

# TEST REPORT

EUT Description	WLAN and BT, 2x2 PCIe M.2 2230 SD adapter card
Brand Name	Intel® WiFi 6E AX211
Model Name	AX211NGW
FCC ID	PD9AX211NG
Date of Test Start/End	2020-12-04 / 2024-04-30
Features	802.11ax, Dual Band, 2x2 Wi-Fi 6 + Bluetooth® 5.2 (see section 5)

Applicant	Intel Corporation SAS
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Reference Standards	FCC CFR Title 47 Part 15 E (see section 1)
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Test Report identification	200611-01.TR39
Revision Control	Rev 01 This test report revision replaces any previous test report revision (see section 8)

The test results relate only to the samples tested.  
Reference to accreditation shall be used only by full reproduction of test report.

Issued by \_\_\_\_\_

Reviewed by \_\_\_\_\_

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## 1. Standards, reference documents and applicable test methods

FCC	<ol style="list-style-type: none"> <li>1. FCC Title 47 eCFR part 15 – Subpart E - Unlicensed National Information Infrastructure Devices. 2021-10-01 edition</li> <li>2. FCC Title 47 eCFR part 15 – Subpart C – §15.209 Radiated emission limits; general requirements. 2021-10-01 edition</li> <li>3. FCC OET KDB 987594 D01 U-NII 6GHz General Requirements v01r02</li> <li>4. FCC OET KDB 987594 D02 U-NII 6 GHz EMC Measurement v01r01</li> <li>5. FCC OET KDB 987594 D03 U-NII 6 GHz QA v01</li> <li>6. FCC OET KDB 789033 D02 v02r01 General U-NII Test Procedures New Rules – Guidelines for compliance testing of Unlicensed National Information Infrastructure (U-NII) Devices (Part 15, Subpart E).</li> <li>7. ANSI C63.10-2013 American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.</li> </ol>
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## 2. General conditions, competences and guarantees

- ✓ Tests performed under FCC standards identified in section 1 are covered by A2LA accreditation.
- ✓ Intel Corporation SAS Wireless RF Lab (Intel WRF Lab) is an ISO/IEC 17025:2017 laboratory accredited by the American Association for Laboratory Accreditation (A2LA) with the certificate number 3478.01.
- ✓ Intel Corporation SAS Wireless RF Lab (Intel WRF Lab) is an Accredited Test Firm recognized by the FCC, with Designation Number FR0011.
- ✓ Intel WRF Lab only provides testing services and is committed to providing reliable, unbiased test results and interpretations.
- ✓ Intel WRF Lab is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.
- ✓ Intel WRF Lab has developed calibration and proficiency programs for its measurement equipment to ensure correlated and reliable results to its customers.
- ✓ This report is only referred to the item that has undergone the test.
- ✓ This report does not imply an approval of the product by the Certification Bodies or competent Authorities.

## 3. Environmental Conditions

- ✓ At the site where the measurements were performed the following limits were not exceeded during the tests:

Temperature	23.1°C ± 0.8°C
Humidity	42.6% ± 3.5%

#### 4. Test samples

Sample	Control #	Description	Model	Serial #	Date of receipt	Note
#01	200611-01.S17	WiFi 6E Module	AX211NGW	WFM:D8F883596CD0	2020-12-01	Used for Radiated Spurious Emissions tests
	200611-03.S31	Extender	ADEXELEC	-	2020-08-19	
	200611-01.S06	Adaptor	PowerBy SNJ A4	-	2020-11-30	
	200504-04.S07	Laptop	LATITUDE 5401	BVHLK13	2020-06-02	
	200602-03.S06	Absorber	MCS0	-	2020-07-03	
	200611-03.S22	Antenna 6-7 GHz	WRF-BR-PIFA-V3.2	-	2020-07-20	
	200611-03.S23	Antenna 6-7 GHz	WRF-BR-PIFA-V3.2	-	2020-07-20	
#02	200611-01.S17	WiFi 6E Module	AX211NGW	WFM:D8F883596CD0	2020-12-01	Used for Radiated Spurious Emissions tests
	220915-09.S01	Extender	ADEXELEC	-	2022-01-12	
	200611-01.S06	Adaptor	PowerBy SNJ A4	-	2020-11-30	
	200611-03.S30	Laptop	LATITUDE 5401	6DJLK13	2020-08-19	
	200602-03.S06	Absorber	MCS0	-	2020-07-03	
	200611-03.S22	Antenna 6-7 GHz	WRF-BR-PIFA-V3.2	-	2020-07-20	
	200611-03.S23	Antenna 6-7 GHz	WRF-BR-PIFA-V3.2	-	2020-07-20	

## 5. EUT Features

The herein information is provided by the customer

Intel WRF Lab declines any responsibility for the accuracy of the stated customer provided information, especially if it has any impact on the correctness of test results presented in this report.

Brand Name	Intel® WiFi 6E AX211		
Model Name	AX211NGW		
Software Version	DRTU Version: 11195_99_2100_51G		
Driver Version	99.0.58.3		
Prototype / Production	Production		
Supported Radios	802.11b/g/n/ax	2.4GHz (2400.0 – 2483.5 MHz)	
	802.11a/n/ac/ax	5.2GHz (5150.0 – 5350.0 MHz)	
		5.6GHz (5470.0 – 5725.0 MHz)	
		5.8GHz (5725.0 – 5850.0 MHz)	
		5.9GHz (5850.0 – 5925.0 MHz)	
	802.11ax/be	6.0GHz (5925.0 – 7125.0MHz)	
Bluetooth 5.2	2.4GHz (2400.0 – 2483.5 MHz)		
Antenna Information	Transmitter	Ant A (Main)	Ant B(Aux)
	Manufacturer	Intel	Intel
	Antenna Type	PIFA antenna	PIFA antenna
	SN	NA	NA
	Declared Antenna gain (dBi)	+5.59	+5.59

## 6. Remarks and comments

1. No deviations were made from the test methods listed in section 1 of this report.

## 7. Test Verdicts summary

The statement of conformity to applicable standards in the table below are based on the measured values, without taking into account the measurement uncertainties.

