FCC RF Test Report

APPLICANT	:	Amazon.com Services LLC
EQUIPMENT	:	Digital Media Receiver
MODEL NAME	:	C2N6L4
FCC ID	:	2A4DH-0821
STANDARD	:	FCC Part 15 Subpart E §15.407
CLASSIFICATION	:	(NII) Unlicensed National Information Infrastructure
TEST DATE(S)	:	Apr. 29, 2022 ~ Jul. 15, 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
FR1D0934-01D	Rev. 01	Initial issue of report	Jul. 18, 2022

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result
3.1	2.1049 & 15.403(i)	26dB & 99% Bandwidth	-	Report only
3.1	15.403(i)	6dB Bandwidth for straddle channels	> 500kHz	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
3.5	15.207	AC Conducted Emission	15.207(a)	Pass
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

Amazon.com Services LLC
410 Terry Avenue N, Seattle, WA 98109-5210, United States

1.2 Product Feature of Equipment Under Test

Product Feature	
Equipment	Digital Media Receiver
Model Name	C2N6L4
FCC ID	2A4DH-0821

1.3 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	**<5180 MHz ~ 5240 MHz>** 802.11a : 17.82 dBm / 0.0605 W 802.11n HT20 : 17.02 dBm / 0.0504 W 802.11n HT40 : 16.95 dBm / 0.0495 W 802.11ac VHT20 : 17.01 dBm / 0.0502 W 802.11ac VHT40 : 16.93 dBm / 0.0493 W 802.11ac VHT80 : 14.28 dBm / 0.0268 W **<5260 MHz ~ 5320 MHz>** 802.11a : 17.79 dBm / 0.0601 W 802.11n HT20 : 16.79 dBm / 0.0478 W 802.11n HT40 : 16.96 dBm / 0.0497 W 802.11ac VHT20 : 16.73 dBm / 0.0471 W 802.11ac VHT40 : 16.92 dBm / 0.0492 W 802.11ac VHT80 : 14.78 dBm / 0.0301 W **<5500 MHz ~ 5720 MHz >** 802.11a : 17.90 dBm / 0.0617 W 802.11n HT20 : 17.03 dBm / 0.0505 W 802.11n HT40 : 16.94 dBm / 0.0494 W 802.11ac VHT20 : 17.02 dBm / 0.0504 W 802.11ac VHT40 : 16.89 dBm / 0.0489 W 802.11ac VHT80 : 16.70 dBm / 0.0468 W
99% Occupied Bandwidth	**<5180 MHz ~ 5240 MHz>** 802.11a : 16.88 MHz 802.11n HT20 : 17.73 MHz 802.11n HT40 : 36.36 MHz 802.11ac VHT80 : 75.40 MHz **<5260 MHz ~ 5320 MHz >** 802.11a : 16.83 MHz 802.11n HT20 : 17.78 MHz 802.11n HT40 : 36.26 MHz

	802.11ac VHT80 : 75.40 MHz **<5500 MHz ~ 5720 MHz >** 802.11a : 16.88 MHz 802.11n HT20 : 17.78 MHz 802.11n HT40 : 36.26 MHz 802.11ac VHT80 : 75.40 MHz
Antenna Type / Gain	**<5180 MHz ~ 5240 MHz>** PIFA Antenna with gain 6.0 dBi **<5260 MHz ~ 5320 MHz>** PIFA Antenna with gain 6.2 dBi **<5500 MHz ~ 5720 MHz>** PIFA Antenna with gain 6.0 dBi
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)

Note: For 802.11n HT20 / 11ac VHT20 and 802.11n HT40 / 11ac VHT40 mode, the whole testing have assessed only 802.11n HT20 & HT40 by referring to their higher output power.

1.4 Modification of EUT

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

1.5 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.**
	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.**
	CO02-SZ 03CH02-SZ	CN1256	421272

1.6 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH02-SZ	AUDIX	E3	6.2009-8-24a
2.	CO02-SZ	Rohde&Schwarz	EMC32	10.60.0.0

1.7 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: All test items were verified and recorded according to the standards and without any deviation during the test.

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- 5700 MHz U-NII-2C	100	5500	112	5560
	102*	5510	116	5580
	104	5520	132	5660
	106#	5530	134*	5670
	108	5540	136	5680
	110*	5550	140	5700

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

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

Note:

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

2.2 Test Mode

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

Modulation	Data Rate
802.11a	**6 Mbps**
802.11n HT20 (cover 11ac VHT20)	**MCS0**
802.11n HT40 (cover 11ac VHT40)	**MCS0**
802.11ac VHT80	**MCS0**

Test Cases	
AC Conducted Emission	Mode 1 : All Stress(CPU, DDR, NAND, all LEDs, Max Audio, Mic On) + NB + BT Link + WLAN 5G Link + Adapter(Acbel US)
Remark: For Radiated Test Cases, The tests were performance with Adapter.	

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

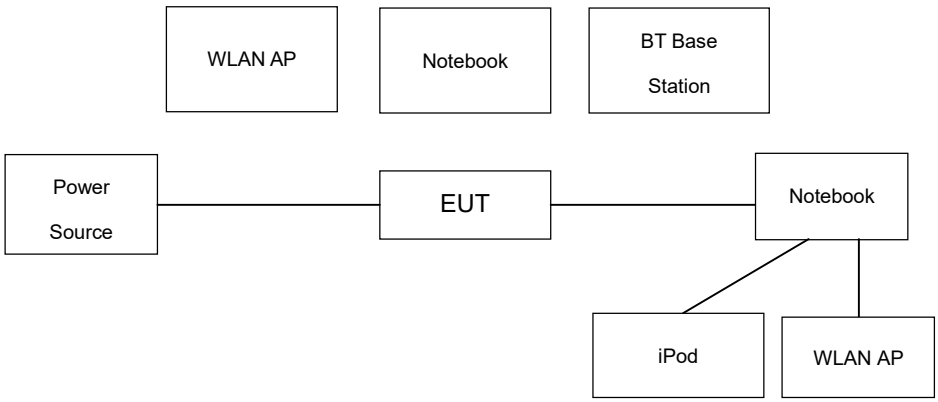
Ch. #		U-NII-1 : 5180-5240 MHz	U-NII-2A : 5260-5320 MHz	U-NII-2C : 5500- 5720 MHz
		802.11n HT20	802.11n HT20	802.11n HT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

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	-	-	122
Straddle		-	-	138

2.3 Connection Diagram of Test System

For AC Conducted Emission:



This example is connection diagram of EUT test configurations.

For detail, please refer to test mode configuration and setup photographs for each test item.

For Radiated Emission:

This example is connection diagram of EUT test configurations.

For detail, please refer to test mode configuration and setup photographs for each test item.

2.4 Support Unit used in test configuration and system

Item	Equipment	Model Name	FCC ID	Data Cable	Power Cord
1.	WLAN AP	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded,2.7m with Core
2.	Notebook	Inspiron 15-7570	Fcc DoC	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m
3.	IPod	MC525 ZP/A	Fcc DoC	Shielded, 1.0m	N/A
4.	Base Station	R&S	CBT32	N/A	Unshielded,1.8m

2.5 EUT Operation Test Setup

For WLAN RF test items, an engineering test program (compliance tool) was provided and enabled to make EUT continuous transmit.

For AC power line conducted emissions, the EUT was set to connect with the router 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 2.80 dB and 10dB attenuator.

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).

= 2.80 + 10 = 12.80 (dB)

3 Test Result

3.1 6dB & 26dB & 99% Occupied Bandwidth Measurement

3.1.1 Description of 26dB & 99% Occupied Bandwidth

The minimum 6 dB bandwidth for straddle channels located in UNII-3 shall be at least 500 kHz.

26dB and 99% Occupied bandwidth are reporting only.

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.

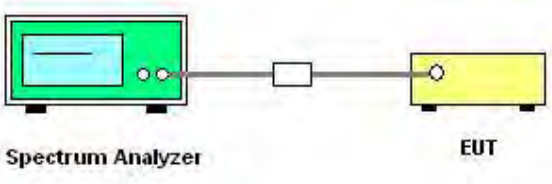
3.1.2 Measuring Instruments

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 for the band 5.725-5.85GHz
2. For 6dB BW, Set RBW = 100kHz.
   For 26dB BW, Set RBW = approximately 1% of the emission bandwidth.
   For 99% OBW, Set RBW = 1% to 5% of the OBW.
3. For 26dB BW, Set the VBW > RBW.
   For 6dB BW & 99% OBW, Set the VBW ≥ 3 x RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 6 dB down from the peak of the emission.
7. Measure and record the results in the test report.

3.1.4 Test Setup

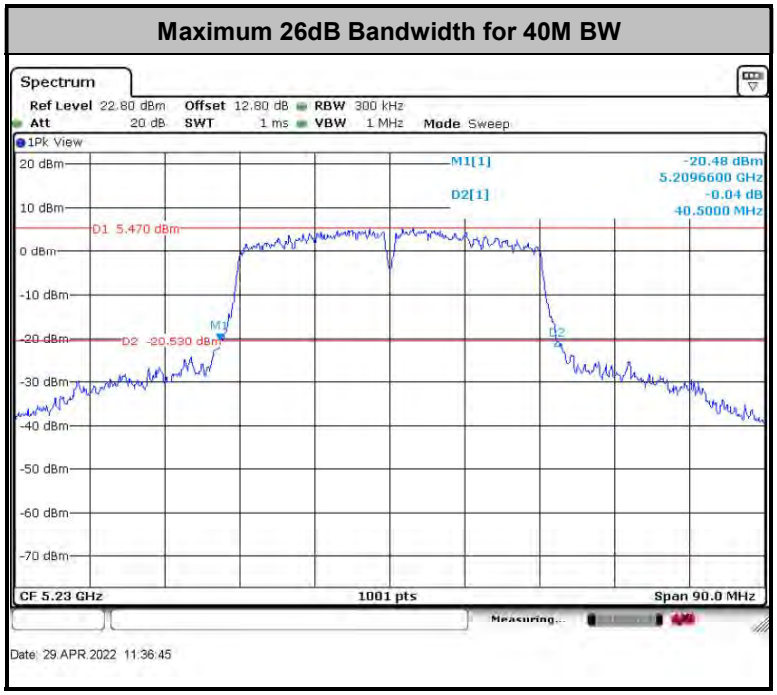


3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

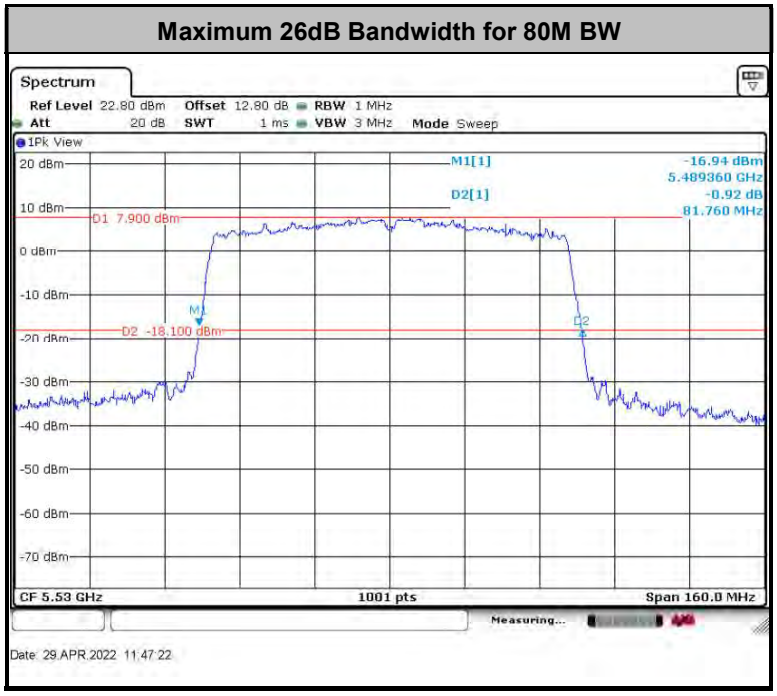
Please refer to Appendix A.

