FCC RADIO TEST REPORT

FCC ID	:	**J9C-QCNFA765**
Equipment	:	**Wi-Fi 6E BT 5.2 M.2 2230 Module**
Brand Name	:	**Qualcomm**
Model Name	:	**QCNFA765**
Applicant	:	**Qualcomm Technologies, Inc. 5775 Morehouse Drive, San Diego, CA 92121-1714**
Manufacturer	:	**Qualcomm Technologies, Inc. 5775 Morehouse Drive, San Diego, CA 92121-1714**
Standard	:	**FCC Part 15 Subpart E §15.407**

The product was received on Oct. 13, 2021 and testing was performed from Oct. 22, 2021 to Nov. 29, 2021. We, Sporton International Inc. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this partial report apply exclusively to the tested model / sample. Without written approval from Sporton International Inc. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

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

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History of this test report

Report No.	Version	Description	Issue Date
FR1O1343B	01	Initial issue of report	Nov. 29, 2021

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.407(a)	Maximum Conducted Output Power	Pass	-
3.2	15.407(b)	Unwanted Emissions	Pass	4.04 dB under the limit at 5384.640 MHz
3.3	15.203 15.407(a)	Antenna Requirement	Pass	-

Note: The test plan for power and Radiated Spurious Emission measurement are designated by manufacturer as worst case for Test Lab. measurement. Then, all test cases are performed, based on the worst power measured by Test Lab, and reported accordingly.

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 product specifications of the EUT presented in the report are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Sheng Kuo

Report Producer: Lucy Wu

1 General Description

1.1 Product Feature of Equipment Under Test

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

Product Feature	
Sample 1	EUT with Host 1
Sample 2	EUT with Host 2
Antenna Type	**WLAN** <Main>: PIFA Antenna <Aux.> : PIFA Antenna **Bluetooth:** PIFA Antenna

The product was installed into Portable Computer (Brand Name: DELL, Model Name: P117F) during test, and the host information was recorded in the following table.

Host Information	
Host 1	Host with Hong Bo Co., Ltd. Antenna
Host 2	Host with SPEED Antenna

Antenna Information			
Antenna 1	**Manufacturer**	Hong Bo Co., Ltd.	
	Antenna Type	PIFA Antenna	PIFA Antenna
	Part number	025.901XP.0001	025.901XQ.0001
	Peak gain (dBi)	Main Antenna :	Aux. Antenna :
		WLAN(5G B1): 3.04 WLAN(5G B2): 2.99 WLAN(5G B3): 4.64	WLAN(5G B1): 2.95 WLAN(5G B2): 2.88 WLAN(5G B3): 4.44
Antenna 2	**Manufacturer**	SPEED	
	Antenna Type	PIFA Antenna	PIFA Antenna
	Part number	025.901XP.0011	025.901XQ.0011
	Peak gain (dBi)	Main Antenna :	Aux. Antenna :
		WLAN(5G B1): 3.04 WLAN(5G B2): 2.99 WLAN(5G B3): 4.64	WLAN(5G B1): 2.95 WLAN(5G B2): 2.88 WLAN(5G B3): 4.44

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to Comments and Explanations in report summary.
2. All the tests were performed with “Hong Bo Co., Ltd. Antenna” as representative.

1.2 Modification of EUT

No modifications made to the EUT during the testing.

1.3 Testing Location

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	**Sporton Site No.**
	03CH07-HY

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

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 (TAF Code: 3786)
Remark	The Conducted test item subcontracted to Sporton International Inc. Wensan Laboratory.

FCC designation No.: TW1190 and TW3786

1.4 Applicable Standards

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

- FCC Part 15 Subpart E
- FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- ANSI C63.10-2013

Remark:

1. All the test items were validated and recorded in accordance with the standards without any modification during the testing.
2. The TAF code is not including all the FCC KDB listed without accreditation.

2 Test Configuration of Equipment Under Test

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: radiation emission (1 GHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
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)
5150-5350 MHz	50@	5250
5470-5725 MHz	114@	5570

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 with "*" are 802.11n HT40 and 802.11ac VHT40 and 802.11ax HE40.
2. The above Frequency and Channel with "#" are 802.11ac VHT80 and 802.11ax HE80.
3. The above Frequency and Channel with "@" are 802.11ac VHT160 and 802.11ax HE160.

2.2 Test Mode

The final test modes consider the modulation and the worst data rates as shown in the table below.

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**
802.11ac VHT160 (Covered by HE160)	**MCS0**
802.11ax HE20	**MCS0**
802.11ax HE40	**MCS0**
802.11ax HE80	**MCS0**
802.11ax HE160	**MCS0**

Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11a	802.11a	802.11a
L	Low	36	-	100
M	Middle	-	-	-
H	High	-	64	140

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	-	100
M	Middle	-	-	-
H	High	-	64	140

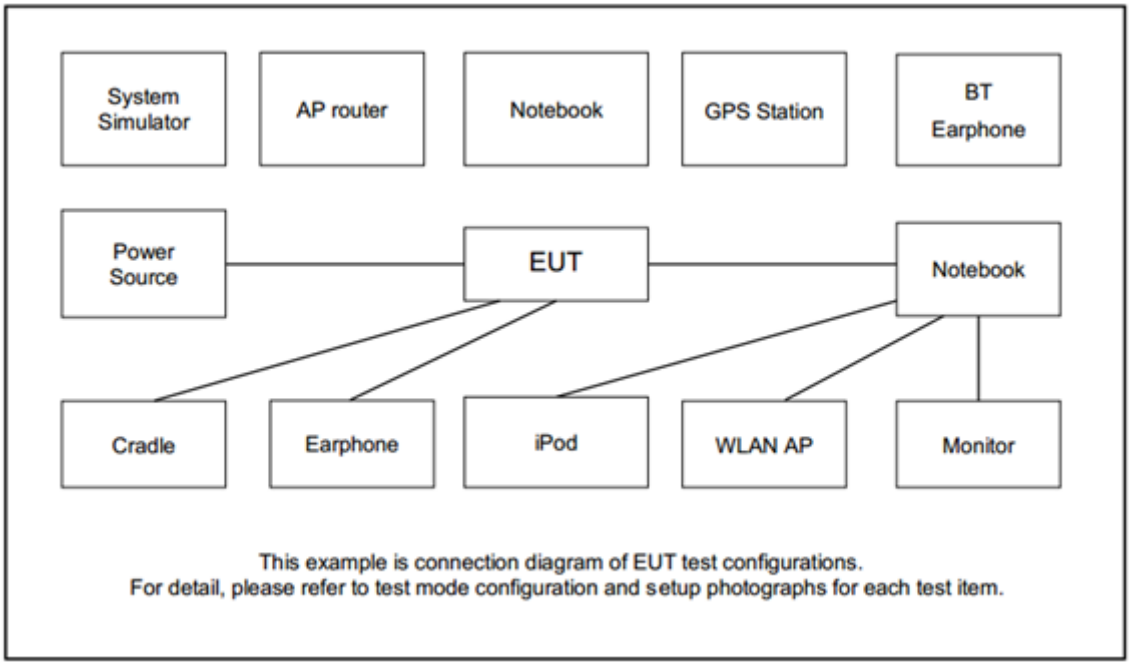
Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11ax HE40	802.11ax HE40	802.11ax HE40
L	Low	38	-	102
M	Middle	-	-	-
H	High	-	62	134

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

BW160	5150-5350 MHz	5470-5725MHz
	802.11ax HE160	802.11ax HE160
Ch. #	50	114

Remark: For radiation spurious emission, the modulation and the data rate picked for testing are determined by the Max. RF conducted power.

2.3 Connection Diagram of Test System



2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	iPod Earphone	Apple	N/A	Verification	Unshielded, 1.0 m	N/A

2.5 EUT Operation Test Setup

The RF test items, utility “QRCT 4.0.00194.0” was installed in Host which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.

3 Test Result

3.1 Maximum Conducted Output Power Measurement

3.1.1 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.

3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

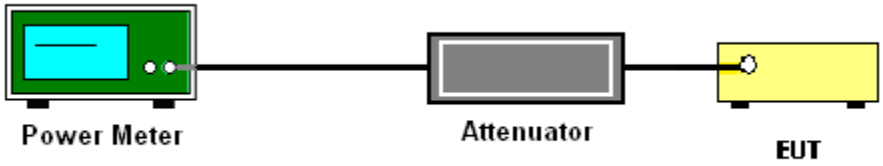
The testing follows Method PM-G of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

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 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.

3.1.4 Test Setup



3.1.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.

3.2 Unwanted Emissions Measurement

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

3.2.1 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 falls in restricted bands shall comply with the general field strength limits as below table:

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

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

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

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

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

(i) Sections 15.407(b)(1-3) specifies the unwanted emissions limit for the U-NII-1 and U-NII-2 bands. As specified, emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of −27 dBm/MHz.

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

3.2.2 Measuring Instruments

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

3.2.3 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 Peak Unwanted Emissions Measurements Above 1000 MHz

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

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

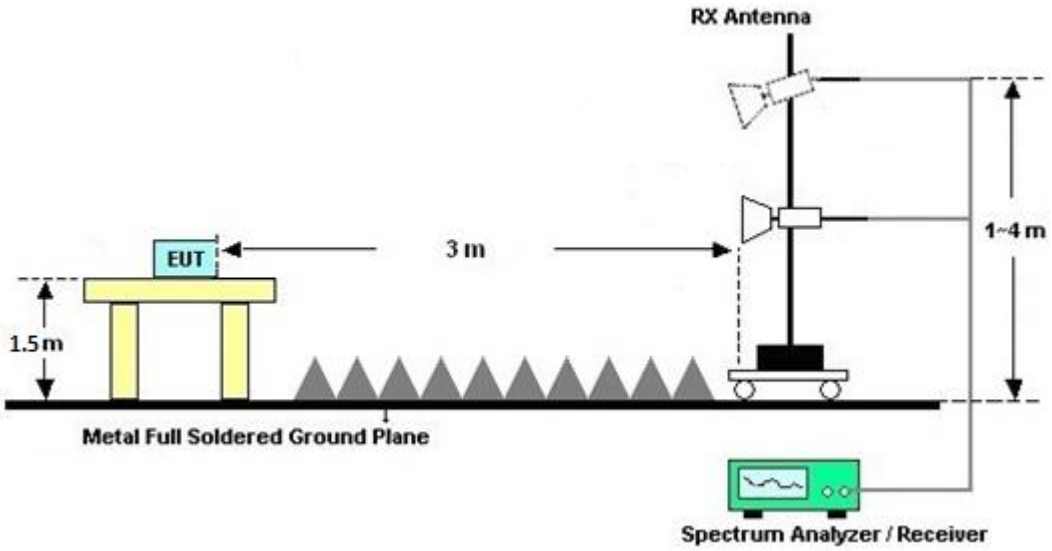
   - RBW = 1 MHz
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

2. The EUT is placed on a turntable with 1.5 meter for frequency above 1 GHz respectively above ground.
3. The EUT is set 3 meters away from the receiving antenna which is 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.

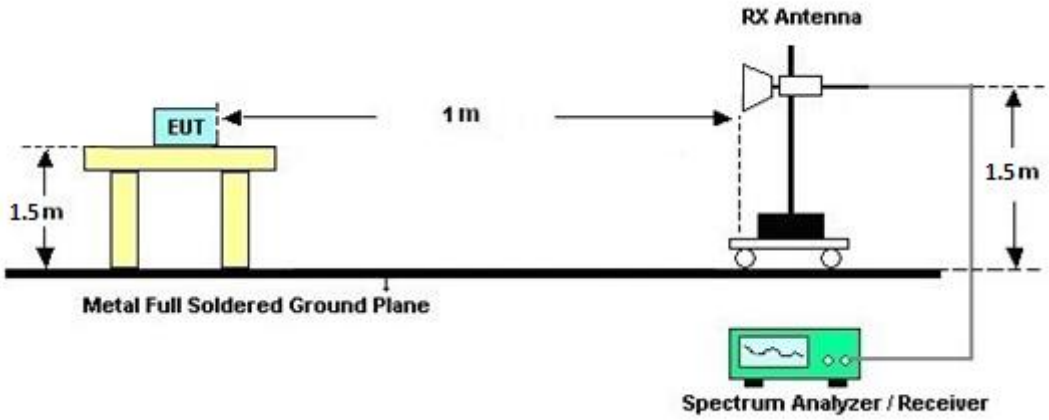
5. For each suspected emission, the EUT is arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. Radiated testing above 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading for scanning all frequencies. When there is no suspected emission found and the harmonic emission level is with at least 6 dB margin against average limit line, the position is marked as "-".

3.2.4 Test Setup

For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



3.2.5 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix B and C.

3.2.6 Duty Cycle

Please refer to Appendix D.

3.2.7 Test Result of Radiated Spurious Emissions

Please refer to Appendix B and C.

3.3 Antenna Requirements

3.3.1 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.

3.3.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.3.3 Antenna Gain

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.

