FCC RF Test Report

APPLICANT	**:**	**Plume Design Inc**
EQUIPMENT	**:**	**Plume Pod**
BRAND NAME	**:**	**Plume Design Inc**
MODEL NAME	**:**	**A2A**
MARKETING NAME	**:**	**Plume Adaptive WiFi**
FCC ID	**:**	**2AG7G-A2A**
STANDARD	**:**	**FCC Part 15 Subpart E §15.407**
CLASSIFICATION	**:**	**(NII) Unlicensed National Information Infrastructure**

The product was received on Jun. 28, 2018 and testing was completed on Oct. 28, 2018. 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.

This report contains data that were produced under subcontract by Laboratory SPORTON INTERNATIONAL INC.

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.

James Huang

NVLAP® TESTING NVLAP LAB CODE 600155-0

Approved by: James Huang / Manager

Sporton International (Kunshan) Inc.
No. 1098, Pengxi North Road, Kunshan Economic Development Zone,
Jiangsu Province 215335, China

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR860502E	Rev. 01	Initial issue of report	Nov. 06, 2018

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	2.1049 & 15.403(i)	26dB & 99% Bandwidth	-	Pass	-
3.2	15.407(a)	Maximum Conducted Output Power	≤24 dBm	Pass	-
3.3	15.407(a)	Power Spectral Density	≤11 dBm	Pass	-
3.4	15.407(b)	Unwanted Emissions	15.407(b) & 15.209(a)	Pass	Under limit 1.03 dB at 10600.000 MHz
3.5	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 5.19 dB at 0.375 MHz
3.6	15.407(c)	Automatically Discontinue Transmission	Discontinue Transmission	Pass	-
3.7	15.203 & 15.407(a)	Antenna Requirement	N/A	Pass	-

1 General Description

1.1 Applicant

Plume Design Inc
290 California Ave, Suite 200, Palo Alto, CA 94306, USA

1.2 Manufacturer

Plume Design Inc
290 California Ave, Suite 200, Palo Alto, CA 94306, USA

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Plume Pod
Brand Name	Plume Design Inc
Model Name	A2A
Marketing Name	Plume Adaptive WiFi
FCC ID	2AG7G-A2A
EUT supports Radios application	WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth LE
HW Version	N/A
SW Version	N/A
EUT Stage	Production Unit

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

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Frequency Range	5260 MHz ~ 5320 MHz 5500 MHz ~ 5720 MHz
Maximum Output Power to Antenna <CDD Modes>	**<Ant 1>** **<5260 MHz ~ 5320 MHz>** 802.11a : 20.40 dBm / 0.1096 W 802.11n HT20 : 20.08 dBm / 0.1019 W 802.11n HT40 : 19.59 dBm / 0.0910 W 802.11ac VHT80 : 13.99 dBm / 0.0251 W **<5500 MHz ~ 5720 MHz >** 802.11a : 14.40 dBm / 0.0275 W 802.11n HT20 : 13.50 dBm / 0.0224 W 802.11n HT40 : 16.27 dBm / 0.0424 W 802.11ac VHT80 : 16.89 dBm / 0.0489 W **MIMO <Ant 1+2>** **<5260 MHz ~ 5320 MHz>** 802.11a : 20.43 dBm / 0.1104 W 802.11n HT20 : 21.06 dBm / 0.1276 W 802.11n HT40 : 21.04 dBm / 0.1271 W 802.11ac VHT80 : 14.35 dBm / 0.0272 W **<5500 MHz ~ 5720 MHz >** 802.11a : 16.51 dBm / 0.0448 W 802.11n HT20 : 16.82 dBm / 0.0481 W 802.11n HT40 : 19.47 dBm / 0.0885 W 802.11ac VHT80 : 19.59 dBm / 0.0910 W
Maximum Output Power to Antenna <Beamforming Modes>	**MIMO <Ant 1+2>** **<5260 MHz ~ 5320 MHz>** 802.11a : 20.28 dBm / 0.1067 W 802.11n HT20 : 20.30 dBm / 0.1072 W 802.11n HT40 : 20.01 dBm / 0.1002 W 802.11ac VHT80 : 20.57 dBm / 0.1140 W **<5500 MHz ~ 5720 MHz >** 802.11a : 18.52 dBm / 0.0711 W 802.11n HT20 : 18.63 dBm / 0.0729 W 802.11n HT40 : 19.02 dBm / 0.0798 W 802.11ac VHT80 : 20.31 dBm / 0.1074 W
99% Occupied Bandwidth <CDD Modes>	**<Ant 1>** **<5260 MHz ~ 5320 MHz>** 802.11a : 17.43 MHz 802.11n HT20 : 18.43 MHz 802.11n HT40 : 36.36 MHz 802.11ac VHT80 : 75.76 MHz **<5500 MHz ~ 5720 MHz >** 802.11a : 17.13 MHz 802.11n HT20 : 18.23 MHz 802.11n HT40 : 35.96 MHz 802.11ac VHT80 : 76.00 MHz **MIMO <Ant 1+2>** **<5260 MHz ~ 5320 MHz>** 802.11a : 17.18 MHz 802.11n HT20 : 18.28 MHz 802.11n HT40 : 36.16 MHz

	802.11ac VHT80 : 75.88 MHz **<5500 MHz ~ 5720 MHz >** 802.11a : 17.28 MHz 802.11n HT20 : 18.43 MHz 802.11n HT40 : 36.36 MHz 802.11ac VHT80 : 76.00 MHz
99% Occupied Bandwidth <Beamforming Modes>	**MIMO <Ant 1+2>** **<5260 MHz ~ 5320 MHz>** 802.11a : 17.13 MHz 802.11n HT20 : 18.23 MHz 802.11n HT40 : 36.16 MHz 802.11ac VHT80 : 75.88 MHz **<5500 MHz ~ 5720 MHz >** 802.11a : 17.13 MHz 802.11n HT20 : 18.43 MHz 802.11n HT40 : 36.26 MHz 802.11ac VHT80 : 76.00 MHz
Antenna Gain / Gain	**<5250 MHz ~ 5350 MHz>** <Ant. 1> : Loop Antenna with gain 2.13 dBi <Ant. 2> : Loop Antenna with gain 1.89 dBi **<5470 MHz ~ 5720 MHz>** <Ant. 1> : Loop Antenna with gain 1.55 dBi <Ant. 2> : Loop Antenna with gain 1.89 dBi
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)
Antenna Function Description	<table><tr><th></th><th>Ant. 1</th><th>Ant. 2</th></tr><tr><td>802.11 a/n/ac</td><td>V</td><td>-</td></tr><tr><td>802.11 a/n/ac MIMO</td><td>V</td><td>V</td></tr></table>

Note:

1. MIMO Ant. 1+2 is a calculated result from sum of the power MIMO Ant. 1 and MIMO Ant. 2.
2. For 802.11n HT20 / ac VHT20 and 802.11n HT40 / ac VHT40 mode, the whole testing is assessed only 802.11n HT20/ HT40 by referring to their higher conducted power.

1.5 Modification of EUT

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

1.6 Testing Location

SPORTON INTERNATIONAL INC. is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and under the FCC-recognized accredited testing laboratories by Mutual Recognition Agreement (MRA) in FCC Test.

Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	**Sporton Site No.**
	CO05-HY

Note: Test data subcontracted: Conducted Emission in section 3.5 of this report.

Sporton International (Kunshan) Inc. is accredited to ISO 17025 by National Voluntary Laboratory Accreditation Program (NVLAP code: 600155-0).

Test Site	Sporton International (Kunshan) Inc.		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone, Jiangsu Province 215335, China TEL : 86-512-57900158 FAX : 86-512-57900958		
Test Site No.	**Sporton Site No.**	**FCC designation No.**	**FCC Test Firm Registration No.**
	TH01-KS 03CH04-KS/03CH02-KS	CN5013	630927

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 v02r01.
- FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ANSI C63.10-2013

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

2 Test Configuration of Equipment Under Test

a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases were recorded in this report.

b. AC power line Conducted Emission was tested under maximum output power.

2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
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)
5500-5720 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

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

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

Note:

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

2.2 Test Mode

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

MIMO Mode

Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0
802.11ac VHT80	MCS0

TXBF Mode

Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0
802.11ac VHT80	MCS0

Test Cases	
AC Conducted Emission	Mode 1 : WLAN Link(5G) + Bluetooth Link + Lan Link(Ping) Mode 2 : WLAN Link(5G) + Bluetooth Link + Lan Link(TX)
Remark: The worst case of conducted emission is mode 2; only the test data of it was reported.	

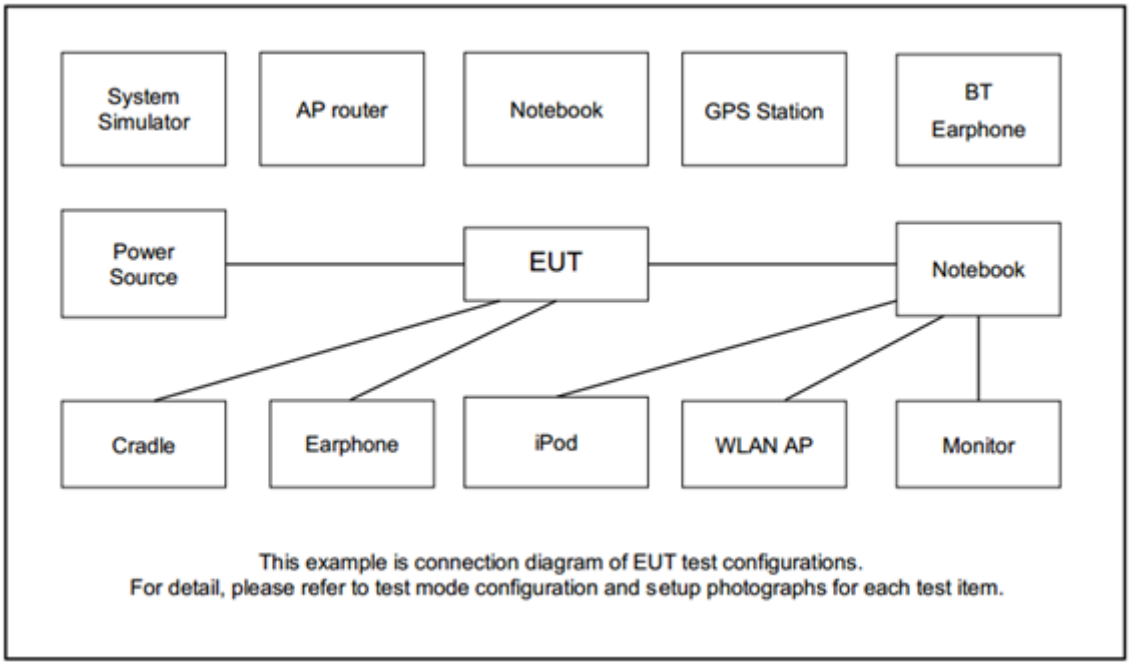
Ch. #		Band II：5260-5320 MHz	Band III：5500-5720MHz
		802.11a	802.11a
L	Low	52	100
M	Middle	60	116
H	High	64	140
Straddle		-	144

Ch. #		Band II：5260-5320 MHz	Band III：5500-5720MHz
		802.11n HT20	802.11n HT20
L	Low	52	100
M	Middle	60	116
H	High	64	140
Straddle		-	144

Ch. #		Band II：5260-5320 MHz	Band III：5500-5720MHz
		802.11n HT40	802.11n HT40
L	Low	54	102
M	Middle	-	110
H	High	62	134
Straddle		-	142

Ch. #		Band II：5260-5320 MHz	Band III：5500-5720MHz
		802.11ac VHT80	802.11ac VHT80
L	Low	-	106
M	Middle	58	-
H	High	-	122
Straddle		-	138

2.3 Connection Diagram of Test System



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Notebook	Dell	E5570	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
2.	Notebook	Dell	E3340	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
3.	LCD MONITOR	Asus	PB27UQ	FCC DoC	Shielded, 1.6m	Unshielded 1.8m
4.	iPod	Apple	A1285	FCC DoC	Shielded, 1.0m	N/A

2.5 EUT Operation Test Setup

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

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

2.6 Measurement Results Explanation Example

For all conducted test items:

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

Example :

The spectrum analyzer offset is derived from RF cable loss.

Offset = RF cable loss.

Following shows an offset computation example with cable loss 6.1 dB.

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

= 6.1 (dB)

3 Test Result

3.1 26dB & 99% Occupied Bandwidth Measurement

3.1.1 Description of 26dB & 99% Occupied Bandwidth

This section is for reporting purpose only.

There is no restriction limits for bandwidth.

For Straddle Channel, According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, If the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section C) Emission bandwidth
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
7. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1MHz and set the Video bandwidth (VBW) ≥ 3 * RBW.
8. Measure and record the results in the test report.

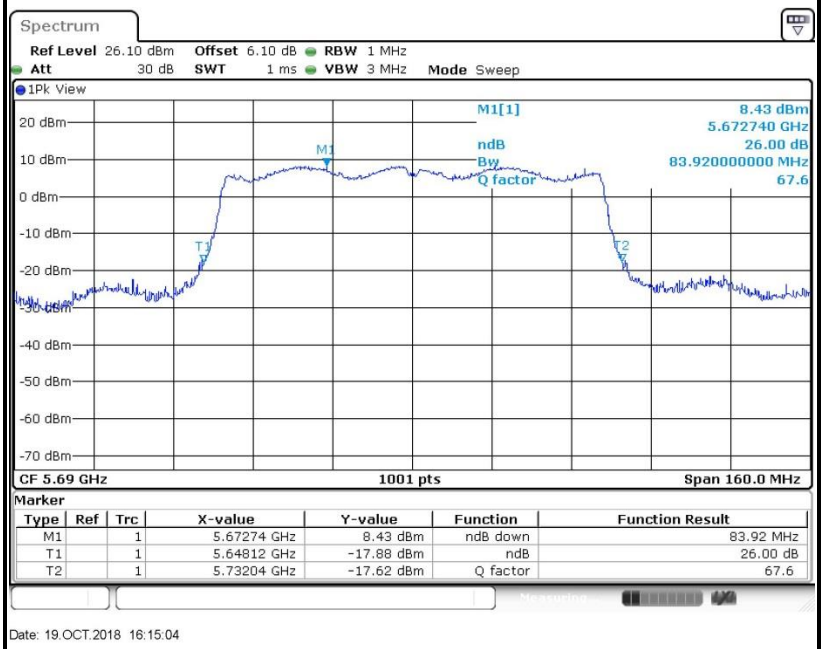
3.1.4 Test Setup

3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

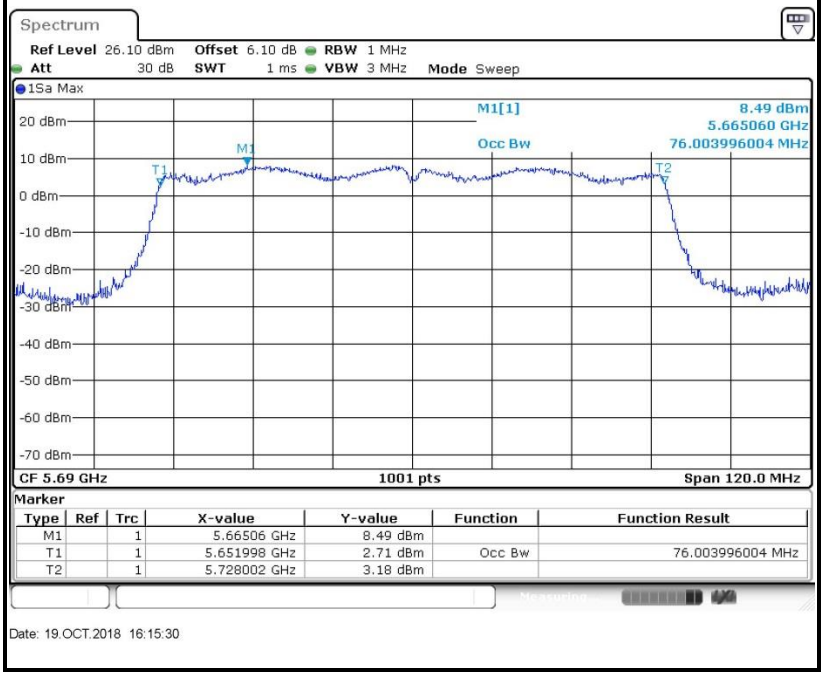
Please refer to Appendix A.

<CDD Mode>

Maximum 26dB Bandwidth



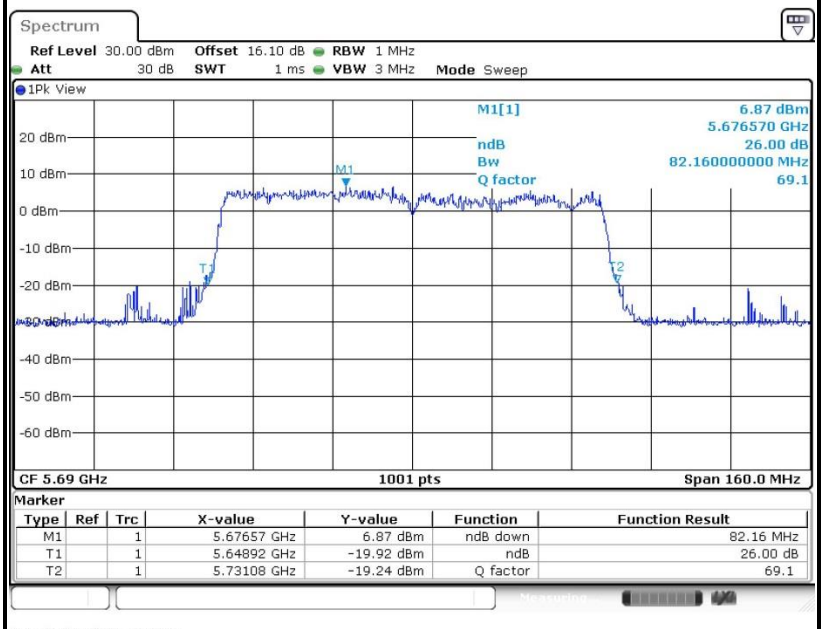
Maximum 99% Occupied Bandwidth



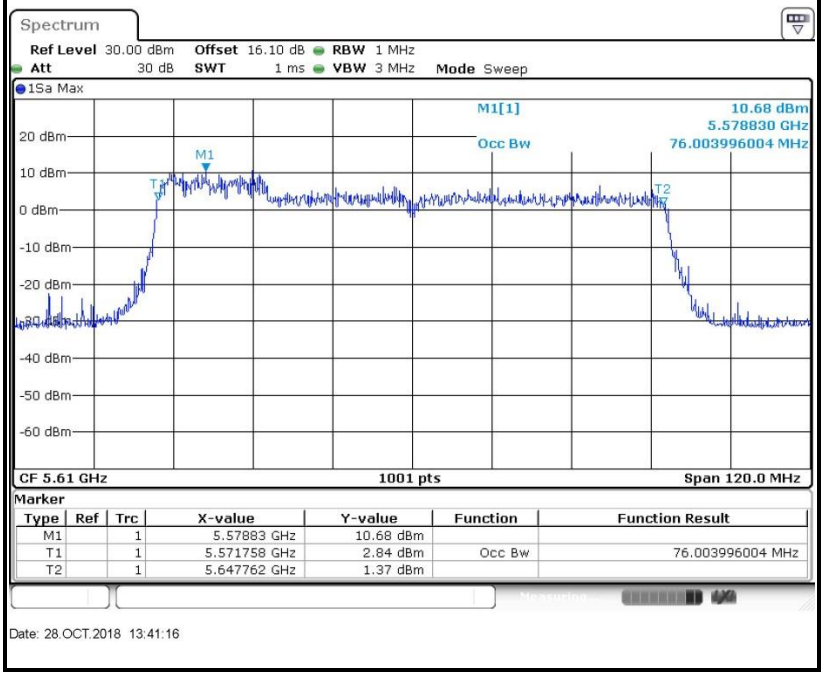
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<TXBF Modes>

Maximum 26dB Bandwidth



Maximum 99% Occupied Bandwidth



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

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

<FCC 14-30 CFR 15.407>

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

For Straddle Channel, According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, If the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

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

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

3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

<CDD Modes>

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

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

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

<TXBF Modes>

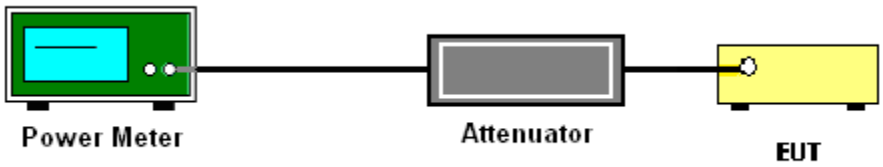
The testing follows Method PM-G of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01 for TXBF modes.

Method PM-G (Measurement using a gated RF average power meter):

1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit at its maximum power control level.
3. Measure the average power of the transmitter
4. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

For Straddle Channel, According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, If the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

<FCC 14-30 CFR 15.407>

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

For Straddle Channel, According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, If the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

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

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section F) Maximum power spectral density.

<CDD/ TXBF Modes>

 # Method SA-2 #

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

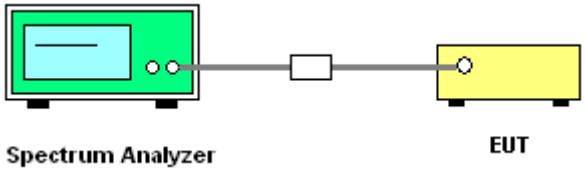
- Measure the duty cycle.
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz.
- Set VBW ≥ 3 MHz.
- Number of points in sweep ≥ 2 Span / RBW.
- Sweep time = auto.
- Detector = RMS
- Trace average at least 100 traces in power averaging mode.
- Add 10 log(1/x),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

1. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
2. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.
3. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

   Method (a): Measure and sum the spectra across the outputs.

