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 Nov. 08, 2021 to Nov. 29, 2021. We, Sporton International Inc. Wensan Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

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

Louis Wu

Approved by: Louis Wu

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

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History of this test report

Report No.	Version	Description	Issue Date
FR1O1338B	01	Initial issue of report	Nov. 30, 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	1.68 dB under the limit at 5142.480 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: Cindy Liu

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: P157G) during test, and the host information was recorded in the following table.

Host Information	
Host 1	Host with WNC Antenna
Host 2	Host with Speed Antenna

Antenna Information			
Antenna 1	**Manufacturer**	WNC	
	Antenna Type	PIFA Antenna	PIFA Antenna
	Part number	81EABJ15.G45	81EABJ15.G46
	Peak gain (dBi)	Main Antenna :	Aux. Antenna :
		WLAN(5GHz Band 1): 3.03 WLAN(5GHz Band 2): 2.85 WLAN(5GHz Band 3): 3.30	WLAN(5GHz Band 1): 2.93 WLAN(5GHz Band 2): 2.95 WLAN(5GHz Band 3): 3.46
Antenna 2	**Manufacturer**	Speed	
	Antenna Type	PIFA Antenna	PIFA Antenna
	Part number	F-0G-FS-6120-002	F-0G-FS-6120-003
	Peak gain (dBi)	Main Antenna :	Aux. Antenna :
		WLAN(5GHz Band 1): 3.03 WLAN(5GHz Band 2): 2.85 WLAN(5GHz Band 3): 3.30	WLAN(5GHz Band 1): 2.93 WLAN(5GHz Band 2): 2.95 WLAN(5GHz Band 3): 3.46

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to Comments and Explanations in report summary.
2. The output power measurement was performed with “WNC Antenna”, and performed with “Speed Antenna” in radiated spurious emission test 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. Wensan Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	**Sporton Site No.**
	TH05-HY, 03CH15-HY

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

FCC designation No.: TW3786

1.4 Applicable Standards

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

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

Single Mode

Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0
802.11ac VHT20	MCS0
802.11ac VHT40	MCS0
802.11ac VHT80	MCS0
802.11ac VHT160	MCS0
802.11ax HE20	MCS0
802.11ax HE40	MCS0
802.11ax HE80	MCS0
802.11ax HE160	MCS0

<Chain 0>

Ch. #		Band II：5250-5350 MHz			
		802.11a	802.11ax HE20	802.11ax HE40	802.11ax HE80
L	Low	-	-	-	-
M	Middle	-	-	-	58
H	High	64	64	62	-

Ch. #		Band III：5470-5725MHz			
		802.11a	802.11ax HE20	802.11ax HE40	802.11ax HE80
L	Low	100	100	102	106
M	Middle	-	-	-	-
H	High	140	140	134	122

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

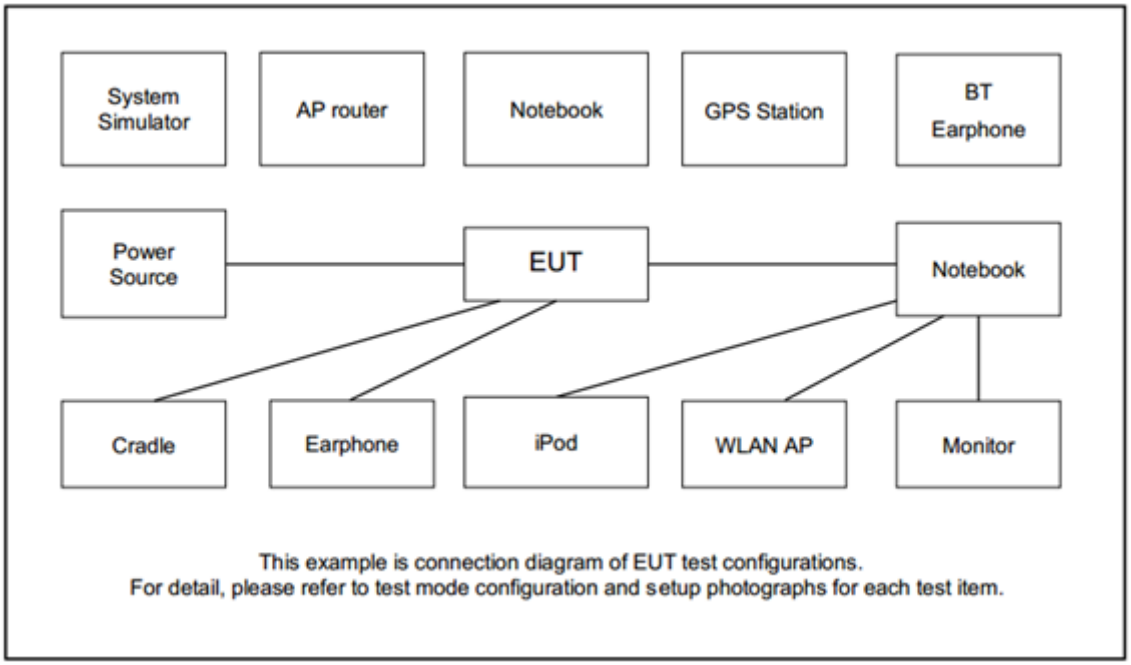
<Chain 1>

Ch. #		Band I：5150-5250 MHz			
		802.11a	802.11ax HE20	802.11ax HE40	802.11ax HE80
L	Low	36	36	38	-
M	Middle	-	-	-	42
H	High	-	-	-	-

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

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 V4.0.00194.0” 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

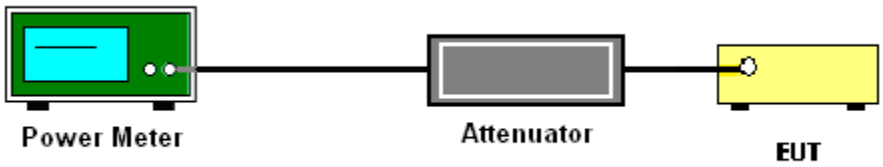
The testing follows Method PM-G of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

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

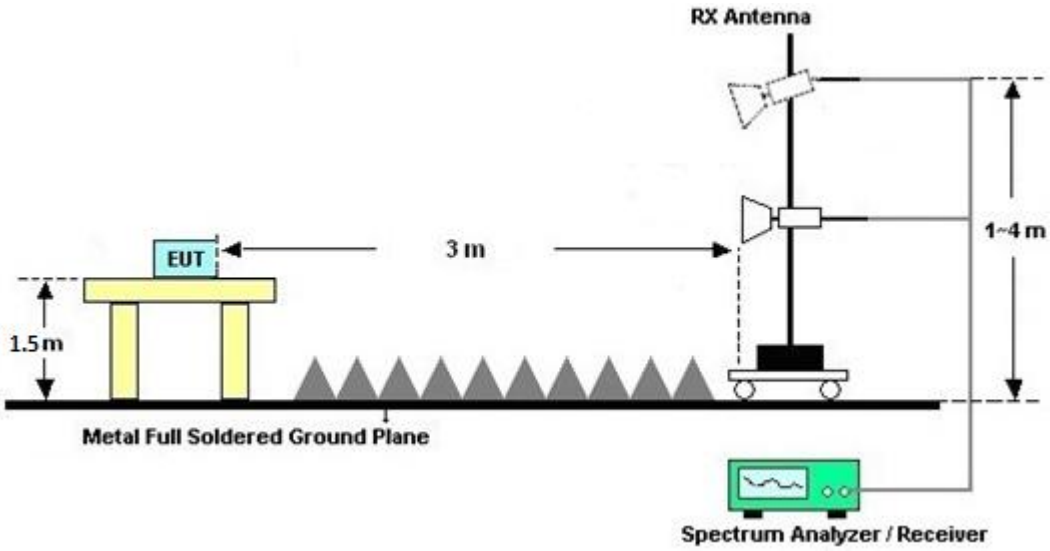
   - RBW = 1 MHz
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

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 above 1GHz



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
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-01620	1GHz~18GHz	Oct. 25, 2021	Nov. 18, 2021~ Nov. 29, 2021	Oct. 24, 2022	Radiation (03CH15-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	00991	18GHz~40GHz	May 12, 2021	Nov. 18, 2021~ Nov. 29, 2021	May 11, 2022	Radiation (03CH15-HY)
Preamplifier	Jet-Power	JPA0118-55-303	171000180005006	1GHz~18GHz	May 06, 2021	Nov. 18, 2021~ Nov. 29, 2021	May 05, 2022	Radiation (03CH15-HY)
Preamplifier	EM Electronics	EM01G18G	060802	1GHz~18GHz	Jul. 26, 2021	Nov. 18, 2021~ Nov. 29, 2021	Jul. 25, 2022	Radiation (03CH15-HY)
Preamplifier	EM Electronics	EM01G18G	060803	1GHz~18GHz	Jul. 26, 2021	Nov. 18, 2021~ Nov. 29, 2021	Jul. 25, 2022	Radiation (03CH15-HY)
Preamplifier	EMEC	EM18G40G	060801	18-40GHz	Jun. 22, 2021	Nov. 18, 2021~ Nov. 29, 2021	Jun. 21, 2022	Radiation (03CH15-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY54130085	20MHz~8.4GHz	Oct. 21, 2020	Nov. 18, 2021~ Nov. 29, 2021	Oct. 20, 2022	Radiation (03CH15-HY
Spectrum Analyzer	Agilent	E4446A	MY50180136	3Hz~44GHz	May 07, 2021	Nov. 18, 2021~ Nov. 29, 2021	May 06, 2022	Radiation (03CH15-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Nov. 18, 2021~ Nov. 29, 2021	N/A	Radiation (03CH15-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Nov. 18, 2021~ Nov. 29, 2021	N/A	Radiation (03CH15-HY)
Software	Audix	E3 6.2009-8-24(k5)	RK-000451	N/A	N/A	Nov. 18, 2021~ Nov. 29, 2021	N/A	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104, 102E	MY36980/4, MY9838/4PE, 508405/2E	30MHz~18G	Nov. 15, 2021	Nov. 18, 2021~ Nov. 29, 2021	Nov. 14, 2022	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30MHz-40GHz	Feb. 22, 2021	Nov. 18, 2021~ Nov. 29, 2021	Feb. 21, 2022	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30MHz-40GHz	Feb. 22, 2021	Nov. 18, 2021~ Nov. 29, 2021	Feb. 21, 2022	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz~30MHz	Mar. 11, 2021	Nov. 18, 2021~ Nov. 29, 2021	Mar. 10, 2022	Radiation (03CH15-HY)
Filter	Wainwright	WLJ4-1000-1530-6000-40ST	SN4	1.53GHz Low Pass Filter	Jul. 02, 2021	Nov. 18, 2021~ Nov. 29, 2021	Jul. 01, 2022	Radiation (03CH15-HY)
Filter	Wainwright	WHKX8-5872.5-6750-18000-40ST	SN6	6.75GHz High Pass Filter	Jun. 30, 2021	Nov. 18, 2021~ Nov. 29, 2021	Jun. 29, 2022	Radiation (03CH15-HY)
Hygrometer	Testo	608-H1	34893241	N/A	Mar. 01, 2021	Nov. 08, 2021~ Nov. 09, 2021	Feb. 28, 2022	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	16I00054SNO12	10MHz~6GHz	Dec. 16, 2020	Nov. 08, 2021~ Nov. 09, 2021	Dec. 15, 2021	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101565	10Hz ~ 40GHz	Nov. 13, 2020	Nov. 08, 2021~ Nov. 09, 2021	Nov. 12, 2021	Conducted (TH05-HY)
Switch Box & RF Cable	EM Electronics	EMSW18SE	SW200302	N/A	Mar. 17, 2021	Nov. 08, 2021~ Nov. 09, 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))	**5.3 dB**

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

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

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Mina Liu	Temperature:	21~25	°C
Test Date:	2021/11/8~2021/11/9	Relative Humidity:	51~54	%

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

Report Number : FR1O1338B

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	10.60	10.70		24.00	24.00	2.93	3.03		Pass
11a	6Mbps	1	44	5220	10.70	10.70		24.00	24.00	2.93	3.03		Pass
11a	6Mbps	1	48	5240	10.70	10.70		24.00	24.00	2.93	3.03		Pass
HT20	MCS0	1	36	5180	10.50	10.60		24.00	24.00	2.93	3.03		Pass
HT20	MCS0	1	44	5220	10.50	10.60		24.00	24.00	2.93	3.03		Pass
HT20	MCS0	1	48	5240	10.60	10.60		24.00	24.00	2.93	3.03		Pass
HT40	MCS0	1	38	5190	10.60	10.60		24.00	24.00	2.93	3.03		Pass
HT40	MCS0	1	46	5230	10.50	10.50		24.00	24.00	2.93	3.03		Pass
VHT20	MCS0	1	36	5180	10.50	10.60		24.00	24.00	2.93	3.03		Pass
VHT20	MCS0	1	44	5220	10.50	10.60		24.00	24.00	2.93	3.03		Pass
VHT20	MCS0	1	48	5240	10.60	10.60		24.00	24.00	2.93	3.03		Pass
VHT40	MCS0	1	38	5190	10.60	10.60		24.00	24.00	2.93	3.03		Pass
VHT40	MCS0	1	46	5230	10.50	10.50		24.00	24.00	2.93	3.03		Pass
VHT80	MCS0	1	42	5210	10.50	10.50		24.00	24.00	2.93	3.03		Pass
VHT160	MCS0	1	50	5250	10.50	10.60		24.00	24.00	2.93	3.03		Pass

