FCC RADIO TEST REPORT

FCC ID	:	**J9CQCARD7280P**
Equipment	:	**QCARD7280P**
Brand Name	:	**Qualcomm**
Model Name	:	**QCARD7280P-3**
Applicant	:	**Qualcomm Technologies, Inc. 5775 Morehouse Drive, San Diego, California 92121, United State**
Manufacturer	:	**Qualcomm Technologies, Inc. 5775 Morehouse Drive, San Diego, California 92121, United State**
Standard	:	**FCC Part 15 Subpart E §15.407**

The product was received on Jun. 29, 2022 and testing was performed from Aug. 24, 2022 to Nov. 03, 2022. We, Sporton International Inc. Wensan 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 from Sporton International Inc. Wensan Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

Sporton International Inc. Wensan Laboratory
No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)

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History of this test report

Report No.	Version	Description	Issue Date
FR1N1011-01E	01	Initial issue of report	Jan. 06, 2023

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	0.11 dB under the limit at 7704.000 MHz
-	15.207	AC Conducted Emission	Not Required	-
3.5	15.203 15.407(a)	Antenna Requirement	Pass	-

Note: Not required means after assessing, test items are not necessary to carry out.

Declaration of Conformity:
1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers. It's means measurement values may risk exceeding the limit of regulation standards, if measurement uncertainty is include in test results. 2. The measurement uncertainty please refer to report "Uncertainty of Evaluation".
Comments and Explanations:
The product specifications of the EUT presented in the report are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Avis Chuang

Report Producer: Ruby Zou

1 General Description

1.1 Product Feature of Equipment Under Test

Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n/ac/ax, Wi-Fi 5GHz 802.11a/n/ac/ax, and Wi-Fi 6GHz 802.11a/n/ac/ax.

Antenna Information								
Antenna Set	RF Chain No.	Brand	Model	Antenna Net Gain (dBi)	Frequency Range (MHz)	Ant. Type	Connector Type	Cable Length (mm)
A	Chain0/1	HONG BO	260-25094	3.53	2.4~2.4835 GHz	PIFA	i-pex (MHF 4L)	300mm
				3.06	5.15~5.25 GHz			
				3.07	5.25~5.35 GHz			
				4.81	5.47~5.725 GHz			
				4.2	5.725~5.850 GHz			
B	Chain0/1	HONG BO	260-25083	5.09	5.850~5.895 GHz	PIFA	i-pex (MHF 4L)	300mm
				5.14	5.925~6.425 GHz			
				5.09	6.425~6.525 GHz			
				5.16	6.525~6.875 GHz			
				5.12	6.875~7.125 GHz			
C	Chain0/1	HONG BO	260-25084	3.22	2.4~2.4835 GHz	Monopole	i-pex (MHF 4L)	200mm
				3.35	5.15~5.25 GHz			
				3.42	5.25~5.35 GHz			
				4.77	5.47~5.725 GHz			
				4.72	5.725~5.850 GHz			
				4.71	5.850~5.895 GHz			
				4.75	5.925~6.425 GHz			
				4.29	6.425~6.525 GHz			
				4.81	6.525~6.875 GHz			
				4.74	6.875~7.125 GHz			

Remark:

1. Ant. 5 means Chain 0 and Ant. 4 means Chain 1.
2. The maximum gain was chosen for test.
3. The EUT's information above is declared by manufacturer. Please refer to Comments and Explanations in report summary.

1.1.1 Antenna Directional Gain

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

The directional gain 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 and 11ax modes.

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

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

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

			DG for Power	DG for PSD	Power Limit Reduction	PSD Limit Reduction
	Ant 5 (dBi)	Ant 4 (dBi)	(dBi)	(dBi)	(dB)	(dB)
Band IV	4.72	4.72	7.73	7.73	1.73	1.73

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

PSD limit reduction = Composite gain + PSD Array gain – 6dBi, (min = 0)

Calculation example:
The DG for PSD is derived from formula is
10 x log { { [10^ (4.72 dBi / 20) + 10^ (4.72 dBi / 20)] ^ 2 } / 2 }
= 7.73 dBi

1.2 Modification of EUT

No modifications made to the EUT during the testing.

1.3 Testing Location

Test Site	Sporton International Inc. Wensan 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.**
	TH05-HY, 03CH16-HY

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

FCC designation No.: TW3786

1.4 Applicable Standards

According to the specifications declared by 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 the test items were validated and recorded in accordance with the standards without any modification during the testing.
2. The TAF code is not including all the FCC KDB listed without accreditation.
3. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

2 Test Configuration of Equipment Under Test

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: radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

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 with "*" are 802.11n HT40 and 802.11ac VHT40 and 802.11ax HE40.
2. The above Frequency and Channel with "#" are 802.11ac VHT80 and 802.11ax HE80.

2.2 Test Mode

The 242-tone RU is covered by 20MHz channel, 484-tone RU is covered by 40MHz channel and 996-tone RU is covered by 80MHz channel.

The 802.11n/ac mode has no higher power and PSD than 802.11ax mode, thus the 802.11ax mode is chosen as main test configuration, and the 802.11n/ac mode is verified the power.

The final test modes include the worst data rates for each modulation shown in the table below.

MIMO Mode

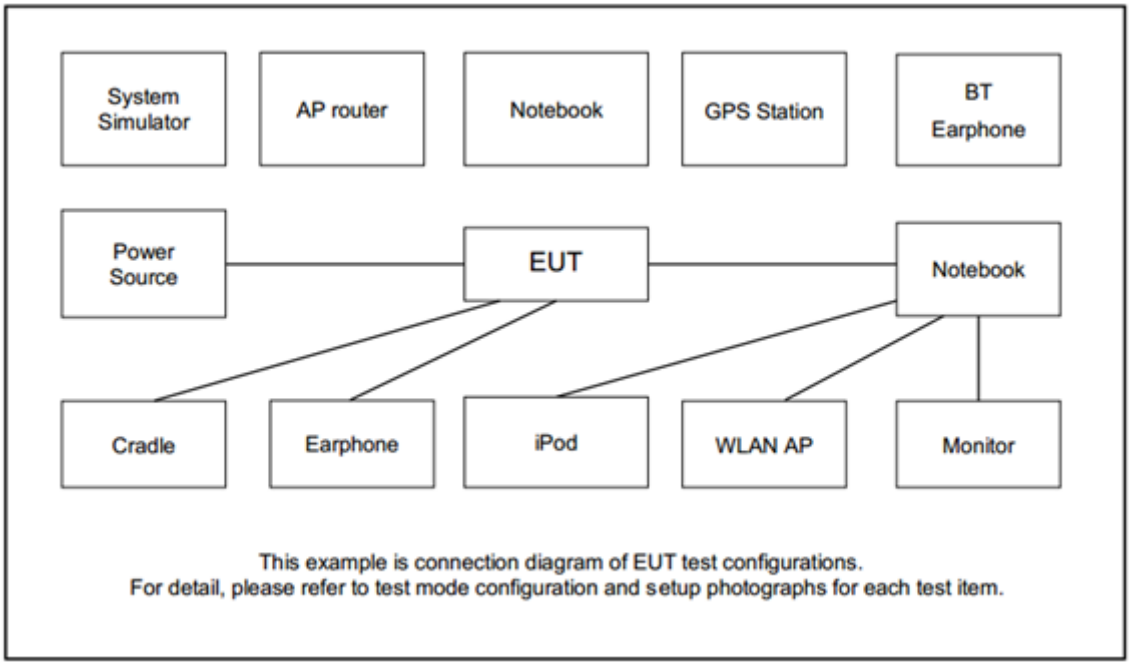
Modulation	Data Rate
802.11a	**6 Mbps**
802.11n HT20 (Covered by HE20)	**MCS0**
802.11n HT40 (Covered by HE40)	**MCS0**
802.11ac VHT20 (Covered by HE20)	**MCS0**
802.11ac VHT40 (Covered by HE40)	**MCS0**
802.11ac VHT80 (Covered by HE80)	**MCS0**
802.11ax HE20	**MCS0**
802.11ax HE40	**MCS0**
802.11ax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

Remark: The conducted power level of each chain in MIMO mode is equal or higher than SISO mode.

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

Remark: For radiation spurious emission, the modulation and the data rate picked for testing are determined by 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.	Fixture	Qualcomm	20-33568-H1	N/A	N/A	N/A

2.5 EUT Operation Test Setup

The RF test items, utility “QRCT v4.0.00195.0” 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.

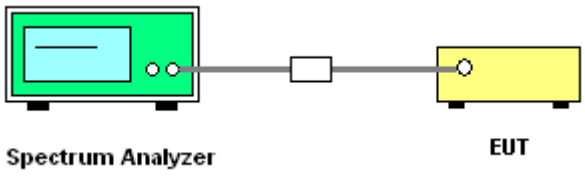
3.1.2 Measuring Instruments

Please refer to the measuring equipment list in 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

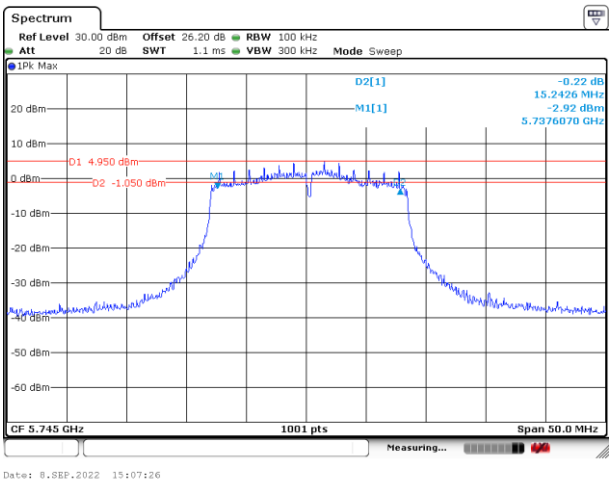
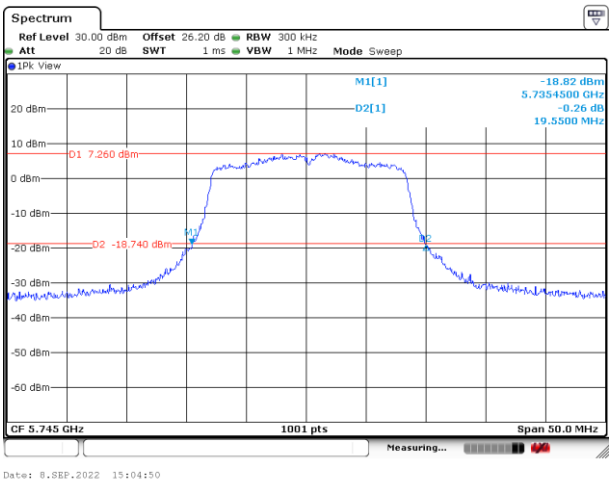
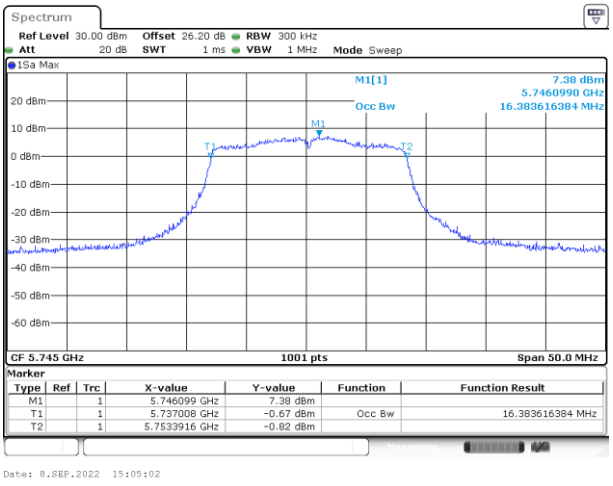


3.1.5 Test Result of 6dB and 26dB and 99% Occupied Bandwidth

Please refer to Appendix A.

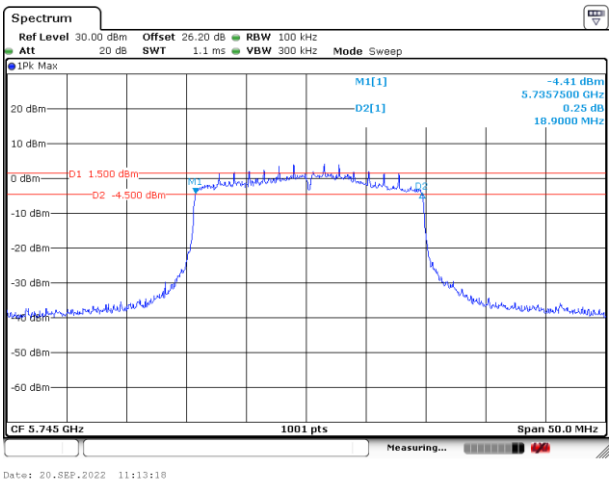
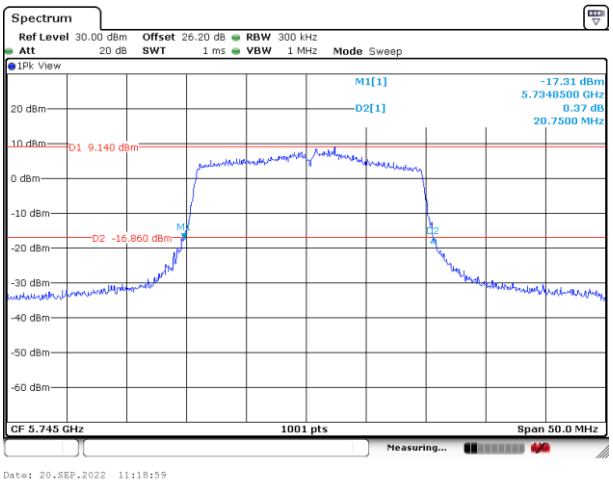
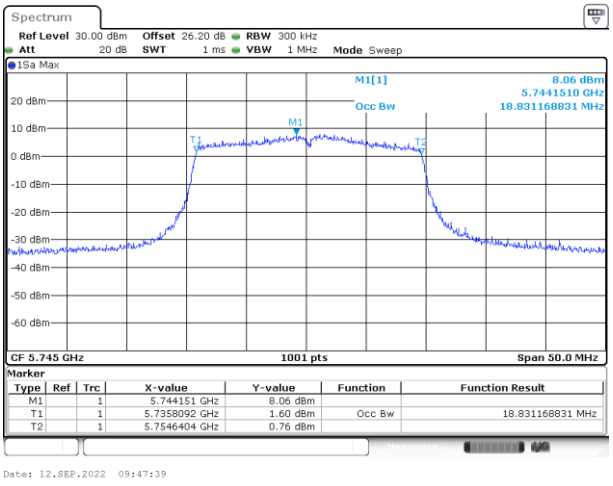
MIMO <Ant. 5+4>

<802.11a>

6dB Bandwidth	26dB Bandwidth
	
99% Occupied Bandwidth	**NA**
	

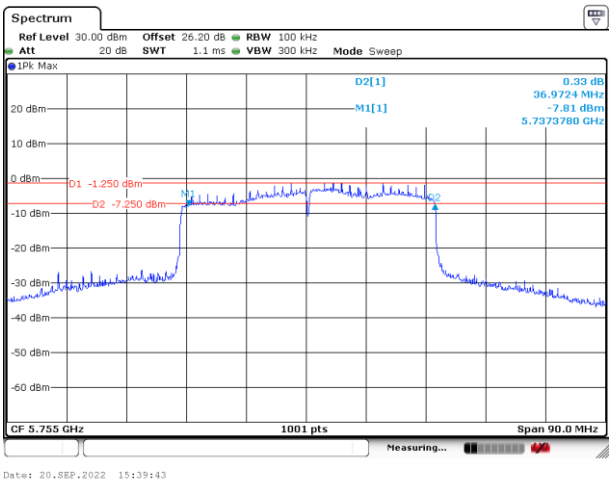
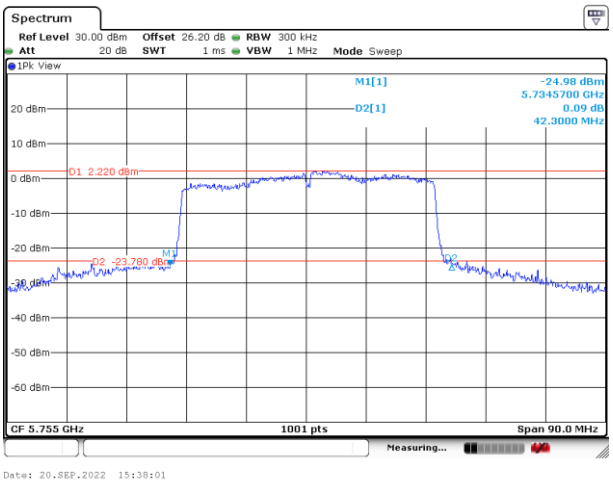
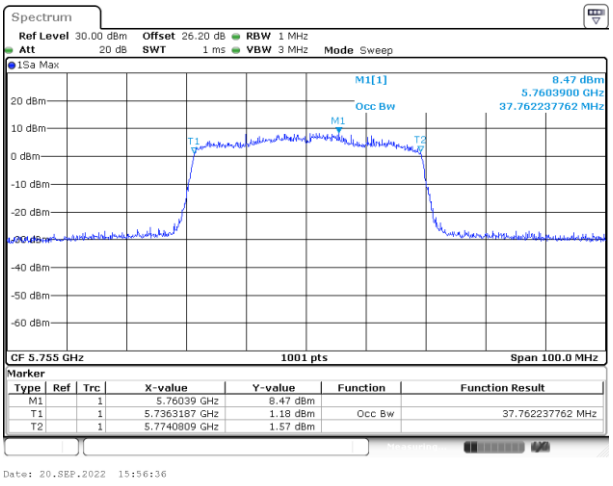
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<802.11ax HE20>

6dB Bandwidth	26dB Bandwidth
	
99% Occupied Bandwidth	**NA**
	

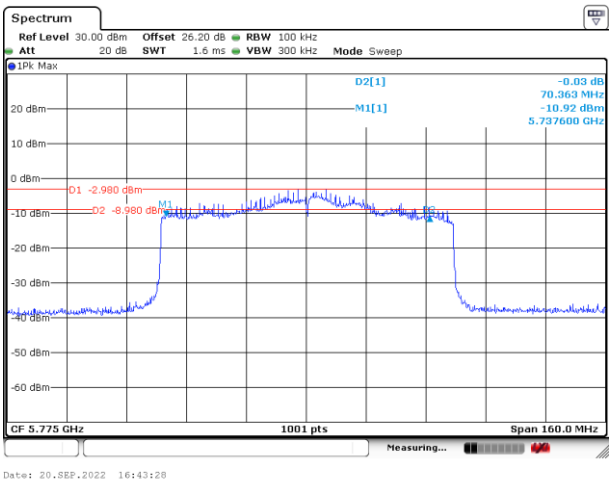
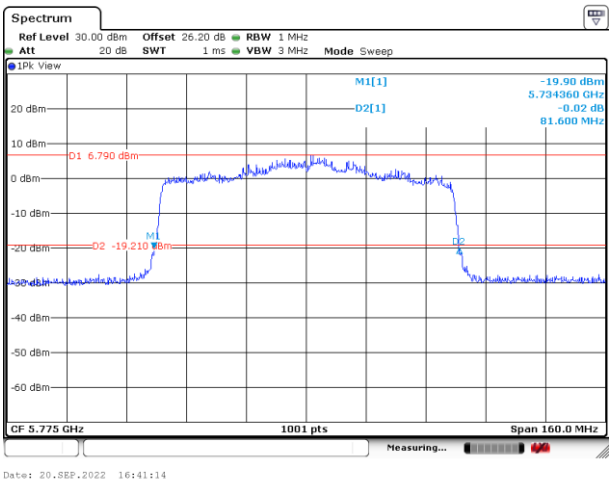
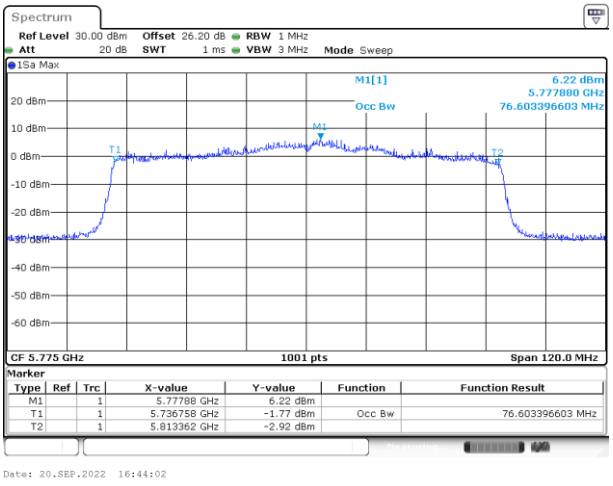
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<802.11ax HE40>

6dB Bandwidth	26dB Bandwidth
	
99% Occupied Bandwidth	**NA**
	

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

<802.11ax HE80>

6dB Bandwidth	26dB Bandwidth
	
99% Occupied Bandwidth	**NA**
	

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

Please refer to the measuring equipment list in this test report.

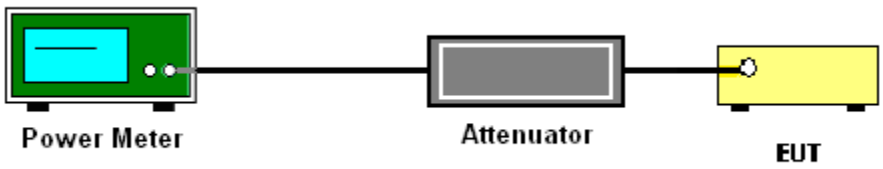
3.2.3 Test Procedures

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.
5. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01

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

Please refer to the measuring equipment list in 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.

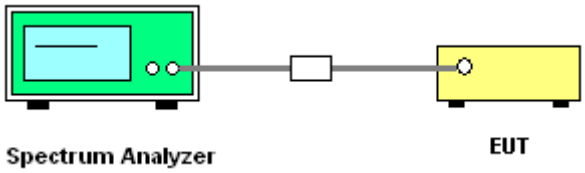
 # Method SA-2 #

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

- Measure the duty cycle.
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 300kHz.
- Set VBW ≥ 1 MHz.
- Add 10 log (500 kHz/RBW) to the measured result, whereas RBW (<500 kHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement
- Number of points in sweep ≥ 2 Span / RBW.
- Sweep time = auto.
- Detector = RMS
- Trace average at least 100 traces in power averaging mode.
- Add 10 log(1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add 10 log(1/0.25) = 6 dB if the duty cycle is 25 percent.

1. The RF output of EUT is 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.

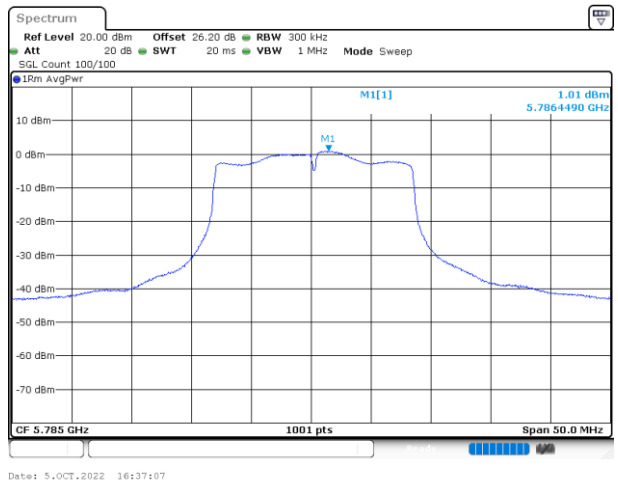
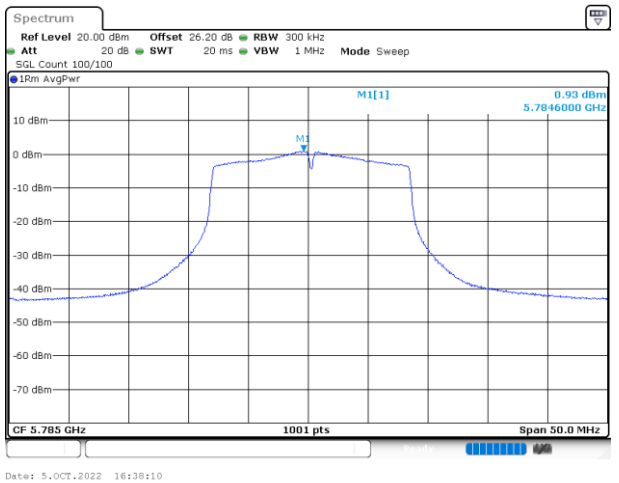
3.3.4 Test Setup



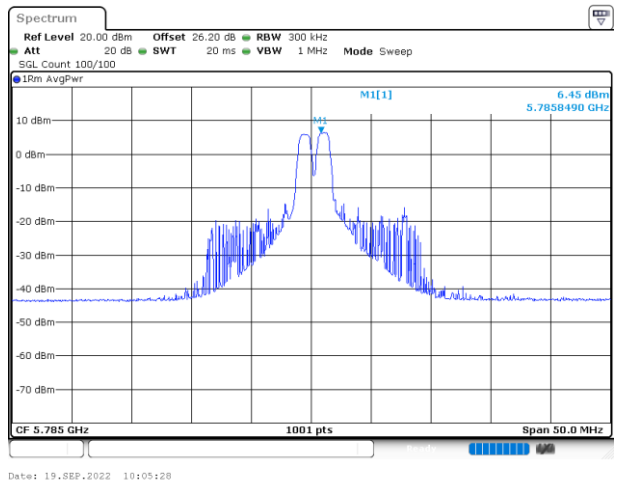
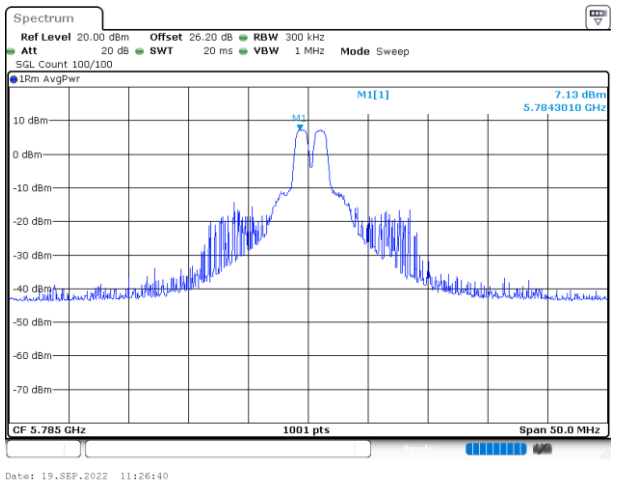
3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

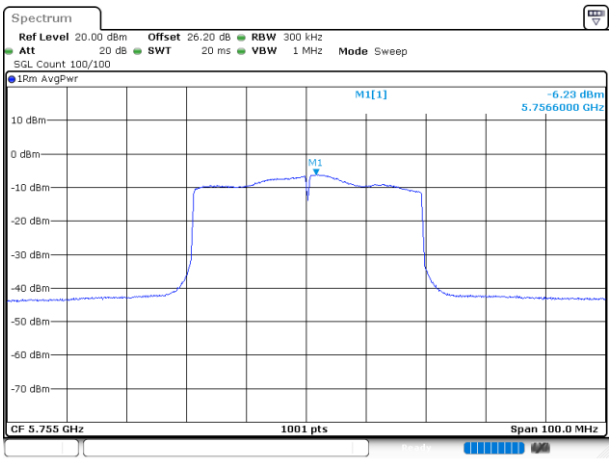
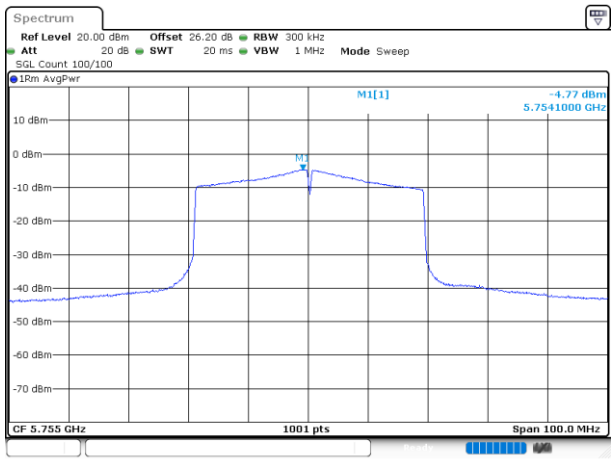
<802.11a>

Maximum Power Density Plot (dBm/300kHz)	
MIMO Ant. 5	**MIMO Ant. 4**
	

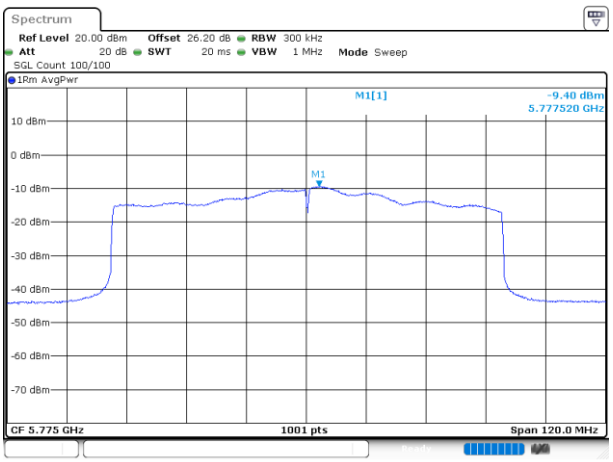
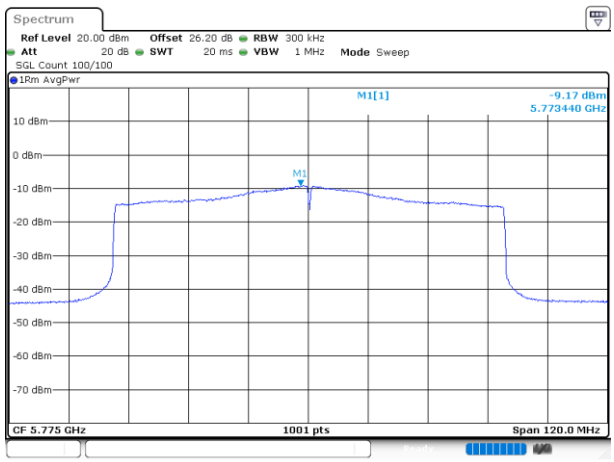
<802.11ax HE20>

Maximum Power Density Plot (dBm/300kHz)	
MIMO Ant. 5	**MIMO Ant. 4**
	

<802.11ax HE40>

Maximum Power Density Plot (dBm/300kHz)	
MIMO Ant. 5	**MIMO Ant. 4**
	

<802.11ax HE80>

Maximum Power Density Plot (dBm/300kHz)	
MIMO Ant. 5	**MIMO Ant. 4**
	

Note: Average Power Density (dB) = Measured value+ Duty Factor

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 falls 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

Please refer to the measuring equipment list in this test report.

