



FCC RF Test Report

APPLICANT : TCL Communication Ltd.
EQUIPMENT : GSM/UMTS/LTE Mobile phone
BRAND NAME : TCL
MODEL NAME : T608DL
FCC ID : 2ACCJH170
STANDARD : FCC Part 15 Subpart E §15.407
CLASSIFICATION : (NII) Unlicensed National Information Infrastructure
TEST DATE(S) : Nov. 16, 2022 ~ Dec. 02, 2022

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

Jason Jia



Approved by: Jason Jia

Sporton International Inc. (ShenZhen)

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People's Republic of China



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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR201305D	Rev. 01	Initial issue of report	Dec. 27, 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/MHz	Pass	-
3.4	15.407(b)	Unwanted Emissions	15.407(b) & 15.209(a)	Pass	Under limit 0.18 dB at 5150.00 MHz
3.5	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 9.02 dB at 0.52 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

TCL Communication Ltd.

5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong

1.2 Manufacturer

TCL Communication Ltd.

5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	GSM/UMTS/LTE Mobile phone
Brand Name	TCL
Model Name	T608DL
FCC ID	2ACCJH170
IMEI Code	Conducted: 016329000012588 Conduction: 016329000012034 Radiation: 016329000012208
HW Version	03
SW Version	4DS6
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 : 17.53 dBm / 0.0566 W 802.11n HT20 : 17.74 dBm / 0.0594 W 802.11n HT40 : 16.35 dBm / 0.0432 W 802.11ac VHT20 : 17.67 dBm / 0.0585 W 802.11ac VHT40 : 16.26 dBm / 0.0423 W 802.11ac VHT80 : 16.21 dBm / 0.0418 W</p> <p><5260 MHz ~ 5320 MHz> 802.11a : 17.99 dBm / 0.0630 W 802.11n HT20 : 17.93 dBm / 0.0621 W 802.11n HT40 : 16.88 dBm / 0.0488 W 802.11ac VHT20 : 17.86 dBm / 0.0611 W 802.11ac VHT40 : 16.79 dBm / 0.0478 W 802.11ac VHT80 : 15.85 dBm / 0.0385 W</p> <p><5500 MHz ~ 5720 MHz> 802.11a : 18.02 dBm / 0.0634 W 802.11n HT20 : 18.05 dBm / 0.0638 W 802.11n HT40 : 16.68 dBm / 0.0466 W 802.11ac VHT20 : 17.98 dBm / 0.0628 W 802.11ac VHT40 : 16.59 dBm / 0.0456 W 802.11ac VHT80 : 16.56 dBm / 0.0453 W</p>
99% Occupied Bandwidth	<p><5180 MHz ~ 5240 MHz> 802.11a : 16.78 MHz 802.11n HT20 : 17.78 MHz 802.11n HT40 : 36.46 MHz 802.11ac VHT80 : 75.16 MHz</p> <p><5260 MHz ~ 5320 MHz> 802.11a : 16.78 MHz 802.11n HT20 : 17.88 MHz 802.11n HT40 : 36.36 MHz 802.11ac VHT80 : 75.16 MHz</p> <p><5500 MHz ~ 5720 MHz> 802.11a : 17.08 MHz 802.11n HT20 : 18.03 MHz 802.11n HT40 : 36.66 MHz 802.11ac VHT80 : 75.28 MHz</p>
Antenna Type / Gain	<p><5180 MHz ~ 5240 MHz> FPC Antenna with gain 2.98 dBi</p> <p><5260 MHz ~ 5320 MHz> FPC Antenna with gain 3.03 dBi</p> <p><5500 MHz ~ 5720 MHz> FPC Antenna with gain 3.28 dBi</p>
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)

Note:



1. WLAN operation in 5600 MHz ~ 5650 MHz is notched.
2. 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 Inc. (ShenZhen) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Test Firm	Sporton International Inc. (ShenZhen)		
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 Inc. (ShenZhen)		
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.
	03CH01-SZ	CN1256	421272

1.7 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH01-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)
5180-5240 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)
5260-5320 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)
5500- 5720 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)
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 mode
802.11ac VHT80 CH42 Tx + LTE Band13 Link

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

Ch. #		U-NII-1 : 5180-5240 MHz	U-NII-2A : 5260-5320 MHz	U-NII-2C : 5500- 5720 MHz
		802.11a	802.11a	802.11a
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

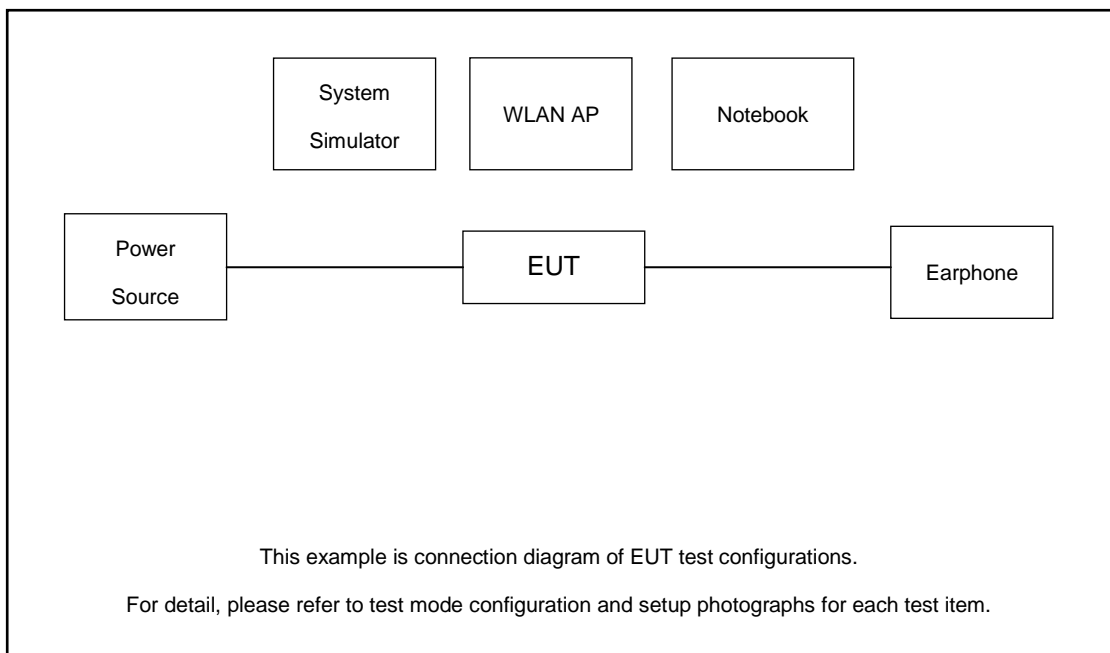
Ch. #		U-NII-1 : 5180-5240 MHz	U-NII-2A : 5260-5320 MHz	U-NII-2C : 5500- 5720 MHz
		802.11n HT20	802.11n HT20	802.11n HT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

Ch. #		U-NII-1 : 5180-5240 MHz	U-NII-2A : 5260-5320 MHz	U-NII-2C : 5500- 5720 MHz
		802.11n HT40	802.11n HT40	802.11n HT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134
Straddle		-	-	142

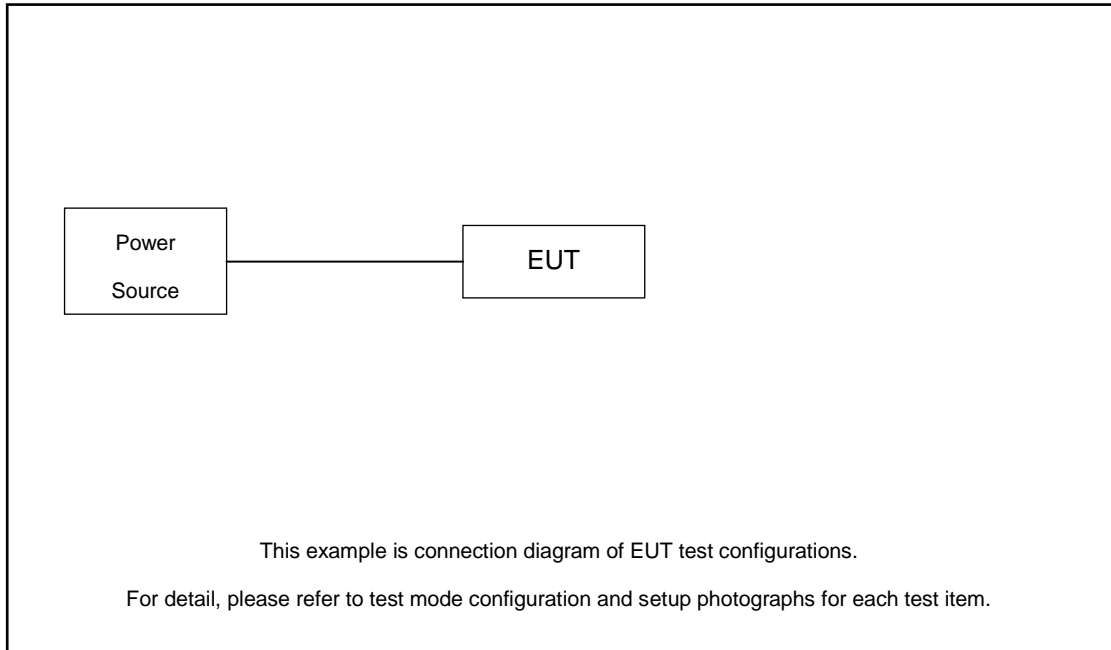
Ch. #		U-NII-1 : 5180-5240 MHz	U-NII-2A : 5260-5320 MHz	U-NII-2C : 5500- 5720 MHz
		802.11ac VHT80	802.11ac VHT80	802.11ac VHT80
L	Low	-	-	106
M	Middle	42	58	-
H	High	-	-	-
Straddle		-	-	138

2.3 Connection Diagram of Test System

For Conducted Emission:



For Radiated Emission:



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8m
2.	WLAN AP	Dlink	DIR-820L	KA2IR820LA1	N/A	Unshielded, 1.8m
3.	Notebook	Lenovo	E540	FCC DoC	Lenovo	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
4.	Earphone	Apple	DCAY1V-A900FZJW 3-000	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 continuous transmit.

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



2.6 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss 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.

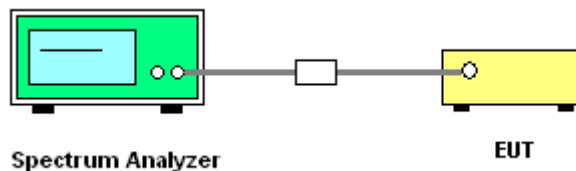
3.1.2 Measuring Instruments

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 1% to 5% of the OBW and set the Video bandwidth (VBW) $\geq 3 * RBW$.
8. Measure and record the results in the test report.