4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Double Ridge Horn Antenna	ESCO	3117	00075962	1GHz ~ 18GHz	Dec. 01, 2020	Nov. 13, 2021~ Nov. 29, 2021	Nov. 30, 2021	Radiation (03CH07-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1590075	1GHz~18GHz	Apr. 22, 2021	Nov. 13, 2021~ Nov. 29, 2021	Apr. 21, 2022	Radiation (03CH07-HY)
Preamplifier	Agilent	8449B	3008A02362	1GHz~26.5GHz	Oct. 04, 2021	Nov. 13, 2021~ Nov. 29, 2021	Oct. 03, 2022	Radiation (03CH07-HY)
Spectrum Analyzer	Agilent	N9030A	MY52350276	3Hz~44GHz	Jul. 22, 2021	Nov. 13, 2021~ Nov. 29, 2021	Jul. 21, 2022	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY15682-4	30MHz to 18GHz	Feb. 24, 2021	Nov. 13, 2021~ Nov. 29, 2021	Feb. 23, 2022	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY24971-4	9kHz to 18GHz	Feb. 24, 2021	Nov. 13, 2021~ Nov. 29, 2021	Feb. 23, 2022	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY28655-4	9kHz to 18GHz	Feb. 24, 2021	Nov. 13, 2021~ Nov. 29, 2021	Feb. 23, 2022	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2858/2,80 1606/2	18GHz~40GHz	Feb. 24, 2021	Nov. 13, 2021~ Nov. 29, 2021	Feb. 23, 2022	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126	532078/126E	30MHz~18GHz	Sep. 17, 2021	Nov. 13, 2021~ Nov. 29, 2021	Sep. 16, 2022	Radiation (03CH07-HY)
Controller	EMEC	EM1000	N/A	Control Ant Mast	N/A	Nov. 13, 2021~ Nov. 29, 2021	N/A	Radiation (03CH07-HY)
Controller	MF	MF-7802	N/A	Control Turn table	N/A	Nov. 13, 2021~ Nov. 29, 2021	N/A	Radiation (03CH07-HY)
Antenna Mast	EMEC	AM-BS-4500E	N/A	Boresight mast 1M~4M	N/A	Nov. 13, 2021~ Nov. 29, 2021	N/A	Radiation (03CH07-HY)
Turn Table	ChainTek	Chaintek 3000	N/A	0~360 Degree	N/A	Nov. 13, 2021~ Nov. 29, 2021	N/A	Radiation (03CH07-HY)
Software	Audix	E3 6.2009-8-24	N/A	N/A	N/A	Nov. 13, 2021~ Nov. 29, 2021	N/A	Radiation (03CH07-HY)
USB Data Logger	TECPEL	TR-32	HE17XB2495	N/A	Mar. 09, 2021	Nov. 13, 2021~ Nov. 29, 2021	Mar. 08, 2022	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	18GHz~40GHz	Dec. 02, 2020	Nov. 13, 2021~ Nov. 29, 2021	Dec. 01, 2021	Radiation (03CH07-HY)
Preamplifier	EMEC	EM18G40G	0600789	18-40GHz	Jul. 23, 2021	Nov. 13, 2021~ Nov. 29, 2021	Jul. 22, 2022	Radiation (03CH07-HY)
Hygrometer	Testo	608-H1	34893241	N/A	Mar. 01, 2021	Oct. 22, 2021~ Nov. 06, 2021	Feb. 28, 2022	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	16I00054SNO12	10MHz~6GHz	Dec. 16, 2020	Oct. 22, 2021~ Nov. 06, 2021	Dec. 15, 2021	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100055	9kHz-40GHz	Jan. 21, 2021	Oct. 22, 2021~ Nov. 06, 2021	Jan. 20, 2022	Conducted (TH05-HY)
Switch Box & RF Cable	EM Electronics	EMSW18SE	SW200302	N/A	Mar. 17, 2021	Oct. 22, 2021~ Nov. 06, 2021	Mar. 16, 2022	Conducted (TH05-HY)

5 Uncertainty of Evaluation

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

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

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.0 dB**

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Richard Qiu/Ching Chen	Temperature:	21~25	°C
Test Date:	2021/10/22-2021/11/6	Relative Humidity:	51~54	%

Remark: For Conducted Test Items, Ant. 1 means Chain 0 (Aux.) and Ant. 2 means Chain 1 (Main).

Report Number : FR1O1343B

TEST RESULTS DATA
Average Power Table

FCC Band I single antenna													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)			Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	36	5180	12.10	12.40		24.00	24.00	2.95	3.04		Pass
11a	6Mbps	1	44	5220	12.20	12.40		24.00	24.00	2.95	3.04		Pass
11a	6Mbps	1	48	5240	12.10	12.40		24.00	24.00	2.95	3.04		Pass
HT20	MCS0	1	36	5180	12.20	12.10		24.00	24.00	2.95	3.04		Pass
HT20	MCS0	1	44	5220	12.40	12.30		24.00	24.00	2.95	3.04		Pass
HT20	MCS0	1	48	5240	12.40	12.10		24.00	24.00	2.95	3.04		Pass
HT40	MCS0	1	38	5190	12.20	12.20		24.00	24.00	2.95	3.04		Pass
HT40	MCS0	1	46	5230	12.30	12.10		24.00	24.00	2.95	3.04		Pass
VHT20	MCS0	1	36	5180	12.10	12.10		24.00	24.00	2.95	3.04		Pass
VHT20	MCS0	1	44	5220	12.40	12.30		24.00	24.00	2.95	3.04		Pass
VHT20	MCS0	1	48	5240	12.40	12.10		24.00	24.00	2.95	3.04		Pass
VHT40	MCS0	1	38	5190	12.20	12.20		24.00	24.00	2.95	3.04		Pass
VHT40	MCS0	1	46	5230	12.30	12.10		24.00	24.00	2.95	3.04		Pass
VHT80	MCS0	1	42	5210	11.80	11.60		24.00	24.00	2.95	3.04		Pass
VHT160	MCS0	1	50	5250	11.60	11.80		24.00	24.00	2.95	3.04		Pass

Report Number : FR1O1343B

TEST RESULTS DATA
Average Power Table

FCC Band II single antenna													
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 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	52	5260	12.30	12.30		23.98	23.98	2.88	2.99	30	Pass
11a	6Mbps	1	60	5300	12.50	12.20		23.98	23.98	2.88	2.99	30	Pass
11a	6Mbps	1	64	5320	12.10	12.20		23.98	23.98	2.88	2.99	30	Pass
HT20	MCS0	1	52	5260	12.10	12.10		23.98	23.98	2.88	2.99	30	Pass
HT20	MCS0	1	60	5300	12.20	12.10		23.98	23.98	2.88	2.99	30	Pass
HT20	MCS0	1	64	5320	12.30	12.10		23.98	23.98	2.88	2.99	30	Pass
HT40	MCS0	1	54	5270	12.20	12.10		23.98	23.98	2.88	2.99	30	Pass
HT40	MCS0	1	62	5310	12.20	12.20		23.98	23.98	2.88	2.99	30	Pass
VHT20	MCS0	1	52	5260	12.10	12.10		23.98	23.98	2.88	2.99	30	Pass
VHT20	MCS0	1	60	5300	12.20	12.10		23.98	23.98	2.88	2.99	30	Pass
VHT20	MCS0	1	64	5320	12.30	12.10		23.98	23.98	2.88	2.99	30	Pass
VHT40	MCS0	1	54	5270	12.20	12.10		23.98	23.98	2.88	2.99	30	Pass
VHT40	MCS0	1	62	5310	12.20	12.20		23.98	23.98	2.88	2.99	30	Pass
VHT80	MCS0	1	58	5290	12.10	12.20		23.98	23.98	2.88	2.99	30	Pass

Report Number : FR1O1343B

TEST RESULTS DATA
Average Power Table

FCC Band III single antenna														
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 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	100	5500	12.20	12.50		23.98	23.98	4.44	4.64	30	Pass
11a	6Mbps	1	116	5580	12.10	12.10		23.98	23.98	4.44	4.64	30	Pass
11a	6Mbps	1	140	5700	12.20	12.30		23.98	23.98	4.44	4.64	30	Pass
HT20	MCS0	1	100	5500	12.10	12.30		23.98	23.98	4.44	4.64	30	Pass
HT20	MCS0	1	116	5580	12.10	12.30		23.98	23.98	4.44	4.64	30	Pass
HT20	MCS0	1	140	5700	12.10	12.10		23.98	23.98	4.44	4.64	30	Pass
HT40	MCS0	1	102	5510	12.20	12.10		23.98	23.98	4.44	4.64	30	Pass
HT40	MCS0	1	110	5550	12.10	12.30		23.98	23.98	4.44	4.64	30	Pass
HT40	MCS0	1	134	5670	12.10	12.40		23.98	23.98	4.44	4.64	30	Pass
VHT20	MCS0	1	100	5500	12.10	12.30		23.98	23.98	4.44	4.64	30	Pass
VHT20	MCS0	1	116	5580	12.10	12.30		23.98	23.98	4.44	4.64	30	Pass
VHT20	MCS0	1	140	5700	12.10	12.10		23.98	23.98	4.44	4.64	30	Pass
VHT40	MCS0	1	102	5510	12.20	12.10		23.98	23.98	4.44	4.64	30	Pass
VHT40	MCS0	1	110	5550	12.10	12.30		23.98	23.98	4.44	4.64	30	Pass
VHT40	MCS0	1	134	5670	12.10	12.40		23.98	23.98	4.44	4.64	30	Pass
VHT80	MCS0	1	106	5530	12.40	12.10		23.98	23.98	4.44	4.64	30	Pass
VHT80	MCS0	1	122	5610	12.30	12.40		23.98	23.98	4.44	4.64	30	Pass
VHT160	MCS0	1	114	5570	12.20	12.30		23.98	23.98	4.44	4.64	30	Pass

FCC Band III straddle channel single antenna														
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 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	144	5720	12.30	12.50		23.98	23.98	4.44	4.64	30	Pass
HT20	MCS0	1	144	5720	12.10	12.10		23.98	23.98	4.44	4.64	30	Pass
HT40	MCS0	1	142	5710	12.30	12.40		23.98	23.98	4.44	4.64	30	Pass
VHT20	MCS0	1	144	5720	12.10	12.10		23.98	23.98	4.44	4.64	30	Pass
VHT40	MCS0	1	142	5710	12.30	12.40		23.98	23.98	4.44	4.64	30	Pass
VHT80	MCS0	1	138	5690	12.10	12.30		23.98	23.98	4.44	4.64	30	Pass

TEST RESULTS DATA
Average Power Table

FCC Band I single antenna														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)			Pass/Fail
						Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
HE20	MCS0	1	36	5180	Full	12.40	12.20		24.00	24.00	2.95	3.04		Pass
HE20	MCS0	1	36	5180	242/61	12.40	12.30		24.00	24.00	2.95	3.04		Pass
HE20	MCS0	1	44	5220	Full	12.50	12.40		24.00	24.00	2.95	3.04		Pass
HE20	MCS0	1	48	5240	Full	12.50	12.20		24.00	24.00	2.95	3.04		Pass
HE40	MCS0	1	38	5190	Full	12.40	12.50		24.00	24.00	2.95	3.04		Pass
HE40	MCS0	1	38	5190	484/65	9.60	9.70		24.00	24.00	2.95	3.04		Pass
HE40	MCS0	1	46	5230	Full	12.50	12.20		24.00	24.00	2.95	3.04		Pass
HE80	MCS0	1	42	5210	Full	11.90	11.80		24.00	24.00	2.95	3.04		Pass
HE80	MCS0	1	42	5210	996/67	8.20	8.50		24.00	24.00	2.95	3.04		Pass
HE160	MCS0	1	50	5250	Full	11.70	11.90		24.00	24.00	2.95	3.04		Pass
HE160	MCS0	1	50	5250	1992/68	11.30	11.10		24.00	24.00	2.95	3.04		Pass

TEST RESULTS DATA
Average Power Table

FCC Band II single antenna														
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 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
HE20	MCS0	1	52	5260	Full	12.30	12.20		23.98	23.98	2.88	2.99	30	Pass
HE20	MCS0	1	60	5300	Full	12.50	12.20		23.98	23.98	2.88	2.99	30	Pass
HE20	MCS0	1	64	5320	Full	12.40	12.20		23.98	23.98	2.88	2.99	30	Pass
HE20	MCS0	1	64	5320	242/61	12.40	12.20		23.98	23.98	2.88	2.99	30	Pass
HE40	MCS0	1	54	5270	Full	12.30	12.20		23.98	23.98	2.88	2.99	30	Pass
HE40	MCS0	1	62	5310	Full	12.40	12.50		23.98	23.98	2.88	2.99	30	Pass
HE40	MCS0	1	62	5310	484/65	11.30	11.40		23.98	23.98	2.88	2.99	30	Pass
HE80	MCS0	1	58	5290	Full	12.20	12.30		23.98	23.98	2.88	2.99	30	Pass
HE80	MCS0	1	58	5290	996/67	10.10	10.40		23.98	23.98	2.88	2.99	30	Pass

TEST RESULTS DATA
Average Power Table

FCC Band III single antenna														
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 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
HE20	MCS0	1	100	5500	Full	12.20	12.40		23.98	23.98	4.44	4.64	30	Pass
HE20	MCS0	1	100	5500	242/61	11.00	11.00		23.98	23.98	4.44	4.64	30	Pass
HE20	MCS0	1	116	5580	Full	12.30	12.50		23.98	23.98	4.44	4.64	30	Pass
HE20	MCS0	1	140	5700	Full	12.20	12.20		23.98	23.98	4.44	4.64	30	Pass
HE20	MCS0	1	140	5700	242/61	9.80	9.70		23.98	23.98	4.44	4.64	30	Pass
HE40	MCS0	1	102	5510	Full	12.40	12.30		23.98	23.98	4.44	4.64	30	Pass
HE40	MCS0	1	102	5510	484/65	9.60	9.90		23.98	23.98	4.44	4.64	30	Pass
HE40	MCS0	1	110	5550	Full	12.30	12.50		23.98	23.98	4.44	4.64	30	Pass
HE40	MCS0	1	134	5670	Full	12.20	12.50		23.98	23.98	4.44	4.64	30	Pass
HE40	MCS0	1	134	5670	484/65	10.60	10.80		23.98	23.98	4.44	4.64	30	Pass
HE80	MCS0	1	106	5530	Full	12.50	12.20		23.98	23.98	4.44	4.64	30	Pass
HE80	MCS0	1	106	5530	996/67	9.50	9.10		23.98	23.98	4.44	4.64	30	Pass
HE80	MCS0	1	122	5610	Full	12.40	12.50		23.98	23.98	4.44	4.64	30	Pass
HE80	MCS0	1	122	5610	996/67	10.60	10.70		23.98	23.98	4.44	4.64	30	Pass
HE160	MCS0	1	114	5570	Full	12.30	12.40		23.98	23.98	4.44	4.64	30	Pass
HE160	MCS0	1	114	5570	1992/68	12.40	12.40		23.98	23.98	4.44	4.64	30	Pass

FCC Band III straddle channel single antenna														
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 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
HE20	MCS0	1	144	5720	Full	12.20	12.40		23.98	23.98	4.44	4.64	30	Pass
HE40	MCS0	1	142	5710	Full	12.50	12.50		23.98	23.98	4.44	4.64	30	Pass
HE80	MCS0	1	138	5690	Full	12.20	12.40		23.98	23.98	4.44	4.64	30	Pass

Appendix B. Radiated Spurious Emission

Test Engineer :	Jesse Wang, Stan Hsieh and Ken Wu	**Temperature :**	17.9~22.2°C
		Relative Humidity :	53.1~69%

Remark: For Radiated Spurious Emission Test Items, Ant. 1 means Chain 0 (Aux.) and Ant. 2 means Chain 1 (Main).

