FCC RADIO TEST REPORT

FCC ID	:	**2AP67-5926**
Equipment	:	**Digital Media Receiver**
Model name	:	**K9Y29E**
Applicant	:	**Onaka LLC** **1915 NE Stucki Ave., Ste 400** **Beaverton, OR 97006**
Standard	:	**FCC Part 15 Subpart E §15.407**

The test was completed on Oct. 26, 2018. 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 report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

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

Approved by: Joseph Lin

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

Table of Contents

History of this test report **3**
Summary of Test Result **4**
1 General Description **5**
1.1 Product Feature of Equipment Under Test 5
1.2 Product Specification of Equipment Under Test 5
1.3 Modification of EUT 6
1.4 Testing Location 7
1.5 Applicable Standards 7
2 Test Configuration of Equipment Under Test **8**
2.1 Carrier Frequency and Channel 8
2.2 Test Mode 9
2.3 Connection Diagram of Test System 10
2.4 Support Unit used in test configuration and system 11
2.5 EUT Operation Test Setup 11
2.6 Measurement Results Explanation Example 11
3 Test Result **12**
3.1 6dB and 26dB and 99% Occupied Bandwidth Measurement 12
3.2 Maximum Conducted Output Power Measurement 16
3.3 Power Spectral Density Measurement 18
3.4 Unwanted Emissions Measurement 22
3.5 AC Conducted Emission Measurement 27
3.6 Automatically Discontinue Transmission 29
3.7 Antenna Requirements 31
4 List of Measuring Equipment **33**
5 Uncertainty of Evaluation **35**
Appendix A. Conducted Test Results
Appendix B. AC Conducted Emission Test Result
Appendix C. Radiated Spurious Emission
Appendix D. Radiated Spurious Emission Plots
Appendix E. Duty Cycle Plots

History of this test report

Report No.	Version	Description	Issued Date
FR842410-01E	01	Initial issue of report	Nov. 01, 2018
FR842410-01E	02	Add description of worst case in section 2 on page 8	Nov. 07, 2018

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)
3.1	15.403 (i)	6dB & 26dB Bandwidth	Pass
3.1	2.1049	99% Occupied Bandwidth	Reporting only
3.2	15.407 (a)	Maximum Conducted Output Power	Pass
3.3	15.407 (a)	Power Spectral Density	Pass
3.4	15.407(b)	Unwanted Emissions	Pass
3.5	15.207	AC Conducted Emission	Pass
3.6	15.407 (c)	Automatically Discontinue Transmission	Pass
3.7	15.203 & 15.407 (a)	Antenna Requirement	Pass

Reviewed by: Wii Chang

Report Producer: Yimin Ho

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Digital Media Receiver
Model Name	K9Y29E
FCC ID	2AP67-5926
EUT supports Radios application	WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE

1.2 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Channel Frequency Range	5745 MHz ~ 5825 MHz
Maximum Output Power to Antenna <CDD Modes>	**<Ant. 1>** 802.11a : 20.07 dBm / 0.1016 W 802.11n HT20 : 18.99 dBm / 0.0793 W 802.11n HT40 : 19.28 dBm / 0.0847 W 802.11ac VHT20: 18.98 dBm / 0.0791 W 802.11ac VHT40: 19.24 dBm / 0.0839 W 802.11ac VHT80: 18.48 dBm / 0.0705 W **<Ant. 2>** 802.11a : 20.13 dBm / 0.1030 W 802.11n HT20 : 19.15 dBm / 0.0822 W 802.11n HT40 : 19.19 dBm / 0.0830 W 802.11ac VHT20: 19.10 dBm / 0.0813 W 802.11ac VHT40: 19.18 dBm / 0.0828 W 802.11ac VHT80: 18.27 dBm / 0.0671 W **MIMO <Ant. 1 + 2>** 802.11a : 23.33 dBm / 0.2153 W 802.11n HT20 : 22.43 dBm / 0.1750 W 802.11n HT40 : 22.45 dBm / 0.1758 W 802.11ac VHT20: 22.42 dBm / 0.1746 W 802.11ac VHT40: 22.36 dBm / 0.1722 W 802.11ac VHT80: 20.35 dBm / 0.1084 W
Maximum Output Power <TXBF Modes>	**MIMO <Ant. 1 + 2>** 802.11ac VHT20: 22.18 dBm / 0.1652 W 802.11ac VHT40: 22.19 dBm / 0.1656 W 802.11ac VHT80: 19.70 dBm / 0.0933 W

Standards-related Product Specification	
99% Occupied Bandwidth <CDD Modes>	**<Ant. 1>** 802.11a : 19.13 MHz 802.11n HT20 : 18.68 MHz 802.11n HT40 : 38.56 MHz 802.11ac VHT80 : 77.80 MHz **<Ant. 2>** 802.11a : 17.98 MHz 802.11n HT20 : 18.18 MHz 802.11n HT40 : 37.66 MHz 802.11ac VHT80 : 77.44 MHz **MIMO <Ant. 1>** 802.11a : 21.33 MHz 802.11n HT20 : 19.08 MHz 802.11n HT40 : 39.26 MHz 802.11ac VHT80 : 77.44 MHz **MIMO <Ant. 2>** 802.11a : 18.48 MHz 802.11n HT20 : 18.43 MHz 802.11n HT40 : 37.76 MHz 802.11ac VHT80 : 76.84 MHz
99% Occupied Bandwidth <TXBF Modes>	**MIMO <Ant. 1>** 802.11ac VHT20 : 18.50 MHz 802.11ac VHT40 : 37.60 MHz 802.11ac VHT80 : 77.40 MHz **MIMO <Ant. 2>** 802.11ac VHT20 : 16.80 MHz 802.11ac VHT40 : 37.00 MHz 802.11ac VHT80 : 77.40 MHz
Antenna Gain / Gain	**Ant. 1 :** PCB Printed Inverted-F Antenna type with gain 3.91 dBi **Ant. 2 :** FPC Inverted-F Antenna type with gain 1.07 dBi
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)
Antenna Function Description	

	Ant. 1	Ant. 2
802.11 a/n/ac	V	V
802.11 a/n/ac MIMO	V	V
802.11ac TXBF	V	V

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

1.3 Modification of EUT

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

1.4 Testing Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW1190 and 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, Huaya 1st Rd., Guishan Dist., Taoyuan 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	DFS02-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.**
	03CH13-HY

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

1.5 Applicable Standards

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

- FCC Part 15 Subpart E
- FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- FCC KDB 414788 D01 Radiated Test Site v01r01.
- FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ANSI C63.10-2013

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

2 Test Configuration of Equipment Under Test

a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in two configurations, with accessories and without accessories. The worst case (without accessories) was 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 modes are considering the modulation and worse data rates as below table.

Single Mode

Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0
802.11ac VHT20 (Covered by HT20)	MCS0
802.11ac VHT40 (Covered by HT40)	MCS0
802.11ac VHT80	MCS0

MIMO Mode

Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0
802.11ac VHT20 (Covered by HT20)	MCS0
802.11ac VHT40 (Covered by HT40)	MCS0
802.11ac VHT80	MCS0

TXBF Mode

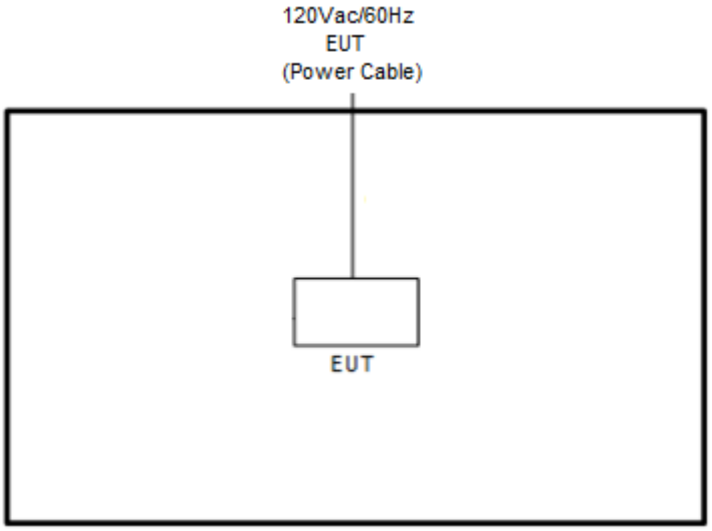
Modulation	Data Rate
802.11ac VHT20	MCS0
802.11ac VHT40	MCS0
802.11ac VHT80	MCS0

Test Cases	
AC Conducted Emission	Mode 1 : WLAN (5GHz) Link + Bluetooth Link with Bluetooth Speaker + DVD player connect Coaxial IN port + 600 ohm load connect Line IN port + 75 ohm load connect Coaxial OUT port + 600 ohm load connect Subwoofer OUT port + 600 ohm load connect Line OUT port + 8 ohm load connect Left channel OUT port + 8 ohm load connect Right channel OUT port + MP3 from Coaxial IN port + Power cable

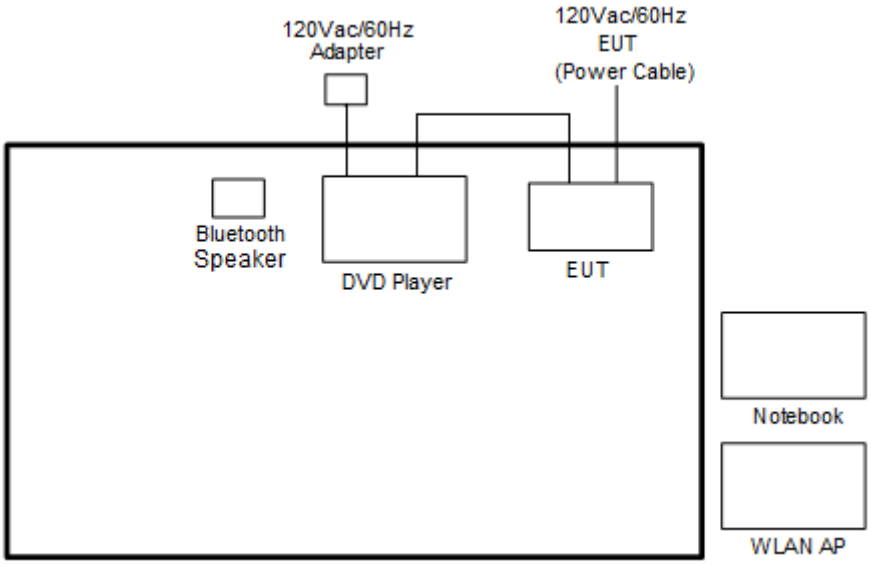
Ch. #		Band IV：5725-5850 MHz			
		802.11a	802.11n HT20	802.11n HT40	802.11ac VHT80
L	Low	149	149	151	-
M	Middle	157	157	-	155
H	High	165	165	159	-

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.	Bluetooth Speaker	Jambox	Mini Jambox	FCC DoC	N/A	N/A
2.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8 m
3.	DVD Player	Sony	BDP-S370	FCC DoC	Unshielded, 1.2 m	N/A
4.	Notebook	DELL	Latitude E5570	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m

2.5 EUT Operation Test Setup

The RF test items, utility “CMD” was installed in Notebook which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting 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.

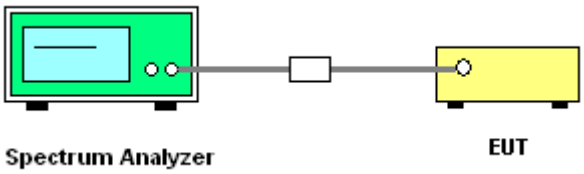
3.1.2 Measuring Instruments

See list of measuring equipment of this test report.

3.1.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section C) Emission bandwidth 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

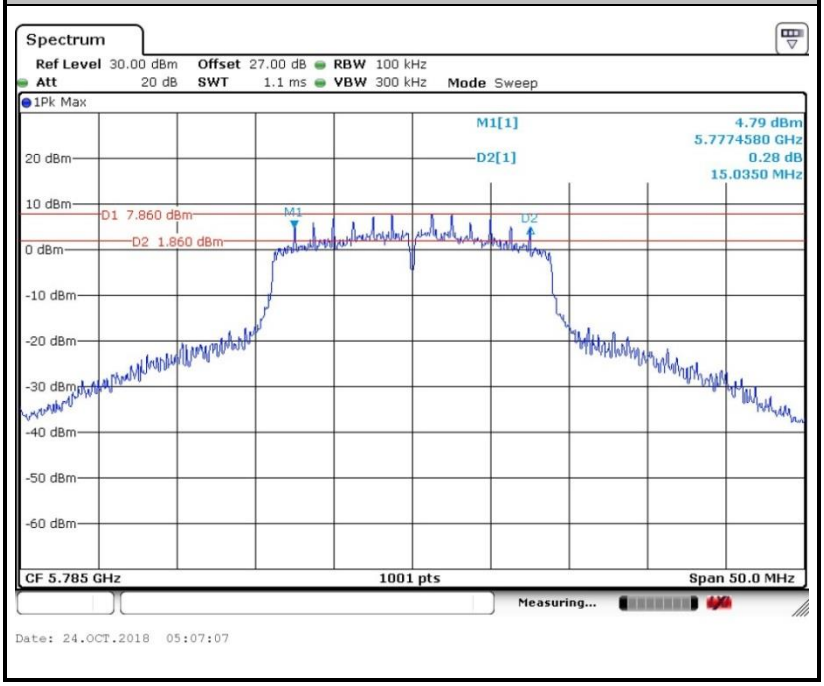


3.1.5 Test Result of 6dB Bandwidth

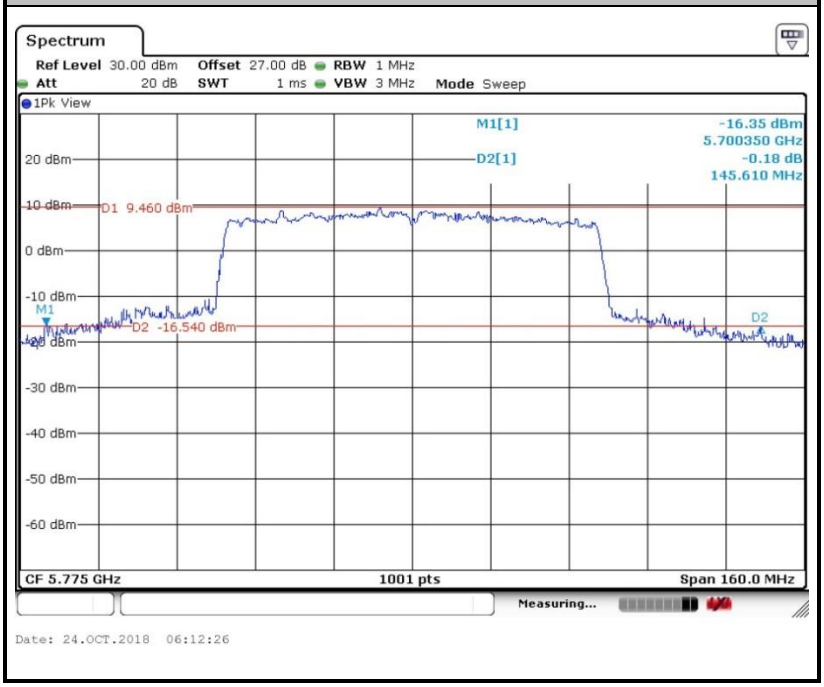
Please refer to Appendix A.

<CDD Mode>

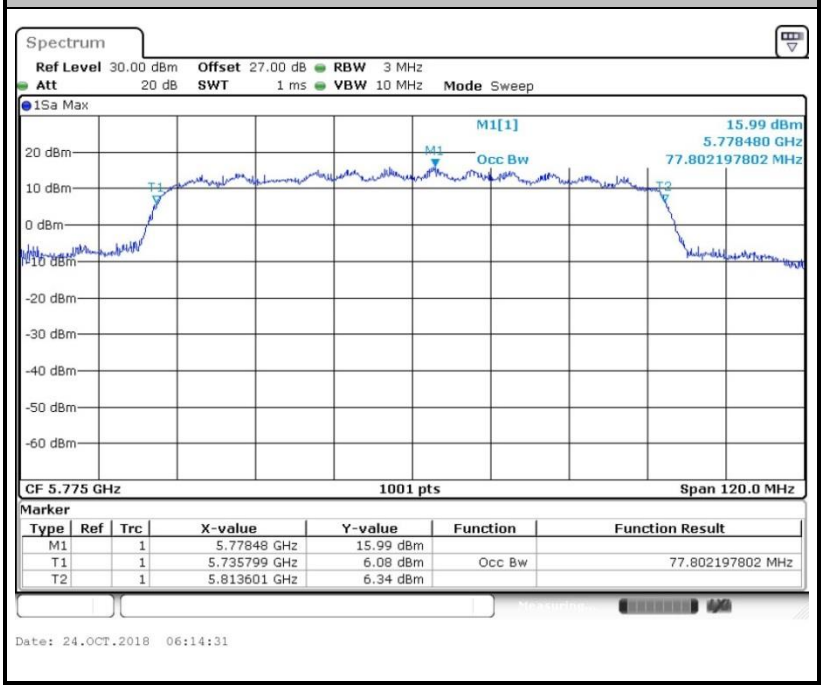
Minimum 6dB Bandwidth



Maximum 26dB Bandwidth



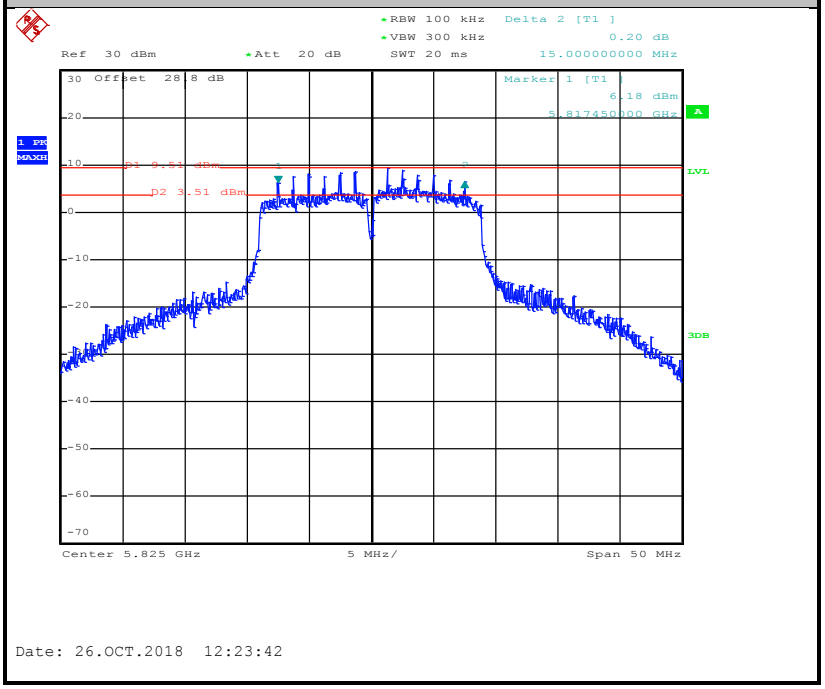
Maximum 99% Occupied Bandwidth



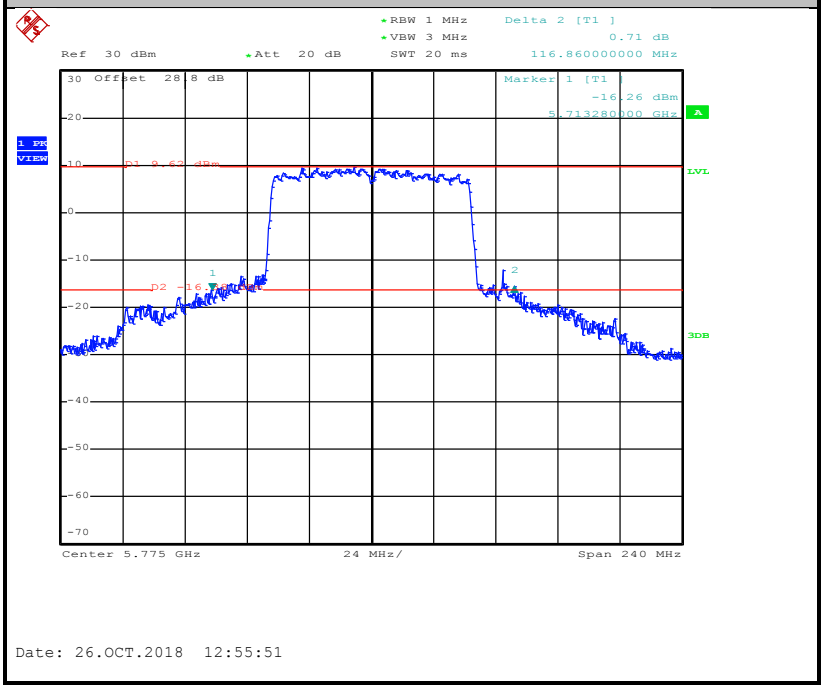
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<TXBF Modes>

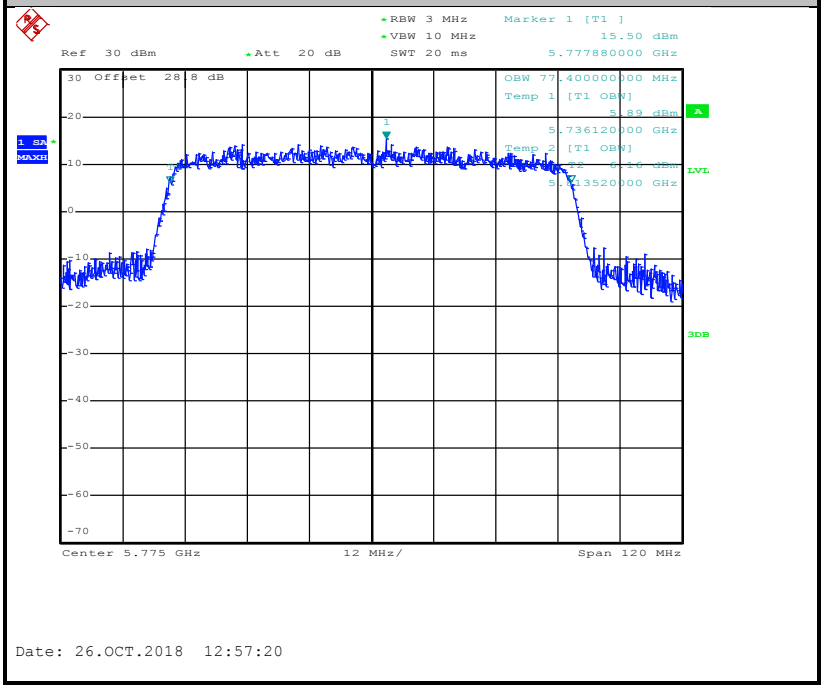
Minimum 6dB Bandwidth



Maximum 26dB Bandwidth



Maximum 99% Occupied Bandwidth



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

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

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

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

3.2.2 Measuring Instruments

See list of measuring equipment of this test report.

3.2.3 Test Procedures

<CDD Modes>

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

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

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

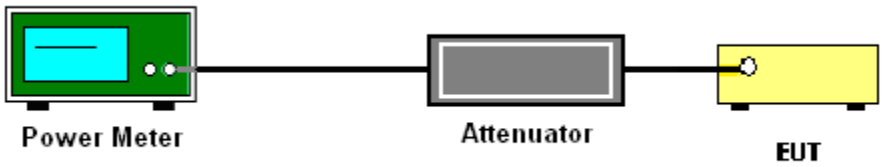
<TXBF Modes>

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

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

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

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

See list of measuring equipment of this test report.

3.3.3 Test Procedures

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

<CDD Modes>

 # Method SA-2 #

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

- Measure the duty cycle.
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 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.

<TXBF Modes>

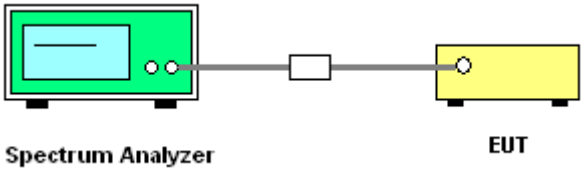
 # Method SA-3 #

(power averaging (rms) detection with max hold):

- 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 ≤ (number of points in sweep) × 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.
- Detector = power averaging (rms).
- Trace mode = max hold.
- Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.

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

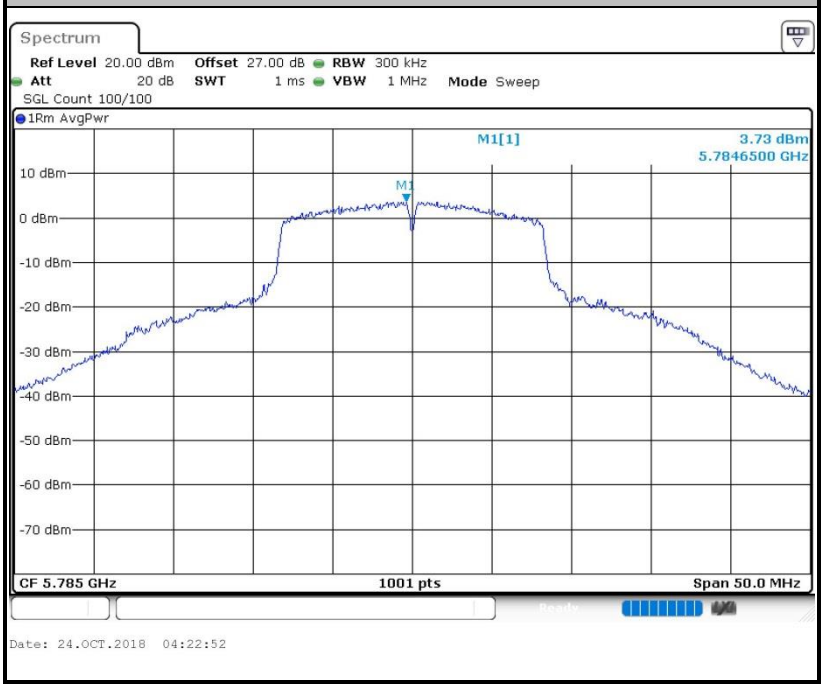


3.3.5 Test Result of Power Spectral Density

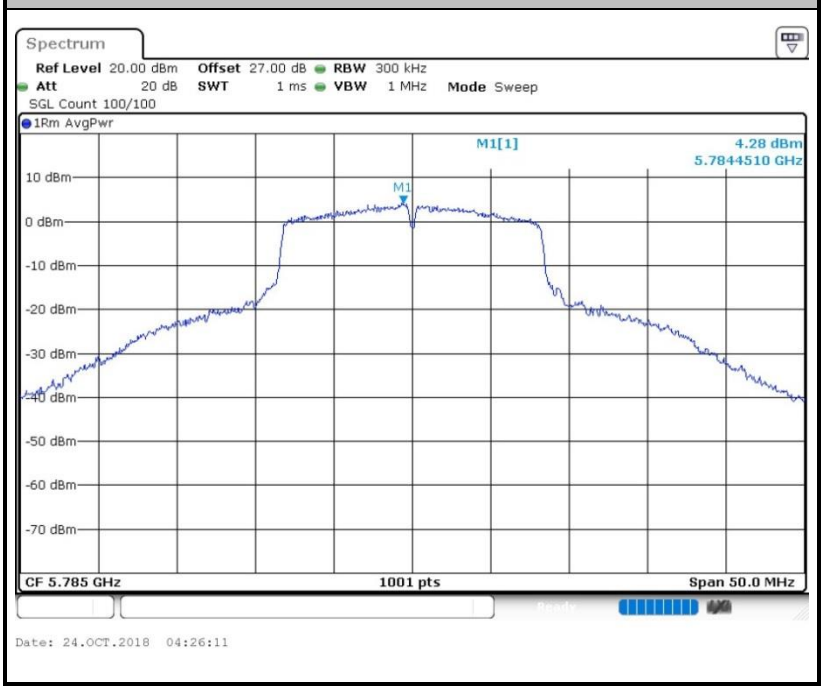
Please refer to Appendix A.

<CDD Modes>

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

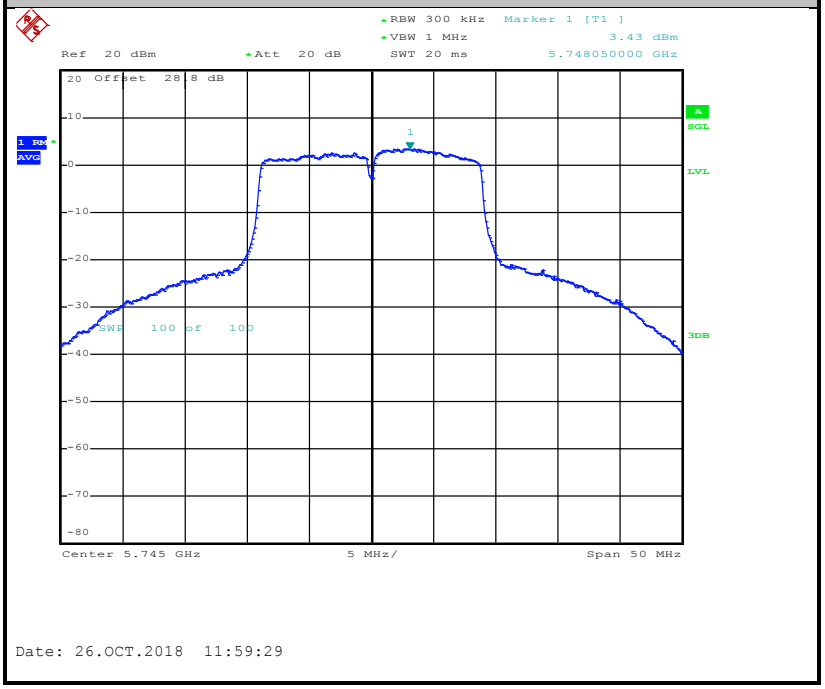


Worst Case Power Density (dBm/MHz) for MIMO Ant. 2

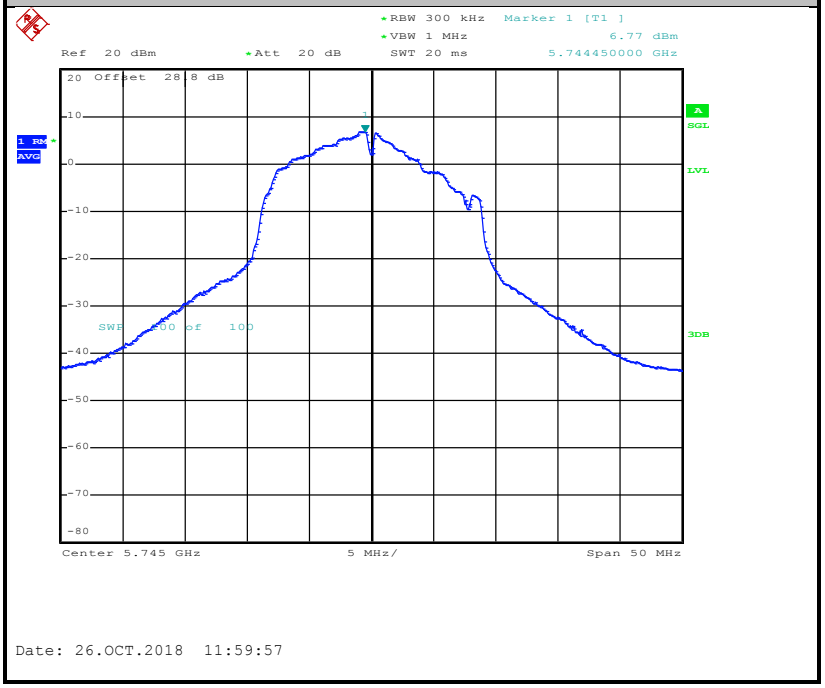


<TXBF Modes>

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



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



3.4 Unwanted Emissions Measurement

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

3.4.1 Limit of Unwanted Emissions

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

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

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

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

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

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

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

(3) KDB789033 D02 v02r01 G)2)c)

(i) Section 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

See list of measuring equipment of this test report.

3.4.3 Test Procedures

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

(1) Procedure for Unwanted Emissions Measurements Below 1000MHz

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

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

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

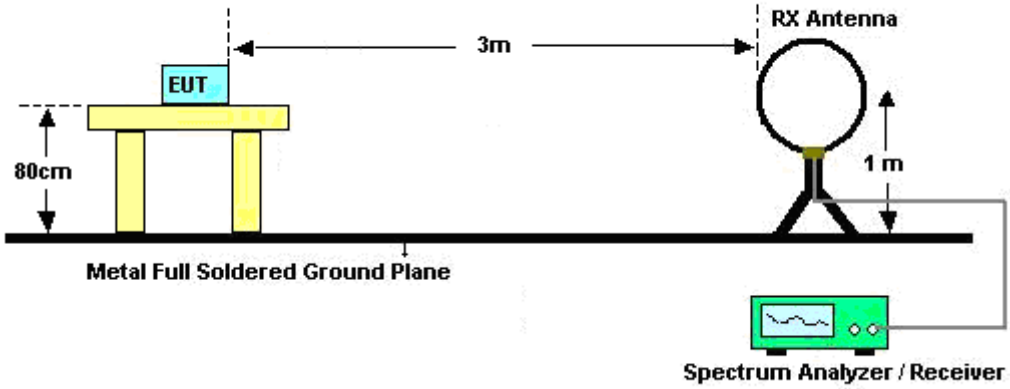
(3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

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

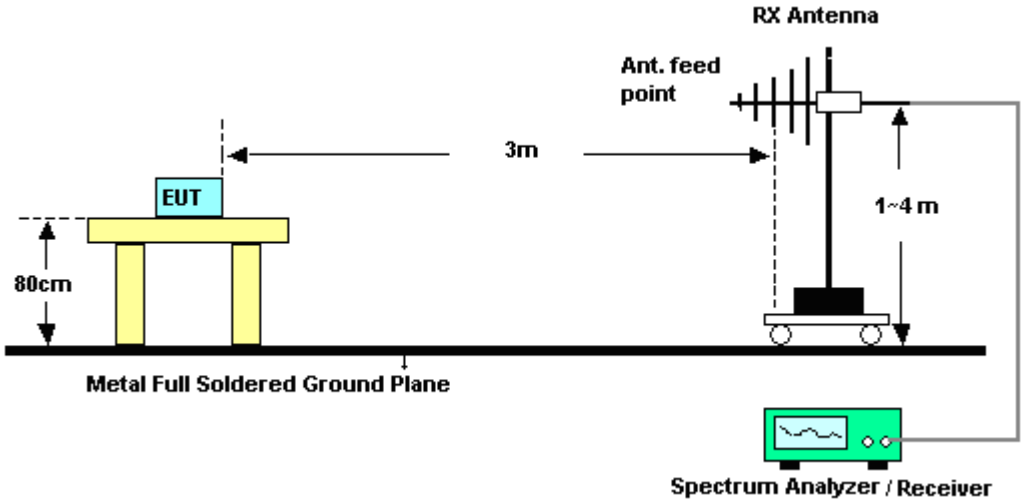
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband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

3.4.4 Test Setup

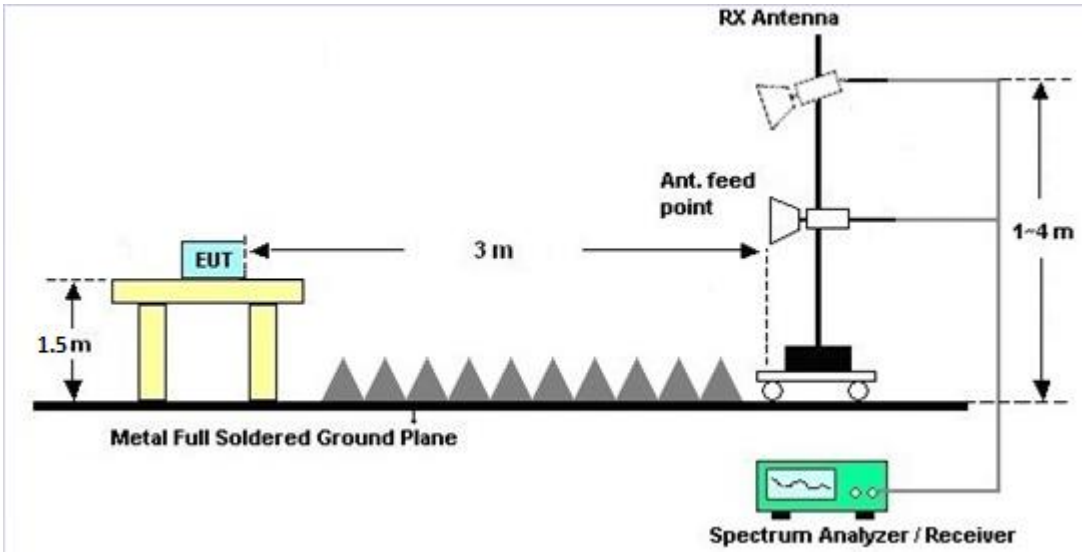
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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

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

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

3.4.6 Test Result of Radiated Band Edges

Please refer to Appendix C and D.

