

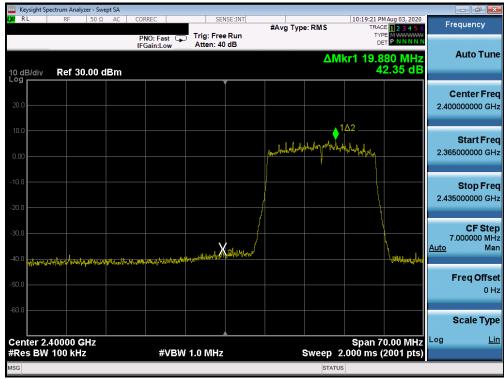
Plot 7-83. Band Edge ANT WF8 (802.11ax OFDMA - RU26 Index 8 - Ch. 12)



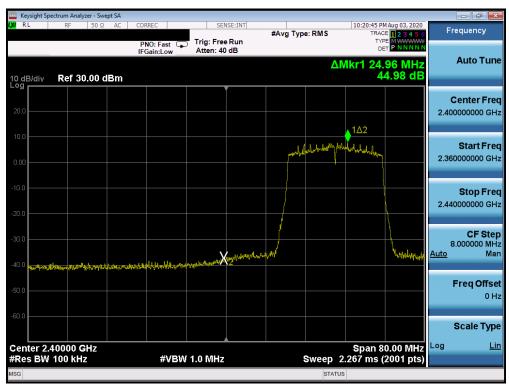
Plot 7-84. Band Edge ANT WF8 (802.11ax OFDMA - RU242 - Ch. 1)

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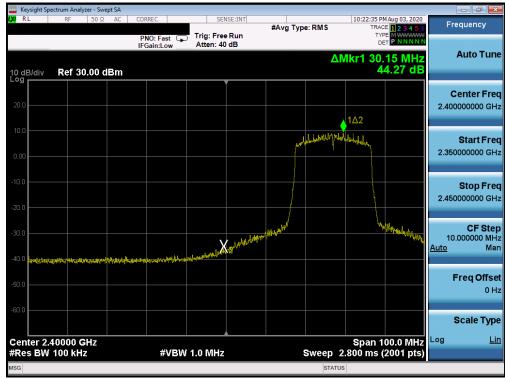
Plot 7-85. Band Edge ANT WF8 (802.11ax OFDMA - RU242 - Ch. 2)



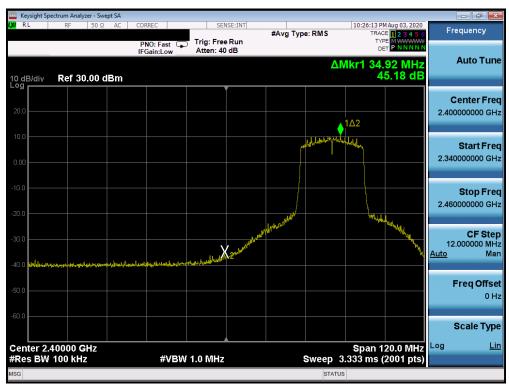
Plot 7-86. Band Edge ANT WF8 (802.11ax OFDMA - RU242 - Ch. 3)

FCC ID: BCGA2316	PCTEST* Proud to be part of relement (CERTIFICATION)  MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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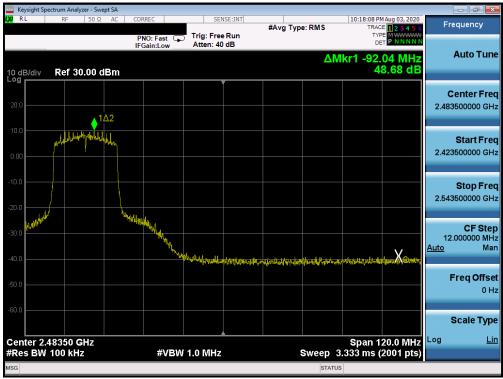
Plot 7-87. Band Edge ANT WF8 (802.11ax OFDMA - RU242 - Ch. 4)



Plot 7-88. Band Edge ANT WF8 (802.11ax OFDMA - RU242 - Ch. 5)

FCC ID: BCGA2316	PCTEST° Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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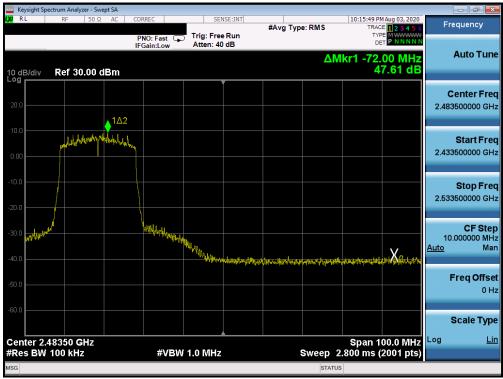
Plot 7-89. Band Edge ANT WF8 (802.11ax OFDMA - RU242 - Ch. 7)



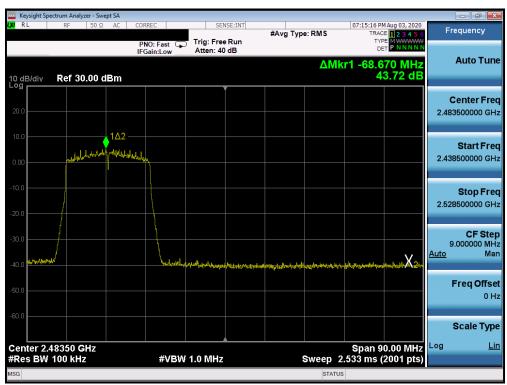
Plot 7-90. Band Edge ANT WF8 (802.11ax OFDMA - RU242 - Ch. 8)

FCC ID: BCGA2316	PCTEST° Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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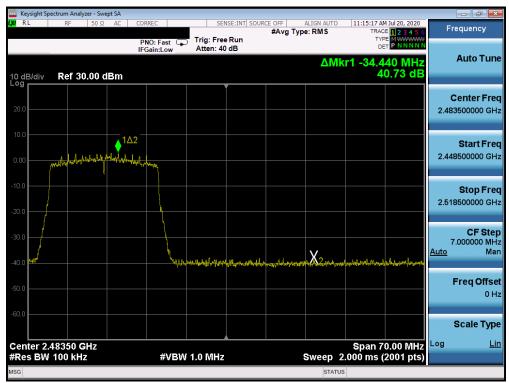
Plot 7-91. Band Edge ANT WF8 (802.11ax OFDMA - RU242 - Ch. 9)



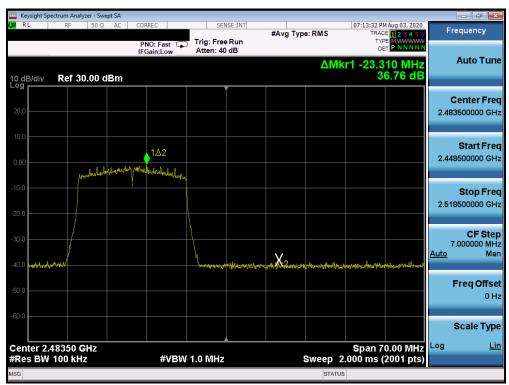
Plot 7-92. Band Edge ANT WF8 (802.11ax OFDMA - RU242 - Ch. 10)

FCC ID: BCGA2316	PCTEST° Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-93. Band Edge ANT WF8 (802.11ax OFDMA - RU242 - Ch. 11)

