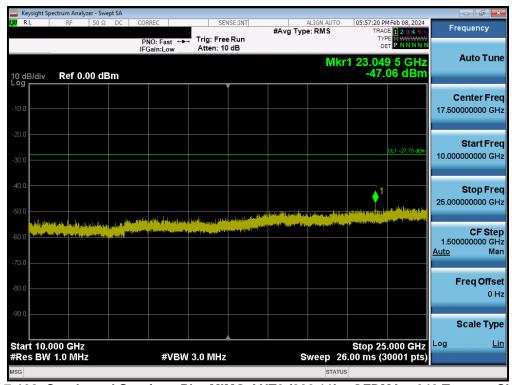


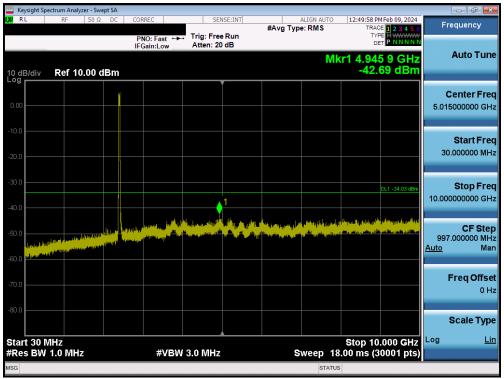
Plot 7-107. Conducted Spurious Plot MIMO ANT2 (802.11be OFDMA - 242 Tones - Ch. 11)



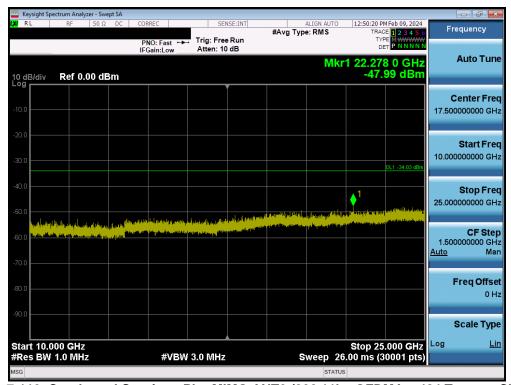
Plot 7-108. Conducted Spurious Plot MIMO ANT2 (802.11be OFDMA - 242 Tones - Ch. 11)

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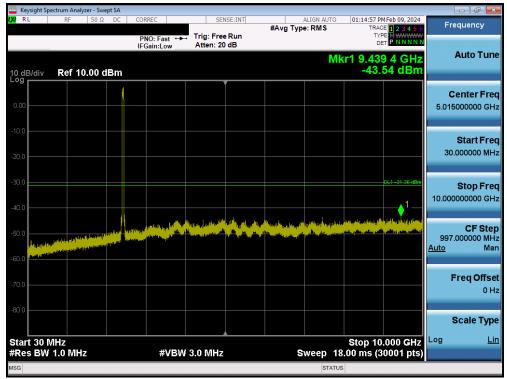
Plot 7-109. Conducted Spurious Plot MIMO ANT2 (802.11be OFDMA - 484 Tones - Ch. 3)



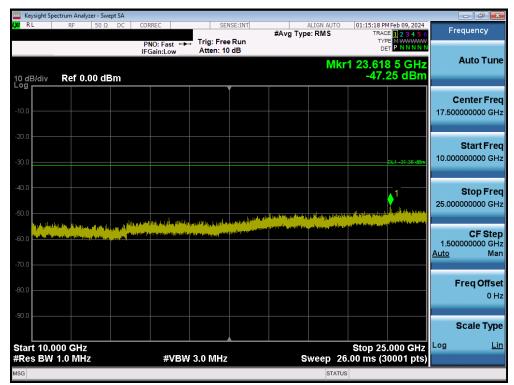
Plot 7-110. Conducted Spurious Plot MIMO ANT2 (802.11be OFDMA - 484 Tones - Ch. 3)

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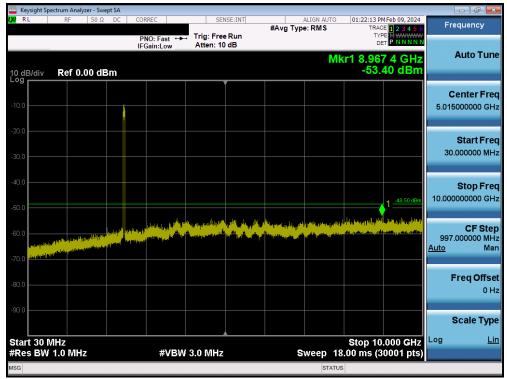
Plot 7-111. Conducted Spurious Plot MIMO ANT2 (802.11be OFDMA – 484 Tones – Ch. 6)



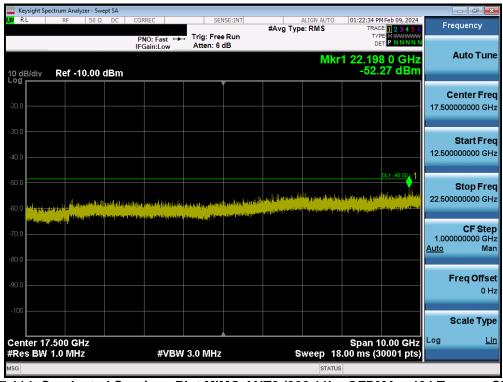
Plot 7-112. Conducted Spurious Plot MIMO ANT2 (802.11be OFDMA – 484 Tones – Ch. 6)

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Plot 7-113. Conducted Spurious Plot MIMO ANT2 (802.11be OFDMA - 484 Tones - Ch. 11)



Plot 7-114. Conducted Spurious Plot MIMO ANT2 (802.11be OFDMA - 484 Tones - Ch. 11)

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7.7 Radiated Emission Measurements

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 FCC §15.205 of the Title 47 CFR and Table 6 of RSS-Gen (8.10) must not exceed the limits shown FCC §15.209 and RSS-Gen (8.9).

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

Table 7-11. Radiated Limits

Test Procedures Used

ANSI C63.10-2013 - Section 6.6.4.3

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

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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.

