



FCC RF Test Report

APPLICANT : VERTU Corporation Limited
EQUIPMENT : Cellular Telephone
BRAND NAME : VERTU
MODEL NAME : SIGNATURE TOUCH
TYPE NAME : VM-03
FCC ID : P7QVM-03
STANDARD : FCC Part 15 Subpart E §15.407
CLASSIFICATION : (NII) Unlicensed National Information Infrastructure

The product was received on Jul. 02, 2015 and testing was completed on Aug. 16, 2015. We, SPORTON INTERNATIONAL 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 INC., the test report shall not be reproduced except in full.

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager



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FCC ID : P7QVM-03

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR570205E	Rev. 01	Initial issue of report	Aug. 26, 2015
FR570205E	Rev. 02	Revising Bluetooth Version in 1.3 section	Sep. 07, 2015



SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	2.1049 15.403(i)	26dB & 99% Bandwidth	-	Pass	-
3.2	15.407(a)	Maximum Conducted Output Power	≤ 24 dBm (depend on band)	Pass	-
3.3	15.407(a)	Power Spectral Density	≤ 11 dBm (depend on band)	Pass	-
3.4	15.407(b)	Unwanted Emissions	$\leq -17, -27$ dBm (depend on band)&15.209(a)	Pass	Under limit 8.58 dB at 5469.200 MHz
3.5	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 8.90 dB at 13.558 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

VERTU Corporation Limited

Beacon Hill Road, Church Crookham, Hampshire GU52 8DY, United Kingdom

1.2 Manufacturer

VERTU Corporation Limited

Beacon Hill Road, Church Crookham, Hampshire GU52 8DY, United Kingdom

1.3 Feature of Equipment Under Test

Product Feature & Specification	
Equipment	Cellular Telephone
Brand Name	VERTU
Model Name	SIGNATURE TOUCH
Type Name	VM-03
FCC ID	P7QVM-03
EUT supports Radios application	GSM/EGPRS/WCDMA/HSPA/LTE/NFC WLAN 11a/b/g/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth v4.1 EDR/LE
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.



Specification of Accessory		
AC Adapter	Brand Name	VERTU
	Model Name	AC-32V
Car Charger	Brand Name	VERTU
	Model Name	DC-30V
Battery	Brand Name	VERTU
	Model Name	VBL-02
Portable Power Charger	Brand Name	VERTU
	Model Name	DC-15V
Earphone 1	Brand Name	VERTU
	Model Name	WH-4V
Earphone 2	Brand Name	VERTU
	Model Name	WH-5V
Earphone 3	Brand Name	VERTU
	Model Name	HP-1V
USB Cable	Brand Name	VERTU
	Model Name	CA-225DV
Wireless Charger	Brand Name	VERTU
	Model Name	AC-35V
Wireless Speaker	Brand Name	VERTU
	Model Name	SP-1V

1.4 Product Specification of Equipment Under Test

Product Specification subjective to this standard	
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 : 10.78 dBm / 0.0120 W 802.11n HT20 : 10.62 dBm / 0.0115 W 802.11n HT40 : 10.77 dBm / 0.0119 W 802.11ac VHT20 : 7.96 dBm / 0.0063 W 802.11ac VHT40 : 7.73 dBm / 0.0059 W 802.11ac VHT80 : 7.93 dBm / 0.0062 W <5260 MHz ~ 5320 MHz> 802.11a : 10.81 dBm / 0.0121 W 802.11n HT20 : 10.67 dBm / 0.0117 W 802.11n HT40 : 10.77 dBm / 0.0119 W 802.11ac VHT20 : 7.98 dBm / 0.0063 W 802.11ac VHT40 : 7.75 dBm / 0.0060 W 802.11ac VHT80 : 7.87 dBm / 0.0061 W <5500 MHz ~ 5700 MHz > 802.11a : 10.72 dBm / 0.0118 W 802.11n HT20 : 10.99 dBm / 0.0126 W 802.11n HT40 : 10.98 dBm / 0.0125 W 802.11ac VHT20 : 7.82 dBm / 0.0061 W 802.11ac VHT40 : 7.94 dBm / 0.0062 W 802.11ac VHT80 : 7.98 dBm / 0.0063 W
99% Occupied Bandwidth	802.11a : 16.90 MHz 802.11n HT20 : 17.90 MHz 802.11n HT40 : 36.20 MHz 802.11ac VHT20: 17.90 MHz 802.11ac VHT40 : 37.10 MHz 802.11ac VHT80 : 75.24 MHz
Antenna Type	PIFA Antenna with gain -0.40 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

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW1022 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

Test Site	SPORTON INTERNATIONAL INC.	
Test Site Location	No. 52, Hwa Ya 1 st 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.	
	TH02-HY	CO05-HY

Note: The test site complies with ANSI C63.4 2009 requirement.

Test Site	SPORTON INTERNATIONAL INC.	
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd Rd., Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C. TEL: +886-3-327-0855	
Test Site No.	Sporton Site No.	
	03CH11-HY	

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 v01
- ♦ FCC KDB 644545 D03 Guidance for IEEE 802.11ac New Rules v01
- ♦ ANSI C63.10-2009

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. FCC permits the use of the 1.5 meter table as an alternative in C63.10-2013 through inquiry tracking number 961829.
3. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.



2 Test Configuration of Equipment Under Test

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 three orthogonal panels, X, Y, Z. The worst cases (X plane) were recorded in this report.

The final configuration from all the combinations and the worst-case data rates were investigated by measuring the maximum power across all the data rates and modulation modes under section 2.2.

Based on the worst configuration found above, the RF power setting is set individually to meet FCC compliance limit for the final conducted and radiated tests shown in section 2.3.

2.1 Carrier Frequency Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5150-5250 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)
5250-5350 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)
5470-5725 MHz Band 3 (U-NII-2C)	100	5500	120	5600
	102	5510	122	5610
	104	5520	124	5620
	106	5530	126	5630
	108	5540	128	5640
	110	5550	132	5660
	112	5560	134	5670
	116	5580	136	5680
	118	5590	140	5700

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

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



2.2 Pre-Scanned RF Power

Preliminary tests were performed in different data rate and data rate associated with the highest power were chosen for full test in the following tables. Final Output Power equals to Measured Output Power adds the duty factor.

5GHz 802.11a mode								
Data Rate (MHz)	6M bps	9M bps	12M bps	18M bps	24M bps	36M bps	48M bps	54M bps
Avg. Power (dBm)	10.81	10.75	10.74	10.75	10.75	10.77	10.80	10.65

5GHz 802.11n HT20 mode								
Data Rate (MHz)	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Avg. Power (dBm)	10.99	10.73	10.90	10.98	10.96	10.94	10.92	10.96

5GHz 802.11n HT40mode								
Data Rate (MHz)	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Avg. Power (dBm)	10.98	10.68	10.81	10.86	10.86	10.87	10.90	10.90

5GHz 802.11ac VHT20 mode									
Data Rate (MHz)	MCS 0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8
Avg. Power (dBm)	7.98	7.86	7.82	7.85	7.83	7.98	7.93	7.88	7.93

5GHz 802.11ac VHT40 mode										
Data Rate (MHz)	MCS 0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8	MCS 9
Avg. Power (dBm)	7.94	7.87	7.87	7.88	7.87	7.81	7.91	7.88	7.88	7.88

5GHz 802.11ac VHT80 mode										
Data Rate (MHz)	MCS 0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8	MCS 9
Avg. Power (dBm)	7.98	7.88	7.86	7.87	7.93	7.95	7.92	7.93	7.90	7.94

2.3 Test Mode

Final test mode of conducted test items and radiated spurious emissions are considering the modulation and worse data rates from the power table described in section 2.2.

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 : LTE Band 7 Idle + WLAN Link + Bluetooth Link + NFC Link + Earphone 2 + Battery + USB Cable (Charging from Adapter)



Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5470-5725MHz
		802.11a	802.11a	802.11a
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5470-5725MHz
		802.11n HT20	802.11n HT20	802.11n HT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5470-5725MHz
		802.11n HT40	802.11n HT40	802.11n HT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134
Straddle		-	-	142



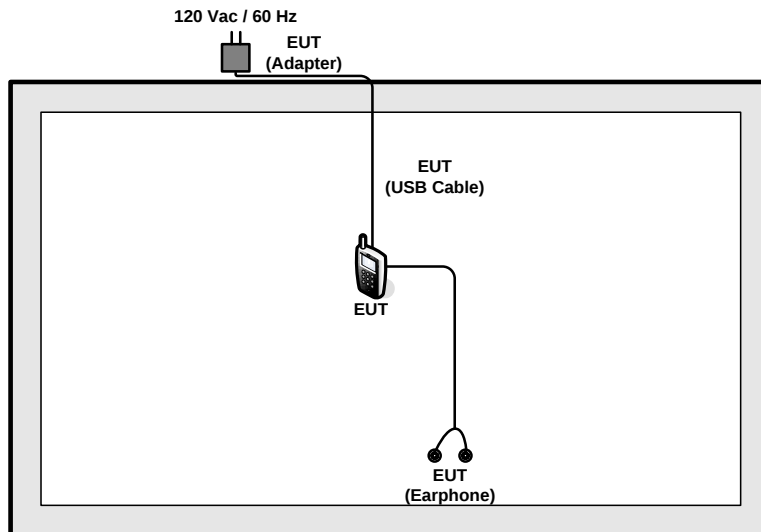
Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5470-5725MHz
		802.11ac VHT20	802.11ac VHT20	802.11ac VHT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5470-5725MHz
		802.11ac VHT40	802.11ac VHT40	802.11ac VHT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134
Straddle		-	-	142

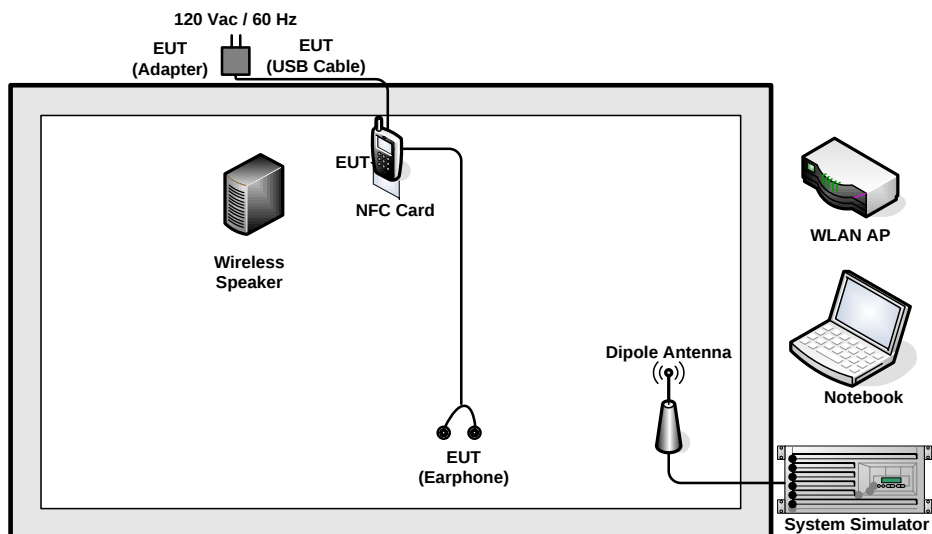
Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5470-5725MHz
		802.11ac VHT80	802.11ac VHT80	802.11ac VHT80
L	Low	-	-	106
M	Middle	42	58	122
H	High	-	-	-
Straddle		-	-	138

2.4 Connection Diagram of Test System

< Radiated Emission Mode>



<AC Conducted Emissions>



2.5 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	WLAN AP	D-Link	DIR-628	KA2DIR628A2	N/A	Unshielded, 1.8 m
3.	iPod	Apple	A1285	FCC DoC	Shielded, 1.0 m	N/A
4.	Notebook	DELL	Latitude E6320	FCC DoC/ Contains FCC ID: QDS-BRCM1054	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
5.	NFC Card	Metro Taipei	Easy Card	N/A	N/A	N/A

2.6 EUT Operation Test Setup

For WLAN function, programmed RF utility, “Tera Term” installed in the notebook make the EUT provide functions like channel selection and power level for continuous transmitting and receiving signals.

2.7 Measurement Results Explanation Example

For all conducted test items:

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

Example :

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 4.2 dB and 10dB attenuator.

$$\begin{aligned}
 \text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)}. \\
 &= 4.2 + 10 = 14.2 \text{ (dB)}
 \end{aligned}$$

3 Test Result

3.1 26dB & 99% Occupied Bandwidth Measurement

3.1.1 Description of 26dB & 99% Occupied Bandwidth

This section is for reporting purpose only.

There is no restriction limits for bandwidth.

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

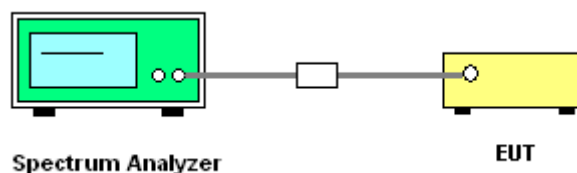
3.1.2 Measuring Instruments

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 v01.
Section C) Emission bandwidth
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 26 dB down from the peak of the emission.
Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
7. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1MHz and set the Video bandwidth (VBW) $\geq 3 * \text{RBW}$.
8. Measure and record the results in the test report.

