



FCC RF Test Report

APPLICANT : Xiaomi Communications Co., Ltd.
EQUIPMENT : Mobile Phone
BRAND NAME : Redmi
MODEL NAME : 2201117TG
FCC ID : 2AFZZ117TG
STANDARD : FCC Part 15 Subpart E §15.407
CLASSIFICATION : (NII) Unlicensed National Information Infrastructure
TEST DATE(S) : Nov. 03, 2021 ~ Nov. 20, 2021

We, Sporton International (Kunshan) Inc., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International (Kunshan) Inc., the test report shall not be reproduced except in full.

Jason Jia

Reviewed by: Jason Jia / Supervisor

Alex Wang

Approved by: Alex Wang / Manager



Sporton International (Kunshan) Inc.

**No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300
People's Republic of China**



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SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	2.1049 & 15.403(i)	26dB & 99% Bandwidth	-	Report only	-
3.2	15.407(a)	Maximum Conducted Output Power	≤ 24 dBm	Pass	-
3.3	15.407(a)	Power Spectral Density	≤ 11 dBm	Pass	-
3.4	15.407(b)	Unwanted Emissions	15.407(b) & 15.209(a)	Pass	Under limit 3.20 dB at 5459.920 MHz
3.5	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 13.18 dB at 11.498 MHz
3.6	15.203 & 15.407(a)	Antenna Requirement	15.203 & 15.407(a)	Pass	-

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.



1 General Description

1.1 Applicant

Xiaomi Communications Co., Ltd.

#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

1.2 Manufacturer

Xiaomi Communications Co., Ltd.

#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Phone
Brand Name	Redmi
Model Name	2201117TG
FCC ID	2AFZZ117TG
IMEI Code	Conducted: 861312050047585/861312050047593 Conduction: 861312050047122/861312050047130 Radiation: 861312050047544/861312050051744
HW Version	P1.1
SW Version	MIUI12.5
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.



1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Frequency Range	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5720 MHz
Maximum Output Power to Antenna	<p><5180 MHz ~ 5240 MHz> 802.11a : 14.23 dBm / 0.0265 W 802.11n HT20 : 14.10 dBm / 0.0257 W 802.11n HT40 : 14.44 dBm / 0.0278 W 802.11ac VHT20 : 13.96 dBm / 0.0249 W 802.11ac VHT40 : 14.47 dBm / 0.0280 W 802.11ac VHT80 : 13.94 dBm / 0.0248 W</p> <p><5260 MHz ~ 5320 MHz> 802.11a : 14.46 dBm / 0.0279 W 802.11n HT20 : 14.30 dBm / 0.0269 W 802.11n HT40 : 14.25 dBm / 0.0266 W 802.11ac VHT20 : 14.33 dBm / 0.0271 W 802.11ac VHT40 : 14.26 dBm / 0.0267 W 802.11ac VHT80 : 12.52 dBm / 0.0179 W</p> <p><5500 MHz ~ 5720 MHz > 802.11a : 14.33 dBm / 0.0271 W 802.11n HT20 : 14.33 dBm / 0.0271 W 802.11n HT40 : 14.87 dBm / 0.0307 W 802.11ac VHT20 : 14.24 dBm / 0.0265 W 802.11ac VHT40 : 14.88 dBm / 0.0308 W 802.11ac VHT80 : 14.75 dBm / 0.0299 W</p>
99% Occupied Bandwidth	<p><5180 MHz ~ 5240 MHz> 802.11a : 17.43 MHz 802.11n HT20 : 18.53 MHz 802.11ac VHT40 : 36.16 MHz 802.11ac VHT80 : 75.16 MHz</p> <p><5260 MHz ~ 5320 MHz > 802.11a : 17.38 MHz 802.11n HT20 : 18.48 MHz 802.11ac VHT40 : 36.16 MHz 802.11ac VHT80 : 74.93 MHz</p> <p><5500 MHz ~ 5720 MHz > 802.11a : 17.38 MHz 802.11n HT20 : 18.58 MHz 802.11ac VHT40 : 36.26 MHz 802.11ac VHT80 : 74.93 MHz</p>
Antenna Type / Gain	<p><5150 MHz ~ 5250 MHz> PIFA Antenna with gain -1.65 dBi</p> <p><5250 MHz ~ 5350 MHz> PIFA Antenna with gain -1.60 dBi</p> <p><5470 MHz ~ 5725 MHz> PIFA Antenna with gain -1.30 dBi</p>
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)

Note: For 802.11n HT20 / ac VHT20 and 802.11n HT40 / ac VHT40 mode, the whole testing have assessed only 802.11n HT20/ 802.11ac VHT40 by referring to the maximum output power.



1.5 Modification of EUT

No modifications are made to the EUT during all test items.

1.6 Testing Location

Sporton International (Kunshan) Inc. is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Test Firm	Sporton International (Kunshan) Inc.		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158 FAX : +86-512-57900958		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	CO01-KS 03CH05-KS TH01-KS	CN1257	314309

1.7 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH05-KS	AUDIX	E3	6.2009-8-24al
2.	CO01-KS	AUDIX	E3	6.2009-8-24

1.8 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- 47 CFR Part 15 Subpart E
- FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- ANSI C63.10-2013

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.



2 Test Configuration of Equipment Under Test

- a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Z plane) were recorded in this report.
- b. AC power line Conducted Emission was tested under maximum output power.

2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5150-5250 MHz U-NII-1	36	5180	44	5220
	38*	5190	46*	5230
	40	5200	48	5240
	42 [#]	5210		

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5250-5350 MHz U-NII-2A	52	5260	60	5300
	54*	5270	62*	5310
	56	5280	64	5320
	58 [#]	5290		

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5470-5725 MHz U-NII-2C	100	5500	112	5560
	102*	5510	116	5580
	104	5520	132	5660
	106 [#]	5530	134*	5670
	108	5540	136	5680
	110*	5550	140	5700



Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
TDWR Channel	118*	5590	124	5620
	120	5600	126*	5630
	122 [#]	5610	128	5640

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
Straddle Channel	138 [#]	5690	144	5720
	142*	5710		

Note:

1. The above Frequency and Channel in "*" were 802.11n HT40 and 802.11ac VHT40.
2. The above Frequency and Channel in "[#]" were 802.11ac VHT80.



2.2 Test Mode

Final test modes are considering the modulation and worse data rates as below table.

Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0
802.11ac VHT40	MCS0
802.11ac VHT80	MCS0

Co-location
GSM850 Link + 802.11ac VHT40 CH102

Test Cases	
AC Conducted Emission	Mode 1 : GSM850 Idle + Bluetooth Link + WLAN Link (5G) + USB Cable 1(Charging from Adapter 1) + Earphone
Remark: For Radiated Test Cases, The tests were performance with Adapter 1, Earphone and USB Cable 1 for Sample 1.	



Ch. #		U-NII-1 : 5150-5250 MHz	U-NII-2A : 5250-5350 MHz	U-NII-2C : 5470-5725MHz
		802.11a	802.11a	802.11a
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

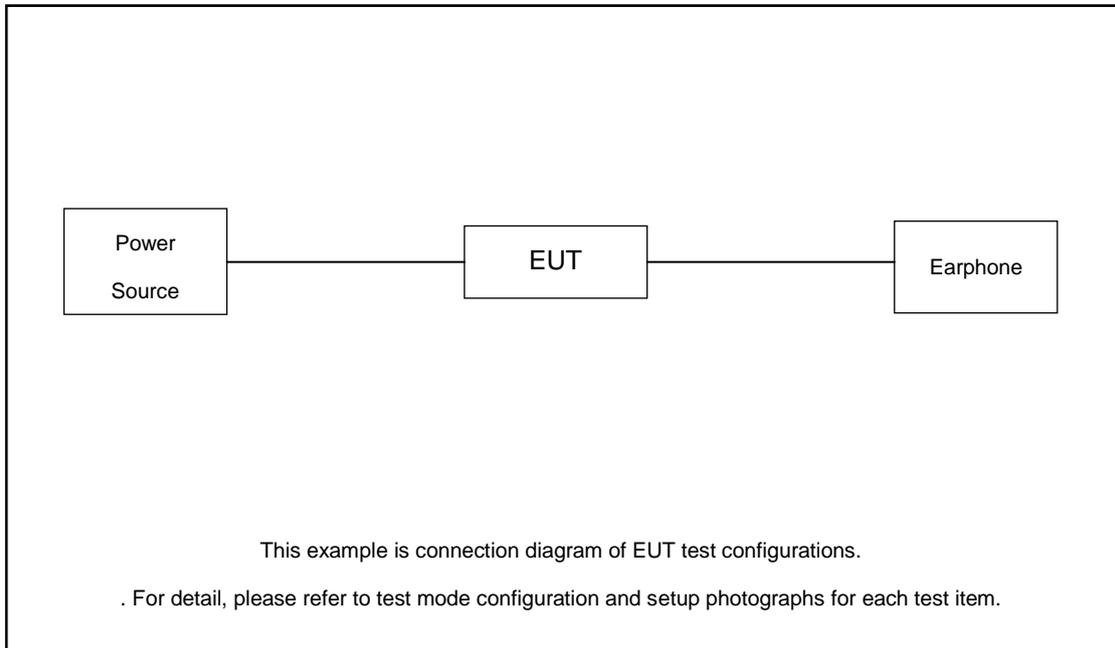
Ch. #		U-NII-1 : 5150-5250 MHz	U-NII-2A : 5250-5350 MHz	U-NII-2C : 5470-5725MHz
		802.11n HT20	802.11n HT20	802.11n HT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

Ch. #		U-NII-1 : 5150-5250 MHz	U-NII-2A : 5250-5350 MHz	U-NII-2C : 5470-5725MHz
		802.11ac VHT40	802.11ac VHT40	802.11ac VHT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134
Straddle		-	-	142

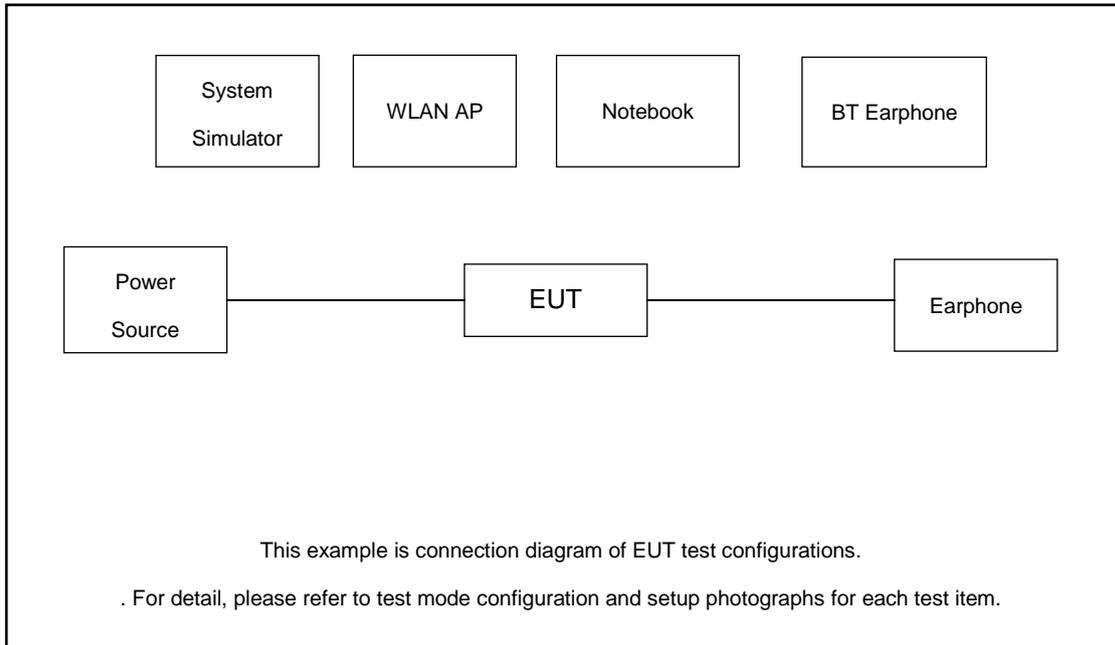
Ch. #		U-NII-1 : 5150-5250 MHz	U-NII-2A : 5250-5350 MHz	U-NII-2C : 5470-5725MHz
		802.11ac VHT80	802.11ac VHT80	802.11ac VHT80
L	Low	-	-	106
M	Middle	42	58	-
H	High	-	-	-
Straddle		-	-	138

2.3 Connection Diagram of Test System

<For Radiated Emission>



<For AC Conducted Emission>





2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	LTE Base Station	Anritus	MT8821C	N/A	N/A	Unshielded,1.8m
2.	WLAN AP	D-link	DIR-655	KA21R655B1	N/A	Unshielded,1.8m
3.	Notebook	Lenovo	G480	QDS-BRCM1050I	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m
4.	Bluetooth Earphone	Xiaomi	LYEJ02LM	N/A	N/A	N/A

2.5 EUT Operation Test Setup

For WLAN RF test items, an engineering test program was provided and enabled to make EUT continuously transmit.

