FCC RF Test Report

APPLICANT	**:**	**Nimbostratus LLC**
EQUIPMENT	**:**	**Digital Media Receiver**
MODEL NAME	**:**	**ZE39KL**
FCC ID	**:**	**2AHUF-6294**
STANDARD	**:**	**FCC Part 15 Subpart E §15.407**
CLASSIFICATION	**:**	**(NII) Unlicensed National Information Infrastructure**

The testing was completed on May 25, 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

Testing Laboratory 1190

SPORTON INTERNATIONAL INC.
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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR693034-02F	Rev. 01	Initial issue of report	May 25, 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

Nimbostratus LLC
945 Concord St. Framingham, MA 01701

1.2 Product Feature of Equipment Under Test

Product Feature	
Equipment	Digital Media Receiver
Model Name	ZE39KL
FCC ID	2AHUF-6294
EUT supports Radios application	WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE Zigbee

1.3 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Channel Frequency Range	5745 MHz ~ 5825 MHz
Maximum Output Power	**<Ant. 1>** 802.11a : 19.99 dBm / 0.0998 W 802.11n HT20 : 19.99 dBm / 0.0998 W 802.11n HT40 : 19.88 dBm / 0.0973 W 802.11ac VHT20: 19.76 dBm / 0.0946 W 802.11ac VHT40: 19.87 dBm / 0.0971 W 802.11ac VHT80: 19.98 dBm / 0.0995 W **<Ant. 2>** 802.11a : 19.93 dBm / 0.0984 W 802.11n HT20 : 19.99 dBm / 0.0998 W 802.11n HT40 : 19.90 dBm / 0.0977 W 802.11ac VHT20: 19.80 dBm / 0.0955 W 802.11ac VHT40: 19.85 dBm / 0.0966 W 802.11ac VHT80: 17.42 dBm / 0.0552 W **MIMO <Ant. 1+2>** 802.11a : 21.99 dBm / 0.1581 W 802.11n HT20 : 22.70 dBm / 0.1862 W 802.11n HT40 : 22.61 dBm / 0.1824 W 802.11ac VHT20: 22.69 dBm / 0.1858 W 802.11ac VHT40: 22.60 dBm / 0.1820 W 802.11ac VHT80: 20.47 dBm / 0.1114 W

<table>
<tr><th colspan="2">Standards-related Product Specification</th></tr>
<tr><td>99% Occupied Bandwidth</td><td><Ant. 1>
802.11a : 19.05 MHz
802.11n HT20 : 20.05 MHz
802.11n HT40 : 38.20 MHz
802.11ac VHT80 : 75.96 MHz
<Ant. 2>
802.11a : 19.45 MHz
802.11n HT20 : 20.00 MHz
802.11n HT40 : 37.80 MHz
802.11ac VHT80 : 75.96 MHz
MIMO <Ant. 1>
802.11a : 19.05 MHz
802.11n HT20 : 19.55 MHz
802.11n HT40 : 37.80 MHz
802.11ac VHT80 : 75.96 MHz
MIMO <Ant. 2>
802.11a : 18.45 MHz
802.11n HT20 : 19.40 MHz
802.11n HT40 : 37.40 MHz
802.11ac VHT80 : 75.96 MHz</td></tr>
<tr><td>Type of Modulation</td><td>802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)
802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)</td></tr>
<tr><td>Antenna Type / Gain</td><td><Ant. 1>
Fixed internal Antenna with gain 5.30 dBi
<Ant. 2>
Fixed internal Antenna with gain 5.50 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 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.**
	03CH11-HY, 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, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Y 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 VHT80	MCS0

MIMO Antenna

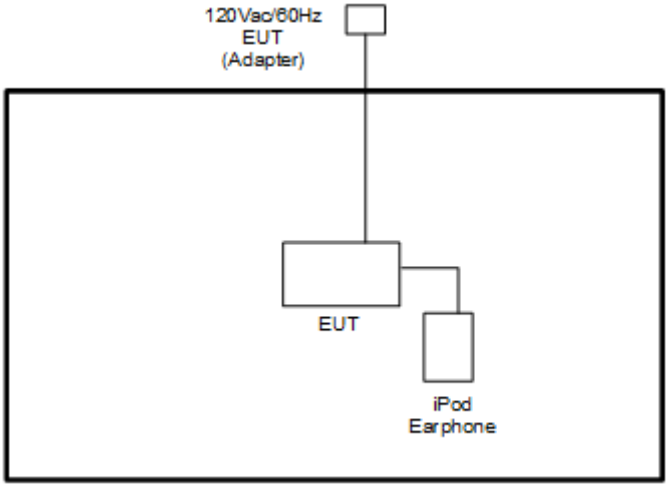
Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0
802.11ac VHT80	MCS0

Test Cases	
AC Conducted Emission	Mode 1： WLAN (5GHz) Link + Bluetooth Link with Speaker + MP3 + Adapter

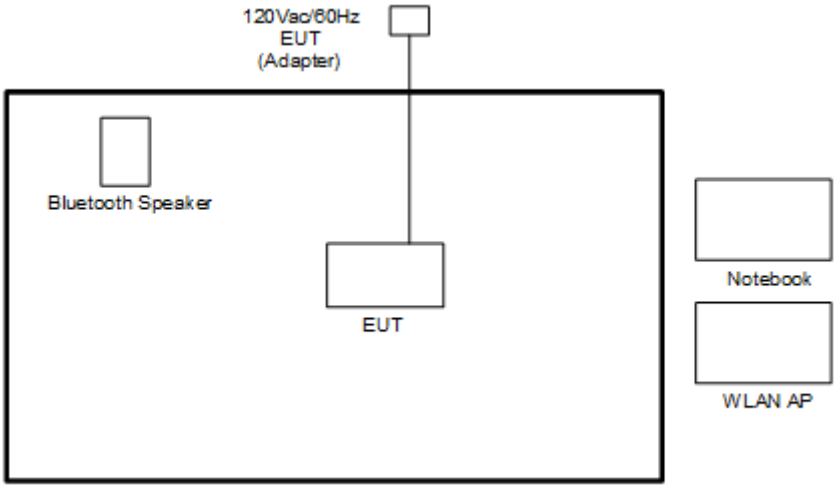
Ch. #		Band IV：5725-5850 MHz			
		802.11a	802.11n HT20	802.11n HT40	802.11ac VHT80
L	Low	149	149	151	-
M	Middle	157	157	-	155
H	High	165	165	159	-

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	DELL	Latitude E6320	FCC DoC/ Contains FCC ID: QDS-BRCM1054	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
3.	Bluetooth Speaker	JAWBONE	JAWBONE JAMBOX	V3J-JBE	N/A	N/A
4.	iPod Earphone	Apple	N/A	Verification	Unshielded, 1.0 m	N/A

2.5 EUT Operation Test Setup

The RF test items, programmed RF utility, “Compliance.exe” 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

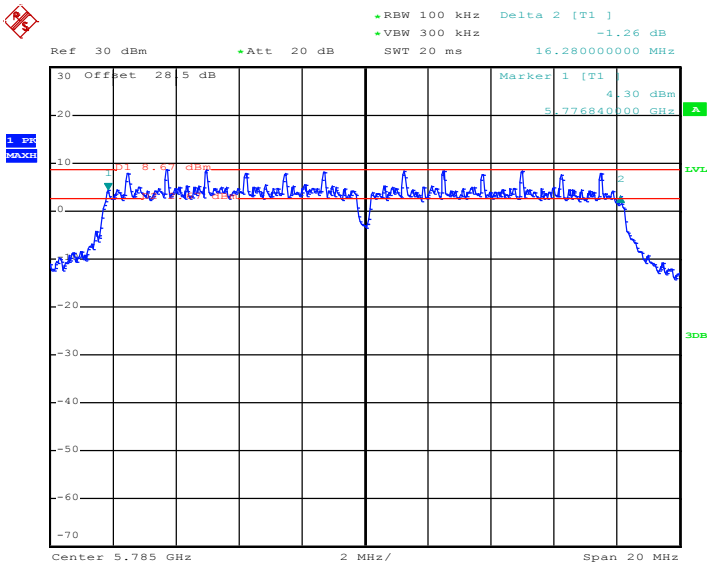
1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04. Section C) Emission bandwidth for the band 5.725-5.85GHz
2. Set RBW = 100kHz.
3. Set the VBW ≥ 3 x RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 6 dB down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



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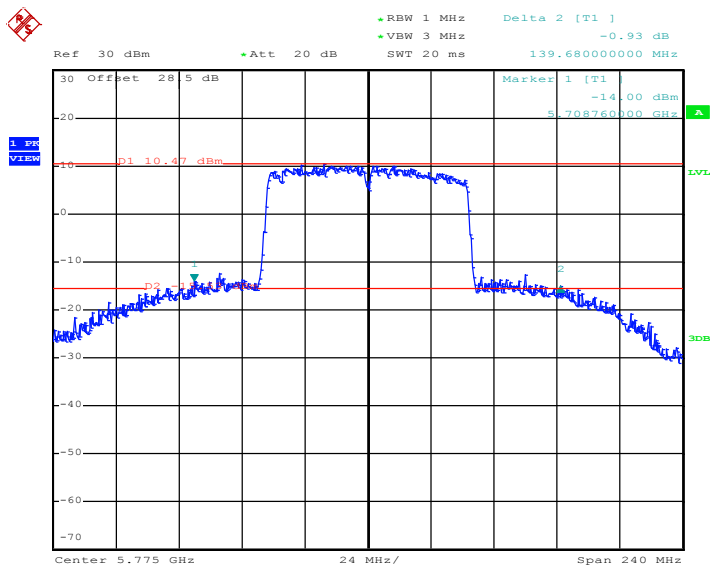
Maximum 26dB Bandwidth



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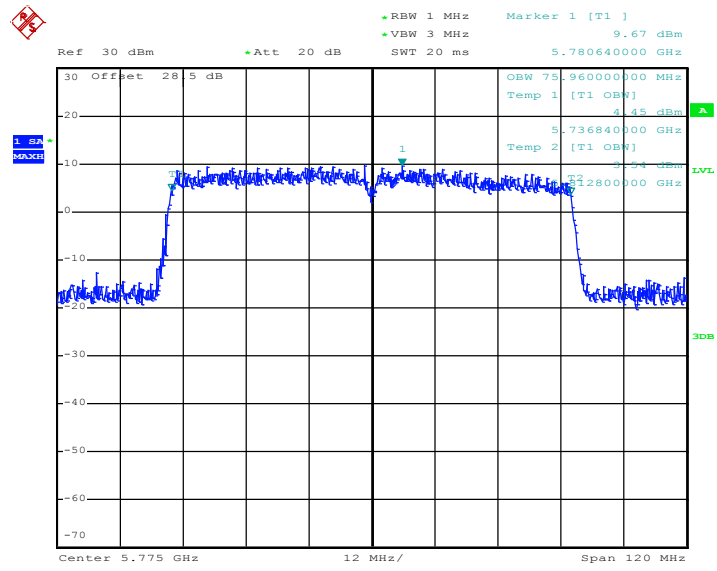
Maximum 99% Occupied Bandwidth



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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.

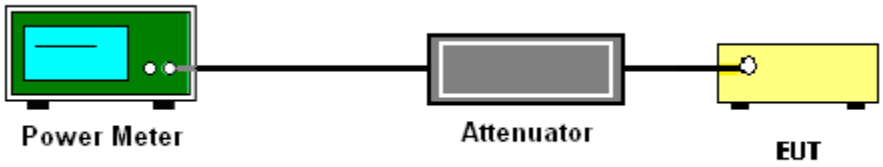
3.2.3 Test Procedures

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).

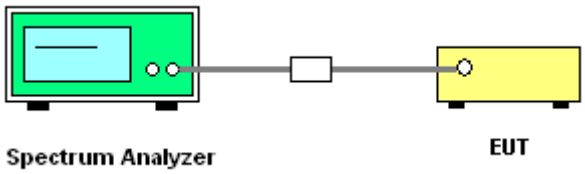
- Measure the duty cycle.
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 300 kHz.
- Set VBW ≥ 1 MHz.
- Number of points in sweep ≥ 2 Span / RBW.
- Sweep time = auto.
- Detector = RMS
- Trace average at least 100 traces in power averaging mode.
- Add 10 log(500kHz/RBW)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

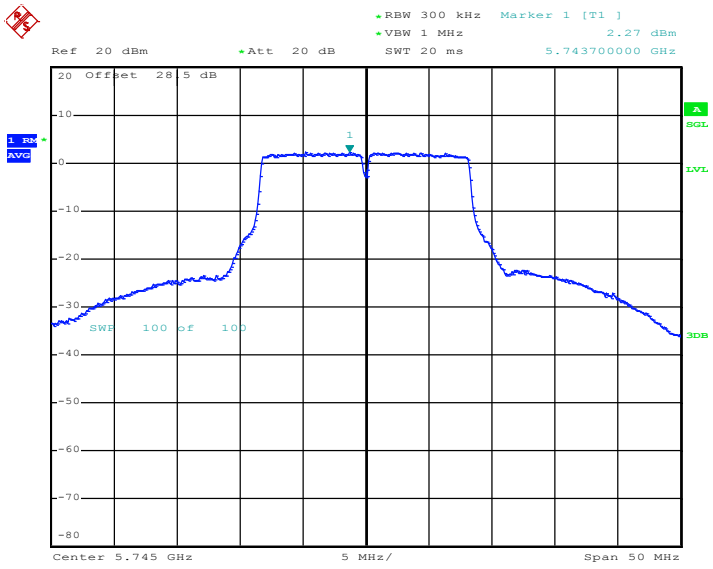
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

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



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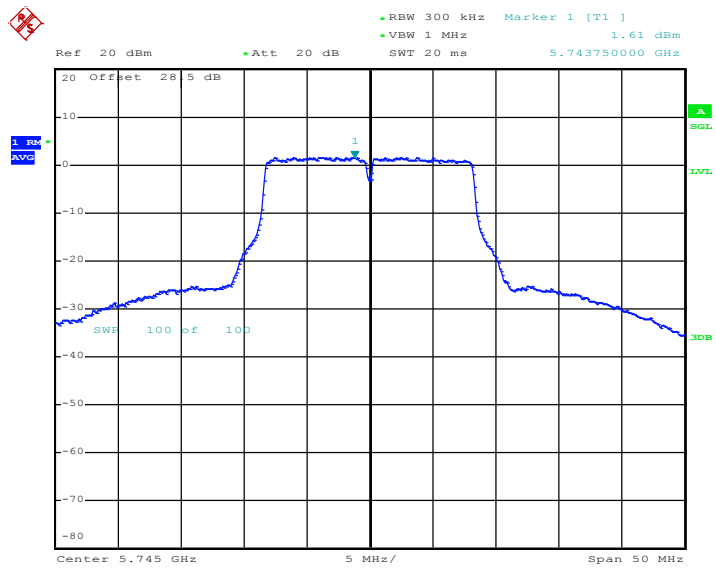
Worst Case Power Density (dBm/300kHz) for MIMO Ant. 2



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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 per FCC Part15.205 shall comply with the general field strength limits set forth in § 15.209 as below table,

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

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

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

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

(3) KDB789033 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

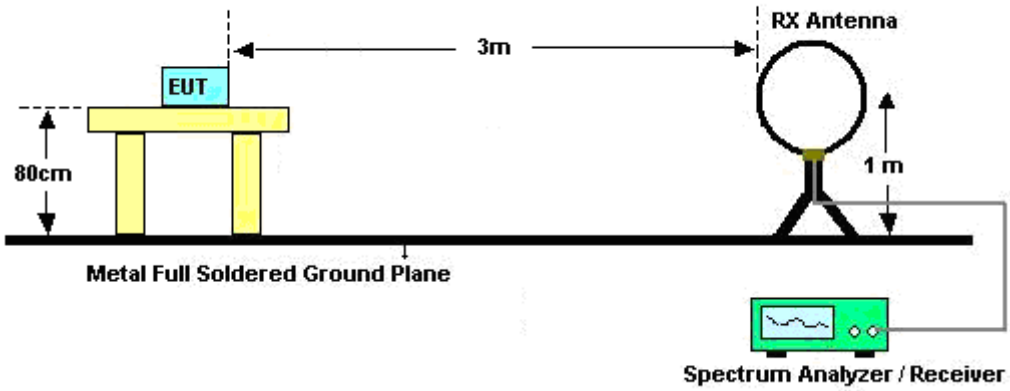
(3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

- 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.

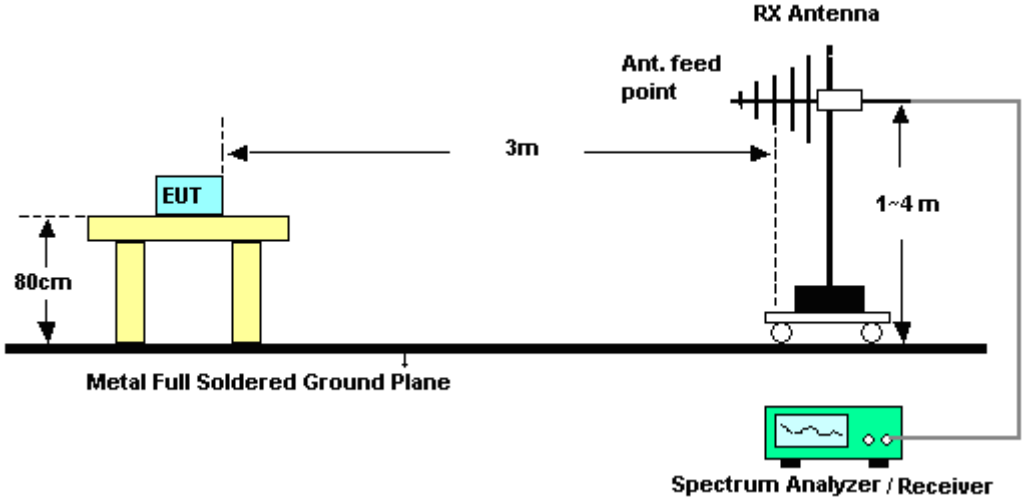
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband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

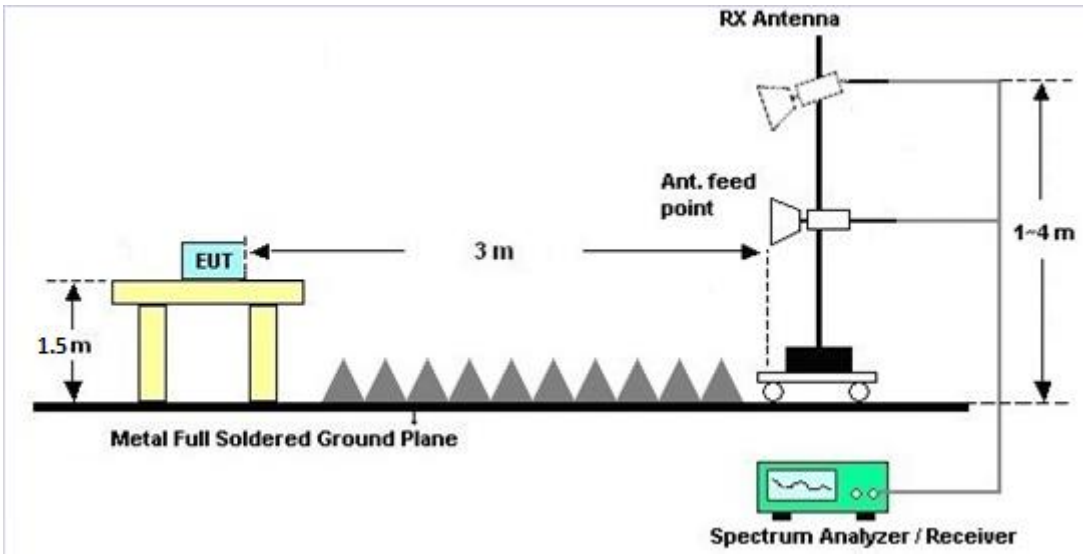
For radiated emissions below 30MHz



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 B and C.

3.4.7 Duty Cycle

Please refer to Appendix D.

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

Please refer to Appendix B and C.

3.5 AC Conducted Emission Measurement

3.5.1 Limit of AC Conducted Emission

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

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

*Decreases with the logarithm of the frequency.

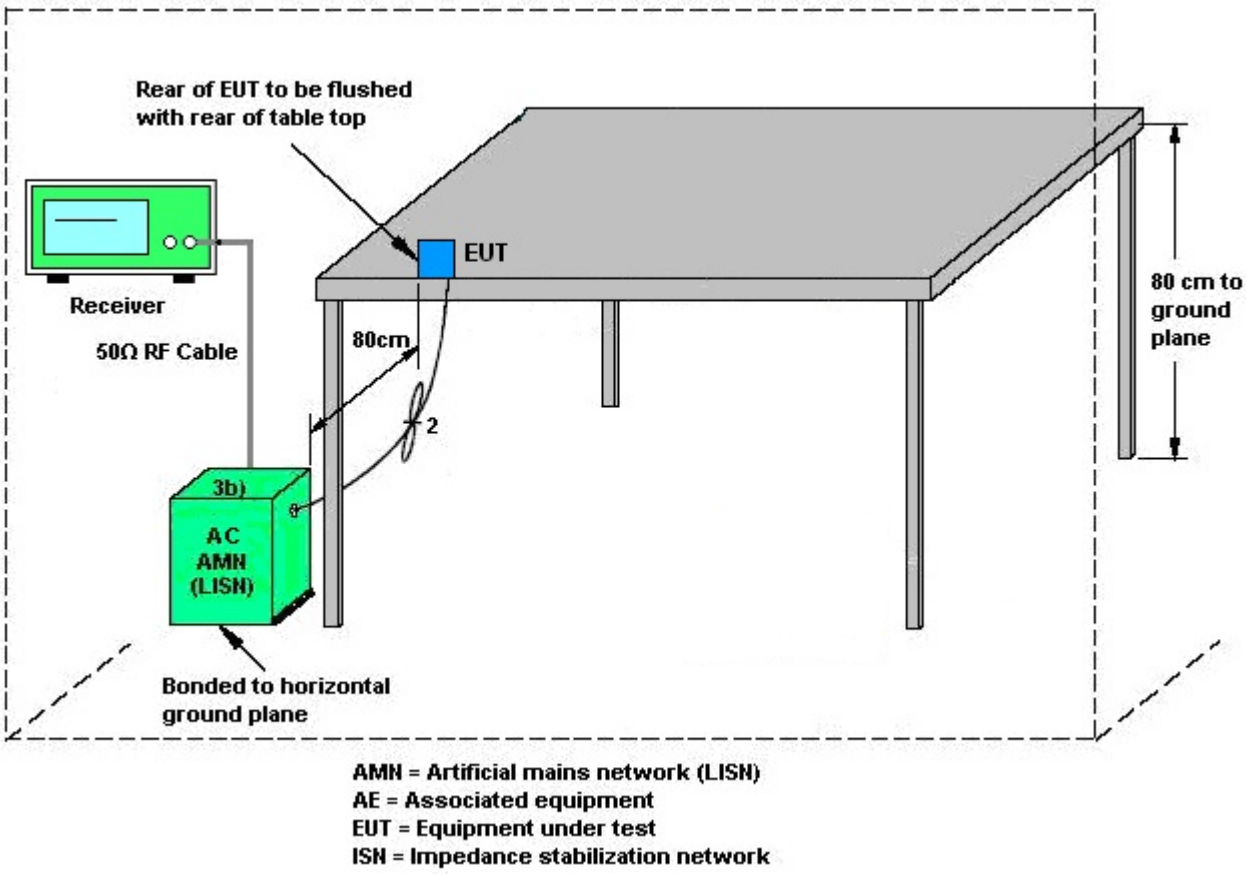
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

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

3.5.4 Test Setup



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

3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.6 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.

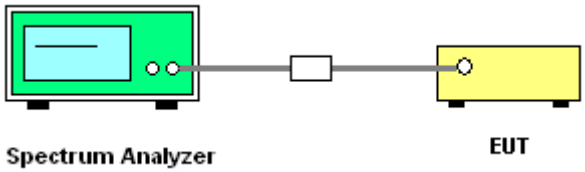
3.6.2 Measuring Instruments

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.

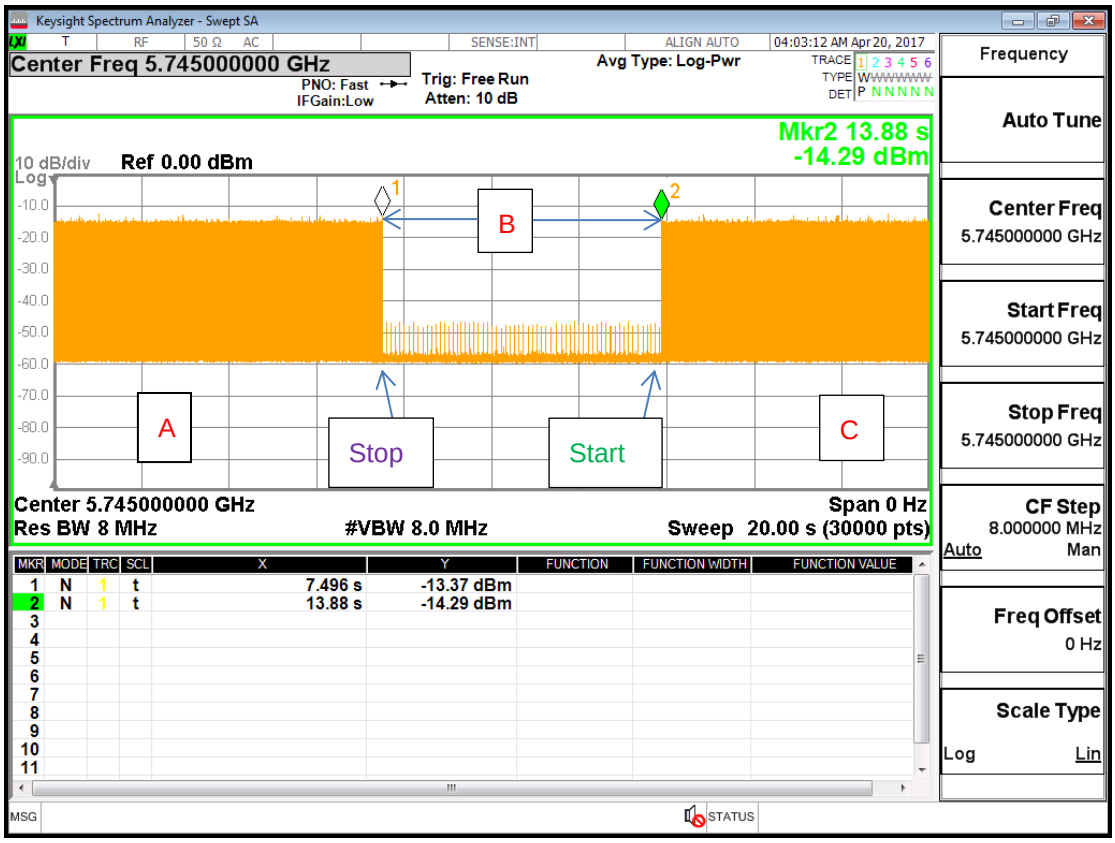
B. Information stop: stop supplying information to the access point.

