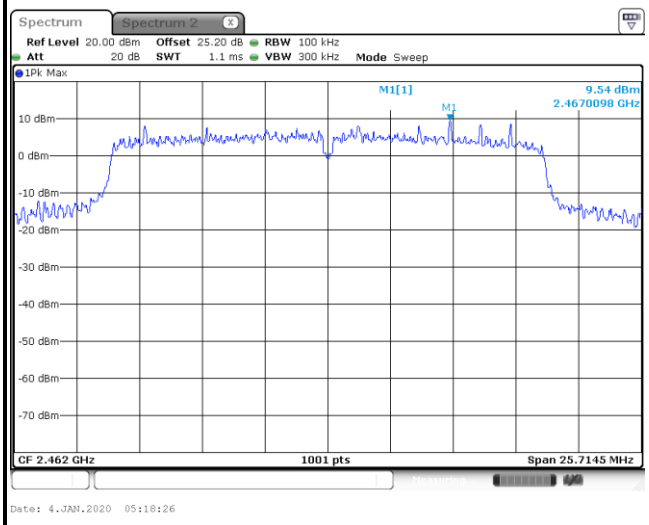
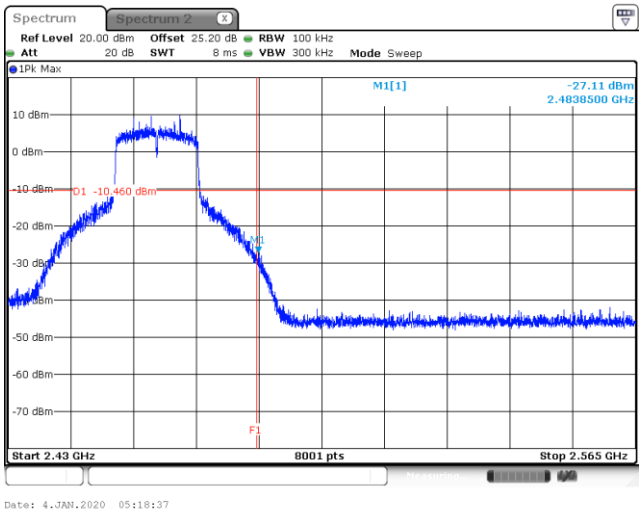
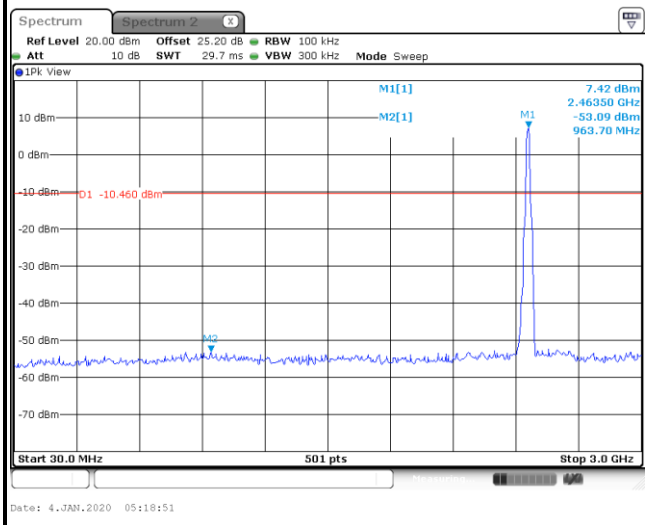
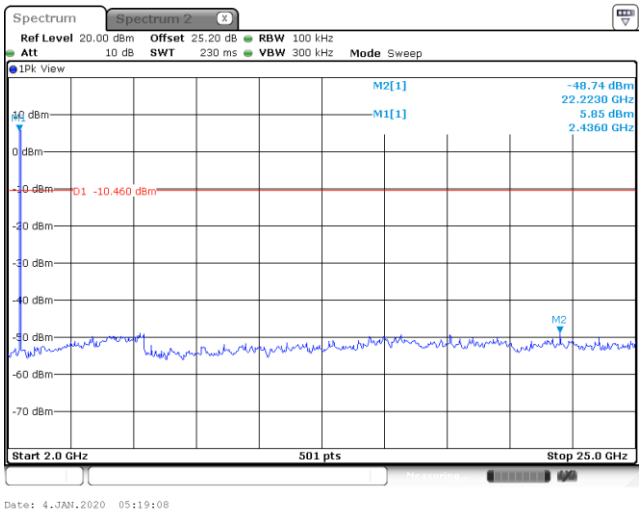
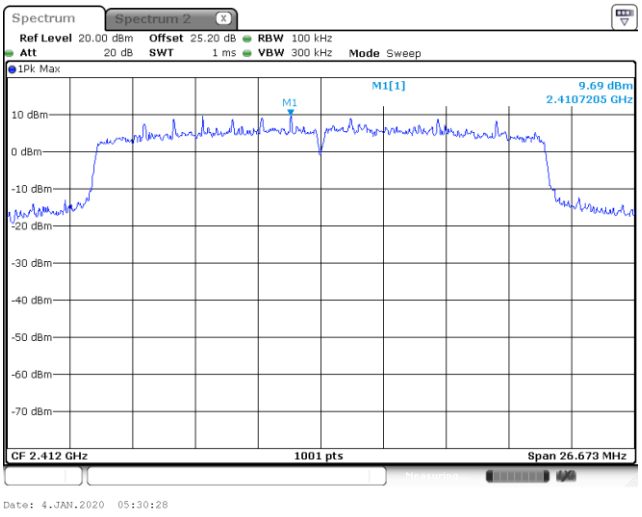
