FCC RF Test Report

APPLICANT	**:**	**Gillon UK LLC**
EQUIPMENT	**:**	**HDMI Digital Media Receiver**
MODEL NAME	**:**	**LDC9WZ**
FCC ID	**:**	**2ALBL-1731**
STANDARD	**:**	**FCC Part 15 Subpart E §15.407**
CLASSIFICATION	**:**	**(NII) Unlicensed National Information Infrastructure**

The testing was completed on Jul. 04, 2017. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.
The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR730732-01E	Rev. 01	Initial issue of report	Aug. 21, 2017

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result
3.1	15.403(i)	6dB, 26dB and 99% Occupied 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	15.407(b)(4)(i) &15.209(a)	Pass
3.5	15.207	AC Conducted Emission	15.207(a)	Pass
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

Gillon UK LLC
106 E. Sixth Street, Suite 900, Austin, Texas 78701

1.2 Product Feature of Equipment Under Test

Product Feature	
Equipment	HDMI Digital Media Receiver
Model Name	LDC9WZ
FCC ID	2ALBL-1731
EUT supports Radios application	WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE

1.3 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Channel Frequency Range	5745 MHz ~ 5825 MHz
Maximum Output Power	**<5745 MHz ~ 5825 MHz>** **<Ant. 1>** 802.11a : 15.81 dBm / 0.0381 W 802.11n HT20 : 15.85 dBm / 0.0385 W 802.11n HT40 : 15.85 dBm / 0.0385 W 802.11ac VHT20: 15.84 dBm / 0.0384 W 802.11ac VHT40: 15.83 dBm / 0.0383 W 802.11ac VHT80: 14.38 dBm / 0.0274 W **<Ant. 2>** 802.11a : 15.84 dBm / 0.0384 W 802.11n HT20 : 15.96 dBm / 0.0394 W 802.11n HT40 : 15.82 dBm / 0.0382 W 802.11ac VHT20: 15.94 dBm / 0.0393 W 802.11ac VHT40: 15.81 dBm / 0.0381 W 802.11ac VHT80: 15.96 dBm / 0.0394 W **MIMO <Ant. 1 + 2>** 802.11a : 18.81 dBm / 0.0760 W 802.11n HT20 : 18.90 dBm / 0.0776 W 802.11n HT40 : 18.96 dBm / 0.0787 W 802.11ac VHT20: 18.86 dBm / 0.0769 W 802.11ac VHT40: 18.90 dBm / 0.0776 W 802.11ac VHT80: 16.61 dBm / 0.0458 W
99% Occupied Bandwidth	**<Ant. 1>** 802.11a : 18.55 MHz 802.11n HT20 : 19.10 MHz 802.11n HT40 : 36.80 MHz 802.11ac VHT80 : 75.84 MHz **<Ant. 2>** 802.11a : 18.30 MHz 802.11n HT20 : 19.15 MHz 802.11n HT40 : 36.80 MHz 802.11ac VHT80 : 75.84 MHz **MIMO <Ant. 1>** 802.11a : 18.20 MHz 802.11n HT20 : 19.00 MHz 802.11n HT40 : 36.80 MHz 802.11ac VHT80 : 75.96 MHz **MIMO <Ant. 2>** 802.11a : 18.15 MHz 802.11n HT20 : 18.95 MHz 802.11n HT40 : 36.80 MHz 802.11ac VHT80 : 75.84 MHz

<table>
<tr><th colspan="2">Standards-related Product Specification</th></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 / Gain</td><td><Ant. 1> : Fixed internal Antenna with gain 5.47 dBi
<Ant. 2> : Fixed internal Antenna with gain 6.35 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/n/ac</td><td>V</td><td>V</td></tr>
<tr><td>802.11 a/n/ac MIMO</td><td>V</td><td>V</td></tr>
</table>
</td></tr>
</table>

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

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. TW0007 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.**	
	TH05-HY	CO05-HY

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

Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd Rd. Guishan Dist, Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	**Sporton Site No.**
	03CH12-HY

Note: The test site complies with ANSI C63.4 2014 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 v01r04.
- FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- FCC KDB 644545 D03 Guidance for IEEE 802 11ac New Rules v01
- ANSI C63.10-2013

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

2 Test Configuration of Equipment Under Test

a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, the pretesting was done for radiated with and without the TV and the worst case was reported, and then pre-scanned in three orthogonal panels, X, Y, Z, and the worst cases (X plane) were recorded in this report.

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

2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5725-5850 MHz Band 4 (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 Test Mode

Final test mode of conducted test items and radiated spurious emissions are considering the modulation and worse data rates as below table.

Single Antenna

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

MIMO Antenna

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

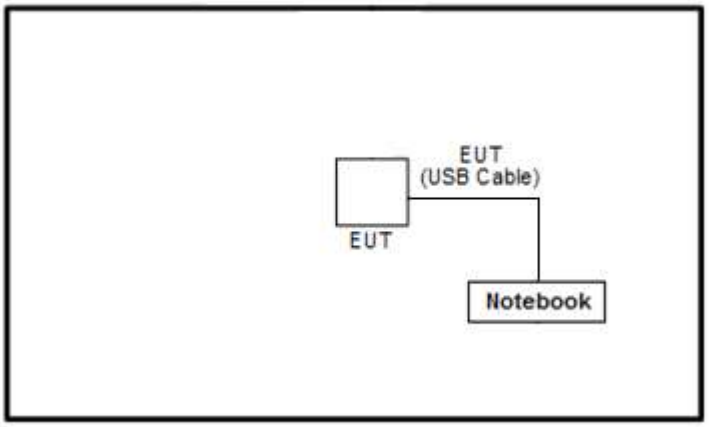
AC Conducted Emission	Mode 1 : WLAN (5GHz) Link + Bluetooth Link + MPEG4 (4K HDR) + USB Cable 1 (Charging from Adapter)

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

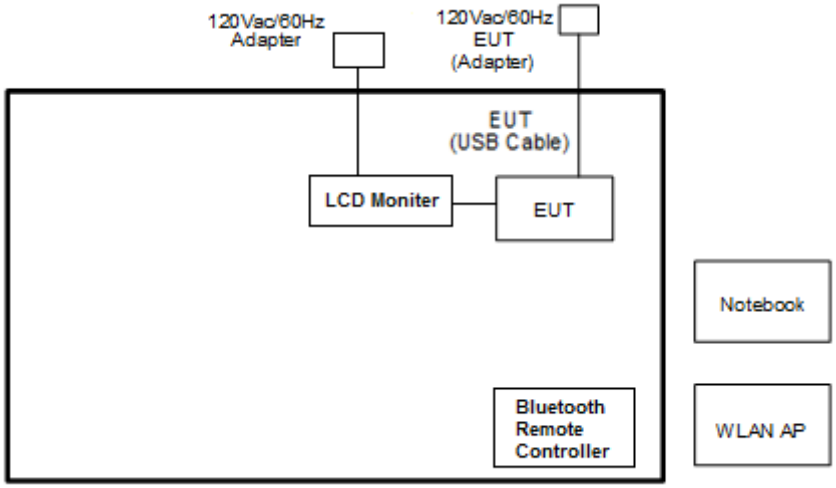
Ch. #		Band IV：5725-5850 MHz		
		802.11ac VHT20	802.11ac VHT40	802.11ac VHT80
L	Low	149	151	-
M	Middle	157	-	155
H	High	165	159	-

2.3 Connection Diagram of Test System

<WLAN Tx Mode>



<AC Conducted Emission Mode>



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8 m
2.	Notebook-40	Lenovo	E335	N/A	N/A	N/A
3.	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
4.	LCD Monitor	Sony	KD-55X8500D	FCC DoC	Shielded, 1.6 m	Unshielded, 1.8 m

2.5 EUT Operation Test Setup

The RF test items, programmed RF utility, “CMD” installed in the notebook make the EUT provide functions like channel selection and power level for continuous transmitting and receiving signals.

2.6 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss 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 and 26dB and 99% Occupied Bandwidth Measurement

3.1.1 Description of 6dB and 26dB and 99% Occupied Bandwidth

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

26dB and 99% Occupied bandwidth are reporting only.

3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

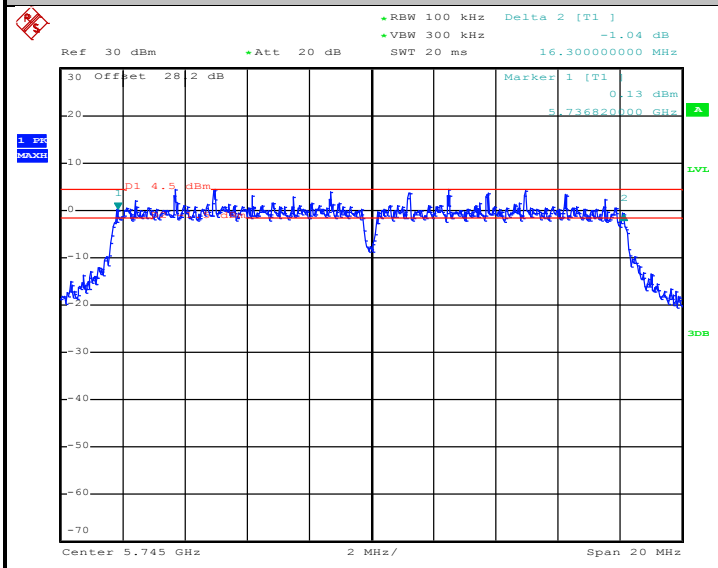
1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04. Section C) Emission bandwidth for the band 5.725-5.85GHz
2. Set RBW = 100kHz.
3. Set the VBW ≥ 3 x RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 6 dB down from the peak of the emission.
7. Measure and record the results in the test report.

3.1.4 Test Setup

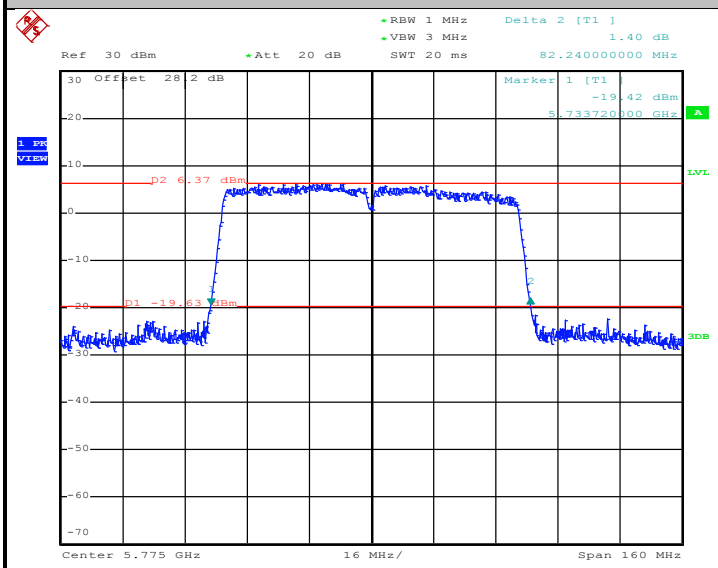
3.1.5 Test Result of 6dB Bandwidth

Please refer to Appendix A.

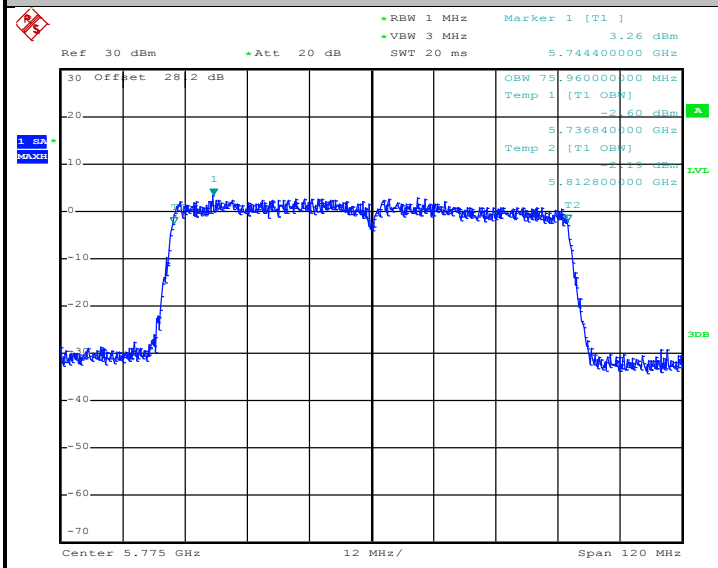
Minimum 6dB Bandwidth



Maximum 26dB Bandwidth



Maximum 99% Occupied Bandwidth



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

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

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.

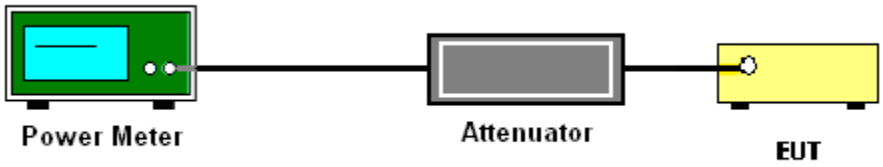
3.2.3 Test Procedures

The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04.

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

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 v01r04. 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).

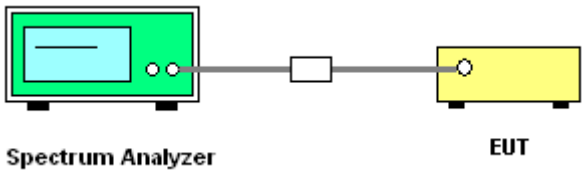
- Measure the duty cycle.
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 300 kHz.
- Set VBW ≥ 1 MHz.
- Number of points in sweep ≥ 2 Span / RBW.
- Sweep time = auto.
- Detector = RMS
- Trace average at least 100 traces in power averaging mode.
- Add 10 log(500kHz/RBW) 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.

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

   Method (c): Measure and add 10 log(N_{ANT}) dB.

   With this technique, spectrum measurements are performed at each output of the device, but rather than summing the spectra or the spectral peaks across the outputs, the quantity 10 log(N_{ANT}) dB is added to each spectrum value before comparing to the emission limit. The addition of 10 log(N_{ANT}) dB serves to apportion the emission limit among the N_{ANT} outputs so that each output is permitted to contribute no more than $1/N_{ANT}$ th of the PSD limit.

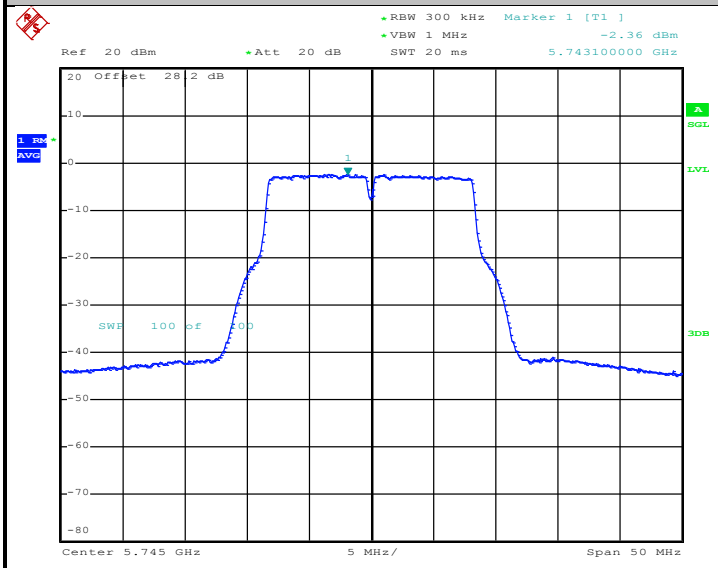
3.3.4 Test Setup



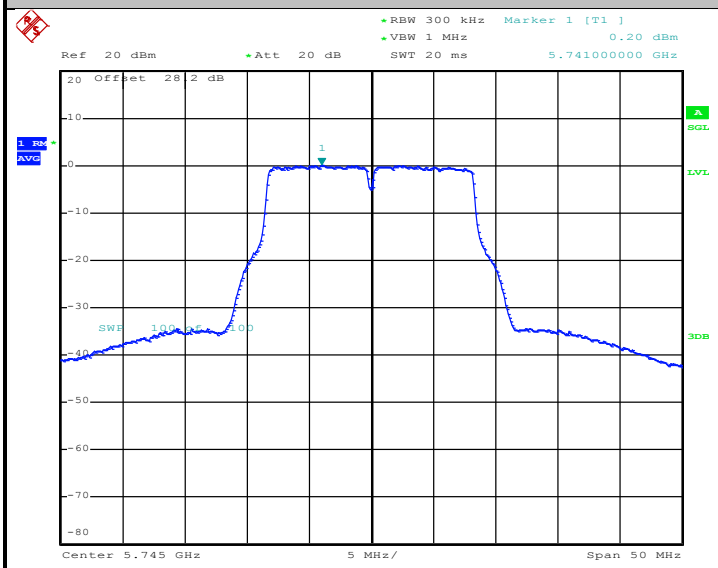
3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

Worst Case Power Density (dBm/300kHz) for MIMO Ant. 1



Worst Case Power Density (dBm/300kHz) for MIMO Ant. 2



3.4 Unwanted Emissions Measurement

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

3.4.1 Limit of Unwanted Emissions

(1) For transmitters operating in the 5.725-5.85 GHz band:

15.407(b)(4)(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

(2) Unwanted spurious emissions fallen in restricted bands shall comply with the general field strength limits as below table,

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

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 D02 v01r04 G)2)c)

(i) Sections 15.407(b)(1) to (b)(3) specify the unwanted emission limits for the U-NII-1 and U-NII-2 bands. As specified, emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz.[3]

(ii) Section 15.407(b)(4) specifies the unwanted emission limit for the U-NII-3 band. A band emissions mask is specified in Section 15.407(b)(4)(i). The emission limits are in terms of a Peak detector. An alternative to the band emissions mask is specified in Section 15.407(b)(4)(ii). The alternative limits are based on the highest antenna gain specified in the filing. There are also marketing and importation restrictions for the devices using the alternative limit.[4]

Note 3: An out-of-band emission that complies with both the average and peak limits of Section 15.209 is not required to satisfy the -27 dBm/MHz peak emission limit.

Note 4: Only devices with antenna gains of 10 dBi or less may be approved using the emission limits specified in Section 15.247(d) till March 2, 2018; all other devices operating in this band must use the mask specified in Section 15.407(b)(4)(i).

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 v01r04. Section G) Unwanted emissions measurement.

   (1) Procedure for Unwanted Emissions Measurements Below 1000MHz

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

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

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

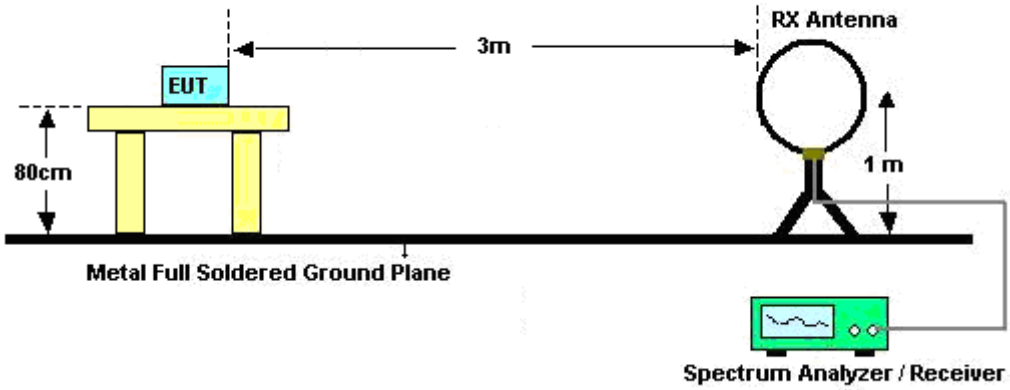
   (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

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

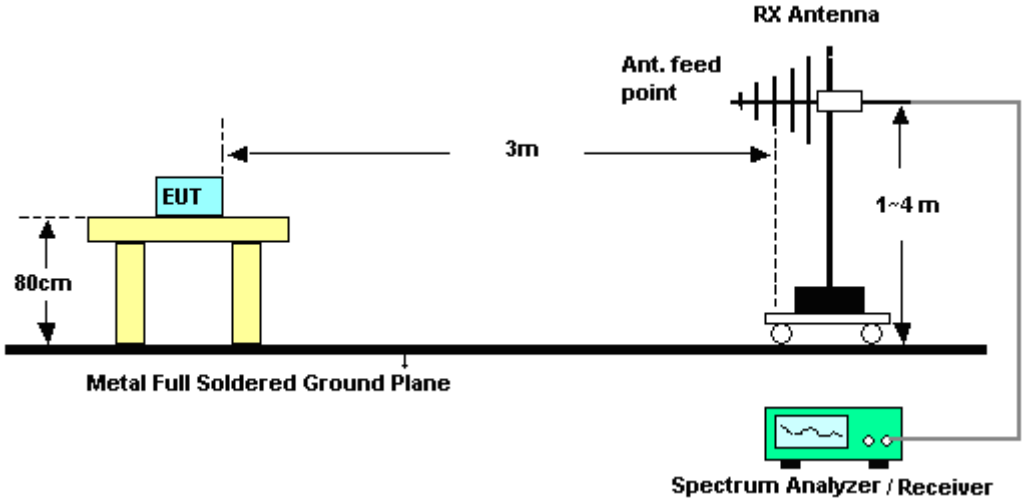
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband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

3.4.4 Test Setup

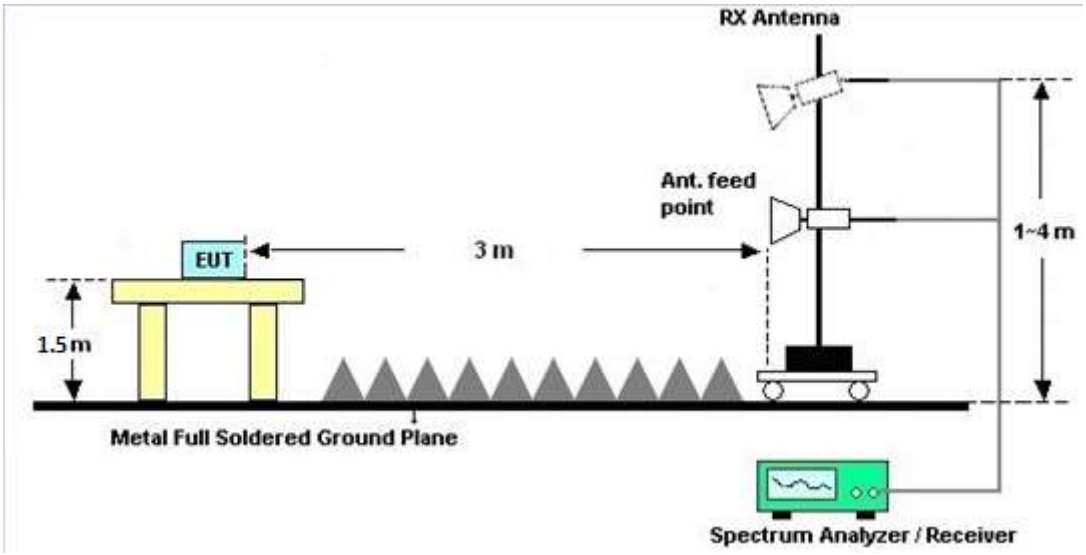
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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

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

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

3.4.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C and D.

3.4.7 Duty Cycle

Please refer to Appendix E.

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

Please refer to Appendix C and D.

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.

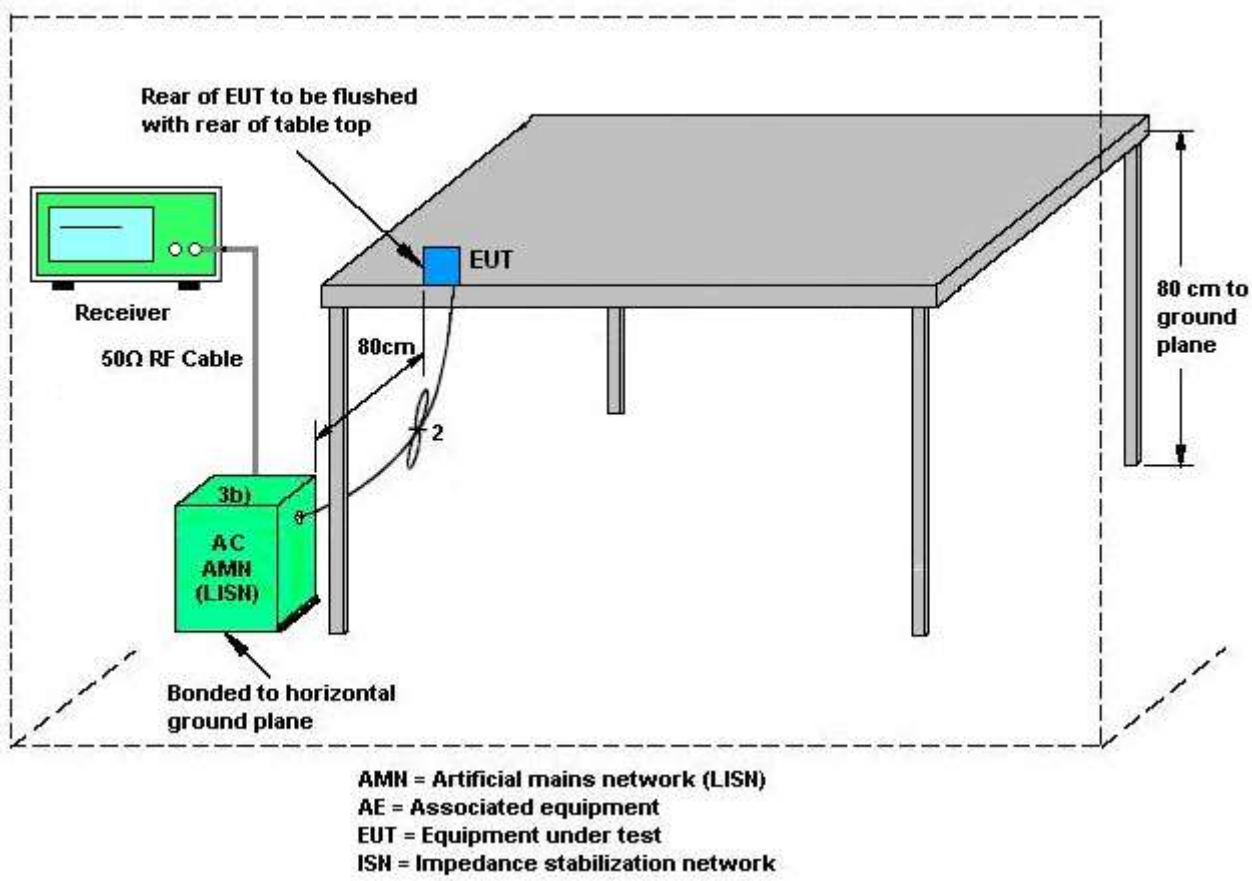
3.5.2 Measuring Instruments

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



3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

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

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 = G_{ANT} + Array Gain, where Array Gain is as follows.

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

Array Gain = 10 log(N_{ANT}/N_{SS}=1) dB.

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$.

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

The EUT supports CDD mode.

