FCC RF Test Report

APPLICANT	:	Lenovo (Shanghai) Electronics Technology Co., Ltd.
EQUIPMENT	:	Portable Tablet Computer
BRAND NAME	:	Lenovo
MODEL NAME	:	Lenovo YT-X703F
FCC ID	:	O57YTX703F
STANDARD	:	FCC Part 15 Subpart E §15.407
CLASSIFICATION	:	(NII) Unlicensed National Information Infrastructure

The product was received on Jul. 01, 2016 and testing was completed on Aug. 01, 2016. We, SPORTON INTERNATIONAL (KUNSHAN) INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL (KUNSHAN) INC., the test report shall not be reproduced except in full.

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Approved by: Jones Tsai / Manager

Testing Laboratory
2627

SPORTON INTERNATIONAL (KUNSHAN) INC.
No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P. R. China

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR663013-01D	Rev. 01	Initial issue of report	Aug. 08, 2016

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	2.1049 15.403(i)	26dB & 99% Bandwidth	-	Pass	-
3.2	15.407(a)	Maximum Conducted Output Power	FCC ≤ 24 dBm (depend on band)	Pass	-
3.3	15.407(a)	Power Spectral Density	FCC ≤ 11 dBm (depend on band)	Pass	-
3.4	15.407(b)	Unwanted Emissions	≤ -17, -27 dBm (depend on band)&15.209(a)	Pass	Under limit 3.11 dB at 5448.080 MHz and 5741.550 MHz
3.5	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 7.72 dB at 26.840 MHz
3.6	15.407(g)	Frequency Stability	Within Operation Band	Pass	-
3.7	15.407(c)	Automatically Discontinue Transmission	Discontinue Transmission	Pass	-
3.8	15.203 & 15.407(a)	Antenna Requirement	N/A	Pass	-

1 General Description

1.1 Applicant

Lenovo (Shanghai) Electronics Technology Co., Ltd.
NO.68 BUILDING, 199 FENJU RD, China (Shanghai) Pilot Free Trade Zone, 200131, CHINA

1.2 Manufacturer

Lenovo PC HK Limited
23/F, Lincoln House, Taikoo Place 979 King's Road, Quarry Bay, Hong Kong

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Portable Tablet Computer
Brand Name	Lenovo
Model Name	Lenovo YT-X703F
FCC ID	O57YTX703F
EUT supports Radios application	WLAN 2.4GHz 802.11b/g/n HT20/HT40/ WLAN 5GHz 802.11a/n HT20/HT40/ WLAN 5GHz 802.11ac VHT20/VHT40/VHT80/ Bluetooth v3.0+EDR/ Bluetooth v4.0 LE/
HW Version	Lenovo Tablet YT-X703F
SW Version	YT-X703F_160817
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 ~ 5700 MHz
Maximum Output Power to Antenna	**<5180 MHz ~ 5240 MHz>** 802.11a : 11.22 dBm / 0.0132 W 802.11n HT20 : 10.19 dBm / 0.0104 W 802.11n HT40 : 9.79 dBm / 0.0095 W 802.11ac VHT20 : 10.27 dBm / 0.0106 W 802.11ac VHT40 : 9.90 dBm / 0.0098 W 802.11ac VHT80 : 9.99 dBm / 0.0100 W **<5260 MHz ~ 5320 MHz>** 802.11a : 10.91 dBm / 0.0123 W 802.11n HT20 : 9.63 dBm / 0.0092 W 802.11n HT40 : 9.34 dBm / 0.0086 W 802.11ac VHT20 : 9.66 dBm / 0.0092 W 802.11ac VHT40 : 9.79 dBm / 0.0095 W 802.11ac VHT80 : 9.66 dBm / 0.0092 W **<5500 MHz ~ 5700 MHz>** 802.11a : 11.09 dBm / 0.0129 W 802.11n HT20 : 9.55 dBm / 0.0090 W 802.11n HT40 : 9.51 dBm / 0.0089 W 802.11ac VHT20 : 9.68 dBm / 0.0093 W 802.11ac VHT40 : 9.96 dBm / 0.0099 W 802.11ac VHT80 : 9.87 dBm / 0.0097 W
99% Occupied Bandwidth	**<5180 MHz ~ 5240 MHz>** 802.11a : 18.63 MHz 802.11n HT20 : 19.48 MHz 802.11n HT40 : 36.76 MHz 802.11ac VHT20: 19.23 MHz 802.11ac VHT40 : 36.76 MHz 802.11ac VHT80 : 74.81 MHz **<5260 MHz ~ 5320 MHz>** 802.11a : 18.68 MHz 802.11n HT20 : 19.23 MHz 802.11n HT40 : 36.56 MHz 802.11ac VHT20: 19.23 MHz 802.11ac VHT40 : 36.76 MHz 802.11ac VHT80 : 74.69 MHz **<5500 MHz ~ 5700 MHz>** 802.11a : 18.58 MHz 802.11n HT20 : 19.33 MHz 802.11n HT40 : 36.86 MHz 802.11ac VHT20: 19.23 MHz 802.11ac VHT40 : 36.86 MHz 802.11ac VHT80 : 74.81 MHz

Antenna Type	PIFA Antenna
Antenna Gain	**<5180 MHz ~ 5240 MHz >**: 1.90 dBi **<5260 MHz ~ 5320 MHz >**: 2.07 dBi **<5500 MHz ~ 5700 MHz >**: 1.69 dBi
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)

1.5 Modification of EUT

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

1.6 Testing Location

Test Site	SPORTON INTERNATIONAL (KUNSHAN) INC.	
Test Site Location	No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P. R. China TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958	
Test Site No.	**Sporton Site No.**	
	TH01-KS	CO01-KS

Test Site	SPORTON INTERNATIONAL INC.	
Test Site Location	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978	
Test Site No.	**Sporton Site No.**	**FCC Registration No.**
	03CH12-HY	TW1098

Note: The test site complies with ANSI C63.4 2014 requirement.

1.7 Applicable Standards

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

- FCC Part 15 Subpart E
- FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r02
- FCC KDB 644545 D03 Guidance for IEEE 802 11ac New Rules v01
- 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.

1.8 Component List

Note: There are two types of EUT, the details refer the following table. According to the difference, we evaluate is not affect RF performance, so only choose sample 1 to perform RF test.

Component	Sample 1	Sample 2
Battery	Sunwoda: L16D3K31 3.75 Vdc, 9300 mAh	SCUD: L16D3K31 3.75 Vdc, 9300 mAh
Rear Camera	Qtech: F5695AK	AVC: CCBFL05006
LCM+TP ASM	Ofilm：AUO 10.1 WQXGA IPS+10.1 inch GFF Direct bounding + S7813	GIS：Innolux 10.1 WQXGA IPS+10.1 inch GFF Direct bounding + S7813
DRAM	Samsung: K3QF4F40BM-FGCF	Hynix: H9CKNNNDATMUPR-NUH
EMMC	Samsung: KLMCG4JENB-B041	Toshiba: THGBMFG8C2LBAIL

2 Test Configuration of Equipment Under Test

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: conducted emission (150 kHz to 30 MHz) and radiated 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 four orthogonal panels, X, Y, Z and laptop. The worst cases were recorded in this report.

2.1 Carrier Frequency Channel

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

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

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

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

Note: The above Frequency and Channel in boldface were 802.11n HT40.

2.2 Test Mode

Final test mode of conducted test items and radiated spurious emissions 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 VHT20	MCS0
802.11ac VHT40	MCS0
802.11ac VHT80	MCS0

Test Cases	
AC Conducted Emission	Mode 1 : **Bluetooth Link + WLAN (5GHz) Link + Earphone + USB Cable (Charging from Adapter 12V) + Battery 1 for Sample 1** Mode 2 : Bluetooth Link + WLAN (5GHz) Link + Earphone + USB Cable (Charging from Adapter 5.2V) + Battery 2 for Sample 2
Remark: 1. For Radiated TCs, the tests were performed with adapter, earphone, USB cable and battery 1 for Sample 1. 2. The worst case of conducted emission is mode 1; only the test data of it was reported.	

Ch. #		Band I：5180-5240 MHz	Band II：5260-5320 MHz	Band III：5500-5700MHz
		802.11a	802.11a	802.11a
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle Channel		-	-	144

Ch. #		Band I：5180-5240 MHz	Band II：5260-5320 MHz	Band III：5500-5700MHz
		802.11n HT20	802.11n HT20	802.11n HT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle Channel		-	-	144

Ch. #		Band I：5180-5240 MHz	Band II：5260-5320 MHz	Band III：5500-5700MHz
		802.11n HT40	802.11n HT40	802.11n HT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134
Straddle Channel		-	-	142

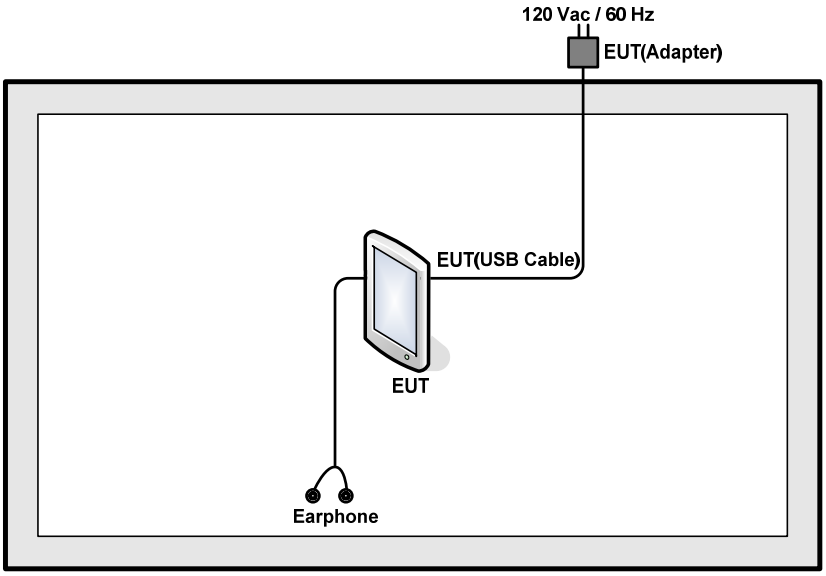
Ch. #		Band I：5180-5240 MHz	Band II：5260-5320 MHz	Band III：5500-5700MHz
		802.11ac VHT20	802.11ac VHT20	802.11ac VHT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle Channel		-	-	144

Ch. #		Band I：5180-5240 MHz	Band II：5260-5320 MHz	Band III：5500-5700MHz
		802.11ac VHT40	802.11ac VHT40	802.11ac VHT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134
Straddle Channel		-	-	142

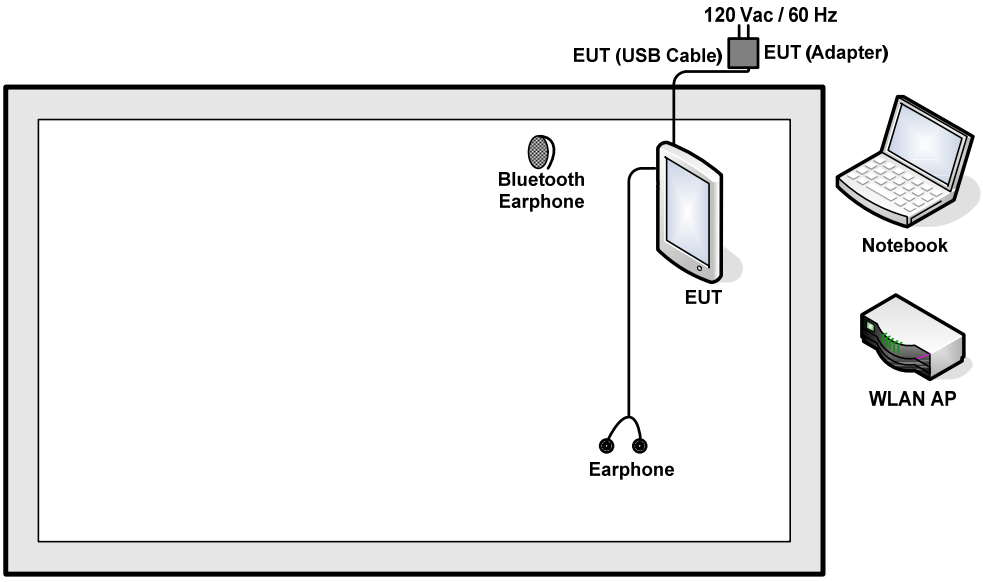
Ch. #		Band I：5180-5240 MHz	Band II：5260-5320 MHz	Band III：5500-5700MHz
		802.11ac VHT80	802.11ac VHT80	802.11ac VHT80
L	Low	-	-	106
M	Middle	42	58	-
H	High	-	-	122
Straddle Channel		-	-	138

2.3 Connection Diagram of Test System

<WLAN Tx Mode>



<AC Conducted Emission Mode>



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Notebook	Lenovo	G480	N/A	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m
2.	WLAN AP	LINKSYS	WRT600N	Q87-WRT600NV11	N/A	Unshielded, 1.8 m
3.	Bluetooth Earphone	Lenovo	LBH505	N/A	N/A	N/A
4.	Earphone	Lenovo	LH102	N/A	Unshielded, 1.2 m	N/A
5.	DC Power Supply	GW INSTEK	GPD-2303S	N/A	N/A	Unshielded, 1.8 m

2.5 EUT Operation Test Setup

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

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

2.6 Measurement Results Explanation Example

For all conducted test items:

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

Example:
The spectrum analyzer offset is derived from RF cable loss.
Offset = RF cable loss.
Following shows an offset computation example with cable loss 6.5 dB.

Offset (dB) = RF cable loss(dB).
= 6.5 (dB)

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, U-NII procedures were applied for operations in the frequency band in accordance with FCC KDB 644545 D03.

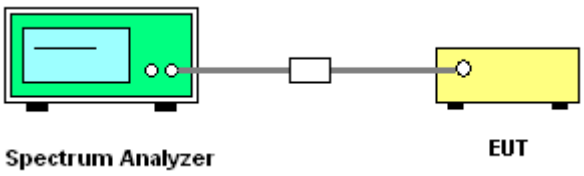
3.1.2 Measuring Instruments

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 v01r02. Section C) Emission bandwidth
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
7. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1MHz and set the Video bandwidth (VBW) ≥ 3 * RBW.
8. Measure and record the results in the test report.

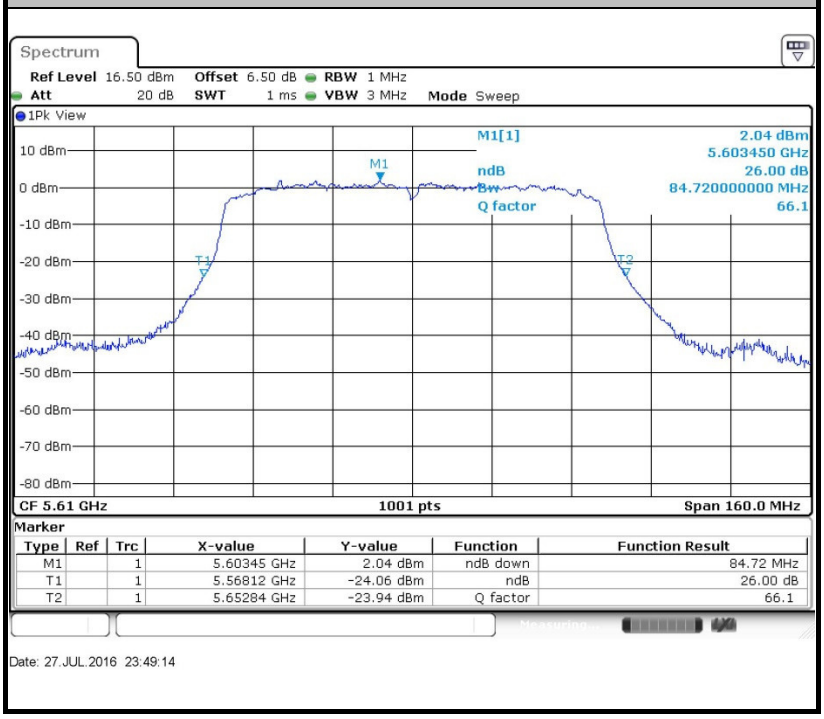
3.1.4 Test Setup



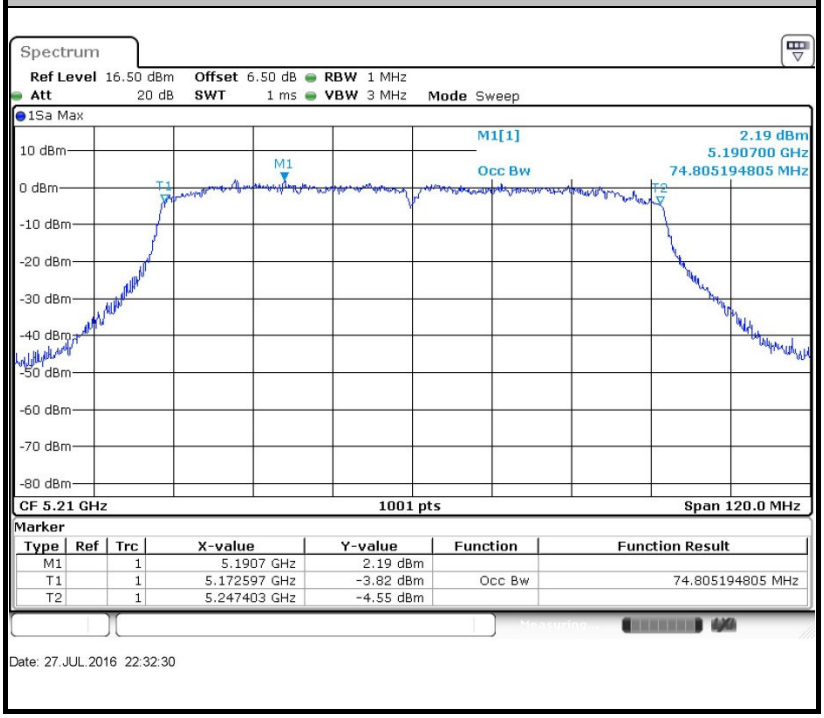
3.1.5 Test Result of 26dB & 99% Occupied Bandwidth Plots

Please refer to Appendix A.