3.4.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 11.12.2 Antenna-port conducted measurements.
2. Measure the conducted output power (in dBm) using the peak detector.
3. Add the maximum transmit antenna gain (in dBi) to the measured output power level to determine the EIRP.
4. Add the appropriate maximum ground reflection factor to the EIRP (6 dB for frequencies ≤ 30 MHz; 4.7 dB for frequencies between 30 MHz and 1000 MHz, inclusive; and 0 dB for frequencies > 1000 MHz).
5. Convert the resultant EIRP to an equivalent electric field strength using the following relationship:

   E = EIRP − 20 log d + 104.8,

   where

   E is the electric field strength in dBμV/m

   EIRP is the equivalent isotropically radiated power in dBm

   d is the specified measurement distance in 3m
6. Compare the resultant electric field strength level with the applicable regulatory limit.
7. Corrected Reading for conducted spurious emission: Antenna Gain + Path Loss + MIMO Factor + Read Level = Level
8. Perform the cabinet radiated spurious emission test and verify radiated spurious emission with Antenna A and C
9. 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

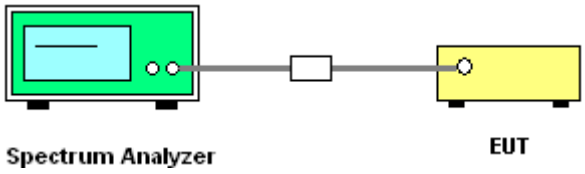
- RBW = 1 MHz
- VBW = 10 Hz, when duty cycle is no less than 98 percent.
- VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

10. The EUT is 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.
11. The EUT is set 3 meters away from the receiving antenna which is mounted on the top of a variable height antenna tower.
12. 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.
13. For each suspected emission, the EUT is 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.
14. Radiated testing below 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading. When there is no suspected emission found and the emission level is with at least 6 dB margin against QP limit line, the position is marked as “-“..
15. Radiated testing above 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading for scanning all frequencies.

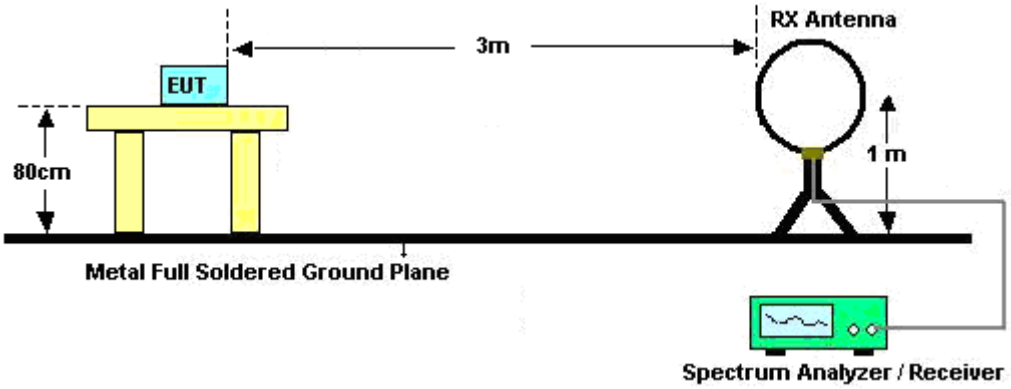
    When there is no suspected emission found and the harmonic emission level is with at least 6 dB margin against average limit line, the position is marked as “-“.

3.4.4 Test Setup

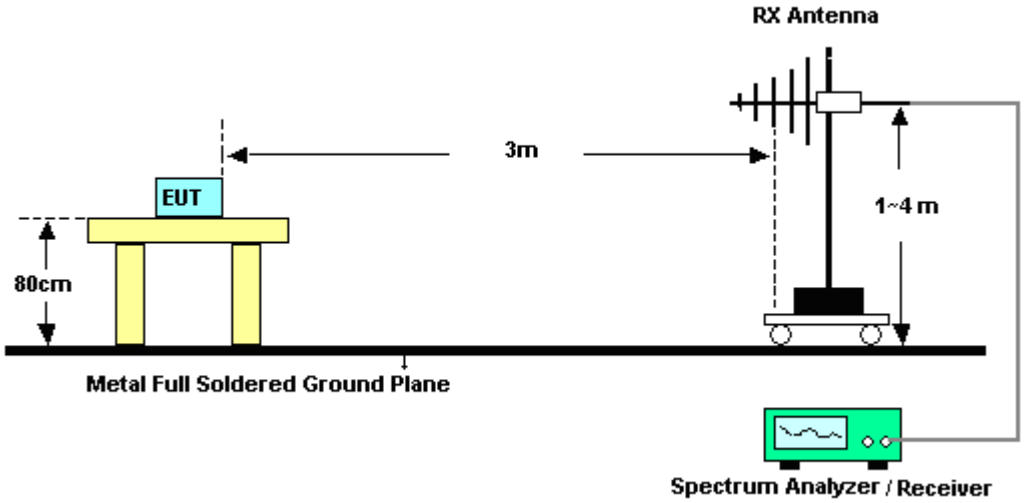
For Conducted Measurement Setup:



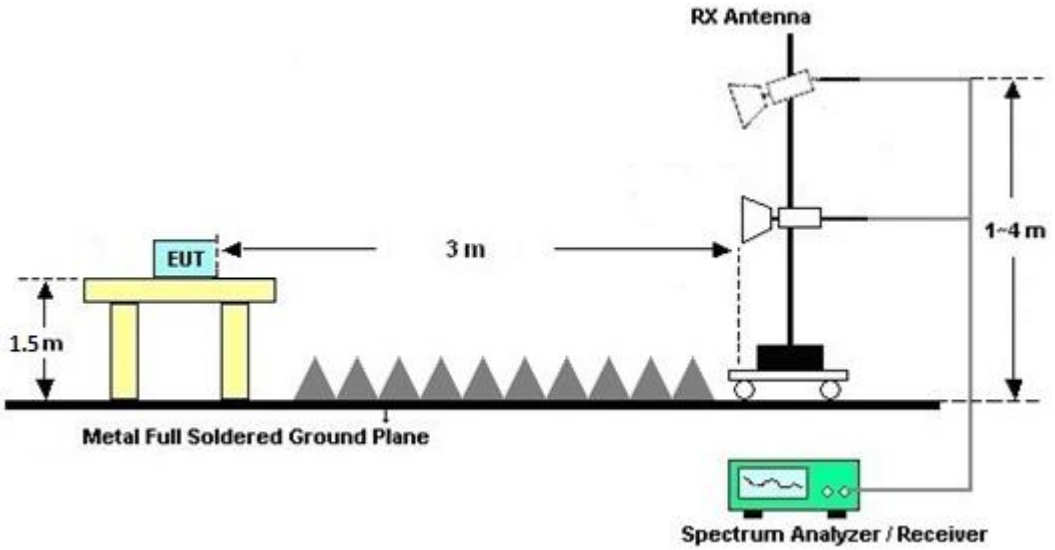
For radiated emissions below 30MHz



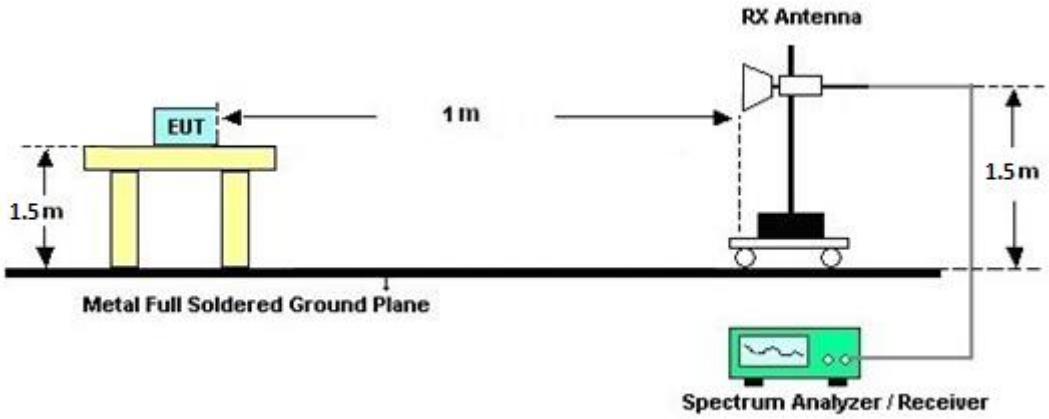
For radiated emissions from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



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

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

There is adequate comparison measurement 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 Conduced Spurious at Band Edges in the Restricted Band

Please refer to Appendix B and C.

3.4.7 Test Result of Conduced Spurious Emission in the Restricted Band

Please refer to Appendix B and C.

3.4.8 Test Result of Cabinet Radiated Spurious at Band Edges

Please refer to Appendix D and E.

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

Please refer to Appendix D and E.

3.4.10 Test Result of Radiated Spurious Emissions in the Restricted Band

Please refer to Appendix F and G.

3.4.11 Duty Cycle

Please refer to Appendix H.

3.5 Antenna Requirements

3.5.1 Standard Applicable

The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the rule.

3.5.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

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	May 13, 2022	Sep. 28, 2022~ Oct. 13, 2022	May 12, 2023	Radiation (03CH16-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz~40GHz	Dec. 24, 2021	Sep. 28, 2022~ Oct. 13, 2022	Dec. 23, 2022	Radiation (03CH16-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA9170	00993	18GHz-40GHz	Nov. 30, 2021	Sep. 28, 2022~ Oct. 13, 2022	Nov. 29, 2022	Radiation (03CH16-HY)
Amplifier	SONOMA	310N	371607	9kHz~1GHz	Jul. 04, 2022	Sep. 28, 2022~ Oct. 13, 2022	Jul. 03, 2023	Radiation (03CH16-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N -06	41912 & 05	30MHz~1GHz	Feb. 06, 2022	Sep. 28, 2022~ Oct. 07, 2022	Feb. 05, 2023	Radiation (03CH16-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00802N1D01N -06	47020 & 06	30MHz~1GHz	Oct. 08, 2022	Oct. 08, 2022 ~ Oct. 13, 2022	Oct. 07, 2023	Radiation (03CH16-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY57290111	3Hz~26.5GHz	Dec. 15, 2021	Sep. 28, 2022~ Oct. 13, 2022	Dec. 14, 2022	Radiation (03CH16-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1522	1GHz~18GHz	Mar. 10, 2022	Sep. 28, 2022~ Oct. 13, 2022	Mar. 09, 2023	Radiation (03CH16-HY)
Preamplifier	Keysight	83017A	MY53270264	1GHz~26.5GHz	Dec. 09, 2021	Sep. 28, 2022~ Oct. 13, 2022	Dec. 08, 2022	Radiation (03CH16-HY)
Preamplifier	EMEC	EM1G18G	060812	1GHz~18GHz	Dec. 27, 2021	Sep. 28, 2022~ Oct. 13, 2022	Dec. 26, 2022	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	805935/4	N/A	Aug. 09, 2022	Sep. 28, 2022~ Oct. 13, 2022	Aug. 08, 2023	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	802434/4	N/A	Aug. 09, 2022	Sep. 28, 2022~ Oct. 13, 2022	Aug. 08, 2023	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	EC-A5-300-5 757	N/A	Aug. 09, 2022	Sep. 28, 2022~ Oct. 13, 2022	Aug. 08, 2023	Radiation (03CH16-HY)
Software	Audix	E3 6.2009-8-24	RK-001136	N/A	N/A	Sep. 28, 2022~ Oct. 13, 2022	N/A	Radiation (03CH16-HY)
Controller	ChainTek	3000-1	N/A	Control Turn table & Ant Mast	N/A	Sep. 28, 2022~ Oct. 13, 2022	N/A	Radiation (03CH16-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Sep. 28, 2022~ Oct. 13, 2022	N/A	Radiation (03CH16-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Sep. 28, 2022~ Oct. 13, 2022	N/A	Radiation (03CH16-HY)
Hygrometer	TECPEL	DTM-303A	TP201996	N/A	Nov. 16, 2021	Sep. 08, 2022~ Oct. 06, 2022	Nov. 15, 2022	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	15I00041SNO 10 (NO:248)	10MHz~6GHz	Dec. 29, 2021	Sep. 08, 2022~ Oct. 06, 2022	Dec. 28, 2022	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101905	10Hz - 40GHz(amp)	Aug. 03, 2022	Sep. 08, 2022~ Oct. 06, 2022	Aug. 02, 2023	Conducted (TH05-HY)

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	ROHDE & SCHWARZ	FSV40	101565	10Hz~40GHz	Dec. 29, 2021	Aug. 24, 2022~ Nov. 03, 2022	Dec. 28, 2022	CSE (TH05-HY)
Spectrum Analyzer	ROHDE & SCHWARZ	FSV40	101906	10Hz~40GHz	Aug. 09, 2022	Aug. 24, 2022~ Nov. 03, 2022	Aug. 08, 2023	CSE (TH05-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz~30MHz	Mar. 10, 2022	Aug. 24, 2022~ Nov. 03, 2022	Mar. 09, 2023	CSE (TH05-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0058/126E	30MHz~18GHz	Dec. 10, 2021	Aug. 24, 2022~ Nov. 03, 2022	Dec. 09, 2022	CSE (TH05-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0030/126E	30MHz~18GHz	Feb. 09, 2022	Aug. 24, 2022~ Nov. 03, 2022	Feb. 08, 2023	CSE (TH05-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30MHz~40GHz	Feb. 21, 2022	Aug. 24, 2022~ Nov. 03, 2022	Feb. 20, 2023	CSE (TH05-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30MHz~40GHz	Feb. 21, 2022	Aug. 24, 2022~ Nov. 03, 2022	Feb. 20, 2023	CSE (TH05-HY)
Filter	Wainwright	WLKS1200-12 SS	SN2	1.2GHz Low Pass Filter	Mar. 15, 2022	Aug. 24, 2022~ Nov. 03, 2022	Mar. 14, 2023	CSE (TH05-HY)
Filter	Wainwright	7GHz High Pass Filter	SN96	7GHz High Pass Filter	Nov. 04, 2021	Aug. 24, 2022~ Nov. 02, 2022	Nov. 03, 2022	CSE (TH05-HY)
Filter	Wainwright	7GHz High Pass Filter	SN97	7GHz High Pass Filter	Nov. 04, 2021	Aug. 24, 2022~ Nov. 02, 2022	Nov. 03, 2022	CSE (TH05-HY)
Filter	Wainwright	7GHz High Pass Filter	SN98	7GHz High Pass Filter	Nov. 03, 2022	Nov. 03, 2022	Nov. 02, 2023	CSE (TH05-HY)
Filter	Wainwright	WHKX8-5872. 5-6750-18000-40ST	SN24	6.75GHz High Pass Filter	Aug. 05, 2022	Aug. 24, 2022~ Nov. 03, 2022	Aug. 04, 2023	CSE (TH05-HY)
Filter	Wainwright	WHKX8-5872. 5-6750-18000-40ST	SN17	6.75GHz High Pass Filter	May 23, 2022	Aug. 24, 2022~ Nov. 03, 2022	May 22, 2023	CSE (TH05-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.8 dB**

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

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

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.8 dB**

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Eason Huang	Temperature:	21~25	°C
Test Date:	2022/9/8~2022/10/06	Relative Humidity:	51~54	%

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 5	Ant 4	Ant 5	Ant 4	Ant 5	Ant 4		
11a	6Mbps	2	149	5745	16.38	16.38	19.55	19.55	15.24	15.19	0.5	Pass
11a	6Mbps	2	157	5785	16.33	16.33	19.25	19.60	15.19	15.19	0.5	Pass
11a	6Mbps	2	165	5825	16.38	16.43	19.55	20.55	15.24	15.19	0.5	Pass

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 5	Ant 4	SUM	Ant 5	Ant 4	Ant 5	Ant 4	
11a	6Mbps	2	149	5745	14.30	14.60	17.46	28.27		7.73		Pass
11a	6Mbps	2	157	5785	16.70	16.80	19.76	28.27		7.73		Pass
11a	6Mbps	2	165	5825	15.10	15.10	18.11	28.27		7.73		Pass
HT20	MCS0	2	149	5745	13.40	13.80	16.61	28.27		7.73		Pass
HT20	MCS0	2	157	5785	15.40	16.40	18.94	28.27		7.73		Pass
HT20	MCS0	2	165	5825	13.10	14.50	16.87	28.27		7.73		Pass
HT40	MCS0	2	151	5755	12.80	13.40	16.12	28.27		7.73		Pass
HT40	MCS0	2	159	5795	13.40	13.80	16.61	28.27		7.73		Pass
VHT20	MCS0	2	149	5745	13.50	14.00	16.77	28.27		7.73		Pass
VHT20	MCS0	2	157	5785	15.60	16.50	19.08	28.27		7.73		Pass
VHT20	MCS0	2	165	5825	13.20	14.70	17.02	28.27		7.73		Pass
VHT40	MCS0	2	151	5755	12.90	13.50	16.22	28.27		7.73		Pass
VHT40	MCS0	2	159	5795	13.60	13.90	16.76	28.27		7.73		Pass
VHT80	MCS0	2	155	5775	12.30	12.50	15.41	28.27		7.73		Pass

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 5	Ant 4	Ant 5	Ant 4	SUM	Ant 5	Ant 4	Ant 5	Ant 4	
11a	6Mbps	2	149	5745	2.22		0.76	1.22	4.23	28.27		7.73		Pass
11a	6Mbps	2	157	5785	2.22		3.23	3.15	6.24	28.27		7.73		Pass
11a	6Mbps	2	165	5825	2.22		0.40	1.52	4.53	28.27		7.73		Pass

Note: PSD Sum = Max PSD(Ant. 5, Ant. 4) + 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 5	Ant 4	Ant 5	Ant 4	Ant 5	Ant 4		
HE20	MCS0	2	149	5745	Full	18.83	18.88	20.75	21.05	18.90	15.34	0.5	Pass
HE20	MCS0	2	149	5745	26/0	18.93	19.08	21.25	21.00	2.20	17.14	0.5	Pass
HE20	MCS0	2	149	5745	52/37	18.58	18.73	21.45	22.90	17.19	17.19	0.5	Pass
HE20	MCS0	2	149	5745	106/53	18.63	18.78	26.10	23.05	17.19	17.79	0.5	Pass
HE20	MCS0	2	149	5745	242/61	19.28	19.38	22.85	31.20	19.14	19.19	0.5	Pass
HE20	MCS0	2	157	5785	Full	18.83	18.93	21.05	21.20	15.19	16.09	0.5	Pass
HE20	MCS0	2	157	5785	26/4	17.33	17.23	19.00	18.85	8.90	6.45	0.5	Pass
HE20	MCS0	2	157	5785	52/38	17.33	17.23	19.45	18.95	15.19	15.19	0.5	Pass
HE20	MCS0	2	157	5785	106/53	18.38	18.38	25.05	23.25	17.19	17.84	0.5	Pass
HE20	MCS0	2	157	5785	242/61	19.83	19.63	38.35	38.90	18.99	19.19	0.5	Pass
HE20	MCS0	2	165	5825	Full	18.88	18.98	21.05	21.05	15.69	15.19	0.5	Pass
HE20	MCS0	2	165	5825	26/8	18.83	18.53	20.60	20.40	2.11	2.16	0.5	Pass
HE20	MCS0	2	165	5825	52/40	18.43	18.33	20.85	21.05	17.14	17.09	0.5	Pass
HE20	MCS0	2	165	5825	106/54	18.48	18.33	22.30	20.90	17.24	17.29	0.5	Pass
HE20	MCS0	2	165	5825	242/61	19.13	23.02	25.30	43.03	19.14	19.19	0.5	Pass
HE40	MCS0	2	151	5755	Full	37.76	37.76	42.30	40.41	36.97	35.26	0.5	Pass
HE40	MCS0	2	151	5755	484/65	38.26	38.06	42.39	42.30	38.32	36.70	0.5	Pass
HE40	MCS0	2	159	5795	Full	37.76	38.06	40.41	42.57	35.26	36.43	0.5	Pass
HE40	MCS0	2	159	5795	484/65	38.76	39.66	55.17	66.87	38.23	38.32	0.5	Pass
HE80	MCS0	2	155	5775	Full	76.60	76.72	81.60	81.60	70.36	71.48	0.5	Pass
HE80	MCS0	2	155	5775	996/67	77.92	78.16	110.24	115.84	78.36	78.36	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 5	Ant 4	SUM	Ant 5	Ant 4	Ant 5	Ant 4	
HE20	MCS0	2	149	5745	Full	13.60	14.10	16.87	28.27		7.73		Pass
HE20	MCS0	2	149	5745	26/0	13.60	13.40	16.51	28.27		7.73		Pass
HE20	MCS0	2	149	5745	52/37	13.90	13.80	16.86	28.27		7.73		Pass
HE20	MCS0	2	149	5745	106/53	14.40	14.00	17.21	28.27		7.73		Pass
HE20	MCS0	2	149	5745	242/61	13.60	14.70	17.20	28.27		7.73		Pass
HE20	MCS0	2	157	5785	Full	15.70	16.60	19.18	28.27		7.73		Pass
HE20	MCS0	2	157	5785	26/4	14.60	15.50	18.08	28.27		7.73		Pass
HE20	MCS0	2	157	5785	52/38	14.80	15.50	18.17	28.27		7.73		Pass
HE20	MCS0	2	157	5785	106/53	15.00	15.30	18.16	28.27		7.73		Pass
HE20	MCS0	2	157	5785	242/61	16.60	17.30	19.97	28.27		7.73		Pass
HE20	MCS0	2	165	5825	Full	13.30	14.80	17.12	28.27		7.73		Pass
HE20	MCS0	2	165	5825	26/8	13.20	15.40	17.45	28.27		7.73		Pass
HE20	MCS0	2	165	5825	52/40	14.50	15.50	18.04	28.27		7.73		Pass
HE20	MCS0	2	165	5825	106/54	14.40	15.40	17.94	28.27		7.73		Pass
HE20	MCS0	2	165	5825	242/61	16.10	17.10	19.64	28.27		7.73		Pass
HE40	MCS0	2	151	5755	Full	13.00	13.60	16.32	28.27		7.73		Pass
HE40	MCS0	2	151	5755	484/65	12.00	13.00	15.54	28.27		7.73		Pass
HE40	MCS0	2	159	5795	Full	13.70	14.00	16.86	28.27		7.73		Pass
HE40	MCS0	2	159	5795	484/65	13.40	13.90	16.67	28.27		7.73		Pass
HE80	MCS0	2	155	5775	Full	12.40	12.60	15.51	28.27		7.73		Pass
HE80	MCS0	2	155	5775	996/67	11.30	11.80	14.57	28.27		7.73		Pass

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 5	Ant 4	Ant 5	Ant 4	SUM	Ant 5	Ant 4	Ant 5	Ant 4	
HE20	MCS0	2	149	5745	Full	2.22		-0.53	0.45	3.46	28.27		7.73		Pass
HE20	MCS0	2	149	5745	26/0	2.22		7.19	7.02	10.20	28.27		7.73		Pass
HE20	MCS0	2	149	5745	52/37	2.22		4.63	4.50	7.64	28.27		7.73		Pass
HE20	MCS0	2	149	5745	106/53	2.22		0.15	1.81	4.82	28.27		7.73		Pass
HE20	MCS0	2	149	5745	242/61	2.22		-1.79	-0.13	2.88	28.27		7.73		Pass
HE20	MCS0	2	157	5785	Full	2.22		1.60	2.78	5.79	28.27		7.73		Pass
HE20	MCS0	2	157	5785	26/4	2.22		8.67	9.35	12.36	28.27		7.73		Pass
HE20	MCS0	2	157	5785	52/38	2.22		5.92	6.53	9.54	28.27		7.73		Pass
HE20	MCS0	2	157	5785	106/53	2.22		3.52	3.19	6.53	28.27		7.73		Pass
HE20	MCS0	2	157	5785	242/61	2.22		1.63	1.96	4.97	28.27		7.73		Pass
HE20	MCS0	2	165	5825	Full	2.22		-0.79	1.18	4.19	28.27		7.73		Pass
HE20	MCS0	2	165	5825	26/8	2.22		6.98	9.04	12.05	28.27		7.73		Pass
HE20	MCS0	2	165	5825	52/40	2.22		4.79	6.58	9.59	28.27		7.73		Pass
HE20	MCS0	2	165	5825	106/54	2.22		2.28	3.82	6.83	28.27		7.73		Pass
HE20	MCS0	2	165	5825	242/61	2.22		0.94	2.09	5.10	28.27		7.73		Pass
HE40	MCS0	2	151	5755	Full	2.22		-4.01	-2.55	0.46	28.27		7.73		Pass
HE40	MCS0	2	151	5755	484/65	2.22		-6.56	-5.26	-2.25	28.27		7.73		Pass
HE40	MCS0	2	159	5795	Full	2.22		-3.89	-3.42	-0.41	28.27		7.73		Pass
HE40	MCS0	2	159	5795	484/65	2.22		-5.11	-5.06	-2.05	28.27		7.73		Pass
HE80	MCS0	2	155	5775	Full	2.22		-7.18	-6.95	-3.94	28.27		7.73		Pass
HE80	MCS0	2	155	5775	996/67	2.22		-10.09	-9.96	-6.95	28.27		7.73		Pass

Note: PSD Sum = Max PSD(Ant. 5, Ant. 4) + 10 log (n)

Appendix B. Conducted Spurious Emission

Test Engineer :	Kai Liao, Ken Wu and Nick Yu	Temperature :	21.5~25.9°C
		Relative Humidity :	45.3~64.5%

