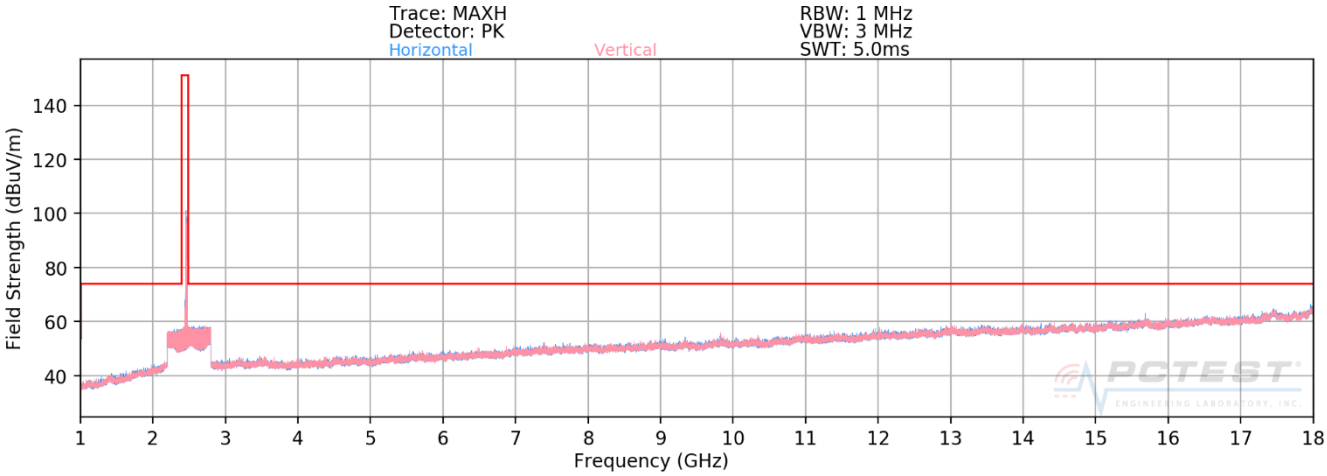
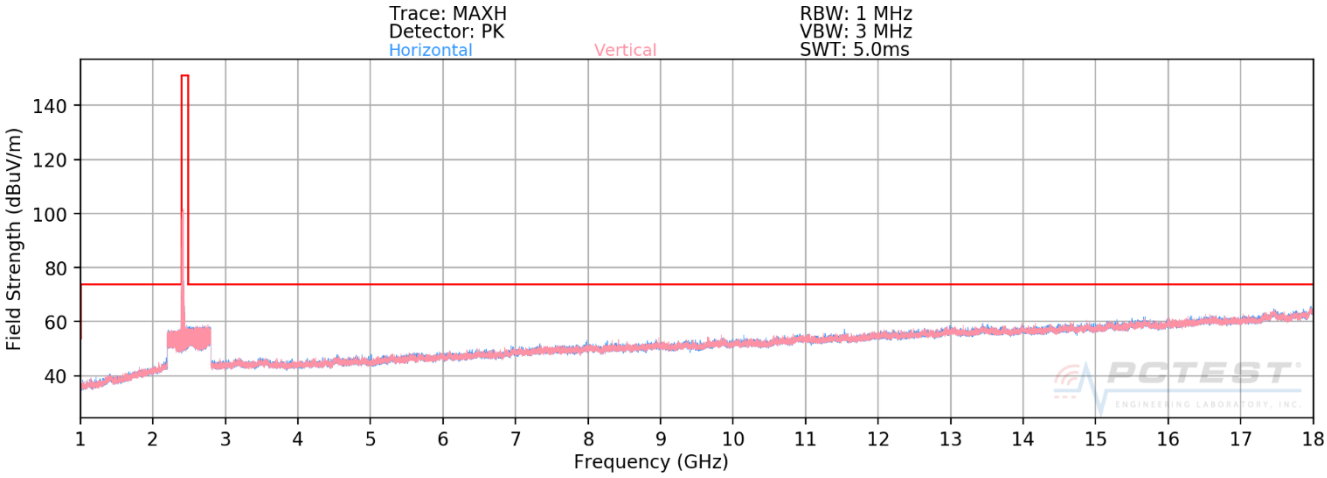


Plot 7-80. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11ax OFDMA – 106 Tones – Ch. 11)



Plot 7-81. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11ax OFDMA – 242 Tones – Ch. 1)

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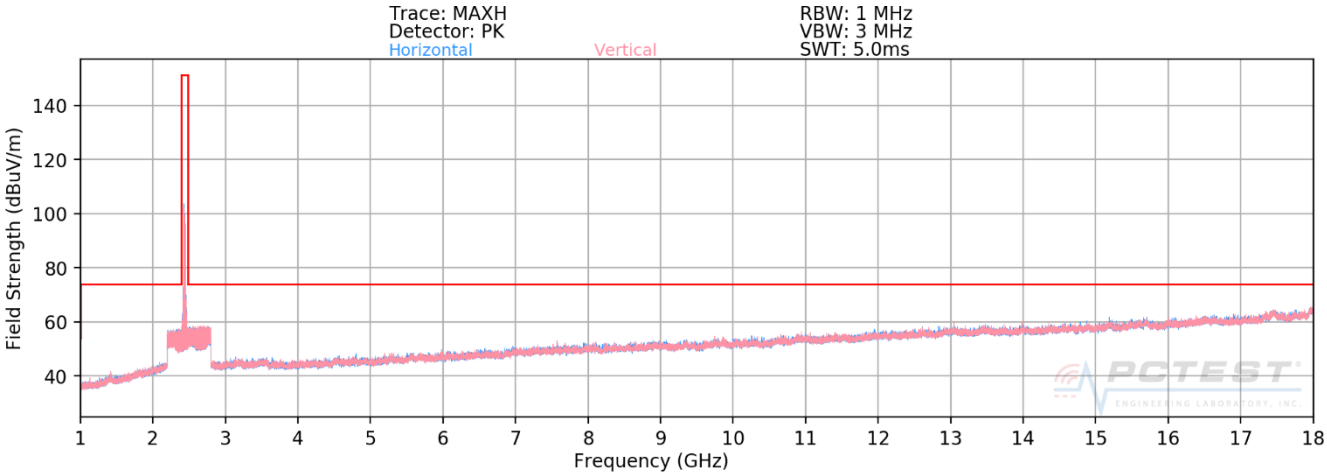
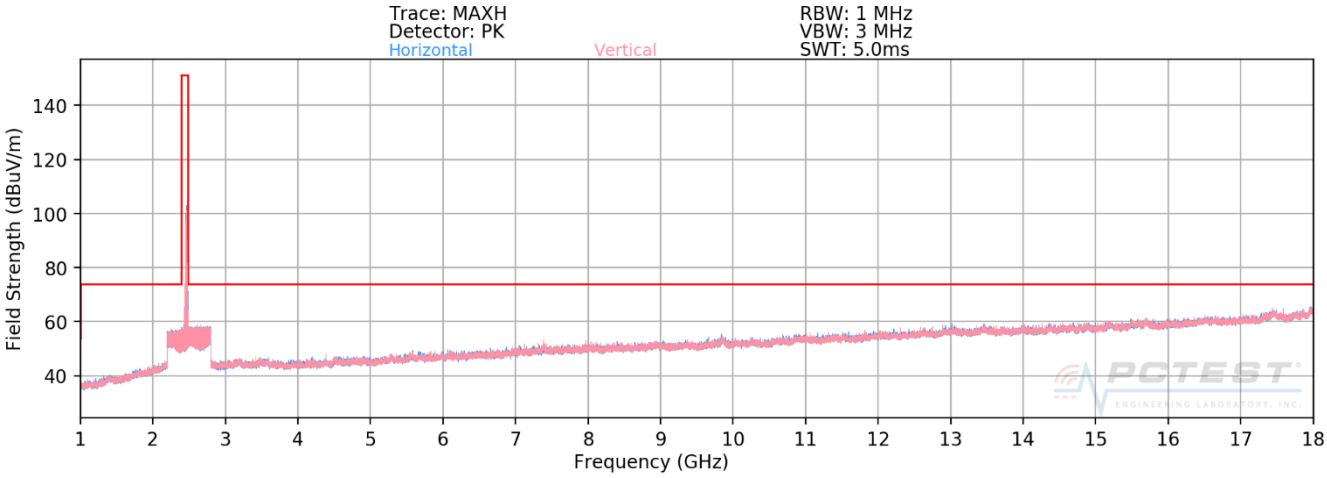


Plot 7-82. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11ax OFDMA – 242 Tones – Ch. 6)



Plot 7-83. Radiated Spurious Plot above 1GHz SISO ANT2 (802.11ax OFDMA – 242 Tones – Ch. 11)

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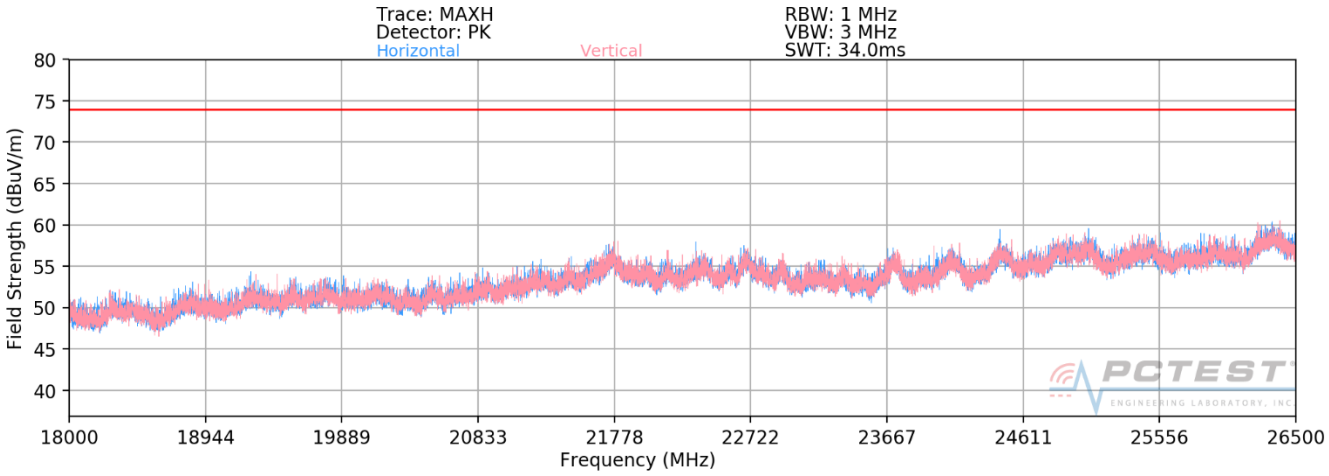
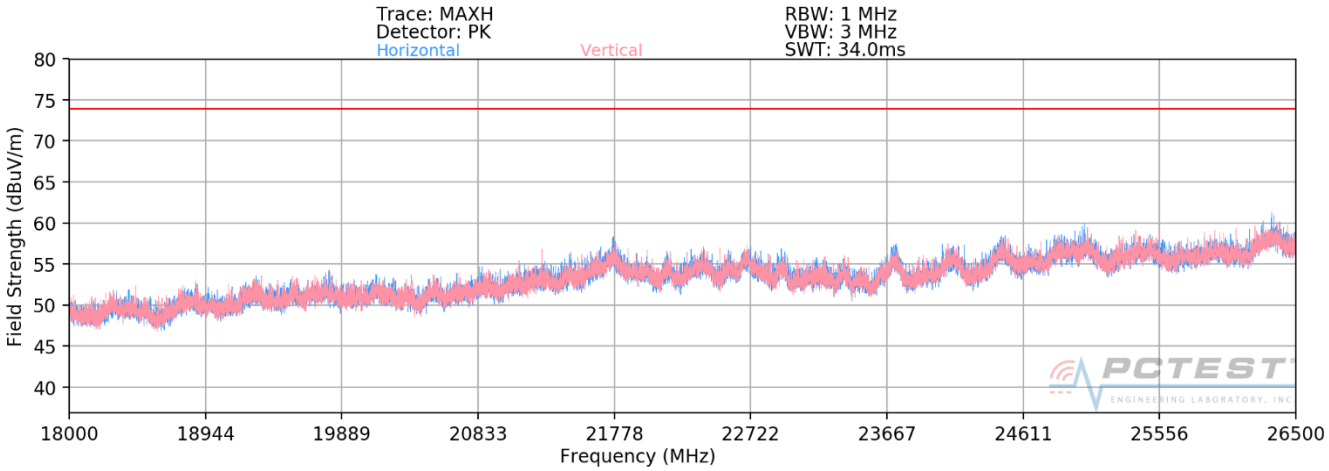
7.7.5 SISO Antenna-2 Radiated Spurious Emissions Measurements (Above 18GHz)