For AC power line conducted emissions, the EUT was set to connect with the WLAN AP under large package sizes transmission.

2.6 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Example :

The spectrum analyzer offset is derived from RF cable loss.

$$\text{Offset} = \text{RF cable loss.}$$

Following shows an offset computation example with cable loss 7.7 dB.

$$\begin{aligned} \text{Offset(dB)} &= \text{RF cable loss(dB)}. \\ &= 7.7 \text{ (dB)} \end{aligned}$$

3 Test Result

3.1 26dB & 99% Occupied Bandwidth Measurement

3.1.1 Description of 26dB & 99% Occupied Bandwidth

This section is for reporting purpose only.

There is no restriction limits for bandwidth.

For Straddle Channel, According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, If the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

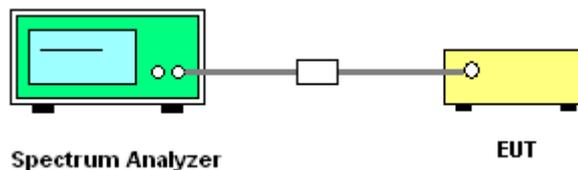
3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.1.3 Test Procedures

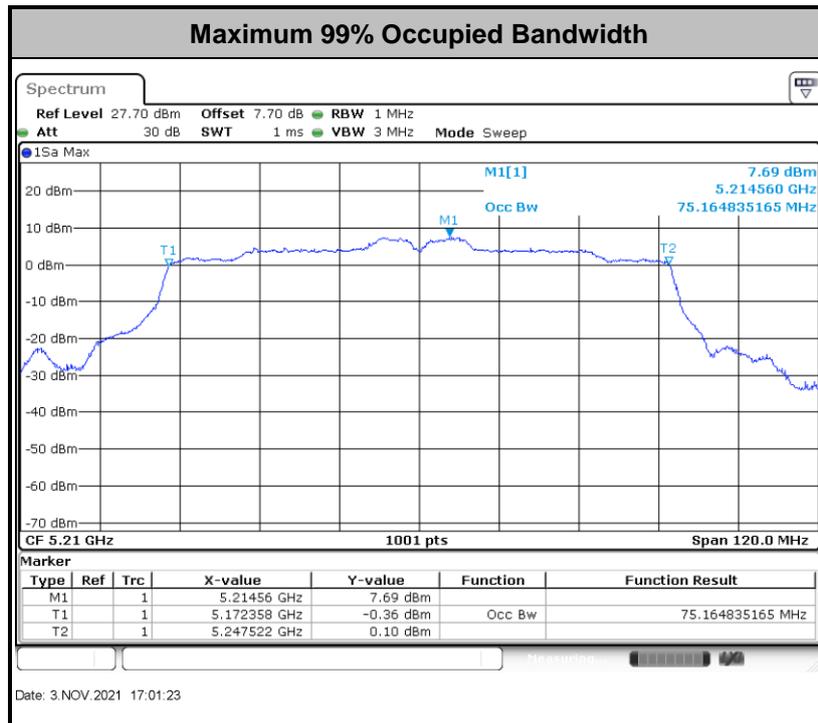
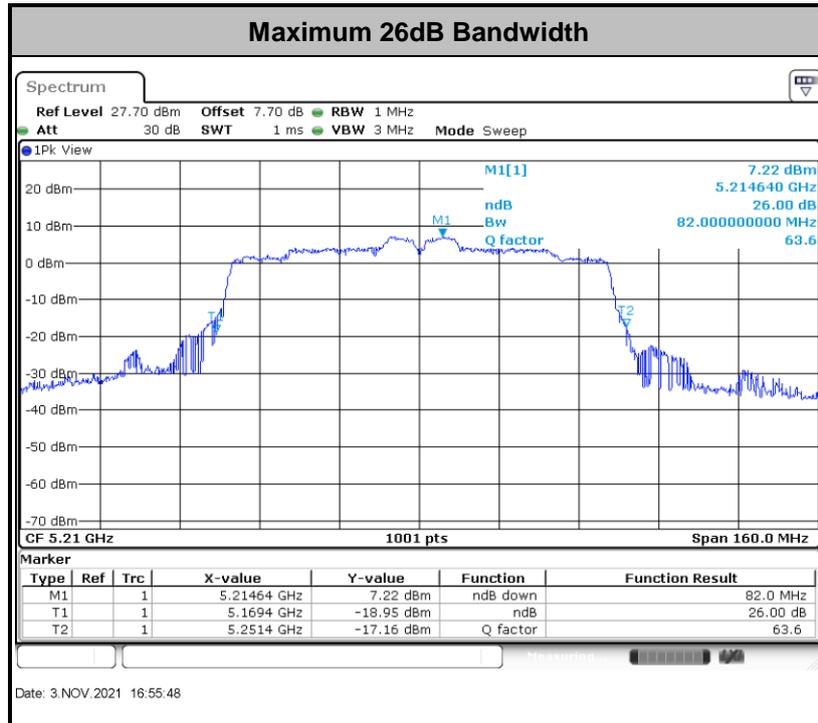
1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section C) Emission bandwidth
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 26 dB down from the peak 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%.
7. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1MHz and set the Video bandwidth (VBW) $\geq 3 * RBW$.
8. Measure and record the results in the test report.

3.1.4 Test Setup



3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

Please refer to Appendix A.



Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.



3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

<FCC 14-30 CFR 15.407>

For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW.

For the 5.25–5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz.

For Straddle Channel, According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, If the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Note that U-NII-2 band, devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

3.2.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

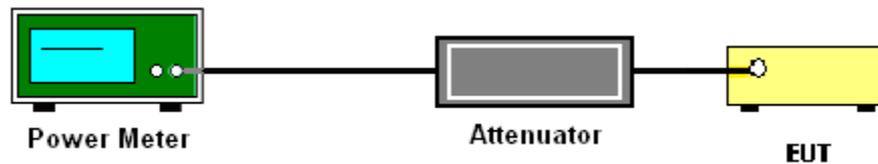
3.2.3 Test Procedures

The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Method PM (Measurement using an RF average power meter):

1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit continuously with a consistent duty cycle at its maximum power control level.
3. Measure the average power of the transmitter, and the average power is corrected with duty factor, $10 \log(1/x)$, where x is the duty cycle.

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.



3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

<FCC 14-30 CFR 15.407>

For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum power spectral density shall not exceed 11dBm in any 1 megahertz band.

For the 5.25–5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

For Straddle Channel, According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, If the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.3.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.3.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Section F) Maximum power spectral density.

Method SA-2

(trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).

- Measure the duty cycle.
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz.
- Set VBW \geq 3 MHz.
- Number of points in sweep \geq 2 Span / RBW.
- Sweep time = auto.
- Detector = RMS
- Trace average at least 100 traces in power averaging mode.
- 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. For example, add $10 \log(1/0.25) = 6$ dB if the duty cycle is 25 percent.



3.4 Unwanted Emissions Measurement

This section is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement.

3.4.1 Limit of Unwanted Emissions

- (1) For transmitters operating in the 5150-5250 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of -27dBm/MHz.

For transmitters operating in the 5250-5350 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5250-5350 MHz band that generate emissions in the 5150-5250 MHz band must meet all applicable technical requirements for operation in the 5150-5250 MHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5150-5250 MHz band.

For transmitters operating in the 5470-5725 MHz band: all emissions outside of the 5470-5725 MHz band shall not exceed an EIRP of -27 dBm/MHz.

- (2) Unwanted spurious emissions fallen in restricted bands shall comply with the general field strength limits as below table,

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3



EIRP (dBm)	Field Strength at 3m (dBµV/m)
- 27	68.2

Note: The following formula is used to convert the EIRP to field strength.

$$EIRP = E_{Meas} + 20\log (d_{Meas}) - 104.7$$

where

EIRP is the equivalent isotropically radiated power, in dBm

E_{Meas} is the field strength of the emission at the measurement distance, in dBµV/m

d_{Meas} is the measurement distance, in m

3.4.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

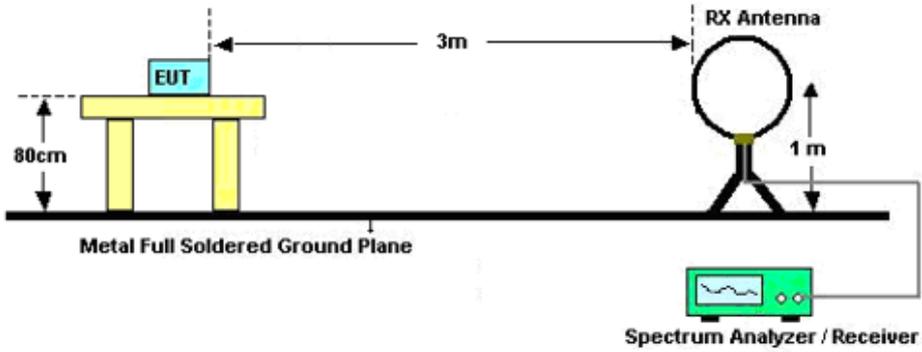


3.4.3 Test Procedures

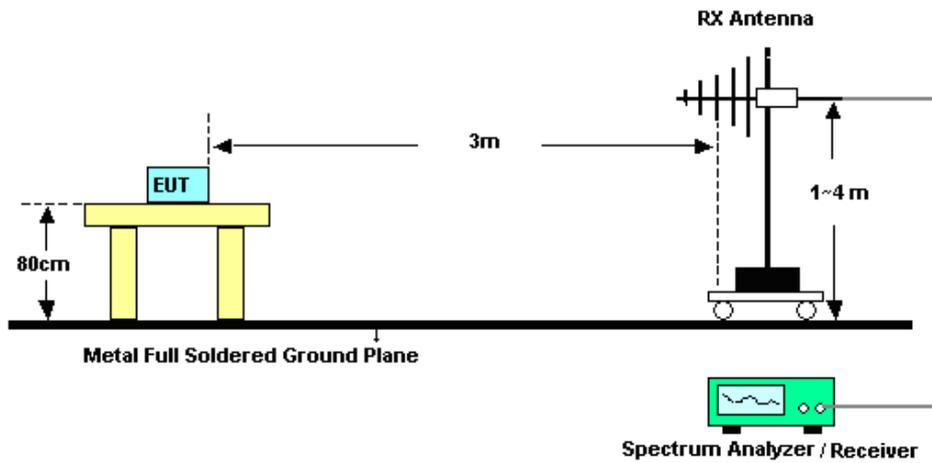
1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section G) Unwanted emissions measurement.
 - (1) Procedure for Unwanted Emissions Measurements Below 1000MHz
 - RBW = 120 kHz
 - VBW = 300 kHz
 - Detector = Peak
 - Trace mode = max hold
 - (2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz
 - RBW = 1 MHz
 - VBW \geq 3 MHz
 - Detector = Peak
 - Sweep time = auto
 - Trace mode = max hold
 - (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz
 - RBW = 1 MHz
 - VBW = 10 Hz, when duty cycle is no less than 98 percent.
 - VBW \geq 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT was arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than peak limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

