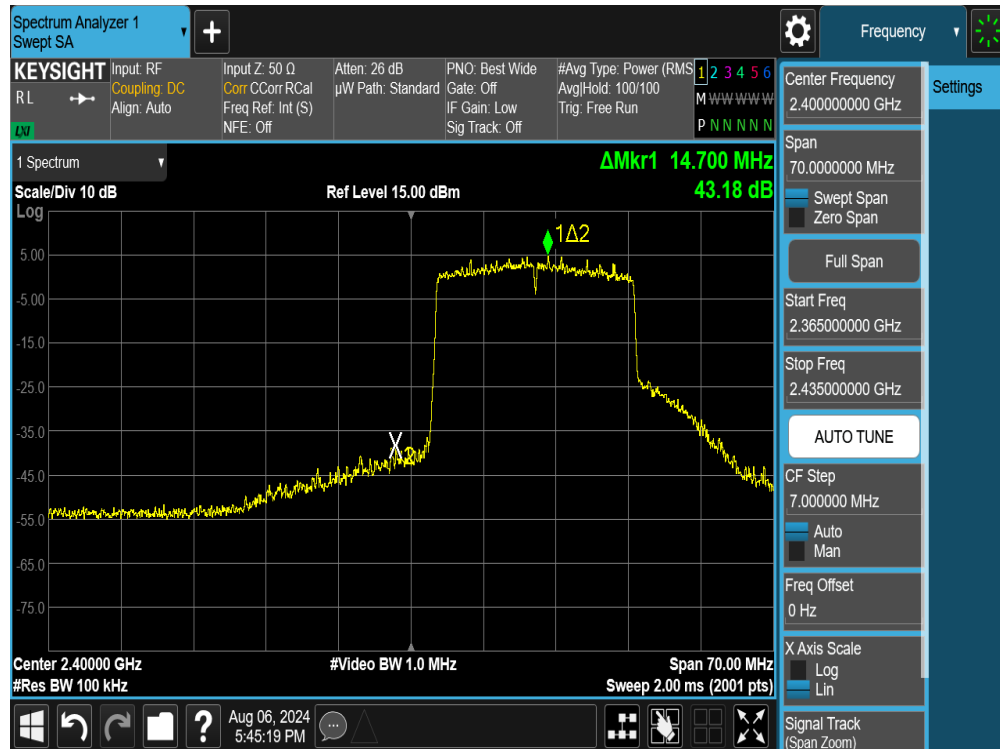


Plot 7-59. Band Edge Plot SISO ANT2 (802.11ax/be OFDMA – 106 Tones – Ch. 12)

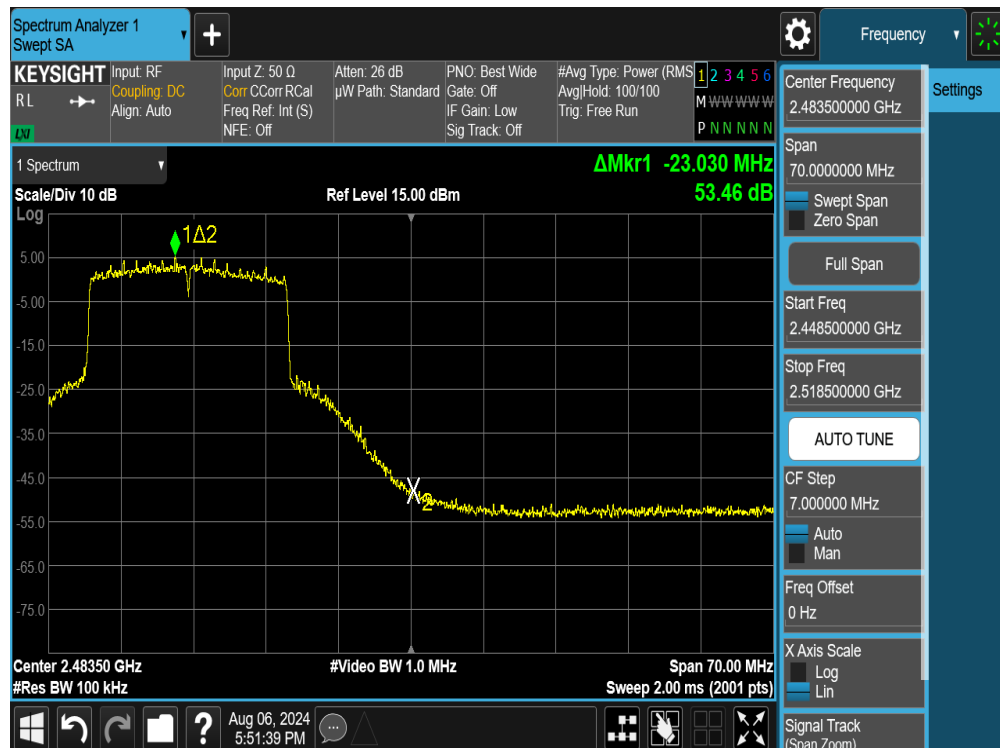


Plot 7-60. Band Edge Plot SISO ANT2 (802.11ax/be OFDMA – 106 Tones – Ch. 13)

FCC ID: A3LSMX920	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2405140042-04.A3L	Test Dates: 06/17/2024 – 08/08/2024	EUT Type: Portable Tablet	Page 59 of 134

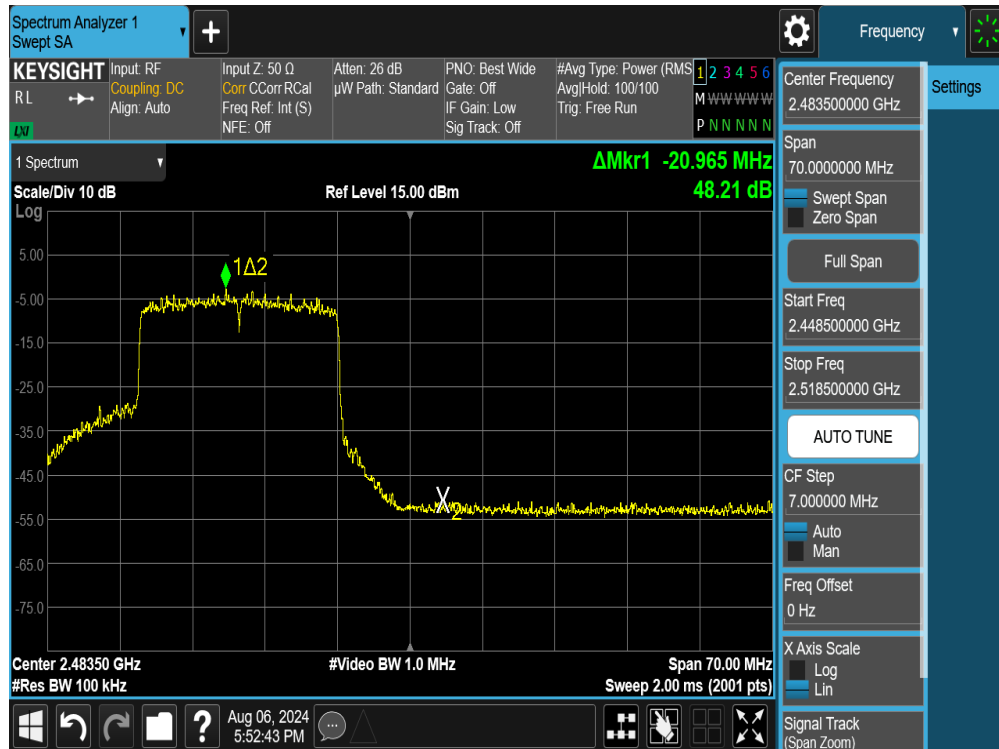


Plot 7-61. Band Edge Plot SISO ANT2 (802.11ax/be OFDMA – 242 Tones – Ch. 1)