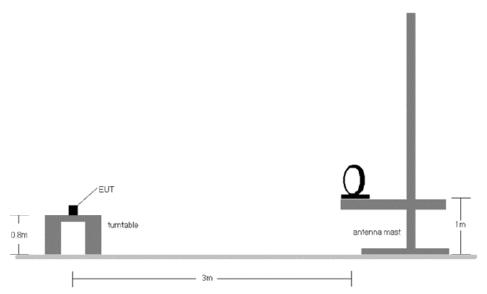


Figure 7-6. Radiated Test Setup < 30MHz

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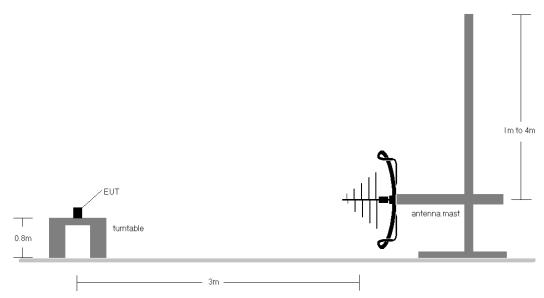


Figure 7-7. Radiated Test Setup < 1GHz

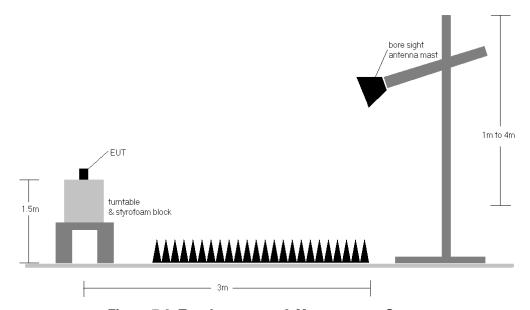


Figure 7-8. Test Instrument & Measurement Setup

Test Notes

- 1. The optional test procedures for antenna port conducted measurements of unwanted emissions per the guidance of ANSI C63.10-2013 Section 11.3 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 §15.205 and Section 8.10 of RSS-Gen are below the limits shown in §15.209.
- 3. The antenna is manipulated through typical positions, polarity and length during the tests. The EUT is manipulated through three orthogonal planes.

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- 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.
- 6. Emissions below 18GHz were measured at a 3 meter 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. Some band edge measurements were performed using a channel integration method to determine compliance with the out of band average radiated spurious emissions limit in the 2483.5 2500MHz band. Per KDB 558074 D01 v05r02 Section 13.3, a measurement was performed using a RBW of 100kHz at the frequency with highest emission outside of band edge. For integration that does not start at 2483.5MHz, consideration was taken to ensure the worst-case emission is in the 1MHz spectrum. The results were integrated up to the 1MHz reference bandwidth to show compliance with the 15.209 radiated limit for emissions greater than 1GHz.
- 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]
- o Margin [dB] = Field Strength Level [dB μ V/m] Limit [dB μ V/m]

Radiated Band Edge Measurement Offset

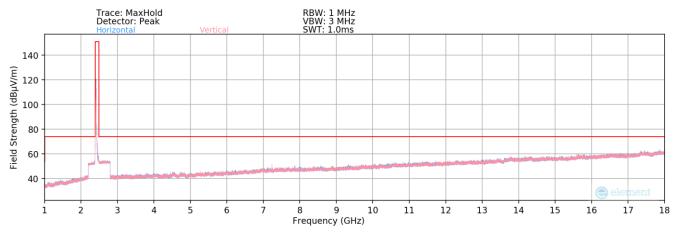
 The amplitude offset shown in the radiated restricted band edge plots in Section 7.7 was calculated using the formula:

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

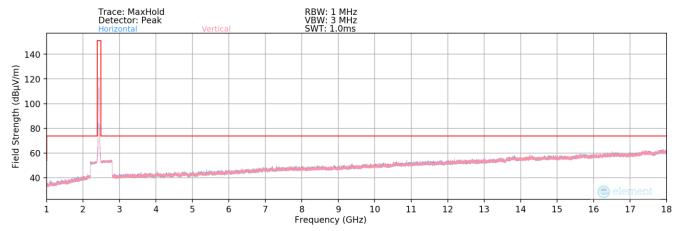
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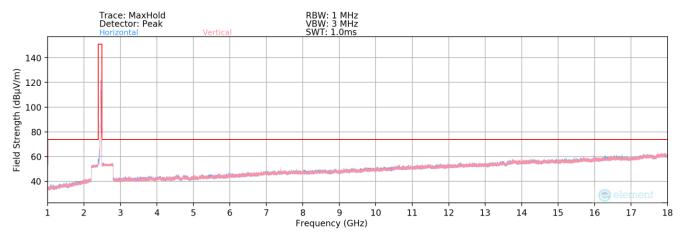
7.7.1 MIMO Radiated Spurious Emission Prescans



Plot 7-115. Radiated Spurious Plot above 1GHz MIMO(802.11be OFDMA - 26 Tones - Ch. 1)



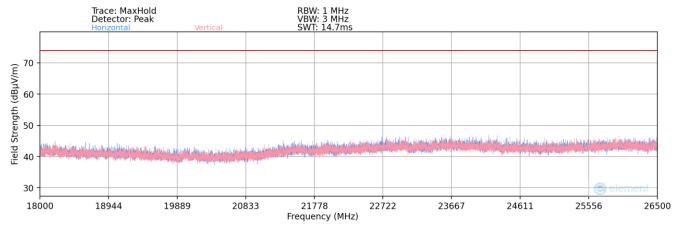
Plot 7-116. Radiated Spurious Plot above 1GHz MIMO ANT1 (802.11be OFDMA - 26 Tones - Ch. 6)



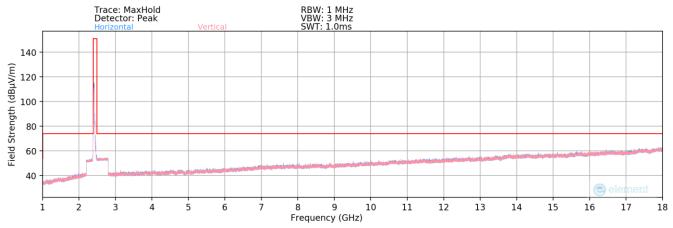
Plot 7-117. Radiated Spurious Plot above 1GHz MIMO (802.11be OFDMA - 26 Tones - Ch. 11)

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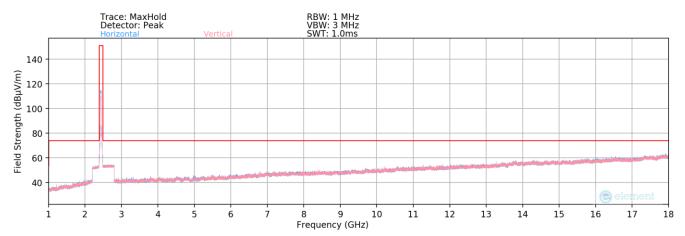