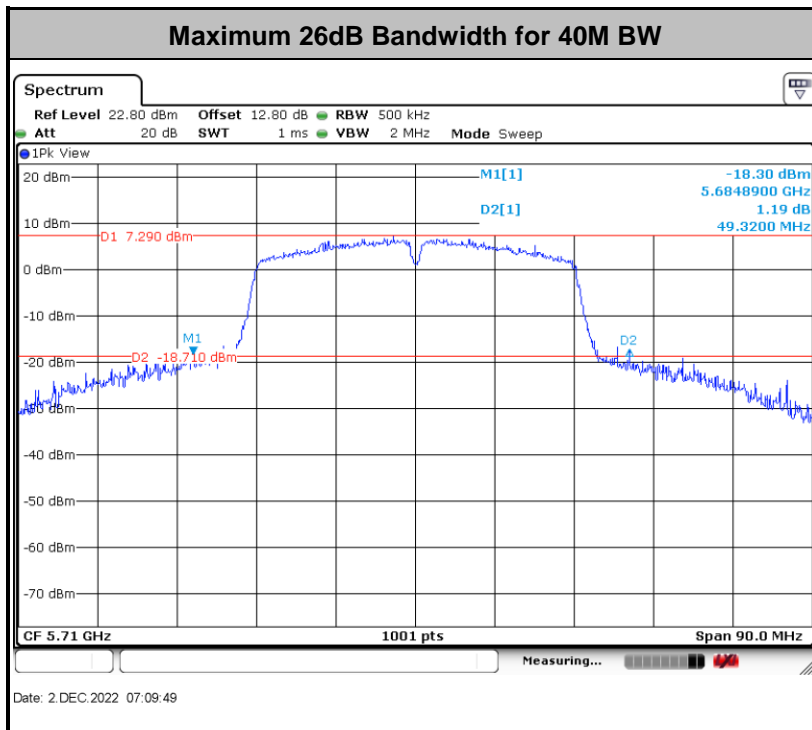
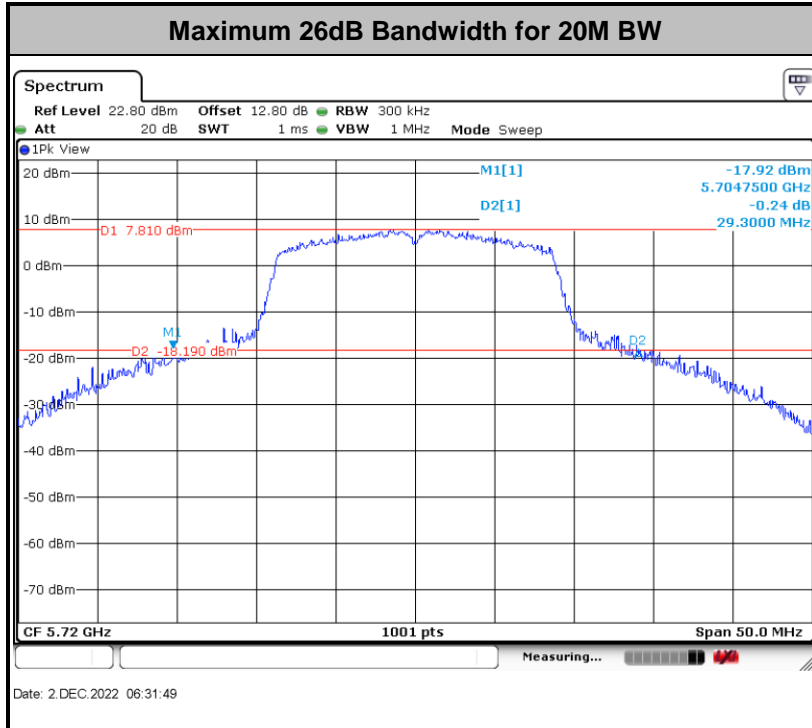
3.1.4 Test Setup

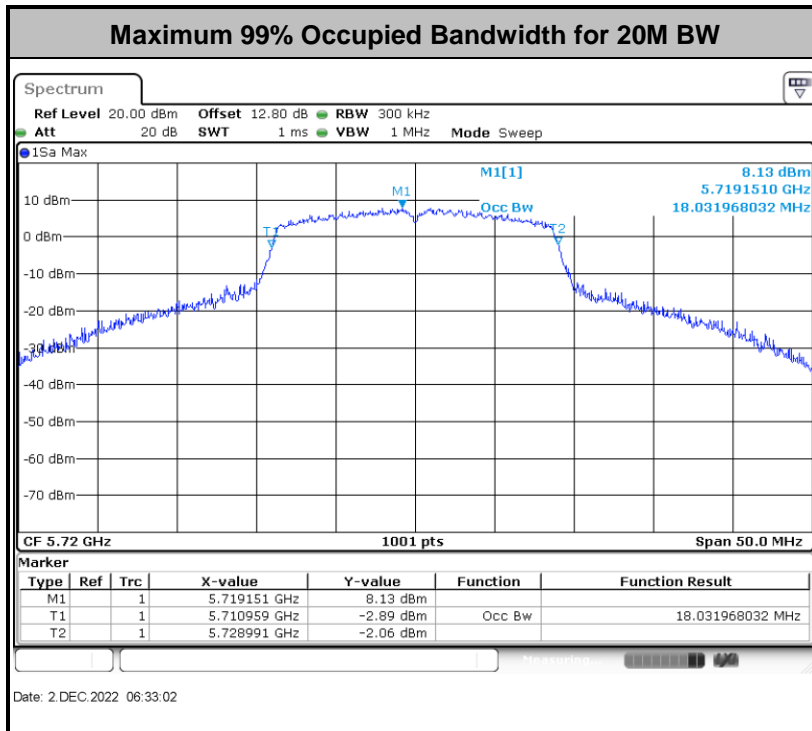
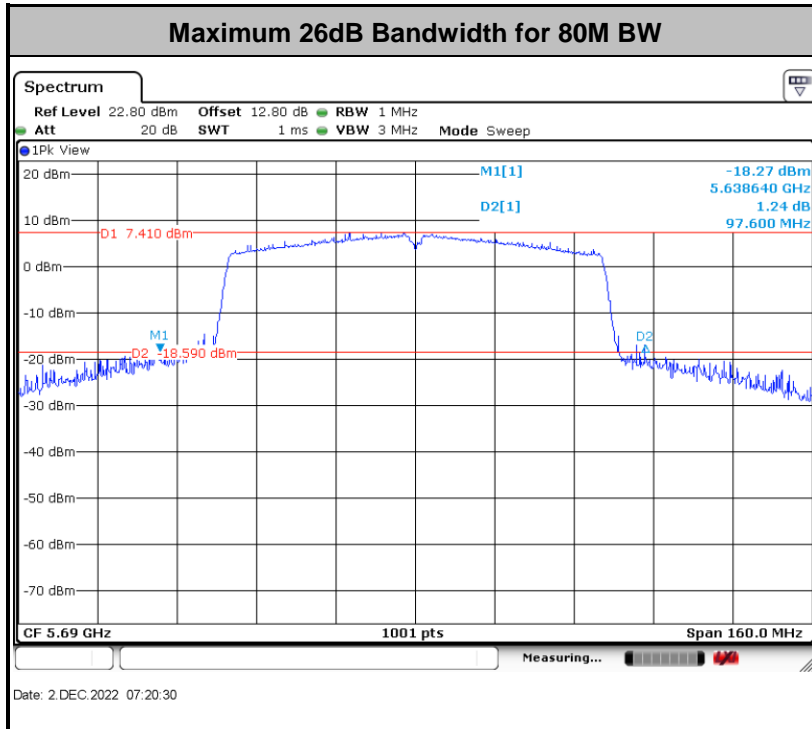


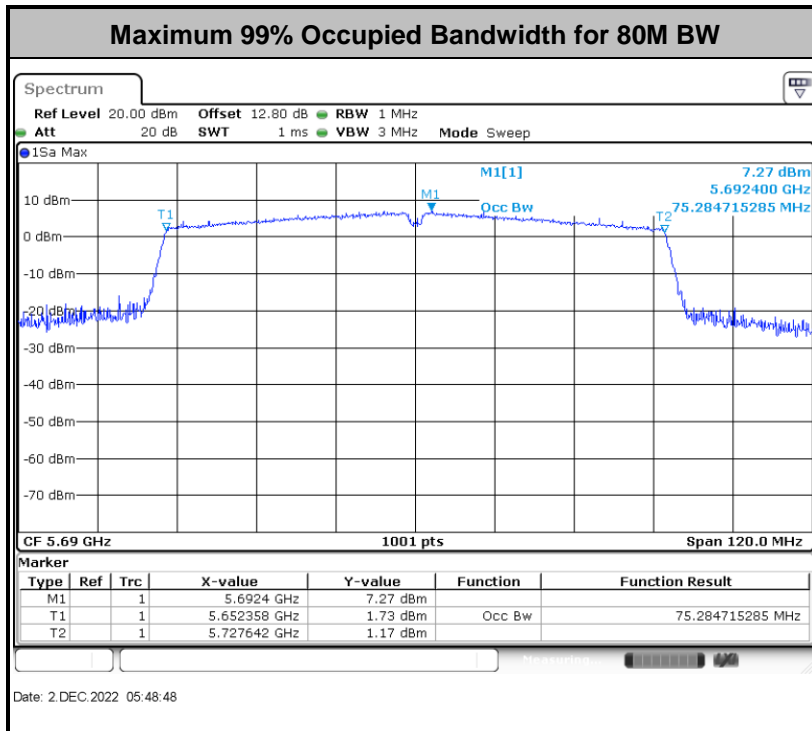
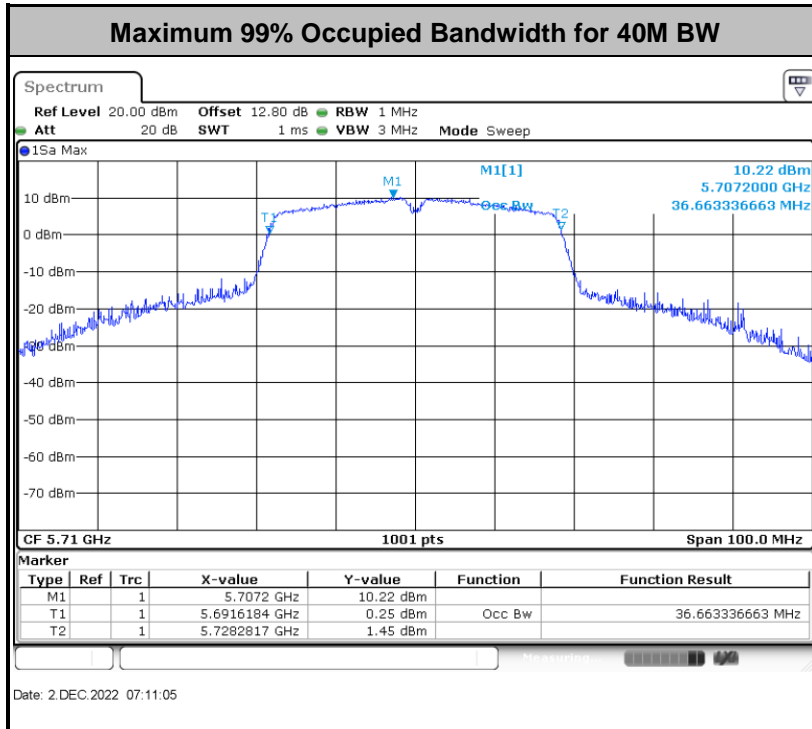


3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

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 10 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

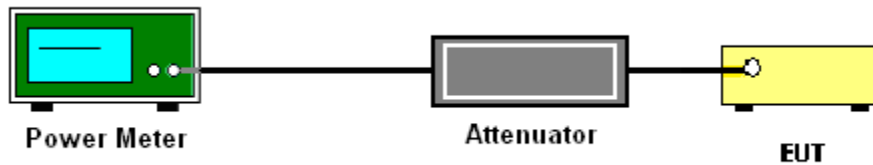
The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

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

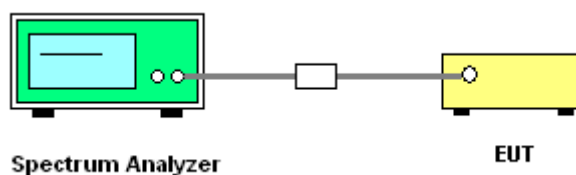
The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
Section F) Maximum power spectral density.

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.