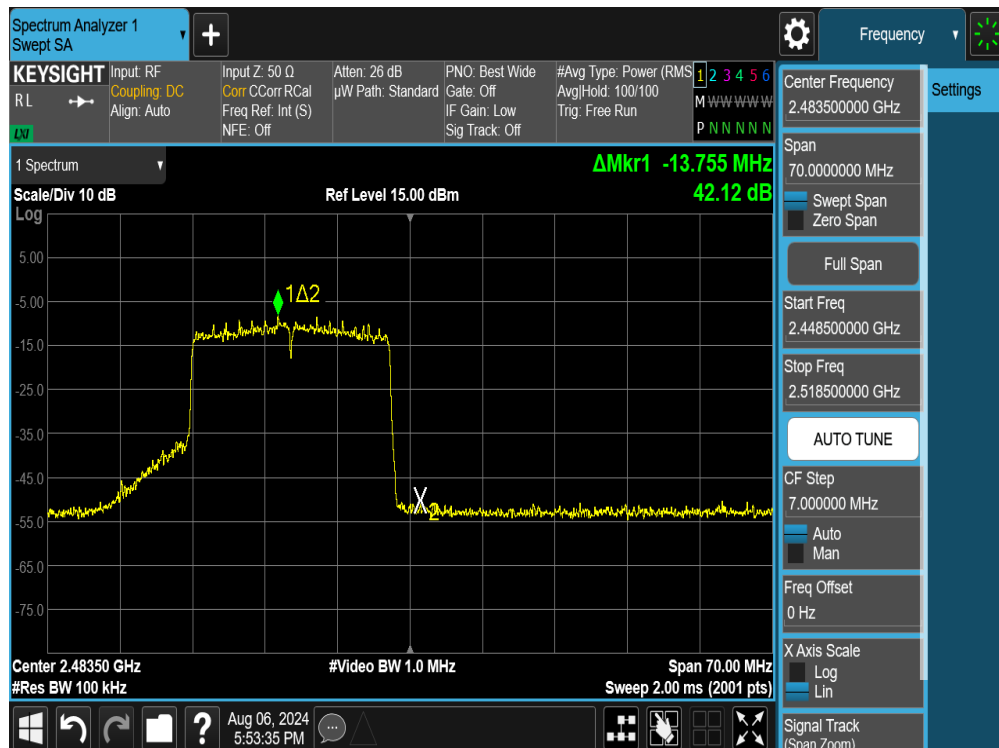


Plot 7-62. Band Edge Plot SISO ANT2 (802.11ax/be OFDMA – 242 Tones – Ch. 11)

FCC ID: A3LSMX920	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2405140042-04.A3L	Test Dates: 06/17/2024 – 08/08/2024	EUT Type: Portable Tablet	Page 60 of 134



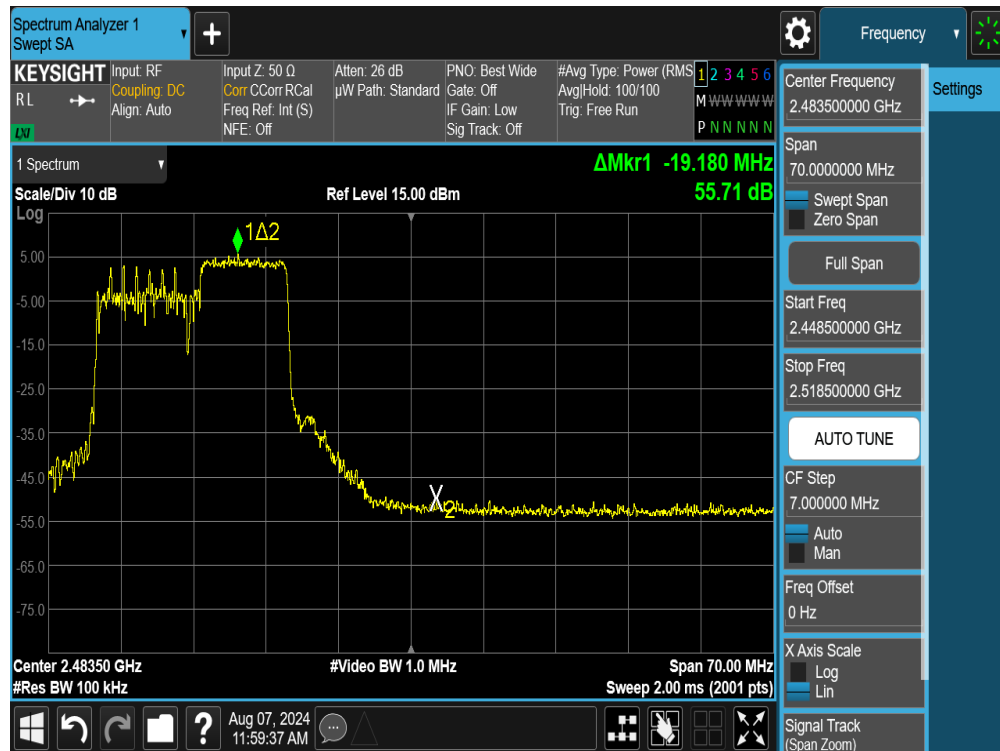
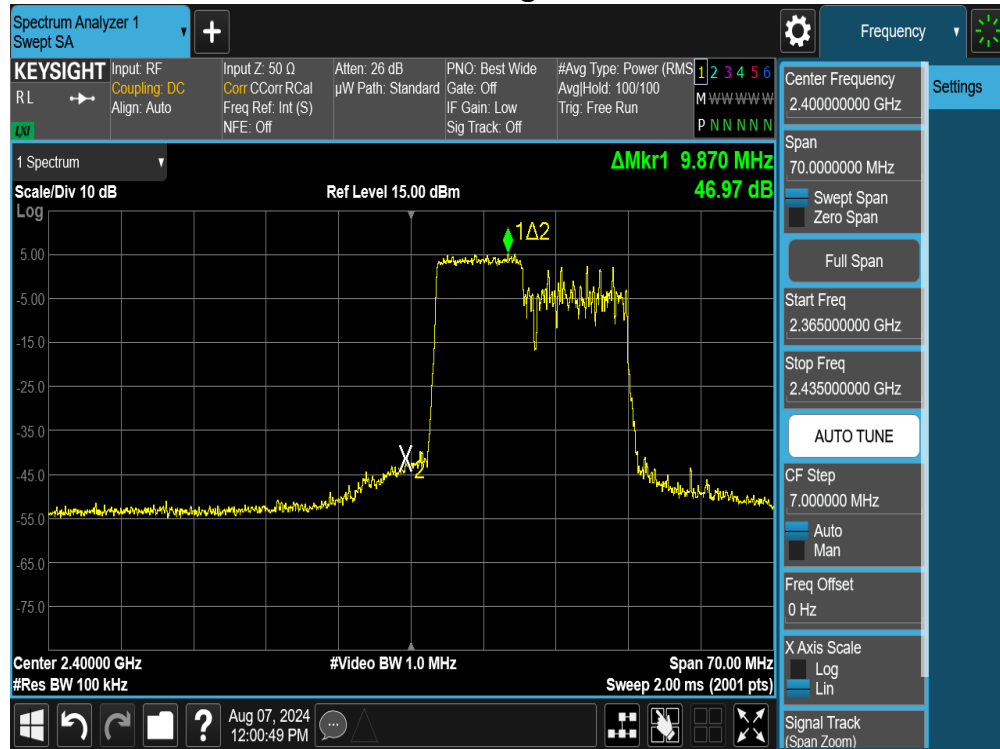
Plot 7-63. Band Edge Plot SISO ANT2 (802.11ax/be OFDMA – 242 Tones – Ch. 12)



