



FCC RF Test Report

APPLICANT : Lenovo(Shanghai) Electronics Technology Co., Ltd.
EQUIPMENT : Lenovo Mobile Phone
BRAND NAME : Lenovo
MODEL NAME : Lenovo PB2-690Y
FCC ID : O57PB2690Y
STANDARD : FCC Part 15 Subpart E §15.407
CLASSIFICATION : (NII) Unlicensed National Information Infrastructure

The product was received on May 11, 2016 and testing was completed on Jun. 16, 2016. We, SPORTON INTERNATIONAL (KUNSHAN) INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

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

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SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	2.1049 15.403(i)	RSS-247 Section 6	26dB & 99% Bandwidth	-	Pass	-
3.2	15.407(a)	RSS-247 Section 6	Maximum Conducted Output Power	FCC ≤24 dBm (depend on band) IC RSS-247 Section 6 Limit	Pass	-
3.3	15.407(a)	RSS-247 Section 6	Power Spectral Density	FCC ≤11 dBm (depend on band) IC RSS-247 Section 6 Limit	Pass	-
3.4	15.407(b)	RSS-247 Section 6	Unwanted Emissions	≤ -17, -27 dBm (depend on band)&15.209(a)	Pass	Under limit 3.92 dB at 30.970 MHz
3.5	15.207	RSS-Gen 8.8	AC Conducted Emission	15.207(a)	Pass	Under limit 11.01 dB at 0.610 MHz
3.6	15.407(g)	-	Frequency Stability	Within Operation Band	Pass	-
3.7	15.407(c)	RSS-247 6.4(2)	Automatically Discontinue Transmission	Discontinue Transmission	Pass	-
3.8	15.203 & 15.407(a)	N/A	Antenna Requirement	N/A	Pass	-



1 General Description

1.1 Applicant

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

1.2 Manufacturer

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

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Lenovo Mobile Phone
Brand Name	Lenovo
Model Name	Lenovo PB2-690Y
FCC ID	O57PB2690Y
EUT supports Radios application	GSM/GPRS/EGPRS/WCDMA/HSPA/DC-HSDPA/ HSPA+(16QAM uplink is not supported)/LTE WLAN 2.4GHz 802.11b/g/n HT20 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth v3.0 + EDR/Bluetooth v4.0 LE
IMEI Code	Conducted: 869972020004370/869972020004388 Radiation: 869972020005856/869972020005864 Conduction: 869972020005054/869972020005062
HW Version	Lenovo PB2-690Y
SW Version	PB2-690Y-160711
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.



1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Frequency Range	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5700 MHz
Maximum Output Power to Antenna	<p><5180 MHz ~ 5240 MHz> 802.11a : 12.05 dBm / 0.0160 W 802.11n HT20 : 12.07 dBm / 0.0161 W 802.11n HT40 : 12.57 dBm / 0.0181 W 802.11ac VHT20 : 12.50 dBm / 0.0178 W 802.11ac VHT40 : 11.55 dBm / 0.0143 W 802.11ac VHT80 : 10.81 dBm / 0.0121 W</p> <p><5260 MHz ~ 5320 MHz> 802.11a : 11.97 dBm / 0.0157 W 802.11n HT20 : 12.15 dBm / 0.0164 W 802.11n HT40 : 12.52 dBm / 0.0179 W 802.11ac VHT20 : 12.59 dBm / 0.0182 W 802.11ac VHT40 : 11.51 dBm / 0.0142 W 802.11ac VHT80 : 10.86 dBm / 0.0122 W</p> <p><5500 MHz ~ 5700 MHz> 802.11a : 11.85 dBm / 0.0153 W 802.11n HT20 : 11.90 dBm / 0.0155 W 802.11n HT40 : 12.40 dBm / 0.0174 W 802.11ac VHT20 : 12.34 dBm / 0.0171 W 802.11ac VHT40 : 11.34 dBm / 0.0136 W 802.11ac VHT80 : 10.51 dBm / 0.0112 W</p>
99% Occupied Bandwidth	<p><5180 MHz ~ 5240 MHz> 802.11a : 18.55 MHz 802.11n HT20 : 19.20 MHz 802.11n HT40 : 36.70 MHz 802.11ac VHT20: 19.30 MHz 802.11ac VHT40 : 36.70 MHz 802.11ac VHT80 : 75.00 MHz</p> <p><5260 MHz ~ 5320 MHz> 802.11a : 18.60 MHz 802.11n HT20 : 19.40 MHz 802.11n HT40 : 36.70 MHz 802.11ac VHT20: 19.30 MHz 802.11ac VHT40 : 36.80 MHz 802.11ac VHT80 : 74.60 MHz</p> <p><5500 MHz ~ 5700 MHz> 802.11a : 18.70 MHz 802.11n HT20 : 19.20 MHz 802.11n HT40 : 36.70 MHz 802.11ac VHT20: 19.25 MHz 802.11ac VHT40 : 36.80 MHz 802.11ac VHT80 : 74.88 MHz</p>
Antenna Type	PIFA Antenna
Antenna Gain	<p><5180 MHz ~ 5240 MHz>: 0.50 dBi <5260 MHz ~ 5320 MHz>: -0.70 dBi <5500 MHz ~ 5700 MHz>: -0.20 dBi</p>
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)



1.5 Component List

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

Component	Sample 1	Sample 2
4GB LPDDR3	Samsung K3QF4F40BM-FGCF	Hynix H9CKNNNCPTMRPR-NUH
64GB eMMC	Toshiba THGBMGG9T4LBAIR	Samsung KLMCG4JENB-B041

1.6 Modification of EUT

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

1.7 Testing Location

Test Site	SPORTON INTERNATIONAL (SHENZHEN) INC.	
Test Site Location	1F & 2F, Building A, Morning Business Center, No. 4003 ShiGu Rd., Xili Town, Nanshan District, Shenzhen, Guangdong, P. R. China TEL: +86-755-8637-9589 FAX: +86-755-8637-9595	
Test Site No.	Sporton Site No.	
	TH01-SZ	

Test Site	SPORTON INTERNATIONAL (SHENZHEN) INC.	
Test Site Location	No. 3 Building, the third floor of south, Shahe River west, Fengzeyuan warehouse, Nanshan District, Shenzhen, Guangdong, P. R. China TEL: +86-755- 3320-2398	
Test Site No.	Sporton Site No.	FCC/IC Registration No.
	03CH03-SZ	565805/4086F

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

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



1.8 Applicable Standards

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

- ♦ FCC Part 15 Subpart E
- ♦ FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r02
- ♦ FCC KDB 644545 D03 Guidance for IEEE 802.11ac New Rules v01
- ♦ ANSI C63.10-2013
- ♦ IC RSS-247 Issued 1
- ♦ IC RSS-Gen Issue 4

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.



2 Test Configuration of Equipment Under Test

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 (Z 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)
5180- 5240 MHz Band 1 (U-NII-1)	36	5180	44	5220
	38	5190	46	5230
	40	5200	48	5240
	42	5210		

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



Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5500-5700 MHz Band 3 (U-NII-2C)	100	5500	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	144	5720	142	5710
	138	5690		

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.

WLAN 5GHz 802.11a Average Power (dBm)										
Power vs. Channel			Power vs. Data Rate							
Channel	Frequency (MHz)	Data Rate	Channel	9Mbps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps
		6Mbps								
CH 36	5180	12.05	CH 36	12.03	12.03	11.01	10.86	10.82	9.83	9.73
CH 44	5220	11.99								
CH 48	5240	12.03								
CH 52	5260	11.81	CH 60	11.96	10.81	10.82	10.50	9.53	9.65	9.66
CH 60	5300	11.97								
CH 64	5320	11.86								
CH 100	5500	11.85	CH 100	11.82	11.82	10.81	10.68	10.67	9.47	9.45
CH 116	5580	11.72								
CH 140	5700	11.51								

WLAN 5GHz 802.11n-HT20 Average Power (dBm)										
Power vs. Channel			Power vs. Data Rate							
Channel	Frequency (MHz)	MCS Index	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
		MCS0								
CH 36	5180	12.07	CH 36	12.05	12.04	10.91	10.81	10.74	9.79	9.86
CH 44	5220	11.98								
CH 48	5240	12.03								
CH 52	5260	12.02	CH 60	12.06	12.12	11.03	10.91	10.92	9.82	9.82
CH 60	5300	12.15								
CH 64	5320	11.92								
CH 100	5500	11.90	CH 100	11.86	11.88	10.76	10.73	10.64	9.48	9.51
CH 116	5580	11.69								
CH 140	5700	11.51								

WLAN 5GHz 802.11n-HT40 Average Power (dBm)										
Power vs. Channel			Power vs. Data Rate							
Channel	Frequency (MHz)	MCS Index	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
		MCS0								
CH 38	5190	12.57	CH 38	12.56	12.55	11.51	11.43	11.40	10.20	10.16
CH 46	5230	12.54								
CH 54	5270	12.52	CH 54	12.50	12.50	11.31	11.31	11.22	10.02	9.99
CH 62	5310	12.49								
CH 102	5510	12.40	CH 102	12.35	12.28	11.25	11.21	11.09	10.02	10.00
CH 110	5550	12.24								
CH 134	5670	12.06								



WLAN 5GHz 802.11ac VHT20 Average Power (dBm)											
Power vs. Channel			Power vs. Data Rate								
Channel	Frequency (MHz)	MCS Index	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
		MCS0									
CH 36	5180	12.50	CH 36	12.49	12.47	11.28	11.11	11.18	10.19	10.21	10.08
CH 44	5220	12.45									
CH 48	5240	12.49									
CH 52	5260	12.47	CH 60	12.40	12.42	11.20	11.16	11.17	10.04	10.03	9.94
CH 60	5300	12.59									
CH 64	5320	12.40									
CH 100	5500	12.34	CH 100	12.18	12.23	11.02	11.07	11.06	10.00	9.87	9.76
CH 116	5580	12.16									
CH 140	5700	12.04									

WLAN 5GHz 802.11ac VHT40 Average Power (dBm)												
Power vs. Channel			Power vs. Data Rate									
Channel	Frequency (MHz)	MCS Index	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
		MCS0										
CH 38	5190	11.52	CH 46	11.50	11.51	10.33	10.36	10.37	9.32	9.24	9.56	9.35
CH 46	5230	11.55										
CH 54	5270	11.49	CH 62	11.49	11.41	10.19	10.36	10.25	9.32	9.24	9.32	9.30
CH 62	5310	11.51										
CH 102	5510	11.34	CH 102	11.33	11.29	10.15	10.18	10.09	9.06	9.01	9.14	9.11
CH 110	5550	11.03										
CH 134	5670	10.94										

WLAN 5GHz 802.11ac VHT80 Average Power (dBm)												
Power vs. Channel			Power vs. Data Rate									
Channel	Frequency (MHz)	MCS Index	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
		MCS0										
CH 42	5210	10.81	CH 42	10.70	10.58	9.61	9.49	9.68	8.61	8.67	8.62	8.44
CH 58	5290	10.86	CH 58	10.75	10.71	9.71	9.62	9.75	8.66	8.73	8.70	8.65
CH 106	5530	10.51	CH 106	10.44	10.44	9.40	9.28	9.47	8.30	8.37	8.31	8.24
CH 122	5610	10.26										



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 : GSM850 Idle + Bluetooth Link + WLAN Link (5GHz) + Earphone + USB Cable (Charging from Adapter 12V) for Sample 1 Mode 2 : GSM850 Idle + Bluetooth Link + WLAN Link (5GHz) + Earphone + USB Cable (Charging from Adapter 5.2V) for Sample 1
Remark:	
<ol style="list-style-type: none"> For Radiated TCs, the tests were performed with Adapter 5.2V, Earphone and USB Cable for Sample 1. The worst case of conducted emission is mode 2; only the test data of it was reported. 	



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

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

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

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

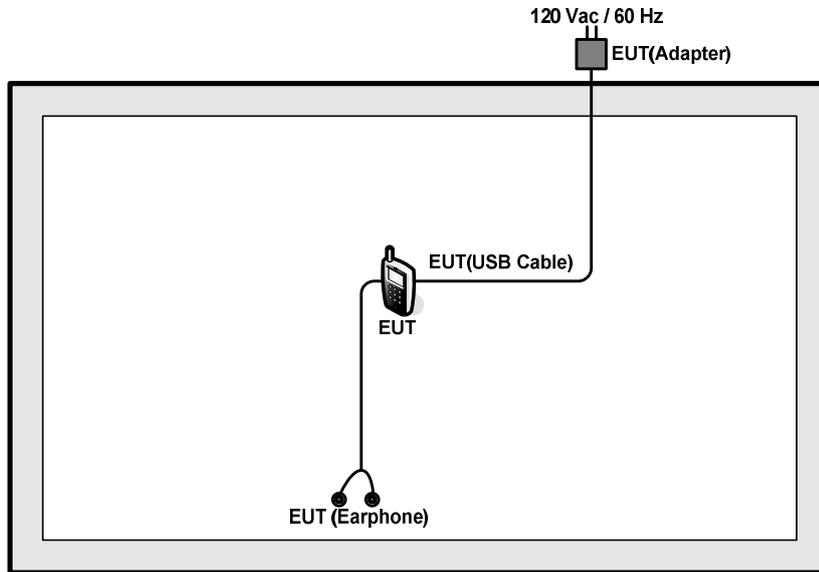


Ch. #		Band I : 5180-5240 MHz	Band II : 5260-5320 MHz	Band III : 5500-5700MHz
		802.11ac VHT40	802.11ac VHT40	802.11ac VHT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134
Straddle Channel		-	-	142

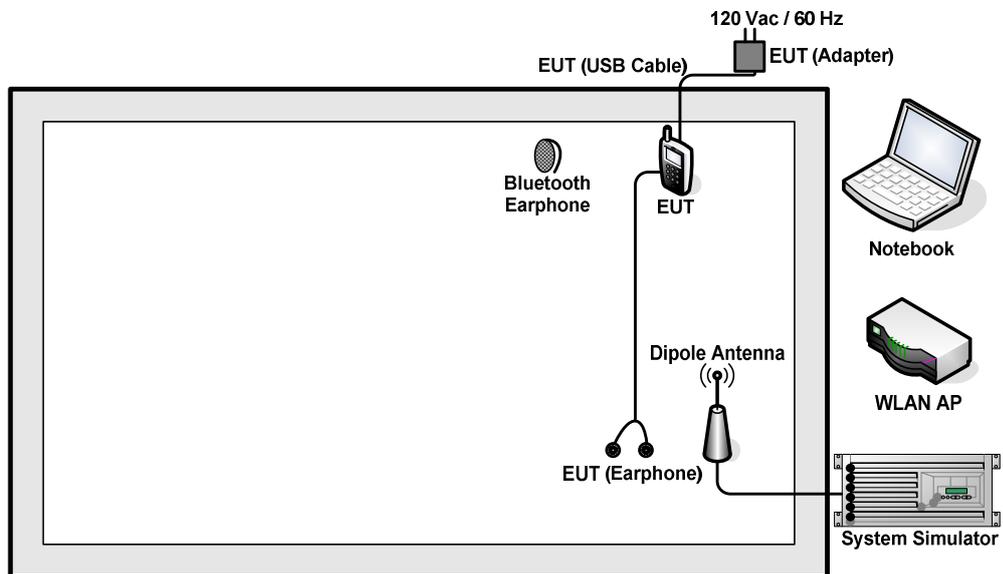
Ch. #		Band I : 5180-5240 MHz	Band II : 5260-5320 MHz	Band III : 5500-5700MHz
		802.11ac VHT80	802.11ac VHT80	802.11ac VHT80
L	Low	-	-	106
M	Middle	42	58	-
H	High	-	-	122
Straddle Channel		-	-	138

2.4 Connection Diagram of Test System

<Radiated Emission Mode>



<AC Conducted Emission Mode>





2.5 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Notebook	Lenovo	G480	FCC DoC	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m
2.	WLAN AP	LINKSYS	WRT600N	Q87-WRT600NV11	N/A	Unshielded, 1.8 m
3.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
4.	Bluetooth Earphone	Lenovo	LBH 505	FCC DoC	N/A	N/A
5.	DC Power Supply	GW INSTEK	GPD-2303S	N/A	N/A	Unshielded, 1.8 m

2.6 EUT Operation Test Setup

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

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

2.7 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.

$$\text{Offset} = \text{RF cable loss} + \text{attenuator factor}.$$

Following shows an offset computation example with cable loss 6.5 dB and 10dB attenuator.

$$\begin{aligned} \text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)}. \\ &= 6.5 + 10 = 16.5 \text{ (dB)} \end{aligned}$$

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.

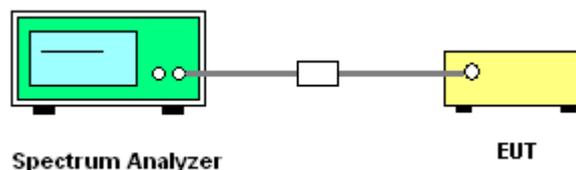
3.1.2 Measuring Instruments

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

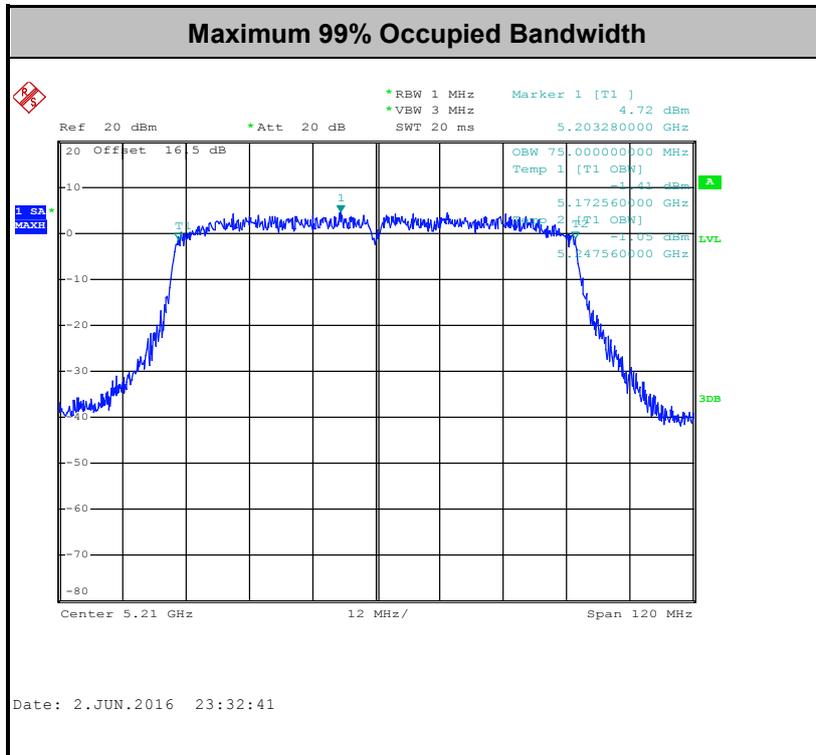
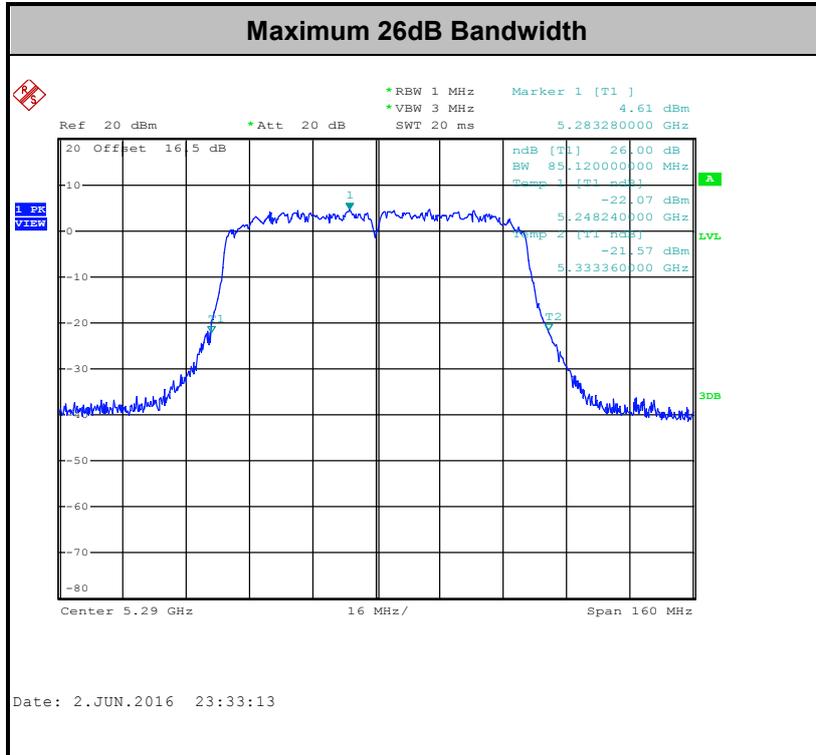
3.1.4 Test Setup





3.1.5 Test Result of 26dB & 99% Occupied Bandwidth 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

<FCC 14-30 CFR 15.407>

For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW.

