



FCC RF Test Report

APPLICANT : vivo Mobile Communication Co., Ltd.
EQUIPMENT : Mobile Phone
BRAND NAME : vivo
MODEL NAME : V2124
FCC ID : 2AUCY-V2124
STANDARD : FCC Part 15 Subpart E §15.407
CLASSIFICATION : (NII) Unlicensed National Information Infrastructure
TEST DATE(S) : Dec. 14, 2021 ~ Dec. 24, 2021

We, Sporton International (ShenZhen) 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 (ShenZhen) Inc., the test report shall not be reproduced except in full.

Reviewed by: Derreck Chen / Supervisor

Approved by: Eric Shih / Manager



Sporton International (ShenZhen) Inc.

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 People's Republic of China



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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR1D1624E	Rev. 01	Initial issue of report	Jan. 10, 2022



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 4.19 dB at 5350.560 MHz
3.5	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 13.46 dB at 0.810 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

vivo Mobile Communication Co., Ltd.
No.1, vivo Road, Chang'an, Dongguan,Guangdong,China

1.2 Manufacturer

vivo Mobile Communication Co., Ltd.
No.1, vivo Road, Chang'an, Dongguan,Guangdong,China

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Phone
Brand Name	vivo
Model Name	V2124
FCC ID	2AUCY-V2124
IMEI Code	Conducted: 862245059979029&862245059979037 Conduction: 862245059966802/862245059966810 Radiation: 862245059980183/862245059980191
HW Version	MP_0.1
SW Version	PD2156BF_EX_A_3.8.5
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 : 18.04 dBm / 0.0637 W 802.11n HT20 : 17.48 dBm / 0.0560 W 802.11n HT40 : 16.51 dBm / 0.0448 W 802.11ac VHT20 : 17.04 dBm / 0.0506 W 802.11ac VHT40 : 16.49 dBm / 0.0446 W 802.11ac VHT80 : 13.40 dBm / 0.0219 W</p> <p><5260 MHz ~ 5320 MHz> 802.11a : 17.93 dBm / 0.0621 W 802.11n HT20 : 17.23 dBm / 0.0528 W 802.11n HT40 : 16.31 dBm / 0.0428 W 802.11ac VHT20 : 17.17 dBm / 0.0521 W 802.11ac VHT40 : 16.25 dBm / 0.0422 W 802.11ac VHT80 : 10.92 dBm / 0.0124 W</p> <p><5500 MHz ~ 5720 MHz ></p>



	802.11a : 17.50 dBm / 0.0562 W 802.11n HT20 : 16.89 dBm / 0.0489 W 802.11n HT40 : 15.55 dBm / 0.0359 W 802.11ac VHT20 : 16.54 dBm / 0.0451 W 802.11ac VHT40 : 15.60 dBm / 0.0363 W 802.11ac VHT80 : 13.86 dBm / 0.0243 W
99% Occupied Bandwidth	<5180 MHz ~ 5240 MHz> 802.11a : 18.63 MHz 802.11n HT20 : 18.28 MHz 802.11n HT40 : 37.16 MHz 802.11ac VHT80 : 75.16 MHz <5260 MHz ~ 5320 MHz > 802.11a : 17.33 MHz 802.11n HT20 : 18.08 MHz 802.11n HT40 : 37.06 MHz 802.11ac VHT80 : 75.16 MHz <5500 MHz ~ 5720 MHz > 802.11a : 18.13 MHz 802.11n HT20 : 18.23 MHz 802.11n HT40 : 37.16 MHz 802.11ac VHT80 : 75.28 MHz
Antenna Type / Gain	<5150 MHz ~ 5250 MHz> PIFA Antenna with gain -3.00 dBi <5250 MHz ~ 5350 MHz> PIFA Antenna with gain -3.00 dBi <5470 MHz ~ 5725 MHz> PIFA Antenna with gain -3.00 dBi
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/HT40 by referring to their maximum conducted power.

1.5 Modification of EUT

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



1.6 Testing Location

Sporton International (Shenzhen) Inc. is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Test Firm	Sporton International (Shenzhen) Inc.		
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	CO01-SZ TH01-SZ	CN1256	421272

Test Firm	Sporton International (Shenzhen) Inc.		
Test Site Location	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City Guangdong Province China 518103 TEL: +86-755-33202398		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	03CH03-SZ	CN1256	421272

1.7 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH03-SZ	AUDIX	E3	6.2009-8-24
2.	CO01-SZ	AUDIX	E3	6.120613b



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 (Y 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
802.11n HT40	MCS0
802.11ac VHT80	MCS0

Co-location
802.11n HT20 CH 62 5310MHz + LTE Band 7C link

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



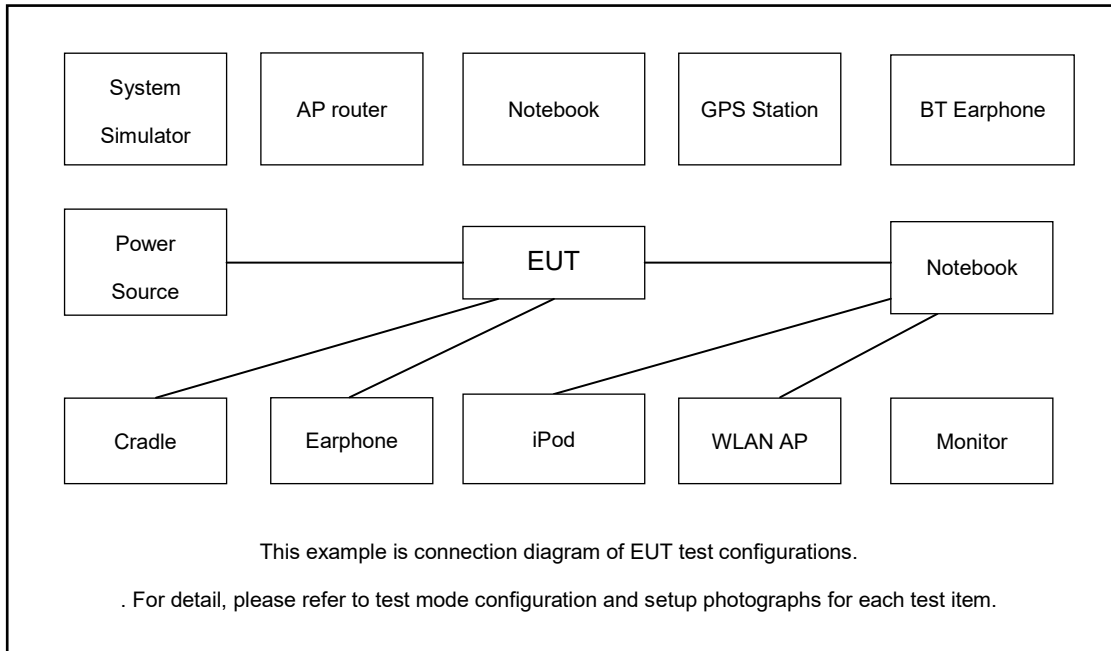
Ch. #		U-NII-1 : 5150-5250 MHz	U-NII-2A : 5250-5350 MHz	U-NII-2C : 5470-5725MHz
		802.11a	802.11a	802.11a
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

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
		802.11n HT40	802.11n HT40	802.11n HT40
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	-	-	122
Straddle		-	-	138

2.3 Connection Diagram of Test System



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Base Station(LTE)	Anritsu	MT8820C	N/A	N/A	Unshielded,1.8m
2.	Bluetooth Earphone	Samsung	EO-MG900	PYAHS-107W	N/A	N/A
3.	NOTE BOOK	Lenovo	E540	FCC DoC	AC I/P : Unshielded, 1.2m DC O/P : Shielded, 1.8m	N/A
4.	WLAN AP	Dlink	DIR-820L	KA2IR820LA1	N/A	Unshielded,1.8m

2.5 EUT Operation Test Setup

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

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 and attenuator factor 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 and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 2.8 dB and 10dB attenuator.

$$\begin{aligned} \text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)}. \\ &= 2.8 + 10 = 12.8 \text{ (dB)} \end{aligned}$$

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.

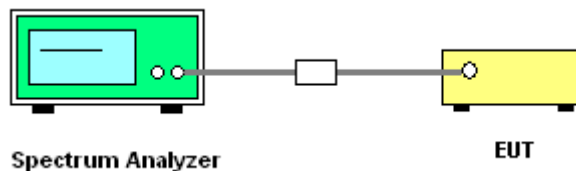
3.1.2 Measuring Instruments

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

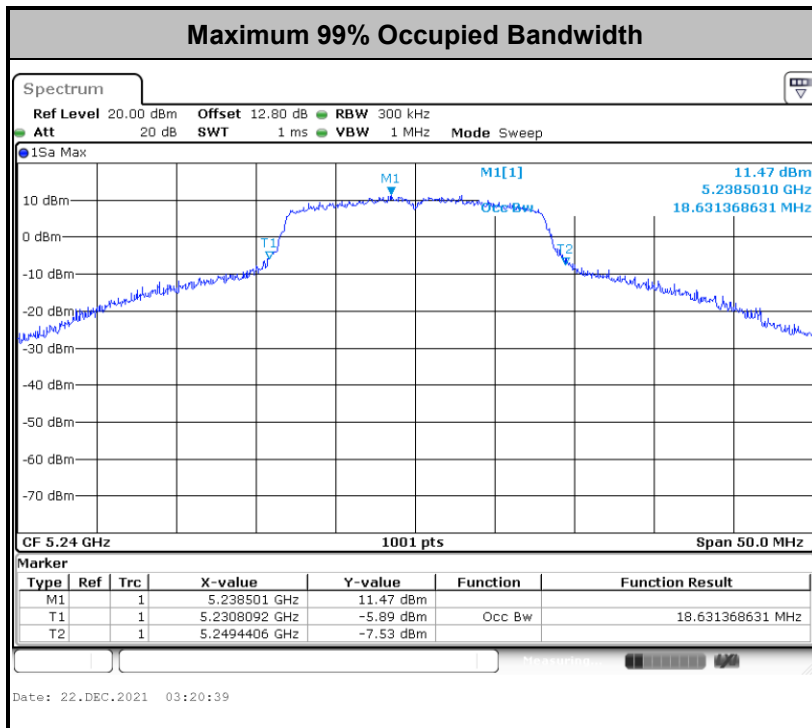
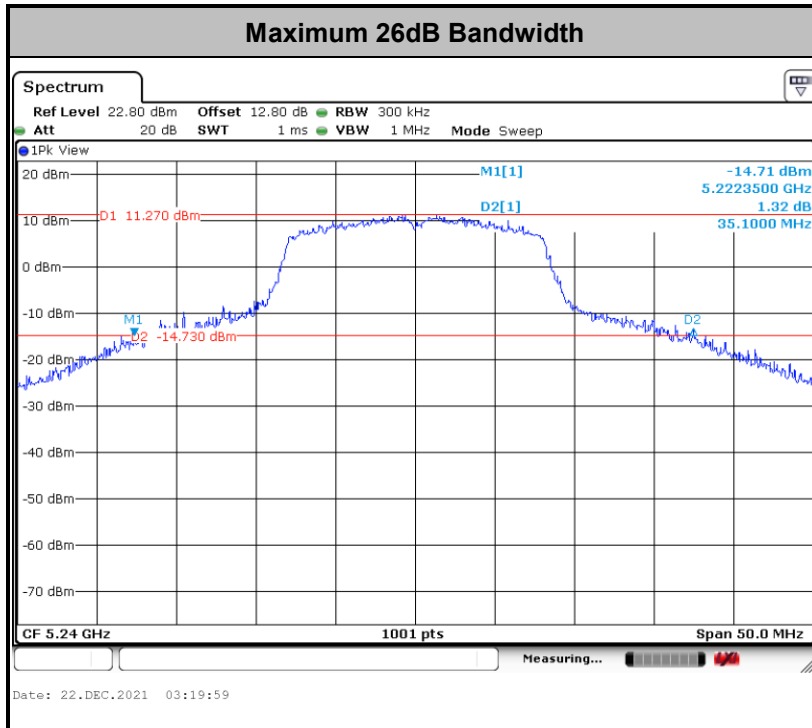


3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

Please refer to Appendix A.

