



FCC RADIO TEST REPORT

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

The product was received on Oct. 13, 2021 and testing was performed from Oct. 22, 2021 to Nov. 26, 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.

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
FR1O1349C	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	7.19 dB under the limit at 5643.250 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: Amy Chen

1 General Description

1.1 Product Feature of Equipment Under Test

Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n/ac/ax and Wi-Fi 5GHz 802.11a/n/ac/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: P161G) during test, and the host information was recorded in the following table.

Host Information	
Host 1	Host with WNC Antenna
Host 2	Host with Hong-Bo Antenna

Antenna Information				
NB Mode	Antenna 1	Manufacturer	WNC	
		Antenna Type	PIFA Antenna	PIFA Antenna
		Part number	81EABJ15.G49	81EABJ15.G50
		Peak gain (dBi)	Main Antenna : WLAN(5GHz Band 4): 2.59	Aux. Antenna : WLAN(5GHz Band 4): 1.32
	Antenna 2	Manufacturer	Hong-Bo	
		Antenna Type	PIFA Antenna	PIFA Antenna
		Part number	260-29100	260-29101
		Peak gain (dBi)	Main Antenna : WLAN(5GHz Band 4): 2.59	Aux. Antenna : WLAN(5GHz Band 4): 1.32
TB Mode	Antenna 1	Manufacturer	WNC	
		Antenna Type	PIFA Antenna	PIFA Antenna
		Part number	81EABJ15.G49	81EABJ15.G50
		Peak gain (dBi)	Main Antenna : WLAN(5GHz Band 4): -1.01	Aux. Antenna : WLAN(5GHz Band 4): 0.08
	Antenna 2	Manufacturer	Hong-Bo	
		Antenna Type	PIFA Antenna	PIFA Antenna
		Part number	260-29100	260-29101
		Peak gain (dBi)	Main Antenna : WLAN(5GHz Band 4): -1.01	Aux. Antenna : WLAN(5GHz Band 4): 0.08

Remark:

1. The above EUT's information is declared by manufacturer. Please refer to Comments and Explanations in report summary.
2. All the tests were performed with "WNC Antenna".

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, 03CH11-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). For radiated measurement, the measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in three orthogonal axis (X: flat, Y: portrait, Z: landscape) and Notebook Type, and adjusting the measurement antenna orientation, following C63.10 exploratory test procedures and find X plane as worst plane.

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.

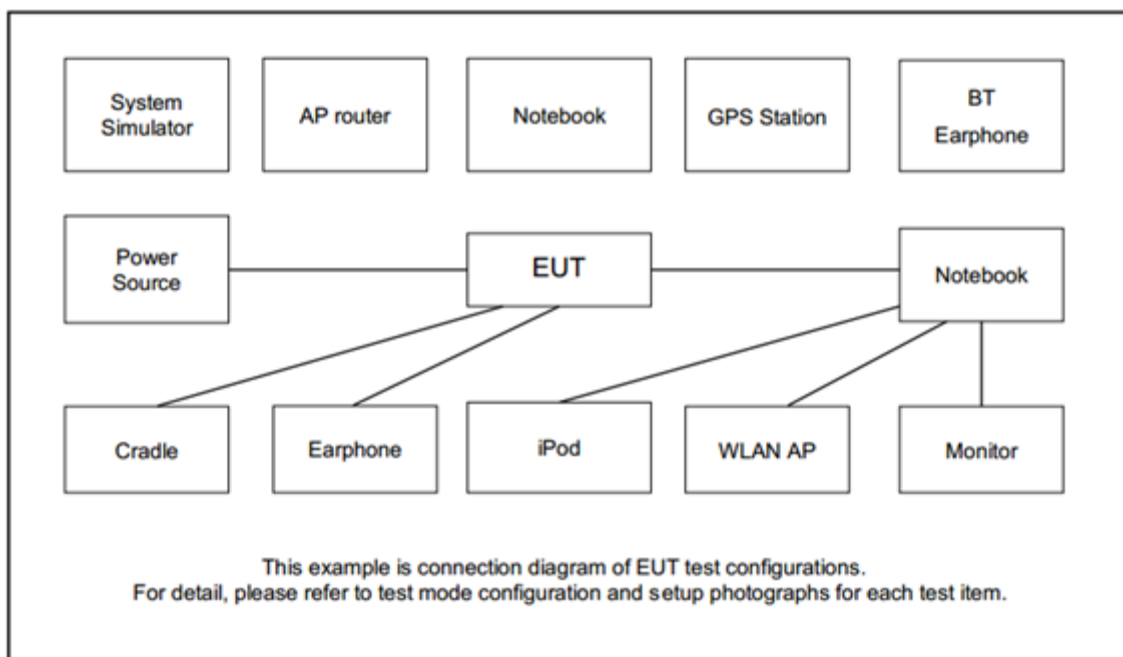
Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0
802.11ac VHT20	MCS0
802.11ac VHT40	MCS0
802.11ac VHT80	MCS0
802.11ax HE20	MCS0
802.11ax HE40	MCS0
802.11ax HE80	MCS0

<Chain 1>

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.

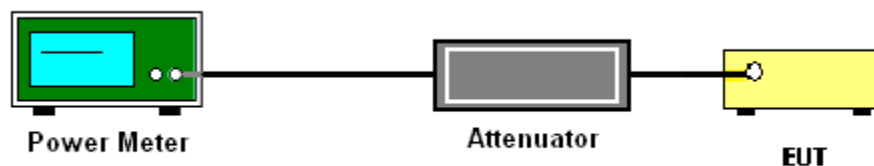
3.1.3 Test Procedures

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.

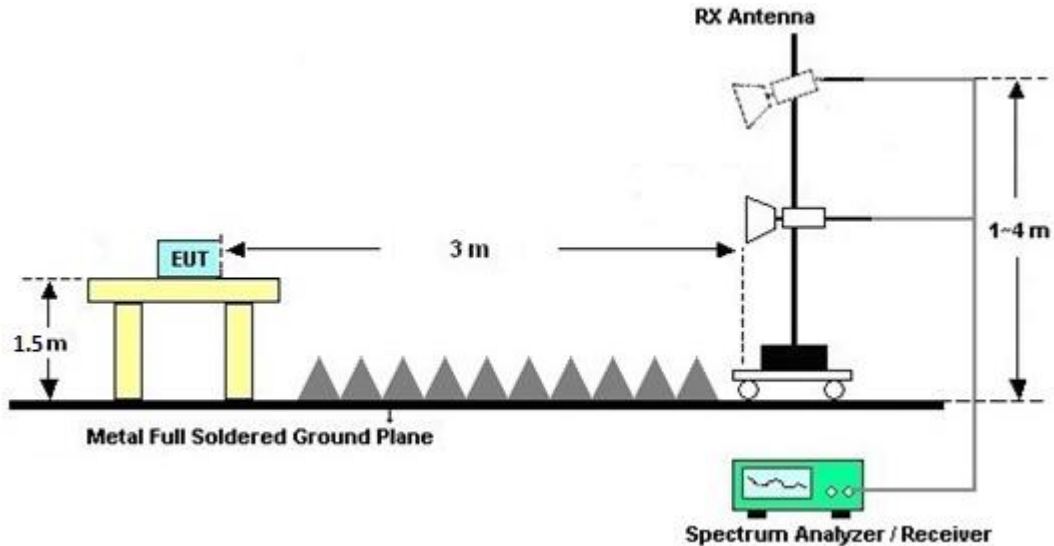
3.2.3 Test Procedures

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 (30MHz ~ 10th Harmonic)

