FCC RF Test Report

APPLICANT	**:**	**Quill Royal LLC**
EQUIPMENT	**:**	**HDMI Digital Media Receiver**
MODEL NAME	**:**	**DV83YW**
FCC ID	**:**	**2ADU5-4902**
STANDARD	**:**	**FCC Part 15 Subpart E §15.407**
CLASSIFICATION	**:**	**(NII) Unlicensed National Information Infrastructure**

The testing was completed on Jun. 11, 2015. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

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

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager

Testing Laboratory
1190

SPORTON INTERNATIONAL INC.

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TABLE OF CONTENTS

REVISION HISTORY **3**

SUMMARY OF TEST RESULT **4**

1 GENERAL DESCRIPTION **5**

1.1 Applicant 5
1.2 Feature of Equipment Under Test 5
1.3 Product Specification of Equipment Under Test 6
1.4 Modification of EUT 6
1.5 Testing Location 7
1.6 Applicable Standards 7

2 TEST CONFIGURATION OF EQUIPMENT UNDER TEST **8**

2.1 Carrier Frequency and Channel 8
2.2 Pre-Scanned RF Power 9
2.3 Test Mode 11
2.4 Connection Diagram of Test System 12
2.5 Support Unit used in test configuration and system 13
2.6 EUT Operation Test Setup 13
2.7 Measurement Results Explanation Example 13

3 TEST RESULT **14**

3.1 6dB Bandwidth Measurement 14
3.2 Maximum Conducted Output Power Measurement 16
3.3 Power Spectral Density Measurement 17
3.4 Unwanted Emissions Measurement 20
3.5 AC Conducted Emission Measurement 34
3.6 Frequency Stability Measurement 38
3.7 Automatically Discontinue Transmission 39
3.8 Antenna Requirements 41

4 LIST OF MEASURING EQUIPMENT **43**

5 UNCERTAINTY OF EVALUATION **44**

APPENDIX A. CONDUCTED TEST RESULTS

APPENDIX B. RADIATED TEST RESULTS

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR511534-02E	Rev. 01	Initial issue of report	Jun. 15, 2015
FR511534-02E	Rev. 02	Update report of revising MIMO HT20 CH165 and HT40 CH 159 of conducted power.	Jul. 10, 2015

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	15.403(i)	6dB Bandwidth	> 500kHz	Pass	-
3.2	15.407(a)	Maximum Conducted Output Power	≤ 30 dBm	Pass	-
3.3	15.407(a)	Power Spectral Density	≤ 30 dBm/500kHz	Pass	-
3.4	15.407(b)	Unwanted Emissions	≤ -17, -27 dBm/MHz &15.209(a)	Pass	Under limit 0.50 dB at 5712.600 MHz
3.5	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 12.00 dB at 0.678 MHz
3.6	15.407(g)	Frequency Stability	Within Operation Band	Pass	-
3.7	15.407(c)	Automatically Discontinue Transmission	Discontinue Transmission	Pass	-
3.8	15.203 & 15.407(a)	Antenna Requirement	N/A	Pass	-

1 General Description

1.1 Applicant

Quill Royal LLC
950 Bannock Street, Suite 1100
Boise, Idaho 83702

1.2 Feature of Equipment Under Test

Product Feature	
Equipment	HDMI Digital Media Receiver
Model Name	DV83YW
FCC ID	2ADU5-4902
EUT supports Radios application	WLAN 11a/b/g/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth v4.1 EDR/LE

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

1.3 Product Specification of Equipment Under Test

<table>
<tr><th colspan="2">Product Specification subjective to this standard</th></tr>
<tr><td>Tx/Rx Channel Frequency Range</td><td>5725 MHz ~ 5850 MHz</td></tr>
<tr><td>Maximum Output Power</td><td><Ant. 1>
802.11a : 19.96 dBm / 0.0991 W
SISO <Ant. 1>
802.11n HT20 : 18.71 dBm / 0.0743 W
802.11n HT40 : 18.66 dBm / 0.0735 W
802.11ac VHT20: 18.76 dBm / 0.0752 W
802.11ac VHT40: 18.56 dBm / 0.0718 W
802.11ac VHT80: 11.44 dBm / 0.0139 W
CDD <Ant. Port 1 + 2>
802.11n HT20 : 21.01 dBm / 0.1262 W
802.11n HT40 : 19.73 dBm / 0.0940 W
802.11ac VHT20: 21.29 dBm / 0.1346 W
802.11ac VHT40: 20.33 dBm / 0.1079 W
802.11ac VHT80: 11.87 dBm / 0.0154 W</td></tr>
<tr><td>Type of Modulation</td><td>802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)
802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)</td></tr>
<tr><td>Antenna Type</td><td>Ant. 1 : Fixed Internal Antenna
Ant. 2 : Fixed Internal Antenna</td></tr>
<tr><td>Antenna Gain</td><td>Ant. 1 : 2.80 dBi
Ant. 2 : 4.70 dBi</td></tr>
<tr><td>Antenna Function Description</td><td>
<table>
<tr><td></td><td>Ant. 1</td><td>Ant. 2</td></tr>
<tr><td>802.11 a</td><td>V</td><td>-</td></tr>
<tr><td>802.11 n/ac SISO</td><td>V</td><td>V</td></tr>
<tr><td>802.11 n/ac CDD</td><td>V</td><td>V</td></tr>
</table>
</td></tr>
</table>

1.4 Modification of EUT

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

1.5 Testing Location

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

Test Site	SPORTON INTERNATIONAL INC.		
Test Site Location	No. 52, Hwa Ya 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.**		
	TH02-HY	CO05-HY	03CH07-HY

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

1.6 Applicable Standards

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

- FCC Part 15 Subpart E
- FCC KDB 789033 D02 General UNII Test Procedures New Rules v01
- FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ANSI C63.10-2009

Remark:

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

2 Test Configuration of Equipment Under Test

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

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

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

2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5725-5850 MHz Band IV (U-NII-3)	149	5745	157	5785
	151*	5755	159*	5795
	153	5765	161	5805
	155#	5775	165	5825

Note:

1. The above Frequency and Channel in "*" were 802.11n HT40 and 802.11ac VHT40.
2. The above Frequency and Channel in "#" were 802.11ac VHT80.

2.2 Pre-Scanned RF Power

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

<Ant. 1>

5GHz 802.11a mode								
Data Rate (MHz)	6M bps	9M bps	12M bps	18M bps	24M bps	36M bps	48M bps	54M bps
Average Power (dBm)	19.96	19.95	19.94	19.93	16.44	16.18	16.15	15.98

SISO <Ant. 1>

5GHz 802.11n HT20 mode								
Data Rate (MHz)	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Average Power (dBm)	18.71	18.64	18.61	18.57	16.63	16.61	16.60	16.59

5GHz 802.11n HT40 mode								
Data Rate (MHz)	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Average Power (dBm)	18.66	18.65	18.63	18.62	16.67	16.58	16.56	16.53

5GHz 802.11ac VHT20 mode									
Data Rate (MHz)	MCS 0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8
Average Power (dBm)	18.76	18.69	18.68	18.66	16.92	16.42	16.41	16.39	14.90

5GHz 802.11ac VHT40 mode										
Data Rate (MHz)	MCS 0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8	MCS 9
Average Power (dBm)	18.56	18.55	18.53	18.52	16.67	16.62	16.23	16.18	15.02	14.99

5GHz 802.11ac VHT80 mode										
Data Rate (MHz)	MCS 0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8	MCS 9
Average Power (dBm)	11.44	11.41	11.31	11.06	8.81	8.79	8.65	8.63	6.62	6.34

CDD <Ant. 1+2>

5GHz 802.11n HT20 mode								
Data Rate (MHz)	**MCS 0**	**MCS 1**	**MCS 2**	**MCS 3**	**MCS 4**	**MCS 5**	**MCS 6**	**MCS 7**
Average Power (dBm)	**21.01**	20.98	20.88	20.89	19.28	19.26	19.15	18.93

5GHz 802.11n HT40 mode								
Data Rate (MHz)	**MCS 0**	**MCS 1**	**MCS 2**	**MCS 3**	**MCS 4**	**MCS 5**	**MCS 6**	**MCS 7**
Average Power (dBm)	**19.73**	19.61	19.57	19.46	17.66	17.53	17.42	17.44

5GHz 802.11ac VHT20 mode									
Data Rate (MHz)	**MCS 0**	**MCS 1**	**MCS 2**	**MCS 3**	**MCS 4**	**MCS 5**	**MCS 6**	**MCS 7**	**MCS 8**
Average Power (dBm)	**21.29**	21.28	21.26	21.24	19.72	19.38	19.36	19.34	17.67

5GHz 802.11ac VHT40 mode										
Data Rate (MHz)	**MCS 0**	**MCS 1**	**MCS 2**	**MCS 3**	**MCS 4**	**MCS 5**	**MCS 6**	**MCS 7**	**MCS 8**	**MCS 9**
Average Power (dBm)	**20.33**	20.27	20.23	20.09	18.13	18.01	18.01	17.97	16.61	16.37

5GHz 802.11ac VHT80 mode										
Data Rate (MHz)	**MCS 0**	**MCS 1**	**MCS 2**	**MCS 3**	**MCS 4**	**MCS 5**	**MCS 6**	**MCS 7**	**MCS 8**	**MCS 9**
Average Power (dBm)	**11.87**	11.74	11.66	11.29	8.60	8.54	8.37	8.30	8.14	7.71

Note: CDD Ant. 1+2 is a calculated result from sum of the power CDD Ant. 1 and CDD Ant. 2.

2.3 Test Mode

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

Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0
802.11ac VHT20	MCS0
802.11ac VHT40	MCS0
802.11ac VHT80	MCS0

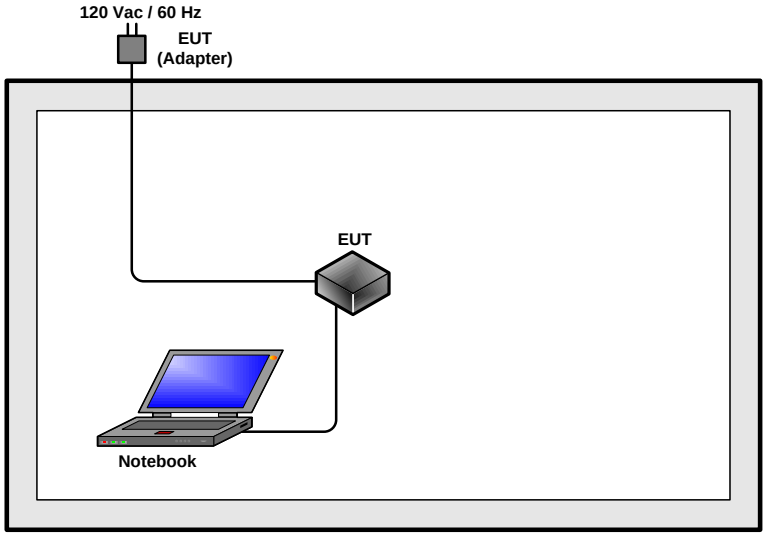
AC Conducted Emission	Mode 1 : WLAN (5GHz) Link + Bluetooth Link + MPEG4 (4k) + HDMI Cable (4k Resolution) + MicroSD Card (No Streaming) + RJ-45 (LAN) Load + USB flash drive (Streaming) + Adapter

Ch. #		Band IV：5725-5850 MHz		
		802.11a	802.11n HT20	802.11n HT40
L	Low	149	149	151
M	Middle	157	157	-
H	High	165	165	159

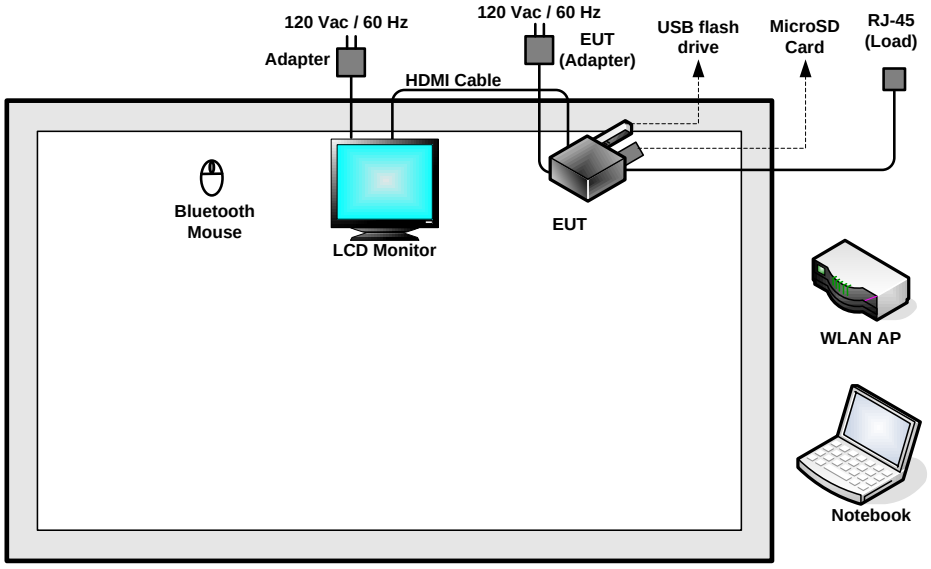
Ch. #		Band IV：5725-5850 MHz		
		802.11ac VHT20	802.11ac VHT40	802.11ac VHT80
L	Low	149	151	-
M	Middle	157	-	155
H	High	165	159	-

2.4 Connection Diagram of Test System

<WLAN Tx Mode>



<AC Conducted Emission Mode>



2.5 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	WLAN AP	D-Link	DIR-628	KA2DIR628A2	N/A	Unshielded, 1.8 m
2.	Notebook	DELL	Latitude E6320	FCC DoC/ Contains FCC ID: QDS-BRCM1054	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
3.	Notebook	DELL	Latitude E3340	FCC DoC/ Contains FCC ID: PD97260NGU	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
4.	LCD Monitor	DELL	P2715Qt	FCC DoC	Shielded, 1.6 m	Unshielded, 1.8 m
5.	Bluetooth Mouse	Logitech	M557	FCC DoC	N/A	N/A
6.	SD Card	SanDisk	MicroSD HC	FCC DoC	N/A	N/A
7.	RJ-45 Cable	N/A	N/A	N/A	N/A	N/A
8.	USB flash drive	N/A	N/A	N/A	N/A	N/A

2.6 EUT Operation Test Setup

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

2.7 Measurement Results Explanation Example

For all conducted test items:

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

Example :

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

Offset = RF cable loss + attenuator factor.

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

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).

= 4.2 + 10 = 14.2 (dB)

3 Test Result

3.1 6dB Bandwidth Measurement

3.1.1 Description of 6dB Bandwidth

The minimum 6 dB bandwidth shall be at least 500 kHz.

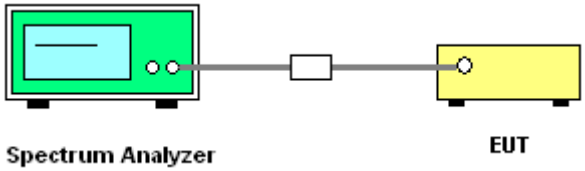
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01. Section C) Emission bandwidth for the band 5.725-5.85GHz
2. Set RBW = 100kHz.
3. Set the VBW ≥ 3 x RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 6 dB down from the peak of the emission.
7. Measure and record the results in the test report.

