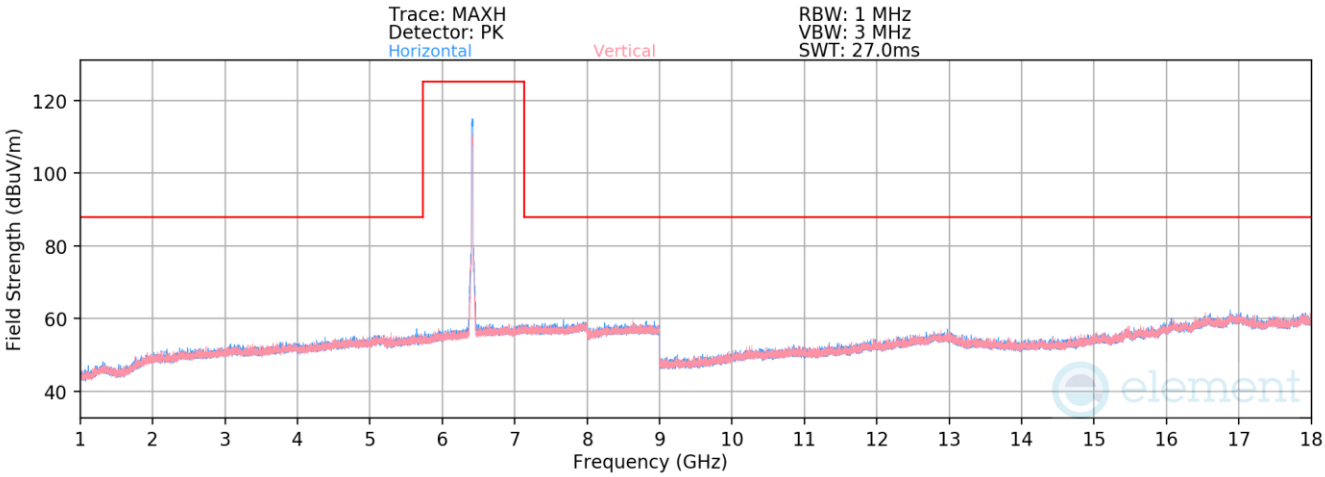

Plot 7-168. Radiated Spurious Emissions 1-18GHz SDM Primary (802.11ax – Ch. 93)

Mode:	802.11ax
Data Rate:	MCS0
Distance of Measurements:	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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
12830.00	Average	V	-	-	-85.23	22.24	44.01	68.23	-24.22
12830.00	Peak	V	-	-	-72.35	22.00	56.65	88.23	-31.58

Table 7-43. Radiated Spurious Emission Measurements SDM Primary

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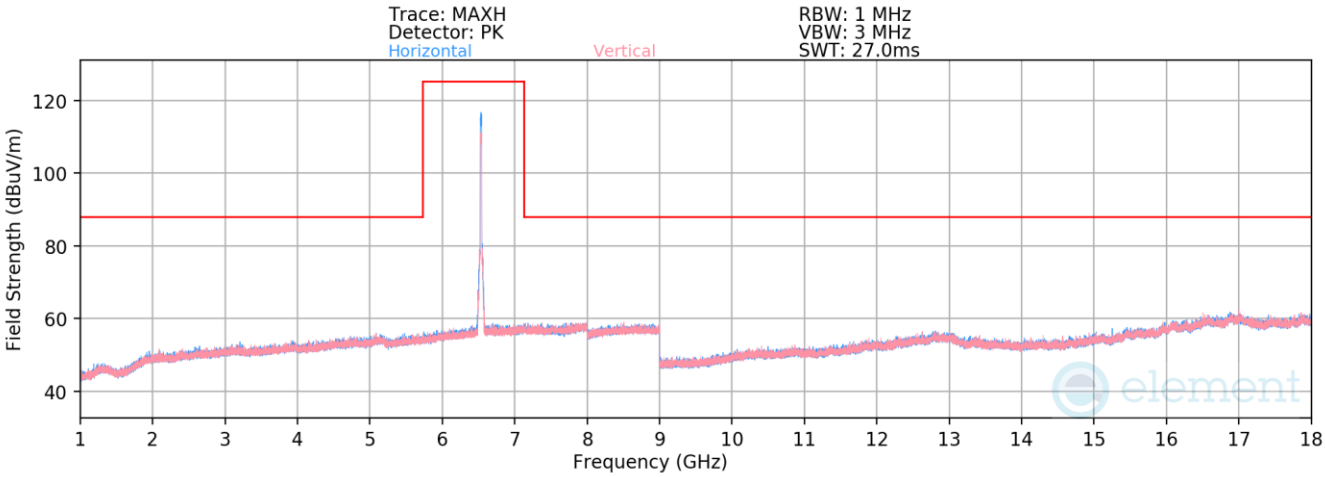

Plot 7-169. Radiated Spurious Emissions 1-18GHz SDM Primary (802.11ax – Ch. 117)

Mode:	802.11ax
Data Rate:	MCS0
Distance of Measurements:	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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
13070.00	Average	V	-	-	-85.14	21.89	43.75	68.23	-24.48
13070.00	Peak	V	-	-	-73.46	21.84	55.38	88.23	-32.85

Table 7-44. Radiated Spurious Emission Measurements SDM Primary

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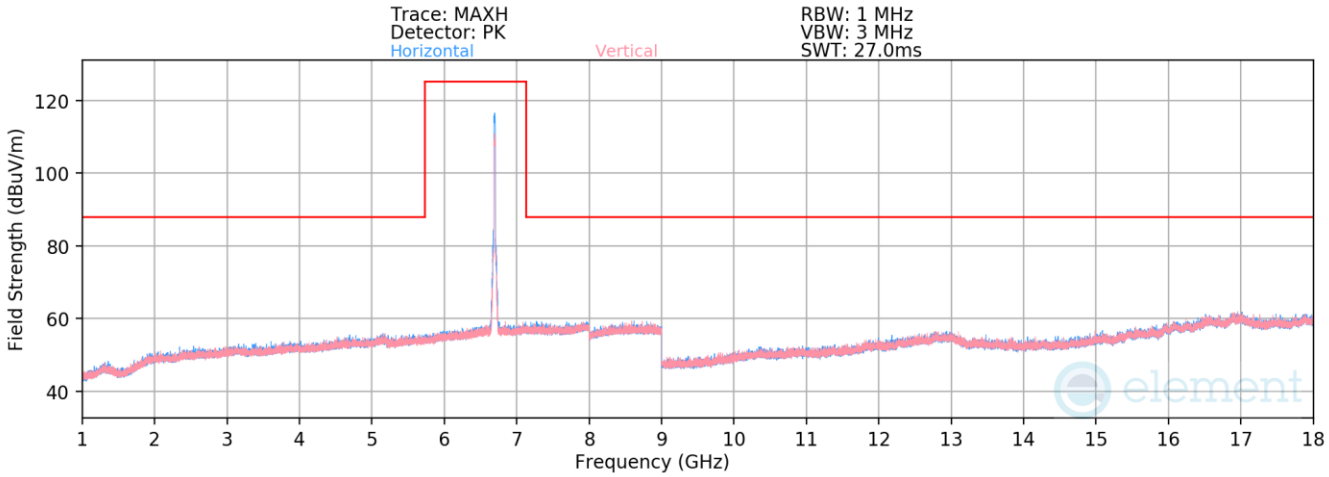

Plot 7-170. Radiated Spurious Emissions 1-18GHz SDM Primary (802.11ax – Ch. 149)

Mode:	802.11ax
Data Rate:	MCS0
Distance of Measurements:	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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	13390.00	Average	V	-	-	-85.49	22.21	43.72	53.98	-10.26
*	13390.00	Peak	V	-	-	-73.33	22.13	55.79	73.98	-18.19

Table 7-45. Radiated Spurious Emission Measurements SDM Primary

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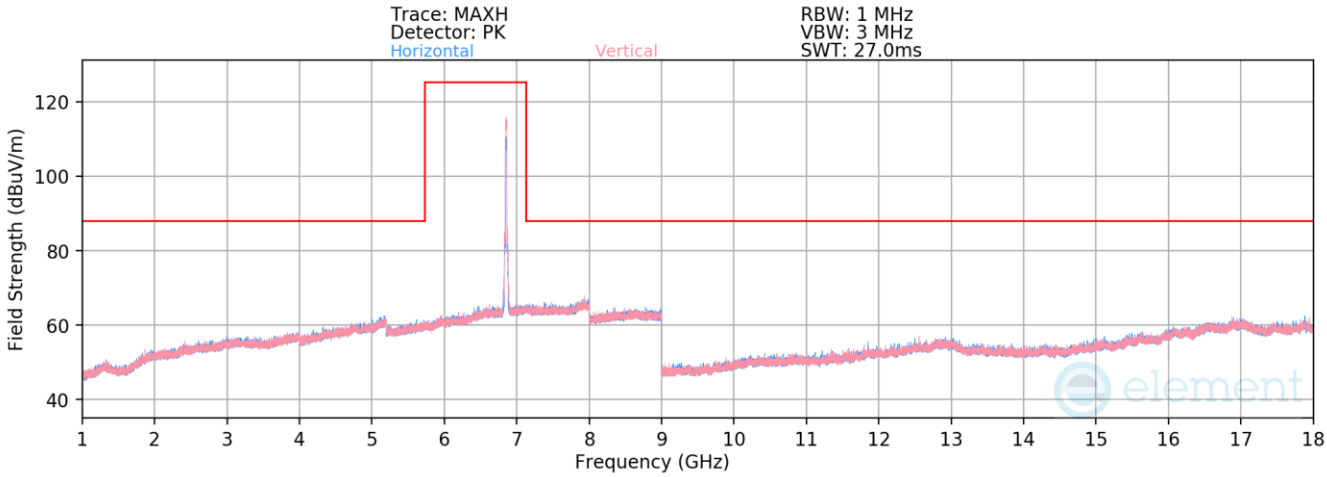
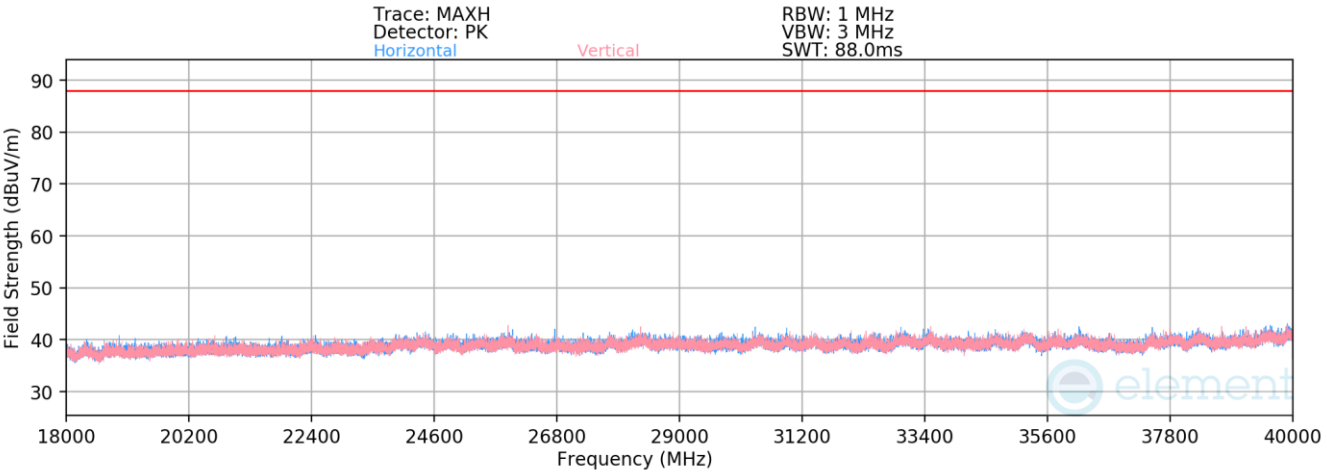


Plot 7-171. Radiated Spurious Emissions 1-18GHz SDM Primary (802.11ax – Ch. 181)



Plot 7-172. Radiated Spurious Emissions 18-40GHz SDM Primary (802.11ax – Ch. 181)

Mode:	802.11ax
Data Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	6855MHz
Channel:	181

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
13710.00	Average	V	-	-	-85.41	21.75	43.34	68.23	-24.89
13710.00	Peak	V	-	-	-73.65	22.04	55.40	88.23	-32.83