UNII 3 - 5725~5850MHz

WIFI 802.11a (Band Edge)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	MIMO	Grounding	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Avg.
4		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
802.11a CH 149 5745MHz		5608	-30.04	-3.04	-27	-42.57	7.73	1.79	3.01	0	P
		5698.4	-18.69	-27.51	8.82	-31.16	7.73	1.73	3.01	0	P
		5717.6	-8.78	-23.71	14.93	-21.24	7.73	1.72	3.01	0	P
		5725	2.37	-24.63	27	-10.08	7.73	1.71	3.01	0	P
	*	5745	23.21	-	-	10.77	7.73	1.7	3.01	0	P
	*	5745	12.96	-	-	0.52	7.73	1.7	3.01	0	A
802.11a CH 157 5785MHz		5644.8	-30.81	-3.81	-27	-43.31	7.73	1.76	3.01	0	P
		5695	-26.51	-32.82	6.31	-38.98	7.73	1.73	3.01	0	P
		5711.2	-21.74	-34.88	13.14	-34.2	7.73	1.72	3.01	0	P
		5720.6	-22.6	-39.57	16.97	-35.06	7.73	1.72	3.01	0	P
	*	5785	24.37	-	-	11.96	7.73	1.67	3.01	0	P
	*	5785	14.84	-	-	2.43	7.73	1.67	3.01	0	A
		5850.37	-23.25	-49.41	26.16	-35.64	7.73	1.65	3.01	0	P
		5858.98	-23.37	-37.85	14.48	-35.76	7.73	1.65	3.01	0	P
		5878.045	-25.02	-32.76	7.74	-37.4	7.73	1.64	3.01	0	P
		5935.855	-36.31	-9.31	-27	-48.73	7.73	1.68	3.01	0	P
802.11a CH 165 5825MHz	*	5825	22.04	-	-	9.65	7.73	1.65	3.01	0	P
	*	5825	12.62	-	-	0.23	7.73	1.65	3.01	0	A
		5851.6	-5.94	-29.29	23.35	-18.33	7.73	1.65	3.01	0	P
		5859.2	-14.96	-29.38	14.42	-27.35	7.73	1.65	3.01	0	P
		5878.4	-19.92	-27.39	7.47	-32.3	7.73	1.64	3.01	0	P
		5930	-31.71	-4.71	-27	-44.12	7.73	1.67	3.01	0	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

UNII 3 5725~5850MHz

WIFI 802.11a (Harmonic)

WIFI Ant. 4	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Path Loss (dB)	MIMO Factor (dB)	Grounding Factor (dB)	Peak Avg. (P/A)
802.11a CH 149 5745MHz		7660	-53.06	-31.86	-21.2	-67.11	7.73	3.31	3.01	0	P
		11490	-66.3	-45.1	-21.2	-80.65	7.73	3.61	3.01	0	P
		17235	-64.79	-37.79	-27	-79.92	7.73	4.39	3.01	0	P
802.11a CH 157 5785MHz		7712.2	-50.58	-29.38	-21.2	-64.61	7.73	3.29	3.01	0	P
		11570	-58.68	-37.48	-21.2	-73.11	7.73	3.69	3.01	0	P
		17355	-57.89	-30.89	-27	-72.98	7.73	4.35	3.01	0	P
802.11a CH 165 5825MHz		7768.85	-51.08	-24.08	-27	-65.09	7.73	3.27	3.01	0	P
		11650	-64.12	-42.92	-21.2	-78.67	7.73	3.81	3.01	0	P
		17475	-59.85	-32.85	-27	-74.9	7.73	4.31	3.01	0	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

UNII 3 - 5725~5850MHz

WIFI 802.11ax HE20 Full (Band Edge)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	MIMO	Grounding	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Avg.
4		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
802.11ax HE20 Full CH 149 5745MHz		5649.6	-34.2	-7.2	-27	-46.7	7.73	1.76	3.01	0	P
		5698.6	-17.69	-26.66	8.97	-30.16	7.73	1.73	3.01	0	P
		5720	-10.4	-26	15.6	-22.86	7.73	1.72	3.01	0	P
		5725	-3.18	-30.18	27	-15.63	7.73	1.71	3.01	0	P
	*	5745	22.38	-	-	9.94	7.73	1.7	3.01	0	P
	*	5745	11.76	-	-	-0.68	7.73	1.7	3.01	0	A
802.11ax HE20 Full CH 157 5785MHz		5646.8	-32.33	-5.33	-27	-44.83	7.73	1.76	3.01	0	P
		5699.6	-23.14	-32.85	9.71	-35.61	7.73	1.73	3.01	0	P
		5719.4	-21.28	-36.71	15.43	-33.74	7.73	1.72	3.01	0	P
		5723.6	-20.38	-44.19	23.81	-32.83	7.73	1.71	3.01	0	P
	*	5785	26.02	-	-	13.61	7.73	1.67	3.01	0	P
	*	5785	13.96	-	-	1.55	7.73	1.67	3.01	0	A
		5851.805	-18.05	-40.93	22.88	-30.44	7.73	1.65	3.01	0	P
		5862.875	-16	-29.39	13.39	-28.39	7.73	1.65	3.01	0	P
		5889.73	-20.92	-19.99	-0.93	-33.3	7.73	1.64	3.01	0	P
		5927.245	-33.16	-6.16	-27	-45.57	7.73	1.67	3.01	0	P
802.11ax HE20 Full CH 165 5825MHz	*	5825	22.38	-	-	9.99	7.73	1.65	3.01	0	P
	*	5825	12.05	-	-	-0.34	7.73	1.65	3.01	0	A
		5852.4	-10.31	-31.84	21.53	-22.7	7.73	1.65	3.01	0	P
		5855.6	-13.32	-28.75	15.43	-25.71	7.73	1.65	3.01	0	P
		5875.6	-19.81	-29.36	9.55	-32.19	7.73	1.64	3.01	0	P
		5926	-31.87	-4.87	-27	-44.28	7.73	1.67	3.01	0	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

UNII 3 5725~5850MHz

WIFI 802.11ax HE20 Full (Harmonic)

WIFI Ant. 4	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Path Loss (dB)	MIMO Factor (dB)	Grounding Factor (dB)	Peak Avg. (P/A)
802.11ax		7660.7	-46.41	-25.21	-21.2	-60.46	7.73	3.31	3.01	0	P
HE20 Full		7660.7	-47.17	-5.97	-41.2	-61.22	7.73	3.31	3.01	0	A
CH 149		11490	-63.55	-42.35	-21.2	-77.9	7.73	3.61	3.01	0	P
5745MHz		17235	-62.77	-35.77	-27	-77.9	7.73	4.39	3.01	0	P
802.11ax		7712.2	-46.14	-24.94	-21.2	-60.17	7.73	3.29	3.01	0	P
HE20 Full		7712.2	-47.64	-6.44	-41.2	-61.67	7.73	3.29	3.01	0	A
CH 157		11570	-59.6	-38.4	-21.2	-74.03	7.73	3.69	3.01	0	P
5785MHz		17355	-60.27	-33.27	-27	-75.36	7.73	4.35	3.01	0	P
802.11ax		7766	-46.79	-19.79	-27	-60.8	7.73	3.27	3.01	0	P
HE20 Full		7766	-47.57	-6.37	-41.2	-61.58	7.73	3.27	3.01	0	A
CH 165		11650	-64.56	-43.36	-21.2	-79.11	7.73	3.81	3.01	0	P
5825MHz		17475	-57.9	-30.9	-27	-72.95	7.73	4.31	3.01	0	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

UNII 3 - 5725~5850MHz

WIFI 802.11ax HE20 Partial 26 (Band Edge)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	MIMO	Grounding	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Avg.
4		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
802.11ax HE20 Partial 26/0 CH 149 5745MHz		5641.2	-31.97	-4.97	-27	-44.48	7.73	1.77	3.01	0	P
		5696.2	-14.73	-21.93	7.2	-27.2	7.73	1.73	3.01	0	P
		5702	-9.45	-20.01	10.56	-21.92	7.73	1.73	3.01	0	P
		5725	-13.79	-40.79	27	-26.24	7.73	1.71	3.01	0	P
	*	5745	29	-	-	16.56	7.73	1.7	3.01	0	P
	*	5745	20.41	-	-	7.97	7.73	1.7	3.01	0	A
802.11ax HE20 Partial 26/4 CH 157 5785MHz		5632.2	-37.52	-10.52	-27	-50.03	7.73	1.77	3.01	0	P
		5685.4	-31.5	-30.73	-0.77	-43.98	7.73	1.74	3.01	0	P
		5717.8	-24.91	-39.9	14.99	-37.37	7.73	1.72	3.01	0	P
		5721.8	-25.04	-44.75	19.71	-37.5	7.73	1.72	3.01	0	P
	*	5785	29.76	-	-	17.35	7.73	1.67	3.01	0	P
	*	5785	21.28	-	-	8.87	7.73	1.67	3.01	0	A
		5853.24	-27.27	-46.88	19.61	-39.66	7.73	1.65	3.01	0	P
		5856.725	-24.68	-39.8	15.12	-37.07	7.73	1.65	3.01	0	P
		5889.935	-31.71	-30.63	-1.08	-44.09	7.73	1.64	3.01	0	P
		5934.215	-37.1	-10.1	-27	-49.52	7.73	1.68	3.01	0	P
802.11ax HE20 Partial 26/8 CH 165 5825MHz	*	5825	29.05	-	-	16.66	7.73	1.65	3.01	0	P
	*	5825	19.98	-	-	7.59	7.73	1.65	3.01	0	A
		5851.4	-22.59	-46.4	23.81	-34.98	7.73	1.65	3.01	0	P
		5873.2	-16.51	-27.01	10.5	-28.89	7.73	1.64	3.01	0	P
		5875.6	-17.78	-27.33	9.55	-30.16	7.73	1.64	3.01	0	P
		5948.8	-35.71	-8.71	-27	-48.14	7.73	1.69	3.01	0	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

UNII 3 5725~5850MHz

WIFI 802.11ax HE20 Partial 26 (Harmonic)

WIFI Ant. 4	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Path Loss (dB)	MIMO Factor (dB)	Grounding Factor (dB)	Peak Avg. (P/A)
802.11ax		7660.7	-46.8	-25.6	-21.2	-60.85	7.73	3.31	3.01	0	P
HE20		7660.7	-47.42	-6.22	-41.2	-61.47	7.73	3.31	3.01	0	A
Partial		11490	-57.12	-35.92	-21.2	-71.47	7.73	3.61	3.01	0	P
26/0		17235	-61.6	-34.6	-27	-76.73	7.73	4.39	3.01	0	P
CH 149											
5745MHz											
802.11ax		7715.62	-44.49	-23.29	-21.2	-58.79	7.73	3.56	3.01	0	P
HE20		7715.62	-48.82	-7.62	-41.2	-63.12	7.73	3.56	3.01	0	A
Partial		11570	-52.15	-30.95	-21.2	-66.47	7.73	3.58	3.01	0	P
26/4		17355	-53.16	-26.16	-27	-68.39	7.73	4.49	3.01	0	P
CH 157											
5785MHz											
802.11ax		7766.72	-45.64	-18.64	-27	-59.9	7.73	3.52	3.01	0	P
HE20		7766.72	-45.18	-3.98	-41.2	-59.44	7.73	3.52	3.01	0	A
Partial		11650	-60.51	-39.31	-21.2	-74.93	7.73	3.68	3.01	0	P
26/8		17475	-59.17	-32.17	-27	-74.35	7.73	4.44	3.01	0	P
CH 165											
5825MHz											
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

UNII 3 - 5725~5850MHz

WIFI 802.11ax HE20 Partial 52 (Band Edge)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Gain	Path Loss	MIMO Factor	Grounding Factor	Peak Avg.
4		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
802.11ax HE20 Partial 52/37 CH 149 5745MHz		5645.2	-31.46	-4.46	-27	-43.96	7.73	1.76	3.01	0	P
		5699.4	-21.08	-30.64	9.56	-33.55	7.73	1.73	3.01	0	P
		5718.8	-16.37	-31.63	15.26	-28.83	7.73	1.72	3.01	0	P
		5723.2	-16.27	-39.17	22.9	-28.72	7.73	1.71	3.01	0	P
	*	5745	27.88	54.88	-27	15.44	7.73	1.7	3.01	0	P
	*	5745	18.21	59.41	-41.2	5.77	7.73	1.7	3.01	0	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

UNII 3 - 5725~5850MHz

WIFI 802.11ax HE20 Partial 106 (Band Edge)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Gain	Path Loss	MIMO Factor	Grounding Factor	Peak Avg.
4		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
802.11ax HE20 Partial 106/53 CH 149 5745MHz		5646.4	-30.51	-3.51	-27	-43.01	7.73	1.76	3.01	0	P
		5697	-18.19	-25.98	7.79	-30.66	7.73	1.73	3.01	0	P
		5713.8	-8.68	-22.55	13.87	-21.14	7.73	1.72	3.01	0	P
		5720.4	-6.76	-23.27	16.51	-19.22	7.73	1.72	3.01	0	P
	*	5745	26.04	-	-	13.6	7.73	1.7	3.01	0	P
	*	5745	15.75	-	-	3.31	7.73	1.7	3.01	0	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

UNII 3 - 5725~5850MHz

WIFI 802.11ax HE20 Partial 242 (Band Edge)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Gain	Path Loss	MIMO Factor	Grounding Factor	Peak Avg.
4		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
802.11ax HE20 Partial 242/61 CH 149 5745MHz		5647	-29.08	-2.08	-27	-41.58	7.73	1.76	3.01	0	P
		5699	-18.2	-27.46	9.26	-30.67	7.73	1.73	3.01	0	P
		5719	-10.46	-25.78	15.32	-22.92	7.73	1.72	3.01	0	P
		5724.4	-4.9	-30.53	25.63	-17.35	7.73	1.71	3.01	0	P
	*	5745	22.56	-	-	10.12	7.73	1.7	3.01	0	P
	*	5745	11.84	-	-	-0.6	7.73	1.7	3.01	0	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

UNII 3 - 5725~5850MHz

WIFI 802.11ax HE40 Full (Band Edge)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Gain	Path Loss	MIMO Factor	Grounding Factor	Peak Avg.
4		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
802.11ax HE40 Full CH 151 5755MHz		5639.6	-30.48	-3.48	-27	-42.99	7.73	1.77	3.01	0	P
		5697.2	-19.7	-27.64	7.94	-32.17	7.73	1.73	3.01	0	P
		5720	-12.55	-28.15	15.6	-25.01	7.73	1.72	3.01	0	P
		5721.2	-9.17	-27.51	18.34	-21.63	7.73	1.72	3.01	0	P
	*	5755	19.39	-	-	6.96	7.73	1.69	3.01	0	P
	*	5755	7.61	-	-	-4.82	7.73	1.69	3.01	0	A
		5855	-29.71	-45.31	15.6	-42.1	7.73	1.65	3.01	0	P
		5865.335	-30.86	-43.56	12.7	-43.25	7.73	1.65	3.01	0	P
		5899.365	-29.54	-21.47	-8.07	-41.92	7.73	1.64	3.01	0	P
		5940.98	-35.76	-8.76	-27	-48.18	7.73	1.68	3.01	0	P
802.11ax HE40 Full CH 159 5795MHz		5646.6	-30.54	-3.54	-27	-43.04	7.73	1.76	3.01	0	P
		5658.4	-23.16	-2.4	-20.76	-35.65	7.73	1.75	3.01	0	P
		5719.6	-20.1	-35.59	15.49	-32.56	7.73	1.72	3.01	0	P
		5721.4	-20.43	-39.22	18.79	-32.89	7.73	1.72	3.01	0	P
	*	5795	20.31	-	-	7.91	7.73	1.66	3.01	0	P
	*	5795	8.96	-	-	-3.44	7.73	1.66	3.01	0	A
		5852.83	-14.44	-34.99	20.55	-26.83	7.73	1.65	3.01	0	P
		5865.54	-18.52	-31.17	12.65	-30.91	7.73	1.65	3.01	0	P
		5918.225	-23.64	-1.64	-22	-36.04	7.73	1.66	3.01	0	P
		5927.245	-28.86	-1.86	-27	-41.27	7.73	1.67	3.01	0	P

Remark

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

UNII 3 5725~5850MHz

WIFI 802.11ax HE40 Full (Harmonic)

WIFI Ant. 4	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Path Loss (dB)	MIMO Factor (dB)	Grounding Factor (dB)	Peak Avg. (P/A)
802.11ax HE40 Full CH 151 5755MHz		11570	-66.15	-44.95	-21.2	-80.58	7.73	3.69	3.01	0	P
		17265	-62.21	-35.21	-27	-77.33	7.73	4.38	3.01	0	P
802.11ax HE40 Full CH 159 5795MHz		7727.65	-46.75	-25.55	-21.2	-60.77	7.73	3.28	3.01	0	P
		7727.65	-47.52	-6.32	-41.2	-61.54	7.73	3.28	3.01	0	A
		11590	-61.13	-39.93	-21.2	-75.6	7.73	3.73	3.01	0	P
		17385	-61.34	-34.34	-27	-76.42	7.73	4.34	3.01	0	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

UNII 3 - 5725~5850MHz

WIFI 802.11ax HE40 Partial 484 (Band Edge)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	MIMO	Grounding	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Avg.
4		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
802.11ax HE40 Partial 484/65 CH 151 5755MHz		5645.8	-35.01	-8.01	-27	-47.51	7.73	1.76	3.01	0	P
		5699.4	-20.2	-29.76	9.56	-32.67	7.73	1.73	3.01	0	P
		5718.8	-15.39	-30.65	15.26	-27.85	7.73	1.72	3.01	0	P
		5722	-13.06	-33.22	20.16	-25.52	7.73	1.72	3.01	0	P
	*	5755	17.74	-	-	5.31	7.73	1.69	3.01	0	P
	*	5755	6.9	-	-	-5.53	7.73	1.69	3.01	0	A
		5849.96	-34.11	-73.11	39	-46.5	7.73	1.65	3.01	0	P
		5857.75	-34.21	-49.04	14.83	-46.6	7.73	1.65	3.01	0	P
		5883.17	-35.26	-39.19	3.93	-47.64	7.73	1.64	3.01	0	P
		5934.01	-36.67	-9.67	-27	-49.09	7.73	1.68	3.01	0	P
802.11ax HE40 Partial 484/65 CH 159 5795MHz		5614.6	-33.33	-6.33	-27	-45.85	7.73	1.78	3.01	0	P
		5699	-25.83	-35.09	9.26	-38.3	7.73	1.73	3.01	0	P
		5719.8	-18.18	-33.72	15.54	-30.64	7.73	1.72	3.01	0	P
		5723	-18.72	-41.16	22.44	-31.17	7.73	1.71	3.01	0	P
	*	5795	19.17	-	-	6.77	7.73	1.66	3.01	0	P
	*	5795	8.62	-	-	-3.78	7.73	1.66	3.01	0	A
		5850.575	-22.5	-48.19	25.69	-34.89	7.73	1.65	3.01	0	P
		5871.28	-24.45	-35.49	11.04	-36.84	7.73	1.65	3.01	0	P
		5880.71	-24.38	-30.14	5.76	-36.76	7.73	1.64	3.01	0	P
		5934.83	-33.16	-6.16	-27	-45.58	7.73	1.68	3.01	0	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

UNII 3 - 5725~5850MHz

WIFI 802.11ax HE80 Full (Band Edge)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Gain	Path Loss	MIMO Factor	Grounding Factor	Peak Avg.
4		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
802.11ax HE80 Full CH 155 5775MHz		5649	-28.68	-1.68	-27	-41.18	7.73	1.76	3.01	0	P
		5697.2	-19.6	-27.54	7.94	-32.07	7.73	1.73	3.01	0	P
		5719.8	-15.31	-30.85	15.54	-27.77	7.73	1.72	3.01	0	P
		5722.2	-15.5	-36.12	20.62	-27.96	7.73	1.72	3.01	0	P
	*	5775	16.7	-	-	4.29	7.73	1.67	3.01	0	P
	*	5775	4.01	-	-	-8.4	7.73	1.67	3.01	0	A
		5853.445	-24.45	-43.6	19.15	-36.84	7.73	1.65	3.01	0	P
		5873.74	-22.87	-33.22	10.35	-35.25	7.73	1.64	3.01	0	P
		5876.815	-25.13	-33.78	8.65	-37.51	7.73	1.64	3.01	0	P
		5928.475	-33.74	-6.74	-27	-46.15	7.73	1.67	3.01	0	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

UNII 3 5725~5850MHz

WIFI 802.11ax HE80 Full (Harmonic)

WIFI Ant. 4	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Path Loss (dB)	MIMO Factor (dB)	Grounding Factor (dB)	Peak Avg. (P/A)
802.11ax		7700	-46.2	-25	-21.2	-60.23	7.73	3.29	3.01	0	P
HE80 Full		7700	-46.74	-5.54	-41.2	-60.77	7.73	3.29	3.01	0	A
CH 155		11550	-65.49	-44.29	-21.2	-79.92	7.73	3.69	3.01	0	P
5775MHz		17325	-61.06	-34.06	-27	-76.16	7.73	4.36	3.01	0	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

UNII 3 - 5725~5850MHz

WIFI 802.11ax HE80 Partial 996 (Band Edge)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Gain	Path Loss	MIMO Factor	Grounding Factor	Peak Avg.
4		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
802.11ax HE80 Partial 996/67 CH 155 5775MHz		5648.6	-29.91	-2.91	-27	-42.41	7.73	1.76	3.01	0	P
		5686.6	-22.29	-22.41	0.12	-34.77	7.73	1.74	3.01	0	P
		5717.6	-15.25	-30.18	14.93	-27.71	7.73	1.72	3.01	0	P
		5721.6	-14.89	-34.14	19.25	-27.35	7.73	1.72	3.01	0	P
	*	5775	14.57	-	-	2.16	7.73	1.67	3.01	0	P
	*	5775	3.19	-	-	-9.22	7.73	1.67	3.01	0	A
		5851.805	-26.28	-49.16	22.88	-38.67	7.73	1.65	3.01	0	P
		5865.335	-24.29	-36.99	12.7	-36.68	7.73	1.65	3.01	0	P
		5877.635	-27.73	-35.77	8.04	-40.11	7.73	1.64	3.01	0	P
		5928.065	-32.38	-5.38	-27	-44.79	7.73	1.67	3.01	0	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

Emission above 25GHz

5GHz WIFI 802.11ax HE40 Full (SHF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	MIMO	Grounding	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Avg.
4		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
5GHz 802.11ax HE40 Full SHF		39952	-46.41	-25.21	-21.2	-71.7	7.73	14.55	3.01	0	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

Emission below 1GHz

5GHz WIFI 802.11ax HE40 Full (LF)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Gain	Path Loss	MIMO Factor	Grounding Factor	Peak Avg.
4		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
5GHz 802.11ax HE40 Full LF		45.12	-74.62	-19.42	-55.2	-90.25	7.73	0.19	3.01	4.7	P
		204.69	-74.22	-22.52	-51.7	-90.13	7.73	0.47	3.01	4.7	P
		254.37	-74	-24.8	-49.2	-89.92	7.73	0.48	3.01	4.7	P
		470.8	-73.35	-24.15	-49.2	-89.42	7.73	0.63	3.01	4.7	P
		691.3	-73.52	-24.32	-49.2	-89.81	7.73	0.85	3.01	4.7	P
		900.6	-72.62	-23.42	-49.2	-89.07	7.73	1.01	3.01	4.7	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

UNII 3 - 5725~5850MHz

WIFI 802.11a (Band Edge)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	MIMO	Grounding	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Avg.
5		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
802.11a CH 149 5745MHz		5648.4	-29.7	-2.7	-27	-41.84	7.73	1.4	3.01	0	P
		5689.4	-15.98	-18.16	2.18	-28.11	7.73	1.39	3.01	0	P
		5720	-11.55	-27.15	15.6	-23.66	7.73	1.37	3.01	0	P
		5724.6	-10.77	-36.86	26.09	-22.87	7.73	1.36	3.01	0	P
	*	5745	21.71	-	-	9.64	7.73	1.33	3.01	0	P
	*	5745	12.42	-	-	0.35	7.73	1.33	3.01	0	A
802.11a CH 157 5785MHz		5645.2	-29.88	-2.88	-27	-42.02	7.73	1.4	3.01	0	P
		5699.6	-24.78	-34.49	9.71	-36.91	7.73	1.39	3.01	0	P
		5718.2	-18.42	-33.52	15.1	-30.53	7.73	1.37	3.01	0	P
		5720.8	-17.52	-34.94	17.42	-29.63	7.73	1.37	3.01	0	P
	*	5785	23.19	-	-	11.16	7.73	1.29	3.01	0	P
	*	5785	14.28	-	-	2.25	7.73	1.29	3.01	0	A
		5853.855	-16.65	-34.86	18.21	-28.75	7.73	1.36	3.01	0	P
		5858.365	-14.62	-29.28	14.66	-26.72	7.73	1.36	3.01	0	P
		5878.865	-20.96	-28.09	7.13	-33.11	7.73	1.41	3.01	0	P
		5931.755	-28.67	-1.67	-27	-40.87	7.73	1.46	3.01	0	P
802.11a CH 165 5825MHz	*	5825	22.55	-	-	10.13	7.73	1.68	3.01	0	P
	*	5825	12.51	-	-	0.09	7.73	1.68	3.01	0	A
		5851	-14.49	-39.21	24.72	-26.9	7.73	1.67	3.01	0	P
		5858.8	-11.48	-26.01	14.53	-23.89	7.73	1.67	3.01	0	P
		5917.8	-24.65	-2.96	-21.69	-37.07	7.73	1.68	3.01	0	P
		5935.8	-29.15	-2.15	-27	-41.59	7.73	1.7	3.01	0	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

UNII 3 5725~5850MHz

WIFI 802.11a (Harmonic)

WIFI Ant. 5	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Path Loss (dB)	MIMO Factor (dB)	Grounding Factor (dB)	Peak Avg. (P/A)
802.11a CH 149 5745MHz		7660	-42.92	-21.72	-21.2	-57.24	7.73	3.58	3.01	0	P
		7660	-43.49	-2.29	-41.2	-57.81	7.73	3.58	3.01	0	A
		11490	-69.84	-48.64	-21.2	-84.09	7.73	3.51	3.01	0	P
		17235	-63.78	-36.78	-27	-79.07	7.73	4.55	3.01	0	P
802.11a CH 157 5785MHz		7712.2	-42.8	-21.6	-21.2	-57.1	7.73	3.56	3.01	0	P
		7712.2	-43.77	-2.57	-41.2	-58.07	7.73	3.56	3.01	0	A
		11570	-67.44	-46.24	-21.2	-81.76	7.73	3.58	3.01	0	P
		17355	-64.28	-37.28	-27	-79.51	7.73	4.49	3.01	0	P
802.11a CH 165 5825MHz		7768.85	-43.76	-16.76	-27	-58.02	7.73	3.52	3.01	0	P
		7768.85	-44.17	-2.97	-41.2	-58.43	7.73	3.52	3.01	0	A
		11650	-68.24	-47.04	-21.2	-82.66	7.73	3.68	3.01	0	P
		17475	-64.28	-37.28	-27	-79.46	7.73	4.44	3.01	0	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

UNII 3 - 5725~5850MHz

WIFI 802.11ax HE20 Full (Band Edge)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	MIMO	Grounding	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Avg.
5		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
802.11ax HE20 Full CH 149 5745MHz		5638	-29.19	-2.19	-27	-41.7	7.73	1.77	3.01	0	P
		5652.2	-28.47	-3.11	-25.36	-40.98	7.73	1.77	3.01	0	P
		5719.2	-9.83	-25.21	15.38	-22.31	7.73	1.74	3.01	0	P
		5725	-5.41	-32.41	27	-17.88	7.73	1.73	3.01	0	P
	*	5745	22.35	-	-	9.89	7.73	1.72	3.01	0	P
	*	5745	11.95	-	-	-0.51	7.73	1.72	3.01	0	A
802.11ax HE20 Full CH 157 5785MHz		5649	-28.93	-1.93	-27	-41.44	7.73	1.77	3.01	0	P
		5652.6	-26.61	-1.54	-25.07	-39.12	7.73	1.77	3.01	0	P
		5719	-14.38	-29.7	15.32	-26.86	7.73	1.74	3.01	0	P
		5720.6	-17.29	-34.26	16.97	-29.77	7.73	1.74	3.01	0	P
	*	5785	24.48	-	-	12.04	7.73	1.7	3.01	0	P
	*	5785	13.72	-	-	1.28	7.73	1.7	3.01	0	A
		5850.575	-18.33	-44.02	25.69	-30.74	7.73	1.67	3.01	0	P
		5860.825	-16.98	-30.95	13.97	-29.39	7.73	1.67	3.01	0	P
		5920.48	-28.68	-5.01	-23.67	-41.1	7.73	1.68	3.01	0	P
		5947.13	-29.45	-2.45	-27	-41.9	7.73	1.71	3.01	0	P
802.11ax HE20 Full CH 165 5825MHz	*	5825	23.27	-	-	10.85	7.73	1.68	3.01	0	P
	*	5825	11.66	-	-	-0.76	7.73	1.68	3.01	0	A
		5850	-13.13	-40.13	27	-25.54	7.73	1.67	3.01	0	P
		5856.2	-17.44	-32.7	15.26	-29.85	7.73	1.67	3.01	0	P
		5878.4	-20.43	-27.9	7.47	-32.84	7.73	1.67	3.01	0	P
		5944.6	-31.9	-4.9	-27	-44.35	7.73	1.71	3.01	0	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