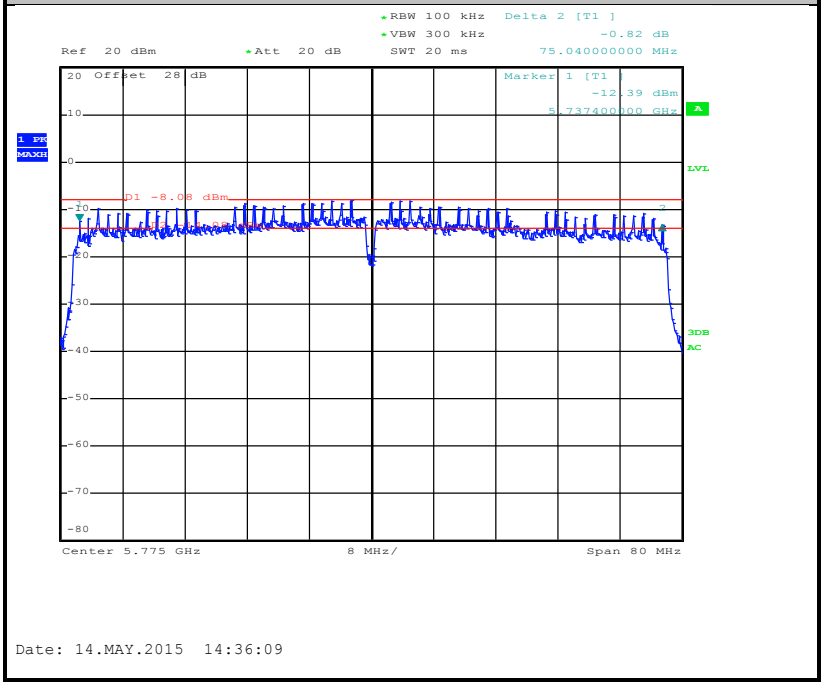
3.1.4 Test Setup



3.1.5 Test Result of 6dB Bandwidth

Please refer to Appendix A.

Maximum 6dB Bandwidth



3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

<FCC 14-30 CFR 15.407>

For the band 5.725–5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

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.

3.2.2 Measuring Instruments

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

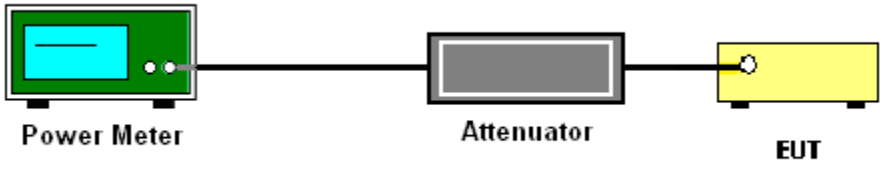
3.2.3 Test Procedures

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

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

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

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

<FCC 14-30 CFR 15.407>

For the band 5.725–5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

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

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.
Section F) Maximum power spectral density.

 # Method SA-2 #

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

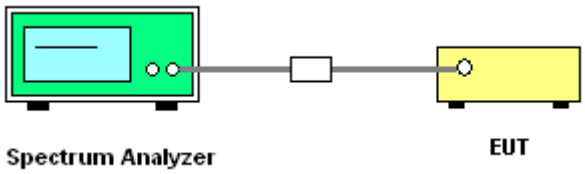
1. The testing follows Method SA-2 of FCC KDB 789033 D01 General UNII Test Procedures v01r03.
   - Measure the duty cycle.
   - Set span to encompass the entire emission bandwidth (EBW) of the signal.
   - Set RBW = 300 kHz.
   - Set VBW ≥ 1 MHz.
   - Number of points in sweep ≥ 2 Span / RBW.
   - Sweep time = auto.
   - Detector = RMS
   - Trace average at least 100 traces in power averaging mode.
   - Add 10 log(500kHz/RBW) to the test result.
   - Add 10 log(1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add 10 log(1/0.25) = 6 dB if the duty cycle is 25 percent.

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

Method (1): 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.

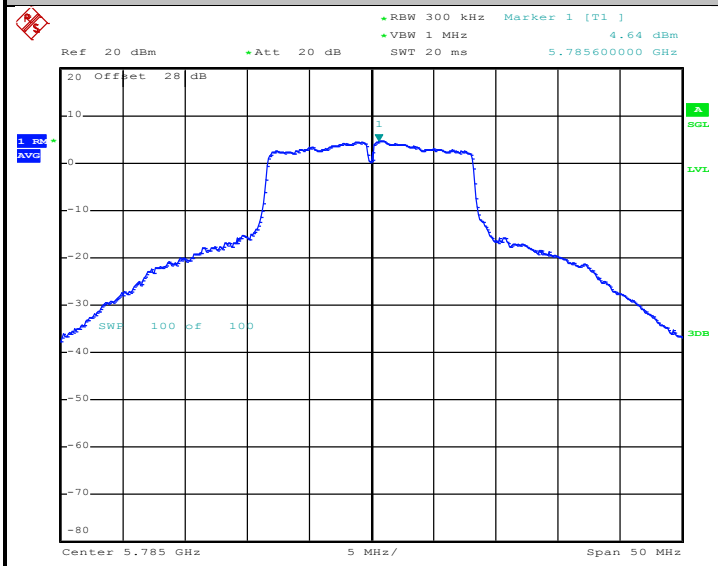
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

Worst Case Power Density (dBm/300kHz)



3.4 Unwanted Emissions Measurement

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

3.4.1 Limit of Unwanted Emissions

(1) For transmitters operating in the 5725-5850 MHz band: all emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an EIRP of -17 dBm/MHz (78.3dBμV/m); for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an EIRP of -27 dBm/MHz (68.3dBμV/m).

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

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

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

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

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

(3) KDB789033 v01r03 H)2)c)(i) As specified in 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in 15.407(b)(4)). However, an out-of-band emission that complies with both the average and peak limits of 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz peak emission limit.

3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01. Section G) Unwanted emissions measurement.

   (1) Procedure for Unwanted Emissions Measurements Below 1000MHz

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

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

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

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

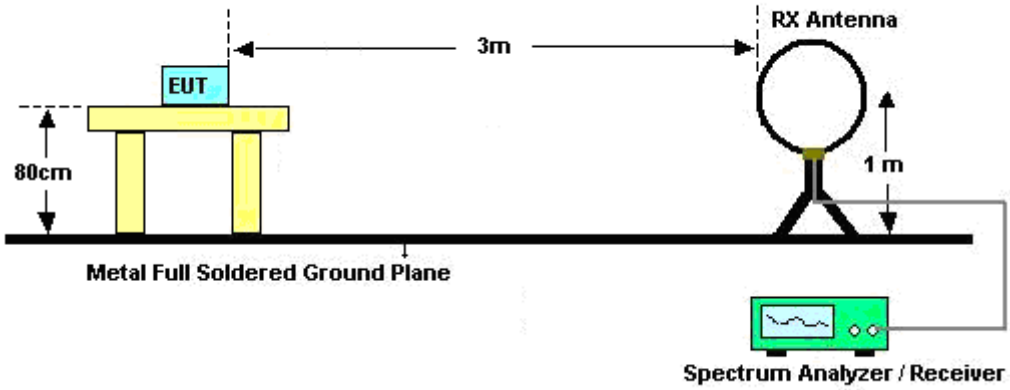
   - RBW = 1 MHz
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
1	802.11a	91.07	2040	0.49	1kHz
1	5GHz 802.11n HT20	90.00	1890	0.53	1kHz
1+2	5GHz 802.11n HT20 for Ant 1	90.43	1890	0.53	1kHz
1+2	5GHz 802.11n HT20 for Ant 2	90.43	1890	0.53	1kHz
1	5GHz 802.11n HT40	81.48	924	1.08	2kHz
1+2	5GHz 802.11n HT40 for Ant 1	81.91	924	1.08	2kHz
1+2	5GHz 802.11n HT40 for Ant 2	81.91	924	1.08	2kHz
1	5GHz 802.11ac VHT20	90.29	1896	0.53	1kHz
1+2	5GHz 802.11ac VHT20 for Ant 1	90.05	1900	0.53	1kHz
1+2	5GHz 802.11ac VHT20 for Ant 2	90.52	1910	0.52	1kHz
1	5GHz 802.11ac VHT40	82.20	942	1.06	2kHz
1+2	5GHz 802.11ac VHT40 for Ant 1	82.20	942	1.06	2kHz
1+2	5GHz 802.11ac VHT40 for Ant 2	82.20	942	1.06	2kHz
1	5GHz 802.11ac VHT80	68.67	456	2.19	3kHz
1+2	5GHz 802.11ac VHT80 for Ant 1	69.28	460	2.17	3kHz
1+2	5GHz 802.11ac VHT80 for Ant 2	68.86	460	2.17	3kHz

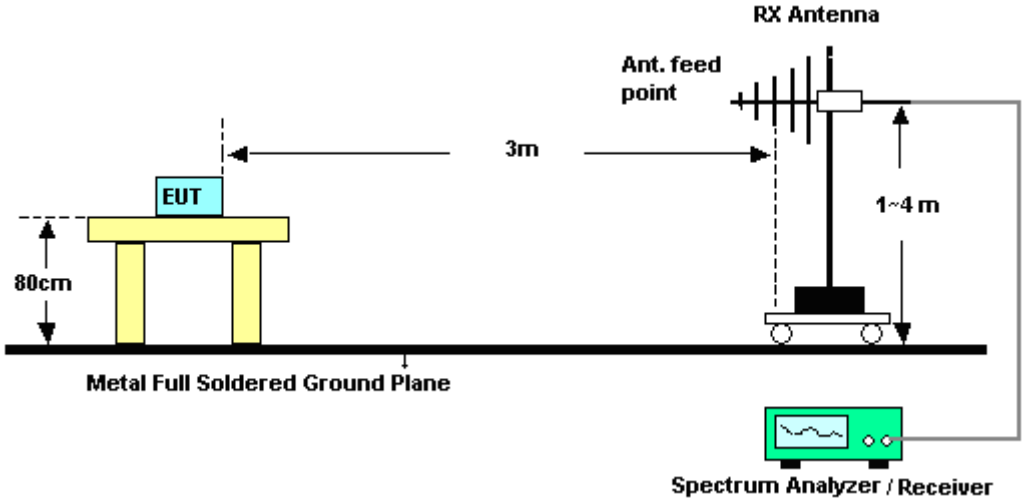
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband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

3.4.4 Test Setup

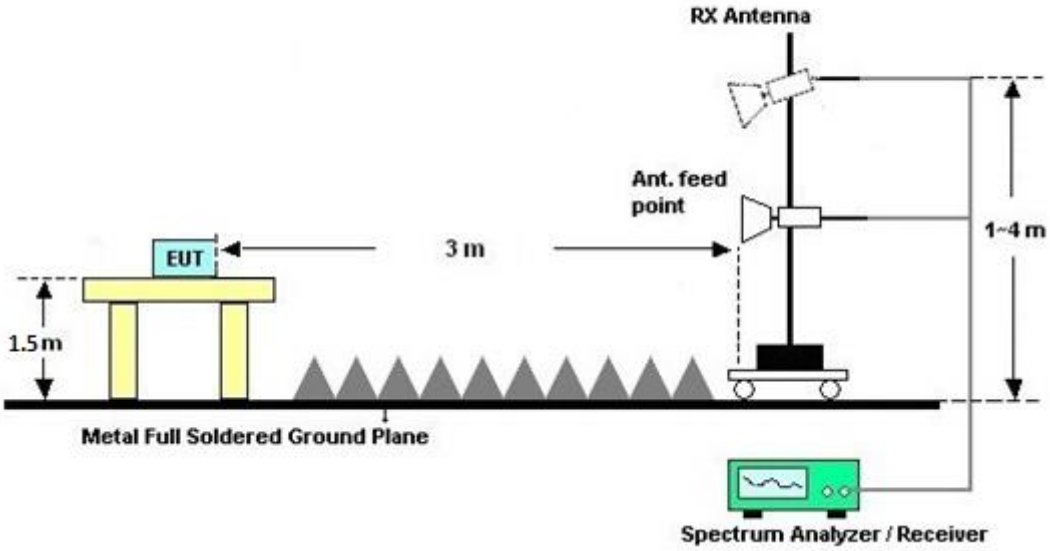
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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

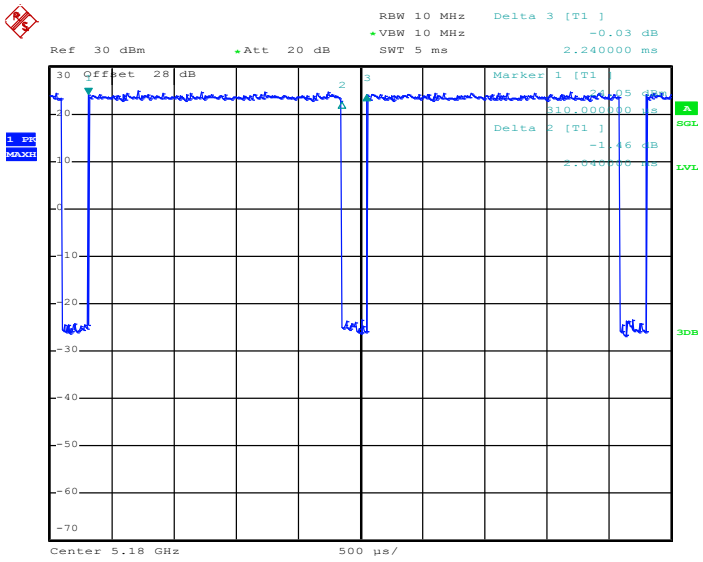
The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

3.4.6 Test Result of Radiated Band Edges

Please refer to Appendix A.

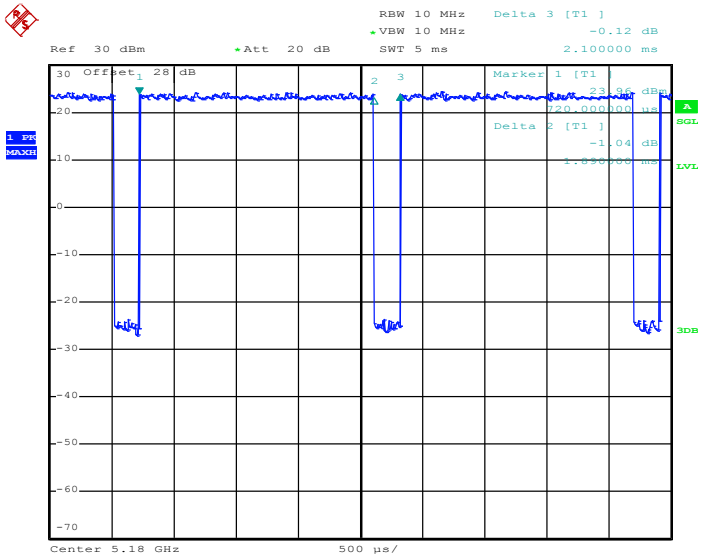
3.4.7 Duty Cycle

802.11a Ant. 1



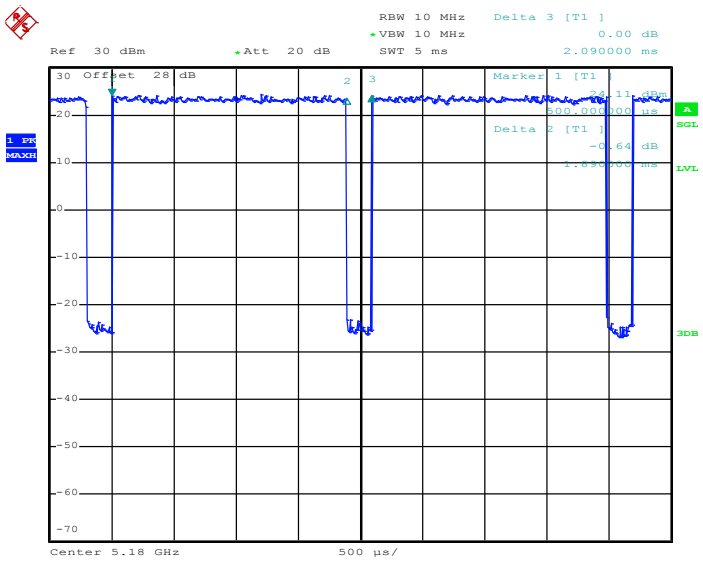
Date: 5.MAY.2015 22:17:31

802.11n HT20 SISO Ant. 1



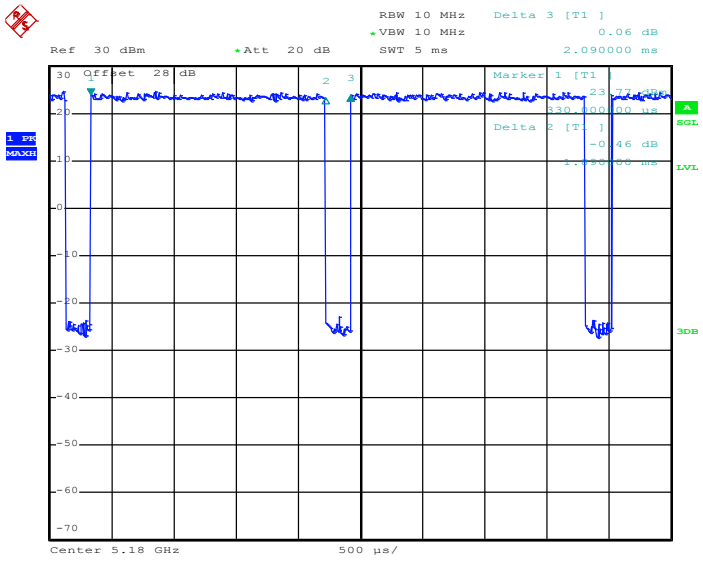
Date: 5.MAY.2015 22:23:15

802.11n HT20 CDD Ant. 1+2(1)