§15.209; RSS-Gen [8.9]



Plot 7-84. Radiated Spurious Plot above 18GHz SISO ANT2 (802.11ax OFDMA – 106 Tones)



Plot 7-85. Radiated Spurious Plot above 18GHz SISO ANT2 (802.11ax OFDMA – 242 Tones)

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7.7.6 SISO Antenna-2 Radiated Spurious Emission Measurements

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

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	53
Distance of Measurements:	3 Meters
Operating Frequency:	2412MHz
Channel:	01

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]
4824.00	Avg	V	110	179	-76.88	6.91	37.03	53.98	-16.95
4824.00	Peak	V	110	179	-64.47	6.91	49.44	73.98	-24.54
12060.00	Avg	V	-	-	-78.05	18.16	47.11	53.98	-6.87
12060.00	Peak	V	-	-	-66.26	18.16	58.90	73.98	-15.08

Table 7-26. Radiated Measurements SISO ANT2 (106 Tones)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	53
Distance of Measurements:	3 Meters
Operating Frequency:	2437MHz
Channel:	06

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]
4874.00	Avg	V	272	65	-77.18	7.65	37.47	53.98	-16.51
4874.00	Peak	V	272	65	-64.33	7.65	50.32	73.98	-23.66
7311.00	Avg	V	-	-	-78.05	12.34	41.29	53.98	-12.69
7311.00	Peak	V	-	-	-66.41	12.34	52.93	73.98	-21.05
12185.00	Avg	V	-	-	-78.38	18.65	47.27	53.98	-6.71
12185.00	Peak	V	-	-	-67.05	18.65	58.60	73.98	-15.38

Table 7-27. Radiated Measurements SISO ANT2 (106 Tones)

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Worst Case Mode: 802.11ax OFDMA
Worst Case Transfer Rate: MCS0
RU Index: 53
Distance of Measurements: 3 Meters
Operating Frequency: 2462MHz
Channel: 11

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]
4924.00	Avg	V	161	133	-76.93	7.61	37.68	53.98	-16.30
4924.00	Peak	V	161	133	-64.08	7.61	50.53	73.98	-23.45
7386.00	Avg	V	-	-	-77.82	12.18	41.36	53.98	-12.62
7386.00	Peak	V	-	-	-65.79	12.18	53.39	73.98	-20.59
12310.00	Avg	V	-	-	-78.46	18.89	47.43	53.98	-6.55
12310.00	Peak	V	-	-	-66.69	18.89	59.20	73.98	-14.78

Table 7-28. Radiated Measurements SISO ANT2 (106 Tones)

Worst Case Mode: 802.11ax OFDMA
Worst Case Transfer Rate: MCS0
RU Index: 61
Distance of Measurements: 3 Meters
Operating Frequency: 2412MHz
Channel: 01

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]
4824.00	Avg	V	264	314	-76.82	6.91	37.09	53.98	-16.89
4824.00	Peak	V	264	314	-64.24	6.91	49.67	73.98	-24.31
12060.00	Avg	V	-	-	-78.11	18.16	47.05	53.98	-6.93
12060.00	Peak	V	-	-	-66.23	18.16	58.93	73.98	-15.05

Table 7-29. Radiated Measurements SISO ANT2 (242 Tones)

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Worst Case Mode: 802.11ax OFDMA
Worst Case Transfer Rate: MCS0
RU Index: 61
Distance of Measurements: 3 Meters
Operating Frequency: 2437MHz
Channel: 06

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]
4874.00	Avg	V	146	166	-75.37	7.65	39.28	53.98	-14.70
4874.00	Peak	V	146	166	-64.65	7.65	50.00	73.98	-23.98
7311.00	Avg	V	-	-	-78.07	12.34	41.27	53.98	-12.71
7311.00	Peak	V	-	-	-66.16	12.34	53.18	73.98	-20.80
12185.00	Avg	V	-	-	-78.30	18.65	47.35	53.98	-6.63
12185.00	Peak	V	-	-	-66.52	18.65	59.13	73.98	-14.85

Table 7-30. Radiated Measurements SISO ANT2 (242 Tones)

Worst Case Mode: 802.11ax OFDMA
Worst Case Transfer Rate: MCS0
RU Index: 61
Distance of Measurements: 3 Meters
Operating Frequency: 2462MHz
Channel: 11

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]
4924.00	Avg	V	154	182	-76.71	7.61	37.90	53.98	-16.08
4924.00	Peak	V	154	182	-64.60	7.61	50.01	73.98	-23.97
7386.00	Avg	V	-	-	-77.81	12.18	41.37	53.98	-12.61
7386.00	Peak	V	-	-	-66.70	12.18	52.48	73.98	-21.50
12310.00	Avg	V	-	-	-78.48	18.89	47.41	53.98	-6.57
12310.00	Peak	V	-	-	-66.88	18.89	59.01	73.98	-14.97

Table 7-31. Radiated Measurements SISO ANT2 (242 Tones)

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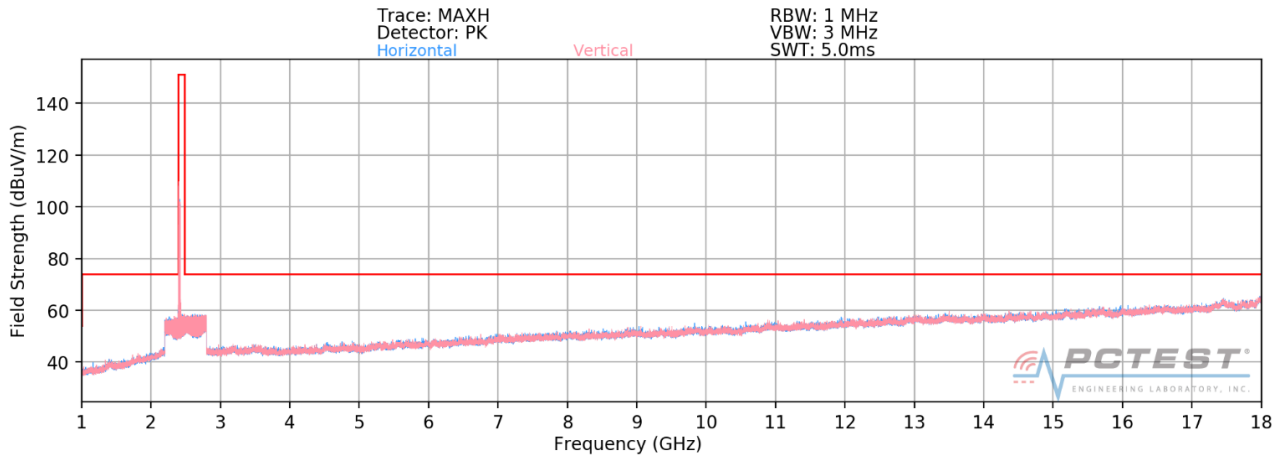
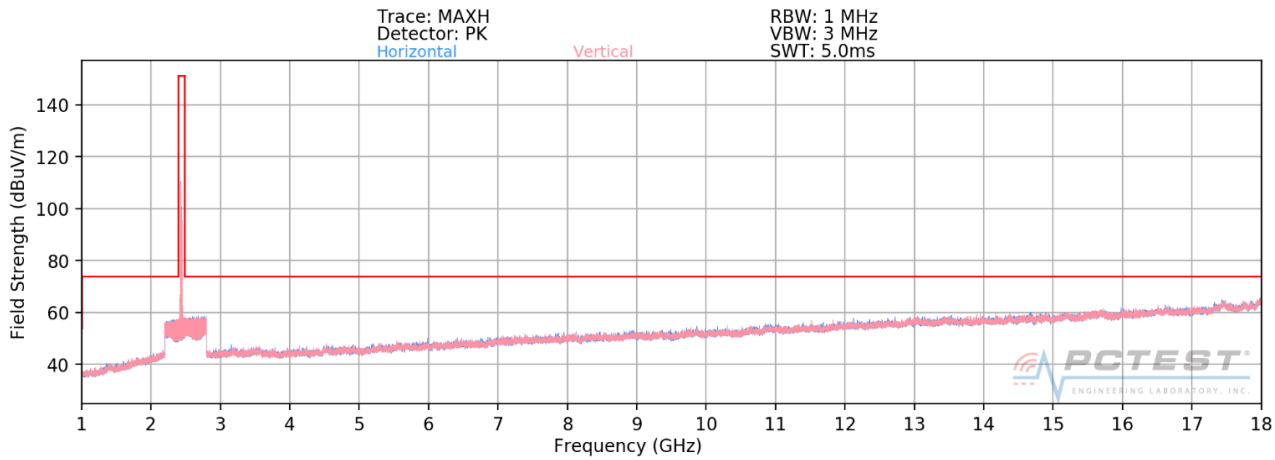
7.7.7 MIMO Radiated Spurious Emission Measurements

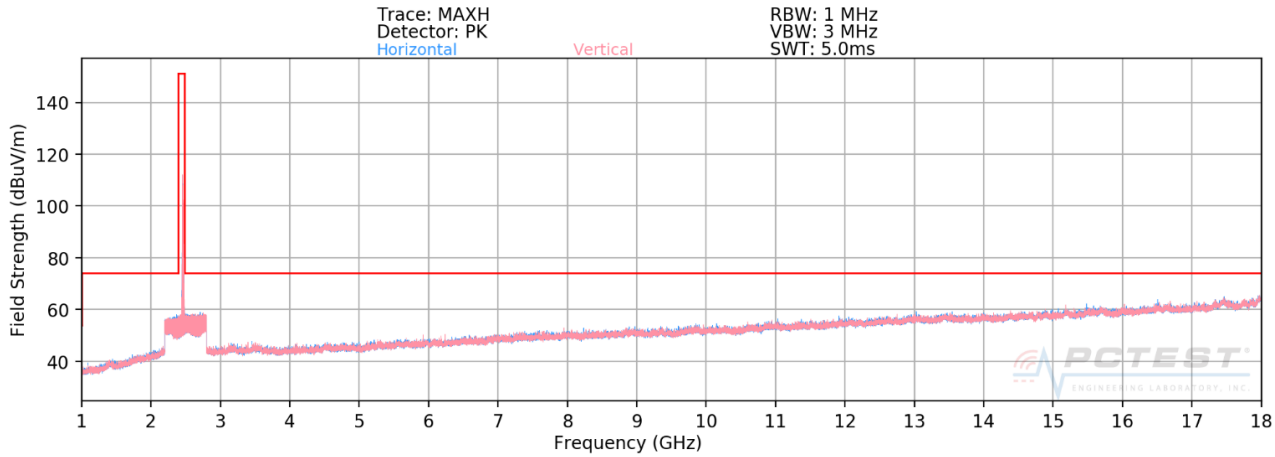
§15.247(d) §15.205 & §15.209; RSS-Gen [8.9]