For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm 10 log B, where B is the 26 dB emission bandwidth in megahertz.

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

If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Note that U-NII-2 band, devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r02.

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

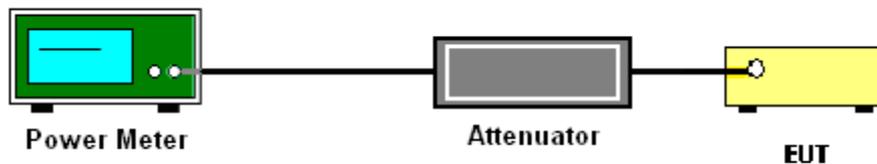
1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit continuously with a consistent duty cycle at its maximum power control level.
3. Measure the average power of the transmitter, and the average power is corrected with duty factor, $10 \log(1/x)$, where x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

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

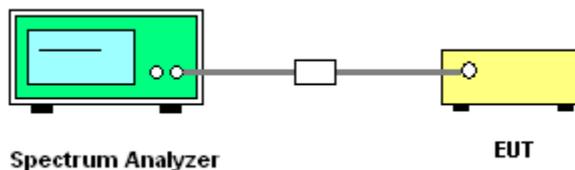
Compute power by integrating the spectrum across the 99% occupied bandwidth of the signal using the instrument's band power measurement function.

3.2.4 Test Setup

For normal channel:



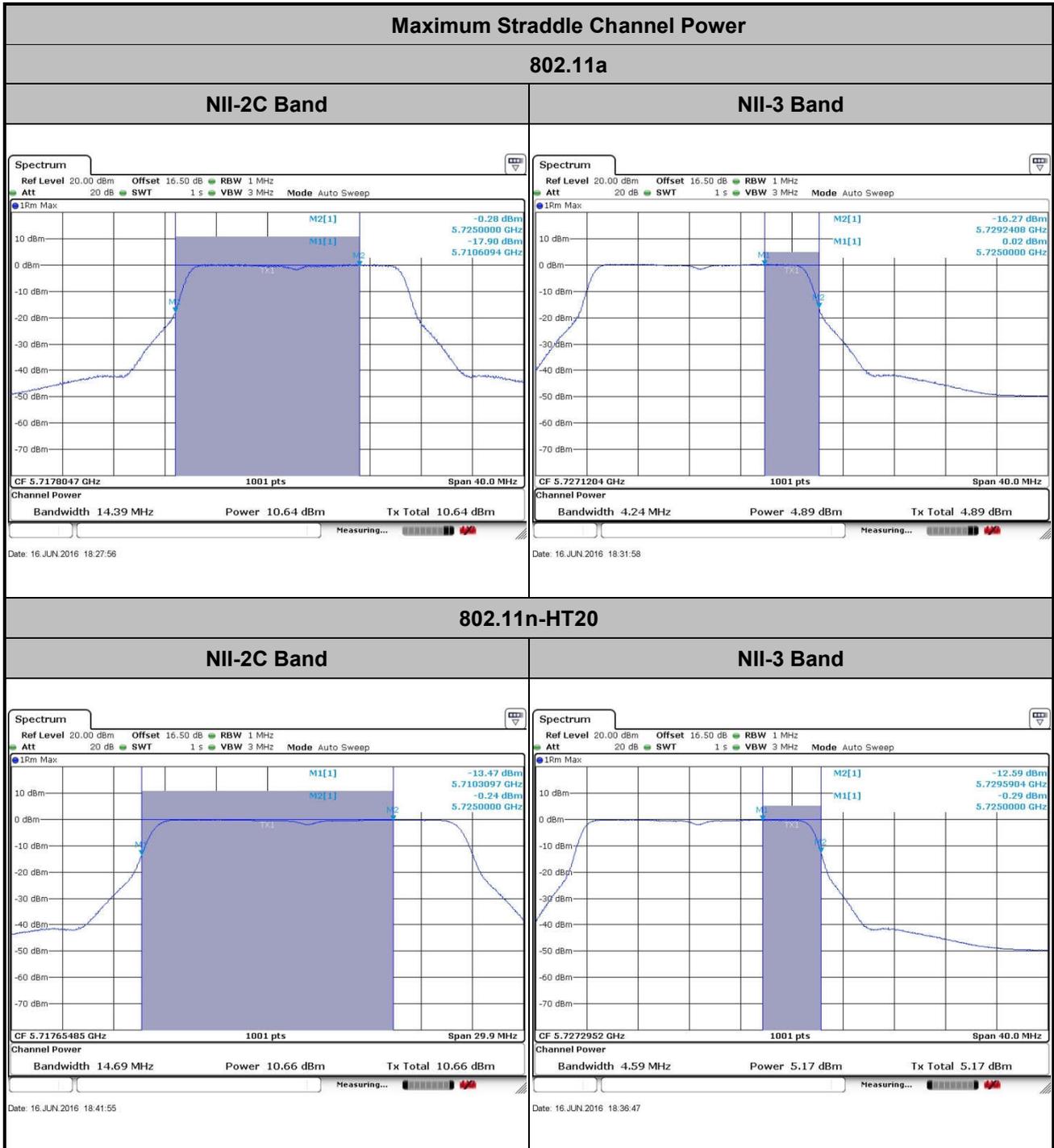
For straddle channel:





3.2.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.



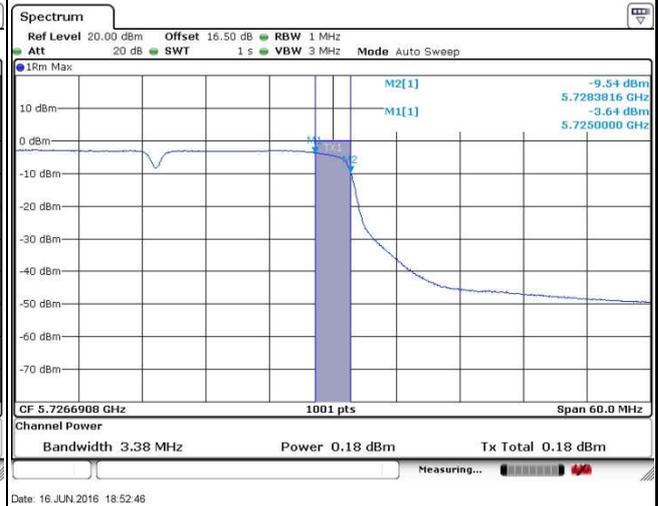
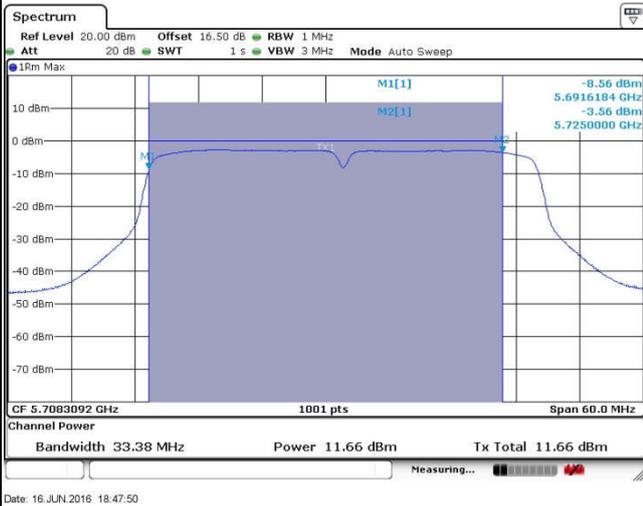


Maximum Straddle Channel Power

802.11n-HT40

NII-2C Band

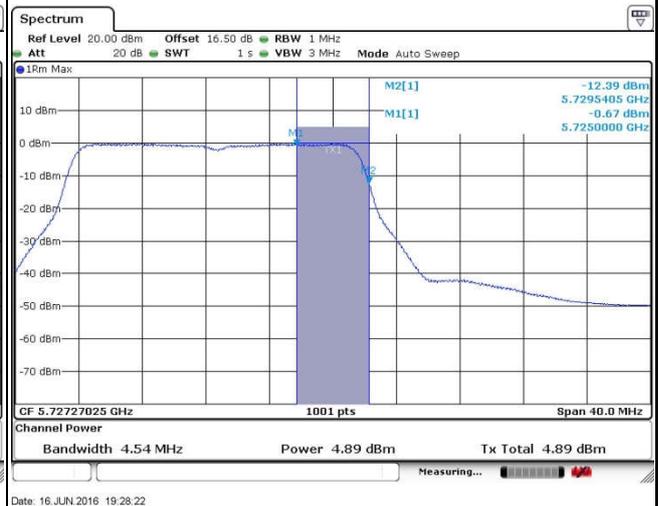
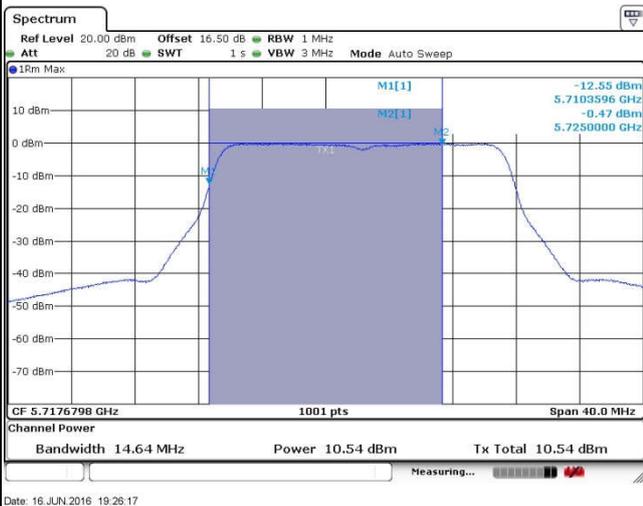
NII-3 Band



802.11ac VHT20

NII-2C Band

NII-3 Band



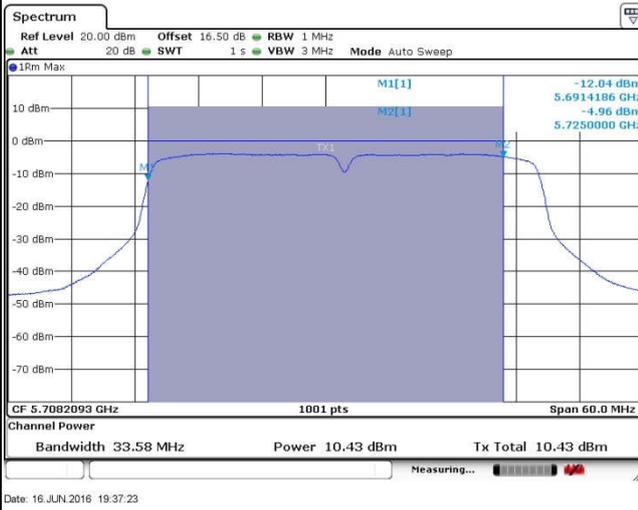


Maximum Straddle Channel Power

802.11ac VHT40

NII-2C Band

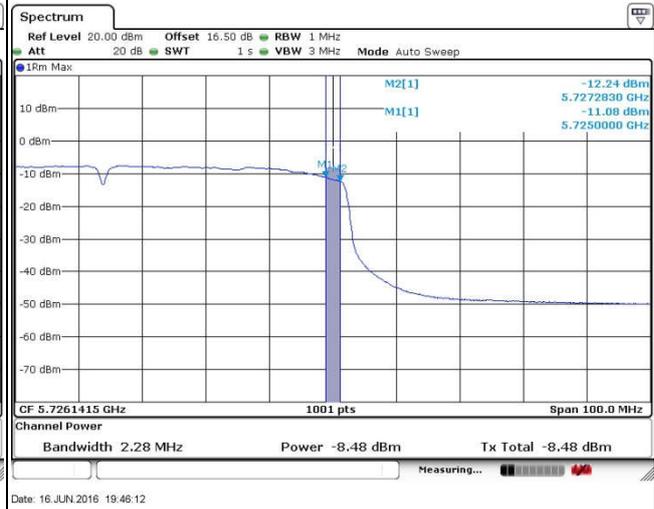
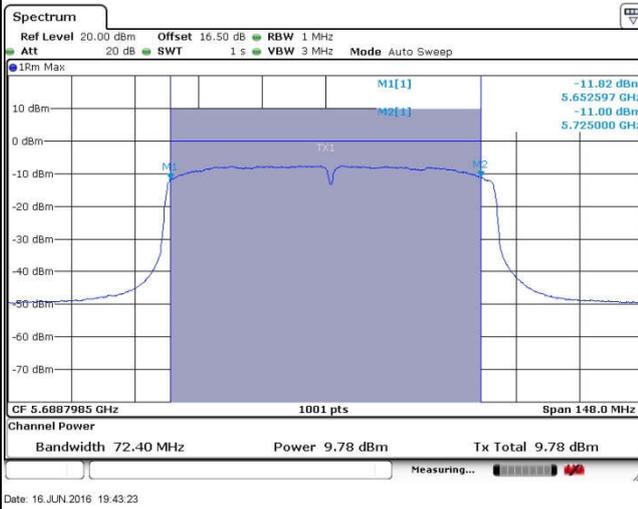
NII-3 Band



802.11ac VHT80

NII-2C Band

NII-3 Band





3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

<FCC 14-30 CFR 15.407>

For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum power spectral density shall not exceed 11dBm in any 1 megahertz band.

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

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

If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

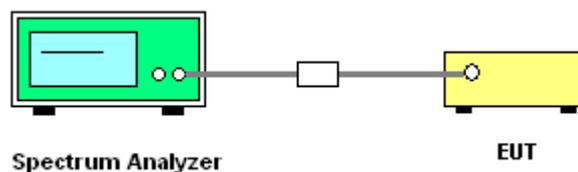
The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r02.
Section F) Maximum power spectral density.

Method SA-2

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

1. The testing follows Method SA-2 of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r02.
 - Measure the duty cycle.
 - Set span to encompass the entire emission bandwidth (EBW) of the signal.
 - Set RBW = 1 MHz.
 - Set VBW \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 5470-5725MHz band: all emissions outside of the 5470-5725MHz 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.

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



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

(3) KDB789033 D02 v01r02 G)2)c) As specified in 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in 15.407(b)(4)). However, an out-of-band emission that complies with both the average and peak limits of 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz peak emission limit.

3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r02. Section G) Unwanted emissions measurement.

(1) Procedure for Unwanted Emissions Measurements Below 1000MHz

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

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

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

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

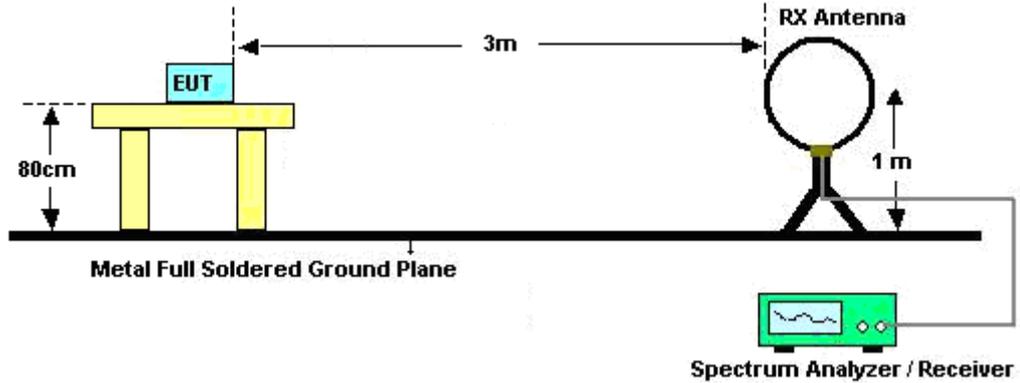
- RBW = 1 MHz
- VBW = 10 Hz, when duty cycle is no less than 98 percent.
- $VBW \geq 1/T$, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.



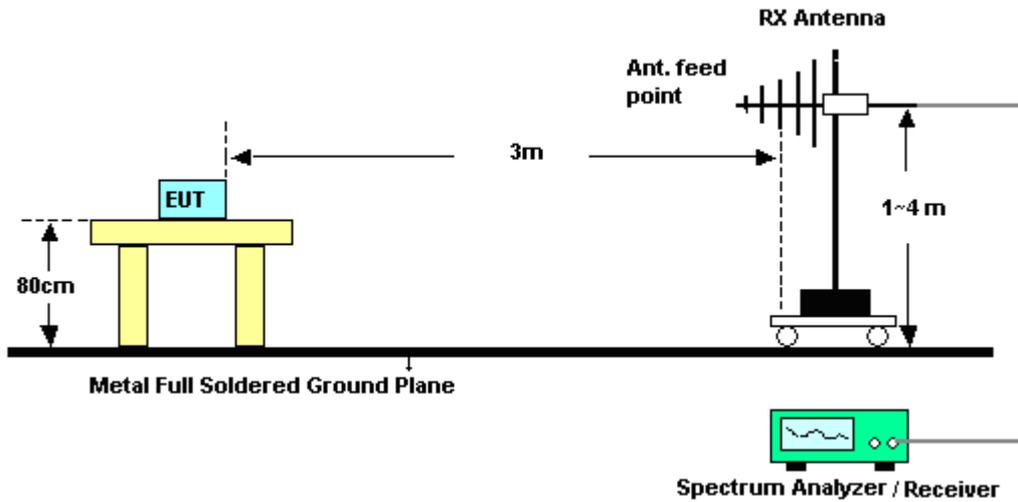
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT was arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

3.4.4 Test Setup

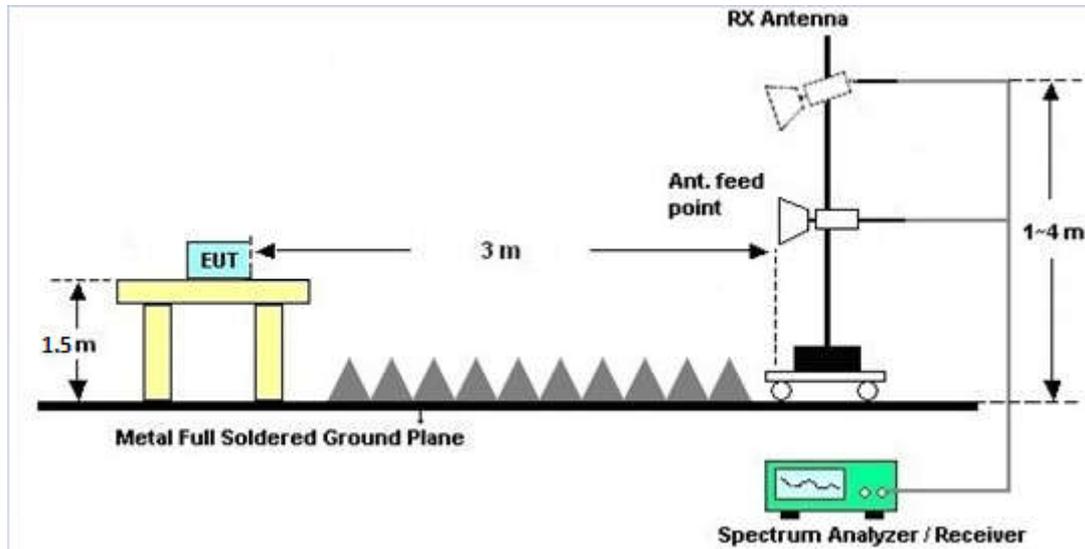
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.4.5 Test Results of Radiated Emissions (9 kHz ~ 30 MHz)

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

3.4.6 Test Result of Radiated Band Edges

Please refer to Appendix B.