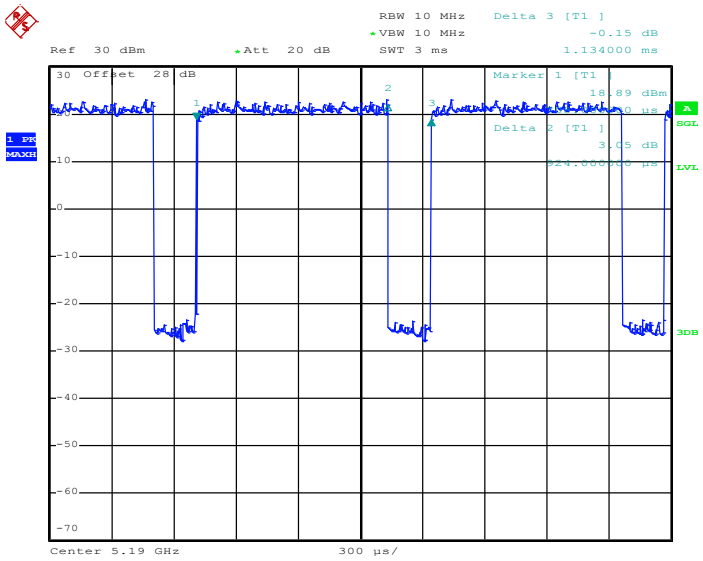
Date: 5.MAY.2015 22:25:21

802.11n HT20 CDD Ant. 1+2(2)



Date: 5.MAY.2015 22:25:56

802.11n HT40 SISO Ant. 1



Date: 5.MAY.2015 22:29:03

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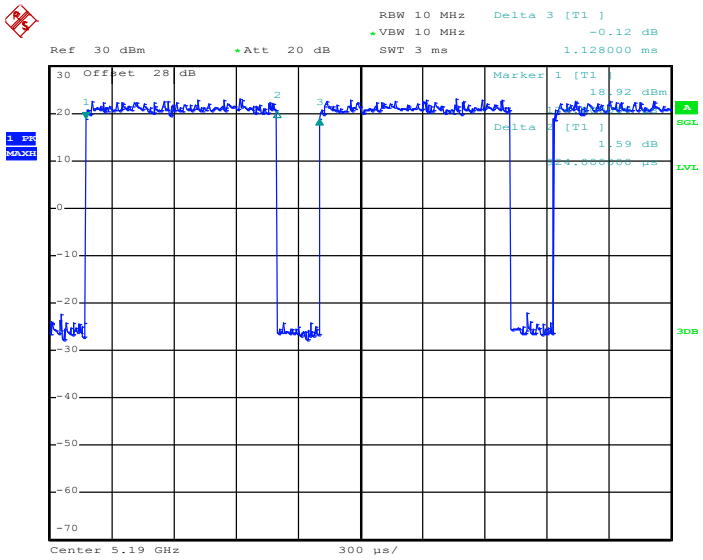

Date: 5.MAY.2015 22:28:01

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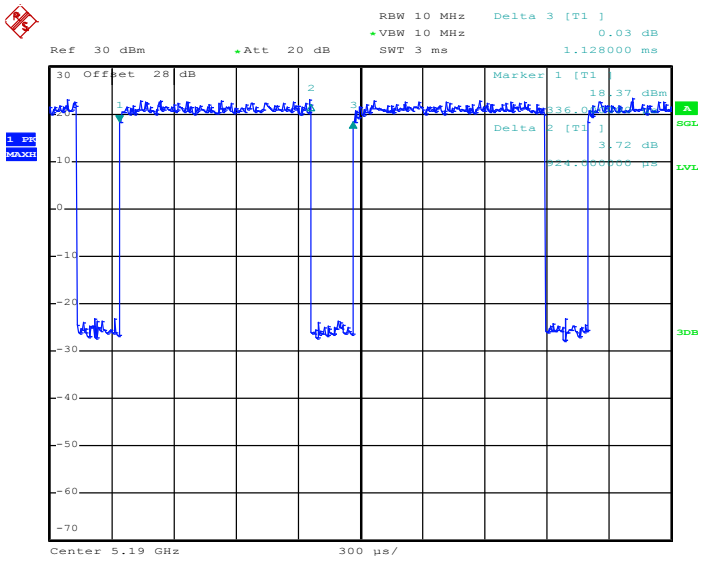
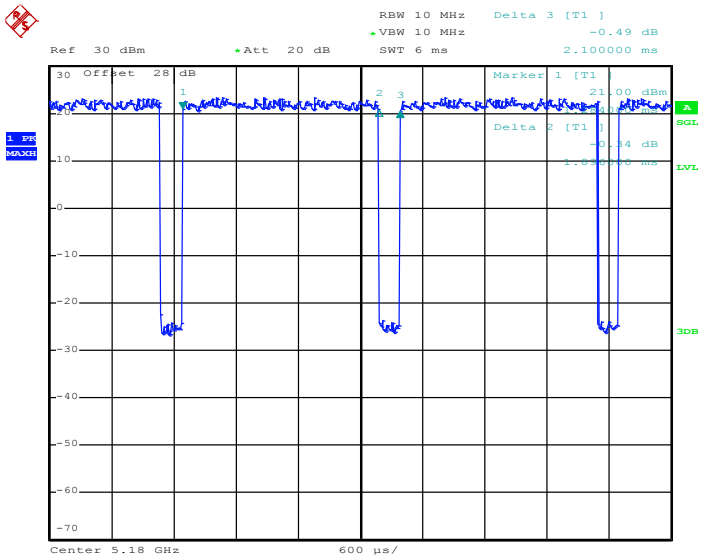


Date: 5.MAY.2015 22:27:21

802.11ac HT20 SISO Ant. 1



Date: 5.MAY.2015 23:54:42

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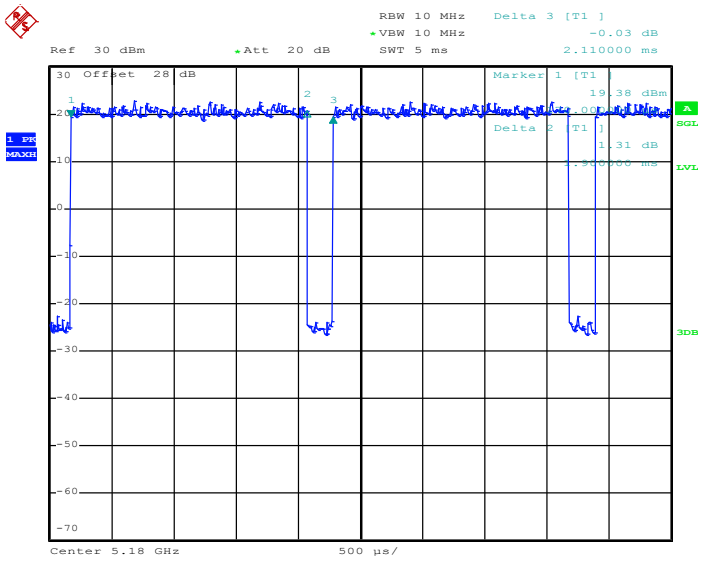

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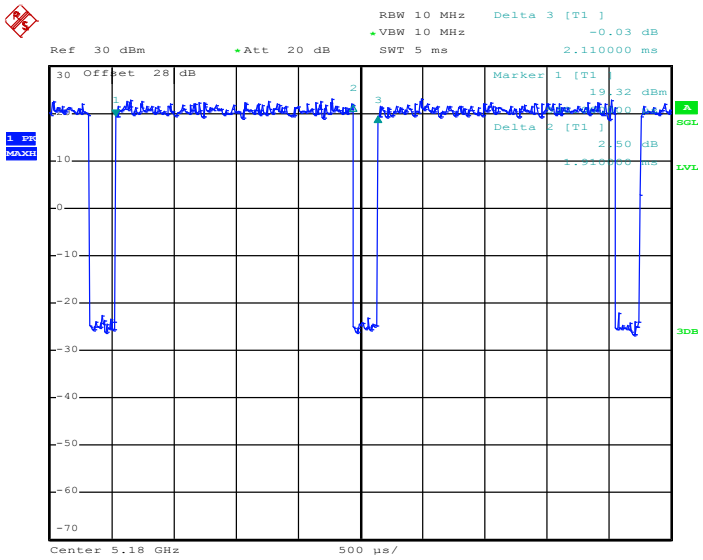
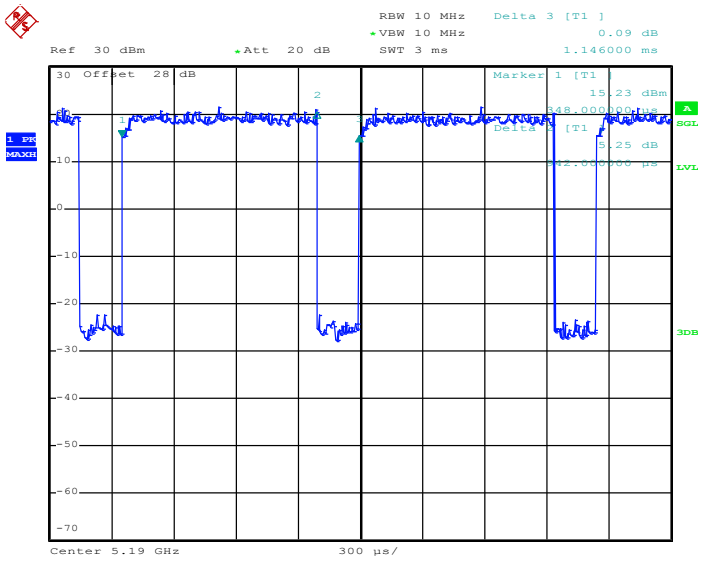


Date: 6.MAY.2015 00:14:45

802.11ac HT40 SISO Ant. 1



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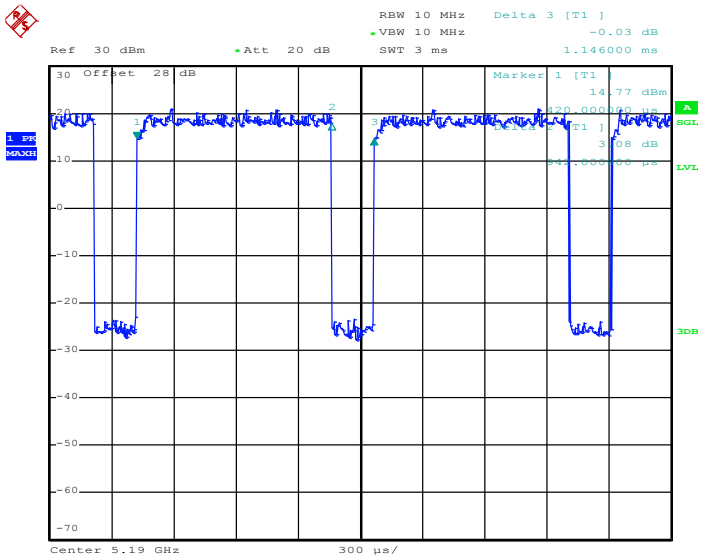
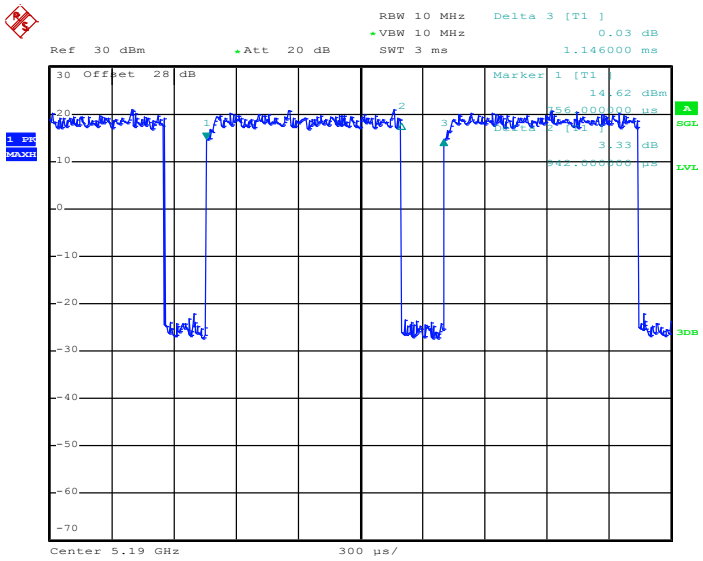
802.11ac HT40 CDD Ant. 1+2(1)



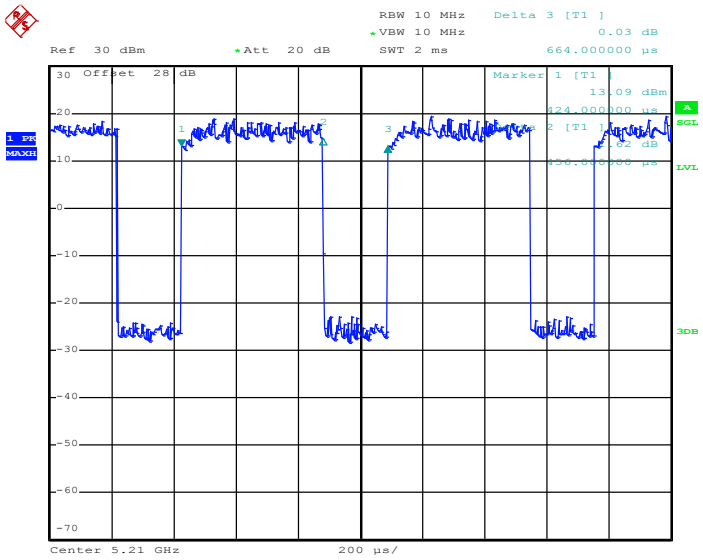
Date: 6.MAY.2015 00:22:28

802.11ac HT40 CDD Ant. 1+2(2)



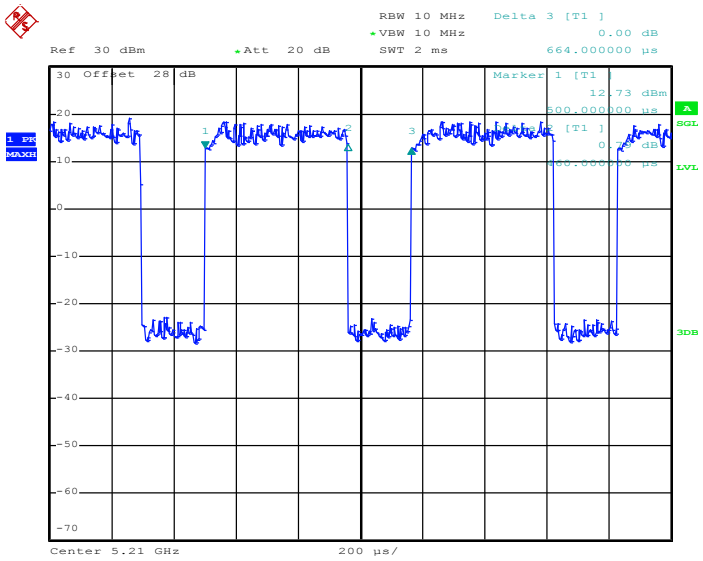
Date: 6.MAY.2015 00:22:55

802.11ac HT80 SISO Ant. 1



Date: 6.MAY.2015 00:40:36

802.11ac HT80 CDD Ant. 1+2(1)



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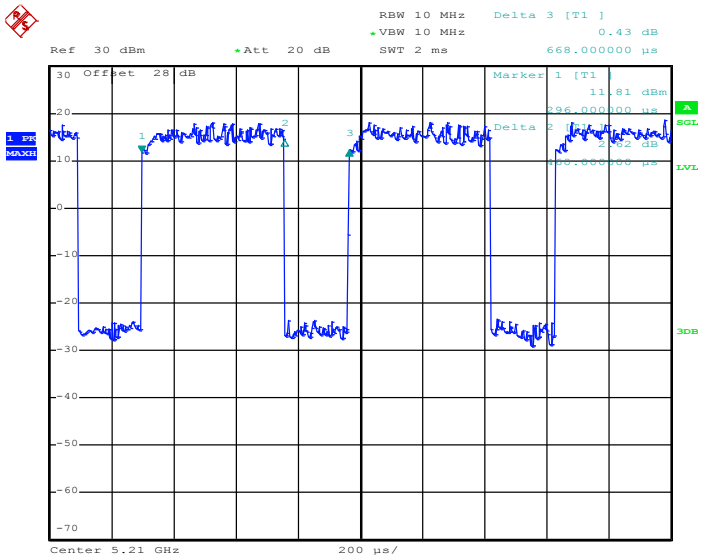
802.11ac HT80 CDD Ant. 1+2(2)



Date: 6.MAY.2015 00:44:21

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

Please refer to Appendix A.

