



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
FR1O1338C	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	12.23 dB under the limit at 14480.000 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 : WLAN(5GHz Band 4): 2.65	Aux. Antenna : WLAN(5GHz Band 4): 3.17
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 : WLAN(5GHz Band 4): 2.65	Aux. Antenna : WLAN(5GHz Band 4): 3.17

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)
5725-5850 MHz Band 4 (U-NII-3)	149	5745	157	5785
	151*	5755	159*	5795
	153	5765	161	5805
	155 [#]	5775	165	5825

Note:

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

2.2 Test Mode

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

Single Mode

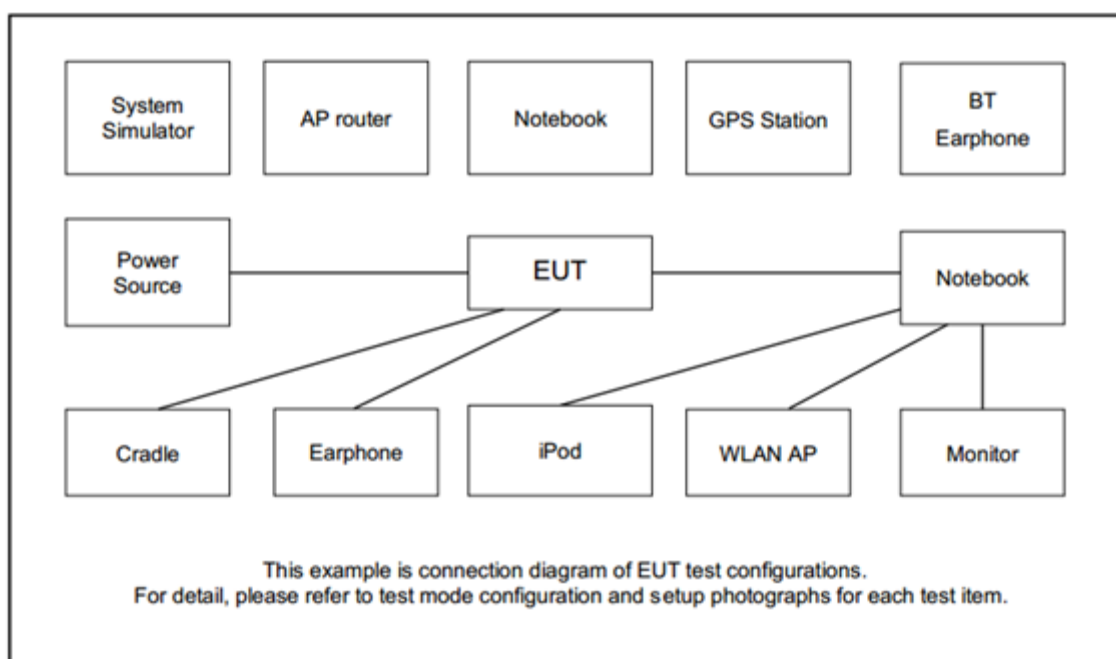
Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0
802.11ac VHT20	MCS0
802.11ac VHT40	MCS0
802.11ac VHT80	MCS0
802.11ax HE20	MCS0
802.11ax HE40	MCS0
802.11ax HE80	MCS0

<Chain 0>

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

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

2.3 Connection Diagram of Test System



2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	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

For the band 5.725–5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

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

3.1.2 Measuring Instruments

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

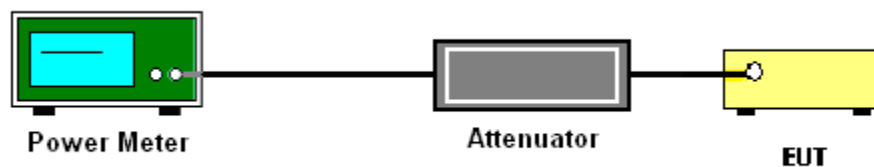
3.1.3 Test Procedures

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.

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 5.725-5.85 GHz band:

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

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

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

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

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

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 $\geq$ 3 MHz
- Detector = Peak
- Sweep time = auto
- Trace mode = max hold

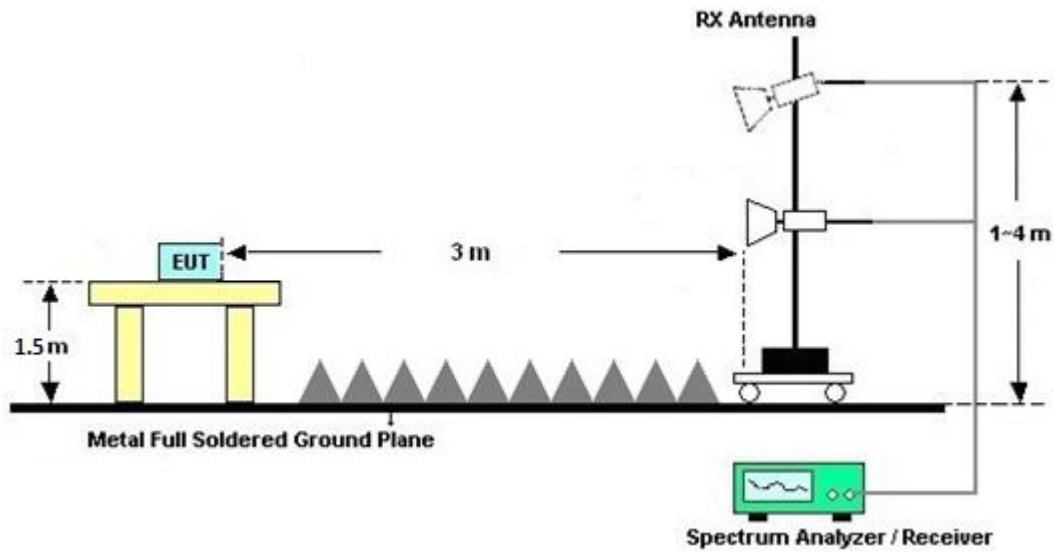
(2) Procedures for Average Unwanted Emissions Measurements Above 1000 MHz

