

FCC RF Test Report

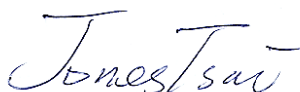
APPLICANT : SGP Technologies S.A.
EQUIPMENT : Mobile Phone
BRAND NAME : Silent Circle
MODEL NAME : BP2H001AM1
FCC ID : 2ACDKBP2B001AM1
STANDARD : FCC Part 15 Subpart E §15.407
CLASSIFICATION : (NII) Unlicensed National Information Infrastructure

The product was received on Jun. 11, 2015 and testing was completed on Aug. 11, 2015. 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.



Reviewed by: Joseph Lin / Supervisor



Approved by: Jones Tsai / Manager



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



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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR561105D	Rev. 01	Initial issue of report	Aug. 24, 2015



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	$\leq -17, -27$ dBm (depend on band)&15.209(a)	Pass	Under limit 3.08 dB at 5725.000 MHz
3.5	15.207	RSS-Gen 8.8	AC Conducted Emission	15.207(a)	Pass	Under limit 7.97 dB at 0.570 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

SGP Technologies S.A.

Rue François Peyrot 12, 1218 Le Grand Saconnex, (Le Lumion bldg) 3rd Floor, Geneva, Switzerland

1.2 Manufacturer

SGP Technologies S.A.

Rue François Peyrot 12, 1218 Le Grand Saconnex, (Le Lumion bldg) 3rd Floor, Geneva, Switzerland

1.3 Feature of Equipment Under Test

Product Feature & Specification	
Equipment	Mobile Phone
Brand Name	Silent Circle
Model Name	BP2H001AM1
FCC ID	2ACDKBP2B001AM1
EUT supports Radios application	GSM/GPRS/EGPRS/WCDMA/HSPA/HSPA+(Downlink Only)/DC-HSDPA/LTE WLAN2.4GHz 802.11b/g/n HT20 WLAN5GHz 802.11a/n HT20/HT40 WLAN5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth v3.0+EDR/Bluetooth v4.0 LE
HW Version	LLDM811
SW Version	LLDAX01
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

Product Specification subjective to this standard	
Tx/Rx Frequency Range	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5580 MHz and 5660 MHz ~ 5700 MHz
Maximum Output Power to Antenna	<5180 MHz ~ 5240 MHz> 802.11a : 15.77 dBm / 0.0378 W 802.11n HT20 : 12.61 dBm / 0.0182 W 802.11n HT40 : 11.88 dBm / 0.0154 W 802.11ac VHT20 : 9.88 dBm / 0.0097 W 802.11ac VHT40 : 9.54 dBm / 0.0090 W 802.11ac VHT80 : 9.82 dBm / 0.0096 W <5260 MHz ~ 5320 MHz> 802.11a : 15.70 dBm / 0.0372 W 802.11n HT20 : 12.65 dBm / 0.0184 W 802.11n HT40 : 11.83 dBm / 0.0152 W 802.11ac VHT20 : 9.72 dBm / 0.0094 W 802.11ac VHT40 : 9.50 dBm / 0.0089 W 802.11ac VHT80 : 9.75 dBm / 0.0094 W <5500 MHz ~ 5580 MHz and 5660 MHz ~ 5700 MHz > 802.11a : 15.80 dBm / 0.0380 W 802.11n HT20 : 12.90 dBm / 0.0195 W 802.11n HT40 : 11.22 dBm / 0.0132 W 802.11ac VHT20 : 10.06 dBm / 0.0101 W 802.11ac VHT40 : 9.75 dBm / 0.0094 W 802.11ac VHT80 : 10.20 dBm / 0.0105 W
Antenna Type	LDS Antenna
Antenna Gain	<5180 MHz ~ 5240 MHz> : -6.00 dBi <5260 MHz ~ 5320 MHz> : -6.00 dBi <5500 MHz ~ 5580 MHz and 5660 MHz ~ 5700 MHz > : -6.00 dBi
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)

1.5 Modification of EUT

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

1.6 Testing Location

Test Site	SPORTON INTERNATIONAL (KUNSHAN) INC.			
Test Site Location	No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P. R. China TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958			
Test Site No.	Sporton Site No.			FCC/IC Registration No.
	TH01-KS	03CH02-KS	CO01-KS	418269/4086E

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

1.7 Applicable Standards

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

- ♦ FCC Part 15 Subpart E
- ♦ FCC KDB 789033 D02 General UNII Test Procedures New Rules 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. FCC permits the use of the 1.5 meter table above 1 GHz as an alternative in C63.10-2013 through inquiry tracking number 961829.
3. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.



2 Test Configuration of Equipment Under Test

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conducted emission (150 kHz to 30 MHz) and radiated emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases 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)
5500-5580 MHz and 5660-5700 MHz Band 3 (U-NII-2C)	100	5500	112	5560
	102	5510	116	5580
	104	5520	132	5660
	106	5530	134	5670
	108	5540	136	5680
	110	5550	140	5700

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



2.2 Pre-Scanned RF Power

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

5GHz 802.11a RF Output Power (dBm)										
Power vs. Channel			Power vs. MCS Index							
Channel	Frequency (MHz)	MCS Index 6Mbps	Channel	9M bps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps
CH 36	5180	15.77	CH 36	15.69	15.75	15.51	15.49	15.43	15.44	15.39
CH 44	5220	15.51								
CH 48	5240	15.62								
CH 52	5260	15.70	CH 52	15.66	15.57	15.54	15.45	15.37	15.38	15.33
CH 60	5300	15.39								
CH 64	5320	15.45								
CH 100	5500	15.80	CH 100	15.67	15.77	15.61	15.58	15.51	15.39	15.38
CH 116	5580	15.43								
CH 140	5700	15.74								

5GHz 802.11n HT20 RF Output Power (dBm)										
Power vs. Channel			Power vs. MCS Index							
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 36	5180	12.61	CH 36	12.57	12.40	12.30	12.35	12.31	12.33	12.29
CH 44	5220	12.36								
CH 48	5240	12.49								
CH 52	5260	12.65	CH 52	12.59	12.42	12.23	12.29	12.27	12.24	12.21
CH 60	5300	12.27								
CH 64	5320	12.35								
CH 100	5500	12.90	CH 100	12.84	12.74	12.59	12.64	12.54	12.61	12.55
CH 116	5580	12.52								
CH 140	5700	12.71								

5GHz 802.11n HT40 RF Output Power (dBm)										
Power vs. Channel			Power vs. MCS Index							
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 38	5190	11.88	CH 38	11.83	11.87	11.61	11.64	11.84	11.62	11.72
CH 46	5230	11.77								
CH 54	5270	11.83	CH 54	11.82	11.76	11.70	11.55	11.77	11.72	11.78
CH 62	5310	11.65								
CH 102	5510	11.22	CH 102	11.14	11.17	10.92	10.99	10.94	10.98	11.07
CH 110	5550	11.08								
CH 134	5670	10.76								

WLAN 5GHz 802.11ac VHT20 Average Power (dBm)											
Power vs. Channel			Power vs. MCS Index								
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
CH 36	5180	9.88	CH 36	9.81	9.78	9.85	9.72	9.75	9.84	9.80	9.76
CH 44	5220	9.42									
CH 48	5240	9.61									
CH 52	5260	9.72	CH 52	9.67	9.58	9.65	9.50	9.69	9.61	9.64	9.51
CH 60	5300	9.16									
CH 64	5320	9.25									
CH 100	5500	10.06	CH 100	10.05	10.01	9.99	9.93	10.04	9.96	9.97	9.87
CH 116	5580	9.64									
CH 140	5700	9.95									



WLAN 5GHz 802.11ac VHT40 Average Power (dBm)												
Power vs. Channel			Power vs. Data Rate									
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
CH 38	5190	9.54	CH 38	9.50	9.43	9.32	9.38	9.52	9.49	9.41	9.31	9.37
CH 46	5230	9.31										
CH 54	5270	9.50	CH 54	9.36	9.40	9.25	9.30	9.49	9.45	9.39	9.35	9.41
CH 62	5310	9.11										
CH 102	5510	9.75	CH 102	9.54	9.70	9.42	9.48	9.69	9.73	9.71	9.55	9.60
CH 110	5550	9.49										
CH 134	5670	9.11										

WLAN 5GHz 802.11ac VHT80 Average Power (dBm)												
Power vs. Channel			Power vs. Data Rate									
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
CH 42	5210	9.82	CH 42	9.69	9.56	9.76	9.68	9.75	9.54	9.61	9.63	9.81
CH 58	5290	9.75	CH 58	9.63	9.65	9.73	9.47	9.67	9.43	9.54	9.66	9.74
CH 106	5530	10.20	CH 106	10.07	9.93	10.02	9.90	10.10	9.98	10.05	10.09	10.18

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

AC Conducted Emission	Mode 1 : GSM850 Idle + Bluetooth Link + WLAN (5GHz) Link + Earphone + USB Cable (Charging from Adapter)
Remark: For Radiated TCs, the tests were performed with adapter, earphone and USB cable.	



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

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

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

Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 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

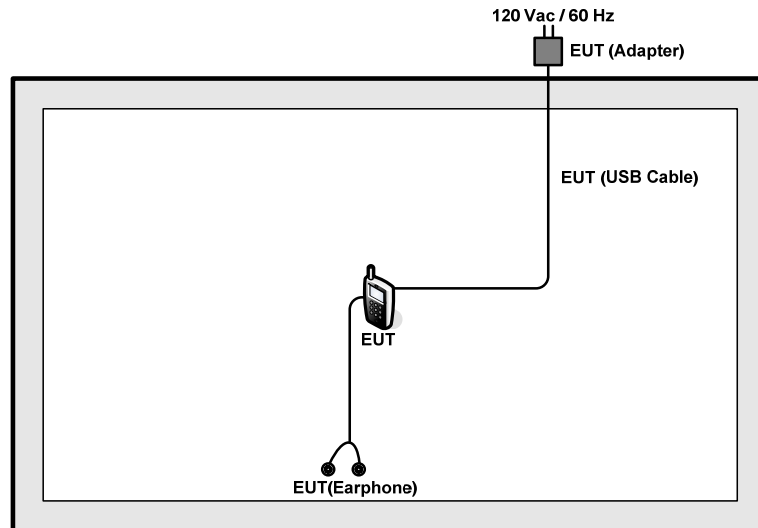
Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5500-5700MHz
		802.11ac VHT40	802.11ac VHT40	802.11ac VHT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134



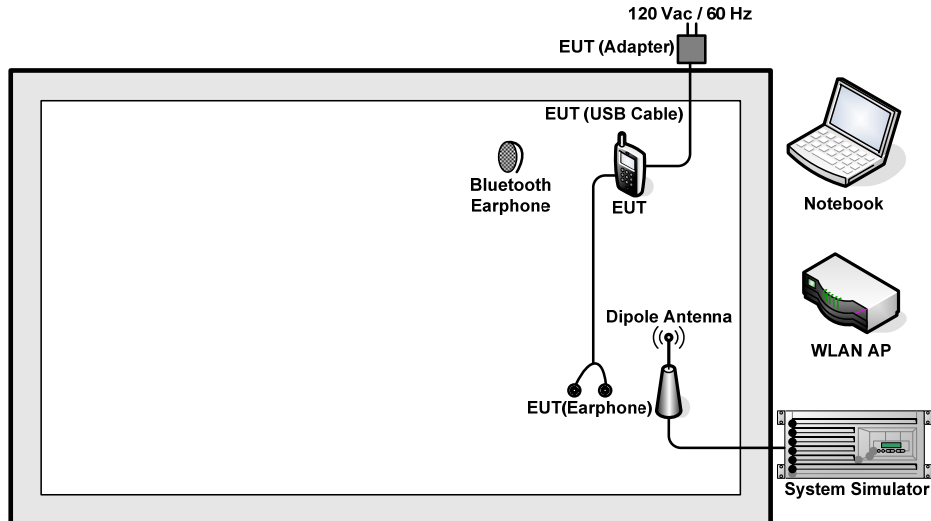
Ch. #		Band I : 5150-5250 MHz	Band II : 5250-5350 MHz	Band III : 5500-5700MHz
		802.11ac VHT80	802.11ac VHT80	802.11ac VHT80
L	Low	-	-	-
M	Middle	42	58	106
H	High	-	-	-

2.4 Connection Diagram of Test System

<WLAN Tx 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.	WLAN AP	LINKSYS	WRT600N	Q87-WRT600NV11	N/A	Unshielded, 1.8 m
2.	System Simulator	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
3.	Notebook	Lenovo	G480	PRC4	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
4.	Bluetooth Earphone	Nokia	BH-102	PYAHS-107W	N/A	N/A

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 WLAN AP 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 between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Example:

The spectrum analyzer offset is derived from RF cable loss.

Offset = RF cable loss.

Following shows an offset computation example with cable loss 7.0 dB.

$$\begin{aligned}\text{Offset (dB)} &= \text{RF cable loss(dB)} \\ &= 7.0 \text{ (dB)}\end{aligned}$$

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.

