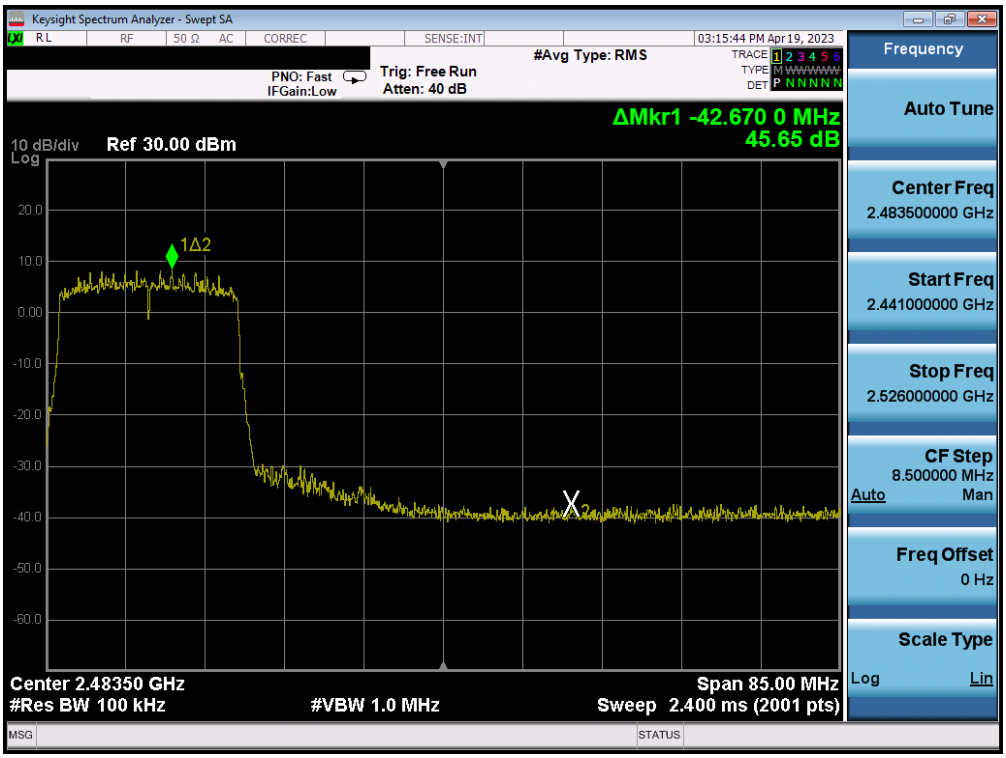
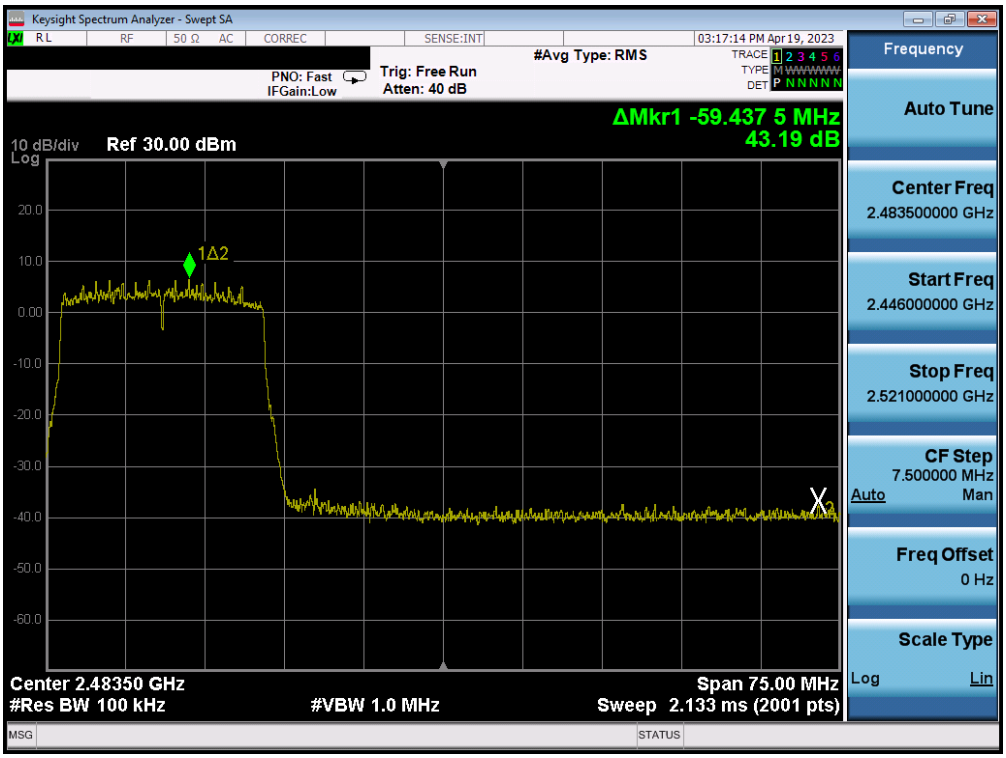
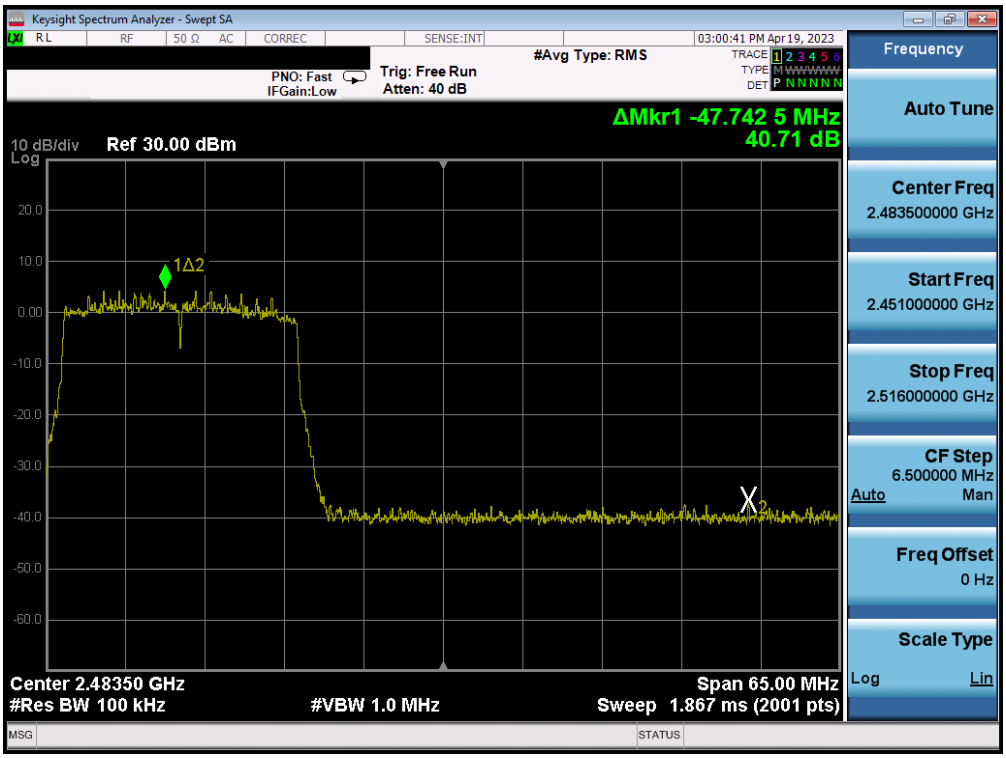


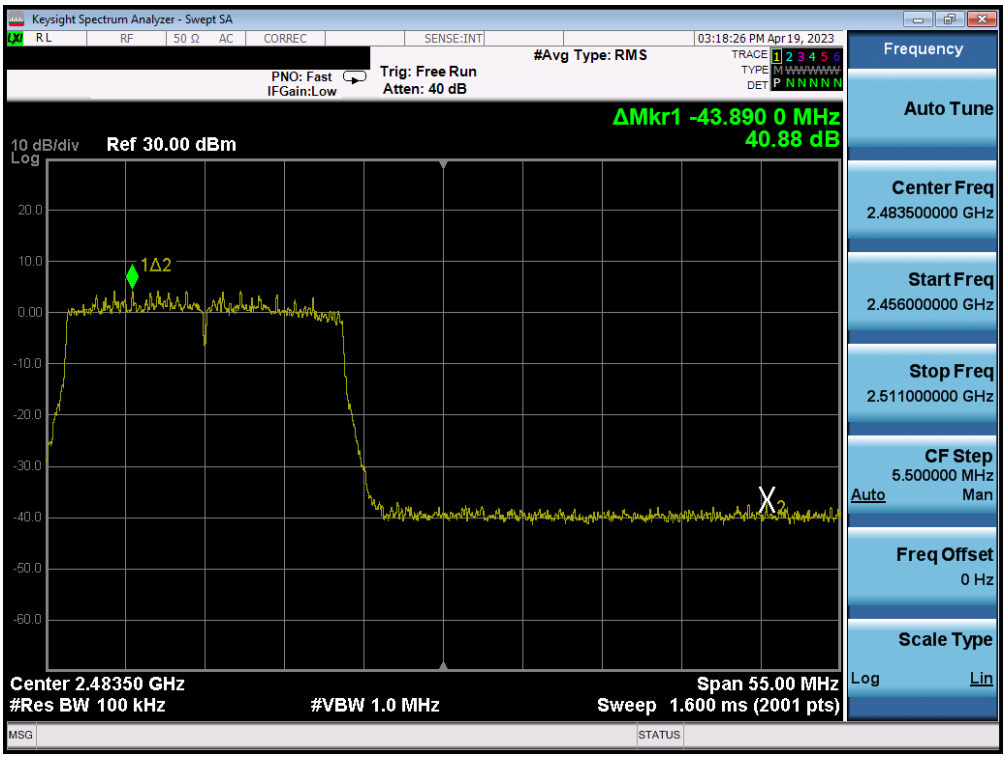
Plot 7-101. Band Edge Ant 2 (802.11ax OFDMA – RU242 – Ch. 9)



Plot 7-102. Band Edge Ant 2 (802.11ax OFDMA – RU242 – Ch. 10)



Plot 7-103. Band Edge Ant 2 (802.11ax OFDMA – RU242 – Ch. 11)



Plot 7-104. Band Edge Ant 2 (802.11ax OFDMA – RU242 – Ch. 12)

7.6 Conducted Spurious Emissions

§15.247(d); RSS-247 [5.5]

Test Overview and Limit

All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates, tone configurations, and RU indices were investigated to determine the worst case configuration. For the following out of band conducted emissions plots, the EUT was set to a data rate of MCS9 in 802.11ax-RU mode as this setting produced the worst-case emissions.

The limit for out-of-band spurious emissions at the band edge is 20dB below the fundamental emission level, as determined from the in-band power measurement of the DTS channel performed in a 100kHz bandwidth per the procedure in Subclause 11.11 of ANSI C63.10-2013 and KDB 558074 D01 v05r02.

Test Procedure Used

ANSI C63.10-2013 – Subclause 11.11.3
KDB 558074 D01 v05r02 – Section 8.5
ANSI C63.10-2013 – Subclause 14.3.3
KDB 662911 D01 v02r01 – Section E)3)b)

Test Settings

1. Start frequency was set to 30MHz and stop frequency was set to 25GHz (separated into two plots per channel)
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = Peak
5. Trace mode = max hold
6. Sweep time = auto couple
7. The trace was allowed to stabilize

Test Setup

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

Figure 7-5. Test Instrument & Measurement Setup

Test Notes

1. RBW was set to 1MHz rather than 100kHz in order to increase the measurement speed.

2. The display line shown in the following plots denotes the limit at 20dB below the fundamental emission level measured in a 100kHz bandwidth. However, since the traces in the following plots are measured with a 1MHz RBW, the display line may not necessarily appear to be 20dB below the level of the fundamental in a 1MHz bandwidth.

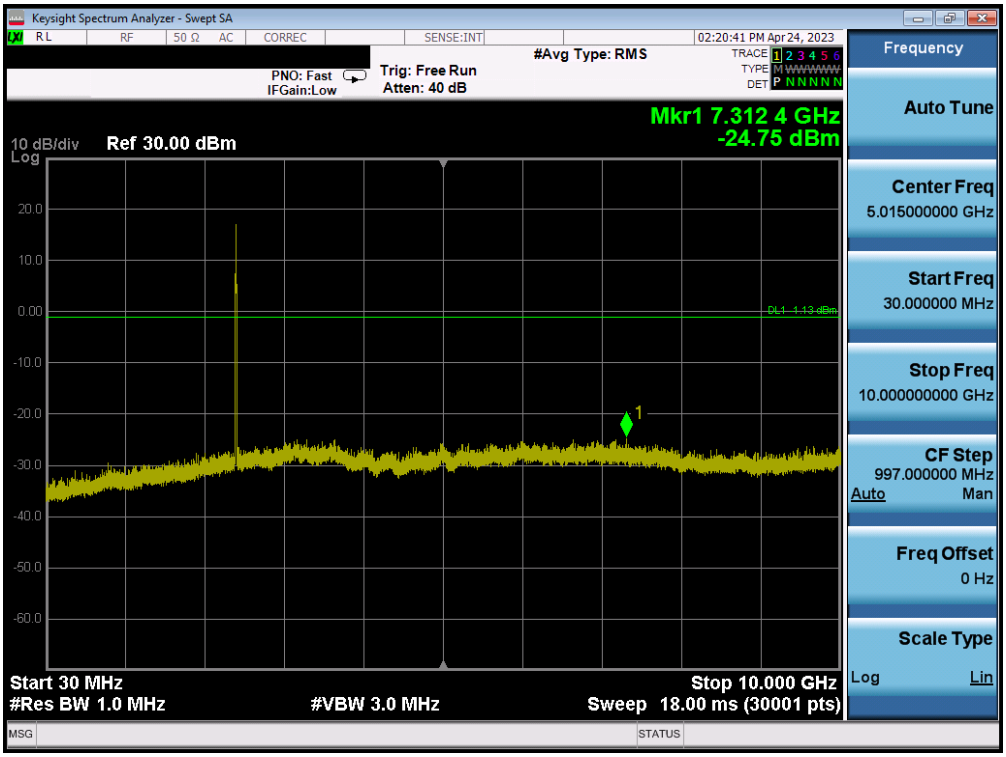
3. For plots showing conducted spurious emissions near the limit, the frequencies were investigated with a reduced RBW to ensure that no emissions were present.

4. The conducted spurious emissions were measured to relative limits. Therefore, in accordance with ANSI C63.10-2013 and KDB 662911 D01 v02r01 Section E)3)b), it was unnecessary to show compliance through the summation of test results of the individual outputs.

5. All antenna configurations and data rates were investigated and only the worst case are reported.

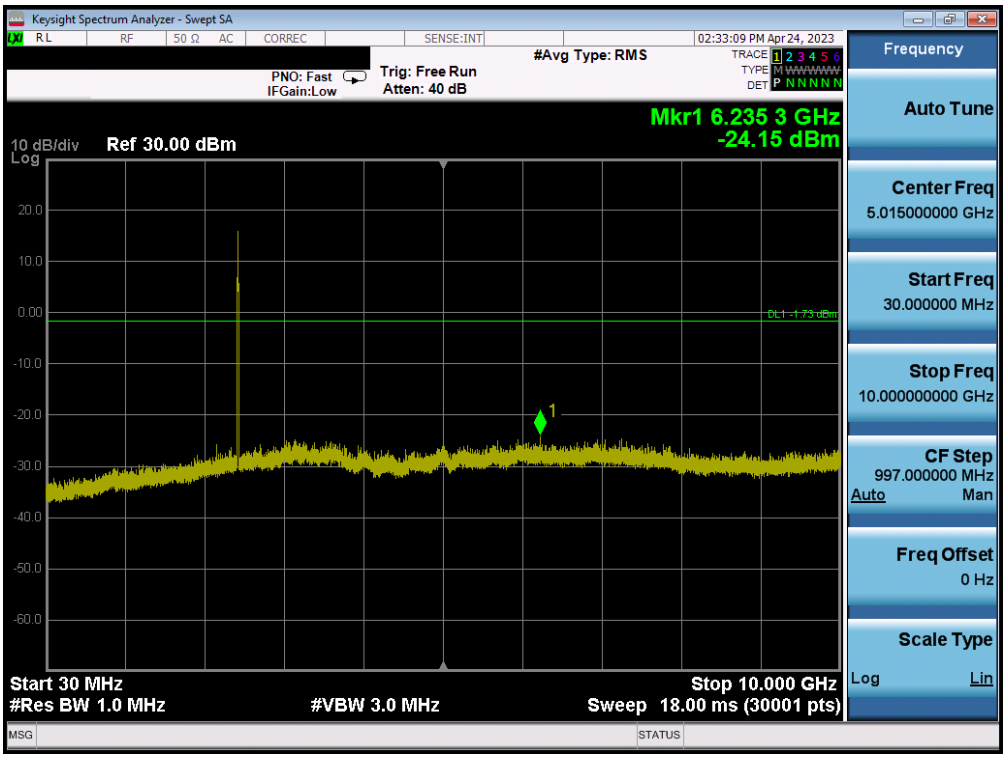
6. All RU's were investigated and only worst case partially-loaded and fully-loaded RU's are reported.