3.4.7 Duty Cycle

Please refer to Appendix E.

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

Please refer to Appendix C and D.

3.5 AC Conducted Emission Measurement

3.5.1 Limit of AC Conducted Emission

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

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

*Decreases with the logarithm of the frequency.

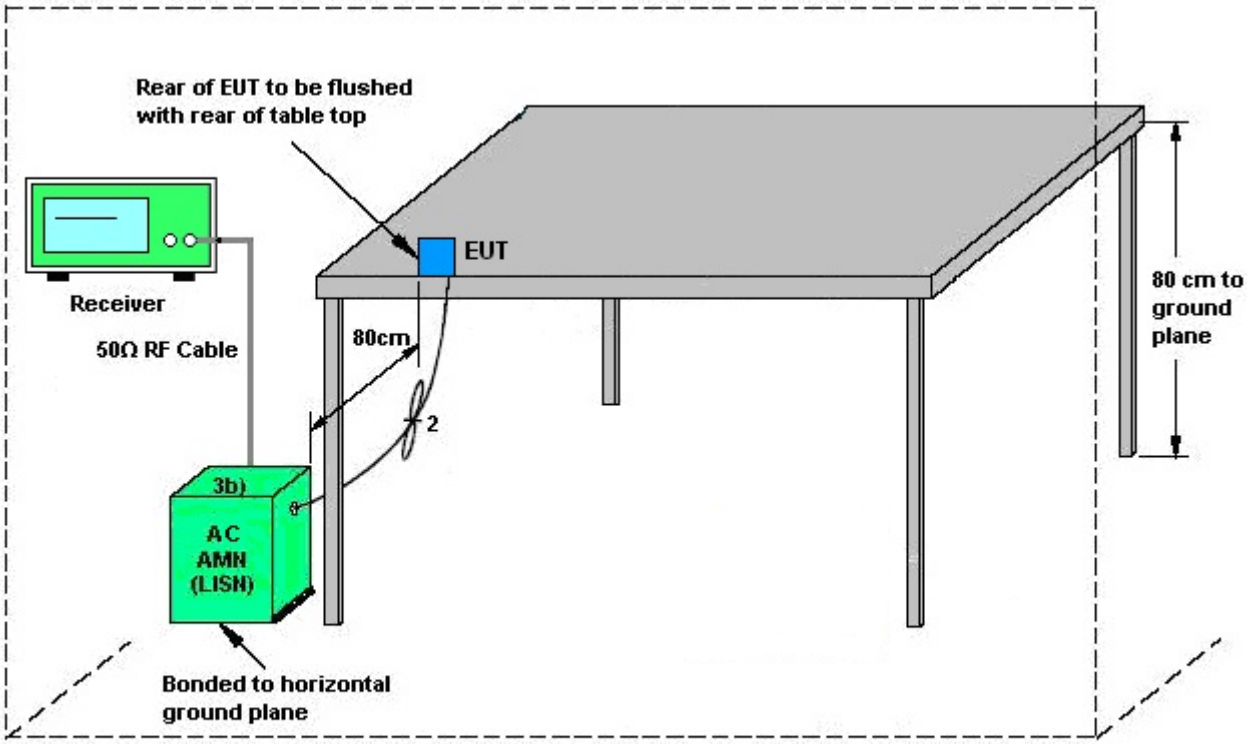
3.5.2 Measuring Instruments

See list of measuring equipment of this test report.

3.5.3 Test Procedures

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

3.5.4 Test Setup



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

3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.6 Automatically Discontinue Transmission

3.6.1 Limit of Automatically Discontinue Transmission

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

3.6.2 Measuring Instruments

See list of measuring equipment of this test report.

3.6.3 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.

3.7 Antenna Requirements

3.7.1 Standard Applicable

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

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 Antenna Gain

<CDD Modes >

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

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

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

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

For power measurements on IEEE 802.11 devices,

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

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

The EUT supports CDD mode.

For power, the directional gain 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.

<CDD Modes>

	Ant. 1 (dBi)	Ant. 2 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
Band IV	3.91	1.07	3.91	5.62	0.00	0.00

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

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

TXBF modes

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

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

where

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

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

N_{ANT} = the total number of antennas

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

G_k is the gain in dBi of the kth antenna.

The EUT supports beamforming for 802.11ac modes.

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

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

The directional gain "DG" is calculated as following table.

	Ant 1 (dBi)	Ant 2 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
Band IV	3.91	1.07	5.62	5.62	0.00	0.00

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

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

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Oct. 15, 2018	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9KHz~3.6GHz	Dec. 08, 2017	Oct. 15, 2018	Dec. 07, 2018	Conduction (CO05-HY)
ISN	TESEQ	ISN T8-Cat6	38909	N/A	Jan. 29, 2018	Oct. 15, 2018	Jan. 28, 2019	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 30, 2017	Oct. 15, 2018	Nov. 29, 2018	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Dec. 08, 2017	Oct. 15, 2018	Dec. 07, 2018	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Oct. 15, 2018	N/A	Conduction (CO05-HY)
LF Cable	HUBER + SUHNER	RG-214/U	LF01	N/A	Jan. 03, 2018	Oct. 15, 2018	Jan. 02, 2019	Conduction (CO05-HY)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100851	N/A	Jan. 03, 2018	Oct. 15, 2018	Jan. 02, 2019	Conduction (CO05-HY)
<CDD Mode>								
Power Meter	Anritsu	ML2495A	1132003	N/A	Aug. 16, 2018	Oct. 03, 2018 ~ Oct. 26, 2018	Aug. 15, 2019	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	1126017	300MHz~40GHz	Aug. 16, 2018	Oct. 03, 2018 ~ Oct. 26, 2018	Aug. 15, 2019	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP30	101067	9kHz ~ 30GHz	Nov. 13, 2017	Oct. 03, 2018 ~ Oct. 26, 2018	Nov. 12, 2018	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101397	10Hz~40GHz	Nov. 07, 2017	Oct. 03, 2018 ~ Oct. 26, 2018	Nov. 06, 2018	Conducted (TH05-HY)
<TXBF Mode>								
Power Meter	Anritsu	ML2495A	1132003	N/A	Aug. 16, 2018	Oct. 10, 2018 ~ Oct. 26, 2018	Aug. 15, 2019	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	1126017	300MHz~40GHz	Aug. 16, 2018	Oct. 10, 2018 ~ Oct. 26, 2018	Aug. 15, 2019	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP30	101067	9kHz ~ 30GHz	Nov. 13, 2017	Oct. 10, 2018 ~ Oct. 26, 2018	Nov. 12, 2018	Conducted (TH05-HY)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1241	1GHz ~ 18GHz	Jun. 29, 2018	Oct. 06, 2018 ~ Oct. 18, 2018	Jun. 28, 2019	Radiation (03CH13-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Nov. 10, 2017	Oct. 06, 2018 ~ Oct. 18, 2018	Nov. 09, 2018	Radiation (03CH13-HY)
Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz, VSWR : 2.5:1 max	Jul. 16, 2018	Oct. 06, 2018 ~ Oct. 18, 2018	Jul. 15, 2019	Radiation (03CH13-HY)
Filter	Wainwright	WLKS1200-8SS	SN3	1G Low pass Filter	Nov. 21, 2017	Oct. 06, 2018 ~ Oct. 18, 2018	Nov. 22, 2018	Radiation (03CH13-HY)
Filter	Wainwright	WHKX8-5872.5-6750-18000-40ST	SN4	6.75G High Pass	May 22, 2018	Oct. 06, 2018 ~ Oct. 18, 2018	May 21, 2019	Radiation (03CH13-HY)
Amplifier	Sonoma-Instrument	310 N	187282	9KHz~1GHz	Jan. 19, 2018	Oct. 06, 2018 ~ Oct. 18, 2018	Jan. 18, 2020	Radiation (03CH13-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800N1D01N-06	40103&07	30MHz to 1GHz	Jan. 10, 2018	Oct. 06, 2018 ~ Oct. 18, 2018	Jan. 09, 2019	Radiation (03CH13-HY)
Preamplifier	Jet-Power	JPA0118-55-303	1710001800054001	1GHz~18GHz	Apr. 16, 2018	Oct. 06, 2018 ~ Oct. 18, 2018	Apr. 15, 2019	Radiation (03CH13-HY)
Preamplifier	Keysight	83017A	MY53270147	1GHz~26.5GHz	Feb. 02, 2018	Oct. 06, 2018 ~ Oct. 18, 2018	Feb. 01, 2019	Radiation (03CH13-HY)
Spectrum Analyzer	Keysight	N9010A	MY55370526	10Hz~44GHz	Mar. 15, 2018	Oct. 06, 2018 ~ Oct. 18, 2018	Mar. 14, 2019	Radiation (03CH13-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Oct. 06, 2018 ~ Oct. 18, 2018	N/A	Radiation (03CH13-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Oct. 06, 2018 ~ Oct. 18, 2018	N/A	Radiation (03CH13-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 27, 2017	Oct. 06, 2018 ~ Oct. 18, 2018	Nov. 26, 2018	Radiation (03CH13-HY)
EMI Test Receiver	Agilent	N9038A (MXE)	MY53290053	20Hz to 26.5GHz	Jan. 16, 2018	Oct. 06, 2018 ~ Oct. 18, 2018	Jan. 15, 2019	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0030/126E	30M-18G	Jan. 22, 2018	Oct. 06, 2018 ~ Oct. 18, 2018	Jan. 21, 2019	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	335041/4	30M-18G	Jan. 22, 2018	Oct. 06, 2018 ~ Oct. 18, 2018	Jan. 21, 2019	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY24961/4	30M~18GHz	Jan. 22, 2018	Oct. 06, 2018 ~ Oct. 18, 2018	Jan. 21, 2019	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2859/2	30M~40GHz	Mar. 14, 2018	Oct. 06, 2018 ~ Oct. 18, 2018	Mar. 13, 2019	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY4274/2	30M~40GHz	Mar. 14, 2018	Oct. 06, 2018 ~ Oct. 18, 2018	Mar. 13, 2019	Radiation (03CH13-HY)
Software	AUDIX	E3 6.2009-8-24c	RK-001124	N/A	N/A	Oct. 06, 2018 ~ Oct. 18, 2018	N/A	Radiation (03CH13-HY)
Spectrum Analyzer	Keysight	N9010A	MY57120184	10Hz~7GHz	Nov. 08 ,2017	Oct. 11, 2018	Nov. 07, 2018	DFS (DFS02-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.2

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.9

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.4

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.3

Appendix A. Test Result of Conducted Test Items

<CDD Mode>

Test Engineer:	Richard / Luffy Lin	Temperature:	21~25	°C
Test Date:	2018/10/3 ~ 2018/10/26	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		
11a	6Mbps	1	149	5745	18.93	17.83	38.06	35.11	15.13	15.13	0.5	Pass
11a	6Mbps	1	157	5785	18.53	17.98	36.01	37.96	15.08	15.08	0.5	Pass
11a	6Mbps	1	165	5825	19.13	17.53	36.46	35.26	15.13	15.08	0.5	Pass
HT20	MCS0	1	149	5745	18.68	18.18	38.11	36.51	15.14	15.14	0.5	Pass
HT20	MCS0	1	157	5785	18.33	18.18	37.26	37.11	15.09	15.04	0.5	Pass
HT20	MCS0	1	165	5825	18.43	18.08	39.21	33.87	15.09	15.14	0.5	Pass
HT40	MCS0	1	151	5755	38.56	37.46	74.72	69.41	35.07	35.07	0.5	Pass
HT40	MCS0	1	159	5795	37.96	37.66	72.29	69.95	35.07	35.07	0.5	Pass
VHT80	MCS0	1	155	5775	77.80	77.44	145.61	118.92	75.12	75.12	0.5	Pass
11a	6Mbps	2	149	5745	21.33	18.28	38.86	35.02	15.13	15.08	0.5	Pass
11a	6Mbps	2	157	5785	20.63	18.48	39.11	36.36	15.09	15.29	0.5	Pass
11a	6Mbps	2	165	5825	21.13	18.08	37.76	36.01	15.09	15.14	0.5	Pass
HT20	MCS0	2	149	5745	19.03	18.18	37.71	36.36	15.09	15.13	0.5	Pass
HT20	MCS0	2	157	5785	18.98	18.43	39.61	36.81	15.04	15.14	0.5	Pass
HT20	MCS0	2	165	5825	19.08	18.28	38.96	36.91	15.14	15.19	0.5	Pass
HT40	MCS0	2	151	5755	39.26	37.46	75.08	69.14	35.07	35.07	0.5	Pass
HT40	MCS0	2	159	5795	38.86	37.76	74.54	70.94	35.07	35.07	0.5	Pass
VHT80	MCS0	2	155	5775	77.44	76.84	117.64	111.25	75.12	75.12	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	0.33	0.30	20.04	20.13		30.00	30.00	3.91	1.07	Pass
11a	6Mbps	1	157	5785	0.33	0.30	20.07	20.01		30.00	30.00	3.91	1.07	Pass
11a	6Mbps	1	165	5825	0.33	0.30	19.21	19.81		30.00	30.00	3.91	1.07	Pass
HT20	MCS0	1	149	5745	0.32	0.35	18.99	19.15		30.00	30.00	3.91	1.07	Pass
HT20	MCS0	1	157	5785	0.32	0.35	18.99	19.02		30.00	30.00	3.91	1.07	Pass
HT20	MCS0	1	165	5825	0.32	0.35	18.35	18.81		30.00	30.00	3.91	1.07	Pass
HT40	MCS0	1	151	5755	0.64	0.60	19.28	19.19		30.00	30.00	3.91	1.07	Pass
HT40	MCS0	1	159	5795	0.64	0.60	19.07	19.05		30.00	30.00	3.91	1.07	Pass
VHT20	MCS0	1	149	5745	0.35	0.35	18.96	19.10		30.00	30.00	3.91	1.07	Pass
VHT20	MCS0	1	157	5785	0.35	0.35	18.98	19.00		30.00	30.00	3.91	1.07	Pass
VHT20	MCS0	1	165	5825	0.35	0.35	18.32	18.80		30.00	30.00	3.91	1.07	Pass
VHT40	MCS0	1	151	5755	0.65	0.63	19.24	19.18		30.00	30.00	3.91	1.07	Pass
VHT40	MCS0	1	159	5795	0.65	0.63	19.05	19.03		30.00	30.00	3.91	1.07	Pass
VHT80	MCS0	1	155	5775	1.22	1.17	18.48	18.27		30.00	30.00	3.91	1.07	Pass
11a	6Mbps	2	149	5745	0.31	0.30	20.23	20.40	23.33	30.00		3.91		Pass
11a	6Mbps	2	157	5785	0.31	0.30	20.39	20.25	23.33	30.00		3.91		Pass
11a	6Mbps	2	165	5825	0.31	0.30	19.48	20.03	22.78	30.00		3.91		Pass
HT20	MCS0	2	149	5745	0.32	0.32	19.17	19.49	22.34	30.00		3.91		Pass
HT20	MCS0	2	157	5785	0.32	0.32	19.30	19.53	22.43	30.00		3.91		Pass
HT20	MCS0	2	165	5825	0.32	0.32	18.53	19.16	21.87	30.00		3.91		Pass
HT40	MCS0	2	151	5755	0.60	0.67	19.37	19.51	22.45	30.00		3.91		Pass
HT40	MCS0	2	159	5795	0.60	0.67	19.31	19.35	22.34	30.00		3.91		Pass
VHT20	MCS0	2	149	5745	0.32	0.33	19.12	19.40	22.27	30.00		3.91		Pass
VHT20	MCS0	2	157	5785	0.32	0.33	19.29	19.52	22.42	30.00		3.91		Pass
VHT20	MCS0	2	165	5825	0.32	0.33	18.48	19.14	21.83	30.00		3.91		Pass
VHT40	MCS0	2	151	5755	0.62	0.62	19.43	19.27	22.36	30.00		3.91		Pass
VHT40	MCS0	2	159	5795	0.62	0.62	19.35	19.25	22.31	30.00		3.91		Pass
VHT80	MCS0	2	155	5775	1.17	1.22	17.12	17.54	20.35	30.00		3.91		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	0.33	0.30	2.22	2.22	5.83	5.71		30.00	30.00	3.91	1.07	Pass
11a	6Mbps	1	157	5785	0.33	0.30	2.22	2.22	6.21	6.10		30.00	30.00	3.91	1.07	Pass
11a	6Mbps	1	165	5825	0.33	0.30	2.22	2.22	6.12	6.31		30.00	30.00	3.91	1.07	Pass
HT20	MCS0	1	149	5745	0.32	0.35	2.22	2.22	4.89	4.95		30.00	30.00	3.91	1.07	Pass
HT20	MCS0	1	157	5785	0.32	0.35	2.22	2.22	4.87	4.86		30.00	30.00	3.91	1.07	Pass
HT20	MCS0	1	165	5825	0.32	0.35	2.22	2.22	4.58	5.10		30.00	30.00	3.91	1.07	Pass
HT40	MCS0	1	151	5755	0.64	0.60	2.22	2.22	1.76	1.41		30.00	30.00	3.91	1.07	Pass
HT40	MCS0	1	159	5795	0.64	0.60	2.22	2.22	1.78	2.05		30.00	30.00	3.91	1.07	Pass
VHT80	MCS0	1	155	5775	1.22	1.17	2.22	2.22	-2.29	-2.46		30.00	30.00	3.91	1.07	Pass
11a	6Mbps	2	149	5745	0.31	0.30	2.22		6.19	6.13	9.20	30.00		5.62		Pass
11a	6Mbps	2	157	5785	0.31	0.30	2.22		6.26	6.80	9.81	30.00		5.62		Pass
11a	6Mbps	2	165	5825	0.31	0.30	2.22		6.13	6.23	9.24	30.00		5.62		Pass
HT20	MCS0	2	149	5745	0.32	0.32	2.22		4.81	5.84	8.85	30.00		5.62		Pass
HT20	MCS0	2	157	5785	0.32	0.32	2.22		5.16	5.47	8.48	30.00		5.62		Pass
HT20	MCS0	2	165	5825	0.32	0.32	2.22		4.69	5.23	8.24	30.00		5.62		Pass
HT40	MCS0	2	151	5755	0.60	0.67	2.22		1.55	1.52	4.56	30.00		5.62		Pass
HT40	MCS0	2	159	5795	0.60	0.67	2.22		1.47	1.99	5.00	30.00		5.62		Pass
VHT80	MCS0	2	155	5775	1.17	1.22	2.22		-2.62	-2.88	0.39	30.00		5.62		Pass

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

<TXBF Mode>

Test Engineer:	Luffy Lin / Allen Lin	Temperature:	21~25	°C
Test Date:	2018/10/10~2018/10/26	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		
VHT20	MCS0	2	149	5745	18.50	16.65	40.99	24.45	15.10	15.10	0.5	Pass
VHT20	MCS0	2	157	5785	18.50	16.75	41.64	24.98	15.15	15.10	0.5	Pass
VHT20	MCS0	2	165	5825	18.40	16.80	41.56	24.23	15.00	15.00	0.5	Pass
VHT40	MCS0	2	151	5755	37.30	37.00	74.98	66.72	35.07	35.10	0.5	Pass
VHT40	MCS0	2	159	5795	37.60	36.90	74.77	64.77	34.97	34.93	0.5	Pass
VHT80	MCS0	2	155	5775	77.40	77.40	116.86	91.52	75.68	75.72	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	
VHT20	MCS0	2	149	5745	0.13	0.13	18.89	19.31	22.12	30.00		5.62		Pass
VHT20	MCS0	2	157	5785	0.13	0.13	18.97	19.37	22.18	30.00		5.62		Pass
VHT20	MCS0	2	165	5825	0.13	0.13	18.89	19.30	22.11	30.00		5.62		Pass
VHT40	MCS0	2	151	5755	0.26	0.26	19.05	19.22	22.15	30.00		5.62		Pass
VHT40	MCS0	2	159	5795	0.26	0.26	19.07	19.29	22.19	30.00		5.62		Pass
VHT80	MCS0	2	155	5775	0.51	0.51	16.77	16.61	19.70	30.00		5.62		Pass

Report Number : FR842410-01E

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	
VHT20	MCS0	2	149	5745	0.13	0.13	2.22		5.78	9.12	12.13	30.00		5.62		Pass
VHT20	MCS0	2	157	5785	0.13	0.13	2.22		5.79	9.09	12.10	30.00		5.62		Pass
VHT20	MCS0	2	165	5825	0.13	0.13	2.22		5.80	8.71	11.72	30.00		5.62		Pass
VHT40	MCS0	2	151	5755	0.26	0.26	2.22		3.05	2.83	6.06	30.00		5.62		Pass
VHT40	MCS0	2	159	5795	0.26	0.26	2.22		3.01	2.69	6.02	30.00		5.62		Pass
VHT80	MCS0	2	155	5775	0.51	0.51	2.22		-2.88	-2.84	0.17	30.00		5.62		Pass

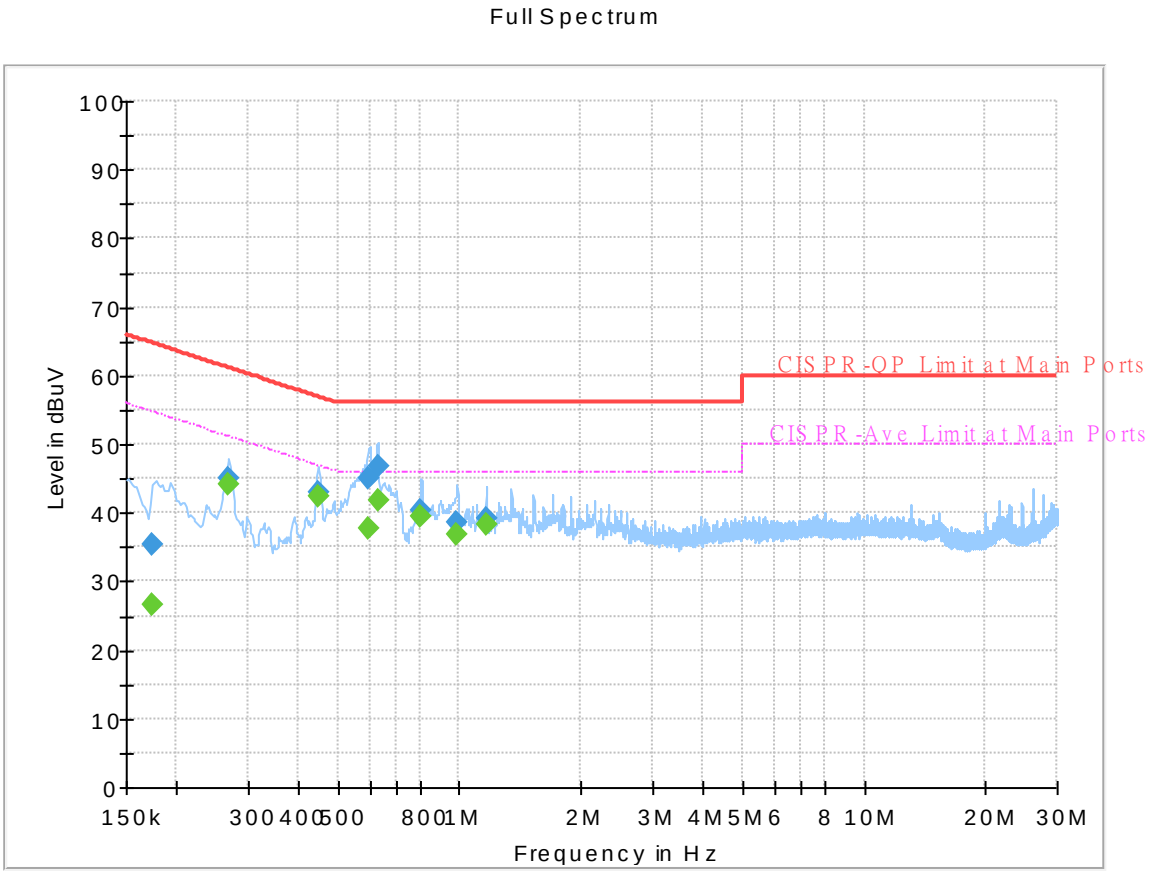
Note: PSD Sum = Max PSD(Ant. 1, Ant. 2) + 10 log (n)

Appendix B. AC Conducted Emission Test Results

Test Engineer :	Rick Lin	**Temperature :**	24~26℃
		Relative Humidity :	55~58%

EUT Information

Report NO :	842410-01
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line

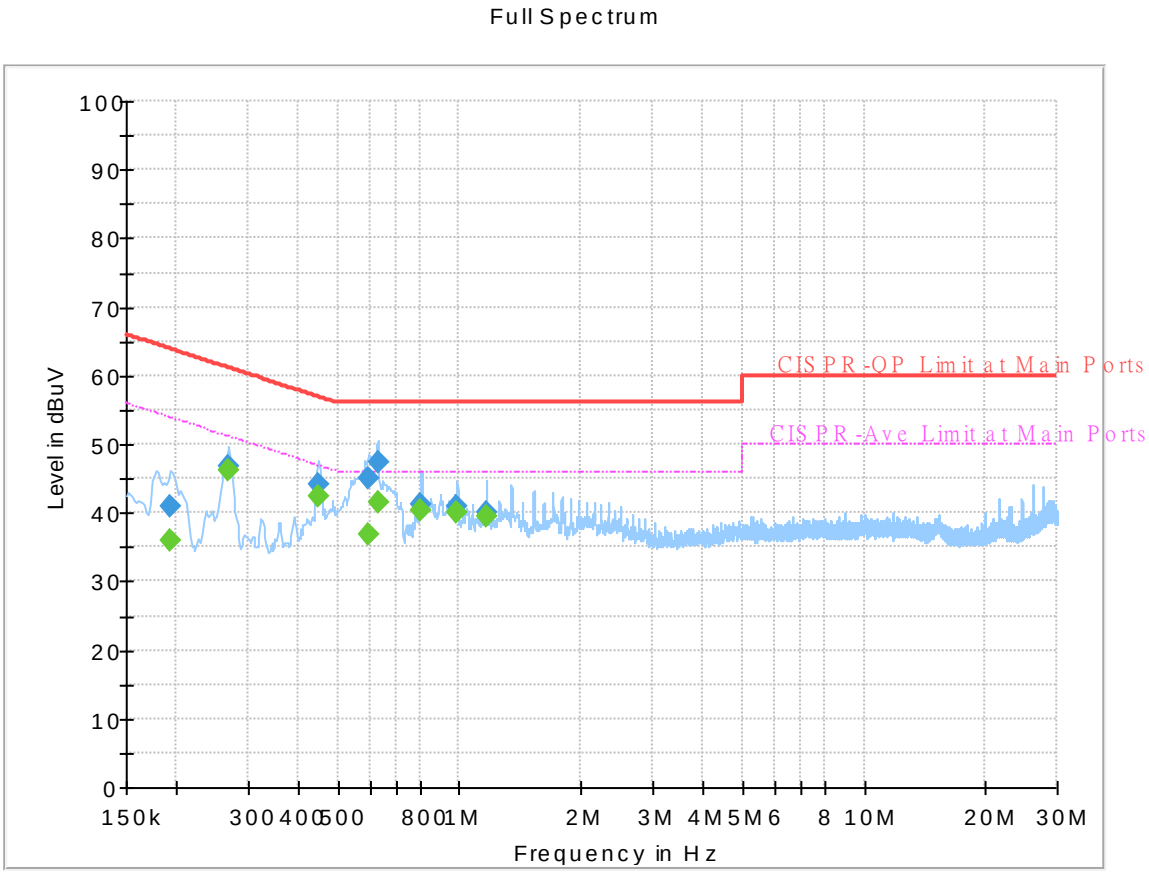


Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.174750	---	26.59	54.73	28.14	L1	OFF	19.5
0.174750	35.32	---	64.73	29.41	L1	OFF	19.5
0.269250	---	44.09	51.14	7.05	L1	OFF	19.5
0.269250	45.10	---	61.14	16.04	L1	OFF	19.5
0.447000	---	42.37	46.93	4.56	L1	OFF	19.5
0.447000	43.12	---	56.93	13.81	L1	OFF	19.5
0.597750	---	37.73	46.00	8.27	L1	OFF	19.5
0.597750	45.13	---	56.00	10.87	L1	OFF	19.5
0.627000	---	41.83	46.00	4.17	L1	OFF	19.6
0.627000	46.90	---	56.00	9.10	L1	OFF	19.6
0.804750	---	39.35	46.00	6.65	L1	OFF	19.6
0.804750	40.30	---	56.00	15.70	L1	OFF	19.6
0.982500	---	36.91	46.00	9.09	L1	OFF	19.6
0.982500	38.49	---	56.00	17.51	L1	OFF	19.6
1.164750	---	38.34	46.00	7.66	L1	OFF	19.6
1.164750	39.31	---	56.00	16.69	L1	OFF	19.6

EUT Information

Report NO :	842410-01
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Neutral



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.192750	---	36.04	53.92	17.88	N	OFF	19.5
0.192750	41.02	---	63.92	22.90	N	OFF	19.5
0.269250	---	46.11	51.14	5.03	N	OFF	19.5
0.269250	46.86	---	61.14	14.28	N	OFF	19.5
0.449250	---	42.51	46.89	4.38	N	OFF	19.5
0.449250	44.09	---	56.89	12.80	N	OFF	19.5
0.595500	---	36.80	46.00	9.20	N	OFF	19.5
0.595500	44.92	---	56.00	11.08	N	OFF	19.5
0.627000	---	41.61	46.00	4.39	N	OFF	19.6
0.627000	47.46	---	56.00	8.54	N	OFF	19.6
0.804750	---	40.37	46.00	5.63	N	OFF	19.6
0.804750	41.19	---	56.00	14.81	N	OFF	19.6
0.984750	---	40.16	46.00	5.84	N	OFF	19.6
0.984750	40.83	---	56.00	15.17	N	OFF	19.6
1.164750	---	39.58	46.00	6.42	N	OFF	19.6
1.164750	40.16	---	56.00	15.84	N	OFF	19.6

Appendix C. Radiated Spurious Emission

Test Engineer :	Alex Jheng, Fu Chen and Wilson Wu	Temperature :	24~25°C
		Relative Humidity :	50~52%