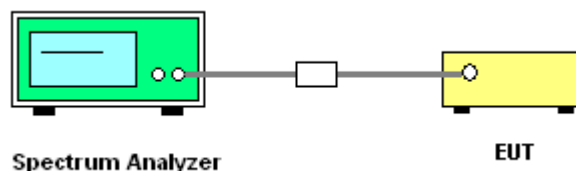
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.
Section C) Emission bandwidth
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 26 dB down from the peak of the emission.
Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
7. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1MHz and set the Video bandwidth (VBW) $\geq 3 * \text{RBW}$.
8. Measure and record the results in the test report.

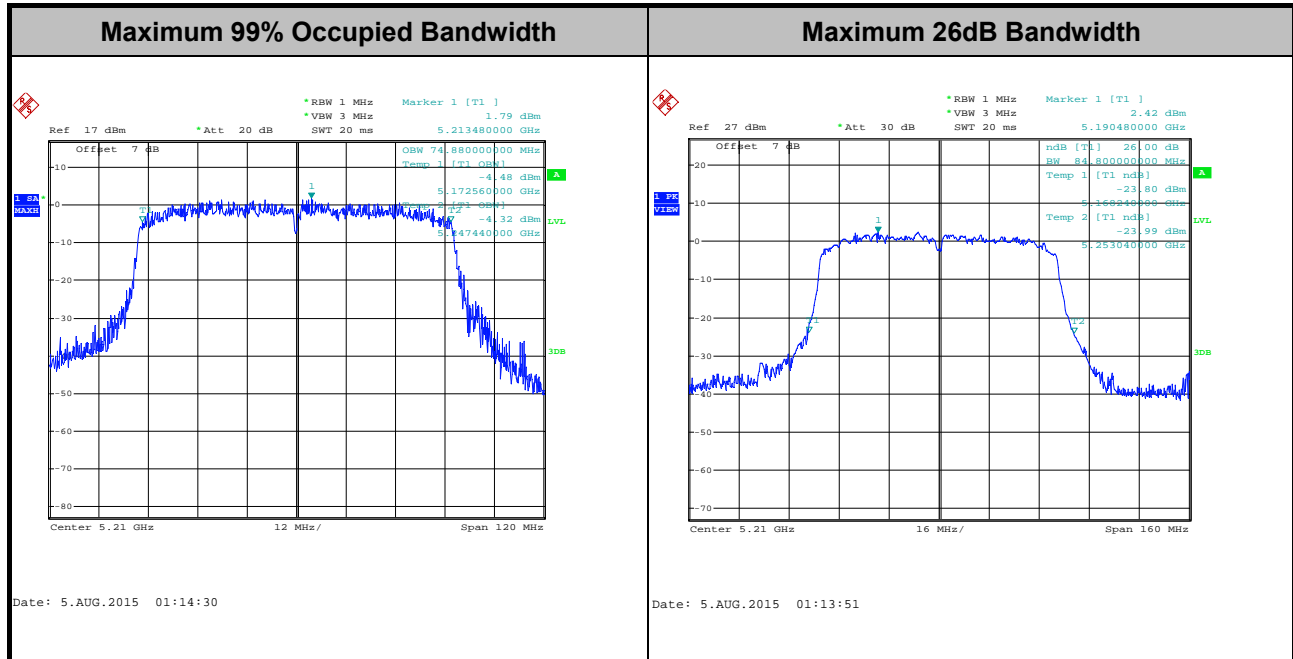
3.1.4 Test Setup





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

Please refer to Appendix A.



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

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

<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 $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz.

<IC RSS-247 Section 6>

For the 5.15–5.25 GHz band, the maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10} B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

For the 5.25–5.35 GHz band, the maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$, dBm, whichever power is less.

For the 5.47–5.6 GHz and 5.65–5.725 GHz band, the maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$, dBm, whichever power is less.

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

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

3.2.2 Measuring Instruments

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

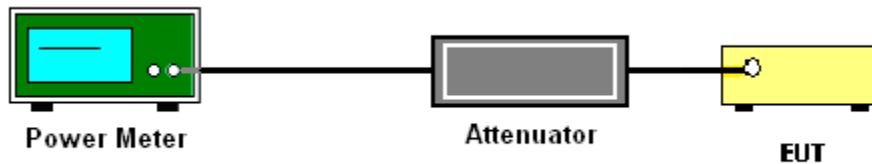
3.2.3 Test Procedures

The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.

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

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

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

<FCC 14-30 CFR 15.407>

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

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

<IC RSS-247 Section 6>

For the 5.15–5.25 GHz band, the e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

For the 5.25–5.35 GHz band, the power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

For the 5.47–5.6 GHz and 5.65–5.725 GHz band, the power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

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

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.

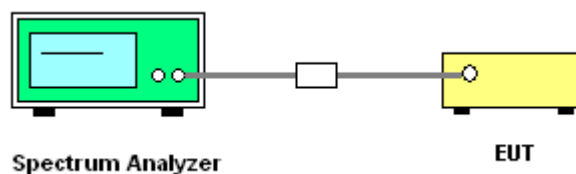
Section F) Maximum power spectral density.

Method SA-2

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

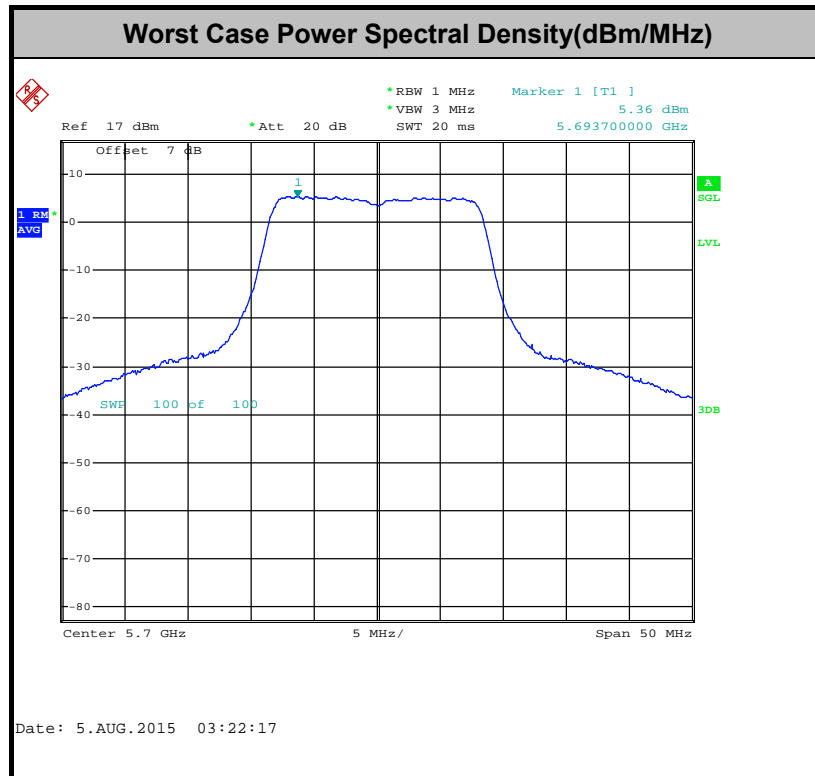
1. The testing follows Method SA-2 of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.
 - Measure the duty cycle.
 - Set span to encompass the entire emission bandwidth (EBW) of the signal.
 - Set RBW = 1 MHz.
 - Set VBW \geq 3 MHz.
 - Number of points in sweep \geq 2 Span / RBW.
 - Sweep time = auto.
 - Detector = RMS
 - Trace average at least 100 traces in power averaging mode.
 - Add $10 \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add $10 \log(1/0.25) = 6$ dB if the duty cycle is 25 percent.
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.

3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.



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

3.4 Unwanted Radiated Emission Measurement

This section as specified in FCC Part 15.407(b) is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement. The unwanted emissions shall comply with 15.407(b)(1) to (6), and restricted bands per FCC Part 15.205.

3.4.1 Limit of Unwanted Emissions

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

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

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

- (2) Unwanted spurious emissions fallen in restricted bands per FCC Part 15.205 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.

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



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

- (3) KDB789033 v01 G)2)c) As specified in 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in 15.407(b)(4)). However, an out-of-band emission that complies with both the average and peak limits of 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz peak emission limit.

3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.

Section G) Unwanted emissions measurement.

(1) Procedure for Unwanted Emissions Measurements Below 1000MHz

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

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

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

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

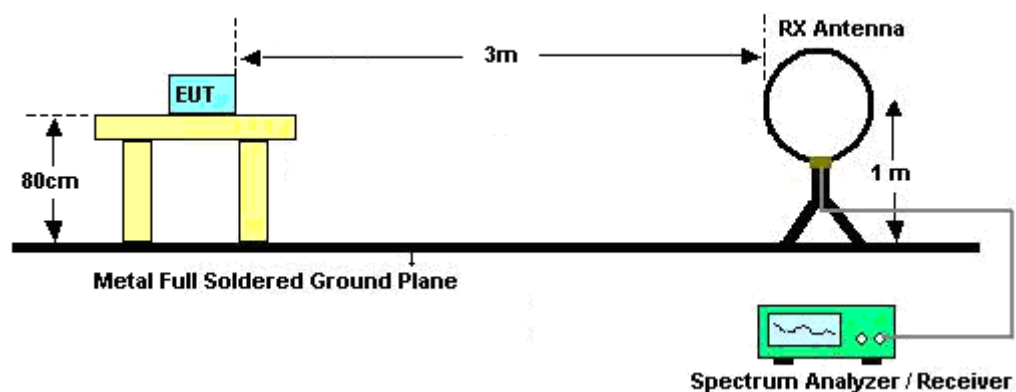
- RBW = 1 MHz
- VBW = 10 Hz, when duty cycle is no less than 98 percent.
- VBW \geq 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

Band	Duty Cycle (%)	T(ms)	1/T(kHz)	VBW Setting
802.11a	87.82	1.37	0.73	1kHz
802.11n HT20	86.41	1.27	0.79	1kHz
802.11n HT40	75.83	0.64	1.56	3kHz
802.11n VHT20	83.14	0.99	1.01	3kHz
802.11n VHT40	71.26	0.50	2.00	3kHz
802.11n VHT80	55.11	0.25	4.00	10kHz

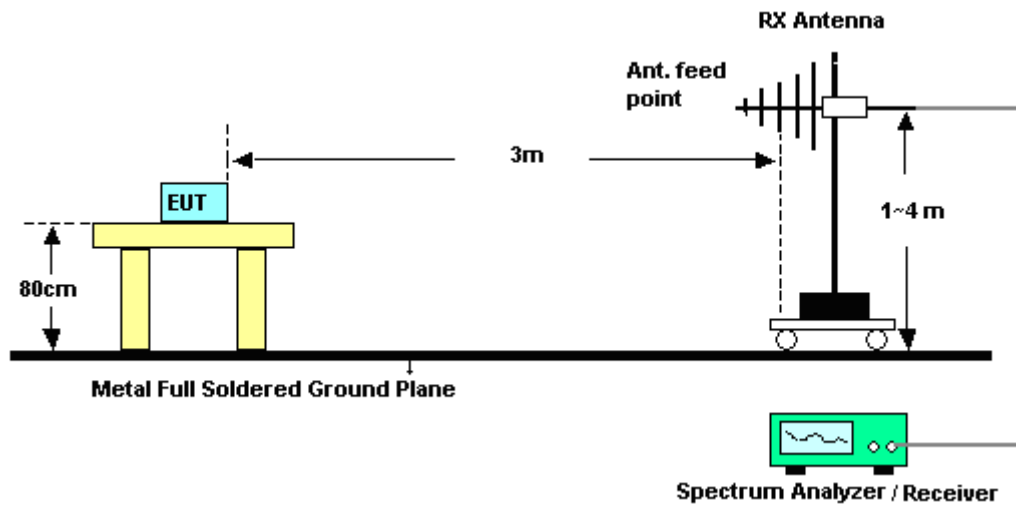
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband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

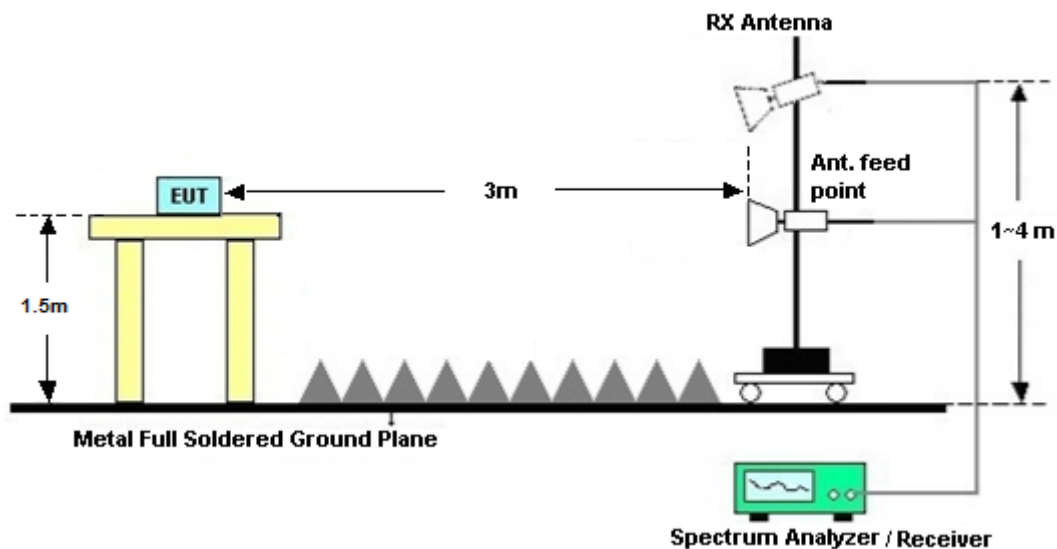
For radiated emissions below 30MHz



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 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.

