FCC RADIO TEST REPORT

FCC ID	:	**TVE-3417T0695A**
Equipment	:	**Network Security Gateway**
Brand Name	:	**FORTINET**
Model Name	:	**FWF-80F-2Rxxxxxx, FortiWiFi 80F-2Rxxxxxx, FORTIWIFI-80F-2Rxxxxxx** **FWF-81F-2Rxxxxxx, FortiWiFi 81F-2Rxxxxxx, FORTIWIFI-81F-2Rxxxxxx** **FWF-80F-2R-3G4G-DSLxxxxxx, FortiWiFi 80F-2R-3G4G-DSLxxxxxx, FORTIWIFI-80F-2R-3G4G-DSLxxxxxx** **FWF-81F-2R-3G4G-DSLxxxxxx, FortiWiFi 81F-2R-3G4G-DSLxxxxxx, FORTIWIFI-81F-2R-3G4G-DSLxxxxxx** **(where "x" can be used as "A-Z", or "0-9", or "-", or blank for software changes or marketing purposes only)**
Marketing Name	:	**FortiWiFi 80F-2R, FortiWiFi 81F-2R, FortiWiFi 80F-2R-3G4G-DSL, FortiWiFi 81F-2R-3G4G-DSL**
Applicant	:	**Fortinet Inc.** **899 KIFER RD** **SUNNYVALE CA 94086** **UNITED STATES**
Manufacturer	:	**Fortinet Inc.** **899 KIFER RD** **SUNNYVALE CA 94086** **UNITED STATES**
Standard	:	**FCC Part 15 Subpart E §15.407**

The product was received on Jan. 19, 2021 and testing was started from Jan. 25, 2021 and completed on Feb. 28, 2021. 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 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.

Louis Wu

Approved by: Louis Wu

Sporton International Inc. EMC & Wireless Communications Laboratory
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)

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History of this test report

Report No.	Version	Description	Issued Date
FR111826D	01	Initial issue of report	Feb. 28, 2021

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 0.41 dB at 11490.000 MHz
3.5	15.207	AC Conducted Emission	Pass	Under limit 11.19 dB at 0.415 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: Ruby Zou

1 General Description

1.1 Product Feature of Equipment Under Test

WCDMA/LTE, Bluetooth-LE, Wi-Fi 2.4GHz 802.11b/g/n/ac/ax, Wi-Fi 5GHz 802.11a/n/ac/ax and GNSS.

Product Specification subjective to this standard	
Antenna Type	**WWAN:** Dipole Antenna **WLAN:** <Ant. 1> Dipole Antenna <Ant. 2> Dipole Antenna <Ant. 3> Dipole Antenna **Bluetooth - LE:** <Ant. 4> PIFA Antenna **GPS/Glonass/BDS/Galileo:** Dipole Antenna

Antenna information		
5725 MHz ~ 5850 MHz	Peak Gain (dBi)	<Ant. 1>: 1.58 <Ant. 2>: 1.58 <Ant. 3>: 1.58

Remark: The above EUT's information was declared by manufacturer. Please refer to Comments and Explanations in report summary.

1.2 Modification of EUT

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

1.3 Testing Location

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	**Sporton Site No.**
	TH05-HY, CO05-HY

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

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	**Sporton Site No.**
	03CH16-HY

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

FCC designation No.: TW1190 and TW0007

1.4 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. The TAF code is not including all the FCC KDB listed without accreditation.

2 Test Configuration of Equipment Under Test

a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in two antenna degrees (Ant. Horizontal and Ant. Vertical). The worst cases (Ant. Horizontal for Ant. 2 and Ant. Vertical for MIMO Ant. 1+3) 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 and 802.11ax HE40.
2. The above Frequency and Channel in "#" were 802.11ac VHT80 and 802.11ax HE80.

2.2 Test Mode

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

Single Mode

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

MIMO Mode

Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20 (Covered by HE20)	MCS0
802.11n HT40 (Covered by HE40)	MCS0
802.11ac VHT20 (Covered by HE20)	MCS0
802.11ac VHT40 (Covered by HE40)	MCS0
802.11ac VHT80 (Covered by HE80)	MCS0
802.11ax HE20	MCS0
802.11ax HE40	MCS0
802.11ax HE80	MCS0

Remark: The device have support beamforming function in 802.11 ac/ax mode, the manufacturer defines worst case were Non Beamforming, other test items only test worst case and documented.

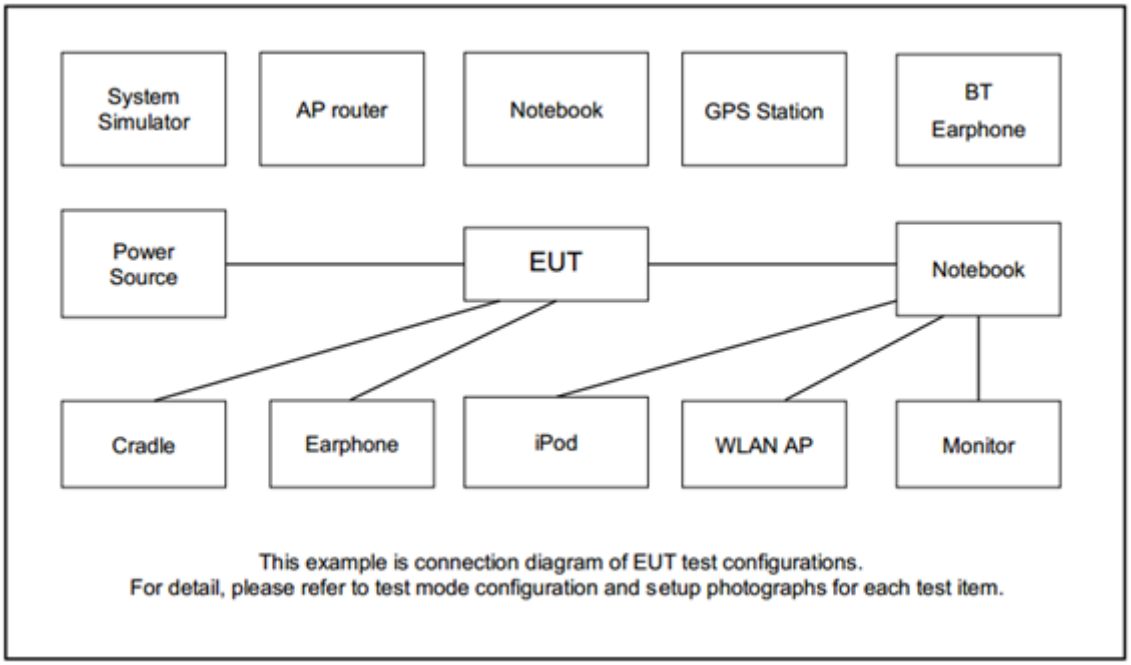
Test Cases	
AC Conducted Emission	Mode 1 : LTE Band 41 Link + WLAN (5GHz) Link + Bluetooth Link + Adapter*2 Mode 2 : LTE Band 41 Idle + WLAN (5GHz) Idle + Bluetooth Idle + Adapter*2
Remark: The worst case of conducted emission is mode 1; only the test data of it was reported.	

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

Ch. #		Band IV：5725-5850 MHz		
		802.11ax HE20	802.11ax HE40	802.11ax HE80
L	Low	149	151	-
M	Middle	157	-	155
H	High	165	159	-

Remark: For radiation spurious emission, the final modulation and the worst data rate was reference the max RF conducted power.

2.3 Connection Diagram of Test System



2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	Phone	SAMSUNG	SM-A730F/DS	A3LSMA730F	N/A	N/A
3.	Notebook	Dell	Latitude 3400	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m

2.5 EUT Operation Test Setup

The RF test items, utility “QSPR Version 5.0-00196” was installed in Notebook which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.

2.6 Measurement Results Explanation Example

For all conducted test items:

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

Example :

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

Offset = RF cable loss + attenuator factor.

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

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

= 4.2 + 10 = 14.2 (dB)

3 Test Result

3.1 6dB and 26dB and 99% Occupied Bandwidth Measurement

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

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

26dB and 99% Occupied bandwidth are reporting only.

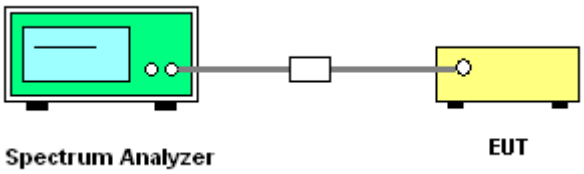
3.1.2 Measuring Instruments

See list of measuring equipment of this test report.

3.1.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section C) Emission bandwidth for the band 5.725-5.85 GHz
2. Set RBW = 100 kHz.
3. Set the VBW ≥ 3 x RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 6 dB down from the peak of the emission.
7. Measure and record the results in the test report.

3.1.4 Test Setup

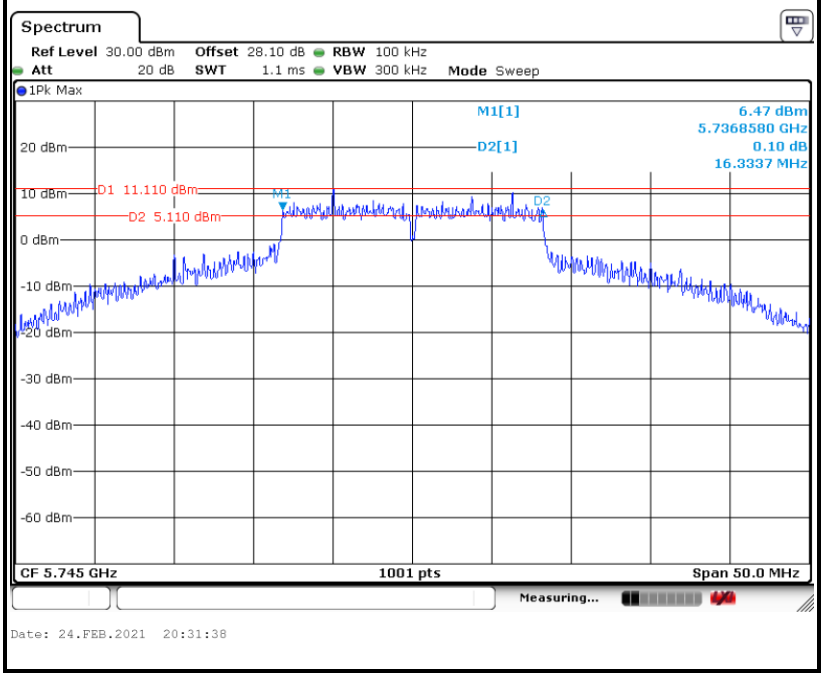


3.1.5 Test Result of 6dB and 26dB and 99% Occupied Bandwidth

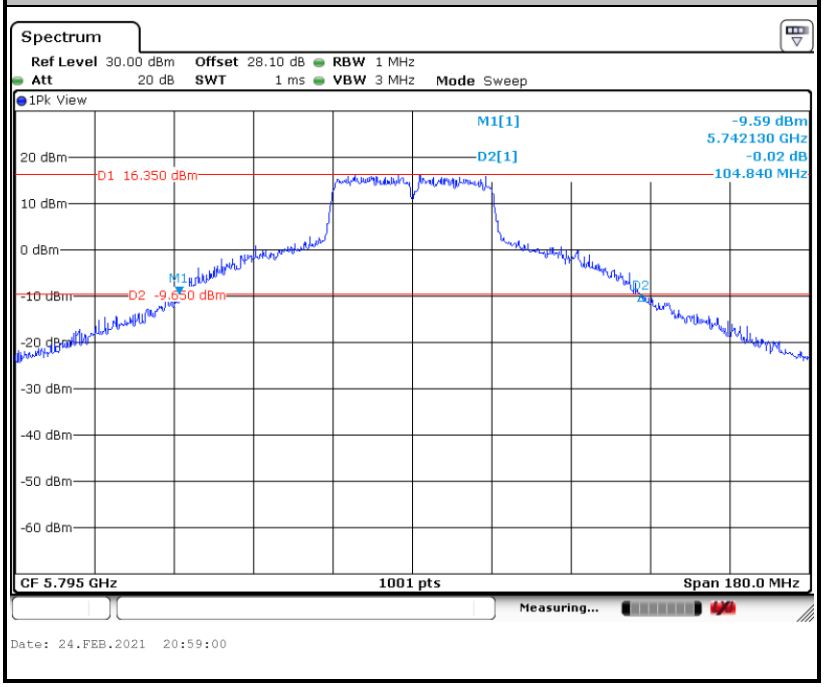
Please refer to Appendix A.

<Ant. 2>

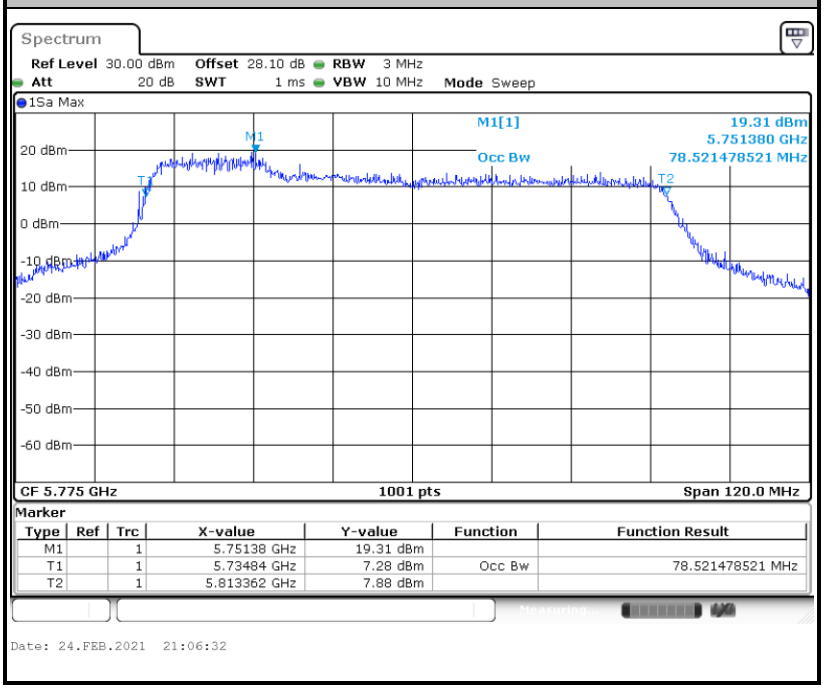
Minimum 6dB Bandwidth



Maximum 26dB Bandwidth

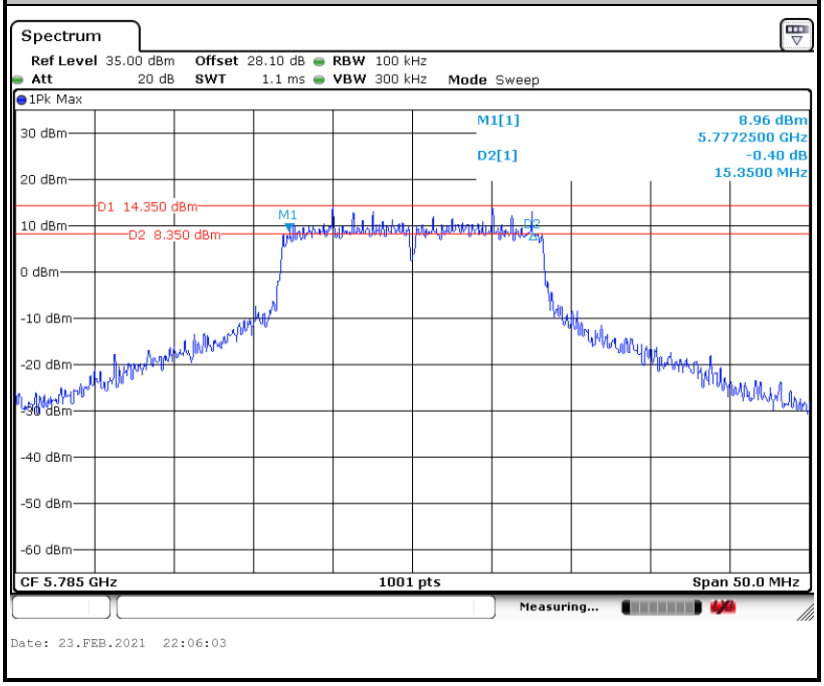


Maximum 99% Occupied Bandwidth

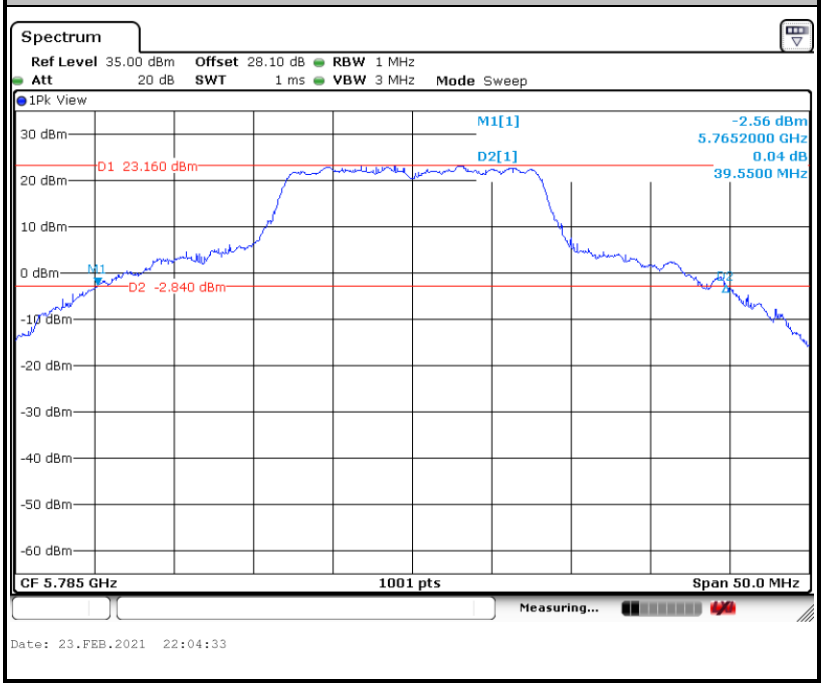


MIMO <Ant. 1+3>

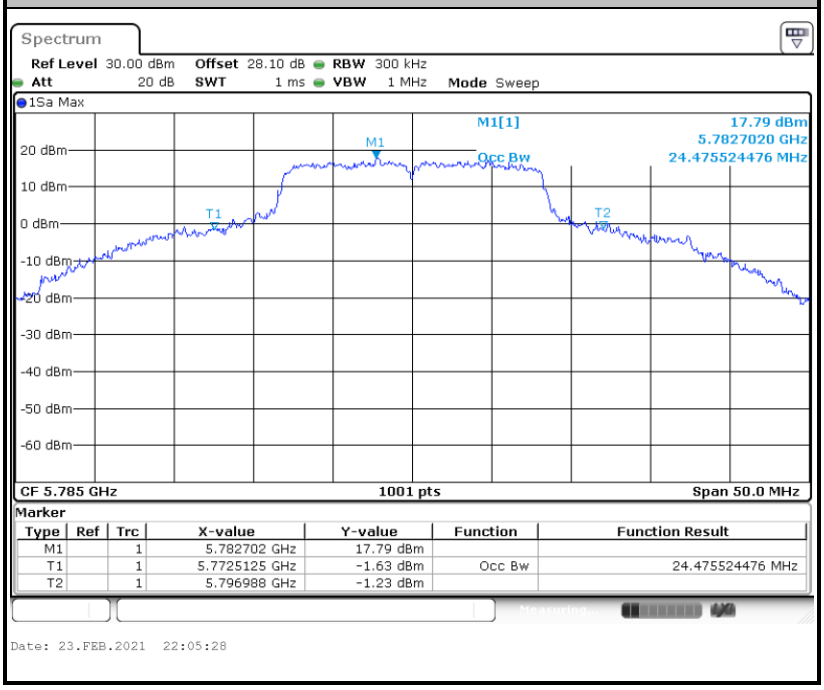
Minimum 6dB Bandwidth



Maximum 26dB Bandwidth

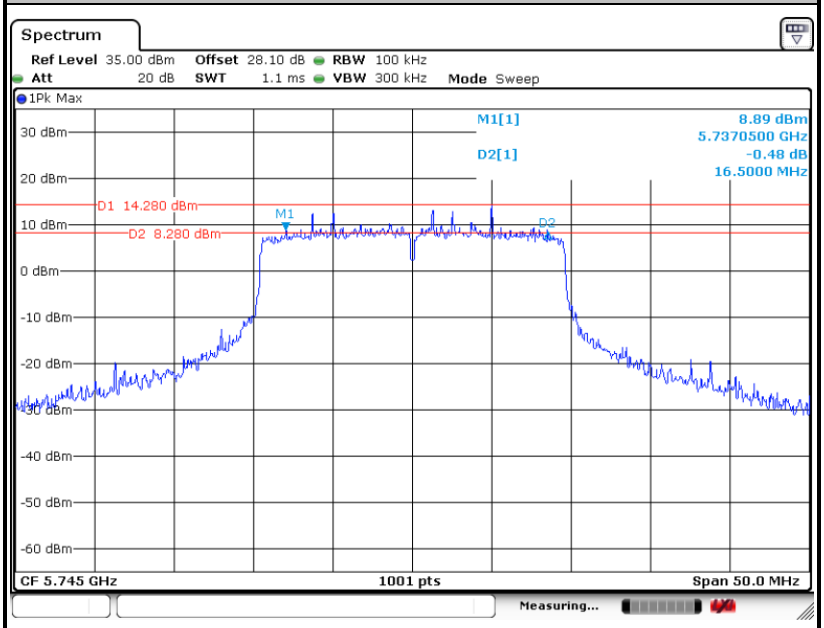


Maximum 99% Occupied Bandwidth

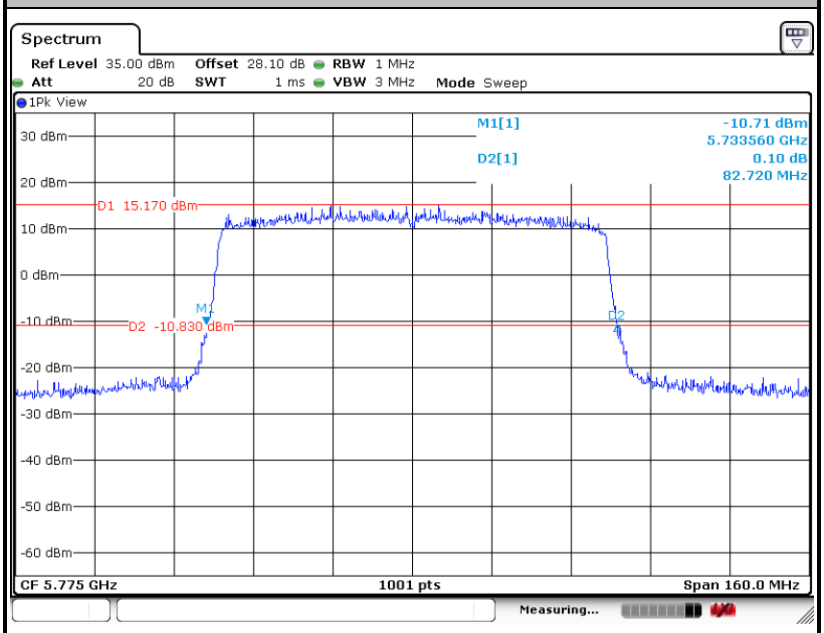


<802.11ax Mode>

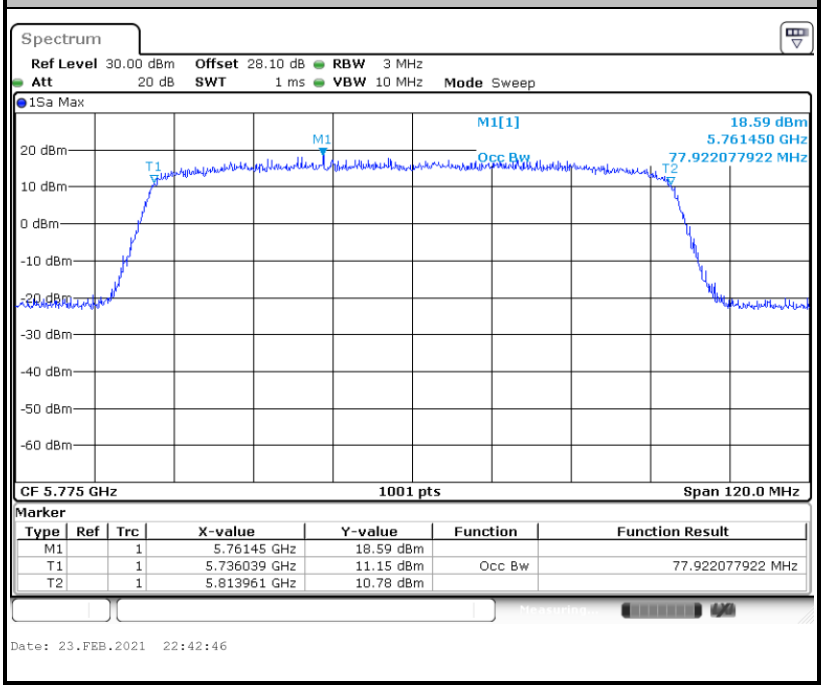
Minimum 6dB Bandwidth



Maximum 26dB Bandwidth



Maximum 99% Occupied Bandwidth



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

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.