- RBW = 1 MHz
 - VBW = 10 Hz, when duty cycle is no less than 98 percent.
 - VBW $\geq$ 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 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 Unwanted Radiated Emission

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	SCHWARZB ECK	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	SCHWARZB ECK	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	17100018000 55006	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	WLJ4-1000-153 0-6000-40ST	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- 6750-18000-40S T	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	16I00054SNO 12	10MHz~6GHz	Dec. 09, 2020	Nov. 08, 2021~ Nov. 09, 2021	Dec. 08, 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
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.6 dB
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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:	51~56	%

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

TEST RESULTS DATA
Average Power Table

Band IV single antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	149	5745	10.60	10.80		30.00	30.00	3.17	2.65	Pass
11a	6Mbps	1	157	5785	10.80	10.80		30.00	30.00	3.17	2.65	Pass
11a	6Mbps	1	165	5825	10.80	10.90		30.00	30.00	3.17	2.65	Pass
HT20	MCS0	1	149	5745	10.70	10.60		30.00	30.00	3.17	2.65	Pass
HT20	MCS0	1	157	5785	10.60	10.60		30.00	30.00	3.17	2.65	Pass
HT20	MCS0	1	165	5825	10.60	10.60		30.00	30.00	3.17	2.65	Pass
HT40	MCS0	1	151	5755	10.60	10.60		30.00	30.00	3.17	2.65	Pass
HT40	MCS0	1	159	5795	10.50	10.50		30.00	30.00	3.17	2.65	Pass
VHT20	MCS0	1	149	5745	10.70	10.60		30.00	30.00	3.17	2.65	Pass
VHT20	MCS0	1	157	5785	10.60	10.60		30.00	30.00	3.17	2.65	Pass
VHT20	MCS0	1	165	5825	10.60	10.60		30.00	30.00	3.17	2.65	Pass
VHT40	MCS0	1	151	5755	10.60	10.60		30.00	30.00	3.17	2.65	Pass
VHT40	MCS0	1	159	5795	10.50	10.50		30.00	30.00	3.17	2.65	Pass
VHT80	MCS0	1	155	5775	10.60	10.80		30.00	30.00	3.17	2.65	Pass

TEST RESULTS DATA
Average Power Table

Band IV 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	149	5745	Full	10.80	10.70		30.00	30.00	3.17	2.65	Pass
HE20	MCS0	1	149	5745	242/61	10.90	10.80		30.00	30.00	3.17	2.65	Pass
HE20	MCS0	1	157	5785	Full	10.70	10.70		30.00	30.00	3.17	2.65	Pass
HE20	MCS0	1	165	5825	Full	10.70	10.70		30.00	30.00	3.17	2.65	Pass
HE20	MCS0	1	165	5825	242/61	10.80	10.70		30.00	30.00	3.17	2.65	Pass
HE40	MCS0	1	151	5755	Full	10.70	10.70		30.00	30.00	3.17	2.65	Pass
HE40	MCS0	1	151	5755	484/65	10.90	10.90		30.00	30.00	3.17	2.65	Pass
HE40	MCS0	1	159	5795	Full	10.60	10.60		30.00	30.00	3.17	2.65	Pass
HE40	MCS0	1	159	5795	484/65	10.80	10.60		30.00	30.00	3.17	2.65	Pass
HE80	MCS0	1	155	5775	Full	10.70	10.90		30.00	30.00	3.17	2.65	Pass
HE80	MCS0	1	155	5775	996/67	10.60	10.90		30.00	30.00	3.17	2.65	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 4 - 5725~5850MHz

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 149 5745MHz		5611	44.76	-23.44	68.2	40.37	31.98	10.39	37.98	100	234	P	V
		5687.8	45.36	-50.84	96.2	40.98	31.9	10.48	38	100	234	P	V
		5718.8	49.17	-61.29	110.46	44.69	31.98	10.51	38.01	100	234	P	V
		5722.6	50.57	-66.16	116.73	46.09	31.99	10.51	38.02	100	234	P	V
	*	5745	103.43	-	-	98.83	32.08	10.54	38.02	100	234	P	V
	*	5745	95.9	-	-	91.3	32.08	10.54	38.02	100	234	A	V
													V
													V
802.11a CH 165 5825MHz	*	5825	103.81	-	-	99.09	32.15	10.62	38.05	100	237	P	V
	*	5825	96.35	-	-	91.63	32.15	10.62	38.05	100	237	A	V
		5850	46.91	-75.29	122.2	42.13	32.2	10.64	38.06	100	237	P	V
		5869.2	47.01	-59.81	106.82	42.19	32.24	10.65	38.07	100	237	P	V
		5876.6	46.15	-57.86	104.01	41.32	32.25	10.65	38.07	100	237	P	V
		5934.2	45.26	-22.94	68.2	40.29	32.37	10.69	38.09	100	237	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11a (Harmonic @ 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 157 5785MHz		10883	51.03	-22.97	74	56.72	40.37	14.82	60.88	-	-	P	H
		10883	41.09	-12.91	54	46.78	40.37	14.82	60.88	-	-	A	H
		11570	47.91	-26.09	74	53.53	40.16	15.16	60.94	-	-	P	H
		14480	50.64	-23.36	74	56.01	41.34	16.47	63.18	-	-	P	H
		14480	41.77	-12.23	54	47.14	41.34	16.47	63.18	-	-	A	H
		17355	51.66	-16.54	68.2	50.14	41.6	18.4	58.48	-	-	P	H
		17989	58.51	-15.49	74	48.67	48.18	18.93	57.27	-	-	P	H
		17989	48.04	-5.96	54	38.2	48.18	18.93	57.27	-	-	A	H
		10828	50.53	-23.47	74	56.36	40.26	14.09	60.88	-	-	P	V
		10828	40.9	-13.1	54	46.73	40.26	14.09	60.88	-	-	A	V
		11570	47.92	-26.08	74	53.54	40.16	14.46	60.94	-	-	P	V
		14480	50.31	-23.69	74	55.68	41.34	16.2	63.18	-	-	P	V
		14480	41.45	-12.55	54	46.82	41.34	16.2	63.18	-	-	A	V
		17355	50.86	-17.34	68.2	49.34	41.6	17.81	58.48	-	-	P	V
		17989	58.87	-15.13	74	49.03	48.18	18.23	57.27	-	-	P	V
		17989	48.06	-5.94	54	38.22	48.18	18.23	57.27	-	-	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line. 3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only. 4. The emission level close to 18GHz is checked that the average emission level is noise floor only.												