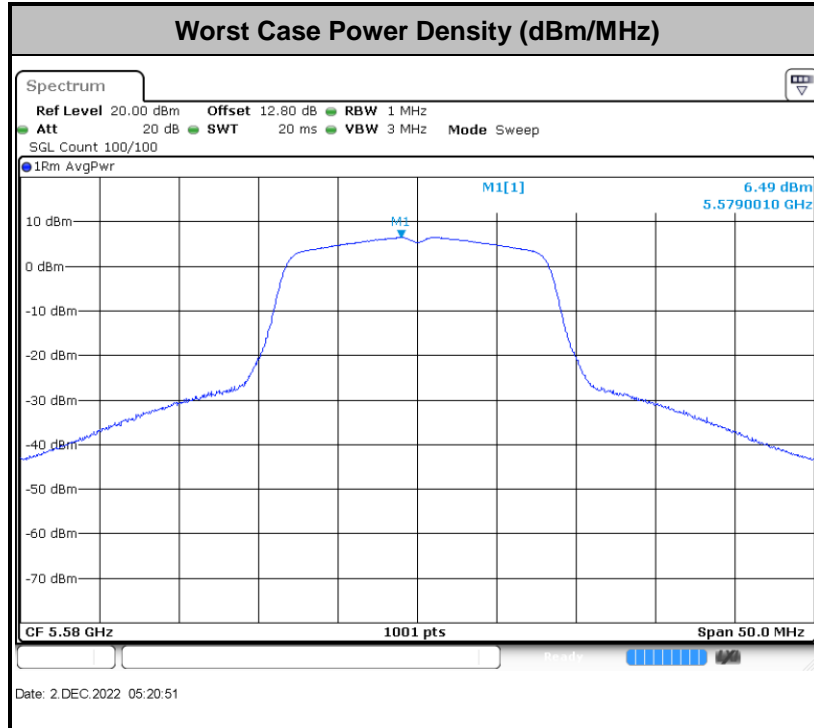
3.3.4 Test Setup





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.

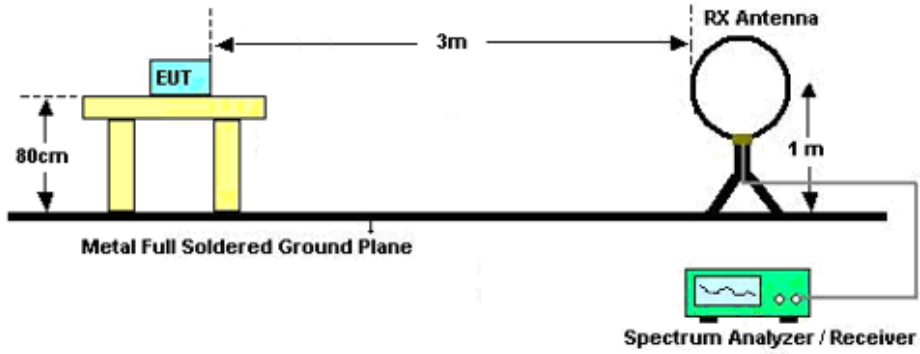


3.4.3 Test Procedures

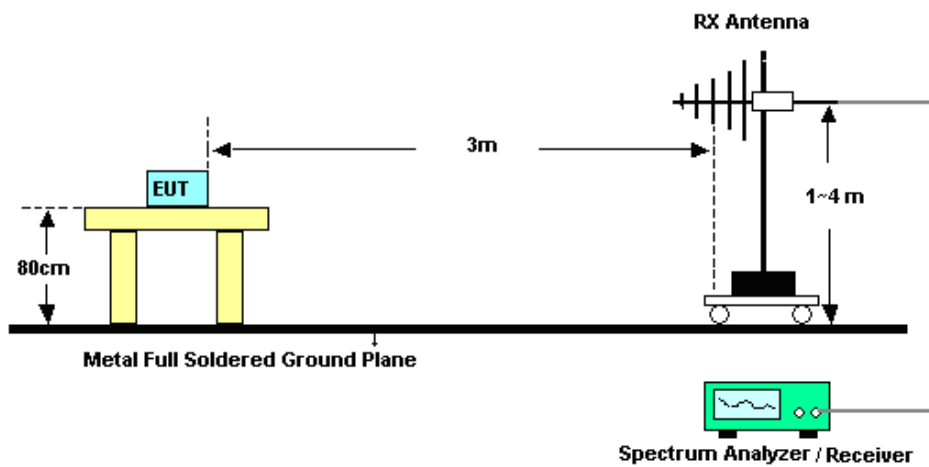
1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section G) Unwanted emissions measurement.
 - (1) Procedure for Unwanted Emissions Measurements Below 1000MHz
 - RBW = 120 kHz
 - VBW = 300 kHz
 - Detector = Peak
 - Trace mode = max hold
 - (2) Procedure for Peak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

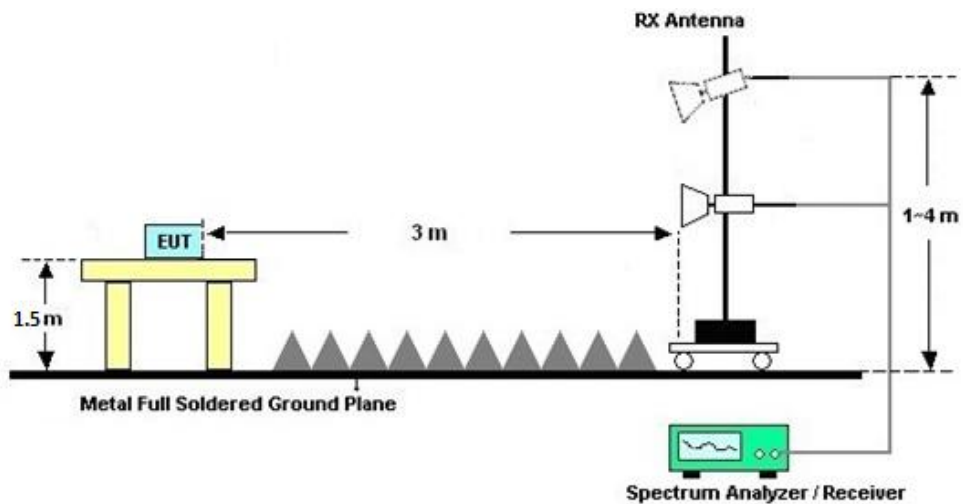
For radiated emissions below 30MHz



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.

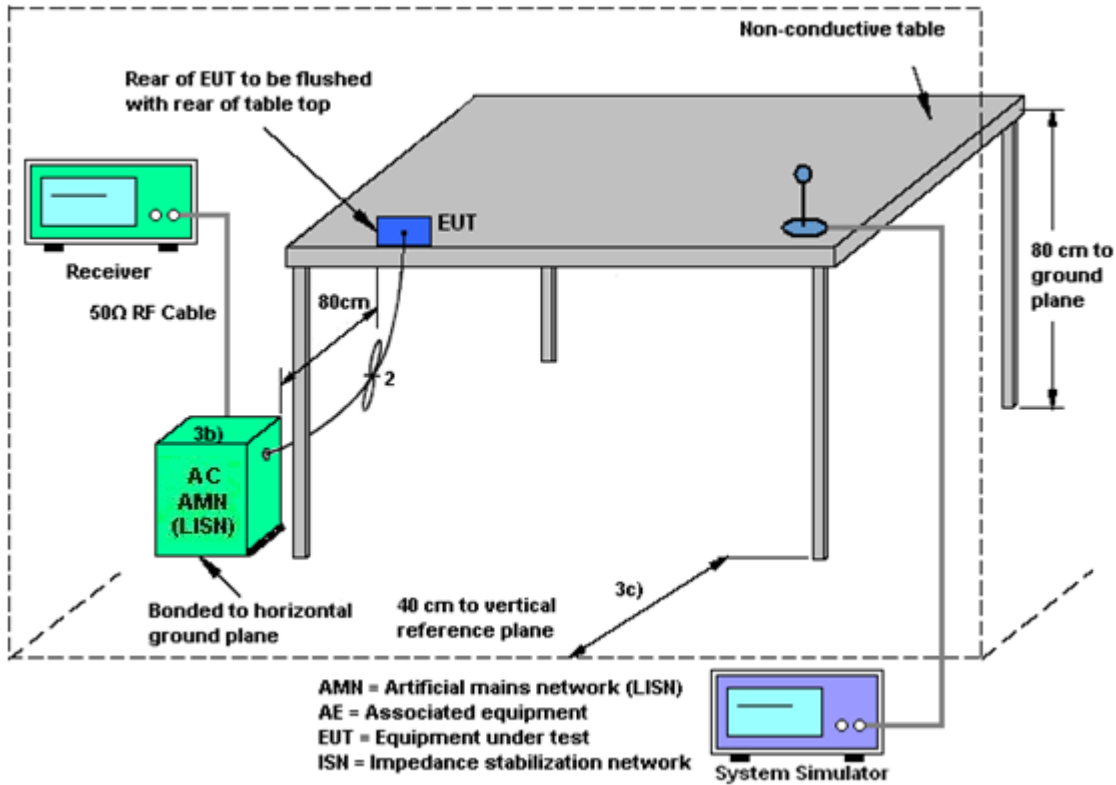
3.5.2 Measuring Instruments

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. 07, 2022	Dec. 02, 2022	Apr. 08, 2023	Conducted (TH01-SZ)
Pulse Power Sensor	Anritsu	MA2411B	1339473	30MHz~40GHz	Dec. 28, 2021	Dec. 02, 2022	Dec. 27, 2022	Conducted (TH01-SZ)
Power Meter	Anritsu	ML2495A	1542004	50MHz Bandwidth	Dec. 28, 2021	Dec. 02, 2022	Dec. 27, 2022	Conducted (TH01-SZ)
EMI Test Receiver&SA	Agilent	N9038A	MY52260185	20Hz~26.5GHz	Dec. 27, 2021	Nov. 22, 2022	Dec.26, 2022	Radiation (03CH01-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz	Jul. 07, 2022	Nov. 22, 2022	Jul. 06, 2023	Radiation (03CH01-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jul. 28, 2022	Nov. 22, 2022	Jun. 27, 2024	Radiation (03CH01-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz~2GHz	Sep. 28, 2021	Nov. 22, 2022	Sep. 27, 2023	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 07, 2022	Nov. 22, 2022	Jul. 06, 2023	Radiation (03CH01-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18GHz~40GHz	Apr. 10, 2022	Nov. 22, 2022	Apr. 09, 2023	Radiation (03CH01-SZ)
LF Amplifier	Burgeon	BPA-530	102209	0.01~3000Mhz	Apr. 06, 2022	Nov. 22, 2022	Apr. 05, 2023	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	AMF-7D-00101800-30-10P-R	1943528	1GHz~18GHz	Oct. 19, 2022	Nov. 22, 2022	Oct. 18, 2023	Radiation (03CH01-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5GHz	Oct. 19, 2022	Nov. 22, 2022	Oct. 18, 2023	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 06, 2022	Nov. 22, 2022	Jul. 05, 2023	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	Nov. 10, 2022	Nov. 22, 2022	Nov. 09, 2023	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Nov. 22, 2022	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Nov. 22, 2022	NCR	Radiation (03CH01-SZ)
EMI Receiver	R&S	ESR7	101630	9kHz~7GHz;	Jul. 07, 2022	Nov. 16, 2022	Jul. 06, 2023	Conduction (CO01-SZ)
AC LISN	R&S	ENV216	100063	9kHz~30MHz	Sep. 15, 2022	Nov. 16, 2022	Sep. 14, 2023	Conduction (CO01-SZ)
AC LISN (for auxiliary equipment)	EMCO	3816/2SH	00103892	9kHz~30MHz	Oct. 17, 2022	Nov. 16, 2022	Oct. 16, 2023	Conduction (CO01-SZ)
AC Power Source	Chroma	61602	616020000891	100Vac~250Vac	Jul. 07, 2022	Nov. 16, 2022	Jul. 06, 2023	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 Measurement