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	10.80	10.60		23.98	23.98	2.95	2.85	30	Pass
11a	6Mbps	1	60	5300	10.60	10.70		23.98	23.98	2.95	2.85	30	Pass
11a	6Mbps	1	64	5320	10.70	10.70		23.98	23.98	2.95	2.85	30	Pass
HT20	MCS0	1	52	5260	10.60	10.50		23.98	23.98	2.95	2.85	30	Pass
HT20	MCS0	1	60	5300	10.80	10.60		23.98	23.98	2.95	2.85	30	Pass
HT20	MCS0	1	64	5320	10.80	10.50		23.98	23.98	2.95	2.85	30	Pass
HT40	MCS0	1	54	5270	10.50	10.60		23.98	23.98	2.95	2.85	30	Pass
HT40	MCS0	1	62	5310	10.60	10.70		23.98	23.98	2.95	2.85	30	Pass
VHT20	MCS0	1	52	5260	10.60	10.50		23.98	23.98	2.95	2.85	30	Pass
VHT20	MCS0	1	60	5300	10.80	10.60		23.98	23.98	2.95	2.85	30	Pass
VHT20	MCS0	1	64	5320	10.80	10.50		23.98	23.98	2.95	2.85	30	Pass
VHT40	MCS0	1	54	5270	10.50	10.60		23.98	23.98	2.95	2.85	30	Pass
VHT40	MCS0	1	62	5310	10.60	10.70		23.98	23.98	2.95	2.85	30	Pass
VHT80	MCS0	1	58	5290	10.50	10.70		23.98	23.98	2.95	2.85	30	Pass

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	10.70	10.60		23.98	23.98	3.46	3.30	30	Pass
11a	6Mbps	1	116	5580	10.60	10.80		23.98	23.98	3.46	3.30	30	Pass
11a	6Mbps	1	140	5700	10.50	10.80		23.98	23.98	3.46	3.30	30	Pass
HT20	MCS0	1	100	5500	10.50	10.80		23.98	23.98	3.46	3.30	30	Pass
HT20	MCS0	1	116	5580	10.50	10.80		23.98	23.98	3.46	3.30	30	Pass
HT20	MCS0	1	140	5700	10.60	10.90		23.98	23.98	3.46	3.30	30	Pass
HT40	MCS0	1	102	5510	10.80	10.70		23.98	23.98	3.46	3.30	30	Pass
HT40	MCS0	1	110	5550	10.50	10.50		23.98	23.98	3.46	3.30	30	Pass
HT40	MCS0	1	134	5670	10.50	10.70		23.98	23.98	3.46	3.30	30	Pass
VHT20	MCS0	1	100	5500	10.50	10.80		23.98	23.98	3.46	3.30	30	Pass
VHT20	MCS0	1	116	5580	10.50	10.80		23.98	23.98	3.46	3.30	30	Pass
VHT20	MCS0	1	140	5700	10.60	10.90		23.98	23.98	3.46	3.30	30	Pass
VHT40	MCS0	1	102	5510	10.80	10.70		23.98	23.98	3.46	3.30	30	Pass
VHT40	MCS0	1	110	5550	10.50	10.50		23.98	23.98	3.46	3.30	30	Pass
VHT40	MCS0	1	134	5670	10.50	10.70		23.98	23.98	3.46	3.30	30	Pass
VHT80	MCS0	1	106	5530	10.80	10.70		23.98	23.98	3.46	3.30	30	Pass
VHT80	MCS0	1	122	5610	10.70	10.70		23.98	23.98	3.46	3.30	30	Pass
VHT160	MCS0	1	114	5570	10.70	10.50		23.98	23.98	3.46	3.30	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	10.70	10.60		23.98	23.98	3.46	3.30	30	Pass
HT20	MCS0	1	144	5720	10.70	10.50		23.98	23.98	3.46	3.30	30	Pass
HT40	MCS0	1	142	5710	10.70	10.60		23.98	23.98	3.46	3.30	30	Pass
VHT20	MCS0	1	144	5720	10.70	10.50		23.98	23.98	3.46	3.30	30	Pass
VHT40	MCS0	1	142	5710	10.70	10.60		23.98	23.98	3.46	3.30	30	Pass
VHT80	MCS0	1	138	5690	10.50	10.70		23.98	23.98	3.46	3.30	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	10.60	10.70		24.00	24.00	2.93	3.03		Pass
HE20	MCS0	1	36	5180	242/61	10.60	10.80		24.00	24.00	2.93	3.03		Pass
HE20	MCS0	1	44	5220	Full	10.60	10.70		24.00	24.00	2.93	3.03		Pass
HE20	MCS0	1	48	5240	Full	10.70	10.70		24.00	24.00	2.93	3.03		Pass
HE40	MCS0	1	38	5190	Full	10.70	10.70		24.00	24.00	2.93	3.03		Pass
HE40	MCS0	1	38	5190	484/65	9.80	10.80		24.00	24.00	2.93	3.03		Pass
HE40	MCS0	1	46	5230	Full	10.60	10.60		24.00	24.00	2.93	3.03		Pass
HE80	MCS0	1	42	5210	Full	10.60	10.60		24.00	24.00	2.93	3.03		Pass
HE80	MCS0	1	42	5210	996/67	8.30	8.50		24.00	24.00	2.93	3.03		Pass
HE160	MCS0	1	50	5250	Full	10.60	10.70		24.00	24.00	2.93	3.03		Pass
HE160	MCS0	1	50	5250	1992/68	10.60	10.80		24.00	24.00	2.93	3.03		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	10.70	10.60		23.98	23.98	2.95	2.85	30	Pass
HE20	MCS0	1	60	5300	Full	10.90	10.70		23.98	23.98	2.95	2.85	30	Pass
HE20	MCS0	1	64	5320	Full	10.90	10.60		23.98	23.98	2.95	2.85	30	Pass
HE20	MCS0	1	64	5320	242/61	10.90	10.70		23.98	23.98	2.95	2.85	30	Pass
HE40	MCS0	1	54	5270	Full	10.60	10.70		23.98	23.98	2.95	2.85	30	Pass
HE40	MCS0	1	62	5310	Full	10.70	10.80		23.98	23.98	2.95	2.85	30	Pass
HE40	MCS0	1	62	5310	484/65	10.80	10.60		23.98	23.98	2.95	2.85	30	Pass
HE80	MCS0	1	58	5290	Full	10.60	10.80		23.98	23.98	2.95	2.85	30	Pass
HE80	MCS0	1	58	5290	996/67	10.20	10.70		23.98	23.98	2.95	2.85	30	Pass

Report Number : FR1O1338B

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	10.60	10.90		23.98	23.98	3.46	3.30	30	Pass
HE20	MCS0	1	100	5500	242/61	10.70	10.60		23.98	23.98	3.46	3.30	30	Pass
HE20	MCS0	1	116	5580	Full	10.60	10.90		23.98	23.98	3.46	3.30	30	Pass
HE20	MCS0	1	140	5700	Full	10.70	11.00		23.98	23.98	3.46	3.30	30	Pass
HE20	MCS0	1	140	5700	242/61	9.70	9.80		23.98	23.98	3.46	3.30	30	Pass
HE40	MCS0	1	102	5510	Full	10.90	10.80		23.98	23.98	3.46	3.30	30	Pass
HE40	MCS0	1	102	5510	484/65	9.80	9.70		23.98	23.98	3.46	3.30	30	Pass
HE40	MCS0	1	110	5550	Full	10.60	10.60		23.98	23.98	3.46	3.30	30	Pass
HE40	MCS0	1	134	5670	Full	10.60	10.80		23.98	23.98	3.46	3.30	30	Pass
HE40	MCS0	1	134	5670	484/65	10.80	10.70		23.98	23.98	3.46	3.30	30	Pass
HE80	MCS0	1	106	5530	Full	10.90	10.80		23.98	23.98	3.46	3.30	30	Pass
HE80	MCS0	1	106	5530	996/67	9.30	9.50		23.98	23.98	3.46	3.30	30	Pass
HE80	MCS0	1	122	5610	Full	10.80	10.80		23.98	23.98	3.46	3.30	30	Pass
HE80	MCS0	1	122	5610	996/67	10.80	10.90		23.98	23.98	3.46	3.30	30	Pass
HE160	MCS0	1	114	5570	Full	10.80	10.60		23.98	23.98	3.46	3.30	30	Pass
HE160	MCS0	1	114	5570	1992/68	10.80	10.70		23.98	23.98	3.46	3.30	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	10.80	10.60		23.98	23.98	3.46	3.30	30	Pass
HE40	MCS0	1	142	5710	Full	10.80	10.70		23.98	23.98	3.46	3.30	30	Pass
HE80	MCS0	1	138	5690	Full	10.60	10.80		23.98	23.98	3.46	3.30	30	Pass

Appendix B. Radiated Spurious Emission

Test Engineer :	Leo Lee Mancy, Chou Bigshow and Wang	**Temperature :**	22.1~24.5°C
		Relative Humidity :	40~65%

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

Band 2 - 5250~5350MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 1	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	*	5320	99.89	-	-	96.72	31.42	10.15	38.4	100	256	P	V
	*	5320	92.48	-	-	89.31	31.42	10.15	38.4	100	256	A	V
		5443.04	44.26	-29.74	74	40.32	31.77	10.25	38.08	100	256	P	V
		5350.08	34.15	-19.85	54	31	31.3	10.17	38.32	100	256	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. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE20 Full CH 64 5320MHz		5059.84	44.12	-29.88	74	41.42	31.86	9.9	39.06	100	262	P	V
		5096.9	33.51	-20.49	54	30.45	32.08	9.94	38.96	100	262	A	V
	*	5310	101.55	-	-	98.37	31.46	10.14	38.42	100	262	P	V
	*	5310	91.42	-	-	88.24	31.46	10.14	38.42	100	262	A	V
		5350.08	49.56	-24.44	74	46.41	31.3	10.17	38.32	100	262	P	V
		5350.32	39.34	-14.66	54	36.19	31.3	10.17	38.32	100	262	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 HE20 Partial 242 (Band Edge @ 3m)