Maximum 26dB Bandwidth for 20M BW

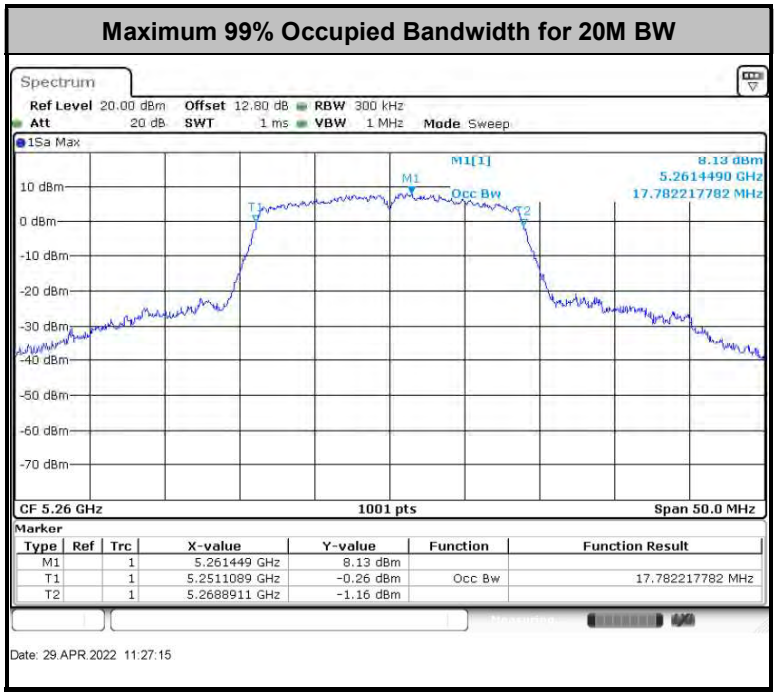
Maximum 26dB Bandwidth for 40M BW



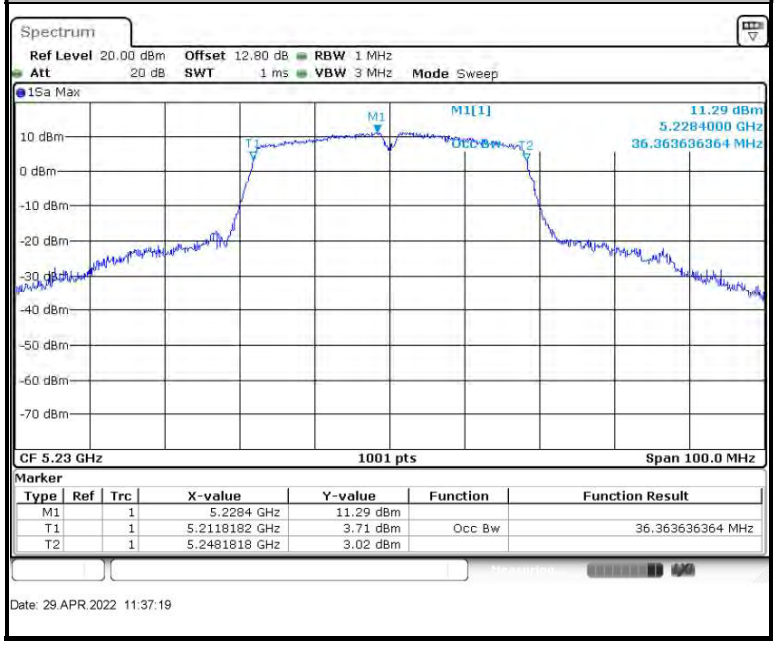
Maximum 26dB Bandwidth for 80M BW



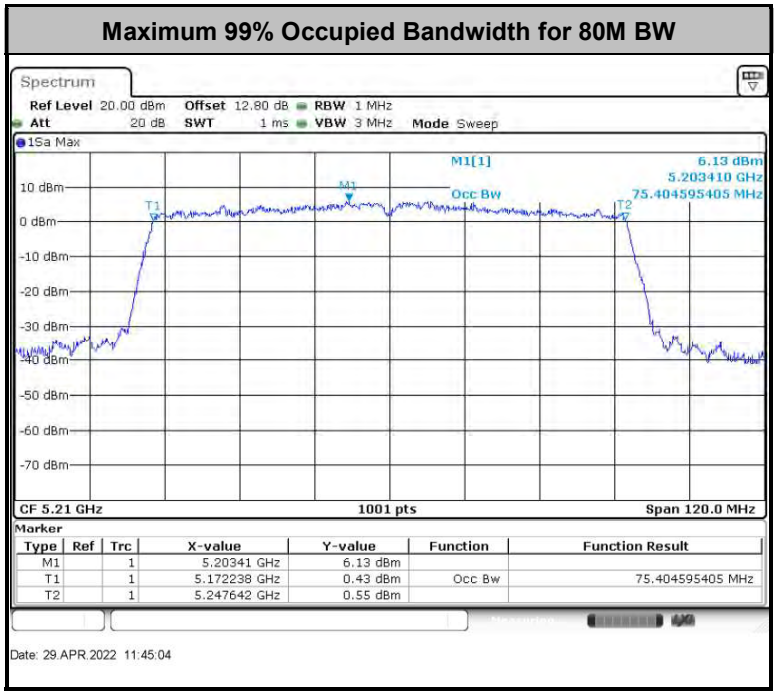
Maximum 99% Occupied Bandwidth for 20M BW



Maximum 99% Occupied Bandwidth for 40M BW



Maximum 99% Occupied Bandwidth for 80M BW

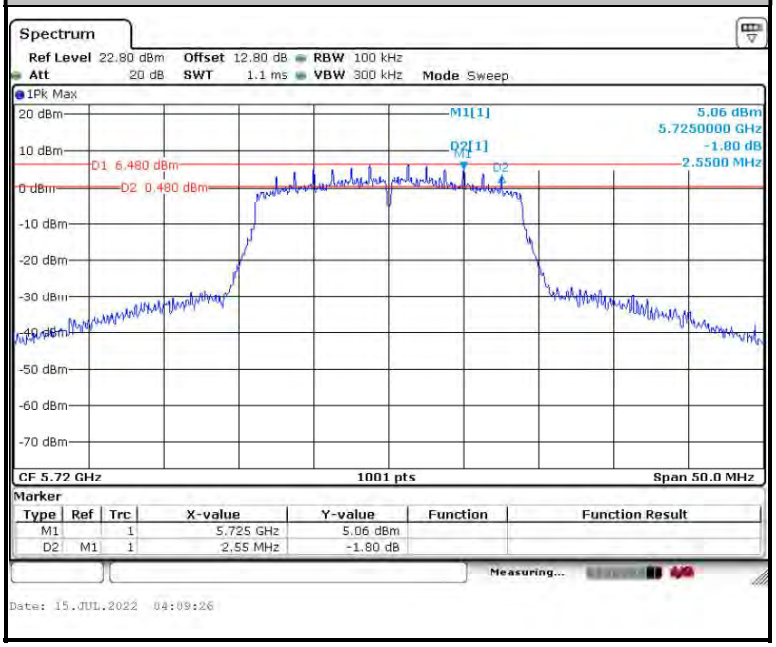


Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

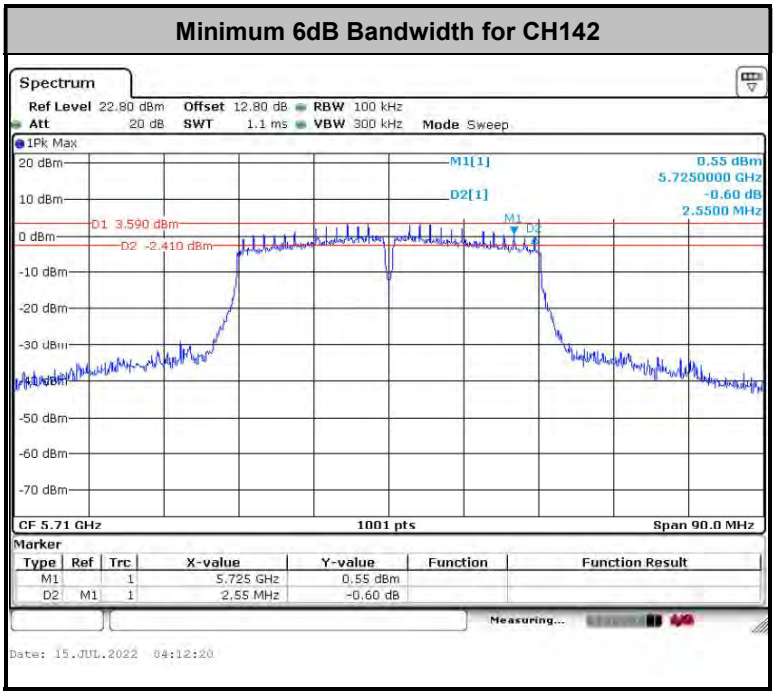
3.1.6 Test Result of 6dB Bandwidth for Straddle Channels

Mod.	Data Rate	NTX	CH.	Freq. (MHz)	6 dB Bandwidth (MHz)	6 dB Bandwidth Min. Limit (MHz)	Pass/Fail
					Ant 1	Ant 1	
11a	6Mbps	1	144	5720	2.55	0.5	Pass
HT20	MCS0	1	144	5720	2.55	0.5	Pass
HT40	MCS0	1	142	5710	2.55	0.5	Pass
VHT80	MCS0	1	138	5690	2.60	0.5	Pass

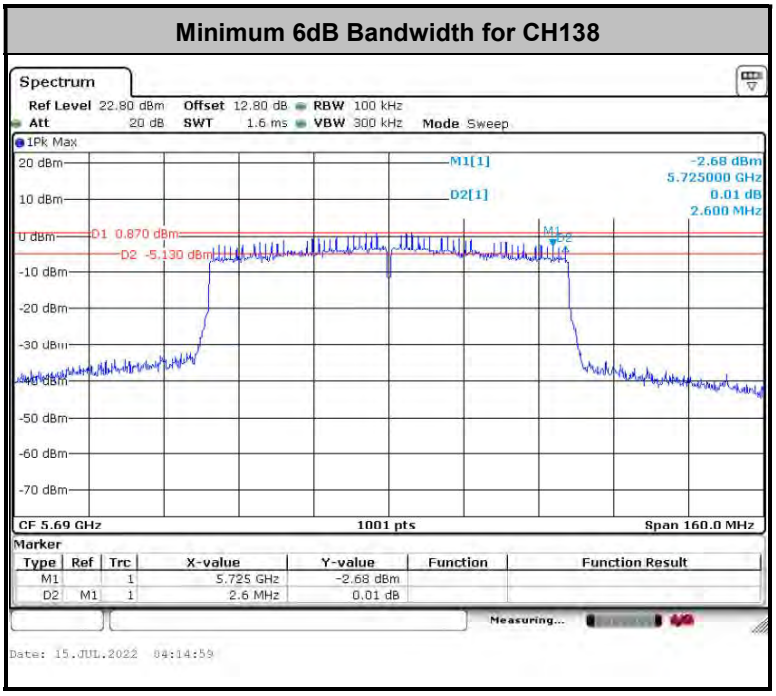
Minimum 6dB Bandwidth for CH144



Minimum 6dB Bandwidth for CH142



Minimum 6dB Bandwidth for CH138



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.

For the 5.47–5.725 GHz band, the maximum conducted output power shall not exceed 250 mW or 11 + 10 log10 B, dBm, whichever power is less. The maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log10B, dBm, whichever is less. B is the 99% 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

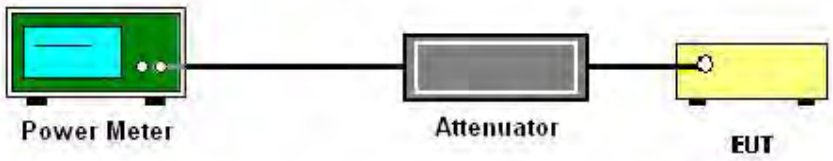
The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

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.
4. For MIMO mode, the measure-and-sum technique should be used for measuring the in-band transmit power of a device.

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.

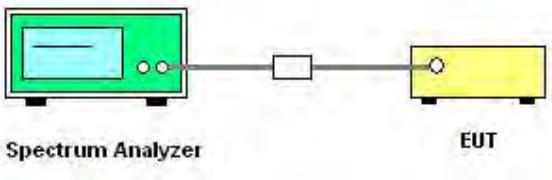
 # Method SA-2 #

(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 ≥ 3 MHz.
- Number of points in sweep ≥ 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.

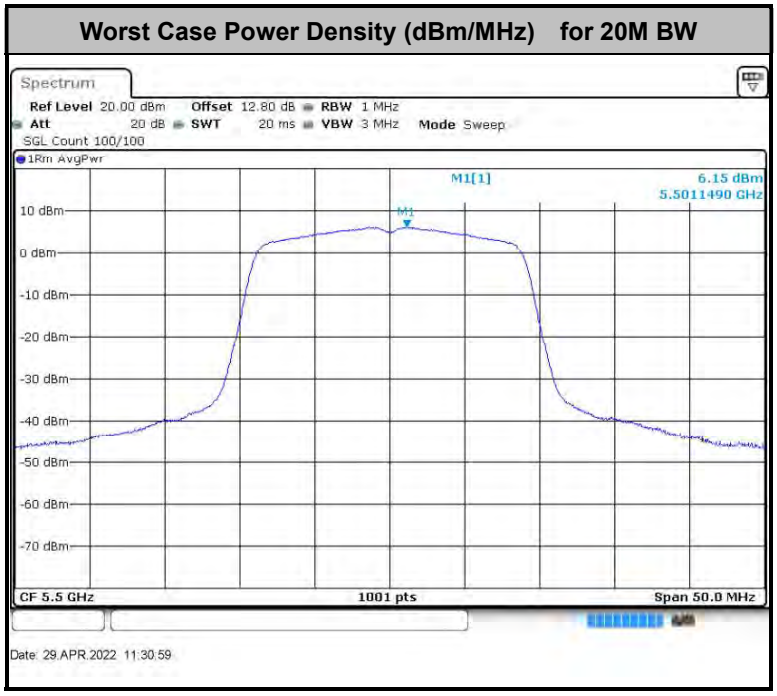
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

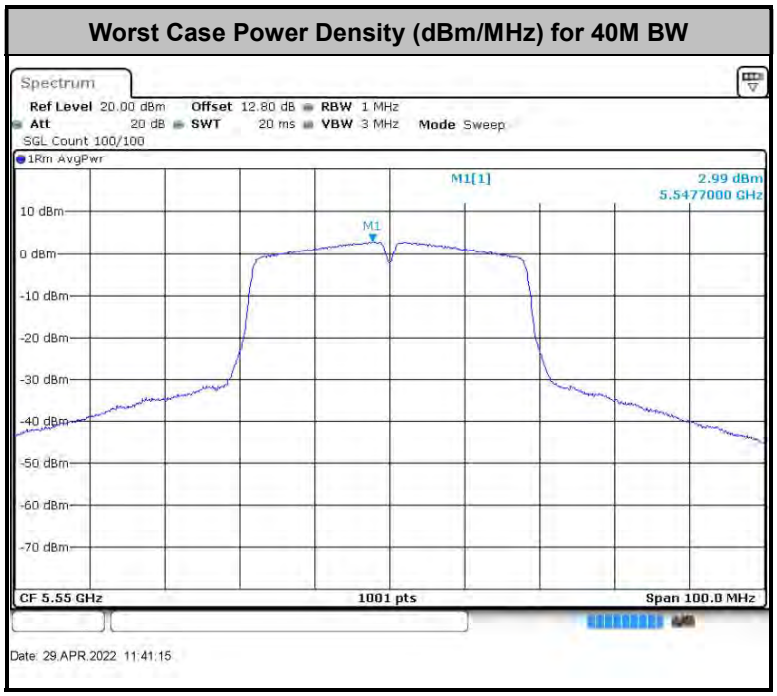
Please refer to Appendix A.