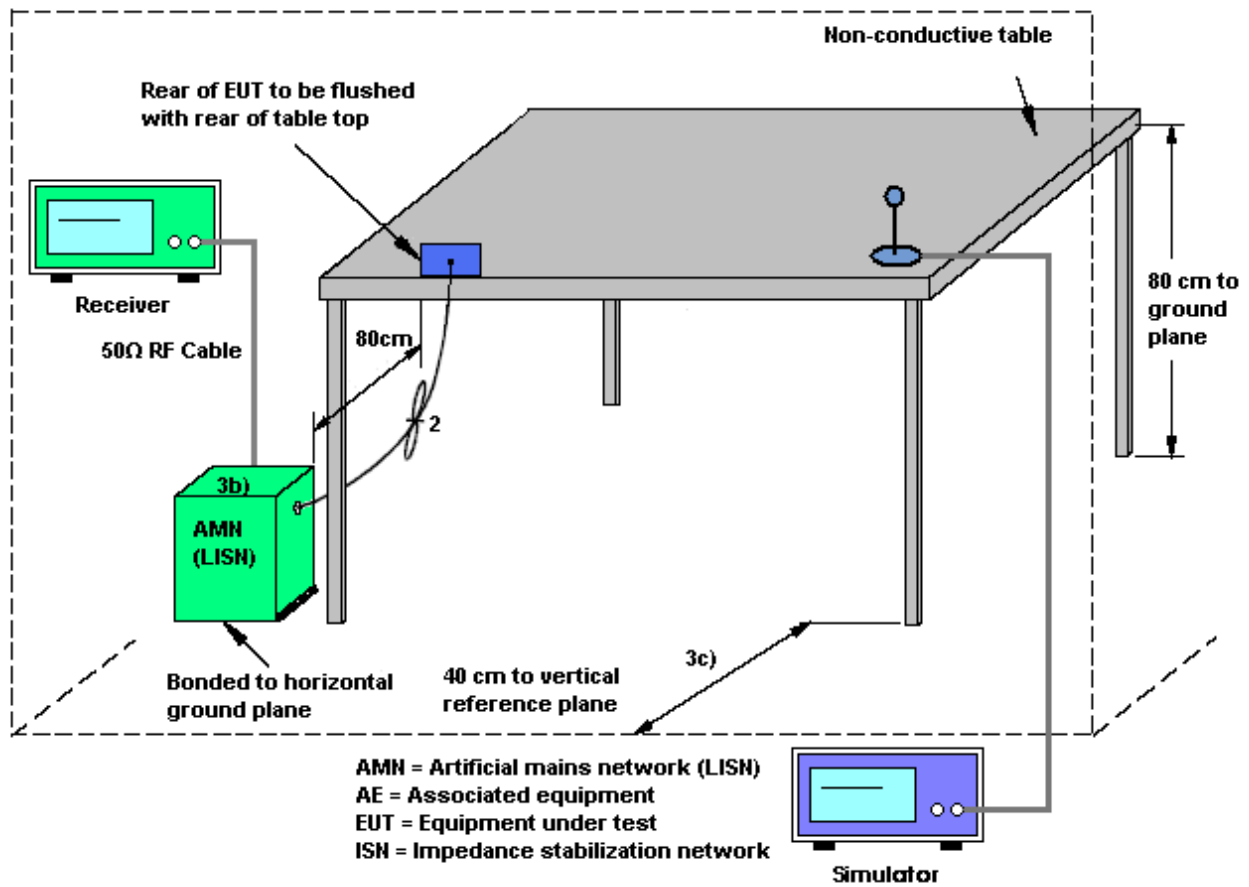
3.5.2 Measuring Instruments

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.

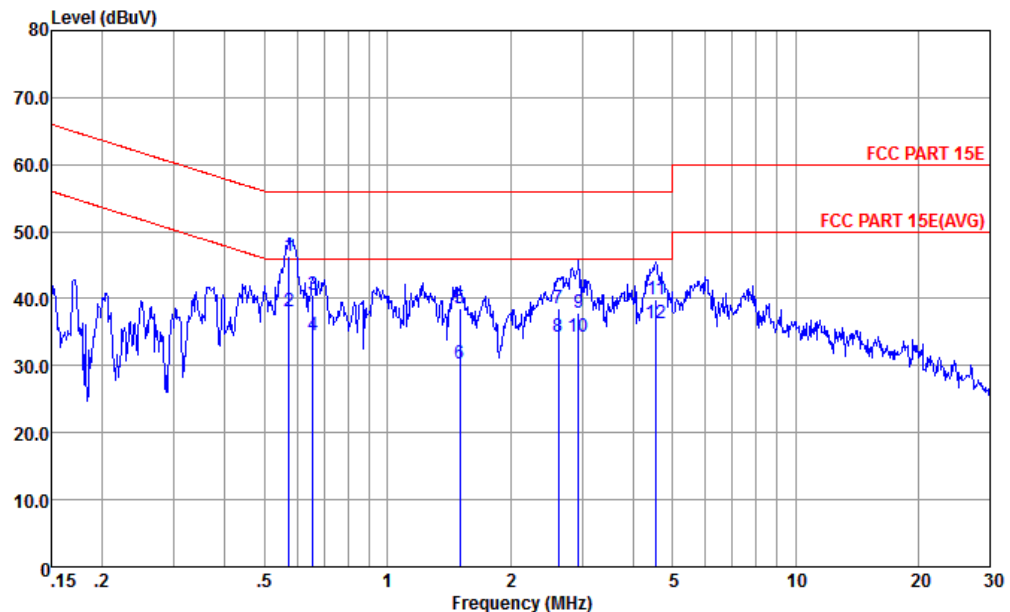
3.5.4 Test Setup





3.5.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	Temperature :	22~24℃
Test Engineer :	Eko Guan	Relative Humidity :	44~46%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	GSM850 Idle + Bluetooth Link + WLAN (5GHz) Link + Earphone + USB Cable (Charging from Adapter)		

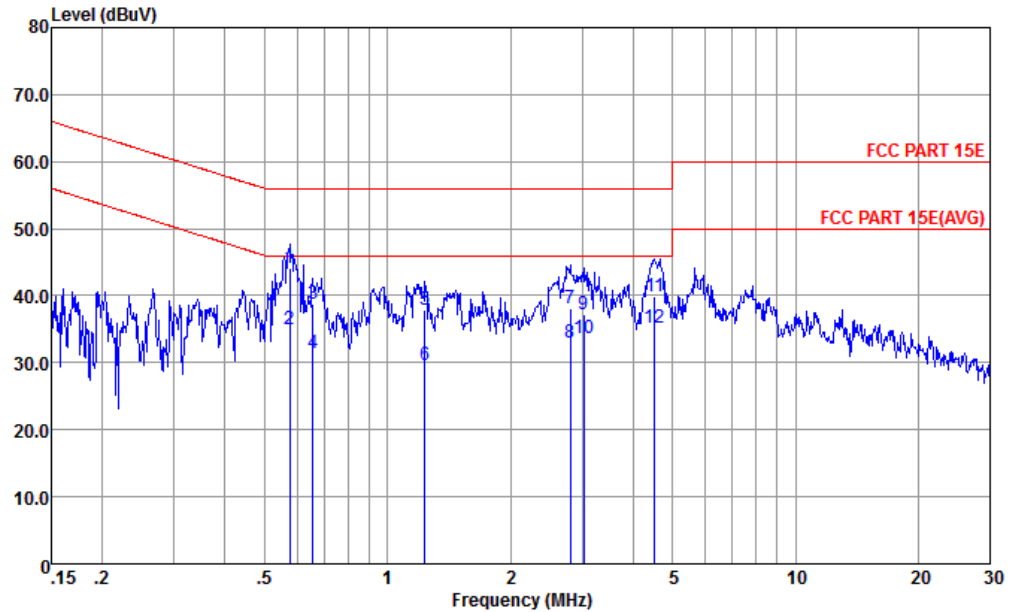


Site : CO01-KS
Condition : FCC PART 15E LISN-L20140306 LINE

mode		: Mode 1						
	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.57	46.33	-9.67	56.00	35.50	0.20	10.63	QP
2 *	0.57	38.03	-7.97	46.00	27.20	0.20	10.63	Average
3	0.66	40.64	-15.36	56.00	29.80	0.20	10.64	QP
4	0.66	34.54	-11.46	46.00	23.70	0.20	10.64	Average
5	1.50	38.58	-17.42	56.00	27.80	0.10	10.68	QP
6	1.50	30.38	-15.62	46.00	19.60	0.10	10.68	Average
7	2.62	38.66	-17.34	56.00	27.80	0.12	10.74	QP
8	2.62	34.36	-11.64	46.00	23.50	0.12	10.74	Average
9	2.95	37.81	-18.19	56.00	26.90	0.13	10.78	QP
10	2.95	34.21	-11.79	46.00	23.30	0.13	10.78	Average
11	4.55	39.93	-16.07	56.00	28.90	0.19	10.84	QP
12	4.55	36.33	-9.67	46.00	25.30	0.19	10.84	Average



Test Mode :	Mode 1	Temperature :	22~24℃
Test Engineer :	Eko Guan	Relative Humidity :	44~46%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM850 Idle + Bluetooth Link + WLAN (5GHz) Link + Earphone + USB Cable (Charging from Adapter)		



Site : CO01-KS
Condition : FCC PART 15E LISN-N20140306 NEUTRAL

mode		: Mode 1						
	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.58	44.09	-11.91	56.00	33.20	0.26	10.63	QP
2	0.58	34.99	-11.01	46.00	24.10	0.26	10.63	Average
3	0.66	38.75	-17.25	56.00	27.90	0.21	10.64	QP
4	0.66	31.45	-14.55	46.00	20.60	0.21	10.64	Average
5	1.24	37.96	-18.04	56.00	27.20	0.10	10.66	QP
6	1.24	29.56	-16.44	46.00	18.80	0.10	10.66	Average
7	2.81	38.09	-17.91	56.00	27.20	0.13	10.76	QP
8	2.81	33.09	-12.91	46.00	22.20	0.13	10.76	Average
9	3.03	37.13	-18.87	56.00	26.20	0.14	10.79	QP
10	3.03	33.73	-12.27	46.00	22.80	0.14	10.79	Average
11	4.53	39.83	-16.17	56.00	28.80	0.19	10.84	QP
12 *	4.53	35.23	-10.77	46.00	24.20	0.19	10.84	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 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	FSP40	100319	9kHz~40GHz	Oct. 28, 2014	Aug. 05, 2015	Oct. 27, 2015	Conducted (TH01-KS)
Pulse Power Sensor	Anritsu	MA2411B	0917070	30MHz~40GHz	Jan. 23, 2015	Aug. 05, 2015	Jan. 22, 2016	Conducted (TH01-KS)
Power Meter	Anritsu	ML2495A	1005002	50MHz Bandwidth	Jan. 23, 2015	Aug. 05, 2015	Jan. 22, 2016	Conducted (TH01-KS)
Thermal Chamber	Ten Billion	TTC-B3S	TBN-960502	-40~+150°C	Oct. 25, 2014	Aug. 05, 2015	Oct. 24, 2015	Conducted (TH01-KS)
EMI Test Receiver	R&S	ESR7	101403	9kHz~7GHz; Max 30dBm	Sep. 29, 2014	Aug. 11, 2015	Sep. 28, 2015	Radiation (03CH02-KS)
Spectrum Analyzer	R&S	FSV40	101040	10kHz~40GHz; Max 30dBm	Sep. 25, 2014	Aug. 11, 2015	Sep. 24, 2015	Radiation (03CH02-KS)
Loop Antenna	R&S	HFH2-Z2	100321	9kHz~30MHz	Nov. 13, 2014	Aug. 11, 2015	Nov. 12, 2015	Radiation (03CH02-KS)
Bilog Antenna	TeseQ	CBL6112D	37879	30MHz~2GHz	Sep. 13, 2014	Aug. 11, 2015	Sep. 12, 2015	Radiation (03CH02-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75957	1GHz~18GHz	Nov. 08, 2014	Aug. 11, 2015	Nov. 07, 2015	Radiation (03CH02-KS)
Active Horn Antenna	com-power	AHA-118	701030	1GHz~18GHz	Nov. 08, 2014	Aug. 11, 2015	Nov. 07, 2015	Radiation (03CH02-KS)
SHF-EHF Horn	com-power	AH-840	101070	18GHz~40GHz	Sep. 04, 2014	Aug. 11, 2015	Sep. 03, 2015	Radiation (03CH02-KS)
Amplifier	com-power	PA-103A	161069	1kHz~1000MHz / 32 dB	May 04, 2015	Aug. 11, 2015	May 03, 2016	Radiation (03CH02-KS)
Amplifier	Agilent	8449B	3008A02384	1GHz~26.5GHz Gain 30dB	Oct. 28, 2014	Aug. 11, 2015	Oct. 27, 2015	Radiation (03CH02-KS)
AC Power Source	Chroma	61601	616010002473	N/A	NCR	Aug. 11, 2015	NCR	Radiation (03CH02-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	Aug. 11, 2015	NCR	Radiation (03CH02-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	Aug. 11, 2015	NCR	Radiation (03CH02-KS)
EMI Receiver	R&S	ESC17	100768	9kHz~7GHz;	May 04, 2015	Aug. 06, 2015	May 03, 2016	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060103	9kHz~30MHz	Oct. 25, 2014	Aug. 06, 2015	Oct. 24, 2015	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060105	9kHz~30MHz	Oct. 25, 2014	Aug. 06, 2015	Oct. 24, 2015	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 25, 2014	Aug. 06, 2015	Oct. 24, 2015	Conduction (CO01-KS)