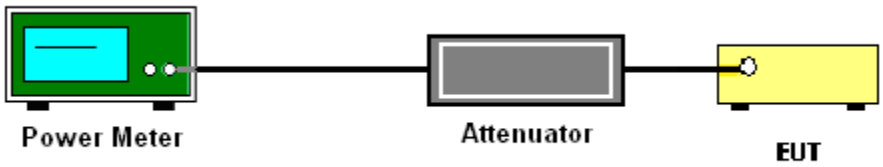
3.2.3 Test Procedures

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

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.

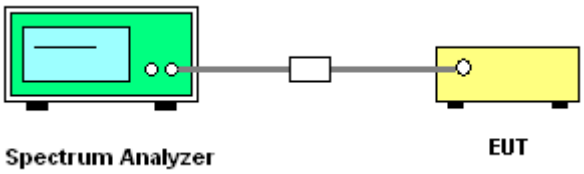
 # Method SA-3 #

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

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz.
- Set VBW ≥ 3 MHz.
- Number of points in sweep ≥ 2 Span / RBW.
- Sweep time ≤ (number of points in sweep) × T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
  Detector = power averaging (rms).
- Trace mode = max hold.
- Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.

1. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
2. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.
3. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
   Method (c): Measure and add 10 log(N_{ANT}) dB.
   With this technique, spectrum measurements are performed at each output of the device, but rather than summing the spectra or the spectral peaks across the outputs, the quantity 10 log(N_{ANT}) dB is added to each spectrum value before comparing to the emission limit. The addition of 10 log(N_{ANT}) dB serves to apportion the emission limit among the N_{ANT} outputs so that each output is permitted to contribute no more than $1/N_{ANT}$ th of the PSD limit.

3.3.4 Test Setup

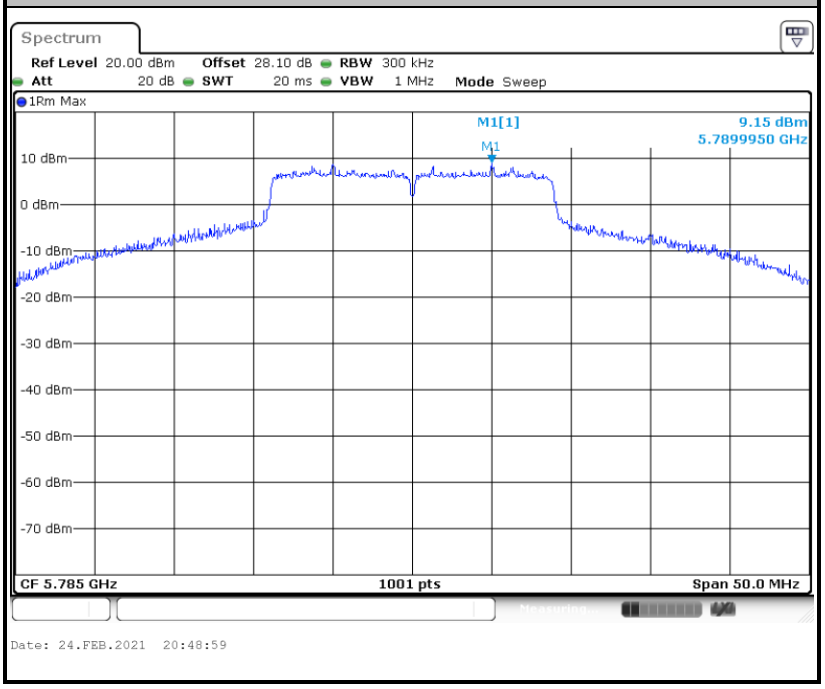


3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

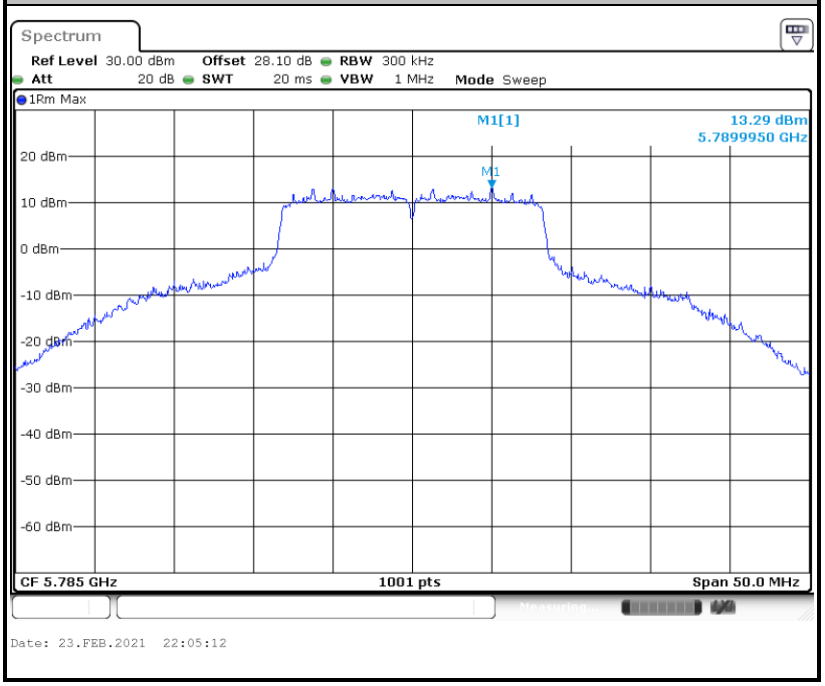
<Ant. 2>

Worst Case Power Density (dBm/MHz)

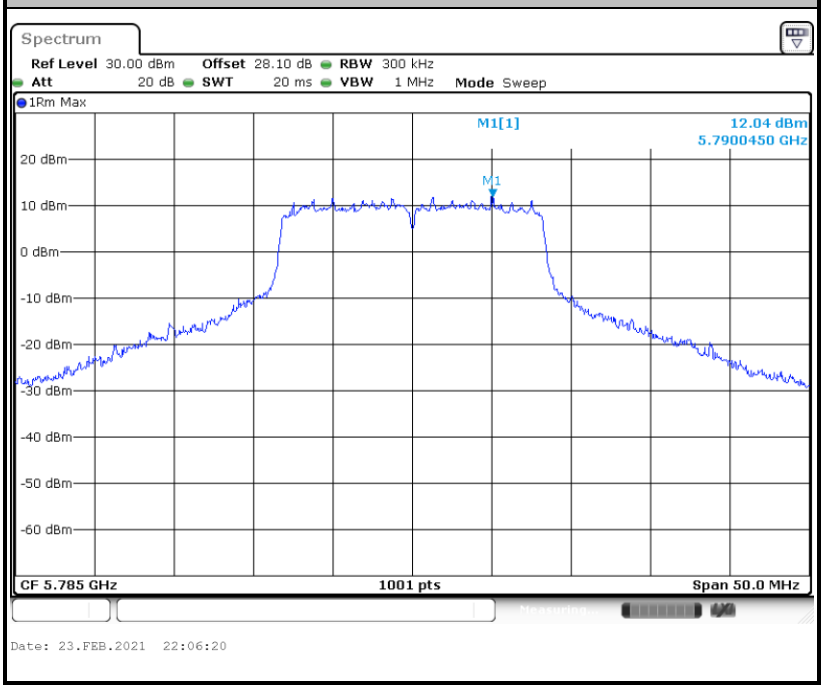


MIMO <Ant. 1+3>

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

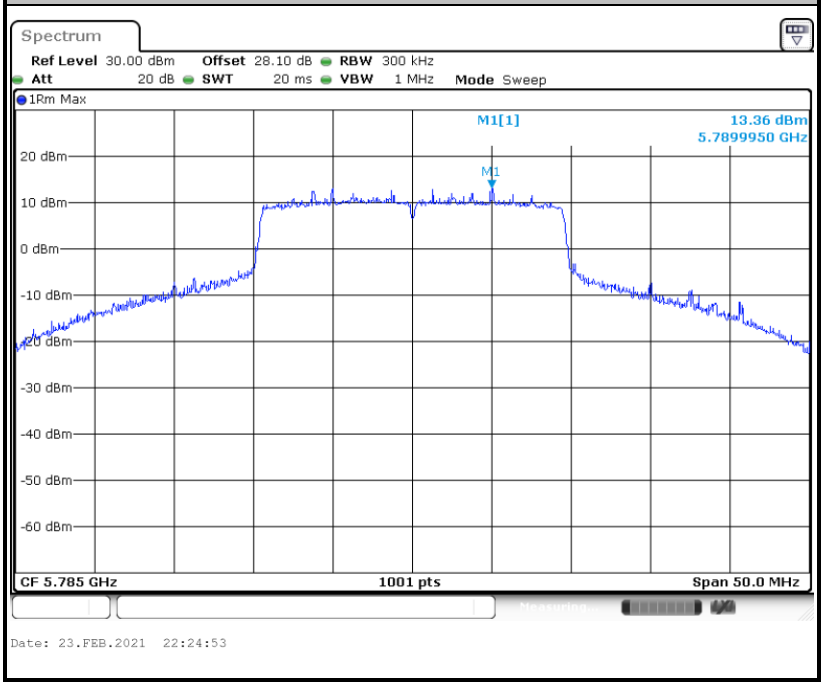


Worst Case Power Density (dBm/MHz) for MIMO Ant. 3

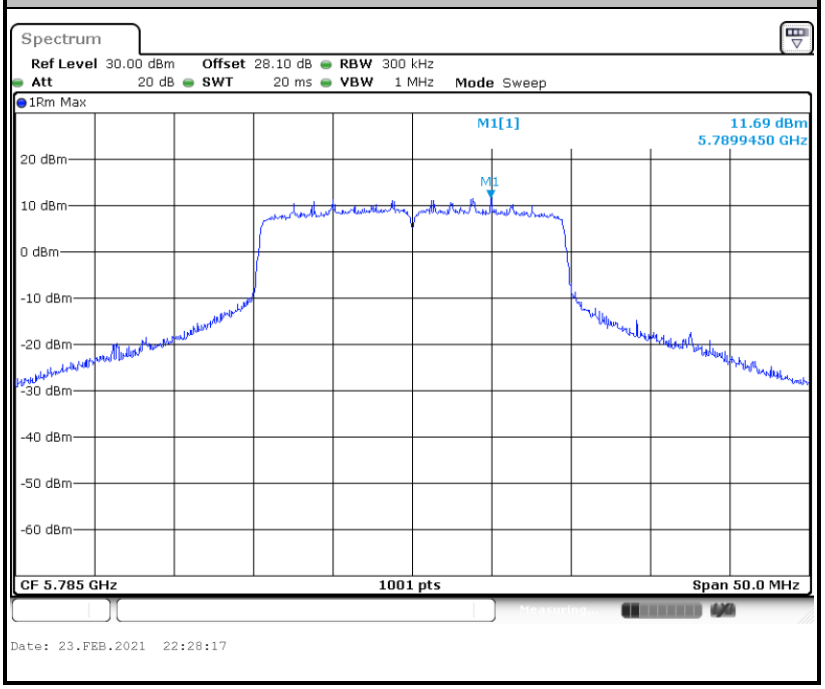


<802.11ax Modes>

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



Worst Case Power Density (dBm/MHz)) for MIMO Ant. 3



3.4 Unwanted Emissions Measurement

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

3.4.1 Limit of Unwanted Emissions

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

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

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

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

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

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

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

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

(i) Sections 15.407(b)(1-3) specifies the unwanted emissions limit 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.

(ii) Section 15.407(b)(4) specifies the unwanted emissions limit for the U-NII-3 band. A band emissions mask is specified in Section 15.407(b)(4)(i). The emission limits are based on the use of a peak detector.

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 1000 MHz
   - RBW = 120 kHz
   - VBW = 300 kHz
   - Detector = Peak
   - Trace mode = max hold

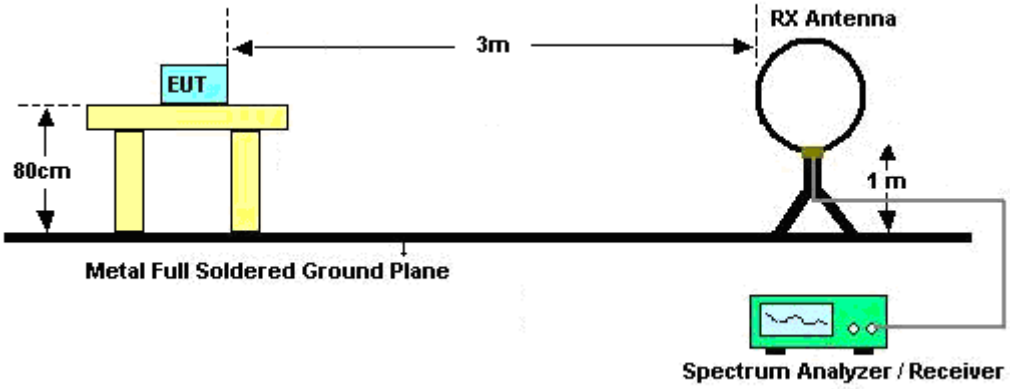
   (2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz
   - RBW = 1 MHz
   - VBW ≥ 3 MHz
   - Detector = Peak
   - Sweep time = auto
   - Trace mode = max hold

   (3) Procedures for Average Unwanted Emissions Measurements Above 1000 MHz
   - RBW = 1 MHz
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz 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 1 GHz, 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.

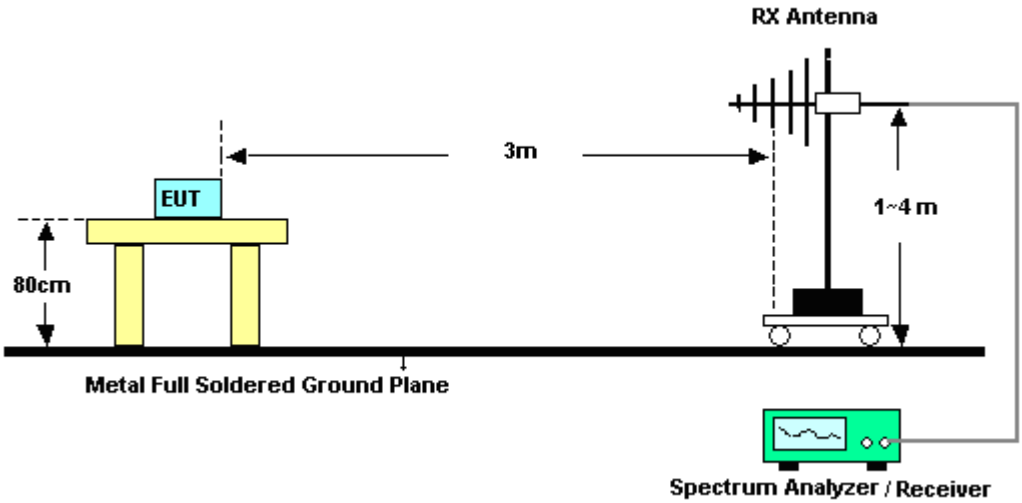
7. For testing above 1 GHz, the emission level of the EUT in peak mode was 20 dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

3.4.4 Test Setup

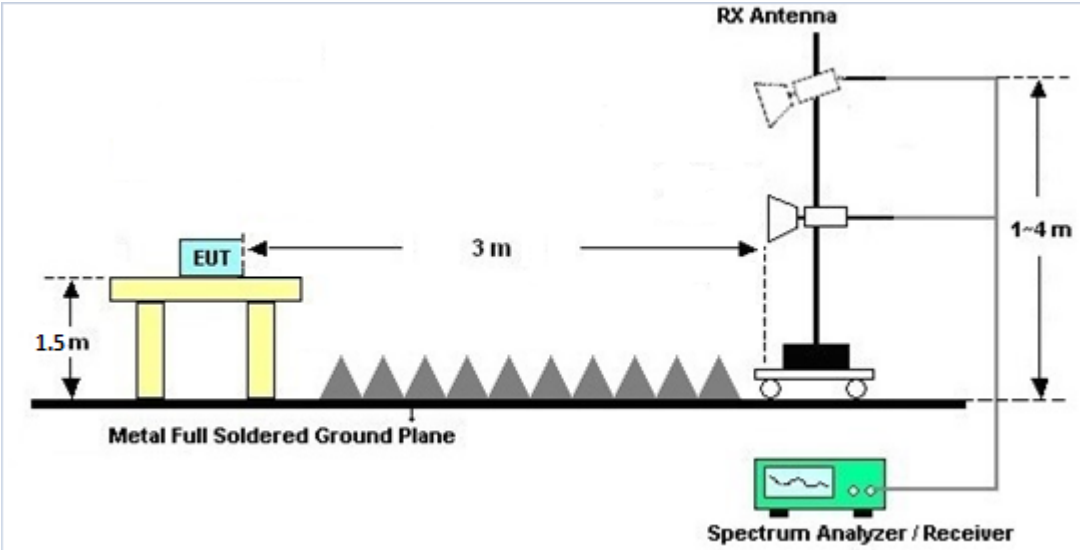
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated test above 1GHz



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

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

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

3.4.6 Test Result of Radiated Band Edges

Please refer to Appendix C and D.

3.4.7 Duty Cycle

Please refer to Appendix E.

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

Please refer to Appendix C and D.

3.5 AC Conducted Emission Measurement

3.5.1 Limit of AC Conducted Emission

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

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

*Decreases with the logarithm of the frequency.

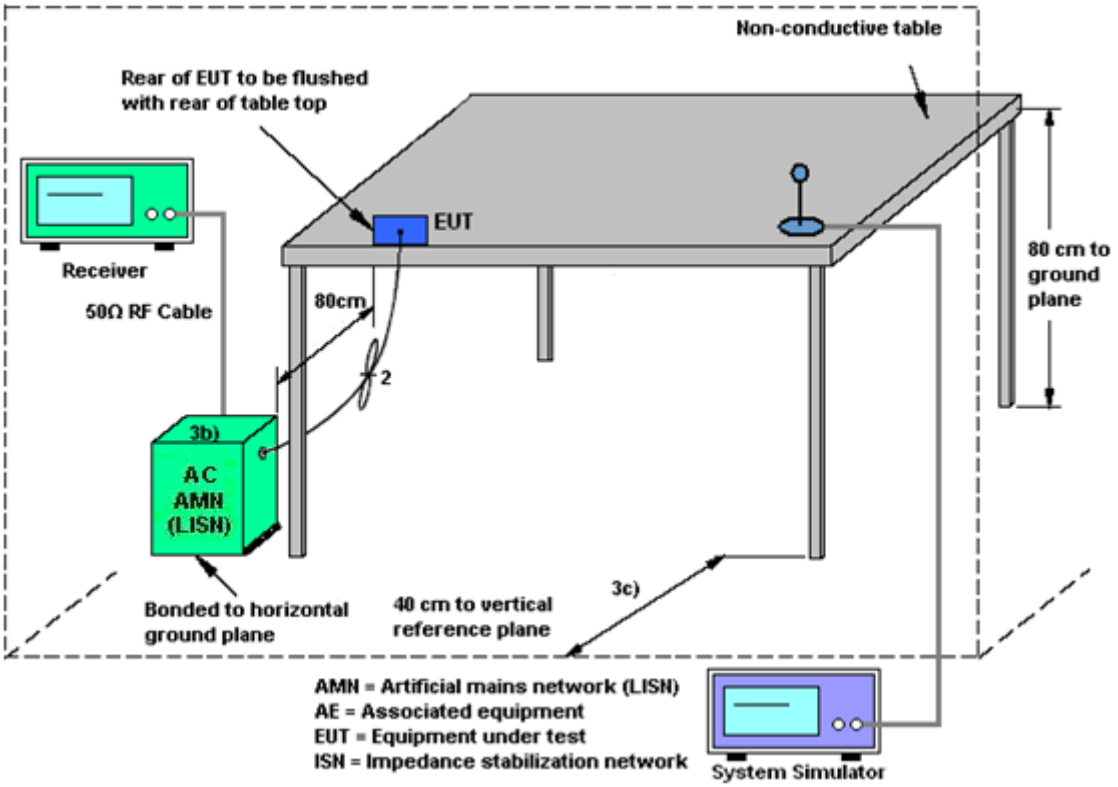
3.5.2 Measuring Instruments

See list of measuring equipment of this test report.

