FCC RADIO TEST REPORT

FCC ID	:	**2AFZZ16UG**
Equipment	:	**Mobile Phone**
Brand Name	:	**Redmi**
Model Name	:	**21091116UG**
Applicant	:	**Xiaomi Communications Co., Ltd. #019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085**
Manufacturer	:	**Xiaomi Communications Co., Ltd. #019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085**
Standard	:	**FCC Part 15 Subpart E §15.407**

The product was received on Sep. 13, 2021 and testing was started from Sep. 22, 2021 and completed on Oct. 15, 2021. 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 of 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	Issued Date
FR190910E	01	Initial issue of report	Oct. 20, 2021

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.403(i)	26dB Bandwidth	Pass	-
3.1	2.1049	99% Occupied Bandwidth	Reporting only	-
3.2	15.407(a)	Maximum Conducted Output Power	Pass	-
3.3	15.407(a)	Power Spectral Density	Pass	-
3.4	15.407(b)	Unwanted Emissions	Pass	Under limit 3.26 dB at 5149.240 MHz
3.5	15.207	AC Conducted Emission	Pass	Under limit 20.89 dB at 0.474 MHz
3.6	15.203 15.407(a)	Antenna Requirement	Pass	-

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Danny Lee

Report Producer: Tina Chuang

1 General Description

1.1 Product Feature of Equipment Under Test

GSM/WCDMA/LTE/5G NR, Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n/ax, Wi-Fi 5GHz 802.11a/n/ac/ax, NFC, FM Receiver, and GNSS.

Product Specification subjective to this standard	
Sample 1	6G+128GB
Sample 2	8G+128GB
Sample 3	8G+256GB
Antenna Type	WWAN: Fixed Internal Antenna WLAN **<Ant. 8>:** PIFA Antenna **<Ant. 9>:** PIFA Antenna Bluetooth: PIFA Antenna GPS / Glonass / BDS / Galileo / SBAS / QZSS: PIFA Antenna NFC: Coil Antenna FM: Using earphone as Antenna

Antenna information		
5150 MHz ~ 5250 MHz	Peak Gain (dBi)	Ant. 8: 0.28 Ant. 9: -2.53
5250 MHz ~ 5350 MHz	Peak Gain (dBi)	Ant. 8: 0.33 Ant. 9: -1.10
5470 MHz ~ 5725 MHz	Peak Gain (dBi)	Ant. 8: -0.07 Ant. 9: 0.46

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

1.2 Modification of EUT

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

1.3 Testing Location

Test Site	Sporton International Inc. 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, 03CH15-HY, CO07-HY

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

FCC designation No.: TW3786

1.4 Applicable Standards

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

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

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. The TAF code is not including all the FCC KDB listed without accreditation.

2 Test Configuration of Equipment Under Test

a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, the measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in three orthogonal axis (X: flat, Y: portrait, Z: landscape), and adjusting the measurement antenna orientation, following C63.10 exploratory test procedures and find X plane as worst plane.

b. AC power line Conducted Emission was tested under maximum output power.

2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5150-5250 MHz Band 1 (U-NII-1)	36	5180	44	5220
	38*	5190	46*	5230
	40	5200	48	5240
	42#	5210		

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5250-5350 MHz Band 2 (U-NII-2A)	52	5260	60	5300
	54*	5270	62*	5310
	56	5280	64	5320
	58#	5290		

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5470-5725 MHz Band 3 (U-NII-2C)	100	5500	112	5560
	102*	5510	116	5580
	104	5520	132	5660
	106#	5530	134*	5670
	108	5540	136	5680
	110*	5550	140	5700

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
TDWR Channel	118*	5590	124	5620
	120	5600	126*	5630
	122#	5610	128	5640

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
Straddle Channel	138#	5690	144	5720
	142*	5710		

Note:

1. The above Frequency and Channel in "*" were 802.11n HT40 and 802.11ac VHT40 and 802.11ax HE40.
2. The above Frequency and Channel in "#" were 802.11ac VHT80 and 802.11ax HE80.

2.2 Test Mode

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

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**

Test Cases	
AC Conducted Emission	Mode 1 : LTE Band 17 Idle (High Channel) + Bluetooth Link + WLAN (5GHz) Link + GNSS Rx + Earphone + Battery + USB Cable (Data Link with Notebook) for Sample 3

Remark:
1. For Radiated Test Cases, the tests were performed with Adapter 1and Sample 1
2. Data Link with Notebook means data application transferred mode between EUT and Notebook.

Ch. #		Band I：5150-5250 MHz
		802.11a
L	Low	36
M	Middle	44
H	High	48
Straddle		-

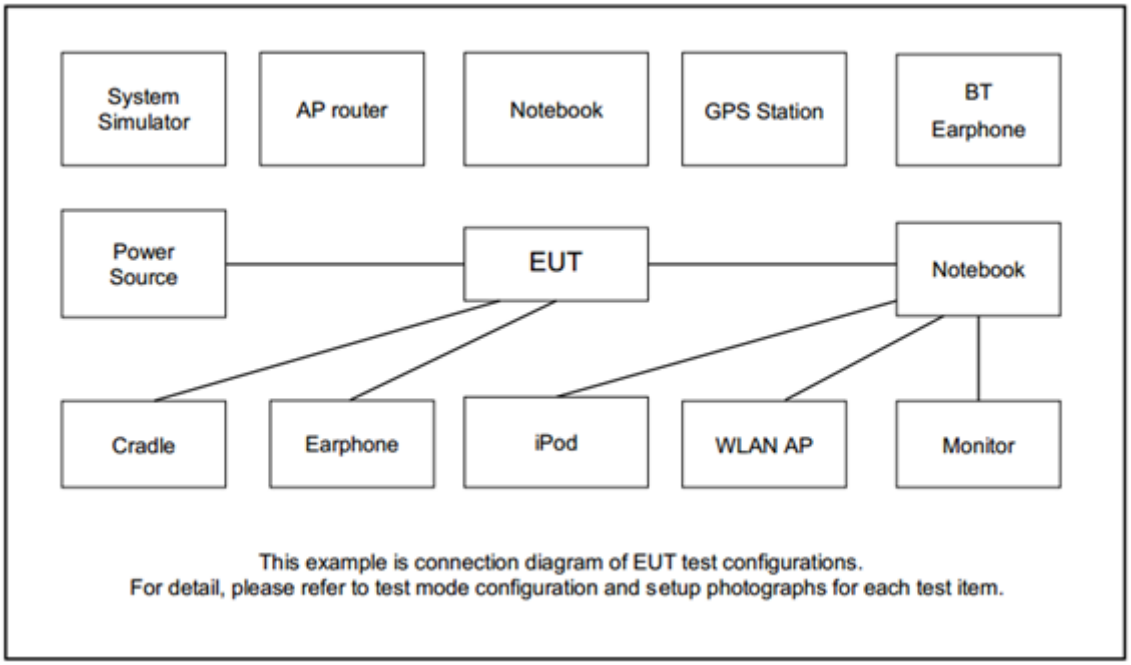
Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11ax HE20	802.11ax HE20	802.11ax HE20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11ax HE40	802.11ax HE40	802.11ax HE40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134
Straddle		-	-	142

Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11ax HE80	802.11ax HE80	802.11ax HE80
L	Low	-	-	106
M	Middle	42	58	-
H	High	-	-	122
Straddle		-	-	138

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

2.3 Connection Diagram of Test System



2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	GPS Station	Pendulum	GSG-54	N/A	N/A	Unshielded, 1.8m
3.	Bluetooth Earphone	Sony Ericsson	MW600	PY7DDA-2029	N/A	N/A
4.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8 m
5.	iPod	Apple	A1285	FCC DoC	Shielded, 1.0m	N/A
6.	Notebook	Dell	Latitude 3400	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
7.	SD Card	SanDisk	MicroSD HC	FCC DoC	N/A	N/A
8.	Earphone	MI	EM023	N/A	Unshielded, 1.2m	N/A

2.5 EUT Operation Test Setup

The RF test items, make the EUT (SW: MIUI 12.5 Global 0.0.0) 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 26dB & 99% Occupied Bandwidth Measurement

3.1.1 Description of 26dB & 99% Occupied Bandwidth

This section is for reporting purpose only.

There is no restriction limits for bandwidth.

For Straddle Channel, according to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, if the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

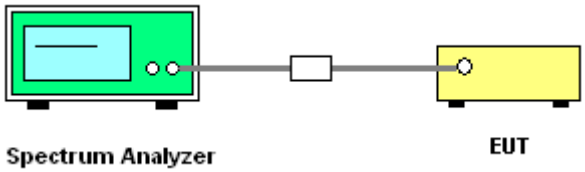
3.1.2 Measuring Instruments

See list of measuring equipment of this test report.

3.1.3 Test Procedures

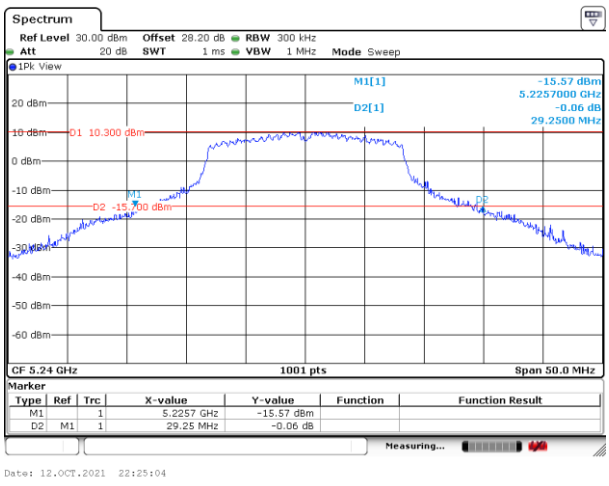
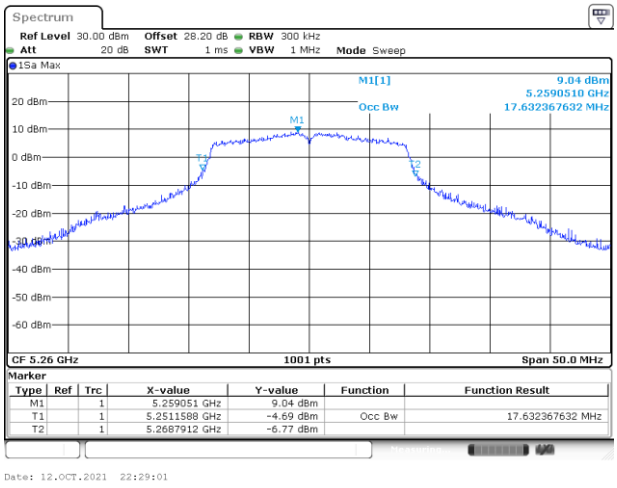
1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section C) Emission bandwidth
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
7. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1-5% of the emission bandwidth and set the Video bandwidth (VBW) ≥ 3 * RBW.
8. Measure and record the results in the test report.

3.1.4 Test Setup



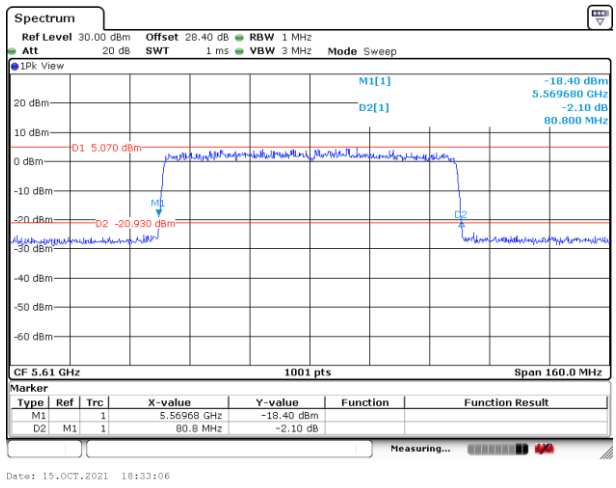
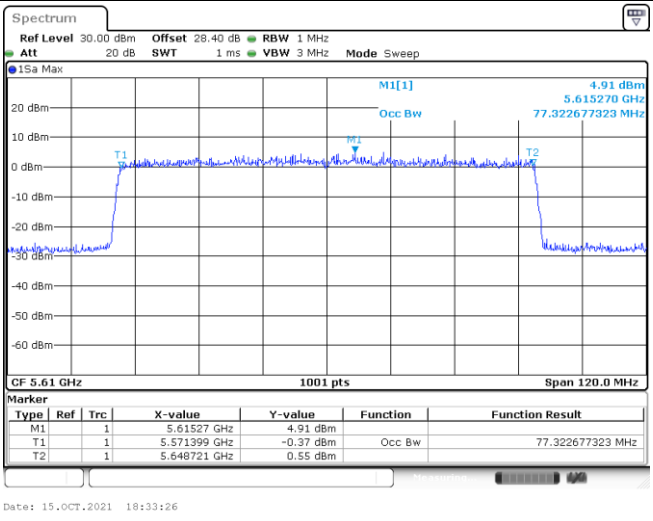
3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

Please refer to Appendix A.

Maximum 26dB Bandwidth	Maximum 99% Occupied Bandwidth
	

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

<For 802.11ax mode>

Maximum 26dB Bandwidth	Maximum 99% Occupied Bandwidth
	

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

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

<FCC 14-30 CFR 15.407>

For the 5.15–5.25 GHz bands:

■ For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW. For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

For the 5.25–5.725 GHz bands:

■ The maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm 10 log B, where B is the 26 dB emission bandwidth in megahertz.

For Straddle Channel, according to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, if the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

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.

Note that U-NII-2 band, devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

3.2.2 Measuring Instruments

See list of measuring equipment of this test report.

3.2.3 Test Procedures

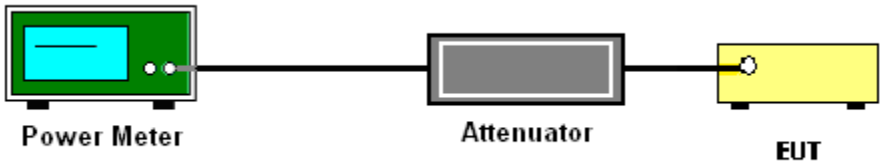
The testing follows Method PM-G of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

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

1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit at its maximum power control level.
3. Measure the average power of the transmitter.
4. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.
   For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For Straddle Channel, according to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, if the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

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

<FCC 14-30 CFR 15.407>

For the 5.15–5.25 GHz bands:

For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1.0 MHz band. For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1.0 MHz band.

For the 5.25–5.725 GHz bands:

The maximum power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

For Straddle Channel, according to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, if the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

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

3.3.2 Measuring Instruments

See list of measuring equipment of this test report.

3.3.3 Test Procedures

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

Section F) Maximum power spectral density.

 # Method SA-3 #

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

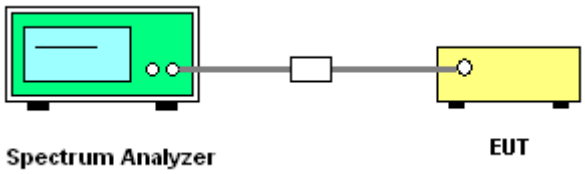
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz.
- Set VBW ≥ 3 MHz.
- Number of points in sweep ≥ 2 Span / RBW.
- Sweep time ≤ (number of points in sweep) × T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which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

1. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
2. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.
3. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

   Method (a): Measure and sum the spectra across the outputs.

   The total final Power Spectral Density is from a device with 2 transmitter outputs. The spectrum measurements of the individual outputs are all performed with the same span and number of points; the spectrum value in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 to obtain the value for the first frequency bin of the summed spectrum.

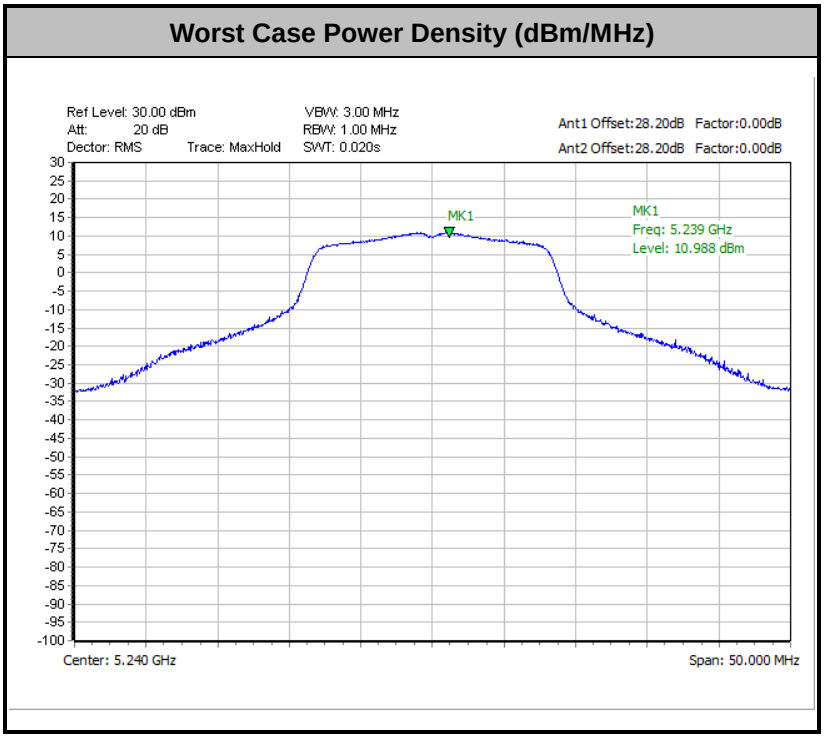
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

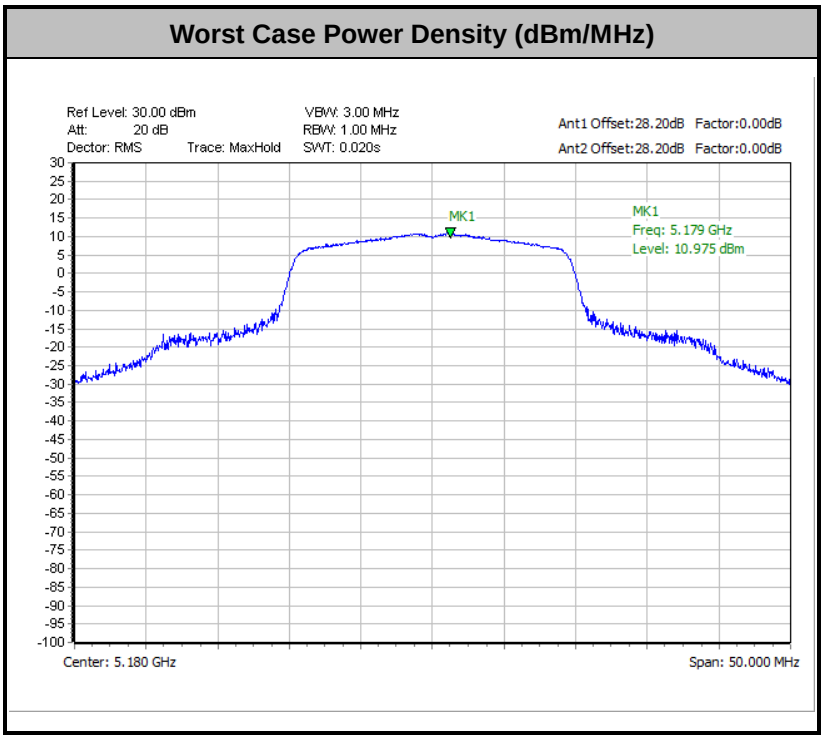
Please refer to Appendix A.

Worst Case Power Density (dBm/MHz)



<For 802.11ax mode>

Worst Case Power Density (dBm/MHz)



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 5150-5250 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of –27dBm/MHz.

For transmitters operating in the 5250-5350 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5250-5350 MHz band that generate emissions in the 5150-5250 MHz band must meet all applicable technical requirements for operation in the 5150-5250 MHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5150-5250 MHz band.

For transmitters operating in the 5470-5600 MHz and 5650-5725MHz band: all emissions outside of the 5470-5600 MHz and 5650-5725MHz band shall not exceed an EIRP of -27 dBm/MHz.

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

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

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

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

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

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

(i) Sections 15.407(b)(1-3) specifies the unwanted emissions limit for the U-NII-1 and U-NII-2 bands. As specified, emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of −27 dBm/MHz.
(ii) Section 15.407(b)(4) specifies the unwanted emissions limit for the U-NII-3 band. A band emissions mask is specified in Section 15.407(b)(4)(i). The emission limits are based on the use of a peak detector.

3.4.2 Measuring Instruments

See list of measuring equipment of this test report.

3.4.3 Test Procedures

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

(1) Procedure for Unwanted Emissions Measurements Below 1000 MHz

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

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

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

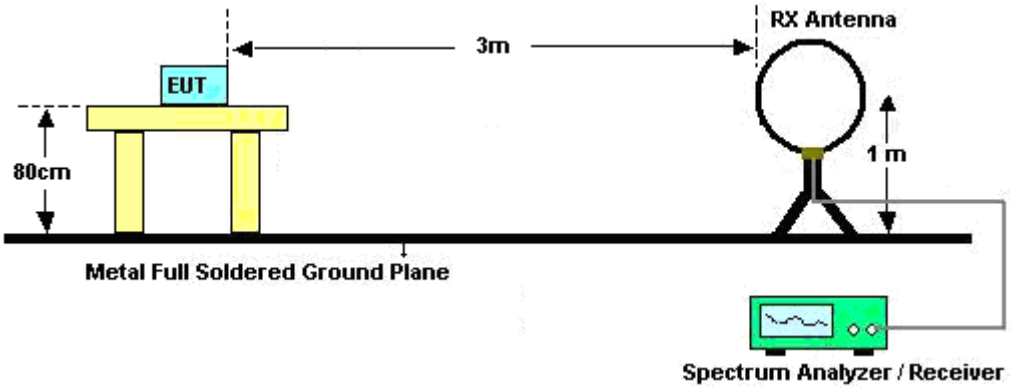
(3) Procedures for Average Unwanted Emissions Measurements Above 1000 MHz

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

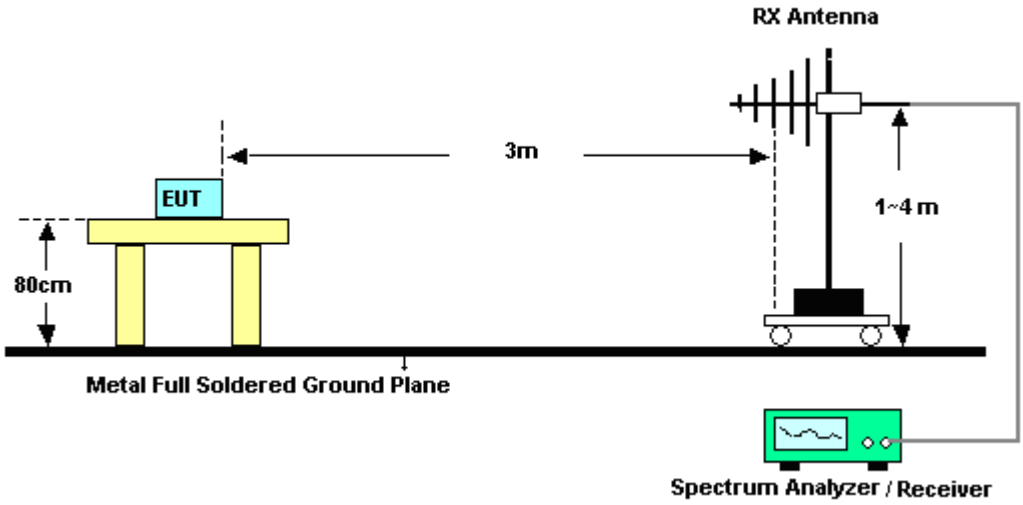
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT was arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. Radiated testing below 1GHz was performed by adjusting the antenna tower from 1m to 4m and by rotating the turn table from 0degree to 360 degree to find the peak maximum hold reading. When there is no suspected emission found and the emission level is with at least 6dB margin against QP limit line, the position is marked as "-".
7. Radiated testing above 1GHz was performed by adjusting the antenna tower from 1m to 4m and by rotating the turn table from 0degree to 360 degree 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 6dB margin against average limit line, the position is marked as "-".

3.4.4 Test Setup

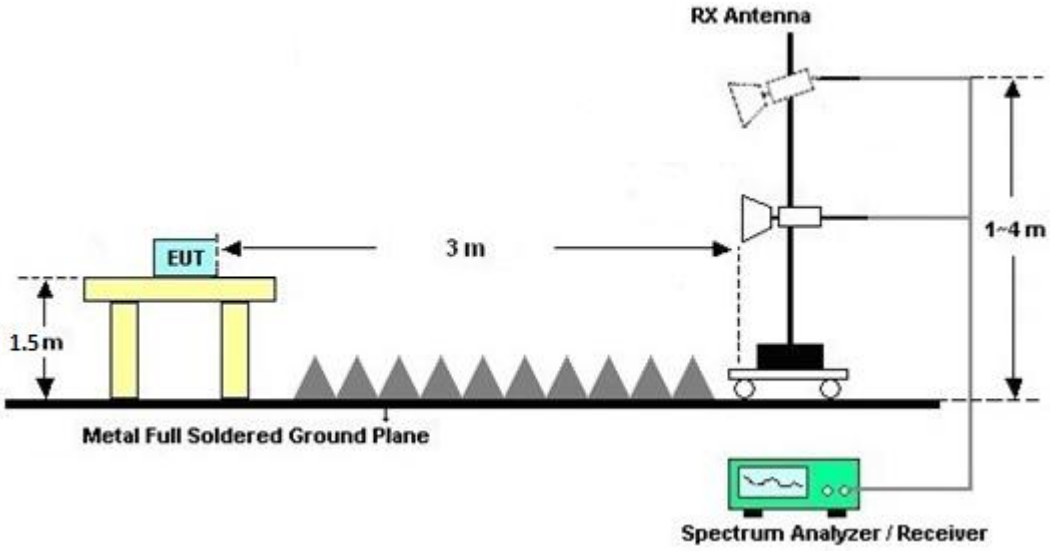
For radiated emissions below 30MHz



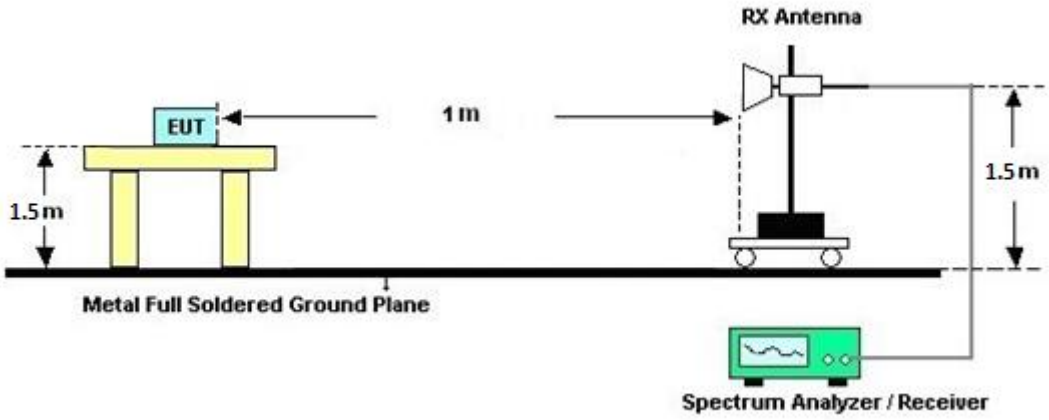
For radiated emissions from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



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

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

There is 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 Radiated Spurious at Band Edges

Please refer to Appendix C and D.

3.4.7 Duty Cycle

Please refer to Appendix E.

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

Please refer to Appendix C and D.

3.5 AC Conducted Emission Measurement

3.5.1 Limit of AC Conducted Emission

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

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

*Decreases with the logarithm of the frequency.

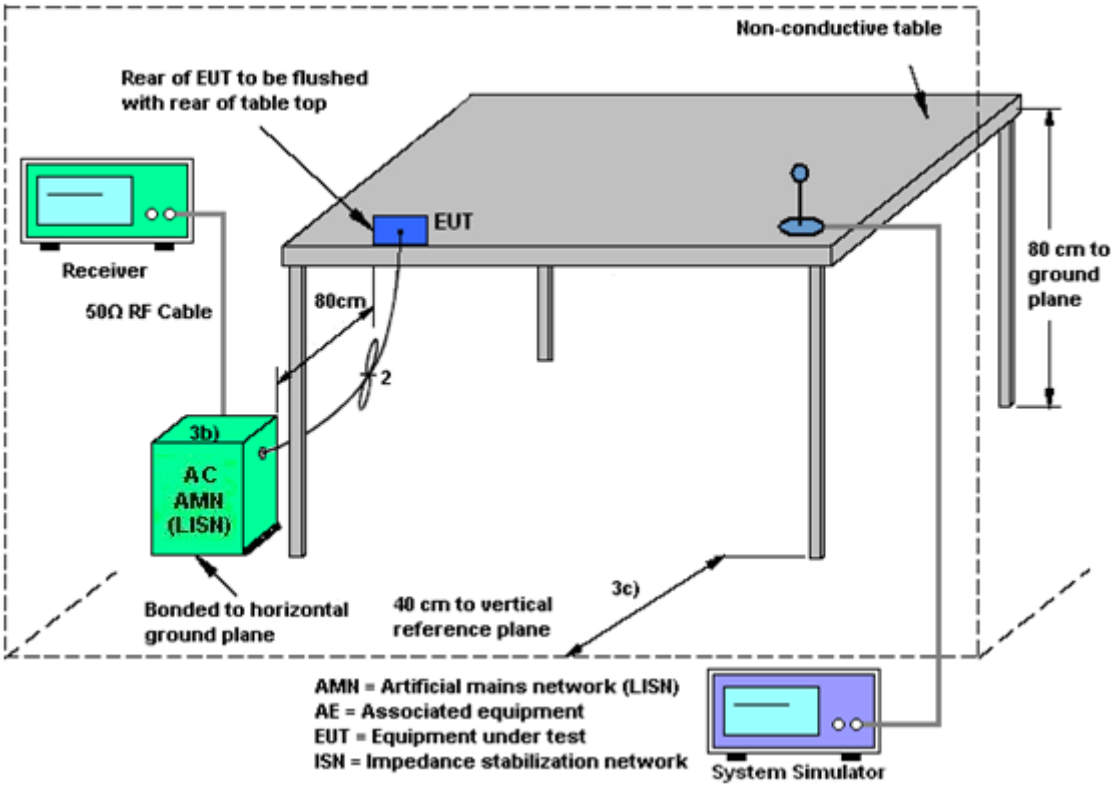
3.5.2 Measuring Instruments

See list of measuring equipment of this test report.

3.5.3 Test Procedures

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

3.5.4 Test Setup



3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.6 Antenna Requirements

3.6.1 Standard Applicable

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

3.6.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.6.3 Antenna Gain

<CDD Modes >

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

Directional gain = G_{ANT} + Array Gain, where Array Gain is as follows.

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

Array Gain = 10 log(N_{ANT}/N_{SS}=1) dB.

For power measurements on IEEE 802.11 devices,

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

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

The EUT supports CDD mode.

