

FCC UNII REPORT

Certification

Applicant Name: SAMSUNG Electronics Co., Ltd.	Date of Issue: June 14, 2021
Address: 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea	Test Site/Location: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383 KOREA
	Report No.: HCT-RF-2106-FC021

FCC ID:	A3LSMG990B
APPLICANT:	SAMSUNG Electronics Co., Ltd.

Model:	SM-G990B/DS
Additional Model:	SM-G990B
EUT Type:	Mobile Phone
Modulation type	OFDMA
FCC Classification:	Unlicensed National Information Infrastructure(NII)
FCC Rule Part(s):	Part 15.407

Engineering Statement:

The measurements shown in this report were made in accordance with the procedures indicated, and the emissions from this equipment were found to be within the limits applicable. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them. It is further stated that upon the basis of the measurements made, the equipment tested is capable of operation in accordance with the requirements of the FCC Rules under normal use and maintenance.

Report No.: HCT-RF-2106-FC021

REVIEWED BY



Report prepared by : **Woong Jin Kim**
Engineer of Telecommunication Testing Center

Report approved by : **Kwon Jeong**
Manager of Telecommunication Testing Center

This test results were applied only to the test methods required by the standard.

This laboratory is not accredited for the test results marked *.

The above Test Report is the accredited test result by (KS Q) ISO/IEC 17025 and KOLAS(Korea Laboratory Accreditation Scheme), which signed the ILAC-MRA. (HCT Accreditation No.: KT197)

* The report shall not be reproduced except in full(only partly) without approval of the laboratory.

Version

TEST REPORT NO.	DATE	DESCRIPTION
HCT-RF-2106-FC021	June 14, 2021	- First Approval Report

Table of Contents

REVIEWED BY.....	2
1. GENERAL INFORMATION.....	5
EUT DESCRIPTION.....	5
ANTENNA CONFIGURATIONS.....	6
2. MAXIMUM OUTPUT POWER.....	8
3. TEST METHODOLOGY.....	9
EUT CONFIGURATION.....	9
EUT EXERCISE.....	9
GENERAL TEST PROCEDURES.....	9
DESCRIPTION OF TEST MODES.....	9
4. INSTRUMENT CALIBRATION.....	10
5. FACILITIES AND ACCREDITATIONS.....	10
5.1 FACILITIES.....	10
5.2 EQUIPMENT.....	10
6. ANTENNA REQUIREMENTS.....	10
7. MEASUREMENT UNCERTAINTY.....	11
8. DESCRIPTION OF TESTS.....	12
9. SUMMARY OF TEST RESULTS.....	30
10. TEST RESULT.....	31
10.1 DUTY CYCLE.....	31
10.2 26dB BANDWIDTH.....	39
10.2.1 MIMO Ant1.....	39
10.2.2 MIMO Ant2.....	43
10.3 6dB BANDWIDTH.....	47
10.3.1 MIMO Ant1.....	47
10.3.2 MIMO Ant2.....	48
10.4 OUTPUT POWER MEASUREMENT.....	49
Power Level Setting.....	49
10.4.1 SUM (MIMO Ant 1 + MIMO Ant 2).....	51
10.5 POWER SPECTRAL DENSITY.....	55
10.5.1 SUM (MIMO Ant 1 + MIMO Ant 2).....	55
10.6 STRADDLE CHANNEL.....	59
10.6.1 26dB Bandwidth.....	59
10.6.1.1 MIMO Ant1.....	59
10.6.1.2 MIMO Ant2.....	62
10.6.2 6dB Bandwidth.....	65
10.6.2.1 MIMO Ant1.....	65
10.6.2.2 MIMO Ant2.....	68
10.6.3 Output Power.....	71
10.6.3.1 MIMO Ant1.....	71
10.6.3.2 MIMO Ant2.....	74
10.6.4 Power Spectral Density.....	77
10.6.4.1 MIMO Ant1.....	77
10.6.4.2 MIMO Ant2.....	80
10.7 RADIATED SPURIOUS EMISSIONS (9 kHz – 1GHz).....	83
10.8 RADIATED SPURIOUS EMISSIONS (Above 1 GHz).....	84
10.8.1 802.11ax(HE20).....	84
10.8.2 802.11ax(HE40).....	96
10.8.3 802.11ax(HE80).....	106
10.9 RADIATED RESTRICTED BAND EDGE.....	113
10.9.1 MIMO.....	113
11. LIST OF TEST EQUIPMENT.....	149
12. ANNEX A_ TEST SETUP PHOTO.....	151

1. GENERAL INFORMATION

EUT DESCRIPTION

Model	SM-G990B/DS	
Additional Model	SM-G990B	
EUT Type	Mobile Phone	
Power Supply	DC 4.20 V	
Modulation Type	OFDMA	
Frequency Range (MHz)	U-NII-1	20MHz BW : 5180 - 5240 40MHz BW : 5190 - 5230 80MHz BW : 5210
	U-NII-2A	20MHz BW : 5260 - 5320 40MHz BW : 5270 - 5310 80MHz BW : 5290
	U-NII-2C	20MHz BW : 5500 - 5720 40MHz BW : 5510 - 5710 80MHz BW : 5530 - 5690
	U-NII-3	20MHz BW : 5745 - 5825 40MHz BW : 5755 - 5795 80MHz BW : 5775
Straddle channel	Supported	
TDWR Band	Supported	
Dynamic Frequency Selection	Slave without radar detection	
Date(s) of Tests	April 24, 2021~ June 10, 2021	
Serial number	Radiated: 544a5f8570207ece Conducted: 524d0f145f1e7ece	

ANTENNA CONFIGURATIONS

1. The device employs MIMO technology. Below are the possible configurations

Configurations	SISO		SDM	CDD
	Ant.1	Ant.2	Ant.1 + Ant.2	Ant.1 + Ant.2
802.11ax	X	X	O	O

Note:

- (1) O = Support, X = Not Support
- (2) SISO = Single Input Single Output
- (3) SDM = Spatial Diversity Multiplexing
- (4) CDD = Cyclic Delay Diversity

2.This device supports simultaneous transmission operation, which allows for two channels to operate independent of one another in the 2.4GHz and 5GHz bands simultaneously on each antenna.

RSDB Scenario	2.4 GHz	2.4 GHz	5GHz	5GHz
	WiFi Ant.1	WiFi Ant.2	WiFi Ant.1	WiFi Ant.2
2.4 GHz WiFi + 5GHz WiFi MIMO	On		On	On
2.4 GHz WiFi + 5GHz WiFi MIMO		On	On	On
2.4 GHz WiFi MIMO + 5GHz WiFi MIMO	On	On	On	On

Non-DBS	5GHz	5GHz	Bluetooth
	WiFi Ant.1	WiFi Ant.2	Ant.1
2.4 GHz WiFi MIMO + 5GHz WiFi MIMO + Bluetooth	On	On	On

3. Directional Gain Calculation

According to KDB 662911 D01 Multiple Transmitter Output v02r01 F) 2) f) (ii)

Directional gain =

$$\bullet \quad \text{DirectionalGain} = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$$

Band	Ant Gain (dBi)		N _{ANT} / N _{SS}	Directional Gain (dBi)
	U-NII	ANT.1		
ANT.2		-5.20		

2. MAXIMUM OUTPUT POWER

The transmitter has a maximum total conducted average output power as follows:

Band	Mode	SUM	
		(MIMO Ant 1 + MIMO Ant 2) Power	
		(dBm)	(W)
UNII1	802.11ax (HE20)	15.43	0.035
	802.11ax (HE40)	13.19	0.021
	802.11ax (HE80)	11.15	0.013
UNII2A	802.11ax (HE20)	15.36	0.034
	802.11ax (HE40)	13.01	0.020
	802.11ax (HE80)	11.69	0.015
UNII2C	802.11ax (HE20)	15.48	0.035
	802.11ax (HE40)	13.17	0.021
	802.11ax (HE80)	11.59	0.014
UNII3	802.11ax (HE20)	15.47	0.035
	802.11ax (HE40)	13.27	0.021
	802.11ax (HE80)	11.31	0.014

3. TEST METHODOLOGY

The measurement procedure described in FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01 dated December 14, 2017 entitled "Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices Part15, Subpart E" and ANSI C63.10(Version : 2013) 'the American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices' were used in the measurement.

EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

EUT EXERCISE

The EUT was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements. According to its specifications, the EUT must comply with the requirements of the Section 15.207, 15.209 and 15.407 under the FCC Rules Part 15 Subpart E.

GENERAL TEST PROCEDURES

Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 6.2 of ANSI C63.10. (Version :2013) Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-peak and average detector modes.

Radiated Emissions

The EUT is placed on a turn table, which is 0.8 m above ground plane below 1GHz. Above 1GHz with 1.5m using absorbers between the EUT and receive antenna. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3 m away from the receiving antenna, which varied from 1 m to 4 m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this hand-held transmitter (EUT) was rotated through three orthogonal axes according to the requirements in Section 6.6.5 of ANSI C63.10. (Version: 2013)

DESCRIPTION OF TEST MODES

The EUT has been tested under operating condition. Test program used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

4. INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment's, which is traceable to recognized national standards.

Especially, all antenna for measurement is calibrated in accordance with the requirements of C63.5 (Version : 2017).

5. FACILITIES AND ACCREDITATIONS

5.1 FACILITIES

The SAC(Semi-Anechoic Chamber) and conducted measurement facility used to collect the radiated data are located at the 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383, Rep. of KOREA. The site is constructed in conformance with the requirements of ANSI C63.4. (Version :2014) and CISPR Publication 22.

Detailed description of test facility was submitted to the Commission and accepted dated April 02, 2018 (Registration Number: KR0032).

5.2 EQUIPMENT

Radiated emissions are measured with one or more of the following types of Linearly polarized antennas: tuned dipole, bi-conical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers. Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

6. ANTENNA REQUIREMENTS

According to FCC 47 CFR §15.203, §15.407:

"An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section."

- (1) The antennas of this E.U.T are permanently attached.
- (2) The E.U.T Complies with the requirement of §15.203, §15.407

7. MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.10-2013.

All measurement uncertainty values are shown with a coverage factor of $k = 2$ to indicate a 95 % level of confidence.

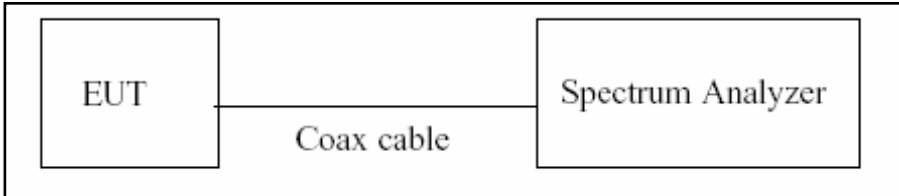
The measurement data shown herein meets or exceeds the U_{CISPR} measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance.

Parameter	Expanded Uncertainty (dB)
Conducted Disturbance (150 kHz ~ 30 MHz)	1.82
Radiated Disturbance (9 kHz ~ 30 MHz)	3.40
Radiated Disturbance (30 MHz ~ 1 GHz)	4.80
Radiated Disturbance (1 GHz ~ 18 GHz)	5.70
Radiated Disturbance (18 GHz ~ 40 GHz)	5.05

8. DESCRIPTION OF TESTS

8.1. Duty Cycle

Test Configuration



Test Procedure

The transmitter output is connected to the Spectrum Analyzer.

We tested according to Procedure B.2 in KDB 789033 D02 v02r01.

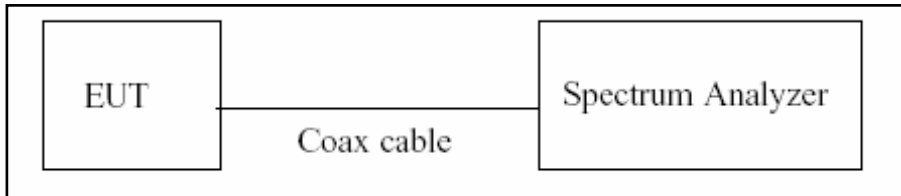
1. RBW = 8 MHz (the largest available value)
2. VBW = 8 MHz (\geq RBW)
3. SPAN = 0 Hz
4. Detector = Peak
5. Number of points in sweep > 100
6. Trace mode = Clear write
7. Measure T_{total} and T_{on}
8. Calculate Duty Cycle = T_{on} / T_{total} and Duty Cycle Factor = $10\log(1/\text{Duty Cycle})$

8.2. 6dB Bandwidth & 26dB Bandwidth

Limit

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

Test Configuration



Test Procedure(26dB Bandwidth)

The transmitter output is connected to the Spectrum Analyzer.

We tested according to Procedure C.1 in KDB 789033 D02 v02r01.

1. RBW = approximately 1 % of the emission bandwidth
2. VBW > RBW
3. Detector = Peak
4. Trace mode = max hold
5. Measure the maximum width of the emission that is 26 dB down from the maximum of the emission.
Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1 %.

Test Procedure (6dB Bandwidth)

The transmitter output is connected to the Spectrum Analyzer.

We tested according to Procedure C.2 in KDB 789033 D02 v02r01.

1. RBW = 100 kHz
2. VBW $\geq 3 \times$ RBW
3. Detector = Peak
4. Trace mode = max hold
5. Allow the trace to stabilize
6. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points(upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Note:

1. We tested X dB bandwidth using the automatic bandwidth measurement capability of a spectrum analyzer.
2. DFS test channels should be defined. So, We performed the OBW test to prove that no part of the fundamental emissions of any channels belong to UNII1 and UNII3 band for DFS.
3. The 26 dB bandwidth is used to determine the conducted power limits.

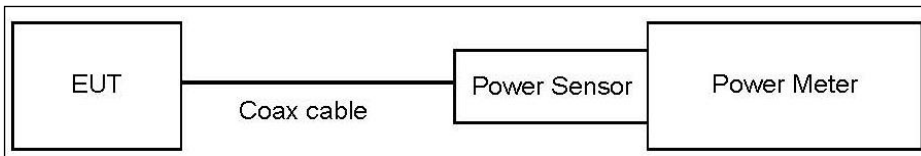
8.3. Output Power Measurement

Limit

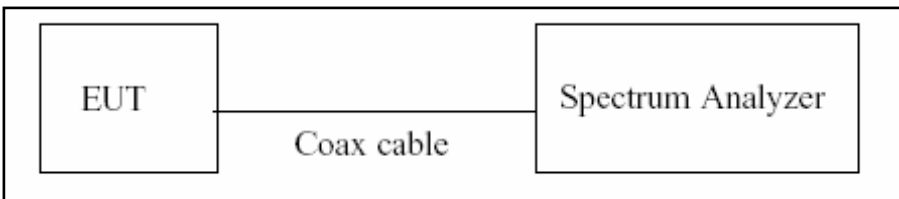
Band	Limit
UNII 1	- Master : Not exceed 1 W(=30dBm) - Slave : Not exceed 250 mW(=23.98 dBm)
UNII 2A, 2C	Not exceed the lesser of 250 mW or 11 dBm + 10 log B, (where B is the 26 dB emission bandwidth in megahertz.)
UNII 3	Not exceed 1 W(=30dBm)

Test Configuration

Power Meter



Spectrum Analyzer(Only Straddle Channel)



Test Procedure(Power Meter)

We tested according to Procedure E.3.a in KDB 789033 D02 v02r01.

1. Measure the duty cycle.
2. Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
3. Add 10 log (1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

Test Procedure(Spectrum Analyzer)

The transmitter output is connected to the Spectrum Analyzer.

We use the spectrum analyzer’s integrated band power measurement function.

We tested according to Procedure E.2.d) in KDB 789033 D02 v02r01.

1. Measure the duty cycle.
2. Set span to encompass the 26 dB EBW of the signal.
3. RBW = 1 MHz.
4. VBW ≥ 3 MHz.
5. Number of points in sweep ≥ 2 x span/RBW.
6. Sweep time = auto.
7. Detector = RMS.
8. Do not use sweep triggering. Allow the sweep to “free run”.
9. Trace average at least 100 traces in power averaging(RMS) mode
10. Integrated bandwidth = OBW
11. Add $10\log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

Sample Calculation

Total Power(dBm) = Reading Value(dBm) + ATT loss(dB) + Cable loss(dB) + Duty Cycle Factor(dB)

Note

1. Spectrum reading values are not plot data.

The power results in plot is already including the actual values of loss for the attenuator and cable combination.

2. Spectrum offset

Ant1 Loss = Attenuator loss(10 dB) + Cable loss + EUT Cable loss

Ant2 Loss = Attenuator loss(10 dB) + Cable loss

3. Actual value of loss for the attenuator and cable combination is below table.

Band	Ant.1 Loss(dB)	Ant.2 Loss(dB)
UNII 1	11.55	10.73
UNII 2A	11.55	10.73
UNII 2C	11.55	10.73
UNII 3	11.55	10.73

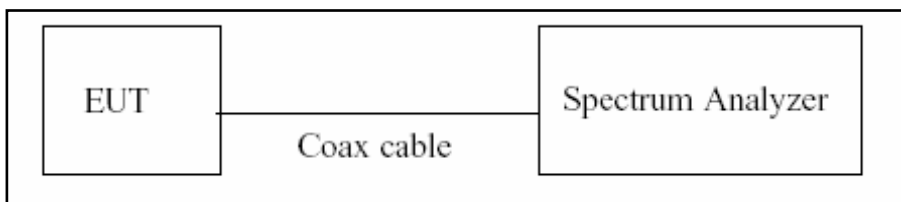
(Actual value of loss for the attenuator and cable combination)

8.4. Power Spectral Density

Limit

Band	Limit
UNII 1	11 dBm/MHz
UNII 2A, 2C	11 dBm/MHz
UNII 3	30 dBm/500 kHz

Test Configuration



Test Procedure

We tested according to Procedure F in KDB 789033 D02 v02r01.

1. Set span to encompass the entire emission bandwidth(EBW) of the signal.
2. RBW = 1 MHz(510 kHz for UNII 3)
3. VBW ≥ 3 MHz
4. Number of points in sweep ≥ 2 x span/RBW.
5. Sweep time = auto.
6. Detector = RMS(i.e., power averaging), if available. Otherwise, use sample detector mode.
7. Do not use sweep triggering. Allow the sweep to “free run”.
8. Trace average at least 100 traces in power averaging(RMS) mode
9. Use the peak search function on the spectrum analyzer to find the peak of the spectrum.
10. If Method SA-2 was used, add $10 \log(1/x)$, where x is the duty cycle, to the peak of the spectrum.

Sample Calculation

Total PSD(dBm) = Reading Value(dBm) + ATT loss(dB) + Cable loss(dB) + Duty Cycle Factor(dB)

Note

1. Spectrum reading values are not plot data.

The PSD results in plot is already including the actual values of loss for the attenuator and cable combination.

2. Spectrum offset

Ant1 Loss = Attenuator loss(10 dB) + Cable loss + EUT Cable loss

Ant2 Loss = Attenuator loss(10 dB) + Cable loss

3. Actual value of loss for the attenuator and cable combination is below table.

Band	Ant.1 Loss(dB)	Ant.2 Loss(dB)
UNII 1	11.55	10.73
UNII 2A	11.55	10.73
UNII 2C	11.55	10.73
UNII 3	11.55	10.73

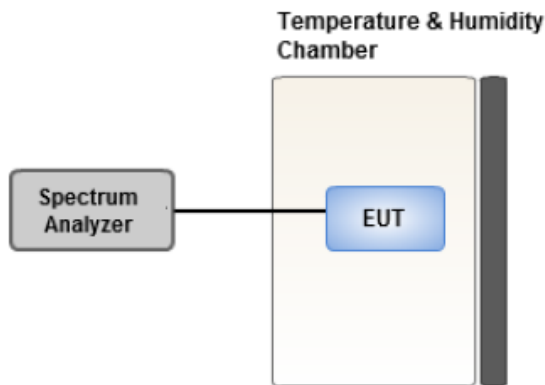
(Actual value of loss for the attenuator and cable combination)

8.5. Frequency Stability

Limit

Maintained within the band

Test Configuration



Test Procedure

1. The EUT was placed inside an environmental chamber as the temperature in the chamber was varied between -30 °C and 50 °C.
2. The temperature was incremented by 10 °C intervals and the unit was allowed to stabilize at each temperature before each measurement. The center frequency of the transmitting channel was evaluated at each temperature and the frequency deviation from the channel's center frequency was recorded.
3. The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.
4. While maintaining a constant temperature inside the environmental chamber, turn the EUT ON and record the operating frequency at startup, and at 2 minutes, 5 minutes, and 10 minutes after the EUT is energized. Four measurements in total are made.

8.6. AC Power line Conducted Emissions

Limit

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN).

Frequency Range (MHz)	Limits (dB μ V)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56 ^(a)	56 to 46 ^(a)
0.50 to 5	56	46
5 to 30	60	50

^(a)Decreases with the logarithm of the frequency.

Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line (LINE and NEUTRAL) and ground at the power terminals.

Test Configuration

See test photographs attached in Annex A for the actual connections between EUT and support equipment.

Test Procedure

1. The EUT is placed on a wooden table 80 cm above the reference ground plane.
2. The EUT is connected via LISN to a test power supply.
3. The measurement results are obtained as described below:
4. Detectors : Quasi Peak and Average Detector.

