



Plot 7-85. Power Spectral Density Plot MIMO ANT2 (802.11b - Ch. 1)

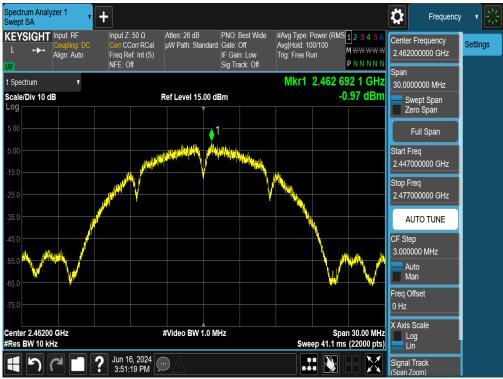


Plot 7-86. Power Spectral Density Plot MIMO ANT2 (802.11b - Ch. 6)

| FCC ID: A3LSMX828U | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Technical Manager |
|---------------------|---------------------------------------|-----------------|--------------------------------|
| Test Report S/N: | Test Dates: | EUT Type: | Dogo 70 of 122 |
| 1M2405140039-10.A3L | 6/10/2024 - 7/30/2024 | Portable Tablet | Page 70 of 133 |

© 2024 ELEMENT





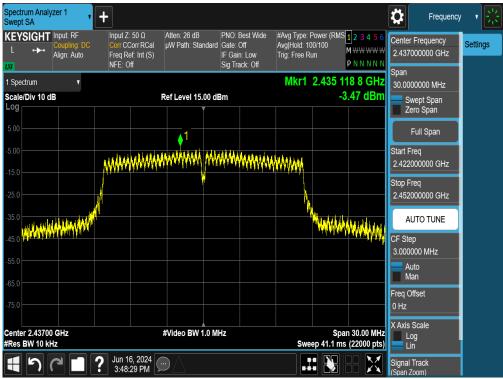
Plot 7-87. Power Spectral Density Plot MIMO ANT2 (802.11b - Ch. 11)



Plot 7-88. Power Spectral Density Plot MIMO ANT2 (802.11g - Ch. 1)

| FCC ID: A3LSMX828U | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Technical Manager |
|---------------------|---------------------------------------|-----------------|--------------------------------|
| Test Report S/N: | Test Dates: | EUT Type: | Dags 71 of 122 |
| 1M2405140039-10.A3L | 6/10/2024 - 7/30/2024 | Portable Tablet | Page 71 of 133 |





Plot 7-89. Power Spectral Density Plot MIMO ANT2 (802.11g - Ch. 6)



Plot 7-90. Power Spectral Density Plot MIMO ANT2 (802.11g - Ch. 11)

| FCC ID: A3LSMX828U | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Technical Manager |
|---------------------|---------------------------------------|-----------------|--------------------------------|
| Test Report S/N: | Test Dates: | EUT Type: | Dags 70 of 122 |
| 1M2405140039-10.A3L | 6/10/2024 - 7/30/2024 | Portable Tablet | Page 72 of 133 |





Plot 7-91. Power Spectral Density Plot MIMO ANT2 (802.11n (2.4GHz) - Ch. 1)



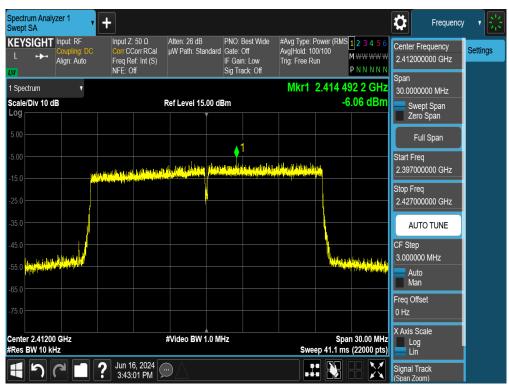
Plot 7-92. Power Spectral Density Plot MIMO ANT2 (802.11n (2.4GHz) - Ch. 6)

| FCC ID: A3LSMX828U | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Technical Manager |
|---------------------|---------------------------------------|-----------------|--------------------------------|
| Test Report S/N: | Test Dates: | EUT Type: | Dags 72 of 122 |
| 1M2405140039-10.A3L | 6/10/2024 - 7/30/2024 | Portable Tablet | Page 73 of 133 |