<CDD Mode>

Band 4 - 5725~5850MHz

WIFI 802.11a (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 149 5745MHz		5647.8	55.27	-12.93	68.2	43.99	32.09	8.84	29.65	314	284	P	H
		5695.6	62.21	-39.75	101.96	50.88	32.17	8.83	29.67	314	284	P	H
		5719.2	75.83	-34.75	110.58	64.48	32.21	8.82	29.68	314	284	P	H
		5723.4	82.62	-35.93	118.55	71.27	32.21	8.82	29.68	314	284	P	H
	*	5745	116.84	-	-	105.48	32.24	8.81	29.69	314	284	P	H
	*	5745	109.55	-	-	98.19	32.24	8.81	29.69	314	284	A	H
		5647	52.45	-15.75	68.2	41.17	32.09	8.84	29.65	304	281	P	V
		5698	55.4	-48.33	103.73	44.07	32.17	8.83	29.67	304	281	P	V
		5719.6	68.91	-41.78	110.69	57.56	32.21	8.82	29.68	304	281	P	V
		5724.6	76.87	-44.42	121.29	65.52	32.21	8.82	29.68	304	281	P	V
	*	5745	110.64	-	-	99.28	32.24	8.81	29.69	304	281	P	V
	*	5745	103.45	-	-	92.09	32.24	8.81	29.69	304	281	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 157 5785MHz		5645	54.66	-13.54	68.2	43.38	32.09	8.84	29.65	302	283	P	H
		5662.6	54.88	-22.67	77.55	43.58	32.12	8.84	29.66	302	283	P	H
		5719.2	57.51	-53.07	110.58	46.16	32.21	8.82	29.68	302	283	P	H
		5724.8	58.3	-63.44	121.74	46.95	32.21	8.82	29.68	302	283	P	H
	*	5785	117.02	-	-	105.65	32.29	8.8	29.72	302	283	P	H
	*	5785	109.6	-	-	98.23	32.29	8.8	29.72	302	283	A	H
		5852.8	53.18	-62.64	115.82	41.69	32.38	8.85	29.74	302	283	P	H
		5855.4	53.92	-56.77	110.69	42.4	32.41	8.85	29.74	302	283	P	H
		5880.4	54.05	-47.14	101.19	42.49	32.43	8.88	29.75	302	283	P	H
		5929.6	51.76	-16.44	68.2	40.12	32.5	8.91	29.77	302	283	P	H
		5607.4	52.5	-15.7	68.2	41.25	32.04	8.85	29.64	303	281	P	V
		5677.4	52.33	-36.19	88.52	41.02	32.14	8.83	29.66	303	281	P	V
		5717.6	52.71	-57.42	110.13	41.36	32.21	8.82	29.68	303	281	P	V
		5724.8	52.14	-69.6	121.74	40.79	32.21	8.82	29.68	303	281	P	V
	*	5785	110.46	-	-	99.09	32.29	8.8	29.72	303	281	P	V
	*	5785	103.53	-	-	92.16	32.29	8.8	29.72	303	281	A	V
		5852.6	50.96	-65.31	116.27	39.47	32.38	8.85	29.74	303	281	P	V
		5866.4	52.71	-54.9	107.61	41.18	32.41	8.87	29.75	303	281	P	V
		5912	51.87	-25.92	77.79	40.26	32.48	8.9	29.77	303	281	P	V
		5936.6	51.35	-16.85	68.2	39.7	32.5	8.93	29.78	303	281	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 165 5825MHz	*	5825	116.25	-	-	104.8	32.36	8.82	29.73	318	283	P	H
	*	5825	109.26	-	-	97.81	32.36	8.82	29.73	318	283	A	H
		5850.4	74.26	-47.03	121.29	62.77	32.38	8.85	29.74	318	283	P	H
		5858.2	69.8	-40.1	109.9	58.29	32.41	8.85	29.75	318	283	P	H
		5876.4	58.8	-45.36	104.16	47.25	32.43	8.87	29.75	318	283	P	H
		5925.2	52.07	-16.13	68.2	40.43	32.5	8.91	29.77	318	283	P	H
	*	5825	110.6	-	-	99.15	32.36	8.82	29.73	313	280	P	V
	*	5825	103.23	-	-	91.78	32.36	8.82	29.73	313	280	A	V
		5850.8	66.49	-53.89	120.38	55	32.38	8.85	29.74	313	280	P	V
		5860.6	58.76	-50.47	109.23	47.25	32.41	8.85	29.75	313	280	P	V
		5879.4	52.8	-49.13	101.93	41.24	32.43	8.88	29.75	313	280	P	V
		5950	52.32	-15.88	68.2	40.64	32.53	8.93	29.78	313	280	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 149 5745MHz		11490	54.24	-19.76	74	62.97	39.92	12.75	61.4	100	230	P	H
		11490	44.85	-9.15	54	53.58	39.92	12.75	61.4	100	230	A	H
		17235	51.07	-17.13	68.2	52.63	40.84	15.11	57.51	100	0	P	H
		11490	47.29	-26.71	74	56.02	39.92	12.75	61.4	100	0	P	V
		17235	50.38	-17.82	68.2	51.94	40.84	15.11	57.51	100	0	P	V
802.11a CH 157 5785MHz		11570	49.85	-24.15	74	58.8	39.76	12.79	61.5	100	0	P	H
		17355	48.51	-19.69	68.2	49.21	41.26	15.15	57.11	100	0	P	H
		11570	45.57	-28.43	74	54.52	39.76	12.79	61.5	100	0	P	V
		17355	48.82	-19.38	68.2	49.52	41.26	15.15	57.11	100	0	P	V
802.11a CH 165 5825MHz		11650	47.54	-26.46	74	56.68	39.62	12.83	61.59	100	0	P	H
		17475	50.07	-18.13	68.2	49.9	41.68	15.2	56.71	100	0	P	H
		11650	46.3	-27.7	74	55.44	39.62	12.83	61.59	100	0	P	V
		17475	48.93	-19.27	68.2	48.76	41.68	15.2	56.71	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 149 5745MHz		5634.2	56.5	-11.7	68.2	45.22	32.09	8.84	29.65	316	282	P	H
		5698.8	60.16	-44.16	104.32	48.83	32.17	8.83	29.67	316	282	P	H
		5718	76.29	-33.95	110.24	64.94	32.21	8.82	29.68	316	282	P	H
		5721.2	82.57	-30.97	113.54	71.22	32.21	8.82	29.68	316	282	P	H
	*	5745	115.74	-	-	104.38	32.24	8.81	29.69	316	282	P	H
	*	5745	108.4	-	-	97.04	32.24	8.81	29.69	316	282	A	H
		5616.8	51.79	-16.41	68.2	40.51	32.07	8.85	29.64	324	280	P	V
		5697.4	56.08	-47.2	103.28	44.75	32.17	8.83	29.67	324	280	P	V
		5718.6	70.05	-40.36	110.41	58.7	32.21	8.82	29.68	324	280	P	V
		5724.8	77.25	-44.49	121.74	65.9	32.21	8.82	29.68	324	280	P	V
	*	5745	109.53	-	-	98.17	32.24	8.81	29.69	324	280	P	V
	*	5745	102.23	-	-	90.87	32.24	8.81	29.69	324	280	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 157 5785MHz		5614.8	56.56	-11.64	68.2	45.31	32.04	8.85	29.64	309	282	P	H
		5658.6	54.9	-19.69	74.59	43.6	32.12	8.84	29.66	309	282	P	H
		5714.4	56.68	-52.55	109.23	45.35	32.19	8.82	29.68	309	282	P	H
		5724.8	56.38	-65.36	121.74	45.03	32.21	8.82	29.68	309	282	P	H
	*	5785	116.04	-	-	104.67	32.29	8.8	29.72	309	282	P	H
	*	5785	108.53	-	-	97.16	32.29	8.8	29.72	309	282	A	H
		5852.4	53.5	-63.23	116.73	42.01	32.38	8.85	29.74	309	282	P	H
		5863	55.65	-52.91	108.56	44.12	32.41	8.87	29.75	309	282	P	H
		5904.8	53.5	-29.61	83.11	41.88	32.48	8.9	29.76	309	282	P	H
		5929.2	52.44	-15.76	68.2	40.8	32.5	8.91	29.77	309	282	P	H
		5605.8	53.36	-14.84	68.2	42.11	32.04	8.85	29.64	315	282	P	V
		5683.2	52.29	-40.51	92.8	40.99	32.14	8.83	29.67	315	282	P	V
		5708.2	52.9	-54.6	107.5	41.57	32.19	8.82	29.68	315	282	P	V
		5724.4	51.54	-69.29	120.83	40.19	32.21	8.82	29.68	315	282	P	V
	*	5785	109.09	-	-	97.72	32.29	8.8	29.72	315	282	P	V
	*	5785	101.86	-	-	90.49	32.29	8.8	29.72	315	282	A	V
		5850.6	51.14	-69.69	120.83	39.65	32.38	8.85	29.74	315	282	P	V
		5871.2	51.99	-54.27	106.26	40.44	32.43	8.87	29.75	315	282	P	V
		5892	51.88	-40.7	92.58	40.3	32.46	8.88	29.76	315	282	P	V
		5932.2	52.39	-15.81	68.2	40.75	32.5	8.91	29.77	315	282	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)	Path 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	115.33	-	-	103.88	32.36	8.82	29.73	316	282	P	H
	*	5825	107.88	-	-	96.43	32.36	8.82	29.73	316	282	A	H
		5852.2	71.24	-45.94	117.18	59.75	32.38	8.85	29.74	316	282	P	H
		5856	67.57	-42.95	110.52	56.05	32.41	8.85	29.74	316	282	P	H
		5877.2	57.65	-45.92	103.57	46.1	32.43	8.87	29.75	316	282	P	H
		5950	52.5	-15.7	68.2	40.82	32.53	8.93	29.78	316	282	P	H
	*	5825	109.13	-	-	97.68	32.36	8.82	29.73	312	280	P	V
	*	5825	101.86	-	-	90.41	32.36	8.82	29.73	312	280	A	V
		5850.4	69.93	-51.36	121.29	58.44	32.38	8.85	29.74	312	280	P	V
		5861.6	60.25	-48.7	108.95	48.72	32.41	8.87	29.75	312	280	P	V
		5879.4	52.59	-49.34	101.93	41.03	32.43	8.88	29.75	312	280	P	V
		5925.4	50.96	-17.24	68.2	39.32	32.5	8.91	29.77	312	280	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		11490	49.55	-24.45	74	58.28	39.92	12.75	61.4	100	0	P	H
HT20		17235	49.79	-18.41	68.2	51.35	40.84	15.11	57.51	100	0	P	H
CH 149		11490	47.24	-26.76	74	55.97	39.92	12.75	61.4	100	0	P	V
5745MHz		17235	49.55	-18.65	68.2	51.11	40.84	15.11	57.51	100	0	P	V
802.11n		11570	47.88	-26.12	74	56.83	39.76	12.79	61.5	100	0	P	H
HT20		17355	48.77	-19.43	68.2	49.47	41.26	15.15	57.11	100	0	P	H
CH 157		11570	46.53	-27.47	74	55.48	39.76	12.79	61.5	100	0	P	V
5785MHz		17355	48.39	-19.81	68.2	49.09	41.26	15.15	57.11	100	0	P	V
802.11n		11650	48.64	-25.36	74	57.78	39.62	12.83	61.59	100	0	P	H
HT20		17475	49.23	-18.97	68.2	49.06	41.68	15.2	56.71	100	0	P	H
CH 165		11650	46.03	-27.97	74	55.17	39.62	12.83	61.59	100	0	P	V
5825MHz		17475	50.19	-18.01	68.2	50.02	41.68	15.2	56.71	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 151 5755MHz		5633.2	57.73	-10.47	68.2	46.45	32.09	8.84	29.65	329	281	P	H
		5699.8	75.57	-29.48	105.05	64.25	32.17	8.82	29.67	329	281	P	H
		5719.4	87.23	-23.4	110.63	75.88	32.21	8.82	29.68	329	281	P	H
		5721.6	87.87	-26.58	114.45	76.52	32.21	8.82	29.68	329	281	P	H
	*	5755	113.31	-	-	101.93	32.26	8.81	29.69	329	281	P	H
	*	5755	106.12	-	-	94.74	32.26	8.81	29.69	329	281	A	H
		5854.4	53.75	-58.42	112.17	42.23	32.41	8.85	29.74	329	281	P	H
		5865.4	55.11	-52.78	107.89	43.58	32.41	8.87	29.75	329	281	P	H
		5876.6	53.89	-50.12	104.01	42.34	32.43	8.87	29.75	329	281	P	H
		5936.4	51.8	-16.4	68.2	40.15	32.5	8.93	29.78	329	281	P	H
		5633	52.87	-15.33	68.2	41.59	32.09	8.84	29.65	321	282	P	V
		5699.4	67.59	-37.17	104.76	56.26	32.17	8.83	29.67	321	282	P	V
		5718.4	78.75	-31.6	110.35	67.4	32.21	8.82	29.68	321	282	P	V
		5722.8	81.03	-36.15	117.18	69.68	32.21	8.82	29.68	321	282	P	V
	*	5755	106.43	-	-	95.05	32.26	8.81	29.69	321	282	P	V
	*	5755	99.49	-	-	88.11	32.26	8.81	29.69	321	282	A	V
		5852.8	52.37	-63.45	115.82	40.88	32.38	8.85	29.74	321	282	P	V
		5869.8	51.56	-55.09	106.65	40.03	32.41	8.87	29.75	321	282	P	V
		5908	51.67	-29.07	80.74	40.05	32.48	8.9	29.76	321	282	P	V
		5931.6	51.27	-16.93	68.2	39.63	32.5	8.91	29.77	321	282	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 159 5795MHz		5632.2	55.54	-12.66	68.2	44.28	32.07	8.84	29.65	307	280	P	H
		5699	60.57	-43.89	104.46	49.24	32.17	8.83	29.67	307	280	P	H
		5717.2	67.95	-42.07	110.02	56.62	32.19	8.82	29.68	307	280	P	H
		5723.4	69.84	-48.71	118.55	58.49	32.21	8.82	29.68	307	280	P	H
	*	5795	112.95	-	-	101.56	32.31	8.8	29.72	307	280	P	H
	*	5795	105.57	-	-	94.18	32.31	8.8	29.72	307	280	A	H
		5852.8	69.92	-45.9	115.82	58.43	32.38	8.85	29.74	307	280	P	H
		5856	67.49	-43.03	110.52	55.97	32.41	8.85	29.74	307	280	P	H
		5875.8	60	-44.61	104.61	48.45	32.43	8.87	29.75	307	280	P	H
		5942.6	53.11	-15.09	68.2	41.43	32.53	8.93	29.78	307	280	P	H
		5638	52.55	-15.65	68.2	41.27	32.09	8.84	29.65	304	281	P	V
		5699.8	55.13	-49.92	105.05	43.81	32.17	8.82	29.67	304	281	P	V
		5719.4	59.92	-50.71	110.63	48.57	32.21	8.82	29.68	304	281	P	V
		5723.4	59.26	-59.29	118.55	47.91	32.21	8.82	29.68	304	281	P	V
	*	5795	106.33	-	-	94.94	32.31	8.8	29.72	304	281	P	V
	*	5795	98.88	-	-	87.49	32.31	8.8	29.72	304	281	A	V
		5852	64.02	-53.62	117.64	52.53	32.38	8.85	29.74	304	281	P	V
		5856	62.65	-47.87	110.52	51.13	32.41	8.85	29.74	304	281	P	V
		5880.8	53.42	-47.47	100.89	41.86	32.43	8.88	29.75	304	281	P	V
		5930.8	51.22	-16.98	68.2	39.58	32.5	8.91	29.77	304	281	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		11510	48.89	-25.11	74	57.63	39.9	12.76	61.4	100	0	P	H
HT40		17265	48.37	-19.83	68.2	49.68	40.96	15.12	57.39	100	0	P	H
CH 151		11510	46.9	-27.1	74	55.64	39.9	12.76	61.4	100	0	P	V
5755MHz		17265	48.69	-19.51	68.2	50	40.96	15.12	57.39	100	0	P	V
802.11n		11590	47.08	-26.92	74	56.08	39.73	12.79	61.52	100	0	P	H
HT40		17385	49.84	-18.36	68.2	50.29	41.38	15.17	57	100	0	P	H
CH 159		11590	45.37	-28.63	74	54.37	39.73	12.79	61.52	100	0	P	V
5795MHz		17385	49.26	-18.94	68.2	49.71	41.38	15.17	57	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 155 5775MHz		5633	64.67	-3.53	68.2	53.39	32.09	8.84	29.65	322	281	P	H
		5697.6	80.15	-23.28	103.43	68.82	32.17	8.83	29.67	322	281	P	H
		5719.8	85.31	-25.43	110.74	73.96	32.21	8.82	29.68	322	281	P	H
		5724.6	84.2	-37.09	121.29	72.85	32.21	8.82	29.68	322	281	P	H
	*	5775	109.97	-	-	98.59	32.29	8.8	29.71	322	281	P	H
	*	5775	102.46	-	-	91.08	32.29	8.8	29.71	322	281	A	H
		5850.4	72.67	-48.62	121.29	61.18	32.38	8.85	29.74	322	281	P	H
		5860.8	72.65	-36.52	109.17	61.14	32.41	8.85	29.75	322	281	P	H
		5879.8	66.87	-34.76	101.63	55.31	32.43	8.88	29.75	322	281	P	H
		5938.8	53.74	-14.46	68.2	42.06	32.53	8.93	29.78	322	281	P	H
		5644.2	58.59	-9.61	68.2	47.31	32.09	8.84	29.65	320	283	P	V
		5700	71.96	-33.24	105.2	60.64	32.17	8.82	29.67	320	283	P	V
		5719.8	78.71	-32.03	110.74	67.36	32.21	8.82	29.68	320	283	P	V
		5722.2	77.5	-38.32	115.82	66.15	32.21	8.82	29.68	320	283	P	V
	*	5775	102.85	-	-	91.47	32.29	8.8	29.71	320	283	P	V
	*	5775	95.54	-	-	84.16	32.29	8.8	29.71	320	283	A	V
		5851.6	66.82	-51.73	118.55	55.33	32.38	8.85	29.74	320	283	P	V
		5856.8	64.52	-45.78	110.3	53	32.41	8.85	29.74	320	283	P	V
		5879.6	58.57	-43.21	101.78	47.01	32.43	8.88	29.75	320	283	P	V
		5931.8	52	-16.2	68.2	40.36	32.5	8.91	29.77	320	283	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11550	45.97	-28.03	74	54.86	39.8	12.78	61.47	100	0	P	H
VHT80		17325	48.41	-19.79	68.2	49.35	41.14	15.14	57.22	100	0	P	H
CH 155		11550	45.45	-28.55	74	54.34	39.8	12.78	61.47	100	0	P	V
5775MHz		17325	49.3	-18.9	68.2	50.24	41.14	15.14	57.22	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 Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
5GHz 802.11ac VHT80 LF		31.35	25.66	-14.34	40	34.06	23.96	-0.02	32.34	100	0	P	H
		149.88	24.06	-19.44	43.5	39.13	17.16	0.05	32.28	-	-	P	H
		282.72	24.07	-21.93	46	37.26	18.89	0.07	32.15	-	-	P	H
		707.4	25.5	-20.5	46	30.86	26.7	0.1	32.16	-	-	P	H
		899.2	30.76	-15.24	46	33.13	29.03	0.11	31.51	-	-	P	H
		957.3	30.36	-15.64	46	30.2	31.01	0.14	30.99	-	-	P	H
		31.08	31.14	-8.86	40	39.54	23.96	-0.02	32.34	100	0	P	V
		95.07	25.31	-18.19	43.5	41.93	15.55	0.12	32.29	-	-	P	V
		149.88	22.3	-21.2	43.5	37.37	17.16	0.05	32.28	-	-	P	V
		823.6	27.93	-18.07	46	31.48	28.2	0.12	31.87	-	-	P	V
		901.3	31.74	-14.26	46	34.09	29.04	0.11	31.5	-	-	P	V
		938.4	33.84	-12.16	46	34.86	30.01	0.13	31.16	-	-	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 Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 149 5745MHz		5630	54.41	-13.79	68.2	43.15	32.07	8.84	29.65	235	157	P	H
		5692.4	54.62	-44.98	99.6	43.29	32.17	8.83	29.67	235	157	P	H
		5718.8	69.08	-41.38	110.46	57.73	32.21	8.82	29.68	235	157	P	H
		5724.6	75.17	-46.12	121.29	63.82	32.21	8.82	29.68	235	157	P	H
	*	5745	111.48	-	-	100.12	32.24	8.81	29.69	235	157	P	H
	*	5745	104.5	-	-	93.14	32.24	8.81	29.69	235	157	A	H
		5623.2	54.15	-14.05	68.2	42.87	32.07	8.85	29.64	202	257	P	V
		5697.4	57.57	-45.71	103.28	46.24	32.17	8.83	29.67	202	257	P	V
		5719.8	72.79	-37.95	110.74	61.44	32.21	8.82	29.68	202	257	P	V
		5724.6	77.26	-44.03	121.29	65.91	32.21	8.82	29.68	202	257	P	V
	*	5745	112.96	-	-	101.6	32.24	8.81	29.69	202	257	P	V
	*	5745	105.87	-	-	94.51	32.24	8.81	29.69	202	257	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 157 5785MHz		5607.4	52.21	-15.99	68.2	40.96	32.04	8.85	29.64	225	157	P	H
		5665.8	53.05	-26.88	79.93	41.76	32.12	8.83	29.66	225	157	P	H
		5702	53.74	-52.02	105.76	42.4	32.19	8.82	29.67	225	157	P	H
		5721.6	52.68	-61.77	114.45	41.33	32.21	8.82	29.68	225	157	P	H
	*	5785	111.47	-	-	100.1	32.29	8.8	29.72	225	157	P	H
	*	5785	104.49	-	-	93.12	32.29	8.8	29.72	225	157	A	H
		5853.4	52.87	-61.58	114.45	41.38	32.38	8.85	29.74	225	157	P	H
		5862.8	53.93	-54.68	108.61	42.4	32.41	8.87	29.75	225	157	P	H
		5875.8	52.53	-52.08	104.61	40.98	32.43	8.87	29.75	225	157	P	H
		5934.6	51.5	-16.7	68.2	39.85	32.5	8.93	29.78	225	157	P	H
		5644.8	54.13	-14.07	68.2	42.85	32.09	8.84	29.65	211	260	P	V
		5657	53.36	-20.04	73.4	42.06	32.12	8.84	29.66	211	260	P	V
		5711	54.19	-54.09	108.28	42.86	32.19	8.82	29.68	211	260	P	V
		5722.2	53.36	-62.46	115.82	42.01	32.21	8.82	29.68	211	260	P	V
	*	5785	113.13	-	-	101.76	32.29	8.8	29.72	211	260	P	V
	*	5785	105.87	-	-	94.5	32.29	8.8	29.72	211	260	A	V
		5852.8	53.72	-62.1	115.82	42.23	32.38	8.85	29.74	211	260	P	V
		5865.6	53.25	-54.58	107.83	41.72	32.41	8.87	29.75	211	260	P	V
		5901.4	53.81	-31.81	85.62	42.21	32.46	8.9	29.76	211	260	P	V
		5925.4	52.01	-16.19	68.2	40.37	32.5	8.91	29.77	211	260	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 165 5825MHz	*	5825	111.02	-	-	99.57	32.36	8.82	29.73	244	155	P	H
	*	5825	103.97	-	-	92.52	32.36	8.82	29.73	244	155	A	H
		5850.4	67.12	-54.17	121.29	55.63	32.38	8.85	29.74	244	155	P	H
		5858	58.26	-51.7	109.96	46.75	32.41	8.85	29.75	244	155	P	H
		5877.2	53.27	-50.3	103.57	41.72	32.43	8.87	29.75	244	155	P	H
		5928.6	51.77	-16.43	68.2	40.13	32.5	8.91	29.77	244	155	P	H
	*	5825	113.03	-	-	101.58	32.36	8.82	29.73	210	261	P	V
	*	5825	106.02	-	-	94.57	32.36	8.82	29.73	210	261	A	V
		5850.2	68.2	-53.54	121.74	56.71	32.38	8.85	29.74	210	261	P	V
		5855	59.99	-50.81	110.8	48.47	32.41	8.85	29.74	210	261	P	V
		5875	56.54	-48.66	105.2	44.99	32.43	8.87	29.75	210	261	P	V
		5927	52.69	-15.51	68.2	41.05	32.5	8.91	29.77	210	261	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 149 5745MHz		11490	53.35	-20.65	74	62.08	39.92	12.75	61.4	100	143	P	H
		11490	46.05	-7.95	54	54.78	39.92	12.75	61.4	100	143	A	H
		17235	49.79	-18.41	68.2	51.35	40.84	15.11	57.51	100	0	P	H
		11490	56.43	-17.57	74	65.16	39.92	12.75	61.4	100	259	P	V
		11490	49.02	-4.98	54	57.75	39.92	12.75	61.4	100	259	A	V
		17235	51.18	-17.02	68.2	52.74	40.84	15.11	57.51	100	0	P	V
802.11a CH 157 5785MHz		11570	52.99	-21.01	74	61.94	39.76	12.79	61.5	100	303	P	H
		11570	43.82	-10.18	54	52.77	39.76	12.79	61.5	100	303	A	H
		17355	48.92	-19.28	68.2	49.62	41.26	15.15	57.11	100	0	P	H
		11570	54.04	-19.96	74	62.99	39.76	12.79	61.5	100	176	P	V
		11570	44.15	-9.85	54	53.1	39.76	12.79	61.5	100	176	A	V
		17355	48.71	-19.49	68.2	49.41	41.26	15.15	57.11	100	0	P	V
802.11a CH 165 5825MHz		11650	46.9	-27.1	74	56.04	39.62	12.83	61.59	100	0	P	H
		17475	50.02	-18.18	68.2	49.85	41.68	15.2	56.71	100	0	P	H
		11650	45.83	-28.17	74	54.97	39.62	12.83	61.59	100	0	P	V
		17475	50.44	-17.76	68.2	50.27	41.68	15.2	56.71	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 149 5745MHz		5622	53.23	-14.97	68.2	41.95	32.07	8.85	29.64	206	157	P	H
		5695.4	56.53	-45.28	101.81	45.2	32.17	8.83	29.67	206	157	P	H
		5720	65.78	-45.02	110.8	54.43	32.21	8.82	29.68	206	157	P	H
		5725	74.74	-47.46	122.2	63.39	32.21	8.82	29.68	206	157	P	H
	*	5745	109.7	-	-	98.34	32.24	8.81	29.69	206	157	P	H
	*	5745	103.62	-	-	92.26	32.24	8.81	29.69	206	157	A	H
		5632.8	55.79	-12.41	68.2	44.51	32.09	8.84	29.65	224	257	P	V
		5696.8	56.39	-46.45	102.84	45.06	32.17	8.83	29.67	224	257	P	V
		5720	74.38	-36.42	110.8	63.03	32.21	8.82	29.68	224	257	P	V
		5724.8	75.5	-46.24	121.74	64.15	32.21	8.82	29.68	224	257	P	V
	*	5745	111.81	-	-	100.45	32.24	8.81	29.69	224	257	P	V
	*	5745	104.85	-	-	93.49	32.24	8.81	29.69	224	257	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 157 5785MHz		5649.2	53.07	-15.13	68.2	41.79	32.09	8.84	29.65	210	156	P	H
		5661.8	53.47	-23.49	76.96	42.17	32.12	8.84	29.66	210	156	P	H
		5701.8	53.12	-52.58	105.7	41.78	32.19	8.82	29.67	210	156	P	H
		5723.6	52.97	-66.04	119.01	41.62	32.21	8.82	29.68	210	156	P	H
	*	5785	111.31	-	-	99.94	32.29	8.8	29.72	210	156	P	H
	*	5785	104.31	-	-	92.94	32.29	8.8	29.72	210	156	A	H
		5850	52.85	-69.35	122.2	41.36	32.38	8.85	29.74	210	156	P	H
		5867.8	52.48	-54.73	107.21	40.95	32.41	8.87	29.75	210	156	P	H
		5888.2	52.72	-42.68	95.4	41.14	32.46	8.88	29.76	210	156	P	H
		5938.2	52.24	-15.96	68.2	40.59	32.5	8.93	29.78	210	156	P	H
		5639.2	53.09	-15.11	68.2	41.81	32.09	8.84	29.65	210	260	P	V
		5671.8	53.19	-31.18	84.37	41.88	32.14	8.83	29.66	210	260	P	V
		5703.4	53.51	-52.64	106.15	42.17	32.19	8.82	29.67	210	260	P	V
		5720.6	54.03	-58.14	112.17	42.68	32.21	8.82	29.68	210	260	P	V
	*	5785	112.05	-	-	100.68	32.29	8.8	29.72	210	260	P	V
	*	5785	105.07	-	-	93.7	32.29	8.8	29.72	210	260	A	V
		5851	54.28	-65.64	119.92	42.79	32.38	8.85	29.74	210	260	P	V
		5863	53.78	-54.78	108.56	42.25	32.41	8.87	29.75	210	260	P	V
		5878.4	53.52	-49.15	102.67	41.97	32.43	8.87	29.75	210	260	P	V
		5935.2	52.14	-16.06	68.2	40.49	32.5	8.93	29.78	210	260	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)	Path 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	109.77	-	-	98.32	32.36	8.82	29.73	229	156	P	H
	*	5825	102.95	-	-	91.5	32.36	8.82	29.73	229	156	A	H
		5850	65.32	-56.88	122.2	53.83	32.38	8.85	29.74	229	156	P	H
		5856.8	60.07	-50.23	110.3	48.55	32.41	8.85	29.74	229	156	P	H
		5882	54.37	-45.63	100	42.81	32.43	8.88	29.75	229	156	P	H
		5939.8	52.41	-15.79	68.2	40.73	32.53	8.93	29.78	229	156	P	H
	*	5825	112.23	-	-	100.78	32.36	8.82	29.73	210	260	P	V
	*	5825	105.25	-	-	93.8	32.36	8.82	29.73	210	260	A	V
		5850	65.38	-56.82	122.2	53.89	32.38	8.85	29.74	210	260	P	V
		5856.8	60.23	-50.07	110.3	48.71	32.41	8.85	29.74	210	260	P	V
		5891.2	54.88	-38.3	93.18	43.3	32.46	8.88	29.76	210	260	P	V
		5943.4	52.16	-16.04	68.2	40.48	32.53	8.93	29.78	210	260	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 149 5745MHz		11490	53.77	-20.23	74	62.5	39.92	12.75	61.4	191	244	P	H
		11490	43.25	-10.75	54	51.98	39.92	12.75	61.4	191	244	A	H
		17235	50	-18.2	68.2	51.56	40.84	15.11	57.51	100	0	P	H
		11490	53.79	-20.21	74	62.52	39.92	12.75	61.4	174	172	P	V
		11490	43.41	-10.59	54	52.14	39.92	12.75	61.4	174	172	A	V
		17235	50.17	-18.03	68.2	51.73	40.84	15.11	57.51	100	0	P	V
802.11n HT20 CH 157 5785MHz		11570	53.85	-20.15	74	62.8	39.76	12.79	61.5	189	238	P	H
		11570	43.85	-10.15	54	52.8	39.76	12.79	61.5	189	238	A	H
		17355	48.51	-19.69	68.2	49.21	41.26	15.15	57.11	100	0	P	H
		11570	53.63	-20.37	74	62.58	39.76	12.79	61.5	153	174	P	V
		11570	43.72	-10.28	54	52.67	39.76	12.79	61.5	153	174	A	V
		17355	48.86	-19.34	68.2	49.56	41.26	15.15	57.11	100	0	P	V
802.11n HT20 CH 165 5825MHz		11650	45.65	-28.35	74	54.79	39.62	12.83	61.59	100	0	P	H
		17475	49.89	-18.31	68.2	49.72	41.68	15.2	56.71	100	0	P	H
		11650	46.33	-27.67	74	55.47	39.62	12.83	61.59	100	0	P	V
		17475	50.51	-17.69	68.2	50.34	41.68	15.2	56.71	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 151 5755MHz		5619.8	53.23	-14.97	68.2	41.95	32.07	8.85	29.64	233	159	P	H
		5697.2	62.97	-40.17	103.14	51.64	32.17	8.83	29.67	233	159	P	H
		5717.6	76.07	-34.06	110.13	64.72	32.21	8.82	29.68	233	159	P	H
		5723	78.45	-39.19	117.64	67.1	32.21	8.82	29.68	233	159	P	H
	*	5755	107.43	-	-	96.05	32.26	8.81	29.69	233	159	P	H
	*	5755	100.33	-	-	88.95	32.26	8.81	29.69	233	159	A	H
		5854.2	51.72	-60.9	112.62	40.2	32.41	8.85	29.74	233	159	P	H
		5864	52.71	-55.57	108.28	41.18	32.41	8.87	29.75	233	159	P	H
		5913.8	52.34	-24.12	76.46	40.73	32.48	8.9	29.77	233	159	P	H
		5930.2	51.12	-17.08	68.2	39.48	32.5	8.91	29.77	233	159	P	H
		5647.8	53.93	-14.27	68.2	42.65	32.09	8.84	29.65	199	291	P	V
		5699	67.1	-37.36	104.46	55.77	32.17	8.83	29.67	199	291	P	V
		5718.4	77.98	-32.37	110.35	66.63	32.21	8.82	29.68	199	291	P	V
		5723	80.88	-36.76	117.64	69.53	32.21	8.82	29.68	199	291	P	V
	*	5755	108.61	-	-	97.23	32.26	8.81	29.69	199	291	P	V
	*	5755	100.91	-	-	89.53	32.26	8.81	29.69	199	291	A	V
		5854	53.36	-59.72	113.08	41.84	32.41	8.85	29.74	199	291	P	V
		5864	54.06	-54.22	108.28	42.53	32.41	8.87	29.75	199	291	P	V
		5907.8	53.11	-27.78	80.89	41.49	32.48	8.9	29.76	199	291	P	V
		5936.4	51.99	-16.21	68.2	40.34	32.5	8.93	29.78	199	291	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 159 5795MHz		5620.6	53.04	-15.16	68.2	41.76	32.07	8.85	29.64	244	155	P	H
		5697.8	54.28	-49.3	103.58	42.95	32.17	8.83	29.67	244	155	P	H
		5716.2	59.58	-50.16	109.74	48.25	32.19	8.82	29.68	244	155	P	H
		5724	57.32	-62.6	119.92	45.97	32.21	8.82	29.68	244	155	P	H
	*	5795	107.82	-	-	96.43	32.31	8.8	29.72	244	155	P	H
	*	5795	100.65	-	-	89.26	32.31	8.8	29.72	244	155	A	H
		5853.6	60.25	-53.74	113.99	48.73	32.41	8.85	29.74	244	155	P	H
		5861.2	59.84	-49.22	109.06	48.33	32.41	8.85	29.75	244	155	P	H
		5886	52.53	-44.5	97.03	40.98	32.43	8.88	29.76	244	155	P	H
		5926.2	52.28	-15.92	68.2	40.64	32.5	8.91	29.77	244	155	P	H
		5628.6	52.76	-15.44	68.2	41.5	32.07	8.84	29.65	209	294	P	V
		5690.2	53.05	-44.92	97.97	41.72	32.17	8.83	29.67	209	294	P	V
		5710	57.28	-50.72	108	45.95	32.19	8.82	29.68	209	294	P	V
		5723.2	57.48	-60.62	118.1	46.13	32.21	8.82	29.68	209	294	P	V
	*	5795	108.89	-	-	97.5	32.31	8.8	29.72	209	294	P	V
	*	5795	101.76	-	-	90.37	32.31	8.8	29.72	209	294	A	V
		5851.6	65.15	-53.4	118.55	53.66	32.38	8.85	29.74	209	294	P	V
		5856.4	62.83	-47.58	110.41	51.31	32.41	8.85	29.74	209	294	P	V
		5886.2	55.71	-41.17	96.88	44.16	32.43	8.88	29.76	209	294	P	V
		5949.2	53.46	-14.74	68.2	41.78	32.53	8.93	29.78	209	294	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		11510	47.14	-26.86	74	55.88	39.9	12.76	61.4	100	0	P	H
HT40		17265	49.27	-18.93	68.2	50.58	40.96	15.12	57.39	100	0	P	H
CH 151		11510	48.08	-25.92	74	56.82	39.9	12.76	61.4	100	0	P	V
5755MHz		17265	49.62	-18.58	68.2	50.93	40.96	15.12	57.39	100	0	P	V
802.11n		11590	47.63	-26.37	74	56.63	39.73	12.79	61.52	100	0	P	H
HT40		17385	49.71	-18.49	68.2	50.16	41.38	15.17	57	100	0	P	H
CH 159		11590	48.79	-25.21	74	57.79	39.73	12.79	61.52	100	0	P	V
5795MHz		17385	49.23	-18.97	68.2	49.68	41.38	15.17	57	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 155 5775MHz		5647.8	57.16	-11.04	68.2	45.88	32.09	8.84	29.65	221	157	P	H
		5689	73.47	-23.62	97.09	62.14	32.17	8.83	29.67	221	157	P	H
		5713.2	77.5	-31.4	108.9	66.17	32.19	8.82	29.68	221	157	P	H
		5720.8	78.49	-34.13	112.62	67.14	32.21	8.82	29.68	221	157	P	H
	*	5775	105.18	-	-	93.8	32.29	8.8	29.71	221	157	P	H
	*	5775	98.05	-	-	86.67	32.29	8.8	29.71	221	157	A	H
		5852.2	74.01	-43.17	117.18	62.52	32.38	8.85	29.74	221	157	P	H
		5855.4	71.06	-39.63	110.69	59.54	32.41	8.85	29.74	221	157	P	H
		5875.2	62.81	-42.24	105.05	51.26	32.43	8.87	29.75	221	157	P	H
		5925.2	52.93	-15.27	68.2	41.29	32.5	8.91	29.77	221	157	P	H
		5641.4	58.09	-10.11	68.2	46.81	32.09	8.84	29.65	210	292	P	V
		5688.8	73.08	-23.86	96.94	61.75	32.17	8.83	29.67	210	292	P	V
		5718.8	77.5	-32.96	110.46	66.15	32.21	8.82	29.68	210	292	P	V
		5725	78.64	-43.56	122.2	67.29	32.21	8.82	29.68	210	292	P	V
	*	5775	105.66	-	-	94.28	32.29	8.8	29.71	210	292	P	V
	*	5775	98.6	-	-	87.22	32.29	8.8	29.71	210	292	A	V
		5851.6	72.27	-46.28	118.55	60.78	32.38	8.85	29.74	210	292	P	V
		5869	71.2	-35.68	106.88	59.67	32.41	8.87	29.75	210	292	P	V
		5875.6	63.17	-41.58	104.75	51.62	32.43	8.87	29.75	210	292	P	V
		5933.8	52.88	-15.32	68.2	41.22	32.5	8.93	29.77	210	292	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11550	46.55	-27.45	74	55.44	39.8	12.78	61.47	100	0	P	H
VHT80		17325	48.54	-19.66	68.2	49.48	41.14	15.14	57.22	100	0	P	H
CH 155		11550	46.53	-27.47	74	55.42	39.8	12.78	61.47	100	0	P	V
5775MHz		17325	49.17	-19.03	68.2	50.11	41.14	15.14	57.22	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 802.11a (LF @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
5GHz 802.11a LF		37.02	25.26	-14.74	40	36.35	21.24	0	32.33	-	-	P	H
		149.88	23.45	-20.05	43.5	38.52	17.16	0.05	32.28	-	-	P	H
		282.72	23.52	-22.48	46	36.71	18.89	0.07	32.15	-	-	P	H
		563.2	26.75	-19.25	46	32.97	25.89	0.1	32.21	-	-	P	H
		885.9	36.23	-9.77	46	38.71	28.99	0.11	31.58	100	0	P	H
		952.4	29.64	-16.36	46	29.79	30.75	0.14	31.04			P	H
		31.08	30.19	-9.81	40	38.59	23.96	-0.02	32.34	100	0	P	V
		37.02	28.05	-11.95	40	39.14	21.24	0	32.33	-	-	P	V
		149.88	22.92	-20.58	43.5	37.99	17.16	0.05	32.28	-	-	P	V
		563.2	26.68	-19.32	46	32.9	25.89	0.1	32.21	-	-	P	V
		885.9	31.47	-14.53	46	33.95	28.99	0.11	31.58	-	-	P	V
		938.4	32.89	-13.11	46	33.91	30.01	0.13	31.16	-	-	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 Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 149 5745MHz		5629.2	54.59	-13.61	68.2	43.33	32.07	8.84	29.65	309	280	P	H
		5690.2	63.22	-34.75	97.97	51.89	32.17	8.83	29.67	309	280	P	H
		5719.2	79.4	-31.18	110.58	68.05	32.21	8.82	29.68	309	280	P	H
		5724.6	85.4	-35.89	121.29	74.05	32.21	8.82	29.68	309	280	P	H
	*	5745	117.11	-	-	105.75	32.24	8.81	29.69	309	280	P	H
	*	5745	110.28	-	-	98.92	32.24	8.81	29.69	309	280	A	H
		5641.8	53.52	-14.68	68.2	42.24	32.09	8.84	29.65	199	288	P	V
		5697.2	60.33	-42.81	103.14	49	32.17	8.83	29.67	199	288	P	V
		5717.2	69.42	-40.6	110.02	58.09	32.19	8.82	29.68	199	288	P	V
		5724.8	79.3	-42.44	121.74	67.95	32.21	8.82	29.68	199	288	P	V
	*	5745	114.86	-	-	103.5	32.24	8.81	29.69	199	288	P	V
	*	5745	107.54	-	-	96.18	32.24	8.81	29.69	199	288	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 157 5785MHz		5638.8	54.42	-13.78	68.2	43.14	32.09	8.84	29.65	309	297	P	H
		5684	54.24	-39.16	93.4	42.91	32.17	8.83	29.67	309	297	P	H
		5718.6	57.38	-53.03	110.41	46.03	32.21	8.82	29.68	309	297	P	H
		5723	57.16	-60.48	117.64	45.81	32.21	8.82	29.68	309	297	P	H
	*	5785	117.73	-	-	106.36	32.29	8.8	29.72	309	297	P	H
	*	5785	110.41	-	-	99.04	32.29	8.8	29.72	309	297	A	H
		5852.4	52.64	-64.09	116.73	41.15	32.38	8.85	29.74	309	297	P	H
		5871.4	53.15	-53.06	106.21	41.6	32.43	8.87	29.75	309	297	P	H
		5879.4	54.4	-47.53	101.93	42.84	32.43	8.88	29.75	309	297	P	H
		5928.8	53.03	-15.17	68.2	41.39	32.5	8.91	29.77	309	297	P	H
		5639.6	53.39	-14.81	68.2	42.11	32.09	8.84	29.65	199	290	P	V
		5675.6	53.31	-33.87	87.18	42	32.14	8.83	29.66	199	290	P	V
		5715.4	54.03	-55.48	109.51	42.7	32.19	8.82	29.68	199	290	P	V
		5725	53.64	-68.56	122.2	42.29	32.21	8.82	29.68	199	290	P	V
	*	5785	114.18	-	-	102.81	32.29	8.8	29.72	199	290	P	V
	*	5785	107.25	-	-	95.88	32.29	8.8	29.72	199	290	A	V
		5853.6	51.38	-62.61	113.99	39.86	32.41	8.85	29.74	199	290	P	V
		5869.2	51.91	-54.91	106.82	40.38	32.41	8.87	29.75	199	290	P	V
		5906.6	53.32	-28.46	81.78	41.7	32.48	8.9	29.76	199	290	P	V
		5936.2	51.86	-16.34	68.2	40.21	32.5	8.93	29.78	199	290	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 165 5825MHz	*	5825	117.32	-	-	105.87	32.36	8.82	29.73	308	276	P	H
	*	5825	110.24	-	-	98.79	32.36	8.82	29.73	308	276	A	H
		5852.8	76.39	-39.43	115.82	64.9	32.38	8.85	29.74	308	276	P	H
		5855	69.55	-41.25	110.8	58.03	32.41	8.85	29.74	308	276	P	H
		5891.8	55.11	-37.62	92.73	43.53	32.46	8.88	29.76	308	276	P	H
		5938.2	52	-16.2	68.2	40.35	32.5	8.93	29.78	308	276	P	H
	*	5825	114.6	-	-	103.15	32.36	8.82	29.73	101	195	P	V
	*	5825	107.47	-	-	96.02	32.36	8.82	29.73	101	195	A	V
		5851.6	69.38	-49.17	118.55	57.89	32.38	8.85	29.74	101	195	P	V
		5855.4	62.15	-48.54	110.69	50.63	32.41	8.85	29.74	101	195	P	V
		5875.6	54.7	-50.05	104.75	43.15	32.43	8.87	29.75	101	195	P	V
		5932	52.39	-15.81	68.2	40.75	32.5	8.91	29.77	101	195	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 149 5745MHz		11490	53.47	-20.53	74	62.2	39.92	12.24	61.4	190	304	P	H
		11490	44.03	-9.97	54	52.76	39.92	12.24	61.4	190	304	A	H
		17235	50.59	-17.61	68.2	52.15	40.84	14.47	57.51	100	0	P	H
		11490	50.79	-23.21	74	59.52	39.92	12.24	61.4	148	296	P	V
		11490	41.76	-12.24	54	50.49	39.92	12.24	61.4	148	296	A	V
		17235	50.53	-17.67	68.2	52.09	40.84	14.47	57.51	100	0	P	V
802.11a CH 157 5785MHz		11570	56.46	-17.54	74	65.41	39.76	12.79	61.5	196	236	P	H
		11570	48.09	-5.91	54	57.04	39.76	12.79	61.5	196	236	A	H
		17355	49.46	-18.74	68.2	50.16	41.26	15.15	57.11	100	0	P	H
		11570	53.35	-20.65	74	62.3	39.76	12.79	61.5	178	305	P	V
		11570	44.65	-9.35	54	53.6	39.76	12.79	61.5	178	305	A	V
		17355	49.93	-18.27	68.2	50.63	41.26	15.15	57.11	100	0	P	V
802.11a CH 165 5825MHz		11650	48.29	-25.71	74	57.43	39.62	12.83	61.59	100	0	P	H
		17475	49.83	-18.37	68.2	49.66	41.68	15.2	56.71	100	0	P	H
		11650	47.34	-26.66	74	56.48	39.62	12.83	61.59	100	0	P	V
		17475	50.33	-17.87	68.2	50.16	41.68	15.2	56.71	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 149 5745MHz		5645.2	54.93	-13.27	68.2	43.65	32.09	8.84	29.65	331	280	P	H
		5685.6	60.72	-33.86	94.58	49.39	32.17	8.83	29.67	331	280	P	H
		5719.8	77.03	-33.71	110.74	65.68	32.21	8.82	29.68	331	280	P	H
		5724.8	84.06	-37.68	121.74	72.71	32.21	8.82	29.68	331	280	P	H
	*	5745	115.24	-	-	103.88	32.24	8.81	29.69	331	280	P	H
	*	5745	108.07	-	-	96.71	32.24	8.81	29.69	331	280	A	H
		5609.8	53.25	-14.95	68.2	42	32.04	8.85	29.64	199	288	P	V
		5696.4	56.99	-45.56	102.55	45.66	32.17	8.83	29.67	199	288	P	V
		5718.2	68.97	-41.33	110.3	57.62	32.21	8.82	29.68	199	288	P	V
		5723.6	76.32	-42.69	119.01	64.97	32.21	8.82	29.68	199	288	P	V
	*	5745	113.07	-	-	101.71	32.24	8.81	29.69	199	288	P	V
	*	5745	106.1	-	-	94.74	32.24	8.81	29.69	199	288	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 157 5785MHz		5612.2	53.87	-14.33	68.2	42.62	32.04	8.85	29.64	294	276	P	H
		5693.8	55.76	-44.87	100.63	44.43	32.17	8.83	29.67	294	276	P	H
		5718.8	55.66	-54.8	110.46	44.31	32.21	8.82	29.68	294	276	P	H
		5722.6	56.06	-60.67	116.73	44.71	32.21	8.82	29.68	294	276	P	H
	*	5785	116.53	-	-	105.16	32.29	8.8	29.72	294	276	P	H
	*	5785	109.47	-	-	98.1	32.29	8.8	29.72	294	276	A	H
		5850.6	52.24	-68.59	120.83	40.75	32.38	8.85	29.74	294	276	P	H
		5855.6	54.47	-56.16	110.63	42.95	32.41	8.85	29.74	294	276	P	H
		5883.8	53.95	-44.72	98.67	42.4	32.43	8.88	29.76	294	276	P	H
		5928	51.57	-16.63	68.2	39.93	32.5	8.91	29.77	294	276	P	H
		5621	52.93	-15.27	68.2	41.65	32.07	8.85	29.64	213	291	P	V
		5661.8	54.47	-22.49	76.96	43.17	32.12	8.84	29.66	213	291	P	V
		5713.4	53.31	-55.64	108.95	41.98	32.19	8.82	29.68	213	291	P	V
		5720.8	54.06	-58.56	112.62	42.71	32.21	8.82	29.68	213	291	P	V
	*	5785	113.18	-	-	101.81	32.29	8.8	29.72	213	291	P	V
	*	5785	106.33	-	-	94.96	32.29	8.8	29.72	213	291	A	V
		5851.6	52.95	-65.6	118.55	41.46	32.38	8.85	29.74	213	291	P	V
		5873.8	52.69	-52.85	105.54	41.14	32.43	8.87	29.75	213	291	P	V
		5882	52.93	-47.07	100	41.37	32.43	8.88	29.75	213	291	P	V
		5933	51.63	-16.57	68.2	39.99	32.5	8.91	29.77	213	291	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)	Path 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	115.86	-	-	104.41	32.36	8.82	29.73	293	276	P	H
	*	5825	109.17	-	-	97.72	32.36	8.82	29.73	293	276	A	H
		5851.6	75.01	-43.54	118.55	63.52	32.38	8.85	29.74	293	276	P	H
		5855.8	68.34	-42.24	110.58	56.82	32.41	8.85	29.74	293	276	P	H
		5876.8	56.72	-47.14	103.86	45.17	32.43	8.87	29.75	293	276	P	H
		5933.6	53.12	-15.08	68.2	41.46	32.5	8.93	29.77	293	276	P	H
	*	5825	112.61	-	-	101.16	32.36	8.82	29.73	215	291	P	V
	*	5825	105.68	-	-	94.23	32.36	8.82	29.73	215	291	A	V
		5850.2	70.54	-51.2	121.74	59.05	32.38	8.85	29.74	215	291	P	V
		5855.8	64.24	-46.34	110.58	52.72	32.41	8.85	29.74	215	291	P	V
		5877.4	53.48	-49.94	103.42	41.93	32.43	8.87	29.75	215	291	P	V
		5926.6	52.45	-15.75	68.2	40.81	32.5	8.91	29.77	215	291	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 149 5745MHz		11490	55.42	-18.58	74	64.15	39.92	12.75	61.4	190	237	P	H
		11490	46.11	-7.89	54	54.84	39.92	12.75	61.4	190	237	A	H
		17235	49.47	-18.73	68.2	51.03	40.84	15.11	57.51	100	0	P	H
		11490	53.55	-20.45	74	62.28	39.92	12.75	61.4	219	163	P	V
		11490	44.21	-9.79	54	52.94	39.92	12.75	61.4	219	163	A	V
		17235	49.56	-18.64	68.2	51.12	40.84	15.11	57.51	100	0	P	V
802.11n HT20 CH 157 5785MHz		11570	55.64	-18.36	74	64.59	39.76	12.79	61.5	191	239	P	H
		11570	45.54	-8.46	54	54.49	39.76	12.79	61.5	191	239	A	H
		17355	49.44	-18.76	68.2	50.14	41.26	15.15	57.11	100	0	P	H
		11570	54.26	-19.74	74	63.21	39.76	12.79	61.5	188	172	P	V
		11570	44.04	-9.96	54	52.99	39.76	12.79	61.5	188	172	A	V
		17355	48.69	-19.51	68.2	49.39	41.26	15.15	57.11	100	0	P	V
802.11n HT20 CH 165 5825MHz		11650	51.33	-22.67	74	60.47	39.62	12.83	61.59	201	235	P	H
		11650	42.17	-11.83	54	51.31	39.62	12.83	61.59	201	235	A	H
		17475	49.59	-18.61	68.2	49.42	41.68	15.2	56.71	100	0	P	H
		11650	48.21	-25.79	74	57.35	39.62	12.83	61.59	100	0	P	V
		17475	50.11	-18.09	68.2	49.94	41.68	15.2	56.71	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 151 5755MHz		5647.2	59.07	-9.13	68.2	47.79	32.09	8.84	29.65	320	280	P	H
		5698.4	74.43	-29.59	104.02	63.1	32.17	8.83	29.67	320	280	P	H
		5719.2	86.45	-24.13	110.58	75.1	32.21	8.82	29.68	320	280	P	H
		5724.6	88.08	-33.21	121.29	76.73	32.21	8.82	29.68	320	280	P	H
	*	5755	113.5	-	-	102.12	32.26	8.81	29.69	320	280	P	H
	*	5755	106.32	-	-	94.94	32.26	8.81	29.69	320	280	A	H
		5851	55.87	-64.05	119.92	44.38	32.38	8.85	29.74	320	280	P	H
		5857.2	54.91	-55.27	110.18	43.39	32.41	8.85	29.74	320	280	P	H
		5880.6	53.51	-47.53	101.04	41.95	32.43	8.88	29.75	320	280	P	H
		5935	52.46	-15.74	68.2	40.81	32.5	8.93	29.78	320	280	P	H
		5650	54	-14.2	68.2	42.69	32.12	8.84	29.65	234	289	P	V
		5695.4	66.87	-34.94	101.81	55.54	32.17	8.83	29.67	234	289	P	V
		5717.4	80.45	-29.62	110.07	69.12	32.19	8.82	29.68	234	289	P	V
		5722.8	83.41	-33.77	117.18	72.06	32.21	8.82	29.68	234	289	P	V
	*	5755	109.9	-	-	98.52	32.26	8.81	29.69	234	289	P	V
	*	5755	102.92	-	-	91.54	32.26	8.81	29.69	234	289	A	V
		5852.2	51.45	-65.73	117.18	39.96	32.38	8.85	29.74	234	289	P	V
		5857.2	52.53	-57.65	110.18	41.01	32.41	8.85	29.74	234	289	P	V
		5902.2	52.28	-32.75	85.03	40.68	32.46	8.9	29.76	234	289	P	V
		5925.6	52.03	-16.17	68.2	40.39	32.5	8.91	29.77	234	289	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 159 5795MHz		5638.4	54.68	-13.52	68.2	43.4	32.09	8.84	29.65	302	277	P	H
		5688.6	59.38	-37.41	96.79	48.05	32.17	8.83	29.67	302	277	P	H
		5718.4	67.65	-42.7	110.35	56.3	32.21	8.82	29.68	302	277	P	H
		5724.8	69.23	-52.51	121.74	57.88	32.21	8.82	29.68	302	277	P	H
	*	5795	112.8	-	-	101.41	32.31	8.8	29.72	302	277	P	H
	*	5795	106.38	-	-	94.99	32.31	8.8	29.72	302	277	A	H
		5850.4	67.84	-53.45	121.29	56.35	32.38	8.85	29.74	302	277	P	H
		5857	69.06	-41.18	110.24	57.54	32.41	8.85	29.74	302	277	P	H
		5880.8	57.93	-42.96	100.89	46.37	32.43	8.88	29.75	302	277	P	H
		5932.4	52.18	-16.02	68.2	40.54	32.5	8.91	29.77	302	277	P	H
		5604.8	53.8	-14.4	68.2	42.55	32.04	8.85	29.64	225	291	P	V
		5696.6	56.17	-46.52	102.69	44.84	32.17	8.83	29.67	225	291	P	V
		5714.8	59.89	-49.46	109.35	48.56	32.19	8.82	29.68	225	291	P	V
		5724.8	60.54	-61.2	121.74	49.19	32.21	8.82	29.68	225	291	P	V
	*	5795	109.9	-	-	98.51	32.31	8.8	29.72	225	291	P	V
	*	5795	102.72	-	-	91.33	32.31	8.8	29.72	225	291	A	V
		5850.6	68.26	-52.57	120.83	56.77	32.38	8.85	29.74	225	291	P	V
		5869	60.09	-46.79	106.88	48.56	32.41	8.87	29.75	225	291	P	V
		5890.6	54.81	-38.81	93.62	43.23	32.46	8.88	29.76	225	291	P	V
		5940.2	52.25	-15.95	68.2	40.57	32.53	8.93	29.78	225	291	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)	Path 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	52.53	-21.47	74	61.27	39.9	12.76	61.4	188	238	P	H
		11510	44.68	-9.32	54	53.42	39.9	12.76	61.4	188	238	A	H
		17265	50.02	-18.18	68.2	51.33	40.96	15.12	57.39	100	0	P	H
		11510	50.83	-23.17	74	59.57	39.9	12.76	61.4	202	173	P	V
		11510	42.79	-11.21	54	51.53	39.9	12.76	61.4	202	173	A	V
		17265	49.71	-18.49	68.2	51.02	40.96	15.12	57.39	100	0	P	V
802.11n HT40 CH 159 5795MHz		11590	48.77	-25.23	74	57.77	39.73	12.79	61.52	100	0	P	H
		17385	50.21	-17.99	68.2	50.66	41.38	15.17	57	100	0	P	H
		11590	48.79	-25.21	74	57.79	39.73	12.79	61.52	100	0	P	V
		17385	49.98	-18.22	68.2	50.43	41.38	15.17	57	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 155 5775MHz		5643.8	65.76	-2.44	68.2	54.48	32.09	8.84	29.65	305	284	P	H
		5680.4	80.58	-10.15	90.73	69.28	32.14	8.83	29.67	305	284	P	H
		5719.8	86.65	-24.09	110.74	75.3	32.21	8.82	29.68	305	284	P	H
		5722.2	86.84	-28.98	115.82	75.49	32.21	8.82	29.68	305	284	P	H
	*	5775	109.81	-	-	98.43	32.29	8.8	29.71	305	284	P	H
	*	5775	102.7	-	-	91.32	32.29	8.8	29.71	305	284	A	H
		5852.6	76.46	-39.81	116.27	64.97	32.38	8.85	29.74	305	284	P	H
		5855.4	75.81	-34.88	110.69	64.29	32.41	8.85	29.74	305	284	P	H
		5877	67.08	-36.63	103.71	55.53	32.43	8.87	29.75	305	284	P	H
		5925.2	58.38	-9.82	68.2	46.74	32.5	8.91	29.77	305	284	P	H
		5643.8	58.96	-9.24	68.2	47.68	32.09	8.84	29.65	239	292	P	V
		5689.2	74.18	-23.06	97.24	62.85	32.17	8.83	29.67	239	292	P	V
		5719.4	79.28	-31.35	110.63	67.93	32.21	8.82	29.68	239	292	P	V
		5721.8	79.42	-35.48	114.9	68.07	32.21	8.82	29.68	239	292	P	V
	*	5775	105.3	-	-	93.92	32.29	8.8	29.71	239	292	P	V
	*	5775	98.7	-	-	87.32	32.29	8.8	29.71	239	292	A	V
		5852.4	73.39	-43.34	116.73	61.9	32.38	8.85	29.74	239	292	P	V
		5855.4	69.9	-40.79	110.69	58.38	32.41	8.85	29.74	239	292	P	V
		5875	62.86	-42.34	105.2	51.31	32.43	8.87	29.75	239	292	P	V
		5927.2	53.72	-14.48	68.2	42.08	32.5	8.91	29.77	239	292	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11550	48.3	-25.7	74	57.19	39.8	12.78	61.47	100	0	P	H
VHT80		17325	48.25	-19.95	68.2	49.19	41.14	15.14	57.22	100	0	P	H
CH 155		11550	46.32	-27.68	74	55.21	39.8	12.78	61.47	100	0	P	V
5775MHz		17325	49.31	-18.89	68.2	50.25	41.14	15.14	57.22	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 Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
5GHz 802.11ac VHT80 LF		31.35	24.91	-15.09	40	33.31	23.96	-0.02	32.34	-	-	P	H
		149.88	23.65	-19.85	43.5	38.72	17.16	0.05	32.28	-	-	P	H
		282.72	23.65	-22.35	46	36.84	18.89	0.07	32.15	-	-	P	H
		563.2	25.16	-20.84	46	31.38	25.89	0.1	32.21	-	-	P	H
		885.2	35.1	-10.9	46	37.57	28.99	0.12	31.58	100	0	P	H
		890.8	32.44	-13.56	46	34.88	29	0.11	31.55	-	-	P	H
		31.35	31.57	-8.43	40	39.97	23.96	-0.02	32.34	100	0	P	V
		36.21	21.15	-18.85	40	31.73	21.75	0	32.33	-	-	P	V
		50.25	19.77	-20.23	40	37.54	14.53	0.02	32.32	-	-	P	V
		563.2	27.75	-18.25	46	33.97	25.89	0.1	32.21	-	-	P	V
		887.3	35.74	-10.26	46	38.21	28.99	0.11	31.57	-	-	P	V
		938.4	32.31	-13.69	46	33.33	30.01	0.13	31.16	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