3.4.4 Test Setup

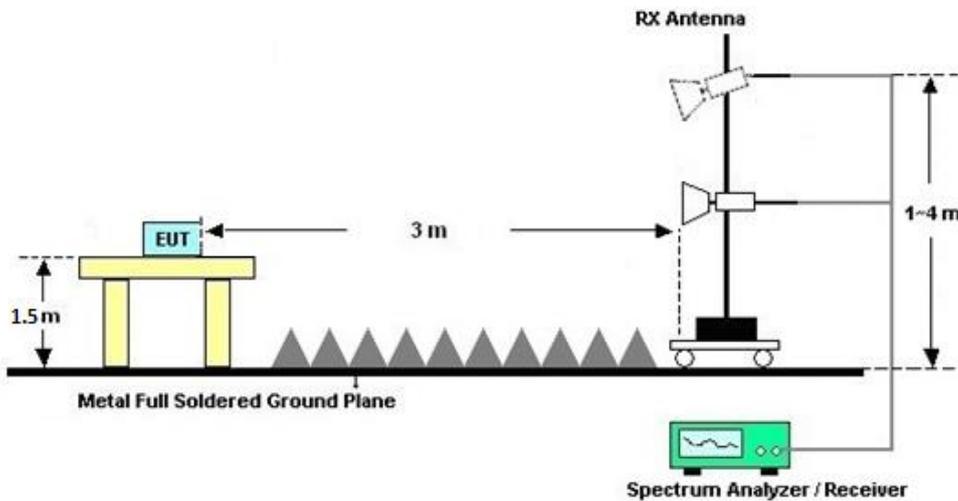
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz





3.4.5 Test Results of Radiated Spurious Emissions (9 kHz ~ 30 MHz)

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

3.4.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C.

3.4.7 Duty Cycle

Please refer to Appendix D.

3.4.8 Test Result of Radiated Spurious Emissions (30MHz ~ 10th Harmonic or 40GHz, whichever is lower)

Please refer to Appendix C.



3.5 AC Conducted Emission Measurement

3.5.1 Limit of AC Conducted Emission

For equipment 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.

Frequency of emission (MHz)	Conducted limit (dBµV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

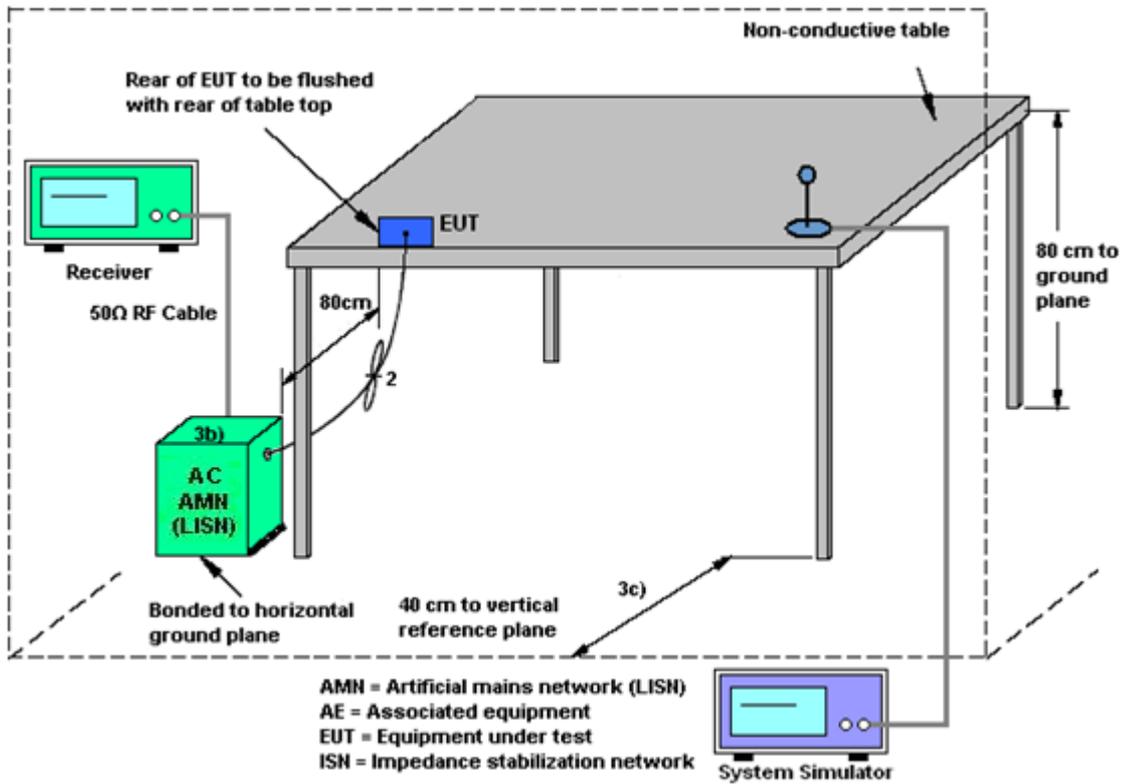
3.5.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.5.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

3.5.4 Test Setup



3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix B.



3.6 Antenna Requirements

3.6.1 Standard Applicable

If transmitting antenna directional gain is greater than 6 dBi, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.6.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.6.3 Antenna Gain

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Oct. 14, 2021	Nov. 03, 2021	Oct. 13, 2022	Conducted (TH01-KS)
Pulse Power Sensor	Anritsu	MA2411B	0917070	300MHz~40GHz	Jan. 07, 2021	Nov. 03, 2021	Jan. 06, 2022	Conducted (TH01-KS)
Power Meter	Anritsu	ML2495A	1005002	50MHz Bandwidth	Jan. 07, 2021	Nov. 03, 2021	Jan. 06, 2022	Conducted (TH01-KS)
EMI Test Receiver	Keysight	N9038A	MY56400004	3Hz~8.5GHz;Max 30dBm	Oct. 16, 2021	Nov. 20, 2021	Oct. 15, 2022	Radiation (03CH05-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150244	10Hz~44G,MAX 30dB	Apr. 13, 2021	Nov. 20, 2021	Apr. 12, 2022	Radiation (03CH05-KS)
Loop Antenna	R&S	HFH2-Z2	100321	9kHz~30MHz	Oct. 30, 2021	Nov. 20, 2021	Oct. 29, 2022	Radiation (03CH05-KS)
Bilog Antenna	TeseQ	CBL6111D	49922	30MHz~1GHz	Jun. 04, 2021	Nov. 20, 2021	Jun. 03, 2022	Radiation (03CH05-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00218652	1GHz~18GHz	Apr. 24, 2021	Nov. 20, 2021	Apr. 23, 2022	Radiation (03CH05-KS)
SHF-EHF Horn	Com-power	AH-840	101115	18GHz~40GHz	Nov. 09, 2021	Nov. 20, 2021	Nov. 08, 2022	Radiation (03CH05-KS)
Amplifier	SONOMA	310N	187289	9KHz~1GHz	Apr. 12, 2021	Nov. 20, 2021	Apr. 11, 2022	Radiation (03CH05-KS)
high gain Amplifier	MITEQ	AMF-7D-00101800-30-10P	2012228	1Ghz~18Ghz	Oct. 16, 2021	Nov. 20, 2021	Oct. 15, 2022	Radiation (03CH05-KS)
Amplifier	Keysight	83017A	MY53270316	500MHz~26.5GHz	Oct. 16, 2021	Nov. 20, 2021	Oct. 15, 2022	Radiation (03CH05-KS)
Amplifier	MITEQ	EM18G40GGA	060728	18~40GHz	Jan. 07, 2021	Nov. 20, 2021	Jan. 06, 2022	Radiation (03CH05-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Nov. 20, 2021	NCR	Radiation (03CH05-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Nov. 20, 2021	NCR	Radiation (03CH05-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Nov. 20, 2021	NCR	Radiation (03CH05-KS)
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz;	Apr. 21, 2021	Nov. 13, 2021	Apr. 20, 2022	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060103	9kHz~30MHz	Oct. 14, 2021	Nov. 13, 2021	Oct. 13, 2022	Conduction (CO01-KS)
AC LISN	R&S	ENV216	100334	9kHz~30MHz	Oct. 14, 2021	Nov. 13, 2021	Oct. 13, 2022	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 14, 2021	Nov. 13, 2021	Oct. 13, 2022	Conduction (CO01-KS)

NCR: No Calibration Required



5 Uncertainty of Evaluation

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.10-2013. All the measurement uncertainty value were shown with a coverage K=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.94dB
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.0dB
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Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.0dB
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.0dB
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————THE END ————



Appendix A. Conducted Test Results

Test Engineer:	Jack Fan & You Zhou	Temperature:	21~25	°C
Test Date:	2021/11/3	Relative Humidity:	51~54	%

TEST RESULTS DATA
26dB and 99% OBW

U-NII-1										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)		
11a	6Mbps	1	36	5180	17.33	22.08	-	22.39		
11a	6Mbps	1	44	5220	17.43	22.38	-	22.41		
11a	6Mbps	1	48	5240	17.38	22.48	-	22.40		
HT20	MCS0	1	36	5180	18.53	23.03	-	22.68		
HT20	MCS0	1	44	5220	18.48	23.18	-	22.67		
HT20	MCS0	1	48	5240	18.43	23.13	-	22.66		
VHT40	MCS0	1	38	5190	36.16	41.00	-	23.01		
VHT40	MCS0	1	46	5230	36.06	40.73	-	23.01		
VHT80	MCS0	1	42	5210	75.16	82.00	-	23.01		

TEST RESULTS DATA
Average Power Table

U-NII-1										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)		Pass/Fail
11a	6Mbps	1	36	5180	97.46	14.23	24.00	-1.65		Pass
11a	6Mbps	1	44	5220	97.46	13.75	24.00	-1.65		Pass
11a	6Mbps	1	48	5240	97.46	13.72	24.00	-1.65		Pass
HT20	MCS0	1	36	5180	97.29	14.10	24.00	-1.65		Pass
HT20	MCS0	1	44	5220	97.29	13.69	24.00	-1.65		Pass
HT20	MCS0	1	48	5240	97.29	13.58	24.00	-1.65		Pass
HT40	MCS0	1	38	5190	94.90	14.44	24.00	-1.65		Pass
HT40	MCS0	1	46	5230	94.90	14.04	24.00	-1.65		Pass
VHT20	MCS0	1	36	5180	97.42	13.96	24.00	-1.65		Pass
VHT20	MCS0	1	44	5220	97.42	13.58	24.00	-1.65		Pass
VHT20	MCS0	1	48	5240	97.42	13.53	24.00	-1.65		Pass
VHT40	MCS0	1	38	5190	94.54	14.47	24.00	-1.65		Pass
VHT40	MCS0	1	46	5230	94.54	14.03	24.00	-1.65		Pass
VHT80	MCS0	1	42	5210	89.64	13.94	24.00	-1.65		Pass

TEST RESULTS DATA
Power Spectral Density

FCC U-NII-1										
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)	-	Pass/Fail
11a	6Mbps	1	36	5180	0.11	4.41	11.00	-1.65		Pass
11a	6Mbps	1	44	5220	0.11	4.02	11.00	-1.65		Pass
11a	6Mbps	1	48	5240	0.11	4.05	11.00	-1.65		Pass
HT20	MCS0	1	36	5180	0.12	3.80	11.00	-1.65		Pass
HT20	MCS0	1	44	5220	0.12	3.59	11.00	-1.65		Pass
HT20	MCS0	1	48	5240	0.12	3.66	11.00	-1.65		Pass
VHT40	MCS0	1	38	5190	0.24	1.71	11.00	-1.65		Pass
VHT40	MCS0	1	46	5230	0.24	1.73	11.00	-1.65		Pass
VHT80	MCS0	1	42	5210	0.47	-0.71	11.00	-1.65		Pass