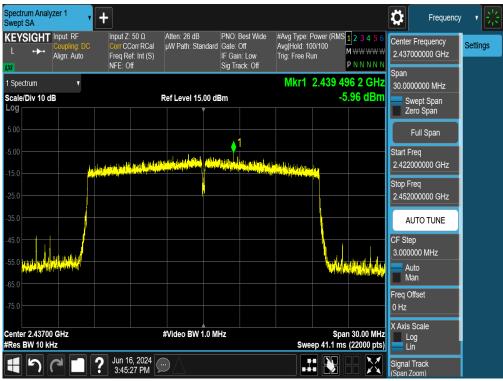
Plot 7-93. Power Spectral Density Plot MIMO ANT2 (802.11n (2.4GHz) - Ch. 11)



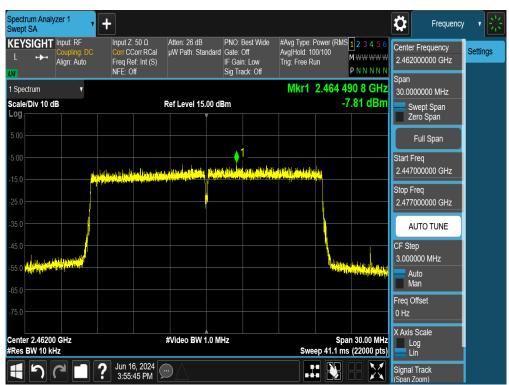
Plot 7-94. Power Spectral Density Plot MIMO ANT2 (802.11ax (2.4GHz) - Ch. 1)

| FCC ID: A3LSMX828U | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Technical Manager |
|---------------------|---------------------------------------|-----------------|--------------------------------|
| Test Report S/N: | Test Dates: | EUT Type: | Dags 74 of 122 |
| 1M2405140039-10.A3L | 6/10/2024 - 7/30/2024 | Portable Tablet | Page 74 of 133 |





Plot 7-95. Power Spectral Density Plot MIMO ANT2 (802.11ax (2.4GHz) - Ch. 6)



Plot 7-96. Power Spectral Density Plot MIMO ANT2 (802.11ax (2.4GHz) - Ch. 11)

| FCC ID: A3LSMX828U | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Technical Manager |
|---------------------|---------------------------------------|-----------------|--------------------------------|
| Test Report S/N: | Test Dates: | EUT Type: | Page 75 of 133 |
| 1M2405140039-10.A3L | 6/10/2024 - 7/30/2024 | Portable Tablet | rage 75 of 155 |



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 -2.88 dBm for Antenna 1 and -1.73 dBm for Antenna 2.

$$(-2.88 \text{ dBm} + (-1.73) \text{ dBm}) = (0.52 \text{ mW} + 0.67 \text{ mW}) = 1.19 \text{ mW} = 0.74 \text{ dBm}$$

| FCC ID: A3LSMX828U | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Technical Manager |
|---------------------|---------------------------------------|-----------------|--------------------------------|
| Test Report S/N: | Test Dates: | EUT Type: | Page 76 of 133 |
| 1M2405140039-10.A3L | 6/10/2024 - 7/30/2024 | Portable Tablet | rage 70 of 133 |



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 were investigated to determine the worst-case configuration. For the following out of band conducted spurious emissions plots at the band edge, the EUT was set at a data rate of 1Mbps for "b" mode, 6 Mbps for "g" mode, 6.5\\7.2Mbps for "n" mode, and 8.6Mbps for "ax" mode as these settings 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 ≥ 2 x 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: A3LSMX828U | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Technical Manager |
|---------------------|---------------------------------------|-----------------|--------------------------------|
| Test Report S/N: | Test Dates: | EUT Type: | Dags 77 of 122 |
| 1M2405140039-10.A3L | 6/10/2024 - 7/30/2024 | Portable Tablet | Page 77 of 133 |



