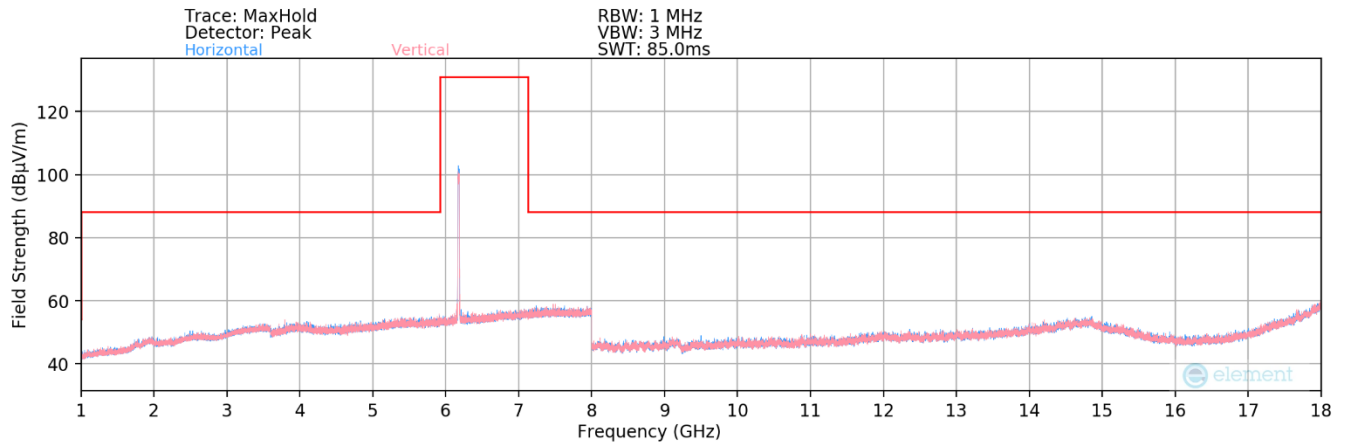
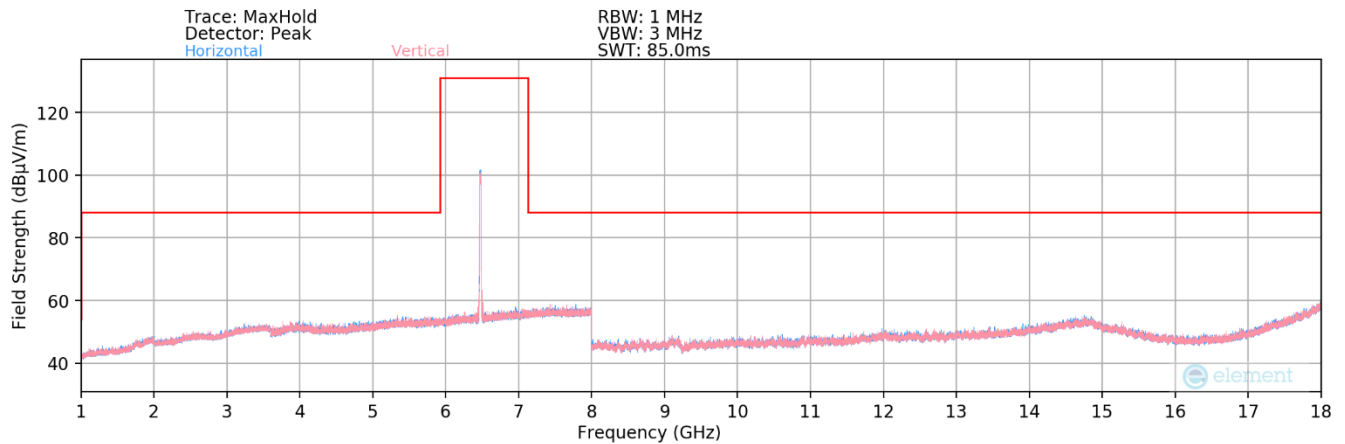