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

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

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

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

<CDD Modes>

	Ant. 8 (dBi)	Ant. 9 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
Band I	0.28	-2.52	0.28	2.00	0.00	0.00
Band II	0.33	-1.10	0.33	2.65	0.00	0.00
Band III	-0.07	0.46	0.46	3.21	0.00	0.00

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

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

4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Jan. 04, 2021	Sep. 25, 2021~ Oct. 13, 2021	Jun. 03, 2022	Radiation (03CH15-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N -06	41912 & 05	30MHz~1GHz	Feb. 08, 2021	Sep. 25, 2021~ Oct. 13, 2021	Feb. 07, 2022	Radiation (03CH15-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-01620	1GHz~18GHz	Nov. 03, 2020	Sep. 25, 2021~ Oct. 13, 2021	Nov. 02, 2021	Radiation (03CH15-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	18GHz~40GHz	Dec. 02, 2020	Sep. 25, 2021~ Oct. 13, 2021	Dec. 01, 2021	Radiation (03CH15-HY)
Amplifier	SONOMA	310N	363440	9kHz~1GHz	Dec. 28, 2020	Sep. 25, 2021~ Oct. 13, 2021	Dec. 27, 2021	Radiation (03CH15-HY)
Preamplifier	Jet-Power	JPA0118-55-303	1710001800055006	1GHz~18GHz	May 06, 2021	Sep. 25, 2021~ Oct. 13, 2021	May 05, 2022	Radiation (03CH15-HY)
Preamplifier	Keysight	83017A	MY53270195	1GHz~26.5GHz	Aug. 19, 2021	Sep. 25, 2021~ Oct. 13, 2021	Aug. 18, 2022	Radiation (03CH15-HY)
Preamplifier	EMEC	EM18G40G	060801	18-40GHz	Jun. 22, 2021	Sep. 25, 2021~ Oct. 13, 2021	Jun. 21, 2022	Radiation (03CH15-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY54130085	20MHz~8.4GHz	Nov. 02, 2020	Sep. 25, 2021~ Oct. 13, 2021	Nov. 01, 2021	Radiation (03CH15-HY
Spectrum Analyzer	Agilent	E4446A	MY50180136	3Hz~44GHz	May 07, 2021	Sep. 25, 2021~ Oct. 13, 2021	May 06, 2022	Radiation (03CH15-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Sep. 25, 2021~ Oct. 13, 2021	N/A	Radiation (03CH15-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Sep. 25, 2021~ Oct. 13, 2021	N/A	Radiation (03CH15-HY)
Software	Audix	E3 6.2009-8-24 (k5)	RK-000451	N/A	N/A	Sep. 25, 2021~ Oct. 13, 2021	N/A	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104, 102E	MY36980/4, MY9838/4PE, 508405/2E	30MHz~18G	Nov. 16, 2020	Sep. 25, 2021~ Oct. 13, 2021	Nov. 15, 2021	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30MHz-40GHz	Feb. 22, 2021	Sep. 25, 2021~ Oct. 13, 2021	Feb. 21, 2022	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30MHz-40GHz	Feb. 22, 2021	Sep. 25, 2021~ Oct. 13, 2021	Feb. 21, 2022	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz~30MHz	Mar. 11, 2021	Sep. 25, 2021~ Oct. 13, 2021	Mar. 10, 2022	Radiation (03CH15-HY)
Filter	Wainwright	WLJ4-1000-1530-6000-40ST	SN4	1.53GHz Low Pass Filter	Jul. 02, 2021	Sep. 25, 2021~ Oct. 13, 2021	Jul. 01, 2022	Radiation (03CH15-HY)
Filter	Wainwright	WHKX8-5872.5-6750-18000-40ST	SN6	6.75GHz High Pass Filter	Jun. 30, 2021	Sep. 25, 2021~ Oct. 13, 2021	Jun. 29, 2022	Radiation (03CH15-HY)

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
AC Power Source	ACPOWER	AFC-11003G	F317040033	N/A	N/A	Sep. 24, 2021	N/A	Conduction (CO07-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Sep. 24, 2021	N/A	Conduction (CO07-HY)
Pulse Limiter	SCHWARZBECK	VTSD 9561-F N	9561-F N00373	9kHz-200MHz	Nov. 02, 2020	Sep. 24, 2021	Nov. 01, 2021	Conduction (CO07-HY)
RF Cable	HUBER + SUHNER	RG 214/U	1358175	9kHz~30MHz	N/A	Sep. 24, 2021	N/A	Conduction (CO07-HY)
Two-Line V-Network	TESEQ	NNB 51	45051	N/A	Feb. 01, 2021	Sep. 24, 2021	Jan. 31, 2022	Conduction (CO07-HY)
Two-Line V-Network	TESEQ	NNB 52	36122	N/A	Feb. 01, 2021	Sep. 24, 2021	Jan. 31, 2022	Conduction (CO07-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Nov. 30, 2020	Sep. 24, 2021	Nov. 29, 2021	Conduction (CO07-HY)
Power Sensor	DARE	RPR3006W	RPR6W-2101001	10MHz~8GHz	Feb. 03, 2021	Sep. 22, 2021~ Oct. 15, 2021	Feb. 02, 2022	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101397	10Hz~40GHz	Nov. 27, 2020	Sep. 22, 2021~ Oct. 15, 2021	Nov. 26, 2021	Conducted (TH05-HY)
Switch Box & RF Cable	EM Electronics	EMSW18SE	SW200302	N/A	Mar. 17, 2021	Sep. 22, 2021~ Oct. 15, 2021	Mar. 16, 2022	Conducted (TH05-HY)

5 Uncertainty of Evaluation

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

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

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))	**5.3 dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.6 dB**

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Hank Hsu	Temperature:	22.5~25.9	°C
Test Date:	2021/9/22~2021/10/15	Relative Humidity:	45.1~58.7	%

TEST RESULTS DATA
26dB and 99% OBW

Band I MIMO														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)			Note
					ANT 8	ANT 9	ANT 8	ANT 9	ANT 8	ANT 9	ANT 8	ANT 9		
11a	6Mbps	2	36	5180	17.28	16.98	25.85	24.75	-		22.30			
11a	6Mbps	2	44	5220	17.53	17.38	28.05	28.35	-		22.40			
11a	6Mbps	2	48	5240	17.38	17.33	26.90	29.25	-		22.39			

TEST RESULTS DATA
Average Power Table

FCC Band I MIMO												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
					ANT 8	ANT 9	SUM	ANT 8	ANT 9	ANT 8	ANT 9	
11a	6Mbps	2	36	5180	15.80	15.50	18.66	24.00		0.28		Pass
11a	6Mbps	2	44	5220	16.50	17.50	20.04	24.00		0.28		Pass
11a	6Mbps	2	48	5240	16.60	17.70	20.20	24.00		0.28		Pass
HT20	MCS0	2	36	5180	17.20	16.80	20.01	24.00		0.28		Pass
HT20	MCS0	2	44	5220	16.60	17.40	20.03	24.00		0.28		Pass
HT20	MCS0	2	48	5240	16.60	17.40	20.03	24.00		0.28		Pass
HT40	MCS0	2	38	5190	15.00	14.60	17.81	24.00		0.28		Pass
HT40	MCS0	2	46	5230	17.60	18.70	21.20	24.00		0.28		Pass
VHT20	MCS0	2	36	5180	17.30	16.90	20.11	24.00		0.28		Pass
VHT20	MCS0	2	44	5220	16.70	17.50	20.13	24.00		0.28		Pass
VHT20	MCS0	2	48	5240	16.70	17.50	20.13	24.00		0.28		Pass
VHT40	MCS0	2	38	5190	15.10	14.70	17.91	24.00		0.28		Pass
VHT40	MCS0	2	46	5230	17.70	18.80	21.30	24.00		0.28		Pass
VHT80	MCS0	2	42	5210	12.20	13.10	15.68	24.00		0.28		Pass

TEST RESULTS DATA
Power Spectral Density

FCC Band I MIMO												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)		Pass /Fail
					ANT 8	ANT 9	SUM	ANT 8	ANT 9	ANT 8	ANT 9	
11a	6Mbps	2	36	5180			10.28	11.00		2.00		Pass
11a	6Mbps	2	44	5220			10.94	11.00		2.00		Pass
11a	6Mbps	2	48	5240			10.99	11.00		2.00		Pass

TEST RESULTS DATA
26dB and 99% OBW

Band II MIMO															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		Note
					ANT 8	ANT 9	ANT 8	ANT 9	ANT 8	ANT 9	ANT 8	ANT 9	ANT 8	ANT 9	
11a	6Mbps	2	52	5260	17.63	17.18	27.45	27.55	23.35		29.35		23.98		
11a	6Mbps	2	60	5300	17.43	17.13	25.70	26.35	23.34		29.34		23.98		
11a	6Mbps	2	64	5320	17.43	17.18	26.95	25.75	23.35		29.35		23.98		

TEST RESULTS DATA
Average Power Table

FCC Band II MIMO												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					ANT 8	ANT 9	SUM	ANT 8	ANT 9	ANT 8	ANT 9		
11a	6Mbps	2	52	5260	16.30	16.80	19.57	23.98		0.33		26.99	Pass
11a	6Mbps	2	60	5300	16.30	17.30	19.84	23.98		0.33		26.99	Pass
11a	6Mbps	2	64	5320	16.30	17.30	19.84	23.98		0.33		26.99	Pass
HT20	MCS0	2	52	5260	16.30	16.90	19.62	23.98		0.33		26.99	Pass
HT20	MCS0	2	60	5300	16.30	17.30	19.84	23.98		0.33		26.99	Pass
HT20	MCS0	2	64	5320	16.20	17.30	19.80	23.98		0.33		26.99	Pass
HT40	MCS0	2	54	5270	16.10	16.70	19.42	23.98		0.33		26.99	Pass
HT40	MCS0	2	62	5310	14.00	14.50	17.27	23.98		0.33		26.99	Pass
VHT20	MCS0	2	52	5260	16.40	17.00	19.72	23.98		0.33		26.99	Pass
VHT20	MCS0	2	60	5300	16.40	17.40	19.94	23.98		0.33		26.99	Pass
VHT20	MCS0	2	64	5320	16.30	17.40	19.90	23.98		0.33		26.99	Pass
VHT40	MCS0	2	54	5270	16.20	16.80	19.52	23.98		0.33		26.99	Pass
VHT40	MCS0	2	62	5310	14.10	14.60	17.37	23.98		0.33		26.99	Pass
VHT80	MCS0	2	58	5290	11.40	11.70	14.56	23.98		0.33		26.99	Pass

TEST RESULTS DATA
Power Spectral Density

Band II MIMO												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)		Pass /Fail
					ANT 8	ANT 9	SUM	ANT 8	ANT 9	ANT 8	ANT 9	
11a	6Mbps	2	52	5260			10.36	11.00		2.65		Pass
11a	6Mbps	2	60	5300			9.87	11.00		2.65		Pass
11a	6Mbps	2	64	5320			10.69	11.00		2.65		Pass

TEST RESULTS DATA
26dB and 99% OBW

Band III MIMO																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth In U-NII 2C (MHz)		26 dB Bandwidth In U-NII 2C (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		6 dB Bandwidth for Straddle Channel (MHz)	
					ANT 8	ANT 9	ANT 8	ANT 9	ANT 8	ANT 9	ANT 8	ANT 9	ANT 8	ANT 9	ANT 8	ANT 9
11a	6Mbps	2	100	5500	17.38	17.03	25.95	24.90	23.31		29.31		23.98		----	----
11a	6Mbps	2	116	5580	17.28	17.08	26.20	25.45	23.33		29.33		23.98		----	----
11a	6Mbps	2	140	5700	17.53	17.28	26.95	28.35	23.38		29.38		23.98		----	----

Band III straddle channel MIMO																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth In U-NII 2C (MHz)		26 dB Bandwidth In U-NII 2C (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		6 dB Bandwidth for Straddle Channel (MHz)	
					ANT 8	ANT 9	ANT 8	ANT 9	ANT 8	ANT 9	ANT 8	ANT 9	ANT 8	ANT 9	ANT 8	ANT 9
11a	6Mbps	2	144	5720	13.74	13.54	17.90	17.75	22.32		28.32		23.49		2.55	2.55

TEST RESULTS DATA
Average Power Table

FCC Band III MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					ANT 8	ANT 9	SUM	ANT 8	ANT 9	ANT 8	ANT 9		
11a	6Mbps	2	100	5500	16.40	16.40	19.41	23.98		0.46		26.99	Pass
11a	6Mbps	2	116	5580	16.50	16.20	19.36	23.98		0.46		26.99	Pass
11a	6Mbps	2	140	5700	16.60	16.30	19.46	23.98		0.46		26.99	Pass
HT20	MCS0	2	100	5500	16.30	16.30	19.31	23.98		0.46		26.99	Pass
HT20	MCS0	2	116	5580	16.30	16.20	19.26	23.98		0.46		26.99	Pass
HT20	MCS0	2	140	5700	16.50	16.20	19.36	23.98		0.46		26.99	Pass
HT40	MCS0	2	102	5510	15.10	14.40	17.77	23.98		0.46		26.99	Pass
HT40	MCS0	2	110	5550	15.80	15.90	18.86	23.98		0.46		26.99	Pass
HT40	MCS0	2	134	5670	16.00	15.90	18.96	23.98		0.46		26.99	Pass
VHT20	MCS0	2	100	5500	16.40	16.40	19.41	23.98		0.46		26.99	Pass
VHT20	MCS0	2	116	5580	16.40	16.30	19.36	23.98		0.46		26.99	Pass
VHT20	MCS0	2	140	5700	16.60	16.30	19.46	23.98		0.46		26.99	Pass
VHT40	MCS0	2	102	5510	15.20	14.50	17.87	23.98		0.46		26.99	Pass
VHT40	MCS0	2	110	5550	15.90	16.00	18.96	23.98		0.46		26.99	Pass
VHT40	MCS0	2	134	5670	16.10	16.00	19.06	23.98		0.46		26.99	Pass
VHT80	MCS0	2	106	5530	11.20	10.70	13.97	23.98		0.46		26.99	Pass
VHT80	MCS0	2	122	5610	11.20	10.80	14.01	23.98		0.46		26.99	Pass

FCC Band III straddle channel MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					ANT 8	ANT 9	SUM	ANT 8	ANT 9	ANT 8	ANT 9		
11a	6Mbps	2	144	5720	16.70	16.20	19.47	23.49		0.46		26.99	Pass
HT20	MCS0	2	144	5720	16.60	16.20	19.41	23.98		0.46		26.99	Pass
HT40	MCS0	2	142	5710	16.30	15.80	19.07	23.98		0.46		26.99	Pass
VHT20	MCS0	2	144	5720	16.70	16.30	19.51	23.98		0.46		26.99	Pass
VHT40	MCS0	2	142	5710	16.40	15.90	19.17	23.98		0.46		26.99	Pass
VHT80	MCS0	2	138	5690	10.70	10.60	13.66	23.98		0.46		26.99	Pass

TEST RESULTS DATA
Power Spectral Density

Band III MIMO												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)		Pass /Fail
					ANT 8	ANT 9	SUM	ANT 8	ANT 9	ANT 8	ANT 9	
11a	6Mbps	2	100	5500			10.12	11.00		3.21		Pass
11a	6Mbps	2	116	5580			9.50	11.00		3.21		Pass
11a	6Mbps	2	140	5700			10.25	11.00		3.21		Pass

Band III straddle channel MIMO												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)		Pass /Fail
					ANT 8	ANT 9	SUM	ANT 8	ANT 9	ANT 8	ANT 9	
11a	6Mbps	2	144	5720			10.34	11.00		3.21		Pass

TEST RESULTS DATA
26dB and 99% OBW

Band I MIMO														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)			Note
						ANT 8	ANT 9	ANT 8	ANT 9	ANT 8	ANT 9	ANT 8	ANT 9		
HE20	MCS0	2	36	5180	Full	19.03	19.03	24.65	23.10	-		22.79			
HE20	MCS0	2	44	5220	Full	19.03	19.13	25.10	26.35	-		22.79			
HE20	MCS0	2	48	5240	Full	18.98	19.03	22.75	25.60	-		22.78			
HE40	MCS0	2	38	5190	Full	37.66	37.66	39.42	39.24	-		23.01			
HE40	MCS0	2	46	5230	Full	37.86	38.36	42.93	58.05	-		23.01			
HE80	MCS0	2	42	5210	Full	77.20	77.08	80.48	80.64	-		23.01			

TEST RESULTS DATA
Average Power Table

FCC Band I MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
						ANT 8	ANT 9	SUM	ANT 8	ANT 9	ANT 8	ANT 9	
HE20	MCS0	2	36	5180	Full	17.60	17.20	20.41	24.00		0.28		Pass
HE20	MCS0	2	36	5180	26/0	9.60	9.10	12.37	24.00		0.28		Pass
HE20	MCS0	2	36	5180	52/37	12.50	12.10	15.31	24.00		0.28		Pass
HE20	MCS0	2	36	5180	106/53	15.10	14.90	18.01	24.00		0.28		Pass
HE20	MCS0	2	44	5220	Full	17.00	17.80	20.43	24.00		0.28		Pass
HE20	MCS0	2	48	5240	Full	17.00	17.80	20.43	24.00		0.28		Pass
HE40	MCS0	2	38	5190	Full	15.40	15.00	18.21	24.00		0.28		Pass
HE40	MCS0	2	38	5190	242/61	13.30	13.00	16.16	24.00		0.28		Pass
HE40	MCS0	2	46	5230	Full	17.90	19.00	21.50	24.00		0.28		Pass
HE80	MCS0	2	42	5210	Full	12.80	13.50	16.17	24.00		0.28		Pass
HE80	MCS0	2	42	5210	484/65	10.50	11.20	13.87	24.00		0.28		Pass

TEST RESULTS DATA
Power Spectral Density

FCC Band I MIMO												
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	RU Config.	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
						ANT 8	ANT 9	SUM	ANT 8	ANT 9	ANT 8	ANT 9		
HE20	MCS0	2	36	5180	Full			10.98	11.00		2.00			Pass
HE20	MCS0	2	36	5180	26/0			10.86	11.00		2.00			Pass
HE20	MCS0	2	36	5180	52/37			10.79	11.00		2.00			Pass
HE20	MCS0	2	36	5180	106/53			10.74	11.00		2.00			Pass
HE20	MCS0	2	44	5220	Full			10.73	11.00		2.00			Pass
HE20	MCS0	2	48	5240	Full			10.83	11.00		2.00			Pass
HE40	MCS0	2	38	5190	Full			5.36	11.00		2.00			Pass
HE40	MCS0	2	38	5190	242/61			5.10	11.00		2.00			Pass
HE40	MCS0	2	46	5230	Full			8.51	11.00		2.00			Pass
HE80	MCS0	2	42	5210	Full			0.80	11.00		2.00			Pass
HE80	MCS0	2	42	5210	484/65			0.70	11.00		2.00			Pass

TEST RESULTS DATA
26dB and 99% OBW

Band II MIMO															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		Note
						ANT 8	ANT 9	ANT 8	ANT 9	ANT 8	ANT 9	ANT 8	ANT 9	ANT 8	ANT 9	
HE20	MCS0	2	52	5260	Full	18.98	18.98	23.60	23.40	23.78		29.78		23.98		
HE20	MCS0	2	60	5300	Full	18.98	18.98	23.90	23.10	23.78		29.78		23.98		
HE20	MCS0	2	64	5320	Full	18.98	18.98	23.85	24.00	23.78		29.78		23.98		
HE40	MCS0	2	54	5270	Full	37.76	37.86	39.33	39.51	23.98		30.00		23.98		
HE40	MCS0	2	62	5310	Full	37.66	37.76	39.42	39.33	23.98		30.00		23.98		
HE80	MCS0	2	58	5290	Full	77.32	77.32	80.64	80.64	23.98		30.00		23.98		

Report Number : FR190910E

TEST RESULTS DATA
Average Power Table

FCC Band II MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
						ANT 8	ANT 9	SUM	ANT 8	ANT 9	ANT 8	ANT 9		
HE20	MCS0	2	52	5260	Full	16.70	17.30	20.02	23.98		0.33		26.99	Pass
HE20	MCS0	2	60	5300	Full	16.70	17.70	20.24	23.98		0.33		26.99	Pass
HE20	MCS0	2	64	5320	Full	16.60	17.70	20.20	23.98		0.33		26.99	Pass
HE20	MCS0	2	64	5320	26/8	8.20	8.60	11.41	23.98		0.33		26.99	Pass
HE20	MCS0	2	64	5320	52/40	11.10	11.80	14.47	23.98		0.33		26.99	Pass
HE20	MCS0	2	64	5320	106/54	14.10	14.60	17.37	23.98		0.33		26.99	Pass
HE40	MCS0	2	54	5270	Full	16.50	17.10	19.82	23.98		0.33		26.99	Pass
HE40	MCS0	2	62	5310	Full	14.40	14.90	17.67	23.98		0.33		26.99	Pass
HE40	MCS0	2	62	5310	242/62	12.50	12.90	15.71	23.98		0.33		26.99	Pass
HE80	MCS0	2	58	5290	Full	11.70	12.10	14.91	23.98		0.33		26.99	Pass
HE80	MCS0	2	58	5290	484/66	8.90	9.50	12.22	23.98		0.33		26.99	Pass

TEST RESULTS DATA
Power Spectral Density

Band II MIMO													
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	RU Config.	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)		Pass /Fail
						ANT 8	ANT 9	SUM	ANT 8	ANT 9	ANT 8	ANT 9	
HE20	MCS0	2	52	5260	Full			10.47	11.00		2.65		Pass
HE20	MCS0	2	52	5260	26/0			10.16	11.00		2.65		Pass
HE20	MCS0	2	52	5260	52/37			10.41	11.00		2.65		Pass
HE20	MCS0	2	52	5260	106/53			10.42	11.00		2.65		Pass
HE20	MCS0	2	60	5300	Full			9.83	11.00		2.65		Pass
HE20	MCS0	2	64	5320	Full			10.66	11.00		2.65		Pass
HE20	MCS0	2	64	5320	26/8			10.44	11.00		2.65		Pass
HE40	MCS0	2	54	5270	Full			7.12	11.00		2.65		Pass
HE40	MCS0	2	62	5310	Full			5.15	11.00		2.65		Pass
HE40	MCS0	2	62	5310	242/62			4.74	11.00		2.65		Pass
HE80	MCS0	2	58	5290	Full			-0.96	11.00		2.65		Pass
HE80	MCS0	2	58	5290	484/66			-1.15	11.00		2.65		Pass

TEST RESULTS DATA
26dB and 99% OBW

Band III MIMO																	
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	99% Bandwidth In U-NII 2C (MHz)		26 dB Bandwidth In U-NII 2C (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		6 dB Bandwidth for Straddle Channel (MHz)	
						ANT 8	ANT 9	ANT 8	ANT 9	ANT 8	ANT 9	ANT 8	ANT 9	ANT 8	ANT 9	ANT 8	ANT 9
HE20	MCS0	2	100	5500	Full	18.98	18.98	25.60	22.85	23.78		29.78		23.98		----	----
HE20	MCS0	2	116	5580	Full	19.03	18.98	25.15	23.50	23.78		29.78		23.98		----	----
HE20	MCS0	2	140	5700	Full	19.03	18.98	30.40	26.80	23.78		29.78		23.98		----	----
HE40	MCS0	2	102	5510	Full	37.76	37.66	39.33	39.42	23.98		30.00		23.98		----	----
HE40	MCS0	2	110	5550	Full	37.76	37.76	39.42	39.42	23.98		30.00		23.98		----	----
HE40	MCS0	2	134	5670	Full	37.76	37.66	39.33	39.33	23.98		30.00		23.98		----	----
HE80	MCS0	2	106	5530	Full	77.32	77.32	80.80	80.48	23.98		30.00		23.98		----	----
HE80	MCS0	2	122	5610	Full	77.32	77.32	80.48	80.80	23.98		30.00		23.98		----	----

Band III straddle channel MIMO																	
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	99% Bandwidth In U-NII 2C (MHz)		26 dB Bandwidth In U-NII 2C (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		6 dB Bandwidth for Straddle Channel (MHz)	
						ANT 8	ANT 9	ANT 8	ANT 9	ANT 8	ANT 9	ANT 8	ANT 9	ANT 8	ANT 9	ANT 8	ANT 9
HE20	MCS0	2	144	5720	Full	14.49	14.54	18.05	16.40	22.61		28.61		23.15		2.55	2.55
HE40	MCS0	2	142	5710	Full	33.88	33.88	34.71	34.71	23.98		30.00		23.98		2.55	2.55
HE80	MCS0	2	138	5690	Full	73.60	73.60	75.16	75.32	23.98		30.00		23.98		3.88	3.88

TEST RESULTS DATA
Average Power Table

FCC Band III MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
						ANT 8	ANT 9	SUM	ANT 8	ANT 9	ANT 8	ANT 9		
HE20	MCS0	2	100	5500	Full	16.70	16.70	19.71	23.98		0.46		26.99	Pass
HE20	MCS0	2	100	5500	26/0	8.50	7.80	11.17	23.98		0.46		26.99	Pass
HE20	MCS0	2	100	5500	52/37	11.20	10.40	13.83	23.98		0.46		26.99	Pass
HE20	MCS0	2	100	5500	106/53	14.40	13.50	16.98	23.98		0.46		26.99	Pass
HE20	MCS0	2	116	5580	Full	16.70	16.60	19.66	23.98		0.46		26.99	Pass
HE20	MCS0	2	140	5700	Full	16.90	16.60	19.76	23.98		0.46		26.99	Pass
HE20	MCS0	2	140	5700	26/8	7.70	7.50	10.61	23.98		0.46		26.99	Pass
HE20	MCS0	2	140	5700	52/40	10.90	10.70	13.81	23.98		0.46		26.99	Pass
HE20	MCS0	2	140	5700	106/54	13.70	13.30	16.51	23.98		0.46		26.99	Pass
HE40	MCS0	2	102	5510	Full	15.50	14.80	18.17	23.98		0.46		26.99	Pass
HE40	MCS0	2	102	5510	242/61	13.70	12.90	16.33	23.98		0.46		26.99	Pass
HE40	MCS0	2	110	5550	Full	16.20	16.30	19.26	23.98		0.46		26.99	Pass
HE40	MCS0	2	134	5670	Full	16.40	16.30	19.36	23.98		0.46		26.99	Pass
HE40	MCS0	2	134	5670	242/62	14.30	14.30	17.31	23.98		0.46		26.99	Pass
HE80	MCS0	2	106	5530	Full	11.90	11.00	14.48	23.98		0.46		26.99	Pass
HE80	MCS0	2	106	5530	484/65	9.70	9.20	12.47	23.98		0.46		26.99	Pass
HE80	MCS0	2	122	5610	Full	12.00	10.90	14.50	23.98		0.46		26.99	Pass
HE80	MCS0	2	122	5610	484/66	9.50	8.90	12.22	23.98		0.46		26.99	Pass

FCC Band III straddle channel MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
						ANT 8	ANT 9	SUM	ANT 8	ANT 9	ANT 8	ANT 9		
HE20	MCS0	2	144	5720	Full	17.00	16.60	19.81	23.15		0.46		26.99	Pass
HE40	MCS0	2	142	5710	Full	16.70	16.20	19.47	23.98		0.46		26.99	Pass
HE80	MCS0	2	138	5690	Full	11.60	11.20	14.41	23.98		0.46		26.99	Pass

TEST RESULTS DATA
Power Spectral Density

Band III MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)		Pass /Fail
						ANT 8	ANT 9	SUM	ANT 8	ANT 9	ANT 8	ANT 9	
HE20	MCS0	2	100	5500	Full			9.96	11.00		3.21		Pass
HE20	MCS0	2	100	5500	26/0			9.78	11.00		3.21		Pass
HE20	MCS0	2	100	5500	52/37			9.51	11.00		3.21		Pass
HE20	MCS0	2	100	5500	106/53			9.59	11.00		3.21		Pass
HE20	MCS0	2	116	5580	Full			9.38	11.00		3.21		Pass
HE20	MCS0	2	140	5700	Full			9.87	11.00		3.21		Pass
HE20	MCS0	2	140	5700	26/8			9.36	11.00		3.21		Pass
HE20	MCS0	2	140	5700	52/40			9.61	11.00		3.21		Pass
HE20	MCS0	2	140	5700	106/54			9.32	11.00		3.21		Pass
HE40	MCS0	2	102	5510	Full			5.64	11.00		3.21		Pass
HE40	MCS0	2	102	5510	242/61			5.29	11.00		3.21		Pass
HE40	MCS0	2	110	5550	Full			6.63	11.00		3.21		Pass
HE40	MCS0	2	134	5670	Full			6.60	11.00		3.21		Pass
HE40	MCS0	2	134	5670	242/62			6.31	11.00		3.21		Pass
HE80	MCS0	2	106	5530	Full			-1.08	11.00		3.21		Pass
HE80	MCS0	2	106	5530	484/65			-1.43	11.00		3.21		Pass
HE80	MCS0	2	122	5610	Full			-1.04	11.00		3.21		Pass
HE80	MCS0	2	122	5610	484/66			-1.27	11.00		3.21		Pass

Band III straddle channel MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)		Pass /Fail
						ANT 8	ANT 9	SUM	ANT 8	ANT 9	ANT 8	ANT 9	
HE20	MCS0	2	144	5720	Full			10.02	11.00		3.21		Pass
HE40	MCS0	2	142	5710	Full			6.87	11.00		3.21		Pass
HE80	MCS0	2	138	5690	Full			-1.11	11.00		3.21		Pass

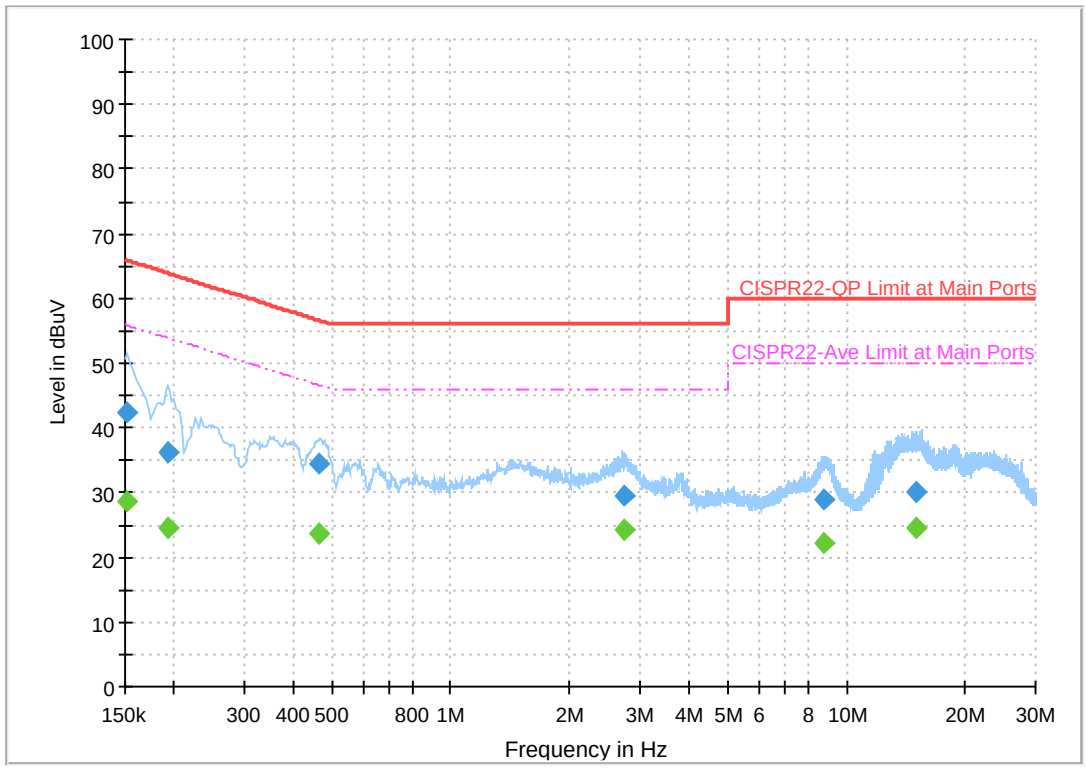
Appendix B. AC Conducted Emission Test Results