3.5.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN shall 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 Mode>

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

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

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

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

For power measurements on IEEE 802.11 devices,

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

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

The EUT supports CDD mode.

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

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

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

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

<CDD Modes>

	Ant. 1 (dBi)	Ant. 3 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
Band IV	1.58	1.58	1.58	4.59	0.00	0.00

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

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

TXBF mode

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

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

where

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

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

N_{ANT} = the total number of antennas

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

G_k is the gain in dBi of the kth antenna.

The EUT supports beamforming for 802.11ac modes.

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

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

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

	Ant 1 (dBi)	Ant 3 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
Band IV	1.58	1.58	6.11	6.11	0.11	0.11

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

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

4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Jul. 14, 2020	Feb. 04, 2021~ Feb. 27, 2021	Jul. 13, 2021	Radiation (03CH16-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00802N1D01 N-06	47020 & 06	30MHz to 1GHz	Oct. 11, 2020	Feb. 04, 2021~ Feb. 27, 2021	Oct. 10, 2021	Radiation (03CH16-HY)
Amplifier	SONOMA	310N	371607	9kHz~1G	Sep. 30, 2020	Feb. 04, 2021~ Feb. 27, 2021	Sep. 29, 2021	Radiation (03CH16-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-152 2	1G~18GHz	Sep. 29, 2020	Feb. 04, 2021~ Feb. 27, 2021	Sep. 28, 2021	Radiation (03CH16-HY)
Amplifier	EMCI	EMC051845S E	980729	1-18GHz	Jul. 10, 2020	Feb. 04, 2021~ Feb. 27, 2021	Jul. 09, 2021	Radiation (03CH16-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	BBHA9170 576	18GHz ~40GHz	May 22, 2020	Feb. 04, 2021~ Feb. 27, 2021	May 21, 2021	Radiation (03CH16-HY)
Preamplifier	Keysight	83017A	MY532702 64	1GHz~26.5GHz	Dec. 10, 2020	Feb. 04, 2021~ Feb. 27, 2021	Dec. 09, 2021	Radiation (03CH16-HY)
EMI Test Receiver	Keysight	N9038A	MY590530 12	3Hz~26.5GHz	Nov. 18, 2020	Feb. 04, 2021~ Feb. 27, 2021	Nov. 17, 2021	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY11680/ 4PE	NA	Aug. 29, 2020	Feb. 04, 2021~ Feb. 27, 2021	Aug. 28, 2021	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY11688/ 4PE	NA	Aug. 29, 2020	Feb. 04, 2021~ Feb. 27, 2021	Aug. 28, 2021	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	EC-A5-300 -5757	NA	Aug. 29, 2020	Feb. 04, 2021~ Feb. 27, 2021	Aug. 28, 2021	Radiation (03CH16-HY)
Software	Audix	E3 6.2009-8-24	RK-001136	N/A	N/A	Feb. 04, 2021~ Feb. 27, 2021	N/A	Radiation (03CH16-HY)
Controller	ChainTek	3000-1	N/A	Control Turn table & Ant Mast	N/A	Feb. 04, 2021~ Feb. 27, 2021	N/A	Radiation (03CH16-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Feb. 04, 2021~ Feb. 27, 2021	N/A	Radiation (03CH16-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Feb. 04, 2021~ Feb. 27, 2021	N/A	Radiation (03CH16-HY)

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Feb. 08, 2021	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Nov. 30, 2020	Feb. 08, 2021	Nov. 29, 2021	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Nov. 18, 2020	Feb. 08, 2021	Nov. 17, 2021	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Nov. 16, 2020	Feb. 08, 2021	Nov. 15, 2021	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Feb. 08, 2021	N/A	Conduction (CO05-HY)
LISN Cable	MVE	RG-400	260260	N/A	Dec. 31, 2020	Feb. 08, 2021	Dec. 30, 2021	Conduction (CO05-HY)
Pulse Limiter	SCHWARZBECK	ESHVTSD 9561-F N3-Z2	109561-FN003730851	9kHz-200MHz	Nov. 02, 2020	Feb. 08, 2021	Nov. 01, 2021	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913904	N/A	Jul. 27, 2020	Jan. 25, 2021~ Feb. 28, 2021	Jul. 26, 2021	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	16I00054SNO10	10MHz~6GHz	Dec. 09, 2020	Jan. 25, 2021~ Feb. 28, 2021	Dec. 08, 2021	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101566	10Hz ~ 40GHz	Jul. 22, 2020	Jan. 25, 2021~ Feb. 28, 2021	Jul. 21, 2021	Conducted (TH05-HY)
Switch Box & RF Cable	EM Electronics	EMSW18SE	SW200302	N/A	Mar. 17, 2020	Jan. 25, 2021~ Feb. 28, 2021	Mar. 16, 2021	Conducted (TH05-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.3

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.5

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	6.3

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

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

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Hank Hsu	Temperature:	21~25	°C
Test Date:	2021/1/25~2021/2/28	Relative Humidity:	51~54	%

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

Band IV single antenna												
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 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1		
11a	6Mbps	1	149	5745	36.36	-	54.85	-	16.33	-	0.5	Pass
11a	6Mbps	1	157	5785	36.16	-	56.49	-	16.33	-	0.5	Pass
11a	6Mbps	1	165	5825	36.21	-	56.04	-	16.33	-	0.5	Pass
HT20	MCS0	1	149	5745	38.01	-	57.39	-	17.58	-	0.5	Pass
HT20	MCS0	1	157	5785	38.06	-	57.44	-	17.53	-	0.5	Pass
HT20	MCS0	1	165	5825	37.81	-	58.64	-	17.53	-	0.5	Pass
HT40	MCS0	1	151	5755	52.45	-	87.93	-	34.98	-	0.5	Pass
HT40	MCS0	1	159	5795	72.63	-	104.84	-	36.23	-	0.5	Pass
VHT80	MCS0	1	155	5775	78.52	-	86.31	-	42.52	-	0.5	Pass

TEST RESULTS DATA
Average Power Table

Band IV single antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
					Ant 2	Ant 1	SUM	Ant 2	Ant 1	Ant 2	Ant 1	
11a	6Mbps	1	149	5745	22.30	-		30.00	-	1.58	-	Pass
11a	6Mbps	1	157	5785	22.00	-		30.00	-	1.58	-	Pass
11a	6Mbps	1	165	5825	22.00	-		30.00	-	1.58	-	Pass
HT20	MCS0	1	149	5745	22.30	-		30.00	-	1.58	-	Pass
HT20	MCS0	1	157	5785	22.00	-		30.00	-	1.58	-	Pass
HT20	MCS0	1	165	5825	22.00	-		30.00	-	1.58	-	Pass
HT40	MCS0	1	151	5755	21.20	-		30.00	-	1.58	-	Pass
HT40	MCS0	1	159	5795	22.00	-		30.00	-	1.58	-	Pass
VHT20	MCS0	1	149	5745	22.20	-		30.00	-	1.58	-	Pass
VHT20	MCS0	1	157	5785	21.90	-		30.00	-	1.58	-	Pass
VHT20	MCS0	1	165	5825	21.90	-		30.00	-	1.58	-	Pass
VHT40	MCS0	1	151	5755	21.10	-		30.00	-	1.58	-	Pass
VHT40	MCS0	1	159	5795	21.90	-		30.00	-	1.58	-	Pass
VHT80	MCS0	1	155	5775	18.10	-		30.00	-	1.58	-	Pass

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TEST RESULTS DATA
Power Spectral Density

Band IV single antenna														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	10log (500kHz /RBW) Factor (dB)		Average Power Density (dBm/500kHz)			Average PSD Limit (dBm/500kHz)		DG (dBi)		Pass /Fail
					Ant 2	Ant 1	Ant 2	Ant 1	SUM	Ant 2	Ant 1	Ant 2	Ant 1	
11a	6Mbps	1	149	5745	2.22	-	11.24	-		30.00	-	1.58	-	Pass
11a	6Mbps	1	157	5785	2.22	-	11.17	-		30.00	-	1.58	-	Pass
11a	6Mbps	1	165	5825	2.22	-	10.67	-		30.00	-	1.58	-	Pass
HT20	MCS0	1	149	5745	2.22	-	11.18	-		30.00	-	1.58	-	Pass
HT20	MCS0	1	157	5785	2.22	-	11.37	-		30.00	-	1.58	-	Pass
HT20	MCS0	1	165	5825	2.22	-	11.19	-		30.00	-	1.58	-	Pass
HT40	MCS0	1	151	5755	2.22	-	8.92	-		30.00	-	1.58	-	Pass
HT40	MCS0	1	159	5795	2.22	-	7.22	-		30.00	-	1.58	-	Pass
VHT80	MCS0	1	155	5775	2.22	-	8.17	-		30.00	-	1.58	-	Pass

<CDD Mode>

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

Band IV MIMO												
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 3	Ant 1	Ant 3	Ant 1	Ant 3		
11a	6Mbps	2	149	5745	16.43	16.43	21.30	20.95	15.80	16.05	0.5	Pass
11a	6Mbps	2	157	5785	24.48	16.78	39.55	26.75	16.05	15.35	0.5	Pass
11a	6Mbps	2	165	5825	18.08	17.18	33.10	32.55	16.35	16.05	0.5	Pass

Report Number : FR111826D

TEST RESULTS DATA
Average Power Table

Band IV MIMO												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
					Ant 1	Ant 3	SUM	Ant 1	Ant 3	Ant 1	Ant 3	
11a	6Mbps	2	149	5745	22.90	22.90	25.91	30.00		1.58		Pass
11a	6Mbps	2	157	5785	26.20	25.10	28.70	30.00		1.58		Pass
11a	6Mbps	2	165	5825	25.80	25.70	28.76	30.00		1.58		Pass
HT20	MCS0	2	149	5745	24.40	24.50	27.46	30.00		1.58		Pass
HT20	MCS0	2	157	5785	25.90	24.50	28.27	30.00		1.58		Pass
HT20	MCS0	2	165	5825	25.20	25.30	28.26	30.00		1.58		Pass
HT40	MCS0	2	151	5755	24.80	24.20	27.52	30.00		1.58		Pass
HT40	MCS0	2	159	5795	24.00	22.90	26.50	30.00		1.58		Pass
VHT20	MCS0	2	149	5745	24.40	24.50	27.46	30.00		1.58		Pass
VHT20	MCS0	2	157	5785	25.90	24.50	28.27	30.00		1.58		Pass
VHT20	MCS0	2	165	5825	25.20	25.30	28.26	30.00		1.58		Pass
VHT40	MCS0	2	151	5755	24.80	24.20	27.52	30.00		1.58		Pass
VHT40	MCS0	2	159	5795	24.00	22.90	26.50	30.00		1.58		Pass
VHT80	MCS0	2	155	5775	21.80	20.50	24.21	30.00		1.58		Pass

Report Number : FR111826D

TEST RESULTS DATA
Power Spectral Density

Band IV MIMO															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	10log (500kHz /RBW) Factor (dB)		Average Power Density (dBm/500kHz)			Average PSD Limit (dBm/500kHz)		DG (dBi)		Pass /Fail
					Ant 1	Ant 3	Ant 1	Ant 3	SUM	Ant 1	Ant 3	Ant 1	Ant 3	
11a	6Mbps	2	149	5745	2.22		12.47	11.97	15.48	30.00		4.59		Pass
11a	6Mbps	2	157	5785	2.22		15.51	14.26	18.52	30.00		4.59		Pass
11a	6Mbps	2	165	5825	2.22		15.03	15.21	18.22	30.00		4.59		Pass

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

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

Band IV MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	99% Bandwidth (MHz)		26dB Bandwidth (MHz)		6 dB Bandwidth (MHz)		6 dB Bandwidth Min. Limit (MHz)	Pass/Fail
						Ant 1	Ant 3	Ant 1	Ant 3	Ant 1	Ant 3		
HE20	MCS0	2	149	5745	Full	18.98	18.98	24.15	25.45	18.30	16.50	0.5	Pass
HE20	MCS0	2	157	5785	Full	21.43	19.08	39.10	27.80	18.80	18.05	0.5	Pass
HE20	MCS0	2	165	5825	Full	19.23	19.13	32.00	29.45	17.90	18.30	0.5	Pass
HE40	MCS0	2	151	5755	Full	38.16	38.16	48.96	42.84	37.80	37.44	0.5	Pass
HE40	MCS0	2	159	5795	Full	38.16	37.96	49.14	42.12	37.80	37.71	0.5	Pass
HE80	MCS0	2	155	5775	Full	77.80	77.92	82.72	82.72	76.64	76.00	0.5	Pass

TEST RESULTS DATA
Average Power Table

Band IV MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
						Ant 1	Ant 3	SUM	Ant 1	Ant 3	Ant 1	Ant 3	
HE20	MCS0	2	149	5745	Full	24.50	24.60	27.56	30.00		1.58		Pass
HE20	MCS0	2	157	5785	Full	26.00	24.60	28.37	30.00		1.58		Pass
HE20	MCS0	2	165	5825	Full	25.30	25.40	28.36	30.00		1.58		Pass
HE40	MCS0	2	151	5755	Full	24.90	24.30	27.62	30.00		1.58		Pass
HE40	MCS0	2	159	5795	Full	24.10	23.00	26.60	30.00		1.58		Pass
HE80	MCS0	2	155	5775	Full	21.90	20.60	24.31	30.00		1.58		Pass

Report Number : FR111826D

TEST RESULTS DATA
Power Spectral Density

Band IV MIMO																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	10log (500kHz /RBW) Factor (dB)		Average Power Density (dBm/500kHz)			Average PSD Limit (dBm/500kHz)		DG (dBi)		Pass /Fail
						Ant 1	Ant 3	Ant 1	Ant 3	SUM	Ant 1	Ant 3	Ant 1	Ant 3	
HE20	MCS0	2	149	5745	Full	2.22		14.05	13.82	17.06	30.00		4.59		Pass
HE20	MCS0	2	157	5785	Full	2.22		15.58	13.91	18.59	30.00		4.59		Pass
HE20	MCS0	2	165	5825	Full	2.22		14.34	14.77	17.78	30.00		4.59		Pass
HE40	MCS0	2	151	5755	Full	2.22		10.30	10.15	13.31	30.00		4.59		Pass
HE40	MCS0	2	159	5795	Full	2.22		9.23	8.73	12.24	30.00		4.59		Pass
HE80	MCS0	2	155	5775	Full	2.22		5.44	3.91	8.45	30.00		4.59		Pass

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

Report Number : FR111826D

<TXBF Mode>

TEST RESULTS DATA
Average Power Table

Band IV MIMO												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
					Ant 1	Ant 3	SUM	Ant 1	Ant 3	Ant 1	Ant 3	
VHT20	MCS0	2	149	5745	24.30	24.40	27.36	30.00		4.59		Pass
VHT20	MCS0	2	157	5785	25.80	24.40	28.17	30.00		4.59		Pass
VHT20	MCS0	2	165	5825	25.10	25.20	28.16	30.00		4.59		Pass
VHT40	MCS0	2	151	5755	24.70	24.10	27.42	30.00		4.59		Pass
VHT40	MCS0	2	159	5795	23.90	22.80	26.40	30.00		4.59		Pass
VHT80	MCS0	2	155	5775	21.70	20.40	24.11	30.00		4.59		Pass

TEST RESULTS DATA
Average Power Table

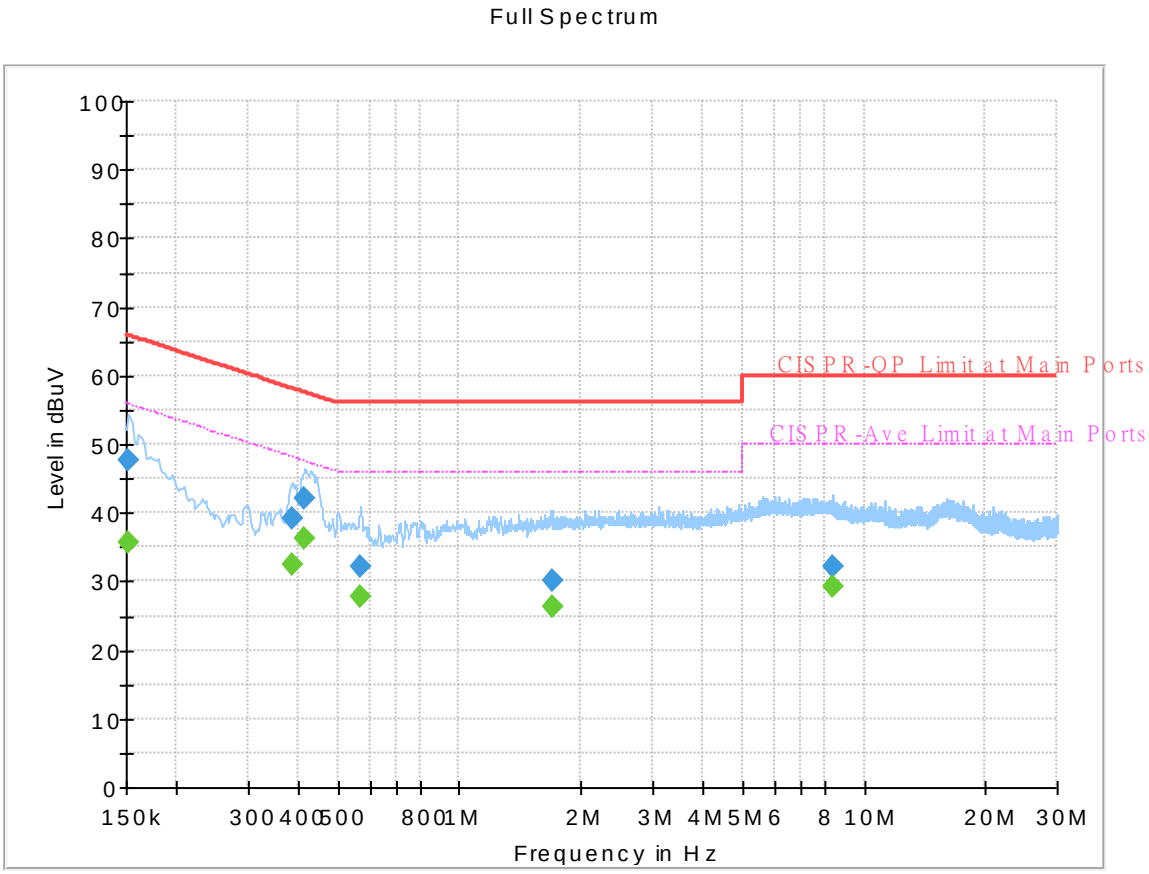
Band IV MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
						Ant 1	Ant 3	SUM	Ant 1	Ant 3	Ant 1	Ant 3	
HE20	MCS0	2	149	5745	Full	24.40	24.50	27.46	30.00		4.59		Pass
HE20	MCS0	2	157	5785	Full	25.90	24.50	28.27	30.00		4.59		Pass
HE20	MCS0	2	165	5825	Full	25.20	25.30	28.26	30.00		4.59		Pass
HE40	MCS0	2	151	5755	Full	24.80	24.20	27.52	30.00		4.59		Pass
HE40	MCS0	2	159	5795	Full	24.00	22.90	26.50	30.00		4.59		Pass
HE80	MCS0	2	155	5775	Full	21.80	20.50	24.21	30.00		4.59		Pass

Appendix B. AC Conducted Emission Test Results

Test Engineer :	Tom Lee	**Temperature :**	23~26℃
		Relative Humidity :	40~50%

EUT Information

Report NO :	111826
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line

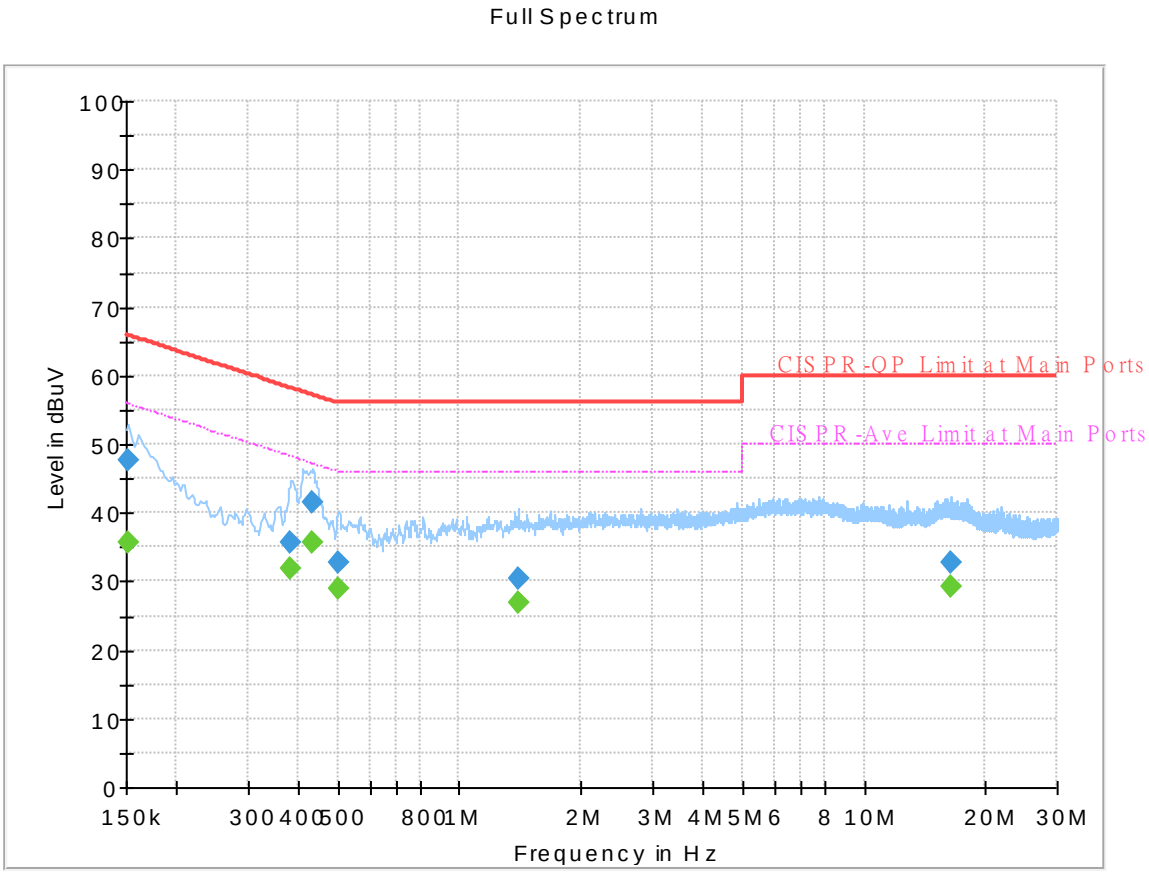


Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	35.59	55.88	20.29	L1	OFF	19.7
0.152250	47.73	---	65.88	18.15	L1	OFF	19.7
0.388230	---	32.44	48.10	15.66	L1	OFF	19.7
0.388230	39.28	---	58.10	18.82	L1	OFF	19.7
0.415410	---	36.35	47.54	11.19	L1	OFF	19.8
0.415410	42.03	---	57.54	15.51	L1	OFF	19.8
0.566970	---	27.83	46.00	18.17	L1	OFF	19.9
0.566970	32.05	---	56.00	23.95	L1	OFF	19.9
1.695660	---	26.33	46.00	19.67	L1	OFF	20.2
1.695660	30.01	---	56.00	25.99	L1	OFF	20.2
8.391750	---	29.17	50.00	20.83	L1	OFF	20.2
8.391750	32.30	---	60.00	27.70	L1	OFF	20.2