Worst Case Power Density (dBm/MHz) for 20M BW



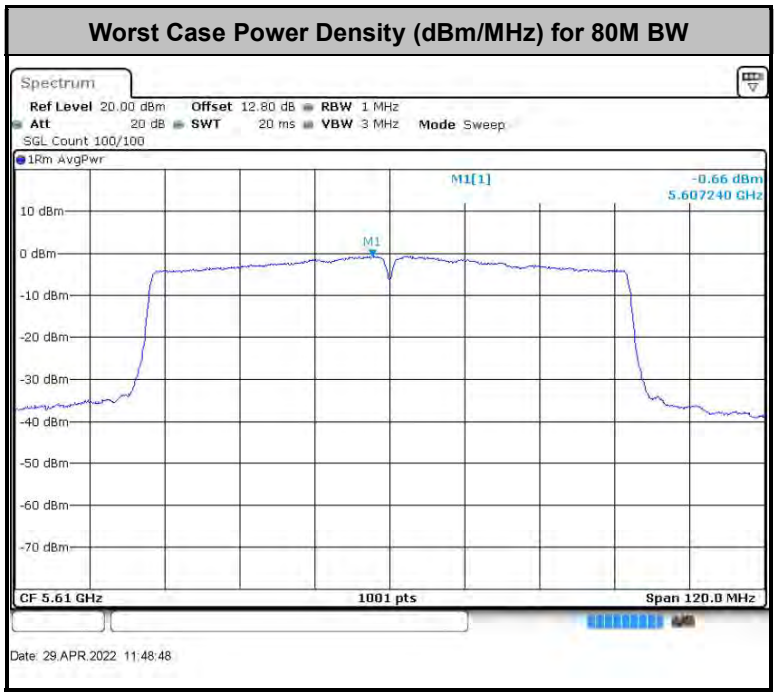
Note: Average Power Density (dB) = Measured value+ Duty Factor

Worst Case Power Density (dBm/MHz) for 40M BW



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

Worst Case Power Density (dBm/MHz) for 80M BW



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) ANSI C63.10-2013 clause 12.7.3 note 97

As specified by regulatory requirements, emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit. However, an out-of-band emission that complies with both the average and peak general regulatory limits is not required to satisfy the peak emission limit.

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

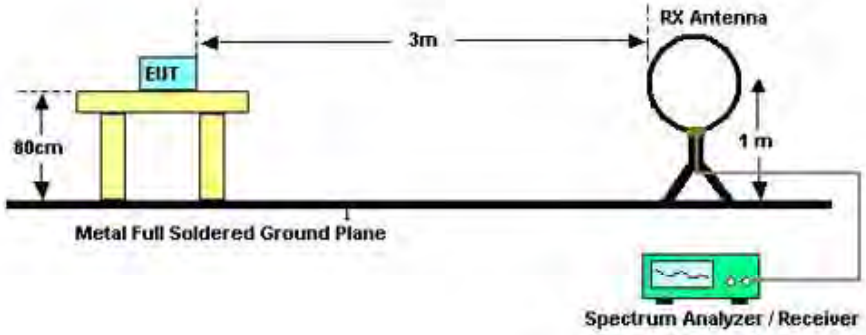
   (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

   - RBW = 1 MHz
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 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.

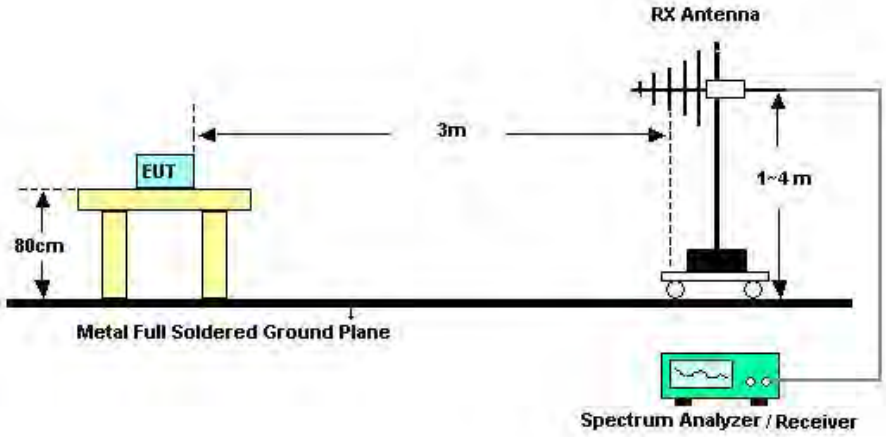
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband 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

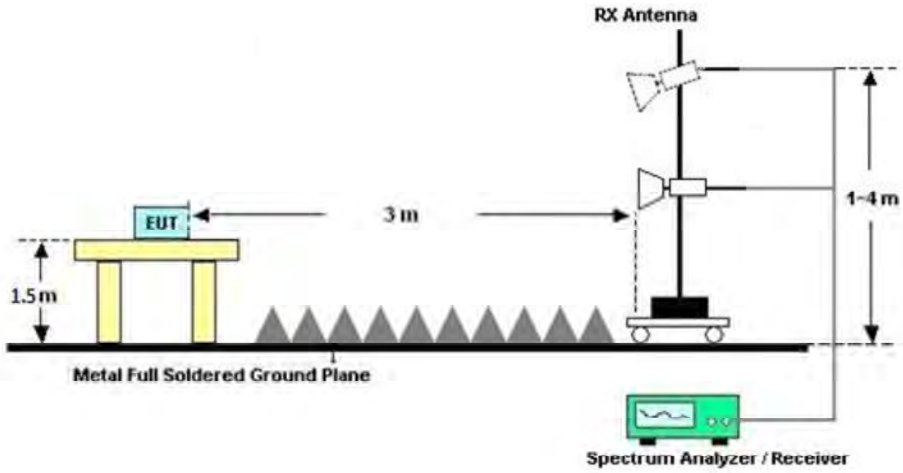
For radiated emissions below 30MHz



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&D.

3.4.7 Duty Cycle

Please refer to Appendix E.

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

Please refer to Appendix C&D.

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 U-NII-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.

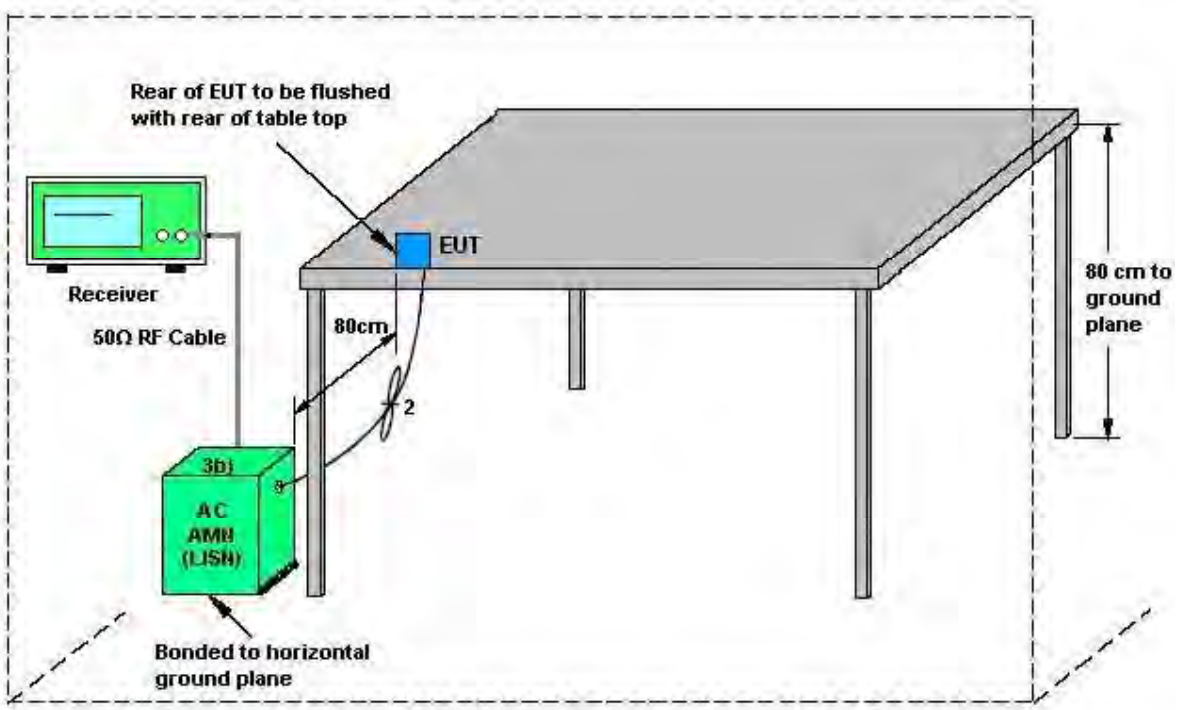
3.5.2 Measuring Instruments

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



AMN = Artificial mains network (LISN)
AE = Associated equipment
EUT = Equipment under test
ISN = Impedance stabilization network

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

Transmitting antenna directional gain is greater than 6 dBi for U-NII-2A, the power and PSD limit should be reduced by 0.2 dB

	Antenna Gain (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
U-NII-1	6.00	0.00	0.00
U-NII-2A	6.20	0.20	0.20
U-NII-2C	6.00	0.00	0.00

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	Apr. 29, 2022~ Jul. 15, 2022	Apr. 06, 2023	Conducted (TH01-SZ)
Pulse Power Senor	Anritsu	MA2411B	1339473	30MHz~40GHz	Dec. 28, 2021	Apr. 29, 2022~ Jul. 15, 2022	Dec. 27, 2022	Conducted (TH01-SZ)
Power Meter	Anritsu	ML2495A	1542004	50MHz Bandwidth	Dec. 28, 2021	Apr. 29, 2022~ Jul. 15, 2022	Dec. 27, 2022	Conducted (TH01-SZ)
EMI Test Receiver	R&S	ESR7	101404	9kHz~7GHz	Oct. 22,2021	May 12, 2022~ Jun. 03, 2022	Oct. 21,2022	Radiation (03CH02-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz	Jul. 13, 2021	May 12, 2022~ Jun. 03, 2022	Jul. 12, 2022	Radiation (03CH02-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jun. 22, 2020	May 12, 2022~ Jun. 03, 2022	Jun. 21, 2022	Radiation (03CH02-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz-2GHz	Jul. 15, 2021	May 12, 2022~ Jun. 03, 2022	Jul. 14, 2022	Radiation (03CH02-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 25, 2021	May 12, 2022~ Jun. 03, 2022	Jul. 24, 2022	Radiation (03CH02-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 10 2022	May 12, 2022~ Jun. 03, 2022	Apr. 09, 2023	Radiation (03CH02-SZ)
LF Amplifier	Burgeon	BPA-530	102211	0.01~3000Mhz	Oct. 22, 2021	May 12, 2022~ Jun. 03, 2022	Oct. 21, 2022	Radiation (03CH02-SZ)
HF Amplifier	MITEQ	AMF-7D-00101800-30-10P-R	1943528	1GHz~18GHz	Oct. 22, 2021	May 12, 2022~ Jun. 03, 2022	Oct. 21, 2022	Radiation (03CH02-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5Ghz	Oct. 22, 2021	May 12, 2022~ Jun. 03, 2022	Oct. 21, 2022	Radiation (03CH02-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 13, 2021	May 12, 2022~ Jun. 03, 2022	Jul. 12, 2022	Radiation (03CH02-SZ)
AC Power Source	Chroma	61601	616010002470	N/A	NCR	May 12, 2022~ Jun. 03, 2022	NCR	Radiation (03CH02-SZ)
Turn Table	Chaintek	T-200	N/A	0~360 degree	NCR	May 12, 2022~ Jun. 03, 2022	NCR	Radiation (03CH02-SZ)
Antenna Mast	Chaintek	MBS-400	N/A	1 m~4 m	NCR	May 12, 2022~ Jun. 03, 2022	NCR	Radiation (03CH02-SZ)
EMI Receiver	R&S	ESR7	102297	9kHz~7GHz;	Jul 14, 2021	Jul. 13, 2022	Jul 13, 2022	Conduction (CO02-SZ)
AC LISN	R&S	ENV216	101499	9kHz~30MHz	Jul 14, 2021	Jul. 13, 2022	Jul 13, 2022	Conduction (CO02-SZ)
AC Power Source	CHROMA	61601	616010002470	100Vac~250Vac	NCR	Jul. 13, 2022	NCR	Conduction (CO02-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))	2.2dB

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

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

Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.1dB

Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.1dB

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

Appendix A. Conducted Test Results

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Chen Hong	Temperature:	21~25	°C
Test Date:	2022/4/29	Relative Humidity:	51~54	%