Table 7-46. Radiated Spurious Emission Measurements SDM Primary

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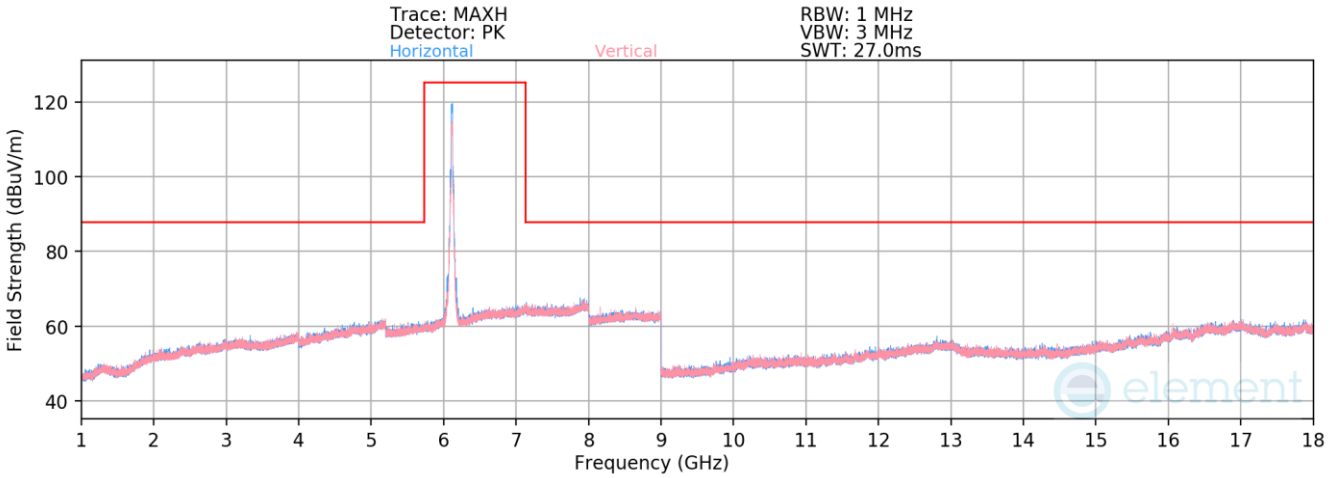
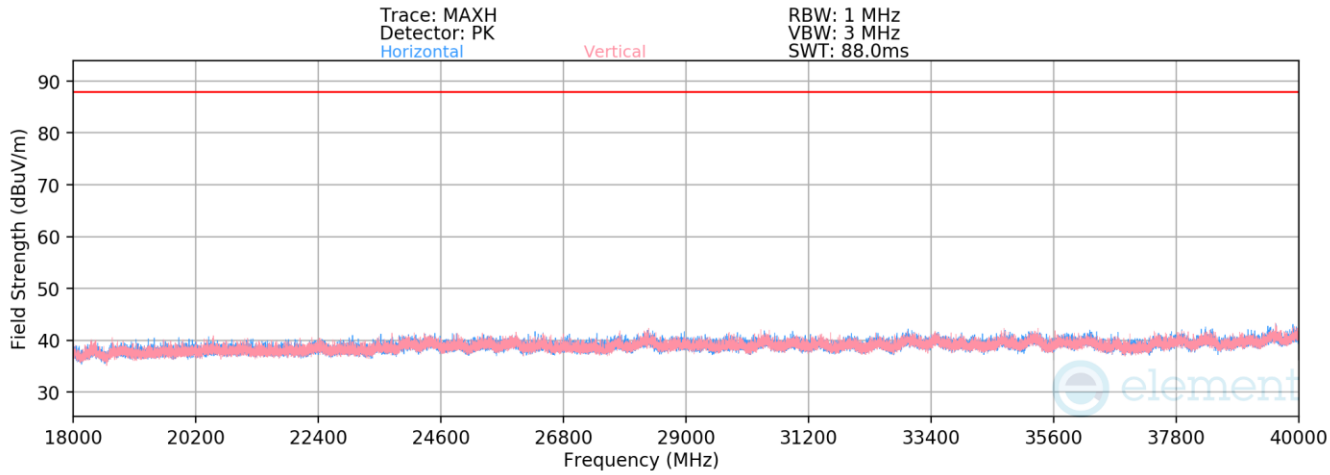
7.8.2 SDM Diversity Radiated Spurious Emission



Plot 7-173. Radiated Spurious Emissions 1-18GHz SDM Diversity (802.11ax – Ch. 33)



Plot 7-174. Radiated Spurious Emissions 18-40GHz SDM Diversity (802.11ax – Ch. 33)

Mode:	802.11ax
Data Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	6115MHz
Channel:	33

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	12230.00	Average	V	-	-	-85.39	20.77	42.39	53.98	-11.59
*	12230.00	Peak	V	-	-	-73.98	20.77	53.79	73.98	-20.19

Table 7-47. Radiated Spurious Emission Measurements SDM Diversity

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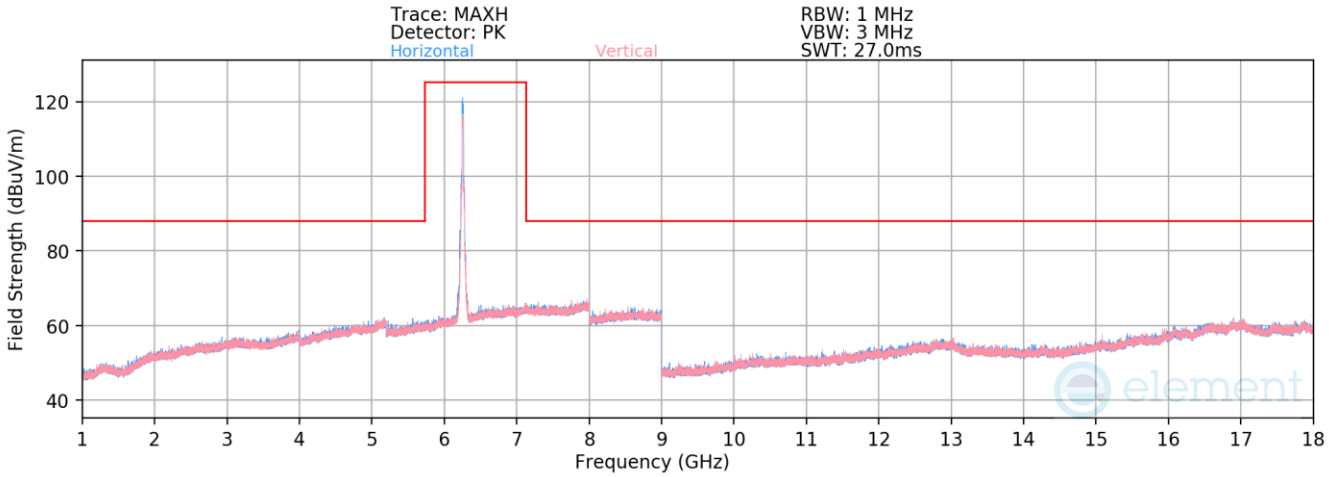

Plot 7-175. Radiated Spurious Emissions 1-18GHz SDM Diversity (802.11ax – Ch. 61)

Mode:	802.11ax
Data Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	6255MHz
Channel:	61

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	12510.00	Average	V	-	-	-85.15	21.30	43.15	53.98	-10.83
*	12510.00	Peak	V	-	-	-73.85	21.26	54.41	73.98	-19.57

Table 7-48. Radiated Spurious Emission Measurements SDM Diversity

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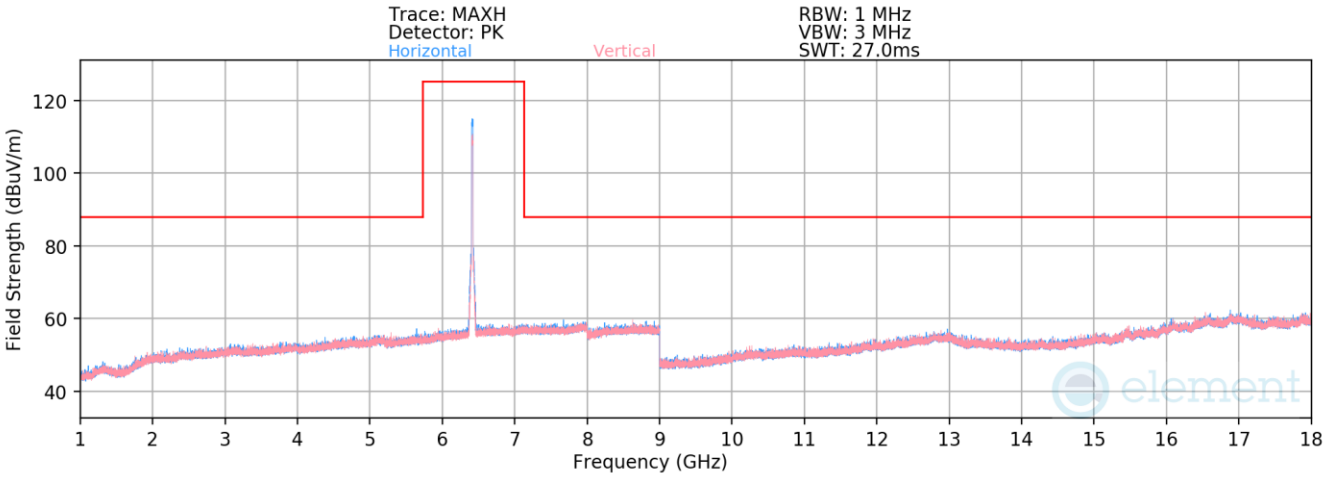

Plot 7-176. Radiated Spurious Emissions 1-18GHz SDM Diversity (802.11ax – Ch. 93)

Mode:	802.11ax
Data Rate:	MCS0
Distance of Measurements:	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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
12830.00	Average	H	-	-	-85.51	22.27	43.76	68.23	-24.47
12830.00	Peak	H	-	-	-74.16	22.27	55.12	88.23	-33.11

Table 7-49. Radiated Spurious Emission Measurements SDM Diversity

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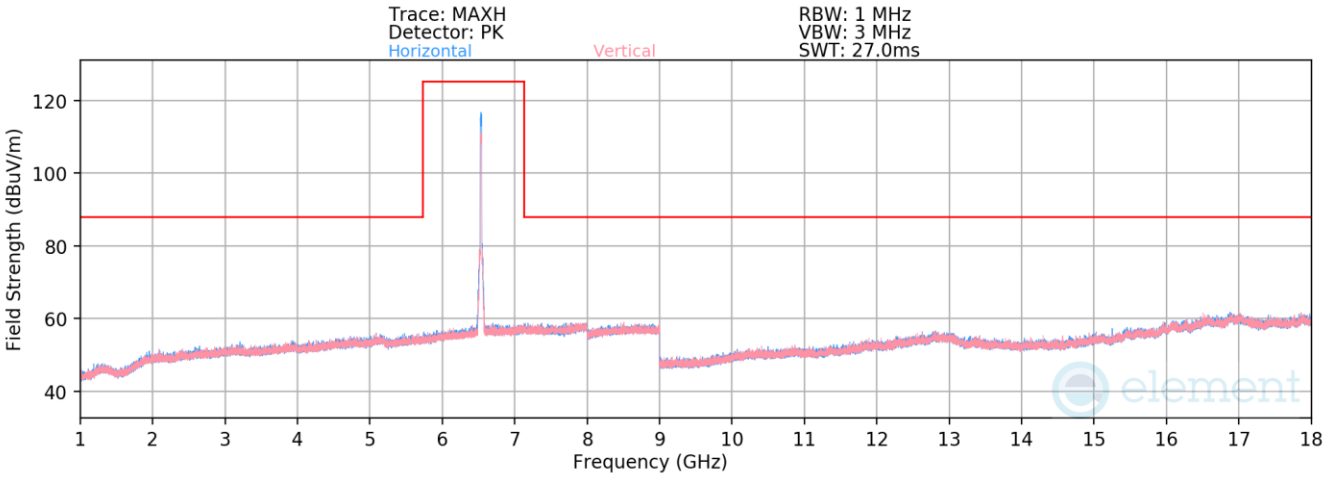

Plot 7-177. Radiated Spurious Emissions 1-18GHz SDM Diversity (802.11ax – Ch. 117)

Mode:	802.11ax
Data Rate:	MCS0
Distance of Measurements:	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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
13070.00	Average	V	-	-	-85.68	22.36	43.68	68.23	-24.55
13070.00	Peak	V	-	-	-74.50	22.21	54.71	88.23	-33.52

Table 7-50. Radiated Spurious Emission Measurements SDM Diversity

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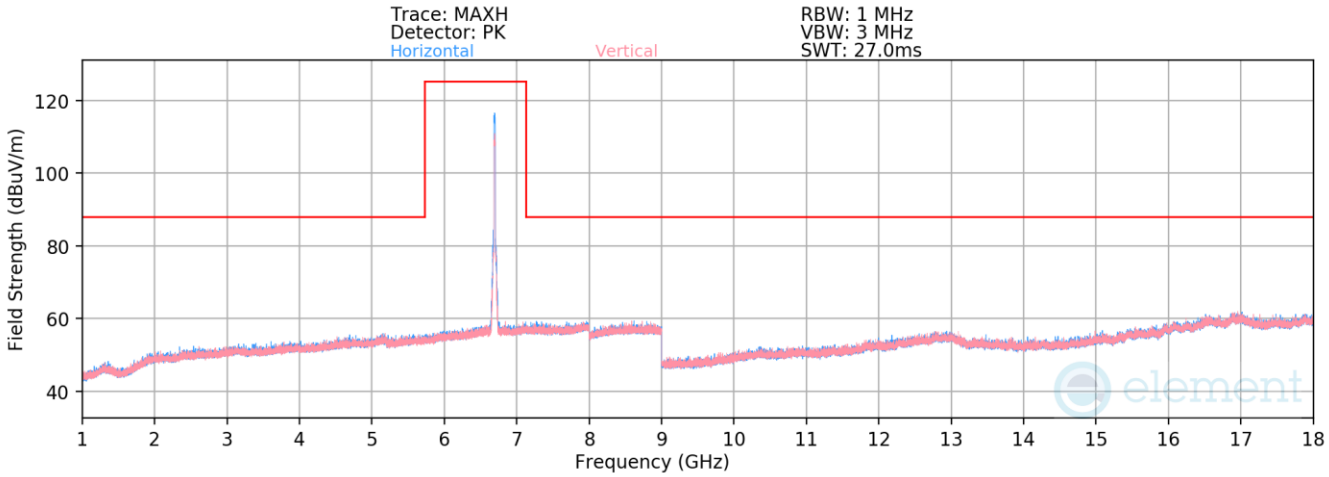

Plot 7-178. Radiated Spurious Emissions 1-18GHz SDM Diversity (802.11ax – Ch. 149)

Mode:	802.11ax
Data Rate:	MCS0
Distance of Measurements:	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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	13390.00	Average	H	-	-	-85.82	22.06	43.24	53.98	-10.74
*	13390.00	Peak	H	-	-	-73.90	21.88	54.97	73.98	-19.01