Sample Calculation

Quasi-peak(Final Result) = Reading Value + Correction Factor

8.7. Radiated Test

Limit

1. UNII 1: All emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.

2. UNII 2A, 2C: All emissions outside of the 5.47-5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz.

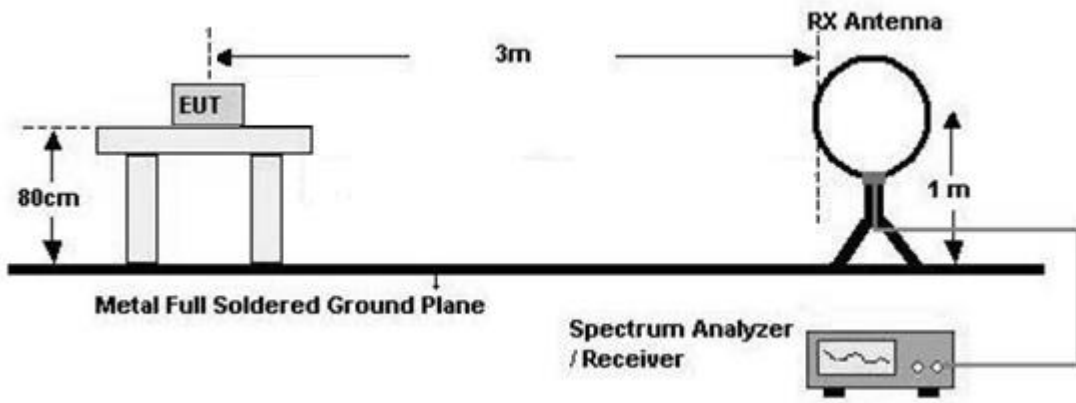
3. UNII 3: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

4. All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Section 15.209.

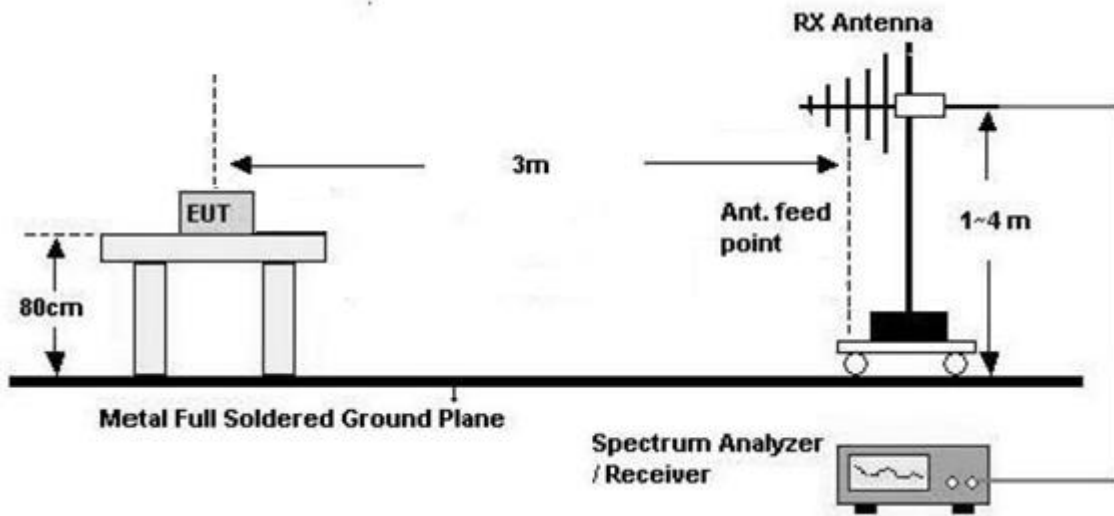
Frequency (MHz)	Field Strength (uV/m)	Measurement Distance (m)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Test Configuration

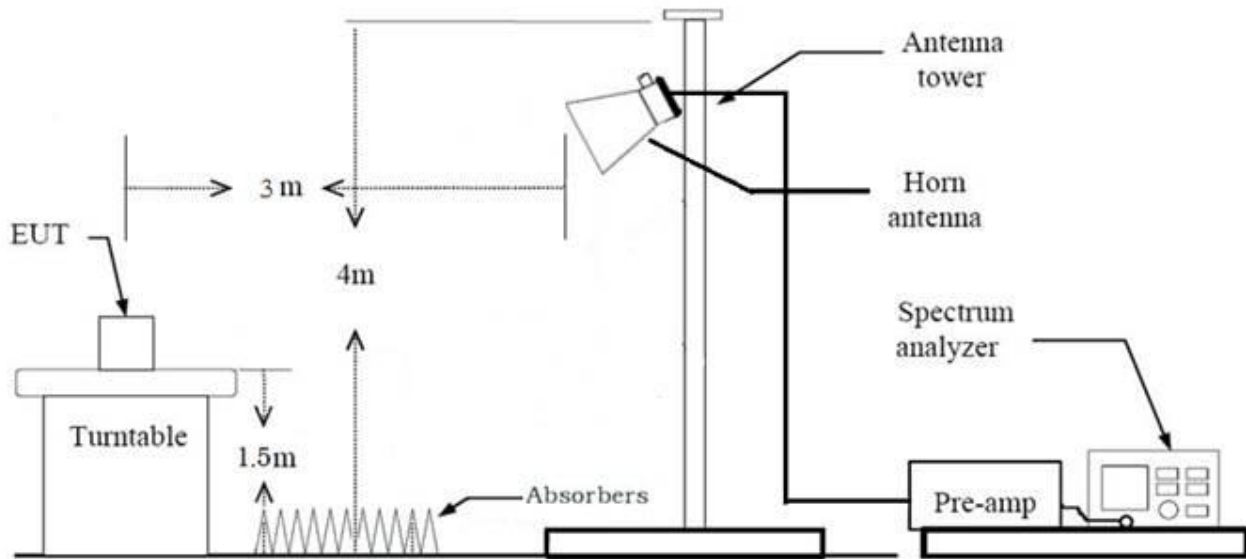
Below 30 MHz



30 MHz - 1 GHz



Above 1 GHz



Test Procedure of Radiated spurious emissions(Below 30 MHz)

1. The EUT was placed on a non-conductive table located on semi-anechoic chamber.
2. The loop antenna was placed at a location 3m from the EUT
3. The EUT is placed on a turntable, which is 0.8m above ground plane.
4. .We have done x, y, z planes in EUT and horizontal and vertical polarization and Parallel to the ground plane in detecting antenna.
5. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
6. Distance Correction Factor(0.009 MHz – 0.490 MHz) = $40\log(3\text{ m}/300\text{ m}) = - 80\text{ dB}$
Measurement Distance : 3 m
7. Distance Correction Factor(0.490 MHz – 30 MHz) = $40\log(3\text{ m}/30\text{ m}) = - 40\text{ dB}$
Measurement Distance : 3 m
8. Spectrum Setting
 - Frequency Range = 9 kHz ~ 30 MHz
 - Detector = Peak
 - Trace = Maxhold
 - RBW = 9 kHz
 - VBW $\geq 3 \times$ RBW
9. Total = Reading Value + Antenna Factor(A.F) + Cable Loss(C.L) + Distance Factor(D.F)
10. Measurement value only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.

KDB 414788 OFS and Chamber Correlation Justification

Base on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.

OFS and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

Test Procedure of Radiated spurious emissions(Below 1GHz)

1. The EUT was placed on a non-conductive table located on semi-anechoic chamber.
2. The EUT is placed on a turntable, which is 0.8m above ground plane.
3. The Hybrid antenna was placed at a location 3m from the EUT, which is varied from 1m to 4m to find out the highest emissions.
4. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.
5. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
6. Spectrum Setting
 - (1) Measurement Type(Peak):
 - Measured Frequency Range : 30 MHz – 1 GHz
 - Detector = Peak
 - Trace = Maxhold
 - RBW = 100 kHz
 - VBW \geq 3 x RBW
 - (2) Measurement Type(Quasi-peak):
 - Measured Frequency Range : 30 MHz – 1 GHz
 - Detector = Quasi-Peak
 - RBW = 120 kHz
- ※ In general, (1) is used mainly
7. Total = Reading Value + Antenna Factor(A.F) + Cable Loss(C.L)
8. Measurement value only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.

Test Procedure of Radiated spurious emissions (Above 1 GHz)

1. The EUT is placed on a turntable, which is 1.5 m above ground plane.
2. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.
3. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
4. EUT is set 3 m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
5. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
6. Each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
7. The unit was tested with its standard battery.
8. Spectrum Setting

(1) Measurement Type (Peak, G.5 in KDB 789033 v02r01):

- RBW = 1 MHz
- VBW \geq 3 MHz
- Detector = Peak
- Sweep Time = auto
- Trace mode = max hold
- Allow sweeps to continue until the trace stabilizes.

Note that if the transmission is not continuous, the time required for the trace to stabilize will increase by a factor of approximately $1/x$, where x is the duty cycle.

(2) Measurement Type (Average, G.6.d in KDB 789033 v02r01):

- RBW = 1 MHz
- VBW(Duty cycle \geq 98 percent) = VBW \leq RBW/100(i.e., 10 kHz) but not less than 10 Hz.
- VBW(Duty cycle is < 98 percent) = VBW \geq $1/T$, where T is the minimum transmission duration.
- The analyzer is set to linear detector mode.
- Detector = Peak.
- Sweep time = auto.
- Trace mode = max hold.
- Allow max hold to run for at least 50 traces if the transmitted signal is continuous or has at least 98 percent duty cycle. For lower duty cycles, increase the minimum number of traces by a factor of $1/x$, where x is the duty cycle.

9. Measurement value only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor
10. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency
11. Distance extrapolation factor = $20\log(\text{test distance} / \text{specific distance})$ (dB)
12. Total = Reading Value + Antenna Factor(A.F) + Cable Loss(C.L) - Amp Gain(G) + Distance Factor(D.F)

Test Procedure of Radiated Restricted Band Edge

1. The EUT is placed on a turntable, which is 1.5 m above ground plane.
2. We have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.
3. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
4. EUT is set 3 m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
5. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
6. Each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
7. The unit was tested with its standard battery.
8. Spectrum Setting
 - (1) Measurement Type(Peak, G.5 in KDB 789033 v02r01):
 - RBW = 1 MHz
 - VBW \geq 3 MHz
 - Detector = Peak
 - Sweep Time = auto
 - Trace mode = max hold
 - Allow sweeps to continue until the trace stabilizes.Note that if the transmission is not continuous, the time required for the trace to stabilize will increase by a factor of approximately 1/x, where x is the duty cycle.
 - (2) Measurement Type(Average, G.6.d in KDB 789033 v02r01):
 - RBW = 1 MHz
 - VBW(Duty cycle \geq 98 percent) = $\text{VBW} \leq \text{RBW}/100$ (i.e., 10 kHz) but not less than 10 Hz.
 - VBW(Duty cycle is < 98 percent) = $\text{VBW} \geq 1/T$, where T is the minimum transmission duration.
 - The analyzer is set to linear detector mode.
 - Detector = Peak.
 - Sweep time = auto.
 - Trace mode = max hold.
 - Allow max hold to run for at least 50 traces if the transmitted signal is continuous or has at least 98 percent duty cycle. For lower duty cycles, increase the minimum number of traces by a factor of 1/x, where x is the duty cycle.

9. Measured Frequency Range :

- 4 500 MHz ~ 5 150 MHz
- 5 350 MHz ~ 5 460 MHz
- 5 460 MHz ~ 5 470 MHz
- (75 MHz or more below the 5 725 MHz) ~ 5 725 MHz
- 5 850 MHz ~ (75 MHz or more above the 5 850 MHz)

10. Distance extrapolation factor = $20\log(\text{test distance} / \text{specific distance})$ (dB)

11. Total = Reading Value + Antenna Factor(A.F) + Cable Loss(C.L) - Amp Gain(G) + Attenuator + Distance Factor(D.F)

The actual setting value of VBW

Mode	Tone	Worst Data rate (Mbps)	Duty Cycle	Duty Cycle Factor (dB)	VBW (1/T) (kHz)	The actual setting value of VBW (Hz)
802.11ax (HE20)	26	MCS 0	0.981	0.08	0.191	1000
	52	MCS 0	0.963	0.16	0.378	1000
	106	MCS 0	0.929	0.32	0.779	1000
	242	MCS 0	0.856	0.68	1.666	2000
	SU	MCS 0	0.853	0.69	1.701	2000
802.11ax (HE40)	26	MCS 0	0.981	0.08	0.191	1000
	52	MCS 0	0.963	0.16	0.378	1000
	106	MCS 0	0.929	0.32	0.779	1000
	242	MCS 0	0.859	0.66	1.659	2000
	484	MCS 0	0.769	1.14	2.968	3000
	SU	MCS 0	0.774	1.11	2.959	3000
802.11ax (HE80)	26	MCS 0	0.981	0.08	0.192	1000
	52	MCS 0	0.963	0.16	0.377	1000
	106	MCS 0	0.927	0.33	0.779	1000
	242	MCS 0	0.859	0.66	1.666	2000
	484	MCS 0	0.769	1.14	2.968	3000
	996	MCS 0	0.672	1.72	4.934	10000
	SU	MCS 0	0.664	1.78	5.126	10000

8.8. Test RU offset for Tones

BW (MHz)	Tones (T)	RU offset	Test RU offset		
			Low	Mid	High
20	26	0~8	0	4	8
	52	37~40	37	38	40
	106	53~54	53	-	54
	242	61	-	61	-
40	26	0~17	0	9	17
	52	37~44	37	41	44
	106	53~56	53	54	56
	242	61~62	61	-	62
	484	65	-	65	-
80	26	0~36	0	18	36
	52	37~52	37	45	52
	106	53~60	53	57	60
	242	61~64	61	62	64
	484	65~66	65	-	66
	996	67	-	67	-

8.8. Worst case configuration and mode

Conducted test

1. All data rate of operation were investigated and the worst case results are reported.
 - HE20, HE40, HE80: MCS0 (All Tone)
2. SM-G990B/DS, SM-G990B were tested and the worst case results are reported.
 - (Worst case : SM-G990B/DS)

Radiated test

1. Full RU(Resource Unit) mode and SU(Single Unit) mode have no difference in physical waveform.
 - This Report has been described only Full RU mode with worst output power
2. All modes of operation were investigated and the worst case configuration results are reported.
 - Mode : Stand alone, Stand alone + External accessories(Earphone, etc)
 - Worstcase : Stand alone
3. EUT Axis
 - Radiated Spurious Emissions : Z
 - Radiated Restricted Band Edge : X
4. All data rate of operation were investigated and the worst case results are reported.
 - (Worst case : MCS0)
5. All Antenna of operation were investigated and the worst case results are reported
 - Mode : Ant1+Ant2(SDM), Ant1+Ant2(CDD)
 - Worstcase : Ant1+Ant2(CDD)
6. All position of loop antenna were investigated and the test result is a no critical peak found at all positions.
 - Position : Horizontal, Vertical, Parallel to the ground plane
7. We were performed the RSE test in condition of co-location. There has no significant emission raised.
 - WWAN+WLAN 5GHz+BT
8. All mode(Tone, RU Offset) of operation were investigated and the worst case configuration results are reported

Test	Tone	RU Offset
RSE	[HE 20] Worst case(Highest Power) : 242T	[HE 20] Mid 61
	[HE 40] Worst case(Highest Power) : 484T	[HE 40] Mid 65
	[HE 80] Worst case(Highest Power) : 996T	[HE 80] Mid 67
	[HE20] Additional Tone: 106T	[HE 20] Mid 54
	[HE40] Additional Tone: 26T	[HE 40] Mid 9
	[HE80] Additional Tone: 26T	[HE 80] Mid 18
Bandedge (UNII1,2A,2C)	[HE 20] Worst case(Highest Power) : 242T	[HE 20] Mid 61
	[HE 40] Worst case(Highest Power) : 484T	[HE 40] Mid 65
	[HE 80] Worst case(Highest Power) : 996T	[HE 80] Mid 67

	<p>[HE 20] Additional Tone: 26T, 52T, 106T</p> <p>[HE 40] Additional Tone: 26T, 52T, 106T, 242T</p> <p>[HE 80] Additional Tone: 26T, 52T, 106T, 242T, 484T</p>	<p>[HE20] Low Edge: 0, 37, 53 High Edge: 8, 40, 54</p> <p>[HE40] Low Edge: 0, 37, 53, 61 High Edge: 17, 44, 56, 62</p> <p>[HE80] Low Edge: 0, 37, 53, 61, 65 High Edge: 36, 52, 60, 64, 66</p>
<p>Bandedge (Straddle, UNII3)</p>	<p>[HE 20] Worst case(Highest Power) : 242T</p> <p>[HE 40] Worst case(Highest Power) : 484T</p> <p>[HE 80] Worst case(Highest Power) : 996T</p>	<p>[HE 20] Mid 61</p> <p>[HE 40] Mid 65</p> <p>[HE 80] Mid 67</p>

9. SM-G990B/DS, SM-G990B were tested and the worst case results are reported.

(Worst case : SM-G990B/DS)

Radiated test(DBS)

1. Please refer to the SM-G990B/DS [UNII] Test Report.
2. SM-G990B/DS, SM-G990B were tested and the worst case results are reported.

(Worst case : SM-G990B/DS)

AC Power line Conducted Emissions

1. Please refer to the SM-G990B/DS [UNII] Test Report.
2. SM-G990B/DS, SM-G990B were tested and the worst case results are reported.

(Worst case : SM-G990B/DS)

9. SUMMARY OF TEST RESULTS

Test Description	FCC Part Section(s)	Test Limit	Test Condition	Test Result
26dB Bandwidth	§15.407 (for Power Measurement)	N/A	Conducted	PASS
6 dB Bandwidth	§15.407(e)	>500 kHz (5725-5850 MHz)		PASS
Maximum Conducted Output Power	§15.407(a)(1),(2),(3)	< 250 mW(5150-5250 MHz) < 250 mW or 11+10log ₁₀ (BW) dBm (5250-5350 MHz) < 250 mW or 11+10log ₁₀ (BW) dBm (5470-5725 MHz) <1 W(5725-5850 MHz)		PASS
Maximum Power Spectral Density	§15.407(a)(1),(2),(3)	<11 dBm/ MHz (5150-5250 MHz) <11 dBm/ MHz (5250-5350 MHz) <11 dBm/ MHz (5470-5725 MHz) <30 dBm/500 kHz(5725-5850 MHz)		PASS
Frequency Stability	§15.407(g) §2.1055	Maintained within the band		PASS (Note1)
AC Conducted Emissions 150 kHz-30 MHz	15.207 15.407(b)(8)	<FCC 15.207 limits		PASS (Note1)
Undesirable Emissions	§15.407(b) (1),(2),(3),(4)	<-27 dBm/MHz EIRP (UNII1, 2A, 2C) cf. Section 8.7 (UNII 3)		PASS
General Field Strength Limits(Restricted Bands and Radiated Emission Limits)	15.205, 15.407(b)(9),(10)	Emissions in restricted bands must meet the radiated limits detailed in 15.209	Radiated	PASS

Note:

1. Please refer to the SM-G990B/DS [UNII] Test Report.

10. TEST RESULT

10.1 DUTY CYCLE

802.11ax(HE20)

Mode	Tone (T)	Data Rate	On Time (ms)	Total Time (ms)	Duty Cycle	Duty Cycle Factor (dB)
802.11ax (HE20)	26	MCS0	5.225	5.324	0.981	0.08
		MCS1	2.650	2.751	0.963	0.16
		MCS2	1.786	1.887	0.946	0.24
		MCS3	1.360	1.459	0.932	0.30
		MCS4	0.932	1.034	0.902	0.45
		MCS5	0.712	0.816	0.873	0.59
		MCS6	0.643	0.745	0.864	0.64
		MCS7	0.593	0.694	0.854	0.69
		MCS8	0.502	0.603	0.832	0.80
		MCS9	0.461	0.562	0.820	0.86
	52	MCS0	2.647	2.749	0.963	0.16
		MCS1	1.360	1.462	0.931	0.31
		MCS2	0.932	1.031	0.904	0.44
		MCS3	0.714	0.816	0.876	0.58
		MCS4	0.504	0.603	0.836	0.78
		MCS5	0.393	0.494	0.795	1.00
		MCS6	0.360	0.461	0.780	1.08
		MCS7	0.334	0.433	0.772	1.12
		MCS8	0.289	0.388	0.745	1.28
		MCS9	0.274	0.372	0.735	1.34
	106	MCS0	1.284	1.383	0.929	0.32
		MCS1	0.679	0.778	0.873	0.59
		MCS2	0.476	0.578	0.825	0.84
		MCS3	0.377	0.479	0.788	1.03
		MCS4	0.276	0.377	0.732	1.36
		MCS5	0.228	0.327	0.698	1.56
		MCS6	0.205	0.307	0.669	1.74
		MCS7	0.200	0.299	0.669	1.74
		MCS8	0.180	0.279	0.645	1.90
		MCS9	0.165	0.266	0.619	2.08
	242	MCS0	0.600	0.702	0.856	0.68
		MCS1	0.337	0.438	0.769	1.14

Mode	Tone (T)	Data Rate	On Time (ms)	Total Time (ms)	Duty Cycle	Duty Cycle Factor (dB)
		MCS2	0.246	0.347	0.708	1.50
		MCS3	0.203	0.304	0.667	1.76
		MCS4	0.165	0.266	0.619	2.08
		MCS5	0.139	0.238	0.585	2.33
		MCS6	0.134	0.236	0.570	2.44
		MCS7	0.127	0.228	0.556	2.55
		MCS8	0.122	0.220	0.552	2.58
		MCS9	0.117	0.215	0.541	2.67
		MCS10	0.111	0.210	0.530	2.76
		MCS11	0.101	0.203	0.500	3.01

802.11ax(HE40)

Mode	Tone (T)	Data Rate	On Time (ms)	Total Time (ms)	Duty Cycle	Duty Cycle Factor (dB)
802.11ax(HE40)	26	MCS0	5.225	5.324	0.981	0.08
		MCS1	2.650	2.751	0.963	0.16
		MCS2	1.789	1.890	0.946	0.24
		MCS3	1.360	1.462	0.931	0.31
		MCS4	0.930	1.034	0.900	0.46
		MCS5	0.717	0.816	0.879	0.56
		MCS6	0.643	0.745	0.864	0.64
		MCS7	0.593	0.694	0.854	0.69
		MCS8	0.504	0.605	0.833	0.80
		MCS9	0.464	0.565	0.821	0.86
	52	MCS0	2.647	2.749	0.963	0.16
		MCS1	1.360	1.462	0.931	0.31
		MCS2	0.932	1.031	0.904	0.44
		MCS3	0.717	0.816	0.879	0.56
		MCS4	0.504	0.603	0.836	0.78
		MCS5	0.395	0.497	0.796	0.99
		MCS6	0.360	0.461	0.780	1.08
		MCS7	0.332	0.433	0.766	1.16
		MCS8	0.289	0.388	0.745	1.28
		MCS9	0.271	0.372	0.728	1.38
	106	MCS0	1.284	1.383	0.929	0.32
		MCS1	0.679	0.780	0.870	0.60
		MCS2	0.479	0.580	0.825	0.83
		MCS3	0.377	0.476	0.793	1.01
		MCS4	0.276	0.377	0.732	1.36
		MCS5	0.225	0.327	0.690	1.61
		MCS6	0.210	0.309	0.680	1.67
		MCS7	0.200	0.301	0.664	1.78
		MCS8	0.182	0.281	0.649	1.88
		MCS9	0.165	0.266	0.619	2.08
	242	MCS0	0.603	0.702	0.859	0.66
		MCS1	0.337	0.438	0.769	1.14
		MCS2	0.246	0.347	0.708	1.50
		MCS3	0.205	0.304	0.675	1.71