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.

	Ant 1 (dBi)	Ant 2 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
Band IV	5.30	5.50	5.50	8.41	0.00	2.41

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	Mar. 28, 2017 ~ May 25, 2017	Sep. 28, 2017	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	0846202	300MHz~40GHz	Sep. 29, 2016	Mar. 28, 2017 ~ May 25, 2017	Sep. 28, 2017	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100055	9kHz-40GHz	Jul. 17, 2016	Mar. 28, 2017 ~ May 25, 2017	Jul. 16, 2017	Conducted (TH05-HY)
Temperature Chamber	ESPEC	SH-641	92013720	-40℃ ~90℃	Sep. 01, 2016	Mar. 28, 2017 ~ May 25, 2017	Aug. 31, 2017	Conducted (TH05-HY)
Programmable Power Supply	GW Instek	PSS-2005	EL890094	1V~20V 0.5A~5A	Oct. 11, 2016	Mar. 28, 2017 ~ May 25, 2017	Oct. 10, 2017	Conducted (TH05-HY)
AC Power Source	AC POWER	AFC-500W	F104070011	50Hz~60Hz	Dec. 01, 2016	Mar. 28, 2017 ~ May 25, 2017	Nov. 30, 2017	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	May 07, 2017	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESCI 7	100724	9kHz~7GHz	Aug. 30, 2016	May 07, 2017	Aug. 29, 2017	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 29, 2016	May 07, 2017	Nov. 28, 2017	Conduction (CO05-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Nov. 10, 2016	Mar. 28, 2017 ~ Apr. 17, 2017	Nov. 09, 2017	Radiation (03CH11-HY)
Bilog Antenna	TESEQ	CBL 6111D&N-6-06	35414&AT-N 0602	30MHz~1GHz	Oct. 15, 2016	Mar. 28, 2017 ~ Apr. 17, 2017	Oct. 14, 2017	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1326	1GHz ~ 18GHz	Oct. 07, 2016	Mar. 28, 2017 ~ Apr. 17, 2017	Oct. 06, 2017	Radiation (03CH11-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Oct. 20, 2016	Mar. 28, 2017 ~ Apr. 17, 2017	Oct. 19, 2018	Radiation (03CH11-HY)
Preamplifier	Keysight	83017A	MY53270080	1GHz~26.5GHz	Nov. 10, 2016	Mar. 28, 2017 ~ Apr. 17, 2017	Nov. 09, 2017	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz ~ 44GHz	Oct. 12, 2016	Mar. 28, 2017 ~ Apr. 17, 2017	Oct. 11, 2017	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Mar. 28, 2017 ~ Apr. 17, 2017	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Mar. 28, 2017 ~ Apr. 17, 2017	N/A	Radiation (03CH11-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1815698	1GHz~18GHz	Dec. 01, 2016	Mar. 28, 2017 ~ Apr. 17, 2017	Nov. 30, 2017	Radiation (03CH11-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 08, 2016	Mar. 28, 2017 ~ Apr. 17, 2017	Nov. 07, 2017	Radiation (03CH11-HY)
EMI Test Receiver	Agilent	N9038A(MXE)	MY53290053	20Hz to 26.5GHz	Jan. 12, 2017	Mar. 28, 2017 ~ Apr. 17, 2017	Jan. 11, 2018	Radiation (03CH11-HY)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1328	1GHz ~ 18GHz	Oct. 25, 2016	May 18, 2017 ~ May 24, 2017	Oct. 24, 2017	Radiation (03CH12-HY)
Preamplifier	Keysight	83017A	MY53270148	1GHz~26.5GHz	Jan. 12, 2017	May 18, 2017 ~ May 24, 2017	Jan. 11, 2018	Radiation (03CH12-HY)
EMI Test Receiver	Rohde & Schwarz	ESU26	100390	20Hz~26.5GHz	Dec. 23, 2016	May 18, 2017 ~ May 24, 2017	Dec. 22, 2017	Radiation (03CH12-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	May 18, 2017 ~ May 24, 2017	N/A	Radiation (03CH12-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	May 18, 2017 ~ May 24, 2017	N/A	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 08, 2016	May 18, 2017 ~ May 24, 2017	Nov. 07, 2017	Radiation (03CH11-HY)

5 Uncertainty of Evaluation

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

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

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz) for 03CH11-HY

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.2**

Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz) for 03CH11-HY

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.5**

Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz) for 03CH11-HY

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.2**

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz) for 03CH12-HY

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.1**

Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz) for 03CH12-HY

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.2**

Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz) for 03CH12-HY

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.7**

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Aking chang	Temperature:	21~25	°C
Test Date:	2017/3/28~2017/05/25	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	18.75	18.55	38.10	34.70	16.32	16.32	0.5	0.5	Pass
11a	6Mbps	1	157	5785	18.90	19.40	38.00	38.00	16.28	16.32	0.5	0.5	Pass
11a	6Mbps	1	165	5825	19.05	19.45	35.70	40.00	16.32	16.32	0.5	0.5	Pass
HT20	MCS0	1	149	5745	20.05	20.00	46.00	45.50	17.56	17.56	0.5	0.5	Pass
HT20	MCS0	1	157	5785	19.50	19.60	46.30	46.90	17.56	17.60	0.5	0.5	Pass
HT20	MCS0	1	165	5825	19.85	19.90	45.70	46.78	17.56	17.56	0.5	0.5	Pass
HT40	MCS0	1	151	5755	37.10	37.80	81.12	95.52	36.32	36.32	0.5	0.5	Pass
HT40	MCS0	1	159	5795	38.20	37.60	92.88	88.08	36.32	36.32	0.5	0.5	Pass
VHT80	MCS0	1	155	5775	75.96	75.96	139.68	82.08	75.20	75.84	0.5	0.5	Pass
11a	6Mbps	2	149	5745	19.05	18.35	37.90	33.00	16.32	16.32	0.5		Pass
11a	6Mbps	2	157	5785	18.50	18.30	32.00	30.90	16.32	16.32	0.5		Pass
11a	6Mbps	2	165	5825	18.40	18.45	30.10	31.90	16.32	16.32	0.5		Pass
HT20	MCS0	2	149	5745	19.55	19.40	45.80	43.60	17.56	17.60	0.5		Pass
HT20	MCS0	2	157	5785	19.40	19.00	44.40	23.20	17.56	17.60	0.5		Pass
HT20	MCS0	2	165	5825	19.20	19.05	32.70	35.00	17.60	17.56	0.5		Pass
HT40	MCS0	2	151	5755	37.80	37.40	88.80	84.72	36.32	36.32	0.5		Pass
HT40	MCS0	2	159	5795	37.30	37.00	87.60	74.16	36.24	36.32	0.5		Pass
VHT80	MCS0	2	155	5775	75.96	75.96	82.08	82.08	75.84	76.00	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	0.32	19.99	19.83		30.00	30.00	5.30	5.50		Pass
11a	6Mbps	1	157	5785	0.29	0.32	19.54	19.93		30.00	30.00	5.30	5.50		Pass
11a	6Mbps	1	165	5825	0.29	0.32	19.19	19.77		30.00	30.00	5.30	5.50		Pass
HT20	MCS0	1	149	5745	0.34	0.31	19.99	19.99		30.00	30.00	5.30	5.50		Pass
HT20	MCS0	1	157	5785	0.34	0.31	19.84	19.91		30.00	30.00	5.30	5.50		Pass
HT20	MCS0	1	165	5825	0.34	0.31	19.79	19.81		30.00	30.00	5.30	5.50		Pass
HT40	MCS0	1	151	5755	0.60	0.60	19.73	19.90		30.00	30.00	5.30	5.50		Pass
HT40	MCS0	1	159	5795	0.60	0.60	19.88	19.83		30.00	30.00	5.30	5.50		Pass
VHT20	MCS0	1	149	5745	0.31	0.31	19.71	19.53		30.00	30.00	5.30	5.50		Pass
VHT20	MCS0	1	157	5785	0.31	0.31	19.73	19.51		30.00	30.00	5.30	5.50		Pass
VHT20	MCS0	1	165	5825	0.31	0.31	19.76	19.80		30.00	30.00	5.30	5.50		Pass
VHT40	MCS0	1	151	5755	0.67	0.66	19.63	19.85		30.00	30.00	5.30	5.50		Pass
VHT40	MCS0	1	159	5795	0.67	0.66	19.87	19.76		30.00	30.00	5.30	5.50		Pass
VHT80	MCS0	1	155	5775	1.20	1.20	19.98	17.42		30.00	30.00	5.30	5.50		Pass
11a	6Mbps	2	149	5745	0.32	0.32	19.27	18.66	21.99	30.00		5.50			Pass
11a	6Mbps	2	157	5785	0.32	0.32	18.66	18.57	21.63	30.00		5.50			Pass
11a	6Mbps	2	165	5825	0.32	0.32	18.40	18.77	21.60	30.00		5.50			Pass
HT20	MCS0	2	149	5745	0.31	0.34	20.01	19.33	22.70	30.00		5.50			Pass
HT20	MCS0	2	157	5785	0.31	0.34	19.43	19.19	22.32	30.00		5.50			Pass
HT20	MCS0	2	165	5825	0.31	0.34	19.11	18.72	21.93	30.00		5.50			Pass
HT40	MCS0	2	151	5755	0.67	0.67	19.83	19.35	22.61	30.00		5.50			Pass
HT40	MCS0	2	159	5795	0.67	0.67	19.31	18.52	21.94	30.00		5.50			Pass
VHT20	MCS0	2	149	5745	0.31	0.34	19.91	19.44	22.69	30.00		5.50			Pass
VHT20	MCS0	2	157	5785	0.31	0.34	19.14	18.59	21.89	30.00		5.50			Pass
VHT20	MCS0	2	165	5825	0.31	0.34	19.11	18.69	21.92	30.00		5.50			Pass
VHT40	MCS0	2	151	5755	0.60	0.66	19.85	19.31	22.60	30.00		5.50			Pass
VHT40	MCS0	2	159	5795	0.60	0.66	19.18	18.51	21.87	30.00		5.50			Pass
VHT80	MCS0	2	155	5775	1.20	1.20	17.85	17.05	20.47	30.00		5.50			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	0.32	2.22	2.22	5.28	4.88		30.00	30.00	5.30	5.50	Pass
11a	6Mbps	1	157	5785	0.29	0.32	2.22	2.22	5.29	5.00		30.00	30.00	5.30	5.50	Pass
11a	6Mbps	1	165	5825	0.29	0.32	2.22	2.22	4.09	4.81		30.00	30.00	5.30	5.50	Pass
HT20	MCS0	1	149	5745	0.34	0.31	2.22	2.22	5.02	5.13		30.00	30.00	5.30	5.50	Pass
HT20	MCS0	1	157	5785	0.34	0.31	2.22	2.22	4.88	4.61		30.00	30.00	5.30	5.50	Pass
HT20	MCS0	1	165	5825	0.34	0.31	2.22	2.22	4.14	4.55		30.00	30.00	5.30	5.50	Pass
HT40	MCS0	1	151	5755	0.60	0.60	2.22	2.22	1.53	2.33		30.00	30.00	5.30	5.50	Pass
HT40	MCS0	1	159	5795	0.60	0.60	2.22	2.22	2.25	1.90		30.00	30.00	5.30	5.50	Pass
VHT80	MCS0	1	155	5775	1.20	1.20	2.22	2.22	-0.71	-2.50		30.00	30.00	5.30	5.50	Pass
11a	6Mbps	2	149	5745	0.32	0.32	2.22		4.81	4.15	7.82	27.59		8.41		Pass
11a	6Mbps	2	157	5785	0.32	0.32	2.22		4.24	3.89	7.25	27.59		8.41		Pass
11a	6Mbps	2	165	5825	0.32	0.32	2.22		2.73	3.81	6.82	27.59		8.41		Pass
HT20	MCS0	2	149	5745	0.31	0.34	2.22		4.80	4.42	7.81	27.59		8.41		Pass
HT20	MCS0	2	157	5785	0.31	0.34	2.22		4.05	3.48	7.06	27.59		8.41		Pass
HT20	MCS0	2	165	5825	0.31	0.34	2.22		3.04	3.37	6.38	27.59		8.41		Pass
HT40	MCS0	2	151	5755	0.67	0.67	2.22		2.34	1.74	5.35	27.59		8.41		Pass
HT40	MCS0	2	159	5795	0.67	0.67	2.22		1.27	0.60	4.28	27.59		8.41		Pass
VHT80	MCS0	2	155	5775	1.20	1.20	2.22		-2.92	-4.14	0.09	27.59		8.41		Pass

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

TEST RESULTS DATA
Frequency Stability

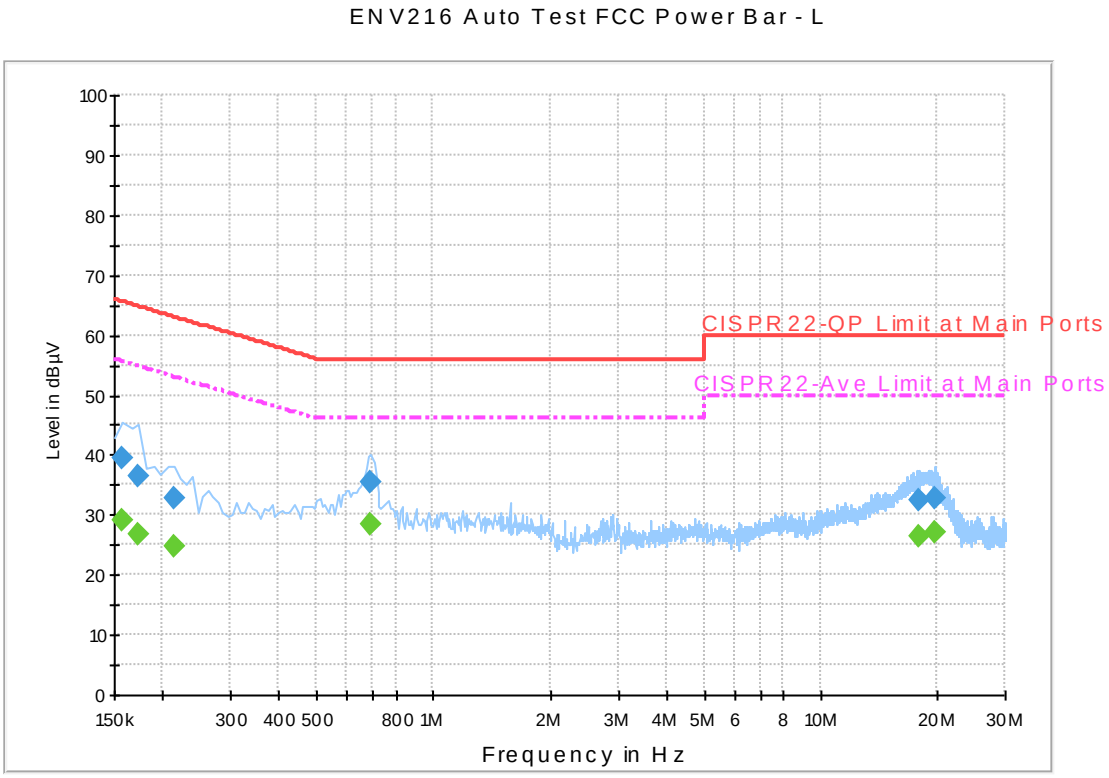
Band IV										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Center Frequency (MHz)	Frequency Deviation (MHz)	Frequency Stablility (ppm)	Temperature (°C)	Voltage (V)	Note
11a	6Mbps	1	149	5745	5744.950	-0.050	-8.70	35	14.25	
11a	6Mbps	1	149	5745	5745.000	0.000	0.00	0	14.25	
11a	6Mbps	1	149	5745	5745.000	0.000	0.00	20	15.75	
11a	6Mbps	1	149	5745	5745.000	0.000	0.00	20	15	
11a	6Mbps	1	149	5745	5745.000	0.000	0.00	20	14.25	

Appendix B. AC Conducted Emission Test Results

Test Engineer :	Derreck Chen	**Temperature :**	20~22℃
		Relative Humidity :	50~52%

EUT Information

Report NO :	693034-02
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line



Final Result 1

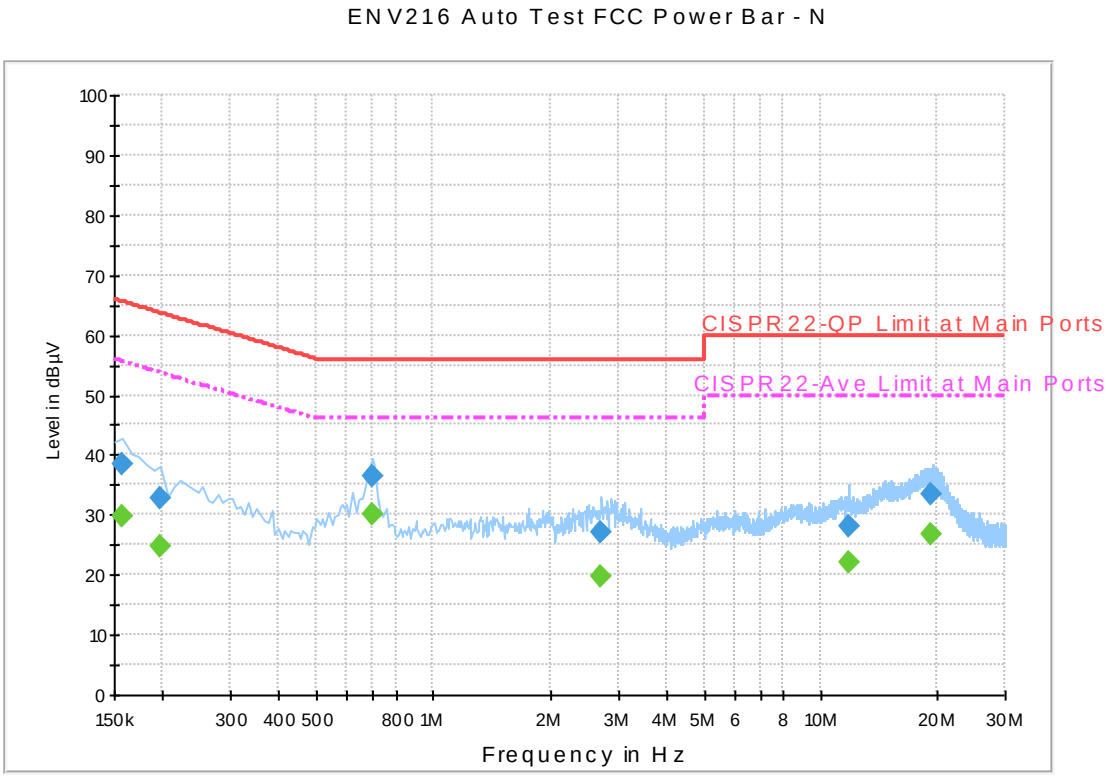
Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	39.5	Off	L1	19.6	26.1	65.6
0.174000	36.6	Off	L1	19.6	28.2	64.8
0.214000	32.9	Off	L1	19.6	30.1	63.0
0.686000	35.3	Off	L1	19.6	20.7	56.0
17.886000	32.5	Off	L1	20.5	27.5	60.0
19.678000	32.7	Off	L1	20.6	27.3	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	29.2	Off	L1	19.6	26.4	55.6
0.174000	26.7	Off	L1	19.6	28.1	54.8
0.214000	24.8	Off	L1	19.6	28.2	53.0
0.686000	28.5	Off	L1	19.6	17.5	46.0
17.886000	26.4	Off	L1	20.5	23.6	50.0
19.678000	26.9	Off	L1	20.6	23.1	50.0

EUT Information

Report NO :	693034-02
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Neutral



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	38.6	Off	N	19.5	27.0	65.6
0.198000	32.7	Off	N	19.5	31.0	63.7
0.694000	36.3	Off	N	19.5	19.7	56.0
2.718000	27.0	Off	N	19.4	29.0	56.0
11.806000	28.0	Off	N	20.2	32.0	60.0
19.334000	33.5	Off	N	20.7	26.5	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	29.8	Off	N	19.5	25.8	55.6
0.198000	24.9	Off	N	19.5	28.8	53.7
0.694000	30.2	Off	N	19.5	15.8	46.0
2.718000	19.7	Off	N	19.4	26.3	46.0
11.806000	22.0	Off	N	20.2	28.0	50.0
19.334000	26.7	Off	N	20.7	23.3	50.0

Appendix C. Radiated Spurious Emission

Test Engineer :	J.C. Liang, Jacky Hung and Ken Wu	Temperature :	20~24°C
		Relative Humidity :	55~60%