### 7.1. 802.11 ax/be – U-NII 5 to U-NII 8

FCC Part	Test name	Verdict
15.407 (b) (5) 15.209	Undesirable emissions limits (radiated)	P

## 8. Document Revision History

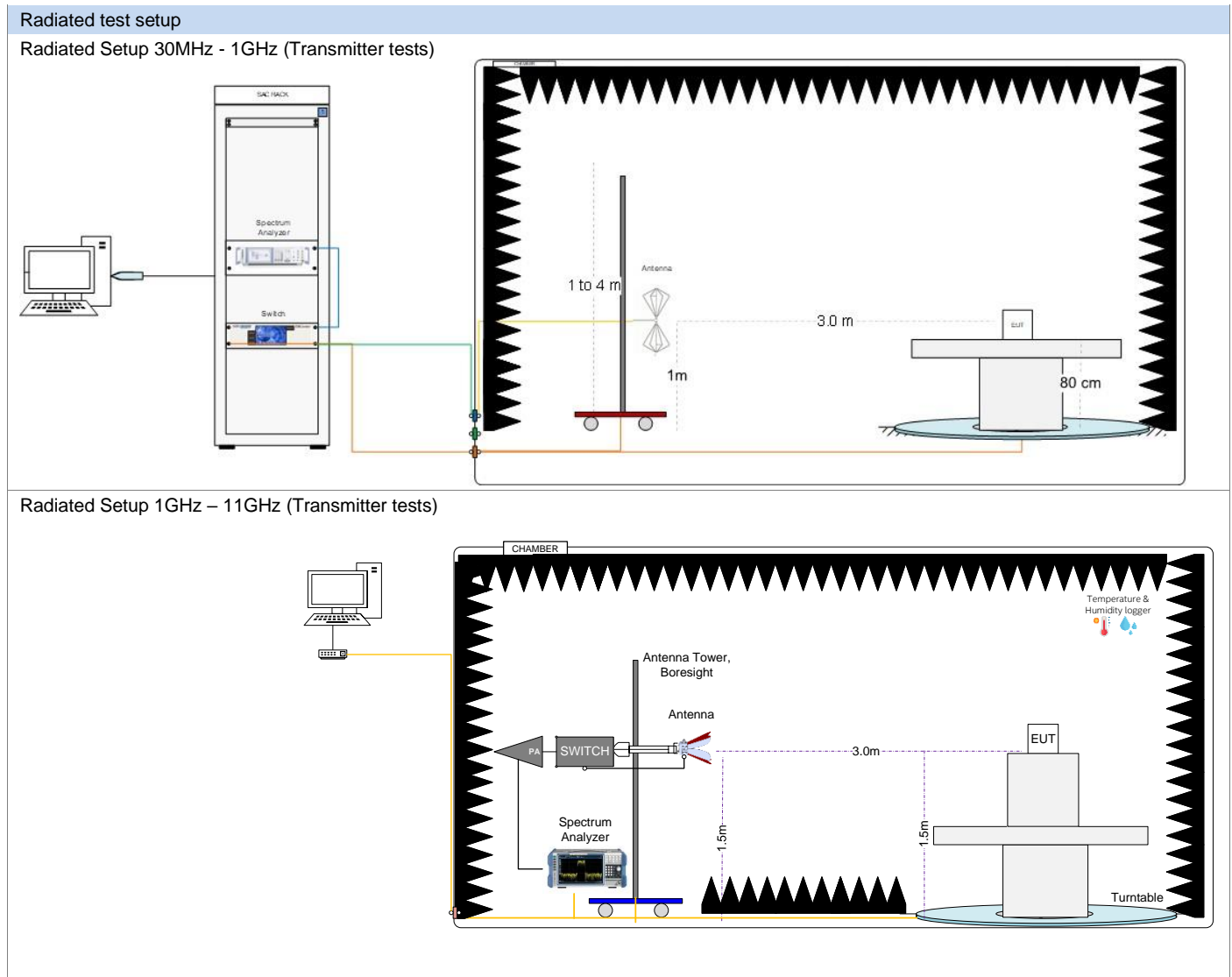
Revision #	Modified by	Revision Details
Rev. 00	N.Bui	First Issue
Rev. 01	K.KHATIB	Spurious test data updated with new measurement at highest conducted power

# Annex A. Test & System Description

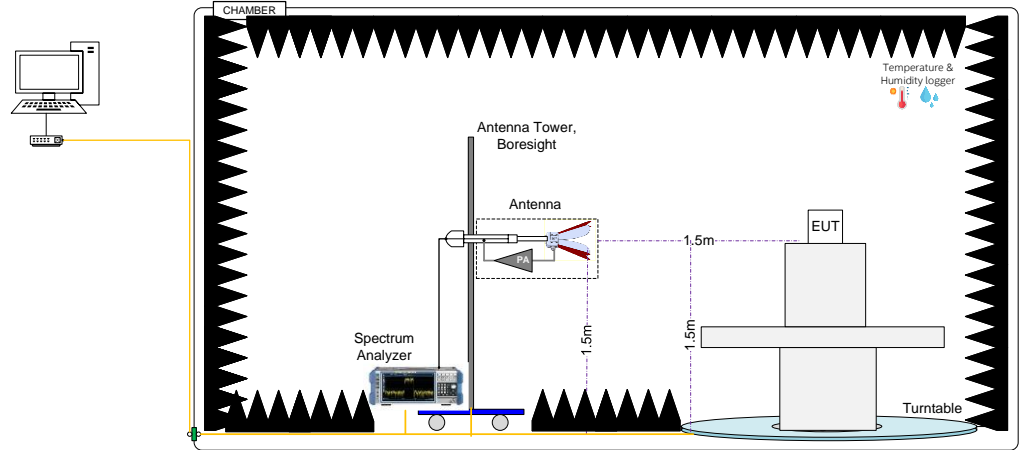
## A.1 Measurement System

Measurements were performed using the following setups, made in accordance to the general provisions of ANSI 63.10-2013 Test Procedures.

The DUT is installed in a test fixture and this test fixture is connected to a laptop computer and AC/DC power adapter. The laptop computer was used to configure the EUT to continuously transmit at a specified output power using all different modes and modulation schemes, using the Intel proprietary tool DRTU.