Ant 1 Conducted Spurious Emission



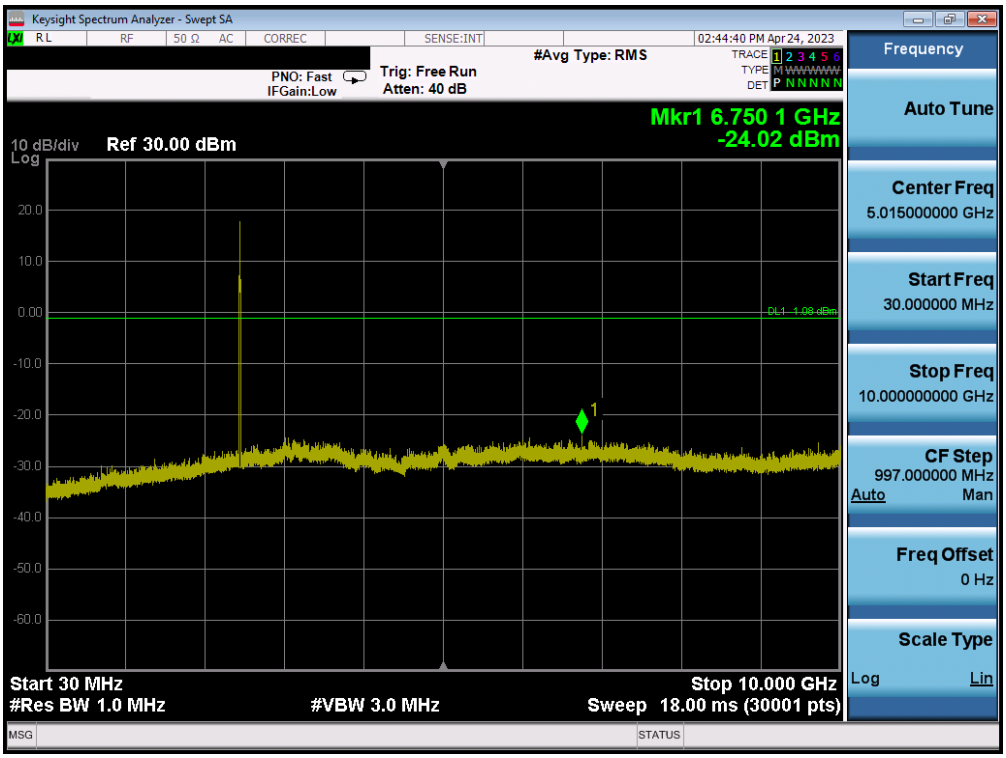
Plot 7-105. Conducted Spurious Plot Ant 1 (802.11ax OFDMA – RU26 – Ch. 1)

Plot 7-106. Conducted Spurious Plot Ant 1 (802.11ax OFDMA – RU26 – Ch. 1)



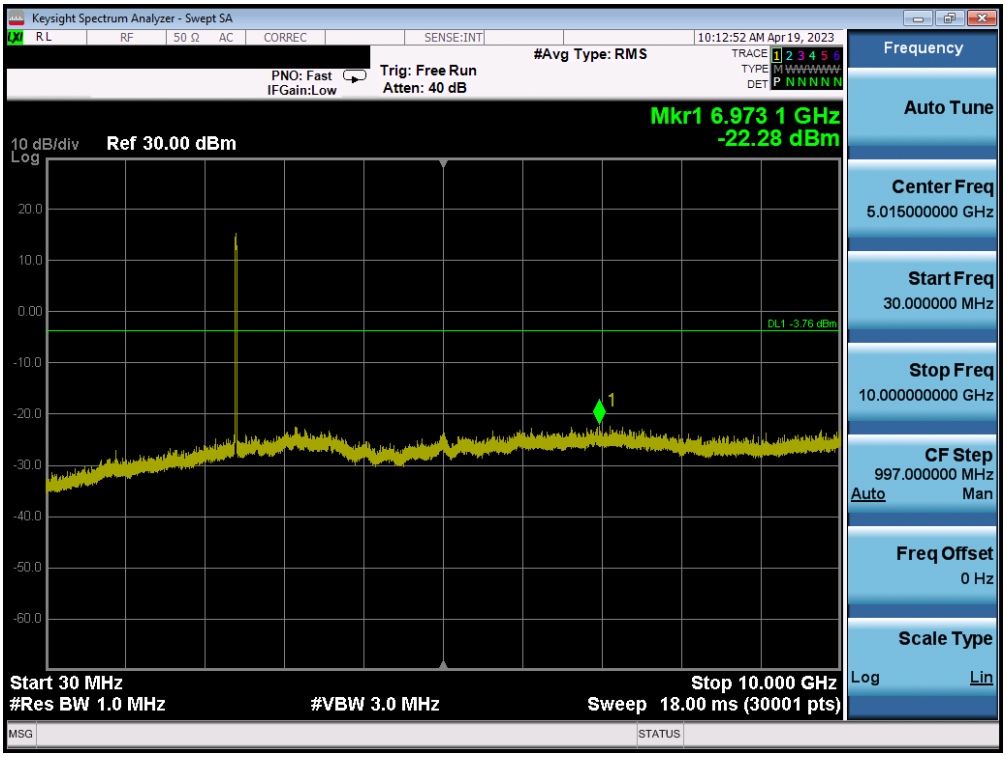
Plot 7-107. Conducted Spurious Plot Ant 1 (802.11ax OFDMA – RU26 – Ch. 6)

Plot 7-108. Conducted Spurious Plot Ant 1 (802.11ax OFDMA – RU26 – Ch. 6)

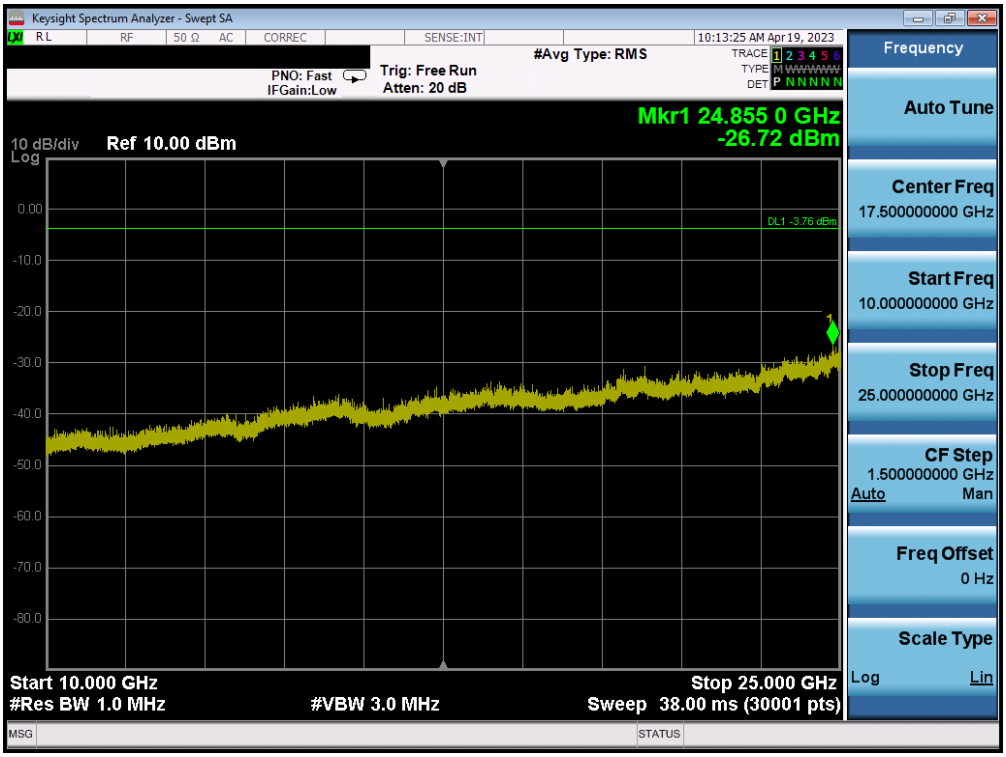


Plot 7-109. Conducted Spurious Plot Ant 1 (802.11ax OFDMA – RU26 – Ch. 11)

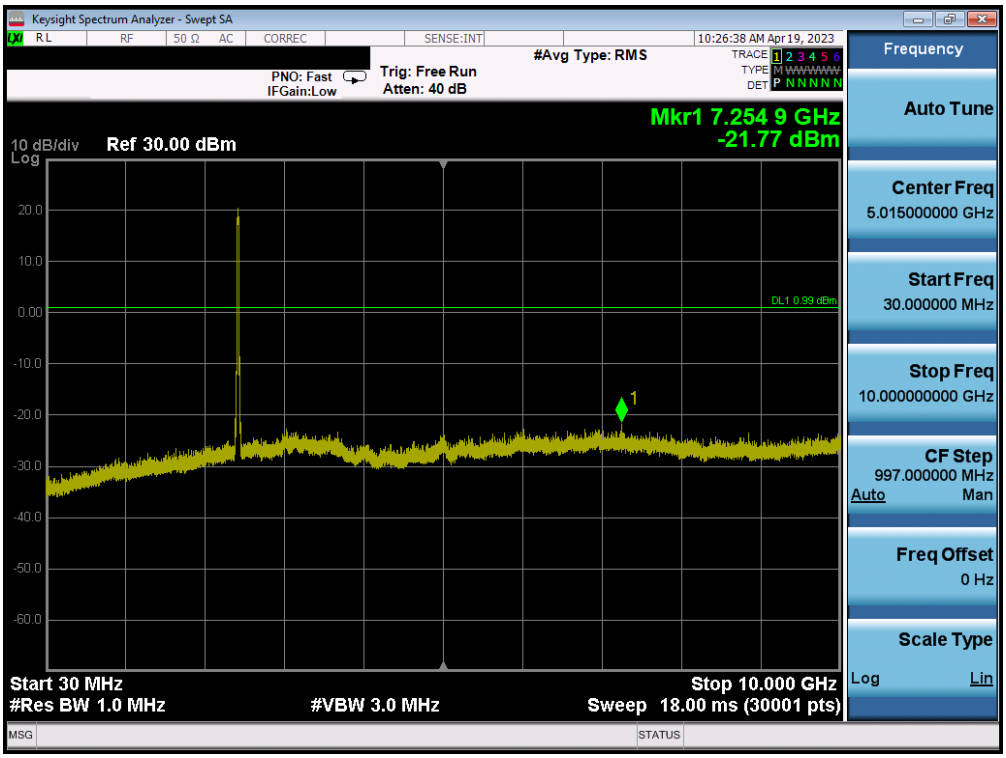
Plot 7-110. Conducted Spurious Plot Ant 1 (802.11ax OFDMA – RU26 – Ch. 11)



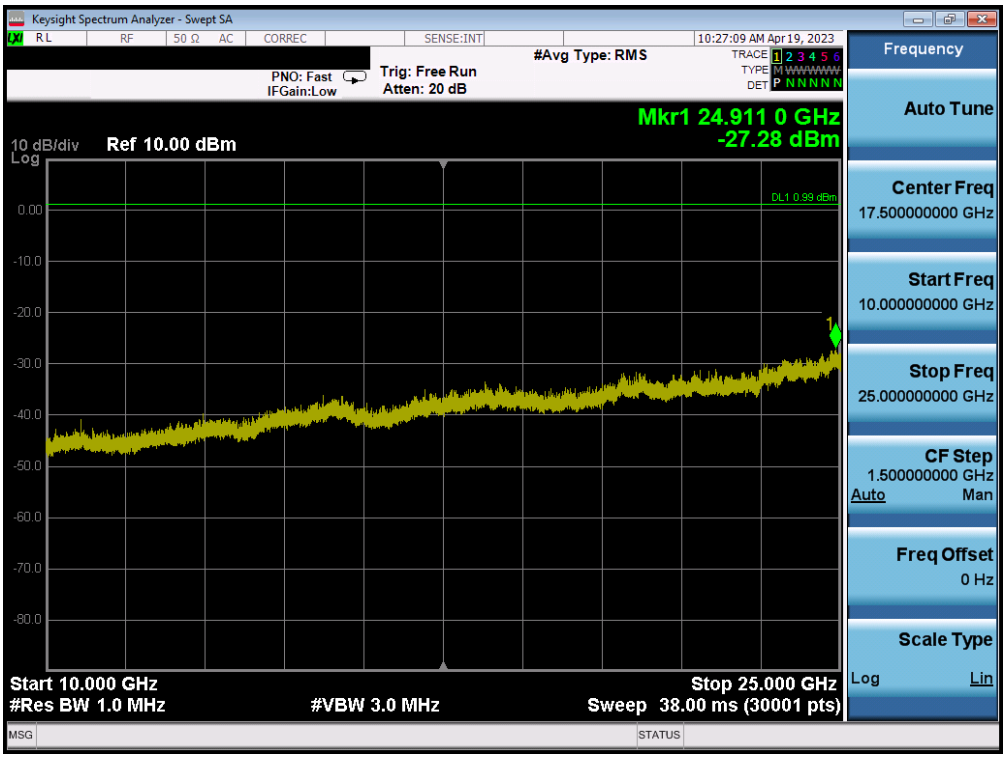
Plot 7-111. Conducted Spurious Plot Ant 1 (802.11ax OFDMA – RU242 – Ch. 1)



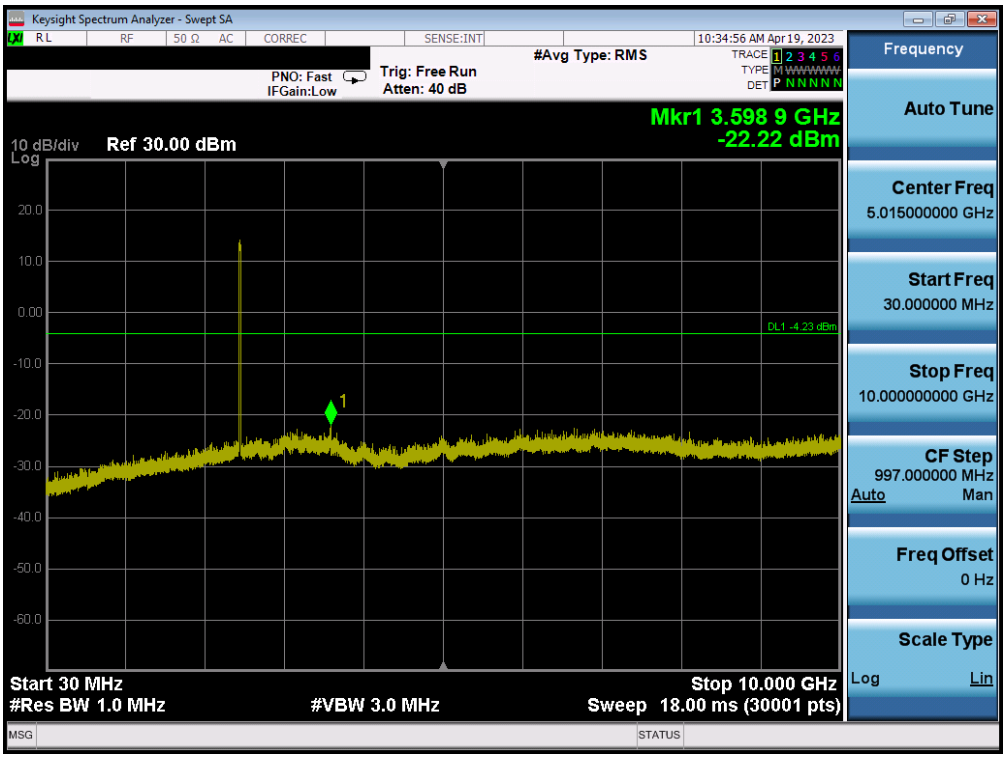
Plot 7-112. Conducted Spurious Plot Ant 1 (802.11ax OFDMA – RU242 – Ch. 1)



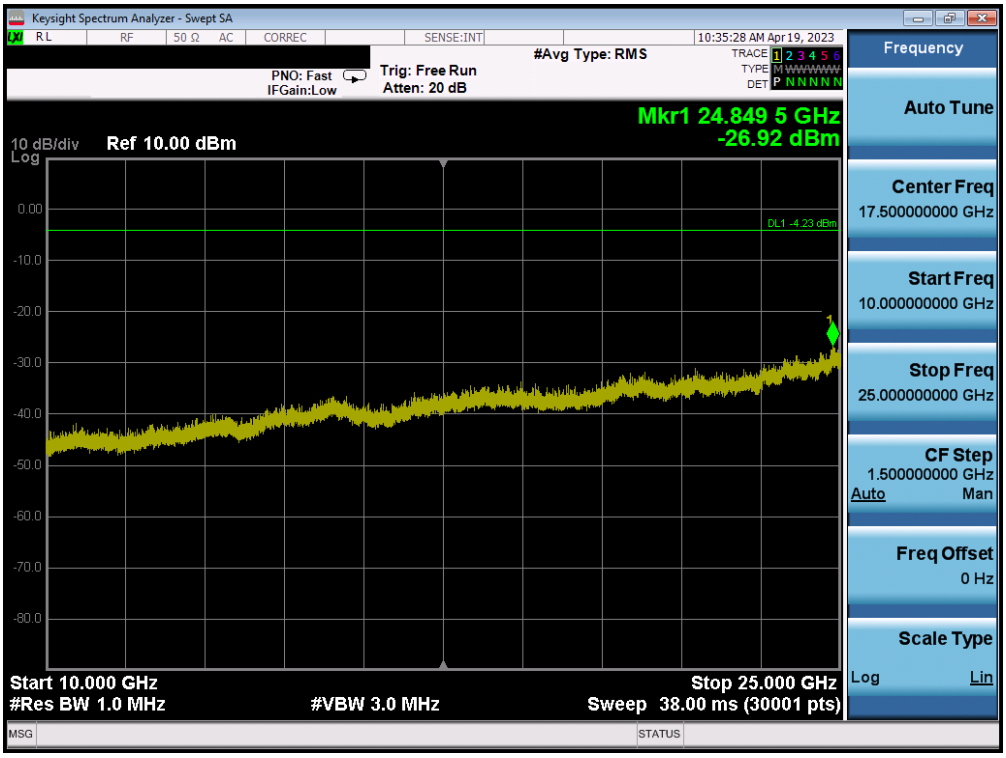
Plot 7-113. Conducted Spurious Plot Ant 1 (802.11ax OFDMA – RU242 – Ch. 6)