   The total final Power Spectral Density is from a device with 2 transmitter outputs. The spectrum measurements of the individual outputs are all performed with the same span and number of points, the spectrum value in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 to obtain the value for the first frequency bin of the summed spectrum.

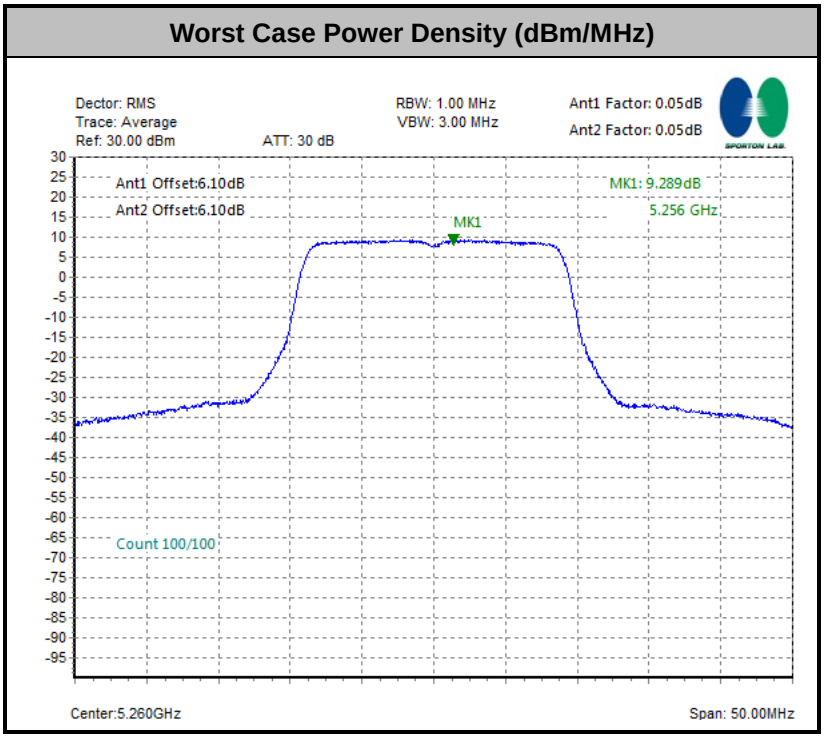
3.3.4 Test Setup



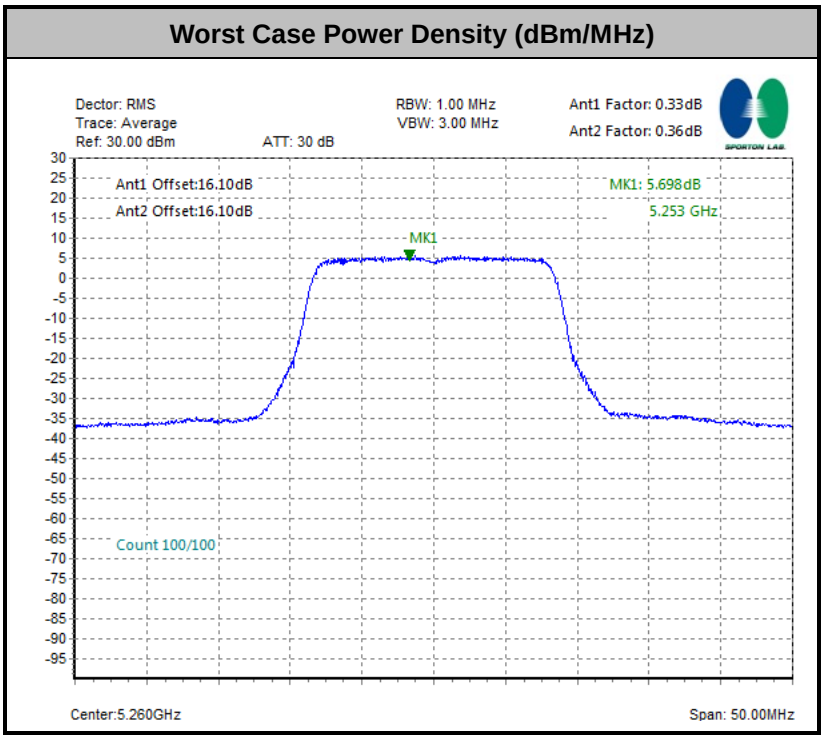
3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

<CDD Modes>



<TXBF Modes>



3.4 Unwanted Emissions Measurement

This section is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement.

3.4.1 Limit of Unwanted Emissions

(1) For transmitters operating in the 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 shall comply with the general field strength limits as below table,

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

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

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

$$EIRP = E_{Meas} + 20\log(d_{Meas}) - 104.7$$

where

EIRP is the equivalent isotropically radiated power, in dBm

E_{Meas} is the field strength of the emission at the measurement distance, in dBμV/m

d_{Meas} is the measurement distance, in m

3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section G) Unwanted emissions measurement.

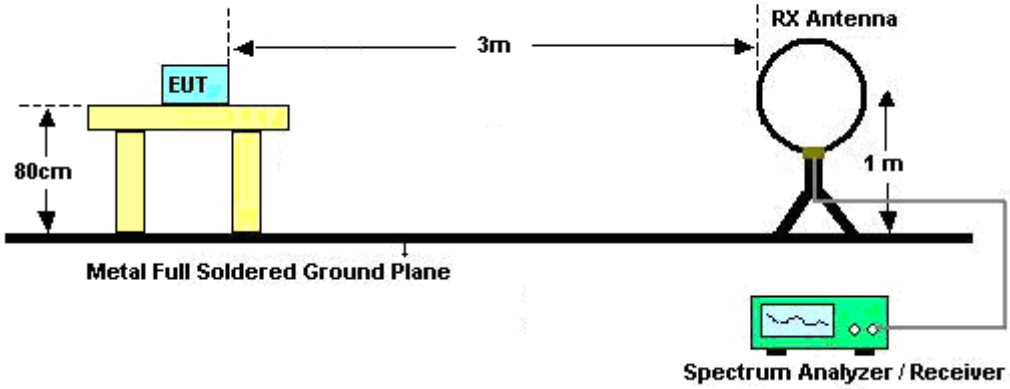
   (1) Procedure for Unwanted Emissions Measurements Below 1000MHz
   - RBW = 120 kHz
   - VBW = 300 kHz
   - Detector = Peak
   - Trace mode = max hold

   (2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz
   - RBW = 1 MHz
   - VBW ≥ 3 MHz
   - Detector = Peak
   - Sweep time = auto
   - Trace mode = max hold

   (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz
   - RBW = 1 MHz
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT was arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than 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.

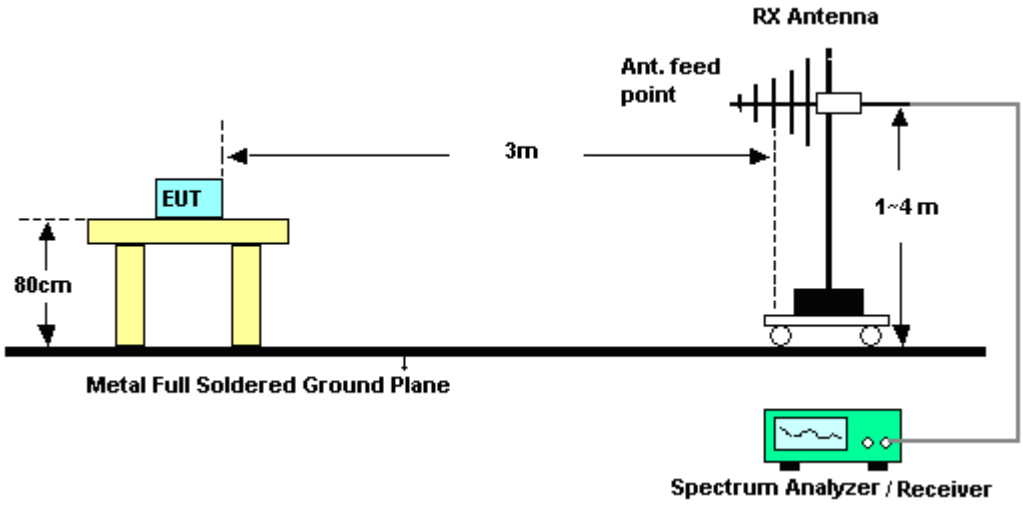
3.4.4 Test Setup

For radiated emissions below 30MHz

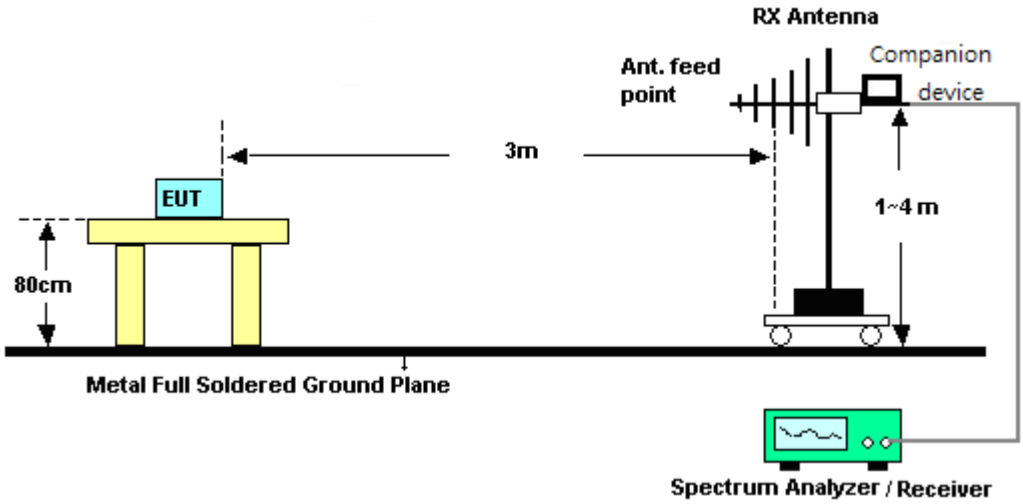


For radiated emissions from 30MHz to 1GHz

<CDD Mode>

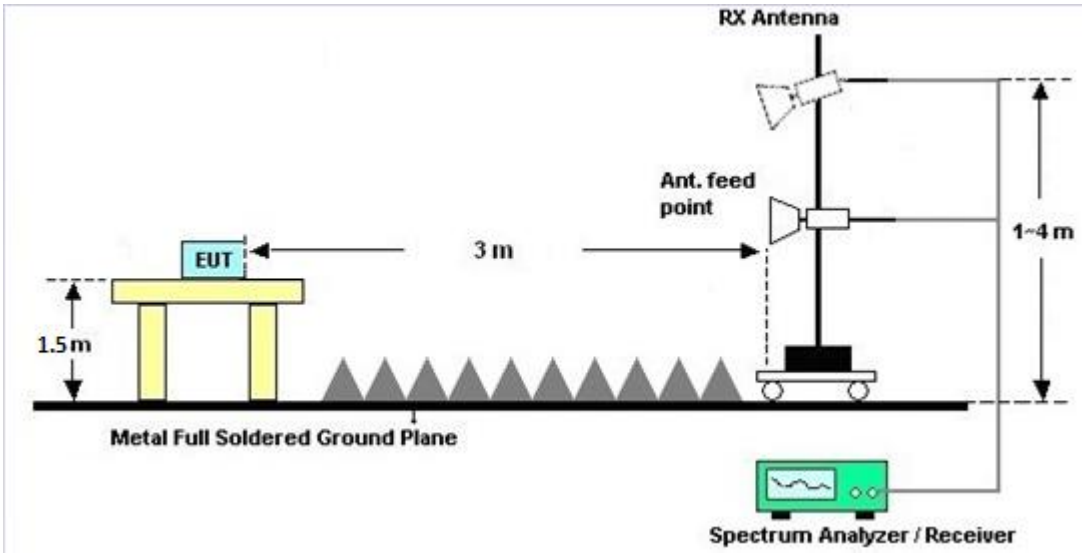


<TXBF Modes>

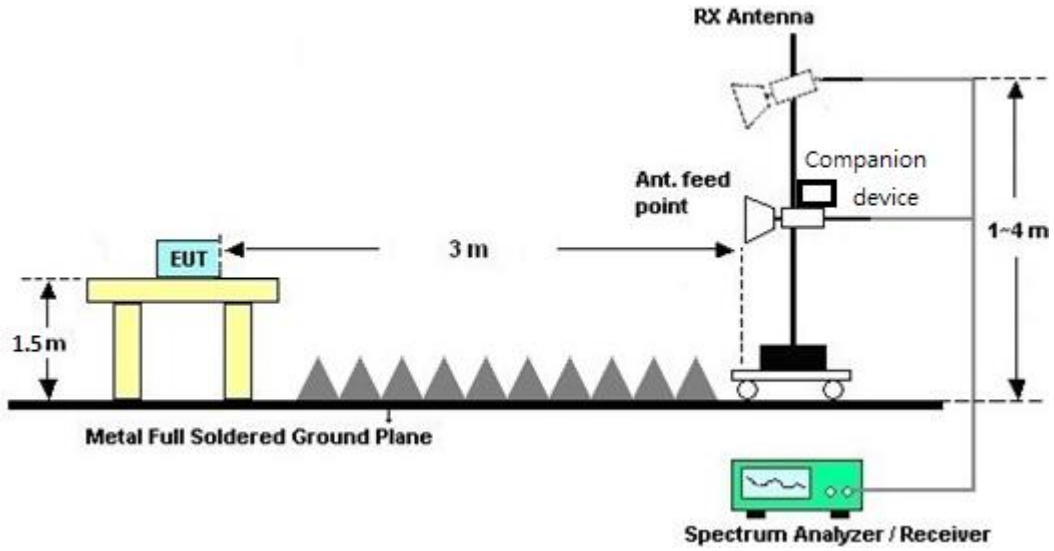


For radiated emissions above 1GHz

<CDD Mode>



<TXBF Modes>



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

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

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

3.4.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C.

3.4.7 Duty Cycle

Please refer to Appendix D.

3.4.8 Test Result of Radiated Spurious Emissions (30MHz ~ 10th Harmonic)

Please refer to Appendix C.

3.5 AC Conducted Emission Measurement

3.5.1 Limit of AC Conducted Emission

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

Frequency of emission (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

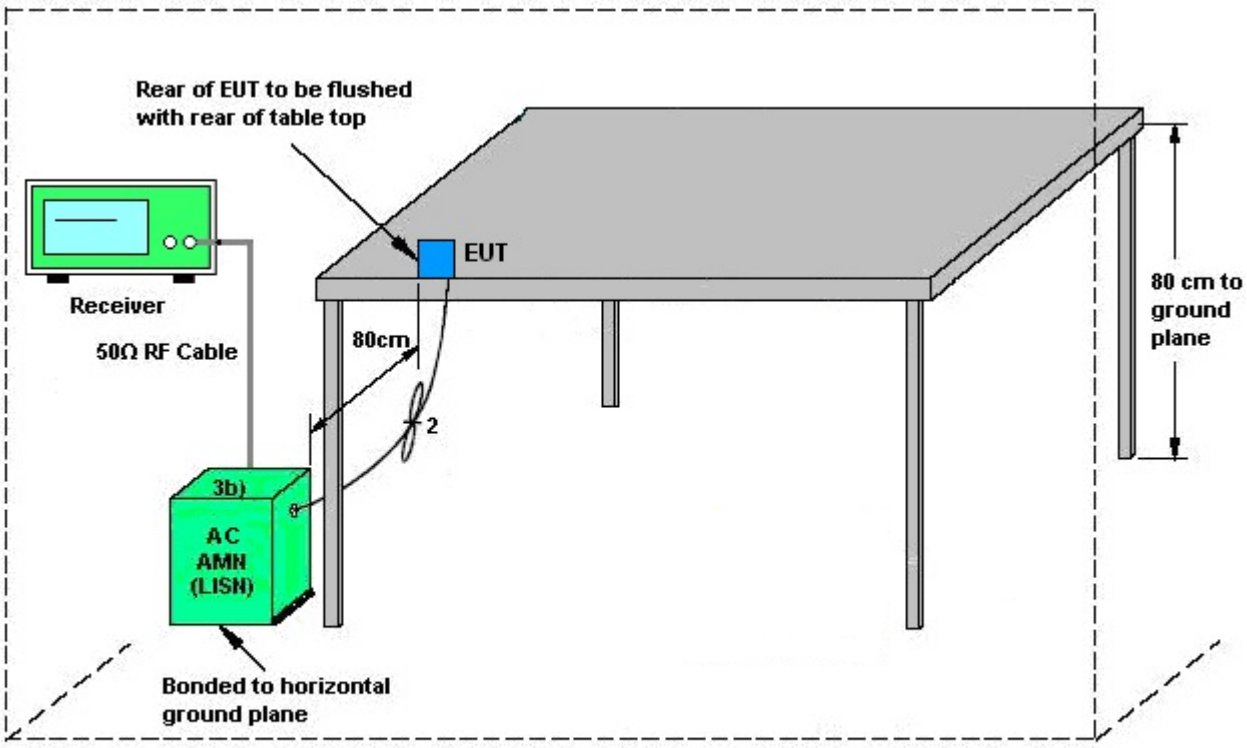
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

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

3.5.4 Test Setup



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

3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.6 Automatically Discontinue Transmission

3.6.1 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.

3.6.2 Measuring Instruments

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

3.6.3 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.

3.7 Antenna Requirements

3.7.1 Standard Applicable

If transmitting antenna directional gain is greater than 6 dBi, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 Antenna Gain

<CDD Modes >

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

Directional gain = GANT + Array Gain, where Array Gain is as follows.

For power spectral density (PSD) measurements on all devices,

Array Gain = 10 log(NANT/NSS=1) dB.

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for NANT ≤ 4.

Directional gain may be calculated by using the formulas applicable to equal gain antennas with GANT set equal to the gain of the antenna having the highest gain;

The EUT supports CDD mode.

For power, the directional gain GANT is set equal to the antenna having the highest gain, i.e., F)2)f)i).

For PSD, the directional gain calculation is following F)2)f)ii) of KDB 662911 D01 v02r01.

The power and PSD limit should be modified if the directional gain of EUT is over 6 dBi,

The directional gain “DG” is calculated as following table.

<CDD Modes>

	Ant. 1 (dBi)	Ant. 2 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
Band II	2.13	1.89	2.13	5.02	0.00	0.00
Band III	1.55	1.89	1.89	4.73	0.00	0.00

Power limit reduction = Composite gain – 6dBi, (min = 0)

PSD limit reduction = Composite gain + PSD Array gain – 6dBi, (min = 0)

TXBF modes

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

$$DirectionalGain = 10 \cdot \log\left[\frac{\sum_{j=1}^{N_{SS}}\left\{\sum_{k=1}^{N_{ANT}} g_{j,k}\right\}^2}{N_{ANT}}\right]$$

where

Each antenna is driven by no more than one spatial stream;

N_{SS} = the number of independent spatial streams of data;

N_{ANT} = the total number of antennas

$g_{j,k} = 10^{G_k/20}$ if the kth antenna is being fed by spatial stream j, or zero if it is not;

G_k is the gain in dBi of the kth antenna.

The EUT supports beamforming for 802.11ac modes.

The directional gain calculation is following F)2)e)ii) of KDB 662911 D01 v02r01.

The power and PSD limit should be modified if the directional gain of EUT is over 6 dBi,

The directional gain “DG” is calculated as following table.