Radiated Setup 11GHz – 40GHz (Transmitter tests)



Sample Calculation

The spurious received voltage  $V(\text{dB}\mu\text{V})$  in the spectrum Analyzer is converted to Electric field strength using the transducer factor  $F$  corresponding to the Rx path Loss:

$$F \text{ (dB/m)} = \text{Rx Antenna Factor (dB/m)} + \text{Cable losses (dB)} - \text{Amplifiers Gain (dBi)}$$

$$E \text{ (dB}\mu\text{V/m)} = V(\text{dB}\mu\text{V}) + F \text{ (dB/m)}$$

For field strength measurements made at other than the distance at which the applicable limit is specified, the field strength of the emission at the distance specified by the limit is deduced as follows:

$$E_{\text{SpecLimit}} = E_{\text{Meas}} + 20 \cdot \log(D_{\text{Meas}}/D_{\text{SpecLimit}})$$

where

$E_{\text{SpecLimit}}$  is the field strength of the emission at the distance specified by the limit, in  $\text{dB}\mu\text{V/m}$

$E_{\text{Meas}}$  is the field strength of the emission at the measurement distance, in  $\text{dB}\mu\text{V/m}$

$D_{\text{Meas}}$  is the measurement distance, in  $m$

$D_{\text{SpecLimit}}$  is the distance specified by the limit, in  $m$

## A.2 Test Equipment List

### Radiated Setup #1

ID#	Device	Type/Model	Serial #	Manufacturer	Cal. Date	Cal. Due Date
006-000	Anechoic Chamber	FACT3	5720	ETS-Lindgren	2024-01-17	2026-01-17
006-008	Measurement SW, v11.30	EMC32	100623	Rohde & Schwarz	N/A	N/A
259-000	Temp & Humidity Logger	RA12E-TH-RAS	RA12-B9BD70	Avtech	2022-06-27	2024-06-27
006-001	Turn Table	ETS	-	ETS-Lindgren	N/A	N/A
006-011	Boresight antenna mast	BAM 4.0-P	P/278/2890.01	Maturo	N/A	N/A
007-008	Double Horn Ridged antenna +PA	3116C-PA	00169308bis + 00196308	ETS-Lindgren	2023-0-30	2025-05-30
057-000	Double Horn Ridged antenna	3117	167062	ETS-Lindgren	2022-07-08	2024-07-08
058-000	Double Horn Ridged antenna	3116C	157511	ETS-Lindgren	2022-10-21	2024-10-21
147-000	Spectrum analyzer	FSW43	101847	Rohde & Schwarz	2022-11-30	2024-11-30
261-000	Amplifier 1GHz-18GHz	3117-PA	00157993	ETS-Lindgren	2024-03-14	2025-03-14
502-006	Amplifier 0.5GHz-40GHz	DEPA0540-43	2023A05	Diamond Engineering	2024-03-19	2025-03-19
009-007	RF Filter	ZHSS-k11G+	8493 1831830	Mini-Circuits	2024-03-19	2025-03-19
006-068	RF Switch	RC-2SP6T-40	02112090061	Micro-Circuits	2024-03-14	2025-03-14
006-066	Cable 7m – 25MHz to 40GHz	R286304174	20.46.370	Radiall	2024-03-14	2025-03-14
006-063	Cable 30cm – 1GHz to 40GHz	PE371-12	-	Pasternack	2024-03-14	2025-03-14
006-064	Cable 30cm – 1GHz to 40GHz	PE371-12	-	Pasternack	2024-03-14	2025-03-14
006-065	Cable 60cm – 25MHz to 1GHz	PE300-24	-	Pasternack	2024-03-12	2025-03-12
006-019*	Biconical antenna 30 MHz – 1 GHz	UBAA9115 + BBVU9135 + DGA9552N	0286 + CH 9044	Schwarzbeck	2019-11-22	2021-11-22
0371*	Cable 1m – 30 MHz - 18GHz	UFB311A-0- 0590-50U50U	MFR 64639 223230-001	Micro-coax	2020-08-25	2021-02-25

N/A: Not Applicable

\*Used in Rev00 during their date of cal

### Radiated Setup #2

ID#	Device	Type/Model	Serial #	Manufacturer	Cal. Date	Cal. Due Date
007-000	Anechoic chamber	RFD-FA-100	5996	ETS Lindgren	2024-01-18	2026-01-18
127-000	Spectrum Analyzer	FSV40	101358	Rohde & Schwarz	2023-01-27	2025-01-27
007-007	Double Ridge Horn (1- 18GHz)	3117	00152266	ETS Lindgren	2024-03-26	2026-03-26
007-006	Switch & Positioner	EMCenter	00151232	ETS Lindgren	N/A	N/A
059-000	Double Ridge Horn (1- 18GHz)	3117	201542	ETS-Lindgren	2023-09-26	2025-09-26
264-000	Amplifier 1GHz-18GHz	3117-PA	00169546	ETS-Lindgren	2024-03-14	2025-03-14
007-011	RF Cable 1-18GHz - 6.5m	140-8500-11-51	001	Atem	2024-03-15	2025-03-15
007-005	Measurement SW, v11.20.00	EMC32	100401	Rohde & Schwarz	N/A	N/A
007-003	Antenna Tower	2171B-3.0M	00150123	ETS Lindgren	N/A	N/A
007-002	Turntable	-	-	ETS Lindgren	N/A	N/A
007-014	RF Cable 18-40 GHz 6m	R286304009	1747364	Radiall	2024-03-15	2025-03-15
007-022	RF Cable 1-18GHz, 1.5m	0501050991200GX	19.23.493	Radiall	2024-03-12	2025-03-12
007-015	RF Cable 1GHz-18GHz 1.5m	-	-	Spirent	2024-03-12	2025-03-12
007-018	RF Cable 1-9.5GHz 1.2m	0500990991200KE	-	Radiall	2024-03-12	2025-03-12
007-020	RF Cable 1-18GHz, 1.2 m	2301761761200PJ	12.22.1104	Radiall	2024-03-15	2025-03-15
349-000	Temp & Humidity Logger	RA12E-TH1-RAS	RA12- D4F8C3	Avtech	2023-11-30	2025-11-30

N/A: Not Applicable



Shared Radiated Equipment

ID#	Device	Type/Model	Serial #	Manufacturer	Cal. Date	Cal. Due Date
412-000	DRTU Power finder V2.1	-	-	Intel	NA	NA
139-000	Power Sensor	NRP-Z81	104383	Rohde & Schwarz	2023-04-21	2025-04-21
423-000	Power Sensor	NRP-Z81	101152	Rohde & Schwarz	2022-05-18	2024-05-18

N/A: Not Applicable

### A.3 Measurement Uncertainty Evaluation

The system uncertainty evaluation is shown in the table below with a coverage factor of  $k = 2$  to indicate a 95% level of confidence:

Measurement type	Uncertainty	Unit
Radiated tests <1GHz	$\pm 6.40$	dB
Radiated tests 1GHz – 40 GHz	$\pm 6.04$	dB

# Annex B. Test Results

The herein test results were performed by:

Test case measurement	Test Personnel
Radiated spurious emissions	K.KHATIB, R.SIMONINI

## B.1 Test Conditions

For 802.11ax/be20 (20 MHz channel bandwidth), 802.11ax/be40 (40MHz channel bandwidth), 802.11ax/be80 (80MHz channel bandwidth) and 802.11ax/be160 (160MHz channel bandwidth) modes the EUT can transmit at both CHAIN A and CHAIN B RF outputs individually, and also simultaneously.