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 149 5745MHz		5633.2	45.12	-23.08	68.2	40.76	31.93	10.42	37.99	100	234	P	V
		5699	46.07	-58.39	104.46	41.69	31.9	10.49	38.01	100	234	P	V
		5719.4	49.97	-60.66	110.63	45.49	31.98	10.51	38.01	100	234	P	V
		5722	50.33	-65.03	115.36	45.85	31.99	10.51	38.02	100	234	P	V
	*	5745	105.57	-	-	100.97	32.08	10.54	38.02	100	234	P	V
	*	5745	95.3	-	-	90.7	32.08	10.54	38.02	100	234	A	V
													V
													V
802.11ax HE20 Full CH 165 5825MHz	*	5825	105.7	-	-	100.98	32.15	10.62	38.05	100	237	P	V
	*	5825	95.21	-	-	90.49	32.15	10.62	38.05	100	237	A	V
		5851	51.69	-68.23	119.92	46.91	32.2	10.64	38.06	100	237	P	V
		5856.4	47.61	-62.8	110.41	42.82	32.21	10.64	38.06	100	237	P	V
		5884.8	46.19	-51.73	97.92	41.33	32.27	10.66	38.07	100	237	P	V
		5935.6	46.25	-21.95	68.2	41.28	32.37	10.69	38.09	100	237	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



WIFI 802.11ax HE20_Partial 26(Harmonic @ 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 Partial 26/4 CH 157 5785MHz		10806	51.55	-22.45	74	57.45	40.21	14.08	60.89	-	-	P	H
		10806	40.98	-13.02	54	46.88	40.21	14.08	60.89	-	-	A	H
		11570	47.76	-26.24	74	53.38	40.16	14.46	60.94	-	-	P	H
		14480	51.09	-22.91	74	56.46	41.34	16.2	63.18	-	-	P	H
		14480	41.65	-12.35	54	47.02	41.34	16.2	63.18	-	-	A	H
		17355	51.39	-16.81	68.2	49.87	41.6	17.81	58.48	-	-	P	H
		17989	59.02	-14.98	74	49.18	48.18	18.23	57.27	-	-	P	H
		17989	48.24	-5.76	54	38.4	48.18	18.23	57.27	-	-	A	H
		10861	50.95	-23.05	74	56.71	40.32	14.8	60.88	-	-	P	V
		10861	40.98	-13.02	54	46.74	40.32	14.8	60.88	-	-	A	V
		11570	47.96	-26.04	74	53.58	40.16	15.16	60.94	-	-	P	V
		14491	49.78	-24.22	74	55.1	41.37	16.48	63.17	-	-	P	V
		14491	41.76	-12.24	54	47.08	41.37	16.48	63.17	-	-	A	V
		17355	52.04	-16.16	68.2	50.52	41.6	18.4	58.48	-	-	P	V
		18000	59.02	-14.98	74	48.92	48.4	18.94	57.24	-	-	P	V
		18000	48.32	-5.68	54	38.22	48.4	18.94	57.24	-	-	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line. 3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only. 4. The emission level close to 18GHz is checked that the average emission level is noise floor only.												