Table 7-51. Radiated Spurious Emission Measurements SDM Diversity

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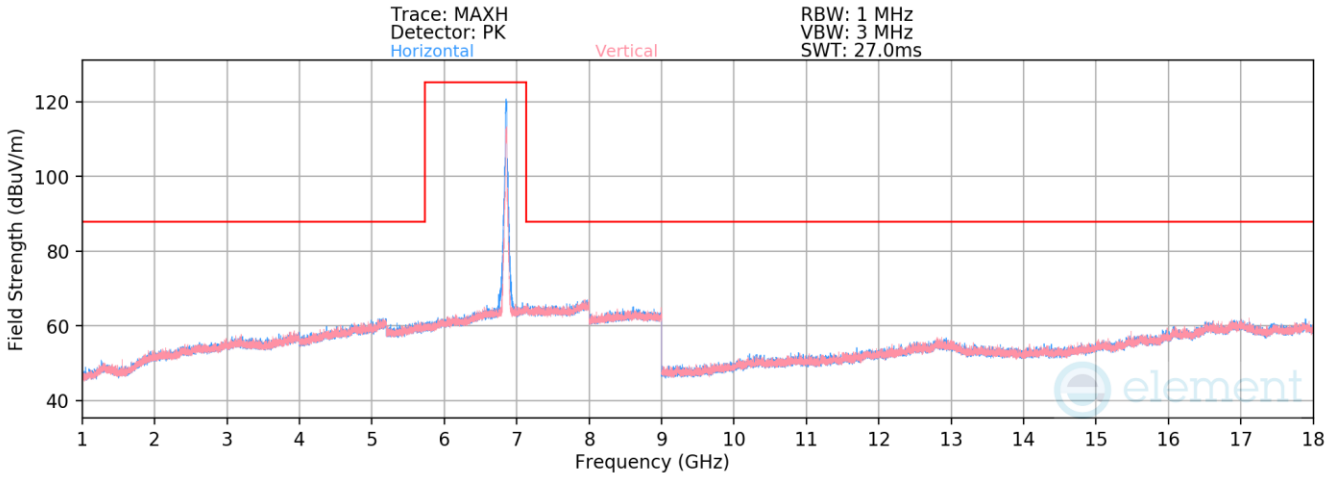
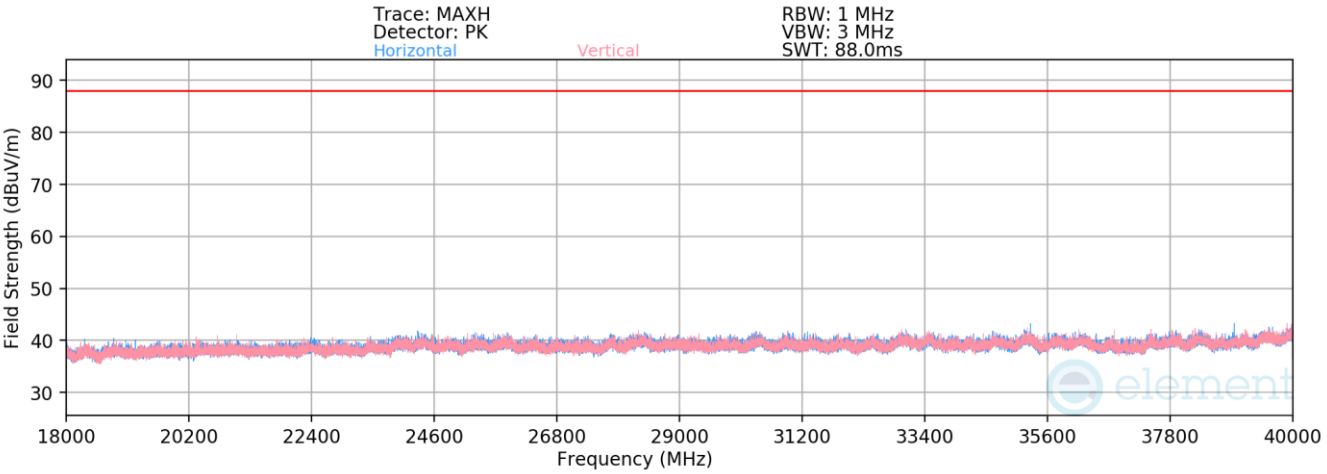


Plot 7-179. Radiated Spurious Emissions 1-18GHz SDM Diversity (802.11ax – Ch. 181)



Plot 7-180. Radiated Spurious Emissions 18-40GHz SDM Diversity (802.11ax – Ch. 181)

Mode:	802.11ax
Data Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	6855MHz
Channel:	181

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
13710.00	Average	H	-	-	-85.70	21.70	43.00	68.23	-25.23
13710.00	Peak	H	-	-	-74.49	21.73	54.24	88.23	-33.99

Table 7-52. Radiated Spurious Emission Measurements SDM Diversity

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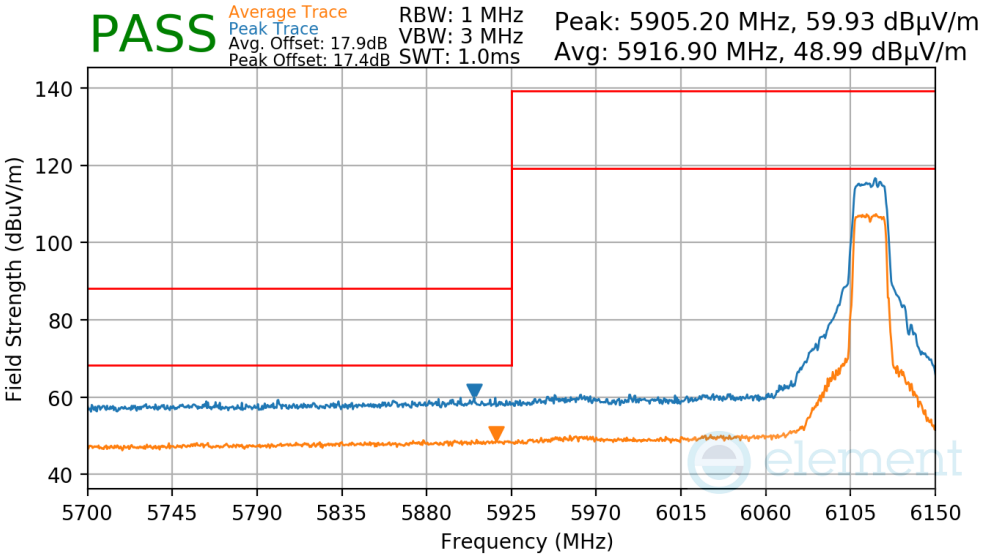
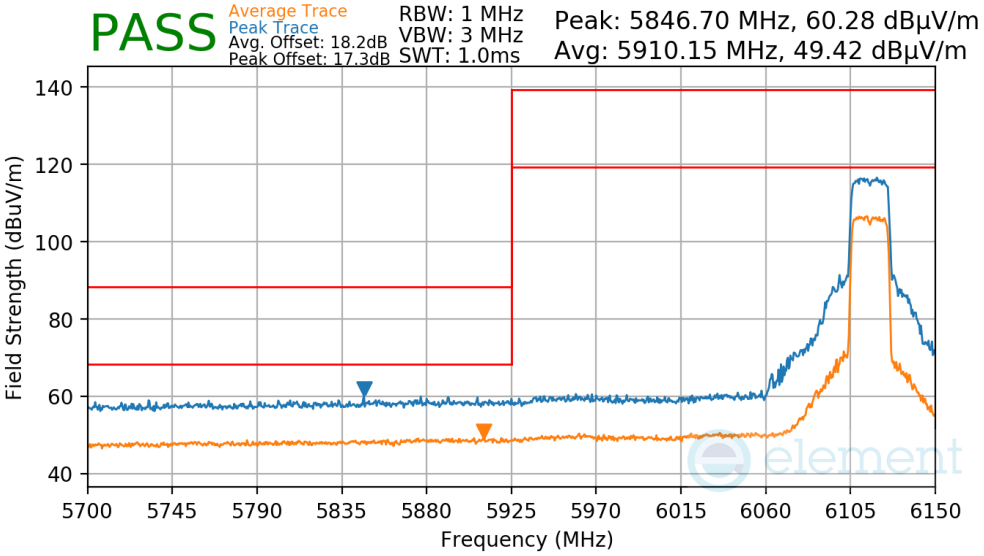
7.8.3 Antenna 3c Radiated Band Edge Measurements (20MHz BW)

Mode	802.11a
Data Rate	MCS54
Distance of Measurement	3 Meters
Operating Frequency	6115MHz
Channel	33



Plot 7-181 Antenna 3c Radiated Lower Band Edge (Peak & Average – UNII Band 5)

Mode	802.11ax-SU
Data Rate	MCS11
Distance of Measurement	3 Meters
Operating Frequency	6115MHz
Channel	33



Plot 7-182 Antenna 3c Radiated Lower Band Edge (Peak & Average – UNII Band 5)

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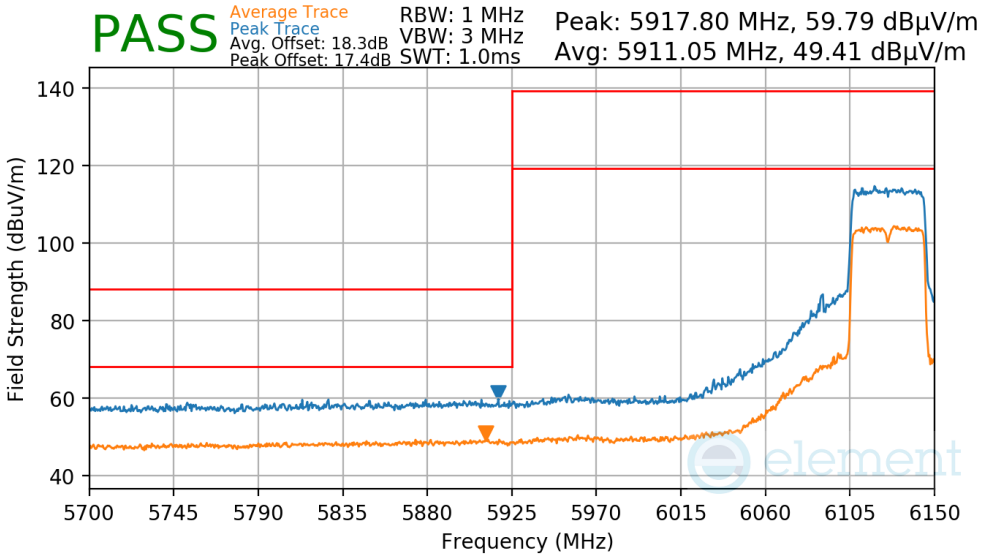
7.8.4 Antenna 3c Radiated Band Edge Measurements (40MHz BW)

Mode	802.11ax-SU
Data Rate	MCS11
Distance of Measurement	3 Meters
Operating Frequency	6125MHz
Channel	35



Plot 7-183 Antenna 3c Radiated Lower Band Edge (Peak & Average – UNII Band 5)

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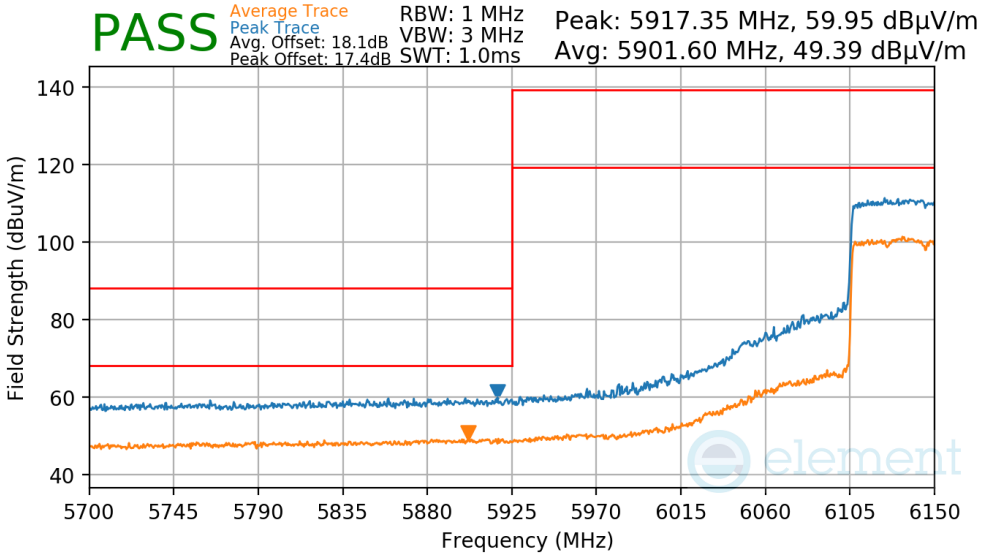
7.8.5 Antenna 3c Radiated Band Edge Measurements (80MHz BW)

Mode	802.11ax-SU
Data Rate	MCS11
Distance of Measurement	3 Meters
Operating Frequency	6145MHz
Channel	39



Plot 7-184 Antenna 3c Radiated Lower Band Edge (Peak & Average – UNII Band 5)

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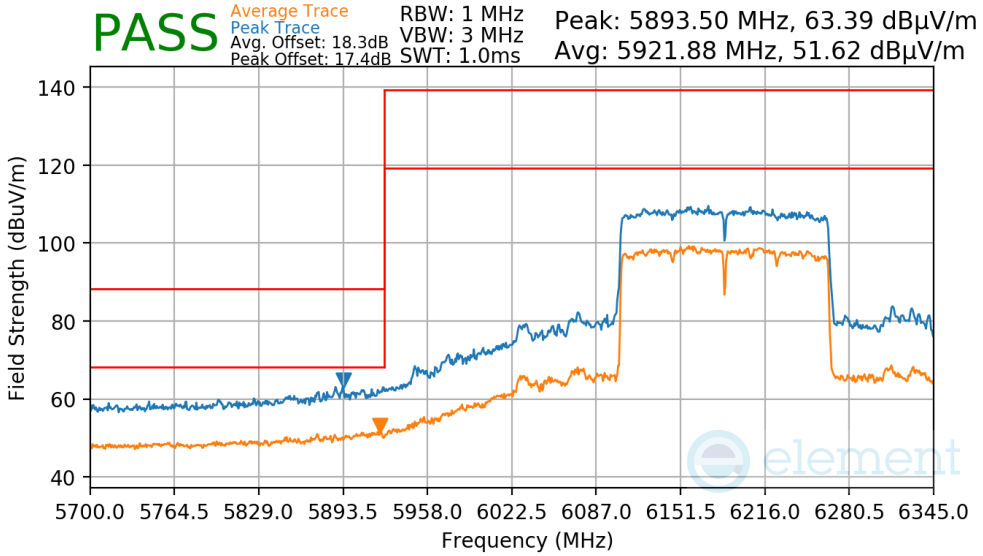
7.8.6 Antenna 3c Radiated Band Edge Measurements (160MHz BW)