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

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

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

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

			DG for Power	DG for PSD	Power Limit Reduction	PSD Limit Reduction
	Ant 1 (dBi)	Ant 2 (dBi)	(dBi)	(dBi)	(dB)	(dB)
Band IV	5.47	6.35	6.35	8.93	0.35	2.93

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

PSD limit reduction = Composite gain + PSD Array gain – 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	0932001	300MHz~40GHz	Sep. 29, 2016	Jun. 13, 2017 ~ Jul. 04, 2017	Sep. 28, 2017	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	0846202	300MHz~40GHz	Sep. 29, 2016	Jun. 13, 2017 ~ Jul. 04, 2017	Sep. 28, 2017	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100057	9kHz-40GHz	Nov. 25, 2016	Jun. 13, 2017 ~ Jul. 04, 2017	Nov. 24, 2017	Conducted (TH05-HY)
Temperature Chamber	ESPEC	SH-641	92013720	-40℃ ~90℃	Sep. 01, 2016	Jun. 13, 2017 ~ Jul. 04, 2017	Aug. 31, 2017	Conducted (TH05-HY)
Programmable Power Supply	GW Instek	PSS-2005	EL890094	1V~20V 0.5A~5A	Oct. 11, 2016	Jun. 13, 2017 ~ Jul. 04, 2017	Oct. 10, 2017	Conducted (TH05-HY)
AC Power Source	AC POWER	AFC-500W	F104070011	50Hz~60Hz	Dec. 01, 2016	Jun. 13, 2017 ~ Jul. 04, 2017	Nov. 30, 2017	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Jun. 07, 2017	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESCI 7	100724	9kHz~7GHz	Aug. 30, 2016	Jun. 07, 2017	Aug. 29, 2017	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 29, 2016	Jun. 07, 2017	Nov. 28, 2017	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Dec. 06, 2016	Jun. 07, 2017	Dec. 05, 2017	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESU26	100390	20Hz~26.5GHz	Dec. 23, 2016	Jun. 14, 2017 ~ Jul. 02, 2017	Dec. 22, 2017	Radiation (03CH12-HY)
Spectrum Analyzer	Agilent	N9030A	MY52350276	3Hz~44GHz	Mar. 23, 2017	Jun. 14, 2017 ~ Jul. 02, 2017	Mar. 22, 2018	Radiation (03CH12-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Oct. 20, 2016	Jun. 14, 2017 ~ Jul. 02, 2017	Oct. 19, 2018	Radiation (03CH12-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800 N1D01N-06	37059&01	30MHz~1GHz	Oct. 15, 2016	Jun. 14, 2017 ~ Jul. 02, 2017	Oct. 14, 2017	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1328	1GHz ~ 18GHz	Oct. 25, 2016	Jun. 14, 2017 ~ Jul. 02, 2017	Oct. 24, 2017	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170576	18GHz ~ 40GHz	Apr. 27, 2017	Jun. 14, 2017 ~ Jul. 02, 2017	Apr. 26, 2018	Radiation (03CH12-HY)
Preamplifier	COM-POWER	PA-103	161075	10MHz~1GHz	Mar. 23, 2017	Jun. 14, 2017 ~ Jul. 02, 2017	Mar. 22, 2018	Radiation (03CH12-HY)
Preamplifier	Keysight	83017A	MY53270148	1GHz~26.5GHz	Jan. 12, 2017	Jun. 14, 2017 ~ Jul. 02, 2017	Jan. 11, 2018	Radiation (03CH12-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1815698	1GHz~18GHz	Dec. 01, 2016	Jun. 14, 2017 ~ Jul. 02, 2017	Nov. 30, 2017	Radiation (03CH12-HY)
Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 16, 2016	Jun. 14, 2017 ~ Jul. 02, 2017	Jul. 15, 2017	Radiation (03CH12-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Jun. 14, 2017 ~ Jul. 02, 2017	N/A	Radiation (03CH12-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Jun. 14, 2017 ~ Jul. 02, 2017	N/A	Radiation (03CH12-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.70**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.10**

Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.20**

Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.70**

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Aking Chang	Temperature:	21~25	°C
Test Date:	2017/06/13~2017/07/04	Relative Humidity:	51~54	%

TEST RESULTS DATA
6dB and 26dB EBW and 99% OBW

Band IV													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26dB Bandwidth (MHz)		6 dB Bandwidth (MHz)		6 dB Bandwidth Min. Limit (MHz)		Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	149	5745	18.40	17.85	23.00	22.90	16.34	16.30	0.5	0.5	Pass
11a	6Mbps	1	157	5785	18.25	18.30	23.40	23.10	16.34	16.32	0.5	0.5	Pass
11a	6Mbps	1	165	5825	18.55	18.25	23.40	23.00	16.30	16.32	0.5	0.5	Pass
HT20	MCS0	1	149	5745	19.10	19.15	23.35	23.20	17.58	17.58	0.5	0.5	Pass
HT20	MCS0	1	157	5785	19.10	18.85	23.30	23.50	17.56	17.56	0.5	0.5	Pass
HT20	MCS0	1	165	5825	19.10	19.00	23.50	23.45	17.56	17.54	0.5	0.5	Pass
HT40	MCS0	1	151	5755	36.80	36.80	49.59	41.76	36.28	36.28	0.5	0.5	Pass
HT40	MCS0	1	159	5795	36.80	36.70	65.07	41.22	36.28	36.00	0.5	0.5	Pass
VHT80	MCS0	1	155	5775	75.84	75.84	82.24	81.92	75.68	75.36	0.5	0.5	Pass
11a	6Mbps	2	149	5745	18.20	18.05	23.00	22.70	16.34	16.32	0.5		Pass
11a	6Mbps	2	157	5785	17.85	18.15	22.90	22.60	16.32	16.32	0.5		Pass
11a	6Mbps	2	165	5825	18.15	18.00	23.10	22.90	16.34	16.32	0.5		Pass
HT20	MCS0	2	149	5745	18.90	18.85	23.30	23.10	17.54	17.56	0.5		Pass
HT20	MCS0	2	157	5785	19.00	18.80	23.10	23.15	17.56	17.58	0.5		Pass
HT20	MCS0	2	165	5825	18.65	18.95	23.10	23.00	17.52	17.62	0.5		Pass
HT40	MCS0	2	151	5755	36.80	36.70	41.40	41.58	36.04	36.32	0.5		Pass
HT40	MCS0	2	159	5795	36.60	36.80	41.49	41.22	35.88	36.32	0.5		Pass
VHT80	MCS0	2	155	5775	75.96	75.84	81.92	81.60	75.76	75.68	0.5		Pass

TEST RESULTS DATA
Average Power Table

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	0.29	0.29	15.54	15.84		30.00	29.65	5.47	6.35	Pass
11a	6Mbps	1	157	5785	0.29	0.29	15.81	15.69		30.00	29.65	5.47	6.35	Pass
11a	6Mbps	1	165	5825	0.29	0.29	15.68	15.74		30.00	29.65	5.47	6.35	Pass
HT20	MCS0	1	149	5745	0.35	0.31	15.60	15.96		30.00	29.65	5.47	6.35	Pass
HT20	MCS0	1	157	5785	0.35	0.31	15.69	15.77		30.00	29.65	5.47	6.35	Pass
HT20	MCS0	1	165	5825	0.35	0.31	15.85	15.94		30.00	29.65	5.47	6.35	Pass
HT40	MCS0	1	151	5755	0.62	0.62	15.85	15.82		30.00	29.65	5.47	6.35	Pass
HT40	MCS0	1	159	5795	0.62	0.62	15.76	15.63		30.00	29.65	5.47	6.35	Pass
VHT20	MCS0	1	149	5745	0.34	0.34	15.59	15.94		30.00	29.65	5.47	6.35	Pass
VHT20	MCS0	1	157	5785	0.34	0.34	15.68	15.74		30.00	29.65	5.47	6.35	Pass
VHT20	MCS0	1	165	5825	0.34	0.34	15.84	15.89		30.00	29.65	5.47	6.35	Pass
VHT40	MCS0	1	151	5755	0.60	0.66	15.83	15.81		30.00	29.65	5.47	6.35	Pass
VHT40	MCS0	1	159	5795	0.60	0.66	15.74	15.61		30.00	29.65	5.47	6.35	Pass
VHT80	MCS0	1	155	5775	1.18	1.20	14.38	15.96		30.00	29.65	5.47	6.35	Pass
11a	6Mbps	2	149	5745	0.32	0.29	14.14	16.75	18.65	29.65		6.35		Pass
11a	6Mbps	2	157	5785	0.32	0.29	13.97	16.65	18.53	29.65		6.35		Pass
11a	6Mbps	2	165	5825	0.32	0.29	14.33	16.90	18.81	29.65		6.35		Pass
HT20	MCS0	2	149	5745	0.34	0.34	14.15	16.89	18.75	29.65		6.35		Pass
HT20	MCS0	2	157	5785	0.34	0.34	13.70	16.84	18.56	29.65		6.35		Pass
HT20	MCS0	2	165	5825	0.34	0.34	14.37	17.01	18.90	29.65		6.35		Pass
HT40	MCS0	2	151	5755	0.67	0.67	14.37	17.11	18.96	29.65		6.35		Pass
HT40	MCS0	2	159	5795	0.67	0.67	14.03	17.15	18.87	29.65		6.35		Pass
VHT20	MCS0	2	149	5745	0.34	0.34	14.14	16.84	18.71	29.65		6.35		Pass
VHT20	MCS0	2	157	5785	0.34	0.34	13.64	16.82	18.53	29.65		6.35		Pass
VHT20	MCS0	2	165	5825	0.34	0.34	14.34	16.96	18.86	29.65		6.35		Pass
VHT40	MCS0	2	151	5755	0.60	0.60	14.30	17.04	18.90	29.65		6.35		Pass
VHT40	MCS0	2	159	5795	0.60	0.60	13.96	17.08	18.81	29.65		6.35		Pass
VHT80	MCS0	2	155	5775	1.20	1.20	11.96	14.79	16.61	29.65		6.35		Pass

TEST RESULTS DATA
Power Spectral Density

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	0.29	0.29	2.22	2.22	1.41	1.63		30.00	29.65	5.47	6.35	Pass
11a	6Mbps	1	157	5785	0.29	0.29	2.22	2.22	1.69	1.64		30.00	29.65	5.47	6.35	Pass
11a	6Mbps	1	165	5825	0.29	0.29	2.22	2.22	1.34	1.53		30.00	29.65	5.47	6.35	Pass
HT20	MCS0	1	149	5745	0.35	0.31	2.22	2.22	1.18	1.31		30.00	29.65	5.47	6.35	Pass
HT20	MCS0	1	157	5785	0.35	0.31	2.22	2.22	1.28	1.27		30.00	29.65	5.47	6.35	Pass
HT20	MCS0	1	165	5825	0.35	0.31	2.22	2.22	1.09	1.07		30.00	29.65	5.47	6.35	Pass
HT40	MCS0	1	151	5755	0.62	0.62	2.22	2.22	-1.02	-1.41		30.00	29.65	5.47	6.35	Pass
HT40	MCS0	1	159	5795	0.62	0.62	2.22	2.22	-1.57	-1.91		30.00	29.65	5.47	6.35	Pass
VHT80	MCS0	1	155	5775	1.18	1.20	2.22	2.22	-4.64	-3.97		30.00	29.65	5.47	6.35	Pass
11a	6Mbps	2	149	5745	0.32	0.29	2.22		0.18	2.71	5.72	27.07		8.93		Pass
11a	6Mbps	2	157	5785	0.32	0.29	2.22		-0.16	2.63	5.64	27.07		8.93		Pass
11a	6Mbps	2	165	5825	0.32	0.29	2.22		0.03	2.48	5.49	27.07		8.93		Pass
HT20	MCS0	2	149	5745	0.34	0.34	2.22		-0.30	2.24	5.25	27.07		8.93		Pass
HT20	MCS0	2	157	5785	0.34	0.34	2.22		-0.60	2.24	5.25	27.07		8.93		Pass
HT20	MCS0	2	165	5825	0.34	0.34	2.22		-0.24	2.35	5.36	27.07		8.93		Pass
HT40	MCS0	2	151	5755	0.67	0.67	2.22		-3.27	-0.57	2.44	27.07		8.93		Pass
HT40	MCS0	2	159	5795	0.67	0.67	2.22		-3.15	-0.40	2.61	27.07		8.93		Pass
VHT80	MCS0	2	155	5775	1.20	1.20	2.22		-7.45	-4.73	-1.72	27.07		8.93		Pass

Note: PSD Sum = Max PSD(Ant. 1, Ant. 2) + 10 log (n)

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	5744.950	-0.050	-8.70	35	5	
11a	6Mbps	1	149	5745	5744.950	-0.050	-8.70	0	5	
11a	6Mbps	1	149	5745	5744.950	-0.050	-8.70	20	5.2	
11a	6Mbps	1	149	5745	5744.950	-0.050	-8.70	20	4.5	
11a	6Mbps	1	149	5745	5744.950	-0.050	-8.70	20	5	

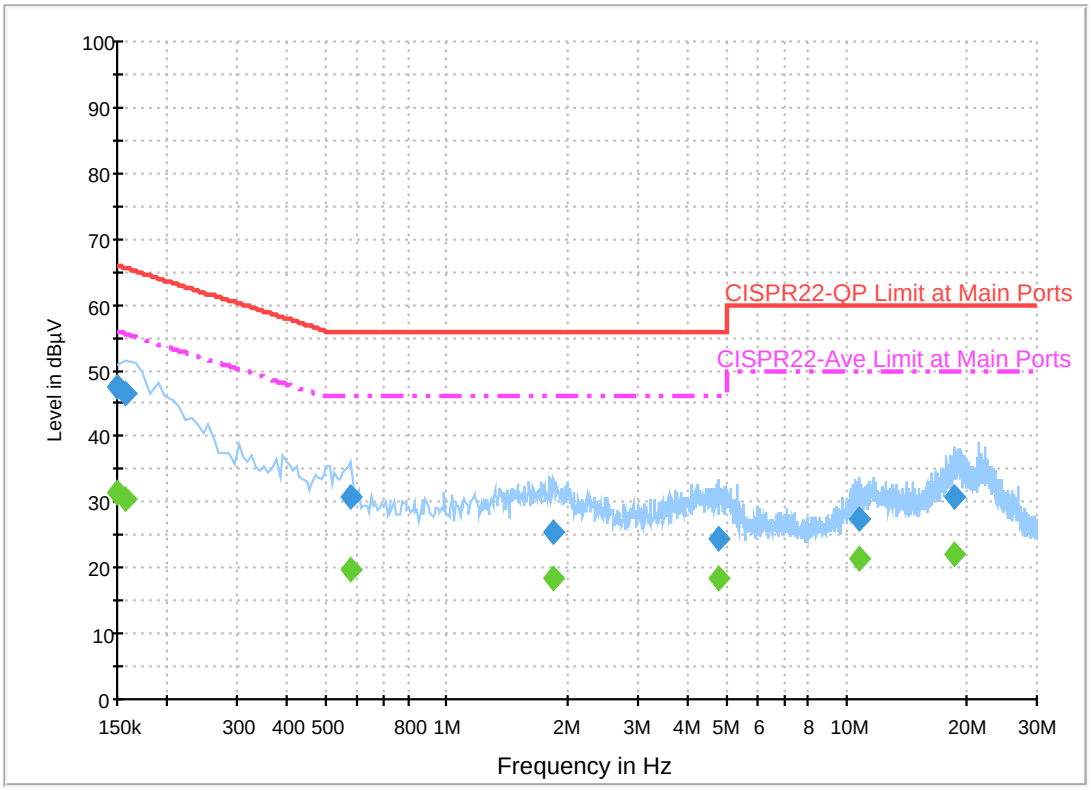
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Marlowe Ho	**Temperature :**	23~25℃
		Relative Humidity :	50~53%

EUT Information

Report NO :	730732-01
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line

ENV216 Auto Test FCC Power Bar - L



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	47.5	Off	L1	19.6	18.5	66.0
0.158000	46.6	Off	L1	19.6	19.0	65.6
0.574000	30.6	Off	L1	19.6	25.4	56.0
1.854000	25.3	Off	L1	19.6	30.7	56.0
4.790000	24.6	Off	L1	19.8	31.4	56.0
10.750000	27.4	Off	L1	20.1	32.6	60.0
18.702000	30.6	Off	L1	20.5	29.4	60.0

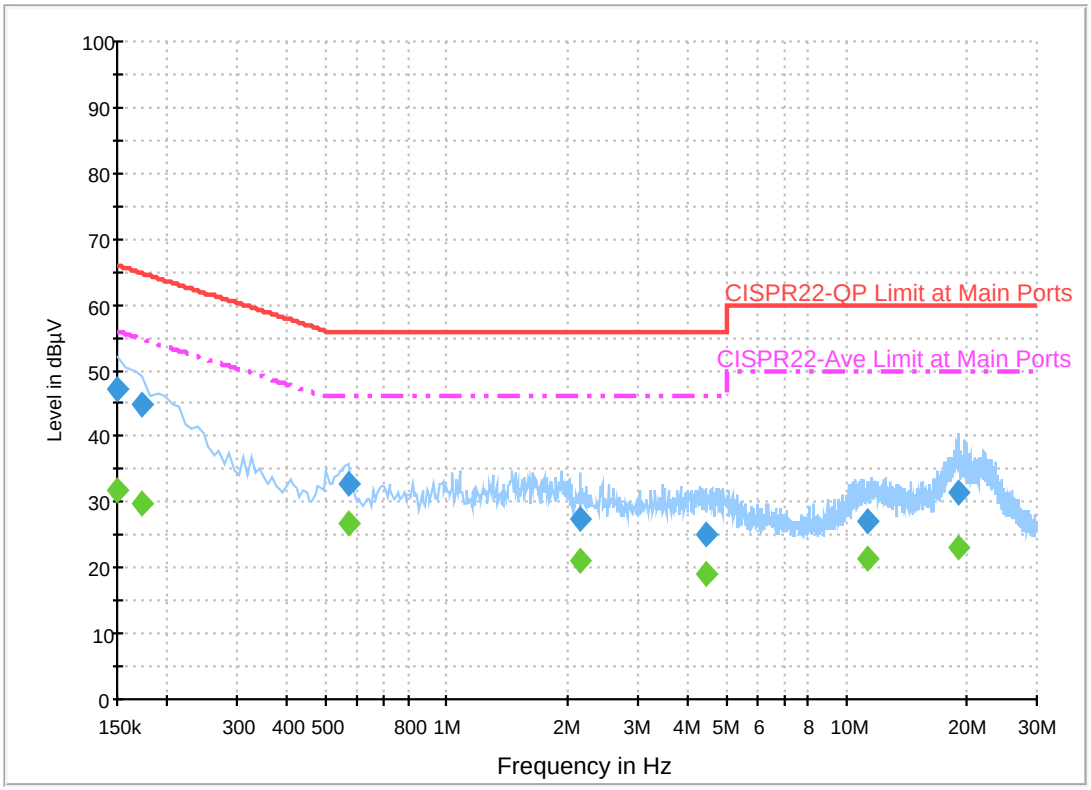
Final Result 2

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	31.3	Off	L1	19.6	24.7	56.0
0.158000	30.3	Off	L1	19.6	25.3	55.6
0.574000	19.6	Off	L1	19.6	26.4	46.0
1.854000	18.5	Off	L1	19.6	27.5	46.0
4.790000	18.4	Off	L1	19.8	27.6	46.0
10.750000	21.3	Off	L1	20.1	28.7	50.0
18.702000	22.2	Off	L1	20.5	27.8	50.0

EUT Information

Report NO :	730732-01
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Neutral

ENV216 Auto Test FCC Power Bar - N



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	47.1	Off	N	19.5	18.9	66.0
0.174000	44.8	Off	N	19.5	20.0	64.8
0.566000	32.7	Off	N	19.5	23.3	56.0
2.158000	27.4	Off	N	18.4	28.6	56.0
4.470000	24.9	Off	N	19.7	31.1	56.0
11.310000	26.9	Off	N	20.1	33.1	60.0
18.982000	31.3	Off	N	20.6	28.7	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	31.7	Off	N	19.5	24.3	56.0
0.174000	29.9	Off	N	19.5	24.9	54.8
0.566000	26.8	Off	N	19.5	19.2	46.0
2.158000	21.0	Off	N	18.4	25.0	46.0
4.470000	19.1	Off	N	19.7	26.9	46.0
11.310000	21.5	Off	N	20.1	28.5	50.0
18.982000	23.1	Off	N	20.6	26.9	50.0

Appendix C. Radiated Spurious Emission

Test Engineer :	Peter Liao and Nick Yu	Temperature :	22~26°C
		Relative Humidity :	56~62%