Plot 7-86. Radiated Spurious Plot above 1GHz MIMO (802.11ax OFDMA – 106 Tones – Ch. 1)



Plot 7-87. Radiated Spurious Plot above 1GHz MIMO (802.11ax OFDMA – 106 Tones – Ch. 6)



Plot 7-88. Radiated Spurious Plot above 1GHz MIMO (802.11ax OFDMA – 106 Tones – Ch. 11)

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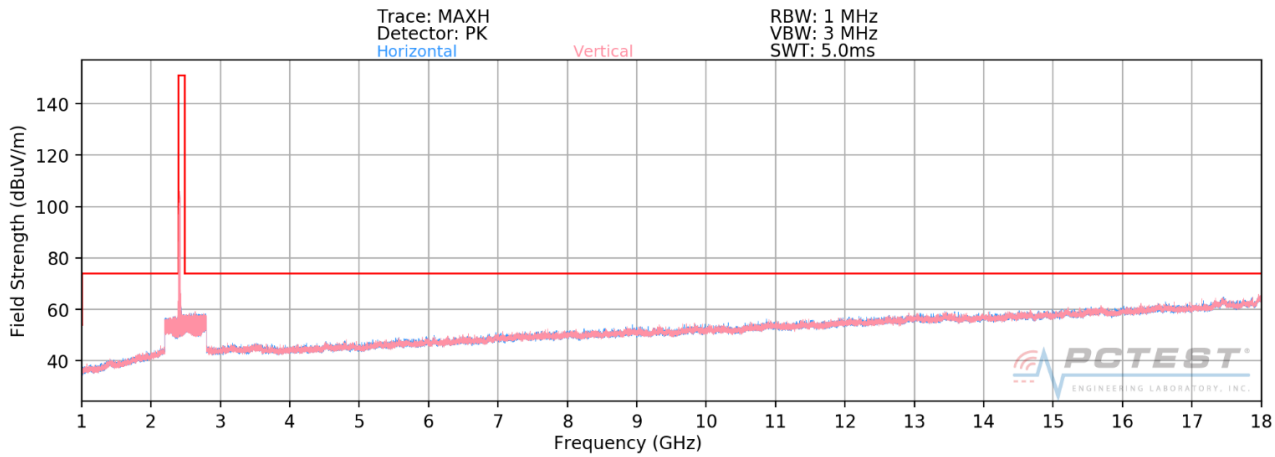
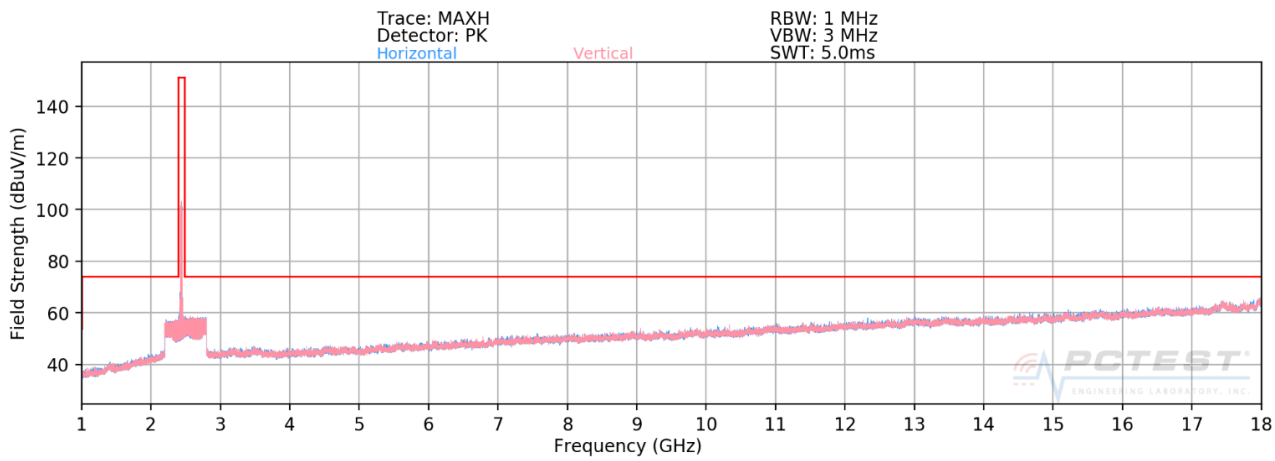
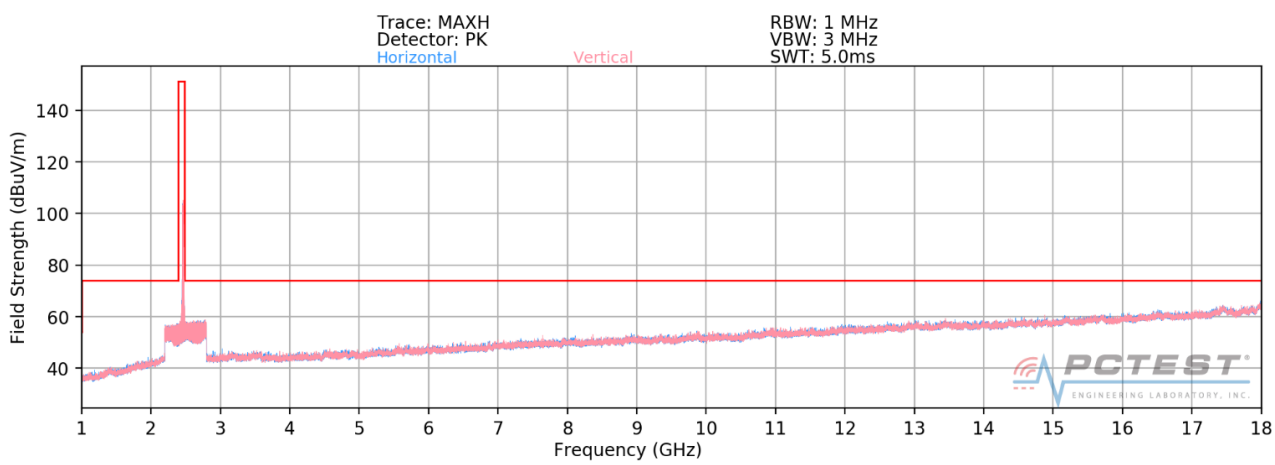


Plot 7-89. Radiated Spurious Plot above 1GHz MIMO (802.11ax OFDMA – 242 Tones – Ch. 1)



Plot 7-90. Radiated Spurious Plot above 1GHz MIMO (802.11ax OFDMA – 242 Tones – Ch. 6)



Plot 7-91. Radiated Spurious Plot above 1GHz MIMO (802.11ax OFDMA – 242 Tones – Ch. 11)

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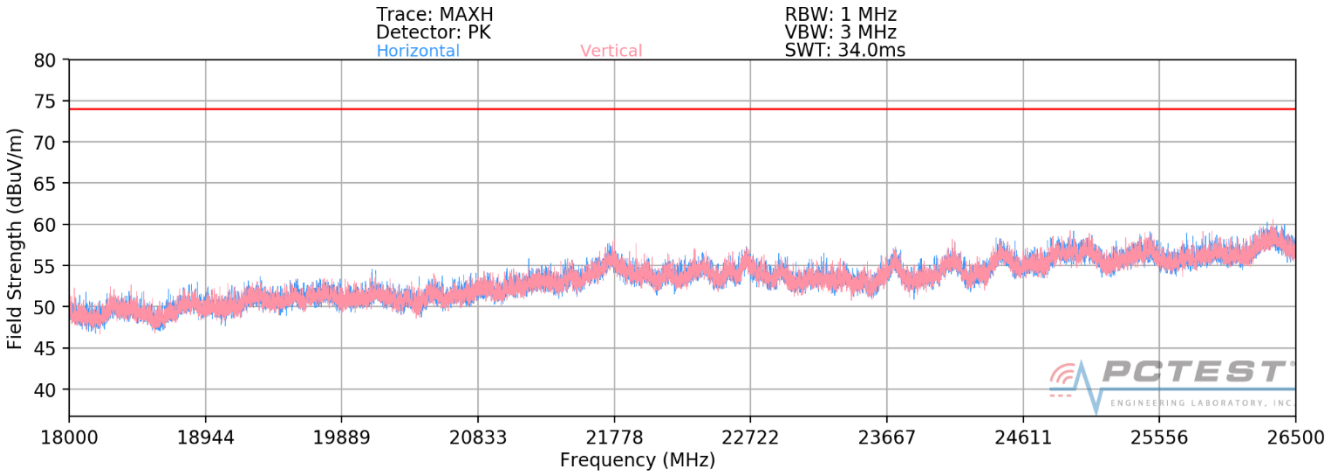
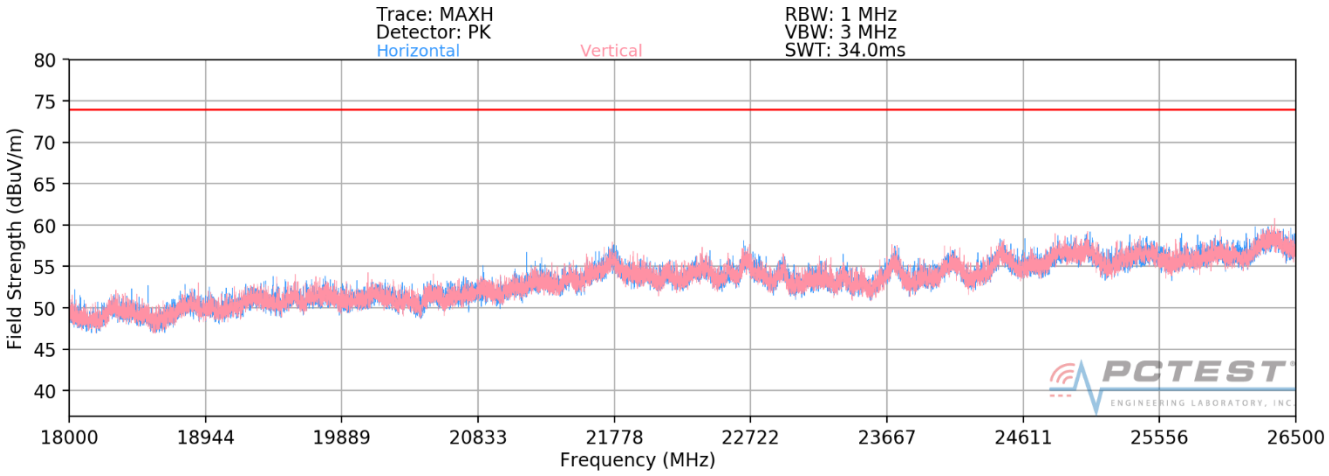
7.7.8 MIMO Radiated Spurious Emissions Measurements (Above 18GHz)