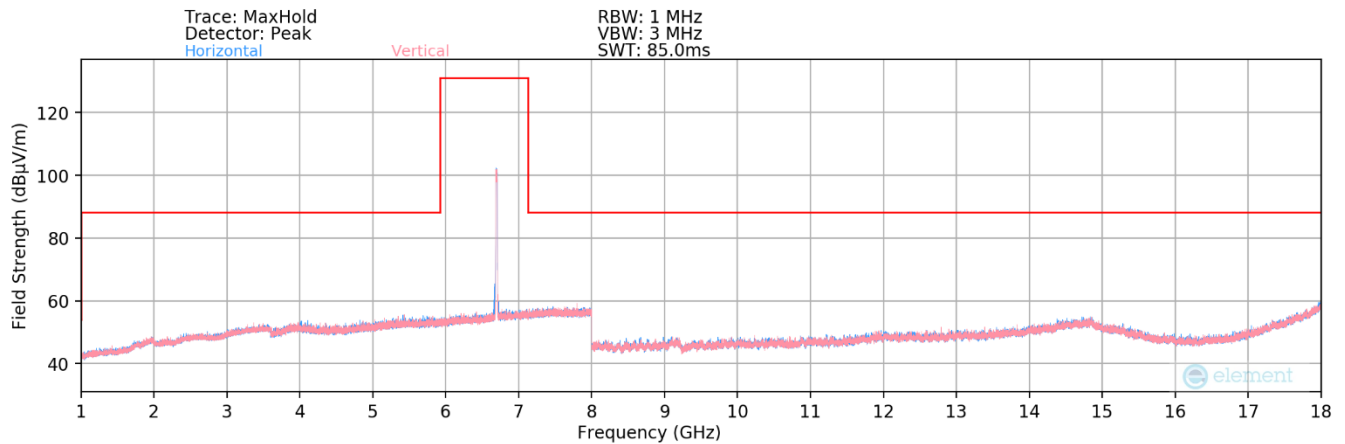
7.7.2 MIMO Radiated Spurious Emission Measurements (242 Tones)



Plot 7-216. Radiated Spurious Plot 1GHz – 18GHz MIMO (802.11ax – UNII Band 5 Ch. 45)

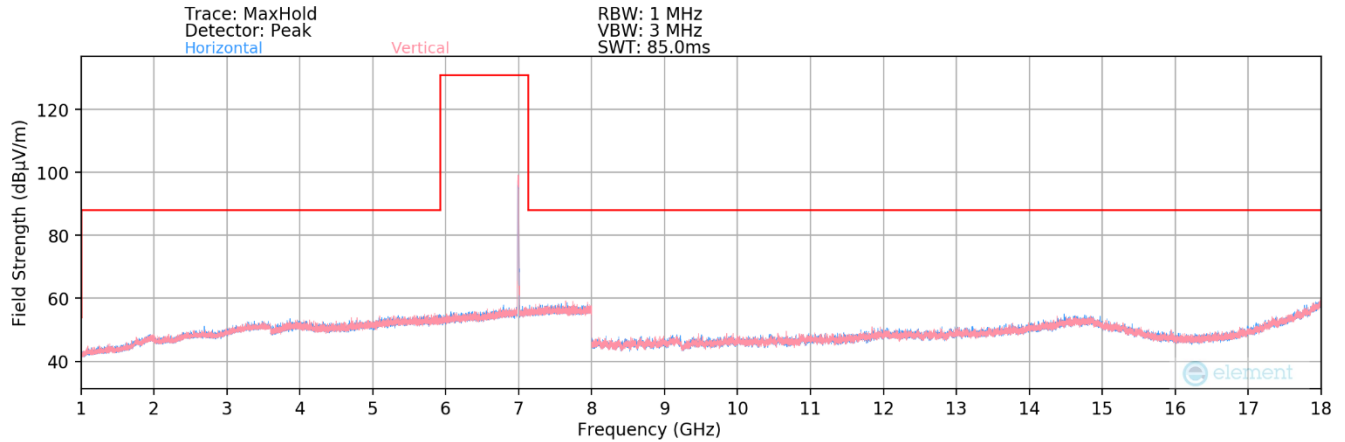


Plot 7-217. Radiated Spurious Plot 1GHz – 18GHz MIMO (802.11ax – UNII Band 6 Ch. 105)

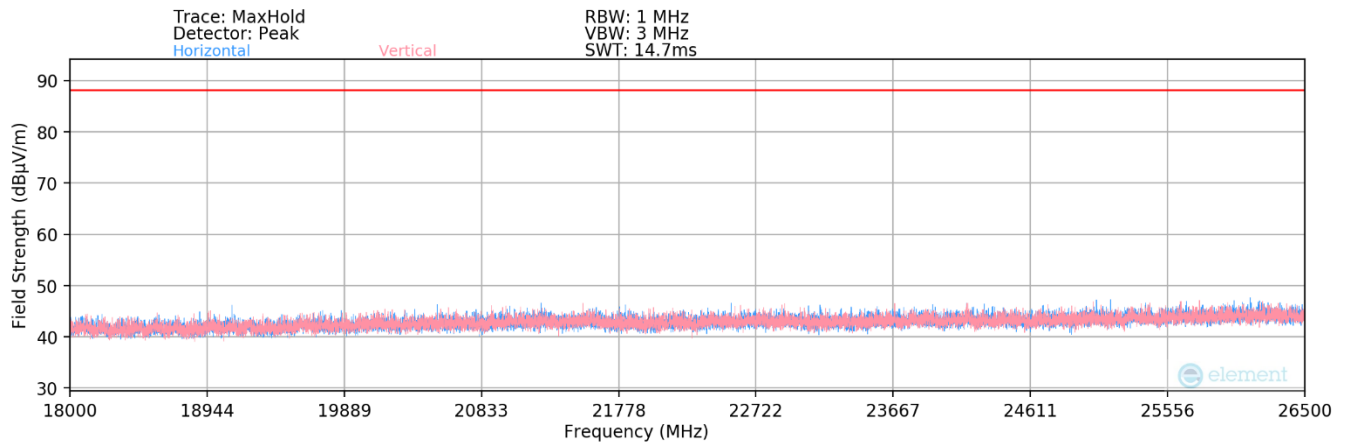


Plot 7-218. Radiated Spurious Plot 1GHz – 18GHz MIMO (802.11ax – UNII Band 7 Ch. 149)