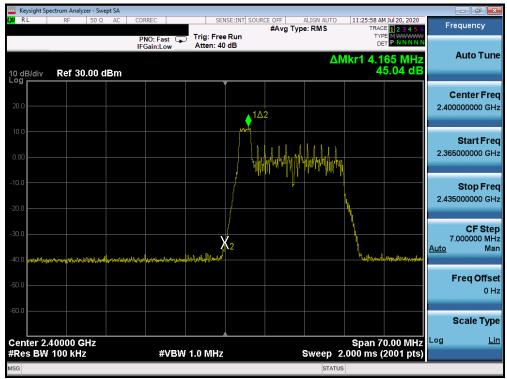


Plot 7-94. Band Edge ANT WF8 (802.11ax OFDMA - RU242 - Ch. 12)

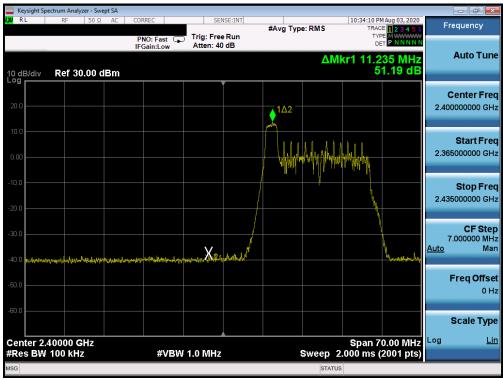
FCC ID: BCGA2316	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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# Antenna WF7b Conducted Emissions at the Band Edge



Plot 7-95. Band Edge ANT WF7b (802.11ax OFDMA – RU26 Index 0 – Ch. 1)

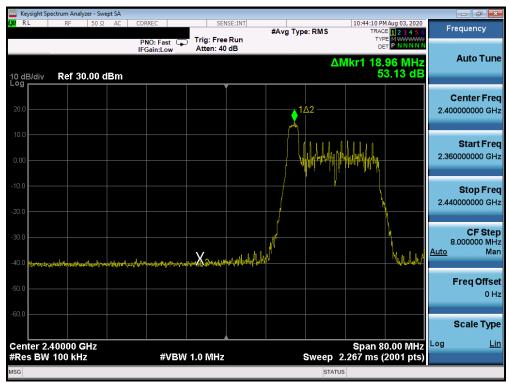


Plot 7-96. Band Edge ANT WF7b (802.11ax OFDMA - RU26 Index 0 - Ch. 2)

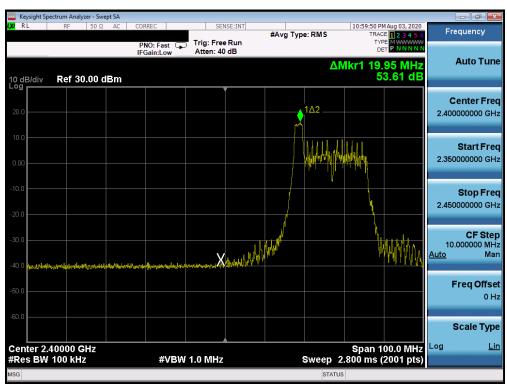
FCC ID: BCGA2316	PCTEST* Proud to be part of relement (CERTIFICATION)  MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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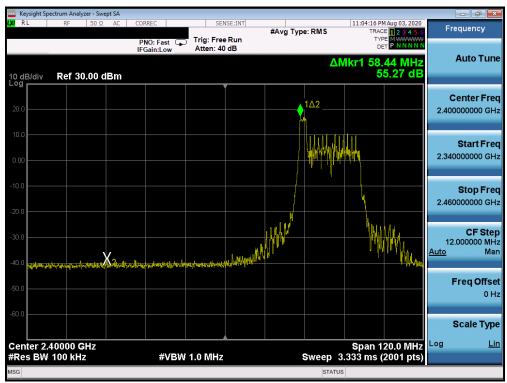
Plot 7-97. Band Edge ANT WF7b (802.11ax OFDMA - RU26 Index 0 - Ch. 3)



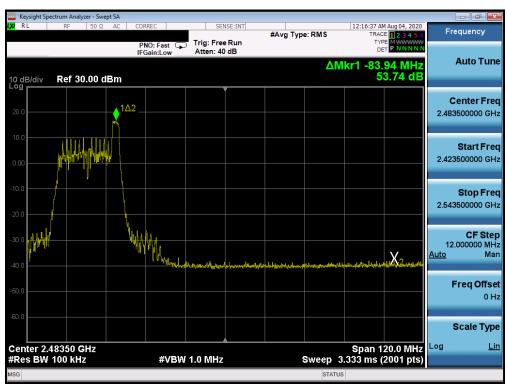
Plot 7-98. Band Edge ANT WF7b (802.11ax OFDMA - RU26 Index 0 - Ch. 4)

FCC ID: BCGA2316	PCTEST* Proud to be part of relement (CERTIFICATION)  MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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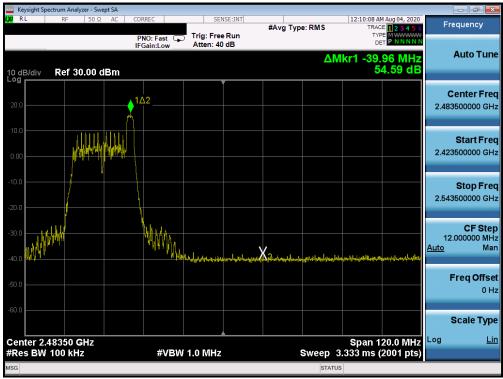
Plot 7-99. Band Edge ANT WF7b (802.11ax OFDMA - RU26 Index 0 - Ch. 5)



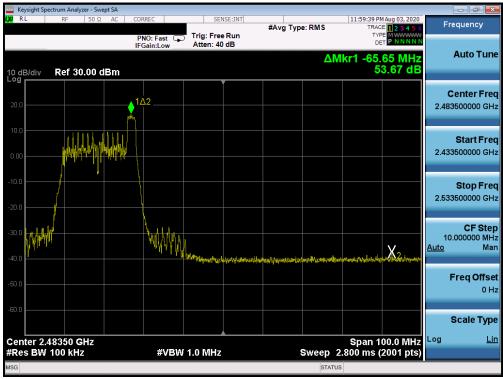
Plot 7-100. Band Edge ANT WF7b (802.11ax OFDMA - RU26 Index 8 - Ch. 7)

FCC ID: BCGA2316	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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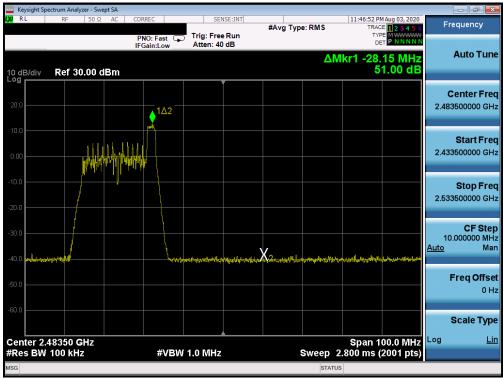
Plot 7-101. Band Edge ANT WF7b (802.11ax OFDMA - RU26 Index 8 - Ch. 8)



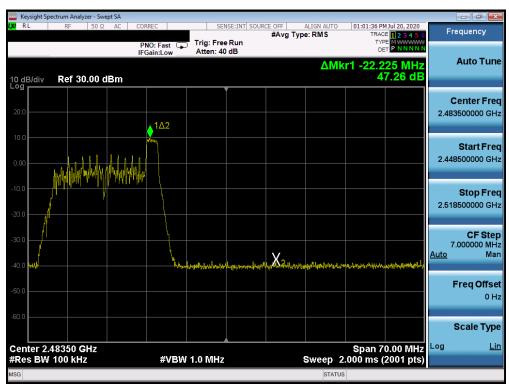
Plot 7-102. Band Edge ANT WF7b (802.11ax OFDMA - RU26 Index 8 - Ch. 9)