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 HE20 Partial 242/61 CH 149 5745MHz		5623.6	46.17	-22.03	68.2	41.79	31.95	10.41	37.98	100	236	P	V
		5691.2	47	-51.71	98.71	42.63	31.9	10.48	38.01	100	236	P	V
		5718	55.32	-54.92	110.24	50.85	31.97	10.51	38.01	100	236	P	V
		5724.8	56.74	-65	121.74	52.24	32	10.52	38.02	100	236	P	V
	*	5745	107.61	-	-	103.01	32.08	10.54	38.02	100	236	P	V
	*	5745	96.8	-	-	92.2	32.08	10.54	38.02	100	236	A	V
													V
													V
802.11ax HE20 Partial 242/61 CH 165 5825MHz	*	5825	106.38	-	-	101.66	32.15	10.62	38.05	100	238	P	V
	*	5825	95.69	-	-	90.97	32.15	10.62	38.05	100	238	A	V
		5850	55.12	-67.08	122.2	50.34	32.2	10.64	38.06	100	238	P	V
		5858.8	47.53	-62.2	109.73	42.73	32.22	10.64	38.06	100	238	P	V
		5882	45.88	-54.12	100	41.03	32.26	10.66	38.07	100	238	P	V
		5947.4	45.86	-22.34	68.2	40.86	32.39	10.7	38.09	100	238	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11ax HE40 Full (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 151 5755MHz		5637.6	46.02	-22.18	68.2	41.67	31.92	10.42	37.99	100	234	P	V
		5697.2	49.17	-53.97	103.14	44.79	31.9	10.49	38.01	100	234	P	V
		5718	54.75	-55.49	110.24	50.28	31.97	10.51	38.01	100	234	P	V
		5720.6	56.78	-55.39	112.17	52.31	31.98	10.51	38.02	100	234	P	V
	*	5755	102.83	-	-	98.21	32.1	10.55	38.03	100	234	P	V
	*	5755	93.5	-	-	88.88	32.1	10.55	38.03	100	234	A	V
		5850.78	44.44	-75.98	120.42	39.66	32.2	10.64	38.06	100	234	P	V
		5868.205	46.47	-60.63	107.1	41.65	32.24	10.65	38.07	100	234	P	V
		5877.225	45.1	-58.45	103.55	40.27	32.25	10.65	38.07	100	234	P	V
		5940.57	44.81	-23.39	68.2	39.82	32.38	10.7	38.09	100	234	P	V
													V
													V
802.11ax HE40 Full CH 159 5795MHz		5644.2	47.4	-20.8	68.2	43.05	31.91	10.43	37.99	100	237	P	V
		5691.6	46.19	-52.82	99.01	41.82	31.9	10.48	38.01	100	237	P	V
		5708.4	46.41	-61.14	107.55	41.99	31.93	10.5	38.01	100	237	P	V
		5722.4	46.4	-69.87	116.27	41.92	31.99	10.51	38.02	100	237	P	V
	*	5795	102.25	-	-	97.6	32.1	10.59	38.04	100	237	P	V
	*	5795	92.6	-	-	87.95	32.1	10.59	38.04	100	237	A	V
		5853.035	47.35	-67.93	115.28	42.56	32.21	10.64	38.06	100	237	P	V
		5863.285	46.6	-61.88	108.48	41.79	32.23	10.64	38.06	100	237	P	V
		5890.14	45.74	-48.22	93.96	40.87	32.28	10.66	38.07	100	237	P	V
		5938.725	45.92	-22.28	68.2	40.93	32.38	10.7	38.09	100	237	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11ax HE40_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 HE40 Partial 484//65 CH 151 5755MHz		5645.8	45.96	-22.24	68.2	41.61	31.91	10.43	37.99	100	233	P	V
		5692.4	47.78	-51.82	99.6	43.41	31.9	10.48	38.01	100	233	P	V
		5717.4	53.78	-56.29	110.07	49.31	31.97	10.51	38.01	100	233	P	V
		5723.6	54.4	-64.61	119.01	49.91	31.99	10.52	38.02	100	233	P	V
	*	5755	104.78	-	-	100.16	32.1	10.55	38.03	100	233	P	V
	*	5755	93.47	-	-	88.85	32.1	10.55	38.03	100	233	A	V
		5851.395	45.98	-73.04	119.02	41.2	32.2	10.64	38.06	100	233	P	V
		5862.67	45.63	-63.02	108.65	40.82	32.23	10.64	38.06	100	233	P	V
		5895.675	46.28	-43.58	89.86	41.39	32.29	10.67	38.07	100	233	P	V
		5946.72	45.9	-22.3	68.2	40.9	32.39	10.7	38.09	100	233	P	V
													V
													V



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 Partial 484/65 CH 159 5795MHz		5641.4	45.21	-22.99	68.2	40.85	31.92	10.43	37.99	100	238	P	V
		5685.6	46.23	-48.35	94.58	41.86	31.9	10.47	38	100	238	P	V
		5720	45.55	-65.25	110.8	41.07	31.98	10.51	38.01	100	238	P	V
		5724.4	46.59	-74.24	120.83	42.09	32	10.52	38.02	100	238	P	V
	*	5795	103.21	-	-	98.56	32.1	10.59	38.04	100	238	P	V
	*	5795	93.29	-	-	88.64	32.1	10.59	38.04	100	238	A	V
		5850.985	46.34	-73.61	119.95	41.56	32.2	10.64	38.06	100	238	P	V
		5858.57	45.91	-63.89	109.8	41.11	32.22	10.64	38.06	100	238	P	V
		5890.14	45.95	-48.01	93.96	41.08	32.28	10.66	38.07	100	238	P	V
		5938.315	45.17	-23.03	68.2	40.18	32.38	10.7	38.09	100	238	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11ax HE80 Full (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 155 5775MHz		5638.6	47.16	-21.04	68.2	42.81	31.92	10.42	37.99	100	236	P	V
		5699.6	50.73	-54.18	104.91	46.35	31.9	10.49	38.01	100	236	P	V
		5720	55.49	-55.31	110.8	51.01	31.98	10.51	38.01	100	236	P	V
		5725	57.29	-64.91	122.2	52.79	32	10.52	38.02	100	236	P	V
	*	5775	100.77	-	-	96.13	32.1	10.57	38.03	100	236	P	V
	*	5775	91.39	-	-	86.75	32.1	10.57	38.03	100	236	A	V
		5854.06	55.73	-57.21	112.94	50.94	32.21	10.64	38.06	100	236	P	V
		5857.75	55.79	-54.24	110.03	50.99	32.22	10.64	38.06	100	236	P	V
		5878.25	51.7	-51.09	102.79	46.86	32.26	10.65	38.07	100	236	P	V
		5934.01	45.23	-22.97	68.2	40.26	32.37	10.69	38.09	100	236	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11ax HE80_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 HE80 Partial 996/67 CH 155 5775MHz		5637.6	47.2	-21	68.2	42.85	31.92	10.42	37.99	100	235	P	V
		5679	50.67	-39.03	89.7	46.3	31.9	10.47	38	100	235	P	V
		5719.8	54.51	-56.23	110.74	50.03	31.98	10.51	38.01	100	235	P	V
		5724.8	56.09	-65.65	121.74	51.59	32	10.52	38.02	100	235	P	V
	*	5775	101.21	-	-	96.57	32.1	10.57	38.03	100	235	P	V
	*	5775	91.11	-	-	86.47	32.1	10.57	38.03	100	235	A	V
		5850.165	55.54	-66.28	121.82	50.76	32.2	10.64	38.06	100	235	P	V
		5858.57	54.19	-55.61	109.8	49.39	32.22	10.64	38.06	100	235	P	V
		5877.43	48.89	-54.5	103.39	44.06	32.25	10.65	38.07	100	235	P	V
		5942.825	46.32	-21.88	68.2	41.32	32.39	10.7	38.09	100	235	P	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	Peak or Average
H/V	Horizontal or Vertical