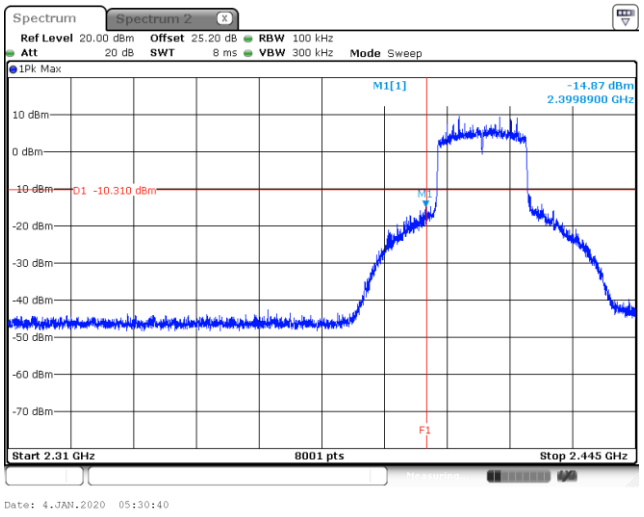
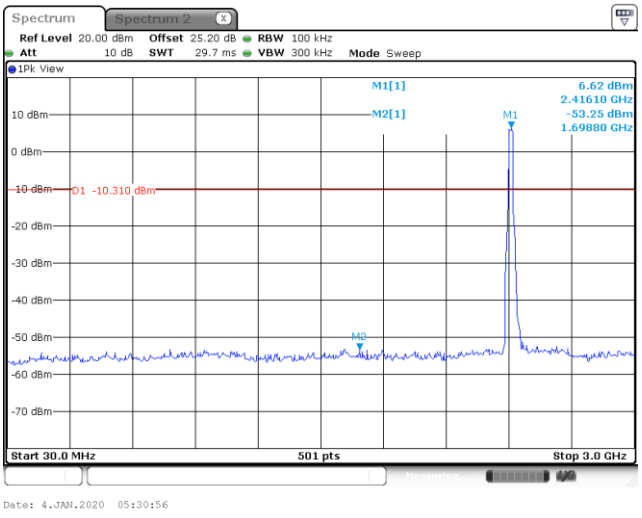
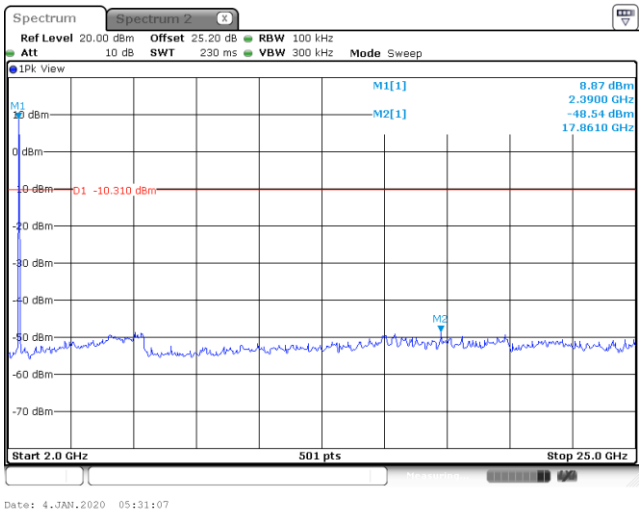
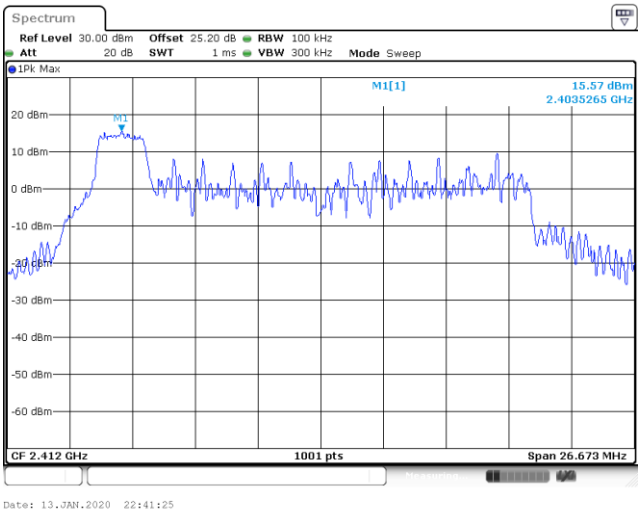
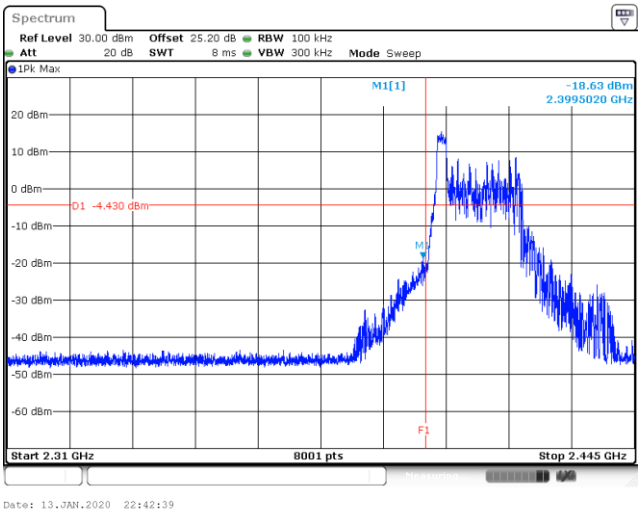
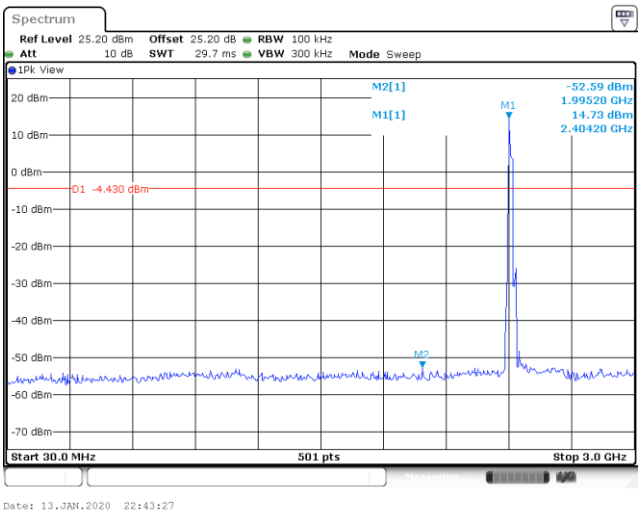
