



FCC RADIO TEST REPORT

FCC ID : IHDT56XM1
Equipment : Mobile Cellular Phone
Brand Name : Motorola
Model name : XT2000-1
Applicant : Motorola Mobility LLC
222 W Merchandise Mart Plaza, Suite
1800, Chicago, IL 60654, United States
Manufacturer : Motorola Mobility LLC
222 W Merchandise Mart Plaza, Suite
1800, Chicago, IL 60654, United States
Standard : FCC Part 15 Subpart E §15.407

The product was received on Jan. 24, 2019 and testing was started from Feb. 02, 2019 and completed on Mar. 15, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, 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: Jones Tsai

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



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History of this test report

Report No.	Version	Description	Issued Date
FR912419F	01	Initial issue of report	Mar. 25, 2019
FR912419F	02	Remove watermark.	Mar. 29, 2019

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
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	Under limit 6.45 dB at 38.100 MHz
3.5	15.207	AC Conducted Emission	Pass	Under limit 19.00 dB at 0.62925 MHz
3.6	15.407 (c)	Automatically Discontinue Transmission	Pass	-
3.7	15.203 & 15.407 (a)	Antenna Requirement	Pass	-

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Wii Chang

Report Producer: Natasha Hsieh



1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2000-1
FCC ID	IHDT56XM1
IMEI Code	Conducted : IMEI: 355573090013332 Conduction : IMEI: 355573090013654 Radiation : IMEI: 355573090013720 IMEI: 355573090013589
EUT supports Radios application	CDMA/EV-DO/GSM/EGPRS/WCDMA/HSPA/LTE/GNSS/ NFC WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE
HW Version	DVT3
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer.

Accessory List	
AC Adapter	Brand Name : Motorola
	Model Name : SA18C45883
	Manufacturer : Salom
Battery 1	Brand Name : Motorola
	Model Name : KV40
	Manufacturer : Amperex
Battery 2	Brand Name : Motorola
	Model Name : KV30
	Manufacturer : Amperex
Headset Jack Adaptor	Brand Name : Motorola
	Model Name : SC18C45885
	Manufacturer : Luxshare
USB-C Data Cable	Brand Name : Motorola
	Model Name : SC18C45884
	Manufacturer : Luxshare
USB-C Headset 2	Brand Name : Motorola
	Model Name : SH38C48284
	Manufacturer : Grandsun

Supported Unit Used in Test Configuration and System	
USB-C Headset 1	Brand Name : Google
	Model Name : G019A
	Manufacturer : Grandsun

1.2 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Channel Frequency Range	5745 MHz ~ 5825 MHz
Maximum Output Power <CDD Mode>	<Ant. 1> 802.11a : 17.80 dBm / 0.0603 W 802.11n HT20 : 17.70 dBm / 0.0589 W 802.11n HT40 : 16.20 dBm / 0.0417 W 802.11ac VHT20 : 17.80 dBm / 0.0603 W 802.11ac VHT40 : 16.30 dBm / 0.0427 W 802.11ac VHT80 : 14.70 dBm / 0.0295 W <Ant. 2> 802.11a : 17.70 dBm / 0.0589 W 802.11n HT20 : 17.70 dBm / 0.0589 W 802.11n HT40 : 16.20 dBm / 0.0417 W 802.11ac VHT20 : 17.80 dBm / 0.0603 W 802.11ac VHT40 : 16.30 dBm / 0.0427 W 802.11ac VHT80 : 14.60 dBm / 0.0288 W MIMO <Ant. 1+2> 802.11a : 20.87 dBm / 0.1222 W 802.11n HT20 : 20.81 dBm / 0.1205 W 802.11n HT40 : 19.36 dBm / 0.0863 W 802.11ac VHT20 : 20.86 dBm / 0.1219 W 802.11ac VHT40 : 19.41 dBm / 0.0873 W 802.11ac VHT80 : 17.76 dBm / 0.0597 W
Maximum Output Power <TXBF Mode>	MIMO <Ant. 2> 802.11ac VHT20 : 20.92 dBm / 0.1236 W 802.11ac VHT40 : 20.87 dBm / 0.1222 W 802.11ac VHT80 : 20.87 dBm / 0.1222 W
99% Occupied Bandwidth <CDD Mode>	MIMO <Ant. 1> 802.11a : 16.85 MHz 802.11 ac VHT20 : 18.00 MHz 802.11 ac VHT40 : 36.60 MHz 802.11 ac VHT80 : 76.92 MHz MIMO <Ant. 2> 802.11a : 16.80 MHz 802.11 ac VHT20 : 17.95 MHz 802.11 ac VHT40 : 36.50 MHz 802.11 ac VHT80 : 76.80 MHz
99% Occupied Bandwidth <TXBF Mode>	MIMO <Ant. 1> 802.11 ac VHT20 : 18.00 MHz 802.11 ac VHT40 : 37.30 MHz 802.11 ac VHT80 : 77.88 MHz MIMO <Ant. 2> 802.11 ac VHT20 : 18.05 MHz 802.11 ac VHT40 : 37.80 MHz 802.11 ac VHT80 : 77.76 MHz

Standards-related Product Specification			
Antenna Type / Gain	<Ant. 1> : Fixed Internal Antenna with gain -3.0 dBi <Ant. 2> : Fixed Internal Antenna with gain -5.0 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
	802.11 ac TXBF	V	V

1.3 Modification of EUT

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



1.4 Testing Location

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	03CH07-HY

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

FCC Designation No.: TW1190

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:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

2 Test Configuration of Equipment Under Test

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

2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5725-5850 MHz Band 4 (U-NII-3)	149	5745	157	5785
	151*	5755	159*	5795
	153	5765	161	5805
	155 [#]	5775	165	5825

Note:

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

2.2 Test Mode

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

MIMO Mode

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

TXBF Mode

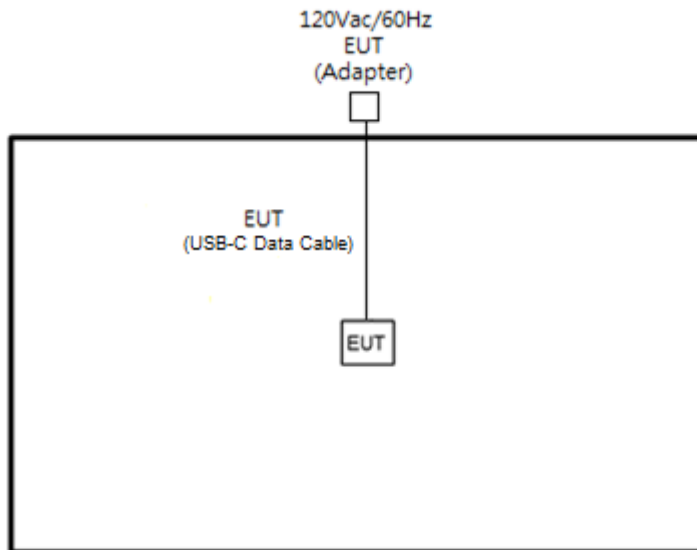
Modulation	Data Rate
802.11ac VHT20	MCS0
802.11ac VHT40	MCS0
802.11ac VHT80	MCS0

Test Cases	
AC Conducted Emission	Mode 1 : GSM850 Link + Bluetooth Link + WLAN (5GHz) Link + MPEG4 + USB-C Data Cable (Charging from Adapter) + Battery < 10% for Open Mode
Remark: All the radiation test items were performed with USB-C Headset 1.	

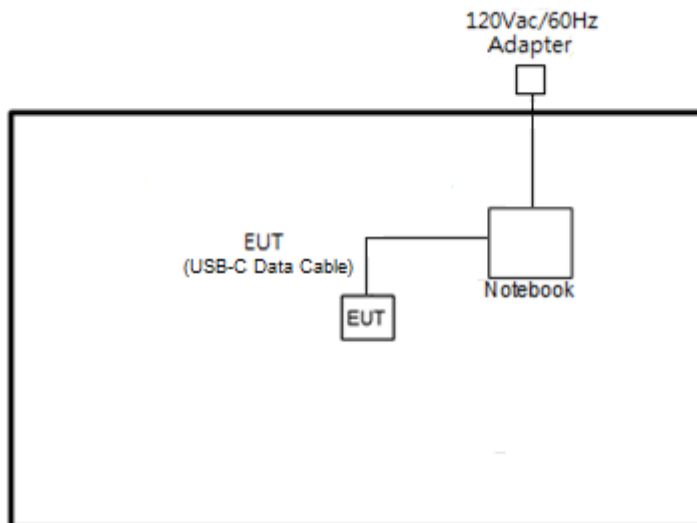
Ch. #		Band IV : 5725-5850 MHz			
		802.11a	802.11ac VHT20	802.11ac VHT40	802.11ac VHT80
L	Low	149	149	151	-
M	Middle	157	157	-	155
H	High	165	165	159	-

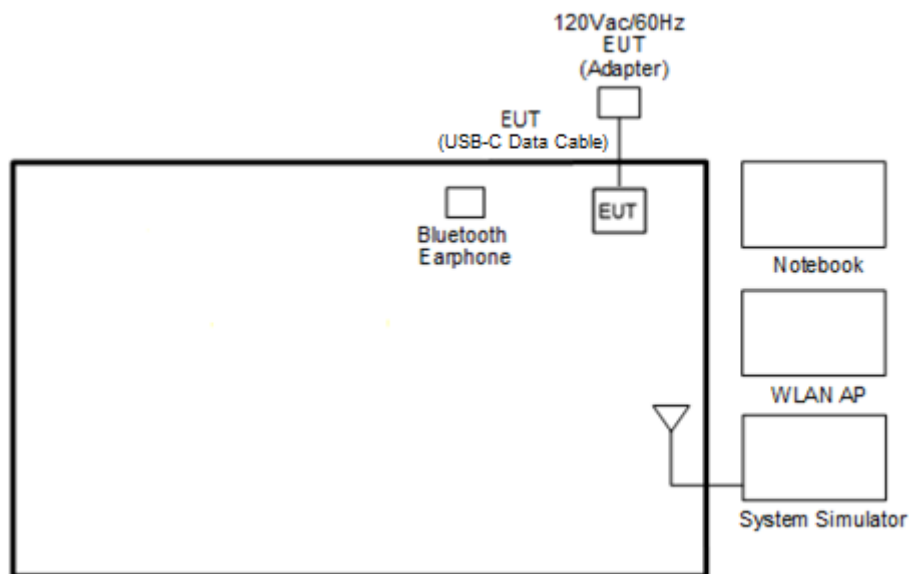
2.3 Connection Diagram of Test System

<WLAN Tx CDD Mode>



<WLAN Tx TXBF 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.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8 m
3.	Notebook	DELL	Latitude E6320	FCC DoC/ Contains FCC ID: QDS-BRCM1054	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
4.	Bluetooth Earphone	Lenovo	LBH 301	FCC DoC	N/A	N/A



2.5 EUT Operation Test Setup

The RF test items, utility “adb” 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.

For TXBF mode, the modulation modes and data rates manipulated by the command lines in the engineering program made the EUT link to another EUT by power under the normal operation. The “adb” software tool was used to enable the EUT to transmit signals continuously.

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.

$$\begin{aligned}\text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)} \\ &= 4.2 + 10 = 14.2 \text{ (dB)}\end{aligned}$$

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.

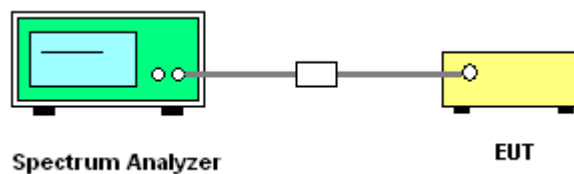
3.1.2 Measuring Instruments

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 $\geq 3 \times$ 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

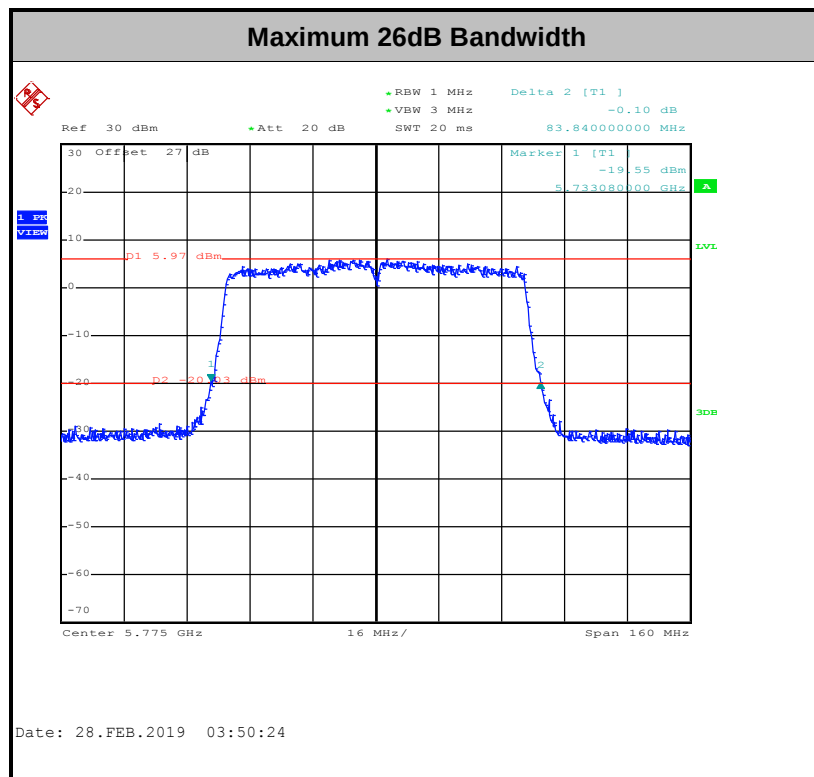
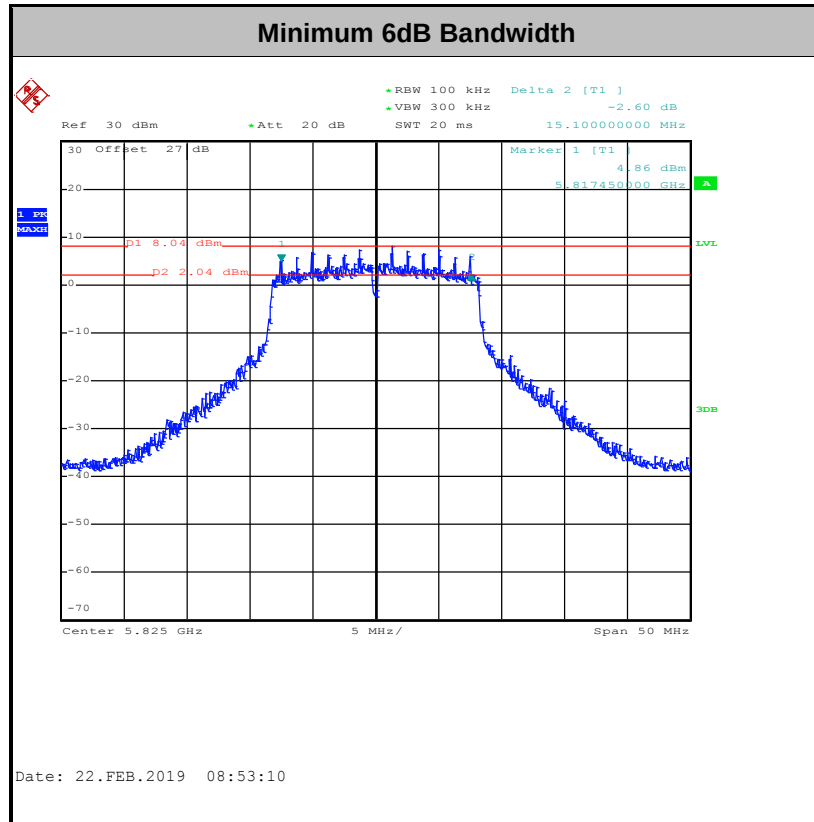


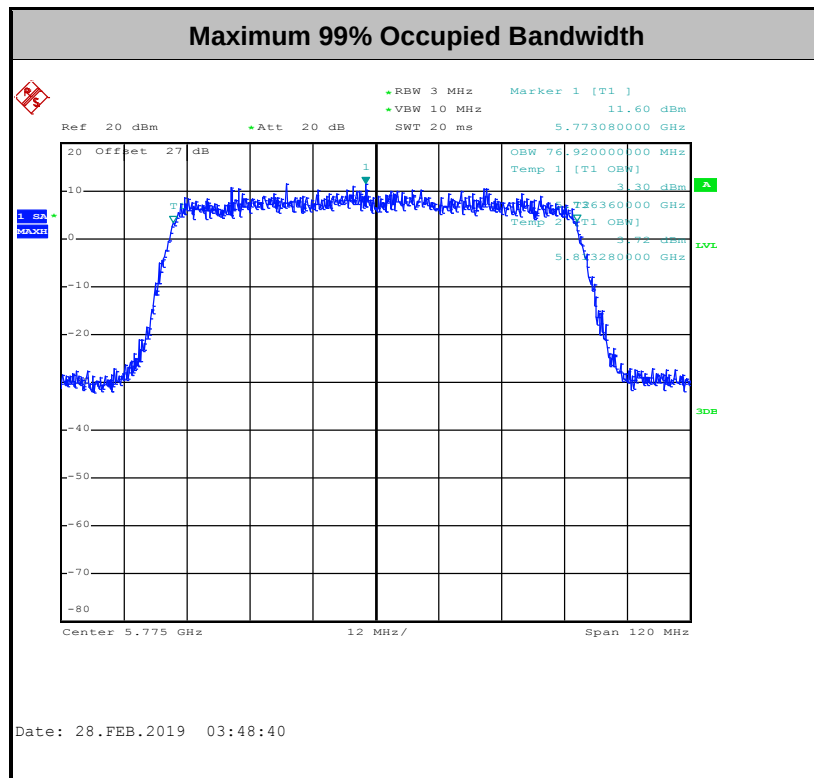
3.1.5 Test Result of 6dB Bandwidth

Please refer to Appendix A.



<CDD Mode>

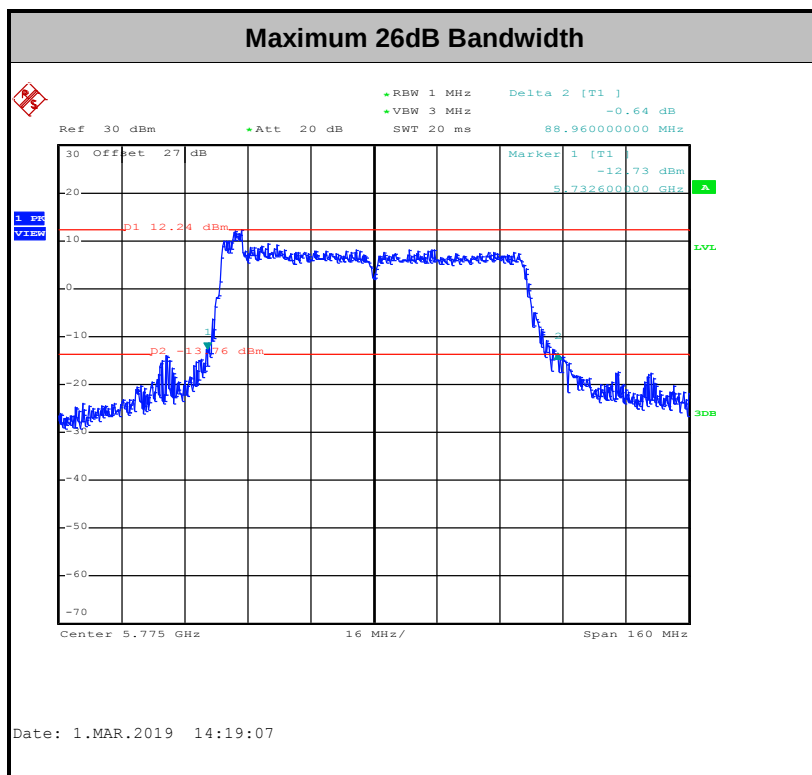
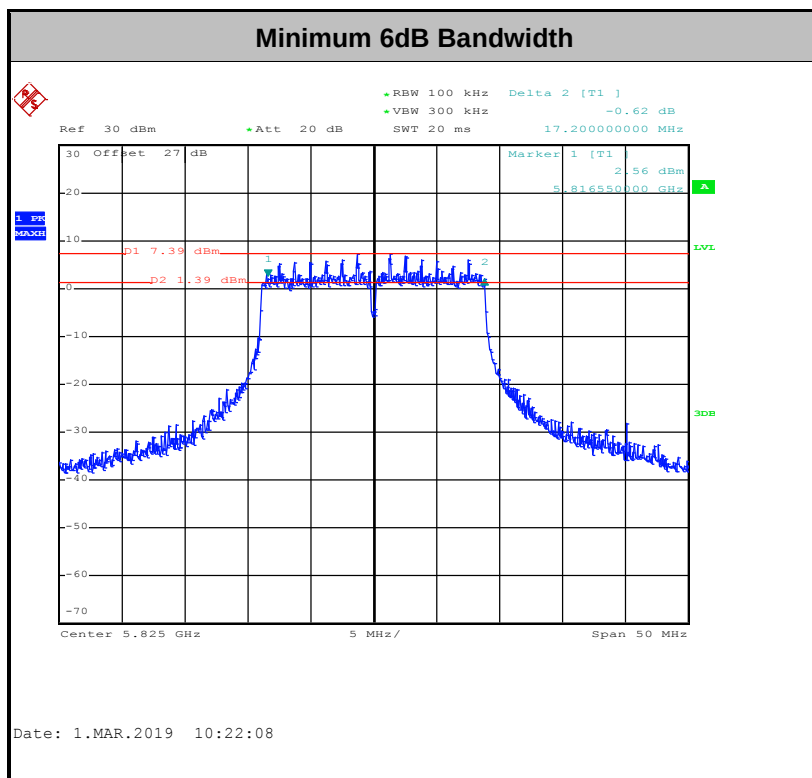


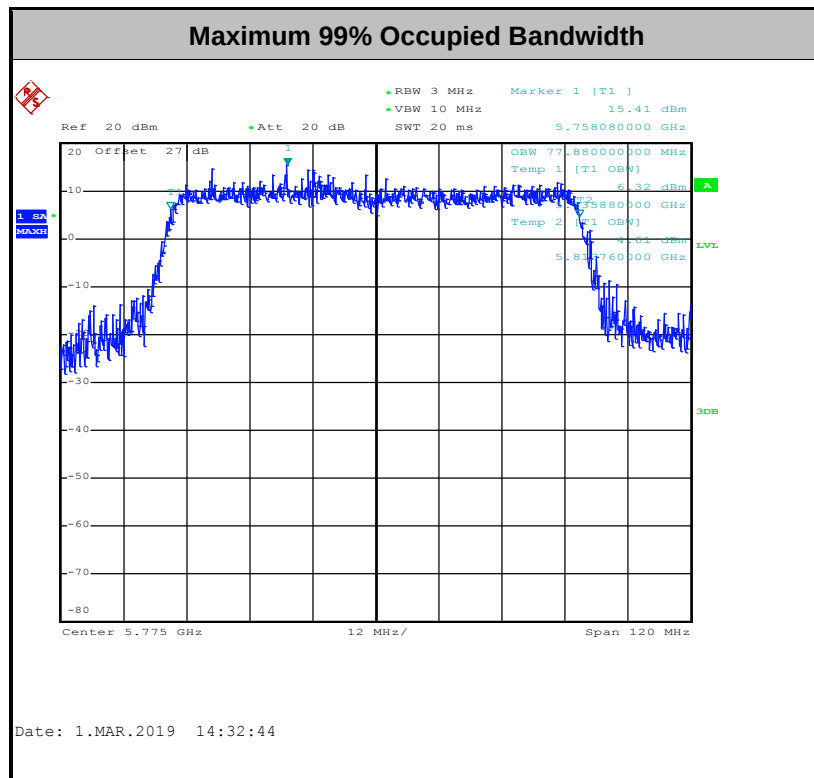


Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.