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		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
CH 01													
2412MHz		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”.

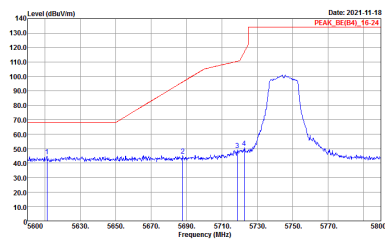
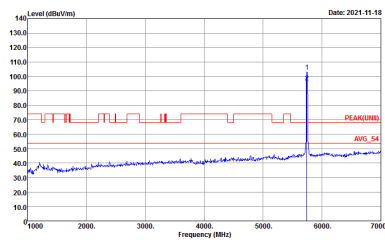


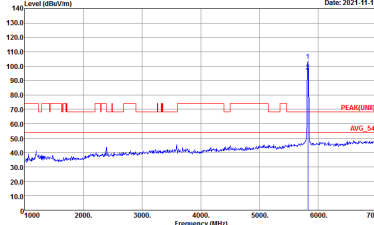
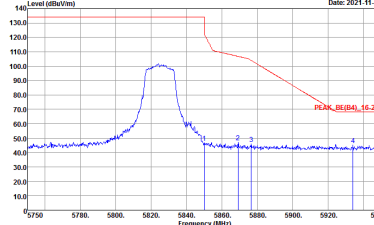
Appendix C. Radiated Spurious Emission Plots

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).

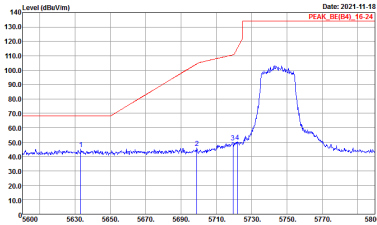
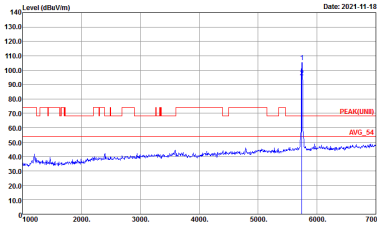
Band 4 - 5725~5850MHz WIFI 802.11a (Band Edge @ 3m)

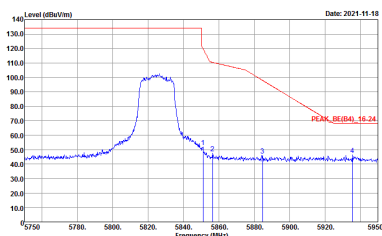
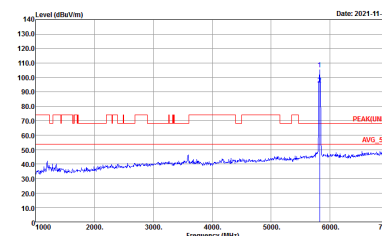
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH15-HV Condition : PEAK_BE(84)_16-24 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HV Condition : PEAK(UNIT) 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH15-14Y Condition : PEAK(UNED) 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-14Y Condition : PEAK_BE(B4)_16-24 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



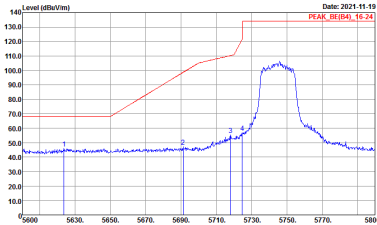
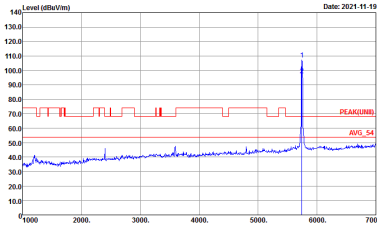
WIFI 802.11ax HE20 Full (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH149 5745MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(84)_16-24 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK(UNII) 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto

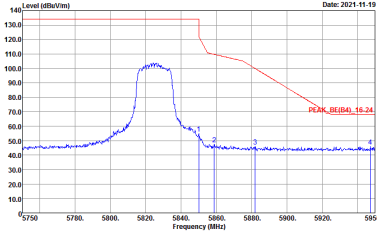
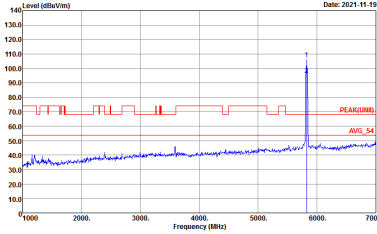
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH165 5825MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH15-14Y Condition : PEAK_8E(B4)_16-24 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-14Y Condition : PEAK(UNIT) 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



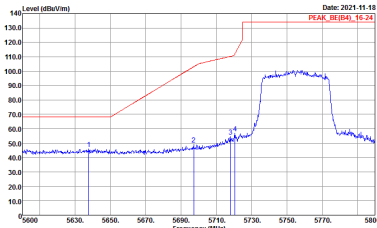
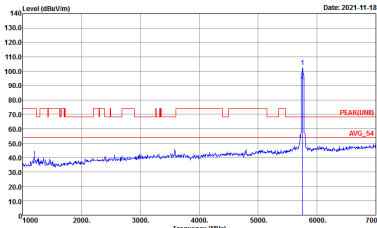
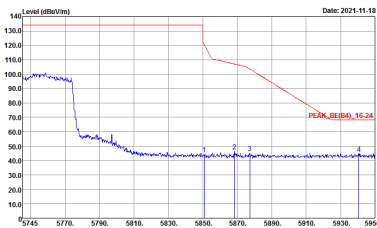
WIFI 802.11ax HE20 Partial 242 (Band Edge @ 3m)

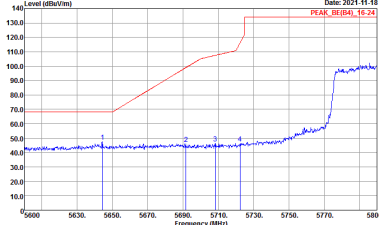
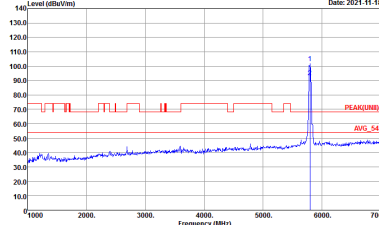
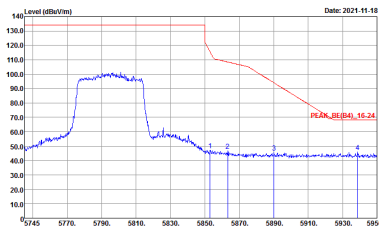
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 242/61 CH149 5745MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(84)_16-24 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



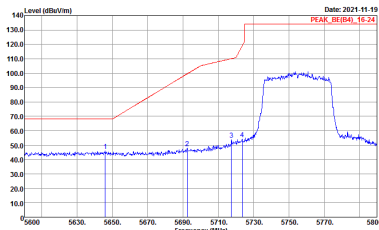
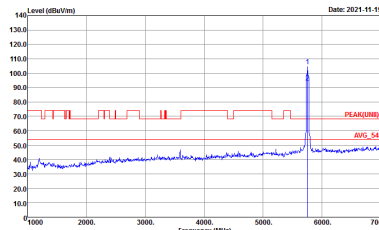
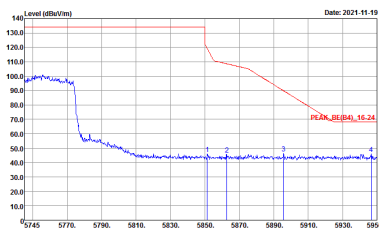
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 242/61 CH165 5825MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH15-14Y Condition : PEAK_BE(B4)_16-24 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-14Y Condition : PEAK(UNIT) 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto

Band 4 5725~5850MHz
WIFI 802.11ax HE40 Full (Band Edge @ 3m)

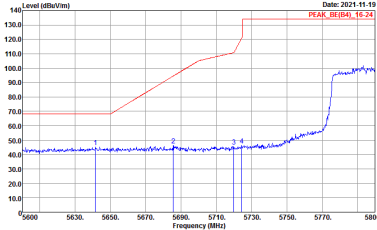
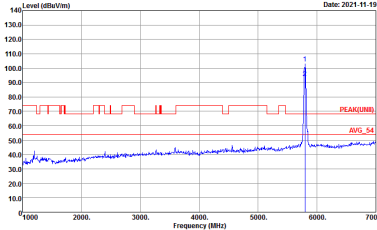
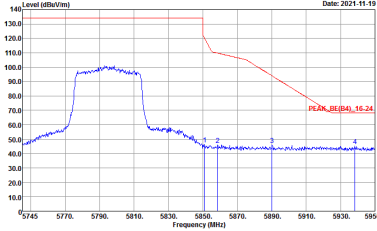
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH151 5755MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(84)_16-24 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Peak	 Site : 03CH15-HY Condition : PEAK_BE(84)_16-24 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH159 5795MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(B4)_16-24 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Peak	 Site : 03CH15-HY Condition : PEAK_BE(B4)_16-24 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

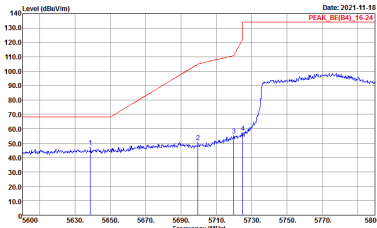
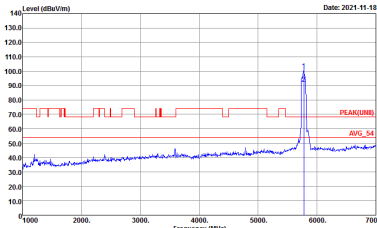
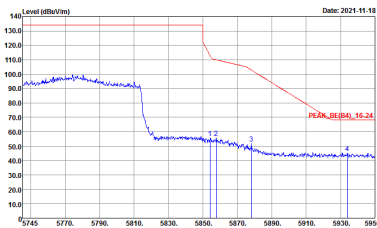
Band 4 5725~5850MHz
WIFI 802.11ax HE40 Partial 484 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 484/65 CH151 5755MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(84)_16-24 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Peak	 Site : 03CH15-HY Condition : PEAK_BE(84)_16-24 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