Plot 7-114. Conducted Spurious Plot Ant 1 (802.11ax OFDMA – RU242 – Ch. 6)

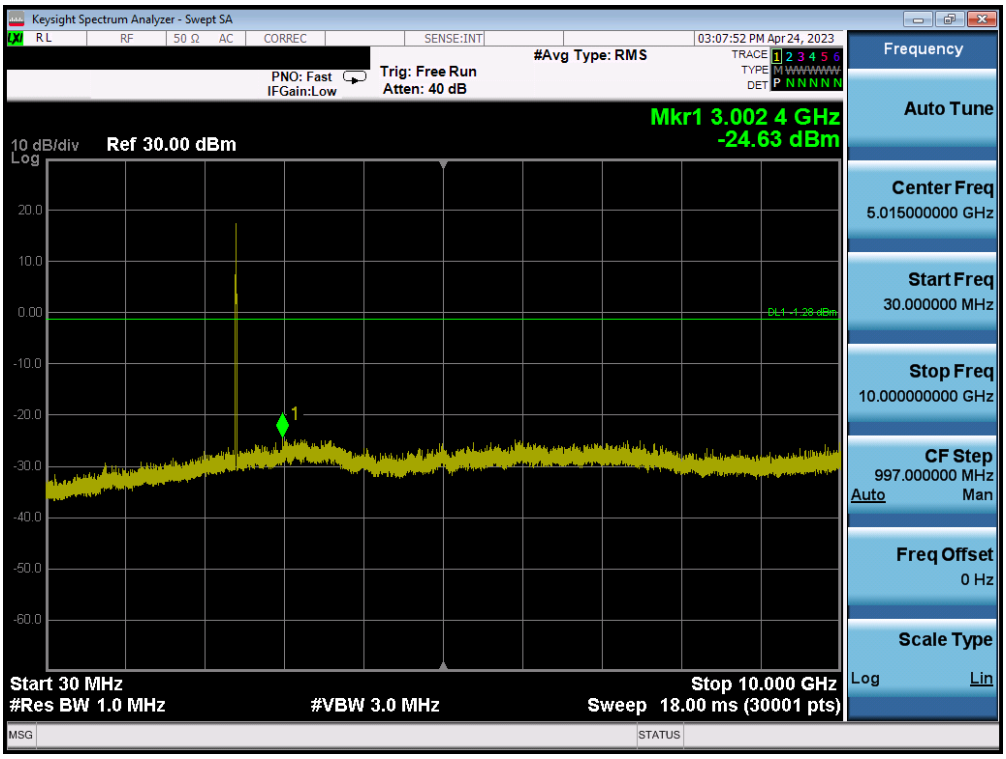


Plot 7-115. Conducted Spurious Plot Ant 1 (802.11ax OFDMA – RU242 – Ch. 11)



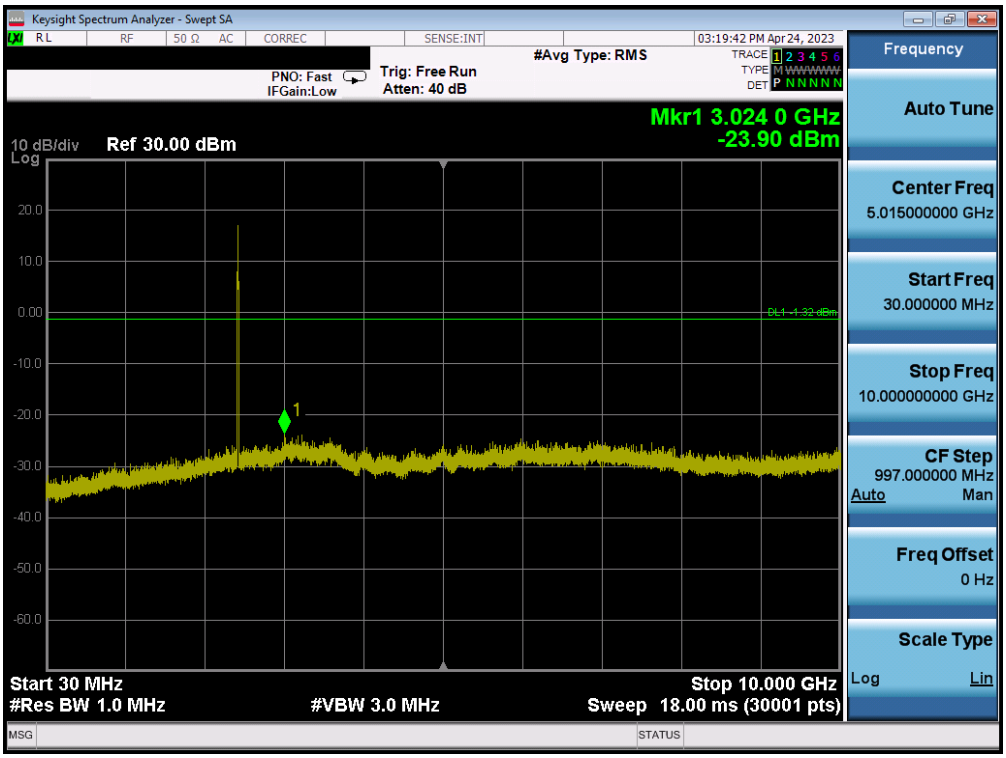
Plot 7-116. Conducted Spurious Plot Ant 1 (802.11ax OFDMA – RU242 – Ch. 11)

Ant 2 Conducted Spurious Emissions



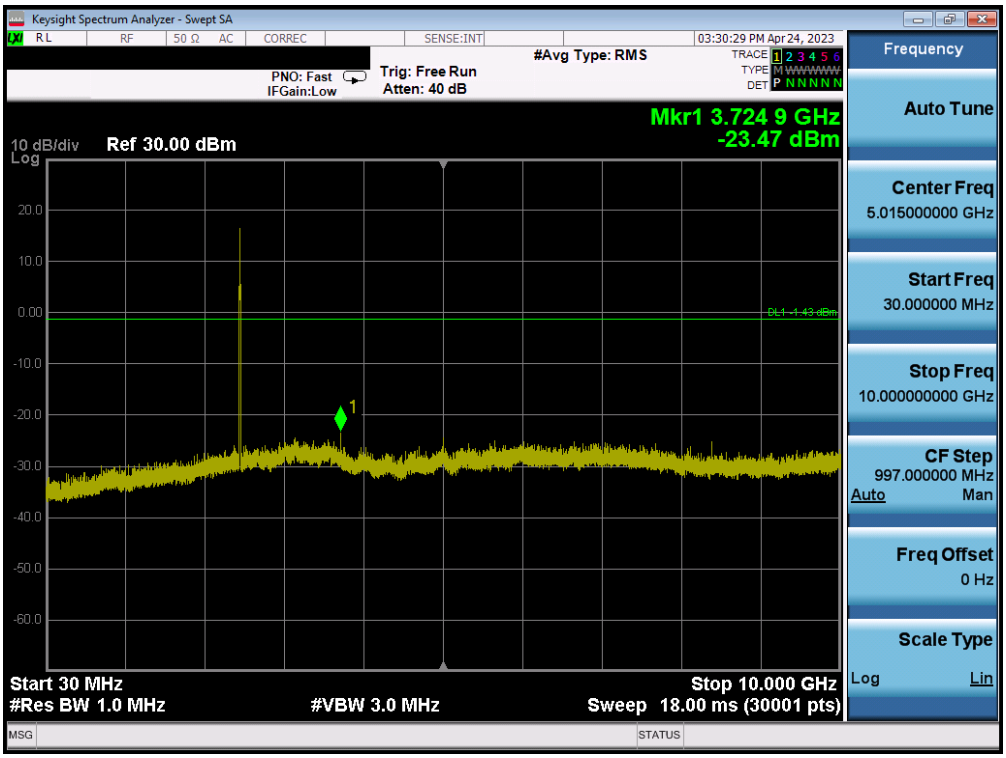
Plot 7-117. Conducted Spurious Plot Ant 2 (802.11ax OFDMA – RU26 – Ch. 1)

Plot 7-118. Conducted Spurious Plot Ant 2 (802.11ax OFDMA – RU26 – Ch. 1)

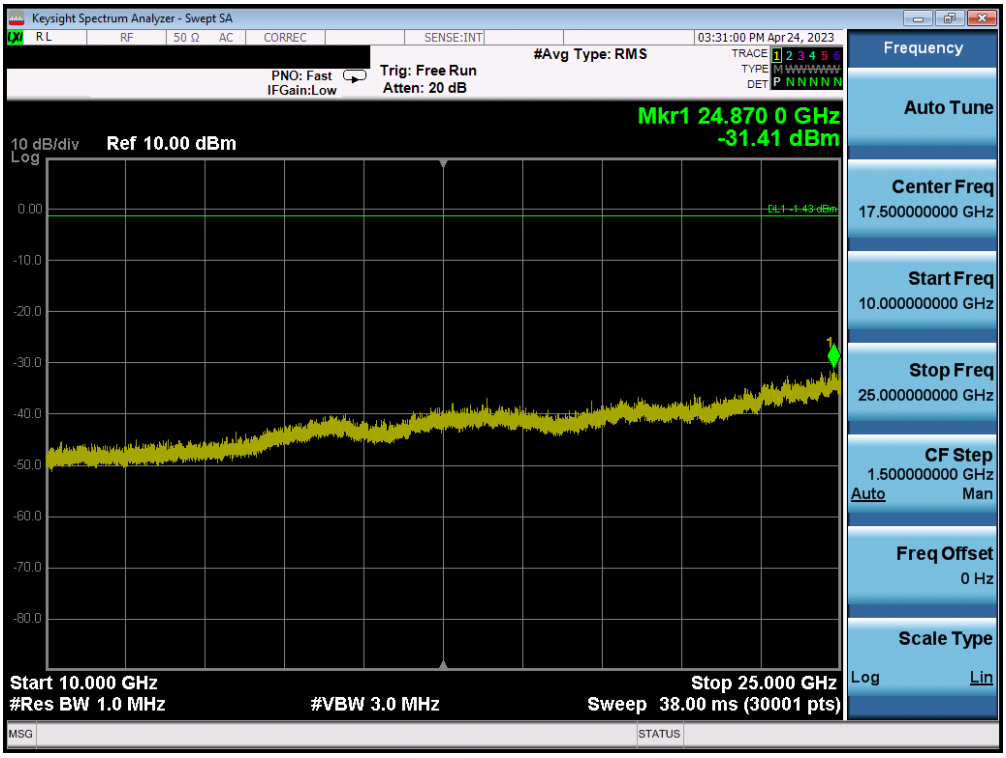


Plot 7-119. Conducted Spurious Plot Ant 2 (802.11ax OFDMA – RU26 – Ch. 6)

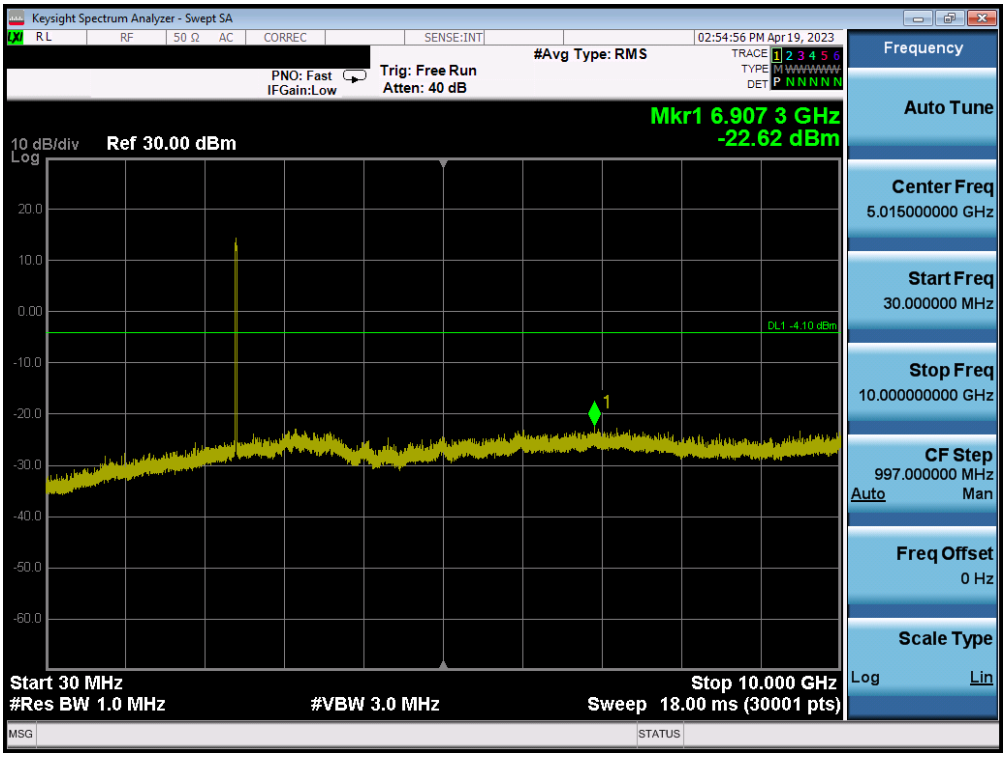
Plot 7-120. Conducted Spurious Plot Ant 2 (802.11ax OFDMA – RU26 – Ch. 6)



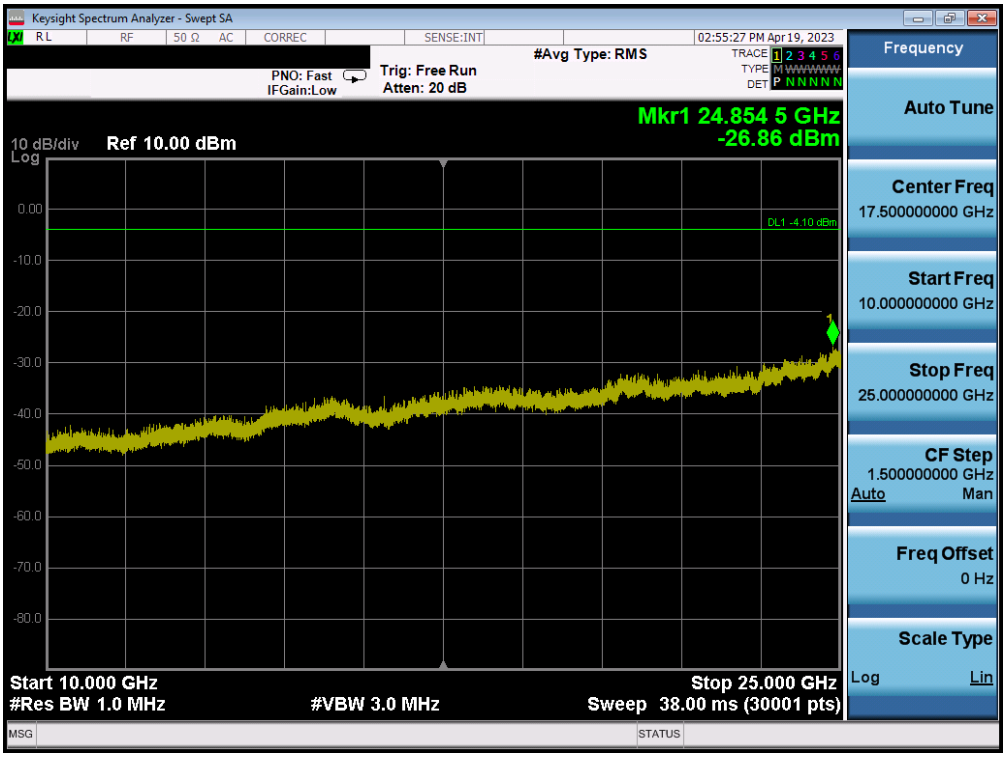
Plot 7-121. Conducted Spurious Plot Ant 2 (802.11ax OFDMA – RU26 – Ch. 11)