<TXBF Modes>





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.

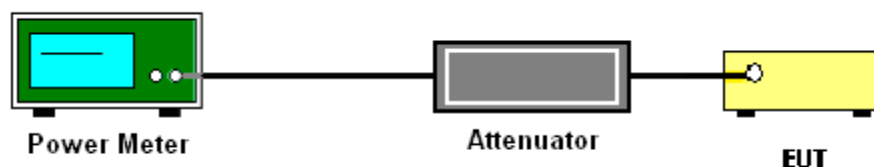
3.2.3 Test Procedures

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 $\geq$ 1 MHz.
- Number of points in sweep $\geq$ 2 Span / RBW.
- Sweep time = auto.
- Detector = RMS
- Trace average at least 100 traces in power averaging mode.
- Add $10 \log(500\text{kHz}/\text{RBW})$ 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.

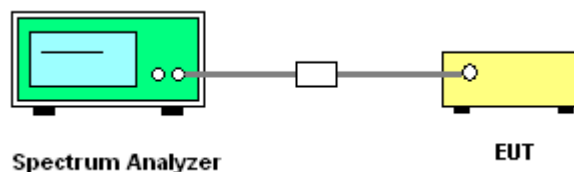
<TXBF Modes>**# Method SA-3 #**

(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 $\geq$ 1 MHz.
 - Number of points in sweep $\geq$ 2 Span / RBW.
 - Sweep time $\leq$ (number of points in sweep) $\times$ 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 $10 \log(N_{\text{ANT}})$ dB.

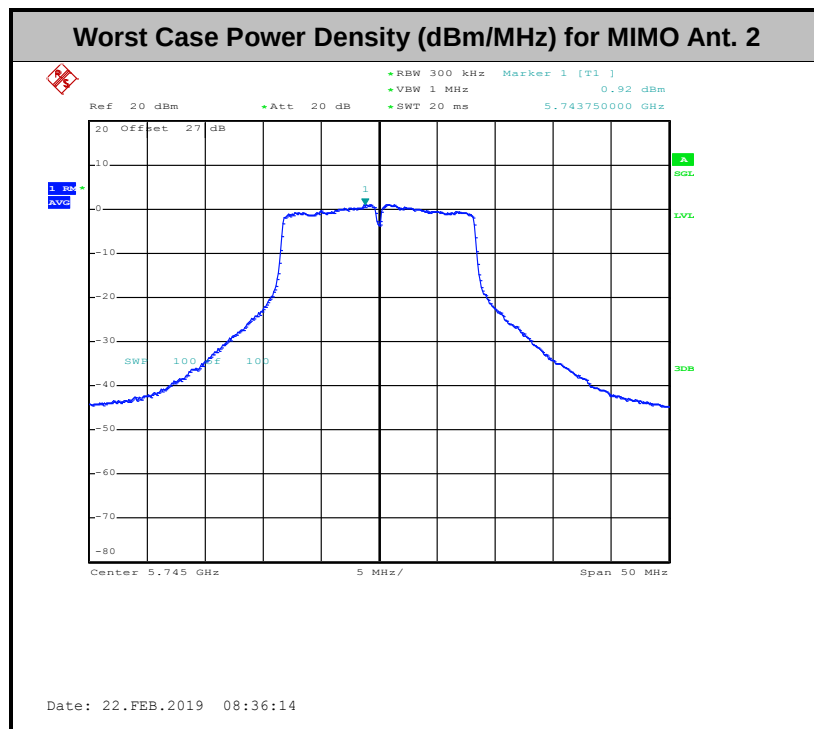
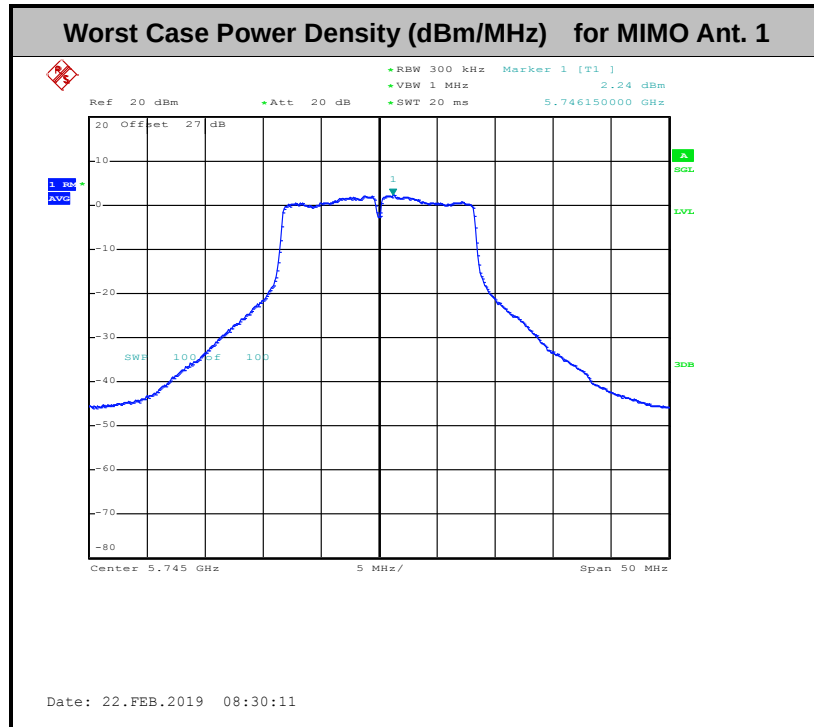
With this technique, spectrum measurements are performed at each output of the device, but rather than summing the spectra or the spectral peaks across the outputs, the quantity $10 \log(N_{\text{ANT}})$ dB is added to each spectrum value before comparing to the emission limit. The addition of $10 \log(N_{\text{ANT}})$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

3.3.4 Test Setup

3.3.5 Test Result of Power Spectral Density

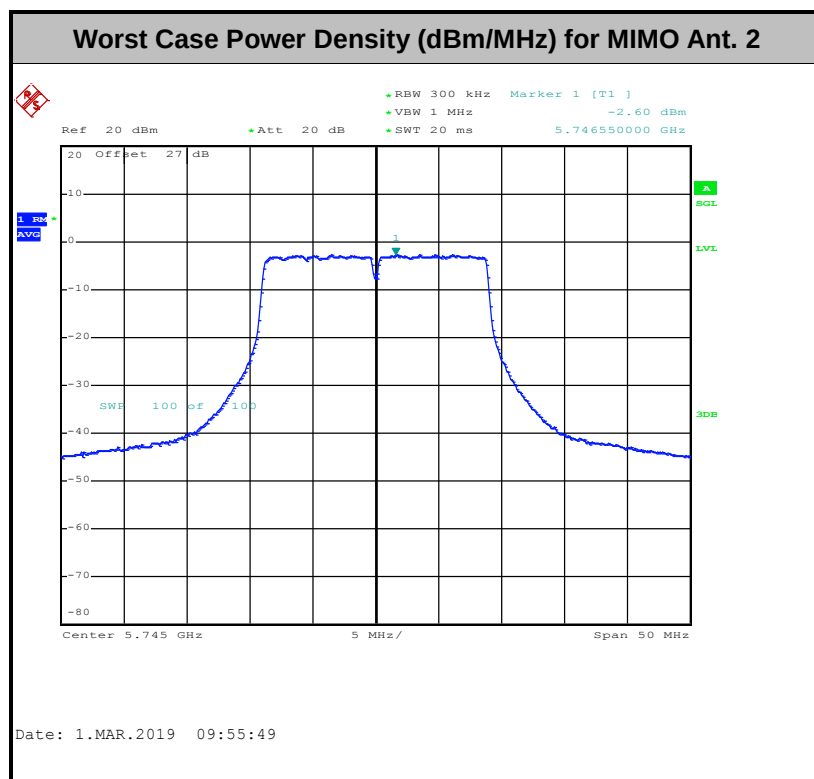
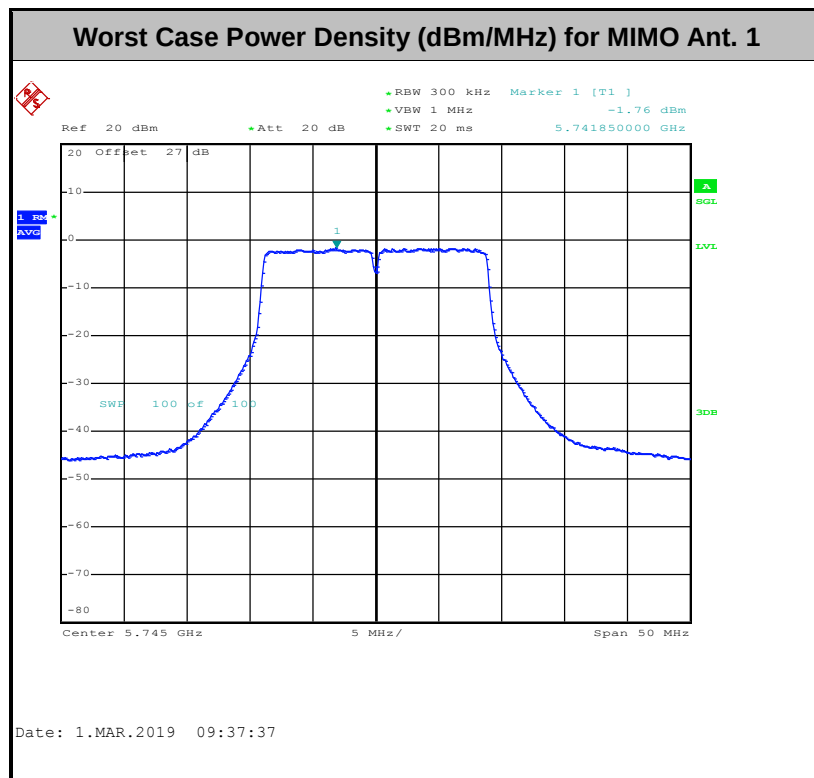
Please refer to Appendix A.

<CDD Modes>





<TXBF Modes>



3.4 Unwanted Emissions Measurement

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

3.4.1 Limit of Unwanted Emissions

- (1) For transmitters operating in the 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.

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



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 $\geq$ 3 MHz
- Detector = Peak
- Sweep time = auto
- Trace mode = max hold

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

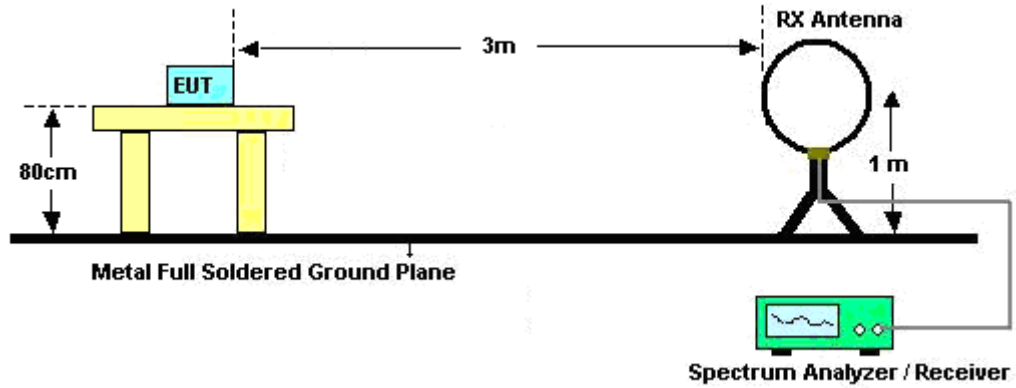
- RBW = 1 MHz
- VBW = 10 Hz, when duty cycle is no less than 98 percent.
- VBW $\geq$ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.



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

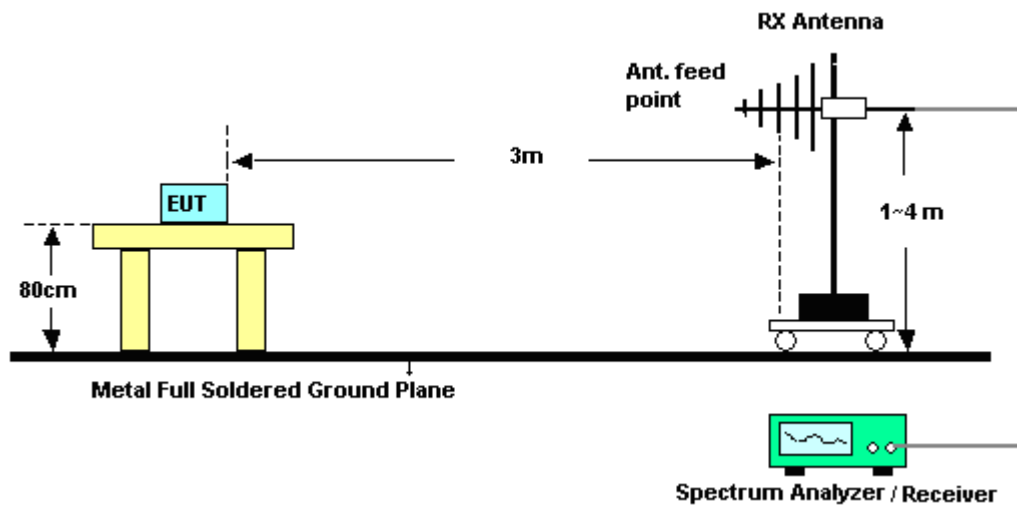
3.4.4 Test Setup

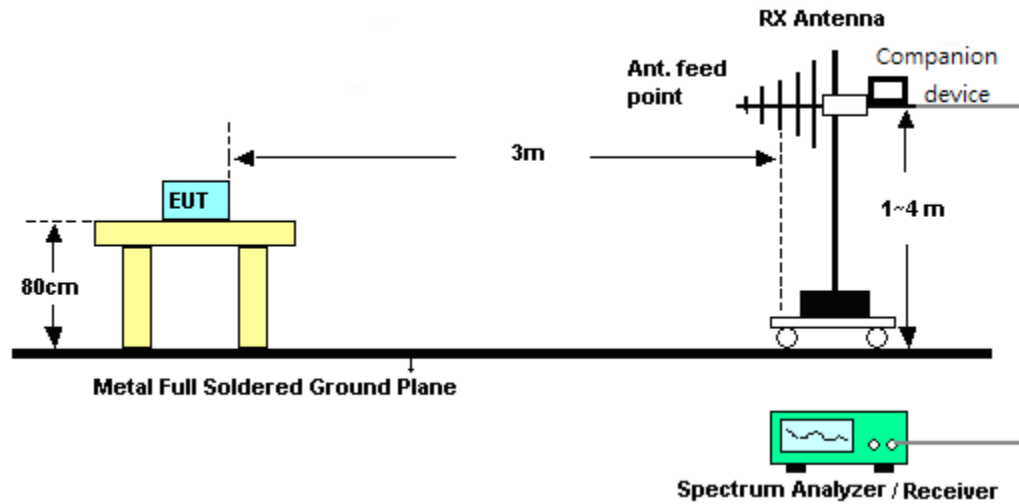
For radiated emissions below 30MHz



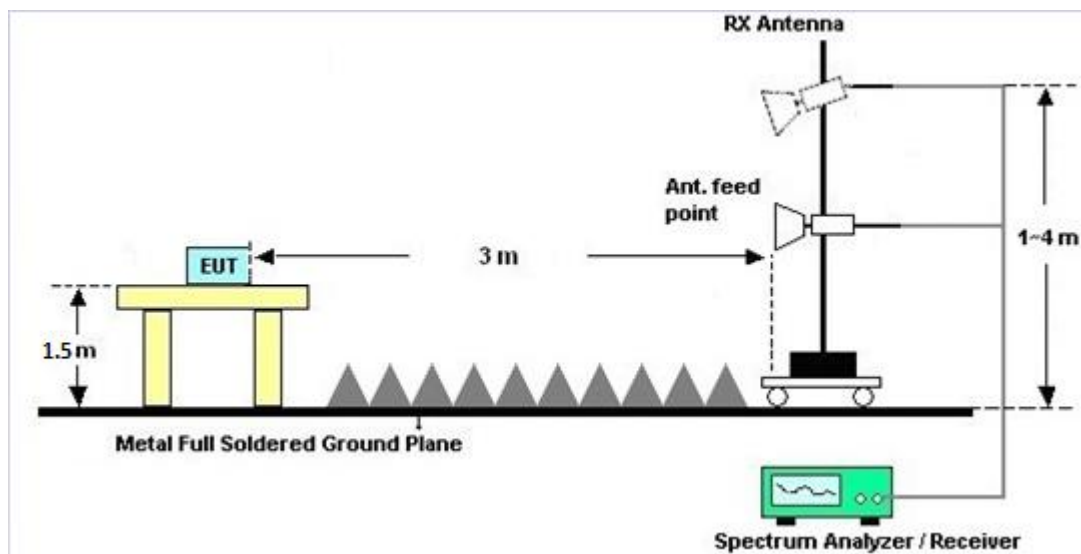
For radiated emissions from 30MHz to 1GHz

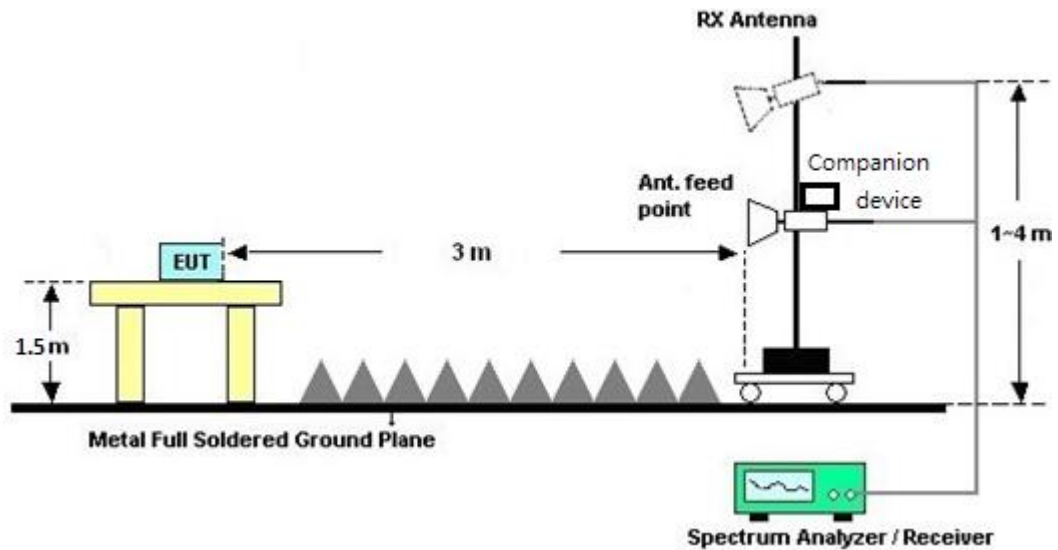
<CDD Mode>



<TXBF Modes>


For radiated emissions above 1GHz

<CDD Mode>


<TXBF Modes>

3.4.5 Test Results of Radiated 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 (dB μ V)	
	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.

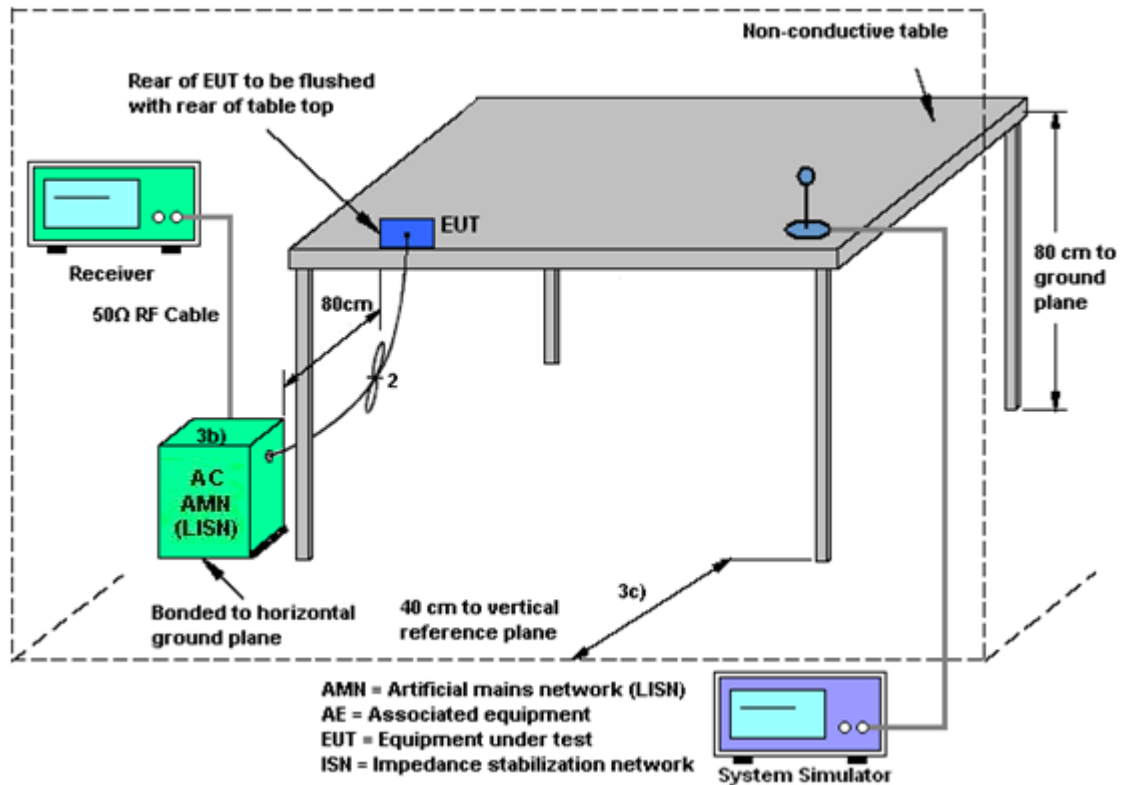
3.5.2 Measuring Instruments

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



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

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

3.7 Antenna Requirements

3.7.1 Standard Applicable

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

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 Antenna Gain

<CDD Modes >

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

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

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

Array Gain = $10 \log(\text{NANT}/\text{NSS}=1)$ dB.

For power measurements on IEEE 802.11 devices,

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

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

The EUT supports CDD mode.

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

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

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

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

<CDD Modes>						
			DG	DG	Power	PSD
			for	for	Limit	Limit
	Ant. 1	Ant. 2	Power	PSD	Reduction	Reduction
	(dBi)	(dBi)	(dBi)	(dBi)	(dB)	(dB)
Band IV	-3.00	-5.00	-3.00	-0.93	0.00	0.00

$\text{Power Limit Reduction} = \text{DG}(\text{Power}) - 6\text{dBi}, (\text{min} = 0)$

$\text{PSD Limit Reduction} = \text{DG}(\text{PSD}) - 6\text{dBi}, (\text{min} = 0)$

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 k th antenna is being fed by spatial stream j , or zero if it is not;
 G_k is the gain in dBi of the k th 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.