EUT Information

Report NO :	111826
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Neutral



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	35.56	55.88	20.32	N	OFF	19.7
0.152250	47.59	---	65.88	18.29	N	OFF	19.7
0.382650	---	31.82	48.22	16.40	N	OFF	19.8
0.382650	35.72	---	58.22	22.50	N	OFF	19.8
0.433500	---	35.65	47.19	11.54	N	OFF	19.8
0.433500	41.42	---	57.19	15.77	N	OFF	19.8
0.501900	---	29.08	46.00	16.92	N	OFF	19.9
0.501900	32.76	---	56.00	23.24	N	OFF	19.9
1.396770	---	26.82	46.00	19.18	N	OFF	20.3
1.396770	30.51	---	56.00	25.49	N	OFF	20.3
16.362330	---	29.18	50.00	20.82	N	OFF	20.5
16.362330	32.62	---	60.00	27.38	N	OFF	20.5

Appendix C. Radiated Spurious Emission

Test Engineer :	Karl Hou, Caster Liao and Andy Yang	Temperature :	20~25°C
		Relative Humidity :	50~60%

Band 4 - 5725~5850MHz

WIFI 802.11a (Band Edge @ 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+3		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 149 5745MHz		5601.4	52.99	-15.21	68.2	37.42	31.7	13.64	29.77	222	62	P	H
		5699.4	53.73	-51.03	104.76	38.11	31.7	13.73	29.81	222	62	P	H
		5718.8	67.11	-43.35	110.46	51.36	31.81	13.75	29.81	222	62	P	H
		5723	71.07	-46.57	117.64	55.29	31.84	13.75	29.81	222	62	P	H
	*	5745	113.13	-	-	97.21	31.97	13.77	29.82	222	62	P	H
	*	5745	105.85	-	-	89.93	31.97	13.77	29.82	222	62	A	H
													H
													H
		5614.4	55.76	-12.44	68.2	40.21	31.67	13.65	29.77	395	288	P	V
		5653.8	54.26	-16.76	71.02	38.75	31.61	13.69	29.79	395	288	P	V
		5717.8	71.82	-38.36	110.18	56.07	31.81	13.75	29.81	395	288	P	V
		5723.8	74.96	-44.5	119.46	59.19	31.84	13.75	29.82	395	288	P	V
	*	5745	119.49	-	-	103.57	31.97	13.77	29.82	395	288	P	V
	*	5745	111.82	-	-	95.9	31.97	13.77	29.82	395	288	A	V
													V
													V

WIFI Ant. 1+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 157 5785MHz		5635	55.27	-12.93	68.2	39.75	31.63	13.67	29.78	229	64	P	H
		5699.4	58.66	-46.1	104.76	43.04	31.7	13.73	29.81	229	64	P	H
		5719.4	67.22	-43.41	110.63	51.46	31.82	13.75	29.81	229	64	P	H
		5723.8	71.7	-47.76	119.46	55.93	31.84	13.75	29.82	229	64	P	H
	*	5785	115.51	-	-	99.54	32	13.81	29.84	229	64	P	H
	*	5785	107.47	-	-	91.5	32	13.81	29.84	229	64	A	H
		5850	60.63	-61.57	122.2	44.58	32.1	13.81	29.86	229	64	P	H
		5855.4	59.03	-51.66	110.69	42.98	32.11	13.81	29.87	229	64	P	H
		5909.2	56.99	-22.87	79.86	40.85	32.22	13.81	29.89	229	64	P	H
		5947.4	55.35	-12.85	68.2	39.15	32.29	13.81	29.9	229	64	P	H
													H
													H
		5647.4	57.33	-10.87	68.2	41.83	31.61	13.68	29.79	366	260	P	V
		5689.6	59.14	-38.39	97.53	43.54	31.68	13.72	29.8	366	260	P	V
		5719.4	68.27	-42.36	110.63	52.51	31.82	13.75	29.81	366	260	P	V
		5722	72.74	-42.62	115.36	56.97	31.83	13.75	29.81	366	260	P	V
	*	5785	121.4	-	-	105.43	32	13.81	29.84	366	260	P	V
	*	5785	113.35	-	-	97.38	32	13.81	29.84	366	260	A	V
		5850.6	63.94	-56.89	120.83	47.89	32.1	13.81	29.86	366	260	P	V
		5860.6	61.59	-47.64	109.23	45.53	32.12	13.81	29.87	366	260	P	V
		5890	60.7	-33.37	94.07	44.59	32.18	13.81	29.88	366	260	P	V
		5927.2	57.5	-10.7	68.2	41.33	32.25	13.81	29.89	366	260	P	V
													V
													V

WIFI Ant. 1+3	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)
	*	5825	113.81	-	-	97.79	32.05	13.82	29.85	226	65	P	H
	*	5825	106.12	-	-	90.1	32.05	13.82	29.85	226	65	A	H
		5850.2	82.86	-38.88	121.74	66.81	32.1	13.81	29.86	226	65	P	H
		5855.4	78.8	-31.89	110.69	62.75	32.11	13.81	29.87	226	65	P	H
		5875.4	66.24	-38.66	104.9	50.15	32.15	13.81	29.87	226	65	P	H
		5935.8	56.24	-11.96	68.2	40.06	32.27	13.81	29.9	226	65	P	H
													H
802.11a													H
CH 165	*	5825	120.67	-	-	104.65	32.05	13.82	29.85	384	291	P	V
5825MHz	*	5825	113.4	-	-	97.38	32.05	13.82	29.85	384	291	A	V
		5852.6	88.44	-27.83	116.27	72.38	32.11	13.81	29.86	384	291	P	V
		5857.4	83.3	-26.83	110.13	67.25	32.11	13.81	29.87	384	291	P	V
		5883.4	73.2	-25.76	98.96	57.1	32.17	13.81	29.88	384	291	P	V
		5928.8	64.03	-4.17	68.2	47.85	32.26	13.81	29.89	384	291	P	V
													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 802.11a (Harmonic @ 3m)

WIFI Ant. 1+3	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 149 5745MHz		11490	59.96	-14.04	74	55.45	39.91	20.11	55.51	100	338	P	H
		11490	50.6	-3.4	54	46.09	39.91	20.11	55.51	100	338	A	H
		17235	50.01	-18.19	68.2	40.68	40.9	25.16	56.73	100	0	P	H
													H
		11490	62.96	-11.04	74	58.45	39.91	20.11	55.51	100	353	P	V
		11490	53.24	-0.76	54	48.73	39.91	20.11	55.51	100	353	A	V
		17235	55.73	-12.47	68.2	46.4	40.9	25.16	56.73	100	0	P	V
													V
802.11a CH 157 5785MHz		11570	61.48	-12.52	74	56.98	39.76	20.18	55.44	112	90	P	H
		11570	52.89	-1.11	54	48.39	39.76	20.18	55.44	112	90	A	H
		17355	54.84	-13.36	68.2	44.93	41.6	25.21	56.9	100	0	P	H
													H
		11570	62.35	-11.65	74	57.85	39.76	20.18	55.44	100	309	P	V
		11570	52.9	-1.1	54	48.4	39.76	20.18	55.44	100	309	A	V
		17355	53.58	-14.62	68.2	43.67	41.6	25.21	56.9	100	0	P	V
													V
802.11a CH 165 5825MHz		11650	56.68	-17.32	74	52.28	39.55	20.23	55.38	100	66	P	H
		11650	47.48	-6.52	54	43.08	39.55	20.23	55.38	100	66	A	H
		17475	57.08	-11.12	68.2	46.44	42.45	25.25	57.06	100	0	P	H
													H
		11650	56.56	-17.44	74	52.16	39.55	20.23	55.38	100	308	P	V
		11650	47.22	-6.78	54	42.82	39.55	20.23	55.38	100	308	A	V
		17475	57.46	-10.74	68.2	46.82	42.45	25.25	57.06	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 4 5725~5850MHz

WIFI 802.11ax HE20_Full (Band Edge @ 3m)

WIFI Ant. 1+3	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)
		5620.4	53.88	-14.32	68.2	38.34	31.66	13.66	29.78	233	63	P	H
		5699.2	59.91	-44.7	104.61	44.29	31.7	13.73	29.81	233	63	P	H
		5714.6	73.79	-35.5	109.29	58.07	31.79	13.74	29.81	233	63	P	H
		5724	81.28	-38.64	119.92	65.51	31.84	13.75	29.82	233	63	P	H
	*	5745	117.34	-	-	101.42	31.97	13.77	29.82	233	63	P	H
	*	5745	107.54	-	-	91.62	31.97	13.77	29.82	233	63	A	H
													H
													H
													H
													H
802.11ax													H
HE20 Full													H
CH 149		5644.8	56.51	-11.69	68.2	41.01	31.61	13.68	29.79	396	288	P	V
5745MHz		5700	61	-44.2	105.2	45.38	31.7	13.73	29.81	396	288	P	V
		5720	81.83	-28.97	110.8	66.07	31.82	13.75	29.81	396	288	P	V
		5723.4	83.82	-34.73	118.55	68.04	31.84	13.75	29.81	396	288	P	V
	*	5745	123.58	-	-	107.66	31.97	13.77	29.82	396	288	P	V
	*	5745	113.81	-	-	97.89	31.97	13.77	29.82	396	288	A	V
													V
													V
													V
													V
													V
													V

WIFI Ant. 1+3	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)
		5601.4	55.06	-13.14	68.2	39.49	31.7	13.64	29.77	217	61	P	H
		5699.8	61.2	-43.85	105.05	45.58	31.7	13.73	29.81	217	61	P	H
		5718.4	67.88	-42.47	110.35	52.13	31.81	13.75	29.81	217	61	P	H
		5720.8	68.8	-43.82	112.62	53.04	31.82	13.75	29.81	217	61	P	H
	*	5785	117.52	-	-	101.55	32	13.81	29.84	217	61	P	H
	*	5785	108.05	-	-	92.08	32	13.81	29.84	217	61	A	H
		5850	61.14	-61.06	122.2	45.09	32.1	13.81	29.86	217	61	P	H
		5857.4	59.17	-50.96	110.13	43.12	32.11	13.81	29.87	217	61	P	H
		5887.4	56.95	-39.04	95.99	40.85	32.17	13.81	29.88	217	61	P	H
		5928.2	56.07	-12.13	68.2	39.89	32.26	13.81	29.89	217	61	P	H
802.11ax													H
HE20 Full													H
CH 157		5642.2	58.71	-9.49	68.2	43.19	31.62	13.68	29.78	384	249	P	V
5785MHz		5696	62.4	-39.85	102.25	46.78	31.69	13.73	29.8	384	249	P	V
		5708.6	68.19	-39.42	107.61	52.51	31.75	13.74	29.81	384	249	P	V
		5720.2	69.49	-41.77	111.26	53.73	31.82	13.75	29.81	384	249	P	V
	*	5785	123.21	-	-	107.24	32	13.81	29.84	384	249	P	V
	*	5785	113.72	-	-	97.75	32	13.81	29.84	384	249	A	V
		5853	68.09	-47.27	115.36	52.03	32.11	13.81	29.86	384	249	P	V
		5855	65.41	-45.39	110.8	49.35	32.11	13.81	29.86	384	249	P	V
		5889.8	62.24	-31.98	94.22	46.13	32.18	13.81	29.88	384	249	P	V
		5928.4	58.07	-10.13	68.2	41.89	32.26	13.81	29.89	384	249	P	V
													V
													V

WIFI Ant. 1+3	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)
	*	5825	114.98	-	-	98.96	32.05	13.82	29.85	225	64	P	H
	*	5825	106.31	-	-	90.29	32.05	13.82	29.85	225	64	A	H
		5852	86.91	-30.73	117.64	70.86	32.1	13.81	29.86	225	64	P	H
		5855	80.36	-30.44	110.8	64.3	32.11	13.81	29.86	225	64	P	H
		5875	66.7	-38.5	105.2	50.61	32.15	13.81	29.87	225	64	P	H
		5948.2	56.25	-11.95	68.2	40.04	32.3	13.81	29.9	225	64	P	H
													H
													H
													H
													H
802.11ax													H
HE20 Full													H
CH 165	*	5825	122.51	-	-	106.49	32.05	13.82	29.85	382	291	P	V
5825MHz	*	5825	113.2	-	-	97.18	32.05	13.82	29.85	382	291	A	V
		5850	94.07	-28.13	122.2	78.02	32.1	13.81	29.86	382	291	P	V
		5855.4	84.75	-25.94	110.69	68.7	32.11	13.81	29.87	382	291	P	V
		5881	73.22	-27.52	100.74	57.12	32.16	13.81	29.87	382	291	P	V
		5934	63.84	-4.36	68.2	47.65	32.27	13.81	29.89	382	291	P	V
													V
													V
													V
													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 802.11ax HE20_Full (Harmonic @ 3m)

WIFI Ant. 1+3	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)
802.11ax HE20 Full CH 149 5745MHz		11490	59.06	-14.94	74	54.55	39.91	20.11	55.51	100	339	P	H
		11490	50.39	-3.61	54	45.88	39.91	20.11	55.51	100	339	A	H
		17235	53.92	-14.28	68.2	44.59	40.9	25.16	56.73	100	0	P	H
													H
		11490	62.86	-11.14	74	58.35	39.91	20.11	55.51	297	335	P	V
		11490	53.59	-0.41	54	49.08	39.91	20.11	55.51	297	335	A	V
		17235	55.17	-13.03	68.2	45.84	40.9	25.16	56.73	100	0	P	V
													V
802.11ax HE20 Full CH 157 5785MHz		11570	62.31	-11.69	74	57.81	39.76	20.18	55.44	249	6	P	H
		11570	51.3	-2.7	54	46.8	39.76	20.18	55.44	249	6	A	H
		17355	54.5	-13.7	68.2	44.59	41.6	25.21	56.9	100	0	P	H
													H
		11570	62.26	-11.74	74	57.76	39.76	20.18	55.44	250	13	P	V
		11570	52.82	-1.18	54	48.32	39.76	20.18	55.44	250	13	A	V
		17355	54.02	-14.18	68.2	44.11	41.6	25.21	56.9	100	0	P	V
													V
802.11ax HE20 Full CH 165 5825MHz		11650	57.07	-16.93	74	52.67	39.55	20.23	55.38	100	85	P	H
		11650	47.01	-6.99	54	42.61	39.55	20.23	55.38	100	85	A	H
		17475	57.96	-10.24	68.2	47.32	42.45	25.25	57.06	100	0	P	H
													H
		11650	56.72	-17.28	74	52.32	39.55	20.23	55.38	100	309	P	V
		11650	46.79	-7.21	54	42.39	39.55	20.23	55.38	100	309	A	V
		17475	57.32	-10.88	68.2	46.68	42.45	25.25	57.06	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 4 5725~5850MHz

WIFI 802.11ax HE40_Full (Band Edge @ 3m)

WIFI Ant. 1+3	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)
		5640.2	58	-10.2	68.2	42.48	31.62	13.68	29.78	394	26	P	H
		5694.2	71.52	-29.4	100.92	55.91	31.69	13.72	29.8	394	26	P	H
		5713.6	83.95	-25.06	109.01	68.24	31.78	13.74	29.81	394	26	P	H
		5724.4	87.71	-33.12	120.83	71.93	31.85	13.75	29.82	394	26	P	H
	*	5755	116.2	-	-	100.25	32	13.78	29.83	394	26	P	H
	*	5755	105.26	-	-	89.31	32	13.78	29.83	394	26	A	H
		5851.2	61.53	-57.93	119.46	45.48	32.1	13.81	29.86	394	26	P	H
		5858.2	59.28	-50.62	109.9	43.22	32.12	13.81	29.87	394	26	P	H
		5878	56.69	-46.28	102.97	40.59	32.16	13.81	29.87	394	26	P	H
		5937.8	56.17	-12.03	68.2	39.98	32.28	13.81	29.9	394	26	P	H
802.11ax													H
HE40 Full													H
CH 151		5643.8	63.56	-4.64	68.2	48.05	31.61	13.68	29.78	395	286	P	V
5755MHz		5692	75.41	-23.89	99.3	59.81	31.68	13.72	29.8	395	286	P	V
		5719.8	91.31	-19.43	110.74	75.55	31.82	13.75	29.81	395	286	P	V
		5724	92.66	-27.26	119.92	76.89	31.84	13.75	29.82	395	286	P	V
	*	5755	120.4	-	-	104.45	32	13.78	29.83	395	286	P	V
	*	5755	111.21	-	-	95.26	32	13.78	29.83	395	286	A	V
		5851	63.94	-55.98	119.92	47.89	32.1	13.81	29.86	395	286	P	V
		5869.4	63.23	-43.54	106.77	47.15	32.14	13.81	29.87	395	286	P	V
		5879.2	59.38	-42.7	102.08	43.28	32.16	13.81	29.87	395	286	P	V
		5945.6	56.2	-12	68.2	40	32.29	13.81	29.9	395	286	P	V
													V
													V

WIFI Ant. 1+3	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)
		5647.2	56.67	-11.53	68.2	41.17	31.61	13.68	29.79	384	30	P	H
		5695.4	63.52	-38.29	101.81	47.9	31.69	13.73	29.8	384	30	P	H
		5717	69.1	-40.86	109.96	53.36	31.8	13.75	29.81	384	30	P	H
		5724.8	67.83	-53.91	121.74	52.05	31.85	13.75	29.82	384	30	P	H
	*	5795	112.3	-	-	96.32	32	13.82	29.84	384	30	P	H
	*	5795	103.06	-	-	87.08	32	13.82	29.84	384	30	A	H
		5850.4	68.18	-53.11	121.29	52.13	32.1	13.81	29.86	384	30	P	H
		5862.2	65.43	-43.35	108.78	49.37	32.12	13.81	29.87	384	30	P	H
		5882.2	62.8	-37.05	99.85	46.71	32.16	13.81	29.88	384	30	P	H
		5925.4	56.8	-11.4	68.2	40.63	32.25	13.81	29.89	384	30	P	H
802.11ax													H
HE40 Full													H
CH 159		5641.2	65.51	-2.69	68.2	49.99	31.62	13.68	29.78	393	285	P	V
5795MHz		5686.4	66.24	-28.93	95.17	50.65	31.67	13.72	29.8	393	285	P	V
		5704.6	67.94	-38.55	106.49	52.29	31.73	13.73	29.81	393	285	P	V
		5724.8	70.32	-51.42	121.74	54.54	31.85	13.75	29.82	393	285	P	V
	*	5795	117.95	-	-	101.97	32	13.82	29.84	393	285	P	V
	*	5795	108.98	-	-	93	32	13.82	29.84	393	285	A	V
		5854.6	71.52	-40.19	111.71	55.46	32.11	13.81	29.86	393	285	P	V
		5858.6	70.31	-39.48	109.79	54.25	32.12	13.81	29.87	393	285	P	V
		5895.2	68.09	-22.12	90.21	51.97	32.19	13.81	29.88	393	285	P	V
		5926.8	61.92	-6.28	68.2	45.75	32.25	13.81	29.89	393	285	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 802.11ax HE40_Full (Harmonic @ 3m)

WIFI Ant. 1+3	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)
802.11ax HE40 Full CH 151 5755MHz		11510	58.08	-15.92	74	53.56	39.88	20.13	55.49	230	5	P	H
		11510	48.07	-5.93	54	43.55	39.88	20.13	55.49	230	5	A	H
		17265	52.32	-15.88	68.2	42.93	40.99	25.17	56.77	100	0	P	H
													H
		11510	59.46	-14.54	74	54.94	39.88	20.13	55.49	251	9	P	V
		11510	49.14	-4.86	54	44.62	39.88	20.13	55.49	251	9	A	V
		17265	54.98	-13.22	68.2	45.59	40.99	25.17	56.77	100	0	P	V
													V
802.11ax HE40 Full CH 159 5795MHz		11590	57.5	-16.5	74	53.02	39.72	20.19	55.43	230	5	P	H
		11590	47.69	-6.31	54	43.21	39.72	20.19	55.43	230	5	A	H
		17385	52.56	-15.64	68.2	42.42	41.86	25.22	56.94	100	0	P	H
													H
		11590	57.58	-16.42	74	53.1	39.72	20.19	55.43	296	9	P	V
		11590	48.27	-5.73	54	43.79	39.72	20.19	55.43	296	9	A	V
		17385	53.27	-14.93	68.2	43.13	41.86	25.22	56.94	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 4 5725~5850MHz