Maximum 26dB Bandwidth



Maximum 99% Occupied Bandwidth



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 5.25–5.35 GHz and 5.47–5.725 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 Straddle Channel, U-NII procedures and limits were applied for operations in the frequency band in accordance with FCC KDB 644545 D03.

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 v01r02.

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

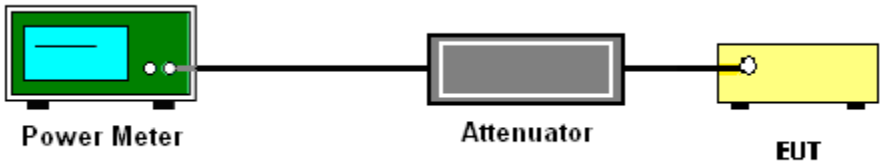
1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit continuously with a consistent duty cycle at its maximum power control level.
3. Measure the average power of the transmitter, and the average power is corrected with duty factor, 10 log(1/x), where x is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

For straddle channel, the testing follows Method SA-3 (RMS detection with max hold) of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r02.

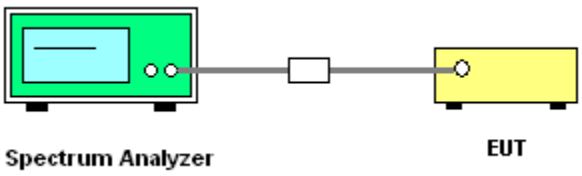
Compute power by integrating the spectrum across the 99% occupied bandwidth of the signal using the instrument's band power measurement function.

3.2.4 Test Setup

For normal channel:

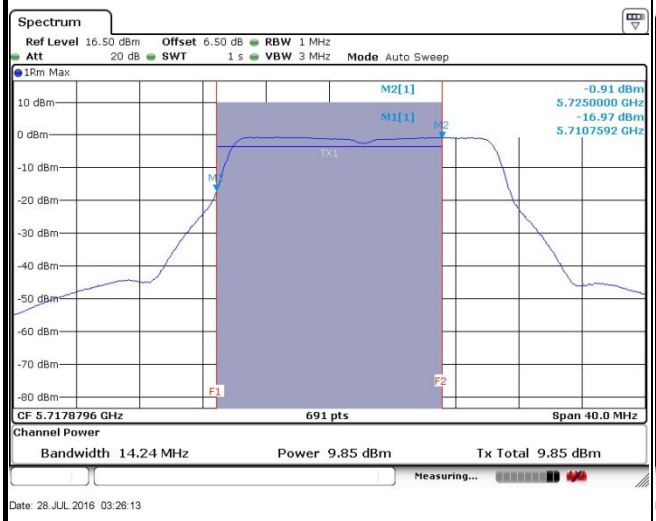
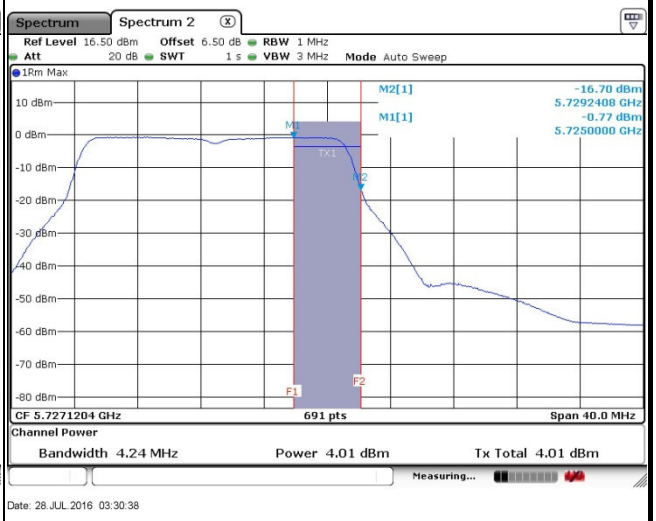
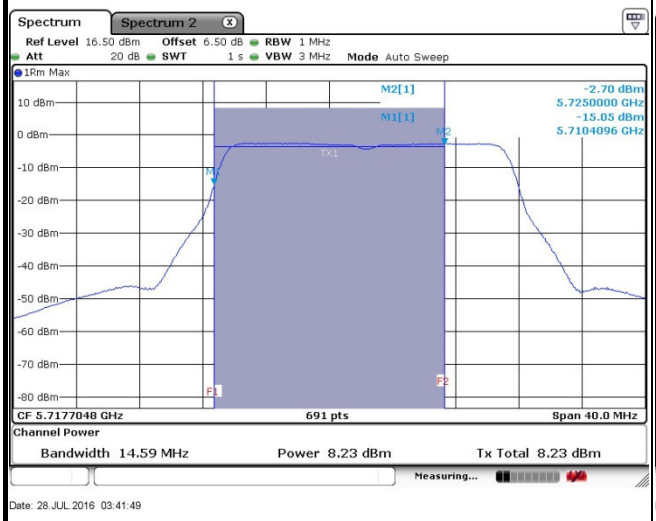
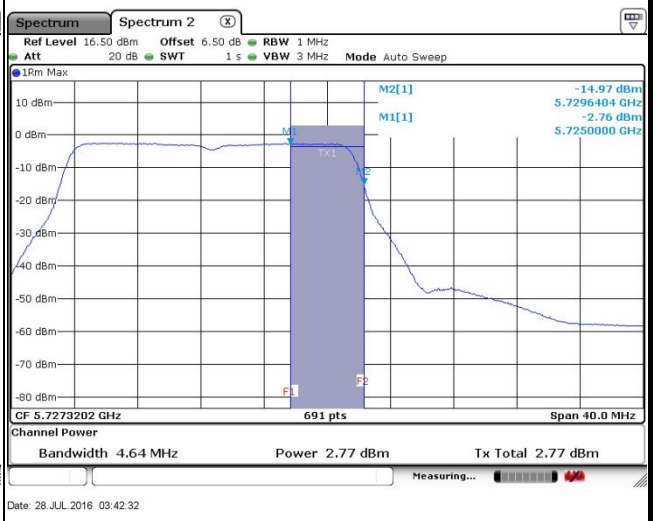


For straddle channel:



3.2.5 Test Result of Maximum Conducted Output Power

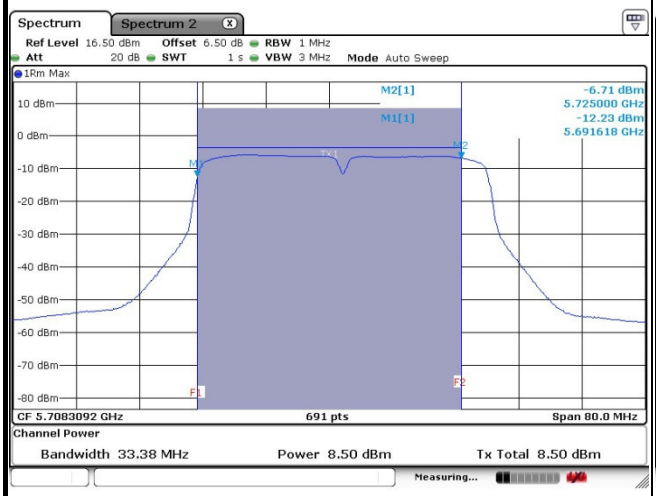
Please refer to Appendix A.

Maximum Straddle Channel Power	
802.11a	
NII-2C Band	NII-3 Band
	
802.11n-HT20	
NII-2C Band	NII-3 Band
	

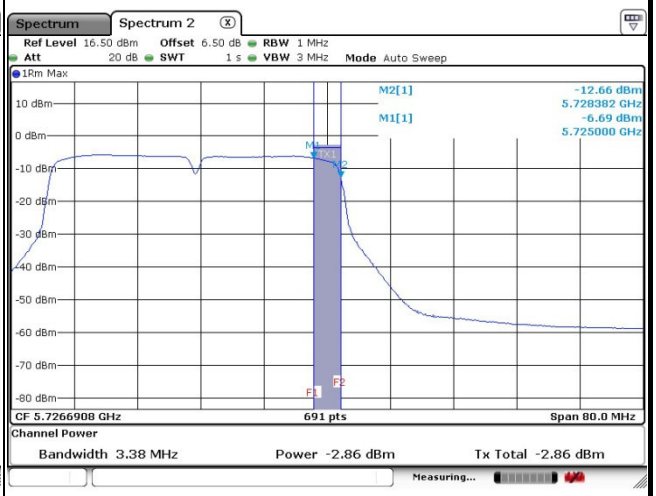
Maximum Straddle Channel Power

802.11n-HT40

NII-2C Band

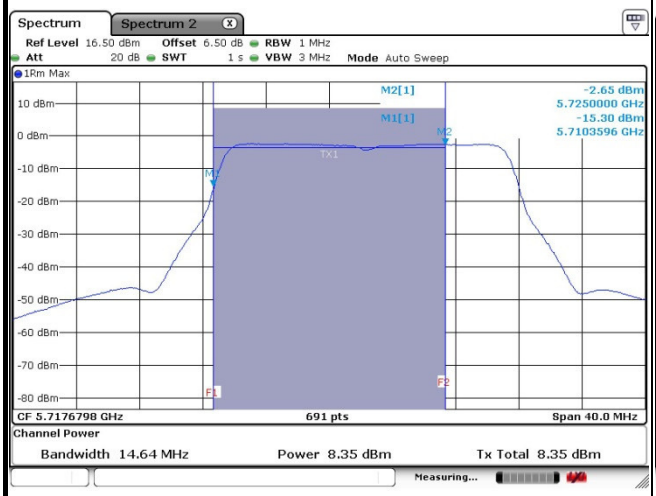


NII-3 Band

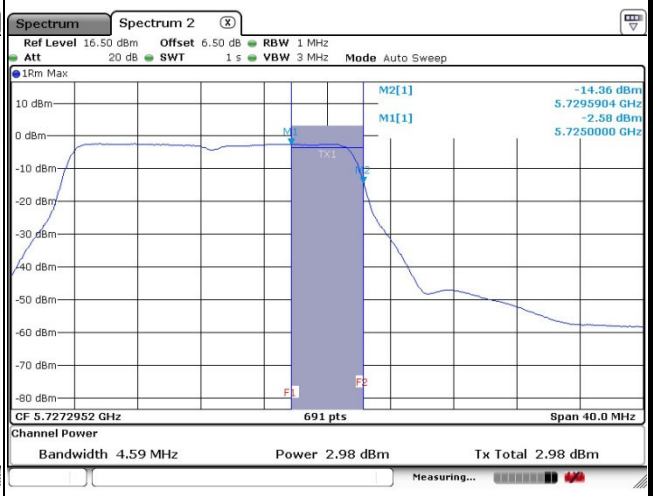


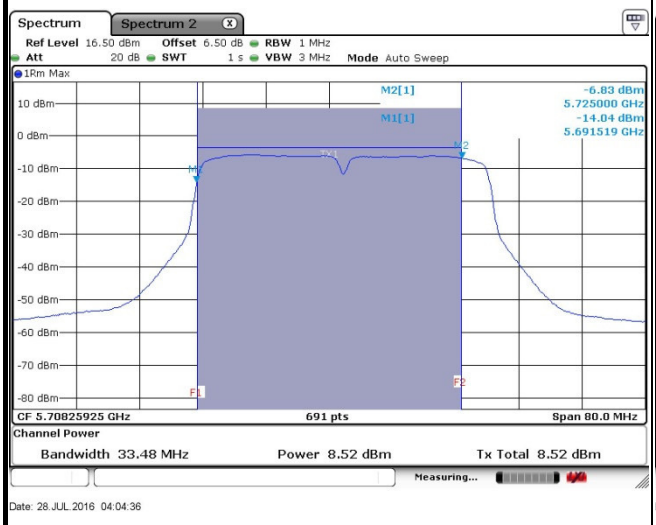
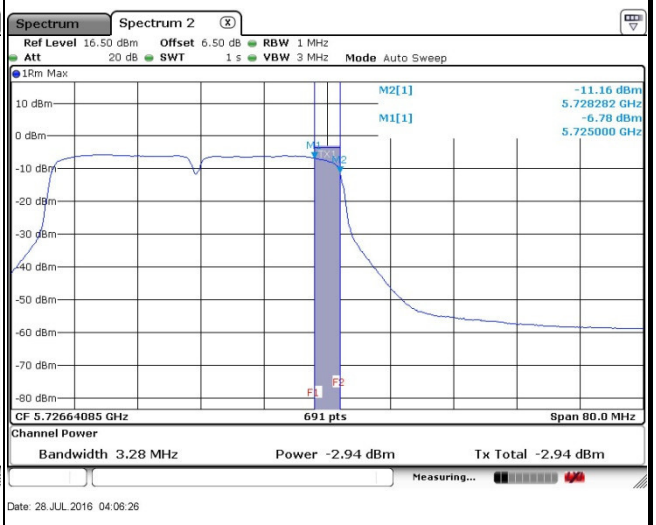
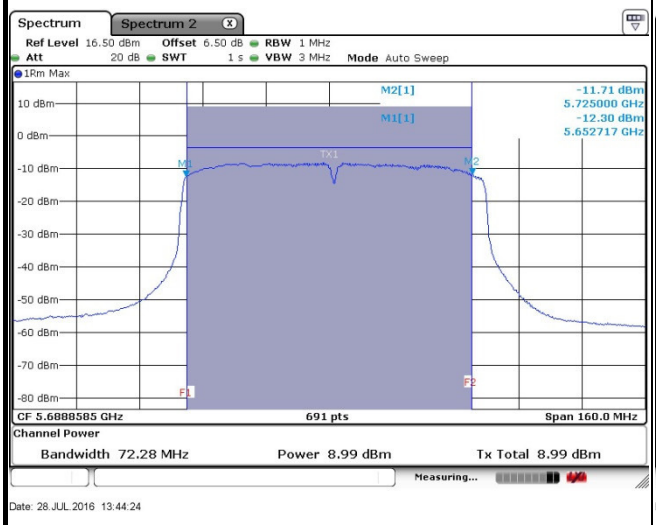
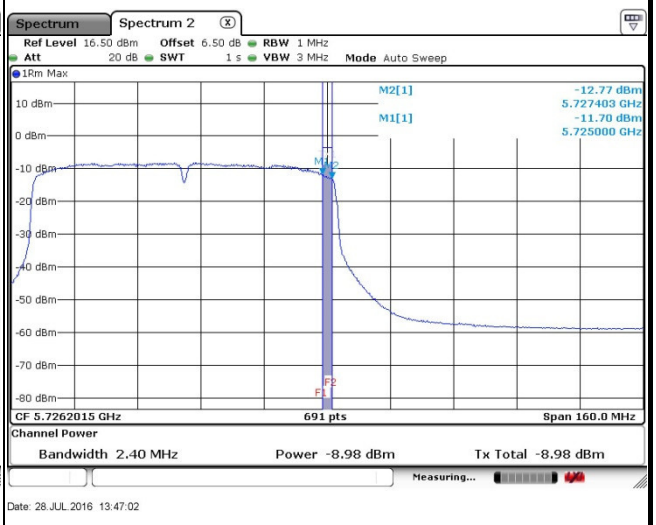
802.11ac VHT20

NII-2C Band



NII-3 Band



Maximum Straddle Channel Power	
802.11ac VHT40	
NII-2C Band	NII-3 Band
	
802.11ac VHT80	
NII-2C Band	NII-3 Band
	

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 5.25–5.35 GHz and 5.47–5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

For Straddle Channel, U-NII procedures and limits were applied for operations in the frequency band in accordance with FCC KDB 644545 D03.

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

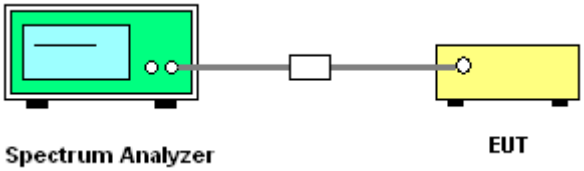
The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r02. Section F) Maximum power spectral density.