3.4.7 Duty Cycle

Please refer to Appendix C.

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

Please refer to Appendix B.



3.5 AC Conducted Emission Measurement

3.5.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission (MHz)	Conducted limit (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.

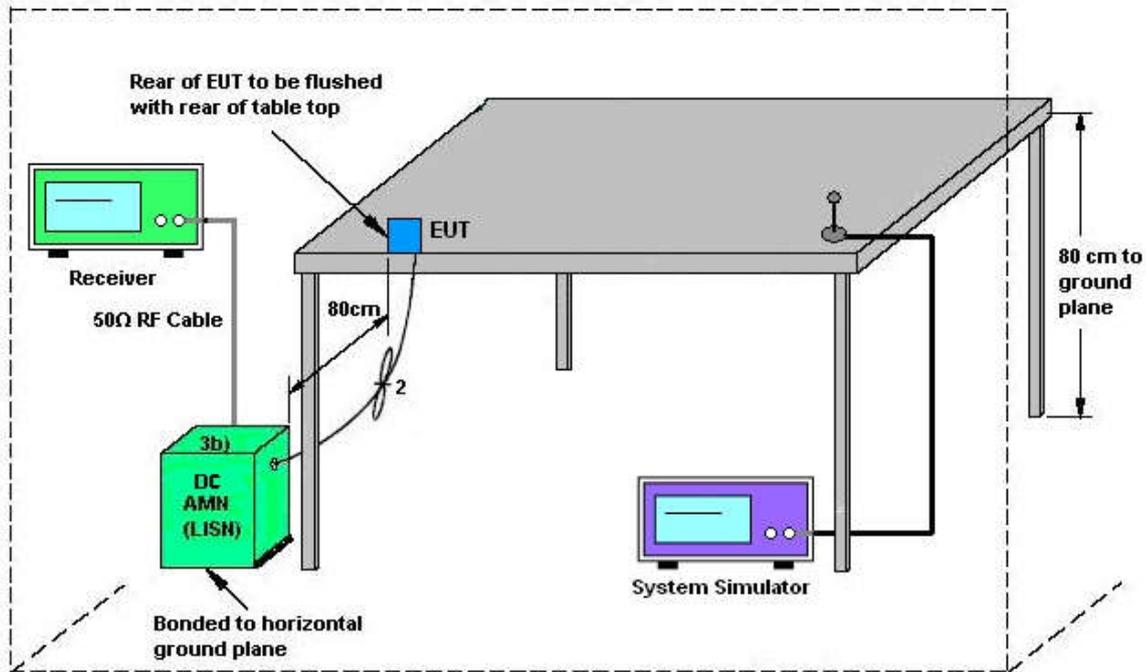
3.5.2 Measuring Instruments

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

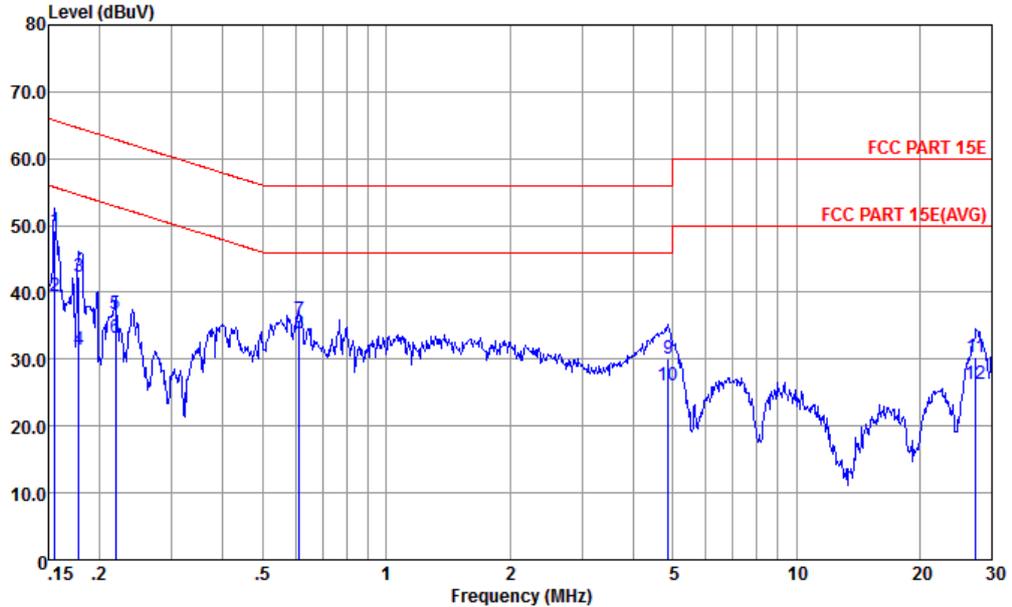


AMN = Artificial mains network (LISN)
AE = Associated equipment
EUT = Equipment under test
ISN = Impedance stabilization network



3.5.5 Test Result of AC Conducted Emission

Test Mode :	Mode 2	Temperature :	22~24°C
Test Engineer :	Amos Zhang	Relative Humidity :	43~47%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	GSM850 Idle + Bluetooth Link + WLAN Link (5GHz) + Earphone + USB Cable (Charging from Adapter 5.2V) for Sample 1		



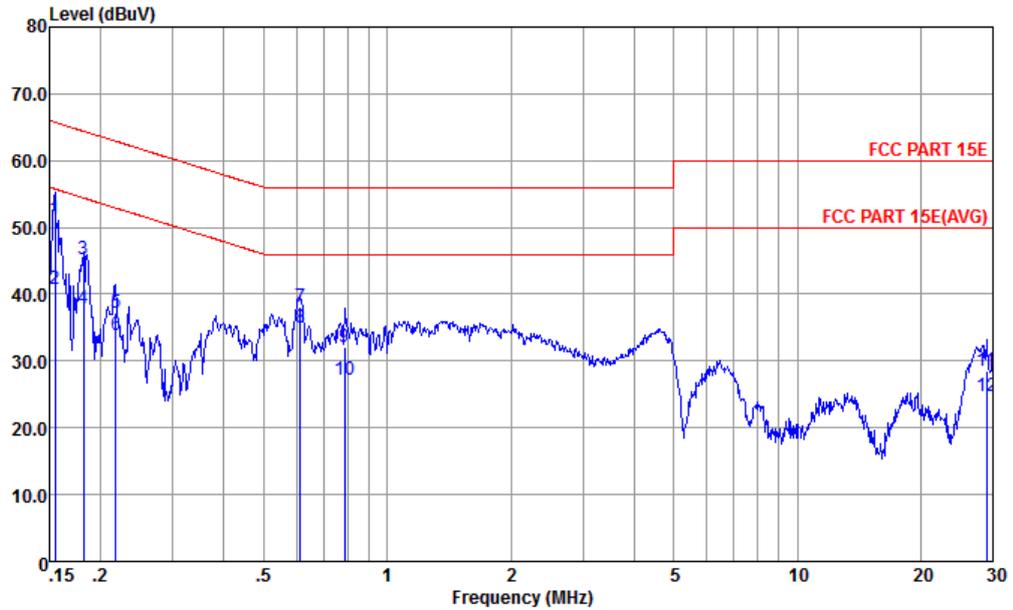
Site : CO01-KS
 Condition : FCC PART 15E LISN-L-20151024 LINE

mode : Mode 2
 IMEI : 869972020005054/869972020005062 #1

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.16	49.20	-16.49	65.69	38.60	0.49	10.11	QP
2	0.16	39.50	-16.19	55.69	28.90	0.49	10.11	Average
3	0.18	42.26	-22.33	64.59	31.80	0.34	10.12	QP
4	0.18	31.36	-23.23	54.59	20.90	0.34	10.12	Average
5	0.22	36.85	-26.03	62.88	26.50	0.22	10.13	QP
6	0.22	33.25	-19.63	52.88	22.90	0.22	10.13	Average
7	0.61	35.79	-20.21	56.00	25.39	0.24	10.16	QP
8 *	0.61	33.79	-12.21	46.00	23.39	0.24	10.16	Average
9	4.87	30.17	-25.83	56.00	19.80	0.19	10.18	QP
10	4.87	26.07	-19.93	46.00	15.70	0.19	10.18	Average
11	27.42	30.30	-29.70	60.00	19.31	0.22	10.77	QP
12	27.42	26.30	-23.70	50.00	15.31	0.22	10.77	Average



Test Mode :	Mode 2	Temperature :	22~24°C
Test Engineer :	Amos Zhang	Relative Humidity :	43~47%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM850 Idle + Bluetooth Link + WLAN Link (5GHz) + Earphone + USB Cable (Charging from Adapter 5.2V) for Sample 1		



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

mode : Mode 2
IMEI : 869972020005054/869972020005062 #1

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.15	51.21	-14.53	65.74	40.80	0.30	10.11	QP
2	0.15	40.81	-14.93	55.74	30.40	0.30	10.11	Average
3	0.18	45.23	-19.19	64.42	34.80	0.31	10.12	QP
4	0.18	37.83	-16.59	54.42	27.40	0.31	10.12	Average
5	0.22	37.14	-25.78	62.92	26.70	0.31	10.13	QP
6	0.22	33.94	-18.98	52.92	23.50	0.31	10.13	Average
7	0.61	38.09	-17.91	56.00	27.60	0.33	10.16	QP
8 *	0.61	34.99	-11.01	46.00	24.50	0.33	10.16	Average
9	0.79	32.10	-23.90	56.00	21.60	0.35	10.15	QP
10	0.79	27.30	-18.70	46.00	16.80	0.35	10.15	Average
11	28.91	28.57	-31.43	60.00	17.50	0.24	10.83	QP
12	28.91	24.77	-25.23	50.00	13.70	0.24	10.83	Average

3.6 Frequency Stability Measurement

3.6.1 Limit of Frequency Stability

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

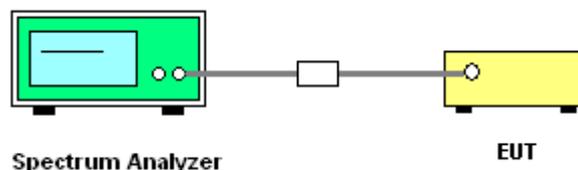
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

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

3.6.4 Test Setup



3.6.5 Test Result of Frequency Stability

Please refer to Appendix A.



3.7 Automatically Discontinue Transmission

3.7.1 Limit of Automatically Discontinue Transmission

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

3.7.2 Measuring Instruments

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

3.7.3 Test Result of Automatically Discontinue Transmission

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



3.8 Antenna Requirements

3.8.1 Standard Applicable

According to FCC 47 CFR Section 15.407(a)(1)(2) ,if transmitting antenna directional gain is greater than 6 dBi, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.8.2 Antenna Anti-Replacement Construction

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
Spectrum Analyzer	R&S	FSV40	101078	9kHz~40GHz	May 07, 2016	Jun. 02, 2016~ Jun. 16, 2016	May 06, 2017	Conducted (TH01-SZ)
Spectrum Analyzer	R&S	FSP30	101400	9kHz~40GHz	Jan. 12, 2016	Jun. 02, 2016~ Jun. 16, 2016	Jan. 11, 2017	Conducted (TH01-SZ)
Pulse Power Sensor	Anritsu	MA2411B	1207253	30MHz~40GHz	Jan. 12, 2016	Jun. 02, 2016~ Jun. 16, 2016	Jan. 11, 2017	Conducted (TH01-SZ)
Power Meter	Anritsu	ML2495A	1218010	50MHz Bandwidth	Jan. 12, 2016	Jun. 02, 2016~ Jun. 16, 2016	Jan. 11, 2017	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Aug. 07, 2015	Jun. 02, 2016~ Jun. 16, 2016	Aug. 06, 2016	Conducted (TH01-SZ)
EMI Test Receiver&SA	KEYSIGHT	N9038A	MY54450083	20Hz~8.4GHz	May 07, 2016	May 26, 2016~ Jun. 14, 2016	May 06, 2017	Radiation (03CH03-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150246	10Hz~44GHz;	May 07, 2016	May 26, 2016~ Jun. 14, 2016	May 06, 2017	Radiation (03CH03-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	May 07, 2016	May 26, 2016~ Jun. 14, 2016	May 06, 2017	Radiation (03CH03-SZ)
Bilog Antenna	TeseQ	CBL6112D	35408	30MHz~2GHz	May 21, 2016	May 26, 2016~ Jun. 14, 2016	May 20, 2017	Radiation (03CH03-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1355	1GHz~18GHz	May 07, 2016	May 26, 2016~ Jun. 14, 2016	May 06, 2017	Radiation (03CH03-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18GHz~40GHz	Aug. 19, 2015	May 26, 2016~ Jun. 14, 2016	Aug. 18, 2016	Radiation (03CH03-SZ)
Amplifier	PREAMP LIFIER	BPA-530	102210	0.01Hz ~3000MHz	Oct. 20, 2015	May 26, 2016~ Jun. 14, 2016	Oct. 19, 2016	Radiation (03CH03-SZ)
Amplifier	Agilent Technologies	83017A	MY39501302	500MHz~26.5G Hz	Jan. 12, 2016	May 26, 2016~ Jun. 14, 2016	Jan. 11, 2017	Radiation (03CH03-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 18, 2015	May 26, 2016~ Jun. 14, 2016	Jul. 17, 2016	Radiation (03CH03-SZ)
HF Amplifier	MITEQ	AMF-7D-00101800-30-10P-R	1943528	1GHz~18GHz	Oct. 20, 2015	May 26, 2016~ Jun. 14, 2016	Oct. 19, 2016	Radiation (03CH03-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	NCR	May 26, 2016~ Jun. 14, 2016	NCR	Radiation (03CH03-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	May 26, 2016~ Jun. 14, 2016	NCR	Radiation (03CH03-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	May 26, 2016~ Jun. 14, 2016	NCR	Radiation (03CH03-SZ)
EMI Receiver	R&S	ESC17	100768	9kHz~7GHz;	Apr. 29, 2016	Jun. 13, 2016	Apr. 28, 2017	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060103	9kHz~30MHz	Oct. 24, 2015	Jun. 13, 2016	Oct. 23, 2016	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060105	9kHz~30MHz	Oct. 24, 2015	Jun. 13, 2016	Oct. 23, 2016	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 24, 2015	Jun. 13, 2016	Oct. 23, 2016	Conduction (CO01-KS)

NCR: No Calibration Required



5 Uncertainty of Evaluation

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

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

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

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

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.8dB
---	-------

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

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



Appendix A. Conducted Test Results

Test Engineer:	Tiny You	Temperature:	24~26	°C
Test Date:	2016/6/2~2016/6/16	Relative Humidity:	50~53	%