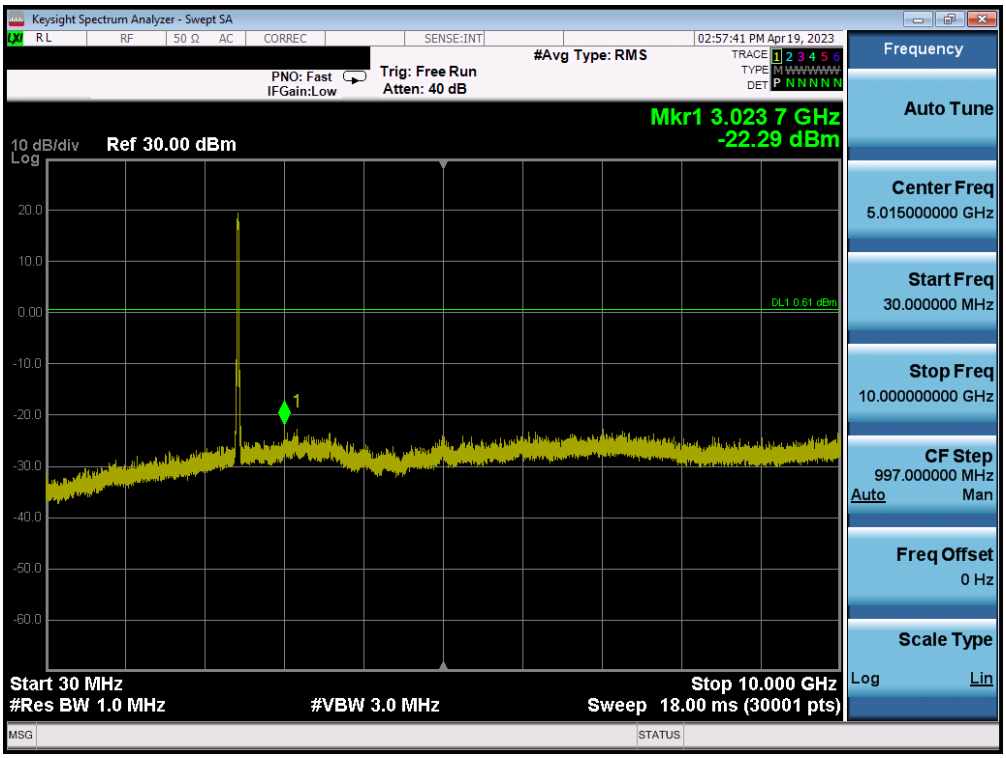
Plot 7-122. Conducted Spurious Plot Ant 2 (802.11ax OFDMA – RU26 – Ch. 11)



Plot 7-123. Conducted Spurious Plot Ant 2 (802.11ax OFDMA – RU242 – Ch. 1)

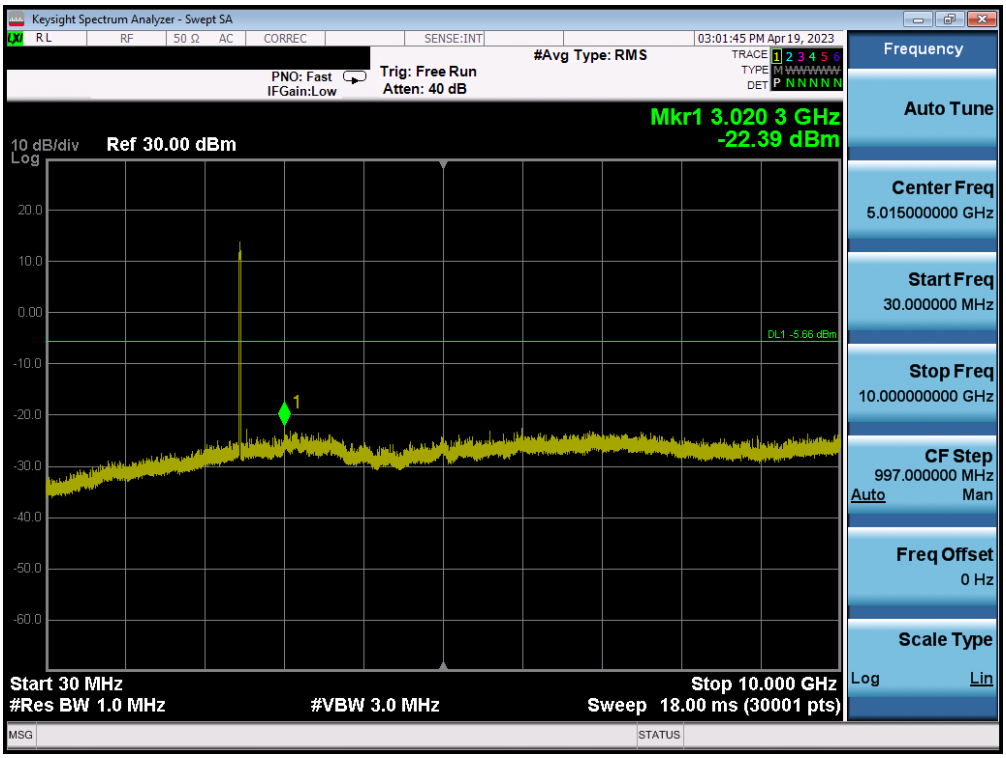


Plot 7-124. Conducted Spurious Plot Ant 2 (802.11ax OFDMA – RU242 – Ch. 1)

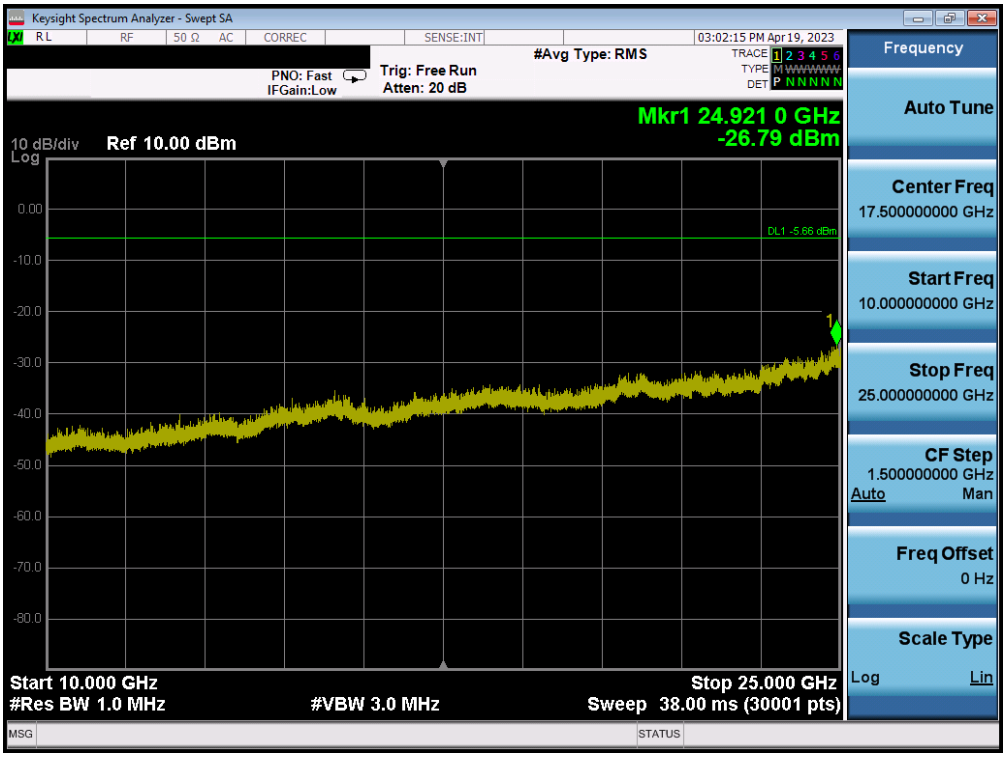


Plot 7-125. Conducted Spurious Plot Ant 2 (802.11ax OFDMA – RU242 – Ch. 6)

Plot 7-126. Conducted Spurious Plot Ant 2 (802.11ax OFDMA – RU242 – Ch. 6)



Plot 7-127. Conducted Spurious Plot Ant 2 (802.11ax OFDMA – RU242 – Ch. 11)



Plot 7-128. Conducted Spurious Plot Ant 2 (802.11ax OFDMA – RU242 – Ch. 11)

7.7 Radiated Spurious Emissions – Above 1 GHz

§15.247(d) §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 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 7 of RSS-Gen (8.10) must not exceed the limits shown in Table 7-19 per Section 15.209 and RSS-Gen (8.9).

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

Table 7-19. Radiated Limits

Test Procedures Used

ANSI C63.10-2013 – Subclause 6.6.4.3
KDB 558074 D01 v05r02 – Sections 8.6, 8.7

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. Sweep time = auto
7. Trace (RMS) averaging was performed over at least 100 traces

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.

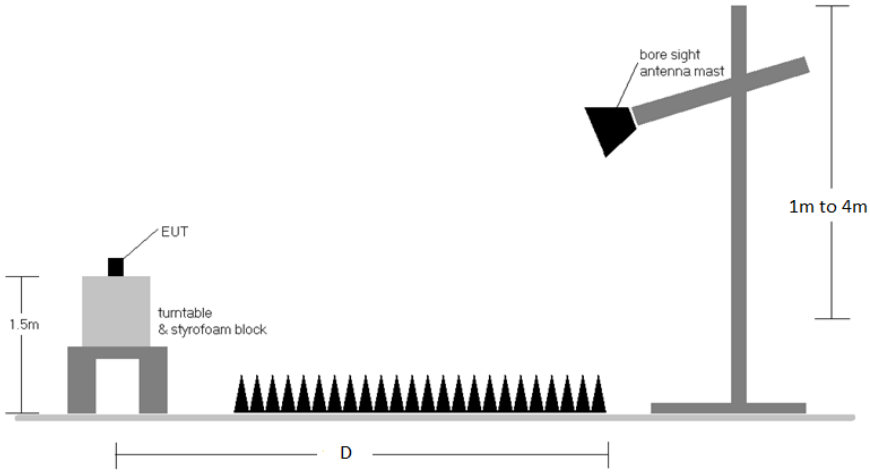


Figure 7-6. Radiated Measurement Setup

Test Notes

1. The optional test procedures for antenna port conducted measurements of unwanted emissions per the guidance of KDB 558074 D01 v05r02 were not used to evaluate this device for compliance to radiated limits. All Radiated Spurious Emissions levels were measured in a radiated test setup.
2. All emissions lying in restricted bands specified in Section 15.205 and Section 8.10 of RSS-Gen are below the limit shown in Table 7-19.
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. The "-" shown in the following RSE tables are used to denote a noise floor measurement.
9. All data rates were investigated and only the worst case is reported.
10. For radiated measurements, emissions were investigated for the fully-loaded RU configuration and for all the partially-loaded RU configurations. Among all of the available partially-loaded RU configurations, only the configuration with the worst case emissions is reported.

Sample Calculations

Determining Spurious Emissions Levels

- Field Strength Level [dBµV/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 [dBµV/m] – Limit [dBµV/m]

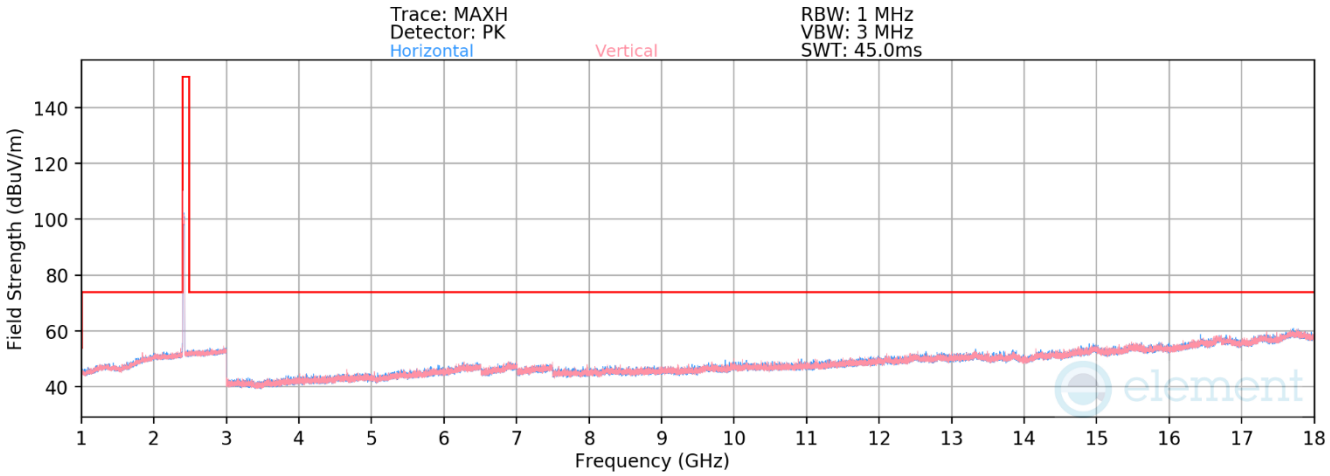
Radiated Band Edge Measurement Offset

- The amplitude offset shown in the radiated restricted band edge plots in Section 7.7 was calculated using the formula:

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

7.7.1 Ant 1 Radiated Spurious Emission Measurements

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

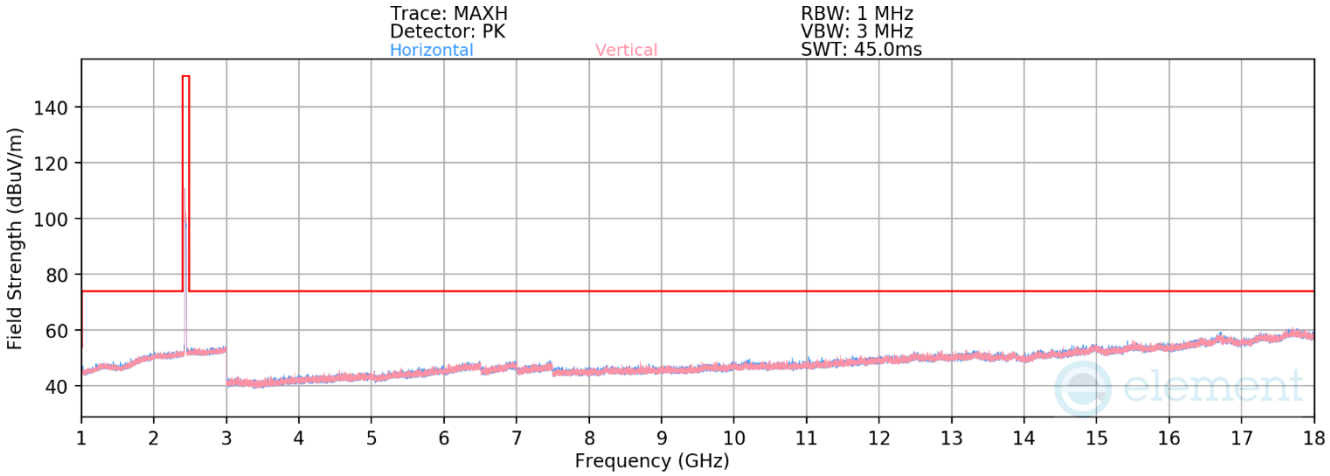


Plot 7-129. Radiated Spurious Emissions above 1GHz Ant 1 (802.11ax OFDMA – RU26 – Ch. 1)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	4
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	-	-	-79.05	4.09	32.04	53.98	-21.94
4824.00	Peak	H	-	-	-66.86	4.09	44.23	73.98	-29.75
12060.00	Avg	H	-	-	-82.42	12.71	37.29	53.98	-16.69
12060.00	Peak	H	-	-	-70.10	12.71	49.61	73.98	-24.37

Table 7-20. Radiated Measurements Ant 1 (RU26)

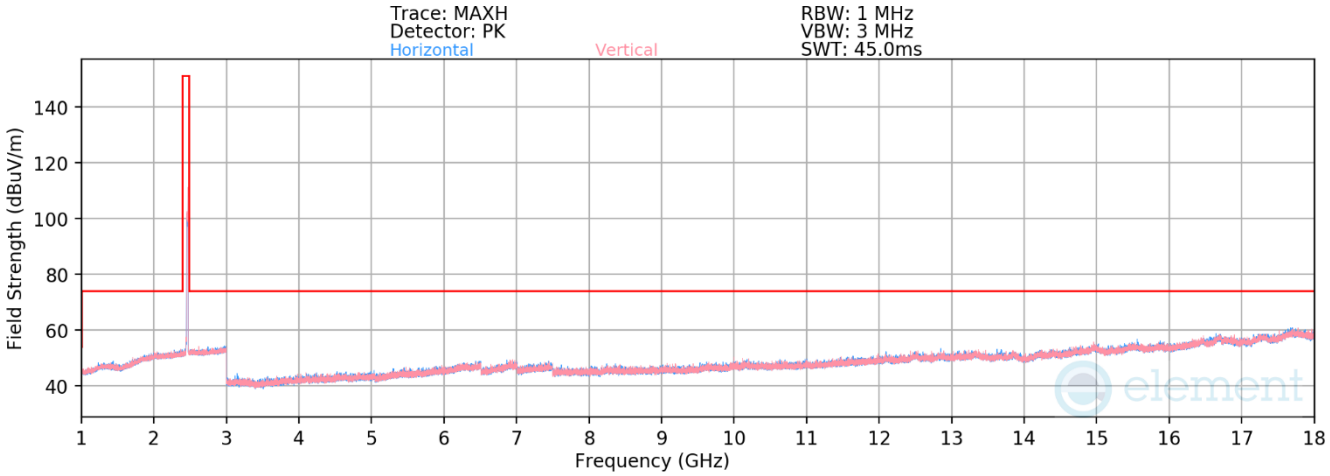


Plot 7-130. Radiated Spurious Emissions above 1GHz Ant 1 (802.11ax OFDMA – RU26 – Ch. 6)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	4
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	-	-	-79.46	4.23	31.77	53.98	-22.21
4874.00	Peak	H	-	-	-66.98	4.23	44.25	73.98	-29.73
7311.00	Avg	H	180	184	-77.61	8.63	38.02	53.98	-15.96
7311.00	Peak	H	180	184	-64.73	8.63	50.90	73.98	-23.08
12185.00	Avg	H	-	-	-83.01	13.51	37.50	53.98	-16.48
12185.00	Peak	H	-	-	-70.41	13.51	50.10	73.98	-23.88

Table 7-21. Radiated Measurements Ant 1 (RU26)