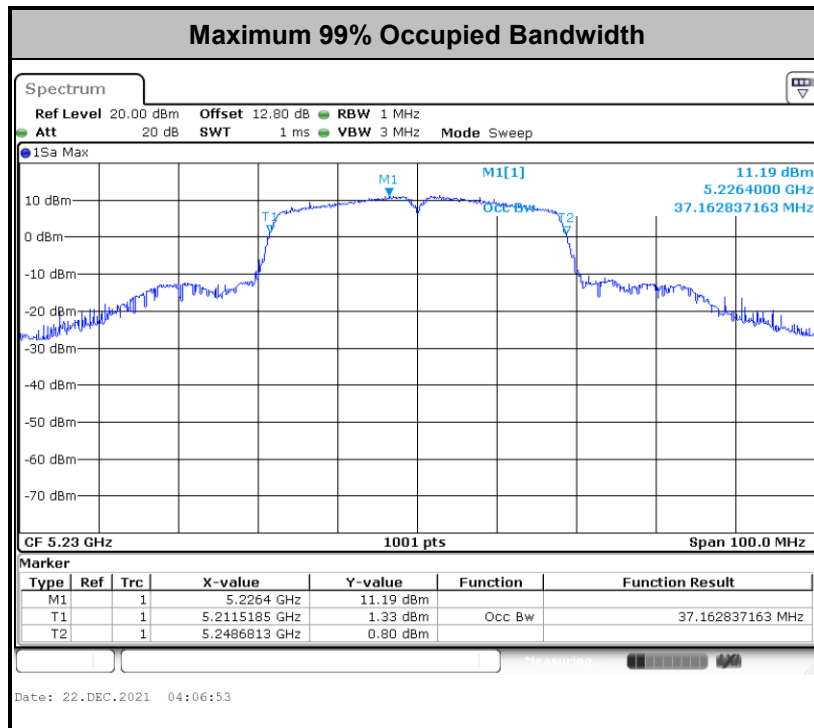
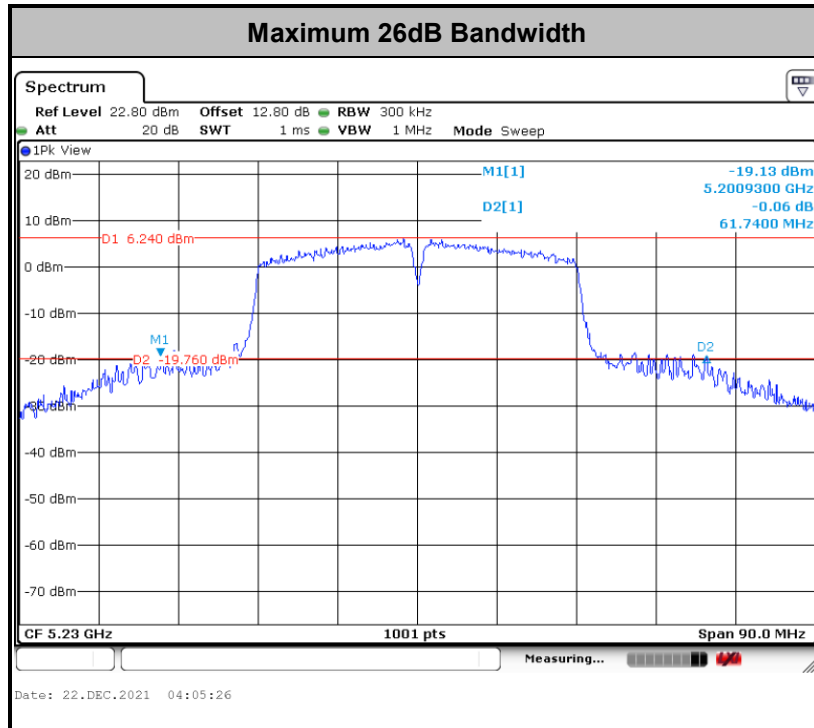


For 20MHz:



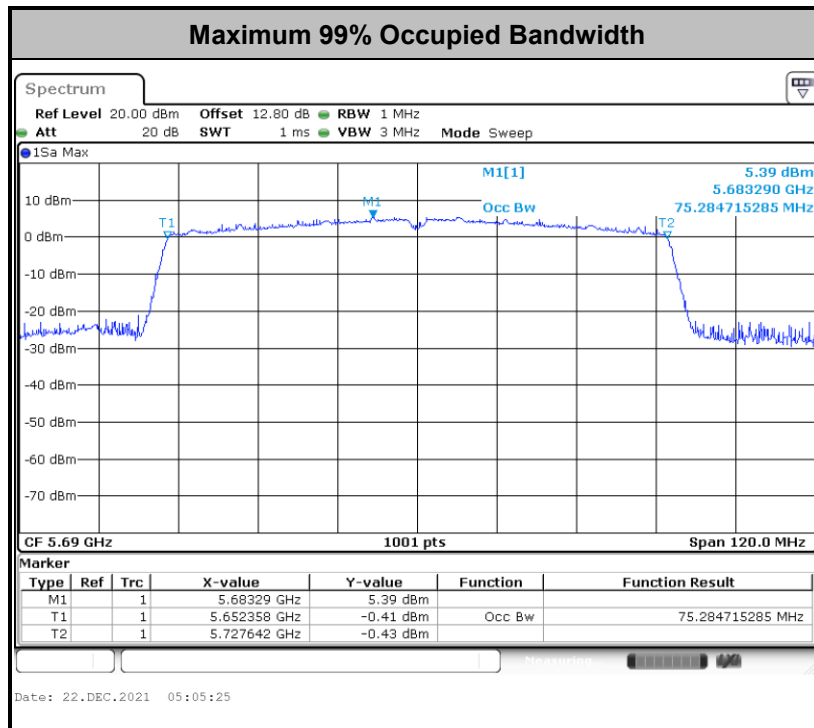
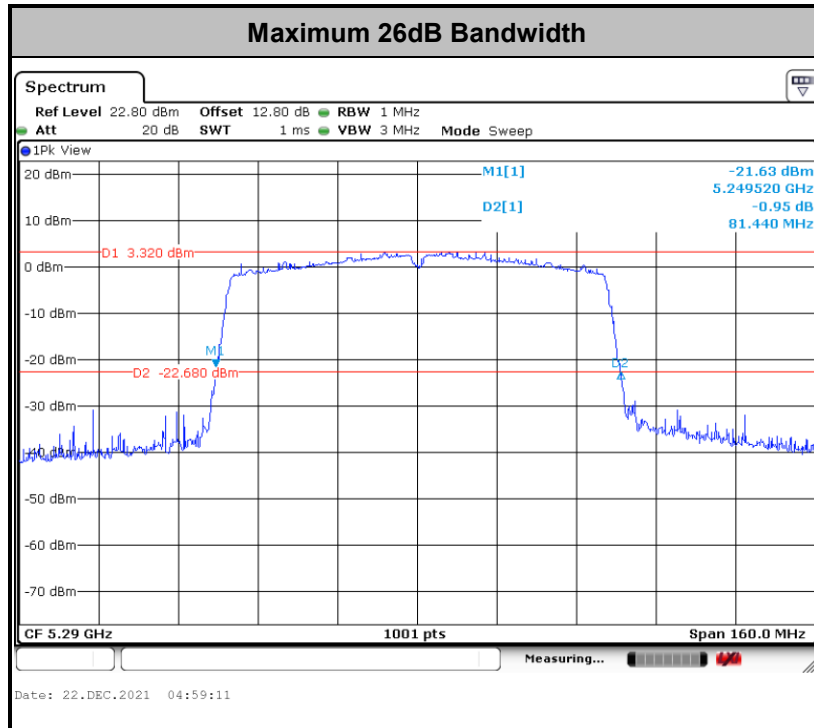


For 40MHz:





For 80MHz:



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

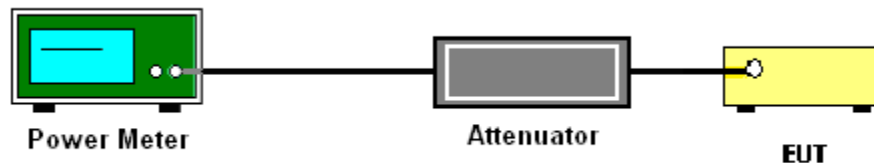
The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

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.

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.

3.2.4 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

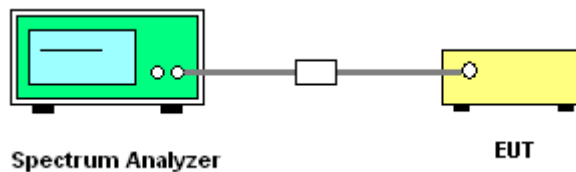
The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
Section F) Maximum power spectral density.

Method SA-2

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

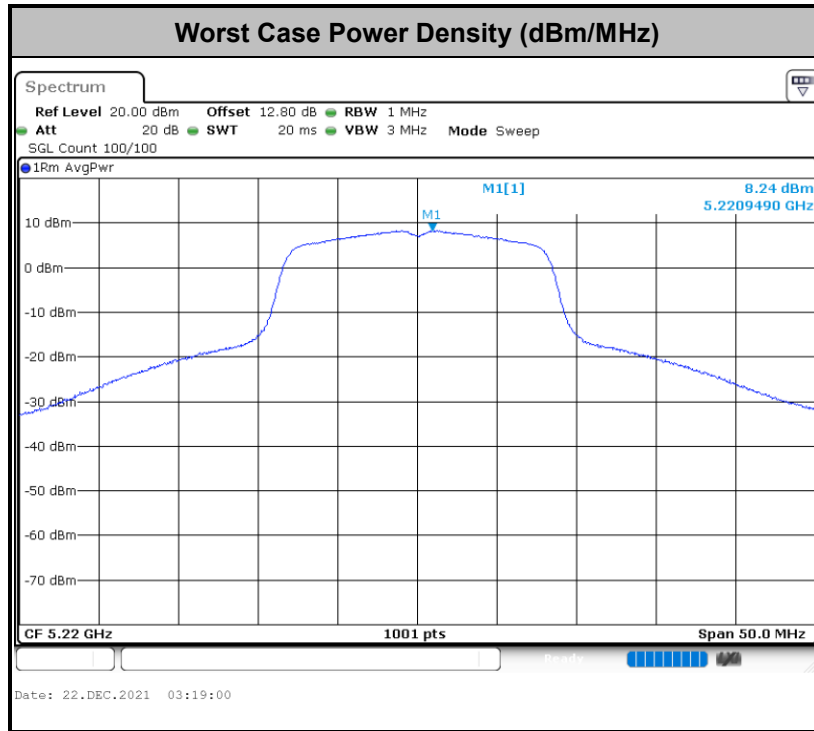
- Measure the duty cycle.
 - Set span to encompass the entire emission bandwidth (EBW) of the signal.
 - Set RBW = 1 MHz.
 - Set VBW \geq 3 MHz.
 - Number of points in sweep \geq 2 Span / RBW.
 - Sweep time = auto.
 - Detector = RMS
 - Trace average at least 100 traces in power averaging mode.
 - Add $10 \log(1/x)$, 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.
1. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
 2. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.

3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.



Note: Average Power Density (dB) = Measured value+ Duty Factor



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	68.3

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.

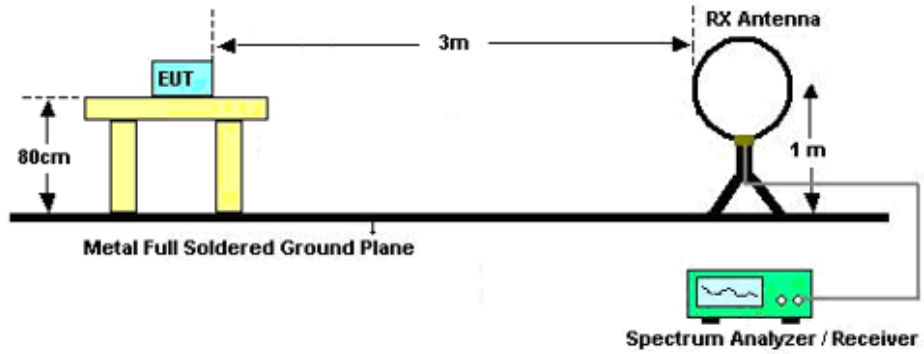


3.4.3 Test Procedures

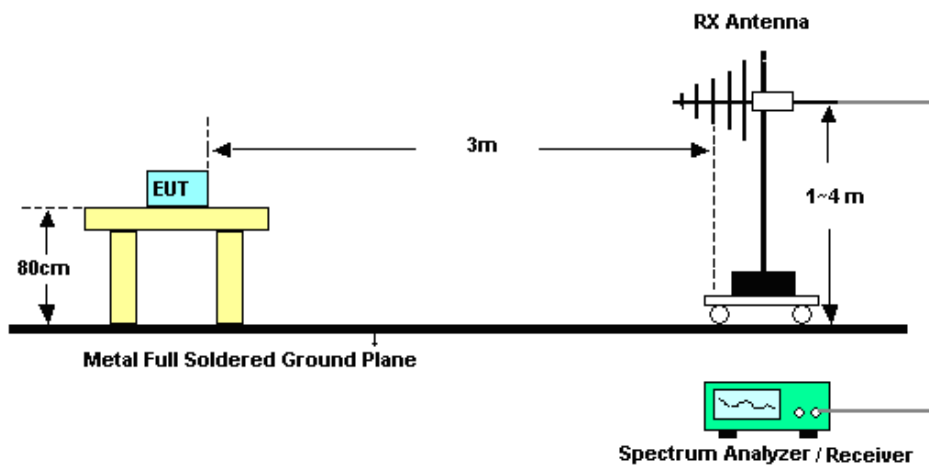
1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section G) Unwanted emissions measurement.
 - (1) Procedure for Unwanted Emissions Measurements Below 1000MHz
 - RBW = 120 kHz
 - VBW = 300 kHz
 - Detector = Peak
 - Trace mode = max hold
 - (2) Procedure for Peak 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

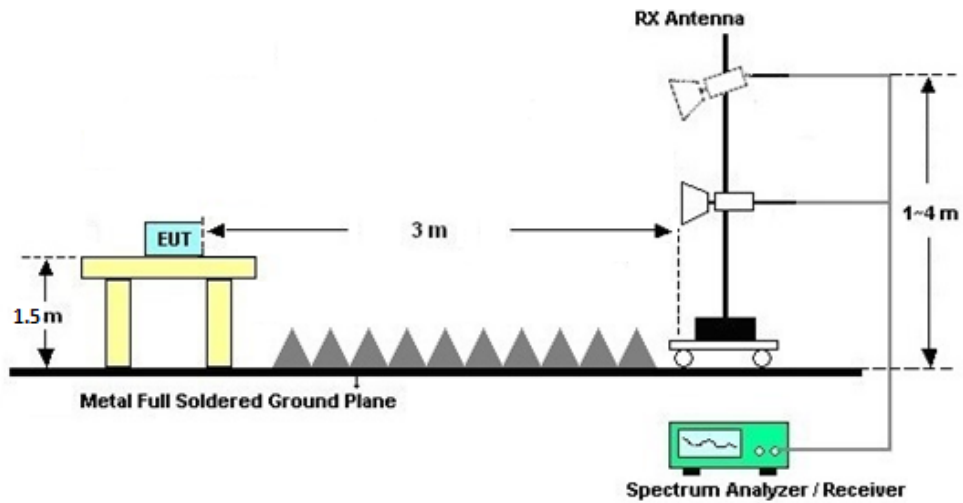
For radiated emissions below 30MHz



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.