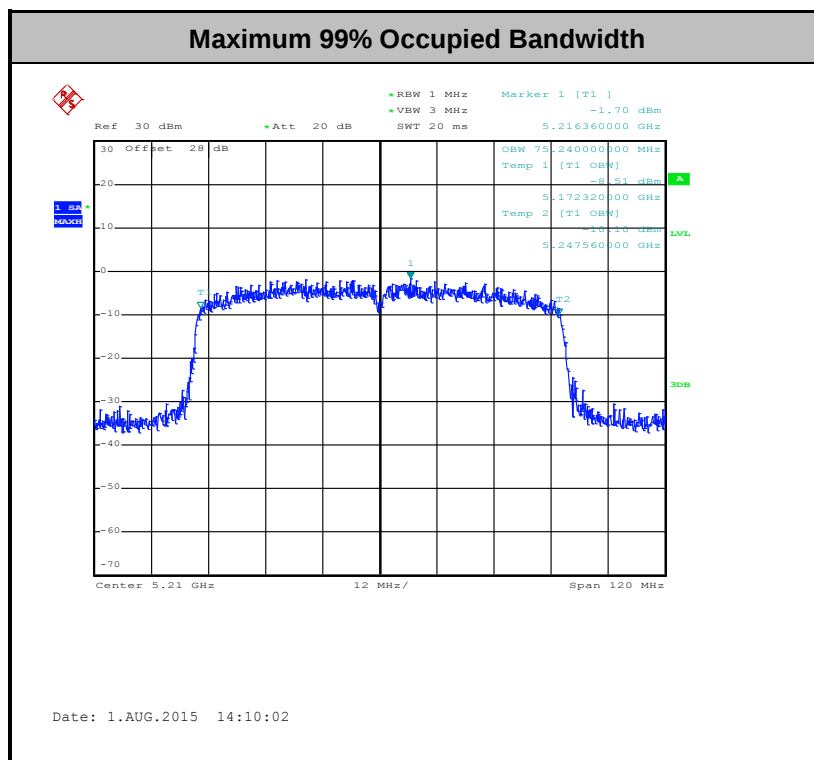
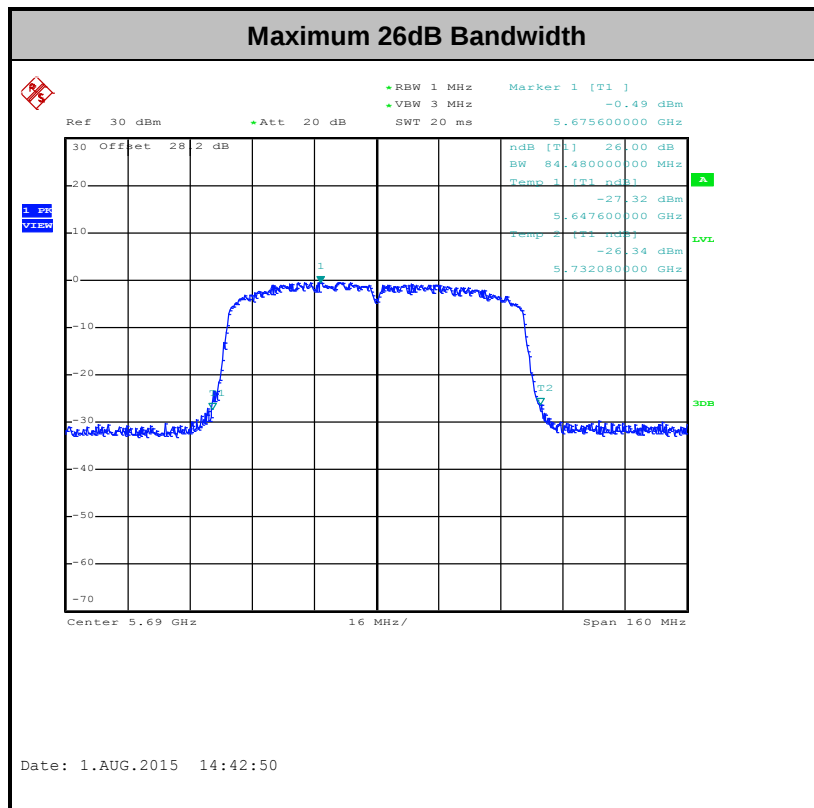
3.1.4 Test Setup





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

Please refer to Appendix A.



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

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 v01.

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

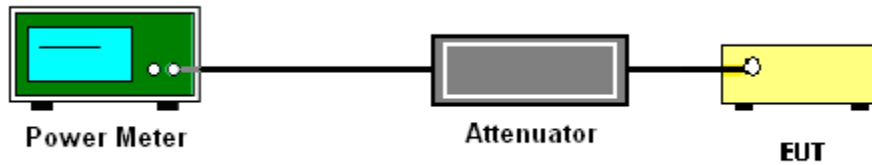
1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit continuously with a consistent duty cycle at its maximum power control level.
3. Measure the average power of the transmitter, and the average power is corrected with duty factor, $10 \log(1/x)$, where x 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 v01.

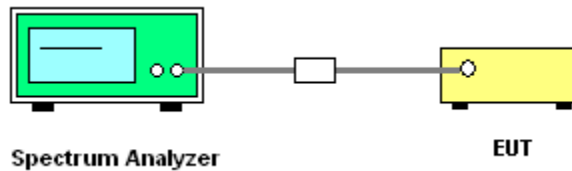
Compute power by integrating the spectrum across the 99% occupied bandwidth of the signal using the instrument's band power measurement function.

3.2.4 Test Setup

For normal channel:

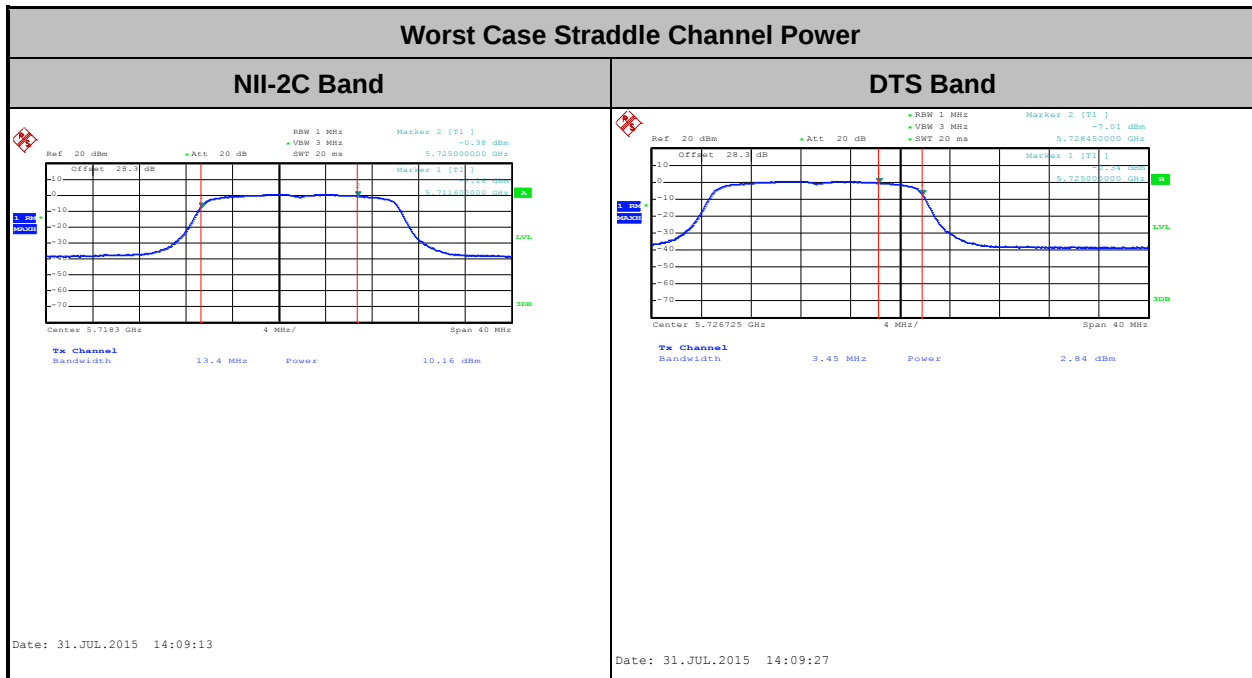


For straddle channel:



3.2.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.





3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

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 v01.

Section F) Maximum power spectral density.

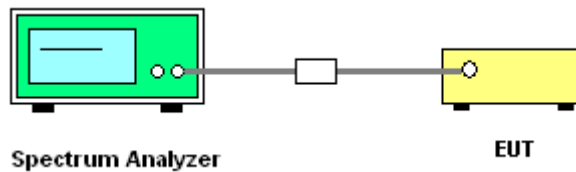
Method SA-2

(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 v01.
 - Measure the duty cycle.
 - Set span to encompass the entire emission bandwidth (EBW) of the signal.
 - Set RBW = 1 MHz.
 - Set VBW $\geq$ 3 MHz.
 - Number of points in sweep $\geq$ 2 Span / RBW.
 - Sweep time = auto.
 - Detector = RMS
 - Trace average at least 100 traces in power averaging mode.
 - Add $10 \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add $10 \log(1/0.25) = 6$ dB if the duty cycle is 25 percent.

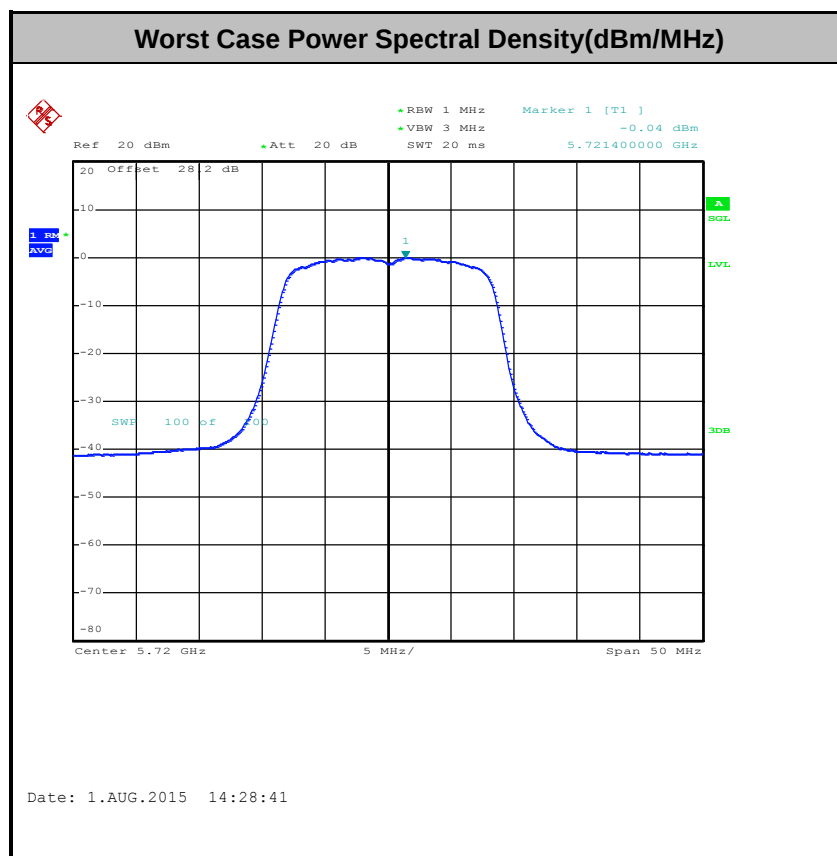
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.

3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.



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.

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

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

- (3) KDB789033 v01 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 v01.

Section G) Unwanted emissions measurement.

(1) Procedure for Unwanted Emissions Measurements Below 1000MHz

- RBW = 120 kHz
- VBW = 300 kHz
- Detector = Peak
- Trace mode = max hold

(2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz

- RBW = 1 MHz
- VBW $\geq$ 3 MHz
- Detector = Peak
- Sweep time = auto
- Trace mode = max hold

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

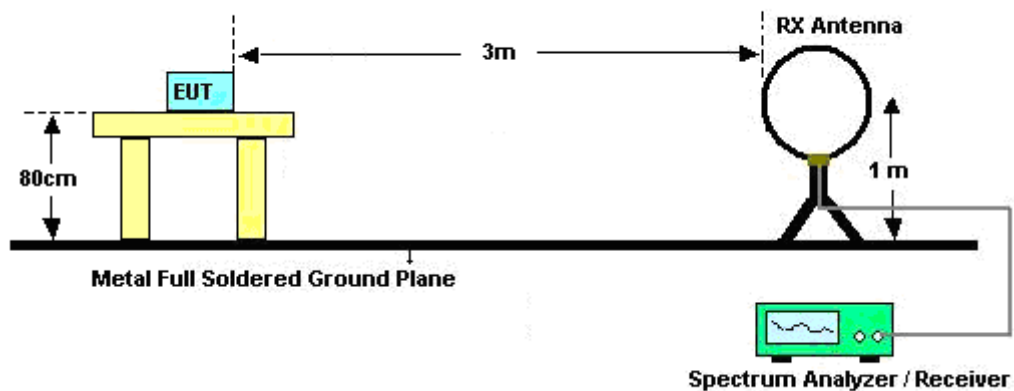
- RBW = 1 MHz
- VBW = 10 Hz, when duty cycle is no less than 98 percent.
- VBW $\geq$ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

Band	Duty Cycle(%)	T(μ s)	1/T(kHz)	VBW Setting
802.11a	95.22	2075.32	0.48	1kHz
802.11n HT20	94.5	1927.89	0.52	1kHz
802.11n HT40	90.17	951.92	1.05	3kHz
802.11n VHT20	95.41	1931.09	0.52	1kHz
802.11n VHT40	90.14	951.92	1.05	3kHz
802.11n VHT80	82.81	461.14	2.17	3kHz

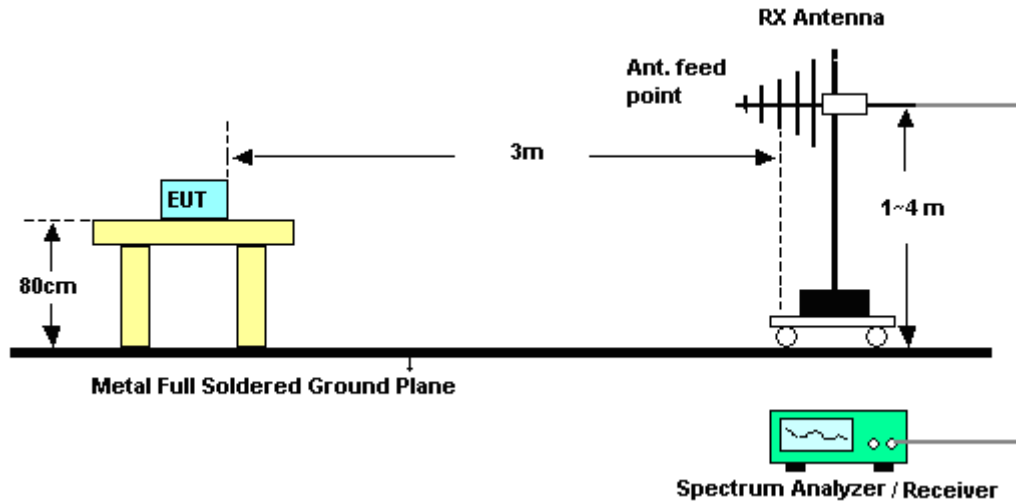
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband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

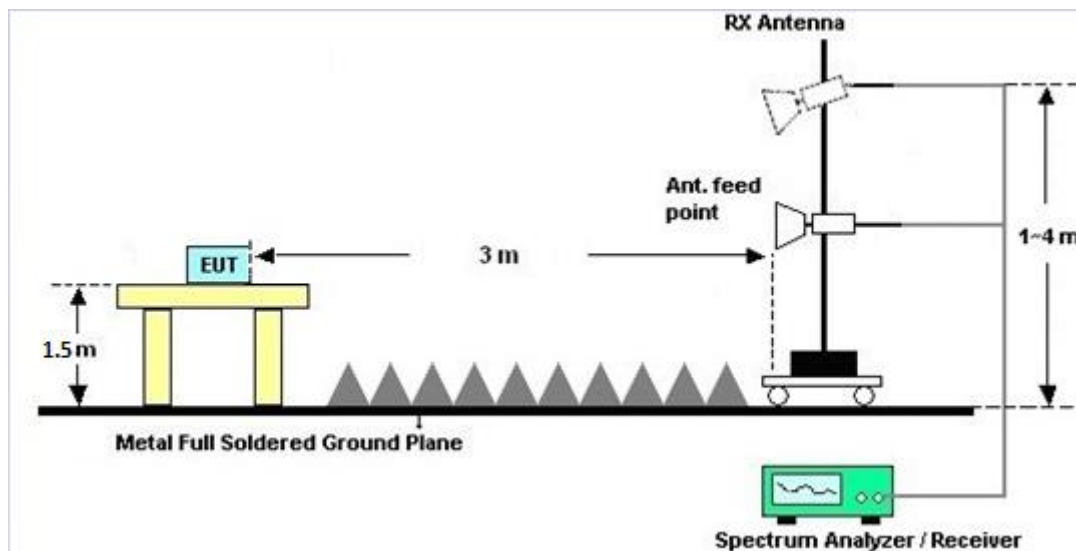
For radiated emissions below 30MHz



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 A.

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

Please refer to Appendix A.