TEST RESULTS DATA
26dB and 99% OBW

U-NII-2A										
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	Note
11a	6M bps	1	52	5260	17.33	22.73	23.39	29.39	23.98	
11a	6M bps	1	60	5300	17.38	22.13	23.40	29.40	23.98	
11a	6M bps	1	64	5320	17.38	21.88	23.40	29.40	23.98	
VHT20	MCS 0	1	52	5260	18.48	23.68	23.67	29.67	23.98	
VHT20	MCS 0	1	60	5300	18.43	23.58	23.66	29.66	23.98	
VHT20	MCS 0	1	64	5320	18.48	23.33	23.67	29.67	23.98	
VHT40	MCS 0	1	54	5270	36.16	40.91	23.98	30.00	23.98	
VHT40	MCS 0	1	62	5310	36.06	40.82	23.98	30.00	23.98	
VHT80	MCS 0	1	58	5290	74.93	81.04	23.98	30.00	23.98	

TEST RESULTS DATA
Average Power Table

FCC U-NII-2A										
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	EIRP Power Limit (dBm)	Pass/Fail
11a	6M bps	1	52	5260	97.46	13.71	23.98	-1.60	26.99	Pass
11a	6M bps	1	60	5300	97.46	14.05	23.98	-1.60	26.99	Pass
11a	6M bps	1	64	5320	97.46	14.46	23.98	-1.60	26.99	Pass
HT20	MCS 0	1	52	5260	97.29	13.68	23.98	-1.60	26.99	Pass
HT20	MCS 0	1	60	5300	97.29	14.01	23.98	-1.60	26.99	Pass
HT20	MCS 0	1	64	5320	97.29	14.30	23.98	-1.60	26.99	Pass
HT40	MCS 0	1	54	5270	94.90	14.25	23.98	-1.60	26.99	Pass
HT40	MCS 0	1	62	5310	94.90	14.04	23.98	-1.60	26.99	Pass
VHT20	MCS 0	1	52	5260	97.42	13.63	23.98	-1.60	26.99	Pass
VHT20	MCS 0	1	60	5300	97.42	14.04	23.98	-1.60	26.99	Pass
VHT20	MCS 0	1	64	5320	97.42	14.33	23.98	-1.60	26.99	Pass
VHT40	MCS 0	1	54	5270	94.54	14.26	23.98	-1.60	26.99	Pass
VHT40	MCS 0	1	62	5310	94.54	14.06	23.98	-1.60	26.99	Pass
VHT80	MCS 0	1	58	5290	89.64	12.52	23.98	-1.60	26.99	Pass

TEST RESULTS DATA
Power Spectral Density

U-NII-2A										
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)		Pass/Fail
11a	6M bps	1	52	5260	0.11	4.03	11.00	-1.60		Pass
11a	6M bps	1	60	5300	0.11	4.58	11.00	-1.60		Pass
11a	6M bps	1	64	5320	0.11	4.73	11.00	-1.60		Pass
VHT20	MCS 0	1	52	5260	0.12	3.61	11.00	-1.60		Pass
VHT20	MCS 0	1	60	5300	0.12	4.23	11.00	-1.60		Pass
VHT20	MCS 0	1	64	5320	0.12	4.24	11.00	-1.60		Pass
VHT40	MCS 0	1	54	5270	0.24	1.70	11.00	-1.60		Pass
VHT40	MCS 0	1	62	5310	0.24	2.28	11.00	-1.60		Pass
VHT80	MCS 0	1	58	5290	0.47	-0.64	11.00	-1.60		Pass

TEST RESULTS DATA
26dB and 99% OBW

U-NII-2C										
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	Note
11a	6M bps	1	100	5500	17.38	21.93	23.40	29.40	23.98	
11a	6M bps	1	116	5580	17.38	22.08	23.40	29.40	23.98	
11a	6M bps	1	140	5700	17.38	22.28	23.40	29.40	23.98	
11a	6Mbps	1	144	5720	17.38	22.43	23.40	29.40	23.98	
VHT20	MCS 0	1	100	5500	18.43	23.43	23.66	29.66	23.98	
VHT20	MCS 0	1	116	5580	18.53	23.38	23.68	29.68	23.98	
VHT20	MCS 0	1	140	5700	18.43	23.53	23.66	29.66	23.98	
VHT20	MCS0	1	144	5720	18.58	23.83	23.69	29.69	23.98	
VHT40	MCS 0	1	102	5510	36.26	41.18	23.98	30.00	23.98	
VHT40	MCS 0	1	110	5550	36.16	41.00	23.98	30.00	23.98	
VHT40	MCS 0	1	134	5670	36.16	41.27	23.98	30.00	23.98	
VHT40	MCS0	1	142	5710	36.16	40.91	23.98	30.00	23.98	
VHT80	MCS 0	1	106	5530	74.93	81.20	23.98	30.00	23.98	
VHT80	MCS 0	1	122	5610	74.81	80.88	23.98	30.00	23.98	
VHT80	MCS0	1	138	5690	74.93	81.36	23.98	30.00	23.98	

TEST RESULTS DATA
Average Power Table

FCC U-NII-2C										
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	EIRP Power Limit (dBm)	Pass/Fail
11a	6M bps	1	100	5500	97.46	13.92	23.98	-1.30	26.99	Pass
11a	6M bps	1	116	5580	97.46	14.15	23.98	-1.30	26.99	Pass
11a	6M bps	1	140	5700	97.46	14.33	23.98	-1.30	26.99	Pass
11a	6Mbps	1	144	5720	97.46	14.30	23.98	-1.30	26.99	Pass
HT20	MCS 0	1	100	5500	97.29	13.86	23.98	-1.30	26.99	Pass
HT20	MCS 0	1	116	5580	97.29	14.04	23.98	-1.30	26.99	Pass
HT20	MCS 0	1	140	5700	97.29	14.33	23.98	-1.30	26.99	Pass
HT20	MCS0	1	144	5720	97.29	14.18	23.98	-1.30	26.99	Pass
HT40	MCS 0	1	102	5510	94.90	13.83	23.98	-1.30	26.99	Pass
HT40	MCS 0	1	110	5550	94.90	14.32	23.98	-1.30	26.99	Pass
HT40	MCS 0	1	134	5670	94.90	14.87	23.98	-1.30	26.99	Pass
HT40	MCS0	1	142	5710	94.90	14.72	23.98	-1.30	26.99	Pass
VHT20	MCS 0	1	100	5500	97.42	13.79	23.98	-1.30	26.99	Pass
VHT20	MCS 0	1	116	5580	97.42	13.98	23.98	-1.30	26.99	Pass
VHT20	MCS 0	1	140	5700	97.42	14.34	23.98	-1.30	26.99	Pass
VHT20	MCS0	1	144	5720	97.42	14.20	23.98	-1.30	26.99	Pass
VHT40	MCS 0	1	102	5510	94.54	13.86	23.98	-1.30	26.99	Pass
VHT40	MCS 0	1	110	5550	94.54	14.42	23.98	-1.30	26.99	Pass
VHT40	MCS 0	1	134	5670	94.54	14.88	23.98	-1.30	26.99	Pass
VHT40	MCS0	1	142	5710	94.54	14.78	23.98	-1.30	26.99	Pass
VHT80	MCS 0	1	106	5530	89.64	12.58	23.98	-1.30	26.99	Pass
VHT80	MCS 0	1	122	5610	89.64	14.23	23.98	-1.30	26.99	Pass
VHT80	MCS0	1	138	5690	89.64	14.75	23.98	-1.30	26.99	Pass

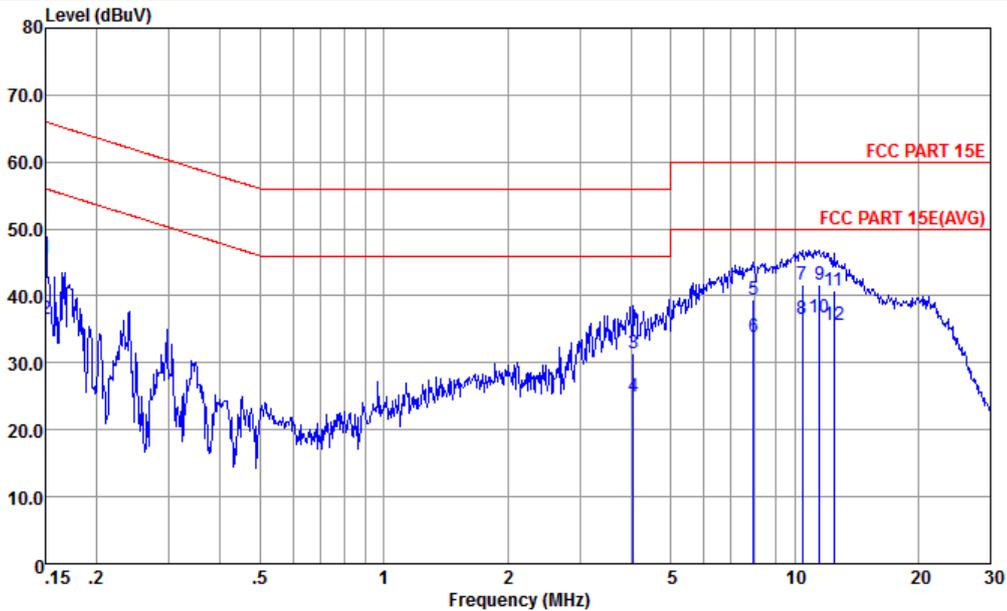
TEST RESULTS DATA
Power Spectral Density

U-NII-2C										
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)		Pass/Fail
11a	6M bps	1	100	5500	0.11	4.49	11.00	-1.30		Pass
11a	6M bps	1	116	5580	0.11	4.46	11.00	-1.30		Pass
11a	6M bps	1	140	5700	0.11	4.79	11.00	-1.30		Pass
11a	6Mbps	1	144	5720	0.11	4.82	11.00	-1.30		Pass
VHT20	MCS 0	1	100	5500	0.12	4.03	11.00	-1.30		Pass
VHT20	MCS 0	1	116	5580	0.12	4.11	11.00	-1.30		Pass
VHT20	MCS 0	1	140	5700	0.12	4.36	11.00	-1.30		Pass
VHT20	MCS0	1	144	5720	0.12	3.77	11.00	-1.30		Pass
VHT40	MCS 0	1	102	5510	0.24	2.13	11.00	-1.30		Pass
VHT40	MCS 0	1	110	5550	0.24	2.26	11.00	-1.30		Pass
VHT40	MCS 0	1	134	5670	0.24	2.43	11.00	-1.30		Pass
VHT40	MCS0	1	142	5710	0.24	2.45	11.00	-1.30		Pass
VHT80	MCS 0	1	106	5530	0.47	-0.18	11.00	-1.30		Pass
VHT80	MCS 0	1	122	5610	0.47	-0.71	11.00	-1.30		Pass
VHT80	MCS0	1	138	5690	0.47	0.22	11.00	-1.30		Pass



Appendix B. AC Conducted Emission Test Results

Test Engineer :	Amos Zhang	Temperature :	25.3~26.2°C
		Relative Humidity :	38~40%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		