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

EUT Information

Report NO :	190910
Test Mode :	Mode 1
Test Voltage :	Power From System
Phase :	Line

Full Spectrum



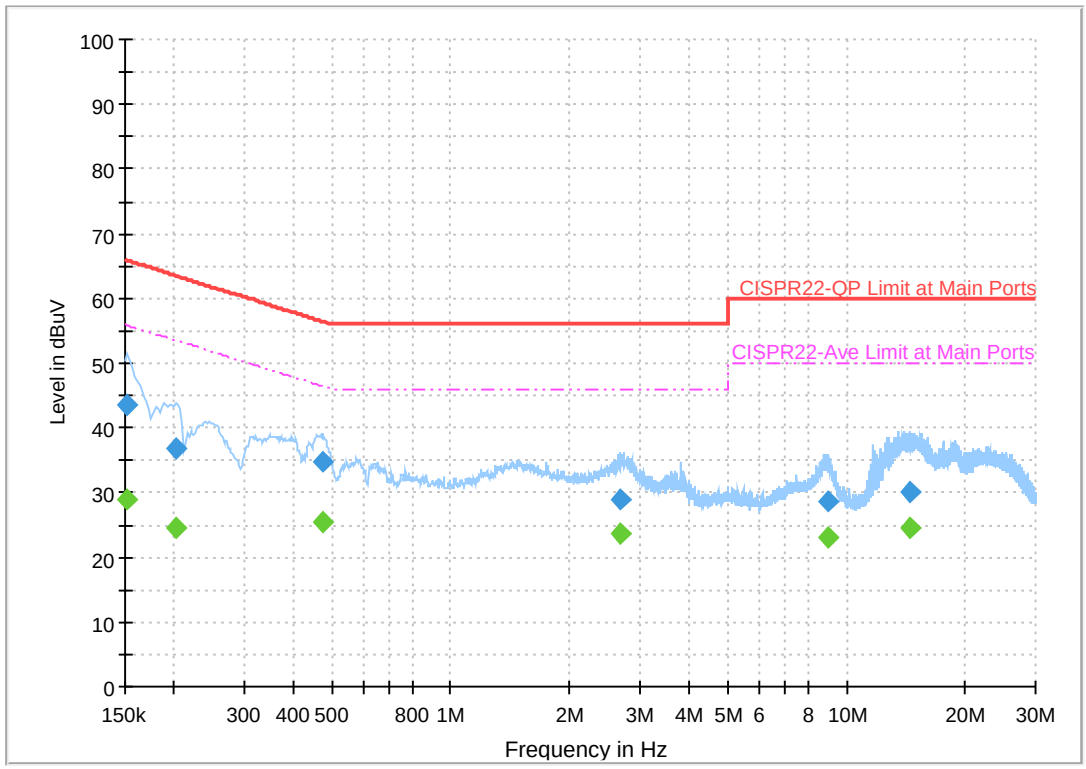
Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	28.77	55.88	27.11	L1	OFF	20.0
0.152250	42.47	---	65.88	23.41	L1	OFF	20.0
0.192750	---	24.42	53.92	29.50	L1	OFF	20.0
0.192750	36.35	---	63.92	27.57	L1	OFF	20.0
0.465000	---	23.64	46.60	22.96	L1	OFF	20.0
0.465000	34.56	---	56.60	22.04	L1	OFF	20.0
2.748750	---	24.17	46.00	21.83	L1	OFF	20.1
2.748750	29.46	---	56.00	26.54	L1	OFF	20.1
8.760750	---	22.32	50.00	27.68	L1	OFF	20.1
8.760750	28.88	---	60.00	31.12	L1	OFF	20.1
14.959500	---	24.64	50.00	25.36	L1	OFF	20.2
14.959500	30.08	---	60.00	29.92	L1	OFF	20.2

EUT Information

Report NO :	190910
Test Mode :	Mode 1
Test Voltage :	Power From System
Phase :	Neutral

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	28.92	55.88	26.96	N	OFF	20.0
0.152250	43.55	---	65.88	22.32	N	OFF	20.0
0.201750	---	24.47	53.54	29.06	N	OFF	20.0
0.201750	36.82	---	63.54	26.72	N	OFF	20.0
0.474000	---	25.55	46.44	20.89	N	OFF	20.0
0.474000	34.72	---	56.44	21.73	N	OFF	20.0
2.688000	---	23.66	46.00	22.34	N	OFF	20.1
2.688000	29.06	---	56.00	26.94	N	OFF	20.1
8.961000	---	23.21	50.00	26.79	N	OFF	20.1
8.961000	28.59	---	60.00	31.41	N	OFF	20.1
14.532000	---	24.70	50.00	25.30	N	OFF	20.2
14.532000	30.01	---	60.00	29.99	N	OFF	20.2

Appendix C. Radiated Spurious Emission

Test Engineer :	Leo Lee, Mancy Chou and Bigshow Wang	Temperature :	23.2~24.6°C
		Relative Humidity :	42.0~56.0%

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
8+9		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5150	59.9	-14.1	74	48.13	31.8	10	30.03	100	300	P	H
		5149.76	50.6	-3.4	54	38.83	31.8	10	30.03	100	300	A	H
	*	5180	109.36	-	-	97.75	31.62	10.03	30.04	100	300	P	H
	*	5180	102.28	-	-	90.67	31.62	10.03	30.04	100	300	A	H
													H
													H
		5145.6	59.02	-14.98	74	47.26	31.8	9.99	30.03	325	247	P	V
		5150	50.58	-3.42	54	38.81	31.8	10	30.03	325	247	P	V
	*	5180	108.78	-	-	97.17	31.62	10.03	30.04	325	247	P	V
	*	5180	101.68	-	-	90.07	31.62	10.03	30.04	325	247	A	V
													V
													V
802.11a CH 44 5220MHz		5147.68	51.66	-22.34	74	39.89	31.8	10	30.03	100	298	P	H
		5149.5	42.61	-11.39	54	30.84	31.8	10	30.03	100	298	A	H
	*	5220	112.66	-	-	101.26	31.38	10.07	30.05	100	298	P	H
	*	5220	105.7	-	-	94.3	31.38	10.07	30.05	100	298	A	H
		5376.84	49.55	-24.45	74	38.2	31.26	10.19	30.1	100	298	P	H
		5379.92	40.27	-13.73	54	28.9	31.28	10.19	30.1	100	298	A	H
		5149.76	51.11	-22.89	74	39.34	31.8	10	30.03	321	249	P	V
		5150	41.93	-12.07	54	30.16	31.8	10	30.03	321	249	A	V
	*	5220	111.56	-	-	100.16	31.38	10.07	30.05	321	249	P	V
	*	5220	103.61	-	-	92.21	31.38	10.07	30.05	321	249	A	V
		5390.28	50.37	-23.63	74	38.93	31.34	10.2	30.1	321	249	P	V
		5350.8	40.22	-13.78	54	29.04	31.1	10.17	30.09	321	249	A	V

802.11a CH 48 5240MHz		5104.26	50.79	-23.21	74	39.05	31.8	9.95	30.01	100	298	P	H
		5149.24	41.4	-12.6	54	29.63	31.8	10	30.03	100	298	A	H
	*	5240	113.52	-	-	102.24	31.26	10.08	30.06	100	298	P	H
	*	5240	106.03	-	-	94.75	31.26	10.08	30.06	100	298	A	H
		5448.52	49.95	-24.05	74	38.23	31.59	10.25	30.12	100	298	P	H
		5350.24	40.57	-13.43	54	29.39	31.1	10.17	30.09	100	298	A	H
		5144.56	51.1	-22.9	74	39.34	31.8	9.99	30.03	337	247	P	V
		5145.34	41.26	-12.74	54	29.5	31.8	9.99	30.03	337	247	A	V
	*	5240	112.37	-	-	101.09	31.26	10.08	30.06	337	247	P	V
	*	5240	105.71	-	-	94.43	31.26	10.08	30.06	337	247	A	V
		5379.36	49.32	-24.68	74	37.95	31.28	10.19	30.1	337	247	P	V
		5352.2	40.63	-13.37	54	29.44	31.11	10.17	30.09	337	247	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		10360	48.43	-19.77	68.2	55.24	39.44	14.55	60.8	-	-	P	H
		10850	51.69	-22.31	74	57.57	40.2	14.8	60.88	-	-	P	H
		10850	41.73	-12.27	54	47.61	40.2	14.8	60.88	-	-	A	H
		14491	50.05	-23.95	74	55.36	41.38	16.48	63.17	-	-	P	H
		14491	41.41	-12.59	54	46.72	41.38	16.48	63.17	-	-	A	H
		15540	46.71	-27.29	74	54.24	37.82	17.01	62.36	-	-	P	H
		17989	59.57	-14.43	74	49.11	48.8	18.93	57.27	-	-	P	H
		17989	49.62	-4.38	54	39.16	48.8	18.93	57.27	-	-	A	H
													H
													H
													H
													H
		10360	48.46	-19.74	68.2	55.27	39.44	14.55	60.8	-	-	P	V
		10894	51.27	-22.73	74	57.03	40.29	14.82	60.87	-	-	P	V
		10894	41.37	-12.63	54	47.13	40.29	14.82	60.87	-	-	A	V
		14491	50.55	-23.45	74	55.86	41.38	16.48	63.17	-	-	P	V
		14491	41.43	-12.57	54	46.74	41.38	16.48	63.17	-	-	A	V
		15540	46.55	-27.45	74	54.08	37.82	17.01	62.36	-	-	P	V
		17978	59.56	-14.44	74	49.32	48.6	18.93	57.29	-	-	P	V
		17978	50	-4	54	39.76	48.6	18.93	57.29	-	-	A	V
													V
													V
													V
													V

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10440	47.62	-20.58	68.2	54.26	39.64	14.59	60.87	-	-	P	H
		10916	50.81	-23.19	74	56.53	40.32	14.83	60.87	-	-	P	H
		10916	40.96	-13.04	54	46.68	40.32	14.83	60.87	-	-	A	H
		14491	50.44	-23.56	74	55.75	41.38	16.48	63.17	-	-	P	H
		14491	41.6	-12.4	54	46.91	41.38	16.48	63.17	-	-	A	H
		15660	47.19	-26.81	74	54.5	37.52	17.07	61.9	-	-	P	H
		17989	60.19	-13.81	74	49.73	48.8	18.93	57.27	-	-	P	H
		17989	50.44	-3.56	54	39.98	48.8	18.93	57.27	-	-	A	H
													H
													H
													H
802.11a CH 44 5220MHz													H
		10440	48.17	-20.03	68.2	54.81	39.64	14.59	60.87	-	-	P	V
		10993	50.46	-23.54	74	56.06	40.39	14.87	60.86	-	-	P	V
		10993	40.62	-13.38	54	46.22	40.39	14.87	60.86	-	-	A	V
		14491	50.25	-23.75	74	55.56	41.38	16.48	63.17	-	-	P	V
		14491	41.29	-12.71	54	46.6	41.38	16.48	63.17	-	-	A	V
		15660	46.11	-27.89	74	53.42	37.52	17.07	61.9	-	-	P	V
		18000	58.63	-15.37	74	47.93	49	18.94	57.24	-	-	P	V
		18000	48.59	-5.41	54	37.89	49	18.94	57.24	-	-	A	V
													V
													V
													V
													V

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10000	47.18	-21.02	68.2	54.57	38.7	14.37	60.46	-	-	P	H
		10480	47.87	-20.33	68.2	54.49	39.68	14.61	60.91	-	-	P	H
		14000	50.09	-18.11	68.2	56.47	40.8	16.22	63.4	-	-	P	H
		15720	46.5	-27.5	74	53.73	37.34	17.1	61.67	-	-	P	H
		18000	58.96	-15.04	74	48.26	49	18.94	57.24	-	-	P	H
		18000	49.35	-4.65	54	38.65	49	18.94	57.24	-	-	A	H
													H
													H
													H
802.11a CH 48 5240MHz													H
		10000	47.4	-20.8	68.2	54.79	38.7	14.37	60.46	-	-	P	V
		10480	48.4	-19.8	68.2	55.02	39.68	14.61	60.91	-	-	P	V
		14000	49.46	-18.74	68.2	55.84	40.8	16.22	63.4	-	-	P	V
		15720	45.61	-28.39	74	52.84	37.34	17.1	61.67	-	-	P	V
		17989	59.43	-14.57	74	48.97	48.8	18.93	57.27	-	-	P	V
		17989	49.32	-4.68	54	38.86	48.8	18.93	57.27	-	-	A	V
													V
													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.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 1 5150~5250MHz

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

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5149.76	63.11	-10.89	74	51.34	31.8	10	30.03	100	298	P	H
		5150	49.95	-4.05	54	38.18	31.8	10	30.03	100	298	A	H
	*	5180	112.54	-	-	100.93	31.62	10.03	30.04	100	298	P	H
	*	5180	103.1	-	-	91.49	31.62	10.03	30.04	100	298	A	H
802.11ax													H
HE20 Full													H
CH 36		5150	61.65	-12.35	74	49.88	31.8	10	30.03	368	248	P	V
5180MHz		5150	48.02	-5.98	54	36.25	31.8	10	30.03	368	248	A	V
	*	5180	111.29	-	-	99.68	31.62	10.03	30.04	368	248	P	V
	*	5180	101.17	-	-	89.56	31.62	10.03	30.04	368	248	A	V
													V
													V
		5131.04	51.16	-22.84	74	39.4	31.8	9.98	30.02	100	298	P	H
		5149.24	41.41	-12.59	54	29.64	31.8	10	30.03	100	298	A	H
	*	5220	114.08	-	-	102.68	31.38	10.07	30.05	100	298	P	H
	*	5220	104.66	-	-	93.26	31.38	10.07	30.05	100	298	A	H
802.11ax		5442.08	49.51	-24.49	74	37.81	31.57	10.25	30.12	100	298	P	H
HE20 Full		5356.96	40.14	-13.86	54	28.91	31.14	10.18	30.09	100	298	A	H
CH 44		5087.88	50.3	-23.7	74	38.6	31.78	9.93	30.01	320	246	P	V
5220MHz		5148.72	41.13	-12.87	54	29.36	31.8	10	30.03	320	246	A	V
	*	5220	112.65	-	-	101.25	31.38	10.07	30.05	320	246	P	V
	*	5220	103.82	-	-	92.42	31.38	10.07	30.05	320	246	A	V
		5413.24	49.18	-24.82	74	37.62	31.45	10.22	30.11	320	246	P	V
		5351.92	40.13	-13.87	54	28.94	31.11	10.17	30.09	320	246	A	V

		5077.48	50.65	-23.35	74	38.98	31.75	9.92	30	100	298	P	H
		5148.2	41.11	-12.89	54	29.34	31.8	10	30.03	100	298	A	H
	*	5240	114.07	-	-	102.79	31.26	10.08	30.06	100	298	P	H
	*	5240	104.73	-	-	93.45	31.26	10.08	30.06	100	298	A	H
802.11ax		5410.16	49.52	-24.48	74	37.97	31.44	10.22	30.11	100	298	P	H
HE20 Full		5351.08	40.83	-13.17	54	29.64	31.11	10.17	30.09	100	298	A	H
CH 48		5079.3	50.35	-23.65	74	38.68	31.76	9.92	30.01	300	248	P	V
5240MHz		5146.9	40.97	-13.03	54	29.21	31.8	9.99	30.03	300	248	A	V
	*	5240	113.95	-	-	102.67	31.26	10.08	30.06	300	248	P	V
	*	5240	104.05	-	-	92.77	31.26	10.08	30.06	300	248	A	V
		5454.96	50.04	-23.96	74	38.31	31.6	10.26	30.13	300	248	P	V
		5356.4	40.4	-13.6	54	29.17	31.14	10.18	30.09	300	248	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ax HE20 Full (Harmonic @ 3m)

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10000	46.88	-21.32	68.2	54.27	38.7	14.37	60.46	-	-	P	H
		10360	46.9	-21.3	68.2	53.71	39.44	14.55	60.8	-	-	P	H
		14000	50.86	-17.34	68.2	57.24	40.8	16.22	63.4	-	-	P	H
		15540	46.07	-27.93	74	53.6	37.82	17.01	62.36	-	-	P	H
		17978	59.07	-14.93	74	48.83	48.6	18.93	57.29	-	-	P	H
		17978	49.22	-4.78	54	38.98	48.6	18.93	57.29	-	-	A	H
													H
													H
802.11ax													H
HE20 Full													H
CH 36		10000	48.13	-20.07	68.2	55.52	38.7	14.37	60.46	-	-	P	V
5180MHz		10360	48.09	-20.11	68.2	54.9	39.44	14.55	60.8	-	-	P	V
		14000	50.43	-17.77	68.2	56.81	40.8	16.22	63.4	-	-	P	V
		15540	46.78	-27.22	74	54.31	37.82	17.01	62.36	-	-	P	V
		17978	59.72	-14.28	74	49.48	48.6	18.93	57.29	-	-	P	V
		17978	49.95	-4.05	54	39.71	48.6	18.93	57.29	-	-	A	V
													V
													V
													V
													V

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10000	46.8	-21.4	68.2	54.19	38.7	14.37	60.46	-	-	P	H
		10440	47.33	-20.87	68.2	53.97	39.64	14.59	60.87	-	-	P	H
		14000	51.78	-16.42	68.2	58.16	40.8	16.22	63.4	-	-	P	H
		15660	46.35	-27.65	74	53.66	37.52	17.07	61.9	-	-	P	H
		17989	59.36	-14.64	74	48.9	48.8	18.93	57.27	-	-	P	H
		17989	49.26	-4.74	54	38.8	48.8	18.93	57.27	-	-	A	H
													H
													H
802.11ax													H
HE20 Full													H
CH 44		10000	46.77	-21.43	68.2	54.16	38.7	14.37	60.46	-	-	P	V
5220MHz		10440	47.51	-20.69	68.2	54.15	39.64	14.59	60.87	-	-	P	V
		14000	49.92	-18.28	68.2	56.3	40.8	16.22	63.4	-	-	P	V
		15660	47	-27	74	54.31	37.52	17.07	61.9	-	-	P	V
		17978	59.09	-14.91	74	48.85	48.6	18.93	57.29	-	-	P	V
		17978	49.16	-4.84	54	38.92	48.6	18.93	57.29	-	-	A	V
													V
													V
													V
													V

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10000	48.38	-19.82	68.2	55.77	38.7	14.37	60.46	-	-	P	H
		10480	48.31	-19.89	68.2	54.93	39.68	14.61	60.91	-	-	P	H
		14000	50.96	-17.24	68.2	57.34	40.8	16.22	63.4	-	-	P	H
		15720	47.65	-26.35	74	54.88	37.34	17.1	61.67	-	-	P	H
		18000	59.69	-14.31	74	48.99	49	18.94	57.24	-	-	P	H
		18000	48.91	-5.09	54	38.21	49	18.94	57.24	-	-	A	H
													H
													H
													H
802.11ax													H
HE20 Full													H
CH 48		10000	47.25	-20.95	68.2	54.64	38.7	14.37	60.46	-	-	P	V
5240MHz		10480	47.83	-20.37	68.2	54.45	39.68	14.61	60.91	-	-	P	V
		14000	50.2	-18	68.2	56.58	40.8	16.22	63.4	-	-	P	V
		15720	47.73	-26.27	74	54.96	37.34	17.1	61.67	-	-	P	V
		17989	59.51	-14.49	74	49.05	48.8	18.93	57.27	-	-	P	V
		17989	49.12	-4.88	54	38.66	48.8	18.93	57.27	-	-	A	V
													V
													V
													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.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 1 5150~5250MHz

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

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5148.2	64.19	-9.81	74	52.42	31.8	10	30.03	100	299	P	H
		5149.24	50.74	-3.26	54	38.97	31.8	10	30.03	100	299	A	H
	*	5190	109.93	-	-	98.37	31.56	10.04	30.04	100	299	P	H
	*	5190	99.27	-	-	87.71	31.56	10.04	30.04	100	299	A	H
802.11ax		5356.68	49.86	-24.14	74	38.63	31.14	10.18	30.09	100	299	P	H
HE40 Full		5365.36	40.88	-13.12	54	29.61	31.19	10.18	30.1	100	299	A	H
CH 38		5146.12	60.01	-13.99	74	48.25	31.8	9.99	30.03	330	253	P	V
5190MHz		5148.98	48.66	-5.34	54	36.89	31.8	10	30.03	330	253	A	V
	*	5190	106.06	-	-	94.5	31.56	10.04	30.04	330	253	P	V
	*	5190	97.16	-	-	85.6	31.56	10.04	30.04	330	253	A	V
		5428.08	49.7	-24.3	74	38.08	31.51	10.23	30.12	330	253	P	V
		5408.2	40.73	-13.27	54	29.19	31.43	10.22	30.11	330	253	A	V
		5149.24	53.03	-20.97	74	41.26	31.8	10	30.03	100	297	P	H
		5149.5	44.35	-9.65	54	32.58	31.8	10	30.03	100	297	A	H
	*	5230	111.25	-	-	99.91	31.32	10.07	30.05	100	297	P	H
	*	5230	102.46	-	-	91.12	31.32	10.07	30.05	100	297	A	H
802.11ax		5420.24	50.09	-23.91	74	38.49	31.48	10.23	30.11	100	297	P	H
HE40 Full		5352.2	41.25	-12.75	54	30.06	31.11	10.17	30.09	100	297	A	H
CH 46		5146.9	52.41	-21.59	74	40.65	31.8	9.99	30.03	339	248	P	V
5230MHz		5148.2	43.21	-10.79	54	31.44	31.8	10	30.03	339	248	A	V
	*	5230	111.11	-	-	99.77	31.32	10.07	30.05	339	248	P	V
	*	5230	101.83	-	-	90.49	31.32	10.07	30.05	339	248	A	V
		5404.84	50.17	-23.83	74	38.65	31.42	10.21	30.11	339	248	P	V
		5351.64	41.07	-12.93	54	29.88	31.11	10.17	30.09	339	248	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ax HE40 Full (Harmonic @ 3m)

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10000	47.54	-20.66	68.2	54.93	38.7	14.37	60.46	-	-	P	H
		10380	47.45	-20.75	68.2	54.19	39.52	14.56	60.82	-	-	P	H
		14000	50.72	-17.48	68.2	57.1	40.8	16.22	63.4	-	-	P	H
		15570	46.73	-27.27	74	54.18	37.76	17.03	62.24	-	-	P	H
		17967	59.42	-14.58	74	49.42	48.41	18.91	57.32	-	-	P	H
		17967	48.25	-5.75	54	38.25	48.41	18.91	57.32	-	-	A	H
													H
													H
													H
802.11ax													H
HE40 Full													H
CH 38		10000	47.85	-20.35	68.2	55.24	38.7	14.37	60.46	-	-	P	V
5190MHz		10380	48.35	-19.85	68.2	55.09	39.52	14.56	60.82	-	-	P	V
		14000	49.36	-18.84	68.2	55.74	40.8	16.22	63.4	-	-	P	V
		15570	46.18	-27.82	74	53.63	37.76	17.03	62.24	-	-	P	V
		18000	59.25	-14.75	74	48.55	49	18.94	57.24	-	-	P	V
		18000	49.34	-4.66	54	38.64	49	18.94	57.24	-	-	A	V
													V
													V
													V
													V
													V

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10000	46.84	-21.36	68.2	54.23	38.7	14.37	60.46	-	-	P	H
		10460	47.11	-21.09	68.2	53.74	39.66	14.6	60.89	-	-	P	H
		14000	50.06	-18.14	68.2	56.44	40.8	16.22	63.4	-	-	P	H
		15690	47.54	-26.46	74	54.81	37.43	17.09	61.79	-	-	P	H
		17989	58.82	-15.18	74	48.36	48.8	18.93	57.27	-	-	P	H
		17989	48.91	-5.09	54	38.45	48.8	18.93	57.27	-	-	A	H
													H
													H
													H
802.11ax													H
HE40 Full													H
CH 46		10000	47.15	-21.05	68.2	54.54	38.7	14.37	60.46	-	-	P	V
5230MHz		10460	47.68	-20.52	68.2	54.31	39.66	14.6	60.89	-	-	P	V
		14000	50.27	-17.93	68.2	56.65	40.8	16.22	63.4	-	-	P	V
		15690	47.93	-26.07	74	55.2	37.43	17.09	61.79	-	-	P	V
		17989	59.07	-14.93	74	48.61	48.8	18.93	57.27	-	-	P	V
		17989	49.21	-4.79	54	38.75	48.8	18.93	57.27	-	-	A	V
													V
													V
													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.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 1 5150~5250MHz

WIFI 802.11ax HE40 Partial 242 (Band Edge @ 3m)

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE40 Partial 242/61 CH 38 5190MHz		5145.6	60.59	-13.41	74	48.83	31.8	9.99	30.03	100	35	P	H
		5149.5	48.76	-5.24	54	36.99	31.8	10	30.03	100	35	A	H
	*	5190	108.36	-	-	96.8	31.56	10.04	30.04	100	35	P	H
	*	5190	98.51	-	-	86.95	31.56	10.04	30.04	100	35	A	H
		5458.88	49.84	-24.16	74	38.11	31.6	10.26	30.13	100	35	P	H
		5445.16	40.06	-13.94	54	28.35	31.58	10.25	30.12	100	35	A	H
		5145.86	64.18	-9.82	74	52.42	31.8	9.99	30.03	300	256	P	V
		5148.98	48.98	-5.02	54	37.21	31.8	10	30.03	300	256	A	V
	*	5190	110.91	-	-	99.35	31.56	10.04	30.04	300	256	P	V
	*	5190	100.92	-	-	89.36	31.56	10.04	30.04	300	256	A	V
		5396.16	51.01	-22.99	74	39.53	31.38	10.21	30.11	300	256	P	V
		5381.32	40.46	-13.54	54	29.07	31.29	10.2	30.1	300	256	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

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

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE80 Full CH 42 5210MHz		5149.24	58.34	-15.66	74	46.57	31.8	10	30.03	100	296	P	H
		5148.98	49.39	-4.61	54	37.62	31.8	10	30.03	100	296	A	H
	*	5210	104.01	-	-	92.56	31.44	10.06	30.05	100	296	P	H
	*	5210	95.36	-	-	83.91	31.44	10.06	30.05	100	296	A	H
		5355.56	50.18	-23.82	74	38.97	31.13	10.17	30.09	100	296	P	H
		5351.36	43.23	-10.77	54	32.04	31.11	10.17	30.09	100	296	A	H
		5144.04	55.44	-18.56	74	43.68	31.8	9.99	30.03	350	247	P	V
		5149.5	48.29	-5.71	54	36.52	31.8	10	30.03	350	247	A	V
	*	5210	102.71	-	-	91.26	31.44	10.06	30.05	350	247	P	V
	*	5210	93.43	-	-	81.98	31.44	10.06	30.05	350	247	A	V
		5412.4	50.12	-23.88	74	38.56	31.45	10.22	30.11	350	247	P	V
		5351.36	42.58	-11.42	54	31.39	31.11	10.17	30.09	350	247	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ax HE80 Full (Harmonic @ 3m)

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10000	47.34	-20.86	68.2	54.73	38.7	14.37	60.46	-	-	P	H
		10420	47.75	-20.45	68.2	54.4	39.62	14.58	60.85	-	-	P	H
		14000	50.09	-18.11	68.2	56.47	40.8	16.22	63.4	-	-	P	H
		15630	46.07	-27.93	74	53.42	37.61	17.06	62.02	-	-	P	H
		17978	59.41	-14.59	74	49.17	48.6	18.93	57.29	-	-	P	H
		17978	48.7	-5.3	54	38.46	48.6	18.93	57.29	-	-	A	H
													H
													H
													H
802.11ax													H
HE80 Full													H
CH 42		10000	47	-21.2	68.2	54.39	38.7	14.37	60.46	-	-	P	V
5210MHz		10420	47.97	-20.23	68.2	54.62	39.62	14.58	60.85	-	-	P	V
		14000	50.38	-17.82	68.2	56.76	40.8	16.22	63.4	-	-	P	V
		15630	45.81	-28.19	74	53.16	37.61	17.06	62.02	-	-	P	V
		18000	60.48	-13.52	74	49.78	49	18.94	57.24	-	-	P	V
		18000	48.92	-5.08	54	38.22	49	18.94	57.24	-	-	A	V
													V
													V
													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.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 2 - 5250~5350MHz

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

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5090.44	49.86	-24.14	74	38.16	31.78	9.93	30.01	100	296	P	H
		5114.58	40.62	-13.38	54	28.88	31.8	9.96	30.02	100	296	A	H
	*	5260	115.6	-	-	104.36	31.2	10.1	30.06	100	296	P	H
	*	5260	104.9	-	-	93.66	31.2	10.1	30.06	100	296	A	H
802.11ax		5367.6	50.83	-23.17	74	39.54	31.21	10.18	30.1	100	296	P	H
HE20 Full		5364.96	41.14	-12.86	54	29.87	31.19	10.18	30.1	100	296	A	H
CH 52		5119.68	50.89	-23.11	74	39.14	31.8	9.97	30.02	317	248	P	V
5260MHz		5121.38	40.58	-13.42	54	28.83	31.8	9.97	30.02	317	248	A	V
	*	5260	113.02	-	-	101.78	31.2	10.1	30.06	317	248	P	V
	*	5260	104.1	-	-	92.86	31.2	10.1	30.06	317	248	A	V
		5359.68	50.95	-23.05	74	39.71	31.16	10.18	30.1	317	248	P	V
		5360.4	41.19	-12.81	54	29.95	31.16	10.18	30.1	317	248	A	V
		5103.02	49.74	-24.26	74	38	31.8	9.95	30.01	100	296	P	H
		5149.6	40.5	-13.5	54	28.73	31.8	10	30.03	100	296	A	H
	*	5300	112.68	-	-	101.43	31.2	10.13	30.08	100	296	P	H
	*	5300	102.94	-	-	91.69	31.2	10.13	30.08	100	296	A	H
802.11ax		5403.36	51.45	-22.55	74	39.94	31.41	10.21	30.11	100	296	P	H
HE20 Full		5353.2	42.29	-11.71	54	31.09	31.12	10.17	30.09	100	296	A	H
CH 60		5112.54	49.77	-24.23	74	38.03	31.8	9.96	30.02	330	249	P	V
5300MHz		5146.2	40.61	-13.39	54	28.85	31.8	9.99	30.03	330	249	A	V
	*	5300	113.64	-	-	102.39	31.2	10.13	30.08	330	249	P	V
	*	5300	102.96	-	-	91.71	31.2	10.13	30.08	330	249	A	V
		5350.08	51.79	-22.21	74	40.61	31.1	10.17	30.09	330	249	P	V
		5352.72	42.6	-11.4	54	31.4	31.12	10.17	30.09	330	249	A	V