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 (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

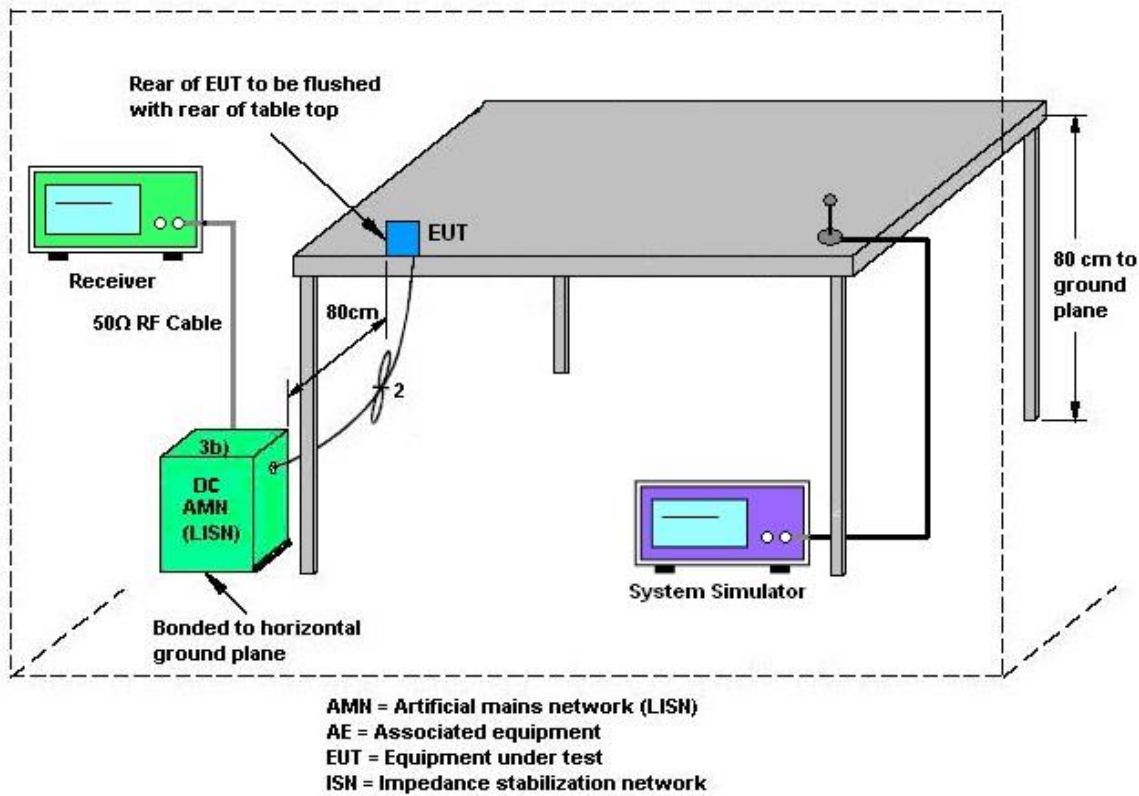
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

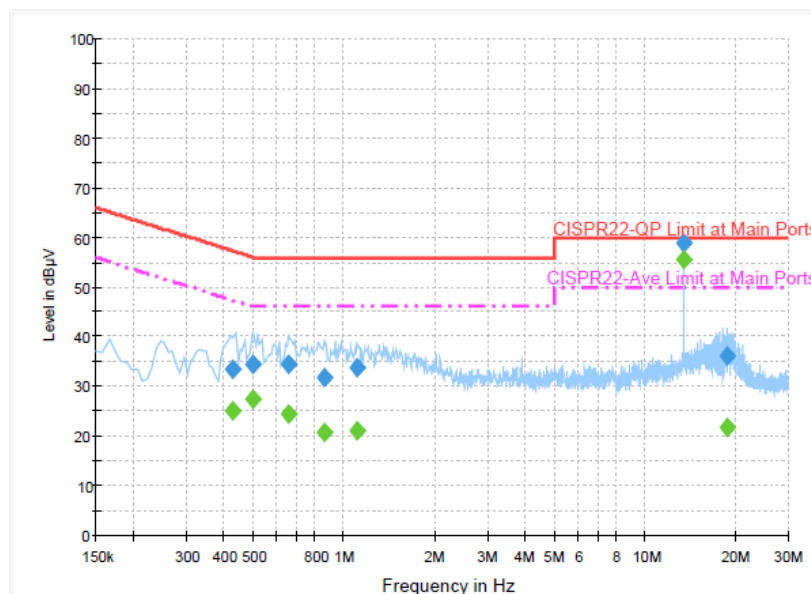
3.5.4 Test Setup



3.5.5 Test Result of AC Conducted Emission

<Original Test Result>

Test Mode :	Mode 1	Temperature :	23~25℃
Test Engineer :	Eric Jeng	Relative Humidity :	48~52%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	LTE Band 7 Idle + WLAN Link + Bluetooth Link + NFC Link + Earphone 2 + Battery + USB Cable (Charging from Adapter)		



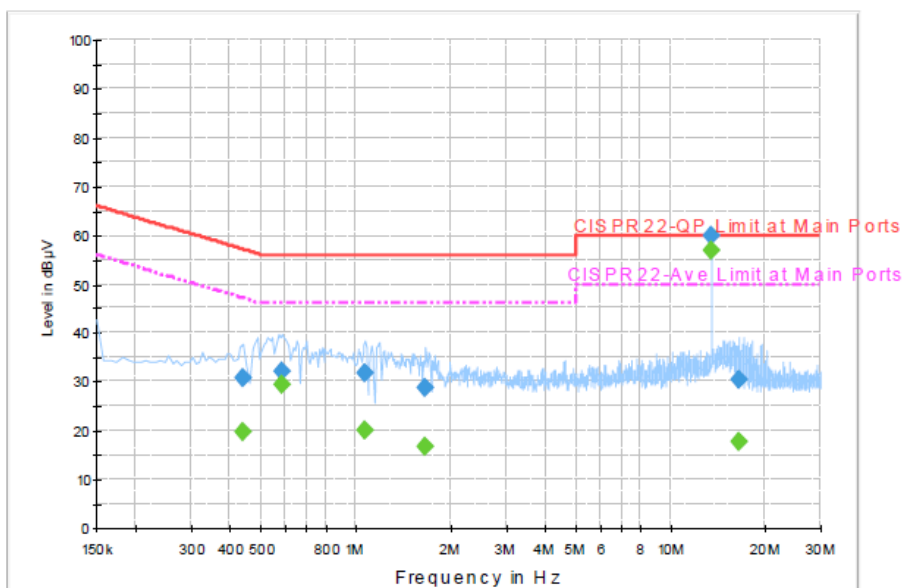
Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.430000	33.4	Off	L1	19.5	23.9	57.3
0.502000	34.6	Off	L1	19.4	21.4	56.0
0.654000	34.6	Off	L1	19.5	21.4	56.0
0.862000	31.8	Off	L1	19.5	24.2	56.0
1.110000	33.9	Off	L1	19.5	22.1	56.0
13.558000	58.8	Off	L1	19.9	1.2	60.0
18.854000	36.1	Off	L1	20.0	23.9	60.0

Final Result : Average

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.430000	25.1	Off	L1	19.5	22.2	47.3
0.502000	27.3	Off	L1	19.4	18.7	46.0
0.654000	24.5	Off	L1	19.5	21.5	46.0
0.862000	20.6	Off	L1	19.5	25.4	46.0
1.110000	21.0	Off	L1	19.5	25.0	46.0
13.558000	55.4	Off	L1	19.9	-5.4	50.0
18.854000	21.6	Off	L1	20.0	28.4	50.0

Test Mode :	Mode 1	Temperature :	23~25°C
Test Engineer :	Eric Jeng	Relative Humidity :	48~52%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	LTE Band 7 Idle + WLAN Link + Bluetooth Link + NFC Link + Earphone 2 + Battery + USB Cable (Charging from Adapter)		


Final Result : QuasiPeak

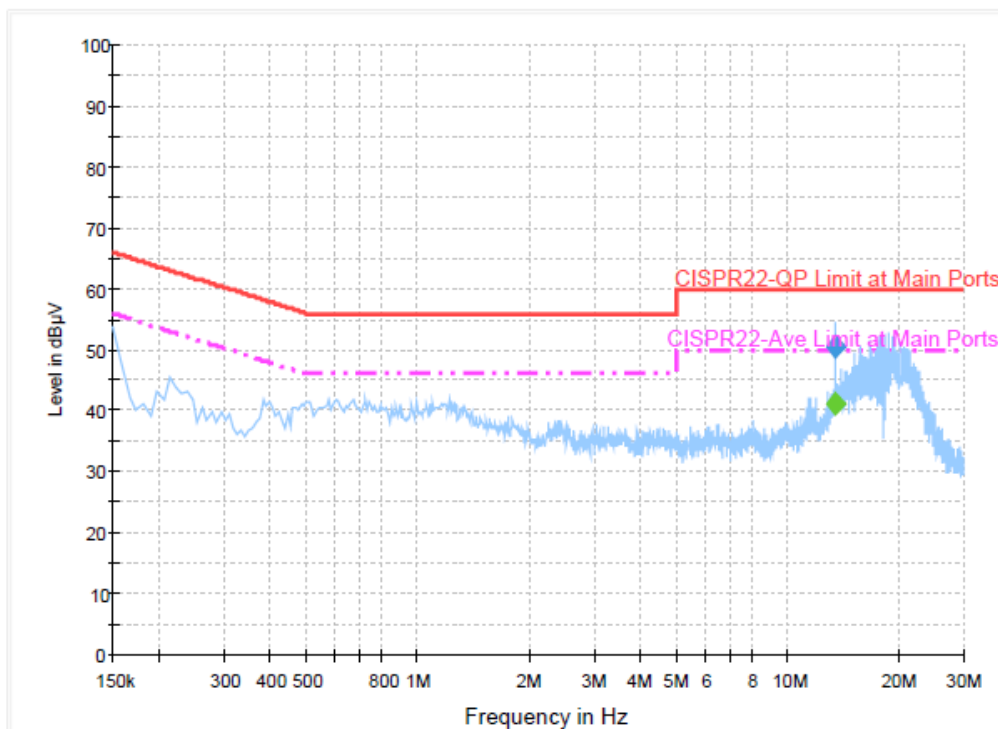
Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.438000	30.9	Off	N	19.5	26.2	57.1
0.582000	32.0	Off	N	19.4	24.0	56.0
1.070000	31.8	Off	N	19.6	24.2	56.0
1.670000	28.7	Off	N	19.6	27.3	56.0
13.558000	59.9	Off	N	19.9	0.1	60.0
16.574000	30.5	Off	N	20.0	29.5	60.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.438000	19.8	Off	N	19.5	27.3	47.1
0.582000	29.4	Off	N	19.4	16.6	46.0
1.070000	20.2	Off	N	19.6	25.8	46.0
1.670000	16.7	Off	N	19.6	29.3	46.0
13.558000	56.7	Off	N	19.9	-6.7	50.0
16.574000	17.9	Off	N	20.0	32.1	50.0

<Terminal Test Result>

Test Mode :	Mode 1	Temperature :	23~25°C
Test Engineer :	Eric Jeng	Relative Humidity :	48~52%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	LTE Band 7 Idle + WLAN Link + Bluetooth Link + NFC Link + Earphone 2 + Battery + USB Cable (Charging from Adapter)		

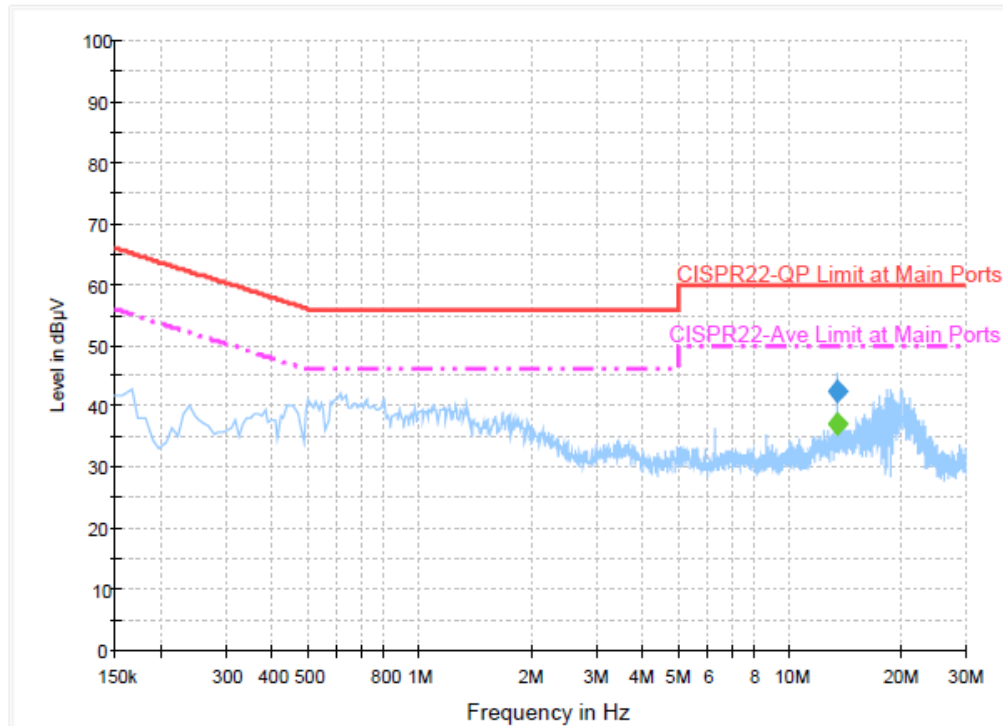

Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
13.558000	50.4	Off	L1	19.9	9.6	60.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
13.558000	41.1	Off	L1	19.9	8.9	50.0

Test Mode :	Mode 1	Temperature :	23~25°C
Test Engineer :	Eric Jeng	Relative Humidity :	48~52%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	LTE Band 7 Idle + WLAN Link + Bluetooth Link + NFC Link + Earphone 2 + Battery + USB Cable (Charging from Adapter)		


Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
13.558000	42.3	Off	N	20.0	17.7	60.0

Final Result : Average

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
13.558000	37.0	Off	N	20.0	13.0	50.0

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.