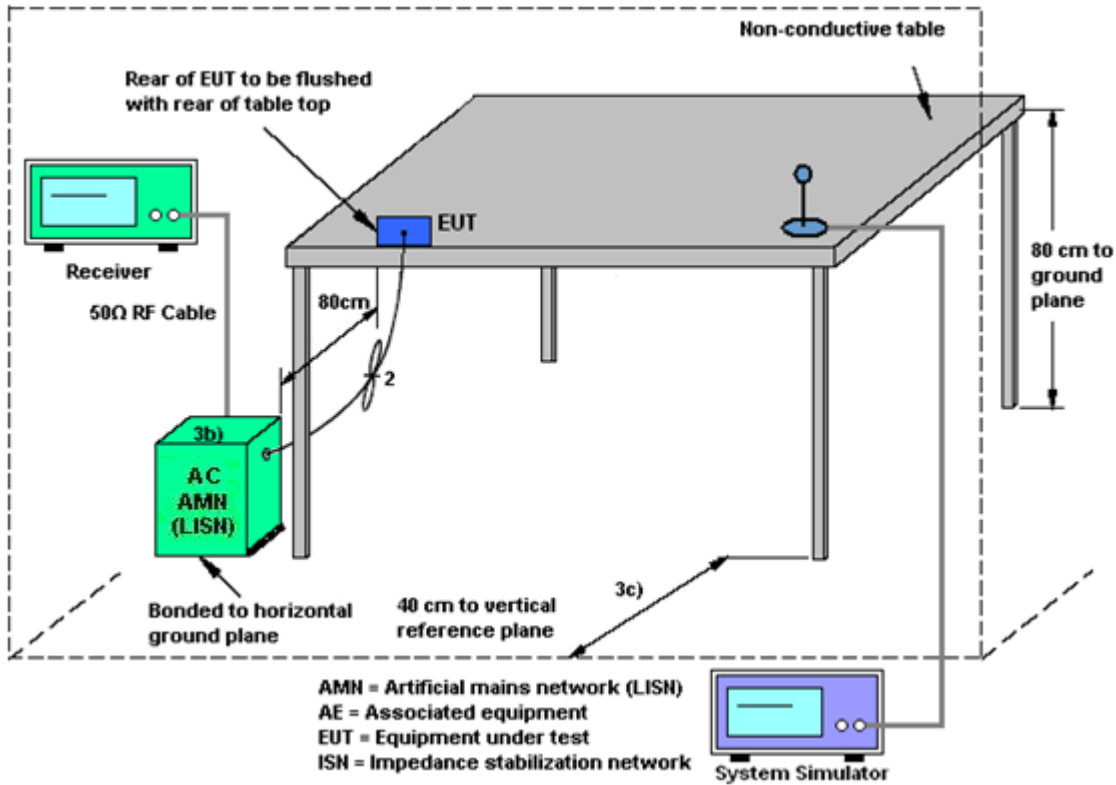
3.5.2 Measuring Instruments

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	101078	10Hz~40GHz	Apr. 08, 2021	Dec. 22, 2021	Apr. 07, 2022	Conducted (TH01-SZ)
Pulse Power Sensor	Anritsu	MA2411B	1207253	30MHz~40GHz	Dec. 25, 2020	Dec. 22, 2021	Dec. 24, 2021	Conducted (TH01-SZ)
Power Meter	Anritsu	ML2495A	1218010	50MHz Bandwidth	Dec. 25, 2020	Dec. 22, 2021	Dec. 24, 2021	Conducted (TH01-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150246	10Hz~44GHz;	Apr. 07, 2021	Dec. 24, 2021	Apr. 06, 2022	Radiation (03CH03-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jun. 22, 2020	Dec. 24, 2021	Jun. 21, 2022	Radiation (03CH03-SZ)
Bilog Antenna	TeseQ	CBL6112D	35408	30MHz~2GHz	Jun. 22, 2020	Dec. 24, 2021	Jun. 21, 2022	Radiation (03CH03-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1355	1GHz~18GHz	Apr. 25, 2021	Dec. 24, 2021	Apr. 24, 2022	Radiation (03CH03-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Oct. 22, 2021	Dec. 24, 2021	Oct. 21, 2022	Radiation (03CH03-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18GHz~40GHz	Apr. 11, 2021	Dec. 24, 2021	Apr. 10, 2022	Radiation (03CH03-SZ)
Amplifier	Burgeon	BPA-530	102211	0.01Hz~3000MHz	Oct. 22, 2021	Dec. 24, 2021	Oct. 21, 2022	Radiation (03CH03-SZ)
HF Amplifier	MITEQ	AMF-7D-00101800-30-10P-R	1943528	1GHz~18GHz	Oct. 22, 2021	Dec. 24, 2021	Oct. 21, 2022	Radiation (03CH03-SZ)
Amplifier	Agilent Technologies	83017A	MY39501302	500MHz~26.5GHz	Dec. 30, 2020	Dec. 24, 2021	Dec. 29, 2021	Radiation (03CH03-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	NCR	Dec. 24, 2021	NCR	Radiation (03CH03-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Dec. 24, 2021	NCR	Radiation (03CH03-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Dec. 24, 2021	NCR	Radiation (03CH03-SZ)
EMI Receiver	R&S	ESR7	101630	9kHz~7GHz;	Mar. 07, 2021	Dec. 14, 2021	Mar. 06, 2022	Conduction (CO01-SZ)
AC LISN	EMCO	3816/2 LISN	00103912	9kHz~30MHz	Dec. 25, 2020	Dec. 14, 2021	Dec. 24, 2021	Conduction (CO01-SZ)
AC LISN (for auxiliary equipment)	EMCO	3816/2SH	00103892	9kHz~30MHz	Oct. 28, 2021	Dec. 14, 2021	Oct. 27, 2022	Conduction (CO01-SZ)
AC Power Source	Chroma	61602	616020000891	100Vac~250Vac	Jul. 21, 2021	Dec. 14, 2021	Jul. 20, 2022	Conduction (CO01-SZ)

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))	2.2dB
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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))	4.9dB
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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
---	-------

----- THE END -----



Appendix A. Conducted Test Results

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Ma Jie	Temperature:	21~25	°C
Test Date:	2021/12/22	Relative Humidity:	51~54	%

TEST RESULTS DATA
26dB and 99% OBW

Band I										
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)		
11a	6Mbps	1	36	5180	16.98	28.65	-	22.30		
11a	6Mbps	1	44	5220	18.53	34.50	-	22.68		
11a	6Mbps	1	48	5240	18.63	35.10	-	22.70		
HT20	MCS0	1	36	5180	17.93	27.60	-	22.54		
HT20	MCS0	1	44	5220	18.23	32.85	-	22.61		
HT20	MCS0	1	48	5240	18.28	33.70	-	22.62		
HT40	MCS0	1	38	5190	36.76	40.05	-	23.01		
HT40	MCS0	1	46	5230	37.16	61.74	-	23.01		
VHT80	MCS0	1	42	5210	75.16	81.12	-	23.01		

TEST RESULTS DATA
Average Power Table

FCC Band I										
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)		Pass/Fail
11a	6Mbps	1	36	5180	0.11	16.12	24.00	-3.00		Pass
11a	6Mbps	1	44	5220	0.11	18.01	24.00	-3.00		Pass
11a	6Mbps	1	48	5240	0.11	18.04	24.00	-3.00		Pass
HT20	MCS0	1	36	5180	0.12	16.00	24.00	-3.00		Pass
HT20	MCS0	1	44	5220	0.12	17.39	24.00	-3.00		Pass
HT20	MCS0	1	48	5240	0.12	17.48	24.00	-3.00		Pass
HT40	MCS0	1	38	5190	0.23	13.05	24.00	-3.00		Pass
HT40	MCS0	1	46	5230	0.23	16.51	24.00	-3.00		Pass
VHT20	MCS0	1	36	5180	0.12	15.98	24.00	-3.00		Pass
VHT20	MCS0	1	44	5220	0.12	17.04	24.00	-3.00		Pass
VHT20	MCS0	1	48	5240	0.12	17.03	24.00	-3.00		Pass
VHT40	MCS0	1	38	5190	0.23	12.98	24.00	-3.00		Pass
VHT40	MCS0	1	46	5230	0.23	16.49	24.00	-3.00		Pass
VHT80	MCS0	1	42	5210	0.44	13.40	24.00	-3.00		Pass

TEST RESULTS DATA
Power Spectral Density

FCC Band I										
Mod.	Data Rate	NTX	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	6.40	11.00	-3.00		Pass
11a	6Mbps	1	44	5220	0.11	8.35	11.00	-3.00		Pass
11a	6Mbps	1	48	5240	0.11	8.30	11.00	-3.00		Pass
HT20	MCS0	1	36	5180	0.12	5.58	11.00	-3.00		Pass
HT20	MCS0	1	44	5220	0.12	7.00	11.00	-3.00		Pass
HT20	MCS0	1	48	5240	0.12	7.08	11.00	-3.00		Pass
HT40	MCS0	1	38	5190	0.23	0.34	11.00	-3.00		Pass
HT40	MCS0	1	46	5230	0.23	3.03	11.00	-3.00		Pass
VHT80	MCS0	1	42	5210	0.44	-1.78	11.00	-3.00		Pass

TEST RESULTS DATA
26dB and 99% OBW

Band II											
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)	FCC 26dB Bandwidth Power Limit (dBm)	Note	
11a	6M bps	1	52	5260	17.18	30.70	23.35	29.35	23.98		
11a	6M bps	1	60	5300	17.33	30.75	23.39	29.39	23.98		
11a	6M bps	1	64	5320	16.73	24.15	23.24	29.24	23.98		
HT20	MCS 0	1	52	5260	18.08	33.25	23.57	29.57	23.98		
HT20	MCS 0	1	60	5300	18.08	32.65	23.57	29.57	23.98		
HT20	MCS 0	1	64	5320	17.83	24.30	23.51	29.51	23.98		
HT40	MCS 0	1	54	5270	37.06	61.74	23.98	30.00	23.98		
HT40	MCS 0	1	62	5310	36.66	39.69	23.98	30.00	23.98		
VHT80	MCS 0	1	58	5290	75.16	81.44	23.98	30.00	23.98		

TEST RESULTS DATA
Average Power Table

FCC Band II										
Mod.	Data Rate	NTX	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	0.11	17.71	23.98	-3.00	26.99	Pass
11a	6M bps	1	60	5300	0.11	17.93	23.98	-3.00	26.99	Pass
11a	6M bps	1	64	5320	0.11	14.74	23.98	-3.00	26.99	Pass
HT20	MCS 0	1	52	5260	0.12	17.23	23.98	-3.00	26.99	Pass
HT20	MCS 0	1	60	5300	0.12	17.10	23.98	-3.00	26.99	Pass
HT20	MCS 0	1	64	5320	0.12	15.15	23.98	-3.00	26.99	Pass
HT40	MCS 0	1	54	5270	0.23	16.31	23.98	-3.00	26.99	Pass
HT40	MCS 0	1	62	5310	0.23	13.17	23.98	-3.00	26.99	Pass
VHT20	MCS 0	1	52	5260	0.12	17.17	23.98	-3.00	26.99	Pass
VHT20	MCS 0	1	60	5300	0.12	17.06	23.98	-3.00	26.99	Pass
VHT20	MCS 0	1	64	5320	0.12	14.74	23.98	-3.00	26.99	Pass
VHT40	MCS 0	1	54	5270	0.23	16.25	23.98	-3.00	26.99	Pass
VHT40	MCS 0	1	62	5310	0.23	13.11	23.98	-3.00	26.99	Pass
VHT80	MCS 0	1	58	5290	0.44	10.92	23.98	-3.00	26.99	Pass

TEST RESULTS DATA
Power Spectral Density

Band II										
Mod.	Data Rate	NTX	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	7.52	11.00	-3.00		Pass
11a	6M bps	1	60	5300	0.11	7.45	11.00	-3.00		Pass
11a	6M bps	1	64	5320	0.11	4.52	11.00	-3.00		Pass
HT20	MCS 0	1	52	5260	0.12	6.70	11.00	-3.00		Pass
HT20	MCS 0	1	60	5300	0.12	6.64	11.00	-3.00		Pass
HT20	MCS 0	1	64	5320	0.12	4.19	11.00	-3.00		Pass
HT40	MCS 0	1	54	5270	0.23	3.03	11.00	-3.00		Pass
HT40	MCS 0	1	62	5310	0.23	-0.05	11.00	-3.00		Pass
VHT80	MCS 0	1	58	5290	0.44	-5.42	11.00	-3.00		Pass