 # Method SA-2 #

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

1. The testing follows Method SA-2 of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r02.
   - 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.
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.

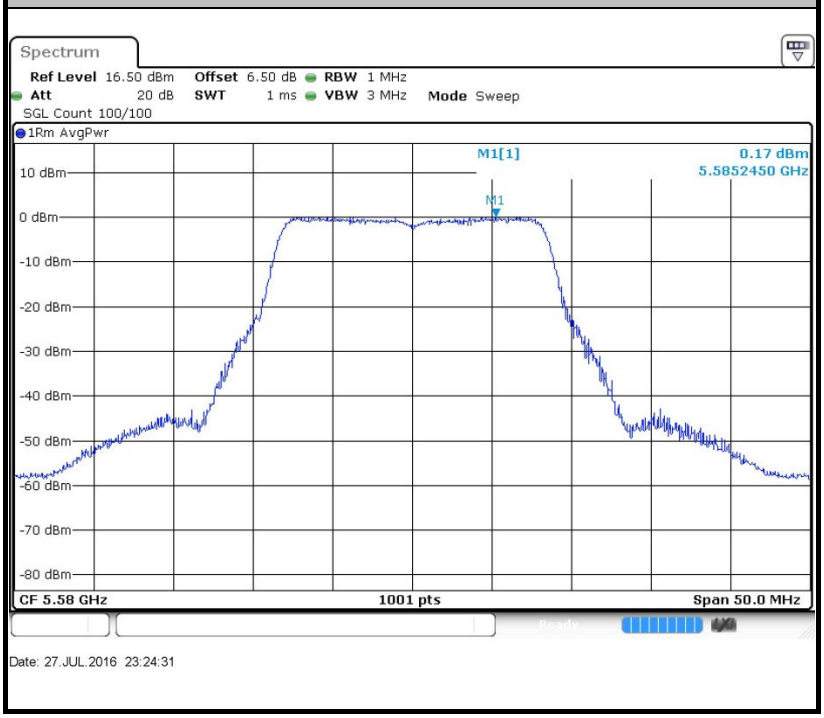
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

Worst Case Power Spectral Density(dBm/MHz)



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

3.4 Unwanted Radiated Emission Measurement

This section as specified in FCC Part 15.407(b) is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement. The unwanted emissions shall comply with 15.407(b)(1) to (6), and restricted bands per FCC Part15.205.

3.4.1 Limit of Unwanted Emissions

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

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

For transmitters operating in the 5470-5600 MHz and 5650-5725MHz band: all emissions outside of the 5470-5600 MHz and 5650-5725MHz band shall not exceed an EIRP of -27 dBm/MHz.

(2) Unwanted spurious emissions fallen in restricted bands per FCC Part15.205 shall comply with the general field strength limits set forth in § 15.209 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

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

$$E=\frac{1000000\sqrt{30P}}{3}$$ μV/m, where P is the eirp (Watts)

EIRP (dBm)	Field Strength at 3m (dBμV/m)
-17	78.3
- 27	68.3

(3) KDB789033 D02 v01r02 G)2)c) As specified in 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in 15.407(b)(4)). However, an out-of-band emission that complies with

both the average and peak limits of 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz 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 v01r02. 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

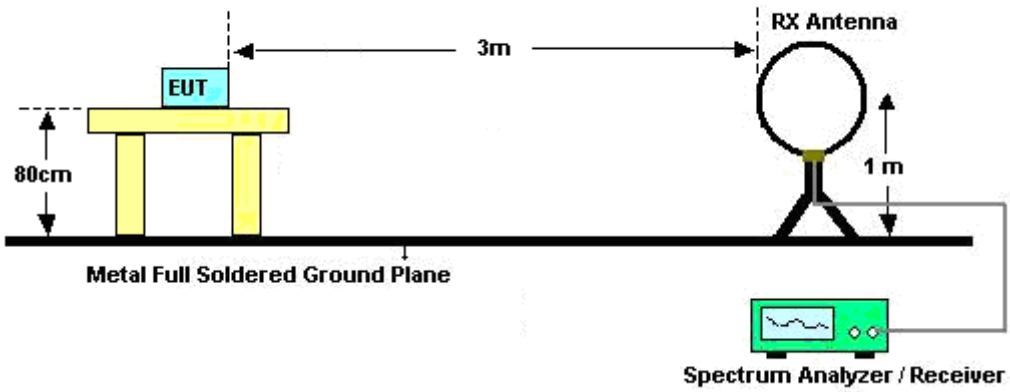
   (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

   - 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.

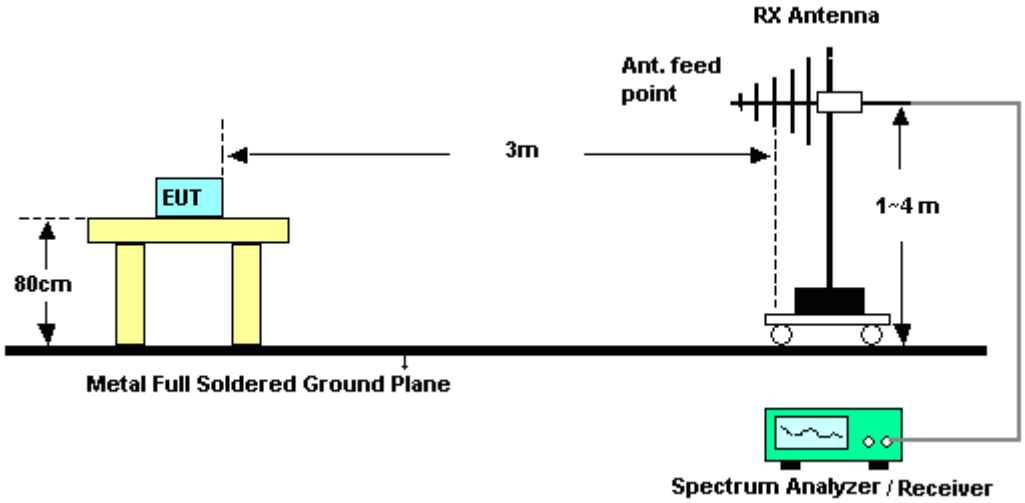
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband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

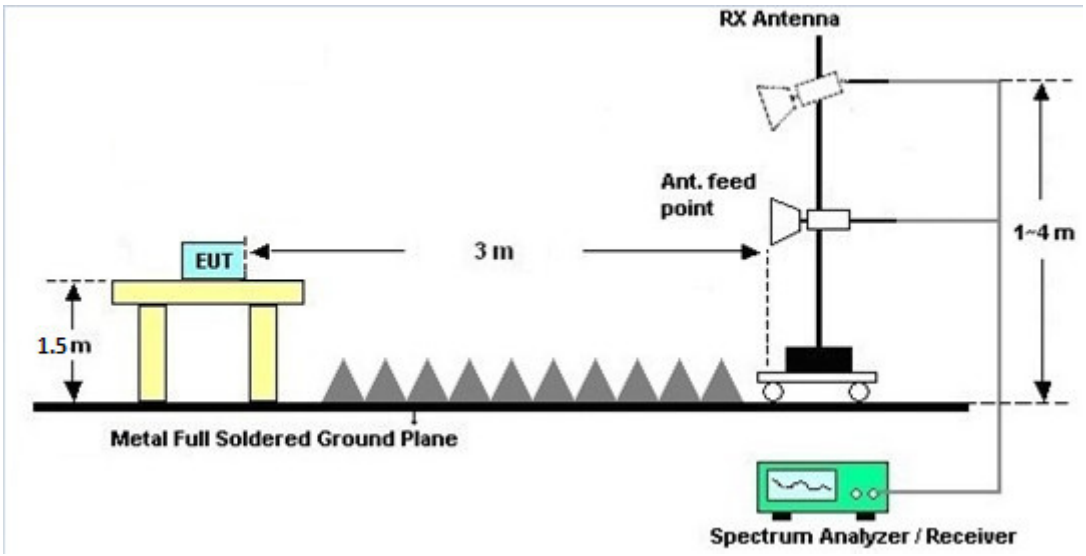
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.4.5 Test Results of Radiated 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 per 15.31(o) was not reported.

3.4.6 Test Result of Radiated Band Edges

Please refer to Appendix B.

3.4.7 Duty Cycle

Please refer to Appendix C.

3.4.8 Test Result of Unwanted Radiated Emission (30MHz ~ 10th Harmonic)

Please refer to Appendix B.

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.

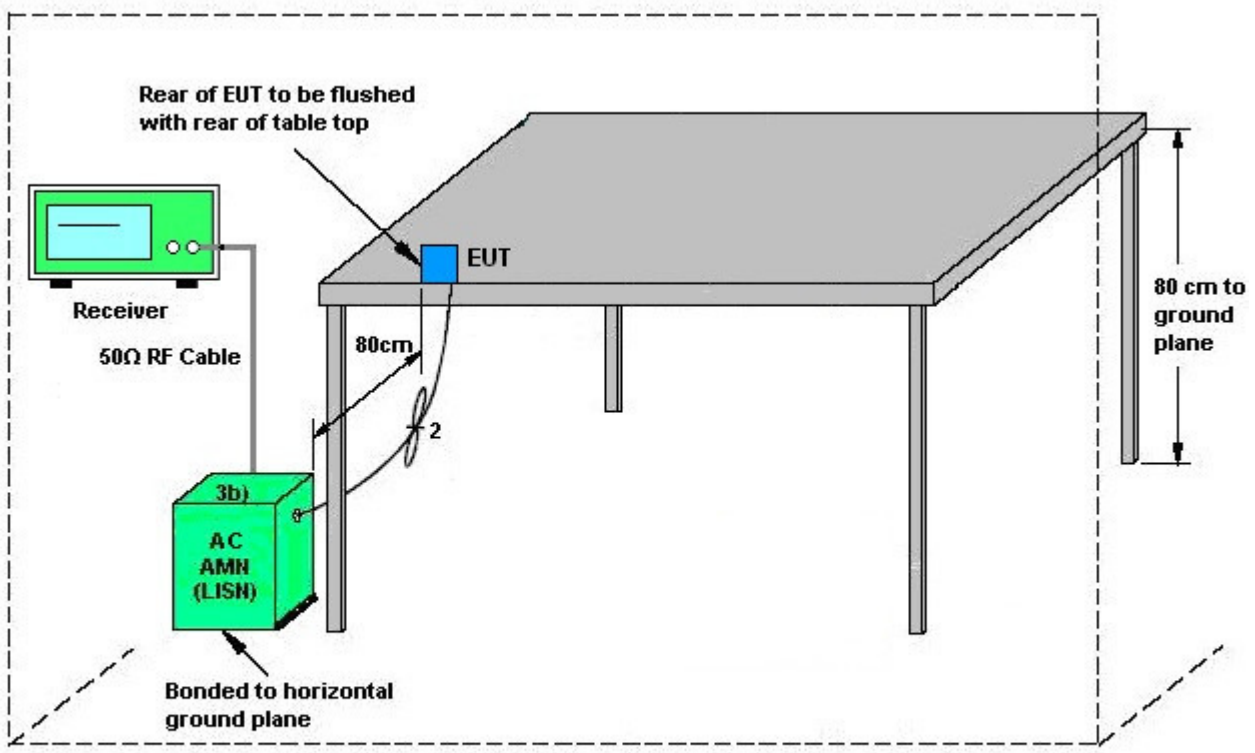
3.5.2 Measuring Instruments

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.

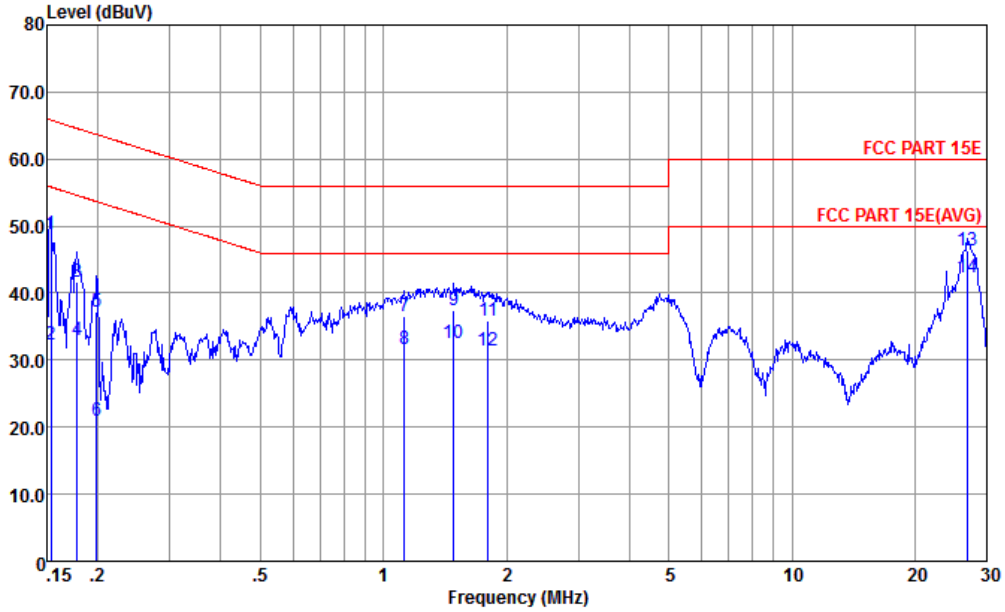
3.5.4 Test Setup



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

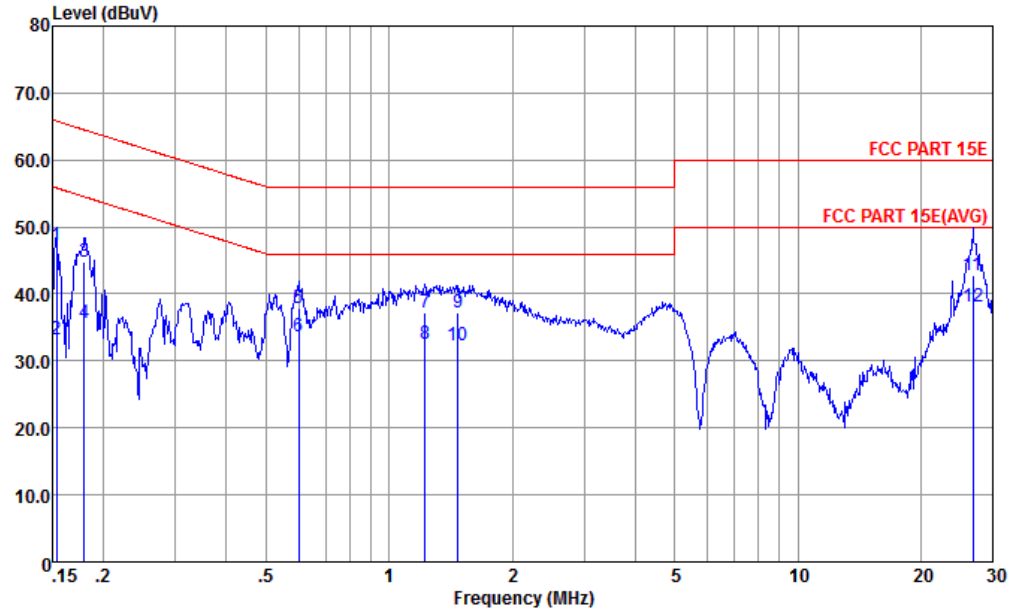
Test Mode :	Mode 1	**Temperature :**	22~24℃
Test Engineer :	Amos Zhang	**Relative Humidity :**	44~47%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line
Function Type :	Bluetooth Link + WLAN (5GHz) Link + Earphone + USB Cable (Charging from Adapter 12V) + Battery 1 for Sample 1		



Site : CO01-KS
Condition : FCC PART 15E LISN-L-20151024 LINE

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.15	48.72	-17.10	65.82	38.10	0.51	10.11	QP
2	0.15	32.22	-23.60	55.82	21.60	0.51	10.11	Average
3	0.18	41.76	-22.83	64.59	31.30	0.34	10.12	QP
4	0.18	33.06	-21.53	54.59	22.60	0.34	10.12	Average
5	0.20	37.26	-26.41	63.67	26.90	0.23	10.13	QP
6	0.20	20.96	-32.71	53.67	10.60	0.23	10.13	Average
7	1.12	36.58	-19.42	56.00	26.20	0.24	10.14	QP
8	1.12	31.58	-14.42	46.00	21.20	0.24	10.14	Average
9	1.49	37.55	-18.45	56.00	27.20	0.21	10.14	QP
10	1.49	32.45	-13.55	46.00	22.10	0.21	10.14	Average
11	1.80	35.93	-20.07	56.00	25.60	0.19	10.14	QP
12	1.80	31.43	-14.57	46.00	21.10	0.19	10.14	Average
13	26.84	46.28	-13.72	60.00	35.31	0.22	10.75	QP
14 *	26.84	42.28	-7.72	50.00	31.31	0.22	10.75	Average

Test Mode :	Mode 1	**Temperature :**	22~24℃
Test Engineer :	Amos Zhang	**Relative Humidity :**	44~47%
Test Voltage :	120Vac / 60Hz	**Phase :**	Neutral
Function Type :	Bluetooth Link + WLAN (5GHz) Link + Earphone + USB Cable (Charging from Adapter 12V) + Battery 1 for Sample 1		



Site : CO01-KS
Condition : FCC PART 15E LISN-N-20151024 NEUTRAL

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.15	47.31	-18.51	65.82	36.90	0.30	10.11	QP
2	0.15	33.21	-22.61	55.82	22.80	0.30	10.11	Average
3	0.18	44.73	-19.77	64.50	34.30	0.31	10.12	QP
4	0.18	35.73	-18.77	54.50	25.30	0.31	10.12	Average
5	0.60	37.79	-18.21	56.00	27.30	0.33	10.16	QP
6	0.60	33.59	-12.41	46.00	23.10	0.33	10.16	Average
7	1.22	37.31	-18.69	56.00	26.80	0.37	10.14	QP
8	1.22	32.61	-13.39	46.00	22.10	0.37	10.14	Average
9	1.47	37.31	-18.69	56.00	26.79	0.38	10.14	QP
10	1.47	32.41	-13.59	46.00	21.89	0.38	10.14	Average
11	26.84	42.89	-17.11	60.00	31.90	0.24	10.75	QP
12 *	26.84	38.19	-11.81	50.00	27.20	0.24	10.75	Average

3.6 Frequency Stability Measurement

3.6.1 Limit of Frequency Stability

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

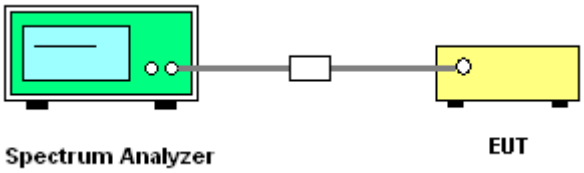
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

1. To ensure emission at the band edge is maintained within the authorized band, those values shall be measured by radiation emissions at upper and lower frequency points, and finally compensated by frequency deviation as procedures below.
2. The EUT was operated at the maximum output power, and connected to the spectrum analyzer, which is set to maximum hold function and peak detector. The peak value of the power envelope was measured and noted. The upper and lower frequency points were respectively measured relatively 10dB lower than the measured peak value.
3. The frequency deviation was calculated by adding the upper frequency point and the lower frequency point divided by two. Those detailed values of frequency deviation are provided in table below.