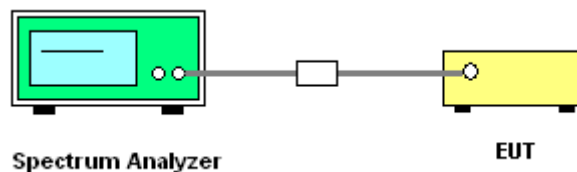
3.6.2 Measuring Instruments

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

An embedded-in antenna design 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
Hygrometer	Testo	608-H1	34897199	N/A	May. 04, 2015	Jul. 30, 2015~ Aug. 01, 2015	May. 03, 2016	Conducted (TH02-HY)
Power Meter	Anritsu	ML2495A	1036004	300MHz~40GHz	Jul. 29, 2015	Jul. 30, 2015~ Aug. 01, 2015	Jul. 28, 2016	Conducted (TH02-HY)
Power Sensor	Anritsu	MA2411B	1027253	300MHz~40GHz	Jul. 29, 2015	Jul. 30, 2015~ Aug. 01, 2015	Jul. 28, 2016	Conducted (TH02-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100055	9kHz~40GHz	Jun. 18, 2015	Jul. 30, 2015~ Aug. 01, 2015	Jun. 17, 2016	Conducted (TH02-HY)
Thermal Chamber	Ten Billion	TTH-D3SP	TBN-930701	N/A	Jul. 16, 2015	Jul. 30, 2015~ Aug. 01, 2015	Jul. 15, 2016	Conducted (TH02-HY)
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 03, 2014	Aug. 05, 2015~ Aug. 16, 2015	Nov. 02, 2015	Radiation (03CH11-HY)
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	Feb. 02, 2015	Aug. 05, 2015~ Aug. 16, 2015	Feb. 01, 2016	Radiation (03CH11-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Nov. 24, 2014	Aug. 05, 2015~ Aug. 16, 2015	Nov. 23, 2015	Radiation (03CH11-HY)
Bilog Antenna	TESEQ	CBL 6111D	35414	30MHz~1GHz	Oct. 24, 2014	Aug. 05, 2015~ Aug. 16, 2015	Oct. 23, 2015	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1326	1GHz ~ 18GHz	Oct. 03, 2014	Aug. 05, 2015~ Aug. 16, 2015	Oct. 02, 2015	Radiation (03CH11-HY)
Hygrometer	TECEP	DTN-303B	TP140325	N/A	Nov. 19, 2014	Aug. 05, 2015~ Aug. 16, 2015	Nov. 18, 2015	Radiation (03CH11-HY)
Preamplifier	Keysight	83017A	MY53270080	1GHz~26.5GHz	Nov. 20, 2014	Aug. 05, 2015~ Aug. 16, 2015	Nov. 19, 2015	Radiation (03CH11-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1902247	1GHz~18GHz	Jul. 01, 2015	Aug. 05, 2015~ Aug. 16, 2015	Jun. 30, 2016	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz ~ 44GHZ	Sep. 24, 2014	Aug. 05, 2015~ Aug. 16, 2015	Sep. 23, 2015	Radiation (03CH11-HY)
Controller	EMEC	EM 1000	N/A	Control Turn table & Ant Mast	N/A	Aug. 05, 2015~ Aug. 16, 2015	N/A	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Aug. 05, 2015~ Aug. 16, 2015	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0-360 degree	N/A	Aug. 05, 2015~ Aug. 16, 2015	N/A	Radiation (03CH11-HY)
EMI Test Receiver	Agilent	N9038A	MY53290053	20Hz to 26.5GHz	Feb. 02, 2015	Aug. 05, 2015~ Aug. 16, 2015	Feb. 01, 2016	Radiation (03CH11-HY)
Preamplifier	MITEQ	JS44-1800400 0-33-8P	1840917	18GHz ~ 40GHz	Jun. 02, 2015	Aug. 05, 2015~ Aug. 16, 2015	Jun. 01, 2016	Radiation (03CH11-HY)
EMI Test Receiver	Rohde & Schwarz	ESCS 30	100356	9kHz ~ 2.75GHz	Dec. 01, 2014	Aug. 07, 2015~ Aug. 11, 2015	Nov. 30, 2015	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Apr. 20, 2015	Aug. 07, 2015~ Aug. 11, 2015	Apr. 19, 2016	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Dec. 02, 2014	Aug. 07, 2015~ Aug. 11, 2015	Dec. 01, 2015	Conduction (CO05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Aug. 07, 2015~ Aug. 11, 2015	N/A	Conduction (CO05-HY)



5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.26
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.90
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Appendix A. Conducted Test Results

Test Engineer:	AC Chang	Temperature:	21~25	°C
Test Date:	2015/07/30~2015/08/01	Relative Humidity:	51~54	%

TEST RESULTS DATA
26dB and 99% OBW

Band I										
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)		
11a	6Mbps	1	36	5180	16.85	20.95	-	22.27		
11a	6Mbps	1	44	5220	16.85	20.95	-	22.27		
11a	6Mbps	1	48	5240	16.85	21.05	-	22.27		
HT20	MCS0	1	36	5180	17.85	21.90	-	22.52		
HT20	MCS0	1	44	5220	17.85	21.85	-	22.52		
HT20	MCS0	1	48	5240	17.90	21.65	-	22.53		
HT40	MCS0	1	38	5190	36.00	41.76	-	23.01		
HT40	MCS0	1	46	5230	36.20	41.67	-	23.01		
VHT20	MCS0	1	36	5180	17.85	21.75	-	22.52		
VHT20	MCS0	1	44	5220	17.85	21.90	-	22.52		
VHT20	MCS0	1	48	5240	17.85	21.80	-	22.52		
VHT40	MCS0	1	38	5190	36.20	41.85	-	23.01		
VHT40	MCS0	1	46	5230	36.10	42.12	-	23.01		
VHT80	MCS0	1	42	5210	75.24	82.72	-	23.01		

TEST RESULTS DATA
Average Power Table

FCC Band I										
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)		Pass/Fail
11a	6Mbps	1	36	5180	0.21	10.74	24.00	-0.40		Pass
11a	6Mbps	1	44	5220	0.21	10.78	24.00	-0.40		Pass
11a	6Mbps	1	48	5240	0.21	10.76	24.00	-0.40		Pass
HT20	MCS0	1	36	5180	0.25	10.62	24.00	-0.40		Pass
HT20	MCS0	1	44	5220	0.25	10.52	24.00	-0.40		Pass
HT20	MCS0	1	48	5240	0.25	10.55	24.00	-0.40		Pass
HT40	MCS0	1	38	5190	0.45	10.71	24.00	-0.40		Pass
HT40	MCS0	1	46	5230	0.45	10.77	24.00	-0.40		Pass
VHT20	MCS0	1	36	5180	0.20	7.96	24.00	-0.40		Pass
VHT20	MCS0	1	44	5220	0.20	7.89	24.00	-0.40		Pass
VHT20	MCS0	1	48	5240	0.20	7.85	24.00	-0.40		Pass
VHT40	MCS0	1	38	5190	0.45	7.60	24.00	-0.40		Pass
VHT40	MCS0	1	46	5230	0.45	7.73	24.00	-0.40		Pass
VHT80	MCS0	1	42	5210	0.82	7.93	24.00	-0.40		Pass

TEST RESULTS DATA
Power Spectral Density

FCC Band I										
Mod.	Data Rate	N _{TX}	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	0.21	-0.96	11.00	-0.40		Pass
11a	6Mbps	1	44	5220	0.21	-0.44	11.00	-0.40		Pass
11a	6Mbps	1	48	5240	0.21	-0.60	11.00	-0.40		Pass
HT20	MCS0	1	36	5180	0.25	-0.90	11.00	-0.40		Pass
HT20	MCS0	1	44	5220	0.25	-0.92	11.00	-0.40		Pass
HT20	MCS0	1	48	5240	0.25	-1.07	11.00	-0.40		Pass
HT40	MCS0	1	38	5190	0.45	-3.82	11.00	-0.40		Pass
HT40	MCS0	1	46	5230	0.45	-3.91	11.00	-0.40		Pass
VHT20	MCS0	1	36	5180	0.20	-3.59	11.00	-0.40		Pass
VHT20	MCS0	1	44	5220	0.20	-3.35	11.00	-0.40		Pass
VHT20	MCS0	1	48	5240	0.20	-3.49	11.00	-0.40		Pass
VHT40	MCS0	1	38	5190	0.45	-6.99	11.00	-0.40		Pass
VHT40	MCS0	1	46	5230	0.45	-6.97	11.00	-0.40		Pass
VHT80	MCS0	1	42	5210	0.82	-9.97	11.00	-0.40		Pass

TEST RESULTS DATA
26dB and 99% OBW

Band II										
Mod.	Data Rate	N _{Tx}	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	Note
11a	6M bps	1	52	5260	16.85	20.8	23.27	29.27	23.98	
11a	6M bps	1	60	5300	16.9	20.9	23.28	29.28	23.98	
11a	6M bps	1	64	5320	16.9	21	23.28	29.28	23.98	
HT20	MCS 0	1	52	5260	17.9	21.85	23.53	29.53	23.98	
HT20	MCS 0	1	60	5300	17.8	21.8	23.50	29.50	23.98	
HT20	MCS 0	1	64	5320	17.9	21.85	23.53	29.53	23.98	
HT40	MCS 0	1	54	5270	36.1	41.67	23.98	30.00	23.98	
HT40	MCS 0	1	62	5310	36.2	41.67	23.98	30.00	23.98	
VHT20	MCS 0	1	52	5260	17.85	21.65	23.52	29.52	23.98	
VHT20	MCS 0	1	60	5300	17.85	21.65	23.52	29.52	23.98	
VHT20	MCS 0	1	64	5320	17.85	21.9	23.52	29.52	23.98	
VHT40	MCS 0	1	54	5270	36.2	41.85	23.98	30.00	23.98	
VHT40	MCS 0	1	62	5310	36.1	41.76	23.98	30.00	23.98	
VHT80	MCS 0	1	58	5290	75.12	83.2	23.98	30.00	23.98	

TEST RESULTS DATA
Average Power Table

FCC Band II										
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	6M bps	1	52	5260	0.21	10.72	23.98	-0.40		Pass
11a	6M bps	1	60	5300	0.21	10.74	23.98	-0.40		Pass
11a	6M bps	1	64	5320	0.21	10.81	23.98	-0.40		Pass
HT20	MCS 0	1	52	5260	0.25	10.50	23.98	-0.40		Pass
HT20	MCS 0	1	60	5300	0.25	10.52	23.98	-0.40		Pass
HT20	MCS 0	1	64	5320	0.25	10.67	23.98	-0.40		Pass
HT40	MCS 0	1	54	5270	0.45	10.70	23.98	-0.40		Pass
HT40	MCS 0	1	62	5310	0.45	10.77	23.98	-0.40		Pass
VHT20	MCS 0	1	52	5260	0.20	7.93	23.98	-0.40		Pass
VHT20	MCS 0	1	60	5300	0.20	7.87	23.98	-0.40		Pass
VHT20	MCS 0	1	64	5320	0.20	7.98	23.98	-0.40		Pass
VHT40	MCS 0	1	54	5270	0.45	7.62	23.98	-0.40		Pass
VHT40	MCS 0	1	62	5310	0.45	7.75	23.98	-0.40		Pass
VHT80	MCS 0	1	58	5290	0.82	7.87	23.98	-0.40		Pass

TEST RESULTS DATA
Power Spectral Density

Band II										
Mod.	Data Rate	N _{TX}	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	0.21	-0.49	11.00	-0.40		Pass
11a	6M bps	1	60	5300	0.21	-0.55	11.00	-0.40		Pass
11a	6M bps	1	64	5320	0.21	-0.47	11.00	-0.40		Pass
HT20	MCS 0	1	52	5260	0.25	-1.36	11.00	-0.40		Pass
HT20	MCS 0	1	60	5300	0.25	-0.86	11.00	-0.40		Pass
HT20	MCS 0	1	64	5320	0.25	-0.88	11.00	-0.40		Pass
HT40	MCS 0	1	54	5270	0.45	-3.85	11.00	-0.40		Pass
HT40	MCS 0	1	62	5310	0.45	-3.82	11.00	-0.40		Pass
VHT20	MCS 0	1	52	5260	0.20	-4.18	11.00	-0.40		Pass
VHT20	MCS 0	1	60	5300	0.20	-3.28	11.00	-0.40		Pass
VHT20	MCS 0	1	64	5320	0.20	-3.35	11.00	-0.40		Pass
VHT40	MCS 0	1	54	5270	0.45	-7.21	11.00	-0.40		Pass
VHT40	MCS 0	1	62	5310	0.45	-6.67	11.00	-0.40		Pass
VHT80	MCS 0	1	58	5290	0.82	-10.05	11.00	-0.40		Pass

TEST RESULTS DATA
26dB and 99% OBW

Band III										
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	Note
11a	6M bps	1	100	5500	16.8	20.8	23.25	29.25	23.98	
11a	6M bps	1	116	5580	16.8	20.9	23.25	29.25	23.98	
11a	6M bps	1	140	5700	16.85	20.75	23.27	29.27	23.98	
HT20	MCS 0	1	100	5500	17.9	21.7	23.53	29.53	23.98	
HT20	MCS 0	1	116	5580	17.85	21.95	23.52	29.52	23.98	
HT20	MCS 0	1	140	5700	17.9	21.9	23.53	29.53	23.98	
HT40	MCS 0	1	102	5510	36.1	41.85	23.98	30.00	23.98	
HT40	MCS 0	1	110	5550	36.1	41.76	23.98	30.00	23.98	
HT40	MCS 0	1	134	5670	36.1	41.76	23.98	30.00	23.98	
VHT20	MCS 0	1	100	5500	17.9	21.85	23.53	29.53	23.98	
VHT20	MCS 0	1	116	5580	17.8	21.85	23.50	29.50	23.98	
VHT20	MCS 0	1	140	5700	17.9	21.7	23.53	29.53	23.98	
VHT40	MCS 0	1	102	5510	36.1	41.94	23.98	30.00	23.98	
VHT40	MCS 0	1	110	5550	36.2	41.94	23.98	30.00	23.98	
VHT40	MCS 0	1	134	5670	36.1	41.85	23.98	30.00	23.98	
VHT80	MCS 0	1	106	5530	75.12	83.84	23.98	30.00	23.98	
VHT80	MCS 0	1	122	5610	75	83.36	23.98	30.00	23.98	

TEST RESULTS DATA
Average Power Table

FCC Band III										
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	6M bps	1	100	5500	0.21	10.59	23.98	-0.40		Pass
11a	6M bps	1	116	5580	0.21	10.55	23.98	-0.40		Pass
11a	6M bps	1	140	5700	0.21	10.72	23.98	-0.40		Pass
HT20	MCS 0	1	100	5500	0.25	10.97	23.98	-0.40		Pass
HT20	MCS 0	1	116	5580	0.25	10.87	23.98	-0.40		Pass
HT20	MCS 0	1	140	5700	0.25	10.99	23.98	-0.40		Pass
HT40	MCS 0	1	102	5510	0.45	10.98	23.98	-0.40		Pass
HT40	MCS 0	1	110	5550	0.45	10.90	23.98	-0.40		Pass
HT40	MCS 0	1	134	5670	0.45	10.86	23.98	-0.40		Pass
VHT20	MCS 0	1	100	5500	0.20	7.82	23.98	-0.40		Pass
VHT20	MCS 0	1	116	5580	0.20	7.76	23.98	-0.40		Pass
VHT20	MCS 0	1	140	5700	0.20	7.79	23.98	-0.40		Pass
VHT40	MCS 0	1	102	5510	0.45	7.94	23.98	-0.40		Pass
VHT40	MCS 0	1	110	5550	0.45	7.86	23.98	-0.40		Pass
VHT40	MCS 0	1	134	5670	0.45	7.70	23.98	-0.40		Pass
VHT80	MCS 0	1	106	5530	0.82	7.92	23.98	-0.40		Pass
VHT80	MCS 0	1	122	5610	0.82	7.98	23.98	-0.40		Pass