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz													H
													H
													H
													H
													H
													H
		5036.14	48.75	-25.25	74	38.36	34.07	11.66	35.34	100	266	P	V
		5149.76	39.68	-14.32	54	28.97	34.2	11.79	35.28	100	266	A	V
	*	5180	98.12	-	-	87.29	34.27	11.83	35.27	100	266	P	V
	*	5180	90.33	-	-	79.5	34.27	11.83	35.27	100	266	A	V
													V
													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 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
													H
													H
													H
													H
802.11ax													H
HE20 Full													H
CH 36		5137.02	49.27	-24.73	74	38.58	34.2	11.78	35.29	100	265	P	V
5180MHz		5150	39.71	-14.29	54	29	34.2	11.79	35.28	100	265	A	V
	*	5180	99.47	-	-	88.64	34.27	11.83	35.27	100	265	P	V
	*	5180	89.73	-	-	78.9	34.27	11.83	35.27	100	265	A	V
													V
													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 Partial 242 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
													H
													H
													H
802.11ax													H
HE20													H
Partial													H
242/61		5096.98	50.31	-23.69	74	39.68	34.2	11.73	35.3	100	268	P	V
CH 36		5149.5	41.29	-12.71	54	30.58	34.2	11.79	35.28	100	268	A	V
5180MHz	*	5180	99.55	-	-	88.72	34.27	11.83	35.27	100	268	P	V
	*	5180	89.43	-	-	78.6	34.27	11.83	35.27	100	268	A	V
													V
													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 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
													H
													H
													H
													H
802.11ax													H
HE40 Full													H
CH 38		5139.88	49.57	-24.43	74	38.88	34.2	11.78	35.29	100	269	P	V
5190MHz		5148.46	42.22	-11.78	54	31.51	34.2	11.79	35.28	100	269	A	V
	*	5190	95.51	-	-	84.67	34.27	11.84	35.27	100	269	P	V
	*	5190	87.52	-	-	76.68	34.27	11.84	35.27	100	269	A	V
		5367.6	48.53	-25.47	74	37.29	34.47	11.95	35.18	100	269	P	V
		5460	38.14	-15.86	54	26.61	34.6	12.06	35.13	100	269	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 Partial 484 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
													H
													H
													H
802.11ax													H
HE40													H
Partial													H
484/65		5148.72	53.25	-20.75	74	42.54	34.2	11.79	35.28	100	268	P	V
CH 38		5145.86	42.75	-11.25	54	32.04	34.2	11.79	35.28	100	268	A	V
5190MHz	*	5190	92.74	-	-	81.9	34.27	11.84	35.27	100	268	P	V
	*	5190	83.94	-	-	73.1	34.27	11.84	35.27	100	268	A	V
		5384.12	48.25	-25.75	74	36.93	34.53	11.96	35.17	100	268	P	V
		5460	39.31	-14.69	54	27.78	34.6	12.06	35.13	100	268	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. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
													H
													H
													H
													H
802.11ax													H
HE80 Full													H
CH 42		5140.14	48.48	-25.52	74	37.79	34.2	11.78	35.29	100	269	P	V
5210MHz		5133.9	39.97	-14.03	54	29.29	34.2	11.77	35.29	100	269	A	V
	*	5210	92.34	-	-	81.43	34.3	11.86	35.25	100	269	P	V
	*	5210	83.92	-	-	73.01	34.3	11.86	35.25	100	269	A	V
		5354.72	47.57	-26.43	74	36.41	34.4	11.94	35.18	100	269	P	V
		5386.64	38.19	-15.81	54	26.87	34.53	11.96	35.17	100	269	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 Partial 996 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
													H
													H
													H
802.11ax													H
HE80													H
Partial													H
996/67		5103.74	49.2	-24.8	74	38.56	34.2	11.74	35.3	100	268	P	V
CH 42		5112.06	40.32	-13.68	54	29.67	34.2	11.75	35.3	100	268	A	V
5210MHz	*	5210	87.8	-	-	76.89	34.3	11.86	35.25	100	268	P	V
	*	5210	79.33	-	-	68.42	34.3	11.86	35.25	100	268	A	V
		5457.48	49.02	-24.98	74	37.49	34.6	12.06	35.13	100	268	P	V
		5458.88	38.96	-15.04	54	27.43	34.6	12.06	35.13	100	268	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 HE160 Full (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE160 Full CH 50 5250MHz		5123.55	53.02	-20.98	74	42.35	34.2	11.76	35.29	400	280	P	H
		5119	42.48	-11.52	54	31.81	34.2	11.76	35.29	400	280	A	H
	*	5250	85.25	-	-	74.3	34.3	11.88	35.23	400	280	P	H
	*	5250	75.05	-	-	64.1	34.3	11.88	35.23	400	280	A	H
		5365.92	48.76	-25.24	74	37.52	34.47	11.95	35.18	400	280	P	H
		5373.6	40.35	-13.65	54	29.1	34.47	11.95	35.17	400	280	A	H
		5099.75	54.1	-19.9	74	43.47	34.2	11.73	35.3	108	267	P	V
		5117.6	45.53	-8.47	54	34.87	34.2	11.76	35.3	108	267	A	V
	*	5250	89.13	-	-	78.18	34.3	11.88	35.23	108	267	P	V
	*	5250	81.33	-	-	70.38	34.3	11.88	35.23	108	267	A	V
		5375.76	55.17	-18.83	74	43.91	34.47	11.96	35.17	108	267	P	V
		5372.4	46.71	-7.29	54	35.47	34.47	11.95	35.18	108	267	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 HE160 Partial 1992 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE160 Partial 1992/68 CH 50 5250MHz		5138.6	52.9	-21.1	74	42.21	34.2	11.78	35.29	400	298	P	H
		5071.75	43.72	-10.28	54	33.2	34.13	11.7	35.31	400	298	A	H
	*	5250	83.81	-	-	72.86	34.3	11.88	35.23	400	298	P	H
	*	5250	76.15	-	-	65.2	34.3	11.88	35.23	400	298	A	H
		5379.12	52.87	-21.13	74	41.55	34.53	11.96	35.17	400	298	P	H
		5374.32	44	-10	54	32.75	34.47	11.95	35.17	400	298	A	H
		5136.85	58.54	-15.46	74	47.85	34.2	11.78	35.29	100	271	P	V
		5101.5	48.1	-5.9	54	37.46	34.2	11.74	35.3	100	271	A	V
	*	5250	89.34	-	-	78.39	34.3	11.88	35.23	100	271	P	V
	*	5250	80.55	-	-	69.6	34.3	11.88	35.23	100	271	A	V
		5383.92	61.29	-12.71	74	49.97	34.53	11.96	35.17	100	271	P	V
		5384.64	49.96	-4.04	54	38.64	34.53	11.96	35.17	100	271	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 - 5250~5350MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 64 5320MHz													H
													H
													H
													H
													H
													H
	*	5320	99.98	-	-	88.79	34.47	11.92	35.2	107	269	P	V
	*	5320	92.28	-	-	81.09	34.47	11.92	35.2	107	269	A	V
		5444.64	48.34	-25.66	74	36.84	34.6	12.04	35.14	107	269	P	V
		5371.84	39.2	-14.8	54	27.96	34.47	11.95	35.18	107	269	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 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
													H
													H
													H
													H
802.11ax													H
HE20 Full													H
CH 64	*	5320	102.62	-	-	91.43	34.47	11.92	35.2	100	270	P	V
5320MHz	*	5320	91.58	-	-	80.39	34.47	11.92	35.2	100	270	A	V
		5370.72	49.33	-24.67	74	38.09	34.47	11.95	35.18	100	270	P	V
		5350.08	39.26	-14.74	54	28.1	34.4	11.94	35.18	100	270	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 Partial 242 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
													H
													H
													H
802.11ax													H
HE20													H
Partial													H
242/61	*	5320	100.38	-	-	89.19	34.47	11.92	35.2	100	270	P	V
CH 64	*	5320	90.98	-	-	79.79	34.47	11.92	35.2	100	270	A	V
5320MHz		5351.36	50.54	-23.46	74	39.38	34.4	11.94	35.18	100	270	P	V
		5350.08	41	-13	54	29.84	34.4	11.94	35.18	100	270	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 HE40 Full (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
													H
													H
													H
													H
802.11ax													H
HE40 Full													H
CH 62		5091.7	48.88	-25.12	74	38.26	34.2	11.73	35.31	100	270	P	V
5310MHz		5130.2	38.58	-15.42	54	27.9	34.2	11.77	35.29	100	270	A	V
	*	5310	96.9	-	-	85.71	34.47	11.92	35.2	100	270	P	V
	*	5310	88.48	-	-	77.29	34.47	11.92	35.2	100	270	A	V
		5385.36	47.15	-26.85	74	35.83	34.53	11.96	35.17	100	270	P	V
		5350.08	39.1	-14.9	54	27.94	34.4	11.94	35.18	100	270	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 Partial 484 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
													H
													H
													H
802.11ax													H
HE40													H
Partial													H
484/65		5091.7	49.39	-24.61	74	38.77	34.2	11.73	35.31	100	274	P	V
CH 62		5108.5	39.29	-14.71	54	28.65	34.2	11.74	35.3	100	274	A	V
5310MHz	*	5310	96.01	-	-	84.82	34.47	11.92	35.2	100	274	P	V
	*	5310	87.04	-	-	75.85	34.47	11.92	35.2	100	274	A	V
		5360.64	58.2	-15.8	74	46.96	34.47	11.95	35.18	100	274	P	V
		5350.08	42.14	-11.86	54	30.98	34.4	11.94	35.18	100	274	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 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
													H
													H
													H
													H
802.11ax													H
HE80 Full													H
CH 58		5101.15	48.15	-25.85	74	37.51	34.2	11.74	35.3	100	268	P	V
5290MHz		5135.8	38.77	-15.23	54	28.08	34.2	11.78	35.29	100	268	A	V
	*	5290	93.44	-	-	82.33	34.43	11.9	35.22	100	268	P	V
	*	5290	84.58	-	-	73.47	34.43	11.9	35.22	100	268	A	V
		5366.16	54.38	-19.62	74	43.14	34.47	11.95	35.18	100	268	P	V
		5369.04	45.73	-8.27	54	34.49	34.47	11.95	35.18	100	268	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 Partial 996 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
													H
													H
													H
802.11ax													H
HE80													H
Partial													H
996/67		5000.35	49.34	-24.66	74	38.87	34.2	11.62	35.35	103	275	P	V
CH 58		5121.45	39.43	-14.57	54	28.76	34.2	11.76	35.29	103	275	A	V
5290MHz	*	5290	91.41	-	-	80.3	34.43	11.9	35.22	103	275	P	V
	*	5290	81.83	-	-	70.72	34.43	11.9	35.22	103	275	A	V
		5375.28	57.63	-16.37	74	46.37	34.47	11.96	35.17	103	275	P	V
		5375.28	48.74	-5.26	54	37.48	34.47	11.96	35.17	103	275	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 100 5500MHz													H
													H
													H
													H
													H
													H
		5430.32	47.68	-26.32	74	36.2	34.6	12.02	35.14	109	271	P	V
		5470	47.29	-20.91	68.2	35.67	34.67	12.08	35.13	109	271	P	V
		5457.84	39.23	-14.77	54	27.7	34.6	12.06	35.13	109	271	A	V
	*	5500	96.82	-	-	85.02	34.8	12.12	35.12	109	271	P	V
	*	5500	89.21	-	-	77.41	34.8	12.12	35.12	109	271	A	V
													V
802.11a CH 140 5700MHz													H
													H
													H
													H
													H
													H
	*	5700	100.29	-	-	88.37	34.7	12.38	35.16	100	271	P	V
	*	5700	93.02	-	-	81.1	34.7	12.38	35.16	100	271	A	V
		5747.32	48.49	-19.71	68.2	36.53	34.7	12.43	35.17	100	271	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 Full (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
													H
													H
													H
													H
802.11ax													H
HE20 Full													H
CH 100		5453.68	48.08	-25.92	74	36.56	34.6	12.05	35.13	108	271	P	V
5500MHz		5460.72	47.01	-21.19	68.2	35.48	34.6	12.06	35.13	108	271	P	V
		5459.76	39.24	-14.76	54	27.71	34.6	12.06	35.13	108	271	A	V
	*	5500	98.88	-	-	87.08	34.8	12.12	35.12	108	271	P	V
	*	5500	88.9	-	-	77.1	34.8	12.12	35.12	108	271	A	V
													V
													H
													H
													H
													H
802.11ax													H
HE20 Full													H
CH 140	*	5700	101.52	-	-	89.6	34.7	12.38	35.16	100	271	P	V
5700MHz	*	5700	92.02	-	-	80.1	34.7	12.38	35.16	100	271	A	V
		5734.52	49.19	-19.01	68.2	37.25	34.7	12.41	35.17	100	271	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 Partial 242 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
													H
													H
													H
802.11ax													H
HE20													H
Partial													H
242/61		5452.72	49.4	-24.6	74	37.88	34.6	12.05	35.13	106	271	P	V
CH 100		5460.88	47.69	-20.51	68.2	36.16	34.6	12.06	35.13	106	271	P	V
5260MHz		5460	39.55	-14.45	54	28.02	34.6	12.06	35.13	106	271	A	V
	*	5500	97.83	-	-	86.03	34.8	12.12	35.12	106	271	P	V
	*	5500	87.71	-	-	75.91	34.8	12.12	35.12	106	271	A	V
													V
													H
													H
													H
802.11ax													H
HE20													H
Partial													H
242/61	*	5700	100.04	-	-	88.12	34.7	12.38	35.16	110	269	P	V
CH 140	*	5700	89.52	-	-	77.6	34.7	12.38	35.16	110	269	A	V
5700MHz		5757.08	49.66	-18.54	68.2	37.66	34.73	12.44	35.17	110	269	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 HE40 Full (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
													H
													H
													H
													H
802.11ax													H
HE40 Full													H
CH 102		5458.96	47.79	-26.21	74	36.26	34.6	12.06	35.13	100	272	P	V
5510MHz		5462.08	45.88	-22.32	68.2	34.34	34.6	12.07	35.13	100	272	P	V
		5459.92	38.91	-15.09	54	27.38	34.6	12.06	35.13	100	272	A	V
	*	5510	93.16	-	-	81.34	34.8	12.14	35.12	100	272	P	V
	*	5510	85.28	-	-	73.46	34.8	12.14	35.12	100	272	A	V
		5756.495	48.11	-20.09	68.2	36.11	34.73	12.44	35.17	100	272	P	V
													H
													H
													H
													H
802.11ax													H
HE40 Full													H
CH 134		5404.95	47.08	-26.92	74	35.66	34.6	11.98	35.16	100	266	P	V
5670MHz		5462.7	45.34	-22.86	68.2	33.73	34.67	12.07	35.13	100	266	P	V
		5459.55	38.13	-15.87	54	26.6	34.6	12.06	35.13	100	266	A	V
	*	5670	97.79	-	-	85.99	34.6	12.35	35.15	100	266	P	V
	*	5670	89.61	-	-	77.81	34.6	12.35	35.15	100	266	A	V
		5761.325	48.74	-19.46	68.2	36.74	34.73	12.44	35.17	100	266	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 Partial 484 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
													H
													H
													H
802.11ax													H
HE40													H
Partial													H
484/65		5429.68	47.89	-26.11	74	36.41	34.6	12.02	35.14	100	277	P	V
CH 102		5464.48	47.66	-20.54	68.2	36.05	34.67	12.07	35.13	100	277	P	V
5510MHz		5459.92	39.47	-14.53	54	27.94	34.6	12.06	35.13	100	277	A	V
	*	5510	90.38	-	-	78.56	34.8	12.14	35.12	100	277	P	V
	*	5510	83	-	-	71.18	34.8	12.14	35.12	100	277	A	V
		5745.155	47.27	-20.93	68.2	35.31	34.7	12.43	35.17	100	277	P	V
													H
													H
													H
802.11ax													H
HE40													H
Partial													H
484/65		5441.35	48.48	-25.52	74	36.99	34.6	12.03	35.14	111	274	P	V
CH 134		5462.35	47.02	-21.18	68.2	35.48	34.6	12.07	35.13	111	274	P	V
5670MHz		5459.2	38.97	-15.03	54	27.44	34.6	12.06	35.13	111	274	A	V
	*	5670	96.41	-	-	84.61	34.6	12.35	35.15	111	274	P	V
	*	5670	88.93	-	-	77.13	34.6	12.35	35.15	111	274	A	V
		5726.85	49.24	-18.96	68.2	37.29	34.7	12.41	35.16	111	274	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 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
													H
													H
													H
													H
802.11ax													H
HE80 Full													H
CH 106		5450.32	51.12	-22.88	74	39.6	34.6	12.05	35.13	100	266	P	V
5530MHz		5461.6	51.86	-16.34	68.2	40.32	34.6	12.07	35.13	100	266	P	V
		5456.56	42.1	-11.9	54	30.57	34.6	12.06	35.13	100	266	A	V
	*	5530	89.29	-	-	77.48	34.77	12.17	35.13	100	266	P	V
	*	5530	82.63	-	-	70.82	34.77	12.17	35.13	100	266	A	V
		5741.06	47.29	-20.91	68.2	35.34	34.7	12.42	35.17	100	266	P	V
													H
													H
													H
													H
802.11ax													H
HE80 Full													H
CH 122		5447.65	47.6	-26.4	74	36.1	34.6	12.04	35.14	100	268	P	V
5610MHz		5469.7	45.85	-22.35	68.2	34.23	34.67	12.08	35.13	100	268	P	V
		5459.9	38.21	-15.79	54	26.68	34.6	12.06	35.13	100	268	A	V
	*	5610	93.14	-	-	81.19	34.8	12.29	35.14	100	268	P	V
	*	5610	86.22	-	-	74.27	34.8	12.29	35.14	100	268	A	V
		5727.025	48.48	-19.72	68.2	36.53	34.7	12.41	35.16	100	268	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 Partial 996 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
													H
													H
													H
802.11ax													H
HE80													H
Partial													H
996/67		5448.16	50	-24	74	38.5	34.6	12.04	35.14	100	271	P	V
CH 106		5468.8	49.8	-18.4	68.2	38.18	34.67	12.08	35.13	100	271	P	V
5530MHz		5454.64	41.56	-12.44	54	30.04	34.6	12.05	35.13	100	271	A	V
	*	5530	86.28	-	-	74.47	34.77	12.17	35.13	100	271	P	V
	*	5530	79.55	-	-	67.74	34.77	12.17	35.13	100	271	A	V
		5736.65	48.54	-19.66	68.2	36.59	34.7	12.42	35.17	100	271	P	V
													H
													H
													H
802.11ax													H
HE80													H
Partial													H
996/67		5415.1	47.94	-26.06	74	36.51	34.6	11.99	35.16	100	274	P	V
CH 122		5469	47.29	-20.91	68.2	35.67	34.67	12.08	35.13	100	274	P	V
5610MHz		5458.85	39.08	-14.92	54	27.55	34.6	12.06	35.13	100	274	A	V
	*	5610	91.48	-	-	79.53	34.8	12.29	35.14	100	274	P	V
	*	5610	84.09	-	-	72.14	34.8	12.29	35.14	100	274	A	V
		5744.875	48.44	-19.76	68.2	36.49	34.7	12.42	35.17	100	274	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 HE160 Full (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
													H
													H
													H
													H
802.11ax													H
HE160 Full													H
CH 114		5419.65	50.54	-23.46	74	39.1	34.6	12	35.16	104	272	P	V
5570MHz		5461.65	47.84	-20.36	68.2	36.3	34.6	12.07	35.13	104	272	P	V
		5413.7	42.54	-11.46	54	31.11	34.6	11.99	35.16	104	272	A	V
	*	5570	90.26	-	-	78.43	34.73	12.23	35.13	104	272	P	V
	*	5570	83.13	-	-	71.3	34.73	12.23	35.13	104	272	A	V
		5730.35	50.3	-17.9	68.2	38.36	34.7	12.41	35.17	104	272	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 HE160 Partial 1992 (Band Edge @ 3m)