3.5 AC Conducted Emission Measurement

3.5.1 Limit of AC Conducted Emission

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

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

*Decreases with the logarithm of the frequency.

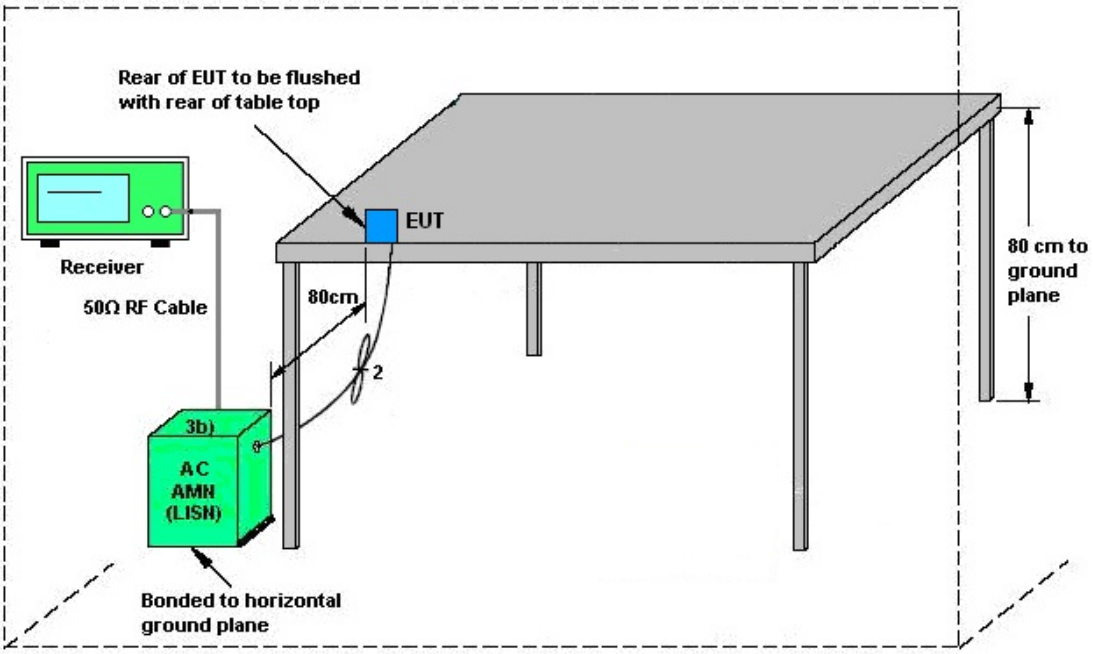
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

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

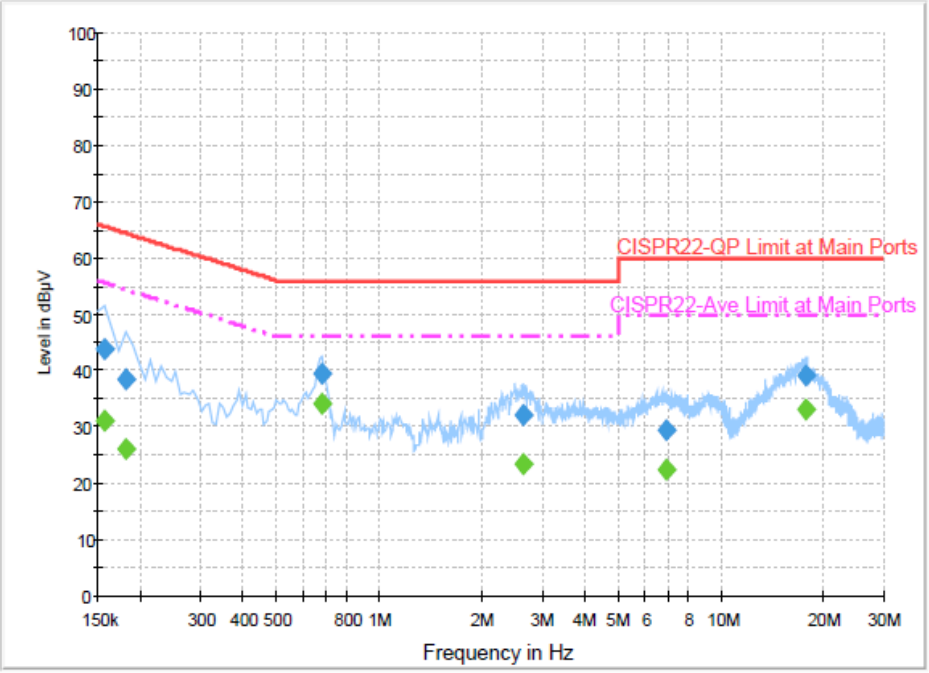
3.5.4 Test Setup



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

3.5.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	Temperature :	22~24℃
Test Engineer :	Eric Jeng	Relative Humidity :	60~63%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	WLAN (5GHz) Link + Bluetooth Link + MPEG4 (4k) + HDMI Cable (4k Resolution) + MicroSD Card (No Streaming) + RJ-45 (LAN) Load + USB flash drive (Streaming) + Adapter		



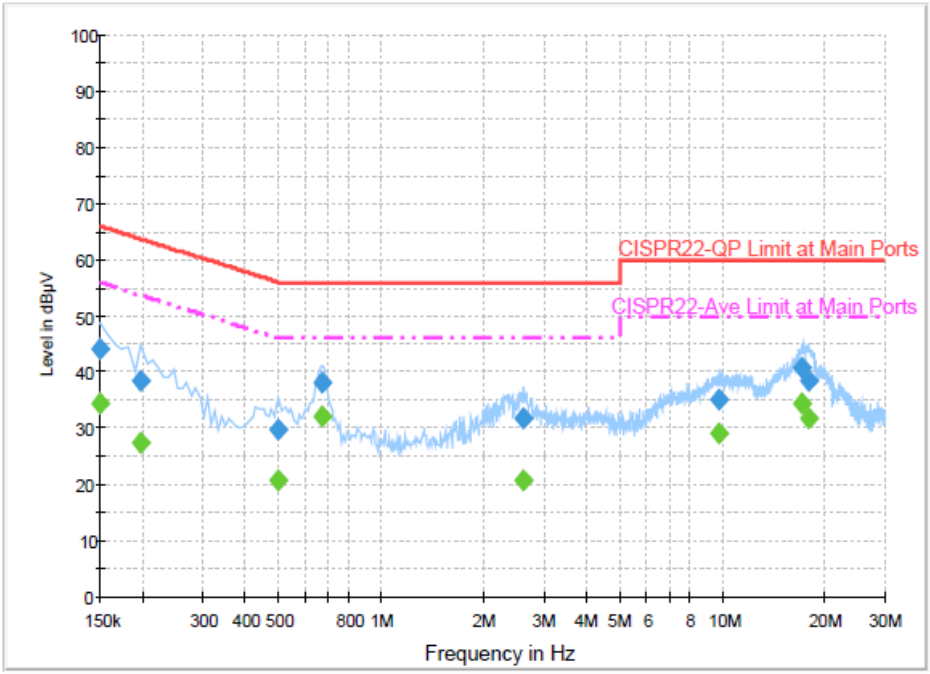
Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	43.8	Off	L1	19.5	21.8	65.6
0.182000	38.4	Off	L1	19.5	26.0	64.4
0.678000	39.5	Off	L1	19.6	16.5	56.0
2.630000	32.1	Off	L1	19.7	23.9	56.0
6.910000	29.4	Off	L1	19.8	30.6	60.0
17.734000	39.2	Off	L1	20.0	20.8	60.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	31.0	Off	L1	19.5	24.6	55.6
0.182000	26.1	Off	L1	19.5	28.3	54.4
0.678000	34.0	Off	L1	19.6	12.0	46.0
2.630000	23.4	Off	L1	19.7	22.6	46.0
6.910000	22.3	Off	L1	19.8	27.7	50.0
17.734000	33.2	Off	L1	20.0	16.8	50.0

Test Mode :	Mode 1	**Temperature :**	22~24℃
Test Engineer :	Eric Jeng	**Relative Humidity :**	60~63%
Test Voltage :	120Vac / 60Hz	**Phase :**	Neutral
Function Type :	WLAN (5GHz) Link + Bluetooth Link + MPEG4 (4k) + HDMI Cable (4k Resolution) + MicroSD Card (No Streaming) + RJ-45 (LAN) Load + USB flash drive (Streaming) + Adapter		



Final Result : QuasiPeak

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	44.3	Off	N	19.5	21.7	66.0
0.198000	38.4	Off	N	19.4	25.3	63.7
0.502000	29.7	Off	N	19.4	26.3	56.0
0.670000	38.1	Off	N	19.5	17.9	56.0
2.622000	31.6	Off	N	19.7	24.4	56.0
9.790000	35.1	Off	N	19.9	24.9	60.0
17.214000	40.7	Off	N	20.0	19.3	60.0
17.934000	38.4	Off	N	20.1	21.6	60.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	34.4	Off	N	19.5	21.6	56.0
0.198000	27.3	Off	N	19.4	26.4	53.7
0.502000	20.8	Off	N	19.4	25.2	46.0
0.670000	32.0	Off	N	19.5	14.0	46.0
2.622000	20.8	Off	N	19.7	25.2	46.0
9.790000	29.1	Off	N	19.9	20.9	50.0
17.214000	34.6	Off	N	20.0	15.4	50.0
17.934000	31.8	Off	N	20.1	18.2	50.0

3.6 Frequency Stability Measurement

3.6.1 Limit of Frequency Stability

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

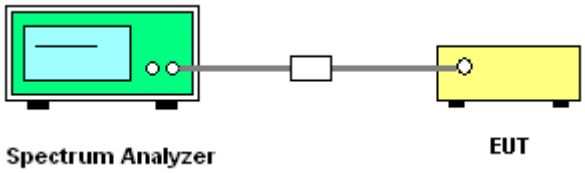
3.6.2 Measuring Instruments

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

3.6.3 Test Procedures

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

3.6.4 Test Setup



3.6.5 Test Result of Frequency Stability

Please refer to Appendix A.

3.7 Automatically Discontinue Transmission

3.7.1 Limit of Automatically Discontinue Transmission

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

3.7.2 Measuring Instruments

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

3.7.3 Test Result of Automatically Discontinue Transmission

EUT is verified this characteristic during the function check of normal sample associated with an access point:

A. Information start: make EUT supply information to the access point.

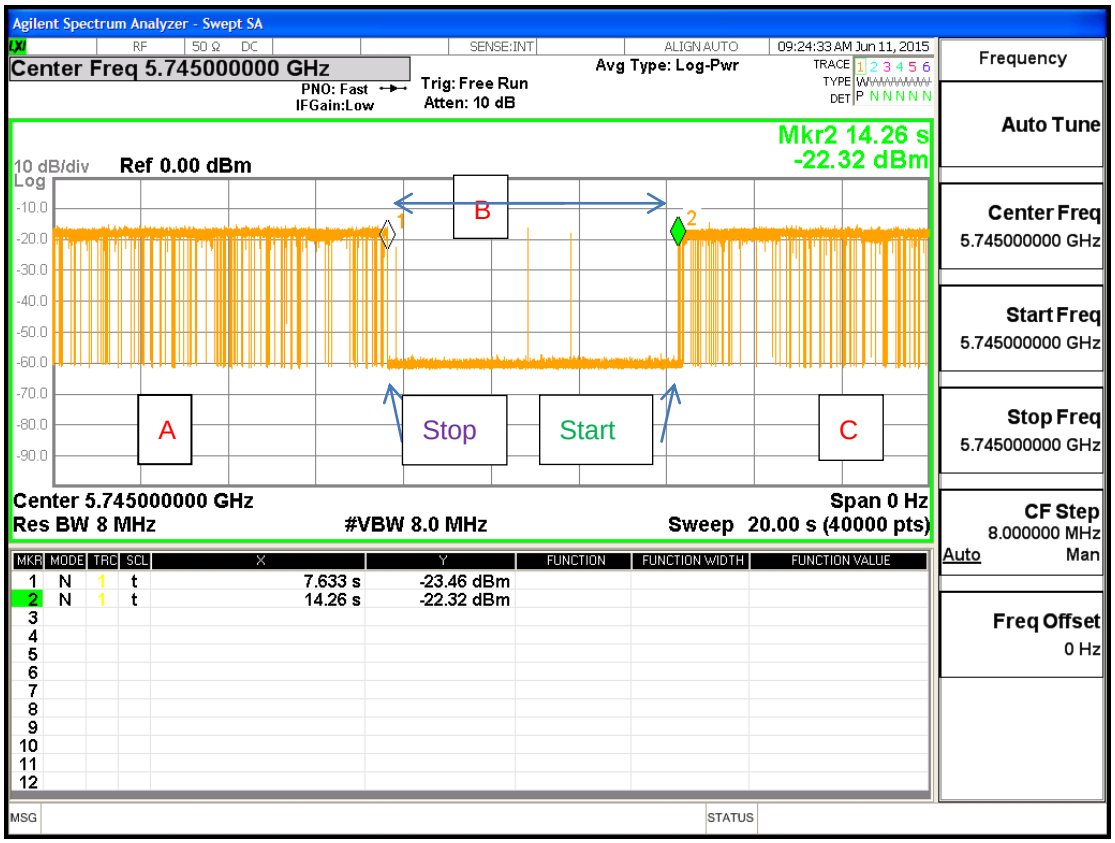
B. Information stop: stop supplying information to the access point.

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving.

C. Information start: make EUT supply information to the access point again.

The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

5745MHz



Note: The control / signalling information during the period B is precluded.

3.8 Antenna Requirements

3.8.1 Standard Applicable

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

3.8.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.8.3 Antenna Gain

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

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

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 CDD mode.

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.