Test Item	Uncertainty
Conducted Power	±1.34 dB
Conducted Emissions	±1.34 dB
Occupied Channel Bandwidth	±0.13 %
Conducted Power Spectral Density	±1.32 dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.2 dB
---	--------

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.2 dB
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Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

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



Appendix A. Conducted Test Results

Report Number : FR201305D

Test Engineer:	Zhang Xue Yi	Temperature:	21~25	°C
Test Date:	2022/12/2	Relative Humidity:	51~54	%

TEST RESULTS DATA
26dB and 99% OBW

U NII-1										
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	16.68	21.55	-	22.22		
11a	6Mbps	1	44	5220	16.68	20.60	-	22.22		
11a	6Mbps	1	48	5240	16.78	22.80	-	22.25		
HT20	MCS0	1	36	5180	17.73	21.55	-	22.49		
HT20	MCS0	1	44	5220	17.78	22.95	-	22.50		
HT20	MCS0	1	48	5240	17.78	24.05	-	22.50		
HT40	MCS0	1	38	5190	36.36	41.04	-	23.01		
HT40	MCS0	1	46	5230	36.46	41.22	-	23.01		
VHT80	MCS0	1	42	5210	75.16	81.12	-	23.01		

TEST RESULTS DATA
Average Power Table

U NII-1										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)		Pass/Fail
11a	6Mbps	1	36	5180	0.00	17.35	24.00	2.98		Pass
11a	6Mbps	1	44	5220	0.00	17.42	24.00	2.98		Pass
11a	6Mbps	1	48	5240	0.00	17.53	24.00	2.98		Pass
HT20	MCS0	1	36	5180	0.00	17.23	24.00	2.98		Pass
HT20	MCS0	1	44	5220	0.00	17.32	24.00	2.98		Pass
HT20	MCS0	1	48	5240	0.00	17.74	24.00	2.98		Pass
HT40	MCS0	1	38	5190	0.00	16.25	24.00	2.98		Pass
HT40	MCS0	1	46	5230	0.00	16.35	24.00	2.98		Pass
VHT20	MCS0	1	36	5180	0.00	17.16	24.00	2.98		Pass
VHT20	MCS0	1	44	5220	0.00	17.25	24.00	2.98		Pass
VHT20	MCS0	1	48	5240	0.00	17.67	24.00	2.98		Pass
VHT40	MCS0	1	38	5190	0.00	16.16	24.00	2.98		Pass
VHT40	MCS0	1	46	5230	0.00	16.26	24.00	2.98		Pass
VHT80	MCS0	1	42	5210	0.00	16.21	24.00	2.98		Pass

TEST RESULTS DATA
Power Spectral Density

U NII-1										
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	0.00	5.96	11.00	2.98		Pass
11a	6Mbps	1	44	5220	0.00	5.80	11.00	2.98		Pass
11a	6Mbps	1	48	5240	0.00	6.24	11.00	2.98		Pass
HT20	MCS0	1	36	5180	0.00	5.63	11.00	2.98		Pass
HT20	MCS0	1	44	5220	0.00	5.90	11.00	2.98		Pass
HT20	MCS0	1	48	5240	0.00	6.02	11.00	2.98		Pass
HT40	MCS0	1	38	5190	0.00	1.91	11.00	2.98		Pass
HT40	MCS0	1	46	5230	0.00	1.82	11.00	2.98		Pass
VHT80	MCS0	1	42	5210	0.00	-1.29	11.00	2.98		Pass

TEST RESULTS DATA
26dB and 99% OBW

U NII-2A										
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	16.78	21.15	23.25	29.25	23.98	
11a	6M bps	1	60	5300	16.78	22.80	23.25	29.25	23.98	
11a	6M bps	1	64	5320	16.78	23.75	23.25	29.25	23.98	
HT20	MCS 0	1	52	5260	17.78	24.05	23.50	29.50	23.98	
HT20	MCS 0	1	60	5300	17.88	23.70	23.52	29.52	23.98	
HT20	MCS 0	1	64	5320	17.83	23.60	23.51	29.51	23.98	
HT40	MCS 0	1	54	5270	36.36	40.95	23.98	30.00	23.98	
HT40	MCS 0	1	62	5310	36.36	40.41	23.98	30.00	23.98	
VHT80	MCS 0	1	58	5290	75.16	81.28	23.98	30.00	23.98	

TEST RESULTS DATA
Average Power Table

U NII-2A										
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	0.00	17.72	23.98	3.03	26.99	Pass
11a	6M bps	1	60	5300	0.00	17.92	23.98	3.03	26.99	Pass
11a	6M bps	1	64	5320	0.00	17.99	23.98	3.03	26.99	Pass
HT20	MCS 0	1	52	5260	0.00	17.74	23.98	3.03	26.99	Pass
HT20	MCS 0	1	60	5300	0.00	17.87	23.98	3.03	26.99	Pass
HT20	MCS 0	1	64	5320	0.00	17.93	23.98	3.03	26.99	Pass
HT40	MCS 0	1	54	5270	0.00	16.88	23.98	3.03	26.99	Pass
HT40	MCS 0	1	62	5310	0.00	15.60	23.98	3.03	26.99	Pass
VHT20	MCS 0	1	52	5260	0.00	17.67	23.98	3.03	26.99	Pass
VHT20	MCS 0	1	60	5300	0.00	17.80	23.98	3.03	26.99	Pass
VHT20	MCS 0	1	64	5320	0.00	17.86	23.98	3.03	26.99	Pass
VHT40	MCS 0	1	54	5270	0.00	16.79	23.98	3.03	26.99	Pass
VHT40	MCS 0	1	62	5310	0.00	15.53	23.98	3.03	26.99	Pass
VHT80	MCS 0	1	58	5290	0.00	15.85	23.98	3.03	26.99	Pass

TEST RESULTS DATA
Power Spectral Density

U NII-2A										
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	0.00	6.21	11.00	3.03		Pass
11a	6M bps	1	60	5300	0.00	6.32	11.00	3.03		Pass
11a	6M bps	1	64	5320	0.00	6.37	11.00	3.03		Pass
HT20	MCS 0	1	52	5260	0.00	6.04	11.00	3.03		Pass
HT20	MCS 0	1	60	5300	0.00	6.13	11.00	3.03		Pass
HT20	MCS 0	1	64	5320	0.00	6.18	11.00	3.03		Pass
HT40	MCS 0	1	54	5270	0.00	2.42	11.00	3.03		Pass
HT40	MCS 0	1	62	5310	0.00	1.24	11.00	3.03		Pass
VHT80	MCS 0	1	58	5290	0.00	-2.22	11.00	3.03		Pass

TEST RESULTS DATA
26dB and 99% OBW

U NII-2C										
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	16.73	21.10	23.24	29.24	23.98	
11a	6M bps	1	116	5580	16.83	25.35	23.26	29.26	23.98	
11a	6M bps	1	140	5700	16.73	22.90	23.24	29.24	23.98	
11a	6Mbps	1	144	5720	17.08	28.05	23.33	29.33	23.98	
HT20	MCS 0	1	100	5500	17.78	24.05	23.50	29.50	23.98	
HT20	MCS 0	1	116	5580	17.88	25.65	23.52	29.52	23.98	
HT20	MCS 0	1	140	5700	17.78	22.55	23.50	29.50	23.98	
HT20	MCS0	1	144	5720	18.03	29.30	23.56	29.56	23.98	
HT40	MCS 0	1	102	5510	36.46	40.77	23.98	30.00	23.98	
HT40	MCS 0	1	110	5550	36.46	40.68	23.98	30.00	23.98	
HT40	MCS 0	1	134	5670	36.56	46.62	23.98	30.00	23.98	
HT40	MCS0	1	142	5710	36.66	49.32	23.98	30.00	23.98	
VHT80	MCS 0	1	106	5530	75.16	80.48	23.98	30.00	23.98	
VHT80	MCS0	1	138	5690	75.28	97.60	23.98	30.00	23.98	

TEST RESULTS DATA
Average Power Table

U NII-2C										
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	0.00	17.51	23.98	3.28	26.99	Pass
11a	6M bps	1	116	5580	0.00	18.02	23.98	3.28	26.99	Pass
11a	6M bps	1	140	5700	0.00	15.87	23.98	3.28	26.99	Pass
11a	6M bps	1	144	5720	0.00	17.93	23.98	3.28	26.99	Pass
HT20	MCS 0	1	100	5500	0.00	17.49	23.98	3.28	26.99	Pass
HT20	MCS 0	1	116	5580	0.00	18.05	23.98	3.28	26.99	Pass
HT20	MCS 0	1	140	5700	0.00	15.80	23.98	3.28	26.99	Pass
HT20	MCS 0	1	144	5720	0.00	17.58	23.98	3.28	26.99	Pass
HT40	MCS 0	1	102	5510	0.00	15.17	23.98	3.28	26.99	Pass
HT40	MCS 0	1	110	5550	0.00	16.68	23.98	3.28	26.99	Pass
HT40	MCS 0	1	134	5670	0.00	16.61	23.98	3.28	26.99	Pass
HT40	MCS 0	1	142	5710	0.00	16.57	23.98	3.28	26.99	Pass
VHT20	MCS 0	1	100	5500	0.00	17.42	23.98	3.28	26.99	Pass
VHT20	MCS 0	1	116	5580	0.00	17.98	23.98	3.28	26.99	Pass
VHT20	MCS 0	1	140	5700	0.00	15.75	23.98	3.28	26.99	Pass
VHT20	MCS 0	1	144	5720	0.00	17.51	23.98	3.28	26.99	Pass
VHT40	MCS 0	1	102	5510	0.00	15.12	23.98	3.28	26.99	Pass
VHT40	MCS 0	1	110	5550	0.00	16.59	23.98	3.28	26.99	Pass
VHT40	MCS 0	1	134	5670	0.00	16.52	23.98	3.28	26.99	Pass
VHT40	MCS 0	1	142	5710	0.00	16.48	23.98	3.28	26.99	Pass
VHT80	MCS 0	1	106	5530	0.00	15.37	23.98	3.28	26.99	Pass
VHT80	MCS 0	1	138	5690	0.00	16.56	23.98	3.28	26.99	Pass

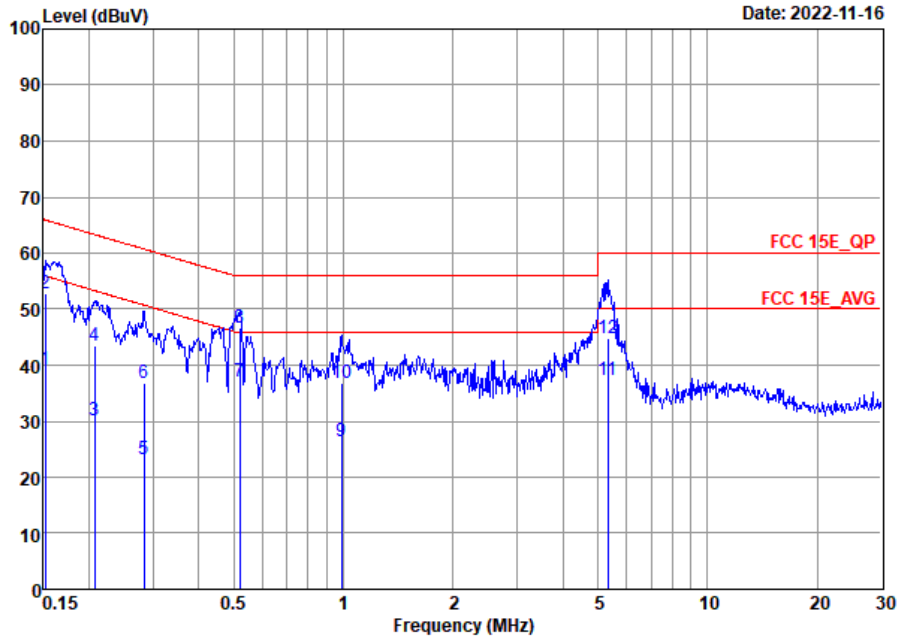
TEST RESULTS DATA
Power Spectral Density