3.6.4 Test Setup



3.6.5 Test Result of Frequency Stability

Please refer to Appendix A.

3.7 Automatically Discontinue Transmission

3.7.1 Limit of Automatically Discontinue Transmission

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

3.7.2 Measuring Instruments

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

3.7.3 Test Result of Automatically Discontinue Transmission

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

3.8 Antenna Requirements

3.8.1 Standard Applicable

According to FCC 47 CFR Section 15.407(a)(1)(2) ,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.

3.8.2 Antenna Anti-Replacement Construction

Non-standard antenna connector is used.

3.8.3 Antenna Gain

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

4 List of Measuring Equipments

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Sep. 10, 2015	Jul. 23, 2016~ Jul. 28, 2016	Sep. 09, 2016	Conducted (TH01-KS)
Pulse Power Senor	Anritsu	MA2411B	0917070	300MHz~40GHz	Jan. 20, 2016	Jul. 23, 2016~ Jul. 28, 2016	Jan. 19, 2017	Conducted (TH01-KS)
Power Meter	Anritsu	ML2495A	1005002	50MHz Bandwidth	Jan. 20, 2016	Jul. 23, 2016~ Jul. 28, 2016	Jan. 19, 2017	Conducted (TH01-KS)
Thermal Chamber	Ten Billion	TTC-B3S	TBN-960502	-40~+150°C	Oct. 24, 2015	Jul. 23, 2016~ Jul. 28, 2016	Oct. 23, 2016	Conducted (TH01-KS)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Sep. 02, 2015	Jul. 23, 2016~ Aug. 01, 2016	Sep. 01, 2016	Radiation (03CH12-HY)
Bilog Antenna	TESEQ	CBL 6111D	37059	30MHz~1GHz	Dec. 29, 2015	Jul. 23, 2016~ Aug. 01, 2016	Dec. 28, 2016	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1328	1GHz ~ 18GHz	Nov. 02, 2015	Jul. 23, 2016~ Aug. 01, 2016	Nov. 01, 2016	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 02, 2015	Jul. 23, 2016~ Aug. 01, 2016	Nov. 01, 2016	Radiation (03CH12-HY)
EMI Test Receiver	Rohde & Schwarz	ESU26	100390	20Hz~26.5GHz	Dec. 21, 2015	Jul. 23, 2016~ Aug. 01, 2016	Dec. 20, 2016	Radiation (03CH12-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz ~ 44GHZ	Sep. 24, 2015	Jul. 23, 2016~ Aug. 01, 2016	Sep. 23, 2016	Radiation (03CH12-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Nov. 20, 2015	Jul. 23, 2016~ Aug. 01, 2016	Nov. 19, 2016	Radiation (03CH12-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1815698	1GHz~18GHz	Dec. 14, 2015	Jul. 23, 2016~ Aug. 01, 2016	Dec. 13, 2016	Radiation (03CH12-HY)
Preamplifier	MITEQ	TTA0204	1872107	2GHz~40GHz	Feb. 15, 2016	Jul. 23, 2016~ Aug. 01, 2016	Feb. 14, 2017	Radiation (03CH12-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	NCR	Jul. 23, 2016~ Aug. 01, 2016	NCR	Radiation (03CH12-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	NCR	Jul. 23, 2016~ Aug. 01, 2016	NCR	Radiation (03CH12-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	NCR	Jul. 23, 2016~ Aug. 01, 2016	NCR	Radiation (03CH12-HY)
EMI Test Receiver	R&S	ESR7	101403	9kHz~7GHz; Max 30dBm	Sep. 10, 2015	Jul. 20, 2016	Sep. 09, 2016	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060103	9kHz~30MHz	Oct. 24, 2015	Jul. 20, 2016	Oct. 23, 2016	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060105	9kHz~30MHz	Oct. 24, 2015	Jul. 20, 2016	Oct. 23, 2016	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 24, 2015	Jul. 20, 2016	Oct. 23, 2016	Conduction (CO01-KS)

NCR: No Calibration Required

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.3dB

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

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

Uncertainty of Radiated Emission Measurement (1GHz ~ 18GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.2dB

Uncertainty of Radiated Emission Measurement (18GHz ~ 40GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.7dB

Appendix A. Conducted Test Results

Test Engineer:	Ivan Zhang	Temperature:	24~25	°C
Test Date:	2016/7/23~2016/7/28	Relative Humidity:	54~55	%

TEST RESULTS DATA
26dB and 99% OBW

Band I										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)		
11a	6Mbps	1	36	5180	18.48	23.43	-	22.67		
11a	6Mbps	1	44	5220	18.63	23.58	-	22.70		
11a	6Mbps	1	48	5240	18.53	23.68	-	22.68		
HT20	MCS0	1	36	5180	19.13	23.58	-	22.82		
HT20	MCS0	1	44	5220	19.28	23.83	-	22.85		
HT20	MCS0	1	48	5240	19.48	23.68	-	22.90		
HT40	MCS0	1	38	5190	36.66	44.78	-	23.01		
HT40	MCS0	1	46	5230	36.76	44.51	-	23.01		
VHT20	MCS0	1	36	5180	19.08	23.78	-	22.81		
VHT20	MCS0	1	44	5220	19.18	23.88	-	22.83		
VHT20	MCS0	1	48	5240	19.23	23.88	-	22.84		
VHT40	MCS0	1	38	5190	36.76	44.42	-	23.01		
VHT40	MCS0	1	46	5230	36.76	44.42	-	23.01		
VHT80	MCS0	1	42	5210	74.81	83.76	-	23.01		

TEST RESULTS DATA
Average Power Table

Band I										
Mod.	Data Rate	N_{TX}	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)		Pass/Fail
11a	6Mbps	1	36	5180	0.20	11.22	24.00	1.90		Pass
11a	6Mbps	1	44	5220	0.20	10.14	24.00	1.90		Pass
11a	6Mbps	1	48	5240	0.20	10.44	24.00	1.90		Pass
HT20	MCS0	1	36	5180	0.64	10.19	24.00	1.90		Pass
HT20	MCS0	1	44	5220	0.64	9.57	24.00	1.90		Pass
HT20	MCS0	1	48	5240	0.64	9.56	24.00	1.90		Pass
HT40	MCS0	1	38	5190	1.16	9.79	24.00	1.90		Pass
HT40	MCS0	1	46	5230	1.16	9.44	24.00	1.90		Pass
VHT20	MCS0	1	36	5180	0.79	10.27	24.00	1.90		Pass
VHT20	MCS0	1	44	5220	0.79	9.45	24.00	1.90		Pass
VHT20	MCS0	1	48	5240	0.79	9.53	24.00	1.90		Pass
VHT40	MCS0	1	38	5190	1.47	9.90	24.00	1.90		Pass
VHT40	MCS0	1	46	5230	1.47	9.72	24.00	1.90		Pass
VHT80	MCS0	1	42	5210	2.57	9.99	24.00	1.90		Pass

TEST RESULTS DATA
Power Spectral Density

Band I										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)	-	Pass/Fail
11a	6Mbps	1	36	5180	0.20	-0.17	11.00	1.90		Pass
11a	6Mbps	1	44	5220	0.20	-0.48	11.00	1.90		Pass
11a	6Mbps	1	48	5240	0.20	-0.75	11.00	1.90		Pass
HT20	MCS0	1	36	5180	0.64	-0.73	11.00	1.90		Pass
HT20	MCS0	1	44	5220	0.64	-0.74	11.00	1.90		Pass
HT20	MCS0	1	48	5240	0.64	-1.29	11.00	1.90		Pass
HT40	MCS0	1	38	5190	1.16	-3.71	11.00	1.90		Pass
HT40	MCS0	1	46	5230	1.16	-4.08	11.00	1.90		Pass
VHT20	MCS0	1	36	5180	0.79	-0.91	11.00	1.90		Pass
VHT20	MCS0	1	44	5220	0.79	-0.77	11.00	1.90		Pass
VHT20	MCS0	1	48	5240	0.79	-1.61	11.00	1.90		Pass
VHT40	MCS0	1	38	5190	1.47	-4.00	11.00	1.90		Pass
VHT40	MCS0	1	46	5230	1.47	-4.22	11.00	1.90		Pass
VHT80	MCS0	1	42	5210	2.57	-5.94	11.00	1.90		Pass

TEST RESULTS DATA
26dB and 99% OBW

Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	Note
11a	6M bps	1	52	5260	18.58	23.28	23.69	29.69	23.98	
11a	6M bps	1	60	5300	18.68	23.63	23.71	29.71	23.98	
11a	6M bps	1	64	5320	18.53	23.63	23.68	29.68	23.98	
HT20	MCS 0	1	52	5260	19.18	23.68	23.83	29.83	23.98	
HT20	MCS 0	1	60	5300	19.23	23.88	23.84	29.84	23.98	
HT20	MCS 0	1	64	5320	19.18	23.93	23.83	29.83	23.98	
HT40	MCS 0	1	54	5270	36.46	44.15	23.98	30.00	23.98	
HT40	MCS 0	1	62	5310	36.56	44.69	23.98	30.00	23.98	
VHT20	MCS 0	1	52	5260	19.13	23.78	23.82	29.82	23.98	
VHT20	MCS 0	1	60	5300	19.23	23.83	23.84	29.84	23.98	
VHT20	MCS 0	1	64	5320	19.13	23.83	23.82	29.82	23.98	
VHT40	MCS 0	1	54	5270	36.66	44.51	23.98	30.00	23.98	
VHT40	MCS 0	1	62	5310	36.76	44.78	23.98	30.00	23.98	
VHT80	MCS 0	1	58	5290	74.69	83.60	23.98	30.00	23.98	

TEST RESULTS DATA
Average Power Table

Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	EIRP Power Limit (dBm)	Pass/Fail
11a	6M bps	1	52	5260	0.20	10.65	23.98	2.07	26.99	Pass
11a	6M bps	1	60	5300	0.20	10.69	23.98	2.07	26.99	Pass
11a	6M bps	1	64	5320	0.20	10.91	23.98	2.07	26.99	Pass
HT20	MCS 0	1	52	5260	0.64	9.48	23.98	2.07	26.99	Pass
HT20	MCS 0	1	60	5300	0.64	9.50	23.98	2.07	26.99	Pass
HT20	MCS 0	1	64	5320	0.64	9.63	23.98	2.07	26.99	Pass
HT40	MCS 0	1	54	5270	1.16	9.28	23.98	2.07	26.99	Pass
HT40	MCS 0	1	62	5310	1.16	9.34	23.98	2.07	26.99	Pass
VHT20	MCS 0	1	52	5260	0.79	9.54	23.98	2.07	26.99	Pass
VHT20	MCS 0	1	60	5300	0.79	9.43	23.98	2.07	26.99	Pass
VHT20	MCS 0	1	64	5320	0.79	9.66	23.98	2.07	26.99	Pass
VHT40	MCS 0	1	54	5270	1.47	9.70	23.98	2.07	26.99	Pass
VHT40	MCS 0	1	62	5310	1.47	9.79	23.98	2.07	26.99	Pass
VHT80	MCS 0	1	58	5290	2.57	9.66	23.98	2.07	26.99	Pass

TEST RESULTS DATA
Power Spectral Density

Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)		Pass/Fail
11a	6M bps	1	52	5260	0.20	-0.19	11.00	2.07		Pass
11a	6M bps	1	60	5300	0.20	-0.38	11.00	2.07		Pass
11a	6M bps	1	64	5320	0.20	-0.16	11.00	2.07		Pass
HT20	MCS 0	1	52	5260	0.64	-1.62	11.00	2.07		Pass
HT20	MCS 0	1	60	5300	0.64	-1.42	11.00	2.07		Pass
HT20	MCS 0	1	64	5320	0.64	-1.37	11.00	2.07		Pass
HT40	MCS 0	1	54	5270	1.16	-3.93	11.00	2.07		Pass
HT40	MCS 0	1	62	5310	1.16	-3.69	11.00	2.07		Pass
VHT20	MCS 0	1	52	5260	0.79	-1.51	11.00	2.07		Pass
VHT20	MCS 0	1	60	5300	0.79	-1.39	11.00	2.07		Pass
VHT20	MCS 0	1	64	5320	0.79	-1.07	11.00	2.07		Pass
VHT40	MCS 0	1	54	5270	1.47	-3.93	11.00	2.07		Pass
VHT40	MCS 0	1	62	5310	1.47	-3.25	11.00	2.07		Pass
VHT80	MCS 0	1	58	5290	2.57	-6.66	11.00	2.07		Pass

TEST RESULTS DATA
26dB and 99% OBW

Band III										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	Note
11a	6M bps	1	100	5500	18.48	23.33	23.67	29.67	23.98	
11a	6M bps	1	116	5580	18.58	23.53	23.69	29.69	23.98	
11a	6M bps	1	140	5700	18.38	23.43	23.64	29.64	23.98	
HT20	MCS 0	1	100	5500	19.18	23.88	23.83	29.83	23.98	
HT20	MCS 0	1	116	5580	19.33	23.68	23.86	29.86	23.98	
HT20	MCS 0	1	140	5700	19.28	23.78	23.85	29.85	23.98	
HT40	MCS 0	1	102	5510	36.76	44.33	23.98	30.00	23.98	
HT40	MCS 0	1	110	5550	36.66	44.96	23.98	30.00	23.98	
HT40	MCS 0	1	134	5670	36.86	44.60	23.98	30.00	23.98	
VHT20	MCS 0	1	100	5500	19.23	23.78	23.84	29.84	23.98	
VHT20	MCS 0	1	116	5580	19.23	23.78	23.84	29.84	23.98	
VHT20	MCS 0	1	140	5700	19.13	23.83	23.82	29.82	23.98	
VHT40	MCS 0	1	102	5510	36.66	44.69	23.98	30.00	23.98	
VHT40	MCS 0	1	110	5550	36.86	44.42	23.98	30.00	23.98	
VHT40	MCS 0	1	134	5670	36.66	44.60	23.98	30.00	23.98	
VHT80	MCS 0	1	106	5530	74.81	83.76	23.98	30.00	23.98	
VHT80	MCS 0	1	122	5610	74.69	84.72	23.98	30.00	23.98	

