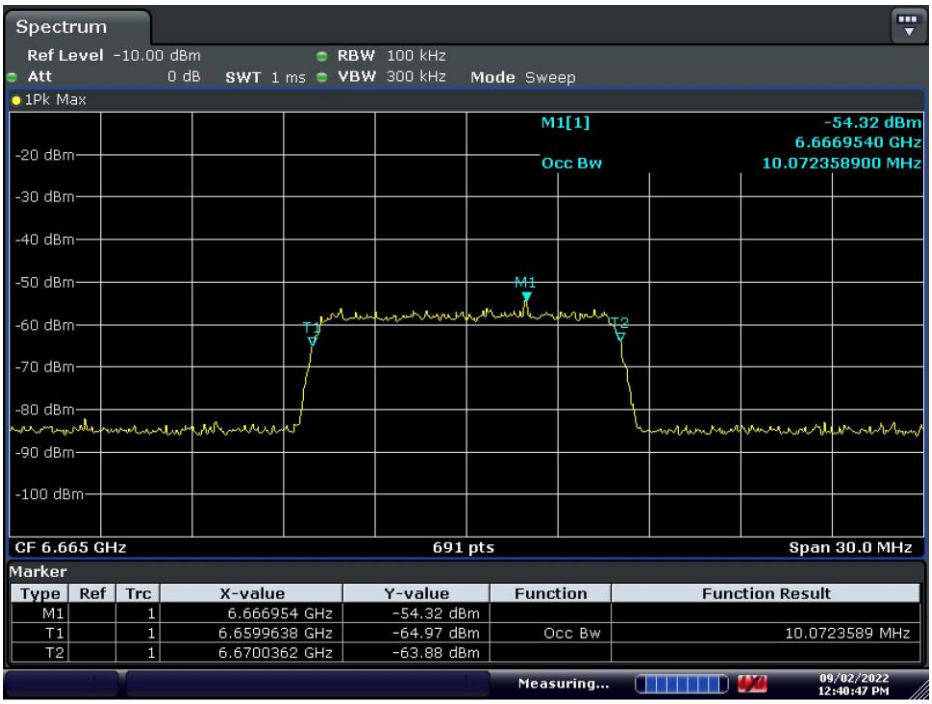
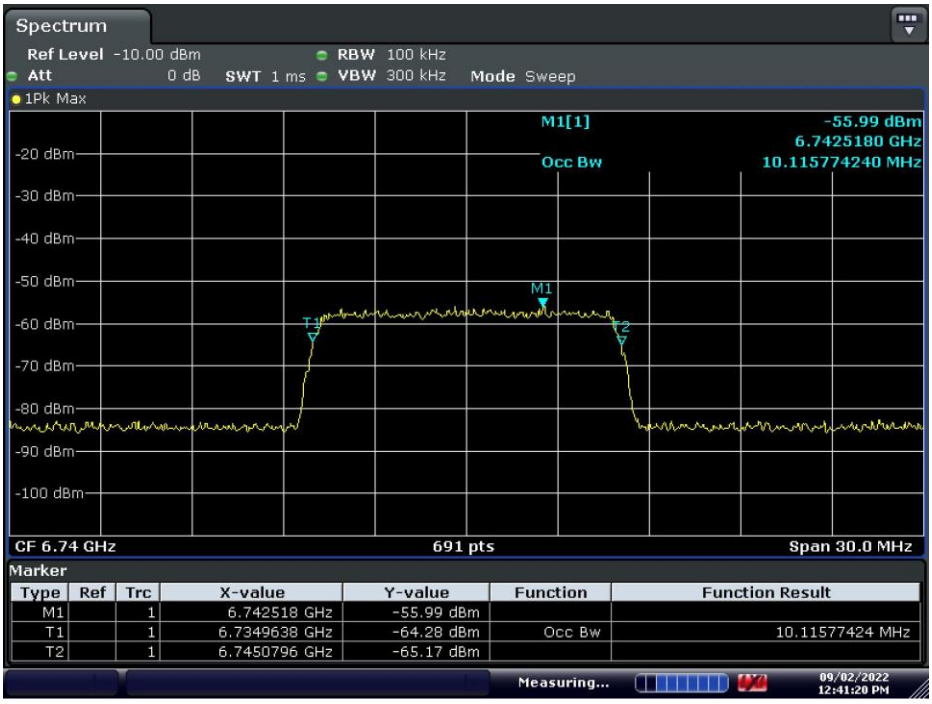
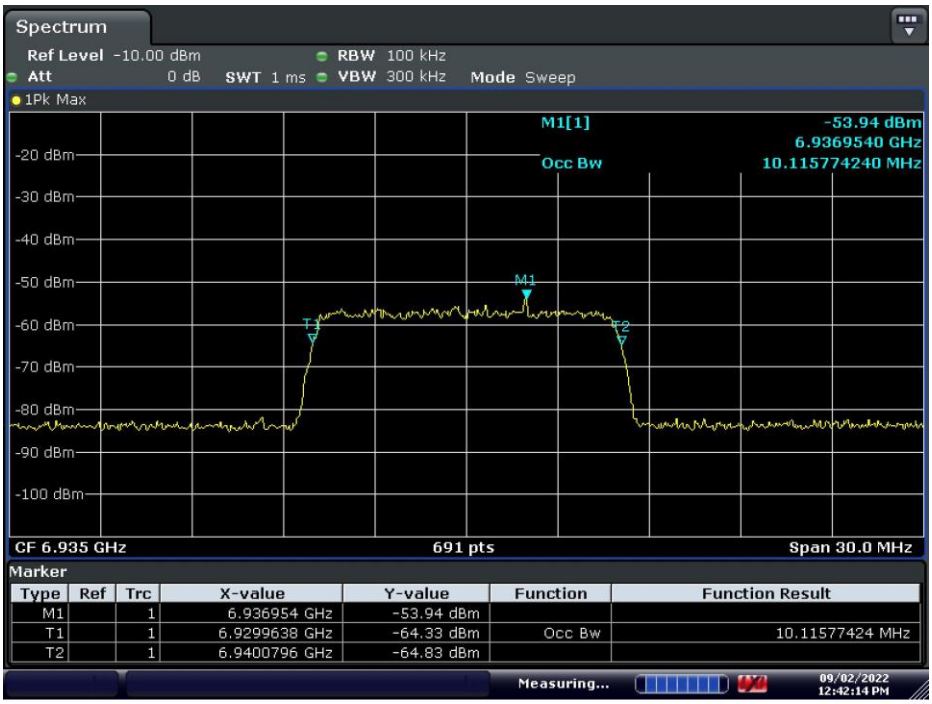


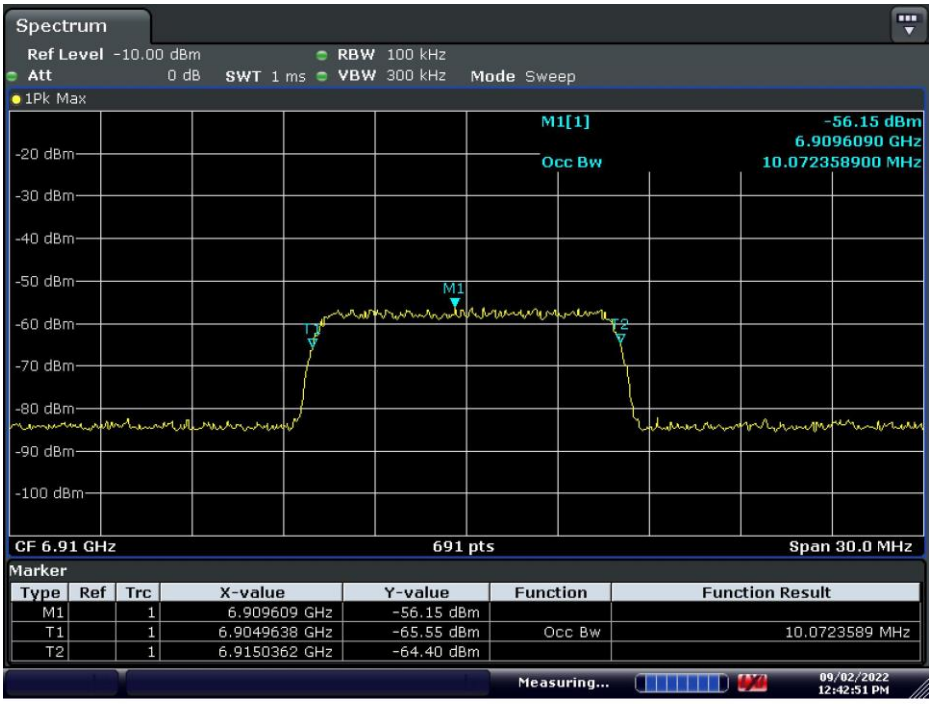
Plot 7-571. AWGN Signal – UNII 7 – 160MHz – Mid



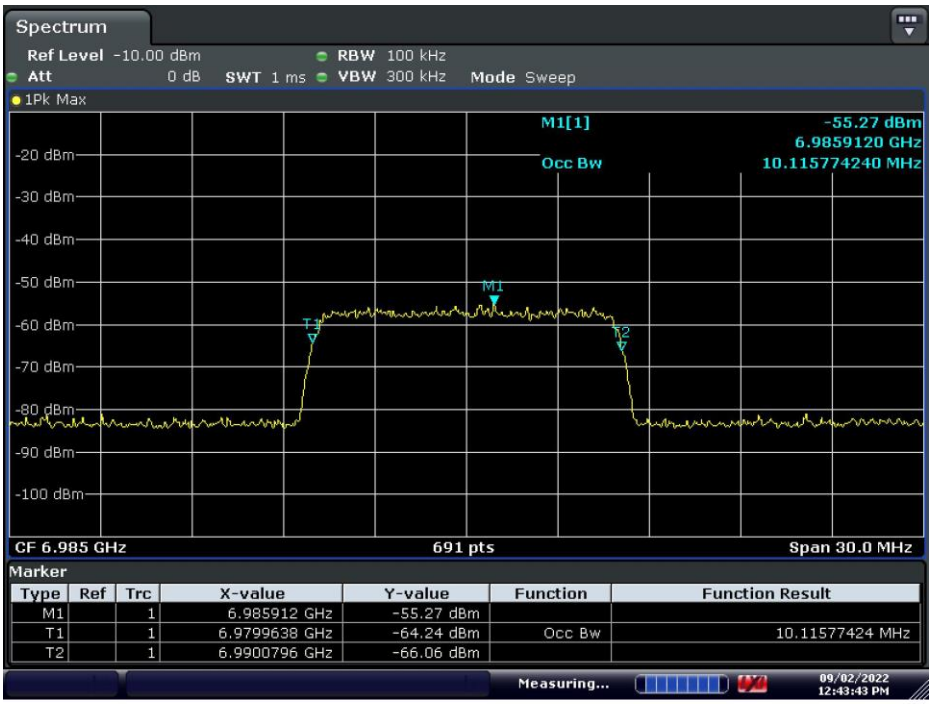
Plot 7-572. AWGN Signal – UNII 7 – 160MHz - High



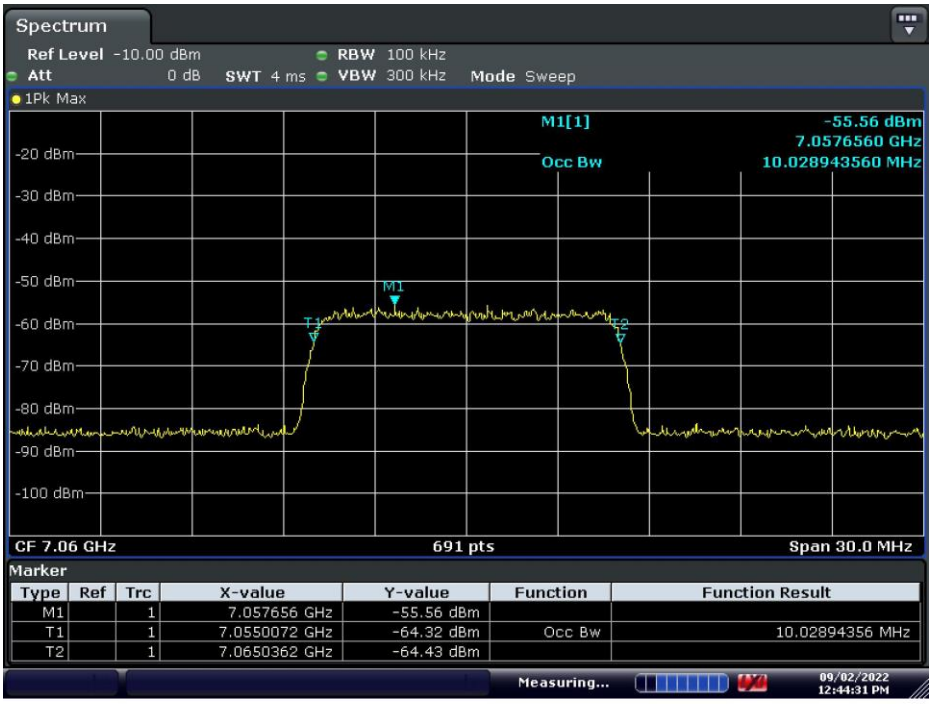
Plot 7-573. AWGN Signal – UNII 8 – 20MHz



Plot 7-574. AWGN Signal – UNII 8 – 160MHz - Low

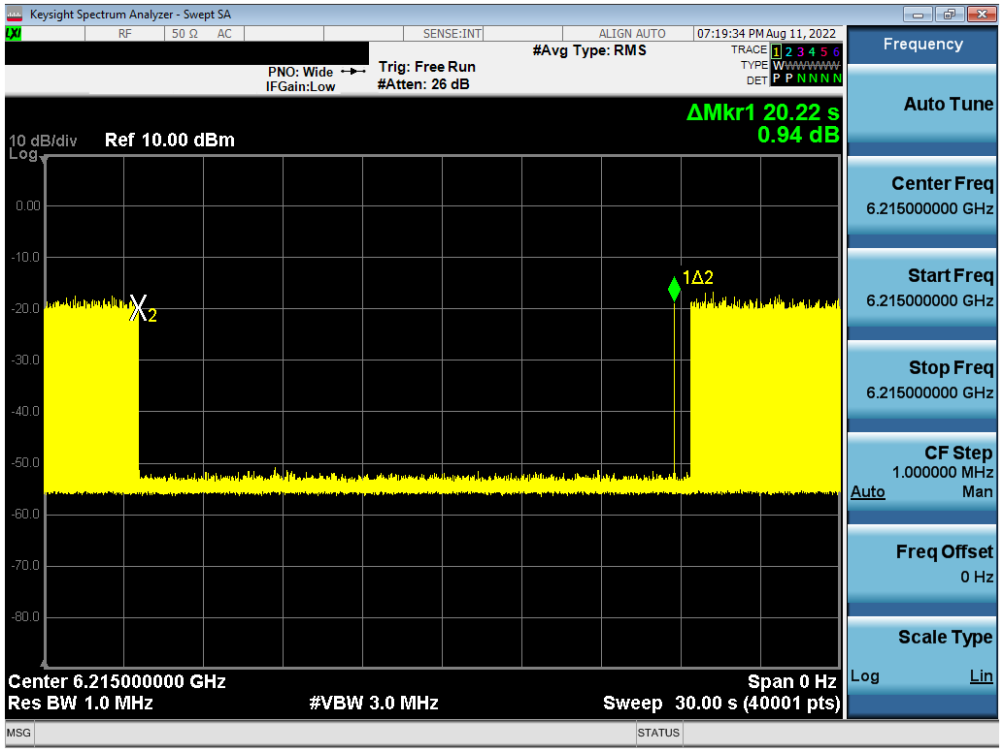


Plot 7-575. AWGN Signal – UNII 8 – 160MHz – Mid

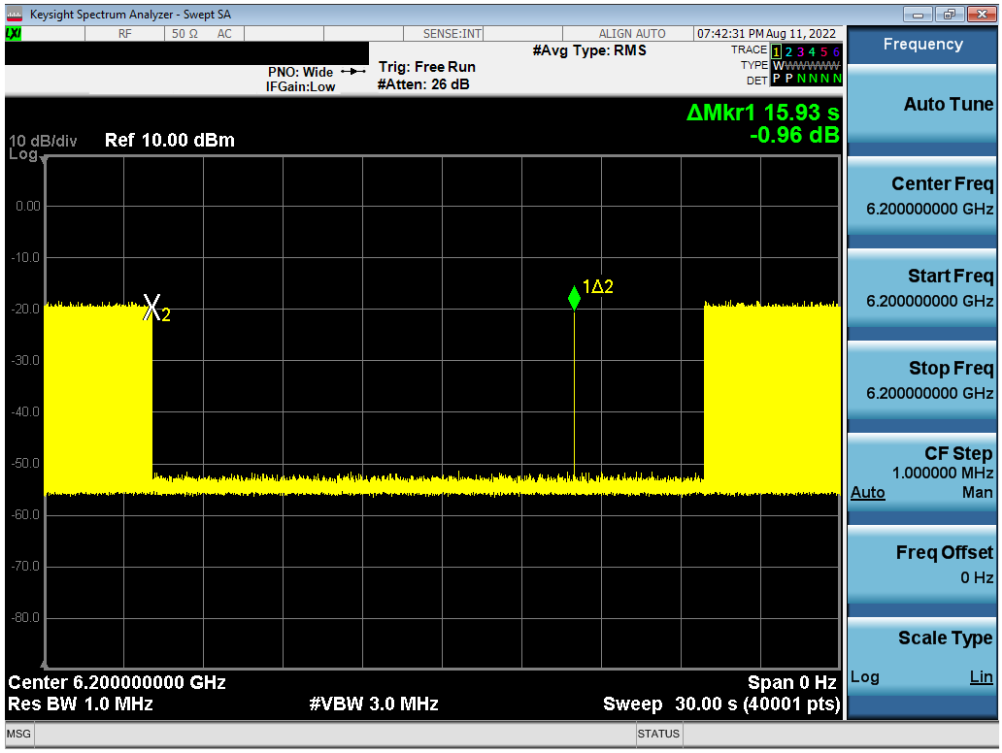


Plot 7-576. AWGN Signal – UNII 8 – 160MHz - High

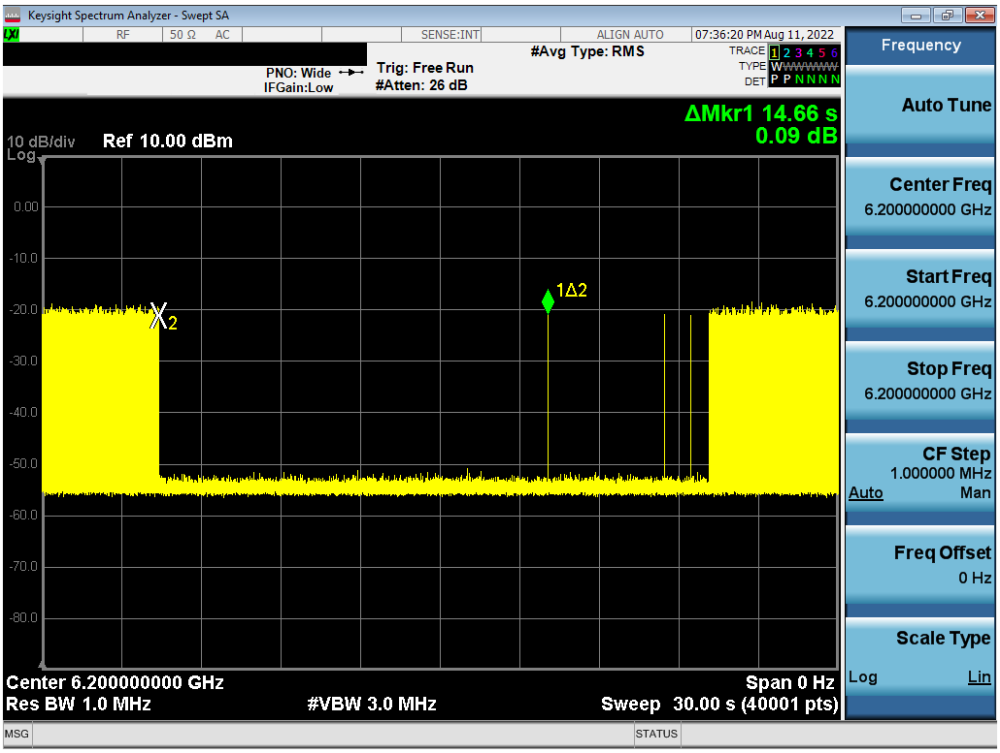
Contention-Based Protocol Timing Plots



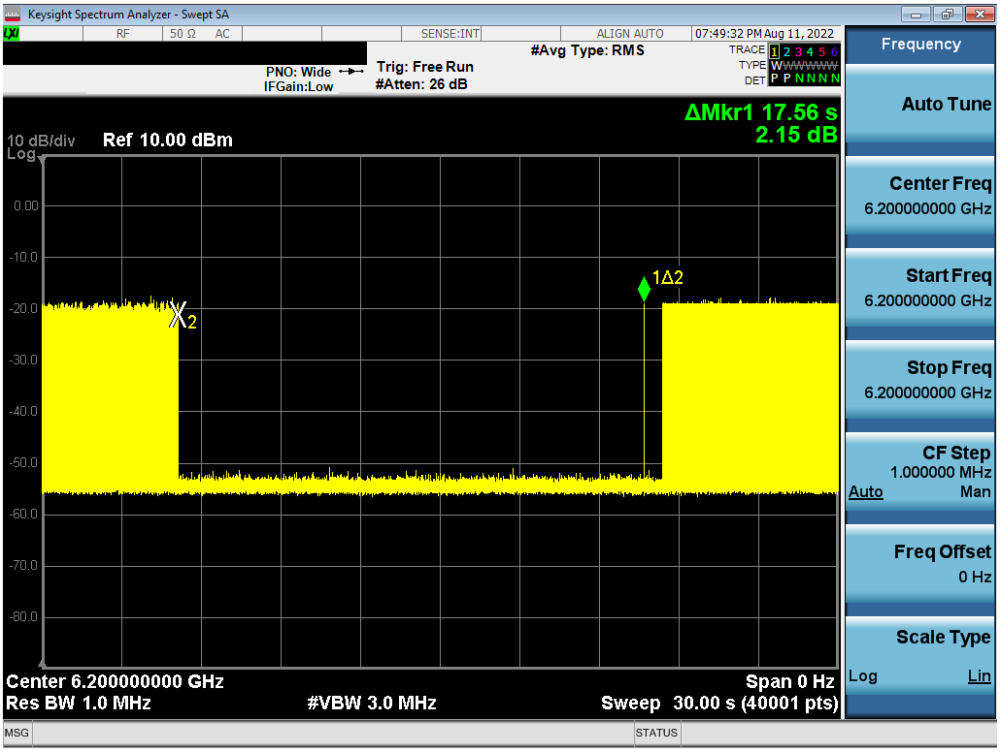
Plot 7-577. Contention Based Protocol Timing Plot – UNII 5 – 20MHz Channel 53