			DG	DG	Power	PSD
			for	for	Limit	Limit
	Ant 1	Ant 2	Power	PSD	Reduction	Reduction
	(dBi)	(dBi)	(dBi)	(dBi)	(dB)	(dB)
Band IV	-3.00	-5.00	-0.93	-0.93	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
Hygrometer	Testo	608-H1	34893241	N/A	Mar. 06, 2018	Feb. 02, 2019~ Feb. 28, 2019	Mar. 05, 2019	Conducted (TH05-HY)
Power Meter	Anritsu	ML2495A	1218006	N/A	Oct. 08, 2018	Feb. 02, 2019~ Feb. 28, 2019	Oct. 07, 2019	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	1207363	300MHz~40GHz	Oct. 08, 2018	Feb. 02, 2019~ Feb. 28, 2019	Oct. 07, 2019	Conducted (TH05-HY)
Programmable Power Supply	GW Instek	PSS-2005	GEO821763	N/A	Oct. 08, 2018	Feb. 02, 2019~ Feb. 28, 2019	Oct. 07, 2020	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100057	9kHz~40GHz	Nov. 21, 2018	Feb. 02, 2019~ Feb. 28, 2019	Nov. 20, 2019	Conducted (TH05-HY)
Switch Box & RF Cable	Burgeon	ETF-058	EC1300484	N/A	Mar. 01, 2018	Feb. 02, 2019~ Feb. 27, 2019	Feb. 28, 2019	Conducted (TH05-HY)
Switch Box & RF Cable	Burgeon	ETF-058	EC1300484	N/A	Feb. 28, 2019	Feb. 28, 2019	Feb. 27, 2020	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Feb. 17, 2019	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9KHz~3.6GHz	Nov. 12, 2018	Feb. 17, 2019	Nov. 11, 2019	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Mar. 06, 2018	Feb. 17, 2019	Mar. 05, 2019	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 14, 2018	Feb. 17, 2019	Nov. 13, 2019	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Nov. 09, 2018	Feb. 17, 2019	Nov. 08, 2019	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Feb. 17, 2019	N/A	Conduction (CO05-HY)
RF Cable	HUBER + SUHNER	RG 214/U	1358175	9kHz~30MHz	Sep. 14, 2018	Feb. 17, 2019	Sep. 13, 2019	Conduction (CO05-HY)
Pulse Limiter	SCHWARZBECK	VTSD 9561-F N	9561-F N00373	9kHz~200MHz	Nov. 08, 2018	Feb. 17, 2019	Nov. 07, 2019	Conduction (CO05-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800 N1D01N-06	35419&03	30MHz to 1GHz	Dec. 17, 2018	Feb. 05, 2019~ Mar. 15, 2019	Dec. 16, 2019	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	00075962	1GHz ~ 18GHz	Dec. 02, 2018	Feb. 05, 2019~ Mar. 15, 2019	Dec. 03, 2019	Radiation (03CH07-HY)
EMI Test Receiver	Agilent	N9038A (MXE)	MY53290053	20Hz to 26.5GHz	Jan. 23, 2019	Feb. 05, 2019~ Mar. 15, 2019	Jan. 22, 2020	Radiation (03CH07-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Jan. 11, 2019	Feb. 05, 2019~ Mar. 15, 2019	Jan. 10, 2020	Radiation (03CH07-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1590075	1GHz ~ 18GHz	Apr. 25, 2018	Feb. 05, 2019~ Mar. 15, 2019	Apr. 24, 2019	Radiation (03CH07-HY)
Preamplifier	COM-POWER	PA-103A	161241	10MHz~1GHz	May 21, 2018	Feb. 05, 2019~ Mar. 15, 2019	May 20, 2019	Radiation (03CH07-HY)
Preamplifier	Agilent	8449B	3008A02362	1GHz~ 26.5GHz	Nov. 02, 2018	Feb. 05, 2019~ Mar. 15, 2019	Nov. 01, 2019	Radiation (03CH07-HY)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Hygrometer	Testo	608-H2	41410070	N/A	Oct. 22, 2018	Feb. 05, 2019~ Mar. 15, 2019	Oct. 21, 2019	Radiation (03CH07-HY)
Controller	ChainTek	Chaintek 3000	N/A	Control Turn table	N/A	Feb. 05, 2019~ Mar. 15, 2019	N/A	Radiation (03CH07-HY)
Controller	Max-Full	MF7802	MF78020836 8	Control Ant Mast	N/A	Feb. 05, 2019~ Mar. 15, 2019	N/A	Radiation (03CH07-HY)
Antenna Mast	Max-Full	MFA520BS	N/A	1m~4m	N/A	Feb. 05, 2019~ Mar. 15, 2019	N/A	Radiation (03CH07-HY)
Turn Table	ChainTek	Chaintek 3000	N/A	0~360 Degree	N/A	Feb. 05, 2019~ Mar. 15, 2019	N/A	Radiation (03CH07-HY)
Amplifier	MITEQ	TTA1840-35-H G	1871923	18GHz~40GHz, VSWR : 2.5:1 max	Jul. 16, 2018	Feb. 05, 2019~ Mar. 15, 2019	Jul. 15, 2019	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	BBHA917025 1	18GHz- 40GHz	Nov. 20, 2018	Feb. 05, 2019~ Mar. 15, 2019	Nov. 19, 2019	Radiation (03CH07-HY)
Spectrum Analyzer	Agilent	N9010A	MY53470118	10Hz~44GHz	Apr. 17, 2018	Feb. 05, 2019~ Mar. 15, 2019	Apr. 16, 2019	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY24971/4, MY28655/4	9KHz~30MHz	Feb. 27, 2018	Feb. 05, 2019~ Feb. 25, 2019	Feb. 26, 2019	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY24971/4, MY28655/4	9KHz~30MHz	Feb. 26, 2019	Feb. 26, 2019~ Mar. 15, 2019	Feb. 25, 2020	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY28655/4, MY24971/4, MY15682/4	30MHz~1GHz	Feb. 27, 2018	Feb. 05, 2019~ Feb. 25, 2019	Feb. 26, 2019	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY28655/4, MY24971/4, MY15682/4	30MHz~1GHz	Feb. 26, 2019	Feb. 26, 2019~ Mar. 15, 2019	Feb. 25, 2020	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY28655/4, MY24971/4, MY15682/4	1GHz~18GHz	Feb. 27, 2018	Feb. 05, 2019~ Feb. 25, 2019	Feb. 26, 2019	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY28655/4, MY24971/4, MY15682/4	1GHz~18GHz	Feb. 26, 2019	Feb. 26, 2019~ Mar. 15, 2019	Feb. 25, 2020	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2858/2	18GHz~40GHz	Feb. 27, 2018	Feb. 05, 2019~ Feb. 25, 2019	Feb. 26, 2019	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2858/2	18GHz~40GHz	Feb. 26, 2019	Feb. 26, 2019~ Mar. 15, 2019	Feb. 25, 2020	Radiation (03CH07-HY)
Filter	Microwave	H1G013G1	SN477215	1.0G High Pass	Dec. 07, 2017	Feb. 05, 2019~ Mar. 15, 2019	Dec. 06, 2018	Radiation (03CH07-HY)
Filter	Wainwright	WLKS1200-8S S	SN3	1.2G Low Pass	Nov. 21, 2017	Feb. 05, 2019~ Mar. 15, 2019	Nov. 20, 2018	Radiation (03CH07-HY)
Filter	Microwave	H3G018G1	SN477220	3.0G High Pass	Nov. 21, 2017	Feb. 05, 2019~ Mar. 15, 2019	Nov. 20, 2018	Radiation (03CH07-HY)
Filter	Microwave	WHKX7.0/26.5 G-6SS	SN4	7G High Pass	Nov. 21, 2017	Feb. 05, 2019~ Mar. 15, 2019	Nov. 20, 2018	Radiation (03CH07-HY)
Software	Audix	E3 6.2009-8-2 4	8050400465 6H	N/A	N/A	Feb. 05, 2019~ Mar. 15, 2019	N/A	Radiation (03CH07-HY)



5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.20
--	------

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.70
--	------

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.50
--	------

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

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

Appendix A. Test Result of Conducted Test Items**<CDD Mode>**

Test Engineer:	Luffy Lin	Temperature:	21~25	°C
Test Date:	2019/2/2 ~ 2019/02/28	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	2	149	5745	16.75	16.75	24.90	25.10	15.23	15.60	0.5	Pass
11a	6Mbps	2	157	5785	16.80	16.80	26.47	25.83	15.80	15.83	0.5	Pass
11a	6Mbps	2	165	5825	16.85	16.80	25.80	26.63	15.10	16.00	0.5	Pass
VHT20	MCS0	2	149	5745	18.00	17.85	25.90	26.25	16.30	16.65	0.5	Pass
VHT20	MCS0	2	157	5785	18.00	17.95	26.90	26.00	16.45	16.55	0.5	Pass
VHT20	MCS0	2	165	5825	18.00	17.95	26.35	27.35	16.75	16.65	0.5	Pass
VHT40	MCS0	2	151	5755	36.50	36.50	41.82	42.12	34.97	34.99	0.5	Pass
VHT40	MCS0	2	159	5795	36.60	36.50	41.94	41.94	35.46	35.10	0.5	Pass
VHT80	MCS0	2	155	5775	76.92	76.80	83.48	83.84	75.20	75.23	0.5	Pass

TEST RESULTS DATA
Average Power Table

Band IV												
Mod.	Data Rate	N _{TX}	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	149	5745	17.60	17.70		30.00	30.00	-3.00	-5.00	Pass
11a	6Mbps	1	157	5785	17.70	17.60		30.00	30.00	-3.00	-5.00	Pass
11a	6Mbps	1	165	5825	17.80	17.60		30.00	30.00	-3.00	-5.00	Pass
HT20	MCS0	1	149	5745	17.60	17.60		30.00	30.00	-3.00	-5.00	Pass
HT20	MCS0	1	157	5785	17.70	17.60		30.00	30.00	-3.00	-5.00	Pass
HT20	MCS0	1	165	5825	17.60	17.70		30.00	30.00	-3.00	-5.00	Pass
HT40	MCS0	1	151	5755	16.20	16.20		30.00	30.00	-3.00	-5.00	Pass
HT40	MCS0	1	159	5795	16.10	16.20		30.00	30.00	-3.00	-5.00	Pass
VHT20	MCS0	1	149	5745	17.70	17.70		30.00	30.00	-3.00	-5.00	Pass
VHT20	MCS0	1	157	5785	17.80	17.70		30.00	30.00	-3.00	-5.00	Pass
VHT20	MCS0	1	165	5825	17.70	17.80		30.00	30.00	-3.00	-5.00	Pass
VHT40	MCS0	1	151	5755	16.30	16.30		30.00	30.00	-3.00	-5.00	Pass
VHT40	MCS0	1	159	5795	16.20	16.30		30.00	30.00	-3.00	-5.00	Pass
VHT80	MCS0	1	155	5775	14.70	14.60		30.00	30.00	-3.00	-5.00	Pass
11a	6Mbps	2	149	5745	18.00	17.60	20.81	30.00		-3.00		Pass
11a	6Mbps	2	157	5785	17.90	17.80	20.86	30.00		-3.00		Pass
11a	6Mbps	2	165	5825	18.10	17.60	20.87	30.00		-3.00		Pass
HT20	MCS0	2	149	5745	18.00	17.50	20.77	30.00		-3.00		Pass
HT20	MCS0	2	157	5785	17.80	17.70	20.76	30.00		-3.00		Pass
HT20	MCS0	2	165	5825	17.90	17.70	20.81	30.00		-3.00		Pass
HT40	MCS0	2	151	5755	16.60	16.00	19.32	30.00		-3.00		Pass
HT40	MCS0	2	159	5795	16.40	16.30	19.36	30.00		-3.00		Pass
VHT20	MCS0	2	149	5745	18.00	17.60	20.81	30.00		-3.00		Pass
VHT20	MCS0	2	157	5785	17.90	17.70	20.81	30.00		-3.00		Pass
VHT20	MCS0	2	165	5825	18.00	17.70	20.86	30.00		-3.00		Pass
VHT40	MCS0	2	151	5755	16.60	16.10	19.37	30.00		-3.00		Pass
VHT40	MCS0	2	159	5795	16.50	16.30	19.41	30.00		-3.00		Pass
VHT80	MCS0	2	155	5775	14.80	14.70	17.76	30.00		-3.00		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	2	149	5745	0.12	0.11	2.22	4.58	3.25	7.59	30.00		-0.93		Pass	
11a	6Mbps	2	157	5785	0.12	0.11	2.22	4.04	3.88	7.05	30.00		-0.93		Pass	
11a	6Mbps	2	165	5825	0.12	0.11	2.22	4.46	3.86	7.47	30.00		-0.93		Pass	
VHT20	MCS0	2	149	5745	0.11	0.09	2.22	3.86	3.29	6.87	30.00		-0.93		Pass	
VHT20	MCS0	2	157	5785	0.11	0.09	2.22	3.53	3.47	6.54	30.00		-0.93		Pass	
VHT20	MCS0	2	165	5825	0.11	0.09	2.22	3.91	3.41	6.92	30.00		-0.93		Pass	
VHT40	MCS0	2	151	5755	0.18	0.20	2.22	-0.20	-1.39	2.81	30.00		-0.93		Pass	
VHT40	MCS0	2	159	5795	0.18	0.20	2.22	-0.29	-1.01	2.72	30.00		-0.93		Pass	
VHT80	MCS0	2	155	5775	0.36	0.37	2.22	-5.21	-5.57	-2.20	30.00		-0.93		Pass	

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

<TXBF Mode>

Test Engineer:	Richard Qiu	Temperature:	21~25	°C
Test Date:	2019/2/2~2019/02/28	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	18.00	17.90	26.25	35.60	17.70	17.50	0.5	Pass
VHT20	MCS0	2	157	5785	17.95	17.95	26.10	30.10	17.55	17.55	0.5	Pass
VHT20	MCS0	2	165	5825	17.85	18.05	25.10	34.85	17.20	17.70	0.5	Pass
VHT40	MCS0	2	151	5755	37.30	37.20	46.26	63.04	34.82	35.33	0.5	Pass
VHT40	MCS0	2	159	5795	37.30	37.80	44.82	73.44	36.80	35.46	0.5	Pass
VHT80	MCS0	2	155	5775	77.88	77.76	88.96	87.90	74.94	75.52	0.5	Pass

TEST RESULTS DATA
Average Power Table

Band IV												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
VHT20	MCS0	2	149	5745	18.20	17.50	20.87	30.00		-0.93		Pass
VHT20	MCS0	2	157	5785	17.80	17.70	20.76	30.00		-0.93		Pass
VHT20	MCS0	2	165	5825	18.20	17.60	20.92	30.00		-0.93		Pass
VHT40	MCS0	2	151	5755	18.10	17.60	20.87	30.00		-0.93		Pass
VHT40	MCS0	2	159	5795	18.10	17.40	20.77	30.00		-0.93		Pass
VHT80	MCS0	2	155	5775	18.10	17.60	20.87	30.00		-0.93		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	
VHT20	MCS0	2	149	5745	0.09	0.09	2.22	0.55	-0.29	3.56	30.00		-0.93		Pass	
VHT20	MCS0	2	157	5785	0.09	0.09	2.22	-0.42	-0.79	2.59	30.00		-0.93		Pass	
VHT20	MCS0	2	165	5825	0.09	0.09	2.22	-0.54	-0.21	2.80	30.00		-0.93		Pass	
VHT40	MCS0	2	151	5755	0.15	0.09	2.22	-1.29	-2.27	1.72	30.00		-0.93		Pass	
VHT40	MCS0	2	159	5795	0.15	0.09	2.22	-1.47	-2.05	1.54	30.00		-0.93		Pass	
VHT80	MCS0	2	155	5775	0.09	0.09	2.22	-4.43	-4.50	-1.42	30.00		-0.93		Pass	

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



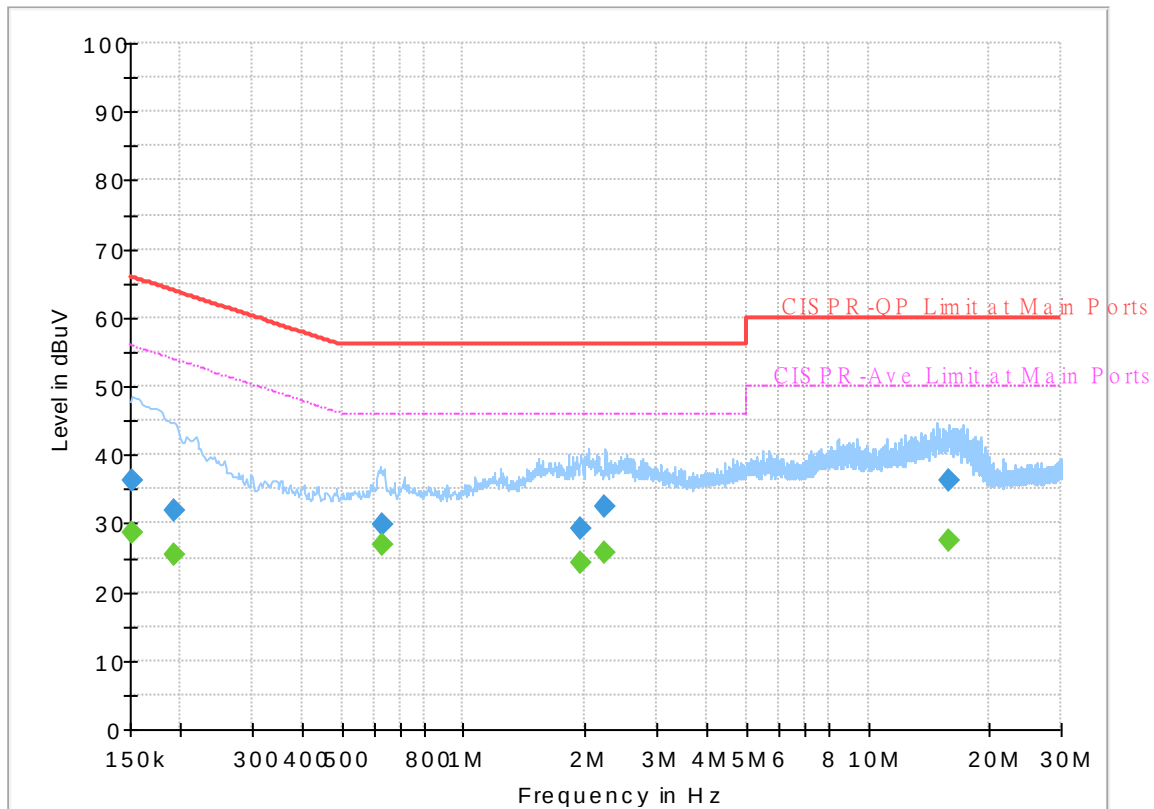
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Eric Jeng	Temperature :	22~25°C
		Relative Humidity :	52~55%

EUT Information

Report NO : 912419
 Test Mode : Mode 1
 Test Voltage : 120Vac/60Hz
 Phase : Line

Full Spectrum



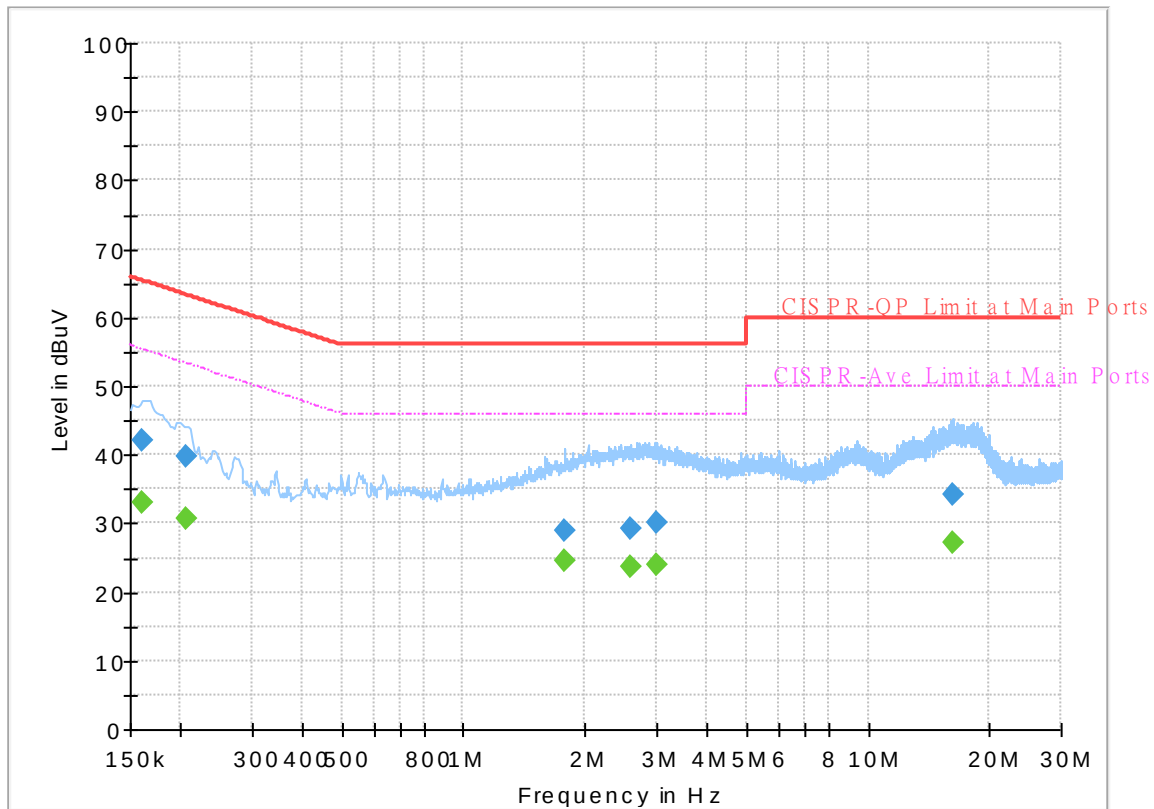
Final Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	28.58	55.88	27.30	L1	OFF	19.5
0.152250	36.14	---	65.88	29.74	L1	OFF	19.5
0.192750	---	25.42	53.92	28.50	L1	OFF	19.5
0.192750	31.79	---	63.92	32.13	L1	OFF	19.5
0.629250	---	27.00	46.00	19.00	L1	OFF	19.6
0.629250	29.91	---	56.00	26.09	L1	OFF	19.6
1.945500	---	24.20	46.00	21.80	L1	OFF	19.6
1.945500	29.38	---	56.00	26.62	L1	OFF	19.6
2.244750	---	25.76	46.00	20.24	L1	OFF	19.5
2.244750	32.39	---	56.00	23.61	L1	OFF	19.5
15.819000	---	27.57	50.00	22.43	L1	OFF	20.1
15.819000	36.14	---	60.00	23.86	L1	OFF	20.1

EUT Information

Report NO : 912419
Test Mode : Mode 1
Test Voltage : 120Vac/60Hz
Phase : Neutral

Full Spectrum



Final Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.161250	---	33.00	55.40	22.40	N	OFF	19.5
0.161250	42.00	---	65.40	23.40	N	OFF	19.5
0.206250	---	30.57	53.36	22.79	N	OFF	19.5
0.206250	39.70	---	63.36	23.66	N	OFF	19.5
1.776750	---	24.42	46.00	21.58	N	OFF	19.6
1.776750	28.88	---	56.00	27.12	N	OFF	19.6
2.598000	---	23.63	46.00	22.37	N	OFF	19.6
2.598000	29.30	---	56.00	26.70	N	OFF	19.6
2.998500	---	24.11	46.00	21.89	N	OFF	19.6
2.998500	30.20	---	56.00	25.80	N	OFF	19.6
16.275750	---	27.17	50.00	22.83	N	OFF	20.2
16.275750	34.30	---	60.00	25.70	N	OFF	20.2



Appendix C. Radiated Spurious Emission

Test Engineer :	Jesse Wang, Stan Hsieh, Troye Hsieh	Temperature :	22~25°C
		Relative Humidity :	55~60%

<Open Mode>

<CDD Mode>

Band 4 - 5725~5850MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 149 5745MHz		5638.4	51.04	-17.16	68.2	38.92	34.67	11.43	33.98	100	80	P	H
		5695	52.02	-49.49	101.51	39.64	34.9	11.46	33.98	100	80	P	H
		5718.2	53.97	-56.33	110.3	41.62	34.83	11.5	33.98	100	80	P	H
		5723.4	60.31	-58.24	118.55	47.96	34.83	11.5	33.98	100	80	P	H
	*	5745	106.24	-	-	93.88	34.8	11.53	33.97	100	80	P	H
	*	5745	98.71	-	-	86.35	34.8	11.53	33.97	100	80	A	H
													H
													H
		5620.4	50.41	-17.79	68.2	38.23	34.73	11.43	33.98	100	135	P	V
		5657.4	51.42	-22.28	73.7	39.37	34.6	11.43	33.98	100	135	P	V
		5720	52.61	-58.19	110.8	40.26	34.83	11.5	33.98	100	135	P	V
		5724.8	58.37	-63.37	121.74	46.02	34.83	11.5	33.98	100	135	P	V
	*	5745	103.31	-	-	90.95	34.8	11.53	33.97	100	135	P	V
	*	5745	96.01	-	-	83.65	34.8	11.53	33.97	100	135	A	V
													V
													V