WIFI Ant. 2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
													H
													H
													H
802.11ax													H
HE160													H
Partial													H
1992/68		5415.28	60.19	-13.81	74	48.76	34.6	11.99	35.16	100	270	P	V
CH 114		5460.88	56.82	-11.38	68.2	45.29	34.6	12.06	35.13	100	270	P	V
5570MHz		5404	47.21	-6.79	54	35.79	34.6	11.98	35.16	100	270	A	V
	*	5570	91.68	-	-	79.85	34.73	12.23	35.13	100	270	P	V
	*	5570	84.33	-	-	72.5	34.73	12.23	35.13	100	270	A	V
		5730.035	55.44	-12.76	68.2	43.49	34.7	12.41	35.16	100	270	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Note symbol

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

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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(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 C. Radiated Spurious Emission Plots

Test Engineer :	Jesse Wang, Stan Hsieh and Ken Wu	**Temperature :**	17.9~22.2°C
		Relative Humidity :	53.1~69%

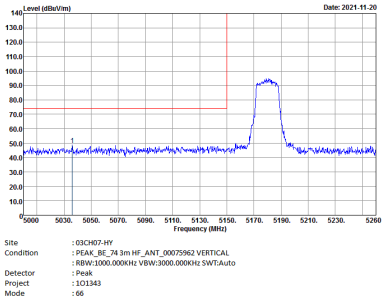
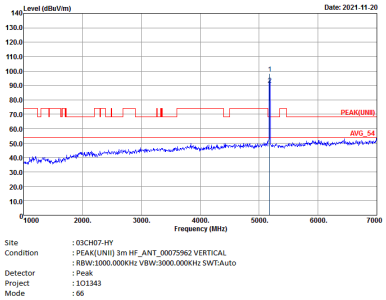
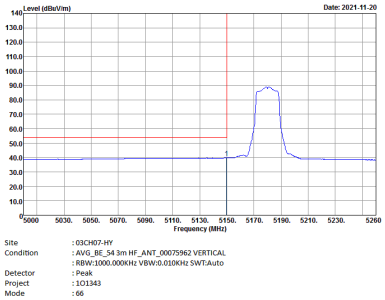
Remark: For Radiated Spurious Emission Test Items, Ant. 1 means Chain 0 (Aux.) and Ant. 2 means Chain 1 (Main).

Note symbol

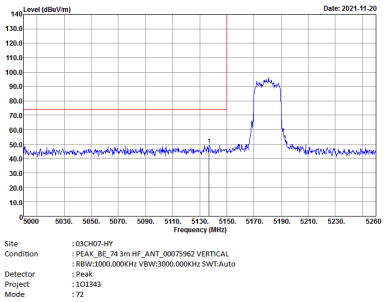
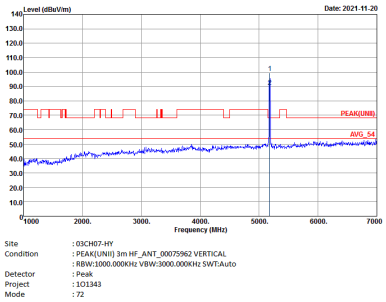
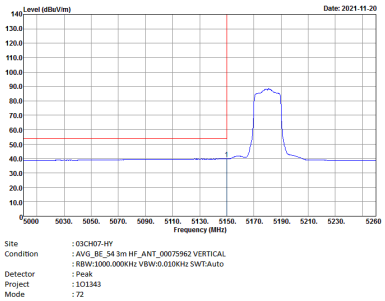
-L	**Low channel location**
-R	**High channel location**

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

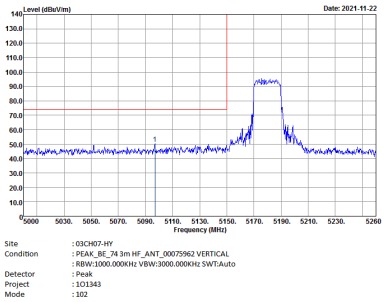
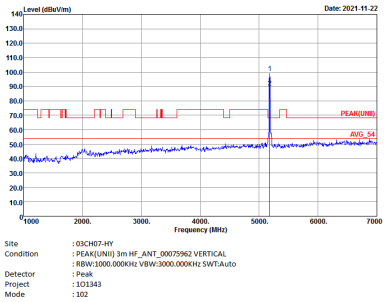
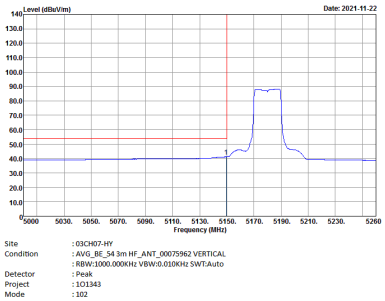
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

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

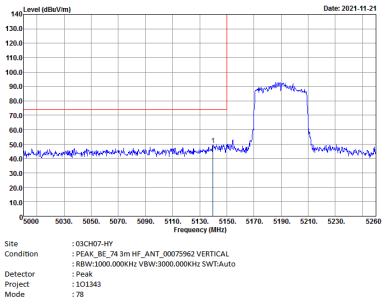
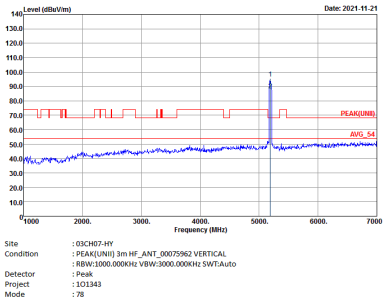
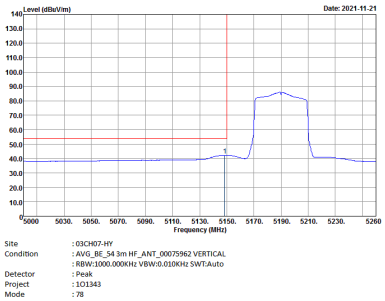
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH36 5180MHz	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

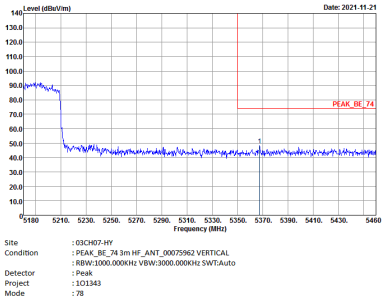
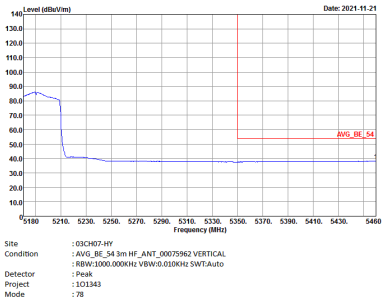
Band 1 5150~5250MHz

WIFI 802.11ax HE20 Partial 242 (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 242/61 CH36 5180MHz	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

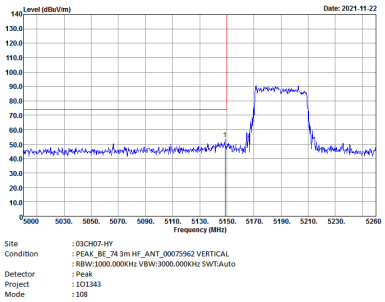
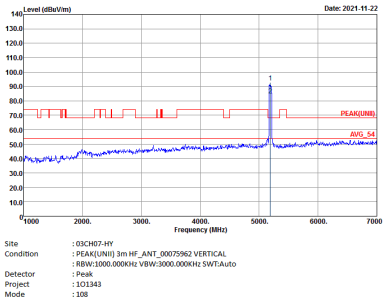
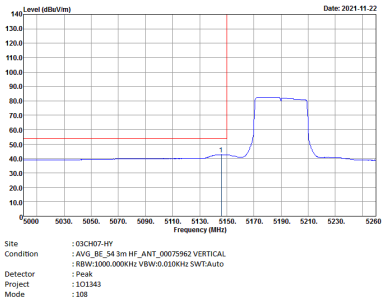
Band 1 5150~5250MHz
WIFI 802.11ax HE40 Full (Band Edge @ 3m)