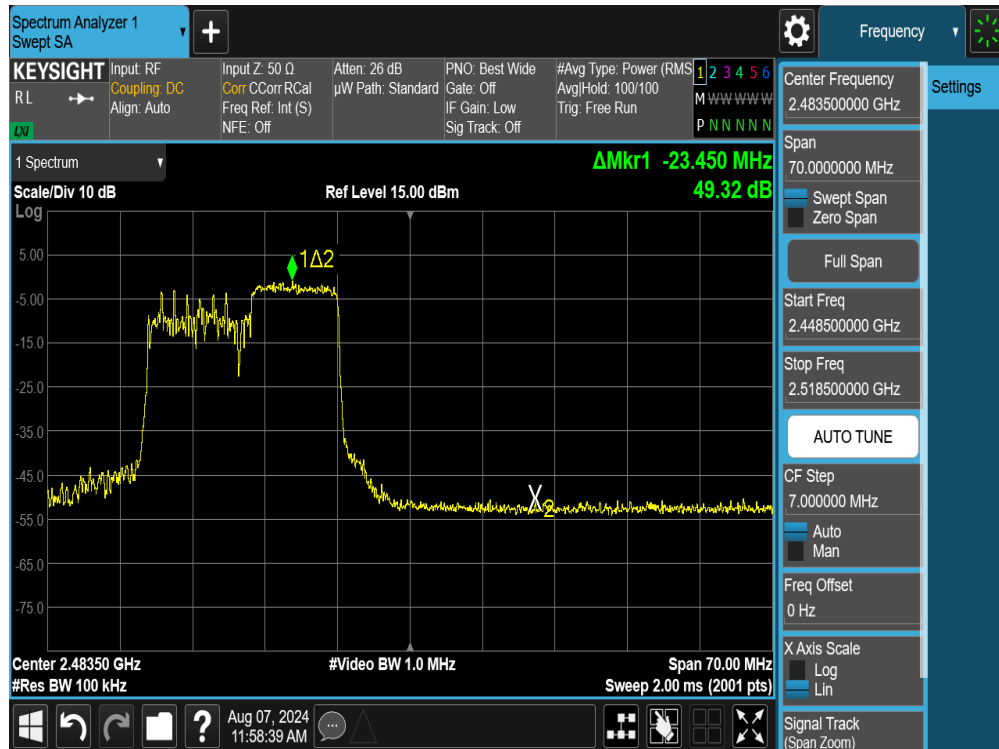
Plot 7-64. Band Edge Plot SISO ANT2 (802.11ax/be OFDMA – 242 Tones – Ch. 13)

FCC ID: A3LSMX920	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2405140042-04.A3L	Test Dates: 06/17/2024 – 08/08/2024	EUT Type: Portable Tablet	Page 61 of 134

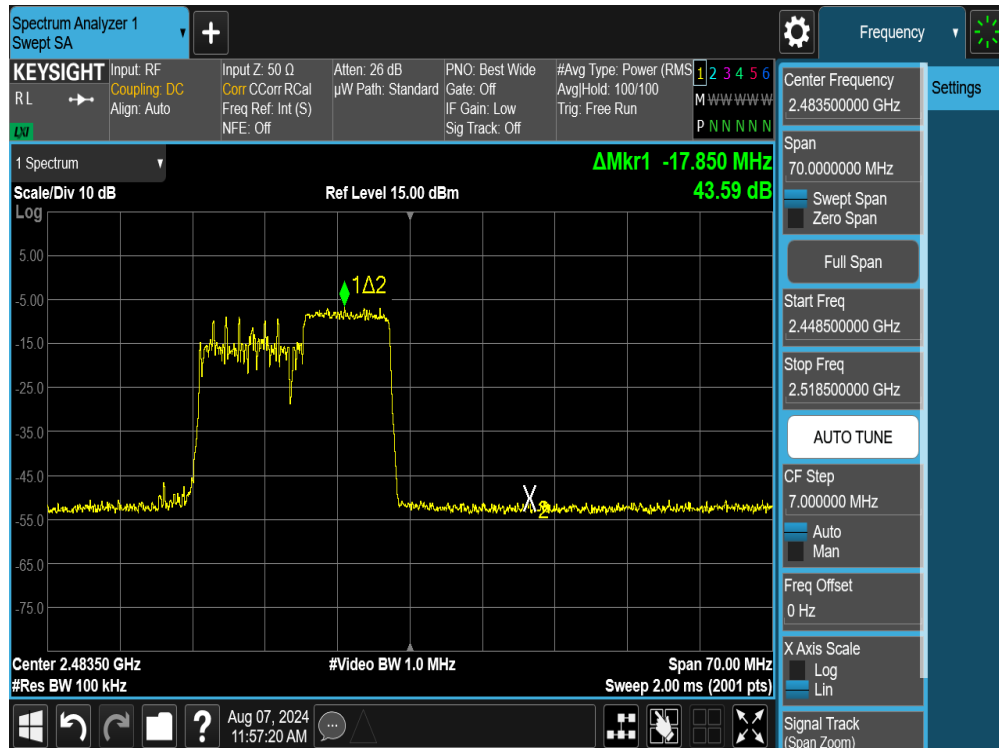
7.5.3 MIMO Antenna-1 Conducted Band Edge Emissions



FCC ID: A3LSMX920	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2405140042-04.A3L	Test Dates: 06/17/2024 – 08/08/2024	EUT Type: Portable Tablet	Page 62 of 134