Mode	Tone (T)	Data Rate	On Time (ms)	Total Time (ms)	Duty Cycle	Duty Cycle Factor (dB)
		MCS4	0.165	0.266	0.619	2.08
		MCS5	0.139	0.241	0.579	2.37
		MCS6	0.134	0.236	0.570	2.44
		MCS7	0.127	0.228	0.556	2.55
		MCS8	0.122	0.220	0.552	2.58
		MCS9	0.117	0.215	0.541	2.67
		MCS10	0.111	0.210	0.530	2.76
		MCS11	0.104	0.205	0.506	2.96
	484	MCS0	0.337	0.438	0.769	1.14
		MCS1	0.205	0.304	0.675	1.71
		MCS2	0.165	0.263	0.625	2.04
		MCS3	0.139	0.241	0.579	2.37
		MCS4	0.122	0.223	0.545	2.63
		MCS5	0.106	0.205	0.519	2.85
		MCS6	0.101	0.203	0.500	3.01
		MCS7	0.101	0.203	0.500	3.01
		MCS8	0.099	0.198	0.500	3.01
		MCS9	0.094	0.193	0.487	3.13
		MCS10	0.094	0.193	0.487	3.13
		MCS11	0.094	0.193	0.487	3.13

802.11ax(HE80)

Mode	Tone (T)	Data Rate	On Time (ms)	Total Time (ms)	Duty Cycle	Duty Cycle Factor (dB)
802.11ax (HE80)	26	MCS0	5.221	5.324	0.981	0.08
		MCS1	2.647	2.751	0.962	0.17
		MCS2	1.789	1.890	0.946	0.24
		MCS3	1.360	1.462	0.931	0.31
		MCS4	0.932	1.034	0.902	0.45
		MCS5	0.717	0.818	0.876	0.57
		MCS6	0.643	0.745	0.864	0.64
		MCS7	0.593	0.694	0.854	0.69
		MCS8	0.504	0.605	0.833	0.80
		MCS9	0.464	0.565	0.821	0.86
	52	MCS0	2.650	2.751	0.963	0.16
		MCS1	1.360	1.462	0.931	0.31
		MCS2	0.930	1.031	0.902	0.45
		MCS3	0.714	0.816	0.876	0.58
		MCS4	0.504	0.605	0.833	0.80
		MCS5	0.395	0.497	0.796	0.99
		MCS6	0.360	0.459	0.785	1.05
		MCS7	0.334	0.436	0.767	1.15
		MCS8	0.289	0.390	0.740	1.31
		MCS9	0.274	0.375	0.730	1.37
	106	MCS0	1.284	1.386	0.927	0.33
		MCS1	0.679	0.780	0.870	0.60
		MCS2	0.479	0.580	0.825	0.83
		MCS3	0.375	0.476	0.787	1.04
		MCS4	0.276	0.377	0.732	1.36
		MCS5	0.225	0.327	0.690	1.61
		MCS6	0.208	0.309	0.672	1.73
		MCS7	0.200	0.299	0.669	1.74
		MCS8	0.180	0.281	0.640	1.94
		MCS9	0.165	0.266	0.619	2.08
	242	MCS0	0.600	0.699	0.859	0.66
		MCS1	0.337	0.438	0.769	1.14
		MCS2	0.246	0.347	0.708	1.50

Mode	Tone (T)	Data Rate	On Time (ms)	Total Time (ms)	Duty Cycle	Duty Cycle Factor (dB)	
		MCS3	0.205	0.304	0.675	1.71	
		MCS4	0.165	0.266	0.619	2.08	
		MCS5	0.139	0.241	0.579	2.37	
		MCS6	0.137	0.238	0.574	2.41	
		MCS7	0.127	0.228	0.556	2.55	
		MCS8	0.122	0.220	0.552	2.58	
		MCS9	0.114	0.215	0.529	2.76	
		MCS10	0.111	0.210	0.530	2.76	
		MCS11	0.104	0.203	0.513	2.90	
		484	MCS0	0.337	0.438	0.769	1.14
			MCS1	0.205	0.304	0.675	1.71
	MCS2		0.165	0.266	0.619	2.08	
	MCS3		0.139	0.238	0.585	2.33	
	MCS4		0.122	0.223	0.545	2.63	
	MCS5		0.106	0.208	0.512	2.91	
	MCS6		0.104	0.205	0.506	2.96	
	MCS7		0.101	0.200	0.506	2.96	
	MCS8		0.099	0.198	0.500	3.01	
	MCS9		0.094	0.193	0.487	3.13	
	MCS10		0.094	0.193	0.487	3.13	
	MCS11	0.091	0.193	0.474	3.25		
	996	MCS0	0.203	0.301	0.672	1.72	
		MCS1	0.134	0.236	0.570	2.44	
		MCS2	0.117	0.218	0.535	2.72	
		MCS3	0.104	0.205	0.506	2.96	
		MCS4	0.096	0.195	0.494	3.07	
		MCS5	0.091	0.190	0.480	3.19	
		MCS6	0.089	0.190	0.467	3.31	
		MCS7	0.091	0.190	0.480	3.19	
		MCS8	0.081	0.182	0.444	3.52	
		MCS9	0.081	0.182	0.444	3.52	
		MCS10	0.084	0.185	0.452	3.45	
	MCS11	0.084	0.182	0.458	3.39		

Mode	BW	Data Rate	On Time (ms)	Total Time (ms)	Duty Cycle	Duty Cycle Factor (dB)
802.11ax (SU)	BW 20	MCS0	0.588	0.689	0.853	0.69
		MCS1	0.329	0.428	0.769	1.14
		MCS2	0.243	0.342	0.711	1.48
		MCS3	0.200	0.299	0.669	1.74
		MCS4	0.160	0.261	0.612	2.13
		MCS5	0.134	0.236	0.570	2.44
		MCS6	0.132	0.231	0.571	2.43
		MCS7	0.122	0.223	0.545	2.63
		MCS8	0.117	0.215	0.541	2.67
		MCS9	0.111	0.210	0.530	2.76
		MCS10	0.106	0.205	0.519	2.85
	MCS11	0.099	0.198	0.500	3.01	
	BW 40	MCS0	0.338	0.437	0.774	1.11
		MCS1	0.200	0.299	0.669	1.74
		MCS2	0.162	0.261	0.621	2.07
		MCS3	0.137	0.236	0.581	2.36
		MCS4	0.117	0.218	0.535	2.72
		MCS5	0.104	0.203	0.513	2.90
		MCS6	0.099	0.198	0.500	3.01
		MCS7	0.096	0.195	0.494	3.07
		MCS8	0.089	0.187	0.473	3.25
		MCS9	0.089	0.187	0.473	3.25
		MCS10	0.089	0.187	0.473	3.25
	MCS11	0.091	0.190	0.480	3.19	
	BW 80	MCS0	0.195	0.294	0.664	1.78
		MCS1	0.132	0.231	0.571	2.43
		MCS2	0.114	0.213	0.536	2.71
		MCS3	0.099	0.198	0.500	3.01
		MCS4	0.091	0.193	0.474	3.25
		MCS5	0.084	0.185	0.452	3.45
		MCS6	0.084	0.185	0.452	3.45
		MCS7	0.084	0.182	0.458	3.39
		MCS8	0.079	0.177	0.443	3.54
MCS9		0.079	0.177	0.443	3.54	

Mode	BW	Data Rate	On Time (ms)	Total Time (ms)	Duty Cycle	Duty Cycle Factor (dB)
		MCS10	0.081	0.180	0.451	3.46
		MCS11	0.079	0.177	0.443	3.54

10.2 26dB BANDWIDTH

10.2.1 MIMO Ant1

Straddle channel data in the table below are for reporting purposes only.

Straddle channel data were added in section 10.6.1.

802.11ax(HE20)

HE20	Frequency [MHz]	Channel No.	RU Index	26dB BW (MHz)				
				26 T	52 T	106 T	242 T	SU
UNII 1	5180	36	Low	19.73	20.24	20.89	-	-
			Mid	18.72	19.44	-	22.00	21.46
			High	20.15	20.77	21.33	-	-
	5200	40	Low	19.74	20.36	20.83	-	-
			Mid	18.88	19.73	-	21.64	21.55
			High	20.44	20.90	21.22	-	-
	5240	48	Low	19.92	20.11	20.90	-	-
			Mid	18.72	20.05	-	21.87	21.60
			High	20.20	21.02	21.39	-	-
UNII 2A	5260	52	Low	19.79	20.23	20.83	-	-
			Mid	18.81	19.80	-	21.63	21.44
			High	20.26	20.98	21.36	-	-
	5280	56	Low	19.90	20.20	20.87	-	-
			Mid	18.77	19.78	-	21.66	21.58
			High	20.26	21.13	21.25	-	-
	5320	64	Low	19.70	20.26	20.91	-	-
			Mid	18.51	19.34	-	21.71	21.63
			High	20.54	21.05	21.15	-	-
UNII 2C	5500	100	Low	19.96	20.31	20.98	-	-
			Mid	19.01	19.62	-	21.73	21.64
			High	20.29	21.05	21.35	-	-
	5600	120	Low	19.50	20.32	20.85	-	-
			Mid	19.14	19.87	-	21.74	21.51
			High	20.56	20.93	21.37	-	-
	5720	144	Low	19.64	20.11	20.85	-	-
			Mid	18.99	19.69	-	21.66	21.61
			High	20.48	20.76	21.46	-	-
UNII 3	5745	149	Low	19.88	20.30	20.86	-	-

HE20	Frequency [MHz]	Channel No.	RU Index	26dB BW (MHz)				
				26 T	52 T	106 T	242 T	SU
			Mid	18.67	19.71	-	21.84	21.52
			High	20.71	21.04	21.46	-	-
	5785	157	Low	19.85	20.25	20.82	-	-
			Mid	19.17	19.48	-	21.59	21.69
			High	20.59	20.82	21.25	-	-
	5825	165	Low	19.95	20.33	21.07	-	-
			Mid	19.15	19.56	-	21.63	21.52
			High	20.53	20.84	21.36	-	-

802.11ax(HE40)

HE40	Frequency [MHz]	Channel No.	RU Index	26dB BW(MHz)					
				26 T	52 T	106 T	242 T	484 T	SU
UNII 1	5190	38	Low	18.69	21.09	23.59	28.18	-	-
			Mid	22.33	24.25	27.97	-	40.27	39.89
			High	19.69	23.08	24.34	36.37	-	-
	5230	46	Low	19.49	20.92	23.95	28.72	-	-
			Mid	23.65	26.53	24.47	-	40.30	40.31
			High	20.09	20.91	25.12	37.86	-	-
UNII 2A	5270	54	Low	20.31	20.97	23.49	30.21	-	-
			Mid	23.59	25.25	25.31	-	40.30	39.95
			High	20.88	21.41	24.75	34.26	-	-
	5310	62	Low	19.78	21.75	23.52	28.83	-	-
			Mid	22.59	25.70	24.72	-	40.34	40.13
			High	20.50	21.54	24.88	36.61	-	-
UNII 2C	5510	102	Low	20.03	20.32	22.76	29.52	-	-
			Mid	23.30	24.08	25.16	-	40.34	39.99
			High	20.77	21.71	25.30	38.24	-	-
	5590	118	Low	20.09	21.42	23.07	27.34	-	-
			Mid	23.13	23.83	26.61	-	40.34	40.19
			High	19.77	23.22	24.08	37.31	-	-
	5710	142	Low	20.10	20.90	22.73	28.90	-	-
			Mid	24.07	24.91	27.17	-	40.30	40.05
			High	19.76	21.85	24.10	31.01	-	-
UNII 3	5755	151	Low	19.99	20.48	23.79	28.78	-	-
			Mid	23.05	24.37	25.44	-	40.30	39.91
			High	19.40	22.00	24.14	33.13	-	-
	5795	159	Low	20.00	20.96	23.62	29.79	-	-
			Mid	23.58	24.98	25.24	-	40.21	39.94
			High	19.47	21.74	26.46	30.35	-	-

802.11ax(HE80)

HE80	Freq. [MHz]	Channel No.	RU Index	26dB BW (MHz)						
				26 T	52 T	106 T	242 T	484 T	996 T	SU
UNII 1	5210	42	Low	20.85	21.74	25.29	31.37	55.16	-	-
			Mid	40.40	23.39	30.92	50.32	-	81.37	81.11
			High	22.41	24.77	28.72	53.91	61.27	-	-
UNII 2A	5290	58	Low	20.75	22.44	22.13	28.83	55.10	-	-
			Mid	38.35	27.47	31.33	50.41	-	81.80	81.32
			High	21.71	24.53	28.75	41.76	66.84	-	-
UNII 2C	5530	106	Low	20.02	21.56	22.75	31.35	54.61	-	-
			Mid	40.51	31.41	34.05	49.42	-	81.36	81.45
			High	22.05	23.79	29.37	35.02	60.00	-	-
	5610	122	Low	20.60	22.08	24.68	33.62	52.61	-	-
			Mid	40.51	26.37	33.16	49.83	-	81.79	81.17
			High	23.26	23.50	26.22	47.64	66.68	-	-
	5690	138	Low	20.56	22.12	23.30	34.29	53.66	-	-
			Mid	40.64	27.78	30.65	46.62	-	81.81	81.53
			High	21.11	23.78	27.56	40.27	64.95	-	-
UNII 3	5775	155	Low	21.12	21.58	24.74	36.16	52.27	-	-
			Mid	40.51	26.88	29.23	50.98	-	81.66	81.35
			High	22.83	26.10	27.01	42.51	66.85	-	-

10.2.2 MIMO Ant2

Straddle channel data in the table below are for reporting purposes only.

Straddle channel data were added in section 10.6.1.

802.11ax(HE20)

HE20	Frequency [MHz]	Channel No.	RU Index	26dB BW (MHz)				
				26 T	52 T	106 T	242 T	SU
UNII 1	5180	36	Low	19.35	19.82	19.89	-	-
			Mid	17.95	18.35	-	21.39	21.47
			High	19.92	19.92	20.08	-	-
	5200	40	Low	19.71	19.77	19.85	-	-
			Mid	18.01	18.17	-	21.47	21.37
			High	19.65	19.87	19.85	-	-
	5240	48	Low	19.70	19.74	19.86	-	-
			Mid	18.09	18.40	-	21.40	21.34
			High	19.87	19.95	20.26	-	-
UNII 2a	5260	52	Low	19.78	19.72	19.95	-	-
			Mid	18.22	18.52	-	21.47	21.28
			High	19.78	20.01	20.19	-	-
	5280	56	Low	19.61	19.83	20.00	-	-
			Mid	18.00	18.38	-	21.54	21.32
			High	19.78	19.93	20.14	-	-
	5320	64	Low	19.66	19.79	20.00	-	-
			Mid	18.07	18.35	-	21.35	21.44
			High	19.70	19.84	20.12	-	-
UNII 2c	5500	100	Low	19.56	19.90	19.85	-	-
			Mid	18.21	18.22	-	21.51	21.49
			High	20.05	19.73	20.27	-	-
	5600	120	Low	19.75	19.66	19.91	-	-
			Mid	18.08	18.30	-	21.42	21.53
			High	19.60	20.01	20.09	-	-
	5720	144	Low	19.72	19.75	19.98	-	-
			Mid	17.93	18.19	-	21.56	21.42
			High	19.59	19.98	20.18	-	-
UNII 3	5745	149	Low	19.68	19.96	20.01	-	-
			Mid	18.09	18.32	-	21.42	21.45

HE20	Frequency [MHz]	Channel No.	RU Index	26dB BW (MHz)				
				26 T	52 T	106 T	242 T	SU
	5785	157	High	19.69	19.95	20.19	-	-
			Low	19.77	19.77	19.93	-	-
			Mid	18.06	18.21	-	21.57	21.37
	5825	165	High	19.68	19.98	20.01	-	-
			Low	19.68	19.66	19.94	-	-
			Mid	18.20	18.32	-	21.44	21.26
			High	19.66	19.85	19.96	-	-

802.11ax(HE40)

HE40	Frequency [MHz]	Channel No.	RU Index	26dB BW(MHz)					
				26 T	52 T	106 T	242 T	484 T	SU
UNII 1	5190	38	Low	19.42	19.89	20.80	27.52	-	-
			Mid	21.77	23.43	25.69	-	40.00	39.79
			High	19.03	19.24	19.99	28.94	-	-
	5230	46	Low	19.42	20.05	20.18	26.71	-	-
			Mid	23.39	23.64	25.10	-	40.02	39.89
			High	19.35	19.24	19.61	28.02	-	-
UNII 2a	5270	54	Low	19.13	19.77	20.26	27.39	-	-
			Mid	21.98	24.93	23.25	-	40.01	39.88
			High	19.19	19.28	19.64	30.39	-	-
	5310	62	Low	19.32	19.80	20.75	27.37	-	-
			Mid	22.27	22.78	24.74	-	40.09	40.01
			High	19.14	19.52	19.60	29.80	-	-
UNII 2c	5510	102	Low	19.41	20.01	20.14	26.65	-	-
			Mid	22.89	24.22	26.07	-	39.90	39.93
			High	19.26	19.42	19.53	29.65	-	-
	5590	118	Low	19.59	19.99	19.96	25.78	-	-
			Mid	22.95	22.87	23.84	-	39.94	39.83
			High	19.17	19.28	19.60	29.08	-	-
	5710	142	Low	19.42	19.79	20.37	26.44	-	-
			Mid	21.86	23.60	24.04	-	40.00	39.99
			High	19.04	19.29	19.63	27.71	-	-
UNII 3	5755	151	Low	19.46	19.81	20.19	26.97	-	-
			Mid	22.05	22.63	25.10	-	39.94	39.77
			High	19.13	19.27	19.82	29.08	-	-
	5795	159	Low	18.99	20.08	20.31	27.24	-	-
			Mid	22.92	23.74	24.88	-	39.95	39.72
			High	19.06	19.26	19.39	28.93	-	-

802.11ax(HE80)

HE80	Freq. [MHz]	Channel No.	RU Index	26dB BW (MHz)						
				26 T	52 T	106 T	242 T	484 T	996 T	SU
UNII 1	5210	42	Low	20.41	20.18	20.89	30.34	55.67	-	-
			Mid	38.67	23.49	28.81	47.59	-	81.06	81.25
			High	20.75	20.24	21.11	34.96	50.09	-	-
UNII 2a	5290	58	Low	20.39	20.67	20.67	31.29	51.25	-	-
			Mid	38.76	23.68	28.07	47.96	-	80.77	80.93
			High	20.54	20.65	20.98	29.07	56.19	-	-
UNII 2c	5530	106	Low	20.23	20.80	20.98	32.15	48.48	-	-
			Mid	38.06	23.29	25.27	46.51	-	80.95	80.96
			High	20.13	20.09	23.93	35.87	50.22	-	-
	5610	122	Low	20.40	20.77	20.62	29.87	54.94	-	-
			Mid	38.46	23.11	30.78	46.43	-	81.09	80.82
			High	20.64	20.36	21.38	32.90	54.74	-	-
	5690	138	Low	20.03	21.02	20.55	29.86	53.54	-	-
			Mid	38.32	23.89	26.72	48.38	-	81.30	80.77
			High	20.24	20.34	20.92	34.54	55.35	-	-
UNII 3	5775	155	Low	20.21	20.27	20.65	32.26	51.75	-	-
			Mid	38.75	24.93	29.28	50.93	-	80.94	81.07
			High	20.39	20.58	21.00	34.94	56.70	-	-

10.3 6dB BANDWIDTH

10.3.1 MIMO Ant1

802.11ax(HE20)

HE20	Frequency [MHz]	Channel No.	RU Index	6dB BW (MHz)				
				26 T	52 T	106 T	242 T	SU
UNII 3	5745	149	Low	2.107	17.04	17.21	-	-
			Mid	2.703	13.84	-	19.12	19.12
			High	2.057	14.56	17.16	-	-
	5785	157	Low	2.061	15.81	17.17	-	-
			Mid	2.698	8.764	-	19.07	19.13
			High	2.038	14.51	17.21	-	-
	5825	165	Low	2.116	12.03	17.17	-	-
			Mid	2.654	15.07	-	19.08	19.06
			High	2.017	15.79	17.15	-	-

Limit : > 0.5 MHz

802.11ax(HE40)

HE40	Frequency [MHz]	Channel No.	RU Index	6dB BW(MHz)					
				26 T	52 T	106 T	242 T	484 T	SU
UNII 3	5755	151	Low	2.130	16.58	16.58	18.74	-	-
			Mid	2.091	8.514	17.33	-	37.97	37.75
			High	2.088	16.51	16.63	18.73	-	-
	5795	159	Low	2.087	13.98	17.56	18.61	-	-
			Mid	2.097	4.846	17.29	-	37.77	37.52
			High	2.030	16.61	17.80	18.67	-	-

Limit : > 0.5 MHz

802.11ax(HE80)

HE80	Frequency [MHz]	Channel No.	RU Index	6dB BW (MHz)						
				26 T	52 T	106 T	242 T	484 T	996 T	SU
UNII 3	5775	155	Low	2.152	16.68	16.79	18.68	37.44	-	-
			Mid	2.816	16.22	16.37	36.51	-	77.12	77.48
			High	2.248	15.35	16.66	18.63	37.72	-	-

Limit : > 0.5 MHz

10.3.2 MIMO Ant2

802.11ax(HE20)

HE20	Frequency [MHz]	Channel No.	RU Index	6dB BW (MHz)				
				26 T	52 T	106 T	242 T	SU
UNII 3	5745	149	Low	2.073	17.02	17.20	-	-
			Mid	2.678	11.35	-	19.03	19.10
			High	2.125	15.83	17.20	-	-
	5785	157	Low	2.111	14.51	17.18	-	-
			Mid	2.660	7.629	-	19.08	19.08
			High	2.107	17.00	17.18	-	-
	5825	165	Low	2.146	15.81	17.21	-	-
			Mid	2.658	13.83	-	19.08	19.03
			High	2.109	16.96	17.18	-	-

Limit : > 0.5 MHz

802.11ax(HE40)

HE40	Frequency [MHz]	Channel No.	RU Index	6dB BW(MHz)					
				26 T	52 T	106 T	242 T	484 T	SU
UNII 3	5755	151	Low	2.063	16.56	16.83	18.70	-	-
			Mid	2.171	14.87	17.35	-	37.67	37.72
			High	2.164	16.53	16.72	18.70	-	-
	5795	159	Low	2.095	16.56	16.56	18.65	-	-
			Mid	2.104	13.58	17.38	-	37.60	37.55
			High	1.959	16.58	16.44	18.65	-	-

Limit : > 0.5 MHz

802.11ax(HE80)

HE80	Frequency [MHz]	Channel No.	RU Index	6dB BW (MHz)						
				26 T	52 T	106 T	242 T	484 T	996 T	SU
UNII 3	5775	155	Low	14.17	16.57	16.78	18.69	37.61	-	-
			Mid	2.797	15.12	16.48	36.48	-	77.06	77.56
			High	2.238	16.71	16.74	18.73	37.69	-	-

Limit : > 0.5 MHz

10.4 OUTPUT POWER MEASUREMENT

Power Level Setting

MIMO

802.11ax(HE20)		Frequency [MHz]	Channel No.	26 T	52T	106T	242 T	SU
UNII 1	Low	5180	36	7	9.5	11	12	
	Mid	5200	40					
	High	5240	48					
UNII 2A	Low	5260	52					
	Mid	5300	60					
	High	5320	64					
UNII 2C	Low	5500	100					
	Mid	5600	120					
	High	5720	144					
UNII 3	Low	5745	149					
	Mid	5785	157					
	High	5825	165					

802.11ax(HE40)		Frequency [MHz]	Channel No.	26 T	52T	106T	242 T	484T	SU
UNII 1	Low	5190	38	7	8	9	10		9.5
	High	5230	46						
UNII 2A	Low	5270	54						
	High	5310	62						
UNII 2C	Low	5510	102						
	Mid	5590	118						
	High	5710	142						
UNII 3	Low	5755	151						
	High	5795	159						

802.11ax(HE80)		Frequency [MHz]	Channel No.	26 T	52T	106T	242 T	484T	996T	SU
UNII 1	Mid	5210	42	7	8	9	9	9	9	8.5
UNII 2A	Mid	5290	58							
UNII 2C	Low	5530	106							
	Mid	5610	122							
	High	5690	138							
UNII 3	Mid	5775	155							

10.4.1 SUM (MIMO Ant 1 + MIMO Ant 2)

Straddle channel data in the table below are for reporting purposes only.