TEST RESULTS DATA
26dB and 99% OBW

U-NII-1										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)		
11a	6Mbps	1	36	5180	16.83	20.65	-	22.26		
11a	6Mbps	1	44	5220	16.88	20.60	-	22.27		
11a	6Mbps	1	48	5240	16.83	20.65	-	22.26		
HT20	MCS0	1	36	5180	17.68	20.45	-	22.48		
HT20	MCS0	1	44	5220	17.73	20.55	-	22.49		
HT20	MCS0	1	48	5240	17.73	20.60	-	22.49		
HT40	MCS0	1	38	5190	36.06	39.96	-	23.01		
HT40	MCS0	1	46	5230	36.36	40.50	-	23.01		
VHT80	MCS0	1	42	5210	75.40	81.60	-	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	0.16	17.82	24.00	6.00		Pass
11a	6Mbps	1	44	5220	0.16	17.78	24.00	6.00		Pass
11a	6Mbps	1	48	5240	0.16	17.81	24.00	6.00		Pass
HT20	MCS0	1	36	5180	0.17	17.02	24.00	6.00		Pass
HT20	MCS0	1	44	5220	0.17	16.75	24.00	6.00		Pass
HT20	MCS0	1	48	5240	0.17	16.73	24.00	6.00		Pass
HT40	MCS0	1	38	5190	0.33	15.05	24.00	6.00		Pass
HT40	MCS0	1	46	5230	0.33	16.95	24.00	6.00		Pass
VHT20	MCS0	1	36	5180	0.15	17.01	24.00	6.00		Pass
VHT20	MCS0	1	44	5220	0.15	16.69	24.00	6.00		Pass
VHT20	MCS0	1	48	5240	0.15	16.71	24.00	6.00		Pass
VHT40	MCS0	1	38	5190	0.33	14.97	24.00	6.00		Pass
VHT40	MCS0	1	46	5230	0.33	16.93	24.00	6.00		Pass
VHT80	MCS0	1	42	5210	0.66	14.28	24.00	6.00		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	0.16	7.23	11.00	6.00		Pass
11a	6Mbps	1	44	5220	0.16	7.03	11.00	6.00		Pass
11a	6Mbps	1	48	5240	0.16	7.06	11.00	6.00		Pass
HT20	MCS0	1	36	5180	0.17	6.18	11.00	6.00		Pass
HT20	MCS0	1	44	5220	0.17	5.87	11.00	6.00		Pass
HT20	MCS0	1	48	5240	0.17	5.84	11.00	6.00		Pass
HT40	MCS0	1	38	5190	0.33	1.41	11.00	6.00		Pass
HT40	MCS0	1	46	5230	0.33	3.11	11.00	6.00		Pass
VHT80	MCS0	1	42	5210	0.66	-2.23	11.00	6.00		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	16.83	20.70	23.26	29.26	23.98	
11a	6M bps	1	60	5300	16.78	20.55	23.25	29.25	23.98	
11a	6M bps	1	64	5320	16.83	20.55	23.26	29.26	23.98	
HT20	MCS 0	1	52	5260	17.78	20.65	23.50	29.50	23.98	
HT20	MCS 0	1	60	5300	17.73	20.50	23.49	29.49	23.98	
HT20	MCS 0	1	64	5320	17.68	20.50	23.48	29.48	23.98	
HT40	MCS 0	1	54	5270	36.26	40.14	23.98	30.00	23.98	
HT40	MCS 0	1	62	5310	36.06	39.87	23.98	30.00	23.98	
VHT80	MCS 0	1	58	5290	75.40	81.60	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	0.16	17.79	23.78	6.20	26.99	Pass
11a	6M bps	1	60	5300	0.16	17.31	23.78	6.20	26.99	Pass
11a	6M bps	1	64	5320	0.16	17.29	23.78	6.20	26.99	Pass
HT20	MCS 0	1	52	5260	0.17	16.79	23.78	6.20	26.99	Pass
HT20	MCS 0	1	60	5300	0.17	16.27	23.78	6.20	26.99	Pass
HT20	MCS 0	1	64	5320	0.17	16.38	23.78	6.20	26.99	Pass
HT40	MCS 0	1	54	5270	0.33	16.96	23.78	6.20	26.99	Pass
HT40	MCS 0	1	62	5310	0.33	16.48	23.78	6.20	26.99	Pass
VHT20	MCS 0	1	52	5260	0.15	16.73	23.78	6.20	26.99	Pass
VHT20	MCS 0	1	60	5300	0.15	16.25	23.78	6.20	26.99	Pass
VHT20	MCS 0	1	64	5320	0.15	16.33	23.78	6.20	26.99	Pass
VHT40	MCS 0	1	54	5270	0.33	16.92	23.78	6.20	26.99	Pass
VHT40	MCS 0	1	62	5310	0.33	14.45	23.78	6.20	26.99	Pass
VHT80	MCS 0	1	58	5290	0.66	14.78	23.78	6.20	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	0.16	6.89	10.80	6.20		Pass
11a	6M bps	1	60	5300	0.16	6.46	10.80	6.20		Pass
11a	6M bps	1	64	5320	0.16	6.44	10.80	6.20		Pass
HT20	MCS 0	1	52	5260	0.17	5.73	10.80	6.20		Pass
HT20	MCS 0	1	60	5300	0.17	5.43	10.80	6.20		Pass
HT20	MCS 0	1	64	5320	0.17	5.46	10.80	6.20		Pass
HT40	MCS 0	1	54	5270	0.33	3.14	10.80	6.20		Pass
HT40	MCS 0	1	62	5310	0.33	2.66	10.80	6.20		Pass
VHT80	MCS 0	1	58	5290	0.66	-1.90	10.80	6.20		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	16.83	20.70	23.26	29.26	23.98	
11a	6M bps	1	116	5580	16.88	20.55	23.27	29.27	23.98	
11a	6M bps	1	140	5700	16.83	20.55	23.26	29.26	23.98	
11a	6Mbps	1	144	5720	16.88	20.70	23.27	29.27	23.98	
HT20	MCS 0	1	100	5500	17.68	20.55	23.48	29.48	23.98	
HT20	MCS 0	1	116	5580	17.78	20.65	23.50	29.50	23.98	
HT20	MCS 0	1	140	5700	17.73	20.70	23.49	29.49	23.98	
HT20	MCS0	1	144	5720	17.78	20.85	23.50	29.50	23.98	
HT40	MCS 0	1	102	5510	36.06	40.14	23.98	30.00	23.98	
HT40	MCS 0	1	110	5550	36.26	40.50	23.98	30.00	23.98	
HT40	MCS 0	1	134	5670	36.26	40.23	23.98	30.00	23.98	
HT40	MCS0	1	142	5710	36.26	40.05	23.98	30.00	23.98	
VHT80	MCS 0	1	106	5530	75.40	81.76	23.98	30.00	23.98	
VHT80	MCS 0	1	122	5610	75.40	81.60	23.98	30.00	23.98	
VHT80	MCS0	1	138	5690	75.40	81.44	23.98	30.00	23.98	

TEST RESULTS DATA
Average Power Table

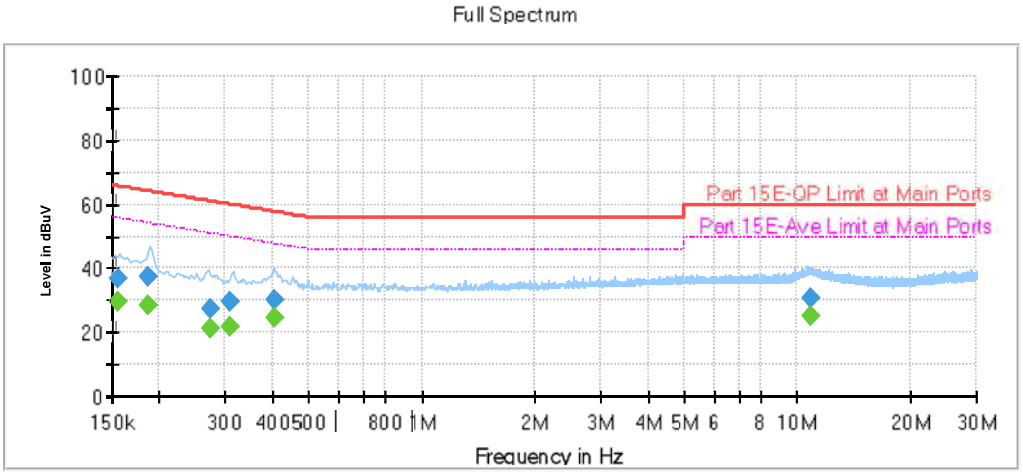
U-NII-2C										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	EIRP Power Limit (dBm)	Pass/Fail
11a	6M bps	1	100	5500	0.16	17.90	23.98	6.00	26.99	Pass
11a	6M bps	1	116	5580	0.16	17.69	23.98	6.00	26.99	Pass
11a	6M bps	1	140	5700	0.16	17.37	23.98	6.00	26.99	Pass
11a	6M bps	1	144	5720	0.16	17.84	23.98	6.00	26.99	Pass
HT20	MCS 0	1	100	5500	0.17	17.03	23.98	6.00	26.99	Pass
HT20	MCS 0	1	116	5580	0.17	16.70	23.98	6.00	26.99	Pass
HT20	MCS 0	1	140	5700	0.17	16.36	23.98	6.00	26.99	Pass
HT20	MCS 0	1	144	5720	0.17	16.78	23.98	6.00	26.99	Pass
HT40	MCS 0	1	102	5510	0.33	15.06	23.98	6.00	26.99	Pass
HT40	MCS 0	1	110	5550	0.33	16.94	23.98	6.00	26.99	Pass
HT40	MCS 0	1	134	5670	0.33	16.56	23.98	6.00	26.99	Pass
HT40	MCS 0	1	142	5710	0.33	16.51	23.98	6.00	26.99	Pass
VHT20	MCS 0	1	100	5500	0.15	17.02	23.98	6.00	26.99	Pass
VHT20	MCS 0	1	116	5580	0.15	16.52	23.98	6.00	26.99	Pass
VHT20	MCS 0	1	140	5700	0.15	16.22	23.98	6.00	26.99	Pass
VHT20	MCS 0	1	144	5720	0.15	16.66	23.98	6.00	26.99	Pass
VHT40	MCS 0	1	102	5510	0.33	15.03	23.98	6.00	26.99	Pass
VHT40	MCS 0	1	110	5550	0.33	16.89	23.98	6.00	26.99	Pass
VHT40	MCS 0	1	134	5670	0.33	16.52	23.98	6.00	26.99	Pass
VHT40	MCS 0	1	142	5710	0.33	16.48	23.98	6.00	26.99	Pass
VHT80	MCS 0	1	106	5530	0.66	15.81	23.98	6.00	26.99	Pass
VHT80	MCS 0	1	122	5610	0.66	16.70	23.98	6.00	26.99	Pass
VHT80	MCS 0	1	138	5690	0.66	16.24	23.98	6.00	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	0.16	7.38	11.00	6.00		Pass
11a	6M bps	1	116	5580	0.16	7.04	11.00	6.00		Pass
11a	6M bps	1	140	5700	0.16	6.57	11.00	6.00		Pass
11a	6Mbps	1	144	5720	0.16	7.14	11.00	6.00		Pass
HT20	MCS 0	1	100	5500	0.17	6.32	11.00	6.00		Pass
HT20	MCS 0	1	116	5580	0.17	5.89	11.00	6.00		Pass
HT20	MCS 0	1	140	5700	0.17	5.54	11.00	6.00		Pass
HT20	MCS0	1	144	5720	0.17	6.03	11.00	6.00		Pass
HT40	MCS 0	1	102	5510	0.33	1.57	11.00	6.00		Pass
HT40	MCS 0	1	110	5550	0.33	3.32	11.00	6.00		Pass
HT40	MCS 0	1	134	5670	0.33	2.67	11.00	6.00		Pass
HT40	MCS0	1	142	5710	0.33	3.28	11.00	6.00		Pass
VHT80	MCS 0	1	106	5530	0.66	-0.54	11.00	6.00		Pass
VHT80	MCS 0	1	122	5610	0.66	0.00	11.00	6.00		Pass
VHT80	MCS0	1	138	5690	0.66	-0.29	11.00	6.00		Pass

Appendix B. AC Conducted Emission Test Results

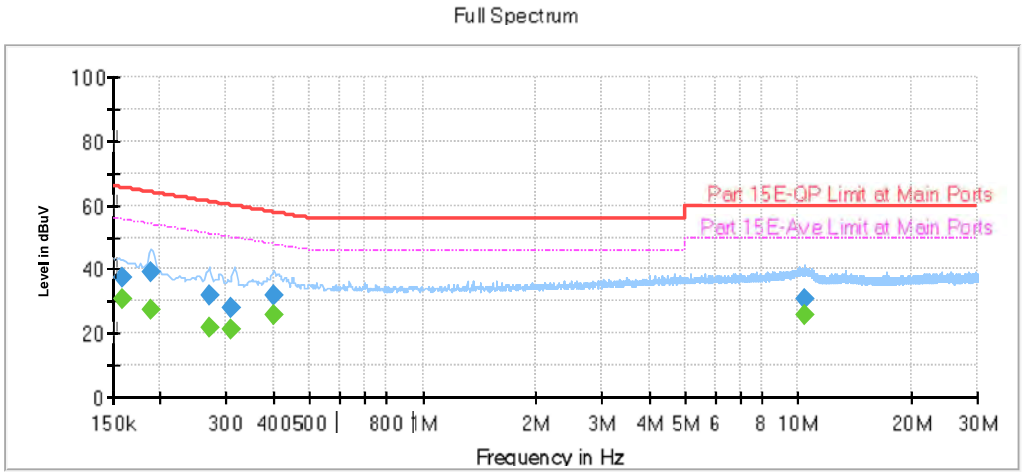
Test Engineer :	ZhangTao	**Temperature :**	22~25℃
		Relative Humidity :	50~55%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.155400	36.92	---	65.71	28.78	L1	OFF	19.7
0.155400	---	29.64	55.71	26.07	L1	OFF	19.7
0.186000	37.62	---	64.21	26.59	L1	OFF	19.7
0.186000	---	28.43	54.21	25.78	L1	OFF	19.7
0.273750	27.31	---	61.00	33.70	L1	OFF	19.7
0.273750	---	21.38	51.00	29.63	L1	OFF	19.7
0.309750	29.77	---	59.98	30.20	L1	OFF	19.7
0.309750	---	21.78	49.98	28.19	L1	OFF	19.7
0.406500	29.95	---	57.72	27.77	L1	OFF	19.7
0.406500	---	24.32	47.72	23.40	L1	OFF	19.7
10.849650	30.51	---	60.00	29.49	L1	OFF	20.0
10.849650	---	25.14	50.00	24.86	L1	OFF	20.0

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



Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.159000	37.35	---	65.52	28.17	N	OFF	19.7
0.159000	---	30.80	55.52	24.72	N	OFF	19.7
0.188070	39.31	---	64.12	24.81	N	OFF	19.7
0.188070	---	27.33	54.12	26.79	N	OFF	19.7
0.269430	31.79	---	61.14	29.34	N	OFF	19.7
0.269430	---	21.96	51.14	29.17	N	OFF	19.7
0.309750	27.91	---	59.98	32.07	N	OFF	19.7
0.309750	---	21.30	49.98	28.68	N	OFF	19.7
0.401460	31.67	---	57.82	26.16	N	OFF	19.7
0.401460	---	25.86	47.82	21.96	N	OFF	19.7
10.349250	30.72	---	60.00	29.28	N	OFF	20.0
10.349250	---	25.51	50.00	24.49	N	OFF	20.0