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		5634.8	52.44	-15.76	68.2	43.07	32.89	9.58	33.1	109	356	P	H
		5700	62.08	-43.12	105.2	52.46	32.97	9.77	33.12	109	356	P	H
		5720	74.12	-36.68	110.8	64.42	33.01	9.82	33.13	109	356	P	H
		5724.8	79.83	-41.91	121.74	70.13	33.01	9.82	33.13	109	356	P	H
	*	5745	112.78	-	-	103.02	33.04	9.87	33.15	109	356	P	H
	*	5745	105.12	-	-	95.36	33.04	9.87	33.15	109	356	A	H
		5643.2	51.88	-16.32	68.2	42.51	32.89	9.58	33.1	100	162	P	V
		5699.2	60.83	-43.78	104.61	51.26	32.97	9.72	33.12	100	162	P	V
		5719	74.53	-35.99	110.52	64.83	33.01	9.82	33.13	100	162	P	V
		5724.4	80.01	-40.82	120.83	70.31	33.01	9.82	33.13	100	162	P	V
	*	5745	111.62	-	-	101.86	33.04	9.87	33.15	100	162	P	V
	*	5745	104.14	-	-	94.38	33.04	9.87	33.15	100	162	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		5602.4	51.37	-16.83	68.2	42.12	32.84	9.48	33.07	100	341	P	H
		5699.2	53.83	-50.78	104.61	44.26	32.97	9.72	33.12	100	341	P	H
		5707.4	55.27	-52	107.27	45.64	32.99	9.77	33.13	100	341	P	H
		5725	56.95	-65.25	122.2	47.25	33.01	9.82	33.13	100	341	P	H
	*	5785	113.84	-	-	103.95	33.09	9.97	33.17	100	341	P	H
	*	5785	106.29	-	-	96.4	33.09	9.97	33.17	100	341	A	H
		5852	53.2	-64.44	117.64	43.19	33.18	10.02	33.19	100	341	P	H
		5859	54.54	-55.14	109.68	44.52	33.21	10.02	33.21	100	341	P	H
		5898.2	51.92	-36.07	87.99	41.86	33.26	10.02	33.22	100	341	P	H
		5947.2	50.07	-18.13	68.2	39.96	33.33	10.02	33.24	100	341	P	H
		5650	51.07	-17.13	68.2	41.63	32.92	9.62	33.1	100	159	P	V
		5670.4	52.52	-30.82	83.34	43.02	32.94	9.67	33.11	100	159	P	V
		5709.8	53.18	-54.77	107.95	43.55	32.99	9.77	33.13	100	159	P	V
		5723.8	55.43	-64.03	119.46	45.73	33.01	9.82	33.13	100	159	P	V
	*	5785	111.08	-	-	101.19	33.09	9.97	33.17	100	159	P	V
	*	5785	103.46	-	-	93.57	33.09	9.97	33.17	100	159	A	V
		5850.6	52.37	-68.46	120.83	42.36	33.18	10.02	33.19	100	159	P	V
		5869.8	53.07	-53.58	106.65	43.05	33.21	10.02	33.21	100	159	P	V
		5900.4	51.76	-34.6	86.36	41.7	33.26	10.02	33.22	100	159	P	V
		5928.2	50.19	-18.01	68.2	40.1	33.3	10.02	33.23	100	159	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	113.61	-	-	103.61	33.16	10.02	33.18	195	339	P	H
	*	5825	105.91	-	-	95.91	33.16	10.02	33.18	195	339	A	H
		5850.2	70.54	-51.2	121.74	60.53	33.18	10.02	33.19	195	339	P	H
		5857.8	68.2	-41.81	110.01	58.18	33.21	10.02	33.21	195	339	P	H
		5875	56.35	-48.85	105.2	46.31	33.23	10.02	33.21	195	339	P	H
		5948.8	52.13	-16.07	68.2	42.02	33.33	10.02	33.24	195	339	P	H
	*	5825	110.85	-	-	100.85	33.16	10.02	33.18	100	160	P	V
	*	5825	103.43	-	-	93.43	33.16	10.02	33.18	100	160	A	V
		5851.4	70.07	-48.94	119.01	60.06	33.18	10.02	33.19	100	160	P	V
		5855.2	63.89	-46.85	110.74	53.85	33.21	10.02	33.19	100	160	P	V
		5877	54.96	-48.75	103.71	44.92	33.23	10.02	33.21	100	160	P	V
		5943.6	50.98	-17.22	68.2	40.87	33.33	10.02	33.24	100	160	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		11490	55.78	-18.22	74	66.57	38.52	15.8	65.39	100	356	P	H
		11490	44.94	-9.06	54	55.73	38.52	15.8	65.39	100	356	A	H
		17235	50.22	-17.98	68.2	53.51	40.76	19.86	64.27	100	0	P	H
		11490	57.18	-16.82	74	68.25	38.52	15.8	65.39	364	41	P	V
		11490	44.87	-9.13	54	55.94	38.52	15.8	65.39	364	41	A	V
		17235	48.17	-20.03	68.2	51.46	40.76	19.86	64.27	100	0	P	V
802.11a CH 157 5785MHz		11570	54.46	-19.54	74	64.6	39.07	15.88	65.37	200	92	P	H
		11570	44.56	-9.44	54	54.7	39.07	15.88	65.37	200	92	A	H
		17355	53.13	-15.07	68.2	53.7	43.26	19.91	64.11	100	0	P	H
		11570	54.78	-19.22	74	64.92	39.07	15.88	65.37	200	88	P	V
		11570	44.72	-9.28	54	54.86	39.07	15.88	65.37	200	88	A	V
		17355	50.69	-17.51	68.2	51.26	43.26	19.91	64.11	100	0	P	V
802.11a CH 165 5825MHz		11650	51.77	-22.23	74	62.28	38.61	15.94	65.34	197	104	P	H
		11650	42.22	-11.78	54	52.73	38.61	15.94	65.34	197	104	A	H
		17475	49.72	-18.48	68.2	52.72	40.62	19.95	63.95	100	0	P	H
		11650	51.76	-22.24	74	62.27	38.61	15.94	65.34	204	93	P	V
		11650	41.84	-12.16	54	52.35	38.61	15.94	65.34	204	93	A	V
		17475	48.83	-19.37	68.2	51.83	40.62	19.95	63.95	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)
		5640.4	52.85	-15.35	68.2	43.48	32.89	9.58	33.1	100	340	P	H
		5696.8	63.86	-38.98	102.84	54.29	32.97	9.72	33.12	100	340	P	H
		5719.4	76.26	-34.37	110.63	66.56	33.01	9.82	33.13	100	340	P	H
		5722.8	81.86	-35.32	117.18	72.16	33.01	9.82	33.13	100	340	P	H
802.11n	*	5745	113.91	-	-	104.15	33.04	9.87	33.15	100	340	P	H
HT20	*	5745	106.19	-	-	96.43	33.04	9.87	33.15	100	340	A	H
CH 149		5640	51.98	-16.22	68.2	42.61	32.89	9.58	33.1	100	161	P	V
5745MHz		5698.6	61.53	-42.64	104.17	51.96	32.97	9.72	33.12	100	161	P	V
		5720	75.33	-35.47	110.8	65.63	33.01	9.82	33.13	100	161	P	V
		5724.4	82.74	-38.09	120.83	73.04	33.01	9.82	33.13	100	161	P	V
	*	5745	111.77	-	-	102.01	33.04	9.87	33.15	100	161	P	V
	*	5745	104	-	-	94.24	33.04	9.87	33.15	100	161	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)
		5649.4	51.07	-17.13	68.2	41.66	32.89	9.62	33.1	195	340	P	H
		5670.6	52.66	-30.82	83.48	43.16	32.94	9.67	33.11	195	340	P	H
		5717.2	56.48	-53.54	110.02	46.85	32.99	9.77	33.13	195	340	P	H
		5720.8	56.28	-56.34	112.62	46.58	33.01	9.82	33.13	195	340	P	H
	*	5785	113.98	-	-	104.09	33.09	9.97	33.17	195	340	P	H
	*	5785	106.36	-	-	96.47	33.09	9.97	33.17	195	340	A	H
		5852.2	55.15	-62.03	117.18	45.14	33.18	10.02	33.19	195	340	P	H
		5861.8	55.89	-53	108.89	45.87	33.21	10.02	33.21	195	340	P	H
802.11n		5910	53.91	-25.36	79.27	43.84	33.28	10.02	33.23	195	340	P	H
HT20		5938	51.71	-16.49	68.2	41.63	33.3	10.02	33.24	195	340	P	H
CH 157		5646.8	52.39	-15.81	68.2	42.98	32.89	9.62	33.1	100	160	P	V
5785MHz		5700	52.27	-52.93	105.2	42.65	32.97	9.77	33.12	100	160	P	V
		5716	55.35	-54.33	109.68	45.72	32.99	9.77	33.13	100	160	P	V
		5724.2	56.31	-64.07	120.38	46.61	33.01	9.82	33.13	100	160	P	V
	*	5785	111.26	-	-	101.37	33.09	9.97	33.17	100	160	P	V
	*	5785	103.72	-	-	93.83	33.09	9.97	33.17	100	160	A	V
		5851	52.62	-67.3	119.92	42.61	33.18	10.02	33.19	100	160	P	V
		5866.6	52.94	-54.61	107.55	42.92	33.21	10.02	33.21	100	160	P	V
		5910.6	50.7	-28.12	78.82	40.63	33.28	10.02	33.23	100	160	P	V
		5945.8	51.23	-16.97	68.2	41.12	33.33	10.02	33.24	100	160	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	113.7	-	-	103.7	33.16	10.02	33.18	197	338	P	H
	*	5825	105.83	-	-	95.83	33.16	10.02	33.18	197	338	A	H
		5850.2	73.61	-48.13	121.74	63.6	33.18	10.02	33.19	197	338	P	H
		5855.2	70.16	-40.58	110.74	60.12	33.21	10.02	33.19	197	338	P	H
		5887	56.1	-40.19	96.29	46.07	33.23	10.02	33.22	197	338	P	H
		5945.6	52.31	-15.89	68.2	42.2	33.33	10.02	33.24	197	338	P	H
	*	5825	111.11	-	-	101.11	33.16	10.02	33.18	100	160	P	V
	*	5825	103.33	-	-	93.33	33.16	10.02	33.18	100	160	A	V
		5853.8	69.52	-44.02	113.54	59.48	33.21	10.02	33.19	100	160	P	V
		5856	65.88	-44.64	110.52	55.84	33.21	10.02	33.19	100	160	P	V
		5878.6	54.21	-48.32	102.53	44.17	33.23	10.02	33.21	100	160	P	V
		5950	50.66	-17.54	68.2	40.55	33.33	10.02	33.24	100	160	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		5320	54.03	-14.17	68.2	45.68	32.22	9.16	33.03	100	340	P	H
		5542	54.77	-13.43	68.2	45.93	32.48	9.41	33.05	100	340	P	H
		6172	57.88	-10.32	68.2	47.07	33.87	10.26	33.32	100	340	P	H
		11490	55.89	-18.11	74	66.68	38.52	15.8	65.39	100	356	P	H
		11490	45.26	-8.74	54	56.05	38.52	15.8	65.39	100	356	A	H
		17235	50.53	-17.67	68.2	53.82	40.76	19.86	64.27	100	0	P	H
		5320	56.15	-12.05	68.2	47.8	32.22	9.16	33.03	100	161	P	V
		5542	55.08	-13.12	68.2	46.24	32.48	9.41	33.05	100	161	P	V
		11490	56.05	-17.95	74	67.12	38.52	15.8	65.39	355	42	P	V
		11490	45.18	-8.82	54	56.25	38.52	15.8	65.39	355	42	A	V
		17235	48.14	-20.06	68.2	51.43	40.76	19.86	64.27	100	0	P	V
802.11n HT20 CH 157 5785MHz		6022	54.25	-13.95	68.2	43.85	33.63	10.05	33.28	195	340	P	H
		11570	54.32	-19.68	74	64.98	38.56	15.87	65.37	100	351	P	H
		11570	43.95	-10.05	54	54.61	38.56	15.87	65.37	100	351	A	H
		17355	50.57	-17.63	68.2	53.71	40.69	19.91	64.11	100	0	P	H
		11570	54.81	-19.19	74	65.47	38.56	15.87	65.37	368	29	P	V
		11570	44.4	-9.6	54	55.06	38.56	15.87	65.37	368	29	A	V
		17355	48.81	-19.39	68.2	51.95	40.69	19.91	64.11	100	0	P	V
802.11n HT20 CH 165 5825MHz		11650	54.19	-19.81	74	64.7	38.61	15.94	65.34	100	353	P	H
		11650	43.28	-10.72	54	53.79	38.61	15.94	65.34	100	353	A	H
		17475	50.67	-17.53	68.2	53.67	40.62	19.95	63.95	100	0	P	H
		11650	54	-20	74	64.79	38.61	15.94	65.34	400	43	P	V
		11650	43.25	-10.75	54	54.04	38.61	15.94	65.34	400	43	A	V
		17475	48.57	-19.63	68.2	51.57	40.62	19.95	63.95	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)
		5645.4	58.71	-9.49	68.2	49.34	32.89	9.58	33.1	100	338	P	H
		5697.4	74.67	-28.61	103.28	65.1	32.97	9.72	33.12	100	338	P	H
		5719.8	82.73	-28.01	110.74	73.03	33.01	9.82	33.13	100	338	P	H
		5722	82.9	-32.46	115.36	73.2	33.01	9.82	33.13	100	338	P	H
	*	5755	111.4	-	-	101.57	33.06	9.92	33.15	100	338	P	H
	*	5755	103.48	-	-	93.65	33.06	9.92	33.15	100	338	A	H
		5853.2	61.22	-53.68	114.9	51.21	33.18	10.02	33.19	100	338	P	H
		5860	60.1	-49.3	109.4	50.08	33.21	10.02	33.21	100	338	P	H
802.11n		5884.8	56.56	-41.36	97.92	46.53	33.23	10.02	33.22	100	338	P	H
HT40		5939.4	50.61	-17.59	68.2	40.5	33.33	10.02	33.24	100	338	P	H
CH 151		5648.2	56.98	-11.22	68.2	47.57	32.89	9.62	33.1	100	160	P	V
5755MHz		5696.2	69.65	-32.75	102.4	60.08	32.97	9.72	33.12	100	160	P	V
		5719	82.26	-28.26	110.52	72.56	33.01	9.82	33.13	100	160	P	V
		5724.8	82.06	-39.68	121.74	72.36	33.01	9.82	33.13	100	160	P	V
	*	5755	109.06	-	-	99.23	33.06	9.92	33.15	100	160	P	V
	*	5755	100.77	-	-	90.94	33.06	9.92	33.15	100	160	A	V
		5853.6	57.29	-56.7	113.99	47.25	33.21	10.02	33.19	100	160	P	V
		5861.8	57.43	-51.46	108.89	47.41	33.21	10.02	33.21	100	160	P	V
		5877.6	53.55	-49.72	103.27	43.51	33.23	10.02	33.21	100	160	P	V
		5929	49.98	-18.22	68.2	39.89	33.3	10.02	33.23	100	160	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 HT40 CH 159 5795MHz		5648.8	52.08	-16.12	68.2	42.67	32.89	9.62	33.1	197	337	P	H
		5697.8	60.15	-43.43	103.58	50.58	32.97	9.72	33.12	197	337	P	H
		5720	64.76	-46.04	110.8	55.06	33.01	9.82	33.13	197	337	P	H
		5721.4	65.47	-48.52	113.99	55.77	33.01	9.82	33.13	197	337	P	H
	*	5795	111.74	-	-	101.79	33.11	10.01	33.17	197	337	P	H
	*	5795	103.79	-	-	93.84	33.11	10.01	33.17	197	337	A	H
		5852.6	69.77	-46.5	116.27	59.76	33.18	10.02	33.19	197	337	P	H
		5857.2	68.05	-42.13	110.18	58.01	33.21	10.02	33.19	197	337	P	H
		5875.6	64.7	-40.05	104.75	54.66	33.23	10.02	33.21	197	337	P	H
		5928	53.05	-15.15	68.2	42.96	33.3	10.02	33.23	197	337	P	H
		5644.4	52.55	-15.65	68.2	43.18	32.89	9.58	33.1	100	160	P	V
		5680.2	57.94	-32.65	90.59	48.45	32.94	9.67	33.12	100	160	P	V
		5717.6	63.35	-46.78	110.13	53.65	33.01	9.82	33.13	100	160	P	V
		5723.2	65.59	-52.51	118.1	55.89	33.01	9.82	33.13	100	160	P	V
	*	5795	108.49	-	-	98.54	33.11	10.01	33.17	100	160	P	V
	*	5795	100.89	-	-	90.94	33.11	10.01	33.17	100	160	A	V
		5852.4	68.33	-48.4	116.73	58.32	33.18	10.02	33.19	100	160	P	V
		5857.8	65.46	-44.55	110.01	55.44	33.21	10.02	33.21	100	160	P	V
		5878	59.97	-43	102.97	49.93	33.23	10.02	33.21	100	160	P	V
		5949.4	51.67	-16.53	68.2	41.56	33.33	10.02	33.24	100	160	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		11510	51.67	-22.33	74	62.46	38.5	15.83	65.4	100	355	P	H
		11510	42.46	-11.54	54	53.25	38.5	15.83	65.4	100	355	A	H
		17265	48.86	-19.34	68.2	52.11	40.74	19.88	64.23	100	0	P	H
		11510	51.2	-22.8	74	62.27	38.5	15.83	65.4	362	36	P	V
		11510	41.7	-12.3	54	52.77	38.5	15.83	65.4	362	36	A	V
		17265	48.15	-20.05	68.2	51.4	40.74	19.88	64.23	100	0	P	V
802.11n HT40 CH 159 5795MHz		11590	49.4	-24.6	74	60.03	38.57	15.89	65.37	100	0	P	H
		17385	48.47	-19.73	68.2	51.57	40.67	19.92	64.06	100	0	P	H
		11590	48.42	-25.58	74	59.33	38.57	15.89	65.37	100	0	P	V
		17385	47.57	-20.63	68.2	50.67	40.67	19.92	64.06	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		5649.4	67.56	-0.64	68.2	58.15	32.89	9.62	33.1	100	337	P	H
		5699.2	77.67	-26.94	104.61	68.1	32.97	9.72	33.12	100	337	P	H
		5718.4	80.75	-29.6	110.35	71.05	33.01	9.82	33.13	100	337	P	H
		5721	80.73	-32.35	113.08	71.03	33.01	9.82	33.13	100	337	P	H
	*	5775	108.49	-	-	98.59	33.09	9.97	33.16	100	337	P	H
	*	5775	101.03	-	-	91.13	33.09	9.97	33.16	100	337	A	H
		5852.2	76.77	-40.41	117.18	66.76	33.18	10.02	33.19	100	337	P	H
		5855	75.35	-35.45	110.8	65.31	33.21	10.02	33.19	100	337	P	H
		5875.4	69.96	-34.94	104.9	59.92	33.23	10.02	33.21	100	337	P	H
		5926.2	59.79	-8.41	68.2	49.7	33.3	10.02	33.23	100	337	P	H
		5649.8	65.64	-2.56	68.2	56.2	32.92	9.62	33.1	100	158	P	V
		5691.6	76.03	-22.98	99.01	66.46	32.97	9.72	33.12	100	158	P	V
		5719	80.55	-29.97	110.52	70.85	33.01	9.82	33.13	100	158	P	V
		5723.4	79.02	-39.53	118.55	69.32	33.01	9.82	33.13	100	158	P	V
	*	5775	105.66	-	-	95.76	33.09	9.97	33.16	100	158	P	V
	*	5775	98.2	-	-	88.3	33.09	9.97	33.16	100	158	A	V
		5850	77.69	-44.51	122.2	67.68	33.18	10.02	33.19	100	158	P	V
		5857.8	73.59	-36.42	110.01	63.57	33.21	10.02	33.21	100	158	P	V
		5876.2	67.02	-37.29	104.31	56.98	33.23	10.02	33.21	100	158	P	V
		5931.4	56.36	-11.84	68.2	46.27	33.3	10.02	33.23	100	158	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	47.08	-26.92	74	57.77	38.54	15.87	65.38	100	0	P	H
VHT80		17325	48.52	-19.68	68.2	51.7	40.71	19.9	64.16	100	0	P	H
CH 155		11550	45.82	-28.18	74	56.79	38.54	15.87	65.38	100	0	P	V
5775MHz		17325	49.17	-19.03	68.2	52.35	40.71	19.9	64.16	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 CH 155 LF		30.54	22.88	-17.12	40	29.5	25.18	0.68	32.5			P	H
		182.28	34.43	-9.07	43.5	50.25	15.22	1.69	32.82			P	H
		201.72	36.49	-7.01	43.5	51.47	16.04	1.8	32.88	100	50	P	H
		316.8	30.25	-15.75	46	40.07	20.18	2.28	32.36			P	H
		598.2	28.66	-17.34	46	32.28	25.67	3.09	32.46			P	H
		947.5	33.33	-12.67	46	30.02	30.55	3.82	31.23			P	H
		59.7	30.69	-9.31	40	50.2	11.9	1.06	32.49			P	V
		182.28	32.43	-11.07	43.5	48.25	15.22	1.69	32.82			P	V
		201.72	35.88	-7.62	43.5	50.86	16.04	1.8	32.88	128	72	P	V
		489.7	29.03	-16.97	46	34.59	23.93	2.84	32.38			P	V
		598.2	31.22	-14.78	46	34.84	25.67	3.09	32.46			P	V
		944	33.03	-12.97	46	29.86	30.44	3.82	31.26			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		5633	54.18	-14.02	68.2	44.81	32.89	9.58	33.1	323	19	P	H
		5699.8	68.38	-36.67	105.05	58.76	32.97	9.77	33.12	323	19	P	H
		5720	78.84	-31.96	110.8	69.14	33.01	9.82	33.13	323	19	P	H
		5723.8	85.36	-34.1	119.46	75.66	33.01	9.82	33.13	323	19	P	H
	*	5745	116.65	-	-	106.89	33.04	9.87	33.15	323	19	P	H
	*	5745	109.17	-	-	99.41	33.04	9.87	33.15	323	19	A	H
		5650	51	-17.2	68.2	41.56	32.92	9.62	33.1	214	323	P	V
		5699.4	62.6	-42.16	104.76	53.03	32.97	9.72	33.12	214	323	P	V
		5719.6	73.87	-36.82	110.69	64.17	33.01	9.82	33.13	214	323	P	V
		5724	79.62	-40.3	119.92	69.92	33.01	9.82	33.13	214	323	P	V
	*	5745	111.89	-	-	102.13	33.04	9.87	33.15	214	323	P	V
	*	5745	104.15	-	-	94.39	33.04	9.87	33.15	214	323	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		5623.6	55.31	-12.89	68.2	45.99	32.87	9.53	33.08	322	0	P	H
		5698.8	55.61	-48.71	104.32	46.04	32.97	9.72	33.12	322	0	P	H
		5713.8	57.38	-51.69	109.07	47.75	32.99	9.77	33.13	322	0	P	H
		5724	59.65	-60.27	119.92	49.95	33.01	9.82	33.13	322	0	P	H
	*	5785	115.76	-	-	105.87	33.09	9.97	33.17	322	0	P	H
	*	5785	107.98	-	-	98.09	33.09	9.97	33.17	322	0	A	H
		5851.2	56.52	-62.94	119.46	46.51	33.18	10.02	33.19	322	0	P	H
		5857.8	59.86	-50.15	110.01	49.84	33.21	10.02	33.21	322	0	P	H
		5908.4	53.14	-27.31	80.45	43.06	33.28	10.02	33.22	322	0	P	H
		5939.6	52.49	-15.71	68.2	42.38	33.33	10.02	33.24	322	0	P	H
		5629.4	53.32	-14.88	68.2	43.97	32.87	9.58	33.1	201	333	P	V
		5699.6	53.67	-51.24	104.91	44.05	32.97	9.77	33.12	201	333	P	V
		5720	56.03	-54.77	110.8	46.33	33.01	9.82	33.13	201	333	P	V
		5723.2	56.23	-61.87	118.1	46.53	33.01	9.82	33.13	201	333	P	V
	*	5785	112.07	-	-	102.18	33.09	9.97	33.17	201	333	P	V
	*	5785	104.16	-	-	94.27	33.09	9.97	33.17	201	333	A	V
		5850.6	54.29	-66.54	120.83	44.28	33.18	10.02	33.19	201	333	P	V
		5856.2	53.71	-56.75	110.46	43.67	33.21	10.02	33.19	201	333	P	V
		5903	50.38	-34.06	84.44	40.32	33.26	10.02	33.22	201	333	P	V
		5942.6	50.75	-17.45	68.2	40.64	33.33	10.02	33.24	201	333	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	115.43	-	-	105.43	33.16	10.02	33.18	380	17	P	H
	*	5825	107.89	-	-	97.89	33.16	10.02	33.18	380	17	A	H
		5851	74.37	-45.55	119.92	64.36	33.18	10.02	33.19	380	17	P	H
		5859.6	70.39	-39.12	109.51	60.37	33.21	10.02	33.21	380	17	P	H
		5877.8	58.76	-44.36	103.12	48.72	33.23	10.02	33.21	380	17	P	H
		5940.2	51.64	-16.56	68.2	41.53	33.33	10.02	33.24	380	17	P	H
	*	5825	111.96	-	-	101.96	33.16	10.02	33.18	209	333	P	V
	*	5825	104.24	-	-	94.24	33.16	10.02	33.18	209	333	A	V
		5850	70.8	-51.4	122.2	60.79	33.18	10.02	33.19	209	333	P	V
		5855.2	68.27	-42.47	110.74	58.23	33.21	10.02	33.19	209	333	P	V
		5876.6	56.39	-47.62	104.01	46.35	33.23	10.02	33.21	209	333	P	V
		5945.2	51.08	-17.12	68.2	40.97	33.33	10.02	33.24	209	333	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)
802.11a CH 149 5745MHz		5578	57.07	-11.13	68.2	48.11	32.57	9.46	33.07	323	19	P	H
		5914	54.2	-14	68.2	44.02	33.39	10.02	33.23	323	19	P	H
		5962	53.91	-14.29	68.2	43.63	33.52	10.02	33.26	323	19	P	H
		11490	60.04	-13.96	74	70.83	38.52	15.8	65.39	265	10	P	H
		11490	48.24	-5.76	54	59.03	38.52	15.8	65.39	265	10	A	H
		17235	48.96	-19.24	68.2	52.25	40.76	19.86	64.27	100	0	P	H
		11490	55.76	-18.24	74	66.83	38.52	15.8	65.39	218	91	P	V
		11490	45.77	-8.23	54	56.84	38.52	15.8	65.39	218	91	A	V
		17235	48.96	-19.24	68.2	52.25	40.76	19.86	64.27	100	0	P	V
802.11a CH 157 5785MHz		11570	59.96	-14.04	74	70.1	39.07	15.88	65.37	257	13	P	H
		11570	48.27	-5.73	54	58.41	39.07	15.88	65.37	257	13	A	H
		17355	50.64	-17.56	68.2	51.21	43.26	19.91	64.11	100	0	P	H
		11570	56.64	-17.36	74	66.78	39.07	15.88	65.37	300	62	P	V
		11570	45.42	-8.58	54	55.56	39.07	15.88	65.37	300	62	A	V
		17355	50.48	-17.72	68.2	51.05	43.26	19.91	64.11	100	0	P	V
802.11a CH 165 5825MHz		5338	53.2	-15	68.2	44.83	32.23	9.17	33.03	380	17	P	H
		5584	54.69	-13.51	68.2	45.69	32.61	9.46	33.07	380	17	P	H
		5662	58.94	-9.26	68.2	49.66	32.77	9.62	33.11	380	17	P	H
		11650	60.47	-13.53	74	70.98	38.61	15.94	65.34	257	7	P	H
		11650	49.38	-4.62	54	59.89	38.61	15.94	65.34	257	7	A	H
		17475	48.53	-19.67	68.2	51.53	40.62	19.95	63.95	100	0	P	H
		5338	52.52	-15.68	68.2	44.15	32.23	9.17	33.03	209	333	P	V
		5662	54.69	-13.51	68.2	45.41	32.77	9.62	33.11	209	333	P	V
		11650	59.51	-14.49	74	70.3	38.61	15.94	65.34	219	90	P	V
		11650	49.02	-4.98	54	59.81	38.61	15.94	65.34	219	90	A	V
		17475	47.44	-20.76	68.2	50.44	40.62	19.95	63.95	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)
		5647.8	54.61	-13.59	68.2	45.2	32.89	9.62	33.1	311	23	P	H
		5699.4	73.05	-31.71	104.76	63.48	32.97	9.72	33.12	311	23	P	H
		5719.6	83.3	-27.39	110.69	73.6	33.01	9.82	33.13	311	23	P	H
		5724.6	90.61	-30.68	121.29	80.91	33.01	9.82	33.13	311	23	P	H
802.11n	*	5745	116.56	-	-	106.8	33.04	9.87	33.15	311	23	P	H
HT20	*	5745	107.44	-	-	97.68	33.04	9.87	33.15	311	23	A	H
CH 149		5616.4	51.91	-16.29	68.2	42.59	32.87	9.53	33.08	201	323	P	V
5745MHz		5693	68.47	-31.57	100.04	58.9	32.97	9.72	33.12	201	323	P	V
		5720	78.96	-31.84	110.8	69.26	33.01	9.82	33.13	201	323	P	V
		5723.2	83.69	-34.41	118.1	73.99	33.01	9.82	33.13	201	323	P	V
	*	5745	111.67	-	-	101.91	33.04	9.87	33.15	201	323	P	V
	*	5745	102.56	-	-	92.8	33.04	9.87	33.15	201	323	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)
		5622.2	55.9	-12.3	68.2	46.58	32.87	9.53	33.08	324	0	P	H
		5697.4	56.75	-46.53	103.28	47.18	32.97	9.72	33.12	324	0	P	H
		5712.8	60.39	-48.4	108.79	50.76	32.99	9.77	33.13	324	0	P	H
		5724.8	61.4	-60.34	121.74	51.7	33.01	9.82	33.13	324	0	P	H
	*	5785	115.84	-	-	105.95	33.09	9.97	33.17	324	0	P	H
	*	5785	105.77	-	-	95.88	33.09	9.97	33.17	324	0	A	H
		5852.6	57.38	-58.89	116.27	47.37	33.18	10.02	33.19	324	0	P	H
		5861.2	58.4	-50.66	109.06	48.38	33.21	10.02	33.21	324	0	P	H
802.11n		5899.2	53.03	-34.22	87.25	42.97	33.26	10.02	33.22	324	0	P	H
HT20		5941	53.34	-14.86	68.2	43.23	33.33	10.02	33.24	324	0	P	H
CH 157		5621.2	52.29	-15.91	68.2	42.97	32.87	9.53	33.08	202	332	P	V
5785MHz		5698.2	53.48	-50.39	103.87	43.91	32.97	9.72	33.12	202	332	P	V
		5720	56.11	-54.69	110.8	46.41	33.01	9.82	33.13	202	332	P	V
		5720.2	58.21	-53.05	111.26	48.51	33.01	9.82	33.13	202	332	P	V
	*	5785	111.45	-	-	101.56	33.09	9.97	33.17	202	332	P	V
	*	5785	101.34	-	-	91.45	33.09	9.97	33.17	202	332	A	V
		5850.4	54.26	-67.03	121.29	44.25	33.18	10.02	33.19	202	332	P	V
		5866	53.44	-54.28	107.72	43.42	33.21	10.02	33.21	202	332	P	V
		5876	51.22	-53.24	104.46	41.18	33.23	10.02	33.21	202	332	P	V
		5945.2	50.69	-17.51	68.2	40.58	33.33	10.02	33.24	202	332	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	115.14	-	-	105.14	33.16	10.02	33.18	330	9	P	H
	*	5825	105	-	-	95	33.16	10.02	33.18	330	9	A	H
		5850.8	75.06	-45.32	120.38	65.05	33.18	10.02	33.19	330	9	P	H
		5855.4	72.09	-38.6	110.69	62.05	33.21	10.02	33.19	330	9	P	H
		5875.2	61.77	-43.28	105.05	51.73	33.23	10.02	33.21	330	9	P	H
		5946.8	51.32	-16.88	68.2	41.21	33.33	10.02	33.24	330	9	P	H
	*	5825	110.97	-	-	100.97	33.16	10.02	33.18	209	333	P	V
	*	5825	101.03	-	-	91.03	33.16	10.02	33.18	209	333	A	V
		5850	73.98	-48.22	122.2	63.97	33.18	10.02	33.19	209	333	P	V
		5855.6	66.53	-44.1	110.63	56.49	33.21	10.02	33.19	209	333	P	V
		5875.6	56.35	-48.4	104.75	46.31	33.23	10.02	33.21	209	333	P	V
		5944.2	50.17	-18.03	68.2	40.06	33.33	10.02	33.24	209	333	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		5320	52.69	-15.51	68.2	44.34	32.22	9.16	33.03	311	23	P	H
		5590	56.72	-11.48	68.2	47.72	32.61	9.46	33.07	311	23	P	H
		6166	57.14	-11.06	68.2	46.36	33.87	10.23	33.32	311	23	P	H
		11490	60.14	-13.86	74	70.93	38.52	15.8	65.39	263	10	P	H
		11490	49.15	-4.85	54	59.94	38.52	15.8	65.39	263	10	A	H
		17235	48.32	-19.88	68.2	51.61	40.76	19.86	64.27	100	0	P	H
		11490	56.75	-17.25	74	67.82	38.52	15.8	65.39	217	90	P	V
		11490	46.25	-7.75	54	57.32	38.52	15.8	65.39	217	90	A	V
		17235	49.81	-18.39	68.2	53.1	40.76	19.86	64.27	100	0	P	V
802.11n HT20 CH 157 5785MHz		5536	54.65	-13.55	68.2	45.83	32.48	9.39	33.05	324	0	P	H
		6028	54.99	-13.21	68.2	44.55	33.65	10.07	33.28	324	0	P	H
		11570	59.31	-14.69	74	69.97	38.56	15.87	65.37	261	9	P	H
		11570	49.17	-4.83	54	59.83	38.56	15.87	65.37	261	9	A	H
		17355	49.45	-18.75	68.2	52.59	40.69	19.91	64.11	100	0	P	H
		11570	57.8	-16.2	74	68.74	38.56	15.87	65.37	218	90	P	V
		11570	47.9	-6.1	54	58.84	38.56	15.87	65.37	218	90	A	V
		17355	48.44	-19.76	68.2	51.58	40.69	19.91	64.11	100	0	P	V
802.11n HT20 CH 165 5825MHz		11650	59.73	-14.27	74	70.24	38.61	15.94	65.34	269	9	P	H
		11650	49.45	-4.55	54	59.96	38.61	15.94	65.34	269	9	A	H
		17475	47.64	-20.56	68.2	50.64	40.62	19.95	63.95	100	0	P	H
		11650	57.7	-16.3	74	68.49	38.61	15.94	65.34	218	89	P	V
		11650	49.09	-4.91	54	59.88	38.61	15.94	65.34	218	89	A	V
		17475	47.86	-20.34	68.2	50.86	40.62	19.95	63.95	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)
		5649.6	62.74	-5.46	68.2	53.3	32.92	9.62	33.1	320	17	P	H
		5694.2	77.51	-23.41	100.92	67.94	32.97	9.72	33.12	320	17	P	H
		5716.6	90.89	-18.96	109.85	81.26	32.99	9.77	33.13	320	17	P	H
		5723	91.03	-26.61	117.64	81.33	33.01	9.82	33.13	320	17	P	H
	*	5755	113.8	-	-	103.97	33.06	9.92	33.15	320	17	P	H
	*	5755	104.24	-	-	94.41	33.06	9.92	33.15	320	17	A	H
		5853	61.96	-53.4	115.36	51.95	33.18	10.02	33.19	320	17	P	H
		5867.8	59.76	-47.45	107.21	49.74	33.21	10.02	33.21	320	17	P	H
802.11n		5876.4	56.14	-48.02	104.16	46.1	33.23	10.02	33.21	320	17	P	H
HT40		5942.8	52.02	-16.18	68.2	41.91	33.33	10.02	33.24	320	17	P	H
CH 151		5646.4	56.41	-11.79	68.2	47	32.89	9.62	33.1	207	333	P	V
5755MHz		5692	72.06	-27.24	99.3	62.49	32.97	9.72	33.12	207	333	P	V
		5717	83.62	-26.34	109.96	73.99	32.99	9.77	33.13	207	333	P	V
		5724.6	86.54	-34.75	121.29	76.84	33.01	9.82	33.13	207	333	P	V
	*	5755	110.03	-	-	100.2	33.06	9.92	33.15	207	333	P	V
	*	5755	99.78	-	-	89.95	33.06	9.92	33.15	207	333	A	V
		5851.2	54.46	-65	119.46	44.45	33.18	10.02	33.19	207	333	P	V
		5864.8	54.73	-53.32	108.05	44.71	33.21	10.02	33.21	207	333	P	V
		5887.8	53.03	-42.67	95.7	42.97	33.26	10.02	33.22	207	333	P	V
		5925.4	50.93	-17.27	68.2	40.84	33.3	10.02	33.23	207	333	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 HT40 CH 159 5795MHz		5639.2	55.76	-12.44	68.2	46.39	32.89	9.58	33.1	193	44	P	H
		5698.2	63.48	-40.39	103.87	53.91	32.97	9.72	33.12	193	44	P	H
		5719	72.71	-37.81	110.52	63.01	33.01	9.82	33.13	193	44	P	H
		5724.4	73.03	-47.8	120.83	63.33	33.01	9.82	33.13	193	44	P	H
	*	5795	113.66	-	-	103.71	33.11	10.01	33.17	193	44	P	H
	*	5795	103.62	-	-	93.67	33.11	10.01	33.17	193	44	A	H
		5850	68.96	-53.24	122.2	58.95	33.18	10.02	33.19	193	44	P	H
		5856.2	68.7	-41.76	110.46	58.66	33.21	10.02	33.19	193	44	P	H
		5875.6	61.98	-42.77	104.75	51.94	33.23	10.02	33.21	193	44	P	H
		5947.4	51.86	-16.34	68.2	41.75	33.33	10.02	33.24	193	44	P	H
		5649.4	53.23	-14.97	68.2	43.82	32.89	9.62	33.1	202	333	P	V
		5699.4	61.09	-43.67	104.76	51.52	32.97	9.72	33.12	202	333	P	V
		5718.6	66.37	-44.04	110.41	56.67	33.01	9.82	33.13	202	333	P	V
		5724.2	68.29	-52.09	120.38	58.59	33.01	9.82	33.13	202	333	P	V
	*	5795	109.24	-	-	99.29	33.11	10.01	33.17	202	333	P	V
	*	5795	98.88	-	-	88.93	33.11	10.01	33.17	202	333	A	V
		5850.2	66.7	-55.04	121.74	56.69	33.18	10.02	33.19	202	333	P	V
		5855.4	66.81	-43.88	110.69	56.77	33.21	10.02	33.19	202	333	P	V
		5878.4	60.2	-42.47	102.67	50.16	33.23	10.02	33.21	202	333	P	V
		5931	52	-16.2	68.2	41.91	33.3	10.02	33.23	202	333	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	56.65	-17.35	74	67.44	38.5	15.83	65.4	269	9	P	H
		11510	46.49	-7.51	54	57.28	38.5	15.83	65.4	269	9	A	H
		17265	48.16	-20.04	68.2	51.41	40.74	19.88	64.23	100	0	P	H
		11510	53.58	-20.42	74	64.65	38.5	15.83	65.4	213	90	P	V
		11510	43.87	-10.13	54	54.94	38.5	15.83	65.4	213	90	A	V
		17265	48.54	-19.66	68.2	51.79	40.74	19.88	64.23	100	0	P	V
802.11n HT40 CH 159 5795MHz		11590	56.83	-17.17	74	67.46	38.57	15.89	65.37	262	6	P	H
		11590	47.34	-6.66	54	57.97	38.57	15.89	65.37	262	6	A	H
		17385	49.18	-19.02	68.2	52.28	40.67	19.92	64.06	100	0	P	H
		11590	55.55	-18.45	74	66.46	38.57	15.89	65.37	219	91	P	V
		11590	45.85	-8.15	54	56.76	38.57	15.89	65.37	219	91	A	V
		17385	48.48	-19.72	68.2	51.58	40.67	19.92	64.06	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		5641.6	66.52	-1.68	68.2	57.15	32.89	9.58	33.1	341	260	P	H
		5698.6	77.99	-26.18	104.17	68.42	32.97	9.72	33.12	341	260	P	H
		5712	80.06	-28.5	108.56	70.43	32.99	9.77	33.13	341	260	P	H
		5723.6	78.6	-40.41	119.01	68.9	33.01	9.82	33.13	341	260	P	H
	*	5775	108.27	-	-	98.37	33.09	9.97	33.16	341	260	P	H
	*	5775	99.24	-	-	89.34	33.09	9.97	33.16	341	260	A	H
		5851.2	72.25	-47.21	119.46	62.24	33.18	10.02	33.19	341	260	P	H
		5861.2	71.35	-37.71	109.06	61.33	33.21	10.02	33.21	341	260	P	H
		5876.4	65.24	-38.92	104.16	55.2	33.23	10.02	33.21	341	260	P	H
		5927.4	55.11	-13.09	68.2	45.02	33.3	10.02	33.23	341	260	P	H
		5645.8	59.81	-8.39	68.2	50.4	32.89	9.62	33.1	202	333	P	V
		5696.4	70.07	-32.48	102.55	60.5	32.97	9.72	33.12	202	333	P	V
		5719.8	73.27	-37.47	110.74	63.57	33.01	9.82	33.13	202	333	P	V
		5721.4	72.82	-41.17	113.99	63.12	33.01	9.82	33.13	202	333	P	V
	*	5775	104	-	-	94.1	33.09	9.97	33.16	202	333	P	V
	*	5775	93.94	-	-	84.04	33.09	9.97	33.16	202	333	A	V
		5851	66.04	-53.88	119.92	56.03	33.18	10.02	33.19	202	333	P	V
		5859.4	65.96	-43.61	109.57	55.94	33.21	10.02	33.21	202	333	P	V
		5884	60.42	-38.1	98.52	50.39	33.23	10.02	33.22	202	333	P	V
		5935.2	53.72	-14.48	68.2	43.64	33.3	10.02	33.24	202	333	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	48.76	-25.24	74	59.45	38.54	15.87	65.38	100	0	P	H
VHT80		17325	49.4	-18.8	68.2	52.58	40.71	19.9	64.16	100	0	P	H
CH 155		11550	47.78	-26.22	74	58.75	38.54	15.87	65.38	100	0	P	V
5775MHz		17325	48.42	-19.78	68.2	51.6	40.71	19.9	64.16	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		30	23.34	-16.66	40	29.43	25.7	0.68	32.5	-	-	P	H
		182.28	34.32	-9.18	43.5	50.14	15.22	1.69	32.82	-	-	P	H
		201.72	36.23	-7.27	43.5	51.21	16.04	1.8	32.88	100	30	P	H
		316.8	30.38	-15.62	46	40.2	20.18	2.28	32.36	-	-	P	H
		610.8	27.55	-18.45	46	31.02	25.81	3.09	32.46	-	-	P	H
		951.7	33.1	-12.9	46	29.69	30.6	3.82	31.18	-	-	P	H
		59.7	32.21	-7.79	40	51.72	11.9	1.06	32.49	-	-	P	V
		182.28	31.99	-11.51	43.5	47.81	15.22	1.69	32.82	-	-	P	V
		201.72	35.8	-7.7	43.5	50.78	16.04	1.8	32.88	100	58	P	V
		489.7	29.21	-16.79	46	34.77	23.93	2.84	32.38	-	-	P	V
		598.2	32.78	-13.22	46	36.4	25.67	3.09	32.46	-	-	P	V
		934.2	33.18	-12.82	46	30.39	30.16	3.81	31.35	-	-	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		5635.2	56.25	-11.95	68.2	46.88	32.89	9.58	33.1	324	24	P	H
		5698.4	69.06	-34.96	104.02	59.49	32.97	9.72	33.12	324	24	P	H
		5718.6	81.64	-28.77	110.41	71.94	33.01	9.82	33.13	324	24	P	H
		5723.6	83.37	-35.64	119.01	73.67	33.01	9.82	33.13	324	24	P	H
	*	5745	117.66	-	-	107.9	33.04	9.87	33.15	324	24	P	H
	*	5745	108.15	-	-	98.39	33.04	9.87	33.15	324	24	A	H
		5636.2	54.11	-14.09	68.2	44.74	32.89	9.58	33.1	197	52	P	V
		5697	63.52	-39.47	102.99	53.95	32.97	9.72	33.12	197	52	P	V
		5719.4	79.12	-31.51	110.63	69.42	33.01	9.82	33.13	197	52	P	V
		5724.4	81.11	-39.72	120.83	71.41	33.01	9.82	33.13	197	52	P	V
	*	5745	113.96	-	-	104.2	33.04	9.87	33.15	197	52	P	V
	*	5745	104.06	-	-	94.3	33.04	9.87	33.15	197	52	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		5617.8	53	-15.2	68.2	43.68	32.87	9.53	33.08	325	0	P	H
		5656.6	56.5	-16.6	73.1	47.07	32.92	9.62	33.11	325	0	P	H
		5717.6	60.06	-50.07	110.13	50.36	33.01	9.82	33.13	325	0	P	H
		5720.8	60.81	-51.81	112.62	51.11	33.01	9.82	33.13	325	0	P	H
	*	5785	116.9	-	-	107.01	33.09	9.97	33.17	325	0	P	H
	*	5785	106.96	-	-	97.07	33.09	9.97	33.17	325	0	A	H
		5851.4	56.9	-62.11	119.01	46.89	33.18	10.02	33.19	325	0	P	H
		5857.8	58.6	-51.41	110.01	48.58	33.21	10.02	33.21	325	0	P	H
		5906.6	53.12	-28.66	81.78	43.04	33.28	10.02	33.22	325	0	P	H
		5943.8	51.84	-16.36	68.2	41.73	33.33	10.02	33.24	325	0	P	H
		5624.4	52.33	-15.87	68.2	43.01	32.87	9.53	33.08	198	323	P	V
		5697.4	53.71	-49.57	103.28	44.14	32.97	9.72	33.12	198	323	P	V
		5711.6	56.28	-52.17	108.45	46.65	32.99	9.77	33.13	198	323	P	V
		5723.4	56.3	-62.25	118.55	46.6	33.01	9.82	33.13	198	323	P	V
	*	5785	113.1	-	-	103.21	33.09	9.97	33.17	198	323	P	V
	*	5785	102.98	-	-	93.09	33.09	9.97	33.17	198	323	A	V
		5850.2	53.44	-68.3	121.74	43.43	33.18	10.02	33.19	198	323	P	V
		5860.8	53.71	-55.46	109.17	43.69	33.21	10.02	33.21	198	323	P	V
		5906.8	52.75	-28.88	81.63	42.67	33.28	10.02	33.22	198	323	P	V
		5945.6	51.54	-16.66	68.2	41.43	33.33	10.02	33.24	198	323	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	115.41	-	-	105.41	33.16	10.02	33.18	329	0	P	H
	*	5825	106.09	-	-	96.09	33.16	10.02	33.18	329	0	A	H
		5851	71.35	-48.57	119.92	61.34	33.18	10.02	33.19	329	0	P	H
		5856.8	68.92	-41.38	110.3	58.88	33.21	10.02	33.19	329	0	P	H
		5878	58.96	-44.01	102.97	48.92	33.23	10.02	33.21	329	0	P	H
		5949	53.25	-14.95	68.2	43.14	33.33	10.02	33.24	329	0	P	H
	*	5825	113.15	-	-	103.15	33.16	10.02	33.18	219	323	P	V
	*	5825	103.24	-	-	93.24	33.16	10.02	33.18	219	323	A	V
		5850.8	69.23	-51.15	120.38	59.22	33.18	10.02	33.19	219	323	P	V
		5860.6	66.76	-42.47	109.23	56.74	33.21	10.02	33.21	219	323	P	V
		5876	57.06	-47.4	104.46	47.02	33.23	10.02	33.21	219	323	P	V
		5946.6	52.25	-15.95	68.2	42.14	33.33	10.02	33.24	219	323	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		5320	55.1	-13.1	68.2	46.75	32.22	9.16	33.03	324	24	P	H
		5590	55.79	-12.41	68.2	46.79	32.61	9.46	33.07	324	24	P	H
		5956	55.94	-12.26	68.2	45.64	33.52	10.02	33.24	324	24	P	H
		6178	56.14	-12.06	68.2	45.31	33.89	10.26	33.32	324	24	P	H
		11490	61.31	-12.69	74	72.1	38.52	15.8	65.39	273	10	P	H
		11490	50.67	-3.33	54	61.46	38.52	15.8	65.39	273	10	A	H
		17235	49.24	-18.96	68.2	52.53	40.76	19.86	64.27	100	0	P	H
		5320	55.99	-12.21	68.2	47.64	32.22	9.16	33.03	197	52	P	V
		5506	54.62	-13.58	68.2	45.89	32.4	9.36	33.03	197	52	P	V
		5542	53.81	-14.39	68.2	44.97	32.48	9.41	33.05	197	52	P	V
		6172	54.34	-13.86	68.2	43.53	33.87	10.26	33.32	197	52	P	V
		11490	56.84	-17.16	74	67.91	38.52	15.8	65.39	305	61	P	V
		11490	46.43	-7.57	54	57.5	38.52	15.8	65.39	305	61	A	V
		17235	49.44	-18.76	68.2	52.73	40.76	19.86	64.27	100	0	P	V
802.11a CH 157 5785MHz		11570	61.52	-12.48	74	71.66	39.07	15.88	65.37	300	12	P	H
		11570	50.86	-3.14	54	61	39.07	15.88	65.37	300	12	A	H
		17355	51.14	-17.06	68.2	51.71	43.26	19.91	64.11	100	0	P	H
		11570	58.51	-15.49	74	68.65	39.07	15.88	65.37	300	61	P	V
		11570	48.3	-5.7	54	58.44	39.07	15.88	65.37	300	61	A	V
		17355	50.02	-18.18	68.2	50.59	43.26	19.91	64.11	100	0	P	V