	Ant 1 (dBi)	Ant 2 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
Band II	2.13	1.89	5.02	5.02	0.00	0.00
Band III	1.55	1.89	4.73	4.73	0.00	0.00

Power Limit Reduction = DG(Power) – 6dBi, (min = 0)

PSD Limit Reduction = DG(PSD) – 6dBi, (min = 0)

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Aug. 07, 2018	Oct. 19, 2018~ Oct. 28, 2018	Aug. 06, 2019	Conducted (TH01-KS)
Pulse Power Senor	Anritsu	MA2411B	0917070	300MHz~40GHz	Jan. 18, 2018	Oct. 19, 2018~ Oct. 28, 2018	Jan. 17, 2019	Conducted (TH01-KS)
Power Meter	Anritsu	ML2495A	1005002	50MHz Bandwidth	Jan. 18, 2018	Oct. 19, 2018~ Oct. 28, 2018	Jan. 17, 2019	Conducted (TH01-KS)
USB RFPower Sensor	Dare	RPR3006W	15I00041SNO93	50MHz~6GHz，-50dBm~ +10dBm	Jan. 18, 2018	Oct. 19, 2018~ Oct. 28, 2018	Jan. 17, 2019	Conducted (TH01-KS)
USB RFPower Sensor	Dare	RPR3006W	15I00041SNO94	50MHz~6GHz，-50dBm~ +10dBm	Jan. 18, 2018	Oct. 19, 2018~ Oct. 28, 2018	Jan. 17, 2019	Conducted (TH01-KS)
EMI Test Receiver	R&S	ESR7	101403	9kHz~7GHz;Max 30dBm	Aug. 07, 2018	Oct. 22, 2018	Aug. 06, 2019	Radiation (03CH02-KS)
Loop Antenna	R&S	HFH2-Z2	100321	9kHz~30MHz	Oct. 19, 2018	Oct. 22, 2018	Oct. 18, 2019	Radiation (03CH02-KS)
Bilog Antenna	TeseQ	CBL6112D	23182	30MHz-2GHz	Jan. 29, 2018	Oct. 22, 2018	Jan. 28, 2019	Radiation (03CH02-KS)
Amplifier	SONOMA	310N	187289	9KHz-1GHz	Aug. 06, 2018	Oct. 22, 2018	Aug. 05, 2019	Radiation (03CH02-KS)
AC Power Source	Chroma	61601	61601000247 3	N/A	NCR	Oct. 22, 2018	NCR	Radiation (03CH02-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	Oct. 22, 2018	NCR	Radiation (03CH02-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	Oct. 22, 2018	NCR	Radiation (03CH02-KS)
EMI Test Receiver	Keysight	N9038A	MY56400023	3Hz~8.5GHz;Max 30dBm	Oct. 18, 2018	Oct. 22, 2018	Oct. 17, 2019	Radiation (03CH04-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55370528	10Hz-44GHz	Oct. 13, 2018	Oct. 22, 2018	Oct. 12, 2019	Radiation (03CH04-KS)
Horn Antenna	Schwarzbeck	BBHA9120D	1648	1GHz~18GHz	Dec. 16, 2017	Oct. 22, 2018	Dec. 15, 2018	Radiation (03CH04-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	BBHA170249	15GHz~40GHz	Feb. 07, 2018	Oct. 22, 2018	Feb. 06, 2019	Radiation (03CH04-KS)
Amplifier	Keysight	83017A	MY53270203	500MHz~26.5GHz	Dec. 16, 2017	Oct. 22, 2018	Dec. 15, 2018	Radiation (03CH04-KS)
Amplifier	MITEQ	TTA1840-35-HG	2014749	18~40GHz	Feb. 08, 2018	Oct. 22, 2018	Feb. 07, 2019	Radiation (03CH04-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Oct. 22, 2018	NCR	Radiation (03CH04-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Oct. 22, 2018	NCR	Radiation (03CH04-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Oct. 22, 2018	NCR	Radiation (03CH04-KS)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	NCR	Jul. 11, 2018	NCR	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	3.6GHz	Dec. 08, 2017	Jul. 11, 2018	Dec. 07, 2018	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Mar. 06, 2018	Jul. 11, 2018	Mar. 05, 2019	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 30, 2017	Jul. 11, 2018	Nov. 29, 2018	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Dec. 08, 2017	Jul. 11, 2018	Dec. 07, 2018	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	NCR	Jul. 11, 2018	NCR	Conduction (CO05-HY)
LF Cable	HUBER + SUHNER	RG-214/U	LF01	N/A	Jan. 03, 2018	Jul. 11, 2018	Jan. 02, 2019	Conduction (CO05-HY)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100851	N/A	Jan. 03, 2018	Jul. 11, 2018	Jan. 02, 2019	Conduction (CO05-HY)

NCR: No Calibration Required

5 Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz) for CO05-HY

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.7dB**

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz) for 03CH02-KS

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

Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz) for 03CH04-KS

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

Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz) for 03CH04-KS

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

Appendix A. Conducted Test Results

Report Number : FR860502E

Test Engineer:	Smile Wang	Temperature:	21~25	°C
Test Date:	2018/10/19~2018/10/28	Relative Humidity:	51~54	%

Report Number : FR860502E

TEST RESULTS DATA
26dB and 99% OBW
CDD Modes

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
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	52	5260	17.43		23.28		23.41		29.41		23.98		
11a	6Mbps	1	60	5300	17.18		20.78		23.35		29.35		23.98		
11a	6Mbps	1	64	5320	17.08		20.88		23.33		29.33		23.98		
HT20	MCS0	1	52	5260	18.43		23.63		23.66		29.66		23.98		
HT20	MCS0	1	60	5300	18.43		22.88		23.66		29.66		23.98		
HT20	MCS0	1	64	5320	18.18		21.58		23.60		29.60		23.98		
HT40	MCS0	1	54	5270	36.36		40.55		23.98		30.00		23.98		
HT40	MCS0	1	62	5310	36.06		40.73		23.98		30.00		23.98		
VHT80	MCS0	1	58	5290	75.76		83.76		23.98		30.00		23.98		
11a	6Mbps	2	52	5260	17.13	17.08	20.68	20.68	23.33		29.33		23.98		
11a	6Mbps	2	60	5300	17.18	17.08	20.73	20.58	23.33		29.33		23.98		
11a	6Mbps	2	64	5320	17.13	17.08	20.63	20.58	23.33		29.33		23.98		
HT20	MCS0	2	52	5260	18.28	18.23	21.63	21.73	23.61		29.61		23.98		
HT20	MCS0	2	60	5300	18.23	18.23	21.73	21.68	23.61		29.61		23.98		
HT20	MCS0	2	64	5320	18.18	18.18	21.53	21.28	23.60		29.60		23.98		
HT40	MCS0	2	54	5270	36.16	36.16	40.55	40.37	23.98		30.00		23.98		
HT40	MCS0	2	62	5310	36.06	36.06	40.64	40.28	23.98		30.00		23.98		
VHT80	MCS0	2	58	5290	75.76	75.88	83.44	83.28	23.98		30.00		23.98		

TEST RESULTS DATA
Average Power Table
CDD Modes

FCC Band II															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	52	5260	0.12		20.40			23.98		2.13	1.89	30	Pass
11a	6Mbps	1	60	5300	0.12		18.37			23.98		2.13	1.89	30	Pass
11a	6Mbps	1	64	5320	0.12		17.44			23.98		2.13	1.89	30	Pass
HT20	MCS0	1	52	5260	0.05		20.08			23.98		2.13	1.89	30	Pass
HT20	MCS0	1	60	5300	0.05		20.04			23.98		2.13	1.89	30	Pass
HT20	MCS0	1	64	5320	0.05		17.50			23.98		2.13	1.89	30	Pass
HT40	MCS0	1	54	5270	0.10		19.59			23.98		2.13	1.89	30	Pass
HT40	MCS0	1	62	5310	0.10		15.39			23.98		2.13	1.89	30	Pass
VHT80	MCS0	1	58	5290	0.24		13.99			23.98		2.13	1.89	30	Pass
11a	6Mbps	2	52	5260	0.12	0.12	17.33	17.50	20.43	23.98		2.13		30	Pass
11a	6Mbps	2	60	5300	0.12	0.12	16.44	16.47	19.47	23.98		2.13		30	Pass
11a	6Mbps	2	64	5320	0.12	0.12	15.80	16.00	18.91	23.98		2.13		30	Pass
HT20	MCS0	2	52	5260	0.05	0.05	18.00	18.06	21.04	23.98		2.13		30	Pass
HT20	MCS0	2	60	5300	0.05	0.05	17.93	18.17	21.06	23.98		2.13		30	Pass
HT20	MCS0	2	64	5320	0.05	0.05	15.47	15.83	18.66	23.98		2.13		30	Pass
HT40	MCS0	2	54	5270	0.13	0.13	17.84	18.21	21.04	23.98		2.13		30	Pass
HT40	MCS0	2	62	5310	0.13	0.13	12.92	13.24	16.09	23.98		2.13		30	Pass
VHT80	MCS0	2	58	5290	0.22	0.24	11.38	11.30	14.35	23.98		2.13		30	Pass

Report Number : FR860502E

TEST RESULTS DATA
Power Spectral Density
CDD Modes

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
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	52	5260	0.12		9.12			11.00	11.00	2.13	1.89		Pass
11a	6Mbps	1	60	5300	0.12		7.27			11.00	11.00	2.13	1.89		Pass
11a	6Mbps	1	64	5320	0.12		6.26			11.00	11.00	2.13	1.89		Pass
HT20	MCS0	1	52	5260	0.05		8.65			11.00	11.00	2.13	1.89		Pass
HT20	MCS0	1	60	5300	0.05		8.55			11.00	11.00	2.13	1.89		Pass
HT20	MCS0	1	64	5320	0.05		6.18			11.00	11.00	2.13	1.89		Pass
HT40	MCS0	1	54	5270	0.10		5.29			11.00	11.00	2.13	1.89		Pass
HT40	MCS0	1	62	5310	0.10		1.21			11.00	11.00	2.13	1.89		Pass
VHT80	MCS0	1	58	5290	0.24		-3.38			11.00	11.00	2.13	1.89		Pass
11a	6Mbps	2	52	5260	0.12	0.12			9.00	11.00		5.02			Pass
11a	6Mbps	2	60	5300	0.12	0.12			8.25	11.00		5.02			Pass
11a	6Mbps	2	64	5320	0.12	0.12			7.59	11.00		5.02			Pass
HT20	MCS0	2	52	5260	0.05	0.05			9.29	11.00		5.02			Pass
HT20	MCS0	2	60	5300	0.05	0.05			9.28	11.00		5.02			Pass
HT20	MCS0	2	64	5320	0.05	0.05			6.97	11.00		5.02			Pass
HT40	MCS0	2	54	5270	0.13	0.13			6.83	11.00		5.02			Pass
HT40	MCS0	2	62	5310	0.13	0.13			1.94	11.00		5.02			Pass
VHT80	MCS0	2	58	5290	0.22	0.24			-3.48	11.00		5.02			Pass

TEST RESULTS DATA
26dB and 99% OBW
CDD Modes

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
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	100	5500	17.08		20.68		23.33		29.33		23.98		
11a	6Mbps	1	116	5580	17.08		20.63		23.33		29.33		23.98		
11a	6Mbps	1	140	5700	17.13		20.58		23.34		29.34		23.98		
11a	6Mbps	1	144	5720	17.08		20.83		23.33		29.33		23.98		
HT20	MCS0	1	100	5500	18.13		21.53		23.58		29.58		23.98		
HT20	MCS0	1	116	5580	18.23		21.48		23.61		29.61		23.98		
HT20	MCS0	1	140	5700	18.13		21.63		23.58		29.58		23.98		
HT20	MCS0	1	144	5720	18.13		21.68		23.58		29.58		23.98		
HT40	MCS0	1	102	5510	30.06		40.46		23.98		30.00		23.98		
HT40	MCS0	1	110	5550	30.16		40.64		23.98		30.00		23.98		
HT40	MCS0	1	134	5670	35.96		40.64		23.98		30.00		23.98		
HT40	MCS0	1	142	5710	35.96		40.37		23.98		30.00		23.98		
VHT80	MCS0	1	106	5530	76.00		83.28		23.98		30.00		23.98		
VHT80	MCS0	1	122	5610	75.88		83.76		23.98		30.00		23.98		
VHT80	MCS0	1	138	5690	75.76		83.60		23.98		30.00		23.98		
11a	6Mbps	2	100	5500	17.08	17.03	20.58	20.38	23.31		29.31		23.98		
11a	6Mbps	2	116	5580	17.23	17.08	20.73	20.63	23.33		29.33		23.98		
11a	6Mbps	2	140	5700	16.88	17.03	20.63	20.48	23.27		29.27		23.98		
11a	6Mbps	2	144	5720	17.28	17.03	20.63	20.48	23.31		29.31		23.98		
HT20	MCS0	2	100	5500	18.23	18.23	21.38	21.53	23.61		29.61		23.98		
HT20	MCS0	2	116	5580	18.08	18.23	21.43	21.53	23.57		29.57		23.98		
HT20	MCS0	2	140	5700	18.43	18.13	21.63	21.53	23.58		29.58		23.98		
HT20	MCS0	2	144	5720	18.43	18.18	21.93	21.23	23.60		29.60		23.98		
HT40	MCS0	2	102	5510	36.16	35.96	40.82	40.19	23.98		30.00		23.98		
HT40	MCS0	2	110	5550	35.96	35.96	40.46	40.28	23.98		30.00		23.98		
HT40	MCS0	2	134	5670	35.96	36.06	40.28	40.19	23.98		30.00		23.98		
HT40	MCS0	2	142	5710	35.86	36.36	39.92	40.64	23.98		30.00		23.98		
VHT80	MCS0	2	106	5530	75.88	75.88	83.60	82.64	23.98		30.00		23.98		
VHT80	MCS0	2	122	5610	75.88	75.76	83.28	83.28	23.98		30.00		23.98		
VHT80	MCS0	2	138	5690	76.00	75.64	83.92	83.28	23.98		30.00		23.98		

TEST RESULTS DATA
Average Power Table
CDD Modes

FCC Band III															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	100	5500	0.12		14.40			23.98		1.55	1.89	30	Pass
11a	6Mbps	1	116	5580	0.12		12.95			23.98		1.55	1.89	30	Pass
11a	6Mbps	1	140	5700	0.12		12.34			23.98		1.55	1.89	30	Pass
11a	6Mbps	1	144	5720	0.12		12.24			23.98		1.55	1.89	30	Pass
HT20	MCS0	1	100	5500	0.05		13.50			23.98		1.55	1.89	30	Pass
HT20	MCS0	1	116	5580	0.05		12.63			23.98		1.55	1.89	30	Pass
HT20	MCS0	1	140	5700	0.05		13.07			23.98		1.55	1.89	30	Pass
HT20	MCS0	1	144	5720	0.05		12.89			23.98		1.55	1.89	30	Pass
HT40	MCS0	1	102	5510	0.10		16.27			23.98		1.55	1.89	30	Pass
HT40	MCS0	1	110	5550	0.10		15.47			23.98		1.55	1.89	30	Pass
HT40	MCS0	1	134	5670	0.10		15.25			23.98		1.55	1.89	30	Pass
HT40	MCS0	1	142	5710	0.10		14.93			23.98		1.55	1.89	30	Pass
VHT80	MCS0	1	106	5530	0.24		15.32			23.98		1.55	1.89	30	Pass
VHT80	MCS0	1	122	5610	0.24		16.39			23.98		1.55	1.89	30	Pass
VHT80	MCS0	1	138	5690	0.24		16.89			23.98		1.55	1.89	30	Pass
11a	6Mbps	2	100	5500	0.12	0.12	13.33	13.65	16.51	23.98		1.89		30	Pass
11a	6Mbps	2	116	5580	0.12	0.12	11.24	10.97	14.12	23.98		1.89		30	Pass
11a	6Mbps	2	140	5700	0.12	0.12	11.40	11.00	14.22	23.98		1.89		30	Pass
11a	6Mbps	2	144	5720	0.12	0.12	11.67	11.70	14.70	23.98		1.89		30	Pass
HT20	MCS0	2	100	5500	0.05	0.05	13.50	14.10	16.82	23.98		1.89		30	Pass
HT20	MCS0	2	116	5580	0.05	0.05	12.73	12.34	15.55	23.98		1.89		30	Pass
HT20	MCS0	2	140	5700	0.05	0.05	12.10	12.34	15.23	23.98		1.89		30	Pass
HT20	MCS0	2	144	5720	0.05	0.05	12.81	13.51	16.18	23.98		1.89		30	Pass
HT40	MCS0	2	102	5510	0.13	0.13	14.78	15.38	18.10	23.98		1.89		30	Pass
HT40	MCS0	2	110	5550	0.13	0.13	14.42	14.44	17.44	23.98		1.89		30	Pass
HT40	MCS0	2	134	5670	0.13	0.13	14.76	14.31	17.55	23.98		1.89		30	Pass
HT40	MCS0	2	142	5710	0.13	0.13	16.64	16.28	19.47	23.98		1.89		30	Pass
VHT80	MCS0	2	106	5530	0.22	0.24	11.42	11.59	14.52	23.98		1.89		30	Pass
VHT80	MCS0	2	122	5610	0.22	0.24	16.03	15.59	18.83	23.98		1.89		30	Pass
VHT80	MCS0	2	138	5690	0.22	0.24	16.67	16.49	19.59	23.98		1.89		30	Pass

Report Number : FR860502E

TEST RESULTS DATA
Power Spectral Density
CDD Modes

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
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	100	5500	0.12		3.34			11.00	11.00	1.55	1.89		Pass
11a	6Mbps	1	116	5580	0.12		1.65			11.00	11.00	1.55	1.89		Pass
11a	6Mbps	1	140	5700	0.12		1.13			11.00	11.00	1.55	1.89		Pass
11a	6Mbps	1	144	5720	0.12		0.91			11.00	11.00	1.55	1.89		Pass
HT20	MCS0	1	100	5500	0.05		2.14			11.00	11.00	1.55	1.89		Pass
HT20	MCS0	1	116	5580	0.05		1.10			11.00	11.00	1.55	1.89		Pass
HT20	MCS0	1	140	5700	0.05		1.44			11.00	11.00	1.55	1.89		Pass
HT20	MCS0	1	144	5720	0.05		1.38			11.00	11.00	1.55	1.89		Pass
HT40	MCS0	1	102	5510	0.10		2.06			11.00	11.00	1.55	1.89		Pass
HT40	MCS0	1	110	5550	0.10		1.53			11.00	11.00	1.55	1.89		Pass
HT40	MCS0	1	134	5670	0.10		1.13			11.00	11.00	1.55	1.89		Pass
HT40	MCS0	1	142	5710	0.10		0.91			11.00	11.00	1.55	1.89		Pass
VHT80	MCS0	1	106	5530	0.24		-2.38			11.00	11.00	1.55	1.89		Pass
VHT80	MCS0	1	122	5610	0.24		-0.93			11.00	11.00	1.55	1.89		Pass
VHT80	MCS0	1	138	5690	0.24		-0.95			11.00	11.00	1.55	1.89		Pass
11a	6Mbps	2	100	5500	0.12	0.12			5.17	11.00		4.73			Pass
11a	6Mbps	2	116	5580	0.12	0.12			3.33	11.00		4.73			Pass
11a	6Mbps	2	140	5700	0.12	0.12			3.43	11.00		4.73			Pass
11a	6Mbps	2	144	5720	0.12	0.12			3.96	11.00		4.73			Pass
HT20	MCS0	2	100	5500	0.05	0.05			5.05	11.00		4.73			Pass
HT20	MCS0	2	116	5580	0.05	0.05			3.78	11.00		4.73			Pass
HT20	MCS0	2	140	5700	0.05	0.05			3.56	11.00		4.73			Pass
HT20	MCS0	2	144	5720	0.05	0.05			4.50	11.00		4.73			Pass
HT40	MCS0	2	102	5510	0.13	0.13			3.98	11.00		4.73			Pass
HT40	MCS0	2	110	5550	0.13	0.13			3.51	11.00		4.73			Pass
HT40	MCS0	2	134	5670	0.13	0.13			3.91	11.00		4.73			Pass
HT40	MCS0	2	142	5710	0.13	0.13			5.75	11.00		4.73			Pass
VHT80	MCS0	2	106	5530	0.22	0.24			-3.23	11.00		4.73			Pass
VHT80	MCS0	2	122	5610	0.22	0.24			1.71	11.00		4.73			Pass
VHT80	MCS0	2	138	5690	0.22	0.24			2.52	11.00		4.73			Pass

TEST RESULTS DATA
26dB and 99% OBW
Beamforming Modes

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
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	2	52	5260	17.13	17.08	20.63	20.48	23.33		29.33		23.98		
11a	6Mbps	2	60	5300	17.13	17.03	20.68	20.33	23.31		29.31		23.98		
11a	6Mbps	2	64	5320	17.13	16.98	20.68	20.38	23.30		29.30		23.98		
HT20	MCS0	2	52	5260	18.13	18.18	21.68	21.63	23.58		29.58		23.98		
HT20	MCS0	2	60	5300	18.13	18.18	21.53	21.33	23.58		29.58		23.98		
HT20	MCS0	2	64	5320	18.23	18.13	21.83	21.33	23.58		29.58		23.98		
HT40	MCS0	2	54	5270	36.16	36.16	39.65	39.65	23.98		30.00		23.98		
HT40	MCS0	2	62	5310	36.16	36.16	39.29	39.83	23.98		30.00		23.98		
VHT80	MCS0	2	58	5290	75.76	75.88	79.76	80.08	23.98		30.00		23.98		

TEST RESULTS DATA
Average Power Table
Beamforming Modes

FCC Band II													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	2	52	5260	17.48	17.05	20.28	23.98		5.02		30	Pass
11a	6Mbps	2	60	5300	15.45	14.97	18.23	23.98		5.02		30	Pass
11a	6Mbps	2	64	5320	14.72	14.01	17.39	23.98		5.02		30	Pass
HT20	MCS0	2	52	5260	17.46	16.82	20.16	23.98		5.02		30	Pass
HT20	MCS0	2	60	5300	17.57	16.96	20.29	23.98		5.02		30	Pass
HT20	MCS0	2	64	5320	17.63	16.93	20.30	23.98		5.02		30	Pass
HT40	MCS0	2	54	5270	17.32	16.65	20.01	23.98		5.02		30	Pass
HT40	MCS0	2	62	5310	16.31	15.74	19.04	23.98		5.02		30	Pass
VHT80	MCS0	2	58	5290	17.88	17.22	20.57	23.98		5.02		30	Pass

TEST RESULTS DATA
Power Spectral Density
Beamforming Modes

Band II													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	2	52	5260			5.70	11.00		5.02			Pass
11a	6Mbps	2	60	5300			3.54	11.00		5.02			Pass
11a	6Mbps	2	64	5320			2.75	11.00		5.02			Pass
HT20	MCS0	2	52	5260			5.45	11.00		5.02			Pass
HT20	MCS0	2	60	5300			4.97	11.00		5.02			Pass
HT20	MCS0	2	64	5320			5.51	11.00		5.02			Pass
HT40	MCS0	2	54	5270			-1.43	11.00		5.02			Pass
HT40	MCS0	2	62	5310			-3.08	11.00		5.02			Pass
VHT80	MCS0	2	58	5290			-8.05	11.00		5.02			Pass