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-02114	1GHz ~ 18GHz	Aug. 04, 2021	Nov. 18, 2021~ Nov. 26, 2021	Aug. 03, 2022	Radiation (03CH11-HY)
SHF-EHF Horn Antenna	SCHWARZB ECK	BBHA9170	00993	18GHz~40GHz	Nov. 27, 2020	Nov. 18, 2021~ Nov. 26, 2021	Nov. 26, 2021	Radiation (03CH11-HY)
Preamplifier	Keysight	83017A	MY53270080	1GHz~26.5GHz	Nov. 10, 2021	Nov. 18, 2021~ Nov. 26, 2021	Nov. 09, 2022	Radiation (03CH11-HY)
Preamplifier	Jet-Power	JPA0118-55-303	17100018000 55007	1GHz~18GHz	Jun. 16, 2021	Nov. 18, 2021~ Nov. 26, 2021	Jun. 15, 2022	Radiation (03CH11-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz~40GHz	Jun. 22, 2021	Nov. 18, 2021~ Nov. 26, 2021	Jun. 21, 2022	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz~44GHz	Oct. 15, 2021	Nov. 18, 2021~ Nov. 26, 2021	Oct. 14, 2022	Radiation (03CH11-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY55420170	20MHz~8.4GHz	Jul. 15, 2021	Nov. 18, 2021~ Nov. 26, 2021	Jul. 14, 2022	Radiation (03CH11-HY)
Controller	EMEC	EM 1000	N/A	Control Turn table & Ant Mast	N/A	Nov. 18, 2021~ Nov. 26, 2021	N/A	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Nov. 18, 2021~ Nov. 26, 2021	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Nov. 18, 2021~ Nov. 26, 2021	N/A	Radiation (03CH11-HY)
Software	Audix	E3 6.2009-8-24	RK-001053	N/A	N/A	Nov. 18, 2021~ Nov. 26, 2021	N/A	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2859/2	30MHz-40GHz	Mar. 11, 2021	Nov. 18, 2021~ Nov. 26, 2021	Mar. 10, 2022	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	30M-18G	Mar. 11, 2021	Nov. 18, 2021~ Nov. 26, 2021	Mar. 10, 2022	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY11681/4PE	30MHz-18GHz	Mar. 11, 2021	Nov. 18, 2021~ Nov. 26, 2021	Mar. 10, 2022	Radiation (03CH11-HY)
Filter	Wainwright	WLK4-1000-153 0-8000-40SS	SN11	1.53G Low Pass	Sep. 13, 2021	Nov. 18, 2021~ Nov. 26, 2021	Sep. 12, 2022	Radiation (03CH11-HY)
Filter	Wainwright	WHW2-7100-10 000-18000-40C C	SN2	10GHz High Pass Filter	May 25, 2021	Nov. 18, 2021~ Nov. 26, 2021	May 24, 2022	Radiation (03CH11-HY)
Filter	Wainwright	WHKX8-5872.5- 6750-18000-40S S	SN3	6.75GHz High Pass Filter	Sep. 13, 2021	Nov. 18, 2021~ Nov. 26, 2021	Sep. 12, 2022	Radiation (03CH11-HY)
Hygrometer	Testo	608-H1	34893241	N/A	Mar. 01, 2021	Oct. 22, 2021~ Nov. 09, 2021	Feb. 28, 2022	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	16100054SNO 12	10MHz~6GHz	Dec. 16, 2020	Oct. 22, 2021~ Nov. 09, 2021	Dec. 15, 2021	Conducted (TH05-HY)
Power Meter	Anritsu	ML2495A	1036004	N/A	Aug. 01, 2021	Oct. 22, 2021~ Nov. 09, 2021	Jul. 31, 2022	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	1027253	300MHz~40GHz	Aug. 01, 2021	Oct. 22, 2021~ Nov. 09, 2021	Jul. 31, 2022	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101565	10Hz ~ 40GHz	Nov. 13, 2020	Oct. 22, 2021~ Nov. 09, 2021	Nov. 12, 2021	Conducted (TH05-HY)
Switch Box & RF Cable	EM Electronics	EMSW18SE	SW200302	N/A	Mar. 17, 2021	Oct. 22, 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% ($U = 2Uc(y)$)	5.4 dB
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.9 dB
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Appendix A. Test Result of Conducted Test Items

Test Engineer:	Hank Hsu	Temperature:	21~25	°C
Test Date:	2021/10/22~2021/11/9	Relative Humidity:	51~54	%

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

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	12.20	12.20		30.00	30.00	1.32	2.59	Pass
11a	6Mbps	1	157	5785	12.10	12.40		30.00	30.00	1.32	2.59	Pass
11a	6Mbps	1	165	5825	12.20	12.20		30.00	30.00	1.32	2.59	Pass
HT20	MCS0	1	149	5745	12.00	12.00		30.00	30.00	1.32	2.59	Pass
HT20	MCS0	1	157	5785	12.30	12.30		30.00	30.00	1.32	2.59	Pass
HT20	MCS0	1	165	5825	12.30	12.40		30.00	30.00	1.32	2.59	Pass
HT40	MCS0	1	151	5755	12.20	12.10		30.00	30.00	1.32	2.59	Pass
HT40	MCS0	1	159	5795	12.00	12.10		30.00	30.00	1.32	2.59	Pass
VHT20	MCS0	1	149	5745	12.00	12.00		30.00	30.00	1.32	2.59	Pass
VHT20	MCS0	1	157	5785	12.30	12.30		30.00	30.00	1.32	2.59	Pass
VHT20	MCS0	1	165	5825	12.30	12.40		30.00	30.00	1.32	2.59	Pass
VHT40	MCS0	1	151	5755	12.20	12.10		30.00	30.00	1.32	2.59	Pass
VHT40	MCS0	1	159	5795	12.00	12.10		30.00	30.00	1.32	2.59	Pass
VHT80	MCS0	1	155	5775	12.00	12.40		30.00	30.00	1.32	2.59	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	12.10	12.10		30.00	30.00	1.32	2.59	Pass
HE20	MCS0	1	149	5745	242/61	12.50	12.40		30.00	30.00	1.32	2.59	Pass
HE20	MCS0	1	157	5785	Full	12.40	12.40		30.00	30.00	1.32	2.59	Pass
HE20	MCS0	1	157	5785	26/4	12.40	12.50		30.00	30.00	1.32	2.59	Pass
HE20	MCS0	1	165	5825	Full	12.40	12.50		30.00	30.00	1.32	2.59	Pass
HE20	MCS0	1	165	5825	242/61	12.10	12.10		30.00	30.00	1.32	2.59	Pass
HE40	MCS0	1	151	5755	Full	12.30	12.20		30.00	30.00	1.32	2.59	Pass
HE40	MCS0	1	151	5755	484/65	12.50	12.50		30.00	30.00	1.32	2.59	Pass
HE40	MCS0	1	159	5795	Full	12.10	12.20		30.00	30.00	1.32	2.59	Pass
HE40	MCS0	1	159	5795	484/65	12.30	12.50		30.00	30.00	1.32	2.59	Pass
HE80	MCS0	1	155	5775	Full	12.10	12.50		30.00	30.00	1.32	2.59	Pass
HE80	MCS0	1	155	5775	996/67	12.10	12.10		30.00	30.00	1.32	2.59	Pass



Appendix B. Radiated Spurious Emission

Test Engineer :	Garvey Guo and Troye Hseih	Temperature :	20.1 ~ 21.8°C
		Relative Humidity :	53.2 ~ 66.1%

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. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 149 5745MHz		5610.6	50.52	-17.68	68.2	40.1	33.22	10.69	33.49	100	60	P	V
		5664	51.6	-26.99	78.59	41.05	33.3	10.75	33.5	100	60	P	V
		5700.6	50.22	-55.15	105.37	39.63	33.3	10.8	33.51	100	60	P	V
		5722.2	50.92	-64.9	115.82	40.19	33.43	10.82	33.52	100	60	P	V
	*	5745	100.15	-	-	89.25	33.57	10.85	33.52	100	60	P	V
	*	5745	92.29	-	-	81.39	33.57	10.85	33.52	100	60	A	V
													V
													V
802.11a CH 165 5825MHz	*	5825	101.29	-	-	90.05	33.85	10.93	33.54	100	60	P	V
	*	5825	93.83	-	-	82.59	33.85	10.93	33.54	100	60	A	V
		5850.6	54.22	-66.61	120.83	42.81	34	10.96	33.55	100	60	P	V
		5855.4	54.46	-56.23	110.69	43.05	34	10.96	33.55	100	60	P	V
		5878.6	51.4	-51.13	102.53	39.98	34	10.98	33.56	100	60	P	V
		5939.2	51.22	-16.98	68.2	39.67	34.08	11.04	33.57	100	60	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. 2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 157 5785MHz		11570	46.78	-27.22	74	51.6	39.59	17.82	62.23	-	-	P	V
		13369	48.38	-25.62	74	52.63	39.78	19.04	63.07	-	-	P	V
		15371	46.21	-27.79	74	49.28	39.02	20.76	62.85	-	-	P	V
		17355	46.87	-21.33	68.2	42.26	40.64	22.15	58.18	-	-	P	V
		17945	52.99	-21.01	74	40.66	46.3	22.76	56.73	100	233	P	V
		17945	42.55	-11.45	54	30.22	46.3	22.76	56.73	100	233	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.												

