



# FCC RF Test Report

**APPLICANT** : Motorola Mobility LLC  
**EQUIPMENT** : Mobile Cellular Phone  
**BRAND NAME** : Motorola  
**MODEL NAME** : XT2131-1, XT2131-4, XT2131-3, XT2131DL  
**FCC ID** : IHDT56ZL1  
**STANDARD** : FCC Part 15 Subpart E §15.407  
**CLASSIFICATION** : (NII) Unlicensed National Information Infrastructure

The product was received on Jan. 29, 2021 and testing was completed on Feb. 25, 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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### REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR112907D	Rev. 01	Initial issue of report	Mar. 25, 2021



### SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	2.1049 & 15.403(i)	26dB & 99% Bandwidth	-	Pass	-
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 3.06 dB at 5149.760 MHz
3.5	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 10.51 dB at 0.630 MHz
3.6	15.407(c)	Automatically Discontinue Transmission	Discontinue Transmission	Pass	-
3.7	15.203 & 15.407(a)	Antenna Requirement	N/A	Pass	-

<b>Declaration of Conformity:</b>
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
<b>Comments and Explanations:</b>
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

Motorola Mobility LLC  
222 W, Merchandise Mart Plaza, Chicago IL 60654 USA

## 1.2 Manufacturer

Motorola Mobility LLC  
222 W, Merchandise Mart Plaza, Chicago IL 60654 USA

## 1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2131-1, XT2131-4, XT2131-3, XT2131DL
FCC ID	IHDT56ZL1
EUT supports Radios application	CDMA/GSM/WCDMA/LTE/5G NR WLAN 2.4GHz 802.11b/g/n HT20 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth BR / EDR / LE FM Receiver / GNSS
IMEI Code	Conducted: 356611280011978 Conduction: 356611280013503 Radiation: 990016750028241
HW Version	DVT
SW Version	RRE31.37
EUT Stage	Production Unit

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	
<b>Tx/Rx Frequency Range</b>	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5700 MHz
<b>Maximum Output Power to Antenna</b>	<p><b>&lt;5180 MHz ~ 5240 MHz&gt;</b>  802.11a : 18.57 dBm / 0.0719 W  802.11n HT20 : 18.95 dBm / 0.0785 W  802.11n HT40 : 17.72 dBm / 0.0592 W  802.11ac VHT20 : 18.92 dBm / 0.0780 W  802.11ac VHT40 : 17.40 dBm / 0.0550 W  802.11ac VHT80 : 11.54 dBm / 0.0143 W</p> <p><b>&lt;5260 MHz ~ 5320 MHz&gt;</b>  802.11a : 18.29 dBm / 0.0675 W  802.11n HT20 : 18.13 dBm / 0.0650 W  802.11n HT40 : 17.28 dBm / 0.0535 W  802.11ac VHT20 : 17.99 dBm / 0.0630 W  802.11ac VHT40 : 17.27 dBm / 0.0533 W  802.11ac VHT80 : 13.96 dBm / 0.0249 W</p> <p><b>&lt;5500 MHz ~ 5700 MHz &gt;</b>  802.11a : 17.72 dBm / 0.0592 W  802.11n HT20 : 17.71 dBm / 0.0590 W  802.11n HT40 : 17.01 dBm / 0.0502 W  802.11ac VHT20 : 17.66 dBm / 0.0583 W  802.11ac VHT40 : 16.16 dBm / 0.0413 W  802.11ac VHT80 : 12.71 dBm / 0.0187 W</p>
<b>99% Occupied Bandwidth</b>	<p><b>&lt;5180 MHz ~ 5240 MHz&gt;</b>  802.11a : 17.08 MHz  802.11n HT20 : 18.28 MHz  802.11n HT40 : 36.66 MHz  802.11ac VHT80 : 76.36 MHz</p> <p><b>&lt;5260 MHz ~ 5320 MHz&gt;</b>  802.11a : 16.98 MHz  802.11n HT20 : 18.13 MHz  802.11n HT40 : 36.56 MHz  802.11ac VHT80 : 76.24 MHz</p> <p><b>&lt;5500 MHz ~ 5700 MHz &gt;</b>  802.11a : 21.03 MHz  802.11n HT20 : 21.48 MHz  802.11n HT40 : 36.86 MHz  802.11ac VHT80 : 76.12 MHz</p>
<b>Antenna Type / Gain</b>	<p><b>&lt;5180 MHz ~ 5240 MHz&gt;</b>  PIFA Antenna with gain -6.0 dBi</p> <p><b>&lt;5260 MHz ~ 5320 MHz&gt;</b>  PIFA Antenna with gain -5.5 dBi</p> <p><b>&lt;5500 MHz ~ 5700 MHz&gt;</b>  PIFA Antenna with gain -6.0 dBi</p>
<b>Type of Modulation</b>	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 has assessed only 802.11n HT20/ 11n HT40 by referring to the higher output power.

### 1.5 Specification of Accessory

Specification of Accessory				
AC Adapter 1(US)	Brand Name	Motorola (Chenyang)	Model Name	MC-101
AC Adapter 2(US)	Brand Name	Motorola (Salcomp)	Model Name	MC-101
Battery	Brand Name	Motorola (ATL)	Model Name	MD50
USB Cable 1	Brand Name	Motorola (Saibao)	Model Name	SC18C24367
USB Cable 2	Brand Name	Motorola (Luxshare)	Model Name	SC18C24368

### 1.6 Modification of EUT

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

### 1.7 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.
	03CH04-SZ	CN1256	421272



### 1.8 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH04-SZ	AUDIX	E3	6.2009-8-24
2.	CO01-SZ	AUDIX	E3	6.120613b

### 1.9 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)
5180-5240 MHz Band 1 (U-NII-1)	36	5180	44	5220
	38*	5190	46*	5230
	40	5200	48	5240
	42 <sup>#</sup>	5210		

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5260-5320 MHz Band 2 (U-NII-2A)	52	5260	60	5300
	54*	5270	62*	5310
	56	5280	64	5320
	58 <sup>#</sup>	5290		

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5500-5700 MHz Band 3 (U-NII-2C)	100	5500	112	5560
	102*	5510	116	5580
	104	5520	132	5660
	106 <sup>#</sup>	5530	134*	5670
	108	5540	136	5680
	110*	5550	140	5700

**Note:**

1. The above Frequency and Channel in "\*" were 802.11n HT40 and 802.11ac VHT40.
2. The above Frequency and Channel in "<sup>#</sup>" 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

Test Cases	
<b>AC Conducted Emission</b>	Mode 1 : GSM 850 Idle + BT Link + WLAN Link(5G) + USB Cable 2(Charging from Adapter 1) + Battery 1 + Earphone
<b>Remark:</b> For Radiated Test Cases, The tests were performed with Adapter, Battery, Earphone and USB Cable.	

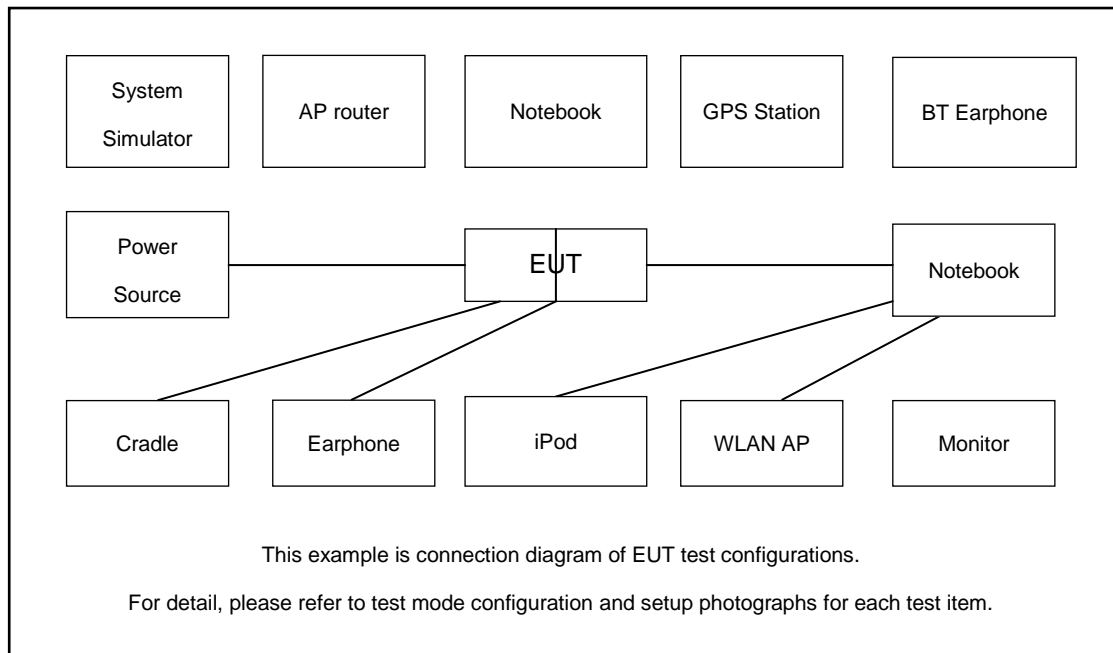
Ch. #		Band I : 5180-5240 MHz	Band II : 5260-5320 MHz	Band III : 5500-5700MHz
		802.11a	802.11a	802.11a
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140

Ch. #		Band I : 5180-5240 MHz	Band II : 5260-5320 MHz	Band III : 5500-5700MHz
		802.11n HT20	802.11n HT20	802.11n HT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140

Ch. #		Band I : 5180-5240 MHz	Band II : 5260-5320 MHz	Band III : 5500-5700MHz
		802.11n HT40	802.11n HT40	802.11n HT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134

Ch. #		Band I : 5180-5240 MHz	Band II : 5260-5320 MHz	Band III : 5500-5700MHz
		802.11ac VHT80	802.11ac VHT80	802.11ac VHT80
L	Low	-	-	106
M	Middle	42	58	-
H	High	-	-	122

### 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	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8m
2.	WLAN AP	D-Link	DIR-820L	KA2IR820LA1	N/A	Unshielded, 1.8m
3.	Bluetooth Earphone	Samsung	EO-MG900	PYAHS-107W	N/A	N/A
4.	Earphone	N/A	N/A	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/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 20dB attenuator.

$$\begin{aligned} \text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)}. \\ &= 2.8 + 10 = 22.8 \text{ (dB)} \end{aligned}$$