		5512	54.72	-13.48	68.2	45.99	32.4	9.36	33.03	329	0	P	H
		5662	56.39	-11.81	68.2	47.11	32.77	9.62	33.11	329	0	P	H
		5704	56.55	-11.65	68.2	47	32.9	9.77	33.12	329	0	P	H
		11650	60.58	-13.42	74	71.09	38.61	15.94	65.34	295	4	P	H
802.11a		11650	51.01	-2.99	54	61.52	38.61	15.94	65.34	295	4	A	H
CH 165		17475	48.23	-19.97	68.2	51.23	40.62	19.95	63.95	100	0	P	H
5825MHz		5338	52.22	-15.98	68.2	43.85	32.23	9.17	33.03	219	323	P	V
		5578	52.77	-15.43	68.2	43.81	32.57	9.46	33.07	219	323	P	V
		11650	57.9	-16.1	74	68.69	38.61	15.94	65.34	301	56	P	V
		11650	47.52	-6.48	54	58.31	38.61	15.94	65.34	301	56	A	V
		17475	48.75	-19.45	68.2	51.75	40.62	19.95	63.95	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)
		5635.8	56.17	-12.03	68.2	46.8	32.89	9.58	33.1	324	23	P	H
		5699.6	70.81	-34.1	104.91	61.19	32.97	9.77	33.12	324	23	P	H
		5716.8	80.81	-29.1	109.91	71.18	32.99	9.77	33.13	324	23	P	H
		5722.8	90.73	-26.45	117.18	81.03	33.01	9.82	33.13	324	23	P	H
802.11n	*	5745	117.4	-	-	107.64	33.04	9.87	33.15	324	23	P	H
HT20	*	5745	107.51	-	-	97.75	33.04	9.87	33.15	324	23	A	H
CH 149		5642.4	52.67	-15.53	68.2	43.3	32.89	9.58	33.1	197	52	P	V
5745MHz		5697	65.01	-37.98	102.99	55.44	32.97	9.72	33.12	197	52	P	V
		5714	76.31	-32.81	109.12	66.68	32.99	9.77	33.13	197	52	P	V
		5723.8	80.24	-39.22	119.46	70.54	33.01	9.82	33.13	197	52	P	V
	*	5745	112.6	-	-	102.84	33.04	9.87	33.15	197	52	P	V
	*	5745	103.31	-	-	93.55	33.04	9.87	33.15	197	52	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	53.69	-14.51	68.2	44.32	32.87	9.58	33.08	325	315	P	H
		5696.2	54.71	-47.69	102.4	45.14	32.97	9.72	33.12	325	315	P	H
		5714	57.84	-51.28	109.12	48.21	32.99	9.77	33.13	325	315	P	H
		5725	58.43	-63.77	122.2	48.73	33.01	9.82	33.13	325	315	P	H
	*	5785	116.28	-	-	106.39	33.09	9.97	33.17	325	315	P	H
	*	5785	105.97	-	-	96.08	33.09	9.97	33.17	325	315	A	H
		5850.4	56.2	-65.09	121.29	46.19	33.18	10.02	33.19	325	315	P	H
		5873.4	56.78	-48.87	105.65	46.74	33.23	10.02	33.21	325	315	P	H
802.11n		5900.4	53.24	-33.12	86.36	43.18	33.26	10.02	33.22	325	315	P	H
HT20		5938.4	51.98	-16.22	68.2	41.9	33.3	10.02	33.24	325	315	P	H
CH 157		5624.6	50.54	-17.66	68.2	41.22	32.87	9.53	33.08	198	323	P	V
5785MHz		5657.4	52.43	-21.27	73.7	43	32.92	9.62	33.11	198	323	P	V
		5700.6	53.47	-51.9	105.37	43.83	32.99	9.77	33.12	198	323	P	V
		5723.4	55.46	-63.09	118.55	45.76	33.01	9.82	33.13	198	323	P	V
	*	5785	112.26	-	-	102.37	33.09	9.97	33.17	198	323	P	V
	*	5785	101.83	-	-	91.94	33.09	9.97	33.17	198	323	A	V
		5852.6	55.11	-61.16	116.27	45.1	33.18	10.02	33.19	198	323	P	V
		5855	54.92	-55.88	110.8	44.88	33.21	10.02	33.19	198	323	P	V
		5878.2	52.06	-50.76	102.82	42.02	33.23	10.02	33.21	198	323	P	V
		5946.4	50.81	-17.39	68.2	40.7	33.33	10.02	33.24	198	323	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	115.16	-	-	105.16	33.16	10.02	33.18	326	360	P	H
	*	5825	105.82	-	-	95.82	33.16	10.02	33.18	326	360	A	H
		5850.6	75.47	-45.36	120.83	65.46	33.18	10.02	33.19	326	360	P	H
		5855.6	74.01	-36.62	110.63	63.97	33.21	10.02	33.19	326	360	P	H
		5875.4	62.97	-41.93	104.9	52.93	33.23	10.02	33.21	326	360	P	H
		5947	52.07	-16.13	68.2	41.96	33.33	10.02	33.24	326	360	P	H
	*	5825	112.22	-	-	102.22	33.16	10.02	33.18	219	323	P	V
	*	5825	102.27	-	-	92.27	33.16	10.02	33.18	219	323	A	V
		5850.4	70.71	-50.58	121.29	60.7	33.18	10.02	33.19	219	323	P	V
		5856.4	67.82	-42.59	110.41	57.78	33.21	10.02	33.19	219	323	P	V
		5882.6	59.33	-40.23	99.56	49.29	33.23	10.02	33.21	219	323	P	V
		5944.8	50.39	-17.81	68.2	40.28	33.33	10.02	33.24	219	323	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		5326	54.39	-13.81	68.2	46.03	32.22	9.17	33.03	324	23	P	H
		5422	52.88	-21.12	74	44.34	32.32	9.24	33.02	324	23	P	H
		5584	54.77	-13.43	68.2	45.77	32.61	9.46	33.07	324	23	P	H
		5968	56.81	-11.39	68.2	46.53	33.52	10.02	33.26	324	23	P	H
		6172	55.36	-12.84	68.2	44.55	33.87	10.26	33.32	324	23	P	H
		11490	60.4	-13.6	74	71.19	38.52	15.8	65.39	288	12	P	H
		11490	50.23	-3.77	54	61.02	38.52	15.8	65.39	288	12	A	H
		17235	49.62	-18.58	68.2	52.91	40.76	19.86	64.27	100	0	P	H
		5314	56.91	-11.29	68.2	48.56	32.22	9.16	33.03	197	52	P	V
		5572	54.57	-13.63	68.2	45.63	32.57	9.43	33.06	197	52	P	V
		11490	56.58	-17.42	74	67.65	38.52	15.8	65.39	210	61	P	V
		11490	46.49	-7.51	54	57.56	38.52	15.8	65.39	210	61	A	V
		17235	49.02	-19.18	68.2	52.31	40.76	19.86	64.27	100	0	P	V
802.11n HT20 CH 157 5785MHz		5302	53.7	-14.5	68.2	45.38	32.2	9.15	33.03	325	315	P	H
		5470	53.82	-14.38	68.2	45.16	32.37	9.31	33.02	325	315	P	H
		5620	54.49	-13.71	68.2	45.35	32.69	9.53	33.08	325	315	P	H
		5668	55.92	-12.28	68.2	46.55	32.81	9.67	33.11	325	315	P	H
		11570	60.73	-13.27	74	71.39	38.56	15.87	65.37	292	7	P	H
		11570	50.32	-3.68	54	60.98	38.56	15.87	65.37	292	7	A	H
		17355	49.35	-18.85	68.2	52.49	40.69	19.91	64.11	100	0	P	H
		11570	57.48	-16.52	74	68.14	38.56	15.87	65.37	300	58	P	V
		11570	46.48	-7.52	54	57.14	38.56	15.87	65.37	300	58	A	V
		17355	48.01	-20.19	68.2	51.15	40.69	19.91	64.11	100	0	P	V