WIFI 802.11ax HE80_Full (Band Edge @ 3m)

WIFI Ant. 1+3	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)
		5649.4	60.51	-7.69	68.2	45.02	31.6	13.68	29.79	393	27	P	H
		5698.8	64.84	-39.48	104.32	49.22	31.7	13.73	29.81	393	27	P	H
		5717	69.12	-40.84	109.96	53.38	31.8	13.75	29.81	393	27	P	H
		5721.4	69.67	-44.32	113.99	53.9	31.83	13.75	29.81	393	27	P	H
	*	5775	109.07	-	-	93.1	32	13.8	29.83	393	27	P	H
	*	5775	99.13	-	-	83.16	32	13.8	29.83	393	27	A	H
		5850	66.19	-56.01	122.2	50.14	32.1	13.81	29.86	393	27	P	H
		5856	66.47	-44.05	110.52	50.42	32.11	13.81	29.87	393	27	P	H
		5878.2	61.35	-41.47	102.82	45.25	32.16	13.81	29.87	393	27	P	H
		5925.4	54.71	-13.49	68.2	38.54	32.25	13.81	29.89	393	27	P	H
802.11ax													H
HE80 Full													H
CH 155		5649.6	67.28	-0.92	68.2	51.79	31.6	13.68	29.79	393	285	P	V
5775MHz		5699.8	71.39	-33.66	105.05	55.77	31.7	13.73	29.81	393	285	P	V
		5719.2	73.27	-37.31	110.58	57.51	31.82	13.75	29.81	393	285	P	V
		5720.2	71.21	-40.05	111.26	55.45	31.82	13.75	29.81	393	285	P	V
	*	5775	114.25	-	-	98.28	32	13.8	29.83	393	285	P	V
	*	5775	104.9	-	-	88.93	32	13.8	29.83	393	285	A	V
		5850.8	66.6	-53.78	120.38	50.55	32.1	13.81	29.86	393	285	P	V
		5859.4	68.26	-41.31	109.57	52.2	32.12	13.81	29.87	393	285	P	V
		5889.8	66.18	-28.04	94.22	50.07	32.18	13.81	29.88	393	285	P	V
		5931.2	57.91	-10.29	68.2	41.73	32.26	13.81	29.89	393	285	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 802.11ax HE80_Full (Harmonic @ 3m)

WIFI Ant. 1+3	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)
802.11ax HE80 Full CH 155 5775MHz		11550	52.49	-21.51	74	47.99	39.8	20.16	55.46	102	349	P	H
		11550	43.52	-10.48	54	39.02	39.8	20.16	55.46	102	349	A	H
		17325	50.57	-17.63	68.2	40.9	41.32	25.2	56.85	100	0	P	H
													H
		11550	54.49	-19.51	74	49.99	39.8	20.16	55.46	100	308	P	V
		11550	44.74	-9.26	54	40.24	39.8	20.16	55.46	100	308	A	V
		17325	49.3	-18.9	68.2	39.63	41.32	25.2	56.85	100	0	P	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

WIFI 802.11ax HE20 Full (LF @ 3m)

WIFI Ant. 1+3	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)
802.11ax HE20 Full LF		268.62	37.42	-8.58	46	47.93	19.39	2.76	32.66	-	-	P	H
		500.45	37.88	-8.12	46	42.6	24.16	3.78	32.66	-	-	P	H
		531.49	37.78	-8.22	46	42.33	24.19	3.92	32.66	-	-	P	H
		712.88	38.93	-7.07	46	39.88	26.89	4.62	32.46	-	-	P	H
		722.58	39.05	-6.95	46	39.53	27.38	4.64	32.5	-	-	P	H
		835.1	35.01	-10.99	46	33.84	28.85	5.03	32.71	100	338	Q	H
													H
													H
													H
													H
													H
													H
		59.1	31.3	-8.7	40	51.06	11.93	1.11	32.8	-	-	P	V
		95.96	34.18	-9.32	43.5	49.81	15.49	1.5	32.62	-	-	P	V
		499.48	40.85	-5.15	46	45.58	24.15	3.78	32.66	112	256	Q	V
		716.76	37.96	-8.04	46	38.77	27.05	4.62	32.48	-	-	P	V
		835.1	39.11	-6.89	46	37.94	28.85	5.03	32.71	-	-	P	V
		892.33	36.97	-9.03	46	35.06	29.09	5.27	32.45	-	-	P	V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Band 4 - 5725~5850MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 149 5745MHz		5648.8	54.48	-13.72	68.2	38.99	31.6	13.68	29.79	250	306	P	H
		5699.8	66.41	-38.64	105.05	50.79	31.7	13.73	29.81	250	306	P	H
		5718.6	81.07	-29.34	110.41	65.32	31.81	13.75	29.81	250	306	P	H
		5723.8	88.16	-31.3	119.46	72.39	31.84	13.75	29.82	250	306	P	H
	*	5745	107.42	-	-	91.5	31.97	13.77	29.82	250	306	P	H
	*	5745	98.68	-	-	82.76	31.97	13.77	29.82	250	306	A	H
													H
													H
		5628.6	60.21	-7.99	68.2	44.68	31.64	13.67	29.78	394	244	P	V
		5698.6	73.21	-30.96	104.17	57.59	31.7	13.73	29.81	394	244	P	V
		5718	89.78	-20.46	110.24	74.03	31.81	13.75	29.81	394	244	P	V
		5725	95.86	-26.34	122.2	80.08	31.85	13.75	29.82	394	244	P	V
	*	5745	115.79	-	-	99.87	31.97	13.77	29.82	394	244	P	V
	*	5745	106.91	-	-	90.99	31.97	13.77	29.82	394	244	A	V
													V
													V

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 157 5785MHz		5614.4	55.96	-12.24	68.2	40.41	31.67	13.65	29.77	243	356	P	H
		5698.6	57.21	-46.96	104.17	41.59	31.7	13.73	29.81	243	356	P	H
		5719.6	62.56	-48.13	110.69	46.8	31.82	13.75	29.81	243	356	P	H
		5720.8	62.96	-49.66	112.62	47.2	31.82	13.75	29.81	243	356	P	H
	*	5785	107.98	-	-	92.01	32	13.81	29.84	243	356	P	H
	*	5785	98.8	-	-	82.83	32	13.81	29.84	243	356	A	H
		5853.8	60.59	-52.95	113.54	44.53	32.11	13.81	29.86	243	356	P	H
		5856.6	58.54	-51.81	110.35	42.49	32.11	13.81	29.87	243	356	P	H
		5886.2	56.31	-40.57	96.88	40.21	32.17	13.81	29.88	243	356	P	H
		5930.4	55.21	-12.99	68.2	39.03	32.26	13.81	29.89	243	356	P	H
													H
													H
		5629.2	61.25	-6.95	68.2	45.72	31.64	13.67	29.78	393	247	P	V
		5651.4	59.73	-9.51	69.24	44.23	31.6	13.69	29.79	393	247	P	V
		5714.8	64.97	-44.38	109.35	49.25	31.79	13.74	29.81	393	247	P	V
		5723.4	67.35	-51.2	118.55	51.57	31.84	13.75	29.81	393	247	P	V
	*	5785	115.25	-	-	99.28	32	13.81	29.84	393	247	P	V
	*	5785	106.52	-	-	90.55	32	13.81	29.84	393	247	A	V
		5852.8	63.64	-52.18	115.82	47.58	32.11	13.81	29.86	393	247	P	V
		5857	62.48	-47.76	110.24	46.43	32.11	13.81	29.87	393	247	P	V
		5880.2	60.42	-40.92	101.34	44.32	32.16	13.81	29.87	393	247	P	V
		5927.2	55.86	-12.34	68.2	39.69	32.25	13.81	29.89	393	247	P	V
													V
													V

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
	*	5825	102.23	-	-	86.21	32.05	13.82	29.85	252	357	P	H
	*	5825	94.73	-	-	78.71	32.05	13.82	29.85	252	357	A	H
		5850.6	71.62	-49.21	120.83	55.57	32.1	13.81	29.86	252	357	P	H
		5855.4	70.3	-40.39	110.69	54.25	32.11	13.81	29.87	252	357	P	H
		5876.4	59.6	-44.56	104.16	43.51	32.15	13.81	29.87	252	357	P	H
		5926.2	52.69	-15.51	68.2	36.52	32.25	13.81	29.89	252	357	P	H
													H
802.11a													H
CH 165	*	5825	110.02	-	-	94	32.05	13.82	29.85	386	251	P	V
5825MHz	*	5825	102.78	-	-	86.76	32.05	13.82	29.85	386	251	A	V
		5850.6	80.6	-40.23	120.83	64.55	32.1	13.81	29.86	386	251	P	V
		5855	77.37	-33.43	110.8	61.31	32.11	13.81	29.86	386	251	P	V
		5876.6	63.64	-40.37	104.01	47.55	32.15	13.81	29.87	386	251	P	V
		5926.8	55.35	-12.85	68.2	39.18	32.25	13.81	29.89	386	251	P	V
													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 802.11a (Harmonic @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 149 5745MHz		11490	48.74	-25.26	74	44.23	39.91	20.11	55.51	100	0	P	H
		17235	54.86	-13.34	68.2	45.53	40.9	25.16	56.73	100	0	P	H
													H
													H
		11490	48.9	-25.1	74	44.39	39.91	20.11	55.51	100	0	P	V
		17235	58.16	-10.04	68.2	48.83	40.9	25.16	56.73	100	0	P	V
													V
													V
802.11a CH 157 5785MHz		11570	49.01	-24.99	74	44.51	39.76	20.18	55.44	100	0	P	H
		17355	53.12	-15.08	68.2	43.21	41.6	25.21	56.9	100	0	P	H
													H
													H
		11570	49.39	-24.61	74	44.89	39.76	20.18	55.44	100	0	P	V
		17355	54.26	-13.94	68.2	44.35	41.6	25.21	56.9	100	0	P	V
													V
													V
802.11a CH 165 5825MHz		11650	48.59	-25.41	74	44.19	39.55	20.23	55.38	100	0	P	H
		17475	53.2	-15	68.2	42.56	42.45	25.25	57.06	100	0	P	H
													H
													H
		11650	49.26	-24.74	74	44.86	39.55	20.23	55.38	100	0	P	V
		17475	52.28	-15.92	68.2	41.64	42.45	25.25	57.06	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 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5637.8	54.75	-13.45	68.2	39.24	31.62	13.67	29.78	252	356	P	H
		5687.8	66.43	-29.77	96.2	50.83	31.68	13.72	29.8	252	356	P	H
		5719.6	81.36	-29.33	110.69	65.6	31.82	13.75	29.81	252	356	P	H
		5723.4	86.88	-31.67	118.55	71.1	31.84	13.75	29.81	252	356	P	H
	*	5745	103.04	-	-	87.12	31.97	13.77	29.82	252	356	P	H
	*	5745	96.14	-	-	80.22	31.97	13.77	29.82	252	356	A	H
802.11n													H
HT20													H
CH 149		5642.6	57.46	-10.74	68.2	41.95	31.61	13.68	29.78	397	252	P	V
5745MHz		5699	72.05	-32.41	104.46	56.43	31.7	13.73	29.81	397	252	P	V
		5720	87.58	-23.22	110.8	71.82	31.82	13.75	29.81	397	252	P	V
		5724.4	94.62	-26.21	120.83	78.84	31.85	13.75	29.82	397	252	P	V
	*	5745	111.24	-	-	95.32	31.97	13.77	29.82	397	252	P	V
	*	5745	104.03	-	-	88.11	31.97	13.77	29.82	397	252	A	V
													V
													V

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5632.8	55.16	-13.04	68.2	39.64	31.63	13.67	29.78	245	357	P	H
		5697.8	57.36	-46.22	103.58	41.74	31.7	13.73	29.81	245	357	P	H
		5714.6	59.84	-49.45	109.29	44.12	31.79	13.74	29.81	245	357	P	H
		5724	60.45	-59.47	119.92	44.68	31.84	13.75	29.82	245	357	P	H
	*	5785	101.84	-	-	85.87	32	13.81	29.84	245	357	P	H
	*	5785	95.54	-	-	79.57	32	13.81	29.84	245	357	A	H
		5851.6	56.43	-62.12	118.55	40.38	32.1	13.81	29.86	245	357	P	H
		5863.2	55.86	-52.64	108.5	39.79	32.13	13.81	29.87	245	357	P	H
		5884.4	53.61	-44.61	98.22	37.51	32.17	13.81	29.88	245	357	P	H
		5940.4	52.64	-15.56	68.2	36.45	32.28	13.81	29.9	245	357	P	H
802.11n													H
HT20													H
CH 157		5630.8	57.93	-10.27	68.2	42.4	31.64	13.67	29.78	391	253	P	V
5785MHz		5700	59.71	-45.49	105.2	44.09	31.7	13.73	29.81	391	253	P	V
		5718.2	63.7	-46.6	110.3	47.95	31.81	13.75	29.81	391	253	P	V
		5723.4	65.28	-53.27	118.55	49.5	31.84	13.75	29.81	391	253	P	V
	*	5785	110.31	-	-	94.34	32	13.81	29.84	391	253	P	V
	*	5785	102.8	-	-	86.83	32	13.81	29.84	391	253	A	V
		5850.6	63.18	-57.65	120.83	47.13	32.1	13.81	29.86	391	253	P	V
		5857.4	61.87	-48.26	110.13	45.82	32.11	13.81	29.87	391	253	P	V
		5881	55.89	-44.85	100.74	39.79	32.16	13.81	29.87	391	253	P	V
		5948.8	55.14	-13.06	68.2	38.93	32.3	13.81	29.9	391	253	P	V
													V
													V

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
	*	5825	100.46	-	-	84.44	32.05	13.82	29.85	252	357	P	H
	*	5825	93.45	-	-	77.43	32.05	13.82	29.85	252	357	A	H
		5850.4	76.97	-44.32	121.29	60.92	32.1	13.81	29.86	252	357	P	H
		5856.2	70.02	-40.44	110.46	53.97	32.11	13.81	29.87	252	357	P	H
		5883.6	59.99	-38.82	98.81	43.89	32.17	13.81	29.88	252	357	P	H
		5945.4	53.92	-14.28	68.2	37.72	32.29	13.81	29.9	252	357	P	H
802.11n													H
HT20													H
CH 165	*	5825	108.71	-	-	92.69	32.05	13.82	29.85	387	249	P	V
5825MHz	*	5825	101.49	-	-	85.47	32.05	13.82	29.85	387	249	A	V
		5850.4	80.91	-40.38	121.29	64.86	32.1	13.81	29.86	387	249	P	V
		5855.6	76.16	-34.47	110.63	60.11	32.11	13.81	29.87	387	249	P	V
		5875	64.81	-40.39	105.2	48.72	32.15	13.81	29.87	387	249	P	V
		5933.6	55.97	-12.23	68.2	39.78	32.27	13.81	29.89	387	249	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 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 149 5745MHz		11490	48.62	-25.38	74	44.11	39.91	20.11	55.51	100	0	P	H
		17235	54.61	-13.59	68.2	45.28	40.9	25.16	56.73	100	0	P	H
													H
													H
		11490	48.93	-25.07	74	44.42	39.91	20.11	55.51	100	0	P	V
		17235	57.87	-10.33	68.2	48.54	40.9	25.16	56.73	100	0	P	V
													V
													V
802.11n HT20 CH 157 5785MHz		11570	49.57	-24.43	74	45.07	39.76	20.18	55.44	100	0	P	H
		17355	54.13	-14.07	68.2	44.22	41.6	25.21	56.9	100	0	P	H
													H
													H
		11570	48.42	-25.58	74	43.92	39.76	20.18	55.44	100	0	P	V
		17355	55.26	-12.94	68.2	45.35	41.6	25.21	56.9	100	0	P	V
													V
													V
802.11n HT20 CH 165 5825MHz		11650	48.61	-25.39	74	44.21	39.55	20.23	55.38	100	0	P	H
		17475	51.76	-16.44	68.2	41.12	42.45	25.25	57.06	100	0	P	H
													H
													H
		11650	48.82	-25.18	74	44.42	39.55	20.23	55.38	100	0	P	V
		17475	52.48	-15.72	68.2	41.84	42.45	25.25	57.06	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 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5649.8	58.62	-9.58	68.2	43.13	31.6	13.68	29.79	245	357	P	H
		5699	75.43	-29.03	104.46	59.81	31.7	13.73	29.81	245	357	P	H
		5718.8	82.89	-27.57	110.46	67.14	31.81	13.75	29.81	245	357	P	H
		5724.2	83.2	-37.18	120.38	67.42	31.85	13.75	29.82	245	357	P	H
	*	5755	100.08	-	-	84.13	32	13.78	29.83	245	357	P	H
	*	5755	92.15	-	-	76.2	32	13.78	29.83	245	357	A	H
		5851.8	56.48	-61.62	118.1	40.43	32.1	13.81	29.86	245	357	P	H
		5855.4	58.43	-52.26	110.69	42.38	32.11	13.81	29.87	245	357	P	H
		5875.8	55.41	-49.2	104.61	39.32	32.15	13.81	29.87	245	357	P	H
		5936.6	53.5	-14.7	68.2	37.32	32.27	13.81	29.9	245	357	P	H
802.11n													H
HT40													H
CH 151		5643.2	66.11	-2.09	68.2	50.6	31.61	13.68	29.78	393	251	P	V
5755MHz		5699	79.46	-25	104.46	63.84	31.7	13.73	29.81	393	251	P	V
		5719	90.37	-20.15	110.52	74.62	31.81	13.75	29.81	393	251	P	V
		5721.6	92.62	-21.83	114.45	76.85	31.83	13.75	29.81	393	251	P	V
	*	5755	106.77	-	-	90.82	32	13.78	29.83	393	251	P	V
	*	5755	99.29	-	-	83.34	32	13.78	29.83	393	251	A	V
		5852.6	64.69	-51.58	116.27	48.63	32.11	13.81	29.86	393	251	P	V
		5857.4	63.45	-46.68	110.13	47.4	32.11	13.81	29.87	393	251	P	V
		5883.4	61.62	-37.34	98.96	45.52	32.17	13.81	29.88	393	251	P	V
		5928	54.68	-13.52	68.2	38.5	32.26	13.81	29.89	393	251	P	V
													V
													V

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5647.2	57.47	-10.73	68.2	41.97	31.61	13.68	29.79	242	356	P	H
		5698.2	62.93	-40.94	103.87	47.31	31.7	13.73	29.81	242	356	P	H
		5719	67.17	-43.35	110.52	51.42	31.81	13.75	29.81	242	356	P	H
		5720.4	68.04	-43.67	111.71	52.28	31.82	13.75	29.81	242	356	P	H
	*	5795	99.74	-	-	83.76	32	13.82	29.84	242	356	P	H
	*	5795	92.39	-	-	76.41	32	13.82	29.84	242	356	A	H
		5851	70.1	-49.82	119.92	54.05	32.1	13.81	29.86	242	356	P	H
		5855	68.46	-42.34	110.8	52.4	32.11	13.81	29.86	242	356	P	H
		5875.2	62.6	-42.45	105.05	46.51	32.15	13.81	29.87	242	356	P	H
		5929	60.53	-7.67	68.2	44.35	32.26	13.81	29.89	242	356	P	H
802.11n													H
HT40													H
CH 159		5645.4	64.44	-3.76	68.2	48.94	31.61	13.68	29.79	392	248	P	V
5795MHz		5678.8	69.27	-20.28	89.55	53.7	31.66	13.71	29.8	392	248	P	V
		5719	72.18	-38.34	110.52	56.43	31.81	13.75	29.81	392	248	P	V
		5724.6	75.45	-45.84	121.29	59.67	31.85	13.75	29.82	392	248	P	V
	*	5795	107.11	-	-	91.13	32	13.82	29.84	392	248	P	V
	*	5795	99.59	-	-	83.61	32	13.82	29.84	392	248	A	V
		5852.6	77.08	-39.19	116.27	61.02	32.11	13.81	29.86	392	248	P	V
		5858.4	73.72	-36.13	109.85	57.66	32.12	13.81	29.87	392	248	P	V
		5875.2	70.05	-35	105.05	53.96	32.15	13.81	29.87	392	248	P	V
		5925.8	61.37	-6.83	68.2	45.2	32.25	13.81	29.89	392	248	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 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 151 5755MHz		11510	48.88	-25.12	74	44.36	39.88	20.13	55.49	100	0	P	H
		17265	51.51	-16.69	68.2	42.12	40.99	25.17	56.77	100	0	P	H
													H
													H
		11510	48.51	-25.49	74	43.99	39.88	20.13	55.49	100	0	P	V
		17265	52.8	-15.4	68.2	43.41	40.99	25.17	56.77	100	0	P	V
													V
													V
802.11n HT40 CH 159 5795MHz		11590	49.01	-24.99	74	44.53	39.72	20.19	55.43	100	0	P	H
		17385	51.07	-17.13	68.2	40.93	41.86	25.22	56.94	100	0	P	H
													H
													H
		11590	48.59	-25.41	74	44.11	39.72	20.19	55.43	100	0	P	V
		17385	51.98	-16.22	68.2	41.84	41.86	25.22	56.94	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. 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)
		5635.6	60.2	-8	68.2	44.68	31.63	13.67	29.78	249	349	P	H
		5695.6	71.61	-30.35	101.96	55.99	31.69	13.73	29.8	249	349	P	H
		5718.8	76.21	-34.25	110.46	60.46	31.81	13.75	29.81	249	349	P	H
		5722.8	76.29	-40.89	117.18	60.51	31.84	13.75	29.81	249	349	P	H
	*	5775	95.77	-	-	79.8	32	13.8	29.83	249	349	P	H
	*	5775	87.75	-	-	71.78	32	13.8	29.83	249	349	A	H
		5853	69.25	-46.11	115.36	53.19	32.11	13.81	29.86	249	349	P	H
		5856.2	70.28	-40.18	110.46	54.23	32.11	13.81	29.87	249	349	P	H
		5878.6	62.84	-39.69	102.53	46.74	32.16	13.81	29.87	249	349	P	H
		5925.2	56.53	-11.67	68.2	40.36	32.25	13.81	29.89	249	349	P	H
802.11ac													H
VHT80													H
CH 155		5637.2	66.64	-1.56	68.2	51.12	31.63	13.67	29.78	396	252	P	V
5775MHz		5698.6	79.11	-25.06	104.17	63.49	31.7	13.73	29.81	396	252	P	V
		5719.2	84.78	-25.8	110.58	69.02	31.82	13.75	29.81	396	252	P	V
		5724.4	86.3	-34.53	120.83	70.52	31.85	13.75	29.82	396	252	P	V
	*	5775	103.78	-	-	87.81	32	13.8	29.83	396	252	P	V
	*	5775	95.82	-	-	79.85	32	13.8	29.83	396	252	A	V
		5850.4	76.45	-44.84	121.29	60.4	32.1	13.81	29.86	396	252	P	V
		5859.4	75.6	-33.97	109.57	59.54	32.12	13.81	29.87	396	252	P	V
		5876.2	68.74	-35.57	104.31	52.65	32.15	13.81	29.87	396	252	P	V
		5934	60.01	-8.19	68.2	43.82	32.27	13.81	29.89	396	252	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. 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		11550	48.37	-25.63	74	43.87	39.8	20.16	55.46	100	0	P	H
		17325	51.12	-17.08	68.2	41.45	41.32	25.2	56.85	100	0	P	H
													H
													H
		11550	48.59	-25.41	74	44.09	39.8	20.16	55.46	100	0	P	V
		17325	51.3	-16.9	68.2	41.63	41.32	25.2	56.85	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)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
5GHz 802.11ac VHT80 LF		250.19	36.67	-9.33	46	48.21	18.52	2.67	32.73	-	-	P	H
		275.41	35.27	-10.73	46	46.29	18.83	2.79	32.64	-	-	P	H
		499.48	40.79	-5.21	46	45.52	24.15	3.78	32.66	167	90	Q	H
		531.49	37.79	-8.21	46	42.34	24.19	3.92	32.66	-	-	P	H
		600.36	36.61	-9.39	46	39.41	25.65	4.22	32.67	-	-	P	H
		719.67	39.46	-6.54	46	40.13	27.19	4.63	32.49	-	-	P	H
													H
													H
													H
													H
													H
													H
		59.1	31.07	-8.93	40	50.83	11.93	1.11	32.8	-	-	P	V
		95.96	35.4	-8.1	43.5	51.03	15.49	1.5	32.62	-	-	P	V
		500.45	42.55	-3.45	46	47.27	24.16	3.78	32.66	124	227	Q	V
		600.36	36.55	-9.45	46	39.35	25.65	4.22	32.67	-	-	P	V
		721.61	38.95	-7.05	46	39.51	27.31	4.63	32.5	-	-	P	V
		946.65	36.21	-9.79	46	31.78	30.69	5.43	31.69	-	-	P	V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Note symbol