### 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.

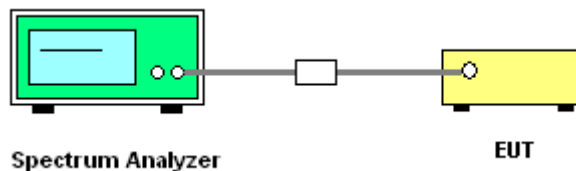
##### 3.1.2 Measuring Instruments

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

##### 3.1.3 Test Procedures

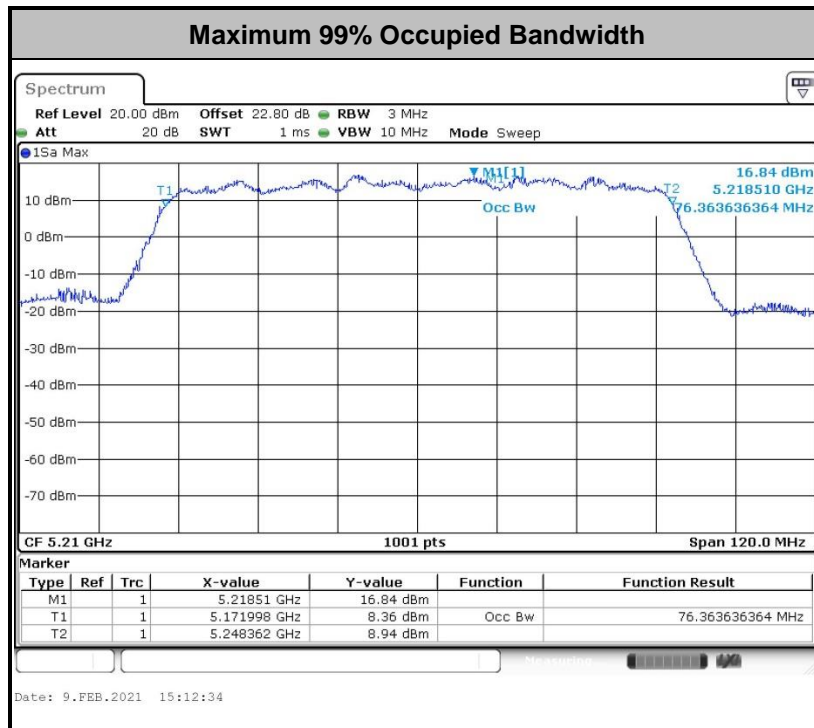
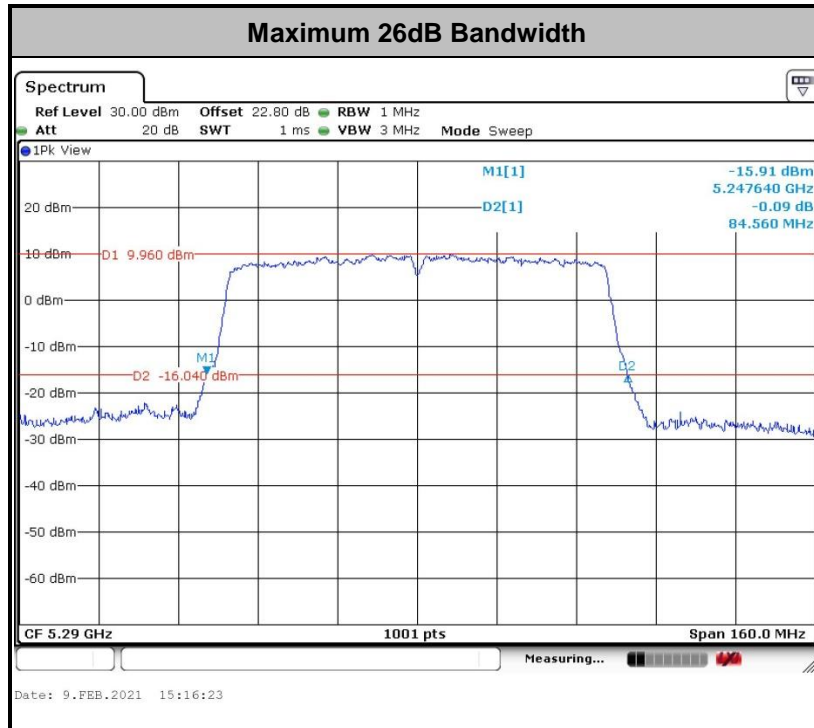
1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section C) Emission bandwidth
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 26 dB 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 3MHz 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 dBm  $10 \log B$ , where B is the 26 dB emission bandwidth in megahertz.

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.

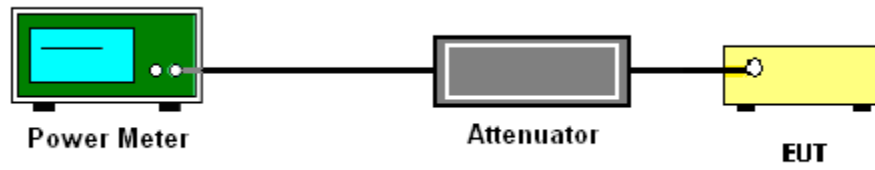
### 3.2.3 Test Procedures

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.

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

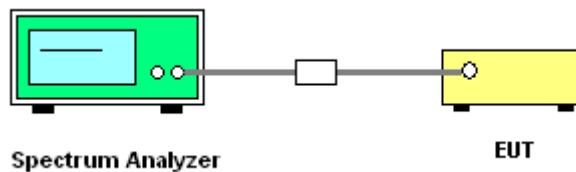
The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.  
Section F) Maximum power spectral density.

#### # Method SA-2 #

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

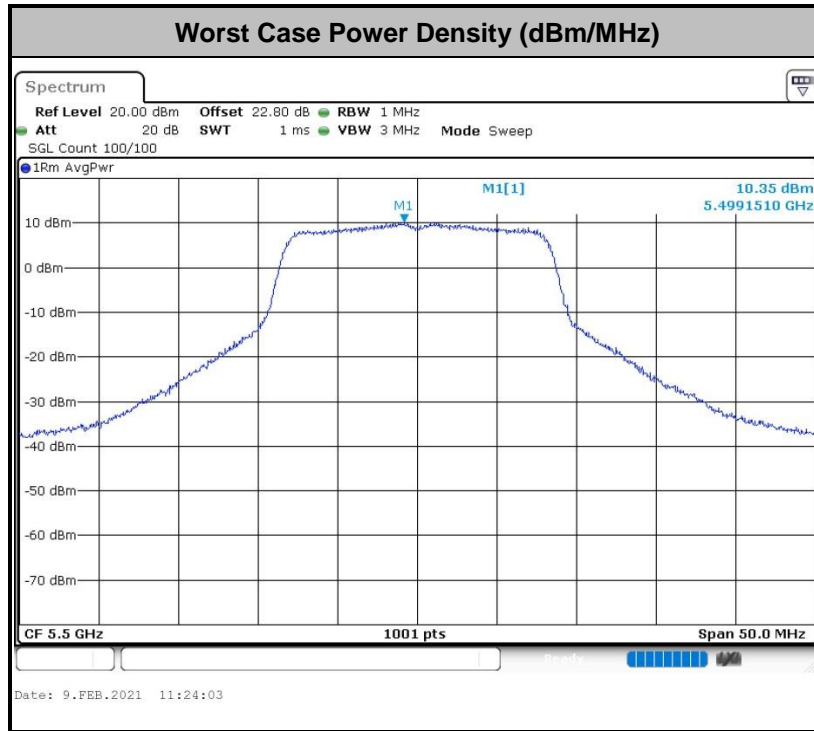
- Measure the duty cycle.
  - Set span to encompass the entire emission bandwidth (EBW) of the signal.
  - Set RBW = 1 MHz.
  - Set VBW  $\geq$  3 MHz.
  - Number of points in sweep  $\geq$  2 Span / RBW.
  - Sweep time = auto.
  - Detector = RMS
  - Trace average at least 100 traces in power averaging 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 5470-5600 MHz and 5650-5725MHz band: all emissions outside of the 5470-5600 MHz and 5650-5725MHz 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.

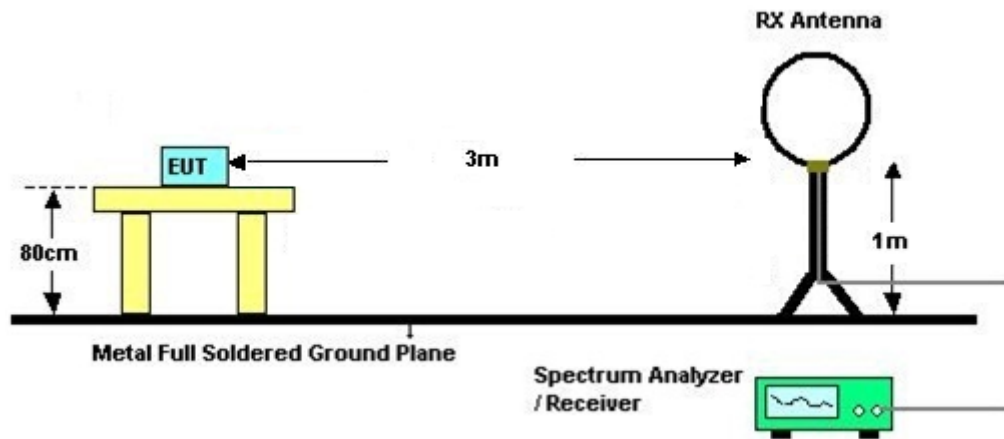


### 3.4.3 Test Procedures

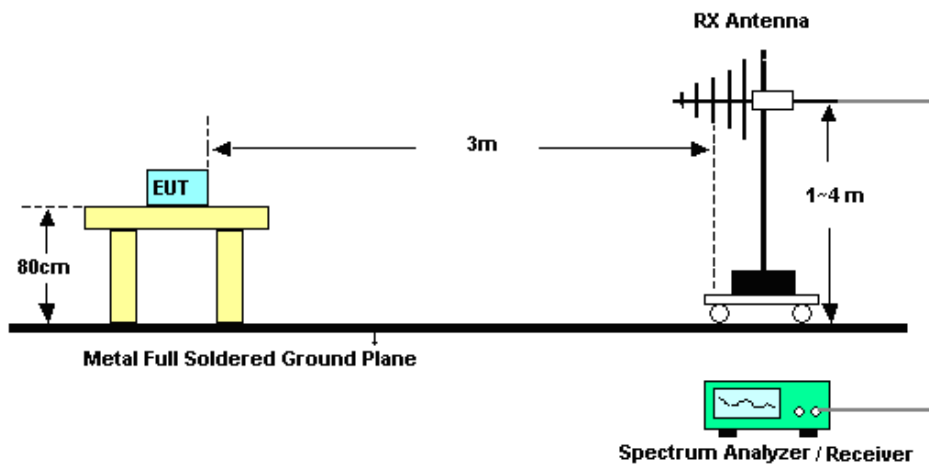
1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section G) Unwanted emissions measurement.
  - (1) Procedure for Unwanted Emissions Measurements Below 1000MHz
    - RBW = 120 kHz
    - VBW = 300 kHz
    - Detector = Peak
    - Trace mode = max hold
  - (2) Procedure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