7.5.1 SISO Antenna-1 Conducted Band Edge Emissions



Plot 7-97. Band Edge Plot SISO ANT1 (802.11b - Ch. 1)



Plot 7-98. Band Edge Plot SISO ANT1 (802.11b - Ch. 11)

| FCC ID: A3LSMX828U | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Technical Manager |
|---------------------|---------------------------------------|-----------------|-----------------------------------|
| Test Report S/N: | Test Dates: | EUT Type: | Dags 70 of 122 |
| 1M2405140039-10.A3L | 6/10/2024 - 7/30/2024 | Portable Tablet | Page 78 of 133 |





Plot 7-99. Band Edge Plot SISO ANT1 (802.11g-Ch. 1)



Plot 7-100. Band Edge Plot SISO ANT1 (802.11g - Ch. 11)

| FCC ID: A3LSMX828U | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Technical Manager |
|---------------------|---------------------------------------|-----------------|--------------------------------|
| Test Report S/N: | Test Dates: | EUT Type: | Dags 70 of 122 |
| 1M2405140039-10.A3L | 6/10/2024 - 7/30/2024 | Portable Tablet | Page 79 of 133 |





Plot 7-101. Band Edge Plot SISO ANT1 (802.11n (2.4GHz) - Ch. 1)



Plot 7-102. Band Edge Plot SISO ANT1 (802.11n (2.4GHz) - Ch. 11)

| FCC ID: A3LSMX828U | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Technical Manager |
|---------------------|---------------------------------------|-----------------|--------------------------------|
| Test Report S/N: | Test Dates: | EUT Type: | Page 80 of 133 |
| 1M2405140039-10.A3L | 6/10/2024 - 7/30/2024 | Portable Tablet | rage ou or 133 |





Plot 7-103. Band Edge Plot SISO ANT1 (802.11ax (2.4GHz) - Ch. 1)



Plot 7-104. Band Edge Plot SISO ANT1 (802.11ax (2.4GHz) - Ch. 11)

| FCC ID: A3LSMX828U | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Technical Manager |
|---------------------|---------------------------------------|-----------------|--------------------------------|
| Test Report S/N: | Test Dates: | EUT Type: | Dags 01 of 122 |
| 1M2405140039-10.A3L | 6/10/2024 - 7/30/2024 | Portable Tablet | Page 81 of 133 |



7.5.2 SISO Antenna-2 Conducted Band Edge Emissions



Plot 7-105. Band Edge Plot SISO ANT2 (802.11b - Ch. 1)



Plot 7-106. Band Edge Plot SISO ANT2 (802.11b - Ch. 11)

| FCC ID: A3LSMX828U | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Technical Manager |
|---------------------|---------------------------------------|-----------------|-----------------------------------|
| Test Report S/N: | Test Dates: | EUT Type: | Dags 92 of 122 |
| 1M2405140039-10.A3L | 6/10/2024 - 7/30/2024 | Portable Tablet | Page 82 of 133 |





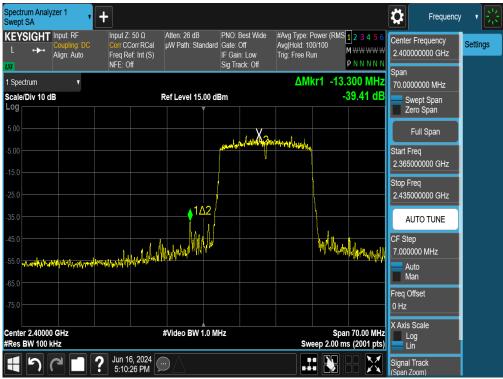
Plot 7-107. Band Edge Plot SISO ANT2 (802.11g-Ch. 1)



Plot 7-108. Band Edge Plot SISO ANT2 (802.11g - Ch. 11)

| FCC ID: A3LSMX828U | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Technical Manager |
|---------------------|---------------------------------------|-----------------|-----------------------------------|
| Test Report S/N: | Test Dates: | EUT Type: | Dogo 92 of 122 |
| 1M2405140039-10.A3L | 6/10/2024 - 7/30/2024 | Portable Tablet | Page 83 of 133 |