802.11n HT20 CH 165 5825MHz		11650	63.37	-10.63	74	73.86	38.61	15.96	65.34	290	10	P	H
		11650	51.15	-2.85	54	61.64	38.61	15.96	65.34	290	10	A	H
		17475	47.95	-20.25	68.2	50.95	40.62	19.95	63.95	100	0	P	H
		11650	58.5	-15.5	74	69.27	38.61	15.96	65.34	260	69	P	V
		11650	48.61	-5.39	54	59.38	38.61	15.96	65.34	260	69	A	V
		17475	49.6	-18.6	68.2	52.6	40.62	19.95	63.95	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)
		5648.2	63.85	-4.35	68.2	54.44	32.89	9.62	33.1	320	23	P	H
		5698.4	77.84	-26.18	104.02	68.27	32.97	9.72	33.12	320	23	P	H
		5713.4	87.69	-21.26	108.95	78.06	32.99	9.77	33.13	320	23	P	H
		5721.8	91.32	-23.58	114.9	81.62	33.01	9.82	33.13	320	23	P	H
	*	5755	114.51	-	-	104.68	33.06	9.92	33.15	320	23	P	H
	*	5755	104.67	-	-	94.84	33.06	9.92	33.15	320	23	A	H
		5851.6	60.15	-58.4	118.55	50.14	33.18	10.02	33.19	320	23	P	H
		5856	58.35	-52.17	110.52	48.31	33.21	10.02	33.19	320	23	P	H
802.11n		5883.2	54.7	-44.41	99.11	44.66	33.23	10.02	33.21	320	23	P	H
HT40		5949.6	51.47	-16.73	68.2	41.36	33.33	10.02	33.24	320	23	P	H
CH 151		5649	55.29	-12.91	68.2	45.88	32.89	9.62	33.1	199	324	P	V
5755MHz		5691.4	72	-26.86	98.86	62.43	32.97	9.72	33.12	199	324	P	V
		5717	82.32	-27.64	109.96	72.69	32.99	9.77	33.13	199	324	P	V
		5723.2	82.41	-35.69	118.1	72.71	33.01	9.82	33.13	199	324	P	V
	*	5755	110.25	-	-	100.42	33.06	9.92	33.15	199	324	P	V
	*	5755	100.22	-	-	90.39	33.06	9.92	33.15	199	324	A	V
		5851.4	59.23	-59.78	119.01	49.22	33.18	10.02	33.19	199	324	P	V
		5863.2	55.87	-52.63	108.5	45.85	33.21	10.02	33.21	199	324	P	V
		5875.6	53.08	-51.67	104.75	43.04	33.23	10.02	33.21	199	324	P	V
		5928	51.78	-16.42	68.2	41.69	33.3	10.02	33.23	199	324	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 HT40 CH 159 5795MHz		5645.2	53.57	-14.63	68.2	44.2	32.89	9.58	33.1	328	0	P	H
		5699.8	63.25	-41.8	105.05	53.63	32.97	9.77	33.12	328	0	P	H
		5718.6	68.06	-42.35	110.41	58.36	33.01	9.82	33.13	328	0	P	H
		5721.6	69.19	-45.26	114.45	59.49	33.01	9.82	33.13	328	0	P	H
	*	5795	113.22	-	-	103.27	33.11	10.01	33.17	328	0	P	H
	*	5795	103.25	-	-	93.3	33.11	10.01	33.17	328	0	A	H
		5852.6	72.11	-44.16	116.27	62.1	33.18	10.02	33.19	328	0	P	H
		5856.8	70.42	-39.88	110.3	60.38	33.21	10.02	33.19	328	0	P	H
		5876.4	63.71	-40.45	104.16	53.67	33.23	10.02	33.21	328	0	P	H
		5926	54.33	-13.87	68.2	44.24	33.3	10.02	33.23	328	0	P	H
		5600.4	50.8	-17.4	68.2	41.55	32.84	9.48	33.07	193	334	P	V
		5698.4	58.24	-45.78	104.02	48.67	32.97	9.72	33.12	193	334	P	V
		5718.8	66.29	-44.17	110.46	56.59	33.01	9.82	33.13	193	334	P	V
		5723.2	64.73	-53.37	118.1	55.03	33.01	9.82	33.13	193	334	P	V
	*	5795	108.58	-	-	98.63	33.11	10.01	33.17	193	334	P	V
	*	5795	99.47	-	-	89.52	33.11	10.01	33.17	193	334	A	V
		5850.2	64.66	-57.08	121.74	54.65	33.18	10.02	33.19	193	334	P	V
		5856	64.64	-45.88	110.52	54.6	33.21	10.02	33.19	193	334	P	V
		5877.6	60.33	-42.94	103.27	50.29	33.23	10.02	33.21	193	334	P	V
		5928.2	51.35	-16.85	68.2	41.26	33.3	10.02	33.23	193	334	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)
802.11n HT40 CH 151 5755MHz		11510	58.95	-15.05	74	69.74	38.5	15.83	65.4	280	12	P	H
		11510	47.57	-6.43	54	58.36	38.5	15.83	65.4	280	12	A	H
		17265	48.27	-19.93	68.2	51.52	40.74	19.88	64.23	100	0	P	H
		11510	53.65	-20.35	74	64.72	38.5	15.83	65.4	283	34	P	V
		11510	43.91	-10.09	54	54.98	38.5	15.83	65.4	283	34	A	V
		17265	48.56	-19.64	68.2	51.81	40.74	19.88	64.23	100	0	P	V
802.11n HT40 CH 159 5795MHz		11590	55.96	-18.04	74	66.59	38.57	15.89	65.37	320	25	P	H
		11590	46.15	-7.85	54	56.78	38.57	15.89	65.37	320	25	A	H
		17385	48.48	-19.72	68.2	51.58	40.67	19.92	64.06	100	0	P	H
		11590	55.81	-18.19	74	66.44	38.57	15.89	65.37	285	35	P	V
		11590	45.58	-8.42	54	56.21	38.57	15.89	65.37	285	35	A	V
		17385	49.35	-18.85	68.2	52.45	40.67	19.92	64.06	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)
		5648.8	66.46	-1.74	68.2	58.29	32.82	6.35	31	196	41	P	H
		5699	77.45	-27.01	104.46	69.14	32.96	6.36	31.01	196	41	P	H
		5719	79.67	-30.85	110.52	71.31	33.01	6.37	31.02	196	41	P	H
		5723.8	79.28	-40.18	119.46	70.9	33.03	6.37	31.02	196	41	P	H
	*	5775	110.45	-	-	101.94	33.17	6.38	31.04	196	41	P	H
	*	5775	99.76	-	-	91.25	33.17	6.38	31.04	196	41	A	H
		5852.2	71.95	-45.23	117.18	63.2	33.39	6.42	31.06	196	41	P	H
		5856.2	71.33	-39.13	110.46	62.57	33.4	6.42	31.06	196	41	P	H
802.11ac		5878.8	68.43	-33.95	102.38	59.61	33.46	6.43	31.07	196	41	P	H
VHT80		5927.2	58.61	-9.59	68.2	49.63	33.6	6.47	31.09	196	41	P	H
CH 155		5647.8	60.54	-7.66	68.2	52.38	32.81	6.35	31	206	329	P	V
5775MHz		5698.4	71.84	-32.18	104.02	63.53	32.96	6.36	31.01	206	329	P	V
		5715.2	74.32	-35.14	109.46	65.98	33	6.36	31.02	206	329	P	V
		5722.4	74.14	-42.13	116.27	65.77	33.02	6.37	31.02	206	329	P	V
	*	5775	105.76	-	-	97.25	33.17	6.38	31.04	206	329	P	V
	*	5775	95.94	-	-	87.43	33.17	6.38	31.04	206	329	A	V
		5850.8	70.76	-49.62	120.38	62.02	33.38	6.42	31.06	206	329	P	V
		5860.8	70.4	-38.77	109.17	61.64	33.41	6.42	31.07	206	329	P	V
		5875.8	68.19	-36.42	104.61	59.38	33.45	6.43	31.07	206	329	P	V
		5925	57.81	-10.39	68.2	48.84	33.59	6.47	31.09	206	329	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	48.36	-25.64	74	59.06	38.54	15.86	65.38	100	0	P	H
VHT80		17325	48.45	-19.75	68.2	51.64	40.71	19.89	64.16	100	0	P	H
CH 155		11550	46.92	-27.08	74	57.9	38.54	15.86	65.38	100	0	P	V
5775MHz		17325	49.18	-19.02	68.2	52.37	40.71	19.89	64.16	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		124.77	25.08	-18.42	43.5	38.38	17.85	1.39	32.58			P	H
		182.28	34.37	-9.13	43.5	50.19	15.22	1.69	32.82			P	H
		201.72	36.4	-7.1	43.5	51.38	16.04	1.8	32.88	100	48	P	H
		316.8	29.69	-16.31	46	39.51	20.18	2.28	32.36			P	H
		470.1	27.49	-18.51	46	33.45	23.62	2.75	32.37			P	H
		855.1	32.03	-13.97	46	31.17	28.93	3.67	31.89			P	H
		30	31.67	-8.33	40	37.76	25.7	0.68	32.5			P	V
		182.28	32.28	-11.22	43.5	48.1	15.22	1.69	32.82			P	V
		201.72	35.79	-7.71	43.5	50.77	16.04	1.8	32.88	138	39	P	V
		489.7	29.46	-16.54	46	35.02	23.93	2.84	32.38			P	V
		731.2	29.92	-16.08	46	31.43	27.33	3.41	32.38			P	V
		949.6	33.34	-12.66	46	29.95	30.6	3.82	31.2			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

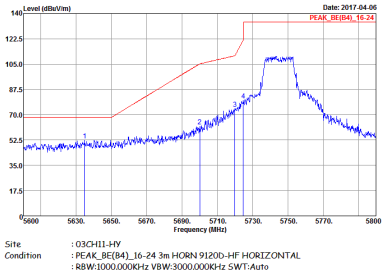
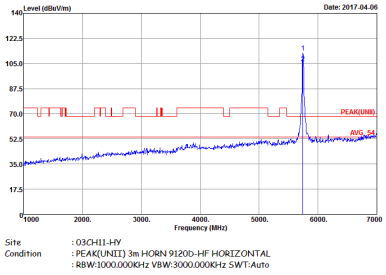
Test Engineer :	J.C. Liang, Jacky Hung and Ken Wu	**Temperature :**	20~24°C
		Relative Humidity :	55~60%

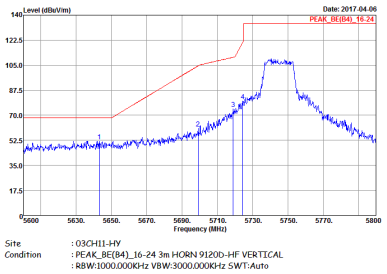
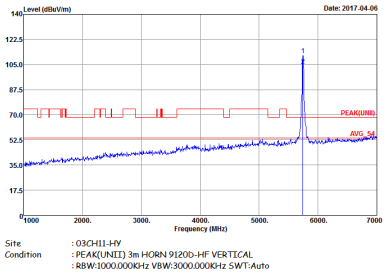
Note symbol

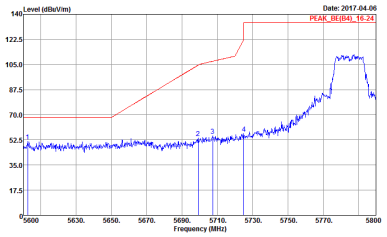
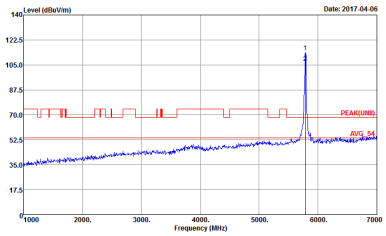
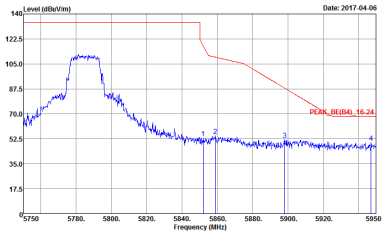
-L	**Low channel location**
-R	**High channel location**

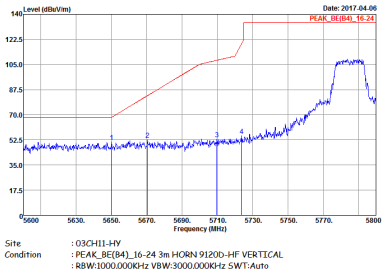
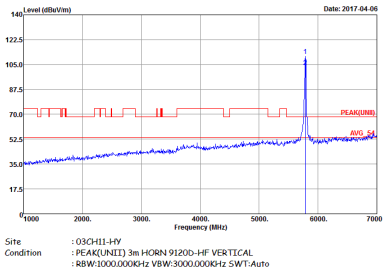
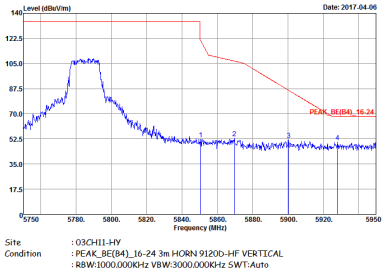
Band 4 - 5725~5850MHz

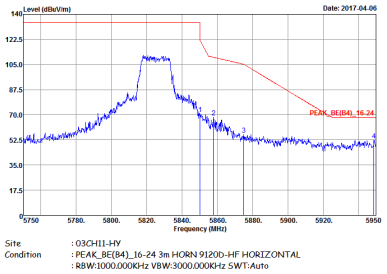
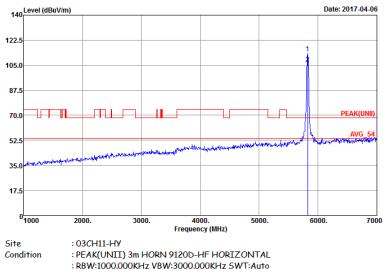
WIFI 802.11a (Band Edge @ 3m)

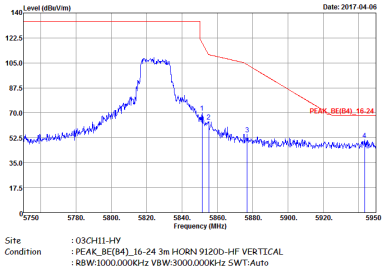
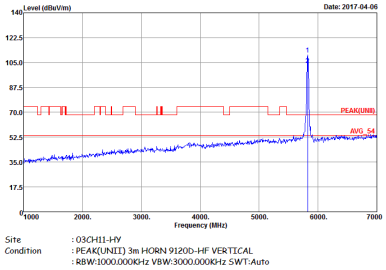
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
1	Horizontal	Fundamental
Peak		

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

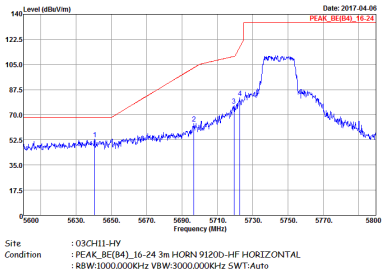
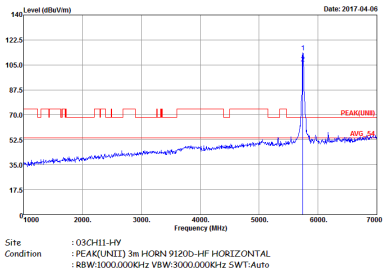
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
1	Vertical	Fundamental
Peak		
Peak		Left blank

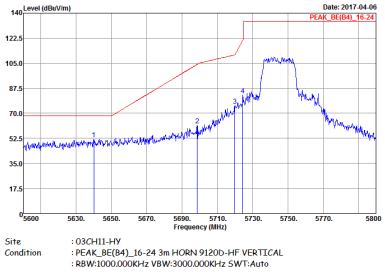
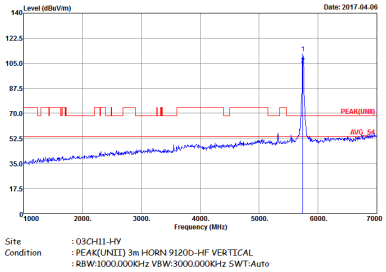
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
1	Horizontal	Fundamental
Peak		

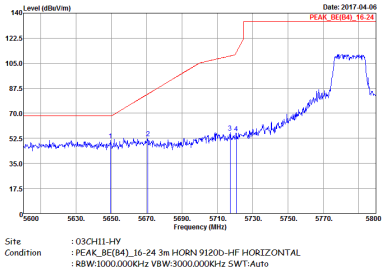
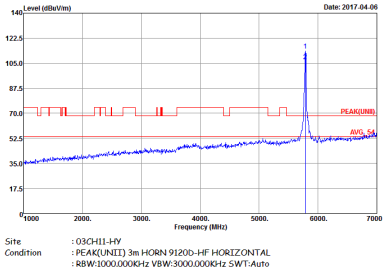
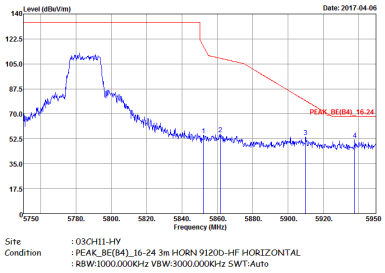
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
1	Vertical	Fundamental
Peak		

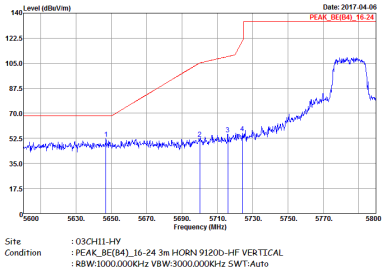
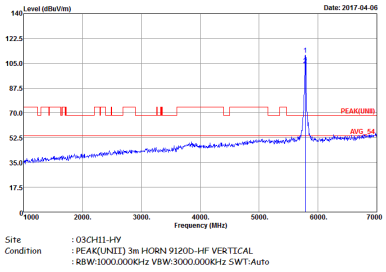
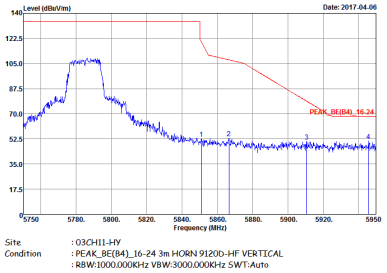
Band 4 5725~5850MHz

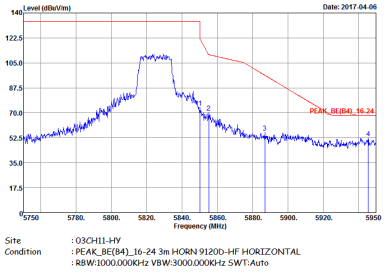
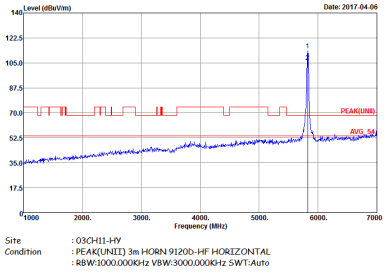
WIFI 802.11n HT20 (Band Edge @ 3m)

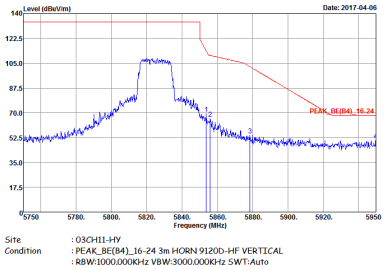
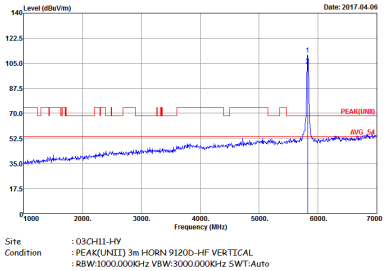
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
1	Horizontal	Fundamental
Peak		

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

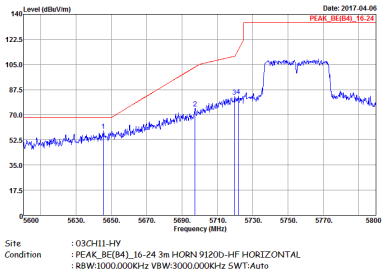
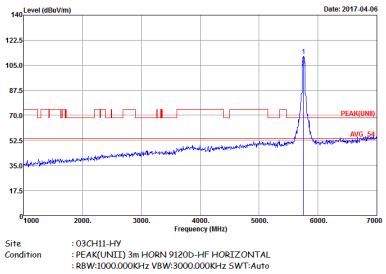
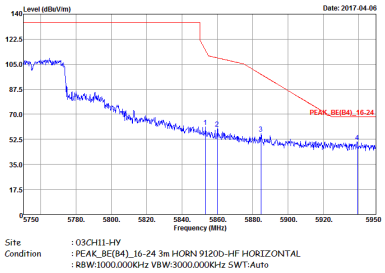
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
1	Vertical	Fundamental
Peak		
Peak		Left blank

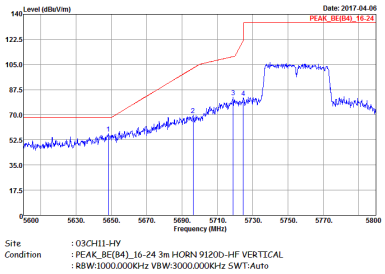
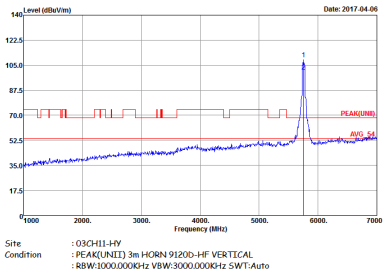
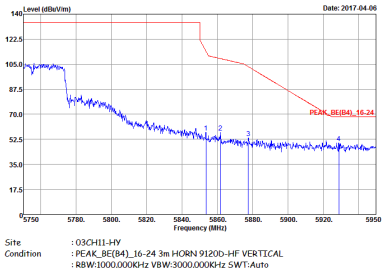
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
1	Horizontal	Fundamental
Peak		

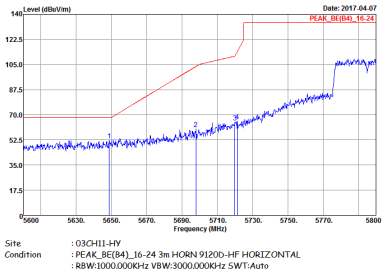
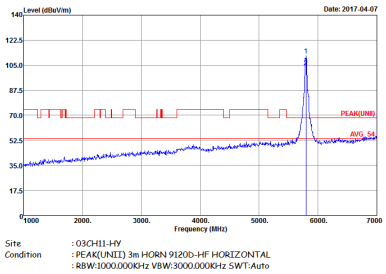
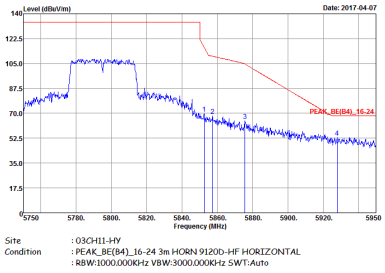
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
1	Vertical	Fundamental
Peak		

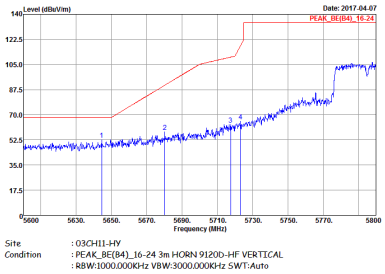
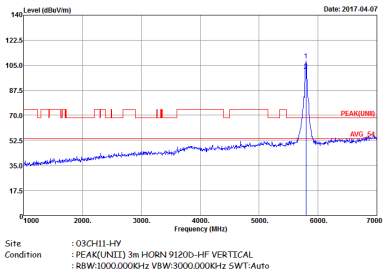
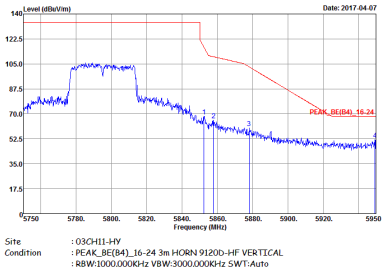
Band 4 5725~5850MHz

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

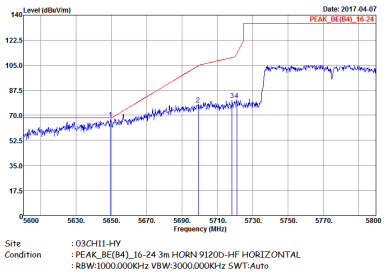
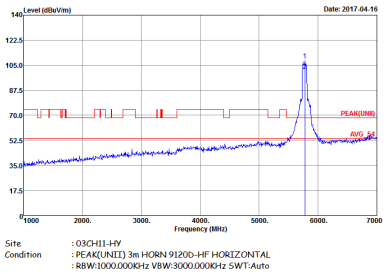
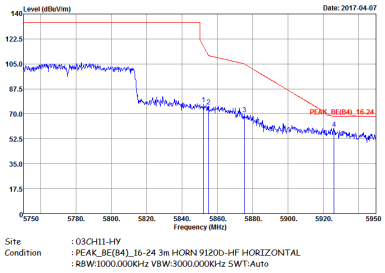
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
1	Vertical	Fundamental
Peak		
Peak		Left blank

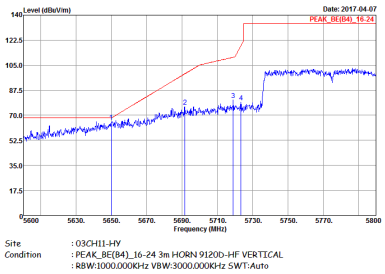
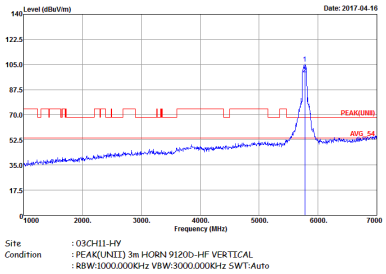
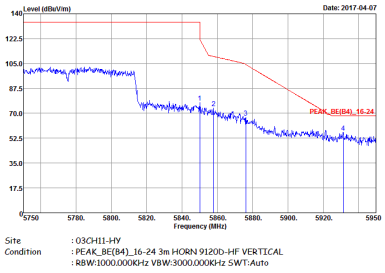
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH159 5795MHz	
1	Horizontal	Fundamental
Peak		
Peak		Left blank

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

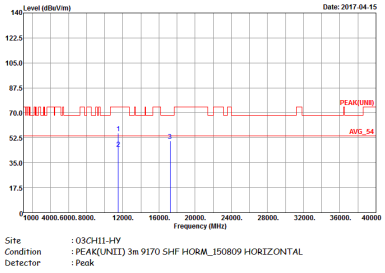
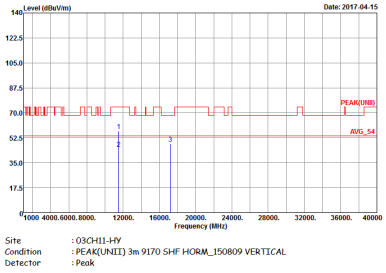
WIFI 802.11ac VHT80 (Band Edge @ 3m)

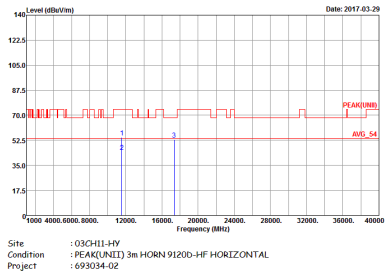
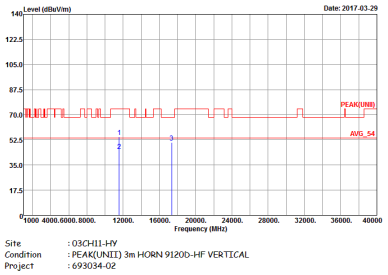
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1	Horizontal	Fundamental
Peak		
Peak		Left blank

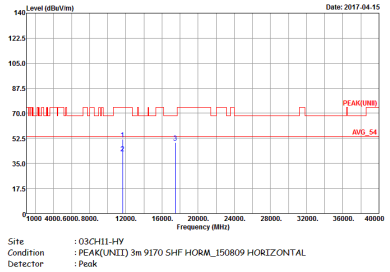
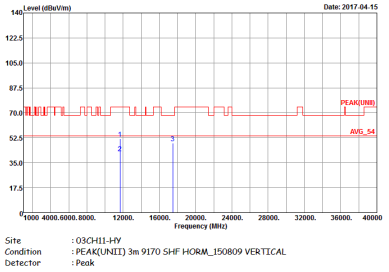
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1	Vertical	Fundamental
Peak		
Peak		Left blank

Band 4 - 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

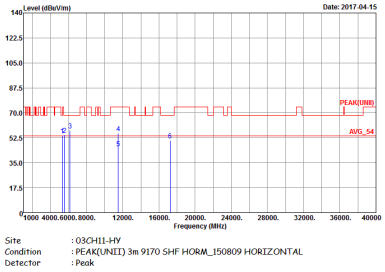
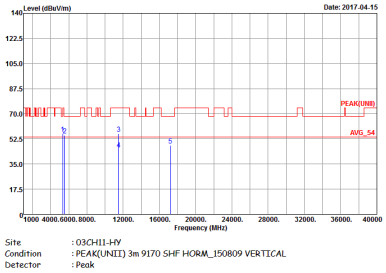
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH149 5745MHz	
1	Horizontal	Vertical
Peak Avg.		