Straddle channel data were added in section 10.6.3.

802.11ax(HE20)

HE20	Frequency [MHz]	Channel No.	RU Index	Sum Power (dBm)				
				26 T	52 T	106 T	242 T	SU
UNII 1	5180	36	Low	7.68	10.33	14.06	-	-
			Mid	8.31	10.55	-	15.43	15.34
			High	7.89	10.38	14.08	-	-
	5200	40	Low	7.83	10.43	14.01	-	-
			Mid	8.21	10.45	-	15.39	15.28
			High	7.83	10.25	13.97	-	-
	5240	48	Low	7.93	10.27	14.07	-	-
			Mid	8.31	10.40	-	15.38	15.31
			High	7.83	10.21	14.04	-	-
UNII 2A	5260	52	Low	8.04	10.73	14.28	-	-
			Mid	8.23	10.73	-	15.36	15.24
			High	8.00	10.48	14.18	-	-
	5280	56	Low	8.04	10.34	14.19	-	-
			Mid	8.31	10.47	-	15.29	15.18
			High	7.94	10.22	14.11	-	-
	5320	64	Low	8.24	10.42	14.17	-	-
			Mid	8.43	11.00	-	15.28	15.15
			High	8.03	10.72	14.05	-	-
UNII 2C	5500	100	Low	7.97	10.07	13.74	-	-
			Mid	8.21	10.19	-	14.93	14.85
			High	7.77	9.92	13.60	-	-
	5600	120	Low	8.39	10.47	14.08	-	-
			Mid	8.71	10.59	-	15.27	15.16
			High	8.17	10.29	13.97	-	-
	5720	144	Low	8.11	10.72	14.25	-	-
			Mid	8.32	10.70	-	15.48	15.44
			High	8.11	10.46	14.16	-	-
UNII 3	5745	149	Low	8.23	10.31	14.32	-	-
			Mid	8.53	10.41	-	15.47	15.35

HE20	Frequency [MHz]	Channel No.	RU Index	Sum Power (dBm)				
				26 T	52 T	106 T	242 T	SU
			High	7.93	10.12	14.16	-	-
	5785	157	Low	8.41	10.56	14.23	-	-
			Mid	8.79	10.73	-	15.37	15.30
			High	8.34	10.27	14.15	-	-
	5825	165	Low	8.46	10.55	14.25	-	-
			Mid	8.92	10.72	-	15.43	15.33
			High	8.34	10.50	14.14	-	-

Limit

(UNII 1) : 23.98 dBm

(UNII 2A, 2C) : 23.98 dBm or 11 dBm + 10 log B, (where B is the 26 dB emission bandwidth in megahertz.)

(UNII 3) : 30.00 dBm

802.11ax(HE40)

HE40	Frequency [MHz]	Channel No.	RU Index	Sum Power (dBm)					
				26 T	52 T	106 T	242 T	484 T	SU
UNII 1	5190	38	Low	7.60	8.86	11.06	13.19	-	-
			Mid	8.22	9.58	11.44	-	12.96	11.33
			High	7.14	8.70	10.94	13.14	-	-
	5230	46	Low	7.47	9.04	10.62	13.11	-	-
			Mid	8.60	9.92	11.09	-	12.92	11.07
			High	7.53	8.98	10.69	13.11	-	-
UNII 2a	5270	54	Low	7.58	9.36	11.20	12.99	-	-
			Mid	8.17	9.60	11.59	-	12.76	11.82
			High	7.19	8.74	11.04	12.94	-	-
	5310	62	Low	7.69	9.15	10.67	13.01	-	-
			Mid	8.22	9.49	11.03	-	12.71	11.25
			High	7.04	8.65	10.86	12.87	-	-
UNII 2c	5510	102	Low	7.52	9.04	10.45	12.68	-	-
			Mid	8.32	9.71	10.81	-	12.59	10.81
			High	6.97	8.93	10.25	12.81	-	-
	5590	118	Low	7.50	9.33	10.65	12.83	-	-
			Mid	8.48	9.66	10.98	-	12.68	10.97
			High	7.32	8.90	10.57	12.97	-	-
	5710	142	Low	7.84	9.15	10.84	13.09	-	-
			Mid	8.70	9.87	11.31	-	12.87	10.96
			High	7.61	9.07	10.69	13.17	-	-
UNII 3	5755	151	Low	7.64	9.06	10.59	13.21	-	-
			Mid	8.54	9.67	10.97	-	13.02	11.01
			High	7.46	8.86	10.47	13.22	-	-
	5795	159	Low	7.30	8.74	10.52	13.23	-	-
			Mid	8.71	9.90	11.23	-	13.27	10.79
			High	7.12	8.64	10.39	13.14	-	-

Limit

(UNII 1) : 23.98 dBm

(UNII 2A, 2C) : 23.98 dBm or 11 dBm + 10 log B, (where B is the 26 dB emission bandwidth in megahertz.)

(UNII 3) : 30.00 dBm

802.11ax(HE80)

HE80	Frequency [MHz]	Channel No.	RU Index	Sum Power (dBm)						
				26 T	52 T	106 T	242 T	484 T	996 T	SU
UNII 1	5210	42	Low	7.16	7.92	9.42	11.02	11.02	-	-
			Mid	7.79	8.04	9.50	11.09	-	11.05	10.04
			High	7.27	7.59	9.24	11.15	10.91	-	-
UNII 2a	5290	58	Low	7.47	7.93	9.55	11.58	11.34	-	-
			Mid	7.89	8.51	9.80	11.62	-	11.69	10.58
			High	7.13	7.63	9.15	11.22	11.08	-	-
UNII 2c	5530	106	Low	7.16	7.76	8.97	10.67	10.71	-	-
			Mid	7.88	8.09	9.48	10.72	-	10.67	9.72
			High	6.97	7.39	8.74	11.09	10.62	-	-
	5610	122	Low	7.38	7.79	9.22	10.91	11.10	-	-
			Mid	8.09	8.39	9.52	10.78	-	10.84	9.89
			High	7.18	7.71	8.97	11.33	10.87	-	-
	5690	138	Low	7.62	8.05	9.38	10.96	10.99	-	-
			Mid	8.00	8.33	9.55	10.83	-	10.99	10.20
			High	7.37	7.90	9.67	11.59	11.10	-	-
UNII 3	5775	155	Low	7.81	8.19	9.41	11.00	11.25	-	-
			Mid	8.04	8.34	9.71	10.96	-	11.25	10.03
			High	7.47	7.76	9.57	11.08	11.31	-	-

Limit

(UNII 1) : 23.98 dBm

(UNII 2A, 2C) : 23.98 dBm or 11 dBm + 10 log B, (where B is the 26 dB emission bandwidth in megahertz.)

(UNII 3) : 30.00 dBm

10.5 POWER SPECTRAL DENSITY

10.5.1 SUM (MIMO Ant 1 + MIMO Ant 2)

802.11ax(HE20)

HE20	Frequency [MHz]	Channel No.	RU Index	Total Sum PSD (dBm)				
				26 T	52 T	106 T	242 T	SU
UNII 1	5180	36	Low	5.207	5.481	5.705	-	-
			Mid	4.624	5.594	-	4.192	3.881
			High	5.265	5.199	5.365	-	-
	5200	40	Low	5.521	5.411	5.408	-	-
			Mid	4.668	5.610	-	4.010	4.037
			High	5.220	5.483	5.352	-	-
	5240	48	Low	5.798	5.108	5.563	-	-
			Mid	4.853	5.191	-	4.198	4.060
			High	5.733	5.028	5.411	-	-
UNII 2A	5260	52	Low	6.230	5.739	5.562	-	-
			Mid	4.952	5.815	-	3.976	4.028
			High	5.685	5.505	5.479	-	-
	5280	56	Low	5.890	5.242	5.799	-	-
			Mid	5.313	5.440	-	3.899	4.004
			High	5.729	5.160	5.918	-	-
	5320	64	Low	5.792	5.727	5.663	-	-
			Mid	4.978	5.733	-	3.858	3.976
			High	5.694	4.909	5.462	-	-
UNII 2C	5500	100	Low	5.738	4.865	4.929	-	-
			Mid	4.726	5.042	-	3.457	3.447
			High	5.382	4.737	5.084	-	-
	5600	120	Low	5.613	5.308	5.392	-	-
			Mid	4.502	5.332	-	3.908	3.692
			High	5.241	5.264	5.117	-	-
	5720	144	Low	6.216	5.391	5.599	-	-
			Mid	5.212	5.799	-	4.081	3.876
			High	5.549	5.332	5.500	-	-
UNII 3	5745	149	Low	2.845	2.291	3.073	-	-
			Mid	2.748	2.440	-	1.819	1.648
			High	2.846	2.230	2.825	-	-
	5785	157	Low	2.932	3.282	3.097	-	-

HE20	Frequency [MHz]	Channel No.	RU Index	Total Sum PSD (dBm)				
				26 T	52 T	106 T	242 T	SU
			Mid	3.117	2.741	-	1.766	1.566
			High	2.968	2.289	3.049	-	-
	5825	165	Low	3.040	2.728	3.382	-	-
			Mid	3.401	2.852	-	1.781	1.984
			High	3.165	2.432	3.297	-	-

Limit(UNII 1, 2A, 2C) : 11.0 dBm/MHz

Limit(UNII 3) : 30.0 dBm/500kHz

802.11ax(HE40)

HE40	Frequency [MHz]	Channel No.	RU Index	Total Sum PSD (dBm)					
				26 T	52 T	106 T	242 T	484 T	SU
UNII 1	5190	38	Low	5.354	3.668	2.649	1.715	-	-
			Mid	5.830	4.410	3.175	-	-0.987	-2.463
			High	5.319	3.497	2.259	1.856	-	-
	5230	46	Low	5.023	4.162	2.445	1.771	-	-
			Mid	5.660	4.507	2.411	-	-1.085	-2.666
			High	5.176	3.911	2.573	2.106	-	-
UNII 2A	5270	54	Low	5.324	4.040	3.179	1.558	-	-
			Mid	5.880	4.686	3.414	-	-1.389	-1.712
			High	4.739	3.574	2.642	1.716	-	-
	5310	62	Low	5.152	4.210	3.091	1.831	-	-
			Mid	6.098	4.409	3.247	-	-1.170	-1.860
			High	4.736	3.537	2.662	1.489	-	-
UNII 2C	5510	102	Low	4.849	3.356	1.978	1.634	-	-
			Mid	5.908	4.249	2.239	-	-1.480	-2.725
			High	4.770	3.075	1.810	1.870	-	-
	5590	118	Low	5.152	4.005	2.300	1.573	-	-
			Mid	6.058	4.304	2.829	-	-1.531	-2.447
			High	5.340	3.449	1.836	1.817	-	-
	5710	142	Low	5.373	3.947	2.174	1.637	-	-
			Mid	6.054	4.437	2.612	-	-1.193	-2.785
			High	5.260	3.648	2.351	1.990	-	-
UNII 3	5755	151	Low	2.812	0.736	-0.576	-0.608	-	-
			Mid	3.113	1.609	-0.238	-	-3.294	-5.121
			High	2.489	0.688	-0.655	-0.252	-	-
	5795	159	Low	2.592	0.527	-0.473	-0.663	-	-
			Mid	3.725	1.832	0.089	-	-3.340	-4.908
			High	2.206	0.344	-0.338	0.086	-	-

Limit(UNII 1, 2A, 2C) : 11.0 dBm/MHz

Limit(UNII 3) : 30.0 dBm/500kHz

802.11ax(HE80)

HE80	Frequency [MHz]	Channel No.	RU Index	Total Sum PSD (dBm)						
				26 T	52 T	106 T	242 T	484 T	996 T	SU
UNII 1	5210	42	Low	5.016	2.570	1.107	-0.006	-2.565	-	-
			Mid	3.732	2.342	1.162	-0.848	-	-4.989	-6.343
			High	4.556	2.210	0.710	0.033	-2.934	-	-
UNII 2A	5290	58	Low	4.863	2.873	1.221	0.505	-2.480	-	-
			Mid	4.305	2.845	1.546	-0.465	-	-5.178	-6.223
			High	4.534	2.309	0.894	0.069	-2.566	-	-
UNII 2C	5530	106	Low	4.593	2.482	0.613	-0.371	-3.214	-	-
			Mid	3.855	2.735	0.972	-1.129	-	-5.894	-6.962
			High	4.313	2.104	0.292	-0.410	-2.862	-	-
	5610	122	Low	4.657	2.809	0.687	-0.421	-3.089	-	-
			Mid	4.215	2.643	1.221	-1.204	-	-5.652	-6.513
			High	4.877	2.223	0.976	0.290	-2.771	-	-
	5690	138	Low	5.332	2.760	1.170	0.109	-2.651	-	-
			Mid	4.777	2.995	0.974	-0.870	-	-5.213	-6.668
			High	4.891	2.567	1.059	0.561	-2.553	-	-
UNII 3	5775	155	Low	3.023	0.168	-1.761	-3.019	-5.333	-	-
			Mid	2.240	-0.023	-1.660	-3.964	-	-8.442	-9.316
			High	2.151	-0.518	-1.986	-2.781	-5.271	-	-

Limit(UNII 1, 2A, 2C) : 11.0 dBm/MHz

Limit(UNII 3) : 30.0 dBm/500kHz

10.6 STRADDLE CHANNEL

10.6.1 26dB Bandwidth

Test Note:

1. [UNII 2C] 26dB Bandwidth = 5725MHz - Measured Frequency[MHz]
2. [UNII 3] 26dB Bandwidth = Measured Frequency[MHz] -5725MHz
3. # : 26dB bandwidth is only located in UNII 2C. Therefore 26dB bandwidth do not overlap.

10.6.1.1 MIMO Ant1

802.11ax(HE20)

BW	Frequency [MHz]	Channel No.	Tone	RU Index	26dB BW (MHz)	
					UNII 2C	UNII 3
HE20	5720	144	26 T	0	15.68	4.16
				4	15.00	4.28
				7	14.88	4.40
				8	15.04	5.48
			52 T	37	15.76	4.64
				38	15.32	4.48
				39	15.36	4.40
				40	15.48	5.68
			106 T	53	15.72	5.08
				54	15.72	5.88
			242 T	61	16.00	5.60
			SU	-	15.64	5.60

802.11ax(HE40)

BW	Frequency [MHz]	Channel No.	Tone	RU Index	26dB BW (MHz)	
					UNII 2C	UNII 3
HE40	5710	142	26 T	# 0	-	-
				9	18.52	4.44
				16	15.64	4.44
				17	16.44	5.16
			52 T	# 37	-	-
				41	19.56	4.52
				43	16.84	4.52
				44	18.76	4.92
			106 T	# 53	-	-
				# 54	-	-
				55	20.20	4.76
				56	21.16	5.16
			242 T	# 61	-	-
				62	24.76	5.08
			484 T	65	35.32	5.16
			SU	-	35.48	4.84

802.11ax(HE80)

BW	Frequency [MHz]	Channel No.	Tone	RU Index	26dB BW (MHz)	
					UNII 2C	UNII 3
HE80	5690	138	26 T	# 0	-	-
				# 18	-	-
				35	17.88	4.68
				36	18.36	5.80
			52 T	# 37	-	-
				# 45	-	-
				51	19.96	5.00
				52	21.24	5.64
			106 T	# 53	-	-
				# 57	-	-
				59	24.44	5.16
				60	25.56	5.80
			242 T	# 61	-	-
				# 62	-	-
				63	51.32	5.32
				64	35.32	5.64
			484 T	# 65	-	-
				66	67.48	5.80
			996 T	67	76.28	5.80
			SU	-	75.64	5.32

10.6.1.2 MIMO Ant2

802.11ax(HE20)

BW	Frequency [MHz]	Channel No.	Tone	RU Index	26dB BW (MHz)	
					UNII 2C	UNII 3
HE20	5720	144	26 T	0	15.68	4.04
				4	14.20	4.08
				7	14.20	4.96
				8	14.24	5.64
			52 T	37	15.72	4.16
				38	14.36	4.16
				39	14.36	4.24
				40	14.36	5.60
			106 T	53	15.80	4.48
				54	14.80	5.60
			242 T	61	15.84	5.68
			SU	-	15.80	5.56

802.11ax(HE40)

BW	Frequency [MHz]	Channel No.	Tone	RU Index	26dB BW (MHz)	
					UNII 2C	UNII 3
HE40	5710	142	26 T	# 0	-	-
				9	18.44	4.28
				16	14.36	4.28
				17	14.36	5.00
			52 T	# 37	-	-
				41	20.44	4.44
				43	14.68	4.44
				44	14.60	5.00
			106 T	# 53	-	-
				# 54	-	-
				55	20.04	4.52
				56	15.96	5.00
			242 T	# 61	-	-
				62	23.40	4.84
			484 T	65	35.08	4.92
			SU	-	35.16	4.84

802.11ax(HE80)

BW	Frequency [MHz]	Channel No.	Tone	RU Index	26dB BW (MHz)	
					UNII 2C	UNII 3
HE80	5690	138	26 T	# 0	-	-
				# 18	-	-
				35	14.84	4.68
				36	14.84	5.64
			52 T	# 37	-	-
				# 45	-	-
				51	15.16	4.36
				52	15.16	5.96
			106 T	# 53	-	-
				# 57	-	-
				59	23.32	4.68
				60	17.88	5.64
			242 T	# 61	-	-
				# 62	-	-
				63	43.96	4.68
				64	27.16	5.48
			484 T	# 65	-	-
				66	43.32	5.48
			996 T	67	75.64	5.32
			SU	-	75.64	5.32

10.6.2 6dB Bandwidth

Test Note:

1. 6dB Bandwidth = Measured Frequency[MHz] – 5725MHz
2. # : 6dB bandwidth is only located in UNII 2C. Therefore 6dB bandwidth do not overlap.
3. Limit : > 0.5 MHz

10.6.2.1 MIMO Ant1

802.11ax(HE20)

BW	Frequency [MHz]	Channel No.	Tone	RU Index	6dB BW (MHz)
					UNII 3
HE20	5720	144	26 T	# 0	-
				# 4	-
				7	2.52
				8	4.52
			52 T	# 37	-
				# 38	-
				39	2.48
				40	4.48
			106 T	# 53	-
				54	4.60
			242 T	61	4.56
			SU	-	4.56

802.11ax(HE40)

BW	Frequency [MHz]	Channel No.	Tone	RU Index	6dB BW (MHz)
					UNII 3
HE40	5710	142	26 T	# 0	-
				# 9	-
				16	2.04
				17	4.04
			52 T	# 37	-
				# 41	-
				# 43	2.60
				44	4.04
			106 T	# 53	-
				# 54	-
				# 55	2.60
				56	4.04
			242 T	# 61	-
				62	3.88
			484 T	65	3.64
			SU	-	3.80

802.11ax(HE80)

BW	Frequency [MHz]	Channel No.	Tone	RU Index	6dB BW (MHz)
					UNII 3
HE80	5690	138	26 T	# 0	-
				# 18	-
				35	2.12
				36	4.20
			52 T	# 37	-
				# 45	-
				# 51	2.60
				52	4.20
			106 T	# 53	-
				# 57	-
				# 59	2.76
				60	4.20
			242 T	# 61	-
				# 62	-
				# 63	2.76
				64	4.20
			484 T	# 65	-
				66	3.72
			996 T	67	3.88
			SU	-	3.88

10.6.2.2 MIMO Ant2

802.11ax(HE20)

BW	Frequency [MHz]	Channel No.	Tone	RU Index	6dB BW (MHz)
					UNII 3
HE20	5720	144	26 T	# 0	-
				# 4	-
				7	2.52
				8	4.56
			52 T	# 37	-
				# 38	-
				39	2.52
				40	4.52
			106 T	# 53	-
				54	4.60
			242 T	61	4.52
			SU	-	4.56

802.11ax(HE40)

BW	Frequency [MHz]	Channel No.	Tone	RU Index	6dB BW (MHz)
					UNII 3
HE40	5710	142	26 T	# 0	-
				# 9	-
				16	2.12
				17	4.04
			52 T	# 37	-
				# 41	-
				# 43	2.60
				44	4.04
			106 T	# 53	-
				# 54	-
				# 55	2.60
				56	4.04
			242 T	# 61	-
				62	3.96
			484 T	65	3.96
			SU	-	3.88

802.11ax(HE80)

BW	Frequency [MHz]	Channel No.	Tone	RU Index	6dB BW (MHz)
					UNII 3
HE80	5690	138	26 T	# 0	-
				# 18	-
				35	2.12
				36	4.20
			52 T	# 37	-
				# 45	-
				# 51	2.60
				52	4.20
			106 T	# 53	-
				# 57	-
				# 59	2.76
				60	4.20
			242 T	# 61	-
				# 62	-
				# 63	2.76
				64	4.04
			484 T	# 65	-
66	3.56				
996 T	67	3.56			
SU	-	3.08			

10.6.3 Output Power

Test Note:

1. # : 26dB bandwidth is only located in UNII 2C. Therefore 26dB bandwidth do not overlap.
2. Limit(2C) : 23.98 dBm or 11 dBm + 10 log B, (where B is the 26 dB emission bandwidth in megahertz.)
3. Limit(UNII 3) : 30.00 dBm

10.6.3.1 MIMO Ant1

802.11ax(HE20)