Plot 7-109. Band Edge Plot SISO ANT2 (802.11n (2.4GHz) - Ch. 1)



Plot 7-110. Band Edge Plot SISO ANT2 (802.11n (2.4GHz) - Ch. 11)

| FCC ID: A3LSMX828U | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Technical Manager |
|---------------------|---------------------------------------|-----------------|--------------------------------|
| Test Report S/N: | Test Dates: | EUT Type: | Dags 04 of 122 |
| 1M2405140039-10.A3L | 6/10/2024 - 7/30/2024 | Portable Tablet | Page 84 of 133 |





Plot 7-111. Band Edge Plot SISO ANT2 (802.11ax (2.4GHz) - Ch. 1)



Plot 7-112. Band Edge Plot SISO ANT2 (802.11ax (2.4GHz) - Ch. 11)

| FCC ID: A3LSMX828U | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Technical Manager |
|---------------------|---------------------------------------|-----------------|--------------------------------|
| Test Report S/N: | Test Dates: | EUT Type: | Dags 05 of 122 |
| 1M2405140039-10.A3L | 6/10/2024 - 7/30/2024 | Portable Tablet | Page 85 of 133 |



7.5.3 MIMO Conducted Band Edge Emissions



Plot 7-113. Band Edge Plot MIMO ANT1 (802.11b - Ch. 1)



Plot 7-114. Band Edge Plot MIMO ANT1 (802.11b - Ch. 11)

| FCC ID: A3LSMX828U | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Technical Manager |
|---------------------|---------------------------------------|-----------------|--------------------------------|
| Test Report S/N: | Test Dates: | EUT Type: | Dogg 96 of 122 |
| 1M2405140039-10.A3L | 6/10/2024 - 7/30/2024 | Portable Tablet | Page 86 of 133 |
| © 2024 ELEMENT | | | V/4.4 0 07/06/2022 |





Plot 7-115. Band Edge Plot MIMO ANT1 (802.11g- Ch. 1)



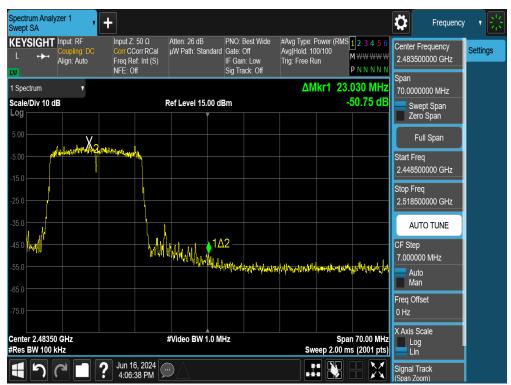
Plot 7-116. Band Edge Plot MIMO ANT1 (802.11g - Ch. 11)

| FCC ID: A3LSMX828U | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Technical Manager |
|---------------------|---------------------------------------|-----------------|--------------------------------|
| Test Report S/N: | Test Dates: | EUT Type: | Page 87 of 133 |
| 1M2405140039-10.A3L | 6/10/2024 - 7/30/2024 | Portable Tablet | rage of or 133 |





Plot 7-117. Band Edge Plot MIMO ANT1 (802.11n (2.4GHz) - Ch. 1)



Plot 7-118. Band Edge Plot MIMO ANT1 (802.11n (2.4GHz) - Ch. 11)

| FCC ID: A3LSMX828U | | MEASUREMENT REPORT (CERTIFICATION) | |
|---------------------|-----------------------|---------------------------------------|------------------|
| Test Report S/N: | Test Dates: | EUT Type: | D 00 -f 400 |
| 1M2405140039-10.A3L | 6/10/2024 - 7/30/2024 | Portable Tablet | Page 88 of 133 |
| © 2024 ELEMENT | • | <u>•</u> | V11.0 07/06/2023 |





Plot 7-119. Band Edge Plot MIMO ANT1 (802.11ax (2.4GHz) - Ch. 1)