Band 4 - 5725~5850MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 149 5745MHz		5643	54.03	-14.17	68.2	45.88	32.8	6.35	31	111	357	P	H
		5699.8	62.59	-42.46	105.05	54.28	32.96	6.36	31.01	111	357	P	H
		5719.8	68.09	-42.65	110.74	59.72	33.02	6.37	31.02	111	357	P	H
		5724.8	77.06	-44.68	121.74	68.68	33.03	6.37	31.02	111	357	P	H
	*	5745	115.57	-	-	107.14	33.09	6.37	31.03	111	357	P	H
	*	5745	104.71	-	-	96.28	33.09	6.37	31.03	111	357	A	H
		5647.4	50.64	-17.56	68.2	42.48	32.81	6.35	31	387	127	P	V
		5699.8	54.17	-50.88	105.05	45.86	32.96	6.36	31.01	387	127	P	V
		5719	61.46	-49.06	110.52	53.1	33.01	6.37	31.02	387	127	P	V
		5724.8	70.28	-51.46	121.74	61.9	33.03	6.37	31.02	387	127	P	V
	*	5745	109.27	-	-	100.84	33.09	6.37	31.03	387	127	P	V
	*	5745	98.48	-	-	90.05	33.09	6.37	31.03	387	127	A	V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 157 5785MHz		5649.8	53.85	-14.35	68.2	45.68	32.82	6.35	31	118	357	P	H
		5699.2	56.31	-48.3	104.61	48	32.96	6.36	31.01	118	357	P	H
		5712	58.32	-50.24	108.56	49.99	32.99	6.36	31.02	118	357	P	H
		5724.4	59	-61.83	120.83	50.62	33.03	6.37	31.02	118	357	P	H
	*	5785	116.07	-	-	107.54	33.2	6.38	31.05	118	357	P	H
	*	5785	105.18	-	-	96.65	33.2	6.38	31.05	118	357	A	H
		5852	55.53	-62.11	117.64	46.78	33.39	6.42	31.06	118	357	P	H
		5857.2	55.44	-54.74	110.18	46.68	33.4	6.42	31.06	118	357	P	H
		5911	54.89	-23.64	78.53	45.97	33.55	6.46	31.09	118	357	P	H
		5932.4	52.16	-16.04	68.2	43.17	33.61	6.47	31.09	118	357	P	H
		5649.2	50.23	-17.97	68.2	42.06	32.82	6.35	31	381	122	P	V
		5700	50.88	-54.32	105.2	42.57	32.96	6.36	31.01	381	122	P	V
		5717.6	51.93	-58.2	110.13	43.57	33.01	6.37	31.02	381	122	P	V
		5723	51.37	-66.27	117.64	43	33.02	6.37	31.02	381	122	P	V
	*	5785	110.2	-	-	101.67	33.2	6.38	31.05	381	122	P	V
	*	5785	99.31	-	-	90.78	33.2	6.38	31.05	381	122	A	V
		5850.2	50.21	-71.53	121.74	41.47	33.38	6.42	31.06	381	122	P	V
		5872.8	51	-54.82	105.82	42.2	33.44	6.43	31.07	381	122	P	V
		5905	51.65	-31.31	82.96	42.74	33.53	6.46	31.08	381	122	P	V
		5928	51.1	-17.1	68.2	42.12	33.6	6.47	31.09	381	122	P	V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 165 5825MHz	*	5825	116.1	-	-	107.45	33.31	6.39	31.05	116	357	P	H
	*	5825	105.21	-	-	96.56	33.31	6.39	31.05	116	357	A	H
		5850.2	70.81	-50.93	121.74	62.07	33.38	6.42	31.06	116	357	P	H
		5856.8	69.65	-40.65	110.3	60.89	33.4	6.42	31.06	116	357	P	H
		5875.8	59.82	-44.79	104.61	51.01	33.45	6.43	31.07	116	357	P	H
		5940	55.07	-13.13	68.2	46.05	33.63	6.48	31.09	116	357	P	H
	*	5825	110.22	-	-	101.57	33.31	6.39	31.05	396	116	P	V
	*	5825	99.23	-	-	90.58	33.31	6.39	31.05	396	116	A	V
		5850.6	62.4	-58.43	120.83	53.66	33.38	6.42	31.06	396	116	P	V
		5857	59.95	-50.29	110.24	51.19	33.4	6.42	31.06	396	116	P	V
		5876.2	51.38	-52.93	104.31	42.57	33.45	6.43	31.07	396	116	P	V
		5943.8	51.22	-16.98	68.2	42.19	33.64	6.48	31.09	396	116	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 4 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 149 5745MHz		5320	53.57	-14.63	68.2	45.98	32.44	6.1	30.95	111	357	P	H
		5968	57.94	-10.26	68.2	48.84	33.71	6.49	31.1	111	357	P	H
		6166	53.88	-14.32	68.2	44.41	34.07	6.63	31.23	111	357	P	H
		11490	60.27	-13.73	74	67.31	40.2	9.82	57.57	111	39	P	H
		11490	45.25	-8.75	54	52.29	40.2	9.82	57.57	111	39	A	H
		17235	49.77	-18.43	68.2	51.95	41.92	12.09	56.83	100	0	P	H
		6172	51.89	-16.31	68.2	42.39	34.08	6.65	31.23	387	127	P	V
		11490	56.42	-17.58	74	63.46	40.2	9.82	57.57	308	215	P	V
		11490	41.64	-12.36	54	48.68	40.2	9.82	57.57	308	215	A	V
		17235	50.15	-18.05	68.2	52.33	41.92	12.09	56.83	100	0	P	V
802.11a CH 157 5785MHz		5308	50.79	-17.41	68.2	43.2	32.44	6.1	30.95	118	357	P	H
		6022	55.32	-12.88	68.2	46.08	33.84	6.53	31.13	118	357	P	H
		11570	59.16	-14.84	74	66.33	40.06	9.86	57.6	102	38	P	H
		11570	44.07	-9.93	54	51.24	40.06	9.86	57.6	102	38	A	H
		17355	49.31	-18.89	68.2	51.61	42.18	12.19	57.3	100	0	P	H
		11570	55.23	-18.77	74	62.4	40.06	9.86	57.6	400	180	P	V
		11570	40.52	-13.48	54	47.69	40.06	9.86	57.6	400	180	A	V
		17355	48.46	-19.74	68.2	50.76	42.18	12.19	57.3	100	0	P	V
802.11a CH 165 5825MHz		6068	54.36	-13.84	68.2	45.04	33.91	6.57	31.16	116	357	P	H
		11650	57.61	-16.39	74	64.9	39.9	9.9	57.6	104	41	P	H
		11650	42.93	-11.07	54	50.22	39.9	9.9	57.6	104	41	A	H
		17475	48.19	-20.01	68.2	50.61	42.44	12.29	57.77	100	0	P	H
		6068	52.23	-15.97	68.2	42.91	33.91	6.57	31.16	396	116	P	V
		11650	55.88	-18.12	74	63.17	39.9	9.9	57.6	330	212	P	V
		11650	40.76	-13.24	54	48.05	39.9	9.9	57.6	330	212	A	V
		17475	47.97	-20.23	68.2	50.39	42.44	12.29	57.77	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 4 5725~5850MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5641.6	53.75	-14.45	68.2	45.6	32.8	6.35	31	110	358	P	H
		5699.2	62.89	-41.72	104.61	54.58	32.96	6.36	31.01	110	358	P	H
		5720	71.73	-39.07	110.8	63.36	33.02	6.37	31.02	110	358	P	H
		5724.4	78.17	-42.66	120.83	69.79	33.03	6.37	31.02	110	358	P	H
802.11n	*	5745	115.82	-	-	107.39	33.09	6.37	31.03	110	358	P	H
HT20	*	5745	104.38	-	-	95.95	33.09	6.37	31.03	110	358	A	H
CH 149		5647.2	50.64	-17.56	68.2	42.48	32.81	6.35	31	349	116	P	V
5745MHz		5697.8	54.42	-49.16	103.58	46.12	32.95	6.36	31.01	349	116	P	V
		5720	63.84	-46.96	110.8	55.47	33.02	6.37	31.02	349	116	P	V
		5724.4	70.61	-50.22	120.83	62.23	33.03	6.37	31.02	349	116	P	V
	*	5745	108.97	-	-	100.54	33.09	6.37	31.03	349	116	P	V
	*	5745	97.96	-	-	89.53	33.09	6.37	31.03	349	116	A	V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5633.8	53.63	-14.57	68.2	45.51	32.77	6.35	31	119	359	P	H
		5698.6	55.32	-48.85	104.17	47.01	32.96	6.36	31.01	119	359	P	H
		5717.8	58.4	-51.78	110.18	50.04	33.01	6.37	31.02	119	359	P	H
		5725	62.2	-60	122.2	53.82	33.03	6.37	31.02	119	359	P	H
	*	5785	116.74	-	-	108.21	33.2	6.38	31.05	119	359	P	H
	*	5785	105.18	-	-	96.65	33.2	6.38	31.05	119	359	A	H
		5851.6	55.45	-63.1	118.55	46.71	33.38	6.42	31.06	119	359	P	H
		5857.4	55.85	-54.28	110.13	47.09	33.4	6.42	31.06	119	359	P	H
802.11n		5902	54.65	-30.53	85.18	45.74	33.53	6.46	31.08	119	359	P	H
HT20		5932.2	52.33	-15.87	68.2	43.34	33.61	6.47	31.09	119	359	P	H
CH 157		5642.6	50.71	-17.49	68.2	42.56	32.8	6.35	31	381	120	P	V
5785MHz		5696.4	51.15	-51.4	102.55	42.85	32.95	6.36	31.01	381	120	P	V
		5718.6	51.43	-58.98	110.41	43.07	33.01	6.37	31.02	381	120	P	V
		5720.2	51.51	-59.75	111.26	43.14	33.02	6.37	31.02	381	120	P	V
	*	5785	110.98	-	-	102.45	33.2	6.38	31.05	381	120	P	V
	*	5785	99.09	-	-	90.56	33.2	6.38	31.05	381	120	A	V
		5851.4	49.39	-69.62	119.01	40.65	33.38	6.42	31.06	381	120	P	V
		5872	50.12	-55.92	106.04	41.32	33.44	6.43	31.07	381	120	P	V
		5905	51.27	-31.69	82.96	42.36	33.53	6.46	31.08	381	120	P	V
		5930.6	51.7	-16.5	68.2	42.71	33.61	6.47	31.09	381	120	P	V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 165 5825MHz	*	5825	116.59	-	-	107.94	33.31	6.39	31.05	115	21	P	H
	*	5825	105.39	-	-	96.74	33.31	6.39	31.05	115	21	A	H
		5850	73.7	-48.5	122.2	64.96	33.38	6.42	31.06	115	21	P	H
		5857.2	65.73	-44.45	110.18	56.97	33.4	6.42	31.06	115	21	P	H
		5879.6	59.4	-42.38	101.78	50.57	33.46	6.44	31.07	115	21	P	H
		5940.8	54.24	-13.96	68.2	45.22	33.63	6.48	31.09	115	21	P	H
	*	5825	109.94	-	-	101.29	33.31	6.39	31.05	396	124	P	V
	*	5825	98.75	-	-	90.1	33.31	6.39	31.05	396	124	A	V
		5850.4	65.33	-55.96	121.29	56.59	33.38	6.42	31.06	396	124	P	V
		5856	56.83	-53.69	110.52	48.07	33.4	6.42	31.06	396	124	P	V
		5893.6	51.22	-40.18	91.4	42.36	33.5	6.44	31.08	396	124	P	V
		5947.2	51.11	-17.09	68.2	42.07	33.65	6.48	31.09	396	124	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 4 5725~5850MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 149 5745MHz		5319	53.55	-14.65	68.2	45.96	32.44	6.1	30.95	110	358	P	H
		5958	57.85	-10.35	68.2	48.77	33.68	6.49	31.09	110	358	P	H
		6170	53.12	-15.08	68.2	43.63	34.07	6.65	31.23	110	358	P	H
		11490	59.9	-14.1	74	66.94	40.2	9.82	57.57	102	37	P	H
		11490	45.52	-8.48	54	52.56	40.2	9.82	57.57	102	37	A	H
		17235	49.96	-18.24	68.2	52.14	41.92	12.09	56.83	100	0	P	H
		11490	56.62	-17.38	74	63.66	40.2	9.82	57.57	310	213	P	V
		11490	41.58	-12.42	54	48.62	40.2	9.82	57.57	310	213	A	V
		17235	49.45	-18.75	68.2	51.63	41.92	12.09	56.83	100	0	P	V
802.11n HT20 CH 157 5785MHz		5303	50.93	-17.27	68.2	43.35	32.44	6.09	30.95	119	359	P	H
		6026	56.24	-11.96	68.2	46.98	33.84	6.55	31.13	119	359	P	H
		6267	52.33	-15.87	68.2	42.69	34.23	6.71	31.3	119	359	P	H
		11570	59.02	-14.98	74	66.19	40.06	9.86	57.6	100	37	P	H
		11570	44.69	-9.31	54	51.86	40.06	9.86	57.6	100	37	A	H
		17355	48.88	-19.32	68.2	51.18	42.18	12.19	57.3	100	0	P	H
		11570	55.68	-18.32	74	62.85	40.06	9.86	57.6	337	212	P	V
		11570	41.2	-12.8	54	48.37	40.06	9.86	57.6	337	212	A	V
		17355	49.01	-19.19	68.2	51.31	42.18	12.19	57.3	100	0	P	V
802.11n HT20 CH 165 5825MHz		6067	55.65	-12.55	68.2	46.33	33.91	6.57	31.16	115	21	P	H
		6310	54.63	-13.57	68.2	44.91	34.3	6.73	31.31	115	21	P	H
		11650	57.16	-16.84	74	64.45	39.9	9.9	57.6	104	43	P	H
		11650	42.9	-11.1	54	50.19	39.9	9.9	57.6	104	43	A	H
		17475	48.01	-20.19	68.2	50.43	42.44	12.29	57.77	100	0	P	H
		11650	49.71	-24.29	74	57	39.9	9.9	57.6	100	0	P	V
		17475	47.52	-20.68	68.2	49.94	42.44	12.29	57.77	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 4 5725~5850MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5649.8	58.45	-9.75	68.2	50.28	32.82	6.35	31	100	358	P	H
		5699	71.66	-32.8	104.46	63.35	32.96	6.36	31.01	100	358	P	H
		5719.6	83.29	-27.4	110.69	74.93	33.01	6.37	31.02	100	358	P	H
		5724	83.39	-36.53	119.92	75.01	33.03	6.37	31.02	100	358	P	H
	*	5755	113.37	-	-	104.92	33.11	6.37	31.03	100	358	P	H
	*	5755	102.3	-	-	93.85	33.11	6.37	31.03	100	358	A	H
		5851.8	57.78	-60.32	118.1	49.03	33.39	6.42	31.06	100	358	P	H
		5855.8	57.37	-53.21	110.58	48.61	33.4	6.42	31.06	100	358	P	H
802.11n		5875.4	54.19	-50.71	104.9	45.38	33.45	6.43	31.07	100	358	P	H
HT40		5932.6	52.4	-15.8	68.2	43.41	33.61	6.47	31.09	100	358	P	H
CH 151		5647	52.89	-15.31	68.2	44.73	32.81	6.35	31	385	105	P	V
5755MHz		5700	61.26	-43.94	105.2	52.95	32.96	6.36	31.01	385	105	P	V
		5719.8	73.63	-37.11	110.74	65.26	33.02	6.37	31.02	385	105	P	V
		5722.6	76.73	-40	116.73	68.36	33.02	6.37	31.02	385	105	P	V
	*	5755	106.32	-	-	97.87	33.11	6.37	31.03	385	105	P	V
	*	5755	95.34	-	-	86.89	33.11	6.37	31.03	385	105	A	V
		5852.8	52.1	-63.72	115.82	43.35	33.39	6.42	31.06	385	105	P	V
		5871.4	51.15	-55.06	106.21	42.35	33.44	6.43	31.07	385	105	P	V
		5887	51.36	-44.93	96.29	42.52	33.48	6.44	31.08	385	105	P	V
		5928.6	50.6	-17.6	68.2	41.62	33.6	6.47	31.09	385	105	P	V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5645.4	53.97	-14.23	68.2	45.81	32.81	6.35	31	130	358	P	H
		5697	61.01	-41.98	102.99	52.71	32.95	6.36	31.01	130	358	P	H
		5720	63.83	-46.97	110.8	55.46	33.02	6.37	31.02	130	358	P	H
		5724	67.28	-52.64	119.92	58.9	33.03	6.37	31.02	130	358	P	H
	*	5795	113.68	-	-	105.12	33.23	6.38	31.05	130	358	P	H
	*	5795	102.28	-	-	93.72	33.23	6.38	31.05	130	358	A	H
		5853.2	64.64	-50.26	114.9	55.89	33.39	6.42	31.06	130	358	P	H
		5855.2	63	-47.74	110.74	54.25	33.39	6.42	31.06	130	358	P	H
802.11n		5880	60.67	-40.82	101.49	51.84	33.46	6.44	31.07	130	358	P	H
HT40		5928.8	54.01	-14.19	68.2	45.03	33.6	6.47	31.09	130	358	P	H
CH 159		5649.8	50.76	-17.44	68.2	42.59	32.82	6.35	31	400	124	P	V
5795MHz		5698	53.15	-50.58	103.73	44.85	32.95	6.36	31.01	400	124	P	V
		5705.2	54.16	-52.5	106.66	45.85	32.97	6.36	31.02	400	124	P	V
		5724.4	54.93	-65.9	120.83	46.55	33.03	6.37	31.02	400	124	P	V
	*	5795	107.38	-	-	98.82	33.23	6.38	31.05	400	124	P	V
	*	5795	96.22	-	-	87.66	33.23	6.38	31.05	400	124	A	V
		5851.8	54.53	-63.57	118.1	45.78	33.39	6.42	31.06	400	124	P	V
		5855	53.33	-57.47	110.8	44.58	33.39	6.42	31.06	400	124	P	V
		5877.6	52.28	-50.99	103.27	43.46	33.46	6.43	31.07	400	124	P	V
		5925.2	51.03	-17.17	68.2	42.06	33.59	6.47	31.09	400	124	P	V

Remark

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

Band 4 5725~5850MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 151 5755MHz		5328	50.2	-18	68.2	42.61	32.43	6.11	30.95	100	358	P	H
		11510	56.94	-17.06	74	64.02	40.18	9.83	57.6	100	36	P	H
		11510	43.83	-10.17	54	50.91	40.18	9.83	57.6	100	36	A	H
		17265	49.77	-18.43	68.2	52.01	41.98	12.11	56.97	100	0	P	H
		11510	49.79	-24.21	74	56.87	40.18	9.83	57.6	100	0	P	V
		17265	49.41	-18.79	68.2	51.65	41.98	12.11	56.97	100	0	P	V
802.11n HT40 CH 159 5795MHz		11590	56.02	-17.98	74	63.22	40.02	9.87	57.6	100	40	P	H
		11590	42.81	-11.19	54	50.01	40.02	9.87	57.6	100	40	A	H
		17385	48.55	-19.65	68.2	50.89	42.25	12.21	57.43	100	0	P	H
		11590	48.87	-25.13	74	56.07	40.02	9.87	57.6	100	0	P	V
		17385	49.07	-19.13	68.2	51.41	42.25	12.21	57.43	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 155 5775MHz		5647.8	63.72	-4.48	68.2	55.56	32.81	6.35	31	111	358	P	H
		5698.8	75.59	-28.73	104.32	67.28	32.96	6.36	31.01	111	358	P	H
		5719	79.02	-31.5	110.52	70.66	33.01	6.37	31.02	111	358	P	H
		5720	76.35	-34.45	110.8	67.98	33.02	6.37	31.02	111	358	P	H
	*	5775	109.59	-	-	101.08	33.17	6.38	31.04	111	358	P	H
	*	5775	99.27	-	-	90.76	33.17	6.38	31.04	111	358	A	H
		5853.8	73.59	-39.95	113.54	64.84	33.39	6.42	31.06	111	358	P	H
		5855.6	72.05	-38.58	110.63	63.29	33.4	6.42	31.06	111	358	P	H
		5876	67.94	-36.52	104.46	59.13	33.45	6.43	31.07	111	358	P	H
		5932.2	56.97	-11.23	68.2	47.98	33.61	6.47	31.09	111	358	P	H
		5638.2	55.13	-13.07	68.2	46.99	32.79	6.35	31	347	122	P	V
		5698.8	64.89	-39.43	104.32	56.58	32.96	6.36	31.01	347	122	P	V
		5718.8	69.6	-40.86	110.46	61.24	33.01	6.37	31.02	347	122	P	V
		5725	66.87	-55.33	122.2	58.49	33.03	6.37	31.02	347	122	P	V
	*	5775	103.21	-	-	94.7	33.17	6.38	31.04	347	122	P	V
	*	5775	92.85	-	-	84.34	33.17	6.38	31.04	347	122	A	V
		5852	63.22	-54.42	117.64	54.47	33.39	6.42	31.06	347	122	P	V
		5870.8	61.77	-44.6	106.37	52.97	33.44	6.43	31.07	347	122	P	V
		5879	58.79	-43.44	102.23	49.97	33.46	6.43	31.07	347	122	P	V
		5933	51.69	-16.51	68.2	42.7	33.61	6.47	31.09	347	122	P	V

Remark

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

Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11550	47.96	-26.04	74	55.1	40.1	9.85	57.6	100	0	P	H
VHT80		17325	49.22	-18.98	68.2	51.48	42.12	12.16	57.17	100	0	P	H
CH 155		11550	47.97	-26.03	74	55.11	40.1	9.85	57.6	100	0	P	V
5775MHz		17325	48.59	-19.61	68.2	50.85	42.12	12.16	57.17	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

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		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
5GHz 802.11ac VHT80 LF		119.91	30.96	-12.54	43.5	44.95	17.55	0.89	32.46	100	0	P	H
		175.26	30.61	-12.89	43.5	46.39	15.37	1.09	32.41			P	H
		216.03	32.39	-13.61	46	48.18	15.27	1.19	32.39			P	H
		405.7	30.89	-15.11	46	39.38	22.18	1.61	32.33			P	H
		750.1	28.29	-17.71	46	30.12	28.18	2.21	32.32			P	H
		971.3	32.92	-21.08	54	30.09	31.09	2.51	31			P	H
		36.75	31.28	-8.72	40	42.26	21.05	0.48	32.49	100	0	P	V
		59.43	30.1	-9.9	40	49.94	11.93	0.68	32.49			P	V
		204.42	24.43	-19.07	43.5	40.33	15.17	1.19	32.39			P	V
		746.6	31.84	-14.16	46	33.71	28.16	2.21	32.34			P	V
		904.1	35.58	-10.42	46	35.24	29.34	2.44	31.62			P	V
		980.4	33.43	-20.57	54	30.53	31.06	2.53	30.92			P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

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.	
2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 149 5745MHz		5632	54.16	-14.04	68.2	46.04	32.77	6.35	31	100	235	P	H
		5694.6	61.02	-40.2	101.22	52.73	32.94	6.36	31.01	100	235	P	H
		5717	70.18	-39.78	109.96	61.83	33.01	6.36	31.02	100	235	P	H
		5725	75.42	-46.78	122.2	67.04	33.03	6.37	31.02	100	235	P	H
	*	5745	115.02	-	-	106.59	33.09	6.37	31.03	100	235	P	H
	*	5745	104.18	-	-	95.75	33.09	6.37	31.03	100	235	A	H
		5614.6	51.09	-17.11	68.2	43.02	32.72	6.34	30.99	395	34	P	V
		5699	55.24	-49.22	104.46	46.93	32.96	6.36	31.01	395	34	P	V
		5717.8	65.44	-44.74	110.18	57.08	33.01	6.37	31.02	395	34	P	V
		5724.6	70.93	-50.36	121.29	62.55	33.03	6.37	31.02	395	34	P	V
	*	5745	108.57	-	-	100.14	33.09	6.37	31.03	395	34	P	V
	*	5745	97.59	-	-	89.16	33.09	6.37	31.03	395	34	A	V

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 157 5785MHz		5618.2	59.69	-8.51	68.2	51.61	32.73	6.34	30.99	114	235	P	H
		5698.6	56.02	-48.15	104.17	47.71	32.96	6.36	31.01	114	235	P	H
		5706.4	57.26	-49.73	106.99	48.94	32.98	6.36	31.02	114	235	P	H
		5722.2	57.67	-58.15	115.82	49.3	33.02	6.37	31.02	114	235	P	H
	*	5785	114.56	-	-	106.03	33.2	6.38	31.05	114	235	P	H
	*	5785	103.56	-	-	95.03	33.2	6.38	31.05	114	235	A	H
		5851.6	54.64	-63.91	118.55	45.9	33.38	6.42	31.06	114	235	P	H
		5857.8	55.76	-54.25	110.01	47.01	33.4	6.42	31.07	114	235	P	H
		5899.8	52.64	-34.17	86.81	43.74	33.52	6.46	31.08	114	235	P	H
		5945.8	55.51	-12.69	68.2	46.47	33.65	6.48	31.09	114	235	P	H
		5627.2	53.63	-14.57	68.2	45.52	32.76	6.34	30.99	384	36	P	V
		5698.4	51.04	-52.98	104.02	42.73	32.96	6.36	31.01	384	36	P	V
		5711.8	51.22	-57.29	108.51	42.89	32.99	6.36	31.02	384	36	P	V
		5723	50.93	-66.71	117.64	42.56	33.02	6.37	31.02	384	36	P	V
	*	5785	107.99	-	-	99.46	33.2	6.38	31.05	384	36	P	V
	*	5785	97.13	-	-	88.6	33.2	6.38	31.05	384	36	A	V
		5852.8	50.94	-64.88	115.82	42.19	33.39	6.42	31.06	384	36	P	V
		5869.2	50.84	-55.98	106.82	42.05	33.43	6.43	31.07	384	36	P	V
		5883.6	51.55	-47.26	98.81	42.72	33.47	6.44	31.08	384	36	P	V
		5939	52.33	-15.87	68.2	43.31	33.63	6.48	31.09	384	36	P	V

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 165 5825MHz	*	5825	114.82	-	-	106.17	33.31	6.39	31.05	105	236	P	H
	*	5825	103.82	-	-	95.17	33.31	6.39	31.05	105	236	A	H
		5852	68.54	-49.1	117.64	59.79	33.39	6.42	31.06	105	236	P	H
		5856.6	65.86	-44.49	110.35	57.1	33.4	6.42	31.06	105	236	P	H
		5878.4	57.79	-44.88	102.67	48.97	33.46	6.43	31.07	105	236	P	H
		5944.4	52.72	-15.48	68.2	43.69	33.64	6.48	31.09	105	236	P	H
	*	5825	108.4	-	-	99.75	33.31	6.39	31.05	400	36	P	V
	*	5825	97.08	-	-	88.43	33.31	6.39	31.05	400	36	A	V
		5852	60.8	-56.84	117.64	52.05	33.39	6.42	31.06	400	36	P	V
		5856.8	57.16	-53.14	110.3	48.4	33.4	6.42	31.06	400	36	P	V
		5877	51.07	-52.64	103.71	42.25	33.46	6.43	31.07	400	36	P	V
		5937	50.63	-17.57	68.2	41.62	33.62	6.48	31.09	400	36	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 4 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5320	57.25	-10.95	68.2	49.66	32.44	6.1	30.95	100	235	P	H
		5530	55.42	-12.78	68.2	47.64	32.48	6.27	30.97	100	235	P	H
		5578	61.03	-7.17	68.2	53.07	32.62	6.32	30.98	100	235	P	H
		5908	57.36	-10.84	68.2	48.44	33.54	6.46	31.08	100	235	P	H
		5956	54.97	-13.23	68.2	45.89	33.68	6.49	31.09	100	235	P	H
		6172	53.75	-14.45	68.2	44.25	34.08	6.65	31.23	100	235	P	H
802.11a		11490	60.65	-13.35	74	67.69	40.2	9.82	57.57	116	134	P	H
CH 149		11490	45.32	-8.68	54	52.36	40.2	9.82	57.57	116	134	A	H
5745MHz		17235	52.12	-16.08	68.2	54.3	41.92	12.09	56.83	100	0	P	H
		5320	51.46	-16.74	68.2	43.87	32.44	6.1	30.95	395	34	P	V
		5584	55.53	-12.67	68.2	47.55	32.64	6.32	30.98	395	34	P	V
		11490	58.43	-15.57	74	65.47	40.2	9.82	57.57	300	165	P	V
		11490	43.5	-10.5	54	50.54	40.2	9.82	57.57	300	165	A	V
		17235	49.19	-19.01	68.2	51.37	41.92	12.09	56.83	100	0	P	V
		5308	56.51	-11.69	68.2	48.92	32.44	6.1	30.95	114	235	P	H
		5542	54.53	-13.67	68.2	46.69	32.52	6.29	30.97	114	235	P	H
		5944	56.36	-11.84	68.2	47.33	33.64	6.48	31.09	114	235	P	H
		6022	53.93	-14.27	68.2	44.69	33.84	6.53	31.13	114	235	P	H
802.11a		11570	59.14	-14.86	74	66.31	40.06	9.86	57.6	118	98	P	H
CH 157		11570	44.45	-9.55	54	51.62	40.06	9.86	57.6	118	98	A	H
5785MHz		17355	51.15	-17.05	68.2	53.45	42.18	12.19	57.3	100	0	P	H
		5302	50.73	-17.47	68.2	43.15	32.44	6.09	30.95	384	36	P	V
		11570	57.82	-16.18	74	64.99	40.06	9.86	57.6	105	162	P	V
		11570	42.82	-11.18	54	49.99	40.06	9.86	57.6	105	162	A	V
		17355	48.79	-19.41	68.2	51.09	42.18	12.19	57.3	100	0	P	V

802.11a CH 165 5825MHz		5344	55.83	-12.37	68.2	48.23	32.43	6.12	30.95	105	236	P	H
		5578	56.86	-11.34	68.2	48.9	32.62	6.32	30.98	105	236	P	H
		5674	60	-8.2	68.2	51.77	32.89	6.35	31.01	105	236	P	H
		5980	57.04	-11.16	68.2	47.89	33.74	6.51	31.1	105	236	P	H
		11650	60.27	-13.73	74	67.56	39.9	9.9	57.6	121	121	P	H
		11650	45.53	-8.47	54	52.82	39.9	9.9	57.6	121	121	A	H
		17475	48.5	-19.7	68.2	50.92	42.44	12.29	57.77	100	0	P	H
		5578	51.57	-16.63	68.2	43.61	32.62	6.32	30.98	400	36	P	V
		5668	53.95	-14.25	68.2	45.74	32.87	6.35	31.01	400	36	P	V
		11650	56.75	-17.25	74	64.04	39.9	9.9	57.6	295	203	P	V
		11650	42.58	-11.42	54	49.87	39.9	9.9	57.6	295	203	A	V
		17475	47.68	-20.52	68.2	50.1	42.44	12.29	57.77	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 4 5725~5850MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5636.2	53.65	-14.55	68.2	45.52	32.78	6.35	31	100	233	P	H
		5697.8	60.59	-42.99	103.58	52.29	32.95	6.36	31.01	100	233	P	H
		5719.8	67.81	-42.93	110.74	59.44	33.02	6.37	31.02	100	233	P	H
		5724.4	76.34	-44.49	120.83	67.96	33.03	6.37	31.02	100	233	P	H
802.11n	*	5745	114.52	-	-	106.09	33.09	6.37	31.03	100	233	P	H
HT20	*	5745	103.17	-	-	94.74	33.09	6.37	31.03	100	233	A	H
CH 149		5647.4	50.42	-17.78	68.2	42.26	32.81	6.35	31	392	35	P	V
5745MHz		5698.8	54.35	-49.97	104.32	46.04	32.96	6.36	31.01	392	35	P	V
		5719.8	61.42	-49.32	110.74	53.05	33.02	6.37	31.02	392	35	P	V
		5724.8	68.6	-53.14	121.74	60.22	33.03	6.37	31.02	392	35	P	V
	*	5745	108.13	-	-	99.7	33.09	6.37	31.03	392	35	P	V
	*	5745	97.18	-	-	88.75	33.09	6.37	31.03	392	35	A	V

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5622.6	58.89	-9.31	68.2	50.8	32.74	6.34	30.99	110	229	P	H
		5697.4	56.05	-47.23	103.28	47.75	32.95	6.36	31.01	110	229	P	H
		5710.2	56.55	-51.51	108.06	48.22	32.99	6.36	31.02	110	229	P	H
		5720.4	57.28	-54.43	111.71	48.91	33.02	6.37	31.02	110	229	P	H
	*	5785	114.5	-	-	105.97	33.2	6.38	31.05	110	229	P	H
	*	5785	103.18	-	-	94.65	33.2	6.38	31.05	110	229	A	H
		5851.2	54.03	-65.43	119.46	45.29	33.38	6.42	31.06	110	229	P	H
		5859.4	55.38	-54.19	109.57	46.62	33.41	6.42	31.07	110	229	P	H
802.11n		5893.2	53.1	-38.6	91.7	44.24	33.5	6.44	31.08	110	229	P	H
HT20		5948.6	55.7	-12.5	68.2	46.65	33.66	6.48	31.09	110	229	P	H
CH 157		5628.6	52.83	-15.37	68.2	44.72	32.76	6.35	31	383	35	P	V
5785MHz		5653.4	51.79	-18.94	70.73	43.61	32.83	6.35	31	383	35	P	V
		5713	52.15	-56.69	108.84	43.81	33	6.36	31.02	383	35	P	V
		5724.4	51.44	-69.39	120.83	43.06	33.03	6.37	31.02	383	35	P	V
	*	5785	108.33	-	-	99.8	33.2	6.38	31.05	383	35	P	V
	*	5785	96.8	-	-	88.27	33.2	6.38	31.05	383	35	A	V
		5850	51.72	-70.48	122.2	42.98	33.38	6.42	31.06	383	35	P	V
		5857	51.15	-59.09	110.24	42.39	33.4	6.42	31.06	383	35	P	V
		5924.2	50.78	-18.01	68.79	41.81	33.59	6.47	31.09	383	35	P	V
		5944.4	51.77	-16.43	68.2	42.74	33.64	6.48	31.09	383	35	P	V