Mode	802.11ax-SU
Data Rate	MCS11
Distance of Measurement	3 Meters
Operating Frequency	6185MHz
Channel	47



Plot 7-185 Antenna 3c Radiated Lower Band Edge (Peak & Average – UNII Band 5)

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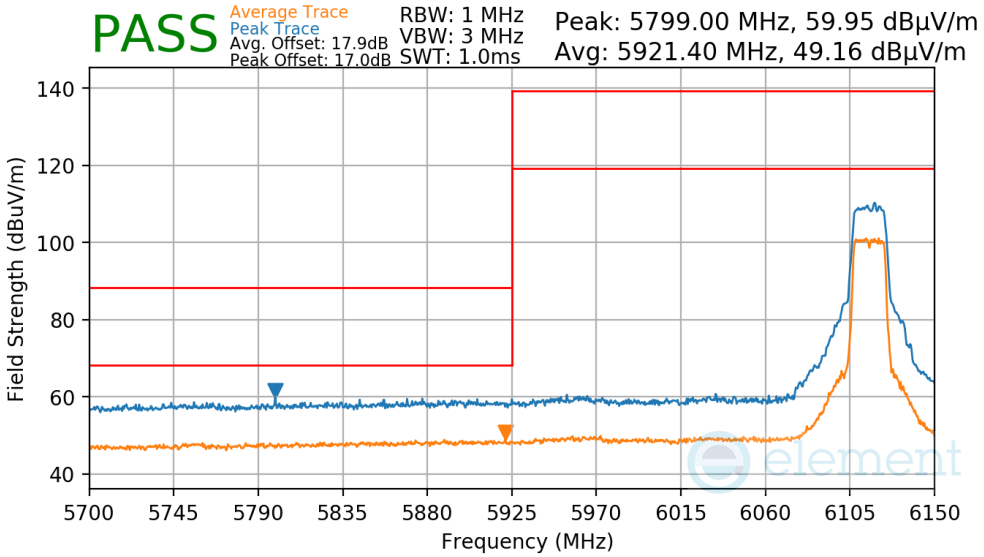
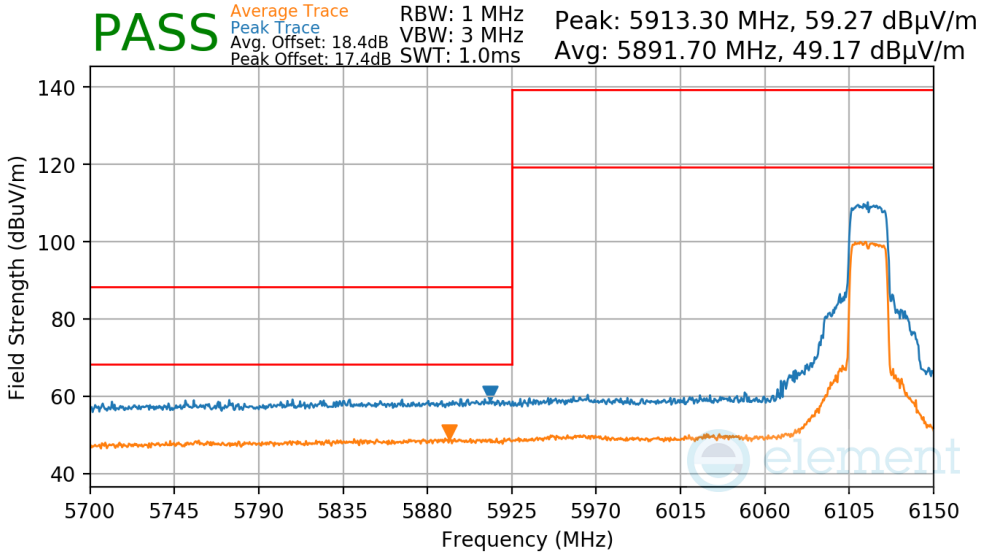
7.8.7 Antenna 3a Radiated Band Edge Measurements (20MHz BW)

Mode	802.11a
Data Rate	MCS54
Distance of Measurement	3 Meters
Operating Frequency	6115MHz
Channel	33



Plot 7-186 Antenna 3a Radiated Lower Band Edge (Peak & Average – UNII Band 5)

Mode	802.11ax-SU
Data Rate	MCS11
Distance of Measurement	3 Meters
Operating Frequency	6115MHz
Channel	33



Plot 7-187 Antenna 3a Radiated Lower Band Edge (Peak & Average – UNII Band 5)

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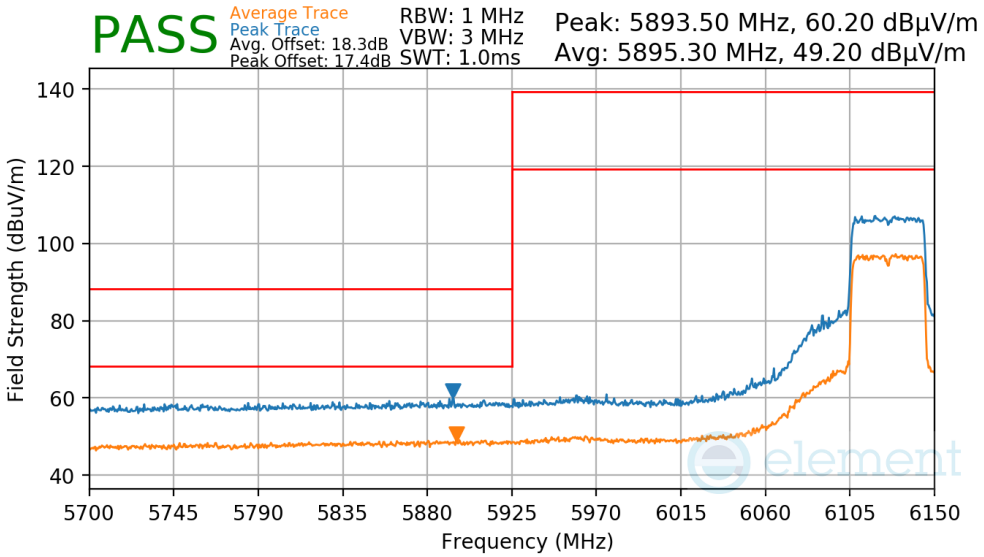
7.8.8 Antenna 3a Radiated Band Edge Measurements (40MHz BW)

Mode	802.11ax-SU
Data Rate	MCS11
Distance of Measurement	3 Meters
Operating Frequency	6125MHz
Channel	35



Plot 7-188 Antenna 3a Radiated Lower Band Edge (Peak & Average – UNII Band 5)

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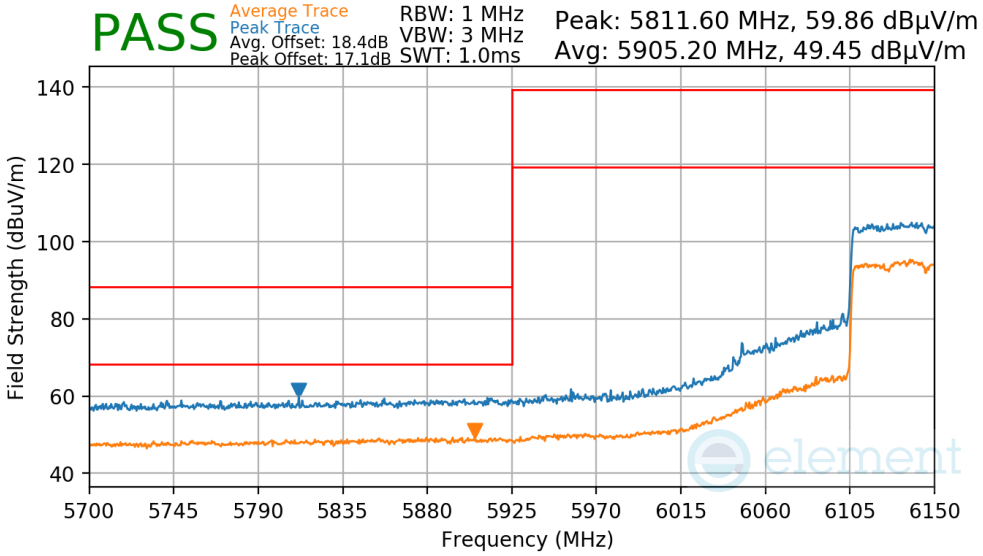
7.8.9 Antenna 3a Radiated Band Edge Measurements (80MHz BW)

Mode	802.11ax-SU
Data Rate	MCS11
Distance of Measurement	3 Meters
Operating Frequency	6145MHz
Channel	39



Plot 7-189 Antenna 3a Radiated Lower Band Edge (Peak & Average – UNII Band 5)

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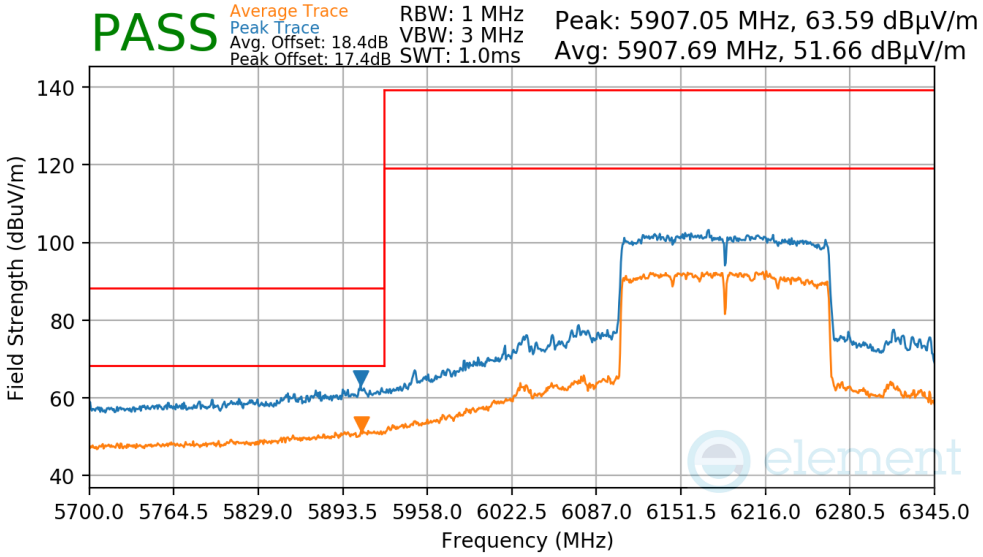
7.8.10 Antenna 3a Radiated Band Edge Measurements (160MHz BW)

Mode	802.11ax-SU
Data Rate	MCS11
Distance of Measurement	3 Meters
Operating Frequency	6185MHz
Channel	47



Plot 7-190 Antenna 3a Radiated Lower Band Edge (Peak & Average – UNII Band 5)

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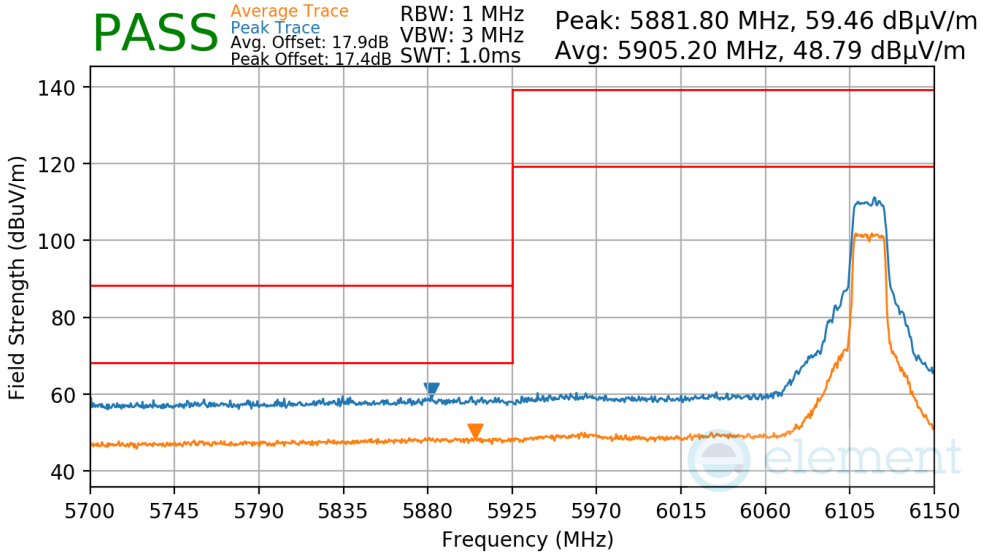
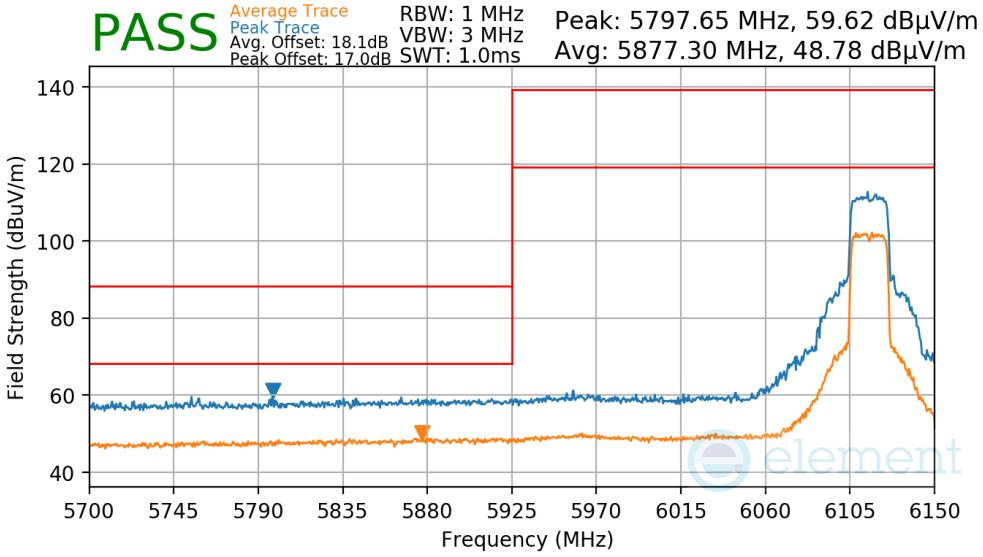
7.8.11 Antenna 1b Radiated Band Edge Measurements (20MHz BW)