Report Number : FR860502E

TEST RESULTS DATA
26dB and 99% OBW
Beamforming Modes

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
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	2	100	5500	17.08	17.08	20.58	20.43	23.33		29.33		23.98		
11a	6Mbps	2	116	5580	17.03	17.08	20.73	20.33	23.31		29.31		23.98		
11a	6Mbps	2	140	5700	16.88	17.13	20.53	20.73	23.27		29.27		23.98		
11a	6Mbps	2	144	5720	16.73	17.03	20.28	20.53	23.24		29.24		23.98		
HT20	MCS0	2	100	5500	18.23	18.08	21.63	21.28	23.57		29.57		23.98		
HT20	MCS0	2	116	5580	18.18	18.18	21.53	21.53	23.60		29.60		23.98		
HT20	MCS0	2	140	5700	18.43	18.18	21.78	21.38	23.60		29.60		23.98		
HT20	MCS0	2	144	5720	18.43	18.13	21.63	21.73	23.58		29.58		23.98		
HT40	MCS0	2	102	5510	36.06	36.16	39.38	39.83	23.98		30.00		23.98		
HT40	MCS0	2	110	5550	36.26	36.16	39.92	39.74	23.98		30.00		23.98		
HT40	MCS0	2	134	5670	36.06	36.16	39.83	40.28	23.98		30.00		23.98		
HT40	MCS0	2	142	5710	35.96	36.26	39.47	40.19	23.98		30.00		23.98		
VHT80	MCS0	2	106	5530	75.76	75.16	79.60	80.08	23.98		30.00		23.98		
VHT80	MCS0	2	122	5610	76.00	75.88	80.24	80.08	23.98		30.00		23.98		
VHT80	MCS0	2	138	5690	75.76	75.64	82.16	79.44	23.98		30.00		23.98		

TEST RESULTS DATA
Average Power Table
Beamforming Modes

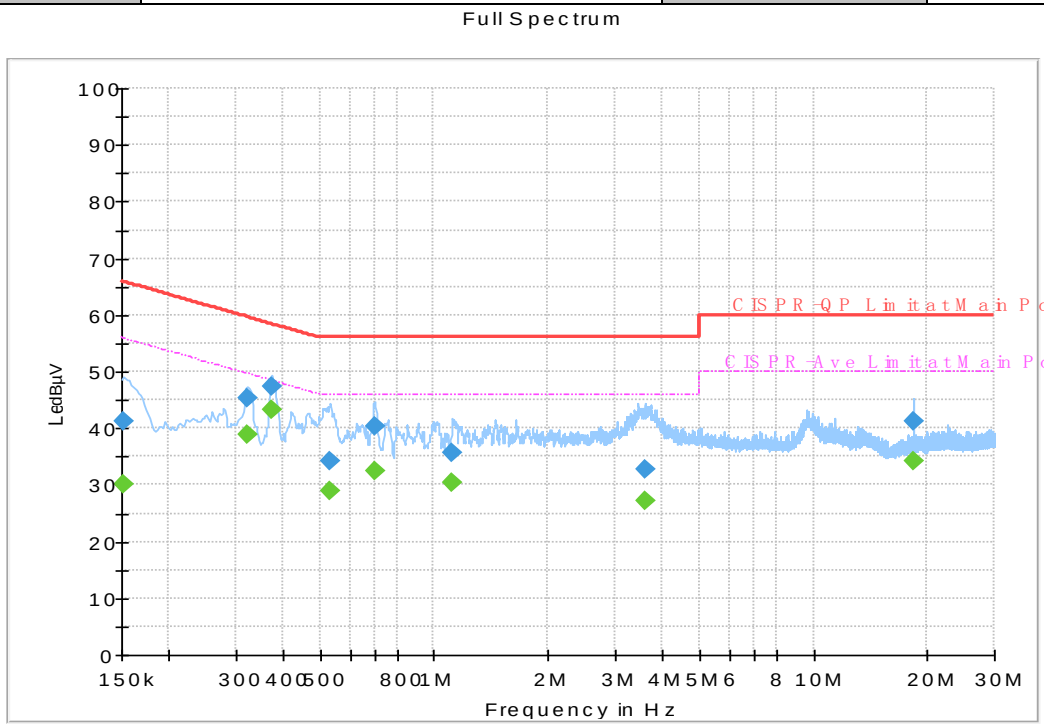
FCC Band III													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	2	100	5500	14.65	11.59	16.39	23.98		4.73		30	Pass
11a	6Mbps	2	116	5580	15.45	11.12	16.81	23.98		4.73		30	Pass
11a	6Mbps	2	140	5700	12.54	9.39	14.25	23.98		4.73		30	Pass
11a	6Mbps	2	144	5720	16.28	14.58	18.52	23.98		4.73		30	Pass
HT20	MCS0	2	100	5500	16.05	12.37	17.60	23.98		4.73		30	Pass
HT20	MCS0	2	116	5580	15.68	11.24	17.01	23.98		4.73		30	Pass
HT20	MCS0	2	140	5700	13.12	10.42	14.99	23.98		4.73		30	Pass
HT20	MCS0	2	144	5720	16.38	14.70	18.63	23.98		4.73		30	Pass
HT40	MCS0	2	102	5510	17.38	13.99	19.02	23.98		4.73		30	Pass
HT40	MCS0	2	110	5550	16.43	12.68	17.96	23.98		4.73		30	Pass
HT40	MCS0	2	134	5670	14.99	12.33	16.87	23.98		4.73		30	Pass
HT40	MCS0	2	142	5710	16.32	14.34	18.45	23.98		4.73		30	Pass
VHT80	MCS0	2	106	5530	18.08	16.35	20.31	23.98		4.73		30	Pass
VHT80	MCS0	2	122	5610	18.44	15.12	20.10	23.98		4.73		30	Pass
VHT80	MCS0	2	138	5690	17.52	14.58	19.30	23.98		4.73		30	Pass

TEST RESULTS DATA
Power Spectral Density
Beamforming Modes

Band III													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	2	100	5500			1.73	11.00		4.73			Pass
11a	6Mbps	2	116	5580			2.98	11.00		4.73			Pass
11a	6Mbps	2	140	5700			1.64	11.00		4.73			Pass
11a	6Mbps	2	144	5720			4.00	11.00		4.73			Pass
HT20	MCS0	2	100	5500			2.86	11.00		4.73			Pass
HT20	MCS0	2	116	5580			2.01	11.00		4.73			Pass
HT20	MCS0	2	140	5700			0.37	11.00		4.73			Pass
HT20	MCS0	2	144	5720			2.89	11.00		4.73			Pass
HT40	MCS0	2	102	5510			-2.00	11.00		4.73			Pass
HT40	MCS0	2	110	5550			-2.90	11.00		4.73			Pass
HT40	MCS0	2	134	5670			-3.87	11.00		4.73			Pass
HT40	MCS0	2	142	5710			-3.02	11.00		4.73			Pass
VHT80	MCS0	2	106	5530			-6.73	11.00		4.73			Pass
VHT80	MCS0	2	122	5610			-8.35	11.00		4.73			Pass
VHT80	MCS0	2	138	5690			-10.73	11.00		4.73			Pass

Appendix B. AC Conducted Emission Test Results

Test Engineer :	Kai-Chun Chu	**Temperature :**	25~26℃
		Relative Humidity :	52~54%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line

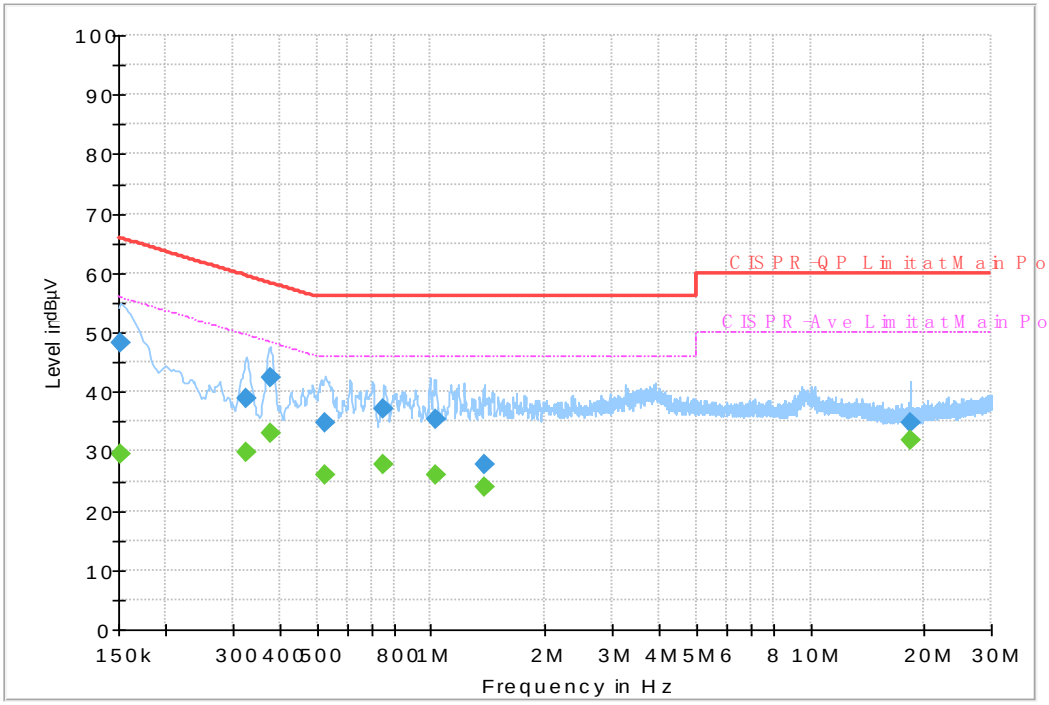


Final Result

Frequency (MHz)	Quasi-Peak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	30.24	55.88	25.64	L1	OFF	19.5
0.152250	41.09	---	65.88	24.79	L1	OFF	19.5
0.323250	---	38.88	49.62	10.74	L1	OFF	19.5
0.323250	45.36	---	59.62	14.26	L1	OFF	19.5
0.375000	---	43.20	48.39	5.19	L1	OFF	19.5
0.375000	47.37	---	58.39	11.02	L1	OFF	19.5
0.532500	---	29.04	46.00	16.96	L1	OFF	19.5
0.532500	34.11	---	56.00	21.89	L1	OFF	19.5
0.696750	---	32.50	46.00	13.50	L1	OFF	19.6
0.696750	40.26	---	56.00	15.74	L1	OFF	19.6
1.119750	---	30.35	46.00	15.65	L1	OFF	19.6
1.119750	35.56	---	56.00	20.44	L1	OFF	19.6
3.599250	---	27.16	46.00	18.84	L1	OFF	19.7
3.599250	32.82	---	56.00	23.18	L1	OFF	19.7
18.431250	---	34.28	50.00	15.72	L1	OFF	20.2
18.431250	41.36	---	60.00	18.64	L1	OFF	20.2

Test Engineer :	Kai-Chun Chu	Temperature :	25~26℃
		Relative Humidity :	52~54%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral

Full Spectrum



Final Result

Frequency (MHz)	Quasi-Peak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	29.59	55.88	26.29	N	OFF	19.5
0.152250	48.12	---	65.88	17.76	N	OFF	19.5
0.325500	---	29.85	49.57	19.72	N	OFF	19.5
0.325500	39.02	---	59.57	20.55	N	OFF	19.5
0.377250	---	32.90	48.34	15.44	N	OFF	19.5
0.377250	42.54	---	58.34	15.80	N	OFF	19.5
0.528000	---	26.17	46.00	19.83	N	OFF	19.5
0.528000	34.94	---	56.00	21.06	N	OFF	19.5
0.750750	---	27.83	46.00	18.17	N	OFF	19.6
0.750750	37.03	---	56.00	18.97	N	OFF	19.6
1.025250	---	26.14	46.00	19.86	N	OFF	19.6
1.025250	35.24	---	56.00	20.76	N	OFF	19.6
1.378500	---	23.91	46.00	22.09	N	OFF	19.6
1.378500	27.64	---	56.00	28.36	N	OFF	19.6
18.431250	---	31.94	50.00	18.06	N	OFF	20.3
18.431250	34.73	---	60.00	25.27	N	OFF	20.3

Appendix C. Radiated Spurious Emission

For CDD Modes

Band 2 - 5250~5350MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 64 5320MHz	*	5316	109.94	-	-	99.74	35.26	8.17	33.23	277	84	P	H
		5316	101.98	-	-	91.78	35.26	8.17	33.23	277	84	A	H
		5352.1	59.06	-14.94	74	48.83	35.23	8.22	33.22	277	84	P	H
		5350	50.23	-3.77	54	40	35.23	8.22	33.22	277	84	A	H
	*	5322	110.68	-	-	100.48	35.26	8.17	33.23	107	184	P	V
		5322	103.32	-	-	93.12	35.26	8.17	33.23	107	184	A	V
		5350.3	61.73	-12.27	74	51.5	35.23	8.22	33.22	107	184	P	V
		5350	51.44	-2.56	54	41.21	35.23	8.22	33.22	107	184	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11a (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	67.18	-1.12	68.3	82.36	38.58	12.28	66.04	285	3	P	H
		15780	44.33	-29.67	74	55.32	40.68	14.24	65.91	100	0	P	H
		10520	66.72	-1.58	68.3	81.9	38.58	12.28	66.04	265	317	P	V
		15780	50.15	-23.85	74	61.14	40.68	14.24	65.91	100	0	P	V
		15780	46.77	-7.23	54	57.76	40.68	14.24	65.91	265	317	A	V
802.11a CH 60 5300MHz		10600	56.21	-17.79	74	71.08	38.64	12.47	65.98	279	0	P	H
		10600	52.97	-1.03	54	67.84	38.64	12.47	65.98	279	0	A	H
		15900	44.52	-29.48	74	55.87	40.58	14.33	66.26	100	0	P	H
		10600	57.43	-16.57	74	72.3	38.64	12.47	65.98	301	77	P	V
		10600	50.85	-3.15	54	65.72	38.64	12.47	65.98	301	77	A	V
		15900	47.95	-26.05	74	59.3	40.58	14.33	66.26	100	0	P	V
802.11a CH 64 5320MHz		10640	54.76	-19.24	74	69.5	38.67	12.55	65.96	291	0	P	H
		10640	52.86	-1.14	54	67.6	38.67	12.55	65.96	291	0	A	H
		10640	57.75	-16.25	74	72.49	38.67	12.55	65.96	300	80	P	V
		10640	52.27	-1.73	54	67.01	38.67	12.55	65.96	300	80	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 (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 64 5320MHz	*	5318	109.76	-	-	99.56	35.26	8.17	33.23	306	58	P	H
		5318	101.02	-	-	90.82	35.26	8.17	33.23	306	58	A	H
		5350.3	62.4	-11.6	74	52.17	35.23	8.22	33.22	306	58	P	H
		5350.01	50.57	-3.43	54	40.34	35.23	8.22	33.22	306	58	A	H
	*	5322	111.62	-	-	101.42	35.26	8.17	33.23	278	55	P	V
		5322	104.17	-	-	93.97	35.26	8.17	33.23	278	55	A	V
		5350.5	62.25	-11.75	74	52.02	35.23	8.22	33.22	278	55	P	V
		5350.01	52.37	-1.63	54	42.14	35.23	8.22	33.22	278	55	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	66.34	-1.96	68.3	81.52	38.58	12.28	66.04	290	3	P	H
		15780	45.39	-28.61	74	56.38	40.68	14.24	65.91	100	0	P	H
		10520	66.71	-1.59	68.3	81.89	38.58	12.28	66.04	263	319	P	V
		15780	52.82	-21.18	74	63.81	40.68	14.24	65.91	304	318	P	V
		15780	47.73	-6.27	54	58.72	40.68	14.24	65.91	304	318	A	V
802.11n HT20 CH 60 5300MHz		10600	55.76	-18.24	74	70.63	38.64	12.47	65.98	269	5	P	H
		10600	52.7	-1.3	54	67.57	38.64	12.47	65.98	269	5	A	H
		15900	46.88	-27.12	74	58.23	40.58	14.33	66.26	100	0	P	H
		10600	56.9	-17.1	74	71.77	38.64	12.47	65.98	296	80	P	V
		10600	52.13	-1.87	54	67	38.64	12.47	65.98	296	80	A	V
		15900	51.13	-22.87	74	62.48	40.58	14.33	66.26	302	319	P	V
		15900	48.05	-5.95	54	59.4	40.58	14.33	66.26	302	319	A	V
802.11n HT20 CH 64 5320MHz		10640	54.79	-19.21	74	69.53	38.67	12.55	65.96	100	360	P	H
		10640	51.83	-2.17	54	66.57	38.67	12.55	65.96	299	360	A	H
		10640	56.64	-17.36	74	71.38	38.67	12.55	65.96	100	360	P	V
		10640	51.59	-2.41	54	66.33	38.67	12.55	65.96	304	78	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 (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		5118.72	54.67	-19.33	74	44.52	35.42	7.99	33.26	264	90	P	H
		5124.8	44.17	-9.83	54	34.03	35.41	7.99	33.26	264	90	A	H
	*	5266	109.1	-	-	98.94	35.3	8.09	33.23	264	90	P	H
		5266	101.07	-	-	90.91	35.3	8.09	33.23	264	90	A	H
		5350.7	60.87	-13.13	74	50.64	35.23	8.22	33.22	264	90	P	H
		5350.1	49.71	-4.29	54	39.48	35.23	8.22	33.22	264	90	A	H
		5135.84	54.82	-19.18	74	44.68	35.41	7.99	33.26	288	53	P	V
		5101.92	44.69	-9.31	54	34.53	35.43	7.99	33.26	288	53	A	V
	*	5266	110.17	-	-	100.01	35.3	8.09	33.23	288	53	P	V
		5266	105.40	-	-	95.24	35.3	8.09	33.23	288	53	A	V
		5351.4	61.91	-12.09	74	51.68	35.23	8.22	33.22	288	53	P	V
		5350	51.62	-2.38	54	41.39	35.23	8.22	33.22	288	53	A	V
802.11n HT40 CH 62 5310MHz		5122.56	53.76	-20.24	74	43.62	35.41	7.99	33.26	264	90	P	H
		5143.2	43.9	-10.1	54	33.77	35.39	7.99	33.25	264	90	A	H
	*	5310	104.16	-	-	93.96	35.26	8.17	33.23	264	90	P	H
		5310	100.41	-	-	90.21	35.26	8.17	33.23	264	90	A	H
		5351	60.43	-13.57	74	50.2	35.23	8.22	33.22	264	90	P	H
		5350.1	51.07	-2.93	54	40.84	35.23	8.22	33.22	264	90	A	H
		5135.36	54.31	-19.69	74	44.17	35.41	7.99	33.26	288	53	P	V
		5143.36	44.23	-9.77	54	34.1	35.39	7.99	33.25	288	53	A	V
	*	5300	106.57	-	-	96.38	35.27	8.15	33.23	288	53	P	V
		5300	98.57	-	-	88.38	35.27	8.15	33.23	288	53	A	V
		5351.5	63.35	-10.65	74	53.12	35.23	8.22	33.22	288	53	P	V
		5350.9	52.57	-1.43	54	42.34	35.23	8.22	33.22	288	53	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		10540	63.39	-4.91	68.3	78.5	38.6	12.32	66.03	278	3	P	H
		15810	44.25	-29.75	74	55.35	40.65	14.26	66.01	100	0	P	H
		10540	62.43	-5.87	68.3	77.54	38.6	12.32	66.03	311	78	P	V
		15810	49.34	-24.66	74	60.44	40.65	14.26	66.01	100	0	P	V
802.11n HT40 CH 62 5310MHz		10620	52.21	-21.79	74	67.01	38.66	12.51	65.97	286	4	P	H
		10620	47.41	-6.59	54	62.21	38.66	12.51	65.97	286	4	A	H
		15930	46.67	-27.33	74	58.12	40.56	14.35	66.36	100	0	P	H
		10620	55.16	-18.84	74	69.96	38.66	12.51	65.97	292	79	P	V
		10620	47.34	-6.66	54	62.14	38.66	12.51	65.97	292	79	A	V
		15930	50.28	-23.72	74	61.73	40.56	14.35	66.36	302	319	P	V
		15930	45.96	-8.04	54	57.41	40.56	14.35	66.36	302	319	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 (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		5136.48	54.08	-19.92	74	43.94	35.41	7.99	33.26	306	91	P	H
		5143.2	44.77	-9.23	54	34.64	35.39	7.99	33.25	306	91	A	H
	*	5282	98.59	-	-	88.42	35.28	8.12	33.23	306	91	P	H
		5282	90.64	-	-	80.47	35.28	8.12	33.23	306	91	A	H
		5352.1	61.96	-12.04	74	51.73	35.23	8.22	33.22	306	91	P	H
		5350.3	48.36	-5.64	54	38.13	35.23	8.22	33.22	306	91	A	H
		5137.44	54.88	-19.12	74	44.74	35.41	7.99	33.26	311	55	P	V
		5130.24	45.32	-8.68	54	35.18	35.41	7.99	33.26	311	55	A	V
	*	5290	102.63	-	-	92.46	35.28	8.12	33.23	311	55	P	V
		5290	97.49	-	-	87.32	35.28	8.12	33.23	311	55	A	V
		5354.6	62.55	-11.45	74	52.32	35.23	8.22	33.22	311	55	P	V
		5350.3	51.26	-2.74	54	41.03	35.23	8.22	33.22	311	55	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		10580	61.56	-6.74	68.3	76.5	38.63	12.43	66	294	3	P	H
VHT80		15870	43.59	-30.41	74	54.88	40.6	14.32	66.21	100	0	P	H
CH 58		10580	60.82	-7.48	68.3	75.76	38.63	12.43	66	298	82	P	V
5290MHz		15870	48.45	-25.55	74	59.74	40.6	14.32	66.21	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	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		5458.16	53.69	-20.31	74	43.37	35.15	8.37	33.2	318	61	P	H
		5462.16	53.51	-14.79	68.3	43.19	35.15	8.37	33.2	318	61	P	H
		5457.2	44.85	-9.15	54	34.53	35.15	8.37	33.2	318	61	A	H
	*	5496	102.24	-	-	91.91	35.12	8.41	33.2	318	61	P	H
		5496	94.08	-	-	83.75	35.12	8.41	33.2	318	61	A	H
		5457.52	56.67	-17.33	74	46.35	35.15	8.37	33.2	112	208	P	V
		5464.72	56.5	-11.8	68.3	46.17	35.14	8.39	33.2	112	208	P	V
		5458.16	47.64	-6.36	54	37.32	35.15	8.37	33.2	112	208	A	V
	*	5504	106.22	-	-	95.88	35.11	8.43	33.2	112	208	P	V
		5504	98.24	-	-	87.9	35.11	8.43	33.2	112	208	A	V
802.11a CH 140 5700MHz	*	5696	98.66	-	-	88.31	34.95	8.57	33.17	363	72	P	H
		5696	90.12	-	-	79.77	34.95	8.57	33.17	363	72	A	H
		5741.16	53.3	-15	68.3	42.97	34.91	8.59	33.17	363	72	P	H
	*	5704	103.05	-	-	92.7	34.94	8.58	33.17	284	52	P	V
		5704	94.85	-	-	84.5	34.94	8.58	33.17	284	52	A	V
		5739.08	54.16	-14.14	68.3	43.83	34.91	8.59	33.17	284	52	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 (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	56.43	-17.57	74	69.86	38.93	13.34	65.7	100	360	P	H
		11000	51.9	-2.1	54	65.33	38.93	13.34	65.7	286	360	A	H
		11000	56.61	-17.39	74	70.04	38.93	13.34	65.7	100	360	P	V
		11000	52.49	-1.51	54	65.92	38.93	13.34	65.7	262	326	A	V
802.11a CH 116 5580MHz		11160	56.79	-17.21	74	70.13	39.05	13.19	65.58	254	0	P	H
		11160	51.64	-2.36	54	64.98	39.05	13.19	65.58	254	0	A	H
		11160	56.38	-17.62	74	69.72	39.05	13.19	65.58	290	322	P	V
		11160	51.76	-2.24	54	65.1	39.05	13.19	65.58	290	322	A	V
802.11a CH 140 5700MHz		11400	52.9	-21.1	74	66.09	39.23	12.99	65.41	287	221	P	H
		11400	49.57	-4.43	54	62.76	39.23	12.99	65.41	287	221	A	H
		11400	56.75	-17.25	74	69.94	39.23	12.99	65.41	266	327	P	V
		11400	52.4	-1.6	54	65.59	39.23	12.99	65.41	266	327	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