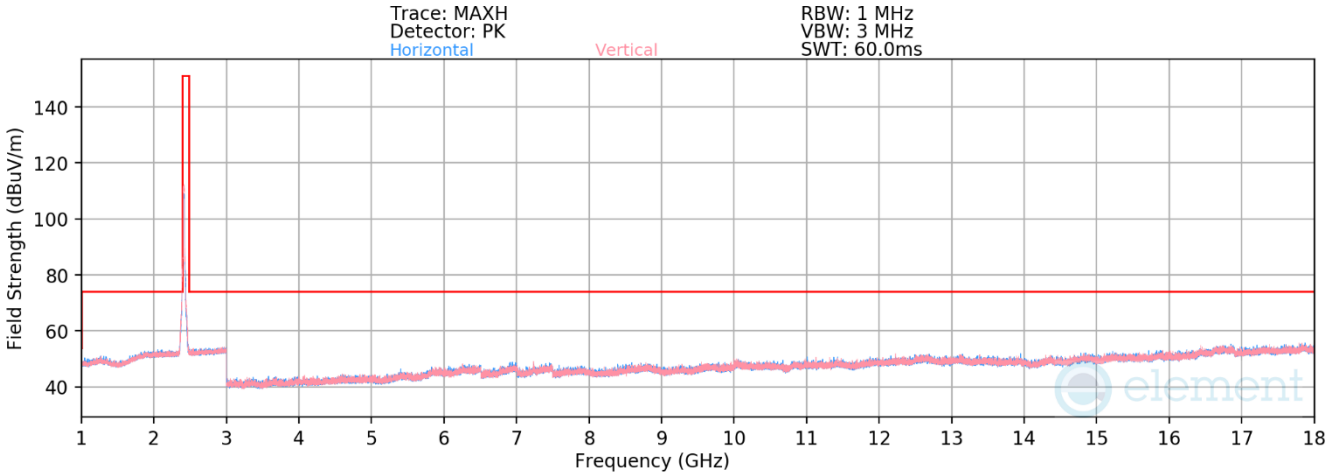


Plot 7-131. Radiated Spurious Emissions above 1GHz Ant 1 (802.11ax OFDMA – RU26 – Ch. 11)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	4
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	-	-	-79.26	4.32	32.06	53.98	-21.92
4924.00	Peak	H	-	-	-66.90	4.32	44.42	73.98	-29.56
7386.00	Avg	V	221	179	-78.63	8.90	37.27	53.98	-16.71
7386.00	Peak	H	221	179	-64.50	8.90	51.40	73.98	-22.58
12310.00	Avg	H	-	-	-83.06	13.62	37.56	53.98	-16.42
12310.00	Peak	H	-	-	-70.48	13.62	50.14	73.98	-23.84

Table 7-22. Radiated Measurements Ant 1 (RU26)

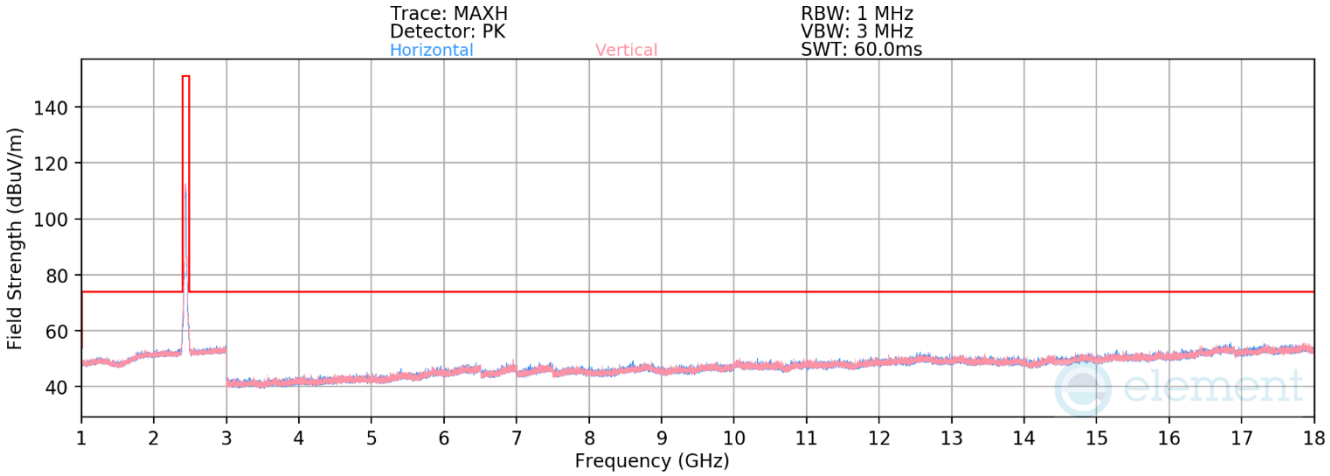


Plot 7-132. Radiated Spurious Emissions above 1GHz Ant 1 (802.11ax OFDMA – RU242 – Ch. 1)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
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	-	-	-79.05	4.09	32.04	53.98	-21.94
4824.00	Peak	H	-	-	-66.86	4.09	44.23	73.98	-29.75
12060.00	Avg	H	-	-	-82.42	12.71	37.29	53.98	-16.69
12060.00	Peak	H	-	-	-70.10	12.71	49.61	73.98	-24.37

Table 7-23. Radiated Measurements Ant 1 (RU242)

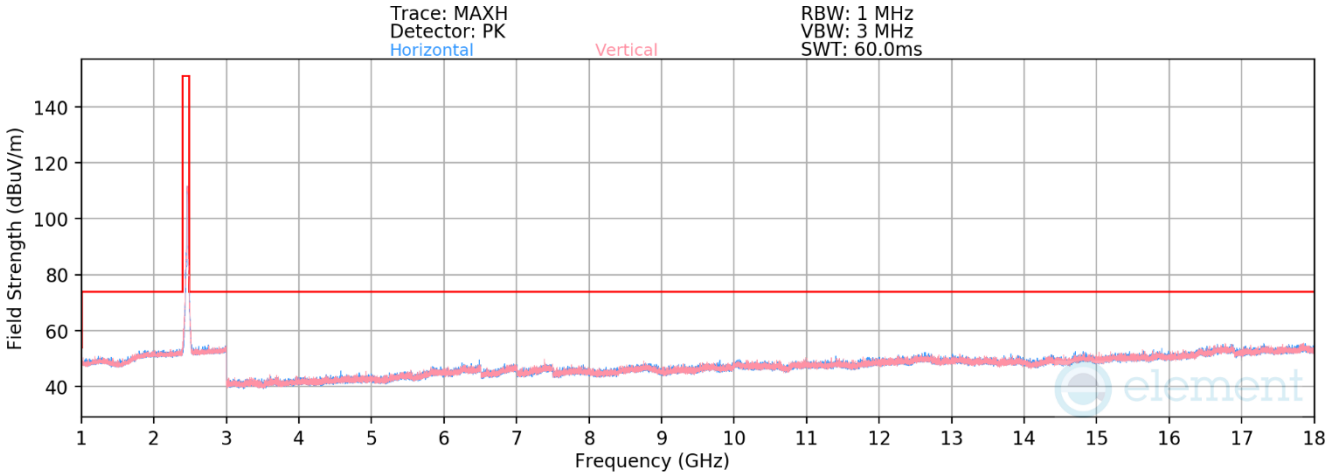


Plot 7-133. Radiated Spurious Emissions above 1GHz Ant 1 (802.11ax OFDMA – RU242 – Ch. 6)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
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	-	-	-79.46	4.23	31.77	53.98	-22.21
4874.00	Peak	H	-	-	-66.98	4.23	44.25	73.98	-29.73
7311.00	Avg	H	180	184	-77.61	8.63	38.02	53.98	-15.96
7311.00	Peak	H	180	184	-64.73	8.63	50.90	73.98	-23.08
12185.00	Avg	H	-	-	-83.01	13.51	37.50	53.98	-16.48
12185.00	Peak	H	-	-	-70.41	13.51	50.10	73.98	-23.88

Table 7-24. Radiated Measurements Ant 1 (RU242)



Plot 7-134. Radiated Spurious Emissions above 1GHz Ant 1 (802.11ax OFDMA – RU242 – Ch. 11)

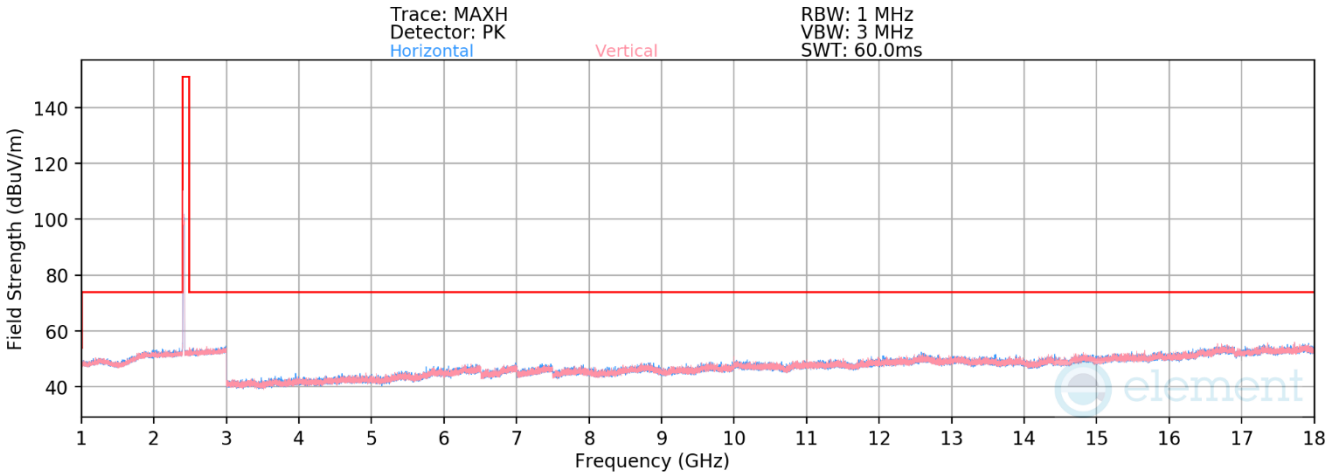
Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2462MHz
Channel:	11

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	-	-	-79.26	4.32	32.06	53.98	-21.92
4924.00	Peak	H	-	-	-66.90	4.32	44.42	73.98	-29.56
7386.00	Avg	V	221	179	-78.63	8.90	37.27	53.98	-16.71
7386.00	Peak	H	221	179	-64.50	8.90	51.40	73.98	-22.58
12310.00	Avg	H	-	-	-83.06	13.62	37.56	53.98	-16.42
12310.00	Peak	H	-	-	-70.48	13.62	50.14	73.98	-23.84

Table 7-25. Radiated Measurements Ant 1 (RU242)

7.7.2 Ant 2 Radiated Spurious Emission Measurements

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

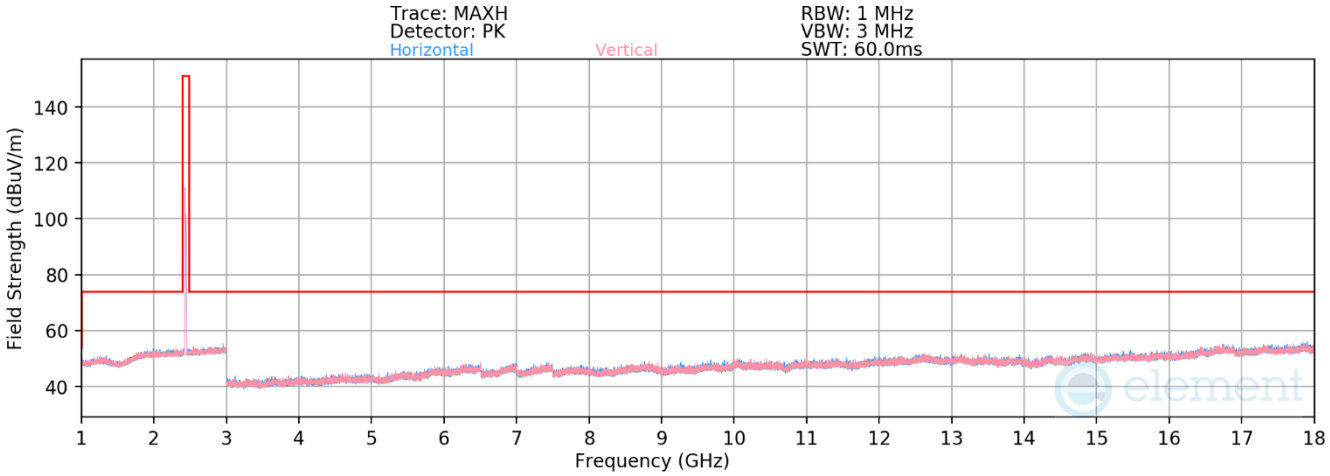


Plot 7-135. Radiated Spurious Emissions above 1GHz Ant 2 (802.11ax OFDMA – RU26 – Ch. 1)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	4
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	-	-	-78.43	4.09	32.66	53.98	-21.32
4824.00	Peak	H	-	-	-67.45	4.09	43.64	73.98	-30.34
12060.00	Avg	H	-	-	-81.12	12.71	38.59	53.98	-15.39
12060.00	Peak	H	-	-	-70.12	12.71	49.59	73.98	-24.39

Table 7-26. Radiated Measurements Ant 2 (RU26)

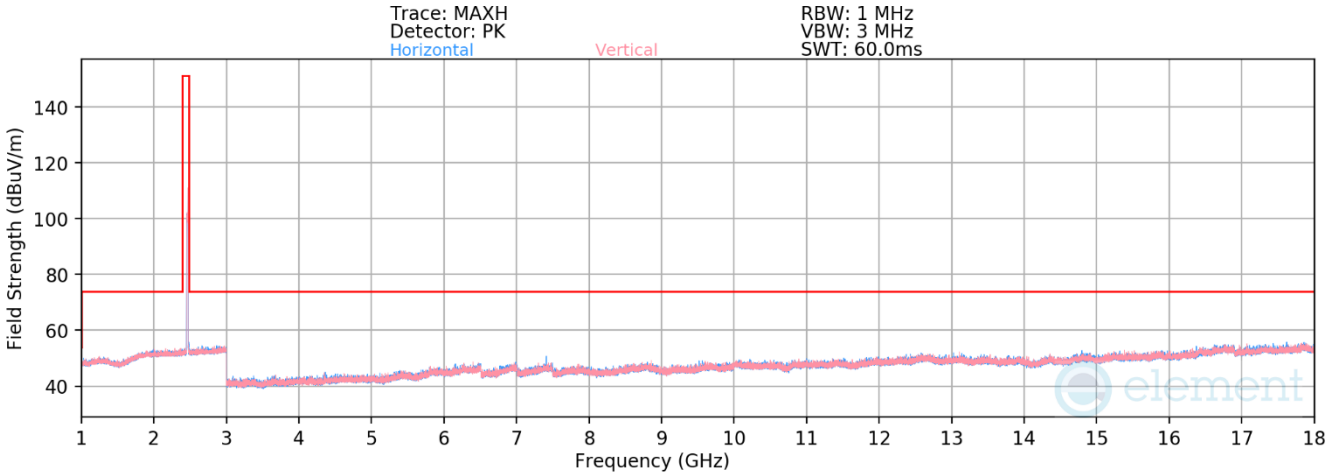


Plot 7-136. Radiated Spurious Emissions above 1GHz Ant 2 (802.11ax OFDMA – RU26 – Ch. 6)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	4
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	-	-	-78.71	4.23	32.52	53.98	-21.46
4874.00	Peak	H	-	-	-66.98	4.23	44.25	73.98	-29.73
7311.00	Avg	H	-	-	-80.25	8.63	35.38	53.98	-18.60
7311.00	Peak	H	-	-	-69.72	8.63	45.91	73.98	-28.07
12185.00	Avg	H	-	-	-81.92	13.51	38.59	53.98	-15.39
12185.00	Peak	H	-	-	-71.10	13.51	49.41	73.98	-24.57

Table 7-27. Radiated Measurements Ant 2 (RU26)

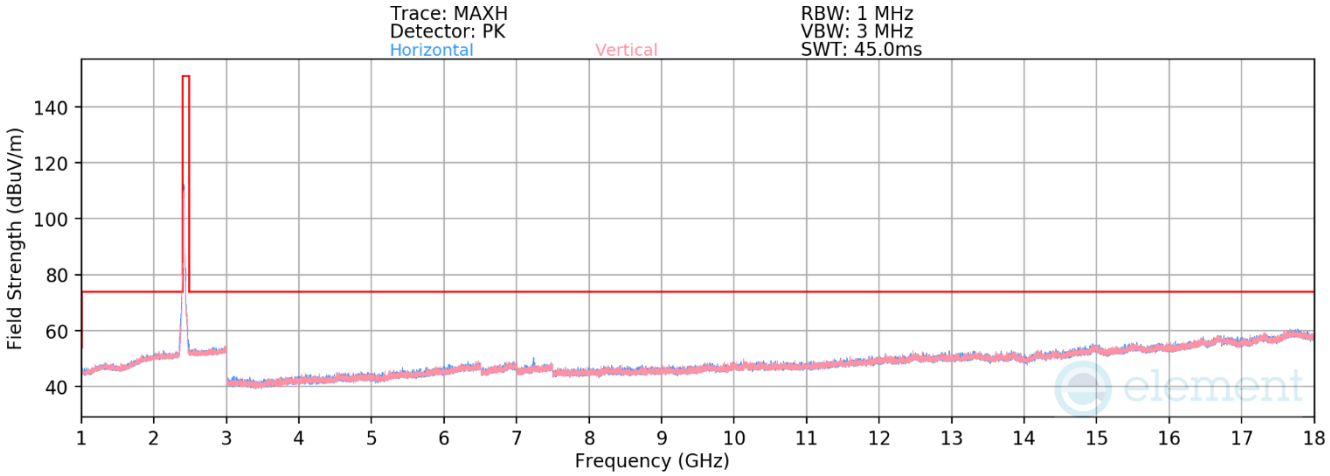


Plot 7-137. Radiated Spurious Emissions above 1GHz Ant 2 (802.11ax OFDMA – RU26 – Ch. 11)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	4
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	-	-	-78.97	4.32	32.35	53.98	-21.63
4924.00	Peak	H	-	-	-67.76	4.32	43.56	73.98	-30.42
7386.00	Avg	H	229	303	-77.60	8.90	38.30	53.98	-15.68
7386.00	Peak	H	229	303	-60.98	8.90	54.92	73.98	-19.06
12310.00	Avg	H	-	-	-82.04	13.62	38.58	53.98	-15.40
12310.00	Peak	H	-	-	-71.02	13.62	49.60	73.98	-24.38