The conducted RF output power at each chain was adjusted according to target values from the following table using the Intel DRTU tool and measuring the power by using a power meter.

Measured values for adjustment were within +/- 0.25 dB from the declared target values.

UNII-5 to UNII-8					Conducted Power, Target Value (dBm)		
Mode	BW (MHz)	Data Rate	CH #	Freq. (MHz)	SISO Chain A	SISO Chain B	MIMO at both ports A and B
802.11ax/be20	20	MCS0	1	5955	21	21	21
			105	6475	21	21	21
			117	6535	21	21	21
			229	7095	21	21	21
802.11ax/be40	40	MCS0	3	5965	21	21	21
			99	6445	21	21	21
			115	6525	21	21	21
			227	7085	21	21	21
802.11ax/be80	80	MCS0	7	5985	21	21	21
			103	6465	21	21	21
			135	6625	21	21	21
			215	7025	21	21	21
802.11ax/be160	160	MCS0	15	6015	21	21	21
			111	6175	21	21	21
			143	6335	21	21	21
			207	6985	21	21	21

The following data rates were selected based on preliminary testing that identified those rates as the worst cases for output power and spurious levels at the band edges:

Transmission Mode	Mode	Bandwidth (MHz)	Worst Case Data Rate
SISO	802.11ax/be	20/40/80/160	MCS0
MIMO	802.11ax/be	20/40/80/160	MCS0

## B.2 Radiated spurious emission

### Standard references

FCC part	Limits																				
15.407 (b) (5)	For transmitters operating within the 5.925-7.125 GHz band: Any emissions outside of the 5.925-7.125 GHz band must not exceed an e.i.r.p. of -27 dBm/MHz.																				
15.35 (b)	When average radiated emission measurements are specified in this part, including average emission measurements below 1000 MHz, there also is a limit on the peak level of the radio frequency emissions. Unless otherwise specified, e.g., see §§15.250, 15.252, 15.253(d), 15.255, 15.256, and 15.509 through 15.519, the limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit applicable to the equipment under test.																				
15.407 (b) (8)	Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in FCC Part 15.209 and RSS-Gen.																				
15.209	<p>Radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a):</p> <table border="1"> <thead> <tr> <th>Freq Range (MHz)</th> <th>Field Strength (<math>\mu\text{V}/\text{m}</math>)</th> <th>Field Strength (<math>\text{dB}\mu\text{V}/\text{m}</math>)</th> <th>Meas. Distance (m)</th> </tr> </thead> <tbody> <tr> <td>30-88</td> <td>100</td> <td>40</td> <td>3</td> </tr> <tr> <td>88-216</td> <td>150</td> <td>43.5</td> <td>3</td> </tr> <tr> <td>216-960</td> <td>200</td> <td>46</td> <td>3</td> </tr> <tr> <td>Above 960</td> <td>500</td> <td>54</td> <td>3</td> </tr> </tbody> </table> <p>The emission limits shown in the above table are based on measurements employing CISPR quasi-peak detector except for the frequency bands above 1000 MHz. Radiated emission limits in this band is based on measurements employing an average detector.</p> <p>For average radiated emission measurements above 1000 MHz, there is also a limit specified when measuring with peak detector function, corresponding to 20 dB above the indicated values in the table.</p>	Freq Range (MHz)	Field Strength ( $\mu\text{V}/\text{m}$ )	Field Strength ( $\text{dB}\mu\text{V}/\text{m}$ )	Meas. Distance (m)	30-88	100	40	3	88-216	150	43.5	3	216-960	200	46	3	Above 960	500	54	3
Freq Range (MHz)	Field Strength ( $\mu\text{V}/\text{m}$ )	Field Strength ( $\text{dB}\mu\text{V}/\text{m}$ )	Meas. Distance (m)																		
30-88	100	40	3																		
88-216	150	43.5	3																		
216-960	200	46	3																		
Above 960	500	54	3																		

### Test procedure

The radiated setups shown in section *Test & System Description* were used to measure the radiated spurious emissions.

Depending of the frequency range and bands being tested, different antennas and filters were used.

- For frequencies less than or equal to 1000 MHz, measurements were made with the CISPR quasi-peak detector with a resolution bandwidth of 120kHz and a video bandwidth 3 times of the resolution bandwidth.
- For restricted bands, measurements above 1000 MHz were performed using average and peak detectors with a minimum resolution bandwidth of 1 MHz and a video bandwidth 3 times of the resolution bandwidth
- For unrestricted bands, measurements above 1000 MHz were performed using RMS and peak detectors with a minimum resolution bandwidth of 1 MHz and a video bandwidth 3 times of the resolution bandwidth

The final measurement is performed by varying the antenna height from 1 m to 4 m, the EUT rotating in azimuth over 360° for both vertical and horizontal polarizations.

The radiated spurious emission was measured on the worst case EUT configuration selected from the chapter B.1 and using the low, middle and high channels.

Test Results

**30 MHz – 1 GHz, Radiated spurious emissions**

**Radiated Spurious – All modes**

Frequency	QuasiPeak	Limit	Margin	Polar
MHz	dBµV/m	dBµV/m	dB	---
37.5	28.9	40.0	11.1	V
113.0	33.5	43.5	10.0	V
127.7	35.0	43.5	8.5	V

Note 1: The detected spurious signals do not depend on either the operating channel or the modulation mode.