WIFI Ant. 1	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	*	5320	104.34	-	-	101.17	31.42	10.15	38.4	100	262	P	V
HE20	*	5320	93.66	-	-	90.49	31.42	10.15	38.4	100	262	A	V
Partial		5446.4	45.29	-28.71	74	41.33	31.79	10.25	38.08	100	262	P	V
242/61		5350.24	34.94	-19.06	54	31.79	31.3	10.17	38.32	100	262	A	V
CH 64													V
5320MHz													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. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE40 Full CH 62 5310MHz		5059.84	44.12	-29.88	74	41.42	31.86	9.9	39.06	100	262	P	V
		5096.9	33.51	-20.49	54	30.45	32.08	9.94	38.96	100	262	A	V
	*	5310	101.55	-	-	98.37	31.46	10.14	38.42	100	262	P	V
	*	5310	91.42	-	-	88.24	31.46	10.14	38.42	100	262	A	V
		5350.08	49.56	-24.44	74	46.41	31.3	10.17	38.32	100	262	P	V
		5350.32	39.34	-14.66	54	36.19	31.3	10.17	38.32	100	262	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. 1	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		5105.4	44.41	-29.59	74	41.32	32.08	9.95	38.94	100	261	P	V
HE40		5148.92	33.87	-20.13	54	30.8	31.9	10	38.83	100	261	A	V
Partial	*	5310	103.44	-	-	100.26	31.46	10.14	38.42	100	261	P	V
484/65	*	5310	92	-	-	88.82	31.46	10.14	38.42	100	261	A	V
CH 62		5351.04	51.41	-22.59	74	48.25	31.31	10.17	38.32	100	261	P	V
5310MHz		5350.08	39.95	-14.05	54	36.8	31.3	10.17	38.32	100	261	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. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE80 Full CH 58 5290MHz		5145.18	44.73	-29.27	74	41.66	31.92	9.99	38.84	100	262	P	V
		5149.94	34.17	-19.83	54	31.1	31.9	10	38.83	100	262	A	V
	*	5290	98.38	-	-	95.21	31.52	10.12	38.47	100	262	P	V
	*	5290	89.07	-	-	85.9	31.52	10.12	38.47	100	262	A	V
		5356.08	48.97	-25.03	74	45.77	31.34	10.17	38.31	100	262	P	V
		5350.08	38.14	-15.86	54	34.99	31.3	10.17	38.32	100	262	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. 1	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		5083.3	45.77	-28.23	74	42.84	32	9.93	39	100	263	P	V
HE80		5142.12	33.91	-20.09	54	30.84	31.93	9.99	38.85	100	263	A	V
Partial	*	5290	98.23	-	-	95.06	31.52	10.12	38.47	100	263	P	V
996/67	*	5290	88.28	-	-	85.11	31.52	10.12	38.47	100	263	A	V
CH 58		5357.28	47.21	-26.79	74	43.99	31.34	10.18	38.3	100	263	P	V
5290MHz		5350.32	36.75	-17.25	54	33.6	31.3	10.17	38.32	100	263	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. 1	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		5386	43.76	-30.24	74	40.27	31.52	10.2	38.23	100	256	P	V
		5465.84	45.03	-23.17	68.2	40.96	31.83	10.27	38.03	100	256	P	V
		5460	34	-20	54	29.96	31.82	10.26	38.04	100	256	A	V
	*	5500	101.89	-	-	97.63	31.9	10.3	37.94	100	256	P	V
	*	5500	94.09	-	-	89.83	31.9	10.3	37.94	100	256	A	V
													V
802.11a CH 140 5700MHz	*	5700	100.18	-	-	95.8	31.9	10.49	38.01	100	240	P	V
	*	5700	92.47	-	-	88.09	31.9	10.49	38.01	100	240	A	V
		5729	45.81	-22.39	68.2	41.29	32.02	10.52	38.02	100	240	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. 1	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)
		5449.04	44.35	-29.65	74	40.37	31.8	10.25	38.07	100	254	P	V
802.11ax		5469.36	46.15	-22.05	68.2	42.06	31.84	10.27	38.02	100	254	P	V
HE20 Full		5460	34.54	-19.46	54	30.5	31.82	10.26	38.04	100	254	A	V
CH 100	*	5500	104.92	-	-	100.66	31.9	10.3	37.94	100	254	P	V
5500MHz	*	5500	93.25	-	-	88.99	31.9	10.3	37.94	100	254	A	V
													V
	*	5700	103.61	-	-	99.23	31.9	10.49	38.01	100	234	P	V
802.11ax	*	5700	94.74	-	-	90.36	31.9	10.49	38.01	100	234	A	V
HE20 Full		5725.16	48.29	-19.91	68.2	43.79	32	10.52	38.02	100	234	P	V
CH 140													V
5700MHz													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. 1	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		5436.72	44.71	-29.29	74	40.82	31.75	10.24	38.1	100	240	P	V
HE20		5467.12	47.39	-20.81	68.2	43.31	31.83	10.27	38.02	100	240	P	V
Partial		5460	34.87	-19.13	54	30.83	31.82	10.26	38.04	100	240	A	V
242/61	*	5500	105.77	-	-	101.51	31.9	10.3	37.94	100	240	P	V
CH 100	*	5500	94.64	-	-	90.38	31.9	10.3	37.94	100	240	A	V
5500MHz													V
802.11ax	*	5700	106.01	-	-	101.63	31.9	10.49	38.01	100	233	P	V
HE20	*	5700	94.17	-	-	89.79	31.9	10.49	38.01	100	233	A	V
Partial		5725.16	49.03	-19.17	68.2	44.53	32	10.52	38.02	100	233	P	V
242/61													V
CH 140													V
5700MHz													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. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5457.04	45.22	-28.78	74	41.2	31.81	10.26	38.05	100	255	P	V
802.11ax		5468.32	50.83	-17.37	68.2	46.74	31.84	10.27	38.02	100	255	P	V
HE40 Full		5459.68	35.91	-18.09	54	31.87	31.82	10.26	38.04	100	255	A	V
CH 102	*	5510	100.88	-	-	96.6	31.92	10.3	37.94	100	255	P	V
5510MHz	*	5510	94.2	-	-	89.92	31.92	10.3	37.94	100	255	A	V
		5750.825	43.13	-25.07	68.2	38.51	32.1	10.55	38.03	100	255	P	V
		5434.35	43.34	-30.66	74	39.47	31.74	10.24	38.11	100	235	P	V
802.11ax		5463.05	42.57	-25.63	68.2	38.51	31.83	10.26	38.03	100	235	P	V
HE40 Full		5436.45	33.41	-20.59	54	29.52	31.75	10.24	38.1	100	235	A	V
CH 134	*	5670	99.77	-	-	95.41	31.9	10.46	38	100	235	P	V
5670MHz	*	5670	90.11	-	-	85.75	31.9	10.46	38	100	235	A	V
		5737.175	45.01	-23.19	68.2	40.45	32.05	10.53	38.02	100	235	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. 1	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		5459.2	46.14	-27.86	74	42.1	31.82	10.26	38.04	100	247	P	V
HE40		5469.04	47	-21.2	68.2	42.91	31.84	10.27	38.02	100	247	P	V
Partial		5458.96	35.3	-18.7	54	31.26	31.82	10.26	38.04	100	247	A	V
484/65	*	5510	101.24	-	-	96.96	31.92	10.3	37.94	100	247	P	V
CH 102	*	5510	91.33	-	-	87.05	31.92	10.3	37.94	100	247	A	V
5510MHz		5750.51	44.56	-23.64	68.2	39.94	32.1	10.55	38.03	100	247	P	V
802.11ax		5400.4	44.08	-29.92	74	40.46	31.6	10.21	38.19	100	236	P	V
HE40		5469	44.5	-23.7	68.2	40.41	31.84	10.27	38.02	100	236	P	V
Partial		5437.85	33.75	-20.25	54	29.86	31.75	10.24	38.1	100	236	A	V
484/65	*	5670	101.06	-	-	96.7	31.9	10.46	38	100	236	P	V
CH 134	*	5670	91.4	-	-	87.04	31.9	10.46	38	100	236	A	V
5670MHz		5735.6	46.66	-21.54	68.2	42.11	32.04	10.53	38.02	100	236	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. 1	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)
		5436.64	45.77	-28.23	74	41.88	31.75	10.24	38.1	100	241	P	V
802.11ax		5468.08	46.2	-22	68.2	42.11	31.84	10.27	38.02	100	241	P	V
HE80 Full		5459.92	35.12	-18.88	54	31.08	31.82	10.26	38.04	100	241	A	V
CH 106	*	5530	98.82	-	-	94.49	31.96	10.32	37.95	100	241	P	V
5530MHz	*	5530	89.42	-	-	85.09	31.96	10.32	37.95	100	241	A	V
		5731.295	44.75	-23.45	68.2	40.22	32.03	10.52	38.02	100	241	P	V
		5459.92	43.99	-30.01	74	39.95	31.82	10.26	38.04	100	249	P	V
802.11ax		5462.8	44.16	-24.04	68.2	40.1	31.83	10.26	38.03	100	249	P	V
HE80 Full		5456.56	34.08	-19.92	54	30.06	31.81	10.26	38.05	100	249	A	V
CH 122	*	5610	98.52	-	-	94.13	31.98	10.39	37.98	100	249	P	V
5610MHz	*	5610	88.21	-	-	83.82	31.98	10.39	37.98	100	249	A	V
		5725.31	44.78	-23.42	68.2	40.28	32	10.52	38.02	100	249	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. 1	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		5372.56	45.52	-28.48	74	42.15	31.44	10.19	38.26	100	239	P	V
HE80		5469.28	46.24	-21.96	68.2	42.15	31.84	10.27	38.02	100	239	P	V
Partial		5459.44	34.59	-19.41	54	30.55	31.82	10.26	38.04	100	239	A	V
996/67	*	5530	97.74	-	-	93.41	31.96	10.32	37.95	100	239	P	V
CH 106	*	5530	88.01	-	-	83.68	31.96	10.32	37.95	100	239	A	V
5530MHz		5755.865	45.33	-22.87	68.2	40.71	32.1	10.55	38.03	100	239	P	V
802.11ax		5401.36	45.49	-28.51	74	41.86	31.61	10.21	38.19	100	234	P	V
HE80		5467.84	45.67	-22.53	68.2	41.58	31.84	10.27	38.02	100	234	P	V
Partial		5456.32	34.32	-19.68	54	30.3	31.81	10.26	38.05	100	234	A	V
4996/67	*	5610	98.56	-	-	94.17	31.98	10.39	37.98	100	234	P	V
CH 122	*	5610	88.96	-	-	84.57	31.98	10.39	37.98	100	234	A	V
5610MHz		5759.96	45.52	-22.68	68.2	40.89	32.1	10.56	38.03	100	234	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. 1	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 114 5570MHz		5435.92	47.48	-26.52	74	43.6	31.74	10.24	38.1	100	248	P	V
		5465.44	47.32	-20.88	68.2	43.25	31.83	10.27	38.03	100	248	P	V
		5459.68	36.73	-17.27	54	32.69	31.82	10.26	38.04	100	248	A	V
	*	5570	95.82	-	-	91.43	32	10.35	37.96	100	248	P	V
	*	5570	86.25	-	-	81.86	32	10.35	37.96	100	248	A	V
		5727.83	51.23	-16.97	68.2	46.72	32.01	10.52	38.02	100	248	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 5470~5725MHz

WIFI 802.11ax HE160 Partial 1992/68 (Band Edge @ 3m)

WIFI Ant. 1	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		5458	48.76	-25.24	74	44.73	31.82	10.26	38.05	100	248	P	V
HE160		5467.6	48.14	-20.06	68.2	44.05	31.84	10.27	38.02	100	248	P	V
Partial		5458.96	37.37	-16.63	54	33.33	31.82	10.26	38.04	100	248	A	V
1992/68	*	5570	96.29	-	-	91.9	32	10.35	37.96	100	248	P	V
CH 114	*	5570	86.71	-	-	82.32	32	10.35	37.96	100	248	A	V
5570MHz		5727.83	51.48	-16.72	68.2	46.97	32.01	10.52	38.02	100	248	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5117.26	44.61	-29.39	74	41.53	32.03	9.96	38.91	100	125	P	V
		5149.76	34.1	-19.9	54	31.03	31.9	10	38.83	100	125	A	V
	*	5180	98.02	-	-	94.84	31.9	10.03	38.75	100	125	P	V
	*	5180	90.31	-	-	87.13	31.9	10.03	38.75	100	125	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)
		5148.72	46.9	-27.1	74	43.82	31.91	10	38.83	100	76	P	V
802.11ax		5150	35.67	-18.33	54	32.6	31.9	10	38.83	100	76	A	V
HE20 Full	*	5180	100.5	-	-	97.32	31.9	10.03	38.75	100	76	P	V
CH 36	*	5180	89.28	-	-	86.1	31.9	10.03	38.75	100	76	A	V
5180MHz													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)
802.11ax		5147.42	45.56	-28.44	74	42.5	31.91	9.99	38.84	100	98	P	V
HE20		5149.5	35.72	-18.28	54	32.65	31.9	10	38.83	100	98	A	V
Partial	*	5180	101.66	-	-	98.48	31.9	10.03	38.75	100	98	P	V
242/61	*	5180	89.51	-	-	86.33	31.9	10.03	38.75	100	98	A	V
CH 36													V
5180MHz													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)
		5149.76	56.39	-17.61	74	53.32	31.9	10	38.83	100	75	P	V
		5150	41.81	-12.19	54	38.74	31.9	10	38.83	100	75	A	V
	*	5190	98.32	-	-	95.11	31.9	10.04	38.73	100	75	P	V
	*	5190	87.46	-	-	84.25	31.9	10.04	38.73	100	75	A	V
802.11ax		5456.08	43.73	-30.27	74	39.71	31.81	10.26	38.05	100	75	P	V
HE40 Full		5437.32	33.32	-20.68	54	29.43	31.75	10.24	38.1	100	75	A	V
CH 38													V
5190MHz													V
													V
													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 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)
		5150	50.2	-23.8	74	47.13	31.9	10	38.83	100	74	P	V
		5149.24	39.59	-14.41	54	36.52	31.9	10	38.83	100	74	A	V
	*	5190	96.91	-	-	93.7	31.9	10.04	38.73	100	74	P	V
802.11ax	*	5190	87.18	-	-	83.97	31.9	10.04	38.73	100	74	A	V
HE40		5439.56	44.36	-29.64	74	40.45	31.76	10.24	38.09	100	74	P	V
Partial		5438.16	33.59	-20.41	54	29.7	31.75	10.24	38.1	100	74	A	V
484/65													V
CH 38													V
5190MHz													V
													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 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)
		5143.78	63.47	-10.53	74	60.4	31.92	9.99	38.84	100	125	P	V
		5142.48	52.32	-1.68	54	49.25	31.93	9.99	38.85	100	125	A	V
	*	5210	102.59	-	-	99.37	31.84	10.06	38.68	100	125	P	V
	*	5210	91.36	-	-	88.14	31.84	10.06	38.68	100	125	A	V
802.11ax		5353.88	46.56	-27.44	74	43.38	31.32	10.17	38.31	100	125	P	V
HE80 Full		5350	36.5	-17.5	54	33.35	31.3	10.17	38.32	100	125	A	V
CH 42													V
5210MHz													V
													V
													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 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)
		5145.86	49.97	-24.03	74	46.9	31.92	9.99	38.84	100	245	P	V
		5141.96	38.5	-15.5	54	35.43	31.93	9.99	38.85	100	245	A	V
	*	5210	95.33	-	-	92.11	31.84	10.06	38.68	100	245	P	V
802.11ax	*	5210	84.87	-	-	81.65	31.84	10.06	38.68	100	245	A	V
HE80		5355.84	44.54	-29.46	74	41.34	31.34	10.17	38.31	100	245	P	V
Partial		5437.32	33.77	-20.23	54	29.88	31.75	10.24	38.1	100	245	A	V
996/67													V
CH 42													V
5210MHz													V
													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 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)
		5117.98	52.82	-21.18	74	49.74	32.03	9.96	38.91	100	124	P	V
		5117.64	41.63	-12.37	54	38.55	32.03	9.96	38.91	100	124	A	V
	*	5250	96.11	-	-	92.99	31.6	10.09	38.57	100	124	P	V
	*	5250	85.95	-	-	82.83	31.6	10.09	38.57	100	124	A	V
802.11ax		5354.15	52.43	-21.57	74	49.25	31.32	10.17	38.31	100	124	P	V
HE160 Full		5366.62	41.99	-12.01	54	38.69	31.4	10.18	38.28	100	124	A	V
CH 50													V
5250MHz													V
													V
													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 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)
		5112.88	52.87	-21.13	74	49.78	32.05	9.96	38.92	100	261	P	V
		5117.64	41.6	-12.4	54	38.52	32.03	9.96	38.91	100	261	A	V
	*	5250	96.82	-	-	93.7	31.6	10.09	38.57	100	261	P	V
802.11ax	*	5250	86.97	-	-	83.85	31.6	10.09	38.57	100	261	A	V
HE160		5366.16	54.46	-19.54	74	51.16	31.4	10.18	38.28	100	261	P	V
Partial		5367.36	42.8	-11.2	54	39.5	31.4	10.18	38.28	100	261	A	V
1992/68													V
CH 50													V
5250MHz													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Note symbol

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

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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(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 :	Leo Lee Mancy, Chou Bigshow and Wang	**Temperature :**	22.1~24.5°C
		Relative Humidity :	40~65%

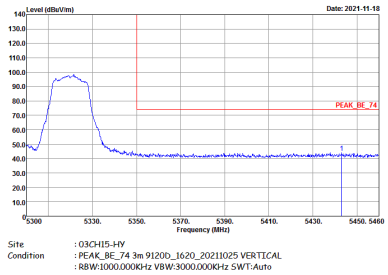
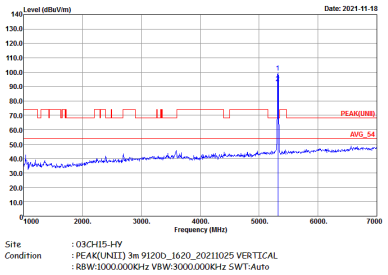
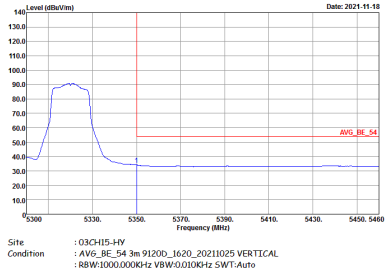
Remark: For Radiated Spurious Emission Test Items, Ant. 1 means Chain 0 (Aux.) and Ant. 2 means Chain 1 (Main).