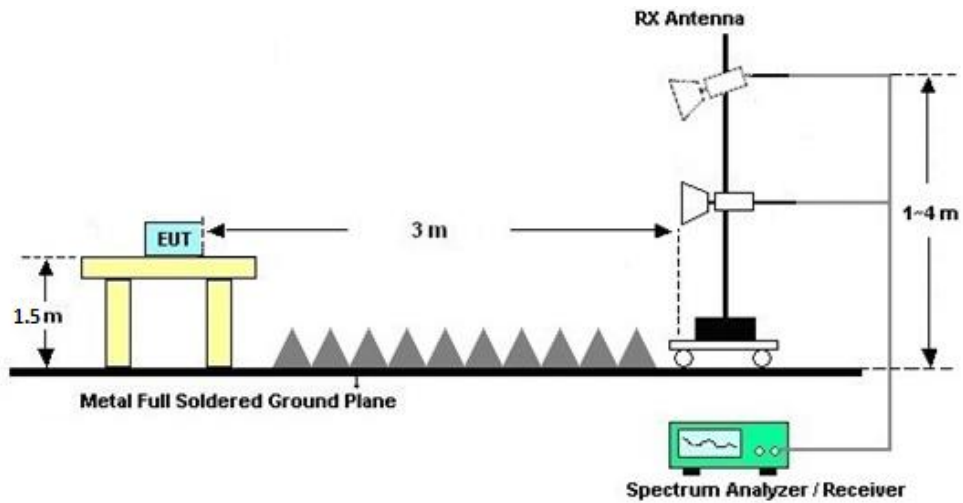
**For radiated emissions below 30MHz**



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 Automatically Discontinue Transmission**

### **3.6.1 Limit of Automatically Discontinue Transmission**

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization to describe how this requirement is met.

### **3.6.2 Measuring Instruments**

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

### **3.6.3 Test Result of Automatically Discontinue Transmission**

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.



## **3.7 Antenna Requirements**

### **3.7.1 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.

### **3.7.2 Antenna Anti-Replacement Construction**

An embedded-in antenna design is used.

### **3.7.3 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. 17, 2020	Feb. 09, 2021	Apr. 16, 2021	Conducted (TH01-SZ)
Pulse Power Sensor	Anritsu	MA2411B	1207253	30MHz~40GHz	Dec. 25, 2020	Feb. 09, 2021	Dec. 24, 2021	Conducted (TH01-SZ)
Power Meter	Anritsu	ML2495A	1218010	50MHz Bandwidth	Dec. 25, 2020	Feb. 09, 2021	Dec. 24, 2021	Conducted (TH01-SZ)
EMI Test Receiver	R&S	ESR7	101404	9kHz~7GHz	Oct. 16, 2020	Feb. 25, 2021	Oct. 15, 2021	Radiation (03CH04-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz	Jul. 21, 2020	Feb. 25, 2021	Jul. 20, 2021	Radiation (03CH04-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jun. 22, 2020	Feb. 25, 2021	Jun. 21, 2021	Radiation (03CH04-SZ)
Bilog Antenna	TeseQ	CBL6111D	41909	30MHz~1GHz	Nov. 07, 2020	Feb. 25, 2021	Nov. 06, 2021	Radiation (03CH04-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1474	1GHz~18GHz	May 23, 2020	Feb. 25, 2021	May 22, 2021	Radiation (03CH04-SZ)
Horn Antenna	SCHWARZBECK	BBHA9170	9170#679	15GHz~40GHz	Jul. 26, 2020	Feb. 25, 2021	Jul. 25, 2021	Radiation (03CH04-SZ)
Amplifier	Burgeon	BPA-530	102211	0.01Hz~3000MHz	Oct. 16, 2020	Feb. 25, 2021	Oct. 15, 2021	Radiation (03CH04-SZ)
HF Amplifier	MITEQ	AMF-7D-00101800-30-10P-R	1943528	1GHz~18GHz	Oct. 17, 2020	Feb. 25, 2021	Oct. 16, 2021	Radiation (03CH04-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 21, 2020	Feb. 25, 2021	Jul. 20, 2021	Radiation (03CH04-SZ)
Amplifier	Agilent Technologies	83017A	MY53270156	500MHz~26.5GHz	Oct. 17, 2020	Feb. 25, 2021	Oct. 16, 2021	Radiation (03CH04-SZ)
AC Power Source	Chroma	61601	N/A	N/A	NCR	Feb. 25, 2021	NCR	Radiation (03CH04-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Feb. 25, 2021	NCR	Radiation (03CH04-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Feb. 25, 2021	NCR	Radiation (03CH04-SZ)
EMI Receiver	R&S	ESR7	101630	9kHz~7GHz;	Dec. 25, 2020	Feb. 07, 2021	Dec. 24, 2021	Conduction (CO01-SZ)
AC LISN	EMCO	3816/2SH	00103912	9kHz~30MHz	Dec. 25, 2020	Feb. 07, 2021	Dec. 24, 2021	Conduction (CO01-SZ)
AC LISN (for auxiliary equipment)	EMCO	3816/2SH	00103892	9kHz~30MHz	Oct. 15, 2020	Feb. 07, 2021	Oct. 14, 2021	Conduction (CO01-SZ)
AC Power Source	Chroma	61602	616020000891	100Vac~250Vac	Jul. 21, 2020	Feb. 07, 2021	Jul. 20, 2021	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))	2.7dB
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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))	4.8dB
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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))	5.1dB
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## Appendix A. Conducted Test Results

Test Engineer:	Zhang Xue Yi	Temperature:	21~25	°C
Test Date:	2021/2/9	Relative Humidity:	51~54	%



**TEST RESULTS DATA**  
**26dB and 99% OBW**

Band I										
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	17.08	28.07	-	22.33		
11a	6Mbps	1	44	5220	17.03	25.82	-	22.31		
11a	6Mbps	1	48	5240	16.93	26.47	-	22.29		
HT20	MCS0	1	36	5180	18.23	29.77	-	22.61		
HT20	MCS0	1	44	5220	18.23	28.82	-	22.61		
HT20	MCS0	1	48	5240	18.28	28.92	-	22.62		
HT40	MCS0	1	38	5190	36.66	42.26	-	23.01		
HT40	MCS0	1	46	5230	36.66	41.81	-	23.01		
VHT80	MCS0	1	42	5210	76.36	84.40	-	23.01		

**TEST RESULTS DATA**  
**Average Power Table**

FCC Band I										
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	0.08	17.74	24.00	-6.00		Pass
11a	6Mbps	1	44	5220	0.08	18.54	24.00	-6.00		Pass
11a	6Mbps	1	48	5240	0.08	18.57	24.00	-6.00		Pass
HT20	MCS0	1	36	5180	0.08	17.05	24.00	-6.00		Pass
HT20	MCS0	1	44	5220	0.08	18.85	24.00	-6.00		Pass
HT20	MCS0	1	48	5240	0.08	18.95	24.00	-6.00		Pass
HT40	MCS0	1	38	5190	0.14	11.72	24.00	-6.00		Pass
HT40	MCS0	1	46	5230	0.14	17.42	24.00	-6.00		Pass
VHT20	MCS0	1	36	5180	0.09	17.01	24.00	-6.00		Pass
VHT20	MCS0	1	44	5220	0.09	18.81	24.00	-6.00		Pass
VHT20	MCS0	1	48	5240	0.09	18.92	24.00	-6.00		Pass
VHT40	MCS0	1	38	5190	0.17	11.69	24.00	-6.00		Pass
VHT40	MCS0	1	46	5230	0.17	17.40	24.00	-6.00		Pass
VHT80	MCS0	1	42	5210	0.32	11.54	24.00	-6.00		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	0.08	9.87	11.00	-6.00		Pass
11a	6Mbps	1	44	5220	0.08	9.64	11.00	-6.00		Pass
11a	6Mbps	1	48	5240	0.08	9.84	11.00	-6.00		Pass
HT20	MCS0	1	36	5180	0.08	9.54	11.00	-6.00		Pass
HT20	MCS0	1	44	5220	0.08	9.72	11.00	-6.00		Pass
HT20	MCS0	1	48	5240	0.08	9.90	11.00	-6.00		Pass
HT40	MCS0	1	38	5190	0.14	5.65	11.00	-6.00		Pass
HT40	MCS0	1	46	5230	0.14	5.00	11.00	-6.00		Pass
VHT80	MCS0	1	42	5210	0.32	1.24	11.00	-6.00		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	16.98	25.82	23.30	29.30	23.98		
11a	6M bps	1	60	5300	16.88	25.77	23.27	29.27	23.98		
11a	6M bps	1	64	5320	16.98	25.42	23.30	29.30	23.98		
HT20	MCS 0	1	52	5260	18.13	27.17	23.58	29.58	23.98		
HT20	MCS 0	1	60	5300	18.03	26.27	23.56	29.56	23.98		
HT20	MCS 0	1	64	5320	18.03	26.62	23.56	29.56	23.98		
HT40	MCS 0	1	54	5270	36.56	41.81	23.98	30.00	23.98		
HT40	MCS 0	1	62	5310	36.56	41.72	23.98	30.00	23.98		
VHT80	MCS 0	1	58	5290	76.24	84.56	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	0.08	18.29	23.98	-5.50	26.99	Pass
11a	6M bps	1	60	5300	0.08	18.25	23.98	-5.50	26.99	Pass
11a	6M bps	1	64	5320	0.08	17.94	23.98	-5.50	26.99	Pass
HT20	MCS 0	1	52	5260	0.08	18.09	23.98	-5.50	26.99	Pass
HT20	MCS 0	1	60	5300	0.08	18.13	23.98	-5.50	26.99	Pass
HT20	MCS 0	1	64	5320	0.08	17.29	23.98	-5.50	26.99	Pass
HT40	MCS 0	1	54	5270	0.14	17.28	23.98	-5.50	26.99	Pass
HT40	MCS 0	1	62	5310	0.14	15.97	23.98	-5.50	26.99	Pass
VHT20	MCS 0	1	52	5260	0.09	17.95	23.98	-5.50	26.99	Pass
VHT20	MCS 0	1	60	5300	0.09	17.99	23.98	-5.50	26.99	Pass
VHT20	MCS 0	1	64	5320	0.09	17.15	23.98	-5.50	26.99	Pass
VHT40	MCS 0	1	54	5270	0.17	17.27	23.98	-5.50	26.99	Pass
VHT40	MCS 0	1	62	5310	0.17	15.90	23.98	-5.50	26.99	Pass
VHT80	MCS 0	1	58	5290	0.32	13.96	23.98	-5.50	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	0.08	9.67	11.00	-5.50		Pass
11a	6M bps	1	60	5300	0.08	9.67	11.00	-5.50		Pass
11a	6M bps	1	64	5320	0.08	10.19	11.00	-5.50		Pass
HT20	MCS 0	1	52	5260	0.08	9.28	11.00	-5.50		Pass
HT20	MCS 0	1	60	5300	0.08	9.62	11.00	-5.50		Pass
HT20	MCS 0	1	64	5320	0.08	9.54	11.00	-5.50		Pass
HT40	MCS 0	1	54	5270	0.14	4.90	11.00	-5.50		Pass
HT40	MCS 0	1	62	5310	0.14	5.48	11.00	-5.50		Pass
VHT80	MCS 0	1	58	5290	0.32	1.59	11.00	-5.50		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	16.83	25.47	23.26	29.26	23.98		
11a	6M bps	1	116	5580	16.83	25.03	23.26	29.26	23.98		
11a	6M bps	1	140	5700	21.03	35.71	23.98	30.00	23.98		
HT20	MCS 0	1	100	5500	18.03	25.97	23.56	29.56	23.98		
HT20	MCS 0	1	116	5580	17.98	26.07	23.55	29.55	23.98		
HT20	MCS 0	1	140	5700	21.48	36.96	23.98	30.00	23.98		
HT40	MCS 0	1	102	5510	36.56	41.99	23.98	30.00	23.98		
HT40	MCS 0	1	110	5550	36.66	41.81	23.98	30.00	23.98		
HT40	MCS 0	1	134	5670	36.86	42.44	23.98	30.00	23.98		
VHT80	MCS 0	1	106	5530	76.12	83.92	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	0.08	17.72	23.98	-6.00	26.99	Pass
11a	6M bps	1	116	5580	0.08	17.64	23.98	-6.00	26.99	Pass
11a	6M bps	1	140	5700	0.08	16.16	23.98	-6.00	26.99	Pass
HT20	MCS 0	1	100	5500	0.08	17.70	23.98	-6.00	26.99	Pass
HT20	MCS 0	1	116	5580	0.08	17.71	23.98	-6.00	26.99	Pass
HT20	MCS 0	1	140	5700	0.08	15.73	23.98	-6.00	26.99	Pass
HT40	MCS 0	1	102	5510	0.14	17.01	23.98	-6.00	26.99	Pass
HT40	MCS 0	1	110	5550	0.14	16.82	23.98	-6.00	26.99	Pass
HT40	MCS 0	1	134	5670	0.14	16.00	23.98	-6.00	26.99	Pass
VHT20	MCS 0	1	100	5500	0.09	17.66	23.98	-6.00	26.99	Pass
VHT20	MCS 0	1	116	5580	0.09	17.68	23.98	-6.00	26.99	Pass
VHT20	MCS 0	1	140	5700	0.09	15.63	23.98	-6.00	26.99	Pass
VHT40	MCS 0	1	102	5510	0.17	16.03	23.98	-6.00	26.99	Pass
VHT40	MCS 0	1	110	5550	0.17	16.16	23.98	-6.00	26.99	Pass
VHT40	MCS 0	1	134	5670	0.17	15.97	23.98	-6.00	26.99	Pass
VHT80	MCS 0	1	106	5530	0.32	12.71	23.98	-6.00	26.99	Pass