			DG	DG	Power	PSD
			for	for	Limit	Limit
	Ant 1	Ant 2	Power	PSD	Reduction	Reduction
	(dBi)	(dBi)	(dBi)	(dBi)	(dB)	(dB)
Band IV	2.80	4.70	6.81	6.81	0.81	0.81

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
Power Meter	Anritsu	ML2495A	1036004	300MHz~40GHz	Aug. 09, 2014	May 05, 2015 ~ Jul. 10, 2015	Aug. 08, 2015	Conducted (TH02-HY)
Power Sensor	Anritsu	MA2411B	1027253	300MHz~40GHz	Aug. 11, 2014	May 05, 2015 ~ Jul. 10, 2015	Aug. 10, 2015	Conducted (TH02-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100057	9kHz~40GHz	Oct. 17, 2014	May 05, 2015 ~ Jun. 11, 2015	Oct. 16, 2015	Conducted (TH02-HY)
EMI Test Receiver	Rohde & Schwarz	ESCS 30	100356	9kHz – 2.75GHz	Dec. 01, 2014	Jun. 04, 2015	Nov. 30, 2015	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Dec. 02, 2014	Jun. 04, 2015	Dec. 01, 2015	Conduction (CO05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Jun. 04, 2015	N/A	Conduction (CO05-HY)
LISN (for auxiliary equipment)	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Dec. 08, 2014	Jun. 04, 2015	Dec. 07, 2015	Conduction (CO05-HY)
Bilog Antenna	Schaffner	CBL6111C	2726	30MHz ~ 1GHz	Sep. 27, 2014	May 05, 2015 ~ May 14, 2015	Sep. 26, 2015	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	00075962	1GHz ~ 18GHz	Aug. 19, 2014	May 05, 2015 ~ May 14, 2015	Aug. 18, 2015	Radiation (03CH07-HY)
EMI Test Receiver	Rohde & Schwarz	ESCI 7	100724	9kHz~7GHz	Aug. 30, 2014	May 05, 2015 ~ May 14, 2015	Aug. 29, 2015	Radiation (03CH07-HY)
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 03, 2014	May 05, 2015 ~ May 14, 2015	Nov. 02, 2015	Radiation (03CH07-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Jul. 28, 2014	May 05, 2015 ~ May 14, 2015	Jul. 27, 2015	Radiation (03CH07-HY)
Preamplifier	MITEQ	AMF-7D-00101800-30-10P	1590075	1GHz ~ 18GHz	Apr. 20, 2015	May 05, 2015 ~ May 14, 2015	Apr. 19, 2016	Radiation (03CH07-HY)
Preamplifier	COM-POWER	PA-103A	161241	10MHz-1000MHz	Mar. 12, 2015	May 05, 2015 ~ May 14, 2015	Mar. 11, 2016	Radiation (03CH07-HY)
Preamplifier	Agilent	8449B	3008A02362	1GHz~ 26.5GHz	Oct. 21, 2014	May 05, 2015 ~ May 14, 2015	Oct. 20, 2015	Radiation (03CH07-HY)
Signal Analyzer	Rohde & Schwarz	FSV 30	101749	10Hz~30GHz	Mar. 10, 2015	May 05, 2015 ~ May 14, 2015	Mar. 09, 2016	Radiation (03CH07-HY)
Antenna Mast	Max-Full	MFA520BS	N/A	1m~4m	N/A	May 05, 2015 ~ May 14, 2015	N/A	Radiation (03CH07-HY)
Turn Table	ChainTek	Chaintek 3000	N/A	0~360 degree	N/A	May 05, 2015 ~ May 14, 2015	N/A	Radiation (03CH07-HY)
Preamplifier	MITEQ	JS44-18004000-33-8P	1840917	18GHz ~ 40GHz	Jun. 09, 2014	May 05, 2015 ~ May 14, 2015	Jun. 08, 2015	Radiation (03CH07-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101397	10Hz~40GHz	Sep. 17, 2014	May 05, 2015 ~ May 14, 2015	Sep. 16, 2015	Radiation (03CH07-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.26**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.50**

Appendix A. Conducted Test Results

Test Engineer:	Tommy Lee	Temperature:	21~25	°C
Test Date:	2015/05/05 ~ 2015/07/10	Relative Humidity:	51~54	%

TEST RESULTS DATA
6dB and 99% OBW

FCC Band IV									
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	6 dB Bandwidth (MHz)		FCC 6 dB Bandwidth Min. Limit (MHz)		Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	149	5745	16.04		0.5	0.5	Pass
11a	6Mbps	1	157	5785	16.04		0.5	0.5	Pass
11a	6Mbps	1	165	5825	16.28		0.5	0.5	Pass
HT20	MCS0	1	149	5745	16.88		0.5	0.5	Pass
HT20	MCS0	1	157	5785	16.32		0.5	0.5	Pass
HT20	MCS0	1	165	5825	16.76		0.5	0.5	Pass
HT40	MCS0	1	151	5755	35.12		0.5	0.5	Pass
HT40	MCS0	1	159	5795	35.12		0.5	0.5	Pass
VHT20	MCS0	1	149	5745	16.88		0.5	0.5	Pass
VHT20	MCS0	1	157	5785	16.76		0.5	0.5	Pass
VHT20	MCS0	1	165	5825	16.80		0.5	0.5	Pass
VHT40	MCS0	1	151	5755	35.12		0.5	0.5	Pass
VHT40	MCS0	1	159	5795	35.04		0.5	0.5	Pass
VHT80	MCS0	1	155	5775	75.04		0.5	0.5	Pass
HT20	MCS0	2	149	5745	16.88	16.88	0.5		Pass
HT20	MCS0	2	157	5785	16.52	16.52	0.5		Pass
HT20	MCS0	2	165	5825	16.92	16.52	0.5		Pass
HT40	MCS0	2	151	5755	35.20	35.20	0.5		Pass
HT40	MCS0	2	159	5795	35.12	35.12	0.5		Pass
VHT20	MCS0	2	149	5745	16.90	16.90	0.5		Pass
VHT20	MCS0	2	157	5785	16.28	16.52	0.5		Pass
VHT20	MCS0	2	165	5825	16.52	16.52	0.5		Pass
VHT40	MCS0	2	151	5755	35.12	35.04	0.5		Pass
VHT40	MCS0	2	159	5795	35.12	35.12	0.5		Pass
VHT80	MCS0	2	155	5775	72.80	75.04	0.5		Pass

Report Number : FR'511534-02E

TEST RESULTS DATA
Average Power Table

FCC Band IV															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)			Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	149	5745	0.41		16.05			30.00	30.00	2.80	4.70		Pass
11a	6Mbps	1	157	5785	0.41		19.96			30.00	30.00	2.80	4.70		Pass
11a	6Mbps	1	165	5825	0.41		18.51			30.00	30.00	2.80	4.70		Pass
HT20	MCS0	1	149	5745	0.46		14.86			30.00	30.00	2.80	4.70		Pass
HT20	MCS0	1	157	5785	0.46		18.71			30.00	30.00	2.80	4.70		Pass
HT20	MCS0	1	165	5825	0.46		17.38			30.00	30.00	2.80	4.70		Pass
HT40	MCS0	1	151	5755	0.89		12.84			30.00	30.00	2.80	4.70		Pass
HT40	MCS0	1	159	5795	0.89		18.66			30.00	30.00	2.80	4.70		Pass
VHT20	MCS0	1	149	5745	0.44		14.14			30.00	30.00	2.80	4.70		Pass
VHT20	MCS0	1	157	5785	0.44		18.76			30.00	30.00	2.80	4.70		Pass
VHT20	MCS0	1	165	5825	0.44		17.89			30.00	30.00	2.80	4.70		Pass
VHT40	MCS0	1	151	5755	0.85		13.06			30.00	30.00	2.80	4.70		Pass
VHT40	MCS0	1	159	5795	0.85		18.56			30.00	30.00	2.80	4.70		Pass
VHT80	MCS0	1	155	5775	1.63		11.44			30.00	30.00	2.80	4.70		Pass
HT20	MCS0	2	149	5745	0.44	0.44	13.10	13.69	16.41	29.19		6.81			Pass
HT20	MCS0	2	157	5785	0.44	0.44	17.95	18.05	21.01	29.19		6.81			Pass
HT20	MCS0	2	165	5825	0.44	0.44	15.79	16.18	19.00	29.19		6.81			Pass
HT40	MCS0	2	151	5755	0.87	0.87	10.95	11.60	14.29	29.19		6.81			Pass
HT40	MCS0	2	159	5795	0.87	0.87	16.96	16.47	19.73	29.19		6.81			Pass
VHT20	MCS0	2	149	5745	0.46	0.43	12.86	13.19	16.04	29.19		6.81			Pass
VHT20	MCS0	2	157	5785	0.46	0.43	18.17	18.38	21.29	29.19		6.81			Pass
VHT20	MCS0	2	165	5825	0.46	0.43	15.95	16.39	19.18	29.19		6.81			Pass
VHT40	MCS0	2	151	5755	0.85	0.85	9.81	10.02	12.93	29.19		6.81			Pass
VHT40	MCS0	2	159	5795	0.85	0.85	17.27	17.36	20.33	29.19		6.81			Pass
VHT80	MCS0	2	155	5775	1.59	1.62	8.85	8.87	11.87	29.19		6.81			Pass

Report Number : FR'511534-02E

TEST RESULTS DATA
Power Spectral Density

FCC Band IV																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		10log (500kHz /RBW) Factor (dB)		Average Power Density (dBm/500kHz)			Average PSD Limit (dBm/500kHz)		DG (dBi)		Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	149	5745	0.41		2.22	2.22	2.99			30.00	30.00	2.80	4.70	Pass
11a	6Mbps	1	157	5785	0.41		2.22	2.22	7.26			30.00	30.00	2.80	4.70	Pass
11a	6Mbps	1	165	5825	0.41		2.22	2.22	5.70			30.00	30.00	2.80	4.70	Pass
HT20	MCS0	1	149	5745	0.46		2.22	2.22	0.48			30.00	30.00	2.80	4.70	Pass
HT20	MCS0	1	157	5785	0.46		2.22	2.22	4.48			30.00	30.00	2.80	4.70	Pass
HT20	MCS0	1	165	5825	0.46		2.22	2.22	3.29			30.00	30.00	2.80	4.70	Pass
HT40	MCS0	1	151	5755	0.89		2.22	2.22	-4.53			30.00	30.00	2.80	4.70	Pass
HT40	MCS0	1	159	5795	0.89		2.22	2.22	1.38			30.00	30.00	2.80	4.70	Pass
VHT20	MCS0	1	149	5745	0.44		2.22	2.22	0.36			30.00	30.00	2.80	4.70	Pass
VHT20	MCS0	1	157	5785	0.44		2.22	2.22	4.39			30.00	30.00	2.80	4.70	Pass
VHT20	MCS0	1	165	5825	0.44		2.22	2.22	3.25			30.00	30.00	2.80	4.70	Pass
VHT40	MCS0	1	151	5755	0.85		2.22	2.22	-3.81			30.00	30.00	2.80	4.70	Pass
VHT40	MCS0	1	159	5795	0.85		2.22	2.22	-1.89			30.00	30.00	2.80	4.70	Pass
VHT80	MCS0	1	155	5775	1.63		2.22	2.22	-4.18			30.00	30.00	2.80	4.70	Pass
HT20	MCS0	2	149	5745	0.44	0.44	2.22				2.04	29.19		6.81		Pass
HT20	MCS0	2	157	5785	0.44	0.44	2.22				6.42	29.19		6.81		Pass
HT20	MCS0	2	165	5825	0.44	0.44	2.22				6.18	29.19		6.81		Pass
HT40	MCS0	2	151	5755	0.87	0.87	2.22				-4.12	29.19		6.81		Pass
HT40	MCS0	2	159	5795	0.87	0.87	2.22				3.39	29.19		6.81		Pass
VHT20	MCS0	2	149	5745	0.46	0.43	2.22				1.44	29.19		6.81		Pass
VHT20	MCS0	2	157	5785	0.46	0.43	2.22				7.07	29.19		6.81		Pass
VHT20	MCS0	2	165	5825	0.46	0.43	2.22				4.57	29.19		6.81		Pass
VHT40	MCS0	2	151	5755	0.85	0.85	2.22				-5.18	29.19		6.81		Pass
VHT40	MCS0	2	159	5795	0.85	0.85	2.22				2.37	29.19		6.81		Pass
VHT80	MCS0	2	155	5775	1.59	1.62	2.22				-5.04	29.19		6.81		Pass

TEST RESULTS DATA
Frequency Stability

Band IV										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stablility (ppm)	Temperature (°C)	Voltage (V)	Note
11a	6Mbps	1	149	5745	5744.900	-0.100	-17.41	20	14.25	
11a	6Mbps	1	149	5745	5744.950	-0.050	-8.70	20	15.75	
11a	6Mbps	1	149	5745	5744.950	-0.050	-8.70	20	15	
11a	6Mbps	1	149	5745	5744.950	-0.050	-8.70	0	15	
11a	6Mbps	1	149	5745	5744.950	-0.050	-8.70	35	15	

Appendix B. Radiated Spurious Emission

Test Engineer :	Nick Yu, Ken Wu, and James Chiu	**Temperature :**	22~23°C
		Relative Humidity :	58~62%

15E Band 4 - 5725~5850MHz

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)
		5714.84	65.47	-8.53	74	52.14	35.22	12.26	34.15	107	199	P	H
		5724.92	76.3	-2	78.3	62.96	35.23	12.26	34.15	107	199	P	H
		5714.92	47.91	-6.09	54	34.58	35.22	12.26	34.15	107	199	A	H
	*	5745	112.96	-	-	99.56	35.24	12.33	34.17	107	199	P	H
	*	5745	103.64	-	-	90.24	35.24	12.33	34.17	107	199	A	H
													H
													H
802.11a													H
CH 149		5714.84	60.26	-13.74	74	46.93	35.22	12.26	34.15	354	32	P	V
5745MHz		5724.36	71.5	-6.8	78.3	58.16	35.23	12.26	34.15	354	32	P	V
		5715	45.19	-8.81	54	31.86	35.22	12.26	34.15	354	32	A	V
	*	5745	107.89	-	-	94.49	35.24	12.33	34.17	354	32	P	V
	*	5745	97.63	-	-	84.23	35.24	12.33	34.17	354	32	A	V
													V
													V
													V

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 157 5785MHz		5714.68	61.57	-12.43	74	48.24	35.22	12.26	34.15	111	202	P	H
		5715.32	62.25	-16.05	78.3	48.92	35.22	12.26	34.15	111	202	P	H
		5713.88	46.64	-7.36	54	33.31	35.22	12.26	34.15	111	202	A	H
	*	5785	118.54	-	-	105.1	35.27	12.4	34.23	111	202	P	H
	*	5785	108.17	-	-	94.73	35.27	12.4	34.23	111	202	A	H
		5851.04	61.05	-17.25	78.3	47.6	35.31	12.45	34.31	111	202	P	H
		5872.56	59.72	-14.28	74	46.25	35.33	12.49	34.35	111	202	P	H
		5860.48	46.42	-7.58	54	32.96	35.32	12.49	34.35	111	202	A	H
		5711.88	57.2	-16.8	74	43.87	35.22	12.26	34.15	346	16	P	V
		5716.6	57.48	-20.82	78.3	44.15	35.22	12.26	34.15	346	16	P	V
		5714.6	44.15	-9.85	54	30.82	35.22	12.26	34.15	346	16	A	V
	*	5785	112.11	-	-	98.67	35.27	12.4	34.23	346	16	P	V
	*	5785	102.25	-	-	88.81	35.27	12.4	34.23	346	16	A	V
		5857.36	56.71	-21.59	78.3	43.25	35.32	12.45	34.31	346	16	P	V
		5864.32	58.06	-15.94	74	44.6	35.32	12.49	34.35	346	16	P	V
		5884.48	44.34	-9.66	54	30.91	35.33	12.49	34.39	346	16	A	V

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)
	*	5825	115.46	-	-	101.98	35.3	12.45	34.27	106	200	P	H
	*	5825	106.05	-	-	92.57	35.3	12.45	34.27	106	200	A	H
		5850.08	76.99	-1.31	78.3	63.54	35.31	12.45	34.31	106	200	P	H
		5860.16	65.63	-8.37	74	52.17	35.32	12.49	34.35	106	200	P	H
		5860.32	50.48	-3.52	54	37.02	35.32	12.49	34.35	106	200	A	H
													H
													H
802.11a													H
CH 165	*	5825	109.55	-	-	96.07	35.3	12.45	34.27	362	34	P	V
5825MHz	*	5825	100.22	-	-	86.74	35.3	12.45	34.27	362	34	A	V
		5851.6	71.28	-7.02	78.3	57.83	35.31	12.45	34.31	362	34	P	V
		5862.32	59.53	-14.47	74	46.07	35.32	12.49	34.35	362	34	P	V
		5860.16	46.08	-7.92	54	32.62	35.32	12.49	34.35	362	34	A	V
													V
													V
													V
													V