Appendix C. Radiated Spurious Emission

U-NII-1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 1		(MHz)	(dBµV/m)	(dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11a CH 36 5180MHz		5143.78	52.35	-21.65	74	39.66	34	9.34	30.65	100	128	P	H
		5149.76	44.88	-9.12	54	32.19	34	9.34	30.65	100	128	A	H
	*	5180	104.81	-	-	92.1	34	9.4	30.69	100	128	P	H
		5180	97.97	-	-	85.26	34	9.4	30.69	100	128	A	H
		5147.68	56.46	-17.54	74	43.77	34	9.34	30.65	100	126	P	V
		5149.76	47.22	-6.78	54	34.53	34	9.34	30.65	100	126	A	V
	*	5180	108.1	-	-	95.39	34	9.4	30.69	100	126	P	V
		5180	100.92	-	-	88.21	34	9.4	30.69	100	126	A	V
802.11a CH 44 5220MHz		5135.72	52.46	-21.54	74	39.78	33.97	9.31	30.6	100	142	P	H
		5138.32	42.6	-11.4	54	29.92	33.97	9.31	30.6	100	142	A	H
	*	5220	106.68	-	-	93.89	34.03	9.49	30.73	100	142	P	H
		5220	98	-	-	85.21	34.03	9.49	30.73	100	142	A	H
		5436.96	50.89	-23.11	74	37.37	34.2	9.87	30.55	100	142	P	H
		5352.96	41	-13	54	27.52	34.2	9.8	30.52	100	142	A	H
		5137.28	52.23	-21.77	74	39.55	33.97	9.31	30.6	100	125	P	V
		5138.84	42.66	-11.34	54	29.98	33.97	9.31	30.6	100	125	A	V
	*	5220	108.52	-	-	95.73	34.03	9.49	30.73	100	125	P	V
		5220	101.05	-	-	88.26	34.03	9.49	30.73	100	125	A	V
		5371.92	51.13	-22.87	74	37.65	34.2	9.8	30.52	100	125	P	V
		5377.2	41.37	-12.63	54	27.9	34.2	9.8	30.53	100	125	A	V

802.11a CH 48 5240MHz		5138.32	52.08	-21.92	74	39.4	33.97	9.31	30.6	100	144	P	H
		5138.06	42.2	-11.8	54	29.52	33.97	9.31	30.6	100	144	A	H
	*	5240	107.24	-	-	94.3	34.07	9.54	30.67	100	144	P	H
		5240	98.21	-	-	85.27	34.07	9.54	30.67	100	144	A	H
		5437.92	51	-23	74	37.48	34.2	9.87	30.55	100	144	P	H
		5352	41	-13	54	27.52	34.2	9.8	30.52	100	144	A	H
		5128.18	52.59	-21.41	74	39.91	33.97	9.31	30.6	100	130	P	V
		5120.12	42.28	-11.72	54	29.67	33.93	9.28	30.6	100	130	A	V
	*	5240	108.93	-	-	95.99	34.07	9.54	30.67	100	130	P	V
		5240	101.18	-	-	88.24	34.07	9.54	30.67	100	130	A	V
		5378.88	50.81	-23.19	74	37.33	34.2	9.81	30.53	100	130	P	V
		5351.76	41.61	-12.39	54	28.13	34.2	9.8	30.52	100	130	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	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 1		(MHz)	(dBμV/m)	(dB)	Line (dBμV/m)	Level (dBμV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11a CH 36 5180MHz		10360	53.55	-14.75	68.3	65.12	37.22	11.56	60.35	-	-	P	H
		15540	50.13	-23.87	74	53.83	40.13	14.74	58.57	-	-	P	H
		10360	58.55	-9.75	68.3	70.12	37.22	11.56	60.35	-	-	P	V
		15540	50.3	-23.7	74	54	40.13	14.74	58.57	-	-	P	V
802.11a CH 44 5220MHz		8352	48.9	-25.1	74	61.25	35.83	10.81	58.99	-	-	P	H
		10440	50.33	-17.97	68.3	61.83	37.26	11.61	60.37	-	-	P	H
		15660	49.68	-24.32	74	53.49	40.22	14.78	58.81	-	-	P	H
		8352	49.35	-24.65	74	61.7	35.83	10.81	58.99	-	-	P	V
		10440	57.07	-11.23	68.3	68.57	37.26	11.61	60.37	-	-	P	V
		15660	53.05	-20.95	74	56.86	40.22	14.78	58.81	100	236	P	V
		15660	47.88	-6.12	54	51.69	40.22	14.78	58.81	100	236	A	V
802.11a CH 48 5240MHz		8384	48.3	-25.7	74	60.64	35.82	10.81	58.97	-	-	P	H
		10480	52.1	-16.2	68.3	63.59	37.29	11.61	60.39	-	-	P	H
		15720	52.39	-21.61	74	56.32	40.28	14.74	58.95	100	255	P	H
		15720	47.32	-6.68	54	51.25	40.28	14.74	58.95	100	255	A	H
		8384	48.07	-25.93	74	60.41	35.82	10.81	58.97	-	-	P	V
		10480	55.68	-12.62	68.3	67.17	37.29	11.61	60.39	-	-	P	V
		15720	51.32	-22.68	74	55.25	40.28	14.74	58.95	100	211	P	V
		15720	46.95	-7.05	54	50.88	40.28	14.74	58.95	100	211	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 (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Margin	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5111.8	53.61	-20.39	74	40.22	33.93	10.02	30.56	100	183	P	H
		5149.76	43.68	-10.32	54	30.27	34	10.06	30.65	100	183	A	H
802.11n	*	5180	106.51	-	-	93.11	34	10.09	30.69	100	183	P	H
HT20		5180	99.71	-	-	86.31	34	10.09	30.69	100	183	A	H
CH 36		5088.14	52.21	-21.79	74	38.91	33.87	10.02	30.59	100	138	P	V
5180MHz		5147.42	45.21	-8.79	54	31.8	34	10.06	30.65	100	138	A	V
	*	5180	107.59	-	-	94.19	34	10.09	30.69	100	138	P	V
		5180	100.16	-	-	86.76	34	10.09	30.69	100	138	A	V
		5083.72	52.74	-21.26	74	40.24	33.87	9.22	30.59	100	139	P	H
		5138.84	42.31	-11.69	54	29.63	33.97	9.31	30.6	100	139	A	H
	*	5220	105.42	-	-	92.63	34.03	9.49	30.73	100	139	P	H
		5220	98.03	-	-	85.24	34.03	9.49	30.73	100	139	A	H
802.11n		5434.56	51.85	-22.15	74	38.33	34.2	9.87	30.55	100	139	P	H
HT20		5452.32	40.92	-13.08	54	27.38	34.2	9.9	30.56	100	139	A	H
CH 44		5146.64	52.09	-21.91	74	39.4	34	9.34	30.65	100	127	P	V
5220MHz		5148.46	42.43	-11.57	54	29.74	34	9.34	30.65	100	127	A	V
	*	5220	107.16	-	-	94.37	34.03	9.49	30.73	100	127	P	V
		5220	100.03	-	-	87.24	34.03	9.49	30.73	100	127	A	V
		5395.2	52.47	-21.53	74	38.98	34.2	9.82	30.53	100	127	P	V
		5381.28	41.27	-12.73	54	27.79	34.2	9.81	30.53	100	127	A	V

		5142.48	52.91	-21.09	74	40.17	34	9.34	30.6	100	139	P	H
		5137.28	42.14	-11.86	54	29.46	33.97	9.31	30.6	100	139	A	H
	*	5240	105.3	-	-	92.36	34.07	9.54	30.67	100	139	P	H
		5240	98.19	-	-	85.25	34.07	9.54	30.67	100	139	A	H
802.11n		5424.72	50.07	-23.93	74	36.58	34.2	9.84	30.55	100	139	P	H
HT20		5351.52	41.04	-12.96	54	27.56	34.2	9.8	30.52	100	139	A	H
CH 48		5149.5	51.35	-22.65	74	38.66	34	9.34	30.65	100	132	P	V
5240MHz		5149.76	42.25	-11.75	54	29.56	34	9.34	30.65	100	132	A	V
	*	5240	107.52	-	-	94.58	34.07	9.54	30.67	100	132	P	V
		5240	99.17	-	-	86.23	34.07	9.54	30.67	100	132	A	V
		5436.96	50.53	-23.47	74	37.01	34.2	9.87	30.55	100	132	P	V
		5359.68	41.51	-12.49	54	28.03	34.2	9.8	30.52	100	132	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	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 1		(MHz)	(dBμV/m)	(dB)	Line (dBμV/m)	Level (dBμV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11n HT20 CH 36 5180MHz		8287.5	48.06	-25.94	74	60.45	35.84	10.79	59.02	-	-	P	H
		10360	50.69	-17.61	68.3	62.26	37.22	11.56	60.35	-	-	P	H
		15540	49.53	-24.47	74	53.23	40.13	14.74	58.57	-	-	P	H
		8287.5	48.5	-25.5	74	60.89	35.84	10.79	59.02	-	-	P	V
		10360	56.61	-11.69	68.3	68.18	37.22	11.56	60.35	-	-	P	V
		15540	52.1	-21.9	74	55.8	40.13	14.74	58.57	100	213	P	V
		15540	47.96	-6.04	54	51.66	40.13	14.74	58.57	100	213	A	V
802.11n HT20 CH 44 5220MHz		8352	49.15	-24.85	74	61.5	35.83	10.81	58.99	-	-	P	H
		10440	50.5	-17.8	68.3	62	37.26	11.61	60.37	-	-	P	H
		15660	52.62	-21.38	74	56.43	40.22	14.78	58.81	100	288	P	H
		15660	47.61	-6.39	54	51.42	40.22	14.78	58.81	100	288	A	H
		8352	49.47	-24.53	74	61.82	35.83	10.81	58.99	-	-	P	V
		10440	56.18	-12.12	68.3	67.68	37.26	11.61	60.37	-	-	P	V
		15660	52.42	-21.58	74	56.23	40.22	14.78	58.81	100	215	P	V
		15660	47.63	-6.37	54	51.44	40.22	14.78	58.81	100	215	A	V
802.11n HT20 CH 48 5240MHz		8384	49.17	-24.83	74	61.51	35.82	10.81	58.97	-	-	P	H
		10480	49.23	-19.07	68.3	60.72	37.29	11.61	60.39	-	-	P	H
		15720	52.17	-21.83	74	56.1	40.28	14.74	58.95	100	196	P	H
		15720	47.37	-6.63	54	51.3	40.28	14.74	58.95	100	196	A	H
		8384	50.07	-23.93	74	62.41	35.82	10.81	58.97	-	-	P	V
		10480	55.75	-12.55	68.3	67.24	37.29	11.61	60.39	-	-	P	V
		15720	49.7	-24.3	74	53.63	40.28	14.74	58.95	-	-	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.	Note	Frequency	Level	Margin	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5144.82	52.75	-21.25	74	40.06	34	9.34	30.65	100	141	P	H
		5150	43.67	-10.33	54	30.98	34	9.34	30.65	100	141	A	H
	*	5190	101.43	-	-	88.72	34	9.4	30.69	100	141	P	H
		5190	93.97	-	-	81.26	34	9.4	30.69	100	141	A	H
802.11n		5414.92	50.4	-23.6	74	36.89	34.2	9.84	30.53	100	141	P	H
HT40		5457.48	40.96	-13.04	54	27.42	34.2	9.9	30.56	100	141	A	H
CH 38		5146.64	54.43	-19.57	74	41.74	34	9.34	30.65	100	131	P	V
5190MHz		5150	44.2	-9.8	54	31.51	34	9.34	30.65	100	131	A	V
	*	5190	101.83	-	-	89.12	34	9.4	30.69	100	131	P	V
		5190	93.95	-	-	81.24	34	9.4	30.69	100	131	P	V
		5409.88	49.95	-24.05	74	36.46	34.2	9.82	30.53	100	131	P	V
		5459.44	41.05	-12.95	54	27.51	34.2	9.9	30.56	100	131	A	V
		5137.28	52.69	-21.31	74	40.01	33.97	9.31	30.6	100	137	P	H
		5138.58	42.45	-11.55	54	29.77	33.97	9.31	30.6	100	137	A	H
	*	5230	102.69	-	-	89.75	34.07	9.54	30.67	100	137	P	H
		5230	94.18	-	-	81.24	34.07	9.54	30.67	100	137	A	H
802.11n		5411.28	51.04	-22.96	74	37.55	34.2	9.82	30.53	100	137	P	H
HT40		5350.08	41.06	-12.94	54	27.58	34.2	9.8	30.52	100	137	A	H
CH 46		5032.24	52.47	-21.53	74	40.22	33.8	9.12	30.67	100	132	P	V
5230MHz		5149.24	42.85	-11.15	54	30.16	34	9.34	30.65	100	132	A	V
	*	5230	104.18	-	-	91.24	34.07	9.54	30.67	100	132	P	V
		5230	97.19	-	-	84.25	34.07	9.54	30.67	100	132	A	V
		5407.92	50.74	-23.26	74	37.25	34.2	9.82	30.53	100	132	P	V
		5350.08	41.44	-12.56	54	27.96	34.2	9.8	30.52	100	132	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)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 1		(MHz)	(dBμV/m)	(dB)	Line (dBμV/m)	Level (dBμV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11n HT40 CH 38 5190MHz		8304	47.22	-26.78	74	59.59	35.84	10.8	59.01	-	-	P	H
		10380	47.46	-20.84	68.3	58.99	37.23	11.59	60.35	-	-	P	H
		15570	49.44	-24.56	74	53.13	40.16	14.79	58.64	-	-	P	H
		8304	49.12	-24.88	74	61.49	35.84	10.8	59.01	-	-	P	V
		10380	53.83	-14.47	68.3	65.36	37.23	11.59	60.35	-	-	P	V
		15570	52.67	-21.33	74	56.36	40.16	14.79	58.64	100	244	P	V
		15570	47.51	-6.49	54	51.2	40.16	14.79	58.64	100	244	A	V
802.11n HT40 CH 46 5230MHz		8386.5	46.27	-27.73	74	58.61	35.82	10.81	58.97	-	-	P	H
		10460	47.24	-21.06	68.3	58.74	37.27	11.61	60.38	-	-	P	H
		15690	49.11	-24.89	74	53	40.25	14.74	58.88	-	-	P	H
		8386.5	49.47	-24.53	74	61.81	35.82	10.81	58.97	-	-	P	V
		10460	54.83	-13.47	68.3	66.33	37.27	11.61	60.38	-	-	P	V
		15690	52.41	-21.59	74	56.3	40.25	14.74	58.88	100	210	P	V
		15690	47.8	-6.2	54	51.69	40.25	14.74	58.88	100	210	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 (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Margin	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT80 CH 42 5210MHz		5132.6	55.33	-18.67	74	42.65	33.97	9.31	30.6	100	135	P	H
		5149.5	46.39	-7.61	54	33.7	34	9.34	30.65	100	135	A	H
	*	5210	98.62	-	-	85.83	34.03	9.49	30.73	100	135	P	H
		5210	91.04	-	-	78.25	34.03	9.49	30.73	100	135	A	H
		5449.92	51.52	-22.48	74	37.98	34.2	9.9	30.56	100	135	P	H
		5350.32	40.93	-13.07	54	27.45	34.2	9.8	30.52	100	135	A	H
		5140.4	55.13	-18.87	74	42.39	34	9.34	30.6	100	128	P	V
		5150	47.36	-6.64	54	34.67	34	9.34	30.65	100	128	A	V
	*	5210	99.68	-	-	86.89	34.03	9.49	30.73	100	128	P	V
		5210	92.04	-	-	79.25	34.03	9.49	30.73	100	128	A	V
		5357.04	50.94	-23.06	74	37.46	34.2	9.8	30.52	100	128	P	V
		5350.32	41.32	-12.68	54	27.84	34.2	9.8	30.52	100	128	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	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 1		(MHz)	(dBµV/m)	(dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11ac VHT80 CH 42 5210MHz		8337	48.14	-25.86	74	60.49	35.83	10.81	58.99	-	-	P	H
		10420	46.69	-21.61	68.3	58.2	37.25	11.61	60.37	-	-	P	H
		15630	49.81	-24.19	74	53.58	40.21	14.8	58.78	-	-	P	H
		8337	49.94	-24.06	74	62.29	35.83	10.81	58.99	-	-	P	V
		10420	50.55	-17.75	68.3	62.06	37.25	11.61	60.37	-	-	P	V
		15630	51.83	-22.17	74	55.6	40.21	14.8	58.78	100	216	P	V
		15630	47.3	-6.7	54	51.07	40.21	14.8	58.78	100	216	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 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 1		(MHz)	(dBµV/m)	(dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11a CH 52 5260MHz		5083.72	51.94	-22.06	74	39.44	33.87	9.22	30.59	100	139	P	H
		5139.88	41.95	-12.05	54	29.21	34	9.34	30.6	100	139	A	H
	*	5260	105.02	-	-	91.85	34.13	9.66	30.62	100	139	P	H
		5260	97.43	-	-	84.26	34.13	9.66	30.62	100	139	A	H
		5444.16	50.92	-23.08	74	37.4	34.2	9.87	30.55	100	139	P	H
		5350.08	41.25	-12.75	54	27.77	34.2	9.8	30.52	100	139	A	H
		5107.9	50.9	-23.1	74	38.25	33.93	9.28	30.56	100	133	P	V
		5139.88	42.06	-11.94	54	29.32	34	9.34	30.6	100	133	A	V
	*	5260	108.23	-	-	95.06	34.13	9.66	30.62	100	133	P	V
		5260	101.43	-	-	88.26	34.13	9.66	30.62	100	133	A	V
		5358.24	51.18	-22.82	74	37.7	34.2	9.8	30.52	100	133	P	V
		5352	41.82	-12.18	54	28.34	34.2	9.8	30.52	100	133	A	V
802.11a CH 60 5300MHz		5129.5	51.47	-22.53	74	38.79	33.97	9.31	30.6	100	141	P	H
		5138.95	41.79	-12.21	54	29.11	33.97	9.31	30.6	100	141	A	H
	*	5300	104.13	-	-	90.67	34.2	9.77	30.51	100	141	P	H
		5300	97.67	-	-	84.21	34.2	9.77	30.51	100	141	A	H
		5407.44	50.4	-23.6	74	36.91	34.2	9.82	30.53	100	141	P	H
		5351.52	41.9	-12.1	54	28.42	34.2	9.8	30.52	100	141	A	H
		5039.9	51.62	-22.38	74	39.33	33.8	9.16	30.67	100	132	P	V
		5137.9	41.91	-12.09	54	29.23	33.97	9.31	30.6	100	132	A	V
	*	5300	108.87	-	-	95.41	34.2	9.77	30.51	100	132	P	V
		5300	100.72	-	-	87.26	34.2	9.77	30.51	100	132	A	V
		5355.36	51.64	-22.36	74	38.16	34.2	9.8	30.52	100	132	P	V
		5350.56	42.72	-11.28	54	29.24	34.2	9.8	30.52	100	132	A	V