	*	5320	112.69	-	-	101.46	31.16	10.15	30.08	101	296	P	H
	*	5320	103.23	-	-	92	31.16	10.15	30.08	101	296	A	H
		5350.08	59.22	-14.78	74	48.04	31.1	10.17	30.09	101	296	P	H
		5350.24	47.46	-6.54	54	36.28	31.1	10.17	30.09	101	296	A	H
802.11ax													H
HE20 Full													H
CH 64	*	5320	112.97	-	-	101.74	31.16	10.15	30.08	327	249	P	V
5320MHz	*	5320	103.06	-	-	91.83	31.16	10.15	30.08	327	249	A	V
		5354.4	57.88	-16.12	74	46.67	31.13	10.17	30.09	327	249	P	V
		5351.2	47.22	-6.78	54	36.03	31.11	10.17	30.09	327	249	A	V
													V
													V

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

Band 2 5250~5350MHz

WIFI 802.11ax HE20 Full (Harmonic @ 3m)

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10000	47.1	-21.1	68.2	54.49	38.7	14.37	60.46	-	-	P	H
		10520	47.92	-20.28	68.2	54.52	39.7	14.63	60.93	-	-	P	H
		14000	50.37	-17.83	68.2	56.75	40.8	16.22	63.4	-	-	P	H
		15780	46.76	-27.24	74	53.91	37.16	17.14	61.45	-	-	P	H
		18000	60.55	-13.45	74	49.85	49	18.94	57.24	-	-	P	H
		18000	48.95	-5.05	54	38.25	49	18.94	57.24	-	-	A	H
													H
													H
													H
802.11ax													H
HE20 Full													H
CH 52		10000	47.18	-21.02	68.2	54.57	38.7	14.37	60.46	-	-	P	V
5260MHz		10520	47.36	-20.84	68.2	53.96	39.7	14.63	60.93	-	-	P	V
		14000	50.27	-17.93	68.2	56.65	40.8	16.22	63.4	-	-	P	V
		15780	46.59	-27.41	74	53.74	37.16	17.14	61.45	-	-	P	V
		18000	59.29	-14.71	74	48.59	49	18.94	57.24	-	-	P	V
		18000	49.06	-4.94	54	38.36	49	18.94	57.24	-	-	A	V
													V
													V
													V
													V
													V

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10000	46.82	-21.38	68.2	54.21	38.7	14.37	60.46	-	-	P	H
		10600	47.81	-26.19	74	54.36	39.7	14.67	60.92	-	-	P	H
		14000	50.86	-17.34	68.2	57.24	40.8	16.22	63.4	-	-	P	H
		15899	47.9	-26.1	74	54.5	37.2	17.19	60.99	-	-	P	H
		18000	60.46	-13.54	74	49.76	49	18.94	57.24	-	-	P	H
		18000	48.95	-5.05	54	38.25	49	18.94	57.24	-	-	A	H
													H
													H
													H
													H
802.11ax													
HE20 Full													H
CH 60		10000	47.53	-20.67	68.2	54.92	38.7	14.37	60.46	-	-	P	V
5300MHz		10600	52.2	-21.8	74	58.75	39.7	14.67	60.92	107	209	P	V
		10600	41.82	-12.18	54	48.37	39.7	14.67	60.92	107	209	A	V
		14000	49.97	-18.23	68.2	56.35	40.8	16.22	63.4	-	-	P	V
		15900	46.44	-27.56	74	53.04	37.2	17.19	60.99	-	-	P	V
		17989	59.62	-14.38	74	49.16	48.8	18.93	57.27	-	-	P	V
		17989	48.65	-5.35	54	38.19	48.8	18.93	57.27	-	-	A	V
													V
													V
													V
													V

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10000	47.43	-20.77	68.2	54.82	38.7	14.37	60.46	-	-	P	H
		10640	47.88	-26.12	74	54.32	39.78	14.69	60.91	-	-	P	H
		14000	50.16	-18.04	68.2	56.54	40.8	16.22	63.4	-	-	P	H
		15960	45.5	-28.5	74	51.77	37.26	17.23	60.76	-	-	P	H
		17989	59.38	-14.62	74	48.92	48.8	18.93	57.27	-	-	P	H
		17989	48.66	-5.34	54	38.2	48.8	18.93	57.27	-	-	A	H
													H
													H
													H
													H
802.11ax													
HE20 Full													H
CH 64		10000	47.66	-20.54	68.2	55.05	38.7	14.37	60.46	-	-	P	V
5320MHz		10640	50.77	-23.23	74	57.21	39.78	14.69	60.91	100	219	P	V
		10640	39.27	-14.73	54	45.71	39.78	14.69	60.91	100	219	A	V
		14000	49.74	-18.46	68.2	56.12	40.8	16.22	63.4	-	-	P	V
		15960	47.22	-26.78	74	53.49	37.26	17.23	60.76	-	-	P	V
		18000	59.56	-14.44	74	48.86	49	18.94	57.24	-	-	P	V
		18000	49.11	-4.89	54	38.41	49	18.94	57.24	-	-	A	V
													V
													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.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 2 5250~5350MHz

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

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5128.52	50.01	-23.99	74	38.26	31.8	9.97	30.02	100	296	P	H
		5107.78	41.62	-12.38	54	29.88	31.8	9.95	30.01	100	296	A	H
	*	5270	111.55	-	-	100.31	31.2	10.11	30.07	100	296	P	H
	*	5270	101.89	-	-	90.65	31.2	10.11	30.07	100	296	A	H
802.11ax		5353.68	52.2	-21.8	74	41	31.12	10.17	30.09	100	296	P	H
HE40 Full		5352.48	43.75	-10.25	54	32.56	31.11	10.17	30.09	100	296	A	H
CH 54		5089.08	50.05	-23.95	74	38.35	31.78	9.93	30.01	316	247	P	V
5270MHz		5134.3	41.23	-12.77	54	29.47	31.8	9.98	30.02	316	247	A	V
	*	5270	110.47	-	-	99.23	31.2	10.11	30.07	316	247	P	V
	*	5270	100.6	-	-	89.36	31.2	10.11	30.07	316	247	A	V
		5351.28	51.43	-22.57	74	40.24	31.11	10.17	30.09	316	247	P	V
		5352.72	42.75	-11.25	54	31.55	31.12	10.17	30.09	316	247	A	V
		5100.64	50.48	-23.52	74	38.74	31.8	9.95	30.01	100	297	P	H
		5072.42	41.22	-12.78	54	29.56	31.74	9.92	30	100	297	A	H
	*	5310	108.26	-	-	97.02	31.18	10.14	30.08	100	297	P	H
	*	5310	99.86	-	-	88.62	31.18	10.14	30.08	100	297	A	H
802.11ax		5351.52	61	-13	74	49.81	31.11	10.17	30.09	100	297	P	H
HE40 Full		5351.28	49.42	-4.58	54	38.23	31.11	10.17	30.09	100	297	A	H
CH 62		5069.7	50.9	-23.1	74	39.25	31.74	9.91	30	299	248	P	V
5310MHz		5136	41.18	-12.82	54	29.42	31.8	9.98	30.02	299	248	A	V
	*	5310	107.53	-	-	96.29	31.18	10.14	30.08	299	248	P	V
	*	5310	97.67	-	-	86.43	31.18	10.14	30.08	299	248	A	V
		5351.52	59.03	-14.97	74	47.84	31.11	10.17	30.09	299	248	P	V
		5351.28	47.35	-6.65	54	36.16	31.11	10.17	30.09	299	248	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ax HE40 Full (Harmonic @ 3m)

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10000	46.89	-21.31	68.2	54.28	38.7	14.37	60.46	-	-	P	H
		10540	47.21	-20.99	68.2	53.79	39.7	14.64	60.92	-	-	P	H
		14000	49.69	-18.51	68.2	56.07	40.8	16.22	63.4	-	-	P	H
		15810	45.58	-28.42	74	52.65	37.11	17.15	61.33	-	-	P	H
		17978	59.08	-14.92	74	48.84	48.6	18.93	57.29	-	-	P	H
		17978	48.54	-5.46	54	38.3	48.6	18.93	57.29	-	-	A	H
													H
													H
													H
802.11ax													H
HE40 Full													H
CH 54		10000	47.66	-20.54	68.2	55.05	38.7	14.37	60.46	-	-	P	V
5270MHz		10540	46.74	-21.46	68.2	53.32	39.7	14.64	60.92	-	-	P	V
		14000	50.27	-17.93	68.2	56.65	40.8	16.22	63.4	-	-	P	V
		15810	46.3	-27.7	74	53.37	37.11	17.15	61.33	-	-	P	V
		18000	58.84	-15.16	74	48.14	49	18.94	57.24	-	-	P	V
		18000	49.06	-4.94	54	38.36	49	18.94	57.24	-	-	A	V
													V
													V
													V
													V
													V

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10000	47.65	-20.55	68.2	55.04	38.7	14.37	60.46	-	-	P	H
		10620	47.85	-26.15	74	54.34	39.74	14.68	60.91	-	-	P	H
		14000	49.78	-18.42	68.2	56.16	40.8	16.22	63.4	-	-	P	H
		15930	45.9	-28.1	74	52.33	37.23	17.22	60.88	-	-	P	H
		18000	59.88	-14.12	74	49.18	49	18.94	57.24	-	-	P	H
		18000	48.62	-5.38	54	37.92	49	18.94	57.24	-	-	A	H
													H
													H
													H
802.11ax													H
HE40 Full													H
CH 62		10000	47.13	-21.07	68.2	54.52	38.7	14.37	60.46	-	-	P	V
5310MHz		10620	47.9	-26.1	74	54.39	39.74	14.68	60.91	-	-	P	V
		14000	50.43	-17.77	68.2	56.81	40.8	16.22	63.4	-	-	P	V
		15930	45.83	-28.17	74	52.26	37.23	17.22	60.88	-	-	P	V
		17989	59.19	-14.81	74	48.73	48.8	18.93	57.27	-	-	P	V
		17989	48.83	-5.17	54	38.37	48.8	18.93	57.27	-	-	A	V
													V
													V
													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.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 2 5250~5350MHz

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

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE80 Full CH 58 5290MHz		5100.64	50.65	-23.35	74	38.91	31.8	9.95	30.01	100	295	P	H
		5093.84	43.36	-10.64	54	31.64	31.79	9.94	30.01	100	295	A	H
	*	5290	102.18	-	-	90.93	31.2	10.12	30.07	100	295	P	H
	*	5290	93.34	-	-	82.09	31.2	10.12	30.07	100	295	A	H
		5350.08	56.8	-17.2	74	45.62	31.1	10.17	30.09	100	295	P	H
		5354.64	50.33	-3.67	54	39.12	31.13	10.17	30.09	100	295	A	H
		5114.58	50.24	-23.76	74	38.5	31.8	9.96	30.02	296	241	P	V
		5109.14	42.8	-11.2	54	31.06	31.8	9.95	30.01	296	241	A	V
	*	5290	100.03	-	-	88.78	31.2	10.12	30.07	296	241	P	V
	*	5290	91.63	-	-	80.38	31.2	10.12	30.07	296	241	A	V
		5350.32	55.03	-18.97	74	43.85	31.1	10.17	30.09	296	241	P	V
		5350.56	49.68	-4.32	54	38.5	31.1	10.17	30.09	296	241	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ax HE80 Full (Harmonic @ 3m)

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10000	46.99	-21.21	68.2	54.38	38.7	14.37	60.46	-	-	P	H
		10580	48.9	-19.3	68.2	55.46	39.7	14.66	60.92	-	-	P	H
		14000	49.74	-18.46	68.2	56.12	40.8	16.22	63.4	-	-	P	H
		15870	45.51	-28.49	74	52.26	37.17	17.18	61.1	-	-	P	H
		18000	59.45	-14.55	74	48.75	49	18.94	57.24	-	-	P	H
		18000	48.8	-5.2	54	38.1	49	18.94	57.24	-	-	A	H
													H
													H
													H
802.11ax													H
HE80 Full													H
CH 58		10000	46.98	-21.22	68.2	54.37	38.7	14.37	60.46	-	-	P	V
5290MHz		10580	46.88	-21.32	68.2	53.44	39.7	14.66	60.92	-	-	P	V
		14000	49.77	-18.43	68.2	56.15	40.8	16.22	63.4	-	-	P	V
		15870	46.05	-27.95	74	52.8	37.17	17.18	61.1	-	-	P	V
		17978	59.43	-14.57	74	49.19	48.6	18.93	57.29	-	-	P	V
		17978	48.32	-5.68	54	38.08	48.6	18.93	57.29	-	-	A	V
													V
													V
													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.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 3 - 5470~5725MHz

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

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5455.12	52.8	-21.2	74	41.07	31.6	10.26	30.13	100	297	P	H
		5468.08	60.52	-7.68	68.2	48.78	31.6	10.27	30.13	100	297	P	H
		5456.72	44.54	-9.46	54	32.81	31.6	10.26	30.13	100	297	A	H
	*	5500	113.83	-	-	102.07	31.6	10.3	30.14	100	297	P	H
802.11ax	*	5500	102.12	-	-	90.36	31.6	10.3	30.14	100	297	A	H
HE20 Full													
CH 100		5460	55.78	-12.42	68.2	44.05	31.6	10.26	30.13	288	247	P	V
5500MHz		5467.76	59.57	-8.63	68.2	47.83	31.6	10.27	30.13	288	247	P	V
		5458.96	43.11	-10.89	54	31.38	31.6	10.26	30.13	288	247	A	V
	*	5500	112.78	-	-	101.02	31.6	10.3	30.14	288	247	P	V
	*	5500	103.21	-	-	91.45	31.6	10.3	30.14	288	247	A	V
		5430.64	49.97	-24.03	74	38.33	31.52	10.24	30.12	100	300	P	H
		5469.52	49.96	-18.24	68.2	38.22	31.6	10.27	30.13	100	300	P	H
		5450.56	40.33	-13.67	54	28.6	31.6	10.25	30.12	100	300	A	H
	*	5580	115.34	-	-	103.6	31.56	10.36	30.18	100	300	P	H
802.11ax	*	5580	105.03	-	-	93.29	31.56	10.36	30.18	100	300	A	H
HE20 Full		5753.03	50.36	-17.84	68.2	38.27	31.8	10.55	30.26	100	300	P	H
CH 116		5445.76	50.66	-23.34	74	38.95	31.58	10.25	30.12	285	253	P	V
5580MHz		5464	49.93	-18.27	68.2	38.2	31.6	10.26	30.13	285	253	P	V
		5450.56	40.73	-13.27	54	29	31.6	10.25	30.12	285	253	A	V
	*	5580	115.97	-	-	104.23	31.56	10.36	30.18	285	253	P	V
	*	5580	106.42	-	-	94.68	31.56	10.36	30.18	285	253	A	V
		5725	49.93	-18.27	68.2	37.9	31.75	10.52	30.24	285	253	P	V

	*	5700	109.22	-	-	97.26	31.7	10.49	30.23	256	295	P	H
	*	5700	100.65	-	-	88.69	31.7	10.49	30.23	256	295	A	H
		5726.68	60.63	-7.57	68.2	48.6	31.75	10.52	30.24	256	295	P	H
													H
802.11ax													H
HE20 Full													H
CH 140	*	5700	113.49	-	-	101.53	31.7	10.49	30.23	335	253	P	V
5700MHz	*	5700	103.34	-	-	91.38	31.7	10.49	30.23	335	253	A	V
		5726.76	63.21	-4.99	68.2	51.18	31.75	10.52	30.24	335	253	P	V
													V
													V
													V

Remark

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

Band 3 5470~5725MHz

WIFI 802.11ax HE20 (Harmonic @ 3m)

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10000	47.23	-20.97	68.2	54.62	38.7	14.37	60.46	-	-	P	H
		11000	47.91	-26.09	74	53.49	40.4	14.88	60.86	-	-	P	H
		14000	49.99	-18.21	68.2	56.37	40.8	16.22	63.4	-	-	P	H
		16500	48.27	-19.93	68.2	50.25	38.9	17.68	58.56	-	-	P	H
		18000	59.04	-14.96	74	48.34	49	18.94	57.24	-	-	P	H
		18000	48.87	-5.13	54	38.17	49	18.94	57.24	-	-	A	H
													H
													H
													H
802.11ax													H
HE20 Full													H
CH 100		10000	47.02	-21.18	68.2	54.41	38.7	14.37	60.46	-	-	P	V
5500MHz		11000	52.69	-21.31	74	58.27	40.4	14.88	60.86	100	217	P	V
		11000	44.4	-9.6	54	49.98	40.4	14.88	60.86	100	217	A	V
		14000	50.31	-17.89	68.2	56.69	40.8	16.22	63.4	-	-	P	V
		16500	51.63	-16.57	68.2	53.61	38.9	17.68	58.56	-	-	P	V
		18000	59.21	-14.79	74	48.51	49	18.94	57.24	-	-	P	V
		18000	48.76	-5.24	54	38.06	49	18.94	57.24	-	-	A	V
													V
													V
													V
													V

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10000	47.23	-20.97	68.2	54.62	38.7	14.37	60.46	-	-	P	H
		11160	47.82	-26.18	74	53.76	39.96	14.96	60.86	-	-	P	H
		14000	50.17	-18.03	68.2	56.55	40.8	16.22	63.4	-	-	P	H
		16740	50.22	-17.98	68.2	51.03	39.94	17.88	58.63	-	-	P	H
		18000	59.27	-14.73	74	48.57	49	18.94	57.24	-	-	P	H
		18000	48.91	-5.09	54	38.21	49	18.94	57.24	-	-	A	H
													H
													H
													H
													H
802.11ax													
HE20 Full													H
CH 116		10000	47.63	-20.57	68.2	55.02	38.7	14.37	60.46	-	-	P	V
5580MHz		11160	51.41	-22.59	74	57.35	39.96	14.96	60.86	100	217	P	V
		11160	42.94	-11.06	54	48.88	39.96	14.96	60.86	100	217	A	V
		14000	49.95	-18.25	68.2	56.33	40.8	16.22	63.4	-	-	P	V
		16740	51.69	-16.51	68.2	52.5	39.94	17.88	58.63	-	-	P	V
		17978	58.9	-15.1	74	48.66	48.6	18.93	57.29	-	-	P	V
		17978	48.35	-5.65	54	38.11	48.6	18.93	57.29	-	-	A	V
													V
													V
													V
													V

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10000	47.93	-20.27	68.2	55.32	38.7	14.37	60.46	-	-	P	H
		11400	49.13	-24.87	74	54.92	40	15.08	60.87	100	31	P	H
		11400	39.92	-14.08	54	45.71	40	15.08	60.87	100	31	A	H
		14000	50.57	-17.63	68.2	56.95	40.8	16.22	63.4	-	-	P	H
		17100	50.44	-17.76	68.2	50.3	40.6	18.18	58.64	-	-	P	H
		17989	59.36	-14.64	74	48.9	48.8	18.93	57.27	-	-	P	H
		17989	49.41	-4.59	54	38.95	48.8	18.93	57.27	-	-	A	H
													H
802.11ax													H
HE20 Full													H
CH 140		10000	48.8	-19.4	68.2	56.19	38.7	14.37	60.46	-	-	P	V
5700MHz		11400	52.14	-21.86	74	57.93	40	15.08	60.87	100	217	P	V
		11400	42.79	-11.21	54	48.58	40	15.08	60.87	100	217	A	V
		14000	50.77	-17.43	68.2	57.15	40.8	16.22	63.4	-	-	P	V
		17100	50.04	-18.16	68.2	49.9	40.6	18.18	58.64	-	-	P	V
		17989	59.91	-14.09	74	49.45	48.8	18.93	57.27	-	-	P	V
		17989	49.93	-4.07	54	39.47	48.8	18.93	57.27	-	-	A	V
													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.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 3 5470~5725MHz

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

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5458.54	58.97	-15.03	74	47.24	31.6	10.26	30.13	100	297	P	H
		5468.8	62.08	-6.12	68.2	50.34	31.6	10.27	30.13	100	297	P	H
		5458.81	46.99	-7.01	54	35.26	31.6	10.26	30.13	100	297	A	H
	*	5510	109.04	-	-	97.3	31.58	10.3	30.14	100	297	P	H
802.11ax	*	5510	99.09	-	-	87.35	31.58	10.3	30.14	100	297	A	H
HE40 Full		5737.28	49.07	-19.13	68.2	37.02	31.77	10.53	30.25	100	297	P	H
CH 102		5459.08	59.91	-14.09	74	48.18	31.6	10.26	30.13	314	259	P	V
5510MHz		5468.26	64.86	-3.34	68.2	53.12	31.6	10.27	30.13	314	259	P	V
		5459.08	47.13	-6.87	54	35.4	31.6	10.26	30.13	314	259	A	V
	*	5510	107.77	-	-	96.03	31.58	10.3	30.14	314	259	P	V
	*	5510	98.48	-	-	86.74	31.58	10.3	30.14	314	259	A	V
		5734.76	50.57	-17.63	68.2	38.52	31.77	10.53	30.25	314	259	P	V
		5441.26	50.78	-23.22	74	39.08	31.57	10.25	30.12	100	295	P	H
		5465.02	52.26	-15.94	68.2	40.52	31.6	10.27	30.13	100	295	P	H
		5459.08	42.29	-11.71	54	30.56	31.6	10.26	30.13	100	295	A	H
	*	5550	110.67	-	-	98.99	31.5	10.34	30.16	100	295	P	H
802.11ax	*	5550	100.71	-	-	89.03	31.5	10.34	30.16	100	295	A	H
HE40 Full		5755.55	49.93	-18.27	68.2	37.84	31.8	10.55	30.26	100	295	P	H
CH 110		5457.46	51.2	-22.8	74	39.47	31.6	10.26	30.13	315	258	P	V
5550MHz		5463.4	52.06	-16.14	68.2	40.33	31.6	10.26	30.13	315	258	P	V
		5453.95	42.71	-11.29	54	30.98	31.6	10.26	30.13	315	258	A	V
	*	5550	110.81	-	-	99.13	31.5	10.34	30.16	315	258	P	V
	*	5550	100.39	-	-	88.71	31.5	10.34	30.16	315	258	A	V
		5755.235	49.31	-18.89	68.2	37.22	31.8	10.55	30.26	315	258	P	V

		5362.95	49.84	-24.16	74	38.58	31.18	10.18	30.1	100	295	P	H
		5467.29	50.39	-17.81	68.2	38.65	31.6	10.27	30.13	100	295	P	H
		5458.41	41.02	-12.98	54	29.29	31.6	10.26	30.13	100	295	A	H
	*	5670	110.25	-	-	98.31	31.7	10.46	30.22	100	295	P	H
802.11ax	*	5670	100.41	-	-	88.47	31.7	10.46	30.22	100	295	A	H
HE40 Full		5725.275	57.21	-10.99	68.2	45.18	31.75	10.52	30.24	100	295	P	H
CH 134		5426.22	49.65	-24.35	74	38.04	31.5	10.23	30.12	338	252	P	V
5670MHz		5469.51	49.77	-18.43	68.2	38.03	31.6	10.27	30.13	338	252	P	V
		5452.86	40.88	-13.12	54	29.15	31.6	10.25	30.12	338	252	A	V
	*	5670	110.11	-	-	98.17	31.7	10.46	30.22	338	252	P	V
	*	5670	100.27	-	-	88.33	31.7	10.46	30.22	338	252	A	V
		5725.1	55.55	-12.65	68.2	43.52	31.75	10.52	30.24	338	252	P	V

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

Band 3 5470~5725MHz

WIFI 802.11ax HE40 Full (Harmonic @ 3m)

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10000	47.73	-20.47	68.2	55.12	38.7	14.37	60.46	-	-	P	H
		11020	50.72	-23.28	74	56.33	40.36	14.89	60.86	100	15	P	H
		11020	41.09	-12.91	54	46.7	40.36	14.89	60.86	100	15	A	H
		14000	50.12	-18.08	68.2	56.5	40.8	16.22	63.4	-	-	P	H
		16530	48.47	-19.73	68.2	50.47	38.87	17.7	58.57	-	-	P	H
		17989	58.89	-15.11	74	48.43	48.8	18.93	57.27	-	-	P	H
		17989	48.93	-5.07	54	38.47	48.8	18.93	57.27	-	-	A	H
													H
802.11ax													H
HE40 Full													H
CH 102		10000	46.58	-21.62	68.2	53.97	38.7	14.37	60.46	-	-	P	V
5510MHz		11020	50.99	-23.01	74	56.6	40.36	14.89	60.86	100	222	P	V
		11020	42.17	-11.83	54	47.78	40.36	14.89	60.86	100	222	A	V
		14000	50.52	-17.68	68.2	56.9	40.8	16.22	63.4	-	-	P	V
		16530	48.55	-19.65	68.2	50.55	38.87	17.7	58.57	-	-	P	V
		17989	59.35	-14.65	74	48.89	48.8	18.93	57.27	-	-	P	V
		17989	49.33	-4.67	54	38.87	48.8	18.93	57.27	-	-	A	V
													V
													V
													V

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10000	47.49	-20.71	68.2	54.88	38.7	14.37	60.46	-	-	P	H
		11100	51.27	-22.73	74	57	40.2	14.93	60.86	100	10	P	H
		11100	40.65	-13.35	54	46.38	40.2	14.93	60.86	100	10	A	H
		14000	50.33	-17.87	68.2	56.71	40.8	16.22	63.4	-	-	P	H
		16650	49.62	-18.58	68.2	51.17	39.25	17.8	58.6	-	-	P	H
		17978	59.54	-14.46	74	49.3	48.6	18.93	57.29	-	-	P	H
		17978	49.51	-4.49	54	39.27	48.6	18.93	57.29	-	-	A	H
													H
802.11ax													H
HE40 Full													H
CH 110		10000	46.75	-21.45	68.2	54.14	38.7	14.37	60.46	-	-	P	V
5550MHz		11100	52.98	-21.02	74	58.71	40.2	14.93	60.86	100	219	P	V
		11100	41.07	-12.93	54	46.8	40.2	14.93	60.86	100	219	A	V
		14000	50.38	-17.82	68.2	56.76	40.8	16.22	63.4	-	-	P	V
		16650	49.34	-18.86	68.2	50.89	39.25	17.8	58.6	-	-	P	V
		17978	59.26	-14.74	74	49.02	48.6	18.93	57.29	-	-	P	V
		17978	49.29	-4.71	54	39.05	48.6	18.93	57.29	-	-	A	V
													V
													V
													V

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10000	47.13	-21.07	68.2	54.52	38.7	14.37	60.46	-	-	P	H
		11340	50.98	-23.02	74	56.86	39.94	15.05	60.87	100	9	P	H
		11340	40.73	-13.27	54	46.61	39.94	15.05	60.87	100	9	A	H
		14000	49.66	-18.54	68.2	56.04	40.8	16.22	63.4	-	-	P	H
		17010	50.18	-18.02	68.2	50.16	40.6	18.11	58.69	-	-	P	H
		18000	59.03	-14.97	74	48.33	49	18.94	57.24	-	-	P	H
		18000	49.01	-4.99	54	38.31	49	18.94	57.24	-	-	A	H
													H
802.11ax													H
HE40 Full													H
CH 134		10000	46.91	-21.29	68.2	54.3	38.7	14.37	60.46	-	-	P	V
5670MHz		11340	50.99	-23.01	74	56.87	39.94	15.05	60.87	100	212	P	V
		11340	42.15	-11.85	54	48.03	39.94	15.05	60.87	100	212	A	V
		14000	50.95	-17.25	68.2	57.33	40.8	16.22	63.4	-	-	P	V
		17010	50.12	-18.08	68.2	50.1	40.6	18.11	58.69	-	-	P	V
		18000	58.91	-15.09	74	48.21	49	18.94	57.24	-	-	P	V
		18000	48.96	-5.04	54	38.26	49	18.94	57.24	-	-	A	V
													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.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 3 5470~5725MHz

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

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5457.52	58.54	-15.46	74	46.81	31.6	10.26	30.13	100	294	P	H
		5469.28	58.28	-9.92	68.2	46.54	31.6	10.27	30.13	100	294	P	H
		5454.64	49.61	-4.39	54	37.88	31.6	10.26	30.13	100	294	A	H
	*	5530	103.22	-	-	91.51	31.54	10.32	30.15	100	294	P	H
802.11ax	*	5530	94.34	-	-	82.63	31.54	10.32	30.15	100	294	A	H
HE80 Full		5727.83	49.73	-18.47	68.2	37.69	31.76	10.52	30.24	100	294	P	H
CH 106		5457.52	58.78	-15.22	74	47.05	31.6	10.26	30.13	312	257	P	V
5530MHz		5465.68	59.55	-8.65	68.2	47.81	31.6	10.27	30.13	312	257	P	V
		5459.92	50.04	-3.96	54	38.31	31.6	10.26	30.13	312	257	A	V
	*	5530	102.1	-	-	90.39	31.54	10.32	30.15	312	257	P	V
	*	5530	93.76	-	-	82.05	31.54	10.32	30.15	312	257	A	V
		5752.4	50.34	-17.86	68.2	38.25	31.8	10.55	30.26	312	257	P	V
		5447.92	52.8	-21.2	74	41.08	31.59	10.25	30.12	100	294	P	H
		5464.72	53.3	-14.9	68.2	41.56	31.6	10.27	30.13	100	294	P	H
		5458	45.12	-8.88	54	33.39	31.6	10.26	30.13	100	294	A	H
	*	5610	104.83	-	-	93.01	31.62	10.39	30.19	100	294	P	H
802.11ax	*	5610	97.75	-	-	85.93	31.62	10.39	30.19	100	294	A	H
HE80 Full		5730.35	51.8	-16.4	68.2	39.77	31.76	10.52	30.25	100	294	P	H
CH 122		5459.92	52.21	-21.79	74	40.48	31.6	10.26	30.13	296	248	P	V
5610MHz		5466.16	52.94	-15.26	68.2	41.2	31.6	10.27	30.13	296	248	P	V
		5458.72	45.57	-8.43	54	33.84	31.6	10.26	30.13	296	248	A	V
	*	5610	106.51	-	-	94.69	31.62	10.39	30.19	296	248	P	V
	*	5610	98.22	-	-	86.4	31.62	10.39	30.19	296	248	A	V
		5726.255	52.7	-15.5	68.2	40.67	31.75	10.52	30.24	296	248	P	V

Remark

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

Band 3 5470~5725MHz

WIFI 802.11ax HE80 Full (Harmonic @ 3m)

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10000	47.38	-20.82	68.2	54.77	38.7	14.37	60.46	-	-	P	H
		11060	51.68	-22.32	74	57.35	40.28	14.91	60.86	100	12	P	H
		11060	42.57	-11.43	54	48.24	40.28	14.91	60.86	100	12	A	H
		14000	50	-18.2	68.2	56.38	40.8	16.22	63.4	-	-	P	H
		16590	47.98	-20.22	68.2	50.01	38.81	17.75	58.59	-	-	P	H
		17989	59.69	-14.31	74	49.23	48.8	18.93	57.27	-	-	P	H
		17989	49.68	-4.32	54	39.22	48.8	18.93	57.27	-	-	A	H
													H
802.11ax													H
HE80 Full													H
CH 106		10000	47.59	-20.61	68.2	54.98	38.7	14.37	60.46	-	-	P	V
5530MHz		11060	50.8	-23.2	74	56.47	40.28	14.91	60.86	100	222	P	V
		11060	42.93	-11.07	54	48.6	40.28	14.91	60.86	100	222	A	V
		14000	50.6	-17.6	68.2	56.98	40.8	16.22	63.4	-	-	P	V
		16590	48.37	-19.83	68.2	50.4	38.81	17.75	58.59	-	-	P	V
		17989	59.47	-14.53	74	49.01	48.8	18.93	57.27	-	-	P	V
		17989	49.53	-4.47	54	39.07	48.8	18.93	57.27	-	-	A	V
													V
													V
													V