BW	Frequency [MHz]	Channel No.	Tone	RU Index	Total Power (dBm)	
					UNII 2C	UNII 3
HE20	5720	144	26 T	0	5.08	-13.66
				4	5.16	-13.41
				7	-6.35	4.57
				8	-7.58	4.66
			52 T	37	7.71	-8.48
				38	7.19	-9.16
				39	6.62	-2.63
				40	-2.64	6.52
			106 T	53	11.54	-2.55
				54	8.70	8.27
			242 T	61	11.81	6.36
			SU	-	11.63	6.26

802.11ax(HE40)

BW	Frequency [MHz]	Channel No.	Tone	RU Index	Total Power (dBm)	
					UNII 2C	UNII 3
HE40	5710	142	26 T	# 0	-	-
				9	4.98	-14.56
				16	-3.72	3.76
				17	-7.65	3.57
			52 T	# 37	-	-
				41	6.55	-10.29
				43	6.06	-7.67
				44	-3.18	4.06
			106 T	# 53	-	-
				# 54	-	-
				55	8.05	-6.42
				56	5.43	3.62
			242 T	# 61	-	-
				62	9.49	3.06
			484 T	65	9.89	-0.19
			SU	-	7.53	-2.55

802.11ax(HE80)

BW	Frequency [MHz]	Channel No.	Tone	RU Index	Total Power (dBm)	
					UNII 2C	UNII 3
HE80	5690	138	26 T	# 0	-	-
				# 18	-	-
				35	-5.21	2.41
				36	-8.05	3.75
			52 T	# 37	-	-
				# 45	-	-
				51	4.68	-8.99
				52	-3.62	3.79
			106 T	# 53	-	-
				# 57	-	-
				59	7.01	-7.75
				60	4.25	2.61
			242 T	# 61	-	-
				# 62	-	-
				63	8.34	-8.32
				64	7.39	0.95
			484 T	# 65	-	-
				66	8.01	-2.64
			996 T	67	8.67	-5.71
			SU	-	6.98	-7.41

10.6.3.2 MIMO Ant2

802.11ax(HE20)

BW	Frequency [MHz]	Channel No.	Tone	RU Index	Total Power (dBm)	
					UNII 2C	UNII 3
HE20	5720	144	26 T	0	2.59	-16.17
				4	3.65	-15.12
				7	-7.95	2.84
				8	-8.67	3.35
			52 T	37	6.23	-10.01
				38	6.28	-9.95
				39	5.90	-3.35
				40	-3.54	5.72
			106 T	53	10.36	-3.82
				54	7.59	7.02
			242 T	61	10.57	4.99
			SU	-	10.68	5.14

802.11ax(HE40)

BW	Frequency [MHz]	Channel No.	Tone	RU Index	Total Power (dBm)	
					UNII 2C	UNII 3
HE40	5710	142	26 T	# 0	-	-
				9	3.83	-15.42
				16	-4.84	2.41
				17	-8.98	2.51
			52 T	# 37	-	-
				41	4.83	-12.16
				43	4.28	-9.39
				44	-4.48	2.72
			106 T	# 53	-	-
				# 54	-	-
				55	6.90	-7.96
				56	4.20	2.44
			242 T	# 61	-	-
				62	8.61	2.01
			484 T	65	9.08	-0.90
			SU	-	6.46	-3.50

802.11ax(HE80)

BW	Frequency [MHz]	Channel No.	Tone	RU Index	Total Power (dBm)	
					UNII 2C	UNII 3
HE80	5690	138	26 T	# 0	-	-
				# 18	-	-
				35	-6.29	1.16
				36	-8.65	2.86
			52 T	# 37	-	-
				# 45	-	-
				51	3.81	-9.89
				52	-4.60	2.75
			106 T	# 53	-	-
				# 57	-	-
				59	5.75	-9.04
				60	3.07	1.37
			242 T	# 61	-	-
				# 62	-	-
				63	7.54	-8.93
				64	6.13	-0.44
			484 T	# 65	-	-
				66	7.08	-3.37
			996 T	67	7.00	-7.45
			SU	-	5.61	-8.83

10.6.4 Power Spectral Density

Test Note:

1. # : 26dB bandwidth is only located in UNII 2C. Therefore 26dB bandwidth do not overlap.
2. Limit(UNII 1, 2A, 2C) : 11.0 dBm/MHz
3. Limit(UNII 3) : 30.0 dBm/500kHz

10.6.4.1 MIMO Ant1

802.11ax(HE20)

BW	Frequency [MHz]	Channel No.	Tone	RU Index	PSD (dBm)	
					UNII 2C	UNII 3
HE20	5720	144	26 T	0	2.583	-19.318
				4	1.423	-18.855
				7	-6.660	-0.310
				8	-15.475	-0.660
			52 T	37	2.339	-14.191
				38	1.830	-15.108
				39	1.399	-2.275
				40	-7.117	-1.914
			106 T	53	3.263	-8.806
				54	3.031	0.022
			242 T	61	1.647	-1.681
			SU	-	1.271	-1.363

802.11ax(HE40)

BW	Frequency [MHz]	Channel No.	Tone	RU Index	PSD (dBm)	
					UNII 2C	UNII 3
HE40	5710	142	26 T	# 0	-	-
				9	2.300	-19.447
				16	-1.957	-1.427
				17	-14.206	-1.019
			52 T	# 37	-	-
				41	0.850	-17.268
				43	0.825	-12.757
				44	-3.861	-3.541
			106 T	# 53	-	-
				# 54	-	-
				55	-0.208	-12.557
				56	-1.219	-3.829
			242 T	# 61	-	-
				62	-0.452	-4.491
			484 T	65	-3.620	-7.259
			SU	-	-6.173	-9.640

802.11ax(HE80)

BW	Frequency [MHz]	Channel No.	Tone	RU Index	PSD (dBm)	
					UNII 2C	UNII 3
HE80	5690	138	26 T	# 0	-	-
				# 18	-	-
				35	-4.171	-2.524
				36	-16.369	-0.785
			52 T	# 37	-	-
				# 45	-	-
				51	-0.741	-14.417
				52	-5.213	-4.062
			106 T	# 53	-	-
				# 57	-	-
				59	-1.718	-14.532
				60	-1.897	-4.843
			242 T	# 61	-	-
				# 62	-	-
				63	-3.310	-14.835
				64	-2.759	-6.313
			484 T	# 65	-	-
				66	-5.282	-9.584
			996 T	67	-7.520	-13.288
			SU	-	-9.359	-13.790

10.6.4.2 MIMO Ant2

802.11ax(HE20)

BW	Frequency [MHz]	Channel No.	Tone	RU Index	PSD (dBm)	
					UNII 2C	UNII 3
HE20	5720	144	26 T	0	-0.194	-19.518
				4	-0.037	-20.854
				7	-8.324	-2.035
				8	-16.253	-2.005
			52 T	37	0.543	-16.006
				38	0.602	-15.219
				39	0.749	-3.208
				40	-7.495	-2.351
			106 T	53	1.763	-9.149
				54	1.668	-1.429
			242 T	61	0.475	-2.566
			SU	-	0.590	-2.372

802.11ax(HE40)

BW	Frequency [MHz]	Channel No.	Tone	RU Index	PSD (dBm)	
					UNII 2C	UNII 3
HE40	5710	142	26 T	# 0	-	-
				9	1.087	-23.015
				16	-3.015	-2.497
				17	-17.080	-2.313
			52 T	# 37	-	-
				41	-0.627	-18.678
				43	-1.112	-14.627
				44	-4.387	-4.697
			106 T	# 53	-	-
				# 54	-	-
				55	-1.027	-13.490
				56	-1.960	-5.155
			242 T	# 61	-	-
				62	-1.507	-5.540
			484 T	65	-4.653	-8.034
			SU	-	-7.418	-10.454

802.11ax(HE80)

BW	Frequency [MHz]	Channel No.	Tone	RU Index	PSD (dBm)	
					UNII 2C	UNII 3
HE80	5690	138	26 T	# 0	-	-
				# 18	-	-
				35	-5.147	-3.496
				36	-16.860	-1.946
			52 T	# 37	-	-
				# 45	-	-
				51	-1.962	-15.110
				52	-6.561	-4.983
			106 T	# 53	-	-
				# 57	-	-
				59	-2.795	-15.171
				60	-3.241	-6.202
			242 T	# 61	-	-
				# 62	-	-
				63	-4.580	-16.471
				64	-4.175	-7.656
			484 T	# 65	-	-
				66	-6.187	-11.215
			996 T	67	-9.681	-14.465
			SU	-	-10.965	-16.296

10.7 RADIATED SPURIOUS EMISSIONS (9 kHz – 1GHz)

Frequency Range : 9 kHz – 30MHz

Frequency	Reading	Ant. factor	Cable loss	Ant. POL	Total	Limit	Margin
MHz	dBuV/m	dBm/m	dBm	(H/V)	dBuV/m	dBuV/m	dB
No Critical peaks found							

Note:

1. The reading of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.
2. Distance extrapolation factor = $40\log(\text{specific distance} / \text{test distance})$ (dB)
3. Limit line = specific Limits (dBuV) + Distance extrapolation factor

Frequency Range : Below 1 GHz

Frequency	Reading	Ant. factor	Cable loss	Ant. POL	Total	Limit	Margin
MHz	dBuV/m	dBm/m	dBm	(H/V)	dBuV/m	dBuV/m	dB
No Critical peaks found							

Note:

1. Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Quasi peak detector mode

10.8 RADIATED SPURIOUS EMISSIONS (Above 1 GHz)

10.8.1 802.11ax(HE20)

1) 106 Tone RU 54_MIMO

Band :	UNII 1
Operation Mode:	802.11ax(HE20)
Transfer MCS Index:	MCS0
Operating Frequency	5180 MHz
Channel No.	36 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10360	56.58	0.24	V	56.82	68.20	11.38	PK
15540	49.02	2.16	V	51.18	73.98	22.80	PK
15540	35.68	2.16	V	37.84	53.98	16.14	AV
10360	56.12	0.24	H	56.36	68.20	11.84	PK
15540	48.98	2.16	H	51.14	73.98	22.84	PK
15540	35.55	2.16	H	37.71	53.98	16.27	AV

Band :	UNII 1
Operation Mode:	802.11ax(HE20)
Transfer MCS Index:	MCS0
Operating Frequency	5200 MHz
Channel No.	40 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10400	57.35	0.74	V	58.09	68.20	10.11	PK
15600	49.12	1.81	V	50.93	73.98	23.05	PK
15600	35.72	1.81	V	37.53	53.98	16.45	AV
10400	57.12	0.74	H	57.86	68.20	10.34	PK
15600	48.99	1.81	H	50.80	73.98	23.18	PK
15600	35.62	1.81	H	37.43	53.98	16.55	AV

Band : UNII 1
 Operation Mode: 802.11ax(HE20)
 Transfer MCS Index: MCS0
 Operating Frequency 5240 MHz
 Channel No. 48 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10480	59.66	-0.25	V	59.41	68.20	8.79	PK
15720	49.49	1.16	V	50.65	73.98	23.33	PK
15720	36.27	1.16	V	37.43	53.98	16.55	AV
10480	59.55	-0.25	H	59.30	68.20	8.90	PK
15720	49.32	1.16	H	50.48	73.98	23.50	PK
15720	36.12	1.16	H	37.28	53.98	16.70	AV

Band : UNII 2A
 Operation Mode: 802.11ax(HE20)
 Transfer MCS Index: MCS0
 Operating Frequency 5260 MHz
 Channel No. 52 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10520	56.92	-0.20	V	56.72	68.20	11.48	PK
15780	49.51	1.20	V	50.71	73.98	23.27	PK
15780	36.57	1.20	V	37.77	53.98	16.21	AV
10520	56.74	-0.20	H	56.54	68.20	11.66	PK
15780	49.32	1.20	H	50.52	73.98	23.46	PK
15780	36.45	1.20	H	37.65	53.98	16.33	AV

Band : UNII 2A
 Operation Mode: 802.11ax(HE20)
 Transfer MCS Index: MCS0
 Operating Frequency 5300 MHz
 Channel No. 60 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10600	58.12	0.10	V	58.22	73.98	15.76	PK
10600	43.92	0.10	V	44.02	53.98	9.96	AV
15900	50.03	1.04	V	51.07	73.98	22.91	PK
15900	36.88	1.04	V	37.92	53.98	16.06	AV
10600	57.89	0.10	H	57.99	73.98	15.99	PK
10600	43.85	0.10	H	43.95	53.98	10.03	AV
15900	49.85	1.04	H	50.89	73.98	23.09	PK
15900	36.55	1.04	H	37.59	53.98	16.39	AV

Band : UNII 2A
 Operation Mode: 802.11ax(HE20)
 Transfer MCS Index: MCS0
 Operating Frequency 5320 MHz
 Channel No. 64 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10640	56.94	0.35	V	57.29	73.98	16.69	PK
10640	43.12	0.35	V	43.47	53.98	10.51	AV
15960	49.68	1.12	V	50.80	73.98	23.18	PK
15960	36.32	1.12	V	37.44	53.98	16.54	AV
10640	56.55	0.35	H	56.90	73.98	17.08	PK
10640	42.98	0.35	H	43.33	53.98	10.65	AV
15960	49.52	1.12	H	50.64	73.98	23.34	PK
15960	36.12	1.12	H	37.24	53.98	16.74	AV

Band :	UNII 2C
Operation Mode:	802.11ax(HE20)
Transfer MCS Index:	MCS0
Operating Frequency	5500 MHz
Channel No.	100 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11000	53.12	0.40	V	53.52	73.98	20.46	PK
11000	40.37	0.40	V	40.77	53.98	13.21	AV
16500	49.91	1.16	V	51.07	68.20	17.13	PK
11000	52.98	0.40	H	53.38	73.98	20.60	PK
11000	40.12	0.40	H	40.52	53.98	13.46	AV
16500	49.52	1.16	H	50.68	68.20	17.52	PK

Band :	UNII 2C
Operation Mode:	802.11ax(HE20)
Transfer MCS Index:	MCS0
Operating Frequency	5600 MHz
Channel No.	120 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11200	52.20	-0.40	V	51.80	73.98	22.18	PK
11200	38.56	-0.40	V	38.16	53.98	15.82	AV
16800	49.87	0.65	V	50.52	68.20	17.68	PK
11200	51.98	-0.40	H	51.58	73.98	22.40	PK
11200	38.35	-0.40	H	37.95	53.98	16.03	AV
16800	49.75	0.65	H	50.40	68.20	17.80	PK

Band : UNII 2C
 Operation Mode: 802.11ax(HE20)
 Transfer MCS Index: MCS0
 Operating Frequency 5720 MHz
 Channel No. 144 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11440	52.41	0.14	V	52.55	73.98	21.43	PK
11440	38.94	0.14	V	39.08	53.98	14.90	AV
17160	50.77	1.35	V	52.12	68.20	16.08	PK
11440	52.23	0.14	H	52.37	73.98	21.61	PK
11440	38.78	0.14	H	38.92	53.98	15.06	AV
17160	50.55	1.35	H	51.90	68.20	16.30	PK

Band : UNII 3
 Operation Mode: 802.11ax(HE20)
 Transfer MCS Index: MCS0
 Operating Frequency 5745MHz
 Channel No. 149 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11490	52.63	-0.14	V	52.49	73.98	21.49	PK
11490	39.16	-0.14	V	39.02	53.98	14.96	AV
17235	50.61	1.61	V	52.22	68.20	15.98	PK
11490	52.48	-0.14	H	52.34	73.98	21.64	PK
11490	38.98	-0.14	H	38.84	53.98	15.14	AV
17235	50.48	1.61	H	52.09	68.20	16.11	PK

Band : UNII 3
 Operation Mode: 802.11ax(HE20)
 Transfer MCS Index: MCS0
 Operating Frequency 5785 MHz
 Channel No. 157 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11570	54.15	0.07	V	54.22	73.98	19.76	PK
11570	39.72	0.07	V	39.79	53.98	14.19	AV
17355	50.37	1.69	V	52.06	68.20	16.14	PK
11570	53.86	0.07	H	53.93	73.98	20.05	PK
11570	39.62	0.07	H	39.69	53.98	14.29	AV
17355	50.12	1.69	H	51.81	68.20	16.39	PK

Band : UNII 3
 Operation Mode: 802.11ax(HE20)
 Transfer MCS Index: MCS0
 Operating Frequency 5825 MHz
 Channel No. 165 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11650	56.22	-0.70	V	55.52	73.98	18.46	PK
11650	39.95	-0.70	V	39.25	53.98	14.73	AV
17475	50.32	2.65	V	52.97	68.20	15.23	PK
11650	56.02	-0.70	H	55.32	73.98	18.66	PK
11650	39.85	-0.70	H	39.15	53.98	14.83	AV
17475	50.12	2.65	H	52.77	68.20	15.43	PK

2) 242 Tone RU 61_MIMO

Band : UNII 1
 Operation Mode: 802.11ax(HE20)
 Transfer MCS Index: MCS0
 Operating Frequency 5180 MHz
 Channel No. 36 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10360	57.73	0.24	V	57.97	68.20	10.23	PK
15540	48.84	2.16	V	51.00	73.98	22.98	PK
15540	35.86	2.16	V	38.02	53.98	15.96	AV
10360	57.62	0.24	H	57.86	68.20	10.34	PK
15540	48.62	2.16	H	50.78	73.98	23.20	PK
15540	35.68	2.16	H	37.84	53.98	16.14	AV

Band : UNII 1
 Operation Mode: 802.11ax(HE20)
 Transfer MCS Index: MCS0
 Operating Frequency 5200 MHz
 Channel No. 40 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10400	56.92	0.74	V	57.66	68.20	10.54	PK
15600	48.87	1.81	V	50.68	73.98	23.30	PK
15600	36.72	1.81	V	38.53	53.98	15.45	AV
10400	55.04	0.74	H	55.78	68.20	12.42	PK
15600	49.34	1.81	H	51.15	73.98	22.83	PK
15600	36.18	1.81	H	37.99	53.98	15.99	AV

Band : UNII 1
 Operation Mode: 802.11ax(HE20)
 Transfer MCS Index: MCS0
 Operating Frequency 5240 MHz
 Channel No. 48 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10480	57.72	-0.25	V	57.47	68.20	10.73	PK
15720	49.85	1.16	V	51.01	73.98	22.97	PK
15720	36.94	1.16	V	38.10	53.98	15.88	AV
10480	56.85	-0.25	H	56.60	68.20	11.60	PK
15720	49.55	1.16	H	50.71	73.98	23.27	PK
15720	36.88	1.16	H	38.04	53.98	15.94	AV

Band : UNII 2A
 Operation Mode: 802.11ax(HE20)
 Transfer MCS Index: MCS0
 Operating Frequency 5260 MHz
 Channel No. 52 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10520	58.36	-0.20	V	58.16	68.20	10.04	PK
15780	49.72	1.20	V	50.92	73.98	23.06	PK
15780	36.55	1.20	V	37.75	53.98	16.23	AV
10520	58.12	-0.20	H	57.92	68.20	10.28	PK
15780	49.51	1.20	H	50.71	73.98	23.27	PK
15780	36.45	1.20	H	37.65	53.98	16.33	AV

Band : UNII 2A
 Operation Mode: 802.11ax(HE20)
 Transfer MCS Index: MCS0
 Operating Frequency 5300 MHz
 Channel No. 60 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10600	58.62	0.10	V	58.72	73.98	15.26	PK
10600	43.81	0.10	V	43.91	53.98	10.07	AV
15900	50.16	1.04	V	51.20	73.98	22.78	PK
15900	37.22	1.04	V	38.26	53.98	15.72	AV
10600	58.12	0.10	H	58.22	73.98	15.76	PK
10600	43.55	0.10	H	43.65	53.98	10.33	AV
15900	49.89	1.04	H	50.93	73.98	23.05	PK
15900	37.12	1.04	H	38.16	53.98	15.82	AV

Band : UNII 2A
 Operation Mode: 802.11ax(HE20)
 Transfer MCS Index: MCS0
 Operating Frequency 5320 MHz
 Channel No. 64 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10640	55.96	0.35	V	56.31	73.98	17.67	PK
10640	43.43	0.35	V	43.78	53.98	10.20	AV
15960	49.64	1.12	V	50.76	73.98	23.22	PK
15960	36.72	1.12	V	37.84	53.98	16.14	AV
10640	55.85	0.35	H	56.20	73.98	17.78	PK
10640	43.33	0.35	H	43.68	53.98	10.30	AV
15960	49.48	1.12	H	50.60	73.98	23.38	PK
15960	36.55	1.12	H	37.67	53.98	16.31	AV

Band : UNII 2C
 Operation Mode: 802.11ax(HE20)
 Transfer MCS Index: MCS0
 Operating Frequency 5500 MHz
 Channel No. 100 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11000	52.34	0.40	V	52.74	73.98	21.24	PK
11000	39.93	0.40	V	40.33	53.98	13.65	AV
16500	48.71	1.16	V	49.87	68.20	18.33	PK
11000	52.12	0.40	H	52.52	73.98	21.46	PK
11000	39.75	0.40	H	40.15	53.98	13.83	AV
16500	48.62	1.16	H	49.78	68.20	18.42	PK

Band : UNII 2C
 Operation Mode: 802.11ax(HE20)
 Transfer MCS Index: MCS0
 Operating Frequency 5600 MHz
 Channel No. 120 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11200	51.89	-0.40	V	51.49	73.98	22.49	PK
11200	38.62	-0.40	V	38.22	53.98	15.76	AV
16800	50.64	0.65	V	51.29	68.20	16.91	PK
11200	51.75	-0.40	H	51.35	73.98	22.63	PK
11200	38.48	-0.40	H	38.08	53.98	15.90	AV
16800	50.55	0.65	H	51.20	68.20	17.00	PK

Band : UNII 2C
 Operation Mode: 802.11ax(HE20)
 Transfer MCS Index: MCS0
 Operating Frequency 5720 MHz
 Channel No. 144 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11440	51.47	0.14	V	51.61	73.98	22.37	PK
11440	38.93	0.14	V	39.07	53.98	14.91	AV
17160	50.32	1.35	V	51.67	68.20	16.53	PK
11440	51.32	0.14	H	51.46	73.98	22.52	PK
11440	38.78	0.14	H	38.92	53.98	15.06	AV
17160	50.02	1.35	H	51.37	68.20	16.83	PK

Band : UNII 3
 Operation Mode: 802.11ax(HE20)
 Transfer MCS Index: MCS0
 Operating Frequency 5745MHz
 Channel No. 149 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11490	51.72	-0.14	V	51.58	73.98	22.40	PK
11490	39.53	-0.14	V	39.39	53.98	14.59	AV
17235	50.48	1.61	V	52.09	68.20	16.11	PK
11490	51.62	-0.14	H	51.48	73.98	22.50	PK
11490	39.44	-0.14	H	39.30	53.98	14.68	AV
17235	50.38	1.61	H	51.99	68.20	16.21	PK