UNII 5

**1 GHz – 40 GHz, 802.11ax/be20, MCS0, Chain A**

**Radiated Spurious – CH1**

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBµV/m	---	dBµV/m	dB	---
9434.3	56.4	Peak	74.0	17.6	V
9434.3	46.3	Average	54.0	7.7	V
39590.6	55.5	Peak	74.0	18.5	V
39590.6	47.8	Average	54.0	6.2	V

**1 GHz – 40 GHz, 802.11ax/be20, MCS0, Chain B**

**Radiated Spurious – CH1**

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBµV/m	---	dBµV/m	dB	---
9351.5	55.4	Peak	74.0	18.6	V
9351.5	46.4	Average	54.0	7.6	H
11892.2	48.5	Peak	74.0	25.5	H
11893.2	40.1	Average	54.0	13.9	H
17838.2	40.4	Average	54.0	13.6	H
17840.1	49.4	Peak	74.0	24.6	H
23785.1	52.1	Peak	74.0	21.9	H
23819.9	43.2	Average	54.0	10.8	V

## 1 GHz – 40 GHz, 802.11ax/be20, MCS0, Chain A+B

### Radiated Spurious – CH1

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dB $\mu$ V/m	---	dB $\mu$ V/m	dB	---
9422.4	57.6	Peak	74.0	16.4	H
9422.4	46.5	Average	54.0	7.5	H
11892.2	47.8	Peak	74.0	26.2	V
11892.7	42.0	Average	54.0	12.0	H
17840.1	49.9	Peak	74.0	24.1	H
17840.1	41.1	Average	54.0	12.9	H
23786.6	43.3	Average	54.0	10.7	H
23787.1	52.6	Peak	74.0	21.4	H

## 1 GHz – 40 GHz, 802.11ax/be40, MCS0, Chain A

### Radiated Spurious – CH3

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dB $\mu$ V/m	---	dB $\mu$ V/m	dB	---
9448.6	46.3	Average	54.0	7.7	H
9448.9	56.4	Peak	74.0	17.6	V
17840.1	40.7	Average	54.0	13.3	V
17842.1	48.4	Peak	74.0	25.6	V

## 1 GHz – 40 GHz, 802.11ax/be40, MCS0, Chain B

### Radiated Spurious – CH3

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBμV/m	---	dBμV/m	dB	---
9469.3	56.3	Peak	74.0	17.7	H
9469.6	46.4	Average	54.0	7.7	H
11893.2	48.0	Peak	74.0	26.0	H
11893.7	41.2	Average	54.0	12.8	H
17839.7	50.2	Peak	74.0	23.8	V
17841.1	41.9	Average	54.0	12.1	V
23786.6	53.0	Peak	74.0	21.0	H
23788.0	43.8	Average	54.0	10.2	H

## 1 GHz – 40 GHz, 802.11ax/be40, MCS0, Chain A+B

### Radiated Spurious – CH3

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBμV/m	---	dBμV/m	dB	---
9395.5	56.2	Peak	74.0	17.8	V
9395.5	46.4	Average	54.0	7.6	V
11893.7	40.6	Average	54.0	13.4	H
11894.6	47.6	Peak	74.0	26.4	H
17840.1	41.7	Average	54.0	12.3	V
17840.6	50.3	Peak	74.0	23.7	V
23788.0	41.0	Average	54.0	13.0	H
23790.5	54.9	Peak	74.0	19.1	H

**1 GHz – 40 GHz, 802.11ax/be80, MCS0, Chain A**

**Radiated Spurious – CH7**

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBµV/m	---	dBµV/m	dB	---
9458.0	56.3	Peak	74.0	17.7	V
9458.0	46.5	Average	54.0	7.5	H
23940.3	42.6	Average	54.0	11.4	V
23940.8	49.5	Peak	74.0	24.6	H

**1 GHz – 40 GHz, 802.11ax/be80, MCS0, Chain B**

**Radiated Spurious – CH7**

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBµV/m	---	dBµV/m	dB	---
4749.4	48.6	Average	54.0	5.4	H
4750.5	56.4	Peak	74.0	17.6	H
11893.7	37.4	Average	54.0	16.6	H
11894.6	45.3	Peak	74.0	28.7	H
17840.6	43.7	Average	54.0	10.3	H
17841.1	54.4	Peak	74.0	19.6	H
23939.3	51.1	Peak	74.0	22.9	H
23939.8	44.4	Average	54.0	9.6	V

## 1 GHz – 40 GHz, 802.11ax/be80, MCS0, Chain A+B

### Radiated Spurious – CH7

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dB $\mu$ V/m	---	dB $\mu$ V/m	dB	---
4749.4	56.7	Peak	74.0	17.3	H
4749.4	49.7	Average	54.0	4.3	H
11892.2	45.9	Peak	74.0	28.1	H
11893.2	38.8	Average	54.0	15.2	H
17840.6	50.7	Peak	74.0	23.3	V
17840.6	42.6	Average	54.0	11.4	V
23786.6	52.3	Peak	74.0	21.7	V
23787.5	43.6	Average	54.0	10.4	V

## 1 GHz – 40 GHz, 802.11ax/be160, MCS0, Chain A

### Radiated Spurious – CH15

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dB $\mu$ V/m	---	dB $\mu$ V/m	dB	---
4742.4	53.8	Peak	74.0	20.2	V
4742.4	46.1	Average	54.0	7.9	V
39853.1	55.4	Peak	74.0	18.6	H
39853.1	48.0	Average	54.0	6.0	V



## 1 GHz – 40 GHz, 802.11ax/be160, MCS0, Chain B

### Radiated Spurious – CH15

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dB $\mu$ V/m	---	dB $\mu$ V/m	dB	---
4742.4	59.0	Peak	74.0	15.0	H
4742.4	51.5	Average	54.0	2.5	V
11893.2	38.1	Average	54.0	15.9	H
11894.2	45.9	Peak	74.0	28.1	V
17839.7	42.7	Average	54.0	11.3	V
17840.6	52.2	Peak	74.0	21.8	V
24099.3	50.4	Peak	88.2	37.8	H
24099.8	44.2	RMS	68.2	24.0	H

## 1 GHz – 40 GHz, 802.11ax/be160, MCS0, Chain A+B

### Radiated Spurious – CH15

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dB $\mu$ V/m	---	dB $\mu$ V/m	dB	---
4741.8	52.5	Average	54.0	1.6	H
4742.4	59.5	Peak	74.0	14.5	H
11893.2	46.5	Peak	74.0	27.5	V
11893.2	38.4	Average	54.0	15.6	V
17840.1	50.6	Peak	74.0	23.4	V
17840.6	43.5	Average	54.0	10.5	V
23787.5	43.2	Average	54.0	10.8	H
23790.0	52.0	Peak	74.0	22.0	V