5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.3 dB
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.1 dB
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Appendix A. Conducted Test Results

Report Number : FR561105D

Test Engineer:	Ocean Chen	Temperature:	21~25	°C
Test Date:	2015/8/5	Relative Humidity:	51~54	%

TEST RESULTS DATA
26dB and 99% OBW

Band I										
Mod.	Data Rate	Ntx	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)		
11a	6Mbps	1	36	5180	18.05	23.85	-	22.56		
11a	6Mbps	1	44	5220	18.05	23.90	-	22.56		
11a	6Mbps	1	48	5240	18.10	23.85	-	22.58		
HT20	MCS0	1	36	5180	18.85	23.95	-	22.75		
HT20	MCS0	1	44	5220	18.85	24.00	-	22.75		
HT20	MCS0	1	48	5240	18.75	24.15	-	22.73		
HT40	MCS0	1	38	5190	36.40	44.73	-	23.01		
HT40	MCS0	1	46	5230	36.50	45.72	-	23.01		
VHT20	MCS0	1	36	5180	18.90	23.95	-	22.76		
VHT20	MCS0	1	44	5220	18.90	23.95	-	22.76		
VHT20	MCS0	1	48	5240	18.90	23.95	-	22.76		
VHT40	MCS0	1	38	5190	36.40	44.73	-	23.01		
VHT40	MCS0	1	46	5230	36.50	44.73	-	23.01		
VHT80	MCS0	1	42	5210	74.88	84.80	-	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	0.56	15.77	24.00	-6.00		Pass
11a	6Mbps	1	44	5220	0.56	15.51	24.00	-6.00		Pass
11a	6Mbps	1	48	5240	0.56	15.62	24.00	-6.00		Pass
HT20	MCS0	1	36	5180	0.63	12.61	24.00	-6.00		Pass
HT20	MCS0	1	44	5220	0.63	12.36	24.00	-6.00		Pass
HT20	MCS0	1	48	5240	0.63	12.49	24.00	-6.00		Pass
HT40	MCS0	1	38	5190	1.20	11.88	24.00	-6.00		Pass
HT40	MCS0	1	46	5230	1.20	11.77	24.00	-6.00		Pass
VHT20	MCS0	1	36	5180	0.80	9.88	24.00	-6.00		Pass
VHT20	MCS0	1	44	5220	0.80	9.42	24.00	-6.00		Pass
VHT20	MCS0	1	48	5240	0.80	9.61	24.00	-6.00		Pass
VHT40	MCS0	1	38	5190	1.47	9.54	24.00	-6.00		Pass
VHT40	MCS0	1	46	5230	1.47	9.31	24.00	-6.00		Pass
VHT80	MCS0	1	42	5210	2.59	9.82	24.00	-6.00		Pass

TEST RESULTS DATA
Power Spectral Density

FCC Band I										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)	-	Pass/Fail
11a	6Mbps	1	36	5180	0.56	5.63	11.00	-6.00		Pass
11a	6Mbps	1	44	5220	0.56	5.41	11.00	-6.00		Pass
11a	6Mbps	1	48	5240	0.56	5.70	11.00	-6.00		Pass
HT20	MCS0	1	36	5180	0.63	2.27	11.00	-6.00		Pass
HT20	MCS0	1	44	5220	0.63	2.09	11.00	-6.00		Pass
HT20	MCS0	1	48	5240	0.63	2.42	11.00	-6.00		Pass
HT40	MCS0	1	38	5190	1.20	-0.95	11.00	-6.00		Pass
HT40	MCS0	1	46	5230	1.20	-1.14	11.00	-6.00		Pass
VHT20	MCS0	1	36	5180	0.80	-0.74	11.00	-6.00		Pass
VHT20	MCS0	1	44	5220	0.80	-0.92	11.00	-6.00		Pass
VHT20	MCS0	1	48	5240	0.80	-0.37	11.00	-6.00		Pass
VHT40	MCS0	1	38	5190	1.47	-3.32	11.00	-6.00		Pass
VHT40	MCS0	1	46	5230	1.47	-3.84	11.00	-6.00		Pass
VHT80	MCS0	1	42	5210	2.59	-6.01	11.00	-6.00		Pass

TEST RESULTS DATA
26dB and 99% OBW

Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	Note
11a	6Mbps	1	52	5260	18.05	23.85	23.56	29.56	23.98	
11a	6Mbps	1	60	5300	18.05	23.9	23.56	29.56	23.98	
11a	6Mbps	1	64	5320	18.1	23.9	23.58	29.58	23.98	
HT20	MCS0	1	52	5260	18.85	23.95	23.75	29.75	23.98	
HT20	MCS0	1	60	5300	18.95	24	23.78	29.78	23.98	
HT20	MCS0	1	64	5320	19.05	24	23.80	29.80	23.98	
HT40	MCS0	1	54	5270	36.6	44.91	23.98	30.00	23.98	
HT40	MCS0	1	62	5310	36.6	44.82	23.98	30.00	23.98	
VHT20	MCS0	1	52	5260	18.95	24.1	23.78	29.78	23.98	
VHT20	MCS0	1	60	5300	18.9	24.1	23.76	29.76	23.98	
VHT20	MCS0	1	64	5320	19	24.1	23.79	29.79	23.98	
VHT40	MCS0	1	54	5270	36.6	44.82	23.98	30.00	23.98	
VHT40	MCS0	1	62	5310	36.6	44.82	23.98	30.00	23.98	
VHT80	MCS0	1	58	5290	74.76	84.8	23.98	30.00	23.98	

TEST RESULTS DATA
Average Power Table

FCC Band II										
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	52	5260	0.56	15.70	23.98	-6.00		Pass
11a	6Mbps	1	60	5300	0.56	15.39	23.98	-6.00		Pass
11a	6Mbps	1	64	5320	0.56	15.45	23.98	-6.00		Pass
HT20	MCS0	1	52	5260	0.63	12.65	23.98	-6.00		Pass
HT20	MCS0	1	60	5300	0.63	12.27	23.98	-6.00		Pass
HT20	MCS0	1	64	5320	0.63	12.35	23.98	-6.00		Pass
HT40	MCS0	1	54	5270	1.20	11.83	23.98	-6.00		Pass
HT40	MCS0	1	62	5310	1.20	11.65	23.98	-6.00		Pass
VHT20	MCS0	1	52	5260	0.80	9.72	23.98	-6.00		Pass
VHT20	MCS0	1	60	5300	0.80	9.16	23.98	-6.00		Pass
VHT20	MCS0	1	64	5320	0.80	9.25	23.98	-6.00		Pass
VHT40	MCS0	1	54	5270	1.47	9.50	23.98	-6.00		Pass
VHT40	MCS0	1	62	5310	1.47	9.11	23.98	-6.00		Pass
VHT80	MCS0	1	58	5290	2.59	9.75	23.98	-6.00		Pass

TEST RESULTS DATA
Power Spectral Density

Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)		Pass/Fail
11a	6Mbps	1	52	5260	0.56	5.74	11.00	-6.00		Pass
11a	6Mbps	1	60	5300	0.56	5.50	11.00	-6.00		Pass
11a	6Mbps	1	64	5320	0.56	5.39	11.00	-6.00		Pass
HT20	MCS0	1	52	5260	0.63	2.59	11.00	-6.00		Pass
HT20	MCS0	1	60	5300	0.63	2.40	11.00	-6.00		Pass
HT20	MCS0	1	64	5320	0.63	2.28	11.00	-6.00		Pass
HT40	MCS0	1	54	5270	1.20	-0.74	11.00	-6.00		Pass
HT40	MCS0	1	62	5310	1.20	-0.83	11.00	-6.00		Pass
VHT20	MCS0	1	52	5260	0.80	-0.45	11.00	-6.00		Pass
VHT20	MCS0	1	60	5300	0.80	-1.05	11.00	-6.00		Pass
VHT20	MCS0	1	64	5320	0.80	-0.94	11.00	-6.00		Pass
VHT40	MCS0	1	54	5270	1.47	-3.14	11.00	-6.00		Pass
VHT40	MCS0	1	62	5310	1.47	-3.74	11.00	-6.00		Pass
VHT80	MCS0	1	58	5290	2.59	-5.68	11.00	-6.00		Pass

TEST RESULTS DATA
26dB and 99% OBW

Band III										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	Note
11a	6Mbps	1	100	5500	18.2	23.95	23.60	29.60	23.98	
11a	6Mbps	1	116	5580	18.25	24.4	23.61	29.61	23.98	
11a	6Mbps	1	140	5700	18.3	24.95	23.62	29.62	23.98	
HT20	MCS0	1	100	5500	18.95	24.1	23.78	29.78	23.98	
HT20	MCS0	1	116	5580	19	24.2	23.79	29.79	23.98	
HT20	MCS0	1	140	5700	18.95	24.1	23.78	29.78	23.98	
HT40	MCS0	1	102	5510	36.5	44.91	23.98	30.00	23.98	
HT40	MCS0	1	110	5550	36.5	45.27	23.98	30.00	23.98	
HT40	MCS0	1	134	5670	36.5	44.82	23.98	30.00	23.98	
VHT20	MCS0	1	100	5500	18.85	24.05	23.75	29.75	23.98	
VHT20	MCS0	1	116	5580	19	24.2	23.79	29.79	23.98	
VHT20	MCS0	1	140	5700	18.9	23.85	23.76	29.76	23.98	
VHT40	MCS0	1	102	5510	36.5	44.64	23.98	30.00	23.98	
VHT40	MCS0	1	110	5550	36.4	44.64	23.98	30.00	23.98	
VHT40	MCS0	1	134	5670	36.5	44.91	23.98	30.00	23.98	
VHT80	MCS0	1	106	5530	74.64	84	23.98	30.00	23.98	
VHT80	MCS0	1	122	5610	74.76	84.8	23.98	30.00	23.98	

TEST RESULTS DATA
Average Power Table

FCC Band III										
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	100	5500	0.56	15.80	23.98	-6.00		Pass
11a	6Mbps	1	116	5580	0.56	15.43	23.98	-6.00		Pass
11a	6Mbps	1	140	5700	0.56	15.74	23.98	-6.00		Pass
HT20	MCS0	1	100	5500	0.63	12.90	23.98	-6.00		Pass
HT20	MCS0	1	116	5580	0.63	12.52	23.98	-6.00		Pass
HT20	MCS0	1	140	5700	0.63	12.71	23.98	-6.00		Pass
HT40	MCS0	1	102	5510	1.20	11.22	23.98	-6.00		Pass
HT40	MCS0	1	110	5550	1.20	11.08	23.98	-6.00		Pass
HT40	MCS0	1	134	5670	1.20	10.76	23.98	-6.00		Pass
VHT20	MCS0	1	100	5500	0.80	10.06	23.98	-6.00		Pass
VHT20	MCS0	1	116	5580	0.80	9.64	23.98	-6.00		Pass
VHT20	MCS0	1	140	5700	0.80	9.95	23.98	-6.00		Pass
VHT40	MCS0	1	102	5510	1.47	9.75	23.98	-6.00		Pass
VHT40	MCS0	1	110	5550	1.47	9.49	23.98	-6.00		Pass
VHT40	MCS0	1	134	5670	1.47	9.11	23.98	-6.00		Pass
VHT80	MCS0	1	106	5530	2.59	10.20	23.98	-6.00		Pass
VHT80	MCS0	1	122	5610	2.59	9.92	23.98	-6.00		Pass