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10000	48.3	-19.9	68.2	55.69	38.7	14.37	60.46	-	-	P	H
		11220	50.8	-23.2	74	56.85	39.82	14.99	60.86	100	15	P	H
		11220	40.59	-13.41	54	46.64	39.82	14.99	60.86	100	15	A	H
		14000	50.96	-17.24	68.2	57.34	40.8	16.22	63.4	-	-	P	H
		16830	50.52	-17.68	68.2	50.88	40.33	17.96	58.65	-	-	P	H
		17989	60.01	-13.99	74	49.55	48.8	18.93	57.27	-	-	P	H
		17989	50.03	-3.97	54	39.57	48.8	18.93	57.27	-	-	A	H
													H
802.11ax													H
HE80 Full													H
CH 122		10000	47.39	-20.81	68.2	54.78	38.7	14.37	60.46	-	-	P	V
5610MHz		11220	51.18	-22.82	74	57.23	39.82	14.99	60.86	100	210	P	V
		11220	40.82	-13.18	54	46.87	39.82	14.99	60.86	100	210	A	V
		14000	51.05	-17.15	68.2	57.43	40.8	16.22	63.4	-	-	P	V
		16830	50.99	-17.21	68.2	51.35	40.33	17.96	58.65	-	-	P	V
		17989	59.14	-14.86	74	48.68	48.8	18.93	57.27	-	-	P	V
		17989	49.13	-4.87	54	38.67	48.8	18.93	57.27	-	-	A	V
													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.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 3 - Straddle Channel

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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
8+9		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5407.72	49.46	-24.54	74	37.92	31.43	10.22	30.11	100	296	P	H
		5460	48.09	-20.11	68.2	36.36	31.6	10.26	30.13	100	296	P	H
		5458.03	39.99	-14.01	54	28.26	31.6	10.26	30.13	100	296	A	H
	*	5720	113.62	-	-	101.61	31.74	10.51	30.24	100	296	P	H
802.11ax	*	5720	102.59	-	-	90.58	31.74	10.51	30.24	100	296	A	H
HE20 Full		5885.75	50.29	-17.91	68.2	37.88	32.07	10.66	30.32	100	296	P	H
CH 144		5396.41	49.56	-24.44	74	38.08	31.38	10.21	30.11	316	249	P	V
5720MHz		5464.66	49.33	-18.87	68.2	37.6	31.6	10.26	30.13	316	249	P	V
		5448.67	40.04	-13.96	54	28.32	31.59	10.25	30.12	316	249	A	V
	*	5720	110.6	-	-	98.6	31.73	10.51	30.24	316	249	P	V
	*	5720	103.35	-	-	91.35	31.73	10.51	30.24	316	249	A	V
		5917.25	50.33	-17.87	68.2	37.85	32.13	10.68	30.33	316	249	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ax HE20 Full (Harmonic @ 3m)

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10000	47.57	-20.63	68.2	54.96	38.7	14.37	60.46	-	-	P	H
		11440	47.99	-26.01	74	53.72	40.04	15.1	60.87	-	-	P	H
		14000	49.89	-18.31	68.2	56.27	40.8	16.22	63.4	-	-	P	H
		17160	50.39	-17.81	68.2	50.04	40.72	18.23	58.6	-	-	P	H
		18000	59.63	-14.37	74	48.93	49	18.94	57.24	-	-	P	H
		18000	49.61	-4.39	54	38.91	49	18.94	57.24	-	-	A	H
													H
													H
802.11ax													H
HE20 Full													H
CH 144		10000	48.4	-19.8	68.2	55.79	38.7	14.37	60.46	-	-	P	V
5720MHz		11440	51.97	-22.03	74	57.7	40.04	15.1	60.87	100	238	P	V
		11440	42.04	-11.96	54	47.77	40.04	15.1	60.87	100	238	A	V
		14000	50.74	-17.46	68.2	57.12	40.8	16.22	63.4	-	-	P	V
		17160	50.68	-17.52	68.2	50.33	40.72	18.23	58.6	-	-	P	V
		18000	59.21	-14.79	74	48.51	49	18.94	57.24	-	-	P	V
		18000	49.24	-4.76	54	38.54	49	18.94	57.24	-	-	A	V
													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.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 3 - Straddle Channel

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

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE40 Full CH 142 5710MHz		5453.74	49.81	-24.19	74	38.08	31.6	10.26	30.13	100	295	P	H
		5461.93	48.93	-19.27	68.2	37.2	31.6	10.26	30.13	100	295	P	H
		5423.71	40.91	-13.09	54	29.31	31.49	10.23	30.12	100	295	A	H
	*	5710	110.14	-	-	98.16	31.72	10.5	30.24	100	295	P	H
	*	5710	99.78	-	-	87.8	31.72	10.5	30.24	100	295	A	H
		5923.75	51.33	-16.87	68.2	38.82	32.15	10.69	30.33	100	295	P	H
		5458.42	49.68	-24.32	74	37.95	31.6	10.26	30.13	315	245	P	V
		5464.66	48.43	-19.77	68.2	36.7	31.6	10.26	30.13	315	245	P	V
		5446.33	40.83	-13.17	54	29.11	31.59	10.25	30.12	315	245	A	V
	*	5710	108.95	-	-	96.97	31.72	10.5	30.24	315	245	P	V
	*	5710	99.9	-	-	87.92	31.72	10.5	30.24	315	245	A	V
		5922	51.19	-17.01	68.2	38.69	32.14	10.69	30.33	315	245	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 Straddle Channel

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

WIFI Ant. 8+9	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5411.23	49.41	-24.59	74	37.86	31.44	10.22	30.11	100	294	P	H
		5468.56	51.91	-16.29	68.2	40.17	31.6	10.27	30.13	100	294	P	H
		5449.45	42.67	-11.33	54	30.94	31.6	10.25	30.12	100	294	A	H
	*	5690	105.14	-	-	93.19	31.7	10.48	30.23	100	294	P	H
802.11ax	*	5690	96.73	-	-	84.78	31.7	10.48	30.23	100	294	A	H
HE80 Full		5934.6	51.2	-17	68.2	38.68	32.17	10.69	30.34	100	294	P	H
CH 138		5426.44	49.8	-24.2	74	38.18	31.51	10.23	30.12	288	243	P	V
5690MHz		5470	49.25	-18.95	68.2	37.51	31.6	10.27	30.13	288	243	P	V
		5457.25	42.84	-11.16	54	31.11	31.6	10.26	30.13	288	243	A	V
	*	5690	105.26	-	-	93.31	31.7	10.48	30.23	288	243	P	V
	*	5690	96.9	-	-	84.95	31.7	10.48	30.23	288	243	A	V
		5867.05	51.46	-16.74	68.2	39.09	32.03	10.65	30.31	288	243	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission above 18GHz

WIFI 802.11ax HE40 Full (SHF @ 1m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
8+9		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ax HE40 Full SHF		21304	40.16	-33.84	74	59.84	38.4	-3.28	54.8	-	-	P	H
		31474	39.06	-34.94	74	57.81	39.8	-1.98	56.57	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		20640	39.74	-34.26	74	59.86	38.21	-3.46	54.87	-	-	P	V
		31698	41.1	-32.9	74	59.61	40.2	-1.99	56.72	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													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

WIFI 802.11ax HE40 Full (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
8+9		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ax HE40 Full LF		30.97	25.33	-14.67	40	33	24.21	0.62	32.5	-	-	P	H
		88.2	21.91	-21.59	43.5	38.8	14.36	1.25	32.5	-	-	P	H
		191.02	28.86	-14.64	43.5	44.67	14.76	1.89	32.46	-	-	P	H
		213.33	34.59	-8.91	43.5	50	15	2.02	32.43	-	-	P	H
		251.16	34.63	-11.37	46	46.25	18.54	2.24	32.4	-	-	P	H
		557.68	26.86	-19.14	46	30.4	25.86	3.21	32.61	-	-	P	H
													H
													H
													H
													H
													H
													H
		30	31.34	-8.66	40	38.63	24.59	0.61	32.49	-	-	P	V
		175.5	27.53	-15.97	43.5	43.03	15.17	1.81	32.48	-	-	P	V
		213.33	29.32	-14.18	43.5	44.73	15	2.02	32.43	-	-	P	V
		250.19	24.95	-21.05	46	36.71	18.4	2.24	32.4	-	-	P	V
		633.34	27.57	-18.43	46	30.35	26.21	3.4	32.39	-	-	P	V
		863.23	30.73	-15.27	46	29.5	29.02	4.02	31.81	-	-	P	V
													V
													V
													V
													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.

Note symbol

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

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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
8+9		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

1. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)
2. Level(dBμV/m) = Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
3. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)

= 43.54 (dBμV/m)

2. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

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

Appendix D. Radiated Spurious Emission Plots

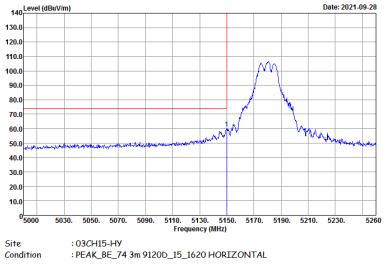
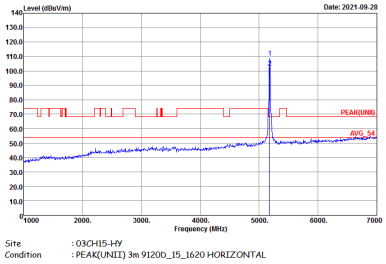
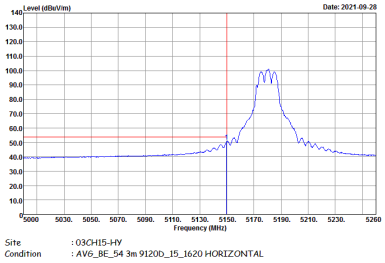
Test Engineer :	Leo Lee, Mancy Chou and Bigshow Wang	**Temperature :**	23.2~24.6°C
		Relative Humidity :	42.0~56.0%

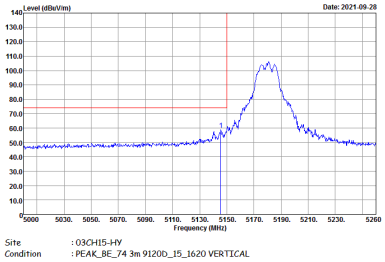
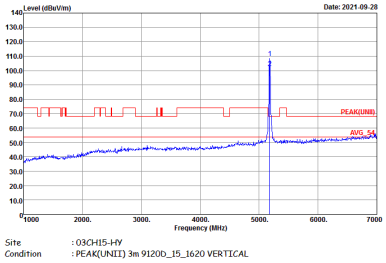
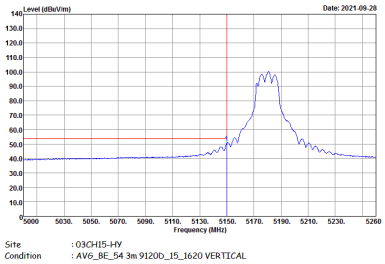
Note symbol

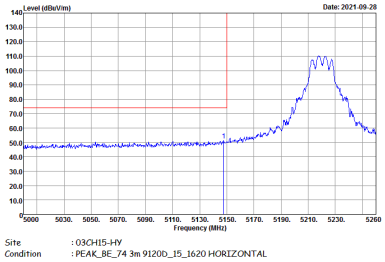
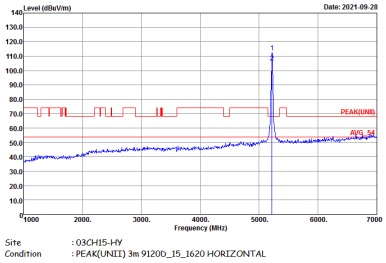
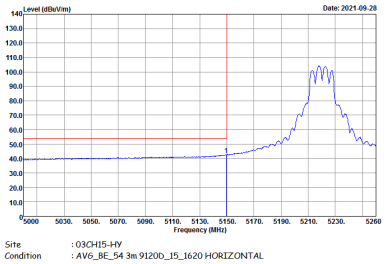
-L	**Low channel location**
-R	**High channel location**

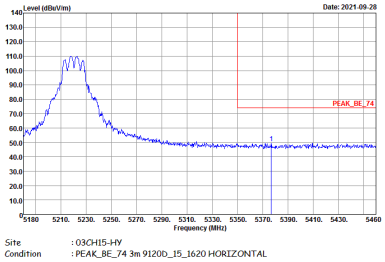
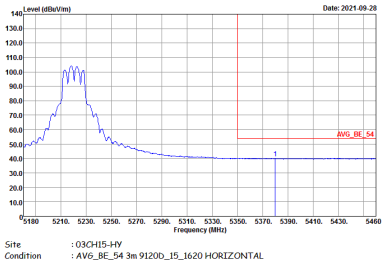
Band 1 - 5150~5250MHz

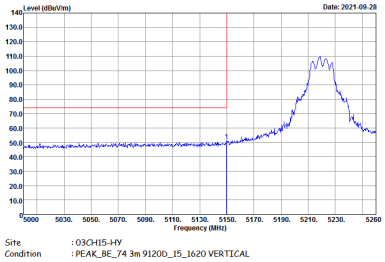
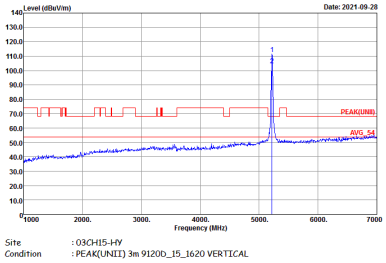
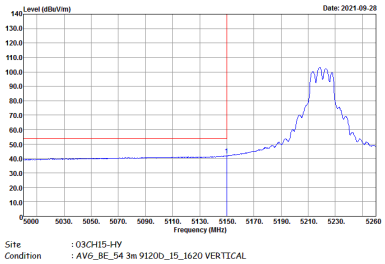
WIFI 802.11a (Band Edge @ 3m)

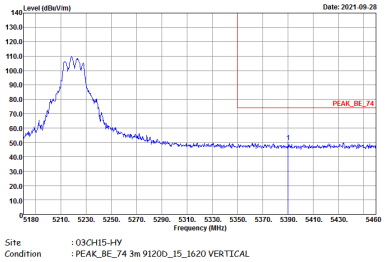
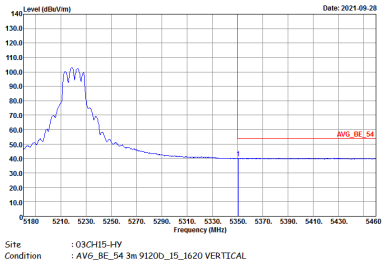
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
8+9	Horizontal	Fundamental
Peak		
Avg.		Left blank

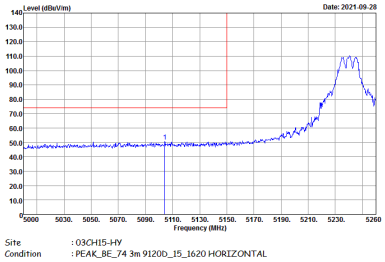
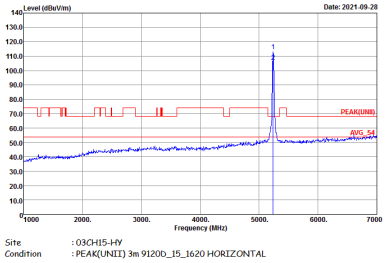
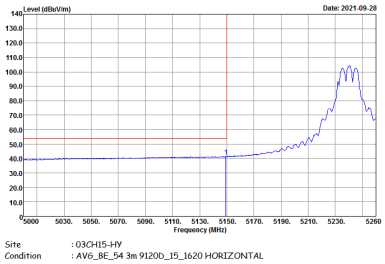
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
8+9	Vertical	Fundamental
Peak		
Avg.		Left blank

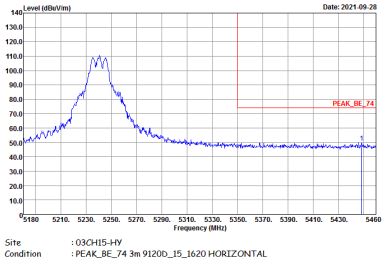
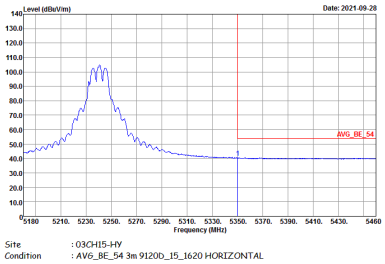
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
8+9	Horizontal	Fundamental
Peak		
Avg.		Left blank

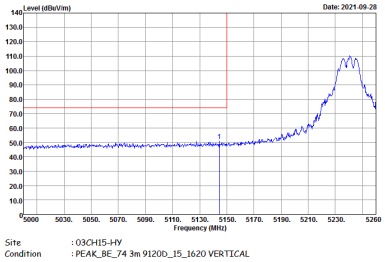
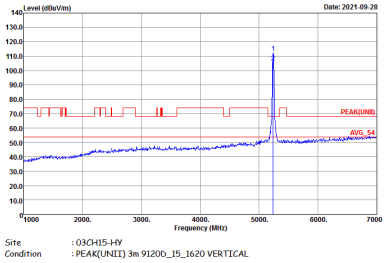
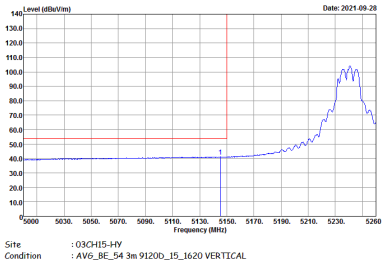
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
8+9	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

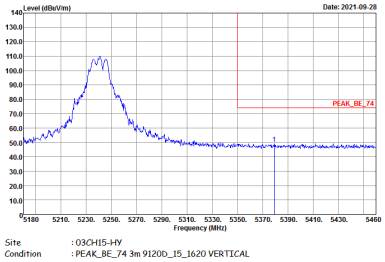
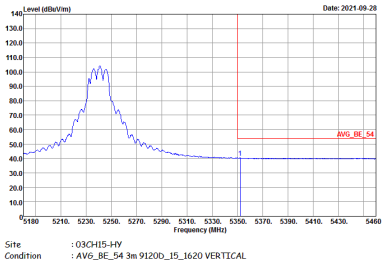
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
8+9	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
8+9	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

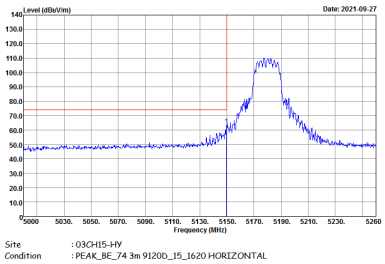
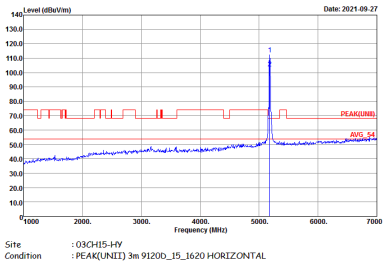
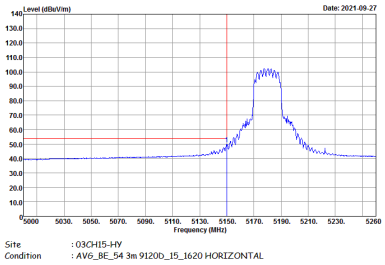
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
8+9	Horizontal	Fundamental
Peak		
Avg.		Left blank

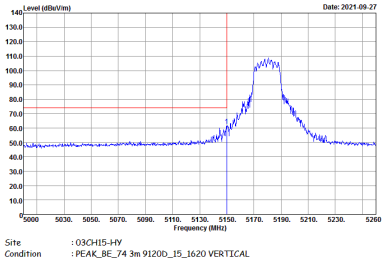
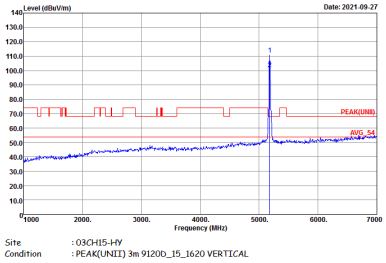
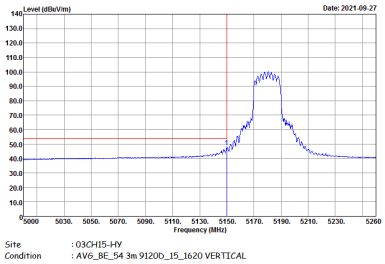
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
8+9	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

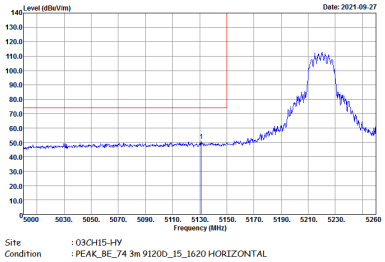
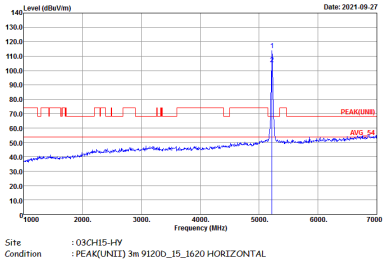
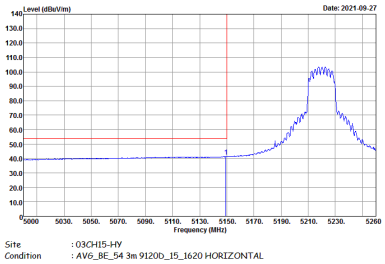
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
8+9	Vertical	Fundamental
Peak		
Avg.		Left blank

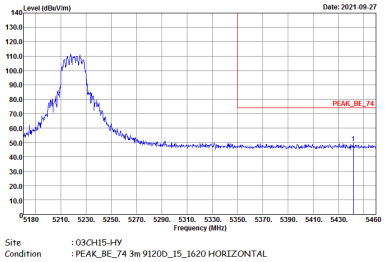
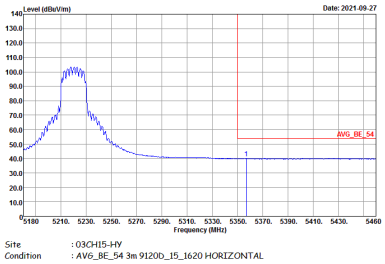
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
8+9	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

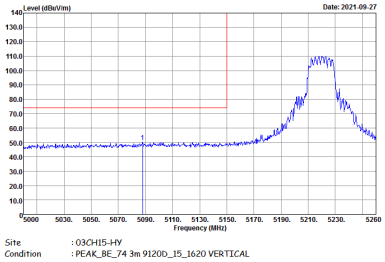
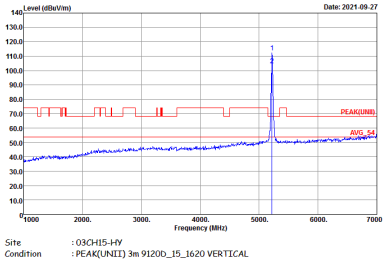
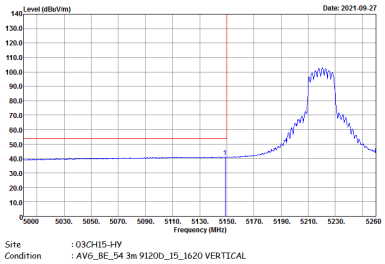
Band 1 5150~5250MHz
WIFI 802.11ax HE20 Full (Band Edge @ 3m)

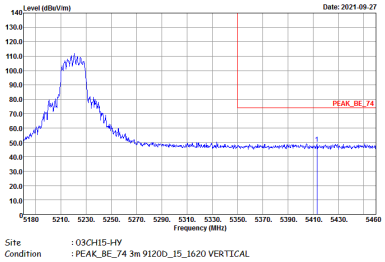
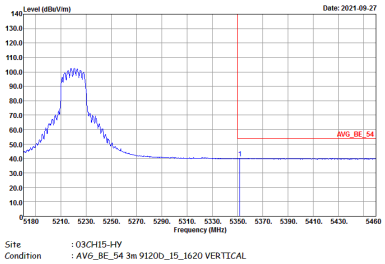
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH36 5180MHz	
8+9	Horizontal	Fundamental
Peak		
Avg.		Left blank

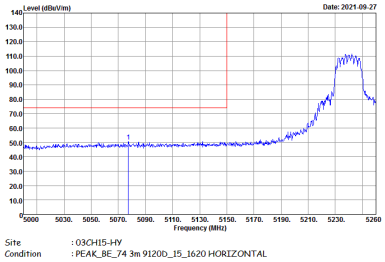
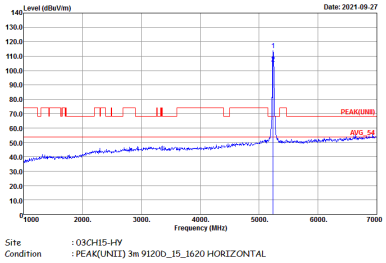
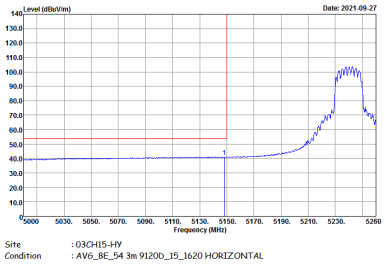
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH36 5180MHz	
8+9	Vertical	Fundamental
Peak		
Avg.		Left blank

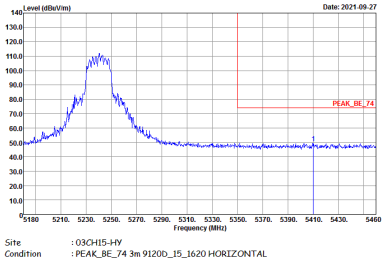
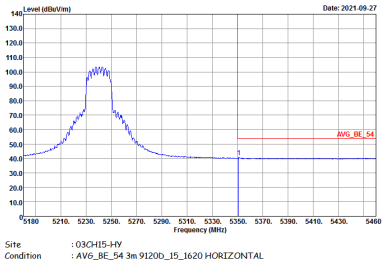
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH44 5220MHz - L	
8+9	Horizontal	Fundamental
Peak		
Avg.		Left blank

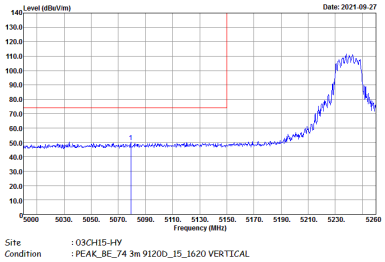
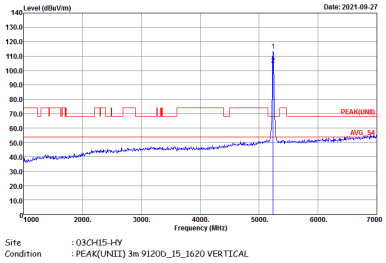
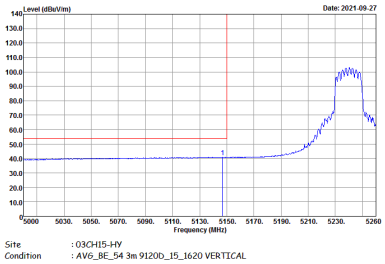
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH44 5220MHz - R	
8+9	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

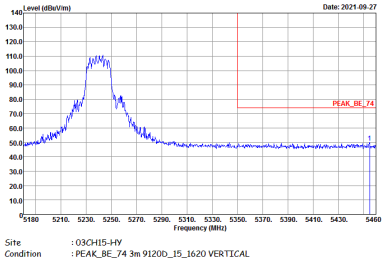
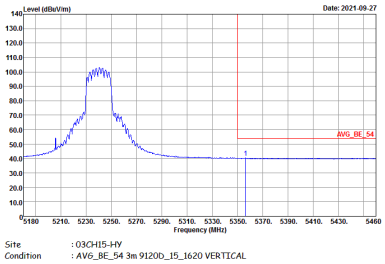
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH44 5220MHz - L	
8+9	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH44 5220MHz - R	
8+9	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

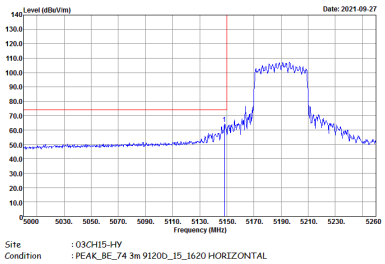
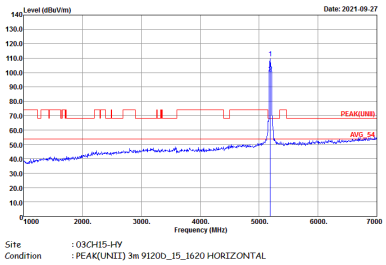
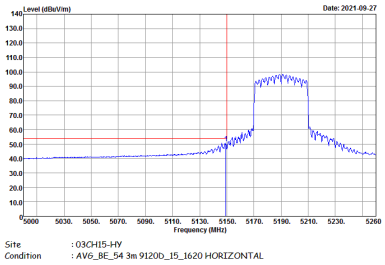
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH48 5240MHz - L	
8+9	Horizontal	Fundamental
Peak		
Avg.		Left blank

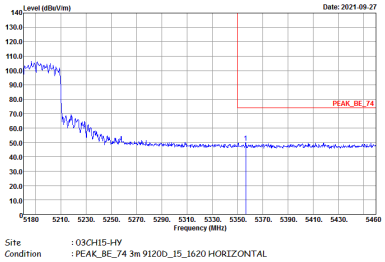
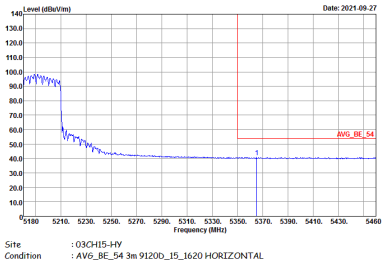
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH48 5240MHz - R	
8+9	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

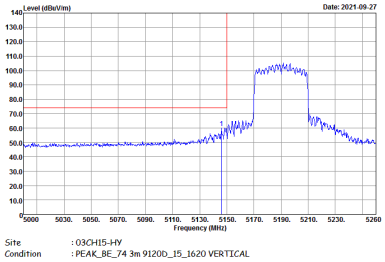
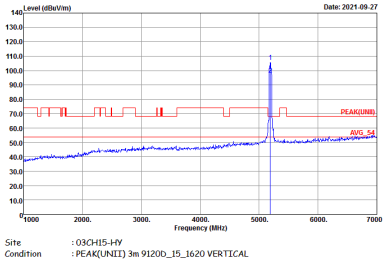
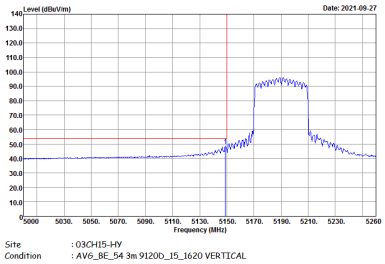
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH48 5240MHz - L	
8+9	Vertical	Fundamental
Peak		
Avg.		Left blank