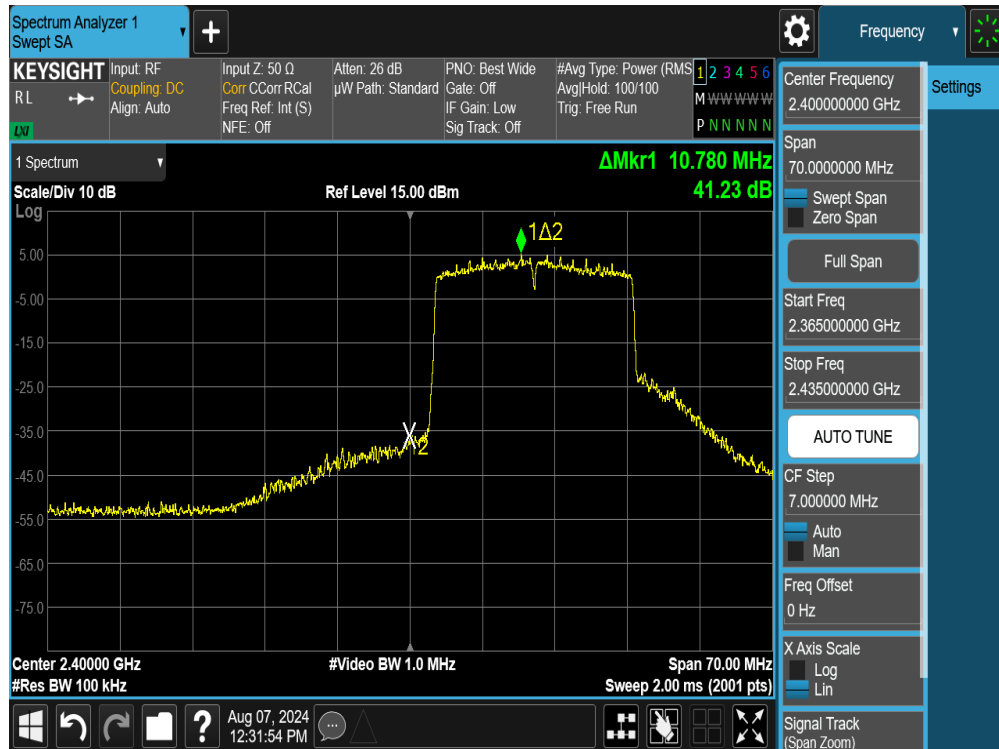


Plot 7-67. Band Edge Plot MIMO ANT1 (802.11ax/be OFDMA – 106 Tones – Ch. 12)

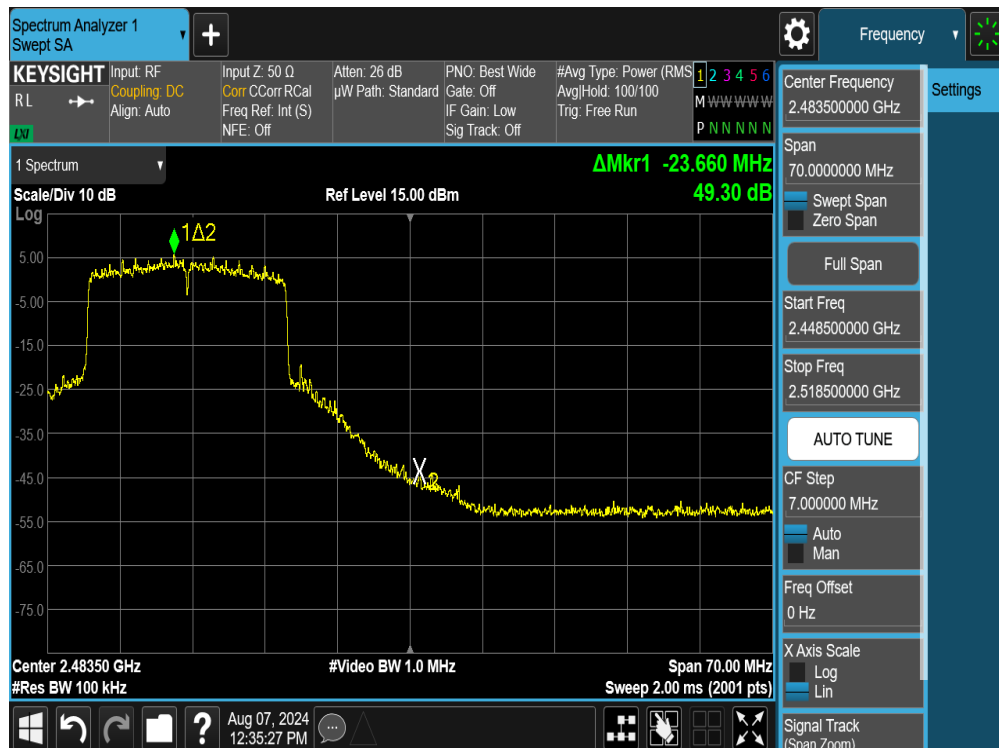


Plot 7-68. Band Edge Plot MIMO ANT1 (802.11ax/be OFDMA – 106 Tones – Ch. 13)

FCC ID: A3LSMX920	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2405140042-04.A3L	Test Dates: 06/17/2024 – 08/08/2024	EUT Type: Portable Tablet	Page 63 of 134

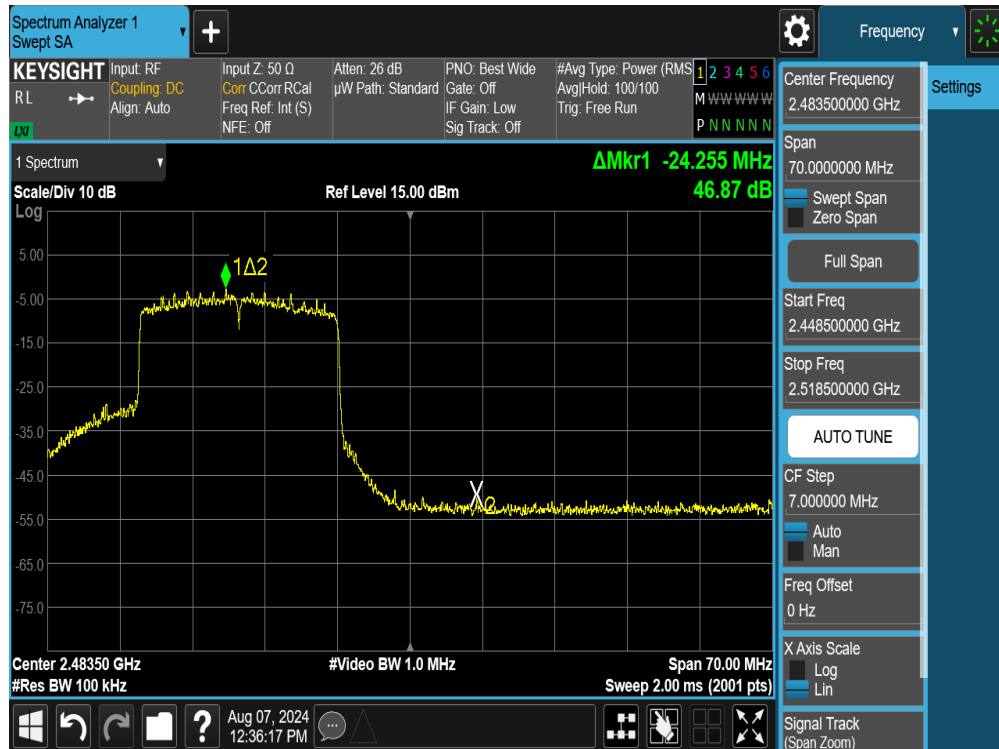


Plot 7-69. Band Edge Plot MIMO ANT1 (802.11ax/be OFDMA – 242 Tones – Ch. 1)