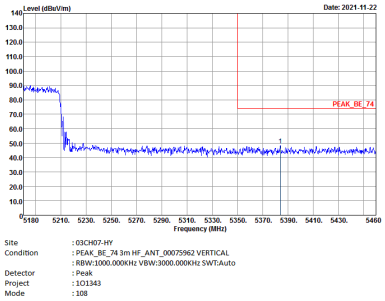
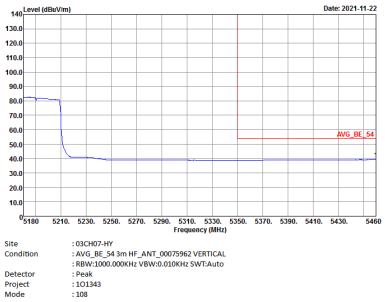
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH38 5190MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

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

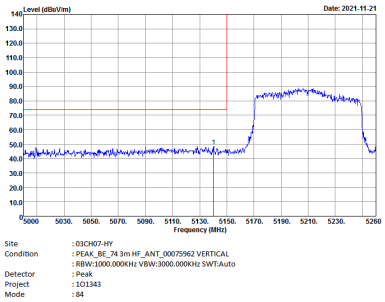
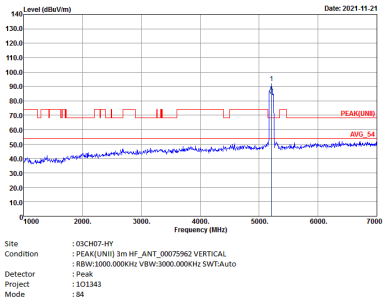
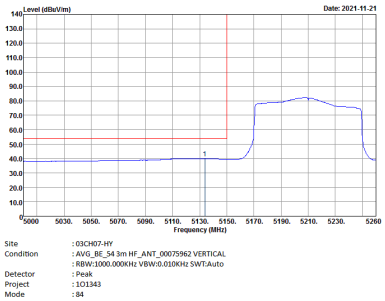
Band 1 5150~5250MHz

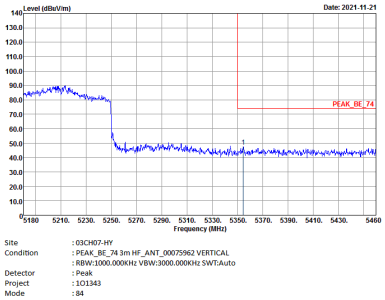
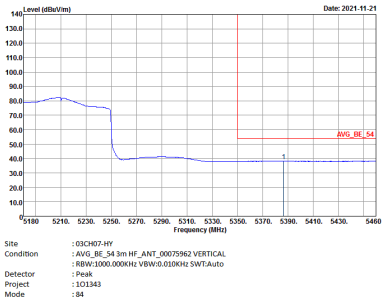
WIFI 802.11ax HE40 Partial 484 (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 484/65 CH38 5190MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 484/65 CH38 5190MHz - R	
2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

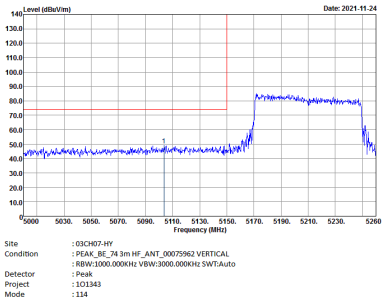
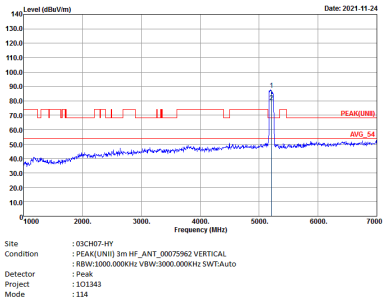
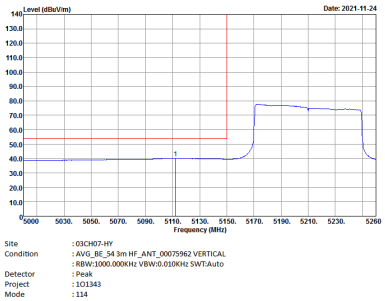
Band 1 5150~5250MHz
WIFI 802.11ax HE80 Full (Band Edge @ 3m)

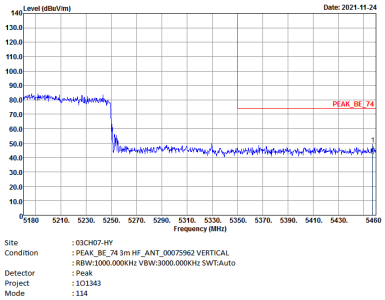
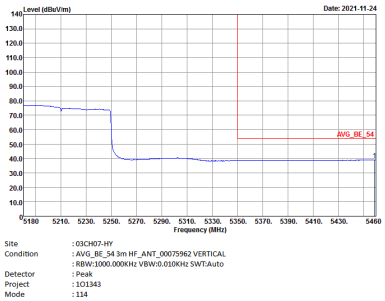
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH42 5210MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

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

Band 1 5150~5250MHz

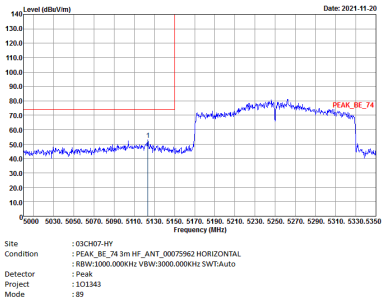
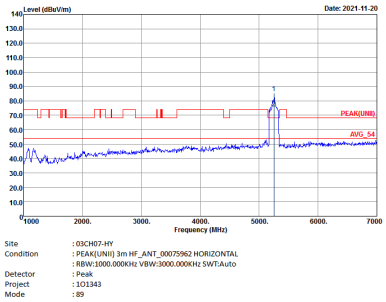
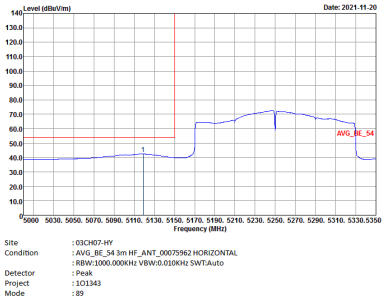
WIFI 802.11ax HE80 Partial 996 (Band Edge @ 3m)

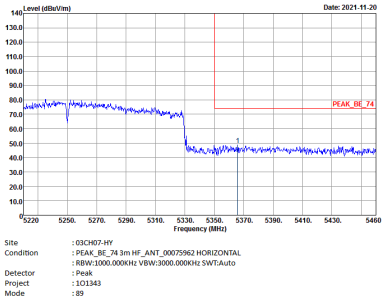
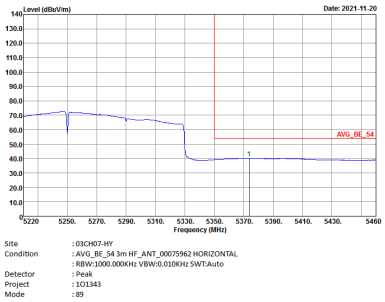
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 996/67 CH42 5210MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

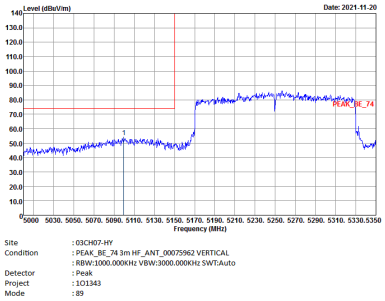
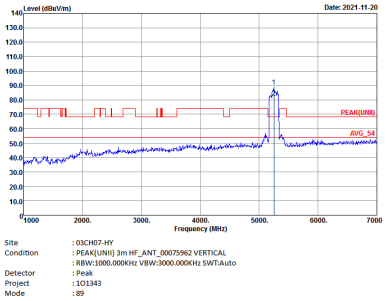
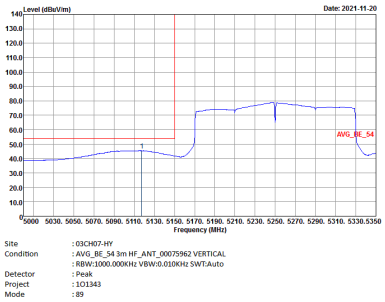
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 996/67 CH42 5210MHz - R	
2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

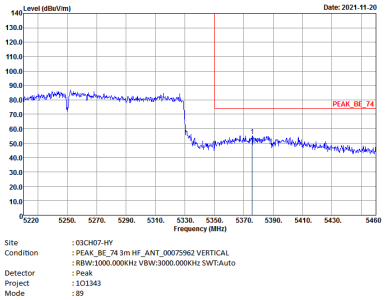
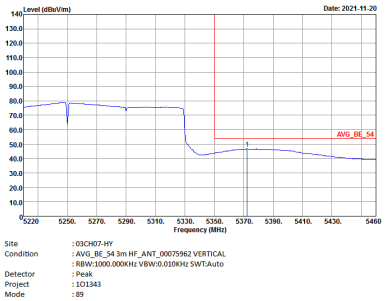
Band 1 5150~5250MHz

WIFI 802.11ax HE160 Full (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE160 Full CH50 5250MHz - L	
2	Horizontal	Fundamental
Peak		
Avg.		Left blank

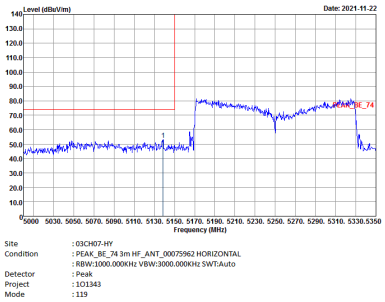
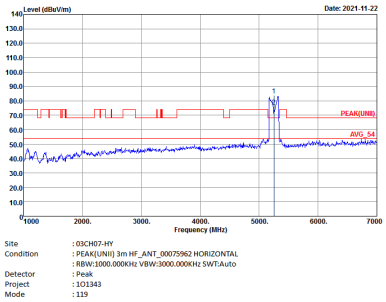
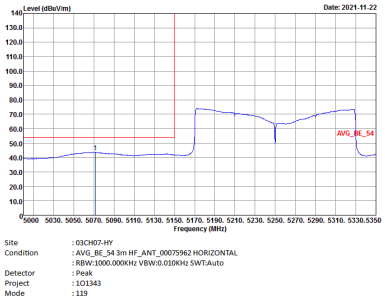
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE160 Full CH50 5250MHz - R	
2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

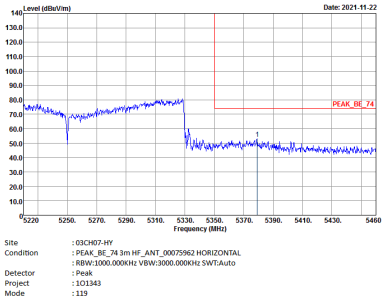
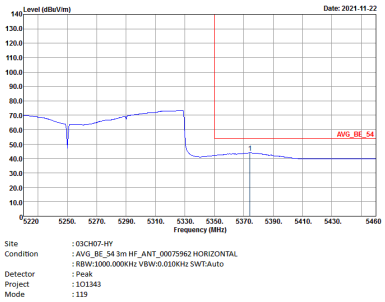
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE160 Full CH50 5250MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

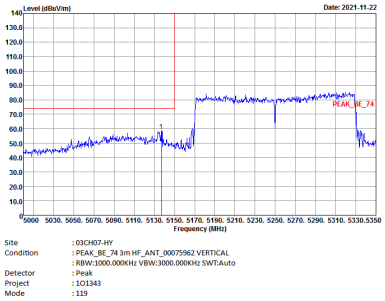
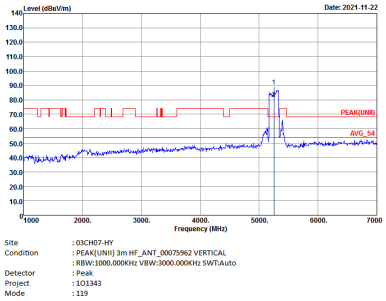
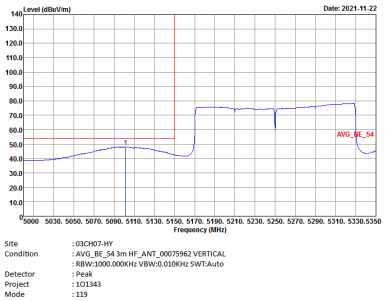
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE160 Full CH50 5250MHz - R	
2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

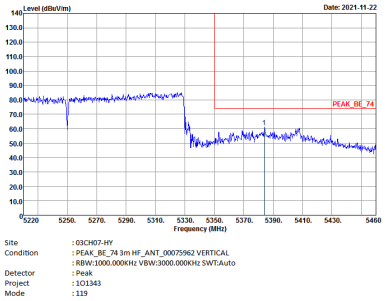
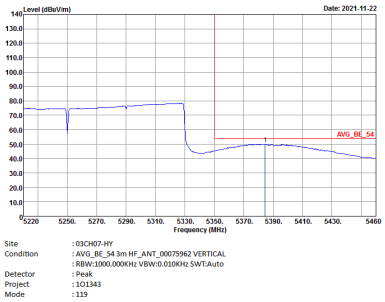
Band 1 5150~5250MHz

WIFI 802.11ax HE160 Partial 1992 (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE160 Partial 1992/68 CH50 5250MHz - L	
2	Horizontal	Fundamental
Peak		
Avg.		Left blank