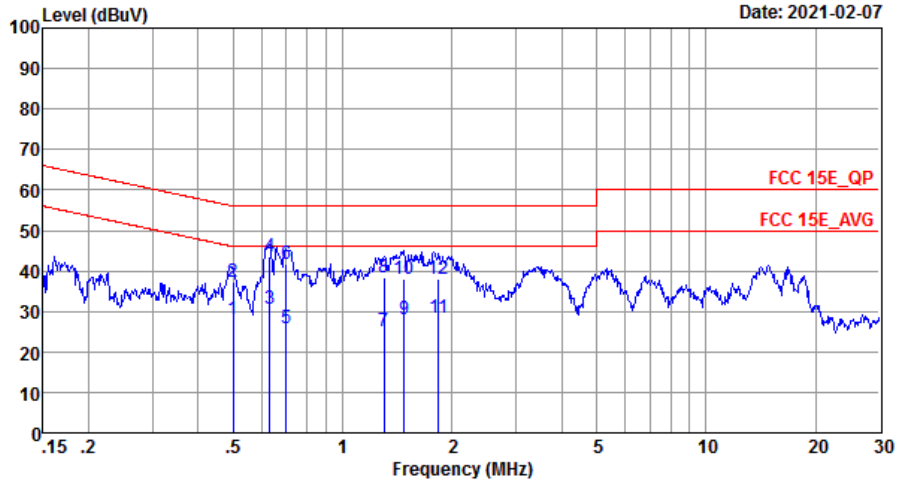
**TEST RESULTS DATA**  
**Power Spectral Density**

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	0.08	10.43	11.00	-6.00		Pass
11a	6M bps	1	116	5580	0.08	9.94	11.00	-6.00		Pass
11a	6M bps	1	140	5700	0.08	10.39	11.00	-6.00		Pass
HT20	MCS 0	1	100	5500	0.08	9.95	11.00	-6.00		Pass
HT20	MCS 0	1	116	5580	0.08	9.52	11.00	-6.00		Pass
HT20	MCS 0	1	140	5700	0.08	9.91	11.00	-6.00		Pass
HT40	MCS 0	1	102	5510	0.14	5.59	11.00	-6.00		Pass
HT40	MCS 0	1	110	5550	0.14	5.52	11.00	-6.00		Pass
HT40	MCS 0	1	134	5670	0.14	6.04	11.00	-6.00		Pass
VHT80	MCS 0	1	106	5530	0.32	1.56	11.00	-6.00		Pass



## Appendix B. AC Conducted Emission Test Results

Test Engineer :	Yan Zheng	Temperature :	22~25°C
		Relative Humidity :	50~55%
Test Voltage :	120Vac / 60Hz	Phase :	Line

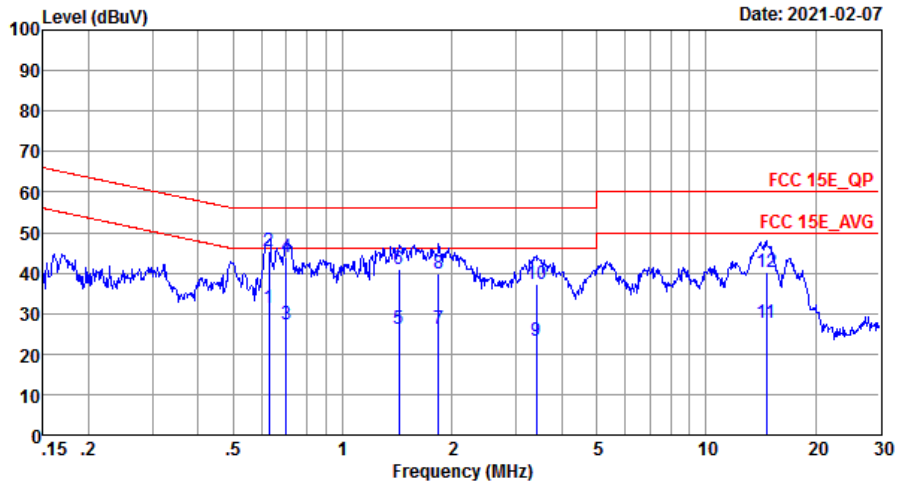


Site : C001-SZ  
 Condition: FCC 15E\_QP LISN\_20200719\_L LINE

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.50	27.98	-18.03	46.01	17.90	0.02	10.06	Average
2	0.50	37.18	-18.83	56.01	27.10	0.02	10.06	QP
3	0.63	30.59	-15.41	46.00	20.50	0.02	10.07	Average
4 *	0.63	43.49	-12.51	56.00	33.40	0.02	10.07	QP
5	0.70	25.89	-20.11	46.00	15.80	0.02	10.07	Average
6	0.70	41.79	-14.21	56.00	31.70	0.02	10.07	QP
7	1.30	25.14	-20.86	46.00	15.00	0.09	10.05	Average
8	1.30	38.24	-17.76	56.00	28.10	0.09	10.05	QP
9	1.48	28.14	-17.86	46.00	18.00	0.09	10.05	Average
10	1.48	38.04	-17.96	56.00	27.90	0.09	10.05	QP
11	1.84	28.56	-17.44	46.00	18.40	0.11	10.05	Average
12	1.84	37.96	-18.04	56.00	27.80	0.11	10.05	QP



Test Engineer :	Yan Zheng	Temperature :	22~25°C
		Relative Humidity :	50~55%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral



Site : CO01-SZ  
 Condition: FCC 15E QP LISN 20200719 N NEUTRAL

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.63	31.39	-14.61	46.00	21.30	0.02	10.07	Average
2 *	0.63	45.49	-10.51	56.00	35.40	0.02	10.07	QP
3	0.70	27.49	-18.51	46.00	17.40	0.02	10.07	Average
4	0.70	43.99	-12.01	56.00	33.90	0.02	10.07	QP
5	1.43	26.20	-19.80	46.00	16.10	0.05	10.05	Average
6	1.43	40.80	-15.20	56.00	30.70	0.05	10.05	QP
7	1.84	26.10	-19.90	46.00	16.00	0.05	10.05	Average
8	1.84	39.70	-16.30	56.00	29.60	0.05	10.05	QP
9	3.42	23.25	-22.75	46.00	13.10	0.04	10.11	Average
10	3.42	37.25	-18.75	56.00	27.10	0.04	10.11	QP
11	14.67	27.61	-22.39	50.00	17.00	0.32	10.29	Average
12	14.67	40.31	-19.69	60.00	29.70	0.32	10.29	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

### Band 1 - 5150~5250MHz WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable 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		5149.76	57.71	-16.29	74	50.24	31.8	8.51	32.84	161	323	P	H
		5150	50.62	-3.38	54	43.15	31.8	8.51	32.84	161	323	A	H
		5180	111.22	-	-	103.61	31.86	8.58	32.83	161	323	P	H
		5180	104.95	-	-	97.34	31.86	8.58	32.83	161	323	A	H
		5148.98	57.75	-16.25	74	50.28	31.8	8.51	32.84	164	324	P	V
		5150	50.52	-3.48	54	43.05	31.8	8.51	32.84	164	324	A	V
		5180	110.62	-	-	103.01	31.86	8.58	32.83	164	324	P	V
		5180	102.5	-	-	94.89	31.86	8.58	32.83	164	324	A	V
802.11a CH 44 5220MHz		5148.2	49.43	-24.57	74	41.96	31.8	8.51	32.84	100	353	P	H
		5149.76	41.86	-12.14	54	34.39	31.8	8.51	32.84	100	353	A	H
		5220	112.67	-	-	104.97	31.87	8.65	32.82	100	353	P	H
		5220	105.34	-	-	97.64	31.87	8.65	32.82	100	353	A	H
		5452.32	48.11	-25.89	74	39.38	31.76	9.68	32.71	100	353	P	H
		5452.32	39.43	-14.57	54	30.7	31.76	9.68	32.71	100	353	A	H
		5148.98	50.31	-23.69	74	42.84	31.8	8.51	32.84	159	323	P	V
		5150	41.21	-12.79	54	33.74	31.8	8.51	32.84	159	323	A	V
		5220	113.45	-	-	105.75	31.87	8.65	32.82	159	323	P	V
		5220	105.46	-	-	97.76	31.87	8.65	32.82	159	323	A	V
		5369.28	48.01	-25.99	74	39.65	31.65	9.46	32.75	159	323	P	V
	5452.32	39.18	-14.82	54	30.45	31.76	9.68	32.71	159	323	A	V	