Plot 7-118. Radiated Spurious Plot above 18GHz MIMO (802.11be OFDMA - 26 Tones)



Plot 7-119. Radiated Spurious Plot above 1GHz MIMO (802.11be OFDMA – 242 Tones – Ch. 1)

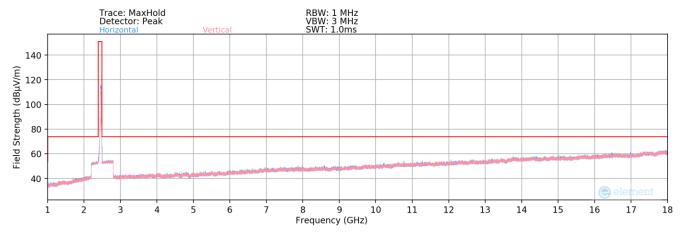


Plot 7-120. Radiated Spurious Plot above 1GHz MIMO (802.11be OFDMA - 242 Tones - Ch. 6)

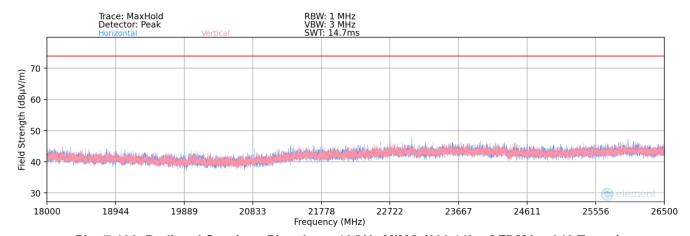
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Plot 7-121. Radiated Spurious Plot above 1GHz MIMO (802.11be OFDMA – 242 Tones – Ch. 11)



Plot 7-122. Radiated Spurious Plot above 18GHz MIMO (802.11be OFDMA - 242 Tones)

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MIMO Radiated Spurious Emission Measurements - Partial Tone

Worst Case Mode: 802.11be OFDMA Worst Case Transfer Rate: MCS0 RU Index: 8 Distance of Measurements: 3 Meters Operating Frequency: 2412MHz 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]
4824.00	Avg	Н	122	249	-75.28	2.81	34.53	53.98	-19.45
4824.00	Peak	Н	122	249	-66.32	2.81	43.49	73.98	-30.49
12060.00	Avg	Н	-	-	-81.44	12.85	38.41	53.98	-15.57
12060.00	Peak	Н	-	-	-69.09	12.85	50.76	73.98	-23.22

Table 7-12. Radiated Measurements MIMO (26 Tones)

Worst Case Mode: 802.11be OFDMA Worst Case Transfer Rate: MCS0 RU Index: 0 Distance of Measurements: 3 Meters Operating Frequency: 2437MHz Channel: 6

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	-	-	-78.71	3.15	31.44	53.98	-22.53
4874.00	Peak	Н	-	-	-67.13	3.15	43.02	73.98	-30.95
7311.00	Avg	Н	362	241	-78.32	9.58	38.26	53.98	-15.72
7311.00	Peak	Н	362	241	-65.40	9.58	51.18	73.98	-22.80
12185.00	Avg	Н	-	-	-81.45	13.06	38.61	53.98	-15.37
12185.00	Peak	Н	-	-	-69.17	13.06	50.89	73.98	-23.09

Table 7-13. Radiated Measurements MIMO (26 Tones)

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Worst Case Mode: 802.11be OFDMA
Worst Case Transfer Rate: MCS0
RU Index: 8

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	111	125	-77.72	3.02	32.30	53.98	-21.68
4924.00	Peak	Н	111	125	-66.90	3.02	43.12	73.98	-30.86
7386.00	Avg	Н	283	236	-78.28	9.34	38.06	53.98	-15.92
7386.00	Peak	Н	283	236	-64.91	9.34	51.43	73.98	-22.55
12310.00	Avg	Н	-	-	-81.83	13.24	38.41	53.98	-15.57
12310.00	Peak	Н	-	-	-69.71	13.24	50.53	73.98	-23.45

Table 7-14. Radiated Measurements MIMO (26 Tones)

Full Tone

Worst Case Mode: 802.11be OFDMA
Worst Case Transfer Rate: MCS0

RU Index: 61

Distance of Measurements: 3 Meters

Operating Frequency: 2412MHz

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]
4824.00	Avg	Н	-	-	-78.70	2.81	31.11	53.98	-22.87
4824.00	Peak	Н	-	-	-66.72	2.81	43.09	73.98	-30.89
12060.00	Avg	Н	-	-	-81.24	12.85	38.61	53.98	-15.37
12060.00	Peak	Н	-	-	-69.12	12.85	50.73	73.98	-23.25

Table 7-15. Radiated Measurements MIMO (242 Tones)

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Worst Case Mode: 802.11be OFDMA

Worst Case Transfer Rate: MCS0

RU Index:

61

Distance of Measurements:

3 Meters

Operating Frequency:

2437MHz

Channel:

6

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	-		-79.04	3.15	31.11	53.98	-22.86
4874.00	Peak	Н	-	-	-66.62	3.15	43.53	73.98	-30.44
7311.00	Avg	Н	-	-	-79.40	9.58	37.18	53.98	-16.80
7311.00	Peak	Н	-	-	-66.68	9.58	49.90	73.98	-24.08
12185.00	Avg	Н	-	-	-81.46	13.06	38.60	53.98	-15.38
12185.00	Peak	Н	-	-	-69.26	13.06	50.80	73.98	-23.18

Table 7-16. Radiated Measurements MIMO (242 Tones)

Worst Case Mode: 802.11be OFDMA

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

Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
4924.00	Avg	Ι	-		-78.92	3.02	31.10	53.98	-22.88
4924.00	Peak	Н	-	-	-66.49	3.02	43.53	73.98	-30.45
7386.00	Avg	Н	-	-	-79.17	9.34	37.17	53.98	-16.81
7386.00	Peak	Н	-	-	-66.52	9.34	49.82	73.98	-24.16
12310.00	Avg	Н	-	-	-81.82	13.24	38.42	53.98	-15.56
12310.00	Peak	Н	-	-	-69.92	13.24	50.32	73.98	-23.66

Table 7-17. Radiated Measurements MIMO (242 Tones)