<TXBF Mode>

Band 4 - 5725~5850MHz

WIFI 802.11ac VHT20 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 149 5745MHz		5649	55.34	-12.86	68.2	44.06	32.09	8.84	29.65	336	283	P	H
		5699.2	61.21	-43.4	104.61	49.88	32.17	8.83	29.67	336	283	P	H
		5719.4	78.97	-31.66	110.63	67.62	32.21	8.82	29.68	336	283	P	H
		5724.4	83.37	-37.46	120.83	72.02	32.21	8.82	29.68	336	283	P	H
	*	5745	115.75	-	-	104.39	32.24	8.81	29.69	336	283	P	H
	*	5745	108.58	-	-	97.22	32.24	8.81	29.69	336	283	A	H
		5643.4	54.07	-14.13	68.2	42.79	32.09	8.84	29.65	339	258	P	V
		5696.8	57.05	-45.79	102.84	45.72	32.17	8.83	29.67	339	258	P	V
		5718	68.53	-41.71	110.24	57.18	32.21	8.82	29.68	339	258	P	V
		5723.8	80.98	-38.48	119.46	69.63	32.21	8.82	29.68	339	258	P	V
	*	5745	113.82	-	-	102.46	32.24	8.81	29.69	339	258	P	V
	*	5745	106.89	-	-	95.53	32.24	8.81	29.69	339	258	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 157 5785MHz		5626.6	55.22	-12.98	68.2	43.94	32.07	8.85	29.64	309	284	P	H
		5653.6	55.58	-15.29	70.87	44.27	32.12	8.84	29.65	309	284	P	H
		5718.6	56.56	-53.85	110.41	45.21	32.21	8.82	29.68	309	284	P	H
		5724.2	59.03	-61.35	120.38	47.68	32.21	8.82	29.68	309	284	P	H
	*	5785	116.11	-	-	104.74	32.29	8.8	29.72	309	284	P	H
	*	5785	108.6	-	-	97.23	32.29	8.8	29.72	309	284	A	H
		5854.4	52.8	-59.37	112.17	41.28	32.41	8.85	29.74	309	284	P	H
		5856.8	53.28	-57.02	110.3	41.76	32.41	8.85	29.74	309	284	P	H
		5904.8	53.55	-29.56	83.11	41.93	32.48	8.9	29.76	309	284	P	H
		5937.4	52.13	-16.07	68.2	40.48	32.5	8.93	29.78	309	284	P	H
		5649.4	52.74	-15.46	68.2	41.46	32.09	8.84	29.65	320	258	P	V
		5695.6	55.44	-46.52	101.96	44.11	32.17	8.83	29.67	320	258	P	V
		5700.6	54.47	-50.9	105.37	43.13	32.19	8.82	29.67	320	258	P	V
		5724.6	53.07	-68.22	121.29	41.72	32.21	8.82	29.68	320	258	P	V
	*	5785	113.35	-	-	101.98	32.29	8.8	29.72	320	258	P	V
	*	5785	106.33	-	-	94.96	32.29	8.8	29.72	320	258	A	V
		5851.4	52.51	-66.5	119.01	41.02	32.38	8.85	29.74	320	258	P	V
		5864.2	52.57	-55.65	108.22	41.04	32.41	8.87	29.75	320	258	P	V
		5894	52.71	-38.39	91.1	41.13	32.46	8.88	29.76	320	258	P	V
		5949.6	51.7	-16.5	68.2	40.02	32.53	8.93	29.78	320	258	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 165 5825MHz	*	5825	115.58	-	-	104.13	32.36	8.82	29.73	307	283	P	H
	*	5825	108.65	-	-	97.2	32.36	8.82	29.73	307	283	A	H
		5850.6	76.8	-44.03	120.83	65.31	32.38	8.85	29.74	307	283	P	H
		5855.8	70.3	-40.28	110.58	58.78	32.41	8.85	29.74	307	283	P	H
		5876.2	56.39	-47.92	104.31	44.84	32.43	8.87	29.75	307	283	P	H
		5932.6	53.04	-15.16	68.2	41.4	32.5	8.91	29.77	307	283	P	H
	*	5825	112.95	-	-	101.5	32.36	8.82	29.73	253	280	P	V
	*	5825	106.53	-	-	95.08	32.36	8.82	29.73	253	280	A	V
		5851.2	70.42	-49.04	119.46	58.93	32.38	8.85	29.74	253	280	P	V
		5856	64.67	-45.85	110.52	53.15	32.41	8.85	29.74	253	280	P	V
		5876.6	56.14	-47.87	104.01	44.59	32.43	8.87	29.75	253	280	P	V
		5945.2	52.87	-15.33	68.2	41.19	32.53	8.93	29.78	253	280	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 VHT20 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 149 5745MHz		11490	54.53	-19.47	74	63.26	39.92	12.75	61.4	204	304	P	H
		11490	44.74	-9.26	54	53.47	39.92	12.75	61.4	204	304	A	H
		17235	59.01	-9.19	68.2	60.57	40.84	15.11	57.51	100	0	P	H
		11490	55.49	-18.51	74	64.22	39.92	12.75	61.4	270	299	P	V
		11490	45.57	-8.43	54	54.3	39.92	12.75	61.4	270	299	A	V
		17235	54.41	-13.79	68.2	55.97	40.84	15.11	57.51	100	0	P	V
802.11ac VHT20 CH 157 5785MHz		11570	55.42	-18.58	74	64.37	39.76	12.79	61.5	200	301	P	H
		11570	45.65	-8.35	54	54.6	39.76	12.79	61.5	200	301	A	H
		17355	54.7	-13.5	68.2	55.4	41.26	15.15	57.11	100	0	P	H
		11570	55.66	-18.34	74	64.61	39.76	12.79	61.5	274	299	P	V
		11570	45.74	-8.26	54	54.69	39.76	12.79	61.5	274	299	A	V
		17355	52.6	-15.6	68.2	53.3	41.26	15.15	57.11	100	0	P	V
802.11ac VHT20 CH 165 5825MHz		11650	48.44	-25.56	74	57.58	39.62	12.83	61.59	100	0	P	H
		17475	53.68	-14.52	68.2	53.51	41.68	15.2	56.71	100	0	P	H
		11650	47.25	-26.75	74	56.39	39.62	12.83	61.59	100	0	P	V
		17475	51.65	-16.55	68.2	51.48	41.68	15.2	56.71	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 VHT40 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 151 5755MHz		5650	59.82	-8.38	68.2	48.51	32.12	8.84	29.65	269	303	P	H
		5698.4	77.61	-26.41	104.02	66.28	32.17	8.83	29.67	269	303	P	H
		5718.2	91.33	-18.97	110.3	79.98	32.21	8.82	29.68	269	303	P	H
		5724.2	93.2	-27.18	120.38	81.85	32.21	8.82	29.68	269	303	P	H
	*	5755	115.3	-	-	103.92	32.26	8.81	29.69	269	303	P	H
	*	5755	108.43	-	-	97.05	32.26	8.81	29.69	269	303	A	H
		5852.2	55.89	-61.29	117.18	44.4	32.38	8.85	29.74	269	303	P	H
		5855.6	55.86	-54.77	110.63	44.34	32.41	8.85	29.74	269	303	P	H
		5896.2	54.72	-34.75	89.47	43.14	32.46	8.88	29.76	269	303	P	H
		5936.2	52.88	-15.32	68.2	41.23	32.5	8.93	29.78	269	303	P	H
		5648	56.05	-12.15	68.2	44.77	32.09	8.84	29.65	307	286	P	V
		5696.6	70.67	-32.02	102.69	59.34	32.17	8.83	29.67	307	286	P	V
		5719.4	84.67	-25.96	110.63	73.32	32.21	8.82	29.68	307	286	P	V
		5721.8	86.18	-28.72	114.9	74.83	32.21	8.82	29.68	307	286	P	V
	*	5755	110.28	-	-	98.9	32.26	8.81	29.69	307	286	P	V
	*	5755	103.81	-	-	92.43	32.26	8.81	29.69	307	286	A	V
		5852.4	52.96	-63.77	116.73	41.47	32.38	8.85	29.74	307	286	P	V
		5856.6	52.54	-57.81	110.35	41.02	32.41	8.85	29.74	307	286	P	V
		5887.8	53.55	-42.15	95.7	41.97	32.46	8.88	29.76	307	286	P	V
		5931.2	52.36	-15.84	68.2	40.72	32.5	8.91	29.77	307	286	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 159 5795MHz		5641.8	55.11	-13.09	68.2	43.83	32.09	8.84	29.65	295	282	P	H
		5699.4	60.69	-44.07	104.76	49.36	32.17	8.83	29.67	295	282	P	H
		5717.8	69.73	-40.45	110.18	58.38	32.21	8.82	29.68	295	282	P	H
		5724.6	65.91	-55.38	121.29	54.56	32.21	8.82	29.68	295	282	P	H
	*	5795	113.62	-	-	102.23	32.31	8.8	29.72	295	282	P	H
	*	5795	106.28	-	-	94.89	32.31	8.8	29.72	295	282	A	H
		5851	70.75	-49.17	119.92	59.26	32.38	8.85	29.74	295	282	P	H
		5856.4	67.9	-42.51	110.41	56.38	32.41	8.85	29.74	295	282	P	H
		5879.2	57.67	-44.41	102.08	46.12	32.43	8.87	29.75	295	282	P	H
		5933.8	52.8	-15.4	68.2	41.14	32.5	8.93	29.77	295	282	P	H
		5632.4	53.27	-14.93	68.2	42.01	32.07	8.84	29.65	305	286	P	V
		5699.2	56.9	-47.71	104.61	45.57	32.17	8.83	29.67	305	286	P	V
		5719.4	60.95	-49.68	110.63	49.6	32.21	8.82	29.68	305	286	P	V
		5724.2	61.95	-58.43	120.38	50.6	32.21	8.82	29.68	305	286	P	V
	*	5795	109.83	-	-	98.44	32.31	8.8	29.72	305	286	P	V
	*	5795	103.4	-	-	92.01	32.31	8.8	29.72	305	286	A	V
		5851.8	66.44	-51.66	118.1	54.95	32.38	8.85	29.74	305	286	P	V
		5856.8	63.86	-46.44	110.3	52.34	32.41	8.85	29.74	305	286	P	V
		5878.4	53.93	-48.74	102.67	42.38	32.43	8.87	29.75	305	286	P	V
		5939.2	52.28	-15.92	68.2	40.6	32.53	8.93	29.78	305	286	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 VHT40 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 151 5755MHz		11510	48.92	-25.08	74	57.66	39.9	12.76	61.4	100	0	P	H
		17265	50.69	-17.51	68.2	52	40.96	15.12	57.39	100	0	P	H
		11510	52.13	-21.87	74	60.87	39.9	12.76	61.4	202	305	P	V
		11510	43.89	-10.11	54	52.63	39.9	12.76	61.4	202	305	A	V
		17265	51.54	-16.66	68.2	52.85	40.96	15.12	57.39	100	0	P	V
802.11ac VHT40 CH 159 5795MHz		11590	48.72	-25.28	74	57.72	39.73	12.79	61.52	100	0	P	H
		17385	52.31	-15.89	68.2	52.76	41.38	15.17	57	100	0	P	H
		11590	48.6	-25.4	74	57.6	39.73	12.79	61.52	100	0	P	V
		17385	50.8	-17.4	68.2	51.25	41.38	15.17	57	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 155 5775MHz		5644.8	65.28	-2.92	68.2	54	32.09	8.84	29.65	257	303	P	H
		5689.4	81.91	-15.47	97.38	70.58	32.17	8.83	29.67	257	303	P	H
		5719.4	87.83	-22.8	110.63	76.48	32.21	8.82	29.68	257	303	P	H
		5724.8	88.6	-33.14	121.74	77.25	32.21	8.82	29.68	257	303	P	H
	*	5775	111.94	-	-	100.56	32.29	8.8	29.71	257	303	P	H
	*	5775	104.56	-	-	93.18	32.29	8.8	29.71	257	303	A	H
		5851.8	79.41	-38.69	118.1	67.92	32.38	8.85	29.74	257	303	P	H
		5855.4	76.56	-34.13	110.69	65.04	32.41	8.85	29.74	257	303	P	H
		5876	69.59	-34.87	104.46	58.04	32.43	8.87	29.75	257	303	P	H
		5926	57.59	-10.61	68.2	45.95	32.5	8.91	29.77	257	303	P	H
		5648	59.19	-9.01	68.2	47.91	32.09	8.84	29.65	299	289	P	V
		5680.6	72.88	-18	90.88	61.58	32.14	8.83	29.67	299	289	P	V
		5720	78.04	-32.76	110.8	66.69	32.21	8.82	29.68	299	289	P	V
		5720.8	78.91	-33.71	112.62	67.56	32.21	8.82	29.68	299	289	P	V
	*	5775	106.56	-	-	95.18	32.29	8.8	29.71	299	289	P	V
	*	5775	99.24	-	-	87.86	32.29	8.8	29.71	299	289	A	V
		5850.8	70.19	-50.19	120.38	58.7	32.38	8.85	29.74	299	289	P	V
		5858.2	70.03	-39.87	109.9	58.52	32.41	8.85	29.75	299	289	P	V
		5876.2	63.46	-40.85	104.31	51.91	32.43	8.87	29.75	299	289	P	V
		5933.2	52.76	-15.44	68.2	41.1	32.5	8.93	29.77	299	289	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac		11550	46.62	-27.38	74	55.51	39.8	12.78	61.47	100	0	P	H
VHT80		17325	48.35	-19.85	68.2	49.29	41.14	15.14	57.22	100	0	P	H
CH 155		11550	47.48	-26.52	74	56.37	39.8	12.78	61.47	100	0	P	V
5775MHz		17325	48.07	-20.13	68.2	49.01	41.14	15.14	57.22	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 Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
5GHz 802.11ac VHT80 LF		226.56	37.5	-8.5	46	51.9	15.95	1.88	32.23	-	-	P	H
		235.2	40.98	-5.02	46	54.45	16.87	1.88	32.22	100	0	P	H
		239.25	39.98	-6.02	46	52.97	17.28	1.95	32.22	-	-	P	H
		349.7	32.3	-13.7	46	41.67	20.49	2.28	32.14	-	-	P	H
		563.2	31.38	-14.62	46	34.82	25.89	2.88	32.21	-	-	P	H
		938.4	34.28	-11.72	46	31.73	30.01	3.7	31.16	-	-	P	H
		65.64	36.11	-3.89	40	55.16	12.13	1.13	32.31	-	-	P	V
		85.08	36.21	-3.79	40	53.02	14.26	1.23	32.3	100	0	P	V
		148.8	37.14	-6.36	43.5	50.64	17.23	1.55	32.28	-	-	P	V
		597.5	32.44	-13.56	46	36.15	25.59	2.91	32.21	-	-	P	V
		710.9	32.25	-13.75	46	34.42	26.81	3.17	32.15	-	-	P	V
		938.4	36.06	-9.94	46	33.51	30.01	3.7	31.16	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Note symbol

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

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

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (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. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)
2. Level(dBμV/m) = Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
3. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Path 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) + Path 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".