802.11a CH 48 5240MHz	5147.68	47.66	-26.34	74	40.19	31.8	8.51	32.84	109	352	P	H
	5150	39.76	-14.24	54	32.29	31.8	8.51	32.84	109	352	A	H
	5240	112.53	-	-	104.65	31.84	8.85	32.81	109	352	P	H
	5240	105.71	-	-	97.83	31.84	8.85	32.81	109	352	A	H
	5459.76	47.44	-26.56	74	38.69	31.78	9.68	32.71	109	352	P	H
	5350.08	38.77	-15.23	54	30.39	31.67	9.46	32.75	109	352	A	H
	5147.42	46.97	-27.03	74	39.51	31.79	8.51	32.84	114	330	P	V
	5149.24	39.18	-14.82	54	31.71	31.8	8.51	32.84	114	330	A	V
	5240	111.42	-	-	103.54	31.84	8.85	32.81	114	330	P	V
	5240	104.45	-	-	96.57	31.84	8.85	32.81	114	330	A	V
	5459.52	48.02	-25.98	74	39.27	31.78	9.68	32.71	114	330	P	V
	5350.32	38.27	-15.73	54	29.89	31.67	9.46	32.75	114	330	A	V
Remark	<p>1. No other spurious found.</p> <p>2. All results are PASS against Peak and Average limit line.</p>											



Band 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 )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		10360	47.71	-20.59	68.3	47.53	39.58	12.06	51.46	122	255	P	H
		15540	48.28	-25.72	74	47.36	38.87	14.59	52.54	169	232	P	H
		10360	49.04	-19.26	68.3	48.86	39.58	12.06	51.46	152	260	P	V
		15540	49.63	-24.37	74	48.71	38.87	14.59	52.54	189	238	P	V
802.11a CH 44 5220MHz		10440	47.17	-21.13	68.3	46.73	39.7	12.12	51.38	116	226	P	H
		15660	47.17	-26.83	74	46.39	38.49	14.64	52.35	155	233	P	H
		10440	47.59	-20.71	68.3	47.15	39.7	12.12	51.38	150	230	P	V
		15660	47.14	-26.86	74	46.36	38.49	14.64	52.35	160	225	P	V
802.11a CH 48 5240MHz		10480	47.14	-21.16	68.3	46.54	39.77	12.15	51.32	142	236	P	H
		15720	47.57	-26.43	74	46.85	38.3	14.66	52.24	146	269	P	H
		10480	47.55	-20.75	68.3	46.95	39.77	12.15	51.32	150	289	P	V
		15720	47.74	-26.26	74	47.02	38.3	14.66	52.24	150	291	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 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 )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11n HT20 CH 36 5180MHz		5150	56.57	-11.73	68.3	49.1	31.8	8.51	32.84	163	322	P	H
		5150	49.44	-4.56	54	41.97	31.8	8.51	32.84	163	322	A	H
		5180	110.89	-	-	103.28	31.86	8.58	32.83	163	322	P	H
		5180	104.39	-	-	96.78	31.86	8.58	32.83	163	322	A	H
		5149.5	58.46	-15.54	74	50.99	31.8	8.51	32.84	166	323	P	V
		5150	48.64	-5.36	54	41.17	31.8	8.51	32.84	166	323	A	V
		5180	111	-	-	103.39	31.86	8.58	32.83	166	323	P	V
802.11n HT20 CH 44 5220MHz		5146.64	49.19	-24.81	74	41.73	31.79	8.51	32.84	137	329	P	H
		5149.76	41.71	-12.29	54	34.24	31.8	8.51	32.84	137	329	A	H
		5220	112.11	-	-	104.41	31.87	8.65	32.82	137	329	P	H
		5220	105.48	-	-	97.78	31.87	8.65	32.82	137	329	A	H
		5451.6	48.71	-25.29	74	39.99	31.75	9.68	32.71	137	329	P	H
		5451.6	40.45	-13.55	54	31.73	31.75	9.68	32.71	137	329	A	H
		5142.74	48.65	-25.35	74	41.2	31.79	8.51	32.85	144	329	P	V
		5150	41.27	-12.73	54	33.8	31.8	8.51	32.84	144	329	A	V
		5220	111.91	-	-	104.21	31.87	8.65	32.82	144	329	P	V
		5220	104.91	-	-	97.21	31.87	8.65	32.82	144	329	A	V
		5354.64	47.12	-26.88	74	38.74	31.67	9.46	32.75	144	329	P	V
	5451.6	39.2	-14.8	54	30.48	31.75	9.68	32.71	144	329	A	V	



802.11n HT20 CH 48 5240MHz		5136.5	49.84	-24.16	74	42.41	31.77	8.51	32.85	163	302	P	H
		5149.76	40.28	-13.72	54	32.81	31.8	8.51	32.84	163	302	A	H
		5240	113.57	-	-	105.69	31.84	8.85	32.81	163	302	P	H
		5240	105.52	-	-	97.64	31.84	8.85	32.81	163	302	A	H
		5350.08	48.16	-25.84	74	39.78	31.67	9.46	32.75	163	302	P	H
		5350.08	39.54	-14.46	54	31.16	31.67	9.46	32.75	163	302	A	H
		5133.64	48.65	-25.35	74	41.22	31.77	8.51	32.85	163	327	P	V
		5148.72	39.24	-14.76	54	31.77	31.8	8.51	32.84	163	327	A	V
		5240	111.54	-	-	103.66	31.84	8.85	32.81	163	327	P	V
		5240	103.65	-	-	95.77	31.84	8.85	32.81	163	327	A	V
		5366.64	47.34	-26.66	74	38.98	31.65	9.46	32.75	163	327	P	V
		5350.08	38.44	-15.56	54	30.06	31.67	9.46	32.75	163	327	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												





**Band 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 )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		10360	48.77	-19.53	68.3	48.59	39.58	12.06	51.46	122	255	P	H
		15540	49.54	-24.46	74	48.62	38.87	14.59	52.54	169	232	P	H
		10360	49.98	-18.32	68.3	49.8	39.58	12.06	51.46	152	260	P	V
		15540	49.16	-24.84	74	48.24	38.87	14.59	52.54	189	238	P	V
802.11n HT20 CH 44 5220MHz		10440	50.27	-18.03	68.3	49.83	39.7	12.12	51.38	116	226	P	H
		15660	50.44	-23.56	74	49.66	38.49	14.64	52.35	155	233	P	H
		10440	52.05	-16.25	68.3	51.61	39.7	12.12	51.38	150	230	P	V
		15660	55.28	-18.72	74	54.5	38.49	14.64	52.35	268	360	P	V
		15660	45.16	-8.84	54	44.38	38.49	14.64	52.35	160	225	A	V
802.11n HT20 CH 48 5240MHz		10480	50.37	-17.93	68.3	49.77	39.77	12.15	51.32	142	236	P	H
		15720	49.64	-24.36	74	48.92	38.3	14.66	52.24	146	269	P	H
		10480	49.82	-18.48	68.3	49.22	39.77	12.15	51.32	150	289	P	V
		15720	50.36	-23.64	74	49.64	38.3	14.66	52.24	150	291	P	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 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 )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11n HT40 CH 38 5190MHz		5148.2	57.57	-16.43	74	50.1	31.8	8.51	32.84	183	321	P	H
		5149.24	50.63	-3.37	54	43.16	31.8	8.51	32.84	183	321	A	H
		5190	102.78	-	-	95.15	31.88	8.58	32.83	183	321	P	H
		5190	95.28	-	-	87.65	31.88	8.58	32.83	183	321	A	H
		5412.68	49.89	-24.11	74	41.32	31.64	9.66	32.73	183	321	P	H
		5413.24	44.02	-9.98	54	35.45	31.64	9.66	32.73	183	321	A	H
		5148.98	55.05	-18.95	74	47.58	31.8	8.51	32.84	198	321	P	V
		5150	48.39	-5.61	54	40.92	31.8	8.51	32.84	198	321	A	V
		5190	100.99	-	-	93.36	31.88	8.58	32.83	198	321	P	V
		5190	93.64	-	-	86.01	31.88	8.58	32.83	198	321	A	V
		5413.24	48.1	-25.9	74	39.53	31.64	9.66	32.73	198	321	P	V
		5412.4	42.28	-11.72	54	33.71	31.64	9.66	32.73	198	321	A	V
802.11n HT40 CH 46 5230MHz		5149.24	51.97	-22.03	74	44.5	31.8	8.51	32.84	180	321	P	H
		5149.5	45.98	-8.02	54	38.51	31.8	8.51	32.84	180	321	A	H
		5230	110.45	-	-	102.76	31.85	8.65	32.81	180	321	P	H
		5230	102.78	-	-	95.09	31.85	8.65	32.81	180	321	A	H
		5452.8	56.69	-17.31	74	47.96	31.76	9.68	32.71	180	321	P	H
		5452.32	50.21	-3.79	54	41.48	31.76	9.68	32.71	180	321	A	H
		5149.76	51.41	-22.59	74	43.94	31.8	8.51	32.84	187	322	P	V
		5149.76	44.61	-9.39	54	37.14	31.8	8.51	32.84	187	322	A	V
		5230	106.93	-	-	99.24	31.85	8.65	32.81	187	322	P	V
		5230	100.85	-	-	93.16	31.85	8.65	32.81	187	322	A	V
	5452.8	53.19	-20.81	74	44.46	31.76	9.68	32.71	187	322	P	V	
	5452.32	48.05	-5.95	54	39.32	31.76	9.68	32.71	187	322	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 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 )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38		10380	47.52	-20.78	68.3	47.26	39.61	12.09	51.44	150	360	P	H
		15570	48.77	-25.23	74	47.88	38.78	14.6	52.49	155	360	P	H
5190MHz		10380	47.97	-20.33	68.3	47.71	39.61	12.09	51.44	144	325	P	V
		15570	48.15	-25.85	74	47.26	38.78	14.6	52.49	113	311	P	V
802.11n HT40 CH 46		10460	48.52	-19.78	68.3	47.99	39.74	12.15	51.36	150	360	P	H
		15690	48.28	-25.72	74	47.53	38.39	14.66	52.3	150	225	P	H
		10460	48.77	-19.53	68.3	48.24	39.74	12.15	51.36	122	315	P	V
		15690	49.59	-24.41	74	48.84	38.39	14.66	52.3	116	236	P	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5150~5250MHz
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), Cable Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Rows include frequency measurements from 5142.74 to 5425.92 MHz.