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 165 5825MHz	*	5825	115.28	-	-	106.63	33.31	6.39	31.05	115	233	P	H
	*	5825	103.58	-	-	94.93	33.31	6.39	31.05	115	233	A	H
		5852.8	67.75	-48.07	115.82	59	33.39	6.42	31.06	115	233	P	H
		5855.4	64.36	-46.33	110.69	55.6	33.4	6.42	31.06	115	233	P	H
		5877	57.61	-46.1	103.71	48.79	33.46	6.43	31.07	115	233	P	H
		5927	53.05	-15.15	68.2	44.07	33.6	6.47	31.09	115	233	P	H
	*	5825	108.68	-	-	100.03	33.31	6.39	31.05	400	36	P	V
	*	5825	97.02	-	-	88.37	33.31	6.39	31.05	400	36	A	V
		5850.4	60.33	-60.96	121.29	51.59	33.38	6.42	31.06	400	36	P	V
		5855.4	57.18	-53.51	110.69	48.42	33.4	6.42	31.06	400	36	P	V
		5913.6	51.62	-24.99	76.61	42.69	33.56	6.46	31.09	400	36	P	V
		5926.2	50.53	-17.67	68.2	41.56	33.59	6.47	31.09	400	36	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 4 5725~5850MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 149 5745MHz		5326	57.69	-10.51	68.2	50.1	32.43	6.11	30.95	100	233	P	H
		5524	55.25	-12.95	68.2	47.47	32.47	6.27	30.96	100	233	P	H
		5578	59.23	-8.97	68.2	51.27	32.62	6.32	30.98	100	233	P	H
		5902	55.63	-12.57	68.2	46.72	33.53	6.46	31.08	100	233	P	H
		5956	54.3	-13.9	68.2	45.22	33.68	6.49	31.09	100	233	P	H
		6172	53.24	-14.96	68.2	43.74	34.08	6.65	31.23	100	233	P	H
		11490	59.49	-14.51	74	66.53	40.2	9.82	57.57	126	132	P	H
		11490	45.29	-8.71	54	52.33	40.2	9.82	57.57	126	132	A	H
		17235	52.17	-16.03	68.2	54.35	41.92	12.09	56.83	100	0	P	H
		5314	52.47	-15.73	68.2	44.88	32.44	6.1	30.95	392	35	P	V
		5584	53.66	-14.54	68.2	45.68	32.64	6.32	30.98	392	35	P	V
		5908	51.65	-16.55	68.2	42.73	33.54	6.46	31.08	392	35	P	V
		11490	57.72	-16.28	74	64.76	40.2	9.82	57.57	301	165	P	V
		11490	43.16	-10.84	54	50.2	40.2	9.82	57.57	301	165	A	V
		17235	50.66	-17.54	68.2	52.84	41.92	12.09	56.83	100	0	P	V
802.11n HT20 CH 157 5785MHz		5308	54.16	-14.04	68.2	46.57	32.44	6.1	30.95	110	229	P	H
		5536	54.44	-13.76	68.2	46.64	32.5	6.27	30.97	110	229	P	H
		5944	54.99	-13.21	68.2	45.96	33.64	6.48	31.09	110	229	P	H
		6034	52.63	-15.57	68.2	43.36	33.85	6.55	31.13	110	229	P	H
		11570	58.64	-15.36	74	65.81	40.06	9.86	57.6	117	100	P	H
		11570	44.51	-9.49	54	51.68	40.06	9.86	57.6	117	100	A	H
		17355	50.44	-17.76	68.2	52.74	42.18	12.19	57.3	100	0	P	H
		11570	56.96	-17.04	74	64.13	40.06	9.86	57.6	302	162	P	V
		11570	42.78	-11.22	54	49.95	40.06	9.86	57.6	302	162	A	V
		17355	49.77	-18.43	68.2	52.07	42.18	12.19	57.3	100	0	P	V

802.11n HT20 CH 165 5825MHz		5332	55.56	-12.64	68.2	47.97	32.43	6.11	30.95	115	233	P	H
		5572	54.76	-13.44	68.2	46.82	32.6	6.31	30.97	115	233	P	H
		5668	60.33	-7.87	68.2	52.12	32.87	6.35	31.01	115	233	P	H
		5980	56.91	-11.29	68.2	47.76	33.74	6.51	31.1	115	233	P	H
		6064	53.44	-14.76	68.2	44.13	33.9	6.57	31.16	115	233	P	H
		11650	58.95	-15.05	74	66.24	39.9	9.9	57.6	106	163	P	H
		11650	44.83	-9.17	54	52.12	39.9	9.9	57.6	106	163	A	H
		17475	49.46	-18.74	68.2	51.88	42.44	12.29	57.77	100	0	P	H
		5662	54.46	-13.74	68.2	46.27	32.85	6.35	31.01	400	36	P	V
		11650	56.14	-17.86	74	63.43	39.9	9.9	57.6	301	197	P	V
		11650	42.24	-11.76	54	49.53	39.9	9.9	57.6	301	197	A	V
		17475	49.23	-18.97	68.2	51.65	42.44	12.29	57.77	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 4 5725~5850MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5641.8	55.48	-12.72	68.2	47.33	32.8	6.35	31	113	210	P	H
		5695.2	66.66	-35	101.66	58.36	32.95	6.36	31.01	113	210	P	H
		5716.4	75.98	-33.81	109.79	67.63	33.01	6.36	31.02	113	210	P	H
		5722.2	78.41	-37.41	115.82	70.04	33.02	6.37	31.02	113	210	P	H
	*	5755	112.11	-	-	103.66	33.11	6.37	31.03	113	210	P	H
	*	5755	100.51	-	-	92.06	33.11	6.37	31.03	113	210	A	H
		5851.2	57.4	-62.06	119.46	48.66	33.38	6.42	31.06	113	210	P	H
		5860.4	55.38	-53.91	109.29	46.62	33.41	6.42	31.07	113	210	P	H
802.11n		5901	54.48	-31.44	85.92	45.58	33.52	6.46	31.08	113	210	P	H
HT40		5926.4	53.29	-14.91	68.2	44.32	33.59	6.47	31.09	113	210	P	H
CH 151		5602.8	52.52	-15.68	68.2	44.48	32.69	6.34	30.99	373	33	P	V
5755MHz		5700	59.29	-45.91	105.2	50.98	32.96	6.36	31.01	373	33	P	V
		5719.4	69.67	-40.96	110.63	61.31	33.01	6.37	31.02	373	33	P	V
		5722.2	69.95	-45.87	115.82	61.58	33.02	6.37	31.02	373	33	P	V
	*	5755	105.41	-	-	96.96	33.11	6.37	31.03	373	33	P	V
	*	5755	94	-	-	85.55	33.11	6.37	31.03	373	33	A	V
		5852.6	51.33	-64.94	116.27	42.58	33.39	6.42	31.06	373	33	P	V
		5864.8	51.51	-56.54	108.05	42.73	33.42	6.43	31.07	373	33	P	V
		5901.4	50.91	-34.71	85.62	42.01	33.52	6.46	31.08	373	33	P	V
		5929.4	50.73	-17.47	68.2	41.75	33.6	6.47	31.09	373	33	P	V

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5647.8	56.3	-11.9	68.2	48.14	32.81	6.35	31	118	235	P	H
		5690.8	57.75	-40.67	98.42	49.47	32.93	6.36	31.01	118	235	P	H
		5717.2	61.87	-48.15	110.02	53.52	33.01	6.36	31.02	118	235	P	H
		5722	62.78	-52.58	115.36	54.41	33.02	6.37	31.02	118	235	P	H
	*	5795	111.69	-	-	103.13	33.23	6.38	31.05	118	235	P	H
	*	5795	99.7	-	-	91.14	33.23	6.38	31.05	118	235	A	H
		5851	65.78	-54.14	119.92	57.04	33.38	6.42	31.06	118	235	P	H
		5862.2	61.38	-47.4	108.78	52.61	33.41	6.43	31.07	118	235	P	H
802.11n		5882.8	58.68	-40.73	99.41	49.84	33.47	6.44	31.07	118	235	P	H
HT40		5947.8	53.81	-14.39	68.2	44.77	33.65	6.48	31.09	118	235	P	H
CH 159		5639.4	51.81	-16.39	68.2	43.67	32.79	6.35	31	383	35	P	V
5795MHz		5697.2	52.01	-51.13	103.14	43.71	32.95	6.36	31.01	383	35	P	V
		5718.8	54.32	-56.14	110.46	45.96	33.01	6.37	31.02	383	35	P	V
		5725	55.4	-66.8	122.2	47.02	33.03	6.37	31.02	383	35	P	V
	*	5795	105.21	-	-	96.65	33.23	6.38	31.05	383	35	P	V
	*	5795	94.29	-	-	85.73	33.23	6.38	31.05	383	35	A	V
		5851.2	57.51	-61.95	119.46	48.77	33.38	6.42	31.06	383	35	P	V
		5861.6	53.44	-55.51	108.95	44.67	33.41	6.43	31.07	383	35	P	V
		5890.6	52.47	-41.15	93.62	43.62	33.49	6.44	31.08	383	35	P	V
		5927	51.5	-16.7	68.2	42.52	33.6	6.47	31.09	383	35	P	V

Remark

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

Band 4 5725~5850MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 151 5755MHz		11510	56.23	-17.77	74	63.31	40.18	9.83	57.6	104	163	P	H
		11510	42.15	-11.85	54	49.23	40.18	9.83	57.6	104	163	A	H
		17265	50.78	-17.42	68.2	53.02	41.98	12.11	56.97	100	0	P	H
		11510	54.61	-19.39	74	61.69	40.18	9.83	57.6	296	164	P	V
		11510	41.32	-12.68	54	48.4	40.18	9.83	57.6	296	164	A	V
		17265	50.03	-18.17	68.2	52.27	41.98	12.11	56.97	100	0	P	V
802.11n HT40 CH 159 5795MHz		11590	56.25	-17.75	74	63.45	40.02	9.87	57.6	114	163	P	H
		11590	41.87	-12.13	54	49.07	40.02	9.87	57.6	114	163	A	H
		17385	51.07	-17.13	68.2	53.41	42.25	12.21	57.43	100	0	P	H
		11590	54.79	-19.21	74	61.99	40.02	9.87	57.6	299	162	P	V
		11590	40.41	-13.59	54	47.61	40.02	9.87	57.6	299	162	A	V
		17385	49.65	-18.55	68.2	51.99	42.25	12.21	57.43	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 155 5775MHz		5644.6	63.51	-4.69	68.2	55.36	32.8	6.35	31	112	235	P	H
		5698.8	73.04	-31.28	104.32	64.73	32.96	6.36	31.01	112	235	P	H
		5719	75.39	-35.13	110.52	67.03	33.01	6.37	31.02	112	235	P	H
		5723.2	74.89	-43.21	118.1	66.52	33.02	6.37	31.02	112	235	P	H
	*	5775	108.86	-	-	100.35	33.17	6.38	31.04	112	235	P	H
	*	5775	98.27	-	-	89.76	33.17	6.38	31.04	112	235	A	H
		5850.2	68.4	-53.34	121.74	59.66	33.38	6.42	31.06	112	235	P	H
		5857	67.82	-42.42	110.24	59.06	33.4	6.42	31.06	112	235	P	H
		5877	63.77	-39.94	103.71	54.95	33.46	6.43	31.07	112	235	P	H
		5925.4	57.58	-10.62	68.2	48.61	33.59	6.47	31.09	112	235	P	H
		5649.2	56.34	-11.86	68.2	48.17	32.82	6.35	31	372	34	P	V
		5698.8	67.02	-37.3	104.32	58.71	32.96	6.36	31.01	372	34	P	V
		5710.6	68.76	-39.41	108.17	60.43	32.99	6.36	31.02	372	34	P	V
		5720.2	68.48	-42.78	111.26	60.11	33.02	6.37	31.02	372	34	P	V
	*	5775	102.13	-	-	93.62	33.17	6.38	31.04	372	34	P	V
	*	5775	91.6	-	-	83.09	33.17	6.38	31.04	372	34	A	V
		5852	60.49	-57.15	117.64	51.74	33.39	6.42	31.06	372	34	P	V
		5857	59.4	-50.84	110.24	50.64	33.4	6.42	31.06	372	34	P	V
		5878.6	56.08	-46.45	102.53	47.26	33.46	6.43	31.07	372	34	P	V
		5943	51.4	-16.8	68.2	42.37	33.64	6.48	31.09	372	34	P	V

Remark

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

Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11550	48.6	-25.4	74	55.74	40.1	9.85	57.6	100	0	P	H
VHT80		17325	49.17	-19.03	68.2	51.43	42.12	12.16	57.17	100	0	P	H
CH 155		11550	49.78	-24.22	74	56.92	40.1	9.85	57.6	100	0	P	V
5775MHz		17325	48.48	-19.72	68.2	50.74	42.12	12.16	57.17	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

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.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
5GHz 802.11ac VHT80 LF		59.43	31.65	-8.35	40	51.49	11.93	0.68	32.49	100	0	P	H
		184.71	34.35	-9.15	43.5	50.44	15.01	1.14	32.4			P	H
		223.32	34.43	-11.57	46	49.84	15.61	1.23	32.39			P	H
		582.1	34.9	-11.1	46	39.57	25.74	1.95	32.45			P	H
		623.4	35.78	-10.22	46	39.75	26.39	2	32.46			P	H
		949.6	32	-14	46	29.65	30.82	2.49	31.2			P	H
		39.72	33.14	-6.86	40	45.47	19.57	0.6	32.49	100	0	P	V
		75.63	32.75	-7.25	40	51.66	12.76	0.76	32.48			P	V
		219.27	29.86	-16.14	46	45.59	15.29	1.23	32.39			P	V
		452.6	30.25	-15.75	46	37.49	23.33	1.73	32.36			P	V
		628.3	33.43	-12.57	46	37.31	26.48	2	32.46			P	V
		896.4	35.57	-10.43	46	35.42	29.24	2.42	31.68			P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

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+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 149 5745MHz		5642.6	54.85	-13.35	68.2	46.7	32.8	6.35	31	100	229	P	H
		5697.6	62.64	-40.79	103.43	54.34	32.95	6.36	31.01	100	229	P	H
		5718.6	74.18	-36.23	110.41	65.82	33.01	6.37	31.02	100	229	P	H
		5723.8	80.06	-39.4	119.46	71.68	33.03	6.37	31.02	100	229	P	H
	*	5745	116.92	-	-	108.49	33.09	6.37	31.03	100	229	P	H
	*	5745	106.39	-	-	97.96	33.09	6.37	31.03	100	229	A	H
		5608.4	51.16	-17.04	68.2	43.11	32.7	6.34	30.99	300	116	P	V
		5698	54.89	-48.84	103.73	46.59	32.95	6.36	31.01	300	116	P	V
		5717.8	66.56	-43.62	110.18	58.2	33.01	6.37	31.02	300	116	P	V
		5721.2	69.17	-44.37	113.54	60.8	33.02	6.37	31.02	300	116	P	V
	*	5745	110.67	-	-	102.24	33.09	6.37	31.03	300	116	P	V
	*	5745	100.3	-	-	91.87	33.09	6.37	31.03	300	116	A	V

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 157 5785MHz		5629.8	58.53	-9.67	68.2	50.42	32.76	6.35	31	118	229	P	H
		5671	56.52	-27.26	83.78	48.3	32.88	6.35	31.01	118	229	P	H
		5713.2	57.06	-51.84	108.9	48.72	33	6.36	31.02	118	229	P	H
		5722.4	58.92	-57.35	116.27	50.55	33.02	6.37	31.02	118	229	P	H
	*	5785	116.55	-	-	108.02	33.2	6.38	31.05	118	229	P	H
	*	5785	105.89	-	-	97.36	33.2	6.38	31.05	118	229	A	H
		5850.4	55.87	-65.42	121.29	47.13	33.38	6.42	31.06	118	229	P	H
		5858	55.3	-54.66	109.96	46.55	33.4	6.42	31.07	118	229	P	H
		5908	55.5	-25.24	80.74	46.58	33.54	6.46	31.08	118	229	P	H
		5940.8	54.6	-13.6	68.2	45.58	33.63	6.48	31.09	118	229	P	H
		5630	53.89	-14.31	68.2	45.78	32.76	6.35	31	365	294	P	V
		5659.4	51.38	-23.8	75.18	43.19	32.85	6.35	31.01	365	294	P	V
		5714.4	51.26	-57.97	109.23	42.92	33	6.36	31.02	365	294	P	V
		5723.6	50.31	-68.7	119.01	41.93	33.03	6.37	31.02	365	294	P	V
	*	5785	112.07	-	-	103.54	33.2	6.38	31.05	365	294	P	V
	*	5785	101.65	-	-	93.12	33.2	6.38	31.05	365	294	A	V
		5851.6	51.43	-67.12	118.55	42.69	33.38	6.42	31.06	365	294	P	V
		5860	50.5	-58.9	109.4	41.74	33.41	6.42	31.07	365	294	P	V
		5905.2	51.26	-31.55	82.81	42.35	33.53	6.46	31.08	365	294	P	V
		5940.2	51.99	-16.21	68.2	42.97	33.63	6.48	31.09	365	294	P	V

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 165 5825MHz	*	5825	117.06	-	-	108.41	33.31	6.39	31.05	100	230	P	H
	*	5825	106.5	-	-	97.85	33.31	6.39	31.05	100	230	A	H
		5852	72.73	-44.91	117.64	63.98	33.39	6.42	31.06	100	230	P	H
		5857.2	69.7	-40.48	110.18	60.94	33.4	6.42	31.06	100	230	P	H
		5877	59.32	-44.39	103.71	50.5	33.46	6.43	31.07	100	230	P	H
		5945.2	53.91	-14.29	68.2	44.87	33.65	6.48	31.09	100	230	P	H
	*	5825	113.01	-	-	104.36	33.31	6.39	31.05	398	301	P	V
	*	5825	102.3	-	-	93.65	33.31	6.39	31.05	398	301	A	V
		5851	69.9	-50.02	119.92	61.16	33.38	6.42	31.06	398	301	P	V
		5856.6	65.15	-45.2	110.35	56.39	33.4	6.42	31.06	398	301	P	V
		5880.2	51.86	-49.48	101.34	43.03	33.46	6.44	31.07	398	301	P	V
		5939.2	51.56	-16.64	68.2	42.54	33.63	6.48	31.09	398	301	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 4 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 149 5745MHz		5326	59.92	-8.28	68.2	52.33	32.43	6.11	30.95	100	229	P	H
		5530	60.34	-7.86	68.2	52.56	32.48	6.27	30.97	100	229	P	H
		5584	58.79	-9.41	68.2	50.81	32.64	6.32	30.98	100	229	P	H
		5902	55.92	-12.28	68.2	47.01	33.53	6.46	31.08	100	229	P	H
		5950	56.58	-11.62	68.2	47.53	33.66	6.48	31.09	100	229	P	H
		6172	54.41	-13.79	68.2	44.91	34.08	6.65	31.23	100	229	P	H
		11490	62.24	-11.76	74	69.28	40.2	9.82	57.57	118	130	P	H
		11490	47.66	-6.34	54	54.7	40.2	9.82	57.57	118	130	A	H
		17235	54.09	-14.11	68.2	56.27	41.92	12.09	56.83	100	0	P	H
		5326	51.28	-16.92	68.2	43.69	32.43	6.11	30.95	300	116	P	V
		5530	52.02	-16.18	68.2	44.24	32.48	6.27	30.97	300	116	P	V
		11490	61.29	-12.71	74	68.33	40.2	9.82	57.57	308	172	P	V
		11490	47.19	-6.81	54	54.23	40.2	9.82	57.57	308	172	A	V
		17235	50.75	-17.45	68.2	52.93	41.92	12.09	56.83	100	0	P	V
802.11a CH 157 5785MHz		5308	56.46	-11.74	68.2	48.87	32.44	6.1	30.95	118	229	P	H
		5938	55.73	-12.47	68.2	46.71	33.63	6.48	31.09	118	229	P	H
		6028	55.25	-12.95	68.2	45.99	33.84	6.55	31.13	118	229	P	H
		11570	61.97	-12.03	74	69.14	40.06	9.86	57.6	119	130	P	H
		11570	47.93	-6.07	54	55.1	40.06	9.86	57.6	119	130	A	H
		17355	52.73	-15.47	68.2	55.03	42.18	12.19	57.3	100	0	P	H
		11570	59.09	-14.91	74	66.26	40.06	9.86	57.6	112	188	P	V
		11570	44.67	-9.33	54	51.84	40.06	9.86	57.6	112	188	A	V
		17355	49.34	-18.86	68.2	51.64	42.18	12.19	57.3	100	0	P	V

		5344	56.59	-11.61	68.2	48.99	32.43	6.12	30.95	100	230	P	H
		5512	55.92	-12.28	68.2	48.19	32.43	6.26	30.96	100	230	P	H
		5668	60.43	-7.77	68.2	52.22	32.87	6.35	31.01	100	230	P	H
		5986	54.93	-13.27	68.2	45.77	33.76	6.51	31.11	100	230	P	H
		6070	55.7	-12.5	68.2	46.38	33.91	6.57	31.16	100	230	P	H
		6316	53.87	-14.33	68.2	44.13	34.31	6.74	31.31	100	230	P	H
802.11a		11650	61.13	-12.87	74	68.42	39.9	9.9	57.6	131	127	P	H
CH 165		11650	47.12	-6.88	54	54.41	39.9	9.9	57.6	131	127	A	H
5825MHz		17475	50.55	-17.65	68.2	52.97	42.44	12.29	57.77	100	0	P	H
		5662	54.07	-14.13	68.2	45.88	32.85	6.35	31.01	398	301	P	V
		5986	52.84	-15.36	68.2	43.68	33.76	6.51	31.11	398	301	P	V
		6076	52.74	-15.46	68.2	43.41	33.92	6.57	31.16	398	301	P	V
		11650	58.86	-15.14	74	66.15	39.9	9.9	57.6	301	196	P	V
		11650	45.13	-8.87	54	52.42	39.9	9.9	57.6	301	196	A	V
		17475	49.43	-18.77	68.2	51.85	42.44	12.29	57.77	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 4 5725~5850MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5641.4	54.92	-13.28	68.2	46.77	32.8	6.35	31	100	230	P	H
		5697	62.36	-40.63	102.99	54.06	32.95	6.36	31.01	100	230	P	H
		5719.4	73.05	-37.58	110.63	64.69	33.01	6.37	31.02	100	230	P	H
		5724	79.55	-40.37	119.92	71.17	33.03	6.37	31.02	100	230	P	H
802.11n	*	5745	116.84	-	-	108.41	33.09	6.37	31.03	100	230	P	H
HT20	*	5745	105.31	-	-	96.88	33.09	6.37	31.03	100	230	A	H
CH 149		5648.8	51.52	-16.68	68.2	43.35	32.82	6.35	31	386	259	P	V
5745MHz		5699.2	53.11	-51.5	104.61	44.8	32.96	6.36	31.01	386	259	P	V
		5719.4	66.41	-44.22	110.63	58.05	33.01	6.37	31.02	386	259	P	V
		5724.6	73.36	-47.93	121.29	64.98	33.03	6.37	31.02	386	259	P	V
	*	5745	111.95	-	-	103.52	33.09	6.37	31.03	386	259	P	V
	*	5745	100.57	-	-	92.14	33.09	6.37	31.03	386	259	A	V

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5627.8	59.16	-9.04	68.2	51.04	32.76	6.35	30.99	113	233	P	H
		5696.6	55.62	-47.07	102.69	47.32	32.95	6.36	31.01	113	233	P	H
		5717.4	57.49	-52.58	110.07	49.14	33.01	6.36	31.02	113	233	P	H
		5724.6	59.21	-62.08	121.29	50.83	33.03	6.37	31.02	113	233	P	H
	*	5785	115.35	-	-	106.82	33.2	6.38	31.05	113	233	P	H
	*	5785	104.95	-	-	96.42	33.2	6.38	31.05	113	233	A	H
		5854.8	55.65	-55.61	111.26	46.9	33.39	6.42	31.06	113	233	P	H
		5863.6	55.53	-52.86	108.39	46.75	33.42	6.43	31.07	113	233	P	H
802.11n		5901.2	53.19	-32.58	85.77	44.29	33.52	6.46	31.08	113	233	P	H
HT20		5943	55.61	-12.59	68.2	46.58	33.64	6.48	31.09	113	233	P	H
CH 157		5631.2	51.49	-16.71	68.2	43.37	32.77	6.35	31	400	267	P	V
5785MHz		5666.6	51.84	-28.68	80.52	43.63	32.87	6.35	31.01	400	267	P	V
		5704.2	51.02	-55.36	106.38	42.7	32.97	6.36	31.01	400	267	P	V
		5723.6	52.4	-66.61	119.01	44.02	33.03	6.37	31.02	400	267	P	V
	*	5785	111.95	-	-	103.42	33.2	6.38	31.05	400	267	P	V
	*	5785	100.58	-	-	92.05	33.2	6.38	31.05	400	267	A	V
		5852.2	50.38	-66.8	117.18	41.63	33.39	6.42	31.06	400	267	P	V
		5862.4	51.11	-57.62	108.73	42.34	33.41	6.43	31.07	400	267	P	V
		5910.2	51.79	-27.33	79.12	42.87	33.55	6.46	31.09	400	267	P	V
		5939	51.7	-16.5	68.2	42.68	33.63	6.48	31.09	400	267	P	V

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 165 5825MHz	*	5825	117	-	-	108.35	33.31	6.39	31.05	118	230	P	H
	*	5825	105.52	-	-	96.87	33.31	6.39	31.05	118	230	A	H
		5850	73.55	-48.65	122.2	64.81	33.38	6.42	31.06	118	230	P	H
		5855.2	67.29	-43.45	110.74	58.54	33.39	6.42	31.06	118	230	P	H
		5875	58.92	-46.28	105.2	50.11	33.45	6.43	31.07	118	230	P	H
		5942	53.15	-15.05	68.2	44.12	33.64	6.48	31.09	118	230	P	H
	*	5825	112.7	-	-	104.05	33.31	6.39	31.05	398	302	P	V
	*	5825	101.2	-	-	92.55	33.31	6.39	31.05	398	302	A	V
		5850	64.36	-57.84	122.2	55.62	33.38	6.42	31.06	398	302	P	V
		5855.8	60.25	-50.33	110.58	51.49	33.4	6.42	31.06	398	302	P	V
		5904	51.55	-32.15	83.7	42.64	33.53	6.46	31.08	398	302	P	V
		5946.6	51.42	-16.78	68.2	42.38	33.65	6.48	31.09	398	302	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 4 5725~5850MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 149 5745MHz		5314	57.87	-10.33	68.2	50.28	32.44	6.1	30.95	100	230	P	H
		5524	61.15	-7.05	68.2	53.37	32.47	6.27	30.96	100	230	P	H
		5584	59.46	-8.74	68.2	51.48	32.64	6.32	30.98	100	230	P	H
		5902	55.45	-12.75	68.2	46.54	33.53	6.46	31.08	100	230	P	H
		5950	56.58	-11.62	68.2	47.53	33.66	6.48	31.09	100	230	P	H
		6166	55.41	-12.79	68.2	45.94	34.07	6.63	31.23	100	230	P	H
		11490	61.15	-12.85	74	68.19	40.2	9.82	57.57	126	130	P	H
		11490	46.86	-7.14	54	53.9	40.2	9.82	57.57	126	130	A	H
		17235	54.06	-14.14	68.2	56.24	41.92	12.09	56.83	100	0	P	H
		5320	54.07	-14.13	68.2	46.48	32.44	6.1	30.95	386	259	P	V
		5590	52.51	-15.69	68.2	44.52	32.65	6.32	30.98	386	259	P	V
		5902	53.42	-14.78	68.2	44.51	33.53	6.46	31.08	386	259	P	V
		11490	60.38	-13.62	74	67.42	40.2	9.82	57.57	302	172	P	V
		11490	45.87	-8.13	54	52.91	40.2	9.82	57.57	302	172	A	V
		17235	49.83	-18.37	68.2	52.01	41.92	12.09	56.83	100	0	P	V
802.11n HT20 CH 157 5785MHz		5308	57.43	-10.77	68.2	49.84	32.44	6.1	30.95	113	233	P	H
		5950	55.86	-12.34	68.2	46.81	33.66	6.48	31.09	113	233	P	H
		6034	56.24	-11.96	68.2	46.97	33.85	6.55	31.13	113	233	P	H
		6256	53.36	-14.84	68.2	43.73	34.21	6.7	31.28	113	233	P	H
		11570	61.06	-12.94	74	68.23	40.06	9.86	57.6	124	131	P	H
		11570	46.77	-7.23	54	53.94	40.06	9.86	57.6	124	131	A	H
		17355	51.8	-16.4	68.2	54.1	42.18	12.19	57.3	100	0	P	H
		11570	59.04	-14.96	74	66.21	40.06	9.86	57.6	313	172	P	V
		11570	45	-9	54	52.17	40.06	9.86	57.6	313	172	A	V
		17355	50.83	-17.37	68.2	53.13	42.18	12.19	57.3	100	0	P	V