TEST RESULTS DATA
26dB and 99% OBW

Band I										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)		
11a	6Mbps	1	36	5180	18.40	23.70	-	22.65		
11a	6Mbps	1	44	5220	18.50	23.55	-	22.67		
11a	6Mbps	1	48	5240	18.55	23.70	-	22.68		
HT20	MCS0	1	36	5180	19.05	24.15	-	22.80		
HT20	MCS0	1	44	5220	19.20	23.80	-	22.83		
HT20	MCS0	1	48	5240	19.05	23.90	-	22.80		
HT40	MCS0	1	38	5190	36.50	44.46	-	23.01		
HT40	MCS0	1	46	5230	36.70	45.18	-	23.01		
VHT20	MCS0	1	36	5180	19.30	24.15	-	22.86		
VHT20	MCS0	1	44	5220	19.30	24.10	-	22.86		
VHT20	MCS0	1	48	5240	19.30	24.05	-	22.86		
VHT40	MCS0	1	38	5190	36.70	44.64	-	23.01		
VHT40	MCS0	1	46	5230	36.60	45.00	-	23.01		
VHT80	MCS0	1	42	5210	75.00	84.96	-	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	0.33	12.05	24.00	0.50		Pass
11a	6Mbps	1	44	5220	0.33	11.99	24.00	0.50		Pass
11a	6Mbps	1	48	5240	0.33	12.03	24.00	0.50		Pass
HT20	MCS0	1	36	5180	0.35	12.07	24.00	0.50		Pass
HT20	MCS0	1	44	5220	0.35	11.98	24.00	0.50		Pass
HT20	MCS0	1	48	5240	0.35	12.03	24.00	0.50		Pass
HT40	MCS0	1	38	5190	0.64	12.57	24.00	0.50		Pass
HT40	MCS0	1	46	5230	0.64	12.54	24.00	0.50		Pass
VHT20	MCS0	1	36	5180	0.81	12.50	24.00	0.50		Pass
VHT20	MCS0	1	44	5220	0.81	12.45	24.00	0.50		Pass
VHT20	MCS0	1	48	5240	0.81	12.49	24.00	0.50		Pass
VHT40	MCS0	1	38	5190	1.48	11.52	24.00	0.50		Pass
VHT40	MCS0	1	46	5230	1.48	11.55	24.00	0.50		Pass
VHT80	MCS0	1	42	5210	2.57	10.81	24.00	0.50		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	0.33	0.90	11.00	0.50		Pass
11a	6Mbps	1	44	5220	0.33	0.71	11.00	0.50		Pass
11a	6Mbps	1	48	5240	0.33	0.58	11.00	0.50		Pass
HT20	MCS0	1	36	5180	0.35	0.46	11.00	0.50		Pass
HT20	MCS0	1	44	5220	0.35	0.42	11.00	0.50		Pass
HT20	MCS0	1	48	5240	0.35	0.46	11.00	0.50		Pass
HT40	MCS0	1	38	5190	0.64	-1.66	11.00	0.50		Pass
HT40	MCS0	1	46	5230	0.64	-1.86	11.00	0.50		Pass
VHT20	MCS0	1	36	5180	0.81	0.98	11.00	0.50		Pass
VHT20	MCS0	1	44	5220	0.81	0.75	11.00	0.50		Pass
VHT20	MCS0	1	48	5240	0.81	0.82	11.00	0.50		Pass
VHT40	MCS0	1	38	5190	1.48	-0.85	11.00	0.50		Pass
VHT40	MCS0	1	46	5230	1.48	-1.18	11.00	0.50		Pass
VHT80	MCS0	1	42	5210	2.57	-3.45	11.00	0.50		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	18.45	23.80	23.66	29.66	23.98	
11a	6M bps	1	60	5300	18.60	23.60	23.70	29.70	23.98	
11a	6M bps	1	64	5320	18.30	23.65	23.62	29.62	23.98	
HT20	MCS 0	1	52	5260	19.25	23.90	23.84	29.84	23.98	
HT20	MCS 0	1	60	5300	19.30	23.95	23.86	29.86	23.98	
HT20	MCS 0	1	64	5320	19.40	24.00	23.88	29.88	23.98	
HT40	MCS 0	1	54	5270	36.70	44.55	23.98	30.00	23.98	
HT40	MCS 0	1	62	5310	36.70	44.91	23.98	30.00	23.98	
VHT20	MCS 0	1	52	5260	19.30	24.10	23.86	29.86	23.98	
VHT20	MCS 0	1	60	5300	19.25	24.00	23.84	29.84	23.98	
VHT20	MCS 0	1	64	5320	19.30	24.05	23.86	29.86	23.98	
VHT40	MCS 0	1	54	5270	36.70	45.00	23.98	30.00	23.98	
VHT40	MCS 0	1	62	5310	36.80	45.00	23.98	30.00	23.98	
VHT80	MCS 0	1	58	5290	74.60	85.12	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)	EIRP Power Limit (dBm)	Pass/Fail
11a	6M bps	1	52	5260	0.33	11.81	23.98	-0.70	26.99	Pass
11a	6M bps	1	60	5300	0.33	11.97	23.98	-0.70	26.99	Pass
11a	6M bps	1	64	5320	0.33	11.86	23.98	-0.70	26.99	Pass
HT20	MCS 0	1	52	5260	0.35	12.02	23.98	-0.70	26.99	Pass
HT20	MCS 0	1	60	5300	0.35	12.15	23.98	-0.70	26.99	Pass
HT20	MCS 0	1	64	5320	0.35	11.92	23.98	-0.70	26.99	Pass
HT40	MCS 0	1	54	5270	0.64	12.52	23.98	-0.70	26.99	Pass
HT40	MCS 0	1	62	5310	0.64	12.49	23.98	-0.70	26.99	Pass
VHT20	MCS 0	1	52	5260	0.81	12.47	23.98	-0.70	26.99	Pass
VHT20	MCS 0	1	60	5300	0.81	12.59	23.98	-0.70	26.99	Pass
VHT20	MCS 0	1	64	5320	0.81	12.40	23.98	-0.70	26.99	Pass
VHT40	MCS 0	1	54	5270	1.48	11.49	23.98	-0.70	26.99	Pass
VHT40	MCS 0	1	62	5310	1.48	11.51	23.98	-0.70	26.99	Pass
VHT80	MCS 0	1	58	5290	2.57	10.86	23.98	-0.70	26.99	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	0.33	0.43	11.00	-0.70		Pass
11a	6M bps	1	60	5300	0.33	0.40	11.00	-0.70		Pass
11a	6M bps	1	64	5320	0.33	0.30	11.00	-0.70		Pass
HT20	MCS 0	1	52	5260	0.35	0.34	11.00	-0.70		Pass
HT20	MCS 0	1	60	5300	0.35	0.10	11.00	-0.70		Pass
HT20	MCS 0	1	64	5320	0.35	0.11	11.00	-0.70		Pass
HT40	MCS 0	1	54	5270	0.64	-2.11	11.00	-0.70		Pass
HT40	MCS 0	1	62	5310	0.64	-1.95	11.00	-0.70		Pass
VHT20	MCS 0	1	52	5260	0.81	0.85	11.00	-0.70		Pass
VHT20	MCS 0	1	60	5300	0.81	0.65	11.00	-0.70		Pass
VHT20	MCS 0	1	64	5320	0.81	0.38	11.00	-0.70		Pass
VHT40	MCS 0	1	54	5270	1.48	-0.83	11.00	-0.70		Pass
VHT40	MCS 0	1	62	5310	1.48	-0.90	11.00	-0.70		Pass
VHT80	MCS 0	1	58	5290	2.57	-3.82	11.00	-0.70		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	18.7	23.45	23.72	29.72	23.98	
11a	6M bps	1	116	5580	18.65	23.65	23.71	29.71	23.98	
11a	6M bps	1	140	5700	18.55	23.7	23.68	29.68	23.98	
HT20	MCS 0	1	100	5500	19.1	24.1	23.81	29.81	23.98	
HT20	MCS 0	1	116	5580	19.1	24.1	23.81	29.81	23.98	
HT20	MCS 0	1	140	5700	19.2	23.85	23.83	29.83	23.98	
HT40	MCS 0	1	102	5510	36.5	45.18	23.98	30.00	23.98	
HT40	MCS 0	1	110	5550	36.7	45.28	23.98	30.00	23.98	
HT40	MCS 0	1	134	5670	36.6	45.09	23.98	30.00	23.98	
VHT20	MCS 0	1	100	5500	19.15	24.1	23.82	29.82	23.98	
VHT20	MCS 0	1	116	5580	19.25	24.05	23.84	29.84	23.98	
VHT20	MCS 0	1	140	5700	19.25	24.1	23.84	29.84	23.98	
VHT40	MCS 0	1	102	5510	36.6	45	23.98	30.00	23.98	
VHT40	MCS 0	1	110	5550	36.8	44.91	23.98	30.00	23.98	
VHT40	MCS 0	1	134	5670	36.8	44.28	23.98	30.00	23.98	
VHT80	MCS 0	1	106	5530	74.88	84.8	23.98	30.00	23.98	
VHT80	MCS 0	1	122	5610	74.88	84.48	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)	EIRP Power Limit (dBm)	Pass/Fail
11a	6M bps	1	100	5500	0.33	11.85	23.98	-0.20	26.99	Pass
11a	6M bps	1	116	5580	0.33	11.72	23.98	-0.20	26.99	Pass
11a	6M bps	1	140	5700	0.33	11.51	23.98	-0.20	26.99	Pass
HT20	MCS 0	1	100	5500	13.00	11.90	23.98	-0.20	26.99	Pass
HT20	MCS 0	1	116	5580	13.00	11.69	23.98	-0.20	26.99	Pass
HT20	MCS 0	1	140	5700	13.00	11.51	23.98	-0.20	26.99	Pass
HT40	MCS 0	1	102	5510	0.64	12.40	23.98	-0.20	26.99	Pass
HT40	MCS 0	1	110	5550	0.64	12.24	23.98	-0.20	26.99	Pass
HT40	MCS 0	1	134	5670	0.64	12.06	23.98	-0.20	26.99	Pass
VHT20	MCS 0	1	100	5500	0.81	12.34	23.98	-0.20	26.99	Pass
VHT20	MCS 0	1	116	5580	0.81	12.16	23.98	-0.20	26.99	Pass
VHT20	MCS 0	1	140	5700	0.81	12.04	23.98	-0.20	26.99	Pass
VHT40	MCS 0	1	102	5510	1.48	11.34	23.98	-0.20	26.99	Pass
VHT40	MCS 0	1	110	5550	1.48	11.03	23.98	-0.20	26.99	Pass
VHT40	MCS 0	1	134	5670	1.48	10.94	23.98	-0.20	26.99	Pass
VHT80	MCS 0	1	106	5530	2.57	10.51	23.98	-0.20	26.99	Pass
VHT80	MCS 0	1	122	5610	2.57	10.26	23.98	-0.20	26.99	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	0.33	0.29	11.00	-0.20		Pass
11a	6M bps	1	116	5580	0.33	0.05	11.00	-0.20		Pass
11a	6M bps	1	140	5700	0.33	0.06	11.00	-0.20		Pass
HT20	MCS 0	1	100	5500	0.35	0.01	11.00	-0.20		Pass
HT20	MCS 0	1	116	5580	0.35	0.14	11.00	-0.20		Pass
HT20	MCS 0	1	140	5700	0.35	-0.29	11.00	-0.20		Pass
HT40	MCS 0	1	102	5510	0.64	-2.17	11.00	-0.20		Pass
HT40	MCS 0	1	110	5550	0.64	-2.35	11.00	-0.20		Pass
HT40	MCS 0	1	134	5670	0.64	-2.53	11.00	-0.20		Pass
VHT20	MCS 0	1	100	5500	0.81	0.57	11.00	-0.20		Pass
VHT20	MCS 0	1	116	5580	0.81	0.45	11.00	-0.20		Pass
VHT20	MCS 0	1	140	5700	0.81	0.23	11.00	-0.20		Pass
VHT40	MCS 0	1	102	5510	1.48	-1.15	11.00	-0.20		Pass
VHT40	MCS 0	1	110	5550	1.48	-1.34	11.00	-0.20		Pass
VHT40	MCS 0	1	134	5670	1.48	-1.69	11.00	-0.20		Pass
VHT80	MCS 0	1	106	5530	2.57	-3.70	11.00	-0.20		Pass
VHT80	MCS 0	1	122	5610	2.57	-3.87	11.00	-0.20		Pass

TEST RESULTS DATA
26dB and 99% OBW

Straddle Channel										
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	99% Bandwidth (MHz)	Emission Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	Note
11a	6Mbps	1	144	5720	18.63	19.94	-	-	-	
				NII-2C	14.3906	16.788	22.58	28.58	23.25	
				NII-3	4.2408	3.1517	23.27	29.27	-	
HT20	MCS0	1	144	5720	19.28	20.76	-	-	-	
				NII-2C	14.6903	16.988	22.67	28.67	23.30	
				NII-3	4.5904	3.7714	23.62	29.62	-	
HT40	MCS0	1	142	5710	36.76	40.22	-	-	-	
				NII-2C	33.3816	37.478	23.98	30.00	23.98	
				NII-3	3.3816	2.7424	22.29	28.29	-	
VHT20	MCS0	1	144	5720	19.18	20.74	-	-	-	
				NII-2C	14.6404	16.988	22.66	28.66	23.30	
				NII-3	4.5405	3.7514	23.57	29.57	-	
VHT40	MCS0	1	142	5710	36.86	40.33	-	-	-	
				NII-2C	33.5814	37.747	23.98	30.00	23.98	
				NII-3	3.2817	2.5826	22.16	28.16	-	
VHT80	MCS0	1	138	5690	74.69	79.76	-	-	-	
				NII-2C	72.403	77.2	23.98	30.00	23.98	
				NII-3	2.283	2.5629	20.59	26.59	-	

TEST RESULTS DATA
Average Power Table

FCC Straddle Channel										
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)		Pass/Fail
11a	6Mbps	1	144	5720	0.33	11.66	-	-0.20		Pass
				NII-2C	0.33	10.64	23.25	-0.20	Pass	
				NII-3	0.33	4.89	30.00	-0.20	Pass	
HT20	MCS0	1	144	5720	0.35	11.74	-	-0.20		Pass
				NII-2C	0.35	10.66	23.30	-0.20	Pass	
				NII-3	0.35	5.17	30.00	-0.20	Pass	
HT40	MCS0	1	142	5710	0.64	11.96	-	-0.20		Pass
				NII-2C	0.64	11.66	23.98	-0.20	Pass	
				NII-3	0.64	0.18	30.00	-0.20	Pass	
VHT20	MCS0	1	144	5720	0.81	11.59	-	-0.20		Pass
				NII-2C	0.81	10.54	23.30	-0.20	Pass	
				NII-3	0.81	4.89	30.00	-0.20	Pass	
VHT40	MCS0	1	142	5710	1.48	10.73	-	-0.20		Pass
				NII-2C	1.48	10.43	23.98	-0.20	Pass	
				NII-3	1.48	-1.07	30.00	-0.20	Pass	
VHT80	MCS0	1	138	5690	2.57	9.84	-	-0.20		Pass
				NII-2C	2.57	9.78	23.98	-0.20	Pass	
				NII-3	2.57	-8.48	30.00	-0.20	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	0.33	0.30	11.00	-0.20		Pass
				NII-3	0.33	0.30	30.00	-0.20		Pass
HT20	MCS0	1	144	NII-2C	0.35	0.08	11.00	-0.20		Pass
				NII-3	0.35	0.08	30.00	-0.20		Pass
HT40	MCS0	1	142	NII-2C	0.64	-2.21	11.00	-0.20		Pass
				NII-3	0.64	-2.21	30.00	-0.20		Pass
VHT20	MCS0	1	144	NII-2C	0.81	0.67	11.00	-0.20		Pass
				NII-3	0.81	0.67	30.00	-0.20		Pass
VHT40	MCS0	1	142	NII-2C	1.48	-2.61	11.00	-0.20		Pass
				NII-3	1.48	-2.61	30.00	-0.20		Pass
VHT80	MCS0	1	138	NII-2C	2.57	-6.07	11.00	-0.20		Pass
				NII-3	2.57	-6.07	30.00	-0.20		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	5180.000	0.000	0.00	20	3.7	
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	20	4.2	
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	20	3.8	
11a	6Mbps	1	36	5180	5179.975	-0.025	-4.83	-30	3.8	
11a	6Mbps	1	36	5180	5180.000	0.000	0.00	50	3.8	

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	5319.950	-0.050	-9.40	20	3.7	
11a	6Mbps	1	64	5320	5319.950	-0.050	-9.40	20	4.2	
11a	6Mbps	1	64	5320	5319.950	-0.050	-9.40	20	3.8	
11a	6Mbps	1	64	5320	5319.950	-0.050	-9.40	-30	3.8	
11a	6Mbps	1	64	5320	5319.950	-0.050	-9.40	50	3.8	

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	5500.000	0.000	0.00	20	3.7	
11a	6Mbps	1	100	5500	5499.950	-0.050	-9.09	20	4.2	
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	20	3.8	
11a	6Mbps	1	100	5500	5500.000	0.000	0.00	-30	3.8	
11a	6Mbps	1	100	5500	5499.950	-0.050	-9.09	50	3.8	



Appendix B. Radiated Spurious Emission

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		5065.25	46.03	-27.97	74	41.33	31.38	7.06	33.74	203	181	P	H
		5127.65	37.85	-16.15	54	32.99	31.48	7.07	33.69	203	181	A	H
	*	5180	95.95	-	-	90.97	31.55	7.08	33.65	203	181	P	H
	*	5180	88.75	-	-	83.77	31.55	7.08	33.65	203	181	A	H
		5031.2	46.65	-27.35	74	42.01	31.34	7.05	33.75	150	185	P	V
		5127.2	37.44	-16.56	54	32.58	31.48	7.07	33.69	150	185	A	V
	*	5180	92.4	-	-	87.42	31.55	7.08	33.65	150	185	P	V
	*	5180	85.48	-	-	80.5	31.55	7.08	33.65	150	185	A	V
802.11a CH 44 5220MHz		5043.05	46.35	-27.65	74	41.68	31.36	7.05	33.74	150	183	P	H
		5117.15	36.73	-17.27	54	31.92	31.45	7.06	33.7	150	183	A	H
	*	5220	95.78	-	-	90.73	31.6	7.09	33.64	150	183	P	H
	*	5220	88.65	-	-	83.6	31.6	7.09	33.64	150	183	A	H
		5401.48	45.7	-28.3	74	40.21	31.86	7.13	33.5	150	183	P	H
		5457.8	36.42	-17.58	54	30.79	31.93	7.17	33.47	150	183	A	H
		5033.75	46.62	-27.38	74	41.98	31.34	7.05	33.75	155	201	P	V
		5116.55	36.91	-17.09	54	32.1	31.45	7.06	33.7	155	201	A	V
	*	5220	91.1	-	-	86.05	31.6	7.09	33.64	155	201	P	V
	*	5220	84.15	-	-	79.1	31.6	7.09	33.64	155	201	A	V
		5444.27	45.92	-28.08	74	40.34	31.91	7.15	33.48	155	201	P	V
	5455.16	36.5	-17.5	54	30.87	31.93	7.17	33.47	155	201	A	V	



802.11a CH 48 5240MHz		5068.85	45.99	-28.01	74	41.27	31.38	7.06	33.72	250	178	P	H
		5041.4	36.81	-17.19	54	32.15	31.36	7.05	33.75	250	178	A	H
	*	5240	96.41	-	-	91.32	31.62	7.09	33.62	250	178	P	H
	*	5240	89.59	-	-	84.5	31.62	7.09	33.62	250	178	A	H
		5433.71	46.38	-27.62	74	40.8	31.91	7.15	33.48	250	178	P	H
		5457.8	36.52	-17.48	54	30.89	31.93	7.17	33.47	250	178	A	H
		5086.7	46.84	-27.16	74	42.09	31.41	7.06	33.72	150	187	P	V
		5062.55	36.84	-17.16	54	32.14	31.38	7.06	33.74	150	187	A	V
	*	5240	90.96	-	-	85.87	31.62	7.09	33.62	150	187	P	V
	*	5240	83.59	-	-	78.5	31.62	7.09	33.62	150	187	A	V
		5386.3	45.09	-28.91	74	39.65	31.83	7.13	33.52	150	187	P	V
		5440.09	36.43	-17.57	54	30.85	31.91	7.15	33.48	150	187	A	V
Remark	<p>1. No other spurious found.</p> <p>2. All results are PASS against Peak and Average limit line.</p>												



Band 1 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		10360	49.59	-24.41	74	59.9	38.62	10.07	59	250	0	P	H
		15540	49.01	-24.99	74	57.39	38.54	12.77	59.69	150	0	P	H
		10360	49.03	-24.97	74	59.34	38.62	10.07	59	250	0	P	V
		15540	49.13	-24.87	74	57.51	38.54	12.77	59.69	150	0	P	V
802.11a CH 44 5220MHz		10440	49.27	-24.73	74	59.44	38.72	10.13	59.02	250	0	P	H
		15660	49.79	-24.21	74	58.44	38.17	12.93	59.75	150	0	P	H
		10440	46.02	-27.98	74	56.19	38.72	10.13	59.02	250	0	P	V
		15660	49.54	-24.46	74	58.19	38.17	12.93	59.75	150	0	P	V
802.11a CH 48 5240MHz		10480	48.7	-25.3	74	58.79	38.79	10.15	59.03	250	0	P	H
		15720	49.85	-24.15	74	58.65	37.96	13.03	59.79	150	0	P	H
		10480	50.43	-23.57	74	60.52	38.79	10.15	59.03	250	0	P	V
		15720	50.57	-23.43	74	59.37	37.96	13.03	59.79	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5150~5250MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

Table with 14 columns: WIFI Ant. 1, Note, Frequency (MHz), Level (dBµV/m), Over Limit (dB), Limit Line (dBµV/m), Read Level (dBµV), Antenna Factor (dB/m), Cable Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Rows include data for 802.11n HT20 CH 36 (5180MHz) and 802.11n HT20 CH 44 (5220MHz).