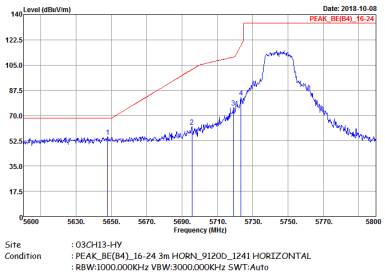
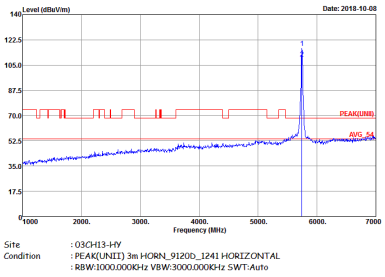
Appendix D. Radiated Spurious Emission Plots

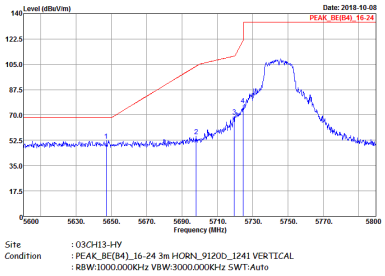
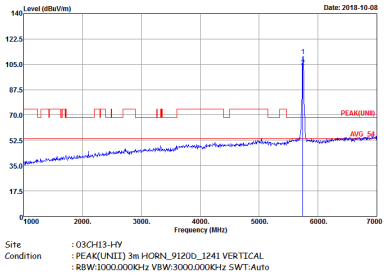
Test Engineer :	Alex Jheng, Fu Chen and Wilson Wu	Temperature :	24~25°C
		Relative Humidity :	50~52%

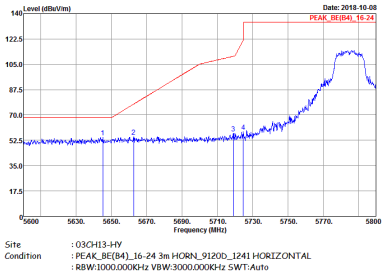
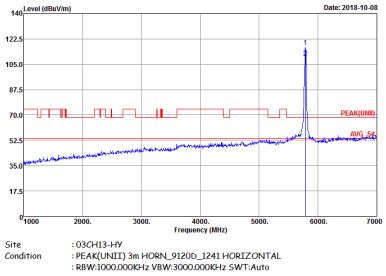
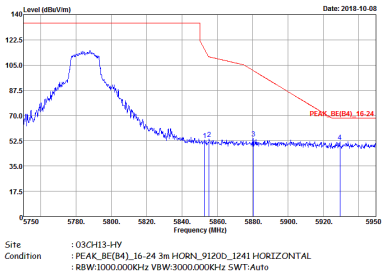
<CDD Mode>

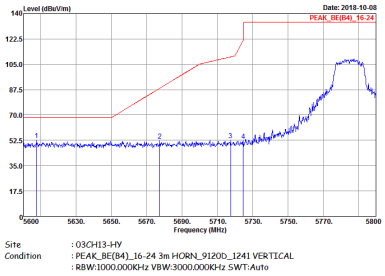
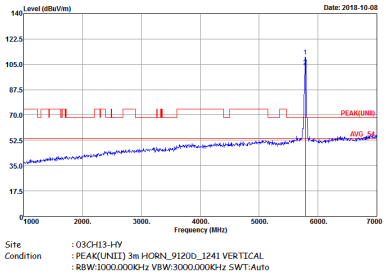
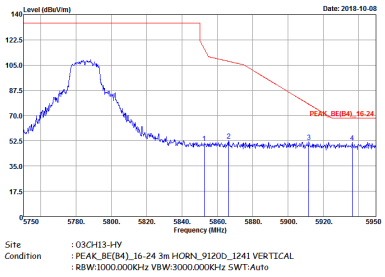
Band 4 - 5725~5850MHz

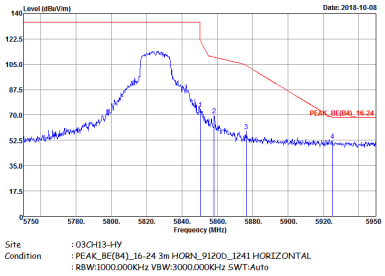
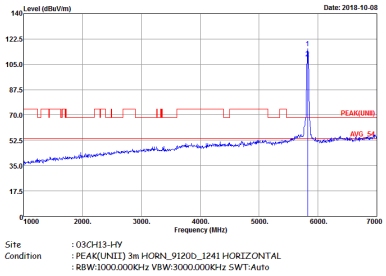
WIFI 802.11a (Band Edge @ 3m)

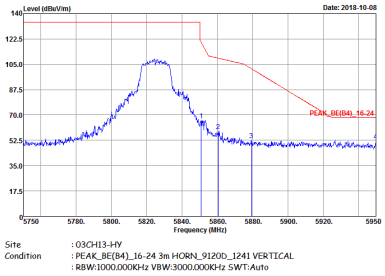
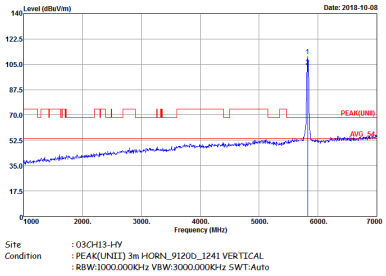
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
1	Horizontal	Fundamental
Peak		

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

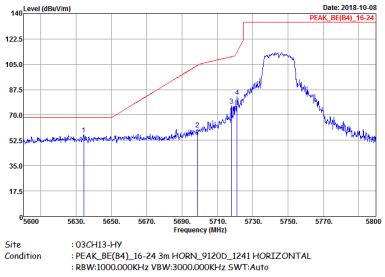
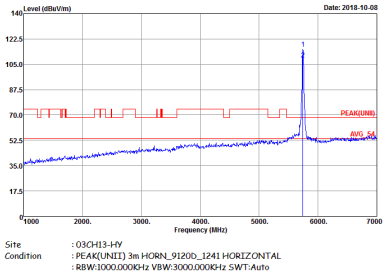
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
1	Vertical	Fundamental
Peak		
Peak		Left blank

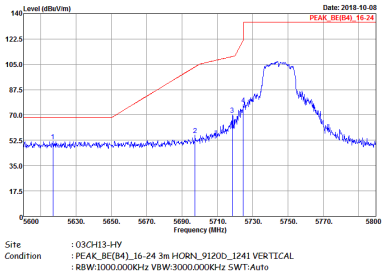
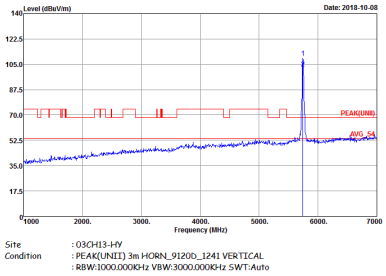
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
1	Horizontal	Fundamental
Peak		

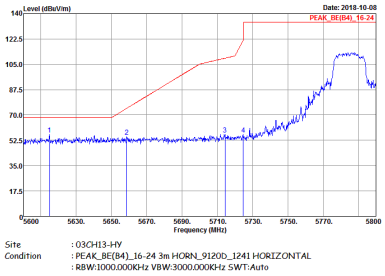
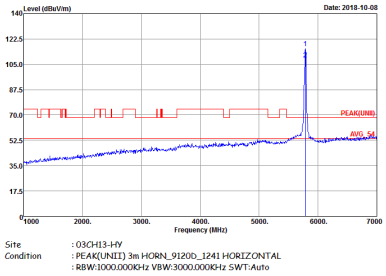
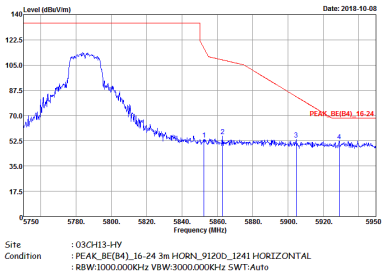
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
1	Vertical	Fundamental
Peak		

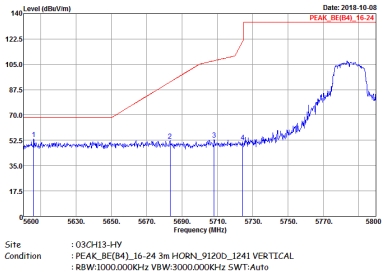
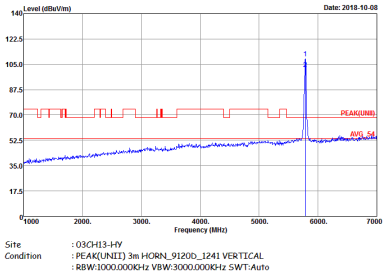
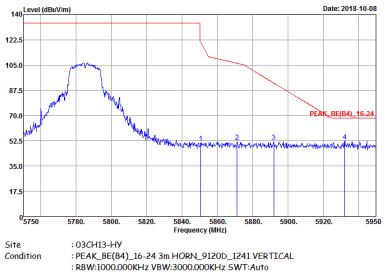
Band 4 5725~5850MHz

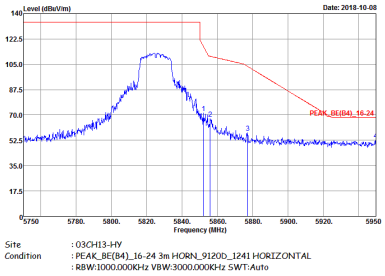
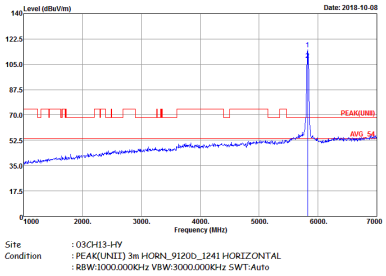
WIFI 802.11n HT20 (Band Edge @ 3m)

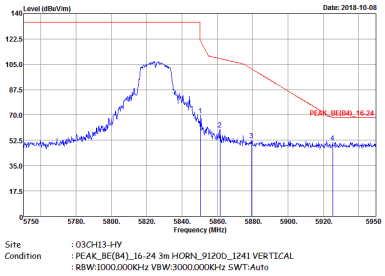
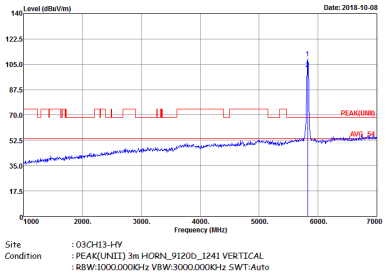
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
1	Horizontal	Fundamental
Peak		

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

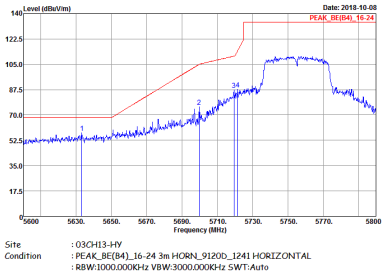
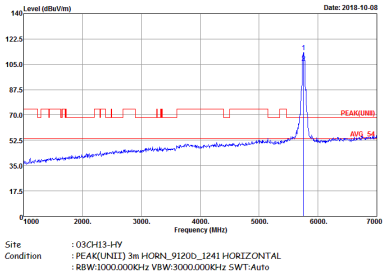
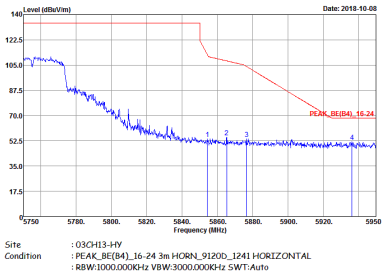
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
1	Vertical	Fundamental
Peak		
Peak		Left blank

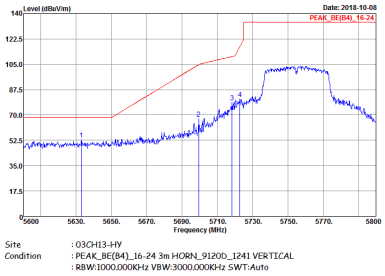
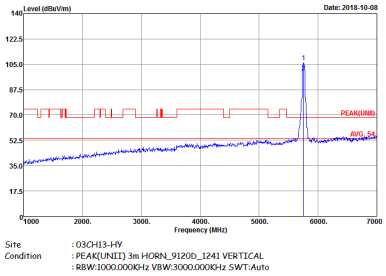
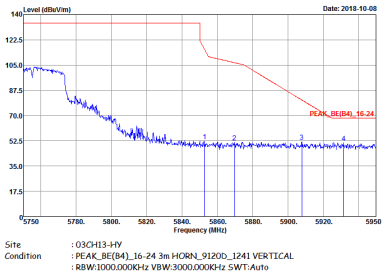
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
1	Horizontal	Fundamental
Peak		

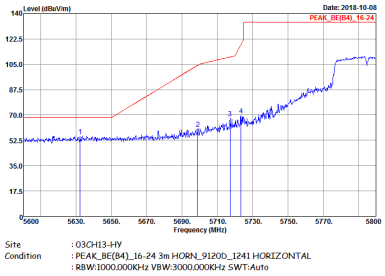
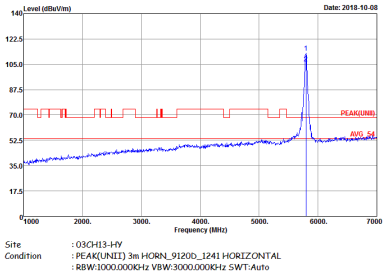
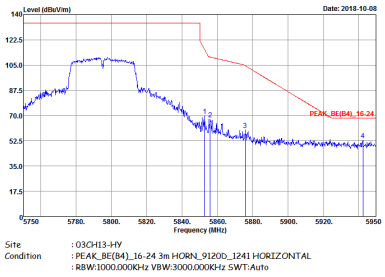
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
1	Vertical	Fundamental
Peak		

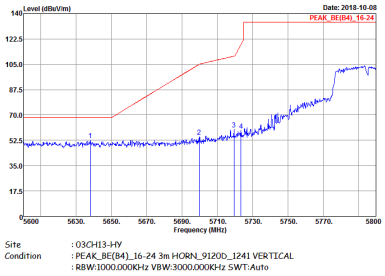
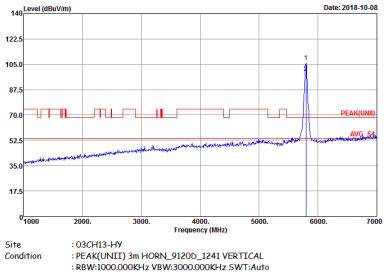
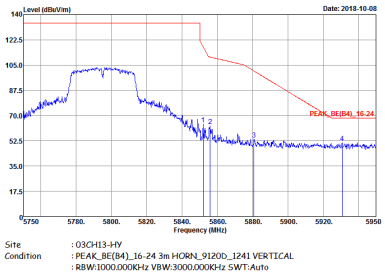
Band 4 5725~5850MHz

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

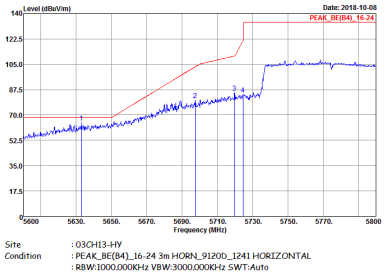
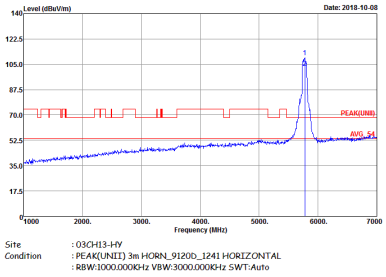
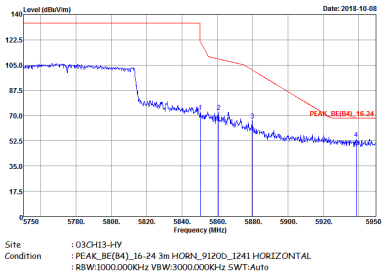
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
1	Vertical	Fundamental
Peak		
Peak		Left blank

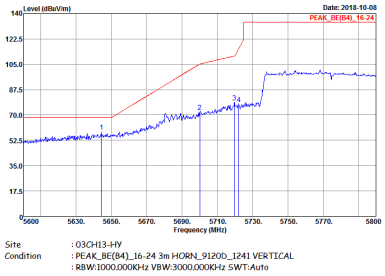
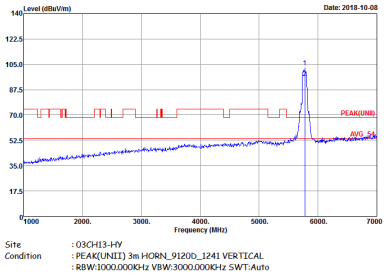
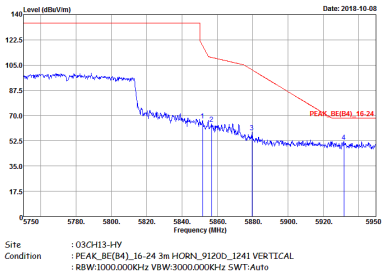
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH159 5795MHz	
1	Horizontal	Fundamental
Peak		
Peak		Left blank

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

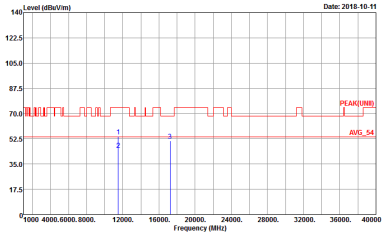
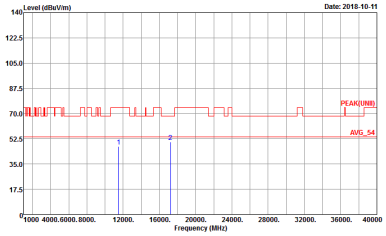
WIFI 802.11ac VHT80 (Band Edge @ 3m)

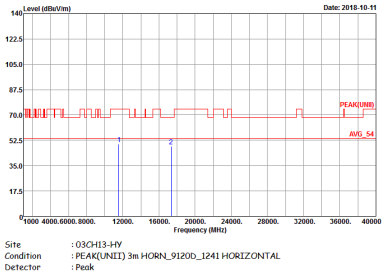
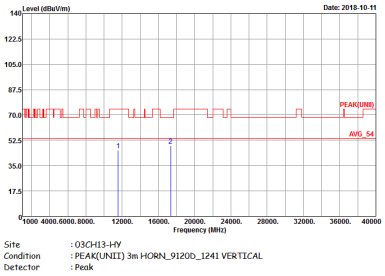
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1	Horizontal	Fundamental
Peak		
Peak		Left blank

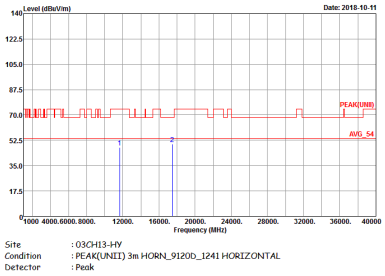
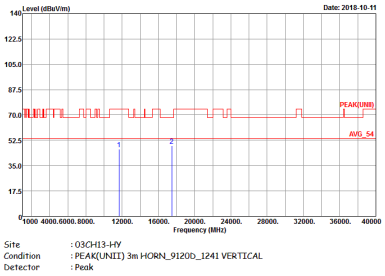
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1	Vertical	Fundamental
Peak		
Peak		Left blank

Band 4 - 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

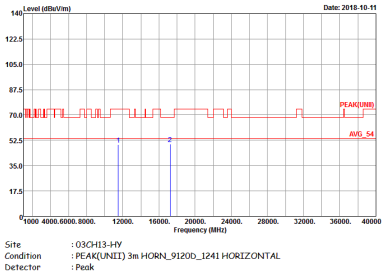
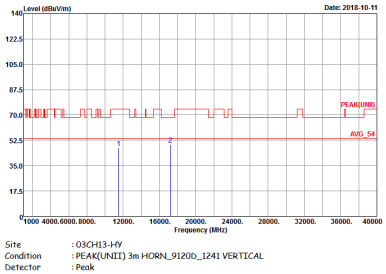
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH149 5745MHz	
1	Horizontal	Vertical
Peak	 Site : 03CH13-HY Condition : PEAK(UNII) 3m HORN_9120D_1241 HORIZONTAL Detector : Peak	 Site : 03CH13-HY Condition : PEAK(UNII) 3m HORN_9120D_1241 VERTICAL Detector : Peak

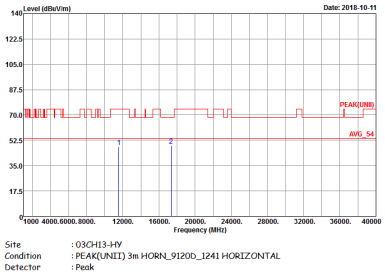
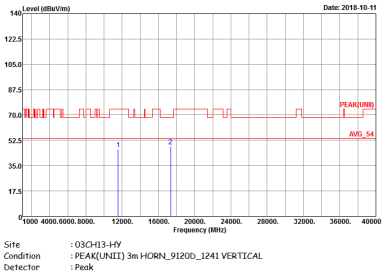
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
1	Horizontal	Vertical
Peak		

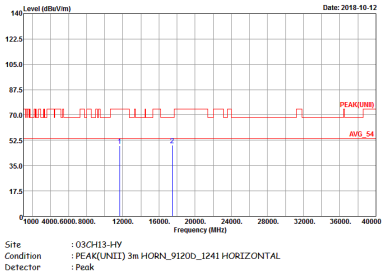
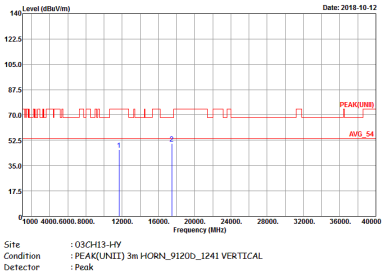
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH165 5825MHz	
1	Horizontal	Vertical
Peak		

Band 4 5725~5850MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

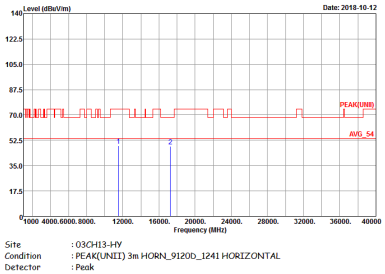
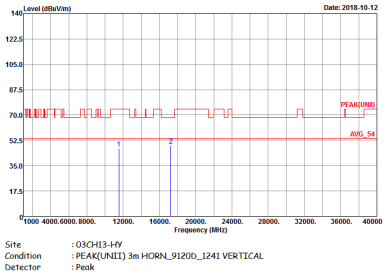
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
1	Horizontal	Vertical
Peak		

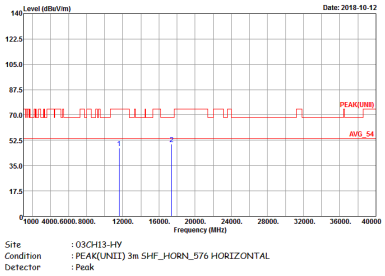
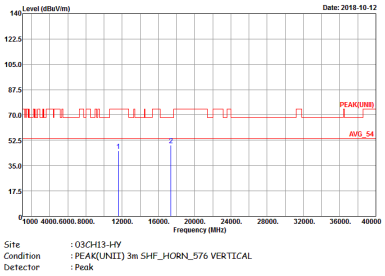
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
1	Horizontal	Vertical
Peak		

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

Band 4 5725~5850MHz

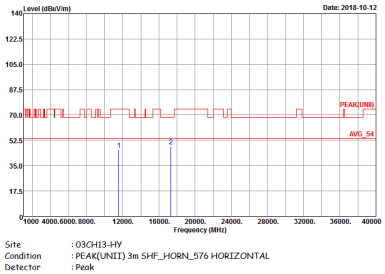
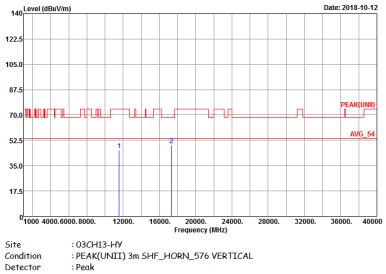
WIFI 802.11n HT40 (Harmonic @ 3m)

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

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

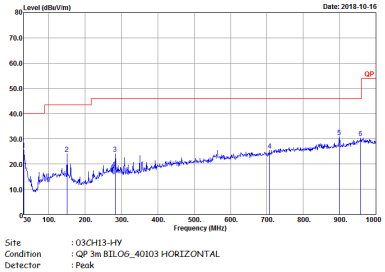
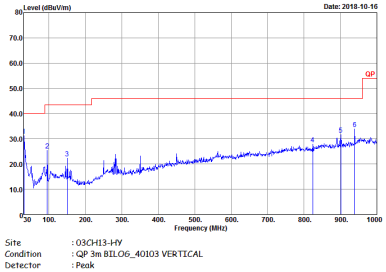
Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

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

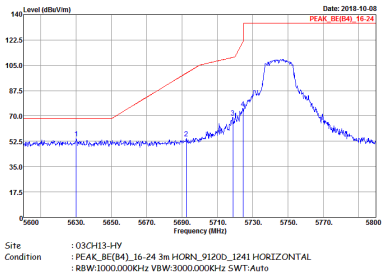
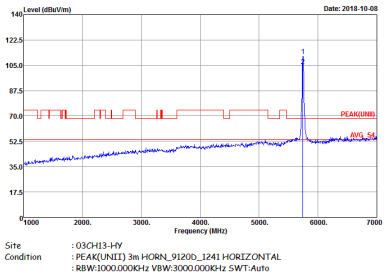
Emission below 1GHz

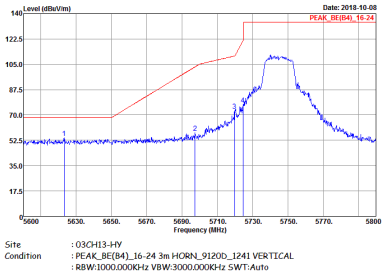
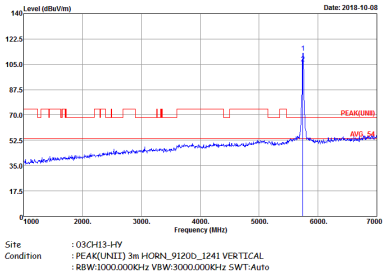
5GHz WIFI 802.11ac VHT80 (LF)

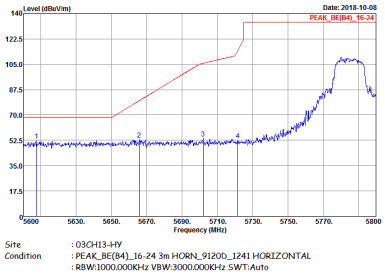
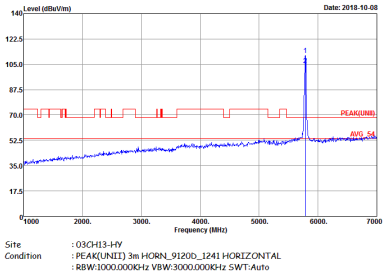
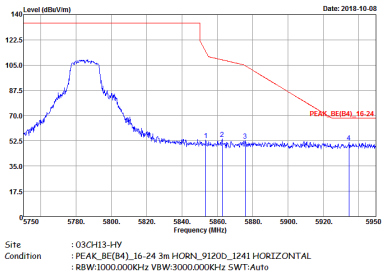
WIFI	5GHz 5725~5850MHz	
ANT	802.11ac VHT80 LF	
1	Horizontal	Vertical
QP / Peak		

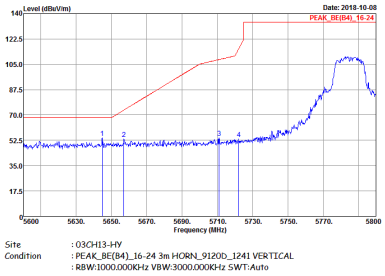
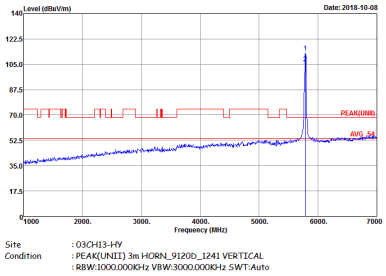
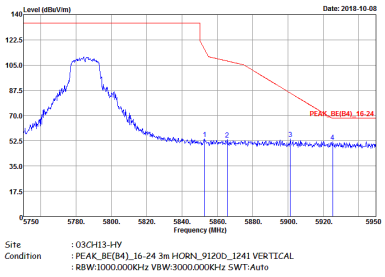
Band 4 - 5725~5850MHz

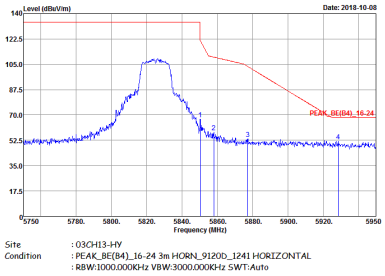
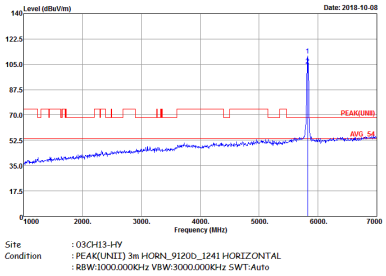
WIFI 802.11a (Band Edge @ 3m)

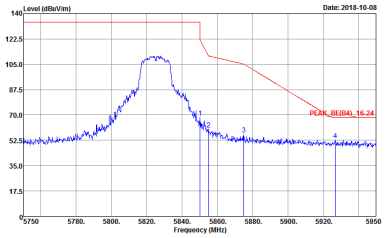
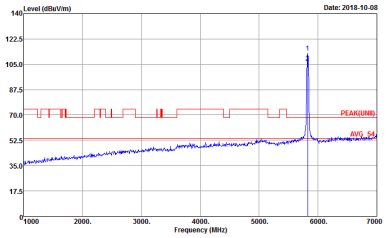
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
2	Horizontal	Fundamental
Peak		

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

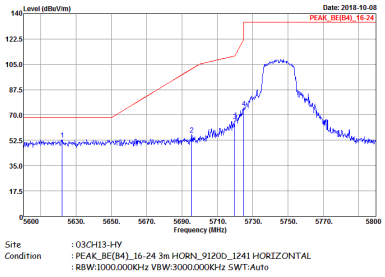
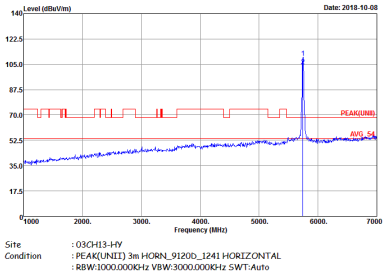
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
2	Vertical	Fundamental
Peak		
Peak		Left blank

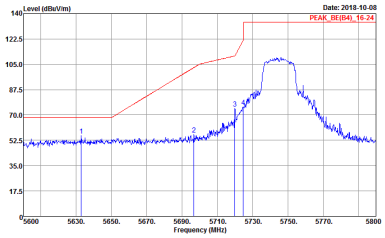
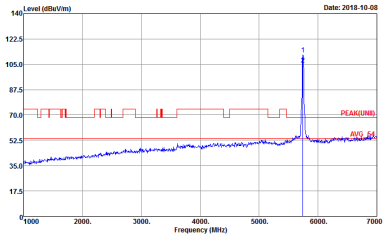
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
2	Horizontal	Fundamental
Peak		