TEST RESULTS DATA
Power Spectral Density

Band III										
Mod.	Data Rate	N _{TX}	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	0.21	-0.33	11.00	-0.40		Pass
11a	6M bps	1	116	5580	0.21	-0.65	11.00	-0.40		Pass
11a	6M bps	1	140	5700	0.21	-0.68	11.00	-0.40		Pass
HT20	MCS 0	1	100	5500	0.25	-0.33	11.00	-0.40		Pass
HT20	MCS 0	1	116	5580	0.25	-0.15	11.00	-0.40		Pass
HT20	MCS 0	1	140	5700	0.25	-0.09	11.00	-0.40		Pass
HT40	MCS 0	1	102	5510	0.45	-3.27	11.00	-0.40		Pass
HT40	MCS 0	1	110	5550	0.45	-3.51	11.00	-0.40		Pass
HT40	MCS 0	1	134	5670	0.45	-3.89	11.00	-0.40		Pass
VHT20	MCS 0	1	100	5500	0.20	-3.34	11.00	-0.40		Pass
VHT20	MCS 0	1	116	5580	0.20	-3.60	11.00	-0.40		Pass
VHT20	MCS 0	1	140	5700	0.20	-3.37	11.00	-0.40		Pass
VHT40	MCS 0	1	102	5510	0.45	-6.00	11.00	-0.40		Pass
VHT40	MCS 0	1	110	5550	0.45	-6.49	11.00	-0.40		Pass
VHT40	MCS 0	1	134	5670	0.45	-6.64	11.00	-0.40		Pass
VHT80	MCS 0	1	106	5530	0.82	-8.55	11.00	-0.40		Pass
VHT80	MCS 0	1	122	5610	0.82	-9.37	11.00	-0.40		Pass

TEST RESULTS DATA
26dB and 99% OBW

Straddle Channel										
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	Note
11a	6Mbps	1	144	5720	16.85	20.75	-	-	-	
				NII-2C	13.4	15.5	22.27	28.27	22.90	
				NII-3	3.45	5.25	22.38	28.38	-	
HT20	MCS0	1	144	5720	17.85	21.95	-	-	-	
				NII-2C	13.9	15.95	22.43	28.43	23.03	
				NII-3	3.95	6	22.97	28.97	-	
HT40	MCS0	1	142	5710	36.20	41.58	-	-	-	
				NII-2C	33.1	35.79	23.98	30.00	23.98	
				NII-3	3.1	5.79	21.91	27.91	-	
VHT20	MCS0	1	144	5720	17.85	21.85	-	-	-	
				NII-2C	13.9	15.95	22.43	28.43	23.03	
				NII-3	3.95	5.9	22.97	28.97	-	
VHT40	MCS0	1	142	5710	37.10	41.94	-	-	-	
				NII-2C	34	35.88	23.98	30.00	23.98	
				NII-3	3.1	6.06	21.91	27.91	-	
VHT80	MCS0	1	138	5690	75.24	84.48	-	-	-	
				NII-2C	72.8	77.4	23.98	30.00	23.98	
				NII-3	2.44	7.08	20.87	26.87	-	

TEST RESULTS DATA
Average Power Table

FCC 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	0.21	10.90	-	-0.40		Pass
				NII-2C	0.21	10.16	22.90	-0.40		Pass
				NII-3	0.21	2.84	30.00	-0.40		Pass
HT20	MCS0	1	144	5720	0.25	10.78	-	-0.40		Pass
				NII-2C	0.25	10.01	23.03	-0.40		Pass
				NII-3	0.25	2.86	30.00	-0.40		Pass
HT40	MCS0	1	142	5710	0.45	10.75	-	-0.40		Pass
				NII-2C	0.45	10.52	23.98	-0.40		Pass
				NII-3	0.45	-2.19	30.00	-0.40		Pass
VHT20	MCS0	1	144	5720	0.20	7.70	-	-0.40		Pass
				NII-2C	0.20	6.91	23.03	-0.40		Pass
				NII-3	0.20	-0.11	30.00	-0.40		Pass
VHT40	MCS0	1	142	5710	0.45	10.70	-	-0.40		Pass
				NII-2C	0.45	10.48	23.98	-0.40		Pass
				NII-3	0.45	-2.28	30.00	-0.40		Pass
VHT80	MCS0	1	138	5690	0.82	7.87	-	-0.40		Pass
				NII-2C	0.82	7.80	23.98	-0.40		Pass
				NII-3	0.82	-10.39	30.00	-0.40		Pass

TEST RESULTS DATA
Power Spectral Density

Straddle Channel										
Mod.	Data Rate	N _{TX}	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	0.21	0.17	11.00	-0.40		Pass
				NII-3	0.21	0.17	30.00	-0.40		Pass
HT20	MCS0	1	144	NII-2C	0.25	-0.28	11.00	-0.40		Pass
				NII-3	0.25	-0.28	30.00	-0.40		Pass
HT40	MCS0	1	142	NII-2C	0.45	-3.31	11.00	-0.40		Pass
				NII-3	0.45	-3.31	30.00	-0.40		Pass
VHT20	MCS0	1	144	NII-2C	0.20	-3.20	11.00	-0.40		Pass
				NII-3	0.20	-3.20	30.00	-0.40		Pass
VHT40	MCS0	1	142	NII-2C	0.45	-5.80	11.00	-0.40		Pass
				NII-3	0.45	-5.80	30.00	-0.40		Pass
VHT80	MCS0	1	138	NII-2C	0.82	-9.30	11.00	-0.40		Pass
				NII-3	0.82	-9.30	30.00	-0.40		Pass

TEST RESULTS DATA
Frequency Stability

Band I										
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stability (ppm)	Temperature (°C)	Voltage (V)	Note
11a	6Mbps	1	36	5180	5180.050	0.050	9.65	20	3.5	
11a	6Mbps	1	36	5180	5180.050	0.050	9.65	20	4.35	
11a	6Mbps	1	36	5180	5180.050	0.050	9.65	20	4	
11a	6Mbps	1	36	5180	5180.050	0.050	9.65	-30	4	
11a	6Mbps	1	36	5180	5180.075	0.075	14.48	50	4	

Band II										
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stability (ppm)	Temperature (°C)	Voltage (V)	Note
11a	6Mbps	1	64	5320	5320.025	0.025	4.70	20	3.5	
11a	6Mbps	1	64	5320	5320.050	0.050	9.40	20	4.35	
11a	6Mbps	1	64	5320	5320.025	0.025	4.70	20	4	
11a	6Mbps	1	64	5320	5320.050	0.050	9.40	-30	4	
11a	6Mbps	1	64	5320	5320.100	0.100	18.80	50	4	

Band III										
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stability (ppm)	Temperature (°C)	Voltage (V)	Note
11a	6Mbps	1	100	5500	5500.050	0.050	9.09	20	3.5	
11a	6Mbps	1	100	5500	5500.050	0.050	9.09	20	4.35	
11a	6Mbps	1	100	5500	5500.025	0.025	4.55	20	4	
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	-30	4	
11a	6Mbps	1	100	5500	5500.075	0.075	13.64	50	4	



Appendix B. Radiated Spurious Emission

<Normal Mode>

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5127.95	50.05	-23.95	74	42.93	31.71	8.95	33.54	103	17	P	H
		5149.7	40.24	-13.76	54	33.11	31.72	8.95	33.54	103	17	A	H
	*	5180	94	-	-	86.82	31.75	8.97	33.54	103	17	P	H
	*	5180	87.78	-	-	80.6	31.75	8.97	33.54	103	17	A	H
													H
													H
		5141.6	49.93	-24.07	74	42.8	31.72	8.95	33.54	100	115	P	V
		5148.95	41.64	-12.36	54	34.51	31.72	8.95	33.54	100	115	A	V
	*	5180	100.59	-	-	93.41	31.75	8.97	33.54	100	115	P	V
	*	5180	93.3	-	-	86.12	31.75	8.97	33.54	100	115	A	V
													V
													V
802.11a CH 44 5220MHz		5025.2	49.25	-24.75	74	42.29	31.63	8.86	33.53	117	18	P	H
		5104.85	39.85	-14.15	54	32.78	31.68	8.92	33.53	117	18	A	H
	*	5220	95.17	-	-	87.96	31.77	8.98	33.54	117	18	P	H
	*	5220	89.06	-	-	81.85	31.77	8.98	33.54	117	18	A	H
		5436.9	48.13	-25.87	74	40.56	31.95	9.17	33.55	117	18	P	H
		5452.96	39.4	-14.6	54	31.77	31.96	9.22	33.55	117	18	A	H
		5105.75	49.82	-24.18	74	42.74	31.69	8.92	33.53	100	112	P	V
		5145.35	40.31	-13.69	54	33.18	31.72	8.95	33.54	100	112	A	V
	*	5220	100.79	-	-	93.58	31.77	8.98	33.54	100	112	P	V
	*	5220	93.61	-	-	86.4	31.77	8.98	33.54	100	112	A	V
		5415.45	48.13	-25.87	74	40.58	31.93	9.17	33.55	100	112	P	V
		5444.38	39.83	-14.17	54	32.21	31.95	9.22	33.55	100	112	A	V



802.11a CH 48 5240MHz		5083.55	48.96	-25.04	74	41.9	31.67	8.92	33.53	100	17	P	H
		5040.05	39.83	-14.17	54	32.86	31.64	8.86	33.53	100	17	A	H
	*	5240	96.42	-	-	89.19	31.79	8.98	33.54	100	17	P	H
	*	5240	88.89	-	-	81.66	31.79	8.98	33.54	100	17	A	H
		5424.91	48.92	-25.08	74	41.37	31.93	9.17	33.55	100	17	P	H
		5456.15	39.36	-14.64	54	31.73	31.96	9.22	33.55	100	17	A	H
		5001.65	49.52	-24.48	74	42.62	31.6	8.83	33.53	104	115	P	V
		5141.15	40.13	-13.87	54	33	31.72	8.95	33.54	104	115	A	V
	*	5240	101.38	-	-	94.15	31.79	8.98	33.54	104	115	P	V
	*	5240	94.4	-	-	87.17	31.79	8.98	33.54	104	115	A	V
		5414.35	48.27	-25.73	74	40.72	31.93	9.17	33.55	104	115	P	V
		5389.82	39.71	-14.29	54	32.22	31.91	9.13	33.55	104	115	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	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		10360	46.06	-27.94	74	60.53	39.94	13.09	67.5	100	0	P	H
		15540	45.8	-28.2	74	56.31	38.33	16.55	65.39	100	0	P	H
													H
													H
		10360	45.07	-28.93	74	59.54	39.94	13.09	67.5	100	0	P	V
		15540	44.78	-29.22	74	55.29	38.33	16.55	65.39	100	0	P	V
													V
													V
802.11a CH 44 5220MHz		10440	44.02	-29.98	74	58.39	40.02	13.11	67.5	100	0	P	H
		15660	44.54	-29.46	74	55.26	38.09	16.56	65.37	100	0	P	H
													H
													H
		10440	45.67	-28.33	74	60.04	40.02	13.11	67.5	100	0	P	V
		15660	44.46	-29.54	74	55.18	38.09	16.56	65.37	100	0	P	V
													V
													V
802.11a CH 48 5240MHz		10480	43.95	-30.05	74	58.26	40.08	13.11	67.5	100	0	P	H
		15720	44.61	-29.39	74	55.45	37.95	16.57	65.36	100	0	P	H
													H
													H
		10480	44.73	-29.27	74	59.04	40.08	13.11	67.5	100	0	P	V
		15720	44.33	-29.67	74	55.17	37.95	16.57	65.36	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



15E band 1 5150~5250MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 36 5180MHz		5145.8	49.79	-24.21	74	42.66	31.72	8.95	33.54	119	18	P	H
		5142.8	40.33	-13.67	54	33.2	31.72	8.95	33.54	119	18	A	H
	*	5180	94.45	-	-	87.27	31.75	8.97	33.54	119	18	P	H
	*	5180	87.37	-	-	80.19	31.75	8.97	33.54	119	18	A	H
													H
													H
		5125.7	50.17	-23.83	74	43.05	31.71	8.95	33.54	100	115	P	V
		5143.25	41.47	-12.53	54	34.34	31.72	8.95	33.54	100	115	A	V
	*	5180	99.93	-	-	92.75	31.75	8.97	33.54	100	115	P	V
	*	5180	92.3	-	-	85.12	31.75	8.97	33.54	100	115	A	V
													V
													V
802.11n HT20 CH 44 5220MHz		5143.85	49.08	-24.92	74	41.95	31.72	8.95	33.54	116	18	P	H
		5055.5	39.85	-14.15	54	32.84	31.65	8.89	33.53	116	18	A	H
	*	5220	95.81	-	-	88.6	31.77	8.98	33.54	116	18	P	H
	*	5220	88.44	-	-	81.23	31.77	8.98	33.54	116	18	A	H
		5434.59	48.05	-25.95	74	40.48	31.95	9.17	33.55	116	18	P	H
		5448.34	39.25	-14.75	54	31.62	31.96	9.22	33.55	116	18	A	H
		5058.05	49.16	-24.84	74	42.15	31.65	8.89	33.53	100	113	P	V
		5142.95	40.1	-13.9	54	32.97	31.72	8.95	33.54	100	113	A	V
	*	5220	100.82	-	-	93.61	31.77	8.98	33.54	100	113	P	V
	*	5220	92.98	-	-	85.77	31.77	8.98	33.54	100	113	A	V
		5442.95	48.13	-25.87	74	40.51	31.95	9.22	33.55	100	113	P	V
		5457.14	39.53	-14.47	54	31.9	31.96	9.22	33.55	100	113	A	V