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)
		5456.24	53.19	-20.81	74	42.87	35.15	8.37	33.2	319	59	P	H
		5465.04	53.24	-15.06	68.3	42.91	35.14	8.39	33.2	319	59	P	H
		5457.52	44.04	-9.96	54	33.72	35.15	8.37	33.2	319	59	A	H
802.11n	*	5496	101.2	-	-	90.87	35.12	8.41	33.2	319	59	P	H
HT20		5496	92.67	-	-	82.34	35.12	8.41	33.2	319	59	A	H
CH 100		5453.52	56.22	-17.78	74	45.9	35.15	8.37	33.2	284	54	P	V
5500MHz		5464.4	57.58	-10.72	68.3	47.25	35.14	8.39	33.2	284	54	P	V
		5457.68	46.47	-7.53	54	36.15	35.15	8.37	33.2	284	54	A	V
	*	5496	105.16	-	-	94.83	35.12	8.41	33.2	284	54	P	V
		5496	96.66	-	-	86.33	35.12	8.41	33.2	284	54	A	V
	*	5704	98.99	-	-	88.64	34.94	8.58	33.17	364	76	P	H
802.11n		5704	90.4	-	-	80.05	34.94	8.58	33.17	364	76	A	H
HT20		5737.48	52.97	-15.33	68.3	42.64	34.91	8.59	33.17	364	76	P	H
CH 140	*	5704	103.11	-	-	92.76	34.94	8.58	33.17	285	55	P	V
5700MHz		5704	94.59	-	-	84.24	34.94	8.58	33.17	285	55	A	V
		5725	54.41	-13.89	68.3	44.08	34.92	8.58	33.17	285	55	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 (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		11000	65.56	-8.44	74	78.99	38.93	13.34	65.7	283	355	P	H
HT20		11000	52.56	-1.44	54	65.99	38.93	13.34	65.7	283	355	A	H
CH 100		11000	65.93	-8.07	74	79.36	38.93	13.34	65.7	100	360	P	V
5500MHz		11000	52.33	-1.67	54	65.76	38.93	13.34	65.7	258	315	A	V
802.11n		11160	65.58	-8.42	74	78.92	39.05	13.19	65.58	260	356	P	H
HT20		11160	52.18	-1.82	54	65.52	39.05	13.19	65.58	260	356	A	H
CH 116		11160	65.22	-8.78	74	78.56	39.05	13.19	65.58	268	321	P	V
5580MHz		11160	52.76	-1.24	54	66.1	39.05	13.19	65.58	268	321	A	V
802.11n		11400	63.53	-10.47	74	76.72	39.23	12.99	65.41	266	223	P	H
HT20		11400	50.69	-3.31	54	63.88	39.23	12.99	65.41	266	223	A	H
CH 140		11400	64.93	-9.07	74	78.12	39.23	12.99	65.41	318	324	P	V
5700MHz		11400	52.55	-1.45	54	65.74	39.23	12.99	65.41	318	324	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 102 5510MHz		5457.68	57.44	-16.56	74	47.12	35.15	8.37	33.2	260	85	P	H
		5466	58.41	-9.89	68.3	48.08	35.14	8.39	33.2	260	85	P	H
		5459.12	47.54	-6.46	54	37.22	35.15	8.37	33.2	260	85	A	H
	*	5502	100.96	-	-	90.62	35.11	8.43	33.2	260	85	P	H
		5502	93.28	-	-	82.94	35.11	8.43	33.2	260	85	A	H
		5763.72	52.61	-15.69	68.3	42.3	34.89	8.59	33.17	260	85	P	H
		5454.64	59.41	-14.59	74	49.09	35.15	8.37	33.2	301	56	P	V
		5464.08	61.5	-6.8	68.3	51.17	35.14	8.39	33.2	301	56	P	V
		5459.76	49.58	-4.42	54	39.26	35.15	8.37	33.2	301	56	A	V
	*	5496	104.03	-	-	93.7	35.12	8.41	33.2	301	56	P	V
		5496	97.04	-	-	86.71	35.12	8.41	33.2	301	56	A	V
		5743.32	52.62	-15.68	68.3	42.29	34.91	8.59	33.17	301	56	P	V
802.11n HT40 CH 134 5670MHz		5355.92	52.7	-21.3	74	42.47	35.23	8.22	33.22	317	55	P	H
		5462	52.63	-15.67	68.3	42.31	35.15	8.37	33.2	317	55	P	H
		5350	43.72	-10.28	54	33.49	35.23	8.22	33.22	317	55	A	H
	*	5672	97.26	-	-	86.89	34.97	8.57	33.17	317	55	P	H
		5672	89	-	-	78.63	34.97	8.57	33.17	317	55	A	H
		5738.76	52.6	-15.7	68.3	42.27	34.91	8.59	33.17	317	55	P	H
		5350.64	54.25	-19.75	74	44.02	35.23	8.22	33.22	302	50	P	V
		5461.68	52.58	-15.72	68.3	42.26	35.15	8.37	33.2	302	50	P	V
		5350	45.48	-8.52	54	35.25	35.23	8.22	33.22	302	50	A	V
	*	5658	102.22	-	-	91.84	34.98	8.57	33.17	302	50	P	V
		5658	94.37	-	-	83.99	34.98	8.57	33.17	302	50	A	V
		5725.16	53.19	-15.11	68.3	42.86	34.92	8.58	33.17	302	50	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 (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		11020	56.45	-17.55	74	69.88	38.94	13.32	65.69	100	360	P	H
HT40		11020	52.1	-1.9	54	65.53	38.94	13.32	65.69	297	0	A	H
CH 102		11020	56.92	-17.08	74	70.35	38.94	13.32	65.69	100	360	P	V
5510MHz		11020	52.32	-1.68	54	65.75	38.94	13.32	65.69	300	78	A	V
802.11n		11100	54.12	-19.88	74	67.5	39	13.25	65.63	100	360	P	H
HT40		11100	52.14	-1.86	54	65.52	39	13.25	65.63	250	0	A	H
CH 110		11100	56.17	-17.83	74	69.55	39	13.25	65.63	100	360	P	V
5550MHz		11100	52.8	-1.2	54	66.18	39	13.25	65.63	273	325	A	V
802.11n		11340	61.55	-12.45	74	74.79	39.18	13.04	65.46	338	223	P	H
HT40		11340	50.63	-3.37	54	63.87	39.18	13.04	65.46	338	223	A	H
CH 134		11340	65.21	-8.79	74	78.45	39.18	13.04	65.46	256	323	P	V
5670MHz		11340	52.68	-1.32	54	65.92	39.18	13.04	65.46	256	323	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 (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)
		5453.68	58.6	-15.4	74	48.28	35.15	8.37	33.2	306	91	P	H
		5462.8	58.97	-9.33	68.3	48.64	35.14	8.39	33.2	306	91	P	H
		5460	47.42	-6.58	54	37.1	35.15	8.37	33.2	306	91	A	H
	*	5496	94.01	-	-	83.68	35.12	8.41	33.2	306	91	P	H
802.11ac		5496	86.39	-	-	76.06	35.12	8.41	33.2	306	91	A	H
VHT80		5727.72	52.31	-15.99	68.3	41.98	34.92	8.58	33.17	306	91	P	H
CH 106		5458	64.78	-9.22	74	54.46	35.15	8.37	33.2	298	54	P	V
5530MHz		5465.84	64.38	-3.92	68.3	54.05	35.14	8.39	33.2	298	54	P	V
		5458.64	52.08	-1.92	54	41.76	35.15	8.37	33.2	298	54	A	V
	*	5504	100.44	-	-	90.1	35.11	8.43	33.2	298	54	P	V
		5504	91.99	-	-	81.65	35.11	8.43	33.2	298	54	A	V
		5738.04	52.85	-15.45	68.3	42.52	34.91	8.59	33.17	298	54	P	V
		5457.2	54.82	-19.18	74	44.5	35.15	8.37	33.2	300	56	P	H
		5463.28	53.74	-14.56	68.3	43.41	35.14	8.39	33.2	300	56	P	H
		5456.56	43.88	-10.12	54	33.56	35.15	8.37	33.2	300	56	A	H
	*	5592	94.52	-	-	84.13	35.04	8.53	33.18	300	56	P	H
802.11ac		5592	86.7	-	-	76.31	35.04	8.53	33.18	300	56	A	H
VHT80		5727.64	54.92	-13.38	68.3	44.59	34.92	8.58	33.17	300	56	P	H
CH 122		5450.96	57.72	-16.28	74	47.4	35.15	8.37	33.2	298	52	P	V
5610MHz		5468.88	58.41	-9.89	68.3	48.08	35.14	8.39	33.2	298	52	P	V
		5459.92	46.1	-7.9	54	35.78	35.15	8.37	33.2	298	52	A	V
	*	5578	100.52	-	-	90.14	35.05	8.51	33.18	298	52	P	V
		5578	93.13	-	-	82.75	35.05	8.51	33.18	298	52	A	V
		5734.44	58.96	-9.34	68.3	48.63	34.92	8.58	33.17	298	52	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 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11060	61.8	-12.2	74	75.2	38.98	13.28	65.66	257	3	P	H
VHT80		11060	52.47	-1.53	54	65.87	38.98	13.28	65.66	257	3	A	H
CH 106		11060	64.74	-9.26	74	78.14	38.98	13.28	65.66	270	321	P	V
5530MHz		11060	52.89	-1.11	54	66.29	38.98	13.28	65.66	270	321	A	V
802.11ac		11220	63.09	-10.91	74	76.4	39.09	13.15	65.55	262	360	P	H
VHT80		11220	50.69	-3.31	54	64	39.09	13.15	65.55	262	360	A	H
CH 122		11220	65.43	-8.57	74	78.74	39.09	13.15	65.55	347	332	P	V
5610MHz		11220	52.64	-1.36	54	65.95	39.09	13.15	65.55	347	332	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 144 5720MHz	*	5716	100.08	-	-	89.73	34.94	8.58	33.17	387	65	P	H
		5716	91.14	-	-	80.79	34.94	8.58	33.17	387	65	A	H
	*	5722	102.61	-	-	92.28	34.92	8.58	33.17	295	35	P	V
		5722	93.81	-	-	83.48	34.92	8.58	33.17	295	35	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11a (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 144 5720MHz		11440	62.95	-11.05	74	76.13	39.25	12.96	65.39	344	225	P	H
		11440	50.41	-3.59	54	63.59	39.25	12.96	65.39	344	225	A	H
		11445	65.6	-8.4	74	78.78	39.25	12.96	65.39	256	325	P	V
		11445	52.89	-1.11	54	66.07	39.25	12.96	65.39	256	325	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n 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	*	5718	100.66	-	-	90.33	34.92	8.58	33.17	387	64	P	H
HT20		5718	92.96	-	-	82.63	34.92	8.58	33.17	387	64	A	H
CH 144	*	5722	102.94	-	-	92.61	34.92	8.58	33.17	299	39	P	V
5720MHz		5722	94.12	-	-	83.79	34.92	8.58	33.17	299	39	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		11440	61	-13	74	74.18	39.25	12.96	65.39	343	222	P	H
HT20		11440	50.41	-3.59	54	63.59	39.25	12.96	65.39	343	222	A	H
CH 144		11440	63.24	-10.76	74	76.42	39.25	12.96	65.39	258	324	P	V
5720MHz		11440	52.71	-1.29	54	65.89	39.25	12.96	65.39	258	324	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n 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	*	5702	98.95	-	-	88.6	34.94	8.58	33.17	386	66	P	H
HT40		5702	90.41	-	-	80.06	34.94	8.58	33.17	386	66	A	H
CH 142	*	5702	102.2	-	-	91.85	34.94	8.58	33.17	300	37	P	V
5710MHz		5702	93.45	-	-	83.1	34.94	8.58	33.17	300	37	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		11420	62.93	-11.07	74	76.12	39.24	12.97	65.4	354	222	P	H
HT40		11420	50.55	-3.45	54	63.74	39.24	12.97	65.4	354	222	A	H
CH 142		11420	65.26	-8.74	74	78.45	39.24	12.97	65.4	268	324	P	V
5710MHz		11420	52.79	-1.21	54	65.98	39.24	12.97	65.4	268	324	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ac VHT80 (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	*	5664	97.73	-	-	87.35	34.98	8.57	33.17	396	69	P	H
VHT80		5664	88.86	-	-	78.48	34.98	8.57	33.17	396	69	A	H
CH 138	*	5658	101.41	-	-	91.03	34.98	8.57	33.17	100	193	P	V
5690MHz		5658	93.09	-	-	82.71	34.98	8.57	33.17	100	193	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11380	61.63	-12.37	74	74.84	39.21	13.00	65.42	336	221	P	H
VHT80		11380	50.76	-3.24	54	63.97	39.21	13.00	65.42	336	221	A	H
CH 138		11380	64.52	-9.48	74	77.73	39.21	13.00	65.42	262	328	P	V
5690MHz		11380	52.71	-1.29	54	65.92	39.21	13.00	65.42	262	328	A	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		30	22.89	-17.11	40	29.69	24.5	0.61	31.91	-	-	P	H
		108.57	27.71	-15.79	43.5	40.91	17.47	1.07	31.74	-	-	P	H
		143.49	28.38	-15.12	43.5	41.88	16.93	1.22	31.65	-	-	P	H
		264.74	31.22	-14.78	46	41.44	19.16	1.76	31.14	-	-	P	H
		710.94	35.26	-10.74	46	36.41	24.73	2.67	28.55	-	-	P	H
		773.02	35.61	-10.39	46	35.5	25.47	2.8	28.16	100	134	P	H
		30	22.61	-17.39	40	29.41	24.5	0.61	31.91	-	-	P	V
		171.62	21.77	-21.73	43.5	36.52	15.46	1.33	31.54	-	-	P	V
		262.8	27.42	-18.58	46	37.6	19.21	1.76	31.15	-	-	P	V
		359.8	24.92	-21.08	46	33.09	20.57	1.92	30.66	-	-	P	V
		710.94	33.42	-12.58	46	34.57	24.73	2.67	28.55	100	49	P	V
		773.02	32.11	-13.89	46	32	25.47	2.8	28.16	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Band 2 - 5250~5350MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 64 5320MHz	*	5324	114.44	-	-	104.24	35.26	8.17	33.23	297	45	P	H
		5324	107.41	-	-	97.21	35.26	8.17	33.23	297	45	A	H
		5350.2	61.41	-12.59	74	51.18	35.23	8.22	33.22	297	45	P	H
		5350	51.96	-2.04	54	41.73	35.23	8.22	33.22	297	45	A	H
	*	5322	108.34	-	-	98.14	35.26	8.17	33.23	315	8	P	V
		5322	101.25	-	-	91.05	35.26	8.17	33.23	315	8	A	V
		5351.2	56.78	-17.22	74	46.55	35.23	8.22	33.22	315	8	P	V
		5352	46.76	-7.24	54	36.53	35.23	8.22	33.22	315	8	A	V

Band 2 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1+2	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	66.82	-1.48	68.3	82	38.58	12.28	66.04	282	237	P	H
		15780	50.46	-23.54	74	61.45	40.68	14.24	65.91	241	134	P	H
		15780	47.82	-6.18	54	58.81	40.68	14.24	65.91	241	134	A	H
		10520	64.84	-3.46	68.3	80.02	38.58	12.28	66.04	339	216	P	V
		15780	52.18	-21.82	74	63.17	40.68	14.24	65.91	100	194	P	V
		15780	45.83	-8.17	54	56.82	40.68	14.24	65.91	100	194	A	V
802.11a CH 60 5300MHz		10600	63.86	-4.44	68.3	78.73	38.64	12.47	65.98	273	236	P	H
		10600	52.48	-1.52	54	67.35	38.64	12.47	65.98	273	236	A	H
		15900	46.44	-27.56	74	57.79	40.58	14.33	66.26	100	0	P	H
		10600	63.23	-5.07	68.3	78.1	38.64	12.47	65.98	319	216	P	V
		10600	52.72	-1.28	54	67.59	38.64	12.47	65.98	319	216	A	V
		15900	48.22	-25.78	74	59.57	40.58	14.33	66.26	100	0	P	V
802.11a CH 64 5320MHz		10640	62.89	-11.11	74	77.63	38.67	12.55	65.96	262	240	P	H
		10640	52.57	-1.43	54	67.31	38.67	12.55	65.96	262	240	A	H
		15960	44.14	-29.86	74	55.69	40.53	14.38	66.46	100	0	P	H
		10640	63.34	-10.66	74	78.08	38.67	12.55	65.96	323	221	P	V
		10640	52.86	-1.14	54	67.6	38.67	12.55	65.96	323	221	A	V
		15960	45.54	-28.46	74	57.09	40.53	14.38	66.46	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	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)
	*	5328	113.76	-	-	103.54	35.24	8.2	33.22	278	45	P	H
		5328	106.4	-	-	96.18	35.24	8.2	33.22	278	45	A	H
802.11n		5350.1	60.91	-13.09	74	50.68	35.23	8.22	33.22	278	45	P	H
HT20		5350.1	50.56	-3.44	54	40.33	35.23	8.22	33.22	278	45	A	H
CH 64	*	5326	109.85	-	-	99.65	35.26	8.17	33.23	262	55	P	V
5320MHz		5326	102.02	-	-	91.82	35.26	8.17	33.23	262	55	A	V
		5350	58.71	-15.29	74	48.48	35.23	8.22	33.22	262	55	P	V
		5350	47.9	-6.1	54	37.67	35.23	8.22	33.22	262	55	A	V

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	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)
		10520	65.96	-2.34	68.3	81.14	38.58	12.28	66.04	278	240	P	H
802.11n		15780	60.29	-13.71	74	71.28	40.68	14.24	65.91	274	110	P	H
HT20		15780	49.29	-4.71	54	60.28	40.68	14.24	65.91	274	110	A	H
CH 52		10520	62.82	-5.48	68.3	78	38.58	12.28	66.04	344	217	P	V
5260MHz		15780	58.95	-15.05	74	69.94	40.68	14.24	65.91	100	196	P	V
		15780	48.64	-5.36	54	59.63	40.68	14.24	65.91	100	196	A	V
		10600	63.44	-10.56	74	78.31	38.64	12.47	65.98	265	237	P	H
		10600	52.41	-1.59	54	67.28	38.64	12.47	65.98	265	237	A	H
802.11n		15900	59.88	-14.12	74	71.23	40.58	14.33	66.26	240	132	P	H
HT20		15900	48.21	-5.79	54	59.56	40.58	14.33	66.26	240	132	A	H
CH 60		10600	60.33	-13.67	74	75.2	38.64	12.47	65.98	335	221	P	V
5300MHz		10600	51.82	-2.18	54	66.69	38.64	12.47	65.98	335	221	A	V
		15900	55.22	-18.78	74	66.57	40.58	14.33	66.26	297	203	P	V
		15900	44.16	-9.84	54	55.51	40.58	14.33	66.26	297	203	A	V
802.11n		10640	62.76	-11.24	74	77.5	38.67	12.55	65.96	103	286	P	H
HT20		10640	51.75	-2.25	54	66.49	38.67	12.55	65.96	103	286	A	H
CH 64		10645	62.91	-11.09	74	77.65	38.67	12.55	65.96	137	286	P	V
5320MHz		10645	51.67	-2.33	54	66.41	38.67	12.55	65.96	137	286	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 (Band Edge @ 3m)