§15.209; RSS-Gen [8.9]



Plot 7-92. Radiated Spurious Plot above 18GHz MIMO (802.11ax OFDMA – 106 Tones)



Plot 7-93. Radiated Spurious Plot above 18GHz MIMO (802.11ax OFDMA – 242 Tones)

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7.7.9 MIMO Radiated Spurious Emission Measurements

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

Worst Case Mode: 802.11ax OFDMA
Worst Case Transfer Rate: MCS0
RU Index: 53
Distance of Measurements: 3 Meters
Operating Frequency: 2412MHz
Channel: 01

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]
4824.00	Avg	H	207	210	-76.82	6.91	37.09	53.98	-16.89
4824.00	Peak	H	207	210	-64.45	6.91	49.46	73.98	-24.52
12060.00	Avg	H	-	-	-78.09	18.16	47.07	53.98	-6.91
12060.00	Peak	H	-	-	-66.14	18.16	59.02	73.98	-14.96

Table 7-32. Radiated Measurements MIMO (106 Tones)

Worst Case Mode: 802.11ax OFDMA
Worst Case Transfer Rate: MCS0
RU Index: 53
Distance of Measurements: 3 Meters
Operating Frequency: 2437MHz
Channel: 06

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]
4874.00	Avg	H	292	294	-77.18	7.65	37.47	53.98	-16.51
4874.00	Peak	H	292	294	-64.02	7.65	50.63	73.98	-23.35
7311.00	Avg	H	-	-	-77.22	12.34	42.12	53.98	-11.86
7311.00	Peak	H	-	-	-66.10	12.34	53.24	73.98	-20.74
12185.00	Avg	H	-	-	-78.30	18.65	47.35	53.98	-6.63
12185.00	Peak	H	-	-	-66.53	18.65	59.12	73.98	-14.86

Table 7-33. Radiated Measurements MIMO (106 Tones)

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Worst Case Mode: 802.11ax OFDMA
Worst Case Transfer Rate: MCS0
RU Index: 53
Distance of Measurements: 3 Meters
Operating Frequency: 2462MHz
Channel: 11

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]
4924.00	Avg	H	108	244	-76.95	7.61	37.66	53.98	-16.32
4924.00	Peak	H	108	244	-64.46	7.61	50.15	73.98	-23.83
7386.00	Avg	H	-	-	-77.83	12.18	41.35	53.98	-12.63
7386.00	Peak	H	-	-	-66.45	12.18	52.73	73.98	-21.25
12310.00	Avg	H	-	-	-78.46	18.89	47.43	53.98	-6.55
12310.00	Peak	H	-	-	-66.51	18.89	59.38	73.98	-14.60

Table 7-34. Radiated Measurements MIMO (106 Tones)

Worst Case Mode: 802.11ax OFDMA
Worst Case Transfer Rate: MCS0
RU Index: 61
Distance of Measurements: 3 Meters
Operating Frequency: 2412MHz
Channel: 01

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]
4824.00	Avg	H	146	69	-76.23	6.91	37.68	53.98	-16.30
4824.00	Peak	H	146	69	-64.08	6.91	49.83	73.98	-24.15
12060.00	Avg	H	-	-	-78.13	18.16	47.03	53.98	-6.95
12060.00	Peak	H	-	-	-66.10	18.16	59.06	73.98	-14.92

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

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Worst Case Mode: 802.11ax OFDMA
Worst Case Transfer Rate: MCS0
RU Index: 61
Distance of Measurements: 3 Meters
Operating Frequency: 2437MHz
Channel: 06

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]
4874.00	Avg	H	152	242	-75.03	7.65	39.62	53.98	-14.36
4874.00	Peak	H	152	242	-64.32	7.65	50.33	73.98	-23.65
7311.00	Avg	H	-	-	-78.03	12.34	41.31	53.98	-12.67
7311.00	Peak	H	-	-	-66.04	12.34	53.30	73.98	-20.68
12185.00	Avg	H	-	-	-78.27	18.65	47.38	53.98	-6.60
12185.00	Peak	H	-	-	-66.53	18.65	59.12	73.98	-14.86

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

Worst Case Mode: 802.11ax OFDMA
Worst Case Transfer Rate: MCS0
RU Index: 61
Distance of Measurements: 3 Meters
Operating Frequency: 2462MHz
Channel: 11

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]
4924.00	Avg	H	243	284	-76.70	7.61	37.91	53.98	-16.07
4924.00	Peak	H	243	284	-64.42	7.61	50.19	73.98	-23.79
7386.00	Avg	H	-	-	-77.79	12.18	41.39	53.98	-12.59
7386.00	Peak	H	-	-	-66.41	12.18	52.77	73.98	-21.21
12310.00	Avg	H	-	-	-78.45	18.89	47.44	53.98	-6.54
12310.00	Peak	H	-	-	-66.36	18.89	59.53	73.98	-14.45

Table 7-37. Radiated Measurements MIMO (242 Tones)

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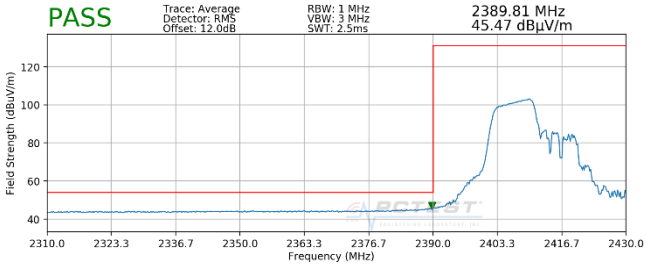
7.7.10 SISO Antenna-1 Radiated Restricted Band Edge Measurements

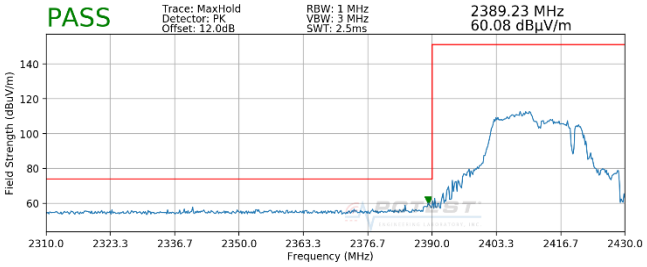
§15.205 §15.209; RSS-Gen [8.9]

The radiated restricted band edge measurements are measured with an EMI test receiver connected to the receive antenna while the EUT is transmitting.

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	53
Distance of Measurements:	3 Meters
Operating Frequency:	2412MHz
Channel:	1

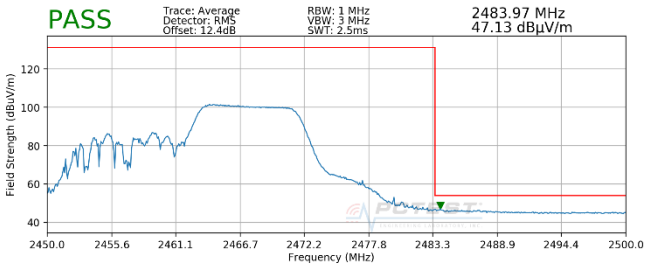


Plot 7-94. Radiated Restricted Lower Band Edge Measurement SISO ANT1 (Average – 106 Tones)

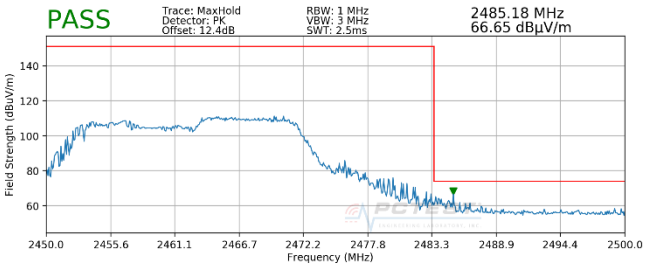


Plot 7-95. Radiated Restricted Lower Band Edge Measurement SISO ANT1 (Peak – 106 Tones)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	54
Distance of Measurements:	3 Meters
Operating Frequency:	2462MHz
Channel:	11



Plot 7-96. Radiated Restricted Upper Band Edge Measurement SISO ANT1 (Average – 106 Tones)



Plot 7-97. Radiated Restricted Upper Band Edge Measurement SISO ANT1 (Peak – 106 Tones)

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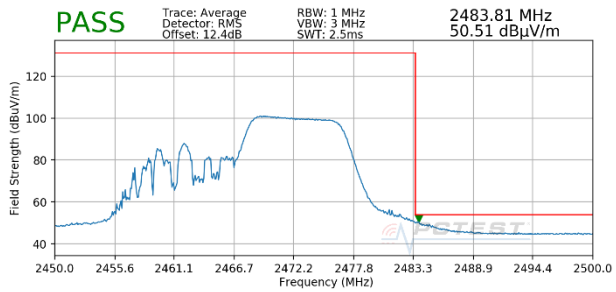
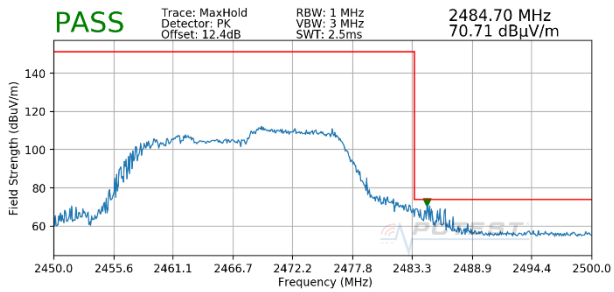
Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	54
Distance of Measurements:	3 Meters
Operating Frequency:	2467MHz
Channel:	12

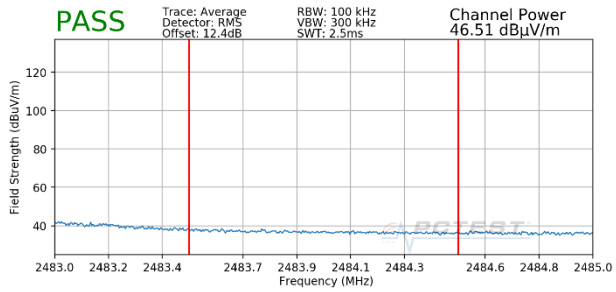


Plot 7-98. Radiated Restricted Upper Band Edge Measurement SISO ANT1 (Average – 106 Tones)

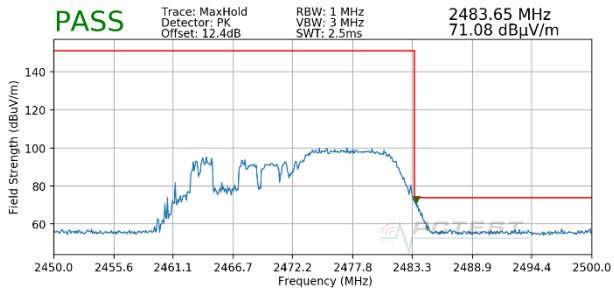


Plot 7-99. Radiated Restricted Upper Band Edge Measurement SISO ANT1 (Peak – 106 Tones)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	54
Distance of Measurements:	3 Meters
Operating Frequency:	2472MHz
Channel:	13



Plot 7-100. Radiated Restricted Upper Band Edge Measurement SISO ANT1 (Average – 106 Tones)