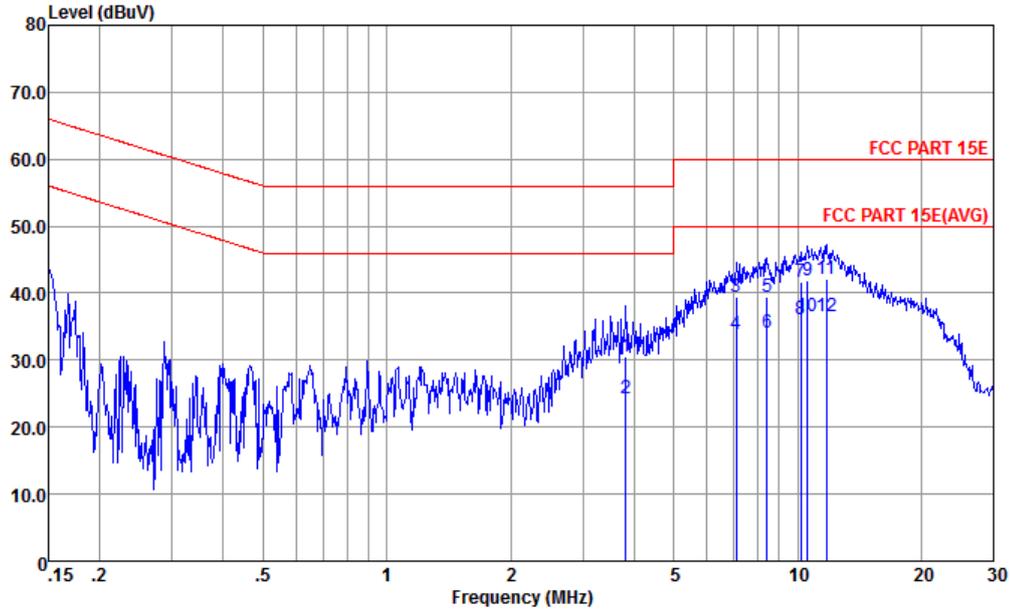


Site : CO01-KS
 Condition : FCC PART 15E LISN-L-060105-CN02 LINE

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1	0.150	45.65	-20.35	66.00	35.10	0.07	10.48	QP
2	0.150	36.45	-19.55	56.00	25.90	0.07	10.48	Average
3	4.049	31.46	-24.54	56.00	20.61	0.60	10.25	QP
4	4.049	24.96	-21.04	46.00	14.11	0.60	10.25	Average
5	7.935	39.36	-20.64	60.00	28.19	0.85	10.32	QP
6	7.935	33.76	-16.24	50.00	22.59	0.85	10.32	Average
7	10.452	41.66	-18.34	60.00	30.30	1.01	10.35	QP
8	10.452	36.46	-13.54	50.00	25.10	1.01	10.35	Average
9	11.498	41.72	-18.28	60.00	30.20	1.16	10.36	QP
10 *	11.498	36.82	-13.18	50.00	25.30	1.16	10.36	Average
11	12.449	40.85	-19.15	60.00	29.20	1.28	10.37	QP
12	12.449	35.55	-14.45	50.00	23.90	1.28	10.37	Average



Test Engineer :	Amos Zhang	Temperature :	25.3~26.2°C
		Relative Humidity :	38~40%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Site : CO01-KS
 Condition : FCC PART 15E LISN-N-060105-CN02 NEUTRAL

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1	3.820	30.59	-25.41	56.00	19.60	0.74	10.25	QP
2	3.820	24.29	-21.71	46.00	13.30	0.74	10.25	Average
3	7.100	39.39	-20.61	60.00	28.10	0.99	10.30	QP
4	7.100	33.89	-16.11	50.00	22.60	0.99	10.30	Average
5	8.412	39.52	-20.48	60.00	28.11	1.09	10.32	QP
6	8.412	34.02	-15.98	50.00	22.61	1.09	10.32	Average
7	10.179	41.77	-18.23	60.00	30.20	1.23	10.34	QP
8	10.179	36.17	-13.83	50.00	24.60	1.23	10.34	Average
9	10.564	41.84	-18.16	60.00	30.20	1.29	10.35	QP
10	10.564	36.44	-13.56	50.00	24.80	1.29	10.35	Average
11	11.745	42.04	-17.96	60.00	30.20	1.48	10.36	QP
12 *	11.745	36.44	-13.56	50.00	24.60	1.48	10.36	Average

Note:

- Level(dBμV) = Read Level(dBμV) + LISN Factor(dB) + Cable Loss(dB)
- Over Limit(dB) = Level(dBμV) – Limit Line(dBμV)



Appendix C. Radiated Spurious Emission

UNII 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5115.2	54.73	-19.27	74	42.71	35	11.56	34.54	269	152	P	H
		5104	44.84	-9.16	54	32.96	34.98	11.54	34.64	269	152	A	H
	*	5176	99.45	-	-	87.09	35.06	11.63	34.33	269	152	P	H
		5176	93.24	-	-	80.88	35.06	11.63	34.33	269	152	A	H
		5137.76	54.68	-19.32	74	42.63	35.01	11.58	34.54	130	296	P	V
		5149.92	45.06	-8.94	54	32.87	35.03	11.6	34.44	130	296	A	V
	*	5182	104.81	-	-	92.45	35.06	11.63	34.33	130	296	P	V
		5182	97.76	-	-	85.4	35.06	11.63	34.33	130	296	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII 1 5150~5250MHz
WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		6909.305	57.56	-10.74	68.3	68.15	36.44	13.33	60.36	300	0	P	H
		10360	44.42	-23.88	68.3	49.83	38.32	16.95	60.68	300	0	P	H
		6909.305	56.05	-12.25	68.3	66.64	36.44	13.33	60.36	300	0	P	V
		10360.22	45.21	-23.09	68.3	50.62	38.32	16.95	60.68	300	0	P	V
802.11a CH 44 5220MHz		6961.355	57.35	-10.95	68.3	67.72	36.66	13.38	60.41	300	0	P	H
		10440	44.82	-23.48	68.3	50.1	38.35	17.03	60.66	300	0	P	H
		6961.355	56.54	-11.76	68.3	66.91	36.66	13.38	60.41	300	0	P	V
		10438.29	45.11	-23.19	68.3	50.39	38.35	17.03	60.66	300	0	P	V
802.11a CH 48 5240MHz		6987.38	57.34	-10.96	68.3	67.64	36.73	13.4	60.43	300	0	P	H
		10480	44.75	-23.55	68.3	49.95	38.36	17.09	60.65	300	0	P	H
		6987.38	56.25	-12.05	68.3	66.55	36.73	13.4	60.43	300	0	P	V
		10479.94	45.27	-23.03	68.3	50.47	38.36	17.09	60.65	300	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**UNII 1 5150~5250MHz
WIFI 802.11n HT20 (Band Edge @ 3m)**

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		5142.72	55.66	-18.34	74	43.47	35.03	11.6	34.44	240	153	P	H
		5113.76	44.92	-9.08	54	33	35	11.56	34.64	240	153	A	H
	*	5182	99.48	-	-	87.12	35.06	11.63	34.33	240	153	P	H
		5182	92.12	-	-	79.76	35.06	11.63	34.33	240	153	A	H
		5109.28	55.13	-18.87	74	43.21	35	11.56	34.64	111	299	P	V
		5149.92	45.8	-8.2	54	33.61	35.03	11.6	34.44	111	299	A	V
	*	5182	104.42	-	-	92.06	35.06	11.63	34.33	111	299	P	V
		5182	96.94	-	-	84.58	35.06	11.63	34.33	111	299	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII 1 5150~5250MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

Table with 14 columns: WIFI Ant. 1, Note, Frequency (MHz), Level (dBµV/m), Over Limit (dB), Limit Line (dBµV/m), Read Level (dBµV), Antenna Factor (dB/m), Path Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Rows include test results for 802.11n HT20 channels 36, 44, and 48 at various frequencies.



UNII 1 5150~5250MHz
WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 38 5190MHz		5149.12	55.19	-18.81	74	43	35.03	11.6	34.44	268	155	P	H
		5149.6	46.58	-7.42	54	34.39	35.03	11.6	34.44	268	155	A	H
	*	5194	97.62	-	-	85.12	35.08	11.65	34.23	268	155	P	H
		5194	90.61	-	-	78.11	35.08	11.65	34.23	268	155	A	H
		5367.42	54.5	-19.5	74	41.07	35.24	11.82	33.63	268	155	P	H
		5400	45.43	-8.57	54	31.83	35.27	11.86	33.53	268	155	A	H
		5148.64	58.78	-15.22	74	46.59	35.03	11.6	34.44	100	311	P	V
	!	5149.28	49.24	-4.76	54	37.05	35.03	11.6	34.44	100	311	A	V
	*	5194	102.86	-	-	90.36	35.08	11.65	34.23	100	311	P	V
		5194	95.39	-	-	82.89	35.08	11.65	34.23	100	311	A	V
	5376.42	55.13	-18.87	74	41.6	35.24	11.82	33.53	100	311	P	V	
	5393.52	45.35	-8.65	54	31.78	35.26	11.84	33.53	100	311	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII 1 5150~5250MHz
WIFI 802.11ac VHT40 (Harmonic @ 3m)

Table with 14 columns: WIFI Ant. 1, Note, Frequency (MHz), Level (dBµV/m), Over Limit (dB), Limit Line (dBµV/m), Read Level (dBµV), Antenna Factor (dB/m), Path Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Rows include test results for 802.11ac VHT40 CH 38 and 5190MHz, and 802.11ac VHT40 CH 46 and 5230MHz. A Remark section at the bottom states: 1. No other spurious found. 2. All results are PASS against Peak and Average limit line.



UNII 1 5150~5250MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5149.44	57.06	-16.94	74	44.87	35.03	11.6	34.44	259	67	P	H
		5148.96	47.16	-6.84	54	34.97	35.03	11.6	34.44	259	67	A	H
	*	5212	95.33	-	-	82.8	35.09	11.67	34.23	259	67	P	H
		5212	88.57	-	-	76.04	35.09	11.67	34.23	259	67	A	H
		5389.02	54.93	-19.07	74	41.36	35.26	11.84	33.53	259	67	P	H
		5394.78	45.69	-8.31	54	32.09	35.27	11.86	33.53	259	67	A	H
		5149.76	59.34	-14.66	74	47.15	35.03	11.6	34.44	103	294	P	V
	!	5148.16	49.7	-4.3	54	37.51	35.03	11.6	34.44	103	294	A	V
	*	5218	100.2	-	-	87.67	35.09	11.67	34.23	103	294	P	V
		5218	93.3	-	-	80.77	35.09	11.67	34.23	103	294	A	V
	5398.38	54.91	-19.09	74	41.31	35.27	11.86	33.53	103	294	P	V	
	5365.62	46.37	-7.63	54	32.94	35.24	11.82	33.63	103	294	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

UNII 1 5150~5250MHz
WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		10418.42	45.34	-22.96	68.3	50.66	38.34	17.01	60.67	300	0	P	H
		10418.42	44.64	-23.66	68.3	49.96	38.34	17.01	60.67	300	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII 2A - 5250~5350MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 64 5320MHz		5380	55.22	-18.78	74	41.65	35.26	11.84	33.53	257	155	P	H
		5350.4	45.2	-8.8	54	31.81	35.22	11.8	33.63	257	155	A	H
	*	5320	102.71	-	-	89.58	35.19	11.77	33.83	257	155	P	H
		5320	95.36	-	-	82.23	35.19	11.77	33.83	257	155	A	H
		5350.8	56.02	-17.98	74	42.63	35.22	11.8	33.63	101	312	P	V
		5350.3	47.11	-6.89	54	33.72	35.22	11.8	33.63	101	312	A	V
	*	5320	108.05	-	-	94.92	35.19	11.77	33.83	101	312	P	V
		5320	100.79	-	-	87.66	35.19	11.77	33.83	101	312	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII 2A 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 52 5260MHz		7015.015	57.49	-10.81	68.3	67.71	36.79	13.44	60.45	300	0	P	H
		10518.52	44.98	-23.32	68.3	50.14	38.37	17.12	60.65	300	0	P	H
		7015.015	55.52	-12.78	68.3	65.74	36.79	13.44	60.45	300	0	P	V
		10518.52	44.8	-23.5	68.3	49.96	38.37	17.12	60.65	300	0	P	V
802.11a CH 60 5300MHz		7065.065	56.48	-11.82	68.3	66.68	36.77	13.49	60.46	300	0	P	H
		10600.01	44.99	-29.01	74	50.05	38.4	17.17	60.63	300	0	P	H
		7065.065	55.03	-13.27	68.3	65.23	36.77	13.49	60.46	300	0	P	V
		10600.01	45.49	-28.51	74	50.55	38.4	17.17	60.63	300	0	P	V
802.11a CH 64 5320MHz		7095.095	56.85	-11.45	68.3	67.04	36.76	13.52	60.47	300	0	P	H
		10640	44.55	-29.45	74	49.56	38.41	17.2	60.62	300	0	P	H
		7095.095	54.71	-13.59	68.3	64.9	36.76	13.52	60.47	300	0	P	V
		10638.63	45.12	-28.88	74	50.13	38.41	17.2	60.62	300	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII 2A 5250~5350MHz
WIFI 802.11ac VHT20 (Band Edge @ 3m)

Table with 14 columns: WIFI Ant. 1, Note, Frequency (MHz), Level (dBµV/m), Over Limit (dB), Limit Line (dBµV/m), Read Level (dBµV), Antenna Factor (dB/m), Path Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Rows include test results for 802.11ac VHT20 CH 64 5320MHz and a Remark section.