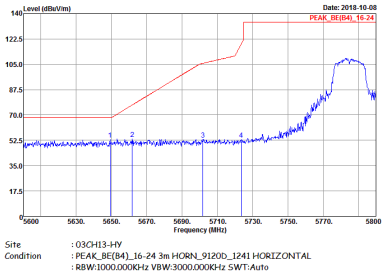
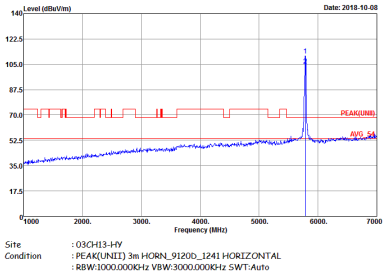
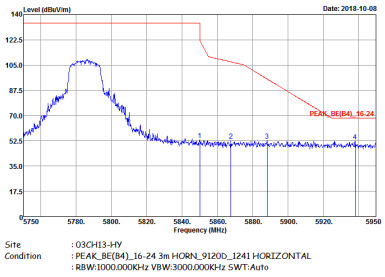
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
2	Vertical	Fundamental
Peak		

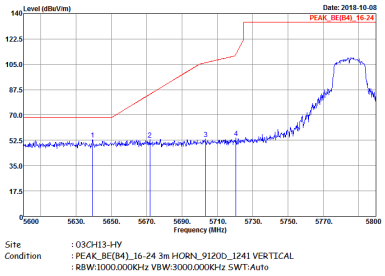
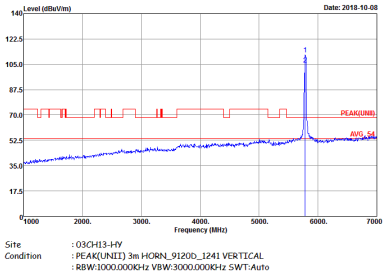
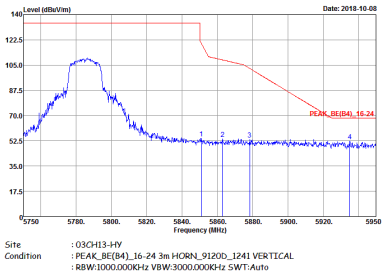
Band 4 5725~5850MHz

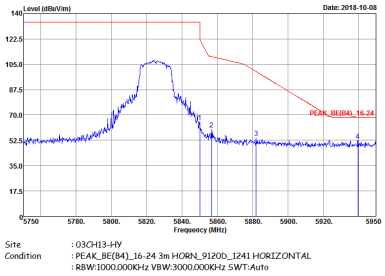
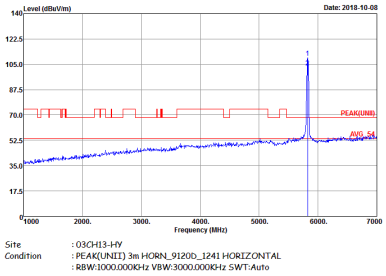
WIFI 802.11n HT20 (Band Edge @ 3m)

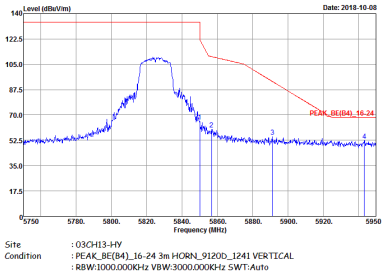
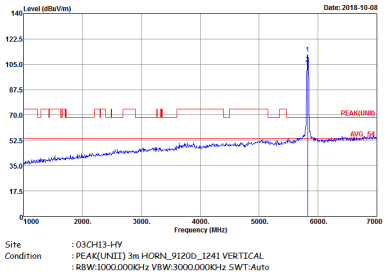
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
2	Horizontal	Fundamental
Peak		

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

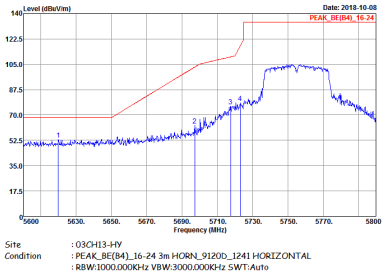
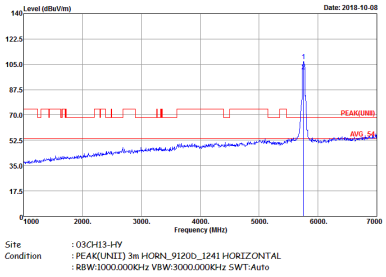
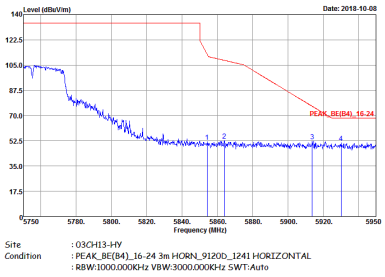
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
2	Vertical	Fundamental
Peak		
Peak		Left blank

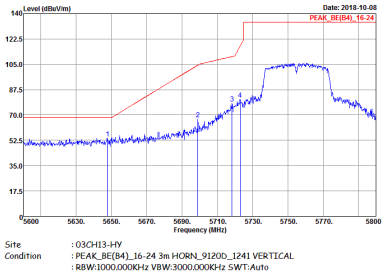
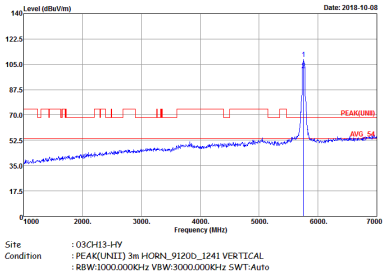
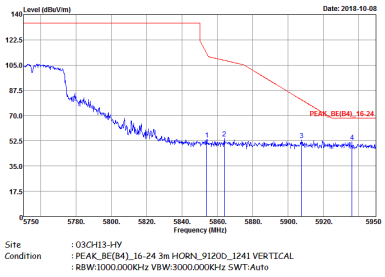
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
2	Horizontal	Fundamental
Peak		

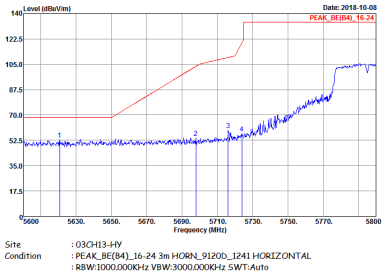
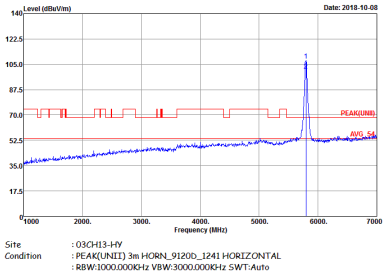
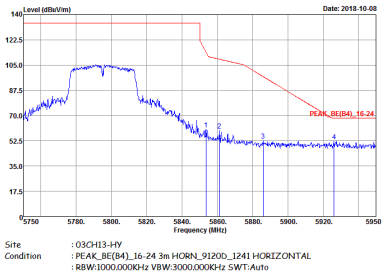
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
2	Vertical	Fundamental
Peak		

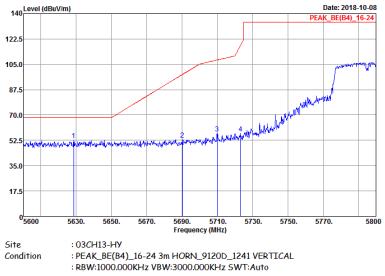
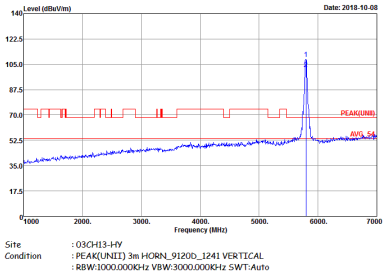
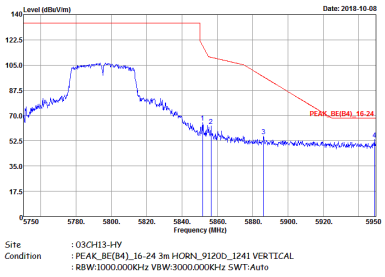
Band 4 5725~5850MHz

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

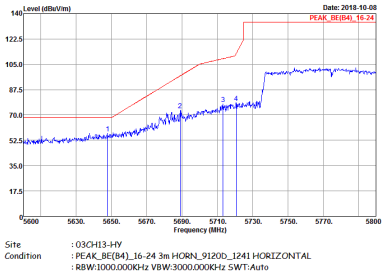
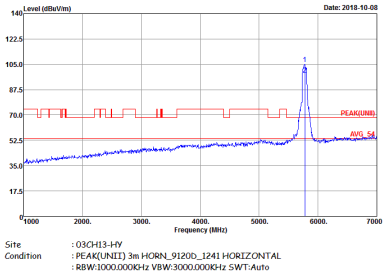
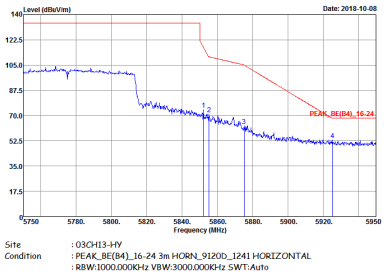
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
2	Vertical	Fundamental
Peak		
Peak		Left blank

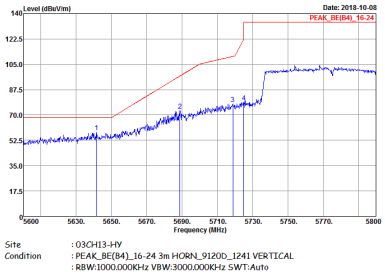
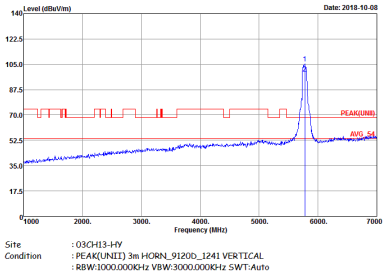
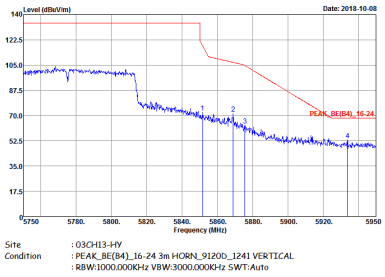
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH159 5795MHz	
2	Horizontal	Fundamental
Peak		
Peak		Left blank

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

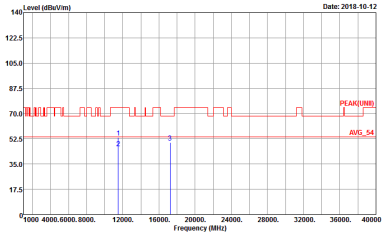
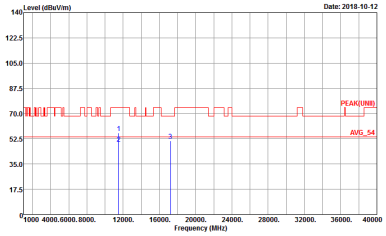
WIFI 802.11ac VHT80 (Band Edge @ 3m)

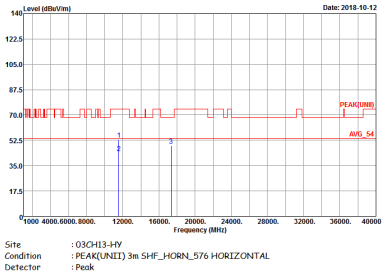
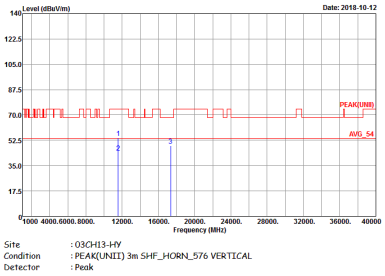
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
2	Horizontal	Fundamental
Peak		
Peak		Left blank

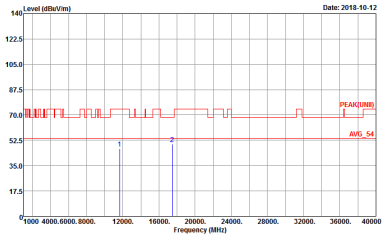
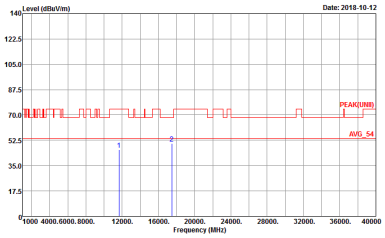
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
2	Vertical	Fundamental
Peak		
Peak		Left blank

Band 4 - 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

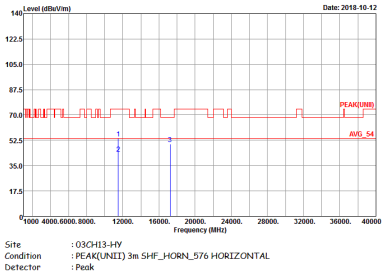
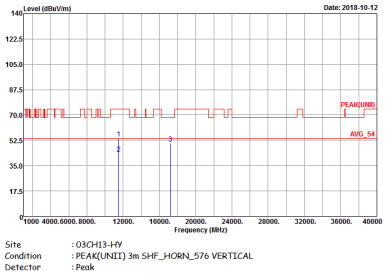
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH149 5745MHz	
2	Horizontal	Vertical
Peak	 Site : 03CH13-HY Condition : PEAK(UNII) 3m SHF_HORN_576 HORIZONTAL Detector : Peak	 Site : 03CH13-HY Condition : PEAK(UNII) 3m SHF_HORN_576 VERTICAL Detector : Peak

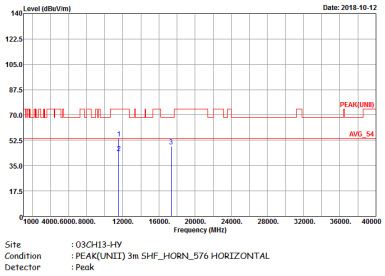
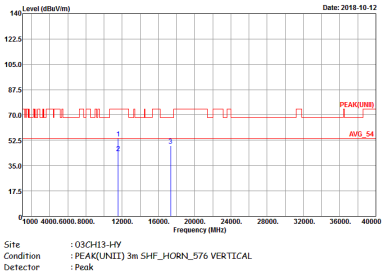
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
2	Horizontal	Vertical
Peak		

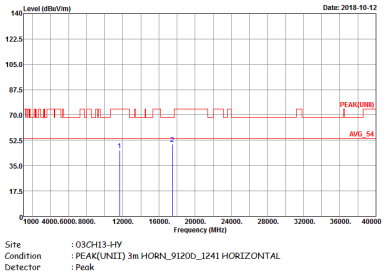
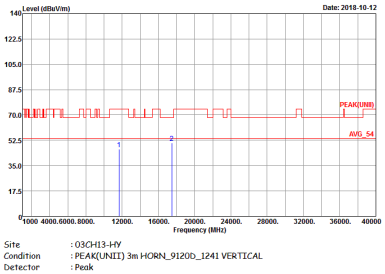
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH165 5825MHz	
2	Horizontal	Vertical
Peak		

Band 4 5725~5850MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

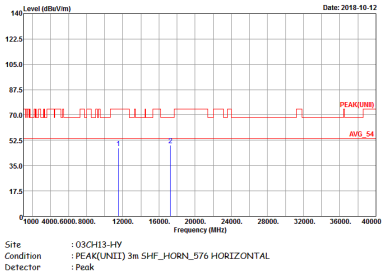
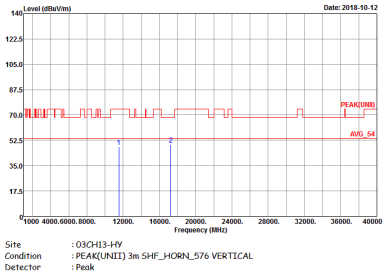
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
2	Horizontal	Vertical
Peak		

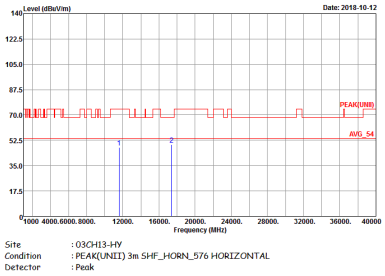
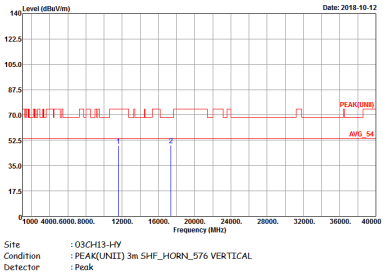
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
2	Horizontal	Vertical
Peak		

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

Band 4 5725~5850MHz

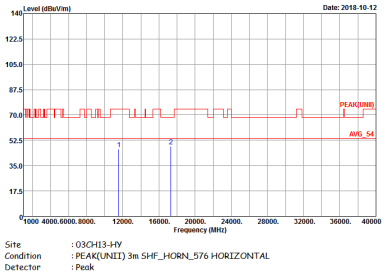
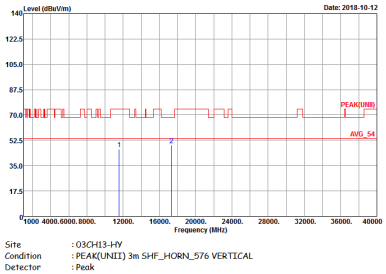
WIFI 802.11n HT40 (Harmonic @ 3m)

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

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

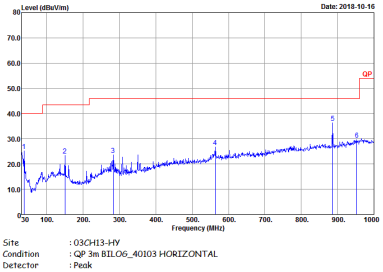
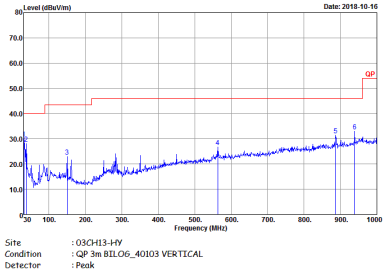
Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

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

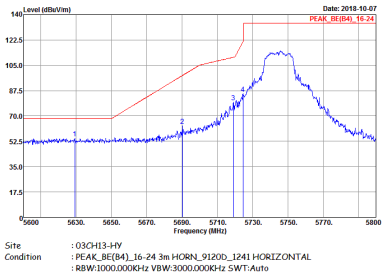
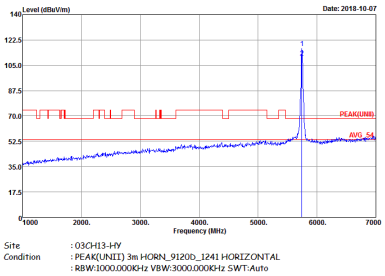
Emission below 1GHz

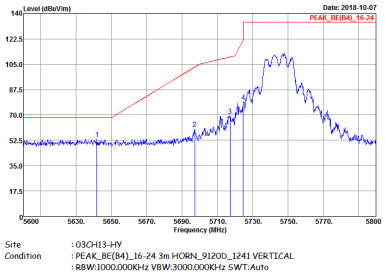
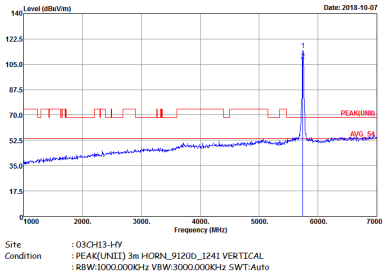
5GHz WIFI 802.11a (LF)

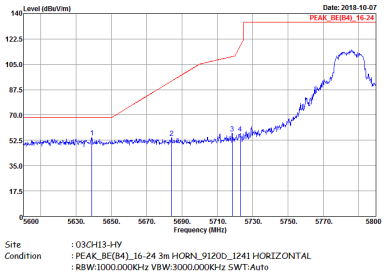
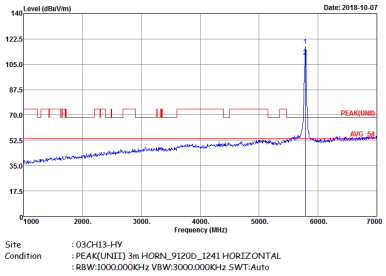
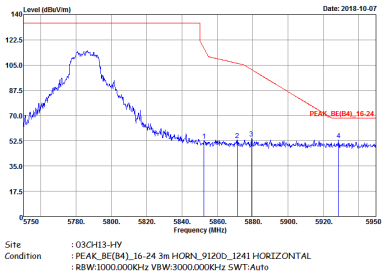
WIFI	5GHz 5725~5850MHz	
ANT	802.11a LF	
2	Horizontal	Vertical
QP / Peak		

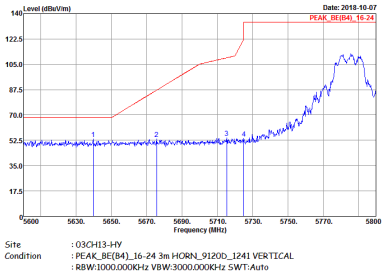
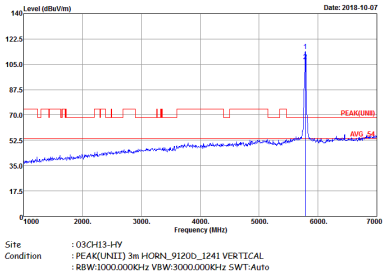
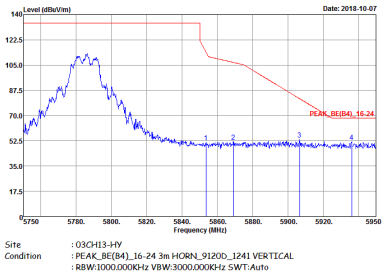
Band 4 - 5725~5850MHz

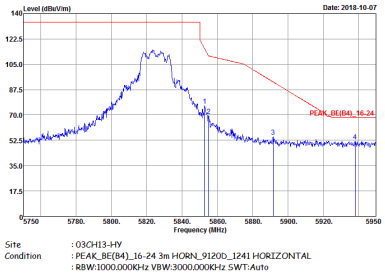
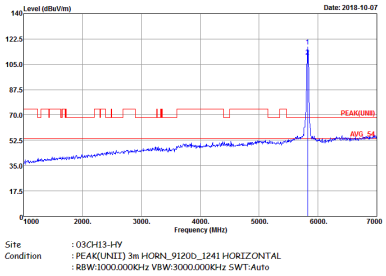
WIFI 802.11a (Band Edge @ 3m)

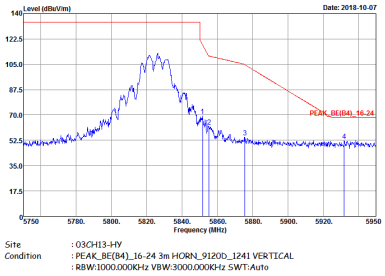
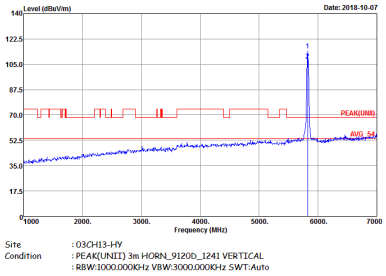
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
1+2	Horizontal	Fundamental
Peak		

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

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

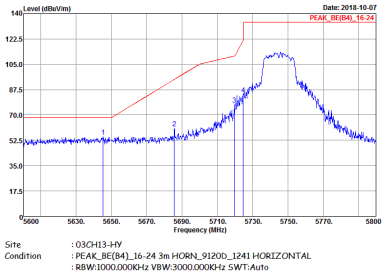
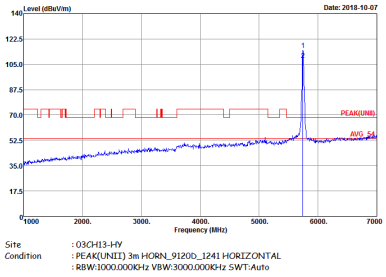
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
1+2	Vertical	Fundamental
Peak		
Peak		Left blank

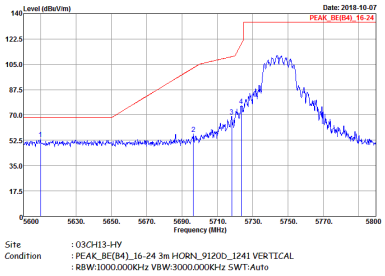
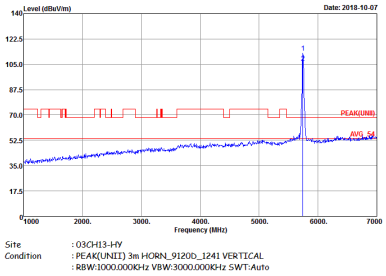
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
1+2	Horizontal	Fundamental
Peak		

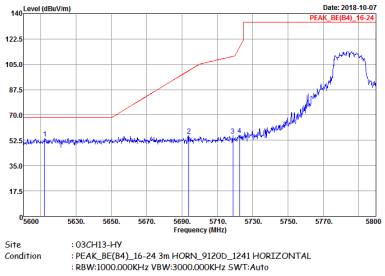
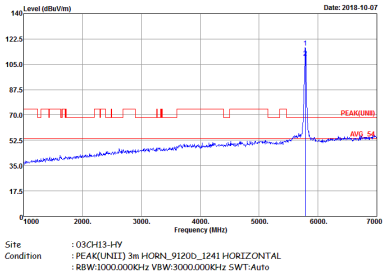
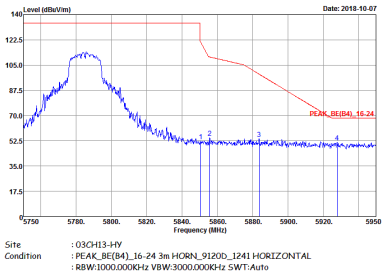
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
1+2	Vertical	Fundamental
Peak		

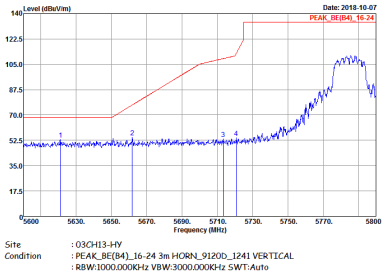
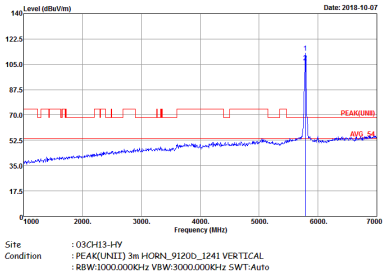
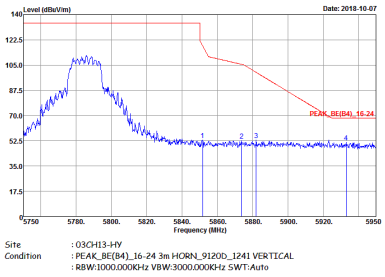
Band 4 5725~5850MHz

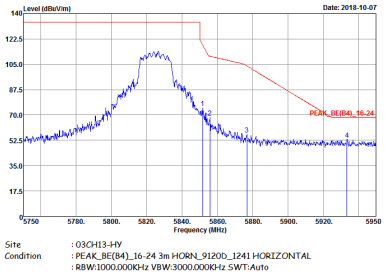
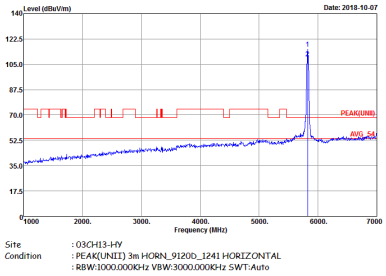
WIFI 802.11n HT20 (Band Edge @ 3m)

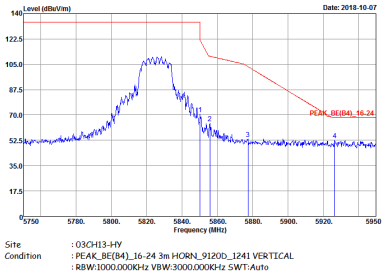
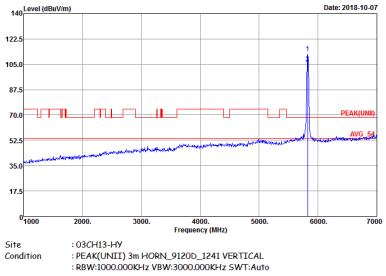
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
1+2	Horizontal	Fundamental
Peak		

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

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

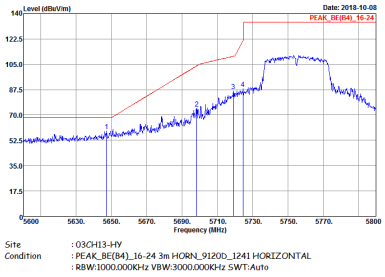
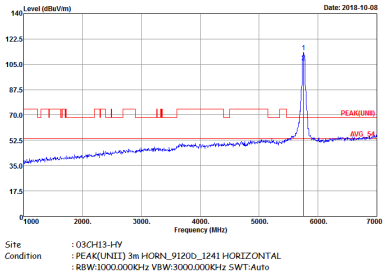
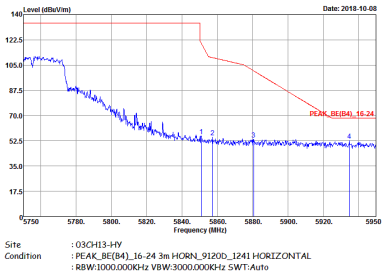
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
1+2	Vertical	Fundamental
Peak		
Peak		Left blank

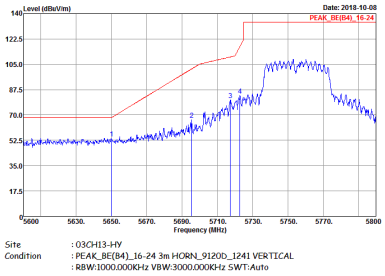
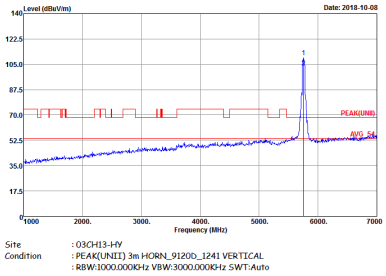
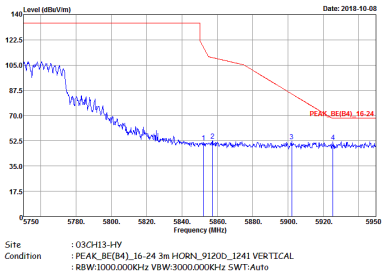
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
1+2	Horizontal	Fundamental
Peak		

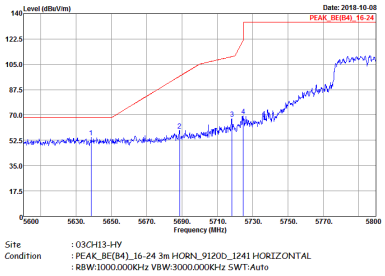
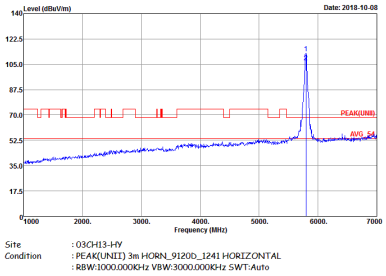
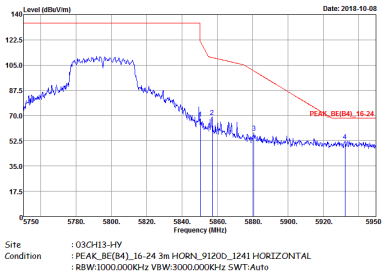
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
1+2	Vertical	Fundamental
Peak		

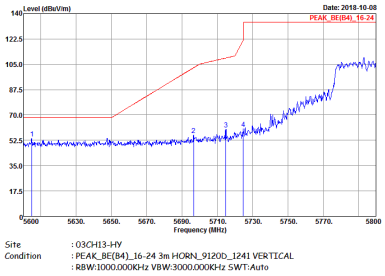
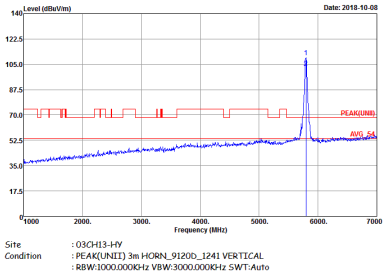
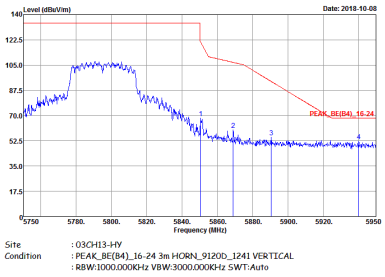
Band 4 5725~5850MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

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

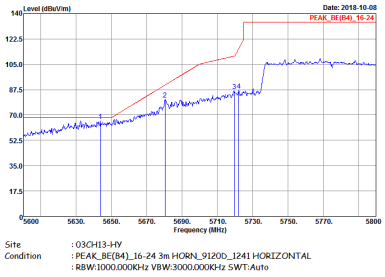
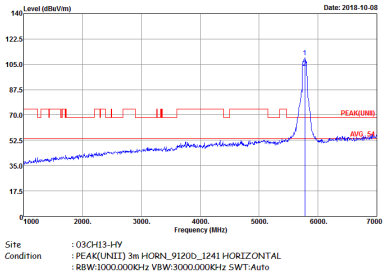
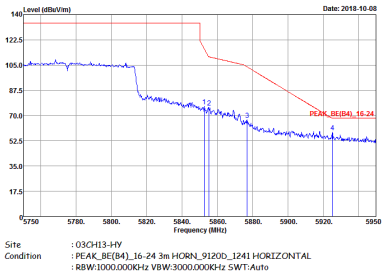
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
1+2	Vertical	Fundamental
Peak		
Peak		Left blank

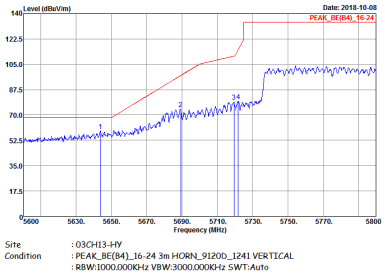
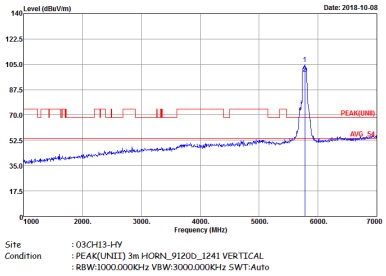
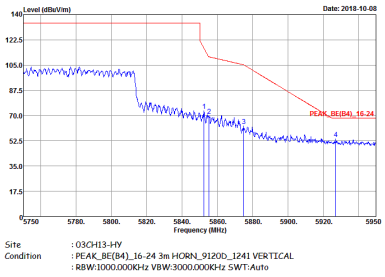
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH159 5795MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

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

Band 4 5725~5850MHz

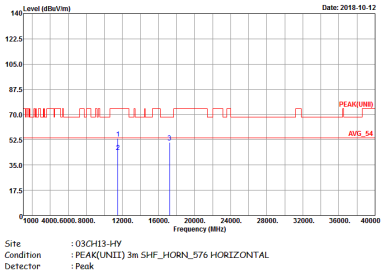
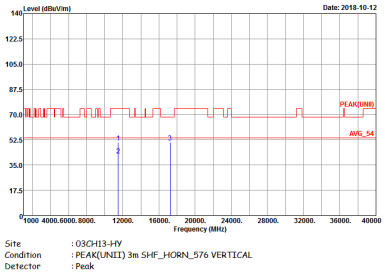
WIFI 802.11ac VHT80 (Band Edge @ 3m)