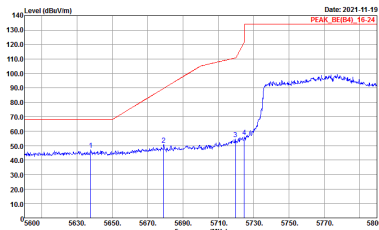
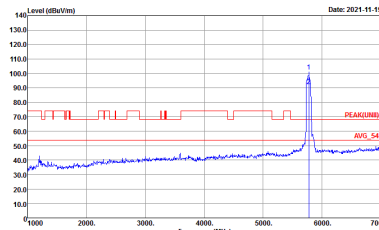
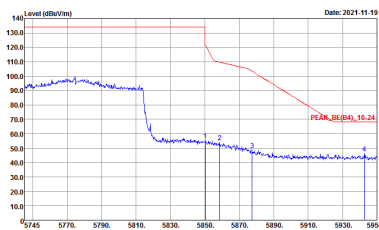


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 484/65 CH159 5795MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(B4)_16-24 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Peak	 Site : 03CH15-HY Condition : PEAK_BE(B4)_16-24 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

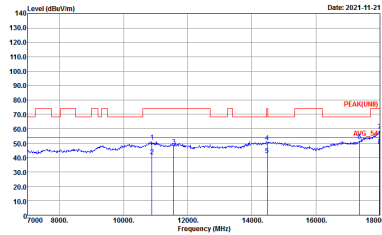
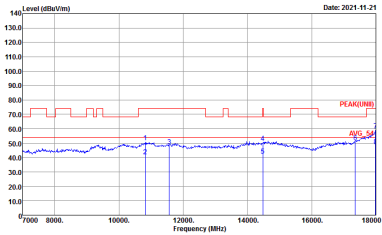
Band 4 5725~5850MHz
WIFI 802.11ax HE80 Full (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH155 5775MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(B4)_16-24 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK(UMB) 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Peak	 Site : 03CH15-HY Condition : PEAK_BE(B4)_16-24 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

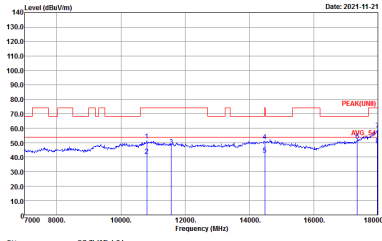
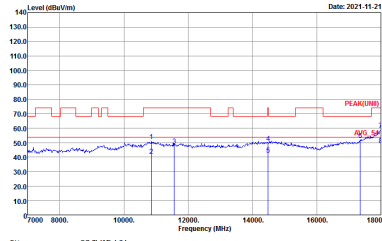
Band 4 5725~5850MHz
WIFI 802.11ax HE80 Partial 996 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 996/67 CH155 5775MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(B4)_16-24 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK(UMB) 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	 Site : 03CH15-HY Condition : PEAK_BE(B4)_16-24 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

Band 4 - 5725~5850MHz
WIFI 802.11a (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_1620_20211025 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto

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

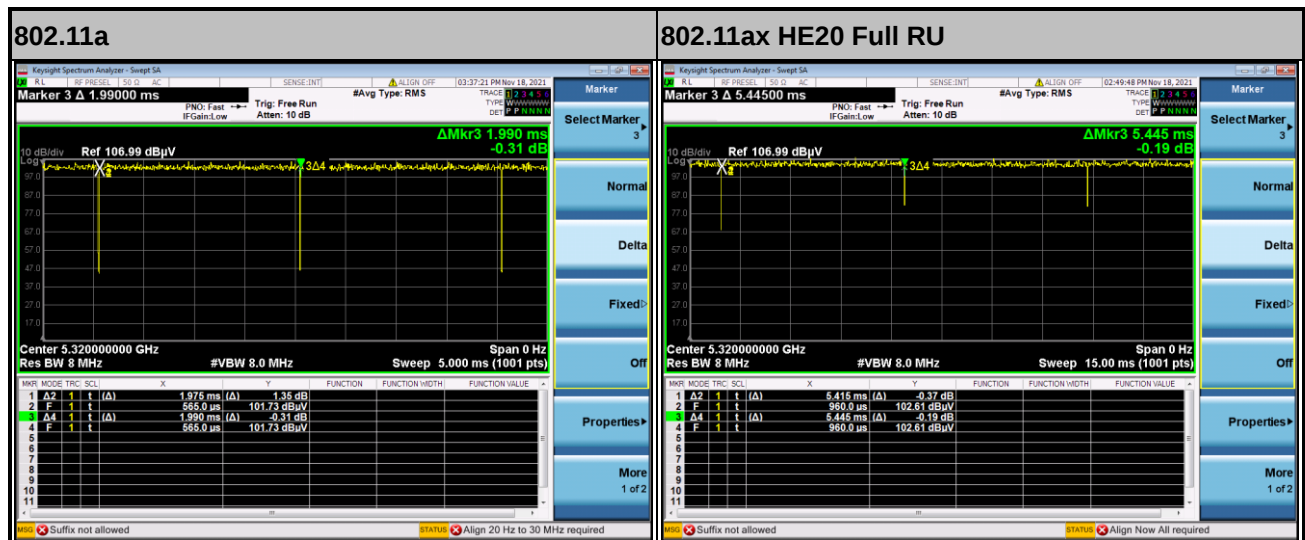
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Partial 26/4 CH157 5785MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_1620_20211025 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_1620_20211025 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