Band 4 5725~5850MHz

WIFI 802.11ax HE20_Partial 26 (Harmonic @ 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 HE20 Partial 26/4 CH 157 5785MHz		11570	45.66	-28.34	74	50.48	39.59	17.82	62.23	-	-	P	V
		13369	47.21	-26.79	74	51.46	39.78	19.04	63.07	-	-	P	V
		15360	45.8	-28.2	74	48.86	39.06	20.75	62.87	-	-	P	V
		17355	46.78	-21.42	68.2	42.17	40.64	22.15	58.18	-	-	P	V
		17978	53.51	-20.49	74	40.4	46.96	22.8	56.65	325	33	P	V
		17978	43.64	-10.36	54	30.53	46.96	22.8	56.65	325	33	A	V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line. 3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.												



Band 4 5725~5850MHz

WIFI 802.11ax HE20_Full (Band Edge @ 3m)

WIFI Ant. 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 HE20 Full CH 149 5745MHz		5600.2	50.91	-17.29	68.2	40.52	33.2	10.68	33.49	100	70	P	V
		5681	51.12	-40.06	91.18	40.56	33.3	10.77	33.51	100	70	P	V
		5718.8	52.42	-58.04	110.46	41.71	33.41	10.82	33.52	100	70	P	V
		5724	51.75	-68.17	119.92	41.01	33.44	10.82	33.52	100	70	P	V
	*	5745	103.47	-	-	92.57	33.57	10.85	33.52	100	70	P	V
	*	5745	92.76	-	-	81.86	33.57	10.85	33.52	100	70	A	V
													V
													V
802.11ax HE20 Full CH 165 5825MHz	*	5825	103.53	-	-	92.29	33.85	10.93	33.54	100	60	P	V
	*	5825	93.92	-	-	82.68	33.85	10.93	33.54	100	60	A	V
		5851.2	62.64	-56.82	119.46	51.23	34	10.96	33.55	100	60	P	V
		5858.6	59.61	-50.18	109.79	48.2	34	10.96	33.55	100	60	P	V
		5878.8	53.92	-48.46	102.38	42.5	34	10.98	33.56	100	60	P	V
		5935	51.36	-16.84	68.2	39.83	34.07	11.03	33.57	100	60	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11ax HE20_Partial 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 HE20 Partial 242/61 CH 149 5745MHz		5601.2	50.81	-17.39	68.2	40.42	33.2	10.68	33.49	100	31	P	V
		5650.6	51.09	-17.56	68.65	40.55	33.3	10.74	33.5	100	31	P	V
		5710	51.73	-56.27	108	41.07	33.36	10.81	33.51	100	31	P	V
		5723.6	51.31	-67.7	119.01	40.57	33.44	10.82	33.52	100	31	P	V
	*	5745	99.39	-	-	88.49	33.57	10.85	33.52	100	31	P	V
	*	5745	90.55	-	-	79.65	33.57	10.85	33.52	100	31	A	V
													V
													V
													V
													V
													V
													V
802.11ax HE20 Partial 242/61 CH 165 5825MHz	*	5825	99.55	-	-	88.31	33.85	10.93	33.54	107	30	P	V
	*	5825	89.92	-	-	78.68	33.85	10.93	33.54	107	30	A	V
		5852.4	57.24	-59.49	116.73	45.83	34	10.96	33.55	107	30	P	V
		5855.8	53.62	-56.96	110.58	42.21	34	10.96	33.55	107	30	A	V
		5898	52.74	-35.4	88.14	41.3	34	11	33.56	107	30	P	V
		5925.6	52.53	-15.67	68.2	41.03	34.05	11.02	33.57	107	30	A	V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found.												
	2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11ax 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)
802.11ax HE40 Full CH 151 5755MHz		5641	51.13	-17.07	68.2	40.62	33.28	10.73	33.5	100	59	P	V
		5698.5	51.96	-52.13	104.09	41.38	33.3	10.79	33.51	100	59	P	V
		5707.5	52.62	-54.68	107.3	41.99	33.34	10.8	33.51	100	59	P	V
		5724.5	52.65	-68.41	121.06	41.9	33.45	10.82	33.52	100	59	P	V
	*	5755	100.47	-	-	89.53	33.61	10.86	33.53	100	59	P	V
	*	5755	90.46	-	-	79.52	33.61	10.86	33.53	100	59	A	V
		5851.75	51.29	-66.92	118.21	39.88	34	10.96	33.55	100	59	P	V
		5873.25	51.64	-54.05	105.69	40.22	34	10.98	33.56	100	59	P	V
		5900.25	52.09	-34.39	86.48	40.65	34	11	33.56	100	59	P	V
		5935.25	51.14	-17.06	68.2	39.61	34.07	11.03	33.57	100	59	P	V
		5641	51.13	-17.07	68.2	40.62	33.28	10.73	33.5	100	59	P	V
													V
													V
802.11ax HE40 Full CH 159 5795MHz		5629.75	50.8	-17.4	68.2	40.32	33.26	10.71	33.49	100	60	P	V
		5670.75	51.05	-32.54	83.59	40.49	33.3	10.76	33.5	100	60	P	V
		5717.25	51.42	-58.61	110.03	40.73	33.4	10.81	33.52	100	60	P	V
		5723.75	51.72	-67.63	119.35	40.98	33.44	10.82	33.52	100	60	P	V
	*	5795	100.25	-	-	89.2	33.69	10.9	33.54	100	60	P	V
	*	5795	91.07	-	-	80.02	33.69	10.9	33.54	100	60	A	V
		5854.25	54.57	-57.94	112.51	43.16	34	10.96	33.55	100	60	P	V
		5861	55.88	-53.24	109.12	44.47	34	10.96	33.55	100	60	P	V
		5908	51.96	-28.78	80.74	40.5	34.02	11.01	33.57	100	60	P	V
		5929.25	51.72	-16.48	68.2	40.2	34.06	11.03	33.57	100	60	P	V
		5629.75	50.8	-17.4	68.2	40.32	33.26	10.71	33.49	100	60	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. 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 HE40 Partial 484/65 CH 151 5755MHz		5635.75	50.7	-17.5	68.2	40.21	33.27	10.72	33.5	100	29	P	V
		5669.5	50.69	-31.98	82.67	40.13	33.3	10.76	33.5	100	29	P	V
		5717.75	52.9	-57.27	110.17	42.19	33.41	10.82	33.52	100	29	P	V
		5720.25	51.33	-60.04	111.37	40.61	33.42	10.82	33.52	100	29	P	V
	*	5755	96.76	-	-	85.82	33.61	10.86	33.53	100	29	P	V
	*	5755	87.56	-	-	76.62	33.61	10.86	33.53	100	29	A	V
		5854.5	51.17	-60.77	111.94	39.76	34	10.96	33.55	100	29	P	V
		5874.25	51.74	-53.67	105.41	40.32	34	10.98	33.56	100	29	P	V
		5902.5	51.86	-32.95	84.81	40.41	34.01	11	33.56	100	29	P	V
		5937.5	51.89	-16.31	68.2	40.36	34.07	11.03	33.57	100	29	P	V
													V
													V
802.11ax HE40 Partial 484/65 CH 159 5795MHz		5634.5	50.55	-17.65	68.2	40.05	33.27	10.72	33.49	108	29	P	V
		5685.5	51.25	-43.25	94.5	40.68	33.3	10.78	33.51	108	29	P	V
		5714.75	50.76	-58.57	109.33	40.08	33.39	10.81	33.52	108	29	P	V
		5723.75	51.23	-68.12	119.35	40.49	33.44	10.82	33.52	108	29	P	V
	*	5795	97.99	-	-	86.94	33.69	10.9	33.54	108	29	P	V
	*	5795	88.29	-	-	77.24	33.69	10.9	33.54	108	29	A	V
		5852	52.25	-65.39	117.64	40.84	34	10.96	33.55	108	29	P	V
		5862.5	52.17	-56.53	108.7	40.75	34	10.97	33.55	108	29	P	V
		5885.5	51.72	-45.68	97.4	40.29	34	10.99	33.56	108	29	P	V
		5945	50.77	-17.43	68.2	39.22	34.09	11.04	33.58	108	29	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. 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 HE80 Full CH 155 5775MHz		5607	51.57	-16.63	68.2	41.16	33.21	10.69	33.49	100	61	P	V
		5699.5	55.81	-49.02	104.83	45.23	33.3	10.79	33.51	100	61	P	V
		5717.75	56.22	-53.95	110.17	45.51	33.41	10.82	33.52	100	61	P	V
		5720.75	54.66	-57.85	112.51	43.94	33.42	10.82	33.52	100	61	P	V
	*	5775	96.51	-	-	85.51	33.65	10.88	33.53	100	61	P	V
	*	5775	87.75	-	-	76.75	33.65	10.88	33.53	100	61	A	V
		5851	57.22	-62.7	119.92	45.81	34	10.96	33.55	100	61	P	V
		5855.75	57.26	-53.33	110.59	45.85	34	10.96	33.55	100	61	P	V
		5876	54	-50.46	104.46	42.58	34	10.98	33.56	100	61	P	V
		5926	51.86	-16.34	68.2	40.36	34.05	11.02	33.57	100	61	P	V
		5607	51.57	-16.63	68.2	41.16	33.21	10.69	33.49	100	61	P	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. 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 HE80 Partial 996/67 CH 155 5775MHz		5643.25	61.01	-7.19	68.2	50.49	33.29	10.73	33.5	100	276	P	V
		5700	68.73	-36.47	105.2	58.14	33.3	10.8	33.51	100	276	P	V
		5717.25	73.09	-36.94	110.03	62.4	33.4	10.81	33.52	100	276	P	V
		5723.75	75.03	-44.32	119.35	64.29	33.44	10.82	33.52	100	276	P	V
	*	5775	96.02	-	-	85.02	33.65	10.88	33.53	100	276	P	V
	*	5775	87.2	-	-	76.2	33.65	10.88	33.53	100	276	A	V
		5852.25	68.62	-48.45	117.07	57.21	34	10.96	33.55	100	276	P	V
		5868.25	68.2	-38.89	107.09	56.79	34	10.97	33.56	100	276	P	V
		5878.25	60.62	-42.17	102.79	49.2	34	10.98	33.56	100	276	P	V
		5937.5	54.7	-13.5	68.2	43.17	34.07	11.03	33.57	100	276	P	V
													V
Remark	3. No other spurious found. 4. All results are PASS against Peak and Average limit line.												