802.11n HT20 CH 48 5240MHz		5120	46.76	-27.24	74	41.94	31.45	7.06	33.69	250	209	P	H
		5028.2	36.79	-17.21	54	32.15	31.34	7.05	33.75	250	209	A	H
	*	5240	96.14	-	-	91.05	31.62	7.09	33.62	250	209	P	H
	*	5240	88.89	-	-	83.8	31.62	7.09	33.62	250	209	A	H
		5455.27	45.24	-28.76	74	39.61	31.93	7.17	33.47	250	209	P	H
		5457.8	36.47	-17.53	54	30.84	31.93	7.17	33.47	250	209	A	H
		5069.3	45.89	-28.11	74	41.17	31.38	7.06	33.72	150	147	P	V
		5137.55	36.73	-17.27	54	31.87	31.48	7.07	33.69	150	147	A	V
	*	5240	91.98	-	-	86.89	31.62	7.09	33.62	150	147	P	V
	*	5240	85.33	-	-	80.24	31.62	7.09	33.62	150	147	A	V
		5362.98	45.68	-28.32	74	40.28	31.81	7.12	33.53	150	147	P	V
		5457.8	36.5	-17.5	54	30.87	31.93	7.17	33.47	150	147	A	V

Remark

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



Band 1 5150~5250MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36		10360	50.25	-23.75	74	60.56	38.62	10.07	59	250	0	P	H
		15540	50.17	-23.83	74	58.55	38.54	12.77	59.69	150	0	P	H
5180MHz		10360	48.97	-25.03	74	59.28	38.62	10.07	59	250	0	P	V
		15540	49.42	-24.58	74	57.8	38.54	12.77	59.69	150	0	P	V
802.11n HT20 CH 44		10440	48.68	-25.32	74	58.85	38.72	10.13	59.02	250	0	P	H
		15660	49.94	-24.06	74	58.59	38.17	12.93	59.75	150	0	P	H
		10440	48.72	-25.28	74	58.89	38.72	10.13	59.02	250	0	P	V
		15660	49.84	-24.16	74	58.49	38.17	12.93	59.75	150	0	P	V
802.11n HT20 CH 48		10480	48.58	-25.42	74	58.67	38.79	10.15	59.03	250	0	P	H
		15720	49.34	-24.66	74	58.14	37.96	13.03	59.79	150	0	P	H
		10480	48.36	-25.64	74	58.45	38.79	10.15	59.03	250	0	P	V
		15720	49.07	-24.93	74	57.87	37.96	13.03	59.79	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5150~5250MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		5075.15	47.43	-26.57	74	42.68	31.41	7.06	33.72	150	155	P	H
		5149.55	37.27	-16.73	54	32.37	31.5	7.07	33.67	150	155	A	H
	*	5190	94.12	-	-	89.14	31.55	7.08	33.65	150	155	P	H
	*	5190	83.16	-	-	78.18	31.55	7.08	33.65	150	155	A	H
		5381.35	46.78	-27.22	74	41.34	31.83	7.13	33.52	150	155	P	H
		5455.27	36.54	-17.46	54	30.91	31.93	7.17	33.47	150	155	A	H
		5088.5	46.81	-27.19	74	42.06	31.41	7.06	33.72	150	128	P	V
		5086.55	37.19	-16.81	54	32.44	31.41	7.06	33.72	150	128	A	V
	*	5190	93.2	-	-	88.22	31.55	7.08	33.65	150	128	P	V
	*	5190	82.13	-	-	77.15	31.55	7.08	33.65	150	128	A	V
		5421.61	45.11	-28.89	74	39.58	31.88	7.15	33.5	150	128	P	V
		5457.58	36.64	-17.36	54	31.01	31.93	7.17	33.47	150	128	A	V
802.11n HT40 CH 46 5230MHz		5027.9	46.44	-27.56	74	41.8	31.34	7.05	33.75	150	159	P	H
		5125.85	37.02	-16.98	54	32.17	31.48	7.06	33.69	150	159	A	H
	*	5230	93.84	-	-	88.75	31.62	7.09	33.62	150	159	P	H
	*	5230	83.21	-	-	78.12	31.62	7.09	33.62	150	159	A	H
		5458.79	46.23	-27.77	74	40.6	31.93	7.17	33.47	150	159	P	H
		5435.25	36.49	-17.51	54	30.91	31.91	7.15	33.48	150	159	A	H
		5126.9	46.76	-27.24	74	41.9	31.48	7.07	33.69	150	129	P	V
		5127.35	37.18	-16.82	54	32.32	31.48	7.07	33.69	150	129	A	V
	*	5230	93.42	-	-	88.33	31.62	7.09	33.62	150	129	P	V
	*	5230	82.5	-	-	77.41	31.62	7.09	33.62	150	129	A	V
	5451.2	46.42	-27.58	74	40.79	31.93	7.17	33.47	150	129	P	V	
	5455.6	36.56	-17.44	54	30.93	31.93	7.17	33.47	150	129	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5150~5250MHz
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38		10380	49	-25	74	59.26	38.65	10.1	59.01	250	0	P	H
		15570	49.82	-24.18	74	58.27	38.44	12.82	59.71	150	0	P	H
5190MHz		10380	48.6	-25.4	74	58.86	38.65	10.1	59.01	250	0	P	V
		15570	48.82	-25.18	74	57.27	38.44	12.82	59.71	150	0	P	V
802.11n HT40 CH 46		10460	48.48	-25.52	74	58.62	38.74	10.15	59.03	250	0	P	H
		15690	49.82	-24.18	74	58.55	38.06	12.98	59.77	150	0	P	H
5230MHz		10460	49.35	-24.65	74	59.49	38.74	10.15	59.03	250	0	P	V
		15690	49.64	-24.36	74	58.37	38.06	12.98	59.77	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5150~5250MHz
WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 36 5180MHz		5010.35	46.9	-27.1	74	42.31	31.31	7.05	33.77	150	196	P	H
		5128.4	38.58	-15.42	54	33.72	31.48	7.07	33.69	150	196	A	H
	*	5180	94.96	-	-	89.98	31.55	7.08	33.65	150	196	P	H
	*	5180	84.36	-	-	79.38	31.55	7.08	33.65	150	196	A	H
		5126.45	46.19	-27.81	74	41.33	31.48	7.07	33.69	150	126	P	V
		5128.4	39.07	-14.93	54	34.21	31.48	7.07	33.69	150	126	A	V
	*	5180	93.57	-	-	88.59	31.55	7.08	33.65	150	126	P	V
		5180	84.59	-	-	79.61	31.55	7.08	33.65	150	126	A	V
802.11ac VHT20 CH 44 5220MHz		5081	46.36	-27.64	74	41.61	31.41	7.06	33.72	150	154	P	H
		5128.25	37.62	-16.38	54	32.76	31.48	7.07	33.69	150	154	A	H
	*	5220	95.14	-	-	90.09	31.6	7.09	33.64	150	154	P	H
	*	5220	85.44	-	-	80.39	31.6	7.09	33.64	150	154	A	H
		5364.85	45.69	-28.31	74	40.29	31.81	7.12	33.53	150	154	P	H
		5451.75	37.17	-16.83	54	31.54	31.93	7.17	33.47	150	154	A	H
		5030.45	46.75	-27.25	74	42.11	31.34	7.05	33.75	150	128	P	V
		5102.3	37.5	-16.5	54	32.71	31.43	7.06	33.7	150	128	A	V
	*	5220	93.4	-	-	88.35	31.6	7.09	33.64	150	128	P	V
	*	5220	83.65	-	-	78.6	31.6	7.09	33.64	150	128	A	V
		5433.82	46.23	-27.77	74	40.65	31.91	7.15	33.48	150	128	P	V
	5453.07	37.15	-16.85	54	31.52	31.93	7.17	33.47	150	128	A	V	



802.11ac VHT20 CH 48 5240MHz		5018.3	46.93	-27.07	74	42.32	31.31	7.05	33.75	150	172	P	H
		5059.4	37.46	-16.54	54	32.76	31.38	7.06	33.74	150	172	A	H
	*	5240	95.66	-	-	90.57	31.62	7.09	33.62	150	172	P	H
	*	5240	85.84	-	-	80.75	31.62	7.09	33.62	150	172	A	H
		5438.44	46.63	-27.37	74	41.05	31.91	7.15	33.48	150	172	P	H
		5458.46	37.24	-16.76	54	31.61	31.93	7.17	33.47	150	172	A	H
		5077.4	46.91	-27.09	74	42.16	31.41	7.06	33.72	156	122	P	V
		5027	37.44	-16.56	54	32.8	31.34	7.05	33.75	156	122	A	V
	*	5240	93.66	-	-	88.57	31.62	7.09	33.62	156	122	P	V
	*	5240	83.89	-	-	78.8	31.62	7.09	33.62	156	122	A	V
		5407.09	45.62	-28.38	74	40.11	31.86	7.15	33.5	156	122	P	V
		5455.49	37.12	-16.88	54	31.49	31.93	7.17	33.47	156	122	A	V
Remark	<ol style="list-style-type: none"> No other spurious found. All results are PASS against Peak and Average limit line. 												



Band 1 5150~5250MHz
WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10360	49.05	-24.95	74	59.36	38.62	10.07	59	250	0	P	H
VHT20		15540	49.04	-24.96	74	57.42	38.54	12.77	59.69	150	0	P	H
CH 36		10360	49.33	-24.67	74	59.64	38.62	10.07	59	250	0	P	V
5180MHz		15540	48.9	-25.1	74	57.28	38.54	12.77	59.69	150	0	P	V
802.11ac		10440	50.38	-23.62	74	60.55	38.72	10.13	59.02	250	0	P	H
VHT20		15660	50.11	-23.89	74	58.76	38.17	12.93	59.75	150	0	P	H
CH 44		10440	49.25	-24.75	74	59.42	38.72	10.13	59.02	250	0	P	V
5220MHz		15660	49.87	-24.13	74	58.52	38.17	12.93	59.75	150	0	P	V
802.11ac		10480	48.32	-25.68	74	58.41	38.79	10.15	59.03	250	0	P	H
VHT20		15720	50.52	-23.48	74	59.32	37.96	13.03	59.79	150	0	P	H
CH 48		10480	50.19	-23.81	74	60.28	38.79	10.15	59.03	250	0	P	V
5240MHz		15720	49.28	-24.72	74	58.08	37.96	13.03	59.79	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5150~5250MHz
WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 38 5190MHz		5018	46.47	-27.53	74	41.86	31.31	7.05	33.75	150	194	P	H
		5146.55	37.47	-16.53	54	32.57	31.5	7.07	33.67	150	194	A	H
	*	5190	93.38	-	-	88.4	31.55	7.08	33.65	150	194	P	H
	*	5190	83	-	-	78.02	31.55	7.08	33.65	150	194	A	H
		5450.43	45.33	-28.67	74	39.7	31.93	7.17	33.47	150	194	P	H
		5446.58	37.28	-16.72	54	31.66	31.93	7.17	33.48	150	194	A	H
		5138	46.5	-27.5	74	41.64	31.48	7.07	33.69	150	221	P	V
		5033.3	37.56	-16.44	54	32.92	31.34	7.05	33.75	150	221	A	V
	*	5190	90	-	-	85.02	31.55	7.08	33.65	150	221	P	V
	*	5190	80.87	-	-	75.89	31.55	7.08	33.65	150	221	A	V
		5407.09	46.44	-27.56	74	40.93	31.86	7.15	33.5	150	221	P	V
		5453.62	36.97	-17.03	54	31.34	31.93	7.17	33.47	150	221	A	V
	802.11ac VHT40 CH 46 5230MHz		5070.8	46.24	-27.76	74	41.52	31.38	7.06	33.72	150	192	P
		5143.85	37.7	-16.3	54	32.8	31.5	7.07	33.67	150	192	A	H
*		5230	94.37	-	-	89.28	31.62	7.09	33.62	150	192	P	H
*		5230	83.07	-	-	77.98	31.62	7.09	33.62	150	192	A	H
		5435.8	45.77	-28.23	74	40.19	31.91	7.15	33.48	150	192	P	H
		5442.18	37.05	-16.95	54	31.47	31.91	7.15	33.48	150	192	A	H
		5105.6	46.58	-27.42	74	41.77	31.45	7.06	33.7	150	117	P	V
		5125.55	37.63	-16.37	54	32.78	31.48	7.06	33.69	150	117	A	V
*		5230	90.09	-	-	85	31.62	7.09	33.62	150	117	P	V
*		5230	80.37	-	-	75.28	31.62	7.09	33.62	150	117	A	V
	5427.77	46.02	-27.98	74	40.47	31.88	7.15	33.48	150	117	P	V	
	5432.5	37.05	-16.95	54	31.47	31.91	7.15	33.48	150	117	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5150~5250MHz
WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10380	49.12	-24.88	74	59.38	38.65	10.1	59.01	250	0	P	H
VHT40		15570	49.73	-24.27	74	58.18	38.44	12.82	59.71	150	0	P	H
CH 38		10380	50.25	-23.75	74	60.51	38.65	10.1	59.01	250	0	P	V
5190MHz		15570	49.1	-24.9	74	57.55	38.44	12.82	59.71	150	0	P	V
802.11ac		10460	50	-24	74	60.14	38.74	10.15	59.03	250	0	P	H
VHT40		15690	50.77	-23.23	74	59.5	38.06	12.98	59.77	150	0	P	H
CH 46		10460	48.9	-25.1	74	59.04	38.74	10.15	59.03	250	0	P	V
5230MHz		15690	49.97	-24.03	74	58.7	38.06	12.98	59.77	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5138.9	46.37	-27.63	74	41.51	31.48	7.07	33.69	150	184	P	H
		5147.15	38.69	-15.31	54	33.79	31.5	7.07	33.67	150	184	A	H
	*	5210	90.45	-	-	85.4	31.6	7.09	33.64	150	184	P	H
	*	5210	80.33	-	-	75.28	31.6	7.09	33.64	150	184	A	H
		5439.65	45.43	-28.57	74	39.85	31.91	7.15	33.48	150	184	P	H
		5434.92	38.35	-15.65	54	32.77	31.91	7.15	33.48	150	184	A	H
		5109.5	46.48	-27.52	74	41.67	31.45	7.06	33.7	150	126	P	V
		5130.8	38.72	-15.28	54	33.86	31.48	7.07	33.69	150	126	A	V
	*	5210	87.35	-	-	82.3	31.6	7.09	33.64	150	126	P	V
	*	5210	78.44	-	-	73.39	31.6	7.09	33.64	150	126	A	V
		5434.92	46.21	-27.79	74	40.63	31.91	7.15	33.48	150	126	P	V
		5438.11	38.11	-15.89	54	32.53	31.91	7.15	33.48	150	126	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5150~5250MHz
WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10420	49.21	-24.79	74	59.4	38.69	10.13	59.01	250	0	P	H
VHT80		15630	49.71	-24.29	74	58.35	38.22	12.88	59.74	150	0	P	H
CH 42		10420	48.98	-25.02	74	59.17	38.69	10.13	59.01	250	0	P	V
5210MHz		15630	50.33	-23.67	74	58.97	38.22	12.88	59.74	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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

WIFI	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		5031.8	45.77	-28.23	74	41.13	31.34	7.05	33.75	202	178	P	H
		5040.8	36.78	-17.22	54	32.12	31.36	7.05	33.75	202	178	A	H
	*	5260	96.98	-	-	91.81	31.67	7.1	33.6	202	178	P	H
	*	5260	89.87	-	-	84.7	31.67	7.1	33.6	202	178	A	H
		5401.81	46.04	-27.96	74	40.55	31.86	7.13	33.5	202	178	P	H
		5458.46	36.54	-17.46	54	30.91	31.93	7.17	33.47	202	178	A	H
		5042.45	46.36	-27.64	74	41.69	31.36	7.05	33.74	150	184	P	V
		5114.45	36.81	-17.19	54	32	31.45	7.06	33.7	150	184	A	V
	*	5260	91.02	-	-	85.85	31.67	7.1	33.6	150	184	P	V
	*	5260	83.67	-	-	78.5	31.67	7.1	33.6	150	184	A	V
		5441.08	46.03	-27.97	74	40.45	31.91	7.15	33.48	150	184	P	V
		5456.7	36.4	-17.6	54	30.77	31.93	7.17	33.47	150	184	A	V
802.11a CH 60 5300MHz		5060.75	46.45	-27.55	74	41.75	31.38	7.06	33.74	150	190	P	H
		5118.35	36.78	-17.22	54	31.96	31.45	7.06	33.69	150	190	A	H
	*	5300	97.03	-	-	91.77	31.72	7.11	33.57	150	190	P	H
	*	5300	84.01	-	-	78.75	31.72	7.11	33.57	150	190	A	H
		5386.41	46.77	-27.23	74	41.33	31.83	7.13	33.52	150	190	P	H
		5352.31	38.11	-15.89	54	32.73	31.79	7.12	33.53	150	190	A	H
		5053.4	46.51	-27.49	74	41.83	31.36	7.06	33.74	164	187	P	V
		5130.35	36.82	-17.18	54	31.96	31.48	7.07	33.69	164	187	A	V
	*	5300	89.96	-	-	84.7	31.72	7.11	33.57	164	187	P	V
	*	5300	82.86	-	-	77.6	31.72	7.11	33.57	164	187	A	V
		5438.22	45.6	-28.4	74	40.02	31.91	7.15	33.48	164	187	P	V
		5457.03	36.46	-17.54	54	30.83	31.93	7.17	33.47	164	187	A	V



802.11a CH 64 5320MHz	*	5320	96.05	-	-	90.77	31.74	7.11	33.57	250	179	P	H
	*	5320	89.38	-	-	84.1	31.74	7.11	33.57	250	179	A	H
		5371.34	46.37	-27.63	74	40.96	31.81	7.13	33.53	250	179	P	H
		5372.22	38.69	-15.31	54	33.28	31.81	7.13	33.53	250	179	A	H
	*	5320	88.98	-	-	83.7	31.74	7.11	33.57	152	115	P	V
	*	5320	82.18	-	-	76.9	31.74	7.11	33.57	152	115	A	V
		5425.9	45.33	-28.67	74	39.78	31.88	7.15	33.48	152	115	P	V
		5372.66	36.55	-17.45	54	31.14	31.81	7.13	33.53	152	115	A	V
Remark	<ol style="list-style-type: none"> No other spurious found. All results are PASS against Peak and Average limit line. 												