FCC ID: BCGA2316	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-103. Band Edge ANT WF7b (802.11ax OFDMA - RU26 Index 8 - Ch. 10)

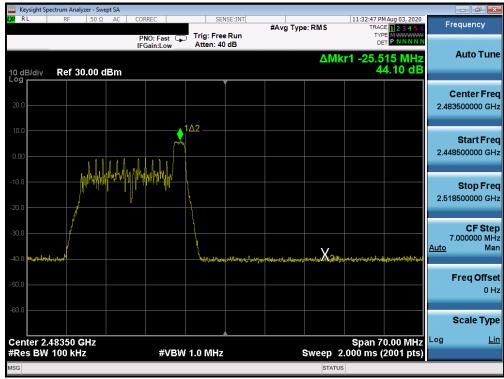


Plot 7-104. Band Edge ANT WF7b (802.11ax OFDMA - RU26 Index 8 - Ch. 11)

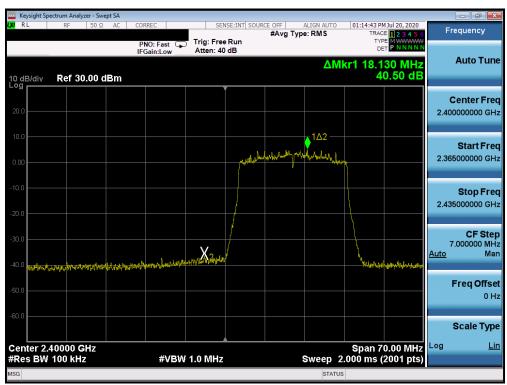
FCC ID: BCGA2316	PCTEST* Proud to be part of relement (CERTIFICATION)  MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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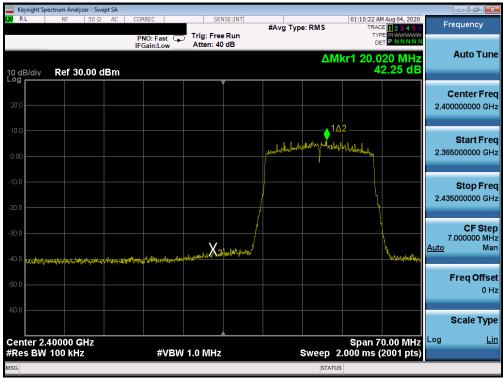
Plot 7-105. Band Edge ANT WF7b (802.11ax OFDMA - RU26 Index 8 - Ch. 12)



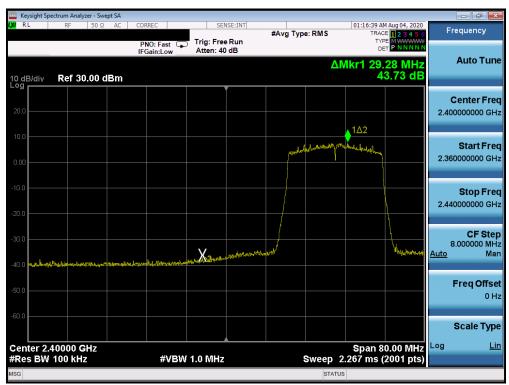
Plot 7-106. Band Edge ANT WF7b (802.11ax OFDMA - RU242 - Ch. 1)

FCC ID: BCGA2316	PCTEST° Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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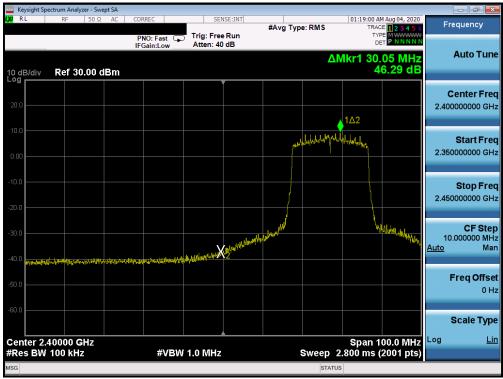
Plot 7-107. Band Edge ANT WF7b (802.11ax OFDMA - RU242 - Ch. 2)



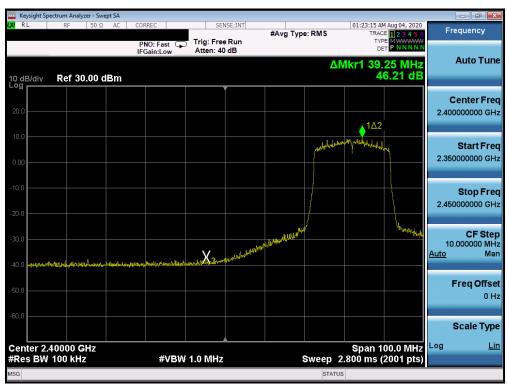
Plot 7-108. Band Edge ANT WF7b (802.11ax OFDMA - RU242 - Ch. 3)

FCC ID: BCGA2316	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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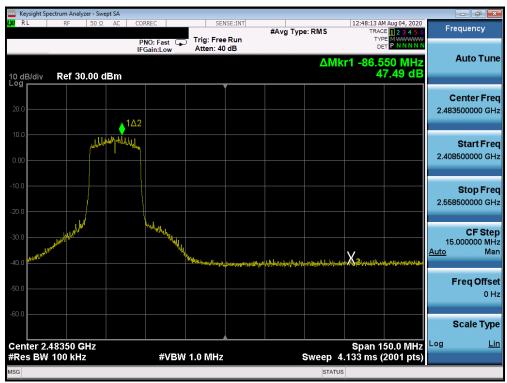
Plot 7-109. Band Edge ANT WF7b (802.11ax OFDMA - RU242 - Ch. 4)



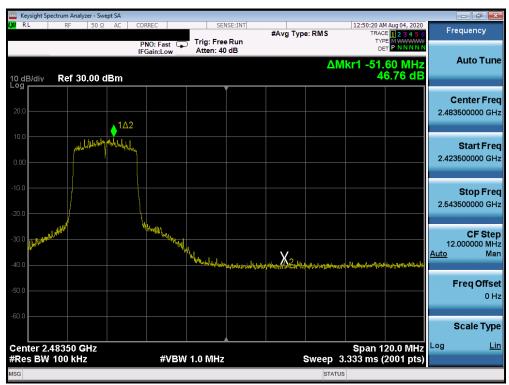
Plot 7-110. Band Edge ANT WF7b (802.11ax OFDMA - RU242 - Ch. 5)

FCC ID: BCGA2316	PCTEST° Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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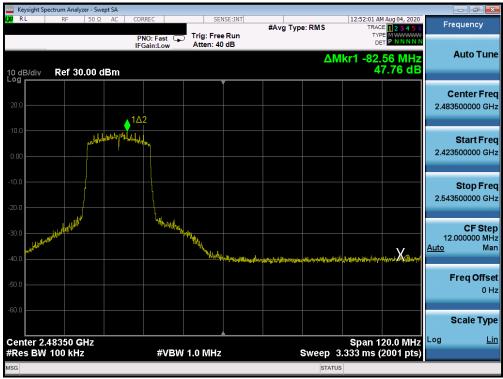
Plot 7-111. Band Edge ANT WF7b (802.11ax OFDMA - RU242 - Ch. 7)