Mode	802.11a
Data Rate	MCS54
Distance of Measurement	3 Meters
Operating Frequency	6115MHz
Channel	33



Plot 7-191 Antenna 1b Radiated Lower Band Edge (Peak & Average – UNII Band 5)

Mode	802.11ax-SU
Data Rate	MCS11
Distance of Measurement	3 Meters
Operating Frequency	6115MHz
Channel	33



Plot 7-192 Antenna 1b Radiated Lower Band Edge (Peak & Average – UNII Band 5)

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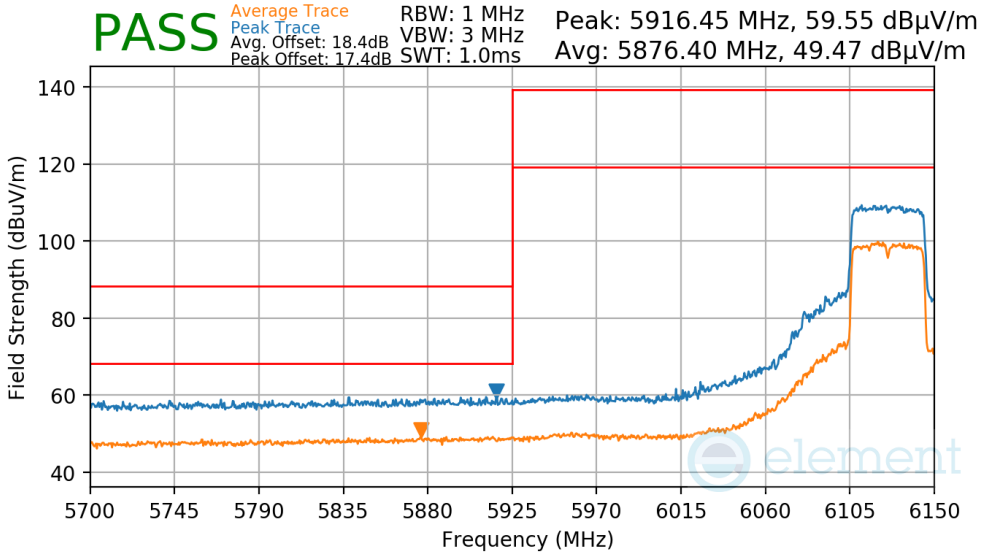
7.8.12 Antenna 1b Radiated Band Edge Measurements (40MHz BW)

Mode	802.11ax-SU
Data Rate	MCS11
Distance of Measurement	3 Meters
Operating Frequency	6125MHz
Channel	35



Plot 7-193 Antenna 1b Radiated Lower Band Edge (Peak & Average – UNII Band 5)

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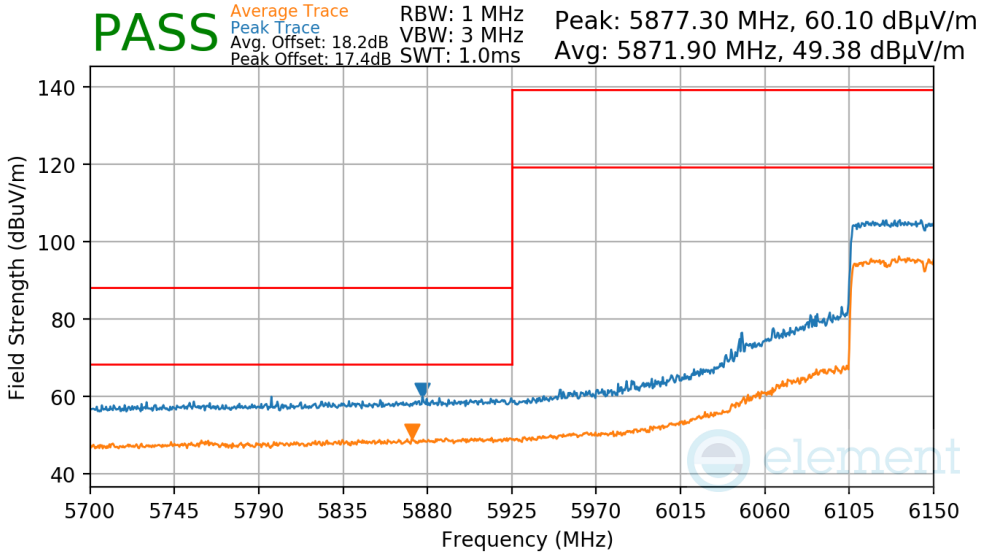
7.8.13 Antenna 1b Radiated Band Edge Measurements (80MHz BW)

Mode	802.11ax-SU
Data Rate	MCS11
Distance of Measurement	3 Meters
Operating Frequency	6145MHz
Channel	39



Plot 7-194 Antenna 1b Radiated Lower Band Edge (Peak & Average – UNII Band 5)

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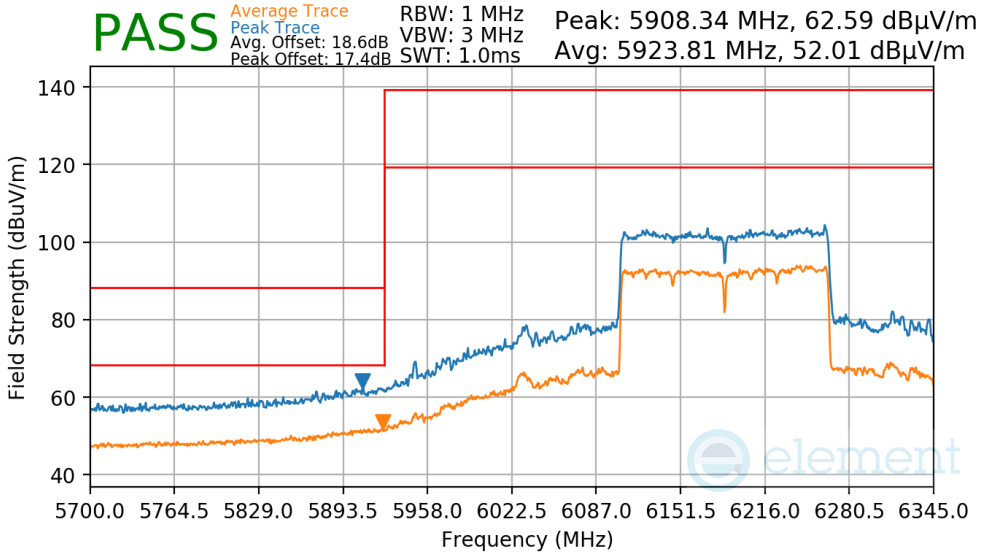
7.8.14 Antenna 1b Radiated Band Edge Measurements (160MHz BW)

Mode	802.11ax-SU
Data Rate	MCS11
Distance of Measurement	3 Meters
Operating Frequency	6185MHz
Channel	47



Plot 7-195 Antenna 1b Radiated Lower Band Edge (Peak & Average – UNII Band 5)

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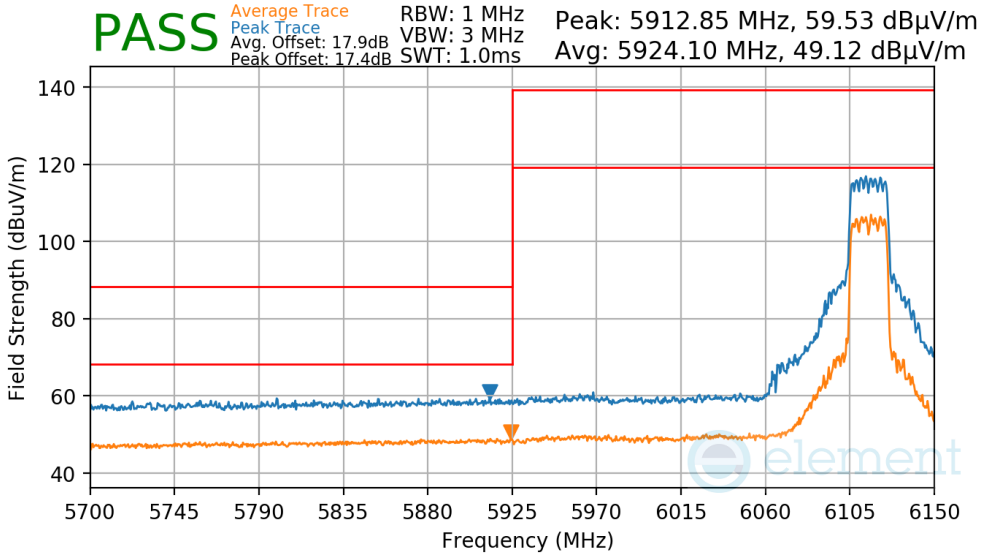
7.8.15 SDM Primary Radiated Band Edge Measurements (20MHz BW)

Mode	802.11ax-SU
Data Rate	MCS11
Distance of Measurement	3 Meters
Operating Frequency	6115MHz
Channel	33



Plot 7-196 SDM Primary Radiated Lower Band Edge (Peak & Average – UNII Band 5)

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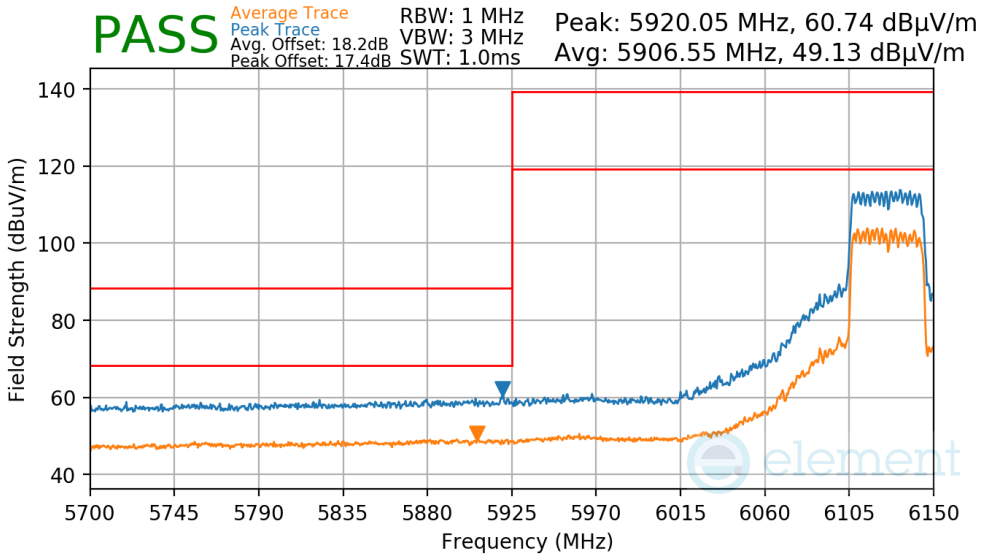
7.8.16 SDM Primary Radiated Band Edge Measurements (40MHz BW)

Mode	802.11ax-SU
Data Rate	MCS11
Distance of Measurement	3 Meters
Operating Frequency	6125MHz
Channel	35



Plot 7-197 SDM Primary Radiated Lower Band Edge (Peak & Average – UNII Band 5)

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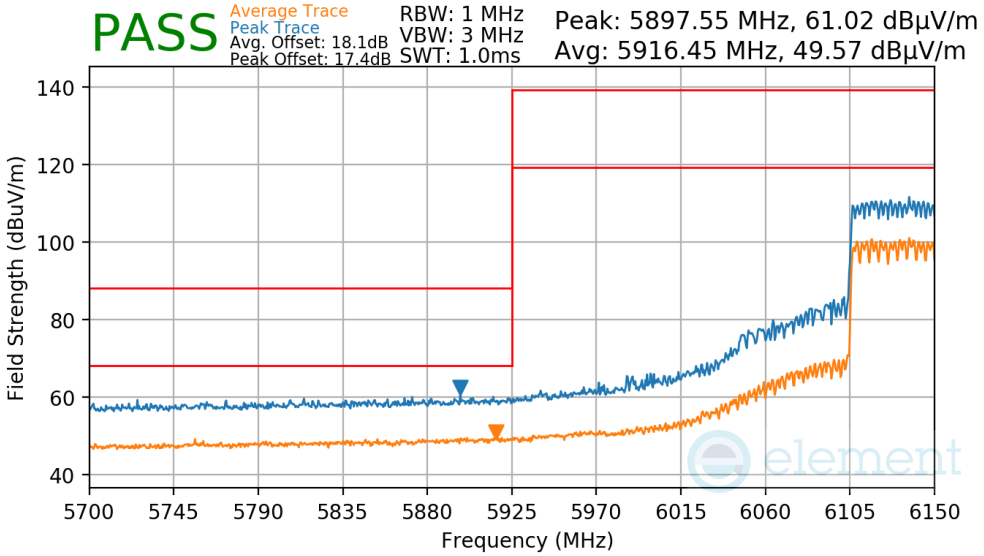
7.8.17 SDM Primary Radiated Band Edge Measurements (80MHz BW)