Note symbol

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

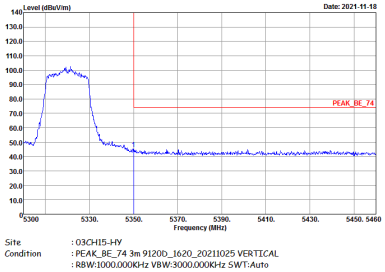
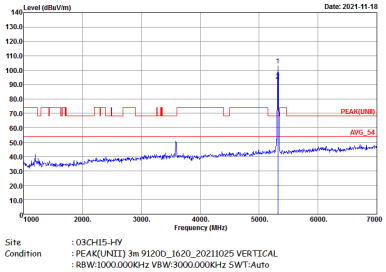
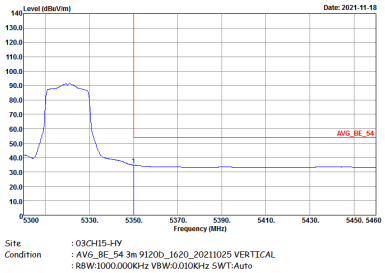
Band 2 - 5250~5350MHz

WIFI 802.11a (Band Edge @ 3m)

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

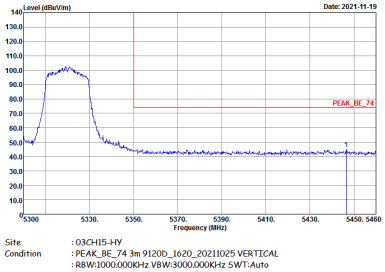
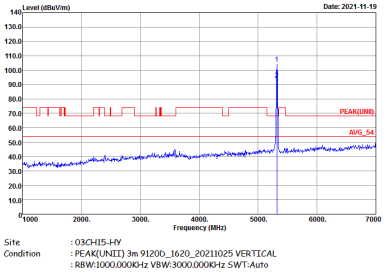
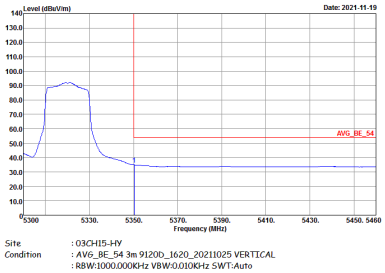
Band 2 5250~5350MHz

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

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

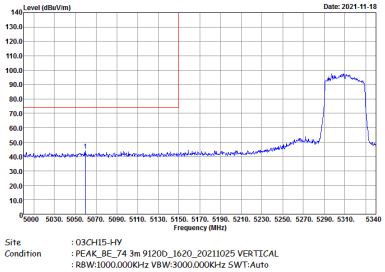
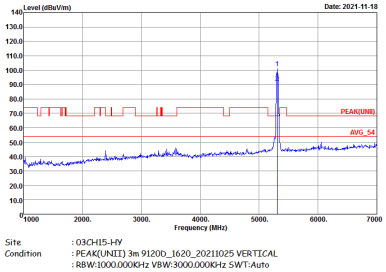
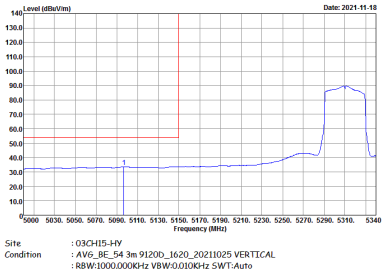
Band 2 - 5250~5350MHz

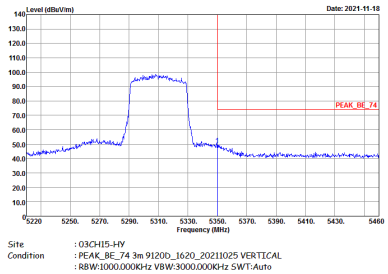
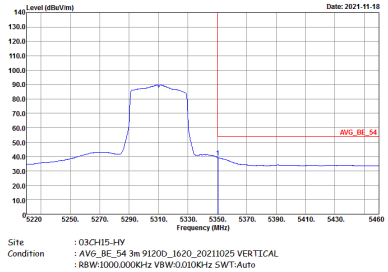
WIFI 802.11ax HE20 Partial 242/61 (Band Edge @ 3m)

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

Band 2 5250~5350MHz

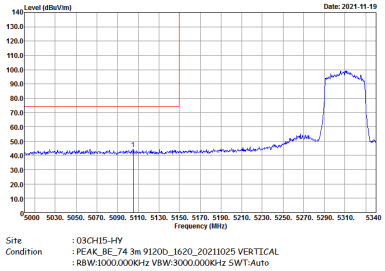
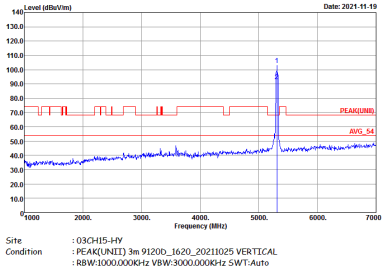
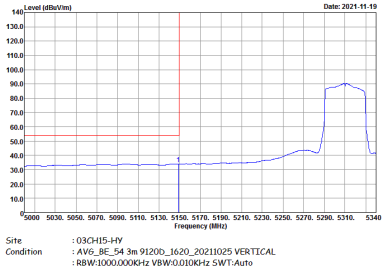
WIFI 802.11ax HE40 Full (Band Edge @ 3m)

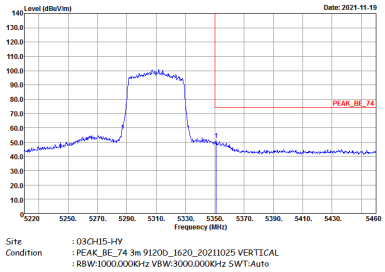
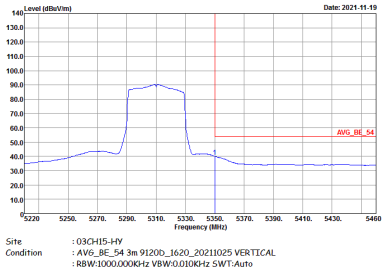
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH62 5310 - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

Band 2 5250~5350MHz

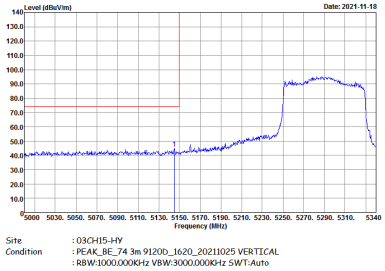
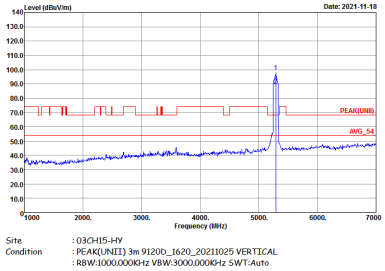
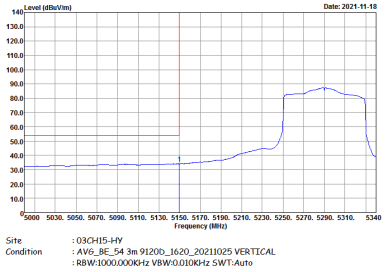
WIFI 802.11ax HE40 Partial 484 (Band Edge @ 3m)

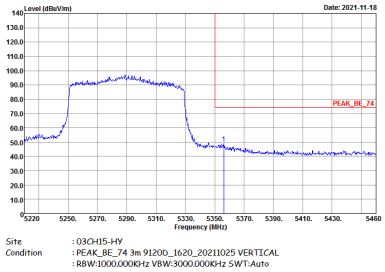
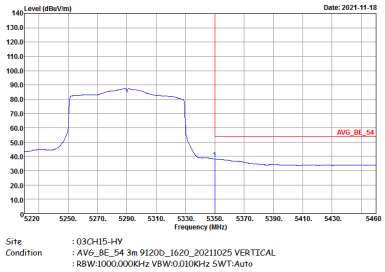
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 484/65 CH62 5310 - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

Band 2 5250~5350MHz

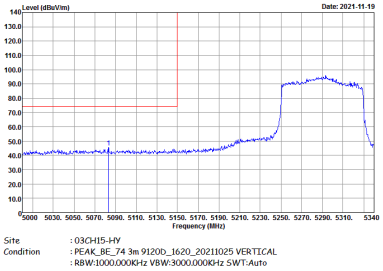
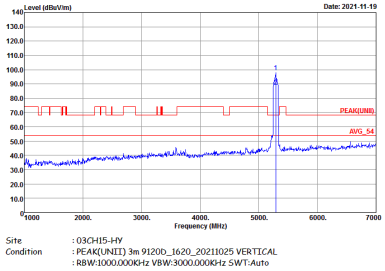
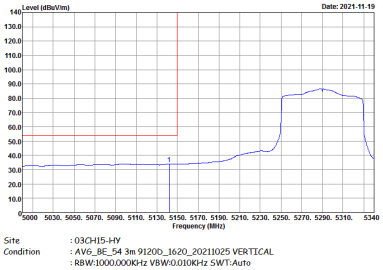
WIFI 802.11ax HE80 Full (Band Edge @ 3m)

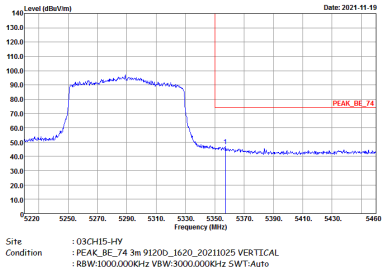
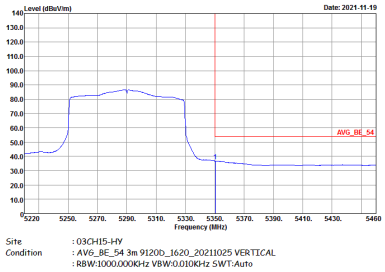
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH58 5290MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

Band 2 5250~5350MHz

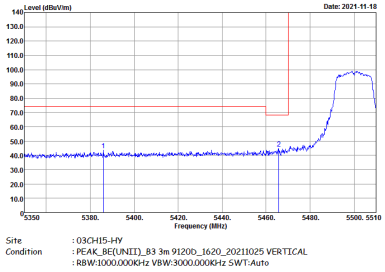
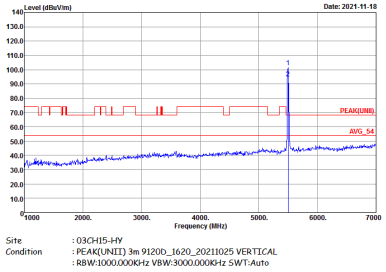
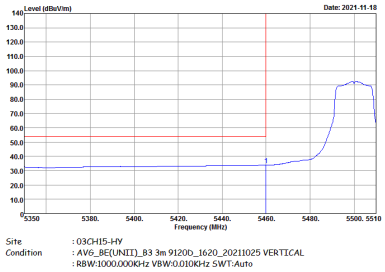
WIFI 802.11ax HE80 Partial 996 (Band Edge @ 3m)

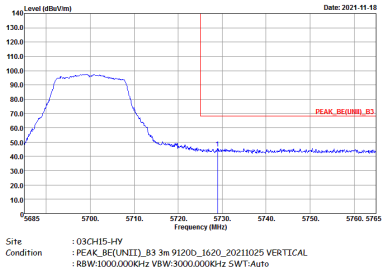
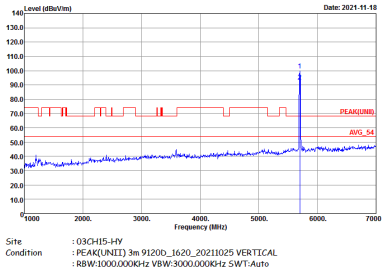
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 996/67 CH58 5290MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