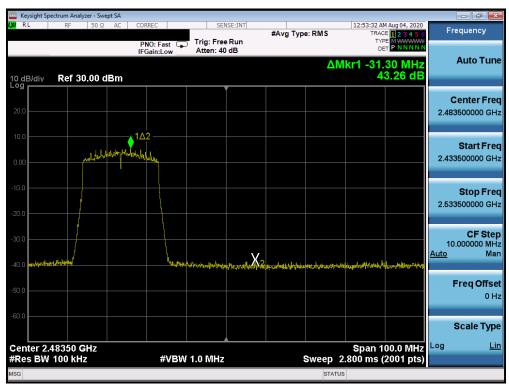
Plot 7-112. Band Edge ANT WF7b (802.11ax OFDMA - RU242 - Ch. 8)

FCC ID: BCGA2316	PCTEST* Proud to be part of element (CERTIFICATION)  MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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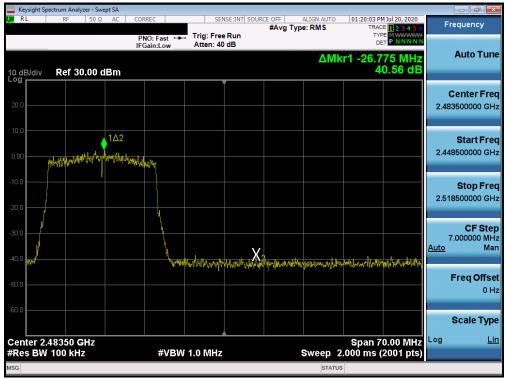
Plot 7-113. Band Edge ANT WF7b (802.11ax OFDMA - RU242 - Ch. 9)



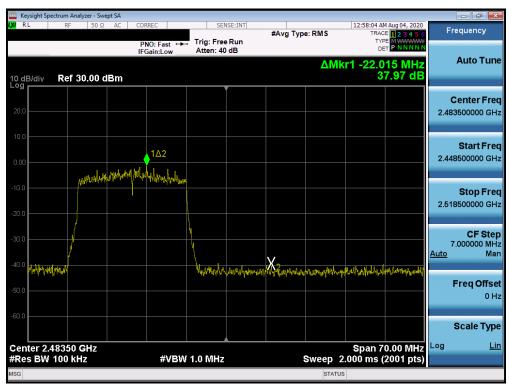
Plot 7-114. Band Edge ANT WF7b (802.11ax OFDMA - RU242 - Ch. 10)

FCC ID: BCGA2316	PCTEST° Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-115. Band Edge ANT WF7b (802.11ax OFDMA - RU242 - Ch. 11)



Plot 7-116. Band Edge ANT WF7b (802.11ax OFDMA - RU242 - Ch. 12)

FCC ID: BCGA2316	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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## 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 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 Section 11.1 of ANSI C63.10-2013 and KDB 558074 D01 v05r02.

#### **Test Procedure Used**

ANSI C63.10-2013 – Section 11.11.3 KDB 558074 D01 v05r02 – Section 8.5 ANSI C63.10-2013 – Section 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

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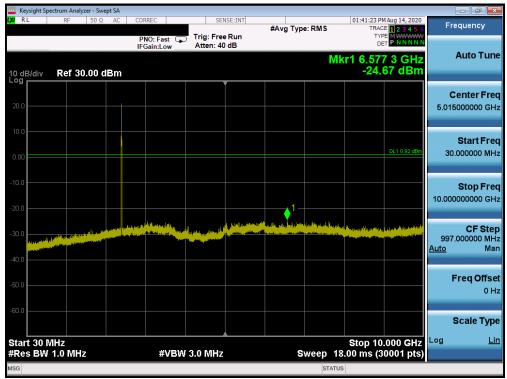
### **Test Notes**

- 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.

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# **Antenna WF8 Conducted Spurious Emission**



Plot 7-117. Conducted Spurious Plot ANT WF8 (802.11ax OFDMA - RU26 - Ch. 1)

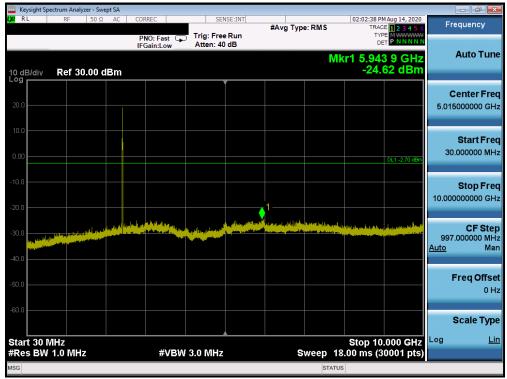


Plot 7-118. Conducted Spurious Plot ANT WF8 (802.11ax OFDMA - RU26 - Ch. 1)

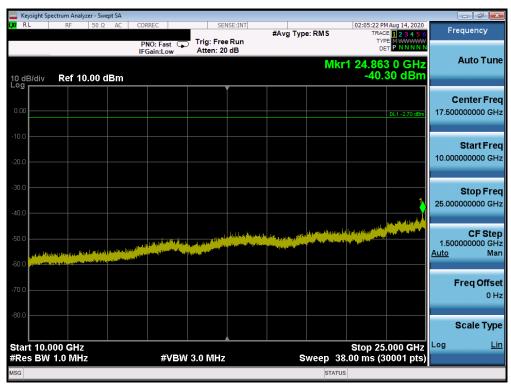
FCC ID: BCGA2316	PCTEST° Proud to be part of element (CERTIFICATION)  MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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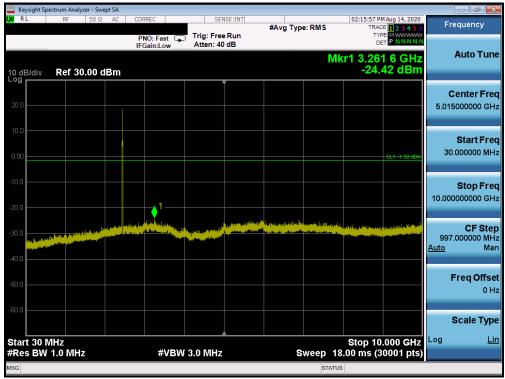
Plot 7-119. Conducted Spurious Plot ANT WF8 (802.11ax OFDMA - RU26 - Ch. 6)



Plot 7-120. Conducted Spurious Plot ANT WF8 (802.11ax OFDMA - RU26 - Ch. 6)

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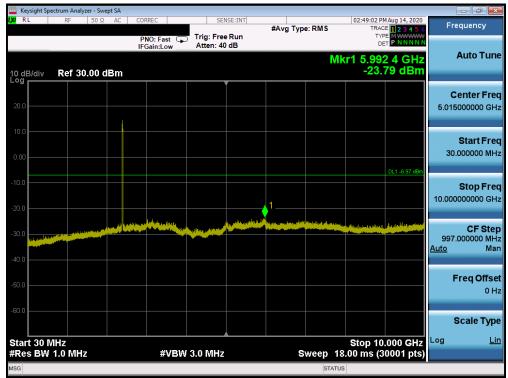
Plot 7-121. Conducted Spurious Plot ANT WF8 (802.11ax OFDMA - RU26 - Ch. 11)



Plot 7-122. Conducted Spurious Plot ANT WF8 (802.11ax OFDMA - RU26 - Ch. 11)

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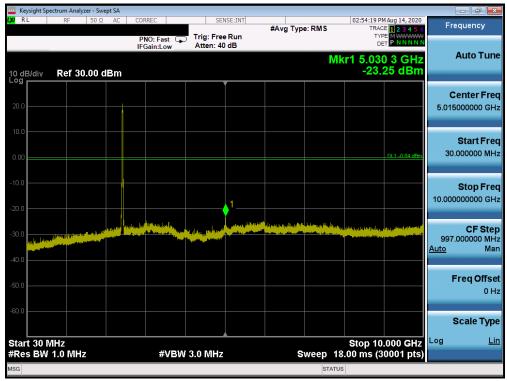
Plot 7-123. Conducted Spurious Plot ANT WF8 (802.11ax OFDMA - RU242 - Ch. 1)