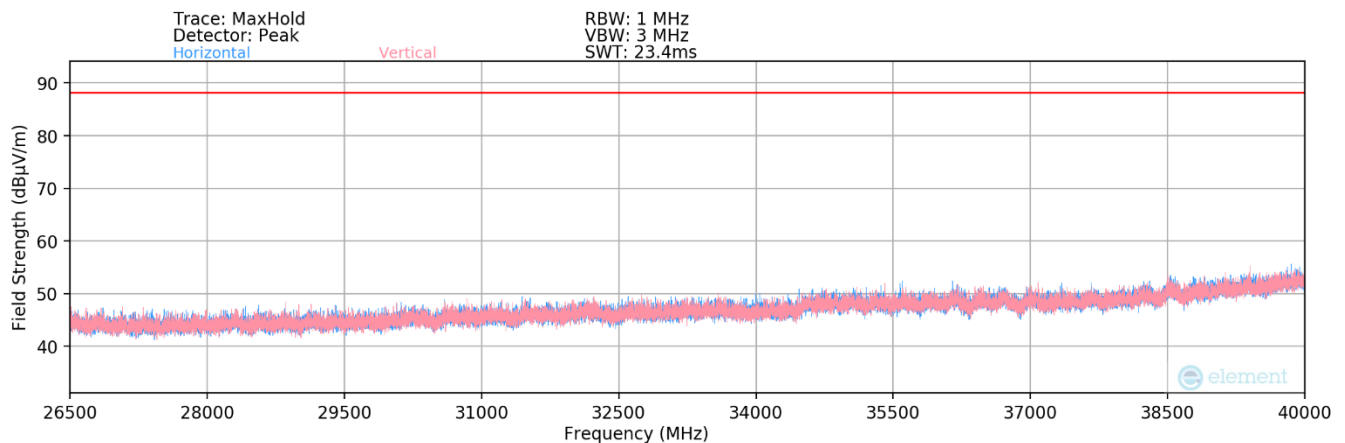
sFCC ID: A3LSMS711B	MEASUREMENT REPORT		Approved by: Technical Manager
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Plot 7-219. Radiated Spurious Plot 1GHz – 18GHz MIMO (802.11ax – U Band 8 Ch. 209)



Plot 7-220. Radiated Spurious Plot 18GHz - 26.5GHz (802.11ax)



Plot 7-221. Radiated Spurious Plot 26.5GHz - 40GHz (802.11ax)

sFCC ID: A3LSMS711B	MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2304260063-18.A3L	Test Dates: 5/30 - 8/9/2023	EUT Type: Portable Handset	Page 160 of 173

7.7.2.1 MIMO Radiated Spurious Emission Measurements (242 Tones) – UNII Band 5

Worst Case Mode: 802.11ax
Worst Case Transfer Rate: MCS0
RU Index: 61
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5935MHz
Channel: 2

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 11870.00	Average	V	106	79	-76.89	9.32	0.00	39.43	53.98	-14.55
* 11870.00	Peak	V	106	79	-63.29	9.32	0.00	53.03	73.98	-20.95
* 17805.00	Average	V	-	-	-77.03	15.72	0.00	45.69	53.98	-8.29
* 17805.00	Peak	V	-	-	-64.40	15.72	0.00	58.32	73.98	-15.66
* 23740.00	Average	V	-	-	-66.11	3.96	-9.54	35.31	53.98	-18.67
* 23740.00	Peak	V	-	-	-56.28	3.96	-9.54	45.14	73.98	-28.84
29675.00	Peak	V	-	-	-57.80	5.90	-9.54	45.56	68.20	-22.64

Table 7-31. Radiated Measurements MIMO (242 Tones) – LPI/SP

Worst Case Mode: 802.11ax
Worst Case Transfer Rate: MCS0
RU Index: 61
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 6175MHz
Channel: 45

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 12350.00	Average	V	100	67	-74.44	9.60	0.00	42.16	53.98	-11.82
* 12350.00	Peak	V	100	67	-61.20	9.60	0.00	55.40	73.98	-18.58
* 18525.00	Average	V	-	-	-65.34	1.55	-9.54	33.67	53.98	-20.31
* 18525.00	Peak	V	-	-	-55.64	1.55	-9.54	43.37	73.98	-30.61
24700.00	Peak	V	-	-	-56.75	4.20	-9.54	44.91	68.20	-23.29
30875.00	Peak	V	-	-	-56.92	6.77	-9.54	47.31	68.20	-20.89