Band : UNII 3
 Operation Mode: 802.11ax(HE20)
 Transfer MCS Index: MCS0
 Operating Frequency 5785 MHz
 Channel No. 157 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11570	52.03	0.07	V	52.10	73.98	21.88	PK
11570	39.68	0.07	V	39.75	53.98	14.23	AV
17355	50.29	1.69	V	51.98	68.20	16.22	PK
11570	51.89	0.07	H	51.96	73.98	22.02	PK
11570	39.55	0.07	H	39.62	53.98	14.36	AV
17355	50.03	1.69	H	51.72	68.20	16.48	PK

Band : UNII 3
 Operation Mode: 802.11ax(HE20)
 Transfer MCS Index: MCS0
 Operating Frequency 5825 MHz
 Channel No. 165 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11650	52.43	-0.70	V	51.73	73.98	22.25	PK
11650	39.97	-0.70	V	39.27	53.98	14.71	AV
17475	50.38	2.65	V	53.03	68.20	15.17	PK
11650	52.12	-0.70	H	51.42	73.98	22.56	PK
11650	39.78	-0.70	H	39.08	53.98	14.90	AV
17475	50.08	2.65	H	52.73	68.20	15.47	PK

10.8.2 802.11ax(HE40)

1) 26 Tone RU 9_MIMO

Band : UNII 1
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5190 MHz
 Channel No. 38 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10380	55.42	0.88	V	56.30	68.20	11.90	PK
15570	49.16	2.21	V	51.37	73.98	22.61	PK
15570	36.12	2.21	V	38.33	53.98	15.65	AV
10380	55.32	0.88	H	56.20	68.20	12.00	PK
15570	49.01	2.21	H	51.22	73.98	22.76	PK
15570	36.02	2.21	H	38.23	53.98	15.75	AV

Band : UNII 1
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5230 MHz
 Channel No. 46 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10460	55.96	-0.34	V	55.62	68.20	12.58	PK
15690	49.22	1.38	V	50.60	73.98	23.38	PK
15690	36.22	1.38	V	37.60	53.98	16.38	AV
10460	55.51	-0.34	H	55.17	68.20	13.03	PK
15690	48.98	1.38	H	50.36	73.98	23.62	PK
15690	36.02	1.38	H	37.40	53.98	16.58	AV

Band : UNII 2A
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5270 MHz
 Channel No. 54 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10540	55.59	-0.05	V	55.54	68.20	12.66	PK
15810	49.53	0.97	V	50.50	73.98	23.48	PK
15810	36.37	0.97	V	37.34	53.98	16.64	AV
10540	55.32	-0.05	H	55.27	68.20	12.93	PK
15810	49.32	0.97	H	50.29	73.98	23.69	PK
15810	36.12	0.97	H	37.09	53.98	16.89	AV

Band : UNII 2A
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5310 MHz
 Channel No. 62 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10620	55.87	-0.07	V	55.80	73.98	18.18	PK
10620	40.21	-0.07	V	40.14	53.98	13.84	AV
15930	49.25	0.98	V	50.23	73.98	23.75	PK
15930	36.75	0.98	V	37.73	53.98	16.25	AV
10620	54.74	-0.07	H	54.67	73.98	19.31	PK
10620	39.89	-0.07	H	39.82	53.98	14.16	AV
15930	49.02	0.98	H	50.00	73.98	23.98	PK
15930	36.51	0.98	H	37.49	53.98	16.49	AV

Band : UNII 2C
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5510 MHz
 Channel No. 102 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11020	51.12	1.01	V	52.13	73.98	21.85	PK
11020	38.34	1.01	V	39.35	53.98	14.63	AV
16530	49.82	1.31	V	51.13	68.20	17.07	PK
11020	50.98	1.01	H	51.99	73.98	21.99	PK
11020	38.02	1.01	H	39.03	53.98	14.95	AV
16530	49.55	1.31	H	50.86	68.20	17.34	PK

Band : UNII 2C
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5590 MHz
 Channel No. 118 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11180	51.84	-0.21	V	51.63	73.98	22.35	PK
11180	38.23	-0.21	V	38.02	53.98	15.96	AV
16770	49.86	0.90	V	50.76	68.20	17.44	PK
11180	51.62	-0.21	H	51.41	73.98	22.57	PK
11180	37.98	-0.21	H	37.77	53.98	16.21	AV
16770	49.62	0.90	H	50.52	68.20	17.68	PK

Band : UNII 2C
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5710 MHz
 Channel No. 142 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11420	52.28	0.01	V	52.29	73.98	21.69	PK
11420	38.99	0.01	V	39.00	53.98	14.98	AV
17130	50.22	1.91	V	52.13	68.20	16.07	PK
11420	51.98	0.01	H	51.99	73.98	21.99	PK
11420	38.25	0.01	H	38.26	53.98	15.72	AV
17130	50.02	1.91	H	51.93	68.20	16.27	PK

Band : UNII 3
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5755 MHz
 Channel No. 151 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11510	51.68	0.07	V	51.75	73.98	22.23	PK
11510	38.49	0.07	V	38.56	53.98	15.42	AV
17265	50.12	1.66	V	51.78	68.20	16.42	PK
11510	51.25	0.07	H	51.32	73.98	22.66	PK
11510	38.12	0.07	H	38.19	53.98	15.79	AV
17265	49.98	1.66	H	51.64	68.20	16.56	PK

Band : UNII 3
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5795 MHz
 Channel No. 159 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11590	51.52	-0.40	V	51.12	73.98	22.86	PK
11590	38.15	-0.40	V	37.75	53.98	16.23	AV
17385	50.78	1.67	V	52.45	68.20	15.75	PK
11590	51.23	-0.40	H	50.83	73.98	23.15	PK
11590	37.85	-0.40	H	37.45	53.98	16.53	AV
17385	50.58	1.67	H	52.25	68.20	15.95	PK

2) 484 Tone RU 65_MIMO

Band : UNII 1
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5190 MHz
 Channel No. 38 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10380	53.35	0.88	V	54.23	68.20	13.97	PK
15570	49.44	2.21	V	51.65	73.98	22.33	PK
15570	36.53	2.21	V	38.74	53.98	15.24	AV
10380	53.22	0.88	H	54.10	68.20	14.10	PK
15570	49.32	2.21	H	51.53	73.98	22.45	PK
15570	36.45	2.21	H	38.66	53.98	15.32	AV

Band : UNII 1
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5230 MHz
 Channel No. 46 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10460	53.15	-0.34	V	52.81	68.20	15.39	PK
15690	49.48	1.38	V	50.86	73.98	23.12	PK
15690	37.02	1.38	V	38.40	53.98	15.58	AV
10460	52.98	-0.34	H	52.64	68.20	15.56	PK
15690	49.32	1.38	H	50.70	73.98	23.28	PK
15690	36.98	1.38	H	38.36	53.98	15.62	AV

Band : UNII 2A
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5270 MHz
 Channel No. 54 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10540	53.76	-0.05	V	53.71	68.20	14.49	PK
15810	50.13	0.97	V	51.10	73.98	22.88	PK
15810	36.74	0.97	V	37.71	53.98	16.27	AV
10540	53.55	-0.05	H	53.50	68.20	14.70	PK
15810	49.99	0.97	H	50.96	73.98	23.02	PK
15810	36.62	0.97	H	37.59	53.98	16.39	AV

Band : UNII 2A
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5310 MHz
 Channel No. 62 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10620	53.12	-0.07	V	53.05	73.98	20.93	PK
10620	40.20	-0.07	V	40.13	53.98	13.85	AV
15930	49.51	0.98	V	50.49	73.98	23.49	PK
15930	37.45	0.98	V	38.43	53.98	15.55	AV
10620	52.99	-0.07	H	52.92	73.98	21.06	PK
10620	39.98	-0.07	H	39.91	53.98	14.07	AV
15930	49.45	0.98	H	50.43	73.98	23.55	PK
15930	37.33	0.98	H	38.31	53.98	15.67	AV

Band : UNII 2C
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5510 MHz
 Channel No. 102 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11020	51.61	1.01	V	52.62	73.98	21.36	PK
11020	38.82	1.01	V	39.83	53.98	14.15	AV
16530	50.27	1.31	V	51.58	68.20	16.62	PK
11020	51.48	1.01	H	52.49	73.98	21.49	PK
11020	38.68	1.01	H	39.69	53.98	14.29	AV
16530	50.02	1.31	H	51.33	68.20	16.87	PK

Band : UNII 2C
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5590 MHz
 Channel No. 118 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11180	50.94	-0.21	V	50.73	73.98	23.25	PK
11180	38.92	-0.21	V	38.71	53.98	15.27	AV
16770	50.21	0.90	V	51.11	68.20	17.09	PK
11180	50.85	-0.21	H	50.64	73.98	23.34	PK
11180	38.78	-0.21	H	38.57	53.98	15.41	AV
16770	50.01	0.90	H	50.91	68.20	17.29	PK

Band : UNII 2C
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5710 MHz
 Channel No. 142 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11420	51.87	0.01	V	51.88	73.98	22.10	PK
11420	39.52	0.01	V	39.53	53.98	14.45	AV
17130	50.12	1.91	V	52.03	68.20	16.17	PK
11420	51.55	0.01	H	51.56	73.98	22.42	PK
11420	39.35	0.01	H	39.36	53.98	14.62	AV
17130	49.98	1.91	H	51.89	68.20	16.31	PK

Band : UNII 3
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5755 MHz
 Channel No. 151 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11510	51.27	0.07	V	51.34	73.98	22.64	PK
11510	38.81	0.07	V	38.88	53.98	15.10	AV
17265	50.22	1.66	V	51.88	68.20	16.32	PK
11510	50.98	0.07	H	51.05	73.98	22.93	PK
11510	38.25	0.07	H	38.32	53.98	15.66	AV
17265	49.99	1.66	H	51.65	68.20	16.55	PK

Band :	UNII 3
Operation Mode:	802.11ax(HE40)
Transfer MCS Index:	MCS0
Operating Frequency	5795 MHz
Channel No.	159 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11590	51.12	-0.40	V	50.72	73.98	23.26	PK
11590	38.96	-0.40	V	38.56	53.98	15.42	AV
17385	50.05	1.67	V	51.72	68.20	16.48	PK
11590	50.85	-0.40	H	50.45	73.98	23.53	PK
11590	38.78	-0.40	H	38.38	53.98	15.60	AV
17385	49.85	1.67	H	51.52	68.20	16.68	PK

10.8.3 802.11ax(HE80)

1) 26 Tone RU 18_MIMO

Band : UNII 1
 Operation Mode: 802.11ax(HE80)
 Transfer MCS Index: MCS0
 Operating Frequency 5210 MHz
 Channel No. 42 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10420	51.60	0.11	V	51.71	68.20	16.49	PK
15630	49.42	1.85	V	51.27	73.98	22.71	PK
15630	37.12	1.85	V	38.97	53.98	15.01	AV
10420	51.12	0.11	H	51.23	68.20	16.97	PK
15630	49.02	1.85	H	50.87	73.98	23.11	PK
15630	36.93	1.85	H	38.78	53.98	15.20	AV

Band : UNII 2A
 Operation Mode: 802.11ax(HE80)
 Transfer MCS Index: MCS0
 Operating Frequency 5290 MHz
 Channel No. 58 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10580	52.00	0.07	V	52.07	68.20	16.13	PK
15870	50.73	1.23	V	51.96	73.98	22.02	PK
15870	37.52	1.23	V	38.75	53.98	15.23	AV
10580	51.42	0.07	H	51.49	68.20	16.71	PK
15870	50.12	1.23	H	51.35	73.98	22.63	PK
15870	36.99	1.23	H	38.22	53.98	15.76	AV

Band : UNII 2C
 Operation Mode: 802.11ax(HE80)
 Transfer MCS Index: MCS0
 Operating Frequency 5530 MHz
 Channel No. 106 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11060	52.21	-0.33	V	51.88	73.98	22.10	PK
11060	38.83	-0.33	V	38.50	53.98	15.48	AV
16590	50.77	0.87	V	51.64	68.20	16.56	PK
11060	51.85	-0.33	H	51.52	73.98	22.46	PK
11060	38.01	-0.33	H	37.68	53.98	16.30	AV
16590	50.01	0.87	H	50.88	68.20	17.32	PK

Band : UNII 2C
 Operation Mode: 802.11ax(HE80)
 Transfer MCS Index: MCS0
 Operating Frequency 5610 MHz
 Channel No. 122 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11220	51.21	0.27	V	51.48	73.98	22.50	PK
11220	38.42	0.27	V	38.69	53.98	15.29	AV
16830	50.12	0.76	V	50.88	68.20	17.32	PK
11220	50.96	0.27	H	51.23	73.98	22.75	PK
11220	37.88	0.27	H	38.15	53.98	15.83	AV
16830	49.95	0.76	H	50.71	68.20	17.49	PK

Band : UNII 2C
 Operation Mode: 802.11ax(HE80)
 Transfer MCS Index: MCS0
 Operating Frequency 5690 MHz
 Channel No. 138 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11380	52.64	0.11	V	52.75	73.98	21.23	PK
11380	38.98	0.11	V	39.09	53.98	14.89	AV
17070	50.06	1.34	V	51.40	68.20	16.80	PK
11380	51.25	0.11	H	51.36	73.98	22.62	PK
11380	38.81	0.11	H	38.92	53.98	15.06	AV
17070	49.65	1.34	H	50.99	68.20	17.21	PK

Band : UNII 3
 Operation Mode: 802.11ax(HE80)
 Transfer MCS Index: MCS0
 Operating Frequency 5775 MHz
 Channel No. 155 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11550	51.21	0.61	V	51.82	73.98	22.16	PK
11550	38.24	0.61	V	38.85	53.98	15.13	AV
17325	49.69	1.48	V	51.17	68.20	17.03	PK
11550	50.92	0.61	H	51.53	73.98	22.45	PK
11550	37.84	0.61	H	38.45	53.98	15.53	AV
17325	49.12	1.48	H	50.60	68.20	17.60	PK

2) 996 Tone RU 67_MIMO

Band : UNII 1
 Operation Mode: 802.11ax(HE80)
 Transfer MCS Index: MCS0
 Operating Frequency 5210 MHz
 Channel No. 42 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10420	51.39	0.11	V	51.50	68.20	16.70	PK
15630	50.01	1.85	V	51.86	73.98	22.12	PK
15630	38.53	1.85	V	40.38	53.98	13.60	AV
10420	51.03	0.11	H	51.14	68.20	17.06	PK
15630	49.85	1.85	H	51.70	73.98	22.28	PK
15630	38.32	1.85	H	40.17	53.98	13.81	AV

Band : UNII 2A
 Operation Mode: 802.11ax(HE80)
 Transfer MCS Index: MCS0
 Operating Frequency 5290 MHz
 Channel No. 58 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
10580	53.17	0.07	V	53.24	68.20	14.96	PK
15870	50.09	1.23	V	51.32	73.98	22.66	PK
15870	39.19	1.23	V	40.42	53.98	13.56	AV
10580	52.98	0.07	H	53.05	68.20	15.15	PK
15870	49.85	1.23	H	51.08	73.98	22.90	PK
15870	38.98	1.23	H	40.21	53.98	13.77	AV

Band : UNII 2C
 Operation Mode: 802.11ax(HE80)
 Transfer MCS Index: MCS0
 Operating Frequency 5530 MHz
 Channel No. 106 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11060	51.71	-0.33	V	51.38	73.98	22.60	PK
11060	41.07	-0.33	V	40.74	53.98	13.24	AV
16590	50.49	0.87	V	51.36	68.20	16.84	PK
11060	51.52	-0.33	H	51.19	73.98	22.79	PK
11060	40.85	-0.33	H	40.52	53.98	13.46	AV
16590	50.12	0.87	H	50.99	68.20	17.21	PK

Band : UNII 2C
 Operation Mode: 802.11ax(HE80)
 Transfer MCS Index: MCS0
 Operating Frequency 5610 MHz
 Channel No. 122 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11220	51.83	0.27	V	52.10	73.98	21.88	PK
11220	41.02	0.27	V	41.29	53.98	12.69	AV
16830	49.40	0.76	V	50.16	68.20	18.04	PK
11220	51.55	0.27	H	51.82	73.98	22.16	PK
11220	40.98	0.27	H	41.25	53.98	12.73	AV
16830	49.02	0.76	H	49.78	68.20	18.42	PK

Band :	UNII 2C
Operation Mode:	802.11ax(HE80)
Transfer MCS Index:	MCS0
Operating Frequency	5690 MHz
Channel No.	138 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11380	52.05	0.11	V	52.16	73.98	21.82	PK
11380	41.19	0.11	V	41.30	53.98	12.68	AV
17070	49.64	1.34	V	50.98	68.20	17.22	PK
11380	51.98	0.11	H	52.09	73.98	21.89	PK
11380	40.98	0.11	H	41.09	53.98	12.89	AV
17070	49.52	1.34	H	50.86	68.20	17.34	PK

Band :	UNII 3
Operation Mode:	802.11ax(HE80)
Transfer MCS Index:	MCS0
Operating Frequency	5775 MHz
Channel No.	155 Ch

Frequency [MHz]	Reading [dBuV]	A.F.+C.L. -A.G+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
11550	51.36	0.61	V	51.97	73.98	22.01	PK
11550	40.18	0.61	V	40.79	53.98	13.19	AV
17325	49.99	1.48	V	51.47	68.20	16.73	PK
11550	50.98	0.61	H	51.59	73.98	22.39	PK
11550	39.85	0.61	H	40.46	53.98	13.52	AV
17325	49.58	1.48	H	51.06	68.20	17.14	PK

Note:

All Modes of operation were investigated and the worst case configuration results are reported. In order to simplify the report, We only have attached RSE result of worst case.

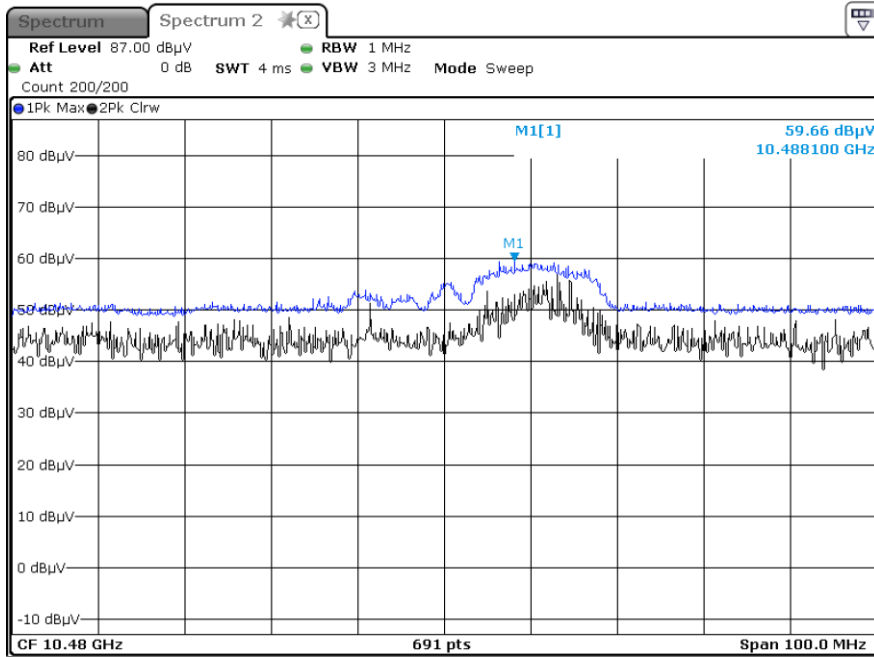
[Worst Case]

- UNII 1, 2A, 2C, 3
- HE20 : Worst case(Highest Power) & Additional Tone : 242 Tone RU 61, 106 Tone RU 54
- HE40 : Worst case(Highest Power) & Additional Tone : 484 Tone RU 65, 26 Tone RU 9
- HE80 : Worst case(Highest Power) & Additional Tone : 996 Tone RU 67, 26 Tone RU 18

[MIMO]

▣ Test Plots_106 Tone RU 54

Peak Reading (802.11ax(HE20), Ch.48 2nd Harmonic, Z-V)



Note:

Only the worst case plots for Radiated Spurious Emissions.