*	**Fundamental Frequency** which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	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+3		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

1. 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)

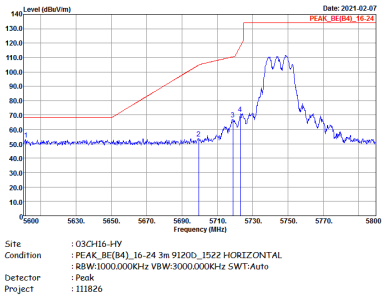
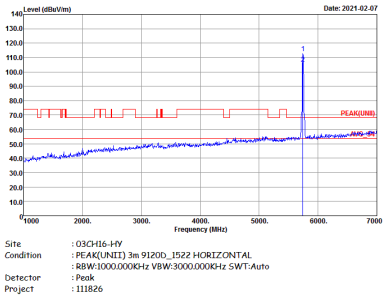
Both peak and average measured complies with the limit line, so test result is “PASS”.

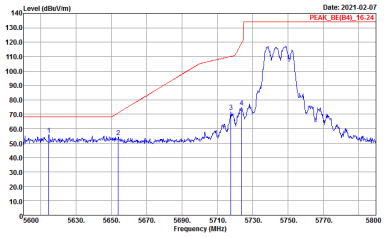
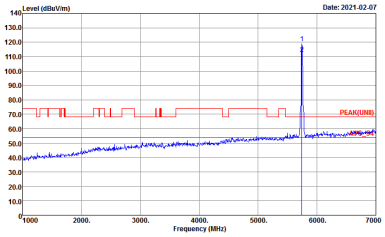
Appendix D. Radiated Spurious Emission Plots

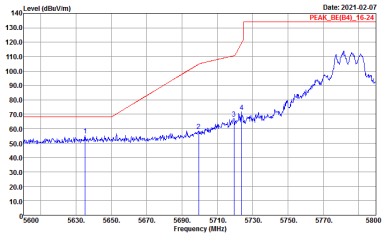
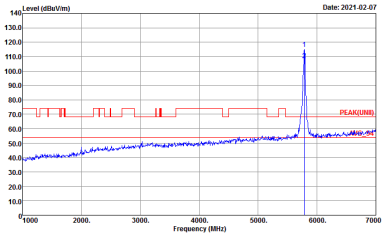
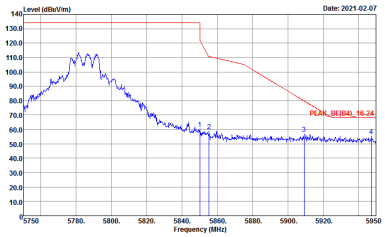
Test Engineer :	Karl Hou, Caster Liao and Andy Yang	Temperature :	20~25°C
		Relative Humidity :	50~60%

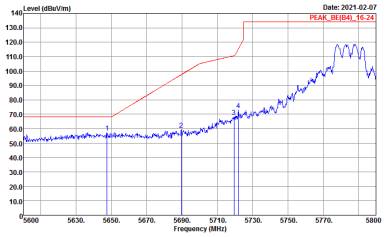
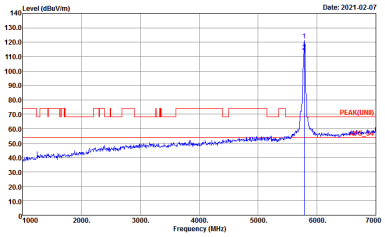
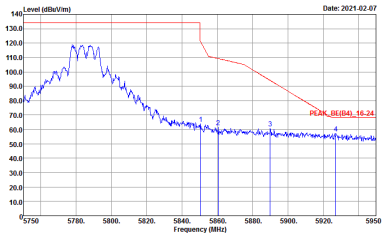
Band 4 - 5725~5850MHz

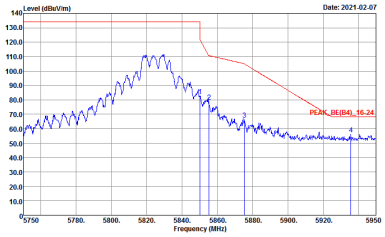
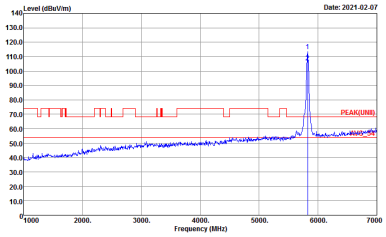
WIFI 802.11a (Band Edge @ 3m)

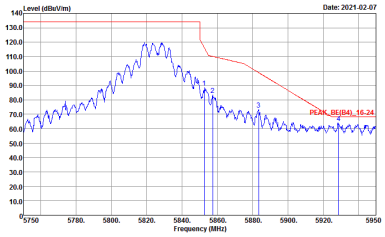
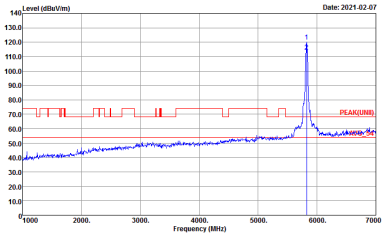
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
1+3	Horizontal	Fundamental
Peak		

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

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
1+3	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	Left blank

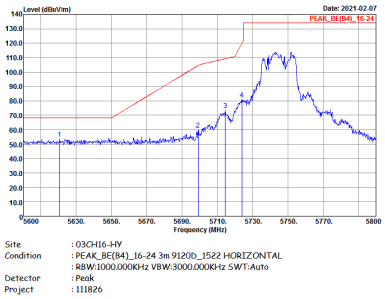
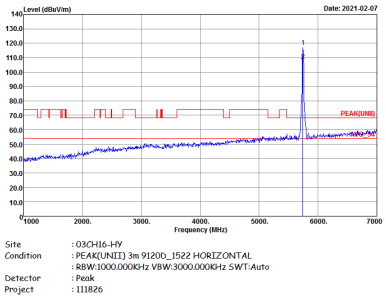
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
1+3	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	Left blank

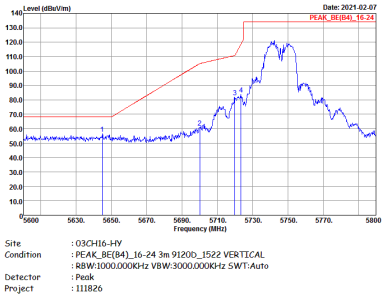
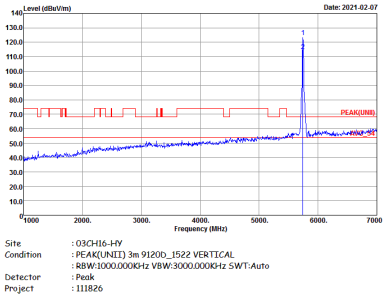
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
1+3	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826

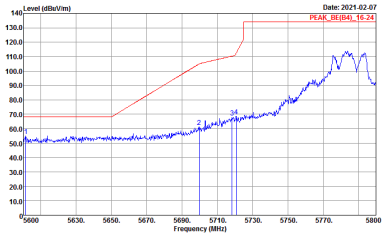
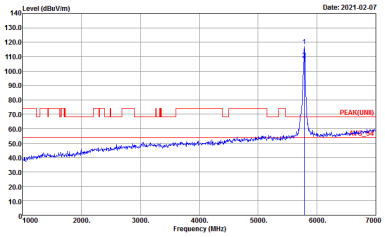
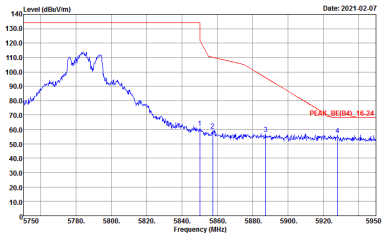
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
1+3	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826

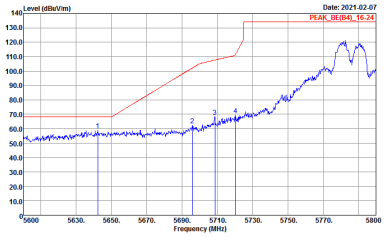
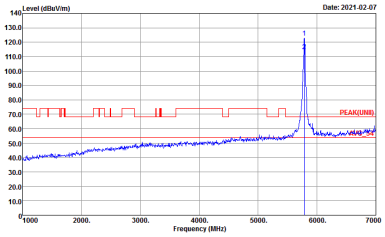
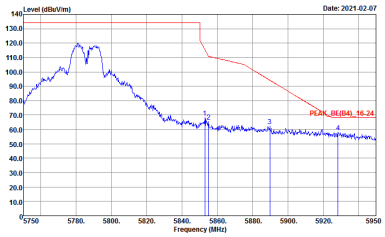
Band 4 5725~5850MHz

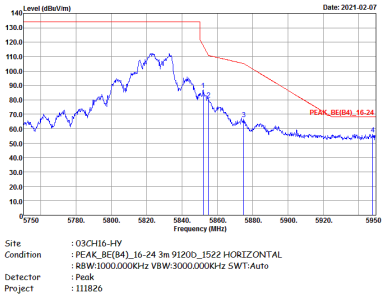
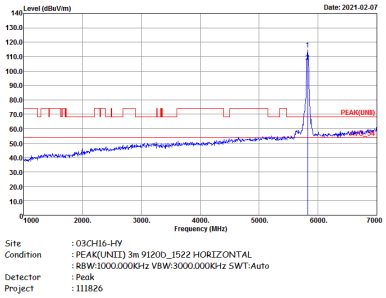
WIFI 802.11ax HE20 Full (Band Edge @ 3m)

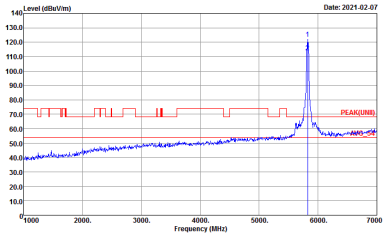
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH149 5745MHz	
1+3	Horizontal	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH149 5745MHz	
1+3	Vertical	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
1+3	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	Left blank

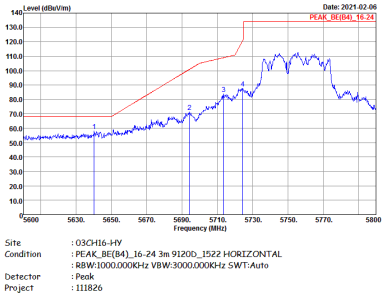
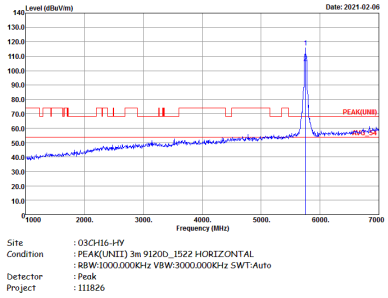
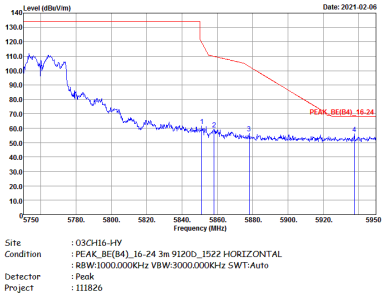
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
1+3	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	Left blank

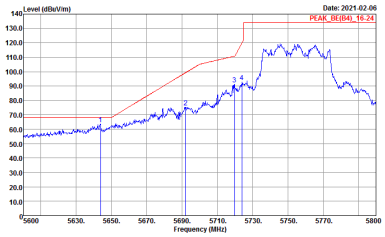
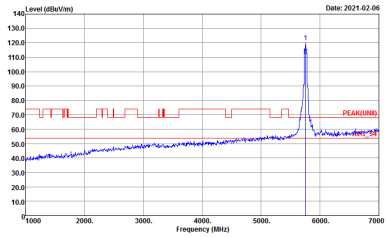
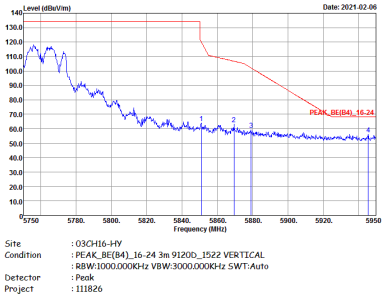
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH165 5825MHz	
1+3	Horizontal	Fundamental
Peak		

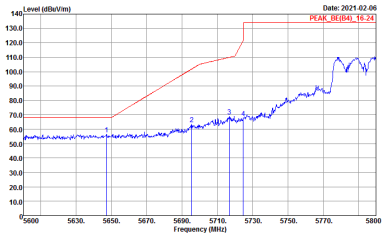
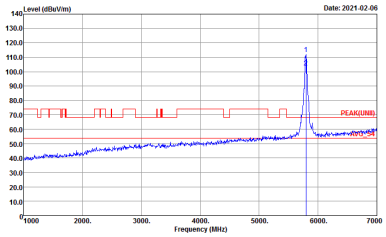
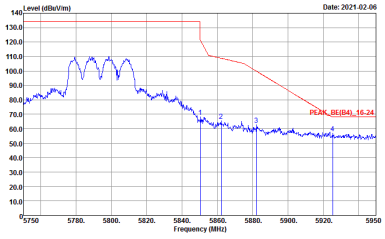
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH165 5825MHz	
1+3	Vertical	Fundamental
Peak		

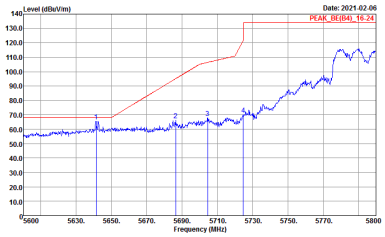
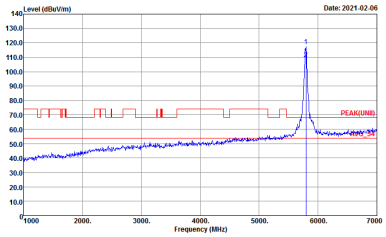
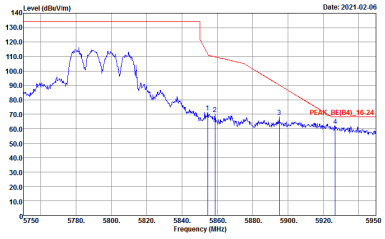
Band 4 5725~5850MHz

WIFI 802.11ax HE40 Full (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
1+3	Horizontal	Fundamental
Peak		
Peak		Left blank

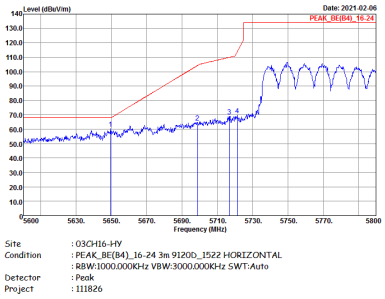
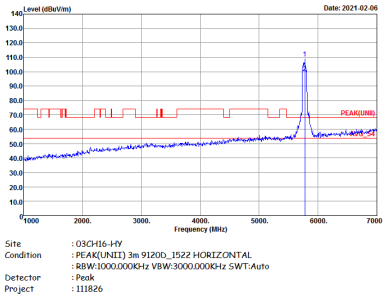
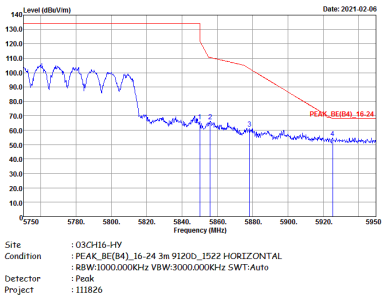
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
1+3	Vertical	Fundamental
Peak		
Peak		Left blank

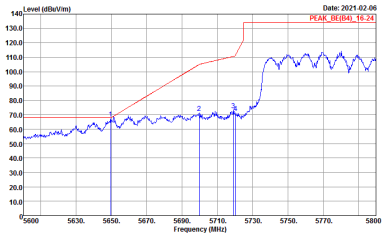
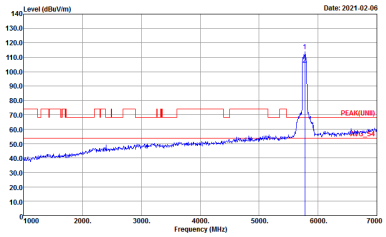
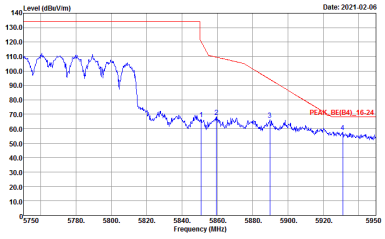
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full HT40 CH159 5795MHz	
1+3	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH159 5795MHz	
1+3	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	Left blank

Band 4 5725~5850MHz

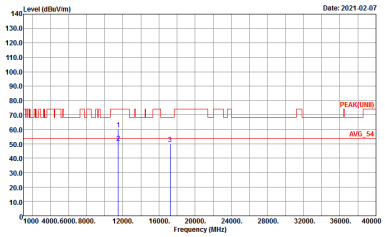
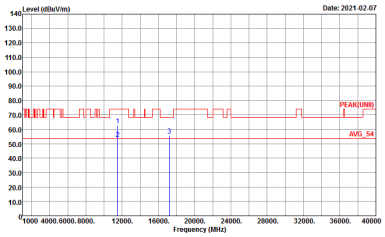
WIFI 802.11ax HE80 Full (Band Edge @ 3m)

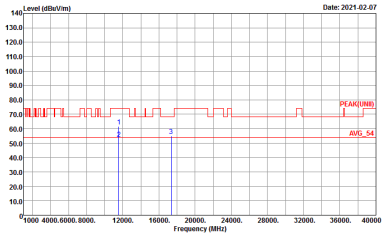
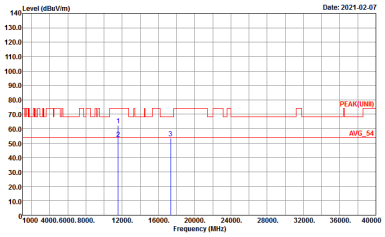
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH155 5775MHz	
1+3	Horizontal	Fundamental
Peak		
Peak		Left blank

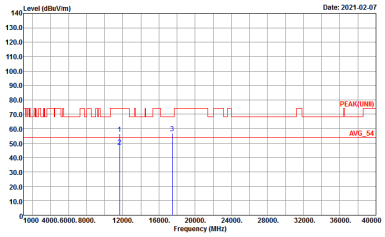
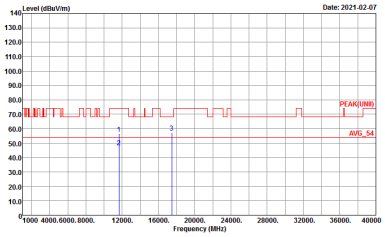
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH155 5775MHz	
1+3	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	Left blank

Band 4 - 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

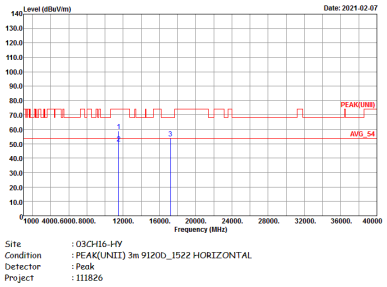
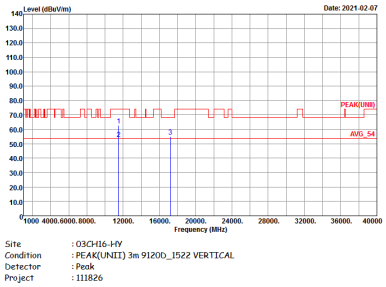
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH149 5745MHz	
1+3	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 HORIZONTAL Detector : Peak Project : 111826	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 VERTICAL Detector : Peak Project : 111826

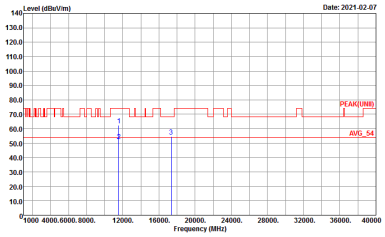
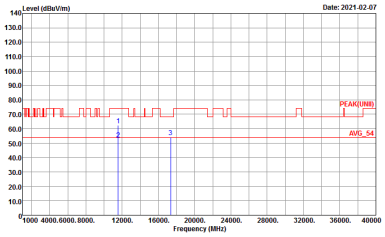
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
1+3	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 HORIZONTAL Detector : Peak Project : 111826	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 VERTICAL Detector : Peak Project : 111826

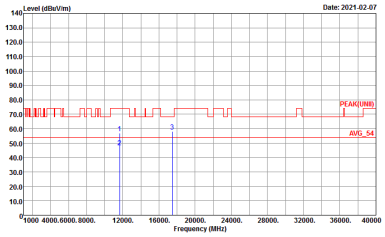
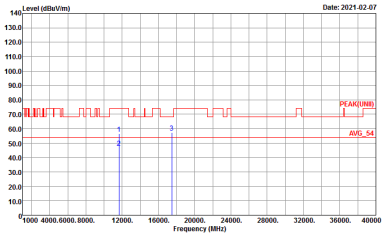
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH165 5825MHz	
1+3	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 HORIZONTAL Detector : Peak Project : 111826	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 VERTICAL Detector : Peak Project : 111826

Band 4 5725~5850MHz

WIFI 802.11ax HE20 Full (Harmonic @ 3m)

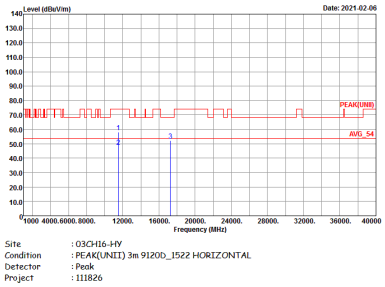
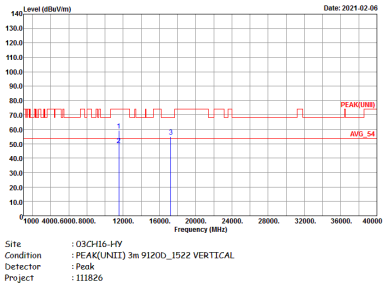
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH149 5745MHz	
1+3	Horizontal	Vertical
Peak Avg.	 	