Table 7-32. Radiated Measurements MIMO (242 Tones) – LPI/SP

sFCC ID: A3LSMS711B	MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1M2304260063-18.A3L	Test Dates: 5/30 - 8/9/2023	EUT Type: Portable Handset		Page 161 of 173

Worst Case Mode: 802.11ax
 Worst Case Transfer Rate: MCS0
 RU Index: 61
 Distance of Measurements: 1 & 3 Meters
 Operating Frequency: 6415MHz
 Channel: 93

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
12830.00	Peak	V	100	82	-61.08	9.64	0.00	55.56	68.20	-12.64
* 19245.00	Average	V	-	-	-65.60	2.35	-9.54	34.21	53.98	-19.77
* 19245.00	Peak	V	-	-	-55.30	2.35	-9.54	44.51	73.98	-29.47
25660.00	Peak	V	-	-	-55.71	4.41	-9.54	46.16	68.20	-22.04
32075.00	Peak	V	-	-	-57.41	7.43	-9.54	47.48	68.20	-20.72

Table 7-33. Radiated Measurements MIMO (242 Tones) – LPI/SP

sFCC ID: A3LSMS711B	MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2304260063-18.A3L	Test Dates: 5/30 - 8/9/2023	EUT Type: Portable Handset	Page 162 of 173

7.7.2.2 MIMO Radiated Spurious Emission Measurements (242 Tones) – UNII Band 6

Worst Case Mode: 802.11ax
Worst Case Transfer Rate: MCS0
RU Index: 61
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 6435MHz
Channel: 97

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
12870.00	Peak	V	102	73	-61.07	10.05	0.00	55.98	68.20	-12.22
* 19305.00	Average	V	-	-	-65.68	2.13	-9.54	33.91	53.98	-20.07
* 19305.00	Peak	V	-	-	-55.43	2.13	-9.54	44.17	73.98	-29.81
25740.00	Peak	V	-	-	-55.89	4.51	-9.54	46.08	68.20	-22.12
32175.00	Peak	V	-	-	-57.61	7.53	-9.54	47.38	68.20	-20.82

Table 7-34. Radiated Measurements MIMO (242 Tones)

Worst Case Mode: 802.11ax
Worst Case Transfer Rate: MCS0
RU Index: 61
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 6475MHz
Channel: 105

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
12950.00	Peak	V	100	84	-61.93	10.12	0.00	55.19	68.20	-13.01
* 19425.00	Average	V	-	-	-65.29	2.22	-9.54	34.39	53.98	-19.59
* 19425.00	Peak	V	-	-	-55.87	2.22	-9.54	43.81	73.98	-30.17
25900.00	Peak	V	-	-	-56.13	4.57	-9.54	45.91	68.20	-22.29
32375.00	Peak	V	-	-	-56.23	7.29	-9.54	48.52	68.20	-19.68

Table 7-35. Radiated Measurements MIMO (242 Tones)

sFCC ID: A3LSMS711B	MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1M2304260063-18.A3L	Test Dates: 5/30 - 8/9/2023	EUT Type: Portable Handset		Page 163 of 173

Worst Case Mode: 802.11ax
 Worst Case Transfer Rate: MCS0
 RU Index: 61
 Distance of Measurements: 1 & 3 Meters
 Operating Frequency: 6515MHz
 Channel: 113

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
13030.00	Peak	V	101	77	-61.94	10.12	0.00	55.18	68.20	-13.02
* 19545.00	Average	V	-	-	-65.82	2.37	-9.54	34.02	53.98	-19.96
* 19545.00	Peak	V	-	-	-56.04	2.37	-9.54	43.80	73.98	-30.18
26060.00	Peak	V	-	-	-56.70	4.80	-9.54	45.56	68.20	-22.64
32575.00	Peak	V	-	-	-56.89	6.85	-9.54	47.42	68.20	-20.78

Table 7-36. Radiated Measurements MIMO (242 Tones)

sFCC ID: A3LSMS711B	MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2304260063-18.A3L	Test Dates: 5/30 - 8/9/2023	EUT Type: Portable Handset	Page 164 of 173

7.7.2.3 MIMO Radiated Spurious Emission Measurements (242 Tones) – UNII Band 7

Worst Case Mode: 802.11ax
Worst Case Transfer Rate: MCS0
RU Index: 61
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 6535MHz
Channel: 117

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
13070.00	Peak	V	101	311	-64.02	10.15	0.00	53.13	68.20	-15.07
* 19605.00	Average	V	-	-	-65.44	2.64	-9.54	34.67	53.98	-19.31
* 19605.00	Peak	V	-	-	-55.86	2.64	-9.54	44.25	73.98	-29.73
26140.00	Peak	V	-	-	-56.47	4.56	-9.54	45.55	68.20	-22.65
32675.00	Peak	V	-	-	-56.70	7.03	-9.54	47.79	68.20	-20.41