Mode	802.11ax-SU
Data Rate	MCS11
Distance of Measurement	3 Meters
Operating Frequency	6145MHz
Channel	39



Plot 7-198 SDM Primary Radiated Lower Band Edge (Peak & Average – UNII Band 5)

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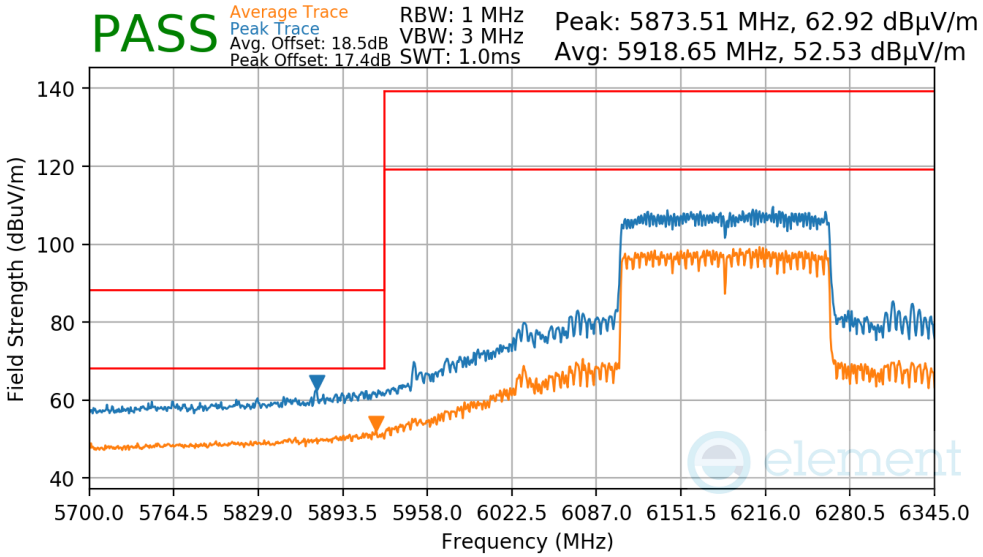
7.8.18 SDM Primary Radiated Band Edge Measurements (160MHz BW)

Mode	802.11ax-SU
Data Rate	MCS11
Distance of Measurement	3 Meters
Operating Frequency	6185MHz
Channel	47



Plot 7-199 SDM Primary Radiated Lower Band Edge (Peak & Average – UNII Band 5)

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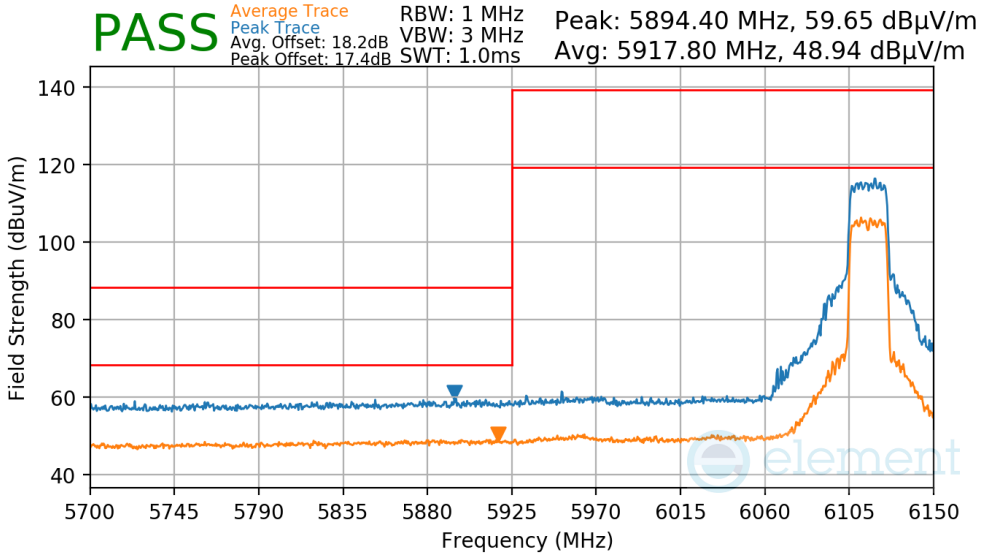
7.8.19 SDM Diversity Radiated Band Edge Measurements (20MHz BW)

Mode	802.11ax-SU
Data Rate	MCS11
Distance of Measurement	3 Meters
Operating Frequency	6115MHz
Channel	33



Plot 7-200 SDM Diversity Radiated Lower Band Edge (Peak & Average – UNII Band 5)

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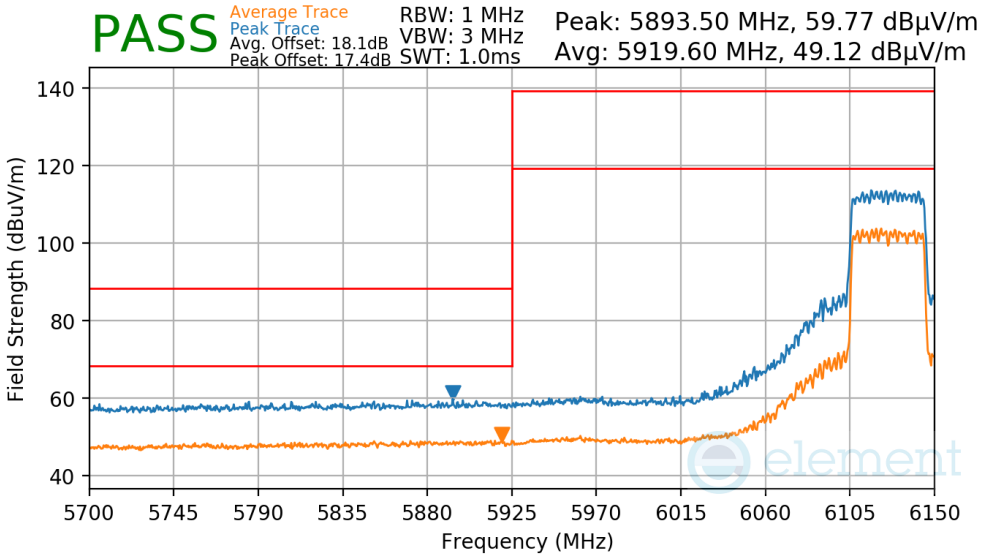
7.8.20 SDM Diversity Radiated Band Edge Measurements (40MHz BW)

Mode	802.11ax-SU
Data Rate	MCS11
Distance of Measurement	3 Meters
Operating Frequency	6125MHz
Channel	35



Plot 7-201 SDM Diversity Radiated Lower Band Edge (Peak & Average – UNII Band 5)

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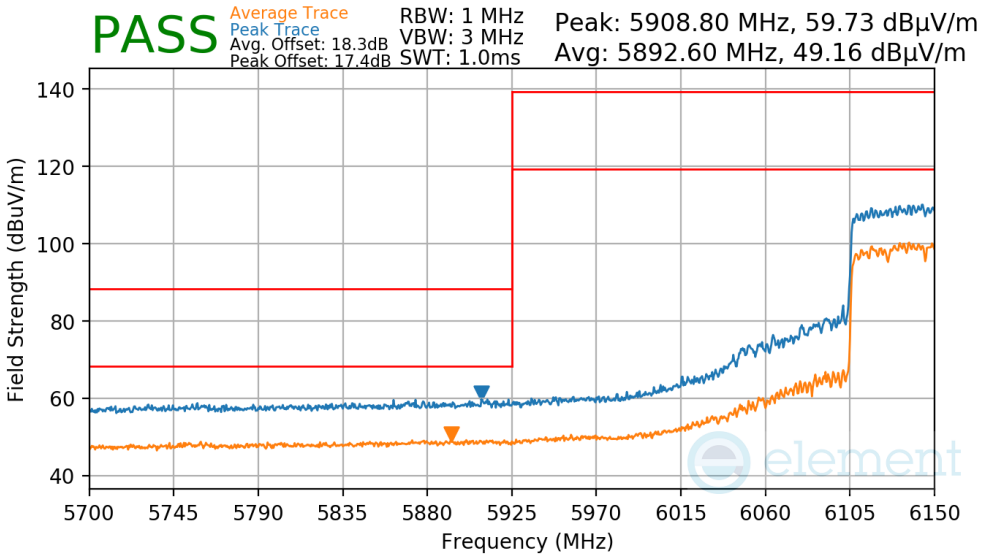
7.8.21 SDM Diversity Radiated Band Edge Measurements (80MHz BW)

Mode	802.11ax-SU
Data Rate	MCS11
Distance of Measurement	3 Meters
Operating Frequency	6145MHz
Channel	39



Plot 7-202 SDM Diversity Radiated Lower Band Edge (Peak & Average – UNII Band 5)

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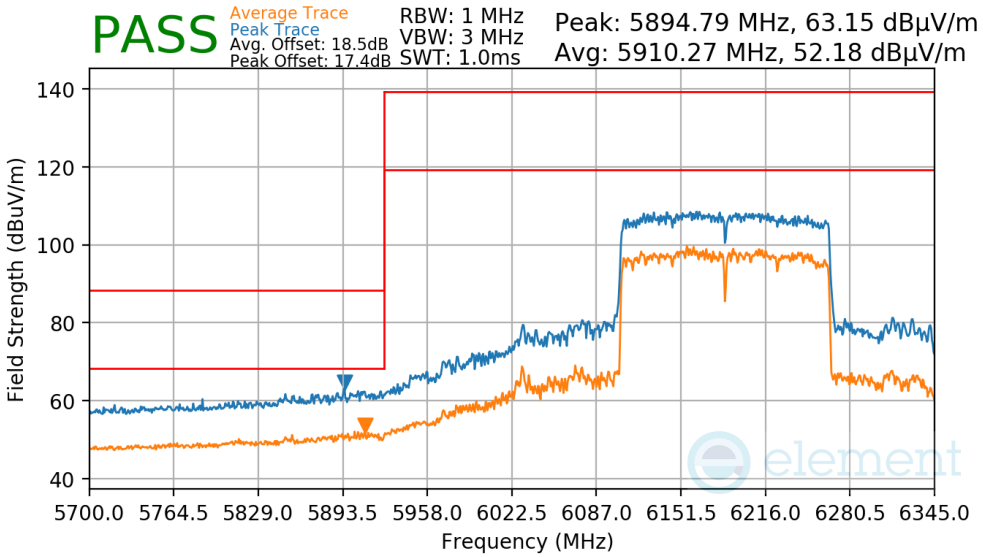
7.8.22 SDM Diversity Radiated Band Edge Measurements (80MHz BW)

Mode	802.11ax-SU
Data Rate	MCS11
Distance of Measurement	3 Meters
Operating Frequency	6185MHz
Channel	47



Plot 7-203 SDM Diversity Radiated Lower Band Edge (Peak & Average – UNII Band 5)

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7.9 Radiated Spurious Emissions – Below 1GHz

§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 must not exceed the limits shown in Table 7-53 per Section 15.209 and RSS-Gen (8.9).

Frequency	Field Strength [µV/m]	Measured Distance [Meters]
0.009 – 0.490 MHz	2400/F (kHz)	300
0.490 – 1.705 MHz	24000/F (kHz)	30
1.705 – 30.00 MHz	30	30
30.00 – 88.00 MHz	100	3
88.00 – 216.0 MHz	150	3
216.0 – 960.0 MHz	200	3
Above 960.0 MHz	500	3

Table 7-53. Radiated Limits

Test Procedures Used

ANSI C63.10-2020

Test Settings

Quasi-Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 120kHz (for emissions from 30MHz – 1GHz)
3. Detector = quasi-peak
4. Sweep time = auto couple
5. Trace mode = max hold
6. Trace was allowed to stabilize

Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 120kHz (for emissions from 30MHz – 1GHz)
3. VBW = 300kHz
4. Detector = quasi-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 diagrams below.