802.11n HT20 CH 165 5825MHz		5338	57.51	-10.69	68.2	49.92	32.43	6.11	30.95	118	230	P	H
		5512	53.82	-14.38	68.2	46.09	32.43	6.26	30.96	118	230	P	H
		5584	56.7	-11.5	68.2	48.72	32.64	6.32	30.98	118	230	P	H
		5674	59.5	-8.7	68.2	51.27	32.89	6.35	31.01	118	230	P	H
		5992	54.96	-13.24	68.2	45.77	33.78	6.52	31.11	118	230	P	H
		6070	54.53	-13.67	68.2	45.21	33.91	6.57	31.16	118	230	P	H
		11650	60.13	-13.87	74	67.42	39.9	9.9	57.6	110	157	P	H
		11650	45.21	-8.79	54	52.5	39.9	9.9	57.6	110	157	A	H
		17475	51.79	-16.41	68.2	54.21	42.44	12.29	57.77	100	0	P	H
		5662	54.74	-13.46	68.2	46.55	32.85	6.35	31.01	398	302	P	V
		5980	52.25	-15.95	68.2	43.1	33.74	6.51	31.1	398	302	P	V
		6076	52.92	-15.28	68.2	43.59	33.92	6.57	31.16	398	302	P	V
		11650	58.6	-15.4	74	65.89	39.9	9.9	57.6	295	161	P	V
		11650	43.85	-10.15	54	51.14	39.9	9.9	57.6	295	161	A	V
		17475	51.47	-16.73	68.2	53.89	42.44	12.29	57.77	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 4 5725~5850MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5647.4	57.82	-10.38	68.2	49.66	32.81	6.35	31	105	230	P	H
		5700	71.76	-33.44	105.2	63.45	32.96	6.36	31.01	105	230	P	H
		5719.4	80.9	-29.73	110.63	72.54	33.01	6.37	31.02	105	230	P	H
		5722	82.15	-33.21	115.36	73.78	33.02	6.37	31.02	105	230	P	H
	*	5755	113.72	-	-	105.27	33.11	6.37	31.03	105	230	P	H
	*	5755	102.81	-	-	94.36	33.11	6.37	31.03	105	230	A	H
		5851.2	57.23	-62.23	119.46	48.49	33.38	6.42	31.06	105	230	P	H
		5871.4	56.38	-49.83	106.21	47.58	33.44	6.43	31.07	105	230	P	H
802.11n		5884.6	55.04	-43.03	98.07	46.2	33.48	6.44	31.08	105	230	P	H
HT40		5930.4	54.64	-13.56	68.2	45.65	33.61	6.47	31.09	105	230	P	H
CH 151		5607	52.93	-15.27	68.2	44.88	32.7	6.34	30.99	387	260	P	V
5755MHz		5699.2	62.04	-42.57	104.61	53.73	32.96	6.36	31.01	387	260	P	V
		5719.8	74.79	-35.95	110.74	66.42	33.02	6.37	31.02	387	260	P	V
		5724.8	75.09	-46.65	121.74	66.71	33.03	6.37	31.02	387	260	P	V
	*	5755	108.39	-	-	99.94	33.11	6.37	31.03	387	260	P	V
	*	5755	97.79	-	-	89.34	33.11	6.37	31.03	387	260	A	V
		5851.6	54.06	-64.49	118.55	45.32	33.38	6.42	31.06	387	260	P	V
		5864.4	52.15	-56.02	108.17	43.37	33.42	6.43	31.07	387	260	P	V
		5905.8	51.9	-30.47	82.37	42.98	33.54	6.46	31.08	387	260	P	V
		5948.8	51.44	-16.76	68.2	42.39	33.66	6.48	31.09	387	260	P	V

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5645.8	57.03	-11.17	68.2	48.87	32.81	6.35	31	111	232	P	H
		5699.6	63.27	-41.64	104.91	54.96	32.96	6.36	31.01	111	232	P	H
		5719.6	71.71	-38.98	110.69	63.35	33.01	6.37	31.02	111	232	P	H
		5724.2	71.88	-48.5	120.38	63.5	33.03	6.37	31.02	111	232	P	H
	*	5795	113.93	-	-	105.37	33.23	6.38	31.05	111	232	P	H
	*	5795	103.26	-	-	94.7	33.23	6.38	31.05	111	232	A	H
		5852	69.27	-48.37	117.64	60.52	33.39	6.42	31.06	111	232	P	H
		5855.6	67.71	-42.92	110.63	58.95	33.4	6.42	31.06	111	232	P	H
802.11n		5877.8	63.93	-39.19	103.12	55.11	33.46	6.43	31.07	111	232	P	H
HT40		5933	54.73	-13.47	68.2	45.74	33.61	6.47	31.09	111	232	P	H
CH 159		5641.4	51.65	-16.55	68.2	43.5	32.8	6.35	31	400	266	P	V
5795MHz		5697.6	55.18	-48.25	103.43	46.88	32.95	6.36	31.01	400	266	P	V
		5719.8	56.54	-54.2	110.74	48.17	33.02	6.37	31.02	400	266	P	V
		5724.4	57.64	-63.19	120.83	49.26	33.03	6.37	31.02	400	266	P	V
	*	5795	109.22	-	-	100.66	33.23	6.38	31.05	400	266	P	V
	*	5795	98.69	-	-	90.13	33.23	6.38	31.05	400	266	A	V
		5850	59.87	-62.33	122.2	51.13	33.38	6.42	31.06	400	266	P	V
		5857.6	57.46	-52.61	110.07	48.7	33.4	6.42	31.06	400	266	P	V
		5879.2	55.04	-47.04	102.08	46.22	33.46	6.43	31.07	400	266	P	V
		5926.8	51.57	-16.63	68.2	42.59	33.6	6.47	31.09	400	266	P	V

Remark

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

Band 4 5725~5850MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5314	55.05	-13.15	68.2	47.46	32.44	6.1	30.95	105	230	P	H
		11510	57.78	-16.22	74	64.86	40.18	9.83	57.6	130	129	P	H
802.11n		11510	44.67	-9.33	54	51.75	40.18	9.83	57.6	130	129	A	H
HT40		17265	51.36	-16.84	68.2	53.6	41.98	12.11	56.97	100	0	P	H
CH 151		5320	51.29	-16.91	68.2	43.7	32.44	6.1	30.95	387	260	P	V
5755MHz		11510	56.53	-17.47	74	63.61	40.18	9.83	57.6	300	166	P	V
		11510	42.79	-11.21	54	49.87	40.18	9.83	57.6	300	166	A	V
		17265	50.1	-18.1	68.2	52.34	41.98	12.11	56.97	100	0	P	V
		11590	57.78	-16.22	74	64.98	40.02	9.87	57.6	106	158	P	H
802.11n		11590	44.27	-9.73	54	51.47	40.02	9.87	57.6	106	158	A	H
HT40		17385	51.99	-16.21	68.2	54.33	42.25	12.21	57.43	100	0	P	H
CH 159		11590	56.58	-17.42	74	63.78	40.02	9.87	57.6	291	162	P	V
5795MHz		11590	43.37	-10.63	54	50.57	40.02	9.87	57.6	291	162	A	V
		17385	50.38	-17.82	68.2	52.72	42.25	12.21	57.43	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5649.4	65.05	-3.15	68.2	56.88	32.82	6.35	31	114	229	P	H
		5693.8	72.2	-28.43	100.63	63.91	32.94	6.36	31.01	114	229	P	H
		5718.8	74.4	-36.06	110.46	66.04	33.01	6.37	31.02	114	229	P	H
		5724.2	75.1	-45.28	120.38	66.72	33.03	6.37	31.02	114	229	P	H
	*	5775	109.37	-	-	100.86	33.17	6.38	31.04	114	229	P	H
	*	5775	99.04	-	-	90.53	33.17	6.38	31.04	114	229	A	H
		5854.8	64.95	-46.31	111.26	56.2	33.39	6.42	31.06	114	229	P	H
		5857	65.89	-44.35	110.24	57.13	33.4	6.42	31.06	114	229	P	H
802.11ac		5876	62.46	-42	104.46	53.65	33.45	6.43	31.07	114	229	P	H
VHT80		5929	56.28	-11.92	68.2	47.3	33.6	6.47	31.09	114	229	P	H
CH 155		5637.4	57.28	-10.92	68.2	49.15	32.78	6.35	31	400	267	P	V
5775MHz		5679.6	64.94	-25.2	90.14	56.7	32.9	6.35	31.01	400	267	P	V
		5718.6	63.82	-46.59	110.41	55.46	33.01	6.37	31.02	400	267	P	V
		5720	63.81	-46.99	110.8	55.44	33.02	6.37	31.02	400	267	P	V
	*	5775	103.86	-	-	95.35	33.17	6.38	31.04	400	267	P	V
	*	5775	94.19	-	-	85.68	33.17	6.38	31.04	400	267	A	V
		5853.6	56.97	-57.02	113.99	48.22	33.39	6.42	31.06	400	267	P	V
		5859.4	55.69	-53.88	109.57	46.93	33.41	6.42	31.07	400	267	P	V
		5912.8	54.69	-22.51	77.2	45.76	33.56	6.46	31.09	400	267	P	V
		5944.8	52.58	-15.62	68.2	43.54	33.65	6.48	31.09	400	267	P	V

Remark

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

Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11550	49.1	-24.9	74	56.24	40.1	9.85	57.6	100	0	P	H
VHT80		17325	49.04	-19.16	68.2	51.3	42.12	12.16	57.17	100	0	P	H
CH 155		11550	48.71	-25.29	74	55.85	40.1	9.85	57.6	100	0	P	V
5775MHz		17325	49.28	-18.92	68.2	51.54	42.12	12.16	57.17	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

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)
5GHz 802.11ac VHT80 LF		59.43	31.39	-8.61	40	51.23	11.93	0.68	32.49			P	H
		185.25	35.34	-8.16	43.5	51.46	14.98	1.14	32.4			P	H
		212.25	35.93	-7.57	43.5	51.75	15.24	1.19	32.39	100	0	P	H
		323.1	32.14	-13.86	46	43.32	19.66	1.43	32.36			P	H
		624.1	35.52	-10.48	46	39.49	26.39	2	32.46			P	H
		896.4	33.42	-12.58	46	33.27	29.24	2.42	31.68			P	H
		39.18	33.66	-6.34	40	45.5	20.06	0.6	32.49	100	0	P	V
		59.43	33.3	-6.7	40	53.14	11.93	0.68	32.49			P	V
		184.71	29.89	-13.61	43.5	45.98	15.01	1.14	32.4			P	V
		618.5	33.18	-12.82	46	37.25	26.3	2	32.46			P	V
		729.1	34.58	-11.42	46	37.04	27.65	2.18	32.39			P	V
		999.3	32.24	-21.76	54	29.58	30.64	2.55	30.75			P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Note symbol

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

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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+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".

Appendix D. Radiated Spurious Emission Plots

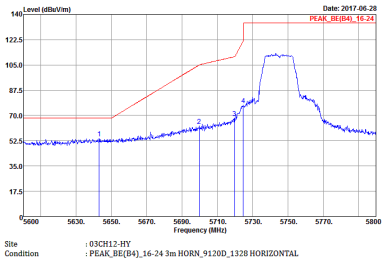
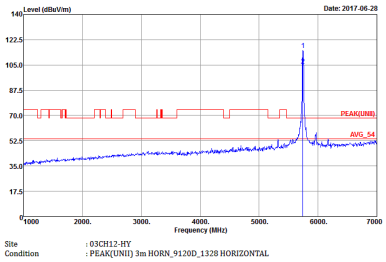
Test Engineer :	Peter Liao and Nick Yu	**Temperature :**	22~26°C
		Relative Humidity :	56~62%

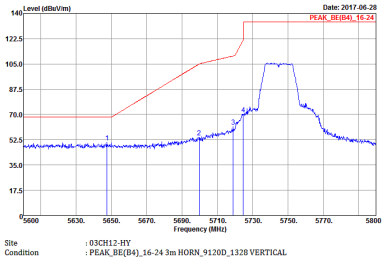
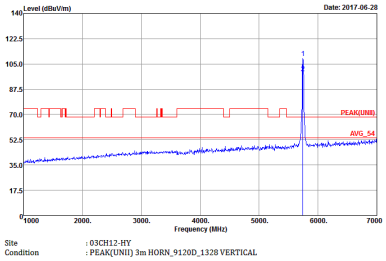
Note symbol

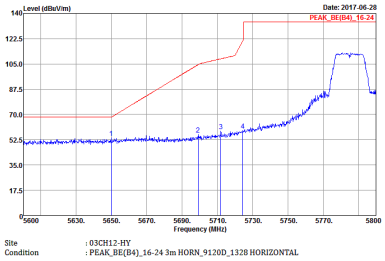
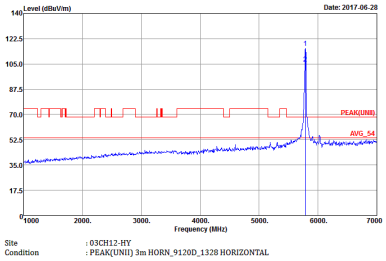
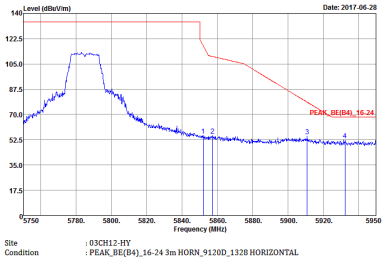
-L	**Low channel location**
-R	**High channel location**

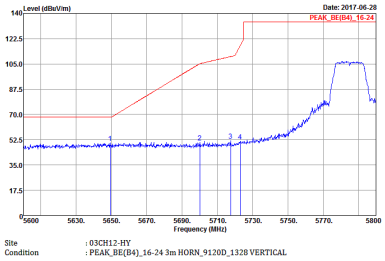
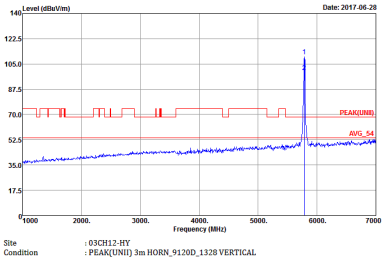
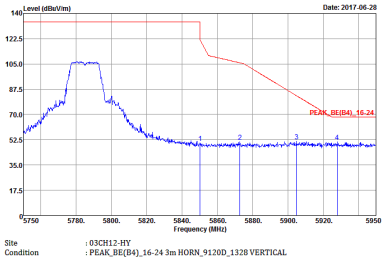
Band 4 - 5725~5850MHz

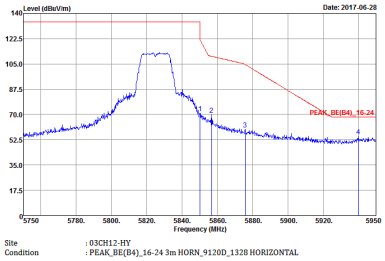
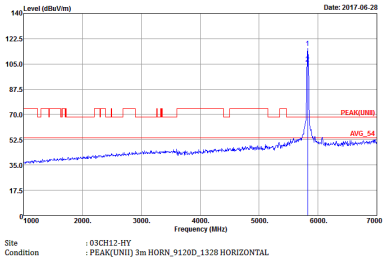
WIFI 802.11a (Band Edge @ 3m)

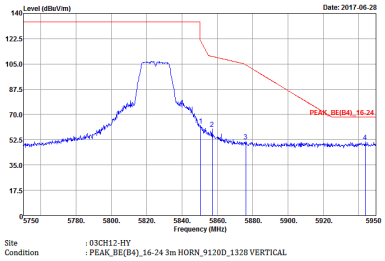
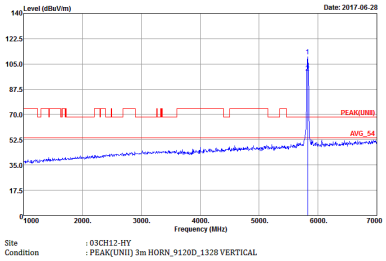
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
1	Horizontal	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
1	Vertical	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
1	Horizontal	Fundamental
Peak		
Peak		Left blank

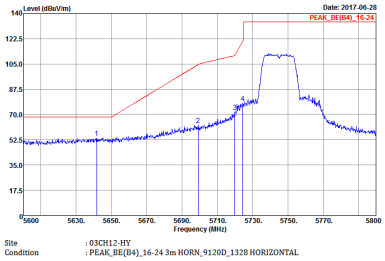
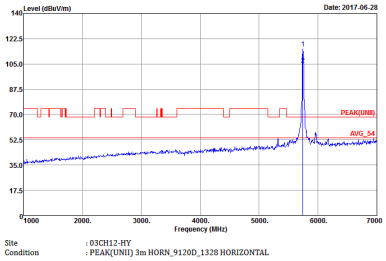
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
1	Vertical	Fundamental
Peak		
Peak		Left blank

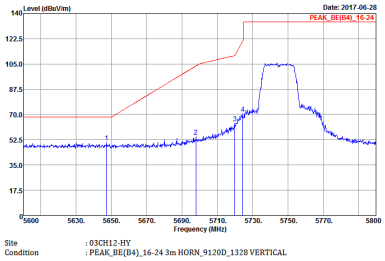
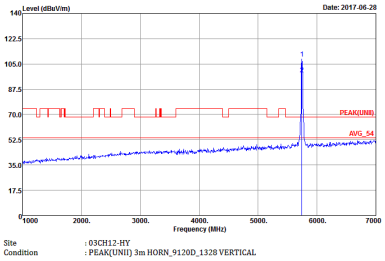
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
1	Horizontal	Fundamental
Peak		

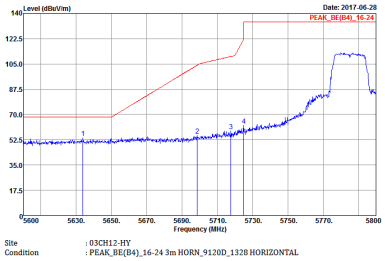
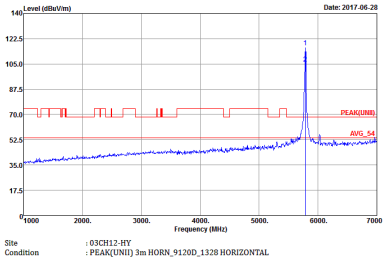
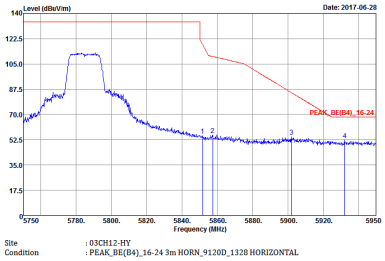
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
1	Vertical	Fundamental
Peak		

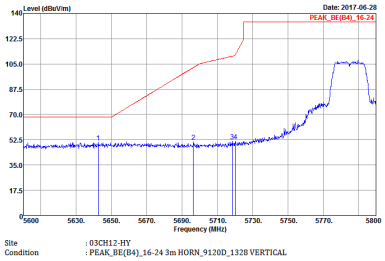
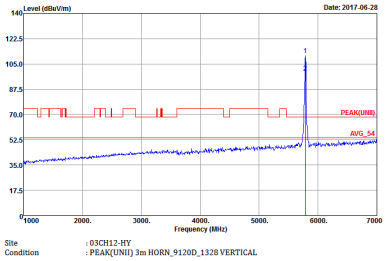
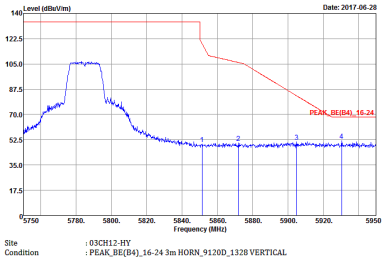
Band 4 5725~5850MHz

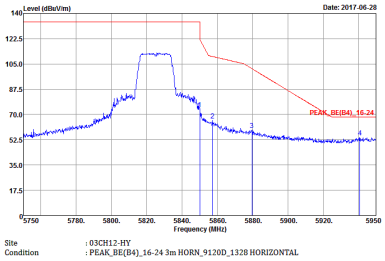
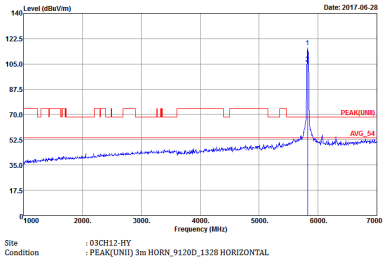
WIFI 802.11n HT20 (Band Edge @ 3m)

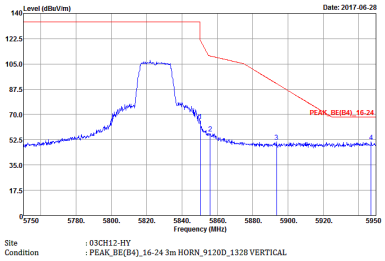
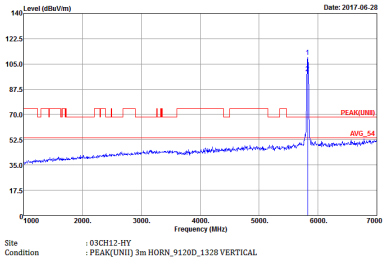
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
1	Horizontal	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
1	Vertical	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
1	Horizontal	Fundamental
Peak		
Peak		Left blank

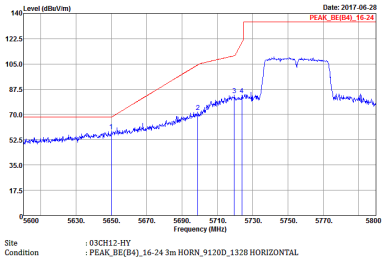
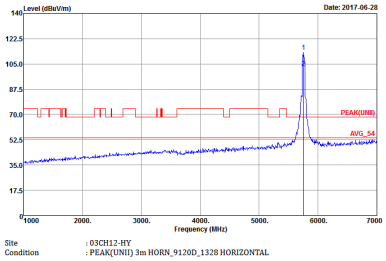
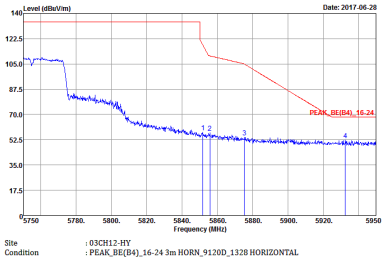
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
1	Vertical	Fundamental
Peak		
Peak		Left blank

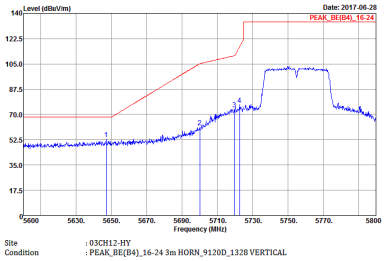
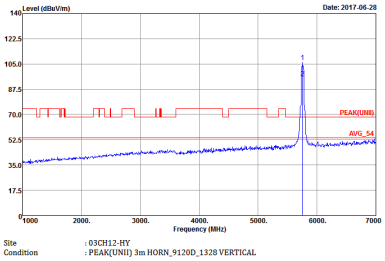
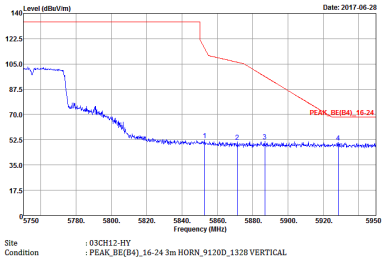
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
1	Horizontal	Fundamental
Peak		

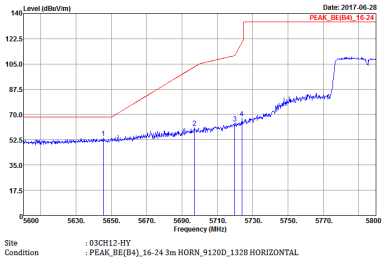
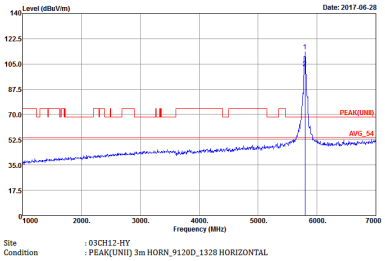
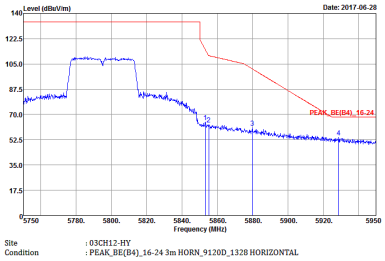
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
1	Vertical	Fundamental
Peak		

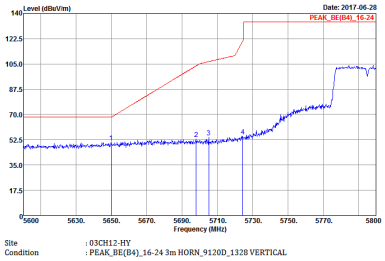
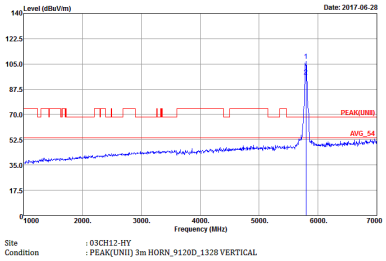
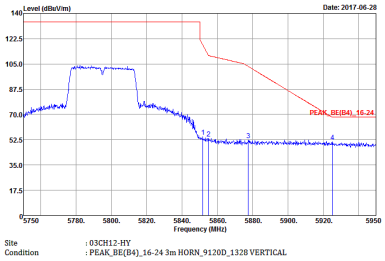
Band 4 5725~5850MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
1	Horizontal	Fundamental
Peak		
Peak		Left blank

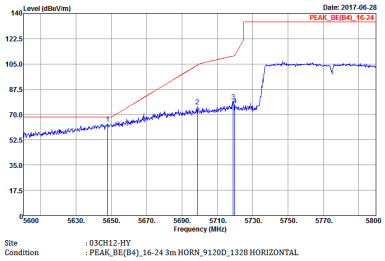
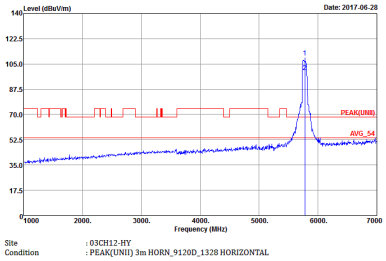
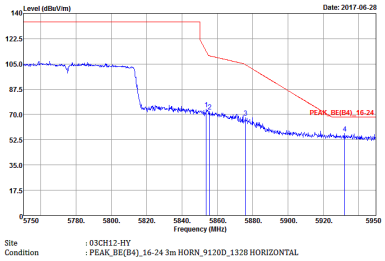
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
1	Vertical	Fundamental
Peak		
Peak		Left blank