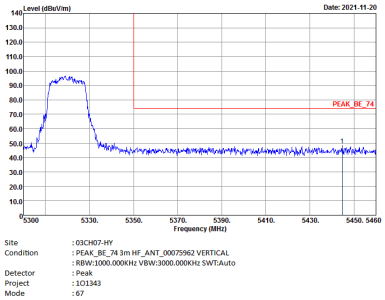
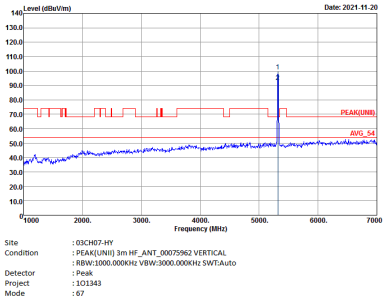
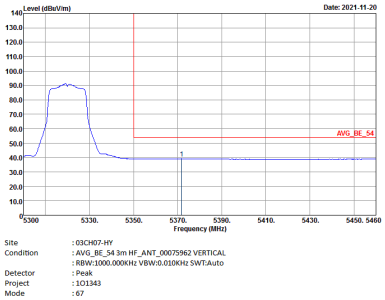
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE160 Partial 1992/68 CH50 5250MHz - R	
2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE160 Partial 1992/68 CH50 5250MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE160 Partial 1992/68 CH50 5250MHz - R	
2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

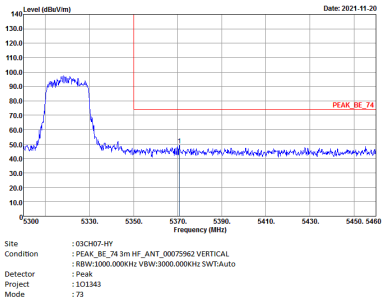
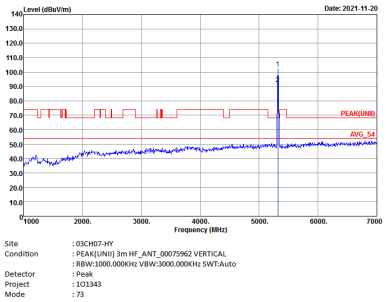
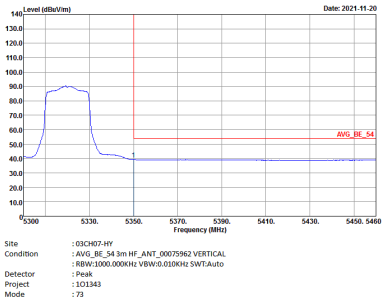
Band 2 - 5250~5350MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

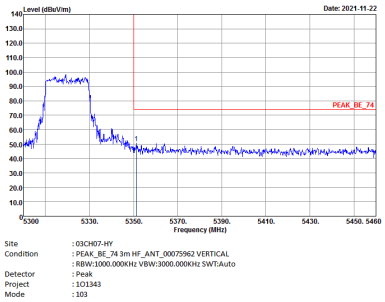
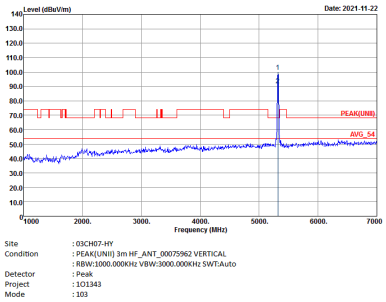
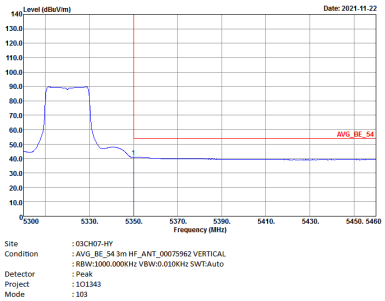
Band 2 5250~5350MHz

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

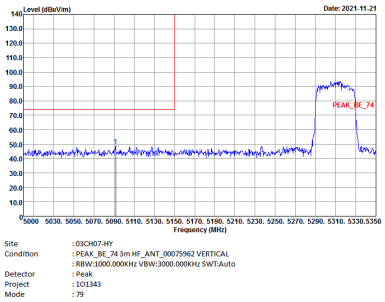
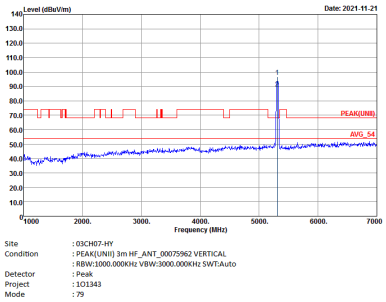
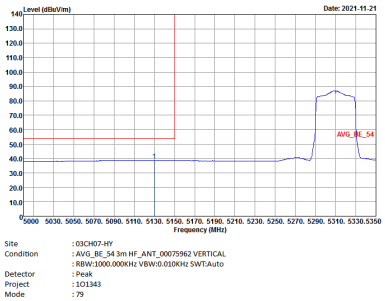
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH64 5320MHz	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

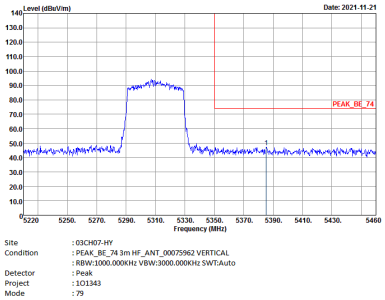
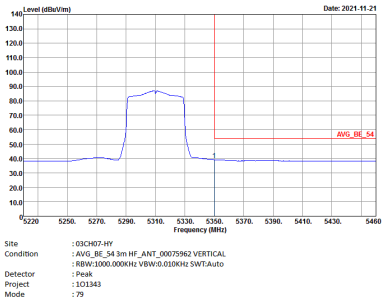
Band 2 - 5250~5350MHz

WIFI 802.11ax HE20 Partial 242 (Band Edge @ 3m)

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 242/61 CH64 5320MHz	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

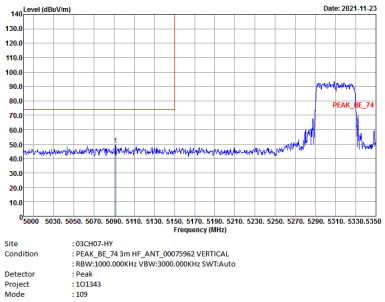
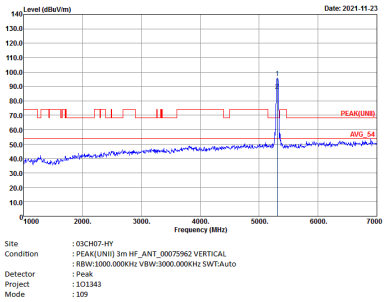
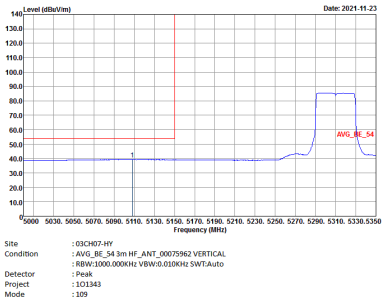
Band 2 5250~5350MHz
WIFI 802.11ax HE40 Full (Band Edge @ 3m)

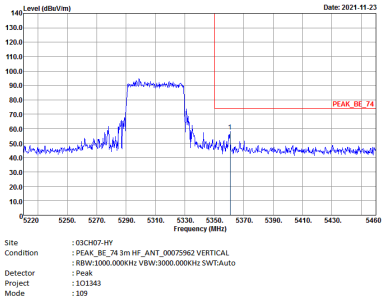
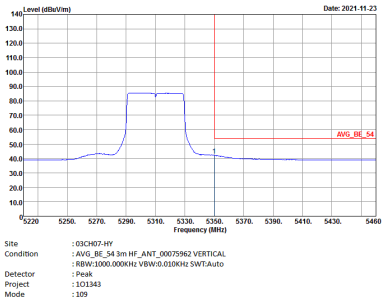
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH62 5310 - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

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

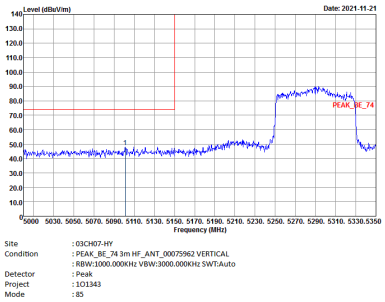
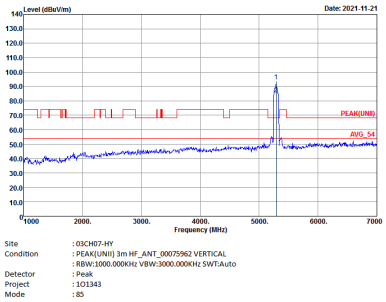
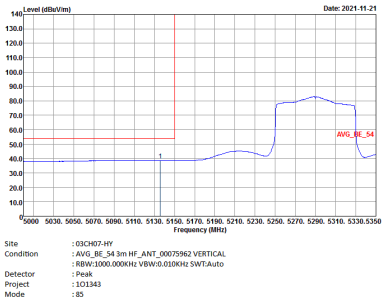
Band 2 5250~5350MHz

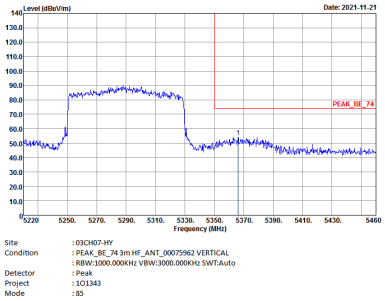
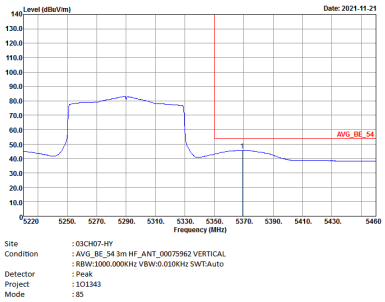
WIFI 802.11ax HE40 Partial 484 (Band Edge @ 3m)

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 484/65 CH62 5310 - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 484/65 CH62 5310 - R	
2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

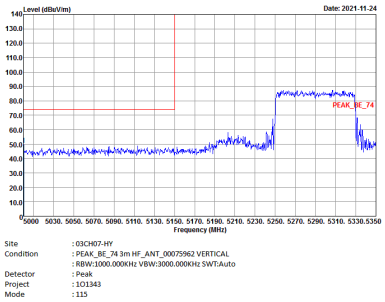
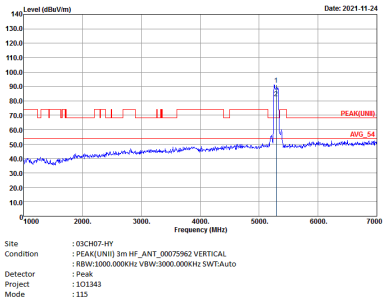
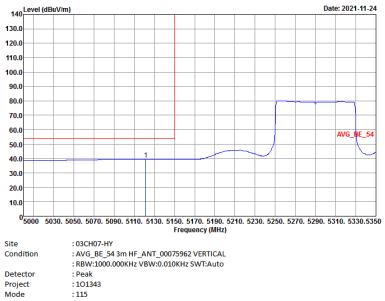
Band 2 5250~5350MHz
WIFI 802.11ax HE80 Full (Band Edge @ 3m)

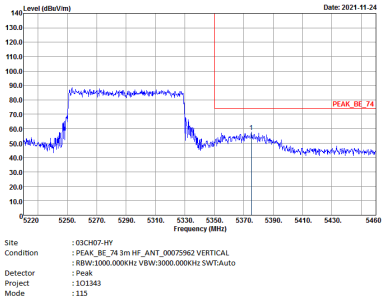
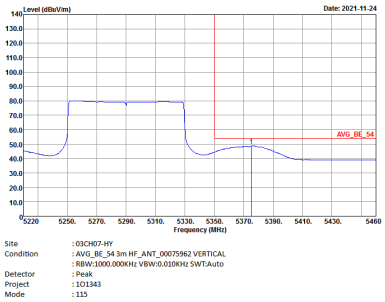
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH58 5290MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

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

Band 2 5250~5350MHz

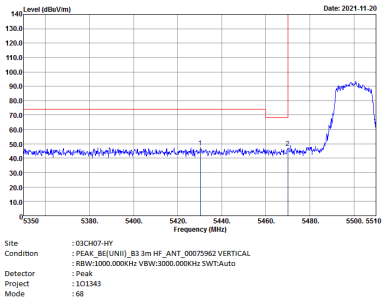
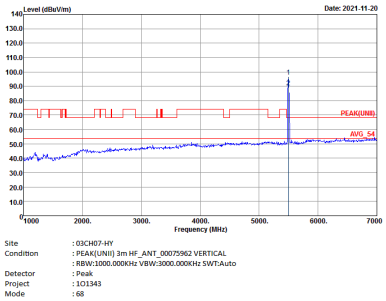
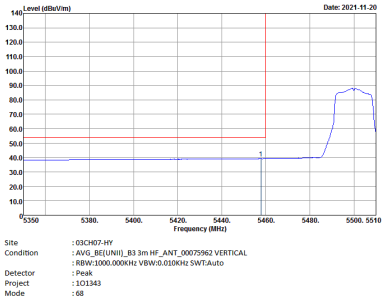
WIFI 802.11ax HE80 Partial 996 (Band Edge @ 3m)

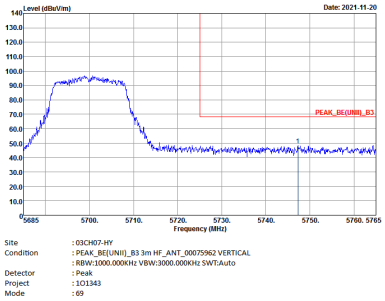
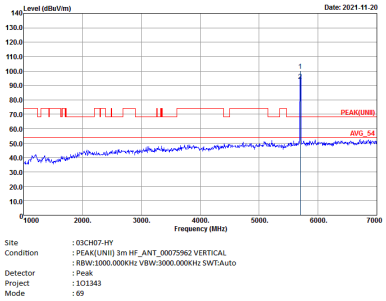
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 996/67 CH58 5290MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 996/67 CH58 5290MHz - R	
2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