U NII-2C										
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	0.00	5.32	11.00	3.28		Pass
11a	6M bps	1	116	5580	0.00	6.49	11.00	3.28		Pass
11a	6M bps	1	140	5700	0.00	4.25	11.00	3.28		Pass
11a	6Mbps	1	144	5720	0.00	5.50	11.00	3.28		Pass
HT20	MCS 0	1	100	5500	0.00	5.81	11.00	3.28		Pass
HT20	MCS 0	1	116	5580	0.00	6.40	11.00	3.28		Pass
HT20	MCS 0	1	140	5700	0.00	3.94	11.00	3.28		Pass
HT20	MCS0	1	144	5720	0.00	5.32	11.00	3.28		Pass
HT40	MCS 0	1	102	5510	0.00	0.74	11.00	3.28		Pass
HT40	MCS 0	1	110	5550	0.00	2.19	11.00	3.28		Pass
HT40	MCS 0	1	134	5670	0.00	1.94	11.00	3.28		Pass
HT40	MCS0	1	142	5710	0.00	2.02	11.00	3.28		Pass
VHT80	MCS 0	1	106	5530	0.00	-2.60	11.00	3.28		Pass
VHT80	MCS0	1	138	5690	0.00	-1.55	11.00	3.28		Pass



Appendix B. AC Conducted Emission Test Results

Test Engineer :	Lily Qiu	Temperature :	21~24°C
		Relative Humidity :	39~43%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		

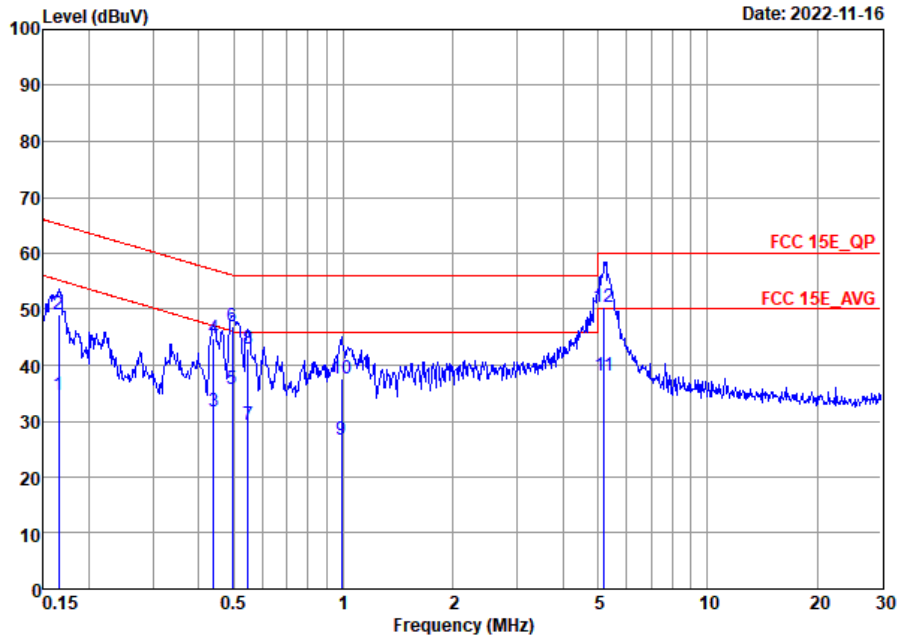


Site : CO01-SZ
 Condition: FCC 15E_QP LISN_20220811_L LINE

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.15	39.33	-16.58	55.91	18.30	10.20	10.83	Average
2	0.15	52.73	-13.18	65.91	31.70	10.20	10.83	QP
3	0.21	30.02	-23.30	53.32	9.59	10.20	10.23	Average
4	0.21	43.42	-19.90	63.32	22.99	10.20	10.23	QP
5	0.28	23.07	-27.65	50.72	2.10	10.17	10.80	Average
6	0.28	36.87	-23.85	60.72	15.90	10.17	10.80	QP
7 *	0.52	36.98	-9.02	46.00	15.09	10.12	11.77	Average
8	0.52	46.68	-9.32	56.00	24.79	10.12	11.77	QP
9	0.99	26.39	-19.61	46.00	6.00	10.12	10.27	Average
10	0.99	36.79	-19.21	56.00	16.40	10.12	10.27	QP
11	5.33	37.33	-12.67	50.00	17.10	9.98	10.25	Average
12	5.33	44.83	-15.17	60.00	24.60	9.98	10.25	QP



Test Engineer :	Lily Qiu	Temperature :	21~24°C
		Relative Humidity :	39~43%
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_20220811_N NEUTRAL

	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.17	34.62	-20.59	55.21	13.70	10.31	10.61	Average
2	0.17	49.02	-16.19	65.21	28.10	10.31	10.61	QP
3	0.44	31.61	-15.46	47.07	9.80	10.19	11.62	Average
4	0.44	44.81	-12.26	57.07	23.00	10.19	11.62	QP
5	0.49	35.63	-10.47	46.10	13.60	10.19	11.84	Average
6 *	0.49	46.93	-9.17	56.10	24.90	10.19	11.84	QP
7	0.55	29.27	-16.73	46.00	7.41	10.21	11.65	Average
8	0.55	43.07	-12.93	56.00	21.21	10.21	11.65	QP
9	0.99	26.68	-19.32	46.00	6.20	10.21	10.27	Average
10	0.99	37.48	-18.52	56.00	17.00	10.21	10.27	QP
11	5.19	38.06	-11.94	50.00	17.70	10.12	10.24	Average
12	5.19	50.46	-9.54	60.00	30.10	10.12	10.24	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 (MHz)	Level (dBμV/m)	Margin (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		5141.7	53.61	-20.39	74	40.18	34.87	11.09	32.53	232	314	P	H
		5150	42.29	-11.71	54	28.86	34.87	11.09	32.53	232	314	A	H
	*	5180	101.68	-----	-----	88.29	34.86	11.07	32.54	232	314	P	H
	*	5180	94.74	-----	-----	81.35	34.86	11.07	32.54	232	314	A	H
		5145.86	60.51	-13.49	74	47.08	34.87	11.09	32.53	230	19	P	V
		5150	44.47	-9.53	54	31.04	34.87	11.09	32.53	230	19	A	V
	*	5180	106.54	-----	-----	93.15	34.86	11.07	32.54	230	19	P	V
	*	5180	99.98	-----	-----	86.59	34.86	11.07	32.54	230	19	A	V
802.11a CH 48 5240MHz		5015.34	52.1	-21.9	74	38.55	34.9	11.16	32.51	100	308	P	H
		5150	41.42	-12.58	54	27.99	34.87	11.09	32.53	100	308	A	H
	*	5240	103.17	-----	-----	89.85	34.85	11.02	32.55	100	308	P	H
	*	5240	95.66	-----	-----	82.34	34.85	11.02	32.55	100	308	A	H
		5452.56	51.9	-22.1	74	38.62	34.81	11.06	32.59	100	308	P	H
		5352	41.61	-12.39	54	28.42	34.83	10.93	32.57	100	308	A	H
		5139.62	54.3	-19.7	74	40.87	34.87	11.09	32.53	220	340	P	V
		5149.76	43.51	-10.49	54	30.08	34.87	11.09	32.53	220	340	A	V
	*	5240	108.35	-----	-----	95.03	34.85	11.02	32.55	220	340	P	V
	*	5240	100.87	-----	-----	87.55	34.85	11.02	32.55	220	340	A	V
		5351.52	53.91	-20.09	74	40.72	34.83	10.93	32.57	220	340	P	V
	5354.64	44.1	-9.9	54	30.91	34.83	10.93	32.57	220	340	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 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (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	51.56	-16.74	68.3	49.02	39.44	14.15	51.05	-	-	P	H
		15540	53.7	-20.3	74	47.69	41.82	16.85	52.66	-	-	P	H
		10360	50.91	-17.39	68.3	48.37	39.44	14.15	51.05	-	-	P	V
		15540	52.33	-21.67	74	46.32	41.82	16.85	52.66	-	-	P	V
802.11a CH 44 5220MHz		10440	51.02	-17.28	68.3	48.41	39.48	14.2	51.07	-	-	P	H
		15660	51.26	-22.74	74	45.29	41.9	16.95	52.88	-	-	P	H
		10440	49.82	-18.48	68.3	47.21	39.48	14.2	51.07	-	-	P	V
		15660	51.51	-22.49	74	45.54	41.9	16.95	52.88	-	-	P	V
802.11a CH 48 5240MHz		10480	51.32	-16.98	68.3	48.7	39.49	14.22	51.09	-	-	P	H
		15720	51.72	-22.28	74	45.81	41.93	16.98	53	-	-	P	H
		10480	51.12	-17.18	68.3	48.5	39.49	14.22	51.09	-	-	P	V
		15720	52.33	-21.67	74	46.42	41.93	16.98	53	-	-	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)	Margin (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		5149.76	58.85	-15.15	74	45.42	34.87	11.09	32.53	243	296	P	H
		5150	43.89	-10.11	54	30.46	34.87	11.09	32.53	243	296	A	H
	*	5180	102.96	-----	-----	89.57	34.86	11.07	32.54	243	296	P	H
	*	5180	96.64	-----	-----	83.25	34.86	11.07	32.54	243	296	A	H
		5149.5	58.55	-15.45	74	45.12	34.87	11.09	32.53	242	344	P	V
		5150	45.51	-8.49	54	32.08	34.87	11.09	32.53	242	344	A	V
	*	5180	106.63	-----	-----	93.24	34.86	11.07	32.54	242	344	P	V
	*	5180	100.46	-----	-----	87.07	34.86	11.07	32.54	242	344	A	V
802.11n HT20 CH 48 5240MHz		5148.46	52.41	-21.59	74	38.98	34.87	11.09	32.53	236	295	P	H
		5150	41.97	-12.03	54	28.54	34.87	11.09	32.53	236	295	A	H
	*	5240	101.18	-----	-----	87.86	34.85	11.02	32.55	236	295	P	H
	*	5240	94.91	-----	-----	81.59	34.85	11.02	32.55	236	295	A	H
		5425.2	52.67	-21.33	74	39.54	34.81	10.9	32.58	236	295	P	H
		5372.64	41.18	-12.82	54	27.99	34.83	10.93	32.57	236	295	A	H
		5130.52	54.27	-19.73	74	40.84	34.87	11.09	32.53	235	348	P	V
		5150	42.78	-11.22	54	29.35	34.87	11.09	32.53	235	348	A	V
	*	5240	107.67	-----	-----	94.35	34.85	11.02	32.55	235	348	P	V
	*	5240	101.41	-----	-----	88.09	34.85	11.02	32.55	235	348	A	V
	5406.72	54.11	-19.89	74	40.97	34.82	10.9	32.58	235	348	P	V	
	5351.28	44.06	-9.94	54	30.87	34.83	10.93	32.57	235	348	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)	Margin (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	50.52	-17.78	68.3	47.98	39.44	14.15	51.05	-	-	P	H
		15540	51.79	-22.21	74	45.78	41.82	16.85	52.66	-	-	P	H
5180MHz		10360	50.5	-17.8	68.3	47.96	39.44	14.15	51.05	-	-	P	V
		15540	51.63	-22.37	74	45.62	41.82	16.85	52.66	-	-	P	V
802.11n HT20 CH 44		10440	50.55	-17.75	68.3	47.94	39.48	14.2	51.07	-	-	P	H
		15660	52.14	-21.86	74	46.17	41.9	16.95	52.88	-	-	P	H
		10440	50.52	-17.78	68.3	47.91	39.48	14.2	51.07	-	-	P	V
		15660	52.07	-21.93	74	46.1	41.9	16.95	52.88	-	-	P	V
802.11n HT20 CH 48		10480	50.47	-17.83	68.3	47.85	39.49	14.22	51.09	-	-	P	H
		15720	51.15	-22.85	74	45.24	41.93	16.98	53	-	-	P	H
		10480	50.4	-17.9	68.3	47.78	39.49	14.22	51.09	-	-	P	V
		15720	50.87	-23.13	74	44.96	41.93	16.98	53	-	-	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)	Margin (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		5149.76	61.83	-12.17	74	48.4	34.87	11.09	32.53	205	301	P	H	
		5150	46.22	-7.78	54	32.79	34.87	11.09	32.53	205	301	A	H	
	*	5190	99.91	-----	-----	86.52	34.86	11.07	32.54	205	301	P	H	
	*	5190	93.77	-----	-----	80.38	34.86	11.07	32.54	205	301	A	H	
		5446.84	51.4	-22.6	74	38.12	34.81	11.06	32.59	205	301	P	H	
		5429.76	40.91	-13.09	54	27.63	34.81	11.06	32.59	205	301	A	H	
		5149.76	68.66	-5.34	74	55.23	34.87	11.09	32.53	229	336	P	V	
		5150	52.72	-1.28	54	39.29	34.87	11.09	32.53	229	336	A	V	
	*	5190	103.82	-----	-----	90.43	34.86	11.07	32.54	229	336	P	V	
	*	5190	97.71	-----	-----	84.32	34.86	11.07	32.54	229	336	A	V	
		5427.52	53.5	-20.5	74	40.22	34.81	11.06	32.59	229	336	P	V	
		5353.88	42.16	-11.84	54	28.97	34.83	10.93	32.57	229	336	A	V	
	802.11n HT40 CH 46 5230MHz		5112.06	52.14	-21.86	74	38.66	34.88	11.12	32.52	204	302	P	H
			5139.88	41.75	-12.25	54	28.32	34.87	11.09	32.53	204	302	A	H
*		5230	99.72	-----	-----	86.37	34.85	11.05	32.55	204	302	P	H	
*		5230	93.52	-----	-----	80.17	34.85	11.05	32.55	204	302	A	H	
		5457.36	51.6	-22.4	74	38.32	34.81	11.06	32.59	204	302	P	H	
		5360.64	41.1	-12.9	54	27.91	34.83	10.93	32.57	204	302	A	H	
		5144.82	54.25	-19.75	74	40.82	34.87	11.09	32.53	220	337	P	V	
		5145.86	43.81	-10.19	54	30.38	34.87	11.09	32.53	220	337	A	V	
*		5230	103.9	-----	-----	90.55	34.85	11.05	32.55	220	337	P	V	
*		5230	97.79	-----	-----	84.44	34.85	11.05	32.55	220	337	A	V	
	5361.84	54.03	-19.97	74	40.84	34.83	10.93	32.57	220	337	P	V		
	5351.28	42.88	-11.12	54	29.69	34.83	10.93	32.57	220	337	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 HT40 (Harmonic @ 3m)