TEST RESULTS DATA
Power Spectral Density

Band III										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)		Pass/Fail
11a	6Mbps	1	100	5500	0.56	5.79	11.00	-6.00		Pass
11a	6Mbps	1	116	5580	0.56	5.45	11.00	-6.00		Pass
11a	6Mbps	1	140	5700	0.56	5.92	11.00	-6.00		Pass
HT20	MCS0	1	100	5500	0.63	2.57	11.00	-6.00		Pass
HT20	MCS0	1	116	5580	0.63	2.52	11.00	-6.00		Pass
HT20	MCS0	1	140	5700	0.63	2.69	11.00	-6.00		Pass
HT40	MCS0	1	102	5510	1.20	-1.89	11.00	-6.00		Pass
HT40	MCS0	1	110	5550	1.20	-1.65	11.00	-6.00		Pass
HT40	MCS0	1	134	5670	1.20	-1.91	11.00	-6.00		Pass
VHT20	MCS0	1	100	5500	0.80	-0.21	11.00	-6.00		Pass
VHT20	MCS0	1	116	5580	0.80	-0.53	11.00	-6.00		Pass
VHT20	MCS0	1	140	5700	0.80	-0.15	11.00	-6.00		Pass
VHT40	MCS0	1	102	5510	1.47	-3.42	11.00	-6.00		Pass
VHT40	MCS0	1	110	5550	1.47	-3.34	11.00	-6.00		Pass
VHT40	MCS0	1	134	5670	1.47	-3.62	11.00	-6.00		Pass
VHT80	MCS0	1	106	5530	2.59	-5.32	11.00	-6.00		Pass
VHT80	MCS0	1	122	5610	2.59	-5.85	11.00	-6.00		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	5180.000	0.000	0.00	-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	5320.000	0.000	0.00	20	3.7	
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	20	4.2	
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	20	3.8	
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	-30	3.8	
11a	6Mbps	1	64	5320	5320.000	0.000	0.00	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	5500.000	0.000	0.00	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	5500.000	0.000	0.00	50	3.8	



Appendix B. Radiated Test Results

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	*	5178	94.34	-	-	88.79	35.03	7.03	36.51	150	214	P	H
	*	5174	84.3	-	-	78.75	35.03	7.03	36.51	150	214	A	H
		5148.35	55.35	-18.65	74	49.84	35.02	7.02	36.53	150	214	P	H
		5149.75	38.94	-15.06	54	33.43	35.02	7.02	36.53	150	214	A	H
	*	5184	101.3	-	-	95.75	35.03	7.03	36.51	161	200	P	V
	*	5172	91.09	-	-	85.57	35.02	7.02	36.52	161	200	A	V
		5146.95	63.92	-10.08	74	58.41	35.02	7.02	36.53	161	200	P	V
		5149.85	41.07	-12.93	54	35.56	35.02	7.02	36.53	161	200	A	V
802.11a CH 44 5220MHz	*	5226	98.63	-	-	93.02	35.04	7.07	36.5	200	124	P	H
	*	5214	80.4	-	-	74.82	35.03	7.05	36.5	200	100	A	H
	*	5222	101.37	-	-	95.79	35.03	7.05	36.5	150	128	P	V
	*	5224	91.77	-	-	86.19	35.03	7.05	36.5	150	128	A	V
802.11a CH 48 5240MHz	*	5232	101.48	-	-	95.87	35.04	7.07	36.5	150	111	P	H
	*	5246	75.96	-	-	70.33	35.04	7.09	36.5	150	111	A	H
		5389.1	52.3	-21.7	74	46.51	35.06	7.23	36.5	150	111	P	H
		5350.05	38.17	-15.83	54	32.42	35.05	7.2	36.5	150	111	A	H
	*	5232	103.45	-	-	97.84	35.04	7.07	36.5	177	108	P	V
	*	5234	93.2	-	-	87.59	35.04	7.07	36.5	177	108	A	V
		5362.25	51.02	-22.98	74	45.25	35.06	7.21	36.5	177	108	P	V
		5359.7	38.21	-15.79	54	32.46	35.05	7.2	36.5	177	108	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		10359	49.39	-24.61	74	38.32	38.1	10.3	37.33	150	26	P	H
		10359	48.7	-25.3	74	37.63	38.1	10.3	37.33	150	162	P	V
802.11a CH 44 5220MHz		10440	47.75	-26.25	74	36.58	38.15	10.33	37.31	150	162	P	H
		10440	49.11	-24.89	74	37.94	38.15	10.33	37.31	150	116	P	V
802.11a CH 48 5240MHz		10480	48.64	-25.36	74	37.4	38.19	10.35	37.3	150	226	P	H
		10479	47.52	-26.48	74	36.28	38.19	10.35	37.3	150	178	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)

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 5180MHz	*	5184	97.34	-	-	91.79	35.03	7.03	36.51	154	355	P	H
	*	5184	86.57	-	-	81.02	35.03	7.03	36.51	154	355	A	H
		5127.65	51.81	-22.19	74	46.32	35.02	7.01	36.54	154	355	P	H
		5128.1	38.88	-15.12	54	33.39	35.02	7.01	36.54	154	355	A	H
	*	5176	94.5	-	-	88.95	35.03	7.03	36.51	300	253	P	V
	*	5176	84.58	-	-	79.03	35.03	7.03	36.51	300	253	A	V
		5128.65	51.58	-22.42	74	46.09	35.02	7.01	36.54	300	253	P	V
		5127.9	38.78	-15.22	54	33.29	35.02	7.01	36.54	300	253	A	V
802.11n HT20 CH 44 5220MHz	*	5224	97.45	-	-	91.87	35.03	7.05	36.5	150	285	P	H
	*	5224	87.19	-	-	81.61	35.03	7.05	36.5	150	285	A	H
	*	5224	96.48	-	-	90.9	35.03	7.05	36.5	300	255	P	V
	*	5214	86.07	-	-	80.49	35.03	7.05	36.5	300	255	A	V
802.11n HT20 CH 48 5240MHz	*	5244	98.53	-	-	92.9	35.04	7.09	36.5	150	286	P	H
	*	5232	87.8	-	-	82.19	35.04	7.07	36.5	150	286	A	H
		5370.45	50.78	-23.22	74	45.01	35.06	7.21	36.5	150	286	P	H
		5355.5	37.7	-16.3	54	31.95	35.05	7.2	36.5	150	286	A	H
	*	5244	96.95	-	-	91.32	35.04	7.09	36.5	300	259	P	V
	*	5244	85.93	-	-	80.3	35.04	7.09	36.5	300	259	A	V
		5375.05	51.18	-22.82	74	45.41	35.06	7.21	36.5	300	259	P	V
		5360.9	37.75	-16.25	54	31.98	35.06	7.21	36.5	300	259	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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

WIFI 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 5180MHz		10360	48.64	-25.36	74	37.57	38.1	10.3	37.33	195	205	P	H
		10359	49.58	-24.42	74	38.51	38.1	10.3	37.33	162	100	P	V
802.11n HT20 CH 44 5220MHz		10440	47.96	-26.04	74	36.79	38.15	10.33	37.31	150	269	P	H
		10440	47.73	-26.27	74	36.56	38.15	10.33	37.31	150	195	P	V
802.11n HT20 CH 48 5240MHz		10480	48.15	-25.85	74	36.91	38.19	10.35	37.3	165	195	P	H
		10479	47.04	-26.96	74	35.8	38.19	10.35	37.3	174	112	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	*	5194	94.29	-	-	88.73	35.03	7.03	36.5	152	0	P	H
	*	5188	84.95	-	-	79.4	35.03	7.03	36.51	152	0	A	H
		5149.3	59.83	-14.17	74	54.32	35.02	7.02	36.53	152	0	P	H
		5149.7	41.86	-12.14	54	36.35	35.02	7.02	36.53	152	0	A	H
	*	5180	87.81	-	-	82.26	35.03	7.03	36.51	157	330	P	V
	*	5178	78.41	-	-	72.86	35.03	7.03	36.51	157	330	A	V
		5148.9	52.68	-21.32	74	47.17	35.02	7.02	36.53	157	330	P	V
		5148.3	39.17	-14.83	54	33.66	35.02	7.02	36.53	157	330	A	V
802.11n HT40 CH 46 5230MHz	*	5216	95.11	-	-	89.53	35.03	7.05	36.5	150	268	P	H
	*	5242	85.57	-	-	79.94	35.04	7.09	36.5	150	268	A	H
		5354.85	51.17	-22.83	74	45.42	35.05	7.2	36.5	150	268	P	H
		5361.7	38.33	-15.67	54	32.56	35.06	7.21	36.5	150	268	A	H
	*	5236	90.02	-	-	84.41	35.04	7.07	36.5	150	292	P	V
	*	5238	79.84	-	-	74.23	35.04	7.07	36.5	150	292	A	V
		5374.3	51.06	-22.94	74	45.29	35.06	7.21	36.5	150	292	P	V
		5352.15	38.18	-15.82	54	32.43	35.05	7.2	36.5	150	292	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 5190MHz		10380	49.06	-24.94	74	37.98	38.11	10.3	37.33	152	115	P	H
		10380	48.06	-25.94	74	36.98	38.11	10.3	37.33	150	250	P	V
802.11n HT40 CH 46 5230MHz		10461	47.23	-26.77	74	36.01	38.18	10.34	37.3	155	165	P	H
		10461	46.99	-27.01	74	35.77	38.18	10.34	37.3	150	258	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	*	5186	94.65	-	-	89.1	35.03	7.03	36.51	300	304	P	H
	*	5182	85.07	-	-	79.52	35.03	7.03	36.51	300	304	A	H
		5145.9	51.11	-22.89	74	45.6	35.02	7.02	36.53	300	304	P	H
		5128.7	38.33	-15.67	54	32.84	35.02	7.01	36.54	300	304	A	H
	*	5186	94.64	-	-	89.09	35.03	7.03	36.51	150	262	P	V
	*	5186	85.13	-	-	79.58	35.03	7.03	36.51	150	262	A	V
		5129	51.87	-22.13	74	46.38	35.02	7.01	36.54	150	262	P	V
		5127.9	38.53	-15.47	54	33.04	35.02	7.01	36.54	150	262	A	V
802.11ac VHT20 CH 44 5220MHz	*	5224	96.12	-	-	90.54	35.03	7.05	36.5	300	295	P	H
	*	5228	86.62	-	-	81.01	35.04	7.07	36.5	300	295	A	H
	*	5216	95.81	-	-	90.23	35.03	7.05	36.5	150	274	P	V
	*	5214	86.59	-	-	81.01	35.03	7.05	36.5	150	274	A	V
802.11ac VHT20 CH 48 5240MHz	*	5234	97.07	-	-	91.46	35.04	7.07	36.5	300	286	P	H
	*	5236	87.55	-	-	81.94	35.04	7.07	36.5	300	286	A	H
		5363	50.8	-23.2	74	45.03	35.06	7.21	36.5	300	286	P	H
		5352.4	38.42	-15.58	54	32.67	35.05	7.2	36.5	300	286	A	H
	*	5234	97.34	-	-	91.73	35.04	7.07	36.5	150	259	P	V
	*	5248	87.77	-	-	82.14	35.04	7.09	36.5	150	259	A	V
		5396.7	51.19	-22.81	74	45.38	35.06	7.25	36.5	150	259	P	V
		5384.05	38.32	-15.68	54	32.53	35.06	7.23	36.5	150	259	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 1 5150~5250MHz

WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20		10360	47.8	-26.2	74	36.73	38.1	10.3	37.33	150	196	P	H
CH 36 5180MHz		10359	46.44	-27.56	74	35.37	38.1	10.3	37.33	150	118	P	V
802.11ac VHT20		10440	46.9	-27.1	74	35.73	38.15	10.33	37.31	150	89	P	H
CH 44 5220MHz		10440	47.72	-26.28	74	36.55	38.15	10.33	37.31	150	274	P	V
802.11ac VHT20		10480	47.61	-26.39	74	36.37	38.19	10.35	37.3	150	78	P	H
CH 48 5240MHz		10479	46.97	-27.03	74	35.73	38.19	10.35	37.3	150	133	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	*	5200	88.06	-	-	82.5	35.03	7.03	36.5	150	337	P	H
	*	5202	79.1	-	-	73.54	35.03	7.03	36.5	150	337	A	H
		5149.65	53.41	-20.59	74	47.9	35.02	7.02	36.53	150	337	P	H
		5145.65	38.91	-15.09	54	33.4	35.02	7.02	36.53	150	337	A	H
	*	5188	93.3	-	-	87.75	35.03	7.03	36.51	183	271	P	V
	*	5180	82.88	-	-	77.33	35.03	7.03	36.51	183	271	A	V
		5149.55	57.11	-16.89	74	51.6	35.02	7.02	36.53	183	271	P	V
		5149	39.4	-14.6	54	33.89	35.02	7.02	36.53	183	271	A	V
802.11ac VHT40 CH 46 5230MHz	*	5228	89.77	-	-	84.16	35.04	7.07	36.5	173	8	P	H
	*	5234	79.78	-	-	74.17	35.04	7.07	36.5	173	8	A	H
		5366.2	51.55	-22.45	74	45.78	35.06	7.21	36.5	173	8	P	H
		5363.75	39.13	-14.87	54	33.36	35.06	7.21	36.5	173	8	A	H
	*	5218	93.71	-	-	88.13	35.03	7.05	36.5	150	271	P	V
	*	5220	83.84	-	-	78.26	35.03	7.05	36.5	150	271	A	V
		5366.9	51.6	-22.4	74	45.83	35.06	7.21	36.5	150	271	P	V
		5363.2	38.93	-15.07	54	33.16	35.06	7.21	36.5	150	271	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