UNII 3 5725~5850MHz

WIFI 802.11ax HE20 Full (Harmonic)

WIFI Ant. 5	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Path Loss (dB)	MIMO Factor (dB)	Grounding Factor (dB)	Peak Avg. (P/A)
802.11ax HE20 Full CH 149 5745MHz		7660.7	-41.3	-20.1	-21.2	-55.62	7.73	3.58	3.01	0	P
		7660.7	-41.67	-0.47	-41.2	-55.99	7.73	3.58	3.01	0	A
		11490	-68.78	-47.58	-21.2	-83.03	7.73	3.51	3.01	0	P
		17235	-66.2	-39.2	-27	-81.49	7.73	4.55	3.01	0	P
802.11ax HE20 Full CH 157 5785MHz		7712.2	-41.5	-20.3	-21.2	-55.8	7.73	3.56	3.01	0	P
		7712.2	-41.84	-0.64	-41.2	-56.14	7.73	3.56	3.01	0	A
		11570	-65.56	-44.36	-21.2	-79.88	7.73	3.58	3.01	0	P
		17355	-65.88	-38.88	-27	-81.11	7.73	4.49	3.01	0	P
802.11ax HE20 Full CH 165 5825MHz		7766	-42.25	-15.25	-27	-56.51	7.73	3.52	3.01	0	P
		7766	-42.53	-1.33	-41.2	-56.79	7.73	3.52	3.01	0	A
		11650	-68.39	-47.19	-21.2	-82.81	7.73	3.68	3.01	0	P
		17475	-65.54	-38.54	-27	-80.72	7.73	4.44	3.01	0	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

UNII 3 - 5725~5850MHz

WIFI 802.11ax HE20 Partial 26 (Band Edge)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	MIMO	Grounding	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Avg.
5		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
802.11ax HE20 Partial 26/0 CH 149 5745MHz		5649.8	-30.07	-3.07	-27	-42.58	7.73	1.77	3.01	0	P
		5695	-16.56	-22.87	6.31	-29.05	7.73	1.75	3.01	0	P
		5714.4	-16.31	-30.34	14.03	-28.79	7.73	1.74	3.01	0	P
		5720.4	-17.41	-33.92	16.51	-29.89	7.73	1.74	3.01	0	P
	*	5745	29.98	-	-	17.52	7.73	1.72	3.01	0	P
	*	5745	20.61	-	-	8.15	7.73	1.72	3.01	0	A
802.11ax HE20 Partial 26/4 CH 157 5785MHz		5643.6	-33.75	-6.75	-27	-46.26	7.73	1.77	3.01	0	P
		5697	-26.2	-33.99	7.79	-38.69	7.73	1.75	3.01	0	P
		5719.8	-19.83	-35.37	15.54	-32.31	7.73	1.74	3.01	0	P
		5720.6	-19.73	-36.7	16.97	-32.21	7.73	1.74	3.01	0	P
	*	5785	28.57	-	-	16.13	7.73	1.7	3.01	0	P
	*	5785	19.46	-	-	7.02	7.73	1.7	3.01	0	A
		5852.83	-21.3	-41.85	20.55	-33.71	7.73	1.67	3.01	0	P
		5857.135	-22.25	-37.25	15	-34.66	7.73	1.67	3.01	0	P
		5876.61	-26.66	-35.46	8.8	-39.07	7.73	1.67	3.01	0	P
		5932.575	-35.32	-8.32	-27	-47.76	7.73	1.7	3.01	0	P
802.11ax HE20 Partial 26/8 CH 165 5825MHz	*	5825	27.01	-	-	14.59	7.73	1.68	3.01	0	P
	*	5825	18.69	-	-	6.27	7.73	1.68	3.01	0	A
		5853.2	-20.56	-40.26	19.7	-32.97	7.73	1.67	3.01	0	P
		5859.8	-25.03	-39.28	14.25	-37.44	7.73	1.67	3.01	0	P
		5891.8	-33.53	-31.06	-2.47	-45.93	7.73	1.66	3.01	0	P
		5938.6	-37.3	-10.3	-27	-49.74	7.73	1.7	3.01	0	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

UNII 3 5725~5850MHz

WIFI 802.11ax HE20 Partial 26 (Harmonic)

WIFI Ant. 5	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Path Loss (dB)	MIMO Factor (dB)	Grounding Factor (dB)	Peak Avg. (P/A)
802.11ax HE20 Partial 26/0 CH 149 5745MHz		7660.7	-41.44	-20.24	-21.2	-55.76	7.73	3.58	3.01	0	P
		7660.7	-41.96	-0.76	-41.2	-56.28	7.73	3.58	3.01	0	A
		11490	-69.31	-48.11	-21.2	-83.56	7.73	3.51	3.01	0	P
		17235	-65.3	-38.3	-27	-80.59	7.73	4.55	3.01	0	P
											P
802.11ax HE20 Partial 26/4 CH 157 5785MHz		7715.62	-37.58	-16.38	-21.2	-51.88	7.73	3.56	3.01	0	P
		7715.62	-37.96	3.24*	-41.2	-52.26	7.73	3.56	3.01	0	A
		11570	-63.35	-42.15	-21.2	-77.67	7.73	3.58	3.01	0	P
		17355	-55.88	-28.88	-27	-71.11	7.73	4.49	3.01	0	P
802.11ax HE20 Partial 26/8 CH 165 5825MHz		7766.72	-38.66	-11.66	-27	-52.92	7.73	3.52	3.01	0	P
		7766.72	-38.18	3.02*	-41.2	-52.44	7.73	3.52	3.01	0	A
		11650	-63.62	-42.42	-21.2	-78.04	7.73	3.68	3.01	0	P
		17475	-58.94	-31.94	-27	-74.12	7.73	4.44	3.01	0	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line. 3. The unwanted emission of CH157 and CH165 was verified and passed by radiated measurement, please refer appendix F2.										

UNII 3 - 5725~5850MHz

WIFI 802.11ax HE20 Partial 52 (Band Edge)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	MIMO	Grounding	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Avg.
5		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
802.11ax HE20 Partial 52/37 CH 149 5745MHz		5639.8	-31.89	-4.89	-27	-44.4	7.73	1.77	3.01	0	P
		5695.4	-20.4	-27.01	6.61	-32.89	7.73	1.75	3.01	0	P
		5718.6	-15.27	-30.48	15.21	-27.75	7.73	1.74	3.01	0	P
		5722.6	-15.18	-36.71	21.53	-27.65	7.73	1.73	3.01	0	P
	*	5745	28.39	-	-	15.93	7.73	1.72	3.01	0	P
	*	5745	18.2	-	-	5.74	7.73	1.72	3.01	0	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

UNII 3 - 5725~5850MHz

WIFI 802.11ax HE20 Partial 106 (Band Edge)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Gain	Path Loss	MIMO Factor	Grounding Factor	Peak Avg.
5		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
802.11ax HE20 Partial 106/53 CH 149 5745MHz		5638.6	-34.11	-7.11	-27	-46.62	7.73	1.77	3.01	0	P
		5697	-20.95	-28.74	7.79	-33.44	7.73	1.75	3.01	0	P
		5719.8	-10.3	-25.84	15.54	-22.78	7.73	1.74	3.01	0	P
		5724.4	-7.84	-33.47	25.63	-20.31	7.73	1.73	3.01	0	P
	*	5745	24.93	-	-	12.47	7.73	1.72	3.01	0	P
	*	5745	15.78	-	-	3.32	7.73	1.72	3.01	0	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

UNII 3 - 5725~5850MHz

WIFI 802.11ax HE20 Partial 242 (Band Edge)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Gain	Path Loss	MIMO Factor	Grounding Factor	Peak Avg.
5		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
802.11ax HE20 Partial 242/61 CH 149 5745MHz		5639.8	-30.76	-3.76	-27	-43.27	7.73	1.77	3.01	0	P
		5690	-20.58	-23.21	2.63	-33.07	7.73	1.75	3.01	0	P
		5719.8	-12.08	-27.62	15.54	-24.56	7.73	1.74	3.01	0	P
		5725	-5.64	-32.64	27	-18.11	7.73	1.73	3.01	0	P
	*	5745	21.65	-	-	9.19	7.73	1.72	3.01	0	P
	*	5745	11.88	-	-	-0.58	7.73	1.72	3.01	0	A
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

UNII 3 - 5725~5850MHz

WIFI 802.11ax HE40 Full (Band Edge)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	MIMO	Grounding	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Avg.
5		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
802.11ax HE40 Full CH 151 5755MHz		5638.6	-30.03	-3.03	-27	-42.54	7.73	1.77	3.01	0	P
		5651.6	-29.58	-3.77	-25.81	-42.09	7.73	1.77	3.01	0	P
		5717.6	-10.96	-25.89	14.93	-23.44	7.73	1.74	3.01	0	P
		5722	-8.06	-28.22	20.16	-20.54	7.73	1.74	3.01	0	P
	*	5755	18.69	-	-	6.24	7.73	1.71	3.01	0	P
	*	5755	8.26	-	-	-4.19	7.73	1.71	3.01	0	A
		5854.265	-29.42	-46.7	17.28	-41.83	7.73	1.67	3.01	0	P
		5864.105	-30.09	-43.14	13.05	-42.5	7.73	1.67	3.01	0	P
		5895.47	-31.78	-26.59	-5.19	-44.18	7.73	1.66	3.01	0	P
		5933.19	-36.39	-9.39	-27	-48.83	7.73	1.7	3.01	0	P
802.11ax HE40 Full CH 159 5795MHz		5648	-29.58	-2.58	-27	-42.09	7.73	1.77	3.01	0	P
		5690.6	-24.78	-27.85	3.07	-37.27	7.73	1.75	3.01	0	P
		5711.2	-23.66	-36.8	13.14	-36.14	7.73	1.74	3.01	0	P
		5722.8	-22.7	-44.69	21.99	-35.17	7.73	1.73	3.01	0	P
	*	5795	19.38	-	-	6.95	7.73	1.69	3.01	0	P
	*	5795	8.81	-	-	-3.62	7.73	1.69	3.01	0	A
		5852.01	-17.94	-40.36	22.42	-30.35	7.73	1.67	3.01	0	P
		5865.54	-16.97	-29.62	12.65	-29.38	7.73	1.67	3.01	0	P
		5917.405	-25.34	-3.94	-21.4	-37.76	7.73	1.68	3.01	0	P
		5946.72	-30.31	-3.31	-27	-42.76	7.73	1.71	3.01	0	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

UNII 3 5725~5850MHz

WIFI 802.11ax HE40 Full (Harmonic)

WIFI Ant. 5	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Path Loss (dB)	MIMO Factor (dB)	Grounding Factor (dB)	Peak Avg. (P/A)
802.11ax HE40 Full CH 151 5755MHz		11570	-68.42	-47.22	-21.2	-82.74	7.73	3.58	3.01	0	P
		17265	-65.41	-38.41	-27	-80.68	7.73	4.53	3.01	0	P
802.11ax HE40 Full CH 159 5795MHz		7727.65	-42.05	-20.85	-21.2	-56.33	7.73	3.54	3.01	0	P
		7727.65	-42.28	-1.08	-41.2	-56.56	7.73	3.54	3.01	0	A
		11590	-68.65	-47.45	-21.2	-83	7.73	3.61	3.01	0	P
		17385	-66.18	-39.18	-27	-81.4	7.73	4.48	3.01	0	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

UNII 3 - 5725~5850MHz

WIFI 802.11ax HE40 Partial 484 (Band Edge)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	MIMO	Grounding	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Avg.
5		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
802.11ax HE40 Partial 484/65 CH 151 5755MHz		5643.4	-36.18	-9.18	-27	-48.69	7.73	1.77	3.01	0	P
		5698	-25.66	-34.19	8.53	-38.15	7.73	1.75	3.01	0	P
		5717.8	-14.87	-29.86	14.99	-27.35	7.73	1.74	3.01	0	P
		5724	-14.6	-39.32	24.72	-27.07	7.73	1.73	3.01	0	P
	*	5755	19.08	-	-	6.63	7.73	1.71	3.01	0	P
	*	5755	6.33	-	-	-6.12	7.73	1.71	3.01	0	A
		5854.88	-36.63	-52.5	15.87	-49.04	7.73	1.67	3.01	0	P
		5869.23	-36.96	-48.57	11.61	-49.37	7.73	1.67	3.01	0	P
		5902.645	-36.15	-25.65	-10.5	-48.55	7.73	1.66	3.01	0	P
		5927.45	-36.67	-9.67	-27	-49.1	7.73	1.69	3.01	0	P
802.11ax HE40 Partial 484/65 CH 159 5795MHz		5646.6	-33.2	-6.2	-27	-45.71	7.73	1.77	3.01	0	P
		5692.6	-27.73	-32.27	4.54	-40.22	7.73	1.75	3.01	0	P
		5712.6	-28.06	-41.59	13.53	-40.54	7.73	1.74	3.01	0	P
		5724.2	-27.38	-52.56	25.18	-39.85	7.73	1.73	3.01	0	P
	*	5795	18.71	-	-	6.28	7.73	1.69	3.01	0	P
	*	5795	7.92	-	-	-4.51	7.73	1.69	3.01	0	A
		5853.445	-23.52	-42.67	19.15	-35.93	7.73	1.67	3.01	0	P
		5857.34	-24.92	-39.86	14.94	-37.33	7.73	1.67	3.01	0	P
		5875.79	-26.27	-35.68	9.41	-38.68	7.73	1.67	3.01	0	P
		5925.605	-31.14	-4.14	-27	-43.57	7.73	1.69	3.01	0	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

UNII 3 - 5725~5850MHz

WIFI 802.11ax HE80 Full (Band Edge)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Gain	Path Loss	MIMO Factor	Grounding Factor	Peak Avg.
5		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
802.11ax HE80 Full CH 155 5775MHz		5638.8	-30.7	-3.7	-27	-43.21	7.73	1.77	3.01	0	P
		5695	-21.42	-27.73	6.31	-33.91	7.73	1.75	3.01	0	P
		5716.8	-12.92	-27.63	14.71	-25.4	7.73	1.74	3.01	0	P
		5720	-16.73	-32.33	15.6	-29.21	7.73	1.74	3.01	0	P
	*	5775	14.97	-	-	2.53	7.73	1.7	3.01	0	P
	*	5775	4.29	-	-	-8.15	7.73	1.7	3.01	0	A
		5850.165	-25.41	-52.03	26.62	-37.82	7.73	1.67	3.01	0	P
		5855.905	-24.3	-39.65	15.35	-36.71	7.73	1.67	3.01	0	P
		5879.07	-26.96	-33.94	6.98	-39.37	7.73	1.67	3.01	0	P
		5934.215	-32.73	-5.73	-27	-45.17	7.73	1.7	3.01	0	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

UNII 3 5725~5850MHz

WIFI 802.11ax HE80 Full (Harmonic)

WIFI Ant. 5	Note	Frequency (MHz)	Level (dBm)	Over Limit (dB)	Limit Line (dBm)	Read Level (dBm)	Antenna Gain (dBi)	Path Loss (dB)	MIMO Factor (dB)	Grounding Factor (dB)	Peak Avg. (P/A)
802.11ax HE80 Full CH 155 5775MHz		7700	-40.97	-19.77	-21.2	-55.27	7.73	3.56	3.01	0	P
		7700	-41.1	0.1*	-41.2	-55.4	7.73	3.56	3.01	0	A
		11550	-69.35	-48.15	-21.2	-83.67	7.73	3.58	3.01	0	P
		17325	-66.38	-39.38	-27	-81.63	7.73	4.51	3.01	0	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line. 3. The unwanted emission of CH155 was verified and passed by radiated measurement, please refer appendix F2.										

UNII 3 - 5725~5850MHz

WIFI 802.11ax HE80 Partial 996 (Band Edge)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Gain	Path Loss	MIMO Factor	Grounding Factor	Peak Avg.
5		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
802.11ax HE80 Partial 996/67 CH 155 5775MHz		5647	-33.18	-6.18	-27	-45.69	7.73	1.77	3.01	0	P
		5687	-22.33	-22.74	0.41	-34.83	7.73	1.76	3.01	0	P
		5717.4	-15.18	-30.05	14.87	-27.66	7.73	1.74	3.01	0	P
		5721.8	-14.85	-34.56	19.71	-27.33	7.73	1.74	3.01	0	P
	*	5775	13.33	-	-	0.89	7.73	1.7	3.01	0	P
	*	5775	2.83	-	-	-9.61	7.73	1.7	3.01	0	A
		5853.445	-23.74	-42.89	19.15	-36.15	7.73	1.67	3.01	0	P
		5866.975	-24.16	-36.4	12.24	-36.57	7.73	1.67	3.01	0	P
		5875.38	-28.63	-38.35	9.72	-41.04	7.73	1.67	3.01	0	P
		5933.805	-32.75	-5.75	-27	-45.19	7.73	1.7	3.01	0	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

Emission above 25GHz

5GHz WIFI 802.11ax HE20 Partial 26 (SHF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	MIMO	Grounding	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Avg.
5		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
5GHz		39849	-42.48	-21.28	-21.2	-67.07	7.73	13.85	3.01	0	P
802.11ax											
HE20											
Partial											
SHF											
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

Emission below 1GHz

5GHz WIFI 802.11ax HE20 Partial 26 (LF)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Gain	Path Loss	MIMO Factor	Grounding Factor	Peak Avg.
5		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
5GHz 802.11ax HE20 Partial LF		77.52	-74.78	-19.58	-55.2	-85.77	7.73	0.25	3.01	0	P
		205.23	-73.85	-22.15	-51.7	-85.07	7.73	0.48	3.01	0	P
		238.98	-74.64	-25.44	-49.2	-85.85	7.73	0.47	3.01	0	P
		412.7	-74.05	-24.85	-49.2	-85.39	7.73	0.6	3.01	0	P
		649.3	-73.1	-23.9	-49.2	-84.6	7.73	0.76	3.01	0	P
		925.1	-72.64	-23.44	-49.2	-84.47	7.73	1.09	3.01	0	P
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.										

Note symbol

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

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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	MIMO	Grounding	Peak
Ant.				Limit	Line	Level	Gain	Loss	Factor	Factor	Avg.
5		(MHz)	(dBm)	(dB)	(dBm)	(dBm)	(dBi)	(dB)	(dB)	(dB)	(P/A)
802.11a CH 165 5825MHz		7768.85	-40.82	-13.82	-27	-54.19	7.73	2.63	3.01	0	P
		7768.85	-43.88	-2.68	-41.2	-57.25	7.73	2.63	3.01	0	A
		11650	-66.05	-44.85	-21.2	-79.69	7.73	2.9	3.01	0	P
		17475	-61.96	-34.96	-27	-76.63	7.73	3.93	3.01	0	P
		23300	-59.02	-32.02	-27	-76.37	7.73	6.61	3.01	0	P

1. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)
2. MIMO Factor(dB) = 10 log (N_{ANT}), where N_{ANT} is the number of outputs
3. Grounding Factor(dB) = Ground reflection factor (i.e., 6 dB for f ≤ 30 MHz and 4.7 dB for 30 MHz < f ≤ 960 MHz)
4. Level(dBm) = Antenna Gain(dBi) + Path Loss(dB) + Read Level(dBm) + MIMO Factor(dB) + Grounding Factor(dB)
5. Over Limit(dB) = Level(dBm) – Limit Line(dBm)

For Peak Limit @ 7768.85MHz:

1. Level(dBm)

= Antenna Gain (dBi) + Path Loss (dB) + MIMO Factor (dB) + Grounding Factor (dB) + Read Level (dBm)

= 7.73(dBi) + 2.63(dB) + 3.01(dB) – 54.19 (dBm)

= -40.82 (dBm)

2. Over Limit(dB)

= Level (dBm) – Limit Line (dBm)

= -40.82 (dBm) + 27(dBm)

= -13.82(dB)

For Average Limit @ 7768.85MHz:

1. Level(dBm)

= Antenna Gain (dBi) + Path Loss (dB) + MIMO Factor (dB) + Grounding Factor (dB) + Read Level (dBm)

= 7.73(dBi) + 2.63(dB) + 3.01(dB) – 57.25 (dBm)

= -43.88 (dBm)

2. Over Limit(dB) = Level(dBm) – Limit Line(dBm)

= -43.88 (dBm) + 41.2(dBm)

= -2.68(dB)

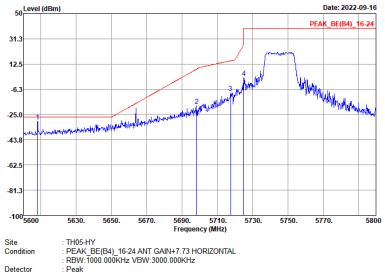
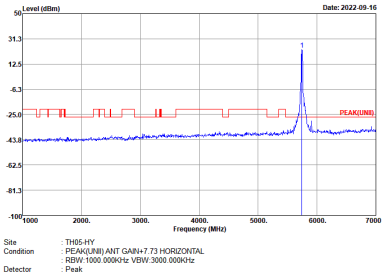
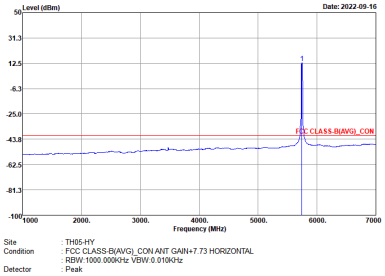
Both peak and average measured complies with the limit line, so test result is "PASS

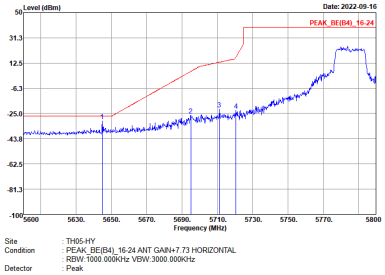
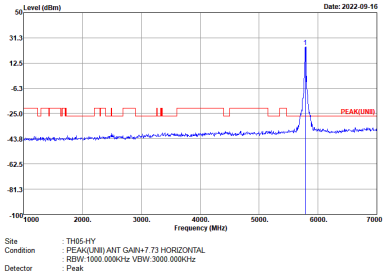
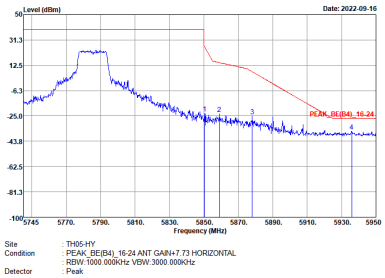
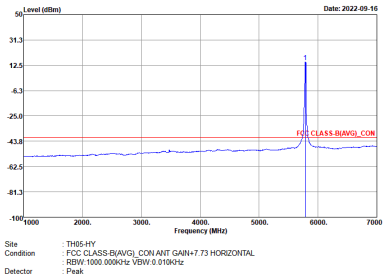
Appendix C. Conducted Spurious Emission Plots

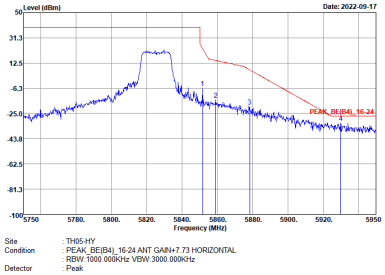
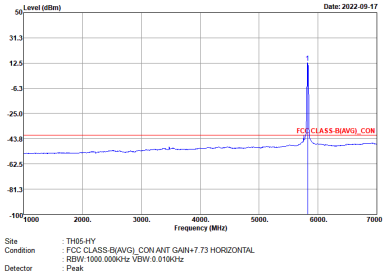
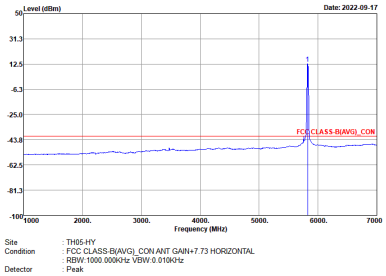
Test Engineer :	Kai Liao, Ken Wu and Nick Yu	**Temperature :**	21.5~25.9°C
		Relative Humidity :	45.3~64.5%

UNII 3 - 5725~5850MHz

802.11a (Band Edge)

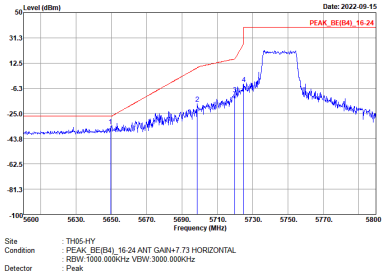
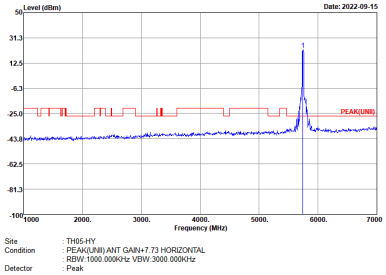
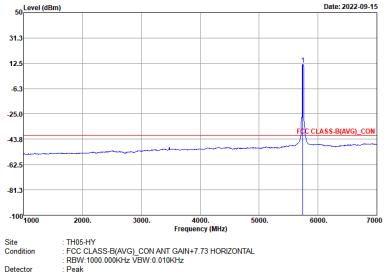
WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11a CH149 5745MHz	
4	CSE	Fundamental
Peak		
Avg.	Left blank	

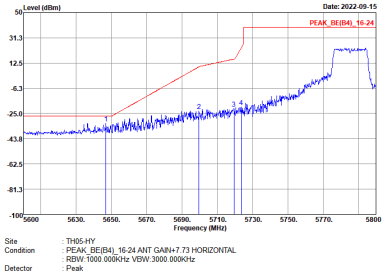
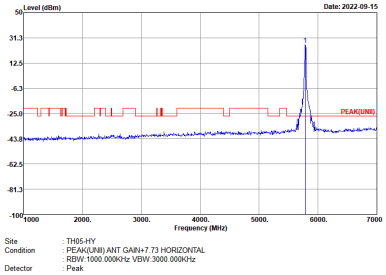
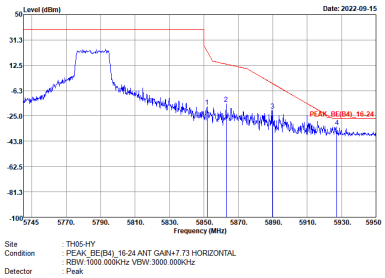
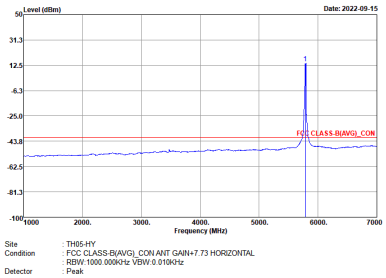
WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11a CH157 5785MHz	
4	CSE	Fundamental
Peak		
Peak/ Avg.		