Band 3 - 5470~5725MHz

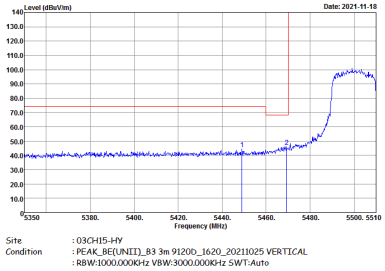
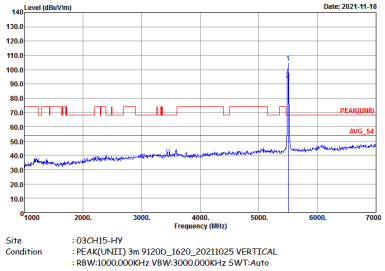
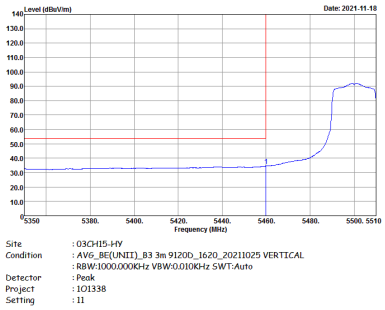
WIFI 802.11a (Band Edge @ 3m)

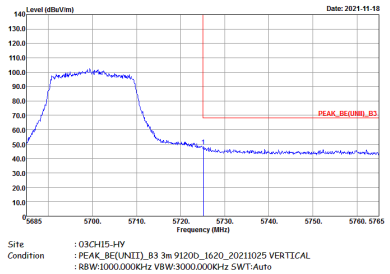
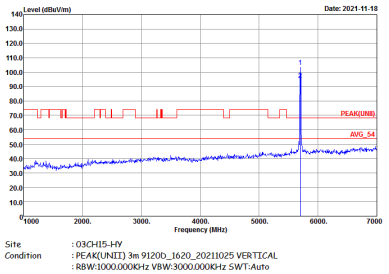
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

Band 3 5470~5725MHz

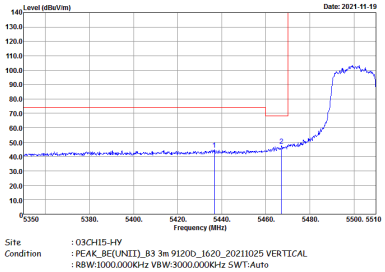
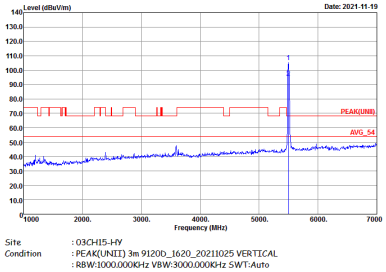
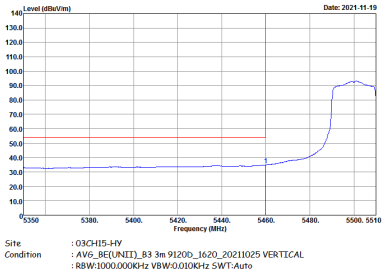
WIFI 802.11ax HE20 Full (Band Edge @ 3m)

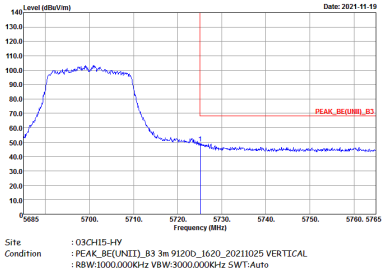
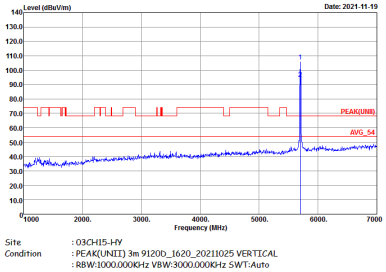
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH100 5500MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

Band 3 - 5470~5725MHz

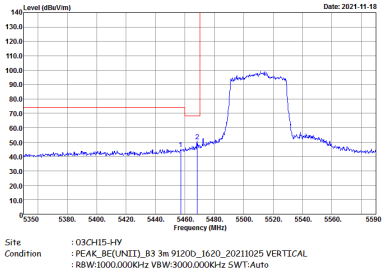
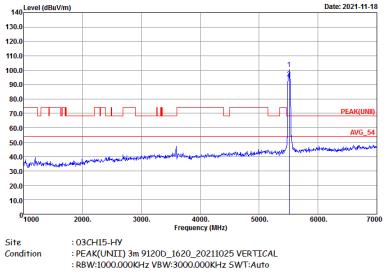
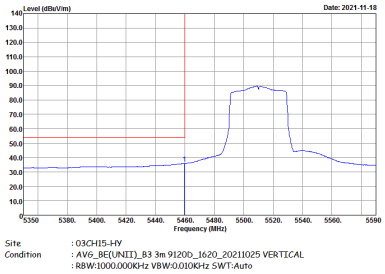
WIFI 802.11ax HE20 Partial 242/61 (Band Edge @ 3m)

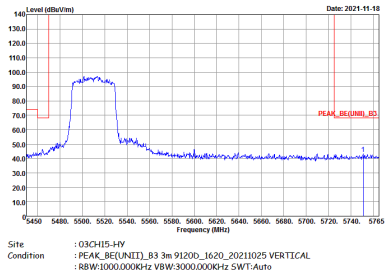
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 242/61 CH100 5500MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

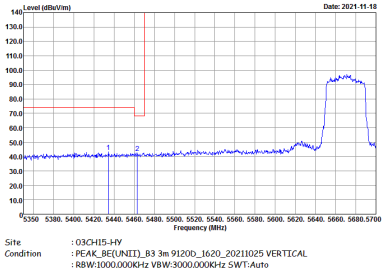
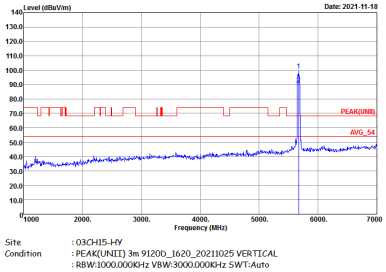
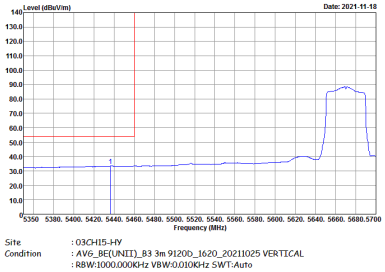
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 242/61 CH140 5700MHz	
1	Vertical	Fundamental
Peak		

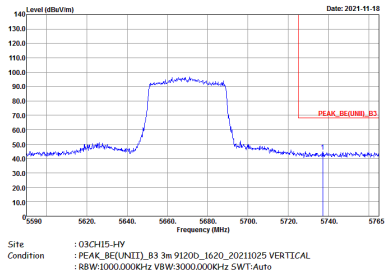
Band 3 5470~5725MHz

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

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

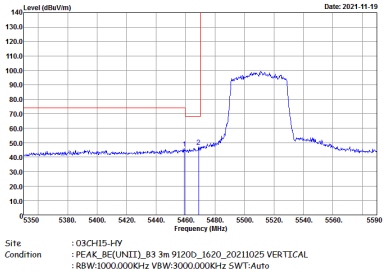
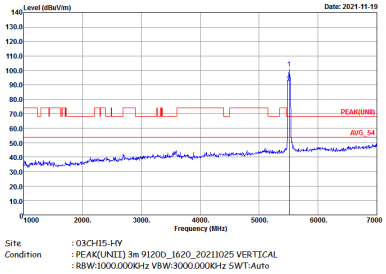
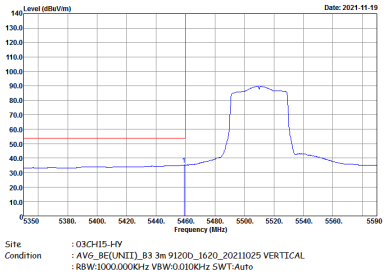
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH102 5510MHz - R	
1	Vertical	Fundamental
Peak		Left blank

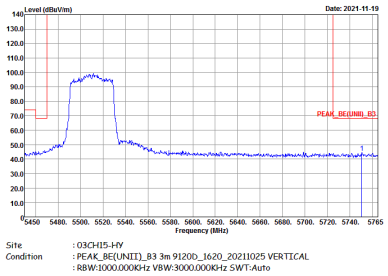
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH134 5670MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

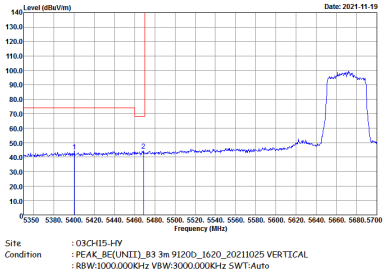
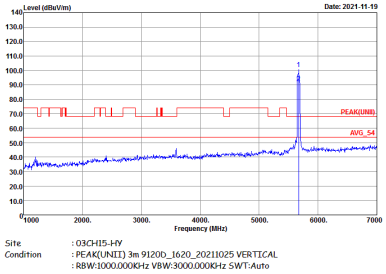
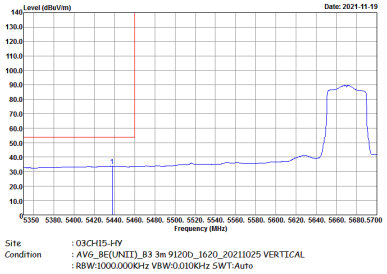
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH134 5670MHz - R	
1	Vertical	Fundamental
Peak		Left blank

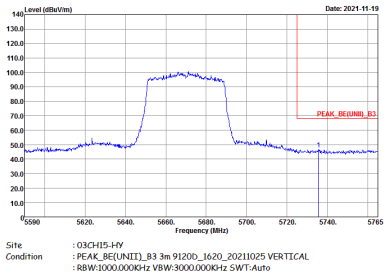
Band 3 5470~5725MHz

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	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

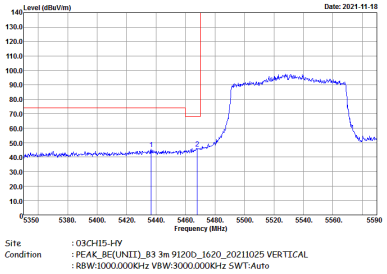
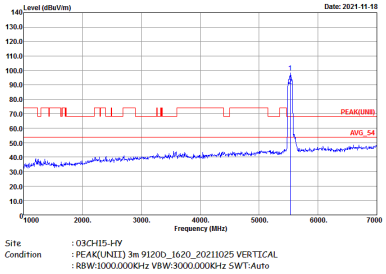
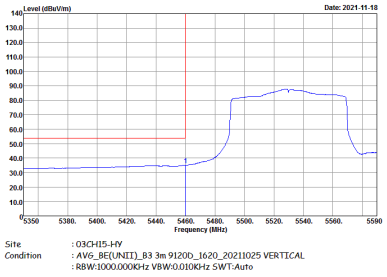
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 484/65 CH102 5510MHz - R	
1	Vertical	Fundamental
Peak		Left blank

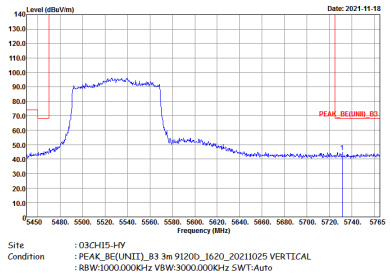
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 484/65 CH134 5670MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

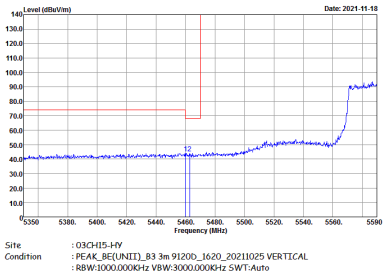
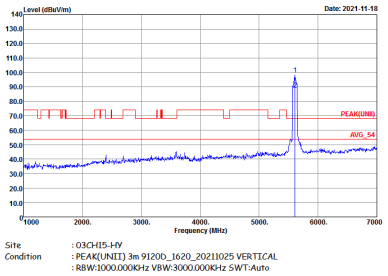
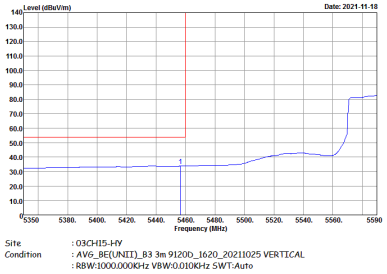
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 242/62 CH134 5670MHz - R	
1	Vertical	Fundamental
Peak		Left blank

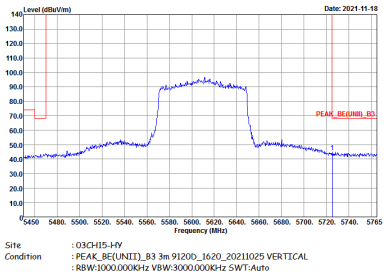
Band 3 5470~5725MHz

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

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

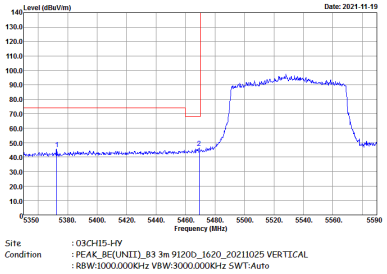
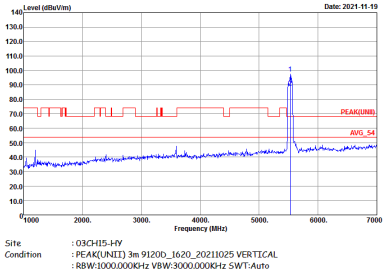
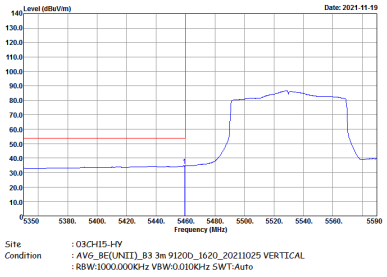
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH106 5530MHz - R	
1	Vertical	Fundamental
Peak		Left blank