TEST RESULTS DATA
26dB and 99% OBW

Band III										
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)	FCC 26dB Bandwidth Power Limit (dBm)	Note
11a	6M bps	1	100	5500	16.68	20.20	23.22	29.22	23.98	
11a	6M bps	1	116	5580	17.63	32.00	23.46	29.46	23.98	
11a	6M bps	1	140	5700	16.73	20.35	23.24	29.24	23.98	
11a	6Mbps	1	144	5720	18.13	33.25	23.58	29.58	23.98	
HT20	MCS 0	1	100	5500	17.83	21.40	23.51	29.51	23.98	
HT20	MCS 0	1	116	5580	18.03	32.15	23.56	29.56	23.98	
HT20	MCS 0	1	140	5700	17.78	20.50	23.50	29.50	23.98	
HT20	MCS0	1	144	5720	18.23	32.90	23.61	29.61	23.98	
HT40	MCS 0	1	102	5510	36.36	40.23	23.98	30.00	23.98	
HT40	MCS 0	1	110	5550	36.96	61.74	23.98	30.00	23.98	
HT40	MCS 0	1	134	5670	37.16	50.40	23.98	30.00	23.98	
HT40	MCS0	1	142	5710	37.06	61.74	23.98	30.00	23.98	
VHT80	MCS 0	1	106	5530	75.04	81.12	23.98	30.00	23.98	
VHT80	MCS 0	1	122	5610	75.16	81.28	23.98	30.00	23.98	
VHT80	MCS0	1	138	5690	75.28	81.28	23.98	30.00	23.98	

TEST RESULTS DATA
Average Power Table

FCC Band III										
Mod.	Data Rate	NTX	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	0.11	13.87	23.98	-3.00	26.99	Pass
11a	6M bps	1	116	5580	0.11	17.50	23.98	-3.00	26.99	Pass
11a	6M bps	1	140	5700	0.11	11.31	23.98	-3.00	26.99	Pass
11a	6M bps	1	144	5720	0.11	17.27	23.98	-3.00	26.99	Pass
HT20	MCS 0	1	100	5500	0.12	13.82	23.98	-3.00	26.99	Pass
HT20	MCS 0	1	116	5580	0.12	16.89	23.98	-3.00	26.99	Pass
HT20	MCS 0	1	140	5700	0.12	11.66	23.98	-3.00	26.99	Pass
HT20	MCS 0	1	144	5720	0.12	16.27	23.98	-3.00	26.99	Pass
HT40	MCS 0	1	102	5510	0.23	11.65	23.98	-3.00	26.99	Pass
HT40	MCS 0	1	110	5550	0.23	15.55	23.98	-3.00	26.99	Pass
HT40	MCS 0	1	134	5670	0.23	15.06	23.98	-3.00	26.99	Pass
HT40	MCS 0	1	142	5710	0.23	15.44	23.98	-3.00	26.99	Pass
VHT20	MCS 0	1	100	5500	0.12	13.80	23.98	-3.00	26.99	Pass
VHT20	MCS 0	1	116	5580	0.12	16.54	23.98	-3.00	26.99	Pass
VHT20	MCS 0	1	140	5700	0.12	11.63	23.98	-3.00	26.99	Pass
VHT20	MCS 0	1	144	5720	0.12	16.24	23.98	-3.00	26.99	Pass
VHT40	MCS 0	1	102	5510	0.23	11.63	23.98	-3.00	26.99	Pass
VHT40	MCS 0	1	110	5550	0.23	15.60	23.98	-3.00	26.99	Pass
VHT40	MCS 0	1	134	5670	0.23	15.03	23.98	-3.00	26.99	Pass
VHT40	MCS 0	1	142	5710	0.23	15.41	23.98	-3.00	26.99	Pass
VHT80	MCS 0	1	106	5530	0.44	10.58	23.98	-3.00	26.99	Pass
VHT80	MCS 0	1	122	5610	0.44	13.86	23.98	-3.00	26.99	Pass
VHT80	MCS 0	1	138	5690	0.44	13.80	23.98	-3.00	26.99	Pass

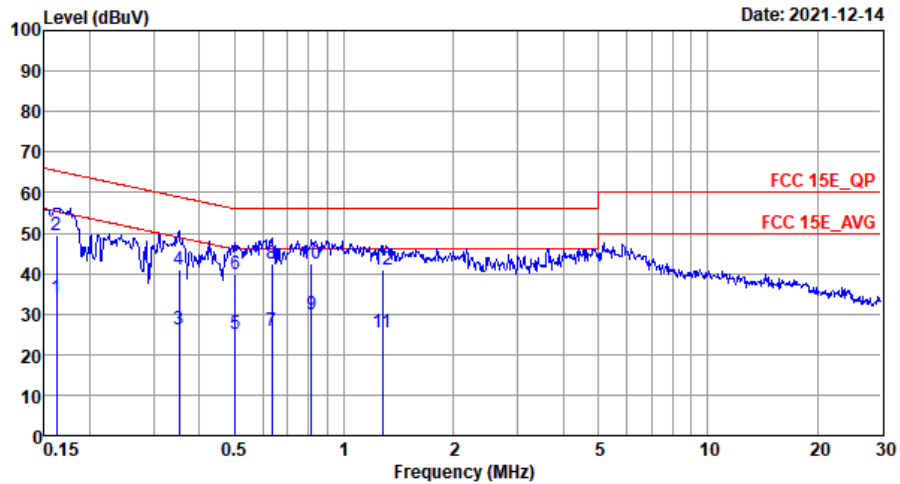
TEST RESULTS DATA
Power Spectral Density

Band III										
Mod.	Data Rate	NTX	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	3.23	11.00	-3.00		Pass
11a	6M bps	1	116	5580	0.11	7.11	11.00	-3.00		Pass
11a	6M bps	1	140	5700	0.11	1.50	11.00	-3.00		Pass
11a	6Mbps	1	144	5720	0.11	7.47	11.00	-3.00		Pass
HT20	MCS 0	1	100	5500	0.12	3.28	11.00	-3.00		Pass
HT20	MCS 0	1	116	5580	0.12	5.89	11.00	-3.00		Pass
HT20	MCS 0	1	140	5700	0.12	1.34	11.00	-3.00		Pass
HT20	MCS0	1	144	5720	0.12	6.39	11.00	-3.00		Pass
HT40	MCS 0	1	102	5510	0.23	-1.90	11.00	-3.00		Pass
HT40	MCS 0	1	110	5550	0.23	2.09	11.00	-3.00		Pass
HT40	MCS 0	1	134	5670	0.23	1.68	11.00	-3.00		Pass
HT40	MCS0	1	142	5710	0.23	2.41	11.00	-3.00		Pass
VHT80	MCS 0	1	106	5530	0.44	-5.76	11.00	-3.00		Pass
VHT80	MCS 0	1	122	5610	0.44	-2.78	11.00	-3.00		Pass
VHT80	MCS0	1	138	5690	0.44	-2.66	11.00	-3.00		Pass



Appendix B. AC Conducted Emission Test Results

Test Engineer :	Xie YuQiang	Temperature :	22~25°C
		Relative Humidity :	50~55%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		

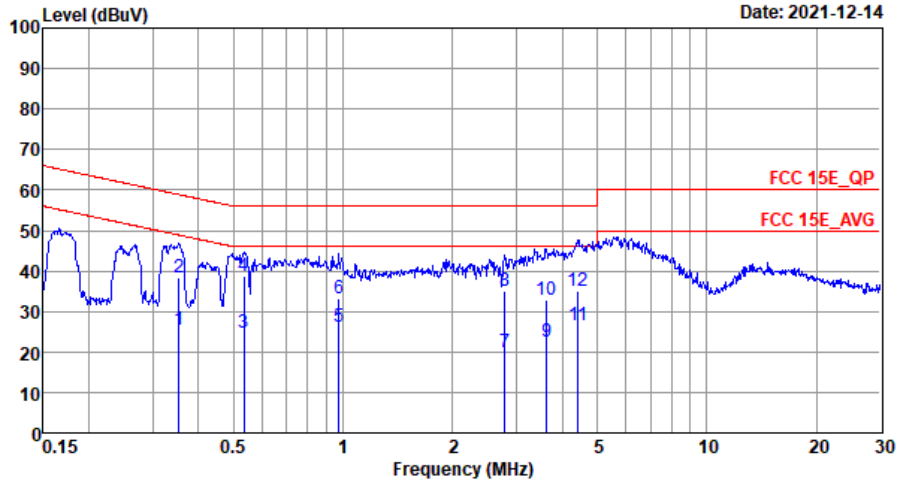


Site : C001-SZ
 Condition: FCC 15E_QP LISN_20210901_L LINE

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.16	33.82	-21.52	55.34	13.60	10.20	10.02	Average
2	0.16	49.32	-16.02	65.34	29.10	10.20	10.02	QP
3	0.35	26.22	-22.69	48.91	6.10	10.08	10.04	Average
4	0.35	41.12	-17.79	58.91	21.00	10.08	10.04	QP
5	0.50	25.27	-20.73	46.00	5.10	10.12	10.05	Average
6	0.50	39.87	-16.13	56.00	19.70	10.12	10.05	QP
7	0.63	25.66	-20.34	46.00	5.50	10.12	10.04	Average
8	0.63	42.26	-13.74	56.00	22.10	10.12	10.04	QP
9	0.81	29.84	-16.16	46.00	9.70	10.11	10.03	Average
10 *	0.81	42.54	-13.46	56.00	22.40	10.11	10.03	QP
11	1.28	25.58	-20.42	46.00	5.40	10.14	10.04	Average
12	1.28	41.08	-14.92	56.00	20.90	10.14	10.04	QP



Test Engineer :	Xie YuQiang	Temperature :	22~25°C
		Relative Humidity :	50~55%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Site : CO01-SZ
 Condition: FCC 15E_QP LISN_20210901_N NEUTRAL

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1	0.35	25.41	-23.46	48.87	5.20	10.17	10.04	Average
2	0.35	38.41	-20.46	58.87	18.20	10.17	10.04	QP
3	0.53	24.66	-21.34	46.00	4.40	10.21	10.05	Average
4 *	0.53	38.66	-17.34	56.00	18.40	10.21	10.05	QP
5	0.97	26.25	-19.75	46.00	6.00	10.23	10.02	Average
6	0.97	33.25	-22.75	56.00	13.00	10.23	10.02	QP
7	2.78	20.11	-25.89	46.00	-0.20	10.14	10.17	Average
8	2.78	35.01	-20.99	56.00	14.70	10.14	10.17	QP
9	3.62	22.47	-23.53	46.00	2.09	10.15	10.23	Average
10	3.62	32.67	-23.33	56.00	12.29	10.15	10.23	QP
11	4.43	26.51	-19.49	46.00	6.10	10.14	10.27	Average
12	4.43	35.01	-20.99	56.00	14.60	10.14	10.27	QP

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

U NII-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		5146.12	53.3	-20.7	74	44.49	34.18	7.48	32.85	104	203	P	H
		5150	42.24	-11.76	54	33.41	34.2	7.48	32.85	104	203	A	H
	*	5180	98.43	-	-	89.53	34.26	7.53	32.89	104	203	P	H
		5180	91.44	-	-	82.54	34.26	7.53	32.89	104	203	A	H
		5149.24	58.39	-15.61	74	49.56	34.2	7.48	32.85	287	271	P	V
		5149.5	45.21	-8.79	54	36.38	34.2	7.48	32.85	287	271	A	V
	*	5180	103.19	-	-	94.29	34.26	7.53	32.89	287	271	P	V
		5180	95.89	-	-	86.99	34.26	7.53	32.89	287	271	A	V
802.11a CH 44 5220MHz		5046.28	50.67	-23.33	74	42.13	33.9	7.32	32.68	310	344	P	H
		5049.92	40.91	-13.09	54	32.37	33.9	7.32	32.68	310	344	A	H
	*	5220	105.81	-	-	96.88	34.34	7.57	32.98	310	344	P	H
		5220	98.94	-	-	90.01	34.34	7.57	32.98	310	344	A	H
		5440.56	49.82	-24.18	74	40.85	34.5	7.79	33.32	310	344	P	H
		5453.04	40	-14	54	31.02	34.5	7.84	33.36	310	344	A	H
		5059.8	50.63	-23.37	74	42.04	33.92	7.35	32.68	310	264	P	V
		5137.8	40.85	-13.15	54	32.05	34.15	7.46	32.81	310	264	A	V
	*	5220	104.22	-	-	95.29	34.34	7.57	32.98	310	264	P	V
		5220	97.09	-	-	88.16	34.34	7.57	32.98	310	264	A	V
		5402.4	48.87	-25.13	74	39.93	34.5	7.71	33.27	310	264	P	V
	5385.84	39.93	-14.07	54	30.96	34.5	7.7	33.23	310	264	A	V	