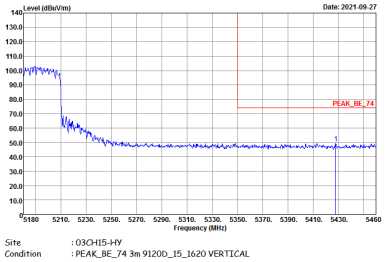
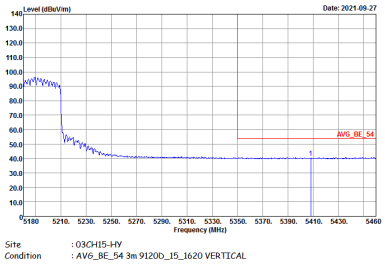
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH48 5240MHz - R	
8+9	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

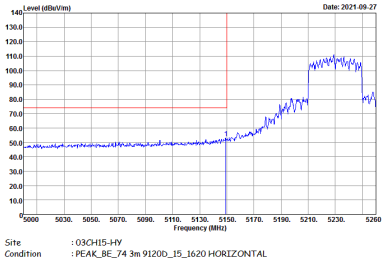
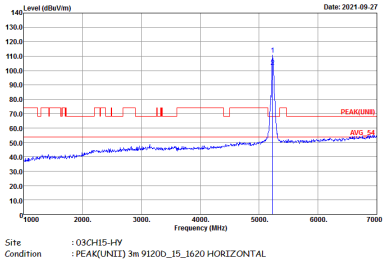
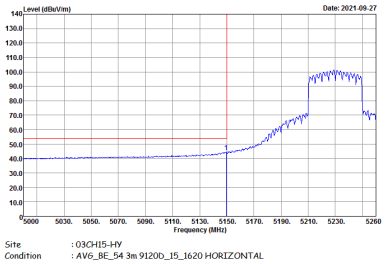
Band 1 5150~5250MHz
WIFI 802.11ax HE40 Full (Band Edge @ 3m)

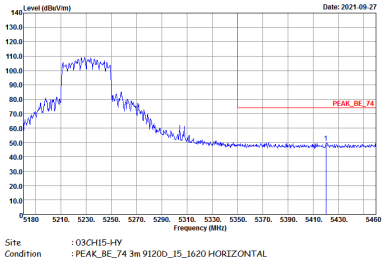
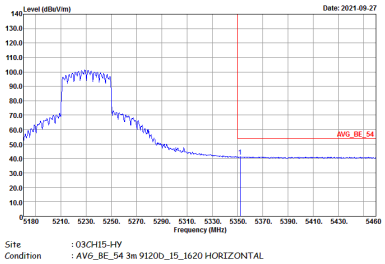
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH38 5190MHz - L	
8+9	Horizontal	Fundamental
Peak		
Avg.		Left blank

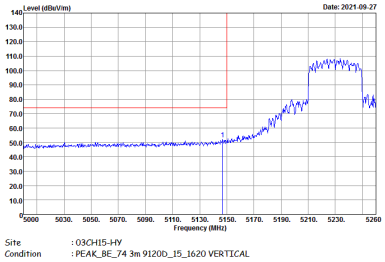
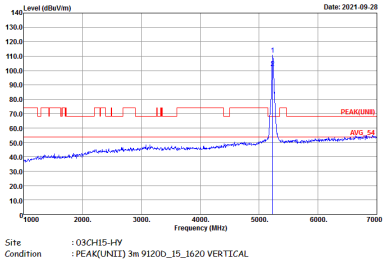
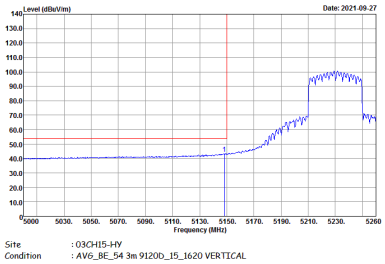
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH38 5190MHz - R	
8+9	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

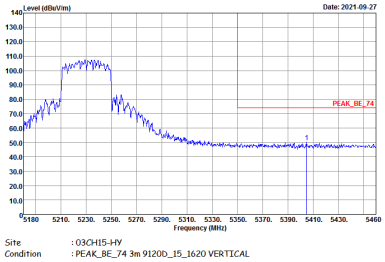
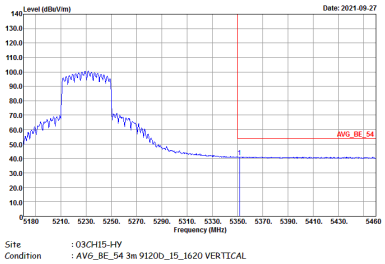
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH38 5190MHz - L	
8+9	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH38 5190MHz - R	
8+9	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH46 5230MHz - L	
8+9	Horizontal	Fundamental
Peak		
Avg.		Left blank

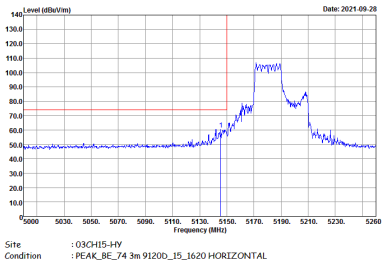
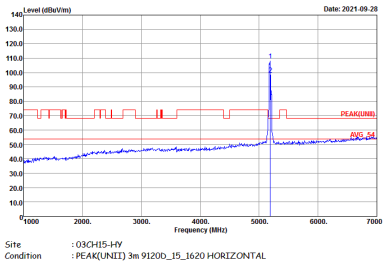
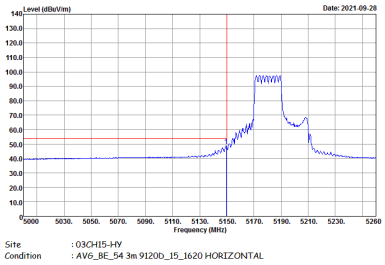
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH46 5230MHz - R	
8+9	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

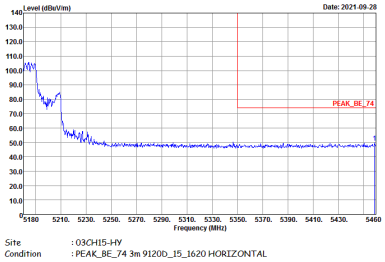
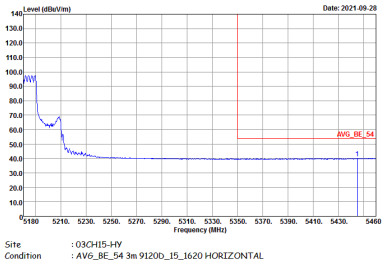
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH46 5230MHz - L	
8+9	Vertical	Fundamental
Peak		
Avg.		Left blank

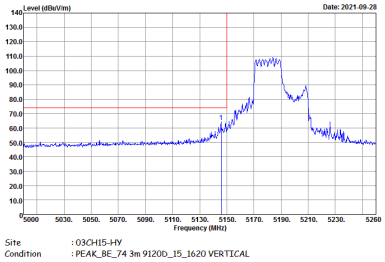
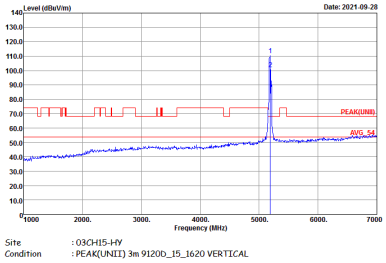
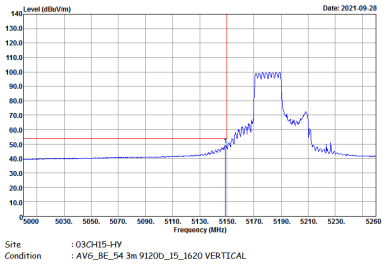
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH46 5230MHz - R	
8+9	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

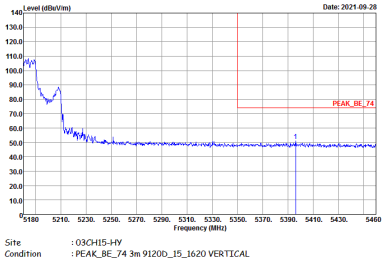
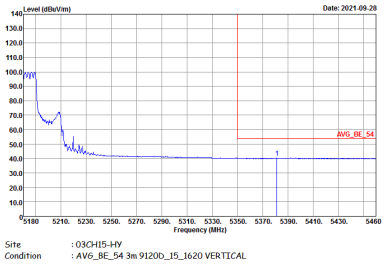
Band 1 5150~5250MHz

WIFI 802.11ax HE40 Partial 242 (Band Edge @ 3m)

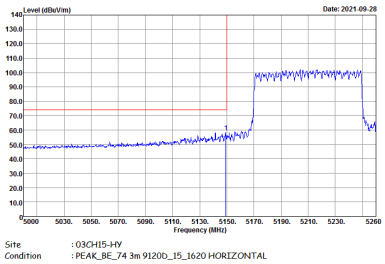
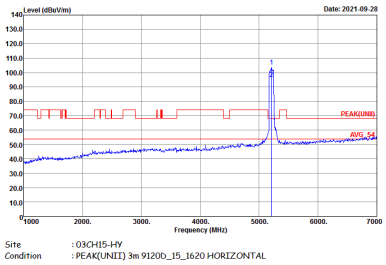
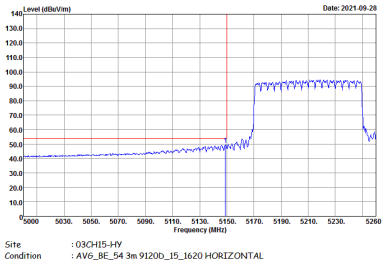
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/61 CH38 5190MHz - L	
8+9	Horizontal	Fundamental
Peak		
Avg.		Left blank

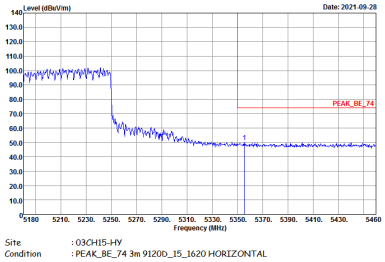
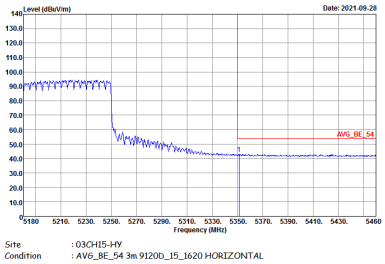
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/61 CH38 5190MHz - R	
8+9	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

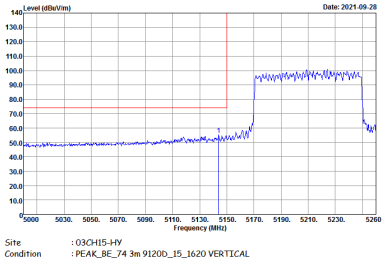
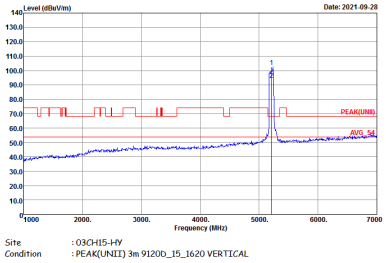
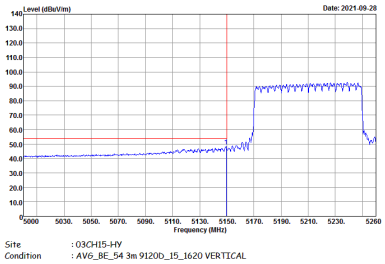
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/61 CH38 5190MHz - L	
8+9	Vertical	Fundamental
Peak		
Avg.		Left blank

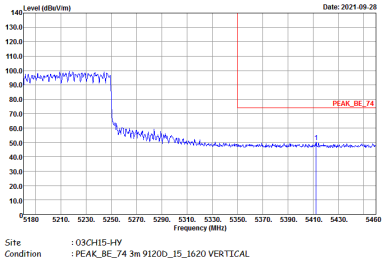
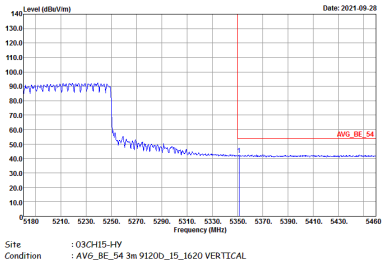
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/61 CH38 5190MHz - R	
8+9	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 1 5150~5250MHz
WIFI 802.11ax HE80 Full (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH42 5210MHz - L	
8+9	Horizontal	Fundamental
Peak		
Avg.		Left blank

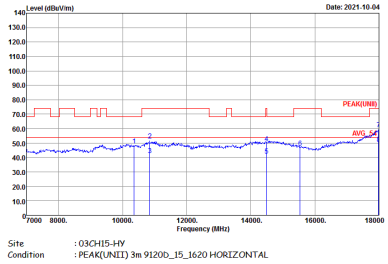
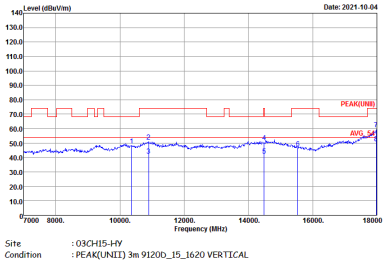
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH42 5210MHz - R	
8+9	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

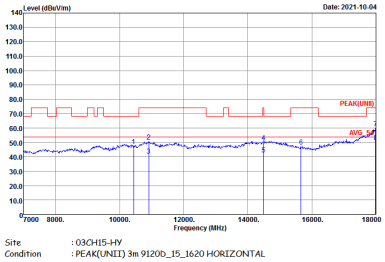
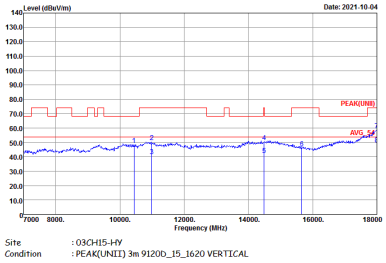
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH42 5210MHz - L	
8+9	Vertical	Fundamental
Peak		
Avg.		Left blank

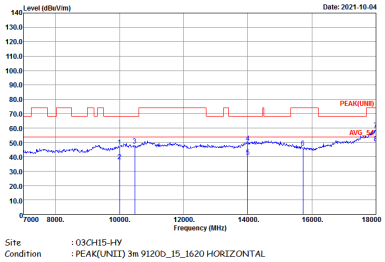
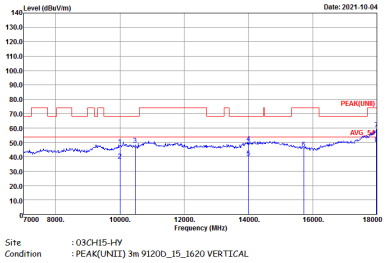
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH42 5210MHz - R	
8+9	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 1 - 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

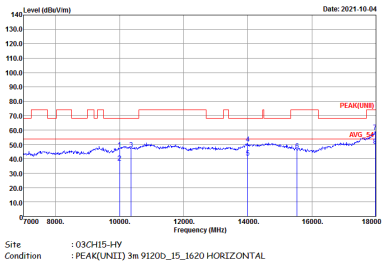
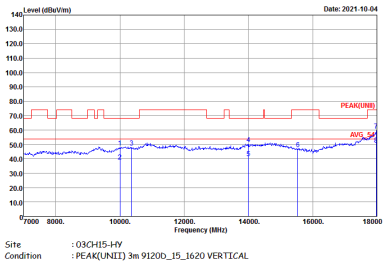
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH36 5180MHz	
8+9	Horizontal	Vertical
Peak Avg.		

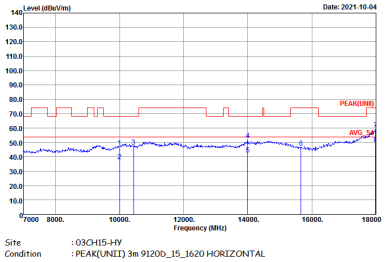
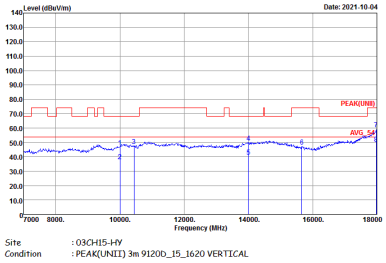
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH44 5220MHz	
8+9	Horizontal	Vertical
Peak Avg.		

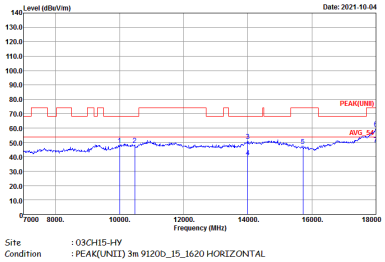
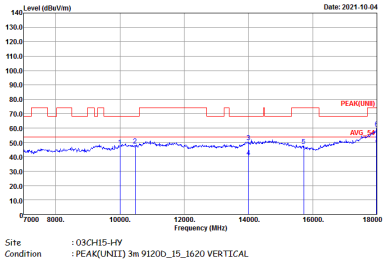
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH48 5240MHz	
8+9	Horizontal	Vertical
Peak Avg.		

Band 1 5150~5250MHz

WIFI 802.11ax HE20 Full (Harmonic @ 3m)

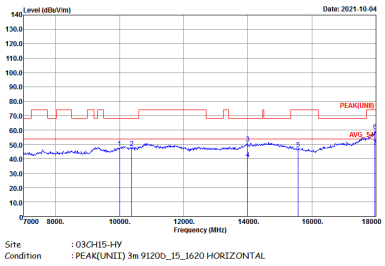
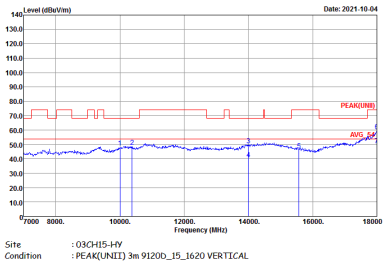
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH36 5180MHz	
8+9	Horizontal	Vertical
Peak Avg.		

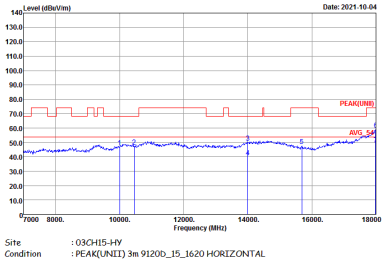
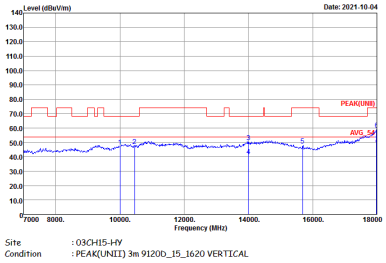
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH44 5220MHz	
8+9	Horizontal	Vertical
Peak Avg.		

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH48 5240MHz	
8+9	Horizontal	Vertical
Peak Avg.		

Band 1 5150~5250MHz

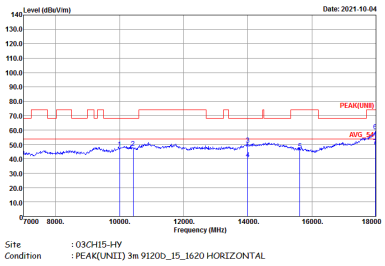
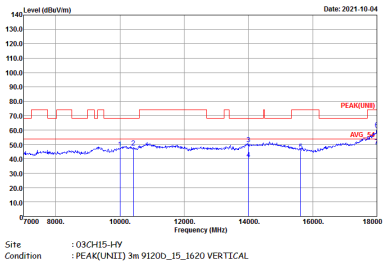
WIFI 802.11ax HE40 Full (Harmonic @ 3m)

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ax HE40 Full CH38 5190MHz	
8+9	Horizontal	Vertical
Peak Avg.		

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ax HE40 Full CH46 5230MHz	
8+9	Horizontal	Vertical
Peak Avg.		

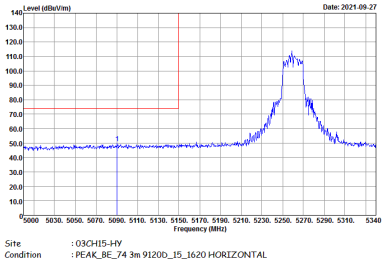
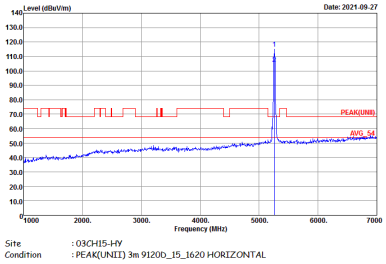
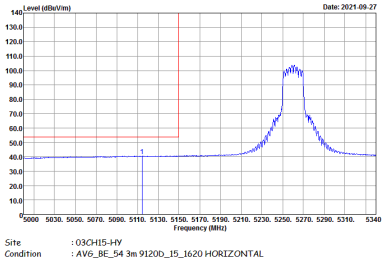
Band 1 5150~5250MHz

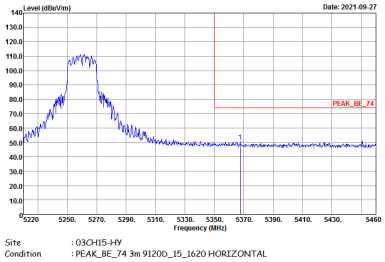
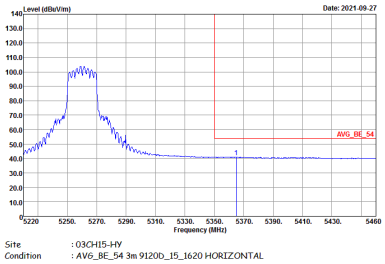
WIFI 802.11ax HE80 Full (Harmonic @ 3m)

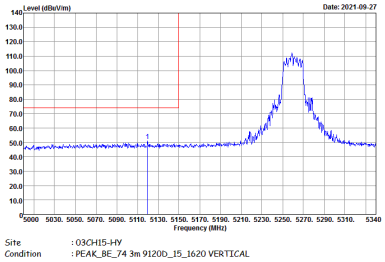
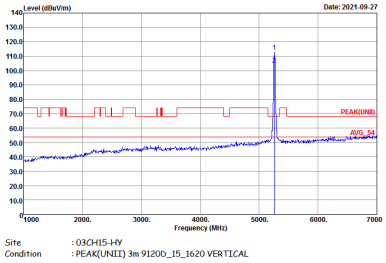
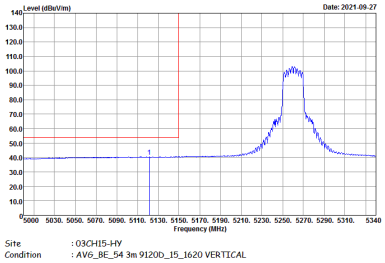
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ax HE80 Full CH42 5210MHz	
8+9	Horizontal	Vertical
Peak Avg.		

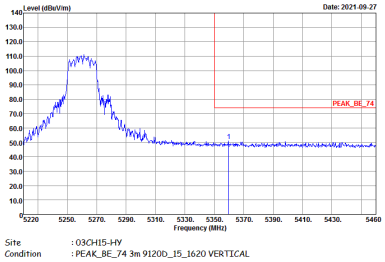
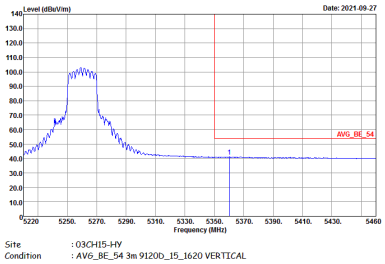
Band 2 - 5250~5350MHz

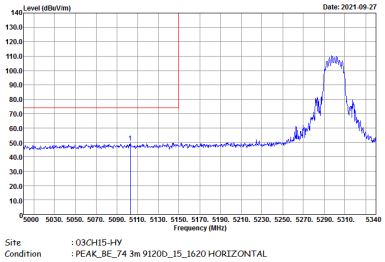
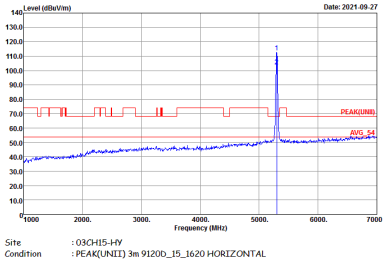
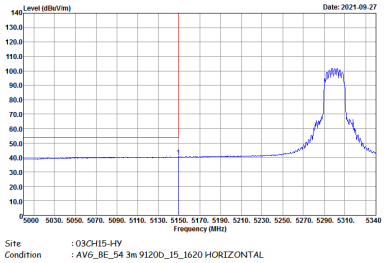
WIFI 802.11ax HE20 Full (Band Edge @ 3m)

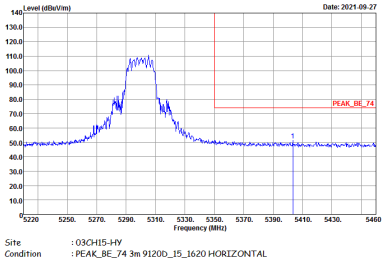
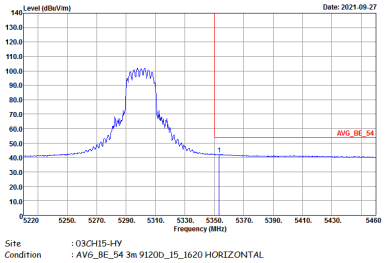
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH52 5260MHz - L	
8+9	Horizontal	Fundamental
Peak		
Avg.		Left blank

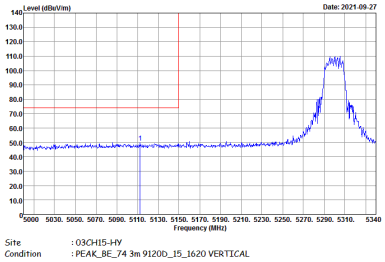
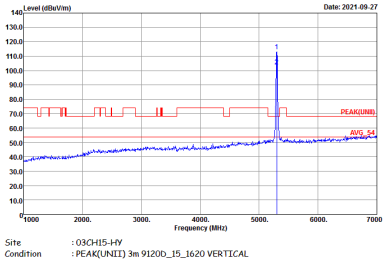
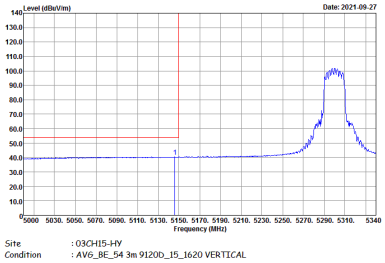
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH52 5260MHz - R	
8+9	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

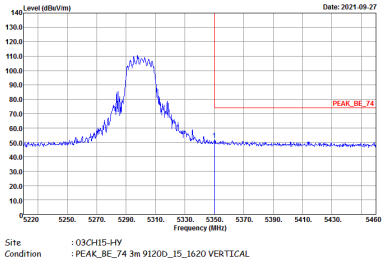
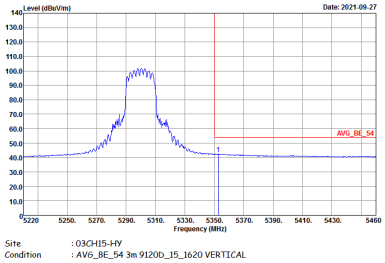
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH52 5260MHz - L	
8+9	Vertical	Fundamental
Peak		
Avg.		Left blank

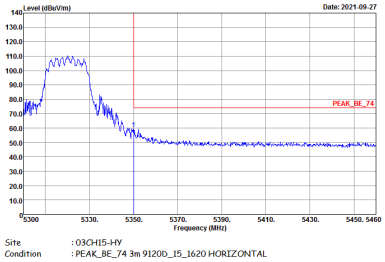
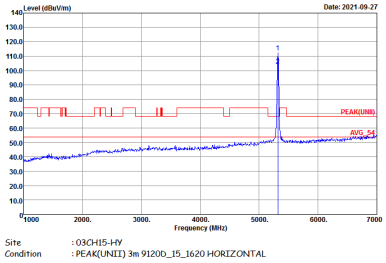
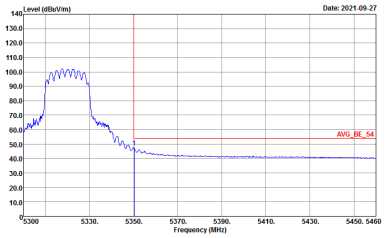
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH52 5260MHz - R	
8+9	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

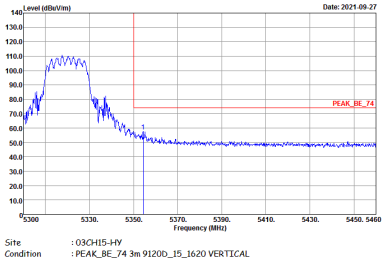
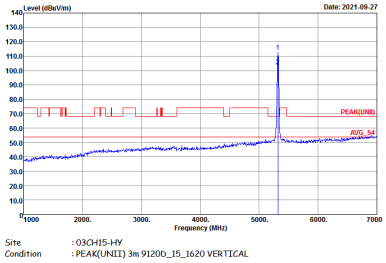
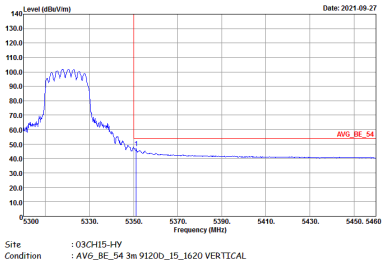
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH60 5300MHz - L	
8+9	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH60 5300MHz - R	
8+9	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH60 5300MHz - L	
8+9	Vertical	Fundamental
Peak		
Avg.		Left blank

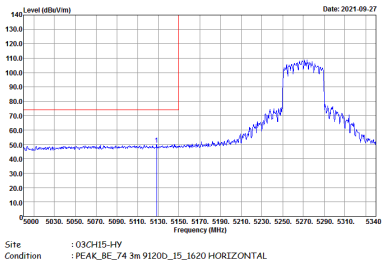
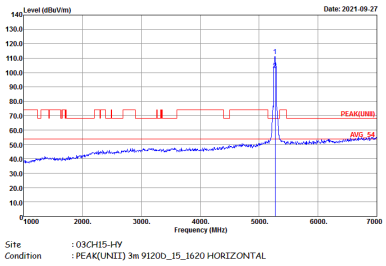
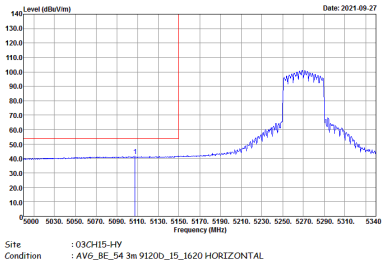
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH60 5300MHz - R	
8+9	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

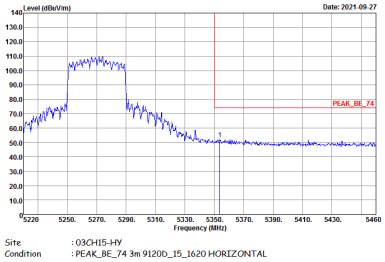
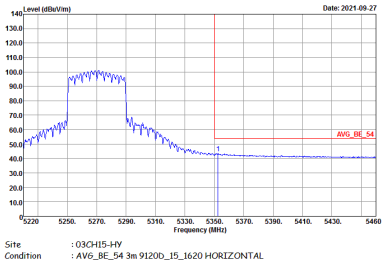
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH64 5320MHz	
8+9	Horizontal	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE_74 3m 9120D_15_1620 HORIZONTAL	 Site : 03CH15-HY Condition : PEAK(UNII) 3m 9120D_15_1620 HORIZONTAL
Avg.	 Site : 03CH15-HY Condition : AVG_BE_54 3m 9120D_15_1620 HORIZONTAL	Left blank