FCC ID: C3K2077 IC: 3048A-2077		Approved by: Technical Manager	
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7.7.3 MIMO Radiated Restricted Band Edge Measurements

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:

Worst Case Transfer Rate:

RU Index:

Distance of Measurements:

Operating Frequency:

Channel:

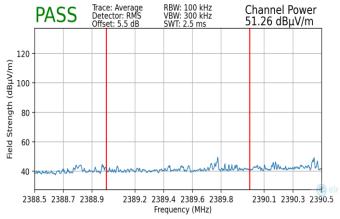
802.11be OFDMA

MCS0

53

3 Meters

2412MHz



PASS Trace: MaxHold Detector: Peak Offset: 5.5 dB SWT: 2.5 ms 71.92 dBμV/m

Plot 7-123. Radiated Restricted Lower Band Edge Measurement MIMO (Average – 106 Tones)

Plot 7-124. Radiated Restricted Lower Band Edge Measurement MIMO (Peak – 106 Tones)

Worst Case Mode:

Worst Case Transfer Rate:

RU Index:

Distance of Measurements:

Operating Frequency:

Channel:

802.11be OFDMA

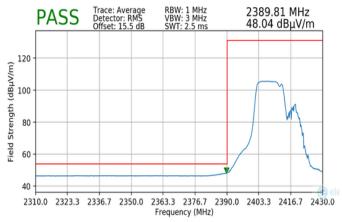
MCS0

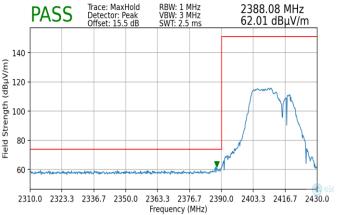
82

3 Meters

2412MHz

1





Plot 7-125. Radiated Restricted Lower Band Edge Measurement MIMO (Average – 106T + 26T)

Plot 7-126. Radiated Restricted Lower Band Edge Measurement MIMO (Peak – 106T + 26T)

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Worst Case Mode:

Worst Case Transfer Rate:

RU Index:

Distance of Measurements:

Operating Frequency:

802.11be OFDMA

MCS0

53

3 Meters

2417MHz

2

Channel:

	P	PASS		Detect	Average or: RMS 15.5 dB	VBV	RBW: 1 MHz VBW: 3 MHz SWT: 2.5 ms			2389.81 MHz 48.7 dBμV/m				
												\dashv		
<u></u>	120												(
Field Strength (dBµV/m)	100										\searrow		myth (dBilly/m)	
Jth (c											M.M	,	th (
treng	80										W'		ro	
eld St	60									/			Ciolo Ctr	
Œ				+				V					ü	
	40											ele		
	2310.0	2323	3.3 2	2336.7	2350.0	2363.3 Freque	2376.7 ncy (MH:		0.0 240	3.3 2	416.7	2430.0		

PASS Trace: MaxHold Detector: Peak Offset: 15.5 dB SWI: 1 MHz VBW: 3 MHz 62.16 dBμV/m

Plot 7-127. Radiated Restricted Lower Band Edge Measurement MIMO (Average – 106 Tones)

Plot 7-128. Radiated Restricted Lower Band Edge Measurement MIMO (Peak – 106 Tones)

Worst Case Mode:

Worst Case Transfer Rate:

RU Index:

Distance of Measurements:

Operating Frequency:

Channel:

802.11be OFDMA

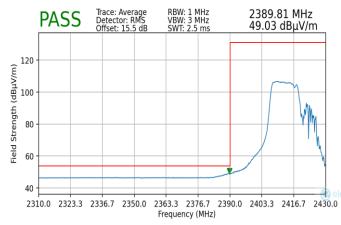
MCS0

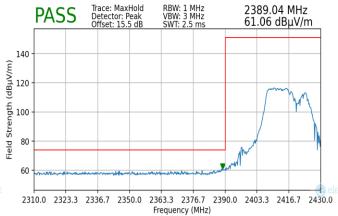
82

3 Meters

2417MHz

2





Plot 7-129. Radiated Restricted Lower Band Edge Measurement MIMO (Average – 106T + 26T)

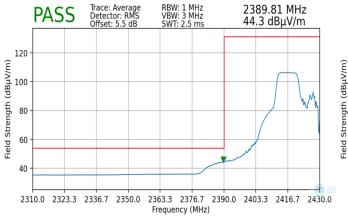
Plot 7-130. Radiated Restricted Lower Band Edge Measurement MIMO (Peak – 106T + 26T)

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Worst Case Mode:
Worst Case Transfer Rate:
RU Index:
Distance of Measurements:
Operating Frequency:
Channel:

802.11be OFDMA
MCS0
53
3 Meters
2422MHz
3



2310.0 2323.3 2336.7 2350.0 2363.3 2376.7 2390.0 2403.3 2416.7 2430.0 Frequency (MHz)

RBW: 1 MHz VBW: 3 MHz SWT: 2.5 ms 2387.31 MHz

58.82 dBµV/m

Trace: MaxHold

Detector: Peak Offset: 5.5 dB

PASS

140

120

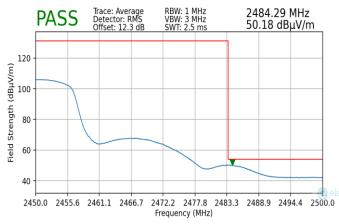
100

80

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

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

Worst Case Mode: 802.11be OFDMA
Worst Case Transfer Rate: MCS0
RU Index: 54
Distance of Measurements: 3 Meters
Operating Frequency: 2447MHz
Channel: 8





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

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

FCC ID: C3K2077 IC: 3048A-2077	MEASUREMENT REPORT		Approved by: Technical Manager
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Worst Case Mode:

Worst Case Transfer Rate:

RU Index:

Distance of Measurements:

Operating Frequency:

Channel:

802.11be OFDMA

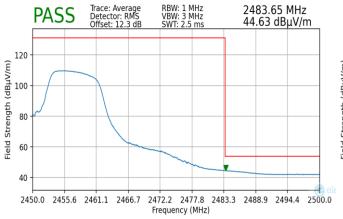
MCS0

54

3 Meters

2452MHz

9

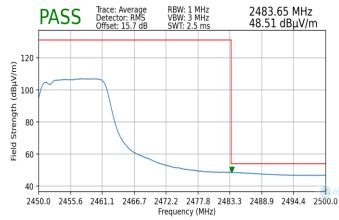


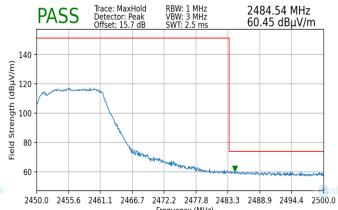
RBW: 1 MHz VBW: 3 MHz SWT: 2.5 ms Trace: MaxHold 2483.81 MHz **PASS** Detector: Peak Offset: 12.3 dB 58.94 dBµV/m 140 (dBµV/m) 120 Strength 100 80 Field 60 2450.0 2455.6 2461.1 2466.7 2472.2 2477.8 2483.3 2488.9 2494.4 Frequency (MHz)

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

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

Worst Case Mode: 802.11be OFDMA
Worst Case Transfer Rate: MCS0
RU Index: 85
Distance of Measurements: 3 Meters
Operating Frequency: 2452MHz
Channel: 9





Plot 7-137. Radiated Restricted Upper Band Edge Measurement MIMO (Average – 106T + 26T)

Plot 7-138. Radiated Restricted Upper Band Edge Measurement MIMO (Peak – 106T + 26T)

FCC ID: C3K2077 IC: 3048A-2077	MEASUREMENT REPORT		Approved by: Technical Manager
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Worst Case Mode:
Worst Case Transfer Rate:
RU Index:
Distance of Measurements:
Operating Frequency:
Channel:

802.11be OFDMA
MCS0
54
3 Meters
2457MHz
10



RBW: 1 MHz VBW: 3 MHz SWT: 2.5 ms Trace: MaxHold 2483.65 MHz **PASS** Detector: Peak Offset: 12.3 dB 64.13 dBµV/m 140 (dBµV/m) 120 Strength 100 80 Field 60 2450.0 2455.6 2461.1 2466.7 2472.2 2477.8 2483.3 2488.9 2494.4 Frequency (MHz)

Plot 7-139. Radiated Restricted Upper Band Edge Measurement MIMO (Average – 106 Tones)

Plot 7-140. Radiated Restricted Upper Band Edge Measurement MIMO (Peak – 106 Tones)

Worst Case Mode:

Worst Case Transfer Rate:

RU Index:

Distance of Measurements:

Operating Frequency:

Channel:

802.11be OFDMA

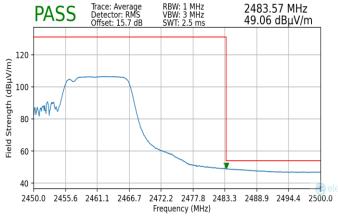
MCS0

85

3 Meters

2457MHz

10





Plot 7-141. Radiated Restricted Upper Band Edge Measurement MIMO (Average – 106T + 26T)

Plot 7-142. Radiated Restricted Upper Band Edge Measurement MIMO (Peak – 106T + 26T)

FCC ID: C3K2077 IC: 3048A-2077		MEASUREMENT REPORT	
Test Report S/N:	Test Dates:	EUT Type:	Dags 100 of 112
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© 2024 ELEMENT			V11.1 08/28/2023

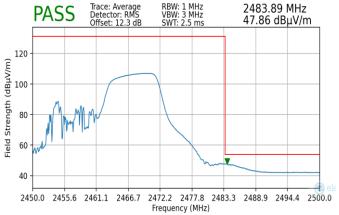


RU Index:

Distance of Measurements: Operating Frequency:

Channel:

802.11be OFDMA MCS0 54 3 Meters 2462MHz



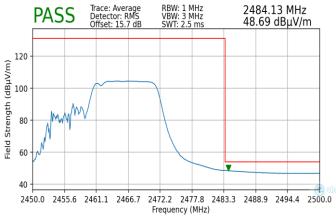
11

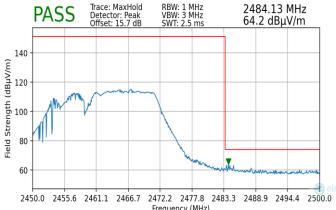
Trace: MaxHold Detector: Peak Offset: 12.3 dB RBW: 1 MHz VBW: 3 MHz SWT: 2.5 ms 2483.81 MHz **PASS** 64.98 dBµV/m 140 Field Strength (dBµV/m) 120 100 80 60 2450.0 2455.6 2461.1 2466.7 2472.2 2477.8 2483.3 2488.9 2494.4 2500.0 Frequency (MHz)

Plot 7-143. Radiated Restricted Upper Band Edge Measurement MIMO (Average - 106 Tones)

Plot 7-144. Radiated Restricted Upper Band Edge Measurement MIMO (Peak - 106 Tones)

Worst Case Mode: 802.11be OFDMA Worst Case Transfer Rate: MCS0 RU Index: 85 Distance of Measurements: 3 Meters Operating Frequency: 2462MHz Channel: 11





Plot 7-145. Radiated Restricted Upper Band Edge Measurement MIMO (Average - 106T + 26T)

Plot 7-146. Radiated Restricted Upper Band Edge Measurement MIMO (Peak - 106T + 26T)

FCC ID: C3K2077 IC: 3048A-2077	MEASUREMENT REPORT		Approved by: Technical Manager
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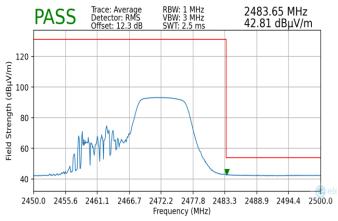


RU Index:

Distance of Measurements: Operating Frequency:

Channel:

802.11be OFDMA
MCS0
54
3 Meters
2467MHz
12

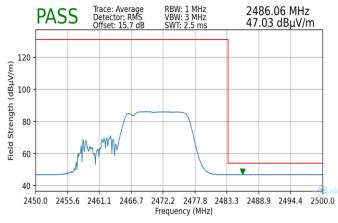


PASS Trace: MaxHold Detector: Peak Offset: 12.3 dB SW: 3 MHz S55.84 dBµV/m

Plot 7-147. Radiated Restricted Upper Band Edge Measurement MIMO (Average – 106 Tones)

Plot 7-148. Radiated Restricted Upper Band Edge Measurement MIMO (Peak – 106 Tones)

Worst Case Mode: 802.11be OFDMA
Worst Case Transfer Rate: MCS0
RU Index: 85
Distance of Measurements: 3 Meters
Operating Frequency: 2467MHz
Channel: 12





Plot 7-149. Radiated Restricted Upper Band Edge Measurement MIMO (Average – 106T + 26T)