Appendix D. Duty Cycle Plots

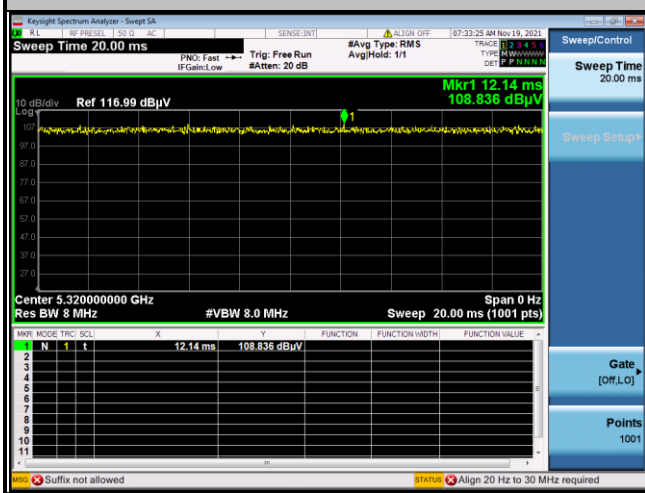
Chain	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
0	5GHz 802.11a	99.25	-	-	10Hz
0	5GHz 802.11ax HE20 Full RU	99.47	-	-	10Hz
0	5GHz 802.11ax HE20 242 RU	100	-	-	10Hz
0	5GHz 802.11ax HE40 Full RU	98.76	-	-	10Hz
0	5GHz 802.11ax HE40 484 RU	98.90	-	-	10Hz
0	5GHz 802.11ax HE80 Full RU	98.75	-	-	10Hz
0	5GHz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

<Chain 0>

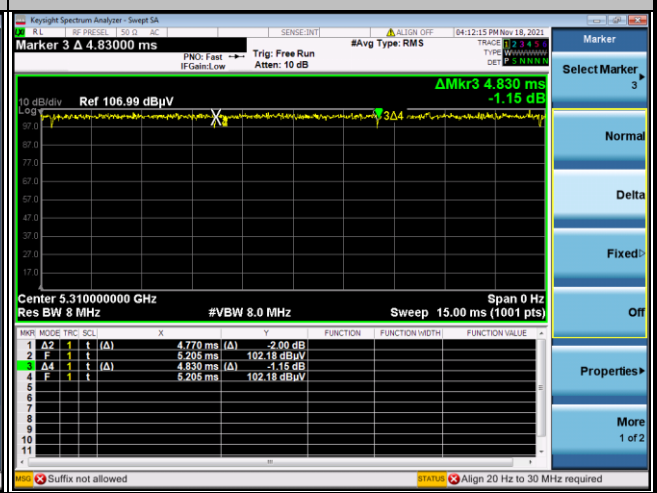




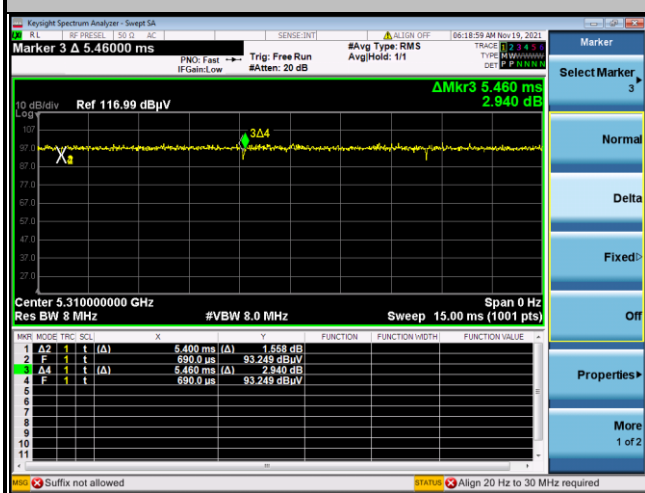
802.11ax HE20 242 RU



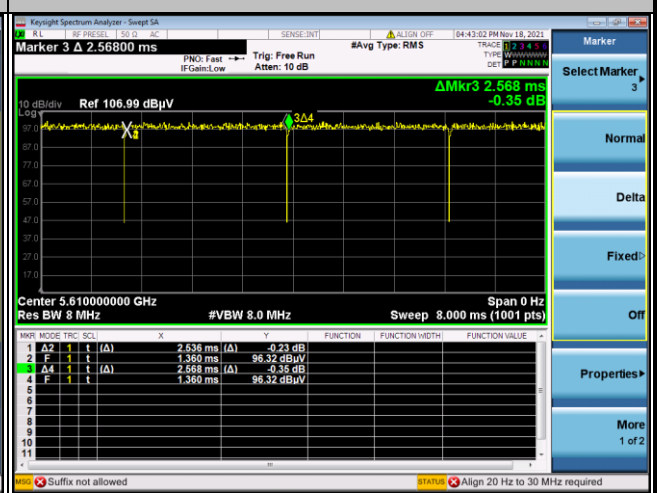
802.11ax HE40 Full RU



802.11ax HE40 484 RU



802.11ax HE80 Full RU



802.11ax HE80 996 RU