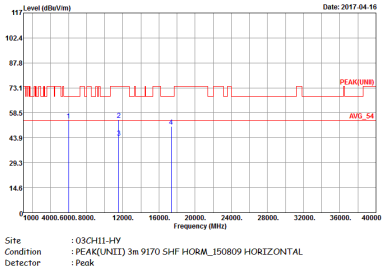
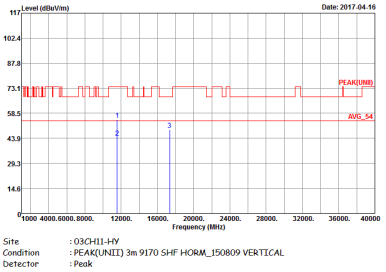
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
1	Horizontal	Vertical
Peak Avg.		

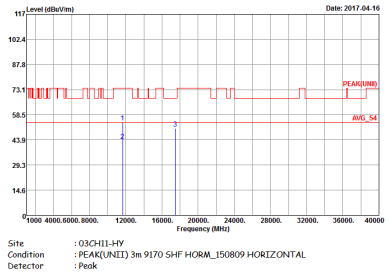
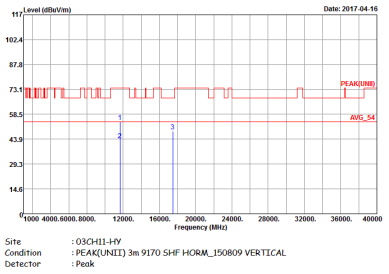
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH165 5825MHz	
1	Horizontal	Vertical
Peak Avg.		

Band 4 5725~5850MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

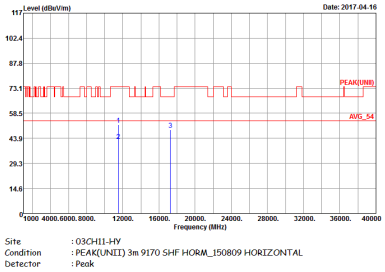
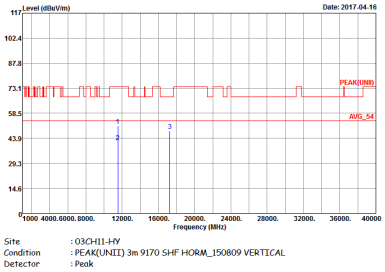
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
1	Horizontal	Vertical
Peak Avg.		

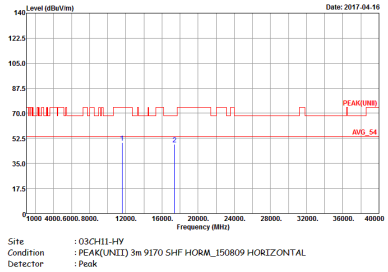
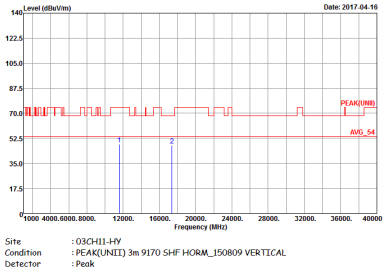
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
1	Horizontal	Vertical
Peak Avg.		

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

Band 4 5725~5850MHz

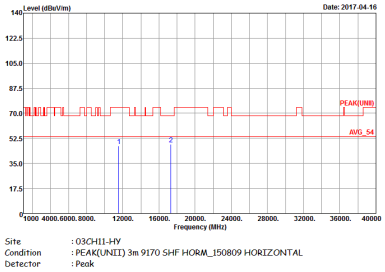
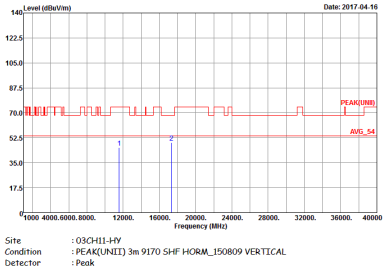
WIFI 802.11n HT40 (Harmonic @ 3m)

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.		

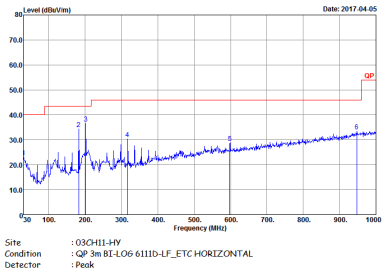
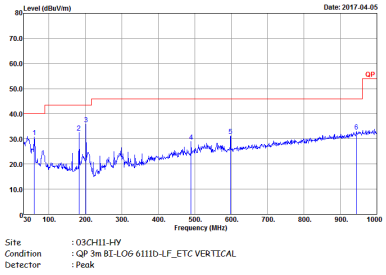
Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

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

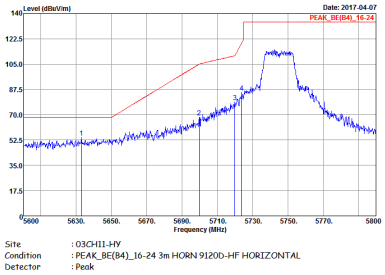
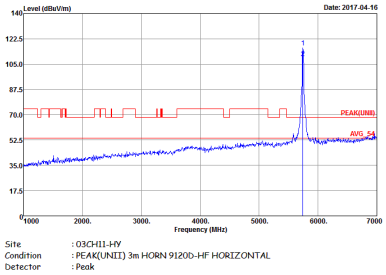
Emission below 1GHz

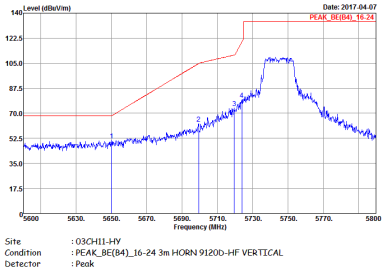
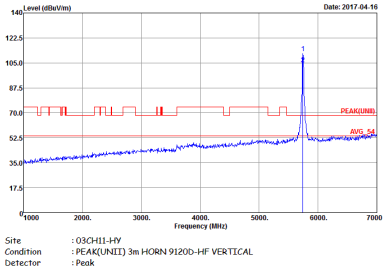
5GHz WIFI 802.11ac VHT80 (LF)

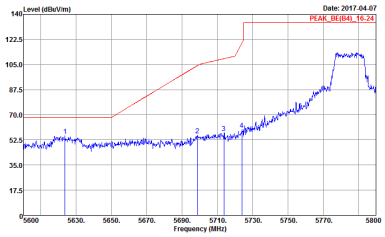
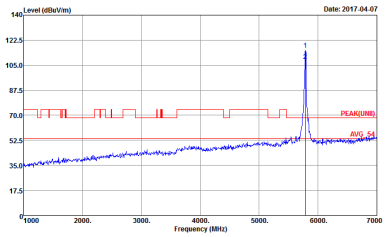
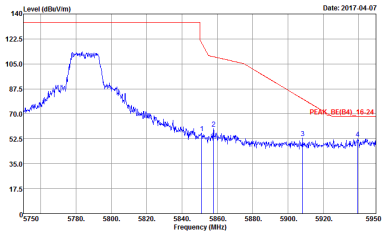
WIFI	5GHz 5725~5850MHz	
ANT	802.11ac VHT80 LF	
1	Horizontal	Vertical
QP / Peak		

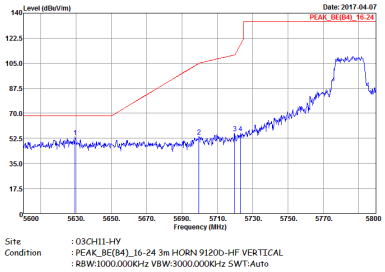
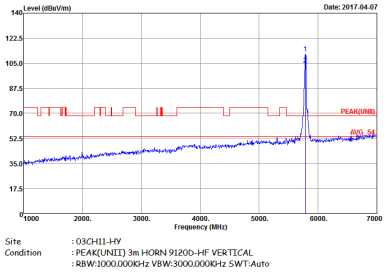
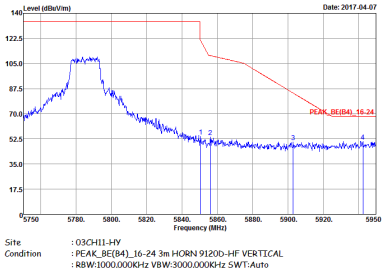
Band 4 - 5725~5850MHz

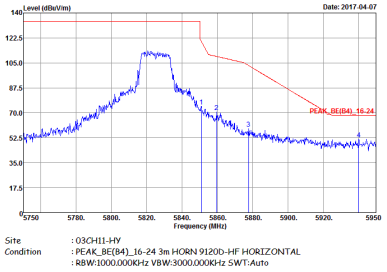
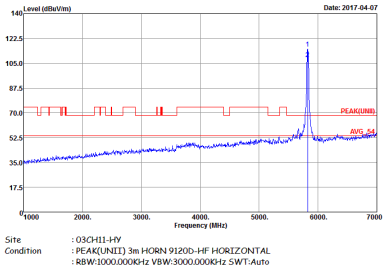
WIFI 802.11a (Band Edge @ 3m)

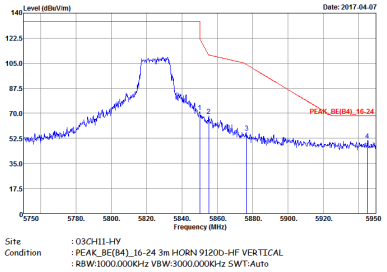
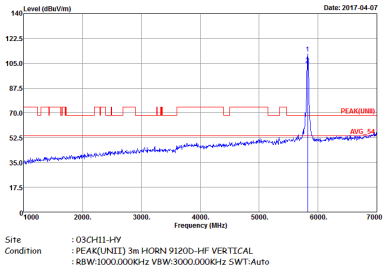
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
2	Horizontal	Fundamental
Peak		

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

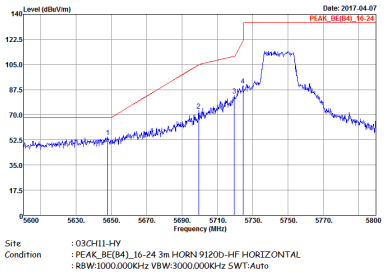
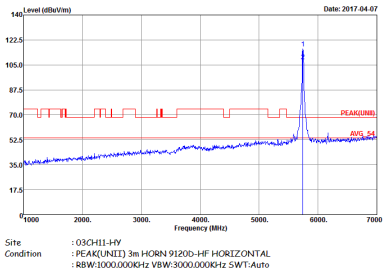
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
2	Vertical	Fundamental
Peak		
Peak		Left blank

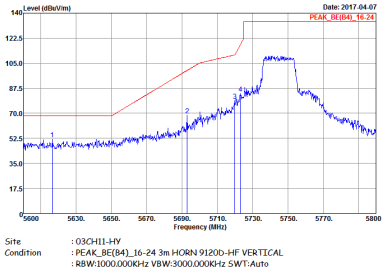
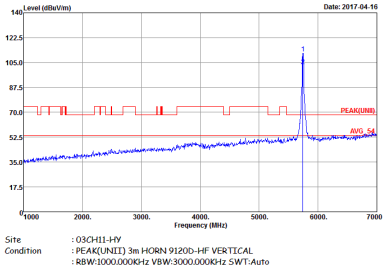
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
2	Horizontal	Fundamental
Peak		

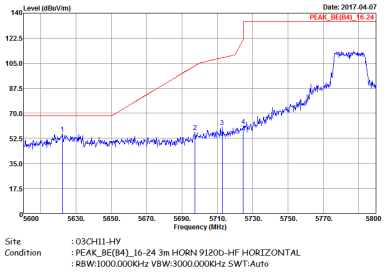
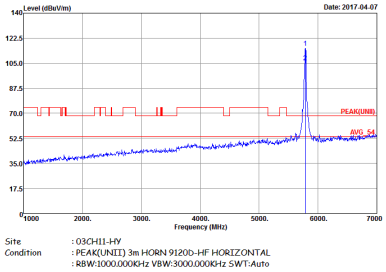
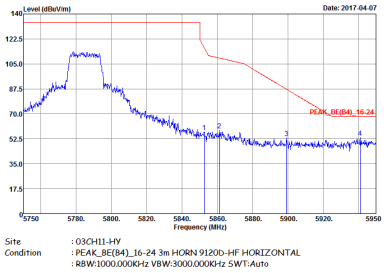
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
2	Vertical	Fundamental
Peak		

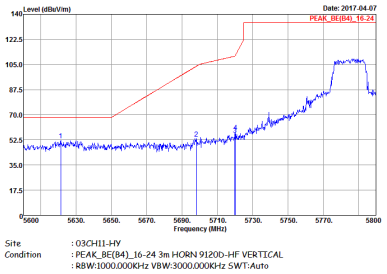
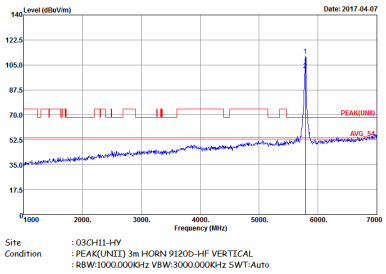
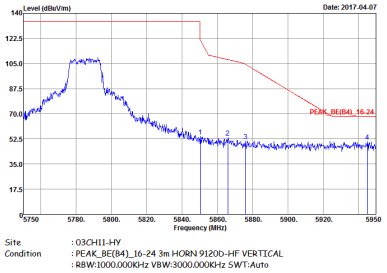
Band 4 5725~5850MHz

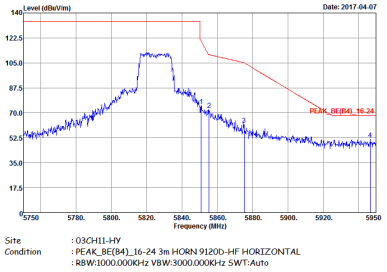
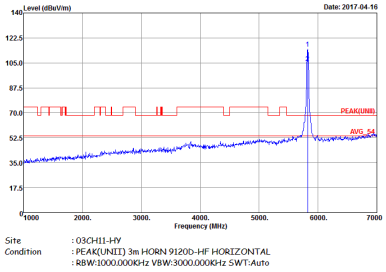
WIFI 802.11n HT20 (Band Edge @ 3m)

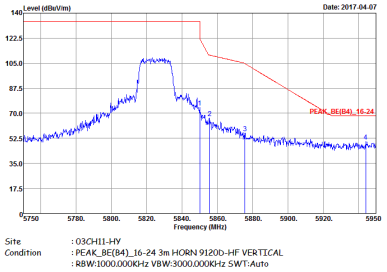
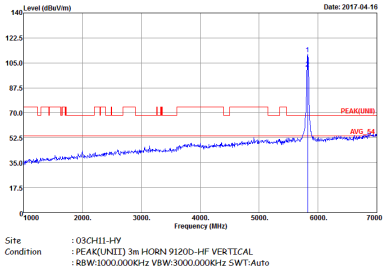
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
2	Horizontal	Fundamental
Peak		

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

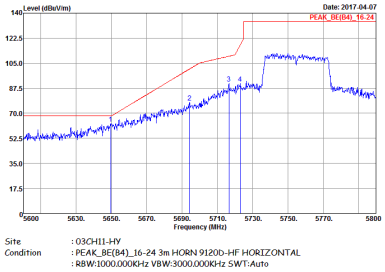
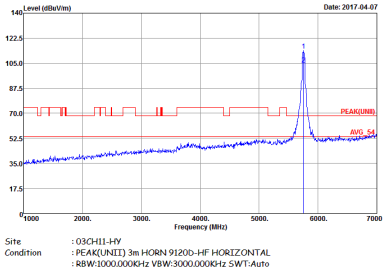
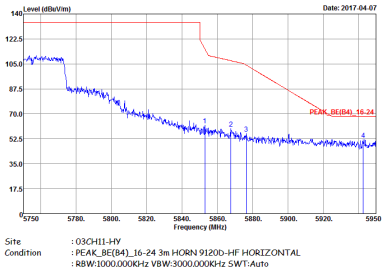
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
2	Vertical	Fundamental
Peak		
Peak		Left blank

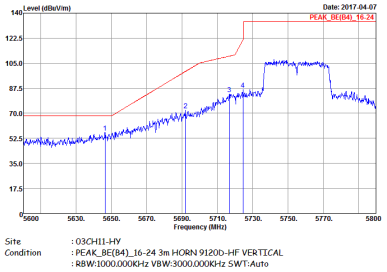
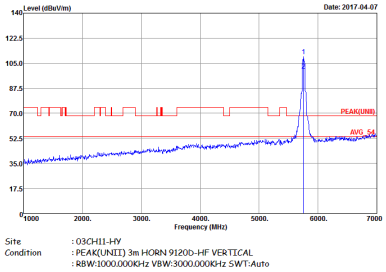
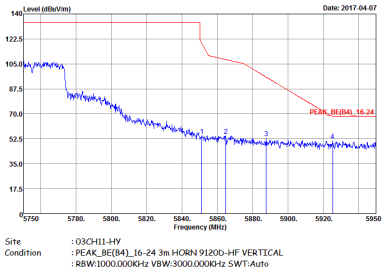
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
2	Horizontal	Fundamental
Peak		

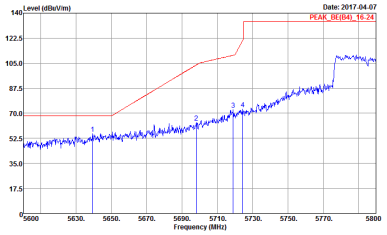
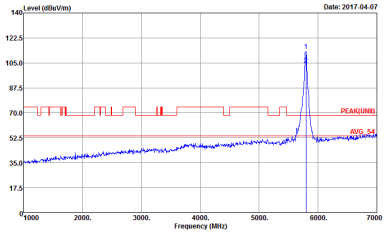
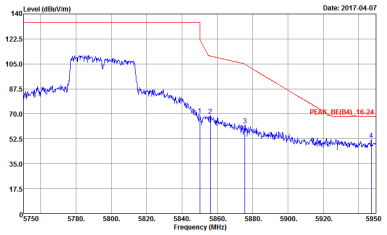
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
2	Vertical	Fundamental
Peak		

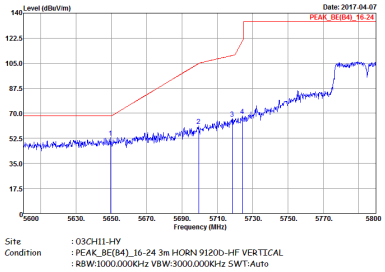
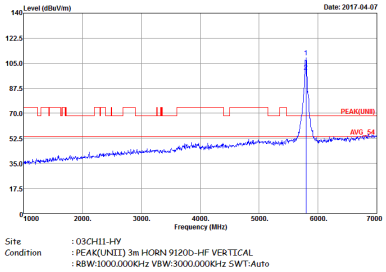
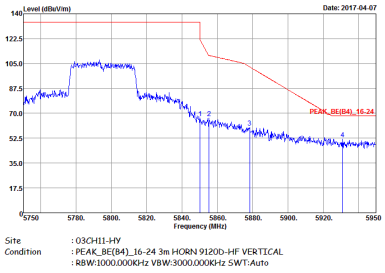
Band 4 5725~5850MHz

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

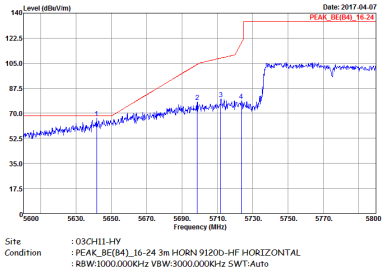
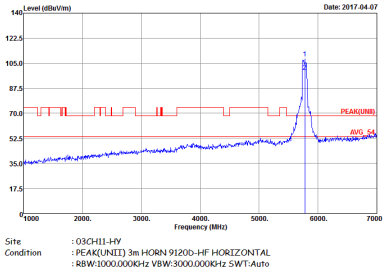
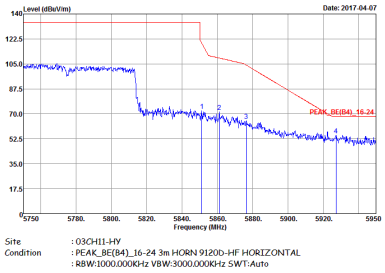
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
2	Vertical	Fundamental
Peak		
Peak		Left blank

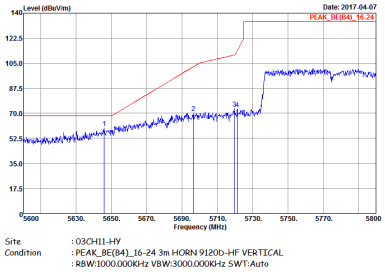
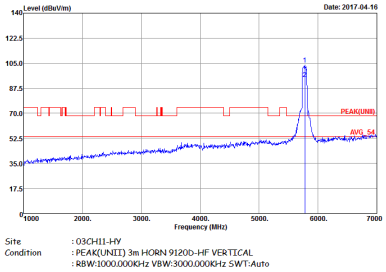
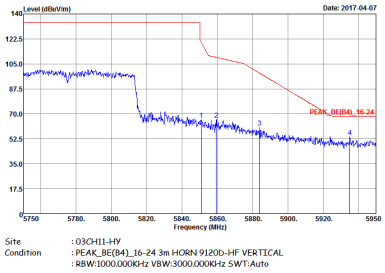
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH159 5795MHz	
2	Horizontal	Fundamental
Peak		
Peak		Left blank

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

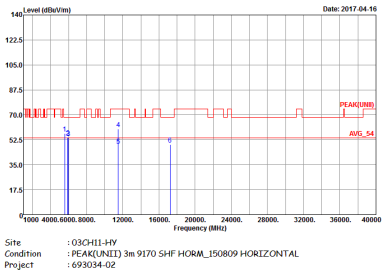
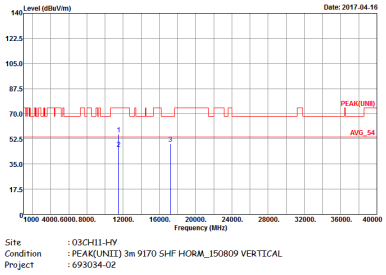
WIFI 802.11ac VHT80 (Band Edge @ 3m)

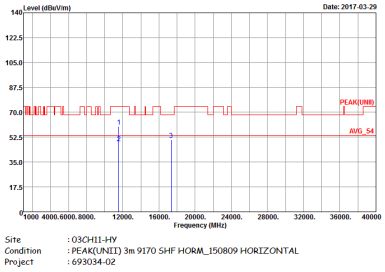
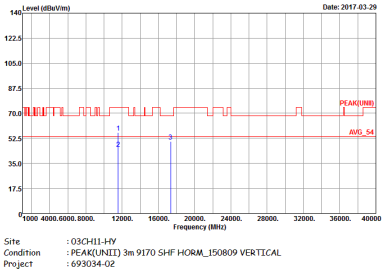
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
2	Horizontal	Fundamental
Peak		
Peak		Left blank

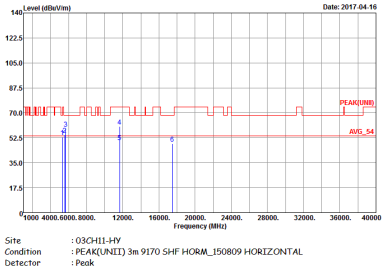
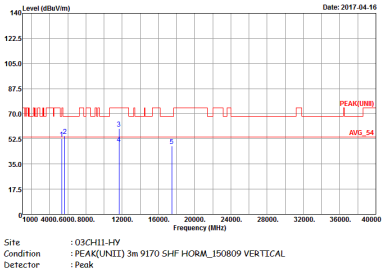
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
2	Vertical	Fundamental
Peak		
Peak		Left blank

Band 4 - 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

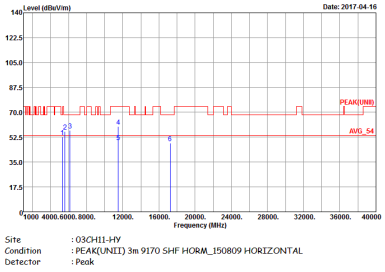
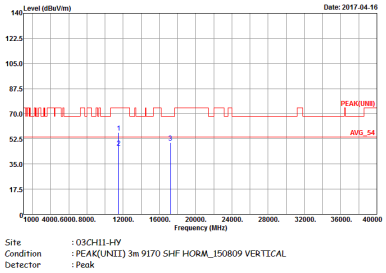
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH149 5745MHz	
2	Horizontal	Vertical
Peak Avg.		

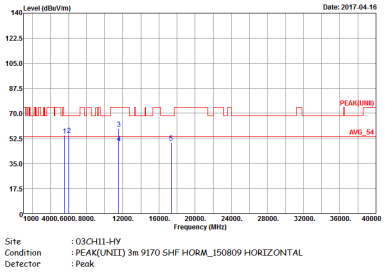
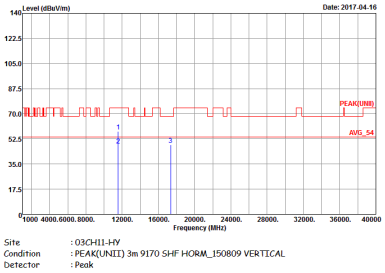
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
2	Horizontal	Vertical
Peak Avg.		