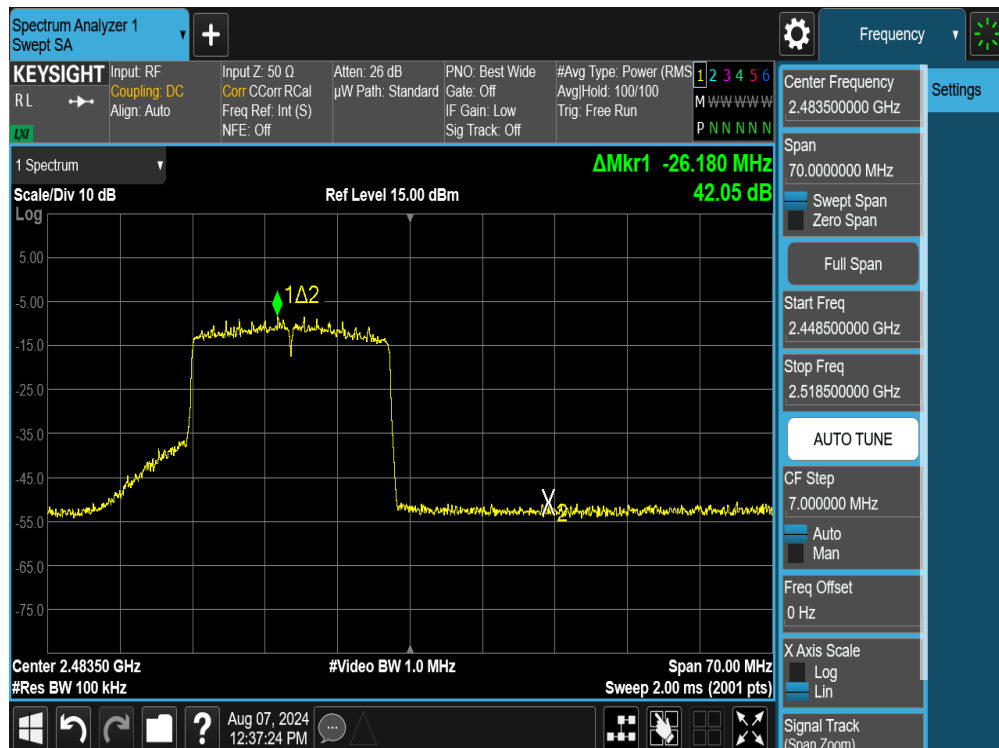


Plot 7-70. Band Edge Plot MIMO ANT1 (802.11ax/be OFDMA – 242 Tones – Ch. 11)

FCC ID: A3LSMX920	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2405140042-04.A3L	Test Dates: 06/17/2024 – 08/08/2024	EUT Type: Portable Tablet	Page 64 of 134



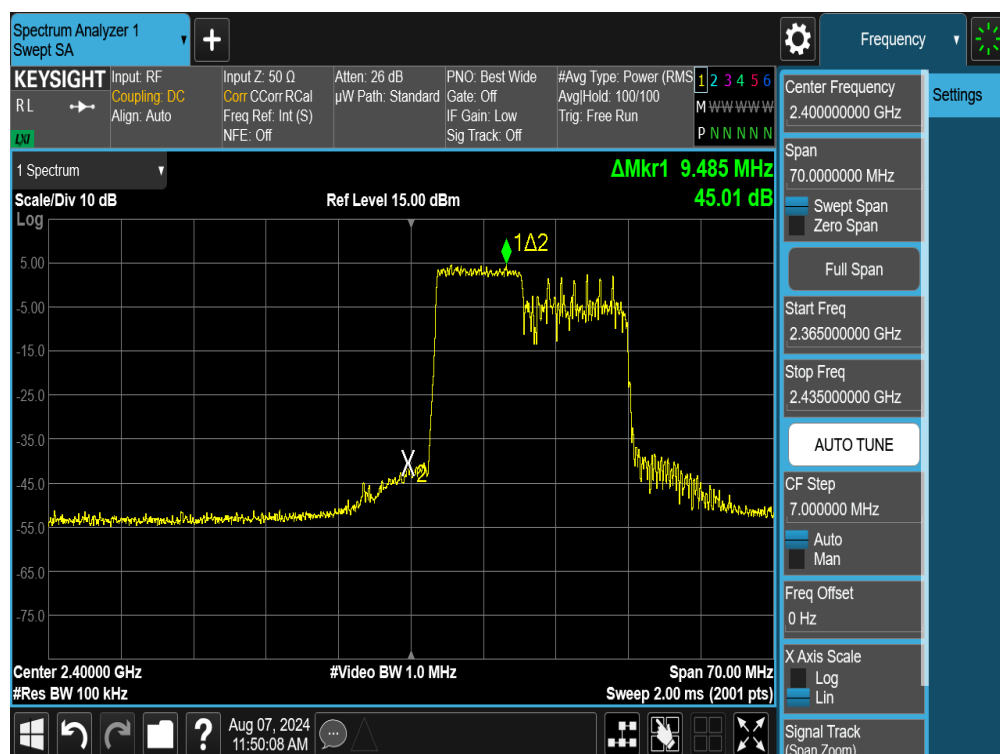
Plot 7-71. Band Edge Plot MIMO ANT1 (802.11ax/be OFDMA – 242 Tones – Ch. 12)



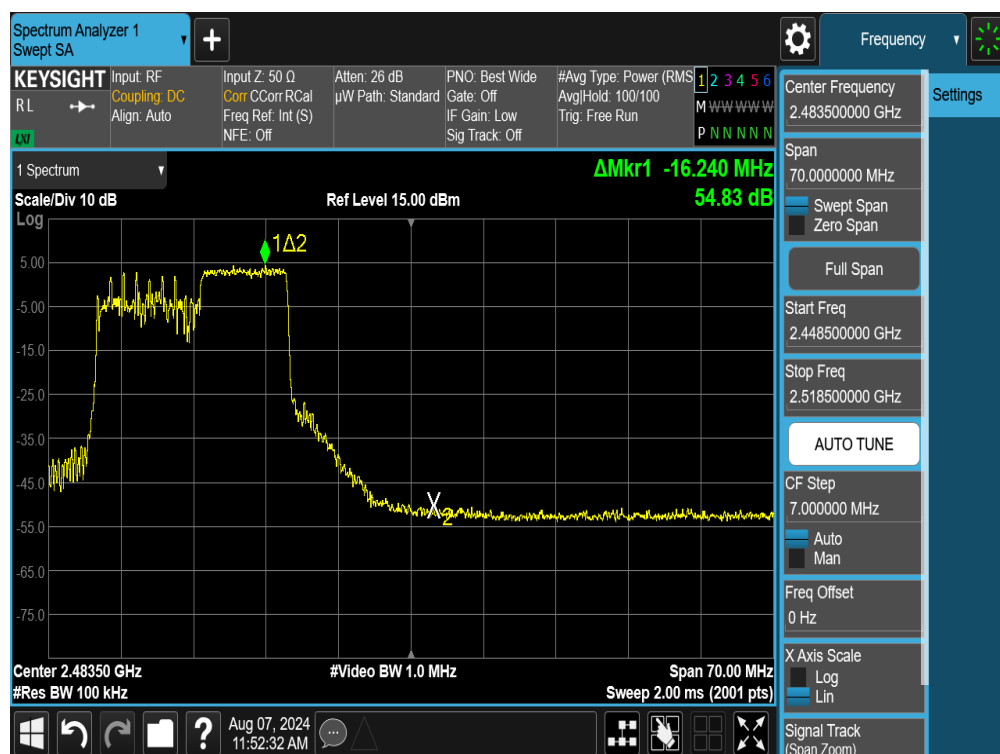
Plot 7-72. Band Edge Plot MIMO ANT1 (802.11ax/be OFDMA – 242 Tones – Ch. 13)

FCC ID: A3LSMX920	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2405140042-04.A3L	Test Dates: 06/17/2024 – 08/08/2024	EUT Type: Portable Tablet	Page 65 of 134