Table 7-37. Radiated Measurements MIMO (242 Tones) – LPI/SP

Worst Case Mode: 802.11ax
Worst Case Transfer Rate: MCS0
RU Index: 61
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 6695MHz
Channel: 149

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
* 13390.00	Average	V	101	302	-72.38	10.35	0.00	44.97	53.98	-9.01
* 13390.00	Peak	V	101	302	-63.77	10.35	0.00	53.58	73.98	-20.40
* 20085.00	Average	V	-	-	-65.69	3.01	-9.54	34.78	53.98	-19.20
* 20085.00	Peak	V	-	-	-55.89	3.01	-9.54	44.58	73.98	-29.40
26780.00	Peak	V	-	-	-56.97	4.57	-9.54	45.07	68.20	-23.13
33475.00	Peak	V	-	-	-56.93	7.57	-9.54	48.10	68.20	-20.10

Table 7-38. Radiated Measurements MIMO (242 Tones) – LPI/SP

sFCC ID: A3LSMS711B	MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1M2304260063-18.A3L	Test Dates: 5/30 - 8/9/2023	EUT Type: Portable Handset		Page 165 of 173

Worst Case Mode: 802.11ax
 Worst Case Transfer Rate: MCS0
 RU Index: 61
 Distance of Measurements: 1 & 3 Meters
 Operating Frequency: 6875MHz
 Channel: 185

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
13750.00	Peak	V	100	303	-62.90	11.07	0.00	55.17	68.20	-13.03
* 20625.00	Average	V	-	-	-65.53	3.42	-9.54	35.35	53.98	-18.63
* 20625.00	Peak	V	-	-	-55.59	3.42	-9.54	45.29	73.98	-28.69
27500.00	Peak	V	-	-	-56.74	4.54	-9.54	45.26	68.20	-22.94
34375.00	Peak	V	-	-	-56.89	8.08	-9.54	48.65	68.20	-19.55

Table 7-39. Radiated Measurements MIMO (242 Tones) – LPI/SP

sFCC ID: A3LSMS711B	MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2304260063-18.A3L	Test Dates: 5/30 - 8/9/2023	EUT Type: Portable Handset	Page 166 of 173

7.7.2.4 MIMO Radiated Spurious Emission Measurements (242 Tones) – UNII Band 8

Worst Case Mode: 802.11ax
Worst Case Transfer Rate: MCS0
RU Index: 61
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 6895MHz
Channel: 189

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
13790.00	Peak	V	101	301	-61.71	11.00	0.00	56.29	68.20	-11.91
* 20685.00	Average	V	-	-	-65.57	3.67	-9.54	35.56	53.98	-18.42
* 20685.00	Peak	V	-	-	-56.55	3.67	-9.54	44.58	73.98	-29.40
27580.00	Peak	V	-	-	-56.58	4.68	-9.54	45.57	68.20	-22.63
34475.00	Peak	V	-	-	-57.33	7.83	-9.54	47.96	68.20	-20.24

Table 7-40. Radiated Measurements MIMO (242 Tones)

Worst Case Mode: 802.11ax
Worst Case Transfer Rate: MCS0
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 6995MHz
Channel: 209

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
13990.00	Peak	V	100	298	-61.16	11.26	0.00	57.10	68.20	-11.10
* 20985.00	Average	V	-	-	-65.68	3.59	-9.54	35.37	53.98	-18.61
* 20985.00	Peak	V	-	-	-56.55	3.59	-9.54	44.50	73.98	-29.48
27980.00	Peak	V	-	-	-56.59	5.05	-9.54	45.92	68.20	-22.28
34975.00	Peak	V	-	-	-57.41	8.24	-9.54	48.29	68.20	-19.91

Table 7-41. Radiated Measurements MIMO (242 Tones)

sFCC ID: A3LSMS711B	MEASUREMENT REPORT			Approved by: Technical Manager
Test Report S/N: 1M2304260063-18.A3L	Test Dates: 5/30 - 8/9/2023	EUT Type: Portable Handset		Page 167 of 173

Worst Case Mode: 802.11ax
 Worst Case Transfer Rate: MCS0
 RU Index: 61
 Distance of Measurements: 1 & 3 Meters
 Operating Frequency: 7115MHz
 Channel: 233

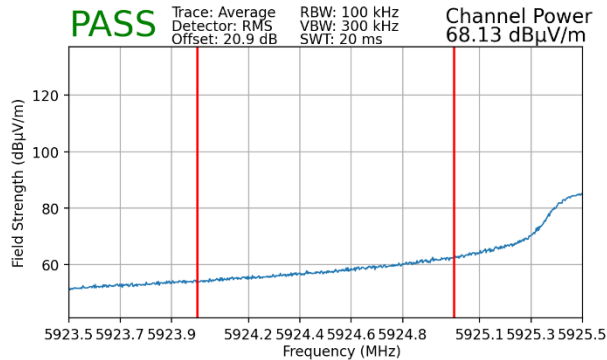
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBμV/m]	Limit [dBμV/m]	Margin [dB]
14230.00	Peak	V	100	298	-64.76	12.13	0.00	54.37	68.20	-13.83
* 21345.00	Average	V	-	-	-65.88	4.08	-9.54	35.66	53.98	-18.32
* 21345.00	Peak	V	-	-	-56.64	4.08	-9.54	44.89	73.98	-29.09
28460.00	Peak	V	-	-	-56.98	5.14	-9.54	45.61	68.20	-22.59
35575.00	Peak	V	-	-	-57.52	8.16	-9.54	48.10	68.20	-20.10