Plot 7-101. Radiated Restricted Upper Band Edge Measurement SISO ANT1 (Peak – 106 Tones)

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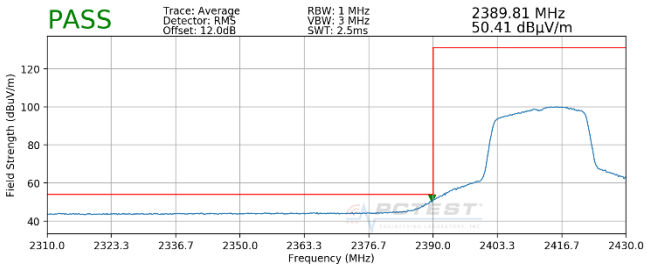
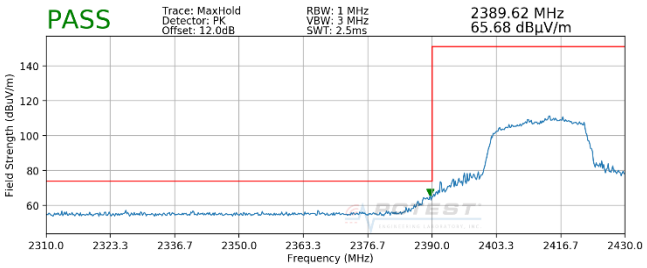
Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2412MHz
Channel:	1

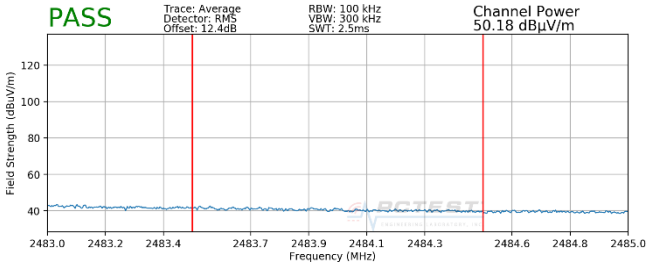


Plot 7-102. Radiated Restricted Lower Band Edge Measurement SISO ANT1 (Average – 242 Tones)

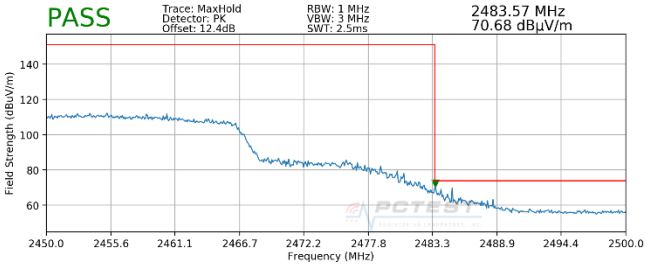


Plot 7-103. Radiated Restricted Lower Band Edge Measurement SISO ANT1 (Peak – 242 Tones)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2457MHz
Channel:	10



Plot 7-104. Radiated Restricted Lower Band Edge Measurement SISO ANT1 (Average – 242 Tones)



Plot 7-105. Radiated Restricted Lower Band Edge Measurement SISO ANT1 (Peak – 242 Tones)

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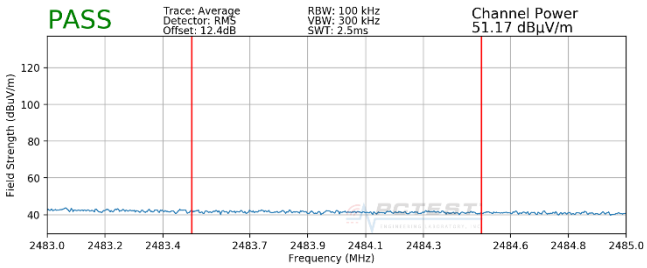
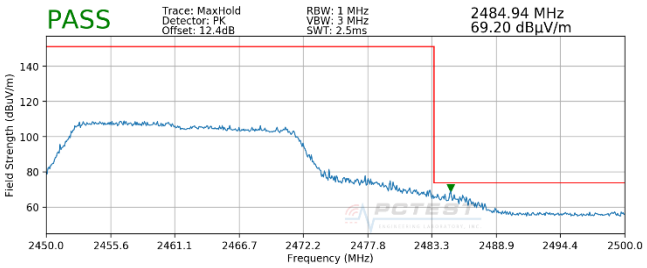
Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2462MHz
Channel:	11

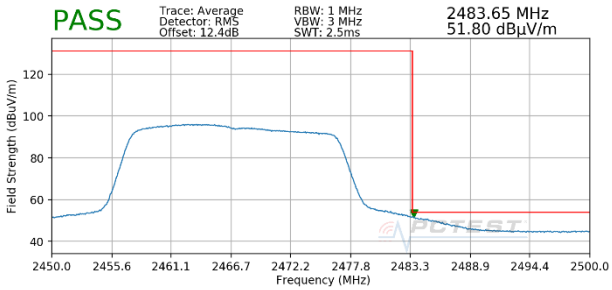


Plot 7-106. Radiated Restricted Upper Band Edge Measurement SISO ANT1 (Average – 242 Tones)

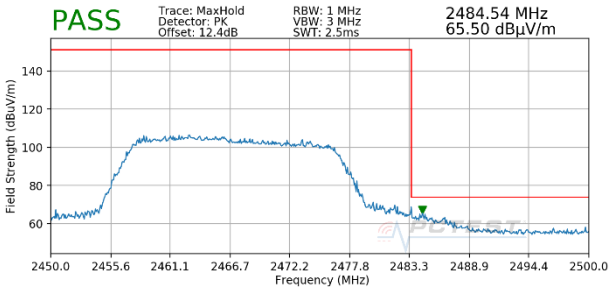


Plot 7-107. Radiated Restricted Upper Band Edge Measurement SISO ANT1 (Peak – 242 Tones)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2467MHz
Channel:	12



Plot 7-108. Radiated Restricted Upper Band Edge Measurement SISO ANT1 (Average – 242 Tones)



Plot 7-109. Radiated Restricted Upper Band Edge Measurement SISO ANT1 (Peak – 242 Tones)

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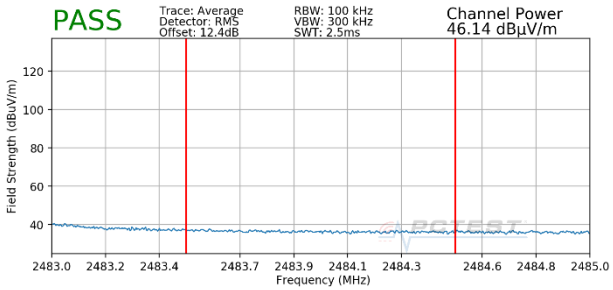
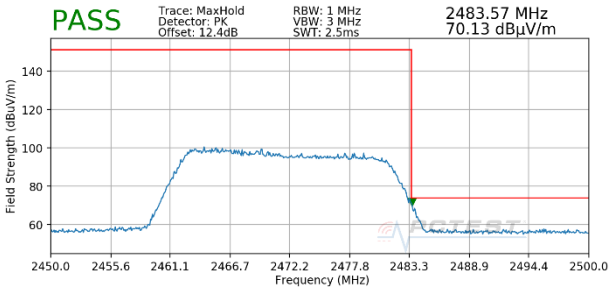
Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2472MHz
Channel:	13



Plot 7-110. Radiated Restricted Upper Band Edge Measurement SISO ANT1 (Average – 242 Tones)



Plot 7-111. Radiated Restricted Upper Band Edge Measurement SISO ANT1 (Peak – 242 Tones)

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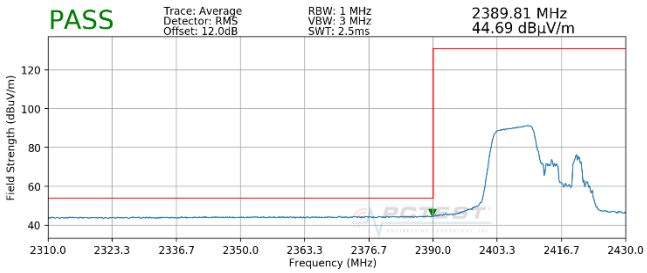
7.7.11 SISO Antenna-2 Radiated Restricted Band Edge Measurements

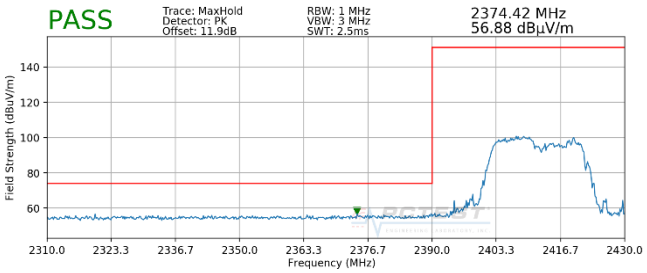
§15.205 §15.209; RSS-Gen [8.9]

The radiated restricted band edge measurements are measured with an EMI test receiver connected to the receive antenna while the EUT is transmitting.

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	53
Distance of Measurements:	3 Meters
Operating Frequency:	2412MHz
Channel:	1

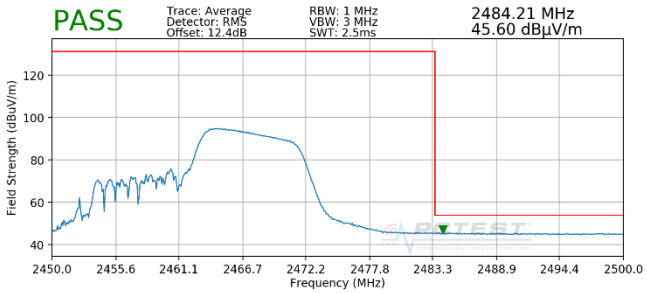


Plot 7-112. Radiated Restricted Lower Band Edge Measurement SISO ANT2 (Average – 106 Tones)

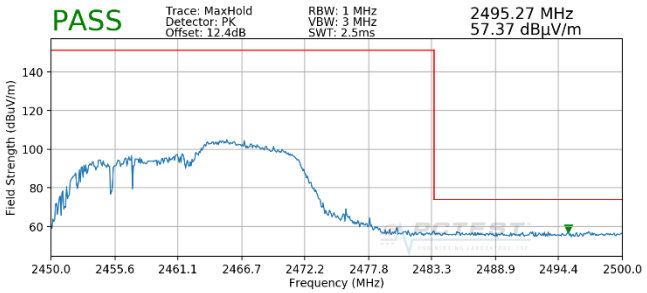


Plot 7-113. Radiated Restricted Lower Band Edge Measurement SISO ANT2 (Peak – 106 Tones)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	53
Distance of Measurements:	3 Meters
Operating Frequency:	2462MHz
Channel:	11



Plot 7-114. Radiated Restricted Upper Band Edge Measurement SISO ANT2 (Average – 106 Tones)



Plot 7-115. Radiated Restricted Upper Band Edge Measurement SISO ANT2 (Peak – 106 Tones)