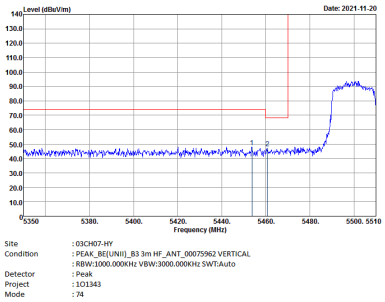
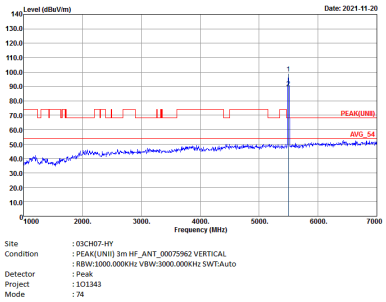
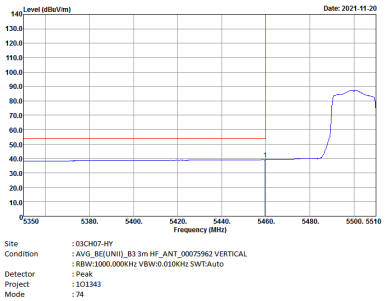
Band 3 - 5470~5725MHz

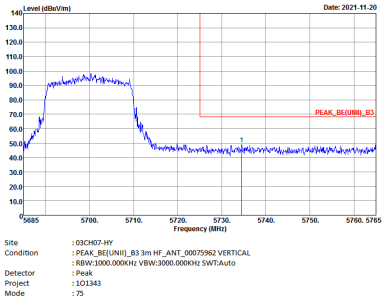
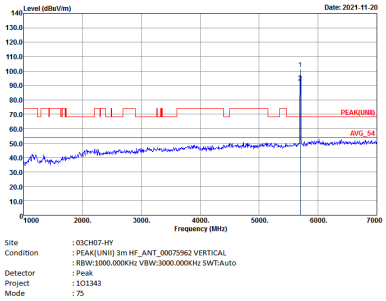
WIFI 802.11a (Band Edge @ 3m)

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH140 5700MHz	
2	Vertical	Fundamental
Peak		

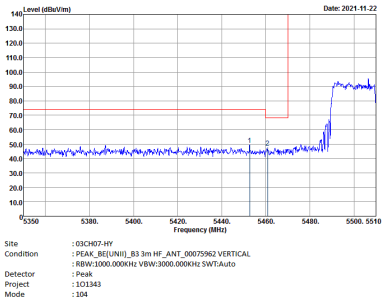
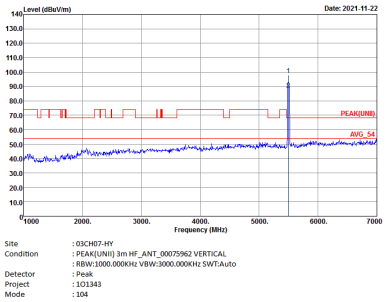
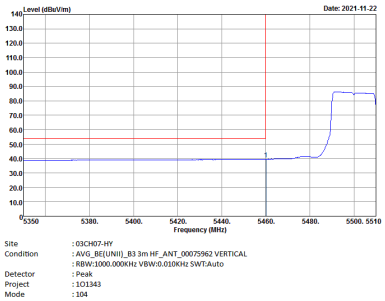
Band 3 5470~5725MHz
WIFI 802.11ax HE20 Full (Band Edge @ 3m)

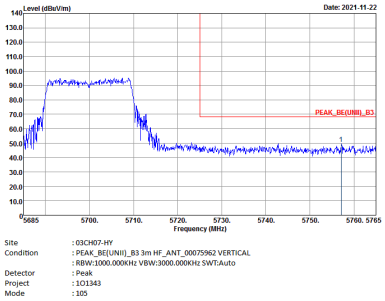
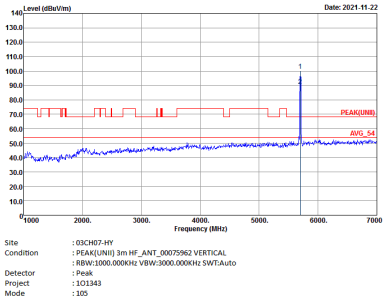
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH100 5500MHz	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

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

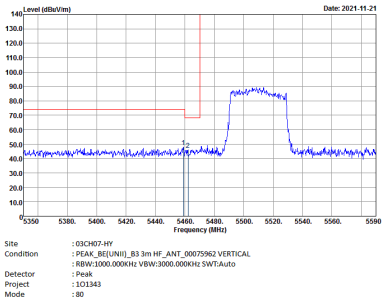
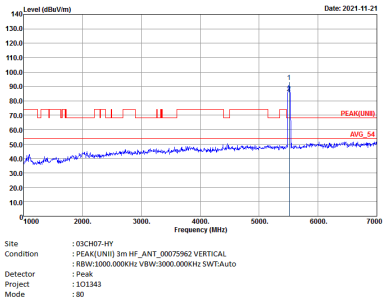
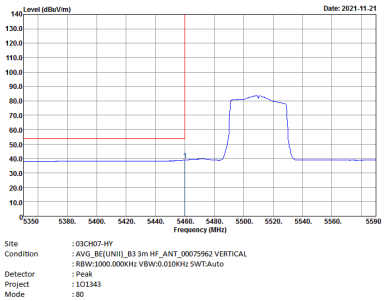
Band 3 - 5470~5725MHz

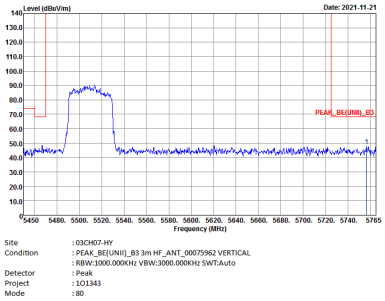
WIFI 802.11ax HE20 Partial 242 (Band Edge @ 3m)

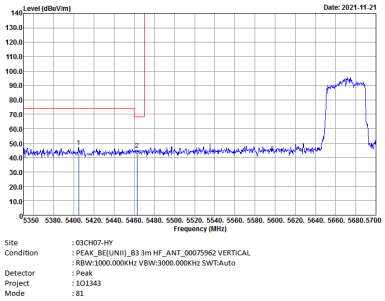
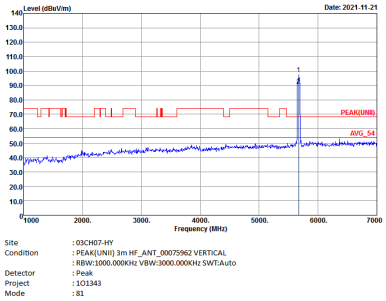
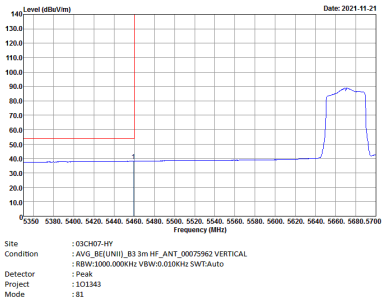
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 242/61 CH100 5500MHz	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

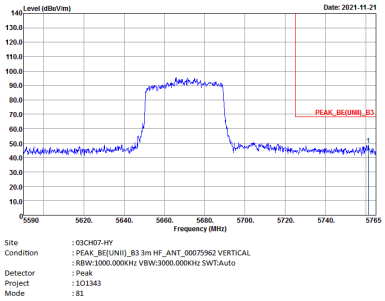
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 242/61 CH140 5700MHz	
2	Vertical	Fundamental
Peak		

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	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

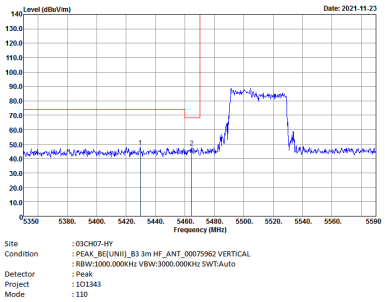
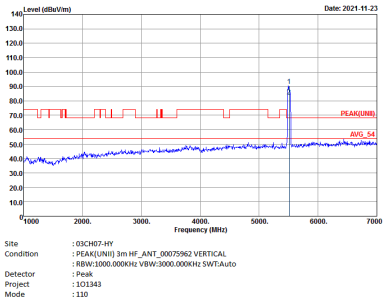
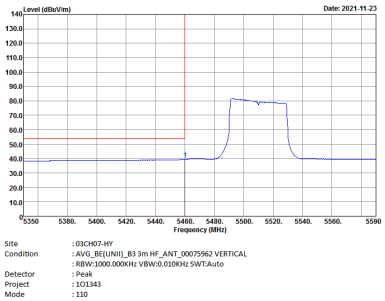
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH102 5510MHz - R	
2	Vertical	Fundamental
Peak		Left blank

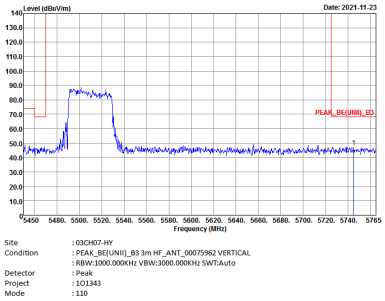
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH134 5670MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

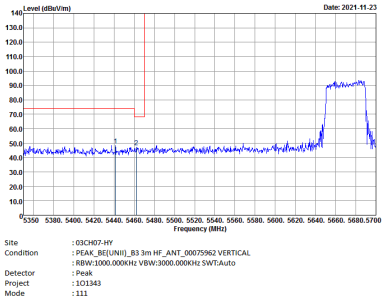
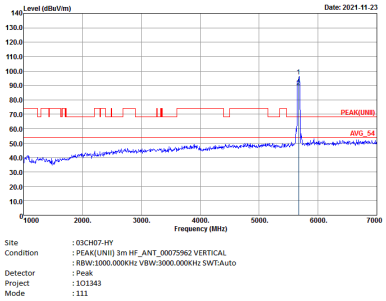
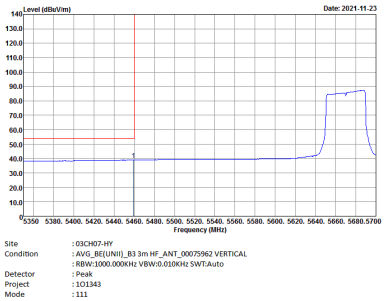
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH134 5670MHz - R	
2	Vertical	Fundamental
Peak		Left blank

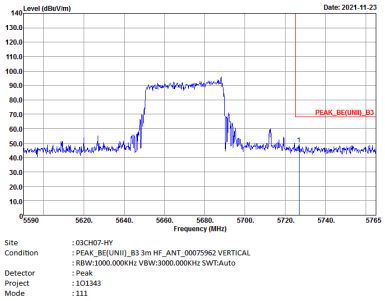
Band 3 5470~5725MHz

WIFI 802.11ax HE40 Partial 484 (Band Edge @ 3m)

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 484/65 CH102 5510MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

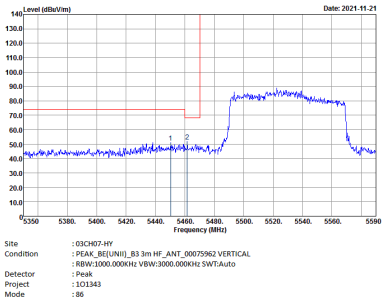
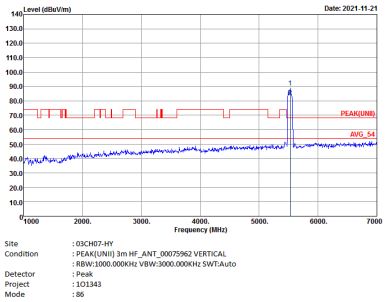
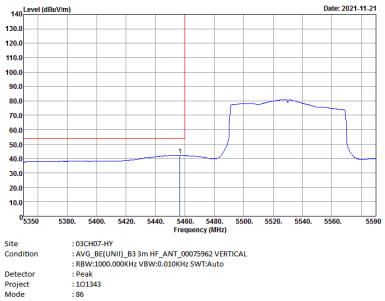
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 484/65 CH102 5510MHz - R	
2	Vertical	Fundamental
Peak		Left blank

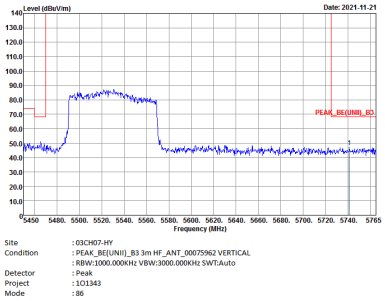
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 484/65 CH134 5670MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

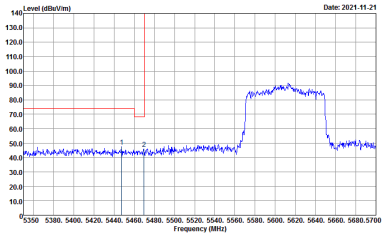
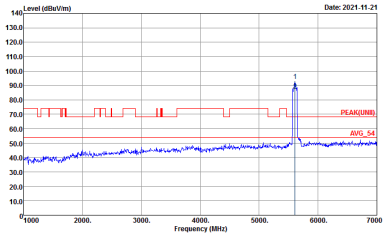
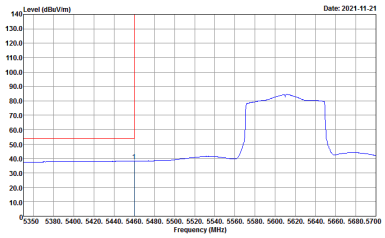
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 484/65 CH134 5670MHz - R	
2	Vertical	Fundamental
Peak		Left blank

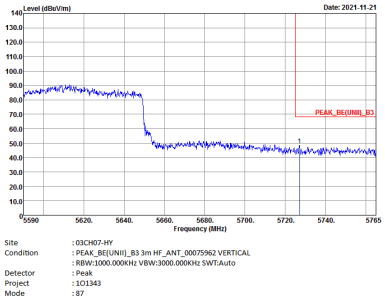
Band 3 5470~5725MHz

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

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

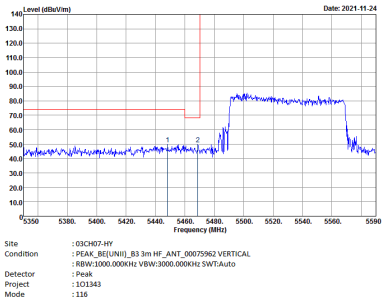
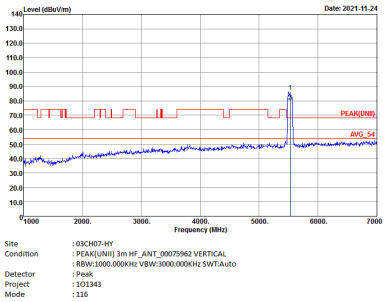
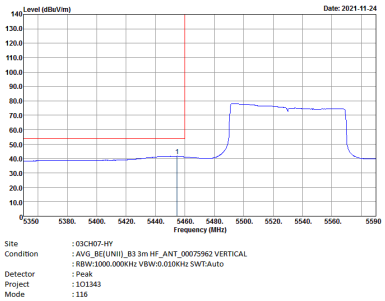
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH106 5530MHz - R	
2	Vertical	Fundamental
Peak		Left blank