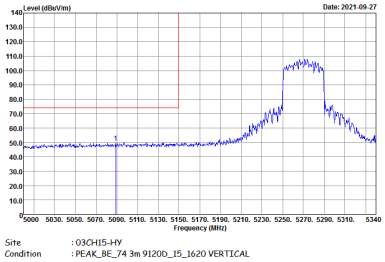
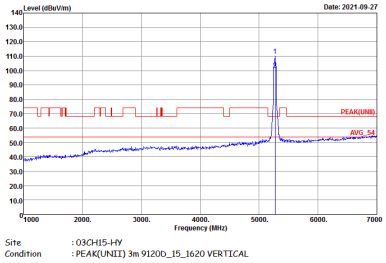
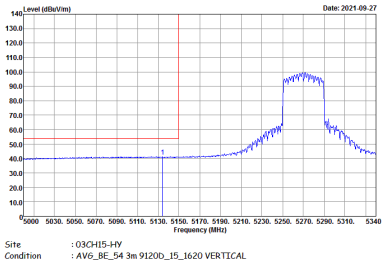
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH64 5320MHz	
8+9	Vertical	Fundamental
Peak		
Avg.		Left blank

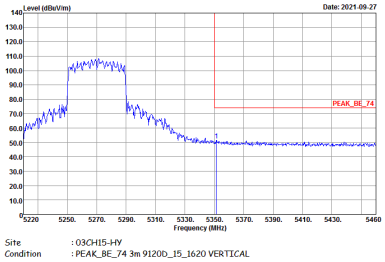
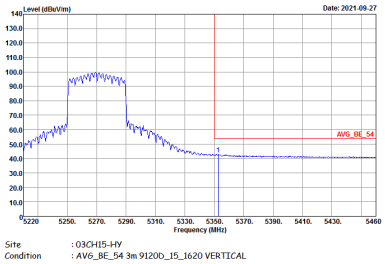
Band 2 - 5250~5350MHz

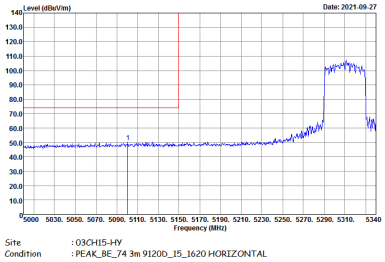
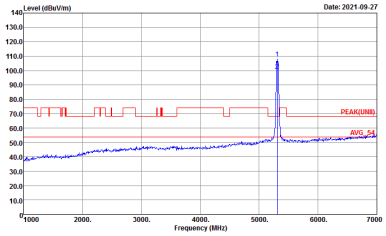
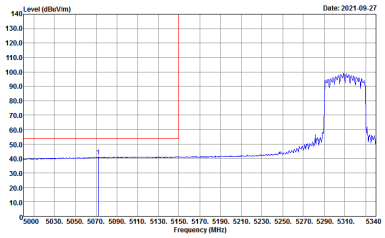
WIFI 802.11ax HE40 Full (Band Edge @ 3m)

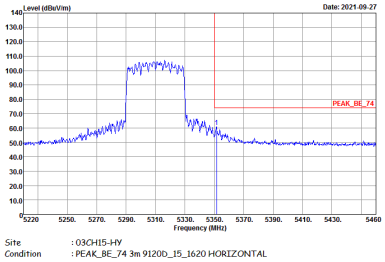
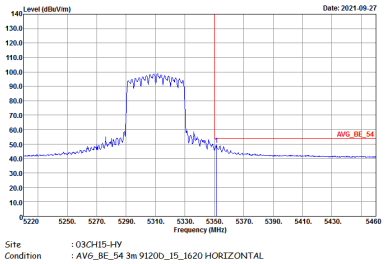
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH54 5270MHz - L	
8+9	Horizontal	Fundamental
Peak		
Avg.		Left blank

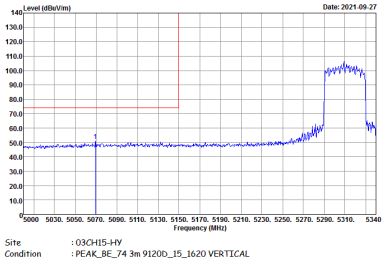
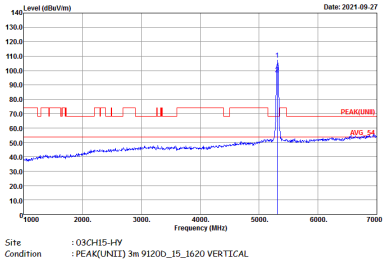
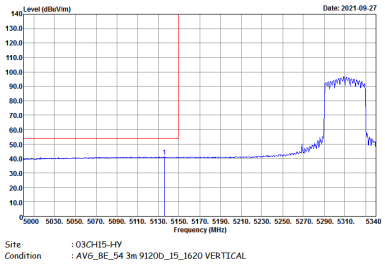
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH54 5270MHz - R	
8+9	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

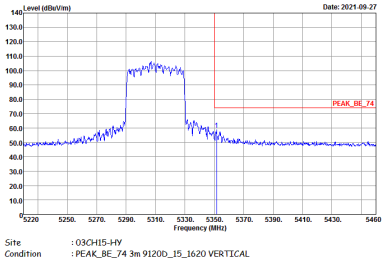
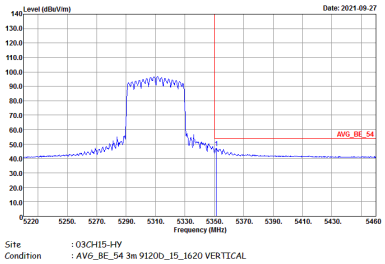
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH54 5270MHz - L	
8+9	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH54 5270MHz - R	
8+9	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

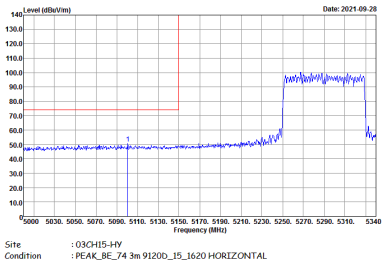
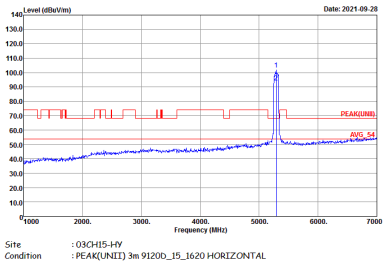
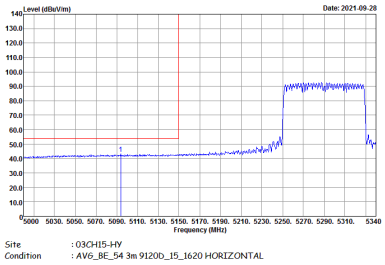
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH62 5310MHz - L	
8+9	Horizontal	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE_74 3m 9120D_15_1620 HORIZONTAL	 Site : 03CH15-HY Condition : PEAK(UNII) 3m 9120D_15_1620 HORIZONTAL
Avg.	 Site : 03CH15-HY Condition : AVG_BE_54 3m 9120D_15_1620 HORIZONTAL	Left blank

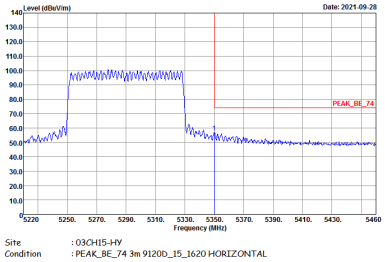
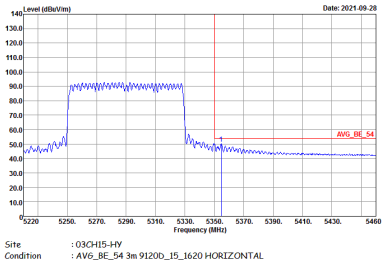
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH62 5310MHz - R	
8+9	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

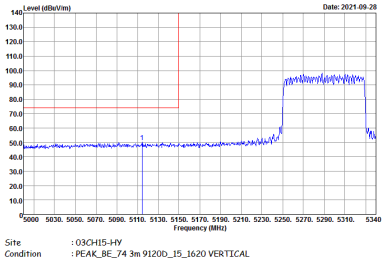
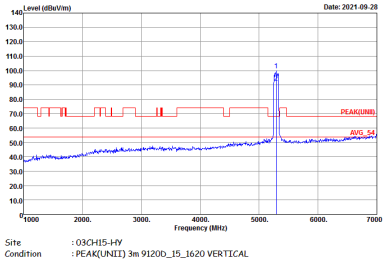
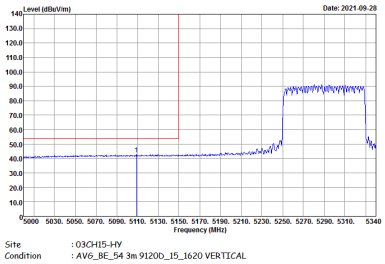
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH62 5310MHz - L	
8+9	Vertical	Fundamental
Peak		
Avg.		Left blank

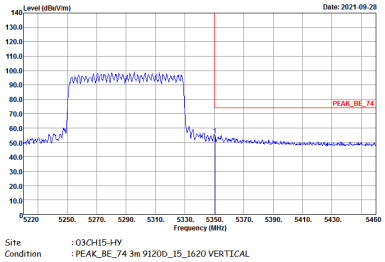
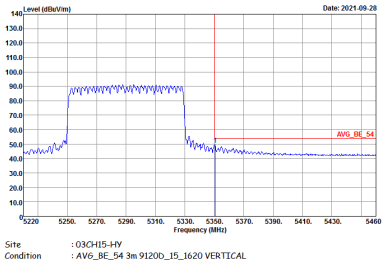
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH62 5310MHz - R	
8+9	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 2 5250~5350MHz
WIFI 802.11ax HE80 Full (Band Edge @ 3m)

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH58 5290MHz - L	
8+9	Horizontal	Fundamental
Peak		
Avg.		Left blank

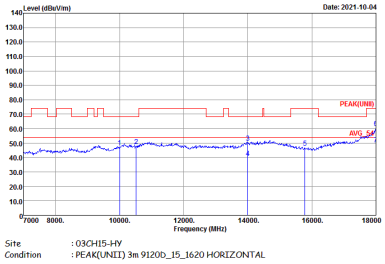
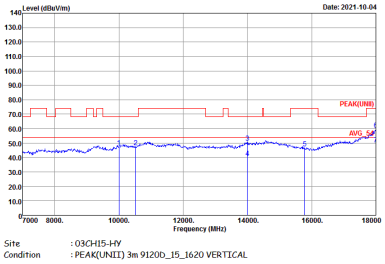
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH58 5290MHz - R	
8+9	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

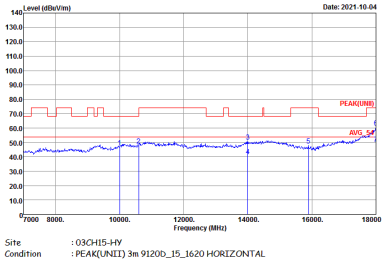
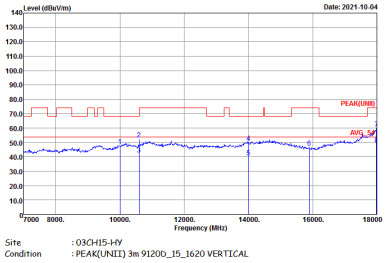
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH58 5290MHz - L	
8+9	Vertical	Fundamental
Peak		
Avg.		Left blank

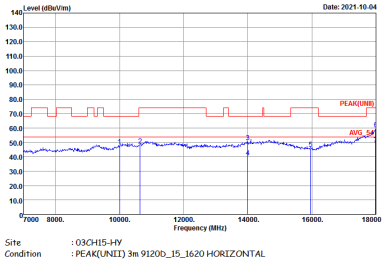
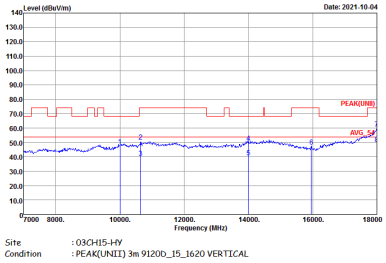
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH58 5290MHz - R	
8+9	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 2 - 5250~5350MHz

WIFI 802.11ax HE20 Full (Harmonic @ 3m)

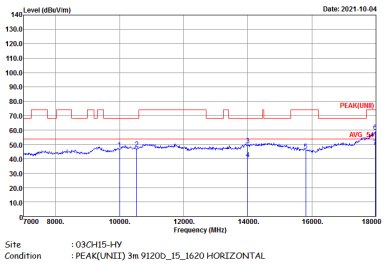
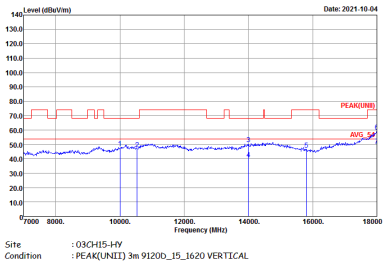
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH52 5260MHz	
8+9	Horizontal	Vertical
Peak Avg.		

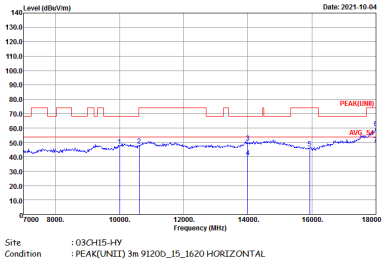
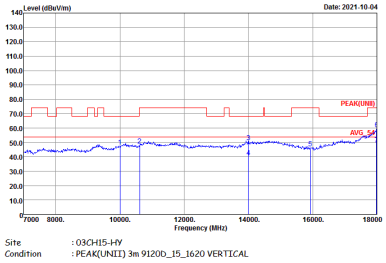
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH60 5300MHz	
8+9	Horizontal	Vertical
Peak Avg.		

WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH64 5320MHz	
8+9	Horizontal	Vertical
Peak Avg.		

Band 2 - 5250~5350MHz

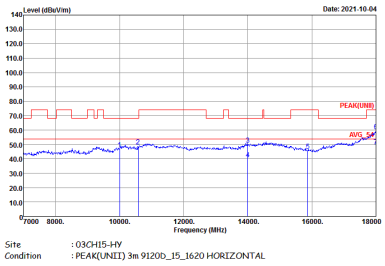
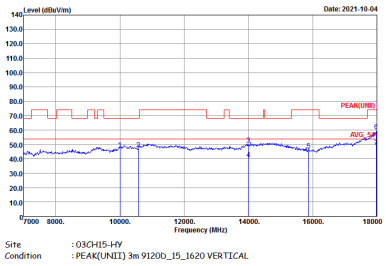
WIFI 802.11ax HE40 Full (Harmonic @ 3m)

WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11ax HE40 Full CH54 5270MHz	
8+9	Horizontal	Vertical
Peak Avg.		

WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11ax HE40 Full CH62 5310MHz	
8+9	Horizontal	Vertical
Peak Avg.		

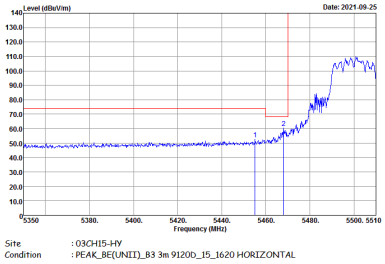
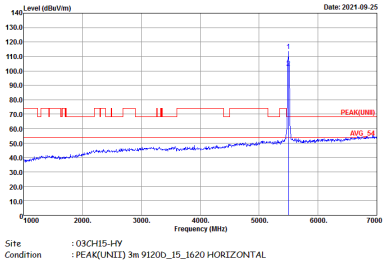
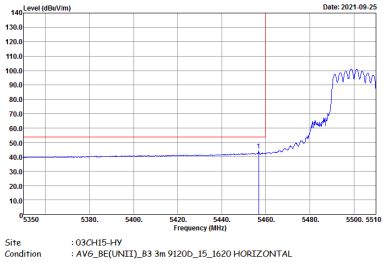
Band 2 5250~5350MHz

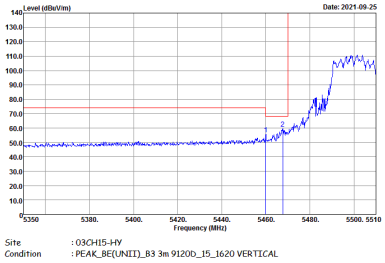
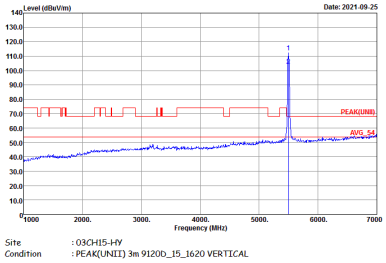
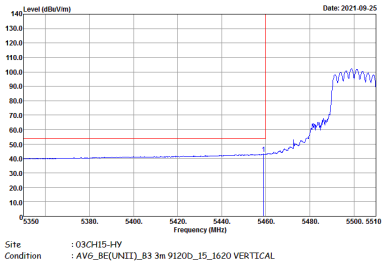
WIFI 802.11ax HE80 Full (Harmonic @ 3m)

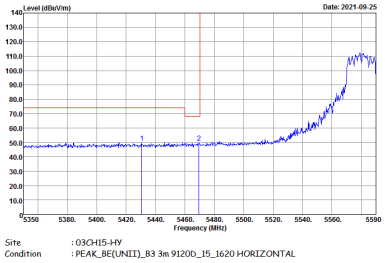
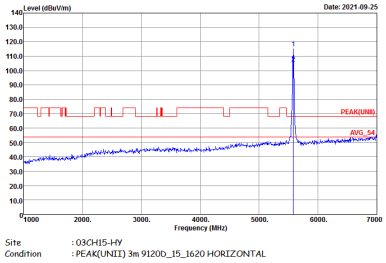
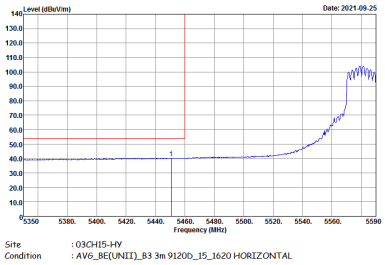
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11ax HE80 Full CH58 5290MHz	
8+9	Horizontal	Vertical
Peak Avg.		

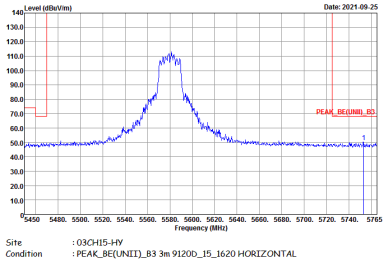
Band 3 - 5470~5725MHz

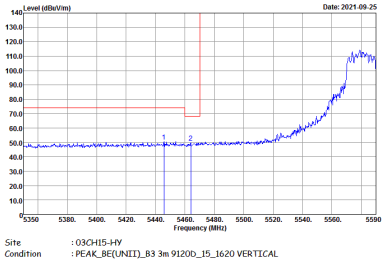
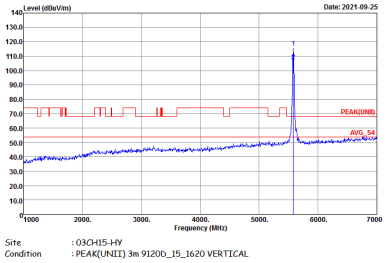
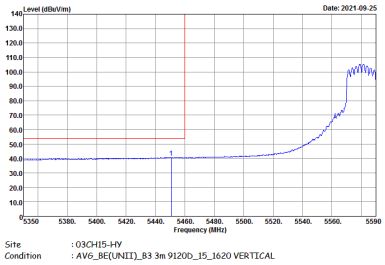
WIFI 802.11ax HE20 Full (Band Edge @ 3m)

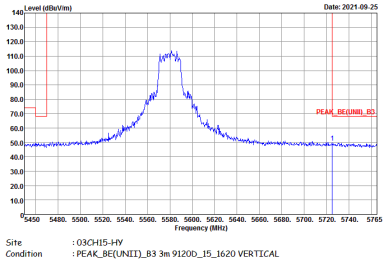
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH100 5500MHz	
8+9	Horizontal	Fundamental
Peak		
Avg.		Left blank

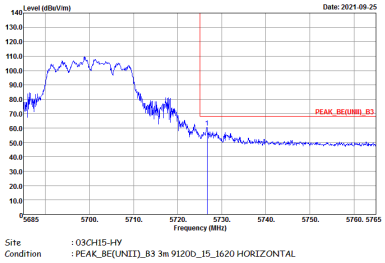
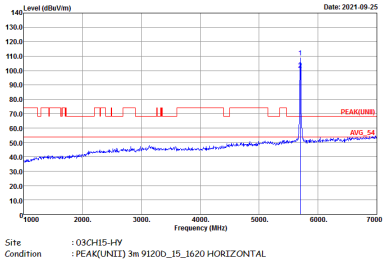
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH100 5500MHz	
8+9	Vertical	Fundamental
Peak		
Avg.		Left blank

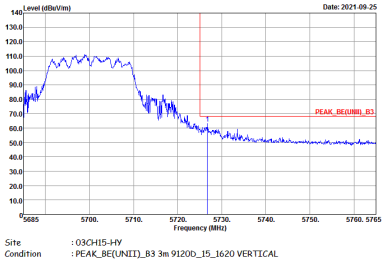
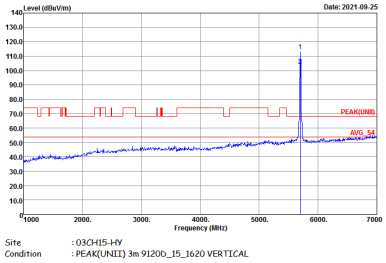
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH116 5580MHz - L	
8+9	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH116 5580MHz - R	
8+9	Horizontal	Fundamental
Peak		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH116 5580MHz - L	
8+9	Vertical	Fundamental
Peak		
Avg.		Left blank

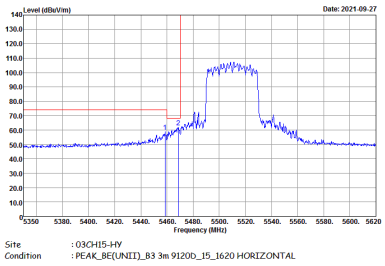
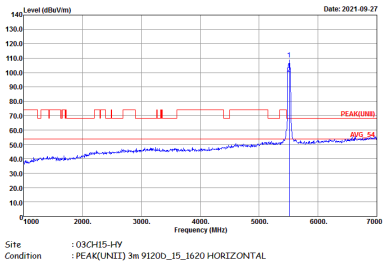
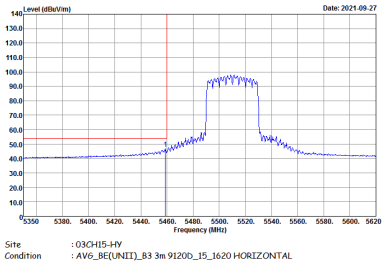
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH116 5580MHz - R	
8+9	Vertical	Fundamental
Peak		Left blank

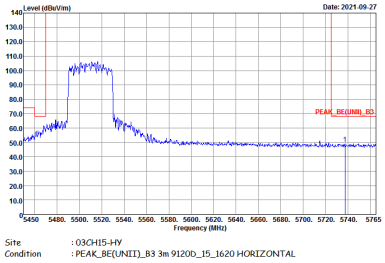
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH140 5700MHz	
8+9	Horizontal	Fundamental
Peak		

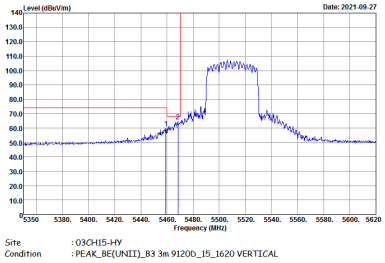
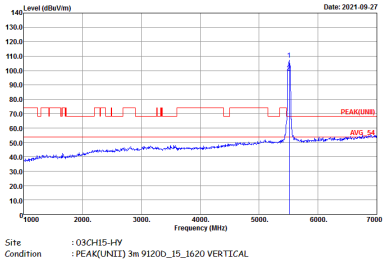
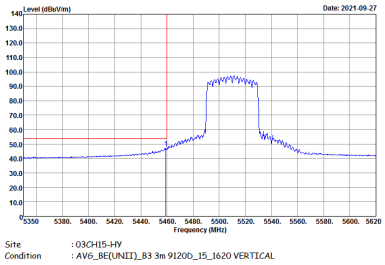
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH140 5700MHz	
8+9	Vertical	Fundamental
Peak		

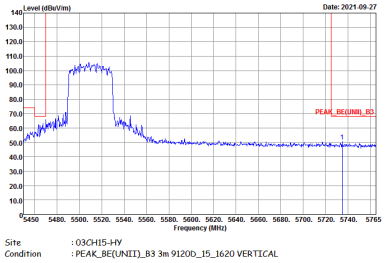
Band 3 - 5470~5725MHz

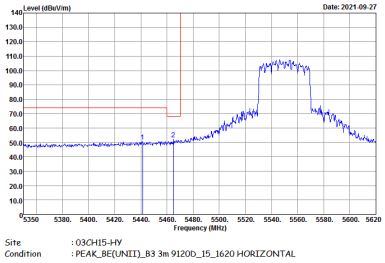
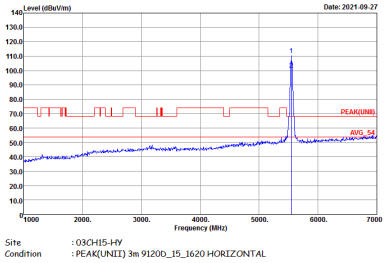
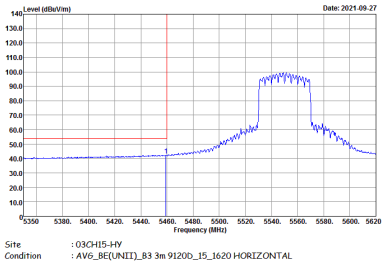
WIFI 802.11ax HE40 Full (Band Edge @ 3m)

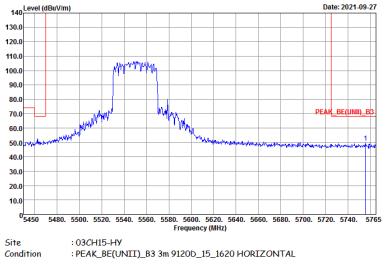
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH102 5510MHz - L	
8+9	Horizontal	Fundamental
Peak		
Avg.		Left blank

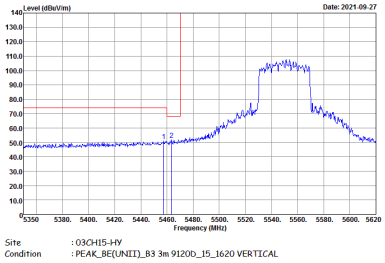
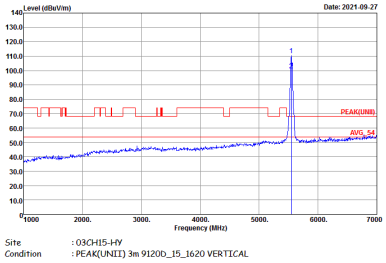
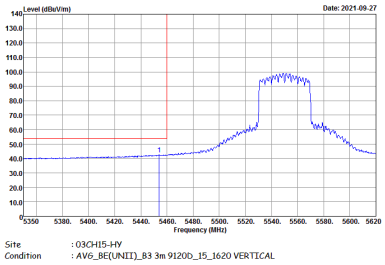
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH102 5510MHz - R	
8+9	Horizontal	Fundamental
Peak		Left blank

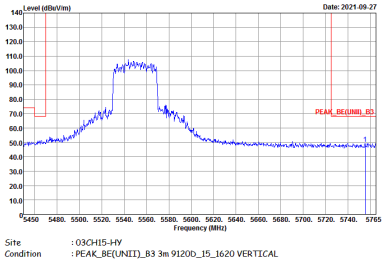
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH102 5510MHz - L	
8+9	Vertical	Fundamental
Peak		
Avg.		Left blank

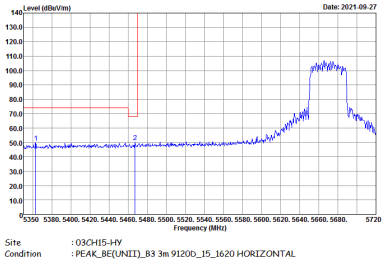
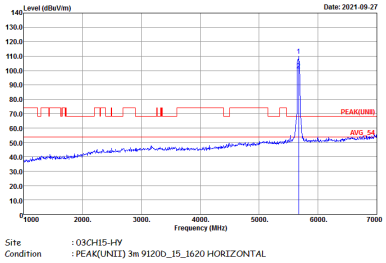
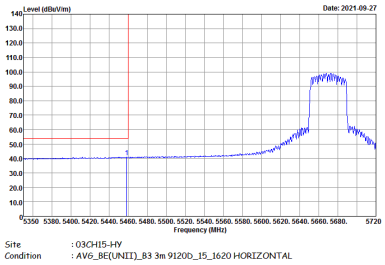
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH102 5510MHz - R	
8+9	Vertical	Fundamental
Peak		Left blank

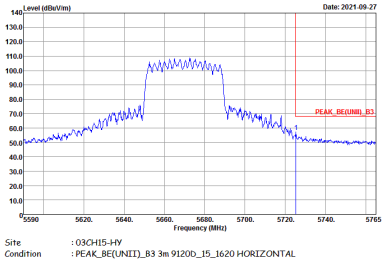
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH110 5550MHz - L	
8+9	Horizontal	Fundamental
Peak		
Avg.		Left blank

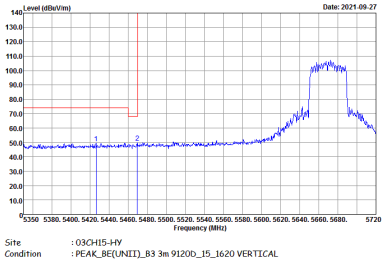
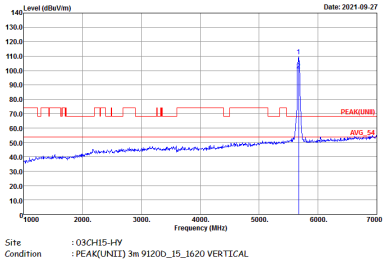
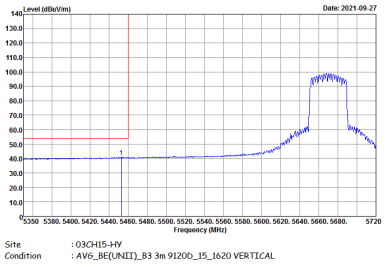
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH110 5550MHz - R	
8+9	Horizontal	Fundamental
Peak		Left blank