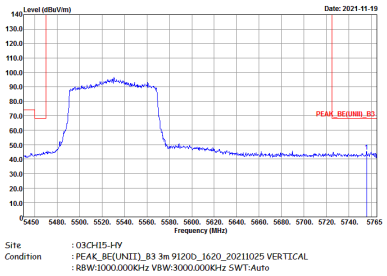
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH122 5610MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

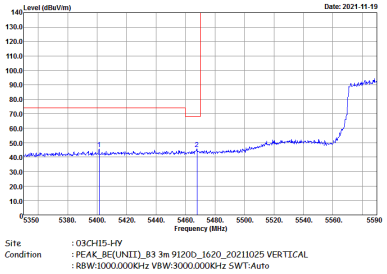
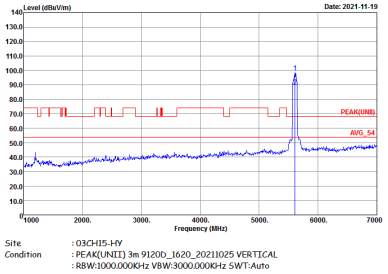
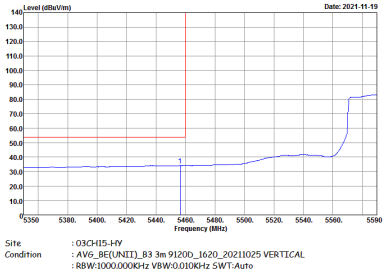
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH122 5610MHz - R	
1	Vertical	Fundamental
Peak		Left blank

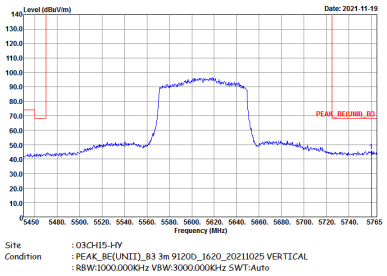
Band 3 5470~5725MHz

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

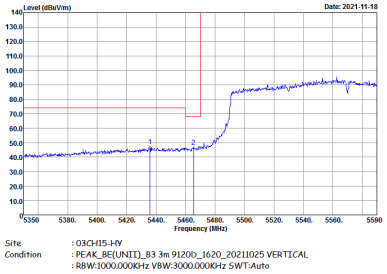
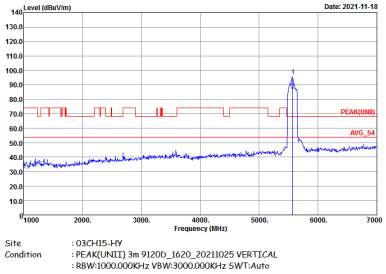
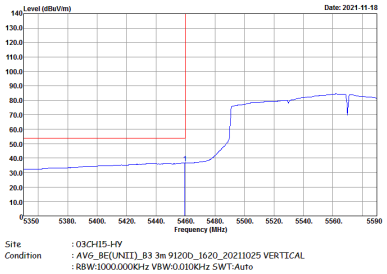
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 996/67 CH106 5530MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

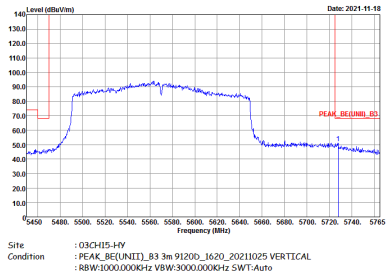
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 996/67 CH106 5530MHz - R	
1	Vertical	Fundamental
Peak		Left blank

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

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

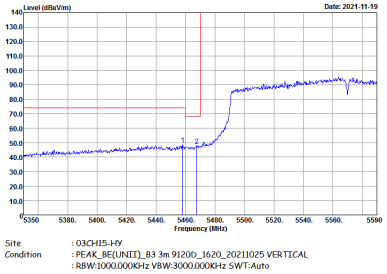
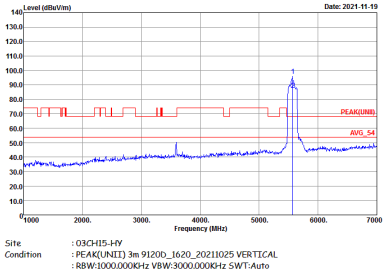
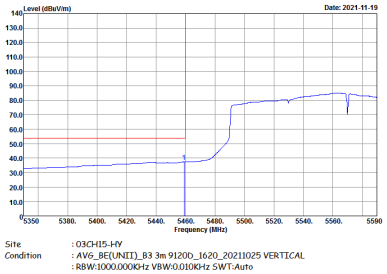
Band 3 5470~5725MHz
WIFI 802.11ax HE160 Full (Band Edge @ 3m)

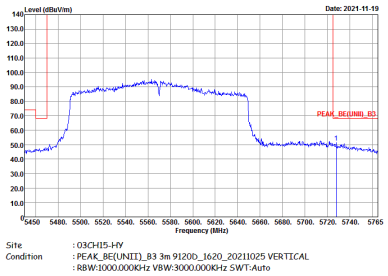
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE160 Full CH114 5570MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

Band 3 5470~5725MHz

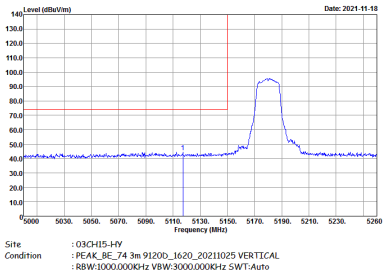
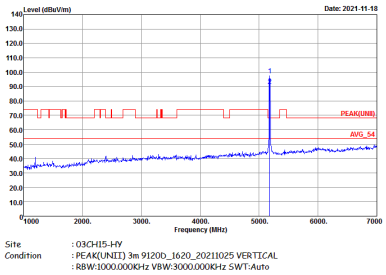
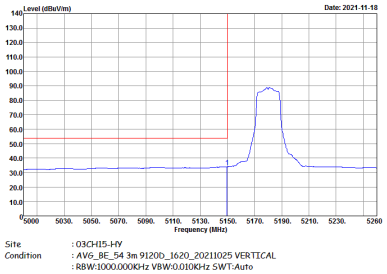
WIFI 802.11ax HE160 Partial 1992 (Band Edge @ 3m)

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

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ax HE160 Partial 996/67 CH114 5570MHz - R	
1	Vertical	Fundamental
Peak		Left blank

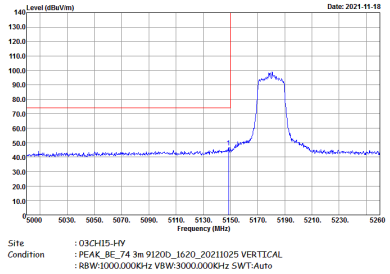
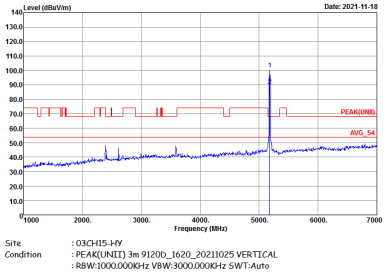
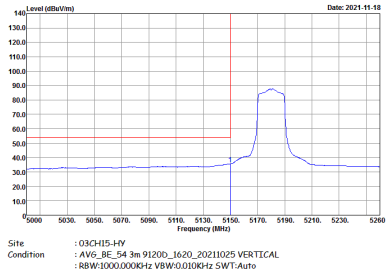
Band 1 - 5150~5250MHz

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

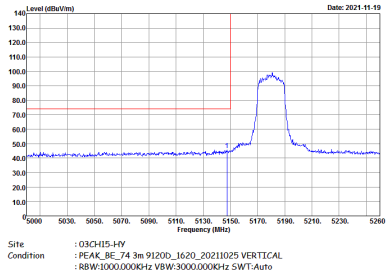
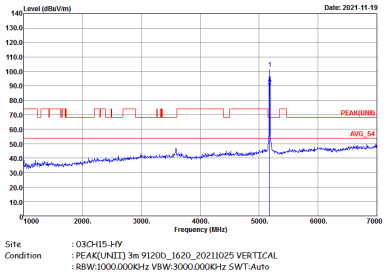
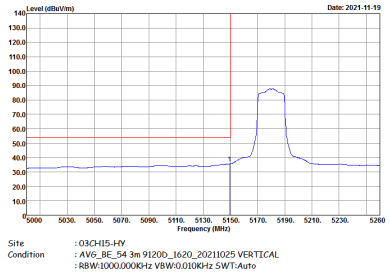
Band 1 5150~5250MHz

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

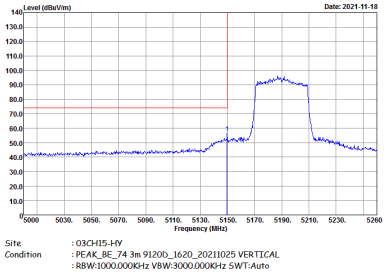
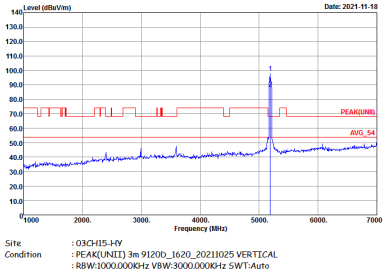
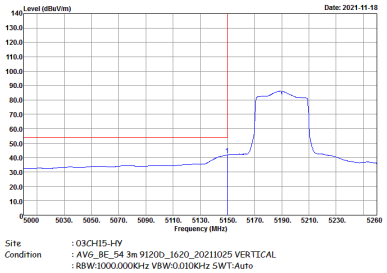
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH36 5180MHz	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

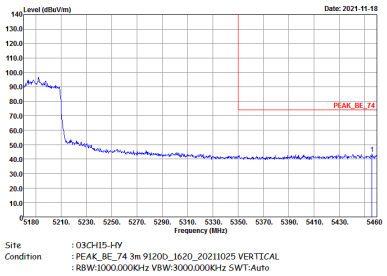
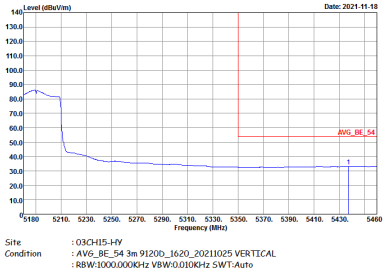
Band 1 5150~5250MHz

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

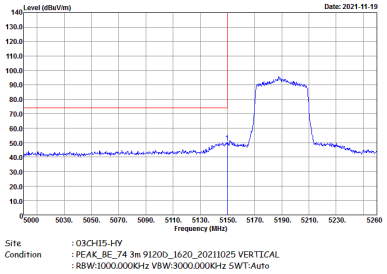
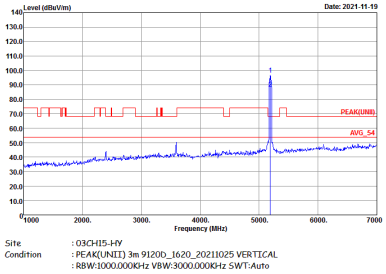
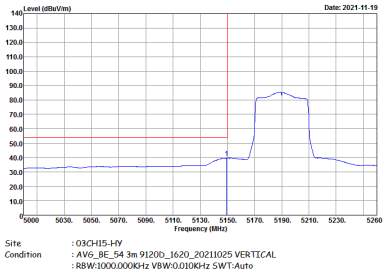
Band 1 5150~5250MHz
WIFI 802.11ax HE40 Full (Band Edge @ 3m)

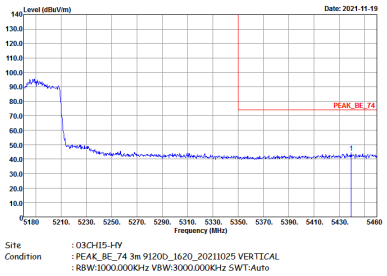
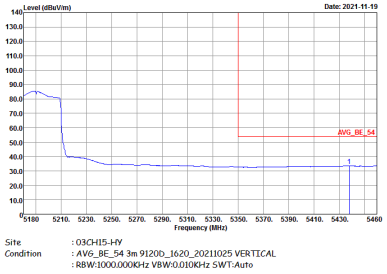
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH38 5190MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

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

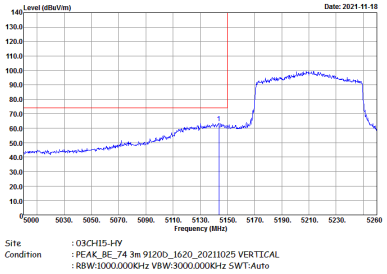
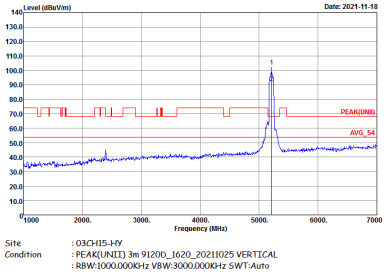
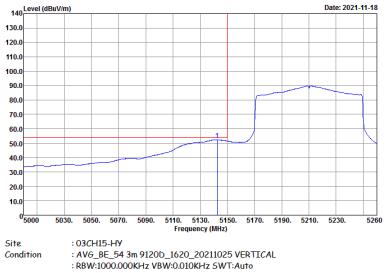
Band 1 5150~5250MHz