802.11a CH 64 5320MHz	*	5320	103.61	-	-	90.14	34.2	9.78	30.51	100	143	P	H
		5320	96.73	-	-	83.26	34.2	9.78	30.51	100	143	A	H
		5351.36	55.91	-18.09	74	42.43	34.2	9.8	30.52	100	143	P	H
		5350.08	45.74	-8.26	54	32.26	34.2	9.8	30.52	100	143	A	H
	*	5320	108.18	-	-	94.71	34.2	9.78	30.51	100	128	P	V
		5320	100.72	-	-	87.25	34.2	9.78	30.51	100	128	A	V
		5353.6	55.66	-18.34	74	42.18	34.2	9.8	30.52	100	128	P	V
		5350.08	48.34	-5.66	54	34.86	34.2	9.8	30.52	100	128	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)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 1		(MHz)	(dBμV/m)	(dB)	Line (dBμV/m)	Level (dBμV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11a CH 52 5260MHz		8416	47.98	-26.02	74	60.29	35.82	10.82	58.95	-	-	P	H
		10520	52.94	-15.36	68.3	64.29	37.32	11.65	60.32	-	-	P	H
		15780	51.65	-22.35	74	55.6	40.32	14.78	59.05	100	188	P	H
		15780	47.11	-6.89	54	51.06	40.32	14.78	59.05	100	188	A	H
		8416	48.98	-25.02	74	61.29	35.82	10.82	58.95	-	-	P	V
		10520	56	-12.3	68.3	67.35	37.32	11.65	60.32	-	-	P	V
		15780	51.85	-22.15	74	55.8	40.32	14.78	59.05	100	244	P	V
		15780	47.51	-6.49	54	51.46	40.32	14.78	59.05	100	244	A	V
802.11a CH 60 5300MHz		8480	49.2	-24.8	74	61.51	35.8	10.8	58.91	-	-	P	H
		10600	51.94	-22.06	74	62.6	37.42	11.86	59.94	100	245	P	H
		10600	46.12	-7.88	54	56.78	37.42	11.86	59.94	100	245	A	H
		15900	50.31	-23.69	74	54.32	40.42	14.86	59.29	-	-	P	H
		8480	49.1	-24.9	74	61.41	35.8	10.8	58.91	-	-	P	V
		10600	55.15	-18.85	74	65.81	37.42	11.86	59.94	100	255	P	V
		10600	47.24	-6.76	54	57.9	37.42	11.86	59.94	100	255	A	V
		15900	50.13	-23.87	74	54.14	40.42	14.86	59.29	-	-	P	V
802.11a CH 64 5320MHz		10640	53.26	-20.74	74	63.75	37.47	11.83	59.79	100	150	P	H
		10640	45.08	-8.92	54	55.57	37.47	11.83	59.79	100	150	A	H
		15960	50.75	-23.25	74	54.82	40.47	14.89	59.43	-	-	P	H
		10640	57.63	-16.37	74	68.12	37.47	11.83	59.79	100	121	P	V
		10640	48.93	-5.07	54	59.42	37.47	11.83	59.79	100	121	A	V
		15960	50.13	-23.87	74	54.2	40.47	14.89	59.43	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

U-NII-2A 5250~5350MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Margin	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5093.08	51.17	-22.83	74	38.58	33.9	9.25	30.56	100	139	P	H
		5139.88	41.95	-12.05	54	29.21	34	9.34	30.6	100	139	A	H
	*	5260	103.97	-	-	90.8	34.13	9.66	30.62	100	139	P	H
		5260	96.79	-	-	83.62	34.13	9.66	30.62	100	139	A	H
802.11n		5353.68	50.73	-23.27	74	37.25	34.2	9.8	30.52	100	139	P	H
HT20		5351.04	41.31	-12.69	54	27.83	34.2	9.8	30.52	100	139	A	H
CH 52		5074.36	51.35	-22.65	74	38.85	33.87	9.22	30.59	100	132	P	V
5260MHz		5139.88	41.96	-12.04	54	29.22	34	9.34	30.6	100	132	A	V
	*	5260	107	-	-	93.83	34.13	9.66	30.62	100	132	P	V
		5260	99.41	-	-	86.24	34.13	9.66	30.62	100	132	A	V
		5372.4	51.55	-22.45	74	38.07	34.2	9.8	30.52	100	132	P	V
		5350.32	41.95	-12.05	54	28.47	34.2	9.8	30.52	100	132	A	V
		5075.25	50.92	-23.08	74	38.42	33.87	9.22	30.59	100	144	P	H
		5137.9	41.84	-12.16	54	29.16	33.97	9.31	30.6	100	144	A	H
	*	5300	104.21	-	-	90.75	34.2	9.77	30.51	100	144	P	H
		5300	96.71	-	-	83.25	34.2	9.77	30.51	100	144	A	H
802.11n		5379.84	51.3	-22.7	74	37.82	34.2	9.81	30.53	100	144	P	H
HT20		5351.28	41.39	-12.61	54	27.91	34.2	9.8	30.52	100	144	A	H
CH 60		5042.7	52.62	-21.38	74	40.29	33.8	9.16	30.63	100	129	P	V
5300MHz		5137.2	41.73	-12.27	54	29.05	33.97	9.31	30.6	100	129	A	V
	*	5300	107.13	-	-	93.67	34.2	9.77	30.51	100	129	P	V
		5300	99.7	-	-	86.24	34.2	9.77	30.51	100	129	A	V
		5382.24	51.01	-22.99	74	37.53	34.2	9.81	30.53	100	129	P	V
		5374.8	42.17	-11.83	54	28.7	34.2	9.8	30.53	100	129	A	V

802.11n HT20 CH 64 5320MHz	*	5320	106.36	-	-	92.41	34.2	10.26	30.51	104	180	P	H
		5320	99.91	-	-	85.96	34.2	10.26	30.51	104	180	A	H
		5360.96	52.21	-21.79	74	38.23	34.2	10.3	30.52	104	180	P	H
		5350.08	43.68	-10.32	54	29.7	34.2	10.3	30.52	104	180	A	H
	*	5320	107.74	-	-	93.79	34.2	10.26	30.51	100	138	P	V
		5320	100.31	-	-	86.36	34.2	10.26	30.51	100	138	A	V
		5375.36	52.57	-21.43	74	38.6	34.2	10.3	30.53	100	138	P	V
		5350.08	44.21	-9.79	54	30.23	34.2	10.3	30.52	100	138	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	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 1		(MHz)	(dBμV/m)	(dB)	Line (dBμV/m)	Level (dBμV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11n HT20 CH 52 5260MHz		8414	48.48	-25.52	74	60.79	35.82	10.82	58.95	-	-	P	H
		10520	49.24	-19.06	68.3	60.59	37.32	11.65	60.32	-	-	P	H
		15780	52.29	-21.71	74	56.24	40.32	14.78	59.05	100	25	P	H
		15780	47.74	-6.26	54	51.69	40.32	14.78	59.05	100	25	A	H
		8414	48.93	-25.07	74	61.24	35.82	10.82	58.95	-	-	P	V
		10520	57.15	-11.15	68.3	68.5	37.32	11.65	60.32	-	-	P	V
		15780	51.68	-22.32	74	55.63	40.32	14.78	59.05	100	120	P	V
		15780	47.25	-6.75	54	51.2	40.32	14.78	59.05	100	120	A	V
802.11n HT20 CH 60 5300MHz		8480	48.5	-25.5	74	60.81	35.8	10.8	58.91	-	-	P	H
		10600	48.49	-25.51	74	59.15	37.42	11.86	59.94	-	-	P	H
		15900	48.72	-25.28	74	52.73	40.42	14.86	59.29	-	-	P	H
		8480	47.85	-26.15	74	60.16	35.8	10.8	58.91	-	-	P	V
		10600	53.04	-20.96	74	63.7	37.42	11.86	59.94	125	215	P	V
		10600	46.76	-7.24	54	57.42	37.42	11.86	59.94	125	215	A	V
		15900	48.14	-25.86	74	52.15	40.42	14.86	59.29	-	-	P	V
802.11n HT20 CH 64 5320MHz		8513	47.34	-20.96	68.3	59.6	35.81	10.8	58.87	-	-	P	H
		10640	48.01	-25.99	74	58.5	37.47	11.83	59.79	-	-	P	H
		15960	49.5	-24.5	74	53.57	40.47	14.89	59.43	-	-	P	H
		8513	47.73	-20.57	68.3	59.99	35.81	10.8	58.87	-	-	P	V
		10640	55.49	-18.51	74	65.98	37.47	11.83	59.79	100	215	P	V
		10640	46.26	-7.74	54	56.75	37.47	11.83	59.79	100	215	A	V
		15960	49.49	-24.51	74	53.56	40.47	14.89	59.43	-	-	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.	Note	Frequency	Level	Margin	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5095.2	52.58	-21.42	74	39.99	33.9	9.25	30.56	100	141	P	H
		5135.45	42.33	-11.67	54	29.65	33.97	9.31	30.6	100	141	A	H
	*	5270	102.19	-	-	89.02	34.13	9.66	30.62	100	141	P	H
		5270	95.43	-	-	82.26	34.13	9.66	30.62	100	141	A	H
802.11n		5452.8	51.15	-22.85	74	37.61	34.2	9.9	30.56	100	141	P	H
HT40		5350.8	41.98	-12.02	54	28.5	34.2	9.8	30.52	100	141	A	H
CH 54		5044.45	51.79	-22.21	74	39.46	33.8	9.16	30.63	100	129	P	V
5270MHz		5119	42.2	-11.8	54	29.59	33.93	9.28	30.6	100	129	A	V
	*	5270	104.94	-	-	91.77	34.13	9.66	30.62	100	129	P	V
		5270	97.42	-	-	84.25	34.13	9.66	30.62	100	129	A	V
		5358	52.71	-21.29	74	39.23	34.2	9.8	30.52	100	129	P	V
		5350.32	42.84	-11.16	54	29.36	34.2	9.8	30.52	100	129	A	V
		5004.9	51.97	-22.03	74	39.78	33.8	9.09	30.7	100	179	P	H
		5131.6	42.02	-11.98	54	29.34	33.97	9.31	30.6	100	179	A	H
	*	5310	102.33	-	-	88.86	34.2	9.78	30.51	100	179	P	H
		5310	94.73	-	-	81.26	34.2	9.78	30.51	100	179	A	H
802.11n		5351.04	58.15	-15.85	74	44.67	34.2	9.8	30.52	100	179	P	H
HT40		5350.8	44.84	-9.16	54	31.36	34.2	9.8	30.52	100	179	A	H
CH 62		5109.55	52.61	-21.39	74	39.96	33.93	9.28	30.56	100	128	P	V
5310MHz		5133.35	42.05	-11.95	54	29.37	33.97	9.31	30.6	100	128	A	V
	*	5310	104.9	-	-	91.43	34.2	9.78	30.51	100	128	P	V
		5310	97.73	-	-	84.26	34.2	9.78	30.51	100	128	A	V
		5360.64	59.53	-14.47	74	46.05	34.2	9.8	30.52	100	128	P	V
		5350.56	45.86	-8.14	54	32.38	34.2	9.8	30.52	100	128	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)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 1		(MHz)	(dBµV/m)	(dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11n HT40 CH 54 5270MHz		8432	47.23	-26.77	74	59.55	35.81	10.81	58.94	-	-	P	H
		10540	48.04	-20.26	68.3	59.26	37.34	11.69	60.25	-	-	P	H
		15810	49.37	-24.63	74	53.33	40.35	14.81	59.12	-	-	P	H
		8432	47.89	-26.11	74	60.21	35.81	10.81	58.94	-	-	P	V
		10540	52.12	-16.18	68.3	63.34	37.34	11.69	60.25	-	-	P	V
		15810	49.86	-24.14	74	53.82	40.35	14.81	59.12	-	-	P	V
802.11n HT40 CH 62 5310MHz		8496	47.5	-26.5	74	59.8	35.8	10.8	58.9	-	-	P	H
		10620	47.06	-26.94	74	57.64	37.44	11.85	59.87	-	-	P	H
		15930	49.6	-24.4	74	53.64	40.44	14.88	59.36	-	-	P	H
		8496	48.22	-25.78	74	60.52	35.8	10.8	58.9	-	-	P	V
		10620	53.02	-20.98	74	63.6	37.44	11.85	59.87	100	211	P	V
		10620	46.24	-7.76	54	56.82	37.44	11.85	59.87	100	211	A	V
		15930	49.3	-24.7	74	53.34	40.44	14.88	59.36	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