UNII 2A 5250~5350MHz
WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		7015.015	57.59	-10.71	68.3	67.81	36.79	13.44	60.45	300	0	P	H
VHT20		10520	45.2	-23.1	68.3	50.36	38.37	17.12	60.65	300	0	P	H
CH 52		7015.015	57.06	-11.24	68.3	67.28	36.79	13.44	60.45	300	0	P	V
5260MHz		10518.52	45.64	-22.66	68.3	50.8	38.37	17.12	60.65	300	0	P	V
802.11ac		7065.065	57.49	-10.81	68.3	67.69	36.77	13.49	60.46	300	0	P	H
VHT20		10600.01	45.11	-28.89	74	50.17	38.4	17.17	60.63	300	0	P	H
CH 60		7065.065	55.28	-13.02	68.3	65.48	36.77	13.49	60.46	300	0	P	V
5300MHz		10600.01	44.47	-29.53	74	49.53	38.4	17.17	60.63	300	0	P	V
802.11ac		7095.095	56.09	-12.21	68.3	66.28	36.76	13.52	60.47	300	0	P	H
VHT20		10640	44.68	-29.32	74	49.69	38.41	17.2	60.62	300	0	P	H
CH 64		7095.095	55.4	-12.9	68.3	65.59	36.76	13.52	60.47	300	0	P	V
5320MHz		10638.63	45.36	-28.64	74	50.37	38.41	17.2	60.62	300	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII 2A 5250~5350MHz
WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 62 5310MHz		5142.24	54.56	-19.44	74	42.37	35.03	11.6	34.44	289	151	P	H
		5105.6	45.16	-8.84	54	33.24	35	11.56	34.64	289	151	A	H
	*	5308	98.71	-	-	85.61	35.18	11.75	33.83	289	151	P	H
		5308	91.58	-	-	78.48	35.18	11.75	33.83	289	151	A	H
		5350.4	55.49	-18.51	74	42.1	35.22	11.8	33.63	289	151	P	H
		5350.1	46.5	-7.5	54	33.11	35.22	11.8	33.63	289	151	A	H
		5130.72	55.14	-18.86	74	43.09	35.01	11.58	34.54	100	312	P	V
		5115.84	45.2	-8.8	54	33.18	35	11.56	34.54	100	312	A	V
	*	5308	105.26	-	-	92.16	35.18	11.75	33.83	100	312	P	V
		5308	97.61	-	-	84.51	35.18	11.75	33.83	100	312	A	V
		5351.7	59.52	-14.48	74	46.13	35.22	11.8	33.63	100	312	P	V
!		5350	50.53	-3.47	54	37.14	35.22	11.8	33.63	100	312	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII 2A 5250~5350MHz
WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		7025.025	57.75	-10.55	68.3	67.97	36.79	13.44	60.45	300	0	P	H
VHT40		10540	44.95	-23.35	68.3	50.08	38.38	17.13	60.64	300	0	P	H
CH 54		7025.025	56.39	-11.91	68.3	66.61	36.79	13.44	60.45	300	0	P	V
5270MHz		10538.54	45.81	-22.49	68.3	50.94	38.38	17.13	60.64	300	0	P	V
802.11ac		7080.08	57.35	-10.95	68.3	67.55	36.77	13.5	60.47	300	0	P	H
VHT40		10620	45.04	-28.96	74	50.07	38.41	17.18	60.62	300	0	P	H
CH 62		7080.08	54.64	-13.66	68.3	64.84	36.77	13.5	60.47	300	0	P	V
5310MHz		10620	44.77	-29.23	74	49.8	38.41	17.18	60.62	300	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII 2A 5250~5350MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 58 5290MHz		5137.12	55.96	-18.04	74	43.91	35.01	11.58	34.54	292	66	P	H
		5131.2	45.9	-8.1	54	33.85	35.01	11.58	34.54	292	66	A	H
	*	5296	96.61	-	-	83.61	35.18	11.75	33.93	292	66	P	H
		5296	89.38	-	-	76.38	35.18	11.75	33.93	292	66	A	H
		5356.6	57.11	-16.89	74	43.72	35.22	11.8	33.63	292	66	P	H
		5351.6	47.54	-6.46	54	34.15	35.22	11.8	33.63	292	66	A	H
		5149.44	54.48	-19.52	74	42.29	35.03	11.6	34.44	102	299	P	V
		5116.96	45.64	-8.36	54	33.62	35	11.56	34.54	102	299	A	V
	*	5296	101.38	-	-	88.38	35.18	11.75	33.93	102	299	P	V
		5296	94.08	-	-	81.08	35.18	11.75	33.93	102	299	A	V
		5350.3	57.15	-16.85	74	43.76	35.22	11.8	33.63	102	299	P	V
!	5351.8	50.11	-3.89	54	36.72	35.22	11.8	33.63	102	299	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

UNII 2A 5250~5350MHz
WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 58 5290MHz		7055.055	56.64	-11.66	68.3	66.85	36.78	13.47	60.46	300	0	P	H
		10580	44.85	-23.45	68.3	49.92	38.4	17.16	60.63	300	0	P	H
		7055.055	54.37	-13.93	68.3	64.58	36.78	13.47	60.46	300	0	P	V
		10580	45.14	-23.16	68.3	50.21	38.4	17.16	60.63	300	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII 2C - 5470~5725MHz
WIFI 802.11a (Band Edge @ 3m)

Table with 14 columns: WIFI Ant. 1, Note, Frequency (MHz), Level (dBµV/m), Over Limit (dB), Limit Line (dBµV/m), Read Level (dBµV), Antenna Factor (dB/m), Path Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Rows include data for 802.11a CH 100 (5500MHz) and 802.11a CH 140 (5700MHz).

Remark

- 1. No other spurious found.
2. All results are PASS against Peak and Average limit line.



UNII 2C - 5470~5725MHz
WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 100 5500MHz		7335.335	51.95	-22.05	74	62.06	36.66	13.75	60.52	100	279	P	H
	!	7335.335	49.39	-4.61	54	59.5	36.66	13.75	60.52	100	279	A	H
		10999	45.44	-28.56	74	50.03	38.53	17.42	60.54	300	0	P	H
		7335.335	53.13	-20.87	74	63.24	36.66	13.75	60.52	197	269	P	V
	!	7335.335	50.77	-3.23	54	60.88	36.66	13.75	60.52	197	269	A	V
		10999	44.73	-29.27	74	49.32	38.53	17.42	60.54	300	0	P	V
802.11a CH 116 5580MHz		7440.44	49.26	-24.74	74	59.33	36.62	13.85	60.54	300	0	P	H
		11160	45.21	-28.79	74	49.63	38.59	17.49	60.5	300	0	P	H
		7440.44	52.84	-21.16	74	62.91	36.62	13.85	60.54	110	91	P	V
	!	7440.44	50.06	-3.94	54	60.13	36.62	13.85	60.54	110	91	A	V
		11160	45.06	-28.94	74	49.48	38.59	17.49	60.5	300	0	P	V
802.11a CH 140 5700MHz		7600.6	53.02	-20.98	74	62.88	36.68	14.03	60.57	108	72	P	H
	!	7600.6	50.58	-3.42	54	60.44	36.68	14.03	60.57	108	72	A	H
		11400	44.99	-29.01	74	49.18	38.67	17.59	60.45	300	0	P	H
		7600.6	52.72	-21.28	74	62.58	36.68	14.03	60.57	111	90	P	V
	!	7600.6	49.86	-4.14	54	59.72	36.68	14.03	60.57	111	90	A	V
		11399.39	45.09	-28.91	74	49.28	38.67	17.59	60.45	300	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII 2C - 5470~5725MHz
WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 100 5500MHz		5448.56	55.65	-18.35	74	41.75	35.32	11.91	33.33	100	20	P	H
		5467.92	55.39	-12.91	68.3	41.35	35.34	11.93	33.23	100	20	P	H
		5458.96	46.07	-7.93	54	32.07	35.32	11.91	33.23	100	20	A	H
	*	5500	102.57	-	-	88.36	35.37	11.96	33.12	100	20	P	H
		5500	95.77	-	-	81.56	35.37	11.96	33.12	100	20	A	H
		5457.36	56.57	-17.43	74	42.57	35.32	11.91	33.23	103	311	P	V
		5464.24	56.23	-12.07	68.3	42.19	35.34	11.93	33.23	103	311	P	V
		5459.12	46.62	-7.38	54	32.62	35.32	11.91	33.23	103	311	A	V
	*	5500	107.85	-	-	93.64	35.37	11.96	33.12	103	311	P	V
	5500	100.55	-	-	86.34	35.37	11.96	33.12	103	311	A	V	
802.11ac VHT20 CH 140 5700MHz		5725.08	56.73	-11.57	68.3	41.79	35.65	12.15	32.86	260	78	P	H
	*	5704	102.95	-	-	87.95	35.62	12.13	32.75	260	78	P	H
		5704	96.3	-	-	81.3	35.62	12.13	32.75	260	78	A	H
		5725.08	57.42	-10.88	68.3	42.48	35.65	12.15	32.86	110	308	P	V
	*	5698	107.98	-	-	93.02	35.59	12.12	32.75	110	308	P	V
	5698	100.73	-	-	85.77	35.59	12.12	32.75	110	308	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII 2C - 5470~5725MHz
WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 100 5500MHz		7335.335	50	-24	74	60.11	36.66	13.75	60.52	100	360	P	H
		11004	45.87	-28.13	74	50.46	38.53	17.42	60.54	100	360	P	H
		7335.335	52.4	-21.6	74	62.51	36.66	13.75	60.52	109	92	P	V
	!	7335.335	50.4	-3.6	54	60.51	36.66	13.75	60.52	109	92	A	V
		11004	44.55	-29.45	74	49.14	38.53	17.42	60.54	100	360	P	V
802.11ac VHT20 CH 116 5580MHz		7440.44	49.26	-24.74	74	59.33	36.62	13.85	60.54	300	0	P	H
		11160	46.47	-27.53	74	50.89	38.59	17.49	60.5	300	0	P	H
		7440.44	53.4	-20.6	74	63.47	36.62	13.85	60.54	111	99	P	V
	!	7440.44	50.34	-3.66	54	60.41	36.62	13.85	60.54	111	99	A	V
		11160	46.05	-27.95	74	50.47	38.59	17.49	60.5	300	0	P	V
802.11ac VHT20 CH 140 5700MHz		7600.6	46.91	-27.09	74	56.77	36.68	14.03	60.57	300	0	P	H
		11400	46.08	-27.92	74	50.27	38.67	17.59	60.45	300	0	P	H
		7600.6	48.65	-25.35	74	58.51	36.68	14.03	60.57	300	0	P	V
		11400	45.81	-28.19	74	50	38.67	17.59	60.45	300	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII 2C - 5470~5725MHz
WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 102 5510MHz		5459.92	55.99	-18.01	74	41.99	35.32	11.91	33.23	102	19	P	H
		5470	58.93	-9.37	68.3	44.89	35.34	11.93	33.23	102	19	P	H
		5459.12	47.99	-6.01	54	33.99	35.32	11.91	33.23	102	19	A	H
	*	5506	99.71	-	-	85.4	35.37	11.96	33.02	102	19	P	H
		5506	91.81	-	-	77.5	35.37	11.96	33.02	102	19	A	H
		5759.08	55.71	-12.59	68.3	40.78	35.72	12.18	32.97	102	19	P	H
		5459.28	59.83	-14.17	74	45.83	35.32	11.91	33.23	100	309	P	V
	!	5469.84	63.82	-4.48	68.3	49.78	35.34	11.93	33.23	100	309	P	V
	!	5459.92	50.8	-3.2	54	36.8	35.32	11.91	33.23	100	309	A	V
	*	5512	106.72	-	-	92.41	35.37	11.96	33.02	100	309	P	V
		5512	100.81	-	-	86.5	35.37	11.96	33.02	100	309	A	V
	5753.56	56.13	-12.17	68.3	41.2	35.72	12.18	32.97	100	309	P	V	
802.11ac VHT40 CH 110 5550MHz		5456.72	55.87	-18.13	74	41.87	35.32	11.91	33.23	100	22	P	H
		5463.6	56.06	-12.24	68.3	42.02	35.34	11.93	33.23	100	22	P	H
		5453.2	46.28	-7.72	54	32.28	35.32	11.91	33.23	100	22	A	H
	*	5554	99.69	-	-	85.19	35.42	12	32.92	100	22	P	H
		5554	92.28	-	-	77.78	35.42	12	32.92	100	22	A	H
		5736.68	56.06	-12.24	68.3	41.08	35.68	12.16	32.86	100	22	P	H
		5451.76	55.57	-18.43	74	41.67	35.32	11.91	33.33	100	296	P	V
		5462.96	54.91	-13.39	68.3	40.87	35.34	11.93	33.23	100	296	P	V
		5454.48	46.61	-7.39	54	32.61	35.32	11.91	33.23	100	296	A	V
	*	5548	106.04	-	-	91.54	35.42	12	32.92	100	296	P	V
	5548	97.64	-	-	83.14	35.42	12	32.92	100	296	A	V	
	5740.52	57.02	-11.28	68.3	42.15	35.68	12.16	32.97	100	296	P	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 134 5670MHz		5459.92	55.32	-18.68	74	41.32	35.32	11.91	33.23	100	26	P	H
		5462.48	54.62	-13.68	68.3	40.62	35.32	11.91	33.23	100	26	P	H
		5458.48	46.15	-7.85	54	32.15	35.32	11.91	33.23	100	26	A	H
		5668	100.75	-	-	85.72	35.56	12.1	32.63	100	26	P	H
		5668	93.4	-	-	78.37	35.56	12.1	32.63	100	26	A	H
		5754.2	56.94	-11.36	68.3	42.01	35.72	12.18	32.97	100	26	P	H
		5438.64	55.54	-18.46	74	41.67	35.31	11.89	33.33	112	308	P	V
		5469.04	55.31	-12.99	68.3	41.27	35.34	11.93	33.23	112	308	P	V
		5458	46.17	-7.83	54	32.17	35.32	11.91	33.23	112	308	A	V
		5668	106.45	-	-	91.42	35.56	12.1	32.63	112	308	P	V
		5668	99.14	-	-	84.11	35.56	12.1	32.63	112	308	A	V
		5728.04	57.61	-10.69	68.3	42.67	35.65	12.15	32.86	112	308	P	V
Remark	<ol style="list-style-type: none"> No other spurious found. All results are PASS against Peak and Average limit line. 												