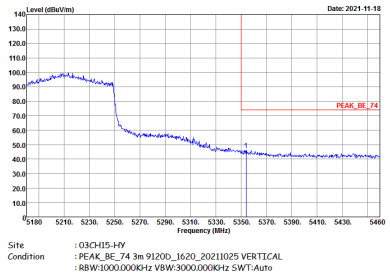
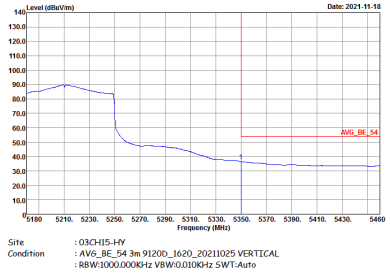
WIFI 802.11ax HE40 Partial 484 (Band Edge @ 3m)

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 242/61 CH38 5190MHz - R	
2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

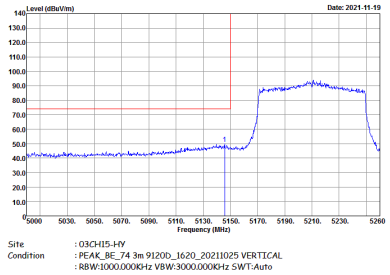
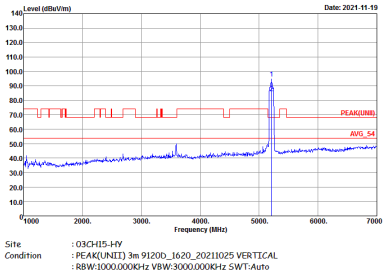
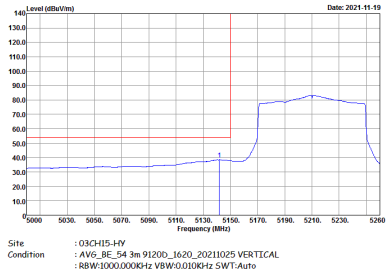
Band 1 5150~5250MHz
WIFI 802.11ax HE80 Full (Band Edge @ 3m)

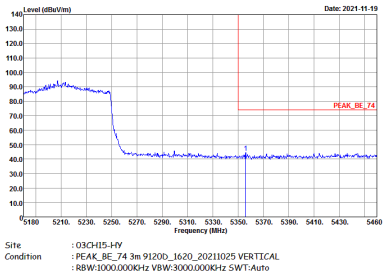
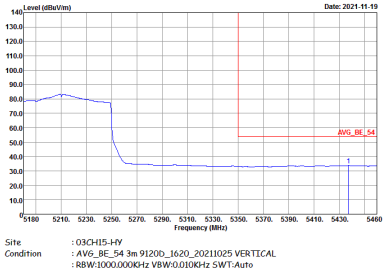
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH42 5210MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

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

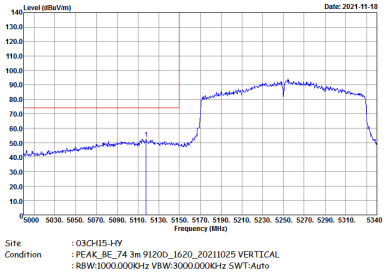
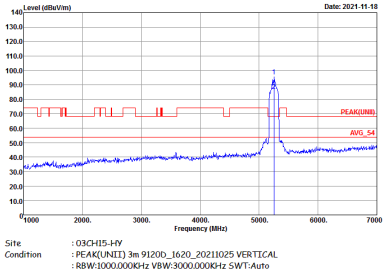
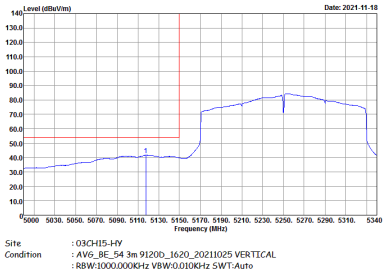
Band 1 5150~5250MHz

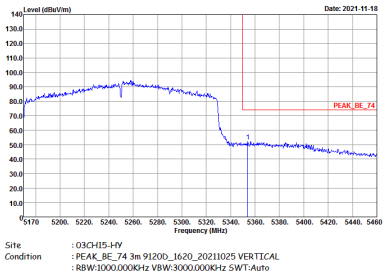
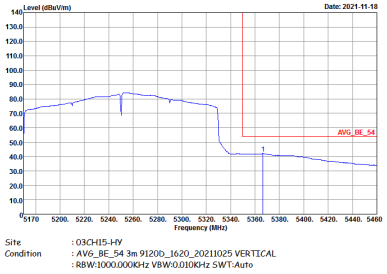
WIFI 802.11ax HE80 Partial 996 (Band Edge @ 3m)

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

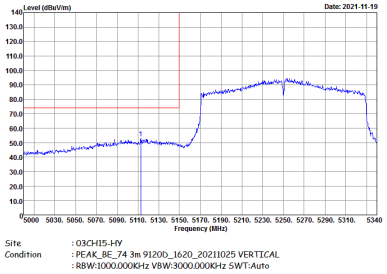
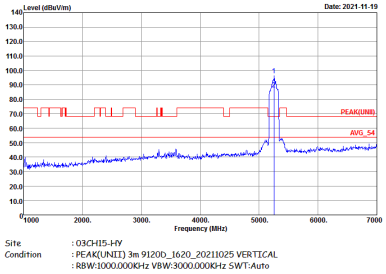
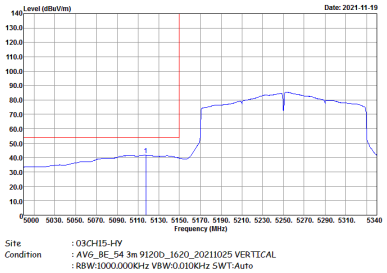
Band 1 5150~5250MHz
WIFI 802.11ax HE160 Full (Band Edge @ 3m)

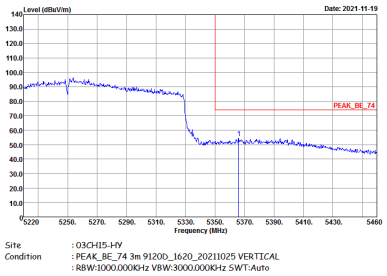
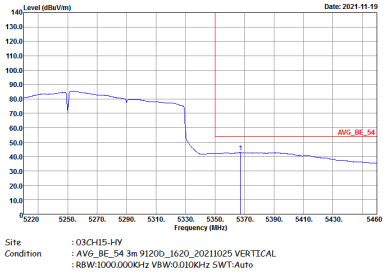
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE160 Full CH50 5250MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

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)

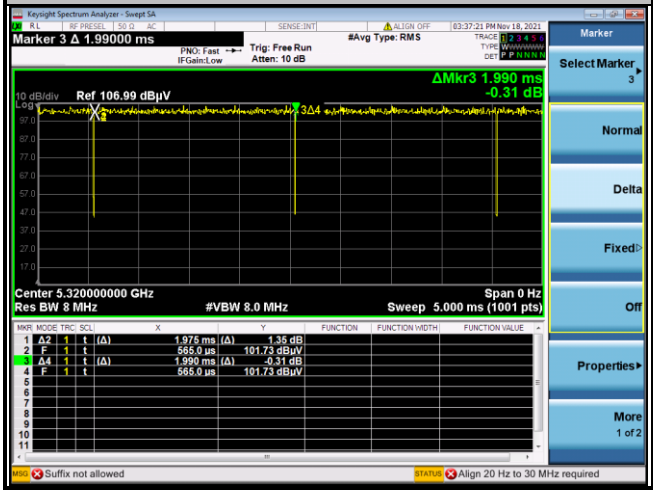
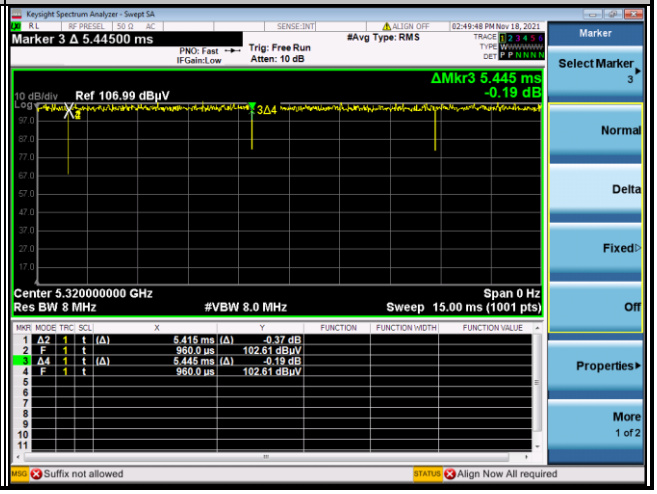
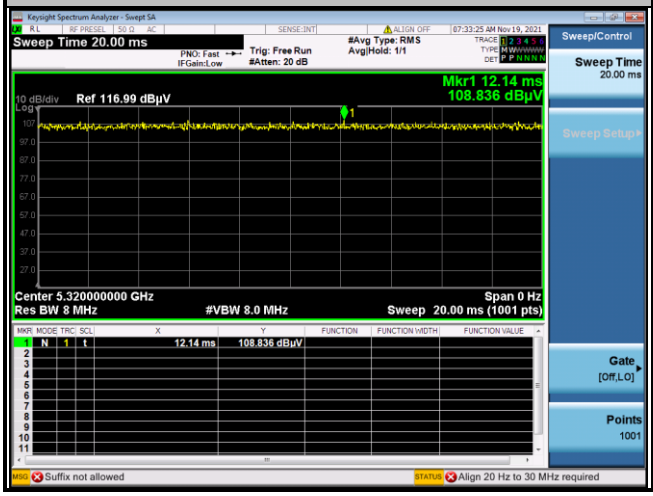
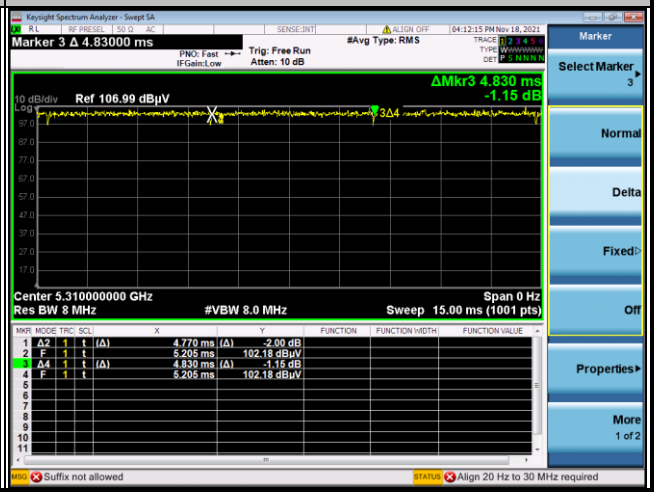
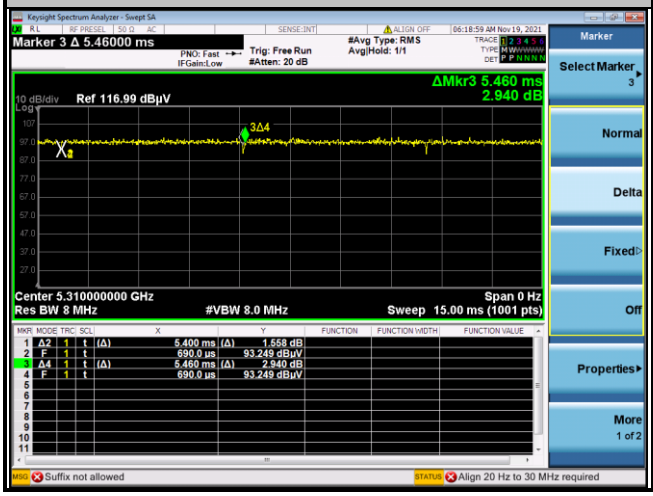
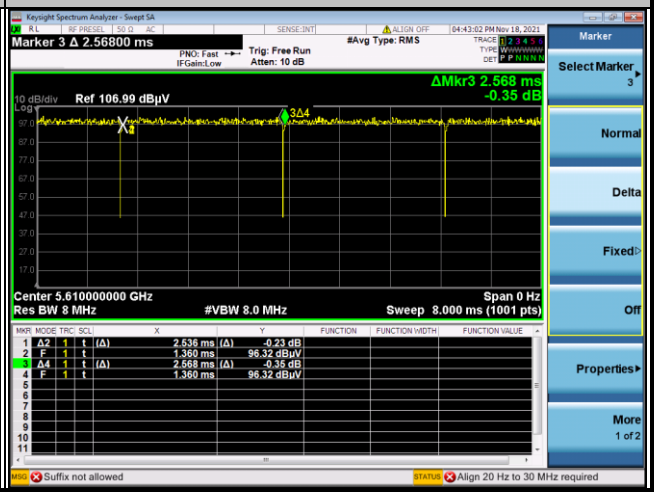
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE160 Partial 1992/68 CH50 5250MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 1992/68 CH50 5250MHz - R	
2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