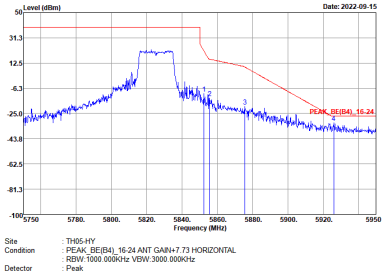
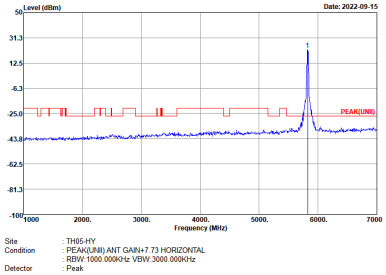
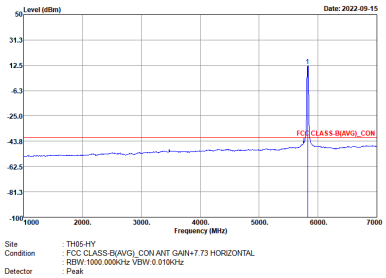
WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11a CH165 5825MHz	
4	CSE	Fundamental
Peak		
Avg.	Left blank	

UNII 3 - 5725~5850MHz

802.11ax HE20 Full (Band Edge)

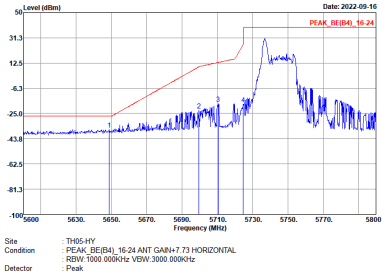
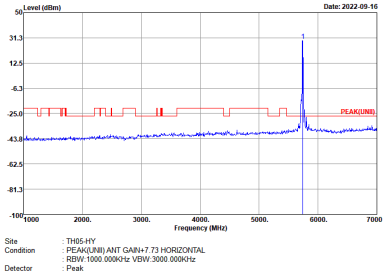
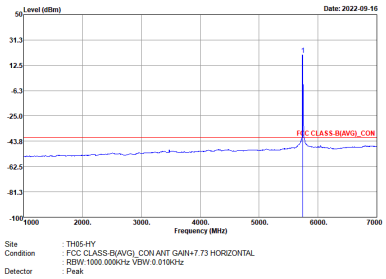
WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE20 Full CH149 5745MHz	
4	CSE	Fundamental
Peak		
Avg.	Left blank	

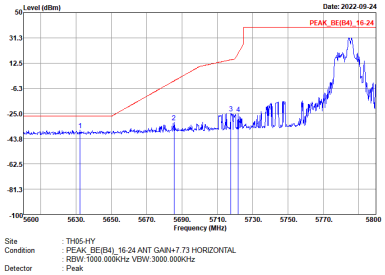
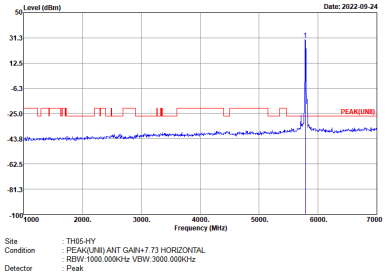
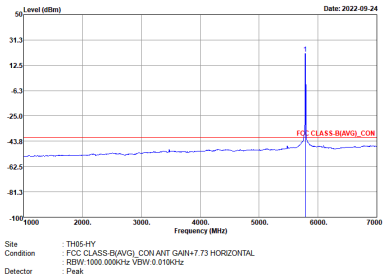
WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE20 Full CH157 5785MHz	
4	CSE	Fundamental
Peak		
Peak/ Avg.		

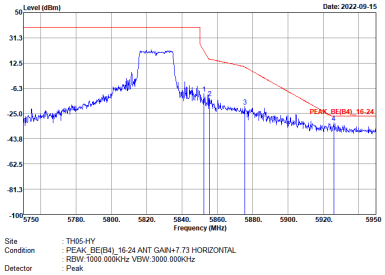
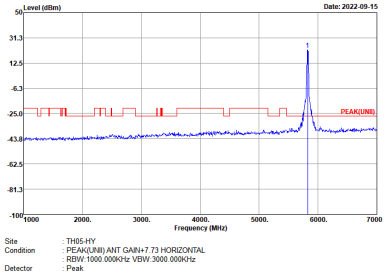
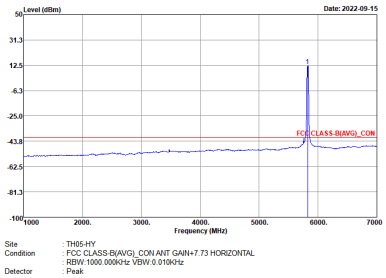
WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE20 Full CH165 5825MHz	
4	CSE	Fundamental
Peak		
Avg.	Left blank	

UNII 3 - 5725~5850MHz

802.11ax HE20 Partial 26 (Band Edge)

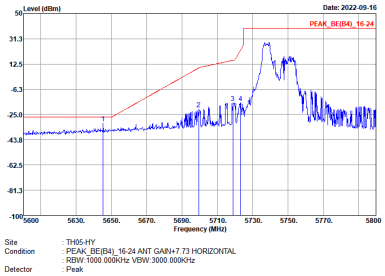
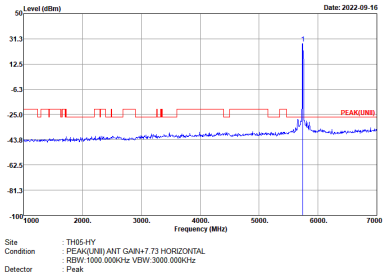
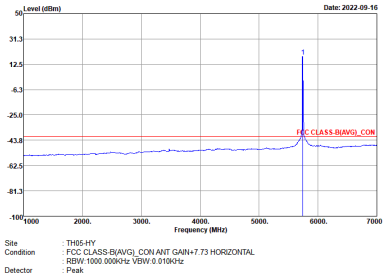
WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE20 Partial 26/0 CH149 5745MHz	
4	CSE	Fundamental
Peak		
Avg.	Left blank	

WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE20 Partial 26/4 CH157 5785MHz	
4	CSE	Fundamental
Peak		
Peak/ Avg.		

WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE20 Partial 26/8 CH165 5825MHz	
4	CSE	Fundamental
Peak		
Avg.	Left blank	

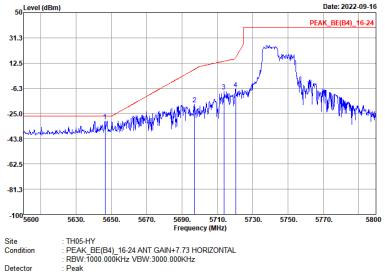
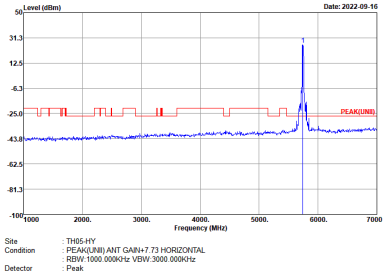
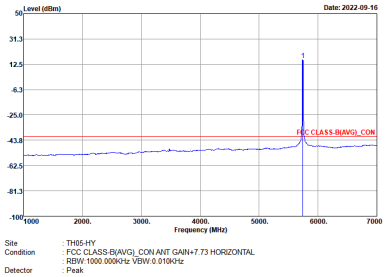
UNII 3 - 5725~5850MHz

802.11ax HE20 Partial 52 (Band Edge)

WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE20 Partial 52/37 CH149 5745MHz	
4	CSE	Fundamental
Peak		
Avg.	Left blank	

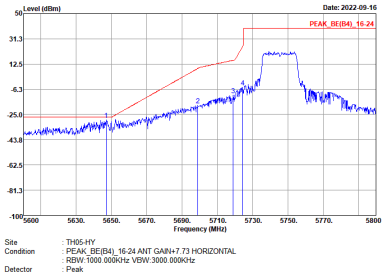
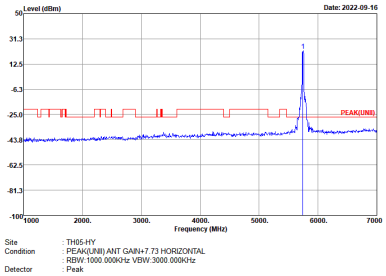
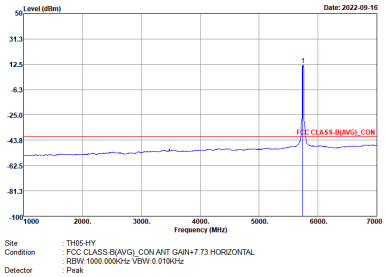
UNII 3 - 5725~5850MHz

802.11ax HE20 Partial 106 (Band Edge)

WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE20 Partial 106/53 CH149 5745MHz	
4	CSE	Fundamental
Peak		
Avg.	Left blank	

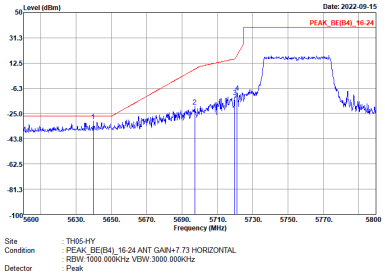
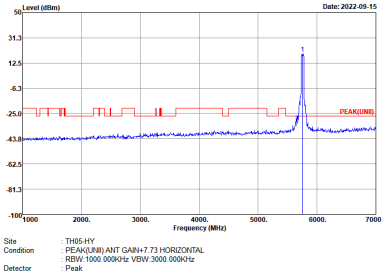
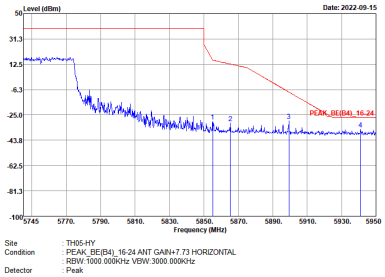
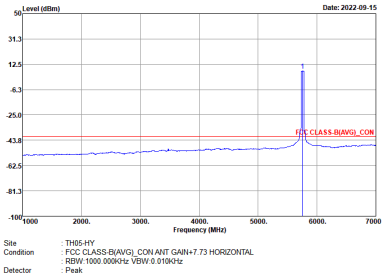
UNII 3 - 5725~5850MHz

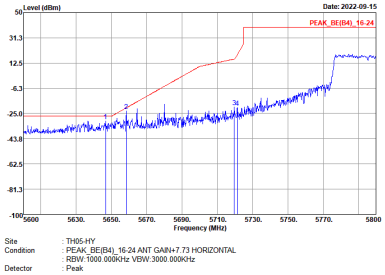
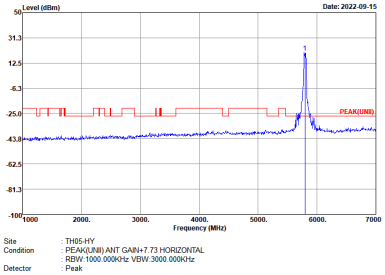
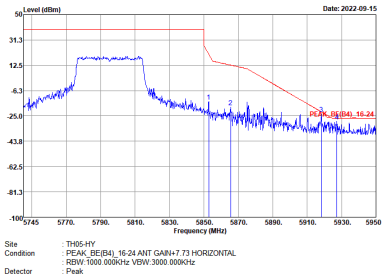
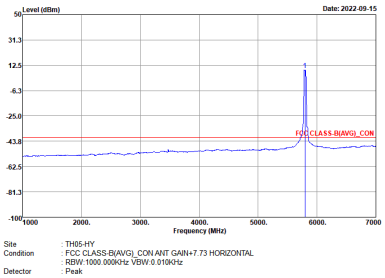
802.11ax HE20 Partial 242 (Band Edge)

WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE20 Partial 242/61 CH149 5745MHz	
4	CSE	Fundamental
Peak		
Avg.	Left blank	

UNII 3 - 5725~5850MHz

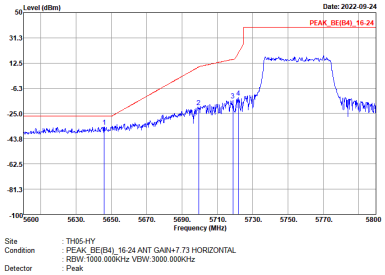
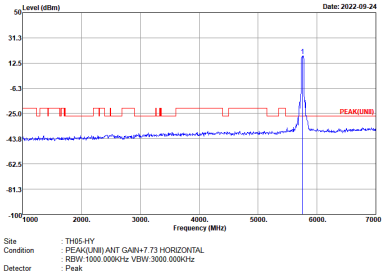
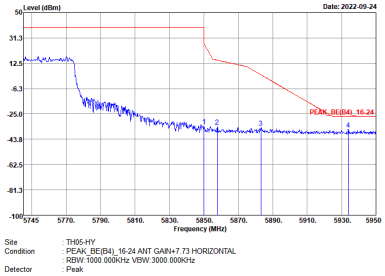
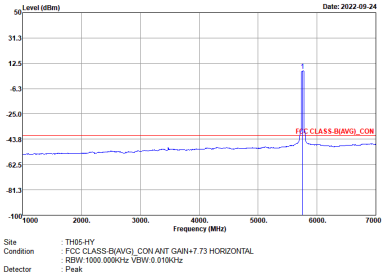
802.11ax HE40 Full (Band Edge)

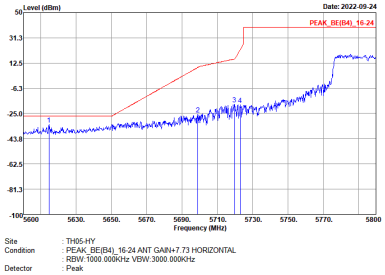
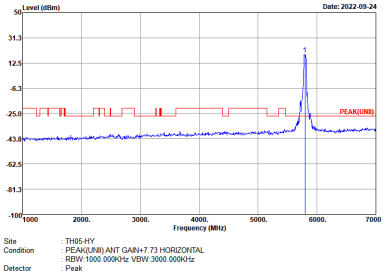
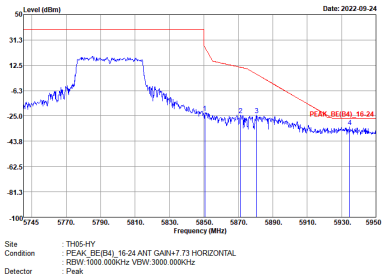
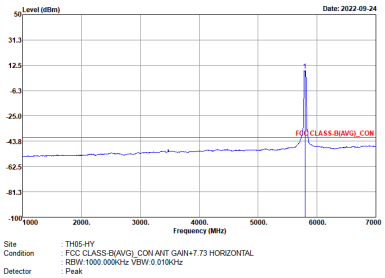
WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE40 Full CH151 5755MHz	
4	CSE	Fundamental
Peak		
Peak/ Avg.		

WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE20 Full CH159 5795MHz	
4	CSE	Fundamental
Peak		
Peak/ Avg.		

UNII 3 - 5725~5850MHz

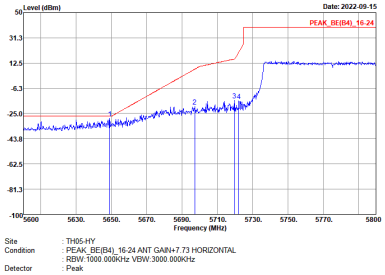
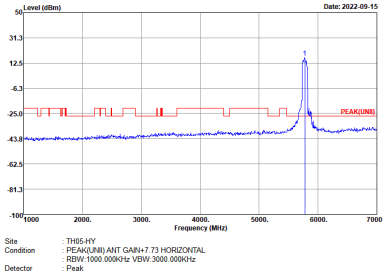
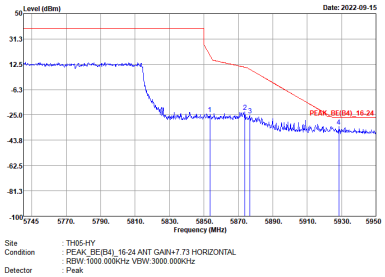
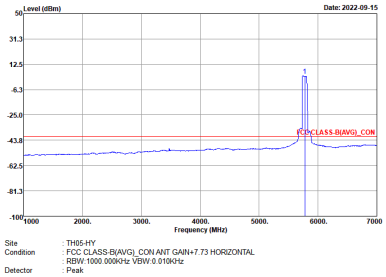
802.11ax HE40 Partial 484 (Band Edge)

WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE40 Partial 484/65 CH151 5755MHz	
4	CSE	Fundamental
Peak		
Peak/ Avg.		

WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE40 Partial 484/65 CH159 5795MHz	
4	CSE	Fundamental
Peak		
Peak/ Avg.		

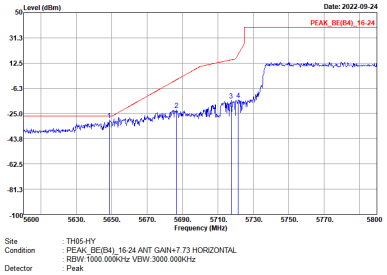
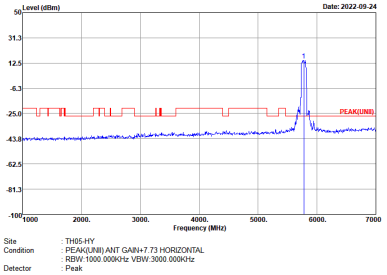
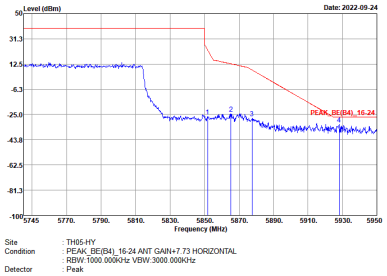
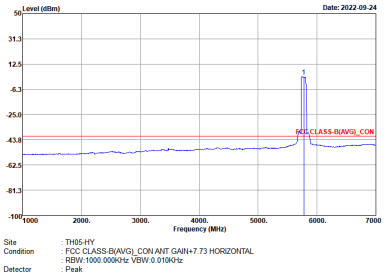
UNII 3 - 5725~5850MHz

802.11ax HE80 Full (Band Edge)

WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE80 Full CH155 5775MHz	
4	CSE	Fundamental
Peak		
Peak/ Avg.		

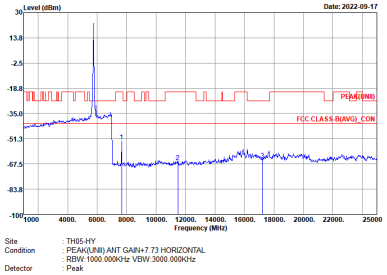
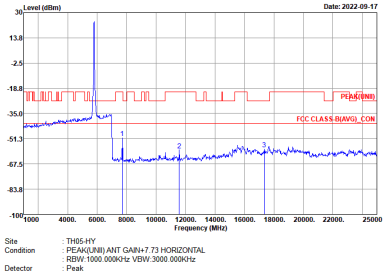
UNII 3 - 5725~5850MHz

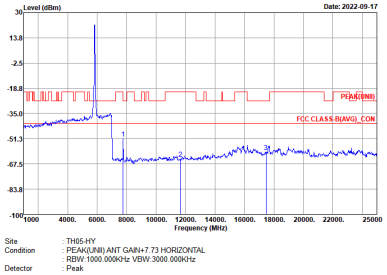
802.11ax HE80 Partial 996 (Band Edge)

WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE80 Partial 996/67 CH155 5775MHz	
4	CSE	Fundamental
Peak		
Peak/ Avg.		

UNII 3 - 5725~5850MHz

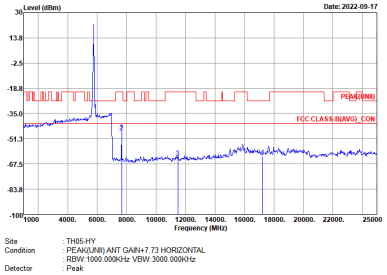
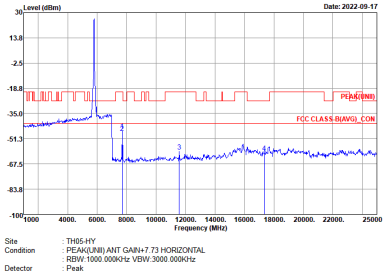
WIFI 802.11a (Harmonic)

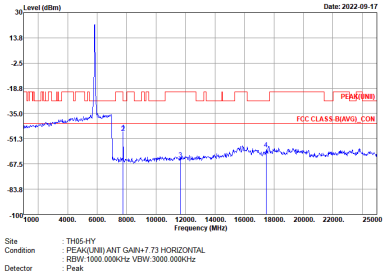
WIFI	UNII 3 5725~5850MHz Harmonic	
ANT	802.11a	
4	CH149 5745MHz	CH157 5785MHz
Peak Avg.		

WIFI	UNII 3 5725~5850MHz Harmonic	
ANT	802.11a	
4	CH165 5825MHz	
Peak Avg.		Left blank

UNII 3 - 5725~5850MHz

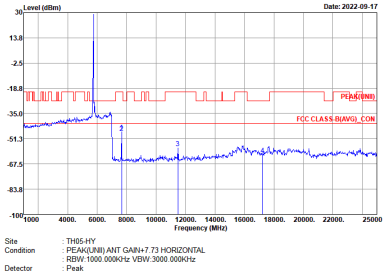
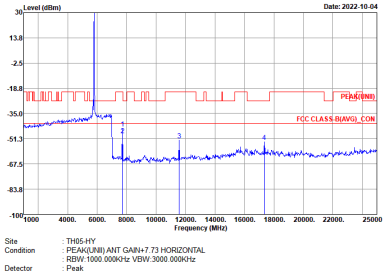
WIFI 802.11ax HE20 Full (Harmonic)

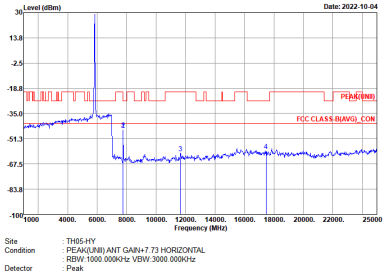
WIFI	UNII 3 5725~5850MHz Harmonic	
ANT	802.11ax HE20 Full	
4	CH149 5745MHz	CH157 5785MHz
Peak Avg.		

WIFI	UNII 3 5725~5850MHz Harmonic	
ANT	802.11ax HE20 Full	
4	CH165 5825MHz	
Peak Avg.		Left blank

UNII 3 - 5725~5850MHz

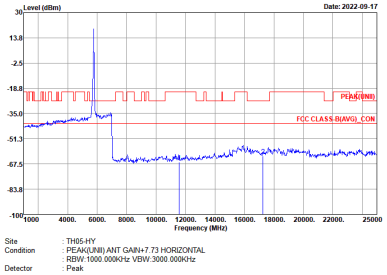
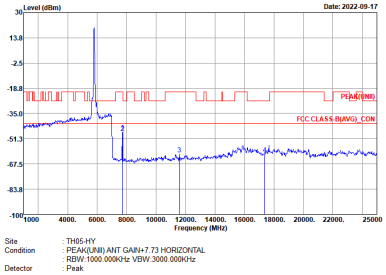
WIFI 802.11ax HE20 Partial 26 (Harmonic)

WIFI	UNII 3 5725~5850MHz Harmonic	
ANT	802.11ax HE20 Partial 26	
4	Partial 26/0 CH149 5745MHz	Partial 26/4 CH157 5785MHz
Peak Avg.		

WIFI	UNII 3 5725~5850MHz Harmonic	
ANT	802.11ax HE20 Partial 26	
4	Partial 26/8 CH165 5825MHz	
Peak Avg.		Left blank

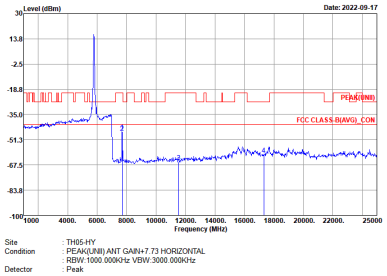
UNII 3 - 5725~5850MHz

WIFI 802.11ax HE40 Full (Harmonic)

WIFI	UNII 3 5725~5850MHz Harmonic	
ANT	802.11ax HE40 Full	
4	CH151 5755MHz	CH159 5795MHz
Peak Avg.		

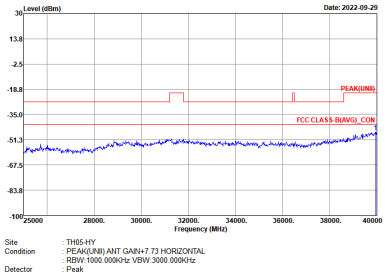
UNII 3 - 5725~5850MHz

WIFI 802.11ax HE80 Full (Harmonic)

WIFI	UNII 3 5725~5850MHz Harmonic	
ANT	802.11ax HE80 Full	
4	CH155 5775MHz	
Peak Avg.		Left blank

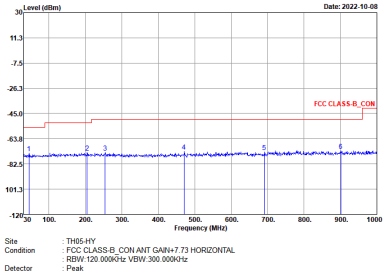
Emission above 25GHz

5GHz WIFI 802.11ax HE40 Full (SHF)

WIFI	5GHz 5725~5850MHz	
ANT	802.11ax HE40 Full SHF	
5	CSE	-
Peak Avg.		Left blank

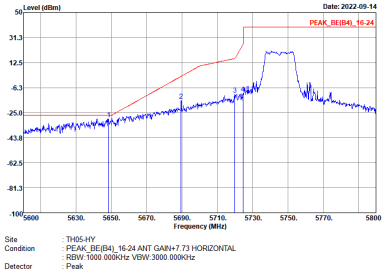
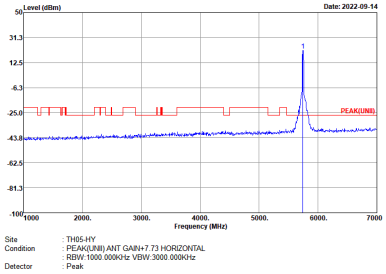
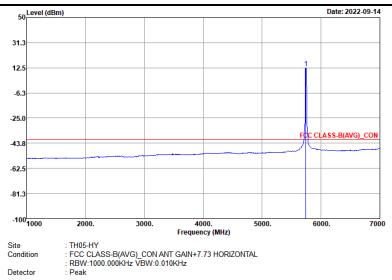
Emission below 1GHz

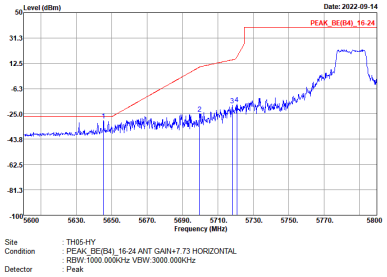
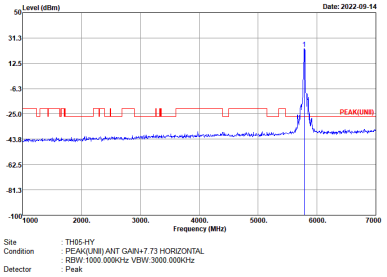
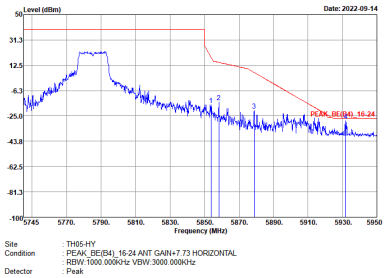
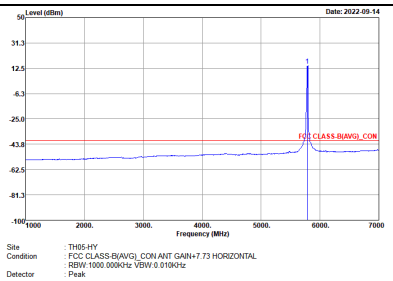
5GHz WIFI 802.11ax HE40 Full (LF)

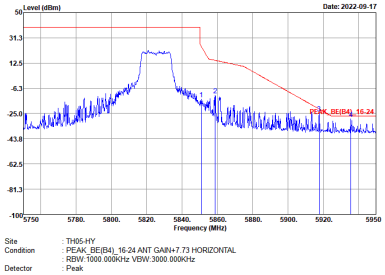
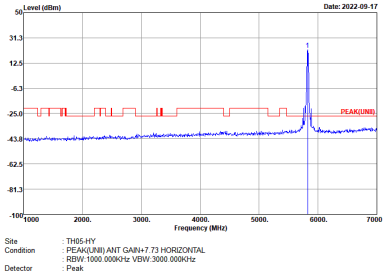
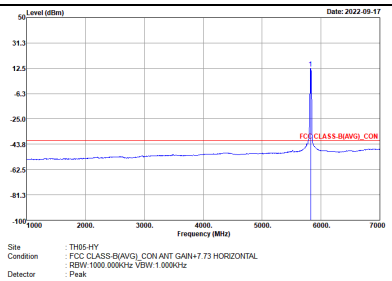
WIFI	5GHz 5725~5850MHz	
ANT	802.11ax HE40 Full LF	
4	CSE	-
QP / Peak		Left blank

UNII 3 - 5725~5850MHz

802.11a (Band Edge)

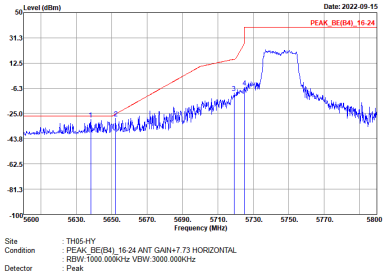
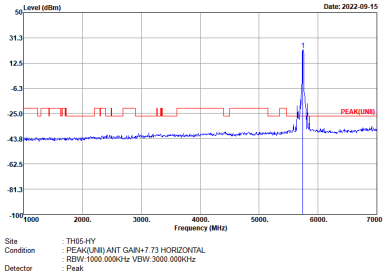
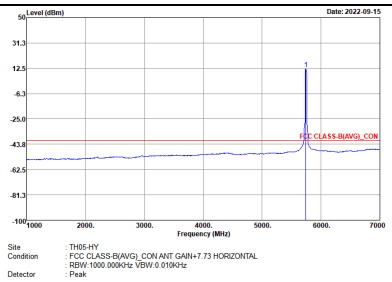
WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11a CH149 5745MHz	
5	CSE	Fundamental
Peak		
Avg.	Left blank	

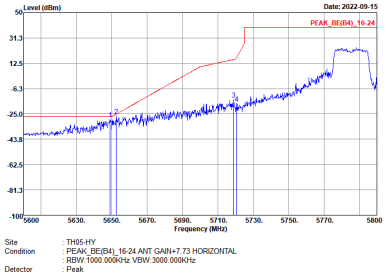
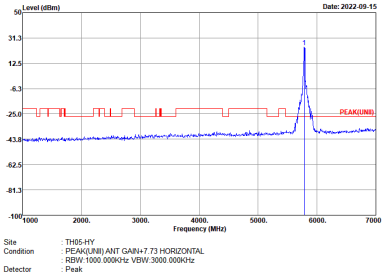
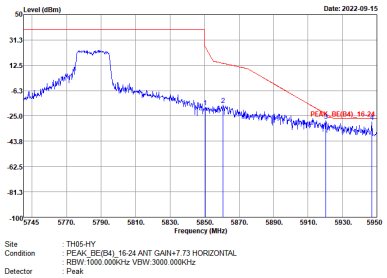
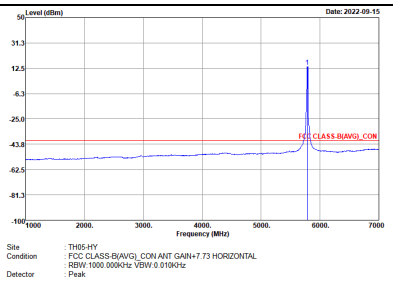
WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11a CH157 5785MHz	
5	CSE	Fundamental
Peak		
Peak/ Avg.		