WIFI Ant. 1+2	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		5141.76	55.46	-18.54	74	45.33	35.39	7.99	33.25	305	45	P	H
		5149.12	45.43	-8.57	54	35.3	35.39	7.99	33.25	305	45	A	H
	*	5276	113.75	-	-	103.58	35.28	8.12	33.23	305	45	P	H
		5276	106.16	-	-	95.99	35.28	8.12	33.23	305	45	A	H
		5354.7	62.71	-11.29	74	52.48	35.23	8.22	33.22	305	45	P	H
		5350.5	52.33	-1.67	54	42.1	35.23	8.22	33.22	305	45	A	H
		5126.4	54.91	-19.09	74	44.77	35.41	7.99	33.26	301	66	P	V
		5149.76	44.15	-9.85	54	34.02	35.39	7.99	33.25	301	66	A	V
	*	5274	110.56	-	-	100.4	35.3	8.09	33.23	301	66	P	V
		5274	102.1	-	-	91.94	35.3	8.09	33.23	301	66	A	V
		5350.3	58.54	-15.46	74	48.31	35.23	8.22	33.22	301	66	P	V
		5350.1	49.03	-4.97	54	38.8	35.23	8.22	33.22	301	66	A	V
802.11n HT40 CH 62 5310MHz		5140.16	55.35	-18.65	74	45.22	35.39	7.99	33.25	276	47	P	H
		5133.76	44.29	-9.71	54	34.15	35.41	7.99	33.26	276	47	A	H
	*	5308	109.16	-	-	98.97	35.27	8.15	33.23	276	47	P	H
		5308	101.39	-	-	91.2	35.27	8.15	33.23	276	47	A	H
		5350.5	62.89	-11.11	74	52.66	35.23	8.22	33.22	276	47	P	H
		5350.1	52.56	-1.44	54	42.33	35.23	8.22	33.22	276	47	A	H
		5133.76	53.84	-20.16	74	43.7	35.41	7.99	33.26	281	57	P	V
		5133.44	43.7	-10.3	54	33.56	35.41	7.99	33.26	281	57	A	V
	*	5308	106.11	-	-	95.92	35.27	8.15	33.23	281	57	P	V
		5308	98.19	-	-	88	35.27	8.15	33.23	281	57	A	V
		5350	59.49	-14.51	74	49.26	35.23	8.22	33.22	281	57	P	V
		5350.2	49.21	-4.79	54	38.98	35.23	8.22	33.22	281	57	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+2	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		10540	64.62	-3.68	68.3	79.73	38.6	12.32	66.03	292	312	P	H
HT40		15810	50.08	-23.92	74	61.18	40.65	14.26	66.01	100	0	P	H
CH 54		10545	61.75	-6.55	68.3	76.86	38.6	12.32	66.03	100	318	P	V
5270MHz		15810	47.4	-26.6	74	58.5	40.65	14.26	66.01	100	0	P	V
802.11n		10620	57.32	-16.68	74	72.12	38.66	12.51	65.97	100	289	P	H
HT40		10620	47.83	-6.17	54	62.63	38.66	12.51	65.97	100	289	A	H
CH 62		10620	55.94	-18.06	74	70.74	38.66	12.51	65.97	100	313	P	V
5310MHz		10620	46.84	-7.16	54	61.64	38.66	12.51	65.97	100	313	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 (Band Edge @ 3m)

WIFI Ant. 1+2	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		5142.24	54.47	-19.53	74	44.34	35.39	7.99	33.25	299	46	P	H
		5130.24	45.04	-8.96	54	34.9	35.41	7.99	33.26	299	46	A	H
	*	5288	104.4	-	-	94.23	35.28	8.12	33.23	299	46	P	H
		5288	97.91	-	-	87.74	35.28	8.12	33.23	299	46	A	H
		5351.1	60.88	-13.12	74	50.65	35.23	8.22	33.22	299	46	P	H
		5350.7	51.36	-2.64	54	41.13	35.23	8.22	33.22	299	46	A	H
		5140.8	54.38	-19.62	74	44.25	35.39	7.99	33.25	284	57	P	V
		5129.12	44.05	-9.95	54	33.91	35.41	7.99	33.26	284	57	A	V
	*	5290	100.88	-	-	90.71	35.28	8.12	33.23	284	57	P	V
		5290	95.36	-	-	85.19	35.28	8.12	33.23	284	57	A	V
		5350.9	56.46	-17.54	74	46.23	35.23	8.22	33.22	284	57	P	V
		5350.6	47.9	-6.1	54	37.67	35.23	8.22	33.22	284	57	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+2	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		10580	49.22	-19.08	68.3	64.16	38.63	12.43	66	100	360	P	H
VHT80 CH 58 5290MHz		10585	49.07	-19.23	68.3	64.01	38.63	12.43	66	100	360	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+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 100 5500MHz		5452.72	58.4	-15.6	74	48.08	35.15	8.37	33.2	306	62	P	H
		5462.64	57.54	-10.76	68.3	47.21	35.14	8.39	33.2	306	62	P	H
		5458	49.59	-4.41	54	39.27	35.15	8.37	33.2	306	62	A	H
	*	5504	110.4	-	-	100.06	35.11	8.43	33.2	306	62	P	H
		5504	102.83	-	-	92.49	35.11	8.43	33.2	306	62	A	H
		5454.96	53.36	-20.64	74	43.04	35.15	8.37	33.2	315	8	P	V
		5465.52	53.76	-14.54	68.3	43.43	35.14	8.39	33.2	315	8	P	V
		5455.12	45.06	-8.94	54	34.74	35.15	8.37	33.2	315	8	A	V
	*	5496	105.51	-	-	95.18	35.12	8.41	33.2	315	8	P	V
		5496	97.84	-	-	87.51	35.12	8.41	33.2	315	8	A	V
802.11a CH 140 5700MHz	*	5700	107.49	-	-	97.14	34.95	8.57	33.17	299	58	P	H
		5700	100.11	-	-	89.76	34.95	8.57	33.17	299	58	A	H
		5733.88	55.96	-12.34	68.3	45.63	34.92	8.58	33.17	299	58	P	H
	*	5704	104.43	-	-	94.08	34.94	8.58	33.17	323	8	P	V
		5704	96.37	-	-	86.02	34.94	8.58	33.17	323	8	A	V
		5744.44	52.95	-15.35	68.3	42.62	34.91	8.59	33.17	323	8	P	V

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1+2	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	65.07	-8.93	74	78.5	38.93	13.34	65.7	272	243	P	H
		11000	52.62	-1.38	54	66.05	38.93	13.34	65.7	272	243	A	H
		11000	64.14	-9.86	74	77.57	38.93	13.34	65.7	100	360	P	V
		11000	52.89	-1.11	54	66.32	38.93	13.34	65.7	330	225	A	V
802.11a CH 116 5580MHz		11160	64.11	-9.89	74	77.45	39.05	13.19	65.58	264	243	P	H
		11160	52.87	-1.13	54	66.21	39.05	13.19	65.58	264	243	A	H
		11160	64.34	-9.66	74	77.68	39.05	13.19	65.58	288	222	P	V
		11160	52.62	-1.38	54	65.96	39.05	13.19	65.58	288	222	A	V
802.11a CH 140 5700MHz		11400	63.36	-10.64	74	76.55	39.23	12.99	65.41	227	247	P	H
		11400	52.92	-1.08	54	66.11	39.23	12.99	65.41	227	247	A	H
		11400	61.24	-12.76	74	74.43	39.23	12.99	65.41	311	228	P	V
		11400	50.29	-3.71	54	63.48	39.23	12.99	65.41	311	228	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	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)
		5454.48	57.46	-16.54	74	47.14	35.15	8.37	33.2	308	60	P	H
		5462.64	57.31	-10.99	68.3	46.98	35.14	8.39	33.2	308	60	P	H
		5453.04	48.42	-5.58	54	38.1	35.15	8.37	33.2	308	60	A	H
802.11n	*	5494	110.81	-	-	100.48	35.12	8.41	33.2	308	60	P	H
HT20		5494	102.93	-	-	92.6	35.12	8.41	33.2	308	60	A	H
CH 100		5455.44	55.7	-18.3	74	45.38	35.15	8.37	33.2	396	0	P	V
5500MHz		5466.96	55.67	-12.63	68.3	45.34	35.14	8.39	33.2	396	0	P	V
		5452.56	46.71	-7.29	54	36.39	35.15	8.37	33.2	396	0	A	V
	*	5508	107.49	-	-	97.15	35.11	8.43	33.2	396	0	P	V
		5508	99.61	-	-	89.27	35.11	8.43	33.2	396	0	A	V
	*	5706	110.42	-	-	100.07	34.94	8.58	33.17	298	59	P	H
802.11n		5706	100.81	-	-	90.46	34.94	8.58	33.17	298	59	A	H
HT20		5725.48	57.21	-11.09	68.3	46.88	34.92	8.58	33.17	298	59	P	H
CH 140	*	5700	106.95	-	-	96.6	34.95	8.57	33.17	342	6	P	V
5700MHz		5700	97.55	-	-	87.2	34.95	8.57	33.17	342	6	A	V
		5734.04	53.94	-14.36	68.3	43.61	34.92	8.58	33.17	342	6	P	V

Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	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		11000	65.11	-8.89	74	78.54	38.93	13.34	65.7	272	241	P	H
HT20		11000	52.6	-1.4	54	66.03	38.93	13.34	65.7	272	241	A	H
CH 100		11000	65.56	-8.44	74	78.99	38.93	13.34	65.7	312	220	P	V
5500MHz		11000	52.02	-1.98	54	65.45	38.93	13.34	65.7	312	220	A	V
802.11n		11160	65.66	-8.34	74	79	39.05	13.19	65.58	271	246	P	H
HT20		11160	52.89	-1.11	54	66.23	39.05	13.19	65.58	271	246	A	H
CH 116		11160	62.07	-11.93	74	75.41	39.05	13.19	65.58	300	221	P	V
5580MHz		11160	51.15	-2.85	54	64.49	39.05	13.19	65.58	300	222	A	V
802.11n		11400	64.97	-9.03	74	78.16	39.23	12.99	65.41	280	110	P	H
HT20		11400	52.64	-1.36	54	65.83	39.23	12.99	65.41	280	110	A	H
CH 140		11400	61.1	-12.9	74	74.29	39.23	12.99	65.41	305	224	P	V
5700MHz		11400	50.84	-3.16	54	64.03	39.23	12.99	65.41	305	224	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2	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)
		5457.52	61.62	-12.38	74	51.3	35.15	8.37	33.2	304	62	P	H
		5461.52	61.77	-6.53	68.3	51.45	35.15	8.37	33.2	304	62	P	H
		5458.16	51.47	-2.53	54	41.15	35.15	8.37	33.2	304	62	A	H
	*	5516	109.87	-	-	99.52	35.09	8.45	33.19	304	62	P	H
802.11n		5516	102.44	-	-	92.09	35.09	8.45	33.19	304	62	A	H
HT40		5735.64	53.45	-14.85	68.3	43.12	34.91	8.59	33.17	304	62	P	H
CH 102		5459.12	59.46	-14.54	74	49.14	35.15	8.37	33.2	395	0	P	V
5510MHz		5470	60.2	-8.1	68.3	49.87	35.14	8.39	33.2	395	0	P	V
		5458.32	48.89	-5.11	54	38.57	35.15	8.37	33.2	395	0	A	V
	*	5518	106.92	-	-	96.57	35.09	8.45	33.19	395	0	P	V
		5518	99.81	-	-	89.46	35.09	8.45	33.19	395	0	A	V
		5757.24	53.17	-15.13	68.3	42.86	34.89	8.59	33.17	395	0	P	V
		5351.12	54.39	-19.61	74	44.16	35.23	8.22	33.22	306	60	P	H
		5463.12	52.84	-15.46	68.3	42.51	35.14	8.39	33.2	306	60	P	H
		5440.08	44.32	-9.68	54	34.03	35.16	8.34	33.21	306	60	A	H
	*	5656	109.42	-	-	99.04	34.98	8.57	33.17	306	60	P	H
802.11n		5656	98.72	-	-	88.34	34.98	8.57	33.17	306	60	A	H
HT40		5737.48	58.32	-9.98	68.3	47.99	34.91	8.59	33.17	306	60	P	H
CH 134		5350.16	54.18	-19.82	74	43.95	35.23	8.22	33.22	366	0	P	V
5670MHz		5463.92	53.08	-15.22	68.3	42.75	35.14	8.39	33.2	366	0	P	V
		5350.16	44.11	-9.89	54	33.88	35.23	8.22	33.22	366	0	A	V
	*	5664	106.27	-	-	95.89	34.98	8.57	33.17	366	0	P	V
		5664	98.11	-	-	87.73	34.98	8.57	33.17	366	0	A	V
		5726.52	58.36	-9.94	68.3	48.03	34.92	8.58	33.17	366	0	P	V

Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1+2	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		11020	57.22	-16.78	74	70.65	38.94	13.32	65.69	300	124	P	H
HT40		11020	51.74	-2.26	54	65.17	38.94	13.32	65.69	300	124	A	H
CH 102		11020	58.43	-15.57	74	71.86	38.94	13.32	65.69	100	360	P	V
5510MHz		11020	52.23	-1.77	54	65.66	38.94	13.32	65.69	300	224	A	V
802.11n		11100	57.01	-16.99	74	70.39	39	13.25	65.63	100	360	P	H
HT40		11100	52.61	-1.39	54	65.99	39	13.25	65.63	321	244	A	H
CH 110		11100	57.74	-16.26	74	71.12	39	13.25	65.63	100	360	P	V
5550MHz		11100	51.34	-2.66	54	64.72	39	13.25	65.63	300	214	A	V
802.11n		11340	53.9	-20.1	74	67.14	39.18	13.04	65.46	300	111	P	H
HT40		11340	51.83	-2.17	54	65.07	39.18	13.04	65.46	300	111	A	H
CH 134		11340	54.19	-19.81	74	67.43	39.18	13.04	65.46	300	244	P	V
5670MHz		11340	52.27	-1.73	54	65.51	39.18	13.04	65.46	300	244	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 (Band Edge @ 3m)

WIFI Ant. 1+2	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)
		5458.32	62.41	-11.59	74	52.09	35.15	8.37	33.2	303	60	P	H
		5460.08	61.95	-6.35	68.3	51.63	35.15	8.37	33.2	303	60	P	H
		5457.68	52.34	-1.66	54	42.02	35.15	8.37	33.2	303	60	A	H
	*	5538	103.26	-	-	92.9	35.08	8.47	33.19	303	60	P	H
802.11ac		5538	96.13	-	-	85.77	35.08	8.47	33.19	303	60	A	H
VHT80		5730.84	53.46	-14.84	68.3	43.13	34.92	8.58	33.17	303	60	P	H
CH 106		5447.76	59.29	-14.71	74	48.97	35.15	8.37	33.2	396	0	P	V
5530MHz		5465.04	60.46	-7.84	68.3	50.13	35.14	8.39	33.2	396	0	P	V
		5445.84	47.86	-6.14	54	37.54	35.15	8.37	33.2	396	0	A	V
	*	5506	100.42	-	-	90.08	35.11	8.43	33.2	396	0	P	V
		5506	93	-	-	82.66	35.11	8.43	33.2	396	0	A	V
		5725.1	53.66	-14.64	68.3	43.33	34.92	8.58	33.17	396	0	P	V
		5450.64	59.64	-14.36	74	49.32	35.15	8.37	33.2	292	60	P	H
		5467.92	64.3	-4	68.3	53.97	35.14	8.39	33.2	292	60	P	H
		5450.16	48.79	-5.21	54	38.47	35.15	8.37	33.2	292	60	A	H
	*	5606	106.54	-	-	96.14	35.03	8.55	33.18	292	60	P	H
802.11ac		5606	99.05	-	-	88.65	35.03	8.55	33.18	292	60	A	H
VHT80		5726.04	66.49	-1.81	68.3	56.16	34.92	8.58	33.17	292	60	P	H
CH 122		5459.28	57.45	-16.55	74	47.13	35.15	8.37	33.2	396	0	P	V
5610MHz		5461.04	56.54	-11.76	68.3	46.22	35.15	8.37	33.2	396	0	P	V
		5459.6	47.1	-6.9	54	36.78	35.15	8.37	33.2	396	0	A	V
	*	5614	103.69	-	-	93.29	35.03	8.55	33.18	396	0	P	V
		5614	96.19	-	-	85.79	35.03	8.55	33.18	396	0	A	V
		5734.12	63.74	-4.56	68.3	53.41	34.92	8.58	33.17	396	0	P	V

Remark

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

Band 3 5470~5725MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1+2	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		11055	58.48	-15.52	74	71.89	38.97	13.29	65.67	292	305	P	H
VHT80		11055	48.09	-5.91	54	61.5	38.97	13.29	65.67	292	305	A	H
CH 106		11060	60.59	-13.41	74	73.99	38.98	13.28	65.66	164	355	P	V
5530MHz		11060	47.86	-6.14	54	61.26	38.98	13.28	65.66	164	355	A	V
802.11ac		11220	63.68	-10.32	74	76.99	39.09	13.15	65.55	300	307	P	H
VHT80		11220	52.96	-1.04	54	66.27	39.09	13.15	65.55	300	307	A	H
CH 122		11220	65.67	-8.33	74	78.98	39.09	13.15	65.55	163	348	P	V
5610MHz		11220	52.82	-1.18	54	66.13	39.09	13.15	65.55	163	348	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11a (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+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 144 5720MHz	*	5716	108.6	-	-	98.25	34.94	8.58	33.17	301	58	P	H
		5716	101.09	-	-	90.74	34.94	8.58	33.17	301	58	A	H
	*	5718	104.57	-	-	94.24	34.92	8.58	33.17	397	5	P	V
		5718	96.97	-	-	86.64	34.92	8.58	33.17	397	5	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11a (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 144 5720MHz		11440	54.76	-19.24	74	67.94	39.25	12.96	65.39	300	214	P	H
		11440	52.47	-1.53	54	65.65	39.25	12.96	65.39	300	214	A	H
		11440	55.17	-18.83	74	68.35	39.25	12.96	65.39	100	360	P	V
		11440	52.03	-1.97	54	65.21	39.25	12.96	65.39	100	360	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	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	*	5726	109.39	-	-	99.06	34.92	8.58	33.17	301	58	P	H
HT20		5726	101.47	-	-	91.14	34.92	8.58	33.17	301	58	A	H
CH 144	*	5714	107.97	-	-	97.62	34.94	8.58	33.17	396	3	P	V
5720MHz		5714	99.06	-	-	88.71	34.94	8.58	33.17	396	3	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	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		11445	57.91	-16.09	74	71.09	39.25	12.96	65.39	100	360	P	H
HT20		11445	51.09	-2.91	54	64.27	39.25	12.96	65.39	100	360	A	H
CH 144		11440	56.7	-17.3	74	69.88	39.25	12.96	65.39	100	360	P	V
5720MHz		11440	52.52	-1.48	54	65.7	39.25	12.96	65.39	300	224	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2	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	*	5708	110.89	-	-	100.54	34.94	8.58	33.17	301	58	P	H
HT40		5708	102.64	-	-	92.29	34.94	8.58	33.17	301	58	A	H
CH 142	*	5718	106.31	-	-	95.98	34.92	8.58	33.17	396	360	P	V
5710MHz		5718	98.18	-	-	87.85	34.92	8.58	33.17	396	360	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		11420	55	-19	74	68.19	39.24	12.97	65.4	100	360	P	H
HT40		11420	51.02	-2.98	54	64.21	39.24	12.97	65.4	100	360	A	H
CH 142		11420	56.05	-17.95	74	69.24	39.24	12.97	65.4	100	360	P	V
5710MHz		11420	52.45	-1.55	54	65.64	39.24	12.97	65.4	300	219	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2	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	*	5708	109.76	-	-	99.41	34.94	8.58	33.17	300	60	P	H
VHT80		5708	101.62	-	-	91.27	34.94	8.58	33.17	300	60	A	H
CH 138	*	5676	105.82	-	-	95.45	34.97	8.57	33.17	396	360	P	V
5690MHz		5676	98.33	-	-	87.96	34.97	8.57	33.17	396	360	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11380	56.07	-17.93	74	69.28	39.21	13	65.42	100	360	P	H
VHT80		11380	50.49	-3.51	54	63.7	39.21	13	65.42	100	360	A	H
CH 138		11380	59.67	-14.33	74	72.88	39.21	13	65.42	100	360	P	V
5690MHz		11380	52.46	-1.54	54	65.67	39.21	13	65.42	100	360	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average 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+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT80 LF		30	22.23	-17.77	40	29.03	24.5	0.61	31.91	-	-	P	H
		171.62	23	-20.5	43.5	37.75	15.46	1.33	31.54	-	-	P	H
		263.77	31.58	-14.42	46	41.78	19.19	1.76	31.15	-	-	P	H
		726.46	34.26	-11.74	46	35.11	24.91	2.69	28.45	-	-	P	H
		773.02	35.57	-10.43	46	35.46	25.47	2.8	28.16	100	54	P	H
		805.03	31.25	-14.75	46	30.49	25.83	2.88	27.95	-	-	P	H
		30.97	22.13	-17.87	40	29.49	23.93	0.61	31.9	-	-	P	V
		171.62	22.45	-21.05	43.5	37.2	15.46	1.33	31.54	-	-	P	V
		258.92	27.05	-18.95	46	37.27	19.2	1.75	31.17	-	-	P	V
		365.62	24.98	-21.02	46	32.94	20.72	1.94	30.62	-	-	P	V
		710.94	33.02	-12.98	46	34.17	24.73	2.67	28.55	100	210	P	V
		773.02	32.11	-13.89	46	32	25.47	2.8	28.16	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