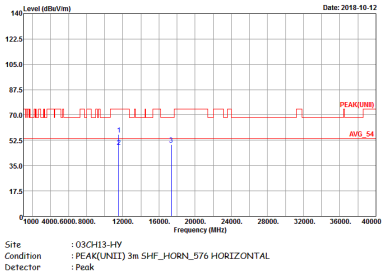
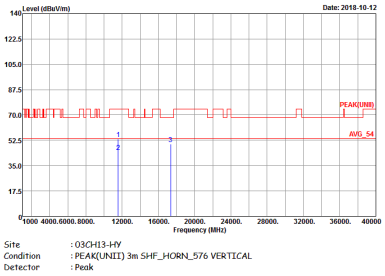
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

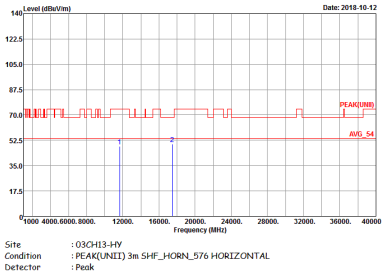
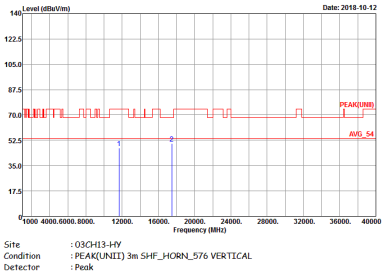
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Vertical	Fundamental
Peak		
Peak		Left blank

Band 4 - 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

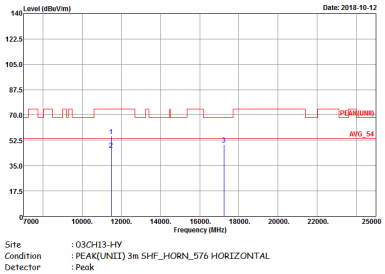
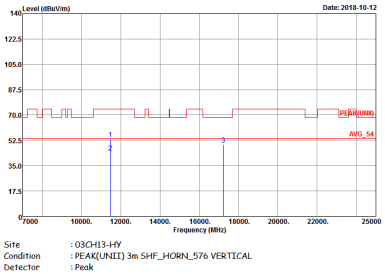
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH149 5745MHz	
1+2	Horizontal	Vertical
Peak		

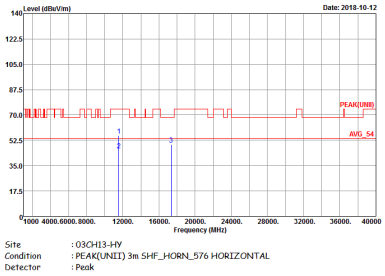
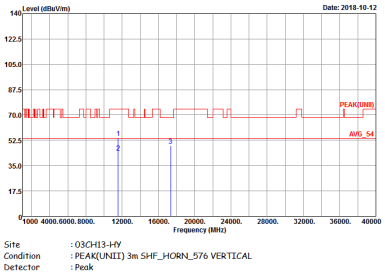
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
1+2	Horizontal	Vertical
Peak		

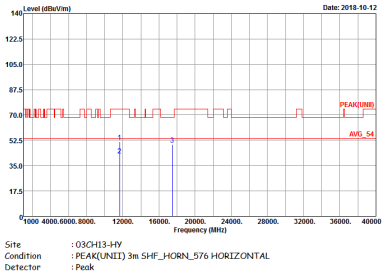
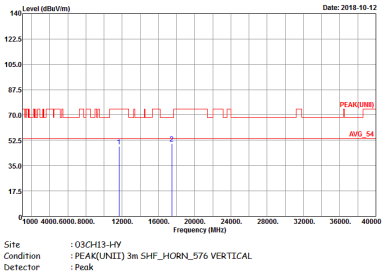
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH165 5825MHz	
1+2	Horizontal	Vertical
Peak		

Band 4 5725~5850MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

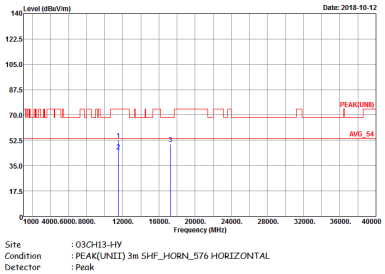
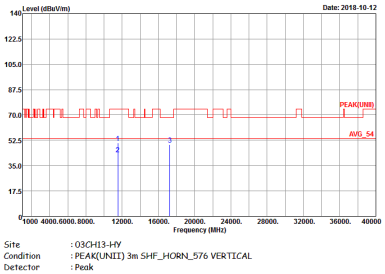
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
1+2	Horizontal	Vertical
Peak		

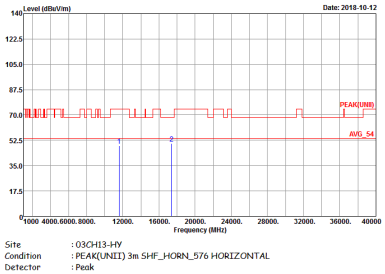
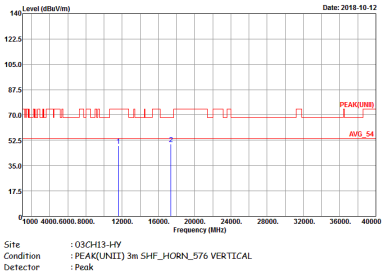
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
1+2	Horizontal	Vertical
Peak		

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

Band 4 5725~5850MHz

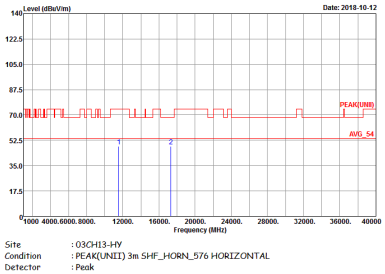
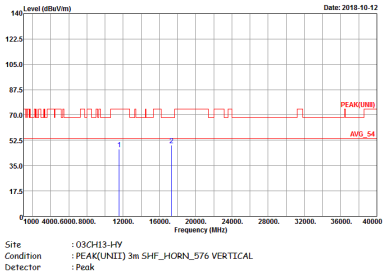
WIFI 802.11n HT40 (Harmonic @ 3m)

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

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

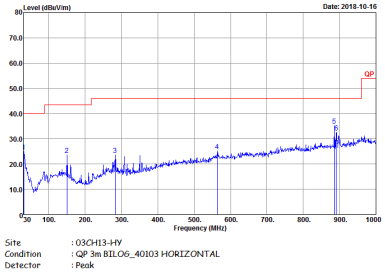
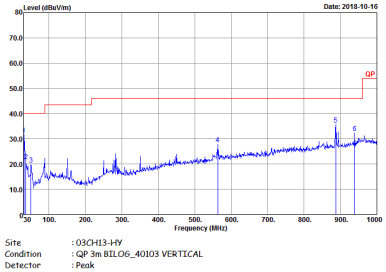
Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

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

Emission below 1GHz

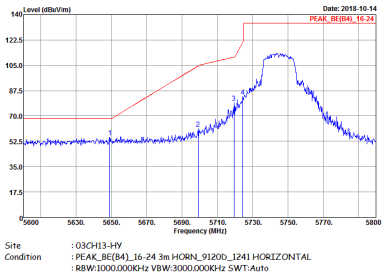
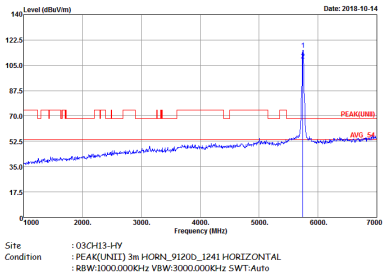
5GHz WIFI 802.11ac VHT80 (LF)

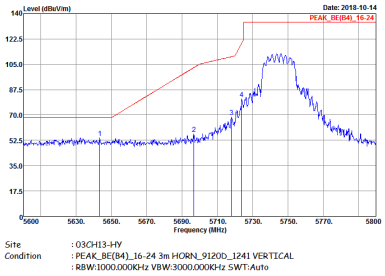
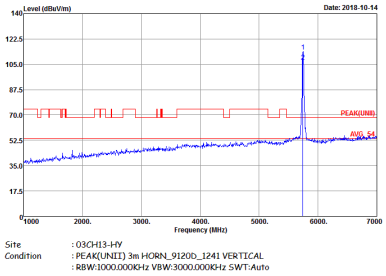
WIFI	5GHz 5725~5850MHz	
ANT	802.11ac VHT80 LF	
1+2	Horizontal	Vertical
QP / Peak		

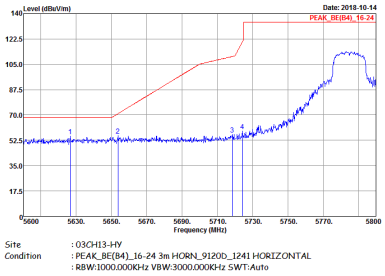
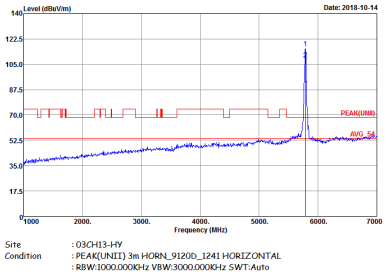
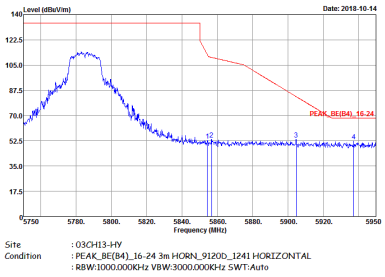
<TXBF Mode>

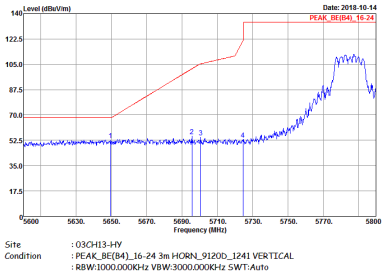
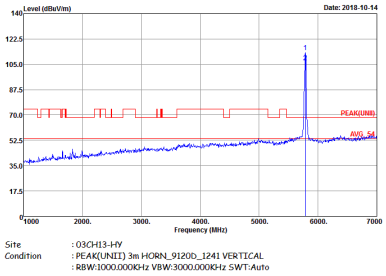
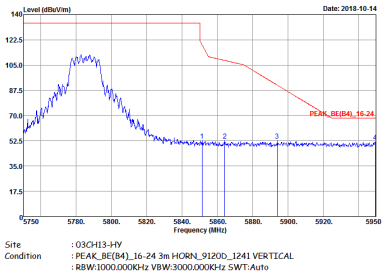
Band 4 - 5725~5850MHz

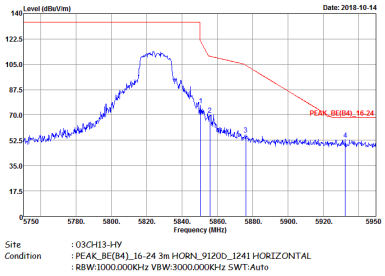
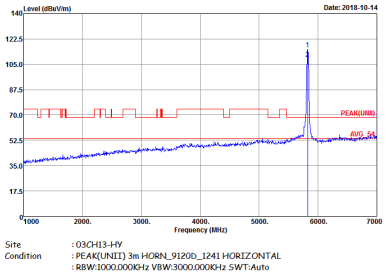
WIFI 802.11ac VHT20 (Band Edge @ 3m)

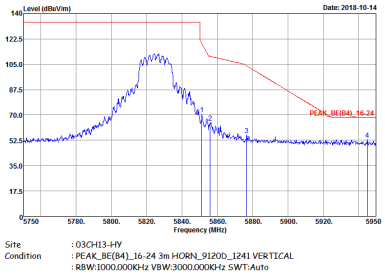
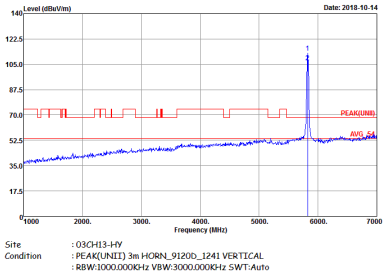
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
2	Horizontal	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
2	Vertical	Fundamental
Peak Avg.	 Site : 03CH13-HY Condition : PEAK_BE(B4)_16-24 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH13-HY Condition : PEAK(UNII) 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH157 5785MHz	
2	Horizontal	Fundamental
Peak		
Peak		Left blank

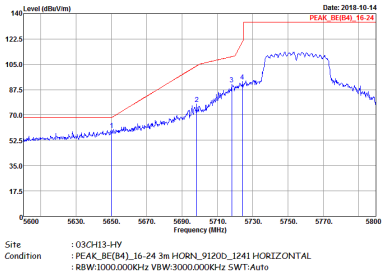
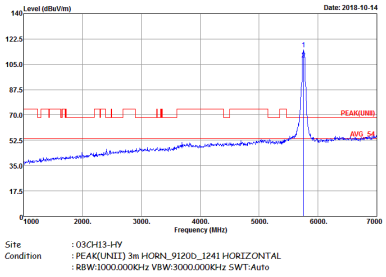
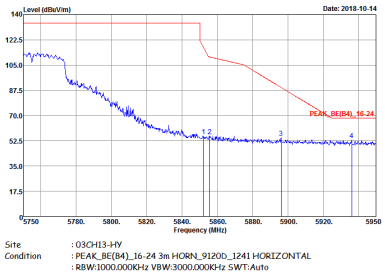
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH157 5785MHz	
2	Vertical	Fundamental
Peak		
Peak		Left blank

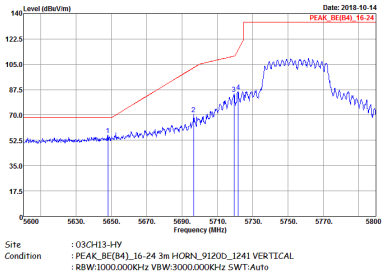
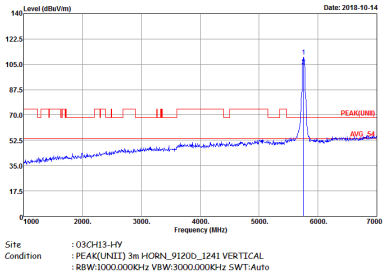
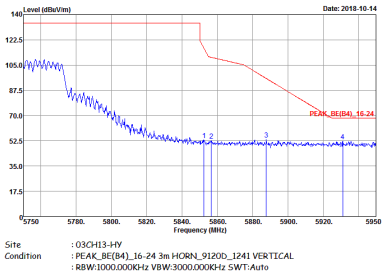
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH165 5825MHz	
2	Horizontal	Fundamental
Peak		

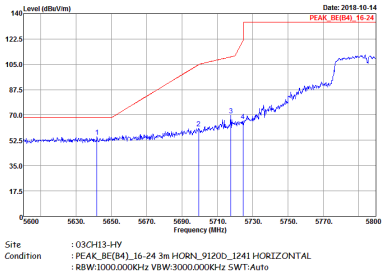
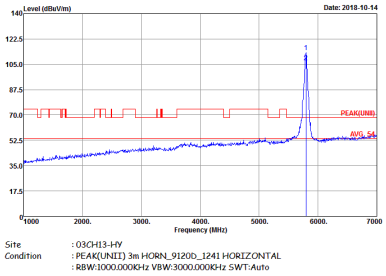
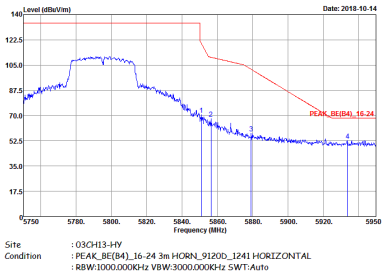
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH165 5825MHz	
2	Vertical	Fundamental
Peak Avg.		

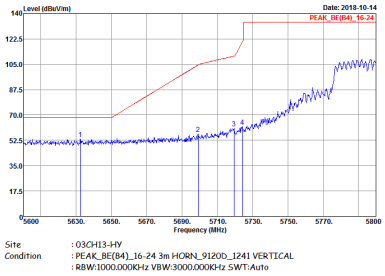
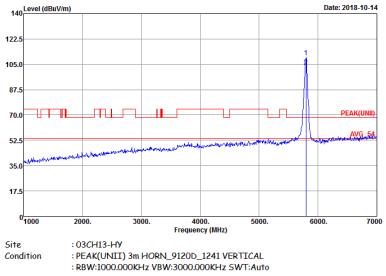
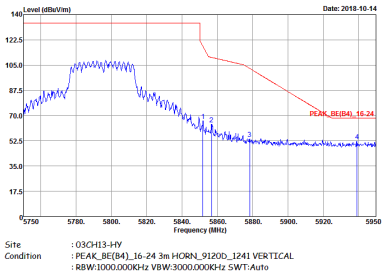
Band 4 5725~5850MHz

WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH151 5755MHz	
2	Horizontal	Fundamental
Peak		
Peak		Left blank

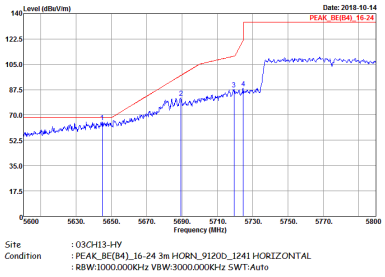
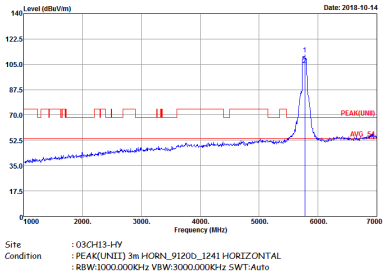
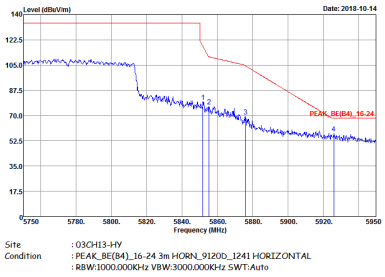
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH151 5755MHz	
2	Vertical	Fundamental
Peak		
Peak		Left blank

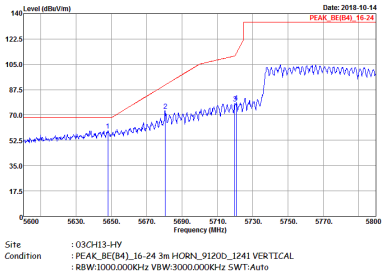
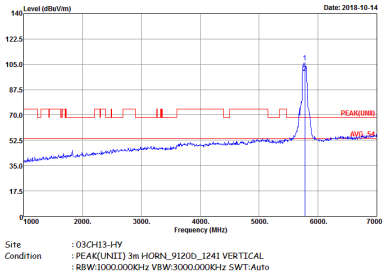
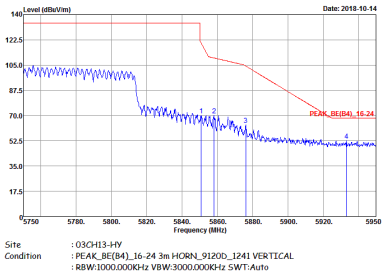
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH159 5795MHz	
2	Horizontal	Fundamental
Peak		
Peak		Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH159 5795MHz	
2	Vertical	Fundamental
Peak		
Peak		Left blank

Band 4 5725~5850MHz

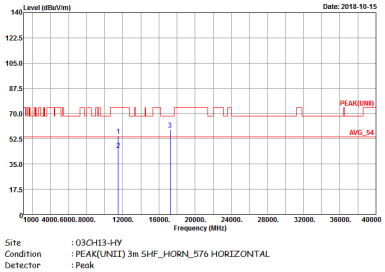
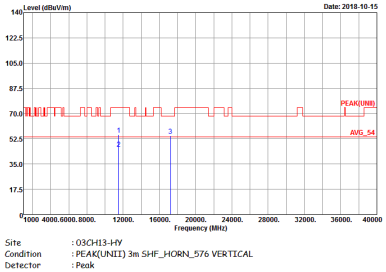
WIFI 802.11ac VHT80 (Band Edge @ 3m)

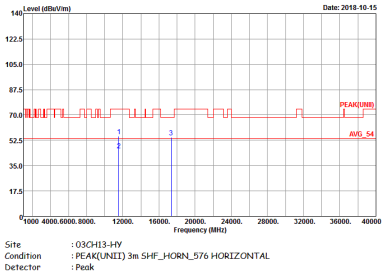
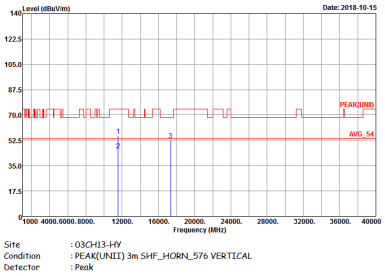
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
2	Horizontal	Fundamental
Peak		
Peak		Left blank

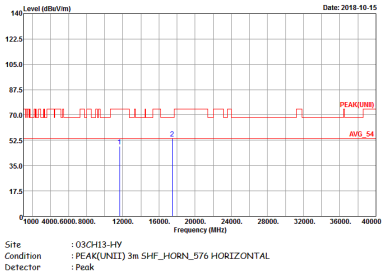
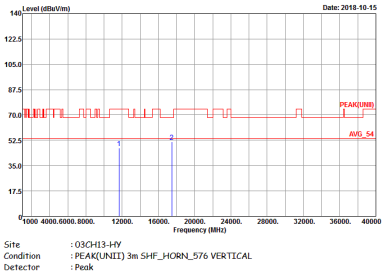
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
2	Vertical	Fundamental
Peak		
Peak		Left blank

Band 4 - 5725~5850MHz

WIFI 802.11ac VHT20 (Harmonic @ 3m)

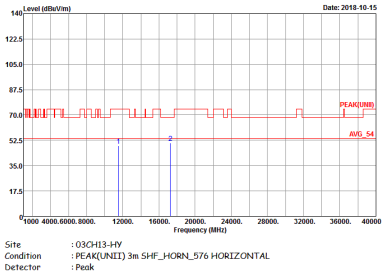
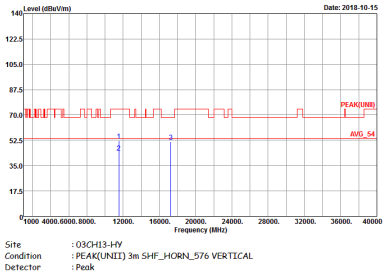
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
2	Horizontal	Vertical
Peak		

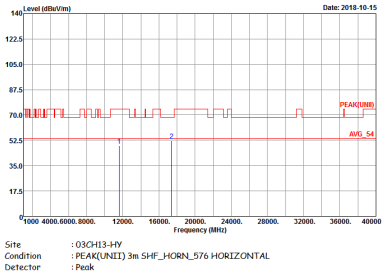
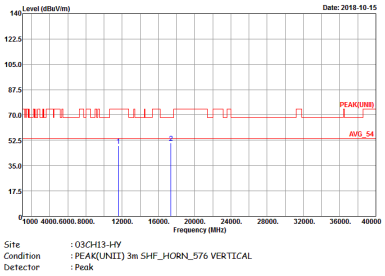
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH157 5785MHz	
2	Horizontal	Vertical
Peak		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH165 5825MHz	
2	Horizontal	Vertical
Peak		

Band 4 5725~5850MHz

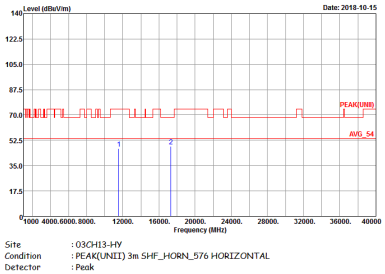
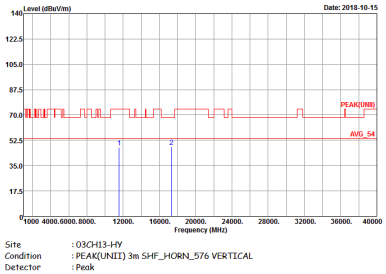
WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT40 CH151 5755MHz	
2	Horizontal	Vertical
Peak		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT40 CH159 5795MHz	
2	Horizontal	Vertical
Peak		

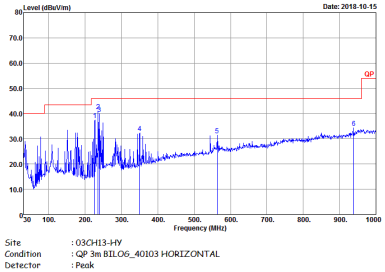
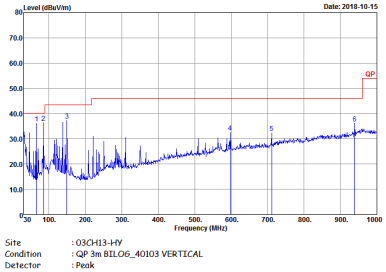
Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

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

Emission below 1GHz

5GHz WIFI 802.11ac VHT80 (LF)

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

Appendix E. Duty Cycle Plots

<CDD Mode>

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
1	802.11a	92.67	1390.00	0.72	1kHz	0.33
2	802.11a	93.31	1395.00	0.72	1kHz	0.30
1+2	802.11a for Ant. 1	93.02	1400.00	0.71	1kHz	0.31
1+2	802.11a for Ant. 2	93.33	1400.00	0.71	1kHz	0.30
1	5GHz 802.11n HT20	92.91	1310.00	0.76	1kHz	0.32
2	5GHz 802.11n HT20	92.20	1300.00	0.77	1kHz	0.35
1+2	5GHz 802.11n HT20 for Ant. 1	92.86	1300.00	0.77	1kHz	0.32
1+2	5GHz 802.11n HT20 for Ant. 2	92.88	1305.00	0.77	1kHz	0.32
1	5GHz 802.11n HT40	86.29	642.00	1.56	3kHz	0.64
2	5GHz 802.11n HT40	87.10	648.00	1.54	3kHz	0.60
1+2	5GHz 802.11n HT40 for Ant. 1	87.10	648.00	1.54	3kHz	0.60
1+2	5GHz 802.11n HT40 for Ant. 2	85.66	645.00	1.55	3kHz	0.67
1	5GHz 802.11ac VHT20	92.25	1310.00	0.76	1kHz	0.35
2	5GHz 802.11ac VHT20	92.25	1310.00	0.76	1kHz	0.35
1+2	5GHz 802.11ac VHT20 for Ant. 1	92.92	1320.00	0.76	1kHz	0.32
1+2	5GHz 802.11ac VHT20 for Ant. 2	92.58	1310.00	0.76	1kHz	0.33
1	5GHz 802.11ac VHT40	86.17	648.00	1.54	3kHz	0.65
2	5GHz 802.11ac VHT40	86.47	652.00	1.53	3kHz	0.63
1+2	5GHz 802.11ac VHT40 for Ant. 1	86.70	652.00	1.53	3kHz	0.62
1+2	5GHz 802.11ac VHT40 for Ant. 2	86.70	652.00	1.53	3kHz	0.62
1	5GHz 802.11ac VHT80	75.47	320.00	3.13	10kHz	1.22
2	5GHz 802.11ac VHT80	76.42	324.00	3.09	10kHz	1.17
1+2	5GHz 802.11ac VHT80 for Ant. 1	76.42	324.00	3.09	10kHz	1.17
1+2	5GHz 802.11ac VHT80 for Ant. 2	75.47	320.00	3.13	10kHz	1.22

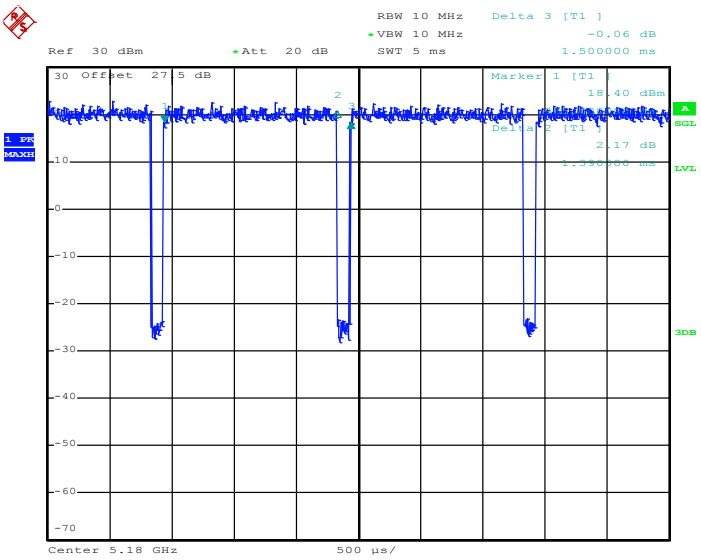
<TXBF Mode>

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
1+2	5GHz 802.11ac VHT20 for Ant. 1	97.06	1320.00	0.76	1kHz	0.13
1+2	5GHz 802.11ac VHT20 for Ant. 2	97.05	1315.00	0.76	1kHz	0.13
1+2	5GHz 802.11ac VHT40 for Ant. 1	94.20	650.00	1.54	3kHz	0.26
1+2	5GHz 802.11ac VHT40 for Ant. 2	94.20	650.00	1.54	3kHz	0.26
1+2	5GHz 802.11ac VHT80 for Ant. 1	88.89	320.00	3.13	10kHz	0.51
1+2	5GHz 802.11ac VHT80 for Ant. 2	88.89	320.00	3.13	10kHz	0.51