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

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40		10380	47.37	-26.63	74	36.29	38.11	10.3	37.33	150	116	P	H
CH 38 5190MHz		10380	47.08	-26.92	74	36	38.11	10.3	37.33	152	261	P	V
802.11ac VHT40		10461	45.86	-28.14	74	34.64	38.18	10.34	37.3	159	247	P	H
CH 46 5230MHz		10461	47.02	-26.98	74	35.8	38.18	10.34	37.3	150	224	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	*	5202	89.02	-	-	83.46	35.03	7.03	36.5	264	286	P	H
	*	5204	79.9	-	-	74.34	35.03	7.03	36.5	264	286	A	H
		5137	54.01	-19.99	74	48.52	35.02	7.01	36.54	264	286	P	H
		5147.65	40.62	-13.38	54	35.11	35.02	7.02	36.53	264	286	A	H
		5372.15	50.94	-23.06	74	45.17	35.06	7.21	36.5	264	286	P	H
		5359.9	40.49	-13.51	54	34.74	35.05	7.2	36.5	264	286	A	H
	*	5222	90.25	-	-	84.67	35.03	7.05	36.5	150	267	P	V
	*	5234	80.92	-	-	75.31	35.04	7.07	36.5	150	267	A	V
		5137.8	54.26	-19.74	74	48.77	35.02	7.01	36.54	150	267	P	V
		5146.45	40.97	-13.03	54	35.46	35.02	7.02	36.53	150	267	A	V
		5397.2	52.02	-21.98	74	46.21	35.06	7.25	36.5	150	267	P	V
		5394.55	40.22	-13.78	54	34.41	35.06	7.25	36.5	150	267	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 VHT80		10419	46.85	-27.15	74	35.71	38.14	10.32	37.32	188	288	P	H
CH 42 5210MHz		10419	46.58	-27.42	74	35.44	38.14	10.32	37.32	150	266	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	*	5266	102.13	-	-	96.49	35.04	7.1	36.5	184	311	P	H
	*	5264	92.14	-	-	86.5	35.04	7.1	36.5	184	311	A	H
		5118.35	50.99	-23.01	74	45.51	35.02	7.01	36.55	184	311	P	H
		5138.15	37.94	-16.06	54	32.45	35.02	7.01	36.54	184	311	A	H
	*	5266	104.09	-	-	98.45	35.04	7.1	36.5	265	288	P	V
	*	5266	94	-	-	88.36	35.04	7.1	36.5	265	288	A	V
		5139.65	51.21	-22.79	74	45.7	35.02	7.02	36.53	265	288	P	V
		5117.85	37.96	-16.04	54	32.48	35.02	7.01	36.55	265	288	A	V
802.11a CH 60 5300MHz	*	5294	107.18	-	-	101.49	35.05	7.14	36.5	150	135	P	H
	*	5296	96.48	-	-	90.79	35.05	7.14	36.5	150	135	A	H
	*	5304	109.2	-	-	103.51	35.05	7.14	36.5	170	63	P	V
	*	5304	99.01	-	-	93.32	35.05	7.14	36.5	170	63	A	V
802.11a CH 64 5320MHz	*	5324	103.12	-	-	97.41	35.05	7.16	36.5	150	24	P	H
	*	5326	92.55	-	-	86.84	35.05	7.16	36.5	150	24	A	H
		5350.55	63.59	-10.41	74	57.84	35.05	7.2	36.5	150	24	P	H
		5350.4	41.31	-12.69	54	35.56	35.05	7.2	36.5	150	24	A	H
	*	5326	106.78	-	-	101.07	35.05	7.16	36.5	200	296	P	V
	*	5324	97.48	-	-	91.77	35.05	7.16	36.5	200	294	A	V
	!	5353.2	68.07	-5.93	74	62.32	35.05	7.2	36.5	200	296	P	V
		5350	44.46	-9.54	54	38.71	35.05	7.2	36.5	200	296	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 2 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 52 5260MHz		10520	47.35	-26.65	74	36.06	38.22	10.36	37.29	150	185	P	H
		10521	47.25	-26.75	74	35.96	38.22	10.36	37.29	150	195	P	V
802.11a CH 60 5300MHz		10600	47.42	-26.58	74	36	38.29	10.4	37.27	150	195	P	H
		10599	47	-27	74	35.58	38.29	10.4	37.27	150	88	P	V
802.11a CH 64 5320MHz		10640	47	-27	74	35.54	38.31	10.41	37.26	150	119	P	H
		10641	47.97	-26.03	74	36.51	38.31	10.41	37.26	150	311	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	*	5262	98.76	-	-	93.12	35.04	7.1	36.5	150	287	P	H
	*	5252	88.09	-	-	82.46	35.04	7.09	36.5	150	287	A	H
		5118.5	51.41	-22.59	74	45.93	35.02	7.01	36.55	150	287	P	H
		5123.95	37.83	-16.17	54	32.34	35.02	7.01	36.54	150	287	A	H
	*	5256	97.09	-	-	91.46	35.04	7.09	36.5	300	271	P	V
	*	5254	86.8	-	-	81.17	35.04	7.09	36.5	300	271	A	V
		5104.05	50.97	-23.03	74	45.52	35.01	7	36.56	300	271	P	V
		5131.45	37.63	-16.37	54	32.14	35.02	7.01	36.54	300	271	A	V
802.11n HT20 CH 60 5300MHz	*	5304	100.32	-	-	94.63	35.05	7.14	36.5	163	0	P	H
	*	5304	89.47	-	-	83.78	35.05	7.14	36.5	163	0	A	H
	*	5306	98.29	-	-	92.6	35.05	7.14	36.5	300	262	P	V
	*	5294	87.71	-	-	82.02	35.05	7.14	36.5	300	262	A	V
802.11n HT20 CH 64 5320MHz	*	5324	100.89	-	-	95.18	35.05	7.16	36.5	272	268	P	H
	*	5326	89.95	-	-	84.24	35.05	7.16	36.5	272	268	A	H
		5350.1	58.96	-15.04	74	53.21	35.05	7.2	36.5	272	268	P	H
		5371.95	40.27	-13.73	54	34.5	35.06	7.21	36.5	272	268	A	H
	*	5324	99.54	-	-	93.83	35.05	7.16	36.5	292	253	P	V
	*	5326	89.06	-	-	83.35	35.05	7.16	36.5	292	253	A	V
		5351.5	58.68	-15.32	74	52.93	35.05	7.2	36.5	292	253	P	V
		5371.85	39.87	-14.13	54	34.1	35.06	7.21	36.5	292	253	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 5260MHz		10520	47.91	-26.09	74	36.62	38.22	10.36	37.29	150	216	P	H
		10521	46.6	-27.4	74	35.31	38.22	10.36	37.29	150	174	P	V
802.11n HT20 CH 60 5300MHz		10600	47.45	-26.55	74	36.03	38.29	10.4	37.27	150	126	P	H
		10599	47.49	-26.51	74	36.07	38.29	10.4	37.27	150	148	P	V
802.11n HT20 CH 64 5320MHz		10640	47.7	-26.3	74	36.24	38.31	10.41	37.26	150	199	P	H
		10641	47.01	-26.99	74	35.55	38.31	10.41	37.26	150	85	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	*	5280	106.18	-	-	100.52	35.04	7.12	36.5	150	276	P	H
	*	5280	96.24	-	-	90.58	35.04	7.12	36.5	150	276	A	H
		5150	56.43	-17.57	74	50.92	35.02	7.02	36.53	150	276	P	H
		5147.6	40.4	-13.6	54	34.89	35.02	7.02	36.53	150	276	A	H
	*	5256	99.23	-	-	93.6	35.04	7.09	36.5	150	317	P	V
	*	5258	89.59	-	-	83.96	35.04	7.09	36.5	150	317	A	V
		5147.75	52.55	-21.45	74	47.04	35.02	7.02	36.53	150	317	P	V
		5148.8	38.99	-15.01	54	33.48	35.02	7.02	36.53	150	317	A	V
802.11n HT40 CH 62 5310MHz	*	5312	97.63	-	-	91.92	35.05	7.16	36.5	161	281	P	H
	*	5320	87.71	-	-	82	35.05	7.16	36.5	161	281	A	H
		5350.15	61.91	-12.09	74	56.16	35.05	7.2	36.5	161	281	P	H
		5350.15	44.85	-9.15	54	39.1	35.05	7.2	36.5	161	281	A	H
	*	5318	90.69	-	-	84.98	35.05	7.16	36.5	173	327	P	V
	*	5318	80.64	-	-	74.93	35.05	7.16	36.5	173	327	A	V
		5350.3	55.62	-18.38	74	49.87	35.05	7.2	36.5	173	327	P	V
		5350.9	40.28	-13.72	54	34.53	35.05	7.2	36.5	173	327	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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

WIFI 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		10539	45.99	-28.01	74	34.68	38.23	10.37	37.29	150	326	P	H
		10539	47.06	-26.94	74	35.75	38.23	10.37	37.29	150	221	P	V
802.11n HT40 CH 62 5310MHz		10620	47.34	-26.66	74	35.9	38.3	10.4	37.26	161	314	P	H
		10620	46.3	-27.7	74	34.86	38.3	10.4	37.26	150	322	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 52 5260MHz	*	5266	97.2	-	-	91.56	35.04	7.1	36.5	150	292	P	H
	*	5268	87.9	-	-	82.26	35.04	7.1	36.5	150	292	A	H
		5149.9	51.98	-22.02	74	46.47	35.02	7.02	36.53	150	292	P	H
		5124.5	38.35	-15.65	54	32.86	35.02	7.01	36.54	150	292	A	H
	*	5254	97.16	-	-	91.53	35.04	7.09	36.5	150	263	P	V
	*	5266	87.55	-	-	81.91	35.04	7.1	36.5	150	263	A	V
		5122.8	50.98	-23.02	74	45.49	35.02	7.01	36.54	150	263	P	V
		5126.4	38.5	-15.5	54	33.01	35.02	7.01	36.54	150	263	A	V
802.11ac VHT20 CH 60 5300MHz	*	5302	98.83	-	-	93.14	35.05	7.14	36.5	282	296	P	H
	*	5306	89.52	-	-	83.83	35.05	7.14	36.5	282	296	A	H
	*	5306	97.9	-	-	92.21	35.05	7.14	36.5	150	262	P	V
	*	5294	88.09	-	-	82.4	35.05	7.14	36.5	150	262	A	V
802.11ac VHT20 CH 64 5320MHz	*	5314	98.54	-	-	92.83	35.05	7.16	36.5	300	297	P	H
	*	5312	88.99	-	-	83.28	35.05	7.16	36.5	300	297	A	H
		5350.15	52.45	-21.55	74	46.7	35.05	7.2	36.5	300	297	P	H
		5371.65	40.52	-13.48	54	34.75	35.06	7.21	36.5	300	297	A	H
	*	5324	98.03	-	-	92.32	35.05	7.16	36.5	150	256	P	V
	*	5328	88.45	-	-	82.72	35.05	7.18	36.5	150	256	A	V
		5350.1	52.8	-21.2	74	47.05	35.05	7.2	36.5	150	256	P	V
		5372.05	40.59	-13.41	54	34.82	35.06	7.21	36.5	150	256	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