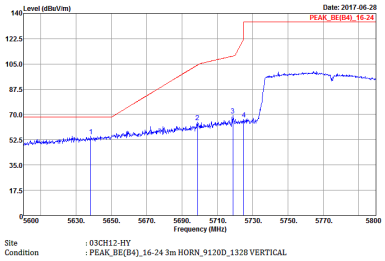
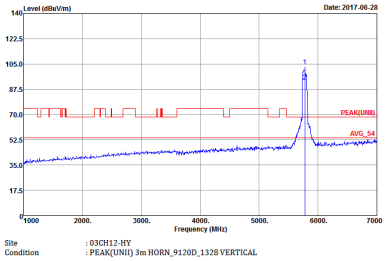
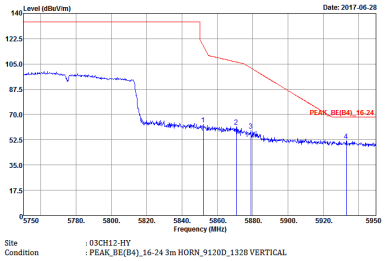
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH159 5795MHz	
1	Horizontal	Fundamental
Peak		
Peak		Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH159 5795MHz	
1	Vertical	Fundamental
Peak		
Peak		Left blank

Band 4 5725~5850MHz

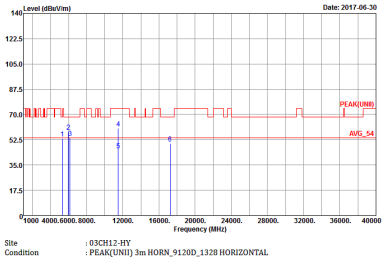
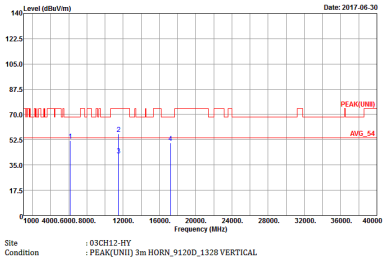
WIFI 802.11ac VHT80 (Band Edge @ 3m)

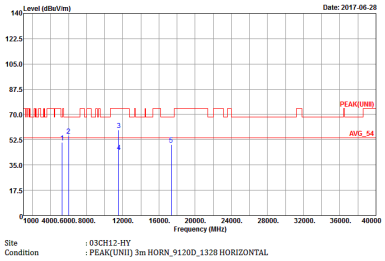
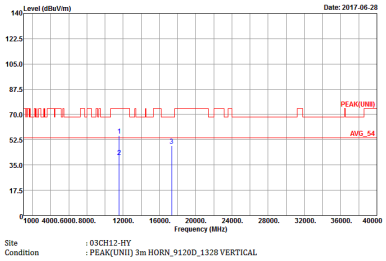
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1	Horizontal	Fundamental
Peak		
Peak		Left blank

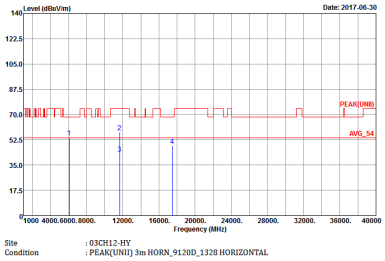
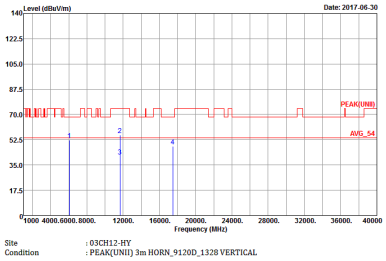
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1	Vertical	Fundamental
Peak		
Peak		Left blank

Band 4 - 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

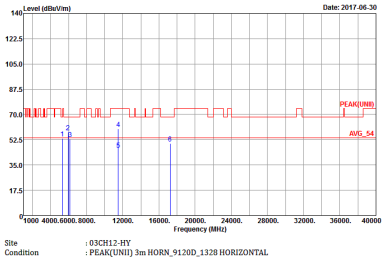
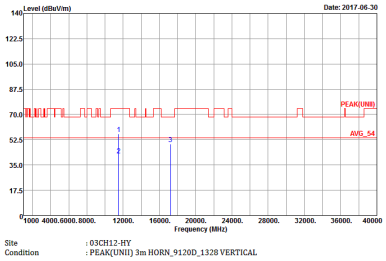
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH149 5745MHz	
1	Horizontal	Vertical
Peak Avg.		

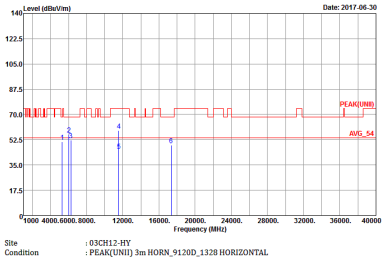
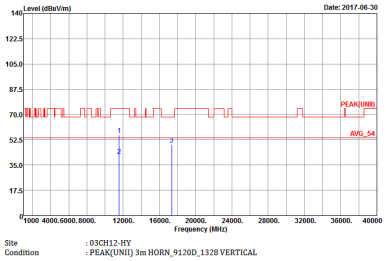
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
1	Horizontal	Vertical
Peak Avg.		

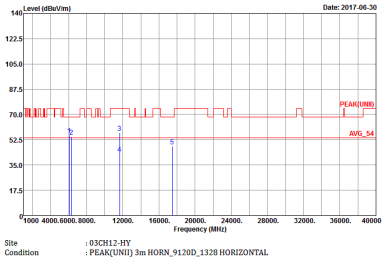
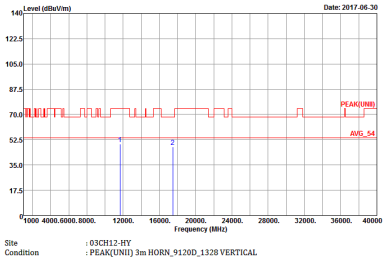
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH165 5825MHz	
1	Horizontal	Vertical
Peak Avg.		

Band 4 5725~5850MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

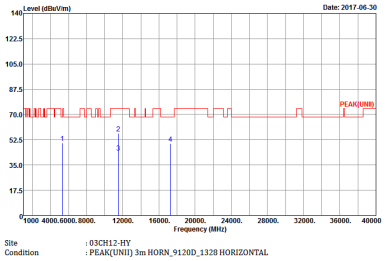
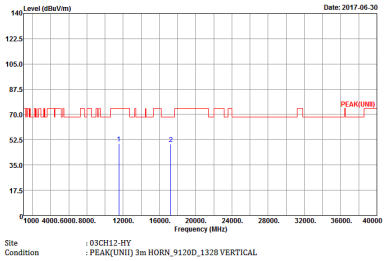
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
1	Horizontal	Vertical
Peak Avg.		

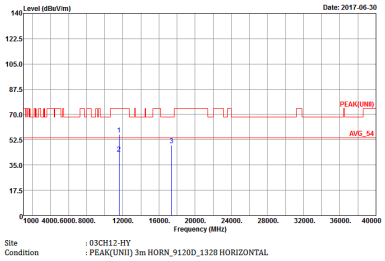
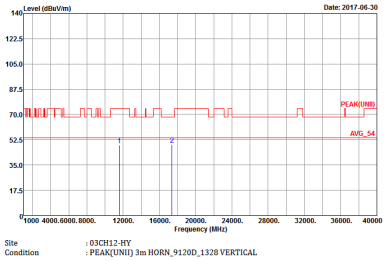
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
1	Horizontal	Vertical
Peak Avg.		

Band 4 5725~5850MHz

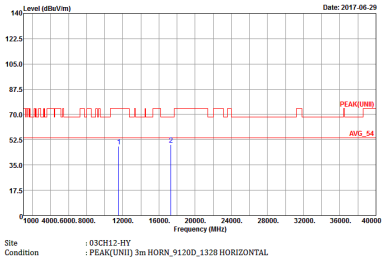
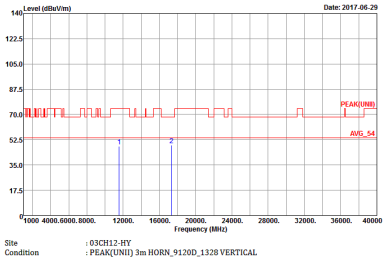
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT40 CH159 5795MHz	
1	Horizontal	Vertical
Peak Avg.		

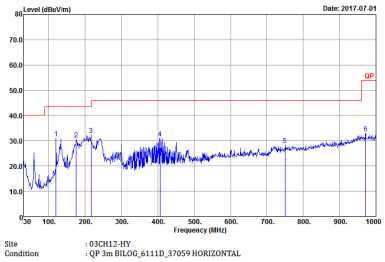
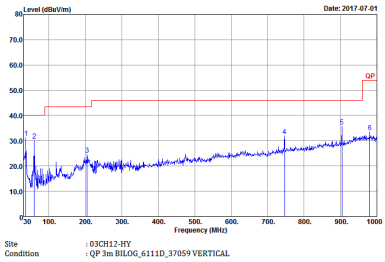
Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1	Horizontal	Vertical
Peak Avg.		

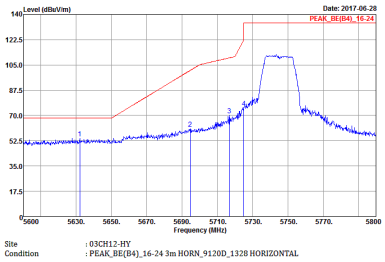
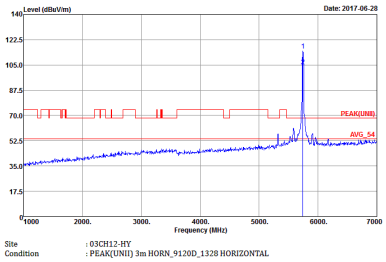
Emission below 1GHz

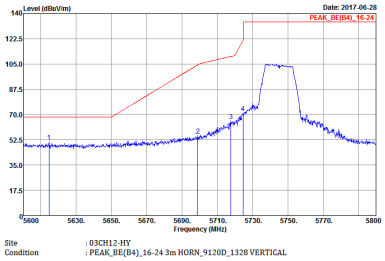
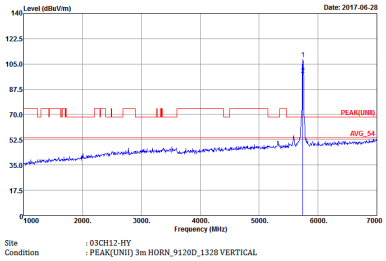
5GHz WIFI 802.11ac VHT80 (LF)

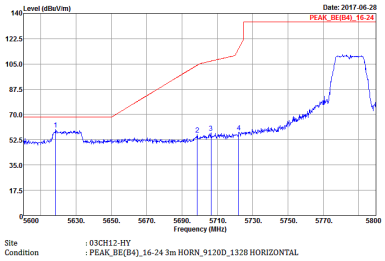
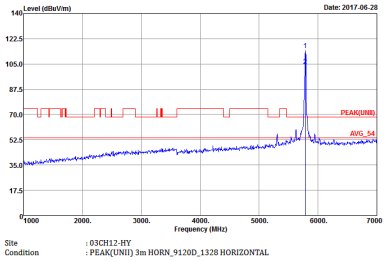
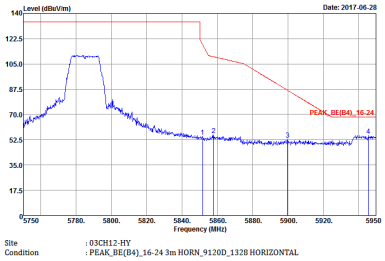
WIFI	5GHz 5725~5850MHz	
ANT	802.11ac VHT80 LF	
1	Horizontal	Vertical
QP / Peak		

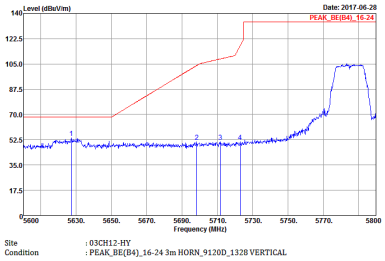
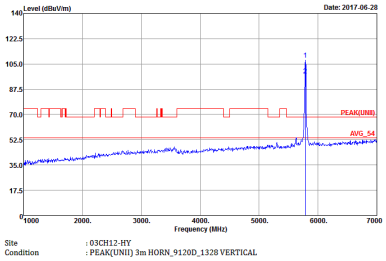
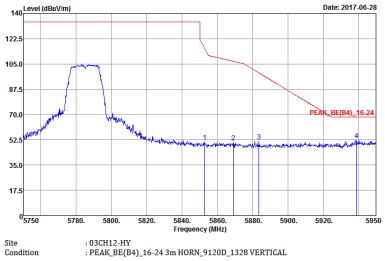
Band 4 - 5725~5850MHz

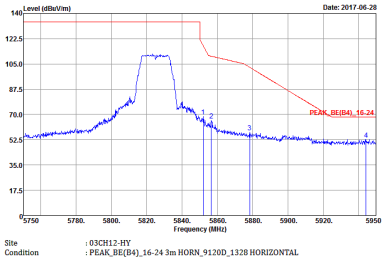
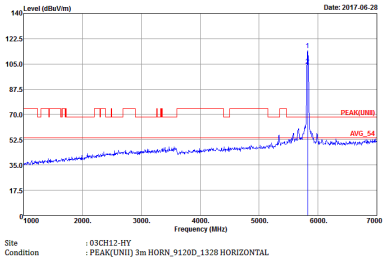
WIFI 802.11a (Band Edge @ 3m)

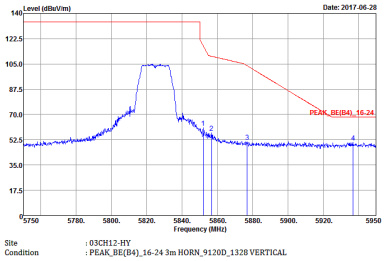
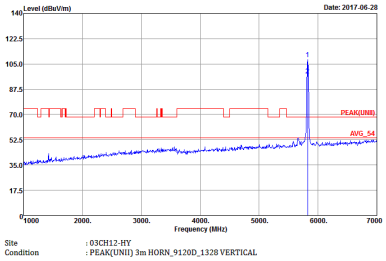
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
2	Horizontal	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
2	Vertical	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
2	Horizontal	Fundamental
Peak		
Peak		Left blank

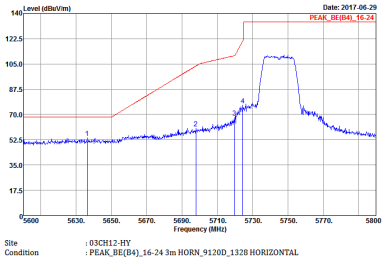
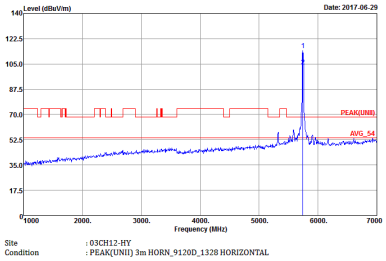
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
2	Vertical	Fundamental
Peak		
Peak		Left blank

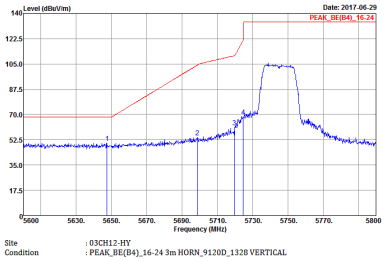
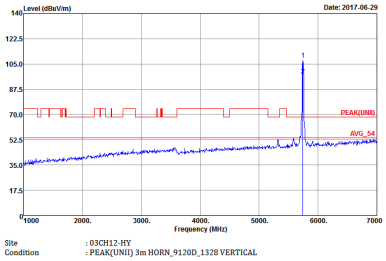
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
2	Horizontal	Fundamental
Peak		

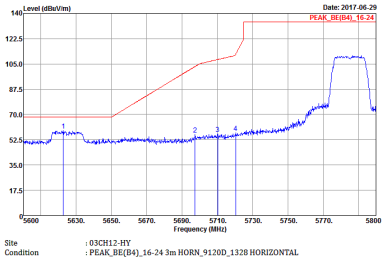
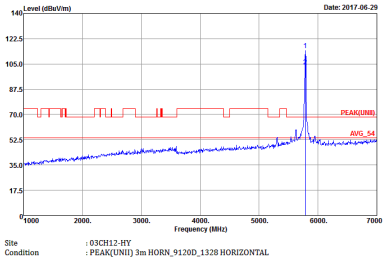
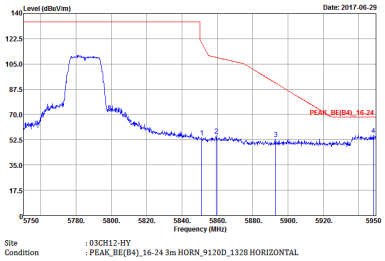
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
2	Vertical	Fundamental
Peak		

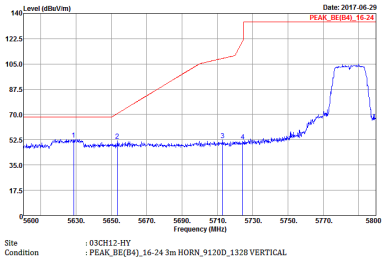
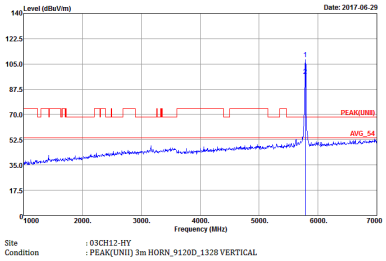
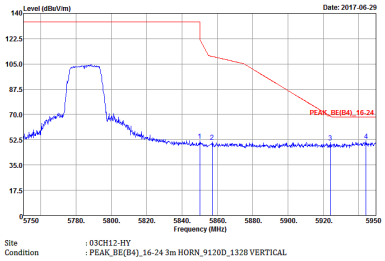
Band 4 5725~5850MHz

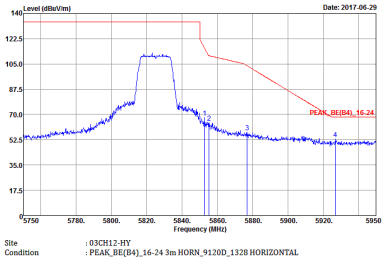
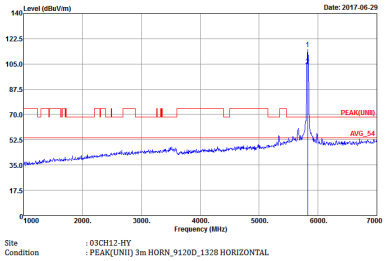
WIFI 802.11n HT20 (Band Edge @ 3m)

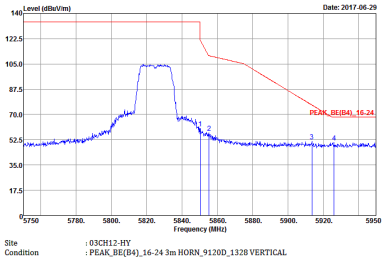
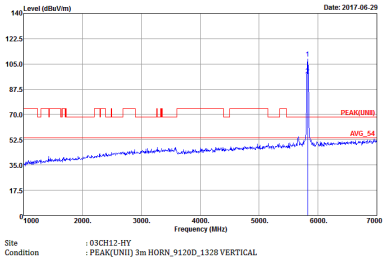
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
2	Horizontal	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
2	Vertical	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
2	Horizontal	Fundamental
Peak		
Peak		Left blank

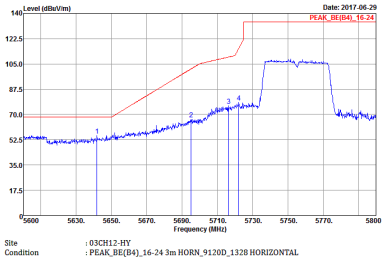
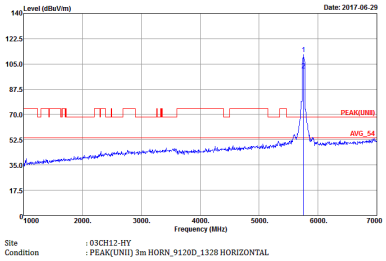
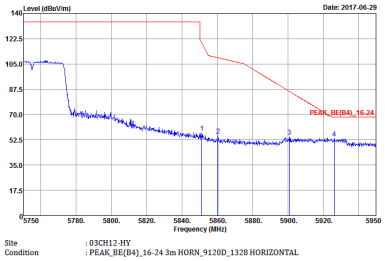
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
2	Vertical	Fundamental
Peak		
Peak		Left blank

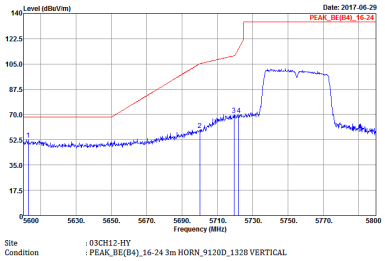
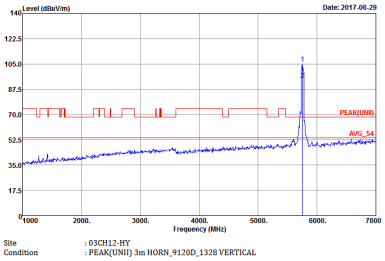
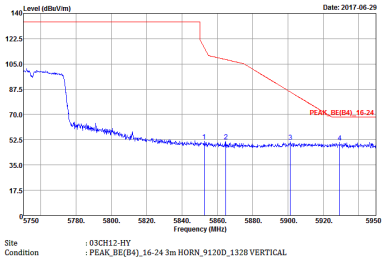
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
2	Horizontal	Fundamental
Peak		

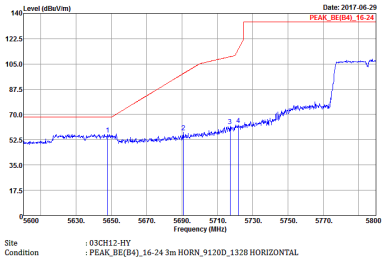
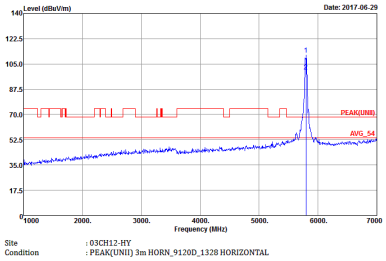
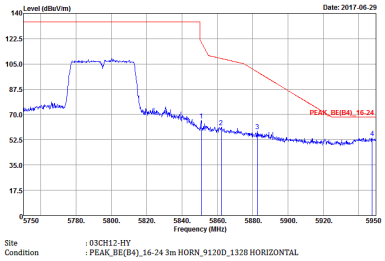
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
2	Vertical	Fundamental
Peak		

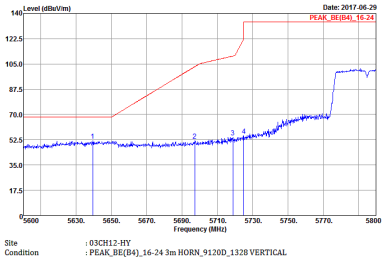
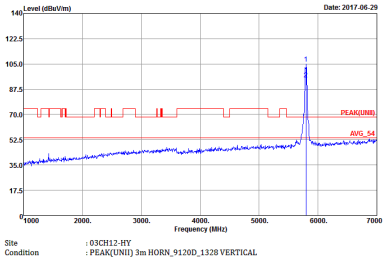
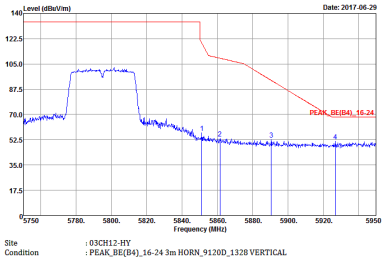
Band 4 5725~5850MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
2	Horizontal	Fundamental
Peak		
Peak		Left blank

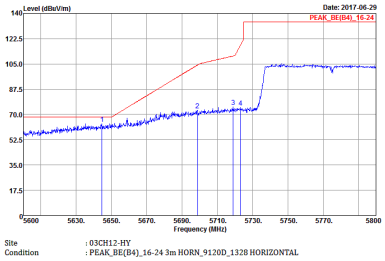
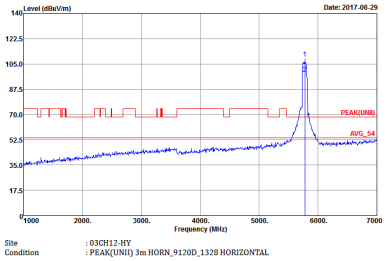
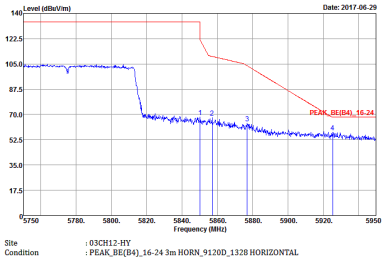
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
2	Vertical	Fundamental
Peak		
Peak		Left blank

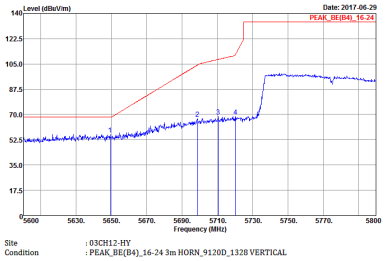
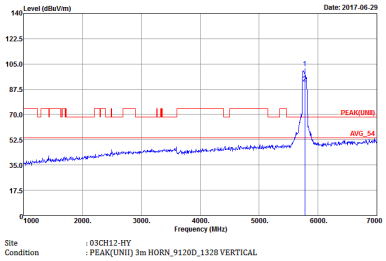
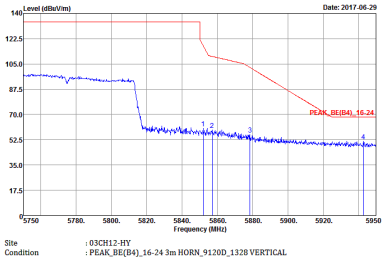
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH159 5795MHz	
2	Horizontal	Fundamental
Peak		
Peak		Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH159 5795MHz	
2	Vertical	Fundamental
Peak		
Peak		Left blank

Band 4 5725~5850MHz

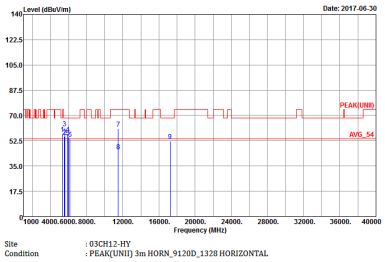
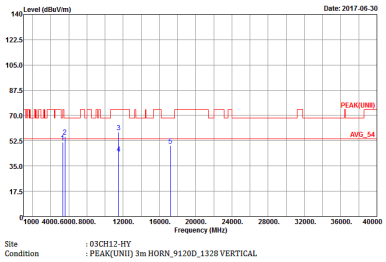
WIFI 802.11ac VHT80 (Band Edge @ 3m)

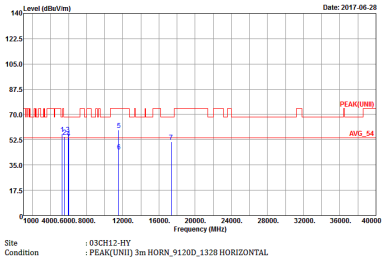
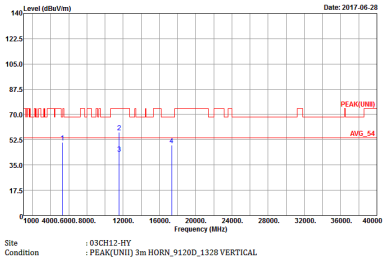
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
2	Horizontal	Fundamental
Peak		
Peak		Left blank

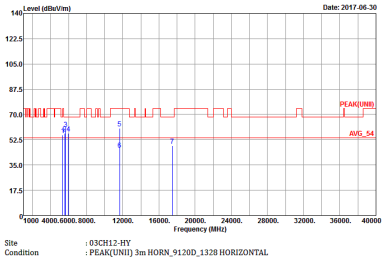
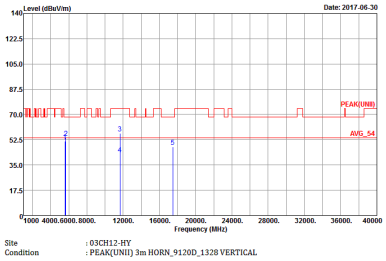
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
2	Vertical	Fundamental
Peak		
Peak		Left blank

Band 4 - 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

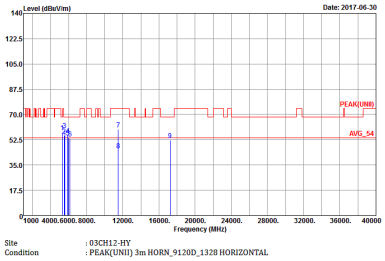
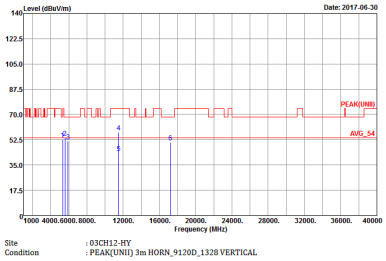
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH149 5745MHz	
2	Horizontal	Vertical
Peak Avg.		