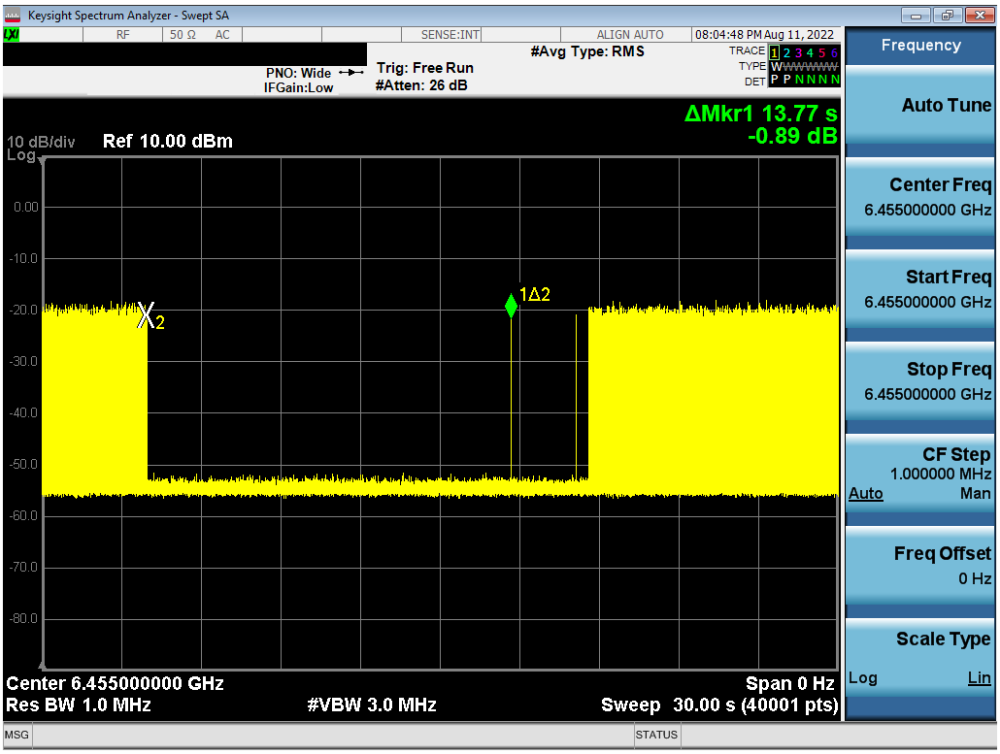
Plot 7-578. Contention Based Protocol Timing Plot – UNII 5 – 160MHz Channel 47 – Low



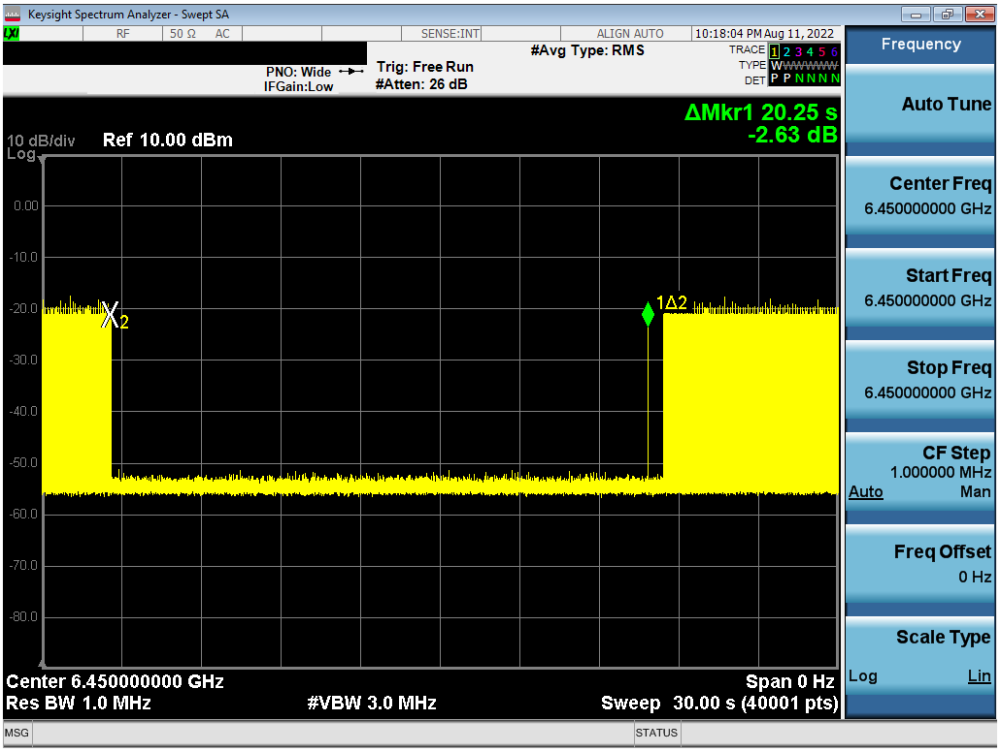
Plot 7-579. Contention Based Protocol Timing Plot – UNII 5 – 160MHz Channel 47 – Mid



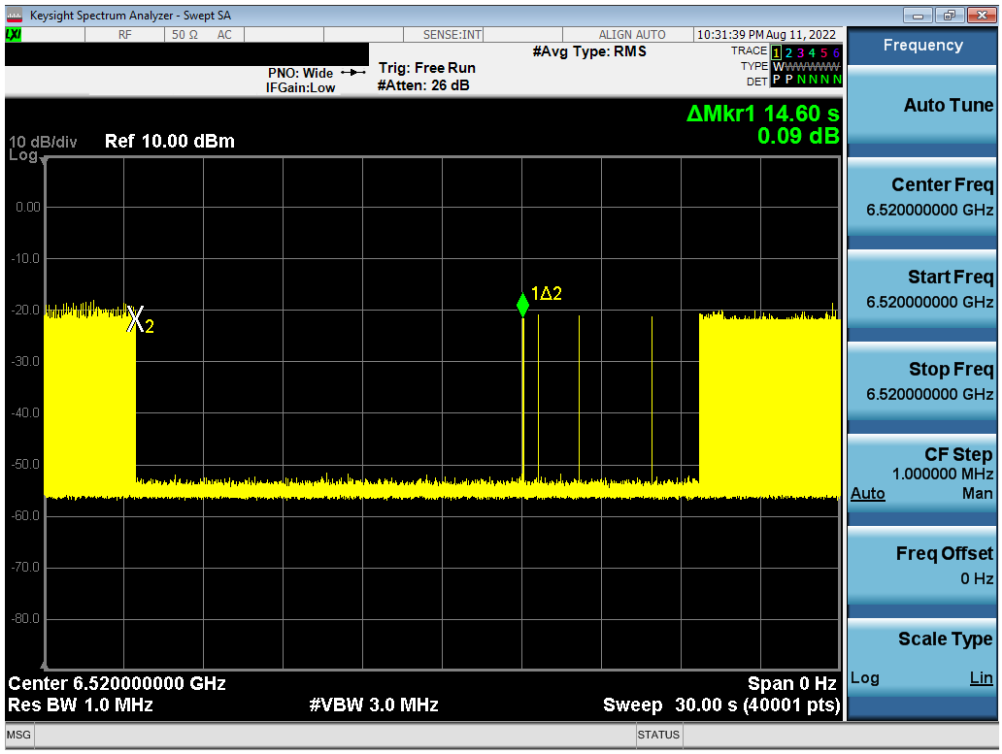
Plot 7-580. Contention Based Protocol Timing Plot – UNII 5 – 160MHz Channel 47 – High



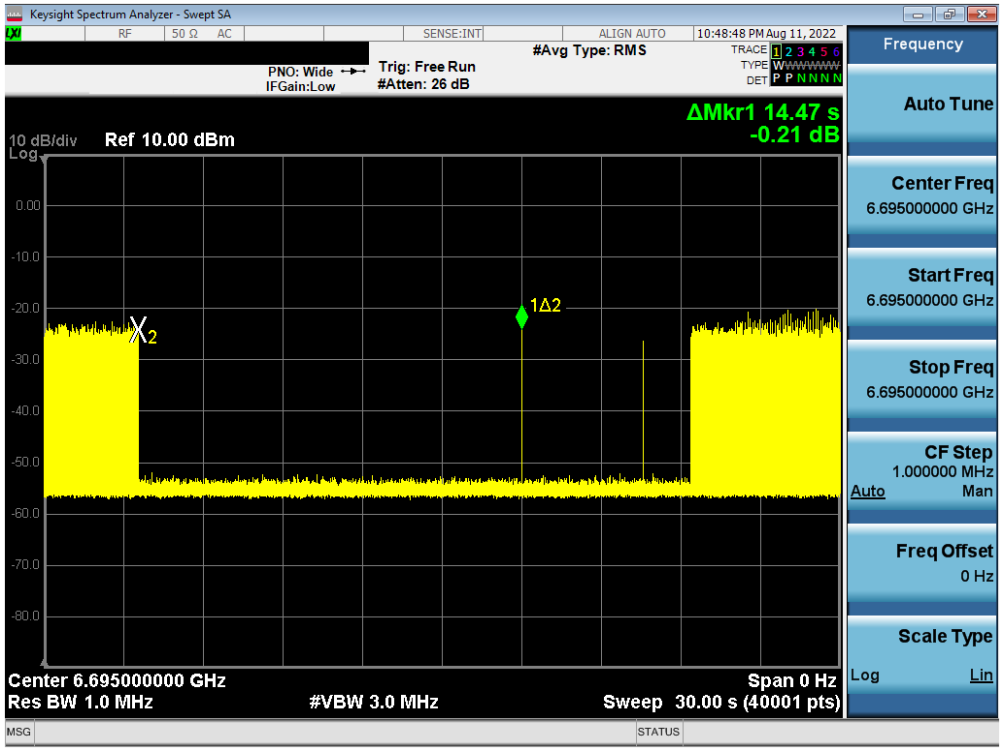
Plot 7-581. Contention Based Protocol Timing Plot – UNII 6 – 20MHz Channel 101



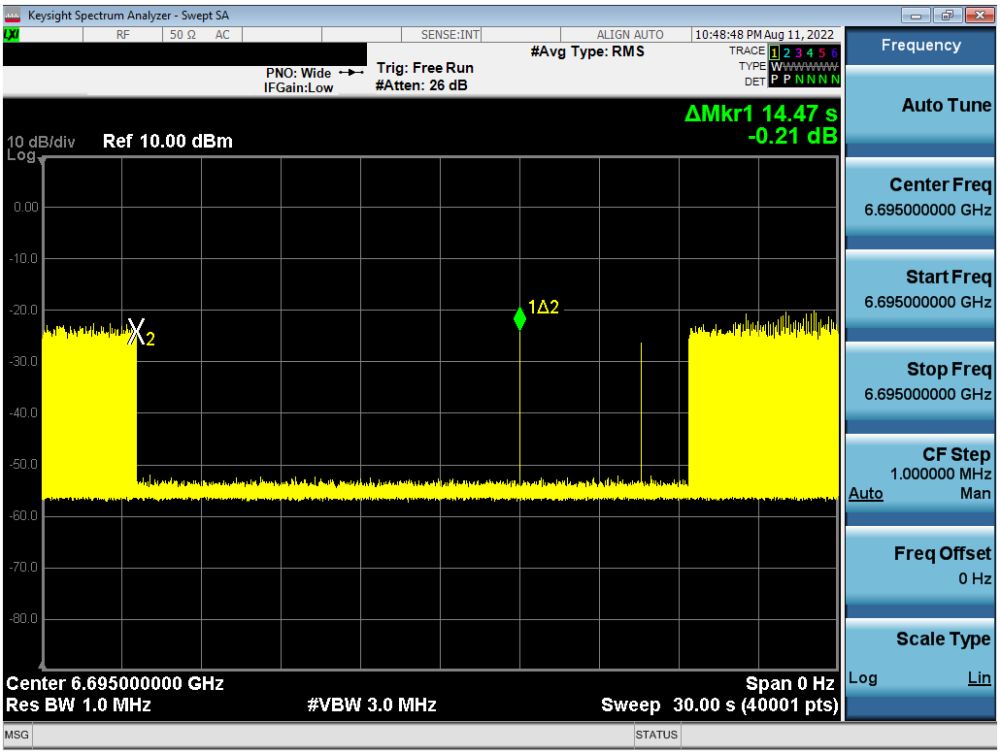
Plot 7-582. Contention Based Protocol Timing Plot – UNII 6 – 160MHz Channel 111 – Low



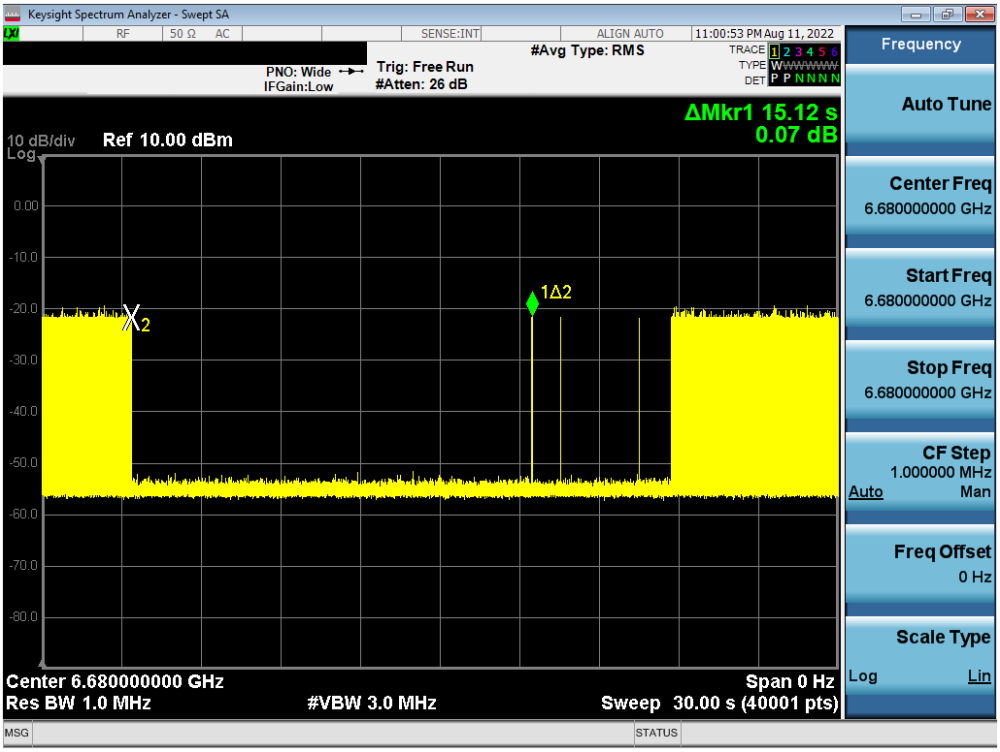
Plot 7-583. Contention Based Protocol Timing Plot – UNII 6 – 160MHz Channel 111 – Mid



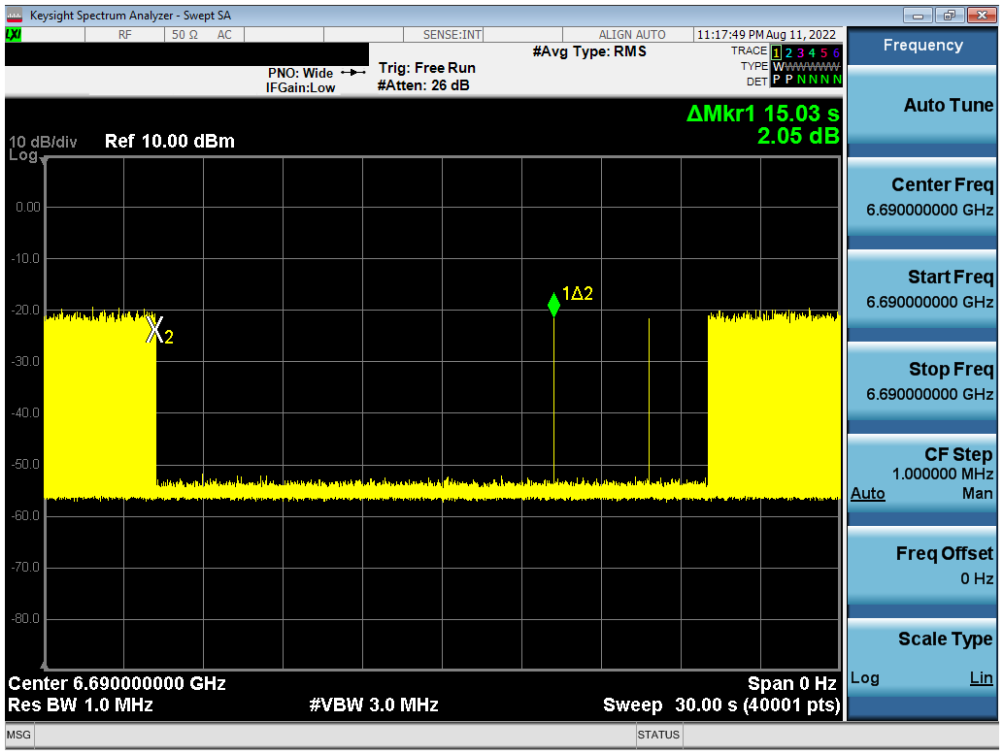
Plot 7-584. Contention Based Protocol Timing Plot – UNII 6 – 160MHz Channel 111 – High



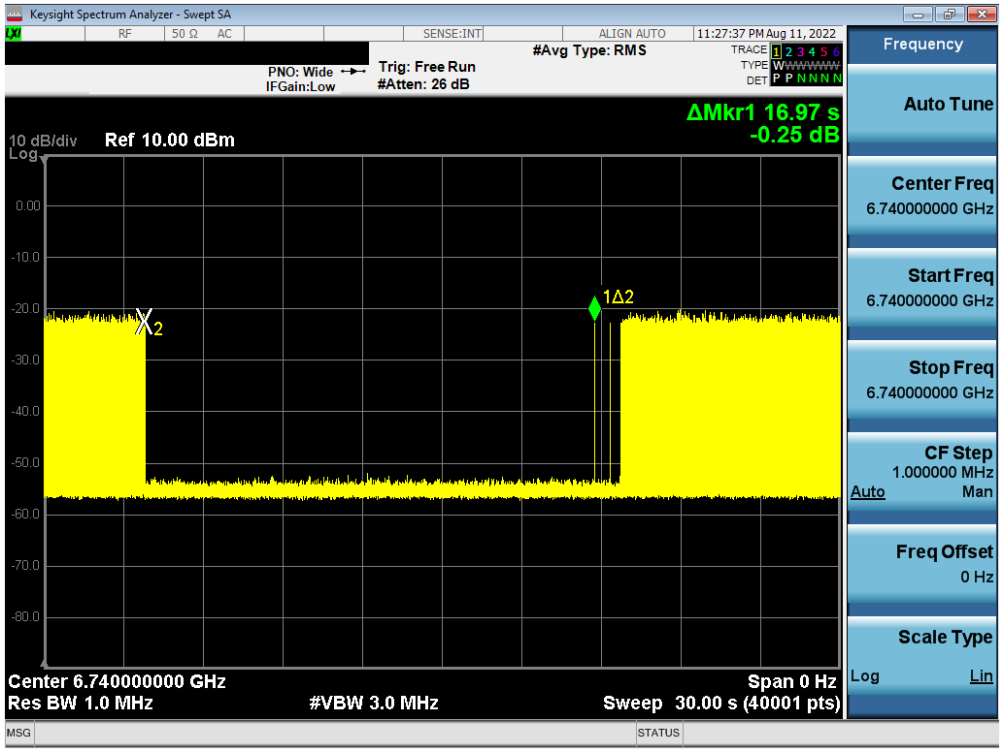
Plot 7-585. Contention Based Protocol Timing Plot – UNII 7 – 20MHz Channel 149