Table 7-42. Radiated Measurements MIMO (242 Tones)

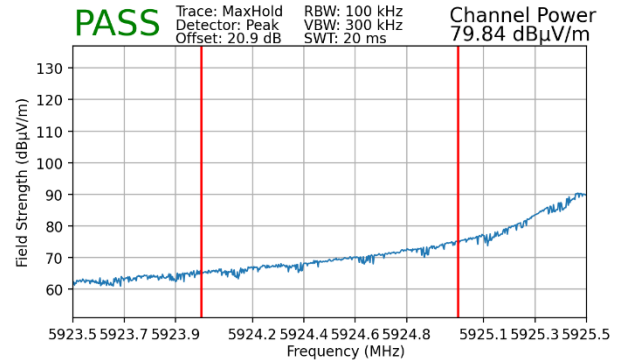
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7.7.3 MIMO Radiated Band Edge Measurements (20MHz BW – Partial Tone – 106T)

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index	53
Distance of Measurements:	3 Meters
Operating Frequency:	5935MHz
Channel:	2

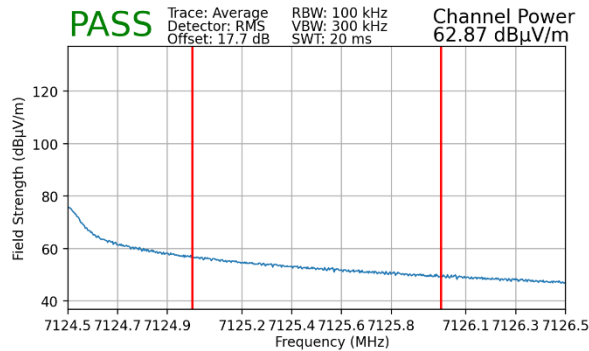


Plot 7-222. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 5 – 106T)

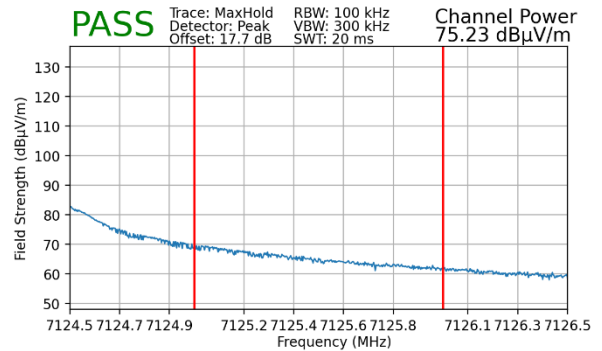


Plot 7-223. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 5 – 106T)

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index	54
Distance of Measurements:	3 Meters
Operating Frequency:	7115MHz
Channel:	233



Plot 7-224. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 8 – 106T)

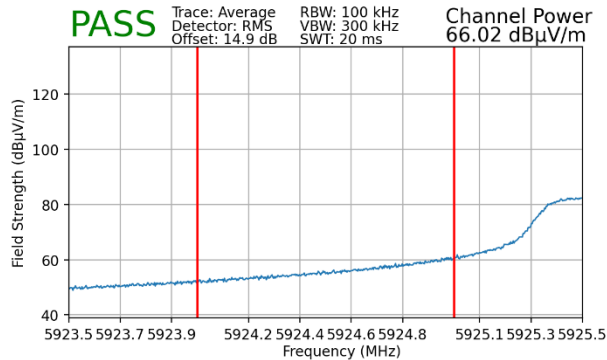


Plot 7-225. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 8 – 106T)

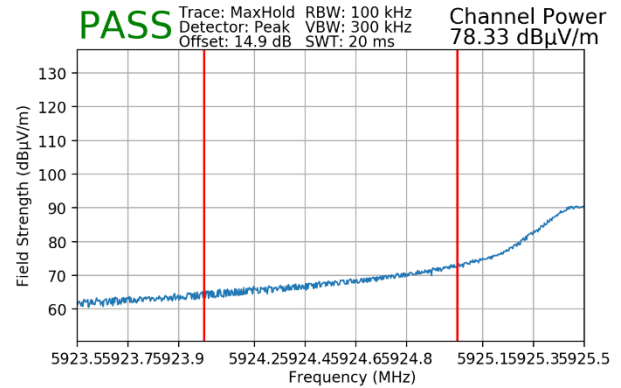
sFCC ID: A3LSMS711B	MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2304260063-18.A3L	Test Dates: 5/30 - 8/9/2023	EUT Type: Portable Handset	Page 169 of 173