Table 7-28. Radiated Measurements Ant 2 (RU26)

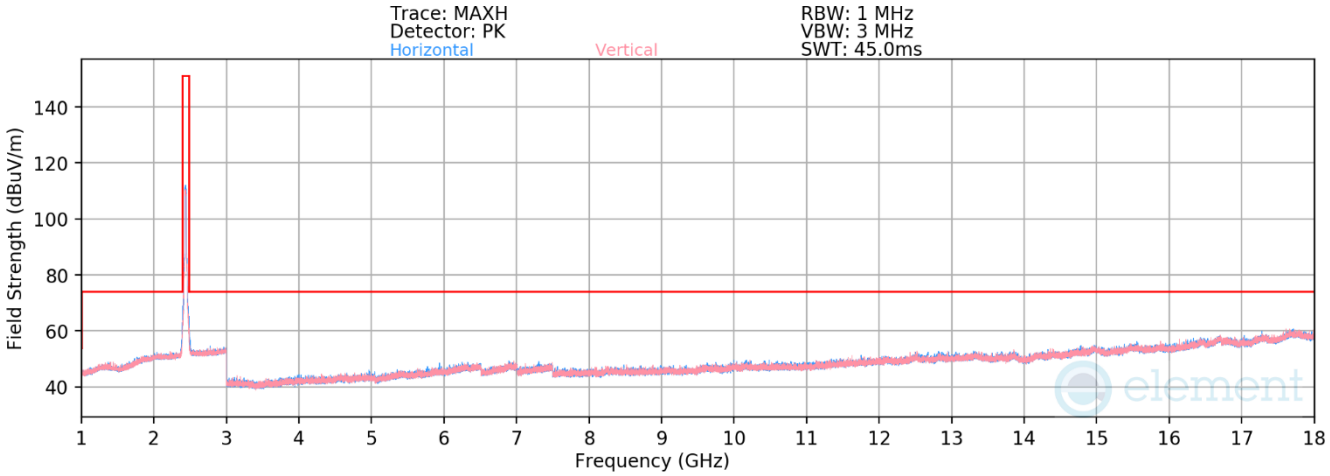


Plot 7-138. Radiated Spurious Emissions above 1GHz Ant 2 (802.11ax OFDMA – RU242 – Ch. 1)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
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	-	-	-	-80.55	5.97	32.42	53.98	-21.56
4824.00	Peak	-	-	-	-69.51	5.97	43.46	73.98	-30.52
12060.00	Avg	-	-	-	-84.50	14.72	37.22	53.98	-16.76
12060.00	Peak	-	-	-	-72.97	14.72	48.75	73.98	-25.23

Table 7-29. Radiated Measurements Ant 2 (RU242)

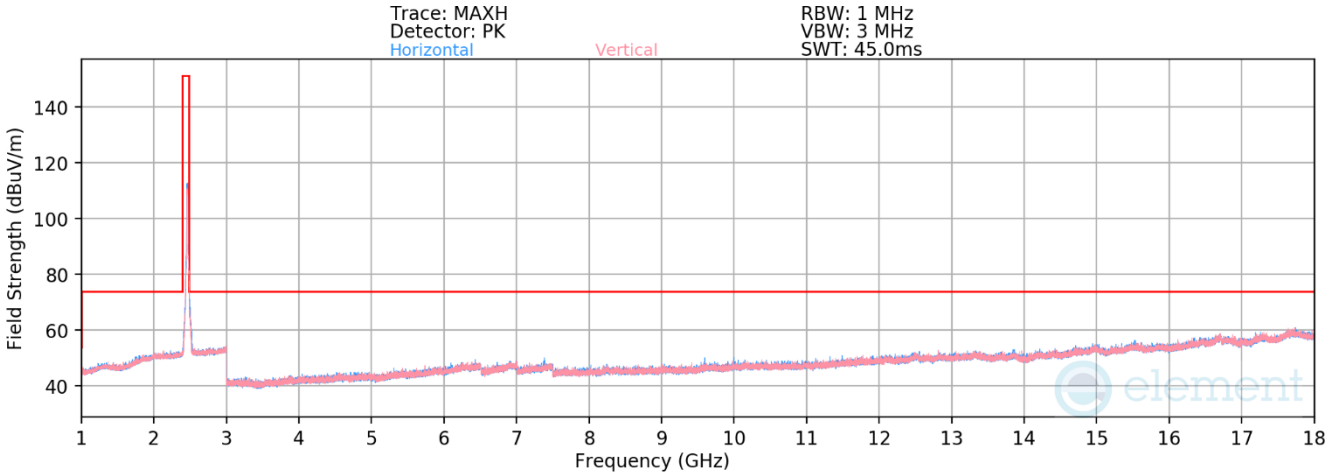


Plot 7-139. Radiated Spurious Emissions above 1GHz Ant 2 (802.11ax OFDMA – RU242 – Ch. 6)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
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	-	-	-	-80.82	6.24	32.42	53.98	-21.56
4874.00	Peak	-	-	-	-69.14	6.24	44.10	73.98	-29.88
7311.00	Avg	H	208	200	-76.91	10.04	40.13	53.98	-13.85
7311.00	Peak	H	208	200	-64.27	10.04	52.77	73.98	-21.21
12185.00	Avg	-	-	-	-84.82	14.99	37.17	53.98	-16.81
12185.00	Peak	-	-	-	-74.35	14.99	47.64	73.98	-26.34

Table 7-30. Radiated Measurements Ant 2 (RU242)



Plot 7-140. Radiated Spurious Emissions above 1GHz Ant 2 (802.11ax OFDMA – RU242 – Ch. 11)

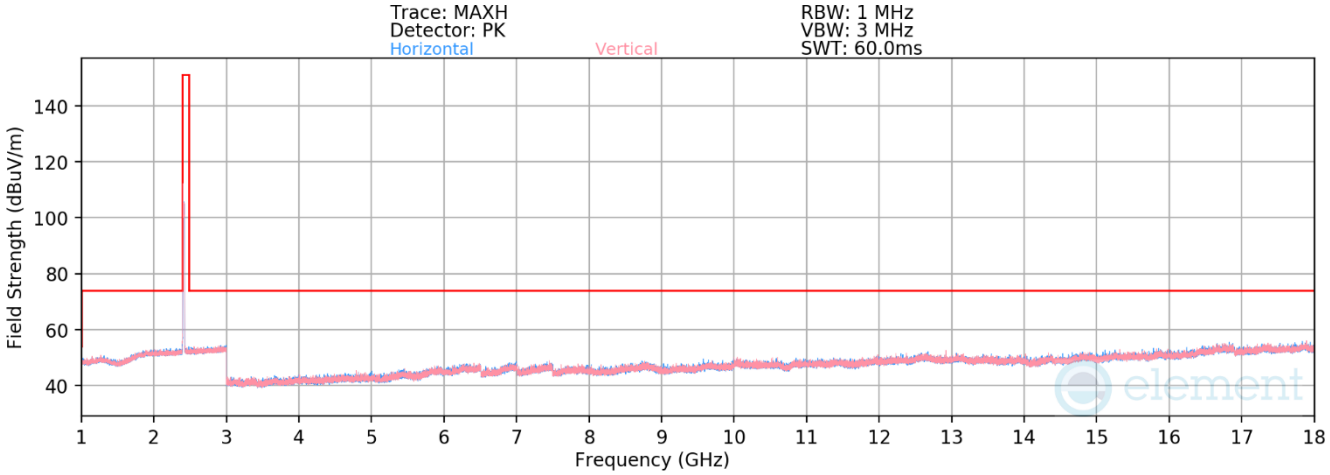
Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2462MHz
Channel:	11

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	-	-	-	-81.04	6.44	32.40	53.98	-21.58
4924.00	Peak	-	-	-	-69.44	6.44	44.00	73.98	-29.98
7386.00	Avg	H	208	205	-77.40	9.99	39.59	53.98	-14.39
7386.00	Peak	H	208	205	-65.23	9.99	51.76	73.98	-22.22
12310.00	Avg	-	-	-	-84.91	15.20	37.29	53.98	-16.69
12310.00	Peak	-	-	-	-74.12	15.20	48.08	73.98	-25.90

Table 7-31. Radiated Measurements Ant 2 (RU242)

7.7.3 CDD Radiated Spurious Emission Measurements

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

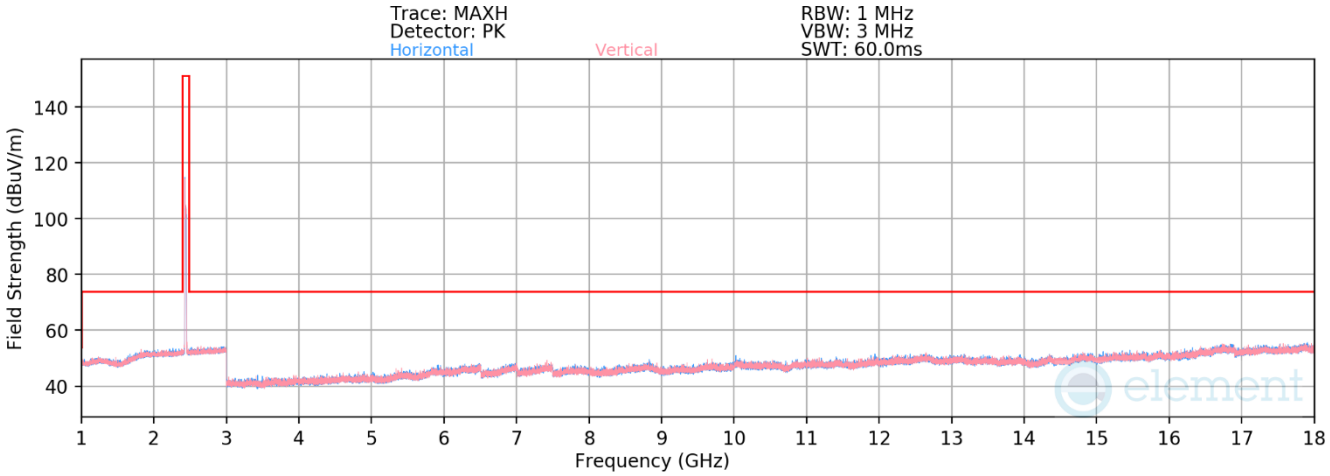


Plot 7-141. Radiated Spurious Emissions above 1GHz CDD (802.11ax OFDMA – RU26 – Ch. 1)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	4
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	-	-	-79.14	4.09	31.95	53.98	-22.03
4824.00	Peak	H	-	-	-66.35	4.09	44.74	73.98	-29.24
12060.00	Avg	H	-	-	-82.16	12.71	37.55	53.98	-16.43
12060.00	Peak	H	-	-	-68.93	12.71	50.78	73.98	-23.20

Table 7-32. Radiated Measurements CDD (RU26)

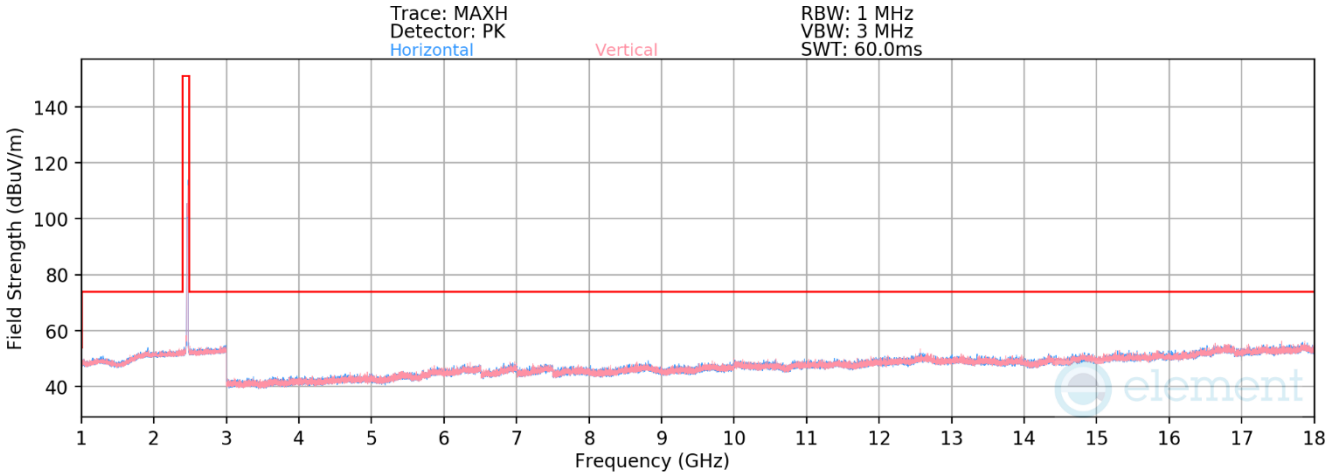


Plot 7-142. Radiated Spurious Emissions above 1GHz CDD (802.11ax OFDMA – RU26 – Ch. 6)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	4
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	-	-	-79.37	4.23	31.86	53.98	-22.12
4874.00	Peak	H	-	-	-66.53	4.23	44.70	73.98	-29.28
7311.00	Avg	H	-	-	-80.94	8.63	34.69	53.98	-19.29
7311.00	Peak	H	-	-	-68.81	8.63	46.82	73.98	-27.16
12185.00	Avg	H	-	-	-82.86	13.51	37.65	53.98	-16.33
12185.00	Peak	H	-	-	-70.52	13.51	49.99	73.98	-23.99

Table 7-33. Radiated Measurements CDD (RU26)

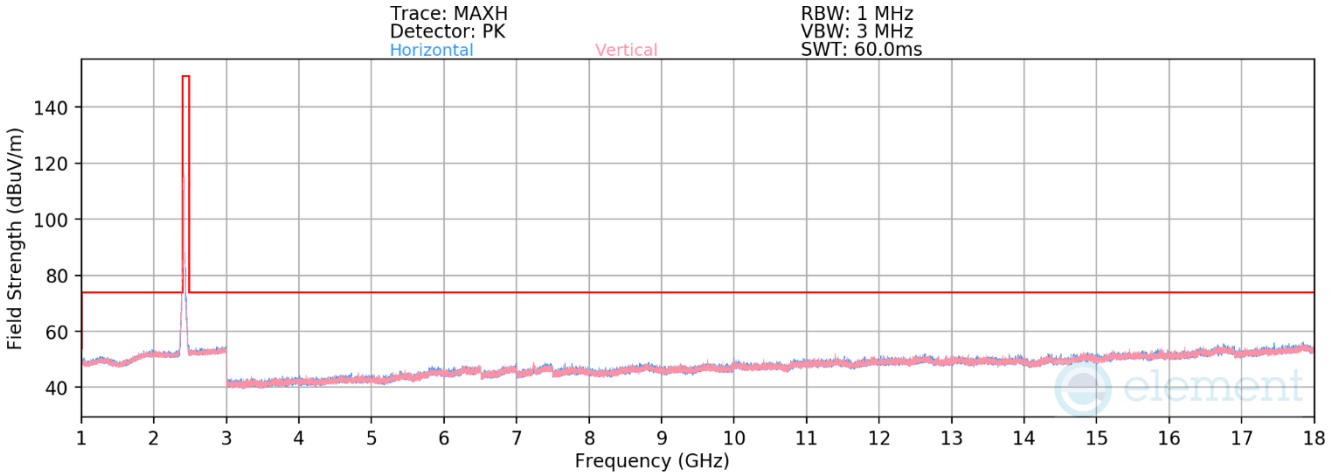


Plot 7-143. Radiated Spurious Emissions above 1GHz CDD (802.11ax OFDMA – RU26 – Ch. 11)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	4
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	-	-	-78.87	4.32	32.45	53.98	-21.53
4924.00	Peak	H	-	-	-66.77	4.32	44.55	73.98	-29.43
7386.00	Avg	H	-	-	-79.89	8.90	36.01	53.98	-17.97
7386.00	Peak	H	-	-	-68.54	8.90	47.36	73.98	-26.62
12310.00	Avg	H	-	-	-81.85	13.62	38.77	53.98	-15.21
12310.00	Peak	H	-	-	-71.08	13.62	49.54	73.98	-24.44

Table 7-34. Radiated Measurements CDD (RU26)