TEST RESULTS DATA
Average Power Table

Band III										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	EIRP Power Limit (dBm)	Pass/Fail
11a	6M bps	1	100	5500	0.20	10.62	23.98	1.69	26.99	Pass
11a	6M bps	1	116	5580	0.20	11.02	23.98	1.69	26.99	Pass
11a	6M bps	1	140	5700	0.20	11.09	23.98	1.69	26.99	Pass
HT20	MCS 0	1	100	5500	0.64	9.55	23.98	1.69	26.99	Pass
HT20	MCS 0	1	116	5580	0.64	9.52	23.98	1.69	26.99	Pass
HT20	MCS 0	1	140	5700	0.64	9.47	23.98	1.69	26.99	Pass
HT40	MCS 0	1	102	5510	1.16	9.51	23.98	1.69	26.99	Pass
HT40	MCS 0	1	110	5550	1.16	9.48	23.98	1.69	26.99	Pass
HT40	MCS 0	1	134	5670	1.16	9.14	23.98	1.69	26.99	Pass
VHT20	MCS 0	1	100	5500	0.79	9.68	23.98	1.69	26.99	Pass
VHT20	MCS 0	1	116	5580	0.79	9.44	23.98	1.69	26.99	Pass
VHT20	MCS 0	1	140	5700	0.79	9.13	23.98	1.69	26.99	Pass
VHT40	MCS 0	1	102	5510	1.47	9.96	23.98	1.69	26.99	Pass
VHT40	MCS 0	1	110	5550	1.47	9.83	23.98	1.69	26.99	Pass
VHT40	MCS 0	1	134	5670	1.47	9.49	23.98	1.69	26.99	Pass
VHT80	MCS 0	1	106	5530	2.57	9.87	23.98	1.69	26.99	Pass
VHT80	MCS 0	1	122	5610	2.57	9.82	23.98	1.69	26.99	Pass

TEST RESULTS DATA
Power Spectral Density

Band III										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)		Pass/Fail
11a	6M bps	1	100	5500	0.20	-0.25	11.00	1.69		Pass
11a	6M bps	1	116	5580	0.20	0.37	11.00	1.69		Pass
11a	6M bps	1	140	5700	0.20	-0.27	11.00	1.69		Pass
HT20	MCS 0	1	100	5500	0.64	-1.23	11.00	1.69		Pass
HT20	MCS 0	1	116	5580	0.64	-1.13	11.00	1.69		Pass
HT20	MCS 0	1	140	5700	0.64	-1.41	11.00	1.69		Pass
HT40	MCS 0	1	102	5510	1.16	-3.83	11.00	1.69		Pass
HT40	MCS 0	1	110	5550	1.16	-3.73	11.00	1.69		Pass
HT40	MCS 0	1	134	5670	1.16	-4.51	11.00	1.69		Pass
VHT20	MCS 0	1	100	5500	0.79	-1.07	11.00	1.69		Pass
VHT20	MCS 0	1	116	5580	0.79	-0.95	11.00	1.69		Pass
VHT20	MCS 0	1	140	5700	0.79	-1.07	11.00	1.69		Pass
VHT40	MCS 0	1	102	5510	1.47	-3.42	11.00	1.69		Pass
VHT40	MCS 0	1	110	5550	1.47	-3.25	11.00	1.69		Pass
VHT40	MCS 0	1	134	5670	1.47	-4.33	11.00	1.69		Pass
VHT80	MCS 0	1	106	5530	2.57	-5.86	11.00	1.69		Pass
VHT80	MCS 0	1	122	5610	2.57	-6.47	11.00	1.69		Pass

TEST RESULTS DATA
26dB and 99% OBW

Straddle Channel											
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	6DB Bandwidth (MHz)	Emission Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	Note
11a	6Mbps	1	144	5720	18.48	16.36	23.48	-	-	-	
				NII-2C	14.2408	13.152	16.638	22.54	28.54	23.21	
				NII-3	4.2408	3.2116	6.838	30.00	36.02	-	
HT20	MCS0	1	144	5720	19.23	17.58	23.58	-	-	-	
				NII-2C	14.5904	13.751	16.788	22.64	28.64	23.25	
				NII-3	4.6404	3.8314	6.788	30.00	36.02	-	
HT40	MCS0	1	142	5710	36.76	35.36	44.96	-	-	-	
				NII-2C	33.3816	32.74	37.388	23.98	30.00	23.98	
				NII-3	3.3816	2.6226	7.567	30.00	36.02	-	
VHT20	MCS0	1	144	5720	19.23	17.58	23.83	-	-	-	
				NII-2C	14.6404	13.75	16.888	22.66	28.66	23.28	
				NII-3	4.5904	3.8314	6.938	30.00	36.02	-	
VHT40	MCS0	1	142	5710	36.76	35.32	44.51	-	-	-	
				NII-2C	33.4815	32.702	37.478	23.98	30.00	23.98	
				NII-3	3.2817	2.6227	7.028	30.00	36.02	-	
VHT80	MCS0	1	138	5690	74.69	75.05	84.88	-	-	-	
				NII-2C	72.283	72.483	76.88	23.98	30.00	23.98	
				NII-3	2.403	2.562	8	30.00	36.02	-	

TEST RESULTS DATA
Average Power Table

Straddle Channel										
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	144	5720	0.20	10.86	-	1.69		Pass
				NII-2C	0.20	9.85	23.21	1.69		Pass
				NII-3	0.20	4.01	30.00	1.69		Pass
HT20	MCS0	1	144	5720	0.64	9.32	-	1.69		Pass
				NII-2C	0.64	8.23	23.25	1.69		Pass
				NII-3	0.64	2.77	30.00	1.69		Pass
HT40	MCS0	1	142	5710	1.16	8.81	-	1.69		Pass
				NII-2C	1.16	8.50	23.98	1.69		Pass
				NII-3	1.16	-2.86	30.00	1.69		Pass
VHT20	MCS0	1	144	5720	0.79	9.46	-	1.69		Pass
				NII-2C	0.79	8.35	23.28	1.69		Pass
				NII-3	0.79	2.98	30.00	1.69		Pass
VHT40	MCS0	1	142	5710	1.47	8.82	-	1.69		Pass
				NII-2C	1.47	8.52	23.98	1.69		Pass
				NII-3	1.47	-2.94	30.00	1.69		Pass
VHT80	MCS0	1	138	5690	2.57	9.06	-	1.69		Pass
				NII-2C	2.57	8.99	23.98	1.69		Pass
				NII-3	2.57	-8.98	30.00	1.69		Pass

TEST RESULTS DATA
Power Spectral Density

Straddle Channel										
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	144	NII-2C	0.20	-0.03	11.00	1.69		Pass
				NII-3	0.20	-0.03	30.00	1.69		Pass
HT20	MCS0	1	144	NII-2C	0.64	-1.40	11.00	1.69		Pass
				NII-3	0.64	-1.40	30.00	1.69		Pass
HT40	MCS0	1	142	NII-2C	1.16	-4.43	11.00	1.69		Pass
				NII-3	1.16	-4.43	30.00	1.69		Pass
VHT20	MCS0	1	144	NII-2C	0.79	-1.30	11.00	1.69		Pass
				NII-3	0.79	-1.30	30.00	1.69		Pass
VHT40	MCS0	1	142	NII-2C	1.47	-3.90	11.00	1.69		Pass
				NII-3	1.47	-3.90	30.00	1.69		Pass
VHT80	MCS0	1	138	NII-2C	2.57	-6.91	11.00	1.69		Pass
				NII-3	2.57	-6.91	30.00	1.69		Pass

TEST RESULTS DATA
Frequency Stability

Band I										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stablility (ppm)	Temperature (°C)	Voltage (V)	Note
11a	6Mbps	1	36	5180	5180.025	0.025	4.83	20	3.6	
11a	6Mbps	1	36	5180	5180.025	0.025	4.83	20	4.2	
11a	6Mbps	1	36	5180	5180.050	0.050	9.65	20	3.75	
11a	6Mbps	1	36	5180	5180.050	0.050	9.65	-30	3.75	
11a	6Mbps	1	36	5180	5180.050	0.050	9.65	50	3.75	

Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stablility (ppm)	Temperature (°C)	Voltage (V)	Note
11a	6Mbps	1	64	5320	5320.050	0.050	9.40	20	3.6	
11a	6Mbps	1	64	5320	5320.050	0.050	9.40	20	4.2	
11a	6Mbps	1	64	5320	5320.050	0.050	9.40	20	3.75	
11a	6Mbps	1	64	5320	5320.025	0.025	4.70	-30	3.75	
11a	6Mbps	1	64	5320	5320.050	0.050	9.40	50	3.75	

Band III										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stablility (ppm)	Temperature (°C)	Voltage (V)	Note
11a	6Mbps	1	100	5500	5500.050	0.050	9.09	20	3.6	
11a	6Mbps	1	100	5500	5500.050	0.050	9.09	20	4.2	
11a	6Mbps	1	100	5500	5500.050	0.050	9.09	20	3.75	
11a	6Mbps	1	100	5500	5500.050	0.050	9.09	-30	3.75	
11a	6Mbps	1	100	5500	5500.050	0.050	9.09	50	3.75	

Appendix B. Radiated Spurious Emission

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		5008.32	58.49	-15.51	74	46.58	31.52	11.34	30.95	100	193	P	H
		5148.72	47.63	-6.37	54	35.72	31.65	11.21	30.95	100	193	A	H
	*	5182	103.45	-	-	91.54	31.68	11.18	30.95	100	193	P	H
	*	5182	92.18	-	-	80.27	31.68	11.18	30.95	100	193	A	H
		5071.24	58.73	-15.27	74	46.84	31.57	11.27	30.95	100	203	P	V
		5129.22	47.42	-6.58	54	35.5	31.63	11.24	30.95	100	203	A	V
	*	5180	96.21	-	-	84.27	31.68	11.21	30.95	100	203	P	V
	*	5180	84.79	-	-	72.85	31.68	11.21	30.95	100	203	A	V
802.11a CH 44 5220MHz		5013.26	58.94	-15.06	74	47.03	31.52	11.34	30.95	130	193	P	H
		5140.14	47.43	-6.57	54	35.52	31.65	11.21	30.95	130	193	A	H
	*	5218	103.75	-	-	91.8	31.72	11.18	30.95	130	193	P	H
	*	5218	92.14	-	-	80.19	31.72	11.18	30.95	130	193	A	H
		5454.48	59.35	-14.65	74	46.71	31.95	11.64	30.95	130	193	P	H
		5406.48	48.21	-5.79	54	35.66	31.9	11.6	30.95	130	193	A	H
		5141.96	58.07	-15.93	74	46.16	31.65	11.21	30.95	320	280	P	V
		5148.72	47.34	-6.66	54	35.43	31.65	11.21	30.95	320	280	A	V
	*	5220	100.3	-	-	88.35	31.72	11.18	30.95	320	280	P	V
	*	5220	88.56	-	-	76.61	31.72	11.18	30.95	320	280	A	V
		5402.4	59.13	-14.87	74	46.58	31.9	11.6	30.95	320	280	P	V
		5414.64	48.25	-5.75	54	35.68	31.92	11.6	30.95	320	280	A	V

802.11a CH 48 5240MHz		5115.7	58.28	-15.72	74	46.37	31.62	11.24	30.95	100	192	P	H
		5141.96	47.54	-6.46	54	35.63	31.65	11.21	30.95	100	192	A	H
	*	5240	102.96	-	-	90.92	31.73	11.26	30.95	100	192	P	H
	*	5240	91.35	-	-	79.31	31.73	11.26	30.95	100	192	A	H
		5426.64	59	-15	74	46.39	31.92	11.64	30.95	100	192	P	H
		5424	48.13	-5.87	54	35.52	31.92	11.64	30.95	100	192	A	H
		5118.56	58.49	-15.51	74	46.58	31.62	11.24	30.95	100	207	P	V
		5101.14	47.35	-6.65	54	35.46	31.6	11.24	30.95	100	207	A	V
	*	5240	96.12	-	-	84.08	31.73	11.26	30.95	100	207	P	V
	*	5240	84.02	-	-	71.98	31.73	11.26	30.95	100	207	A	V
		5424.96	59.7	-14.3	74	47.09	31.92	11.64	30.95	100	207	P	V
		5456.88	48.22	-5.78	54	35.58	31.95	11.64	30.95	100	207	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		10360	48.65	-25.35	74	49.4	39.59	17.13	57.47	100	0	P	H
		15540	45.08	-28.92	74	43.74	38.26	21.61	58.53	100	0	P	H
		10360	50.67	-23.33	74	51.42	39.59	17.13	57.47	100	0	P	V
		15540	45.14	-28.86	74	43.8	38.26	21.61	58.53	100	0	P	V
802.11a CH 44 5220MHz		10440	48.25	-25.75	74	48.67	39.69	17.22	57.33	100	0	P	H
		15660	45.37	-28.63	74	43.85	38.11	21.7	58.29	100	0	P	H
		10440	50.57	-23.43	74	50.99	39.69	17.22	57.33	100	0	P	V
		15660	44.18	-29.82	74	42.66	38.11	21.7	58.29	100	0	P	V
802.11a CH 48 5240MHz		10480	48.01	-25.99	74	48.2	39.77	17.27	57.23	100	0	P	H
		15780	44.99	-29.01	74	43.28	37.97	21.79	58.05	100	0	P	H
		10480	50.6	-23.4	74	50.79	39.77	17.27	57.23	100	0	P	V
		15780	43.18	-30.82	74	41.47	37.97	21.79	58.05	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 36 5180MHz		5106.08	58.73	-15.27	74	46.82	31.62	11.24	30.95	100	192	P	H
		5128.7	47.45	-6.55	54	35.53	31.63	11.24	30.95	100	192	A	H
	*	5180	101.69	-	-	89.75	31.68	11.21	30.95	100	192	P	H
	*	5180	91.08	-	-	79.14	31.68	11.21	30.95	100	192	A	H
		5072.02	58.93	-15.07	74	47.03	31.58	11.27	30.95	100	203	P	V
		5105.56	47.42	-6.58	54	35.51	31.62	11.24	30.95	100	203	A	V
	*	5180	95.12	-	-	83.18	31.68	11.21	30.95	100	203	P	V
	*	5180	84.21	-	-	72.27	31.68	11.21	30.95	100	203	A	V
802.11ac VHT20 CH 44 5220MHz		5075.14	59.15	-14.85	74	47.25	31.58	11.27	30.95	100	273	P	H
		5125.58	48.15	-5.85	54	36.23	31.63	11.24	30.95	100	273	A	H
	*	5220	100.28	-	-	88.33	31.72	11.18	30.95	100	273	P	H
	*	5220	91.25	-	-	79.3	31.72	11.18	30.95	100	273	A	H
		5447.52	59.59	-14.41	74	46.95	31.95	11.64	30.95	100	273	P	H
		5445.84	48.84	-5.16	54	36.2	31.95	11.64	30.95	100	273	A	H
		5063.96	59.39	-14.61	74	47.5	31.57	11.27	30.95	100	202	P	V
		5117	48.11	-5.89	54	36.2	31.62	11.24	30.95	100	202	A	V
	*	5220	95.17	-	-	83.22	31.72	11.18	30.95	100	202	P	V
	*	5220	85.34	-	-	73.39	31.72	11.18	30.95	100	202	A	V
		5427.84	58.88	-15.12	74	46.27	31.92	11.64	30.95	100	202	P	V
		5407.2	48.85	-5.15	54	36.3	31.9	11.6	30.95	100	202	A	V