802.11a CH 48 5240MHz		5062.14	50.83	-23.17	74	42.24	33.92	7.35	32.68	246	344	P	H
		5021.84	40.95	-13.05	54	32.4	33.9	7.29	32.64	246	344	A	H
	*	5240	105.51	-	-	96.52	34.38	7.59	32.98	246	344	P	H
		5240	98.15	-	-	89.16	34.38	7.59	32.98	246	344	A	H
		5402.4	49.09	-24.91	74	40.15	34.5	7.71	33.27	246	344	P	H
		5409.12	40.04	-13.96	54	31.1	34.5	7.71	33.27	246	344	A	H
		5108.68	51.25	-22.75	74	42.56	34.03	7.43	32.77	280	273	P	V
		5068.12	40.94	-13.06	54	32.38	33.94	7.35	32.73	280	273	A	V
	*	5240	106.11	-	-	97.12	34.38	7.59	32.98	280	273	P	V
		5240	98.9	-	-	89.91	34.38	7.59	32.98	280	273	A	V
		5368.56	49.65	-24.35	74	40.65	34.5	7.69	33.19	280	273	P	V
		5437.44	40.12	-13.88	54	31.15	34.5	7.79	33.32	280	273	A	V
Remark	<p>1. No other spurious found.</p> <p>2. All results are PASS against Peak and Average limit line.</p>												



U NII-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		10360	47.77	-20.53	68.3	50.19	37.19	10.8	50.41	-	-	P	H
		15540	48.99	-25.01	74	46.58	40.03	13.67	51.29	-	-	P	H
		10360	47.8	-20.5	68.3	50.22	37.19	10.8	50.41	-	-	P	V
		15540	48.8	-25.2	74	46.39	40.03	13.67	51.29	-	-	P	V
802.11a CH 44 5220MHz		10440	48.75	-19.55	68.3	51.25	37.25	10.84	50.59	-	-	P	H
		15660	48.7	-25.3	74	46.1	40.13	13.76	51.29	-	-	P	H
		10440	47.37	-20.93	68.3	49.87	37.25	10.84	50.59	-	-	P	V
		15660	48.29	-25.71	74	45.69	40.13	13.76	51.29	-	-	P	V
802.11a CH 48 5240MHz		10480	47.5	-20.8	68.3	50.03	37.28	10.87	50.68	-	-	P	H
		15720	49.34	-24.66	74	46.64	40.18	13.81	51.29	-	-	P	H
		10480	46.78	-21.52	68.3	49.31	37.28	10.87	50.68	-	-	P	V
		15720	50.26	-23.74	74	47.56	40.18	13.81	51.29	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**U NII-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		5148.2	56.29	-17.71	74	47.47	34.19	7.48	32.85	256	345	P	H
		5150	44.93	-9.07	54	36.1	34.2	7.48	32.85	256	345	A	H
	*	5180	102.24	-	-	93.34	34.26	7.53	32.89	256	345	P	H
		5180	94.9	-	-	86	34.26	7.53	32.89	256	345	A	H
		5143	58.26	-15.74	74	49.46	34.17	7.48	32.85	242	278	P	V
		5150	44.42	-9.58	54	35.59	34.2	7.48	32.85	242	278	A	V
	*	5180	102.55	-	-	93.65	34.26	7.53	32.89	242	278	P	V
802.11n HT20 CH 44 5220MHz		5180	95.8	-	-	86.9	34.26	7.53	32.89	242	278	A	V
		5143	50	-24	74	41.2	34.17	7.48	32.85	235	347	P	H
		5119.34	40.86	-13.14	54	32.16	34.08	7.43	32.81	235	347	A	H
	*	5220	103.86	-	-	94.93	34.34	7.57	32.98	235	347	P	H
		5220	95.94	-	-	87.01	34.34	7.57	32.98	235	347	A	H
		5413.68	48.91	-25.09	74	39.93	34.5	7.75	33.27	235	347	P	H
		5441.52	40	-14	54	31.03	34.5	7.79	33.32	235	347	A	H
		5030.42	50.94	-23.06	74	42.39	33.9	7.29	32.64	239	278	P	V
		5067.6	40.92	-13.08	54	32.36	33.94	7.35	32.73	239	278	A	V
	*	5220	104.48	-	-	95.55	34.34	7.57	32.98	239	278	P	V
		5220	96.92	-	-	87.99	34.34	7.57	32.98	239	278	A	V
	5353.68	49.47	-24.53	74	40.48	34.5	7.68	33.19	239	278	P	V	
	5386.32	40.02	-13.98	54	31.05	34.5	7.7	33.23	239	278	A	V	



802.11n HT20 CH 48 5240MHz		5075.66	50.92	-23.08	74	42.32	33.95	7.38	32.73	100	204	P	H
		5032.76	40.85	-13.15	54	32.3	33.9	7.29	32.64	100	204	A	H
	*	5240	102.59	-	-	93.6	34.38	7.59	32.98	100	204	P	H
		5240	95.49	-	-	86.5	34.38	7.59	32.98	100	204	A	H
		5428.08	49.36	-24.64	74	40.43	34.5	7.75	33.32	100	204	P	H
		5437.2	39.98	-14.02	54	31.01	34.5	7.79	33.32	100	204	A	H
		5107.12	50.46	-23.54	74	41.77	34.03	7.43	32.77	212	277	P	V
		5085.54	40.92	-13.08	54	32.3	33.97	7.38	32.73	212	277	A	V
	*	5240	103.66	-	-	94.67	34.38	7.59	32.98	212	277	P	V
		5240	96.99	-	-	88	34.38	7.59	32.98	212	277	A	V
		5446.8	49.39	-24.61	74	40.37	34.5	7.84	33.32	212	277	P	V
		5449.44	39.96	-14.04	54	30.94	34.5	7.84	33.32	212	277	A	V

Remark

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



U NII-1 5150~5250MHz
WIFI 802.11n HT20 (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)
802.11n HT20 CH 36		10360	46.78	-21.52	68.3	49.2	37.19	10.8	50.41	-	-	P	H
		15540	50.18	-23.82	74	47.77	40.03	13.67	51.29	-	-	P	H
5180MHz		10360	47.33	-20.97	68.3	49.75	37.19	10.8	50.41	-	-	P	V
		15540	49.1	-24.9	74	46.69	40.03	13.67	51.29	-	-	P	V
802.11n HT20 CH 44		10440	47.27	-21.03	68.3	49.77	37.25	10.84	50.59	-	-	P	H
		15660	49.55	-24.45	74	46.95	40.13	13.76	51.29	-	-	P	H
		10440	47.26	-21.04	68.3	49.76	37.25	10.84	50.59	-	-	P	V
		15660	48.2	-25.8	74	45.6	40.13	13.76	51.29	-	-	P	V
5220MHz		10480	46.78	-21.52	68.3	49.31	37.28	10.87	50.68	-	-	P	H
		15720	50.56	-23.44	74	47.86	40.18	13.81	51.29	-	-	P	H
		10480	46.79	-21.51	68.3	49.32	37.28	10.87	50.68	-	-	P	V
		15720	49	-25	74	46.3	40.18	13.81	51.29	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**U NII-1 5150~5250MHz
WIFI 802.11n HT40 (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 HT40 CH 38 5190MHz		5148.46	60.02	-13.98	74	51.2	34.19	7.48	32.85	258	339	P	H
		5149.5	46.63	-7.37	54	37.8	34.2	7.48	32.85	258	339	A	H
	*	5190	97.48	-	-	88.56	34.28	7.53	32.89	258	339	P	H
		5190	90.06	-	-	81.14	34.28	7.53	32.89	258	339	A	H
		5414.08	48.31	-25.69	74	39.33	34.5	7.75	33.27	258	339	P	H
		5423.32	40.66	-13.34	54	31.68	34.5	7.75	33.27	258	339	A	H
		5145.08	51.87	-22.13	74	43.06	34.18	7.48	32.85	287	270	P	V
		5149.5	44.93	-9.07	54	36.1	34.2	7.48	32.85	287	270	A	V
	*	5190	94.42	-	-	85.5	34.28	7.53	32.89	287	270	P	V
		5190	88.55	-	-	79.63	34.28	7.53	32.89	287	270	A	V
		5420.8	48.74	-25.26	74	39.76	34.5	7.75	33.27	287	270	P	V
		5433.4	40.61	-13.39	54	31.64	34.5	7.79	33.32	287	270	A	V
802.11n HT40 CH 46 5230MHz		5013	50.05	-23.95	74	41.53	33.9	7.26	32.64	207	352	P	H
		5149.24	41.89	-12.11	54	33.06	34.2	7.48	32.85	207	352	A	H
	*	5230	100.37	-	-	91.4	34.36	7.59	32.98	207	352	P	H
		5230	93.5	-	-	84.53	34.36	7.59	32.98	207	352	A	H
		5363.76	49.47	-24.53	74	40.47	34.5	7.69	33.19	207	352	P	H
		5358	40.86	-13.14	54	31.87	34.5	7.68	33.19	207	352	A	H
		5148.46	51.37	-22.63	74	42.55	34.19	7.48	32.85	282	262	P	V
		5148.98	42.18	-11.82	54	33.35	34.2	7.48	32.85	282	262	A	V
	*	5230	100.15	-	-	91.18	34.36	7.59	32.98	282	262	P	V
		5230	92.23	-	-	83.26	34.36	7.59	32.98	282	262	A	V
	5354.16	49.72	-24.28	74	40.73	34.5	7.68	33.19	282	262	P	V	
	5388	40.95	-13.05	54	31.98	34.5	7.7	33.23	282	262	A	V	
Remark	<p align="center">1. No other spurious found. 2. All results are PASS against Peak and Average limit line.</p>												



U NII-1 5150~5250MHz
WIFI 802.11n HT40 (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)
802.11n HT40 CH 38 5190MHz		10380	47.21	-21.09	68.3	49.65	37.2	10.81	50.45	-	-	P	H
		15570	49.58	-24.42	74	47.11	40.06	13.7	51.29	-	-	P	H
		10380	47.77	-20.53	68.3	50.21	37.2	10.81	50.45	-	-	P	H
		15570	49.89	-24.11	74	47.42	40.06	13.7	51.29	-	-	P	H
802.11n HT40 CH 46 5230MHz		10460	46.85	-21.45	68.3	49.37	37.27	10.85	50.64	-	-	P	H
		15690	49.77	-24.23	74	47.12	40.15	13.79	51.29	-	-	P	H
		10460	46.89	-21.41	68.3	49.41	37.27	10.85	50.64	-	-	P	V
		15690	50.36	-23.64	74	47.71	40.15	13.79	51.29	-	-	P	V
Remark	<p align="center">1. No other spurious found. 2. All results are PASS against Peak and Average limit line.</p>												



**U NII-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		5149.76	60.04	-13.96	74	51.21	34.2	7.48	32.85	238	344	P	H
		5150	49.09	-4.91	54	40.26	34.2	7.48	32.85	238	344	A	H
	*	5210	94.56	-	-	85.61	34.32	7.57	32.94	238	344	P	H
		5210	87.82	-	-	78.87	34.32	7.57	32.94	238	344	A	H
		5393.28	49	-25	74	40.03	34.5	7.7	33.23	238	344	P	H
		5386.32	42.23	-11.77	54	33.26	34.5	7.7	33.23	238	344	A	H
		5147.94	59.22	-14.78	74	50.4	34.19	7.48	32.85	287	260	P	V
		5147.94	49.09	-4.91	54	40.27	34.19	7.48	32.85	287	260	A	V
	*	5210	93.27	-	-	84.32	34.32	7.57	32.94	287	260	P	V
		5210	85.39	-	-	76.44	34.32	7.57	32.94	287	260	A	V
	5456.64	49.02	-24.98	74	40.04	34.5	7.84	33.36	287	260	P	V	
	5352	41.53	-12.47	54	32.54	34.5	7.68	33.19	287	260	A	V	
Remark	<p align="center">1. No other spurious found. 2. All results are PASS against Peak and Average limit line.</p>												



U NII-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		10420	46.77	-21.53	68.3	49.25	37.24	10.83	50.55	-	-	P	H
VHT80		15630	50.63	-23.37	74	48.07	40.1	13.75	51.29	-	-	P	H
CH 42		10420	47.67	-20.63	68.3	50.15	37.24	10.83	50.55	-	-	P	V
5210MHz		15630	50.2	-23.8	74	47.64	40.1	13.75	51.29	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



U NII-1 - 5150~5250MHz

U NII-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 52 5260MHz		5142.22	50.59	-23.41	74	41.79	34.17	7.48	32.85	231	351	P	H
		5071.5	40.93	-13.07	54	32.34	33.94	7.38	32.73	231	351	A	H
	*	5260	104.78	-	-	95.78	34.4	7.62	33.02	231	351	P	H
		5260	98.15	-	-	89.15	34.4	7.62	33.02	231	351	A	H
		5106.6	50.79	-23.21	74	42.1	34.03	7.43	32.77	147	286	P	V
		5073.84	40.93	-13.07	54	32.33	33.95	7.38	32.73	147	286	A	V
	*	5260	105.1	-	-	96.1	34.4	7.62	33.02	147	286	P	V
		5260	98.5	-	-	89.5	34.4	7.62	33.02	147	286	A	V
802.11a CH 60 5300MHz		5001.05	50.71	-23.29	74	42.18	33.9	7.23	32.6	194	356	P	H
		5028.7	40.85	-13.15	54	32.3	33.9	7.29	32.64	194	356	A	H
	*	5300	105.46	-	-	96.52	34.4	7.65	33.11	194	356	P	H
		5300	99.04	-	-	90.1	34.4	7.65	33.11	194	356	A	H
		5350.08	59.94	-14.06	74	50.95	34.5	7.68	33.19	194	356	P	H
		5350.08	46.64	-7.36	54	37.65	34.5	7.68	33.19	194	356	A	H
		5075.95	50.57	-23.43	74	41.97	33.95	7.38	32.73	175	268	P	V
		5046.9	40.99	-13.01	54	32.45	33.9	7.32	32.68	175	268	A	V
	*	5300	105.52	-	-	96.58	34.4	7.65	33.11	175	268	P	V
		5300	98.94	-	-	90	34.4	7.65	33.11	175	268	A	V
		5351.52	54.2	-19.8	74	45.21	34.5	7.68	33.19	175	268	P	V
	5350.32	45.08	-8.92	54	36.09	34.5	7.68	33.19	175	268	A	V	



802.11a CH 64 5320MHz	*	5320	103.85	-	-	94.86	34.44	7.66	33.11	287	352	P	H
		5320	96.99	-	-	88	34.44	7.66	33.11	287	352	A	H
		5350.08	57.67	-16.33	74	48.68	34.5	7.68	33.19	287	352	P	H
		5350.24	44.28	-9.72	54	35.29	34.5	7.68	33.19	287	352	A	H
	*	5320	103.69	-	-	94.7	34.44	7.66	33.11	232	289	P	V
		5320	96.65	-	-	87.66	34.44	7.66	33.11	232	289	A	V
		5353.12	58.15	-15.85	74	49.16	34.5	7.68	33.19	232	289	P	V
		5350.08	44.51	-9.49	54	35.52	34.5	7.68	33.19	232	289	A	V
Remark	<ol style="list-style-type: none"> No other spurious found. All results are PASS against Peak and Average limit line. 												