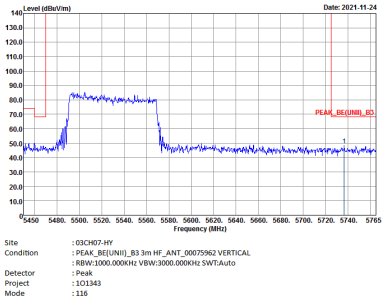
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH122 5610MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

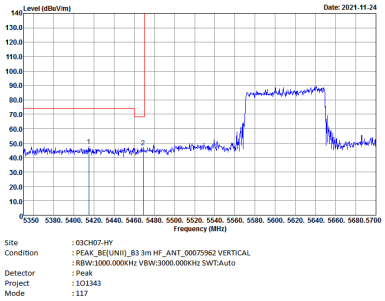
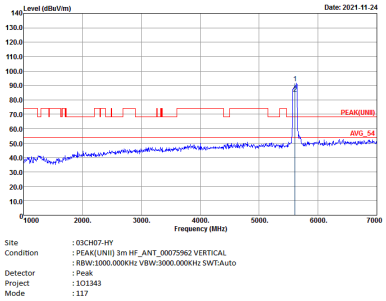
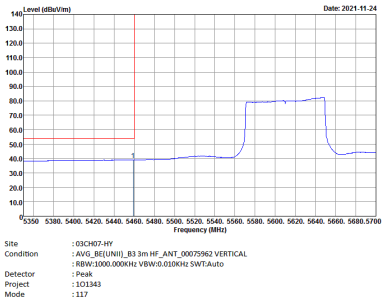
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH122 5610MHz - R	
2	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(UNII)_B3 3m HF_ANT_00075962 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 1O1343 Mode : 87	Left blank

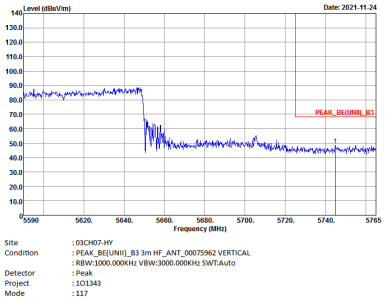
Band 3 5470~5725MHz

WIFI 802.11ax HE80 Partial 996 (Band Edge @ 3m)

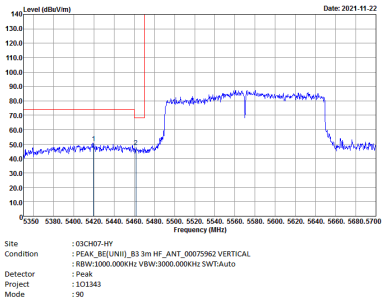
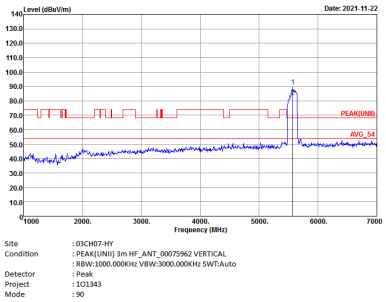
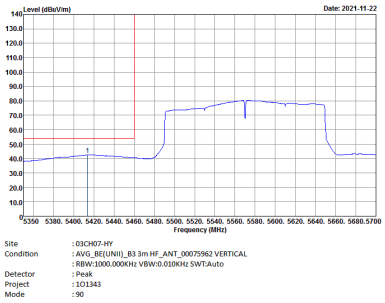
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 996/67 CH106 5530MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

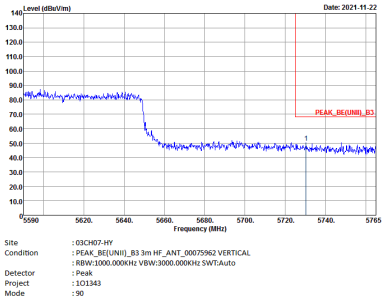
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 996/67 CH106 5530MHz - R	
2	Vertical	Fundamental
Peak		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 996/67 CH122 5610MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 996/67 CH122 5610MHz - R	
2	Vertical	Fundamental
Peak		Left blank

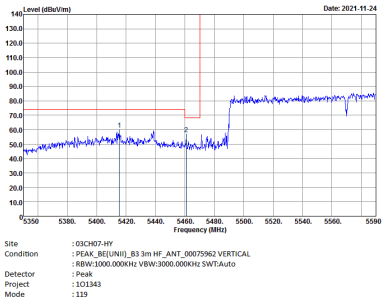
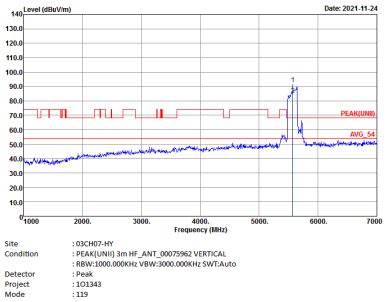
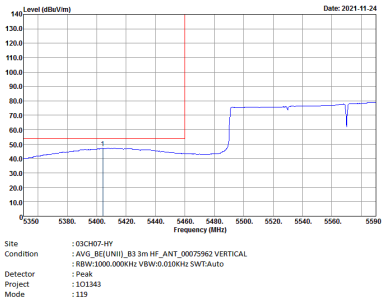
Band 3 5470~5725MHz
WIFI 802.11ax HE160 Full (Band Edge @ 3m)

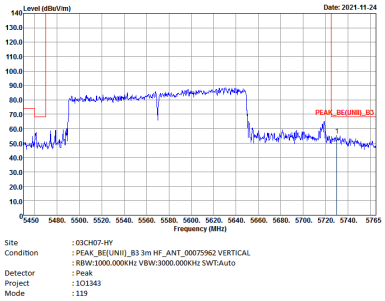
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE160 Full CH114 5570MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE160 Full CH114 5570MHz - R	
2	Vertical	Fundamental
Peak		Left blank

Band 3 5470~5725MHz

WIFI 802.11ax HE160 Partial 1992 (Band Edge @ 3m)

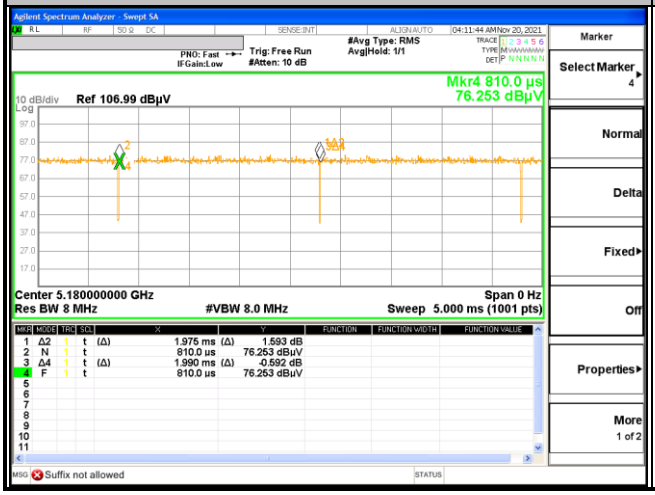
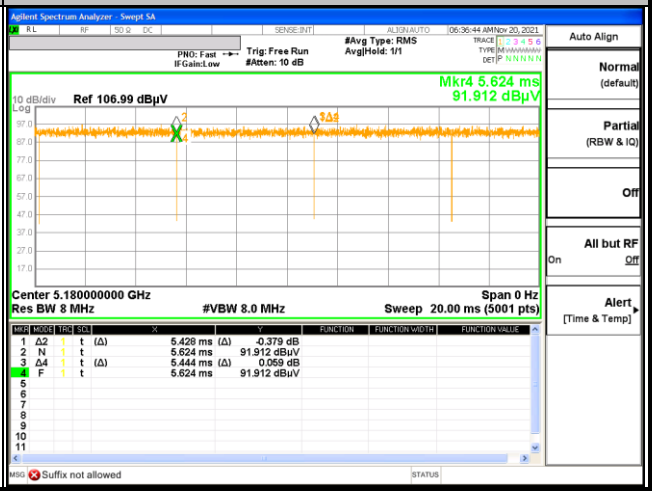
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE160 Partial 1992/68 CH114 5570MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

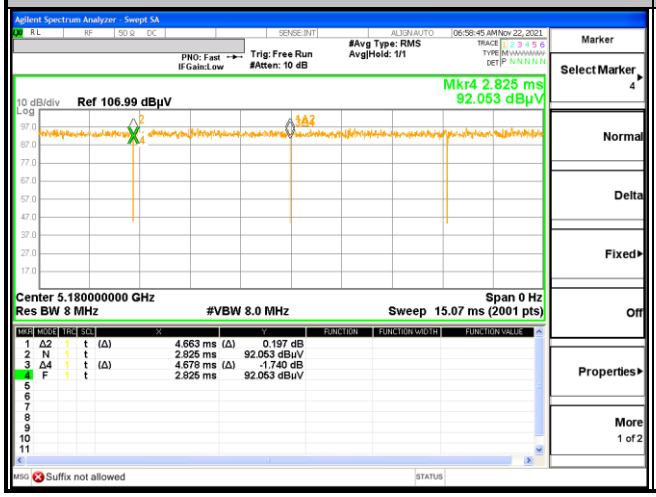
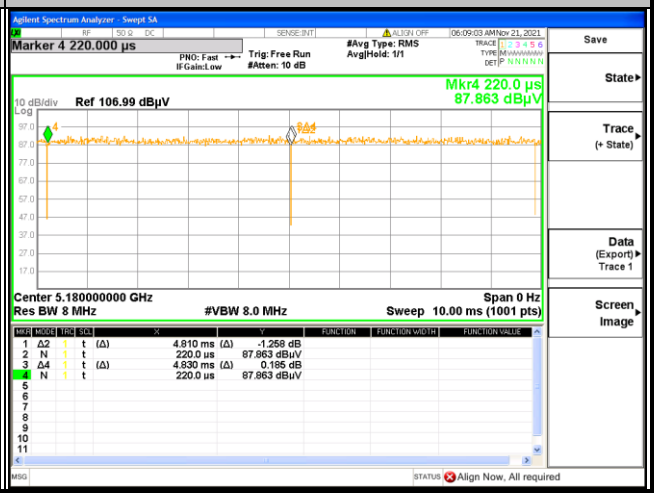
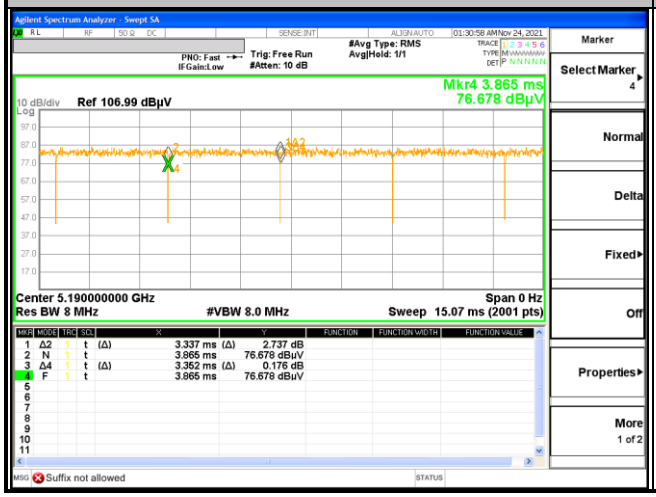
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE160 Partial 1992/68 CH114 5570MHz - R	
2	Vertical	Fundamental
Peak		Left blank

Appendix D. Duty Cycle Plots

Chain	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
1	802.11a	99.25	-	-	10Hz
1	5GHz 802.11ax HE20 Full RU	99.71	-	-	10Hz
1	5GHz 802.11ax HE20 242 RU	99.68	-	-	10Hz
1	5GHz 802.11ax HE40 Full RU	99.59	-	-	10Hz
1	5GHz 802.11ax HE40 484 RU	99.55	-	-	10Hz
1	5GHz 802.11ax HE80 Full RU	98.83	-	-	10Hz
1	5GHz 802.11ax HE80 996 RU	98.77	-	-	10Hz
1	5GHz 802.11ax HE160 Full RU	99.32	-	-	10Hz
1	5GHz 802.11ax HE160 1992 RU	99.31	-	-	10Hz

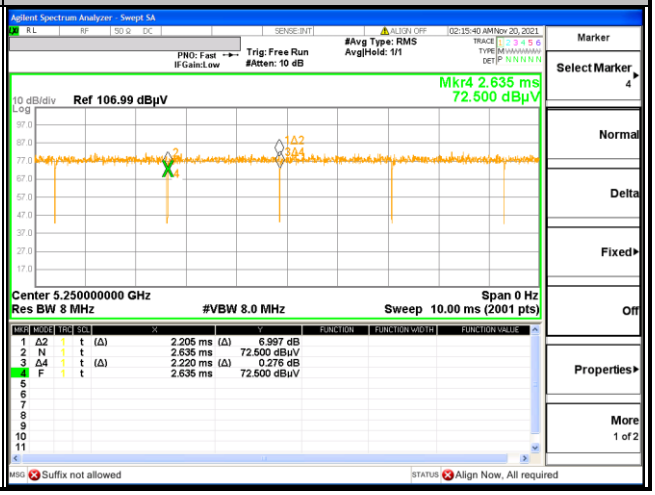
<Chain 1>

802.11a	5GHz 802.11ax HE20 Full RU
	

5GHz 802.11ax HE20 242 RU	5GHz 802.11ax HE40 Full RU
	
5GHz 802.11ax HE40 484 RU	**5GHz 802.11ax HE80 Full RU**
	

5GHz 802.11ax HE80 996 RU

5GHz 802.11ax HE160 Full RU



5GHz 802.11ax HE160 1992 RU