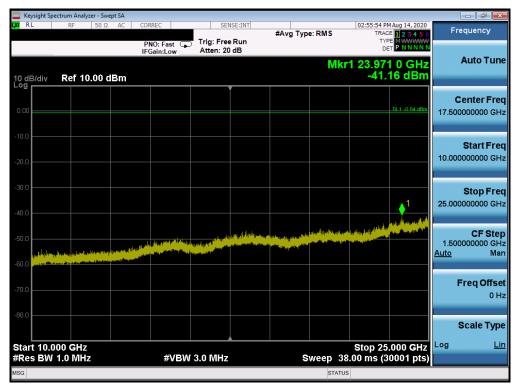
Plot 7-124. Conducted Spurious Plot ANT WF8 (802.11ax OFDMA - RU242 - Ch. 1)

FCC ID: BCGA2316	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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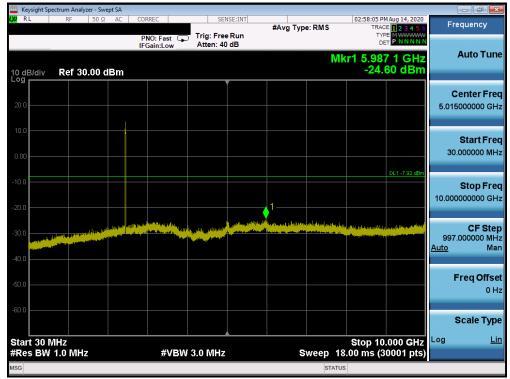
Plot 7-125. Conducted Spurious Plot ANT WF8 (802.11ax OFDMA - RU242 - Ch. 6)



Plot 7-126. Conducted Spurious Plot ANT WF8 (802.11ax OFDMA - RU242 - Ch. 6)

FCC ID: BCGA2316	PCTEST° Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-127. Conducted Spurious Plot ANT WF8 (802.11ax OFDMA - RU242 - Ch. 11)



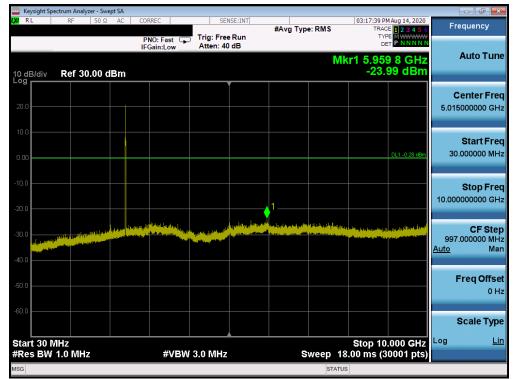
Plot 7-128. Conducted Spurious Plot ANT WF8 (802.11ax OFDMA - RU242 - Ch. 11)

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# **Antenna WF7b Conducted Spurious Emissions**



Plot 7-129. Conducted Spurious Plot ANT WF7b (802.11ax OFDMA - RU26 - Ch. 1)

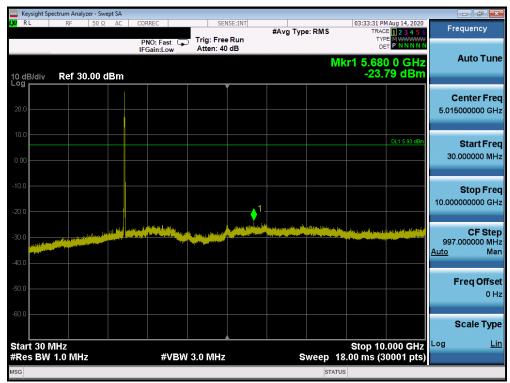


Plot 7-130. Conducted Spurious Plot ANT WF7b (802.11ax OFDMA - RU26 - Ch. 1)

FCC ID: BCGA2316	PCTEST* Proud to be part of element  MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Plot 7-131. Conducted Spurious Plot ANT WF7b (802.11ax OFDMA - RU26 - Ch. 6)

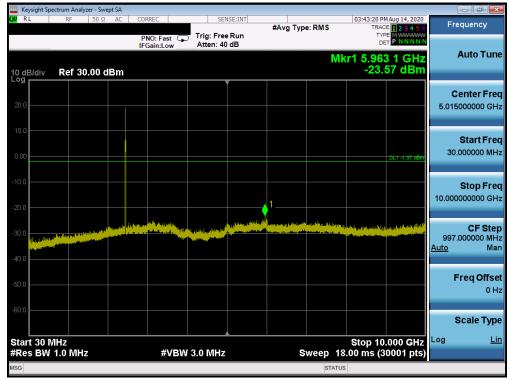


Plot 7-132. Conducted Spurious Plot ANT WF7b (802.11ax OFDMA - RU26 - Ch. 6)

FCC ID: BCGA2316	PCTEST* Proud to be part of element  MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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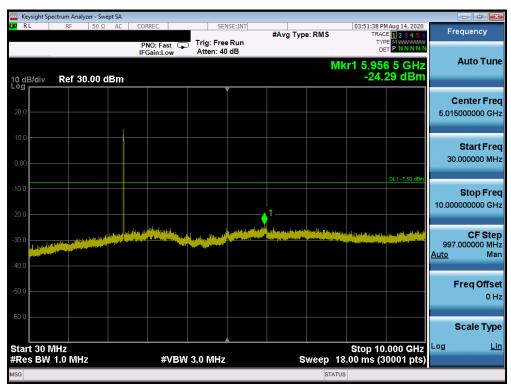
Plot 7-133. Conducted Spurious Plot ANT WF7b (802.11ax OFDMA - RU26 - Ch. 11)



Plot 7-134. Conducted Spurious Plot ANT WF7b (802.11ax OFDMA - RU26 - Ch. 11)

FCC ID: BCGA2316	PCTEST* Proud to be part of element  MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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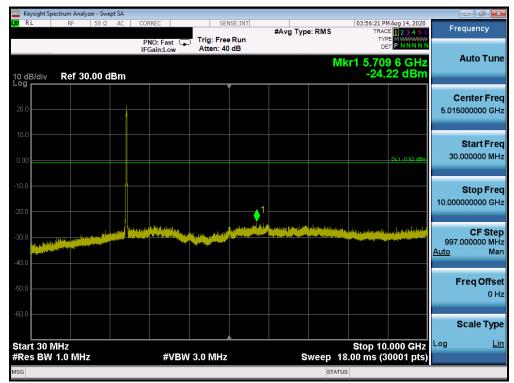
Plot 7-135. Conducted Spurious Plot ANT WF7b (802.11ax OFDMA - RU242 - Ch. 1)



Plot 7-136. Conducted Spurious Plot ANT WF7b (802.11ax OFDMA - RU242 - Ch. 1)

FCC ID: BCGA2316	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dage 400 of 470
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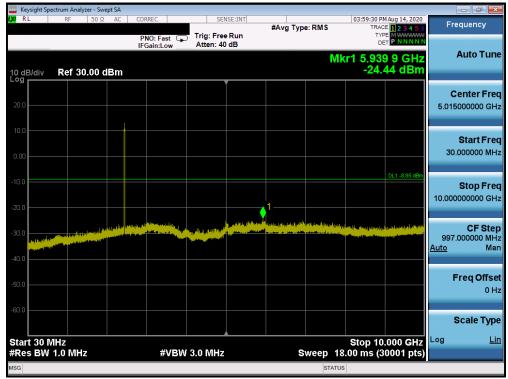
Plot 7-137. Conducted Spurious Plot ANT WF7b (802.11ax OFDMA - RU242 - Ch. 6)



Plot 7-138. Conducted Spurious Plot ANT WF7b (802.11ax OFDMA - RU242 - Ch. 6)

FCC ID: BCGA2316	PCTEST° Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-139. Conducted Spurious Plot ANT WF7b (802.11ax OFDMA - RU242 - Ch. 11)



Plot 7-140. Conducted Spurious Plot ANT WF7b (802.11ax OFDMA - RU242 - Ch. 11)

FCC ID: BCGA2316	PCTEST* Proud to be part of element  MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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# 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 7-31 per Section 15.209 and RSS-Gen (8.9).