U NII-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		10520	47.01	-21.29	68.3	49.5	37.33	10.88	50.7	-	-	P	H
		15780	48.33	-25.67	74	45.55	40.22	13.85	51.29	-	-	P	H
		10520	46.74	-21.56	68.3	49.23	37.33	10.88	50.7	-	-	P	V
		15780	48.58	-25.42	74	45.8	40.22	13.85	51.29	-	-	P	V
802.11a CH 60 5300MHz		10600	47.8	-26.2	74	49.99	37.44	10.93	50.56	-	-	P	H
		15900	49.38	-24.62	74	46.41	40.32	13.94	51.29	-	-	P	H
		10600	47.38	-26.62	74	49.57	37.44	10.93	50.56	-	-	P	V
		15900	48.42	-25.58	74	45.45	40.32	13.94	51.29	-	-	P	V
802.11a CH 64 5320MHz		10640	48.28	-25.72	74	50.32	37.5	10.95	50.49	-	-	P	H
		15960	49.81	-24.19	74	46.74	40.37	13.99	51.29	-	-	P	H
		10640	47.74	-26.26	74	49.78	37.5	10.95	50.49	-	-	P	V
		15960	48.29	-25.71	74	45.22	40.37	13.99	51.29	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



U NII-2A 5250~5350MHz
WIFI 802.11n HT20 (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 802.11n HT20 CH 52 (5260MHz) and 802.11n HT20 CH 60 (5300MHz).



802.11n HT20 CH 64 5320MHz	*	5320	103.15	-	-	94.16	34.44	7.66	33.11	287	346	P	H
		5320	95.99	-	-	87	34.44	7.66	33.11	287	346	A	H
		5350.88	61.65	-12.35	74	52.66	34.5	7.68	33.19	287	346	P	H
		5350.56	44.18	-9.82	54	35.19	34.5	7.68	33.19	287	346	A	H
	*	5320	101.86	-	-	92.87	34.44	7.66	33.11	186	286	P	V
		5320	95.99	-	-	87	34.44	7.66	33.11	186	286	A	V
		5351.2	59.23	-14.77	74	50.24	34.5	7.68	33.19	186	286	P	V
		5351.04	45.45	-8.55	54	36.46	34.5	7.68	33.19	186	286	A	V
Remark	<ol style="list-style-type: none"> No other spurious found. All results are PASS against Peak and Average limit line. 												



U NII-2A 5250~5350MHz
WIFI 802.11n HT20 (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)
802.11n HT20		10520	46.47	-21.83	68.3	48.96	37.33	10.88	50.7	-	-	P	H
		15780	48.72	-25.28	74	45.94	40.22	13.85	51.29	-	-	P	H
5260MHz CH 52		10520	48.26	-20.04	68.3	50.75	37.33	10.88	50.7	-	-	P	V
		15780	48.23	-25.77	74	45.45	40.22	13.85	51.29	-	-	P	V
802.11n HT20 CH 60		10600	47.6	-26.4	74	49.79	37.44	10.93	50.56	-	-	P	H
		15900	50.27	-23.73	74	47.3	40.32	13.94	51.29	-	-	P	H
		10600	47.15	-26.85	74	49.34	37.44	10.93	50.56	-	-	P	V
5300MHz CH 64		15900	48.61	-25.39	74	45.64	40.32	13.94	51.29	-	-	P	V
		10640	47.51	-26.49	74	49.55	37.5	10.95	50.49	-	-	P	H
5320MHz CH 64		15960	50.27	-23.73	74	47.2	40.37	13.99	51.29	-	-	P	H
		10640	47.95	-26.05	74	49.99	37.5	10.95	50.49	-	-	P	V
		15960	49.08	-24.92	74	46.01	40.37	13.99	51.29	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



U NII-2A 5250~5350MHz
WIFI 802.11n HT40 (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 HT40 CH 54 5270MHz		5077	50.56	-23.44	74	41.96	33.95	7.38	32.73	200	346	P	H
		5025.2	41.74	-12.26	54	33.19	33.9	7.29	32.64	200	346	A	H
	*	5270	100.28	-	-	91.28	34.4	7.62	33.02	200	346	P	H
		5270	92.15	-	-	83.15	34.4	7.62	33.02	200	346	A	H
		5362.8	55.79	-18.21	74	46.79	34.5	7.69	33.19	200	346	P	H
		5350.08	44.88	-9.12	54	35.89	34.5	7.68	33.19	200	346	A	H
		5126.35	50.02	-23.98	74	41.26	34.11	7.46	32.81	279	281	P	V
		5024.85	41.53	-12.47	54	32.98	33.9	7.29	32.64	279	281	A	V
	*	5270	100.52	-	-	91.52	34.4	7.62	33.02	279	281	P	V
		5270	93.74	-	-	84.74	34.4	7.62	33.02	279	281	A	V
		5355.12	57.06	-16.94	74	48.07	34.5	7.68	33.19	279	281	P	V
		5351.76	44.73	-9.27	54	35.74	34.5	7.68	33.19	279	281	A	V
802.11n HT40 CH 62 5310MHz		5029.4	50.56	-23.44	74	42.01	33.9	7.29	32.64	186	351	P	H
		5001.75	41.6	-12.4	54	33.07	33.9	7.23	32.6	186	351	A	H
	*	5310	98.8	-	-	89.83	34.42	7.66	33.11	186	351	P	H
		5310	91.63	-	-	82.66	34.42	7.66	33.11	186	351	A	H
		5351.04	64.94	-9.06	74	55.95	34.5	7.68	33.19	186	351	P	H
		5350.56	49.81	-4.19	54	40.82	34.5	7.68	33.19	186	351	A	H
		5007.7	50.2	-23.8	74	41.64	33.9	7.26	32.6	289	273	P	V
		5006.65	41.56	-12.44	54	33	33.9	7.26	32.6	289	273	A	V
	*	5310	98.4	-	-	89.43	34.42	7.66	33.11	289	273	P	V
		5310	91.08	-	-	82.11	34.42	7.66	33.11	289	273	A	V
	5351.04	64.53	-9.47	74	55.54	34.5	7.68	33.19	289	273	P	V	
	5350.08	49.33	-4.67	54	40.34	34.5	7.68	33.19	289	273	A	V	

Remark

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



U NII-2A 5250~5350MHz
WIFI 802.11n HT40 (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)
802.11n HT40 CH 54 5270MHz		10540	47.47	-20.83	68.3	49.88	37.36	10.89	50.66	-	-	P	H
		15810	50.19	-23.81	74	47.36	40.25	13.87	51.29	-	-	P	H
		10540	46.8	-21.5	68.3	49.21	37.36	10.89	50.66	-	-	P	V
		15810	50.33	-23.67	74	47.5	40.25	13.87	51.29	-	-	P	V
802.11n HT40 CH 62 5310MHz		10620	47.01	-26.99	74	49.13	37.47	10.94	50.53	-	-	P	H
		15930	50.71	-23.29	74	47.7	40.34	13.96	51.29	-	-	P	H
		10620	47.1	-26.9	74	49.22	37.47	10.94	50.53	-	-	P	V
		15930	50.65	-23.35	74	47.64	40.34	13.96	51.29	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**U NII-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		5051.45	50.79	-23.21	74	42.25	33.9	7.32	32.68	249	341	P	H
		5137.55	42.51	-11.49	54	33.71	34.15	7.46	32.81	249	341	A	H
	*	5290	93.1	-	-	84.12	34.4	7.64	33.06	249	341	P	H
		5290	87.21	-	-	78.23	34.4	7.64	33.06	249	341	A	H
		5366.16	54.69	-19.31	74	45.69	34.5	7.69	33.19	249	341	P	H
		5350.32	48.04	-5.96	54	39.05	34.5	7.68	33.19	249	341	A	H
		5082.25	50.5	-23.5	74	41.89	33.96	7.38	32.73	267	280	P	V
		5022.05	42.62	-11.38	54	34.07	33.9	7.29	32.64	267	280	A	V
	*	5290	92.95	-	-	83.97	34.4	7.64	33.06	267	280	P	V
		5290	85.68	-	-	76.7	34.4	7.64	33.06	267	280	A	V
		5351.52	53.96	-20.04	74	44.97	34.5	7.68	33.19	267	280	P	V
	5354.4	46.63	-7.37	54	37.64	34.5	7.68	33.19	267	280	A	V	
Remark	<p align="center">1. No other spurious found. 2. All results are PASS against Peak and Average limit line.</p>												



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		10580	47.17	-21.13	68.3	49.44	37.41	10.92	50.6	-	-	P	H
VHT80		15870	50.88	-23.12	74	47.95	40.3	13.92	51.29	-	-	P	H
CH 58		10580	47.67	-20.63	68.3	49.94	37.41	10.92	50.6	-	-	P	V
5290MHz		15870	50.72	-23.28	74	47.79	40.3	13.92	51.29	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



U NII-2C - 5470~5725MHz

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 100 5500MHz		5438.8	51.01	-22.99	74	42.04	34.5	7.79	33.32	182	349	P	H
		5469.04	51.93	-16.37	68.3	42.91	34.5	7.88	33.36	182	349	P	H
		5457.84	41.09	-12.91	54	32.11	34.5	7.84	33.36	182	349	A	H
	*	5500	102.01	-	-	92.95	34.5	7.96	33.4	182	349	P	H
		5500	95.16	-	-	86.1	34.5	7.96	33.4	182	349	A	H
		5457.36	51.06	-22.94	74	42.08	34.5	7.84	33.36	189	268	P	V
		5466.96	51.08	-17.22	68.3	42.06	34.5	7.88	33.36	189	268	P	V
		5459.28	40.78	-13.22	54	31.8	34.5	7.84	33.36	189	268	A	V
	*	5500	100.56	-	-	91.5	34.5	7.96	33.4	189	268	P	V
		5500	93.06	-	-	84	34.5	7.96	33.4	189	268	A	V
802.11a CH 116 5580MHz		5416.48	49.04	-24.96	74	40.06	34.5	7.75	33.27	190	354	P	H
		5468.56	49.31	-18.99	68.3	40.29	34.5	7.88	33.36	190	354	P	H
		5444.8	40.18	-13.82	54	31.21	34.5	7.79	33.32	190	354	A	H
	*	5580	106.05	-	-	96.97	34.5	7.97	33.39	190	354	P	H
		5580	99.18	-	-	90.1	34.5	7.97	33.39	190	354	A	H
		5759.96	50.28	-18.02	68.3	40.52	34.72	8.39	33.35	190	354	P	H
		5414.56	49.58	-24.42	74	40.6	34.5	7.75	33.27	103	355	P	V
		5464.48	48.2	-20.1	68.3	39.18	34.5	7.88	33.36	103	355	P	V
		5449.6	39.79	-14.21	54	30.77	34.5	7.84	33.32	103	355	A	V
	*	5580	99.88	-	-	90.8	34.5	7.97	33.39	103	355	P	V
		5580	93.72	-	-	84.64	34.5	7.97	33.39	103	355	A	V
	5731.925	48.64	-19.66	68.3	38.84	34.7	8.45	33.35	103	355	P	V	



802.11a CH 140 5700MHz	*	5700	99.54	-	-	89.68	34.7	8.52	33.36	257	357	P	H
		5700	92.4	-	-	82.54	34.7	8.52	33.36	257	357	A	H
		5730.68	56.17	-12.13	68.3	46.37	34.7	8.45	33.35	257	357	P	H
	*	5700	97.97	-	-	88.11	34.7	8.52	33.36	278	257	P	V
		5700	89.86	-	-	80	34.7	8.52	33.36	278	257	A	V
		5726.12	51.77	-16.53	68.3	41.97	34.7	8.45	33.35	278	257	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