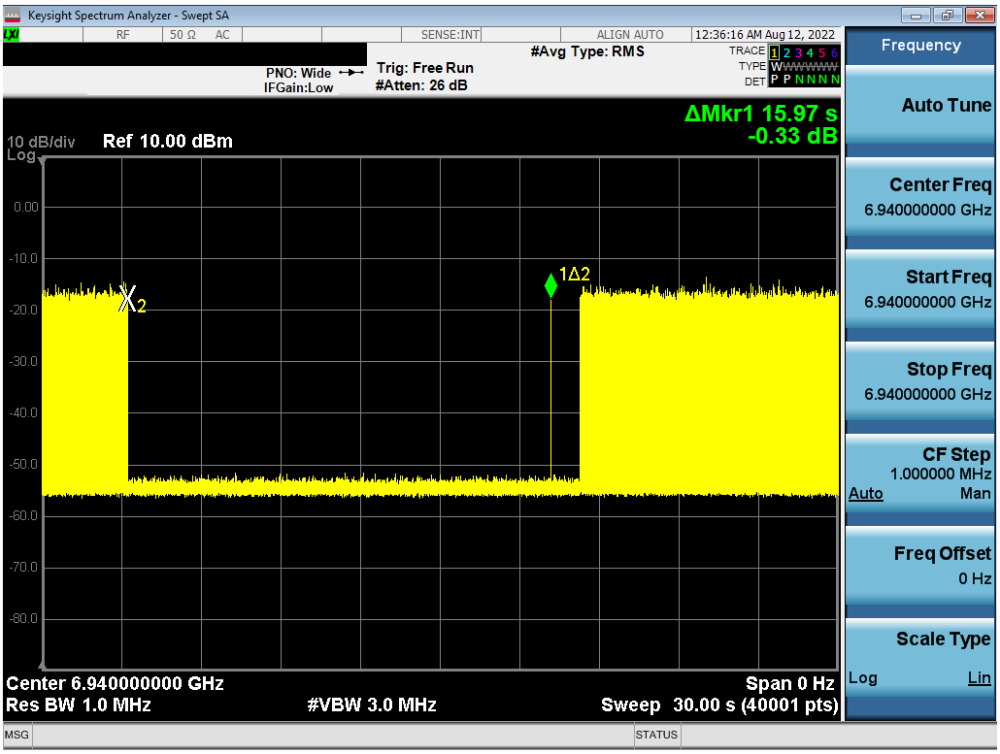
Plot 7-586. Contention Based Protocol Timing Plot – UNII 7 – 160MHz Channel 143 – Low



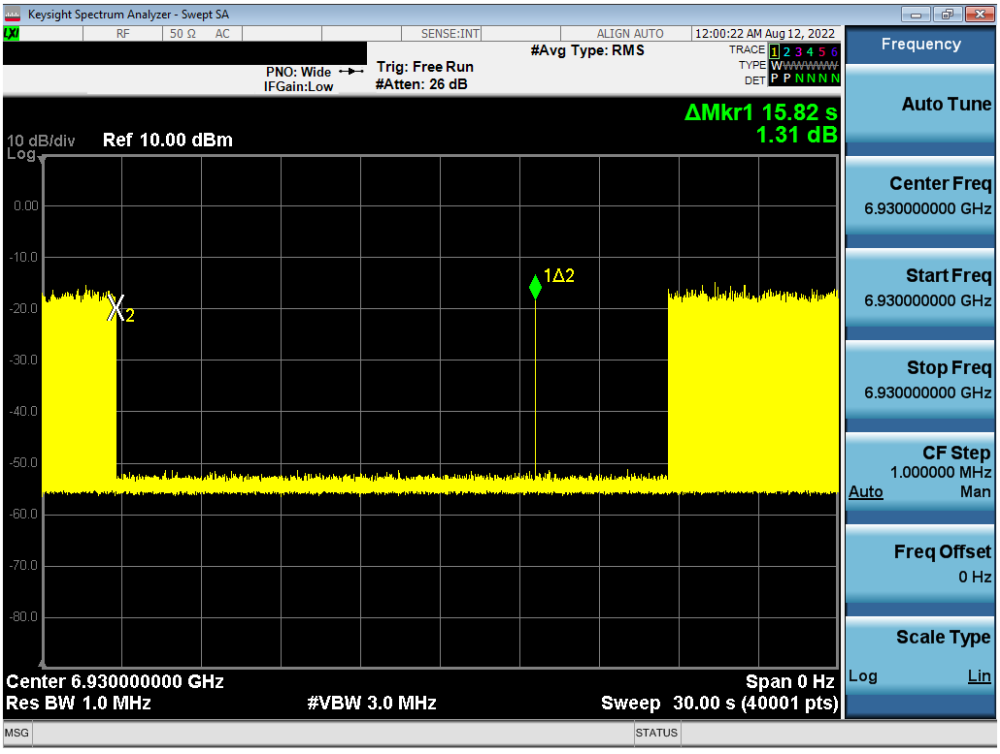
Plot 7-587. Contention Based Protocol Timing Plot – UNII 7 – 160MHz Channel 143 – Mid



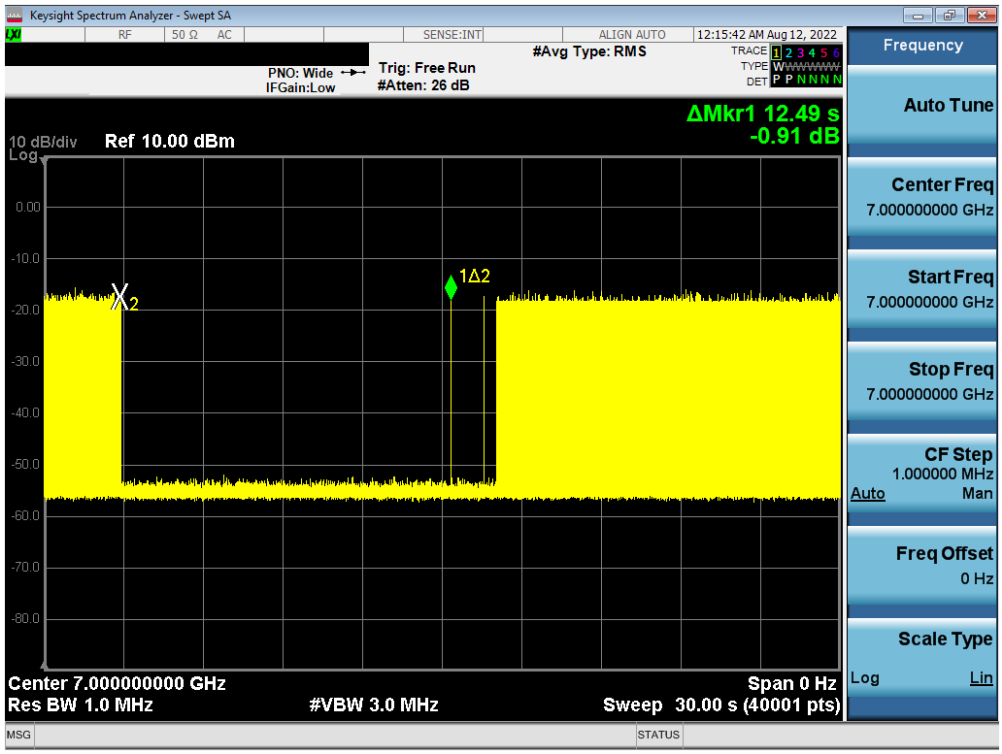
Plot 7-588. Contention Based Protocol Timing Plot – UNII 7 – 160MHz Channel 143 – High



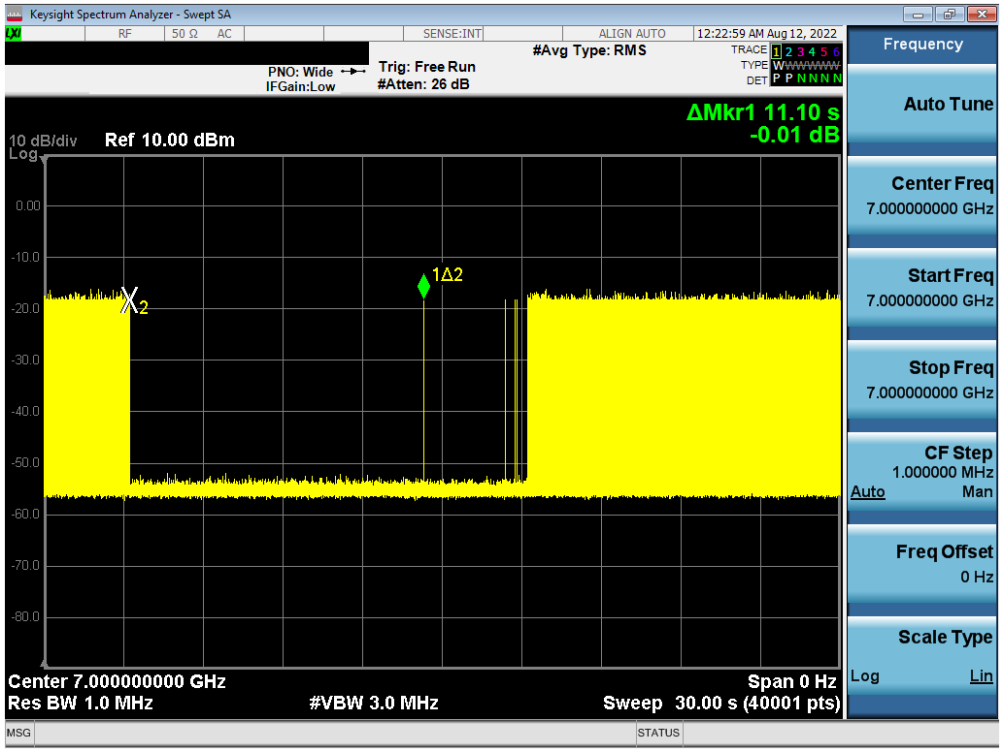
Plot 7-589. Contention Based Protocol Timing Plot – UNII 8 – 20MHz Channel 197



Plot 7-590. Contention Based Protocol Timing Plot – UNII 8 – 160MHz Channel 207 – Low



Plot 7-591. Contention Based Protocol Timing Plot – UNII 8 – 160MHz Channel 207 – Mid



Plot 7-592. Contention Based Protocol Timing Plot – UNII 8 – 160MHz Channel 207 – High

7.7 Radiated Spurious Emissions – Above 1GHz

§15.407(b) §15.205 §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 its maximum power control level, as defined in ANSI C63.10-2013 and KDB 789033 D02 v02r01, and at the appropriate frequencies. All channels, modes (e.g. 802.11a, 802.11n, 802.11ax(SU) (20MHz BW), 802.11n, 802.11ax(SU) (40MHz BW), and 802.11ac, 802.11ax(SU) (80MHz), and modulations/data rates were investigated among all UNII bands. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

For transmitters operating in the 5.925-7.125 GHz band: All emissions outside of the 5.925-7.125 GHz band shall not exceed an EIRP of −27 dBm/MHz. Emissions found in a restricted band are subject to the limits of15.209 as shown in the table below.

Frequency	Field Strength [µV/m]	Measured Distance [Meters]
Above 960.0 MHz	500	3

Table 7-56. Radiated Limits

Test Procedures Used

ANSI C63.10-2013 – Sections 12.7.7.2, 12.7.6, 12.7.5
KDB 789033 D02 v02r01 – Section G

Test Settings

Average Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = power average (RMS)
5. Number of measurement points = 1001 (Number of points must be ≥ 2 x span/RBW)
6. Averaging type = power (RMS)
7. Sweep time = auto couple
8. Trace was averaged over 100 sweeps

Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Test Setup

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

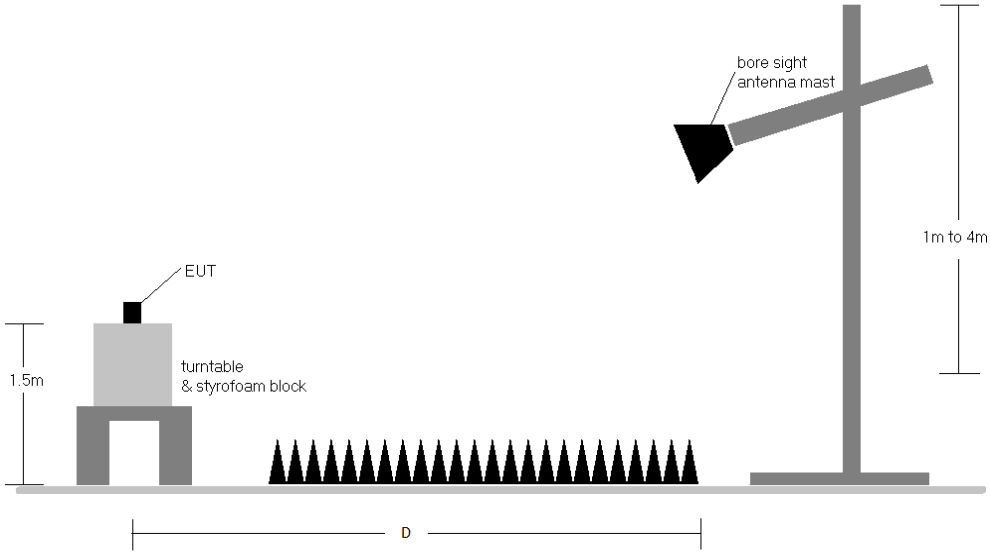


Figure 7-6. Test Instrument & Measurement Setup

Test Notes

1. All emissions that lie in the restricted bands (denoted by a * next to the frequency) specified in §15.205 and Section 8.10 of RSS-Gen are below the limit shown in Table 7-56.
2. All spurious emissions lying in restricted bands specified in §15.205 and Section 8.10 of RSS-Gen are below the limit shown in Table 7-56. All spurious emissions that do not lie in a restricted band are subject to a peak limit of -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions of 68.2dBμV/m.
3. The antenna is manipulated through typical positions, polarity and length during the tests. The EUT is manipulated through three orthogonal planes.
4. This unit was tested with its standard battery.
5. The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter using CISPR quasi peak detector below 1GHz. Above 1 GHz, average and peak measurements were taken using linearly polarized horn antennas.
6. D is the measurement test distance and emissions 1-18GHz were measured at a 3 meters test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.
7. The wide spectrum spurious emissions plots shown on the following pages are used only for the purpose of emission identification. Any emissions found to be within 20dB of the limit are fully investigated and the results are shown in this section.
8. All data rates were investigated and only the worse case is reported
9. The unit was tested with all possible modes and only the highest emission is reported.
10. The "-" shown in the following RSE tables are used to denote a noise floor measurement.

Sample Calculations

Determining Spurious Emissions Levels

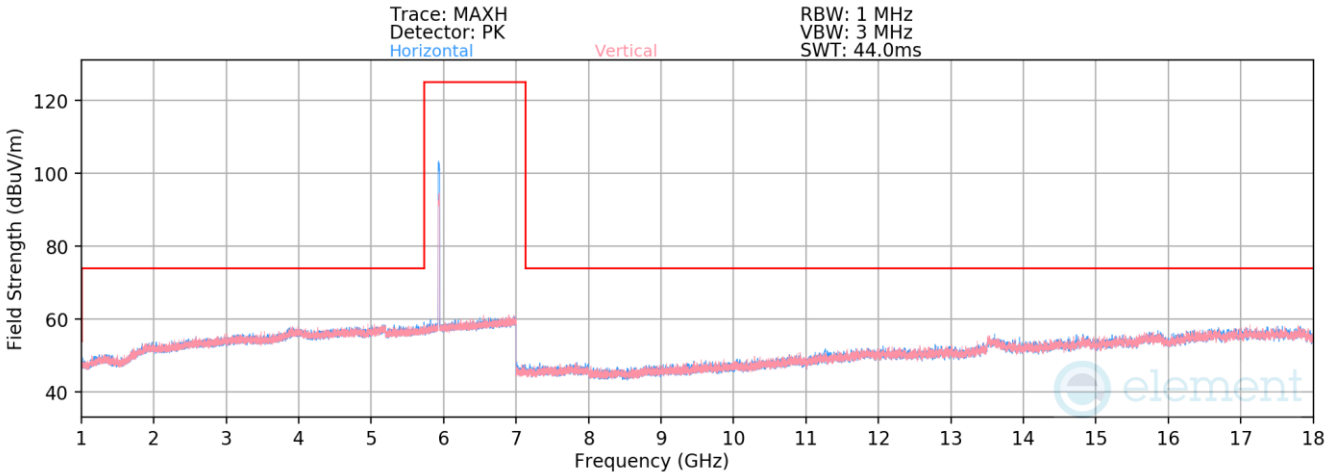
- Field Strength Level $_{[dB\mu V/m]}$ = Analyzer Level $_{[dBm]}$ + 107 + AFCL $_{[dB/m]}$
- AFCL $_{[dB/m]}$ = Antenna Factor $_{[dB/m]}$ + Cable Loss $_{[dB]}$ – Preamplifier Gain $_{[dB]}$
- Margin $_{[dB]}$ = Field Strength Level $_{[dB\mu V/m]}$ – Limit $_{[dB\mu V/m]}$

Radiated Band Edge Measurement Offset

- The amplitude offset shown in the radiated restricted band edge plots in Section 7.5 was calculated using the formula:

  Offset (dB) = (Antenna Factor + Cable Loss + Attenuator) – Preamplifier Gain

7.7.1 Antenna 5b Radiated Spurious Emission

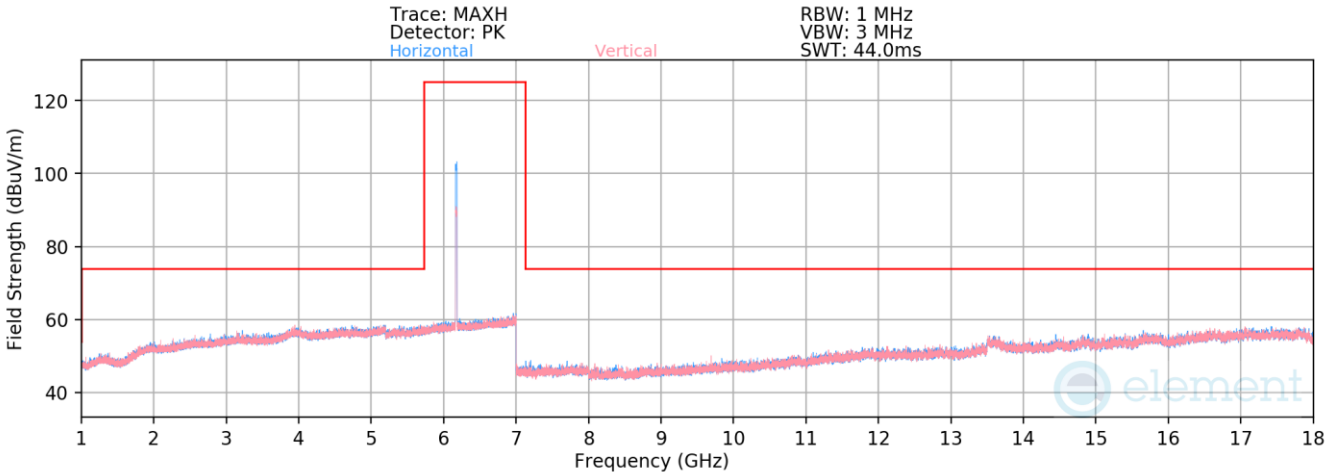


Plot 7-593. Radiated Spurious Emissions above 1GHz Antenna 5b (802.11ax – Ch. 1)

Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	3 Meters
Operating Frequency:	5955MHz
Channel:	1

	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]
*	11870.00	Peak	H	-	-	-72.32	17.51	52.19	73.98	-21.79
*	11870.00	Average	H	-	-	-84.52	17.51	39.99	53.98	-13.99
*	17805.00	Peak	H	-	-	-72.11	23.10	57.99	73.98	-15.99
*	17805.00	Average	H	-	-	-84.70	23.10	45.40	53.98	-8.58

Table 7-57. Radiated Spurious Emission Measurements Antenna 5b

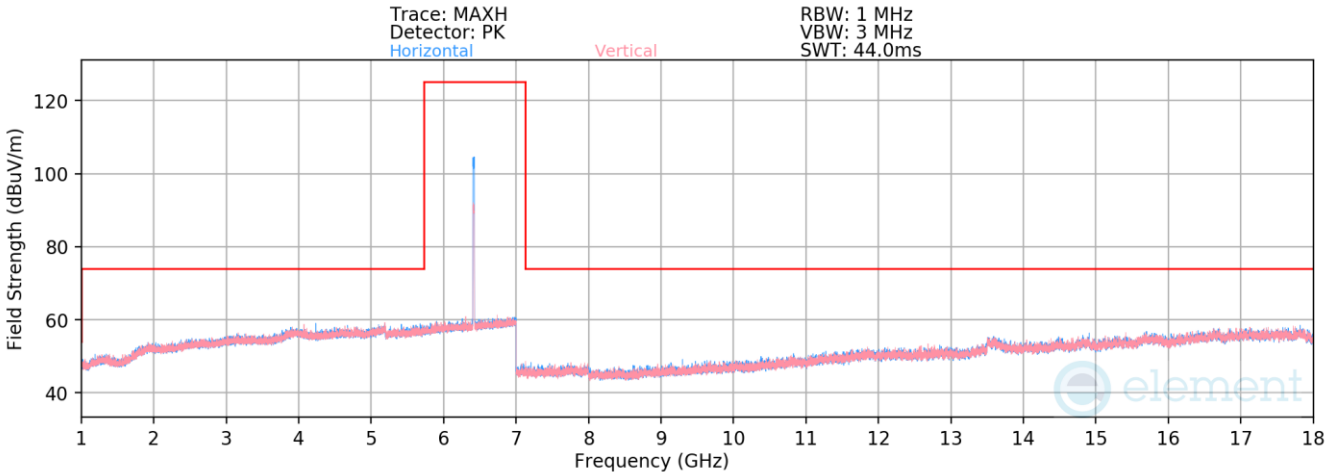


Plot 7-594. Radiated Spurious Emissions above 1GHz Antenna 5b (802.11ax – Ch. 45, MCS2)

Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	12350.00	Peak	H	-	-	-72.77	18.09	52.32	73.98	-21.66
*	12350.00	Average	H	-	-	-85.11	18.09	39.98	53.98	-14.00

Table 7-58. Radiated Spurious Emission Measurements Antenna 5b

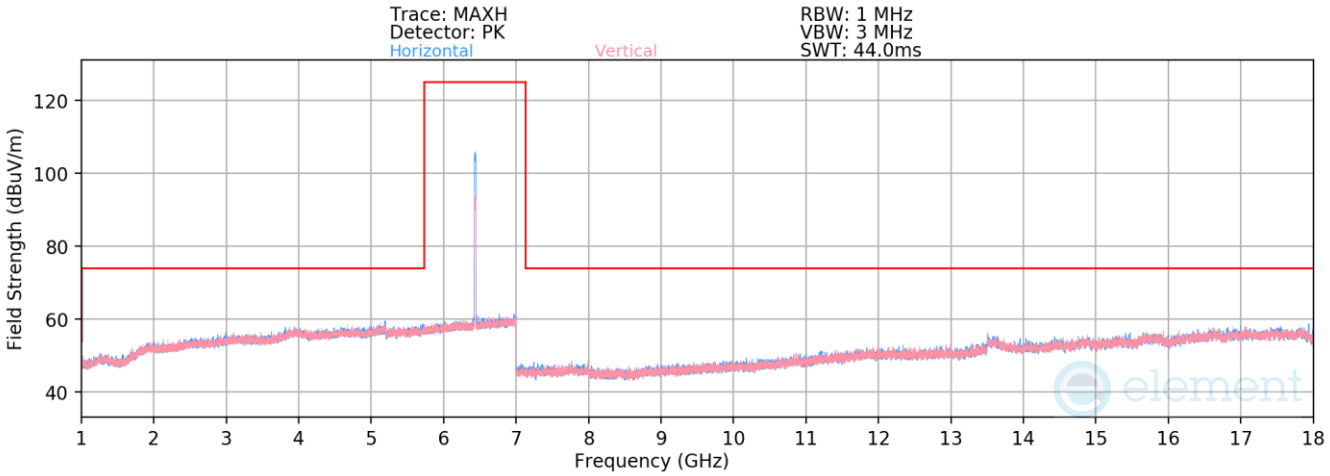


Plot 7-595. Radiated Spurious Emissions above 1GHz Antenna 5b (802.11ax – Ch. 93)

Mode:	802.11ax
Data Rate:	MCS2
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	-	-	-85.36	17.95	39.59	68.20	-28.61

Table 7-59. Radiated Spurious Emission Measurements Antenna 5b

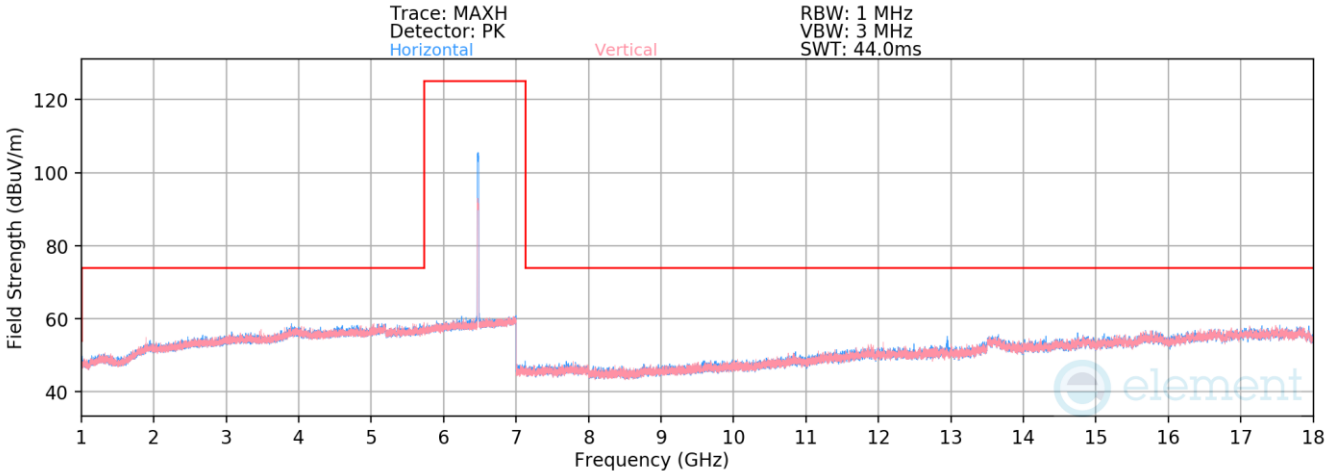


Plot 7-596. Radiated Spurious Emissions above 1GHz Antenna 5b (802.11ax – Ch. 97)

Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
12870.00	Average	H	-	-	-85.31	18.82	40.51	68.20	-27.69

Table 7-60. Radiated Spurious Emission Measurements Antenna 5b

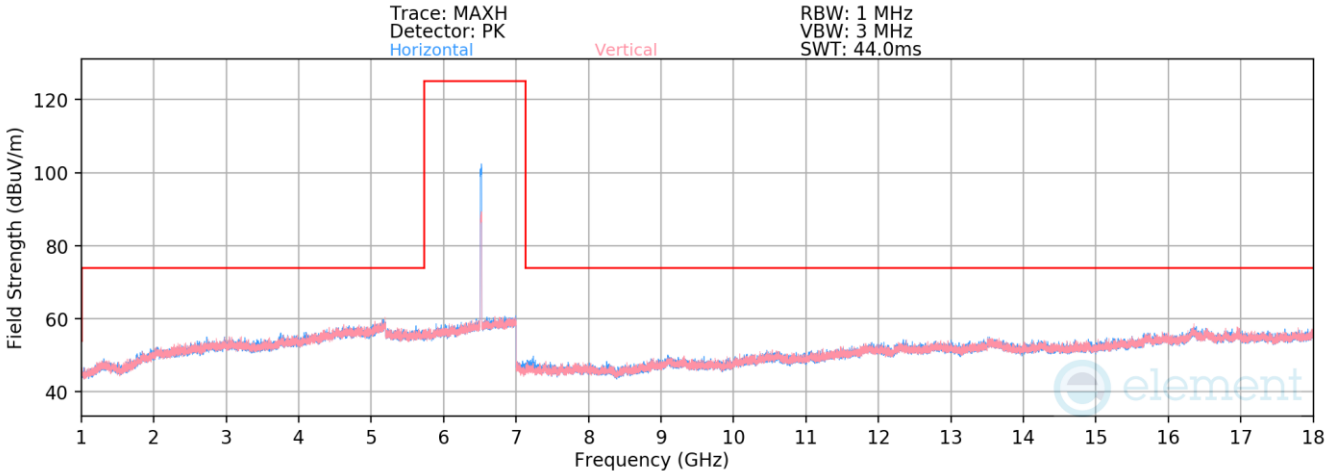


Plot 7-597. Radiated Spurious Emissions above 1GHz Antenna 5b (802.11ax – Ch. 105, MCS2)

Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
12950.00	Average	H	208	115	-77.23	18.24	48.01	68.20	-20.19

Table 7-61. Radiated Spurious Emission Measurements Antenna 5b

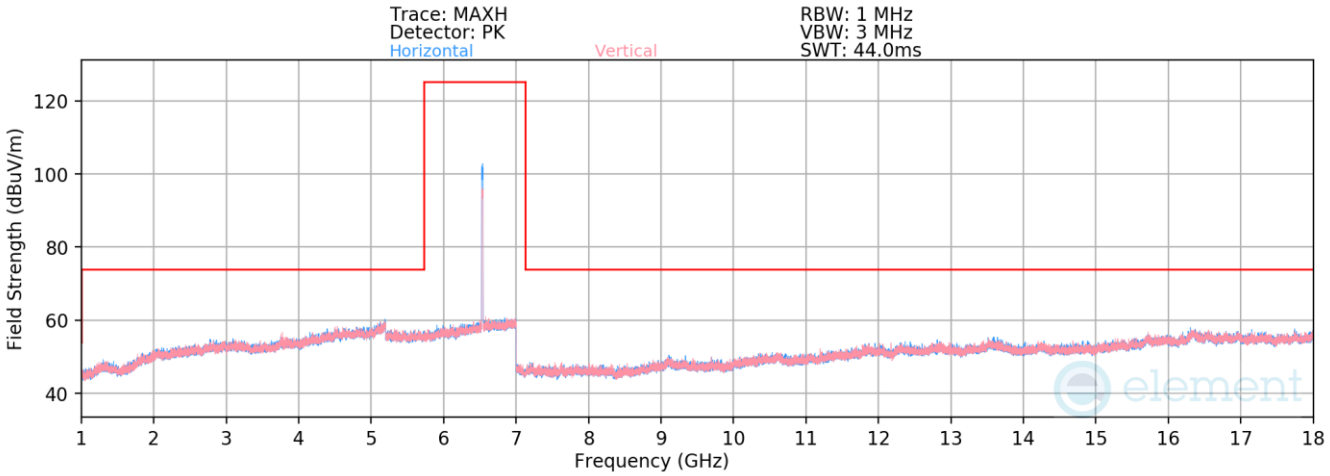


Plot 7-598. Radiated Spurious Emissions above 1GHz Antenna 5b (802.11ax – Ch. 113)

Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
13030.00	Average	H	-	-	-85.32	18.13	39.81	68.20	-28.39

Table 7-62. Radiated Spurious Emission Measurements Antenna 5b

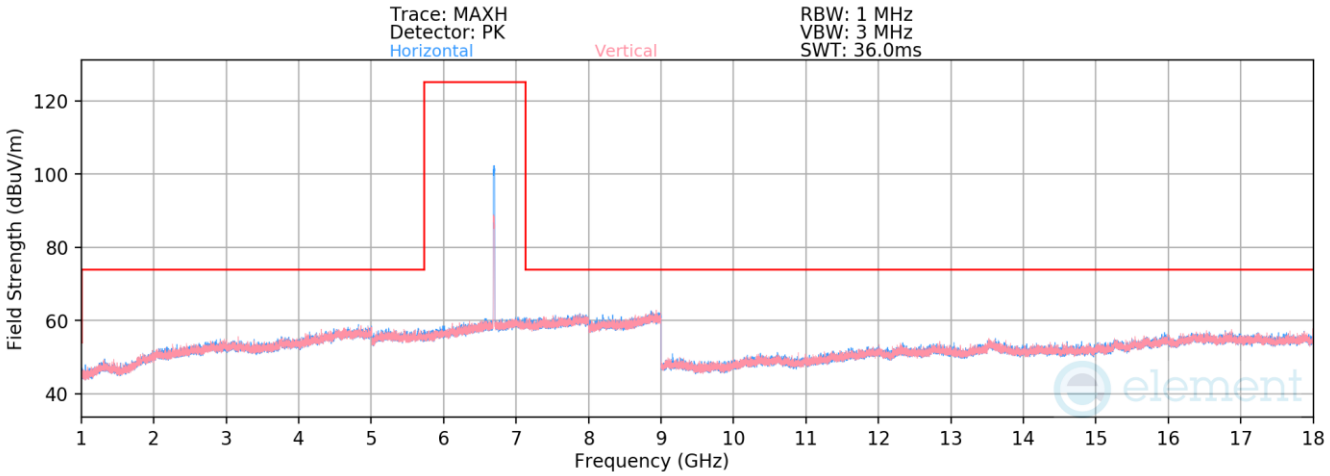


Plot 7-599. Radiated Spurious Emissions above 1GHz Antenna 5b (802.11ax – Ch. 117)

Mode:	802.11ax
Data Rate:	MCS2
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	H	-	-	-85.84	18.51	39.67	68.20	-28.53

Table 7-63. Radiated Spurious Emission Measurements Antenna 5b

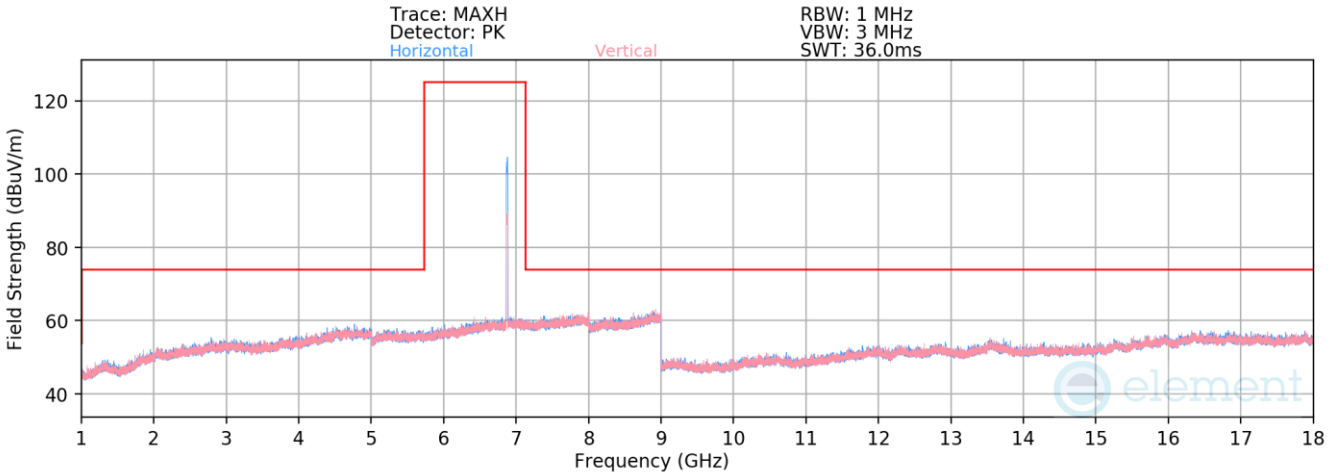


Plot 7-600. Radiated Spurious Emissions above 1GHz Antenna 5b (802.11ax – Ch. 149, MCS2)

Mode:	802.11ax
Data Rate:	MCS2
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	Peak	H	-	-	-73.75	18.29	51.54	73.98	-22.44
*	13390.00	Average	H	-	-	-85.51	18.29	39.78	53.98	-14.20

Table 7-64. Radiated Spurious Emission Measurements Antenna 5b

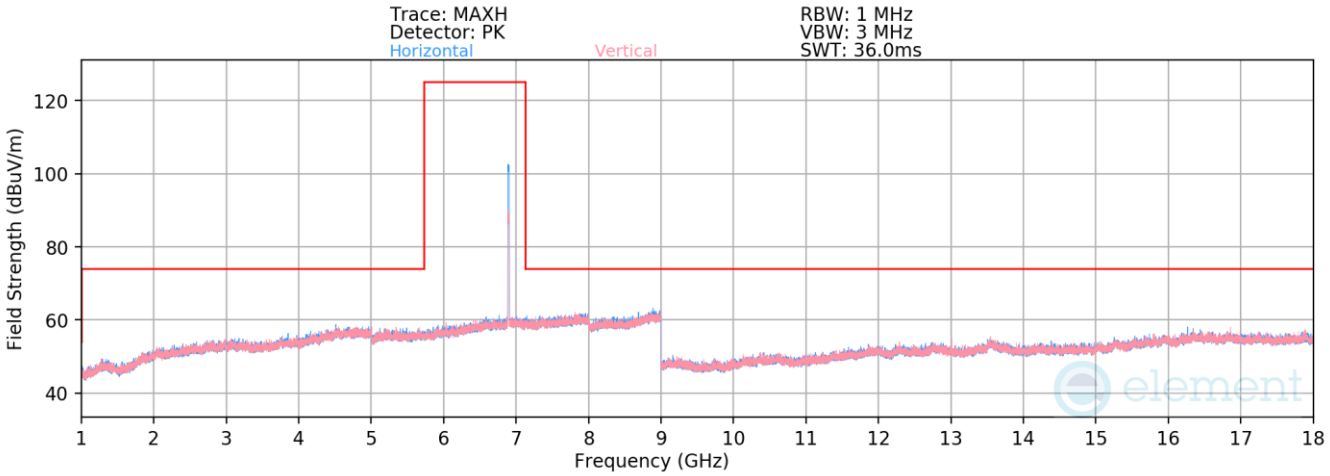


Plot 7-601. Radiated Spurious Emissions above 1GHz Antenna 5b (802.11ax – Ch. 185)

Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
13750.00	Average	H	-	-	-85.78	18.12	39.34	68.20	-28.86

Table 7-65. Radiated Spurious Emission Measurements Antenna 5b

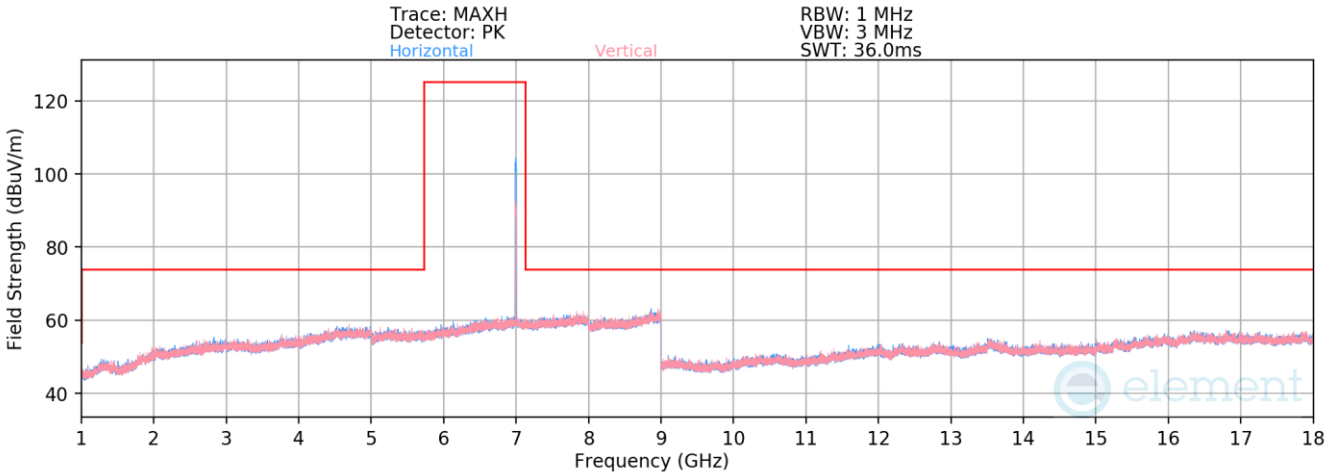


Plot 7-602. Radiated Spurious Emissions above 1GHz Antenna 5b (802.11ax – Ch. 189)

Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
13750.00	Average	H	-	-	-85.65	18.12	39.47	68.20	-28.73

Table 7-66. Radiated Spurious Emission Measurements Antenna 5b

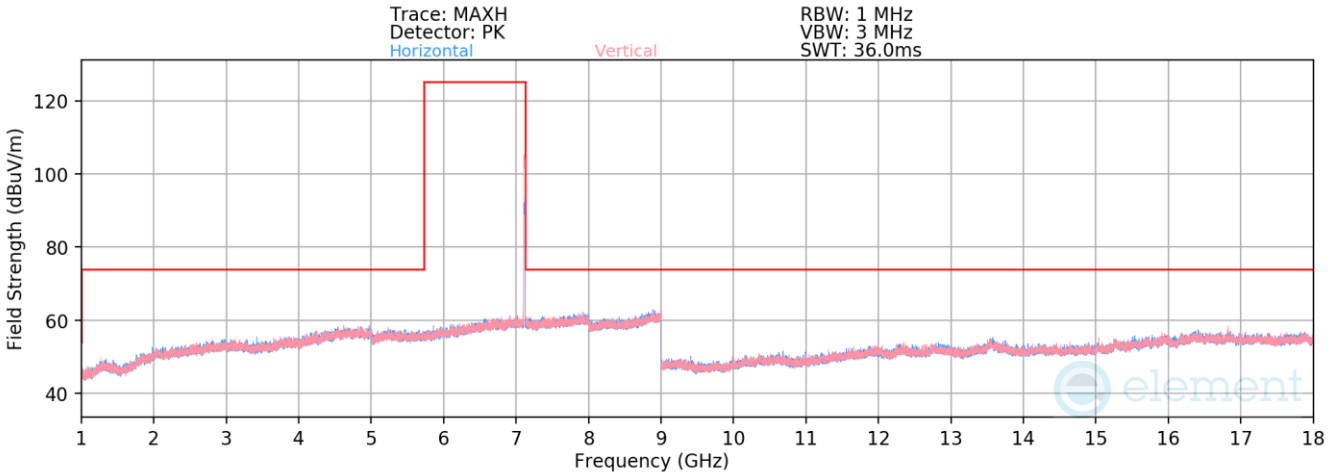


Plot 7-603. Radiated Spurious Emissions above 1GHz Antenna 5b (802.11ax – Ch. 209, MCS2)

Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
13990.00	Average	H	-	-	-85.70	18.14	39.44	68.20	-28.76

Table 7-67. Radiated Spurious Emission Measurements Antenna 5b



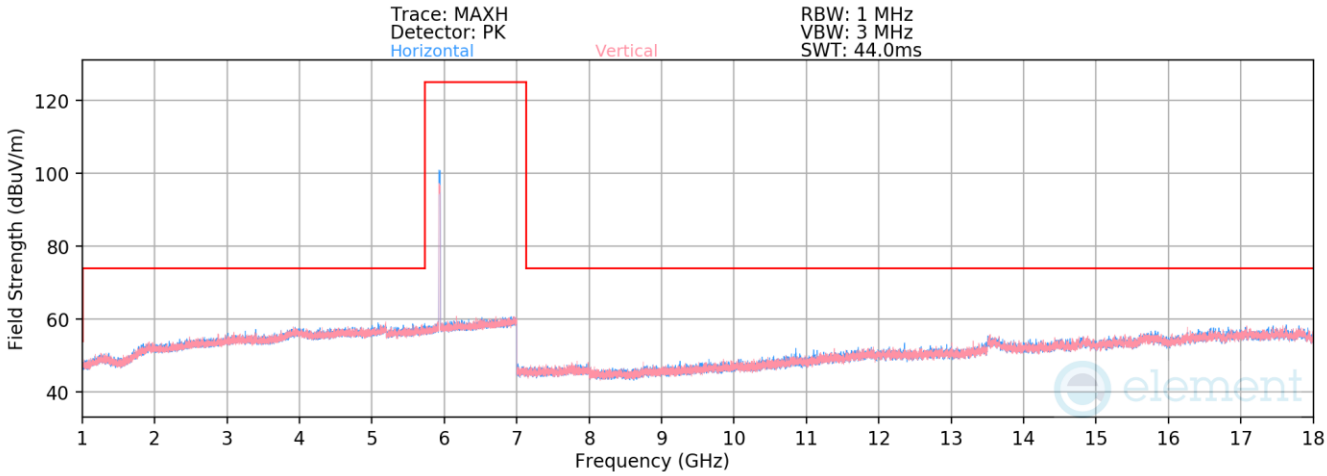
Plot 7-604. Radiated Spurious Emissions above 1GHz Antenna 5b (802.11ax – Ch. 233)

Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
14230.00	Average	H	-	-	-83.58	18.14	41.56	68.20	-26.64

Table 7-68. Radiated Spurious Emission Measurements Antenna 5b

7.7.2 Antenna 4a Radiated Spurious Emission

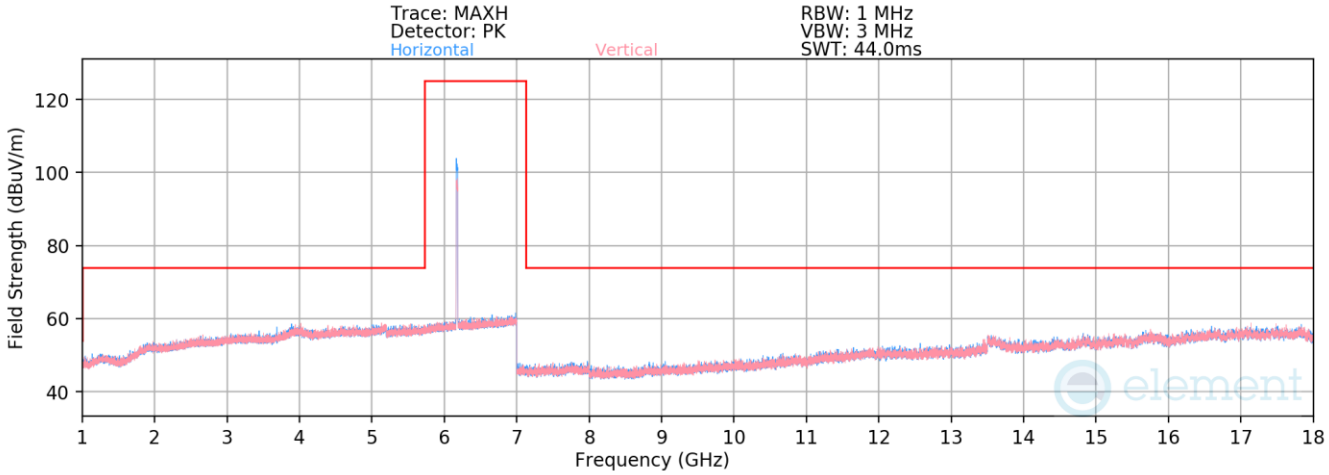


Plot 7-605. Radiated Spurious Emissions above 1GHz Antenna 4a (802.11ax – Ch. 1)

Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	3 Meters
Operating Frequency:	5955MHz
Channel:	1

	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]
*	11870.00	Peak	H	-	-	-73.10	17.51	51.41	73.98	-22.57
*	11870.00	Average	H	-	-	-83.95	17.51	40.56	53.98	-13.42
*	17805.00	Peak	H	-	-	-73.27	23.10	56.83	73.98	-17.15
*	17805.00	Average	H	-	-	-84.72	23.10	45.38	53.98	-8.60

Table 7-69. Radiated Spurious Emission Measurements Antenna 4a

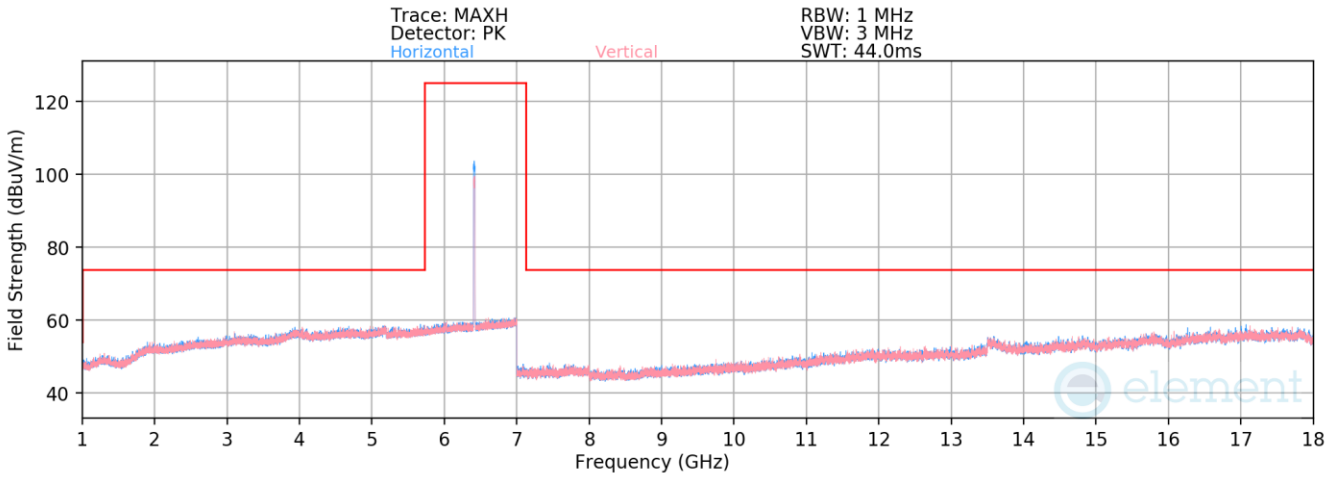


Plot 7-606. Radiated Spurious Emissions above 1GHz Antenna 4a (802.11ax – Ch. 47, MCS2)

Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	12350.00	Peak	H	-	-	-72.98	18.09	52.11	73.98	-21.87
*	12350.00	Average	H	-	-	-84.49	18.09	40.60	53.98	-13.38

Table 7-70. Radiated Spurious Emission Measurements Antenna 4a

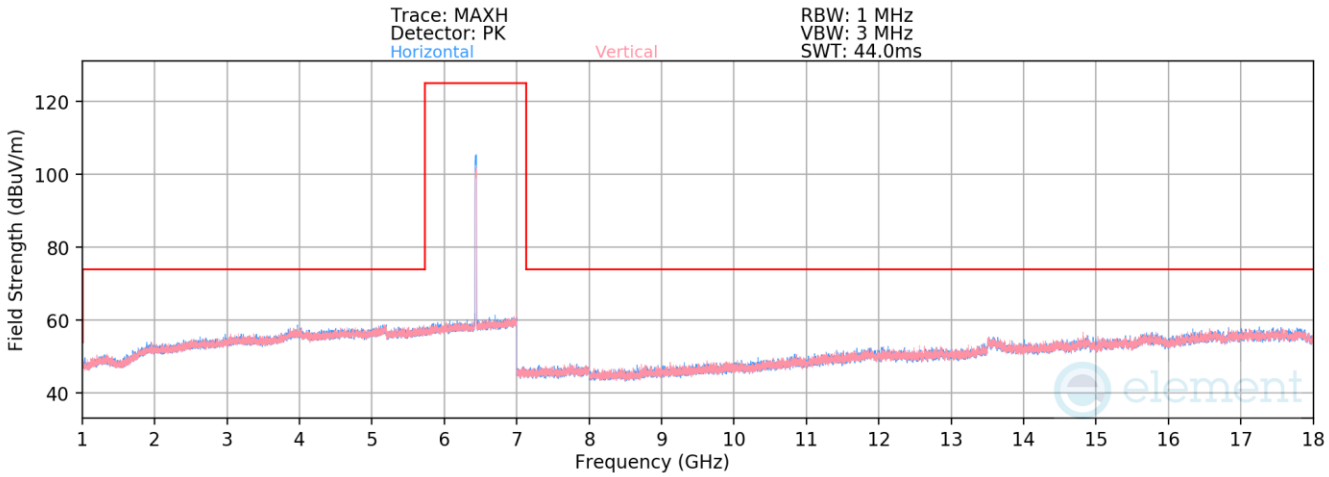


Plot 7-607. Radiated Spurious Emissions above 1GHz Antenna 4a (802.11ax – Ch. 93)

Mode:	802.11ax
Data Rate:	MCS2
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	-	-	-84.98	17.95	39.97	68.20	-28.23

Table 7-71. Radiated Spurious Emission Measurements Antenna 4a

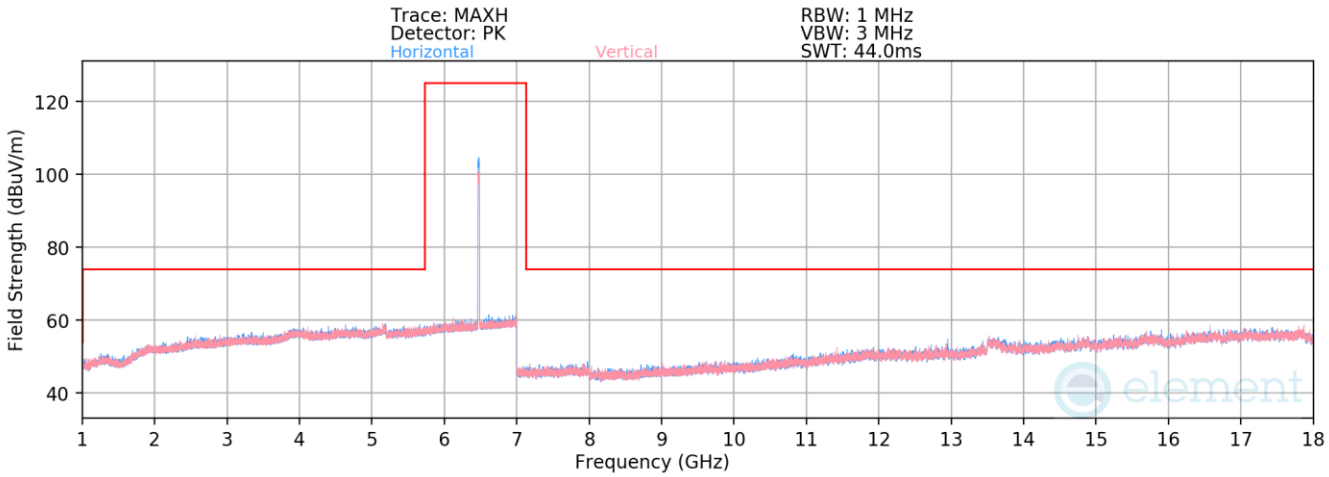


Plot 7-608. Radiated Spurious Emissions above 1GHz Antenna 4a (802.11ax – Ch. 97)

Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
12870.00	Average	H	-	-	-85.11	18.82	40.71	68.20	-27.49

Table 7-72. Radiated Spurious Emission Measurements Antenna 4a

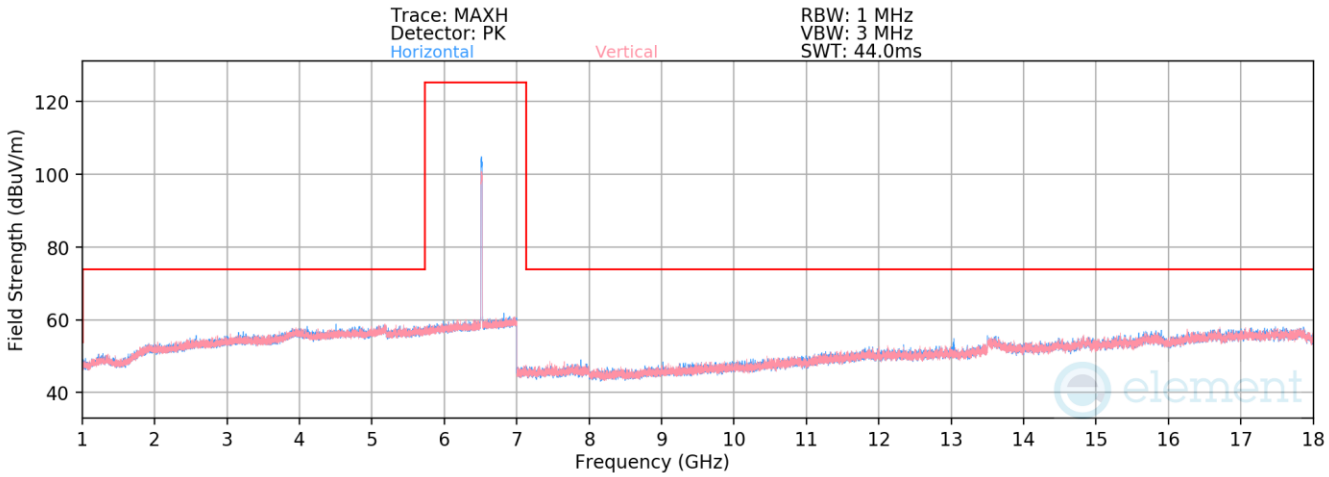


Plot 7-609. Radiated Spurious Emissions above 1GHz Antenna 4a (802.11ax – Ch. 105, MCS2)

Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
12950.00	Average	H	102	169	-81.62	18.24	43.62	68.20	-24.58

Table 7-73. Radiated Spurious Emission Measurements Antenna 4a

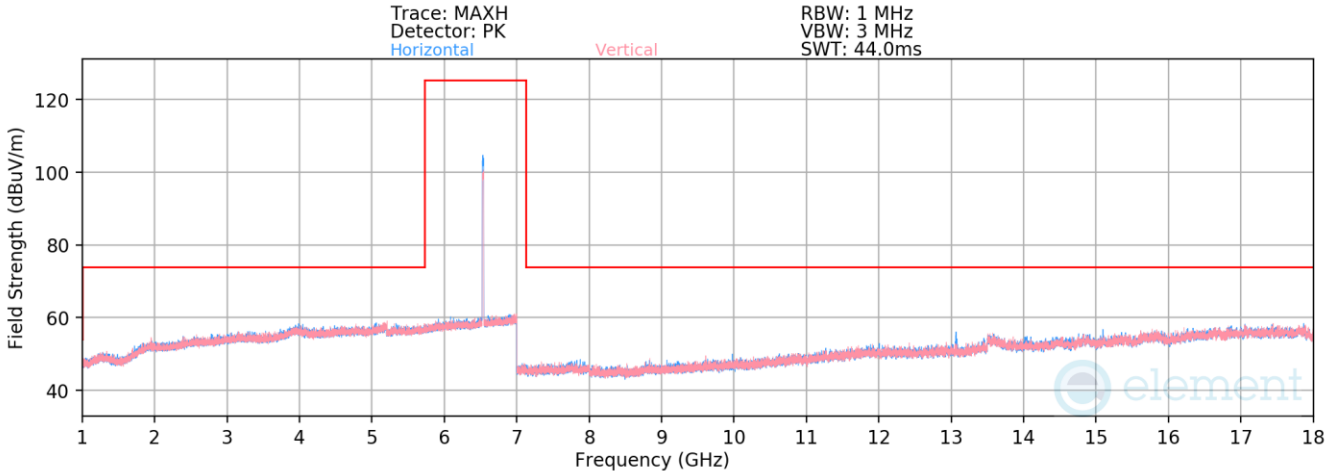


Plot 7-610. Radiated Spurious Emissions above 1GHz Antenna 4a (802.11ax – Ch. 113)

Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
13030.00	Average	H	-	-	-79.15	18.13	45.98	68.20	-22.22

Table 7-74. Radiated Spurious Emission Measurements Antenna 4a

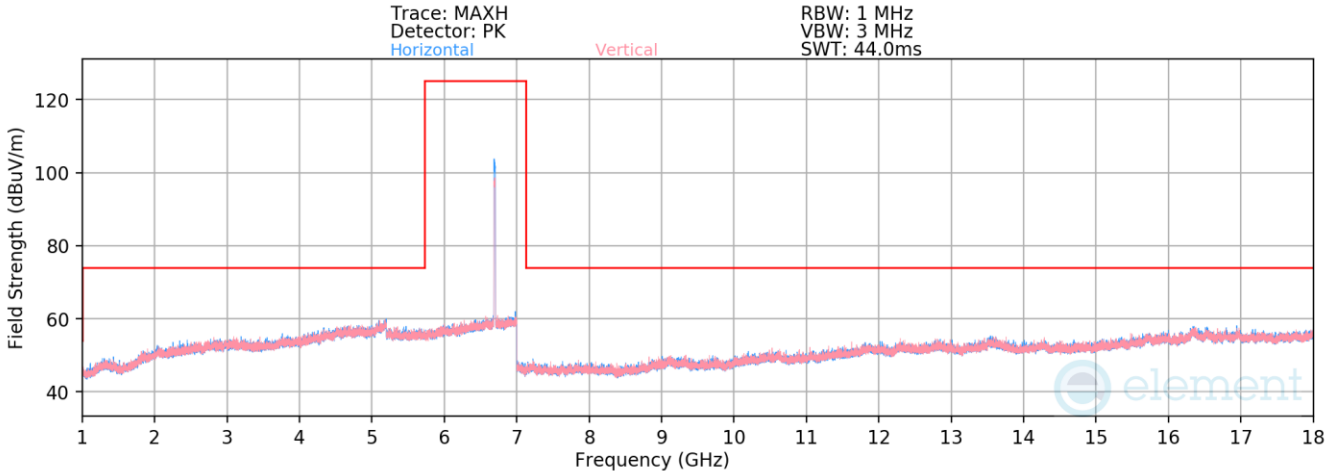


Plot 7-611. Radiated Spurious Emissions above 1GHz Antenna 4a (802.11ax – Ch. 117)

Mode:	802.11ax
Data Rate:	MCS2
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	H	105	161	-77.88	18.51	47.63	68.20	-20.57

Table 7-75. Radiated Spurious Emission Measurements Antenna 4a

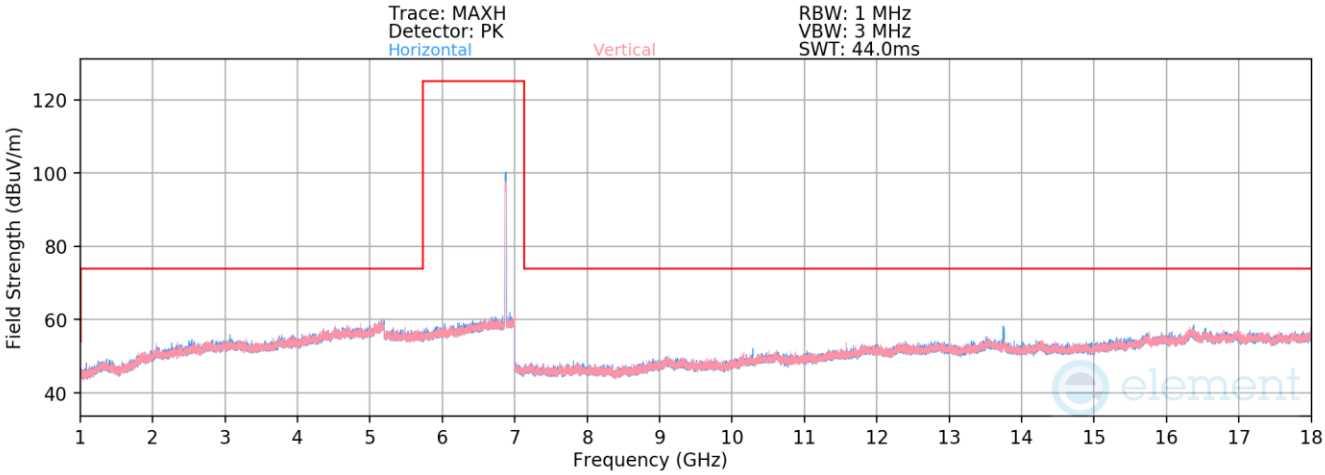


Plot 7-612. Radiated Spurious Emissions above 1GHz Antenna 4a (802.11ax – Ch. 149, MCS2)