UNII 2C - 5470~5725MHz
WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 102 5510MHz		7345.345	49.44	-24.56	74	59.55	36.66	13.75	60.52	100	360	P	H
		11019.02	44.36	-29.64	74	48.93	38.54	17.43	60.54	100	360	P	H
		7345.345	52.3	-21.7	74	62.41	36.66	13.75	60.52	111	91	P	V
	!	7345.345	50.13	-3.87	54	60.24	36.66	13.75	60.52	111	91	A	V
		11019.02	44.45	-29.55	74	49.02	38.54	17.43	60.54	100	360	P	V
802.11ac VHT40 CH 110 5550MHz		7400.4	52.57	-21.43	74	62.66	36.64	13.8	60.53	232	77	P	H
	!	7400.4	49.99	-4.01	54	60.08	36.64	13.8	60.53	232	77	A	H
		11099.1	45.76	-28.24	74	50.25	38.57	17.46	60.52	300	0	P	H
		7400.4	53.41	-20.59	74	63.5	36.64	13.8	60.53	100	92	P	V
	!	7400.4	50.22	-3.78	54	60.31	36.64	13.8	60.53	100	92	A	V
		11099.1	45.17	-28.83	74	49.66	38.57	17.46	60.52	300	0	P	V
802.11ac VHT40 CH 134 5670MHz		7560.56	47.99	-26.01	74	57.91	36.65	13.99	60.56	300	0	P	H
		11339.33	45.77	-28.23	74	50.04	38.64	17.56	60.47	300	0	P	H
		7560.56	51.66	-22.34	74	61.58	36.65	13.99	60.56	100	87	P	V
	!	7560.56	48.92	-5.08	54	58.84	36.65	13.99	60.56	100	87	A	V
			11339.33	45.88	-28.12	74	50.15	38.64	17.56	60.47	300	0	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**UNII 2C 5470~5725MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)**

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 106 5530MHz		5379.76	55.51	-18.49	74	41.94	35.26	11.84	33.53	301	79	P	H
		5465.52	56.26	-12.04	68.3	42.22	35.34	11.93	33.23	301	79	P	H
		5454.8	46.46	-7.54	54	32.46	35.32	11.91	33.23	301	79	A	H
	*	5524	95.79	-	-	81.45	35.39	11.97	33.02	301	79	P	H
		5524	87.46	-	-	73.12	35.39	11.97	33.02	301	79	A	H
		5759.32	55.39	-12.91	68.3	40.46	35.72	12.18	32.97	301	79	P	H
		5446	61.39	-12.61	74	47.49	35.32	11.91	33.33	108	276	P	V
		5467.76	64.66	-3.64	68.3	50.62	35.34	11.93	33.23	108	276	P	V
	!	5458.64	49.08	-4.92	54	35.08	35.32	11.91	33.23	108	276	A	V
	*	5524	101.51	-	-	87.17	35.39	11.97	33.02	108	276	P	V
		5524	94.13	-	-	79.79	35.39	11.97	33.02	108	276	A	V
	5733.48	55.88	-12.42	68.3	40.94	35.65	12.15	32.86	108	276	P	V	
802.11ac VHT80 CH 122 5610MHz		5434.16	55.61	-18.39	74	41.74	35.31	11.89	33.33	270	77	P	H
		5460.24	55.01	-13.29	68.3	41.01	35.32	11.91	33.23	270	77	P	H
		5458.32	46.57	-7.43	54	32.57	35.32	11.91	33.23	270	77	A	H
	*	5608	98.84	-	-	84.04	35.47	12.05	32.72	270	77	P	H
		5608	91.44	-	-	76.64	35.47	12.05	32.72	270	77	A	H
		5759.08	56.22	-12.08	68.3	41.29	35.72	12.18	32.97	270	77	P	H
		5454	56.92	-17.08	74	42.92	35.32	11.91	33.23	100	279	P	V
		5464.24	55.9	-12.4	68.3	41.86	35.34	11.93	33.23	100	279	P	V
		5456.24	47	-7	54	33	35.32	11.91	33.23	100	279	A	V
	*	5614	104.12	-	-	89.22	35.47	12.05	32.62	100	279	P	V
	5614	96.81	-	-	81.91	35.47	12.05	32.62	100	279	A	V	
	5738.6	58.13	-10.17	68.3	43.15	35.68	12.16	32.86	100	279	P	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII 2C 5470~5725MHz
WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 106 5530MHz		7375.375	48.71	-25.29	74	58.81	36.65	13.78	60.53	300	0	P	H
		11060	44.96	-29.04	74	49.49	38.55	17.45	60.53	300	0	P	H
		7375.375	52.32	-21.68	74	62.42	36.65	13.78	60.53	100	100	P	V
	!	7375.375	48.78	-5.22	54	58.88	36.65	13.78	60.53	100	100	A	V
		11059.05	45.47	-28.53	74	50	38.55	17.45	60.53	300	0	P	V
802.11ac VHT80 CH 122 5610MHz		7480.48	47.52	-26.48	74	57.58	36.61	13.88	60.55	300	0	P	H
		11220	45.12	-28.88	74	49.5	38.6	17.51	60.49	300	0	P	H
		7480.48	51.65	-22.35	74	61.71	36.61	13.88	60.55	106	89	P	V
	!	7480.48	49.91	-4.09	54	59.97	36.61	13.88	60.55	106	89	A	V
		11220	46.14	-27.86	74	50.52	38.6	17.51	60.49	300	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII 2C - Straddle Channel

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 144 5720MHz	*	5722	102.97	-	-	88.03	35.65	12.15	32.86	400	0	P	H
		5722	95.5	-	-	80.56	35.65	12.15	32.86	400	0	A	H
	*	5722	108.92	-	-	93.98	35.65	12.15	32.86	100	0	P	V
		5722	100.57	-	-	85.63	35.65	12.15	32.86	100	0	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

UNII 2C - Straddle Channel

WIFI 802.11a (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 144 5720MHz		7625.625	47.99	-26.01	74	57.78	36.71	14.07	60.57	300	0	P	H
		11440	45.44	-28.56	74	49.6	38.68	17.6	60.44	300	0	P	H
		7625.625	51.02	-22.98	74	60.81	36.71	14.07	60.57	116	91	P	V
	!	7625.625	48.96	-5.04	54	58.75	36.71	14.07	60.57	116	91	A	V
		11440	45.05	-28.95	74	49.21	38.68	17.6	60.44	300	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII 2C - Straddle Channel
WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		5722	104.37	-	-	89.43	35.65	12.15	32.86	400	0	P	H
VHT20		5722	97.04	-	-	82.1	35.65	12.15	32.86	400	0	A	H
CH 144		5722	107.53	-	-	92.59	35.65	12.15	32.86	100	0	P	V
5720MHz		5722	99.29	-	-	84.35	35.65	12.15	32.86	100	0	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

UNII 2C - Straddle Channel
WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		7625.625	47.94	-26.06	74	57.73	36.71	14.07	60.57	300	0	P	H
VHT20		11440	45.68	-28.32	74	49.84	38.68	17.6	60.44	300	0	P	H
CH 144		7625.625	51.34	-22.66	74	61.13	36.71	14.07	60.57	116	90	P	V
5720MHz		7625.625	48.96	-5.04	54	58.75	36.71	14.07	60.57	116	90	A	V
		11440	45.65	-28.35	74	49.81	38.68	17.6	60.44	300	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



UNII 2C - Straddle Channel
WIFI 802.11ac VHT40 (Band Edge @ 3m)

Table with 14 columns: WIFI Ant. 1, Note, Frequency (MHz), Level (dBµV/m), Over Limit (dB), Limit Line (dBµV/m), Read Level (dBµV), Antenna Factor (dB/m), Path Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Rows include 802.11ac VHT40 and CH 142 5710MHz.

UNII 2C - Straddle Channel
WIFI 802.11ac VHT40 (Harmonic @ 3m)

Table with 14 columns: WIFI Ant. 1, Note, Frequency (MHz), Level (dBµV/m), Over Limit (dB), Limit Line (dBµV/m), Read Level (dBµV), Antenna Factor (dB/m), Path Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Rows include 802.11ac VHT40 and CH 142 5710MHz.