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

15E Band 4 5725~5850MHz

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 149 5745MHz		11490	44.31	-29.69	74	46.58	38.19	17.38	57.84	100	0	P	H
		17232	49.14	-24.86	74	42.09	42.21	21.38	56.54	100	0	P	H
													H
													H
		11490	43.65	-30.35	74	45.92	38.19	17.38	57.84	100	0	P	V
		17232	49.33	-24.67	74	42.28	42.21	21.38	56.54	100	0	P	V
													V
													V
802.11a CH 157 5785MHz		11570	46.01	-27.99	74	47.94	38.3	17.46	57.69	100	0	P	H
		17358	57.91	-16.09	74	50.95	42.12	21.45	56.61	242	103	P	H
		17358	47.52	-6.48	54	40.56	42.12	21.45	56.61	242	103	A	H
													H
		11570	45.6	-28.4	74	47.53	38.3	17.46	57.69	100	0	P	V
		17358	57.96	-16.04	74	51	42.12	21.45	56.61	311	55	P	V
		17358	47.37	-6.63	54	40.41	42.12	21.45	56.61	311	55	A	V
													V
802.11a CH 165 5825MHz		11650	44.89	-29.11	74	46.55	38.39	17.53	57.58	100	0	P	H
		17472	52.14	-21.86	74	45.26	42.03	21.53	56.68	106	275	P	H
		17472	42.8	-11.2	54	35.92	42.03	21.53	56.68	106	275	A	H
													H
		11650	44.14	-29.86	74	45.8	38.39	17.53	57.58	100	0	P	V
		17472	54.22	-19.78	74	47.34	42.03	21.53	56.68	299	39	P	V
		17472	43.99	-10.01	54	37.11	42.03	21.53	56.68	299	39	A	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E Band 4 5725~5850MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5714.28	61.35	-12.65	74	48.02	35.22	12.26	34.15	107	200	P	H
		5724.92	77.49	-0.81	78.3	64.15	35.23	12.26	34.15	107	200	P	H
		5715	47.66	-6.34	54	34.33	35.22	12.26	34.15	107	200	A	H
	*	5745	111.98	-	-	98.58	35.24	12.33	34.17	107	200	P	H
	*	5745	102.25	-	-	88.85	35.24	12.33	34.17	107	200	A	H
													H
802.11n													H
HT20													H
CH 149		5714.92	58.87	-15.13	74	45.54	35.22	12.26	34.15	319	29	P	V
5745MHz		5724.84	70.61	-7.69	78.3	57.27	35.23	12.26	34.15	319	29	P	V
		5714.92	44.66	-9.34	54	31.33	35.22	12.26	34.15	319	29	A	V
	*	5745	106	-	-	92.6	35.24	12.33	34.17	319	29	P	V
	*	5745	96.58	-	-	83.18	35.24	12.33	34.17	319	29	A	V
													V
													V
													V

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 157 5785MHz		5698.36	59.03	-14.97	74	45.76	35.21	12.18	34.12	112	201	P	H
		5723.72	60.7	-17.6	78.3	47.36	35.23	12.26	34.15	112	201	P	H
		5711.96	46.15	-7.85	54	32.82	35.22	12.26	34.15	112	201	A	H
	*	5785	115.86	-	-	102.42	35.27	12.4	34.23	112	201	P	H
	*	5785	106.44	-	-	93	35.27	12.4	34.23	112	201	A	H
		5850.08	60.03	-18.27	78.3	46.58	35.31	12.45	34.31	112	201	P	H
		5861.36	59.41	-14.59	74	45.95	35.32	12.49	34.35	112	201	P	H
		5866.96	46.09	-7.91	54	32.63	35.32	12.49	34.35	112	201	A	H
		5693.08	57.37	-16.63	74	44.1	35.21	12.18	34.12	347	16	P	V
		5723.64	56.53	-21.77	78.3	43.19	35.23	12.26	34.15	347	16	P	V
		5708.6	44.07	-9.93	54	30.74	35.22	12.26	34.15	347	16	A	V
	*	5785	109.78	-	-	96.34	35.27	12.4	34.23	347	16	P	V
	*	5785	100.35	-	-	86.91	35.27	12.4	34.23	347	16	A	V
		5850.24	56.8	-21.5	78.3	43.35	35.31	12.45	34.31	347	16	P	V
		5887.92	57.46	-16.54	74	44.02	35.34	12.49	34.39	347	16	P	V
		5862.88	44.24	-9.76	54	30.78	35.32	12.49	34.35	347	16	A	V

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)
	*	5825	114.3	-	-	100.82	35.3	12.45	34.27	106	200	P	H
	*	5825	104.73	-	-	91.25	35.3	12.45	34.27	106	200	A	H
		5850.08	77.02	-1.28	78.3	63.57	35.31	12.45	34.31	106	200	P	H
		5861.44	67.52	-6.48	74	54.06	35.32	12.49	34.35	106	200	P	H
		5860.32	49.3	-4.7	54	35.84	35.32	12.49	34.35	106	200	A	H
													H
802.11n													H
HT20													H
CH 165	*	5825	108.5	-	-	95.02	35.3	12.45	34.27	343	29	P	V
5825MHz	*	5825	98.86	-	-	85.38	35.3	12.45	34.27	343	29	A	V
		5850	70.5	-3.5	74	57.05	35.31	12.45	34.31	343	29	P	V
		5863.6	61.65	-12.35	74	48.19	35.32	12.49	34.35	343	29	P	V
		5860.24	45.83	-8.17	54	32.37	35.32	12.49	34.35	343	29	A	V
													V
													V
													V

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

15E Band 4 5725~5850MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		11490	44.5	-29.5	74	46.77	38.19	17.38	57.84	100	0	P	H
		17232	50.84	-23.16	74	43.79	42.21	21.38	56.54	116	277	P	H
802.11n		17232	40.47	-13.53	54	33.42	42.21	21.38	56.54	116	277	A	H
HT20													H
CH 149		11490	44.35	-29.65	74	46.62	38.19	17.38	57.84	100	0	P	V
5745MHz		17232	51.96	-22.04	74	44.91	42.21	21.38	56.54	306	33	P	V
		17232	41.56	-12.44	54	34.51	42.21	21.38	56.54	306	33	A	V
													V
		11570	45.27	-28.73	74	47.2	38.3	17.46	57.69	100	0	P	H
		17352	55.12	-18.88	74	48.16	42.12	21.45	56.61	126	282	P	H
802.11n		17352	44.82	-9.18	54	37.86	42.12	21.45	56.61	126	282	A	H
HT20													H
CH 157		11570	43.43	-30.57	74	45.36	38.3	17.46	57.69	100	0	P	V
5785MHz		17352	54.62	-19.38	74	47.66	42.12	21.45	56.61	296	51	P	V
		17352	44.25	-9.75	54	37.29	42.12	21.45	56.61	296	51	A	V
													V
		11650	44.37	-29.63	74	46.03	38.39	17.53	57.58	100	0	P	H
		17472	51.43	-22.57	74	44.55	42.03	21.53	56.68	182	113	P	H
802.11n		17472	41.21	-12.79	54	34.33	42.03	21.53	56.68	182	113	A	H
HT20													H
CH 165		11650	43.19	-30.81	74	44.85	38.39	17.53	57.58	100	0	P	V
5825MHz		17472	53.33	-20.67	74	46.45	42.03	21.53	56.68	316	22	P	V
		17472	43.09	-10.91	54	36.21	42.03	21.53	56.68	316	22	A	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E Band 4 5725~5850MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 151 5755MHz		5714.28	70.04	-3.96	74	56.71	35.22	12.26	34.15	108	200	P	H
		5722.92	74.24	-4.06	78.3	60.9	35.23	12.26	34.15	108	200	P	H
		5714.92	52.05	-1.95	54	38.72	35.22	12.26	34.15	108	200	A	H
	*	5755	106.92	-	-	93.5	35.26	12.33	34.17	108	200	P	H
	*	5755	97.36	-	-	83.94	35.26	12.33	34.17	108	200	A	H
		5858.24	57.68	-20.62	78.3	44.26	35.32	12.45	34.35	108	200	P	H
		5879.52	58.35	-15.65	74	44.88	35.33	12.49	34.35	108	200	P	H
		5860.56	45.03	-8.97	54	31.57	35.32	12.49	34.35	108	200	A	H
		5715	61.13	-12.87	74	47.8	35.22	12.26	34.15	351	33	P	V
		5723.32	66.37	-11.93	78.3	53.03	35.23	12.26	34.15	351	33	P	V
		5714.6	45.97	-8.03	54	32.64	35.22	12.26	34.15	351	33	A	V
	*	5755	100.96	-	-	87.54	35.26	12.33	34.17	351	33	P	V
	*	5755	91.79	-	-	78.37	35.26	12.33	34.17	351	33	A	V
		5852.16	56.7	-21.6	78.3	43.25	35.31	12.45	34.31	351	33	P	V
		5874.08	57.9	-16.1	74	44.43	35.33	12.49	34.35	351	33	P	V
		5871.36	44.25	-9.75	54	30.78	35.33	12.49	34.35	351	33	A	V

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 159 5795MHz		5710.28	65.36	-8.64	74	52.03	35.22	12.26	34.15	106	199	P	H
		5724.28	66.7	-11.6	78.3	53.36	35.23	12.26	34.15	106	199	P	H
		5714.68	49.15	-4.85	54	35.82	35.22	12.26	34.15	106	199	A	H
	*	5795	113.39	-	-	99.94	35.28	12.4	34.23	106	199	P	H
	*	5795	103.36	-	-	89.91	35.28	12.4	34.23	106	199	A	H
		5851.84	76.79	-1.51	78.3	63.34	35.31	12.45	34.31	106	199	P	H
		5860.16	68.12	-5.88	74	54.66	35.32	12.49	34.35	106	199	P	H
		5860.08	53.08	-0.92	54	39.62	35.32	12.49	34.35	106	199	A	H
		5712.76	58.08	-15.92	74	44.75	35.22	12.26	34.15	327	16	P	V
		5719.48	58.31	-19.99	78.3	44.97	35.23	12.26	34.15	327	16	P	V
		5714.6	44.57	-9.43	54	31.24	35.22	12.26	34.15	327	16	A	V
	*	5795	107.23	-	-	93.78	35.28	12.4	34.23	327	16	P	V
	*	5795	97.6	-	-	84.15	35.28	12.4	34.23	327	16	A	V
		5852	68.04	-10.26	78.3	54.59	35.31	12.45	34.31	327	16	P	V
		5862.08	60.29	-13.71	74	46.83	35.32	12.49	34.35	327	16	P	V
		5860.32	46.32	-7.68	54	32.86	35.32	12.49	34.35	327	16	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E Band 4 5725~5850MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		11510	44.29	-29.71	74	46.47	38.2	17.42	57.8	100	0	P	H
		17268	49.85	-24.15	74	42.82	42.19	21.4	56.56	100	0	P	H
802.11n													H
HT40													H
CH 151		11510	44.75	-29.25	74	46.93	38.2	17.42	57.8	100	0	P	V
5755MHz		17268	50.2	-23.8	74	43.17	42.19	21.4	56.56	316	56	P	V
		17268	40.19	-13.81	54	33.16	42.19	21.4	56.56	316	56	A	V
													V
		5332	58.96	-9.34	68.3	45.49	34.87	11.68	33.08	106	199	P	H
		11590	43.69	-30.31	74	45.53	38.32	17.5	57.66	100	0	P	H
802.11n		17388	52.29	-21.71	74	45.35	42.09	21.48	56.63	103	191	P	H
HT40		17388	42.06	-11.94	54	35.12	42.09	21.48	56.63	103	191	A	H
CH 159		11590	44.21	-29.79	74	46.05	38.32	17.5	57.66	100	0	P	V
5795MHz		17388	52	-22	74	45.06	42.09	21.48	56.63	311	51	P	V
		17388	41.76	-12.24	54	34.82	42.09	21.48	56.63	311	51	A	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E Band 4 5725~5850MHz

WIFI 802.11ac VHT20 (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)
		5713.96	61.15	-12.85	74	47.82	35.22	12.26	34.15	108	199	P	H
		5724.84	76.97	-1.33	78.3	63.63	35.23	12.26	34.15	108	199	P	H
		5714.76	47.36	-6.64	54	34.03	35.22	12.26	34.15	108	199	A	H
	*	5745	111.47	-	-	98.07	35.24	12.33	34.17	108	199	P	H
	*	5745	102.09	-	-	88.69	35.24	12.33	34.17	108	199	A	H
													H
802.11ac													H
VHT20													H
CH 149		5713.08	58.01	-15.99	74	44.68	35.22	12.26	34.15	353	33	P	V
5745MHz		5724.28	71	-7.3	78.3	57.66	35.23	12.26	34.15	353	33	P	V
		5714.6	44.67	-9.33	54	31.34	35.22	12.26	34.15	353	33	A	V
	*	5745	106.13	-	-	92.73	35.24	12.33	34.17	353	33	P	V
	*	5745	96.65	-	-	83.25	35.24	12.33	34.17	353	33	A	V
													V
													V
													V

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT20 CH 157 5785MHz		5703.56	58.76	-15.24	74	45.4	35.22	12.26	34.12	103	199	P	H
		5723.16	59.49	-18.81	78.3	46.15	35.23	12.26	34.15	103	199	P	H
		5713.96	45.59	-8.41	54	32.26	35.22	12.26	34.15	103	199	A	H
	*	5785	115.58	-	-	102.14	35.27	12.4	34.23	103	199	P	H
	*	5785	106.16	-	-	92.72	35.27	12.4	34.23	103	199	A	H
		5850.32	59.27	-19.03	78.3	45.82	35.31	12.45	34.31	103	199	P	H
		5881.76	59.21	-14.79	74	45.74	35.33	12.49	34.35	103	199	P	H
		5860.4	45.91	-8.09	54	32.45	35.32	12.49	34.35	103	199	A	H
		5697	57.59	-16.41	74	44.32	35.21	12.18	34.12	345	36	P	V
		5717.64	57.53	-20.77	78.3	44.19	35.23	12.26	34.15	345	36	P	V
		5703.4	44.09	-9.91	54	30.73	35.22	12.26	34.12	345	36	A	V
	*	5785	109.37	-	-	95.93	35.27	12.4	34.23	345	36	P	V
	*	5785	100.08	-	-	86.64	35.27	12.4	34.23	345	36	A	V
		5852.24	57.21	-21.09	78.3	43.76	35.31	12.45	34.31	345	36	P	V
		5887.52	57.12	-16.88	74	43.68	35.34	12.49	34.39	345	36	P	V
		5872.88	44.23	-9.77	54	30.76	35.33	12.49	34.35	345	36	A	V

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)
	*	5825	114.8	-	-	101.32	35.3	12.45	34.27	106	198	P	H
	*	5825	105.1	-	-	91.62	35.3	12.45	34.27	106	198	A	H
		5850.16	77.21	-1.09	78.3	63.76	35.31	12.45	34.31	106	198	P	H
		5860.96	67.19	-6.81	74	53.73	35.32	12.49	34.35	106	198	P	H
		5860.4	50.02	-3.98	54	36.56	35.32	12.49	34.35	106	198	A	H
													H
802.11ac													H
VHT20													H
CH 165	*	5825	109.24	-	-	95.76	35.3	12.45	34.27	362	34	P	V
5825MHz	*	5825	99.58	-	-	86.1	35.3	12.45	34.27	362	34	A	V
		5850.16	71.08	-7.22	78.3	57.63	35.31	12.45	34.31	362	34	P	V
		5861.68	61.38	-12.62	74	47.92	35.32	12.49	34.35	362	34	P	V
		5860.56	46.2	-7.8	54	32.74	35.32	12.49	34.35	362	34	A	V
													V
													V
													V

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

15E Band 4 5725~5850MHz

WIFI 802.11ac VHT20 (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)
		11490	46.33	-27.67	74	48.6	38.19	17.38	57.84	100	0	P	H
		17232	51.33	-22.67	74	44.28	42.21	21.38	56.54	104	288	P	H
802.11ac		17232	41.13	-12.87	54	34.08	42.21	21.38	56.54	104	288	A	H
VHT20													H
CH 149		11490	44.75	-29.25	74	47.02	38.19	17.38	57.84	100	0	P	V
5745MHz		17232	50.96	-23.04	74	43.91	42.21	21.38	56.54	287	33	P	V
		17232	40.66	-13.34	54	33.61	42.21	21.38	56.54	287	33	A	V
													V
		11570	43.59	-30.41	74	45.52	38.3	17.46	57.69	100	0	P	H
		17358	55.94	-18.06	74	48.98	42.12	21.45	56.61	112	285	P	H
802.11ac		17358	45.62	-8.38	54	38.66	42.12	21.45	56.61	112	285	A	H
VHT20													H
CH 157		11570	43.88	-30.12	74	45.81	38.3	17.46	57.69	100	0	P	V
5785MHz		17364	56.03	-17.97	74	49.09	42.11	21.45	56.62	296	46	P	V
		17364	45.82	-8.18	54	38.88	42.11	21.45	56.62	296	46	A	V
													V
		11650	43.73	-30.27	74	45.39	38.39	17.53	57.58	100	0	P	H
		17472	52.14	-21.86	74	45.26	42.03	21.53	56.68	100	186	P	H
802.11ac		17472	41.97	-12.03	54	35.09	42.03	21.53	56.68	100	186	A	H
VHT20													H
CH 165		11650	43.53	-30.47	74	45.19	38.39	17.53	57.58	100	0	P	V
5825MHz		17472	54.61	-19.39	74	47.73	42.03	21.53	56.68	296	72	P	V
		17472	44.39	-9.61	54	37.51	42.03	21.53	56.68	296	72	A	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E Band 4 5725~5850MHz

WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT40 CH 151 5755MHz		5714.84	72	-2	74	58.67	35.22	12.26	34.15	106	201	P	H
		5722.36	76.32	-1.98	78.3	62.98	35.23	12.26	34.15	106	201	P	H
		5715	53.34	-0.66	54	40.01	35.22	12.26	34.15	106	201	A	H
	*	5755	107.48	-	-	94.06	35.26	12.33	34.17	106	201	P	H
	*	5755	98.66	-	-	85.24	35.26	12.33	34.17	106	201	A	H
		5854.72	57.75	-20.55	78.3	44.29	35.32	12.45	34.31	106	201	P	H
		5866.88	59.39	-14.61	74	45.93	35.32	12.49	34.35	106	201	P	H
		5882.72	45.37	-8.63	54	31.9	35.33	12.49	34.35	106	201	A	H
		5714.28	60.76	-13.24	74	47.43	35.22	12.26	34.15	330	17	P	V
		5723.08	66.57	-11.73	78.3	53.23	35.23	12.26	34.15	330	17	P	V
		5714.36	46.03	-7.97	54	32.7	35.22	12.26	34.15	330	17	A	V
	*	5755	101.56	-	-	88.14	35.26	12.33	34.17	330	17	P	V
	*	5755	92.67	-	-	79.25	35.26	12.33	34.17	330	17	A	V
		5855.12	57.3	-21	78.3	43.84	35.32	12.45	34.31	330	17	P	V
		5872.72	57.03	-16.97	74	43.56	35.33	12.49	34.35	330	17	P	V
		5861.68	44.71	-9.29	54	31.25	35.32	12.49	34.35	330	17	A	V

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)
		5710.2	63.29	-10.71	74	49.96	35.22	12.26	34.15	107	200	P	H
		5722.84	65.62	-12.68	78.3	52.28	35.23	12.26	34.15	107	200	P	H
		5714.84	48.91	-5.09	54	35.58	35.22	12.26	34.15	107	200	A	H
	*	5795	113.04	-	-	99.59	35.28	12.4	34.23	107	200	P	H
	*	5795	103.47	-	-	90.02	35.28	12.4	34.23	107	200	A	H
		5850.24	75.4	-2.9	78.3	61.95	35.31	12.45	34.31	107	200	P	H
802.11ac		5862	69.7	-4.3	74	56.24	35.32	12.49	34.35	107	200	P	H
VHT40		5860.08	52.58	-1.42	54	39.12	35.32	12.49	34.35	107	200	A	H
CH 159		5711.8	57.8	-16.2	74	44.47	35.22	12.26	34.15	346	17	P	V
5795MHz		5722.76	59.18	-19.12	78.3	45.84	35.23	12.26	34.15	346	17	P	V
		5714.76	45.08	-8.92	54	31.75	35.22	12.26	34.15	346	17	A	V
	*	5795	106.74	-	-	93.29	35.28	12.4	34.23	346	17	P	V
	*	5795	97.11	-	-	83.66	35.28	12.4	34.23	346	17	A	V
		5851.2	66.59	-11.71	78.3	53.14	35.31	12.45	34.31	346	17	P	V
		5861.12	60.83	-13.17	74	47.37	35.32	12.49	34.35	346	17	P	V
		5862.08	46.29	-7.71	54	32.83	35.32	12.49	34.35	346	17	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E Band 4 5725~5850MHz

WIFI 802.11ac VHT40 (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)
		11510	44.16	-29.84	74	46.34	38.2	17.42	57.8	100	0	P	H
		17268	49.79	-24.21	74	42.76	42.19	21.4	56.56	100	0	P	H
802.11ac													H
VHT40													H
CH 151		11510	44.32	-29.68	74	46.5	38.2	17.42	57.8	100	0	P	V
5755MHz		17268	49.95	-24.05	74	42.92	42.19	21.4	56.56	100	0	P	V
													V
													V
		11590	44.04	-29.96	74	45.88	38.32	17.5	57.66	100	0	P	H
		17388	51.68	-22.32	74	44.74	42.09	21.48	56.63	100	199	P	H
802.11ac		17388	41.45	-12.55	54	34.51	42.09	21.48	56.63	100	199	A	H
VHT40													H
CH 159		11590	43.31	-30.69	74	45.15	38.32	17.5	57.66	100	0	P	V
5795MHz		17388	52.02	-21.98	74	45.08	42.09	21.48	56.63	119	306	P	V
		17388	41.86	-12.14	54	34.92	42.09	21.48	56.63	119	306	A	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT80 CH 155 5775MHz		5712.2	67.02	-6.98	74	53.69	35.22	12.26	34.15	113	200	P	H
		5724.52	68.95	-9.35	78.3	55.61	35.23	12.26	34.15	113	200	P	H
		5713.4	52.86	-1.14	54	39.53	35.22	12.26	34.15	113	200	A	H
	*	5775	102.54	-	-	89.14	35.27	12.33	34.2	113	200	P	H
	*	5775	93.07	-	-	79.67	35.27	12.33	34.2	113	200	A	H
		5859.36	61.83	-16.47	78.3	48.41	35.32	12.45	34.35	113	200	P	H
		5860.72	62.58	-11.42	74	49.12	35.32	12.49	34.35	113	200	P	H
		5883.52	49.68	-4.32	54	36.25	35.33	12.49	34.39	113	200	A	H
		5712.52	60.09	-13.91	74	46.76	35.22	12.26	34.15	332	17	P	V
		5724.28	61.86	-16.44	78.3	48.52	35.23	12.26	34.15	332	17	P	V
		5706.28	46.62	-7.38	54	33.29	35.22	12.26	34.15	332	17	A	V
	*	5775	96.43	-	-	83.03	35.27	12.33	34.2	332	17	P	V
	*	5775	87.27	-	-	73.87	35.27	12.33	34.2	332	17	A	V
		5851.6	57.67	-20.63	78.3	44.22	35.31	12.45	34.31	332	17	P	V
		5884.64	58.37	-15.63	74	44.94	35.33	12.49	34.39	332	17	P	V
		5884.08	46.1	-7.9	54	32.67	35.33	12.49	34.39	332	17	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT80 CH 155 5775MHz		11550	43.45	-30.55	74	45.44	38.27	17.46	57.72	100	0	P	H
		17328	50.41	-23.59	74	43.42	42.15	21.43	56.59	100	269	P	H
		17328	40.2	-13.8	54	33.21	42.15	21.43	56.59	100	269	A	H
													H
		11550	43.82	-30.18	74	45.81	38.27	17.46	57.72			P	V
		17328	50.53	-23.47	74	43.54	42.15	21.43	56.59	316	112	P	V
		17328	40.39	-13.61	54	33.4	42.15	21.43	56.59	316	112	A	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E Emission below 1GHz

5GHz WIFI 802.11ac VHT40 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		95.88	28.57	-14.93	43.5	48.17	9.44	2.06	31.1			P	H
		130.71	29.17	-14.33	43.5	45.99	11.9	2.38	31.1			P	H
		242.49	25.7	-20.3	46	42.14	11.6	2.96	31			P	H
		439.3	32.83	-13.17	46	42.91	16.99	3.63	30.7	100	0	P	H
		698.3	31.96	-14.04	46	37.43	20.58	4.35	30.4			P	H
		759.9	27.57	-18.43	46	31.37	22.1	4.48	30.38			P	H
													H
													H
													H
													H
5GHz													H
802.11ac													H
VHT40		78.33	35.63	-4.37	40	57.84	6.93	2.06	31.2	100	0	P	V
LF		130.17	30.9	-12.6	43.5	47.62	12	2.38	31.1			P	V
		244.11	25.59	-20.41	46	41.83	11.8	2.96	31			P	V
		412	29.83	-16.17	46	40.85	16.3	3.52	30.84			P	V
		528.2	26	-20	46	34.54	18.28	3.89	30.71			P	V
		698.3	28	-18	46	33.47	20.58	4.35	30.4			P	V
													V
													V
													V
													V
													V
													V

Remark	1. No other spurious found. 2. All results are PASS against limit line.

Note symbol

*	**Fundamental Frequency** which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency per 15.209(c).
!	Test result is **over limit** line.
P/A	**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+2		(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".

15E Band 4 5725~5850MHz

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)
		5714.68	62.46	-11.54	74	49.13	35.22	12.26	34.15	100	199	P	H
		5725	76.95	-1.35	78.3	63.61	35.23	12.26	34.15	100	199	P	H
		5714.92	48.33	-5.67	54	35	35.22	12.26	34.15	100	199	A	H
	*	5745	114.78	-	-	101.38	35.24	12.33	34.17	100	199	P	H
	*	5745	104.96	-	-	91.56	35.24	12.33	34.17	100	199	A	H
													H
802.11n													H
HT20													H
CH 149		5713.96	59.02	-14.98	74	45.69	35.22	12.26	34.15	399	73	P	V
5745MHz		5723.48	71.27	-7.03	78.3	57.93	35.23	12.26	34.15	399	73	P	V
		5713.64	45.24	-8.76	54	31.91	35.22	12.26	34.15	399	73	A	V
	*	5746	109.69	-	-	96.29	35.24	12.33	34.17	399	73	P	V
	*	5746	99.82	-	-	86.42	35.24	12.33	34.17	399	73	A	V
													V
													V
													V

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)
		5705.48	60.82	-13.18	74	47.49	35.22	12.26	34.15	105	244	P	H
		5723.8	61.35	-16.95	78.3	48.01	35.23	12.26	34.15	105	244	P	H
		5710.36	47.29	-6.71	54	33.96	35.22	12.26	34.15	105	244	A	H
	*	5787	119.37	-	-	105.92	35.28	12.4	34.23	105	244	P	H
	*	5787	110.03	-	-	96.58	35.28	12.4	34.23	105	244	A	H
		5851.12	59.96	-18.34	78.3	46.51	35.31	12.45	34.31	105	244	P	H
802.11n		5888.72	59.7	-14.3	74	46.26	35.34	12.49	34.39	105	244	P	H
HT20		5861.68	46.8	-7.2	54	33.34	35.32	12.49	34.35	105	244	A	H
CH 157		5691.56	58.11	-15.89	74	44.84	35.21	12.18	34.12	367	44	P	V
5785MHz		5722.04	58.93	-19.37	78.3	45.59	35.23	12.26	34.15	367	44	P	V
		5709.88	44.49	-9.51	54	31.16	35.22	12.26	34.15	367	44	A	V
	*	5787	114.08	-	-	100.63	35.28	12.4	34.23	367	44	P	V
	*	5787	104.97	-	-	91.52	35.28	12.4	34.23	367	44	A	V
		5852.72	58.41	-19.89	78.3	44.96	35.31	12.45	34.31	367	44	P	V
		5868.24	58.56	-15.44	74	45.1	35.32	12.49	34.35	367	44	P	V
		5860.88	44.99	-9.01	54	31.53	35.32	12.49	34.35	367	44	A	V

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)
	*	5824	116.36	-	-	102.88	35.3	12.45	34.27	100	246	P	H
	*	5824	106.9	-	-	93.42	35.3	12.45	34.27	100	246	A	H
		5850.24	72.99	-5.31	78.3	59.54	35.31	12.45	34.31	100	246	P	H
		5861.28	66.84	-7.16	74	53.38	35.32	12.49	34.35	100	246	P	H
		5860.56	48.53	-5.47	54	35.07	35.32	12.49	34.35	100	246	A	H
													H
802.11n													H
HT20													H
CH 165	*	5826	111.2	-	-	97.72	35.3	12.45	34.27	325	46	P	V
5825MHz	*	5826	101.82	-	-	88.34	35.3	12.45	34.27	325	46	A	V
		5850.1	70.34	-7.96	78.3	56.89	35.31	12.45	34.31	325	46	P	V
		5864.72	61.07	-12.93	74	47.61	35.32	12.49	34.35	325	46	P	V
		5862.4	45.57	-8.43	54	32.11	35.32	12.49	34.35	325	46	A	V
													V
													V
													V

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

15E Band 4 5725~5850MHz

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)
		11490	44.76	-29.24	74	47.03	38.19	17.38	57.84	100	0	P	H
		17232	49.9	-24.1	74	42.85	42.21	21.38	56.54	100	0	P	H
802.11n													H
HT20													H
CH 149		11490	44.17	-29.83	74	46.44	38.19	17.38	57.84	100	0	P	V
5745MHz		17232	50.49	-23.51	74	43.44	42.21	21.38	56.54	100	239	P	V
		17232	39.64	-14.36	54	32.59	42.21	21.38	56.54	100	239	A	V
													V
		11570	46.34	-27.66	74	48.27	38.3	17.46	57.69	100	0	P	H
		17358	53.46	-20.54	74	46.5	42.12	21.45	56.61	101	220	P	H
802.11n		17358	43.44	-10.56	54	36.48	42.12	21.45	56.61	101	220	A	H
HT20													H
CH 157		11570	43.54	-30.46	74	45.47	38.3	17.46	57.69	100	0	P	V
5785MHz		17352	55.51	-18.49	74	48.55	42.12	21.45	56.61	111	253	P	V
		17352	44.67	-9.33	54	37.71	42.12	21.45	56.61	111	253	A	V
													V
		11650	45.84	-28.16	74	47.5	38.39	17.53	57.58	100	0	P	H
		17472	51.41	-22.59	74	44.53	42.03	21.53	56.68	100	309	P	H
802.11n		17472	41.21	-12.79	54	34.33	42.03	21.53	56.68	100	309	A	H
HT20													H
CH 165		11650	43.66	-30.34	74	45.32	38.39	17.53	57.58	100	0	P	V
5825MHz		17472	51.3	-22.7	74	44.42	42.03	21.53	56.68	113	59	P	V
		17472	40.99	-13.01	54	34.11	42.03	21.53	56.68	113	59	A	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E Band 4 5725~5850MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 151 5755MHz		5714.84	68.87	-5.13	74	55.54	35.22	12.26	34.15	100	214	P	H
		5722.84	73.82	-4.48	78.3	60.48	35.23	12.26	34.15	100	214	P	H
		5715	53.39	-0.61	54	40.06	35.22	12.26	34.15	100	214	A	H
	*	5754	110.11	-	-	96.69	35.26	12.33	34.17	100	214	P	H
	*	5754	101	-	-	87.58	35.26	12.33	34.17	100	214	A	H
		5858.96	57.76	-20.54	78.3	44.34	35.32	12.45	34.35	100	214	P	H
		5864.32	57.89	-16.11	74	44.43	35.32	12.49	34.35	100	214	P	H
		5862.64	45.51	-8.49	54	32.05	35.32	12.49	34.35	100	214	A	H
		5715	58.36	-15.64	74	45.03	35.22	12.26	34.15	395	74	P	V
		5722.76	63.44	-14.86	78.3	50.1	35.23	12.26	34.15	395	74	P	V
		5715	45.75	-8.25	54	32.42	35.22	12.26	34.15	395	74	A	V
	*	5755	102.94	-	-	89.52	35.26	12.33	34.17	395	74	P	V
	*	5755	93.92	-	-	80.5	35.26	12.33	34.17	395	74	A	V
		5857.68	56.95	-21.35	78.3	43.49	35.32	12.45	34.31	395	74	P	V
		5879.2	57.26	-16.74	74	43.79	35.33	12.49	34.35	395	74	P	V
		5860.4	44.92	-9.08	54	31.46	35.32	12.49	34.35	395	74	A	V