Mode:	802.11ax
Data Rate:	MCS2
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	Peak	H	-	-	-73.05	18.01	51.96	73.98	-22.02
*	13390.00	Average	H	-	-	-84.23	18.01	40.78	53.98	-13.20

Table 7-76. Radiated Spurious Emission Measurements Antenna 4a

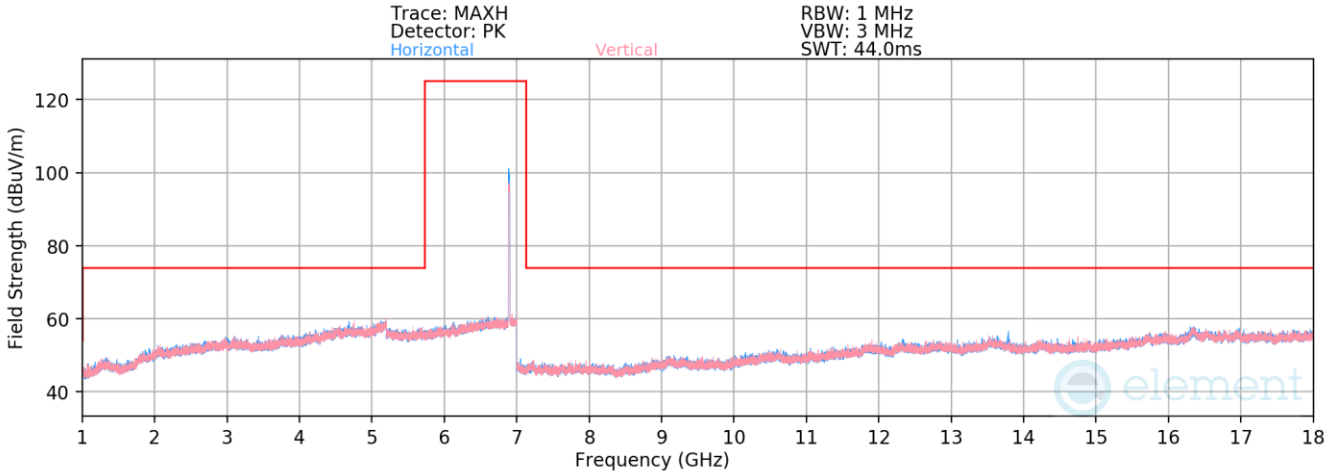


Plot 7-613. Radiated Spurious Emissions above 1GHz Antenna 4a (802.11ax – Ch. 185)

Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
13750.00	Average	H	101	161	-75.46	17.84	49.38	68.20	-18.82

Table 7-77. Radiated Spurious Emission Measurements Antenna 4a

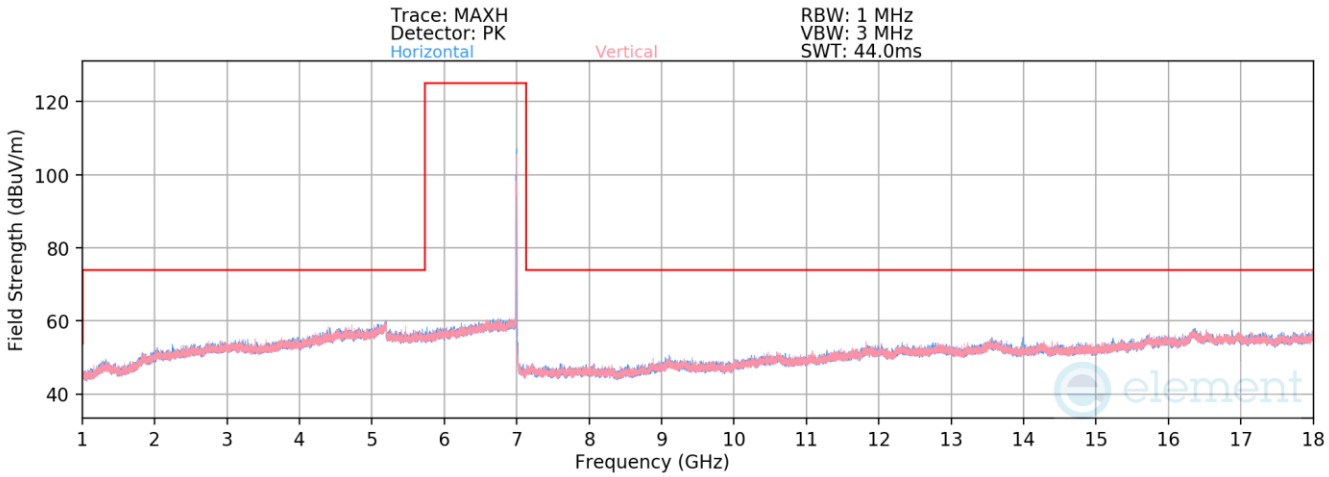


Plot 7-614. Radiated Spurious Emissions above 1GHz Antenna 4a (802.11ax – Ch. 189)

Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
13790.00	Average	H	101	157	-76.27	17.74	48.47	68.20	-19.73

Table 7-78. Radiated Spurious Emission Measurements Antenna 4a

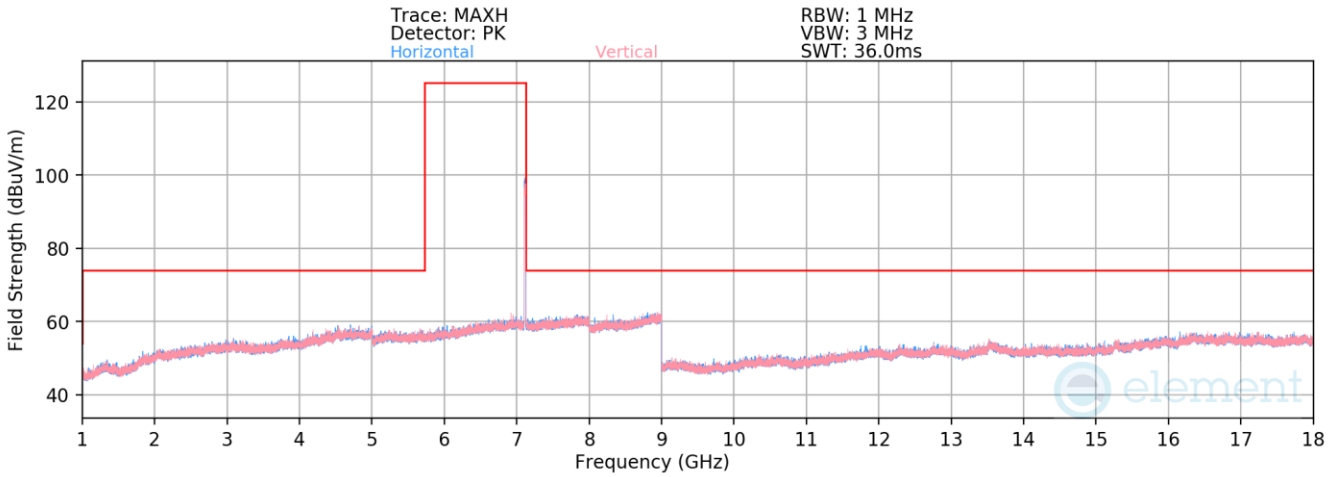


Plot 7-615. Radiated Spurious Emissions above 1GHz Antenna 4a (802.11ax – Ch. 209, MCS2)

Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
13990.00	Average	H	101	164	-77.43	17.91	47.48	68.20	-20.72

Table 7-79. Radiated Spurious Emission Measurements Antenna 4a



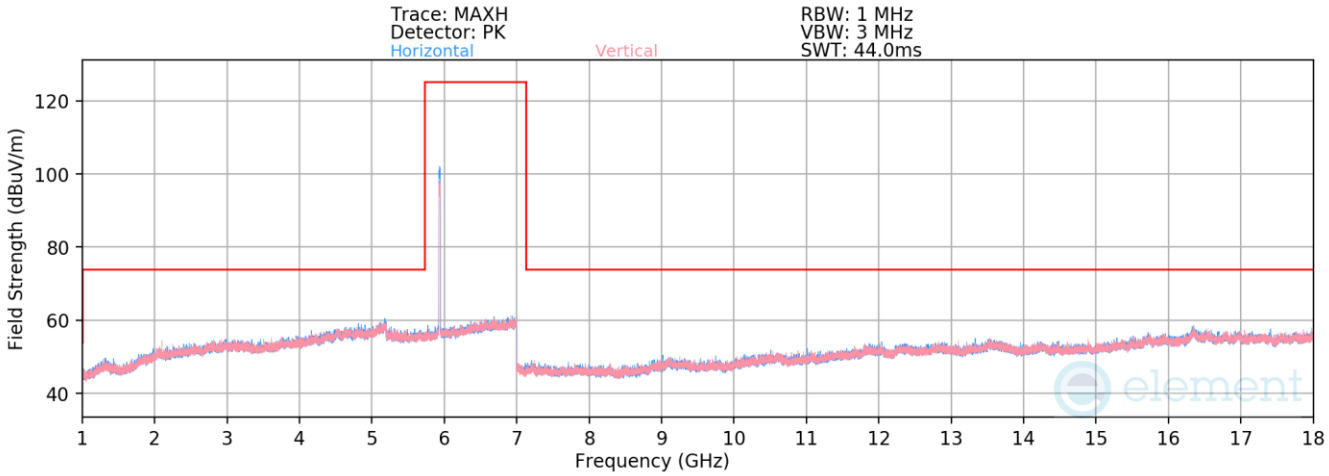
Plot 7-616. Radiated Spurious Emissions above 1GHz Antenna 4a (802.11ax – Ch. 233)

Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	3 Meters
Operating Frequency:	7115MHz
Channel:	233

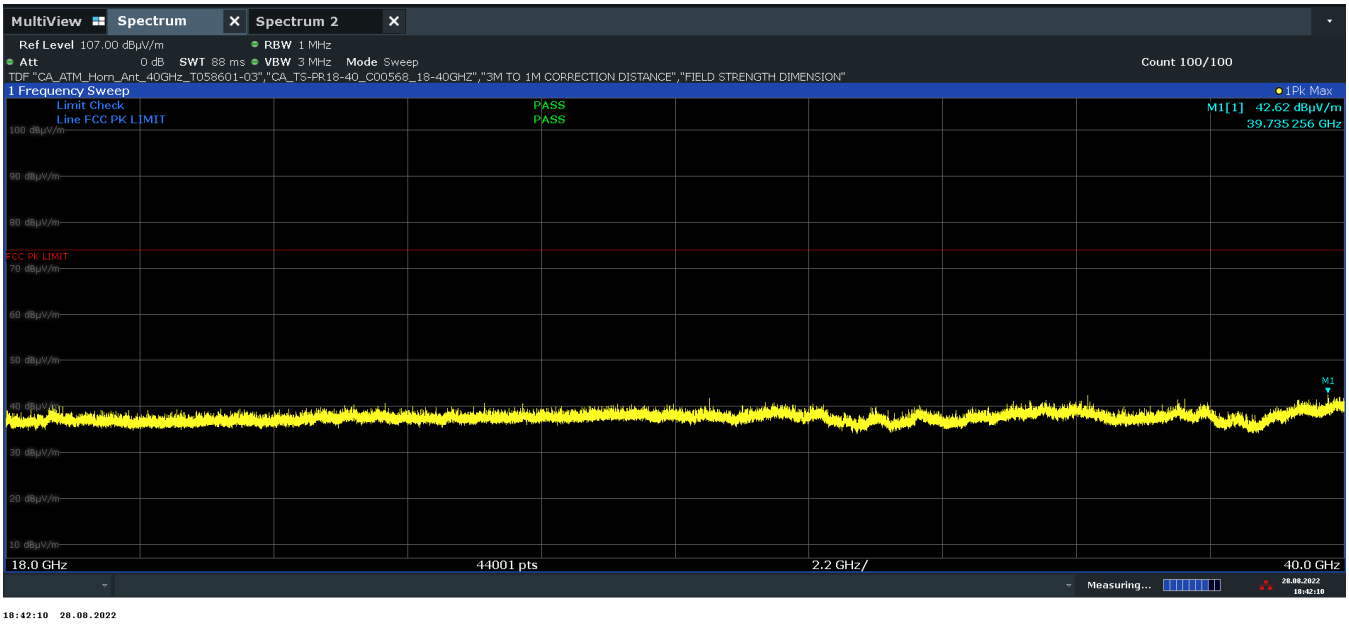
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
14230.00	Average	H	-	-	-83.83	18.14	41.31	68.20	-26.89

Table 7-80. Radiated Spurious Emission Measurements Antenna 4a

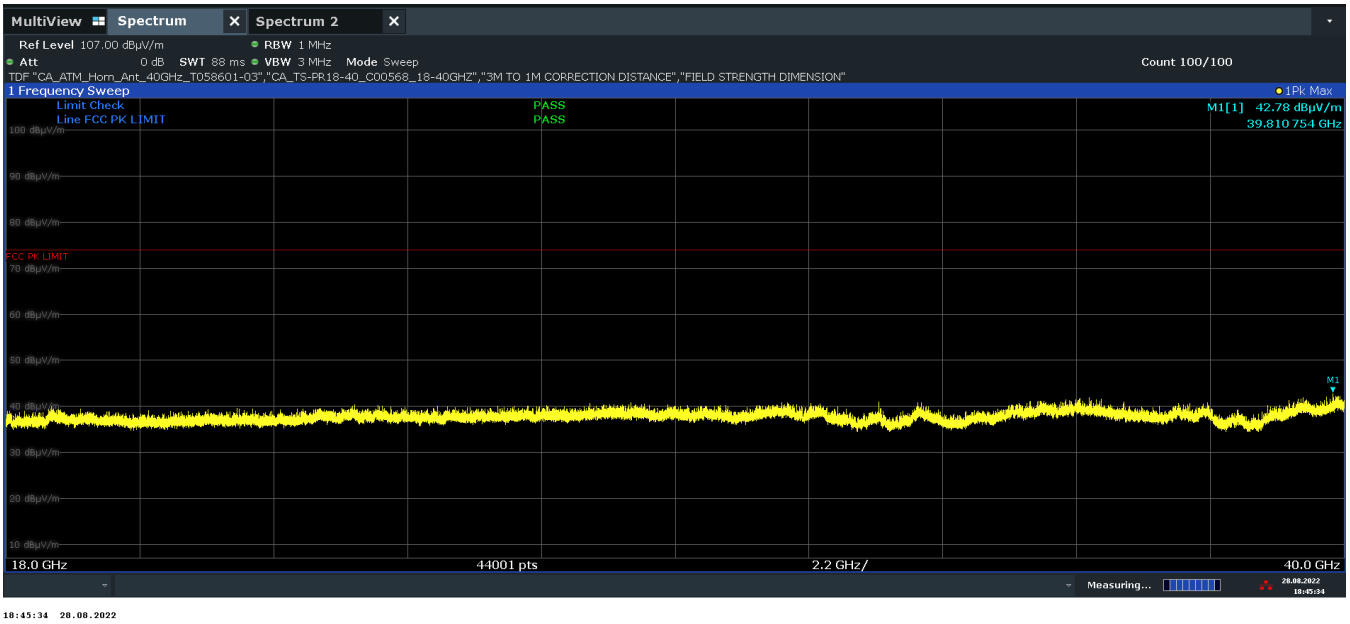
7.7.3 SDM Radiated Spurious Emission



Plot 7-617. Radiated Spurious Emissions above 1GHz SDM (802.11ax – Ch. 1)



Plot 7-618. Radiated Spurious Emissions 18-40GHz SDM (802.11ax – Ch. 1, Pol. H)

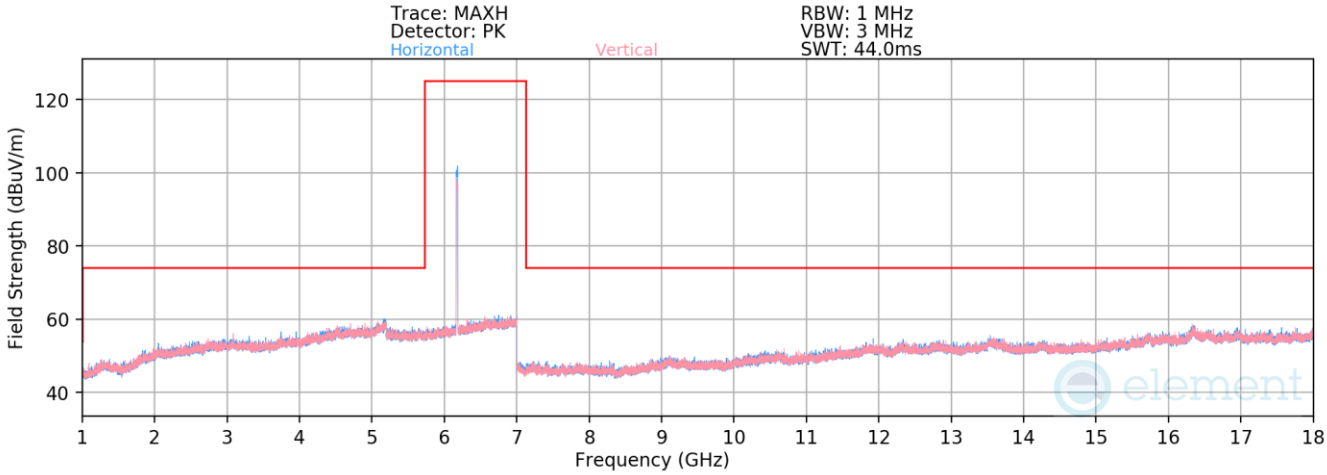


Plot 7-619. Radiated Spurious Emissions 18-40GHz SDM (802.11ax – Ch. 1, Pol. V)

Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	3 Meters
Operating Frequency:	5955MHz
Channel:	1

	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]
*	11870.00	Peak	H	-	-	-72.13	16.96	51.83	73.98	-22.15
*	11870.00	Average	H	-	-	-83.56	16.96	40.40	53.98	-13.58
*	17805.00	Peak	H	-	-	-72.88	21.89	56.01	73.98	-17.97
*	17805.00	Average	H	-	-	-84.36	21.89	44.53	53.98	-9.45

Table 7-81. Radiated Spurious Emission Measurements SDM

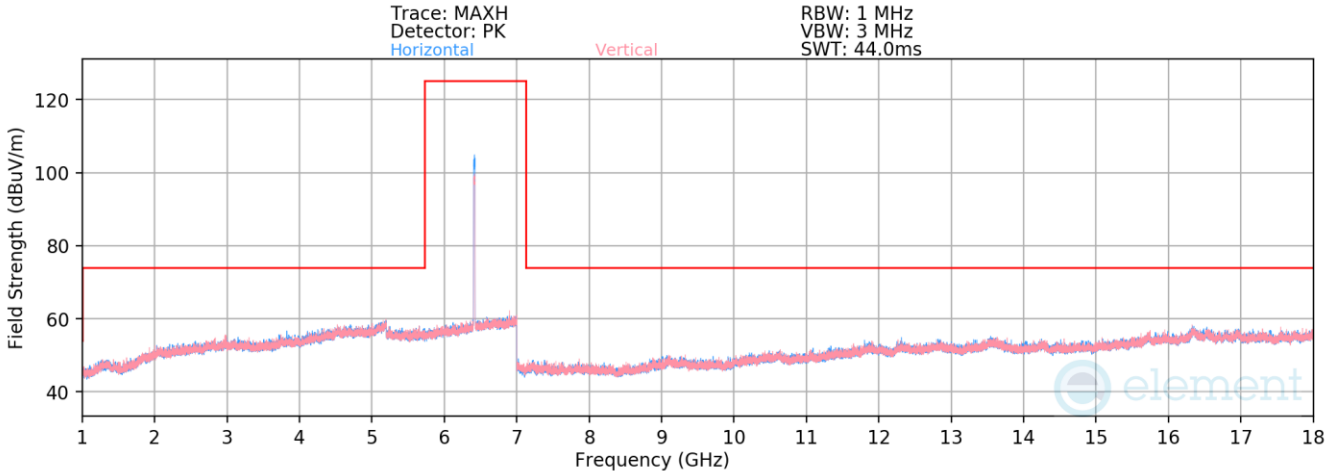


Plot 7-620. Radiated Spurious Emissions above 1GHz SDM (802.11ax – Ch. 47, MCS2)

Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	12350.00	Peak	H	-	-	-73.33	17.83	51.50	73.98	-22.48
*	12350.00	Average	H	-	-	-84.16	17.83	40.67	53.98	-13.31