802.11ac VHT20 CH 48 5240MHz		5072.54	59.11	-14.89	74	47.21	31.58	11.27	30.95	100	271	P	H
		5021.06	48.28	-5.72	54	36.39	31.53	11.31	30.95	100	271	A	H
	*	5240	99.12	-	-	87.08	31.73	11.26	30.95	100	271	P	H
	*	5240	90.21	-	-	78.17	31.73	11.26	30.95	100	271	A	H
		5447.04	59.08	-14.92	74	46.44	31.95	11.64	30.95	100	271	P	H
		5363.28	48.81	-5.19	54	36.37	31.87	11.52	30.95	100	271	A	H
		5058.5	58.37	-15.63	74	46.44	31.57	11.31	30.95	100	202	P	V
		5043.68	48.2	-5.8	54	36.29	31.55	11.31	30.95	100	202	A	V
	*	5240	93.46	-	-	81.42	31.73	11.26	30.95	100	202	P	V
	*	5240	84.83	-	-	72.79	31.73	11.26	30.95	100	202	A	V
		5420.16	59.08	-14.92	74	46.47	31.92	11.64	30.95	100	202	P	V
		5416.56	48.89	-5.11	54	36.32	31.92	11.6	30.95	100	202	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 36 5180MHz		10360	49.18	-24.82	74	49.93	39.59	17.13	57.47	100	0	P	H
		15540	44.81	-29.19	74	43.47	38.26	21.61	58.53	100	0	P	H
		10360	50.8	-23.2	74	51.55	39.59	17.13	57.47	100	0	P	V
		15540	44.14	-29.86	74	42.8	38.26	21.61	58.53	100	0	P	V
802.11ac VHT20 CH 44 5220MHz		10440	48.75	-25.25	74	49.17	39.69	17.22	57.33	100	0	P	H
		15660	44.91	-29.09	74	43.39	38.11	21.7	58.29	100	0	P	H
		10440	50.58	-23.42	74	51	39.69	17.22	57.33	100	0	P	V
		15660	43.59	-30.41	74	42.07	38.11	21.7	58.29	100	0	P	V
802.11ac VHT20 CH 48 5240MHz		10480	48.26	-25.74	74	48.45	39.77	17.27	57.23	400	0	P	H
		15780	44.04	-29.96	74	42.33	37.97	21.79	58.05	100	0	P	H
		10480	52.05	-21.95	74	52.24	39.77	17.27	57.23	100	160	P	V
		10480	49.45	-4.55	54	49.64	39.77	17.27	57.23	100	160	A	V
		15780	44.08	-29.92	74	42.37	37.97	21.79	58.05	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 38 5190MHz		5004.68	58.94	-15.06	74	47.03	31.52	11.34	30.95	100	273	P	H
		5098.54	48.19	-5.81	54	36.27	31.6	11.27	30.95	100	273	A	H
	*	5190	97.34	-	-	85.43	31.68	11.18	30.95	100	273	P	H
	*	5190	88.18	-	-	76.27	31.68	11.18	30.95	100	273	A	H
		5459.04	59.57	-14.43	74	46.93	31.95	11.64	30.95	100	273	P	H
		5430.24	48.89	-5.11	54	36.27	31.93	11.64	30.95	100	273	A	H
		5080.34	58.67	-15.33	74	46.77	31.58	11.27	30.95	272	173	P	V
		5099.58	48.27	-5.73	54	36.35	31.6	11.27	30.95	272	173	A	V
	*	5190	95.47	-	-	83.56	31.68	11.18	30.95	272	173	P	V
	*	5190	85.52	-	-	73.61	31.68	11.18	30.95	272	173	A	V
		5362.8	59.31	-14.69	74	46.87	31.87	11.52	30.95	272	173	P	V
		5448.24	48.96	-5.04	54	36.32	31.95	11.64	30.95	272	173	A	V
802.11ac VHT40 CH 46 5230MHz		5043.68	59.51	-14.49	74	47.6	31.55	11.31	30.95	100	273	P	H
		5130.78	48.19	-5.81	54	36.27	31.63	11.24	30.95	100	273	A	H
	*	5230	97.38	-	-	85.34	31.73	11.26	30.95	100	273	P	H
	*	5230	87.61	-	-	75.57	31.73	11.26	30.95	100	273	A	H
		5453.52	60.36	-13.64	74	47.72	31.95	11.64	30.95	100	273	P	H
		5428.8	48.91	-5.09	54	36.29	31.93	11.64	30.95	100	273	A	H
		5026.78	58.91	-15.09	74	47.02	31.53	11.31	30.95	273	173	P	V
		5075.14	48.18	-5.82	54	36.28	31.58	11.27	30.95	273	173	A	V
	*	5230	95.41	-	-	83.37	31.73	11.26	30.95	273	173	P	V
	*	5230	85.79	-	-	73.75	31.73	11.26	30.95	273	173	A	V
		5454.24	60.07	-13.93	74	47.43	31.95	11.64	30.95	273	173	P	V
		5429.76	48.82	-5.18	54	36.2	31.93	11.64	30.95	273	173	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 38 5190MHz		10380	48.81	-25.19	74	49.5	39.61	17.13	57.43	100	0	P	H
		15570	45.38	-28.62	74	43.98	38.22	21.64	58.46	100	0	P	H
		10380	53.64	-20.36	74	54.33	39.61	17.13	57.43	100	148	P	V
		10380	49.5	-4.5	54	50.19	39.61	17.13	57.43	100	148	A	V
		15570	45.18	-28.82	74	43.78	38.22	21.64	58.46	100	0	P	V
802.11ac VHT40 CH 46 5230MHz		10460	48.61	-25.39	74	48.97	39.72	17.22	57.3	100	0	P	H
		15960	42.91	-31.09	74	40.9	37.74	21.94	57.67	100	0	P	H
		10465	50.9	-23.1	74	51.15	39.75	17.27	57.27	100	0	P	V
		15960	42.46	-31.54	74	40.45	37.74	21.94	57.67	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5128.18	58.56	-15.44	74	46.64	31.63	11.24	30.95	100	273	P	H
		5074.62	49.44	-4.56	54	37.54	31.58	11.27	30.95	100	273	A	H
	*	5208	95.46	-	-	83.51	31.72	11.18	30.95	100	273	P	H
	*	5208	86.17	-	-	74.22	31.72	11.18	30.95	100	273	A	H
		5423.28	59.47	-14.53	74	46.86	31.92	11.64	30.95	100	273	P	H
		5354.4	50.15	-3.85	54	37.73	31.85	11.52	30.95	100	273	A	H
		5065.26	58.88	-15.12	74	46.99	31.57	11.27	30.95	301	276	P	V
		5046.02	49.8	-4.2	54	37.89	31.55	11.31	30.95	301	276	A	V
	*	5208	92.83	-	-	80.88	31.72	11.18	30.95	301	276	P	V
	*	5208	83.38	-	-	71.43	31.72	11.18	30.95	301	276	A	V
		5433.12	59.48	-14.52	74	46.86	31.93	11.64	30.95	301	276	P	V
		5370.24	50.18	-3.82	54	37.74	31.87	11.52	30.95	301	276	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10420	48.68	-25.32	74	49.2	39.67	17.18	57.37	100	0	P	H
VHT80		15630	44.52	-29.48	74	43.01	38.13	21.7	58.32	100	0	P	H
CH 42		10420	50.69	-23.31	74	51.21	39.67	17.18	57.37	100	0	P	V
5210MHz		15630	44.15	-29.85	74	42.64	38.13	21.7	58.32	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 - 5250~5350MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 52 5260MHz		5089.96	58.95	-15.05	74	47.03	31.6	11.27	30.95	100	272	P	H
		5100.88	47.35	-6.65	54	35.46	31.6	11.24	30.95	100	272	A	H
	*	5260	103.11	-	-	91.03	31.77	11.26	30.95	100	272	P	H
	*	5260	91.46	-	-	79.38	31.77	11.26	30.95	100	272	A	H
		5440.56	59.52	-14.48	74	46.9	31.93	11.64	30.95	100	272	P	H
		5408.4	48.08	-5.92	54	35.53	31.9	11.6	30.95	100	272	A	H
		5033.8	58.95	-15.05	74	47.06	31.53	11.31	30.95	100	207	P	V
		5138.32	47.36	-6.64	54	35.44	31.63	11.24	30.95	100	207	A	V
	*	5260	98.04	-	-	85.96	31.77	11.26	30.95	100	207	P	V
	*	5260	85.25	-	-	73.17	31.77	11.26	30.95	100	207	A	V
		5381.52	59.81	-14.19	74	47.28	31.88	11.6	30.95	100	207	P	V
		5380.08	48.12	-5.88	54	35.59	31.88	11.6	30.95	100	207	A	V
802.11a CH 60 5300MHz		5067.6	58.6	-15.4	74	46.71	31.57	11.27	30.95	100	273	P	H
		5119.6	47.58	-6.42	54	35.67	31.62	11.24	30.95	100	273	A	H
	*	5302	102.46	-	-	90.18	31.8	11.43	30.95	100	273	P	H
	*	5302	90.97	-	-	78.69	31.8	11.43	30.95	100	273	A	H
		5351.52	59.31	-14.69	74	46.89	31.85	11.52	30.95	100	273	P	H
		5439.84	48.17	-5.83	54	35.55	31.93	11.64	30.95	100	273	A	H
		5127.66	58.79	-15.21	74	46.87	31.63	11.24	30.95	100	207	P	V
		5124.02	47.36	-6.64	54	35.44	31.63	11.24	30.95	100	207	A	V
	*	5302	96.49	-	-	84.21	31.8	11.43	30.95	100	207	P	V
	*	5302	84.94	-	-	72.66	31.8	11.43	30.95	100	207	A	V
		5417.76	59.47	-14.53	74	46.9	31.92	11.6	30.95	100	207	P	V
		5416.08	48.23	-5.77	54	35.66	31.92	11.6	30.95	100	207	A	V

802.11a CH 64 5320MHz	*	5320	102.53	-	-	90.23	31.82	11.43	30.95	100	272	P	H
	*	5320	90.66	-	-	78.36	31.82	11.43	30.95	100	272	A	H
		5412.64	59.17	-14.83	74	46.6	31.92	11.6	30.95	100	272	P	H
		5373.44	48.17	-5.83	54	35.73	31.87	11.52	30.95	100	272	A	H
	*	5320	99.03	-	-	86.73	31.82	11.43	30.95	195	171	P	V
	*	5320	87.32	-	-	75.02	31.82	11.43	30.95	195	171	A	V
		5371.2	60.34	-13.66	74	47.9	31.87	11.52	30.95	195	171	P	V
		5433.6	48.1	-5.9	54	35.48	31.93	11.64	30.95	195	171	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 52 5260MHz		10520	47.57	-26.43	74	47.64	39.82	17.31	57.2	100	0	P	H
		15780	43.53	-30.47	74	41.82	37.97	21.79	58.05	100	0	P	H
		10520	51.49	-22.51	74	51.56	39.82	17.31	57.2	100	160	P	V
		10520	49.93	-4.07	54	50	39.82	17.31	57.2	100	160	A	V
		15780	43.58	-30.42	74	41.87	37.97	21.79	58.05	100	0	P	V
802.11a CH 60 5300MHz		10600	47.66	-26.34	74	47.52	39.92	17.4	57.18	100	0	P	H
		15900	45.49	-28.51	74	43.6	37.82	21.88	57.81	100	0	P	H
		10600	49.83	-24.17	74	49.69	39.92	17.4	57.18	100	0	P	V
		15900	44.26	-29.74	74	42.37	37.82	21.88	57.81	100	0	P	V
802.11a CH 64 5320MHz		10640	48.8	-25.2	74	48.55	39.97	17.45	57.17	100	0	P	H
		15960	43.98	-30.02	74	41.97	37.74	21.94	57.67	100	0	P	H
		10640	50.86	-23.14	74	50.61	39.97	17.45	57.17	100	0	P	V
		15960	42.75	-31.25	74	40.74	37.74	21.94	57.67	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 52 5260MHz		5137.54	58.74	-15.26	74	46.82	31.63	11.24	30.95	100	273	P	H
		5033.02	48.28	-5.72	54	36.39	31.53	11.31	30.95	100	273	A	H
	*	5260	98.22	-	-	86.14	31.77	11.26	30.95	100	273	P	H
	*	5260	89.76	-	-	77.68	31.77	11.26	30.95	100	273	A	H
		5441.04	58.72	-15.28	74	46.1	31.93	11.64	30.95	100	273	P	H
		5420.88	48.94	-5.06	54	36.33	31.92	11.64	30.95	100	273	A	H
		5006.76	58.83	-15.17	74	46.92	31.52	11.34	30.95	251	172	P	V
		5107.38	48.21	-5.79	54	36.3	31.62	11.24	30.95	251	172	A	V
	*	5260	96.22	-	-	84.14	31.77	11.26	30.95	251	172	P	V
	*	5260	87.98	-	-	75.9	31.77	11.26	30.95	251	172	A	V
		5386.32	59.72	-14.28	74	47.19	31.88	11.6	30.95	251	172	P	V
		5405.04	48.81	-5.19	54	36.26	31.9	11.6	30.95	251	172	A	V
802.11ac VHT20 CH 60 5300MHz		5143.52	58.48	-15.52	74	46.57	31.65	11.21	30.95	100	273	P	H
		5129.74	47.99	-6.01	54	36.07	31.63	11.24	30.95	100	273	A	H
	*	5300	99.2	-	-	87	31.8	11.35	30.95	100	273	P	H
	*	5300	89.44	-	-	77.24	31.8	11.35	30.95	100	273	A	H
		5392.56	59.2	-14.8	74	46.67	31.88	11.6	30.95	100	273	P	H
		5351.52	48.8	-5.2	54	36.38	31.85	11.52	30.95	100	273	A	H
		5072.28	58.36	-15.64	74	46.46	31.58	11.27	30.95	228	172	P	V
		5030.68	48.48	-5.52	54	36.59	31.53	11.31	30.95	228	172	A	V
	*	5300	96.76	-	-	84.56	31.8	11.35	30.95	228	172	P	V
	*	5300	87.27	-	-	75.07	31.8	11.35	30.95	228	172	A	V
		5439.6	60.33	-13.67	74	47.71	31.93	11.64	30.95	228	172	P	V
		5405.76	48.89	-5.11	54	36.34	31.9	11.6	30.95	228	172	A	V

802.11ac VHT20 CH 64 5320MHz	*	5320	98.74	-	-	86.44	31.82	11.43	30.95	100	274	P	H
	*	5320	89.49	-	-	77.19	31.82	11.43	30.95	100	274	A	H
		5436.96	59.76	-14.24	74	47.14	31.93	11.64	30.95	100	274	P	H
		5383.68	48.67	-5.33	54	36.14	31.88	11.6	30.95	100	274	A	H
	*	5320	96.88	-	-	84.58	31.82	11.43	30.95	258	172	P	V
	*	5320	87.29	-	-	74.99	31.82	11.43	30.95	258	172	A	V
		5447.04	59.18	-14.82	74	46.54	31.95	11.64	30.95	258	172	P	V
		5460	49	-5	54	36.36	31.95	11.64	30.95	258	172	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 52 5260MHz		10520	48.96	-25.04	74	49.03	39.82	17.31	57.2	100	0	P	H
		15780	44.92	-29.08	74	43.21	37.97	21.79	58.05	100	0	P	H
		10520	52.04	-21.96	74	52.11	39.82	17.31	57.2	100	159	P	V
		10520	49.69	-4.31	54	49.76	39.82	17.31	57.2	100	159	A	V
		15780	43.88	-30.12	74	42.17	37.97	21.79	58.05	100	0	P	V
802.11ac VHT20 CH 60 5300MHz		10600	47.26	-26.74	74	47.12	39.92	17.4	57.18	100	0	P	H
		15900	44.79	-29.21	74	42.9	37.82	21.88	57.81	100	0	P	H
		10600	50.02	-23.98	74	49.88	39.92	17.4	57.18	100	0	P	V
		15900	44.05	-29.95	74	42.16	37.82	21.88	57.81	100	0	P	V
802.11ac VHT20 CH 64 5320MHz		10640	47.73	-26.27	74	47.48	39.97	17.45	57.17	100	0	P	H
		15960	43.49	-30.51	74	41.48	37.74	21.94	57.67	100	0	P	H
		10640	54.15	-19.85	74	53.9	39.97	17.45	57.17	100	159	P	V
		10640	49.69	-4.31	54	49.44	39.97	17.45	57.17	100	159	A	V
		15960	42.82	-31.18	74	40.81	37.74	21.94	57.67	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 54 5270MHz		5117.78	58.62	-15.38	74	46.71	31.62	11.24	30.95	100	273	P	H
		5146.9	48.36	-5.64	54	36.45	31.65	11.21	30.95	100	273	A	H
	*	5270	96.68	-	-	84.51	31.77	11.35	30.95	100	273	P	H
	*	5270	87.3	-	-	75.13	31.77	11.35	30.95	100	273	A	H
		5365.2	59.8	-14.2	74	47.36	31.87	11.52	30.95	100	273	P	H
		5451.84	48.84	-5.16	54	36.2	31.95	11.64	30.95	100	273	A	H
		5006.76	58.94	-15.06	74	47.03	31.52	11.34	30.95	252	174	P	V
		5106.86	48.13	-5.87	54	36.22	31.62	11.24	30.95	252	174	A	V
	*	5270	93.71	-	-	81.54	31.77	11.35	30.95	252	174	P	V
	*	5270	84.49	-	-	72.32	31.77	11.35	30.95	252	174	A	V
		5436.96	58.97	-15.03	74	46.35	31.93	11.64	30.95	252	174	P	V
		5446.8	48.84	-5.16	54	36.2	31.95	11.64	30.95	252	174	A	V
802.11ac VHT40 CH 62 5310MHz		5121.94	58.4	-15.6	74	46.49	31.62	11.24	30.95	100	272	P	H
		5054.08	48.08	-5.92	54	36.17	31.55	11.31	30.95	100	272	A	H
	*	5310	96.41	-	-	84.11	31.82	11.43	30.95	100	272	P	H
	*	5310	86.33	-	-	74.03	31.82	11.43	30.95	100	272	A	H
		5429.76	59.31	-14.69	74	46.69	31.93	11.64	30.95	100	272	P	H
		5428.32	48.8	-5.2	54	36.19	31.92	11.64	30.95	100	272	A	H
		5069.16	58.57	-15.43	74	46.68	31.57	11.27	30.95	301	341	P	V
		5056.68	48.18	-5.82	54	36.25	31.57	11.31	30.95	301	341	A	V
	*	5310	94.05	-	-	81.75	31.82	11.43	30.95	301	341	P	V
	*	5310	83.9	-	-	71.6	31.82	11.43	30.95	301	341	A	V
		5419.44	59.91	-14.09	74	47.34	31.92	11.6	30.95	301	341	P	V
		5428.08	48.99	-5.01	54	36.38	31.92	11.64	30.95	301	341	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 54 5270MHz		10540	48.31	-25.69	74	48.35	39.84	17.31	57.19	100	0	P	H
		15810	44.43	-29.57	74	42.66	37.93	21.82	57.98	100	0	P	H
		10540	54.2	-19.8	74	54.24	39.84	17.31	57.19	103	158	P	V
		10540	49.8	-4.2	54	49.84	39.84	17.31	57.19	103	158	A	V
		15810	43.93	-30.07	74	42.16	37.93	21.82	57.98	100	0	P	V
802.11ac VHT40 CH 62 5310MHz		10620	48.62	-25.38	74	48.46	39.94	17.4	57.18	100	0	P	H
		15930	44.3	-29.7	74	42.35	37.78	21.91	57.74	100	0	P	H
		10620	54.21	-19.79	74	54.05	39.94	17.4	57.18	100	159	P	V
		10620	49.77	-4.23	54	49.61	39.94	17.4	57.18	100	159	A	V
		15930	42.9	-31.1	74	40.95	37.78	21.91	57.74	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 58 5290MHz		5121.94	59.09	-14.91	74	47.18	31.62	11.24	30.95	117	189	P	H
		5131.82	49.3	-4.7	54	37.38	31.63	11.24	30.95	117	189	A	H
	*	5292	94.01	-	-	81.83	31.78	11.35	30.95	117	189	P	H
	*	5292	85.24	-	-	73.06	31.78	11.35	30.95	117	189	A	H
		5381.52	59.39	-14.61	74	46.86	31.88	11.6	30.95	117	189	P	H
		5457.84	50.15	-3.85	54	37.51	31.95	11.64	30.95	117	189	A	H
		5130.26	59.49	-14.51	74	47.57	31.63	11.24	30.95	300	300	P	V
		5054.86	49.73	-4.27	54	37.8	31.57	11.31	30.95	300	300	A	V
	*	5288	90.95	-	-	78.77	31.78	11.35	30.95	300	300	P	V
	*	5288	81.83	-	-	69.65	31.78	11.35	30.95	300	300	A	V
		5419.68	60.22	-13.78	74	47.65	31.92	11.6	30.95	300	300	P	V
		5386.56	50.4	-3.6	54	37.87	31.88	11.6	30.95	300	300	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 58 5290MHz		10580	47.89	-26.11	74	47.81	39.9	17.36	57.18	100	0	P	H
		15870	45.8	-28.2	74	43.92	37.84	21.88	57.84	100	0	P	H
		10580	50.48	-23.52	74	50.4	39.9	17.36	57.18	100	0	P	V
		15870	44.93	-29.07	74	43.05	37.84	21.88	57.84	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 100 5500MHz		5399.44	62.61	-11.39	74	50.06	31.9	11.6	30.95	100	271	P	H
		5448.08	50.89	-3.11	54	38.25	31.95	11.64	30.95	100	271	A	H
	*	5500	103.93	-	-	91.21	32	11.67	30.95	100	271	P	H
	*	5500	91.67	-	-	78.95	32	11.67	30.95	100	271	A	H
		5447.76	62.34	-11.66	74	49.7	31.95	11.64	30.95	283	324	P	V
		5444.88	50.84	-3.16	54	38.22	31.93	11.64	30.95	283	324	A	V
	*	5500	98.88	-	-	86.16	32	11.67	30.95	283	324	P	V
	*	5500	87.27	-	-	74.55	32	11.67	30.95	283	324	A	V
802.11a CH 116 5580MHz		5450.08	60.07	-13.93	74	47.43	31.95	11.64	30.95	100	268	P	H
		5467.36	58.03	-10.17	68.2	45.34	31.97	11.67	30.95	100	268	P	H
		5445.04	48.13	-5.87	54	35.51	31.93	11.64	30.95	100	268	A	H
	*	5578	104.25	-	-	91.39	32.1	11.74	30.98	100	268	P	H
	*	5578	93.77	-	-	80.91	32.1	11.74	30.98	100	268	A	H
		5764.65	59.59	-8.61	68.2	46.41	32.36	11.86	31.04	100	268	P	H
		5398.72	59.25	-14.75	74	46.7	31.9	11.6	30.95	100	336	P	V
		5463.04	58.61	-9.59	68.2	45.92	31.97	11.67	30.95	100	336	P	V
		5453.68	48.03	-5.97	54	35.39	31.95	11.64	30.95	100	336	A	V
	*	5580	98.21	-	-	85.35	32.1	11.74	30.98	100	336	P	V
	*	5580	88.48	-	-	75.62	32.1	11.74	30.98	100	336	A	V
		5741.375	59.98	-8.22	68.2	46.81	32.34	11.86	31.03	100	336	P	V