10.9 RADIATED RESTRICTED BAND EDGE

10.9.1 MIMO

1) 802.11ax(HE20)

1.1) 26 Tone

Band :	UNII 1
Operation Mode:	802.11ax(HE20)
Transfer Rate:	MCS0
Operating Frequency	5180 MHz
Channel No.	36 Ch
RU offset.	0

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5150	44.09	6.72	H	50.81	73.98	23.17	PK
5150	31.23	6.72	H	37.95	53.98	16.03	AV
5150	43.12	6.72	V	49.84	73.98	24.14	PK
5150	30.15	6.72	V	36.87	53.98	17.11	AV

Band :	UNII 2A
Operation Mode:	802.11ax(HE20)
Transfer Rate:	MCS0
Operating Frequency	5320 MHz
Channel No.	64 Ch
RU offset.	8

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F.. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5350	44.44	7.24	H	51.68	73.98	22.30	PK
5350	31.72	7.24	H	38.96	53.98	15.02	AV
5350	43.32	7.24	V	50.56	73.98	23.42	PK
5350	30.85	7.24	V	38.09	53.98	15.89	AV

Band :	UNII 2C
Operation Mode:	802.11ax(HE20)
Transfer Rate:	MCS0
Operating Frequency	5500 MHz
Channel No.	100 Ch
RU offset.	0

Frequency [MHz]	Reading DBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5460	44.38	7.90	H	52.28	73.98	21.70	PK
5460	31.48	7.90	H	39.38	53.98	14.60	AV
5470	44.81	8.24	H	53.05	68.20	15.15	PK
5460	43.65	7.90	V	51.55	73.98	22.43	PK
5460	30.45	7.90	V	38.35	53.98	15.63	AV
5470	43.75	8.24	V	51.99	68.20	16.21	PK

1.2) 52 Tone

Band :	UNII 1
Operation Mode:	802.11ax(HE20)
Transfer Rate:	MCS0
Operating Frequency	5180 MHz
Channel No.	36 Ch
RU offset.	37

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5150	43.87	6.72	H	50.59	73.98	23.39	PK
5150	31.66	6.72	H	38.38	53.98	15.60	AV
5150	42.92	6.72	V	49.64	73.98	24.34	PK
5150	30.56	6.72	V	37.28	53.98	16.70	AV

Band :	UNII 2A
Operation Mode:	802.11ax(HE20)
Transfer Rate:	MCS0
Operating Frequency	5320 MHz
Channel No.	64 Ch
RU offset.	40

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5350	44.54	7.24	H	51.78	73.98	22.20	PK
5350	31.94	7.24	H	39.18	53.98	14.80	AV
5350	43.52	7.24	V	50.76	73.98	23.22	PK
5350	30.85	7.24	V	38.09	53.98	15.89	AV

Band : UNII 2C
 Operation Mode: 802.11ax(HE20)
 Transfer Rate: MCS0
 Operating Frequency 5500 MHz
 Channel No. 100 Ch
 RU offset. 37

Frequency [MHz]	Reading DBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5460	44.45	7.90	H	52.35	73.98	21.63	PK
5460	31.75	7.90	H	39.65	53.98	14.33	AV
5470	45.33	8.24	H	53.57	68.20	14.63	PK
5460	43.85	7.90	V	51.75	73.98	22.23	PK
5460	30.65	7.90	V	38.55	53.98	15.43	AV
5470	44.25	8.24	V	52.49	68.20	15.71	PK

1.3) 106 Tone

Band :	UNII 1
Operation Mode:	802.11ax(HE20)
Transfer Rate:	MCS0
Operating Frequency	5180 MHz
Channel No.	36 Ch
RU offset.	53

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5150	44.09	6.72	H	50.81	73.98	23.17	PK
5150	32.99	6.72	H	39.71	53.98	14.27	AV
5150	43.12	6.72	V	49.84	73.98	24.14	PK
5150	31.85	6.72	V	38.57	53.98	15.41	AV

Band :	UNII 2A
Operation Mode:	802.11ax(HE20)
Transfer Rate:	MCS0
Operating Frequency	5320 MHz
Channel No.	64 Ch
RU offset.	54

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5350	44.99	7.24	H	52.23	73.98	21.75	PK
5350	32.90	7.24	H	40.14	53.98	13.84	AV
5350	43.85	7.24	V	51.09	73.98	22.89	PK
5350	31.56	7.24	V	38.8	53.98	15.18	AV

Band : UNII 2C
 Operation Mode: 802.11ax(HE20)
 Transfer Rate: MCS0
 Operating Frequency 5500 MHz
 Channel No. 100 Ch
 RU offset. 53

Frequency [MHz]	Reading DBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5460	45.79	7.90	H	53.69	73.98	20.29	PK
5460	32.98	7.90	H	40.88	53.98	13.10	AV
5470	46.61	8.24	H	54.85	68.20	13.35	PK
5460	44.62	7.90	V	52.52	73.98	21.46	PK
5460	31.84	7.90	V	39.74	53.98	14.24	AV
5470	45.85	8.24	V	54.09	68.20	14.11	PK

1.4) 242 Tone

Band : UNII 1
 Operation Mode: 802.11ax(HE20)
 Transfer Rate: MCS0
 Operating Frequency 5180 MHz
 Channel No. 36 Ch
 RU offset. 61

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5150	46.78	6.72	H	53.50	73.98	20.48	PK
5150	34.53	6.72	H	41.25	53.98	12.73	AV
5150	45.85	6.72	V	52.57	73.98	21.41	PK
5150	33.62	6.72	V	40.34	53.98	13.64	AV

Band : UNII 2A
 Operation Mode: 802.11ax(HE20)
 Transfer Rate: MCS0
 Operating Frequency 5320 MHz
 Channel No. 64 Ch
 RU offset. 61

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5350	47.65	7.24	H	54.89	73.98	19.09	PK
5350	34.82	7.24	H	42.06	53.98	11.92	AV
5350	46.85	7.24	V	54.09	73.98	19.89	PK
5350	33.92	7.24	V	41.16	53.98	12.82	AV

Band : UNII 2C
 Operation Mode: 802.11ax(HE20)
 Transfer Rate: MCS0
 Operating Frequency 5500 MHz
 Channel No. 100 Ch
 RU offset. 61

Frequency [MHz]	Reading DBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5460	46.21	7.90	H	54.11	73.98	19.87	PK
5460	33.75	7.90	H	41.65	53.98	12.33	AV
5470	48.10	8.24	H	56.34	68.20	11.86	PK
5460	45.85	7.90	V	53.75	73.98	20.23	PK
5460	32.98	7.90	V	40.88	53.98	13.10	AV
5470	47.21	8.24	V	55.45	68.20	12.75	PK

2) 802.11ax(HE40)

2.1) 26 Tone

Band :	UNII 1
Operation Mode:	802.11ax(HE40)
Transfer MCS Index:	MCS0
Operating Frequency	5190 MHz
Channel No.	38 Ch
RU offset.	0

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5150	43.88	6.72	H	50.60	73.98	23.38	PK
5150	31.26	6.72	H	37.98	53.98	16.00	AV
5150	42.78	6.72	V	49.5	73.98	24.48	PK
5150	30.12	6.72	V	36.84	53.98	17.14	AV

Band :	UNII 1
Operation Mode:	802.11ax(HE40)
Transfer MCS Index:	MCS0
Operating Frequency	5310 MHz
Channel No.	62 Ch
RU offset.	17

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5350	44.29	7.24	H	51.53	73.98	22.45	PK
5350	31.54	7.24	H	38.78	53.98	15.20	AV
5350	43.21	7.24	V	50.45	73.98	23.53	PK
5350	30.44	7.24	V	37.68	53.98	16.30	AV

Band : UNII 2C
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5510 MHz
 Channel No. 102 Ch
 RU offset. 0

Frequency [MHz]	Reading DBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5460	44.41	7.90	H	52.31	73.98	21.67	PK
5460	31.35	7.90	H	39.25	53.98	14.73	AV
5470	44.59	8.24	H	52.83	68.20	15.37	PK
5460	43.62	7.90	V	51.52	73.98	22.46	PK
5460	30.21	7.90	V	38.11	53.98	15.87	AV
5470	43.44	8.24	V	51.68	68.20	16.52	PK

2.2) 52 Tone

Band : UNII 1
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5190 MHz
 Channel No. 38 Ch
 RU offset. 37

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5150	43.76	6.72	H	50.48	73.98	23.50	PK
5150	31.65	6.72	H	38.37	53.98	15.61	AV
5150	42.62	6.72	V	49.34	73.98	24.64	PK
5150	30.55	6.72	V	37.27	53.98	16.71	AV

Band : UNII 1
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5310 MHz
 Channel No. 62 Ch
 RU offset. 44

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5350	44.12	7.24	H	51.36	73.98	22.62	PK
5350	31.95	7.24	H	39.19	53.98	14.79	AV
5350	43.10	7.24	V	50.34	73.98	23.64	PK
5350	30.85	7.24	V	38.09	53.98	15.89	AV

Band : UNII 2C
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5510 MHz
 Channel No. 102 Ch
 RU offset. 37

Frequency [MHz]	Reading DBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5460	44.44	7.90	H	52.34	73.98	21.64	PK
5460	31.71	7.90	H	39.61	53.98	14.37	AV
5470	47.53	8.24	H	55.77	68.20	12.43	PK
5460	43.12	7.90	V	51.02	73.98	22.96	PK
5460	30.62	7.90	V	38.52	53.98	15.46	AV
5470	46.42	8.24	V	54.66	68.20	13.54	PK

2.3) 106 Tone

Band : UNII 1
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5190 MHz
 Channel No. 38 Ch
 RU offset. 53

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5150	44.47	6.72	H	51.19	73.98	22.79	PK
5150	31.80	6.72	H	38.52	53.98	15.46	AV
5150	43.32	6.72	V	50.04	73.98	23.94	PK
5150	30.71	6.72	V	37.43	53.98	16.55	AV

Band : UNII 1
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5310 MHz
 Channel No. 62 Ch
 RU offset. 56

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5350	44.69	7.24	H	51.93	73.98	22.05	PK
5350	31.97	7.24	H	39.21	53.98	14.77	AV
5350	43.55	7.24	V	50.79	73.98	23.19	PK
5350	30.85	7.24	V	38.09	53.98	15.89	AV

Band :	UNII 2C
Operation Mode:	802.11ax(HE40)
Transfer MCS Index:	MCS0
Operating Frequency	5510 MHz
Channel No.	102 Ch
RU offset.	53

Frequency [MHz]	Reading DBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5460	45.41	7.90	H	53.31	73.98	20.67	PK
5460	32.02	7.90	H	39.92	53.98	14.06	AV
5470	44.89	8.24	H	53.13	68.20	15.07	PK
5460	44.32	7.90	V	52.22	73.98	21.76	PK
5460	31.03	7.90	V	38.93	53.98	15.05	AV
5470	43.85	8.24	V	52.09	68.20	16.11	PK

2.4) 242 Tone

Band : UNII 1
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5190 MHz
 Channel No. 38 Ch
 RU offset. 61

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5150	43.62	6.72	H	50.34	73.98	23.64	PK
5150	32.82	6.72	H	39.54	53.98	14.44	AV
5150	42.52	6.72	V	49.24	73.98	24.74	PK
5150	31.78	6.72	V	38.5	53.98	15.48	AV

Band : UNII 1
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5310 MHz
 Channel No. 62 Ch
 RU offset. 62

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5350	46.21	7.24	H	53.45	73.98	20.53	PK
5350	32.95	7.24	H	40.19	53.98	13.79	AV
5350	45.12	7.24	V	52.36	73.98	21.62	PK
5350	31.85	7.24	V	39.09	53.98	14.89	AV

Band : UNII 2C
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5510 MHz
 Channel No. 102 Ch
 RU offset. 61

Frequency [MHz]	Reading DBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5460	45.38	7.90	H	53.28	73.98	20.70	PK
5460	33.02	7.90	H	40.92	53.98	13.06	AV
5470	48.01	8.24	H	56.25	68.20	11.95	PK
5460	44.58	7.90	V	52.48	73.98	21.50	PK
5460	32.22	7.90	V	40.12	53.98	13.86	AV
5470	47.12	8.24	V	55.36	68.20	12.84	PK

2.5) 484 Tone

Band : UNII 1
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5190 MHz
 Channel No. 38 Ch
 RU offset. 65

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5150	51.91	6.72	H	58.63	73.98	15.35	PK
5150	36.23	6.72	H	42.95	53.98	11.03	AV
5150	50.62	6.72	V	57.34	73.98	16.64	PK
5150	35.62	6.72	V	42.34	53.98	11.64	AV

Band : UNII 1
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5310 MHz
 Channel No. 62 Ch
 RU offset. 65

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5350	53.09	7.24	H	60.33	73.98	13.65	PK
5350	36.05	7.24	H	43.29	53.98	10.69	AV
5350	52.88	7.24	V	60.12	73.98	13.86	PK
5350	35.12	7.24	V	42.36	53.98	11.62	AV

Band : UNII 2C
 Operation Mode: 802.11ax(HE40)
 Transfer MCS Index: MCS0
 Operating Frequency 5510 MHz
 Channel No. 102 Ch
 RU offset. 65

Frequency [MHz]	Reading DBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5460	50.62	7.90	H	58.52	73.98	15.46	PK
5460	34.01	7.90	H	41.91	53.98	12.07	AV
5470	54.89	8.24	H	63.13	68.20	5.07	PK
5460	49.68	7.90	V	57.58	73.98	16.40	PK
5460	33.42	7.90	V	41.32	53.98	12.66	AV
5470	53.77	8.24	V	62.01	68.20	6.19	PK

3) 802.11ax(HE80)

3.1) 26 Tone

Band :	UNII 1
Operation Mode:	802.11ax(HE80)
Transfer MCS Index:	MCS0
Operating Frequency	5210 MHz
Channel No.	42 Ch
RU offset.	0

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5150	44.11	6.72	H	50.83	73.98	23.15	PK
5150	32.04	6.72	H	38.76	53.98	15.22	AV
5150	43.22	6.72	V	49.94	73.98	24.04	PK
5150	31.12	6.72	V	37.84	53.98	16.14	AV

Band :	UNII 2A
Operation Mode:	802.11ax(HE80)
Transfer MCS Index:	MCS0
Operating Frequency	5290 MHz
Channel No.	58 Ch
RU offset.	36

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5350	45.12	7.24	H	52.36	73.98	21.62	PK
5350	32.23	7.24	H	39.47	53.98	14.51	AV
5350	44.32	7.24	V	51.56	73.98	22.42	PK
5350	31.12	7.24	V	38.36	53.98	15.62	AV

Band :	UNII 2C
Operation Mode:	802.11ax(HE80)
Transfer MCS Index:	MCS0
Operating Frequency	5530 MHz
Channel No.	106 Ch
RU offset.	0

Frequency [MHz]	Reading DBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5460	45.49	7.90	H	53.39	73.98	20.59	PK
5460	32.35	7.90	H	40.25	53.98	13.73	AV
5470	47.89	8.24	H	56.13	68.20	12.07	PK
5460	44.32	7.90	V	52.22	73.98	21.76	PK
5460	31.25	7.90	V	39.15	53.98	14.83	AV
5470	46.78	8.24	V	55.02	68.20	13.18	PK

3.2) 52 Tone

Band : UNII 1
 Operation Mode: 802.11ax(HE80)
 Transfer MCS Index: MCS0
 Operating Frequency 5210 MHz
 Channel No. 42 Ch
 RU offset. 37

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5150	43.97	6.72	H	50.69	73.98	23.29	PK
5150	31.98	6.72	H	38.7	53.98	15.28	AV
5150	42.68	6.72	V	49.4	73.98	24.58	PK
5150	30.88	6.72	V	37.6	53.98	16.38	AV

Band : UNII 2A
 Operation Mode: 802.11ax(HE80)
 Transfer MCS Index: MCS0
 Operating Frequency 5290 MHz
 Channel No. 58 Ch
 RU offset. 52

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5350	45.23	7.24	H	52.47	73.98	21.51	PK
5350	32.28	7.24	H	39.52	53.98	14.46	AV
5350	44.25	7.24	V	51.49	73.98	22.49	PK
5350	31.12	7.24	V	38.36	53.98	15.62	AV

Band : UNII 2C
 Operation Mode: 802.11ax(HE80)
 Transfer MCS Index: MCS0
 Operating Frequency 5530 MHz
 Channel No. 106 Ch
 RU offset. 37

Frequency [MHz]	Reading DBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5460	45.25	7.90	H	53.15	73.98	20.83	PK
5460	31.99	7.90	H	39.89	53.98	14.09	AV
5470	46.25	8.24	H	54.49	68.20	13.71	PK
5460	44.21	7.90	V	52.11	73.98	21.87	PK
5460	30.78	7.90	V	38.68	53.98	15.30	AV
5470	45.32	8.24	V	53.56	68.20	14.64	PK

3.3) 106 Tone

Band :	UNII 1
Operation Mode:	802.11ax(HE80)
Transfer MCS Index:	MCS0
Operating Frequency	5210 MHz
Channel No.	42 Ch
RU offset.	53

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5150	43.81	6.72	H	50.53	73.98	23.45	PK
5150	31.92	6.72	H	38.64	53.98	15.34	AV
5150	42.75	6.72	V	49.47	73.98	24.51	PK
5150	30.85	6.72	V	37.57	53.98	16.41	AV

Band :	UNII 2A
Operation Mode:	802.11ax(HE80)
Transfer MCS Index:	MCS0
Operating Frequency	5290 MHz
Channel No.	58 Ch
RU offset.	60

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5350	46.69	7.24	H	53.93	73.98	20.05	PK
5350	32.11	7.24	H	39.35	53.98	14.63	AV
5350	45.55	7.24	V	52.79	73.98	21.19	PK
5350	31.12	7.24	V	38.36	53.98	15.62	AV

Band : UNII 2C
 Operation Mode: 802.11ax(HE80)
 Transfer MCS Index: MCS0
 Operating Frequency 5530 MHz
 Channel No. 106 Ch
 RU offset. 53

Frequency [MHz]	Reading DBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5460	45.64	7.90	H	53.54	73.98	20.44	PK
5460	31.72	7.90	H	39.62	53.98	14.36	AV
5470	46.54	8.24	H	54.78	68.20	13.42	PK
5460	44.55	7.90	V	52.45	73.98	21.53	PK
5460	30.62	7.90	V	38.52	53.98	15.46	AV
5470	45.78	8.24	V	54.02	68.20	14.18	PK

3.4) 242 Tone

Band : UNII 1
 Operation Mode: 802.11ax(HE80)
 Transfer MCS Index: MCS0
 Operating Frequency 5210 MHz
 Channel No. 42 Ch
 RU offset. 61

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5150	44.34	6.72	H	51.06	73.98	22.92	PK
5150	31.98	6.72	H	38.7	53.98	15.28	AV
5150	43.44	6.72	V	50.16	73.98	23.82	PK
5150	30.88	6.72	V	37.6	53.98	16.38	AV

Band : UNII 2A
 Operation Mode: 802.11ax(HE80)
 Transfer MCS Index: MCS0
 Operating Frequency 5290 MHz
 Channel No. 58 Ch
 RU offset. 64

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5350	44.53	7.24	H	51.77	73.98	22.21	PK
5350	32.76	7.24	H	40	53.98	13.98	AV
5350	43.44	7.24	V	50.68	73.98	23.30	PK
5350	31.68	7.24	V	38.92	53.98	15.06	AV

Band : UNII 2C
 Operation Mode: 802.11ax(HE80)
 Transfer MCS Index: MCS0
 Operating Frequency 5530 MHz
 Channel No. 106 Ch
 RU offset. 61

Frequency [MHz]	Reading DBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5460	44.71	7.90	H	52.61	73.98	21.37	PK
5460	32.16	7.90	H	40.06	53.98	13.92	AV
5470	46.59	8.24	H	54.83	68.20	13.37	PK
5460	43.85	7.90	V	51.75	73.98	22.23	PK
5460	31.15	7.90	V	39.05	53.98	14.93	AV
5470	45.44	8.24	V	53.68	68.20	14.52	PK

3.5) 484 Tone

Band :	UNII 1
Operation Mode:	802.11ax(HE80)
Transfer MCS Index:	MCS0
Operating Frequency	5210 MHz
Channel No.	42 Ch
RU offset.	65

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5150	44.62	6.72	H	51.34	73.98	22.64	PK
5150	33.12	6.72	H	39.84	53.98	14.14	AV
5150	43.55	6.72	V	50.27	73.98	23.71	PK
5150	32.15	6.72	V	38.87	53.98	15.11	AV

Band :	UNII 2A
Operation Mode:	802.11ax(HE80)
Transfer MCS Index:	MCS0
Operating Frequency	5290 MHz
Channel No.	58 Ch
RU offset.	66

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5350	47.65	7.24	H	54.89	73.98	19.09	PK
5350	33.58	7.24	H	40.82	53.98	13.16	AV
5350	46.55	7.24	V	53.79	73.98	20.19	PK
5350	32.62	7.24	V	39.86	53.98	14.12	AV

Band :	UNII 2C
Operation Mode:	802.11ax(HE80)
Transfer MCS Index:	MCS0
Operating Frequency	5530 MHz
Channel No.	106 Ch
RU offset.	65

Frequency [MHz]	Reading DBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5460	44.97	7.90	H	52.87	73.98	21.11	PK
5460	32.70	7.90	H	40.60	53.98	13.38	AV
5470	47.32	8.24	H	55.56	68.20	12.64	PK
5460	44.82	7.90	V	52.72	73.98	21.26	PK
5460	31.62	7.90	V	39.52	53.98	14.46	AV
5470	46.48	8.24	V	54.72	68.20	13.48	PK

3.6) 996 Tone

Band : UNII 1
 Operation Mode: 802.11ax(HE80)
 Transfer MCS Index: MCS0
 Operating Frequency 5210 MHz
 Channel No. 42 Ch
 RU offset. 67

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5150	44.24	6.72	H	50.96	73.98	23.02	PK
5150	34.51	6.72	H	41.23	53.98	12.75	AV
5150	43.52	6.72	V	50.24	73.98	23.74	PK
5150	33.51	6.72	V	40.23	53.98	13.75	AV

Band : UNII 2A
 Operation Mode: 802.11ax(HE80)
 Transfer MCS Index: MCS0
 Operating Frequency 5290 MHz
 Channel No. 58 Ch
 RU offset. 67

Frequency [MHz]	Reading dBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5350	48.57	7.24	H	55.81	73.98	18.17	PK
5350	35.97	7.24	H	43.21	53.98	10.77	AV
5350	47.62	7.24	V	54.86	73.98	19.12	PK
5350	34.85	7.24	V	42.09	53.98	11.89	AV

Band : UNII 2C
 Operation Mode: 802.11ax(HE80)
 Transfer MCS Index: MCS0
 Operating Frequency 5530 MHz
 Channel No. 106 Ch
 RU offset. 67

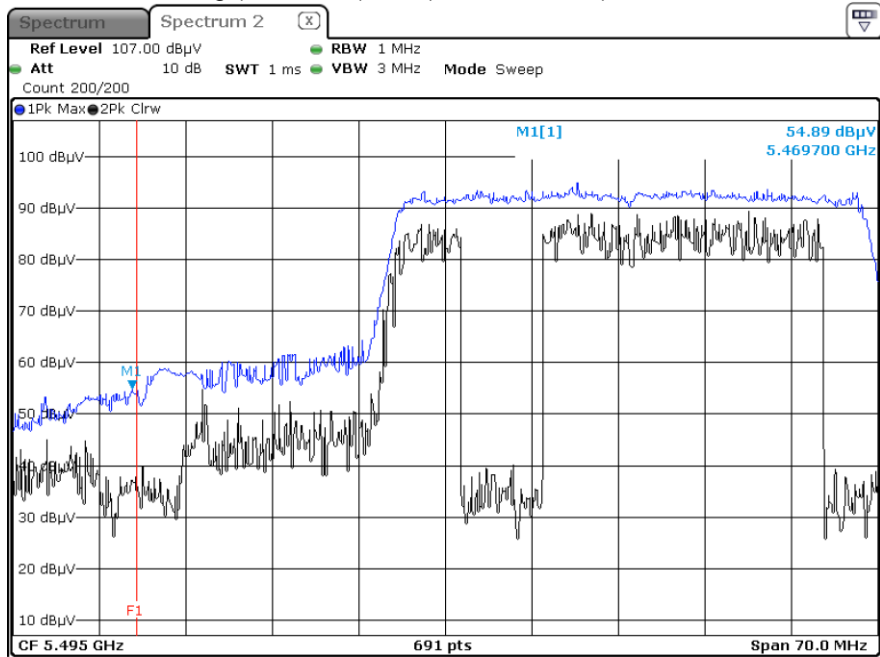
Frequency [MHz]	Reading DBuV	AN.+CL-AMP +ATT.+D.F. [dB]	ANT. POL [H/V]	Total [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Measurement Type
5460	48.51	7.90	H	56.41	73.98	17.57	PK
5460	35.94	7.90	H	43.84	53.98	10.14	AV
5470	51.20	8.24	H	59.44	68.20	8.76	PK
5460	47.25	7.90	V	55.15	73.98	18.83	PK
5460	34.88	7.90	V	42.78	53.98	11.20	AV
5470	50.02	8.24	V	58.26	68.20	9.94	PK

Note:

All Modes of operation were investigated and the worst case configuration results are reported. In order to simplify the report, We only have attached Bandedge result of worst case.