Table with 14 columns: WIFI Ant. 1, Note, Frequency (MHz), Level (dBµV/m), Margin (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 HT40 CH 38 (5190MHz) and 802.11n HT40 CH 46 (5230MHz). A Remark section at the bottom states: 1. No other spurious found. 2. All results are PASS against Peak and Average limit line.



**U NII-1 5150~5250MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)**

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (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		5144.3	64.66	-9.34	74	51.23	34.87	11.09	32.53	203	308	P	H
		5150	49.72	-4.28	54	36.29	34.87	11.09	32.53	203	308	A	H
	*	5210	96.55	-----	-----	83.18	34.86	11.05	32.54	203	308	P	H
	*	5210	90.12	-----	-----	76.75	34.86	11.05	32.54	203	308	A	H
		5389.44	51.36	-22.64	74	38.22	34.82	10.9	32.58	203	308	P	H
		5356.08	40.93	-13.07	54	27.74	34.83	10.93	32.57	203	308	A	H
		5145.6	69.61	-4.39	74	56.18	34.87	11.09	32.53	210	337	P	V
	*	5150	53.82	-0.18	54	40.39	34.87	11.09	32.53	210	337	A	V
	*	5210	102.24	-----	-----	88.87	34.86	11.05	32.54	210	337	P	V
		5210	96.04	-----	-----	82.67	34.86	11.05	32.54	210	337	A	V
		5357.52	53.46	-20.54	74	40.27	34.83	10.93	32.57	210	337	P	V
		5350.08	43.21	-10.79	54	30.02	34.83	10.93	32.57	210	337	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 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (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	50.02	-18.28	68.3	47.42	39.47	14.2	51.07	-	-	P	H
VHT80		15630	51.45	-22.55	74	45.51	41.88	16.91	52.85	-	-	P	H
CH 42		10420	50.63	-17.67	68.3	48.03	39.47	14.2	51.07	-	-	P	V
5210MHz		15630	52.35	-21.65	74	46.41	41.88	16.91	52.85	-	-	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 802.11a (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (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		5045.76	51.8	-22.2	74	38.28	34.89	11.14	32.51	105	315	P	H
		5143.26	40.99	-13.01	54	27.56	34.87	11.09	32.53	105	315	A	H
	*	5260	102.45	-----	-----	89.13	34.85	11.02	32.55	105	315	P	H
	*	5260	95.66	-----	-----	82.34	34.85	11.02	32.55	105	315	A	H
		5375.04	51.68	-22.32	74	38.51	34.82	10.93	32.58	105	315	P	H
		5354.88	41.71	-12.29	54	28.52	34.83	10.93	32.57	105	315	A	H
		5116.22	52.25	-21.75	74	38.81	34.88	11.09	32.53	246	341	P	V
		5148.72	42.63	-11.37	54	29.2	34.87	11.09	32.53	246	341	A	V
	*	5260	108	-----	-----	94.68	34.85	11.02	32.55	246	341	P	V
	*	5260	100.8	-----	-----	87.48	34.85	11.02	32.55	246	341	A	V
		5354.16	53.45	-20.55	74	40.26	34.83	10.93	32.57	246	341	P	V
		5350.56	43.35	-10.65	54	30.16	34.83	10.93	32.57	246	341	A	V
802.11a CH 64 5320MHz	*	5320	102.89	-----	-----	89.65	34.84	10.96	32.56	242	320	P	H
	*	5320	95.39	-----	-----	82.15	34.84	10.96	32.56	242	320	A	H
		5353.6	57.46	-16.54	74	44.27	34.83	10.93	32.57	242	320	P	H
		5350.08	45.72	-8.28	54	32.53	34.83	10.93	32.57	242	320	A	H
	*	5320	108.49	-----	-----	95.25	34.84	10.96	32.56	238	340	P	V
	*	5320	101.5	-----	-----	88.26	34.84	10.96	32.56	238	340	A	V
		5351.04	63.39	-10.61	74	50.2	34.83	10.93	32.57	238	340	P	V
		5350.08	49.95	-4.05	54	36.76	34.83	10.93	32.57	238	340	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 802.11a (Harmonic @ 3m)

Table with 14 columns: WIFI Ant. 1, Note, Frequency (MHz), Level (dBµV/m), Margin (dB), Limit Line (dBµV/m), Read Level (dBµV), Antenna Factor (dB/m), Path Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Rows include data for 802.11a CH 52 (5260MHz) and CH 60 (5300MHz), and 802.11a CH 64 (5320MHz).

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)**

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (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 52 5260MHz		5131.82	53.22	-20.78	74	39.79	34.87	11.09	32.53	187	306	P	H
		5149.76	41.72	-12.28	54	28.29	34.87	11.09	32.53	187	306	A	H
	*	5260	102.57	-----	-----	89.25	34.85	11.02	32.55	187	306	P	H
	*	5260	95.81	-----	-----	82.49	34.85	11.02	32.55	187	306	A	H
		5456.88	51.1	-22.9	74	37.82	34.81	11.06	32.59	187	306	P	H
		5427.36	41.5	-12.5	54	28.22	34.81	11.06	32.59	187	306	A	H
		5146.9	54.55	-19.45	74	41.12	34.87	11.09	32.53	206	334	P	V
		5147.94	43.69	-10.31	54	30.26	34.87	11.09	32.53	206	334	A	V
	*	5260	108.2	-----	-----	94.88	34.85	11.02	32.55	206	334	P	V
	*	5260	100.73	-----	-----	87.41	34.85	11.02	32.55	206	334	A	V
		5357.28	55.16	-18.84	74	41.97	34.83	10.93	32.57	206	334	P	V
		5357.52	44.07	-9.93	54	30.88	34.83	10.93	32.57	206	334	A	V
802.11n HT20 CH 64 5320MHz	*	5320	101.46	-----	-----	88.22	34.84	10.96	32.56	245	320	P	H
	*	5320	94.88	-----	-----	81.64	34.84	10.96	32.56	245	320	A	H
		5352	56.72	-17.28	74	43.53	34.83	10.93	32.57	245	320	P	H
		5350.08	45.5	-8.5	54	32.31	34.83	10.93	32.57	245	320	A	H
	*	5320	109.13	-----	-----	95.89	34.84	10.96	32.56	228	346	P	V
	*	5320	101.8	-----	-----	88.56	34.84	10.96	32.56	228	346	A	V
		5350.4	66.7	-7.3	74	53.51	34.83	10.93	32.57	228	346	P	V
	5350.08	51.48	-2.52	54	38.29	34.83	10.93	32.57	228	346	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 802.11n HT20 (Harmonic @ 3m)**