Table 7-82. Radiated Spurious Emission Measurements SDM

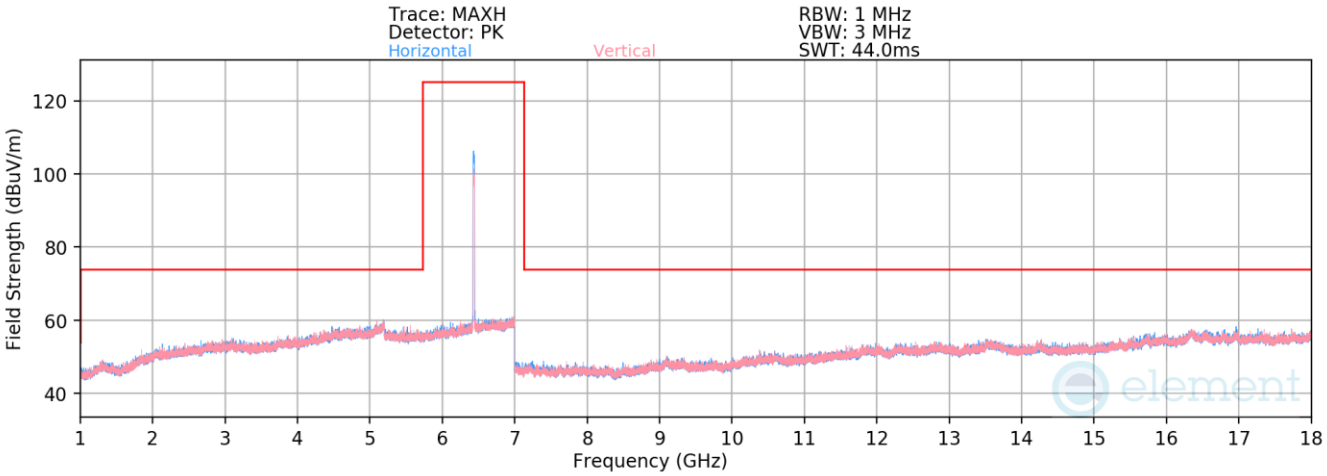


Plot 7-621. Radiated Spurious Emissions above 1GHz CDD (802.11ax – Ch. 93)

Mode:	802.11ax
Data Rate:	MCS2
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	-	-	-84.43	18.55	41.12	68.20	-27.08

Table 7-83. Radiated Spurious Emission Measurements SDM

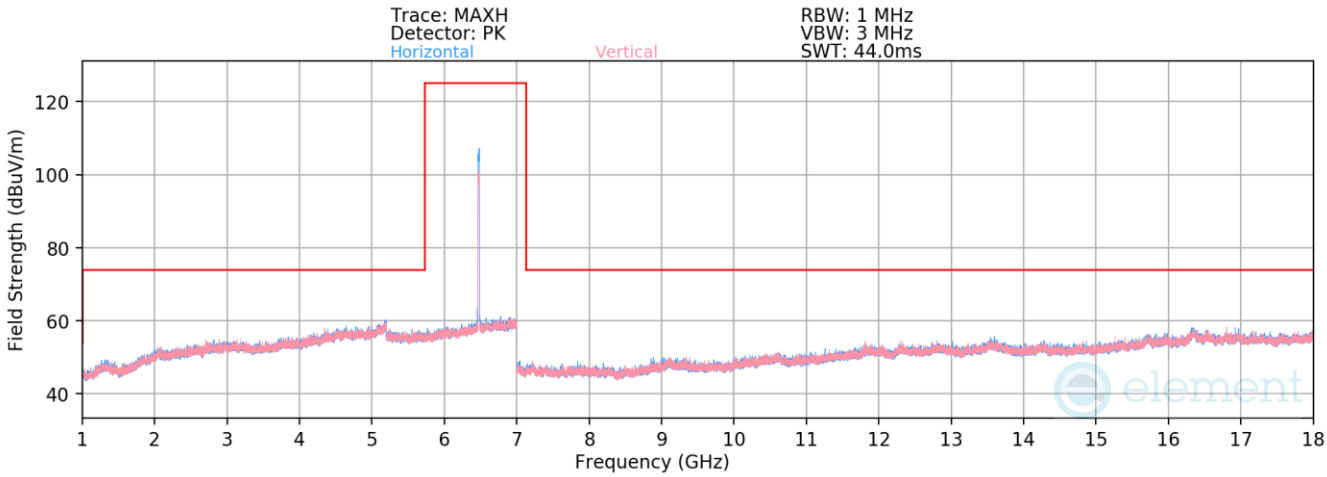


Plot 7-622. Radiated Spurious Emissions above 1GHz CDD (802.11ax – Ch. 97)

Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
12870.00	Average	H	-	-	-83.90	18.68	41.78	68.20	-26.42

Table 7-84. Radiated Spurious Emission Measurements SDM

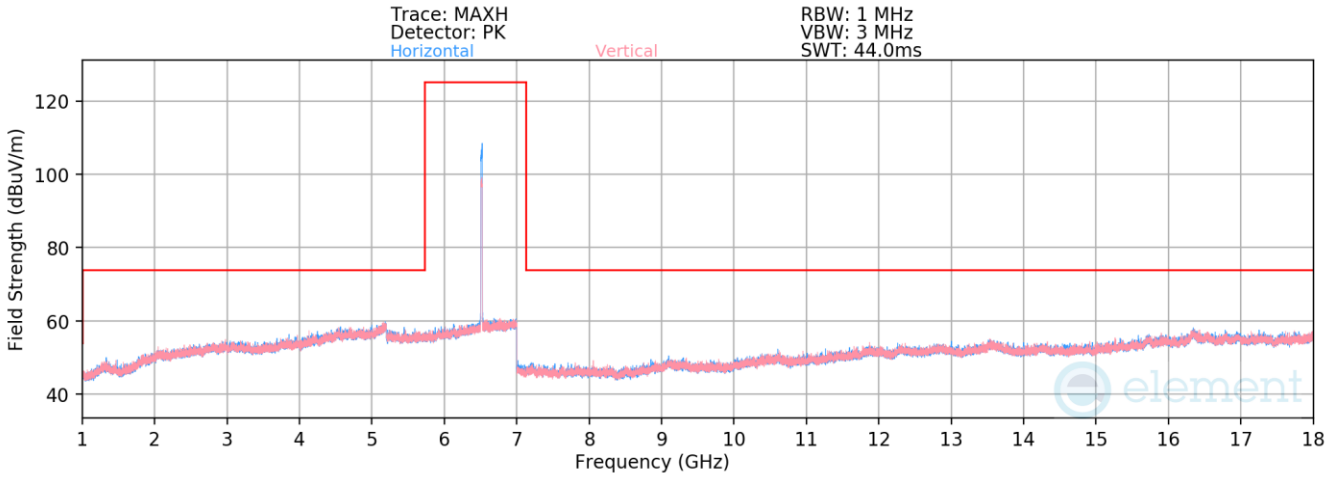


Plot 7-623. Radiated Spurious Emissions above 1GHz SDM (802.11ax – Ch. 105, MCS2)

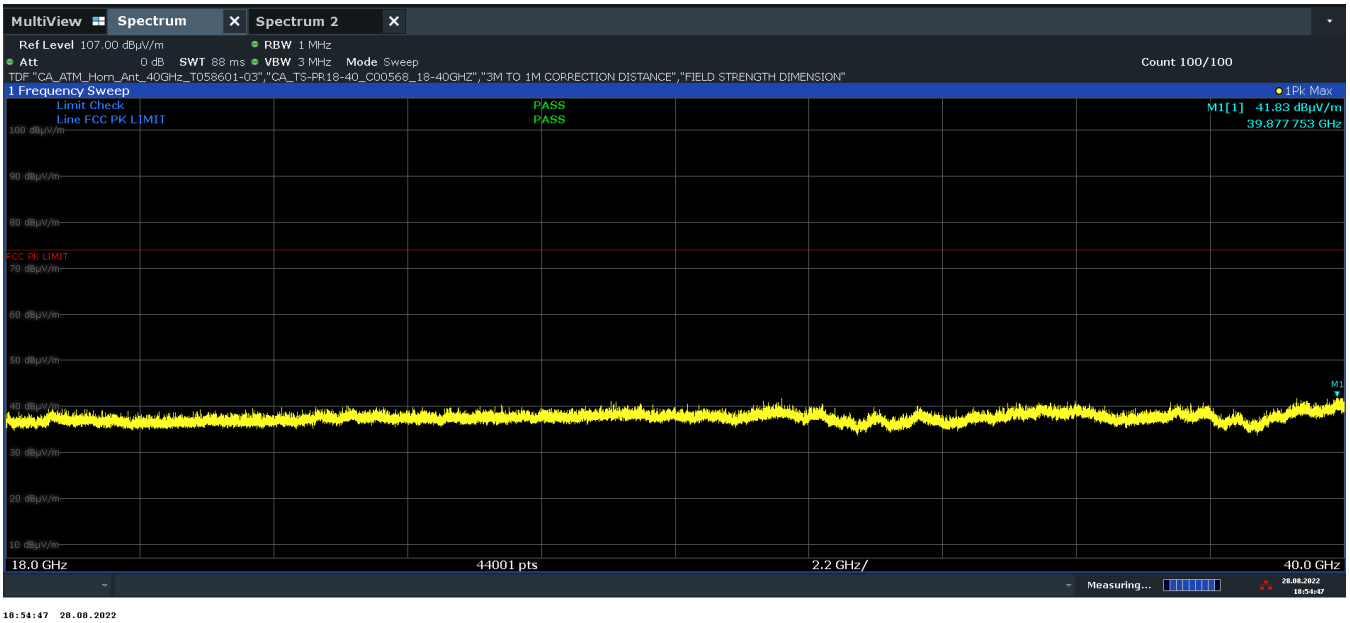
Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	3 Meters
Operating Frequency:	6475MHz
Channel:	105

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
12950.00	Average	H	-	-	-83.57	18.16	41.59	68.20	-26.61

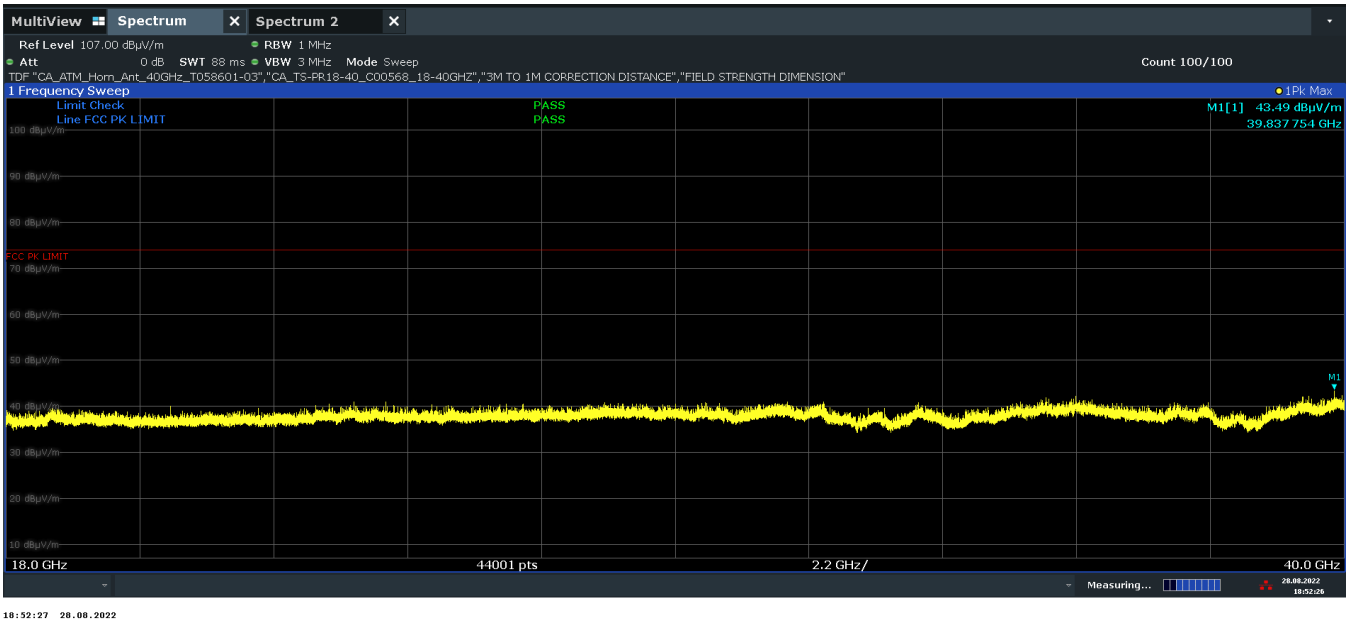
Table 7-85. Radiated Spurious Emission Measurements SDM



Plot 7-624. Radiated Spurious Emissions above 1GHz SDM (802.11ax – Ch. 113)



Plot 7-625. Radiated Spurious Emissions 18-40GHz SDM (802.11ax – Ch. 113, Pol. H)

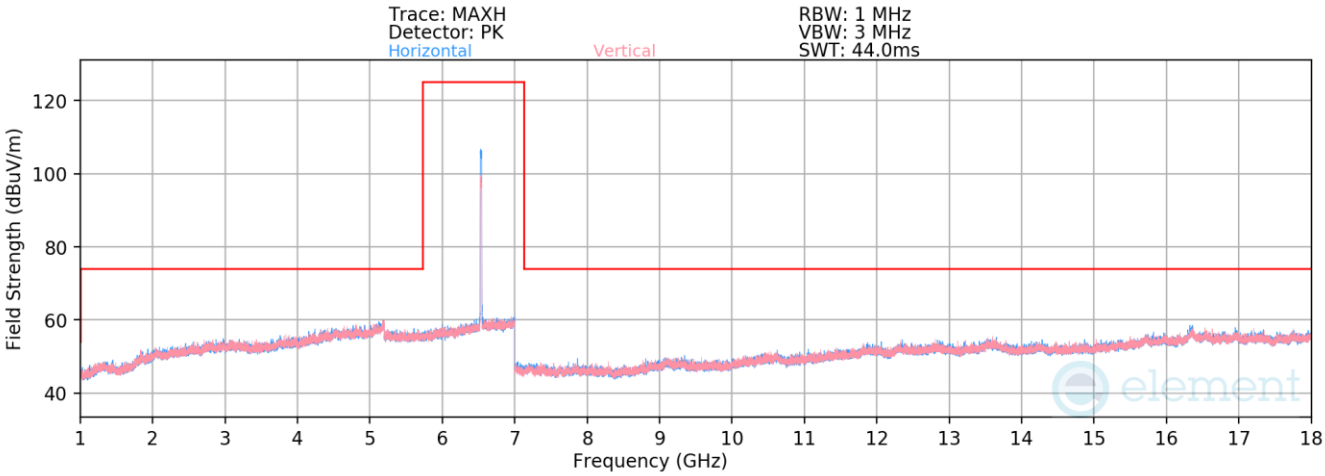


Plot 7-626. Radiated Spurious Emissions 18-40GHz SDM (802.11ax – Ch. 113, Pol. V)

Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
13030.00	Average	H	-	-	-83.89	18.52	41.63	68.20	-26.57

Table 7-86. Radiated Spurious Emission Measurements SDM

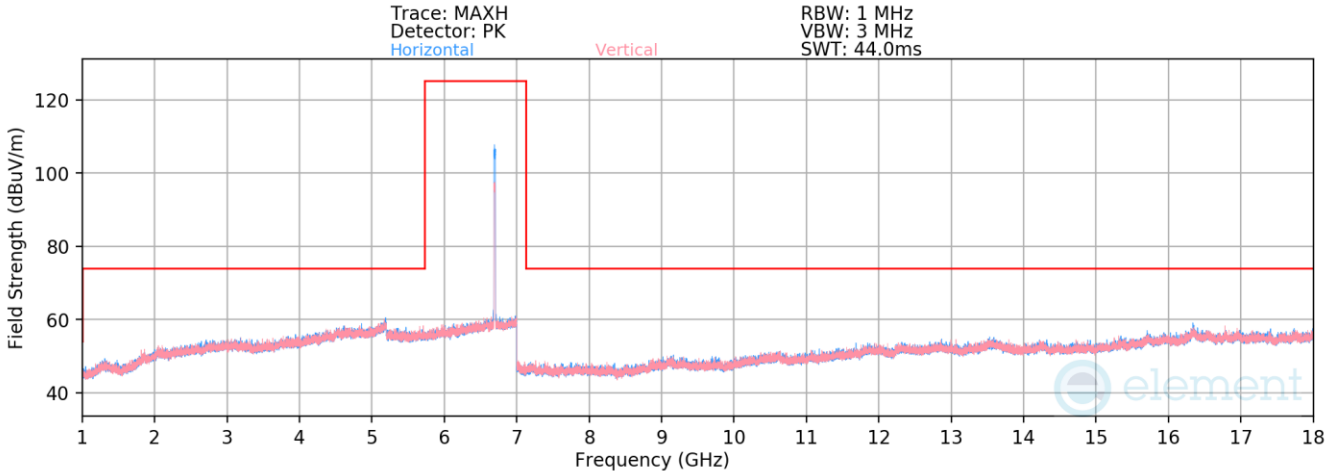


Plot 7-627. Radiated Spurious Emissions above 1GHz SDM (802.11ax – Ch. 117)

Mode:	802.11ax
Data Rate:	MCS2
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	H	-	-	-83.69	18.31	41.62	68.20	-26.58

Table 7-87. Radiated Spurious Emission Measurements SDM

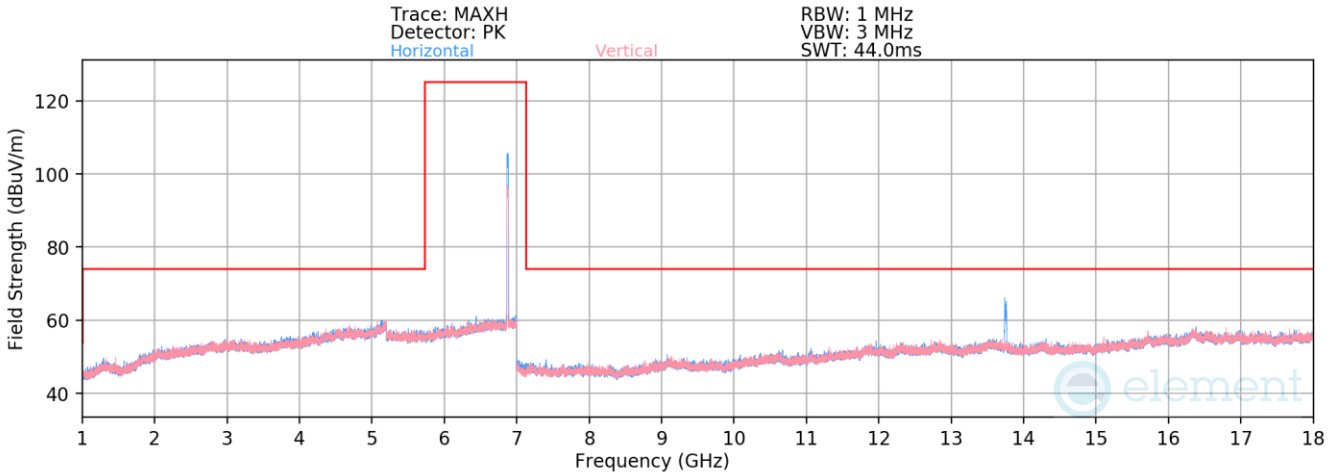


Plot 7-628. Radiated Spurious Emissions above 1GHz SDM (802.11ax – Ch. 149, MCS2)

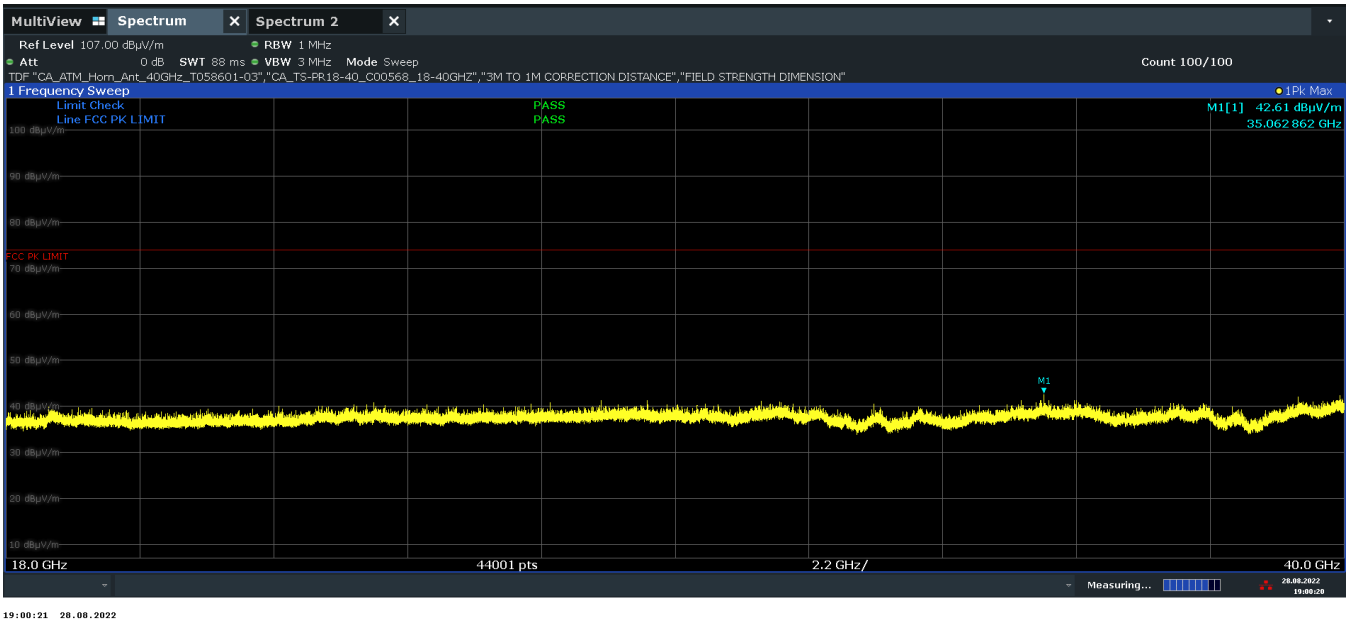
Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	3 Meters
Operating Frequency:	6695MHz
Channel:	149