Band 2 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 52 5260MHz		10520	49.55	-24.45	74	59.59	38.84	10.18	59.06	250	0	P	H
		15780	49.76	-24.24	74	58.7	37.79	13.09	59.82	150	0	P	H
		10520	49.22	-24.78	74	59.26	38.84	10.18	59.06	250	0	P	V
		15780	49.86	-24.14	74	58.8	37.79	13.09	59.82	150	0	P	V
802.11a CH 60 5300MHz		10600	49.47	-24.53	74	59.38	38.95	10.29	59.15	250	0	P	H
		15900	50.15	-23.85	74	59.37	37.42	13.24	59.88	150	0	P	H
		10600	49.29	-24.71	74	59.2	38.95	10.29	59.15	250	0	P	V
		15900	50	-24	74	59.22	37.42	13.24	59.88	150	0	P	V
802.11a CH 64 5320MHz		10640	49.94	-24.06	74	59.78	39	10.34	59.18	250	0	P	H
		15960	49.37	-24.63	74	58.73	37.21	13.35	59.92	150	0	P	H
		10640	49.54	-24.46	74	59.38	39	10.34	59.18	250	0	P	V
		15960	49.74	-24.26	74	59.1	37.21	13.35	59.92	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 2 5250~5350MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 52 5260MHz		5066.9	46.88	-27.12	74	42.18	31.38	7.06	33.74	212	204	P	H
		5082.95	36.76	-17.24	54	32.01	31.41	7.06	33.72	212	204	A	H
	*	5260	95.4	-	-	90.23	31.67	7.1	33.6	212	204	P	H
	*	5260	88.07	-	-	82.9	31.67	7.1	33.6	212	204	A	H
		5386.96	45.11	-28.89	74	39.67	31.83	7.13	33.52	212	204	P	H
		5458.24	36.61	-17.39	54	30.98	31.93	7.17	33.47	212	204	A	H
		5051.6	45.88	-28.12	74	41.2	31.36	7.06	33.74	153	146	P	V
		5086.4	36.79	-17.21	54	32.04	31.41	7.06	33.72	153	146	A	V
	*	5260	90.35	-	-	85.18	31.67	7.1	33.6	153	146	P	V
	*	5260	83.77	-	-	78.6	31.67	7.1	33.6	153	146	A	V
		5414.9	45.47	-28.53	74	39.94	31.88	7.15	33.5	153	146	P	V
		5454.61	36.48	-17.52	54	30.85	31.93	7.17	33.47	153	146	A	V
802.11n HT20 CH 60 5300MHz		5022.65	46.36	-27.64	74	41.72	31.34	7.05	33.75	250	207	P	H
		5035.85	36.78	-17.22	54	32.14	31.34	7.05	33.75	250	207	A	H
	*	5300	95.62	-	-	90.36	31.72	7.11	33.57	250	207	P	H
	*	5300	88.76	-	-	83.5	31.72	7.11	33.57	250	207	A	H
		5377.94	46.79	-27.21	74	41.35	31.83	7.13	33.52	250	207	P	H
		5351.65	38.73	-15.27	54	33.35	31.79	7.12	33.53	250	207	A	H
		5055.65	46.63	-27.37	74	41.93	31.38	7.06	33.74	150	146	P	V
		5136.65	36.75	-17.25	54	31.89	31.48	7.07	33.69	150	146	A	V
	*	5300	90	-	-	84.74	31.72	7.11	33.57	150	146	P	V
	*	5300	83.46	-	-	78.2	31.72	7.11	33.57	150	146	A	V
	5443.94	46.15	-27.85	74	40.57	31.91	7.15	33.48	150	146	P	V	
	5351.65	36.57	-17.43	54	31.19	31.79	7.12	33.53	150	146	A	V	



802.11n HT20 CH 64 5320MHz	*	5320	95.56	-	-	90.28	31.74	7.11	33.57	150	203	P	H
	*	5320	88.35	-	-	83.07	31.74	7.11	33.57	150	203	A	H
		5412.92	45.59	-28.41	74	40.06	31.88	7.15	33.5	150	203	P	H
		5371.78	39.05	-14.95	54	33.64	31.81	7.13	33.53	150	203	A	H
	*	5320	90.1	-	-	84.82	31.74	7.11	33.57	151	184	P	V
	*	5320	83.08	-	-	77.8	31.74	7.11	33.57	151	184	A	V
		5429.31	45.9	-28.1	74	40.32	31.91	7.15	33.48	151	184	P	V
		5372.11	36.57	-17.43	54	31.16	31.81	7.13	33.53	151	184	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 2 5250~5350MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 52		10520	49.32	-24.68	74	59.36	38.84	10.18	59.06	250	0	P	H
		15780	50.26	-23.74	74	59.2	37.79	13.09	59.82	150	0	P	H
5260MHz		10520	49.95	-24.05	74	59.99	38.84	10.18	59.06	250	0	P	V
		15780	49.89	-24.11	74	58.83	37.79	13.09	59.82	150	0	P	V
802.11n HT20 CH 60		10600	48.9	-25.1	74	58.81	38.95	10.29	59.15	250	0	P	H
		15900	50	-24	74	59.22	37.42	13.24	59.88	150	0	P	H
		10600	49.09	-24.91	74	59	38.95	10.29	59.15	250	0	P	V
		15900	50.45	-23.55	74	59.67	37.42	13.24	59.88	150	0	P	V
802.11n HT20 CH 64		10640	49.11	-24.89	74	58.95	39	10.34	59.18	250	0	P	H
		15960	50.59	-23.41	74	59.95	37.21	13.35	59.92	150	0	P	H
		10640	49.09	-24.91	74	58.93	39	10.34	59.18	250	0	P	V
		15960	50.65	-23.35	74	60.01	37.21	13.35	59.92	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 2 5250~5350MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 54 5270MHz		5096.9	47.43	-26.57	74	42.64	31.43	7.06	33.7	186	158	P	H
		5066.9	36.93	-17.07	54	32.23	31.38	7.06	33.74	186	158	A	H
	*	5270	94.87	-	-	89.7	31.67	7.1	33.6	186	158	P	H
	*	5270	84.01	-	-	78.84	31.67	7.1	33.6	186	158	A	H
		5371.12	46.24	-27.76	74	40.83	31.81	7.13	33.53	186	158	P	H
		5373.54	37.06	-16.94	54	31.64	31.81	7.13	33.52	186	158	A	H
		5069.75	46.46	-27.54	74	41.74	31.38	7.06	33.72	150	125	P	V
		5133.2	36.8	-17.2	54	31.94	31.48	7.07	33.69	150	125	A	V
	*	5270	91.15	-	-	85.98	31.67	7.1	33.6	150	125	P	V
	*	5270	81.42	-	-	76.25	31.67	7.1	33.6	150	125	A	V
		5419.08	45.46	-28.54	74	39.93	31.88	7.15	33.5	150	125	P	V
		5458.46	36.6	-17.4	54	30.97	31.93	7.17	33.47	150	125	A	V
802.11n HT40 CH 62 5310MHz		5027.15	46.13	-27.87	74	41.49	31.34	7.05	33.75	239	157	P	H
		5122.1	36.86	-17.14	54	32.04	31.45	7.06	33.69	239	157	A	H
	*	5310	94.58	-	-	89.3	31.74	7.11	33.57	239	157	P	H
	*	5310	83.28	-	-	78	31.74	7.11	33.57	239	157	A	H
		5350.33	45.73	-28.27	74	40.35	31.79	7.12	33.53	239	157	P	H
		5350.22	37.85	-16.15	54	32.47	31.79	7.12	33.53	239	157	A	H
		5011.7	47.25	-26.75	74	42.66	31.31	7.05	33.77	150	123	P	V
		5115.05	36.96	-17.04	54	32.15	31.45	7.06	33.7	150	123	A	V
	*	5310	90.73	-	-	85.45	31.74	7.11	33.57	150	123	P	V
	*	5310	80.89	-	-	75.61	31.74	7.11	33.57	150	123	A	V
	5422.05	46.9	-27.1	74	41.37	31.88	7.15	33.5	150	123	P	V	
	5350.66	36.72	-17.28	54	31.34	31.79	7.12	33.53	150	123	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)

Table with 14 columns: WIFI Ant. 1, Note, Frequency (MHz), Level (dBµV/m), Over Limit (dB), Limit Line (dBµV/m), Read Level (dBµV), Antenna Factor (dB/m), Cable Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Rows include data for 802.11n HT40 CH 54 at 5270MHz and 802.11n HT40 CH 62 at 5310MHz.

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



Band 2 5250~5350MHz
WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 52 5260MHz		5062.85	46.55	-27.45	74	41.85	31.38	7.06	33.74	150	172	P	H
		5050.7	37.47	-16.53	54	32.79	31.36	7.06	33.74	150	172	A	H
	*	5260	96.09	-	-	90.92	31.67	7.1	33.6	150	172	P	H
	*	5260	86.22	-	-	81.05	31.67	7.1	33.6	150	172	A	H
		5429.86	45.59	-28.41	74	40.01	31.91	7.15	33.48	150	172	P	H
		5456.04	37.03	-16.97	54	31.4	31.93	7.17	33.47	150	172	A	H
		5037.2	46.84	-27.16	74	42.2	31.34	7.05	33.75	150	123	P	V
		5082.8	37.54	-16.46	54	32.79	31.41	7.06	33.72	150	123	A	V
	*	5260	93.08	-	-	87.91	31.67	7.1	33.6	150	123	P	V
	*	5260	83.24	-	-	78.07	31.67	7.1	33.6	150	123	A	V
		5435.36	45.59	-28.41	74	40.01	31.91	7.15	33.48	150	123	P	V
		5453.18	37.13	-16.87	54	31.5	31.93	7.17	33.47	150	123	A	V
802.11ac VHT20 CH 60 5300MHz		5078.6	47.17	-26.83	74	42.42	31.41	7.06	33.72	250	204	P	H
		5067.35	37.45	-16.55	54	32.73	31.38	7.06	33.72	250	204	A	H
	*	5300	95.57	-	-	90.31	31.72	7.11	33.57	250	204	P	H
	*	5300	86.86	-	-	81.6	31.72	7.11	33.57	250	204	A	H
		5379.48	46.38	-27.62	74	40.94	31.83	7.13	33.52	250	204	P	H
		5351.65	38.97	-15.03	54	33.59	31.79	7.12	33.53	250	204	A	H
		5057.3	47.03	-26.97	74	42.33	31.38	7.06	33.74	150	124	P	V
		5031.2	37.64	-16.36	54	33	31.34	7.05	33.75	150	124	A	V
	*	5300	92.11	-	-	86.85	31.72	7.11	33.57	150	124	P	V
	*	5300	82.4	-	-	77.14	31.72	7.11	33.57	150	124	A	V
	5450.87	45.42	-28.58	74	39.79	31.93	7.17	33.47	150	124	P	V	
	5352.2	37.09	-16.91	54	31.71	31.79	7.12	33.53	150	124	A	V	



802.11ac VHT20 CH 64 5320MHz	*	5320	96.66	-	-	91.38	31.74	7.11	33.57	150	170	P	H
	*	5320	86.95	-	-	81.67	31.74	7.11	33.57	150	170	A	H
		5373.1	47.38	-26.62	74	41.97	31.81	7.13	33.53	150	170	P	H
		5371.89	39.09	-14.91	54	33.68	31.81	7.13	33.53	150	170	A	H
	*	5320	93.11	-	-	87.83	31.74	7.11	33.57	150	127	P	V
	*	5320	83.37	-	-	78.09	31.74	7.11	33.57	150	127	A	V
		5419.63	46.26	-27.74	74	40.73	31.88	7.15	33.5	150	127	P	V
		5372	37.49	-16.51	54	32.08	31.81	7.13	33.53	150	127	A	V
Remark	<ol style="list-style-type: none"> No other spurious found. All results are PASS against Peak and Average limit line. 												



Band 2 5250~5350MHz
WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10520	50.19	-23.81	74	60.23	38.84	10.18	59.06	250	0	P	H
VHT20		15780	49.77	-24.23	74	58.71	37.79	13.09	59.82	150	0	P	H
CH 52		10520	49.76	-24.24	74	59.8	38.84	10.18	59.06	250	0	P	V
5260MHz		15780	50.4	-23.6	74	59.34	37.79	13.09	59.82	150	0	P	V
802.11ac		10600	49.15	-24.85	74	59.06	38.95	10.29	59.15	250	0	P	H
VHT20		15900	50.17	-23.83	74	59.39	37.42	13.24	59.88	150	0	P	H
CH 60		10600	49.43	-24.57	74	59.34	38.95	10.29	59.15	250	0	P	V
5300MHz		15900	50.7	-23.3	74	59.92	37.42	13.24	59.88	150	0	P	V
802.11ac		10640	49.2	-24.8	74	59.04	39	10.34	59.18	250	0	P	H
VHT20		15960	49.11	-24.89	74	58.47	37.21	13.35	59.92	150	0	P	H
CH 64		10640	50.09	-23.91	74	59.93	39	10.34	59.18	250	0	P	V
5320MHz		15960	49.74	-24.26	74	59.1	37.21	13.35	59.92	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 2 5250~5350MHz
WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 54 5270MHz		5040.05	47.64	-26.36	74	42.98	31.36	7.05	33.75	150	183	P	H
		5065.55	37.38	-16.62	54	32.68	31.38	7.06	33.74	150	183	A	H
	*	5270	93.7	-	-	88.53	31.67	7.1	33.6	150	183	P	H
	*	5270	82.63	-	-	77.46	31.67	7.1	33.6	150	183	A	H
		5433.82	45.45	-28.55	74	39.87	31.91	7.15	33.48	150	183	P	H
		5372.11	36.96	-17.04	54	31.55	31.81	7.13	33.53	150	183	A	H
		5054.15	46.38	-27.62	74	41.7	31.36	7.06	33.74	150	118	P	V
		5074.55	37.51	-16.49	54	32.76	31.41	7.06	33.72	150	118	A	V
	*	5270	90.97	-	-	85.8	31.67	7.1	33.6	150	118	P	V
	*	5270	80.02	-	-	74.85	31.67	7.1	33.6	150	118	A	V
		5406.21	46.15	-27.85	74	40.64	31.86	7.15	33.5	150	118	P	V
		5445.7	37.02	-16.98	54	31.42	31.93	7.15	33.48	150	118	A	V
802.11ac VHT40 CH 62 5310MHz		5041.85	46.46	-27.54	74	41.79	31.36	7.05	33.74	150	183	P	H
		5102.45	37.57	-16.43	54	32.78	31.43	7.06	33.7	150	183	A	H
	*	5310	93.66	-	-	88.38	31.74	7.11	33.57	150	183	P	H
	*	5310	82.8	-	-	77.52	31.74	7.11	33.57	150	183	A	H
		5416.11	47.68	-26.32	74	42.15	31.88	7.15	33.5	150	183	P	H
		5350.55	37.43	-16.57	54	32.05	31.79	7.12	33.53	150	183	A	H
		5111	46.48	-27.52	74	41.67	31.45	7.06	33.7	150	119	P	V
		5067.65	37.35	-16.65	54	32.63	31.38	7.06	33.72	150	119	A	V
	*	5310	89.78	-	-	84.5	31.74	7.11	33.57	150	119	P	V
	*	5310	80.17	-	-	74.89	31.74	7.11	33.57	150	119	A	V
	5459.23	46.73	-27.27	74	41.1	31.93	7.17	33.47	150	119	P	V	
	5393.23	37.12	-16.88	54	31.68	31.83	7.13	33.52	150	119	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 2 5250~5350MHz
WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		10540	49.46	-24.54	74	59.45	38.86	10.23	59.08	150	0	P	H
VHT40		15810	50.7	-23.3	74	59.71	37.69	13.14	59.84	150	0	P	H
CH 54		10540	50.28	-23.72	74	60.27	38.86	10.23	59.08	250	0	P	V
5270MHz		15810	50.38	-23.62	74	59.39	37.69	13.14	59.84	150	0	P	V
802.11ac		10620	50.15	-23.85	74	60	38.98	10.34	59.17	250	0	P	H
VHT40		15930	50.21	-23.79	74	59.5	37.31	13.3	59.9	150	0	P	H
CH 62		10620	49.34	-24.66	74	59.19	38.98	10.34	59.17	250	0	P	V
5310MHz		15930	50.6	-23.4	74	59.89	37.31	13.3	59.9	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 2 5250~5350MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 58 5290MHz		5125.1	45.98	-28.02	74	41.13	31.48	7.06	33.69	150	182	P	H
		5037.5	38.67	-15.33	54	34.01	31.36	7.05	33.75	150	182	A	H
	*	5290	90.79	-	-	85.57	31.69	7.11	33.58	150	182	P	H
	*	5290	80.65	-	-	75.43	31.69	7.11	33.58	150	182	A	H
		5355.83	46.47	-27.53	74	41.09	31.79	7.12	33.53	150	182	P	H
		5350.88	39.34	-14.66	54	33.96	31.79	7.12	33.53	150	182	A	H
		5066.15	46.97	-27.03	74	42.27	31.38	7.06	33.74	150	122	P	V
		5102.3	38.6	-15.4	54	33.81	31.43	7.06	33.7	150	122	A	V
	*	5290	86.62	-	-	81.4	31.69	7.11	33.58	150	122	P	V
	*	5290	77.43	-	-	72.21	31.69	7.11	33.58	150	122	A	V
		5357.26	46.44	-27.56	74	41.06	31.79	7.12	33.53	150	122	P	V
		5456.48	38.5	-15.5	54	32.87	31.93	7.17	33.47	150	122	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)

Table with 14 columns: WIFI Ant. 1, Note, Frequency (MHz), Level (dBµV/m), Over Limit (dB), Limit Line (dBµV/m), Read Level (dBµV), Antenna Factor (dB/m), Cable Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Rows include 802.11ac, VHT80, CH 58, 5290MHz and a Remark section.



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		5447.28	46.43	-27.57	74	40.81	31.93	7.17	33.48	189	180	P	H
		5447.76	38.49	-15.51	54	32.87	31.93	7.17	33.48	189	180	A	H
	*	5500	94.74	-	-	89	32	7.19	33.45	189	180	P	H
	*	5500	87.44	-	-	81.7	32	7.19	33.45	189	180	A	H
		5421.2	45.72	-28.28	74	40.19	31.88	7.15	33.5	150	124	P	V
		5447.92	36.9	-17.1	54	31.28	31.93	7.17	33.48	150	124	A	V
	*	5500	89.3	-	-	83.56	32	7.19	33.45	150	124	P	V
	*	5500	81.04	-	-	75.3	32	7.19	33.45	150	124	A	V
802.11a CH 116 5580MHz		5424.72	45.18	-28.82	74	39.63	31.88	7.15	33.48	250	188	P	H
		5457.68	36.48	-17.52	54	30.85	31.93	7.17	33.47	250	188	A	H
	*	5580	94.61	-	-	88.75	32.11	7.23	33.48	250	188	P	H
	*	5580	88.36	-	-	82.5	32.11	7.23	33.48	250	188	A	H
		5757.88	46.41	-27.59	74	40.12	32.41	7.41	33.53	250	188	P	H
		5725.64	37.33	-16.67	54	31.13	32.36	7.36	33.52	250	188	A	H
		5442.48	45.67	-28.33	74	40.09	31.91	7.15	33.48	163	144	P	V
		5470	36.48	-17.52	54	30.83	31.95	7.17	33.47	163	144	A	V
	*	5580	89.33	-	-	83.47	32.11	7.23	33.48	163	144	P	V
	*	5580	83.36	-	-	77.5	32.11	7.23	33.48	163	144	A	V
		5752.44	46.98	-27.02	74	40.69	32.41	7.41	33.53	163	144	P	V
		5754.2	37.34	-16.66	54	31.05	32.41	7.41	33.53	163	144	A	V



802.11a CH 140 5700MHz	*	5700	94.9	-	-	88.75	32.3	7.36	33.51	243	188	P	H
	*	5700	88.46	-	-	82.31	32.3	7.36	33.51	243	188	A	H
		5733.4	47.34	-26.66	74	41.1	32.36	7.41	33.53	243	188	P	H
		5751.96	39.06	-14.94	54	32.77	32.41	7.41	33.53	243	188	A	H
	*	5700	90.56	-	-	84.41	32.3	7.36	33.51	157	146	P	V
	*	5700	84.36	-	-	78.21	32.3	7.36	33.51	157	146	A	V
		5741.24	46.61	-27.39	74	40.34	32.39	7.41	33.53	157	146	P	V
		5752.44	37.85	-16.15	54	31.56	32.41	7.41	33.53	157	146	A	V
Remark	<ol style="list-style-type: none"> No other spurious found. All results are PASS against Peak and Average limit line. 												