▣ Test Plots(UNII 1, 2A, 2C),
[MIMO]

Peak Reading (802.11ax(HE40), Ch.102, X-H) - 484 Tone RU 65



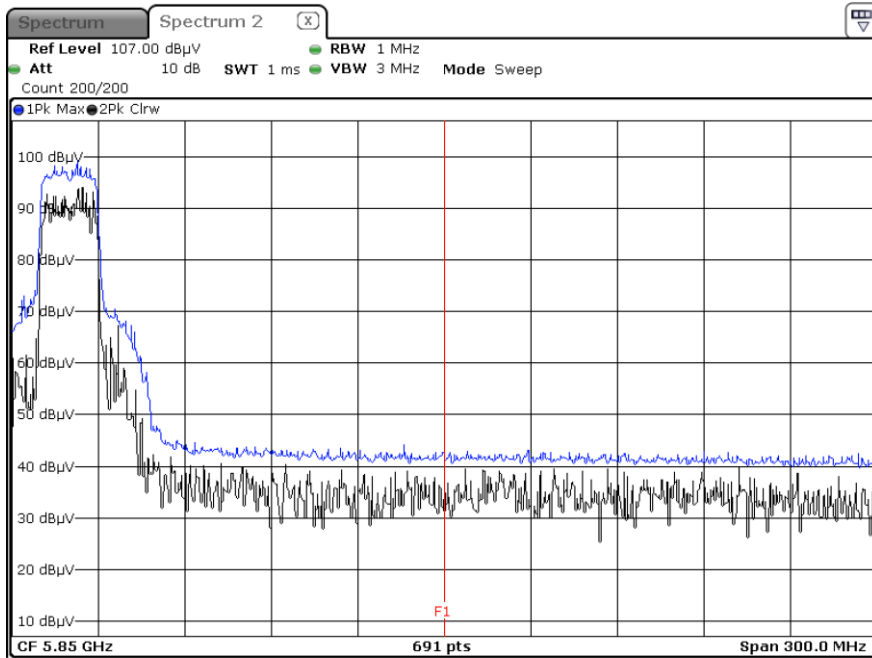
Note:

Only the worst case plots for Radiated Restricted Band Edge.

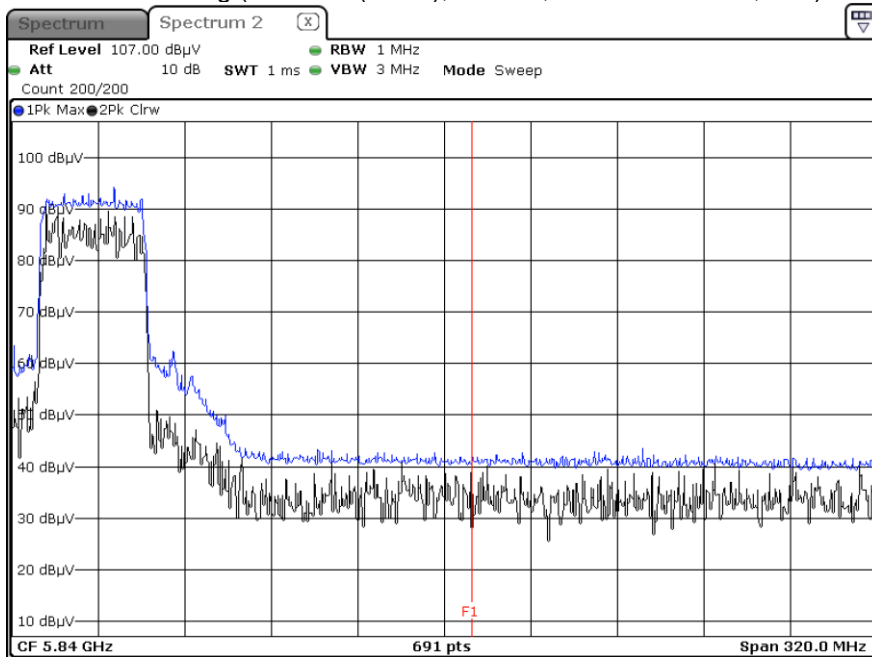
Test Plots(Staraddle Channel)

[MIMO]

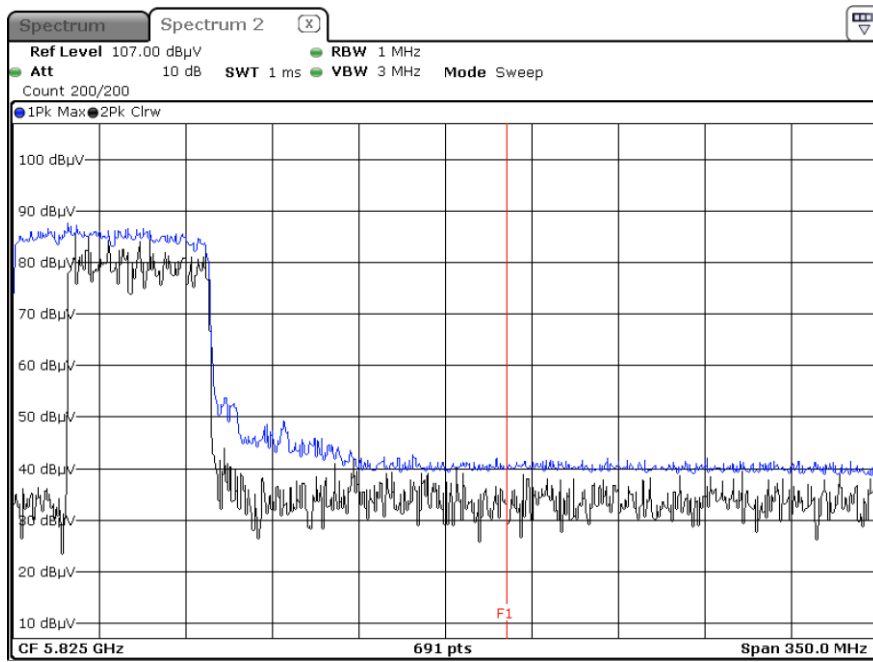
Peak Reading (802.11ax(HE20), Ch.144, 242 Tone RU 61, X-H)



Peak Reading (802.11ax(HE40), Ch.142, 484 Tone RU 65, X-H)



Peak Reading (802.11ax(HE80), Ch.138, 996 Tone RU 67, X-H)



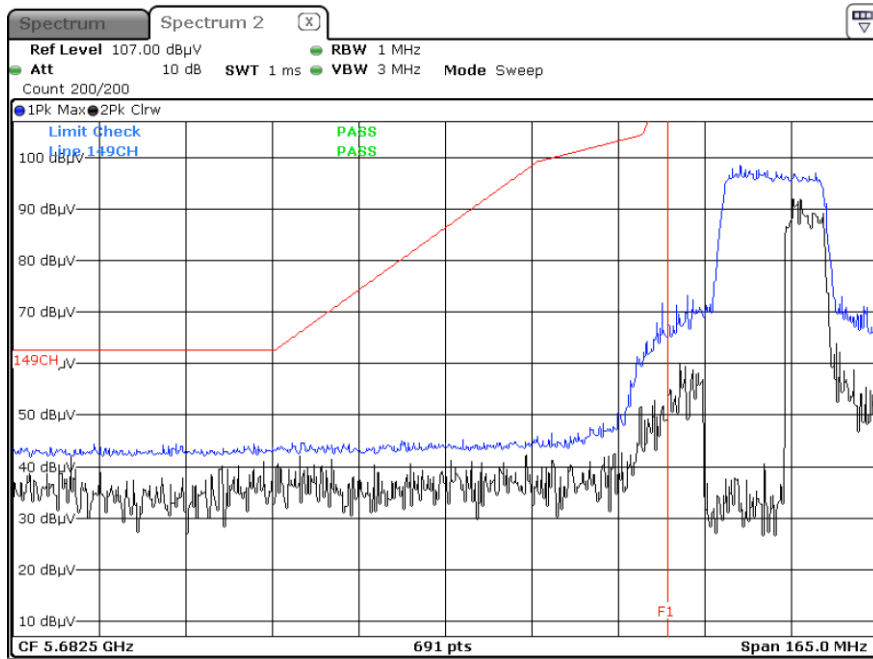
Note :

1. Only the worst case plots for Radiated Restricted Band Edge.
2. Red line : 5 850 MHz
3. Ambient Noise (Because of ambient noise, We attached only the worst plot without a data table)

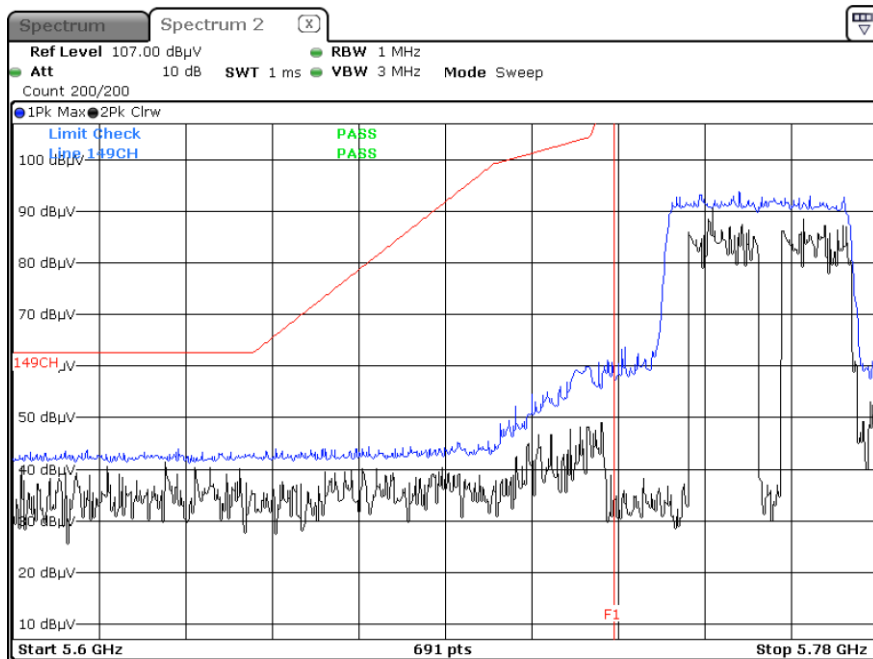
☑ Test Plots(UNII 3)

[MIMO]

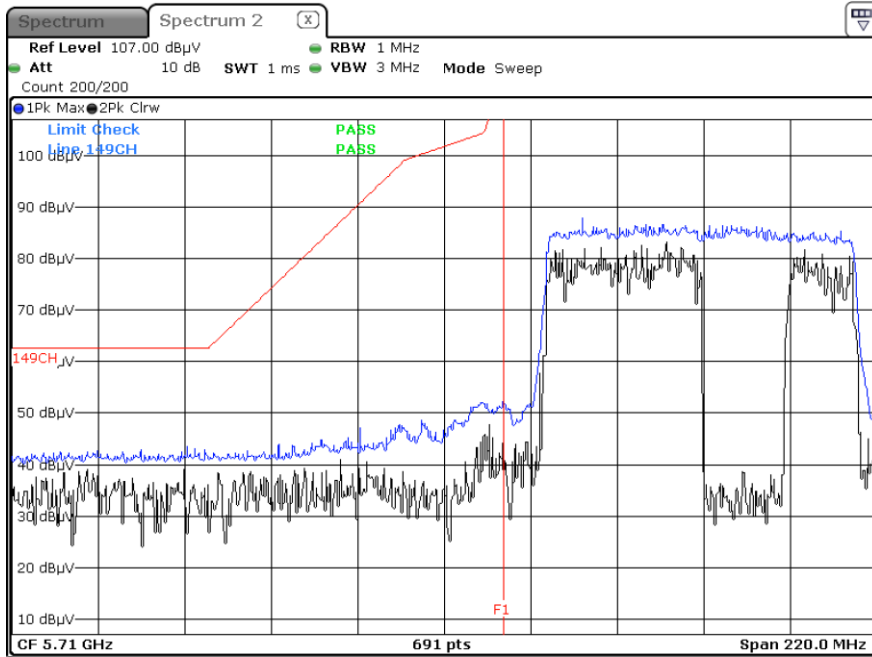
Peak Reading (802.11ax(HE20), Ch.149, 242 Tone RU 61, X-H)



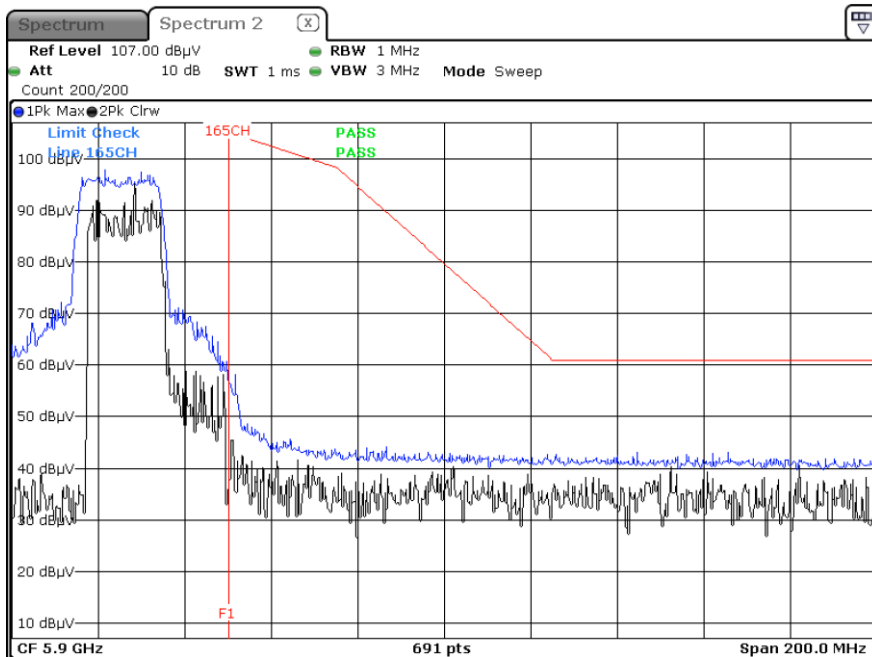
Peak Reading (802.11ax(HE40), Ch.151, 484 Tone RU 65, X-H)



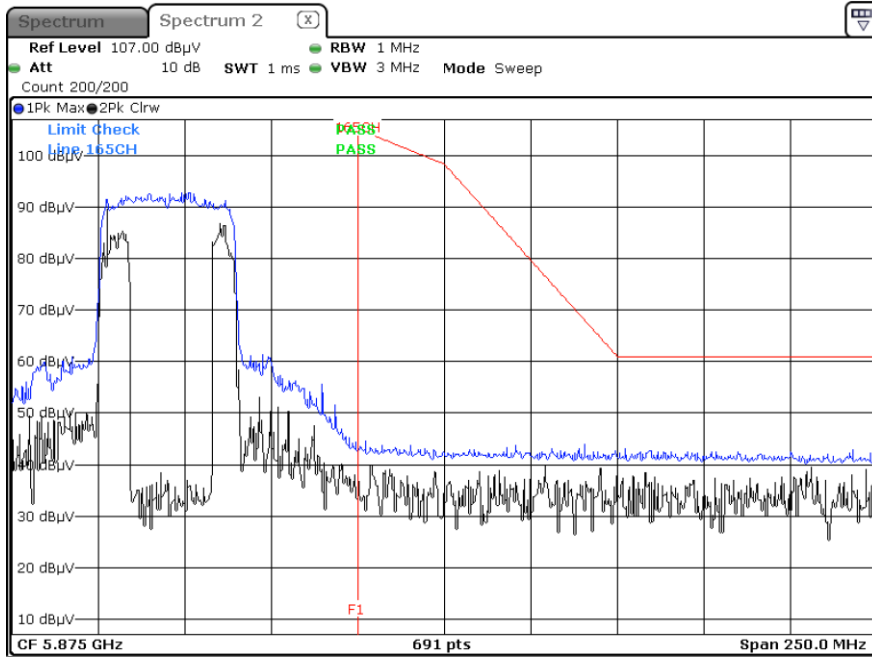
Peak Reading (802.11ax(HE80), Ch.155, 996 Tone RU 67, X-H)



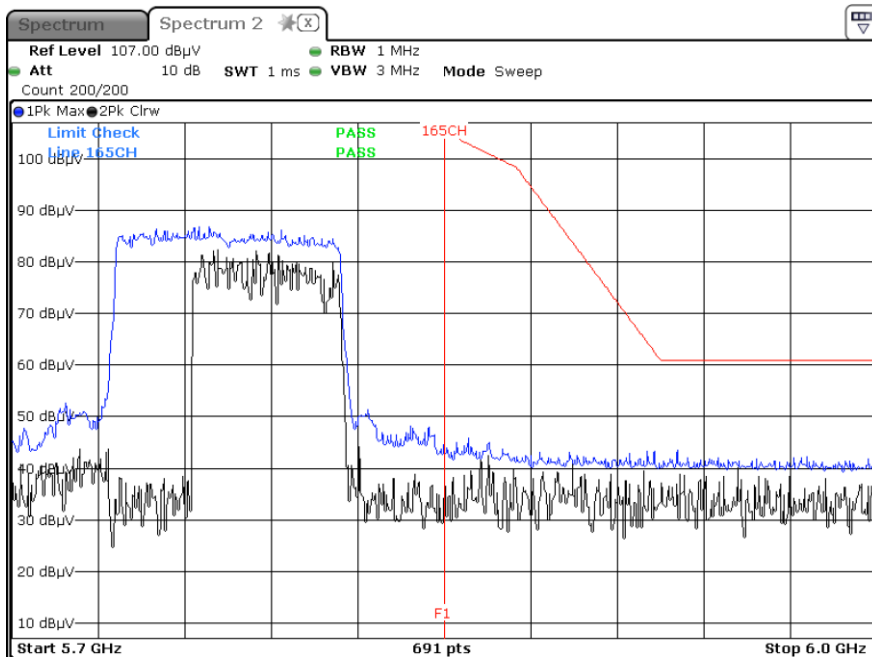
Peak Reading (802.11ax(HE20), Ch.165, 242 Tone RU 61, X-H)



Peak Reading (802.11ax(HE40), Ch.159, 484 Tone RU 65, X-H)



Peak Reading (802.11ax(HE80), Ch.155, 996 Tone RU 67, X-H)



Note :

1. Only the worst case plots for Radiated Band Edge(UNII-3).

11. LIST OF TEST EQUIPMENT

Conducted Test

Manufacturer	Model / Equipment	Calibration Date	Calibration Interval	Serial No.
Rohde & Schwarz	ENV216 / LISN	09/04/2020	Annual	102245
Rohde & Schwarz	ESR / EMI Test Receiver	09/16/2020	Annual	101910
ESPAC	SU-642 / Temperature Chamber	03/15/2021	Annual	0093008124
Agilent	N9030A / Signal Analyzer	01/11/2021	Annual	MY49431210
Rohde & Schwarz	OSP 120 / Power Measurement Set	07/02/2021	Annual	101231
Agilent	N1911A / Power Meter	04/08/2021	Annual	MY45100523
Keysight	N1921A / Power Sensor	04/08/2021	Annual	MY57820067
Agilent	87300B / Directional Coupler	11/10/2020	Annual	3116A03621
Hewlett Packard	11667B / Power Splitter	05/20/2021	Annual	05001
Hewlett Packard	E3632A / DC Power Supply	02/16/2021	Annual	MY50360067
Hewlett Packard	8493C / Attenuator(10 dB)	06/26/2020	Annual	07560
Rohde & Schwarz	EMC32 / Software	N/A	N/A	N/A
HCT CO., LTD.	FCC WLAN&BT&BLE Conducted Test Software v3.0	N/A	N/A	N/A

Note:

1. Equipment listed above that calibrated during the testing period was set for test after the calibration.
2. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.

Radiated Test

Manufacturer	Model / Equipment	Calibration Date	Calibration Interval	Serial No.
Innco system	CO3000 / Controller(Antenna mast)	N/A	N/A	CO3000-4p
Innco system	MA4640/800-XP-EP / Antenna Position Tower	N/A	N/A	N/A
Audix	EM1000 / Controller	N/A	N/A	060520
Audix	Turn Table	N/A	N/A	N/A
Rohde & Schwarz	Loop Antenna	03/19/2020	Biennial	1513-333
Schwarzbeck	VULB 9168 / Hybrid Antenna	02/22/2021	Biennial	760
Schwarzbeck	BBHA 9120D / Horn Antenna	05/19/2020	Biennial	02299
Schwarzbeck	BBHA9170 / Horn Antenna(15 GHz ~ 40 GHz)	11/29/2019	Biennial	BBHA9170541
Rohde & Schwarz	FSV40-N / Spectrum Analyzer	07/28/2020	Annual	102168
Agilent	N9030A / Signal Analyzer	01/11/2021	Annual	MY49431210
Wainwright Instruments	WRCJV12-4900-5100-5900-6100-50SS	06/24/2021	Annual	5
Wainwright Instruments	WRCJV12-4900-5100-5900-6100-50SS	06/24/2021	Annual	6
Wainwright Instruments	WRCJV2400/2483.5-2370/2520-60/12SS / Band Reject Filter	01/06/2021	Annual	2
Wainwright Instruments	WRCJV5100/5850-40/50-8EEK / Band Reject Filter	02/08/2021	Annual	1
Wainwright Instruments	WHK3.0/18G-10EF / High Pass Filter	02/03/2021	Annual	8
Wainwright Instruments	WHKX8-6090-7000-18000-40SS/ High Pass Filter	02/03/2021	Annual	25
Api tech.	18B-03 / Attenuator (3 dB)	02/03/2021	Annual	1
Agilent	8493C-10 / Attenuator(10 dB)	02/03/2021	Annual	08285
CERNEX	CBLU1183540 / Power Amplifier	02/03/2021	Annual	22964
CERNEX	CBL06185030 / Power Amplifier	02/03/2021	Annual	22965
CERNEX	CBL18265035 / Power Amplifier	12/04/2020	Annual	22966
CERNEX	CBL26405040 / Power Amplifier	03/23/2021	Annual	25956

Note:

1. Equipment listed above that calibrated during the testing period was set for test after the calibration.
2. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.
3. Especially, all antenna for measurement is calibrated in accordance with the requirements of C63.5(Version : 2017).

12. ANNEX A_ TEST SETUP PHOTO

Please refer to test setup photo file no. as follows;

No.	Description
1	HCT-RF-2106-FC021-P