7.5.4 MIMO Antenna-2 Conducted Band Edge Emissions

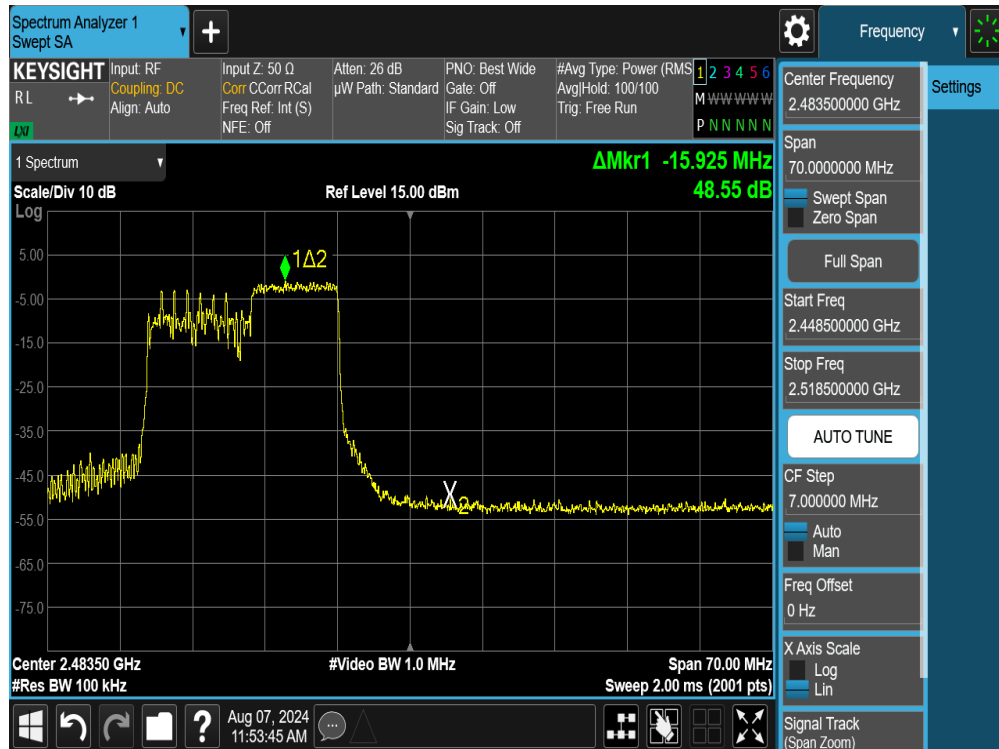


Plot 7-73. Band Edge Plot MIMO ANT2 (802.11ax/be OFDMA – 106 Tones – Ch. 1)

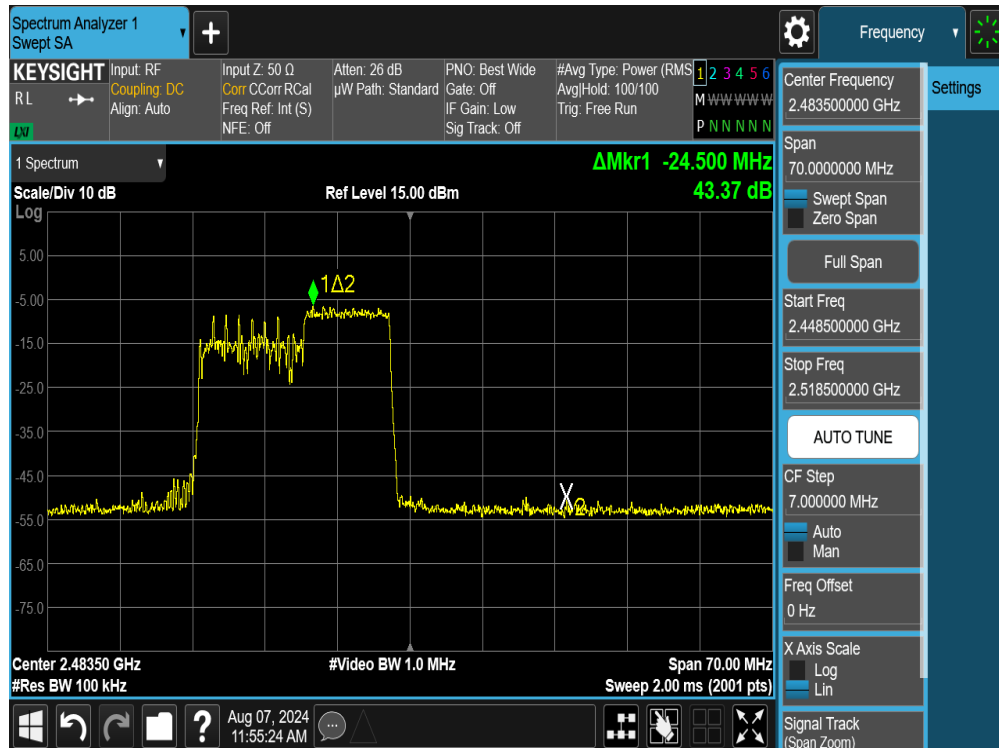


Plot 7-74. Band Edge Plot MIMO ANT2 (802.11ax/be OFDMA – 106 Tones – Ch. 11)

FCC ID: A3LSMX920	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2405140042-04.A3L	Test Dates: 06/17/2024 – 08/08/2024	EUT Type: Portable Tablet	Page 66 of 134