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)
		5714.76	63.34	-10.66	74	50.01	35.22	12.26	34.15	100	215	P	H
		5722.68	62.99	-15.31	78.3	49.65	35.23	12.26	34.15	100	215	P	H
		5713.08	47.98	-6.02	54	34.65	35.22	12.26	34.15	100	215	A	H
	*	5794	115.31	-	-	101.86	35.28	12.4	34.23	100	215	P	H
	*	5794	105.9	-	-	92.45	35.28	12.4	34.23	100	215	A	H
		5853.44	71.05	-7.25	78.3	57.6	35.31	12.45	34.31	100	215	P	H
802.11n		5862.32	67.06	-6.94	74	53.6	35.32	12.49	34.35	100	215	P	H
HT40		5860.4	51.09	-2.91	54	37.63	35.32	12.49	34.35	100	215	A	H
CH 159		5714.6	57.51	-16.49	74	44.18	35.22	12.26	34.15	376	179	P	V
5795MHz		5717.08	58.61	-19.69	78.3	45.28	35.22	12.26	34.15	376	179	P	V
		5712.76	44.96	-9.04	54	31.63	35.22	12.26	34.15	376	179	A	V
	*	5795	109.42	-	-	95.97	35.28	12.4	34.23	376	179	P	V
	*	5795	100.24	-	-	86.79	35.28	12.4	34.23	376	179	A	V
		5851.28	62.62	-15.68	78.3	49.17	35.31	12.45	34.31	376	179	P	V
		5861.2	58.81	-15.19	74	45.35	35.32	12.49	34.35	376	179	P	V
		5860	45.79	-8.21	54	32.37	35.32	12.45	34.35	376	179	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E Band 4 5725~5850MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		11510	43.86	-30.14	74	46.04	38.2	17.42	57.8	100	0	P	H
		17268	50.26	-23.74	74	43.23	42.19	21.4	56.56	106	239	P	H
802.11n		17268	40.68	-13.32	54	33.65	42.19	21.4	56.56	106	239	A	H
HT40													H
CH 151		11510	44.07	-29.93	74	46.25	38.2	17.42	57.8	100	0	P	V
5755MHz		17268	49.91	-24.09	74	42.88	42.19	21.4	56.56	100	0	P	V
													V
													V
		11590	44.2	-29.8	74	46.04	38.32	17.5	57.66	100	0	P	H
		17388	50.9	-23.1	74	43.96	42.09	21.48	56.63	120	125	P	H
802.11n		17388	39.48	-14.52	54	32.54	42.09	21.48	56.63	120	125	A	H
HT40													H
CH 159		11590	43.37	-30.63	74	45.21	38.32	17.5	57.66	100	0	P	V
5795MHz		17388	51.07	-22.93	74	44.13	42.09	21.48	56.63	100	241	P	V
		17388	39.92	-14.08	54	32.98	42.09	21.48	56.63	100	241	A	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E Band 4 5725~5850MHz

WIFI 802.11ac VHT20 (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)
		5713.88	62.84	-11.16	74	49.51	35.22	12.26	34.15	100	245	P	H
		5724.84	76.11	-2.19	78.3	62.77	35.23	12.26	34.15	100	245	P	H
		5714.68	48.51	-5.49	54	35.18	35.22	12.26	34.15	100	245	A	H
	*	5746	114.99	-	-	101.59	35.24	12.33	34.17	100	245	P	H
	*	5746	105.45	-	-	92.05	35.24	12.33	34.17	100	245	A	H
													H
802.11ac													H
VHT20													H
CH 149		5713.16	58.18	-15.82	74	44.85	35.22	12.26	34.15	301	49	P	V
5745MHz		5725	69.65	-8.65	78.3	56.31	35.23	12.26	34.15	301	49	P	V
		5714.2	45.33	-8.67	54	32	35.22	12.26	34.15	301	49	A	V
	*	5745	109.52	-	-	96.12	35.24	12.33	34.17	301	49	P	V
	*	5745	100.13	-	-	86.73	35.24	12.33	34.17	301	49	A	V
													V
													V
													V

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)
		5709.56	60.35	-13.65	74	47.02	35.22	12.26	34.15	109	246	P	H
		5725	62.77	-15.53	78.3	49.43	35.23	12.26	34.15	109	246	P	H
		5714.12	47.38	-6.62	54	34.05	35.22	12.26	34.15	109	246	A	H
	*	5785	119.67	-	-	106.23	35.27	12.4	34.23	109	246	P	H
	*	5785	110.38	-	-	96.94	35.27	12.4	34.23	109	246	A	H
		5851.92	60.94	-17.36	78.3	47.49	35.31	12.45	34.31	109	246	P	H
802.11ac		5866.88	59.88	-14.12	74	46.42	35.32	12.49	34.35	109	246	P	H
VHT20		5862.4	46.62	-7.38	54	33.16	35.32	12.49	34.35	109	246	A	H
CH 157		5709.8	58.07	-15.93	74	44.74	35.22	12.26	34.15	298	50	P	V
5785MHz		5722.44	58.89	-19.41	78.3	45.55	35.23	12.26	34.15	298	50	P	V
		5714.76	44.91	-9.09	54	31.58	35.22	12.26	34.15	298	50	A	V
	*	5785	115.12	-	-	101.68	35.27	12.4	34.23	298	50	P	V
	*	5785	105.46	-	-	92.02	35.27	12.4	34.23	298	50	A	V
		5856.88	57.8	-20.5	78.3	44.34	35.32	12.45	34.31	298	50	P	V
		5870.4	58.12	-15.88	74	44.66	35.32	12.49	34.35	298	50	P	V
		5860.32	44.91	-9.09	54	31.45	35.32	12.49	34.35	298	50	A	V

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)
	*	5825	118.3	-	-	104.82	35.3	12.45	34.27	100	212	P	H
	*	5825	108.9	-	-	95.42	35.3	12.45	34.27	100	212	A	H
		5850.08	77.04	-1.26	78.3	63.59	35.31	12.45	34.31	100	212	P	H
		5860	69.62	-4.38	74	56.2	35.32	12.45	34.35	100	212	P	H
		5860.4	49.79	-4.21	54	36.33	35.32	12.49	34.35	100	212	A	H
													H
802.11ac													H
VHT20													H
CH 165	*	5825	111.92	-	-	98.44	35.3	12.45	34.27	385	73	P	V
5825MHz	*	5825	102.49	-	-	89.01	35.3	12.45	34.27	385	73	A	V
		5850.1	71.59	-6.71	78.3	58.14	35.31	12.45	34.31	385	73	P	V
		5860.24	62.15	-11.85	74	48.69	35.32	12.49	34.35	385	73	P	V
		5860	45.96	-8.04	54	32.54	35.32	12.45	34.35	385	73	A	V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E Band 4 5725~5850MHz

WIFI 802.11ac VHT20 (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)
		11490	44.08	-29.92	74	46.35	38.19	17.38	57.84	100	0	P	H
		17232	51.3	-22.7	74	44.25	42.21	21.38	56.54	100	302	P	H
802.11ac		17232	41.86	-12.14	54	34.81	42.21	21.38	56.54	100	302	A	H
VHT20													H
CH 149		11490	44.16	-29.84	74	46.43	38.19	17.38	57.84	100	0	P	V
5745MHz		17232	49.7	-24.3	74	42.65	42.21	21.38	56.54	100	0	P	V
													V
													V
		11570	43.56	-30.44	74	45.49	38.3	17.46	57.69	100	0	P	H
		17352	52.62	-21.38	74	45.66	42.12	21.45	56.61	100	212	P	H
802.11ac		17352	41.99	-12.01	54	35.03	42.12	21.45	56.61	100	212	A	H
VHT20													H
CH 157		11570	44.17	-29.83	74	46.1	38.3	17.46	57.69	100	0	P	V
5785MHz		17352	53.84	-20.16	74	46.88	42.12	21.45	56.61	111	240	P	V
		17352	43.67	-10.33	54	36.71	42.12	21.45	56.61	111	240	A	V
													V
		11650	44.42	-29.58	74	46.08	38.39	17.53	57.58	100	0	P	H
		17472	50.82	-23.18	74	43.94	42.03	21.53	56.68	106	311	P	H
802.11ac		17472	40.7	-13.3	54	33.82	42.03	21.53	56.68	106	311	A	H
VHT20													H
CH 165		11650	43.08	-30.92	74	44.74	38.39	17.53	57.58	100	0	P	V
5825MHz		17472	51.8	-22.2	74	44.92	42.03	21.53	56.68	122	356	P	V
		17472	41.76	-12.24	54	34.88	42.03	21.53	56.68	122	356	A	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E Band 4 5725~5850MHz

WIFI 802.11ac VHT40 (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)
802.11ac VHT40 CH 151 5755MHz		5714.84	67.62	-6.38	74	54.29	35.22	12.26	34.15	101	245	P	H
		5723.48	72.95	-5.35	78.3	59.61	35.23	12.26	34.15	101	245	P	H
		5714.6	52.31	-1.69	54	38.98	35.22	12.26	34.15	101	245	A	H
	*	5755	109.03	-	-	95.61	35.26	12.33	34.17	101	245	P	H
	*	5755	100.16	-	-	86.74	35.26	12.33	34.17	101	245	A	H
		5852	57	-21.3	78.3	43.55	35.31	12.45	34.31	101	245	P	H
		5870.64	57.74	-16.26	74	44.27	35.33	12.49	34.35	101	245	P	H
		5876.56	44.92	-9.08	54	31.45	35.33	12.49	34.35	101	245	A	H
		5711.16	60.28	-13.72	74	46.95	35.22	12.26	34.15	373	54	P	V
		5724.04	65.47	-12.83	78.3	52.13	35.23	12.26	34.15	373	54	P	V
		5714.92	47.33	-6.67	54	34	35.22	12.26	34.15	373	54	A	V
	*	5755	104.14	-	-	90.72	35.26	12.33	34.17	373	54	P	V
	*	5755	94.81	-	-	81.39	35.26	12.33	34.17	373	54	A	V
		5854.32	57.61	-20.69	78.3	44.15	35.32	12.45	34.31	373	54	P	V
		5866.64	57.11	-16.89	74	43.65	35.32	12.49	34.35	373	54	P	V
		5875.68	44.57	-9.43	54	31.1	35.33	12.49	34.35	373	54	A	V

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 VHT40 CH 159 5795MHz		5714.44	63.51	-10.49	74	50.18	35.22	12.26	34.15	102	242	P	H
		5724.84	66.3	-12	78.3	52.96	35.23	12.26	34.15	102	242	P	H
		5711.16	48.93	-5.07	54	35.6	35.22	12.26	34.15	102	242	A	H
	*	5795	115.58	-	-	102.13	35.28	12.4	34.23	102	242	P	H
	*	5795	106.58	-	-	93.13	35.28	12.4	34.23	102	242	A	H
		5851.92	74.74	-3.56	78.3	61.29	35.31	12.45	34.31	102	242	P	H
		5862.16	71.17	-2.83	74	57.71	35.32	12.49	34.35	102	242	P	H
		5860.48	52.07	-1.93	54	38.61	35.32	12.49	34.35	102	242	A	H
		5712.04	58.1	-15.9	74	44.77	35.22	12.26	34.15	314	48	P	V
		5724.76	61.08	-17.22	78.3	47.74	35.23	12.26	34.15	314	48	P	V
		5713.88	45.58	-8.42	54	32.25	35.22	12.26	34.15	314	48	A	V
	*	5794	111.06	-	-	97.61	35.28	12.4	34.23	314	48	P	V
	*	5794	101.96	-	-	88.51	35.28	12.4	34.23	314	48	A	V
		5850.96	67.5	-10.8	78.3	54.05	35.31	12.45	34.31	314	48	P	V
		5861.44	64.8	-9.2	74	51.34	35.32	12.49	34.35	314	48	P	V
		5860.64	47.74	-6.26	54	34.28	35.32	12.49	34.35	314	48	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E Band 4 5725~5850MHz

WIFI 802.11ac VHT40 (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)
		11530	43.97	-30.03	74	46.1	38.22	17.42	57.77	100	0	P	H
		17304	50.48	-23.52	74	43.47	42.16	21.43	56.58	105	226	P	H
802.11ac		17304	39.79	-14.21	54	32.78	42.16	21.43	56.58	105	226	A	H
VHT40													H
CH 151		11530	43.81	-30.19	74	45.94	38.22	17.42	57.77	100	0	P	V
5755MHz		17304	49.8	-24.2	74	42.79	42.16	21.43	56.58	100	0	P	V
													V
													V
		5332	61.07	-7.23	68.3	47.6	34.87	11.68	33.08	102	242	P	H
		11590	44.27	-29.73	74	46.11	38.32	17.5	57.66	100	0	P	H
802.11ac		17388	51.1	-22.9	74	44.16	42.09	21.48	56.63	102	225	P	H
VHT40		17388	40.61	-13.39	54	33.67	42.09	21.48	56.63	102	225	A	H
CH 159		11590	43.05	-30.95	74	44.89	38.32	17.5	57.66	100	0	P	V
5795MHz		17388	52.27	-21.73	74	45.33	42.09	21.48	56.63	352	56	P	V
		17388	41.18	-12.82	54	34.24	42.09	21.48	56.63	352	56	A	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT80 CH 155 5775MHz		5712.2	65.58	-8.42	74	52.25	35.22	12.26	34.15	100	215	P	H
		5724.44	68.11	-10.19	78.3	54.77	35.23	12.26	34.15	100	215	P	H
		5712.6	53.5	-0.5	54	40.17	35.22	12.26	34.15	100	215	A	H
	*	5775	103.96	-	-	90.56	35.27	12.33	34.2	100	215	P	H
	*	5775	94.83	-	-	81.43	35.27	12.33	34.2	100	215	A	H
		5850.32	62.41	-15.89	78.3	48.96	35.31	12.45	34.31	100	215	P	H
		5862.16	63.64	-10.36	74	50.18	35.32	12.49	34.35	100	215	P	H
		5883.44	51.6	-2.4	54	38.17	35.33	12.49	34.39	100	215	A	H
		5713.16	59.86	-14.14	74	46.53	35.22	12.26	34.15	376	179	P	V
		5719.8	61.06	-17.24	78.3	47.72	35.23	12.26	34.15	376	179	P	V
		5713.08	46.87	-7.13	54	33.54	35.22	12.26	34.15	376	179	A	V
	*	5775	99.1	-	-	85.7	35.27	12.33	34.2	376	179	P	V
	*	5775	89.98	-	-	76.58	35.27	12.33	34.2	376	179	A	V
		5854.56	57.29	-21.01	78.3	43.83	35.32	12.45	34.31	376	179	P	V
		5889.44	58.56	-15.44	74	45.12	35.34	12.49	34.39	376	179	P	V
		5884.48	45.78	-8.22	54	32.35	35.33	12.49	34.39	376	179	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

15E Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		11550	43.95	-30.05	74	45.94	38.27	17.46	57.72	100	0	P	H
		17328	50.35	-23.65	74	43.36	42.15	21.43	56.59	120	259	P	H
802.11ac		17328	40.1	-13.9	54	33.11	42.15	21.43	56.59	120	259	A	H
VHT80													H
CH 155		11550	43.58	-30.42	74	45.57	38.27	17.46	57.72	100	0	P	V
5775MHz		17328	49.86	-24.14	74	42.87	42.15	21.43	56.59	100	0	P	V
													V
													V

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

15E Emission below 1GHz

5GHz 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)
		99.66	22.78	-20.72	43.5	41.42	10.4	2.06	31.1			P	H
		131.25	25.27	-18.23	43.5	42.09	11.9	2.38	31.1			P	H
		289.74	31.45	-14.55	46	46.29	13.1	3.16	31.1			P	H
		361.6	32.56	-13.44	46	45.53	14.74	3.39	31.1			P	H
		431.6	32.92	-13.08	46	43.11	16.92	3.63	30.74	120	289	P	H
		698.3	31.78	-14.22	46	37.25	20.58	4.35	30.4			P	H
													H
													H
													H
													H
5GHz													H
802.11ac													H
VHT80		31.35	31.67	-8.33	40	43.04	18.28	1.77	31.42	105	86	P	V
LF		91.83	27.83	-15.67	43.5	47.97	8.9	2.06	31.1			P	V
		130.98	31.38	-12.12	43.5	48.2	11.9	2.38	31.1			P	V
		332.2	26.85	-19.15	46	40.69	13.88	3.28	31			P	V
		431.6	28.17	-17.83	46	38.36	16.92	3.63	30.74			P	V
		696.9	28.12	-17.88	46	33.61	20.57	4.35	30.41			P	V
													V
													V
													V
													V
													V
													V

Remark	1. No other spurious found. 2. All results are PASS against limit line.

Note symbol

*	**Fundamental Frequency** which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency per 15.209(c).
!	Test result is **over limit** line.
P/A	**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+2		(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".