UNII 2C - Straddle Channel
WIFI 802.11ac VHT80 (Band Edge @ 3m)

Table with 14 columns: WIFI Ant. 1, Note, Frequency (MHz), Level (dBµV/m), Over Limit (dB), Limit Line (dBµV/m), Read Level (dBµV), Antenna Factor (dB/m), Path Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Rows include 802.11ac VHT80 and CH 138 5690MHz with various test results.

UNII 2C - Straddle Channel
WIFI 802.11ac VHT80 (Harmonic @ 3m)

Table with 14 columns: WIFI Ant. 1, Note, Frequency (MHz), Level (dBµV/m), Over Limit (dB), Limit Line (dBµV/m), Read Level (dBµV), Antenna Factor (dB/m), Path Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Rows include 802.11ac VHT80 and CH 138 5690MHz with various test results.



Emission below 1GHz
5GHz WIFI 802.11ac VHT40 (LF)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
5GHz 802.11ac VHT40 LF		44.55	26.28	-13.72	40	40.37	16.77	0.8	31.66	-	-	P	H
		92.08	21.66	-21.84	43.5	36.19	15.86	1.51	31.9	-	-	P	H
		169.68	27.61	-15.89	43.5	40.69	16.15	2.1	31.33	-	-	P	H
		219.15	22.94	-23.06	46	35.25	16.65	2.39	31.35	-	-	P	H
		262.8	24.33	-21.67	46	34.4	18.74	2.62	31.43	-	-	P	H
		617.82	26.24	-19.76	46	28.3	25.17	4.05	31.28	-	-	P	H
		44.55	28.95	-11.05	40	42.51	17.3	0.8	31.66	-	-	P	V
		91.11	22.44	-21.06	43.5	36.62	16.21	1.5	31.89	-	-	P	V
		120.21	18.71	-24.79	43.5	30.71	17.86	1.78	31.64	-	-	P	V
		168.71	23.66	-19.84	43.5	35.85	17.05	2.09	31.33	-	-	P	V
	456.8	26.02	-19.98	46	30.1	23.72	3.47	31.27	-	-	P	V	
	648.86	26.95	-19.05	46	28.23	25.89	4.15	31.32	-	-	P	V	
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Co-location

UNII 2C - 5470~5725MHz

WIFI 802.11ac VHT40&GSM850 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 102 5510MHz		5458.96	55.97	-18.03	74	41.97	35.32	11.91	33.23	106	359	P	H
		5462.32	57	-11.3	68.3	43	35.32	11.91	33.23	106	359	P	H
		5459.98	46.91	-7.09	54	32.91	35.32	11.91	33.23	106	359	A	H
	*	5512	99.24	-	-	84.93	35.37	11.96	33.02	106	359	P	H
		5512	92.35	-	-	78.04	35.37	11.96	33.02	106	359	A	H
		5737.24	56.53	-11.77	68.3	41.55	35.68	12.16	32.86	106	359	P	H
		5455.44	56.72	-17.28	74	42.72	35.32	11.91	33.23	100	301	P	V
		5469.84	59.89	-8.41	68.3	45.85	35.34	11.93	33.23	100	301	P	V
	!	5459.76	48.33	-5.67	54	34.33	35.32	11.91	33.23	100	301	A	V
	*	5506	104.84	-	-	90.53	35.37	11.96	33.02	100	301	P	V
		5506	97.68	-	-	83.37	35.37	11.96	33.02	100	301	A	V
		5730.2	56.58	-11.72	68.3	41.64	35.65	12.15	32.86	100	301	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



UNII 2C 5470~5725MHz

WIFI 802.11ac VHT40&GSM850 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 102 5510MHz		7345.345	48.19	-25.81	74	58.3	36.66	13.75	60.52	300	0	P	H
		11020	44.46	-29.54	74	49.03	38.54	17.43	60.54	300	0	P	H
		7345.345	51.11	-22.89	74	61.22	36.66	13.75	60.52	100	91	P	V
	!	7345.345	48.46	-5.54	54	58.57	36.66	13.75	60.52	100	91	A	V
		11020	45.14	-28.86	74	49.71	38.54	17.43	60.54	300	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Note symbol

*	Fundamental Frequency which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is not under limit 6dB .
P/A	Peak or Average
H/V	Horizontal or Vertical



A calculation example for radiated spurious emission is shown as below:

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
CH 01													
2412MHz		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

1. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)
2. Level(dBμV/m) = Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
3. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)
= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)
= 55.45 (dBμV/m)
2. Over Limit(dB)
= Level(dBμV/m) – Limit Line(dBμV/m)
= 55.45(dBμV/m) – 74(dBμV/m)
= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)
= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)
= 43.54 (dBμV/m)
2. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)
= 43.54(dBμV/m) – 54(dBμV/m)
= -10.46(dB)

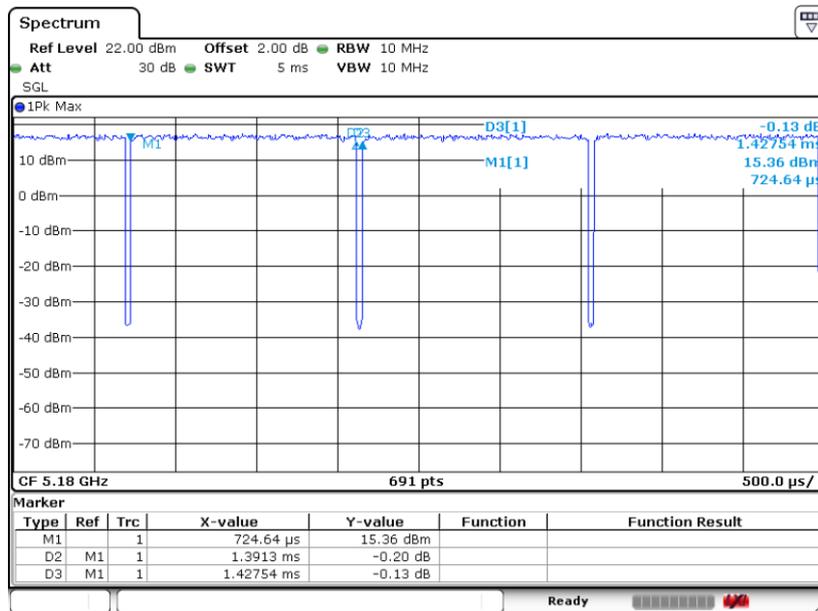
Both peak and average measured complies with the limit line, so test result is “PASS”.



Appendix D. Duty Cycle Plots

Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
802.11a	97.46	1.391	0.719	0.75KHz
802.11n HT20	97.30	1.304	0.767	0.82KHz
802.11ac VHT40	94.55	0.654	1.530	1.6KHz
802.11ac VHT80	89.64	0.326	3.067	3.2KHz

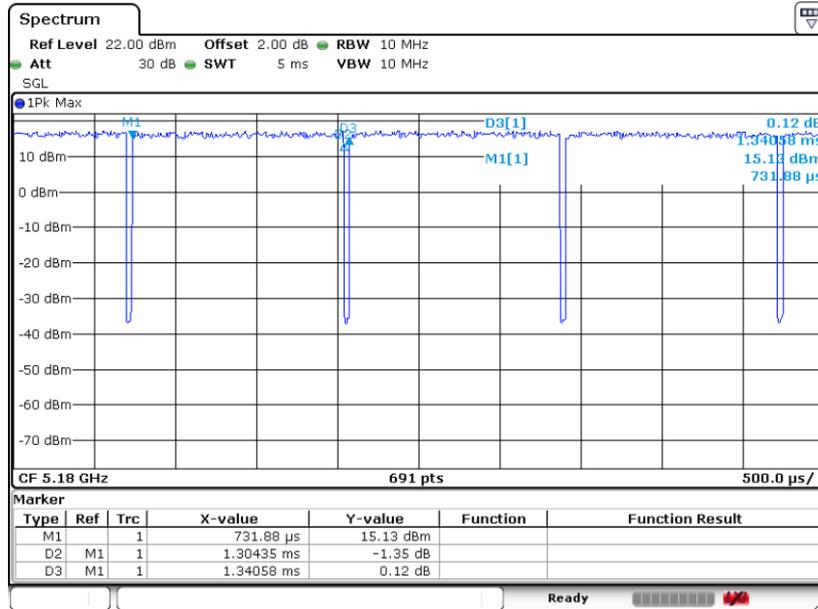
802.11a



Date: 1.NOV.2021 09:23:43

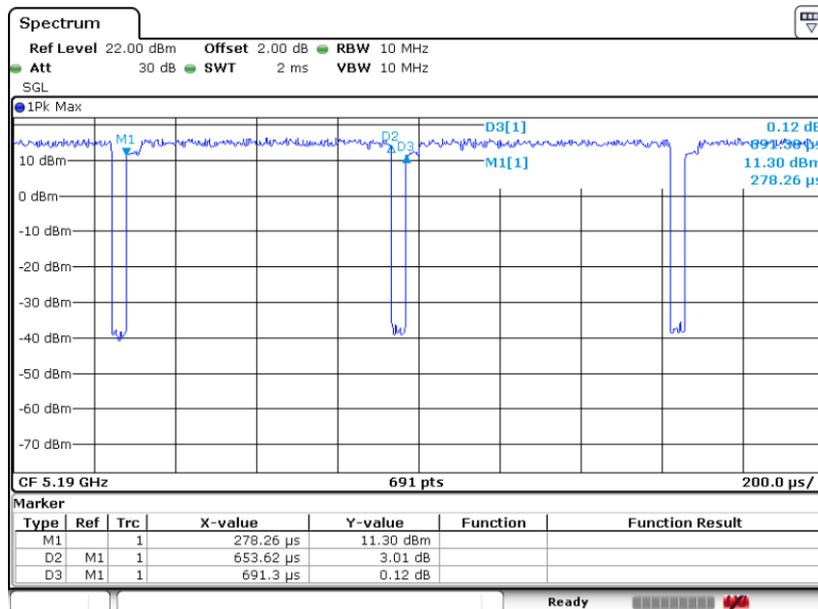


802.11n HT20



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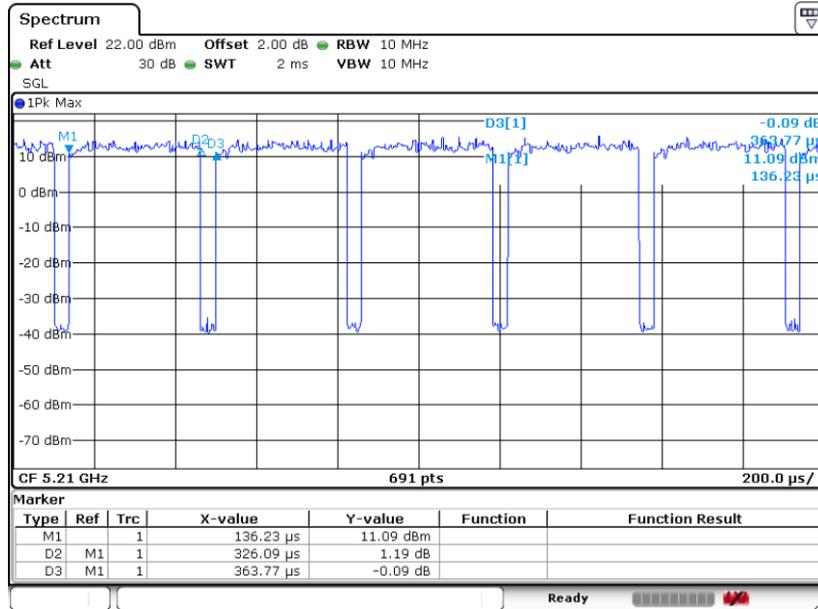
802.11ac VHT40



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802.11ac VHT80



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