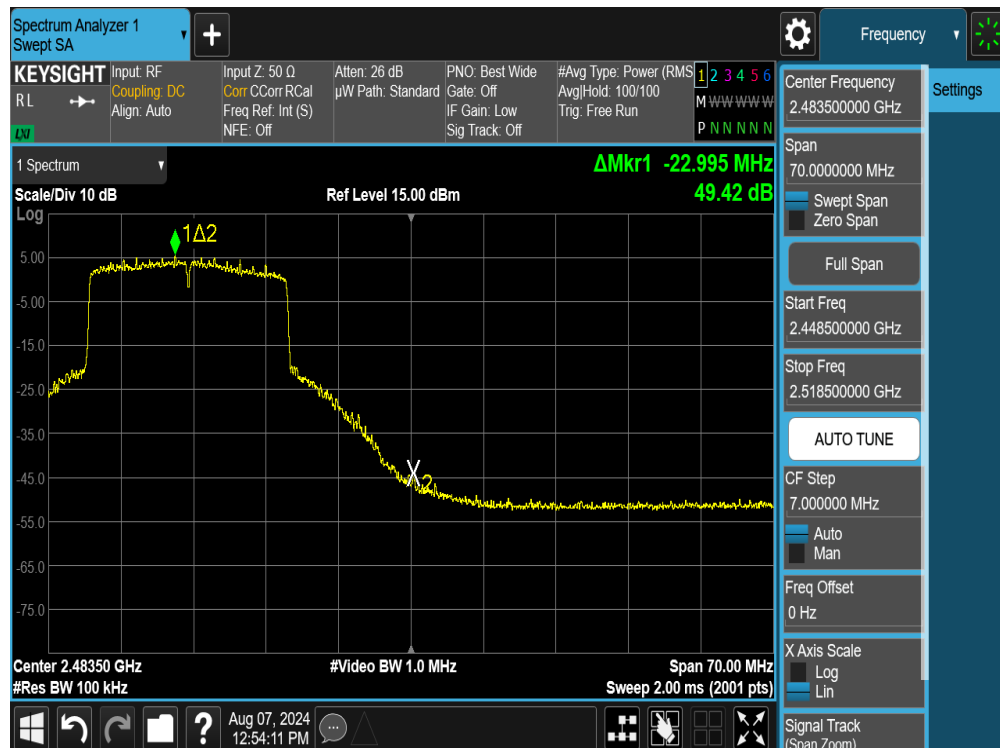
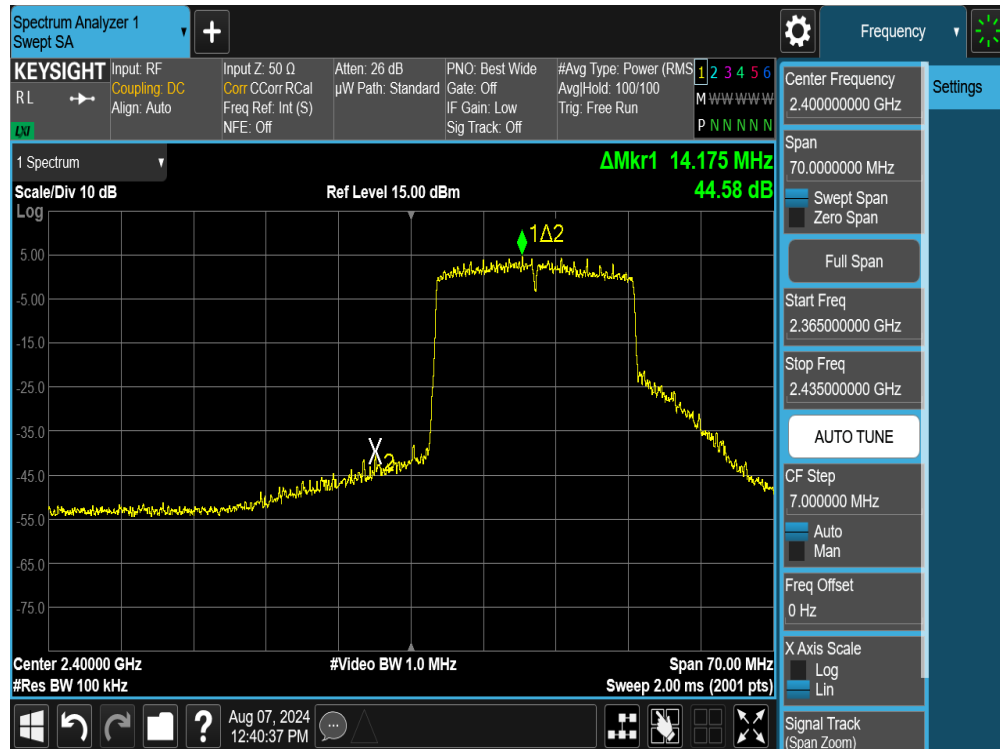


Plot 7-75. Band Edge Plot MIMO ANT2 (802.11ax/be OFDMA – 106 Tones – Ch. 12)

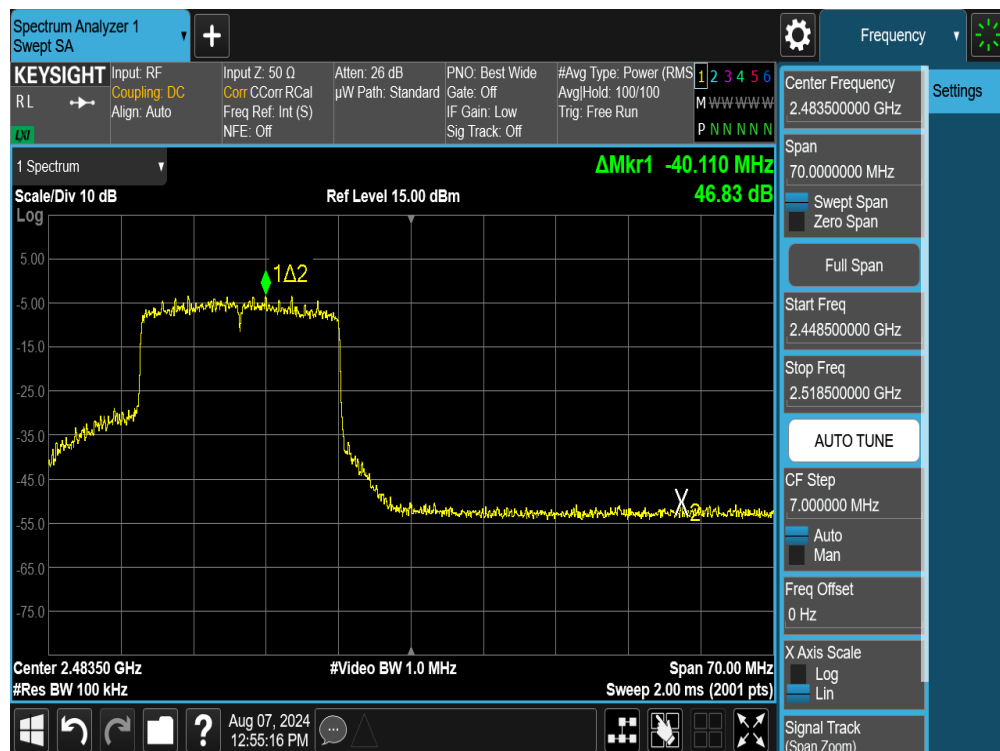


Plot 7-76. Band Edge Plot MIMO ANT2 (802.11ax/be OFDMA – 106 Tones – Ch. 13)

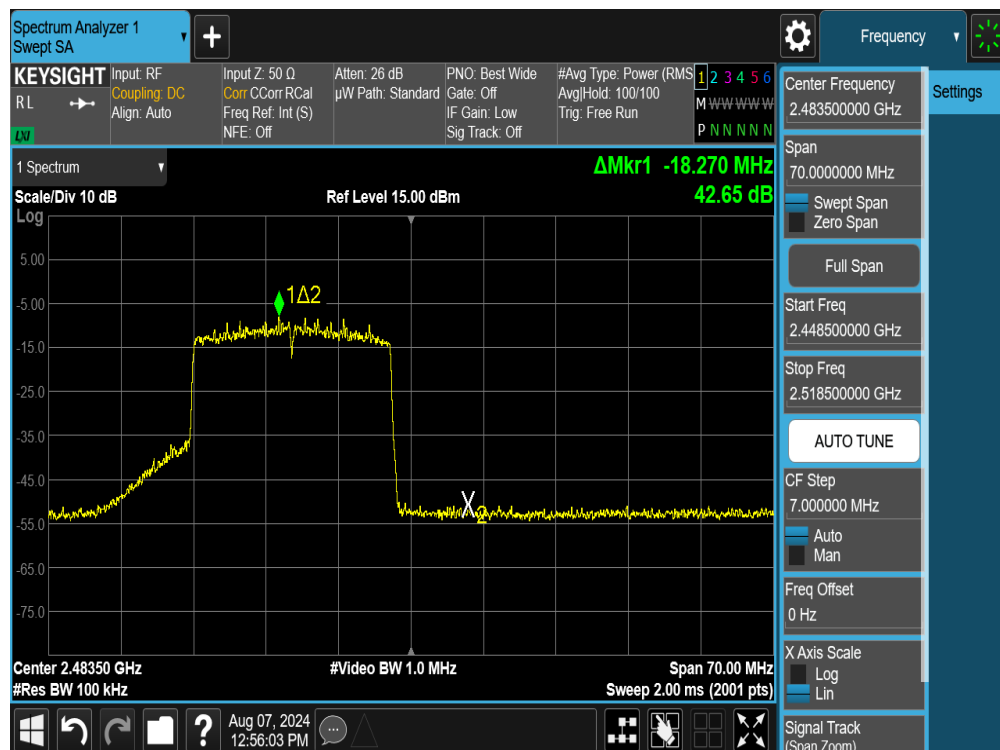
FCC ID: A3LSMX920	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2405140042-04.A3L	Test Dates: 06/17/2024 – 08/08/2024	EUT Type: Portable Tablet	Page 67 of 134