U NII-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		11000	49.26	-24.74	74	50.01	38	11.14	49.89	-	-	P	H
		16500	49.66	-18.64	68.3	45.5	41.25	14.27	51.36	-	-	P	H
		11000	49.27	-24.73	74	50.02	38	11.14	49.89	-	-	P	V
		16500	50.93	-17.37	68.3	46.77	41.25	14.27	51.36	-	-	P	V
802.11a CH 116 5580MHz		11160	47.82	-26.18	74	48.34	38.1	11.28	49.9	-	-	P	H
		16740	51.19	-17.11	68.3	46.5	41.66	14.4	51.37	-	-	P	H
		11160	48.5	-25.5	74	49.02	38.1	11.28	49.9	-	-	P	V
		16740	50.85	-17.45	68.3	46.16	41.66	14.4	51.37	-	-	P	V
802.11a CH 140 5700MHz		11400	48.15	-25.85	74	48.36	38.24	11.47	49.92	-	-	P	H
		17100	51.74	-16.56	68.3	46.5	41.97	14.69	51.42	-	-	P	H
		11400	48.57	-25.43	74	48.78	38.24	11.47	49.92	-	-	P	V
		17100	52.18	-16.12	68.3	46.94	41.97	14.69	51.42	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



U NII-2C - 5470~5725MHz

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 100 5500MHz		5454	54.28	-19.72	74	45.3	34.5	7.84	33.36	162	353	P	H
		5467.44	57.35	-10.95	68.3	48.33	34.5	7.88	33.36	162	353	P	H
		5456.4	41.33	-12.67	54	32.35	34.5	7.84	33.36	162	353	A	H
	*	5500	102.13	-	-	93.07	34.5	7.96	33.4	162	353	P	H
		5500	95.06	-	-	86	34.5	7.96	33.4	162	353	A	H
		5451.6	49.96	-24.04	74	40.94	34.5	7.84	33.32	295	267	P	V
		5468.56	57.27	-11.03	68.3	48.25	34.5	7.88	33.36	295	267	P	V
		5459.28	40.87	-13.13	54	31.89	34.5	7.84	33.36	295	267	A	V
	*	5500	100.76	-	-	91.7	34.5	7.96	33.4	295	267	P	V
	5500	93.56	-	-	84.5	34.5	7.96	33.4	295	267	A	V	
802.11n HT20 CH 116 5580MHz		5444.08	49.41	-24.59	74	40.44	34.5	7.79	33.32	240	346	P	H
		5467.6	49.13	-19.17	68.3	40.11	34.5	7.88	33.36	240	346	P	H
		5450.8	40.37	-13.63	54	31.35	34.5	7.84	33.32	240	346	A	H
	*	5580	103.64	-	-	94.56	34.5	7.97	33.39	240	346	P	H
		5580	96.44	-	-	87.36	34.5	7.97	33.39	240	346	A	H
		5751.455	49.58	-18.72	68.3	39.81	34.7	8.42	33.35	240	346	P	H
		5444.32	49.59	-24.41	74	40.62	34.5	7.79	33.32	226	247	P	V
		5464.96	48.7	-19.6	68.3	39.68	34.5	7.88	33.36	226	247	P	V
		5458.72	40.26	-13.74	54	31.28	34.5	7.84	33.36	226	247	A	V
*	5580	102.8	-	-	93.72	34.5	7.97	33.39	226	247	P	V	
	5580	95.23	-	-	86.15	34.5	7.97	33.39	226	247	A	V	
	5747.045	49.22	-19.08	68.3	39.45	34.7	8.42	33.35	226	247	P	V	



802.11n	*	5700	98.98	-	-	89.12	34.7	8.52	33.36	276	360	P	H
		5700	91.86	-	-	82	34.7	8.52	33.36	276	360	A	H
HT20		5725.16	53.95	-14.35	68.3	44.15	34.7	8.45	33.35	276	360	P	H
CH 140	*	5700	97.47	-	-	87.61	34.7	8.52	33.36	308	297	P	V
5700MHz		5700	89.86	-	-	80	34.7	8.52	33.36	308	297	A	V
		5725.08	56.73	-11.57	68.3	46.93	34.7	8.45	33.35	308	297	P	V
Remark	<ol style="list-style-type: none"> No other spurious found. All results are PASS against Peak and Average limit line. 												



U NII-2C - 5470~5725MHz
WIFI 802.11n HT20 (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)
802.11n HT20		11000	49.21	-24.79	74	49.96	38	11.14	49.89	-	-	P	H
		16500	50.74	-17.56	68.3	46.58	41.25	14.27	51.36	-	-	P	H
CH 100 5500MHz		11000	48.86	-25.14	74	49.61	38	11.14	49.89	-	-	P	V
		16500	50.22	-18.08	68.3	46.06	41.25	14.27	51.36	-	-	P	V
802.11n HT20 CH 116 5580MHz		11160	48.29	-25.71	74	48.81	38.1	11.28	49.9	-	-	P	H
		16740	50.86	-17.44	68.3	46.17	41.66	14.4	51.37	-	-	P	H
		11160	48.71	-25.29	74	49.23	38.1	11.28	49.9	-	-	P	V
		16740	51.19	-17.11	68.3	46.5	41.66	14.4	51.37	-	-	P	V
802.11n HT20 CH 140 5700MHz		11400	49.24	-24.76	74	49.45	38.24	11.47	49.92	-	-	P	H
		17100	51.79	-16.51	68.3	46.55	41.97	14.69	51.42	-	-	P	H
		11400	48.55	-25.45	74	48.76	38.24	11.47	49.92	-	-	P	V
		17100	52.19	-16.11	68.3	46.95	41.97	14.69	51.42	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



U NII-2C - 5470~5725MHz

WIFI 802.11n HT40 (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 HT40 CH 102 5510MHz		5453.44	53.31	-20.69	74	44.33	34.5	7.84	33.36	263	342	P	H
		5476.48	63.48	-4.82	68.3	54.46	34.5	7.88	33.36	263	342	P	H
		5459.68	42.38	-11.62	54	33.4	34.5	7.84	33.36	263	342	A	H
	*	5510	97.38	-	-	88.32	34.5	7.96	33.4	263	342	P	H
		5510	90.4	-	-	81.34	34.5	7.96	33.4	263	342	A	H
		5761.22	50.09	-18.21	68.3	40.33	34.72	8.39	33.35	263	342	P	H
		5456.08	53.8	-20.2	74	44.82	34.5	7.84	33.36	267	266	P	V
		5469.76	59.46	-8.84	68.3	50.44	34.5	7.88	33.36	267	266	P	V
		5459.2	42.28	-11.72	54	33.3	34.5	7.84	33.36	267	266	A	V
	*	5510	96.77	-	-	87.71	34.5	7.96	33.4	267	266	P	V
		5510	89.82	-	-	80.76	34.5	7.96	33.4	267	266	A	V
	5741.375	49.05	-19.25	68.3	39.28	34.7	8.42	33.35	267	266	P	V	
802.11n HT40 CH 110 5550MHz		5452.96	52.14	-21.86	74	43.12	34.5	7.84	33.32	253	343	P	H
		5470	55.72	-12.58	68.3	46.7	34.5	7.88	33.36	253	343	P	H
		5459.68	43.29	-10.71	54	34.31	34.5	7.84	33.36	253	343	A	H
	*	5550	101.05	-	-	91.97	34.5	7.97	33.39	253	343	P	H
		5550	93.6	-	-	84.52	34.5	7.97	33.39	253	343	A	H
		5727.2	48.97	-19.33	68.3	39.17	34.7	8.45	33.35	253	343	P	H
		5459.68	52.15	-21.85	74	43.17	34.5	7.84	33.36	273	259	P	V
		5465.2	53.41	-14.89	68.3	44.39	34.5	7.88	33.36	273	259	P	V
		5459.92	43.47	-10.53	54	34.49	34.5	7.84	33.36	273	259	A	V
	*	5550	99.73	-	-	90.65	34.5	7.97	33.39	273	259	P	V
	5550	92.29	-	-	83.21	34.5	7.97	33.39	273	259	A	V	
	5728.775	48.77	-19.53	68.3	38.97	34.7	8.45	33.35	273	259	P	V	



802.11n HT40 CH 134 5670MHz		5437.85	48.61	-25.39	74	39.64	34.5	7.79	33.32	255	352	P	H
		5467.6	48.12	-20.18	68.3	39.1	34.5	7.88	33.36	255	352	P	H
		5453.6	40.73	-13.27	54	31.75	34.5	7.84	33.36	255	352	A	H
	*	5670	99.3	-	-	89.62	34.64	8.41	33.37	255	352	P	H
		5670	91.99	-	-	82.31	34.64	8.41	33.37	255	352	A	H
		5725.275	62.46	-5.84	68.3	52.66	34.7	8.45	33.35	255	352	P	H
		5447.3	48.8	-25.2	74	39.78	34.5	7.84	33.32	268	270	P	V
		5469.7	47.91	-20.39	68.3	38.89	34.5	7.88	33.36	268	270	P	V
		5443.1	40.62	-13.38	54	31.65	34.5	7.79	33.32	268	270	A	V
	*	5670	98.7	-	-	89.02	34.64	8.41	33.37	268	270	P	V
		5670	92.21	-	-	82.53	34.64	8.41	33.37	268	270	A	V
		5726.325	59.29	-9.01	68.3	49.49	34.7	8.45	33.35	268	270	P	V

Remark

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



U NII-2C - 5470~5725MHz
WIFI 802.11n HT40 (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)
802.11n HT40 CH 102		11020	48.46	-25.54	74	32.82	38.01	11.15	33.52	-	-	P	H
		16530	50.48	-17.82	68.3	27.42	41.3	14.29	32.53	-	-	P	H
5510MHz		11020	48.36	-25.64	74	32.72	38.01	11.15	33.52	-	-	P	V
		16530	50.63	-17.67	68.3	27.57	41.3	14.29	32.53	-	-	P	V
802.11n HT40 CH 110		11100	47.88	-26.12	74	48.5	38.06	11.22	49.9	-	-	P	H
		16650	50.09	-18.21	68.3	45.6	41.51	14.35	51.37	-	-	P	H
		11100	48.83	-25.17	74	49.45	38.06	11.22	49.9	-	-	P	V
		16650	49.26	-19.04	68.3	44.77	41.51	14.35	51.37	-	-	P	V
802.11n HT40 CH 134		11340	47.9	-26.1	74	48.2	38.2	11.42	49.92	-	-	P	H
		17010	49.72	-18.58	68.3	44.46	42.09	14.56	51.39	-	-	P	H
		11340	48.55	-25.45	74	48.85	38.2	11.42	49.92	-	-	P	V
		17010	50.49	-17.81	68.3	45.23	42.09	14.56	51.39	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



U NII-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		5439.28	54.37	-19.63	74	45.4	34.5	7.79	33.32	242	342	P	H
		5464	53.04	-15.26	68.3	44.02	34.5	7.88	33.36	242	342	A	H
	*	5457.76	45.42	-8.58	54	36.44	34.5	7.84	33.36	242	342	P	H
		5530	92.95	-	-	83.89	34.5	7.96	33.4	242	342	A	H
		5530	85.65	-	-	76.59	34.5	7.96	33.4	242	342	P	H
		5732.87	49.74	-18.56	68.3	39.94	34.7	8.45	33.35	242	342	A	H
		5441.2	53.11	-20.89	74	44.14	34.5	7.79	33.32	276	262	P	V
		5469.28	54.71	-13.59	68.3	45.69	34.5	7.88	33.36	276	262	A	V
	*	5459.92	45.9	-8.1	54	36.92	34.5	7.84	33.36	276	262	P	V
		5530	91.76	-	-	82.7	34.5	7.96	33.4	276	262	A	V
		5530	84.74	-	-	75.68	34.5	7.96	33.4	276	262	P	V
	5764.055	49.63	-18.67	68.3	39.86	34.73	8.39	33.35	276	262	A	V	
802.11ac VHT80 CH 122 5610MHz		5422.48	48.97	-25.03	74	39.99	34.5	7.75	33.27	261	356	P	H
		5469.28	49.84	-18.46	68.3	40.82	34.5	7.88	33.36	261	356	A	H
	*	5453.44	42.39	-11.61	54	33.41	34.5	7.84	33.36	261	356	P	H
		5610	95.37	-	-	86.26	34.52	7.97	33.38	261	356	A	H
		5610	87.99	-	-	78.88	34.52	7.97	33.38	261	356	P	H
		5738.225	53.26	-15.04	68.3	43.49	34.7	8.42	33.35	261	356	A	H
		5446.48	49.78	-24.22	74	40.76	34.5	7.84	33.32	267	265	P	V
		5467.6	49.57	-18.73	68.3	40.55	34.5	7.88	33.36	267	265	A	V
	*	5441.92	42.61	-11.39	54	33.64	34.5	7.79	33.32	267	265	P	V
		5610	93.83	-	-	84.72	34.52	7.97	33.38	267	265	A	V
	5610	86.68	-	-	77.57	34.52	7.97	33.38	267	265	P	V	
	5725.975	52.45	-15.85	68.3	42.65	34.7	8.45	33.35	267	265	A	V	
Remark	<p align="center">1. No other spurious found. 2. All results are PASS against Peak and Average limit line.</p>												