Plot 7-150. Radiated Restricted Upper Band Edge Measurement MIMO (Peak – 106T + 26T)

FCC ID: C3K2077 IC: 3048A-2077	MEASUREMENT REPORT		Approved by: Technical Manager
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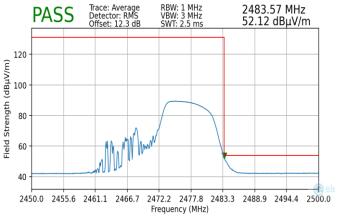


RU Index:

Distance of Measurements: Operating Frequency: Channel: 802.11be OFDMA MCS0

54 3 Meters

2472MHz 13



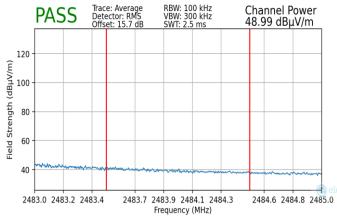
PASS Trace: MaxHold Detector: Peak Offset: 12.3 dB SWT: 2.5 ms 72.46 dBµV/m

Plot 7-151. Radiated Restricted Upper Band Edge Measurement MIMO (Average – 106 Tones)

Plot 7-152. Radiated Restricted Upper Band Edge Measurement MIMO (Peak – 106 Tones)

Worst Case Mode:
Worst Case Transfer Rate:
RU Index:
Distance of Measurements:
Operating Frequency:
Channel:

802.11be OFDMA
MCS0
85
3 Meters
2472MHz
13





Plot 7-153. Radiated Restricted Upper Band Edge Measurement MIMO (Average – 106T + 26T)

Plot 7-154. Radiated Restricted Upper Band Edge Measurement MIMO (Peak – 106T + 26T)

FCC ID: C3K2077 IC: 3048A-2077	MEASUREMENT REPORT		Approved by: Technical Manager
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Worst Case Mode:

Worst Case Transfer Rate:

RU Index:

Distance of Measurements:

Operating Frequency:

Channel:

802.11be OFDMA

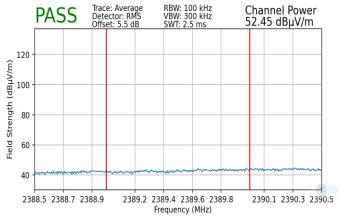
MCS0

61

3 Meters

2412MHz

1



RBW: 1 MHz VBW: 3 MHz SWT: 2.5 ms 2388.65 MHz **PASS** Detector: Peak Offset: 5.5 dB 69.12 dBµV/m 140 Strength (dBµV/m 120 100 80 Field 60 40 2310.0 2323.3 2336.7 2350.0 2363.3 2376.7 2390.0 2403.3 2416.7 2430.0 Frequency (MHz)

Plot 7-155. Radiated Restricted Lower Band Edge Measurement MIMO (Average – 242 Tones)

Plot 7-156. Radiated Restricted Lower Band Edge Measurement MIMO (Peak – 242 Tones)

Worst Case Mode:

Worst Case Transfer Rate:

RU Index:

Distance of Measurements:

Operating Frequency:

Channel:

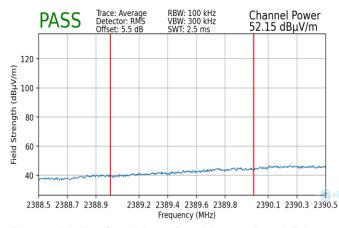
802.11be OFDMA

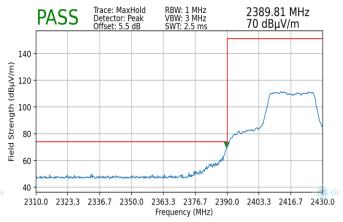
MCS0

61

3 Meters

2417MHz





Plot 7-157. Radiated Restricted Lower Band Edge Measurement MIMO (Average – 242 Tones)

Plot 7-158. Radiated Restricted Lower Band Edge Measurement MIMO (Peak – 242 Tones)

FCC ID: C3K2077 IC: 3048A-2077	MEASUREMENT REPORT		Approved by: Technical Manager
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Worst Case Mode:

Worst Case Transfer Rate:

RU Index:

Distance of Measurements:

Operating Frequency:

Channel:

802.11be OFDMA

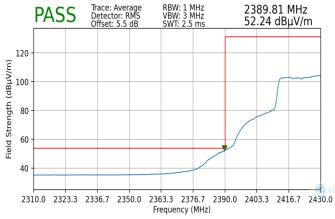
MCS0

61

3 Meters

2422MHz

3



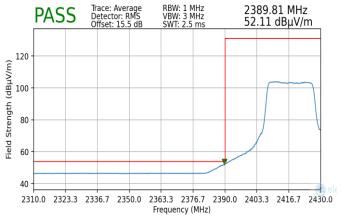
PASS Trace: MaxHold Detector: Peak VBW: 3 MHz VBW: 3 MHz SWT: 2.5 ms 68.19 dBμV/m

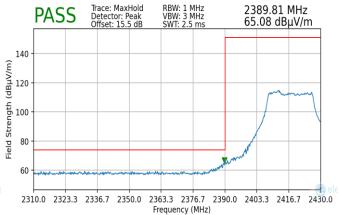
Plot 7-159. Radiated Restricted Lower Band Edge Measurement MIMO (Average – 242 Tones)

Plot 7-160. Radiated Restricted Lower Band Edge Measurement MIMO (Peak – 242 Tones)

Worst Case Mode:
Worst Case Transfer Rate:
RU Index:
Distance of Measurements:
Operating Frequency:
Channel:

802.11be OFDMA
MCS0
61
3 Meters
2427MHz





Plot 7-161. Radiated Restricted Lower Band Edge Measurement MIMO (Average – 242 Tones)

Plot 7-162. Radiated Restricted Lower Band Edge Measurement MIMO (Peak – 242 Tones)

FCC ID: C3K2077 IC: 3048A-2077	MEASUREMENT REPORT		Approved by: Technical Manager
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Worst Case Mode:

Worst Case Transfer Rate:

RU Index:

Distance of Measurements:

Operating Frequency:

802.11be OFDMA

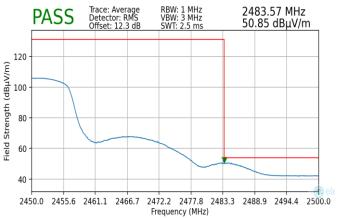
MCS0

61

3 Meters

2447MHz

Operating Frequency: 2447MHz
Channel: 8



PASS Trace: MaxHold Detector: Peak VBW: 3 MHz VBW: 3 MHz 69.28 dBμV/m

140

140

140

140

140

2485.34 MHz 69.28 dBμV/m

140

140

2450.0 2455.6 2461.1 2466.7 2472.2 2477.8 2483.3 2488.9 2494.4 2500.0 Frequency (MHz)

Plot 7-163. Radiated Restricted Upper Band Edge Measurement MIMO (Average – 242 Tones)

Plot 7-164. Radiated Restricted Upper Band Edge Measurement MIMO (Peak – 242 Tones)

Worst Case Mode:

Worst Case Transfer Rate:

RU Index:

Distance of Measurements:

Operating Frequency:

Channel:

802.11be OFDMA

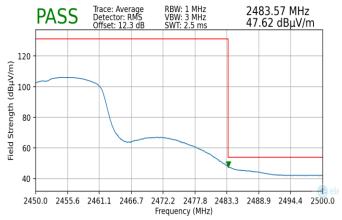
MCS0

61

3 Meters

2452MHz

9





Plot 7-165. Radiated Restricted Upper Band Edge Measurement MIMO (Average – 242 Tones)

Plot 7-166. Radiated Restricted Upper Band Edge Measurement MIMO (Peak – 242 Tones)

FCC ID: C3K2077 IC: 3048A-2077	MEASUREMENT REPORT		Approved by: Technical Manager
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RU Index:

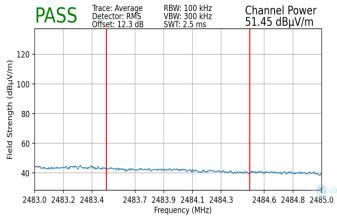
Distance of Measurements: Operating Frequency:

Channel:

802.11be OFDMA MCS0

61 3 Meters

2457MHz 10



Trace: MaxHold RBW: 1 MHz VBW: 3 MHz SWT: 2.5 ms 2483.73 MHz **PASS** Detector: Peak Offset: 12.3 dB 66.57 dBµV/m 140 Strength (dBµV/m) 120 100 80 Field 9 60 2450.0 2455.6 2461.1 2466.7 2472.2 2477.8 2483.3 2488.9 2494.4 2500.0 Frequency (MHz)

Plot 7-167. Radiated Restricted Upper Band Edge Measurement MIMO (Average – 242 Tones)

Plot 7-168. Radiated Restricted Upper Band Edge Measurement MIMO (Peak – 242 Tones)

Worst Case Mode:
Worst Case Transfer Rate:
RU Index:
Distance of Measurements:
Operating Frequency:
Channel:

802.11be OFDMA
MCS0
61
3 Meters
2462MHz
11





Plot 7-169. Radiated Restricted Upper Band Edge Measurement MIMO (Average – 242 Tones)

Plot 7-170. Radiated Restricted Upper Band Edge Measurement MIMO (Peak – 242 Tones)

FCC ID: C3K2077 IC: 3048A-2077	MEASUREMENT REPORT		Approved by: Technical Manager
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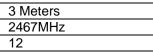


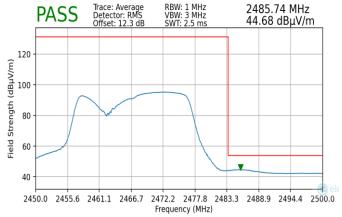
RU Index:

Distance of Measurements: Operating Frequency:

Channel:

802.11be OFDMA MCS0 61 3 Meters



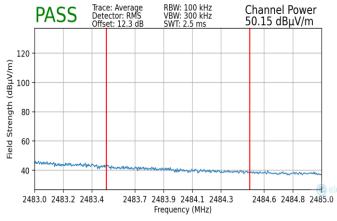


Trace: MaxHold RBW: 1 MHz VBW: 3 MHz SWT: 2.5 ms 2483.57 MHz **PASS** Detector: Peak Offset: 12.3 dB 58.61 dBµV/m 140 Strength (dBµV/m) 120 100 80 Field 9 60 2450.0 2455.6 2461.1 2466.7 2472.2 2477.8 2483.3 2488.9 2494.4 2500.0 Frequency (MHz)

Plot 7-171. Radiated Restricted Upper Band Edge **Measurement MIMO (Average – 242 Tones)**

Plot 7-172. Radiated Restricted Upper Band Edge Measurement MIMO (Peak - 242 Tones)

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





Plot 7-173. Radiated Restricted Upper Band Edge Measurement MIMO (Average - 242 Tones)

Plot 7-174. Radiated Restricted Upper Band Edge Measurement MIMO (Peak - 242 Tones)

FCC ID: C3K2077 IC: 3048A-2077	MEASUREMENT REPORT		Approved by: Technical Manager
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Worst Case Transfer Rate: RU Index:

Distance of Measurements: Operating Frequency:

2310.0 2323.3 2336.7 2350.0

Trace: Average Detector: RMS Offset: 15.5 dB

Channel:

120

100

80

60

40

Field Strength (dBµV/m)

PASS

802.11be OFDMA

2389.81 MHz

51.44 dBµV/m

MCS0

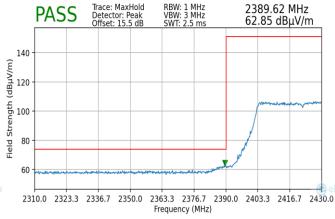
3

RBW: 1 MHz VBW: 3 MHz SWT: 2.5 ms

65 3 Meters

2422MHz

2363.3 2376.7 2390.0 2403.3 2416.7 2430.0



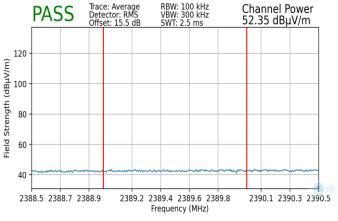
Plot 7-175. Radiated Restricted Lower Band Edge Measurement MIMO (Average – 484 Tones)

Frequency (MHz)

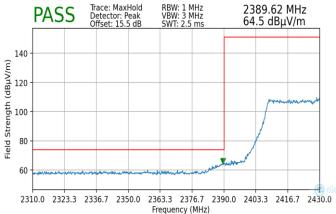
Plot 7-176. Radiated Restricted Lower Band Edge Measurement MIMO (Peak – 484 Tones)