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 1+2		(MHz)	(dBμV/m)	Limit (dB)	Line (dBμV/m)	Level (dBμV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11a CH 157 5785MHz		5601	50.96	-17.24	68.2	38.74	34.8	11.4	33.98	104	80	P	H
		5682.6	51.41	-40.95	92.36	39.18	34.75	11.46	33.98	104	80	P	H
		5701.6	51.84	-53.81	105.65	39.45	34.87	11.5	33.98	104	80	P	H
		5723.6	49.52	-69.49	119.01	37.17	34.83	11.5	33.98	104	80	P	H
	*	5785	106.3	-	-	93.84	34.87	11.56	33.97	104	80	P	H
	*	5785	98.37	-	-	85.91	34.87	11.56	33.97	104	80	A	H
		5854.2	49.71	-62.91	112.62	37.21	34.87	11.6	33.97	104	80	P	H
		5874.4	50.61	-54.76	105.37	38	34.93	11.65	33.97	104	80	P	H
		5884.2	49.95	-48.42	98.37	37.34	34.93	11.65	33.97	104	80	P	H
		5933	49.42	-18.78	68.2	36.69	35	11.69	33.96	104	80	P	H
													H
													H
		5608	50.44	-17.76	68.2	38.22	34.8	11.4	33.98	108	298	P	V
		5662.6	50.65	-26.9	77.55	38.57	34.6	11.46	33.98	108	298	P	V
		5700	50.33	-54.87	105.2	37.95	34.9	11.46	33.98	108	298	P	V
		5722.4	50.46	-65.81	116.27	38.11	34.83	11.5	33.98	108	298	P	V
	*	5785	103.92	-	-	91.46	34.87	11.56	33.97	108	298	P	V
	*	5785	96.56	-	-	84.1	34.87	11.56	33.97	108	298	A	V
		5854.2	48.77	-63.85	112.62	36.27	34.87	11.6	33.97	108	298	P	V
		5863.8	49.47	-58.86	108.33	36.92	34.87	11.65	33.97	108	298	P	V
		5899.2	49.85	-37.4	87.25	37.17	35	11.65	33.97	108	298	P	V
		5936.4	50.45	-17.75	68.2	37.72	35	11.69	33.96	108	298	P	V
													V
													V

[illegible]



Band 4 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 149 5745MHz		11490	48.49	-25.51	74	49.32	38.07	18.44	57.34	100	0	P	H
		17235	52.17	-16.03	68.2	44.55	41.57	21.8	55.75	100	0	P	H
													H
													H
		11490	49.54	-24.46	74	50.37	38.07	18.44	57.34	100	0	P	V
		17235	52.12	-16.08	68.2	44.5	41.57	21.8	55.75	100	0	P	V
													V
													V
802.11a CH 157 5785MHz		11570	48.55	-25.45	74	49.04	38.17	18.54	57.2	100	0	P	H
		17355	54.02	-14.18	68.2	46.29	41.55	21.91	55.73	100	0	P	H
													H
													H
		11570	47.87	-26.13	74	48.36	38.17	18.54	57.2	100	0	P	V
		17355	53.75	-14.45	68.2	46.02	41.55	21.91	55.73	100	0	P	V
													V
													V
802.11a CH 165 5825MHz		11650	47.52	-26.48	74	47.71	38.28	18.64	57.11	100	0	P	H
		17475	52.83	-15.37	68.2	45.2	41.33	22.01	55.71			P	H
													H
													H
		11650	47.9	-26.1	74	48.09	38.28	18.64	57.11	100	0	P	V
		17475	53.81	-14.39	68.2	46.18	41.33	22.01	55.71	100	0	P	V
													V
													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 (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		5643	50.79	-17.41	68.2	38.67	34.67	11.43	33.98	102	73	P	H
		5695	51.54	-49.97	101.51	39.16	34.9	11.46	33.98	102	73	P	H
		5719.8	56.39	-54.35	110.74	44.04	34.83	11.5	33.98	102	73	P	H
		5723.4	62.57	-55.98	118.55	50.22	34.83	11.5	33.98	102	73	P	H
	*	5745	105.8	-	-	93.44	34.8	11.53	33.97	102	73	P	H
	*	5745	98.39	-	-	86.03	34.8	11.53	33.97	102	73	A	H
													H
													H
		5634.8	51.66	-16.54	68.2	39.54	34.67	11.43	33.98	100	301	P	V
		5698.6	51.37	-52.8	104.17	38.99	34.9	11.46	33.98	100	301	P	V
		5720	54.44	-56.36	110.8	42.09	34.83	11.5	33.98	100	301	P	V
		5723	61.14	-56.5	117.64	48.79	34.83	11.5	33.98	100	301	P	V
	*	5745	102.65	-	-	90.29	34.8	11.53	33.97	100	301	P	V
	*	5745	95.12	-	-	82.76	34.8	11.53	33.97	100	301	A	V
													V
													V



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 1+2		(MHz)	(dBμV/m)	Limit (dB)	Line (dBμV/m)	Level (dBμV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11ac VHT20 CH 157 5785MHz		5623.6	51.58	-16.62	68.2	39.4	34.73	11.43	33.98	101	64	P	H
		5686.2	51.97	-43.05	95.02	39.59	34.9	11.46	33.98	101	64	P	H
		5718.8	51.25	-59.21	110.46	38.9	34.83	11.5	33.98	101	64	P	H
		5724.8	50.64	-71.1	121.74	38.29	34.83	11.5	33.98	101	64	P	H
	*	5785	105.89	-	-	93.43	34.87	11.56	33.97	101	64	P	H
	*	5785	98.07	-	-	85.61	34.87	11.56	33.97	101	64	A	H
		5851.6	48.82	-69.73	118.55	36.39	34.8	11.6	33.97	101	64	P	H
		5872.8	50.31	-55.51	105.82	37.7	34.93	11.65	33.97	101	64	P	H
		5899.4	50.45	-36.65	87.1	37.77	35	11.65	33.97	101	64	P	H
		5937.2	50	-18.2	68.2	37.27	35	11.69	33.96	101	64	P	H
													H
													H
		5619.2	49.7	-18.5	68.2	37.55	34.73	11.4	33.98	109	293	P	V
		5662.8	51.89	-25.81	77.7	39.81	34.6	11.46	33.98	109	293	P	V
		5706.2	50.54	-56.4	106.94	38.15	34.87	11.5	33.98	109	293	P	V
		5720.6	50.09	-62.08	112.17	37.74	34.83	11.5	33.98	109	293	P	V
	*	5785	102.11	-	-	89.65	34.87	11.56	33.97	109	293	P	V
	*	5785	94.62	-	-	82.16	34.87	11.56	33.97	109	293	A	V
		5852.8	49.16	-66.66	115.82	36.73	34.8	11.6	33.97	109	293	P	V
		5862	50.89	-57.95	108.84	38.34	34.87	11.65	33.97	109	293	P	V
		5898.4	50.37	-37.48	87.85	37.69	35	11.65	33.97	109	293	P	V
		5946	49.98	-18.22	68.2	37.2	35	11.74	33.96	109	293	P	V
													V
													V



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 1+2		(MHz)	(dBμV/m)	Limit (dB)	Line (dBμV/m)	Level (dBμV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11ac VHT20 CH 165 5825MHz	*	5825	104.91	-	-	92.45	34.83	11.6	33.97	100	70	P	H
	*	5825	97.11	-	-	84.65	34.83	11.6	33.97	100	70	A	H
		5850.6	52.13	-68.7	120.83	39.7	34.8	11.6	33.97	100	70	P	H
		5856	51.88	-58.64	110.52	39.38	34.87	11.6	33.97	100	70	P	H
		5883.4	51.2	-47.76	98.96	38.59	34.93	11.65	33.97	100	70	P	H
		5948.2	51.07	-17.13	68.2	38.29	35	11.74	33.96	100	70	P	H
													H
													H
	*	5825	102.06	-	-	89.6	34.83	11.6	33.97	116	292	P	V
	*	5825	94.44	-	-	81.98	34.83	11.6	33.97	116	292	A	V
		5850.8	50.91	-69.47	120.38	38.48	34.8	11.6	33.97	116	292	P	V
		5859.4	51.13	-58.44	109.57	38.63	34.87	11.6	33.97	116	292	P	V
		5891.4	50.65	-42.38	93.03	37.97	35	11.65	33.97	116	292	P	V
		5943.6	49.9	-18.3	68.2	37.12	35	11.74	33.96	116	292	P	V
													V
													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.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT20 CH 149 5745MHz		11490	48.89	-25.11	74	49.72	38.07	18.44	57.34	100	0	P	H
		17235	52.39	-15.81	68.2	44.77	41.57	21.8	55.75	100	0	P	H
													H
													H
		11490	49.12	-24.88	74	49.95	38.07	18.44	57.34	100	0	P	V
		17235	52.63	-15.57	68.2	45.01	41.57	21.8	55.75	100	0	P	V
													V
													V
802.11ac VHT20 CH 157 5785MHz		11570	47.85	-26.15	74	48.34	38.17	18.54	57.2	100	0	P	H
		17355	53.51	-14.69	68.2	45.78	41.55	21.91	55.73	100	0	P	H
													H
													H
		11570	48.11	-25.89	74	48.6	38.17	18.54	57.2	100	0	P	V
		17355	53.11	-15.09	68.2	45.38	41.55	21.91	55.73	100	0	P	V
													V
													V
802.11ac VHT20 CH 165 5825MHz		11650	49.29	-24.71	74	49.48	38.28	18.64	57.11	100	0	P	H
		17475	53.22	-14.98	68.2	45.59	41.33	22.01	55.71	100	0	P	H
													H
													H
		11650	48.24	-25.76	74	48.43	38.28	18.64	57.11	100	0	P	V
		17475	52.95	-15.25	68.2	45.32	41.33	22.01	55.71	100	0	P	V
													V
													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		5627.2	51.08	-17.12	68.2	38.9	34.73	11.43	33.98	108	80	P	H
		5696.4	51.56	-50.99	102.55	39.18	34.9	11.46	33.98	108	80	P	H
		5716.8	60.3	-49.61	109.91	47.91	34.87	11.5	33.98	108	80	P	H
		5724	61.19	-58.73	119.92	48.84	34.83	11.5	33.98	108	80	P	H
	*	5755	101.25	-	-	88.86	34.83	11.53	33.97	108	80	P	H
	*	5755	93.62	-	-	81.23	34.83	11.53	33.97	108	80	A	H
		5851	49.35	-70.57	119.92	36.92	34.8	11.6	33.97	108	80	P	H
		5864.6	49.24	-58.87	108.11	36.69	34.87	11.65	33.97	108	80	P	H
		5882.2	49.62	-50.23	99.85	37.01	34.93	11.65	33.97	108	80	P	H
		5930	49.58	-18.62	68.2	36.85	35	11.69	33.96	108	80	P	H
													H
													H
		5637.6	50.28	-17.92	68.2	38.16	34.67	11.43	33.98	100	292	P	V
		5682.6	51.01	-41.35	92.36	38.78	34.75	11.46	33.98	100	292	P	V
		5717.6	57.51	-52.62	110.13	45.16	34.83	11.5	33.98	100	292	P	V
		5725	62.38	-59.82	122.2	50.03	34.83	11.5	33.98	100	292	P	V
	*	5755	98.53	-	-	86.14	34.83	11.53	33.97	100	292	P	V
	*	5755	91.03	-	-	78.64	34.83	11.53	33.97	100	292	A	V
		5852.2	49.33	-67.85	117.18	36.9	34.8	11.6	33.97	100	292	P	V
		5870.2	50.23	-56.31	106.54	37.68	34.87	11.65	33.97	100	292	P	V
		5892.2	49.53	-42.91	92.44	36.85	35	11.65	33.97	100	292	P	V
		5931	49.38	-18.82	68.2	36.65	35	11.69	33.96	100	292	P	V
													V
													V



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 1+2		(MHz)	(dBμV/m)	Limit (dB)	Line (dBμV/m)	Level (dBμV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11ac VHT40 CH 159 5795MHz		5621.2	51.49	-16.71	68.2	39.31	34.73	11.43	33.98	105	81	P	H
		5679.2	50.99	-38.86	89.85	38.76	34.75	11.46	33.98	105	81	P	H
		5702.6	51.47	-54.46	105.93	39.08	34.87	11.5	33.98	105	81	P	H
		5721.8	51.03	-63.87	114.9	38.68	34.83	11.5	33.98	105	81	P	H
	*	5795	101.85	-	-	89.36	34.9	11.56	33.97	105	81	P	H
	*	5795	93.99	-	-	81.5	34.9	11.56	33.97	105	81	A	H
		5853.8	50.51	-63.03	113.54	38.01	34.87	11.6	33.97	105	81	P	H
		5861	51.93	-57.19	109.12	39.38	34.87	11.65	33.97	105	81	P	H
		5913.6	50.94	-25.67	76.61	38.21	35	11.69	33.96	105	81	P	H
		5946.8	50.45	-17.75	68.2	37.67	35	11.74	33.96	105	81	P	H
													H
													H
		5643.6	52.34	-15.86	68.2	40.22	34.67	11.43	33.98	105	290	P	V
		5653.4	51.9	-18.83	70.73	39.85	34.6	11.43	33.98	105	290	P	V
		5701.8	51.35	-54.35	105.7	38.96	34.87	11.5	33.98	105	290	P	V
		5720	49.56	-61.24	110.8	37.21	34.83	11.5	33.98	105	290	P	V
	*	5795	99.24	-	-	86.75	34.9	11.56	33.97	105	290	P	V
	*	5795	91.45	-	-	78.96	34.9	11.56	33.97	105	290	A	V
		5853.2	50.2	-64.7	114.9	37.77	34.8	11.6	33.97	105	290	P	V
		5861	50.83	-58.29	109.12	38.28	34.87	11.65	33.97	105	290	P	V
		5915.4	50.33	-24.95	75.28	37.6	35	11.69	33.96	105	290	P	V
		5932	49.55	-18.65	68.2	36.82	35	11.69	33.96	105	290	P	V
													V
													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.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT40 CH 151 5755MHz		11510	49.07	-24.93	74	49.78	38.1	18.49	57.3	100	0	P	H
		17265	52.65	-15.55	68.2	45.04	41.53	21.83	55.75	100	0	P	H
													H
													H
		11510	48.63	-25.37	74	49.34	38.1	18.49	57.3	100	0	P	V
		17265	52.78	-15.42	68.2	45.17	41.53	21.83	55.75	100	0	P	V
													V
													V
802.11ac VHT40 CH 159 5795MHz		11590	47.32	-26.68	74	47.73	38.18	18.59	57.18	100	0	P	H
		17385	53.28	-14.92	68.2	45.48	41.58	21.94	55.72	100	0	P	H
													H
													H
		11590	47.44	-26.56	74	47.85	38.18	18.59	57.18	100	0	P	V
		17385	54.8	-13.4	68.2	47	41.58	21.94	55.72	100	0	P	V
													V
													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		5604.8	50.27	-17.93	68.2	38.05	34.8	11.4	33.98	104	81	P	H
		5697.2	54.36	-48.78	103.14	41.98	34.9	11.46	33.98	104	81	P	H
		5720	58.27	-52.53	110.8	45.92	34.83	11.5	33.98	104	81	P	H
		5720.8	59.72	-52.9	112.62	47.37	34.83	11.5	33.98	104	81	P	H
	*	5775	97.47	-	-	85.04	34.87	11.53	33.97	104	81	P	H
	*	5775	89.71	-	-	77.28	34.87	11.53	33.97	104	81	A	H
		5851.6	50.09	-68.46	118.55	37.66	34.8	11.6	33.97	104	81	P	H
		5862	50.28	-58.56	108.84	37.73	34.87	11.65	33.97	104	81	P	H
		5903	50.19	-34.25	84.44	37.47	35	11.69	33.97	104	81	P	H
		5927	50.19	-18.01	68.2	37.46	35	11.69	33.96	104	81	P	H
													H
													H
		5628.2	50.16	-18.04	68.2	37.98	34.73	11.43	33.98	113	296	P	V
		5696.6	54.82	-47.87	102.69	42.44	34.9	11.46	33.98	113	296	P	V
		5720	55.68	-55.12	110.8	43.33	34.83	11.5	33.98	113	296	P	V
		5723.8	57.94	-61.52	119.46	45.59	34.83	11.5	33.98	113	296	P	V
	*	5775	94.27	-	-	81.84	34.87	11.53	33.97	113	296	P	V
	*	5775	86.32	-	-	73.89	34.87	11.53	33.97	113	296	A	V
		5853.4	50.55	-63.9	114.45	38.12	34.8	11.6	33.97	113	296	P	V
		5875	50.92	-54.28	105.2	38.31	34.93	11.65	33.97	113	296	P	V
		5891.4	51.05	-41.98	93.03	38.37	35	11.65	33.97	113	296	P	V
		5938.8	49.9	-18.3	68.2	37.17	35	11.69	33.96	113	296	P	V
													V
													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.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT80 CH 155 5775MHz		11550	47.8	-26.2	74	48.34	38.15	18.54	57.23	100	0	P	H
		17325	53.61	-14.59	68.2	45.95	41.52	21.88	55.74	100	0	P	H
													H
													H
		11550	47.75	-26.25	74	48.29	38.15	18.54	57.23	100	0	P	V
		17325	53.62	-14.58	68.2	45.96	41.52	21.88	55.74	100	0	P	V
													V
													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 VHT40 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
5GHz 802.11ac VHT40 LF		91.02	25.46	-18.04	43.5	39.06	14.77	1.72	30.09			P	H
		96.69	28.89	-14.61	43.5	41.78	15.45	1.74	30.08			P	H
		161.22	24.94	-18.56	43.5	36.22	16.47	2.26	30.01			P	H
		882.4	32.66	-13.34	46	27.83	28.87	4.94	28.98			P	H
		941.9	33.41	-12.59	46	27.03	29.92	5.08	28.62	100	0	P	H
		976.2	35.69	-18.31	54	28.14	30.84	5.09	28.38			P	H
													H
													H
													H
													H
													H
													H
		30.27	31.44	-8.56	40	35.7	24.6	1.32	30.18			P	V
		35.13	33.5	-6.5	40	40.3	22.06	1.32	30.18			P	V
		38.1	33.55	-6.45	40	41.97	20.42	1.33	30.17	100	0	P	V
		909.7	32.95	-13.05	46	27.85	28.93	5	28.83			P	V
		934.2	33.08	-12.92	46	27.11	29.62	5.01	28.66			P	V
		965.7	35	-19	54	27.49	30.88	5.09	28.46			P	V
													V
													V
												V	
												V	
												V	
												V	
												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	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT20 CH 149 5745MHz		5606.6	51.77	-16.43	68.2	40.37	34.8	11.68	35.08	100	108	P	H
		5694.4	52.59	-48.48	101.07	41	34.9	11.78	35.09	100	108	P	H
		5719.8	59.46	-51.28	110.74	47.9	34.83	11.83	35.1	100	108	P	H
		5724.6	62.41	-58.88	121.29	50.85	34.83	11.83	35.1	100	108	P	H
	*	5745	106.38	-	-	94.8	34.8	11.88	35.1	100	108	P	H
	*	5745	100.15	-	-	88.57	34.8	11.88	35.1	100	108	A	H
													H
													H
		5634.6	51.58	-16.62	68.2	40.26	34.67	11.73	35.08	100	68	P	V
		5693.8	53.19	-47.44	100.63	41.6	34.9	11.78	35.09	100	68	P	V
		5719	55.88	-54.64	110.52	44.32	34.83	11.83	35.1	100	68	P	V
		5723.4	59.31	-59.24	118.55	47.75	34.83	11.83	35.1	100	68	P	V
	*	5745	104.79	-	-	93.21	34.8	11.88	35.1	100	68	P	V
	*	5745	96.75	-	-	85.17	34.8	11.88	35.1	100	68	A	V
													V
													V



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 1+2		(MHz)	(dBμV/m)	Limit (dB)	Line (dBμV/m)	Level (dBμV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11ac VHT20 CH 157 5785MHz		5617.8	51.24	-16.96	68.2	39.91	34.73	11.68	35.08	100	107	P	H
		5665.2	51.27	-28.21	79.48	39.98	34.6	11.78	35.09	100	107	P	H
		5709.6	51.9	-55.99	107.89	40.3	34.87	11.83	35.1	100	107	P	H
		5725	50.39	-71.81	122.2	38.83	34.83	11.83	35.1	100	107	P	H
	*	5785	106.07	-	-	94.38	34.87	11.93	35.11	100	107	P	H
	*	5785	99.83	-	-	88.14	34.87	11.93	35.11	100	107	A	H
		5855	49.9	-60.9	110.8	38.17	34.87	11.98	35.12	100	107	P	H
		5872	51.11	-54.93	106.04	39.28	34.93	12.02	35.12	100	107	P	H
		5912.8	49.75	-27.45	77.2	37.81	35	12.07	35.13	100	107	P	H
		5935.8	50.01	-18.19	68.2	38.07	35	12.07	35.13	100	107	P	H
													H
													H
		5636.6	51.29	-16.91	68.2	39.97	34.67	11.73	35.08	105	70	P	V
		5671	52.15	-31.63	83.78	40.71	34.75	11.78	35.09	105	70	P	V
		5707.6	52.12	-55.21	107.33	40.52	34.87	11.83	35.1	105	70	P	V
		5723	50.71	-66.93	117.64	39.15	34.83	11.83	35.1	105	70	P	V
	*	5785	104.96	-	-	93.27	34.87	11.93	35.11	105	70	P	V
	*	5785	96.25	-	-	84.56	34.87	11.93	35.11	105	70	A	V
		5851	50.32	-69.6	119.92	38.66	34.8	11.98	35.12	105	70	P	V
		5864.4	50.78	-57.39	108.17	39.01	34.87	12.02	35.12	105	70	P	V
		5888.8	50.53	-44.43	94.96	38.63	35	12.02	35.12	105	70	P	V
		5930.6	50.78	-17.42	68.2	38.84	35	12.07	35.13	105	70	P	V
													V
													V