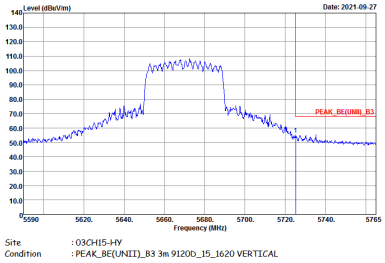
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH110 5550MHz - L	
8+9	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH110 5550MHz - R	
8+9	Vertical	Fundamental
Peak		Left blank

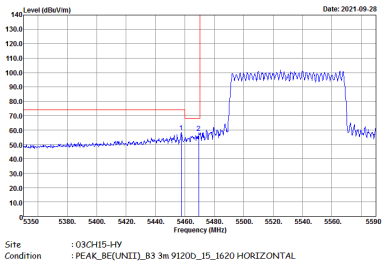
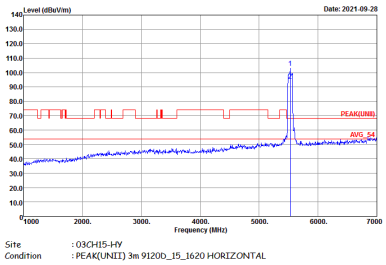
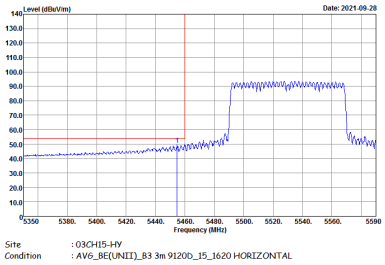
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH134 5670MHz - L	
8+9	Horizontal	Fundamental
Peak		
Avg.		Left blank

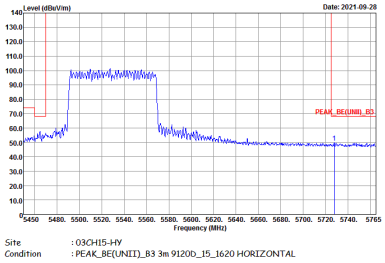
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH134 5670MHz - R	
8+9	Horizontal	Fundamental
Peak		Left blank

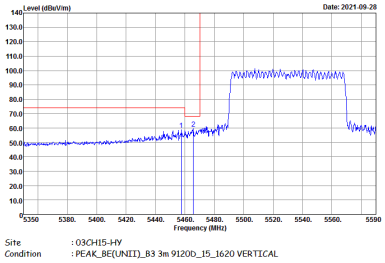
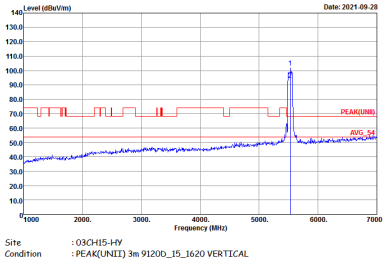
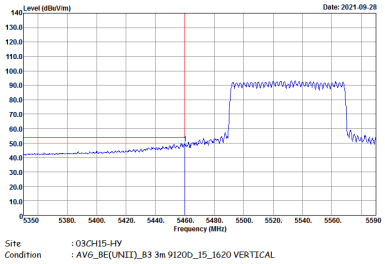
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH134 5670MHz - L	
8+9	Vertical	Fundamental
Peak		
Avg.		Left blank

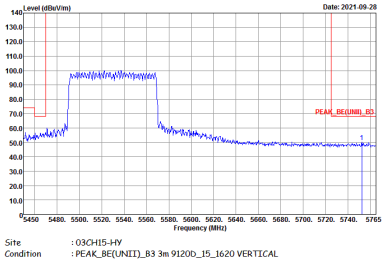
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH134 5670MHz - R	
8+9	Vertical	Fundamental
Peak		Left blank

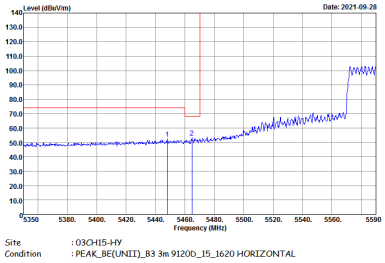
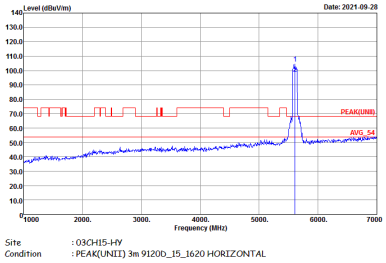
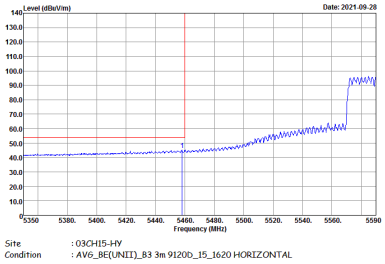
Band 3 5470~5725MHz
WIFI 802.11ax HE80 Full (Band Edge @ 3m)

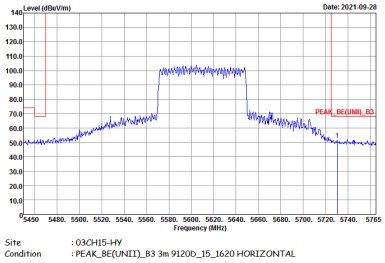
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH106 5530MHz - L	
8+9	Horizontal	Fundamental
Peak		
Avg.		Left blank

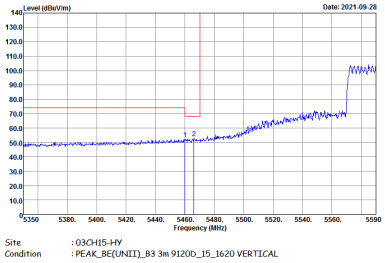
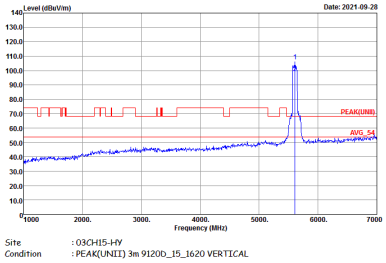
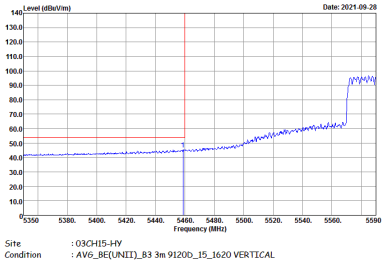
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH106 5530MHz - R	
8+9	Horizontal	Fundamental
Peak		Left blank

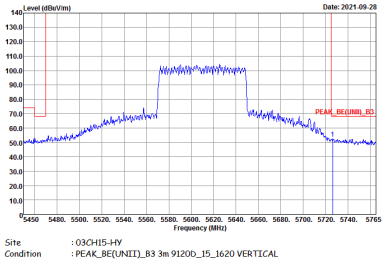
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH106 5530MHz - L	
8+9	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH106 5530MHz - R	
8+9	Vertical	Fundamental
Peak		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH122 5610MHz - L	
8+9	Horizontal	Fundamental
Peak		
Avg.		Left blank

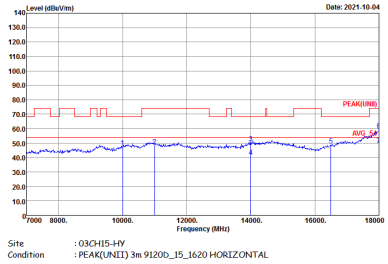
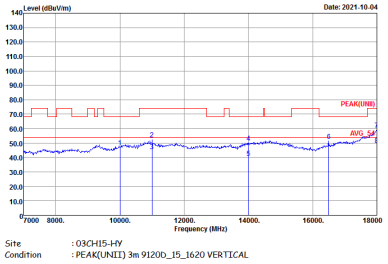
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH122 5610MHz - R	
8+9	Horizontal	Fundamental
Peak		Left blank

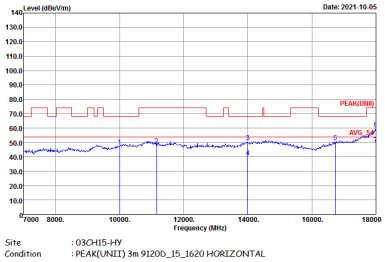
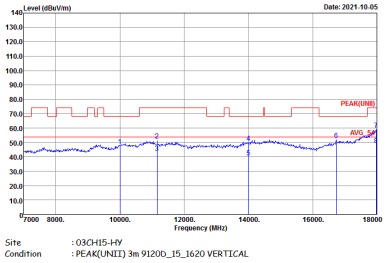
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH122 5610MHz - L	
8+9	Vertical	Fundamental
Peak		
Avg.		Left blank

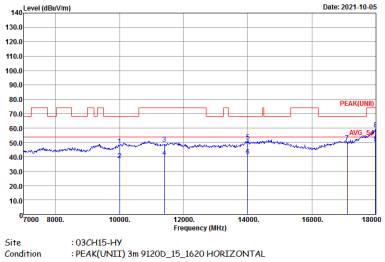
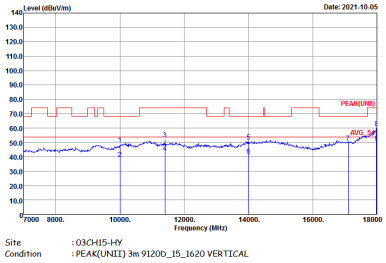
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH122 5610MHz - R	
8+9	Vertical	Fundamental
Peak		Left blank

Band 3 - 5470~5725MHz

WIFI 802.11ax HE20 Full (Harmonic @ 3m)

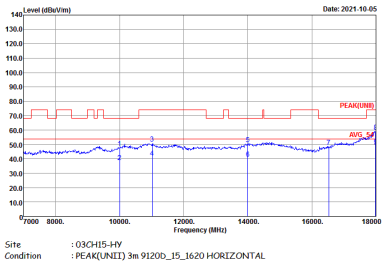
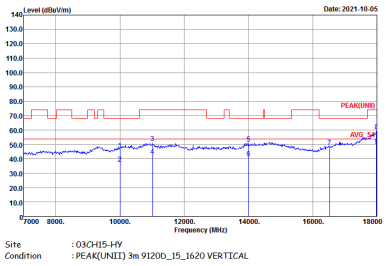
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH100 5500MHz	
8+9	Horizontal	Vertical
Peak Avg.		

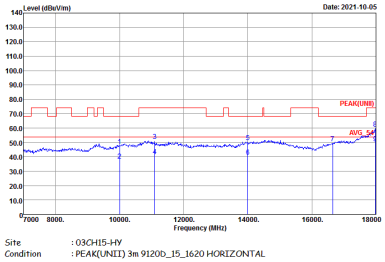
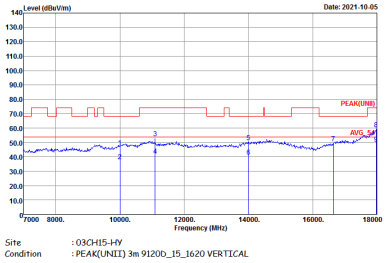
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH116 5580MHz	
8+9	Horizontal	Vertical
Peak Avg.		

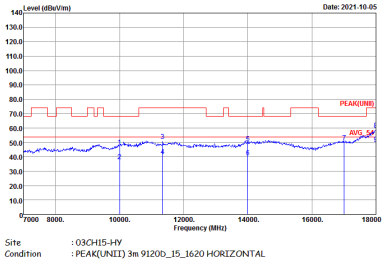
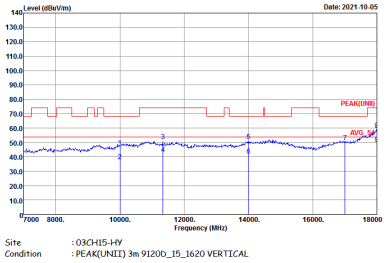
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11ax HE20 Full CH140 5700MHz	
8+9	Horizontal	Vertical
Peak Avg.		

Band 3 - 5470~5725MHz

WIFI 802.11ax HE40 Full (Harmonic @ 3m)

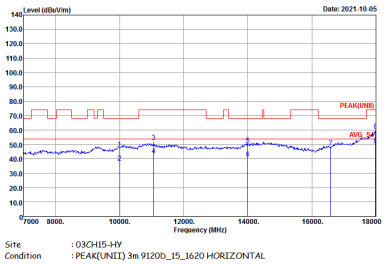
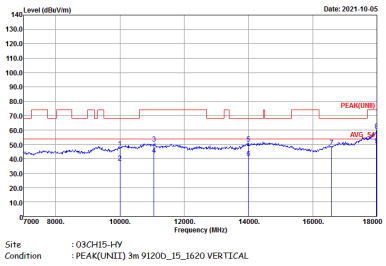
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11ax HE40 Full CH102 5510MHz	
8+9	Horizontal	Vertical
Peak Avg.		

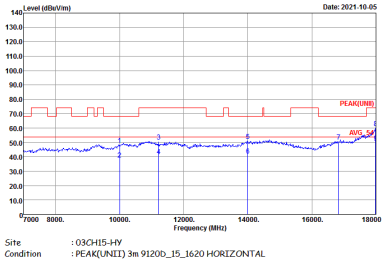
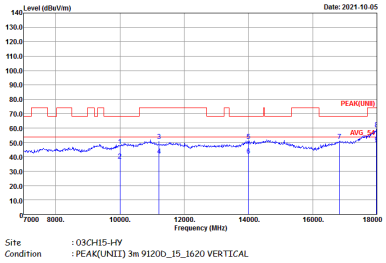
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11ax HE40 Full CH110 5550MHz	
8+9	Horizontal	Vertical
Peak Avg.		

WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11ax HE40 Full CH134 5670MHz	
8+9	Horizontal	Vertical
Peak Avg.		

Band 3 5470~5725MHz

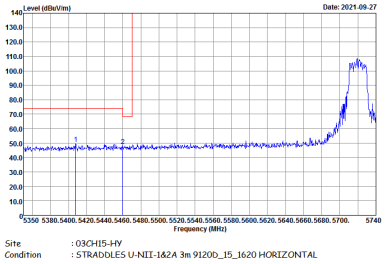
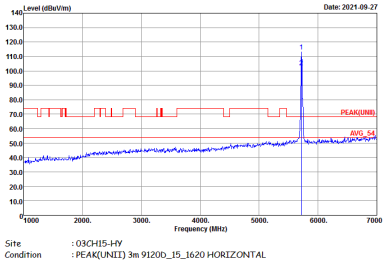
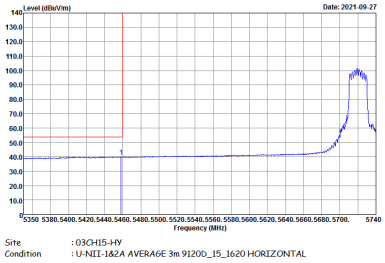
WIFI 802.11ax HE80 Full (Harmonic @ 3m)

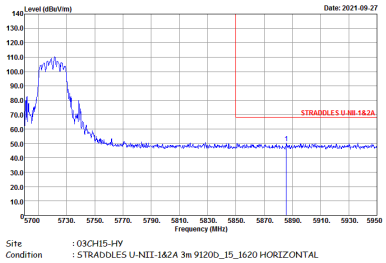
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11ax HE80 Full CH106 5530MHz	
8+9	Horizontal	Vertical
Peak Avg.		

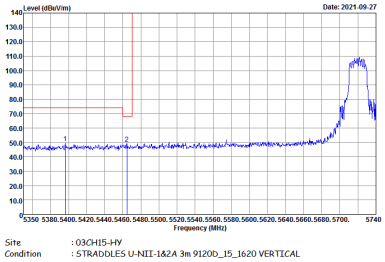
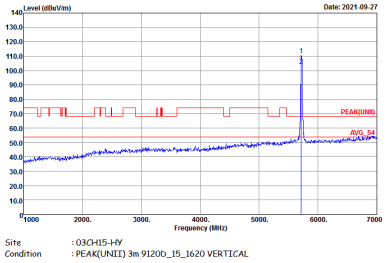
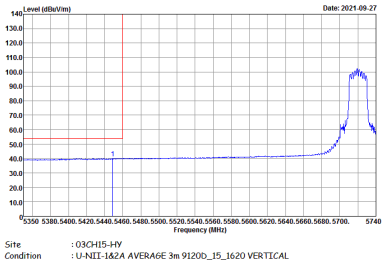
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11ax HE80 Full CH122 5610MHz	
8+9	Horizontal	Vertical
Peak Avg.		

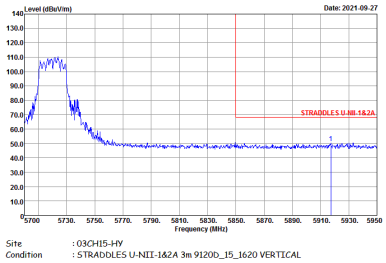
Band 3 - Straddle Channel

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

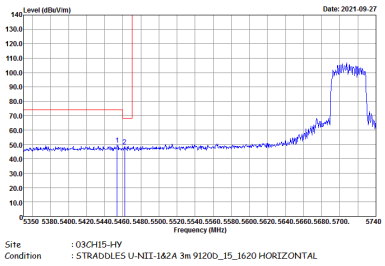
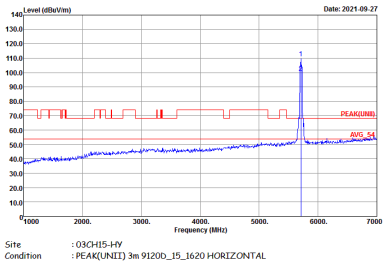
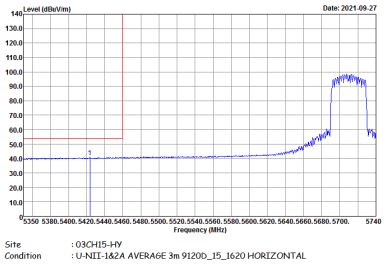
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ax HE20 Full CH144 5720MHz - L	
8+9	Horizontal	Fundamental
Peak		
Avg.		Left blank

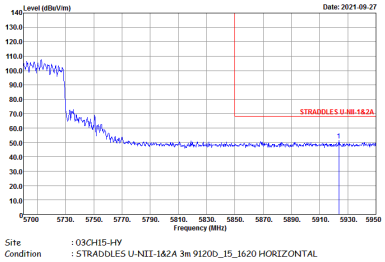
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ax HE20 Full CH144 5720MHz - R	
8+9	Horizontal	Fundamental
Peak		Left blank

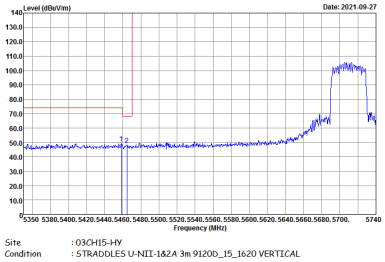
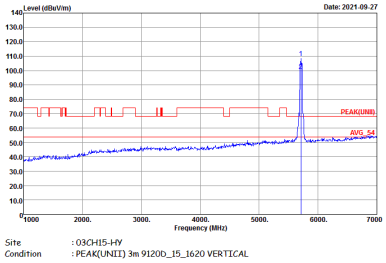
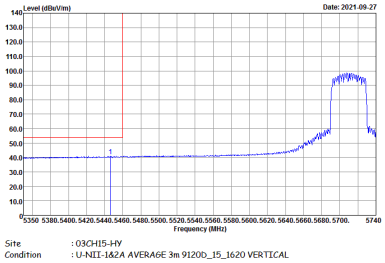
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ax HE20 Full CH144 5720MHz - L	
8+9	Vertical	Fundamental
Peak		
Avg.		Left blank

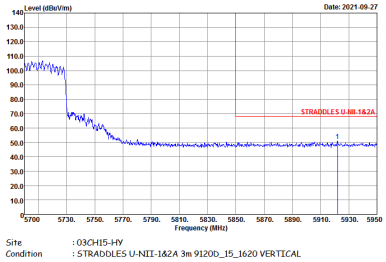
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ax HE20 Full CH144 5720MHz - R	
8+9	Vertical	Fundamental
Peak		Left blank

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

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ax HE40 Full CH142 5710MHz - L	
8+9	Horizontal	Fundamental
Peak		
Avg.		Left blank

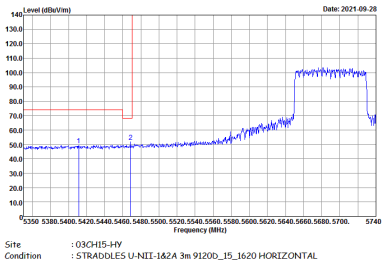
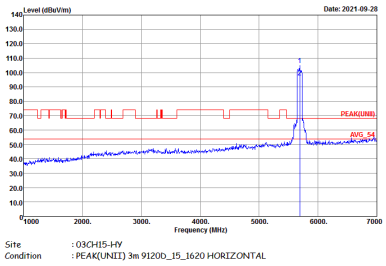
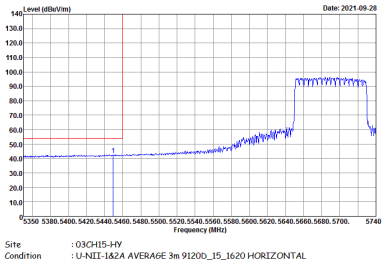
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ax HE40 Full CH142 5710MHz - R	
8+9	Horizontal	Fundamental
Peak		Left blank

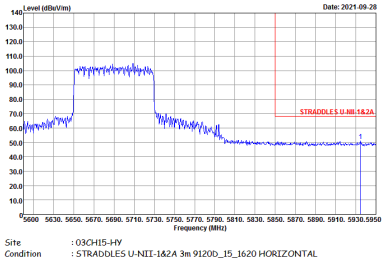
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ax HE40 Full CH142 5710MHz - L	
8+9	Vertical	Fundamental
Peak		
Avg.		Left blank

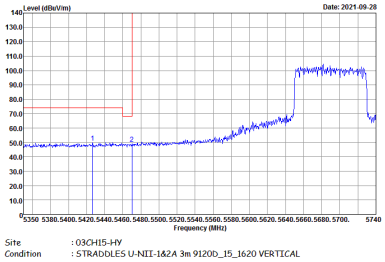
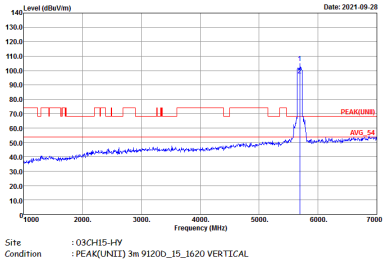
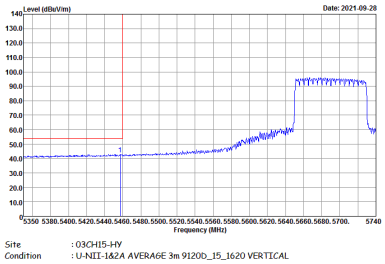
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ax HE40 Full CH142 5710MHz - R	
8+9	Vertical	Fundamental
Peak		Left blank

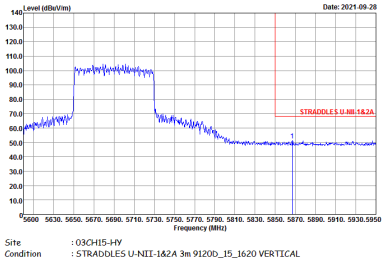
Band 3 – Straddle Channel

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

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ax HE80 Full CH138 5690MHz - L	
8+9	Horizontal	Fundamental
Peak		
Avg.		Left blank

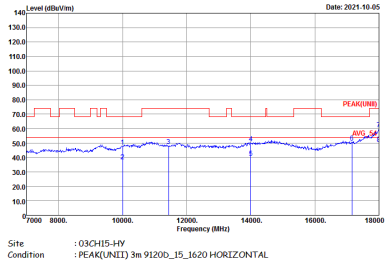
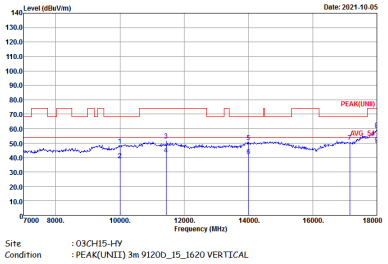
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ax HE80 Full CH138 5690MHz - R	
8+9	Horizontal	Fundamental
Peak		Left blank

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ax HE80 Full CH138 5690MHz - L	
8+9	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ax HE80 Full CH138 5690MHz - R	
8+9	Vertical	Fundamental
Peak		Left blank

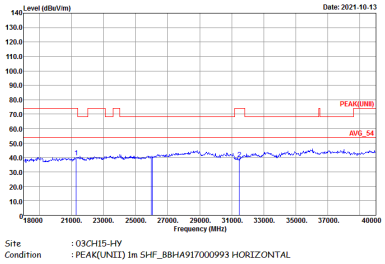
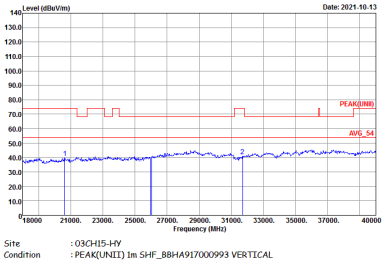
Band 3 - Straddle Channel

WIFI 802.11ax HE20 Full (Harmonic @ 3m)

WIFI	Band 3 Straddle Channel Harmonic @ 3m	
ANT	802.11ax HE20 Full CH144 5720MHz	
8+9	Horizontal	Vertical
Peak Avg.		

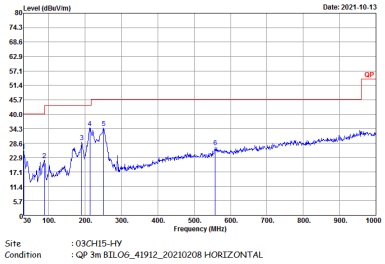
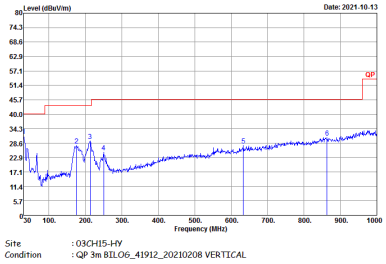
Emission above 18GHz

5GHz WIFI 802.11ax HE40 Full (SHF @ 1m)

WIFI	5GHz WIFI	
ANT	802.11ax HE40 Full SHF	
8+9	Horizontal	Vertical
Peak Avg.		

Emission below 1GHz

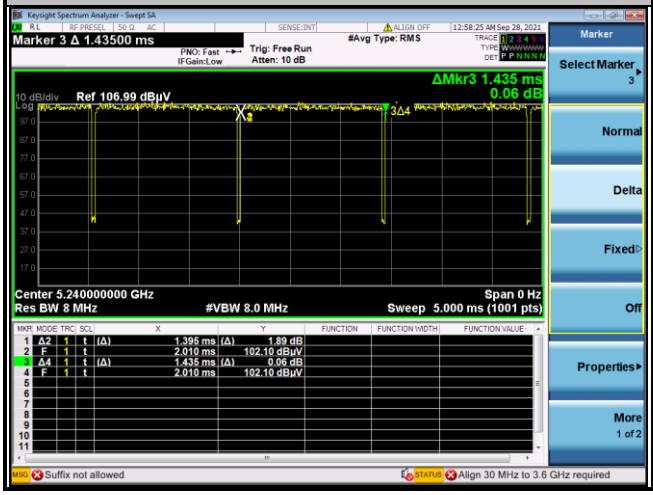
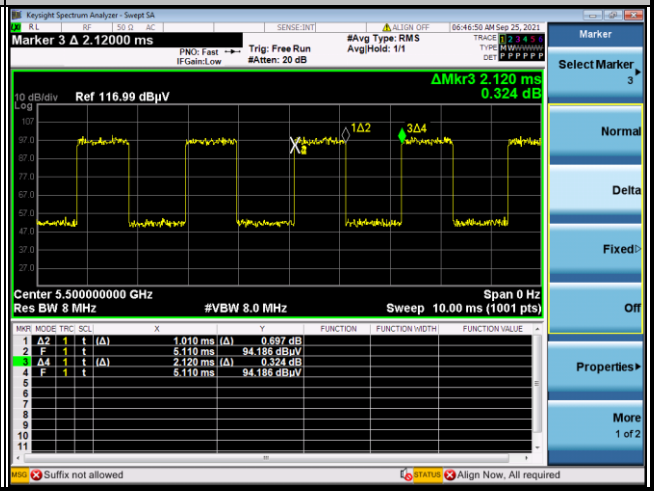
5GHz WIFI 802.11ax HE40 Full (LF)

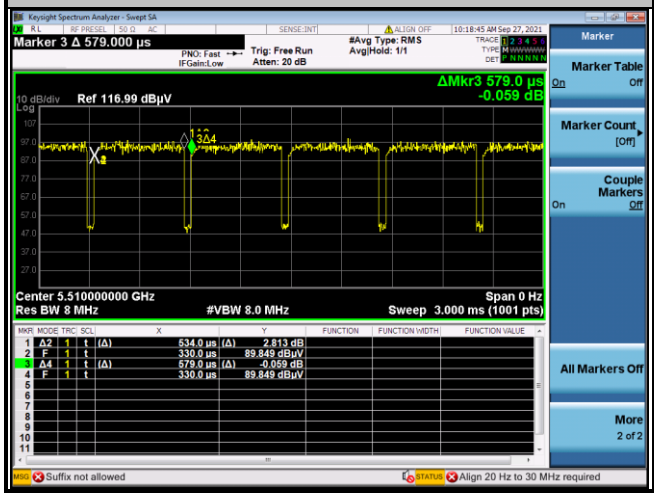
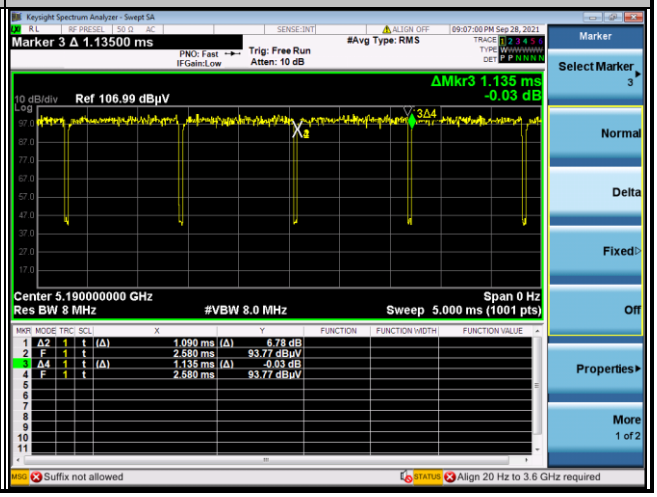
WIFI	5GHz WIFI	
ANT	802.11ax HE40 Full LF	
8+9	Horizontal	Vertical
QP / Peak		

Appendix E. Duty Cycle Plots

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
8+9	802.11a	97.21	1395	0.72	1kHz
8+9	5GHz 802.11ax HE20 Full RU	47.64	1010	0.99	1kHz
8+9	5GHz 802.11ax HE40 Full RU	92.23	534	1.87	3kHz
8+9	5GHz 802.11ax HE40 242 RU	96.04	1090	0.92	1kHz
8+9	5GHz 802.11ax HE80 Full RU	87.88	290	3.45	10kHz
8+9	5GHz 802.11ax HE80 484 RU	92.74	575	1.74	3kHz

MIMO <Ant. 8+9>

802.11a	5GHz 802.11ax HE20 Full RU
	

5GHz 802.11ax HE40 Full RU	5GHz 802.11ax HE40 242 RU
	
5GHz 802.11ax HE80 Full RU	**5GHz 802.11ax HE80 484 RU**