For Beamforming Modes

Band 2 - 5250~5350MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 64 5320MHz	*	5322	109.37	-	-	99.17	35.26	8.17	33.23	300	55	P	H
		5322	101.58	-	-	91.38	35.26	8.17	33.23	300	55	A	H
		5362.8	56.3	-17.7	74	46.05	35.22	8.25	33.22	300	55	P	H
		5350.9	47.32	-6.68	54	37.09	35.23	8.22	33.22	300	55	A	H
	*	5314	110.34	-	-	100.14	35.26	8.17	33.23	100	250	P	V
		5314	102.89	-	-	92.69	35.26	8.17	33.23	100	250	A	V
		5358.2	59.63	-14.37	74	49.4	35.23	8.22	33.22	100	250	P	V
		5353.5	47.53	-6.47	54	37.3	35.23	8.22	33.22	100	250	A	V

Band 2 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1+2	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		10515	65.41	-2.89	68.3	80.59	38.58	12.28	66.04	255	359	P	H
		10515	66.24	-2.06	68.3	81.42	38.58	12.28	66.04	194	113	P	V
802.11a CH 60 5300MHz		10600.1	63.87	-10.13	74	78.74	38.64	12.47	65.98	279	357	P	H
		10600.1	51.72	-2.28	54	66.59	38.64	12.47	65.98	279	357	A	H
		10600.1	64.71	-9.29	74	79.58	38.64	12.47	65.98	202	114	P	V
		10600.1	52.92	-1.08	54	67.79	38.64	12.47	65.98	202	114	A	V
802.11a CH 64 5320MHz		10640	63.71	-10.29	74	78.45	38.67	12.55	65.96	272	356	P	H
		10640	50.54	-3.46	54	65.28	38.67	12.55	65.96	272	357	A	H
		10640	64.21	-9.79	74	78.95	38.67	12.55	65.96	199	115	P	V
		10640	52.21	-1.79	54	66.95	38.67	12.55	65.96	199	115	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 (Band Edge @ 3m)

WIFI Ant. 1+2	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)
	*	5326	108.88	-	-	98.68	35.26	8.17	33.23	300	63	P	H
		5326	101.7	-	-	91.5	35.26	8.17	33.23	300	63	A	H
802.11n		5356	54.37	-19.63	74	44.14	35.23	8.22	33.22	300	63	P	H
HT20		5359.9	45.9	-8.1	54	35.67	35.23	8.22	33.22	300	63	A	H
CH 64	*	5326	110.36	-	-	100.16	35.26	8.17	33.23	397	211	P	V
5320MHz		5326	102.13	-	-	91.93	35.26	8.17	33.23	397	211	A	V
		5354.8	56.24	-17.76	74	46.01	35.23	8.22	33.22	397	211	P	V
		5354.4	47.31	-6.69	54	37.08	35.23	8.22	33.22	397	211	A	V

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	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		10520	61.84	-6.46	68.3	77.02	38.58	12.28	66.04	192	308	P	H
HT20 CH 52 5260MHz		10510	65.29	-3.01	68.3	80.54	38.57	12.24	66.06	158	14	P	V
802.11n		10600	60.49	-13.51	74	75.36	38.64	12.47	65.98	162	8	P	H
HT20		10600	51.29	-2.71	54	66.16	38.64	12.47	65.98	162	8	A	H
CH 60		10600	62.78	-11.22	74	77.65	38.64	12.47	65.98	162	10	P	V
5300MHz		10600	51.31	-2.69	54	66.18	38.64	12.47	65.98	162	10	A	V
802.11n		10640	54.91	-19.09	74	69.65	38.67	12.55	65.96	100	360	P	H
HT20		10640	52.01	-1.99	54	66.75	38.67	12.55	65.96	100	360	A	H
CH 64		10640	59.52	-14.48	74	74.26	38.67	12.55	65.96	100	360	P	V
5320MHz		10640	52.1	-1.9	54	66.84	38.67	12.55	65.96	100	360	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 (Band Edge @ 3m)

WIFI Ant. 1+2	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 62 5310MHz		5123.04	53.92	-20.08	74	43.78	35.41	7.99	33.26	300	67	P	H
		5136.32	44.07	-9.93	54	33.93	35.41	7.99	33.26	300	67	A	H
	*	5318	106.08	-	-	95.88	35.26	8.17	33.23	300	67	P	H
		5318	98.69	-	-	88.49	35.26	8.17	33.23	300	67	A	H
		5353.5	60.53	-13.47	74	50.3	35.23	8.22	33.22	300	67	P	H
		5352	50.69	-3.31	54	40.46	35.23	8.22	33.22	300	67	A	H
		5124.96	54.67	-19.33	74	44.53	35.41	7.99	33.26	100	217	P	V
		5148.48	44.57	-9.43	54	34.44	35.39	7.99	33.25	100	217	A	V
	*	5296	108.9	-	-	98.71	35.27	8.15	33.23	100	217	P	V
		5296	100.18	-	-	89.99	35.27	8.15	33.23	100	217	A	V
		5350.6	59.52	-14.48	74	49.29	35.23	8.22	33.22	100	217	P	V
		5350.1	52.89	-1.11	54	42.66	35.23	8.22	33.22	100	217	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+2	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		10540	52.39	-15.91	68.3	67.5	38.6	12.32	66.03	100	360	P	H
		10540	60.1	-8.2	68.3	75.21	38.6	12.32	66.03	300	360	P	V
802.11n HT40 CH 62 5310MHz		10625	59.41	-14.59	74	74.21	38.66	12.51	65.97	246	360	P	H
		10625	45.41	-8.59	54	60.21	38.66	12.51	65.97	246	360	A	H
		10620	61.78	-12.22	74	76.58	38.66	12.51	65.97	204	118	P	V
		10620	49.41	-4.59	54	64.21	38.66	12.51	65.97	204	118	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 (Band Edge @ 3m)

WIFI Ant. 1+2	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		5116.32	56.18	-17.82	74	46.03	35.42	7.99	33.26	335	71	P	H
		5124.8	45.14	-8.86	54	35	35.41	7.99	33.26	335	71	A	H
	*	5310	101.44	-	-	91.24	35.26	8.17	33.23	335	71	P	H
		5310	99.35	-	-	89.15	35.26	8.17	33.23	335	71	A	H
		5353.4	60.64	-13.36	74	50.41	35.23	8.22	33.22	335	71	P	H
		5350.1	51.45	-2.55	54	41.22	35.23	8.22	33.22	335	71	A	H
		5143.04	61.87	-12.13	74	51.74	35.39	7.99	33.25	286	54	P	V
		5146.24	46.13	-7.87	54	36	35.39	7.99	33.25	286	54	A	V
	*	5322	105.79	-	-	95.59	35.26	8.17	33.23	286	54	P	V
		5322	101.81	-	-	91.61	35.26	8.17	33.23	286	54	A	V
		5392.8	61.74	-12.26	74	51.47	35.2	8.28	33.21	286	54	P	V
		5352.9	52.33	-1.67	54	42.1	35.23	8.22	33.22	286	54	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+2	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		10580	47.38	-20.92	68.3	62.32	38.63	12.43	66	100	360	P	H
VHT80 CH 58 5290MHz		10580	57.09	-11.21	68.3	72.03	38.63	12.43	66	300	142	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+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 100 5500MHz		5350.16	59.89	-14.11	74	49.66	35.23	8.22	33.22	285	73	P	H
		5468.72	52.86	-15.44	68.3	42.53	35.14	8.39	33.2	285	73	P	H
		5457.52	45.25	-8.75	54	34.93	35.15	8.37	33.2	285	73	A	H
	*	5502	104.13	-	-	93.79	35.11	8.43	33.2	285	73	P	H
		5502	97.74	-	-	87.4	35.11	8.43	33.2	285	73	A	H
		5452.88	54.78	-19.22	74	44.46	35.15	8.37	33.2	100	12	P	V
		5462.8	53.92	-14.38	68.3	43.59	35.14	8.39	33.2	100	12	P	V
		5457.84	47.27	-6.73	54	36.95	35.15	8.37	33.2	100	12	A	V
	*	5492	105.5	-	-	95.17	35.12	8.41	33.2	100	12	P	V
		5492	98.99	-	-	88.66	35.12	8.41	33.2	100	12	A	V
802.11a CH 140 5700MHz	*	5702	101.61	-	-	91.26	34.94	8.58	33.17	298	68	P	H
		5702	93.49	-	-	83.14	34.94	8.58	33.17	298	68	A	H
		5759.32	53.29	-15.01	68.3	42.98	34.89	8.59	33.17	298	68	P	H
	*	5698	105.07	-	-	94.72	34.95	8.57	33.17	100	62	P	V
		5698	97.17	-	-	86.82	34.95	8.57	33.17	100	62	A	V
		5741.16	55.18	-13.12	68.3	44.85	34.91	8.59	33.17	100	62	P	V

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1+2	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		11005	62.98	-11.02	74	76.41	38.94	13.32	65.69	262	358	P	H
		11005	50.96	-3.04	54	64.39	38.94	13.32	65.69	262	358	A	H
		10995	64.04	-9.96	74	77.47	38.93	13.34	65.7	199	120	P	V
		10995	52.15	-1.85	54	65.58	38.93	13.34	65.7	199	120	A	V
802.11a CH 116 5580MHz		11165	64.07	-9.93	74	77.41	39.05	13.19	65.58	266	352	P	H
		11165	52.11	-1.89	54	65.45	39.05	13.19	65.58	266	352	A	H
		11165	64.41	-9.59	74	77.75	39.05	13.19	65.58	197	119	P	V
		11165	52.96	-1.04	54	66.3	39.05	13.19	65.58	197	119	A	V
802.11a CH 140 5700MHz		11400	60.25	-13.75	74	73.44	39.23	12.99	65.41	329	237	P	H
		11400	48.92	-5.08	54	62.11	39.23	12.99	65.41	329	237	A	H
		11405	66.65	-7.35	74	79.84	39.23	12.99	65.41	100	0	P	V
		11405	52.22	-1.78	54	65.41	39.23	12.99	65.41	314	7	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	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)
		5453.04	53.36	-20.64	74	43.04	35.15	8.37	33.2	298	74	P	H
		5465.36	52.3	-16	68.3	41.97	35.14	8.39	33.2	298	74	P	H
		5452.4	45.22	-8.78	54	34.9	35.15	8.37	33.2	298	74	A	H
802.11n	*	5506	102.36	-	-	92.02	35.11	8.43	33.2	298	74	P	H
HT20		5506	95.39	-	-	85.05	35.11	8.43	33.2	298	74	A	H
CH 100		5452.08	54.1	-19.9	74	43.78	35.15	8.37	33.2	397	211	P	V
5500MHz		5461.2	54.35	-13.95	68.3	44.03	35.15	8.37	33.2	397	211	P	V
		5459.44	45.38	-8.62	54	35.06	35.15	8.37	33.2	397	211	A	V
	*	5504	106.28	-	-	95.94	35.11	8.43	33.2	397	211	P	V
		5504	99.49	-	-	89.15	35.11	8.43	33.2	397	211	A	V
	*	5698	102.67	-	-	92.32	34.95	8.57	33.17	298	74	P	H
802.11n		5698	94.22	-	-	83.87	34.95	8.57	33.17	298	74	A	H
HT20		5739.64	53.08	-15.22	68.3	42.75	34.91	8.59	33.17	298	74	P	H
CH 140	*	5702	105.95	-	-	95.6	34.94	8.58	33.17	257	53	P	V
5700MHz		5702	98.13	-	-	87.78	34.94	8.58	33.17	257	53	A	V
		5740.04	54.23	-14.07	68.3	43.9	34.91	8.59	33.17	257	53	P	V

Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	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		11000	54.44	-19.56	74	67.87	38.93	13.34	65.7	100	360	P	H
HT20		11000	47.57	-6.43	54	61	38.93	13.34	65.7	100	360	A	H
CH 100		11005	58.36	-15.64	74	71.79	38.94	13.32	65.69	100	360	P	V
5500MHz		11005	52.63	-1.37	54	66.06	38.94	13.32	65.69	205	127	A	V
802.11n		11160	53.81	-20.19	74	67.15	39.05	13.19	65.58	100	360	P	H
HT20		11160	46.88	-7.12	54	60.22	39.05	13.19	65.58	100	360	A	H
CH 116		11165	56.48	-17.52	74	69.82	39.05	13.19	65.58	100	360	P	V
5580MHz		11165	52.3	-1.7	54	65.64	39.05	13.19	65.58	199	165	A	V
802.11n		11400	53.26	-20.74	74	66.45	39.23	12.99	65.41	100	360	P	H
HT20		11400	46.01	-7.99	54	59.2	39.23	12.99	65.41	100	360	A	H
CH 140		11400	56.8	-17.2	74	69.99	39.23	12.99	65.41	200	124	P	V
5700MHz		11400	52.04	-1.96	54	65.23	39.23	12.99	65.41	200	124	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2	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)
		5356.56	59.89	-14.11	74	49.66	35.23	8.22	33.22	397	79	P	H
		5461.68	53.48	-14.82	68.3	43.16	35.15	8.37	33.2	397	79	P	H
		5459.76	45.46	-8.54	54	35.14	35.15	8.37	33.2	397	79	A	H
	*	5498	103.17	-	-	92.83	35.11	8.43	33.2	397	79	P	H
802.11n		5498	97.11	-	-	86.77	35.11	8.43	33.2	397	79	A	H
HT40		5751.32	52.67	-15.63	68.3	42.34	34.91	8.59	33.17	397	79	P	H
CH 102		5440.72	54.08	-19.92	74	43.79	35.16	8.34	33.21	301	194	P	V
5510MHz		5469.2	58.22	-10.08	68.3	47.89	35.14	8.39	33.2	301	194	P	V
		5429.84	44.7	-9.3	54	34.41	35.16	8.34	33.21	301	194	A	V
	*	5508	105.06	-	-	94.72	35.11	8.43	33.2	301	194	P	V
		5508	95.08	-	-	84.74	35.11	8.43	33.2	301	194	A	V
		5765	52.99	-15.31	68.3	42.68	34.89	8.59	33.17	301	194	P	V
		5422.64	53.25	-20.75	74	42.96	35.18	8.32	33.21	305	68	P	H
		5462.8	51.7	-16.6	68.3	41.37	35.14	8.39	33.2	305	68	P	H
		5352.56	43.41	-10.59	54	33.18	35.23	8.22	33.22	305	68	A	H
	*	5674	101.15	-	-	90.78	34.97	8.57	33.17	305	68	P	H
802.11n		5674	92.13	-	-	81.76	34.97	8.57	33.17	305	68	A	H
HT40		5751.48	52.67	-15.63	68.3	42.34	34.91	8.59	33.17	305	68	P	H
CH 134		5368.56	56.76	-17.24	74	46.51	35.22	8.25	33.22	316	210	P	V
5670MHz		5464.56	52.37	-15.93	68.3	42.04	35.14	8.39	33.2	316	210	P	V
		5350	45.9	-8.1	54	35.67	35.23	8.22	33.22	316	210	A	V
	*	5664	103.61	-	-	93.23	34.98	8.57	33.17	316	210	P	V
		5664	97.04	-	-	86.66	34.98	8.57	33.17	316	210	A	V
		5727.16	55.08	-13.22	68.3	44.75	34.92	8.58	33.17	316	210	P	V

Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1+2	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		11025	61.47	-12.53	74	74.89	38.95	13.31	65.68	262	360	P	H
HT40		11025	51.1	-2.9	54	64.52	38.95	13.31	65.68	262	360	A	H
CH 102		11020	63.07	-10.93	74	76.5	38.94	13.32	65.69	206	118	P	V
5510MHz		11020	52.32	-1.68	54	65.75	38.94	13.32	65.69	206	118	A	V
802.11n		11105	60.16	-13.84	74	73.54	39	13.25	65.63	253	355	P	H
HT40		11105	51.17	-2.83	54	64.55	39	13.25	65.63	253	355	A	H
CH 110		11100	59.47	-14.53	74	72.85	39	13.25	65.63	197	118	P	V
5550MHz		11100	52.37	-1.63	54	65.75	39	13.25	65.63	197	118	A	V
802.11n		11335	57.54	-16.46	74	70.78	39.18	13.04	65.46	310	219	P	H
HT40		11335	50.76	-3.24	54	64	39.18	13.04	65.46	310	219	A	H
CH 134		11335	65.21	-8.79	74	78.45	39.18	13.04	65.46	201	120	P	V
5670MHz		11335	52.75	-1.25	54	65.99	39.18	13.04	65.46	201	120	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 (Band Edge @ 3m)

WIFI Ant. 1+2	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)
		5459.92	64.54	-9.46	74	54.22	35.15	8.37	33.2	396	73	P	H
		5462.32	64.48	-3.82	68.3	54.16	35.15	8.37	33.2	396	73	P	H
		5457.36	49.05	-4.95	54	38.73	35.15	8.37	33.2	396	73	A	H
	*	5514	102.06	-	-	91.71	35.09	8.45	33.19	396	73	P	H
802.11ac		5514	97.94	-	-	87.59	35.09	8.45	33.19	396	73	A	H
VHT80		5743.88	52.64	-15.66	68.3	42.31	34.91	8.59	33.17	396	73	P	H
CH 106		5441.52	64.82	-9.18	74	54.53	35.16	8.34	33.21	272	44	P	V
5530MHz		5469.36	60	-8.3	68.3	49.67	35.14	8.39	33.2	272	44	P	V
		5457.04	51.96	-2.04	54	41.64	35.15	8.37	33.2	272	44	A	V
	*	5516	104.82	-	-	94.47	35.09	8.45	33.19	272	44	P	V
		5516	101.42	-	-	91.07	35.09	8.45	33.19	272	44	A	V
		5741.08	52.87	-15.43	68.3	42.54	34.91	8.59	33.17	272	44	P	V
		5433.52	54.41	-19.59	74	44.12	35.16	8.34	33.21	396	73	P	H
		5460.4	53.29	-15.01	68.3	42.97	35.15	8.37	33.2	396	73	P	H
		5452.56	44.72	-9.28	54	34.4	35.15	8.37	33.2	396	73	A	H
	*	5580	102.28	-	-	91.9	35.05	8.51	33.18	396	73	P	H
802.11ac		5580	95.04	-	-	84.66	35.05	8.51	33.18	396	73	A	H
VHT80		5748.44	53.11	-15.19	68.3	42.78	34.91	8.59	33.17	396	73	P	H
CH 122		5385.68	54.71	-19.29	74	44.44	35.2	8.28	33.21	248	59	P	V
5610MHz		5466.8	54.07	-14.23	68.3	43.74	35.14	8.39	33.2	248	59	P	V
		5459.6	46.39	-7.61	54	36.07	35.15	8.37	33.2	248	59	A	V
	*	5612	102.87	-	-	92.47	35.03	8.55	33.18	248	59	P	V
		5612	98.34	-	-	87.94	35.03	8.55	33.18	248	59	A	V
		5756.92	54.89	-13.41	68.3	44.58	34.89	8.59	33.17	248	59	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 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11060	49.13	-24.87	74	62.53	38.98	13.28	65.66	100	360	P	H
VHT80		11060	59.19	-14.81	74	72.59	38.98	13.28	65.66	299	117	P	V
CH 106 5530MHz		11060	52.91	-1.09	54	66.31	38.98	13.28	65.66	299	117	A	V
802.11ac		11220	47.81	-26.19	74	61.12	39.09	13.15	65.55	100	360	P	H
VHT80		11220	54.54	-19.46	74	67.85	39.09	13.15	65.55	300	95	P	V
CH 122 5610MHz		11220	52.23	-1.77	54	65.54	39.09	13.15	65.55	300	95	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n		5722	105.29	-	-	92.97	34.77	8.61	31.06	276	291	P	H
HT20		5722	97.61	-	-	85.29	34.77	8.61	31.06	276	291	A	H
CH 144		5718	107.79	-	-	95.47	34.77	8.61	31.06	290	212	P	V
5720MHz		5718	100.02	-	-	87.7	34.77	8.61	31.06	290	212	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n		11440	61.39	-12.61	74	76.05	38.03	12.71	65.4	246	172	P	H
HT20		11440	50.93	-3.07	54	65.59	38.03	12.71	65.4	246	172	A	H
CH 144		11440	63.19	-10.81	74	77.85	38.03	12.71	65.4	256	187	P	V
5720MHz		11440	52.23	-1.77	54	66.89	38.03	12.71	65.4	256	187	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2	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		5718	103.28	-	-	90.96	34.77	8.61	31.06	300	186	P	H
HT40		5718	96.16	-	-	83.84	34.77	8.61	31.06	300	186	A	H
CH 142		5714	106.42	-	-	94.14	34.73	8.61	31.06	246	236	P	V
5710MHz		5714	99.54	-	-	87.26	34.73	8.61	31.06	246	236	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		11440	53.34	-20.66	74	68	38.03	12.71	65.4	100	360	P	H
HT40		11440	51.18	-2.82	54	65.84	38.03	12.71	65.4	302	43	A	H
CH 142		11440	58.35	-15.65	74	73.01	38.03	12.71	65.4	300	0	P	V
5710MHz		11440	52.68	-1.32	54	67.34	38.03	12.71	65.4	307	190	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2	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		5688	98.76	-	-	88.41	34.95	8.57	33.17	304	89	P	H
VHT80		5688	91.11	-	-	80.76	34.95	8.57	33.17	304	89	A	H
CH 138		5686	101.95	-	-	91.6	34.95	8.57	33.17	300	210	P	V
5690MHz		5686	95.42	-	-	85.07	34.95	8.57	33.17	300	210	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11380	47.1	-26.9	74	60.31	39.21	13	65.42	100	360	P	H
VHT80		11380	55.13	-18.87	74	68.34	39.21	13	65.42	300	0	P	V
CH 138 5690MHz		11380	52.17	-1.83	54	65.38	39.21	13	65.42	300	10	A	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+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		30	22.21	-17.79	40	29.01	24.5	0.61	31.91	-	-	P	H
		171.62	21.54	-21.96	43.5	36.29	15.46	1.33	31.54	-	-	P	H
		264.74	30.2	-15.8	46	40.42	19.16	1.76	31.14	-	-	P	H
		710.94	35.08	-10.92	46	36.23	24.73	2.67	28.55	-	-	P	H
		726.46	34.15	-11.85	46	35	24.91	2.69	28.45	-	-	P	H
802.11a		773.02	36	-10	46	35.89	25.47	2.8	28.16	100	23	P	H
LF		30	22.65	-17.35	40	29.45	24.5	0.61	31.91	-	-	P	V
		171.62	20.82	-22.68	43.5	35.57	15.46	1.33	31.54	-	-	P	V
		219.15	21.96	-24.04	46	36.62	15.11	1.56	31.33	-	-	P	V
		262.8	28.93	-17.07	46	39.11	19.21	1.76	31.15	-	-	P	V
		726.46	32.99	-13.01	46	33.84	24.91	2.69	28.45	100	137	P	V
		773.02	32.29	-13.71	46	32.18	25.47	2.8	28.16	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Note symbol