Note symbol

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



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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b		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”.

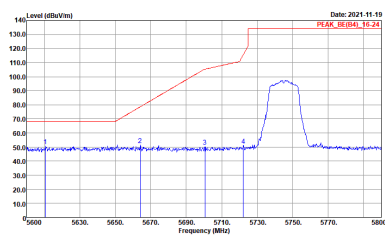
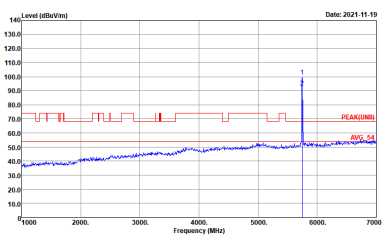


Appendix C. Radiated Spurious Emission Plots

Test Engineer :	Garvey Guo and Troye Hseih	Temperature :	20.1 ~ 21.8°C
		Relative Humidity :	53.2 ~ 66.1%

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)

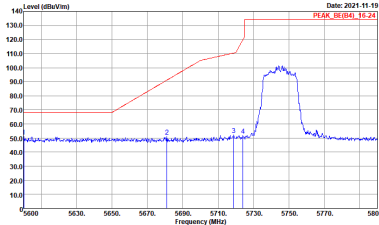
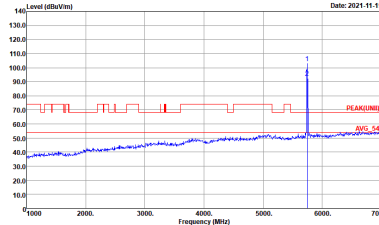
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE(84)_16-24 3m HORN 9120D02114_0804 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SW1:Auto	 Site : 03CH11-HY Condition : PEAK(UNIT) 3m HORN 9120D02114_0804 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SW1:Auto



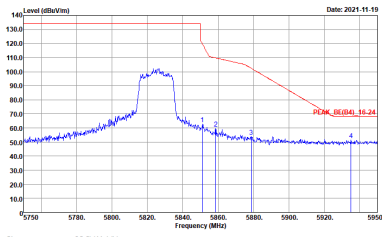
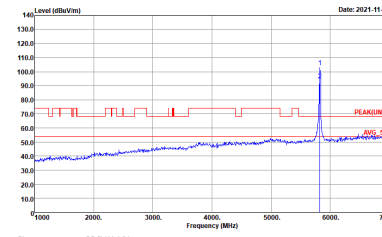
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
2	Vertical	Fundamental
Peak	Level (dBm/Hz) Date: 2021-11-19 Site : 03CH11-HY Condition : PEAK_BE(B4)_16-24 3m HORN 9120D02114_0804 VERTICAL : RBW:1000.000KHz VSW:3000.000KHz SWT:Auto	Level (dBm/Hz) Date: 2021-11-19 Site : 03CH11-HY Condition : PEAK(UNIT) 3m HORN 9120D02114_0804 VERTICAL : RBW:1000.000KHz VSW:3000.000KHz SWT:Auto



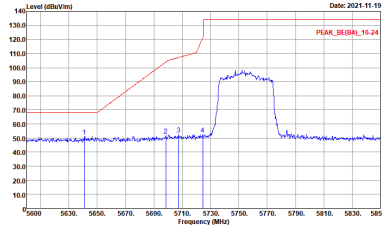
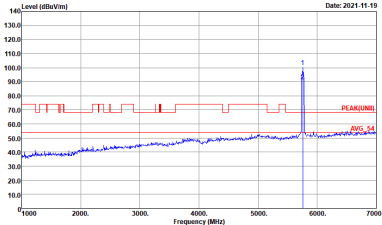
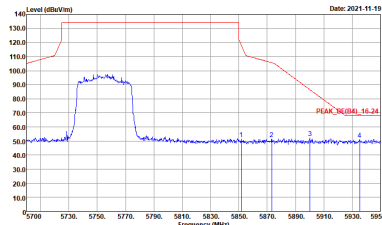
Band 4 5725~5850MHz
WIFI 802.11ax HE20 Full (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH149 5745MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_0804_16-24 3m HORN 9120002114_0804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH11-HY Condition : PEAK_0804_16-24 3m HORN 9120002114_0804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto

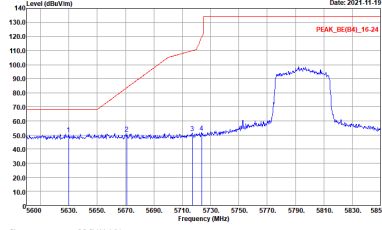
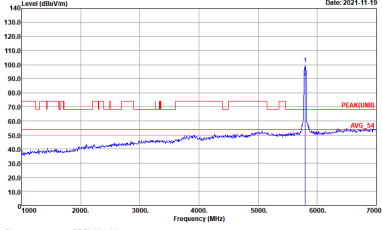
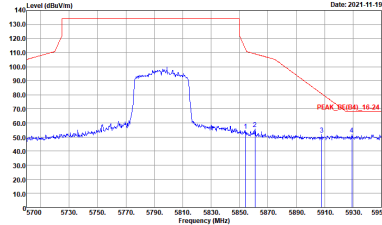