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**Radiated Spurious – CH105**

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBµV/m	---	dBµV/m	dB	---
9451.8	56.1	Peak	74.0	17.9	V
9451.8	46.4	Average	54.0	7.6	V
12932.9	47.0	Peak	88.2	41.1	H
12934.3	38.4	RMS	68.2	29.8	H
19399.4	49.8	Peak	74.0	24.2	H
19399.8	41.2	Average	54.0	12.8	H
25899.7	51.5	Peak	88.2	36.7	V
25899.7	44.2	RMS	68.2	24.0	V

**1 GHz – 40 GHz, 802.11ax/be20, MCS0, Chain B**
**Radiated Spurious – CH105**

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBµV/m	---	dBµV/m	dB	---
9453.3	56.4	Peak	74.0	17.6	H
9453.3	46.2	Average	54.0	<b>7.8</b>	H
12932.9	38.5	RMS	68.2	29.6	V
12933.8	47.1	Peak	88.2	41.1	V

**Radiated Spurious – CH105**

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBµV/m	---	dBµV/m	dB	---
9475.5	57.2	Peak	74.0	16.8	H
9475.8	46.2	Average	54.0	7.8	H
12932.9	40.6	RMS	68.2	27.6	V
12933.8	48.0	Peak	88.2	40.2	V
25899.7	50.0	Peak	88.2	38.1	V
25899.7	44.4	RMS	68.2	23.8	V

**1 GHz – 40 GHz, 802.11ax/be40, MCS0, Chain A**

**Radiated Spurious – CH99**

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBµV/m	---	dBµV/m	dB	---
9499.4	56.8	Peak	74.0	17.2	V
9499.4	46.5	Average	54.0	<b>7.5</b>	V
19279.5	50.4	Peak	74.0	23.6	V
19280.5	43.0	Average	54.0	11.0	V

**1 GHz – 40 GHz, 802.11ax/be40, MCS0, Chain B**

**Radiated Spurious – CH99**

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBµV/m	---	dBµV/m	dB	---
9449.5	56.1	Peak	74.0	17.9	H
9449.5	46.4	Average	54.0	7.6	V
12852.6	46.6	Peak	88.2	41.5	H
12854.1	39.0	RMS	68.2	29.2	V
25779.8	45.1	RMS	68.2	23.1	H
25779.8	49.8	Peak	88.2	38.5	H

**1 GHz – 40 GHz, 802.11ax/be40, MCS0, Chain A+B**

**Radiated Spurious – CH99**

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBµV/m	---	dBµV/m	dB	---
9468.2	56.1	Peak	74.0	17.9	H
9468.2	46.5	Average	54.0	7.5	H
12853.6	48.4	Peak	88.2	39.8	V
12854.1	39.5	RMS	68.2	28.8	V
19279.5	48.9	Peak	74.0	25.1	V
19281.0	41.3	Average	54.0	12.7	H

**1 GHz – 40 GHz, 802.11ax/be80, MCS0, Chain A**

**Radiated Spurious – CH103**

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBµV/m	---	dBµV/m	dB	---
5134.0	48.8	Average	54.0	5.2	H
5134.5	55.6	Peak	74.0	18.4	H
7718.8	57.6	Peak	74.0	16.4	V
7719.3	48.5	Average	54.0	5.5	V
19280.0	49.1	Peak	74.0	24.9	V
19281.0	40.8	Average	54.0	13.2	V

## 1 GHz – 40 GHz, 802.11ax/be80, MCS0, Chain B

### Radiated Spurious – CH103

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dB $\mu$ V/m	---	dB $\mu$ V/m	dB	---
5134.0	53.0	Peak	74.0	20.9	H
5134.0	46.4	Average	54.0	7.6	H
12853.6	39.0	RMS	68.2	29.2	V
12854.1	47.2	Peak	88.2	41.0	V
25859.6	50.9	Peak	88.2	37.3	V
25860.1	45.6	RMS	68.2	22.6	H

## 1 GHz – 40 GHz, 802.11ax/be80, MCS0, Chain A+B

### Radiated Spurious – CH103

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dB $\mu$ V/m	---	dB $\mu$ V/m	dB	---
5134.0	49.5	Average	54.0	4.5	H
5134.5	57.4	Peak	74.0	16.6	H
7720.2	57.1	Peak	74.0	16.9	V
7720.2	48.6	Average	54.0	5.4	V
12853.1	47.4	Peak	88.2	40.8	H
12854.1	39.5	RMS	68.2	28.6	H
19280.0	50.1	Peak	74.0	23.9	V
19280.0	41.8	Average	54.0	12.2	V

## 1 GHz – 40 GHz, 802.11ax/be160, MCS0, Chain A

### Radiated Spurious – CH111

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dB $\mu$ V/m	---	dB $\mu$ V/m	dB	---
5125.9	57.7	Peak	74.0	16.3	H
5125.9	51.1	Average	54.0	2.9	H
7727.2	59.3	Peak	74.0	14.7	H
7727.8	51.6	Average	54.0	2.4	V
19281.0	42.6	Average	54.0	11.4	H
19281.9	50.4	Peak	74.0	23.6	V
26020.1	50.2	Peak	88.2	38.0	H
26020.1	44.8	RMS	68.2	23.4	H

## 1 GHz – 40 GHz, 802.11ax/be160, MCS0, Chain B

### Radiated Spurious – CH111

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dB $\mu$ V/m	---	dB $\mu$ V/m	dB	---
5125.9	47.4	Average	54.0	6.6	H
5126.4	55.5	Peak	74.0	18.5	H
12853.1	39.9	RMS	68.2	28.3	H
12853.1	48.6	Peak	88.2	39.6	V
26020.1	52.9	Peak	88.2	35.3	H
26020.1	46.7	RMS	68.2	21.5	H

## 1 GHz – 40 GHz, 802.11ax/be160, MCS0, Chain A+B

### Radiated Spurious – CH111

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dB $\mu$ V/m	---	dB $\mu$ V/m	dB	---
5126.4	59.4	Peak	74.0	14.6	H
5126.4	52.1	Average	54.0	1.9	H
7727.8	51.2	Average	54.0	2.8	V
7728.4	58.6	Peak	74.0	15.4	H
12853.1	40.1	RMS	68.2	28.1	H
12854.5	48.4	Peak	88.2	39.8	H
26019.6	52.5	Peak	88.2	35.6	H
26020.1	44.9	RMS	68.2	23.3	H