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		11060	48.45	-25.55	74	49.1	38.04	11.2	49.89	-	-	P	H
VHT80		16590	49.54	-18.76	68.3	45.19	41.4	14.32	51.37	-	-	P	H
CH 106		11060	48.79	-25.21	74	49.44	38.04	11.2	49.89	-	-	P	V
5530MHz		16590	50.93	-17.37	68.3	46.58	41.4	14.32	51.37	-	-	P	V
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		11220	48.78	-25.22	74	49.24	38.13	11.32	49.91	-	-	P	H
VHT80		16830	50.91	-17.39	68.3	46.04	41.81	14.44	51.38	-	-	P	H
CH 122		11220	48.58	-25.42	74	49.04	38.13	11.32	49.91	-	-	P	V
5610MHz		16830	50.04	-18.26	68.3	45.17	41.81	14.44	51.38	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



U NII-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		5439.1	48.86	-25.14	74	39.89	34.5	7.79	33.32	242	343	P	H
		5460	46.89	-21.41	68.3	37.91	34.5	7.84	33.36	242	343	P	H
		5720	104.84	-	-	95.04	34.7	8.45	33.35	242	343	P	H
		5892.3	49.06	-19.24	68.3	38.91	34.98	8.5	33.33	242	343	P	H
		5445.7	40.4	-13.6	54	31.38	34.5	7.84	33.32	242	343	P	H
		5720	99.03	-	-	89.23	34.7	8.45	33.35	242	343	A	H
		5368.7	49.4	-24.6	74	40.4	34.5	7.69	33.19	242	294	P	V
		5461.65	49.4	-18.9	68.3	40.42	34.5	7.84	33.36	242	294	P	V
		5720	103.97	-	-	94.17	34.7	8.45	33.35	242	294	P	V
		5888.45	49.83	-18.47	68.3	39.68	34.98	8.5	33.33	242	294	P	V
		5452.3	40.42	-13.58	54	31.4	34.5	7.84	33.32	242	294	P	V
		5720	97.32	-	-	87.52	34.7	8.45	33.35	242	294	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



U NII-2C - Straddle Channel
WIFI 802.11a (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 data for 802.11a CH 144 and a Remark section.



**U NII-2C - Straddle Channel
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 144 5720MHz		5438.55	47.94	-26.06	74	38.97	34.5	7.79	33.32	243	348	P	H
		5466.6	47.46	-20.84	68.3	38.44	34.5	7.88	33.36	243	348	P	H
		5720	105.6	-	-	95.8	34.7	8.45	33.35	243	348	P	H
		5851.6	49.96	-18.34	68.3	39.98	34.9	8.41	33.33	243	348	P	H
		5458.35	40.4	-13.6	54	31.42	34.5	7.84	33.36	243	348	P	H
		5720	99	-	-	89.2	34.7	8.45	33.35	243	348	A	H
		5436.9	48.85	-25.15	74	39.88	34.5	7.79	33.32	274	255	P	V
		5469.35	47.71	-20.59	68.3	38.69	34.5	7.88	33.36	274	255	P	V
		5720	103.82	-	-	94.02	34.7	8.45	33.35	274	255	P	V
		5876.35	49.8	-18.5	68.3	39.71	34.95	8.47	33.33	274	255	P	V
		5450.1	40.38	-13.62	54	31.36	34.5	7.84	33.32	274	255	P	V
	5720	96.73	-	-	86.93	34.7	8.45	33.35	274	255	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



U NII-2C - Straddle Channel
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 802.11n HT20 CH 144 5720MHz and a Remark section.



U NII-2C - Straddle Channel
WIFI 802.11n HT40 (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 frequency measurements for 802.11n HT40 and CH 142 5710MHz.

Remark

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



U NII-2C - Straddle Channel
WIFI 802.11n HT40 (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)
802.11n		11420	48.42	-25.58	74	48.6	38.25	11.49	49.92	-	-	P	H
HT40		17130	52.35	-15.95	68.3	47.1	41.93	14.75	51.43	-	-	P	H
CH 142		11420	49	-25	74	33.01	38.25	11.49	33.75	-	-	P	V
5710MHz		17130	51.7	-16.6	68.3	26.89	41.93	14.75	31.87	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



U NII-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 test results for 802.11ac VHT80 CH 138 5690MHz and a Remark section.



U NII-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.

Remark

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



U NII-2C - Straddle Channel

Emission below 1GHz

WIFI 802.11n HT40 (LF @ 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)
802.11n HT40 LF		55.22	21.29	-18.71	40	39	13.14	0.75	31.6	-	-	-	H
		145.43	26.28	-17.22	43.5	39.64	16.94	1.11	31.41	-	-	-	H
		199.75	23.33	-20.17	43.5	37.79	15.53	1.31	31.3	-	-	-	H
		319.06	20.76	-25.24	46	30.72	19.73	1.67	31.36	-	-	-	H
		520.82	24.11	-21.89	46	29.26	23.92	2.17	31.24	-	-	-	H
		745.86	27.19	-18.81	46	29.61	26.12	2.6	31.14	-	-	-	H
		52.31	28.24	-11.76	40	45.28	13.93	0.63	31.6	-	-	-	V
		84.32	22.63	-17.37	40	39.31	14.05	0.82	31.55	-	-	-	V
		142.52	22.96	-20.54	43.5	36.22	17.12	1.04	31.42	-	-	-	V
		195.87	20.69	-22.81	43.5	35.81	15.02	1.17	31.31	-	-	-	V
		527.61	22.99	-23.01	46	28.18	24.05	2.02	31.26	-	-	-	V
		849.65	28.34	-17.66	46	30.68	26.62	2.44	31.4	-	-	-	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



**U NII-2A 5250~5350MHz
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)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 62 5310MHz & LTE Band7C	*	5045.15	52.47	-21.53	74	39.06	33.8	12.12	32.51	110	206	P	H
	*	5109.55	43.06	-10.94	54	29.51	33.93	12.14	32.52	110	206	A	H
		2535	91	-	-	81.63	32.23	9.82	32.68	110	206	P	H
		5310	95.14	-	-	81.1	34.4	12.2	32.56	110	206	P	H
		5310	88.37	-	-	74.33	34.4	12.2	32.56	110	206	A	H
		5350.32	61.15	-12.85	74	47.11	34.4	12.21	32.57	110	206	P	H
	*	5351.52	47.11	-6.89	54	33.07	34.4	12.21	32.57	110	206	A	H
	*	5099.75	52.32	-21.68	74	38.8	33.9	12.14	32.52	226	212	P	V
		5029.75	43.13	-10.87	54	29.72	33.8	12.12	32.51	226	212	A	V
		2535	91.84	-	-	82.47	32.23	9.82	32.68	226	212	P	V
		5310	95.45	-	-	81.41	34.4	12.2	32.56	226	212	P	V
		5310	88.55	-	-	74.51	34.4	12.2	32.56	226	212	A	V
		5350.32	62.96	-11.04	74	48.92	34.4	12.21	32.57	226	212	P	V
		5350.56	49.09	-4.91	54	35.05	34.4	12.21	32.57	226	212	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



U NII-2A 5250~5350MHz
WIFI 802.11ac HT20 (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)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 62 5310MHz & LTE Band7C		5070	50.77	-23.23	74	37.33	33.83	12.13	32.52	-	-	P	H
		7605	48.29	-25.71	74	31.51	35.82	14.4	33.44	-	-	P	H
		10620	50.55	-23.45	74	48.55	37.57	15.6	51.17	-	-	P	H
		15930	49.73	-24.27	74	44.68	40.44	17.99	53.38	-	-	P	H
		5070	50.44	-23.56	74	37	33.83	12.13	32.52	-	-	P	V
		7605	48.74	-25.26	74	31.96	35.82	14.4	33.44	-	-	P	V
		10620	49.7	-24.3	74	47.7	37.57	15.6	51.17	-	-	P	V
		15930	49.2	-24.8	74	44.15	40.44	17.99	53.38	-	-	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 over limit line.
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:

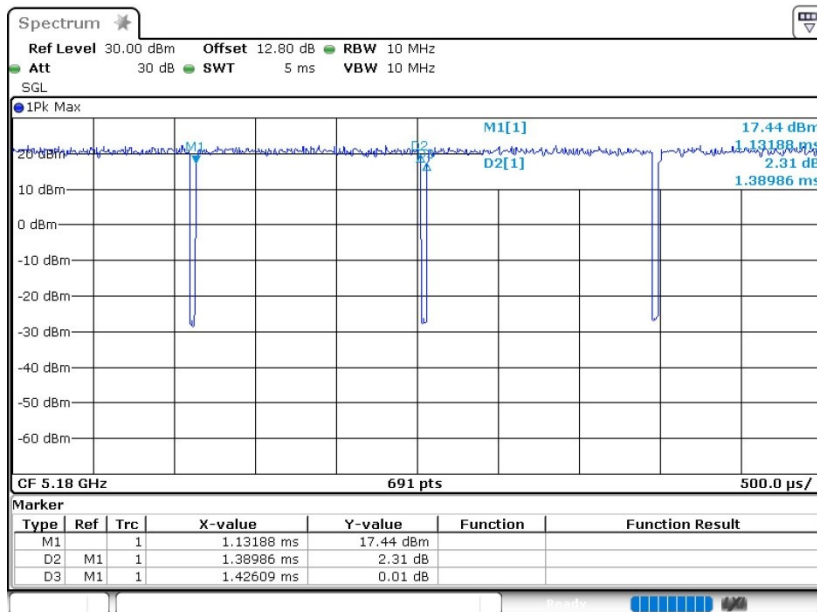
1. Level(dBμV/m)
= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)
= 43.54 (dBμV/m)
2. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)
= 43.54(dBμV/m) – 54(dBμV/m)
= -10.46(dB)

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

Appendix D. Duty Cycle Plots

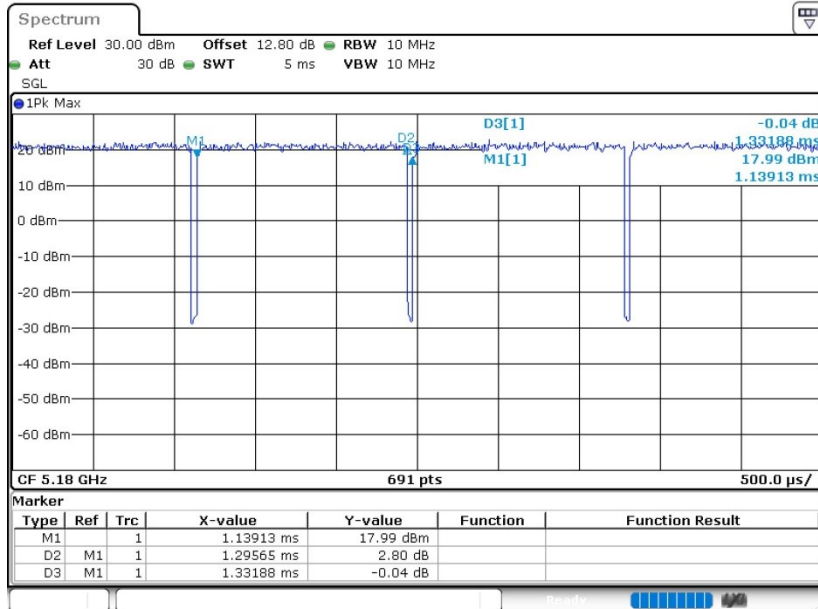
Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
802.11a	97.46	1.390	0.719	1kHz
802.11n HT20	97.28	1.296	0.772	1KHz
802.11n HT40	94.92	0.651	1.537	3KHz
802.11ac VHT80	54.63	0.325	3.080	10KHz

802.11a

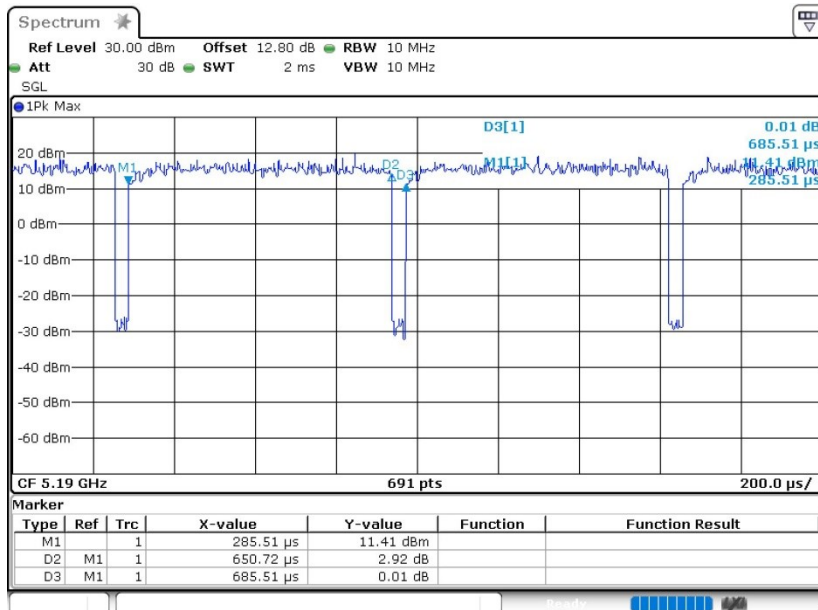




802.11n HT20



802.11n HT40





802.11ac VHT80