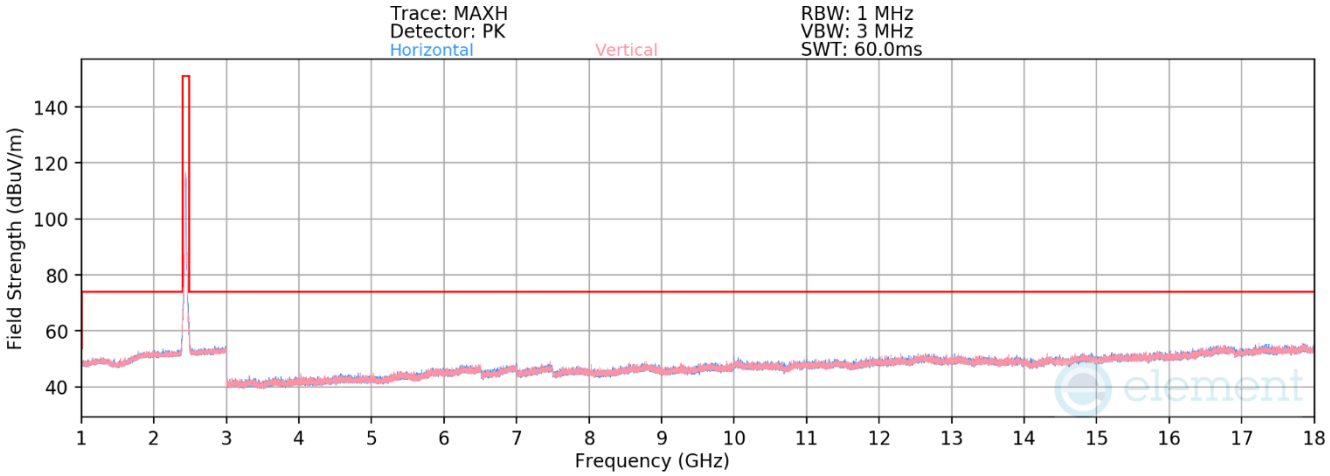


Plot 7-144. Radiated Spurious Emissions above 1GHz CDD (802.11ax OFDMA – RU242 – Ch. 1)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
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	-	-	-79.04	4.09	32.05	53.98	-21.93
4824.00	Peak	H	-	-	-66.56	4.09	44.53	73.98	-29.45
12060.00	Avg	H	-	-	-82.05	12.71	37.66	53.98	-16.32
12060.00	Peak	H	-	-	-69.97	12.71	49.74	73.98	-24.24

Table 7-35. Radiated Measurements CDD (RU242)

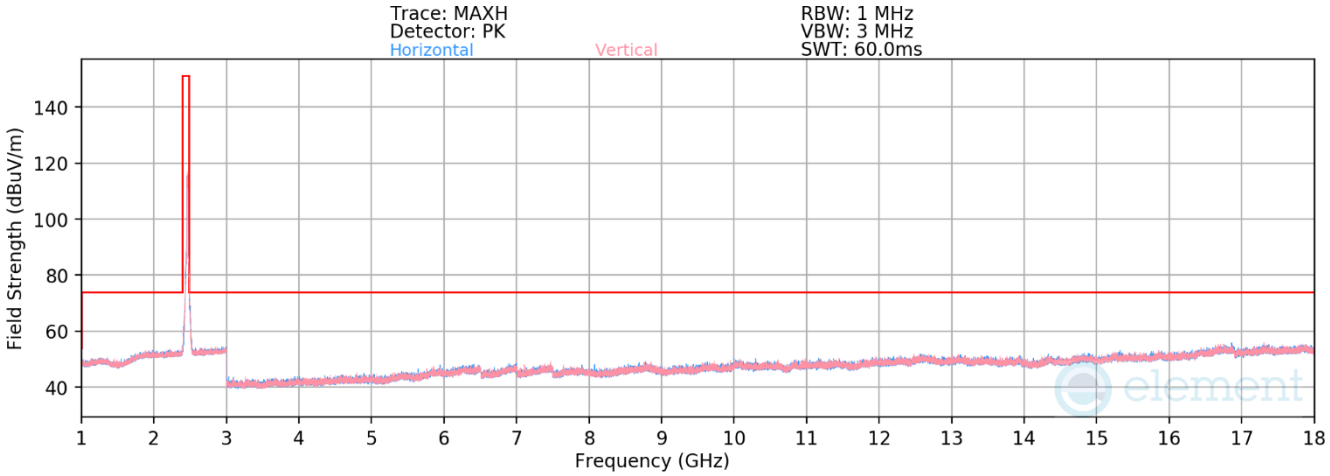


Plot 7-145. Radiated Spurious Emissions above 1GHz CDD (802.11ax OFDMA – RU242 – Ch. 6)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
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	-	-	-79.37	4.23	31.86	53.98	-22.12
4874.00	Peak	H	-	-	-66.95	4.23	44.28	73.98	-29.70
7311.00	Avg	H	-	-	-80.78	8.63	34.85	53.98	-19.13
7311.00	Peak	H	-	-	-67.91	8.63	47.72	73.98	-26.26
12185.00	Avg	H	-	-	-82.90	13.51	37.61	53.98	-16.37
12185.00	Peak	H	-	-	-70.54	13.51	49.97	73.98	-24.01

Table 7-36. Radiated Measurements CDD (RU242)



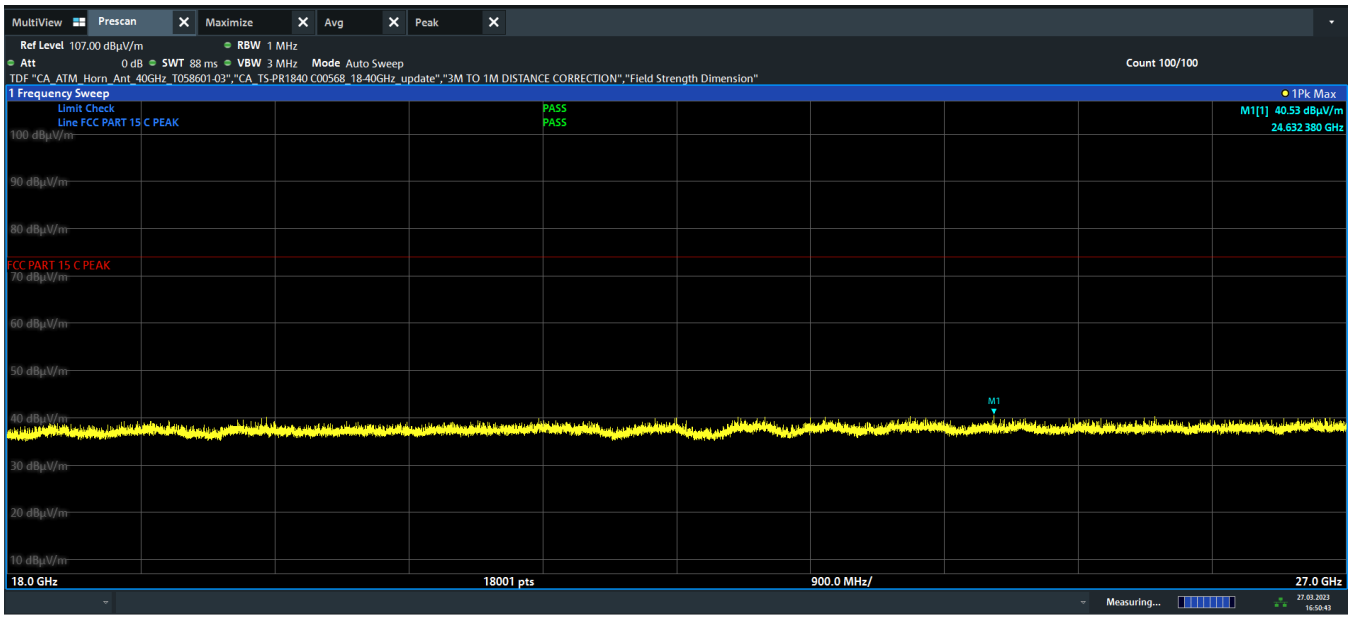
Plot 7-146. Radiated Spurious Emissions above 1GHz CDD (802.11ax OFDMA – RU242 – Ch. 11)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
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	-	-	-79.31	4.32	32.01	53.98	-21.97
4924.00	Peak	H	-	-	-66.59	4.32	44.73	73.98	-29.25
7386.00	Avg	H	-	-	-80.84	8.90	35.06	53.98	-18.92
7386.00	Peak	H	-	-	-68.06	8.90	47.84	73.98	-26.14
12310.00	Avg	H	-	-	-82.99	13.62	37.63	53.98	-16.35
12310.00	Peak	H	-	-	-68.95	13.62	51.67	73.98	-22.31

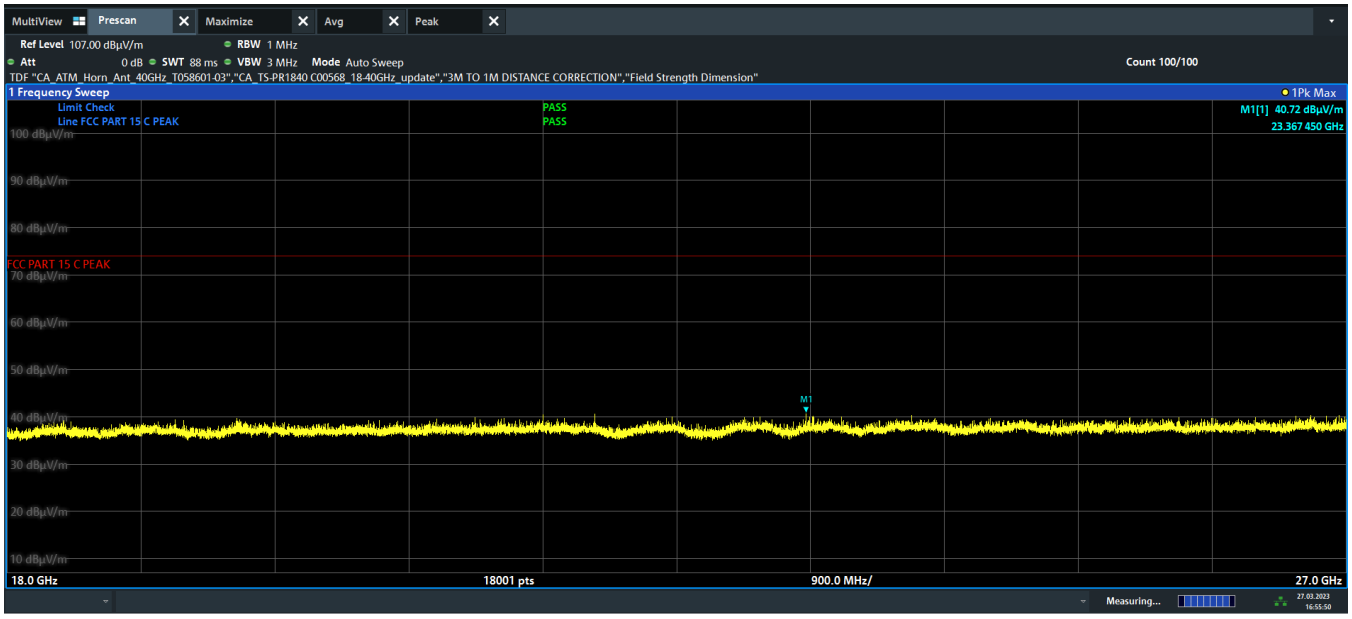
Table 7-37. Radiated Measurements CDD (RU242)

Radiated Spurious Emissions Above 18GHz CDD



16:50:44 27.03.2023

Plot 7-147. Radiated Spurious Emissions above 18GHz CDD (802.11ax OFDMA – RU26 – Ch. 6, Pol H)



16:55:51 27.03.2023

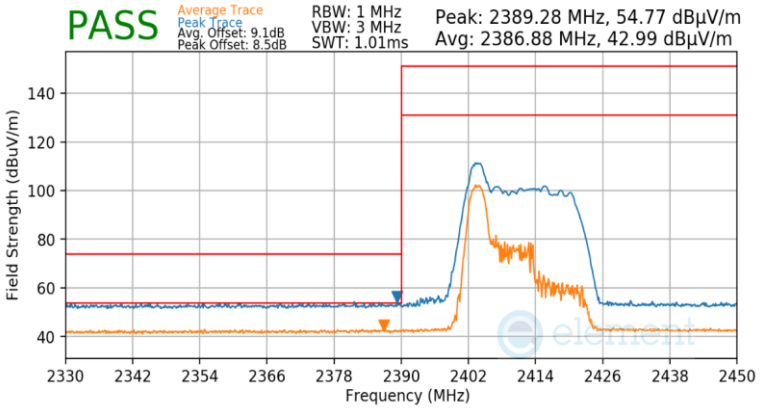
Plot 7-148. Radiated Spurious Emissions above 18GHz CDD (802.11ax OFDMA – RU26 – Ch. 6, Pol V)

7.7.4 Ant 1 Radiated Restricted Band Edge Measurements

§15.205 §15.209; RSS-Gen [8.9]

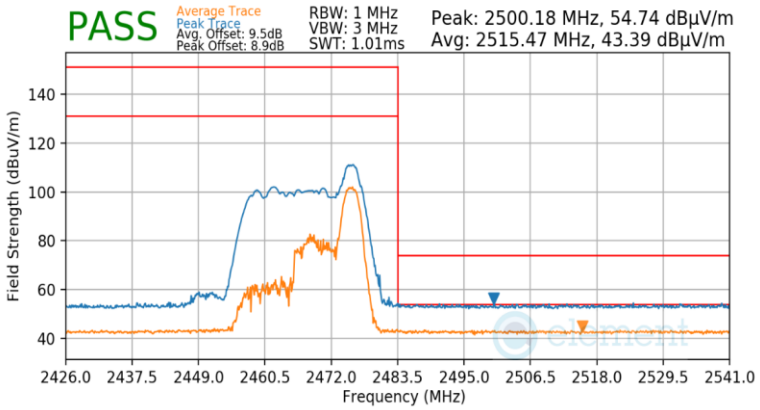
The radiated restricted band edge measurements are measured with an EMI test receiver connected to the receive antenna while the EUT is transmitting.

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	0
Distance of Measurements:	3 Meters
Operating Frequency:	2412MHz
Channel:	1



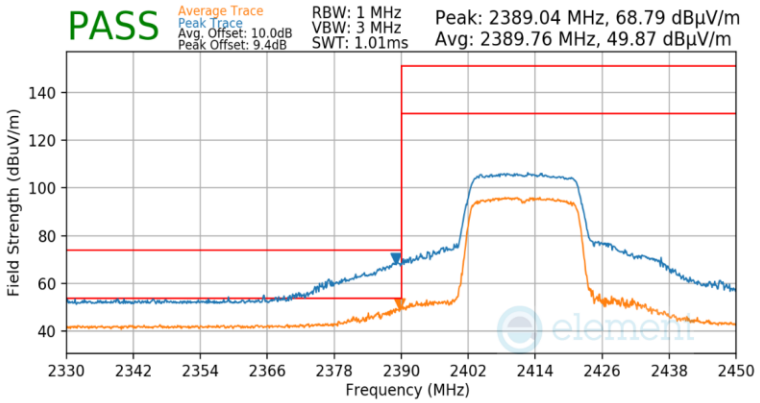
Plot 7-149. Radiated Restricted Lower Band Edge Measurement Ant 1 (Peak & Average – RU26)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	8
Distance of Measurements:	3 Meters
Operating Frequency:	2467MHz
Channel:	12



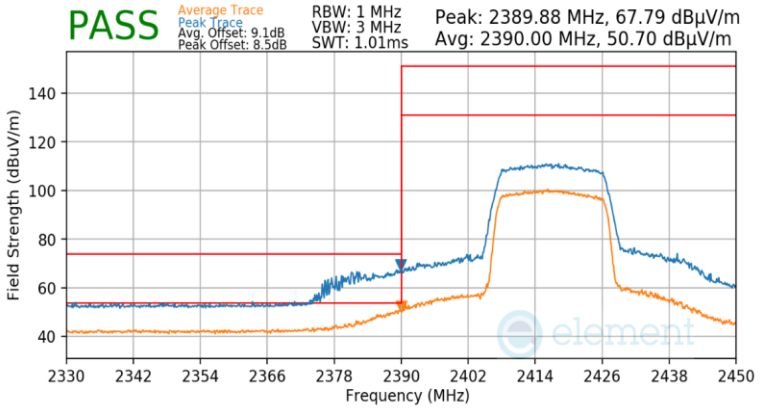
Plot 7-150. Radiated Restricted Upper Band Edge Measurement Ant 1 (Peak & Average – RU26)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2412MHz
Channel:	1



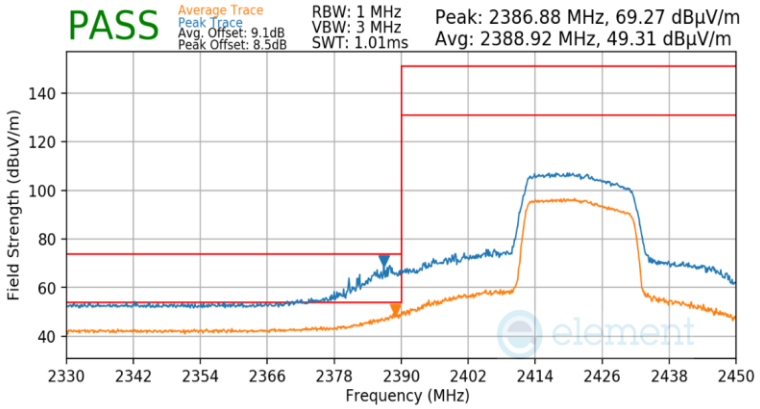
Plot 7-151. Radiated Restricted Lower Band Edge Measurement Ant 1 (Peak & Average – RU242)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2417MHz
Channel:	2