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 1+2		(MHz)	(dBμV/m)	Limit (dB)	Line (dBμV/m)	Level (dBμV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11ac VHT20 CH 165 5825MHz	*	5825	105.79	-	-	94.09	34.83	11.98	35.11	100	107	P	H
	*	5825	99.47	-	-	87.77	34.83	11.98	35.11	100	107	A	H
		5850	59.74	-62.46	122.2	48.08	34.8	11.98	35.12	100	107	P	H
		5857.4	54.5	-55.63	110.13	42.77	34.87	11.98	35.12	100	107	P	H
		5879.6	50.93	-50.85	101.78	39.1	34.93	12.02	35.12	100	107	P	H
		5934.6	50.08	-18.12	68.2	38.14	35	12.07	35.13	100	107	P	H
													H
													H
	*	5825	104.36	-	-	92.66	34.83	11.98	35.11	109	70	P	V
	*	5825	96.72	-	-	85.02	34.83	11.98	35.11	109	70	A	V
		5850	52.57	-69.63	122.2	40.91	34.8	11.98	35.12	109	70	P	V
		5855	51.57	-59.23	110.8	39.84	34.87	11.98	35.12	109	70	P	V
		5880	50.59	-50.9	101.49	38.76	34.93	12.02	35.12	109	70	P	V
		5925.6	50.85	-17.35	68.2	38.91	35	12.07	35.13	109	70	P	V
													V
													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.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT20 CH 149 5745MHz		11490	48.1	-25.9	74	49.51	38.07	17.86	57.34	100	0	P	H
		17235	52.91	-15.29	68.2	45.28	41.57	21.81	55.75	100	0	P	H
													H
													H
		11490	47.74	-26.26	74	49.15	38.07	17.86	57.34	100	0	P	V
		17235	53.47	-14.73	68.2	45.84	41.57	21.81	55.75	100	0	P	V
													V
													V
802.11ac VHT20 CH 157 5785MHz		11570	46.61	-27.39	74	47.75	38.17	17.89	57.2	100	0	P	H
		17355	53.83	-14.37	68.2	46.07	41.55	21.94	55.73	100	0	P	H
													H
													H
		11570	47.52	-26.48	74	48.66	38.17	17.89	57.2	100	0	P	V
		17355	53.67	-14.53	68.2	45.91	41.55	21.94	55.73	100	0	P	V
													V
													V
802.11ac VHT20 CH 165 5825MHz		11650	48.26	-25.74	74	49.17	38.28	17.92	57.11	100	0	P	H
		17475	53.81	-14.39	68.2	46.14	41.33	22.05	55.71	100	0	P	H
													H
													H
		11650	48.63	-25.37	74	49.54	38.28	17.92	57.11	100	0	P	V
		17475	53.64	-14.56	68.2	45.97	41.33	22.05	55.71	100	0	P	V
													V
													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		5615	52.39	-15.81	68.2	40.99	34.8	11.68	35.08	100	137	P	H
		5699.4	58.48	-46.28	104.76	46.89	34.9	11.78	35.09	100	137	P	H
		5718.8	70.14	-40.32	110.46	58.58	34.83	11.83	35.1	100	137	P	H
		5724	67.68	-52.24	119.92	56.12	34.83	11.83	35.1	100	137	P	H
	*	5755	106.24	-	-	94.63	34.83	11.88	35.1	100	137	P	H
	*	5755	99.94	-	-	88.33	34.83	11.88	35.1	100	137	A	H
		5853.2	51.51	-63.39	114.9	39.85	34.8	11.98	35.12	100	137	P	H
		5870.8	51.4	-54.97	106.37	39.57	34.93	12.02	35.12	100	137	P	H
		5883.2	51.87	-47.24	99.11	40.04	34.93	12.02	35.12	100	137	P	H
		5949	50.61	-17.59	68.2	38.63	35	12.11	35.13	100	137	P	H
													H
													H
		5628.6	52.05	-16.15	68.2	40.67	34.73	11.73	35.08	100	71	P	V
		5699.2	58.55	-46.06	104.61	46.96	34.9	11.78	35.09	100	71	P	V
		5717	67.47	-42.49	109.96	55.87	34.87	11.83	35.1	100	71	P	V
		5722.2	72.09	-43.73	115.82	60.53	34.83	11.83	35.1	100	71	P	V
	*	5755	104.85	-	-	93.24	34.83	11.88	35.1	100	71	P	V
	*	5755	96.09	-	-	84.48	34.83	11.88	35.1	100	71	A	V
		5852.2	49.99	-67.19	117.18	38.33	34.8	11.98	35.12	100	71	P	V
		5871.4	50.35	-55.86	106.21	38.52	34.93	12.02	35.12	100	71	P	V
		5923.4	51.37	-18.01	69.38	39.43	35	12.07	35.13	100	71	P	V
		5937.4	50.28	-17.92	68.2	38.34	35	12.07	35.13	100	71	P	V
													V
													V



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant. 1+2		(MHz)	(dBμV/m)	Limit (dB)	Line (dBμV/m)	Level (dBμV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Pos (cm)	Pos (deg)	Avg. (P/A)	(H/V)
802.11ac VHT40 CH 159 5795MHz		5635.4	51.82	-16.38	68.2	40.5	34.67	11.73	35.08	102	141	P	H
		5681.2	51.81	-39.52	91.33	40.37	34.75	11.78	35.09	102	141	P	H
		5713.4	51.98	-56.97	108.95	40.38	34.87	11.83	35.1	102	141	P	H
		5722.6	55.88	-60.85	116.73	44.32	34.83	11.83	35.1	102	141	P	H
	*	5795	103.52	-	-	91.8	34.9	11.93	35.11	102	141	P	H
	*	5795	98.03	-	-	86.31	34.9	11.93	35.11	102	141	A	H
		5850.8	57.35	-63.03	120.38	45.69	34.8	11.98	35.12	102	141	P	H
		5866.8	55.16	-52.33	107.49	43.39	34.87	12.02	35.12	102	141	P	H
		5878.8	52.8	-49.58	102.38	40.97	34.93	12.02	35.12	102	141	P	H
		5949.6	50.65	-17.55	68.2	38.67	35	12.11	35.13	102	141	P	H
													H
													H
		5640	51.69	-16.51	68.2	40.37	34.67	11.73	35.08	100	61	P	V
		5669	51.72	-30.58	82.3	40.28	34.75	11.78	35.09	100	61	P	V
		5718.8	52.74	-57.72	110.46	41.18	34.83	11.83	35.1	100	61	P	V
		5723.4	52.86	-65.69	118.55	41.3	34.83	11.83	35.1	100	61	P	V
	*	5795	104.47	-	-	92.75	34.9	11.93	35.11	100	61	P	V
	*	5795	98.77	-	-	87.05	34.9	11.93	35.11	100	61	A	V
		5850.2	58.8	-62.94	121.74	47.14	34.8	11.98	35.12	100	61	P	V
		5855.8	55.5	-55.08	110.58	43.77	34.87	11.98	35.12	100	61	P	V
		5878.2	51.34	-51.48	102.82	39.51	34.93	12.02	35.12	100	61	P	V
		5947	50.45	-17.75	68.2	38.47	35	12.11	35.13	100	61	P	V
													V
													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.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT40 CH 151 5755MHz		11510	48.29	-25.71	74	49.61	38.1	17.88	57.3	100	0	P	H
		17265	53.61	-14.59	68.2	45.98	41.53	21.85	55.75	100	0	P	H
													H
													H
		11510	48.19	-25.81	74	49.51	38.1	17.88	57.3	100	0	P	V
		17265	53.54	-14.66	68.2	45.91	41.53	21.85	55.75	100	0	P	V
													V
													V
802.11ac VHT40 CH 159 5795MHz		11590	46.91	-27.09	74	48	38.18	17.91	57.18	100	0	P	H
		17385	53.99	-14.21	68.2	46.15	41.58	21.98	55.72	100	0	P	H
													H
													H
		11590	47.4	-26.6	74	48.49	38.18	17.91	57.18	100	0	P	V
		17385	53.62	-14.58	68.2	45.78	41.58	21.98	55.72	100	0	P	V
													V
													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		5643.2	53.95	-14.25	68.2	42.63	34.67	11.73	35.08	104	140	P	H
		5687.2	62.78	-32.98	95.76	51.19	34.9	11.78	35.09	104	140	P	H
		5719	66.34	-44.18	110.52	54.78	34.83	11.83	35.1	104	140	P	H
		5722	65.39	-49.97	115.36	53.83	34.83	11.83	35.1	104	140	P	H
	*	5775	105.62	-	-	93.97	34.87	11.88	35.1	104	140	P	H
	*	5775	97.94	-	-	86.29	34.87	11.88	35.1	104	140	A	H
		5852	58.64	-59	117.64	46.98	34.8	11.98	35.12	104	140	P	H
		5872.4	61	-44.93	105.93	49.17	34.93	12.02	35.12	104	140	P	H
		5877	53.21	-50.5	103.71	41.38	34.93	12.02	35.12	104	140	P	H
		5929.4	50.63	-17.57	68.2	38.69	35	12.07	35.13	104	140	P	H
													H
													H
		5649.6	53.79	-14.41	68.2	42.54	34.6	11.73	35.08	100	62	P	V
		5697.6	62.5	-40.93	103.43	50.91	34.9	11.78	35.09	100	62	P	V
		5717.8	68.48	-41.7	110.18	56.92	34.83	11.83	35.1	100	62	P	V
		5723.8	67.94	-51.52	119.46	56.38	34.83	11.83	35.1	100	62	P	V
	*	5775	106.49	-	-	94.84	34.87	11.88	35.1	100	62	P	V
	*	5775	97.79	-	-	86.14	34.87	11.88	35.1	100	62	A	V
		5851.2	63.66	-55.8	119.46	52	34.8	11.98	35.12	100	62	P	V
		5855	62.48	-48.32	110.8	50.75	34.87	11.98	35.12	100	62	P	V
		5875	58.13	-47.07	105.2	46.3	34.93	12.02	35.12	100	62	P	V
		5931.8	50.44	-17.76	68.2	38.5	35	12.07	35.13	100	62	P	V
													V
													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.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT80 CH 155 5775MHz		11550	47.02	-26.98	74	48.21	38.15	17.89	57.23	100	0	P	H
		17325	54.35	-13.85	68.2	46.67	41.52	21.9	55.74	100	0	P	H
													H
													H
		11550	47.66	-26.34	74	48.85	38.15	17.89	57.23	100	0	P	V
		17325	53.61	-14.59	68.2	45.93	41.52	21.9	55.74	100	0	P	V
													V
													V
Remark 1. No other spurious found. 2. All results are PASS against Peak and Average limit line.													

Emission below 1GHz

5GHz WIFI 802.11ac VHT80 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
5GHz 802.11ac VHT80 LF		63.48	32.6	-7.4	40	49.18	11.84	1.71	30.13	100	0	P	H
		67.53	32.52	-7.48	40	48.8	12.14	1.71	30.13			P	H
		174.99	33.45	-10.05	43.5	45.92	15.26	2.26	29.99			P	H
		531.7	32.04	-13.96	46	34.19	23.98	3.75	29.88			P	H
		881.7	33.14	-12.86	46	28.3	28.88	4.94	28.98			P	H
		951	33.71	-12.29	46	26.79	30.39	5.08	28.55			P	H
													H
													H
													H
													H
													H
													H
		30	33.3	-6.7	40	37.56	24.6	1.32	30.18	100	0	P	V
		63.48	29.88	-10.12	40	46.46	11.84	1.71	30.13			P	V
		67.53	31.75	-8.25	40	48.03	12.14	1.71	30.13			P	V
		799.1	31.29	-14.71	46	28.06	27.96	4.61	29.34			P	V
		865.6	32.52	-13.48	46	27.64	29	4.93	29.05			P	V
		958	34.18	-11.82	46	26.8	30.8	5.08	28.5			P	V
													V
													V
												V	
												V	
												V	
												V	
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



<Close Mode>

<CDD Mode>

Band 4 - 5725~5850MHz

WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT40 CH 159 5795MHz		5605.8	51.63	-16.57	68.2	39.13	34.8	11.68	33.98	100	54	P	H
		5675	51.48	-35.26	86.74	38.93	34.75	11.78	33.98	100	54	P	H
		5707.4	51.64	-55.63	107.27	38.92	34.87	11.83	33.98	100	54	P	H
		5720.8	51.57	-61.05	112.62	38.89	34.83	11.83	33.98	100	54	P	H
	*	5795	102.48	-	-	89.62	34.9	11.93	33.97	100	54	P	H
	*	5795	95.04	-	-	82.18	34.9	11.93	33.97	100	54	A	H
		5852.2	50.31	-66.87	117.18	37.5	34.8	11.98	33.97	100	54	P	H
		5874	50.69	-54.79	105.48	37.71	34.93	12.02	33.97	100	54	P	H
		5881	51.94	-48.8	100.74	38.96	34.93	12.02	33.97	100	54	P	H
		5943.2	50.51	-17.69	68.2	37.36	35	12.11	33.96	100	54	P	H
													H
													H
		5607.4	52.34	-15.86	68.2	39.84	34.8	11.68	33.98	100	303	P	V
		5695	52.87	-48.64	101.51	40.17	34.9	11.78	33.98	100	303	P	V
		5711.2	51.58	-56.76	108.34	38.86	34.87	11.83	33.98	100	303	P	V
		5723.4	52.49	-66.06	118.55	39.81	34.83	11.83	33.98	100	303	P	V
	*	5795	100.5	-	-	87.64	34.9	11.93	33.97	100	303	P	V
	*	5795	93.1	-	-	80.24	34.9	11.93	33.97	100	303	A	V
		5852.2	50	-67.18	117.18	37.19	34.8	11.98	33.97	100	303	P	V
		5870.2	51.35	-55.19	106.54	38.43	34.87	12.02	33.97	100	303	P	V
		5897	51.12	-37.76	88.88	38.07	35	12.02	33.97	100	303	P	V
		5946	50.35	-17.85	68.2	37.2	35	12.11	33.96	100	303	P	V
													V
													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.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT40 CH 159 5795MHz		11590	46.45	-27.55	74	47.54	38.18	17.91	57.18	100	0	P	H
		17385	53.09	-15.11	68.2	45.25	41.58	21.98	55.72	100	0	P	H
													H
													H
		11590	46.27	-27.73	74	47.36	38.18	17.91	57.18	100	0	P	V
		17385	53.6	-14.6	68.2	45.76	41.58	21.98	55.72	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Note symbol

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

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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
CH 01													
2412MHz		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 :	Jesse Wang, Stan Hsieh, Troye Hsieh	Temperature :	22~25°C
		Relative Humidity :	55~60%

Note symbol

-L	Low channel location
-R	High channel location

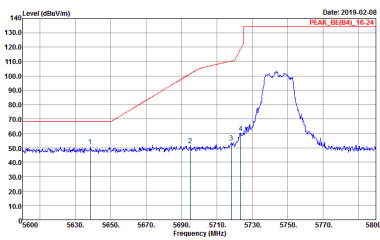
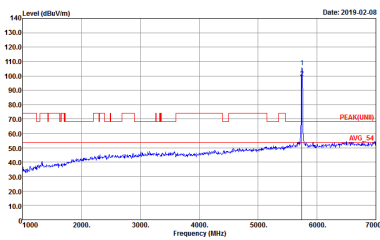


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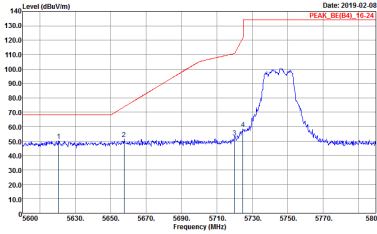
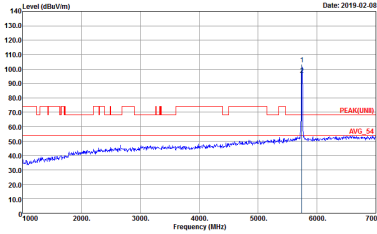
<CDD Mode>

Band 4 - 5725~5850MHz

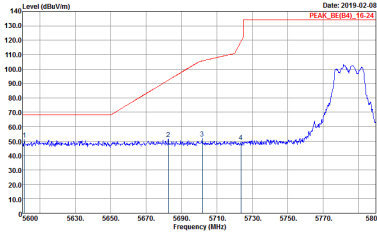
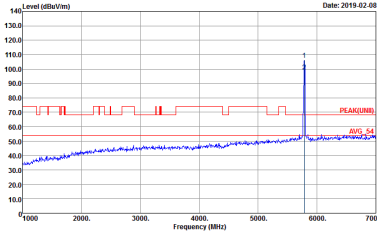
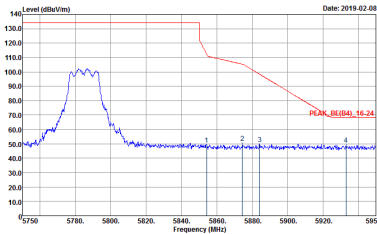
WIFI 802.11a (Band Edge @ 3m)

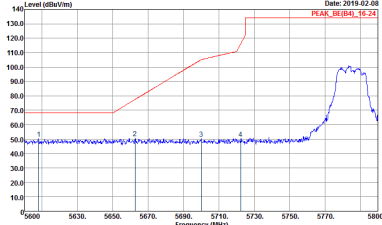
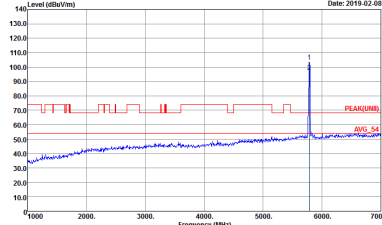
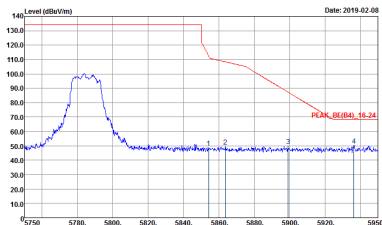
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 912419 Mode : S2	 Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 912419 Mode : S2

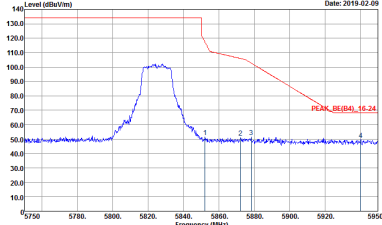
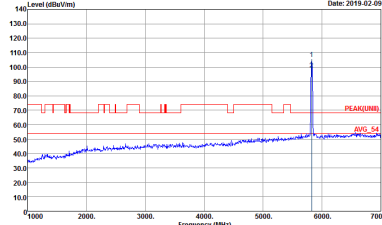


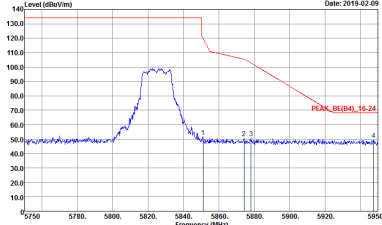
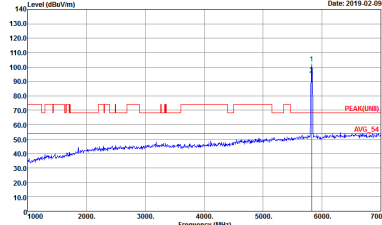
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ANT	802.11a CH149 5745MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 912419 Mode : S2	 Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 912419 Mode : S2



WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(04)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : Peak Mode : 912419 S3	 Site : 03CH07-HY Condition : PEAK(UNII)_3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : Peak Mode : 912419 S3
Peak	 Site : 03CH07-HY Condition : PEAK_BE(04)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : Peak Mode : 912419 S3	Left blank

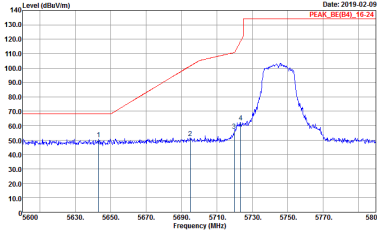
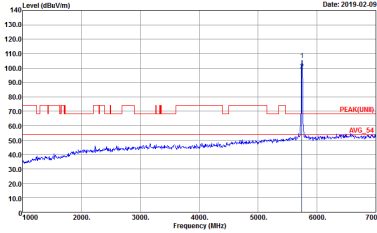
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
1+2	Vertical	Fundamental
Peak	 Date: 2019-02-08 PEAK_BE(B4)_15-21 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 912419 Mode : S3	 Date: 2019-02-08 PEAK_BE(B4)_15-21 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 912419 Mode : S3
Peak	 Date: 2019-02-08 PEAK_BE(B4)_16-24 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 912419 Mode : S3	Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 912419 Mode : S4	 Site : 03CH07-HY Condition : PEAK(B4)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 912419 Mode : S4

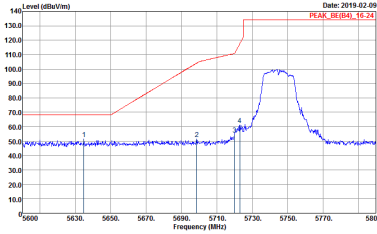
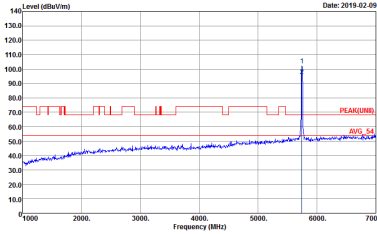
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 912419 Mode : S4	 Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 912419 Mode : S4

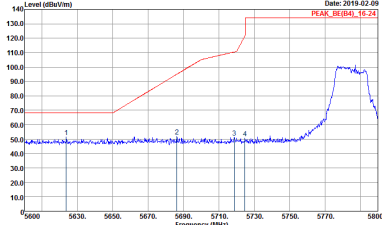
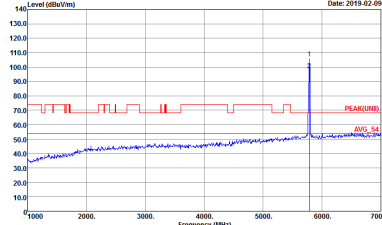
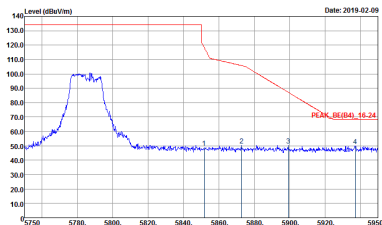


Band 4 5725~5850MHz
WIFI 802.11ac VHT20 (Band Edge @ 3m)

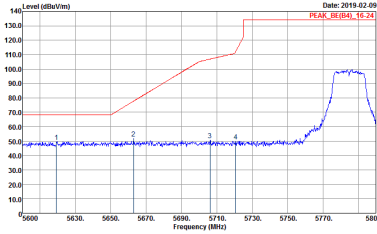
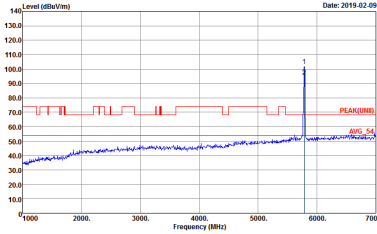
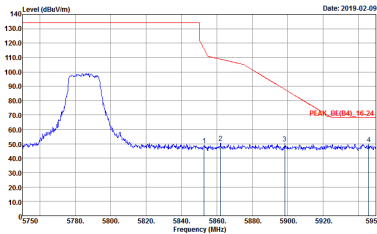
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_RE(04)_16.24 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 912419 Mode : SS	 Site : 03CH07-HY Condition : PEAK_RE(04)_16.24 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 912419 Mode : SS

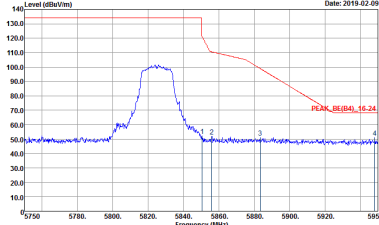
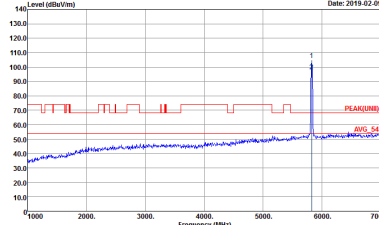


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
1+2	Vertical	Fundamental
Peak Avg.	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 912419 Mode : SS	 Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 912419 Mode : SS

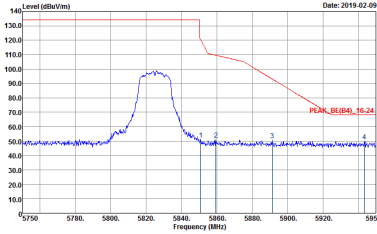
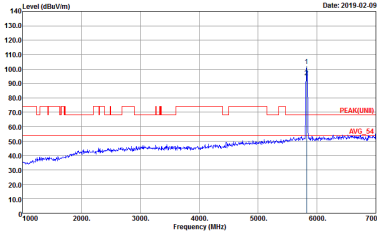
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH157 5785MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(04)_15-21 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 912419 Mode : S6	 Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 912419 Mode : S6
Peak	 Site : 03CH07-HY Condition : PEAK_BE(04)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 912419 Mode : S6	Left blank



WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH157 5785MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : Peak Mode : 912419 : 56	 Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : Peak Mode : 912419 : 56
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : Peak Mode : 912419 : 56	Left blank