<CDD Mode>

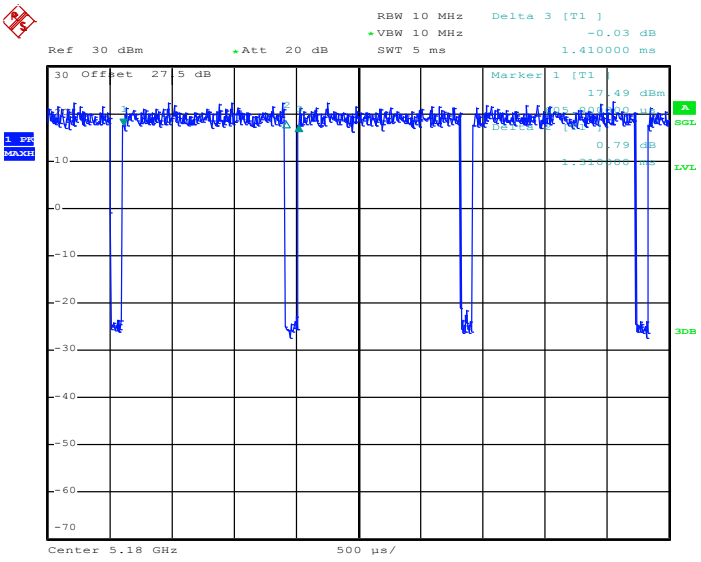
<Ant. 1>

802.11a



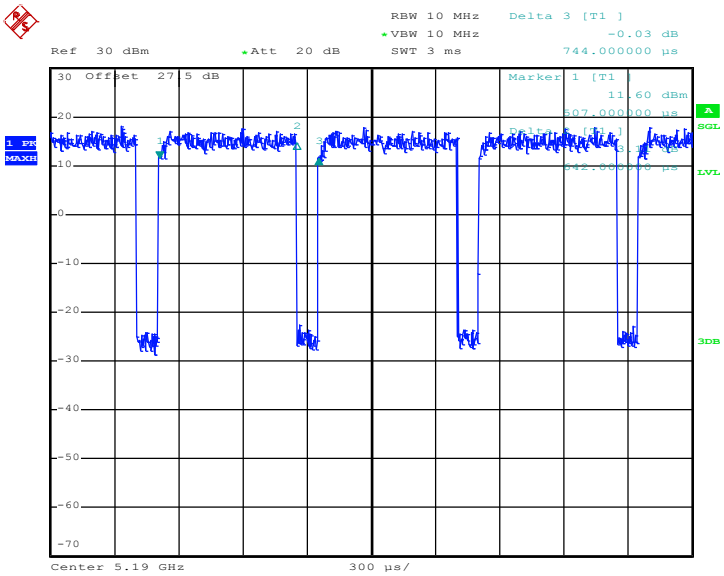
Date: 2.OCT.2018 16:35:31

802.11n HT20



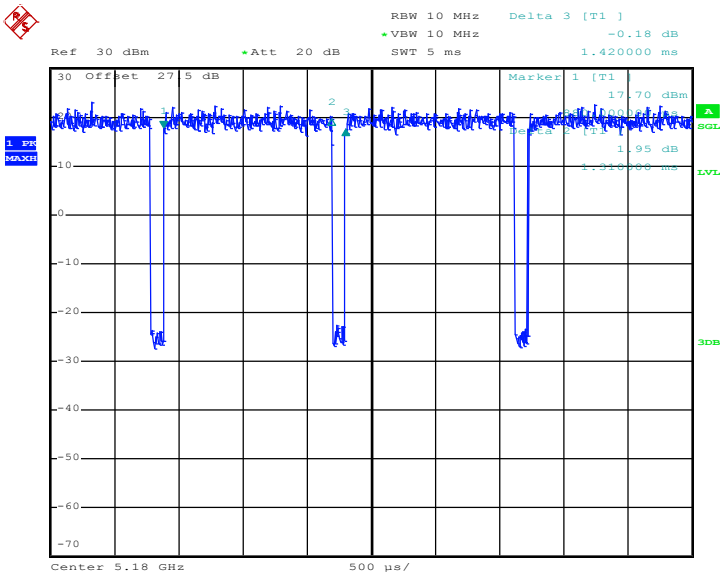
Date: 2.OCT.2018 16:56:02

802.11n HT40



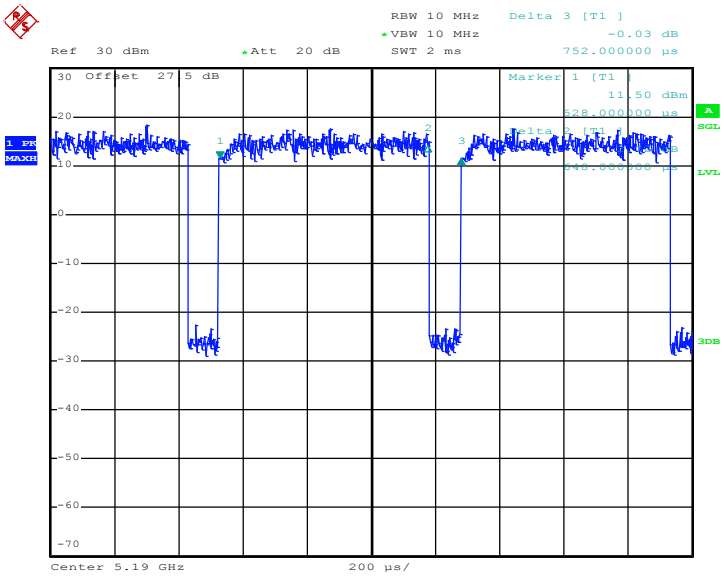
Date: 2.OCT.2018 17:03:42

802.11ac VHT20



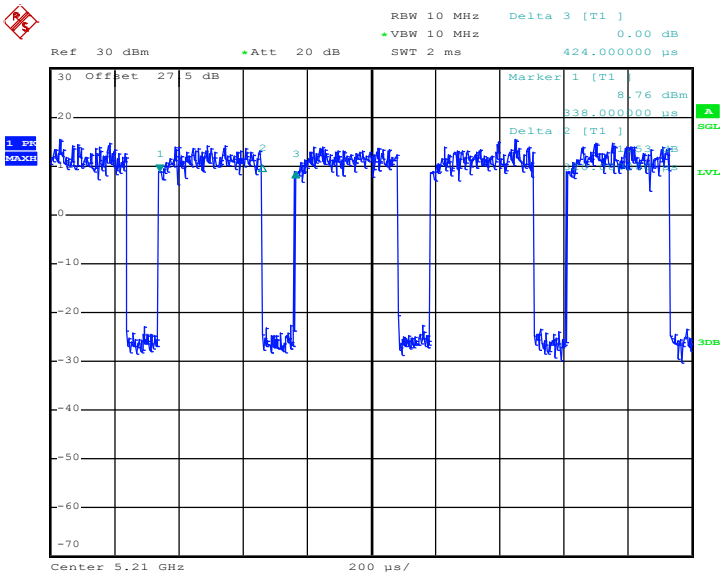
Date: 2.OCT.2018 17:15:15

802.11ac VHT40



Date: 2.OCT.2018 17:27:29

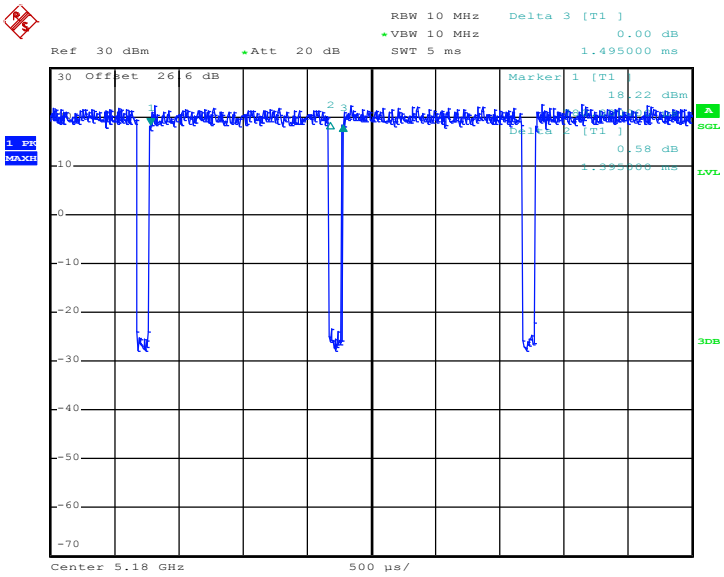
802.11ac VHT80



Date: 2.OCT.2018 17:36:36

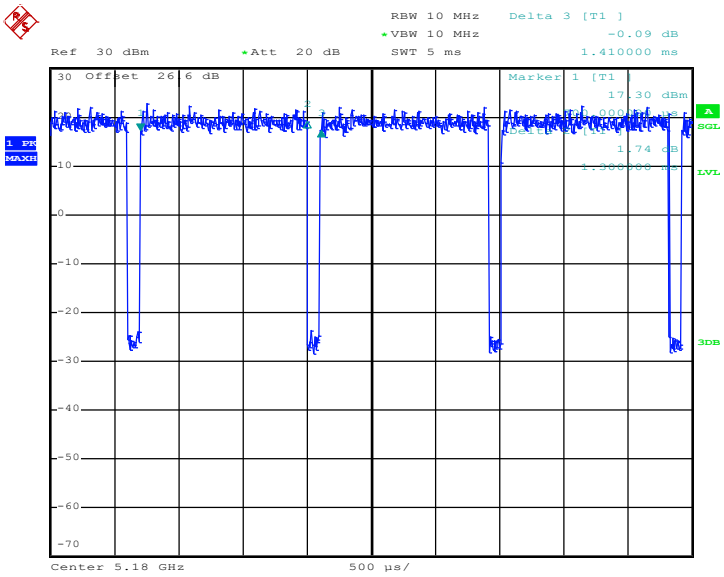
<Ant. 2>

802.11a



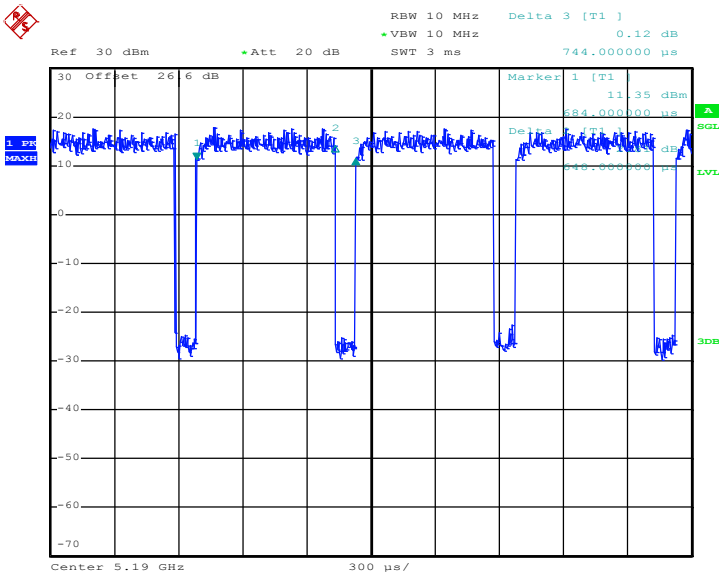
Date: 2.OCT.2018 17:00:35

802.11n HT20



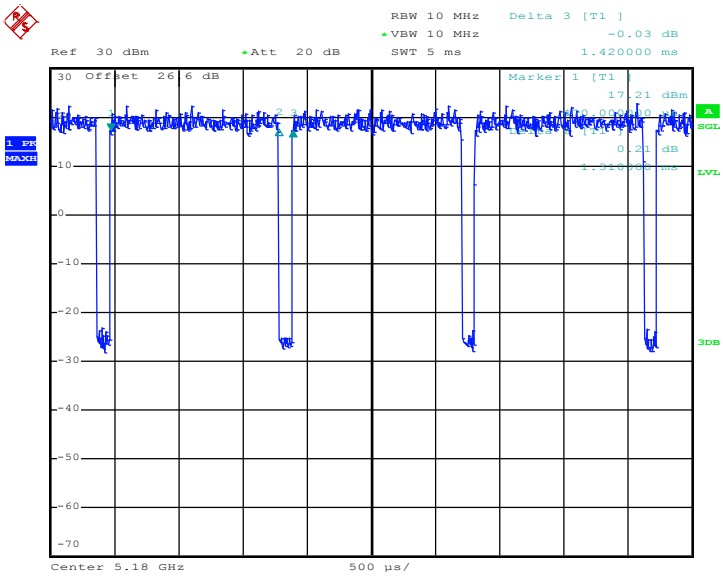
Date: 2.OCT.2018 16:57:39

802.11n HT40



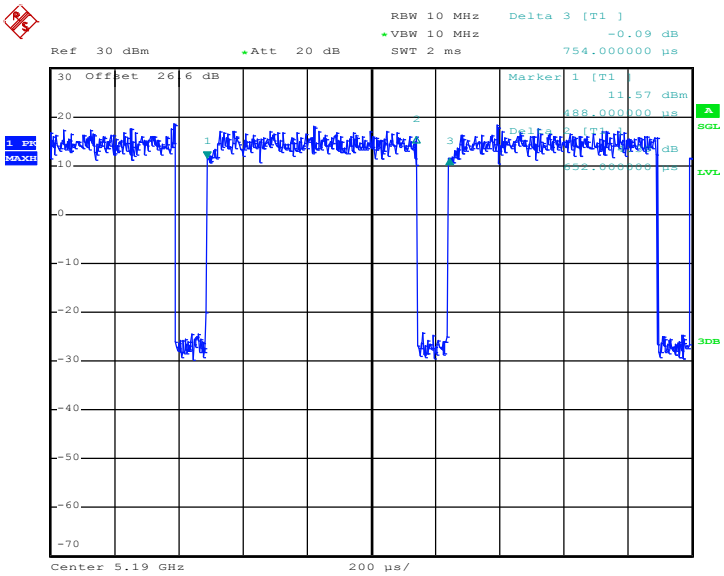
Date: 2.OCT.2018 17:06:26

802.11ac VHT20



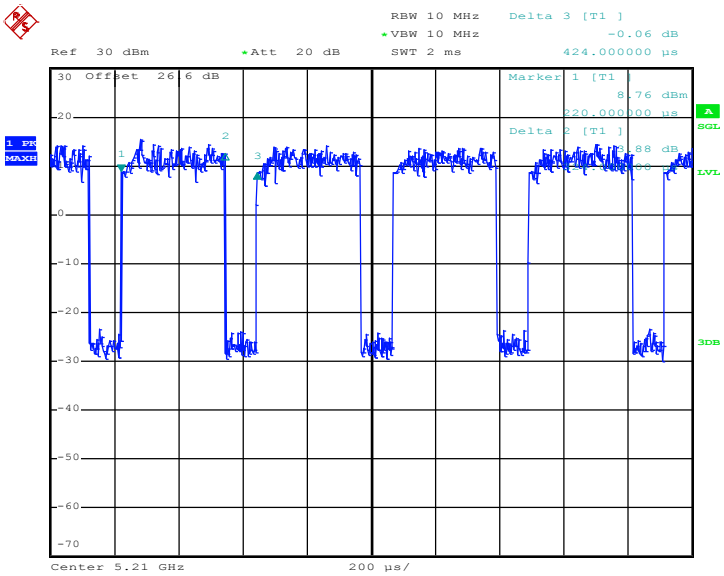
Date: 2.OCT.2018 17:17:47

802.11ac VHT40



Date: 2.OCT.2018 17:28:58

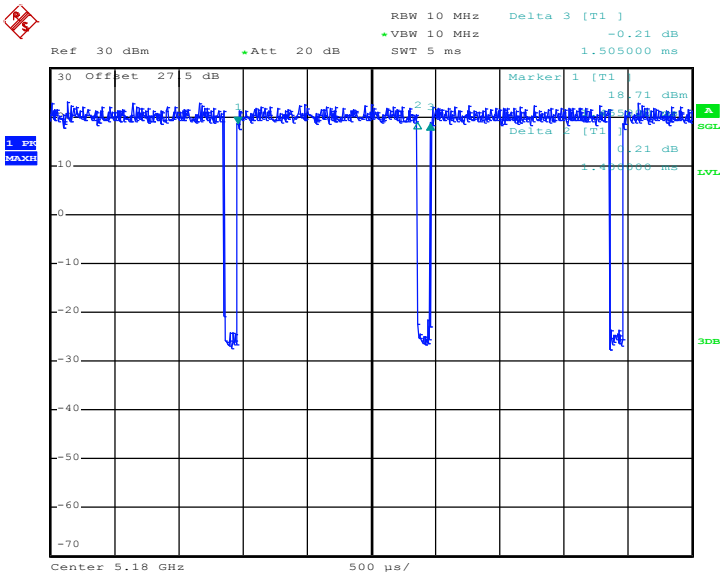
802.11ac VHT80



Date: 2.OCT.2018 17:35:01

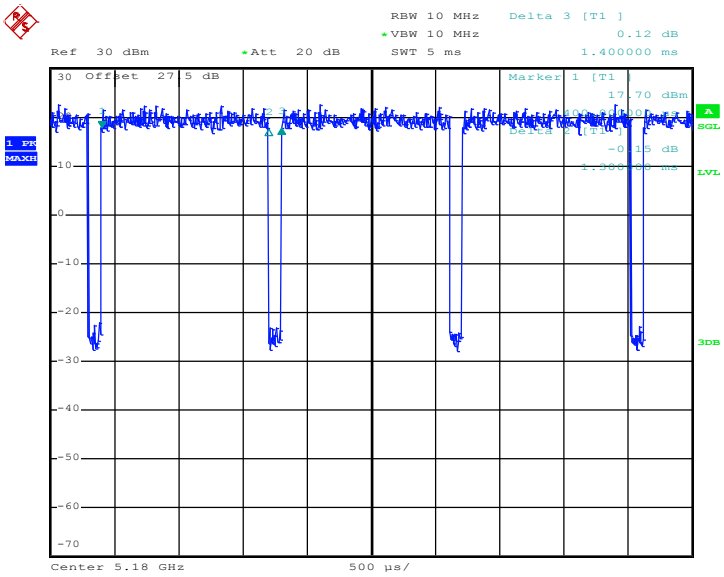
MIMO<Ant. 1>

802.11a



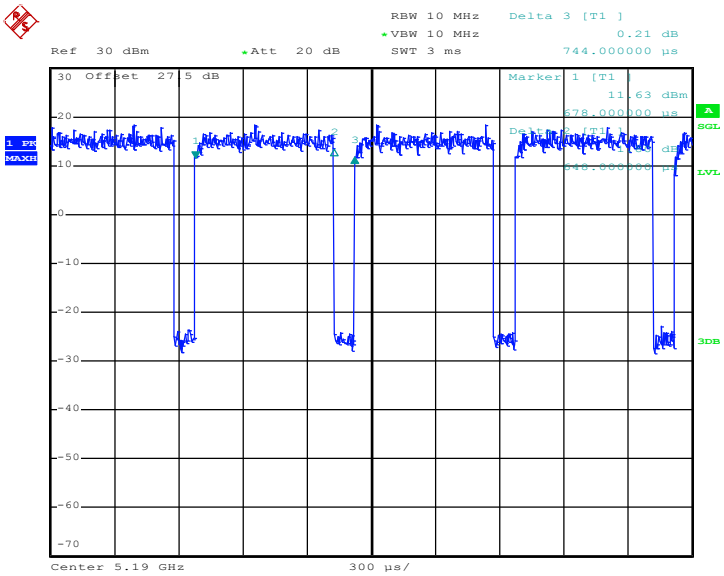
Date: 2.OCT.2018 16:47:53

802.11n HT20



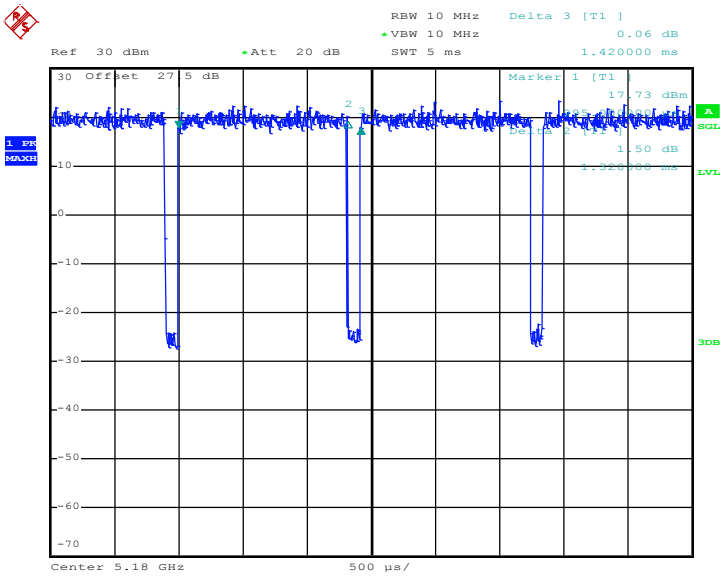
Date: 2.OCT.2018 16:51:02

802.11n HT40



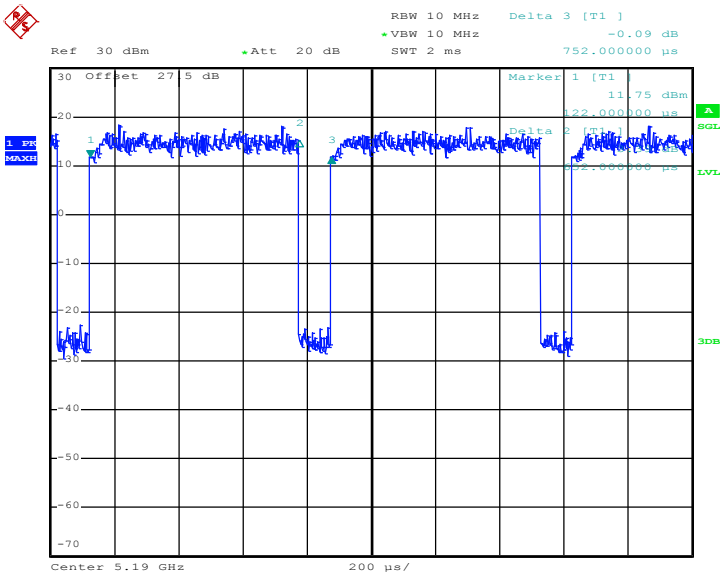
Date: 2.OCT.2018 17:11:10

802.11ac VHT20



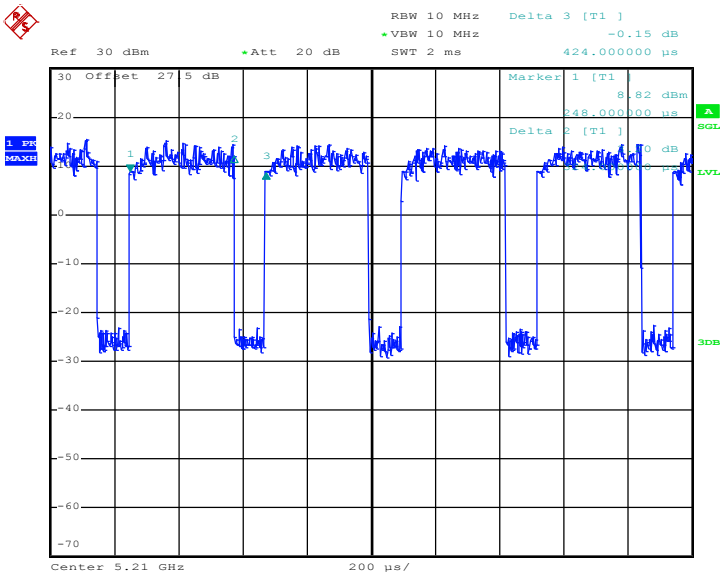
Date: 2.OCT.2018 17:19:33

802.11ac VHT40



Date: 2.OCT.2018 17:24:30

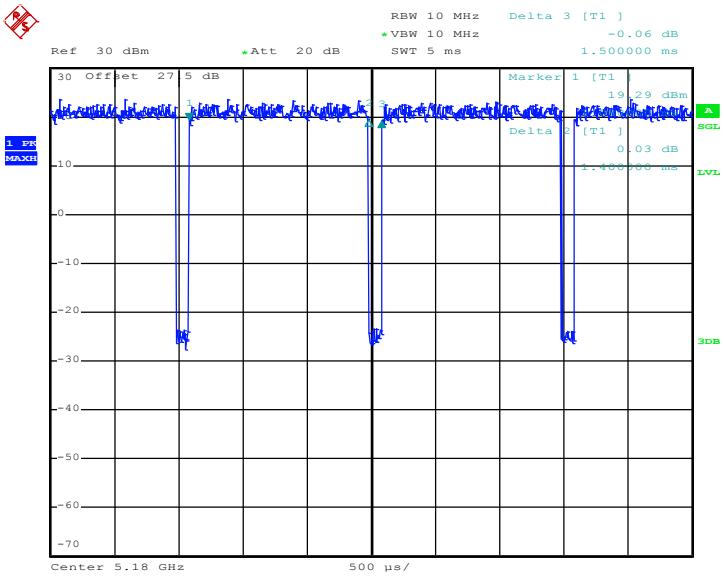
802.11ac VHT80



Date: 2.OCT.2018 17:38:00

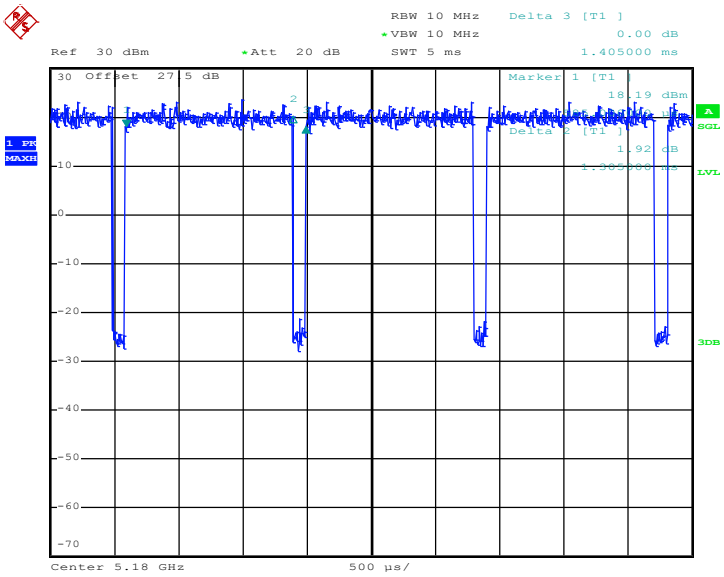
MIMO<Ant. 2>

802.11a



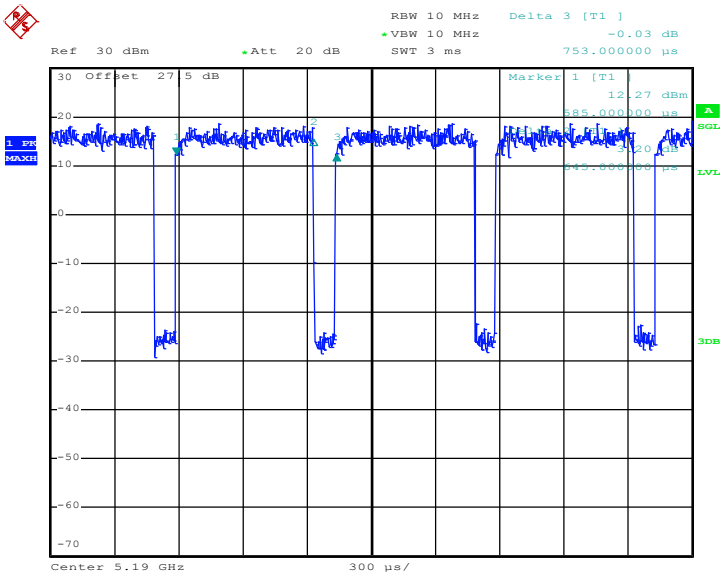
Date: 2.OCT.2018 16:48:57

802.11n HT20



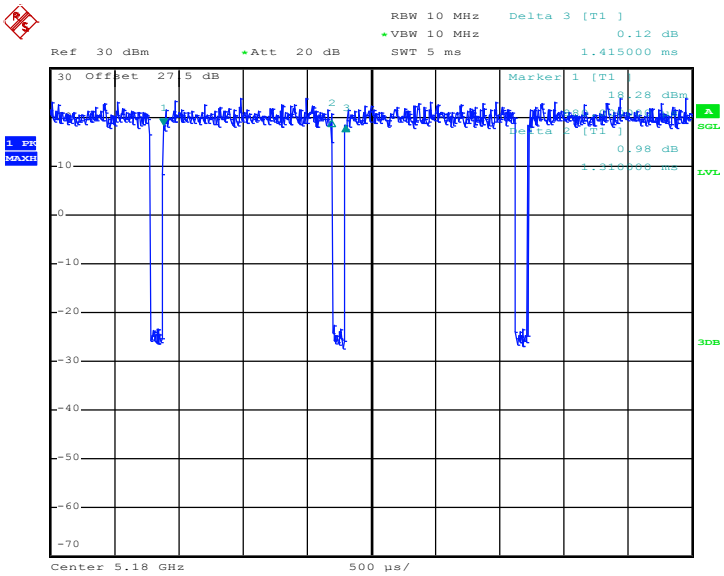
Date: 2.OCT.2018 16:54:13

802.11n HT40



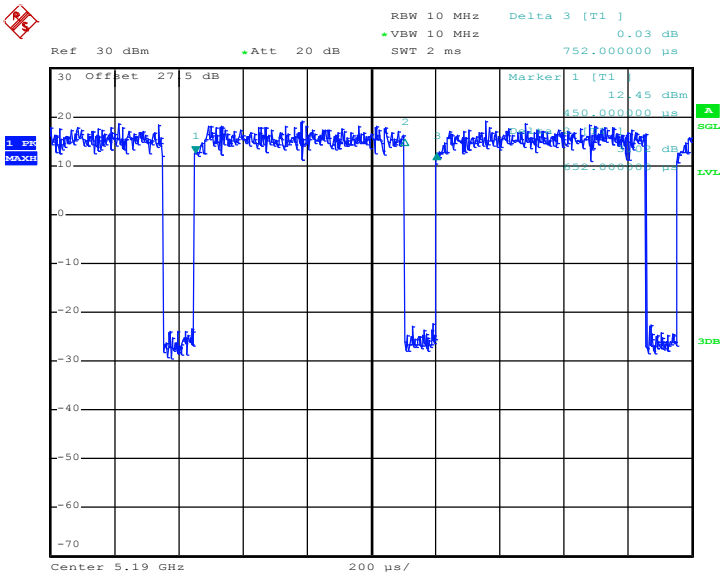
Date: 2.OCT.2018 17:09:26

802.11ac VHT20



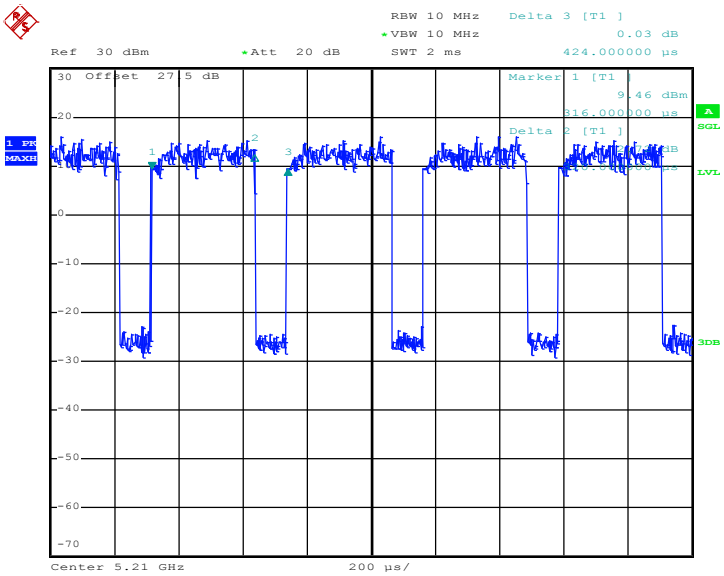
Date: 2.OCT.2018 17:21:43

802.11ac VHT40



Date: 2.OCT.2018 17:25:28

802.11ac VHT80

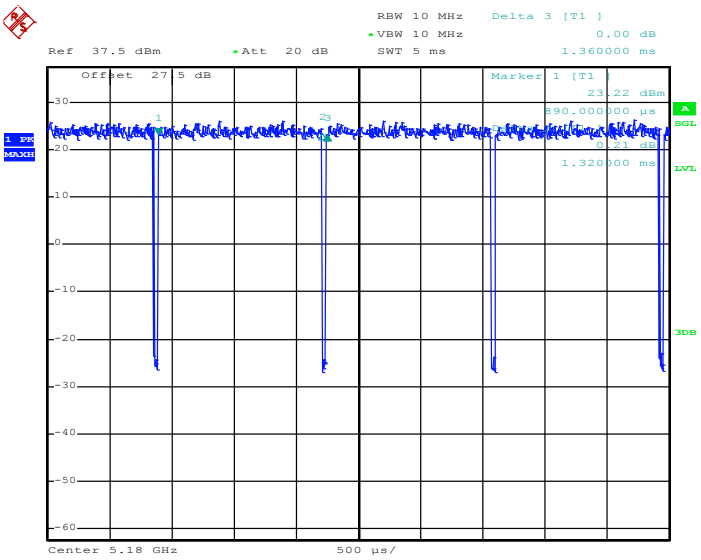


Date: 2.OCT.2018 17:38:55

<TXBF Mode>

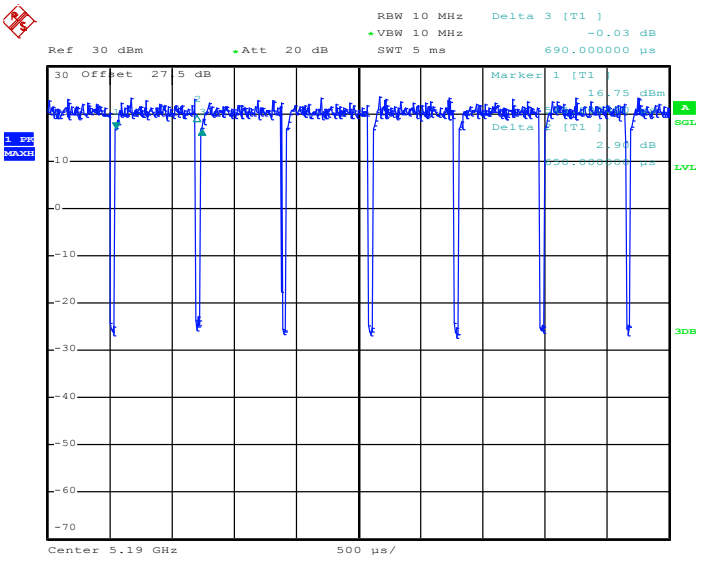
MIMO<Ant. 1>

802.11ac VHT20



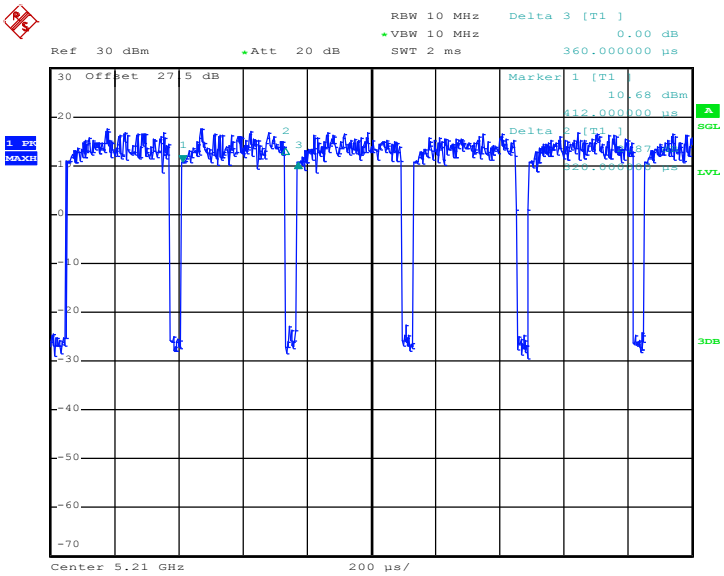
Date: 9.OCT.2018 23:28:10

802.11ac VHT40



Date: 9.OCT.2018 23:51:25

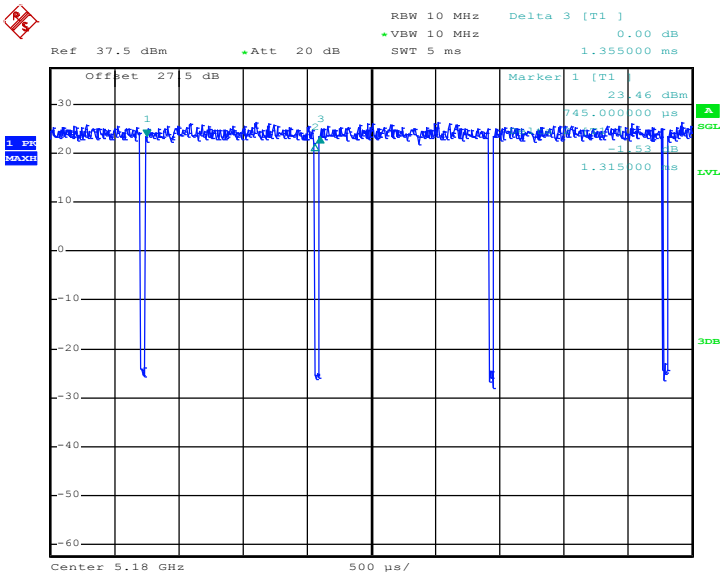
802.11ac VHT80



Date: 9.OCT.2018 23:59:31

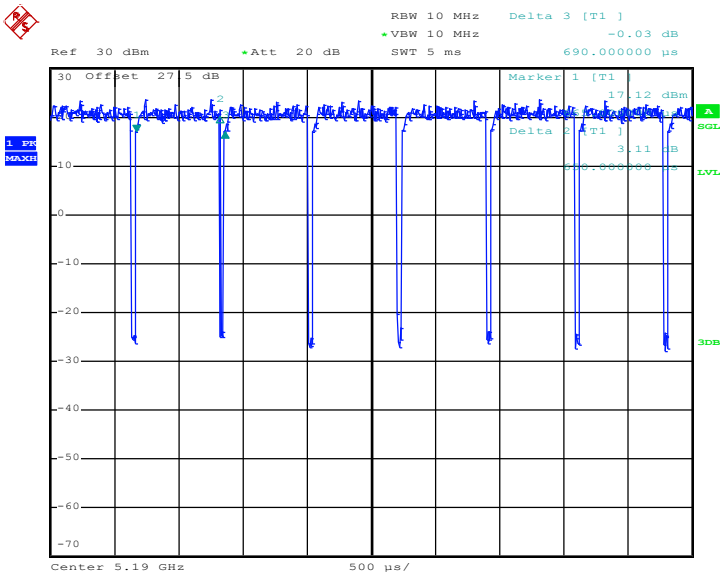
MIMO<Ant. 2>

802.11ac VHT20



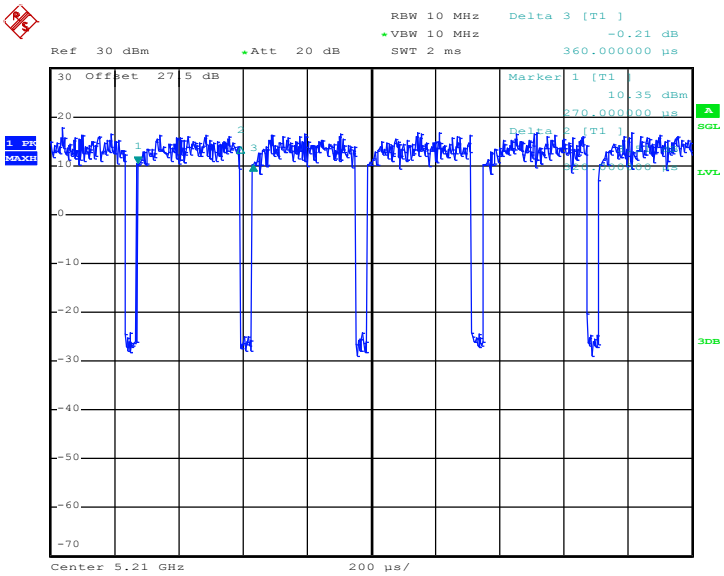
Date: 9.OCT.2018 23:29:56

802.11ac VHT40



Date: 9.OCT.2018 23:50:47

802.11ac VHT80



Date: 10.OCT.2018 00:01:14

———THE END———