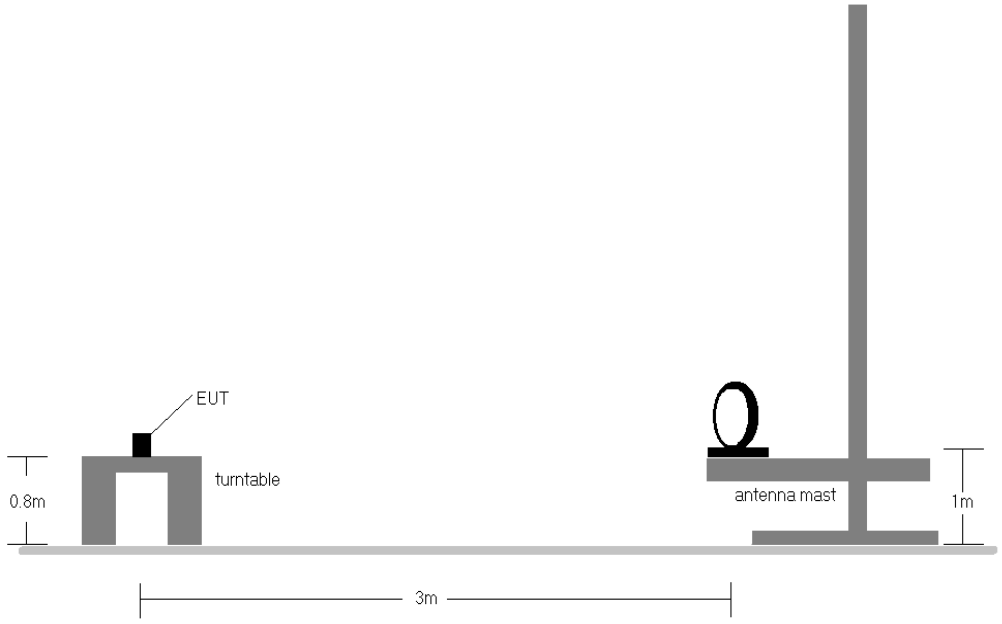

Figure 7-8. Radiated Test Setup < 30MHz

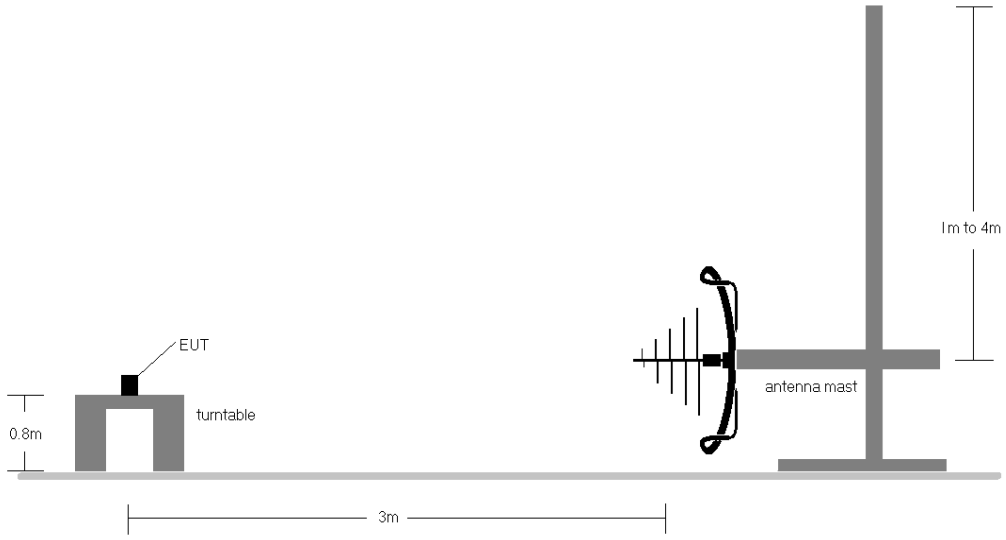

Figure 7-9. Radiated Test Setup < 1GHz

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Test Notes

1. All emissions lying in restricted bands specified in §15.205 and RSS-Gen (8.10) are below the limit shown in Table 7-53.
2. The broadband receive antenna is manipulated through vertical and horizontal polarizations during the tests. The EUT is manipulated through three orthogonal planes. For below 30MHz the loop antenna was positioned in 3 orthogonal planes (X front, Y side, Z top) to determine the orientation resulting in the worst case emissions.
3. This unit was tested with its standard battery.
4. The spectrum is investigated using a peak detector and final measurements are recorded using CISPR quasi peak detector on emissions that were within 6dB of the limit.
5. Emissions were measured at a 3 meter test distance.
6. Emissions are investigated while operating on the center channel of the mode, band, and modulation that produced the worst case results during the transmitter spurious emissions testing.
7. No spurious emissions were detected within 20dB of the limit below 30MHz.
8. The results recorded using the broadband antenna is known to correlate with the results obtained by using a tuned dipole with an acceptable degree of accuracy. The VSWR for the measurement antenna was found to be less than 2:1.
9. Both configurations below were investigated, and the worst case has been reported.
    a. EUT powered by AC/DC adaptor via USB-C cable with wire charger
    b. EUT powered by host PC via USB-C cable with wire charger
10. All antenna configurations were investigated and only the worst case is reported.
11. The unit was tested with all possible modes and only the highest emission is reported.

Sample Calculations

Determining Spurious Emissions Levels

- Field Strength Level $_{[dB\mu V/m]}$ = Analyzer Level $_{[dBm]}$ + 107 + AFCL $_{[dB/m]}$
- AFCL $_{[dB/m]}$ = Antenna Factor $_{[dB/m]}$ + Cable Loss $_{[dB]}$ - Preamp Gain $_{[dB]}$
- Margin $_{[dB]}$ = Field Strength Level $_{[dB\mu V/m]}$ – Limit $_{[dB\mu V/m]}$

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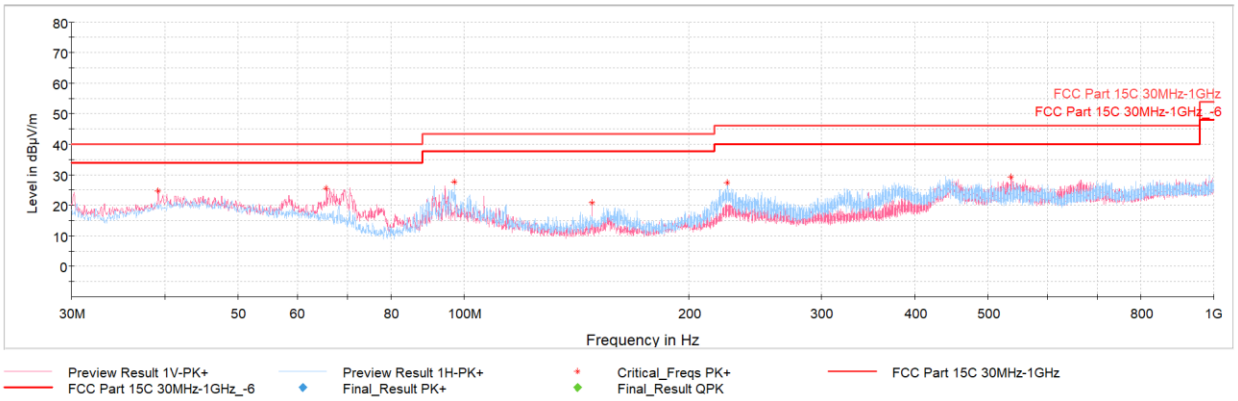
7.9.1 SDM Primary Radiated Spurious Emissions Measurements (Below 1GHz)



Plot 7-204. Radiated Spurious Emissions below 1GHz SDM Primary, 802.11ax, Ch.33 with host PC via USB-C cable with wire charger

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
39.17	Max-Peak	V	100	234	-75.67	-16.10	15.23	40.00	-24.77
65.65	Max-Peak	V	100	265	-75.09	-17.52	14.39	40.00	-25.61
97.17	Max-Peak	H	200	267	-74.17	-16.88	15.95	43.52	-27.57
148.29	Max-Peak	V	100	121	-64.45	-19.78	22.77	43.52	-20.75
225.02	Max-Peak	H	100	234	-72.82	-15.45	18.73	46.02	-27.29
536.39	Max-Peak	V	100	217	-82.03	-8.16	16.81	46.02	-29.21

Table 7-54. Radiated Spurious Emissions Measurement below 1GHz SDM Primary, 802.11ax, Ch.33 with host PC via USB-C cable with wire charger

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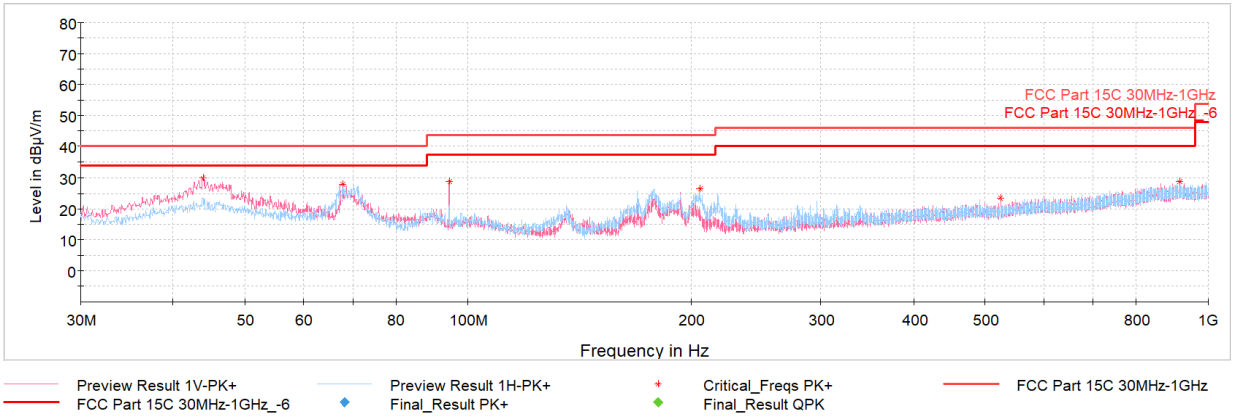
7.9.2 SDM Diversity Radiated Spurious Emissions Measurements (Below 1GHz)



Plot 7-205. Radiated Spurious Emissions below 1GHz SDM Diversity, 802.11ax, Ch.33 with host PC via USB-C cable with wire charger

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
43.92	Max-Peak	V	100	261	-62.38	-14.75	29.87	40.00	-10.13
67.78	Max-Peak	H	300	292	-60.80	-18.33	27.87	40.00	-12.13
94.51	Max-Peak	V	100	202	-60.92	-17.47	28.61	43.52	-14.91
205.96	Max-Peak	H	100	325	-64.30	-16.47	26.23	43.52	-17.29
524.70	Max-Peak	V	300	114	-75.06	-8.50	23.44	46.02	-22.58
915.56	Max-Peak	V	300	184	-76.94	-1.42	28.64	46.02	-17.38

Table 7-55. Radiated Spurious Emissions Measurement below 1GHz SDM Diversity, 802.11ax, Ch.33 with host PC via USB-C cable with wire charger

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7.10 AC Line AC Line-Conducted Emissions Measurement

§15.407; RSS-Gen[8.8]

Test Overview and Limit

All AC line conducted spurious emissions are measured with a receiver connected to a grounded LISN 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 AC Line conducted spurious emissions. Only the conducted emissions of the configuration that produced the worst case emissions are reported in this section.

All conducted emissions must not exceed the limits shown in the table below, per Section 15.207 and RSS-Gen (8.8).

Frequency of emission (MHz)	Conducted Limit (dBµV)	
	Quasi-peak	Average
0.15 – 0.5	66 to 56*	56 to 46*
0.5 – 5	56	46
5 – 30	60	50

Table 7-56. Conducted Limits

*Decreases with the logarithm of the frequency.

Test Procedures Used

ANSI C63.10-2020, Section 6.2

Test Settings

Quasi-Peak Measurements

1. Analyzer center frequency was set to the frequency of the spurious emission of interest
2. RBW = 9kHz (for emissions from 150kHz – 30MHz)
3. Detector = quasi-peak
4. Sweep time = auto couple
5. Trace mode = max hold
6. Trace was allowed to stabilize

Average Measurements

1. Analyzer center frequency was set to the frequency of the spurious emission of interest
2. RBW = 9kHz (for emissions from 150kHz – 30MHz)
3. Detector = RMS
4. Sweep time = auto couple
5. Trace mode = max hold
6. 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.

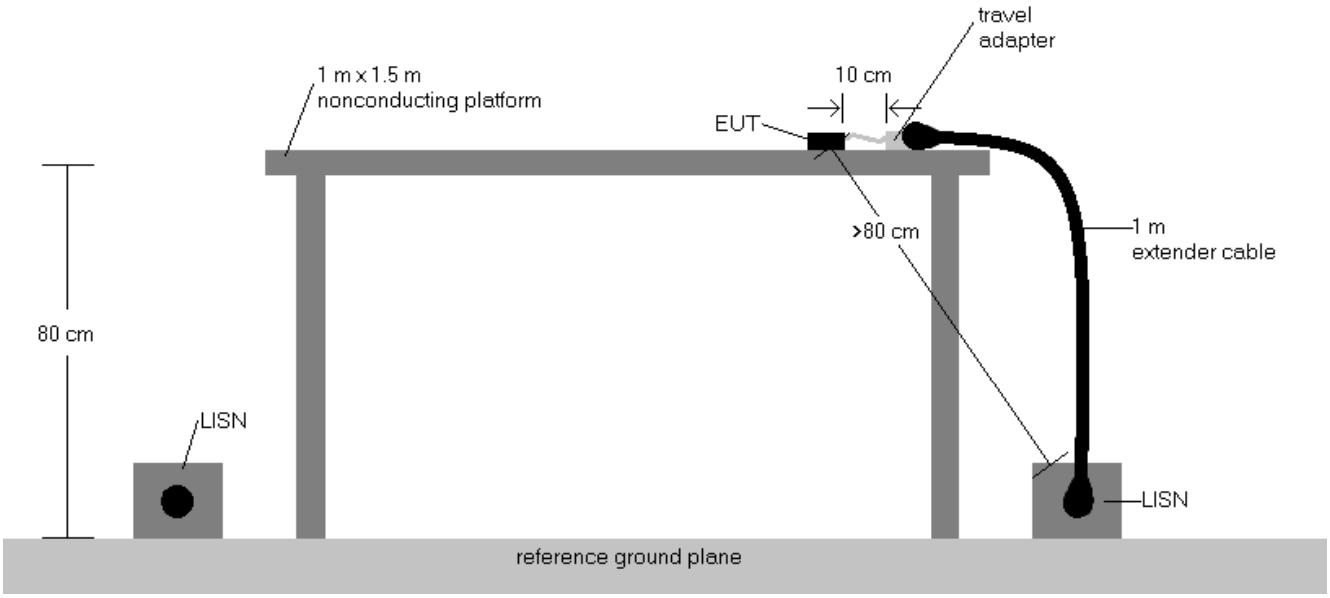

Figure 7-10. Test Instrument & Measurement Setup

Test Notes

1. All modes of operation were investigated, and the worst-case emissions are reported. The emissions found were not affected by the choice of channel used during testing.
2. Both configurations below were investigated, and the worst case has been reported.
    a. EUT powered by AC/DC adaptor via USB-C cable with wire charger
    b. EUT powered by host PC via USB-C cable with wire charger
3. The limit for an intentional radiator from 150kHz to 30MHz are specified in 15.207 and RSS-Gen (8.8).
4. Corr. (dB) = Cable loss (dB) + LISN insertion factor (dB)
5. QP/AV Level (dBµV) = QP/AV Analyzer/Receiver Level (dBµV) + Correction Factor (dB)
6. Margin (dB) = QP/AV Level (dBµV) - QP/AV Limit (dBµV)
7. Traces shown in plots are made using quasi-peak and average detectors.
8. Deviations to the Specifications: None.
9. The unit was tested with all possible modes and only the highest emission is reported.