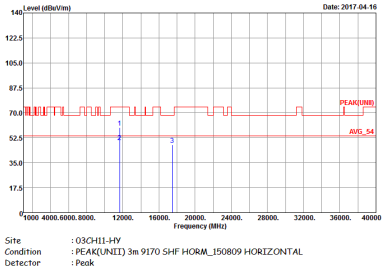
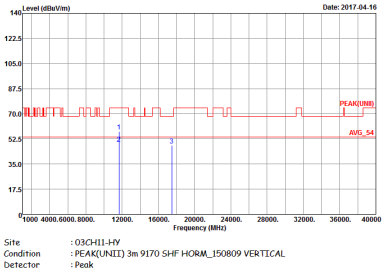
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH165 5825MHz	
2	Horizontal	Vertical
Peak Avg.		

Band 4 5725~5850MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

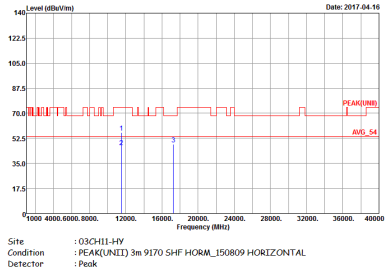
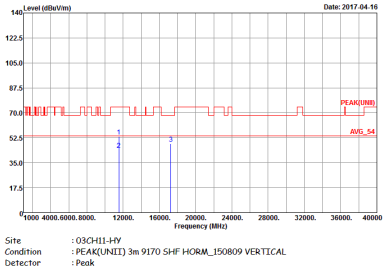
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
2	Horizontal	Vertical
Peak Avg.		

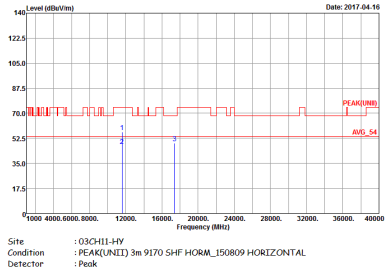
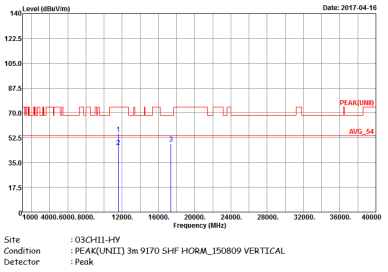
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
2	Horizontal	Vertical
Peak Avg.		

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

Band 4 5725~5850MHz

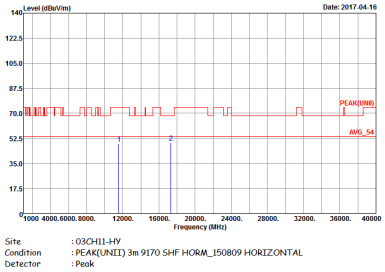
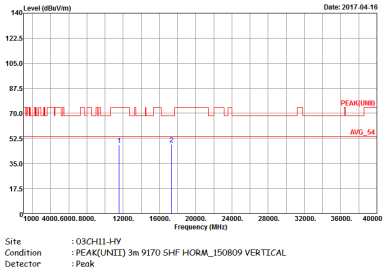
WIFI 802.11n HT40 (Harmonic @ 3m)

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.		

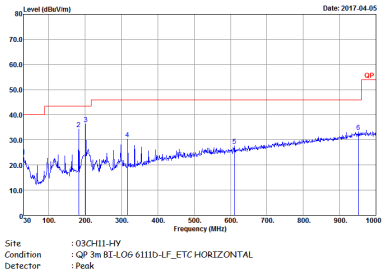
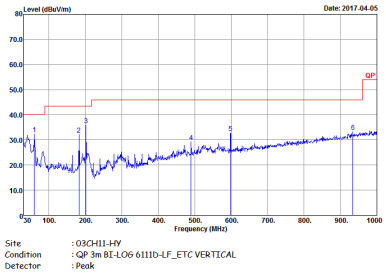
Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

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

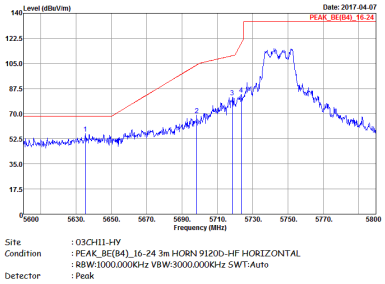
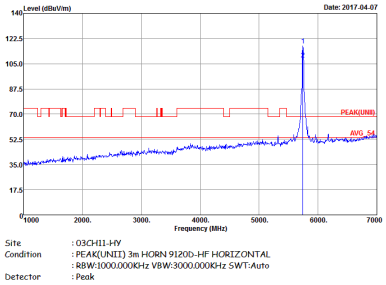
Emission below 1GHz

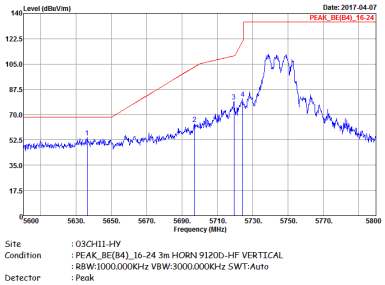
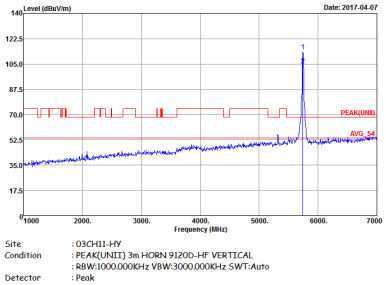
5GHz WIFI 802.11ac VHT80 (LF)

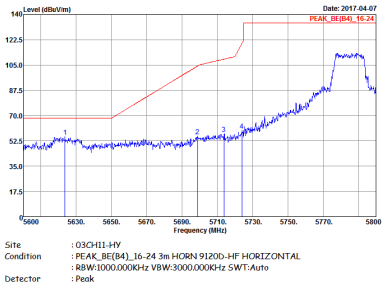
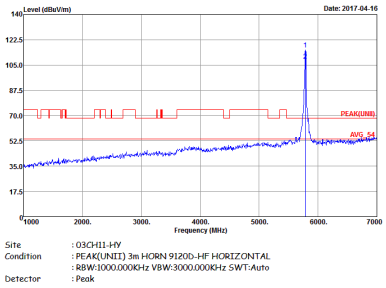
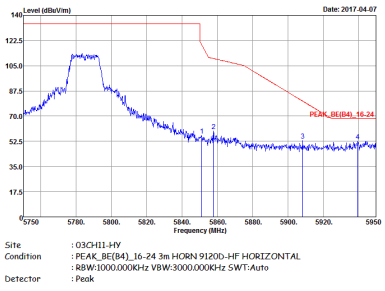
WIFI	5GHz 5725~5850MHz	
ANT	802.11ac VHT80 LF	
2	Horizontal	Vertical
QP / Peak		

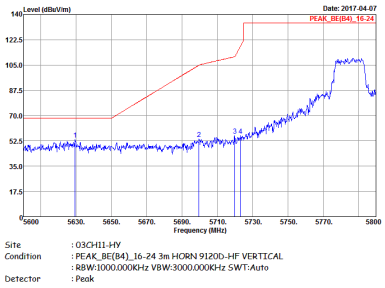
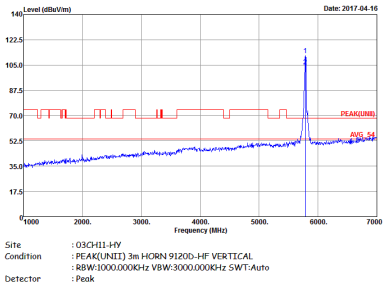
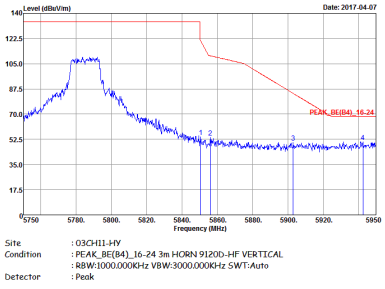
Band 4 - 5725~5850MHz

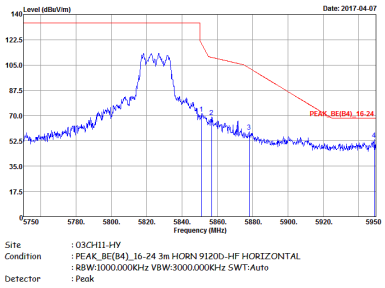
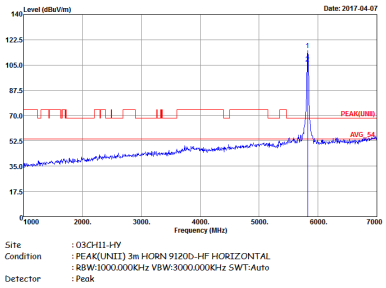
WIFI 802.11a (Band Edge @ 3m)

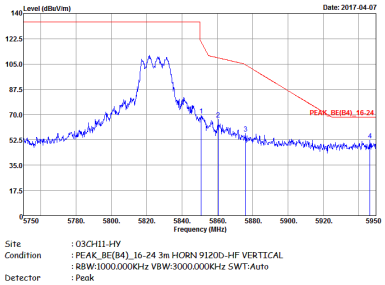
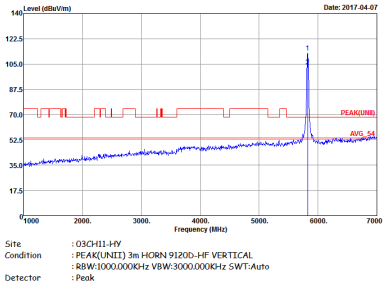
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
1+2	Horizontal	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak

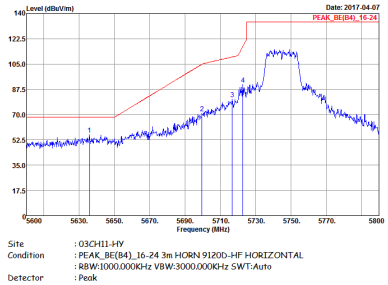
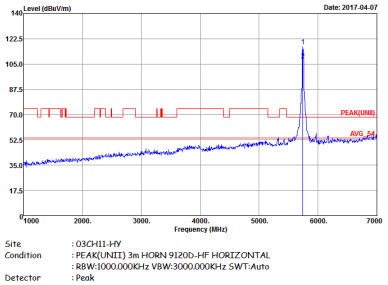
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

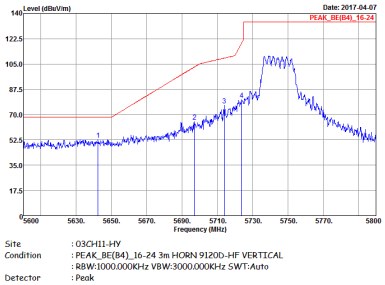
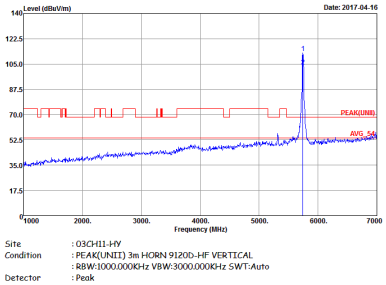
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
1+2	Vertical	Fundamental
Peak		
Peak		Left blank

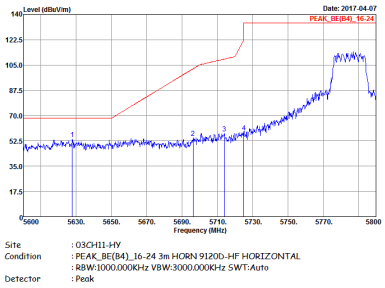
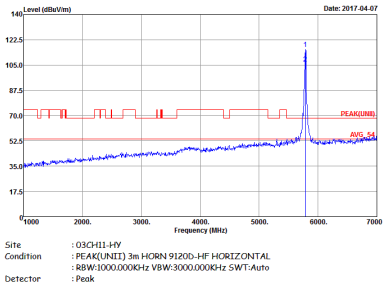
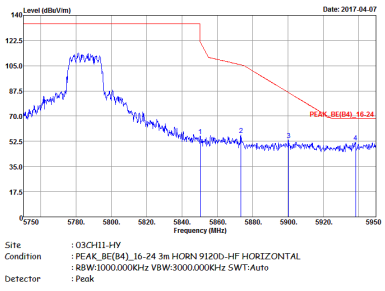
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
1+2	Horizontal	Fundamental
Peak		

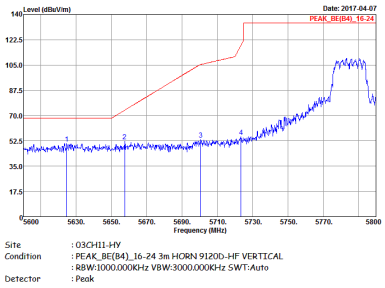
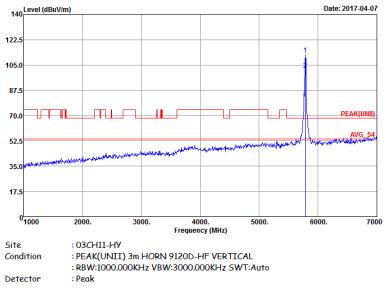
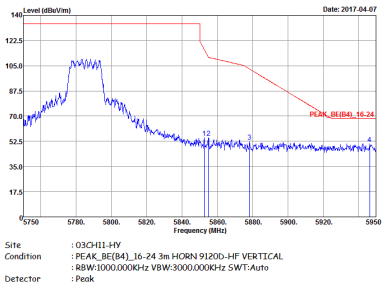
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
1+2	Vertical	Fundamental
Peak		

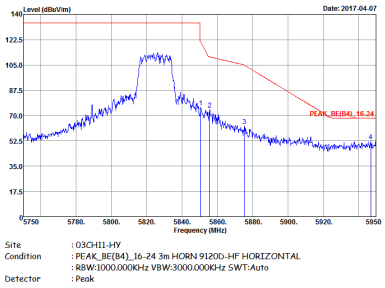
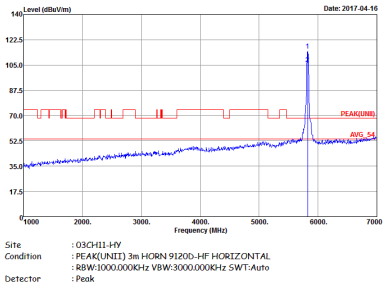
Band 4 5725~5850MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

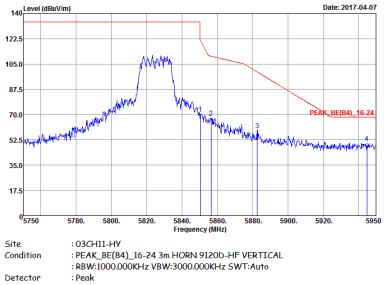
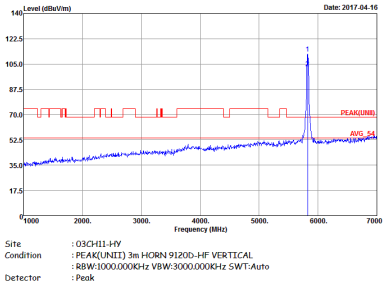
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
1+2	Horizontal	Fundamental
Peak		

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

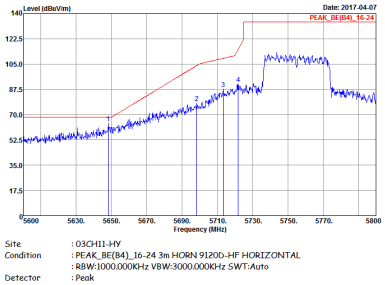
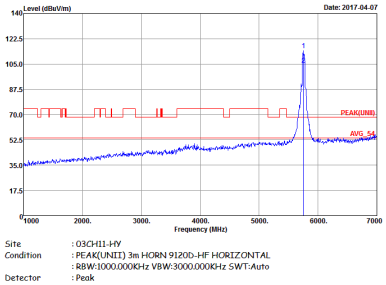
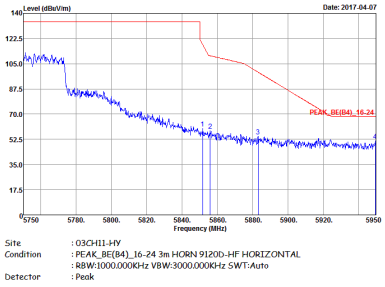
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

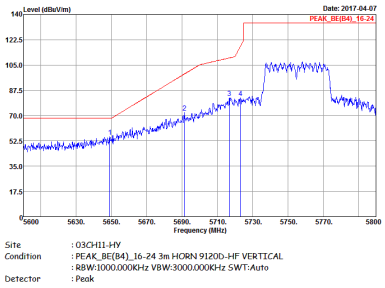
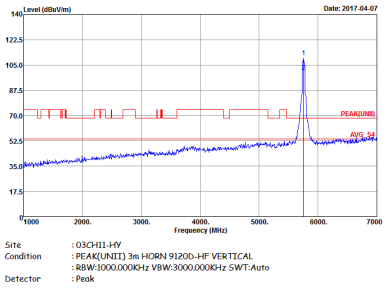
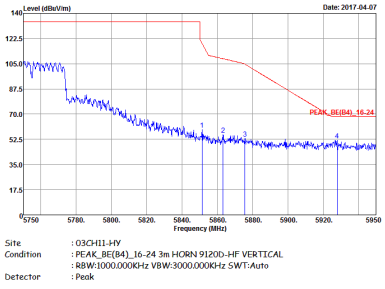
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
1+2	Vertical	Fundamental
Peak		
Peak		Left blank

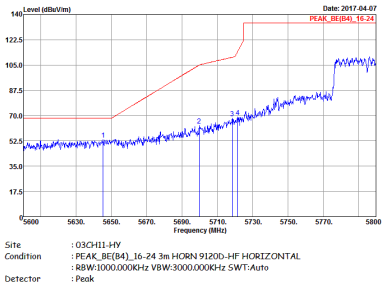
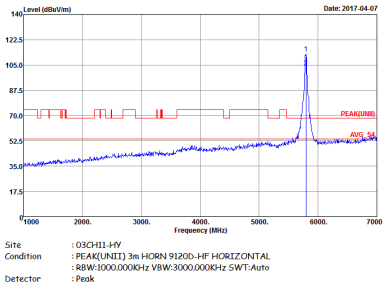
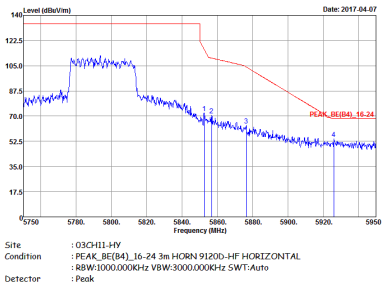
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
1+2	Horizontal	Fundamental
Peak		

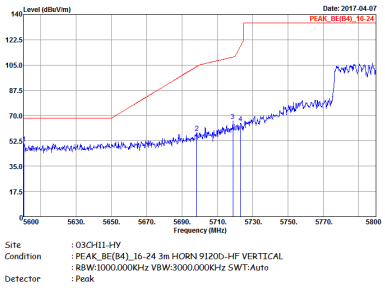
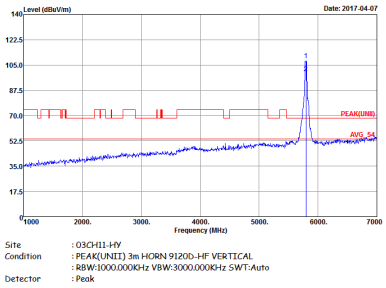
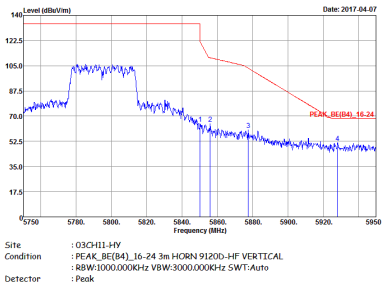
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
1+2	Vertical	Fundamental
Peak		

Band 4 5725~5850MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

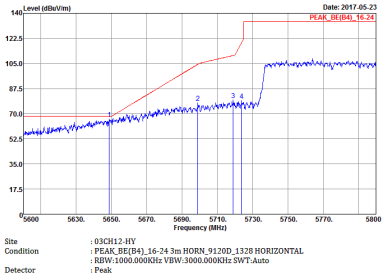
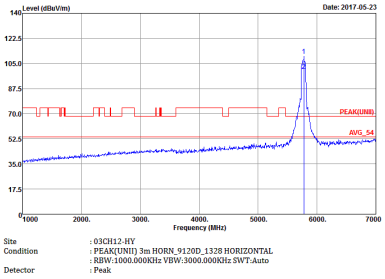
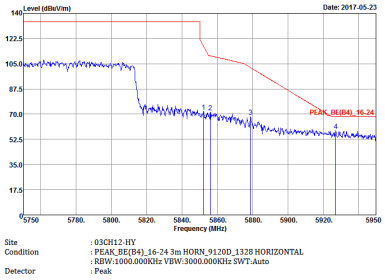
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

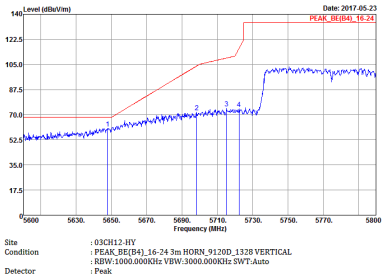
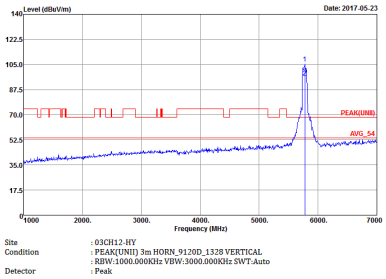
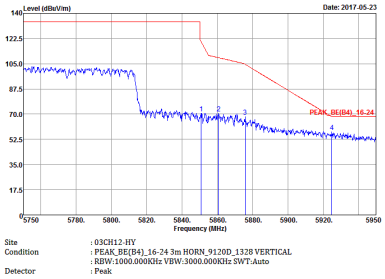
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
1+2	Vertical	Fundamental
Peak		
Peak		Left blank

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

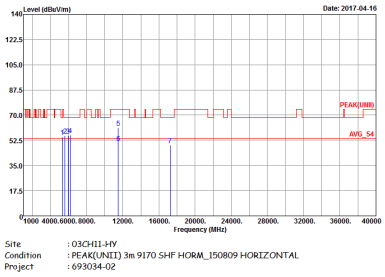
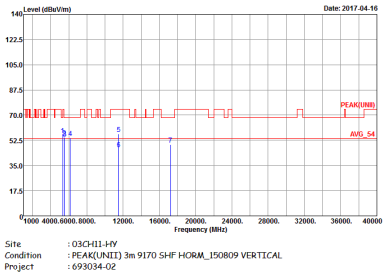
Band 4 5725~5850MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

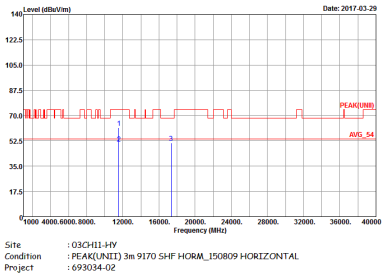
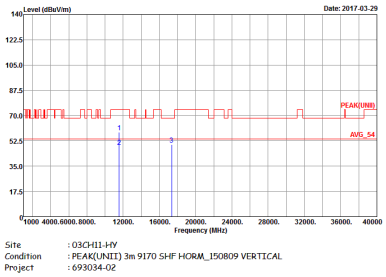
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

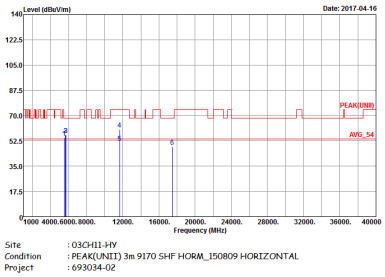
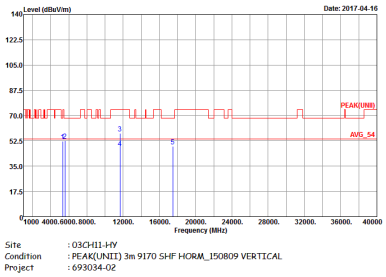
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Vertical	Fundamental
Peak		
Peak		Left blank

Band 4 - 5725~5850MHz

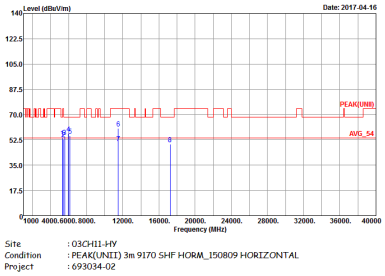
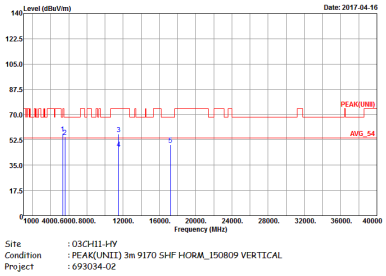
WIFI 802.11a (Harmonic @ 3m)

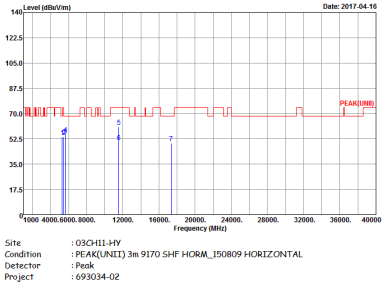
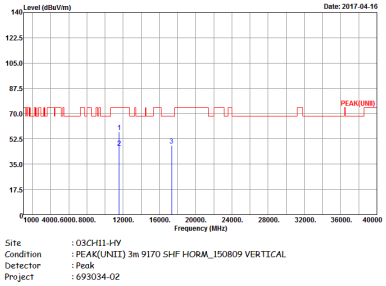
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH149 5745MHz	
1+2	Horizontal	Vertical
Peak Avg.		

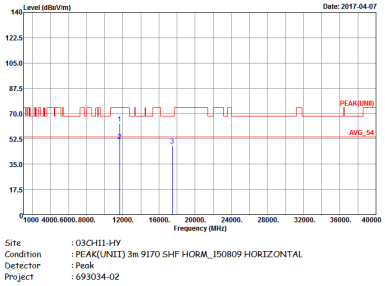
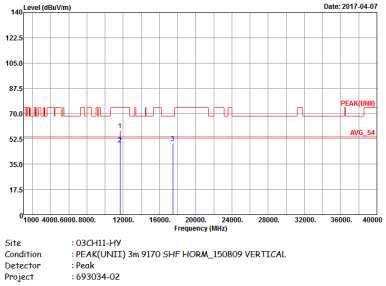
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
1+2	Horizontal	Vertical
Peak Avg.		