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH165 5825MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_9E(B4)_16-24 3m HORN 9120002114_0804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH11-HY Condition : PEAK_9E(B4)_16-24 3m HORN 9120002114_0804 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	
2	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE(R4)_16-24 3m HORN 9120002114_0804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH11-HY Condition : PEAK_BE(R4)_16-24 3m HORN 9120002114_0804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	 Site : 03CH11-HY Condition : PEAK_BE(R4)_16-24 3m HORN 9120002114_0804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

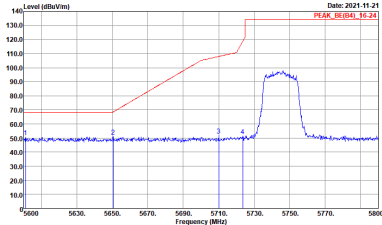
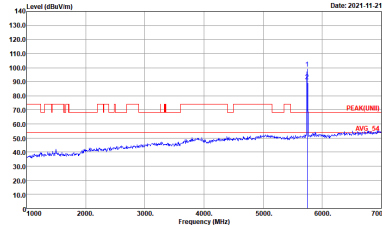


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Full CH159 5795MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE(B4)_16-24 3m HORN 9120002114_0804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH11-HY Condition : PEAK_UNI(B4)_16-24 3m HORN 9120002114_0804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	 Site : 03CH11-HY Condition : PEAK_BE(B4)_16-24 3m HORN 9120002114_0804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

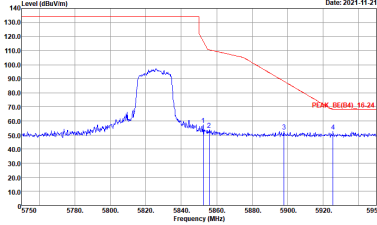
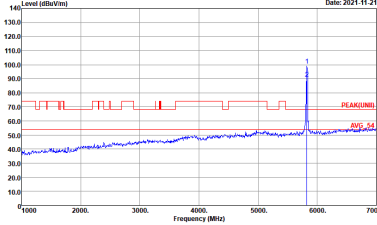


Band 4 5725~5850MHz

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

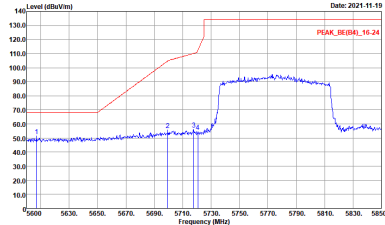
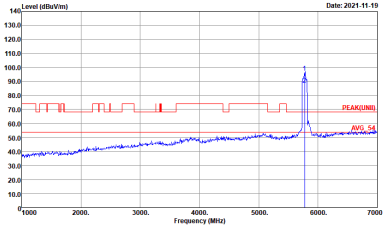
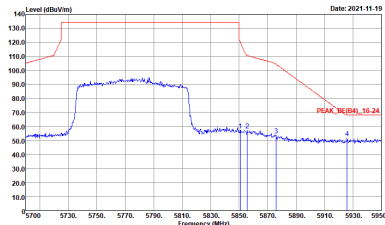
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 242/61 CH149 5745MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK (E04)_16-24 3m HORN 9120002114_0804 VERTICAL : RBW:1000.000KHz VSW:3000.000KHz SWT:Auto	 Site : 03CH11-HY Condition : PEAK (E04)_16-24 3m HORN 9120002114_0804 VERTICAL : RBW:1000.000KHz VSW:3000.000KHz SWT:Auto



WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE20 Partial 242/61 CH165 5825MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_16.004_16.24 3m HORN 9120002114_0804 VERTICAL : RBW:3000.000KHz VSW:3000.000KHz SWT:Auto	 Site : 03CH11-HY Condition : PEAK_16.004_16.24 3m HORN 9120002114_0804 VERTICAL : RBW:3000.000KHz VSW:3000.000KHz SWT:Auto



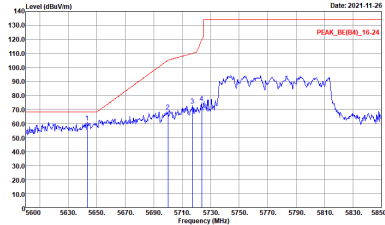
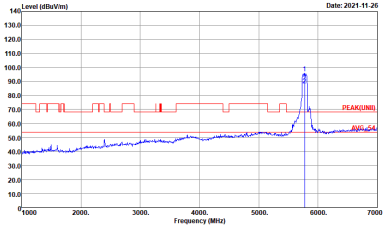
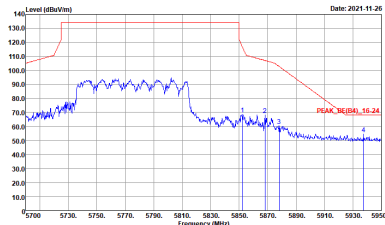
Band 4 5725~5850MHz
WIFI 802.11ax HE80 Full (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Full CH155 5775MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE(04)_16-24 3m HORN 9120002114_0804 VERTICAL RBW:3000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH11-HY Condition : PEAK_BE(04)_16-24 3m HORN 9120002114_0804 VERTICAL RBW:3000.000kHz VBW:3000.000kHz SWT:Auto
Peak	 Site : 03CH11-HY Condition : PEAK_BE(04)_16-24 3m HORN 9120002114_0804 VERTICAL RBW:3000.000kHz VBW:3000.000kHz SWT:Auto	Left blank



Band 4 5725~5850MHz

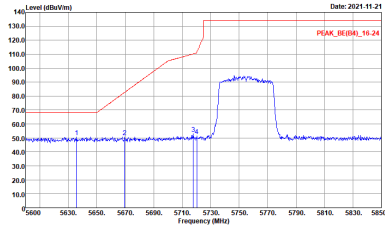
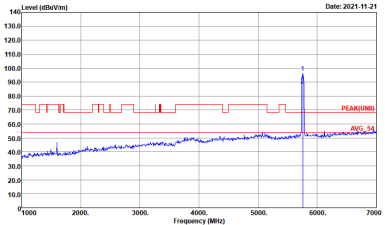
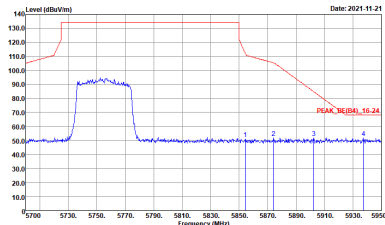
WIFI 802.11ax HE80 Partial 996 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE80 Partial 996/67 CH155 5775MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH11-14Y Condition : PEAK_BE(B4)_16-24 3m HORN 9120002114_0804 VERTICAL : RBW:3000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH11-14Y Condition : PEAK_UNE11 3m HORN 9120002114_0804 VERTICAL : RBW:3000.000kHz VBW:3000.000kHz SWT:Auto
Peak	 Site : 03CH11-14Y Condition : PEAK_BE(B4)_16-24 3m HORN 9120002114_0804 VERTICAL : RBW:3000.000kHz VBW:3000.000kHz SWT:Auto	Left blank



Band 4 5725~5850MHz

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

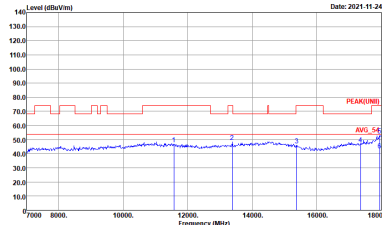
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ax HE40 Partial 484/65 CH151 5755MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE(04)_16-24 3m HORN 9120002114_0804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH11-HY Condition : PEAK(UNIT) 3m HORN 9120002114_0804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Peak	 Site : 03CH11-HY Condition : PEAK_BE(04)_16-24 3m HORN 9120002114_0804 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	
2	Vertical	Fundamental
Peak	Level (dBm/Hz) Date: 2021-11-21 PEAK_BE(00)_16-24 Site : 03CH11-HY Condition : PEAK_BE(04)_16-24 3m HORN 9120002114_0804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Level (dBm/Hz) Date: 2021-11-21 PEAK_BE(00)_16-24 Site : 03CH11-HY Condition : PEAK_BE(04)_16-24 3m HORN 9120002114_0804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	Level (dBm/Hz) Date: 2021-11-21 PEAK_BE(00)_16-24 Site : 03CH11-HY Condition : PEAK_BE(04)_16-24 3m HORN 9120002114_0804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank



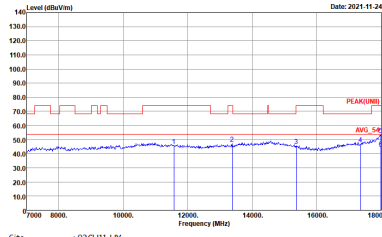
Band 4 - 5725~5850MHz
WIFI 802.11a (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
2	Horizontal	Vertical
Peak Avg.	Left blank	 Site : 03CH11-HY Condition : PEAK(UNIT) 3m HORN 91200-HF_1326 VERTICAL



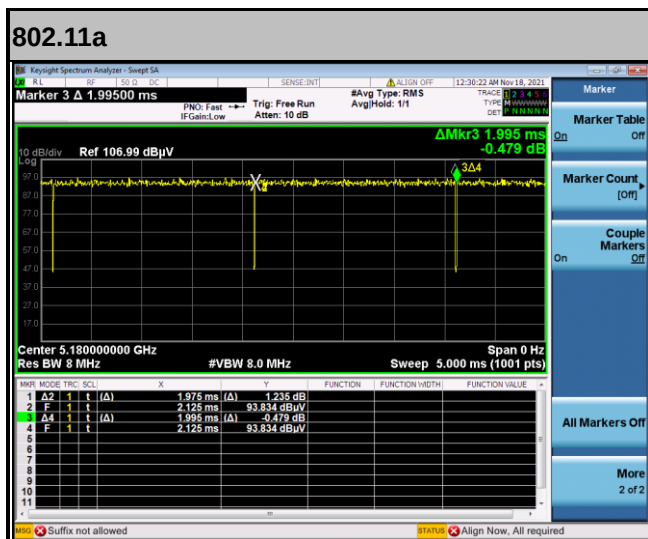
Band 4 5725~5850MHz

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

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ax HE20 Partial 26/4 CH157 5785MHz	
2	Horizontal	Vertical
Peak Avg.	Left blank	 Site : 03CH11-HY Condition : PEAK(UNIT) 3m HORN 91200-HF_1326 VERTICAL

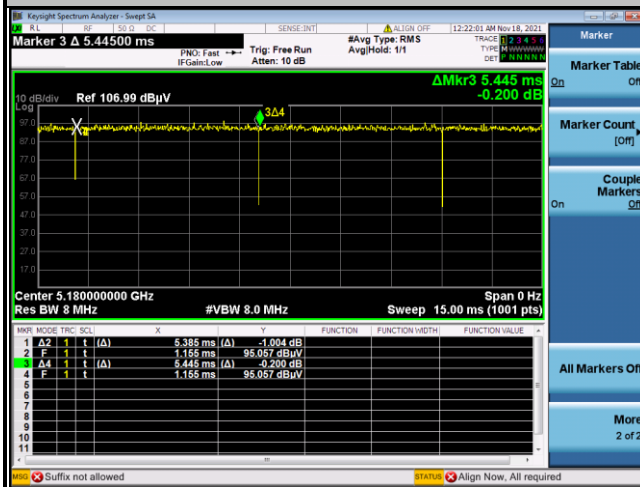
Appendix D. Duty Cycle Plots

Antenna	Band	Duty Cycle (%)	T(us)	1/T(kHz)	VBW Setting
1	802.11a	99.00	-	-	10Hz
1	5GHz 802.11ax HE20 Full RU	98.90	-	-	10Hz
1	5GHz 802.11ax HE20 26 RU	99.55	-	-	10Hz
1	5GHz 802.11ax HE20 242 RU	99.36	-	-	10Hz
1	5GHz 802.11ax HE40 Full RU	98.41	-	-	10Hz
1	5GHz 802.11ax HE40 484 RU	98.21	-	-	10Hz
1	5GHz 802.11ax HE80 Full RU	98.64	-	-	10Hz
1	5GHz 802.11ax HE80 996 RU	98.17	-	-	10Hz
1	5GHz 802.11ax HE160 Full RU	98.43	-	-	10Hz
1	5GHz 802.11ax HE160 1992 RU	98.39	-	-	10Hz