	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	Peak	H	-	-	-72.86	18.01	52.15	73.98	-21.83
*	13390.00	Average	H	-	-	-84.25	18.01	40.76	53.98	-13.22

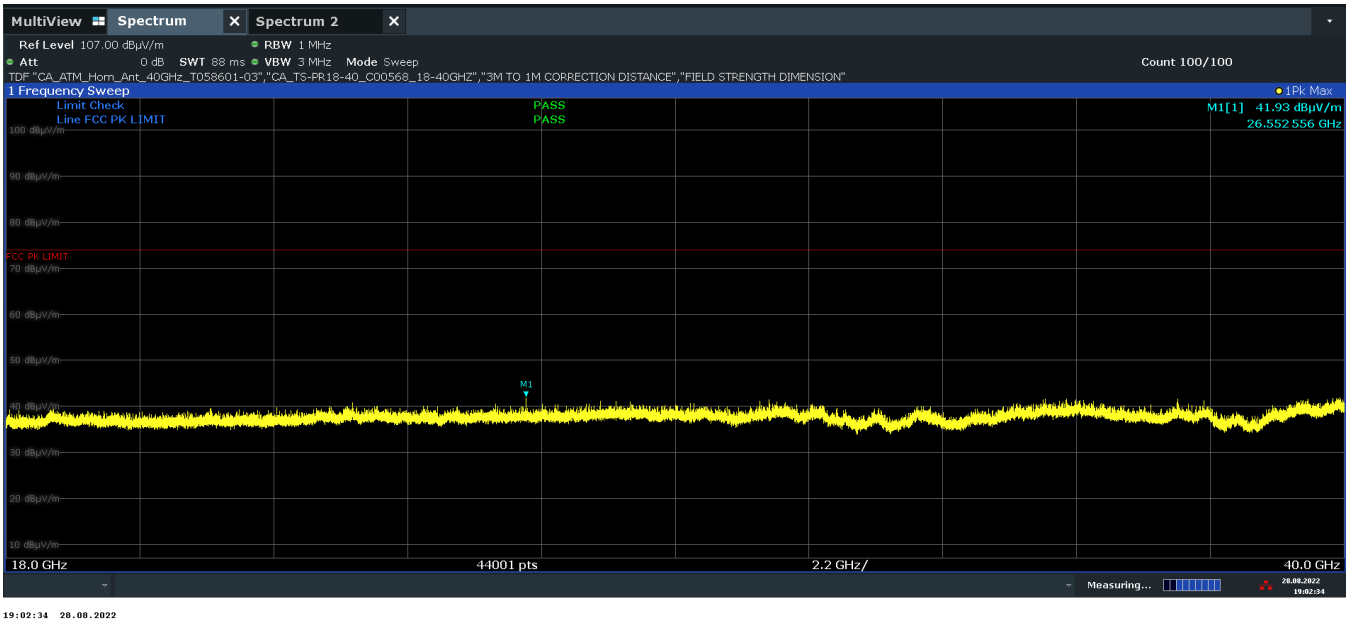
Table 7-88. Radiated Spurious Emission Measurements SDM



Plot 7-629. Radiated Spurious Emissions above 1GHz SDM (802.11ax – Ch. 185)



Plot 7-630. Radiated Spurious Emissions 18-40GHz SDM (802.11ax – Ch. 185, Pol. H)

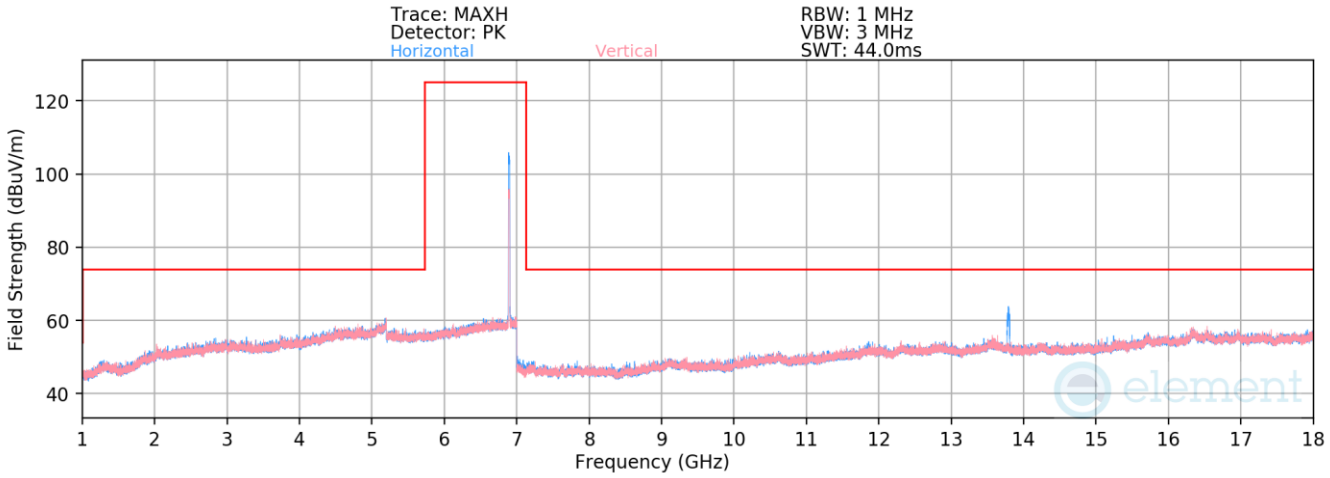


Plot 7-631. Radiated Spurious Emissions 18-40GHz SDM (802.11ax – Ch. 185, Pol. V)

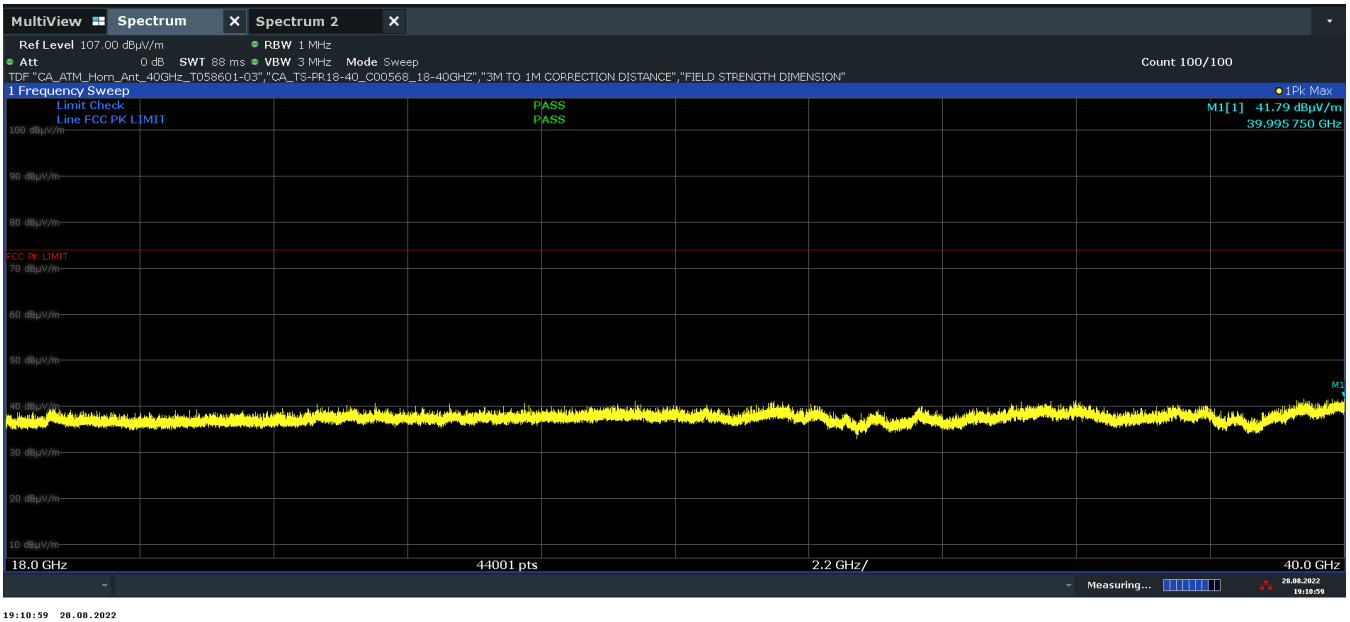
Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	3 Meters
Operating Frequency:	6875MHz
Channel:	185

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
13750.00	Average	H	217	108	-68.72	17.84	56.12	68.20	-12.08

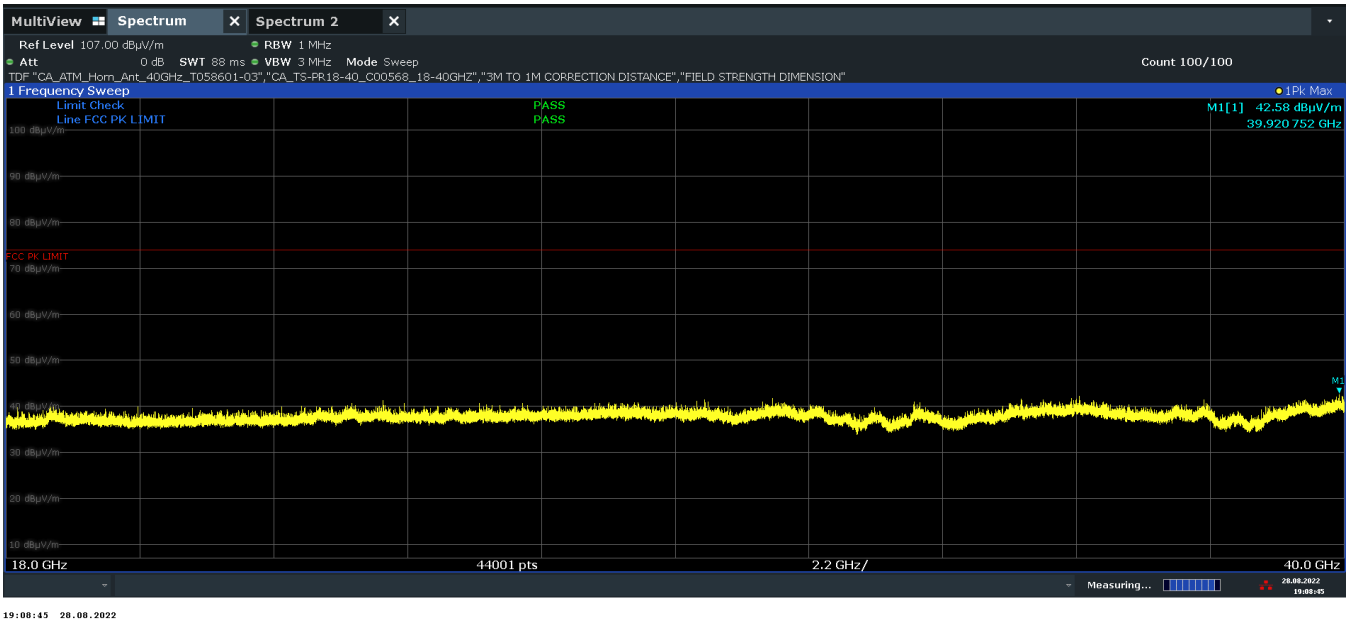
Table 7-89. Radiated Spurious Emission Measurements SDM



Plot 7-632. Radiated Spurious Emissions above 1GHz SDM (802.11ax – Ch. 189)



Plot 7-633. Radiated Spurious Emissions 18-40GHz SDM (802.11ax – Ch. 189, Pol. H)

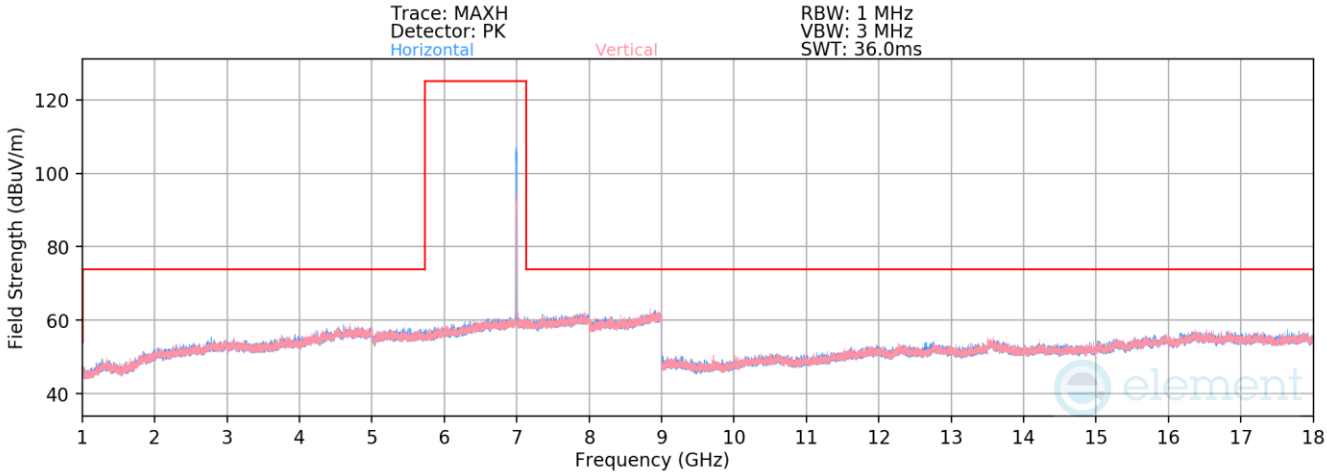


Plot 7-634. Radiated Spurious Emissions 18-40GHz SDM (802.11ax – Ch. 189, Pol. V)

Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
13790.00	Average	H	205	105	-69.11	17.74	55.63	68.20	-12.57

Table 7-90. Radiated Spurious Emission Measurements SDM

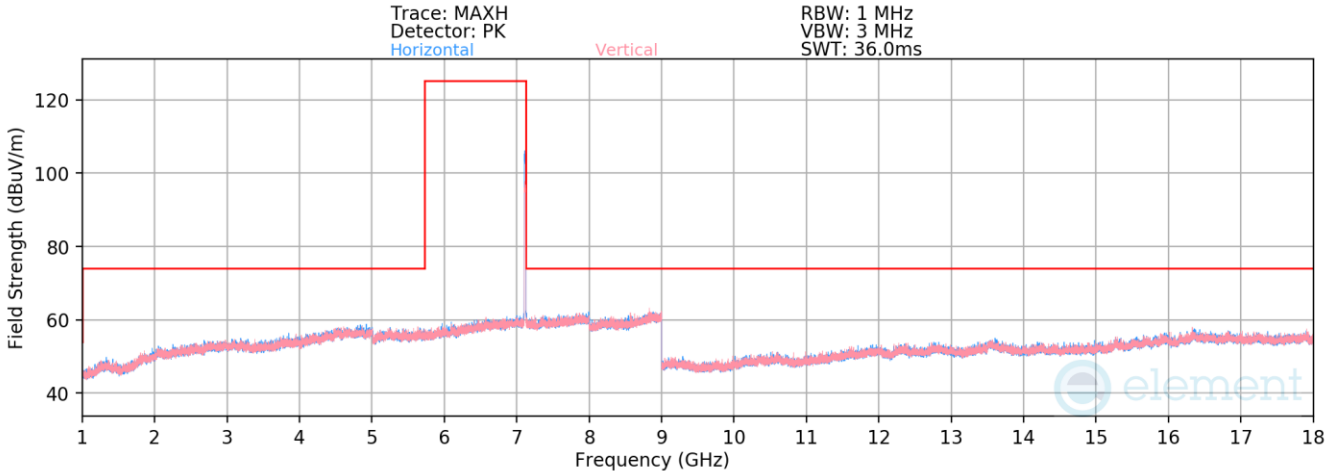


Plot 7-635. Radiated Spurious Emissions above 1GHz SDM (802.11ax – Ch. 209, MCS2)

Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
13990.00	Average	H	-	-	-83.87	17.91	41.04	68.20	-27.16

Table 7-91. Radiated Spurious Emission Measurements SDM



Plot 7-636. Radiated Spurious Emissions above 1GHz SDM (802.11ax – Ch. 233)

Mode:	802.11ax
Data Rate:	MCS2
Distance of Measurements:	3 Meters
Operating Frequency:	7115MHz
Channel:	233

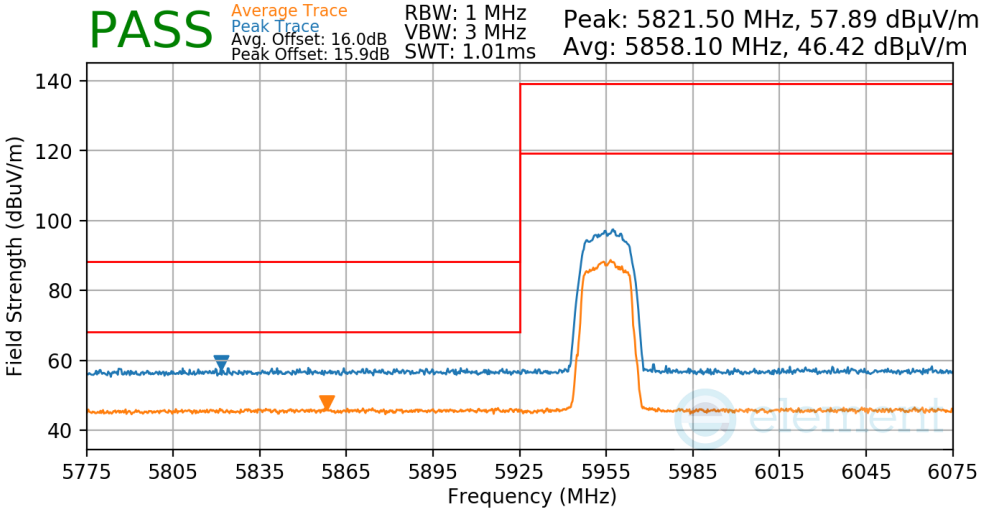
Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
14230.00	Average	H	-	-	-84.07	18.14	41.07	68.20	-27.13

Table 7-92. Radiated Spurious Emission Measurements SDM

7.7.4 Antenna 5b Radiated Band Edge Measurements (20MHz BW)

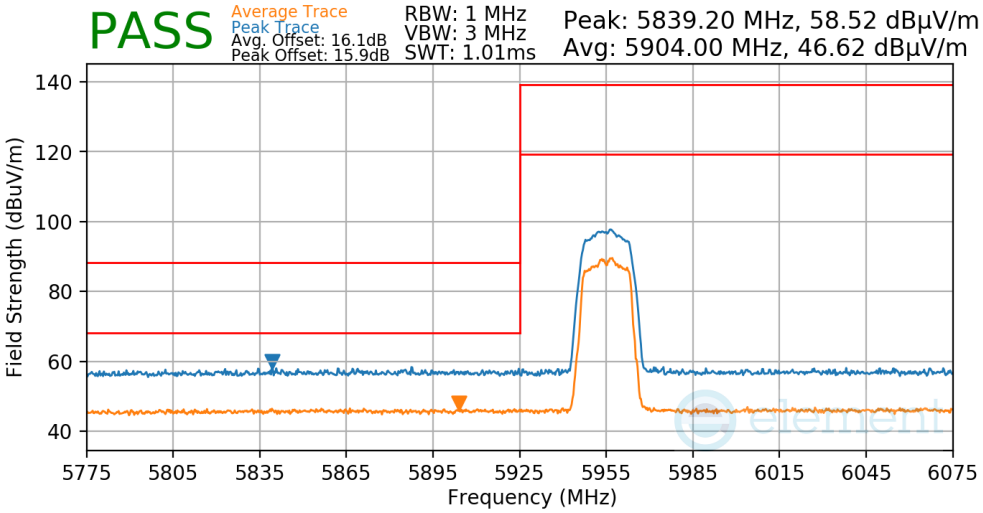
§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]; RSS-Gen [8.9]

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	12Mbps
Distance of Measurements:	3 Meters
Operating Frequency:	5955MHz
Channel:	1



Plot 7-637. Antenna 5b Radiated Lower Band Edge (Peak/Average – UNII Band 5)

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	24Mbps
Distance of Measurements:	3 Meters
Operating Frequency:	5955MHz
Channel:	1



Plot 7-638. Antenna 5b Radiated Lower Band Edge (Peak/Average – UNII Band 5)