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

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

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

1. Level(dBμV/m) =

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

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

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 43.54 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

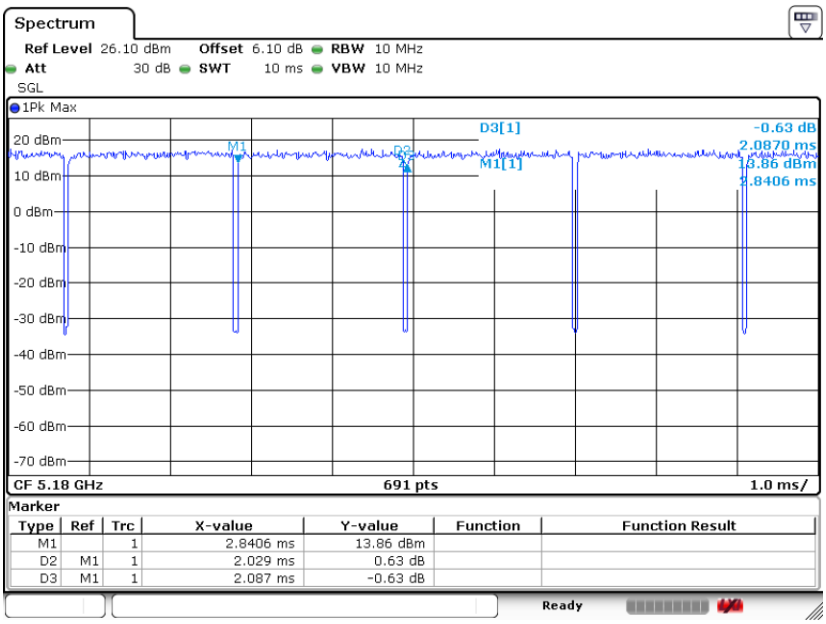
Both peak and average measured complies with the limit line, so test result is "PASS".

Appendix D. Duty Cycle Plots

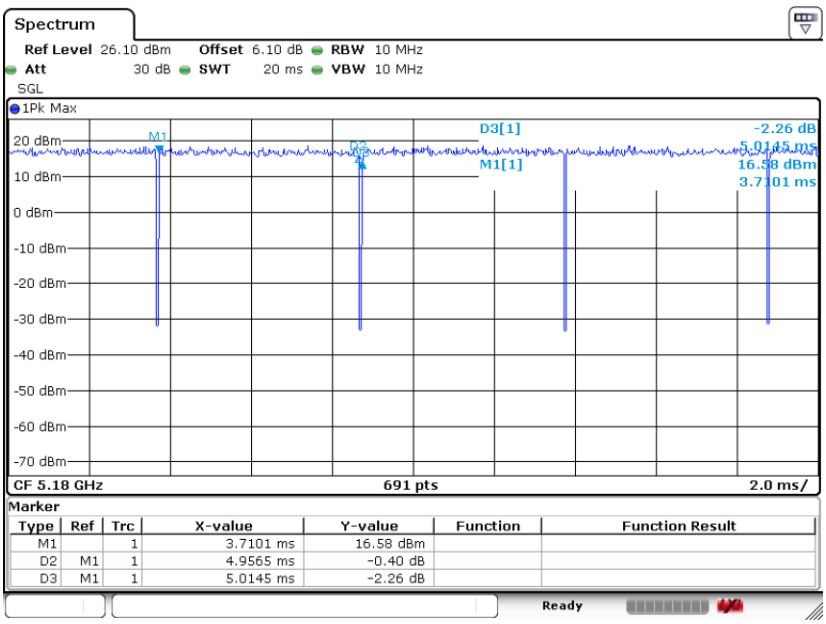
For CDD Modes

Antenna	Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
1	802.11a	97.22	2.029	0.493	0.51KHz
1	802.11n HT20	98.84	-	-	10Hz
1	802.11n HT40	97.66	2.420	0.413	0.43KHz
1	802.11ac VHT80	94.58	1.138	0.879	0.91KHz
1+2	802.11a	97.22	2.029	0.493	0.51KHz
1+2	802.11n HT20	98.85	-	-	10Hz
1+2	802.11n HT40	97.07	2.406	0.416	0.43KHz
1+2	802.11ac VHT80	94.55	1.130	0.885	0.91KHz

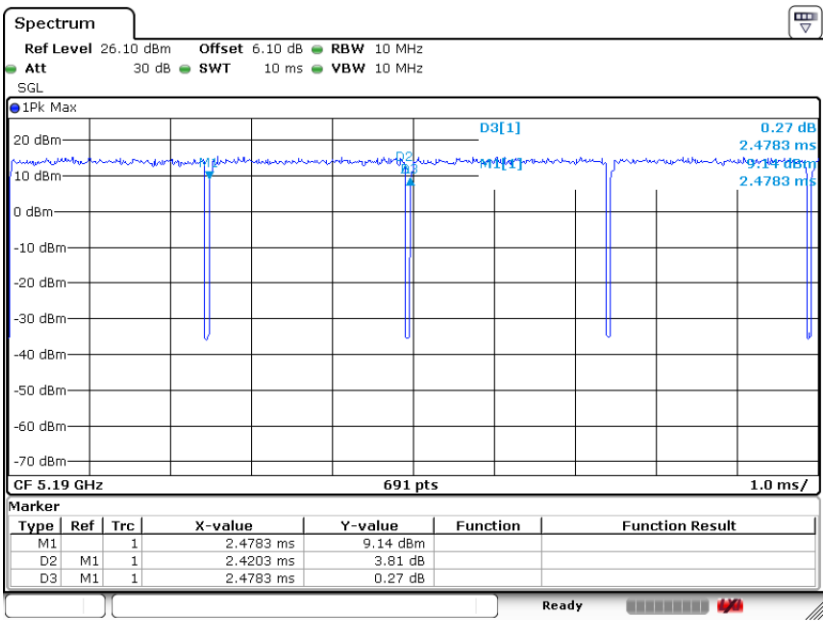
802.11a Antenna 1



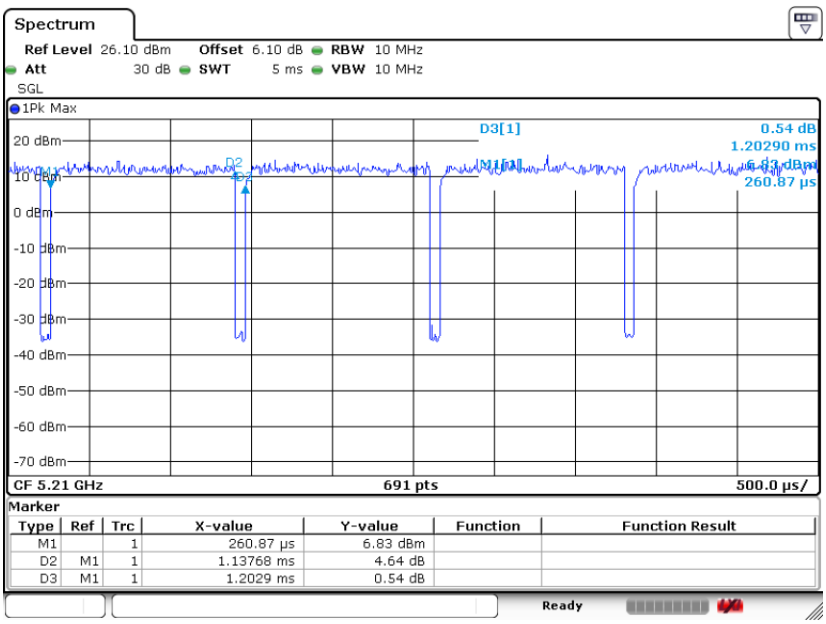
802.11n HT20 Antenna 1



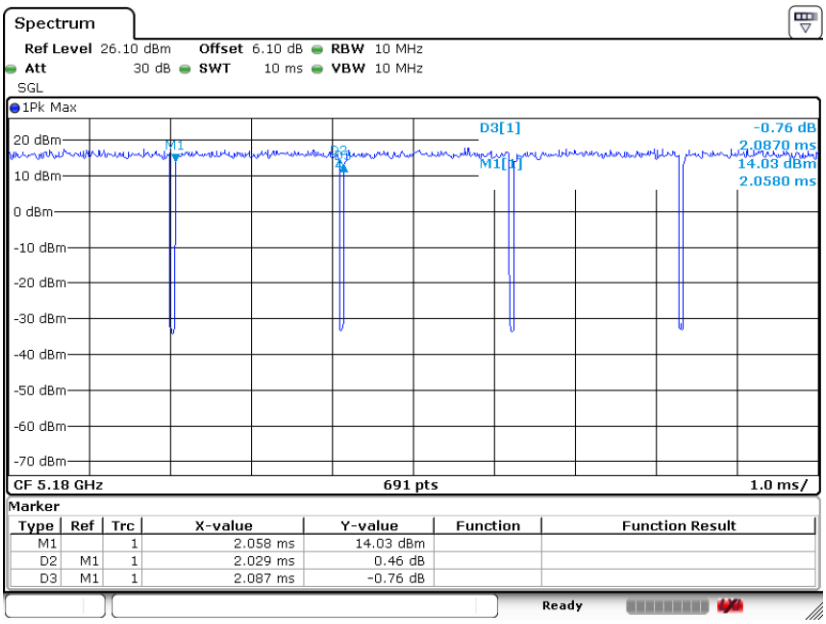
802.11n HT40 Antenna 1



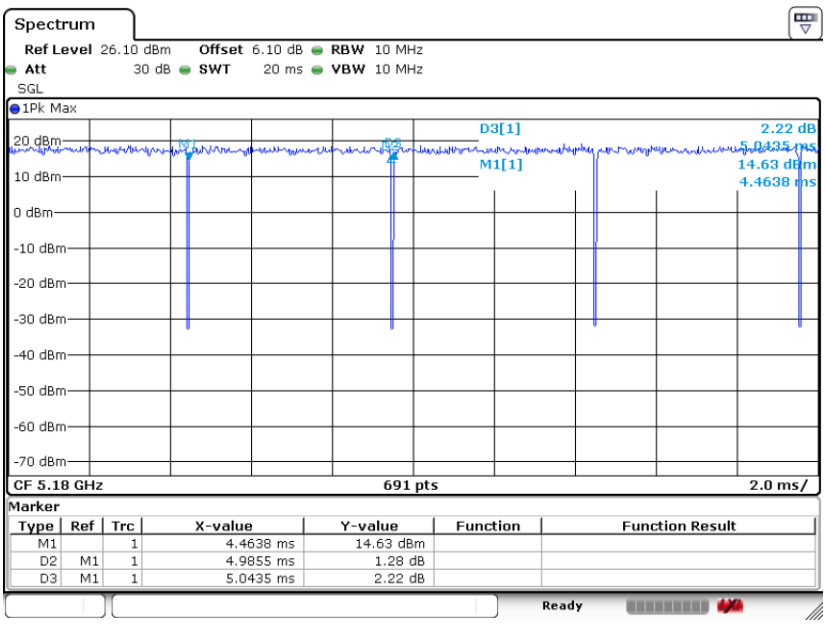
802.11ac VHT80 Antenna 1



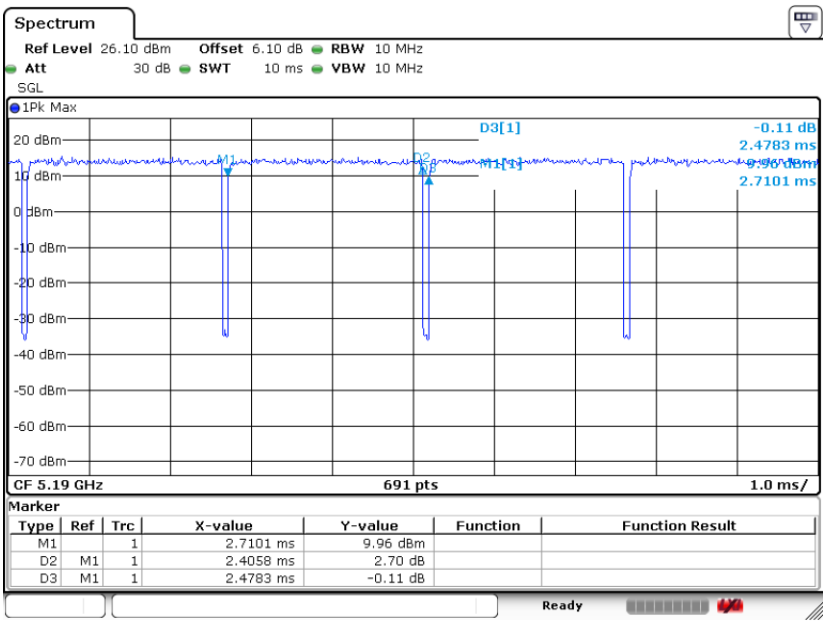
802.11a Antenna 1+2



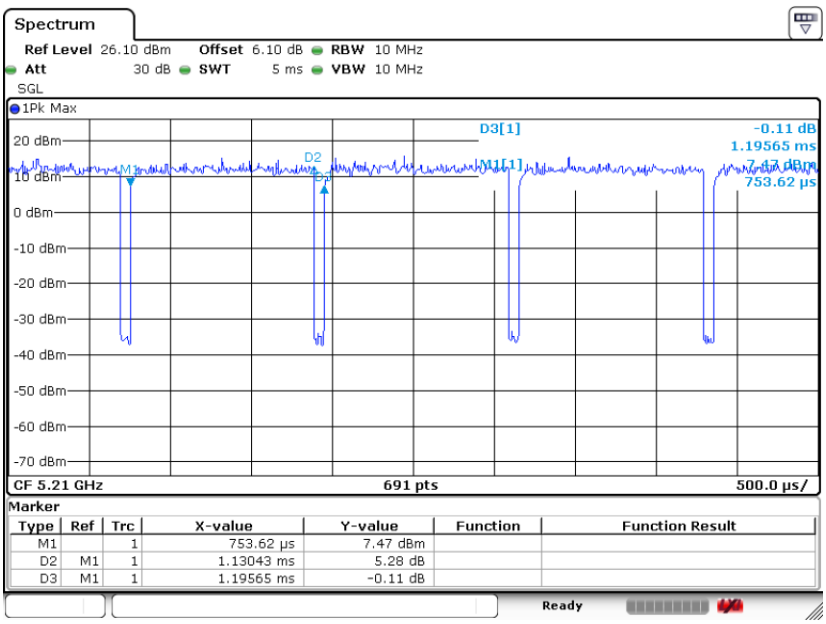
802.11n HT20 Antenna 1+2



802.11n HT40 Antenna 1+2



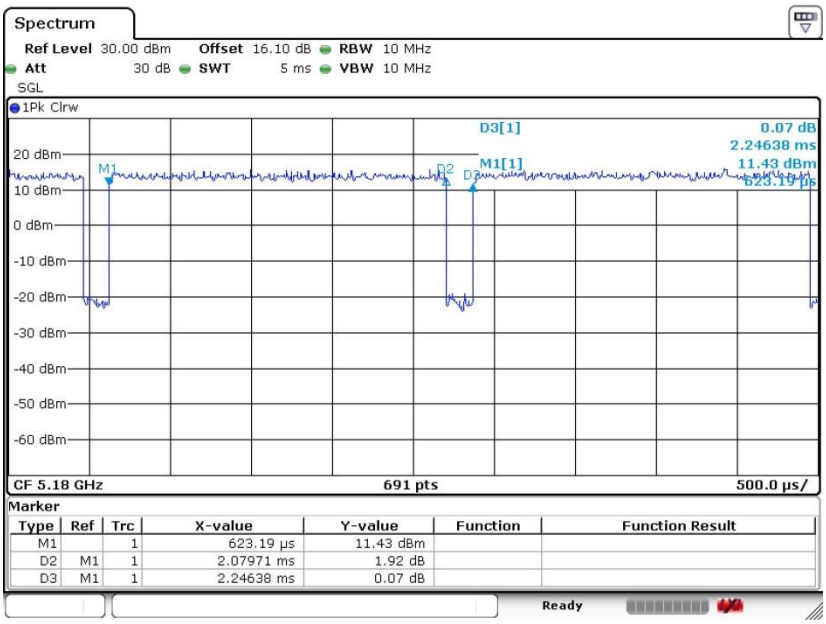
802.11ac VHT80 Antenna 1+2



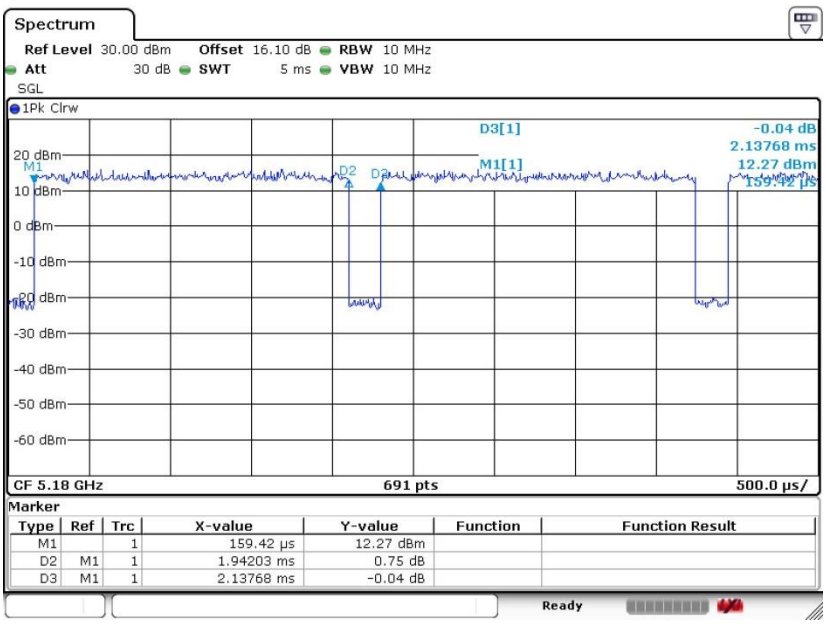
For Beamforming Modes

Antenna	Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
1+2	802.11a	92.581	2.077	0.481	0.51KHz
1+2	802.11n HT20	90.848	1.942	0.515	0.56KHz
1+2	802.11n HT40	90.910	1.884	0.531	0.56KHz
1+2	802.11ac VHT80	92.124	1.949	0.513	0.56KHz

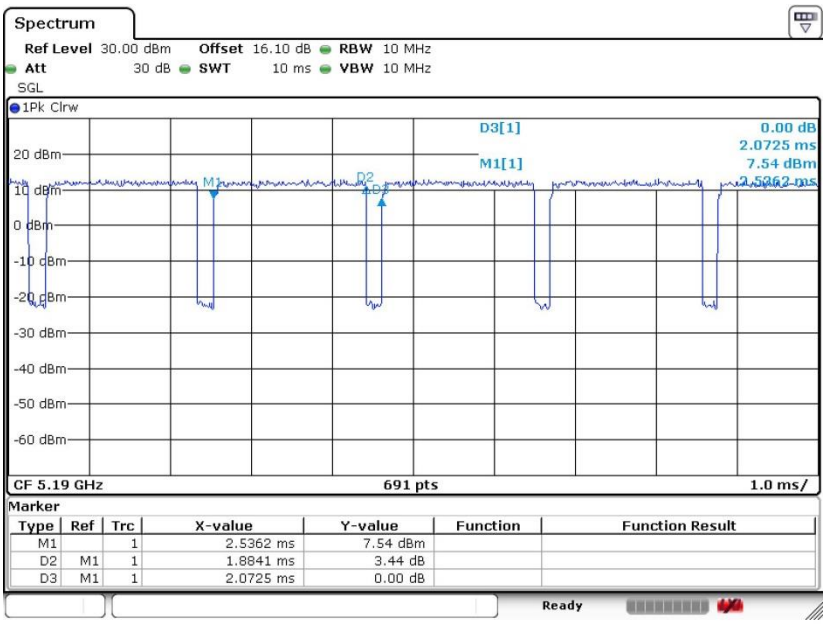
802.11a Antenna 1+2



802.11n HT20 Antenna 1+2



802.11n HT40 Antenna 1+2



802.11ac VHT80 Antenna 1+2