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

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 100 5500MHz		11000	48.84	-25.16	74	58.07	39.5	10.83	59.56	250	0	P	H
		16500	49.56	-24.44	74	57.4	38.47	13.36	59.67	150	0	P	H
		11000	48.71	-25.29	74	57.94	39.5	10.83	59.56	250	0	P	V
		16500	48.87	-25.13	74	56.71	38.47	13.36	59.67	150	0	P	V
802.11a CH 116 5580MHz		11160	48.61	-25.39	74	57.99	39.35	10.9	59.63	250	0	P	H
		16740	49.85	-24.15	74	56.3	39.11	13.86	59.42	150	0	P	H
		11160	49.1	-24.9	74	58.48	39.35	10.9	59.63	250	0	P	V
		16740	49.58	-24.42	74	56.03	39.11	13.86	59.42	150	0	P	V
802.11a CH 140 5700MHz		11400	48.84	-25.16	74	58.43	39.13	11	59.72	250	0	P	H
		17100	49.89	-24.11	74	53.65	40.48	14.53	58.77	150	0	P	H
		17100	43.84	-10.16	54	47.6	40.48	14.53	58.77	150	0	A	H
		11400	49.51	-24.49	74	59.1	39.13	11	59.72	250	0	P	V
		17100	50.22	-23.78	74	53.98	40.48	14.53	58.77	150	0	P	V
		17100	43.99	-10.01	54	47.75	40.48	14.53	58.77	150	0	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 HT20 (Band Edge @ 3m)

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



802.11n HT20 CH 140 5700MHz	*	5700	95.77	-	-	89.62	32.3	7.36	33.51	150	153	P	H
	*	5700	88.74	-	-	82.59	32.3	7.36	33.51	150	153	A	H
		5751.88	47.76	-26.24	74	41.47	32.41	7.41	33.53	150	153	P	H
		5751.88	39.49	-14.51	54	33.2	32.41	7.41	33.53	150	153	A	H
	*	5700	91.13	-	-	84.98	32.3	7.36	33.51	150	154	P	V
	*	5700	84.66	-	-	78.51	32.3	7.36	33.51	150	154	A	V
		5746.36	47.34	-26.66	74	41.07	32.39	7.41	33.53	150	154	P	V
		5751.88	38.05	-15.95	54	31.76	32.41	7.41	33.53	150	154	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 HT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 100		11000	48.65	-25.35	74	57.88	39.5	10.83	59.56	250	0	P	H
		16500	49.63	-24.37	74	57.47	38.47	13.36	59.67	150	0	P	H
5500MHz		11000	48.18	-25.82	74	57.41	39.5	10.83	59.56	250	0	P	V
		16500	50.05	-23.95	74	57.89	38.47	13.36	59.67	150	0	P	V
802.11n HT20 CH 116		11160	48.88	-25.12	74	58.26	39.35	10.9	59.63	250	0	P	H
		16740	49.55	-24.45	74	56	39.11	13.86	59.42	150	0	P	H
		11160	48.4	-25.6	74	57.78	39.35	10.9	59.63	250	0	P	V
		16740	49.55	-24.45	74	56	39.11	13.86	59.42	150	0	P	V
802.11n HT20 CH 140		11400	48.18	-25.82	74	57.77	39.13	11	59.72	250	0	P	H
		17100	52.28	-21.72	74	56.04	40.48	14.53	58.77	150	0	P	H
		17100	43.04	-10.96	54	46.8	40.48	14.53	58.77	150	0	A	H
		11400	48.38	-25.62	74	57.97	39.13	11	59.72	250	0	P	V
		17100	52.13	-21.87	74	55.89	40.48	14.53	58.77	150	0	P	V
		17100	43.74	-10.26	54	47.5	40.48	14.53	58.77	150	0	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 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 102 5510MHz		5429.04	45.74	-28.26	74	40.16	31.91	7.15	33.48	250	150	P	H
		5469.68	38.08	-15.92	54	32.43	31.95	7.17	33.47	250	150	A	H
	*	5510	95.67	-	-	89.94	32	7.19	33.46	250	150	P	H
	*	5510	84.1	-	-	78.37	32	7.19	33.46	250	150	A	H
		5731.4	46.65	-27.35	74	40.41	32.36	7.41	33.53	250	150	P	H
		5728.52	37.38	-16.62	54	31.13	32.36	7.41	33.52	250	150	A	H
		5449.68	45.29	-28.71	74	39.67	31.93	7.17	33.48	150	123	P	V
		5469.52	37.27	-16.73	54	31.62	31.95	7.17	33.47	150	123	A	V
	*	5510	91.86	-	-	86.13	32	7.19	33.46	150	123	P	V
	*	5510	80.4	-	-	74.67	32	7.19	33.46	150	123	A	V
		5762.2	46.78	-27.22	74	40.49	32.41	7.41	33.53	150	123	P	V
		5725.64	37.5	-16.5	54	31.3	32.36	7.36	33.52	150	123	A	V
802.11n HT40 CH 110 5550MHz		5390.64	45.37	-28.63	74	39.93	31.83	7.13	33.52	217	194	P	H
		5446.16	37.06	-16.94	54	31.44	31.93	7.17	33.48	217	194	A	H
	*	5550	96.5	-	-	90.68	32.08	7.21	33.47	217	194	P	H
	*	5550	84.98	-	-	79.16	32.08	7.21	33.47	217	194	A	H
		5759.64	47.25	-26.75	74	40.96	32.41	7.41	33.53	217	194	P	H
		5727	37.4	-16.6	54	31.15	32.36	7.41	33.52	217	194	A	H
		5438.16	46.26	-27.74	74	40.68	31.91	7.15	33.48	161	122	P	V
		5447.44	36.72	-17.28	54	31.1	31.93	7.17	33.48	161	122	A	V
	*	5550	90.84	-	-	85.02	32.08	7.21	33.47	161	122	P	V
	*	5550	80.1	-	-	74.28	32.08	7.21	33.47	161	122	A	V
		5727.64	46.88	-27.12	74	40.63	32.36	7.41	33.52	161	122	P	V
		5727	37.23	-16.77	54	30.98	32.36	7.41	33.52	161	122	A	V



802.11n HT40 CH 134 5670MHz		5376.4	45.81	-28.19	74	40.39	31.81	7.13	33.52	241	193	P	H
		5466	36.67	-17.33	54	31.02	31.95	7.17	33.47	241	193	A	H
	*	5670	96.43	-	-	90.33	32.28	7.32	33.5	241	193	P	H
	*	5670	85.45	-	-	79.35	32.28	7.32	33.5	241	193	A	H
		5764.52	47.31	-26.69	74	41.02	32.41	7.41	33.53	241	193	P	H
		5732.52	37.7	-16.3	54	31.46	32.36	7.41	33.53	241	193	A	H
		5442.32	45.72	-28.28	74	40.14	31.91	7.15	33.48	150	131	P	V
		5467.28	36.69	-17.31	54	31.04	31.95	7.17	33.47	150	131	A	V
	*	5670	90.07	-	-	83.97	32.28	7.32	33.5	150	131	P	V
	*	5670	77.44	-	-	71.34	32.28	7.32	33.5	150	131	A	V
		5754.52	46.6	-27.4	74	40.31	32.41	7.41	33.53	150	131	P	V
		5727.4	37.38	-16.62	54	31.13	32.36	7.41	33.52	150	131	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 Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 102		11020	49.59	-24.41	74	58.83	39.48	10.85	59.57	250	0	P	H
		16530	48.77	-25.23	74	56.4	38.56	13.44	59.63	150	0	P	H
5510MHz		11020	47.67	-26.33	74	56.91	39.48	10.85	59.57	250	0	P	V
		16530	48.57	-25.43	74	56.2	38.56	13.44	59.63	150	0	P	V
802.11n HT40 CH 110		11100	48.65	-25.35	74	57.96	39.41	10.88	59.6	250	0	P	H
		16650	50.19	-23.81	74	57.12	38.88	13.7	59.51	150	0	P	H
		11100	48.83	-25.17	74	58.14	39.41	10.88	59.6	250	0	P	V
		16650	49.78	-24.22	74	56.71	38.88	13.7	59.51	150	0	P	V
802.11n HT40 CH 134		11340	47.75	-26.25	74	57.27	39.19	10.98	59.69	250	0	P	H
		17010	50.41	-23.59	74	55.15	39.91	14.45	59.1	150	0	P	H
		11340	49.07	-24.93	74	58.59	39.19	10.98	59.69	250	0	P	V
		17010	49.97	-24.03	74	54.71	39.91	14.45	59.1	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - 5470~5725MHz
WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 100 5500MHz		5447.12	46.08	-27.92	74	40.46	31.93	7.17	33.48	240	180	P	H
		5448.24	38.8	-15.2	54	33.18	31.93	7.17	33.48	240	180	A	H
	*	5500	95.11	-	-	89.37	32	7.19	33.45	240	180	P	H
	*	5500	88.24	-	-	82.5	32	7.19	33.45	240	180	A	H
		5455.76	45.63	-28.37	74	40	31.93	7.17	33.47	152	126	P	V
		5461.2	37.23	-16.77	54	31.6	31.93	7.17	33.47	152	126	A	V
	*	5500	88.4	-	-	82.66	32	7.19	33.45	152	126	P	V
	5500	81.6	-	-	75.86	32	7.19	33.45	152	126	A	V	
802.11ac VHT20 CH 116 5580MHz		5425.04	46.62	-27.38	74	41.07	31.88	7.15	33.48	150	218	P	H
		5468.24	37.15	-16.85	54	31.5	31.95	7.17	33.47	150	218	A	H
	*	5580	93.2	-	-	87.34	32.11	7.23	33.48	150	218	P	H
	*	5580	86.96	-	-	81.1	32.11	7.23	33.48	150	218	A	H
		5729.64	47.23	-26.77	74	40.98	32.36	7.41	33.52	150	218	P	H
		5745	37.87	-16.13	54	31.6	32.39	7.41	33.53	150	218	A	H
		5428.08	45.44	-28.56	74	39.89	31.88	7.15	33.48	150	116	P	V
		5449.2	37.08	-16.92	54	31.46	31.93	7.17	33.48	150	116	A	V
	*	5580	88.71	-	-	82.85	32.11	7.23	33.48	150	116	P	V
	*	5580	82.46	-	-	76.6	32.11	7.23	33.48	150	116	A	V
		5728.44	47.53	-26.47	74	41.28	32.36	7.41	33.52	150	116	P	V
	5763.56	38.08	-15.92	54	31.79	32.41	7.41	33.53	150	116	A	V	



802.11ac VHT20 CH 140 5700MHz	*	5700	97.1	-	-	90.95	32.3	7.36	33.51	150	152	P	H
	*	5700	87.4	-	-	81.25	32.3	7.36	33.51	150	152	A	H
		5751.8	48.15	-25.85	74	41.86	32.41	7.41	33.53	150	152	P	H
		5751.4	39.58	-14.42	54	33.31	32.39	7.41	33.53	150	152	A	H
	*	5700	90.26	-	-	84.11	32.3	7.36	33.51	150	131	P	V
	*	5700	81.07	-	-	74.92	32.3	7.36	33.51	150	131	A	V
		5752.12	47.39	-26.61	74	41.1	32.41	7.41	33.53	150	131	P	V
		5751.64	38.38	-15.62	54	32.09	32.41	7.41	33.53	150	131	A	V
Remark	<ol style="list-style-type: none"> No other spurious found. All results are PASS against Peak and Average limit line. 												



Band 3 - 5470~5725MHz
WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 100 5500MHz		11000	48.33	-25.67	74	57.56	39.5	10.83	59.56	250	0	P	H
		16500	48.9	-25.1	74	56.74	38.47	13.36	59.67	150	0	P	H
		11000	48.93	-25.07	74	58.16	39.5	10.83	59.56	250	0	P	V
		16500	49.06	-24.94	74	56.9	38.47	13.36	59.67	150	0	P	V
802.11ac VHT20 CH 116 5580MHz		11160	48.6	-25.4	74	57.98	39.35	10.9	59.63	250	0	P	H
		16740	49.74	-24.26	74	56.19	39.11	13.86	59.42	150	0	P	H
		11160	48.86	-25.14	74	58.24	39.35	10.9	59.63	250	0	P	V
		16740	50.4	-23.6	74	56.85	39.11	13.86	59.42	150	0	P	V
802.11ac VHT20 CH 140 5700MHz		11400	48.75	-25.25	74	58.34	39.13	11	59.72	250	0	P	H
		17100	52.12	-21.88	74	55.88	40.48	14.53	58.77	150	0	P	H
		17100	43.84	-10.16	54	47.6	40.48	14.53	58.77	150	0	A	H
		11400	48.45	-25.55	74	58.04	39.13	11	59.72	250	0	P	V
		17100	52.39	-21.61	74	56.15	40.48	14.53	58.77	150	0	P	V
		17100	43.99	-10.01	54	47.75	40.48	14.53	58.77	150	0	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - 5470~5725MHz
WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 102 5510MHz		5469.52	45.53	-28.47	74	39.88	31.95	7.17	33.47	150	193	P	H
		5469.04	37.61	-16.39	54	31.96	31.95	7.17	33.47	150	193	A	H
	*	5510	92.53	-	-	86.8	32	7.19	33.46	150	193	P	H
	*	5510	82.07	-	-	76.34	32	7.19	33.46	150	193	A	H
		5763.72	46.76	-27.24	74	40.47	32.41	7.41	33.53	150	193	P	H
		5741.24	37.74	-16.26	54	31.47	32.39	7.41	33.53	150	193	A	H
		5402.8	45.47	-28.53	74	39.98	31.86	7.13	33.5	150	119	P	V
		5464.88	37.41	-16.59	54	31.76	31.95	7.17	33.47	150	119	A	V
	*	5510	89.23	-	-	83.5	32	7.19	33.46	150	119	P	V
	*	5510	79.77	-	-	74.04	32	7.19	33.46	150	119	A	V
		5752.68	46.14	-27.86	74	39.85	32.41	7.41	33.53	150	119	P	V
		5741.32	38.19	-15.81	54	31.92	32.39	7.41	33.53	150	119	A	V
802.11ac VHT40 CH 110 5550MHz		5372.88	46.18	-27.82	74	40.77	31.81	7.13	33.53	182	155	P	H
		5469.84	37.31	-16.69	54	31.66	31.95	7.17	33.47	182	155	A	H
	*	5550	93.33	-	-	87.51	32.08	7.21	33.47	182	155	P	H
	*	5550	82.41	-	-	76.59	32.08	7.21	33.47	182	155	A	H
		5764.68	46.51	-27.49	74	40.22	32.41	7.41	33.53	182	155	P	H
		5744.84	37.88	-16.12	54	31.61	32.39	7.41	33.53	182	155	A	H
		5425.2	45.65	-28.35	74	40.1	31.88	7.15	33.48	150	117	P	V
		5447.6	37.11	-16.89	54	31.49	31.93	7.17	33.48	150	117	A	V
	*	5550	89.97	-	-	84.15	32.08	7.21	33.47	150	117	P	V
	*	5550	80.46	-	-	74.64	32.08	7.21	33.47	150	117	A	V
	5742.2	46.25	-27.75	74	39.98	32.39	7.41	33.53	150	117	P	V	
	5764.28	37.77	-16.23	54	31.48	32.41	7.41	33.53	150	117	A	V	



802.11ac VHT40 CH 134 5670MHz		5447.44	45.3	-28.7	74	39.68	31.93	7.17	33.48	150	154	P	H
		5457.68	37.09	-16.91	54	31.46	31.93	7.17	33.47	150	154	A	H
	*	5670	93.49	-	-	87.39	32.28	7.32	33.5	150	154	P	H
	*	5670	82.79	-	-	76.69	32.28	7.32	33.5	150	154	A	H
		5763.4	47.39	-26.61	74	41.1	32.41	7.41	33.53	150	154	P	H
		5726.36	37.95	-16.05	54	31.7	32.36	7.41	33.52	150	154	A	H
		5418.96	46.41	-27.59	74	40.88	31.88	7.15	33.5	150	140	P	V
		5462.32	37.06	-16.94	54	31.43	31.93	7.17	33.47	150	140	A	V
	*	5670	88.16	-	-	82.06	32.28	7.32	33.5	150	140	P	V
	*	5670	78.14	-	-	72.04	32.28	7.32	33.5	150	140	A	V
		5746.92	46.52	-27.48	74	40.25	32.39	7.41	33.53	150	140	P	V
		5756.28	37.98	-16.02	54	31.69	32.41	7.41	33.53	150	140	A	V
Remark	<ol style="list-style-type: none"> No other spurious found. All results are PASS against Peak and Average limit line. 												



Band 3 - 5470~5725MHz
WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11020	48.69	-25.31	74	57.93	39.48	10.85	59.57	250	0	P	H
VHT40		16530	49.16	-24.84	74	56.79	38.56	13.44	59.63	150	0	P	H
CH 102		11020	48.2	-25.8	74	57.44	39.48	10.85	59.57	250	0	P	V
5510MHz		16530	49.86	-24.14	74	57.49	38.56	13.44	59.63	150	0	P	V
802.11ac		11100	49.18	-24.82	74	58.49	39.41	10.88	59.6	250	0	P	H
VHT40		16650	49.88	-24.12	74	56.81	38.88	13.7	59.51	150	0	P	H
CH 110		11100	48.48	-25.52	74	57.79	39.41	10.88	59.6	250	0	P	V
5550MHz		16650	49.98	-24.02	74	56.91	38.88	13.7	59.51	150	0	P	V
802.11ac		11340	49.35	-24.65	74	58.87	39.19	10.98	59.69	250	0	P	H
VHT40		17010	50.47	-23.53	74	55.21	39.91	14.45	59.1	150	0	P	H
CH 134		11340	48.6	-25.4	74	58.12	39.19	10.98	59.69	250	0	P	V
5670MHz		17010	50.38	-23.62	74	55.12	39.91	14.45	59.1	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 5470~5725MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 106 5530MHz		5454.16	46.27	-27.73	74	40.64	31.93	7.17	33.47	150	151	P	H
		5460.08	38.92	-15.08	54	33.29	31.93	7.17	33.47	150	151	A	H
	*	5530	89.67	-	-	83.9	32.03	7.21	33.47	150	151	P	H
	*	5530	78.99	-	-	73.22	32.03	7.21	33.47	150	151	A	H
		5733.24	46.67	-27.33	74	40.43	32.36	7.41	33.53	150	151	P	H
		5730.68	38.83	-15.17	54	32.59	32.36	7.41	33.53	150	151	A	H
		5442.32	45.21	-28.79	74	39.63	31.91	7.15	33.48	150	118	P	V
		5463.12	38.89	-15.11	54	33.24	31.95	7.17	33.47	150	118	A	V
	*	5530	86.39	-	-	80.62	32.03	7.21	33.47	150	118	P	V
	*	5530	77.17	-	-	71.4	32.03	7.21	33.47	150	118	A	V
		5725.72	48.07	-25.93	74	41.87	32.36	7.36	33.52	150	118	P	V
		5747.24	39.43	-14.57	54	33.16	32.39	7.41	33.53	150	118	A	V
802.11ac VHT80 CH 122 5610MHz		5450	45.32	-28.68	74	39.69	31.93	7.17	33.47	150	157	P	H
		5436.56	38.17	-15.83	54	32.59	31.91	7.15	33.48	150	157	A	H
	*	5610	88.82	-	-	82.87	32.17	7.27	33.49	150	157	P	H
	*	5610	79.11	-	-	73.16	32.17	7.27	33.49	150	157	A	H
		5750.84	46.66	-27.34	74	40.39	32.39	7.41	33.53	150	157	P	H
		5725.56	39.05	-14.95	54	32.85	32.36	7.36	33.52	150	157	A	H
		5408.24	45.25	-28.75	74	39.74	31.86	7.15	33.5	150	116	P	V
		5467.92	38	-16	54	32.35	31.95	7.17	33.47	150	116	A	V
	*	5610	85.29	-	-	79.34	32.17	7.27	33.49	150	116	P	V
	*	5610	76.5	-	-	70.55	32.17	7.27	33.49	150	116	A	V
	5727	48.15	-25.85	74	41.9	32.36	7.41	33.52	150	116	P	V	
	5732.6	39.07	-14.93	54	32.83	32.36	7.41	33.53	150	116	A	V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 5470~5725MHz
WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11060	48.58	-25.42	74	57.87	39.44	10.86	59.59	250	0	P	H
VHT80		16590	49.43	-24.57	74	56.78	38.7	13.53	59.58	150	0	P	H
CH 106		11060	48.87	-25.13	74	58.16	39.44	10.86	59.59	250	0	P	V
5530MHz		16590	48.91	-25.09	74	56.26	38.7	13.53	59.58	150	0	P	V
802.11ac		11220	49.24	-24.76	74	58.66	39.3	10.93	59.65	250	0	P	H
VHT80		16830	50.07	-23.93	74	56.04	39.34	14.03	59.34	150	0	P	H
CH 122		11220	48.76	-25.24	74	58.18	39.3	10.93	59.65	250	0	P	V
5610MHz		16830	50.23	-23.77	74	56.2	39.34	14.03	59.34	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Emission below 1GHz