802.11n HT20 CH 48 5240MHz		5092.4	49.17	-24.83	74	42.1	31.68	8.92	33.53	100	16	P	H
		5025.95	39.79	-14.21	54	32.83	31.63	8.86	33.53	100	16	A	H
	*	5240	95.66	-	-	88.43	31.79	8.98	33.54	100	16	P	H
	*	5240	87.93	-	-	80.7	31.79	8.98	33.54	100	16	A	H
		5425.24	48.38	-25.62	74	40.83	31.93	9.17	33.55	100	16	P	H
		5458.79	39.22	-14.78	54	31.59	31.96	9.22	33.55	100	16	A	H
		5099.45	48.67	-25.33	74	41.6	31.68	8.92	33.53	102	113	P	V
		5129.15	40.03	-13.97	54	32.91	31.71	8.95	33.54	102	113	A	V
	*	5240	101.3	-	-	94.07	31.79	8.98	33.54	102	113	P	V
	*	5240	93.71	-	-	86.48	31.79	8.98	33.54	102	113	A	V
		5432.28	48.65	-25.35	74	41.08	31.95	9.17	33.55	102	113	P	V
		5448.45	39.52	-14.48	54	31.89	31.96	9.22	33.55	102	113	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5150~5250MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 36 5180MHz		10360	45.21	-28.79	74	59.68	39.94	13.09	67.5	100	0	P	H
		15540	44.29	-29.71	74	54.8	38.33	16.55	65.39	100	0	P	H
													H
													H
		10360	45.36	-28.64	74	59.83	39.94	13.09	67.5	100	0	P	V
		15540	45.54	-28.46	74	56.05	38.33	16.55	65.39	100	0	P	V
													V
													V
802.11n HT20 CH 44 5220MHz		10440	44.61	-29.39	74	58.98	40.02	13.11	67.5	400	0	P	H
		15660	45.81	-28.19	74	56.53	38.09	16.56	65.37	100	0	P	H
													H
													H
		10440	44.2	-29.8	74	58.57	40.02	13.11	67.5	400	0	P	V
		15660	44.02	-29.98	74	54.74	38.09	16.56	65.37	100	0	P	V
													V
													V
802.11n HT20 CH 48 5240MHz		10480	45.2	-28.8	74	59.51	40.08	13.11	67.5	400	0	P	H
		15720	45.04	-28.96	74	55.88	37.95	16.57	65.36	100	0	P	H
													H
													H
		10480	44.84	-29.16	74	59.15	40.08	13.11	67.5	400	0	P	V
		15720	44.47	-29.53	74	55.31	37.95	16.57	65.36	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5150~5250MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 38 5190MHz		5069.3	49.22	-24.78	74	42.21	31.65	8.89	33.53	105	17	P	H
		5148.95	40.46	-13.54	54	33.33	31.72	8.95	33.54	105	17	A	H
	*	5190	91.64	-	-	84.46	31.75	8.97	33.54	105	17	P	H
	*	5190	84.13	-	-	76.95	31.75	8.97	33.54	105	17	A	H
		5350.88	47.33	-26.67	74	39.91	31.88	9.08	33.54	105	17	P	H
		5426.89	39.61	-14.39	54	32.06	31.93	9.17	33.55	105	17	A	H
		5149.55	52.88	-21.12	74	45.75	31.72	8.95	33.54	100	113	P	V
		5149.55	41.87	-12.13	54	34.74	31.72	8.95	33.54	100	113	A	V
	*	5190	96.56	-	-	89.38	31.75	8.97	33.54	100	113	P	V
	*	5190	89.48	-	-	82.3	31.75	8.97	33.54	100	113	A	V
		5448.89	48.25	-25.75	74	40.62	31.96	9.22	33.55	100	113	P	V
		5402.69	39.75	-14.25	54	32.21	31.92	9.17	33.55	100	113	A	V
802.11n HT40 CH 46 5230MHz		5069.15	49.34	-24.66	74	42.33	31.65	8.89	33.53	100	19	P	H
		5024.9	40.14	-13.86	54	33.18	31.63	8.86	33.53	100	19	A	H
	*	5230	92.34	-	-	85.11	31.79	8.98	33.54	100	19	P	H
		5403.35	48.72	-25.28	74	41.18	31.92	9.17	33.55	100	19	P	H
		5444.05	39.5	-14.5	54	31.88	31.95	9.22	33.55	100	19	A	H
													H
		5028.95	49.1	-24.9	74	42.14	31.63	8.86	33.53	100	114	P	V
		5135.3	40.21	-13.79	54	33.09	31.71	8.95	33.54	100	114	A	V
	*	5230	98.28	-	-	91.05	31.79	8.98	33.54	100	114	P	V
	*	5230	90.12	-	-	82.89	31.79	8.98	33.54	100	114	A	V
		5449.77	47.89	-26.11	74	40.26	31.96	9.22	33.55	100	114	P	V
		5452.08	39.87	-14.13	54	32.24	31.96	9.22	33.55	100	114	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5150~5250MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 38 5190MHz		10380	45.49	-28.51	74	59.94	39.96	13.09	67.5	100	0	P	H
		15570	45.35	-28.65	74	55.93	38.26	16.55	65.39	100	0	P	H
													H
													H
		10380	45.98	-28.02	74	60.43	39.96	13.09	67.5	100	0	P	V
		15570	44.5	-29.5	74	55.08	38.26	16.55	65.39	100	0	P	V
													V
													V
802.11n HT40 CH 46 5230MHz		10460	44.08	-29.92	74	58.43	40.04	13.11	67.5	100	0	P	H
		15690	44.54	-29.46	74	55.32	38.02	16.56	65.36	100	0	P	H
													H
													H
		10460	44.5	-29.5	74	58.85	40.04	13.11	67.5	100	0	P	V
		15690	45.24	-28.76	74	56.02	38.02	16.56	65.36	100	0	P	V
													V
													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	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)
802.11ac VHT80 CH 42 5210MHz		5123.75	48.96	-25.04	74	41.84	31.71	8.95	33.54	116	16	P	H
		5139	40.79	-13.21	54	33.67	31.71	8.95	33.54	116	16	A	H
	*	5210	86.07	-	-	78.86	31.77	8.98	33.54	116	16	P	H
	*	5210	79.34	-	-	72.13	31.77	8.98	33.54	116	16	A	H
		5444.6	49.21	-24.79	74	41.59	31.95	9.22	33.55	116	16	P	H
		5451.42	39.65	-14.35	54	32.02	31.96	9.22	33.55	116	16	A	H
		5104.4	50.47	-23.53	74	43.4	31.68	8.92	33.53	100	114	P	V
		5149.85	41.77	-12.23	54	34.64	31.72	8.95	33.54	100	114	A	V
	*	5210	91.47	-	-	84.26	31.77	8.98	33.54	100	114	P	V
	*	5210	84.04	-	-	76.83	31.77	8.98	33.54	100	114	A	V
		5390	48.49	-25.51	74	41	31.91	9.13	33.55	100	114	P	V
		5355.72	40.13	-13.87	54	32.71	31.88	9.08	33.54	100	114	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	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)
802.11ac VHT80 CH 42 5210MHz		10420	44.94	-29.06	74	59.34	40	13.1	67.5	100	0	P	H
		15630	43.88	-30.12	74	54.58	38.12	16.55	65.37	100	0	P	H
													H
													H
		10420	45.31	-28.69	74	59.71	40	13.1	67.5	100	0	P	V
		15630	44.1	-29.9	74	54.8	38.12	16.55	65.37	100	0	P	V
													V
													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	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 52 5260MHz		5060.3	48.91	-25.09	74	41.9	31.65	8.89	33.53	112	17	P	H
		5071.7	39.81	-14.19	54	32.78	31.67	8.89	33.53	112	17	A	H
	*	5260	95.97	-	-	88.71	31.81	8.99	33.54	112	17	P	H
	*	5260	88.82	-	-	81.56	31.81	8.99	33.54	112	17	A	H
		5375.85	48.1	-25.9	74	40.63	31.89	9.13	33.55	112	17	P	H
		5456.48	39.44	-14.56	54	31.81	31.96	9.22	33.55	112	17	A	H
		5096	49.49	-24.51	74	42.42	31.68	8.92	33.53	109	114	P	V
		5124.35	40.05	-13.95	54	32.93	31.71	8.95	33.54	109	114	A	V
	*	5260	101.62	-	-	94.36	31.81	8.99	33.54	109	114	P	V
	*	5260	94.48	-	-	87.22	31.81	8.99	33.54	109	114	A	V
		5413.14	48.96	-25.04	74	41.41	31.93	9.17	33.55	109	114	P	V
		5455.6	39.84	-14.16	54	32.21	31.96	9.22	33.55	109	114	A	V
802.11a CH 60 5300MHz		5133.05	49.29	-24.71	74	42.17	31.71	8.95	33.54	100	14	P	H
		5058.35	39.87	-14.13	54	32.86	31.65	8.89	33.53	100	14	A	H
	*	5300	96.05	-	-	88.71	31.84	9.04	33.54	100	14	P	H
	*	5300	89	-	-	81.66	31.84	9.04	33.54	100	14	A	H
		5350.66	48.47	-25.53	74	41.05	31.88	9.08	33.54	100	14	P	H
		5453.62	39.35	-14.65	54	31.72	31.96	9.22	33.55	100	14	A	H
		5017.85	49.6	-24.4	74	42.66	31.61	8.86	33.53	100	115	P	V
		5080.7	40.21	-13.79	54	33.18	31.67	8.89	33.53	100	115	A	V
	*	5300	101.5	-	-	94.16	31.84	9.04	33.54	100	115	P	V
	*	5300	94.68	-	-	87.34	31.84	9.04	33.54	100	115	A	V
		5358.14	50.32	-23.68	74	42.9	31.88	9.08	33.54	100	115	P	V
		5352.2	41.2	-12.8	54	33.78	31.88	9.08	33.54	100	115	A	V



802.11a CH 64 5320MHz	*	5320	95.24	-	-	87.89	31.85	9.04	33.54	100	24	P	H
	*	5320	89.31	-	-	81.96	31.85	9.04	33.54	100	24	A	H
		5429.97	49.45	-24.55	74	41.88	31.95	9.17	33.55	100	24	P	H
		5351.32	39.87	-14.13	54	32.45	31.88	9.08	33.54	100	24	A	H
													H
													H
	*	5320	102.47	-	-	95.12	31.85	9.04	33.54	100	113	P	V
	*	5320	95.12	-	-	87.77	31.85	9.04	33.54	100	113	A	V
		5350.22	50.26	-23.74	74	42.84	31.88	9.08	33.54	100	113	P	V
		5350	42.76	-11.24	54	35.34	31.88	9.08	33.54	100	113	A	V
													V
													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	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 52 5260MHz		10520	45.33	-28.67	74	59.56	40.11	13.14	67.48	100	0	P	H
		15780	43.46	-30.54	74	54.38	37.85	16.57	65.34	100	0	P	H
													H
													H
		10520	45.24	-28.76	74	59.47	40.11	13.14	67.48	100	0	P	V
		15780	43.43	-30.57	74	54.35	37.85	16.57	65.34	100	0	P	V
													V
													V
802.11a CH 60 5300MHz		10600	44.39	-29.61	74	58.43	40.16	13.2	67.4	100	0	P	H
		15900	43.84	-30.16	74	54.97	37.61	16.58	65.32	100	0	P	H
													H
													H
		10600	44.69	-29.31	74	58.73	40.16	13.2	67.4	100	0	P	V
		15900	42.5	-31.5	74	53.63	37.61	16.58	65.32	100	0	P	V
													V
													V
802.11a CH 64 5320MHz		10640	45.03	-28.97	74	58.98	40.18	13.23	67.36	100	0	P	H
		15960	42.75	-31.25	74	54	37.47	16.59	65.31	100	0	P	H
													H
													H
		10640	45.39	-28.61	74	59.34	40.18	13.23	67.36	100	0	P	V
		15960	43.34	-30.66	74	54.59	37.47	16.59	65.31	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 2 5250~5350MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 52 5260MHz		5063	49.97	-24.03	74	42.96	31.65	8.89	33.53	111	17	P	H
		5052.95	39.8	-14.2	54	32.8	31.64	8.89	33.53	111	17	A	H
	*	5260	94.55	-	-	87.29	31.81	8.99	33.54	111	17	P	H
	*	5260	87.83	-	-	80.57	31.81	8.99	33.54	111	17	A	H
		5354.73	49.01	-24.99	74	41.59	31.88	9.08	33.54	111	17	P	H
		5452.3	39.29	-14.71	54	31.66	31.96	9.22	33.55	111	17	A	H
		5055.65	49.37	-24.63	74	42.36	31.65	8.89	33.53	100	115	P	V
		5036.75	40	-14	54	33.04	31.63	8.86	33.53	100	115	A	V
	*	5260	100.96	-	-	93.7	31.81	8.99	33.54	100	115	P	V
	*	5260	93.73	-	-	86.47	31.81	8.99	33.54	100	115	A	V
		5373.87	50.41	-23.59	74	42.94	31.89	9.13	33.55	100	115	P	V
		5354.29	39.75	-14.25	54	32.33	31.88	9.08	33.54	100	115	A	V
802.11n HT20 CH 60 5300MHz		5087	49.41	-24.59	74	42.35	31.67	8.92	33.53	100	12	P	H
		5040.65	39.76	-14.24	54	32.79	31.64	8.86	33.53	100	12	A	H
	*	5300	95.37	-	-	88.03	31.84	9.04	33.54	100	12	P	H
	*	5300	87.88	-	-	80.54	31.84	9.04	33.54	100	12	A	H
		5458.24	48.07	-25.93	74	40.44	31.96	9.22	33.55	100	12	P	H
		5456.7	39.19	-14.81	54	31.56	31.96	9.22	33.55	100	12	A	H
		5149.55	48.93	-25.07	74	41.8	31.72	8.95	33.54	112	109	P	V
		5081.75	39.98	-14.02	54	32.95	31.67	8.89	33.53	112	109	A	V
	*	5300	101.54	-	-	94.2	31.84	9.04	33.54	112	109	P	V
	*	5300	94.06	-	-	86.72	31.84	9.04	33.54	112	109	A	V
		5388.06	49.88	-24.12	74	42.39	31.91	9.13	33.55	112	109	P	V
		5354.18	40.66	-13.34	54	33.24	31.88	9.08	33.54	112	109	A	V