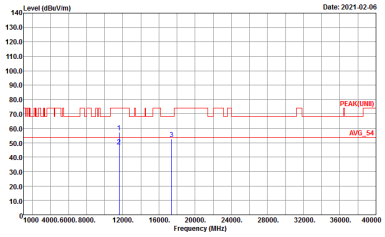
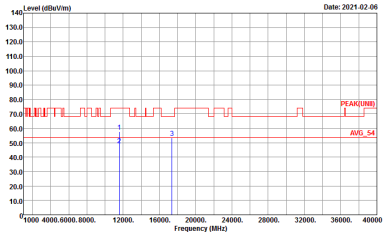
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
1+3	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 HORIZONTAL Detector : Peak Project : 111826	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 VERTICAL Detector : Peak Project : 111826

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH165 5825MHz	
1+3	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 HORIZONTAL Detector : Peak Project : 111826	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 VERTICAL Detector : Peak Project : 111826

Band 4 5725~5850MHz

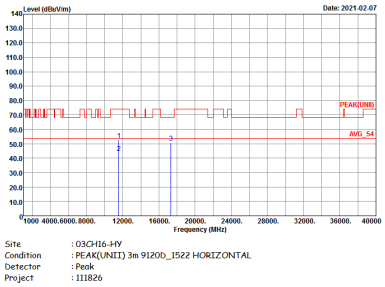
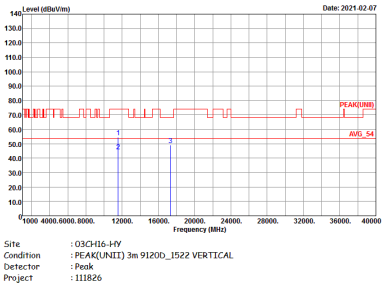
WIFI 802.11ax HE40 Full (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
1+3	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE40 Full CH159 5795MHz	
1+3	Horizontal	Vertical
Peak Avg.		

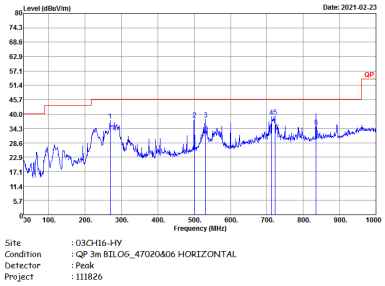
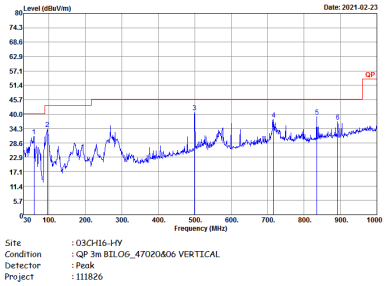
Band 4 5725~5850MHz

WIFI 802.11ax HE80 Full (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE80 Full CH155 5775MHz	
1+3	Horizontal	Vertical
Peak Avg.		

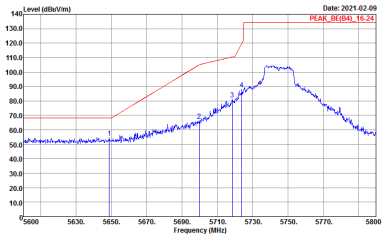
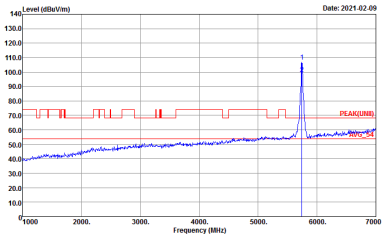
Emission below 1GHz

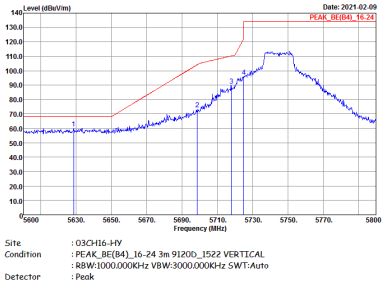
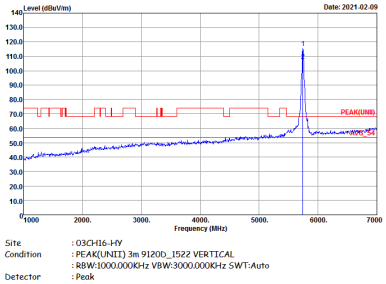
5GHz WIFI 802.11ax HE20 Full (LF)

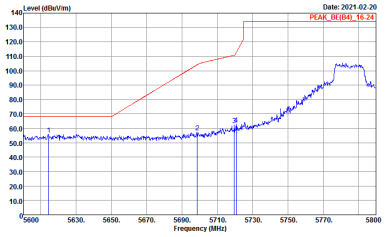
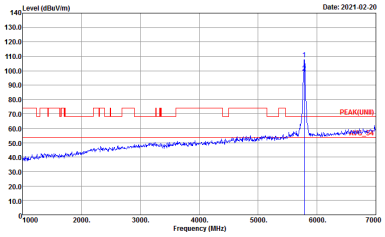
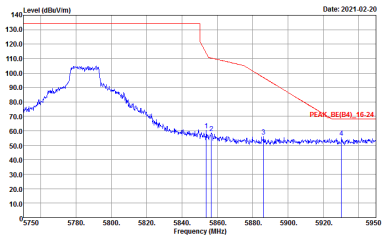
WIFI	5GHz WIFI	
ANT	802.11ax HE20 Full LF	
1+3	Horizontal	Vertical
QP / Peak		

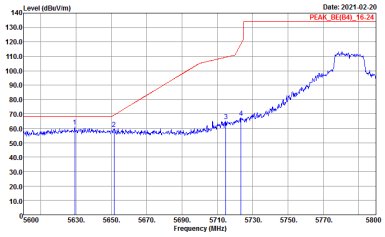
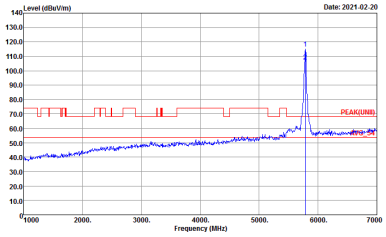
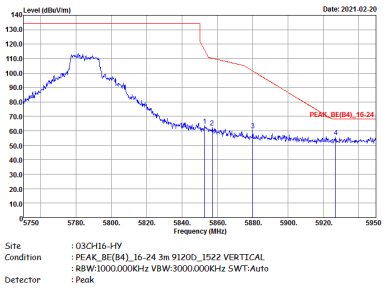
Band 4 - 5725~5850MHz

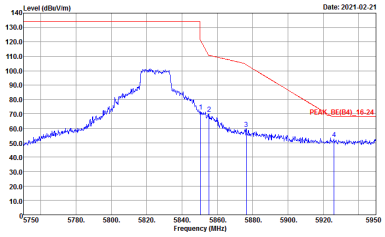
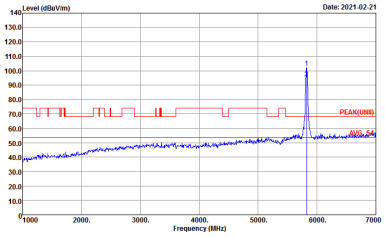
WIFI 802.11a (Band Edge @ 3m)

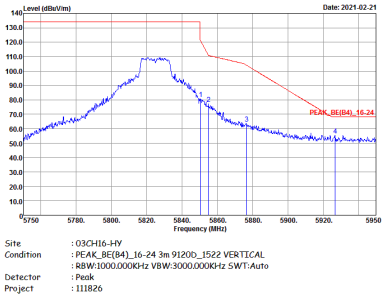
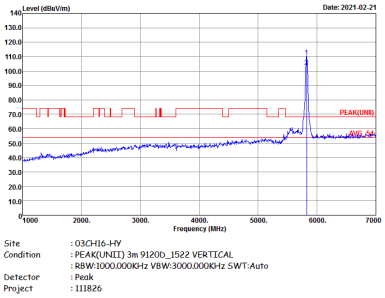
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak

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

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak	Left blank

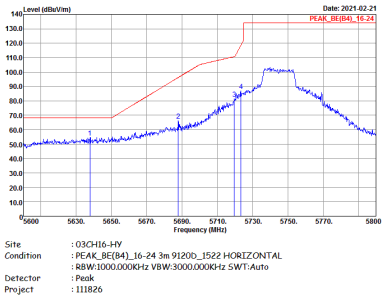
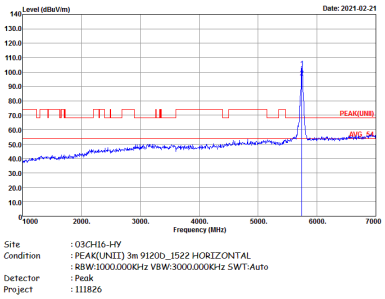
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
2	Vertical	Fundamental
Peak		
Peak		Left blank

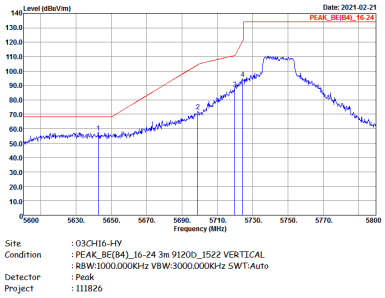
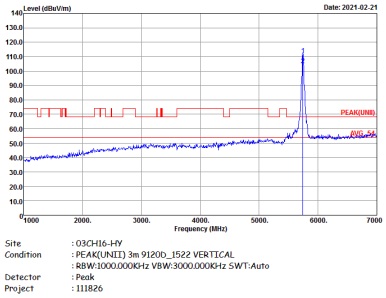
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak

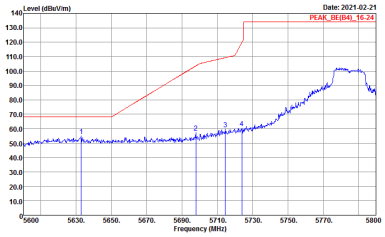
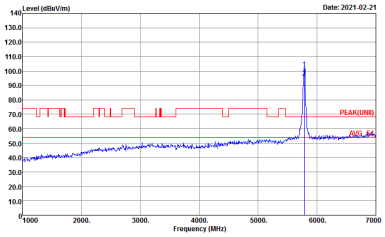
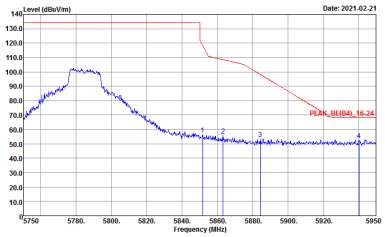
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
2	Vertical	Fundamental
Peak		

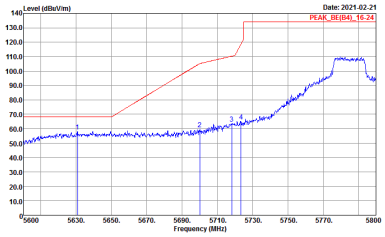
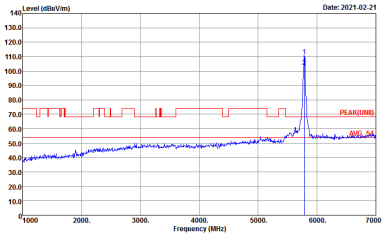
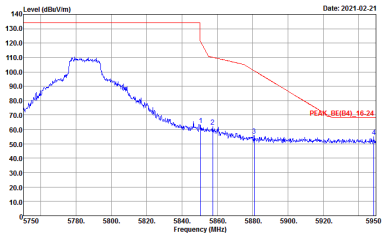
Band 4 5725~5850MHz

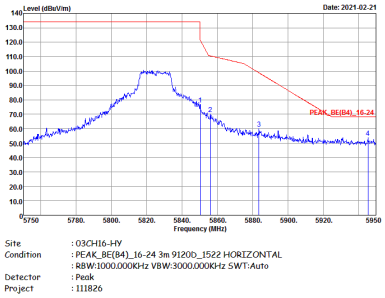
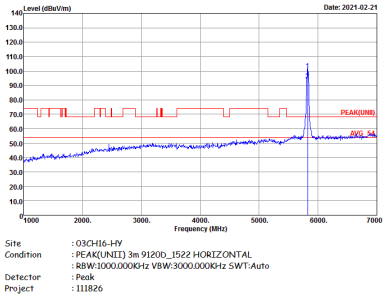
WIFI 802.11n HT20 (Band Edge @ 3m)

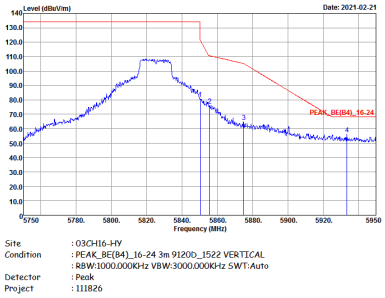
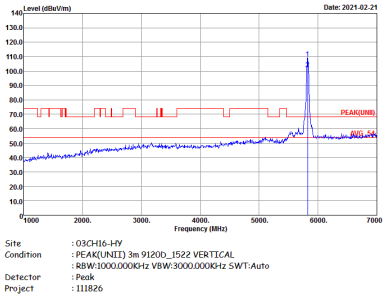
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
2	Horizontal	Fundamental
Peak		

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

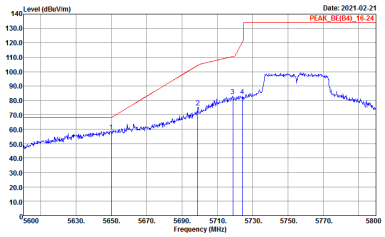
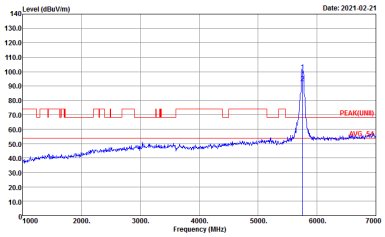
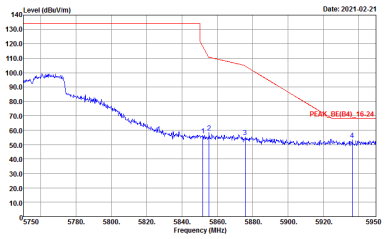
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	Left blank

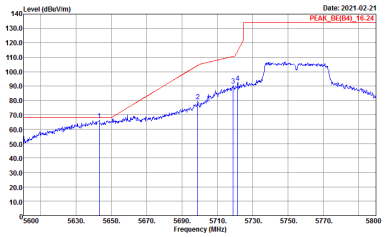
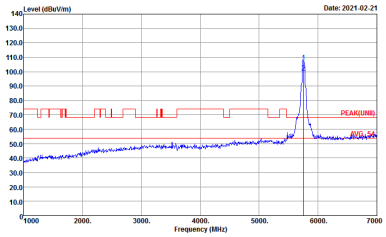
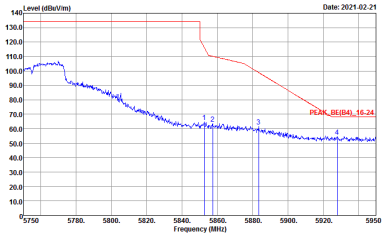
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	Left blank

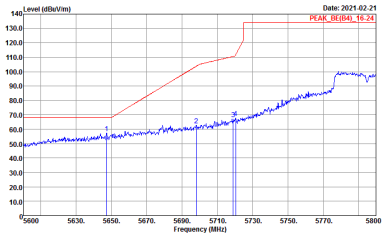
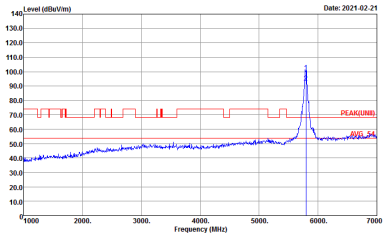
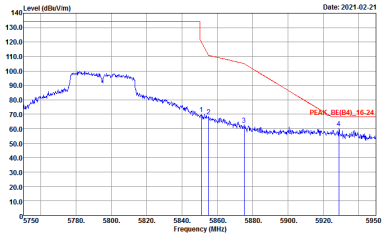
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
2	Horizontal	Fundamental
Peak		

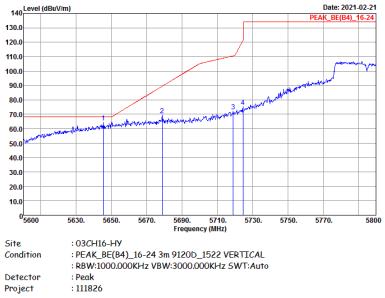
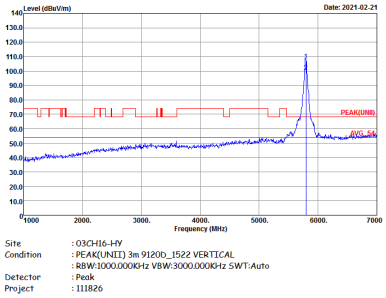
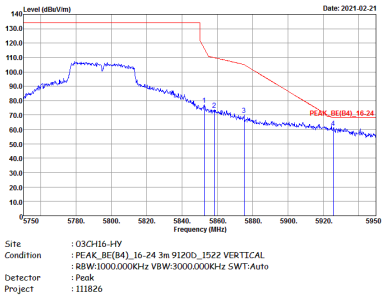
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
2	Vertical	Fundamental
Peak		

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

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	Left blank

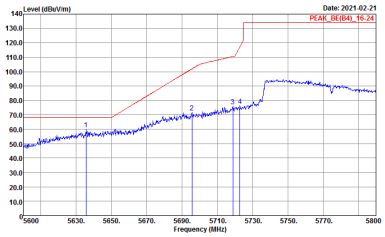
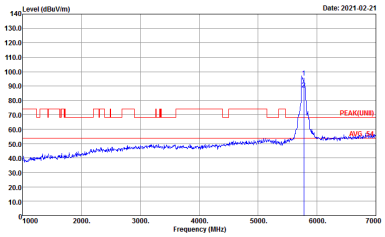
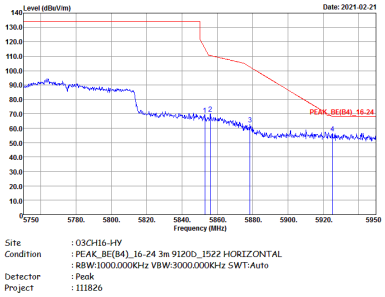
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	Left blank

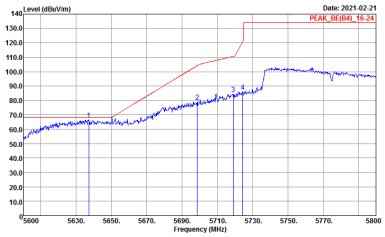
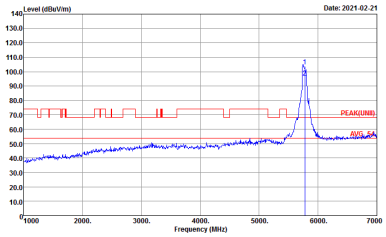
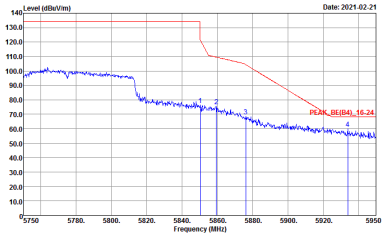
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH159 5795MHz	
2	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	Left blank

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

Band 4 5725~5850MHz

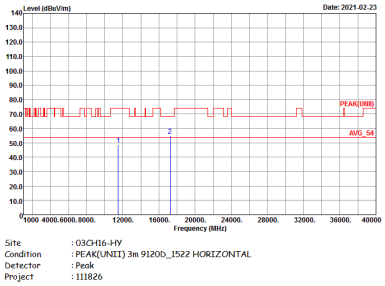
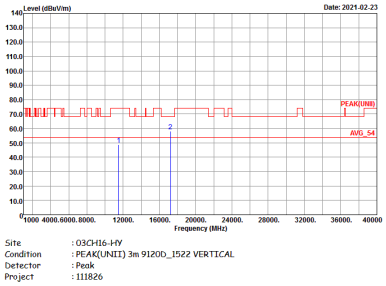
WIFI 802.11ac VHT80 (Band Edge @ 3m)

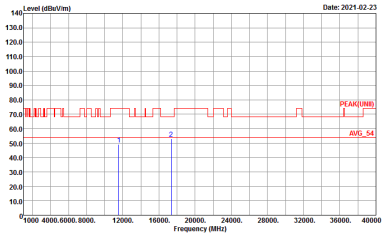
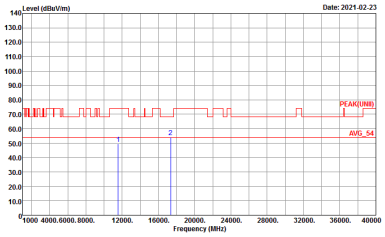
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
2	Horizontal	Fundamental
Peak		
Peak		Left blank

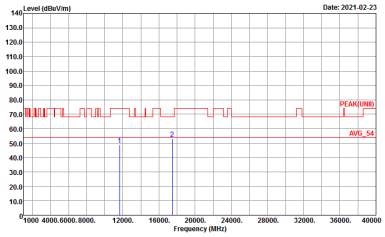
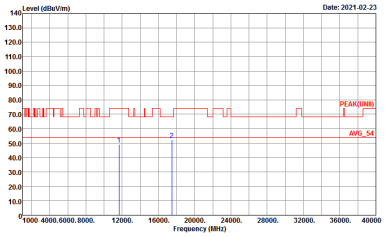
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826
Peak	 Site : 03CH16-HY Condition : PEAK_BE(B4)_16-24 3m 9120D_1522 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 111826	Left blank

Band 4 - 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

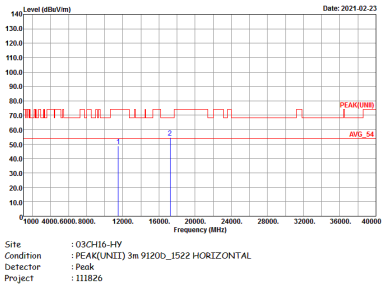
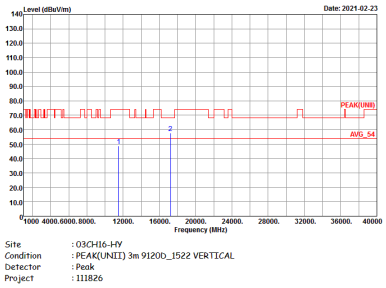
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH149 5745MHz	
2	Horizontal	Vertical
Peak Avg.		