Worst Case Mode:
Worst Case Transfer Rate:
RU Index:
Distance of Measurements:
Operating Frequency:
Channel:

802.11be OFDMA
MCS0
65
3 Meters
2427MHz



Plot 7-177. Radiated Restricted Lower Band Edge Measurement MIMO (Average – 484 Tones)



Plot 7-178. Radiated Restricted Lower Band Edge Measurement MIMO (Peak – 484 Tones)

FCC ID: C3K2077 IC: 3048A-2077		Approved by: Technical Manager	
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Worst Case Mode:
Worst Case Transfer Rate:
RU Index:
Distance of Measurements:
Operating Frequency:
Channel:

802.11be OFDMA
MCS0
65
3 Meters
2432MHz
5

	PASS		Trace: Average Detector: RMS Offset: 11.8 dB		RBW: 100 kHz VBW: 300 kHz SWT: 2.5 ms			Channel Power 52.33 dBµV/m					
(M/M	120 - 100 -												
Strengt	80 -												
Field	60 -												
	40 -		·			mm	~~~~~~~	~~~~	~~~~	•			a ele
	2388.5 2388.7 2388.9 2389.2 2389.4 2389.6 2389.8 2390.1 2390.3 2390.5 Frequency (MHz)												

PASS Trace: MaxHold Detector: Peak VBW: 3 MHz VBW: 3 MHz 66.78 dBμV/m

140

140

140

140

2310.0 2323.3 2336.7 2350.0 2363.3 2376.7 2390.0 2403.3 2416.7 2430.0 Frequency (MHz)

Plot 7-179. Radiated Restricted Lower Band Edge Measurement MIMO (Average – 484 Tones)

Plot 7-180. Radiated Restricted Lower Band Edge Measurement MIMO (Peak – 484 Tones)

Worst Case Mode:

Worst Case Transfer Rate:

RU Index:

Distance of Measurements:

Operating Frequency:

Channel:

802.11be OFDMA

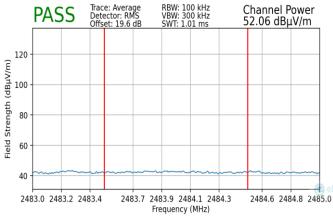
MCS0

65

3 Meters

2442MHz

7





Plot 7-181. Radiated Restricted Upper Band Edge Measurement MIMO (Average – 484 Tones)

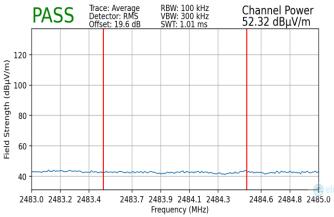
Plot 7-182. Radiated Restricted Upper Band Edge Measurement MIMO (Peak – 484 Tones)

FCC ID: C3K2077 IC: 3048A-2077		MEASUREMENT REPORT	
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C COCA EL EMENT			1444400000000



Worst Case Mode:
Worst Case Transfer Rate:
RU Index:
Distance of Measurements:
Operating Frequency:
Channel:

802.11be OFDMA
MCS0
65
3 Meters
2447MHz



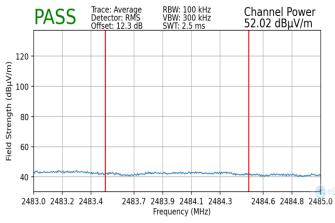
PASS Trace: MaxHold Detector: Peak VBW: 3 MHz VBW: 3 MHz 65.88 dBµV/m

Plot 7-183. Radiated Restricted Upper Band Edge Measurement MIMO (Average – 484 Tones)

Plot 7-184. Radiated Restricted Upper Band Edge Measurement MIMO (Peak – 484 Tones)

Worst Case Mode:
Worst Case Transfer Rate:
RU Index:
Distance of Measurements:
Operating Frequency:
Channel:

802.11be OFDMA
MCS0
65
3 Meters
2452MHz





Plot 7-185. Radiated Restricted Upper Band Edge Measurement MIMO (Average – 484 Tones)

Plot 7-186. Radiated Restricted Upper Band Edge Measurement MIMO (Peak – 484 Tones)

FCC ID: C3K2077 IC: 3048A-2077		Approved by: Technical Manager	
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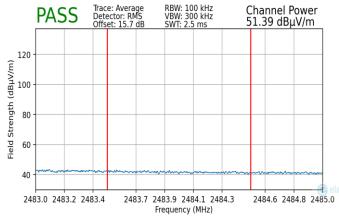
RU Index:

Distance of Measurements:

Operating Frequency:

Channel:

802.11be OFDMA	
MCS0	
65	
3 Meters	
2457MHz	
10	

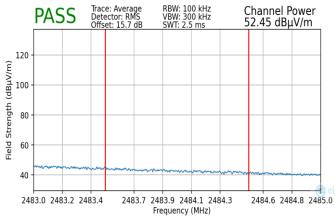


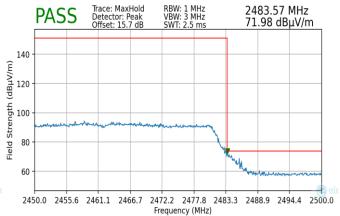
RBW: 1 MHz VBW: 3 MHz SWT: 2.5 ms Trace: MaxHold Detector: Peak Offset: 15.7 dB 2483.65 MHz **PASS** 70.19 dBµV/m 140 Field Strength (dBµV/m) 120 100 80 60 2450.0 2455.6 2461.1 2466.7 2472.2 2477.8 2483.3 2488.9 2494.4 2500.0 Frequency (MHz)

Plot 7-187. Radiated Restricted Upper Band Edge Measurement MIMO (Average - 484 Tones)

Plot 7-188. Radiated Restricted Upper Band Edge Measurement MIMO (Peak - 484 Tones)

802.11be OFDMA Worst Case Mode: Worst Case Transfer Rate: MCS0 RU Index: 65 Distance of Measurements: 3 Meters Operating Frequency: 2462MHz Channel: 11





Plot 7-189. Radiated Restricted Upper Band Edge Measurement MIMO (Average - 484 Tones)

Plot 7-190. Radiated Restricted Upper Band Edge Measurement MIMO (Peak - 484 Tones)

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CONCLUSION

The data collected relate only the item(s) tested and show that the Microsoft Corporation Portable Computing Device FCC ID: C3K2077 / IC: 3048A-2077 is in compliance with Part 15 Subpart C (15.247) of the FCC Rules and RSS-247 of the ISED rules.

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