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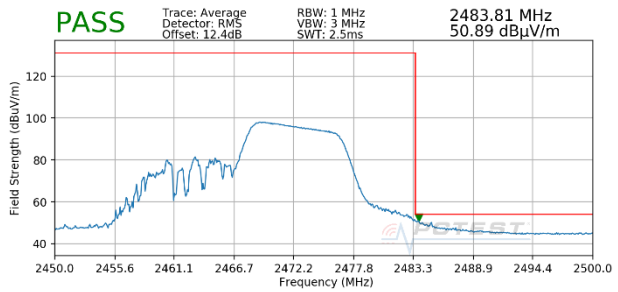
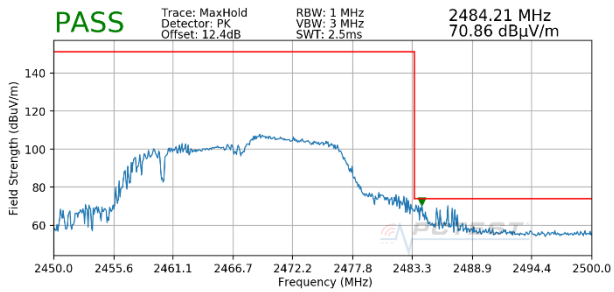
Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	54
Distance of Measurements:	3 Meters
Operating Frequency:	2467MHz
Channel:	12

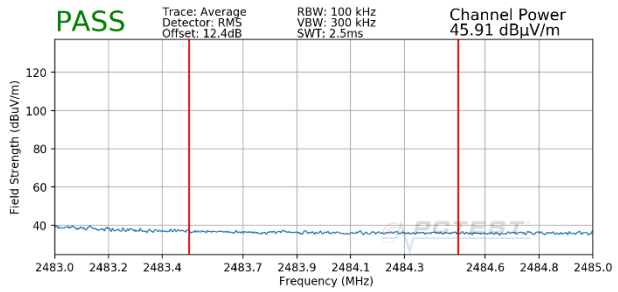


Plot 7-116. Radiated Restricted Upper Band Edge Measurement SISO ANT2 (Average – 106 Tones)

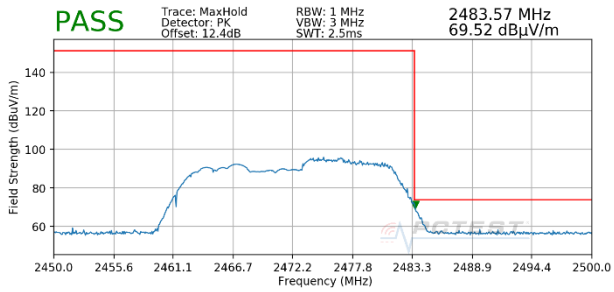


Plot 7-117. Radiated Restricted Upper Band Edge Measurement SISO ANT2 (Peak – 106 Tones)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	54
Distance of Measurements:	3 Meters
Operating Frequency:	2472MHz
Channel:	13



Plot 7-118. Radiated Restricted Upper Band Edge Measurement SISO ANT2 (Average – 106 Tones)



Plot 7-119. Radiated Restricted Upper Band Edge Measurement SISO ANT2 (Peak – 106 Tones)

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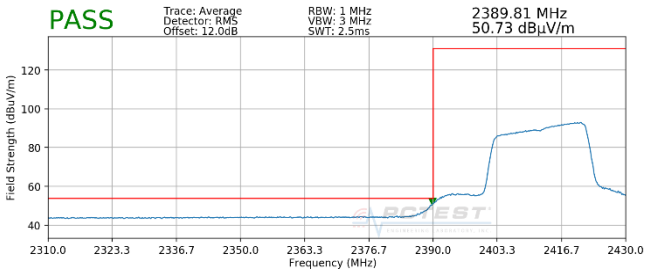
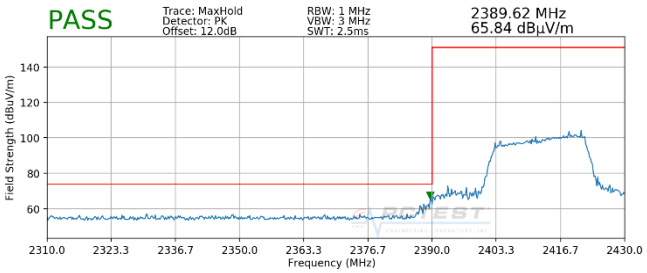
Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2412MHz
Channel:	1

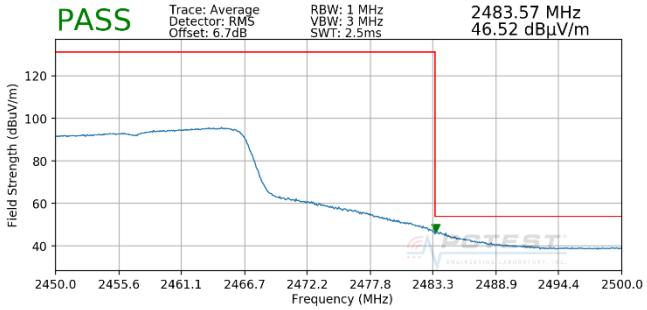


Plot 7-120. Radiated Restricted Lower Band Edge Measurement SISO ANT2 (Average – 242 Tones)

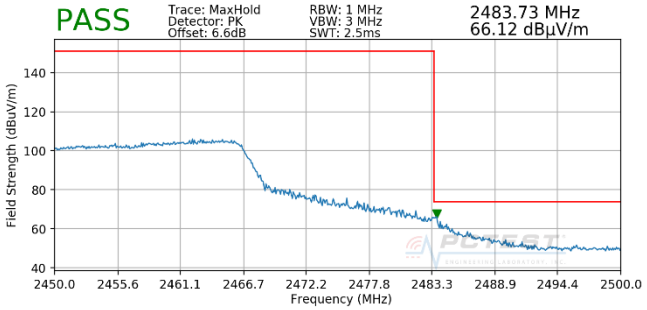


Plot 7-121. Radiated Restricted Lower Band Edge Measurement SISO ANT2 (Peak – 242 Tones)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2457MHz
Channel:	10



Plot 7-122. Radiated Restricted Lower Band Edge Measurement SISO ANT2 (Average – 242 Tones)



Plot 7-123. Radiated Restricted Lower Band Edge Measurement SISO ANT2 (Peak – 242 Tones)

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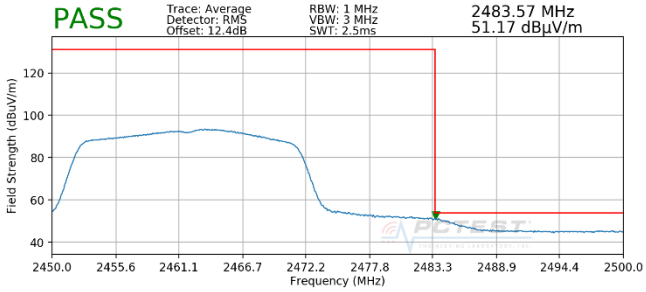
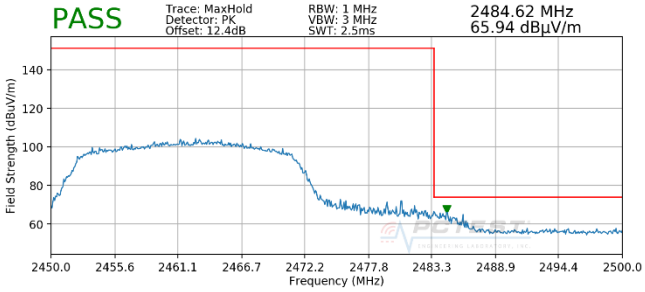
Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2462MHz
Channel:	11

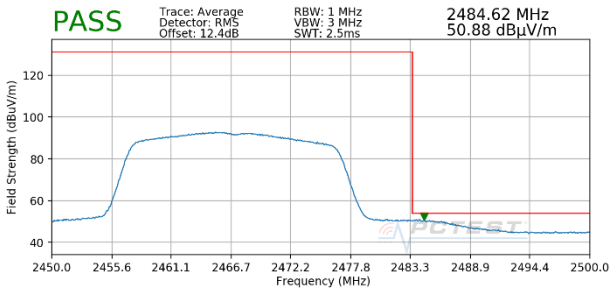


Plot 7-124. Radiated Restricted Upper Band Edge Measurement SISO ANT2 (Average – 242 Tones)

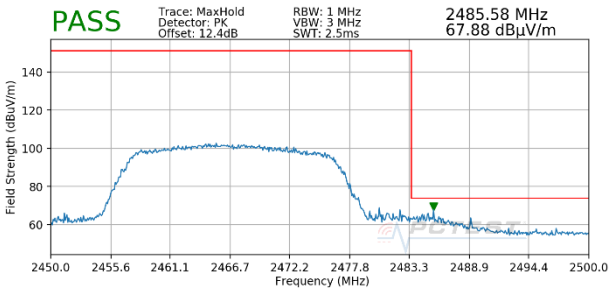


Plot 7-125. Radiated Restricted Upper Band Edge Measurement SISO ANT2 (Peak – 242 Tones)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2467MHz
Channel:	12



Plot 7-126. Radiated Restricted Upper Band Edge Measurement SISO ANT2 (Average – 242 Tones)



Plot 7-127. Radiated Restricted Upper Band Edge Measurement SISO ANT2 (Peak – 242 Tones)

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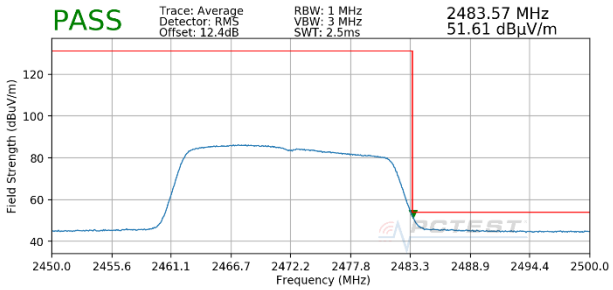
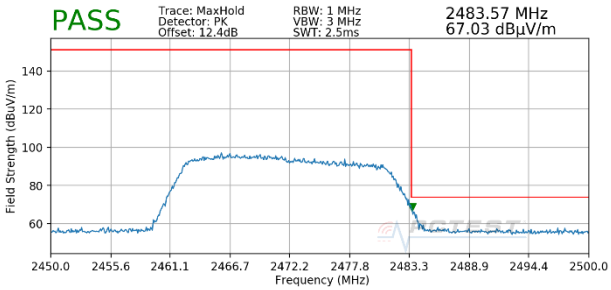
Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2472MHz
Channel:	13



Plot 7-128. Radiated Restricted Upper Band Edge Measurement SISO ANT2 (Average – 242 Tones)



Plot 7-129. Radiated Restricted Upper Band Edge Measurement SISO ANT2 (Peak – 242 Tones)

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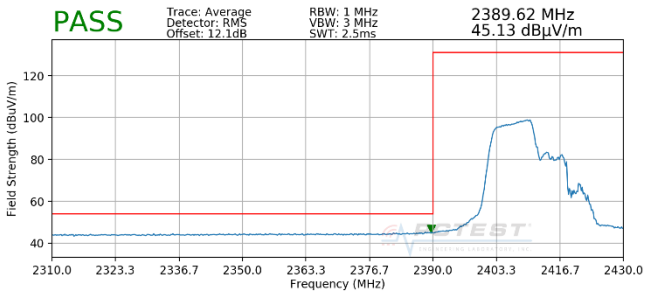
7.7.12 MIMO Radiated Restricted Band Edge Measurements

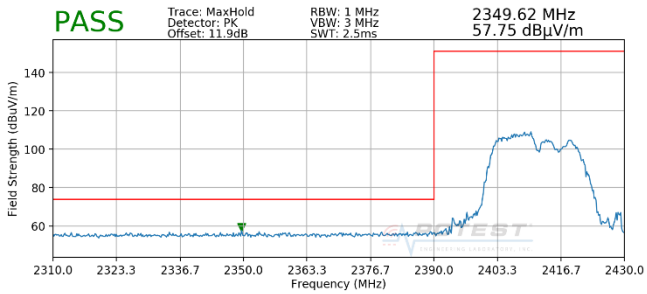
§15.205 §15.209; RSS-Gen [8.9]

The radiated restricted band edge measurements are measured with an EMI test receiver connected to the receive antenna while the EUT is transmitting.