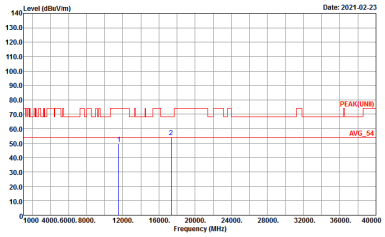
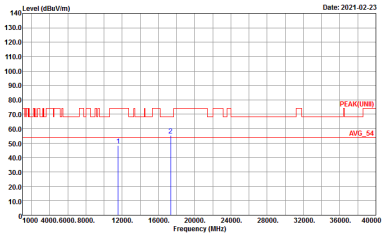
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 HORIZONTAL Detector : Peak Project : 111826	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 VERTICAL Detector : Peak Project : 111826

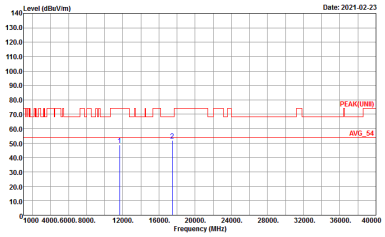
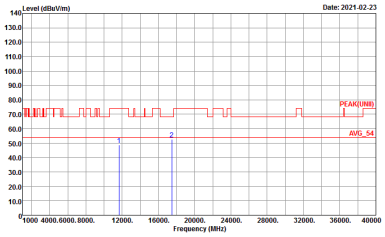
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH165 5825MHz	
2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 HORIZONTAL Detector : Peak Project : 111826	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 VERTICAL Detector : Peak Project : 111826

Band 4 5725~5850MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

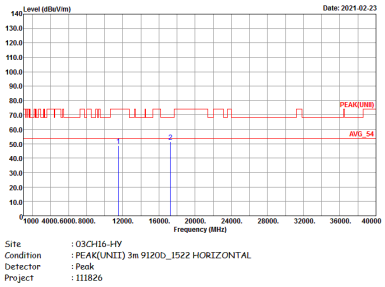
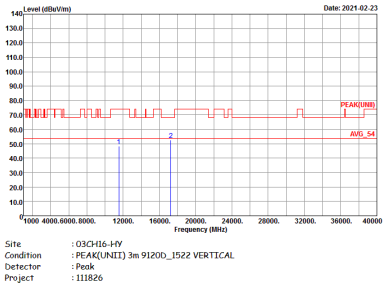
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
2	Horizontal	Vertical
Peak Avg.		

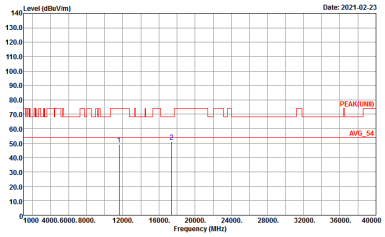
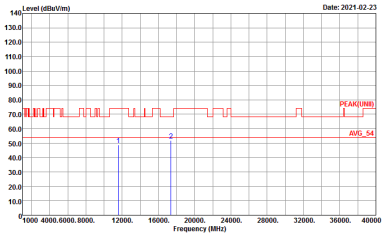
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 HORIZONTAL Detector : Peak Project : 111826	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 VERTICAL Detector : Peak Project : 111826

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 HORIZONTAL Detector : Peak Project : 111826	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 VERTICAL Detector : Peak Project : 111826

Band 4 5725~5850MHz

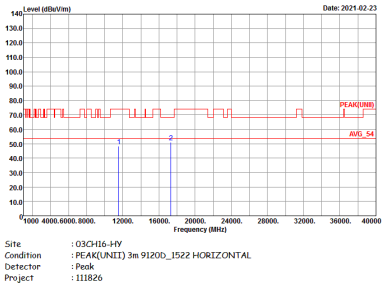
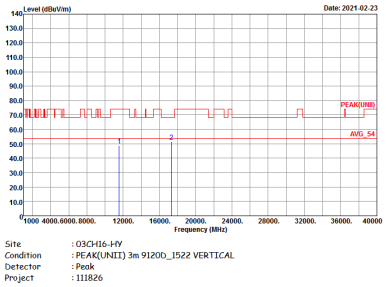
WIFI 802.11n HT40 (Harmonic @ 3m)

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

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT40 CH159 5795MHz	
2	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 HORIZONTAL Detector : Peak Project : 111826	 Site : 03CH16-HY Condition : PEAK(UNII) 3m 9120D_1522 VERTICAL Detector : Peak Project : 111826

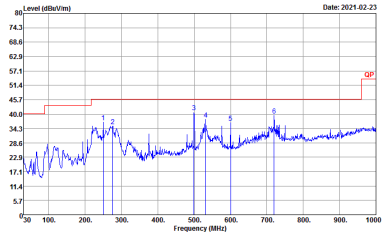
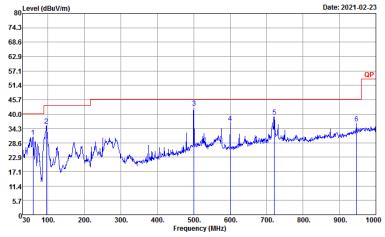
Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

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

Emission below 1GHz

5GHz WIFI 802.11ac VHT80 (LF)

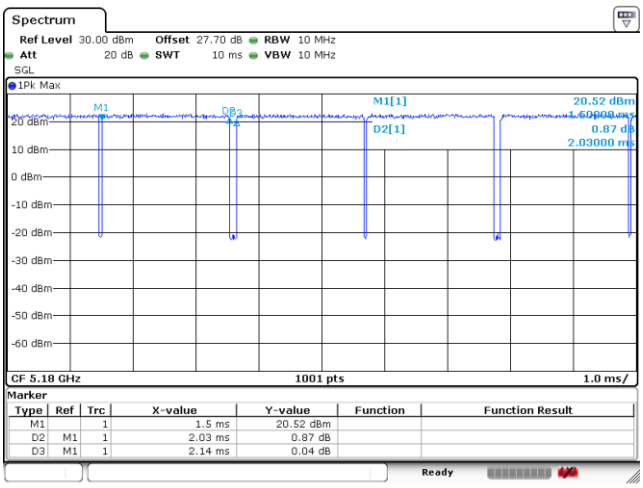
WIFI	5GHz WIFI	
ANT	802.11ac VHT80 LF	
2	Horizontal	Vertical
QP / Peak	 Site : 03CH16-HY Condition : QP 3m BILOG_47020&06 HORIZONTAL Detector : Peak Project : 111826	 Site : 03CH16-HY Condition : QP 3m BILOG_47020&06 VERTICAL Detector : Peak Project : 111826

Appendix E. Duty Cycle Plots

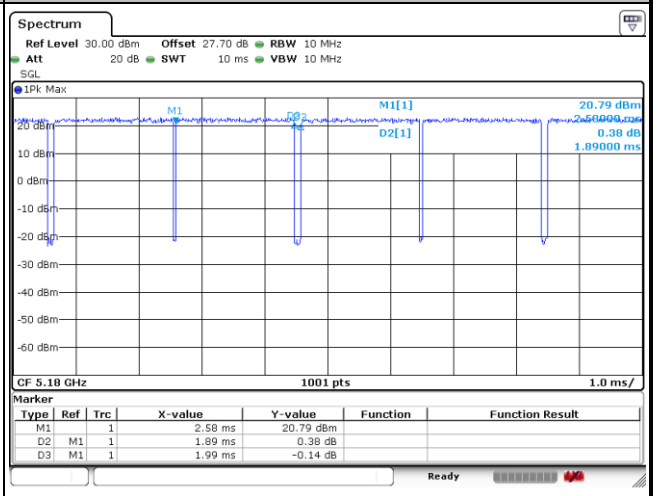
Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
1+3	802.11a for Ant 1	94.29	1980	0.51	1kHz	0.26
1+3	802.11a for Ant 3	93.84	1980	0.51	1kHz	0.28
1+3	5GHz 802.11ax HE20 Full RU for Ant 1	95.96	5460	0.18	300Hz	0.18
1+3	5GHz 802.11ax HE20 Full RU for Ant 3	95.27	5440	0.18	300Hz	0.21
1+3	5GHz 802.11ax HE40 Full RU for Ant 1	94.59	5420	0.18	300Hz	0.24
1+3	5GHz 802.11ax HE40 Full RU for Ant 3	93.49	5460	0.18	300Hz	0.29
1+3	5GHz 802.11ax HE80 Full RU for Ant 1	95.10	5430	0.18	300Hz	0.22
1+3	5GHz 802.11ax HE80 Full RU for Ant 3	95.79	5460	0.18	300Hz	0.19
2	802.11a	94.86	2030	0.49	1kHz	0.23
2	5GHz 802.11n HT20	94.97	1890	0.53	1kHz	0.22
2	5GHz 802.11n HT40	95.88	930	1.08	3kHz	0.18
2	5GHz 802.11ac VHT80	91.94	456	2.19	3kHz	0.36

<Ant. 2>

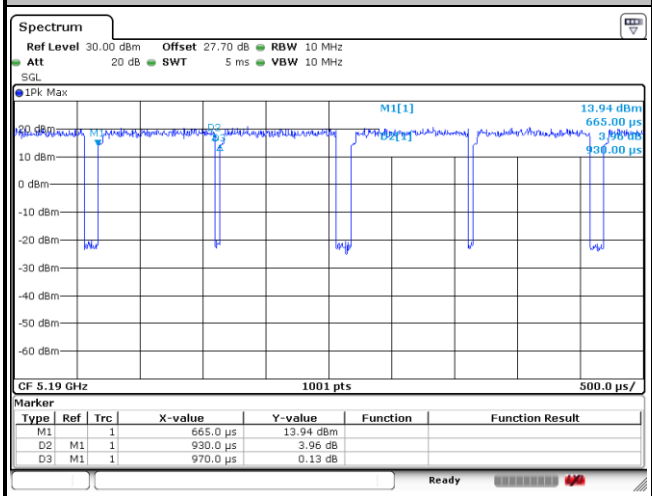
802.11a



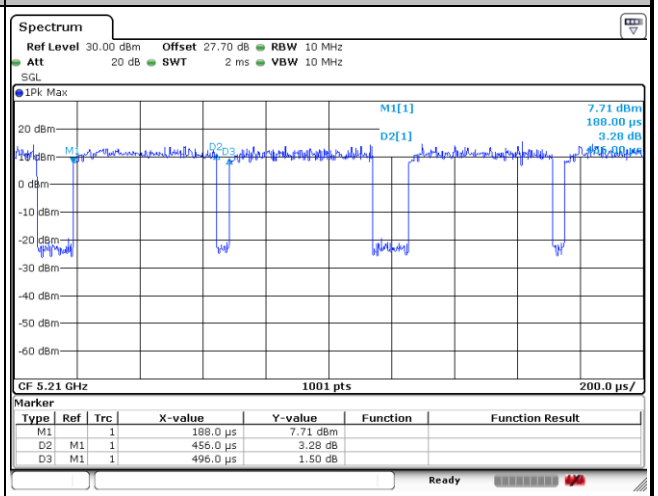
802.11n HT20



802.11n HT40

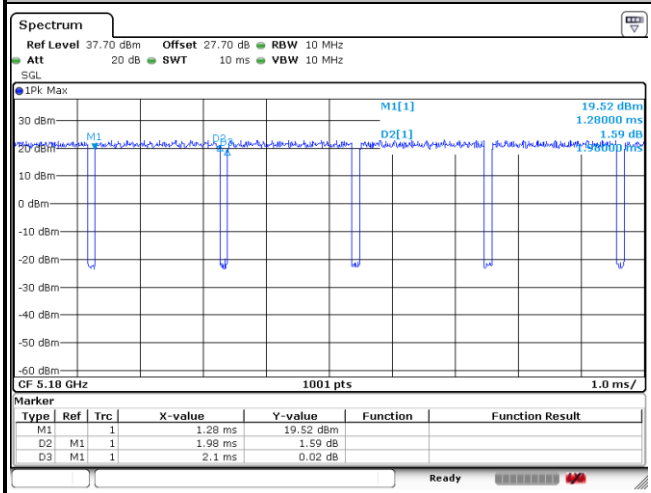


802.11ac VHT80

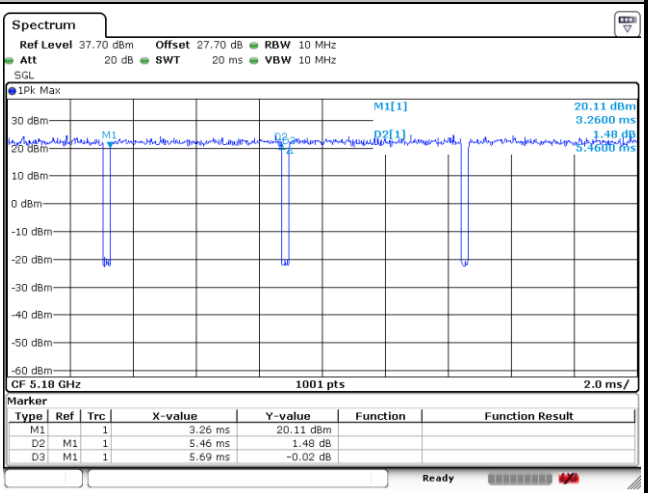


MIMO <Ant. 1>

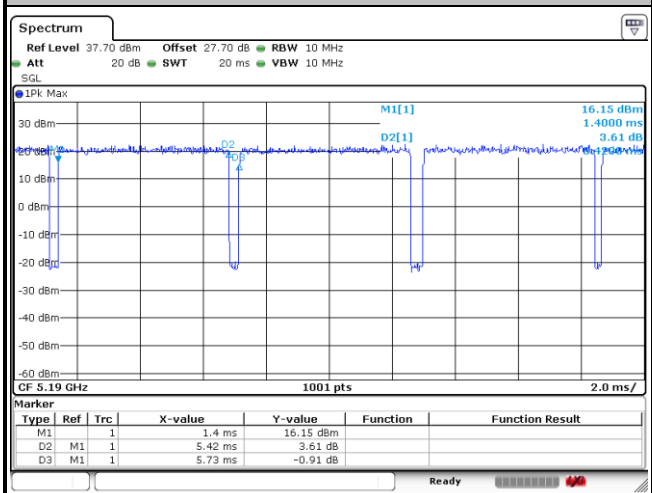
802.11a



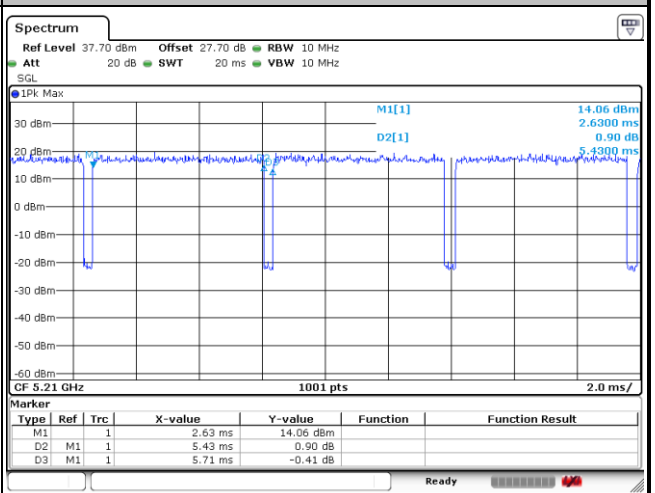
802.11ax HE20 Full RU



802.11ax HE40 Full RU

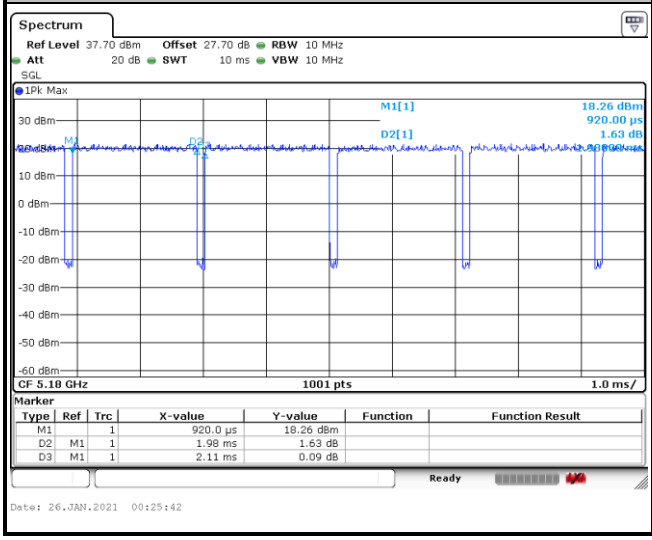


802.11ax HE80 Full RU

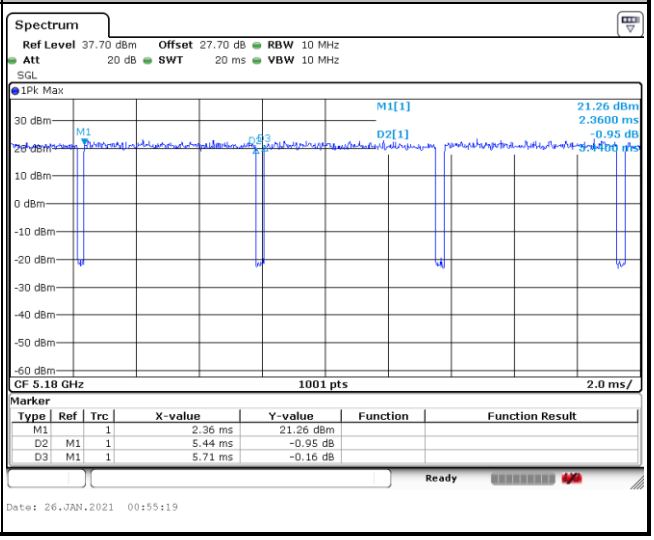


MIMO <Ant. 3>

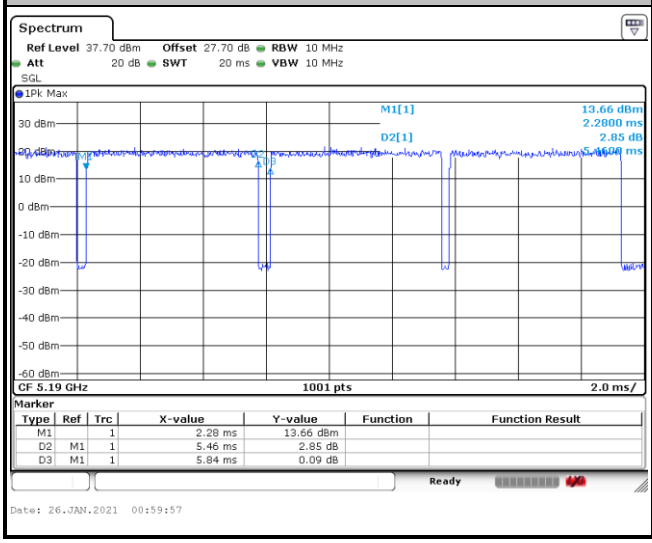
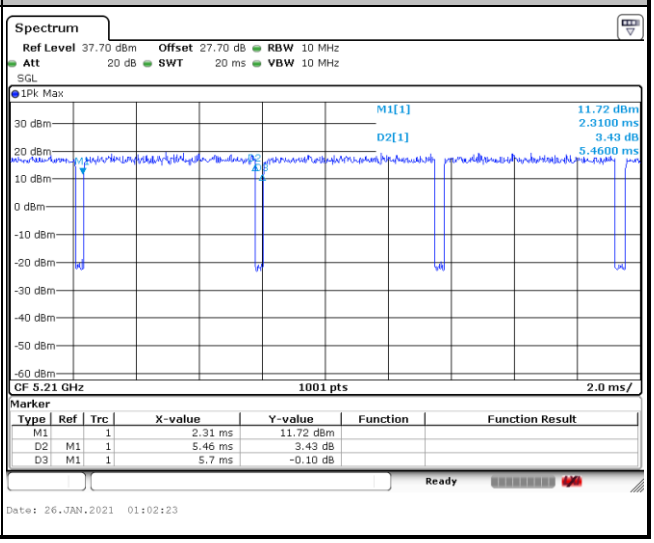
802.11a



802.11ax HE20 Full RU



802.11ax HE40 Full RU



802.11ax HE80 Full RU