Remark

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



Band 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 )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10420	48.71	-19.59	68.3	48.32	39.67	12.12	51.4	122	333	P	H
VHT80		15630	48.7	-25.3	74	47.88	38.58	14.62	52.38	110	265	P	H
CH 42		10420	48.05	-20.25	68.3	47.66	39.67	12.12	51.4	150	360	P	V
5210MHz		15630	49.12	-24.88	74	48.3	38.58	14.62	52.38	150	225	P	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 2 - 5250~5350MHz**  
**WIFI 802.11a (Band Edge @ 3m)**

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	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 52 5260MHz		5126.88	46.4	-27.6	74	38.99	31.75	8.51	32.85	231	289	P	H
		5150	38.54	-15.46	54	31.07	31.8	8.51	32.84	231	289	A	H
		5260	111.49	-	-	103.62	31.81	8.85	32.79	231	289	P	H
		5260	103.83	-	-	95.96	31.81	8.85	32.79	231	289	A	H
		5352	49.99	-24.01	74	41.61	31.67	9.46	32.75	231	289	P	H
		5350.08	40.28	-13.72	54	31.9	31.67	9.46	32.75	231	289	A	H
		5075.14	46.65	-27.35	74	39.51	31.65	8.36	32.87	233	331	P	V
		5150	38.01	-15.99	54	30.54	31.8	8.51	32.84	233	331	A	V
		5260	111.28	-	-	103.41	31.81	8.85	32.79	233	331	P	V
		5260	104.21	-	-	96.34	31.81	8.85	32.79	233	331	A	V
		5450.16	47.9	-26.1	74	39.18	31.75	9.68	32.71	233	331	P	V
		5350.32	39.01	-14.99	54	30.63	31.67	9.46	32.75	233	331	A	V
802.11a CH 60 5300MHz		5085.05	46.47	-27.53	74	39.24	31.67	8.43	32.87	231	290	P	H
		5149.45	37.65	-16.35	54	30.18	31.8	8.51	32.84	231	290	A	H
		5300	110.8	-	-	102.77	31.75	9.05	32.77	231	290	P	H
		5300	102.94	-	-	94.91	31.75	9.05	32.77	231	290	A	H
		5351.04	51.94	-22.06	74	43.56	31.67	9.46	32.75	231	290	P	H
		5350.08	44.52	-9.48	54	36.14	31.67	9.46	32.75	231	290	A	H
		5144.55	47.48	-26.52	74	40.02	31.79	8.51	32.84	130	329	P	V
		5067.55	37.61	-16.39	54	30.48	31.64	8.36	32.87	130	329	A	V
		5300	109.65	-	-	101.62	31.75	9.05	32.77	130	329	P	V
		5300	102.12	-	-	94.09	31.75	9.05	32.77	130	329	A	V
		5355.6	51.61	-22.39	74	43.23	31.67	9.46	32.75	130	329	P	V
		5350.08	43.04	-10.96	54	34.66	31.67	9.46	32.75	130	329	A	V



802.11a CH 64 5320MHz	5320	110.2	-	-	101.99	31.72	9.26	32.77	162	324	P	H
	5320	102.56	-	-	94.35	31.72	9.26	32.77	162	324	A	H
	5351.36	58.88	-15.12	74	50.5	31.67	9.46	32.75	162	324	P	H
	5350.08	50.9	-3.1	54	42.52	31.67	9.46	32.75	162	324	A	H
	5320	109.3	-	-	101.09	31.72	9.26	32.77	150	325	P	V
	5320	101.77	-	-	93.56	31.72	9.26	32.77	150	325	A	V
	5350.56	57.45	-16.55	74	49.07	31.67	9.46	32.75	150	325	P	V
	5350.08	49.78	-4.22	54	41.4	31.67	9.46	32.75	150	325	A	V
<b>Remark</b>	<ol style="list-style-type: none"> <li>No other spurious found.</li> <li>All results are PASS against Peak and Average limit line.</li> </ol>											



Band 2 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 )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 52 5260MHz		10520	47.91	-20.39	68.3	47.26	39.82	12.17	51.34	144	213	P	H
		15780	47.95	-26.05	74	47.32	38.1	14.69	52.16	136	142	P	H
		10520	47.65	-20.65	68.3	47	39.82	12.17	51.34	150	220	P	V
		15780	47.93	-26.07	74	47.3	38.1	14.69	52.16	159	345	P	V
802.11a CH 60 5300MHz		10600	47.08	-26.92	74	46.46	39.92	12.23	51.53	126	252	P	H
		15900	47.23	-26.77	74	46.73	37.72	14.75	51.97	129	164	P	H
		10600	47.5	-26.5	74	46.88	39.92	12.23	51.53	185	215	P	V
		15900	47.93	-26.07	74	47.43	37.72	14.75	51.97	196	190	P	V
802.11a CH 64 5320MHz		10640	48.25	-25.75	74	47.62	39.97	12.26	51.6	126	139	P	H
		15960	46.69	-27.31	74	46.24	37.53	14.78	51.86	146	263	P	H
		10640	48.41	-25.59	74	47.78	39.97	12.26	51.6	152	135	P	V
		15960	47.24	-26.76	74	46.79	37.53	14.78	51.86	173	245	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												





Band 2 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 52 5260MHz		5137.02	47.9	-26.1	74	40.47	31.77	8.51	32.85	162	301	P	H
		5149.76	39.21	-14.79	54	31.74	31.8	8.51	32.84	162	301	A	H
		5260	112.1	-	-	104.23	31.81	8.85	32.79	162	301	P	H
		5260	104.63	-	-	96.76	31.81	8.85	32.79	162	301	A	H
		5354.16	49.71	-24.29	74	41.33	31.67	9.46	32.75	162	301	P	H
		5350.08	41.33	-12.67	54	32.95	31.67	9.46	32.75	162	301	A	H
		5105.3	46.78	-27.22	74	39.5	31.71	8.43	32.86	155	327	P	V
		5150	38.45	-15.55	54	30.98	31.8	8.51	32.84	155	327	A	V
		5260	112.11	-	-	104.24	31.81	8.85	32.79	155	327	P	V
		5260	104.28	-	-	96.41	31.81	8.85	32.79	155	327	A	V
		5382	48.83	-25.17	74	40.48	31.63	9.46	32.74	155	327	P	V
		5350.32	39.64	-14.36	54	31.26	31.67	9.46	32.75	155	327	A	V
802.11n HT20 CH 60 5300MHz		5140.7	47.7	-26.3	74	40.26	31.78	8.51	32.85	157	301	P	H
		5145.6	37.97	-16.03	54	30.51	31.79	8.51	32.84	157	301	A	H
		5300	112.99	-	-	104.96	31.75	9.05	32.77	157	301	P	H
		5300	103.84	-	-	95.81	31.75	9.05	32.77	157	301	A	H
		5353.68	53.62	-20.38	74	45.24	31.67	9.46	32.75	157	301	P	H
		5350.08	45.69	-8.31	54	37.31	31.67	9.46	32.75	157	301	A	H
		5089.95	46.83	-27.17	74	39.59	31.68	8.43	32.87	148	326	P	V
		5068.6	37.64	-16.36	54	30.51	31.64	8.36	32.87	148	326	A	V
		5300	108.37	-	-	100.34	31.75	9.05	32.77	148	326	P	V
		5300	101.77	-	-	93.74	31.75	9.05	32.77	148	326	A	V
	5350.32	51.46	-22.54	74	43.08	31.67	9.46	32.75	148	326	P	V	
	5350.08	43.48	-10.52	54	35.1	31.67	9.46	32.75	148	326	A	V	