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	53
Distance of Measurements:	3 Meters
Operating Frequency:	2412MHz
Channel:	1

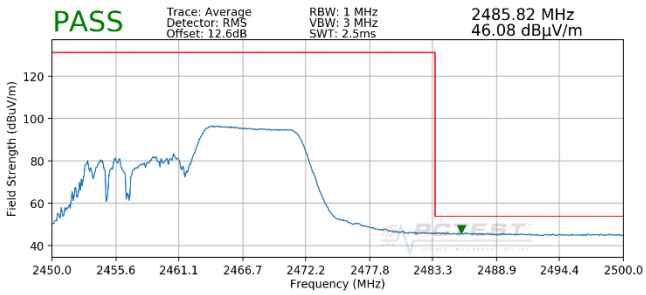


Plot 7-130. Radiated Restricted Lower Band Edge Measurement MIMO (Average – 106 Tones)

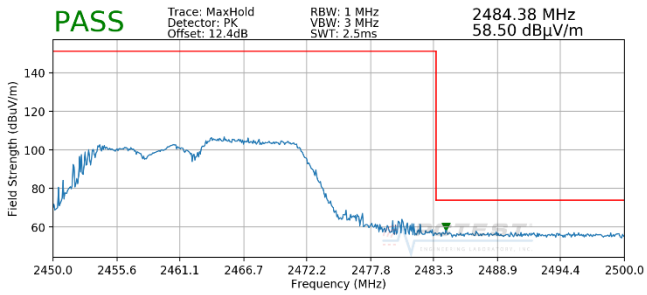


Plot 7-131. Radiated Restricted Lower Band Edge Measurement MIMO (Peak – 106 Tones)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	53
Distance of Measurements:	3 Meters
Operating Frequency:	2462MHz
Channel:	11



Plot 7-132. Radiated Restricted Upper Band Edge Measurement MIMO (Average – 106 Tones)



Plot 7-133. Radiated Restricted Upper Band Edge Measurement MIMO (Peak – 106 Tones)

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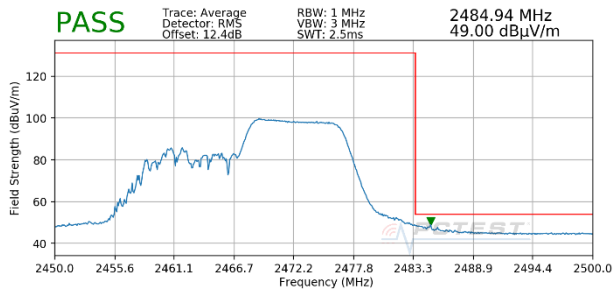
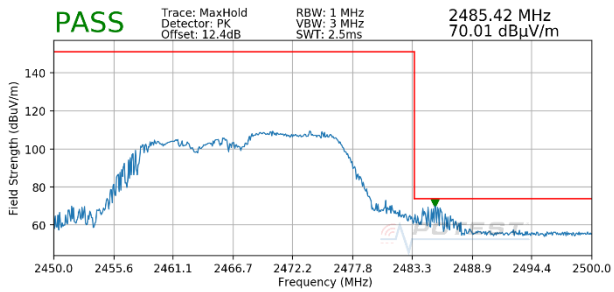
Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	54
Distance of Measurements:	3 Meters
Operating Frequency:	2467MHz
Channel:	12

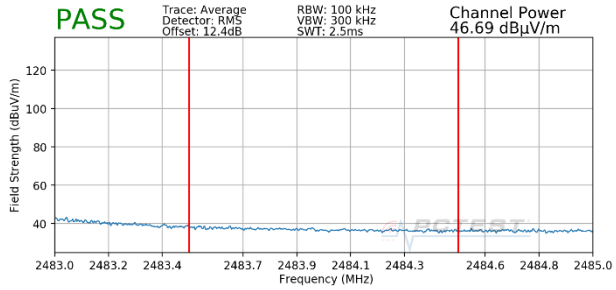


Plot 7-134. Radiated Restricted Upper Band Edge Measurement MIMO (Average – 106 Tones)

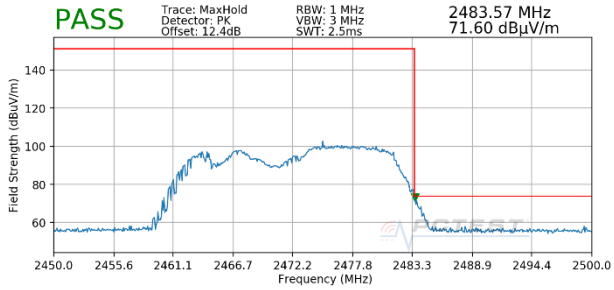


Plot 7-135. Radiated Restricted Upper Band Edge Measurement MIMO (Peak – 106 Tones)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	54
Distance of Measurements:	3 Meters
Operating Frequency:	2472MHz
Channel:	13



Plot 7-136. Radiated Restricted Upper Band Edge Measurement MIMO (Average – 106 Tones)



Plot 7-137. Radiated Restricted Upper Band Edge Measurement MIMO (Peak – 106 Tones)

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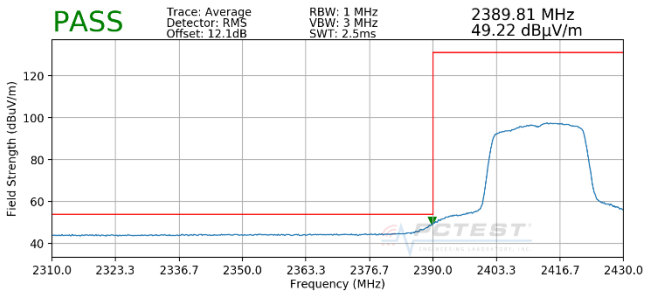
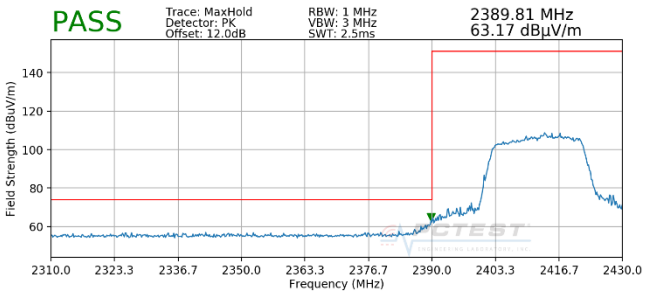
Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2412MHz
Channel:	1

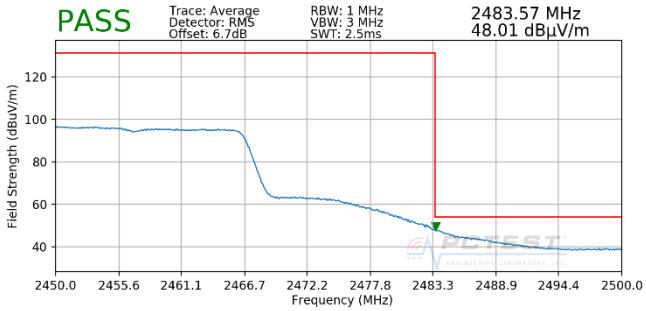


Plot 7-138. Radiated Restricted Lower Band Edge Measurement MIMO (Average – 242 Tones)

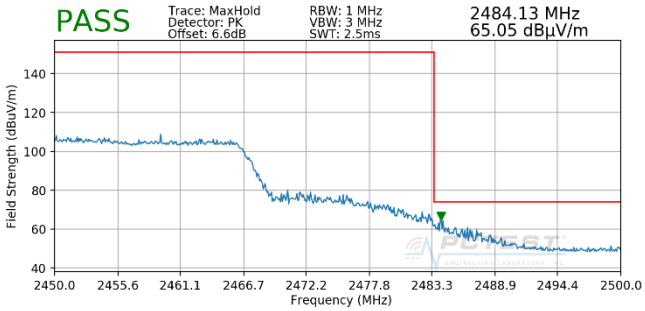


Plot 7-139. Radiated Restricted Lower Band Edge Measurement MIMO (Peak – 242 Tones)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2457MHz
Channel:	10



Plot 7-140. Radiated Restricted Lower Band Edge Measurement MIMO (Average – 242 Tones)



Plot 7-141. Radiated Restricted Lower Band Edge Measurement MIMO (Peak – 242 Tones)

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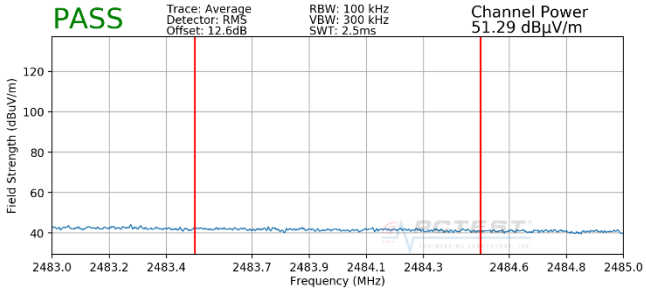
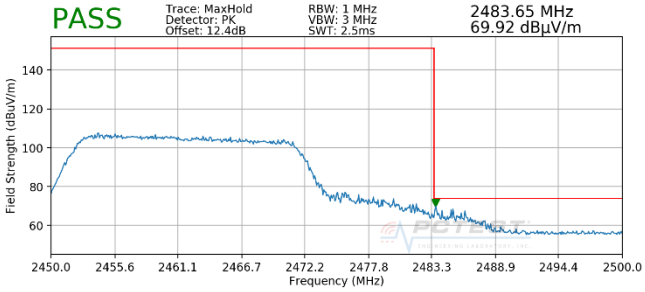
Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2462MHz
Channel:	11

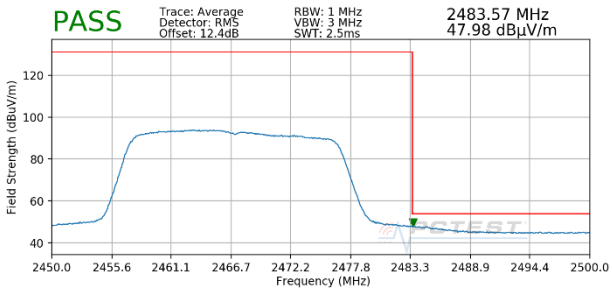


Plot 7-142. Radiated Restricted Upper Band Edge Measurement MIMO (Average – 242 Tones)