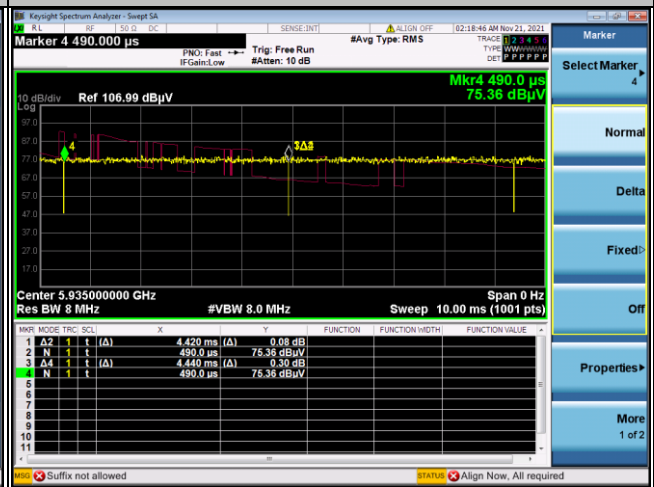




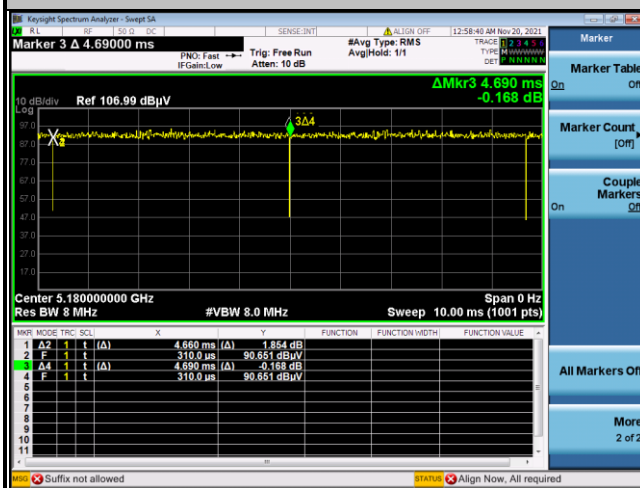
802.11ax HE20 Full RU



802.11ax HE20 26 RU

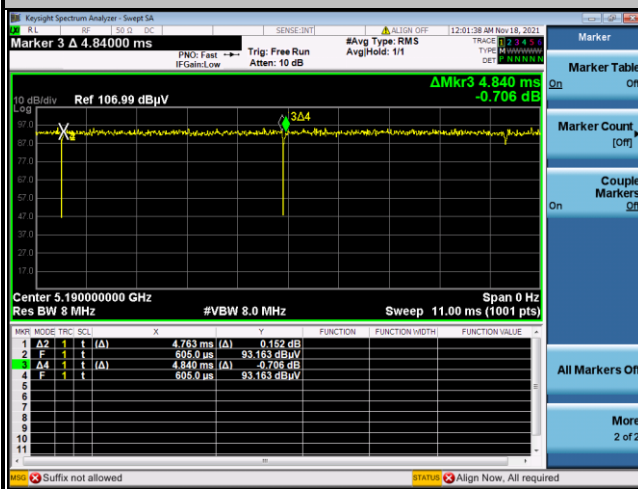


802.11ax HE20 242 RU

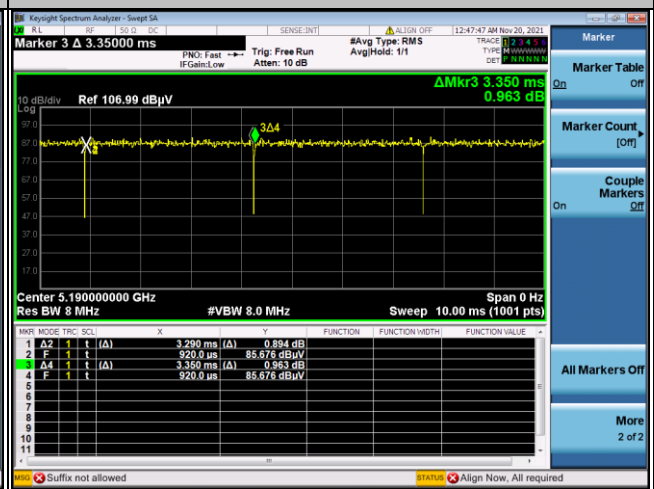




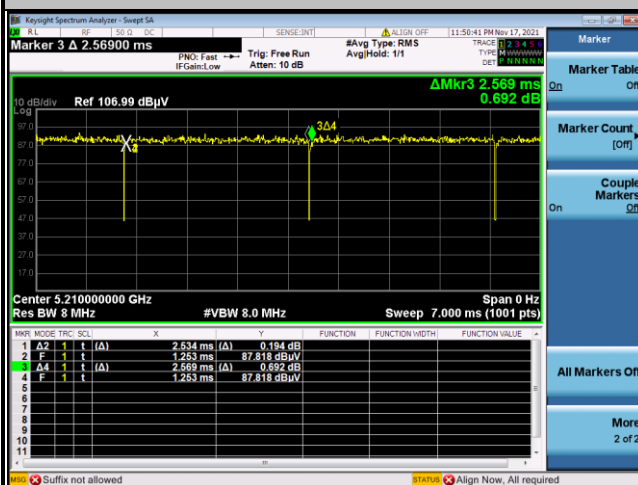
802.11ax HE40 Full RU



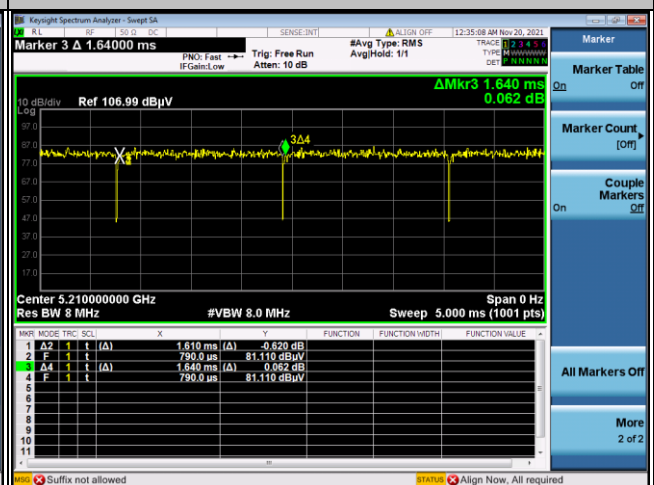
802.11ax HE40 484 RU



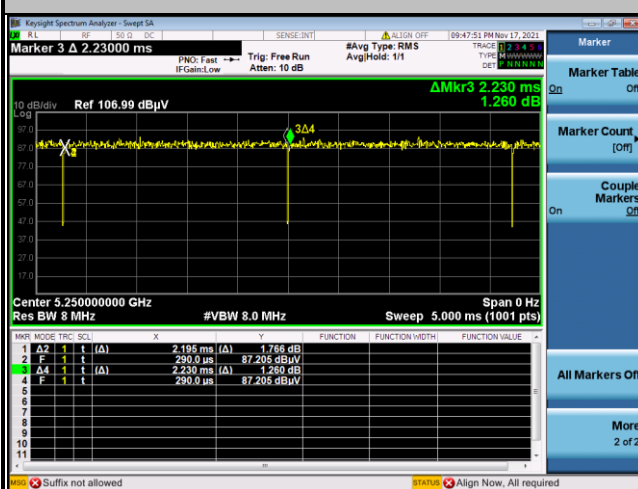
802.11ax HE80 Full RU



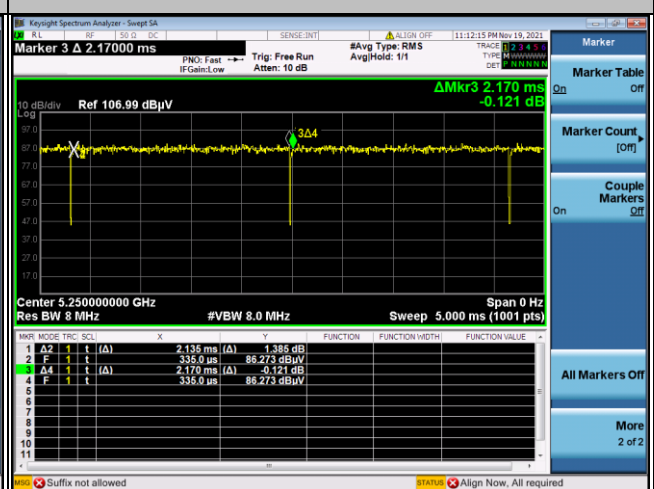
802.11ax HE80 996 RU



802.11ax HE160 Full RU

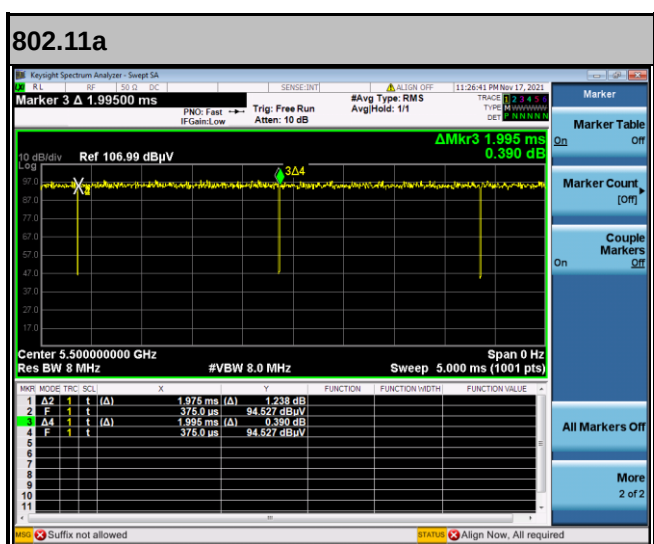


802.11ax HE160 1992 RU



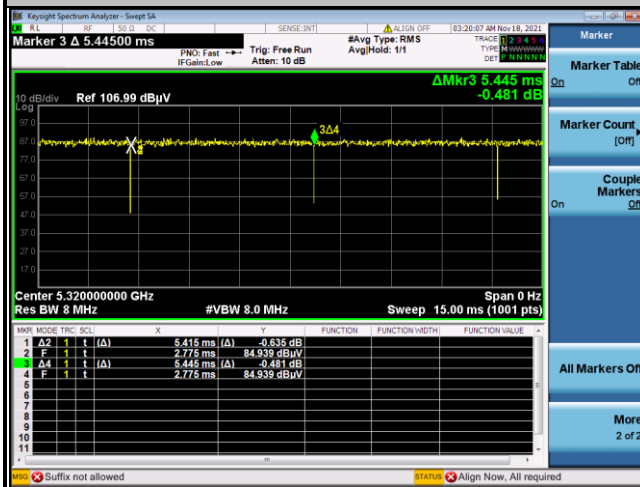


Antenna	Band	Duty Cycle (%)	T(us)	1/T(kHz)	VBW Setting
2	802.11a	99.00	-	-	10Hz
2	5GHz 802.11ax HE20 Full RU	99.45	-	-	10Hz
2	5GHz 802.11ax HE20 26 RU	99.55	-	-	10Hz
2	5GHz 802.11ax HE20 242 RU	99.36	-	-	10Hz
2	5GHz 802.11ax HE40 Full RU	98.63	-	-	10Hz
2	5GHz 802.11ax HE40 484 RU	98.21	-	-	10Hz
2	5GHz 802.11ax HE80 Full RU	98.64	-	-	10Hz
2	5GHz 802.11ax HE80 996 RU	98.17	-	-	10Hz
2	5GHz 802.11ax HE160 Full RU	98.43	-	-	10Hz
2	5GHz 802.11ax HE160 1992 RU	98.39	-	-	10Hz