802.11n HT20 CH 64 5320MHz	*	5300	94.99	-	-	87.65	31.84	9.04	33.54	100	12	P	H
	*	5300	87.71	-	-	80.37	31.84	9.04	33.54	100	12	A	H
		5457.03	48.44	-25.56	74	40.81	31.96	9.22	33.55	100	12	P	H
		5364.08	39.15	-14.85	54	31.67	31.89	9.13	33.54	100	12	A	H
													H
													H
	*	5300	101.44	-	-	94.1	31.84	9.04	33.54	112	109	P	V
	*	5300	94.09	-	-	86.75	31.84	9.04	33.54	112	109	A	V
		5435.8	48.87	-25.13	74	41.3	31.95	9.17	33.55	112	109	P	V
		5350	40.6	-13.4	54	33.18	31.88	9.08	33.54	112	109	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 2 5250~5350MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 52 5260MHz		10520	45.45	-28.55	74	59.68	40.11	13.14	67.48	100	0	P	H
		15780	43.81	-30.19	74	54.73	37.85	16.57	65.34	100	0	P	H
													H
													H
		10520	45.09	-28.91	74	59.32	40.11	13.14	67.48	100	0	P	V
		15780	43.27	-30.73	74	54.19	37.85	16.57	65.34	100	0	P	V
													V
													V
802.11n HT20 CH 60 5300MHz		10600	44.97	-29.03	74	59.01	40.16	13.2	67.4	100	0	P	H
		15900	42.46	-31.54	74	53.59	37.61	16.58	65.32	100	0	P	H
													H
													H
		10600	45.11	-28.89	74	59.15	40.16	13.2	67.4	100	0	P	V
		15900	42.9	-31.1	74	54.03	37.61	16.58	65.32	100	0	P	V
													V
													V
802.11n HT20 CH 64 5320MHz		10640	44.58	-29.42	74	58.53	40.18	13.23	67.36	100	0	P	H
		15960	42.93	-31.07	74	54.18	37.47	16.59	65.31	100	0	P	H
													H
													H
		10640	45.13	-28.87	74	59.08	40.18	13.23	67.36	100	0	P	V
		15960	43.16	-30.84	74	54.41	37.47	16.59	65.31	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 2 5250~5350MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 54 5270MHz		5113.4	49.39	-24.61	74	42.31	31.69	8.92	33.53	102	17	P	H
		5066	40.09	-13.91	54	33.08	31.65	8.89	33.53	102	17	A	H
	*	5270	92.7	-	-	85.44	31.81	8.99	33.54	102	17	P	H
	*	5270	85.07	-	-	77.81	31.81	8.99	33.54	102	17	A	H
		5361.77	47.76	-26.24	74	40.28	31.89	9.13	33.54	102	17	P	H
		5389.38	39.45	-14.55	54	31.96	31.91	9.13	33.55	102	17	A	H
		5066.15	49.13	-24.87	74	42.12	31.65	8.89	33.53	103	113	P	V
		5104.4	40.1	-13.9	54	33.03	31.68	8.92	33.53	103	113	A	V
	*	5270	98.68	-	-	91.42	31.81	8.99	33.54	103	113	P	V
	*	5270	91.17	-	-	83.91	31.81	8.99	33.54	103	113	A	V
		5419.74	48.53	-25.47	74	40.98	31.93	9.17	33.55	103	113	P	V
		5364.63	39.87	-14.13	54	32.39	31.89	9.13	33.54	103	113	A	V
802.11n HT40 CH 62 5310MHz		5057.3	49.03	-24.97	74	42.02	31.65	8.89	33.53	100	14	P	H
		5050.1	40.33	-13.67	54	33.33	31.64	8.89	33.53	100	14	A	H
	*	5310	92.49	-	-	85.14	31.85	9.04	33.54	100	14	P	H
	*	5310	85.24	-	-	77.89	31.85	9.04	33.54	100	14	A	H
		5373.43	48.25	-25.75	74	40.78	31.89	9.13	33.55	100	14	P	H
		5355.28	39.71	-14.29	54	32.29	31.88	9.08	33.54	100	14	A	H
		5140.4	49.64	-24.36	74	42.51	31.72	8.95	33.54	106	111	P	V
		5103.5	40.21	-13.79	54	33.14	31.68	8.92	33.53	106	111	A	V
	*	5310	98.62	-	-	91.27	31.85	9.04	33.54	106	111	P	V
	*	5310	91.33	-	-	83.98	31.85	9.04	33.54	106	111	A	V
		5357.15	58.35	-15.65	74	50.93	31.88	9.08	33.54	106	111	P	V
		5350.33	44.01	-9.99	54	36.59	31.88	9.08	33.54	106	111	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 2 5250~5350MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 54 5270MHz		10540	45.69	-28.31	74	59.9	40.12	13.14	67.47	100	0	P	H
		15810	43.85	-30.15	74	54.84	37.78	16.57	65.34	100	0	P	H
													H
													H
		10540	45.99	-28.01	74	60.2	40.12	13.14	67.47	100	0	P	V
		15810	43.42	-30.58	74	54.41	37.78	16.57	65.34	100	0	P	V
													V
													V
802.11n HT40 CH 62 5310MHz		10620	45.16	-28.84	74	59.17	40.17	13.2	67.38	100	0	P	H
		15930	42.72	-31.28	74	53.91	37.54	16.58	65.31	100	0	P	H
													H
													H
		10620	45.26	-28.74	74	59.27	40.17	13.2	67.38	100	0	P	V
		15930	42.62	-31.38	74	53.81	37.54	16.58	65.31	100	0	P	V
													V
													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	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)
802.11ac VHT80 CH 58 5290MHz		5117.15	49.35	-24.65	74	42.27	31.69	8.92	33.53	100	117	P	H
		5041.25	40.23	-13.77	54	33.26	31.64	8.86	33.53	100	117	A	H
	*	5290	86.4	-	-	79.07	31.83	9.04	33.54	100	117	P	H
	*	5290	79.25	-	-	71.92	31.83	9.04	33.54	100	117	A	H
		5404.89	47.26	-26.74	74	39.72	31.92	9.17	33.55	100	117	P	H
		5441.96	39.67	-14.33	54	32.05	31.95	9.22	33.55	100	117	A	H
		5115.05	50.05	-23.95	74	42.97	31.69	8.92	33.53	100	113	P	V
		5109.8	40.61	-13.39	54	33.53	31.69	8.92	33.53	100	113	A	V
	*	5290	93.41	-	-	86.08	31.83	9.04	33.54	100	113	P	V
	*	5290	85.56	-	-	78.23	31.83	9.04	33.54	100	113	A	V
		5369.25	49.32	-24.68	74	41.84	31.89	9.13	33.54	100	113	P	V
		5352.75	41.86	-12.14	54	34.44	31.88	9.08	33.54	100	113	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	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)
802.11ac VHT80 CH 58 5290MHz		10580	44.97	-29.03	74	59.06	40.15	13.17	67.41	100	0	P	H
		15870	43.06	-30.94	74	54.16	37.64	16.58	65.32	100	0	P	H
													H
													H
		10580	45.04	-28.96	74	59.13	40.15	13.17	67.41	100	0	P	V
		15870	43.76	-30.24	74	54.86	37.64	16.58	65.32	100	0	P	V
													V
													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	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 100 5500MHz		5440.72	50.13	-23.87	74	42.56	31.95	9.17	33.55	100	117	P	H
		5467.76	40.96	-13.04	54	33.32	31.97	9.22	33.55	100	117	A	H
	*	5500	94.56	-	-	86.85	32	9.26	33.55	100	117	P	H
	*	5500	88.38	-	-	80.67	32	9.26	33.55	100	117	A	H
													H
													H
		5444.56	51.05	-22.95	74	43.43	31.95	9.22	33.55	104	117	P	V
		5467.92	43.31	-10.69	54	35.67	31.97	9.22	33.55	104	117	A	V
	*	5500	101.78	-	-	94.07	32	9.26	33.55	104	117	P	V
	*	5500	94.43	-	-	86.72	32	9.26	33.55	104	117	A	V
													V
													V
802.11a CH 116 5580MHz		5356.56	48.98	-25.02	74	41.56	31.88	9.08	33.54	100	115	P	H
		5468.4	39.59	-14.41	54	31.95	31.97	9.22	33.55	100	115	A	H
	*	5580	94.27	-	-	86.44	32.1	9.32	33.59	100	115	P	H
	*	5580	86.59	-	-	78.76	32.1	9.32	33.59	100	115	A	H
		5741.72	49.38	-24.62	74	41.25	32.34	9.44	33.65	100	115	P	H
		5749.32	39.89	-14.11	54	31.76	32.34	9.44	33.65	100	115	A	H
		5454.48	49.33	-24.67	74	41.7	31.96	9.22	33.55	100	115	P	V
		5470	40.01	-13.99	54	32.37	31.97	9.22	33.55	100	115	A	V
	*	5580	101.16	-	-	93.33	32.1	9.32	33.59	100	115	P	V
	*	5580	94.06	-	-	86.23	32.1	9.32	33.59	100	115	A	V
		5753.48	49.1	-24.9	74	40.95	32.36	9.44	33.65	100	115	P	V
		5745.56	40.02	-13.98	54	31.89	32.34	9.44	33.65	100	115	A	V



802.11a CH 140 5700MHz	*	5700	94.46	-	-	86.43	32.27	9.39	33.63	100	111	P	H
	*	5700	87.6	-	-	79.57	32.27	9.39	33.63	100	111	A	H
		5728.76	48.68	-25.32	74	40.57	32.31	9.44	33.64	100	111	P	H
		5726.36	40.39	-13.61	54	32.28	32.31	9.44	33.64	100	111	A	H
													H
													H
	*	5700	100.27	-	-	92.24	32.27	9.39	33.63	100	112	P	V
	*	5700	93.7	-	-	85.67	32.27	9.39	33.63	100	112	A	V
		5744.04	50.41	-23.59	74	42.28	32.34	9.44	33.65	100	112	P	V
		5726.84	41.97	-12.03	54	33.86	32.31	9.44	33.64	100	112	A	V
													V
													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	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 100 5500MHz		11000	45.2	-28.8	74	58.32	40.4	13.48	67	100	0	P	H
		16500	43.49	-30.51	74	51.68	39	16.81	64	100	0	P	H
													H
													H
		11000	44.92	-29.08	74	58.04	40.4	13.48	67	100	0	P	V
		16500	44.22	-29.78	74	52.41	39	16.81	64	100	0	P	V
													V
													V
802.11a CH 116 5580MHz		11160	43.8	-30.2	74	56.46	40.27	13.64	66.57	100	0	P	H
		16740	45.17	-28.83	74	52.35	39.92	16.8	63.9	100	0	P	H
													H
													H
		11160	44.68	-29.32	74	57.34	40.27	13.64	66.57	100	0	P	V
		16740	44.98	-29.02	74	52.16	39.92	16.8	63.9	100	0	P	V
													V
													V
802.11a CH 140 5700MHz		11400	44.3	-29.7	74	56.31	40.08	13.87	65.96	100	0	P	H
		17100	46.12	-27.88	74	52.07	41.12	16.85	63.92	100	0	P	H
													H
													H
		11400	45.23	-28.77	74	57.24	40.08	13.87	65.96	100	0	P	V
		17100	45.87	-28.13	74	51.82	41.12	16.85	63.92	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 100 5500MHz		5468.4	48.34	-25.66	74	40.7	31.97	9.22	33.55	104	113	P	H
		5469.84	40.25	-13.75	54	32.61	31.97	9.22	33.55	104	113	A	H
	*	5500	94.59	-	-	86.88	32	9.26	33.55	104	113	P	H
	*	5500	87.03	-	-	79.32	32	9.26	33.55	104	113	A	H
													H
													H
		5466.16	50.61	-23.39	74	42.97	31.97	9.22	33.55	101	111	P	V
		5470	43.2	-10.8	54	35.56	31.97	9.22	33.55	101	111	A	V
	*	5500	101.49	-	-	93.78	32	9.26	33.55	101	111	P	V
	*	5500	94.31	-	-	86.6	32	9.26	33.55	101	111	A	V
													V
													V
802.11n HT20 CH 116 5580MHz		5466.64	47.47	-26.53	74	39.83	31.97	9.22	33.55	100	114	P	H
		5459.28	39.25	-14.75	54	31.62	31.96	9.22	33.55	100	114	A	H
	*	5580	93.96	-	-	86.13	32.1	9.32	33.59	100	114	P	H
	*	5580	86.54	-	-	78.71	32.1	9.32	33.59	100	114	A	H
		5747.64	49.52	-24.48	74	41.39	32.34	9.44	33.65	100	114	P	H
		5752.92	39.88	-14.12	54	31.73	32.36	9.44	33.65	100	114	A	H
		5410.64	48.45	-25.55	74	40.91	31.92	9.17	33.55	100	113	P	V
		5465.2	39.66	-14.34	54	32.02	31.97	9.22	33.55	100	113	A	V
	*	5580	100.96	-	-	93.13	32.1	9.32	33.59	100	113	P	V
	*	5580	94.3	-	-	86.47	32.1	9.32	33.59	100	113	A	V
		5747.96	48.52	-25.48	74	40.39	32.34	9.44	33.65	100	113	P	V
		5754.84	40.01	-13.99	54	31.86	32.36	9.44	33.65	100	113	A	V



802.11n HT20 CH 140 5700MHz	*	5700	94.89	-	-	86.86	32.27	9.39	33.63	106	100	P	H
	*	5700	87.36	-	-	79.33	32.27	9.39	33.63	106	100	A	H
		5761.24	49.16	-24.84	74	41.01	32.36	9.44	33.65	106	100	P	H
		5732.12	40.33	-13.67	54	32.23	32.31	9.44	33.65	106	100	A	H
													H
													H
	*	5700	101.56	-	-	93.53	32.27	9.39	33.63	100	115	P	V
	*	5700	93.82	-	-	85.79	32.27	9.39	33.63	100	115	A	V
		5731.4	51.18	-22.82	74	43.08	32.31	9.44	33.65	100	115	P	V
		5725.16	42.01	-11.99	54	33.9	32.31	9.44	33.64	100	115	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 100 5500MHz		11000	46.36	-27.64	74	59.48	40.4	13.48	67	100	0	P	H
		16500	43.55	-30.45	74	51.74	39	16.81	64	100	0	P	H
													H
													H
		11000	45.69	-28.31	74	58.81	40.4	13.48	67	100	0	P	V
		16500	44.16	-29.84	74	52.35	39	16.81	64	100	0	P	V
													V
													V
802.11n HT20 CH 116 5580MHz		11160	45.09	-28.91	74	57.75	40.27	13.64	66.57	100	0	P	H
		16740	44.28	-29.72	74	51.46	39.92	16.8	63.9	100	0	P	H
													H
													H
		11160	44.07	-29.93	74	56.73	40.27	13.64	66.57	100	0	P	V
		16740	44.08	-29.92	74	51.26	39.92	16.8	63.9	100	0	P	V
													V
													V
802.11n HT20 CH 140 5700MHz		11400	44.78	-29.22	74	56.79	40.08	13.87	65.96	100	0	P	H
		17100	46.13	-27.87	74	52.08	41.12	16.85	63.92	100	0	P	H
													H
													H
		11400	44.56	-29.44	74	56.57	40.08	13.87	65.96	100	0	P	V
		17100	46.29	-27.71	74	52.24	41.12	16.85	63.92	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 102 5510MHz		5461.52	48.62	-25.38	74	40.99	31.96	9.22	33.55	102	119	P	H
		5468.24	40.6	-13.4	54	32.96	31.97	9.22	33.55	102	119	A	H
	*	5510	90.46	-	-	82.76	32	9.26	33.56	102	119	P	H
	*	5510	83.63	-	-	75.93	32	9.26	33.56	102	119	A	H
		5730.6	48.67	-25.33	74	40.57	32.31	9.44	33.65	102	119	P	H
		5736.2	40.33	-13.67	54	32.2	32.34	9.44	33.65	102	119	A	H
		5469.52	50.99	-23.01	74	43.35	31.97	9.22	33.55	101	117	P	V
		5469.2	45.42	-8.58	54	37.78	31.97	9.22	33.55	101	117	A	V
	*	5510	98.98	-	-	91.28	32	9.26	33.56	101	117	P	V
	*	5510	91.49	-	-	83.79	32	9.26	33.56	101	117	A	V
		5754.04	48.26	-25.74	74	40.11	32.36	9.44	33.65	101	117	P	V
		5764.68	40.22	-13.78	54	32.02	32.36	9.49	33.65	101	117	A	V
802.11n HT40 CH 110 5550MHz		5441.68	48.37	-25.63	74	40.75	31.95	9.22	33.55	120	120	P	H
		5470	39.67	-14.33	54	32.03	31.97	9.22	33.55	120	120	A	H
	*	5550	91.06	-	-	83.27	32.07	9.29	33.57	120	120	P	H
	*	5550	85.15	-	-	77.36	32.07	9.29	33.57	120	120	A	H
		5742.52	48.63	-25.37	74	40.5	32.34	9.44	33.65	120	120	P	H
		5761.64	40.26	-13.74	54	32.06	32.36	9.49	33.65	120	120	A	H
		5465.52	51.69	-22.31	74	44.05	31.97	9.22	33.55	100	117	P	V
		5466.8	40.81	-13.19	54	33.17	31.97	9.22	33.55	100	117	A	V
	*	5550	99.17	-	-	91.38	32.07	9.29	33.57	100	117	P	V
	*	5550	91.44	-	-	83.65	32.07	9.29	33.57	100	117	A	V
		5745.56	48.83	-25.17	74	40.7	32.34	9.44	33.65	100	117	P	V
		5759.72	40.37	-13.63	54	32.22	32.36	9.44	33.65	100	117	A	V