U-NII-2A 5250~5350MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Margin	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT80 CH 58 5290MHz		5088.2	52.77	-21.23	74	40.27	33.87	9.22	30.59	100	185	P	H
		5136.15	41.99	-12.01	54	29.31	33.97	9.31	30.6	100	185	A	H
	*	5290	97.51	-	-	84.2	34.17	9.71	30.57	100	185	P	H
		5290	90.58	-	-	77.27	34.17	9.71	30.57	100	185	A	H
		5350.08	54	-20	74	40.52	34.2	9.8	30.52	100	185	P	H
		5350.08	45.62	-8.38	54	32.14	34.2	9.8	30.52	100	185	A	H
		5099.4	52.84	-21.16	74	40.25	33.9	9.25	30.56	100	129	P	V
		5148.75	41.98	-12.02	54	29.29	34	9.34	30.65	100	129	A	V
	*	5290	98.91	-	-	85.6	34.17	9.71	30.57	100	129	P	V
		5290	91.58	-	-	78.27	34.17	9.71	30.57	100	129	A	V
		5362.8	55.12	-18.88	74	41.64	34.2	9.8	30.52	100	129	P	V
		5350.08	47.16	-6.84	54	33.68	34.2	9.8	30.52	100	129	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

U-NII-2A 5250~5350MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 1		(MHz)	(dBµV/m)	(dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11ac VHT80 CH 58 5290MHz		8463.5	47.32	-26.68	74	59.62	35.81	10.81	58.92	-	-	P	H
		10580	46.78	-21.52	68.3	57.58	37.4	11.82	60.02	-	-	P	H
		15870	51.35	-22.65	74	55.36	40.4	14.85	59.26	122	158	P	H
		15870	47.65	-6.35	54	51.66	40.4	14.85	59.26	122	158	A	H
		8463.5	49.19	-24.81	74	61.49	35.81	10.81	58.92	-	-	P	V
		10580	49.29	-19.01	68.3	60.09	37.4	11.82	60.02	-	-	P	V
		15870	49.19	-24.81	74	53.2	40.4	14.85	59.26	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

U-NII-2C - 5470~5725MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 1		(MHz)	(dBµV/m)	(dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11a CH 100 5500MHz		5383.76	51.25	-22.75	74	37.77	34.2	9.81	30.53	100	180	P	H
		5467.92	51.41	-16.89	68.3	37.85	34.2	9.92	30.56	100	180	P	H
		5460	42.71	-11.29	54	29.17	34.2	9.9	30.56	100	180	A	H
	*	5500	105.54	-	-	91.95	34.2	9.97	30.58	100	180	P	H
		5500	97.84	-	-	84.25	34.2	9.97	30.58	100	180	A	H
		5449.2	51.14	-22.86	74	37.59	34.2	9.9	30.55	100	129	P	V
		5462.96	54.2	-14.1	68.3	40.64	34.2	9.92	30.56	100	129	P	V
		5459.92	43.8	-10.2	54	30.26	34.2	9.9	30.56	100	129	A	V
	*	5500	108.71	-	-	95.12	34.2	9.97	30.58	100	129	P	V
		5500	101.85	-	-	88.26	34.2	9.97	30.58	100	129	A	V
802.11a CH 116 5580MHz		5422.24	50.02	-23.98	74	36.51	34.2	9.84	30.53	100	176	P	H
		5464.96	50.24	-18.06	68.3	36.68	34.2	9.92	30.56	100	176	P	H
		5459.92	41.65	-12.35	54	28.11	34.2	9.9	30.56	100	176	A	H
	*	5580	104.95	-	-	90.86	34.23	10.21	30.35	100	176	P	H
		5580	97.35	-	-	83.26	34.23	10.21	30.35	100	176	A	H
		5737.595	51.18	-17.12	68.3	36.53	34.6	10.49	30.44	100	176	P	H
		5437.6	50	-24	74	36.48	34.2	9.87	30.55	100	126	P	V
		5468.08	49.45	-18.85	68.3	35.89	34.2	9.92	30.56	100	126	P	V
		5459.92	42.32	-11.68	54	28.78	34.2	9.9	30.56	100	126	A	V
	*	5580	108.23	-	-	94.14	34.23	10.21	30.35	100	126	P	V
		5580	101.33	-	-	87.24	34.23	10.21	30.35	100	126	A	V
		5743.58	51.37	-16.93	68.3	36.72	34.6	10.49	30.44	100	126	P	V

802.11a CH 140 5700MHz	*	5700	105.89	-	-	91.6	34.5	10.32	30.53	100	180	P	H
		5700	98.52	-	-	84.23	34.5	10.32	30.53	100	180	A	H
		5725.72	58.57	-9.73	68.3	44.05	34.57	10.44	30.49	100	180	P	H
	*	5700	108.42	-	-	94.13	34.5	10.32	30.53	100	121	P	V
		5700	101.55	-	-	87.26	34.5	10.32	30.53	100	121	A	V
		5725	61.6	-6.7	68.3	47.08	34.57	10.44	30.49	100	121	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	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 1		(MHz)	(dBµV/m)	(dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11a CH 100 5500MHz		11000	51.36	-22.64	74	59.65	37.9	12.01	58.2	100	142	P	H
		11000	42.95	-11.05	54	51.24	37.9	12.01	58.2	100	142	A	H
		16500	50.29	-18.01	68.3	50.95	41.57	15.27	57.5	-	-	P	H
		11000	57.25	-16.75	74	65.54	37.9	12.01	58.2	100	211	P	V
		11000	48.84	-5.16	54	57.13	37.9	12.01	58.2	100	211	A	V
		16500	50.73	-17.57	68.3	51.39	41.57	15.27	57.5	-	-	P	V
802.11a CH 116 5580MHz		8928	48.48	-19.82	68.3	59.8	36.13	10.7	58.15	-	-	P	H
		11160	49.08	-24.92	74	57.03	38.05	12.1	58.1	-	-	P	H
		16740	50.35	-17.95	68.3	49.94	42.07	15.41	57.07	-	-	P	H
		8928	50.98	-17.32	68.3	62.3	36.13	10.7	58.15	-	-	P	V
		11160	55.59	-18.41	74	63.54	38.05	12.1	58.1	100	169	P	V
		11160	49.34	-4.66	54	57.29	38.05	12.1	58.1	100	169	A	V
802.11a CH 140 5700MHz		9118	48.65	-25.35	74	59.7	36.32	10.82	58.19	-	-	P	H
		11400	49.7	-24.3	74	57.2	38.27	12.19	57.96	-	-	P	H
		17100	50.97	-17.33	68.3	49.76	42.46	15.45	56.7	-	-	P	H
		9118	51.5	-22.5	74	62.55	36.32	10.82	58.19	100	104	P	V
		9118	47.07	-6.93	54	58.12	36.32	10.82	58.19	100	104	A	V
		11400	55.92	-18.08	74	63.42	38.27	12.19	57.96	100	211	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.	Note	Frequency	Level	Margin	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5440.72	51.22	-22.78	74	37.19	34.2	10.38	30.55	103	175	P	H
		5460.08	51.32	-16.98	68.3	37.3	34.2	10.38	30.56	103	175	P	H
		5459.76	43.28	-10.72	54	29.26	34.2	10.38	30.56	103	175	A	H
802.11n	*	5500	106.83	-	-	92.78	34.2	10.43	30.58	103	175	P	H
HT20		5500	100.17	-	-	86.12	34.2	10.43	30.58	103	175	A	H
CH 100		5440.24	53.51	-20.49	74	39.48	34.2	10.38	30.55	100	125	P	V
5500MHz		5475.6	54.57	-13.73	68.3	40.52	34.2	10.43	30.58	100	125	P	V
		5459.92	43.73	-10.27	54	29.71	34.2	10.38	30.56	100	125	A	V
	*	5500	107.81	-	-	93.76	34.2	10.43	30.58	100	125	P	V
		5500	100.94	-	-	86.89	34.2	10.43	30.58	100	125	A	V
		5418.88	51.21	-22.79	74	37.2	34.2	10.34	30.53	104	181	P	H
		5468.32	50.43	-17.87	68.3	36.36	34.2	10.43	30.56	104	181	P	H
		5459.92	41.96	-12.04	54	27.94	34.2	10.38	30.56	104	181	A	H
	*	5580	103.93	-	-	89.53	34.23	10.52	30.35	104	181	P	H
802.11n		5580	96.64	-	-	82.24	34.23	10.52	30.35	104	181	A	H
HT20		5726.885	51.52	-16.78	68.3	36.83	34.57	10.61	30.49	104	181	P	H
CH 116		5378.08	51.13	-22.87	74	37.16	34.2	10.3	30.53	104	129	P	V
5580MHz		5462.32	50.25	-18.05	68.3	36.23	34.2	10.38	30.56	104	129	P	V
		5459.92	42.38	-11.62	54	28.36	34.2	10.38	30.56	104	129	A	V
	*	5580	107.15	-	-	92.75	34.23	10.52	30.35	104	129	P	V
		5580	99.66	-	-	85.26	34.23	10.52	30.35	104	129	A	V
		5726.885	52.16	-16.14	68.3	37.47	34.57	10.61	30.49	104	129	P	V

802.11n HT20 CH 140 5700MHz	*	5700	106.75	-	-	92.17	34.5	10.61	30.53	100	177	P	H
		5700	99.21	-	-	84.63	34.5	10.61	30.53	100	177	A	H
		5727	62.98	-5.32	68.3	48.29	34.57	10.61	30.49	100	177	P	H
	*	5700	107.74	-	-	93.16	34.5	10.61	30.53	100	123	P	V
		5700	101.54	-	-	86.96	34.5	10.61	30.53	100	123	A	V
		5727.24	61.49	-6.81	68.3	46.8	34.57	10.61	30.49	100	123	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)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 1		(MHz)	(dBµV/m)	(dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11n HT20 CH 100 5500MHz		8799	47.94	-20.36	68.3	59.6	36.04	10.66	58.36	-	-	P	H
		11000	47.47	-26.53	74	55.76	37.9	12.01	58.2	-	-	P	H
		16500	50.18	-18.12	68.3	50.84	41.57	15.27	57.5	-	-	P	H
		8799	50.34	-17.96	68.3	62	36.04	10.66	58.36	-	-	P	V
		11000	54.99	-19.01	74	63.28	37.9	12.01	58.2	100	188	P	V
		11000	48.01	-5.99	54	56.3	37.9	12.01	58.2	100	188	A	V
		16500	50.67	-17.63	68.3	51.33	41.57	15.27	57.5	-	-	P	V
802.11n HT20 CH 116 5580MHz		11160	54.39	-19.61	74	62.34	38.05	12.1	58.1	190	204	P	H
		11160	45.11	-8.89	54	53.06	38.05	12.1	58.1	190	204	A	H
		16740	50.63	-17.67	68.3	50.22	42.07	15.41	57.07	-	-	P	H
		11160	54.36	-19.64	74	62.31	38.05	12.1	58.1	100	197	P	V
		11160	44.69	-9.31	54	52.64	38.05	12.1	58.1	100	197	A	V
		16740	50.86	-17.44	68.3	50.45	42.07	15.41	57.07	-	-	P	V
802.11n HT20 CH 140 5700MHz		9118	49.07	-24.93	74	60.12	36.32	10.82	58.19	-	-	P	H
		11400	48.92	-25.08	74	56.42	38.27	12.19	57.96	-	-	P	H
		17100	50.95	-17.35	68.3	49.74	42.46	15.45	56.7	-	-	P	H
		9118	51.8	-22.2	74	62.85	36.32	10.82	58.19	100	155	P	V
		9118	47.65	-6.35	54	58.7	36.32	10.82	58.19	100	155	A	V
		11400	56	-18	74	63.5	38.27	12.19	57.96	125	169	P	V
		11400	49.32	-4.68	54	56.82	38.27	12.19	57.96	125	169	A	
		17100	50.6	-17.7	68.3	49.39	42.46	15.45	56.7	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