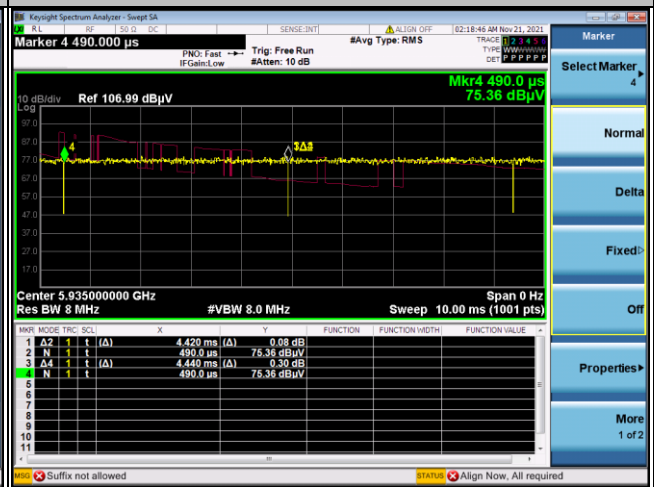




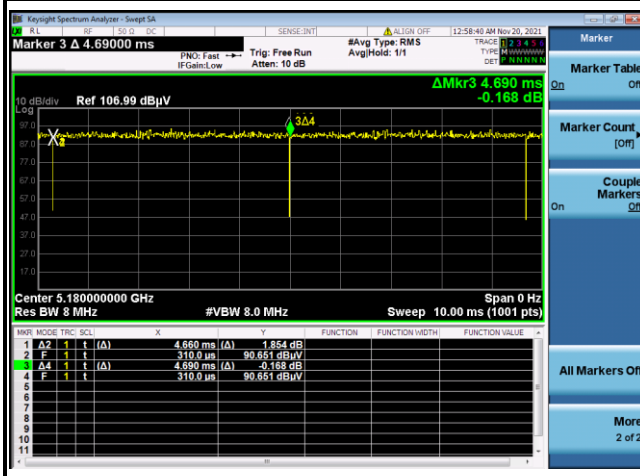
802.11ax HE20 Full RU



802.11ax HE20 26 RU

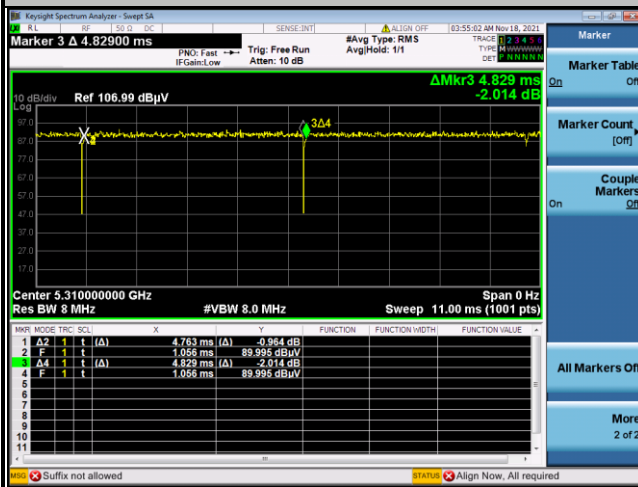


802.11ax HE20 242 RU

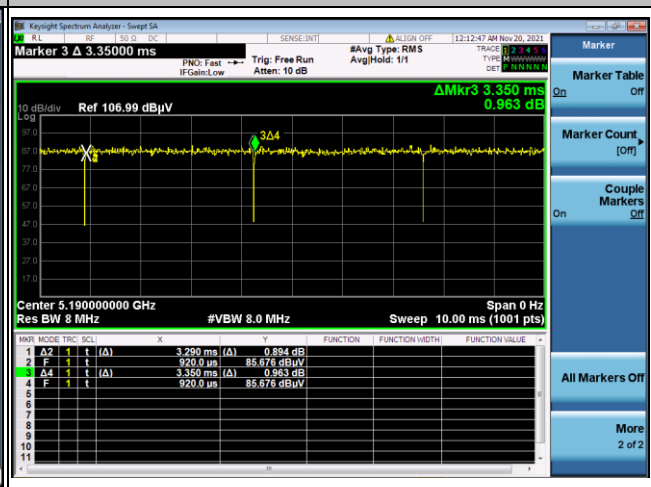




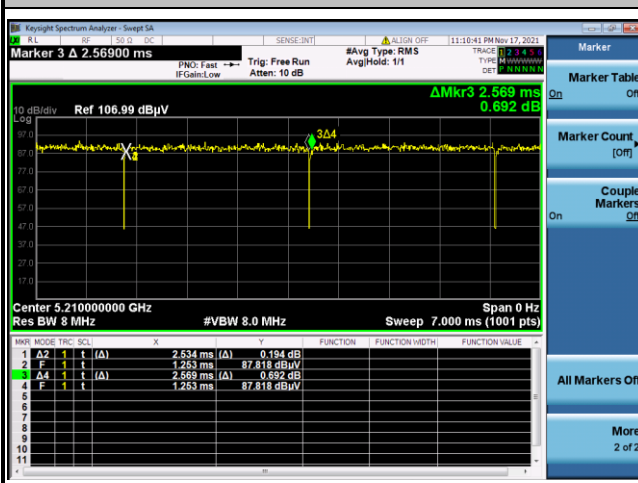
802.11ax HE40 Full RU



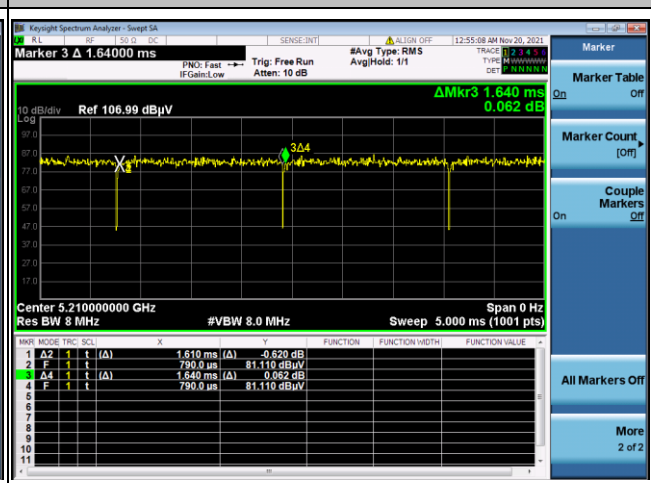
802.11ax HE40 484 RU



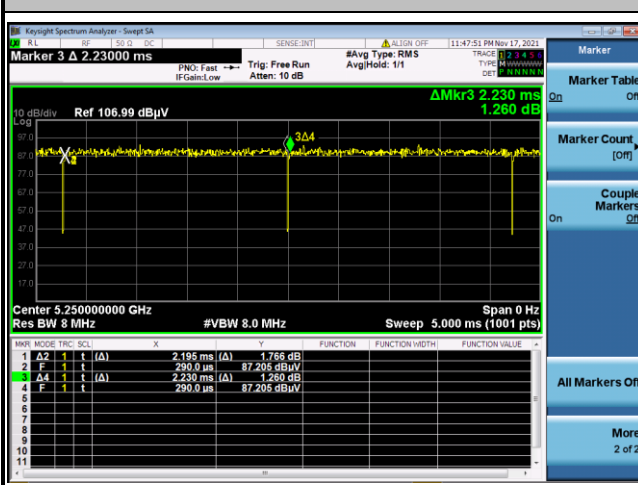
802.11ax HE80 Full RU



802.11ax HE80 996 RU



802.11ax HE160 Full RU



802.11ax HE160 1992 RU