802.11n HT20 CH 64 5320MHz		5320	110.43	-	-	102.22	31.72	9.26	32.77	162	302	P	H
		5320	102.33	-	-	94.12	31.72	9.26	32.77	162	302	A	H
		5353.28	56.06	-17.94	74	47.68	31.67	9.46	32.75	162	302	P	H
		5350.08	48.81	-5.19	54	40.43	31.67	9.46	32.75	162	302	A	H
		5320	107.62	-	-	99.41	31.72	9.26	32.77	167	326	P	V
		5320	100.09	-	-	91.88	31.72	9.26	32.77	167	326	A	V
		5354.24	53.96	-20.04	74	45.58	31.67	9.46	32.75	167	326	P	V
		5350.08	46.29	-7.71	54	37.91	31.67	9.46	32.75	167	326	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 2 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 )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11n		10520	49.66	-18.64	68.3	49.01	39.82	12.17	51.34	144	213	P	H
HT20		15780	49.44	-24.56	74	48.81	38.1	14.69	52.16	136	142	P	H
CH 52		10520	49.88	-18.42	68.3	49.23	39.82	12.17	51.34	150	220	P	V
5260MHz		15780	49.06	-24.94	74	48.43	38.1	14.69	52.16	159	345	P	V
802.11n		10600	49.43	-24.57	74	48.81	39.92	12.23	51.53	126	252	P	H
HT20		15900	47.75	-26.25	74	47.25	37.72	14.75	51.97	129	164	P	H
CH 60		10600	50.01	-23.99	74	49.39	39.92	12.23	51.53	185	215	P	V
5300MHz		15900	48.32	-25.68	74	47.82	37.72	14.75	51.97	196	190	P	V
802.11n		10640	49.98	-24.02	74	49.35	39.97	12.26	51.6	126	139	P	H
HT20		15960	47.42	-26.58	74	46.97	37.53	14.78	51.86	146	263	P	H
CH 64		10640	48.98	-25.02	74	48.35	39.97	12.26	51.6	152	135	P	V
5320MHz		15960	47.47	-26.53	74	47.02	37.53	14.78	51.86	173	245	P	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 2 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 )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11n HT40 CH 54 5270MHz		5047.25	48.27	-25.73	74	41.2	31.59	8.36	32.88	173	321	P	H
		5046.9	42.98	-11.02	54	35.91	31.59	8.36	32.88	173	321	A	H
		5270	108.34	-	-	100.48	31.8	8.85	32.79	173	321	P	H
		5270	100.67	-	-	92.81	31.8	8.85	32.79	173	321	A	H
		5353.44	53.16	-20.84	74	44.78	31.67	9.46	32.75	173	321	P	H
		5351.04	47.47	-6.53	54	39.09	31.67	9.46	32.75	173	321	A	H
		5143.85	47.64	-26.36	74	40.18	31.79	8.51	32.84	197	320	P	V
		5047.25	42.26	-11.74	54	35.19	31.59	8.36	32.88	197	320	A	V
		5270	108.13	-	-	100.27	31.8	8.85	32.79	197	320	P	V
		5270	100	-	-	92.14	31.8	8.85	32.79	197	320	A	V
		5352	51.32	-22.68	74	42.94	31.67	9.46	32.75	197	320	P	V
		5350.08	45.21	-8.79	54	36.83	31.67	9.46	32.75	197	320	A	V
802.11n HT40 CH 62 5310MHz		5085.75	49.33	-24.67	74	42.1	31.67	8.43	32.87	191	318	P	H
		5087.15	43.65	-10.35	54	36.42	31.67	8.43	32.87	191	318	A	H
		5310	105.98	-	-	97.75	31.74	9.26	32.77	191	318	P	H
		5310	99.11	-	-	90.88	31.74	9.26	32.77	191	318	A	H
		5350.8	57.41	-16.59	74	49.03	31.67	9.46	32.75	191	318	P	H
		5350.08	50.22	-3.78	54	41.84	31.67	9.46	32.75	191	318	A	H
		5086.45	47.59	-26.41	74	40.36	31.67	8.43	32.87	183	321	P	V
		5087.5	42.6	-11.4	54	35.37	31.67	8.43	32.87	183	321	A	V
		5310	104.11	-	-	96.08	31.75	9.05	32.77	183	321	P	V
		5310	97.64	-	-	89.41	31.74	9.26	32.77	183	321	A	V
	5353.68	54.58	-19.42	74	46.2	31.67	9.46	32.75	183	321	P	V	
	5352	47.57	-6.43	54	39.19	31.67	9.46	32.75	183	321	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 2 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 )	Cable 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	47.96	-20.34	68.3	47.29	39.85	12.2	51.38	125	211	P	H
		15810	48.66	-25.34	74	48.04	38.01	14.71	52.1	126	269	P	H
		10540	48.32	-19.98	68.3	47.65	39.85	12.2	51.38	150	220	P	V
		15810	47.97	-26.03	74	47.35	38.01	14.71	52.1	168	345	P	V
802.11n HT40 CH 62 5310MHz		10620	49.28	-24.72	74	48.65	39.94	12.26	51.57	126	248	P	H
		15930	46.93	-27.07	74	46.46	37.62	14.76	51.91	120	149	P	H
		10620	48.75	-25.25	74	48.12	39.94	12.26	51.57	150	220	P	V
		15930	47.67	-26.33	74	47.2	37.62	14.76	51.91	160	100	P	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 2 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 )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11ac VHT80 CH 58 5290MHz		5145.6	46.58	-27.42	74	39.12	31.79	8.51	32.84	148	329	P	H
		5147.7	40.34	-13.66	54	32.87	31.8	8.51	32.84	148	329	A	H
		5290	101.85	-	-	93.82	31.76	9.05	32.78	148	329	P	H
		5290	95.38	-	-	87.35	31.76	9.05	32.78	148	329	A	H
		5357.76	57.77	-16.23	74	49.4	31.66	9.46	32.75	148	329	P	H
		5359.2	49.6	-4.4	54	41.23	31.66	9.46	32.75	148	329	A	H
		5113.4	47.65	-26.35	74	40.35	31.73	8.43	32.86	147	330	P	V
		5145.25	40.19	-13.81	54	32.73	31.79	8.51	32.84	147	330	A	V
		5290	101.5	-	-	93.47	31.76	9.05	32.78	147	330	P	V
		5290	94.66	-	-	86.63	31.76	9.05	32.78	147	330	A	V
		5361.36	55.84	-18.16	74	47.47	31.66	9.46	32.75	147	330	P	V
	5355.36	47.86	-6.14	54	39.48	31.67	9.46	32.75	147	330	A	V	
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 2 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 )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10580	48.78	-19.52	68.3	48.14	39.9	12.23	51.49	185	215	P	H
VHT80		15870	48.9	-25.1	74	48.34	37.82	14.73	51.99	196	190	P	H
CH 58		10580	48.59	-19.71	68.3	47.95	39.9	12.23	51.49	170	232	P	V
5290MHz		15870	48.25	-25.75	74	47.69	37.82	14.73	51.99	190	130	P	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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

Table with 14 columns: WIFI, Note, Frequency, Level, Over, Limit, Read, Antenna, Cable, Preamp, Ant, Table, Peak, Pol. It contains two main sections of data for 802.11a channels 100 and 116.





802.11a CH 140 5700MHz	5700	110.66	-	-	101.27	32.2	10.01	32.82	153	325	P	H
	5700	103.07	-	-	93.68	32.2	10.01	32.82	153	325	A	H
	5726.28	62.04	-6.26	68.3	52.66	32.2	10.01	32.83	153	325	P	H
	5700	107.12	-	-	97.73	32.2	10.01	32.82	145	326	P	V
	5700	99.54	-	-	90.15	32.2	10.01	32.82	145	326	A	V
	5725.48	60.98	-7.32	68.3	51.6	32.2	10.01	32.83	145	326	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



**Band 3 - 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 )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 100 5500MHz		11000	48.45	-25.55	74	47.94	40.4	12.51	52.4	123	216	P	H
		16500	48.55	-19.75	68.3	46.4	39.5	15.15	52.5	184	226	P	H
		11000	47.54	-26.46	74	47.03	40.4	12.51	52.4	155	212	P	V
		16500	49.02	-19.28	68.3	46.87	39.5	15.15	52.5	178	296	P	V
802.11a CH 116 5580MHz		11160	48.74	-25.26	74	48.23	40.43	12.65	52.57	183	320	P	H
		16740	50.1	-18.2	68.3	46.11	40.89	15.36	52.26	163	232	P	H
		11160	47.85	-26.15	74	47.34	40.43	12.65	52.57	170	200	P	V
		16740	50.39	-17.91	68.3	46.4	40.89	15.36	52.26	156	350	P	V
802.11a CH 140 5700MHz		11400	47.46	-26.54	74	46.96	40.48	12.82	52.8	157	285	P	H
		17100	50.74	-17.56	68.3	44.52	42.74	15.62	52.14	165	246	P	H
		11400	48.55	-25.45	74	48.05	40.48	12.82	52.8	122	291	P	V
		17100	50.19	-18.11	68.3	43.97	42.74	15.62	52.14	153	102	P	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - 5470~5725MHz
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), Cable 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 100 (5500MHz) and 802.11n HT20 CH 116 (5580MHz).



<b>802.11n</b> <b>HT20</b> <b>CH 140</b> <b>5700MHz</b>	5700	111.19	-	-	101.8	32.2	10.01	32.82	173	323	P	H
	5700	103	-	-	93.61	32.2	10.01	32.82	173	323	A	H
	5729.08	64.58	-3.72	68.3	55.2	32.2	10.01	32.83	173	323	P	H
	5700	106.96	-	-	97.57	32.2	10.01	32.82	157	327	P	V
	5700	99.13	-	-	89.74	32.2	10.01	32.82	157	327	A	V
	5725.72	58.7	-9.6	68.3	49.32	32.2	10.01	32.83	157	327	P	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



**Band 3 - 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 )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20		11000	48.46	-25.54	74	47.95	40.4	12.51	52.4	123	216	P	H
		16500	49.63	-18.67	68.3	47.48	39.5	15.15	52.5	184	226	P	H
CH 100 5500MHz		11000	49.22	-24.78	74	48.71	40.4	12.51	52.4	155	212	P	V
		16500	49.31	-18.99	68.3	47.16	39.5	15.15	52.5	178	296	P	V
802.11n HT20 CH 116 5580MHz		11160	48.5	-25.5	74	47.99	40.43	12.65	52.57	183	320	P	H
		16740	50.38	-17.92	68.3	46.39	40.89	15.36	52.26	163	232	P	H
		11160	49.36	-24.64	74	48.85	40.43	12.65	52.57	170	200	P	V
		16740	50.27	-18.03	68.3	46.28	40.89	15.36	52.26	156	350	P	V
802.11n HT20 CH 140 5700MHz		11400	48.95	-25.05	74	48.45	40.48	12.82	52.8	157	285	P	H
		17100	53.1	-15.2	68.3	46.88	42.74	15.62	52.14	165	246	P	H
		11400	49.05	-24.95	74	48.55	40.48	12.82	52.8	122	291	P	V
		17100	54.19	-14.11	68.3	47.97	42.74	15.62	52.14	153	102	P	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



**Band 3 - 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 )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11n HT40 CH 102 5510MHz		5458.48	54.58	-19.42	74	45.83	31.78	9.68	32.71	172	324	P	H
		5469.76	63.69	-4.61	68.3	54.89	31.81	9.7	32.71	172	324	P	H
		5459.92	49.06	-4.94	54	40.31	31.78	9.68	32.71	172	324	A	H
		5510	107.5	-	-	98.57	31.93	9.72	32.72	172	324	P	H
		5510	100.7	-	-	91.77	31.93	9.72	32.72	172	324	A	H
		5733.815	59.94	-8.36	68.3	50.58	32.2	10.01	32.85	172	324	P	H
		5458.48	52.89	-21.11	74	44.14	31.78	9.68	32.71	168	323	P	V
		5470	62.78	-5.52	68.3	53.98	31.81	9.7	32.71	168	323	P	V
		5459.92	46.74	-7.26	54	37.99	31.78	9.68	32.71	168	323	A	V
		5510	104.38	-	-	95.45	31.93	9.72	32.72	168	323	P	V
	5510	97.43	-	-	88.5	31.93	9.72	32.72	168	323	A	V	
	5733.815	53.74	-14.56	68.3	44.38	32.2	10.01	32.85	168	323	P	V	
802.11n HT40 CH 110 5550MHz		5458.72	49.91	-24.09	74	41.16	31.78	9.68	32.71	170	325	P	H
		5465.2	51.53	-16.77	68.3	42.76	31.8	9.68	32.71	170	325	P	H
		5459.68	42.69	-11.31	54	33.94	31.78	9.68	32.71	170	325	A	H
		5550	109.56	-	-	100.5	32.05	9.74	32.73	170	325	P	H
		5550	102.06	-	-	93	32.05	9.74	32.73	170	325	A	H
		5758.07	49.56	-18.74	68.3	40.14	32.2	10.09	32.87	170	325	P	H
		5458.48	47.54	-26.46	74	38.79	31.78	9.68	32.71	166	327	P	V
		5468.56	49.53	-18.77	68.3	40.73	31.81	9.7	32.71	166	327	P	V
		5459.92	41.69	-12.31	54	32.94	31.78	9.68	32.71	166	327	A	V
		5550	104.99	-	-	95.93	32.05	9.74	32.73	166	327	P	V
	5550	98.06	-	-	89	32.05	9.74	32.73	166	327	A	V	
	5741.375	47.35	-20.95	68.3	37.91	32.2	10.09	32.85	166	327	P	V	