802.11a CH 140 5700MHz	*	5698	103.19	-	-	90.11	32.27	11.82	31.01	100	268	P	H
	*	5698	93.16	-	-	80.08	32.27	11.82	31.01	100	268	A	H
		5764.92	60.33	-13.67	74	47.15	32.36	11.86	31.04	100	268	P	H
		5752.44	48.79	-5.21	54	35.6	32.36	11.86	31.03	100	268	A	H
	*	5700	99.09	-	-	86.01	32.27	11.82	31.01	311	328	P	V
	*	5700	88.31	-	-	75.23	32.27	11.82	31.01	311	328	A	V
		5730.28	61.17	-12.83	74	48.05	32.31	11.84	31.03	311	328	P	V
		5761.08	48.81	-5.19	54	35.63	32.36	11.86	31.04	311	328	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 100 5500MHz		11000	49.49	-24.51	74	48.33	40.4	17.86	57.1	100	0	P	H
		16500	46.47	-27.53	74	40.75	39.3	22.42	56	100	0	P	H
		11000	52.35	-21.65	74	51.19	40.4	17.86	57.1	127	178	P	V
		11000	49.75	-4.25	54	48.59	40.4	17.86	57.1	127	178	A	V
		16500	45.97	-28.03	74	40.25	39.3	22.42	56	100	0	P	V
802.11a CH 116 5580MHz		11160	47.71	-26.29	74	46.7	40.3	18.04	57.33	100	0	P	H
		16740	47.04	-21.16	68.2	40.46	40.07	22.65	56.14	100	0	P	H
		11160	54.89	-19.11	74	53.88	40.3	18.04	57.33	100	55	P	V
		11160	50.86	-3.14	54	49.85	40.3	18.04	57.33	100	55	A	V
		16740	47.3	-20.9	68.2	40.72	40.07	22.65	56.14	100	0	P	V
802.11a CH 140 5700MHz		11400	47.14	-26.86	74	46.33	40.16	18.31	57.66	100	0	P	H
		17100	48.33	-25.67	74	40.78	41.22	22.99	56.66	100	0	P	H
		11400	49.36	-24.64	74	48.55	40.16	18.31	57.66	100	0	P	V
		17100	47.42	-26.58	74	39.87	41.22	22.99	56.66	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 100 5500MHz		5457.84	60.13	-13.87	74	47.49	31.95	11.64	30.95	100	266	P	H
		5465.2	49.08	-4.92	54	36.39	31.97	11.67	30.95	100	266	A	H
	*	5500	99.33	-	-	86.61	32	11.67	30.95	100	266	P	H
	*	5500	90.28	-	-	77.56	32	11.67	30.95	100	266	A	H
		5422.48	59.65	-14.35	74	47.04	31.92	11.64	30.95	260	176	P	V
		5452.24	48.83	-5.17	54	36.19	31.95	11.64	30.95	260	176	A	V
	*	5500	94.91	-	-	82.19	32	11.67	30.95	260	176	P	V
	*	5500	85.79	-	-	73.07	32	11.67	30.95	260	176	A	V
802.11ac VHT20 CH 116 5580MHz		5413.12	59.84	-14.16	74	47.27	31.92	11.6	30.95	100	267	P	H
		5385.28	49.27	-4.73	54	36.74	31.88	11.6	30.95	100	267	A	H
	*	5580	101.31	-	-	88.45	32.1	11.74	30.98	100	267	P	H
	*	5580	91.79	-	-	78.93	32.1	11.74	30.98	100	267	A	H
		5734.025	59.61	-14.39	74	46.49	32.31	11.84	31.03	100	267	P	H
		5739.1	49.4	-4.6	54	36.25	32.34	11.84	31.03	100	267	A	H
		5392.24	59.7	-14.3	74	47.17	31.88	11.6	30.95	281	270	P	V
		5448.4	48.95	-5.05	54	36.31	31.95	11.64	30.95	281	270	A	V
	*	5580	99.47	-	-	86.61	32.1	11.74	30.98	281	270	P	V
	*	5580	90.52	-	-	77.66	32.1	11.74	30.98	281	270	A	V
		5757.65	59.57	-14.43	74	46.39	32.36	11.86	31.04	281	270	P	V
		5756.6	49.37	-4.63	54	36.19	32.36	11.86	31.04	281	270	A	V

802.11ac VHT20 CH 140 5700MHz	*	5700	99.27	-	-	86.19	32.27	11.82	31.01	100	267	P	H
	*	5700	90.23	-	-	77.15	32.27	11.82	31.01	100	267	A	H
		5748.84	60.75	-13.25	74	47.58	32.34	11.86	31.03	100	267	P	H
		5726.44	49.5	-4.5	54	36.37	32.31	11.84	31.02	100	267	A	H
	*	5700	98.84	-	-	85.76	32.27	11.82	31.01	274	291	P	V
	*	5700	89.4	-	-	76.32	32.27	11.82	31.01	274	291	A	V
		5755.16	60.13	-13.87	74	46.94	32.36	11.86	31.03	274	291	P	V
		5753.72	49.37	-4.63	54	36.18	32.36	11.86	31.03	274	291	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 100 5500MHz		11000	48.65	-25.35	74	47.49	40.4	17.86	57.1	100	0	P	H
		16500	45.7	-28.3	74	39.98	39.3	22.42	56	100	0	P	H
		11000	50.88	-23.12	74	49.72	40.4	17.86	57.1	100	0	P	V
		16500	44.9	-29.1	74	39.18	39.3	22.42	56	100	0	P	V
802.11ac VHT20 CH 116 5580MHz		11160	48.48	-25.52	74	47.47	40.3	18.04	57.33	100	0	P	H
		16740	47.23	-26.77	74	40.65	40.07	22.65	56.14	100	0	P	H
		11160	54.81	-19.19	74	53.8	40.3	18.04	57.33	100	58	P	V
		11160	50.61	-3.39	54	49.6	40.3	18.04	57.33	100	58	A	V
		16740	46.29	-27.71	74	39.71	40.07	22.65	56.14	100	0	P	V
802.11ac VHT20 CH 140 5700MHz		11400	47.23	-26.77	74	46.42	40.16	18.31	57.66	100	0	P	H
		17100	48.34	-25.66	74	40.79	41.22	22.99	56.66	100	0	P	H
		11400	50.95	-23.05	74	50.14	40.16	18.31	57.66	100	0	P	V
		17100	48.15	-25.85	74	40.6	41.22	22.99	56.66	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 102 5510MHz		5378.08	59.84	-14.16	74	47.39	31.88	11.52	30.95	100	266	P	H
		5452	48.83	-5.17	54	36.19	31.95	11.64	30.95	100	266	A	H
	*	5510	97.66	-	-	84.92	32	11.7	30.96	100	266	P	H
	*	5510	88.01	-	-	75.27	32	11.7	30.96	100	266	A	H
		5731.225	60.98	-13.02	74	47.86	32.31	11.84	31.03	100	266	P	H
		5727.725	49.56	-4.44	54	36.43	32.31	11.84	31.02	100	266	A	H
		5366.08	58.99	-15.01	74	46.55	31.87	11.52	30.95	304	271	P	V
		5455.84	49.06	-4.94	54	36.42	31.95	11.64	30.95	304	271	A	V
	*	5510	95.64	-	-	82.9	32	11.7	30.96	304	271	P	V
	*	5510	86.45	-	-	73.71	32	11.7	30.96	304	271	A	V
		5749.075	59.77	-14.23	74	46.6	32.34	11.86	31.03	304	271	P	V
		5759.575	49.35	-4.65	54	36.17	32.36	11.86	31.04	304	271	A	V
802.11ac VHT40 CH 110 5550MHz		5446	59.53	-14.47	74	46.89	31.95	11.64	30.95	100	266	P	H
		5434.24	49.02	-4.98	54	36.4	31.93	11.64	30.95	100	266	A	H
	*	5550	98.57	-	-	85.73	32.07	11.74	30.97	100	266	P	H
	*	5550	89.12	-	-	76.28	32.07	11.74	30.97	100	266	A	H
		5735.775	59.74	-14.26	74	46.59	32.34	11.84	31.03	100	266	P	H
		5750.3	49.27	-4.73	54	36.1	32.34	11.86	31.03	100	266	A	H
		5380	59.9	-14.1	74	47.45	31.88	11.52	30.95	282	270	P	V
		5440.96	48.77	-5.23	54	36.15	31.93	11.64	30.95	282	270	A	V
	*	5550	97.72	-	-	84.88	32.07	11.74	30.97	282	270	P	V
	*	5550	87.92	-	-	75.08	32.07	11.74	30.97	282	270	A	V
		5729.475	59.65	-14.35	74	46.52	32.31	11.84	31.02	282	270	P	V
		5763.25	49.49	-4.51	54	36.31	32.36	11.86	31.04	282	270	A	V