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

Table 7-31. Radiated Limits

## **Test Procedures Used**

ANSI C63.10-2013 – Section 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

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#### **Test Setup**

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

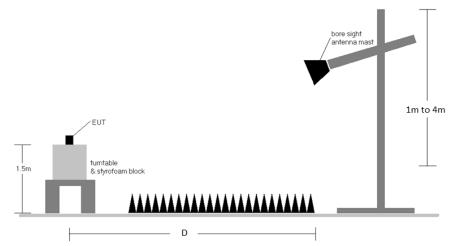


Figure 7-6. Radiated Measurement Setup

#### **Test Notes**

- 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 7-31.
- 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. The worst-case emissions are reported however emissions whose levels were not within 20dB of the respective limits were not reported.
- 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.

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# **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

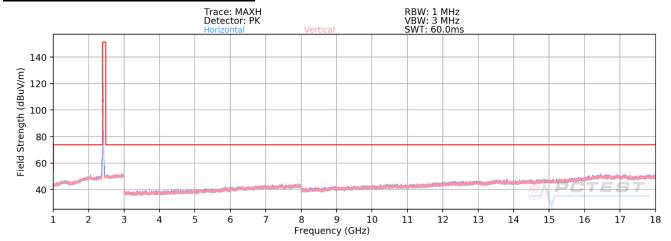
The amplitude offset shown in the radiated restricted band edge plots in Section 7.7 was calculated using the formula:

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

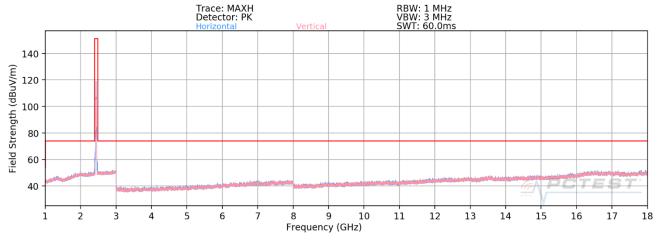
FCC ID: BCGA2316	PCTEST* Proud to be part of element  MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 111 of 173
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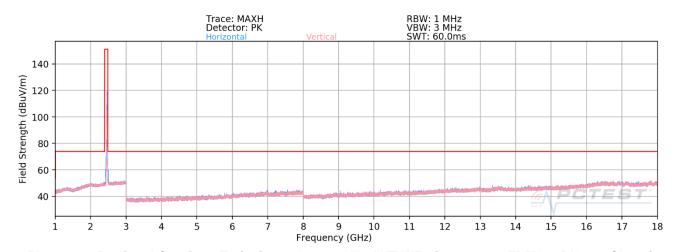
# 7.7.1 Antenna WF8 Radiated Spurious Emission Measurements §15.247(d) §15.205 & §15.209; RSS-Gen [8.9]



Plot 7-141. Radiated Spurious Emissions above 1GHz ANT WF8 (802.11ax OFDMA - RU26 - Ch. 1)



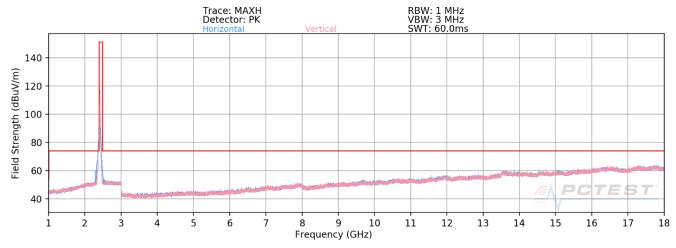
Plot 7-142. Radiated Spurious Emissions above 1GHz ANT WF8 (802.11ax OFDMA - RU26 - Ch. 6)



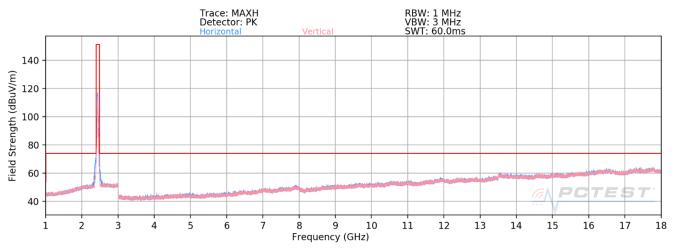
Plot 7-143. Radiated Spurious Emissions above 1GHz ANT WF8 (802.11ax OFDMA - RU26 - Ch. 11)

FCC ID: BCGA2316	PCTEST* Proud to be part of element  MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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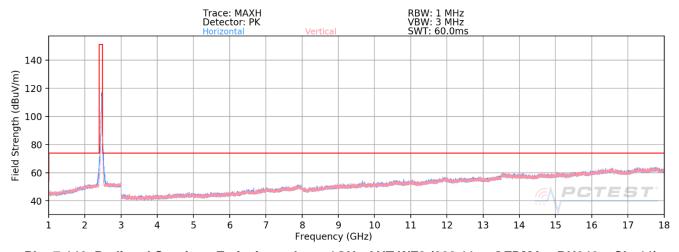




Plot 7-144. Radiated Spurious Emissions above 1GHz ANT WF8 (802.11ax OFDMA – RU242 – Ch. 1)



Plot 7-145. Radiated Spurious Emissions above 1GHz ANT WF8 (802.11ax OFDMA - RU242 - Ch. 6)



Plot 7-146. Radiated Spurious Emissions above 1GHz ANT WF8 (802.11ax OFDMA - RU242 - Ch. 11)

FCC ID: BCGA2316	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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# **Antenna WF8 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: 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	Н	-	-	-82.65	7.19	31.54	53.98	-22.44
4824.00	Peak	Н	-	-	-69.49	7.19	44.70	73.98	-29.28
12060.00	Avg	Н	-	-	-85.37	16.60	38.23	53.98	-15.75
12060.00	Peak	Н	-	-	-73.66	16.60	49.94	73.98	-24.04

Table 7-32. Radiated Measurements ANT WF8 (RU26)

Worst Case Mode: 802.11ax OFDMA Worst Case Transfer Rate: MCS9 RU Index: 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	Н	-	-	-81.45	7.25	32.80	53.98	-21.18
4874.00	Peak	Н	-	-	-69.84	7.25	44.41	73.98	-29.57
7311.00	Avg	Н	-	-	-82.62	10.45	34.83	53.98	-19.15
7311.00	Peak	Н	-	-	-70.53	10.45	46.92	73.98	-27.06
12185.00	Avg	Н	-	-	-84.91	16.29	38.38	53.98	-15.60
12185.00	Peak	Н	-	-	-73.24	16.29	50.05	73.98	-23.93

Table 7-33. Radiated Measurements ANT WF8 (RU26)

FCC ID: BCGA2316	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Worst Case Mode:

Worst Case Transfer Rate:

RU Index:

Distance of Measurements:

Operating Frequency:

Channel:

802.11ax OFDMA

MCS9

4

3 Meters

2462MHz

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	Н	-	-	-83.11	8.16	32.05	53.98	-21.93
4924.00	Peak	Н	-	-	-69.78	8.16	45.38	73.98	-28.60
7386.00	Avg	Н	-	-	-83.66	11.60	34.94	53.98	-19.04
7386.00	Peak	Н	-	-	-70.52	11.60	48.08	73.98	-25.90
12310.00	Avg	Н	-	-	-86.54	17.01	37.47	53.98	-16.51
12310.00	Peak	Н	-	-	-73.79	17.01	50.22	73.98	-23.76

Table 7-34. Radiated Measurements ANT WF8 (RU26)

Worst Case Mode:

Worst Case Transfer Rate:

RU Index:

Distance of Measurements:

Operating Frequency:

Channel:

802.11ax OFDMA

MCS9

61

3 Meters

2412MHz

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	Н	-	-	-81.84	9.25	34.41	53.98	-19.57
4824.00	Peak	Н	-	-	-71.00	9.25	45.25	73.98	-28.73
12060.00	Avg	Н	-	-	-84.82	21.66	43.84	53.98	-10.14
12060.00	Peak	Н	-	-	-73.39	21.66	55.27	73.98	-18.71

Table 7-35. Radiated Measurements ANT WF8 (RU242)

FCC ID: BCGA2316	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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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	Н	-	-	-82.22	9.28	34.06	53.98	-19.92
4874.00	Peak	Н	-	-	-71.12	9.28	45.16	73.98	-28.82
7311.00	Avg	Н	-	-	-83.48	13.84	37.36	53.98	-16.61
7311.00	Peak	Н	-	-	-71.84	13.84	49.00	73.98	-24.97
12185.00	Avg	Н	-	-	-85.40	21.54	43.14	53.98	-10.84
12185.00	Peak	Н	-	-	-74.11	21.54	54.43	73.98	-19.55

Table 7-36. Radiated Measurements ANT WF8 (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

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	Н	-	-	-81.77	9.00	34.23	53.98	-19.75
4924.00	Peak	Н	-	-	-70.70	9.00	45.30	73.98	-28.68
7386.00	Avg	V	342	67	-83.93	14.01	37.08	53.98	-16.90
7386.00	Peak	V	342	67	-72.37	14.01	48.64	73.98	-25.34
12310.00	Avg	Н	-	-	-85.77	22.06	43.29	53.98	-10.69
12310.00	Peak	Н	-	-	-75.04	22.06	54.02	73.98	-19.96

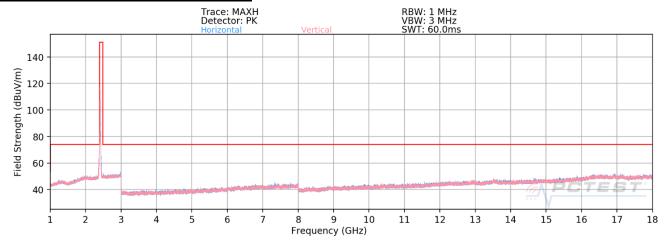
Table 7-37. Radiated Measurements ANT WF8 (RU242)

FCC ID: BCGA2316	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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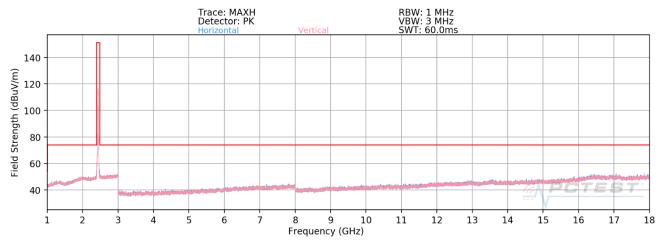
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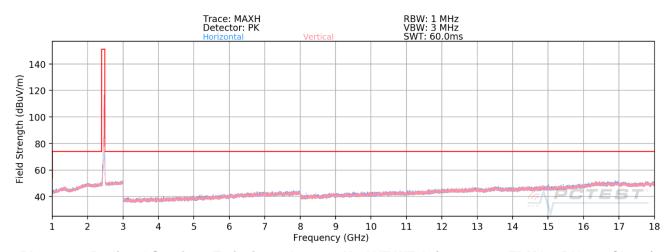
# 7.7.2 Antenna WF7b Radiated Spurious Emission Measurements §15.247(d) §15.205 & §15.209; RSS-Gen [8.9]



Plot 7-147. Radiated Spurious Emissions above 1GHz ANT WF7b (802.11ax OFDMA - RU26 - Ch. 1)



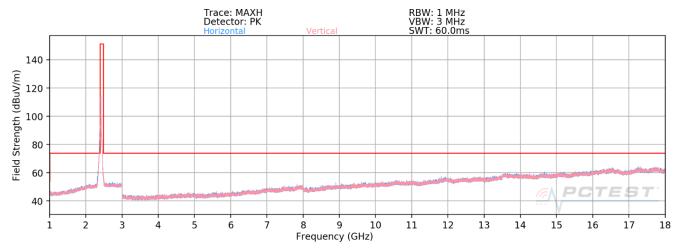
Plot 7-148. Radiated Spurious Emissions above 1GHz ANT WF7b (802.11ax OFDMA - RU26 - Ch. 6)



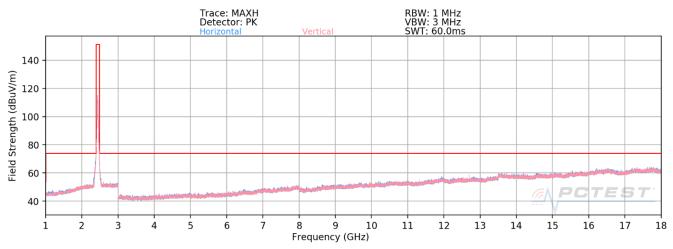
Plot 7-149. Radiated Spurious Emissions above 1GHz ANT WF7b (802.11ax OFDMA - RU26 - Ch. 11)

FCC ID: BCGA2316	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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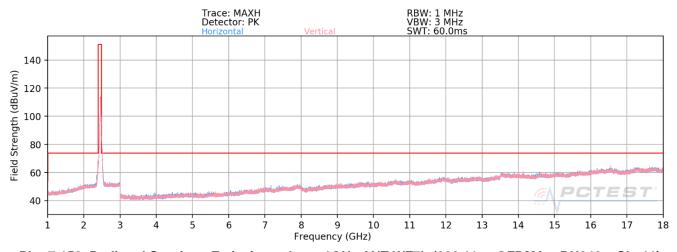




Plot 7-150. Radiated Spurious Emissions above 1GHz ANT WF7b (802.11ax OFDMA - RU242 - Ch. 1)



Plot 7-151. Radiated Spurious Emissions above 1GHz ANT WF7b (802.11ax OFDMA - RU242 - Ch. 6)



Plot 7-152. Radiated Spurious Emissions above 1GHz ANT WF7b (802.11ax OFDMA - RU242 - Ch. 11)

FCC ID: BCGA2316	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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# **Antenna WF7b 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: 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	Н	-	-	-83.49	7.19	30.70	53.98	-23.28
4824.00	Peak	Н	-	-	-69.47	7.19	44.72	73.98	-29.26
12060.00	Avg	Н	-	-	-86.17	16.60	37.43	53.98	-16.55
12060.00	Peak	Н	-	-	-73.42	16.60	50.18	73.98	-23.80

Table 7-38. Radiated Measurements ANT WF7b (RU26)

Worst Case Mode: 802.11ax OFDMA Worst Case Transfer Rate: MCS9 RU Index: 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	Н	-	-	-82.29	7.25	31.96	53.98	-22.02
4874.00	Peak	Н	-	-	-69.37	7.25	44.88	73.98	-29.10
7311.00	Avg	Н	-	-	-83.41	10.45	34.04	53.98	-19.94
7311.00	Peak	Н	-	-	-70.55	10.45	46.90	73.98	-27.08
12185.00	Avg	Н	-	-	-85.73	16.29	37.56	53.98	-16.42
12185.00	Peak	Н	-	-	-73.53	16.29	49.76	73.98	-24.22