802.11n HT40 CH 134 5670MHz	5441.7	49.75	-24.25	74	41.06	31.73	9.68	32.72	157	325	P	H
	5460.25	45.58	-22.72	68.3	36.83	31.78	9.68	32.71	157	325	P	H
	5447.3	43.2	-10.8	54	34.5	31.74	9.68	32.72	157	325	A	H
	5670	109.61	-	-	100.3	32.2	9.92	32.81	157	325	P	H
	5670	102.92	-	-	93.61	32.2	9.92	32.81	157	325	A	H
	5727.55	64.9	-3.4	68.3	55.52	32.2	10.01	32.83	157	325	P	H
	5412.3	48.14	-25.86	74	39.57	31.64	9.66	32.73	168	326	P	V
	5464.8	45.87	-22.43	68.3	37.11	31.79	9.68	32.71	168	326	P	V
	5447.3	42.43	-11.57	54	33.73	31.74	9.68	32.72	168	326	A	V
	5670	105.1	-	-	95.79	32.2	9.92	32.81	168	326	P	V
	5670	97.88	-	-	88.57	32.2	9.92	32.81	168	326	A	V
	5726.5	60.66	-7.64	68.3	51.28	32.2	10.01	32.83	168	326	P	V
<b>Remark</b>	<ol style="list-style-type: none"> <li>No other spurious found.</li> <li>All results are PASS against Peak and Average limit line.</li> </ol>											



**Band 3 - 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 )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. ( P/A )	Pol. ( H/V )
802.11n		11020	48.2	-25.8	74	47.68	40.4	12.54	52.42	123	215	P	H
HT40		16530	49.09	-19.21	68.3	46.71	39.67	15.18	52.47	182	148	P	H
CH 102		11020	48.47	-25.53	74	47.95	40.4	12.54	52.42	170	230	P	V
5510MHz		16530	49.05	-19.25	68.3	46.67	39.67	15.18	52.47	160	300	P	V
802.11n		11100	48.29	-25.71	74	47.77	40.42	12.6	52.5	153	216	P	H
HT40		16650	49.9	-18.4	68.3	46.6	40.37	15.27	52.34	123	315	P	H
CH 110		11100	47.94	-26.06	74	47.42	40.42	12.6	52.5	155	210	P	V
5550MHz		16650	51.63	-16.67	68.3	48.33	40.37	15.27	52.34	171	352	P	V
802.11n		11340	47.26	-26.74	74	46.76	40.47	12.76	52.73	195	335	P	H
HT40		17010	49.94	-18.36	68.3	43.97	42.43	15.56	52.02	144	152	P	H
CH 134		11340	47.57	-26.43	74	47.07	40.47	12.76	52.73	125	198	P	V
5670MHz		17010	48.66	-19.64	68.3	42.69	42.43	15.56	52.02	185	290	P	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												





Band 3 - 5470~5725MHz
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), Cable Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Rows include test data for 802.11ac VHT80 CH 106 5530MHz and a Remark section.



Band 3 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 )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11060	48.21	-25.79	74	47.7	40.41	12.57	52.47	170	230	P	H
VHT80		16590	49.02	-19.28	68.3	46.17	40.02	15.24	52.41	155	305	P	H
CH 106		11060	47.27	-26.73	74	46.76	40.41	12.57	52.47	166	212	P	V
5530MHz		16590	47.47	-20.83	68.3	44.62	40.02	15.24	52.41	132	343	P	V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Emission below 1GHz

WIFI 802.11ac VHT80 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	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 )
802.11n HT40 LF		30	25.88	-14.12	40	32.55	25.2	0.53	32.4	-	-	P	H
		105.66	26.88	-16.62	43.5	41.33	16.7	1.05	32.2	-	-	P	H
		173.56	28.54	-14.96	43.5	43.95	15.4	1.34	32.15	-	-	P	H
		279.29	34.76	-11.24	46	46.08	18.68	1.74	31.74	144	180	P	H
		432.55	26.6	-19.4	46	32.91	22.85	2.17	31.33	-	-	P	H
		954.41	32.58	-13.42	46	29.76	31.05	3.24	31.47	-	-	P	H
		42.61	33.04	-6.96	40	46.61	18.2	0.63	32.4	150	18	P	V
		167.74	30.21	-13.29	43.5	45.15	15.9	1.32	32.16	-	-	P	V
		274.44	32.17	-13.83	46	43.62	18.58	1.72	31.75	-	-	P	V
		591.63	27.93	-18.07	46	30.23	25.9	2.54	30.74	-	-	P	V
		766.23	30.64	-15.36	46	30.53	28.4	2.88	31.17	-	-	P	V
	962.17	31.61	-22.39	54	28.5	31.24	3.25	31.38	-	-	P	V	
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



**Note symbol**

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



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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	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

- Level(dBμV/m) =  
Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
- Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

**For Peak Limit @ 2390MHz:**

- Level(dBμV/m)  
= Antenna Factor(dB/m) + Cable 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)
- Over Limit(dB)  
= Level(dBμV/m) – Limit Line(dBμV/m)  
= 55.45(dBμV/m) – 74(dBμV/m)  
= -18.55(dB)

**For Average Limit @ 2390MHz:**

- Level(dBμV/m)  
= Antenna Factor(dB/m) + Cable 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)
- Over Limit(dB)  
= Level(dBμV/m) – Limit Line(dBμV/m)  
= 43.54(dBμV/m) – 54(dBμV/m)  
= -10.46(dB)

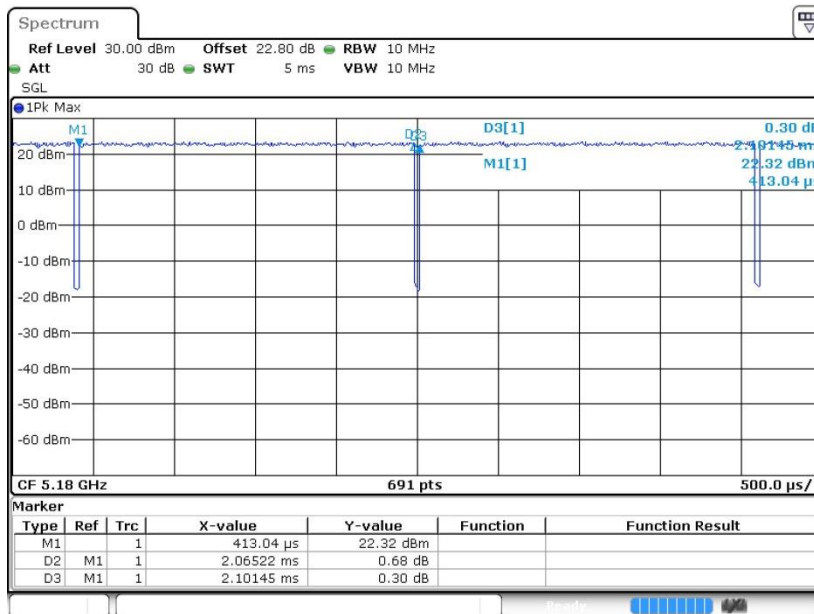
Both peak and average measured complies with the limit line, so test result is “PASS”.



## Appendix D. Duty Cycle Plots

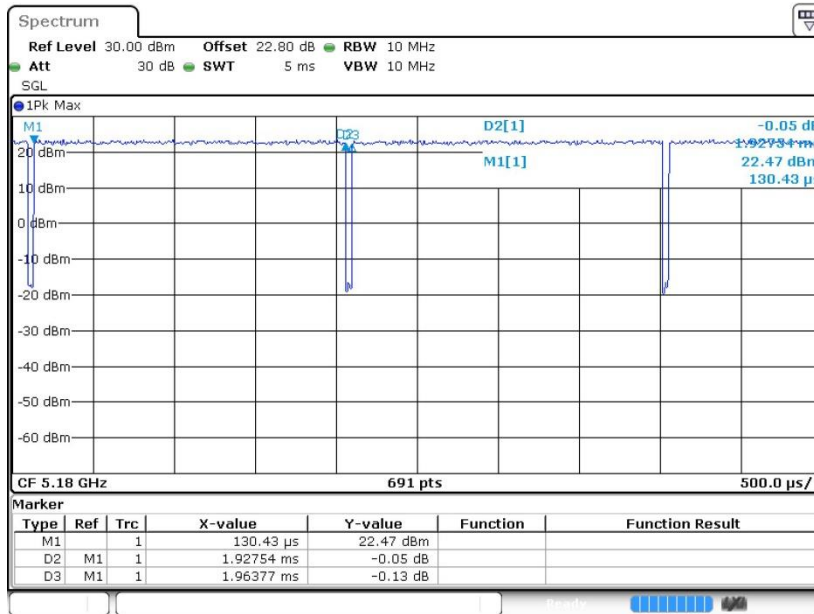
Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
802.11a	98.28	-	-	10Hz
802.11n HT20	98.16	-	-	10Hz
802.11n HT40	96.75	0.949	1.053	3KHz
802.11ac VHT80	92.99	0.464	2.154	3KHz

### 802.11a

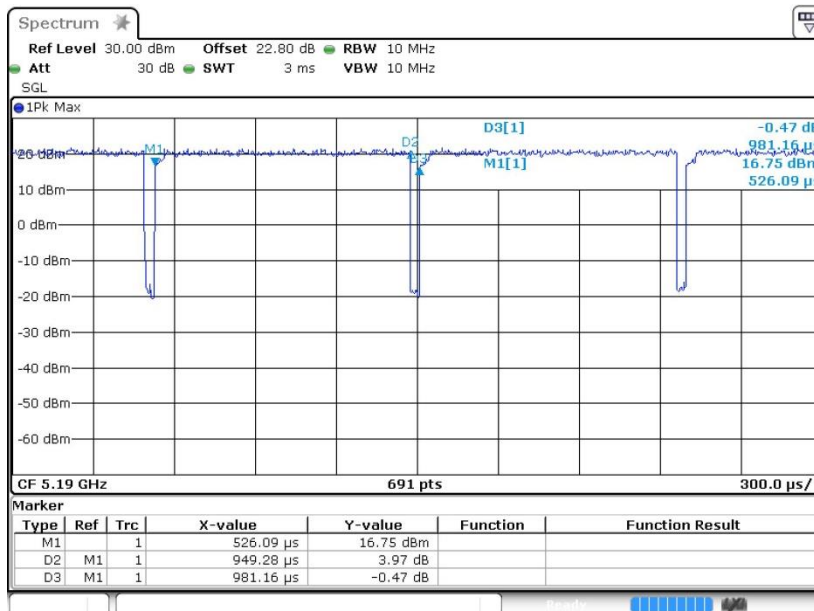




802.11n HT20



802.11n HT40





802.11ac VHT80