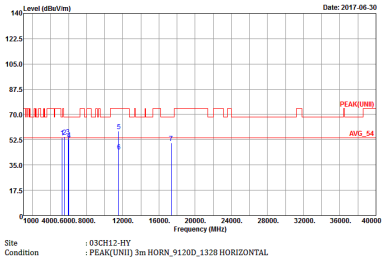
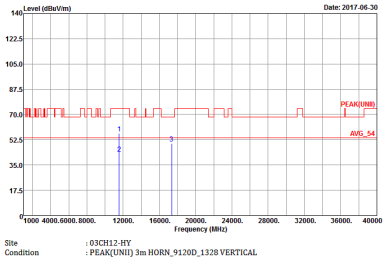
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
2	Horizontal	Vertical
Peak Avg.		

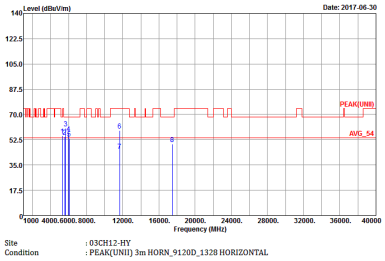
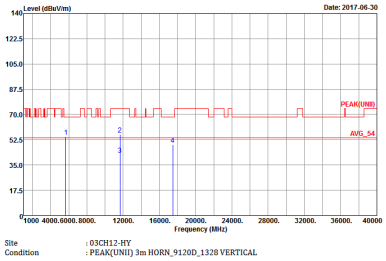
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH165 5825MHz	
2	Horizontal	Vertical
Peak Avg.		

Band 4 5725~5850MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

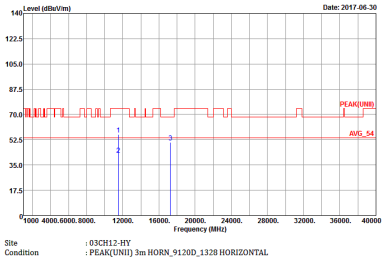
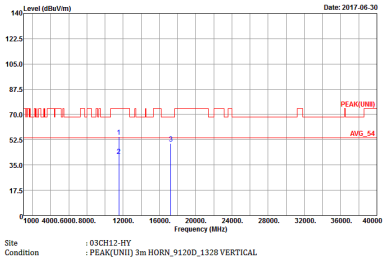
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
2	Horizontal	Vertical
Peak Avg.		

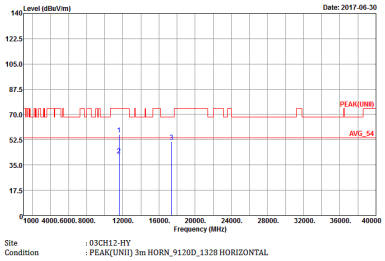
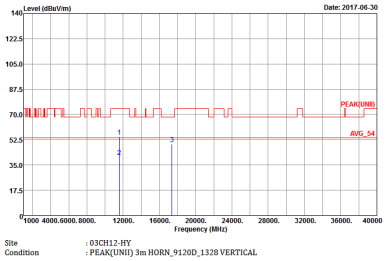
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
2	Horizontal	Vertical
Peak Avg.		

Band 4 5725~5850MHz

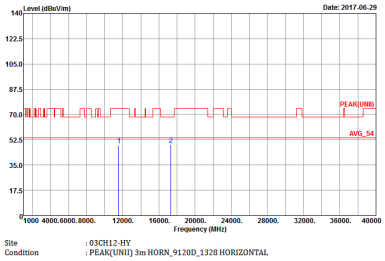
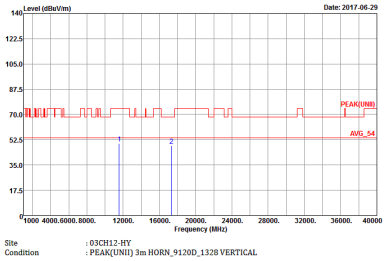
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT40 CH159 5795MHz	
2	Horizontal	Vertical
Peak Avg.		

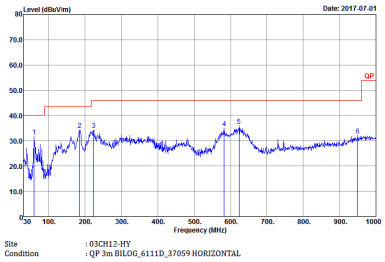
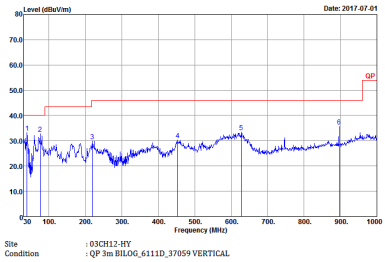
Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
2	Horizontal	Vertical
Peak Avg.		

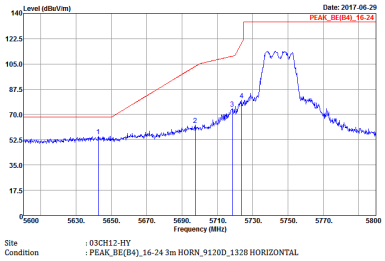
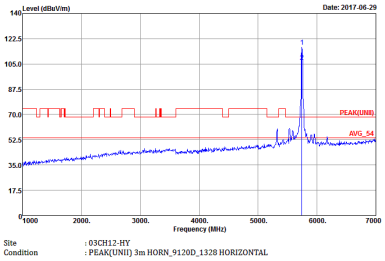
Emission below 1GHz

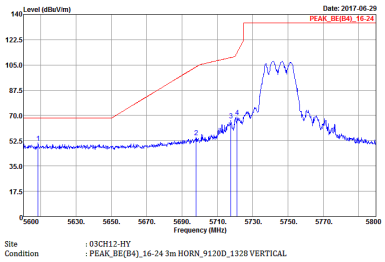
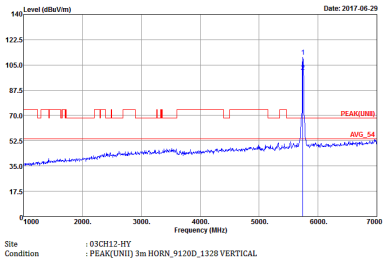
5GHz WIFI 802.11ac VHT80 (LF)

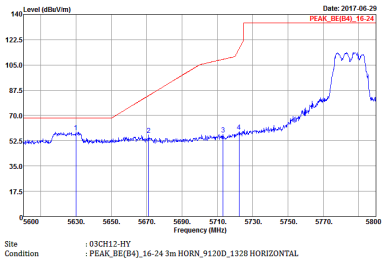
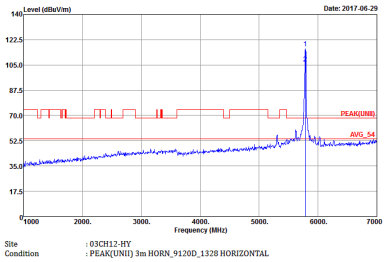
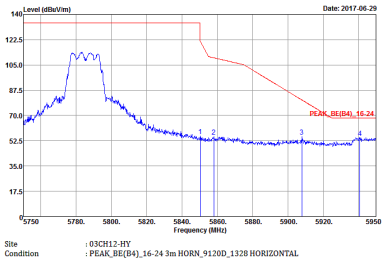
WIFI	5GHz 5725~5850MHz	
ANT	802.11ac VHT80 LF	
2	Horizontal	Vertical
QP / Peak		

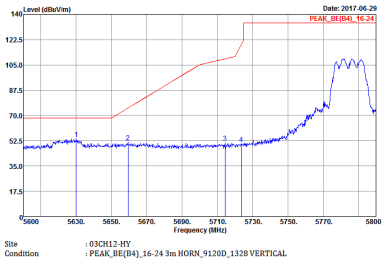
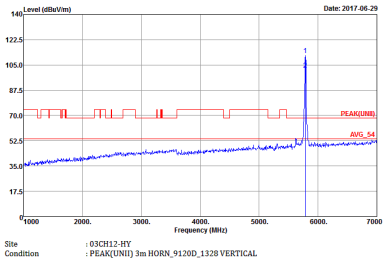
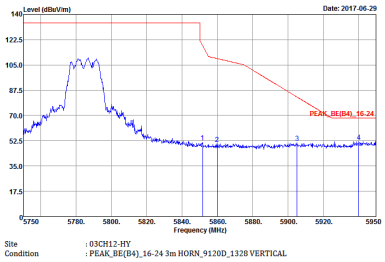
Band 4 - 5725~5850MHz

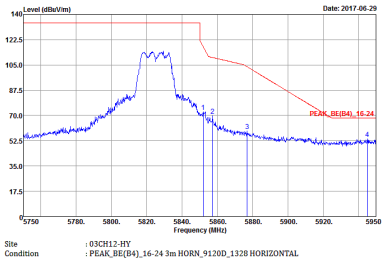
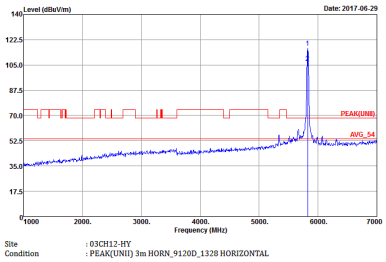
WIFI 802.11a (Band Edge @ 3m)

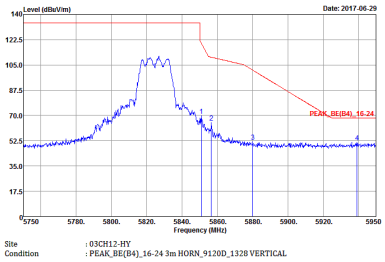
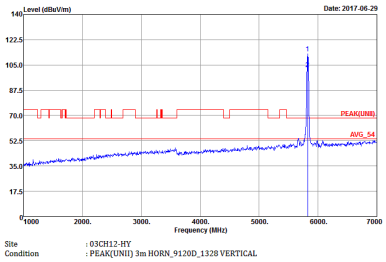
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
1+2	Horizontal	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
1+2	Vertical	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

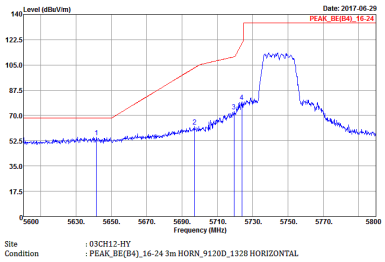
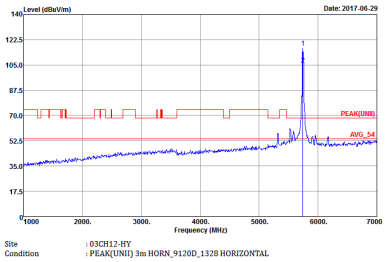
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
1+2	Vertical	Fundamental
Peak		
Peak		Left blank

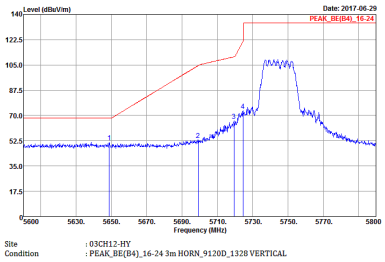
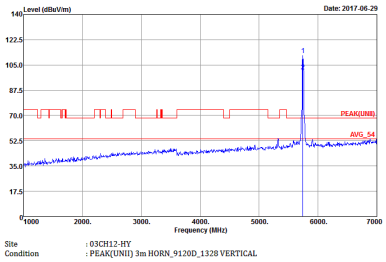
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
1+2	Horizontal	Fundamental
Peak		

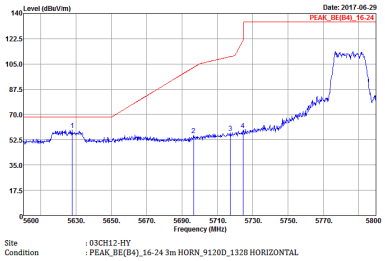
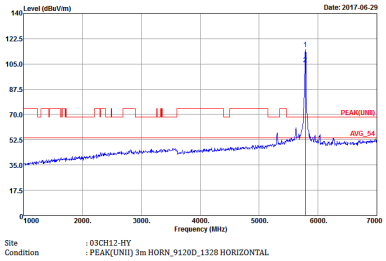
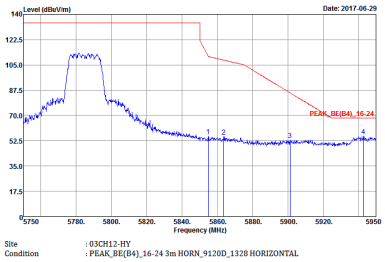
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
1+2	Vertical	Fundamental
Peak		

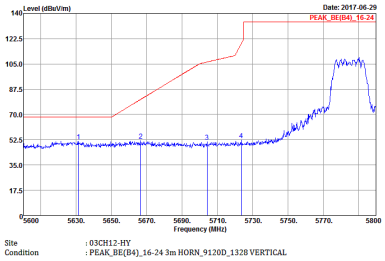
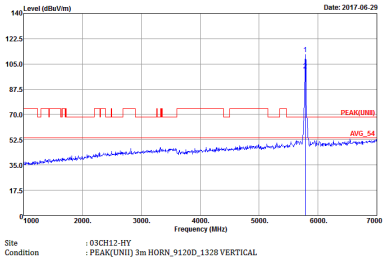
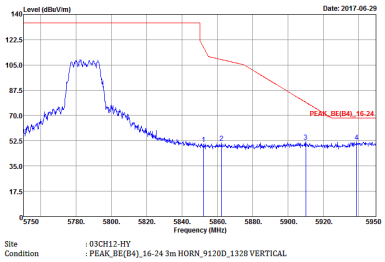
Band 4 5725~5850MHz

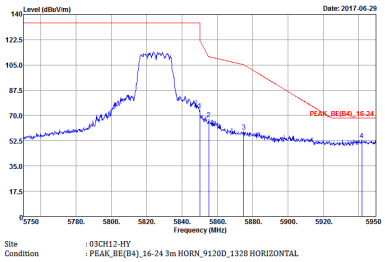
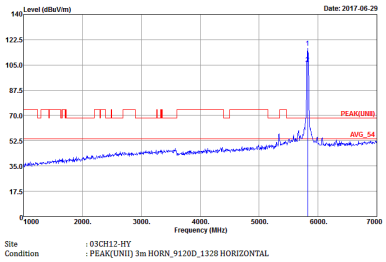
WIFI 802.11n HT20 (Band Edge @ 3m)

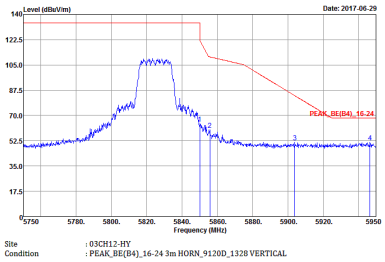
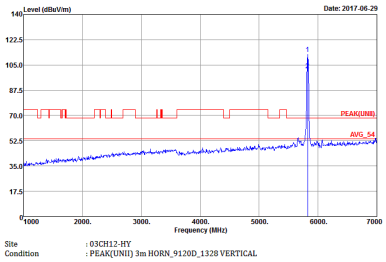
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
1+2	Horizontal	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
1+2	Vertical	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

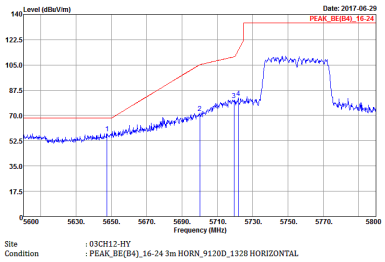
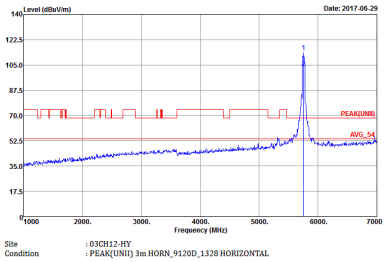
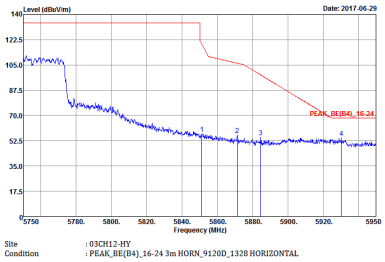
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
1+2	Vertical	Fundamental
Peak		
Peak		Left blank

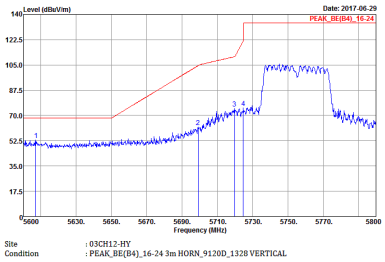
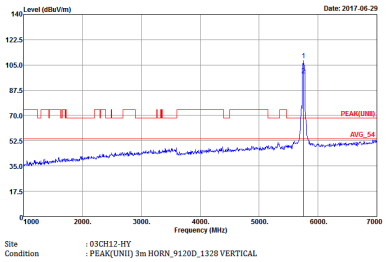
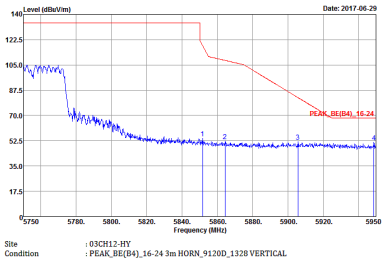
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
1+2	Horizontal	Fundamental
Peak		

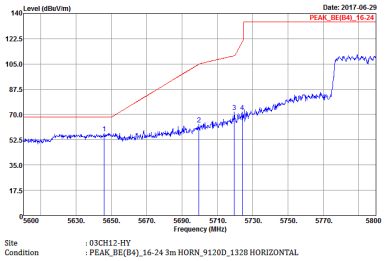
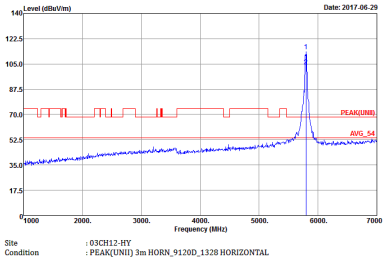
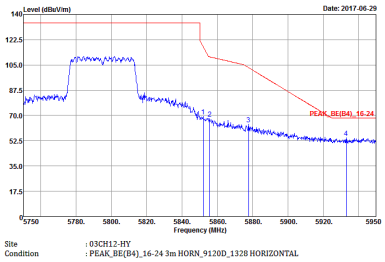
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
1+2	Vertical	Fundamental
Peak		

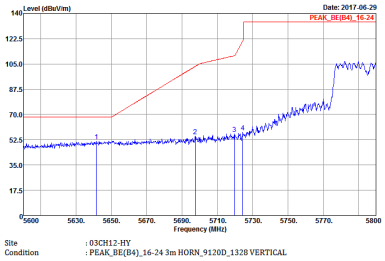
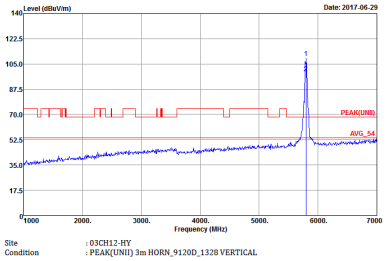
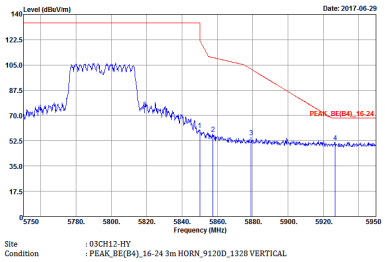
Band 4 5725~5850MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

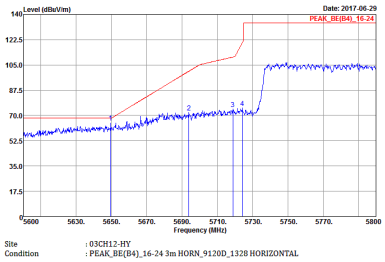
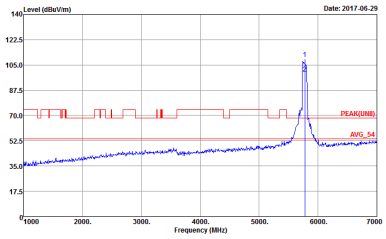
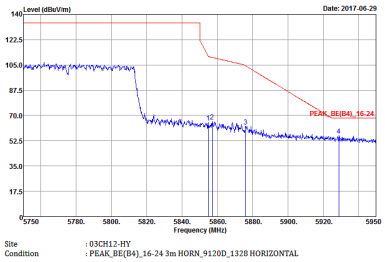
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
1+2	Vertical	Fundamental
Peak		
Peak		Left blank

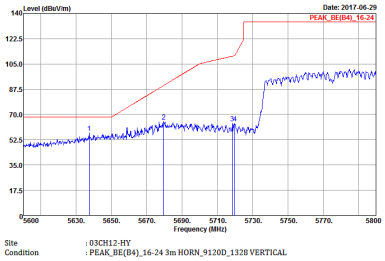
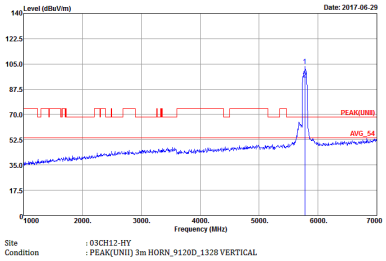
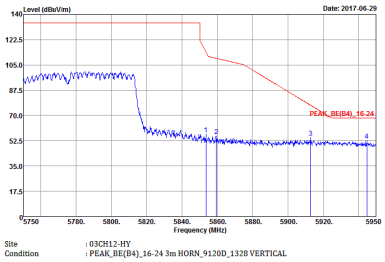
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH159 5795MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH159 5795MHz	
1+2	Vertical	Fundamental
Peak		
Peak		Left blank

Band 4 5725~5850MHz

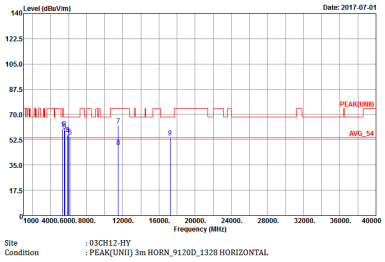
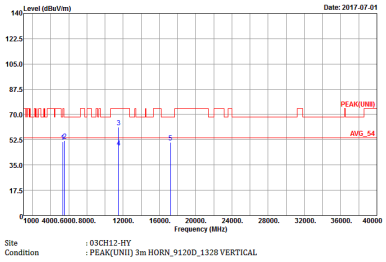
WIFI 802.11ac VHT80 (Band Edge @ 3m)

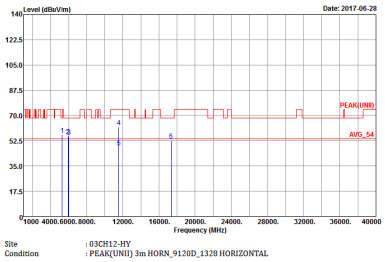
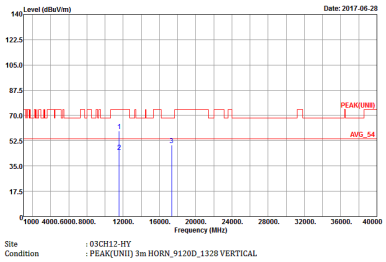
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

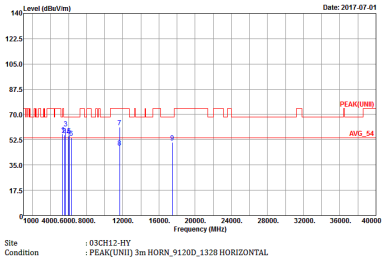
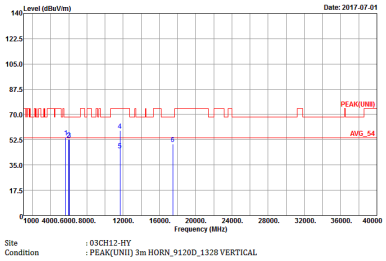
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Vertical	Fundamental
Peak		
Peak		Left blank

Band 4 - 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

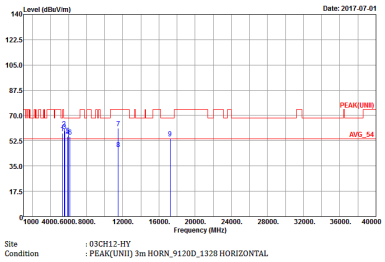
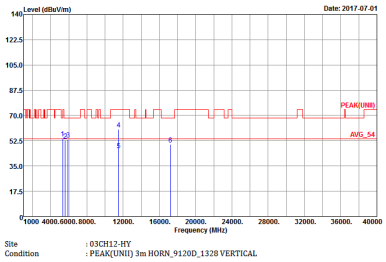
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH149 5745MHz	
1+2	Horizontal	Vertical
Peak Avg.		

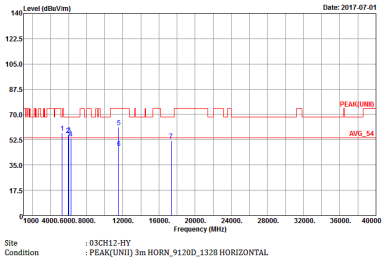
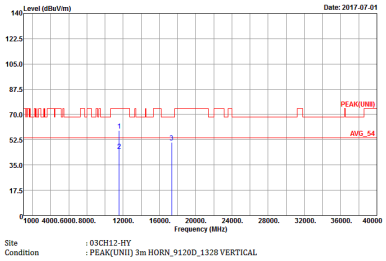
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
1+2	Horizontal	Vertical
Peak Avg.		