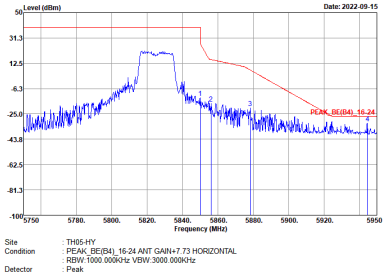
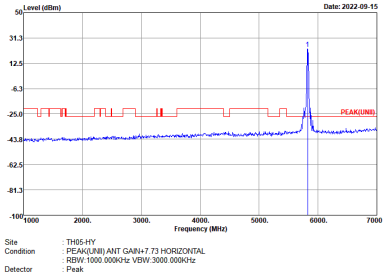
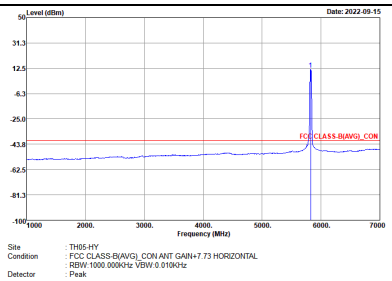
WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11a CH165 5825MHz	
5	CSE	Fundamental
Peak		
Avg.	Left blank	

UNII 3 - 5725~5850MHz

802.11ax HE20 Full (Band Edge)

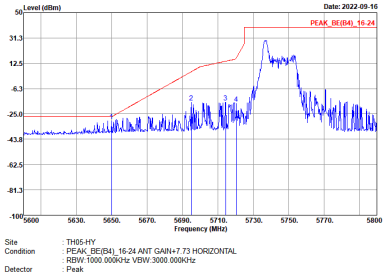
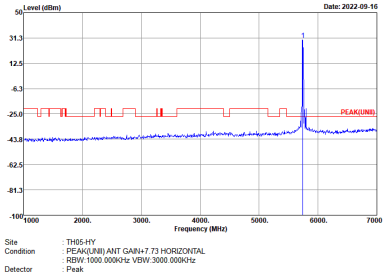
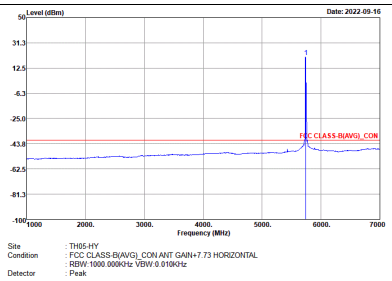
WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE20 Full CH149 5745MHz	
5	CSE	Fundamental
Peak		
Avg.	Left blank	

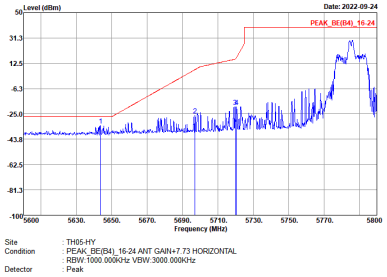
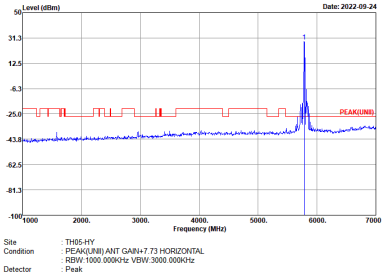
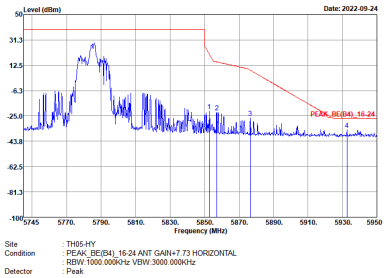
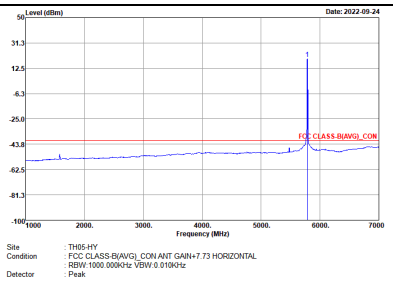
WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE20 Full CH157 5785MHz	
5	CSE	Fundamental
Peak		
Peak/ Avg.		

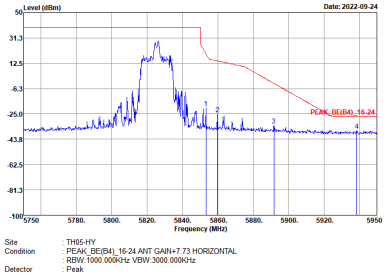
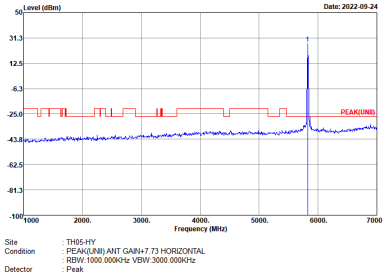
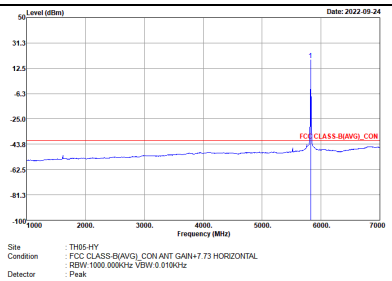
WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE20 Full CH165 5825MHz	
5	CSE	Fundamental
Peak		
Avg.	Left blank	

UNII 3 - 5725~5850MHz

802.11ax HE20 Partial 26 (Band Edge)

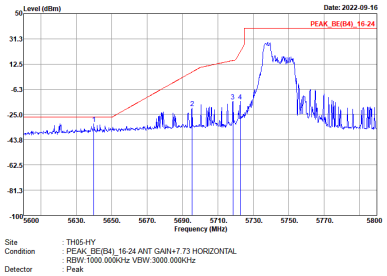
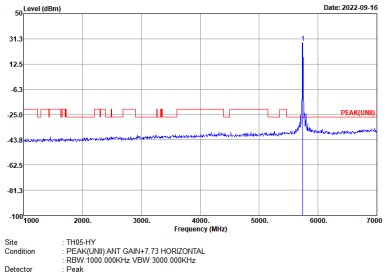
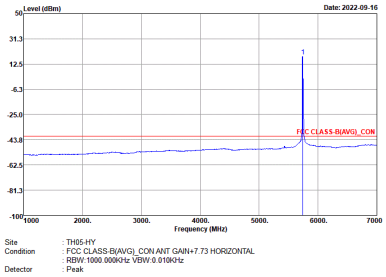
WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE20 Partial 26/0 CH149 5745MHz	
5	CSE	Fundamental
Peak		
Avg.	Left blank	

WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE20 Partial 26/4 CH157 5785MHz	
5	CSE	Fundamental
Peak		
Peak/ Avg.		

WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE20 Partial 26/8 CH165 5825MHz	
5	CSE	Fundamental
Peak		
Avg.	Left blank	

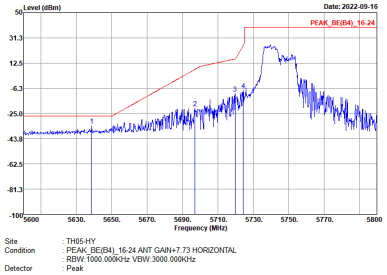
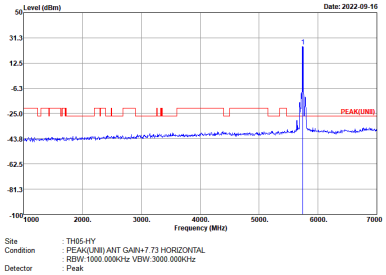
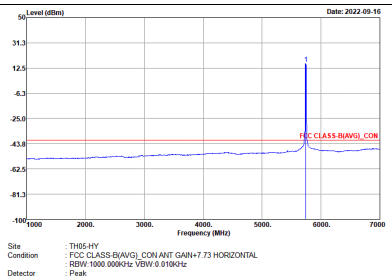
UNII 3 - 5725~5850MHz

802.11ax HE20 Partial 52 (Band Edge)

WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE20 Partial 52/37 CH149 5745MHz	
5	CSE	Fundamental
Peak		
Avg.	Left blank	

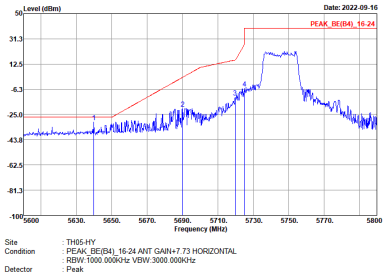
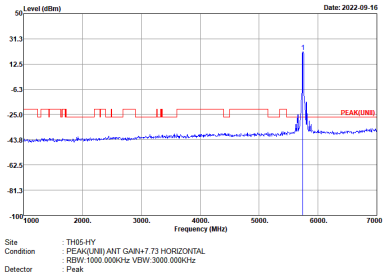
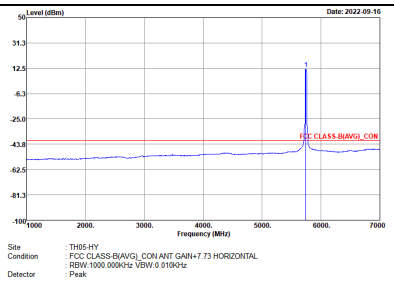
UNII 3 - 5725~5850MHz

802.11ax HE20 Partial 106 (Band Edge)

WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE20 Partial 106/53 CH149 5745MHz	
5	CSE	Fundamental
Peak		
Avg.	Left blank	

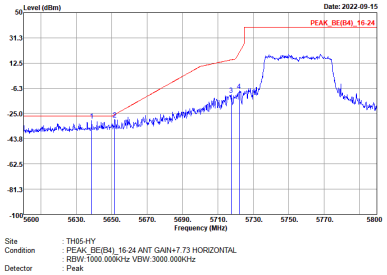
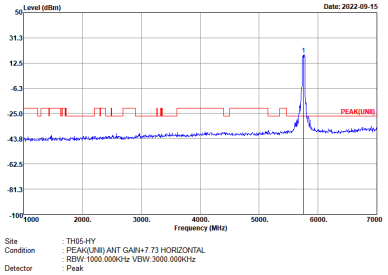
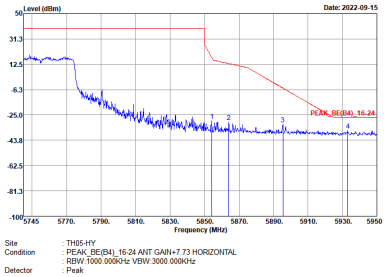
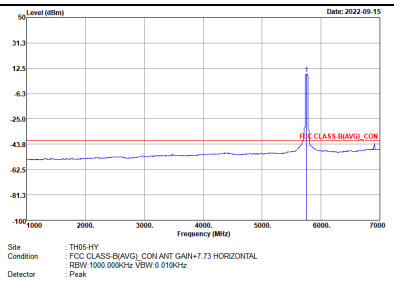
UNII 3 - 5725~5850MHz

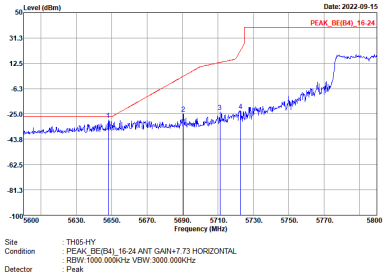
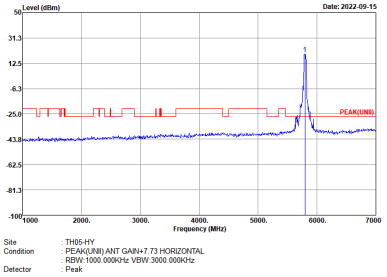
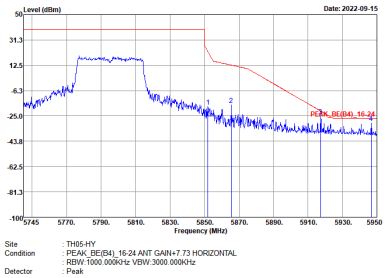
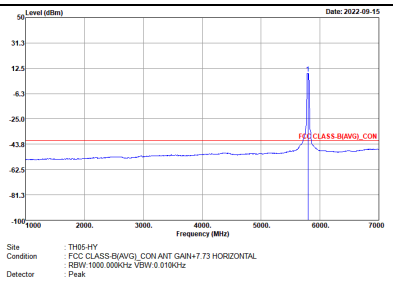
802.11ax HE20 Partial 242 (Band Edge)

WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE20 Partial 242/61 CH149 5745MHz	
5	CSE	Fundamental
Peak		
Avg.	Left blank	

UNII 3 - 5725~5850MHz

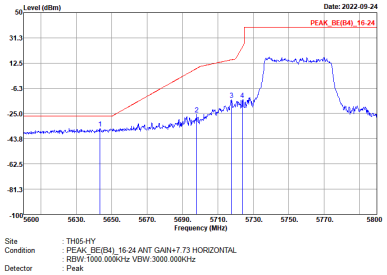
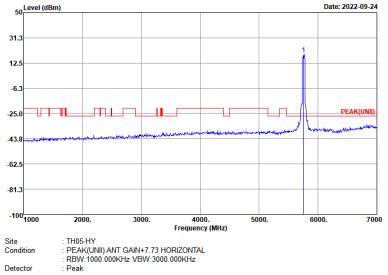
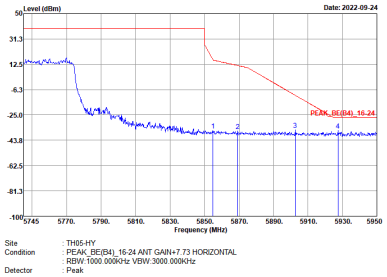
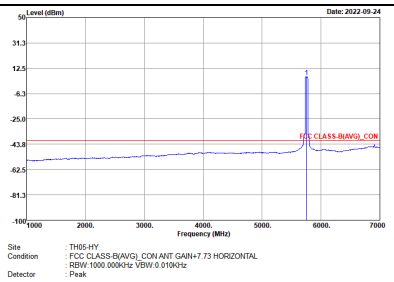
802.11ax HE40 Full (Band Edge)

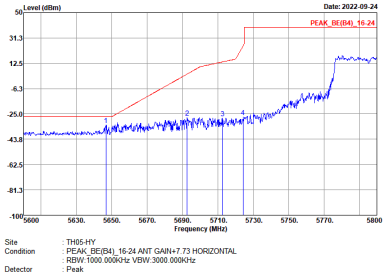
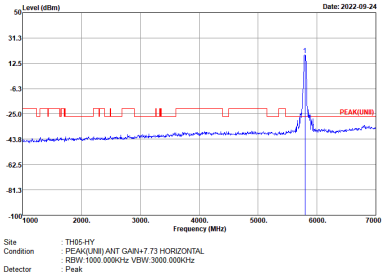
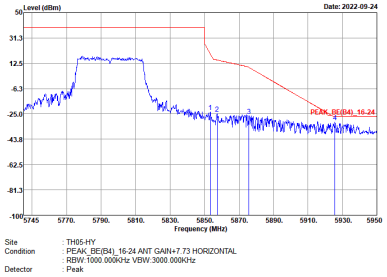
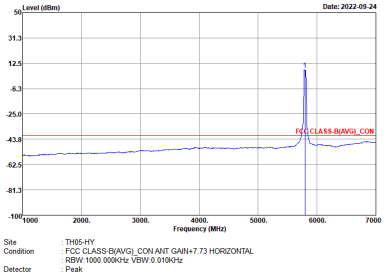
WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE40 Full CH151 5755MHz	
5	CSE	Fundamental
Peak		
Peak/ Avg.		

WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE40 Full CH159 5795MHz	
5	CSE	Fundamental
Peak		
Peak/ Avg.		

UNII 3 - 5725~5850MHz

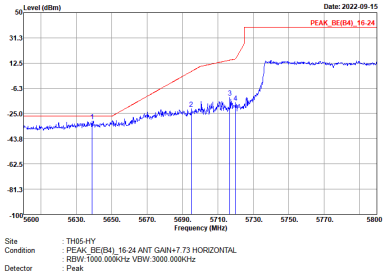
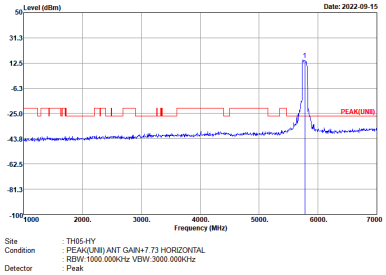
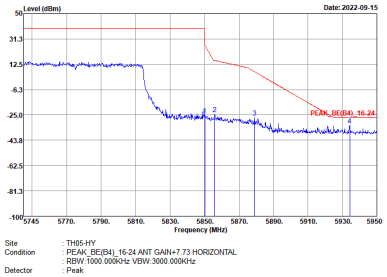
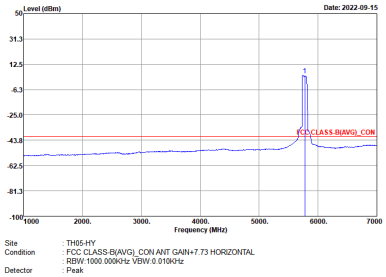
802.11ax HE40 Partial 484 (Band Edge)

WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE40 Partial 484/65 CH151 5755MHz	
5	CSE	Fundamental
Peak		
Peak/ Avg.		

WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE40 Partial 484/65 CH159 5795MHz	
5	CSE	Fundamental
Peak		
Peak/ Avg.		

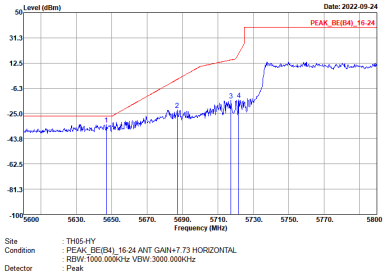
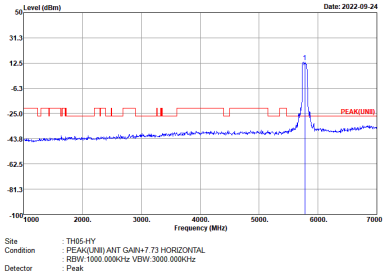
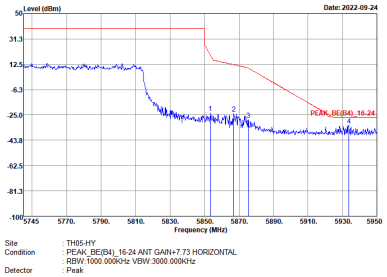
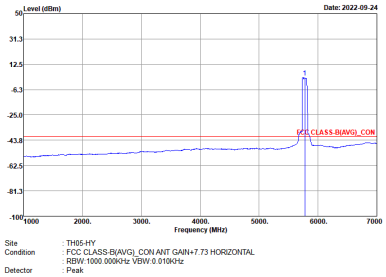
UNII 3 - 5725~5850MHz

802.11ax HE80 Full (Band Edge)

WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE80 Full CH155 5775MHz	
5	CSE	Fundamental
Peak		
Peak/ Avg.		

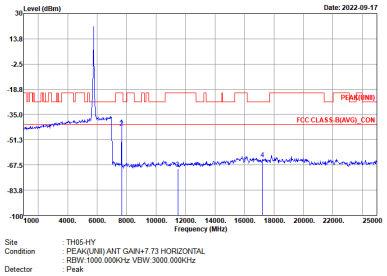
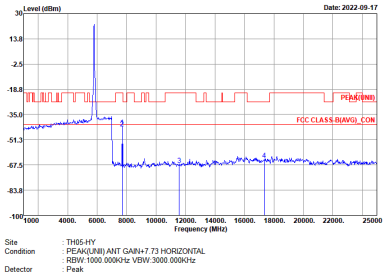
UNII 3 - 5725~5850MHz

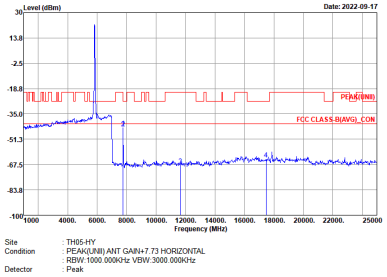
802.11ax HE80 Partial 996 (Band Edge)

WIFI	UNII 3 5725~5850MHz Band Edge	
ANT	802.11ax HE80 Partial 996/87 CH155 5775MHz	
5	CSE	Fundamental
Peak		
Peak/ Avg.		

UNII 3 - 5725~5850MHz

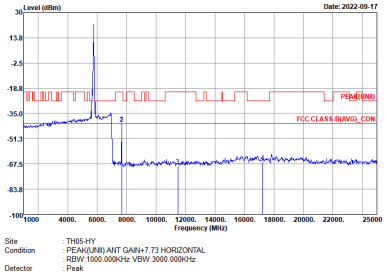
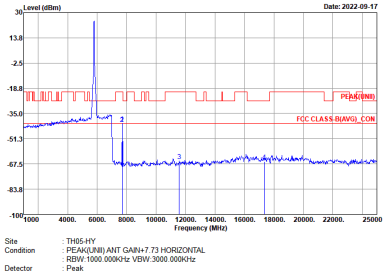
WIFI 802.11a (Harmonic)

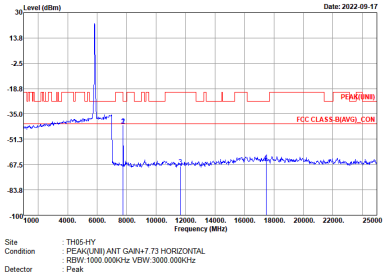
WIFI	UNII 3 5725~5850MHz Harmonic	
ANT	802.11a	
5	CH149 5745MHz	CH157 5785MHz
Peak Avg.		

WIFI	UNII 3 5725~5850MHz Harmonic	
ANT	802.11a	
5	CH165 5825MHz	
Peak Avg.		Left blank

UNII 3 - 5725~5850MHz

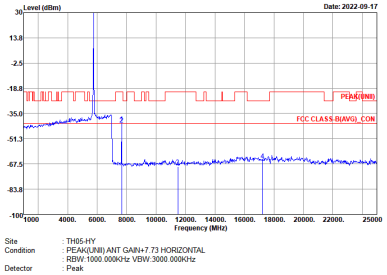
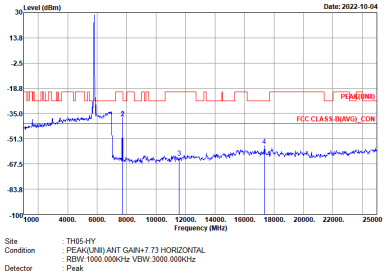
WIFI 802.11ax HE20 Full (Harmonic)

WIFI	UNII 3 5725~5850MHz Harmonic	
ANT	802.11ax HE20 Full	
5	CH149 5745MHz	CH157 5785MHz
Peak Avg.		

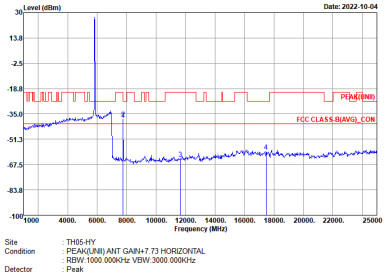
WIFI	UNII 3 5725~5850MHz Harmonic	
ANT	802.11ax HE20 Full	
5	CH165 5825MHz	
Peak Avg.		Left blank

UNII 3 - 5725~5850MHz

WIFI 802.11ax HE20 Partial 26 (Harmonic)

WIFI	UNII 3 5725~5850MHz Harmonic	
ANT	802.11ax HE20 Partial 26	
5	Partial 26/0 CH149 5745MHz	Partial 26/4 CH157 5785MHz
Peak Avg.		

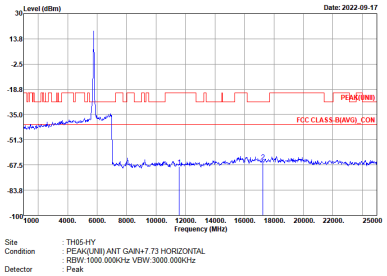
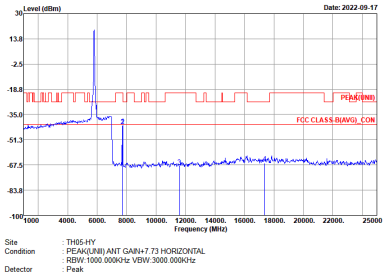
Remark: The unwanted emission of CH157 was verified and passed by radiated measurement, please refer appendix G2.

WIFI	UNII 3 5725~5850MHz Harmonic	
ANT	802.11ax HE20 Partial 26	
5	Partial 26/8 CH165 5825MHz	
Peak Avg.		Left blank

Remark: The unwanted emission of CH165 was verified and passed by radiated measurement, please refer appendix G2.

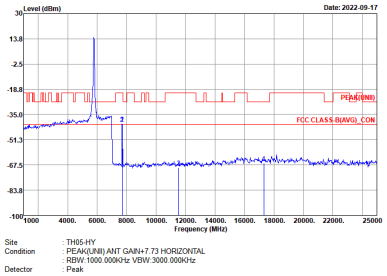
UNII 3 - 5725~5850MHz

WIFI 802.11ax HE40 Full (Harmonic)

WIFI	UNII 3 5725~5850MHz Harmonic	
ANT	802.11ax HE40 Full	
5	CH151 5755MHz	CH159 5795MHz
Peak Avg.		

UNII 3 - 5725~5850MHz

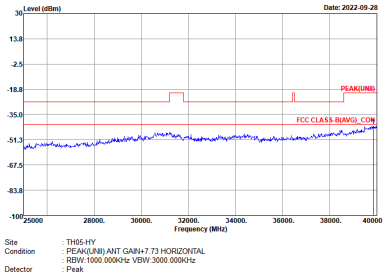
WIFI 802.11ax HE80 Full (Harmonic)

WIFI	UNII 3 5725~5850MHz Harmonic	
ANT	802.11ax HE80 Full	
5	CH155 5775MHz	
Peak Avg.		Left blank

Remark: The unwanted emission of CH155 was verified and passed by radiated measurement, please refer appendix G2.