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

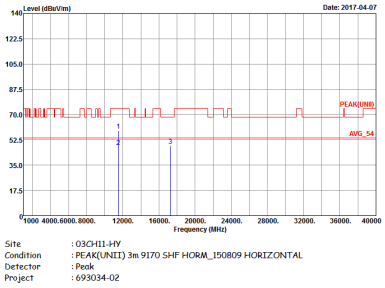
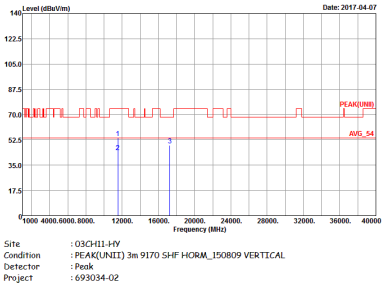
Band 4 5725~5850MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

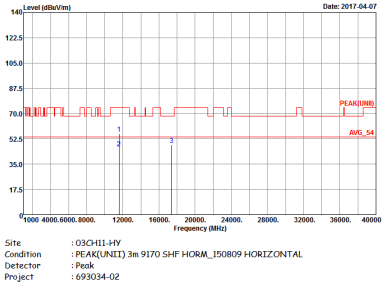
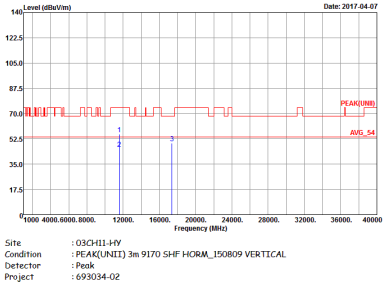
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
1+2	Horizontal	Vertical
Peak Avg.		

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.		

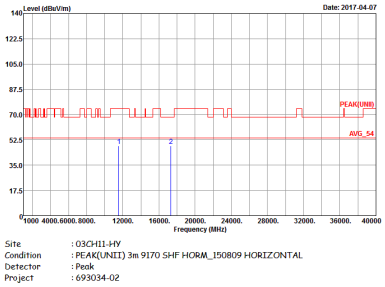
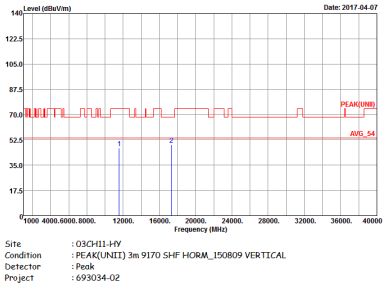
Band 4 5725~5850MHz
WIFI 802.11n HT40 (Harmonic @ 3m)

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.		

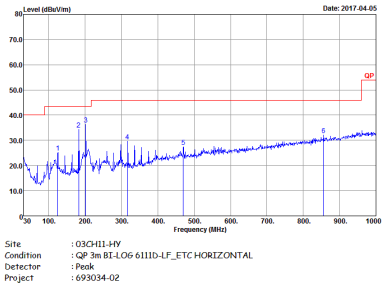
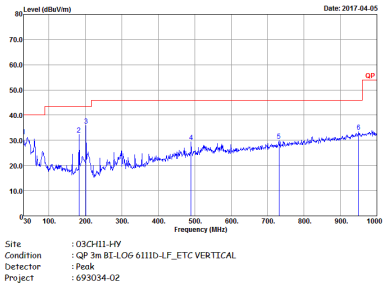
Band 4 5725~5850MHz

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)

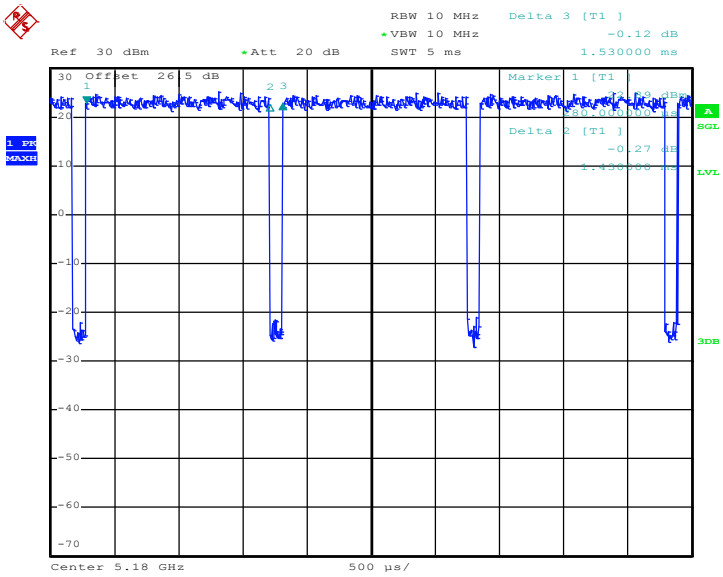
WIFI	5GHz 5725~5850MHz	
ANT	802.11ac VHT80 LF	
1+2	Horizontal	Vertical
QP / Peak		

Appendix E. Duty Cycle Plots

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
1	802.11a	93.464	1430	0.70	1kHz
1	5GHz 802.11n HT20	92.414	1340	0.75	1kHz
1	5GHz 802.11n HT40	87.013	670	1.49	3kHz
1	5GHz 802.11ac VHT80	75.926	328	3.05	10kHz
2	802.11a	92.857	1430	0.70	1kHz
2	5GHz 802.11n HT20	93.056	1340	0.75	1kHz
2	5GHz 802.11n HT40	87.013	670	1.49	3kHz
2	5GHz 802.11ac VHT80	75.926	328	3.05	10kHz
1+2	5GHz 802.11a for Ant 1	92.857	1430	0.70	1kHz
1+2	5GHz 802.11a for Ant 2	92.857	1430	0.70	1kHz
1+2	5GHz 802.11n HT20 for Ant 1	93.056	1340	0.75	1kHz
1+2	5GHz 802.11n HT20 for Ant 2	92.414	1340	0.75	1kHz
1+2	5GHz 802.11n HT40 for Ant 1	85.714	660	1.52	3kHz
1+2	5GHz 802.11n HT40 for Ant 2	85.714	660	1.52	3kHz
1+2	5GHz 802.11ac VHT80 for Ant 1	75.926	328	3.05	10kHz
1+2	5GHz 802.11ac VHT80 for Ant 2	75.926	328	3.05	10kHz

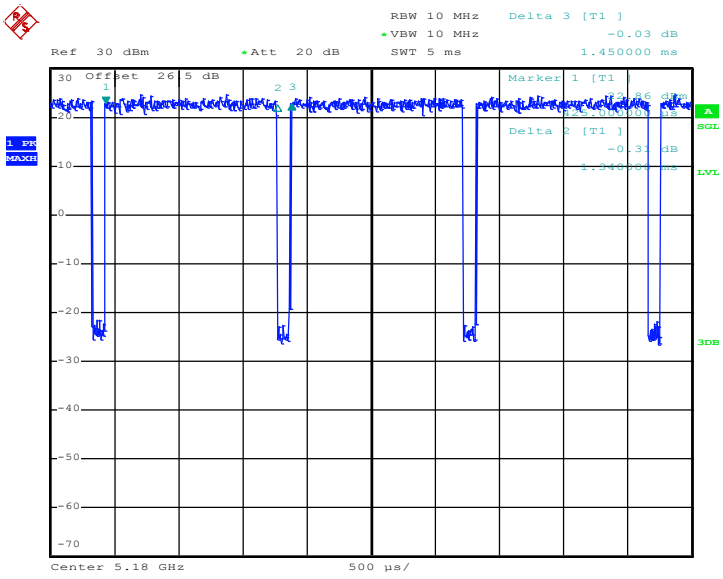
<Ant. 1>

802.11a



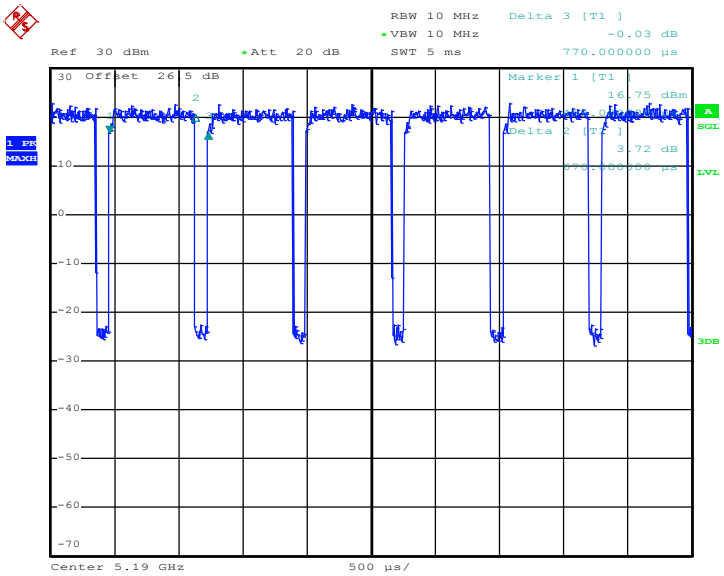
Date: 28.MAR.2017 00:59:55

802.11n HT20



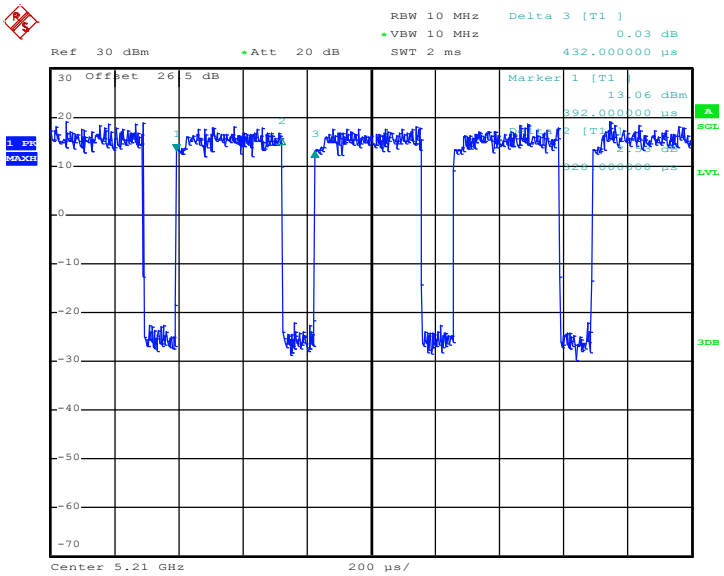
Date: 28.MAR.2017 01:06:07

802.11n HT40



Date: 28.MAR.2017 01:09:24

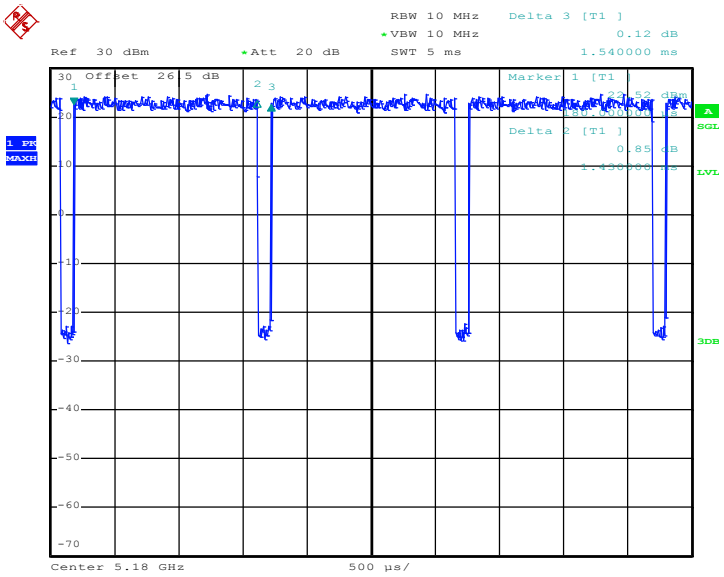
802.11ac VHT80



Date: 28.MAR.2017 01:22:02

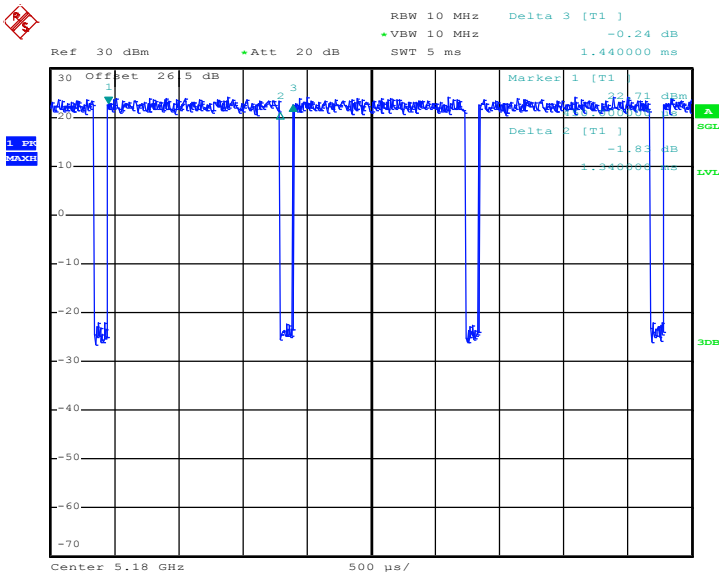
<Ant. 2>

802.11a



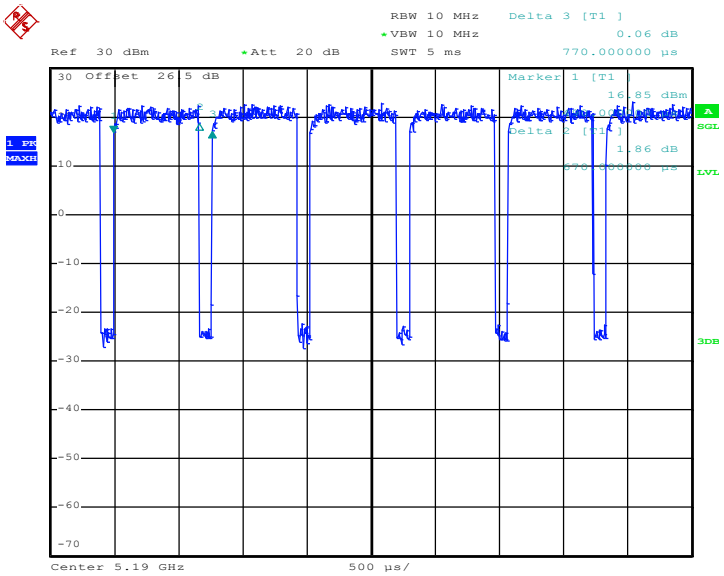
Date: 28.MAR.2017 01:00:32

802.11n HT20



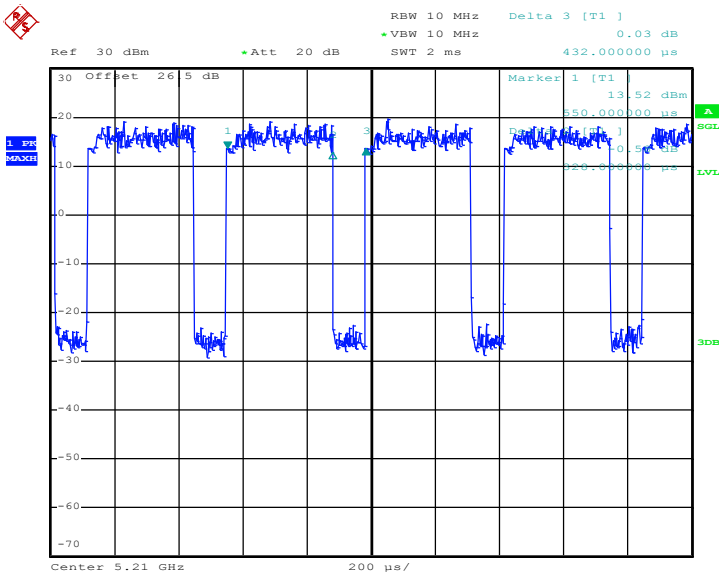
Date: 28.MAR.2017 01:06:40

802.11n HT40



Date: 28.MAR.2017 01:09:58

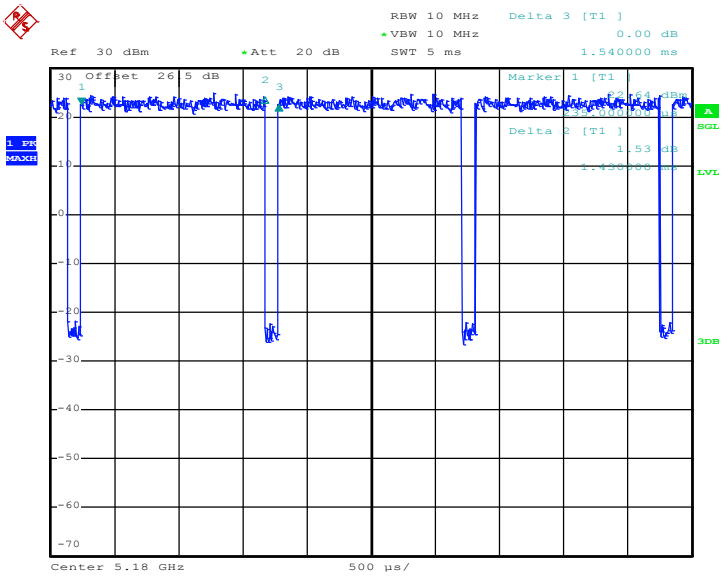
802.11ac VHT80



Date: 28.MAR.2017 01:22:36

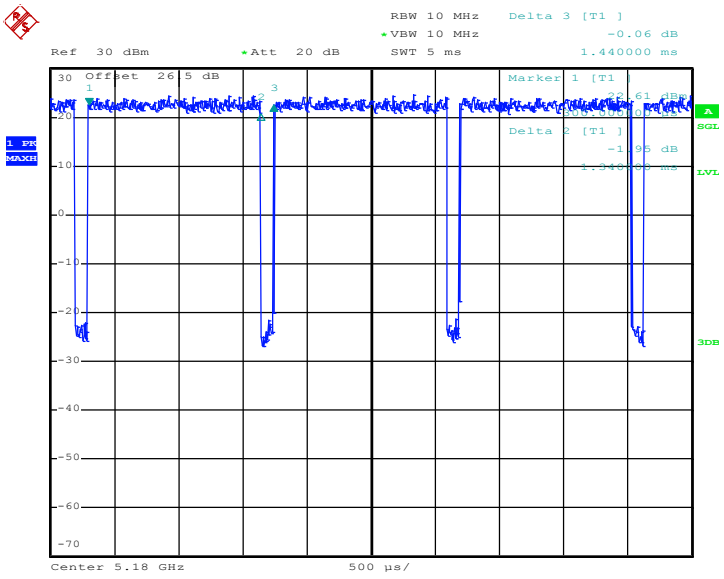
MIMO <Ant. 1>

802.11a



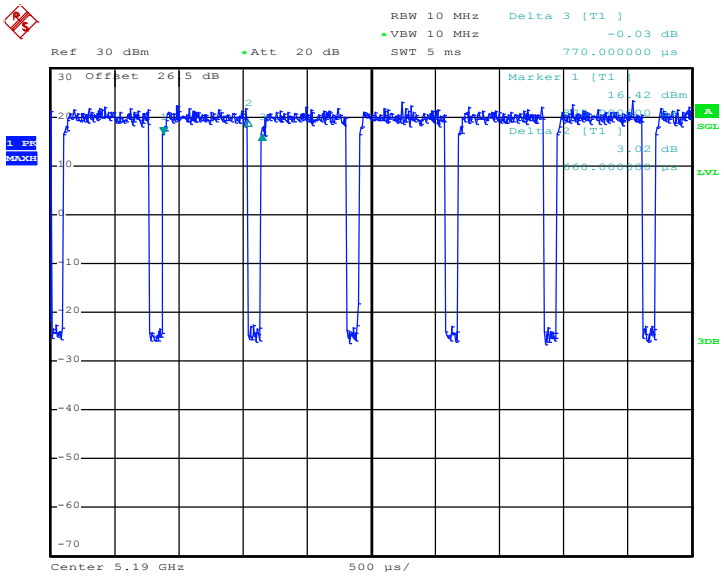
Date: 28.MAR.2017 01:02:03

802.11n HT20



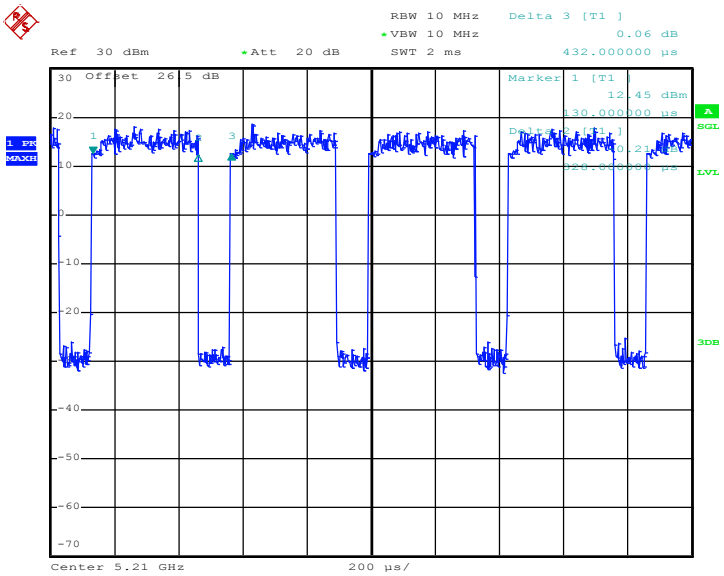
Date: 28.MAR.2017 01:07:18

802.11n HT40



Date: 28.MAR.2017 01:10:28

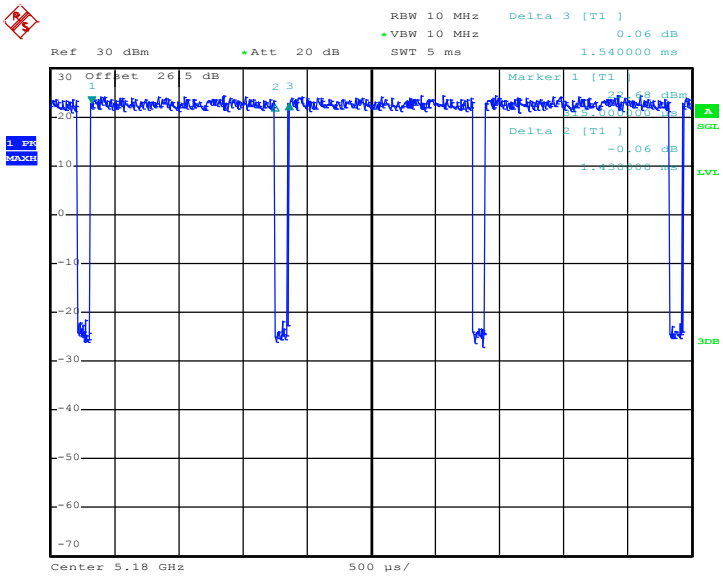
802.11ac VHT80



Date: 28.MAR.2017 21:44:45

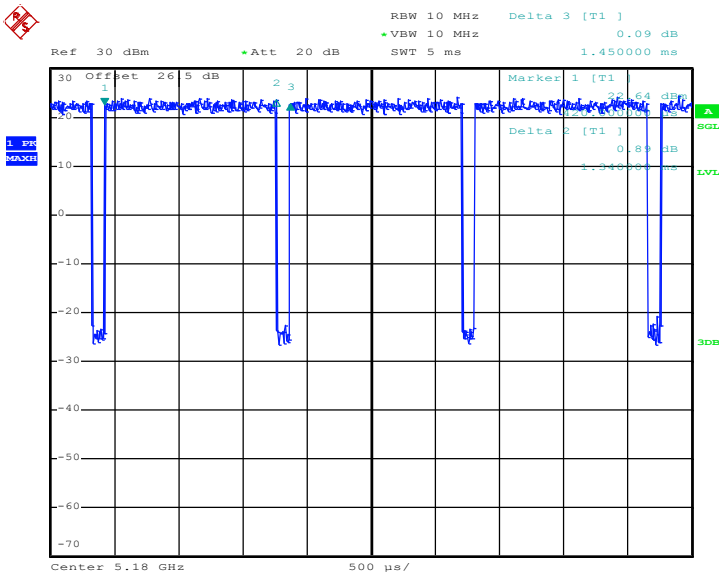
MIMO <Ant. 2>

802.11a



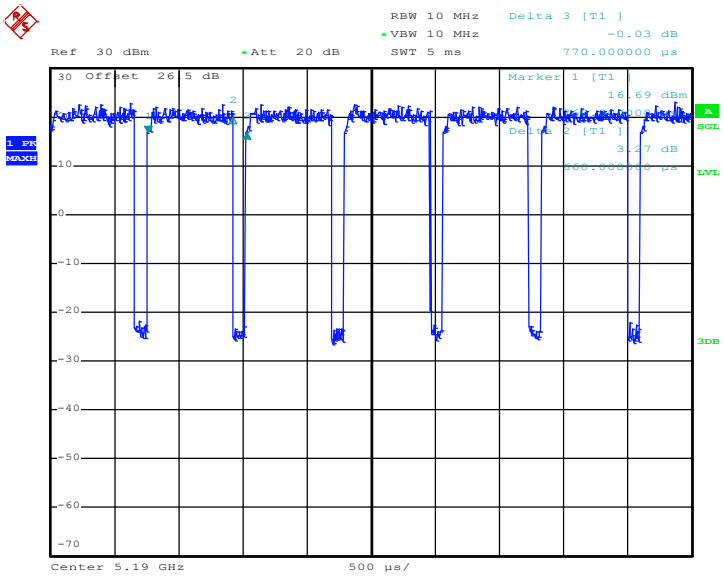
Date: 28.MAR.2017 01:02:39

802.11n HT20



Date: 28.MAR.2017 01:07:45

802.11n HT40



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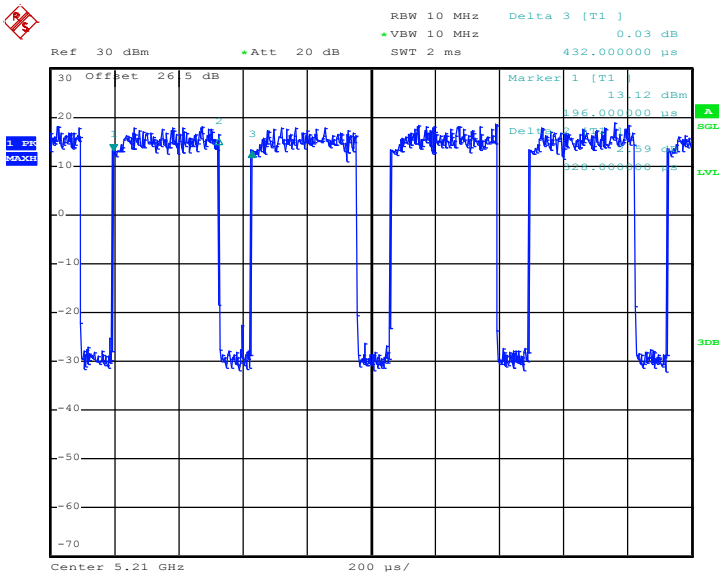
802.11ac VHT80



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