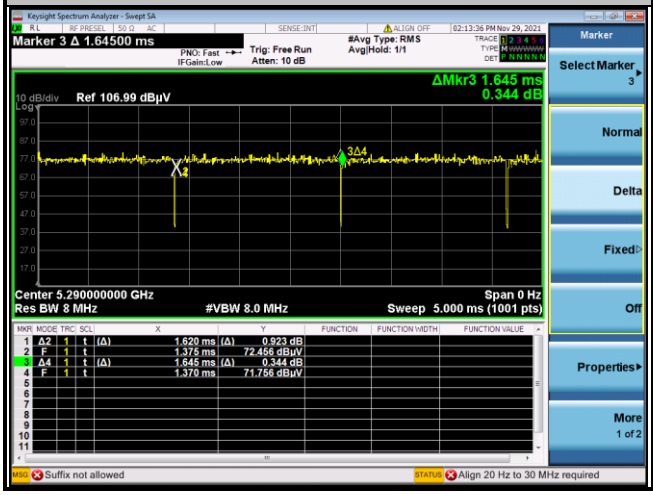
Appendix D. Duty Cycle Plots

Chain	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
0	5GHz 802.11a	99.25	-	-	10Hz
0	5GHz 802.11ax HE20 Full RU	99.47	-	-	10Hz
0	5GHz 802.11ax HE20 242 RU	100	-	-	10Hz
0	5GHz 802.11ax HE40 Full RU	98.76	-	-	10Hz
0	5GHz 802.11ax HE40 484 RU	98.90	-	-	10Hz
0	5GHz 802.11ax HE80 Full RU	98.75	-	-	10Hz
0	5GHz 802.11ax HE80 996 RU	98.48	-	-	10Hz
0	5GHz 802.11ax HE160 Full RU	99.10	-	-	10Hz
0	5GHz 802.11ax HE160 1992 RU	99.08	-	-	10Hz
1	5GHz 802.11a	99.00	-	-	10Hz
1	5GHz 802.11ax HE20 Full RU	99.45	-	-	10Hz
1	5GHz 802.11ax HE20 242 RU	100	-	-	10Hz
1	5GHz 802.11ax HE40 Full RU	99.38	-	-	10Hz
1	5GHz 802.11ax HE40 484 RU	99.26	-	-	10Hz
1	5GHz 802.11ax HE80 Full RU	99.22	-	-	10Hz
1	5GHz 802.11ax HE80 996 RU	98.48	-	-	10Hz
1	5GHz 802.11ax HE160 Full RU	99.10	-	-	10Hz
1	5GHz 802.11ax HE160 1992 RU	99.08	-	-	10Hz

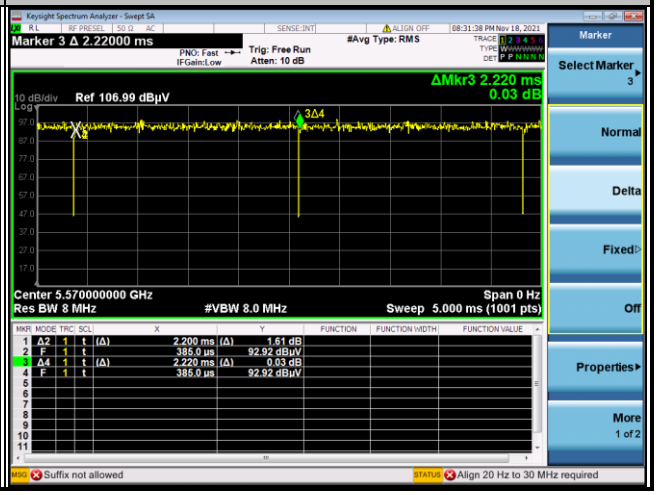
<Chain 0>

802.11a	802.11ax HE20 Full RU
	
802.11ax HE20 242 RU	**802.11ax HE40 Full RU**
	
802.11ax HE40 484 RU	**802.11ax HE80 Full RU**
	

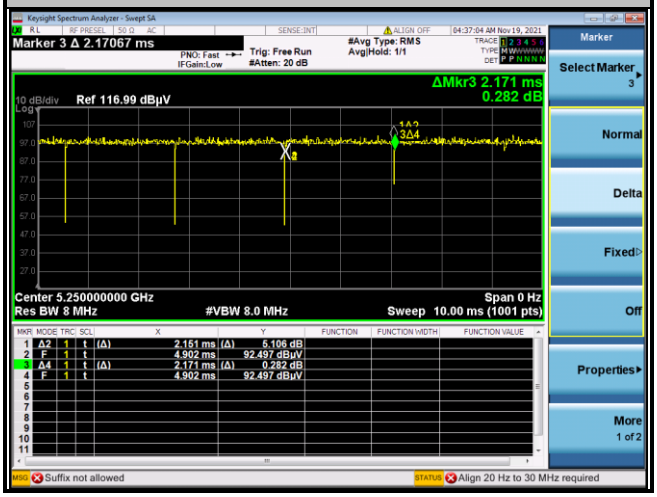
802.11ax HE80 996 RU



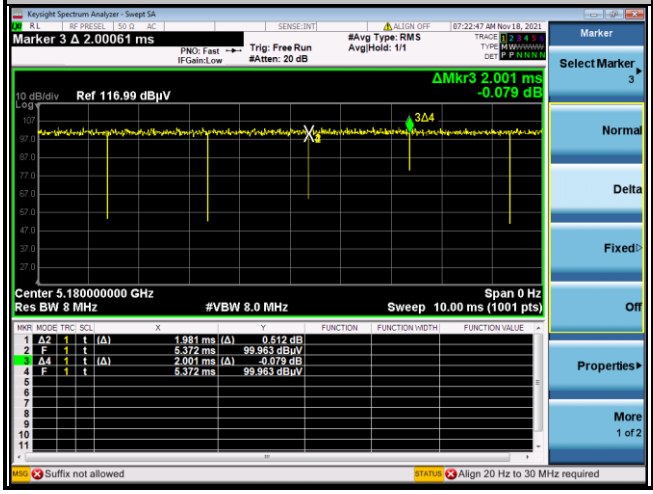
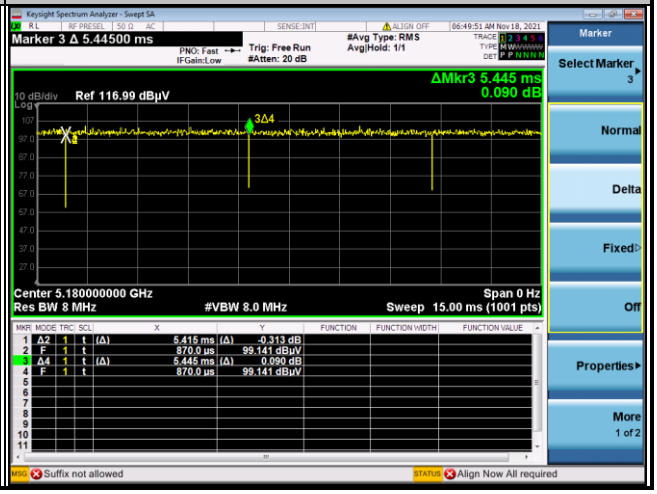
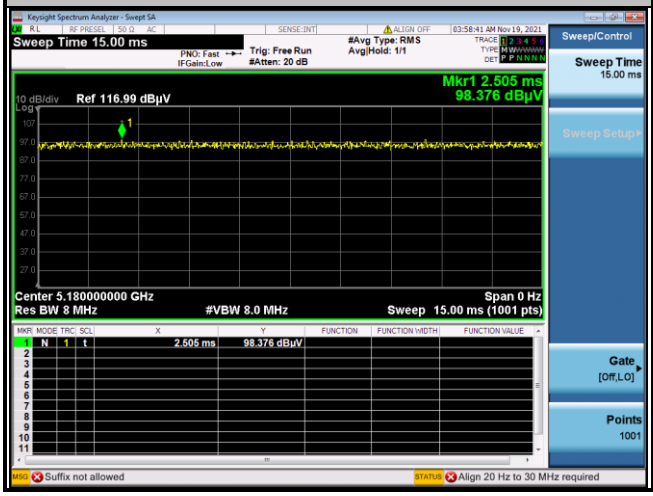
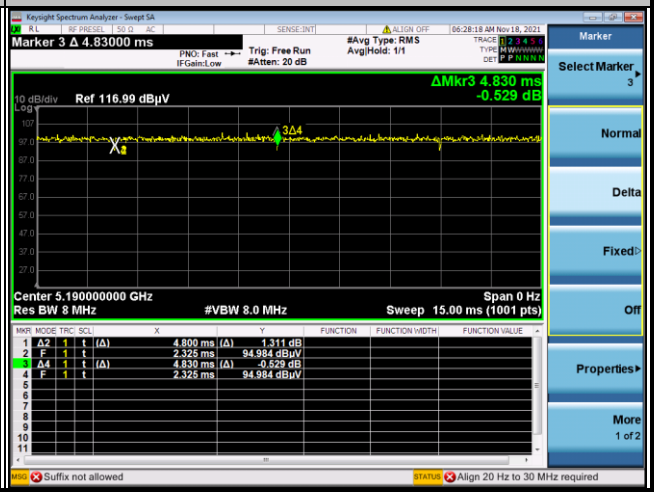
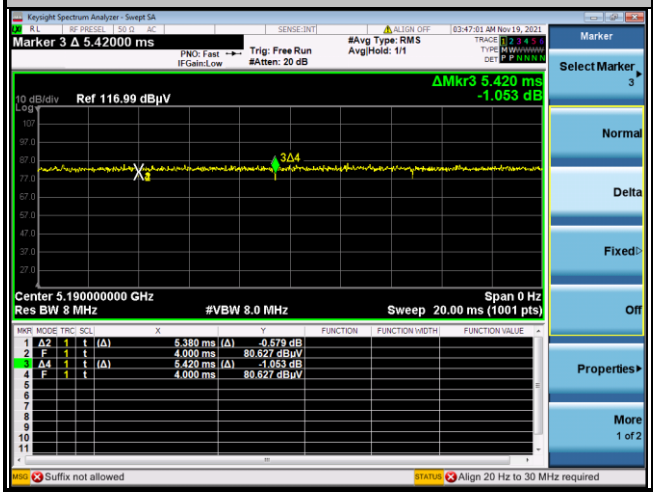
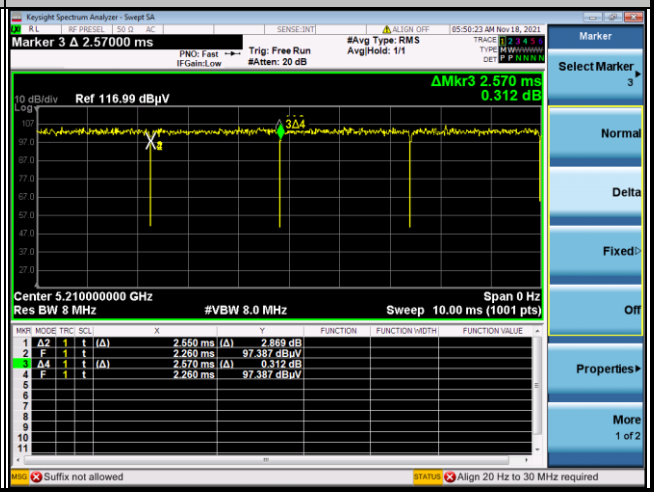
802.11ax HE160 Full RU



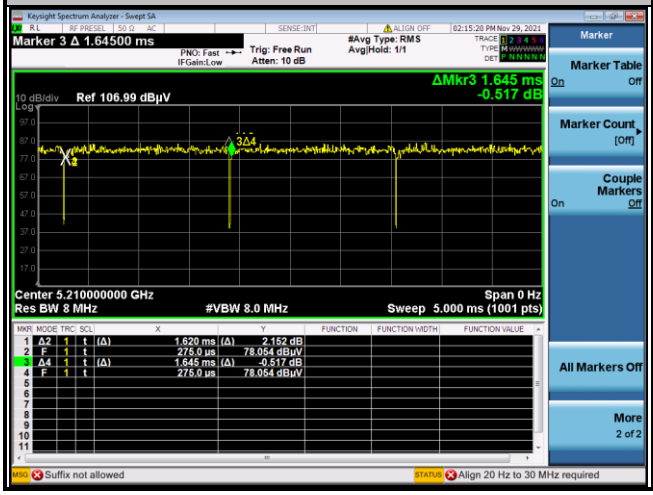
802.11ax HE160 1992 RU



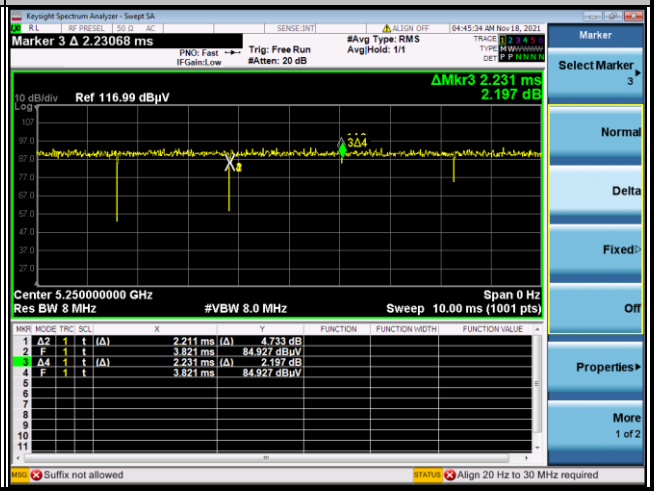
<Chain 1>

802.11a	802.11ax HE20 Full RU
	
802.11ax HE20 242 RU	**802.11ax HE40 Full RU**
	
802.11ax HE40 484 RU	**802.11ax HE80 Full RU**
	

802.11ax HE80 996 RU



802.11ax HE160 Full RU



802.11ax HE160 1992 RU