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

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20		10520	46.61	-27.39	74	35.32	38.22	10.36	37.29	150	85	P	H
CH 52 5260MHz		10521	46.14	-27.86	74	34.85	38.22	10.36	37.29	150	195	P	V
802.11ac VHT20		10600	47.32	-26.68	74	35.9	38.29	10.4	37.27	150	89	P	H
CH 60 5300MHz		10599	45.41	-28.59	74	33.99	38.29	10.4	37.27	150	229	P	V
802.11ac VHT20		10640	47.77	-26.23	74	36.31	38.31	10.41	37.26	150	228	P	H
CH 64 5320MHz		10641	45.43	-28.57	74	33.97	38.31	10.41	37.26	150	178	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	*	5280	93.11	-	-	87.45	35.04	7.12	36.5	150	325	P	H
	*	5282	82.96	-	-	77.3	35.04	7.12	36.5	150	325	A	H
		5134.85	51.59	-22.41	74	46.1	35.02	7.01	36.54	150	325	P	H
		5127.4	39.24	-14.76	54	33.75	35.02	7.01	36.54	150	325	A	H
	*	5280	95.9	-	-	90.24	35.04	7.12	36.5	160	248	P	V
	*	5284	85.63	-	-	79.97	35.04	7.12	36.5	160	248	A	V
		5131.95	52.39	-21.61	74	46.9	35.02	7.01	36.54	160	248	P	V
		5132.1	39.28	-14.72	54	33.79	35.02	7.01	36.54	160	248	A	V
802.11ac VHT40 CH 62 5310MHz	*	5320	93.03	-	-	87.32	35.05	7.16	36.5	293	22	P	H
	*	5322	83.01	-	-	77.3	35.05	7.16	36.5	293	22	A	H
		5350.65	59.66	-14.34	74	53.91	35.05	7.2	36.5	293	22	P	H
		5350.3	40.04	-13.96	54	34.29	35.05	7.2	36.5	293	22	A	H
	*	5320	96.09	-	-	90.38	35.05	7.16	36.5	164	260	P	V
	*	5320	86.05	-	-	80.34	35.05	7.16	36.5	164	260	A	V
		5350.45	61.24	-12.76	74	55.49	35.05	7.2	36.5	164	260	P	V
		5350.05	41.02	-12.98	54	35.27	35.05	7.2	36.5	164	260	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

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

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40		10539	45.99	-28.01	74	34.68	38.23	10.37	37.29	162	249	P	H
CH 54 5270MHz		10539	46.43	-27.57	74	35.12	38.23	10.37	37.29	156	31	P	V
802.11ac VHT40		10620	46	-28	74	34.56	38.3	10.4	37.26	155	283	P	H
CH 62 5310MHz		10620	46.37	-27.63	74	34.93	38.3	10.4	37.26	150	231	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	*	5314	91.11	-	-	85.4	35.05	7.16	36.5	150	294	P	H
	*	5294	81.86	-	-	76.17	35.05	7.14	36.5	150	294	A	H
		5120.75	51.67	-22.33	74	46.19	35.02	7.01	36.55	150	294	P	H
		5139.4	40.3	-13.7	54	34.81	35.02	7.01	36.54	150	294	A	H
		5369.55	56.7	-17.3	74	50.93	35.06	7.21	36.5	150	294	P	H
		5356.45	41.86	-12.14	54	36.11	35.05	7.2	36.5	150	294	A	H
	*	5302	93.22	-	-	87.53	35.05	7.14	36.5	185	268	P	V
	*	5306	83.94	-	-	78.25	35.05	7.14	36.5	185	268	A	V
		5122.2	52.19	-21.81	74	46.71	35.02	7.01	36.55	185	268	P	V
		5115.95	40.24	-13.76	54	34.76	35.02	7.01	36.55	185	268	A	V
		5366.4	58.06	-15.94	74	52.29	35.06	7.21	36.5	185	268	P	V
		5350	42.57	-11.43	54	36.82	35.05	7.2	36.5	185	268	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

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

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80		10581	45.77	-28.23	74	34.38	38.27	10.39	37.27	150	346	P	H
CH 58 5290MHz		10581	46.34	-27.66	74	34.95	38.27	10.39	37.27	150	334	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - 5470~5725MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	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	*	5496	104.22	-	-	98.22	35.08	7.3	36.38	202	146	P	H
	*	5504	94.66	-	-	88.62	35.08	7.31	36.35	202	146	A	H
		5467.6	67.84	-6.16	74	61.88	35.07	7.29	36.4	202	146	P	H
		5470	44.77	-9.23	54	38.81	35.07	7.29	36.4	202	146	A	H
	*	5494	104.14	-	-	98.14	35.08	7.3	36.38	150	65	P	V
	*	5496	94.1	-	-	88.1	35.08	7.3	36.38	150	65	A	V
		5468.72	67.99	-6.01	74	62.03	35.07	7.29	36.4	150	65	P	V
		5470	44.89	-9.11	54	38.93	35.07	7.29	36.4	150	65	A	V
802.11a CH 116 5600MHz	*	5584	104.59	-	-	98.38	35.09	7.35	36.23	254	13	P	H
	*	5576	94.47	-	-	88.29	35.09	7.34	36.25	254	13	A	H
	*	5574	104.47	-	-	98.29	35.09	7.34	36.25	150	318	P	V
	*	5576	94.41	-	-	88.23	35.09	7.34	36.25	150	318	A	V
802.11a CH 140 5700MHz	*	5694	103.53	-	-	97.19	35.15	7.44	36.25	150	151	P	H
	*	5694	93.45	-	-	87.11	35.15	7.44	36.25	150	151	A	H
	!	5726.2	69.87	-4.13	74	63.5	35.18	7.47	36.28	150	151	P	H
	!	5725	50.92	-3.08	54	44.55	35.18	7.47	36.28	150	151	A	H
	*	5704	98.29	-	-	91.95	35.16	7.45	36.27	300	75	P	V
	*	5704	87.82	-	-	81.48	35.16	7.45	36.27	300	75	A	V
		5725.96	63.38	-10.62	74	57.01	35.18	7.47	36.28	300	75	P	V
		5725.24	45.04	-8.96	54	38.67	35.18	7.47	36.28	300	75	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 100 5500MHz		11000	47.61	-26.39	74	35.62	38.6	10.56	37.17	174	115	P	H
		11001	47.5	-26.5	74	35.51	38.6	10.56	37.17	150	185	P	V
802.11a CH 116 5600MHz		11160	47.63	-26.37	74	35.39	38.73	10.63	37.12	150	25	P	H
		11160	47.87	-26.13	74	35.63	38.73	10.63	37.12	150	98	P	V
802.11a CH 140 5700MHz		11400	49.78	-24.22	74	37.19	38.92	10.73	37.06	150	195	P	H
		11400	49.39	-24.61	74	36.8	38.92	10.73	37.06	150	78	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - 5470~5725MHz
WIFI 802.11n 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 100 5500MHz	*	5504	99.71	-	-	93.67	35.08	7.31	36.35	150	257	P	H
	*	5506	88.81	-	-	82.77	35.08	7.31	36.35	150	257	A	H
		5468.72	60.7	-13.3	74	54.74	35.07	7.29	36.4	150	257	P	H
		5448.4	40.4	-13.6	54	34.47	35.07	7.28	36.42	150	257	A	H
	*	5500	102.79	-	-	96.75	35.08	7.31	36.35	300	263	P	V
	*	5494	91.54	-	-	85.54	35.08	7.3	36.38	300	263	A	V
		5469.28	63	-11	74	57.04	35.07	7.29	36.4	300	263	P	V
		5448.08	41.98	-12.02	54	36.05	35.07	7.28	36.42	300	263	A	V
802.11n HT20 CH 116 5600MHz	*	5584	100.68	-	-	94.47	35.09	7.35	36.23	156	285	P	H
	*	5584	90.27	-	-	84.06	35.09	7.35	36.23	156	285	A	H
	*	5586	102.6	-	-	96.39	35.09	7.35	36.23	300	271	P	V
	*	5574	92.57	-	-	86.39	35.09	7.34	36.25	300	271	A	V
802.11n HT20 CH 140 5700MHz	*	5694	99.11	-	-	92.77	35.15	7.44	36.25	300	42	P	H
	*	5694	87.8	-	-	81.46	35.15	7.44	36.25	300	42	A	H
		5725.32	63.08	-10.92	74	56.71	35.18	7.47	36.28	300	42	P	H
		5725	42.51	-11.49	54	36.14	35.18	7.47	36.28	300	42	A	H
	*	5694	100.18	-	-	93.84	35.15	7.44	36.25	267	269	P	V
	*	5692	89.49	-	-	83.15	35.15	7.44	36.25	267	269	A	V
		5725.72	67.01	-6.99	74	60.64	35.18	7.47	36.28	267	269	P	V
		5725	43.61	-10.39	54	37.24	35.18	7.47	36.28	267	269	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 5500MHz		11000	47.73	-26.27	74	35.74	38.6	10.56	37.17	162	58	P	H
		11001	47.34	-26.66	74	35.35	38.6	10.56	37.17	150	248	P	V
802.11n HT20 CH 116 5600MHz		11160	47.85	-26.15	74	35.61	38.73	10.63	37.12	150	231	P	H
		11160	47.02	-26.98	74	34.78	38.73	10.63	37.12	174	199	P	V
802.11n HT20 CH 140 5700MHz		11400	49.81	-24.19	74	37.22	38.92	10.73	37.06	150	212	P	H
		11400	48.72	-25.28	74	36.13	38.92	10.73	37.06	150	318	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - 5470~5725MHz
WIFI 802.11n 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	*	5512	97.78	-	-	91.74	35.08	7.31	36.35	150	285	P	H
	*	5512	88.26	-	-	82.22	35.08	7.31	36.35	150	285	A	H
		5469.76	67.74	-6.26	74	61.78	35.07	7.29	36.4	150	285	P	H
		5469.92	47.75	-6.25	54	41.79	35.07	7.29	36.4	150	285	A	H
	*	5496	89.24	-	-	83.24	35.08	7.3	36.38	150	327	P	V
	*	5496	79.54	-	-	73.54	35.08	7.3	36.38	150	327	A	V
		5467.6	55.69	-18.31	74	49.73	35.07	7.29	36.4	150	327	P	V
		5469.92	41.11	-12.89	54	35.15	35.07	7.29	36.4	150	327	A	V
802.11n HT40 CH 110 5590MHz	*	5536	98.28	-	-	92.18	35.08	7.32	36.3	150	48	P	H
	*	5536	88.74	-	-	82.64	35.08	7.32	36.3	150	48	A	H
	*	5536	92.45	-	-	86.35	35.08	7.32	36.3	200	232	P	V
	*	5538	82.57	-	-	76.47	35.08	7.32	36.3	200	232	A	V
802.11n HT40 CH 134 5670MHz	*	5662	94.96	-	-	88.66	35.12	7.41	36.23	150	278	P	H
	*	5660	84.87	-	-	78.57	35.12	7.41	36.23	150	278	A	H
		5726.12	55.89	-18.11	74	49.52	35.18	7.47	36.28	150	278	P	H
		5729.4	39.74	-14.26	54	33.37	35.18	7.47	36.28	150	278	A	H
	*	5658	89.69	-	-	83.39	35.12	7.41	36.23	150	207	P	V
	*	5660	79.65	-	-	73.35	35.12	7.41	36.23	150	207	A	V
		5732.44	52.94	-21.06	74	46.57	35.18	7.47	36.28	150	207	P	V
		5759.24	39.49	-14.51	54	33.08	35.21	7.5	36.3	150	207	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 5510MHz		11019	48.96	-25.04	74	36.94	38.61	10.57	37.16	150	288	P	H
		11019	47.39	-26.61	74	35.37	38.61	10.57	37.16	150	80	P	V
802.11n HT40 CH 110 5590MHz		11100	46.93	-27.07	74	34.79	38.68	10.6	37.14	150	62	P	H
		11100	48.32	-25.68	74	36.18	38.68	10.6	37.14	195	243	P	V
802.11n HT40 CH 134 5670MHz		11340	48.5	-25.5	74	36.01	38.87	10.7	37.08	150	235	P	H
		11340	47.88	-26.12	74	35.39	38.87	10.7	37.08	150	275	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	*	5504	99.45	-	-	93.41	35.08	7.31	36.35	300	285	P	H
	*	5508	89.67	-	-	83.63	35.08	7.31	36.35	300	285	A	H
		5447.84	53.4	-20.6	74	47.47	35.07	7.28	36.42	300	285	P	H
		5448.32	41.2	-12.8	54	35.27	35.07	7.28	36.42	300	285	A	H
	*	5492	97.83	-	-	91.83	35.08	7.3	36.38	150	263	P	V
	*	5496	87.99	-	-	81.99	35.08	7.3	36.38	150	263	A	V
		5447.76	52.4	-21.6	74	46.47	35.07	7.28	36.42	150	263	P	V
		5448.64	39.8	-14.2	54	33.87	35.07	7.28	36.42	150	263	A	V
802.11ac VHT20 CH 116 5600MHz	*	5572	98.39	-	-	92.21	35.09	7.34	36.25	181	286	P	H
	*	5572	89.06	-	-	82.88	35.09	7.34	36.25	181	286	A	H
	*	5576	97.84	-	-	91.66	35.09	7.34	36.25	150	178	P	V
	*	5576	88.05	-	-	81.87	35.09	7.34	36.25	150	178	A	V
802.11ac VHT20 CH 140 5700MHz	*	5696	97.96	-	-	91.62	35.15	7.44	36.25	155	287	P	H
	*	5694	87.78	-	-	81.44	35.15	7.44	36.25	155	287	A	H
		5725.88	55.42	-18.58	74	49.05	35.18	7.47	36.28	155	287	P	H
		5725	40.5	-13.5	54	34.13	35.18	7.47	36.28	155	287	A	H
	*	5692	97.37	-	-	91.03	35.15	7.44	36.25	206	168	P	V
	*	5694	87.56	-	-	81.22	35.15	7.44	36.25	206	168	A	V
		5726.76	55.59	-18.41	74	49.22	35.18	7.47	36.28	206	168	P	V
		5725	40.63	-13.37	54	34.26	35.18	7.47	36.28	206	168	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - 5470~5725MHz

WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20		11000	47.13	-26.87	74	35.14	38.6	10.56	37.17	150	116	P	H
CH 100 5500MHz		11001	46.12	-27.88	74	34.13	38.6	10.56	37.17	150	203	P	V
802.11ac VHT20		11160	46.79	-27.21	74	34.55	38.73	10.63	37.12	152	215	P	H
CH 116 5600MHz		11160	46.47	-27.53	74	34.23	38.73	10.63	37.12	150	267	P	V
802.11ac VHT20		11400	48.64	-25.36	74	36.05	38.92	10.73	37.06	150	216	P	H
CH 140 5700MHz		11400	47.21	-26.79	74	34.62	38.92	10.73	37.06	150	352	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 102 5510MHz	*	5520	96.1	-	-	90.04	35.08	7.31	36.33	150	49	P	H
	*	5498	86.25	-	-	80.21	35.08	7.31	36.35	150	49	A	H
		5469.76	60.83	-13.17	74	54.87	35.07	7.29	36.4	150	49	P	H
		5469.84	43.61	-10.39	54	37.65	35.07	7.29	36.4	150	49	A	H
	*	5498	96.13	-	-	90.09	35.08	7.31	36.35	161	312	P	V
	*	5496	86.36	-	-	80.36	35.08	7.3	36.38	161	312	A	V
		5469.28	61.22	-12.78	74	55.26	35.07	7.29	36.4	161	312	P	V
		5469.76	43.46	-10.54	54	37.5	35.07	7.29	36.4	161	312	A	V
802.11ac VHT40 CH 110 5590MHz	*	5548	95.51	-	-	89.37	35.09	7.33	36.28	150	360	P	H
	*	5562	85.21	-	-	79.07	35.09	7.33	36.28	150	360	A	H
	*	5548	95.75	-	-	89.61	35.09	7.33	36.28	150	274	P	V
	*	5544	85.73	-	-	79.63	35.08	7.32	36.3	150	274	A	V
802.11ac VHT40 CH 134 5670MHz	*	5658	95.36	-	-	89.06	35.12	7.41	36.23	150	143	P	H
	*	5658	85.33	-	-	79.03	35.12	7.41	36.23	150	143	A	H
		5753	52.3	-21.7	74	45.89	35.21	7.5	36.3	150	143	P	H
		5725	38.77	-15.23	54	32.4	35.18	7.47	36.28	150	143	A	H
	*	5658	91.69	-	-	85.39	35.12	7.41	36.23	262	360	P	V
	*	5658	81.89	-	-	75.59	35.12	7.41	36.23	262	360	A	V
		5728.28	50.58	-23.42	74	44.21	35.18	7.47	36.28	262	360	P	V
		5741	38.8	-15.2	54	32.42	35.19	7.48	36.29	262	360	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 3 - 5470~5725MHz

WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40		11019	46.4	-27.6	74	34.38	38.61	10.57	37.16	150	261	P	H
CH 102 5510MHz		11019	46.48	-27.52	74	34.46	38.61	10.57	37.16	152	234	P	V
802.11ac VHT40		11100	46.54	-27.46	74	34.4	38.68	10.6	37.14	150	352	P	H
CH 110 5590MHz		11100	47.48	-26.52	74	35.34	38.68	10.6	37.14	150	248	P	V
802.11ac VHT40		11340	48.08	-25.92	74	35.59	38.87	10.7	37.08	221	162	P	H
CH 134 5670MHz		11340	48.15	-25.85	74	35.66	38.87	10.7	37.08	162	200	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	*	5510	93.7	-	-	87.66	35.08	7.31	36.35	150	348	P	H
	*	5506	83.62	-	-	77.58	35.08	7.31	36.35	150	348	A	H
		5469.6	59.94	-14.06	74	53.98	35.07	7.29	36.4	150	348	P	H
		5469.84	47.06	-6.94	54	41.1	35.07	7.29	36.4	150	348	A	H
		5732.2	52.12	-21.88	74	45.75	35.18	7.47	36.28	150	348	P	H
		5725.4	40.92	-13.08	54	34.55	35.18	7.47	36.28	150	348	A	H
	*	5524	93.43	-	-	87.37	35.08	7.31	36.33	150	354	P	V
	*	5534	84.01	-	-	77.91	35.08	7.32	36.3	150	354	A	V
		5469.68	59.65	-14.35	74	53.69	35.07	7.29	36.4	150	354	P	V
		5469.04	46.51	-7.49	54	40.55	35.07	7.29	36.4	150	354	A	V
		5739	52.36	-21.64	74	45.98	35.19	7.48	36.29	150	354	P	V
		5725.48	41.17	-12.83	54	34.8	35.18	7.47	36.28	150	354	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 VHT80		11061	47.13	-26.87	74	35.04	38.65	10.59	37.15	150	235	P	H
CH 106 5530MHz		11061	47.25	-26.75	74	35.16	38.65	10.59	37.15	165	233	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Emission below 1GHz

WIFI 802.11a (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a LF		79.47	27.48	-12.52	40	52.96	8.88	1.15	35.51	120	152	P	H
		307.42	24.52	-21.48	46	43.36	13.67	2.3	34.81	-	-	P	H
		384.05	25.54	-20.46	46	42.44	15.7	2.58	35.18	-	-	P	H
		460.68	22.68	-23.32	46	37.61	17.06	2.83	34.82	-	-	P	H
		634.31	20.6	-25.4	46	33.28	18.84	3.35	34.87	-	-	P	H
		883.6	22.56	-23.44	46	31.76	21.3	3.99	34.49	-	-	P	H
	!	30	34.44	-5.56	40	49.83	19.1	0.73	35.22	120	115	P	V
		42.61	32.02	-7.98	40	53.95	12	0.86	34.79	-	-	P	V
		81.41	26.85	-13.15	40	51.95	9.16	1.17	35.43	-	-	P	V
		204.6	18.36	-25.14	43.5	41.97	9.59	1.87	35.07	-	-	P	V
		384.05	16.74	-29.26	46	33.64	15.7	2.58	35.18	-	-	P	V
		621.7	17.96	-28.04	46	30.82	18.72	3.32	34.9	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Emission below 1GHz

WIFI 802.11n HT20 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 LF		79.47	28.18	-11.82	40	53.66	8.88	1.15	35.51	100	200	P	H
		204.6	26.02	-17.48	43.5	49.63	9.59	1.87	35.07	-	-	P	H
		384.05	26.66	-19.34	46	43.56	15.7	2.58	35.18	-	-	P	H
		422.85	20.42	-25.58	46	36.22	16.57	2.71	35.08	-	-	P	H
		556.71	21.87	-24.13	46	35.04	18.24	3.15	34.56	-	-	P	H
		891.36	23.86	-22.14	46	33.03	21.35	4.01	34.53	-	-	P	H
	!	30	34.35	-5.65	40	49.74	19.1	0.73	35.22	115	28	P	V
		79.47	27.97	-12.03	40	53.45	8.88	1.15	35.51	-	-	P	V
		203.63	24.64	-18.86	43.5	48.3	9.55	1.86	35.07	-	-	P	V
		414.12	22.04	-23.96	46	38.06	16.43	2.69	35.14	-	-	P	V
		568.35	25.06	-20.94	46	38.24	18.31	3.18	34.67	-	-	P	V
		945.68	24.11	-29.89	54	32.83	21.68	4.15	34.55	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Emission below 1GHz

WIFI 802.11n HT40 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 LF		79.47	27.82	-12.18	40	53.3	8.88	1.15	35.51	188	120	P	H
		204.6	25.9	-17.6	43.5	49.51	9.59	1.87	35.07	-	-	P	H
		307.42	28.16	-17.84	46	47	13.67	2.3	34.81	-	-	P	H
		384.05	27.46	-18.54	46	44.36	15.7	2.58	35.18	-	-	P	H
		556.71	21.02	-24.98	46	34.19	18.24	3.15	34.56	-	-	P	H
		886.51	20.81	-25.19	46	30	21.32	3.99	34.5	-	-	P	H
		30	32.48	-7.52	40	47.87	19.1	0.73	35.22	100	236	P	V
		42.61	31.48	-8.52	40	53.41	12	0.86	34.79	-	-	P	V
		79.47	30.91	-9.09	40	56.39	8.88	1.15	35.51	-	-	P	V
		204.6	18.98	-24.52	43.5	42.59	9.59	1.87	35.07	-	-	P	V
		492.69	17.38	-28.62	46	31.79	17.25	2.94	34.6	-	-	P	V
		750.71	19.11	-26.89	46	30.03	19.81	3.68	34.41	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against 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)
802.11ac VHT20 LF		30	34.25	-5.75	40	49.64	19.1	0.73	35.22	116	95	P	H
		42.61	33.52	-6.48	40	55.45	12	0.86	34.79	-	-	P	H
		213.33	23.41	-20.09	43.5	46.6	9.94	1.9	35.03	-	-	P	H
		307.42	23.5	-22.5	46	42.34	13.67	2.3	34.81	-	-	P	H
		460.68	19.79	-26.21	46	34.72	17.06	2.83	34.82	-	-	P	H
		634.31	20.46	-25.54	46	33.14	18.84	3.35	34.87	-	-	P	H
		30	34.26	-5.74	40	49.65	19.1	0.73	35.22	166	205	P	V
		79.47	32.19	-7.81	40	57.67	8.88	1.15	35.51	-	-	P	V
		203.63	31.59	-11.91	43.5	55.25	9.55	1.86	35.07	-	-	P	V
		384.05	23.21	-22.79	46	40.11	15.7	2.58	35.18	-	-	P	V
		647.89	20.88	-25.12	46	33.34	18.98	3.39	34.83	-	-	P	V
		885.54	22.06	-23.94	46	31.26	21.31	3.99	34.5	-	-	P	V
Remark	3. No other spurious found.												
	4. All results are PASS against limit line.												



Emission below 1GHz

WIFI 802.11ac VHT40 (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)
802.11ac VHT40 LF		79.47	29.9	-10.1	40	55.38	8.88	1.15	35.51	115	200	P	H
		158.04	24.11	-19.39	43.5	46.48	10.92	1.62	34.91	-	-	P	H
		345.25	23.32	-22.68	46	41.44	14.49	2.44	35.05	-	-	P	H
		384.05	23.81	-22.19	46	40.71	15.7	2.58	35.18	-	-	P	H
		634.31	19.88	-26.12	46	32.56	18.84	3.35	34.87	-	-	P	H
		883.6	20.55	-25.45	46	29.75	21.3	3.99	34.49	-	-	P	H
		30	35.46	-4.54	40	50.85	19.1	0.73	35.22	-	-	P	V
		41.64	36.78	-3.22	40	58.16	12.6	0.85	34.83	162	85	P	V
		80.44	28.92	-11.08	40	54.23	9	1.16	35.47	-	-	P	V
		198.78	26.82	-16.68	43.5	50.62	9.44	1.84	35.08	-	-	P	V
		414.12	23.87	-22.13	46	39.89	16.43	2.69	35.14	-	-	P	V
		495.6	26.28	-19.72	46	40.65	17.27	2.94	34.58	-	-	P	V
Remark	5. No other spurious found.												
	6. All results are PASS against limit line.												



Emission below 1GHz

WIFI 802.11ac VHT80 (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)
802.11ac VHT80 LF		79.47	26.9	-13.1	40	52.38	8.88	1.15	35.51	100	162	P	H
		158.04	21.11	-22.39	43.5	43.48	10.92	1.62	34.91	-	-	P	H
		384.05	22.81	-23.19	46	39.71	15.7	2.58	35.18	-	-	P	H
		460.68	20.97	-25.03	46	35.9	17.06	2.83	34.82	-	-	P	H
		634.31	18.88	-27.12	46	31.56	18.84	3.35	34.87	-	-	P	H
		944.71	21.27	-32.73	54	30.01	21.67	4.14	34.55	-	-	P	H
		30	34.46	-5.54	40	49.85	19.1	0.73	35.22	185	100	P	V
		41.64	32.78	-7.22	40	54.16	12.6	0.85	34.83	-	-	P	V
		80.44	27.92	-12.08	40	53.23	9	1.16	35.47	-	-	P	V
		223.03	25.37	-20.63	46	48.09	10.32	1.95	34.99	-	-	P	V
		345.25	21.68	-24.32	46	39.8	14.49	2.44	35.05	-	-	P	V
		495.6	25.28	-20.72	46	39.65	17.27	2.94	34.58	-	-	P	V
Remark	7. No other spurious found.												
	8. All results are PASS against limit line.												

**Note symbol**

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



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

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

1. Level(dBμV/m) =

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

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

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 43.54 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

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