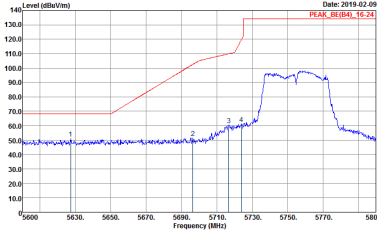
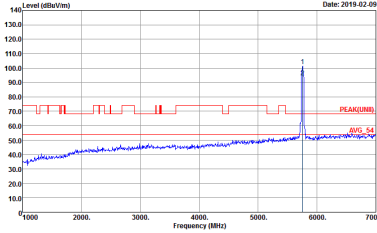
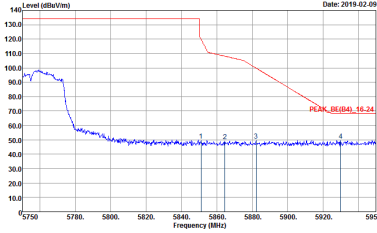
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH165 5825MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 912419 Mode : S7	 Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 912419 Mode : S7

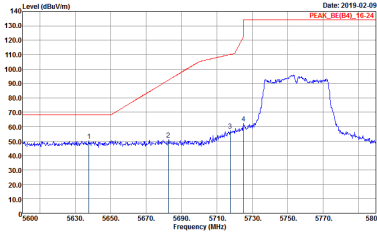
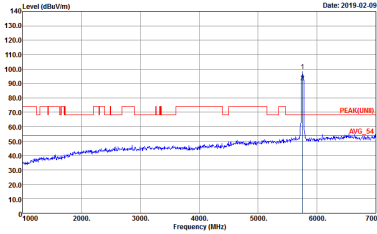
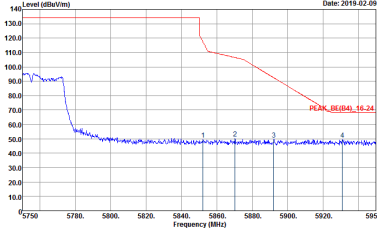


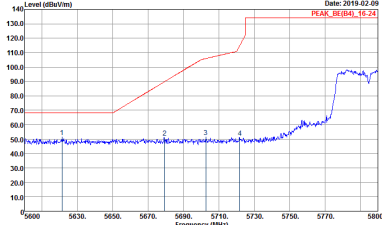
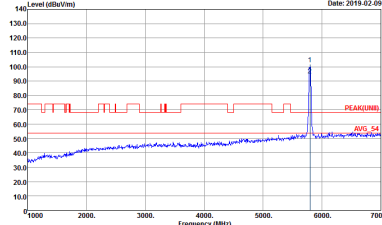
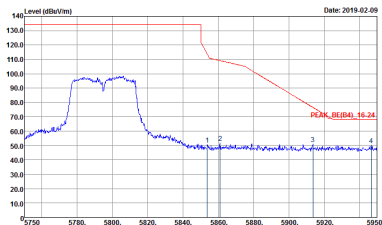
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH165 5825MHz	
1+2	Vertical	Fundamental
Peak Avg.	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : Peak Mode : 912419 : 57	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : Peak Mode : 912419 : 57

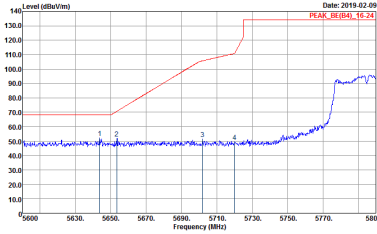
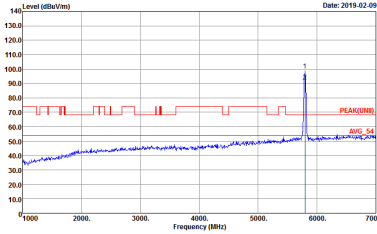
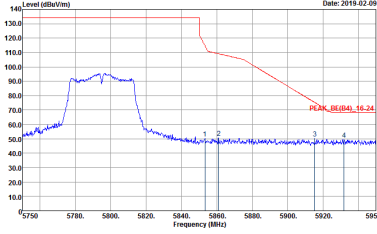


Band 4 5725~5850MHz
WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH151 5755MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16.24 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 912419 Mode : S8	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16.24 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 912419 Mode : S8
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16.24 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 912419 Mode : S8	Left blank

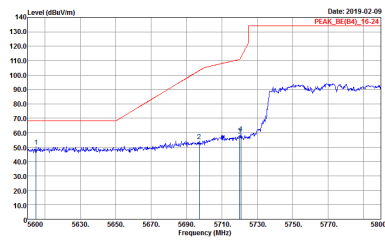
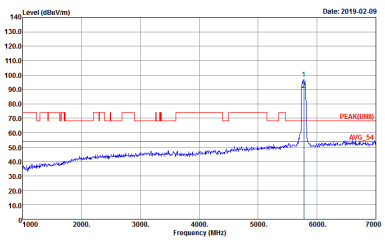
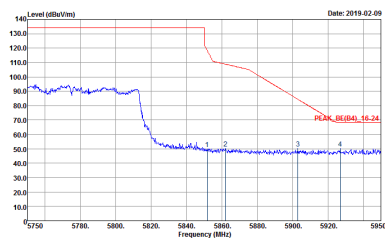
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH151 5755MHz	
1+2	Vertical	Fundamental
Peak	 Date: 2019-02-09 PEAK_BE(04)_15-21 Site : 03CH07-HY Condition : PEAK_BE(04)_16-24 3m HF_ANT_00075962 VERTICAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto : Peak Project : 912419 Mode : S8	 Date: 2019-02-09 PEAK_BE(04)_15-21 Site : 03CH07-HY Condition : PEAK_BE(04)_16-24 3m HF_ANT_00075962 VERTICAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto : Peak Project : 912419 Mode : S8
Peak	 Date: 2019-02-09 PEAK_BE(04)_16-24 Site : 03CH07-HY Condition : PEAK_BE(04)_16-24 3m HF_ANT_00075962 VERTICAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto : Peak Project : 912419 Mode : S8	Left blank

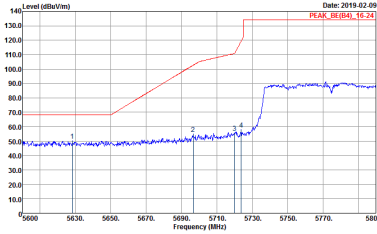
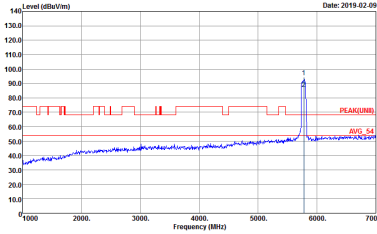
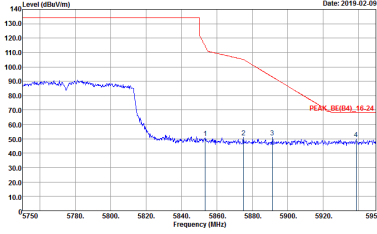
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH159 5795MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_15-21 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 912419 Mode : S9	 Site : 03CH07-HY Condition : PEAK_BE(B4)_15-21 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 912419 Mode : S9
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_15-21 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 912419 Mode : S9	Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH159 5795MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : Peak Mode : 912419 Date: 2019-02-09 PEAK_BE(B4)_16-24	 Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : Peak Mode : 912419 Date: 2019-02-09 PEAK(UNII) 3m HF_ANT_00075962 VERTICAL
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : Peak Mode : 912419 Date: 2019-02-09 PEAK_BE(B4)_16-24	Left blank



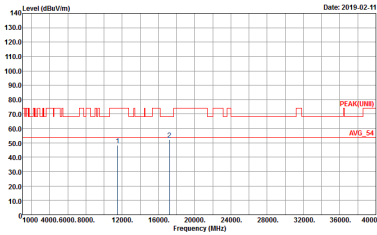
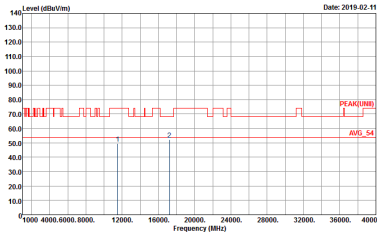
Band 4 5725~5850MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 912419 Mode : 60	 Site : 03CH07-HY Condition : PEAK(BE) 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 912419 Mode : 60
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 912419 Mode : 60	Left blank

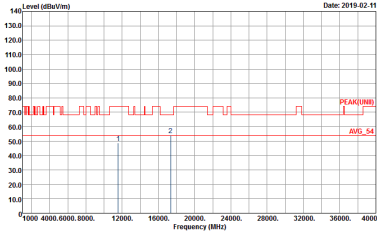
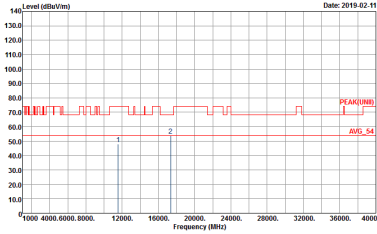
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 912419 Mode : 60	 Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 912419 Mode : 60
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 912419 Mode : 60	Left blank



Band 4 - 5725~5850MHz
WIFI 802.11a (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH149 5745MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH07-HY Condition : PEAK(UNI) 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 912419 Mode : S2	 Site : 03CH07-HY Condition : PEAK(UNI) 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 912419 Mode : S2



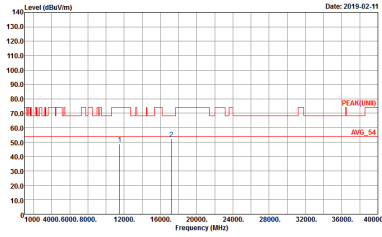
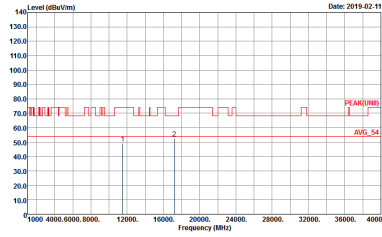
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH07-HY Condition : PEAK(UNI) 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 912419 Mode : 53	 Site : 03CH07-HY Condition : PEAK(UNI) 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 912419 Mode : 53



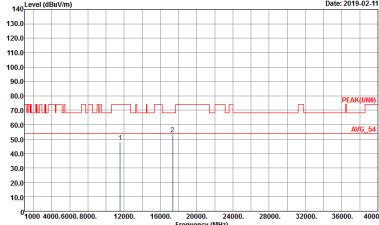
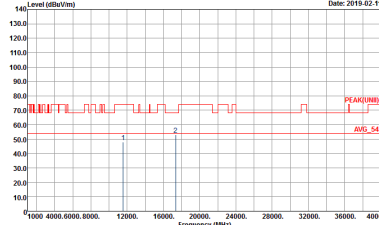
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH165 5825MHz	
1+2	Horizontal	Vertical
Peak Avg.	Site : 03CH07-HY Condition : PEAK(UNB) 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 912419 Mode : S4	Site : 03CH07-HY Condition : PEAK(UNB) 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 912419 Mode : S4



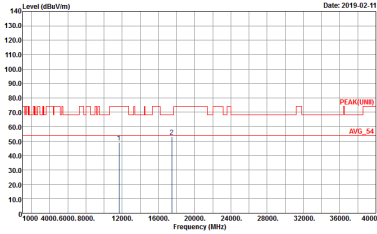
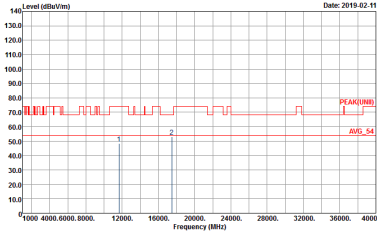
Band 4 5725~5850MHz
WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH07-HY Condition : PEAK(UNI) 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 912419 Mode : S5	 Site : 03CH07-HY Condition : PEAK(UNI) 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 912419 Mode : S5

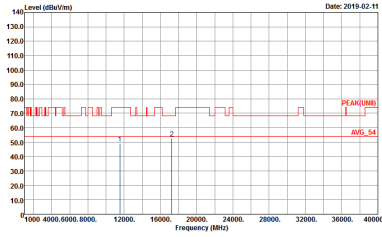
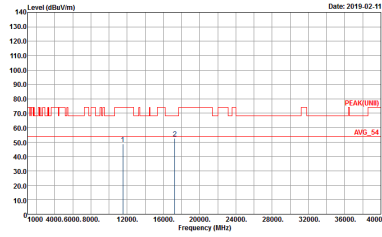


WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH157 5785MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH07-HY Condition : PEAK(UNI) 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 912419 Mode : 56	 Site : 03CH07-HY Condition : PEAK(UNI) 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 912419 Mode : 56

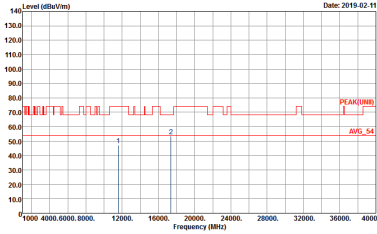
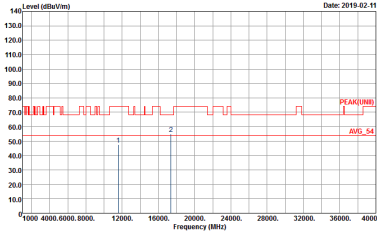


WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH165 5825MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH07-HY Condition : PEAK(UNI) 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 912419 Mode : S7	 Site : 03CH07-HY Condition : PEAK(UNI) 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 912419 Mode : S7

Band 4 5725~5850MHz
WIFI 802.11ac VHT40 (Harmonic @ 3m)

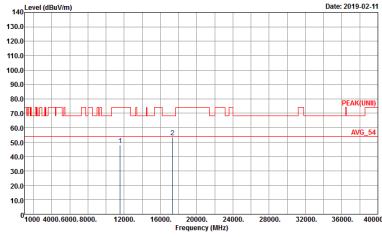
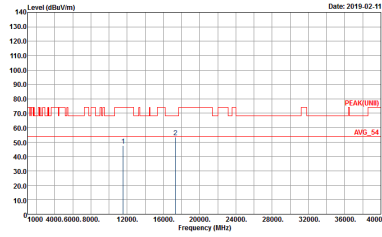
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT40 CH151 5755MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH07-HY Condition : PEAK(UNI) 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 912419 Mode : S8	 Site : 03CH07-HY Condition : PEAK(UNI) 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 912419 Mode : S8



WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT40 CH159 5795MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH07-HY Condition : PEAK(UNB) 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 912419 Mode : 59	 Site : 03CH07-HY Condition : PEAK(UNB) 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 912419 Mode : 59

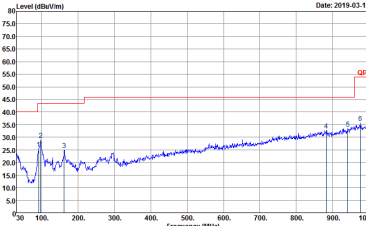
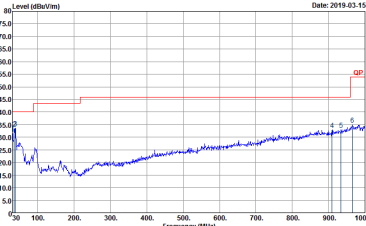


Band 4 5725~5850MHz
WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH07-HY Condition : PEAK(UNI) 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 912419 Mode : 60	 Site : 03CH07-HY Condition : PEAK(UNI) 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 912419 Mode : 60



Emission below 1GHz
5GHz WIFI 802.11ac VHT40 (LF)

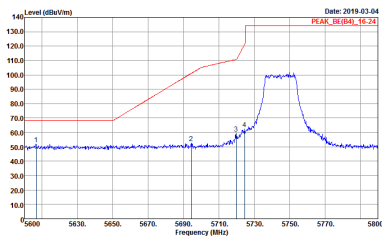
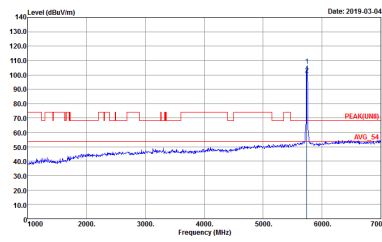
WIFI	5GHz 5725~5850MHz	
ANT	802.11ac VHT40 LF	
1+2	Horizontal	Vertical
QP / Peak	 Site : 03CH07-HY Condition : QP 3m LF-ANT-35419(G) HORIZONTAL Detector : Peak Project : 912419 Mode : S9	 Site : 03CH07-HY Condition : QP 3m LF-ANT-35419(G) VERTICAL Detector : Peak Project : 912419 Mode : S9



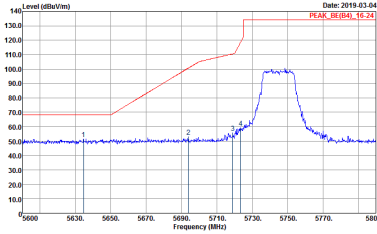
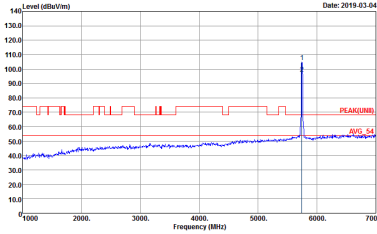
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Band 4 - 5725~5850MHz

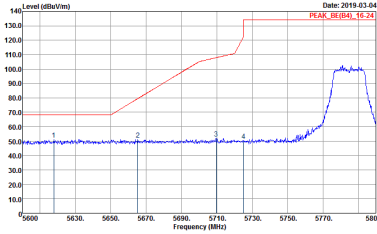
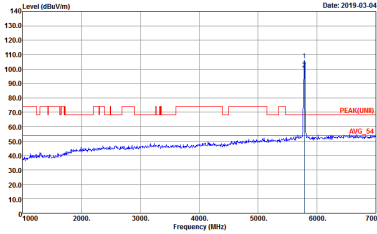
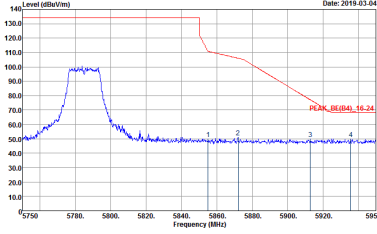
WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 912419 Mode : 61	 Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 912419 Mode : 61

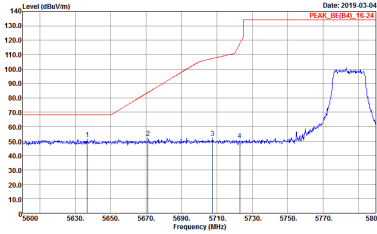
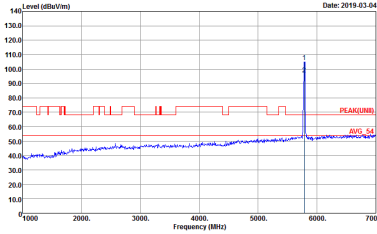
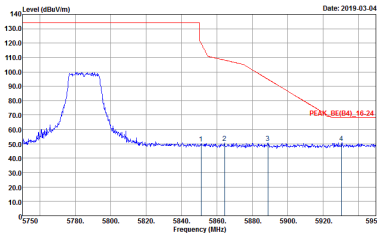


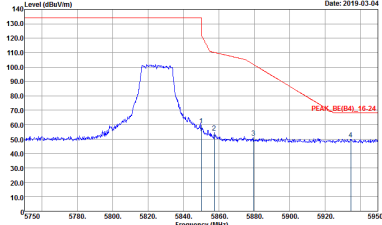
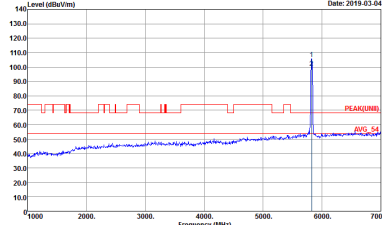
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
1+2	Vertical	Fundamental
Peak Avg.	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 912419 Mode : 61	 Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 912419 Mode : 61



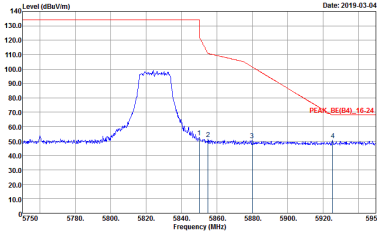
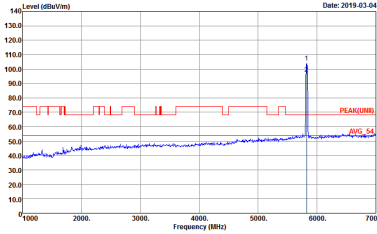
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH157 5785MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 912419 Mode : 62	 Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 912419 Mode : 62
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 912419 Mode : 62	Left blank



WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH157 5785MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 912419 Mode : 62	 Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 912419 Mode : 62
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 912419 Mode : 62	Left blank

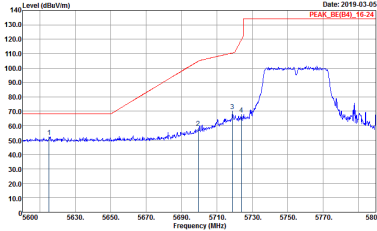
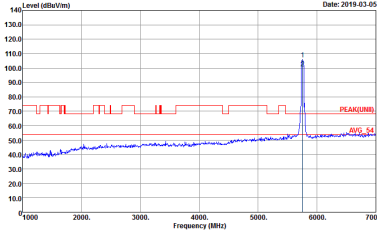
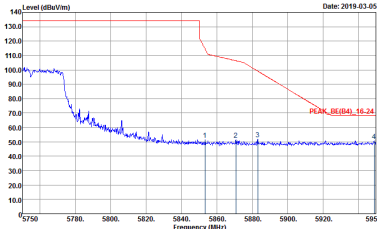
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH165 5825MHz	
1+2	Horizontal	Fundamental
Peak	 Date: 2019-03-04 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 912419 Mode : 63	 Date: 2019-03-04 Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 912419 Mode : 63

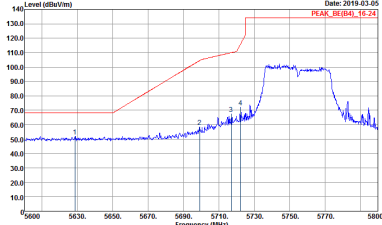
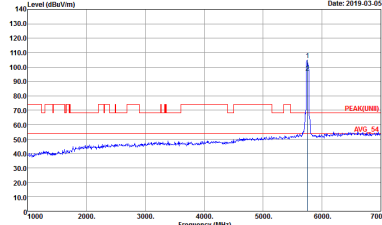
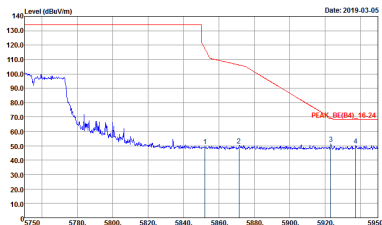


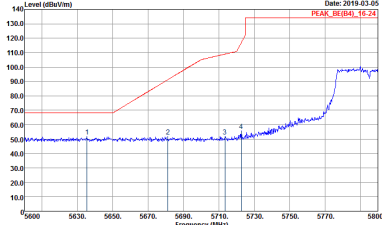
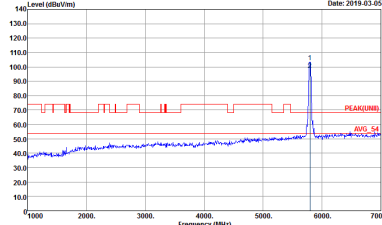
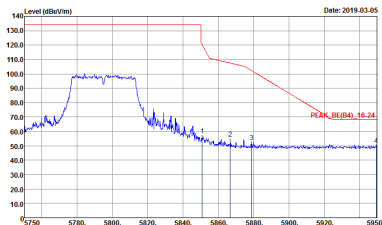
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH165 5825MHz	
1+2	Vertical	Fundamental
Peak Avg.	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 912419 63	 Site : 03CH07-HY Condition : PEAK(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 912419 63