Plot 7-120. Band Edge Plot MIMO ANT1 (802.11ax (2.4GHz) - Ch. 11)

| FCC ID: A3LSMX828U | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Technical Manager |
|---------------------|---------------------------------------|-----------------|--------------------------------|
| Test Report S/N: | Test Dates: | EUT Type: | Dogo 90 of 122 |
| 1M2405140039-10.A3L | 6/10/2024 - 7/30/2024 | Portable Tablet | Page 89 of 133 |





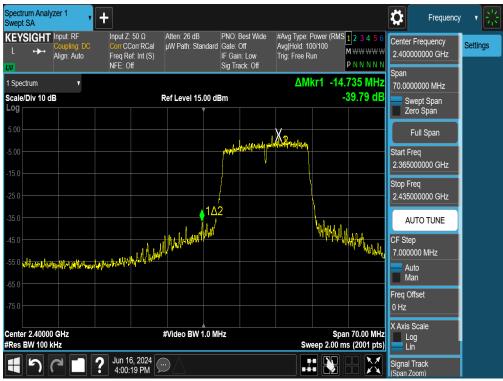
Plot 7-121. Band Edge Plot MIMO ANT2 (802.11b - Ch. 1)



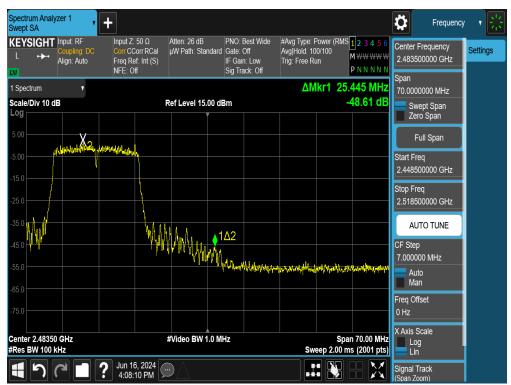
Plot 7-122. Band Edge Plot MIMO ANT2 (802.11b - Ch. 11)

| FCC ID: A3LSMX828U | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Technical Manager |
|---------------------|---------------------------------------|-----------------|--------------------------------|
| Test Report S/N: | Test Dates: | EUT Type: | Dags 00 of 122 |
| 1M2405140039-10.A3L | 6/10/2024 - 7/30/2024 | Portable Tablet | Page 90 of 133 |





Plot 7-123. Band Edge Plot MIMO ANT2 (802.11g- Ch. 1)



Plot 7-124. Band Edge Plot MIMO ANT2 (802.11g - Ch. 11)

| FCC ID: A3LSMX828U | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Technical Manager |
|---------------------|---------------------------------------|-----------------|--------------------------------|
| Test Report S/N: | Test Dates: | EUT Type: | Dags 01 of 122 |
| 1M2405140039-10.A3L | 6/10/2024 - 7/30/2024 | Portable Tablet | Page 91 of 133 |





Plot 7-125. Band Edge Plot MIMO ANT2 (802.11n (2.4GHz) - Ch. 1)



Plot 7-126. Band Edge Plot MIMO ANT2 (802.11n (2.4GHz) - Ch. 11)

| FCC ID: A3LSMX828U | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Technical Manager |
|---------------------|---------------------------------------|-----------------|--------------------------------|
| Test Report S/N: | Test Dates: | EUT Type: | Dags 02 of 122 |
| 1M2405140039-10.A3L | 6/10/2024 - 7/30/2024 | Portable Tablet | Page 92 of 133 |





Plot 7-127. Band Edge Plot MIMO ANT2 (802.11ax (2.4GHz) - Ch. 1)



Plot 7-128. Band Edge Plot MIMO ANT2 (802.11ax (2.4GHz) - Ch. 11)

| FCC ID: A3LSMX828U | MEASUREMENT REPORT (CERTIFICATION) | | Approved by: Technical Manager |
|---------------------|---------------------------------------|-----------------|--------------------------------|
| Test Report S/N: | Test Dates: | EUT Type: | Page 93 of 133 |
| 1M2405140039-10.A3L | 6/10/2024 - 7/30/2024 | Portable Tablet | rage 93 of 133 |