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## 1 GHz – 40 GHz, 802.11ax/be20, MCS0, Chain A

### Radiated Spurious – CH117

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dB $\mu$ V/m	---	dB $\mu$ V/m	dB	---
9379.8	46.3	Average	54.0	7.7	H
9380.1	55.5	Peak	74.0	18.5	H
13052.2	46.0	Peak	88.2	42.2	H
13052.2	38.3	RMS	68.2	29.9	H
26139.9	51.0	Peak	88.2	37.2	V
26139.9	44.7	RMS	68.2	23.5	V

### 1 GHz – 40 GHz, 802.11ax/be20, MCS0, Chain B

#### Radiated Spurious – CH117

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBµV/m	---	dBµV/m	dB	---
9420.0	55.5	Peak	74.0	18.5	V
9420.0	46.3	Average	54.0	7.7	V
39881.1	55.1	Peak	74.0	18.9	V
39881.1	47.9	Average	54.0	6.1	H

### 1 GHz – 40 GHz, 802.11ax/be20, MCS0, Chain A+B

#### Radiated Spurious – CH117

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBµV/m	---	dBµV/m	dB	---
9362.9	56.3	Peak	74.0	17.7	V
9362.9	46.3	Average	54.0	7.7	V
19578.7	49.8	Peak	74.0	24.2	V
19578.7	41.3	Average	54.0	12.7	V
26139.9	51.0	Peak	88.2	37.2	V
26139.9	46.8	RMS	68.2	21.4	V

### 1 GHz – 40 GHz, 802.11ax/be40, MCS0, Chain A

#### Radiated Spurious – CH115

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBµV/m	---	dBµV/m	dB	---
9385.3	56.3	Peak	74.0	17.7	V
9385.3	46.4	Average	54.0	7.6	V
39958.4	55.4	Peak	74.0	18.6	V
39958.4	48.0	Average	54.0	6.0	V



**1 GHz – 40 GHz, 802.11ax/be40, MCS0, Chain B**

**Radiated Spurious – CH115**

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBµV/m	---	dBµV/m	dB	---
9448.0	56.3	Peak	74.0	17.7	H
9448.3	46.2	Average	54.0	7.8	H
39708.6	55.6	Peak	74.0	18.4	V
39708.6	47.8	Average	54.0	6.2	H

**1 GHz – 40 GHz, 802.11ax/be40, MCS0, Chain A+B**

**Radiated Spurious – CH115**

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBµV/m	---	dBµV/m	dB	---
9400.8	56.0	Peak	74.0	18.0	H
9400.8	46.4	Average	54.0	7.6	V
13013.6	38.7	RMS	68.2	29.5	V
13014.5	46.7	Peak	88.2	41.5	V
19520.7	50.6	Peak	74.0	23.4	H
19521.7	42.0	Average	54.0	12.0	V
26100.3	50.6	Peak	88.2	37.6	V
26100.3	44.3	RMS	68.2	23.9	V

## 1 GHz – 40 GHz, 802.11ax/be80, MCS0, Chain A

### Radiated Spurious – CH135

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dB $\mu$ V/m	---	dB $\mu$ V/m	dB	---
9454.8	57.0	Peak	74.0	16.9	H
9454.8	46.3	Average	54.0	7.7	V
19761.4	49.9	Peak	74.0	24.1	H
19761.4	42.6	Average	54.0	11.4	H
26500.0	51.8	Peak	88.2	36.5	H
26500.0	45.0	RMS	68.2	23.2	H

## 1 GHz – 40 GHz, 802.11ax/be80, MCS0, Chain B

### Radiated Spurious – CH135

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dB $\mu$ V/m	---	dB $\mu$ V/m	dB	---
9350.9	55.9	Peak	74.0	18.1	H
9350.9	46.6	Average	54.0	7.4	H
13173.5	46.8	Peak	88.2	41.4	H
13173.5	38.4	RMS	68.2	29.8	H
26500.0	51.3	Peak	88.2	36.9	H
26500.0	45.5	RMS	68.2	22.7	H

### 1 GHz – 40 GHz, 802.11ax/be80, MCS0, Chain A+B

#### Radiated Spurious – CH135

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBμV/m	---	dBμV/m	dB	---
9451.8	56.2	Peak	74.0	17.8	H
9451.8	46.4	Average	54.0	7.7	V
13173.1	39.4	RMS	68.2	28.8	H
13174.5	47.0	Peak	88.2	41.1	H
19760.9	43.6	Average	54.0	10.3	V
19761.9	52.4	Peak	74.0	21.6	V
26499.5	51.6	Peak	88.2	36.5	H
26500.0	46.3	RMS	68.2	21.9	H

### 1 GHz – 40 GHz, 802.11ax/be160, MCS0, Chain A

#### Radiated Spurious – CH143

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBμV/m	---	dBμV/m	dB	---
9452.7	46.3	Average	54.0	7.7	H
9454.2	56.9	Peak	74.0	17.1	H
19760.9	43.8	Average	54.0	10.2	V
19761.9	51.2	Peak	74.0	22.8	V

### 1 GHz – 40 GHz, 802.11ax/be160, MCS0, Chain B

#### Radiated Spurious – CH143

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBμV/m	---	dBμV/m	dB	---
9419.8	56.9	Peak	74.0	17.1	H
9419.8	46.3	Average	54.0	7.7	H
13173.5	38.8	RMS	68.2	29.4	H
13175.0	47.6	Peak	88.2	40.6	H

**1 GHz – 40 GHz, 802.11ax/be160, MCS0, Chain A+B**
**Radiated Spurious – CH143**

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBμV/m	---	dBμV/m	dB	---
5331.7	53.2	Peak	88.2	35.0	H
5332.2	48.4	RMS	68.2	19.8	H
13172.6	47.6	Peak	88.2	40.6	V
13174.0	38.9	RMS	68.2	29.3	V
19760.4	51.5	Peak	74.0	22.5	V
19760.4	44.6	Average	54.0	9.4	V
26660.0	53.2	Peak	88.2	35.0	V
26660.0	49.4	RMS	68.2	18.8	V