7.7.4 MIMO Radiated Band Edge Measurements (20MHz BW – Full Tone – 242T)

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index	61
Distance of Measurements:	3 Meters
Operating Frequency:	5935MHz
Channel:	2

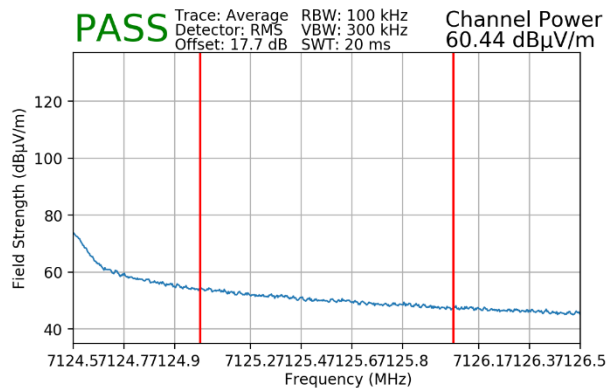


Plot 7-226. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 5 – 242T)

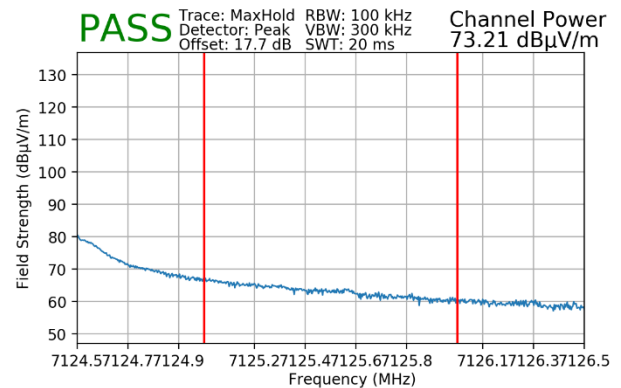


Plot 7-227. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 5 – 242T)

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index	61
Distance of Measurements:	3 Meters
Operating Frequency:	7115MHz
Channel:	233



Plot 7-228. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 8 – 242T)

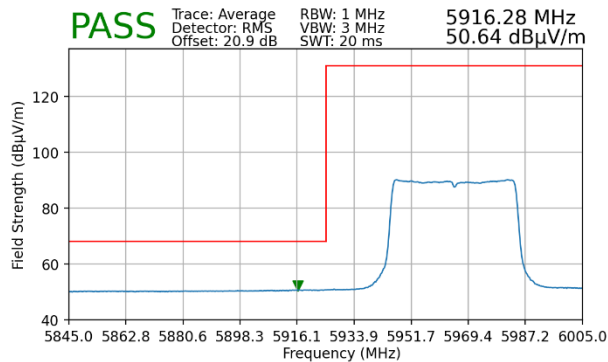


Plot 7-229. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 8 – 242T)

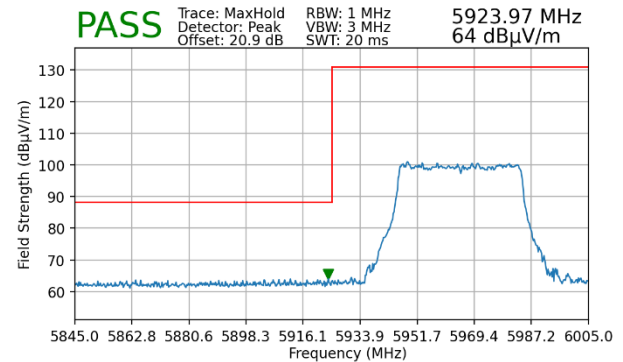
sFCC ID: A3LSMS711B	MEASUREMENT REPORT		Approved by: Technical Manager
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7.7.5 MIMO Radiated Band Edge Measurements (40MHz BW – Full Tone – 484T)

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index	65
Distance of Measurements:	3 Meters
Operating Frequency:	5965MHz
Channel:	3

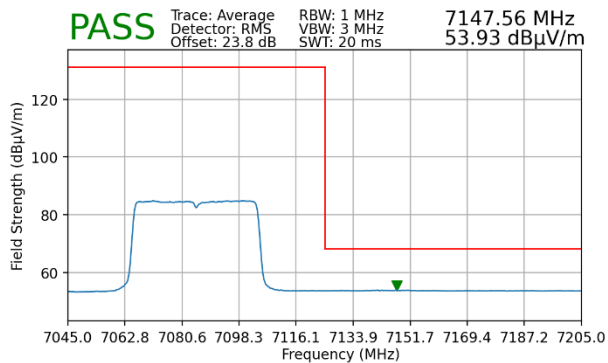


Plot 7-230. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 5 – 484T)