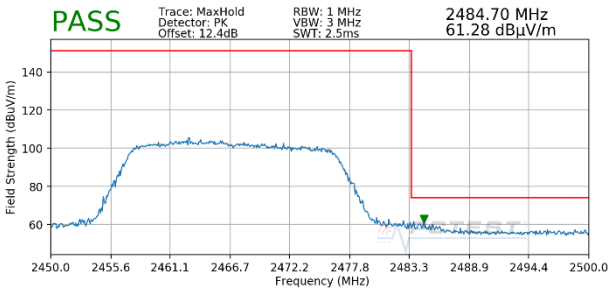


Plot 7-143. Radiated Restricted Upper Band Edge Measurement MIMO (Peak – 242 Tones)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2467MHz
Channel:	12



Plot 7-144. Radiated Restricted Upper Band Edge Measurement MIMO (Average – 242 Tones)



Plot 7-145. Radiated Restricted Upper Band Edge Measurement MIMO (Peak – 242 Tones)

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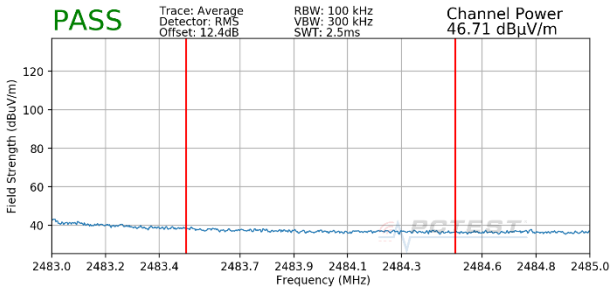
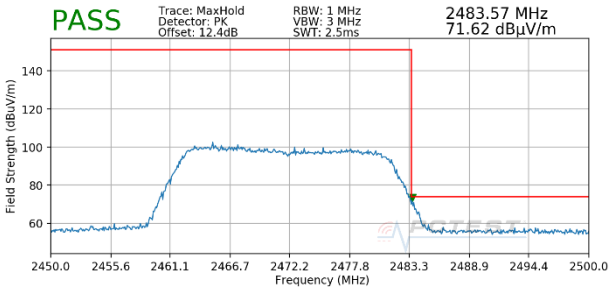
Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS0
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2472MHz
Channel:	13



Plot 7-146. Radiated Restricted Upper Band Edge Measurement MIMO (Average – 242 Tones)



Plot 7-147. Radiated Restricted Upper Band Edge Measurement MIMO (Peak – 242 Tones)

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7.8 Radiated Spurious Emissions Measurements – 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 and Table 6 of RSS-Gen (8.10) must not exceed the limits shown in Table 7-38 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 7-38. Radiated Limits

Test Procedures Used

ANSI C63.10-2013

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

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Test Setup

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

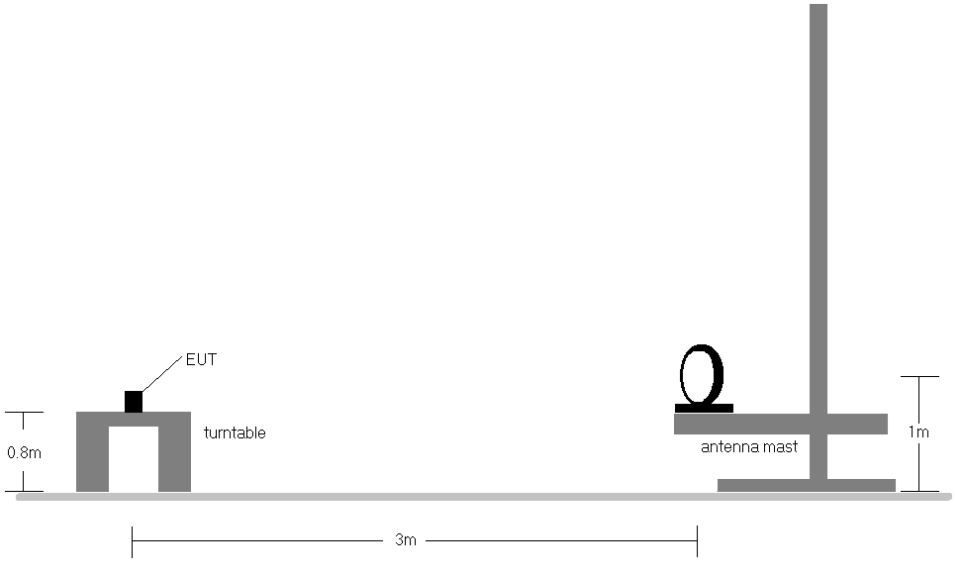

Figure 7-7. Radiated Test Setup < 30Mhz

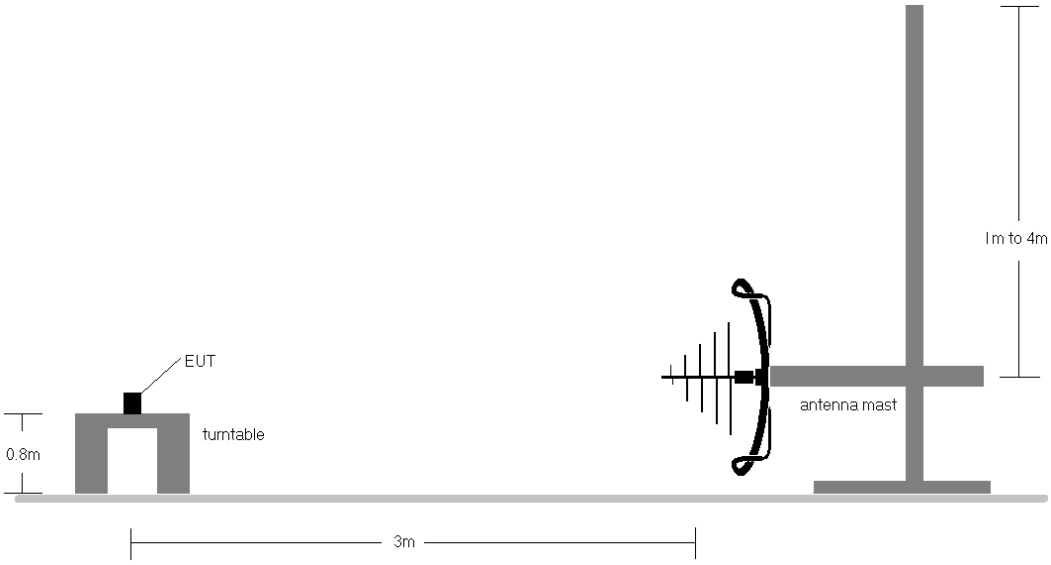

Figure 7-8. Radiated Test Setup < 1GHz

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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 7-38.
2. The broadband receive antenna is manipulated through vertical and horizontal polarizations during the tests. The EUT is manipulated through three orthogonal planes.
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. The worst-case emissions are reported however emissions whose levels were not within 20dB of the respective limits were not reported.
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. The wide spectrum spurious emissions plots shown on the following pages are used only for the purpose of emission identification. There were no emissions detected in the 30MHz – 1GHz frequency range, as shown in the subsequent plots.

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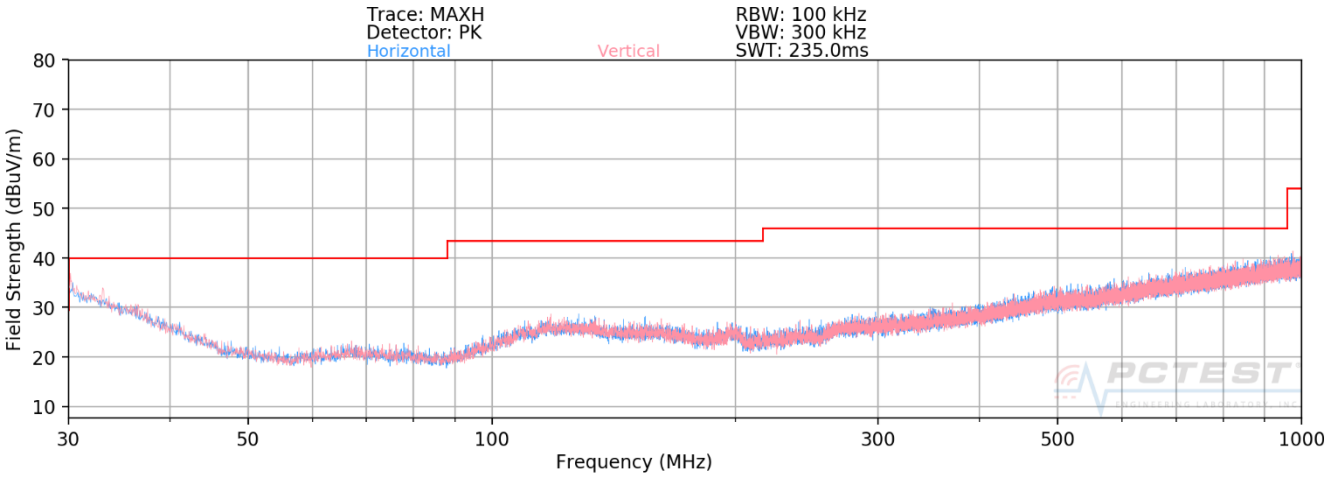
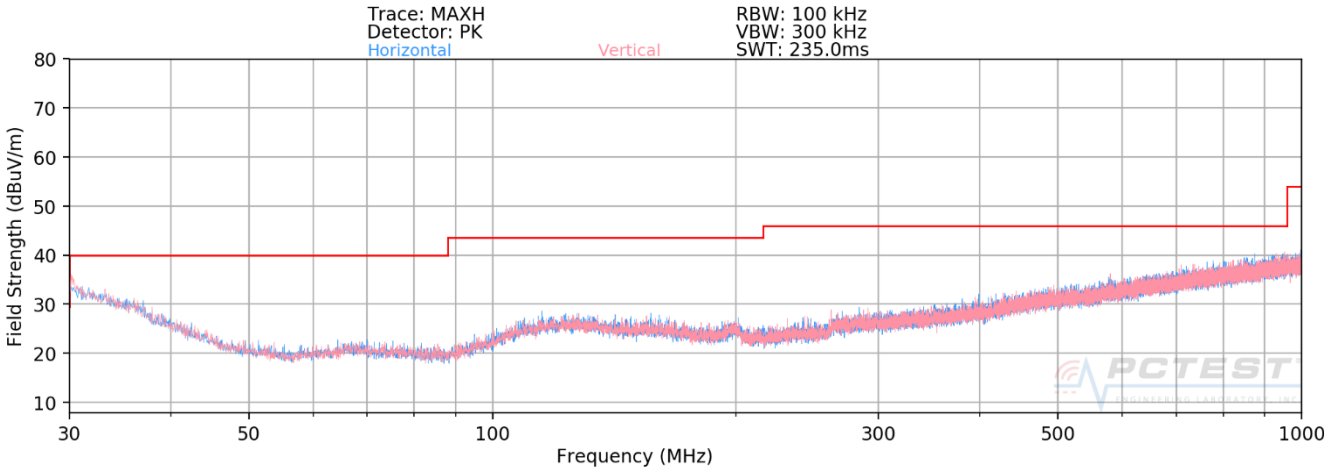
7.8.1 MIMO Radiated Spurious Emissions Measurements (Below 1GHz)

§15.209; RSS-Gen [8.9]



Plot 7-148. Radiated Spurious Plot below 1GHz MIMO (106 Tones)



Plot 7-149. Radiated Spurious Plot below 1GHz MIMO (242 Tones)

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8.0 CONCLUSION

The data collected relate only the item(s) tested and show that the **Samsung Portable Handset FCC ID: A3LSMG986JPN** is in compliance with Part 15 Subpart C (15.247) of the FCC Rules.

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