802.11ac VHT40 CH 134 5670MHz		5361.28	59.28	-14.72	74	46.84	31.87	11.52	30.95	103	267	P	H
		5377.84	48.77	-5.23	54	36.32	31.88	11.52	30.95	103	267	A	H
	*	5672	97.24	-	-	84.19	32.24	11.82	31.01	103	267	P	H
	*	5672	87.39	-	-	74.34	32.24	11.82	31.01	103	267	A	H
		5751	60.36	-13.64	74	47.19	32.34	11.86	31.03	103	267	P	H
		5728.95	49.42	-4.58	54	36.29	32.31	11.84	31.02	103	267	A	H
		5425.6	59.75	-14.25	74	47.14	31.92	11.64	30.95	270	267	P	V
		5437.36	48.83	-5.17	54	36.21	31.93	11.64	30.95	270	267	A	V
	*	5668	95.58	-	-	82.53	32.24	11.82	31.01	270	267	P	V
	*	5668	85.67	-	-	72.62	32.24	11.82	31.01	270	267	A	V
		5755.725	59.97	-14.03	74	46.78	32.36	11.86	31.03	270	267	P	V
		5759.225	49.27	-4.73	54	36.09	32.36	11.86	31.04	270	267	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 102 5510MHz		11020	47.51	-26.49	74	46.38	40.39	17.86	57.12	100	0	P	H
		16530	47	-27	74	41.15	39.41	22.46	56.02	100	0	P	H
		11020	50.46	-23.54	74	49.33	40.39	17.86	57.12	100	0	P	V
		16530	46.7	-27.3	74	40.85	39.41	22.46	56.02	100	0	P	V
802.11ac VHT40 CH 110 5550MHz		11100	46.44	-27.56	74	45.39	40.34	17.95	57.24	100	0	P	H
		16650	46.45	-27.55	74	40.17	39.8	22.57	56.09	100	0	P	H
		11100	50.82	-23.18	74	49.77	40.34	17.95	57.24	100	0	P	V
		16650	46.11	-27.89	74	39.83	39.8	22.57	56.09	100	0	P	V
802.11ac VHT40 CH 134 5670MHz		11340	47.99	-26.01	74	47.14	40.2	18.22	57.57	100	0	P	H
		17010	48.03	-25.97	74	40.53	40.95	22.91	56.36	100	0	P	H
		11340	54.13	-19.87	74	53.28	40.2	18.22	57.57	100	163	P	V
		11340	50.54	-3.46	54	49.69	40.2	18.22	57.57	100	163	A	V
		17010	48	-26	74	40.5	40.95	22.91	56.36	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 5470~5725MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 106 5530MHz		5363.44	59.29	-14.71	74	46.85	31.87	11.52	30.95	104	266	P	H
		5408.32	50.23	-3.77	54	37.68	31.9	11.6	30.95	104	266	A	H
	*	5532	95.63	-	-	82.85	32.05	11.7	30.97	104	266	P	H
	*	5532	86.98	-	-	74.2	32.05	11.7	30.97	104	266	A	H
		5751	61.1	-12.9	74	47.93	32.34	11.86	31.03	104	266	P	H
		5756.6	50.51	-3.49	54	37.33	32.36	11.86	31.04	104	266	A	H
		5434.24	59.42	-14.58	74	46.8	31.93	11.64	30.95	268	271	P	V
		5426.08	50.1	-3.9	54	37.49	31.92	11.64	30.95	268	271	A	V
	*	5532	92.71	-	-	79.93	32.05	11.7	30.97	268	271	P	V
	*	5532	83.47	-	-	70.69	32.05	11.7	30.97	268	271	A	V
		5734.2	59.98	-14.02	74	46.86	32.31	11.84	31.03	268	271	P	V
		5759.75	50.74	-3.26	54	37.56	32.36	11.86	31.04	268	271	A	V
802.11ac VHT80 CH 122 5610MHz		5414.32	59.63	-14.37	74	47.06	31.92	11.6	30.95	102	267	P	H
		5400.4	50.25	-3.75	54	37.7	31.9	11.6	30.95	102	267	A	H
	*	5608	97.18	-	-	84.26	32.14	11.77	30.99	102	267	P	H
	*	5608	87.51	-	-	74.59	32.14	11.77	30.99	102	267	A	H
		5734.55	60.14	-13.86	74	46.99	32.34	11.84	31.03	102	267	P	H
		5741.55	50.89	-3.11	54	37.72	32.34	11.86	31.03	102	267	A	H
		5451.52	59.16	-14.84	74	46.52	31.95	11.64	30.95	283	290	P	V
		5354.8	50.01	-3.99	54	37.59	31.85	11.52	30.95	283	290	A	V
	*	5612	94.02	-	-	81.1	32.14	11.77	30.99	283	290	P	V
	*	5612	84.71	-	-	71.79	32.14	11.77	30.99	283	290	A	V
		5739.975	59.74	-14.26	74	46.59	32.34	11.84	31.03	283	290	P	V
		5756.425	50.64	-3.36	54	37.46	32.36	11.86	31.04	283	290	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 5470~5725MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11060	46.92	-27.08	74	45.85	40.36	17.9	57.19	100	0	P	H
VHT80		16590	46.18	-27.82	74	40.11	39.58	22.54	56.05	100	0	P	H
CH 106		11060	50.85	-23.15	74	49.78	40.36	17.9	57.19	100	0	P	V
5530MHz		16590	45.32	-28.68	74	39.25	39.58	22.54	56.05	100	0	P	V
802.11ac		11220	45.66	-28.34	74	44.71	40.27	18.08	57.4	100	0	P	H
VHT80		16830	47.55	-26.45	74	40.64	40.35	22.76	56.2	100	0	P	H
CH 122		11220	50.52	-23.48	74	49.57	40.27	18.08	57.4	100	0	P	V
5610MHz		16830	47.09	-26.91	74	40.18	40.35	22.76	56.2	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 144 5720MHz	*	5720	98.41	-	-	85.28	32.31	11.84	31.02	100	359	P	H
	*	5720	88.58	-	-	75.45	32.31	11.84	31.02	100	359	A	H
	*	5720	98.2	-	-	85.07	32.31	11.84	31.02	299	1	P	V
	*	5720	87.96	-	-	74.83	32.31	11.84	31.02	299	1	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 144 5720MHz		11440	47.59	-26.41	74	46.8	40.14	18.36	57.71	100	0	P	H
		17160	48.96	-25.04	74	41.37	41.43	23.06	56.9	100	0	P	H
		11440	50.91	-23.09	74	50.12	40.14	18.36	57.71	100	0	P	V
		17160	48.38	-25.62	74	40.79	41.43	23.06	56.9	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac	*	5720	96.76	-	-	83.63	32.31	11.84	31.02	100	0	P	H
VHT20	*	5720	87.12	-	-	73.99	32.31	11.84	31.02	100	0	A	H
CH 144	*	5720	96.36	-	-	83.23	32.31	11.84	31.02	298	359	P	V
5720MHz	*	5720	86.84	-	-	73.71	32.31	11.84	31.02	298	359	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 144 5720MHz		11440	47.96	-26.04	74	47.17	40.14	18.36	57.71	100	0	P	H
		17160	48.79	-25.21	74	41.2	41.43	23.06	56.9	100	0	P	H
		11440	54.07	-19.93	74	53.28	40.14	18.36	57.71	100	154	P	V
		11440	50.46	-3.54	54	49.67	40.14	18.36	57.71	100	154	A	V
		17160	48.1	-25.9	74	40.51	41.43	23.06	56.9	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac	*	5710	95	-	-	81.89	32.29	11.84	31.02	100	357	P	H
VHT40	*	5710	85.62	-	-	72.51	32.29	11.84	31.02	100	357	A	H
CH 142	*	5710	93.45	-	-	80.34	32.29	11.84	31.02	301	2	P	V
5710MHz	*	5710	84.29	-	-	71.18	32.29	11.84	31.02	301	2	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 142 5710MHz		11420	47.16	-26.84	74	46.38	40.15	18.31	57.68	100	0	P	H
		17130	48.29	-25.71	74	40.72	41.33	23.02	56.78	100	0	P	H
		11420	54.79	-19.21	74	54.01	40.15	18.31	57.68	100	58	P	V
		11420	50.68	-3.32	54	49.9	40.15	18.31	57.68	100	58	A	V
		17130	48.25	-25.75	74	40.68	41.33	23.02	56.78	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac	*	5690	92.6	-	-	79.52	32.27	11.82	31.01	106	357	P	H
VHT80	*	5690	83.37	-	-	70.29	32.27	11.82	31.01	106	357	A	H
CH 138	*	5690	92.15	-	-	79.07	32.27	11.82	31.01	321	2	P	V
5690MHz	*	5690	83.17	-	-	70.09	32.27	11.82	31.01	321	2	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 138 5690MHz		11380	47.5	-26.5	74	46.7	40.17	18.27	57.64	100	0	P	H
		17070	48.6	-25.4	74	41.04	41.11	22.99	56.54	100	0	P	H
		11380	54.68	-19.32	74	53.88	40.17	18.27	57.64	100	55	P	V
		11380	50.82	-3.18	54	50.02	40.17	18.27	57.64	100	55	A	V
		17070	48.25	-25.75	74	40.69	41.11	22.99	56.54	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

WIFI 802.11a (LF @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a LF		88.32	27.33	-16.17	43.5	44.13	14.58	1.06	32.44	-	-	P	H
		185.79	32.84	-10.66	43.5	48.25	15.3	1.7	32.41	-	-	P	H
		246.81	34.29	-11.71	46	46.54	18.25	1.83	32.33	-	-	P	H
		338.5	35.61	-10.39	46	44.9	20.65	2.34	32.28	-	-	P	H
		533.8	36.39	-9.61	46	41.27	24.33	3.19	32.4	-	-	P	H
		714.4	42.07	-3.93	46	43.81	26.75	3.89	32.38	100	0	P	H
		30.81	36.69	-3.31	40	43.11	25.26	0.78	32.46	100	349	QP	V
		86.7	27.97	-12.03	40	44.99	14.36	1.06	32.44	-	-	P	V
		201.72	27.59	-15.91	43.5	42.45	15.85	1.7	32.41	-	-	P	V
		328.7	27.98	-18.02	46	37.54	20.37	2.34	32.27	-	-	P	V
		714.4	42.13	-3.87	46	43.87	26.75	3.89	32.38	-	-	P	V
		944.7	31.58	-14.42	46	27.84	30.16	4.75	31.17	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Note symbol

*	**Fundamental Frequency** which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is **over limit** line.
P/A	**P**eak or **A**verage
H/V	**H**orizontal or **V**ertical

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

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

1. Level(dBμV/m) =

Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

2. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

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

= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

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

= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)

= 43.54 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

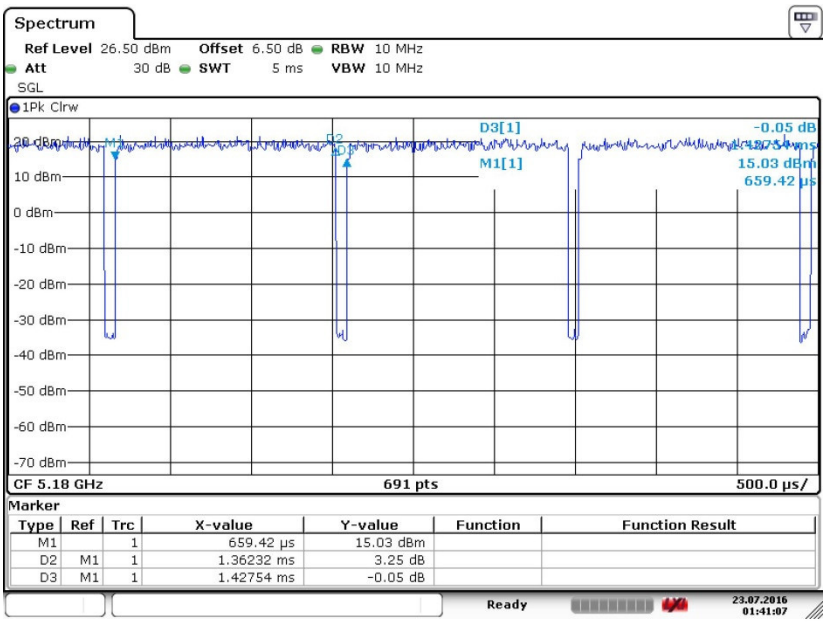
= -10.46(dB)

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

Appendix C. Duty Cycle Plots

Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
802.11a	95.43	1.36	0.73	1KHz
802.11n HT20	86.27	1.28	0.78	1KHz
802.11n HT40	76.52	0.64	1.57	3KHz
802.11ac VHT20	83.33	0.98	1.02	3KHz
802.11ac VHT40	71.22	0.49	2.04	3KHz
802.11ac VHT80	55.34	0.25	4.04	10KHz

802.11a



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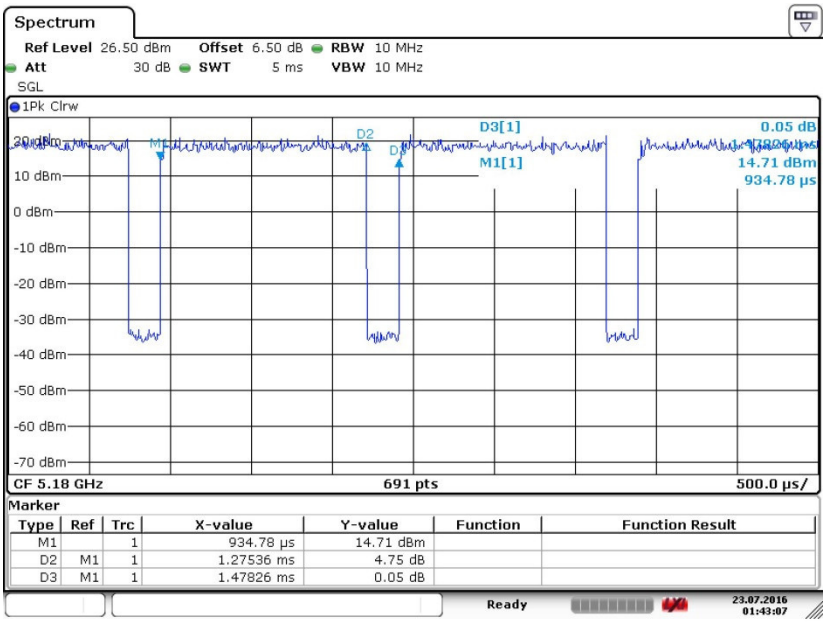
802.11n HT20



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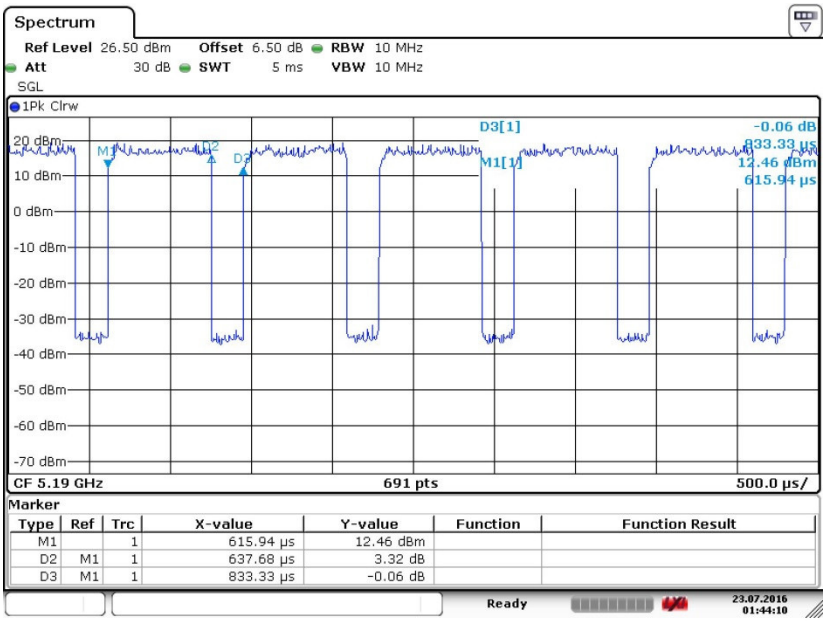
802.11n HT40



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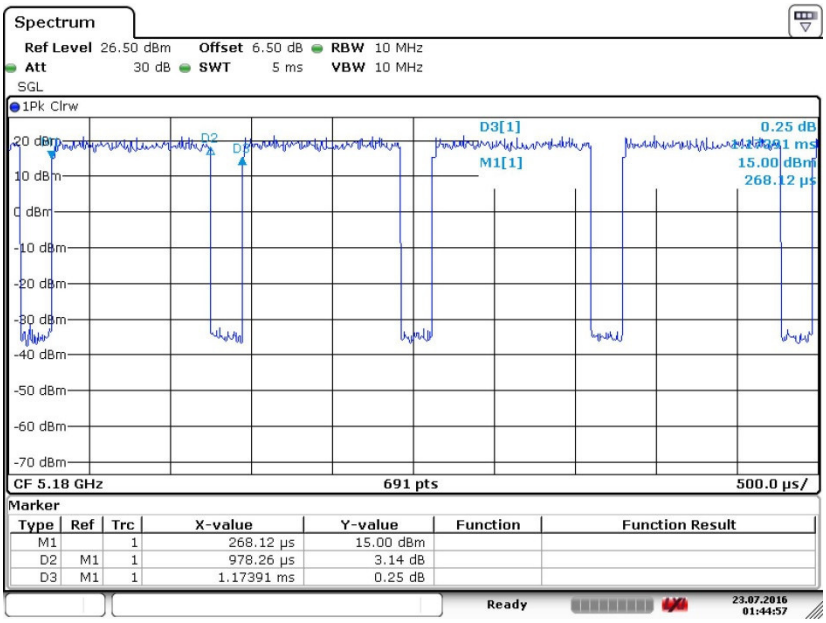
802.11ac VHT20



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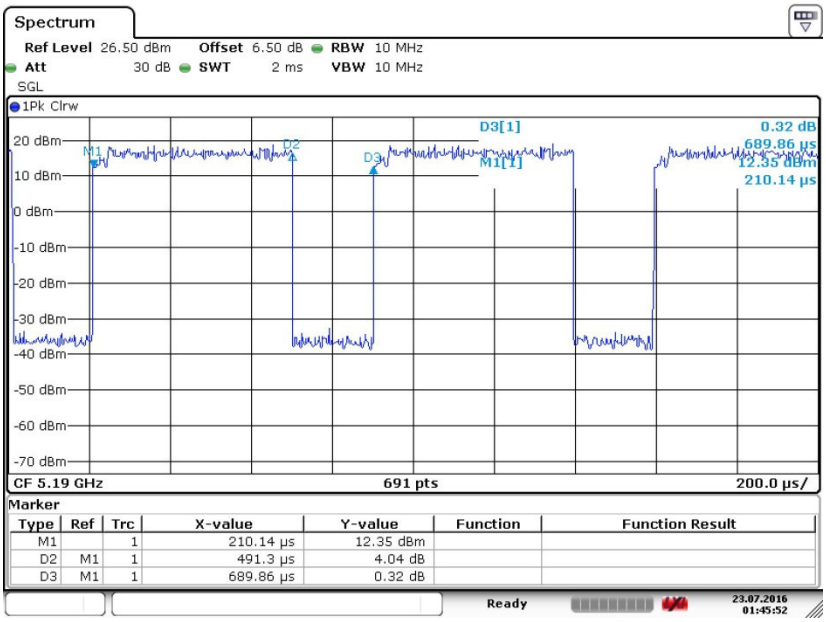
802.11ac VH40



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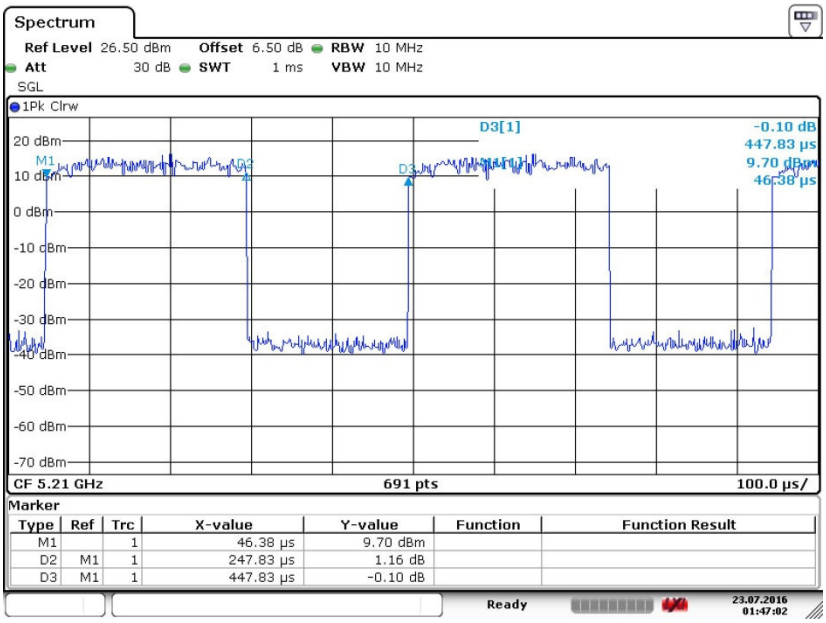
802.11ac VHT80



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