Table 7-39. Radiated Measurements ANT WF7b (RU26)

FCC ID: BCGA2316	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Worst Case Mode:

Worst Case Transfer Rate:

RU Index:

Distance of Measurements:

Operating Frequency:

Channel:

802.11ax OFDMA

MCS9

4

3 Meters

2462MHz

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	Н	-	-	-83.15	8.16	32.01	53.98	-21.97
4924.00	Peak	Н	-	-	-69.69	8.16	45.47	73.98	-28.51
7386.00	Avg	Н	-	-	-83.69	11.60	34.91	53.98	-19.07
7386.00	Peak	Н	-	-	-71.11	11.60	47.49	73.98	-26.49
12310.00	Avg	Н	-	-	-86.57	17.01	37.44	53.98	-16.54
12310.00	Peak	Н	-	-	-73.91	17.01	50.10	73.98	-23.88

Table 7-40. Radiated Measurements ANT WF7b (RU26)

Worst Case Mode:

Worst Case Transfer Rate:

RU Index:

Distance of Measurements:

Operating Frequency:

Channel:

802.11ax OFDMA

MCS9

61

3 Meters

2412MHz

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	114	221	-78.42	9.25	37.83	53.98	-16.15
4824.00	Peak	V	114	221	-67.12	9.25	49.13	73.98	-24.85
12060.00	Avg	Н	ı	-	-84.83	21.66	43.83	53.98	-10.15
12060.00	Peak	Н	-	-	-73.23	21.66	55.43	73.98	-18.55

Table 7-41. Radiated Measurements ANT WF7b (RU242)

FCC ID: BCGA2316	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 120 of 172
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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	Н	-	-	-82.11	9.28	34.17	53.98	-19.81
4874.00	Peak	Н	-	-	-70.78	9.28	45.50	73.98	-28.48
7311.00	Avg	V	118	252	-80.11	13.84	40.73	53.98	-13.24
7311.00	Peak	V	118	252	-69.48	13.84	51.36	73.98	-22.61
12185.00	Avg	Н	-	-	-85.30	21.54	43.24	53.98	-10.74
12185.00	Peak	Н	-	-	-74.18	21.54	54.36	73.98	-19.62

Table 7-42. Radiated Measurements ANT WF7b (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

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	158	145	-77.72	9.00	38.28	53.98	-15.70
4924.00	Peak	V	158	145	-67.32	9.00	48.68	73.98	-25.30
7386.00	Avg	V	166	123	-81.35	14.01	39.66	53.98	-14.32
7386.00	Peak	V	166	123	-71.50	14.01	49.51	73.98	-24.47
12310.00	Avg	Н	-	-	-85.73	22.06	43.33	53.98	-10.65
12310.00	Peak	Н	-	-	-73.56	22.06	55.50	73.98	-18.48

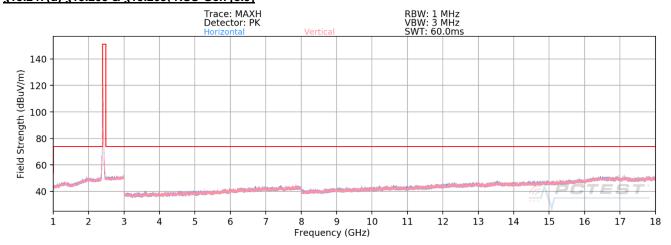
Table 7-43. Radiated Measurements ANT WF7b (RU242)

FCC ID: BCGA2316	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 121 of 173
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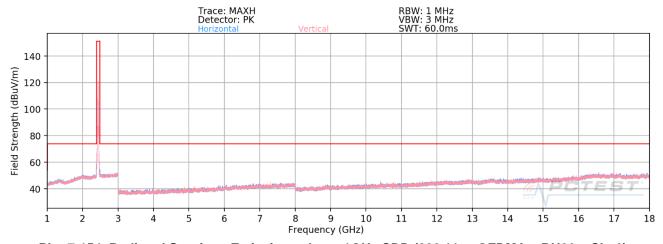
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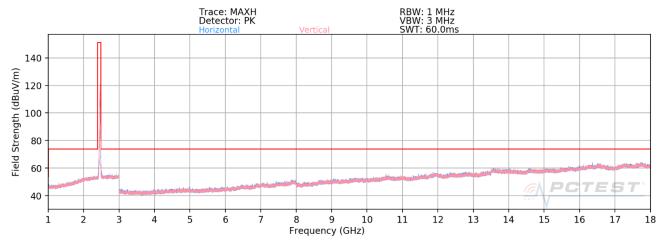
# 7.7.3 CDD Radiated Spurious Emission Measurements §15.247(d) §15.205 & §15.209; RSS-Gen [8.9]



Plot 7-153. Radiated Spurious Emissions above 1GHz CDD (802.11ax OFDMA - RU26 - Ch. 1)



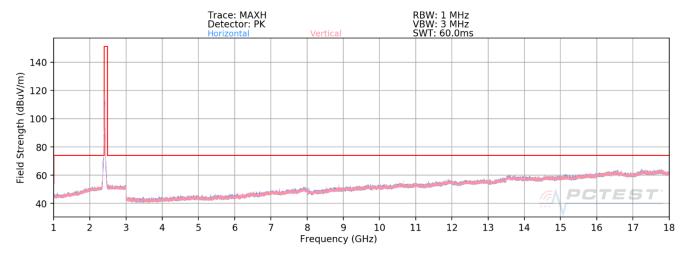
Plot 7-154. Radiated Spurious Emissions above 1GHz CDD (802.11ax OFDMA - RU26 - Ch. 6)



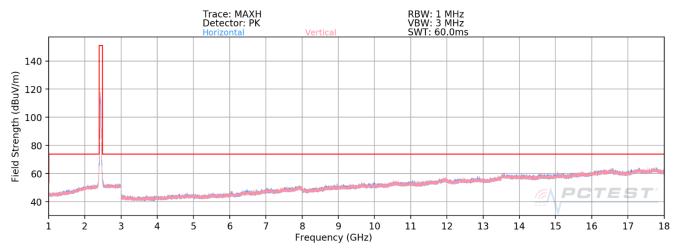
Plot 7-155. Radiated Spurious Emissions above 1GHz CDD (802.11ax OFDMA - RU26 - Ch. 11)

FCC ID: BCGA2316	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 122 of 173
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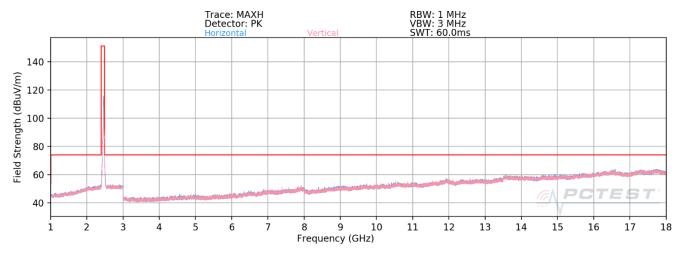




Plot 7-156. Radiated Spurious Emissions above 1GHz CDD (802.11ax OFDMA – RU242 – Ch. 1)



Plot 7-157. Radiated Spurious Emissions above 1GHz CDD (802.11ax OFDMA – RU242 – Ch. 6)



Plot 7-158. Radiated Spurious Emissions above 1GHz CDD (802.11ax OFDMA - RU242 - Ch. 11)

FCC ID: BCGA2316	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 122 of 172
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