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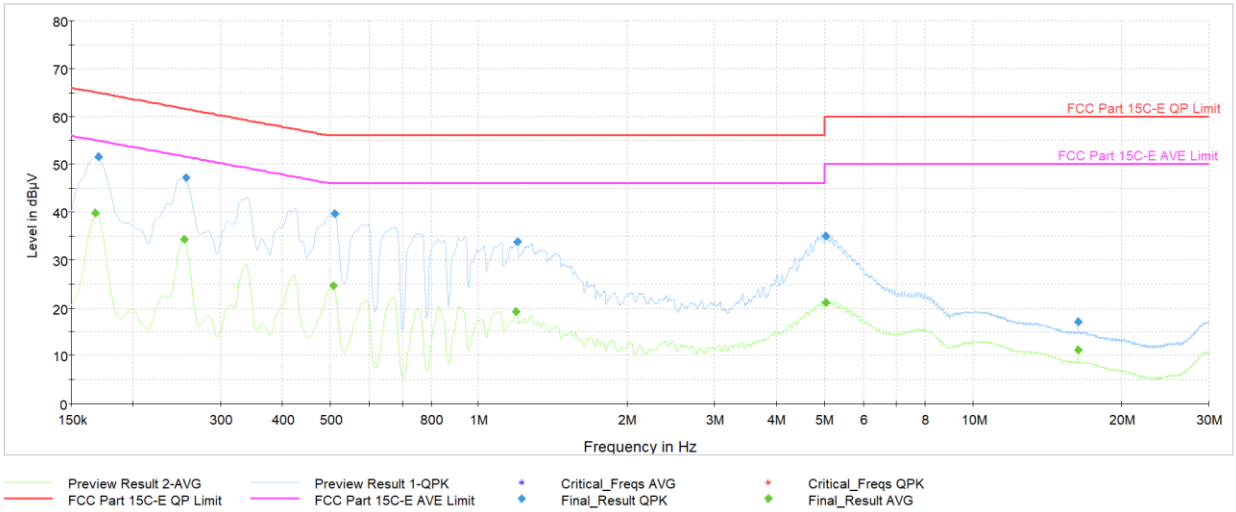

Plot 7-206. AC Line Conducted Plot with 802.11ax SDM Primary – Ch.33 (L1), with AC/DC Adapter via USB-C cable with wire charger

Frequency [MHz]	Process State	QuasiPeak [dBµV]	Average [dBµV]	Limit [dBµV]	Margin [dB]	Line	PE
0.168	FINAL	—	39.80	55.06	-15.26	L1	GND
0.170	FINAL	51.5	—	64.95	-13.45	L1	GND
0.254	FINAL	—	34.29	51.64	-17.35	L1	GND
0.256	FINAL	47.2	—	61.57	-14.35	L1	GND
0.508	FINAL	—	24.62	46.00	-21.38	L1	GND
0.512	FINAL	39.6	—	56.00	-16.40	L1	GND
1.192	FINAL	—	19.19	46.00	-26.81	L1	GND
1.199	FINAL	33.8	—	56.00	-22.19	L1	GND
5.033	FINAL	35.0	—	60.00	-25.01	L1	GND
5.037	FINAL	—	21.10	50.00	-28.90	L1	GND
16.346	FINAL	—	11.25	50.00	-38.75	L1	GND
16.348	FINAL	17.0	—	60.00	-43.00	L1	GND

Table 7-57. AC Line Conducted Data with 802.11ax SDM Primary – Ch. 33 (L1) with AC/DC Adapter via USB-C cable with wire charger

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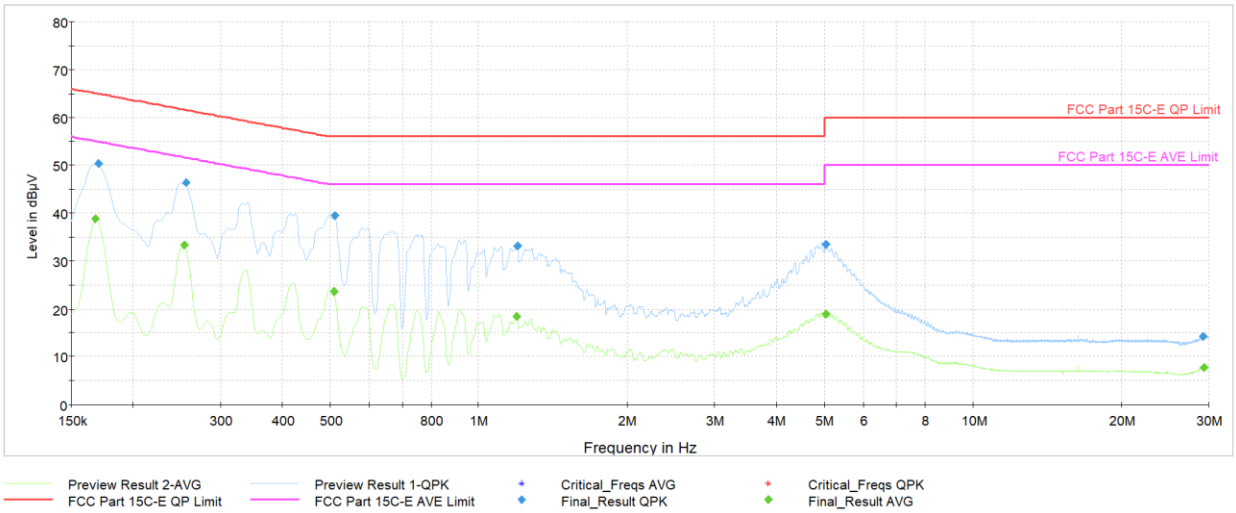

Plot 7-207. AC Line Conducted Plot with 802.11ax SDM Primary – Ch. 33 (N), with host PC via USB-C cable with wire charger

Frequency [MHz]	Process State	QuasiPeak [dBµV]	Average [dBµV]	Limit [dBµV]	Margin [dB]	Line	PE
0.168	FINAL	—	38.82	55.06	-16.24	N	GND
0.170	FINAL	50.3	—	64.95	-14.62	N	GND
0.254	FINAL	—	33.38	51.64	-18.26	N	GND
0.256	FINAL	46.4	—	61.57	-15.20	N	GND
0.510	FINAL	—	23.56	46.00	-22.44	N	GND
0.512	FINAL	39.5	—	56.00	-16.49	N	GND
1.194	FINAL	—	18.44	46.00	-27.56	N	GND
1.199	FINAL	33.2	—	56.00	-22.80	N	GND
5.039	FINAL	33.4	—	60.00	-26.61	N	GND
5.039	FINAL	—	18.98	50.00	-31.02	N	GND
29.236	FINAL	14.2	—	60.00	-45.83	N	GND
29.308	FINAL	—	7.64	50.00	-42.36	N	GND

Table 7-58. AC Line Conducted Data with 802.11ax SDM Primary – Ch. 33 (N), with host PC via USB-C cable with wire charger

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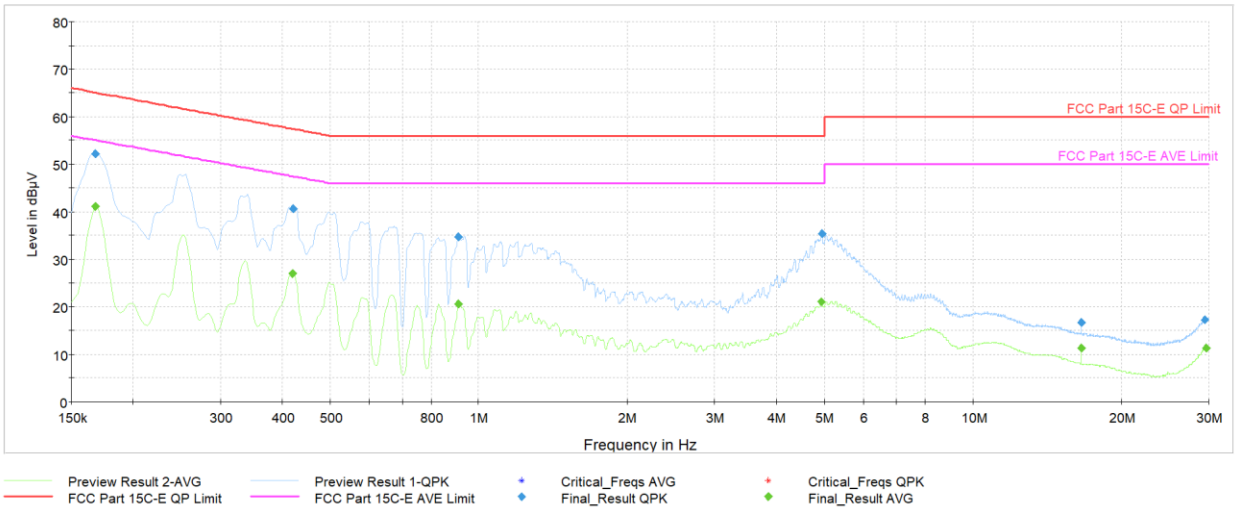

Plot 7-208. AC Line Conducted Plot with 802.11ax SDM Diversity – Ch.33 (L1), with AC/DC Adapter via USB-C cable with wire charger

Frequency [MHz]	Process State	QuasiPeak [dBµV]	Average [dBµV]	Limit [dBµV]	Margin [dB]	Line	PE
0.168	FINAL	—	41.02	55.06	-14.04	L1	GND
0.168	FINAL	52.3	—	65.06	-12.78	L1	GND
0.420	FINAL	—	26.98	47.45	-20.47	L1	GND
0.422	FINAL	40.6	—	57.40	-16.78	L1	GND
0.911	FINAL	—	20.55	46.00	-25.45	L1	GND
0.911	FINAL	34.7	—	56.00	-21.26	L1	GND
4.934	FINAL	—	21.00	46.00	-25.00	L1	GND
4.943	FINAL	35.4	—	56.00	-20.63	L1	GND
16.562	FINAL	16.7	—	60.00	-43.26	L1	GND
16.562	FINAL	—	11.23	50.00	-38.77	L1	GND
29.443	FINAL	17.3	—	60.00	-42.74	L1	GND
29.663	FINAL	—	11.29	50.00	-38.71	L1	GND

Table 7-59. AC Line Conducted Data with 802.11ax SDM Diversity – Ch. 33 (L1) with AC/DC Adapter via USB-C cable with wire charger

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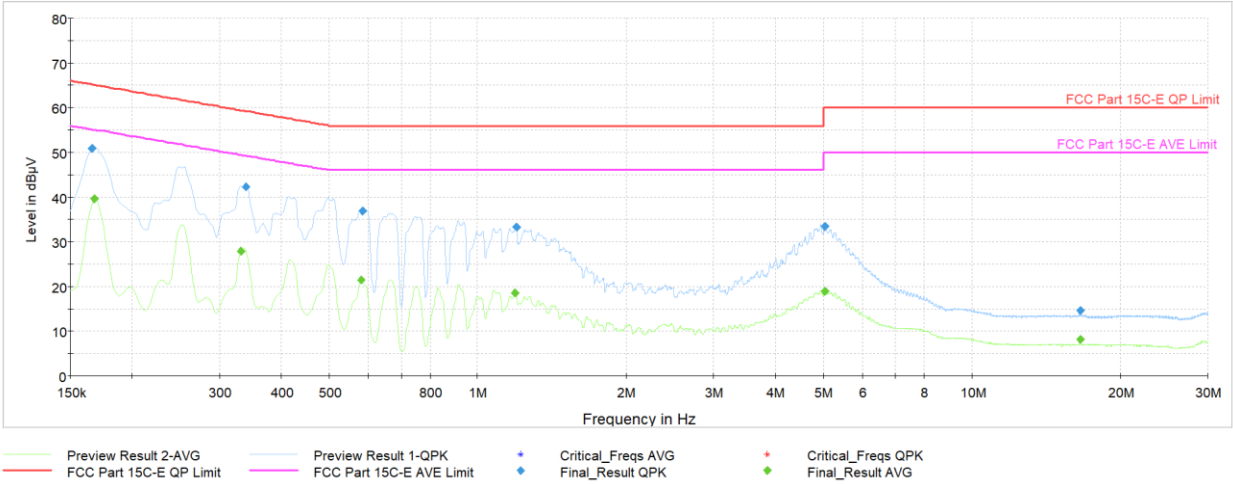

Plot 7-209. AC Line Conducted Plot with 802.11ax SDM Diversity – Ch. 33 (N), with AC/DC Adapter via USB-C cable with wire charger

Frequency [MHz]	Process State	QuasiPeak [dBµV]	Average [dBµV]	Limit [dBµV]	Margin [dB]	Line	PE
0.166	FINAL	50.9	—	65.17	-14.30	N	GND
0.168	FINAL	—	39.53	55.06	-15.53	N	GND
0.332	FINAL	—	27.89	49.40	-21.51	N	GND
0.339	FINAL	42.3	—	59.23	-16.95	N	GND
0.582	FINAL	—	21.41	46.00	-24.59	N	GND
0.587	FINAL	36.9	—	56.00	-19.11	N	GND
1.192	FINAL	—	18.52	46.00	-27.48	N	GND
1.199	FINAL	33.2	—	56.00	-22.81	N	GND
5.046	FINAL	33.5	—	60.00	-26.51	N	GND
5.048	FINAL	—	18.96	50.00	-31.04	N	GND
16.568	FINAL	—	8.12	50.00	-41.88	N	GND
16.571	FINAL	14.6	—	60.00	-45.44	N	GND

Table 7-60. AC Line Conducted Data with 802.11ax SDM Diversity – Ch. 33 (N), with AC/DC Adapter via USB-C cable with wire charger

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8.0 CONCLUSION

The data collected relate only the item(s) tested and show that the **Apple Tablet Device FCC ID: BCGA3267** and **IC: 579C-A3267** is in compliance with Part 15 Subpart E (15.407) of the FCC Rules and RSS-248 of the Innovation, Science and Economic Development Canada Rules.

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