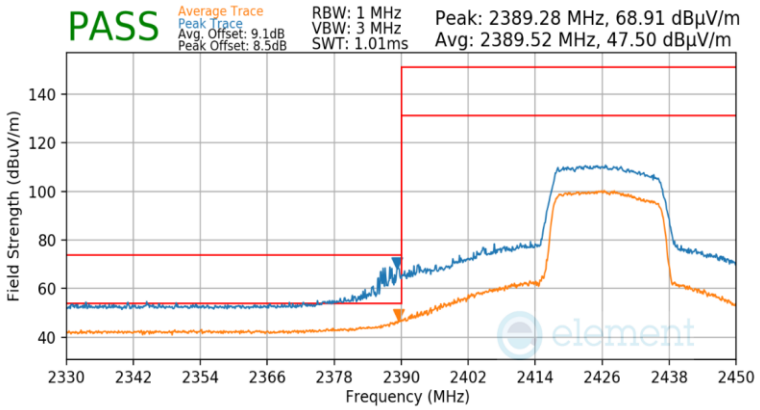
Plot 7-152. Radiated Restricted Lower Band Edge Measurement Ant 1 (Peak & Average – RU242)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2422MHz
Channel:	3



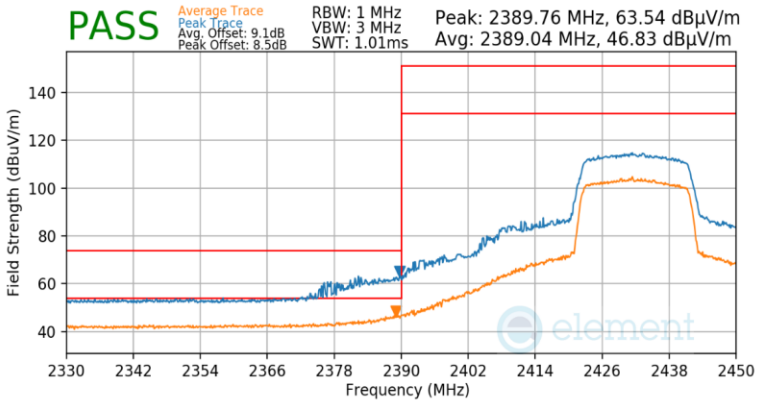
Plot 7-153. Radiated Restricted Lower Band Edge Measurement Ant 1 (Peak & Average – RU242)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2427MHz
Channel:	4



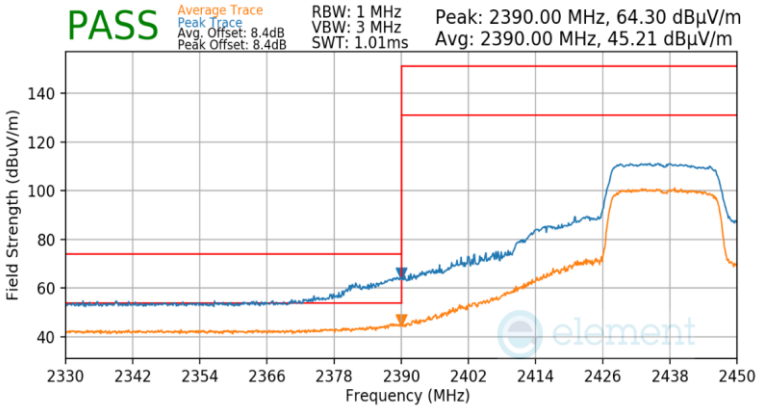
Plot 7-154. Radiated Restricted Lower Band Edge Measurement Ant 1 (Peak & Average – RU242)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2432MHz
Channel:	5



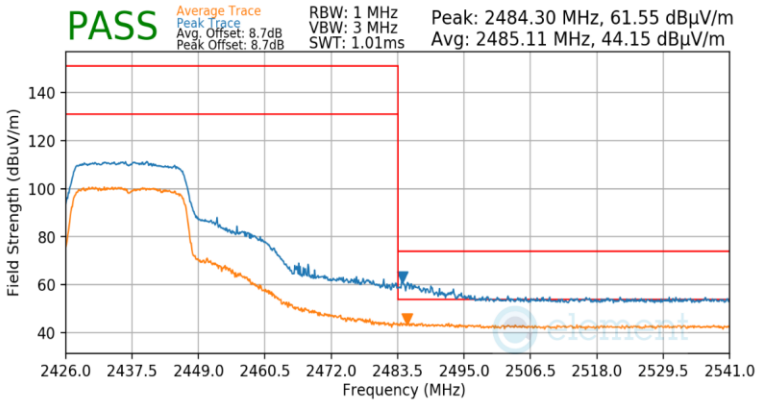
Plot 7-155. Radiated Restricted Lower Band Edge Measurement Ant 1 (Peak & Average – RU242)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2437MHz
Channel:	6(low)



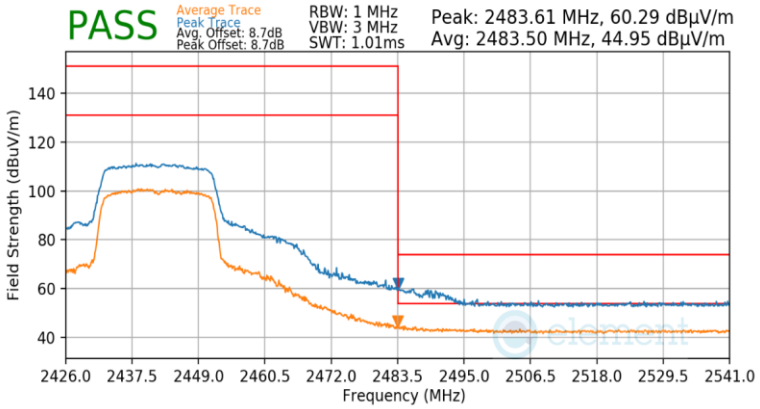
Plot 7-156. Radiated Restricted Lower Band Edge Measurement Ant 1 (Peak & Average – RU242)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2437MHz
Channel:	6(high)



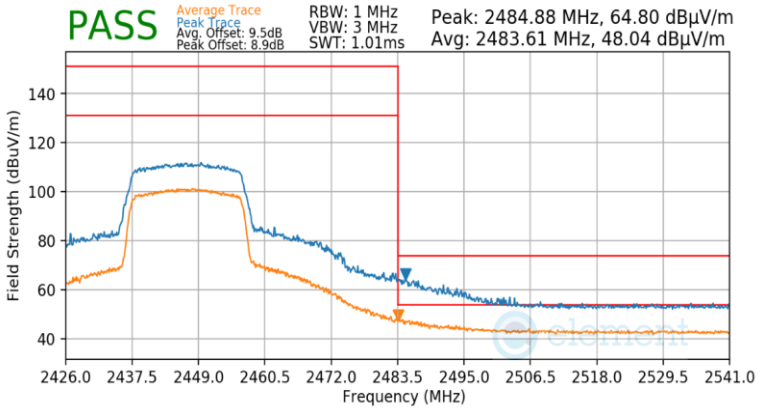
Plot 7-157. Radiated Restricted Upper Band Edge Measurement Ant 1 (Peak & Average – RU242)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2442MHz
Channel:	7



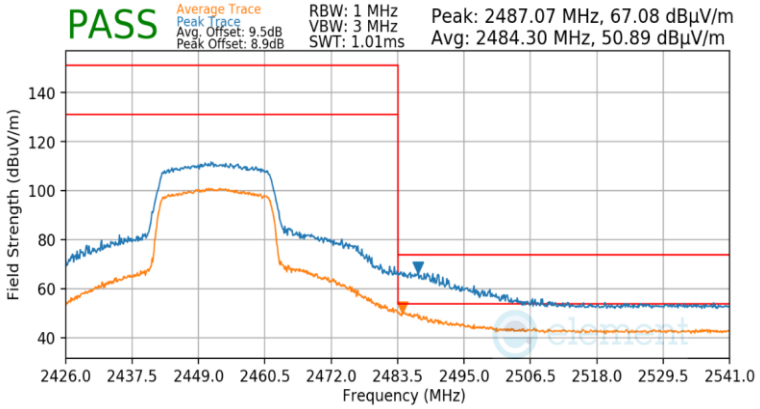
Plot 7-158. Radiated Restricted Upper Band Edge Measurement Ant 1 (Peak & Average – RU242)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2447MHz
Channel:	8



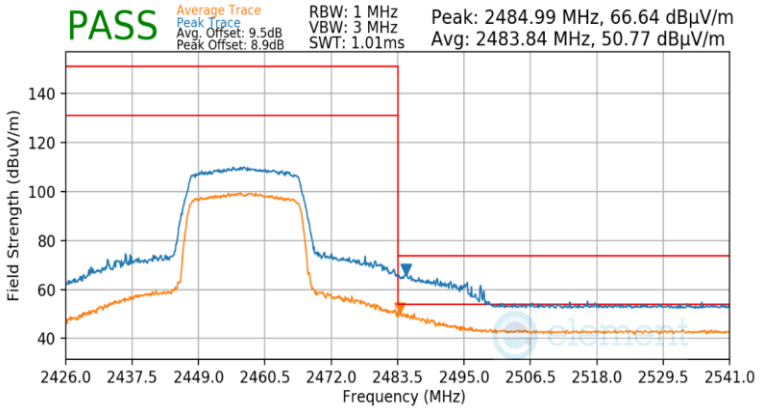
Plot 7-159. Radiated Restricted Upper Band Edge Measurement Ant 1 (Peak & Average – RU242)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2452MHz
Channel:	9



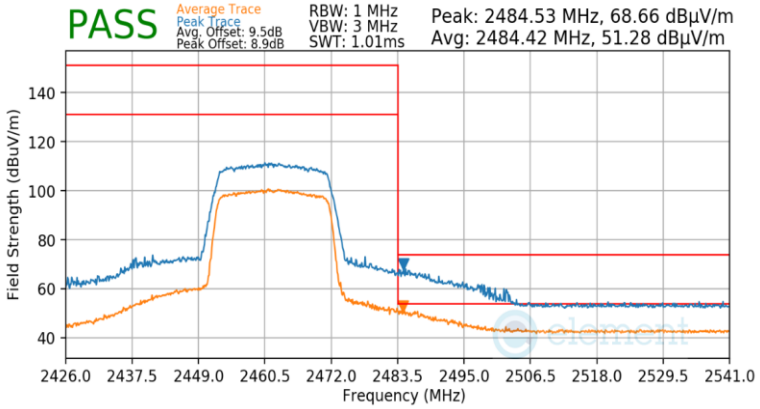
Plot 7-160. Radiated Restricted Upper Band Edge Measurement Ant 1 (Peak & Average – RU242)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2457MHz
Channel:	10



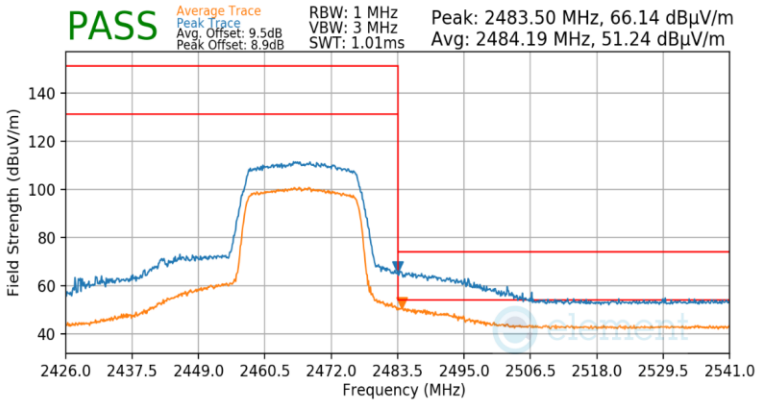
Plot 7-161. Radiated Restricted Upper Band Edge Measurement Ant 1 (Peak & Average – RU242)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2462MHz
Channel:	11



Plot 7-162. Radiated Restricted Upper Band Edge Measurement Ant 1 (Peak & Average – RU242)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2467MHz
Channel:	12



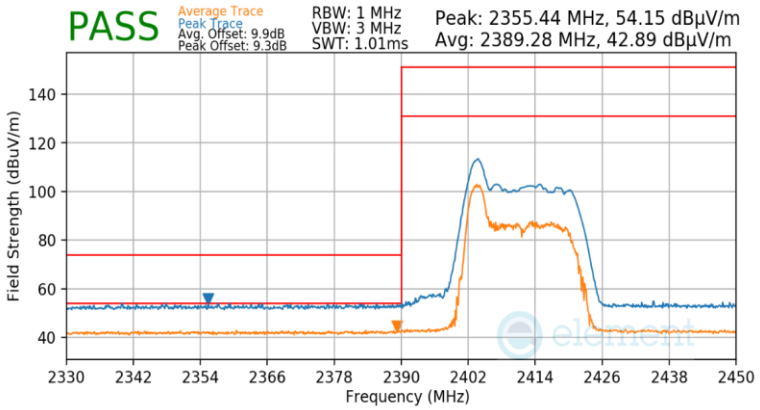
Plot 7-163. Radiated Restricted Upper Band Edge Measurement Ant 1 (Peak & Average – RU242)

7.7.5 Ant 2 Radiated Restricted Band Edge Measurements

§15.205 §15.209; RSS-Gen [8.9]

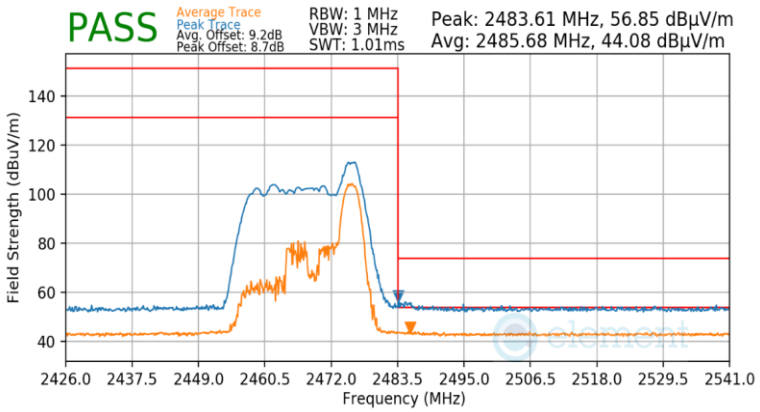
The radiated restricted band edge measurements are measured with an EMI test receiver connected to the receive antenna while the EUT is transmitting.

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	0
Distance of Measurements:	3 Meters
Operating Frequency:	2412MHz
Channel:	1



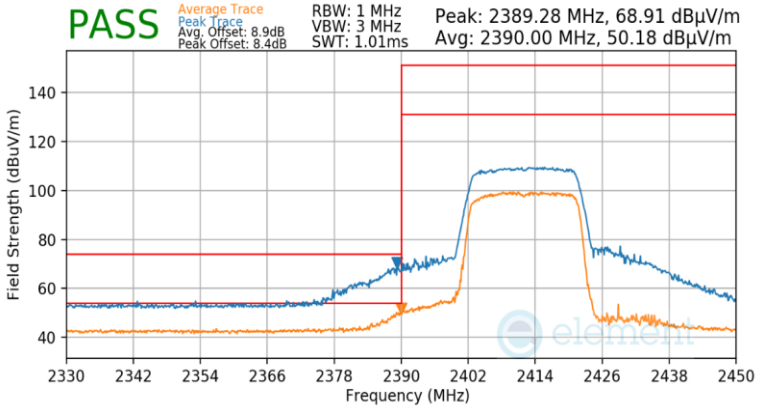
Plot 7-164. Radiated Restricted Lower Band Edge Measurement Ant 2 (Peak & Average – RU26)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	8
Distance of Measurements:	3 Meters
Operating Frequency:	2467MHz
Channel:	12



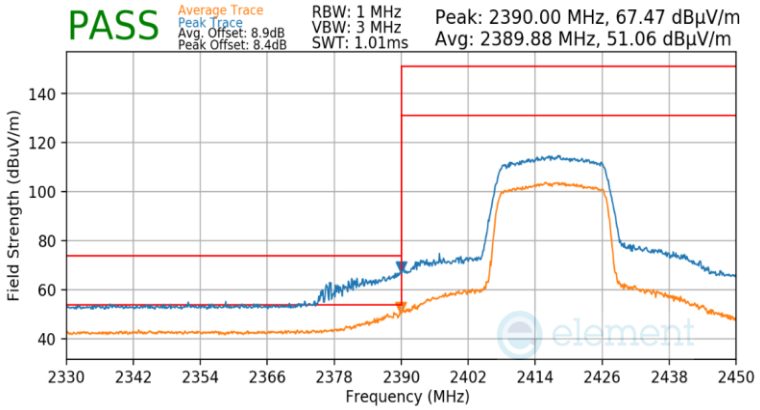
Plot 7-165. Radiated Restricted Upper Band Edge Measurement Ant 2 (Peak & Average – RU26)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2412MHz
Channel:	1



Plot 7-166. Radiated Restricted Lower Band Edge Measurement Ant 2 (Peak & Average – RU242)

Worst Case Mode:	802.11ax OFDMA
Worst Case Transfer Rate:	MCS9
RU Index:	61
Distance of Measurements:	3 Meters
Operating Frequency:	2417MHz
Channel:	2



Plot 7-167. Radiated Restricted Lower Band Edge Measurement Ant 2 (Peak & Average – RU242)