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (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	51.32	-16.98	68.3	48.68	39.5	14.25	51.11	-	-	P	H
		15780	52.17	-21.83	74	46.26	41.97	17.04	53.1	-	-	P	H
CH 52 5260MHz		10520	51	-17.3	68.3	48.36	39.5	14.25	51.11	-	-	P	V
		15780	52.99	-21.01	74	47.08	41.97	17.04	53.1	-	-	P	V
802.11n HT20 CH 60 5300MHz		10600	50.35	-23.65	74	47.74	39.48	14.29	51.16	-	-	P	H
		15900	52.17	-21.83	74	46.3	42.04	17.14	53.31	-	-	P	H
		10600	50.8	-23.2	74	48.19	39.48	14.29	51.16	-	-	P	V
		15900	51.6	-22.4	74	45.73	42.04	17.14	53.31	-	-	P	V
802.11n HT20 CH 64 5320MHz		10640	50.19	-23.81	74	47.58	39.47	14.32	51.18	-	-	P	H
		15960	50.92	-23.08	74	45.08	42.08	17.2	53.44	-	-	P	H
		10640	50.89	-23.11	74	48.28	39.47	14.32	51.18	-	-	P	V
		15960	51.16	-22.84	74	45.32	42.08	17.2	53.44	-	-	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)	Margin (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		5047.6	52.33	-21.67	74	38.81	34.89	11.14	32.51	239	317	P	H
		5128.45	41.21	-12.79	54	27.78	34.87	11.09	32.53	239	317	A	H
	*	5270	96.98	-----	-----	83.66	34.85	11.02	32.55	239	317	P	H
	*	5270	89.62	-----	-----	76.3	34.85	11.02	32.55	239	317	A	H
		5381.04	52.71	-21.29	74	39.54	34.82	10.93	32.58	239	317	P	H
		5356.8	41.86	-12.14	54	28.67	34.83	10.93	32.57	239	317	A	H
		5144.9	54.44	-19.56	74	41.01	34.87	11.09	32.53	260	342	P	V
		5150	42.93	-11.07	54	29.5	34.87	11.09	32.53	260	342	A	V
	*	5270	104.67	-----	-----	91.35	34.85	11.02	32.55	260	342	P	V
	*	5270	97.75	-----	-----	84.43	34.85	11.02	32.55	260	342	A	V
		5352.72	57.04	-16.96	74	43.85	34.83	10.93	32.57	260	342	P	V
		5355.12	44.74	-9.26	54	31.55	34.83	10.93	32.57	260	342	A	V
802.11n HT40 CH 62 5310MHz		5048.3	51.98	-22.02	74	38.46	34.89	11.14	32.51	245	322	P	H
		5124.95	41.15	-12.85	54	27.71	34.88	11.09	32.53	245	322	A	H
	*	5310	95.95	-----	-----	82.71	34.84	10.96	32.56	245	322	P	H
	*	5310	88.64	-----	-----	75.4	34.84	10.96	32.56	245	322	A	H
		5350.8	61.92	-12.08	74	48.73	34.83	10.93	32.57	245	322	P	H
		5350.08	47.05	-6.95	54	33.86	34.83	10.93	32.57	245	322	A	H
		5134.75	54.27	-19.73	74	40.84	34.87	11.09	32.53	254	344	P	V
		5147.7	42.66	-11.34	54	29.23	34.87	11.09	32.53	254	344	A	V
	*	5310	104.01	-----	-----	90.77	34.84	10.96	32.56	254	344	P	V
	*	5310	96.61	-----	-----	83.37	34.84	10.96	32.56	254	344	A	V
	5351.52	67.56	-6.44	74	54.37	34.83	10.93	32.57	254	344	P	V	
	5350.08	52.92	-1.08	54	39.73	34.83	10.93	32.57	254	344	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 802.11n HT40 (Harmonic @ 3m)

Table with 14 columns: WIFI Ant. 1, Note, Frequency (MHz), Level (dBµV/m), Margin (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 HT40 CH 54 (5270MHz) and 802.11n HT40 CH 62 (5310MHz) with various frequency and level data.

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)

Table with 14 columns: WIFI Ant. 1, Note, Frequency (MHz), Level (dBµV/m), Margin (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 58 5290MHz and a Remark section.



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

Table with 14 columns: WIFI Ant., Note, Frequency (MHz), Level (dBµV/m), Margin (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, CH 58, 5290MHz and a Remark section.



U NII-2C - 5470~5725MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (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		5458.32	53.89	-20.11	74	40.61	34.81	11.06	32.59	236	316	P	H
		5469.52	60.43	-7.87	68.3	46.99	34.81	11.22	32.59	236	316	P	H
		5460	43.22	-10.78	54	29.94	34.81	11.06	32.59	236	316	A	H
	*	5500	106.3	-----	-----	92.88	34.8	11.22	32.6	236	316	P	H
	*	5500	99.66	-----	-----	86.24	34.8	11.22	32.6	236	316	A	H
		5456.24	55.89	-18.11	74	42.61	34.81	11.06	32.59	300	360	P	V
		5469.52	62.23	-6.07	68.3	48.79	34.81	11.22	32.59	300	360	P	V
		5460	44.58	-9.42	54	31.3	34.81	11.06	32.59	300	360	A	V
	*	5500	108.79	-----	-----	95.37	34.8	11.22	32.6	300	360	P	V
	*	5500	101.77	-----	-----	88.35	34.8	11.22	32.6	300	360	A	V
802.11a CH 140 5700MHz	*	5700	107.25	-----	-----	92.87	35.08	11.66	32.36	176	315	P	H
	*	5700	100.97	-----	-----	86.59	35.08	11.66	32.36	176	315	A	H
		5726.12	67.95	-0.35	68.3	53.77	35.12	11.66	32.6	176	315	P	H
	*	5700	106.32	-----	-----	91.94	35.08	11.66	32.36	190	343	P	V
	*	5700	100.11	-----	-----	85.73	35.08	11.66	32.36	190	343	A	V
		5726.04	66.72	-1.58	68.3	52.54	35.12	11.66	32.6	190	343	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)	Margin (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	50.67	-23.33	74	48.14	39.4	14.53	51.4	-	-	P	H
		16500	51.25	-17.05	68.3	44.19	42.4	17.36	52.7	-	-	P	H
		11000	50.15	-23.85	74	47.62	39.4	14.53	51.4	-	-	P	V
		16500	52.37	-15.93	68.3	45.31	42.4	17.36	52.7	-	-	P	V
802.11a CH 116 5580MHz		11160	50.38	-23.62	74	46.97	39.53	14.65	50.77	-	-	P	H
		16740	51.1	-17.2	68.3	42.96	42.45	17.44	51.75	-	-	P	H
		11160	50.97	-23.03	74	47.56	39.53	14.65	50.77	-	-	P	V
		16740	50.71	-17.59	68.3	42.57	42.45	17.44	51.75	-	-	P	V
802.11a CH 140 5700MHz		11400	51.76	-22.24	74	47.97	39.72	14.79	50.72	-	-	P	H
		17100	50.47	-17.83	68.3	42.28	42.46	17.53	51.8	-	-	P	H
		11400	51.35	-22.65	74	47.56	39.72	14.79	50.72	-	-	P	V
		17100	50.49	-17.81	68.3	42.3	42.46	17.53	51.8	-	-	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)	Margin (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		5459.76	58.84	-15.16	74	45.56	34.81	11.06	32.59	324	311	P	H
		5469.68	64.13	-4.17	68.3	50.69	34.81	11.22	32.59	324	311	P	H
		5459.6	43.45	-10.55	54	30.17	34.81	11.06	32.59	324	311	A	H
	*	5500	105.14	-----	-----	91.72	34.8	11.22	32.6	324	311	P	H
	*	5500	98.79	-----	-----	85.37	34.8	11.22	32.6	324	311	A	H
		5459.6	63.75	-10.25	74	50.47	34.81	11.06	32.59	219	0	P	V
		5470	67.68	-0.62	68.3	54.24	34.81	11.22	32.59	219	0	P	V
		5460	46.23	-7.77	54	32.95	34.81	11.06	32.59	219	0	A	V
	*	5500	108.32	-----	-----	94.9	34.8	11.22	32.6	219	0	P	V
	*	5500	100.93	-----	-----	87.51	34.8	11.22	32.6	219	0	A	V
802.11n HT20 CH 140 5700MHz	*	5700	105.24	-----	-----	91.1	35.08	11.66	32.6	224	298	P	H
	*	5700	98.83	-----	-----	84.69	35.08	11.66	32.6	224	298	A	H
		5726.68	66.82	-1.48	68.3	52.64	35.12	11.66	32.6	224	298	P	H
	*	5700	105.11	-----	-----	90.97	35.08	11.66	32.6	222	350	P	V
	*	5700	98.6	-----	-----	84.46	35.08	11.66	32.6	222	350	A	V
		5727.24	66.43	-1.87	68.3	52.25	35.12	11.66	32.6	222	350	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 (Harmonic @ 3m)

Table with 14 columns: WIFI Ant. 1, Note, Frequency (MHz), Level (dBµV/m), Margin (dB), Limit Line (dBµV/m), Read Level (dBµV), Antenna Factor (dB/m), Path Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Rows include test results for 802.11n HT20 and CH 100, 5500MHz, 802.11n HT20 and CH 116, 5580MHz, 802.11n HT20 and CH 140, 5700MHz.

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)	Margin (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		5457.76	57.17	-16.83	74	43.89	34.81	11.06	32.59	240	323	P	H
		5470	64.37	-3.93	68.3	50.93	34.81	11.22	32.59	240	323	P	H
		5459.2	43.14	-10.86	54	29.86	34.81	11.06	32.59	240	323	A	H
	*	5510	101.36	-----	-----	87.76	34.81	11.39	32.6	240	323	P	H
	*	5510	95.13	-----	-----	81.53	34.81	11.39	32.6	240	323	A	H
		5727.2	52.94	-15.36	68.3	38.76	35.12	11.66	32.6	240	323	P	H
		5459.68	63.83	-10.17	74	50.55	34.81	11.06	32.59	170	352	P	V
		5470	67.26	-1.04	68.3	53.82	34.81	11.22	32.59	170	352	P	V
		5459.2	45.38	-8.62	54	32.1	34.81	11.06	32.59	170	352	A	V
	*	5510	103.37	-----	-----	89.77	34.81	11.39	32.6	170	352	P	V
	*	5510	95.97	-----	-----	82.37	34.81	11.39	32.6	170	352	A	V
		5759.96	53.38	-14.92	68.3	39.18	35.16	11.64	32.6	170	352	P	V
802.11n HT40 CH 134 5670MHz		5369.25	50.78	-23.22	74	37.59	34.83	10.93	32.57	238	318	P	H
		5461.65	51.68	-16.62	68.3	38.4	34.81	11.06	32.59	238	318	P	H
		5459.9	40.75	-13.25	54	27.47	34.81	11.06	32.59	238	318	A	H
	*	5670	102.26	-----	-----	88.15	35.04	11.67	32.6	238	318	P	H
	*	5670	95.8	-----	-----	81.69	35.04	11.67	32.6	238	318	A	H
		5725.45	62.93	-5.37	68.3	48.75	35.12	11.66	32.6	238	318	P	H
		5434.35	51.73	-22.27	74	38.45	34.81	11.06	32.59	226	352	P	V
		5467.95	51.1	-17.2	68.3	37.66	34.81	11.22	32.59	226	352	P	V
		5459.9	41.25	-12.75	54	27.97	34.81	11.06	32.59	226	352	A	V
	*	5670	105.05	-----	-----	90.94	35.04	11.67	32.6	226	352	P	V
	*	5670	98.9	-----	-----	84.79	35.04	11.67	32.6	226	352	A	V
		5725.275	63.05	-5.25	68.3	48.87	35.12	11.66	32.6	226	352	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)	Margin (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		11020	50.88	-23.12	74	47.71	39.42	14.55	50.8	-	-	P	H
HT40		16530	51.11	-17.19	68.3	43.12	42.41	17.37	51.79	-	-	P	H
CH 102		11020	50.06	-23.94	74	46.89	39.42	14.55	50.8	-	-	P	V
5510MHz		16530	51.33	-16.97	68.3	43.34	42.41	17.37	51.79	-	-	P	V
802.11n		11100	50.51	-23.49	74	47.21	39.48	14.6	50.78	-	-	P	H
HT40		16650	51.24	-17.06	68.3	43.18	42.43	17.4	51.77	-	-	P	H
CH 110		11100	50.6	-23.4	74	47.3	39.48	14.6	50.78	-	-	P	V
5550MHz		16650	50.8	-17.5	68.3	42.74	42.43	17.4	51.77	-	-	P	V
802.11n		11340	50.05	-23.95	74	46.37	39.67	14.74	50.73	-	-	P	H
HT40		17010	50.23	-18.07	68.3	41.94	42.5	17.51	51.72	-	-	P	H
CH 134		11340	50.34	-23.66	74	46.66	39.67	14.74	50.73	-	-	P	V
5670MHz		17010	50.91	-17.39	68.3	42.62	42.5	17.51	51.72	-	-	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)

Table with 14 columns: WIFI Ant. 1, Note, Frequency (MHz), Level (dBµV/m), Margin (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 106 5530MHz and a Remark section.



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

Table with 14 columns: WIFI Ant., Note, Frequency (MHz), Level (dBµV/m), Margin (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 CH 106 5530MHz and a Remark section.