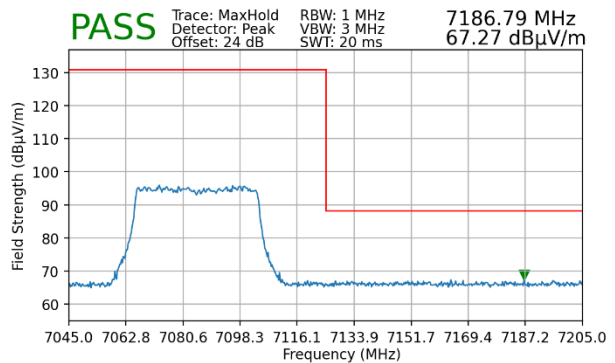


Plot 7-231. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 5 – 484T)

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index	65
Distance of Measurements:	3 Meters
Operating Frequency:	7085MHz
Channel:	227



Plot 7-232. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 8 – 484T)

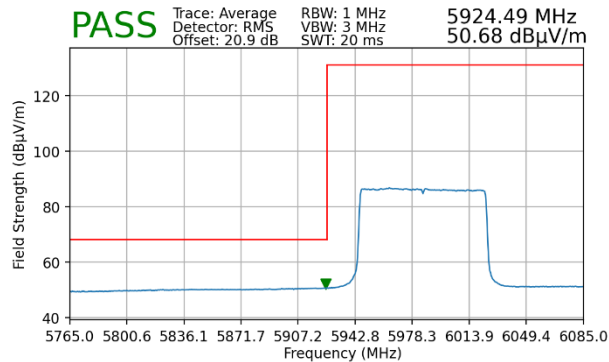


Plot 7-233. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 8 – 484T)

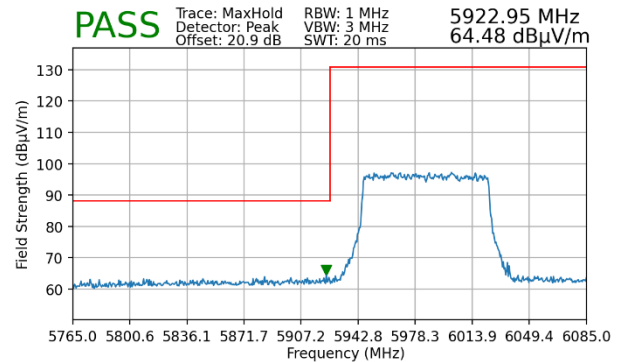
sFCC ID: A3LSMS711B	MEASUREMENT REPORT		Approved by: Technical Manager
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7.7.6 MIMO Radiated Band Edge Measurements (80MHz BW – Full Tone – 996T)

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index	67
Distance of Measurements:	3 Meters
Operating Frequency:	5985MHz
Channel:	7

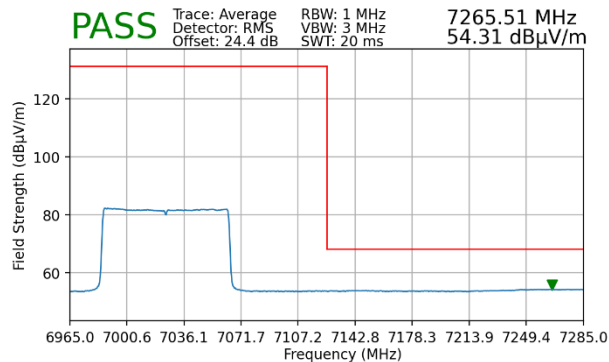


Plot 7-234. Radiated Lower Band Edge Plot MIMO (Average – UNII Band 5 – 996T)

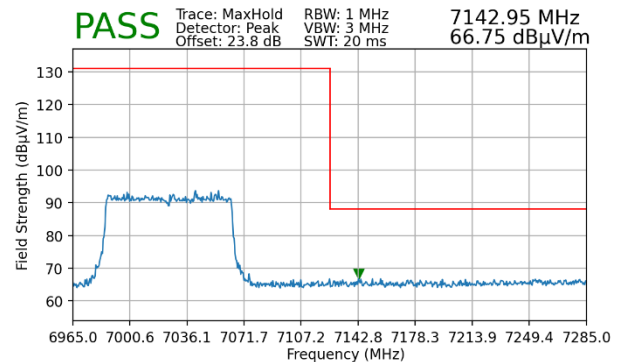


Plot 7-235. Radiated Lower Band Edge Plot MIMO (Peak – UNII Band 5 – 996T)

Worst Case Mode:	802.11ax
Worst Case Transfer Rate:	MCS0
RU Index	67
Distance of Measurements:	3 Meters
Operating Frequency:	7025MHz
Channel:	215



Plot 7-236. Radiated Upper Band Edge Plot MIMO (Average – UNII Band 8 – 996T)



Plot 7-237. Radiated Upper Band Edge Plot MIMO (Peak – UNII Band 8 – 996T)

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8 CONCLUSION

The data collected relate only the item(s) tested and show that the **Samsung Portable Handset FCC ID: A3LSMS711B** is in compliance with FCC Part Subpart E (15.407) of the FCC rules for operation as a client device.

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