802.11n HT40 CH 134 5670MHz		5384.88	48.72	-25.28	74	41.23	31.91	9.13	33.55	106	115	P	H
		5467.12	40.04	-13.96	54	32.4	31.97	9.22	33.55	106	115	A	H
	*	5670	94.18	-	-	86.21	32.24	9.35	33.62	106	115	P	H
	*	5670	86.58	-	-	78.61	32.24	9.35	33.62	106	115	A	H
		5736.44	50.8	-23.2	74	42.67	32.34	9.44	33.65	106	115	P	H
		5732.52	40.65	-13.35	54	32.55	32.31	9.44	33.65	106	115	A	H
		5464.4	49.01	-24.99	74	41.37	31.97	9.22	33.55	106	114	P	V
		5469.68	40.1	-13.9	54	32.46	31.97	9.22	33.55	106	114	A	V
	*	5670	98.51	-	-	90.54	32.24	9.35	33.62	106	114	P	V
	*	5670	91.57	-	-	83.6	32.24	9.35	33.62	106	114	A	V
		5752.36	53.74	-20.26	74	45.59	32.36	9.44	33.65	106	114	P	V
		5728.84	42.03	-11.97	54	33.92	32.31	9.44	33.64	106	114	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 102 5510MHz		11020	45.33	-28.67	74	58.42	40.39	13.48	66.96	100	0	P	H
		16530	44.5	-29.5	74	52.55	39.13	16.81	63.99	100	0	P	H
													H
													H
		11020	45.35	-28.65	74	58.44	40.39	13.48	66.96	100	0	P	V
		16530	43.19	-30.81	74	51.24	39.13	16.81	63.99	100	0	P	V
													V
													V
802.11n HT40 CH 110 5550MHz		11100	46.29	-27.71	74	59.15	40.32	13.56	66.74	100	0	P	H
		16650	45.05	-28.95	74	52.6	39.59	16.8	63.94	100	0	P	H
													H
													H
		11100	46.94	-27.06	74	59.8	40.32	13.56	66.74	100	0	P	V
		16650	44.72	-29.28	74	52.27	39.59	16.8	63.94	100	0	P	V
													V
													V
802.11n HT40 CH 134 5670MHz		11340	44.97	-29.03	74	57.18	40.13	13.79	66.13	100	0	P	H
		17010	45.87	-28.13	74	51.95	40.94	16.8	63.82	100	0	P	H
													H
													H
		11340	45.19	-28.81	74	57.4	40.13	13.79	66.13	100	0	P	V
		17010	46.07	-27.93	74	52.15	40.94	16.8	63.82	100	0	P	V
													V
													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	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)
802.11ac VHT80 CH 106 5530MHz		5404.24	49.27	-24.73	74	41.73	31.92	9.17	33.55	100	115	P	H
		5463.12	40.77	-13.23	54	33.13	31.97	9.22	33.55	100	115	A	H
	*	5530	85.4	-	-	77.66	32.02	9.29	33.57	100	115	P	H
	*	5530	78.21	-	-	70.47	32.02	9.29	33.57	100	115	A	H
		5752.2	48.57	-25.43	74	40.42	32.36	9.44	33.65	100	115	P	H
		5731.16	40.38	-13.62	54	32.28	32.31	9.44	33.65	100	115	A	H
		5410.96	50.8	-23.2	74	43.26	31.92	9.17	33.55	100	116	P	V
		5426.48	43.53	-10.47	54	35.98	31.93	9.17	33.55	100	116	A	V
	*	5530	92.5	-	-	84.76	32.02	9.29	33.57	100	116	P	V
	*	5530	85.43	-	-	77.69	32.02	9.29	33.57	100	116	A	V
		5744.52	49.32	-24.68	74	41.19	32.34	9.44	33.65	100	116	P	V
		5729.88	40.53	-13.47	54	32.42	32.31	9.44	33.64	100	116	A	V
802.11ac VHT80 CH 122 5610MHz		5465.84	48.92	-25.08	74	41.28	31.97	9.22	33.55	100	111	P	H
		5451.92	40.05	-13.95	54	32.42	31.96	9.22	33.55	100	111	A	H
	*	5610	84.64	-	-	76.77	32.14	9.33	33.6	100	111	P	H
	*	5610	78.77	-	-	70.9	32.14	9.33	33.6	100	111	A	H
		5730.92	49.19	-24.81	74	41.09	32.31	9.44	33.65	100	111	P	H
		5734.12	40.67	-13.33	54	32.57	32.31	9.44	33.65	100	111	A	H
		5407.92	48.91	-25.09	74	41.37	31.92	9.17	33.55	100	115	P	V
		5469.36	42.18	-11.82	54	34.54	31.97	9.22	33.55	100	115	A	V
	*	5610	92.85	-	-	84.98	32.14	9.33	33.6	100	115	P	V
	*	5610	85.48	-	-	77.61	32.14	9.33	33.6	100	115	A	V
		5727.08	49.64	-24.36	74	41.53	32.31	9.44	33.64	100	115	P	V
		5731.88	41.59	-12.41	54	33.49	32.31	9.44	33.65	100	115	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	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)
802.11ac VHT80 CH 106 5530MHz		11060	44.57	-29.43	74	57.53	40.35	13.52	66.83	100	0	P	H
		16590	44.82	-29.18	74	52.65	39.33	16.81	63.97	100	0	P	H
													H
													H
		11060	45.48	-28.52	74	58.44	40.35	13.52	66.83	100	0	P	V
		16590	44.62	-29.38	74	52.45	39.33	16.81	63.97	100	0	P	V
													V
													V
802.11ac VHT80 CH 122 5610MHz		11220	43.94	-30.06	74	56.48	40.23	13.67	66.44	100	0	P	H
		16830	44.99	-29.01	74	51.82	40.24	16.8	63.87	100	0	P	H
													H
													H
		11220	43.79	-30.21	74	56.33	40.23	13.67	66.44	100	0	P	V
		16830	45.97	-28.03	74	52.8	40.24	16.8	63.87	100	0	P	V
													V
													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	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 144 5720MHz	*	5720	96.5	-	-	88.44	32.31	9.39	33.64	100	103	P	H
	*	5720	89.96	-	-	81.9	32.31	9.39	33.64	100	103	A	H
													H
													H
													H
													H
	*	5720	103.85	-	-	95.79	32.31	9.39	33.64	104	116	P	V
	*	5720	95.65	-	-	87.59	32.31	9.39	33.64	104	116	A	V
													V
													V
													V
													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	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 144 5720MHz		11440	45.57	-28.43	74	57.48	40.05	13.91	65.87	100	0	P	H
		17160	46.85	-27.15	74	52.68	41.27	16.9	64	100	0	P	H
													H
													H
		11440	45.28	-28.72	74	57.19	40.05	13.91	65.87	100	0	P	V
		17160	46.23	-27.77	74	52.06	41.27	16.9	64	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - Straddle Channel
WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 144 5720MHz	*	5720	96.42	-	-	88.36	32.31	9.39	33.64	100	122	P	H
	*	5720	89.3	-	-	81.24	32.31	9.39	33.64	100	122	A	H
													H
													H
													H
													H
	*	5720	103.04	-	-	94.98	32.31	9.39	33.64	104	115	P	V
	*	5720	95.33	-	-	87.27	32.31	9.39	33.64	104	115	A	V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

**Band 3 - Straddle Channel****WIFI 802.11n HT20 (Harmonic @ 3m)**

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 144 5720MHz		11440	45.61	-28.39	74	57.52	40.05	13.91	65.87	100	0	P	H
		17160	48.44	-25.56	74	54.27	41.27	16.9	64	100	0	P	H
													H
													H
		11440	45.15	-28.85	74	57.06	40.05	13.91	65.87	100	0	P	V
		17160	46.75	-27.25	74	52.58	41.27	16.9	64	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - Straddle Channel
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 142 5710MHz	*	5710	93.69	-	-	85.65	32.29	9.39	33.64	100	121	P	H
	*	5710	86.22	-	-	78.18	32.29	9.39	33.64	100	121	A	H
													H
													H
													H
													H
	*	5710	99.15	-	-	91.11	32.29	9.39	33.64	100	118	P	V
	*	5710	92.28	-	-	84.24	32.29	9.39	33.64	100	118	A	V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

**Band 3 - Straddle Channel****WIFI 802.11n HT40 (Harmonic @ 3m)**

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 142 5710MHz		11420	45.18	-28.82	74	57.16	40.07	13.87	65.92	100	0	P	H
		17130	45.28	-28.72	74	51.17	41.19	16.88	63.96	100	0	P	H
													H
													H
		11420	44.86	-29.14	74	56.84	40.07	13.87	65.92	100	0	P	V
		17130	46.52	-27.48	74	52.41	41.19	16.88	63.96	100	0	P	V
													V
													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	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)
802.11ac VHT80 CH 138 5690MHz	*	5690	87.2	-	-	79.17	32.27	9.39	33.63	100	123	P	H
	*	5690	80.63	-	-	72.6	32.27	9.39	33.63	100	123	A	H
													H
													H
													H
													H
	*	5690	93.79	-	-	85.76	32.27	9.39	33.63	100	113	P	V
	*	5690	87.03	-	-	79	32.27	9.39	33.63	100	113	A	V
													V
													V
													V
													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	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)
802.11ac VHT80 CH 138 5690MHz		11380	44.74	-29.26	74	56.82	40.09	13.83	66	100	0	P	H
		17070	46.12	-27.88	74	52.12	41.05	16.83	63.88	100	0	P	H
													H
													H
		11380	44.51	-29.49	74	56.59	40.09	13.83	66	100	0	P	V
		17070	46.33	-27.67	74	52.33	41.05	16.83	63.88	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Emission below 1GHz

WIFI 802.11n HT40 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 LF		52.41	26.53	-13.47	40	50.43	6.86	1.04	31.8			P	H
		147.99	29.29	-14.21	43.5	49.49	10.12	1.46	31.78			P	H
		190.11	31.66	-11.84	43.5	53.59	8.21	1.64	31.78	132	215	P	H
		375.6	24.67	-21.33	46	39.28	14.86	2.32	31.79			P	H
		659.8	22.65	-23.35	46	32.67	19	3.02	32.04			P	H
		812.4	23.03	-22.97	46	31.54	19.95	3.4	31.86			P	H
													H
													H
													H
													H
													H
													H
		40.53	30.15	-9.85	40	48.92	12.38	0.67	31.82	100	56	P	V
		79.68	25.66	-14.34	40	49.86	6.55	1.04	31.79			P	V
		201.18	24.74	-18.76	43.5	46.33	8.55	1.64	31.78			P	V
		541.5	20.97	-25.03	46	31.62	18.53	2.77	31.95			P	V
		775.3	23.09	-22.91	46	31.99	19.7	3.35	31.95			P	V
		854.4	23.01	-22.99	46	31.07	20.16	3.44	31.66			P	V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



<With WPC Mode>

Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 102 5510MHz		5458.64	52.51	-21.49	74	44.88	31.96	9.22	33.55	379	306	P	H
		5470	41.35	-12.65	54	33.71	31.97	9.22	33.55	379	306	A	H
	*	5510	93.14	-	-	85.44	32	9.26	33.56	379	306	P	H
	*	5510	86.26	-	-	78.56	32	9.26	33.56	379	306	A	H
		5732.84	48.86	-25.14	74	40.76	32.31	9.44	33.65	379	306	P	H
		5752.44	40.29	-13.71	54	32.14	32.36	9.44	33.65	379	306	A	H
		5444.72	54.3	-19.7	74	46.68	31.95	9.22	33.55	100	92	P	V
		5469.68	42.88	-11.12	54	35.24	31.97	9.22	33.55	100	92	A	V
	*	5510	96.13	-	-	88.43	32	9.26	33.56	100	92	P	V
	*	5510	89.01	-	-	81.31	32	9.26	33.56	100	92	A	V
		5741.88	49.04	-24.96	74	40.91	32.34	9.44	33.65	100	92	P	V
		5735.16	40.29	-13.71	54	32.16	32.34	9.44	33.65	100	92	A	V
802.11n HT40 CH 110 5550MHz													H
													H
													H
													H
													H
													H
													V
													V
													V
													V
													V
													V



802.11n HT40 CH 134 5670MHz													H
													H
													H
													H
													H
													H
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 102 5510MHz		11020	46.16	-27.84	74	59.25	40.39	13.48	66.96	100	0	P	H
		16530	42.7	-31.3	74	50.75	39.13	16.81	63.99	100	0	P	H
													H
													H
		11020	44.41	-29.59	74	57.5	40.39	13.48	66.96	100	0	P	V
		16530	43.34	-30.66	74	51.39	39.13	16.81	63.99	100	0	P	V
													V
													V
802.11n HT40 CH 110 5550MHz													H
													H
													H
													H
													V
													V
													V
													V
802.11n HT40 CH 134 5670MHz													H
													H
													H
													H
													V
													V
													V
													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	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 144 5720MHz	*	5720	92.94	-	-	84.88	32.31	9.39	33.64	100	12	P	H
	*	5720	85.13	-	-	77.07	32.31	9.39	33.64	100	12	A	H
													H
													H
													H
													H
	*	5720	97.8	-	-	89.74	32.31	9.39	33.64	100	55	P	V
	*	5720	90.09	-	-	82.03	32.31	9.39	33.64	100	55	A	V
													V
													V
													V
													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	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 144 5720MHz		11440	45.15	-28.85	74	57.06	40.05	13.91	65.87	100	0	P	H
		17160	45.98	-28.02	74	51.81	41.27	16.9	64	100	0	P	H
													H
													H
		11440	45.43	-28.57	74	57.34	40.05	13.91	65.87	100	0	P	V
		17160	45.92	-28.08	74	51.75	41.27	16.9	64	100	0	P	V
													V
													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	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a LF		87.78	27.16	-12.84	40	49.5	8.16	1.28	31.78			P	H
		122.88	31.01	-12.49	43.5	50.05	11.46	1.28	31.78			P	H
		192.54	31.94	-11.56	43.5	53.73	8.35	1.64	31.78	102	285	P	H
		312.6	23.75	-22.25	46	39.98	13.43	2.11	31.77			P	H
		391	22.76	-23.24	46	36.99	15.25	2.32	31.8			P	H
		486.9	21.42	-24.58	46	33.39	17.27	2.64	31.88			P	H
													H
													H
													H
													H
													H
													H
		53.49	27.31	-12.69	40	51.59	6.48	1.04	31.8			P	V
		81.03	27.28	-12.72	40	51.22	6.81	1.04	31.79	100	45	P	V
		122.88	30.24	-13.26	43.5	49.28	11.46	1.28	31.78			P	V
		396.6	22.66	-23.34	46	36.61	15.53	2.32	31.8			P	V
		750.1	22.6	-23.4	46	31.53	19.8	3.25	31.98			P	V
		966.4	23.7	-30.3	54	30.37	20.46	3.78	30.91			P	V
													V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Emission below 1GHz

WIFI 802.11n HT40 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 LF		122.61	30.53	-12.97	43.5	49.58	11.45	1.28	31.78			P	H
		192.54	32.43	-11.07	43.5	54.22	8.35	1.64	31.78	105	147	P	H
		243.84	26.12	-19.88	46	44.86	11.24	1.79	31.77			P	H
		307.7	24.03	-21.97	46	40.37	13.31	2.11	31.76			P	H
		396.6	22.95	-23.05	46	36.9	15.53	2.32	31.8			P	H
		488.3	21.62	-24.38	46	33.58	17.28	2.64	31.88			P	H
													H
													H
													H
													H
													H
													H
		81.3	28.18	-11.82	40	52.07	6.86	1.04	31.79	100	36	P	V
		122.07	29.14	-14.36	43.5	48.2	11.44	1.28	31.78			P	V
		199.02	24.95	-18.55	43.5	46.51	8.58	1.64	31.78			P	V
		388.9	23.13	-22.87	46	37.44	15.17	2.32	31.8			P	V
		596.8	19.79	-26.21	46	30.51	18.43	2.89	32.04			P	V
		902	22.55	-23.45	46	30.31	20.1	3.55	31.41			P	V
													V
													V
													V
													V
													V
													V
													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 per 15.209(c).
!	Test result is over limit line.
P/A	Peak or Average
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		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
CH 01													
2412MHz		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

1. 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”.