U NII-2C - Straddle Channel
WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					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		5446.8	51.71	-22.29	74	38.43	34.81	11.06	32.59	301	325	P	H
		5463.3	51.17	-17.13	68.3	37.89	34.81	11.06	32.59	301	325	P	H
	*	5720	107.88	-----	-----	93.71	35.11	11.66	32.6	301	325	P	H
	*	5876.9	53.3	-15	68.3	39.08	35.33	11.49	32.6	301	325	P	H
		5460	41.14	-12.86	54	27.86	34.81	11.06	32.59	301	325	P	H
		5720	101.28	-----	-----	87.11	35.11	11.66	32.6	301	325	A	H
		5413.8	52.72	-21.28	74	39.58	34.82	10.9	32.58	236	353	P	V
		5468.25	53.14	-15.16	68.3	39.7	34.81	11.22	32.59	236	353	P	V
	*	5720	107.95	-----	-----	93.78	35.11	11.66	32.6	236	353	P	V
	*	5898.9	52.47	-15.83	68.3	38.29	35.36	11.42	32.6	236	353	P	V
		5456.7	42.17	-11.83	54	28.89	34.81	11.06	32.59	236	353	P	V
		5720	100.59	-----	-----	86.42	35.11	11.66	32.6	236	353	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), Margin (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)

Table with 14 columns: WIFI Ant. 1, Note, Frequency (MHz), Level (dBµV/m), Margin (dB), Limit Line (dBµV/m), Read Level (dBµV), Antenna Factor (dB/m), Path Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Rows include test results for 802.11n HT20 CH 144 5720MHz and a Remark section.



U NII-2C - Straddle Channel
WIFI 802.11n HT20 (Harmonic @ 3m)

Table with 14 columns: WIFI Ant. 1, Note, Frequency (MHz), Level (dBµV/m), Margin (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 144 at 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), Margin (dB), Limit Line (dBµV/m), Read Level (dBµV), Antenna Factor (dB/m), Path Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Rows include test results for 802.11n HT40 CH 142 5710MHz and a Remark section.



U NII-2C - Straddle Channel
WIFI 802.11n HT40 (Harmonic @ 3m)

Table with 14 columns: WIFI Ant. 1, Note, Frequency (MHz), Level (dBµV/m), Margin (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 802.11n HT40 CH 142 5710MHz and a Remark section.



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), Margin (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), Margin (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, and a Remark section.



**Emission below 1GHz
5GHz WIFI 802.11ac VHT80 (LF)**

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					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)
5GHz 802.11ac VHT80 LF		46.49	21.55	-18.45	40	35.28	19.62	1.61	34.96	-	-	P	H
		92.08	24	-19.5	43.5	42.85	13.94	2.01	34.8	-	-	P	H
		290.93	31.33	-14.67	46	43.93	18.85	3.17	34.62	-	-	P	H
		377.26	24.57	-21.43	46	34.88	20.87	3.37	34.55	-	-	P	H
		632.37	25.12	-20.88	46	29.83	26.19	3.64	34.54	-	-	P	H
		843.83	30.11	-15.89	46	31.34	28.69	4.38	34.3	-	-	P	H
		48.43	33.85	-6.15	40	47.58	19.62	1.63	34.98	-	-	P	V
		87.23	34.45	-5.55	40	53.16	14.09	1.97	34.77	-	-	P	V
		186.17	20.42	-23.08	43.5	35.73	16.81	2.58	34.7	-	-	P	V
		297.72	27.29	-18.71	46	39.63	19.06	3.2	34.6	-	-	P	V
		613.94	27.17	-18.83	46	32	26.13	3.61	34.57	-	-	P	V
	782.72	28.11	-17.89	46	30.53	27.75	4.16	34.33	-	-	P	V	
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



**U NII-1 5150~5250MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)**

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (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)
802.11ac80 CH42 5210MHz & LTE Band13 Co-colation		5148.46	61.1	-12.9	74	46.93	34.87	11.09	31.79	239	310	P	H
		5150	47.61	-6.39	54	33.44	34.87	11.09	31.79	239	310	A	H
	*	5210	95.86	-----	-----	81.8	34.86	11.05	31.85	239	310	P	H
	*	5210	89.74	-----	-----	75.68	34.86	11.05	31.85	239	310	A	H
		5435.04	53.14	-20.86	74	39.41	34.81	11.06	32.14	239	310	P	H
		5394.48	41.96	-12.04	54	28.31	34.82	10.9	32.07	239	310	A	H
		5148.98	69.13	-4.87	74	54.96	34.87	11.09	31.79	237	342	P	V
		5150	53.71	-0.29	54	39.54	34.87	11.09	31.79	237	342	A	V
	*	5210	101.98	-----	-----	87.92	34.86	11.05	31.85	237	342	P	V
	*	5210	95.85	-----	-----	81.79	34.86	11.05	31.85	237	342	A	V
	5365.68	54.68	-19.32	74	40.96	34.83	10.93	32.04	237	342	P	V	
	5364	43.45	-10.55	54	29.73	34.83	10.93	32.04	237	342	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 802.11ac VHT80 (Harmonic @ 3m)**

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (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)
802.11ac80 CH42 5210MHz & LTE Band13 Co-colation		1559.5	42.35	-31.65	74	39.13	29.46	6.39	32.63	-	-	P	H
		2339.25	45.02	-28.98	74	37.36	32.15	7.58	32.07	-	-	P	H
		3119	49.5	-18.8	68.3	38.49	34.47	8.76	32.22	-	-	P	H
		10420	50.18	-18.12	68.3	47.29	39.47	14.2	50.78	-	-	P	H
		15630	51.24	-22.76	74	43.96	41.88	16.91	51.51	-	-	P	H
		1559.5	42.11	-31.89	74	38.89	29.46	6.39	32.63	-	-	P	V
		2339.25	44.54	-29.46	74	36.88	32.15	7.58	32.07	-	-	P	V
		3119	48.92	-19.38	68.3	37.91	34.47	8.76	32.22	-	-	P	V
		10420	50.05	-18.25	68.3	47.16	39.47	14.2	50.78	-	-	P	V
		15630	51.04	-22.96	74	43.76	41.88	16.91	51.51	-	-	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 Margin 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	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					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		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H
2412MHz													

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. Margin (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. Margin (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. Margin (dB) = Level(dBμV/m) – Limit Line(dBμV/m)
= 43.54(dBμV/m) – 54(dBμV/m)
= -10.46(dB)

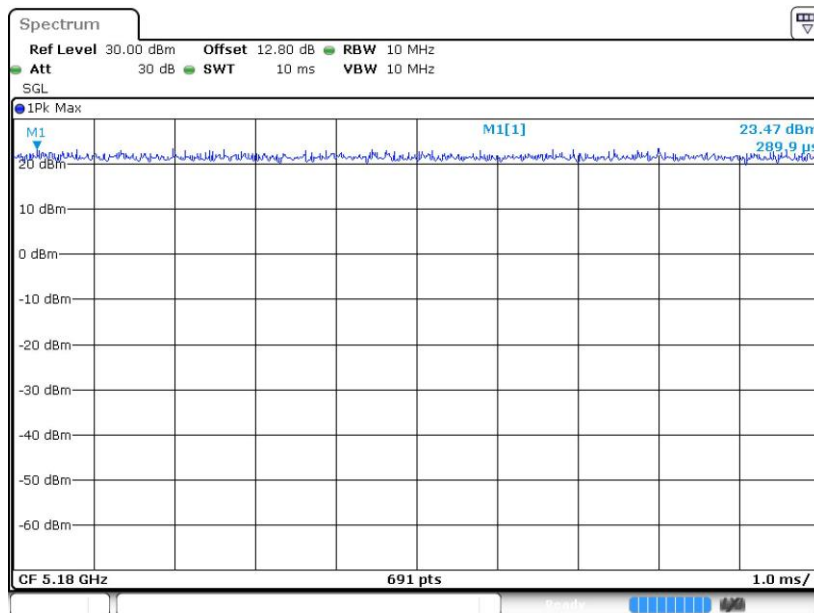
Both peak and average measured complies with the limit line, so test result is “PASS”.



Appendix D. Duty Cycle Plots

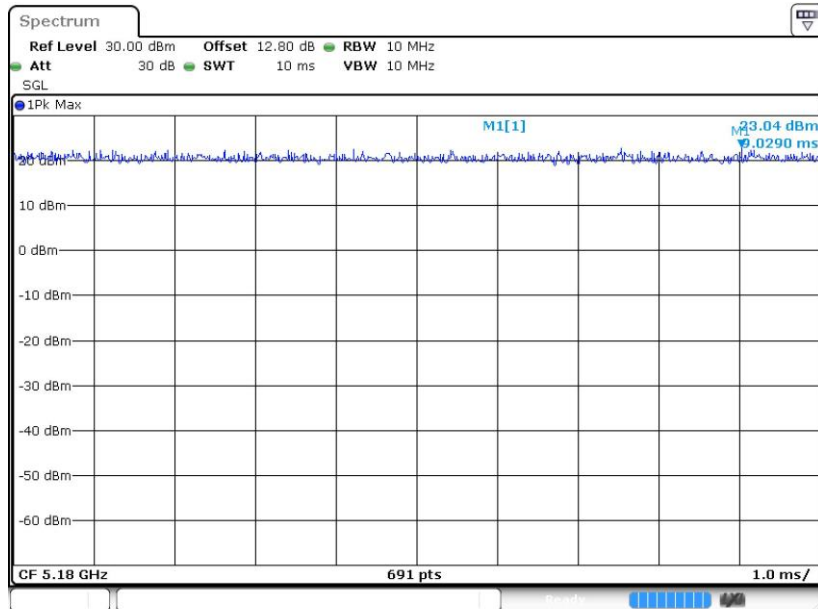
Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
802.11a	100	-	-	10Hz
802.11n HT20	100	-	-	10Hz
802.11n HT40	100	-	-	10Hz
802.11ac VHT80	100	-	-	10Hz

802.11a

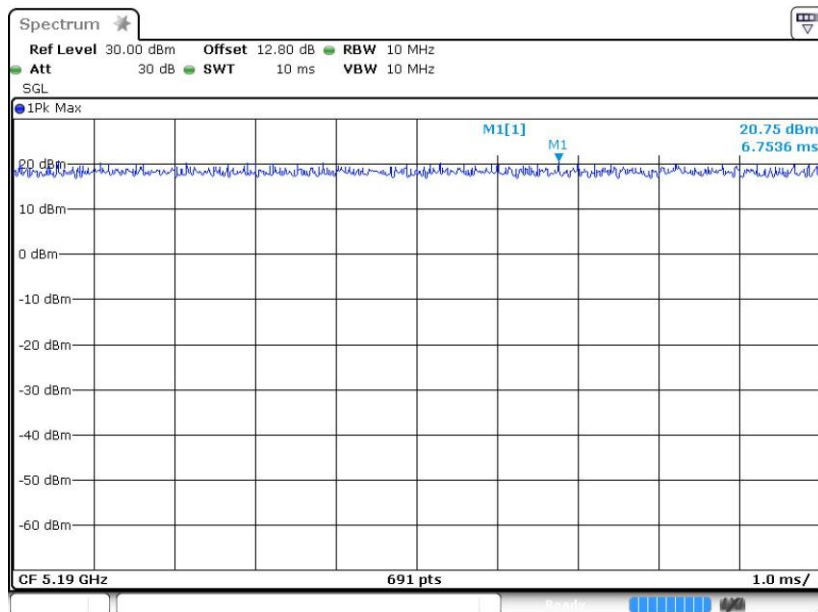




802.11n HT20



802.11n HT40





802.11ac VHT80