WIFI 802.11ac VHT20 (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)
802.11an(VHT20) LF		33.88	23.18	-16.82	40	33.48	22.08	1	33.38	-	-	P	H
		103.72	23.56	-19.94	43.5	37.32	18.21	1.38	33.35	-	-	P	H
		195.87	24.31	-19.19	43.5	39.71	16.19	1.57	33.16	-	-	P	H
		221.09	26.39	-19.61	46	40.84	16.89	1.8	33.14	-	-	P	H
		317.12	29.95	-16.05	46	40.73	20.27	1.94	32.99	-	-	P	H
		348.16	31.56	-14.44	46	41.32	21.11	2.04	32.91	100	200	P	H
		30.97	36.08	-3.92	40	44.77	23.67	1	33.36	100	0	P	V
		75.59	21.06	-18.94	40	38.75	14.55	1.14	33.38	-	-	P	V
		167.74	22.23	-21.27	43.5	37.11	16.8	1.53	33.21	-	-	P	V
		220.12	24	-22	46	38.49	16.85	1.8	33.14	-	-	P	V
		321.97	26.79	-19.21	46	37.43	20.4	1.94	32.98	-	-	P	V
		479.11	26.02	-19.98	46	32.66	23.6	2.31	32.55	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Band 3 - 5470~5725MHz - 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	96.31	-	-	90.11	32.36	7.36	33.52	150	176	P	H
		5720	86.37	-	-	80.17	32.36	7.36	33.52	150	176	A	H
		5720	91.64	-	-	85.44	32.36	7.36	33.52	150	139	P	V
		5720	82	-	-	75.8	32.36	7.36	33.52	150	139	A	V



Band 3 - 5470~5725MHz - Straddle Channel
WIFI 802.11a (Harmonic @ 3m)

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



Band 3 - 5470~5725MHz - Straddle Channel
WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		5720	96.31	-	-	90.11	32.36	7.36	33.52	150	175	P	H
HT20		5720	85.9	-	-	79.7	32.36	7.36	33.52	150	175	A	H
CH 144		5720	91.22	-	-	85.02	32.36	7.36	33.52	150	142	P	V
5720MHz		5720	81.52	-	-	75.32	32.36	7.36	33.52	150	142	A	V



Band 3 - 5470~5725MHz - Straddle Channel
WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		11440	48.48	-25.52	74	58.09	39.1	11.02	59.73	250	0	P	H
HT20		17160	53.37	-14.93	68.3	56.33	40.94	14.61	58.51	150	0	P	H
CH 144		11440	47.93	-26.07	74	57.54	39.1	11.02	59.73	250	0	P	V
5720MHz		17160	53.25	-15.05	68.3	56.21	40.94	14.61	58.51	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - 5470~5725MHz - Straddle Channel
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		5710	96.55	-	-	90.38	32.33	7.36	33.52	150	175	P	H
HT40		5710	83.95	-	-	77.78	32.33	7.36	33.52	150	175	A	H
CH 142		5710	90.35	-	-	84.18	32.33	7.36	33.52	150	140	P	V
5710MHz		5710	79.76	-	-	73.59	32.33	7.36	33.52	150	140	A	V



Band 3 - 5470~5725MHz - Straddle Channel
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		11420	48.45	-25.55	74	58.04	39.12	11.02	59.73	250	0	P	H
HT40		17130	52.28	-16.02	68.3	55.64	40.71	14.57	58.64	150	0	P	H
CH 142		11420	48.76	-25.24	74	58.35	39.12	11.02	59.73	250	0	P	V
5710MHz		17130	51.61	-16.69	68.3	54.97	40.71	14.57	58.64	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - 5470~5725MHz - Straddle Channel
WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		5720	95.73	-	-	89.53	32.36	7.36	33.52	150	177	P	H
VHT20		5720	85.89	-	-	79.69	32.36	7.36	33.52	150	177	A	H
CH 144		5720	90.58	-	-	84.38	32.36	7.36	33.52	150	137	P	V
5720MHz		5720	82.13	-	-	75.93	32.36	7.36	33.52	150	137	A	V



Band 3 - 5470~5725MHz - Straddle Channel
WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11440	48.94	-25.06	74	58.55	39.1	11.02	59.73	250	0	P	H
VHT20		17160	53.94	-14.36	68.3	56.9	40.94	14.61	58.51	150	0	P	H
CH 144		11440	48.1	-25.9	74	57.71	39.1	11.02	59.73	250	0	P	V
5720MHz		17160	53.41	-14.89	68.3	56.37	40.94	14.61	58.51	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - 5470~5725MHz - Straddle Channel
WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		5710	93.57	-	-	87.4	32.33	7.36	33.52	170	185	P	H
VHT40		5710	82.96	-	-	76.79	32.33	7.36	33.52	170	185	A	H
CH 142		5710	88.82	-	-	82.65	32.33	7.36	33.52	150	136	P	V
5710MHz		5710	79.11	-	-	72.94	32.33	7.36	33.52	150	136	A	V



Band 3 - 5470~5725MHz - Straddle Channel

WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11420	47.89	-26.11	74	57.48	39.12	11.02	59.73	250	0	P	H
VHT40		17130	51.74	-16.56	68.3	55.1	40.71	14.57	58.64	150	0	P	H
CH 142		11420	47.59	-26.41	74	57.18	39.12	11.02	59.73	250	0	P	V
5710MHz		17130	52.31	-15.99	68.3	55.67	40.71	14.57	58.64	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 5470~5725MHz - Straddle Channel
WIFI 802.11ac VHT80 (Band Edge @ 3m)

Table with 14 columns: WIFI Ant. 1, Note, Frequency (MHz), Level (dBµV/m), Over Limit (dB), Limit Line (dBµV/m), Read Level (dBµV), Antenna Factor (dB/m), Cable Loss (dB), Preamp Factor (dB), Ant Pos (cm), Table Pos (deg), Peak Avg. (P/A), Pol. (H/V). Rows include 802.11ac VHT80, CH 138, and 5690MHz. A Remark section follows with two points: 'No other spurious found.' and 'All results are PASS against Peak and Average limit line.'



Band 3 5470~5725MHz - Straddle Channel
WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11380	47.74	-26.26	74	57.3	39.15	11	59.71	250	0	P	H
VHT80		17070	50.82	-17.48	68.3	54.98	40.25	14.49	58.9	150	0	P	H
CH 138		11380	48.3	-25.7	74	57.86	39.15	11	59.71	250	0	P	V
5690MHz		17070	51.49	-16.81	68.3	55.65	40.25	14.49	58.9	150	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Emission below 1GHz - Straddle Channel

5GHz WIFI 802.11ac VHT20 (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)
5GHz 802.11ac VHT20 LF		30	4.77	-35.23	40	12.93	24.2	1	33.36	-	-	P	H
		374.35	6.49	-39.51	46	15.39	21.82	2.12	32.84	-	-	P	H
		609.09	10.62	-35.38	46	15.3	24.86	2.57	32.11	-	-	P	H
		701.24	11.72	-34.28	46	15.35	25.51	2.75	31.89	-	-	P	H
		834.13	13.34	-32.66	46	15.31	26.51	2.99	31.47	-	-	P	H
		957.32	13.69	-32.31	46	14.08	27.5	3.15	31.04	120	0	P	H
		30	4.04	-35.96	40	12.2	24.2	1	33.36	100	0	P	V
		103.72	0.14	-43.36	43.5	13.9	18.21	1.38	33.35	-	-	P	V
		159.98	0.47	-43.03	43.5	15.18	16.98	1.53	33.22	-	-	P	V
		426.73	6.74	-39.26	46	14.33	22.88	2.22	32.69	-	-	P	V
		715.79	12.1	-33.9	46	15.58	25.61	2.75	31.84	-	-	P	V
		967.99	14.95	-39.05	54	15.22	27.58	3.15	31	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Note symbol

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



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

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

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

For Peak Limit @ 2390MHz:

- Level(dBμV/m)
= Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)
= 55.45 (dBμV/m)
- Over Limit(dB)
= Level(dBμV/m) – Limit Line(dBμV/m)
= 55.45(dBμV/m) – 74(dBμV/m)
= -18.55(dB)

For Average Limit @ 2390MHz:

- Level(dBμV/m)
= Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)
= 43.54 (dBμV/m)
- Over Limit(dB)
= Level(dBμV/m) – Limit Line(dBμV/m)
= 43.54(dBμV/m) – 54(dBμV/m)
= -10.46(dB)

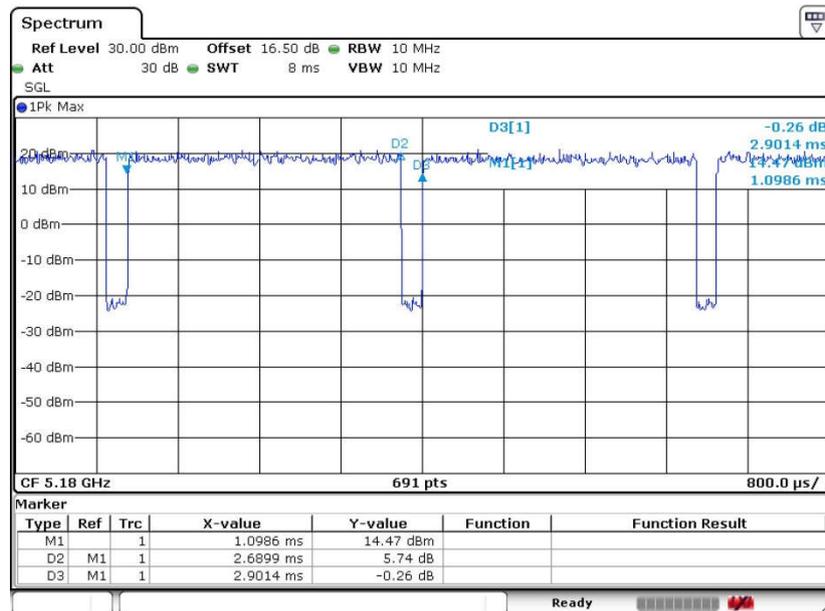
Both peak and average measured complies with the limit line, so test result is “PASS”.



Appendix C. Duty Cycle Plots

Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
802.11a	92.71	2.69	0.37	1kHz
802.11n HT20	92.35	2.50	0.40	1kHz
802.11n HT40	86.20	1.23	0.81	1kHz
802.11ac VHT20	82.98	0.97	1.03	3kHz
802.11ac VHT40	71.08	0.49	2.02	3kHz
802.11ac VHT80	55.36	0.25	4.04	10kHz

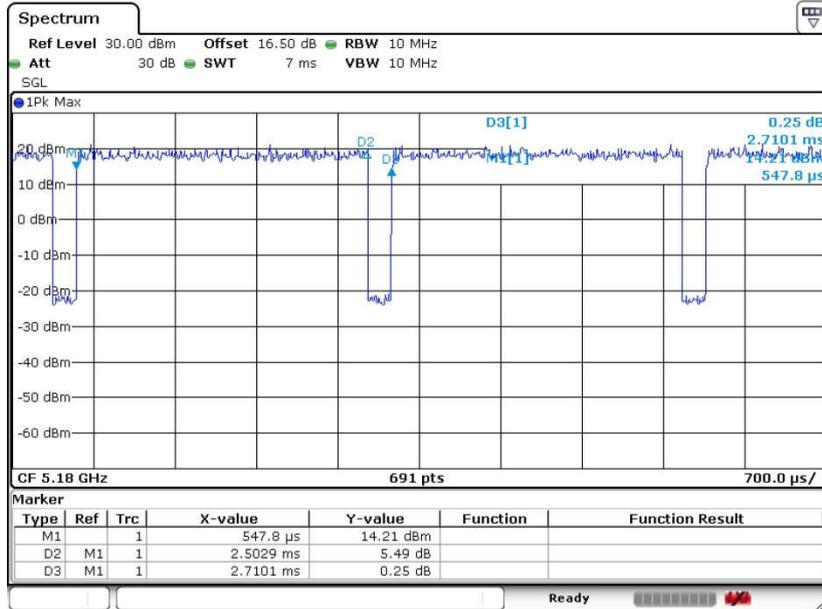
802.11a



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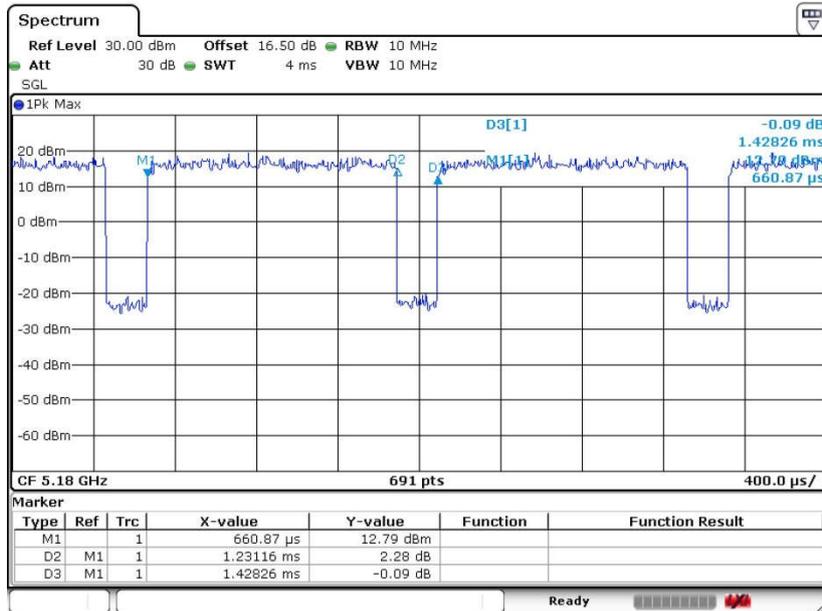


802.11n HT20



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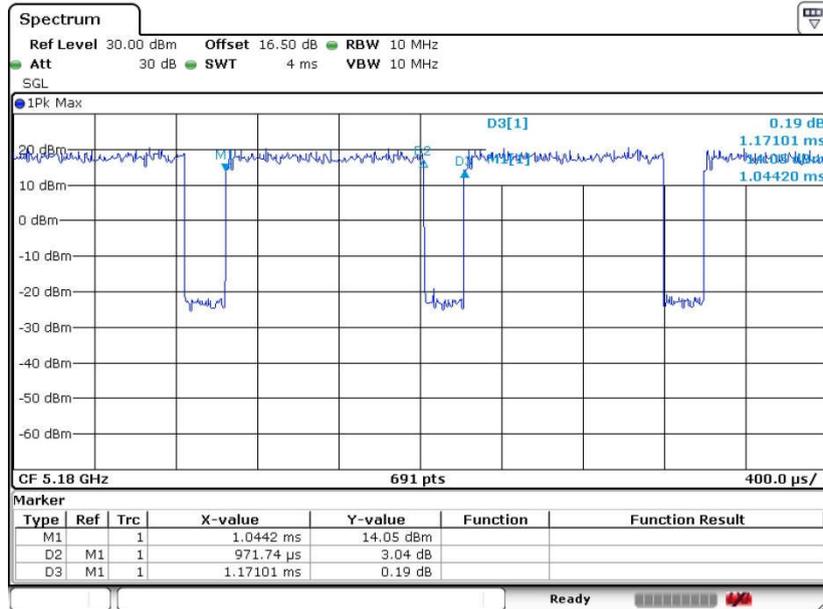
802.11n HT40



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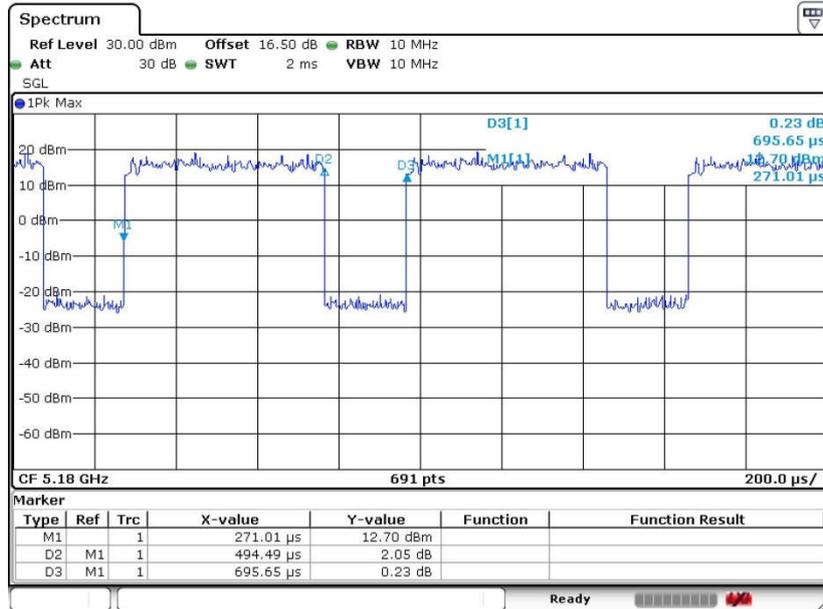


802.11ac VHT20



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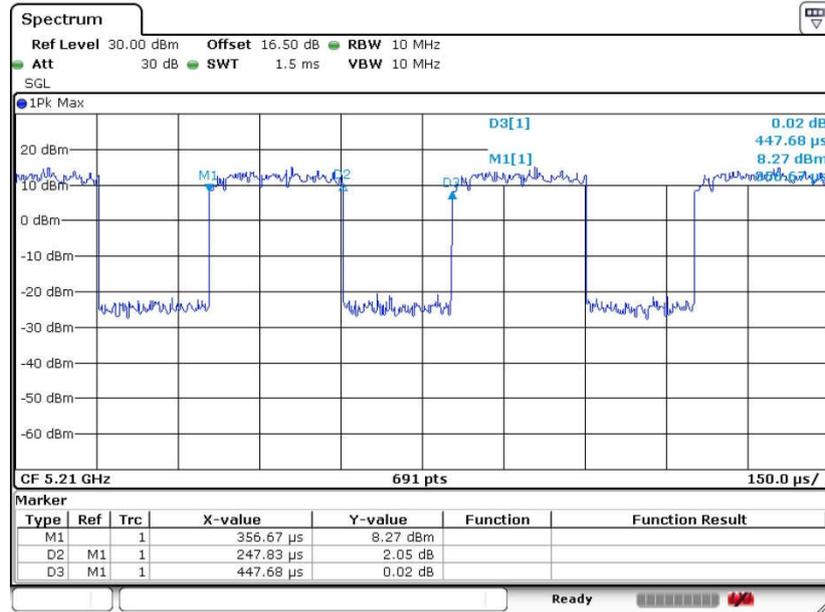
802.11ac VHT40



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802.11ac VHT80



Date: 26.MAY.2016 14:08:25