FCC ID: A3LSMX920	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
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Plot 7-79. Band Edge Plot MIMO ANT2 (802.11ax/be OFDMA – 242 Tones – Ch. 12)



Plot 7-80. Band Edge Plot MIMO ANT2 (802.11ax/be OFDMA – 242 Tones – Ch. 13)

FCC ID: A3LSMX920	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2405140042-04.A3L	Test Dates: 06/17/2024 – 08/08/2024	EUT Type: Portable Tablet	Page 69 of 134

7.6 Conducted Spurious Emissions

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 MCS0 in 802.11ax mode as this setting produced the worst-case emissions.

The limit for out-of-band spurious emissions at the band edge is 20 dB 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 11.11.3 of ANSI C63.10-2013.

Test Procedure Used

ANSI C63.10-2013 – Section 11.11.3
ANSI C63.10-2013 – Section 14.3.3

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

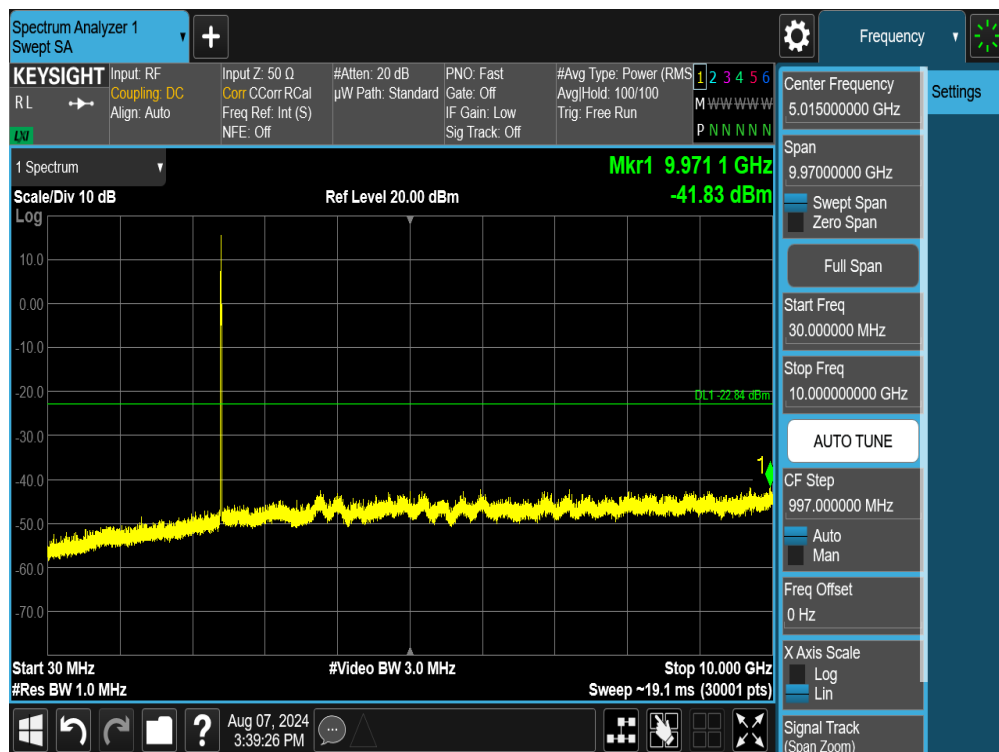
FCC ID: A3LSMX920	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Technical Manager
Test Report S/N: 1M2405140042-04.A3L	Test Dates: 06/17/2024 – 08/08/2024	EUT Type: Portable Tablet	Page 70 of 134

Test Notes

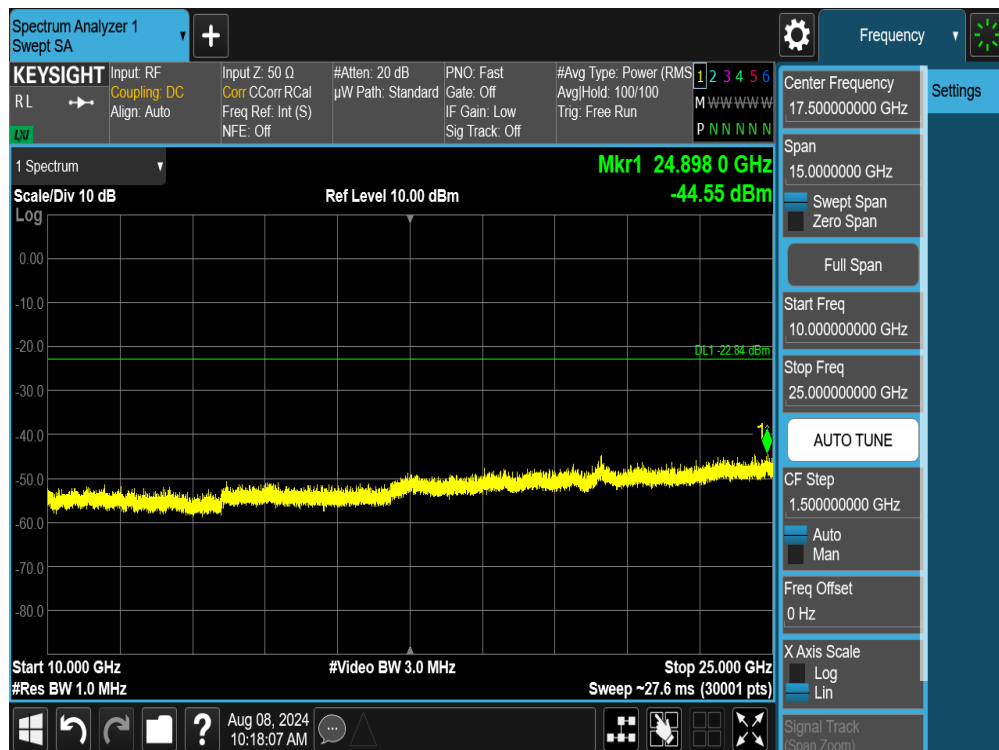
1. RBW was set to 1MHz rather than 100kHz in order to increase the measurement speed.
2. The display line shown in the following plots denotes the limit at 30 dB below the fundamental emission level measured in a 100kHz bandwidth. However, since the traces in the following plots are measured with a 1MHz RBW, the display line may not necessarily appear to be 30 dB 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 Section 14.3.3, it was unnecessary to show compliance through the summation of test results of the individual outputs.

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7.6.1 SISO Antenna-1 Conducted Spurious Emission



Plot 7-81. Conducted Spurious Plot SISO ANT1 (802.11ax/be OFDMA – 26 Tones – Ch. 1)



Plot 7-82. Conducted Spurious Plot SISO ANT1 (802.11ax/be OFDMA – 26 Tones – Ch. 1)

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