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**1 GHz – 40 GHz, 802.11ax/be20, MCS0, Chain A**
**Radiated Spurious – CH229**

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBμV/m	---	dBμV/m	dB	---
9450.4	46.8	Average	54.0	7.2	V
9450.4	56.9	Peak	74.0	17.1	H
14173.4	44.1	RMS	68.2	24.1	H
14173.6	52.3	Peak	88.2	35.9	H

## 1 GHz – 40 GHz, 802.11ax/be20, MCS0, Chain B

### Radiated Spurious – CH229

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dB $\mu$ V/m	---	dB $\mu$ V/m	dB	---
9425.9	46.3	Average	54.0	7.7	V
9425.9	56.1	Peak	74.0	17.9	V
14173.1	42.1	RMS	68.2	26.4	H
14173.1	50.5	Peak	88.2	37.7	H
28344.4	43.9	RMS	68.2	24.3	V
28348.8	54.1	Peak	88.2	34.1	V

## 1 GHz – 40 GHz, 802.11ax/be20, MCS0, Chain A+B

### Radiated Spurious – CH229

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dB $\mu$ V/m	---	dB $\mu$ V/m	dB	---
9354.8	46.9	Average	54.0	7.1	V
9354.7	58.5	Peak	74.0	15.5	H
14172.1	52.8	Peak	88.2	35.4	H
14173.1	45.5	RMS	68.2	22.7	H

## 1 GHz – 40 GHz, 802.11ax/be40, MCS0, Chain A

### Radiated Spurious – CH227

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dB $\mu$ V/m	---	dB $\mu$ V/m	dB	---
9449.8	46.9	Average	54.0	7.1	V
9450.1	57.7	Peak	74.0	16.3	V
14133.0	39.6	RMS	68.2	28.6	H
14133.9	48.6	Peak	88.2	39.6	V
21199.8	50.2	Peak	74.0	23.8	H
21200.8	42.3	Average	54.0	11.7	H

**1 GHz – 40 GHz, 802.11ax/be40, MCS0, Chain B**
**Radiated Spurious – CH227**

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBµV/m	---	dBµV/m	dB	---
9371.0	55.6	Peak	74.0	18.4	H
9371.0	46.5	Average	54.0	7.5	H
14133.0	49.8	Peak	88.2	38.4	V
14133.0	41.7	RMS	68.2	26.5	V
28267.6	45.9	RMS	68.2	22.3	V
28269.0	52.7	Peak	88.2	35.5	V

**1 GHz – 40 GHz, 802.11ax/be40, MCS0, Chain A+B**
**Radiated Spurious – CH227**

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBµV/m	---	dBµV/m	dB	---
9469.6	56.0	Peak	74.0	18.0	V
9469.6	46.3	Average	54.0	7.7	H
14133.5	43.3	RMS	68.2	24.9	H
14133.9	52.1	Peak	88.2	36.1	H
28268.0	45.8	RMS	68.2	22.4	V
28269.0	53.7	Peak	88.2	34.5	V

**1 GHz – 40 GHz, 802.11ax/be80, MCS0, Chain A**

**Radiated Spurious – CH215**

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBµV/m	---	dBµV/m	dB	---
9464.4	56.5	Peak	74.0	17.5	H
9464.4	46.4	Average	54.0	7.6	V
13974.0	42.9	RMS	68.2	25.3	V
13975.4	50.7	Peak	88.2	37.5	H
20960.0	50.9	Peak	74.0	23.1	V
20960.5	42.7	Average	54.0	11.3	V

**1 GHz – 40 GHz, 802.11ax/be80, MCS0, Chain B**

**Radiated Spurious – CH215**

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBµV/m	---	dBµV/m	dB	---
9462.6	56.6	Peak	74.0	17.4	V
9462.6	46.4	Average	54.0	7.6	H
13974.0	57.0	Peak	88.2	31.2	V
13974.0	50.2	RMS	68.2	18.0	V
27947.1	54.4	Peak	88.2	33.8	V
27947.6	45.5	RMS	68.2	22.7	V

## 1 GHz – 40 GHz, 802.11ax/be80, MCS0, Chain A+B

### Radiated Spurious – CH215

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBμV/m	---	dBμV/m	dB	---
9398.8	56.5	Peak	74.0	17.5	V
9398.8	47.0	Average	54.0	7.0	V
13973.0	58.4	Peak	88.2	29.8	V
13974.0	49.5	RMS	68.2	18.7	V
13996.7	53.1	Peak	88.2	35.0	V
13996.7	44.5	RMS	68.2	23.8	V
20959.6	52.0	Peak	74.0	22.0	V
20961.0	42.8	Average	54.0	11.2	V
27947.6	46.7	RMS	68.2	21.5	V
27948.1	53.9	Peak	88.2	34.3	V

## 1 GHz – 40 GHz, 802.11ax/be160, MCS0, Chain A

### Radiated Spurious – CH207

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dBμV/m	---	dBμV/m	dB	---
5587.9	55.0	Peak	88.2	33.2	H
5587.9	49.0	RMS	68.2	19.1	H
13813.5	51.6	Peak	88.2	36.6	V
13814.0	44.8	RMS	68.2	23.4	H
27939.9	52.9	Peak	88.2	35.3	H
27939.9	45.9	RMS	68.2	22.3	H



### 1 GHz – 40 GHz, 802.11ax/be160, MCS0, Chain B

#### Radiated Spurious – CH207

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dB $\mu$ V/m	---	dB $\mu$ V/m	dB	---
9464.4	55.8	Peak	74.0	18.2	H
9464.4	46.4	Average	54.0	7.7	V
13814.0	43.6	RMS	68.2	24.6	V
13814.9	51.5	Peak	88.2	36.7	V

### 1 GHz – 40 GHz, 802.11ax/be160, MCS0, Chain A+B

#### Radiated Spurious – CH207

Frequency	Level	Detector	Limit	Margin	Polar
MHz	dB $\mu$ V/m	---	dB $\mu$ V/m	dB	---
9405.8	56.8	Peak	74.0	17.2	V
9405.8	46.3	Average	54.0	7.7	V
13813.5	46.0	RMS	68.2	22.2	H
13814.9	53.9	Peak	88.2	34.3	V
27627.6	44.1	RMS	68.2	24.1	V
27629.6	53.5	Peak	88.2	34.7	V