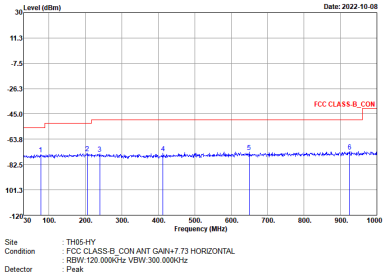
Emission above 25GHz

5GHz WIFI 802.11ax HE80 Full (SHF)

WIFI	5GHz 5725~5850MHz	
ANT	802.11ax HE80 Full	
5	CSE	-
Peak Avg.		Left blank

Emission below 1GHz

5GHz WIFI 802.11ax HE80 Full(LF)

WIFI	5GHz 5725~5850MHz	
ANT	802.11ax HE80 Full	
5	CSE	
QP / Peak		Left blank

Appendix D. Cabinet Radiated Spurious Emission

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

Band 4 - 5725~5850MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Margin	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
5+4		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 149 5745MHz		5608.2	53.25	-14.95	68.2	38.2	33.08	11.56	29.59	100	122	P	H
		5669.8	53.55	-29.34	82.89	38.35	33.16	11.64	29.6	100	122	P	H
		5712	53.21	-55.35	108.56	37.68	33.45	11.69	29.61	100	122	P	H
		5725	52.36	-69.84	122.2	36.76	33.5	11.71	29.61	100	122	P	H
	*	5745	89.74	-	-	74.04	33.58	11.73	29.61	100	122	P	H
	*	5745	82.21	-	-	66.51	33.58	11.73	29.61	100	122	A	H
													H
													H
		5622.6	53.51	-14.69	68.2	38.47	33.05	11.58	29.59	381	32	P	V
		5699.8	54.15	-50.9	105.05	38.69	33.4	11.67	29.61	381	32	P	V
		5713.8	53.5	-55.57	109.07	37.96	33.46	11.69	29.61	381	32	P	V
		5723	54.06	-63.58	117.64	38.48	33.49	11.7	29.61	381	32	P	V
	*	5745	91.17	-	-	75.47	33.58	11.73	29.61	381	32	P	V
	*	5745	85.73	-	-	70.03	33.58	11.73	29.61	381	32	A	V
													V
													V

Remark

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

WIFI Ant. 5+4	Note	Frequency (MHz)	Level (dBµV/m)	Margin (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		5606.6	54.03	-14.17	68.2	38.97	33.09	11.56	29.59	116	122	P	H
		5661.4	54.14	-22.52	76.66	39.02	33.09	11.63	29.6	116	122	P	H
		5718	52.71	-57.53	110.24	37.15	33.47	11.7	29.61	116	122	P	H
		5720.8	52.34	-60.28	112.62	36.77	33.48	11.7	29.61	116	122	P	H
	*	5785	89.2	-	-	73.23	33.81	11.78	29.62	116	122	P	H
	*	5785	82.47	-	-	66.5	33.81	11.78	29.62	116	122	A	H
		5855	53.6	-57.2	110.8	37.27	34.12	11.84	29.63	116	122	P	H
		5863	54.18	-54.38	108.56	37.82	34.15	11.85	29.64	116	122	P	H
		5879.6	54.51	-47.27	101.78	38.07	34.22	11.86	29.64	116	122	P	H
		5932.2	54.72	-13.48	68.2	38.17	34.3	11.9	29.65	116	122	P	H
													H
													H
		5644.2	54.12	-14.08	68.2	39.1	33.01	11.61	29.6	394	32	P	V
		5692.2	53.35	-46.1	99.45	37.94	33.34	11.67	29.6	394	32	P	V
		5720	53.09	-57.71	110.8	37.52	33.48	11.7	29.61	394	32	P	V
		5723.8	54.21	-65.25	119.46	38.62	33.5	11.7	29.61	394	32	P	V
	*	5785	93.95	-	-	77.98	33.81	11.78	29.62	394	32	P	V
	*	5785	86.73	-	-	70.76	33.81	11.78	29.62	394	32	A	V
		5852.2	53.87	-63.31	117.18	37.55	34.11	11.84	29.63	394	32	P	V
		5868.8	53.98	-52.95	106.93	37.59	34.18	11.85	29.64	394	32	P	V
		5915.6	54.74	-20.39	75.13	38.19	34.3	11.89	29.64	394	32	P	V
		5941.2	54.78	-13.42	68.2	38.22	34.3	11.91	29.65	394	32	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

WIFI Ant. 5+4	Note	Frequency (MHz)	Level (dBμV/m)	Margin (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	87.62	-	-	71.43	34	11.82	29.63	100	123	P	H
	*	5825	81.55	-	-	65.36	34	11.82	29.63	100	123	A	H
		5854.4	54.03	-58.14	112.17	37.7	34.12	11.84	29.63	100	123	P	H
		5873.8	55.47	-50.07	105.54	39.05	34.2	11.86	29.64	100	123	P	H
		5921.6	54.56	-16.15	70.71	38.02	34.3	11.89	29.65	100	123	P	H
		5934.6	54.25	-13.95	68.2	37.7	34.3	11.9	29.65	100	123	P	H
													H
802.11a													H
CH 165	*	5825	92.03	-	-	75.84	34	11.82	29.63	377	29	P	V
5825MHz	*	5825	85.84	-	-	69.65	34	11.82	29.63	377	29	A	V
		5851.6	52.98	-65.57	118.55	36.66	34.11	11.84	29.63	377	29	P	V
		5866.8	53.95	-53.54	107.49	37.57	34.17	11.85	29.64	377	29	P	V
		5922.6	54.6	-15.37	69.97	38.06	34.3	11.89	29.65	377	29	P	V
		5928.8	54.05	-14.15	68.2	37.5	34.3	11.9	29.65	377	29	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. 5+4	Note	Frequency (MHz)	Level (dBμV/m)	Margin (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	47.79	-26.21	74	57.76	39.2	17.05	66.22	-	-	P	H
		17235	47.65	-20.55	68.2	53.87	38.47	21.47	66.16	-	-	P	H
													H
													H
		11490	47.79	-26.21	74	57.76	39.2	17.05	66.22	-	-	P	V
		17235	48.74	-19.46	68.2	54.96	38.47	21.47	66.16	-	-	P	V
													V
													V
802.11a CH 157 5785MHz		11570	47.86	-26.14	74	57.97	38.99	17.12	66.22	-	-	P	H
		17355	47.16	-21.04	68.2	52.91	38.76	21.52	66.03	-	-	P	H
													H
													H
		11570	47.48	-26.52	74	57.59	38.99	17.12	66.22	-	-	P	V
		17355	46.79	-21.41	68.2	52.54	38.76	21.52	66.03	-	-	P	V
													V
													V
802.11a CH 165 5825MHz		11650	47.88	-26.12	74	58.11	38.8	17.19	66.22	-	-	P	H
		17475	48.03	-20.17	68.2	53.39	38.97	21.57	65.9	-	-	P	H
													H
													H
		11650	47.37	-26.63	74	57.6	38.8	17.19	66.22	-	-	P	V
		17475	48.13	-20.07	68.2	53.49	38.97	21.57	65.9	-	-	P	V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.

Band 4 5725~5850MHz

WIFI 802.11ax HE20_Full (Band Edge @ 3m)

WIFI Ant. 5+4	Note	Frequency (MHz)	Level (dBµV/m)	Margin (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)
		5635.8	53.13	-15.07	68.2	38.1	33.03	11.59	29.59	115	122	P	H
		5668	52.8	-28.76	81.56	37.62	33.14	11.64	29.6	115	122	P	H
		5717.4	53.55	-56.52	110.07	37.99	33.47	11.7	29.61	115	122	P	H
		5721.8	52.68	-62.22	114.9	37.1	33.49	11.7	29.61	115	122	P	H
	*	5785	93.15	-	-	77.18	33.81	11.78	29.62	115	122	P	H
	*	5785	81.93	-	-	65.96	33.81	11.78	29.62	115	122	A	H
		5852.6	52.86	-63.41	116.27	36.54	34.11	11.84	29.63	115	122	P	H
		5856.6	53.67	-56.68	110.35	37.33	34.13	11.84	29.63	115	122	P	H
		5887	54.96	-41.33	96.29	38.48	34.25	11.87	29.64	115	122	P	H
		5939	54.38	-13.82	68.2	37.83	34.3	11.9	29.65	115	122	P	H
802.11ax													H
HE20 Full													H
CH 157		5609.8	53.49	-14.71	68.2	38.44	33.08	11.56	29.59	395	33	P	V
5785MHz		5678.8	53.45	-36.1	89.55	38.17	33.23	11.65	29.6	395	33	P	V
		5715.2	54.18	-55.28	109.46	38.64	33.46	11.69	29.61	395	33	P	V
		5721.8	52.81	-62.09	114.9	37.23	33.49	11.7	29.61	395	33	P	V
	*	5785	94.23	-	-	78.26	33.81	11.78	29.62	395	33	P	V
	*	5785	86.48	-	-	70.51	33.81	11.78	29.62	395	33	A	V
		5852	53.45	-64.19	117.64	37.13	34.11	11.84	29.63	395	33	P	V
		5855.4	54.38	-56.31	110.69	38.05	34.12	11.84	29.63	395	33	P	V
		5917.2	54.68	-19.27	73.95	38.14	34.3	11.89	29.65	395	33	P	V
		5928.2	53.86	-14.34	68.2	37.31	34.3	11.9	29.65	395	33	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 HE20 Full (Harmonic @ 3m)

WIFI Ant. 5+4	Note	Frequency (MHz)	Level (dBµV/m)	Margin (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)
		11570	47.35	-26.65	74	57.46	38.99	17.12	66.22	-	-	P	H
		17355	47.03	-21.17	68.2	52.78	38.76	21.52	66.03	-	-	P	H
802.11ax													H
HE20 Full													H
CH 157		11570	47.95	-26.05	74	58.06	38.99	17.12	66.22	-	-	P	V
5785MHz		17355	46.87	-21.33	68.2	52.62	38.76	21.52	66.03	-	-	P	V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.

Band 4 5725~5850MHz

WIFI 802.11ax HE20_Partial 26 (Band Edge @ 3m)

WIFI Ant. 5+4	Note	Frequency (MHz)	Level (dBµV/m)	Margin (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 Partial 26/4 CH 157 5785MHz		5603.6	53.61	-14.59	68.2	38.56	33.09	11.55	29.59	106	212	P	H
		5661.4	54.16	-22.5	76.66	39.04	33.09	11.63	29.6	106	212	P	H
		5700.6	54.75	-50.62	105.37	39.28	33.4	11.68	29.61	106	212	P	H
		5722.4	52.57	-63.7	116.27	36.99	33.49	11.7	29.61	106	212	P	H
	*	5785	95.81	-	-	79.84	33.81	11.78	29.62	106	212	P	H
	*	5785	86.66	-	-	70.69	33.81	11.78	29.62	106	212	A	H
		5855	53.03	-57.77	110.8	36.7	34.12	11.84	29.63	106	212	P	H
		5861.8	54.25	-54.64	108.89	37.89	34.15	11.85	29.64	106	212	P	H
		5914	55.13	-21.18	76.31	38.58	34.3	11.89	29.64	106	212	P	H
		5942.8	54.29	-13.91	68.2	37.73	34.3	11.91	29.65	106	212	P	H
													H
													H
		5605.4	54.45	-13.75	68.2	39.39	33.09	11.56	29.59	374	28	P	V
		5696.6	53.96	-48.73	102.69	38.53	33.37	11.67	29.61	374	28	P	V
		5708	53.88	-53.56	107.44	38.37	33.43	11.69	29.61	374	28	P	V
		5723	52.59	-65.05	117.64	37.01	33.49	11.7	29.61	374	28	P	V
	*	5785	99.18	-	-	83.21	33.81	11.78	29.62	374	28	P	V
	*	5785	89.57	-	-	73.6	33.81	11.78	29.62	374	28	A	V
		5850	54.11	-68.09	122.2	37.8	34.1	11.84	29.63	374	28	P	V
		5872	53.97	-52.07	106.04	37.57	34.19	11.85	29.64	374	28	P	V
		5906.8	55.25	-26.38	81.63	38.71	34.3	11.88	29.64	374	28	P	V
		5946	55.15	-13.05	68.2	38.59	34.3	11.91	29.65	374	28	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 HE20_Partial 26 (Harmonic @ 3m)

WIFI Ant. 5+4	Note	Frequency (MHz)	Level (dBμV/m)	Margin (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 Partial 26/4 CH 157 5785MHz		11570	47.89	-26.11	74	58	38.99	17.12	66.22	-	-	P	H
		17355	47.66	-20.54	68.2	53.41	38.76	21.52	66.03	-	-	P	H
													H
													H
		11570	47.92	-26.08	74	58.03	38.99	17.12	66.22	-	-	P	V
		17355	47.81	-20.39	68.2	53.56	38.76	21.52	66.03	-	-	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line. 3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.												

Band 4 5725~5850MHz

WIFI 802.11ax HE40_Full (Band Edge @ 3m)

WIFI Ant. 5+4	Note	Frequency (MHz)	Level (dBµV/m)	Margin (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)
		5617.6	52.8	-15.4	68.2	37.76	33.06	11.57	29.59	400	310	P	H
		5688.6	53.07	-43.72	96.79	37.7	33.31	11.66	29.6	400	310	P	H
		5701	53.05	-52.43	105.48	37.58	33.4	11.68	29.61	400	310	P	H
		5722.2	52.09	-63.73	115.82	36.51	33.49	11.7	29.61	400	310	P	H
	*	5795	86.6	-	-	70.56	33.87	11.79	29.62	400	310	P	H
	*	5795	76.9	-	-	60.86	33.87	11.79	29.62	400	310	A	H
		5851.8	52.9	-65.2	118.1	36.58	34.11	11.84	29.63	400	310	P	H
		5872.8	54.39	-51.43	105.82	37.99	34.19	11.85	29.64	400	310	P	H
		5889.4	54.59	-39.92	94.51	38.1	34.26	11.87	29.64	400	310	P	H
		5944.6	54.53	-13.67	68.2	37.97	34.3	11.91	29.65	400	310	P	H
802.11ax													H
HE40 Full													H
CH 159		5633.8	52.58	-15.62	68.2	37.55	33.03	11.59	29.59	331	73	P	V
5795MHz		5684.8	53.31	-40.68	93.99	37.97	33.28	11.66	29.6	331	73	P	V
		5708.6	53.05	-54.56	107.61	37.54	33.43	11.69	29.61	331	73	P	V
		5724.4	52.79	-68.04	120.83	37.19	33.5	11.71	29.61	331	73	P	V
	*	5795	89.44	-	-	73.4	33.87	11.79	29.62	331	73	P	V
	*	5795	80.56	-	-	64.52	33.87	11.79	29.62	331	73	A	V
		5850.6	52.98	-67.85	120.83	36.67	34.1	11.84	29.63	331	73	P	V
		5862.8	53.87	-54.74	108.61	37.51	34.15	11.85	29.64	331	73	P	V
		5887.4	54.86	-41.13	95.99	38.38	34.25	11.87	29.64	331	73	P	V
		5943.6	55.05	-13.15	68.2	38.49	34.3	11.91	29.65	331	73	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. 5+4	Note	Frequency (MHz)	Level (dBµV/m)	Margin (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)
		11590	47.96	-26.04	74	58.11	38.93	17.14	66.22	-	-	P	H
		17385	48.31	-19.89	68.2	53.92	38.85	21.54	66	-	-	P	H
802.11ax													H
HE40 Full													H
CH 159		11590	47.49	-26.51	74	57.64	38.93	17.14	66.22	-	-	P	V
5795MHz		17385	47.78	-20.42	68.2	53.39	38.85	21.54	66	-	-	P	V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.

Band 4 5725~5850MHz

WIFI 802.11ax HE80_Full (Band Edge @ 3m)

WIFI Ant. 5+4	Note	Frequency (MHz)	Level (dBμV/m)	Margin (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	52.48	-15.72	68.2	37.47	33	11.61	29.6	100	123	P	H
		5653.6	53.66	-17.21	70.87	38.61	33.03	11.62	29.6	100	123	P	H
		5700.6	52.69	-52.68	105.37	37.22	33.4	11.68	29.61	100	123	P	H
		5721.8	53.27	-61.63	114.9	37.69	33.49	11.7	29.61	100	123	P	H
	*	5775	83.2	-	-	67.3	33.75	11.77	29.62	100	123	P	H
	*	5775	73.46	-	-	57.56	33.75	11.77	29.62	100	123	A	H
		5851.4	52.96	-66.05	119.01	36.64	34.11	11.84	29.63	100	123	P	H
		5873	54.38	-51.38	105.76	37.98	34.19	11.85	29.64	100	123	P	H
		5887.8	54.69	-41.01	95.7	38.21	34.25	11.87	29.64	100	123	P	H
		5945.6	54.78	-13.42	68.2	38.22	34.3	11.91	29.65	100	123	P	H
802.11ax													H
HE80 Full													H
CH 155		5644.6	53.52	-14.68	68.2	38.5	33.01	11.61	29.6	300	67	P	V
5775MHz		5672.6	53.66	-31.3	84.96	38.44	33.18	11.64	29.6	300	67	P	V
		5702.6	54.07	-51.86	105.93	38.59	33.41	11.68	29.61	300	67	P	V
		5723.4	52.51	-66.04	118.55	36.93	33.49	11.7	29.61	300	67	P	V
	*	5775	85.63	-	-	69.73	33.75	11.77	29.62	300	67	P	V
	*	5775	76.4	-	-	60.5	33.75	11.77	29.62	300	67	A	V
		5850.6	53.22	-67.61	120.83	36.91	34.1	11.84	29.63	300	67	P	V
		5873	53.73	-52.03	105.76	37.33	34.19	11.85	29.64	300	67	P	V
		5890	55.67	-38.4	94.07	39.18	34.26	11.87	29.64	300	67	P	V
		5931	54.83	-13.37	68.2	38.28	34.3	11.9	29.65	300	67	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. 5+4	Note	Frequency (MHz)	Level (dBμV/m)	Margin (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)
		11550	47.9	-26.1	74	57.96	39.05	17.11	66.22	-	-	P	H
		17325	47.74	-20.46	68.2	53.62	38.67	21.51	66.06	-	-	P	H
802.11ax													H
HE80 Full													H
CH 155		11550	47.95	-26.05	74	58.01	39.05	17.11	66.22	-	-	P	V
5775MHz		17325	47.9	-20.3	68.2	53.78	38.67	21.51	66.06	-	-	P	V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.

Emission above 18GHz

5GHz WIFI 802.11ax HE20 Full (SHF @ 1m)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
5+4		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ax HE20 Full SHF		22416	34.89	-39.11	74	54.43	38.27	-3.28	54.53	-	-	P	H
		34806	44.83	-43.37	88.2	63.37	41.42	-1.5	58.46	-	-	P	H
													H
													H
		22752	37.1	-36.9	74	56.12	38.5	-3.22	54.3	-	-	P	V
		34680	42.58	-45.62	88.2	61.14	41.42	-1.54	58.44	-	-	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line. 3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.												

Emission below 1GHz

5GHz WIFI 802.11ax HE20 Full (LF @ 3m)

WIFI Ant. 5+4	Note	Frequency (MHz)	Level (dBµV/m)	Margin (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		70.74	24.85	-15.15	40	43.59	12.3	1.24	32.28	-	-	P	H
		109.54	29	-14.5	43.5	42.82	16.83	1.61	32.26	-	-	P	H
		184.23	26.53	-16.97	43.5	41.84	14.88	2.13	32.32	-	-	P	H
		489.78	25.91	-20.09	46	31.19	23.86	3.39	32.53	-	-	P	H
		756.53	30.47	-15.53	46	30.46	28.14	4.28	32.41	-	-	P	H
		953.44	32.97	-13.03	46	28.83	30.64	4.81	31.31	-	-	P	H
		68.8	33.51	-6.49	40	52.29	12.29	1.21	32.28	-	-	P	V
		108.57	36.56	-6.94	43.5	50.36	16.85	1.61	32.26	-	-	P	V
		186.17	27.96	-15.54	43.5	43.28	14.86	2.14	32.32	-	-	P	V
		512.09	25.3	-20.7	46	30.34	24.04	3.48	32.56	-	-	P	V
		768.17	30.59	-15.41	46	30.61	28.09	4.3	32.41	-	-	P	V
		858.38	31.78	-14.22	46	30.18	29.05	4.58	32.03	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line. 3. The emission position marked as “-” means no suspected emission found and emission level has at least 6dB margin against limit or emission is noise floor only.												

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	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
5+4		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 149 5745MHz		5650	55.45	-12.75	68.2	54.51	32.22	4.58	35.86	103	308	P	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. Margin(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 5650MHz:

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. Margin(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 68.2(dBμV/m)

= -12.75 (dB)

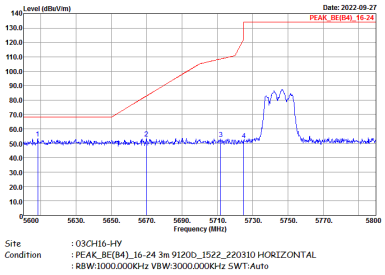
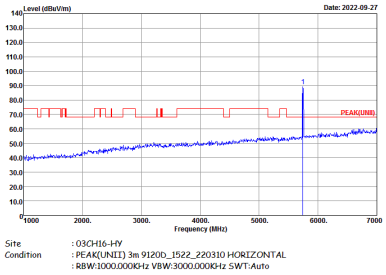
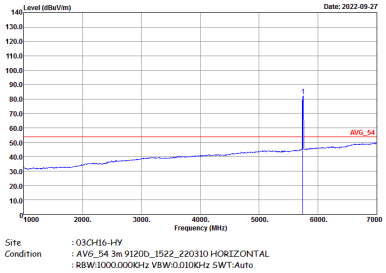
Peak measured complies with the limit line, so test result is “PASS”.

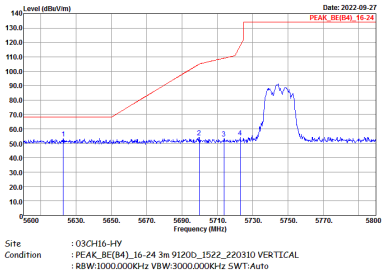
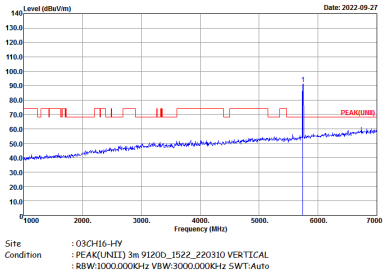
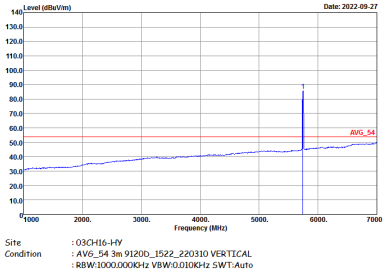
Appendix E. Cabinet Radiated Spurious Emission Plots

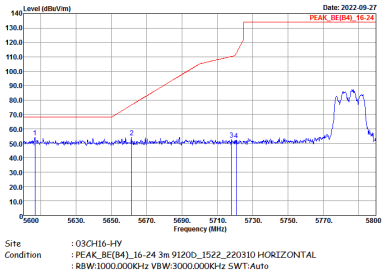
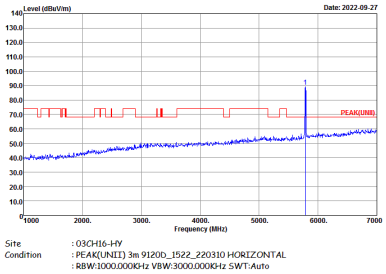
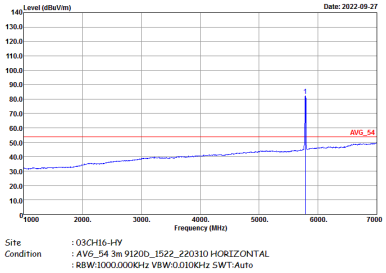
Test Engineer :	Andy Yang, Karl Hou and Steven Wu	**Temperature :**	20~25°C
		Relative Humidity :	50~60%

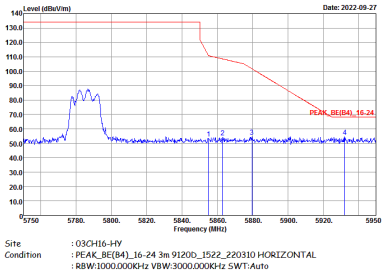
Band 4 - 5725~5850MHz

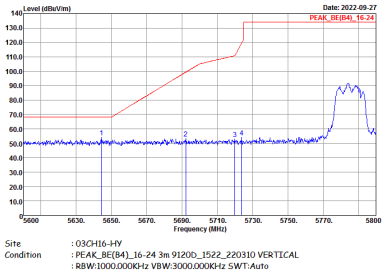
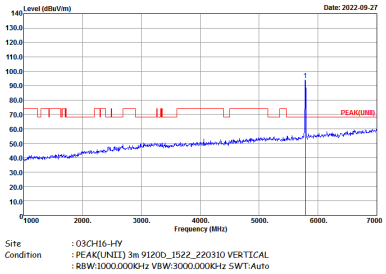
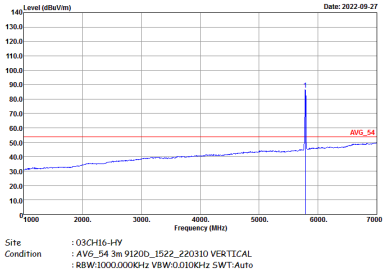
WIFI 802.11a (Band Edge @ 3m)

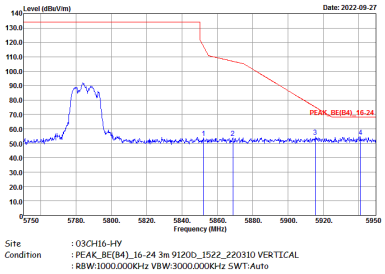
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
5+4	Horizontal	Fundamental
Peak		
Avg	Left blank	

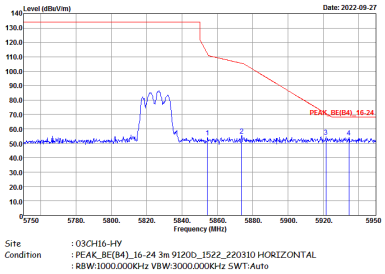
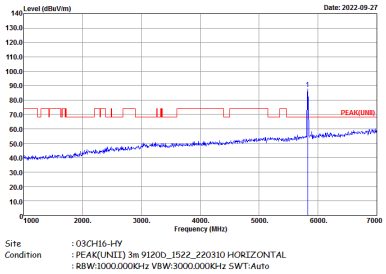
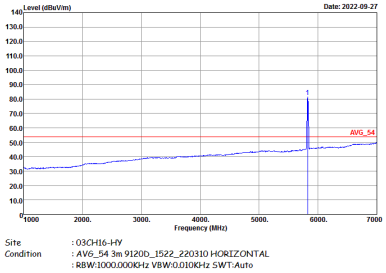
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
5+4	Vertical	Fundamental
Peak		
Avg	Left blank	

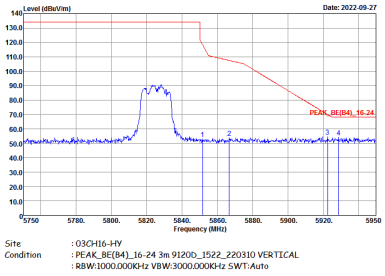
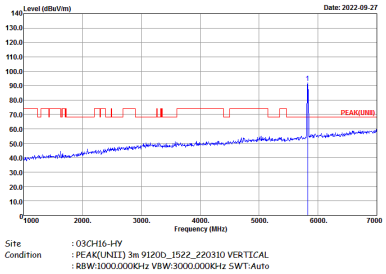
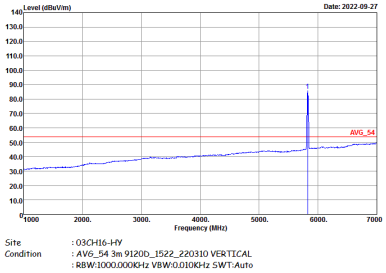
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
5+4	Horizontal	Fundamental
Peak		
Avg	Left blank	

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
5+4	Horizontal	Fundamental
Peak		Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
5+4	Vertical	Fundamental
Peak		
Avg	Left blank	

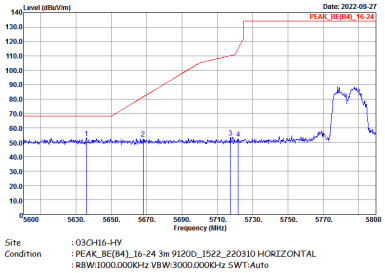
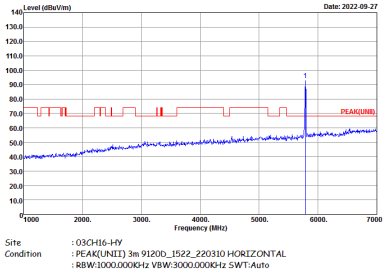
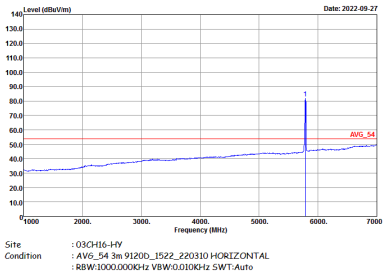
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
5+4	Vertical	Fundamental
Peak		Left blank