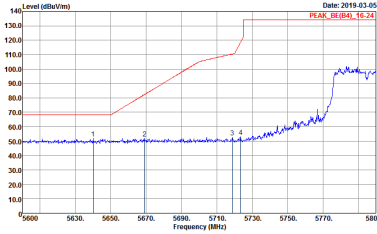
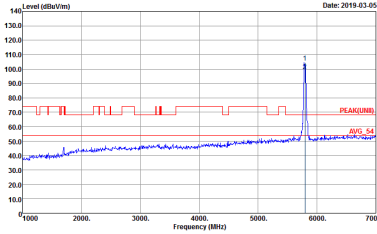
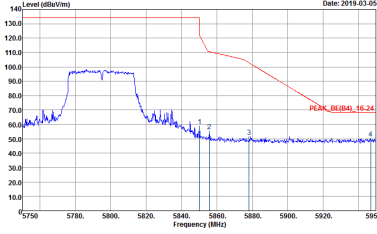
Band 4 5725~5850MHz
WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH151 5755MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Detector : Peak Project : 912419 Mode : 64	 Site : 03CH07-HY Condition : PEAK(LNB) 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Detector : Peak Project : 912419 Mode : 64
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Detector : Peak Project : 912419 Mode : 64	Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH151 5755MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 912419 Mode : 64	 Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 912419 Mode : 64
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 912419 Mode : 64	Left blank

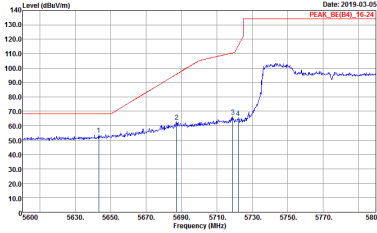
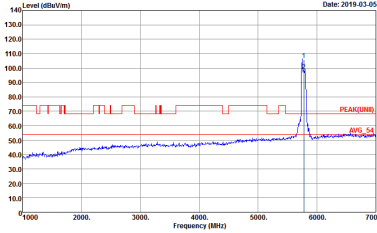
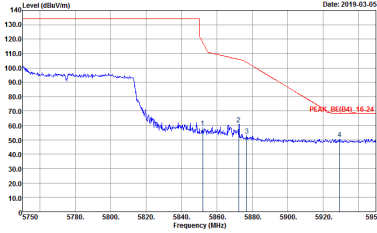
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH159 5795MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_15-24 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 912419 Mode : 65	 Site : 03CH07-HY Condition : PEAK_BE(B4)_15-24 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 912419 Mode : 65
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_15-24 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 912419 Mode : 65	Left blank

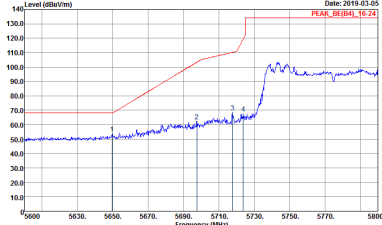
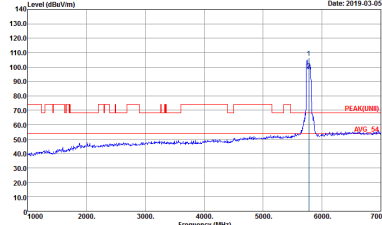
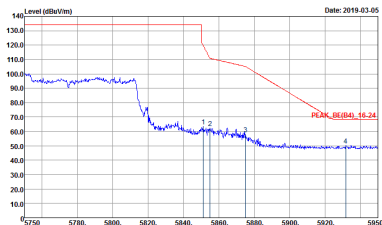


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH159 5795MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : Peak Mode : 912419 Date: 2019-03-05 PEAK_BE(B4)_16-24	 Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : Peak Mode : 912419 Date: 2019-03-05 PEAK(UNII)
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : Peak Mode : 912419 Date: 2019-03-05 PEAK_BE(B4)_16-24	Left blank



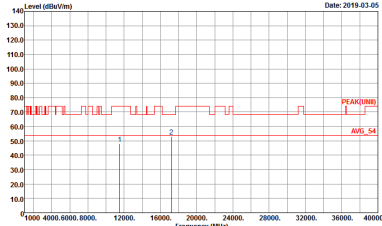
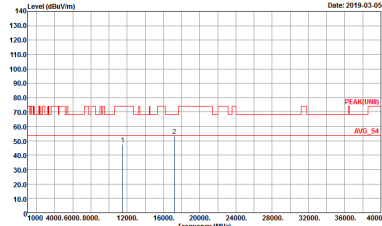
Band 4 5725~5850MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Detector : Peak Project : 912419 Mode : 66	 Site : 03CH07-HY Condition : PEAK(LNB)_3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Detector : Peak Project : 912419 Mode : 66
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Detector : Peak Project : 912419 Mode : 66	Left blank

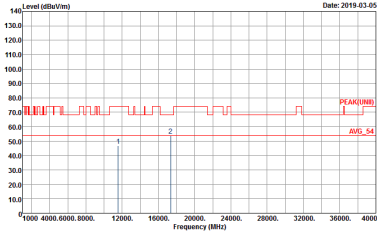
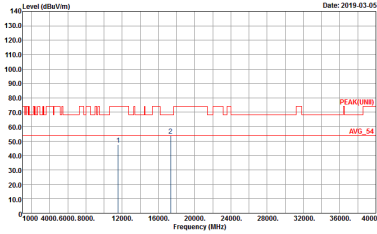
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(04)_15-21 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 912419 Mode : 66	 Site : 03CH07-HY Condition : PEAK_BE(04)_15-21 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 912419 Mode : 66
Peak	 Site : 03CH07-HY Condition : PEAK_BE(04)_15-21 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 912419 Mode : 66	Left blank



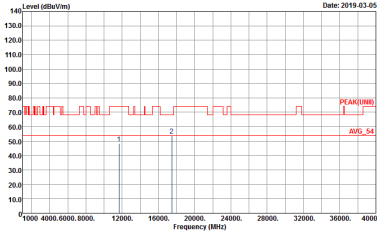
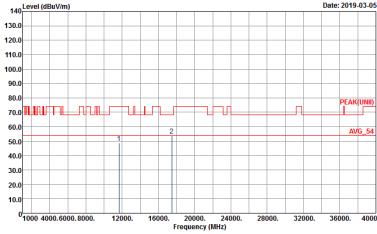
Band 4 - 5725~5850MHz
WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH07-HY Condition : PEAK(UNI) 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 912419 Mode : 61	 Site : 03CH07-HY Condition : PEAK(UNI) 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 912419 Mode : 61



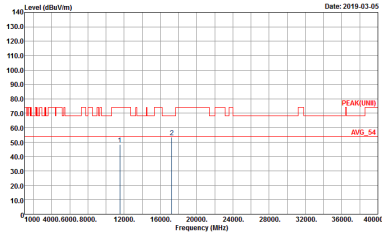
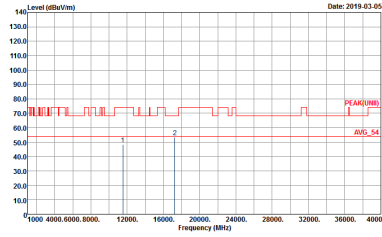
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH157 5785MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH07-HY Condition : PEAK(UNI) 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 912419 Mode : 62	 Site : 03CH07-HY Condition : PEAK(UNI) 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 912419 Mode : 62



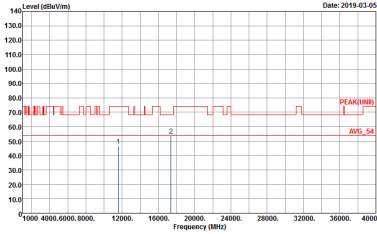
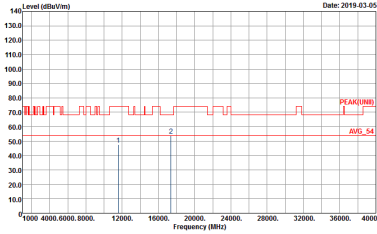
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH165 5825MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH07-HY Condition : PEAK(UNI) 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 912419 Mode : 63	 Site : 03CH07-HY Condition : PEAK(UNI) 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 912419 Mode : 63



Band 4 5725~5850MHz
WIFI 802.11ac VHT40 (Harmonic @ 3m)

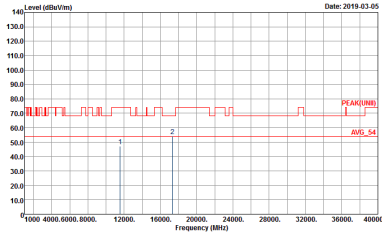
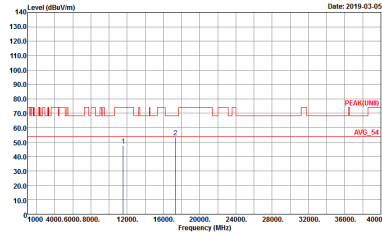
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT40 CH151 5755MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH07-HY Condition : PEAK(UNI) 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 912419 Mode : 64	 Site : 03CH07-HY Condition : PEAK(UNI) 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 912419 Mode : 64



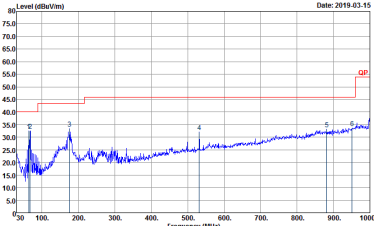
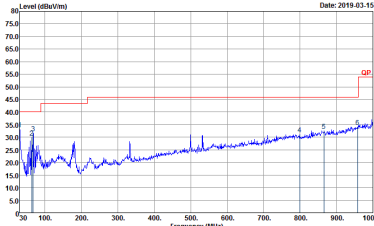
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT40 CH159 5795MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH07-HY Condition : PEAK(UNI) 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 912419 Mode : 65	 Site : 03CH07-HY Condition : PEAK(UNI) 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 912419 Mode : 65



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

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH07-HY Condition : PEAK(UNI) 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 912419 Mode : 66	 Site : 03CH07-HY Condition : PEAK(UNI) 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 912419 Mode : 66

Emission below 1GHz
5GHz WIFI 802.11ac VHT80 (LF)

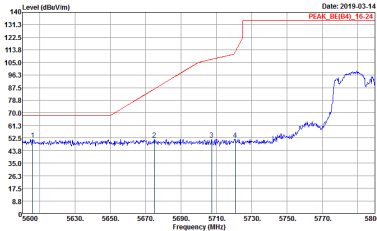
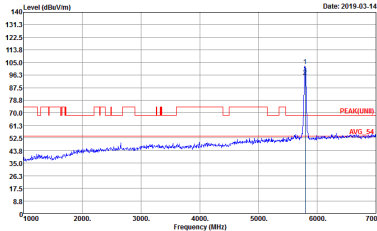
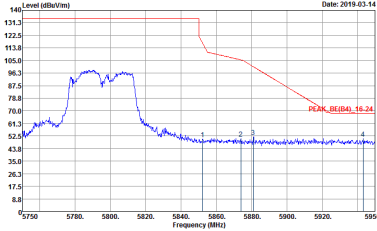
WIFI	5GHz 5725~5850MHz	
ANT	802.11ac VHT80 LF	
1+2	Horizontal	Vertical
QP / Peak	 Site : 03CH07-HY Condition : QP 3m LF-ANT-35419(G) HORIZONTAL Detector : Peak Project : 912419 Mode : 71	 Site : 03CH07-HY Condition : QP 3m LF-ANT-35419(G) VERTICAL Detector : Peak Project : 912419 Mode : 71

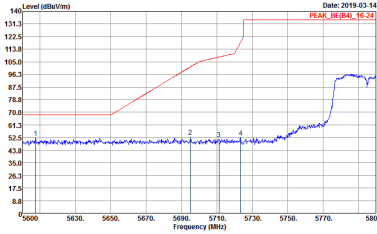
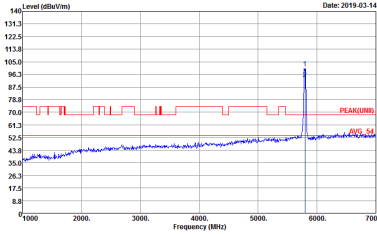
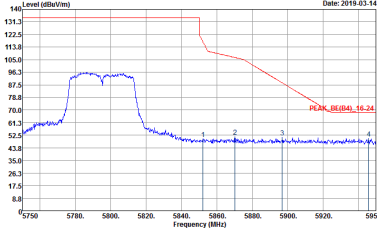


<Close Mode>

<CDD Mode>

Band 4 - 5725~5850MHz
WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH159 5795MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 912419 Mode : 67	 Site : 03CH07-HY Condition : PEAK(UNB) 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 912419 Mode : 67
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 912419 Mode : 67	Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH159 5795MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : Peak Mode : 912419 67	 Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : Peak Mode : 912419 67
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Project : Peak Mode : 912419 67	Left blank



Band 4 5725~5850MHz
WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT40 CH159 5795MHz	
1+2	Horizontal	Vertical
Peak Avg.	Site : 03CH07-HY Condition : PEAK(UNII) 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 912419 Mode : 67	Site : 03CH07-HY Condition : PEAK(UNII) 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 912419 Mode : 67

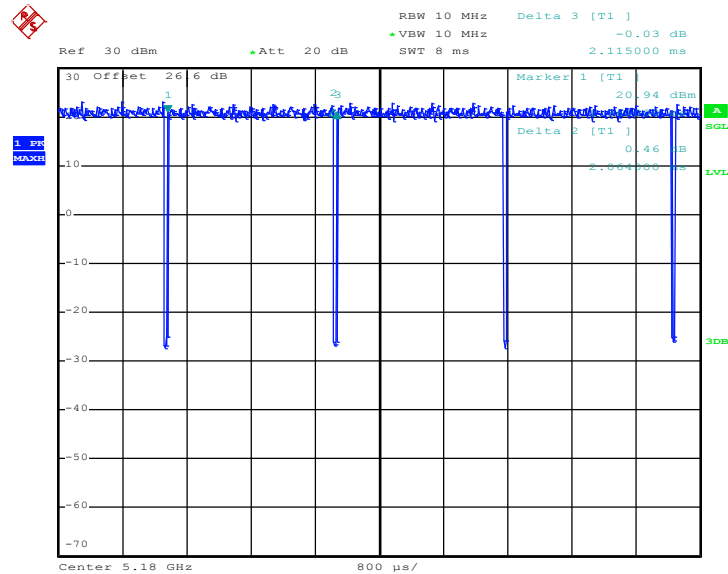
Appendix E. Duty Cycle Plots

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
1	802.11a	97.59	2064	0.48	1kHz	0.11
2	802.11a	97.35	2059	0.49	1kHz	0.12
1+2	802.11a for Ant. 1	97.35	2059	0.49	1kHz	0.12
1+2	802.11a for Ant. 2	97.57	2047	0.49	1kHz	0.11
1	5GHz 802.11n HT20	97.16	1919	0.52	1kHz	0.13
2	5GHz 802.11n HT20	97.41	1919	0.52	1kHz	0.11
1+2	5GHz 802.11n HT20 for Ant. 1	97.47	1925	0.52	1kHz	0.11
1+2	5GHz 802.11n HT20 for Ant. 2	97.47	1925	0.52	1kHz	0.11
1	5GHz 802.11n HT40	96.46	955	1.05	3kHz	0.16
2	5GHz 802.11n HT40	95.45	945	1.06	3kHz	0.20
1+2	5GHz 802.11n HT40 for Ant. 1	95.94	945	1.06	3kHz	0.18
1+2	5GHz 802.11n HT40 for Ant. 2	96.46	955	1.05	3kHz	0.16
1	5GHz 802.11ac VHT20	97.98	1940	0.52	1kHz	0.09
2	5GHz 802.11ac VHT20	97.98	1940	0.52	1kHz	0.09
1+2	5GHz 802.11ac VHT20 for Ant. 1	97.42	1929	0.52	1kHz	0.11
1+2	5GHz 802.11ac VHT20 for Ant. 2	97.96	1924	0.52	1kHz	0.09
1	5GHz 802.11ac VHT40	95.48	950	1.05	3kHz	0.20
2	5GHz 802.11ac VHT40	95.96	950	1.05	3kHz	0.18
1+2	5GHz 802.11ac VHT40 for Ant. 1	95.96	950	1.05	3kHz	0.18
1+2	5GHz 802.11ac VHT40 for Ant. 2	95.48	950	1.05	3kHz	0.20
1	5GHz 802.11ac VHT80	91.90	454	2.20	3kHz	0.37
2	5GHz 802.11ac VHT80	92.20	461	2.17	3kHz	0.35
1+2	5GHz 802.11ac VHT80 for Ant. 1	91.95	457	2.19	3kHz	0.36
1+2	5GHz 802.11ac VHT80 for Ant. 2	91.92	455	2.20	3kHz	0.37



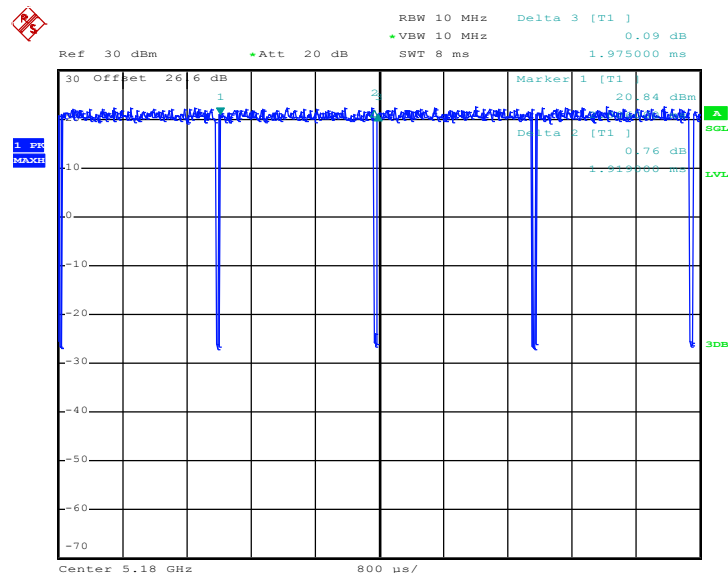
<Ant. 1>

802.11a

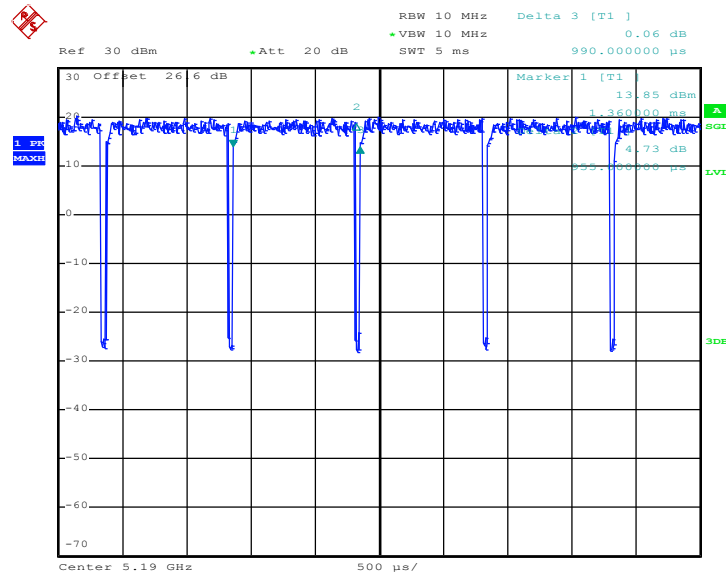


Date: 1.FEB.2019 00:53:43

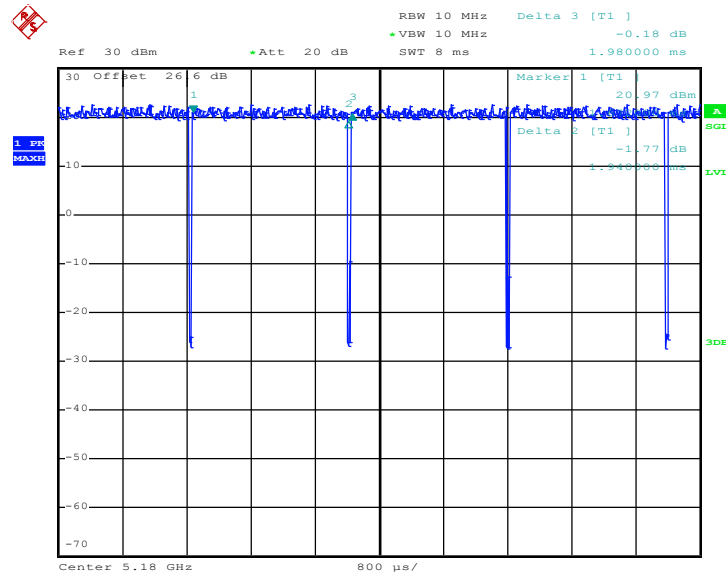
802.11n HT20



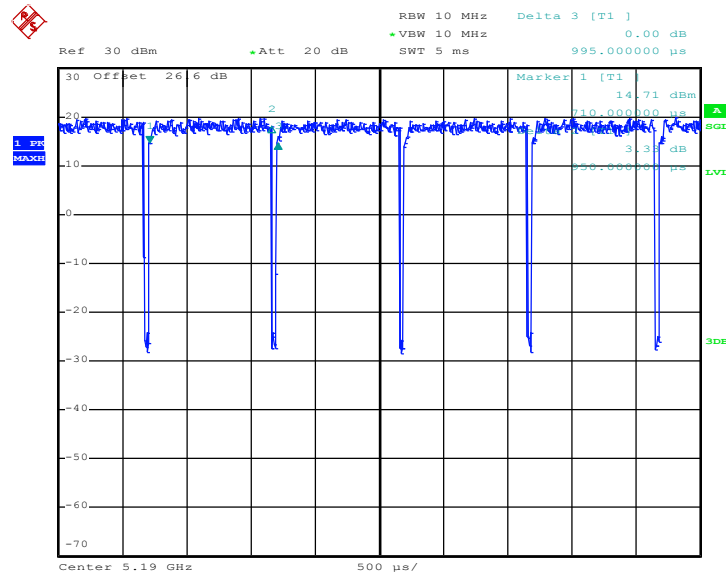
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802.11n HT40


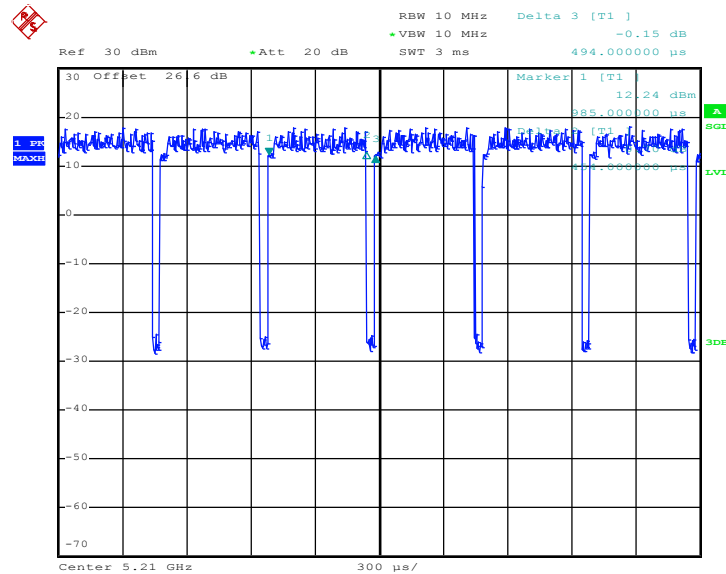
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802.11ac VHT20