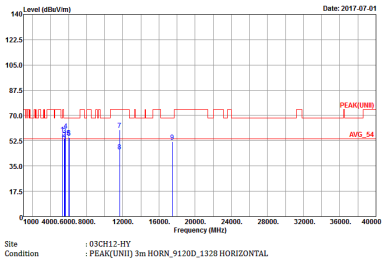
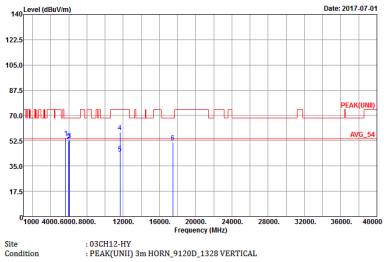
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH165 5825MHz	
1+2	Horizontal	Vertical
Peak Avg.		

Band 4 5725~5850MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

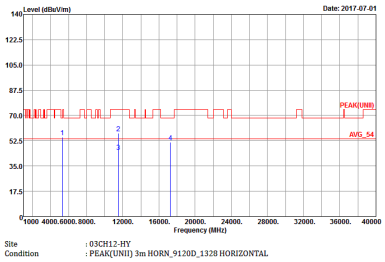
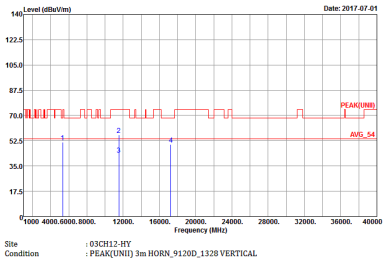
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
1+2	Horizontal	Vertical
Peak Avg.		

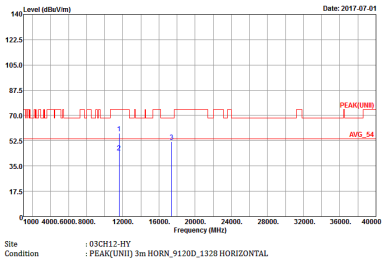
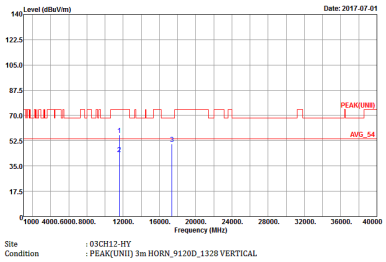
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
1+2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
1+2	Horizontal	Vertical
Peak Avg.		

Band 4 5725~5850MHz

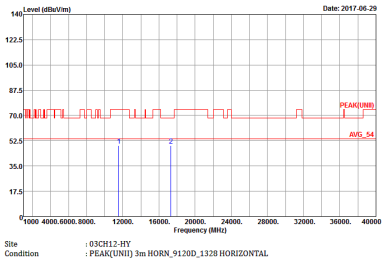
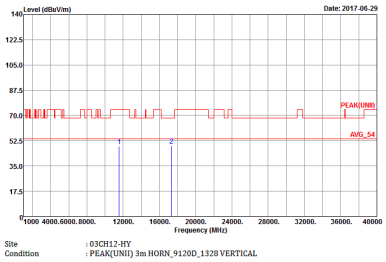
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
1+2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT40 CH159 5795MHz	
1+2	Horizontal	Vertical
Peak Avg.		

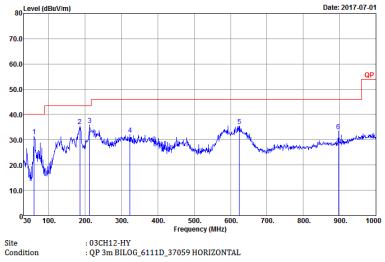
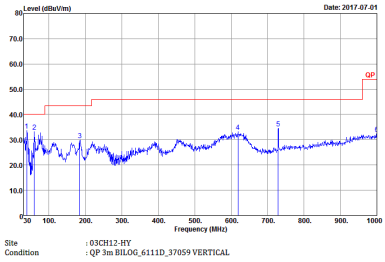
Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Horizontal	Vertical
Peak Avg.		

Emission below 1GHz

5GHz WIFI 802.11ac VHT80 (LF)

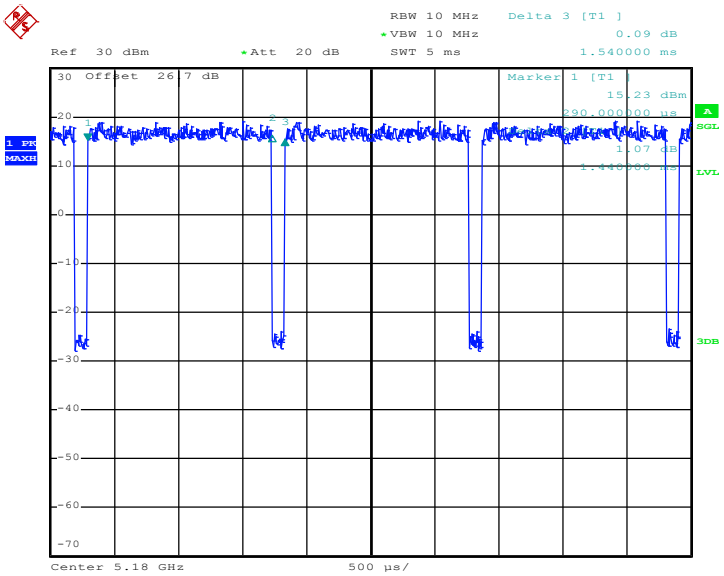
WIFI	5GHz 5725~5850MHz	
ANT	802.11ac VHT80 LF	
1+2	Horizontal	Vertical
QP / Peak		

Appendix E. Duty Cycle Plots

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
1	802.11a	93.51	1440	0.69	1kHz
1	5GHz 802.11n HT20	92.36	1330	0.75	1kHz
1	5GHz 802.11n HT40	86.61	660	1.52	3kHz
1	5GHz 802.11ac VHT80	76.15	332	3.01	10kHz
2	802.11a	93.46	1430	0.70	1kHz
2	5GHz 802.11n HT20	93.06	1340	0.75	1kHz
2	5GHz 802.11n HT40	86.61	660	1.52	3kHz
2	5GHz 802.11ac VHT80	75.93	328	3.05	10kHz
1+2	5GHz 802.11a for Ant 1	92.86	1430	0.70	1kHz
1+2	5GHz 802.11a for Ant 2	93.51	1440	0.69	1kHz
1+2	5GHz 802.11n HT20 for Ant 1	92.41	1340	0.75	1kHz
1+2	5GHz 802.11n HT20 for Ant 2	92.41	1340	0.75	1kHz
1+2	5GHz 802.11n HT40 for Ant 1	85.71	660	1.52	3kHz
1+2	5GHz 802.11n HT40 for Ant 2	85.71	660	1.52	3kHz
1+2	5GHz 802.11ac VHT80 for Ant 1	75.93	328	3.05	10kHz
1+2	5GHz 802.11ac VHT80 for Ant 2	75.93	328	3.05	10kHz

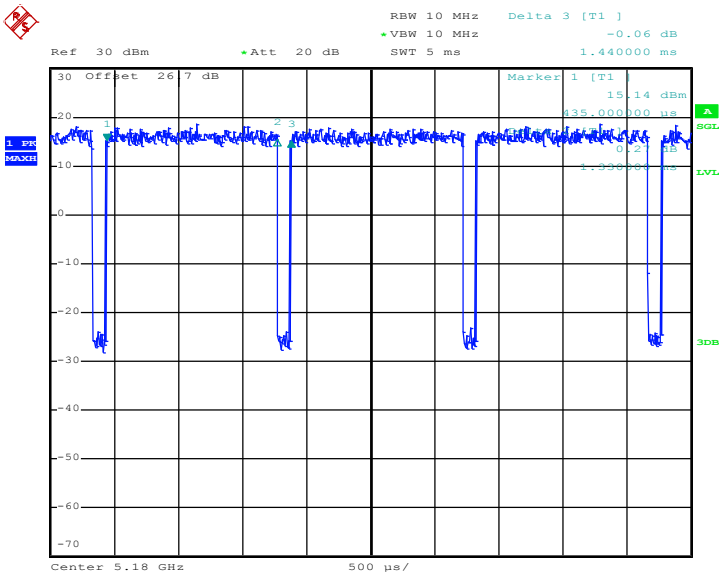
<Ant. 1>

802.11a



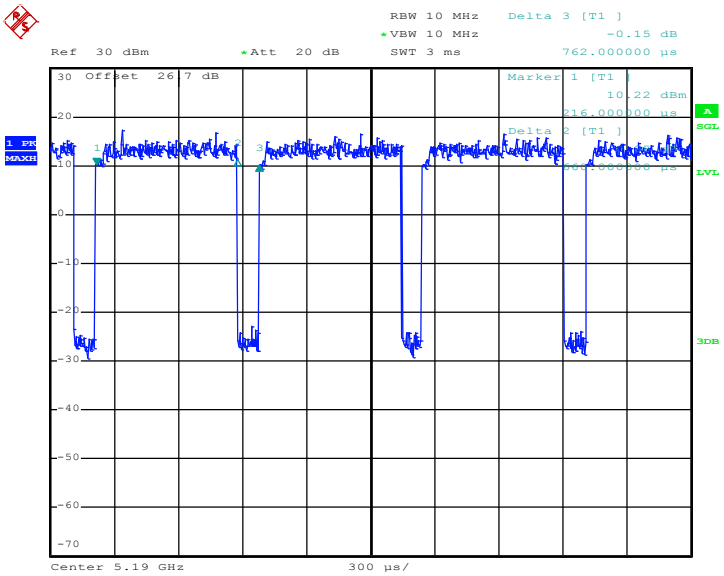
Date: 13.JUN.2017 23:08:18

802.11n HT20



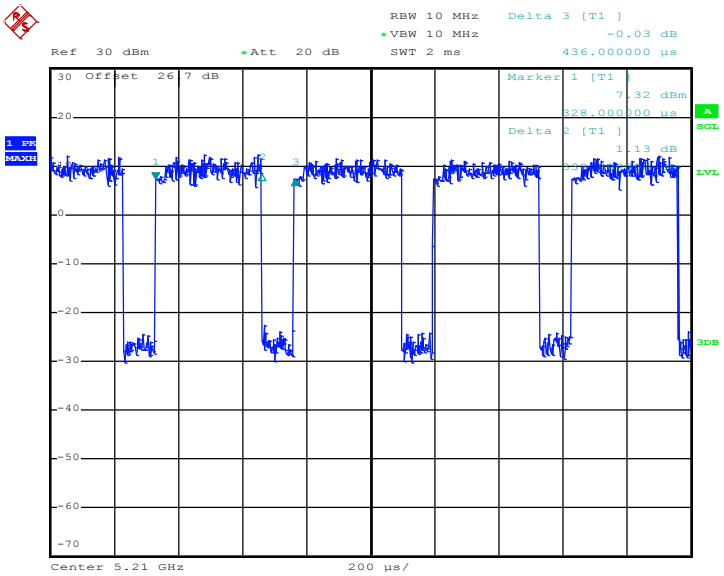
Date: 13.JUN.2017 23:11:35

802.11n HT40



Date: 13.JUN.2017 23:15:15

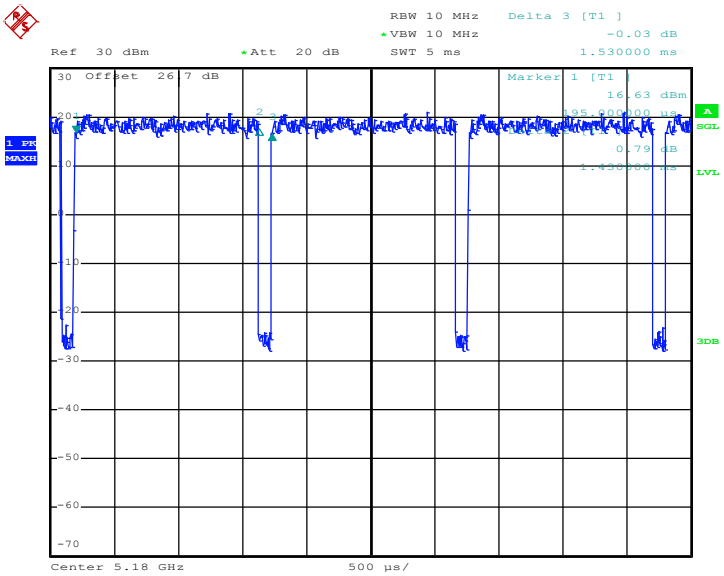
802.11ac VHT80



Date: 13.JUN.2017 23:32:23

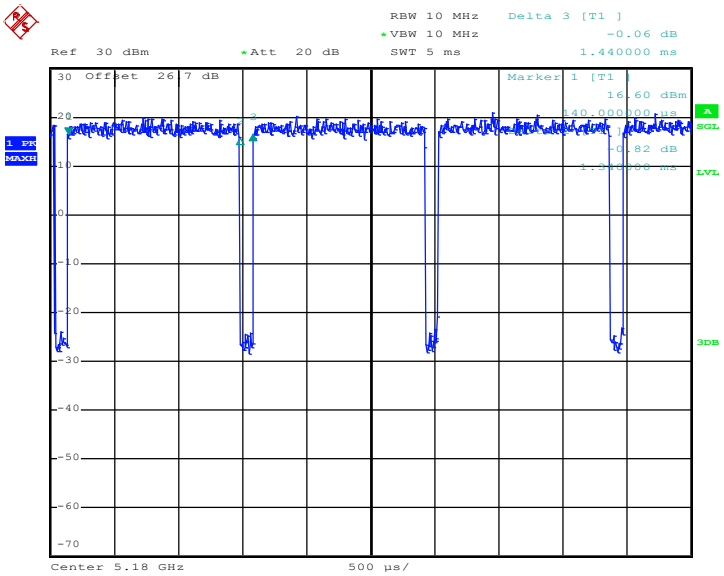
<Ant. 2>

802.11a



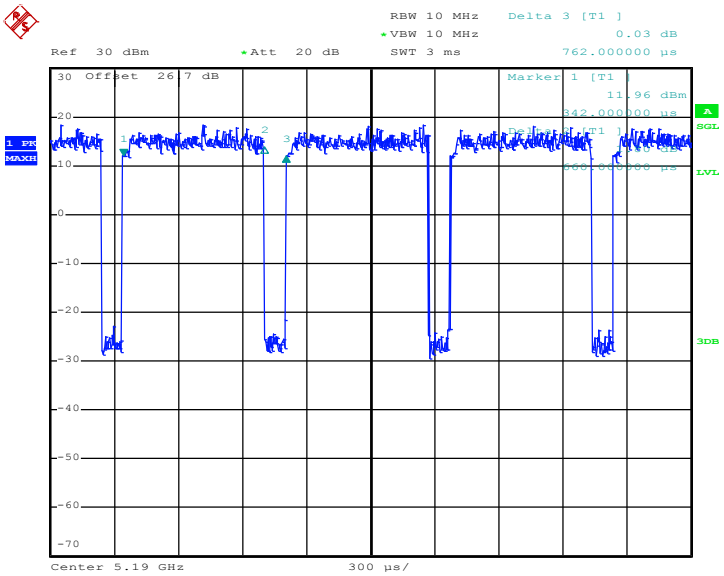
Date: 13.JUN.2017 23:09:13

802.11n HT20



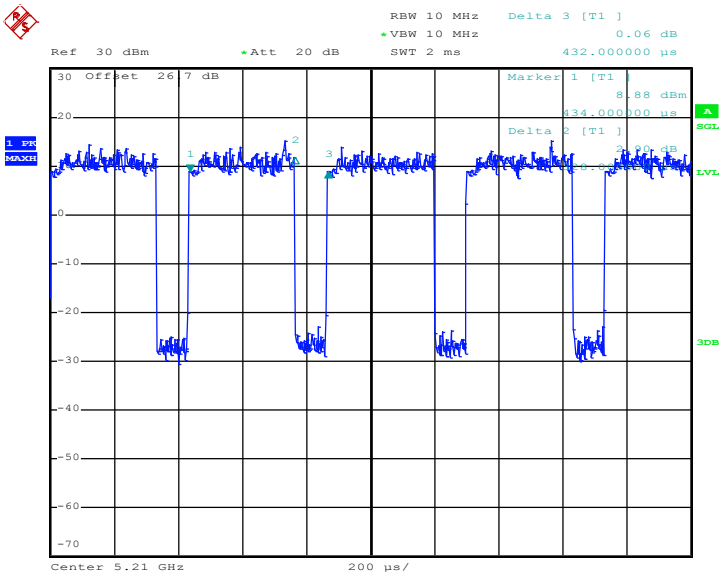
Date: 13.JUN.2017 23:12:30

802.11n HT40



Date: 13.JUN.2017 23:15:59

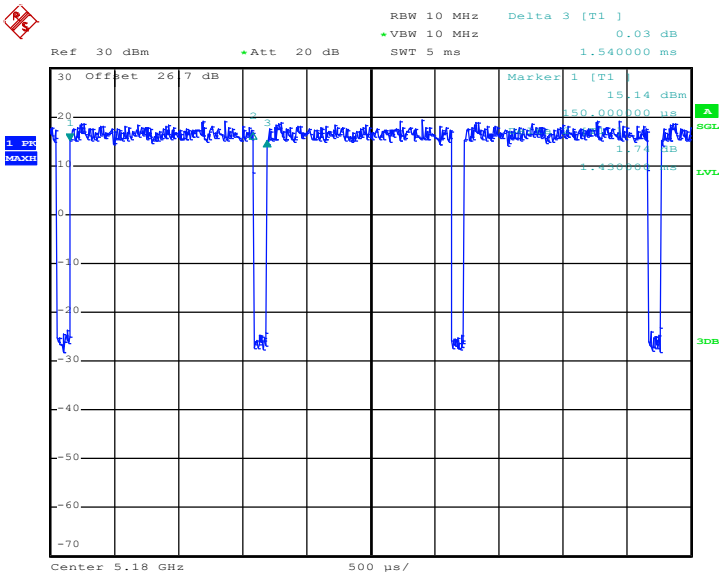
802.11ac VHT80



Date: 13.JUN.2017 23:33:03

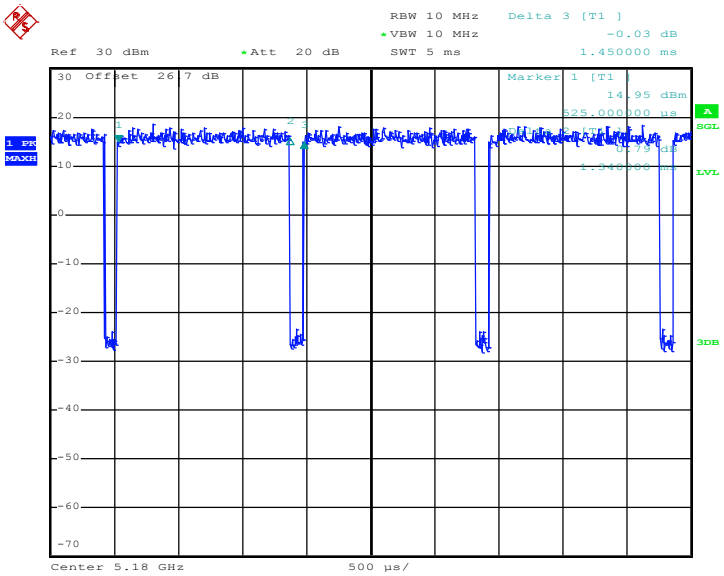
MIMO <Ant. 1+2(1)>

802.11a



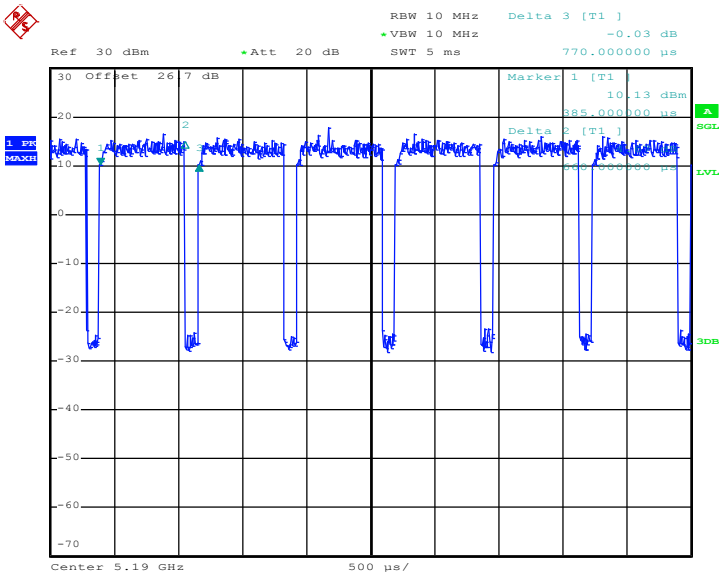
Date: 13.JUN.2017 23:10:07

802.11n HT20



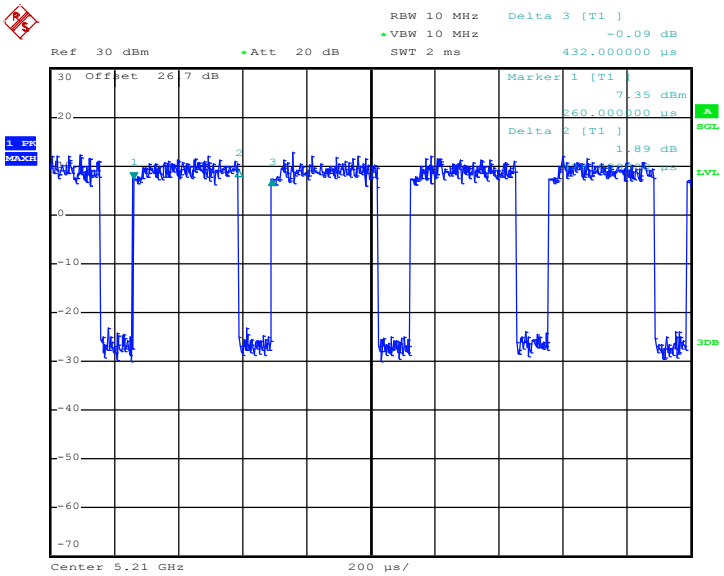
Date: 13.JUN.2017 23:13:10

802.11n HT40



Date: 13.JUN.2017 23:16:52

802.11ac VHT80



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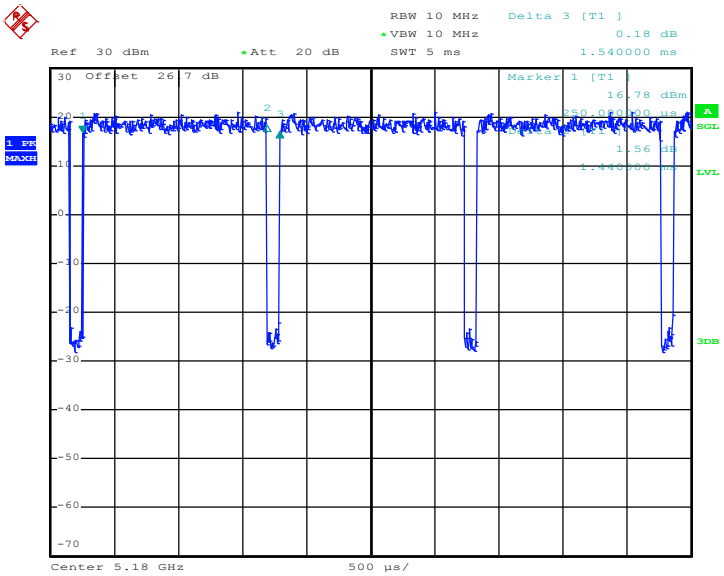
MIMO <Ant. 1+2(2)>

802.11a



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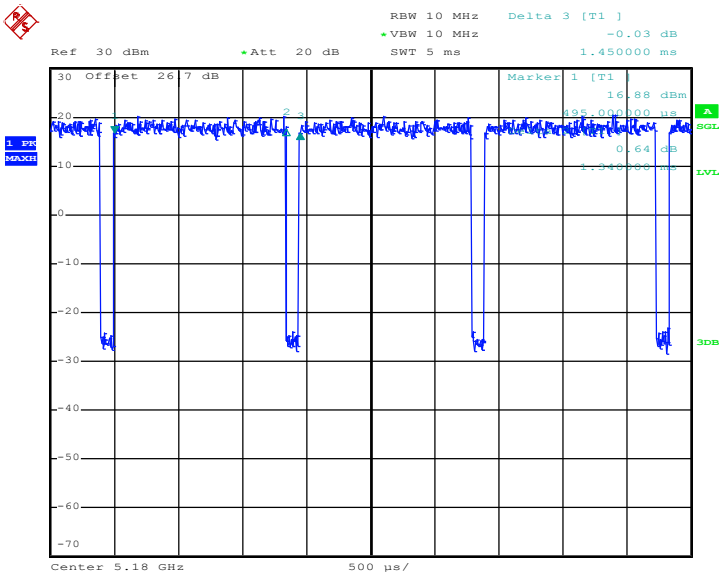
802.11n HT20



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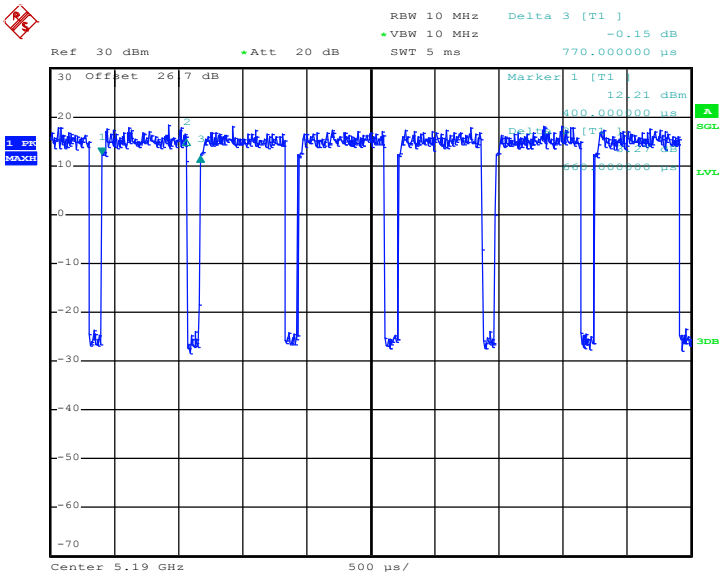
802.11n HT40



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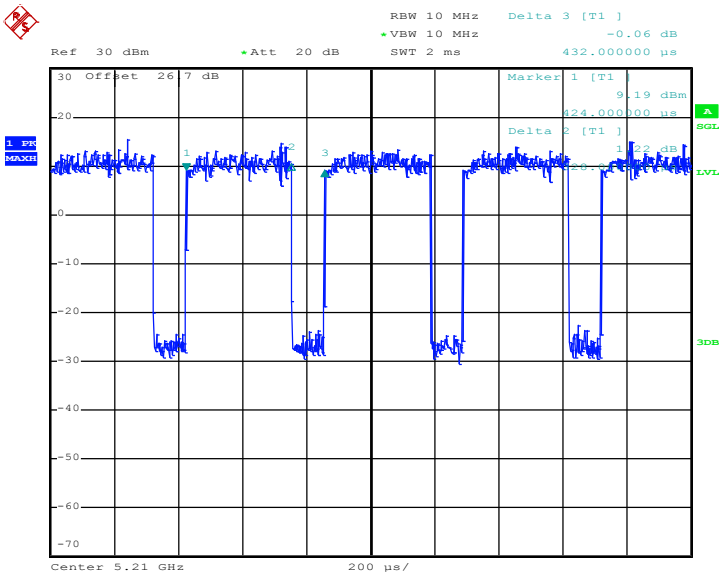
802.11ac VHT80



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