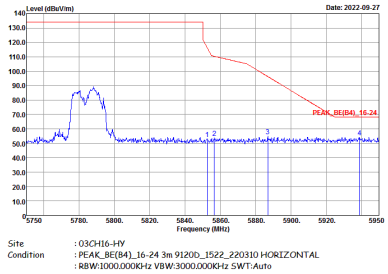
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
5+4	Horizontal	Fundamental
Peak		
Avg	Left blank	

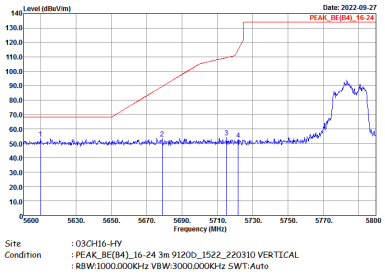
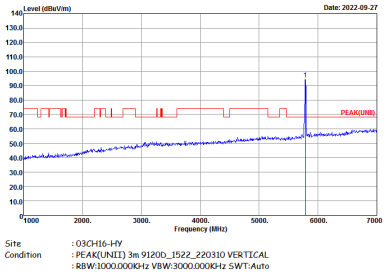
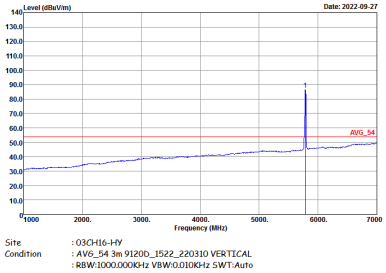
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
5+4	Vertical	Fundamental
Peak		
Avg	Left blank	

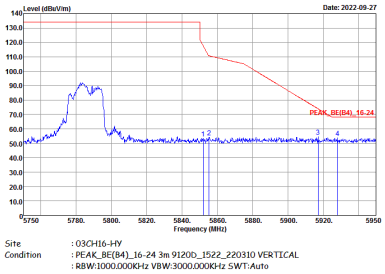
Band 4 5725~5850MHz

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

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
5+4	Horizontal	Fundamental
Peak		
Avg	Left blank	

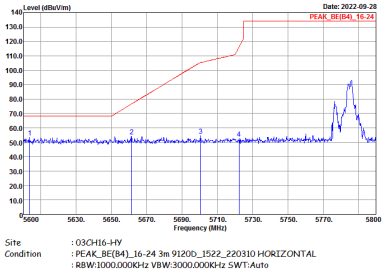
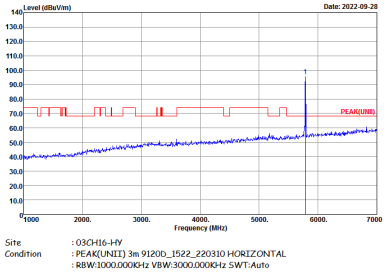
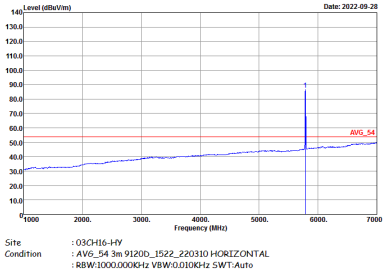
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
5+4	Horizontal	Fundamental
Peak		Left blank

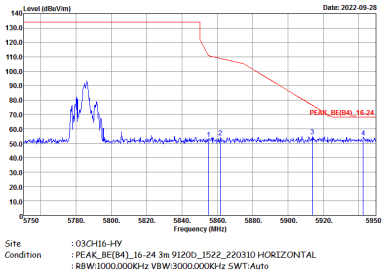
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
5+4	Vertical	Fundamental
Peak		
Avg	Left blank	

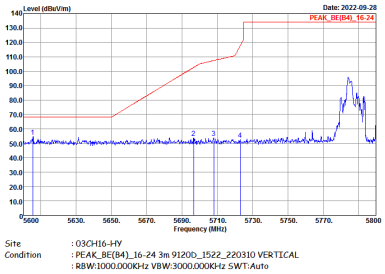
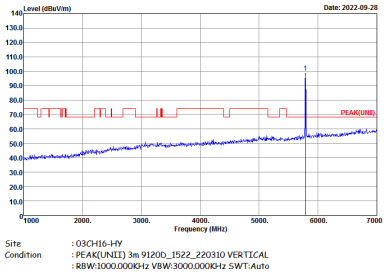
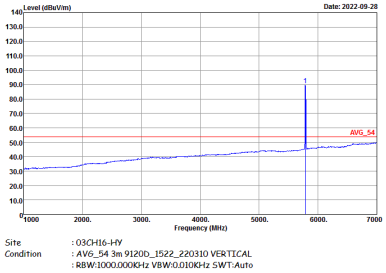
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
5+4	Vertical	Fundamental
Peak		Left blank

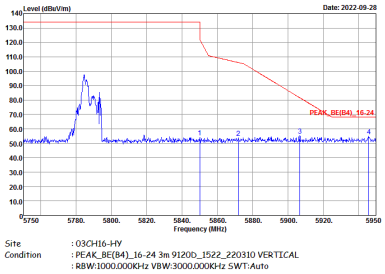
Band 4 5725~5850MHz

WIFI 802.11ax HE20 Partial 26 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 26/4 CH157 5785MHz	
5+4	Horizontal	Fundamental
Peak		
Avg	Left blank	

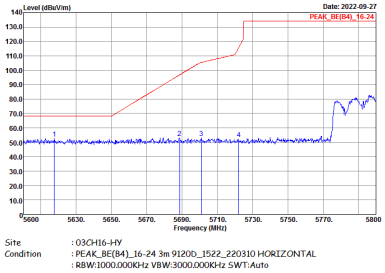
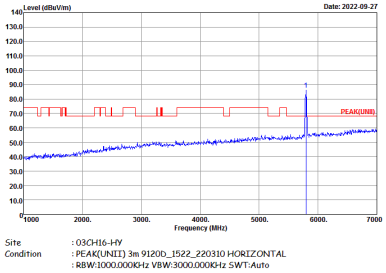
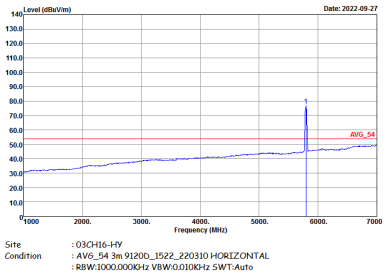
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 26/4 CH157 5785MHz	
5+4	Horizontal	Fundamental
Peak		Left blank

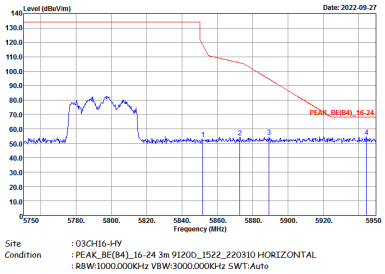
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 26/4 CH157 5785MHz	
5+4	Vertical	Fundamental
Peak		
Avg	Left blank	

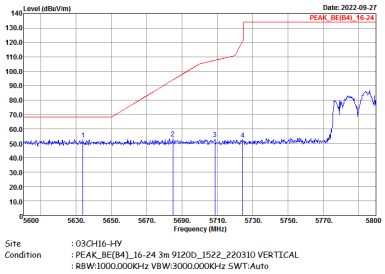
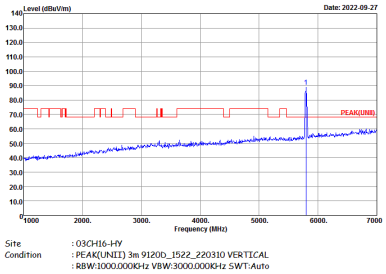
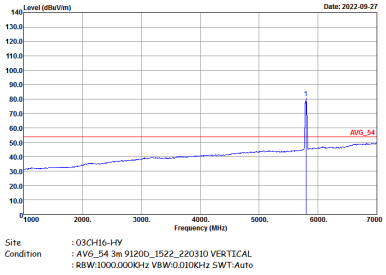
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 26/4 CH157 5785MHz	
5+4	Vertical	Fundamental
Peak		Left blank

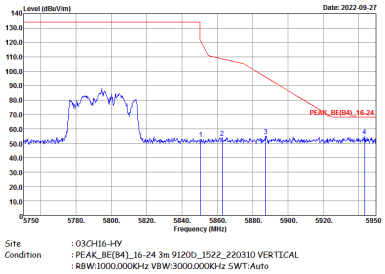
Band 4 5725~5850MHz

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

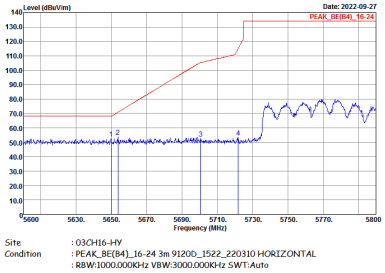
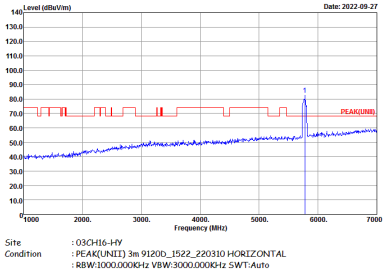
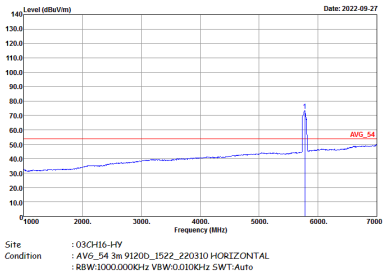
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full HT40 CH159 5795MHz	
5+4	Horizontal	Fundamental
Peak		
Avg	Left blank	

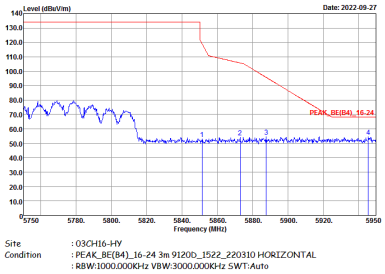
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full HT40 CH159 5795MHz	
5+4	Horizontal	Fundamental
Peak		Left blank

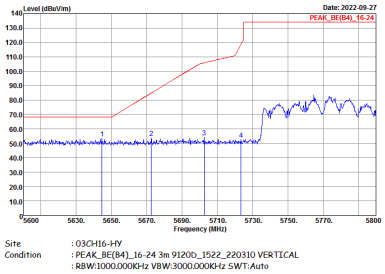
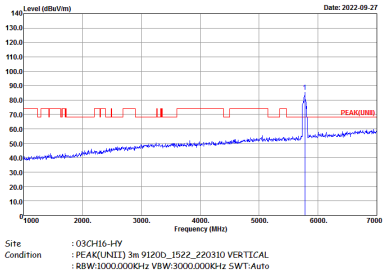
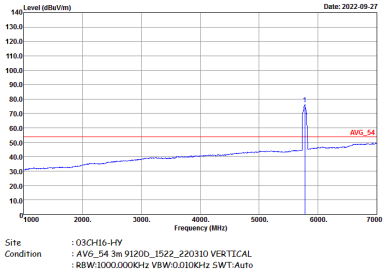
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH159 5795MHz	
5+4	Vertical	Fundamental
Peak		
Avg	Left blank	

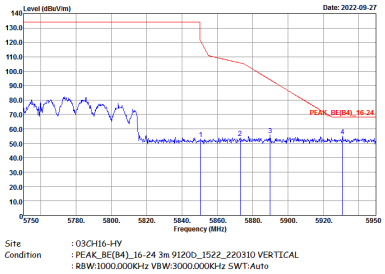
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH159 5795MHz	
5+4	Vertical	Fundamental
Peak		Left blank

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	
5+4	Horizontal	Fundamental
Peak		
Avg	Left blank		

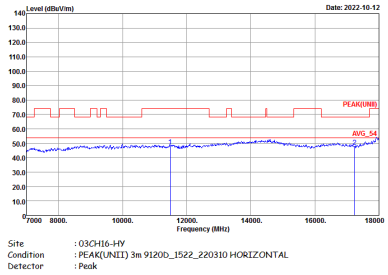
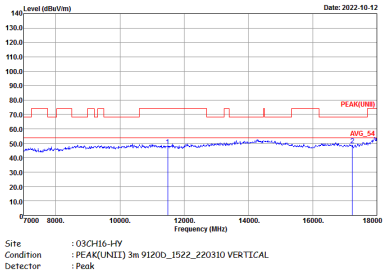
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH155 5775MHz	
5+4	Horizontal	Fundamental
Peak		Left blank

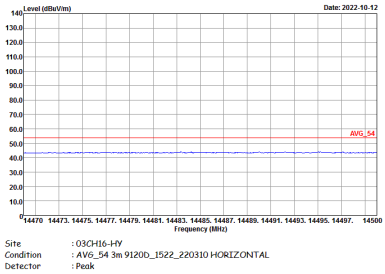
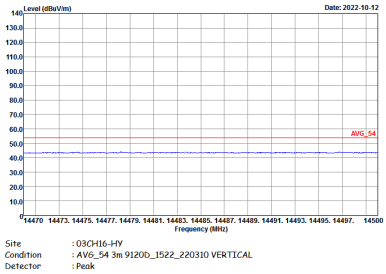
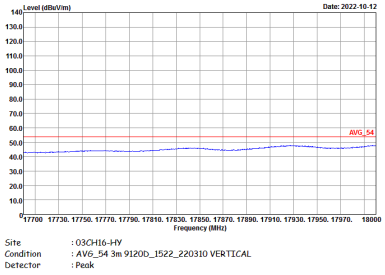
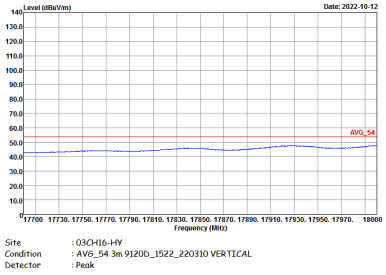
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH155 5775MHz	
5+4	Vertical	Fundamental
Peak		
Avg	Left blank	

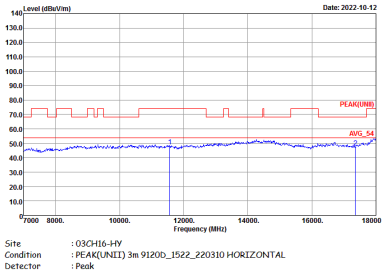
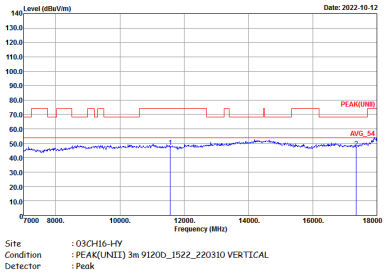
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH155 5775MHz	
5+4	Vertical	Fundamental
Peak		Left blank

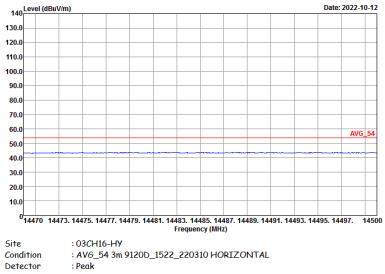
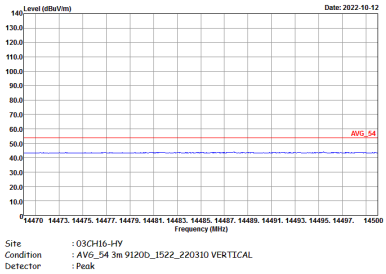
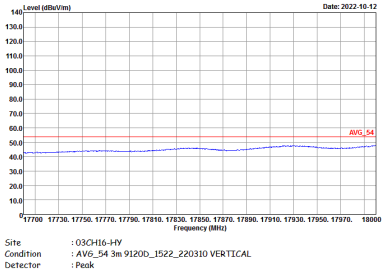
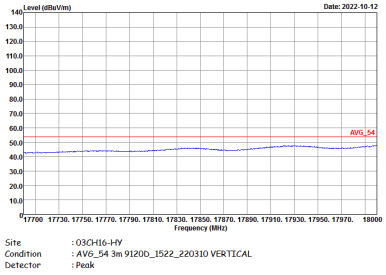
Band 4 - 5725~5850MHz

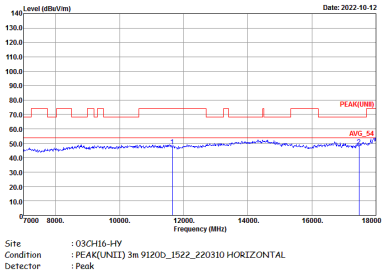
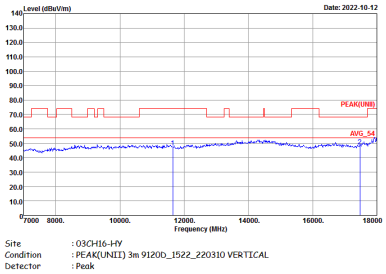
WIFI 802.11a (Harmonic @ 3m)

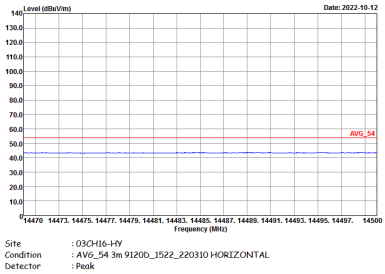
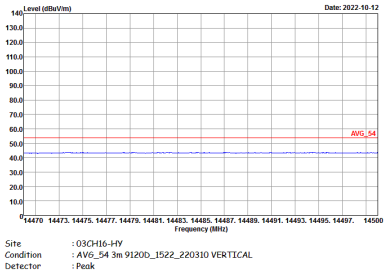
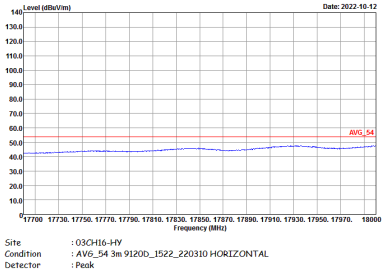
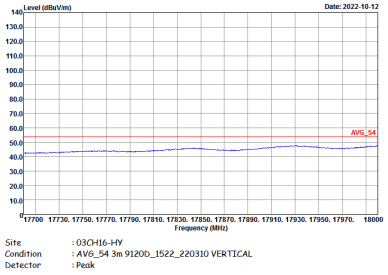
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH149 5745MHz	
5+4	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH149 5745MHz	
5+4	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
5+4	Horizontal	Vertical
Peak Avg.		

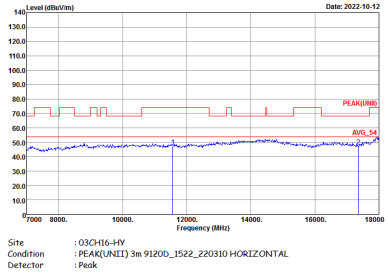
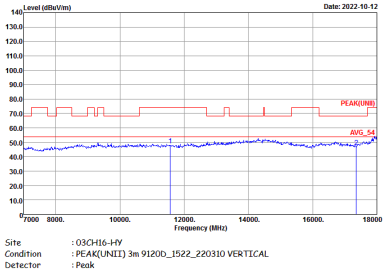
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
5+4	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

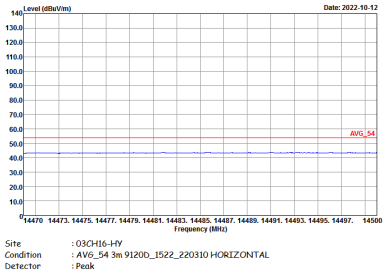
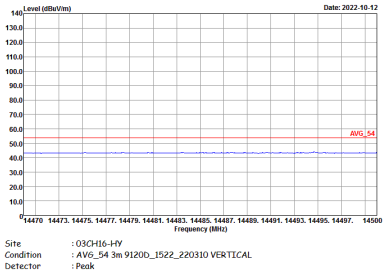
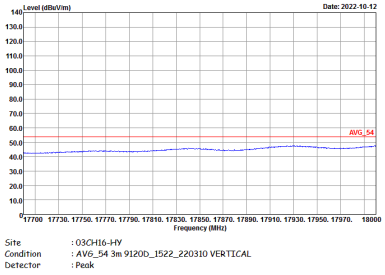
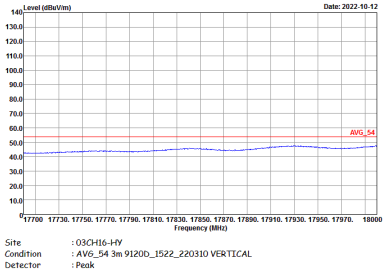
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH165 5825MHz	
5+4	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH165 5825MHz	
5+4	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

Band 4 5725~5850MHz

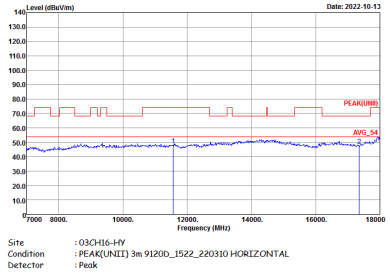
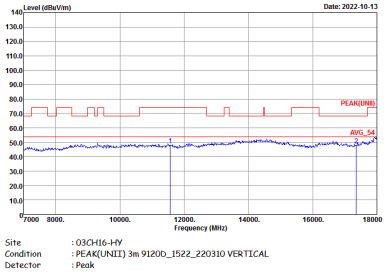
WIFI 802.11ax HE20 Full (Harmonic @ 3m)

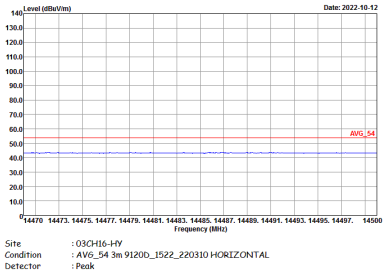
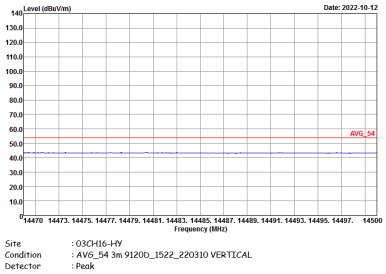
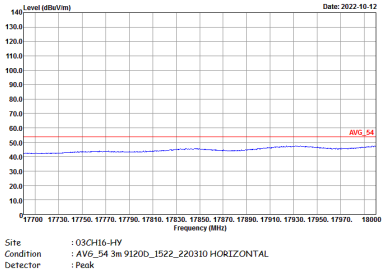
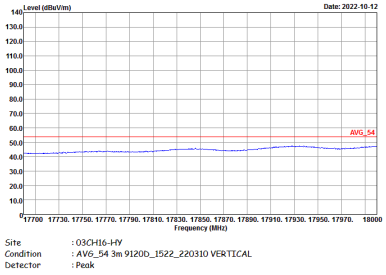
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
5+4	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH157 5785MHz	
5+4	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

Band 4 5725~5850MHz

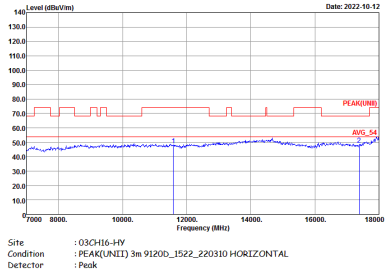
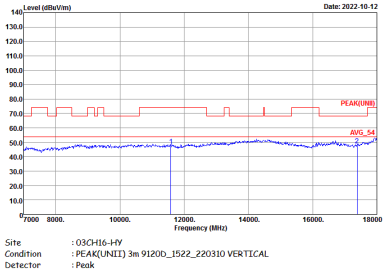
WIFI 802.11ax HE20 Partial 26 (Harmonic @ 3m)

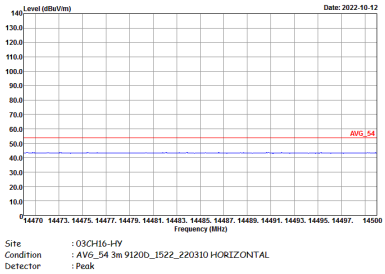
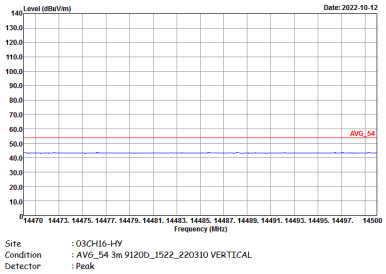
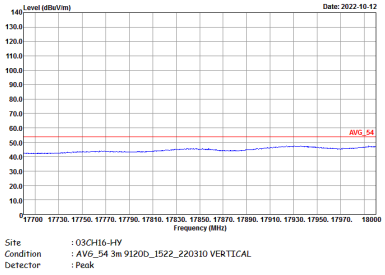
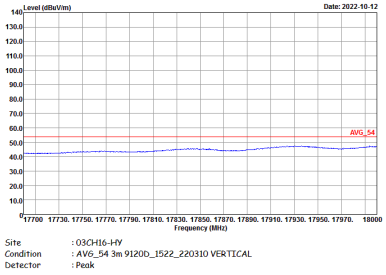
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Partial 26/4 CH157 5785MHz	
5+4	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Partial 26/4 CH157 5785MHz	
5+4	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

Band 4 5725~5850MHz

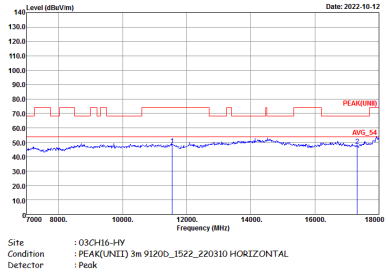
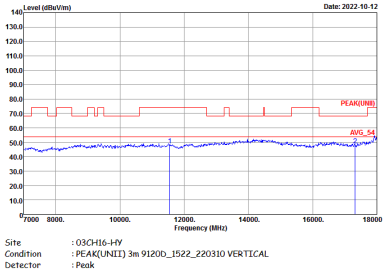
WIFI 802.11ax HE40 Full (Harmonic @ 3m)

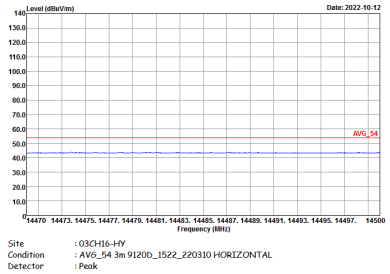
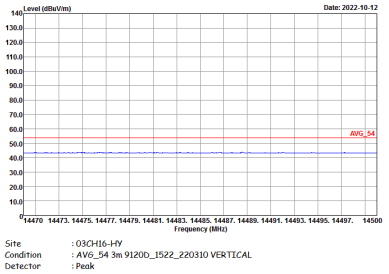
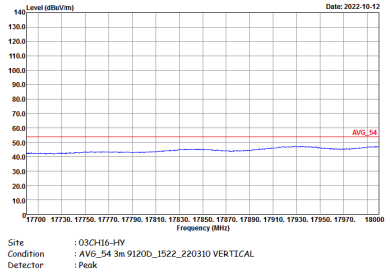
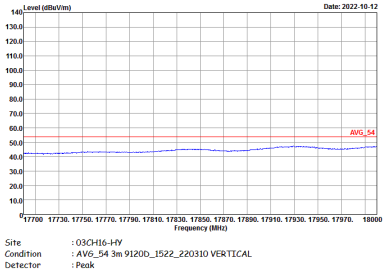
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE40 Full CH159 5795MHz	
5+4	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE40 Full CH159 5795MHz	
5+4	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

Band 4 5725~5850MHz

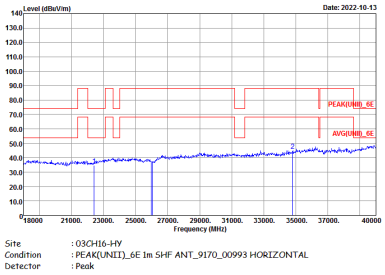
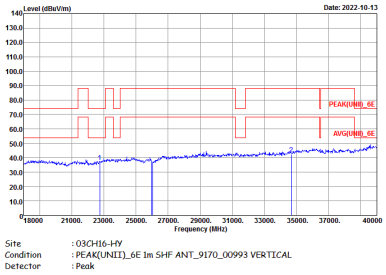
WIFI 802.11ax HE80 Full (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE80 Full CH155 5775MHz	
5+4	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE80 Full CH155 5775MHz	
5+4	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

Emission above 18GHz

5GHz WIFI 802.11ax HE20 Full (SHF @ 1m)

WIFI	5GHz WIFI	
ANT	802.11ax HE20 Full SHF	
5+4	Horizontal	Vertical
Peak Avg.		

Emission below 1GHz

5GHz WIFI 802.11ax HE20 Full (LF @ 3m)

WIFI	5GHz WIFI	
ANT	802.11ax HE20 Full LF	
5+4	Horizontal	Vertical
QP / Peak