U-NII-2C - 5470~5725MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Margin	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5437.12	50.35	-23.65	74	36.83	34.2	9.87	30.55	100	184	P	H
		5469.28	49.94	-18.36	68.3	36.38	34.2	9.92	30.56	100	184	P	H
		5459.92	42.05	-11.95	54	28.51	34.2	9.9	30.56	100	184	A	H
	*	5510	97.77	-	-	84.12	34.2	9.97	30.52	100	184	P	H
802.11n		5510	90.49	-	-	76.84	34.2	9.97	30.52	100	184	A	H
HT40		5760.59	51.04	-17.26	68.3	36.26	34.63	10.55	30.4	100	184	P	H
CH 102		5441.92	51.29	-22.71	74	37.77	34.2	9.87	30.55	100	130	P	V
5510MHz		5462.32	52.03	-16.27	68.3	38.49	34.2	9.9	30.56	100	130	P	V
		5458	42.94	-11.06	54	29.4	34.2	9.9	30.56	100	130	A	V
	*	5510	102.31	-	-	88.66	34.2	9.97	30.52	100	130	P	V
		5510	94.91	-	-	81.26	34.2	9.97	30.52	100	130	A	V
		5738.54	50.98	-17.32	68.3	36.33	34.6	10.49	30.44	100	130	P	V
		5369.92	50.36	-23.64	74	36.88	34.2	9.8	30.52	100	182	P	H
		5464.96	48.84	-19.46	68.3	35.28	34.2	9.92	30.56	100	182	P	H
		5459.44	41.76	-12.24	54	28.22	34.2	9.9	30.56	100	182	A	H
	*	5550	100.68	-	-	86.8	34.2	10.15	30.47	100	182	P	H
802.11n		5550	93.4	-	-	79.52	34.2	10.15	30.47	100	182	A	H
HT40		5764.37	51.29	-17.01	68.3	36.51	34.63	10.55	30.4	100	182	P	H
CH 110		5446.48	50.66	-23.34	74	37.11	34.2	9.9	30.55	100	133	P	V
5550MHz		5467.6	50.47	-17.83	68.3	36.91	34.2	9.92	30.56	100	133	P	V
		5459.2	42.38	-11.62	54	28.84	34.2	9.9	30.56	100	133	A	V
	*	5550	104.49	-	-	90.61	34.2	10.15	30.47	100	133	P	V
		5550	97.14	-	-	83.26	34.2	10.15	30.47	100	133	A	V
		5748.62	52	-16.3	68.3	37.35	34.6	10.49	30.44	100	133	P	V

		5431.2	51.13	-22.87	74	37.61	34.2	9.87	30.55	100	182	P	H
		5467.25	49.82	-18.48	68.3	36.26	34.2	9.92	30.56	100	182	P	H
		5459.9	41.09	-12.91	54	27.55	34.2	9.9	30.56	100	182	A	H
	*	5670	100.6	-	-	86.37	34.4	10.32	30.49	100	182	P	H
802.11n		5670	93.5	-	-	79.27	34.4	10.32	30.49	100	182	A	H
HT40		5728.6	53.58	-14.72	68.3	39.06	34.57	10.44	30.49	100	182	P	H
CH 134		5369.95	49.56	-24.44	74	36.08	34.2	9.8	30.52	100	126	P	V
5670MHz		5465.5	49.08	-19.22	68.3	35.52	34.2	9.92	30.56	100	126	P	V
		5459.55	41.26	-12.74	54	27.72	34.2	9.9	30.56	100	126	A	V
	*	5670	104.34	-	-	90.11	34.4	10.32	30.49	100	126	P	V
		5670	97.48	-	-	83.25	34.4	10.32	30.49	100	126	A	V
		5724.925	54.14	-14.16	68.3	39.62	34.57	10.44	30.49	100	126	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	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 1		(MHz)	(dBµV/m)	(dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11n HT40 CH 102 5510MHz		8815.5	48.69	-19.61	68.3	60.31	36.05	10.66	58.33	-	-	P	H
		11020	47.2	-26.8	74	55.43	37.92	12.04	58.19	-	-	P	H
		16530	50.78	-17.52	68.3	51.32	41.64	15.26	57.44	-	-	P	H
		8816	49.72	-18.58	68.3	61.34	36.05	10.66	58.33	-	-	P	V
		11020	49.6	-24.4	74	57.83	37.92	12.04	58.19	-	-	P	V
		16530	50.1	-18.2	68.3	50.64	41.64	15.26	57.44	-	-	P	V
802.11n HT40 CH 110 5550MHz		8880	46.97	-21.33	68.3	58.39	36.11	10.68	58.21	-	-	P	H
		11100	48.69	-25.31	74	56.67	37.99	12.17	58.14	-	-	P	H
		16650	50.6	-17.7	68.3	50.65	41.89	15.28	57.22	-	-	P	H
		8880	49.91	-18.39	68.3	61.33	36.11	10.68	58.21	-	-	P	V
		11100	52.28	-21.72	74	60.26	37.99	12.17	58.14	100	206	P	V
		11100	46.62	-7.38	54	54.6	37.99	12.17	58.14	100	206	A	V
		16650	50.4	-17.9	68.3	50.45	41.89	15.28	57.22	-	-	P	V
802.11n HT40 CH 134 5670MHz		9072	49.06	-24.94	74	60.1	36.27	10.8	58.11	-	-	P	H
		11340	48.7	-25.3	74	56.15	38.21	12.34	58	-	-	P	H
		17010	50.84	-17.46	68.3	49.29	42.58	15.59	56.62	-	-	P	H
		9072	51.32	-22.68	74	62.36	36.27	10.8	58.11	100	144	P	V
		9072	46.56	-7.44	54	57.6	36.27	10.8	58.11	100	144	A	V
		11340	53.58	-20.42	74	61.03	38.21	12.34	58	100	284	P	V
		11340	47.97	-6.03	54	55.42	38.21	12.34	58	100	284	A	
		17010	50.11	-18.19	68.3	48.56	42.58	15.59	56.62	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

U-NII-2C - 5470~5725MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Margin	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5459.2	54.93	-19.07	74	40.91	34.2	10.38	30.56	100	174	P	H
		5470	54.44	-13.86	68.3	40.37	34.2	10.43	30.56	100	174	P	H
		5457.76	45.27	-8.73	54	31.25	34.2	10.38	30.56	100	174	A	H
	*	5530	100.56	-	-	86.36	34.2	10.47	30.47	100	174	P	H
802.11ac		5530	94.33	-	-	80.13	34.2	10.47	30.47	100	174	A	H
VHT80		5756.495	52.65	-15.65	68.3	37.8	34.63	10.62	30.4	100	174	P	H
CH 106		5457.04	55.44	-18.56	74	41.42	34.2	10.38	30.56	100	126	P	V
5530MHz		5468.8	57.41	-10.89	68.3	43.34	34.2	10.43	30.56	100	126	P	V
		5457.76	46.8	-7.2	54	32.78	34.2	10.38	30.56	100	126	A	V
	*	5530	101.58	-	-	87.38	34.2	10.47	30.47	100	126	P	V
		5530	95.44	-	-	81.24	34.2	10.47	30.47	100	126	A	V
		5748.31	53.19	-15.11	68.3	38.41	34.6	10.62	30.44	100	126	P	V
		5455.84	51.92	-22.08	74	37.9	34.2	10.38	30.56	100	180	P	H
		5468.08	51.76	-16.54	68.3	37.69	34.2	10.43	30.56	100	180	P	H
		5459.44	42.3	-11.7	54	28.28	34.2	10.38	30.56	100	180	A	H
	*	5610	98.64	-	-	84.18	34.3	10.56	30.4	100	180	P	H
802.11ac		5610	91.72	-	-	77.26	34.3	10.56	30.4	100	180	A	H
VHT80		5739.62	52.59	-15.71	68.3	37.81	34.6	10.62	30.44	100	180	P	H
CH 122		5438.08	51.89	-22.11	74	37.86	34.2	10.38	30.55	100	127	P	V
5610MHz		5469.04	52.23	-16.07	68.3	38.16	34.2	10.43	30.56	100	127	P	V
		5459.92	42.92	-11.08	54	28.9	34.2	10.38	30.56	100	127	A	V
	*	5610	102.86	-	-	88.4	34.3	10.56	30.4	100	127	P	V
		5610	94.6	-	-	80.14	34.3	10.56	30.4	100	127	A	V
		5726.32	54.19	-14.11	68.3	39.5	34.57	10.61	30.49	100	127	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 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 1		(MHz)	(dBµV/m)	(dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11ac VHT80 CH 106 5530MHz		8848	48.85	-19.45	68.3	60.37	36.08	10.67	58.27	-	-	P	H
		11060	47.6	-26.4	74	55.68	37.96	12.12	58.16	-	-	P	H
		16590	51.87	-16.43	68.3	52.21	41.75	15.25	57.34	-	-	P	H
		8848	48.49	-19.81	68.3	60.01	36.08	10.67	58.27	-	-	P	V
		11060	53.52	-20.48	74	61.6	37.96	12.12	58.16	100	129	P	V
		11060	49.02	-4.98	54	57.1	37.96	12.12	58.16	100	129	A	V
		16590	52.75	-15.55	68.3	53.09	41.75	15.25	57.34	-	-		V
802.11ac VHT80 CH 122 5610MHz		8976	48.19	-20.11	68.3	59.36	36.17	10.72	58.06	-	-	P	H
		11220	48.01	-25.99	74	55.86	38.1	12.12	58.07	-	-	P	H
		16830	50.28	-18.02	68.3	49.44	42.24	15.51	56.91	-	-	P	H
		8976	50.56	-17.74	68.3	61.73	36.17	10.72	58.06	-	-	P	V
		11220	53.55	-20.45	74	61.4	38.1	12.12	58.07	135	124	P	V
		11220	48.51	-5.49	54	56.36	38.1	12.12	58.07	135	124	A	V
		16830	50.29	-18.01	68.3	49.45	42.24	15.51	56.91				V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

U-NII-2C - Straddle Channel

WIFI 802.11a (Band Edge @ 3m)

WIFI 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 144 5720MHz		5458.35	49.91	-24.09	74	36.37	34.2	9.9	30.56	100	181	P	H
		5469.35	49.99	-18.31	68.3	36.43	34.2	9.92	30.56	100	181	P	H
		5720	103.69	-	-	89.17	34.57	10.44	30.49	100	181	P	H
		5898.35	52.84	-15.46	68.3	37.54	35	10.89	30.59	100	181	P	H
		5457.25	41.03	-12.97	54	27.49	34.2	9.9	30.56	100	181	A	H
		5720	97.81	-	-	83.29	34.57	10.44	30.49	100	181	A	H
		5421.5	49.88	-24.12	74	36.37	34.2	9.84	30.53	100	123	P	V
		5466.6	50.72	-17.58	68.3	37.16	34.2	9.92	30.56	100	123	P	V
		5720	107.37	-	-	92.85	34.57	10.44	30.49	100	123	P	V
		5852.7	54.01	-14.29	68.3	38.81	34.9	10.78	30.48	100	123	P	V
		5457.8	41.08	-12.92	54	27.54	34.2	9.9	30.56	100	123	A	V
		5720	99.06	-	-	84.54	34.57	10.44	30.49	100	123	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)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 1		(MHz)	(dBµV/m)	(dB)	Line (dBµV/m)	Level (dBµV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11a CH 144 5720MHz		9151	48.83	-25.17	74	59.89	36.34	10.82	58.22	-	-	P	H
		11440	49.12	-24.88	74	56.52	38.3	12.24	57.94	-	-	P	H
		17160	50.41	-17.89	68.3	49.24	42.36	15.58	56.77	-	-	P	H
		9151	50.19	-23.81	74	61.25	36.34	10.82	58.22	-	-	P	V
		11440	54.75	-19.25	74	62.15	38.3	12.24	57.94	100	248	P	V
		11440	48.63	-5.37	54	56.03	38.3	12.24	57.94	100	248	A	V
		17160	50.22	-18.08	68.3	49.05	42.36	15.58	56.77	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

U-NII-2C - Straddle Channel

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Margin	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 144 5720MHz		5438.55	50.54	-23.46	74	36.51	34.2	10.38	30.55	100	174	P	H
		5467.7	50.05	-18.25	68.3	35.98	34.2	10.43	30.56	100	174	P	H
		5720	101.73	-	-	87.04	34.57	10.61	30.49	100	174	P	H
		5866.45	52.15	-16.15	68.3	37.04	34.93	10.71	30.53	100	174	P	H
		5459.45	41.53	-12.47	54	27.51	34.2	10.38	30.56	100	174	A	H
		5720	96.44	-	-	81.75	34.57	10.61	30.49	100	174	A	H
		5423.15	50.8	-23.2	74	36.79	34.2	10.34	30.53	104	119	P	V
		5468.8	49.96	-18.34	68.3	35.89	34.2	10.43	30.56	104	119	P	V
		5720	106.2	-	-	91.51	34.57	10.61	30.49	104	119	P	V
		5851.05	53.05	-15.25	68.3	37.95	34.9	10.68	30.48	104	119	P	V
		5460	41.59	-12.41	54	27.57	34.2	10.38	30.56	104	119	A	V
		5720	98.95	-	-	84.26	34.57	10.61	30.49	104	119	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												