Date: 1.FEB.2019 01:04:49

802.11ac VHT40


Date: 1.FEB.2019 01:08:38

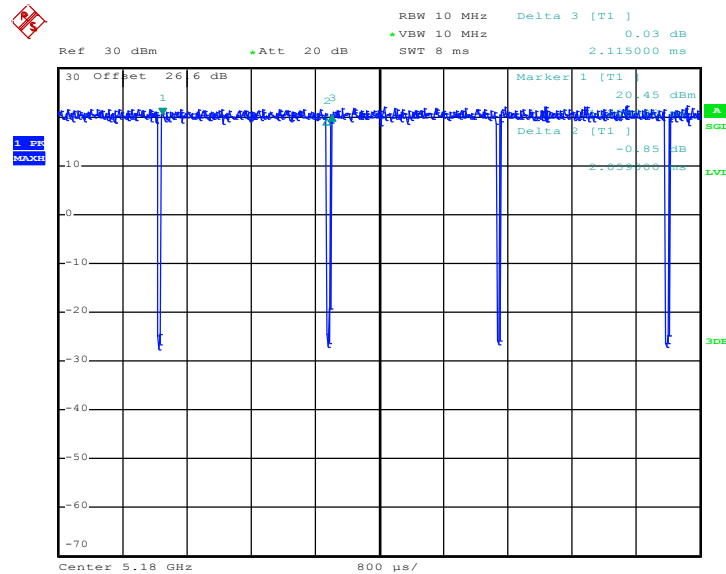
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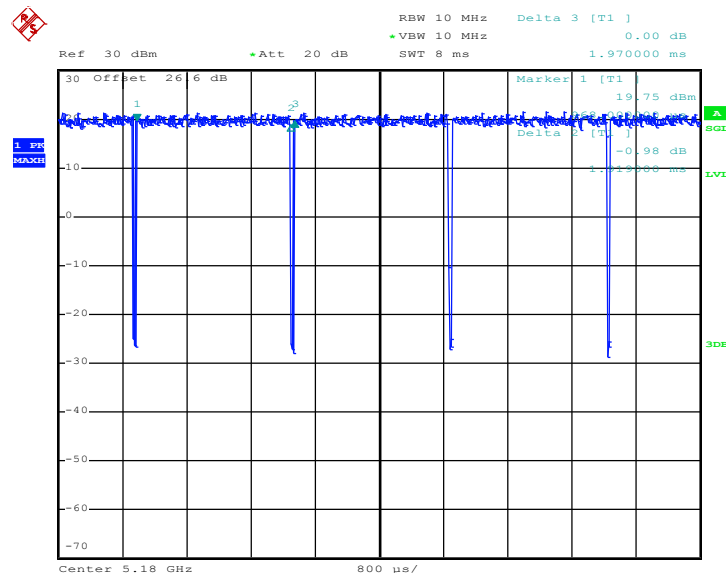
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802.11a



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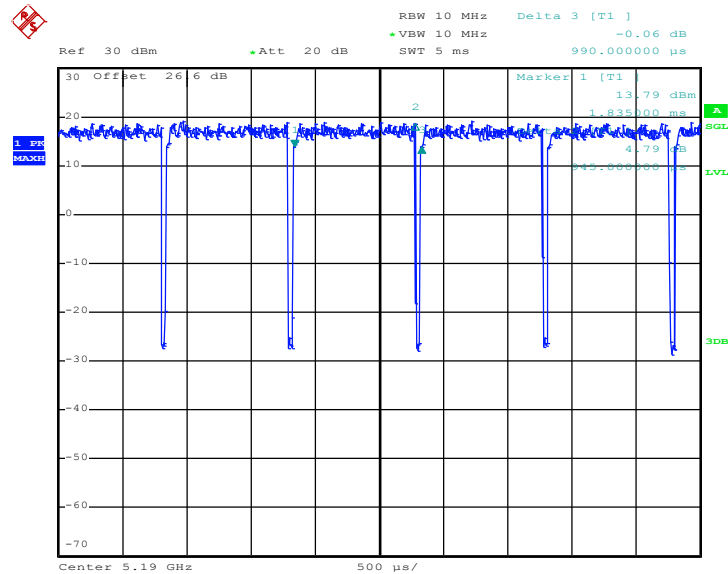
802.11n HT20



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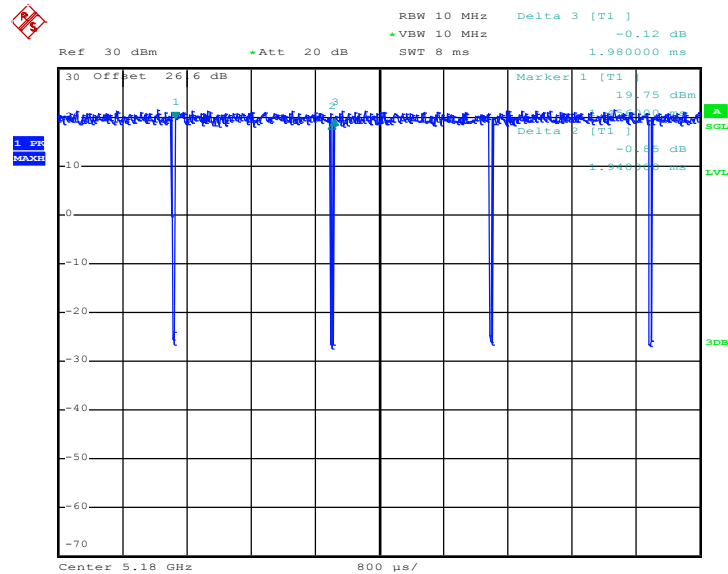


802.11n HT40

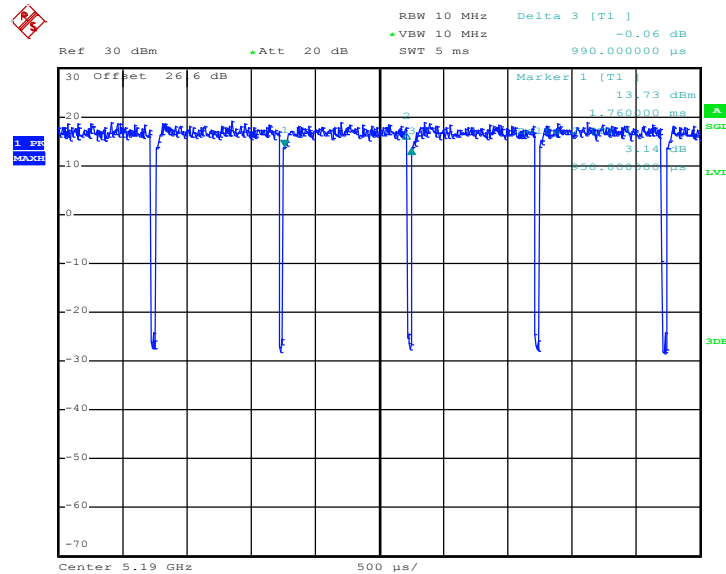


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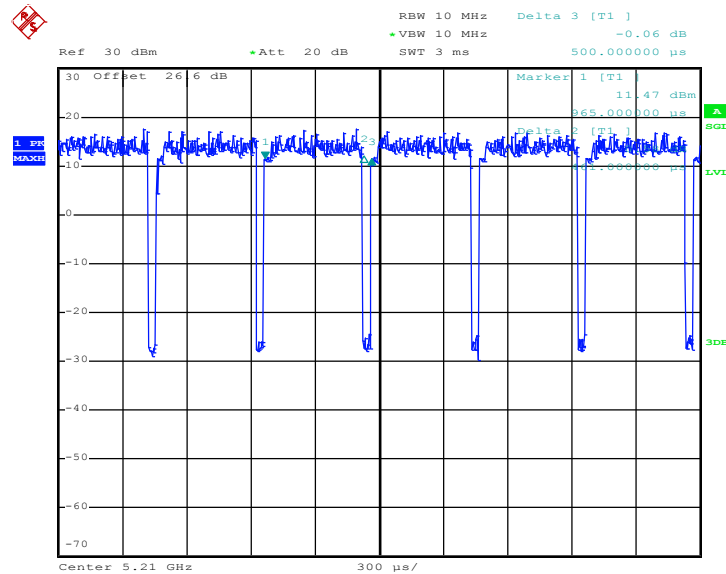
802.11ac VHT20



Date: 1.FEB.2019 01:05:35

802.11ac VHT40


Date: 1.FEB.2019 01:09:19

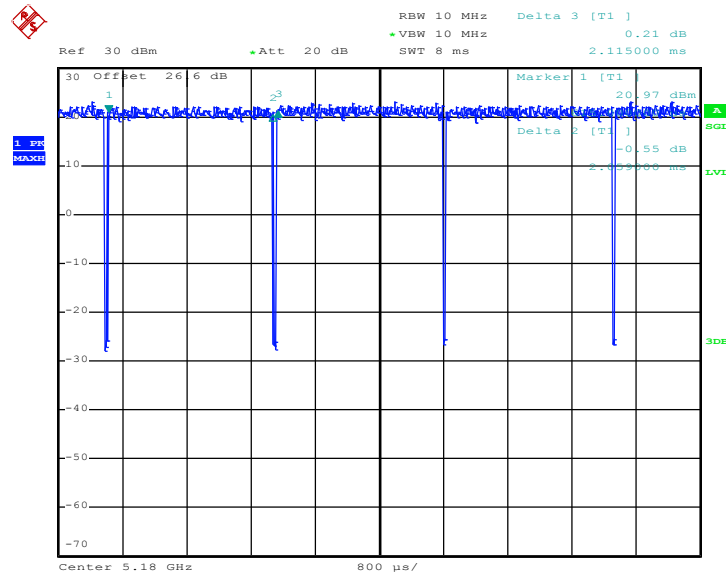
802.11ac VHT80


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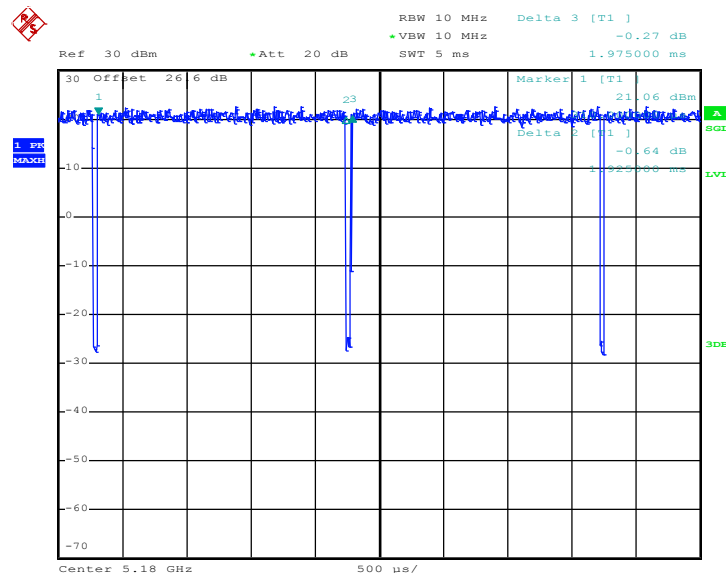
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802.11a

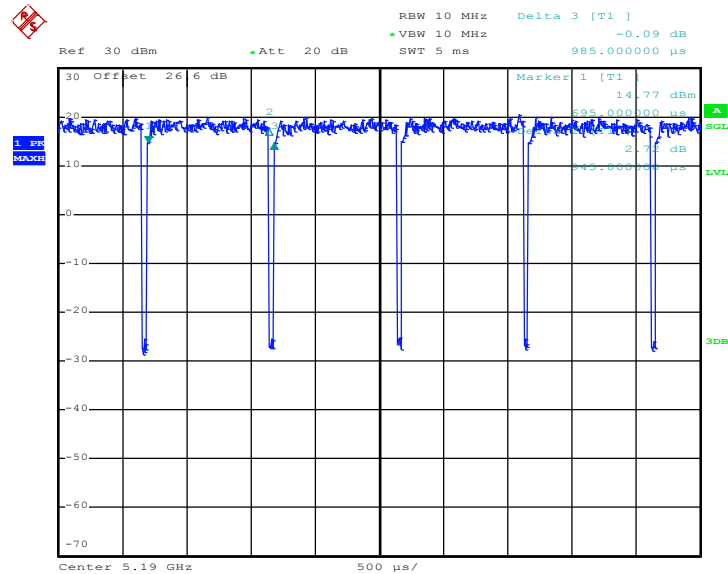


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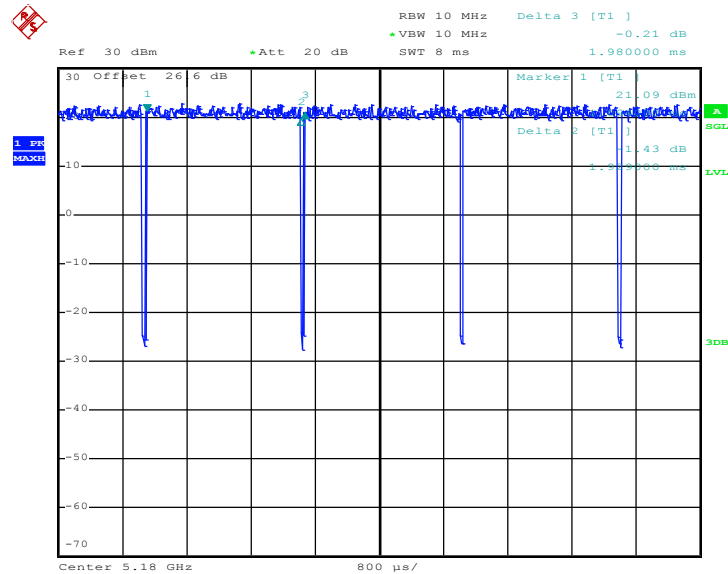
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802.11n HT40


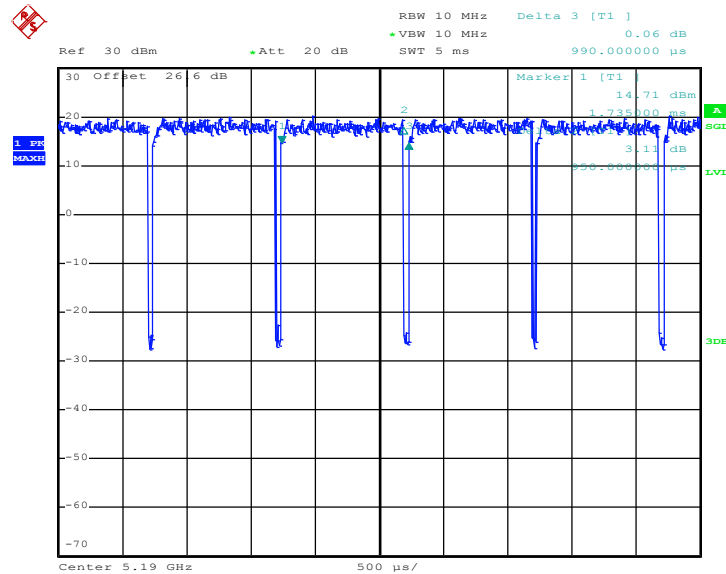
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802.11ac VHT20


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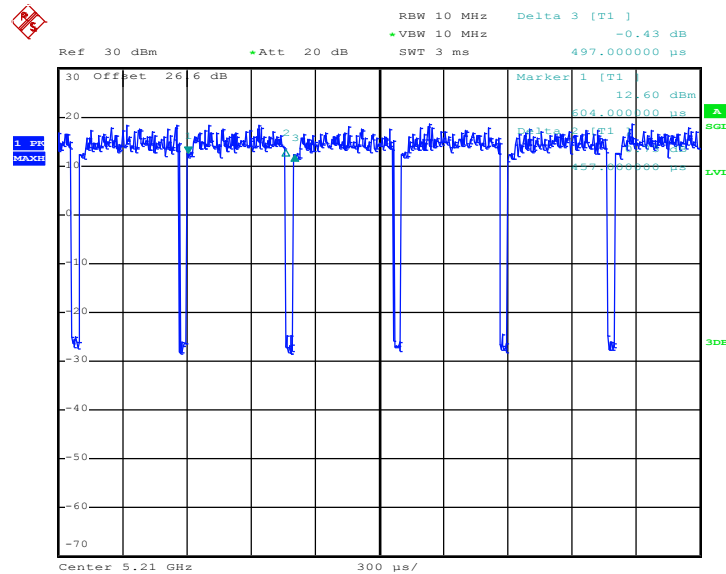


802.11ac VHT40



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802.11ac VHT80

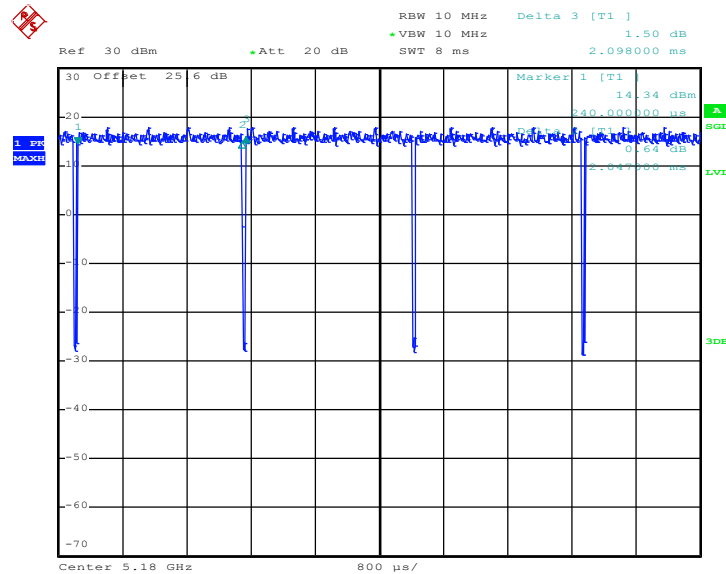


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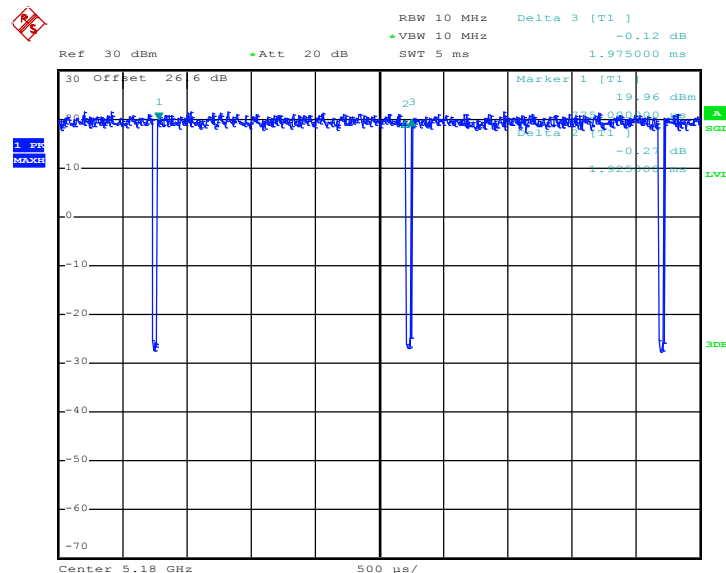
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802.11a



Date: 6.FEB.2019 16:56:11

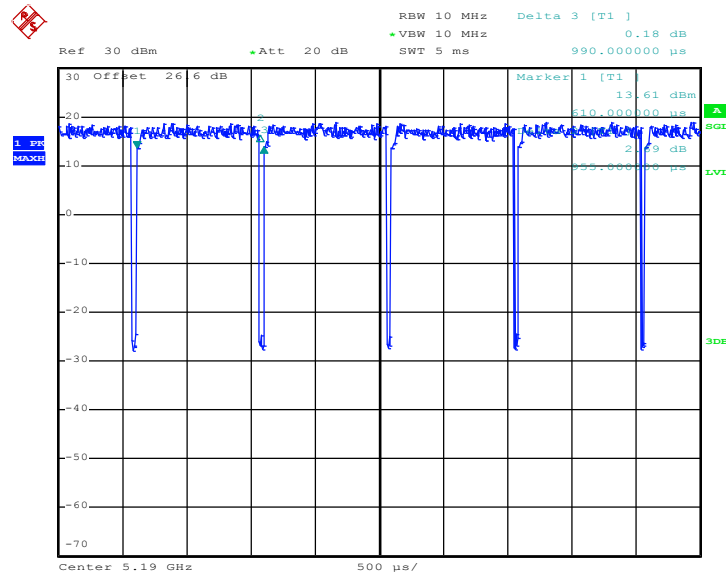
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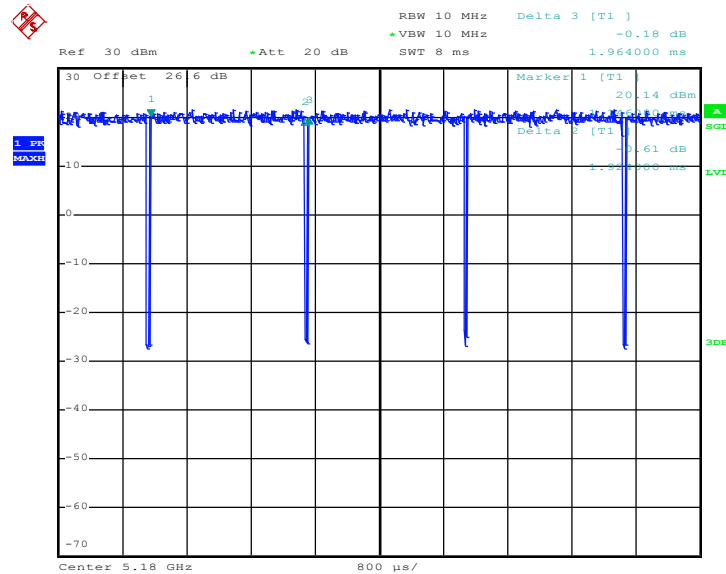


802.11n HT40



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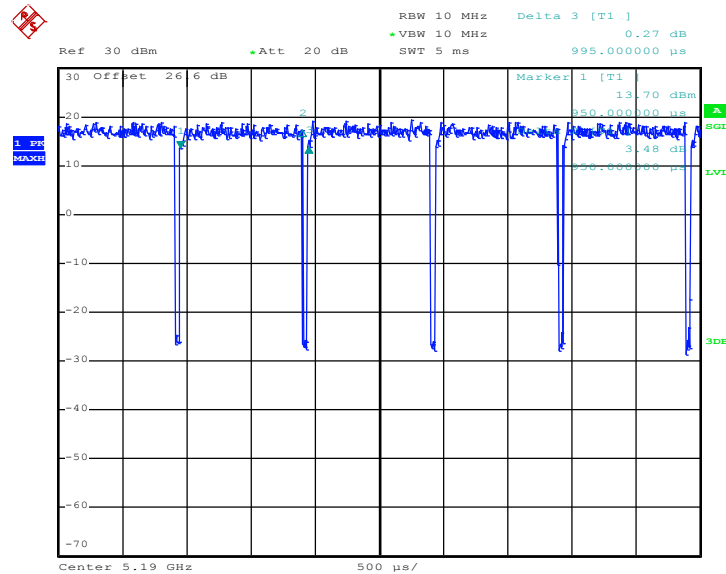
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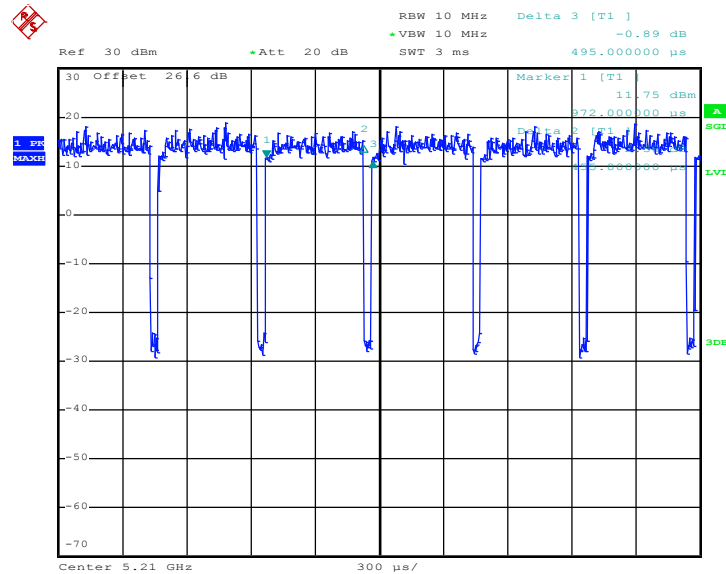


802.11ac VHT40



Date: 1.FEB.2019 01:10:43

802.11ac VHT80



Date: 1.FEB.2019 01:14:57

THE END