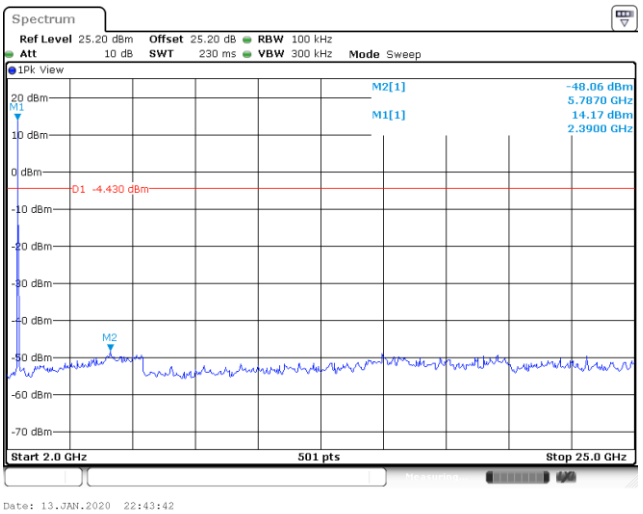
Test Mode :	802.11n HT20	Test Channel :	11

100kHz PSD reference Level	High Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

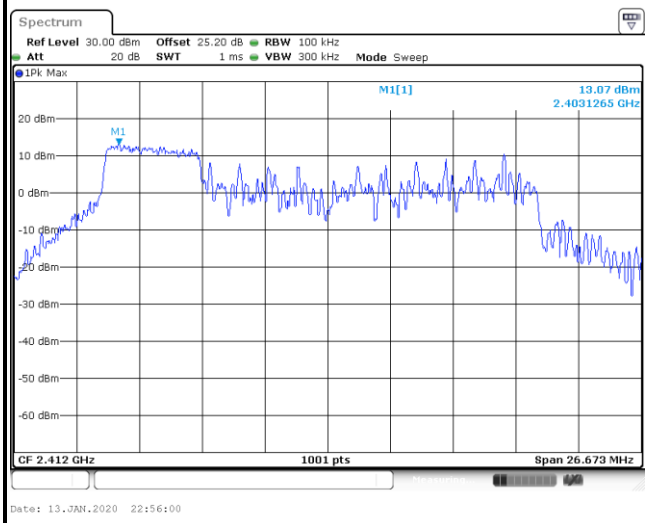
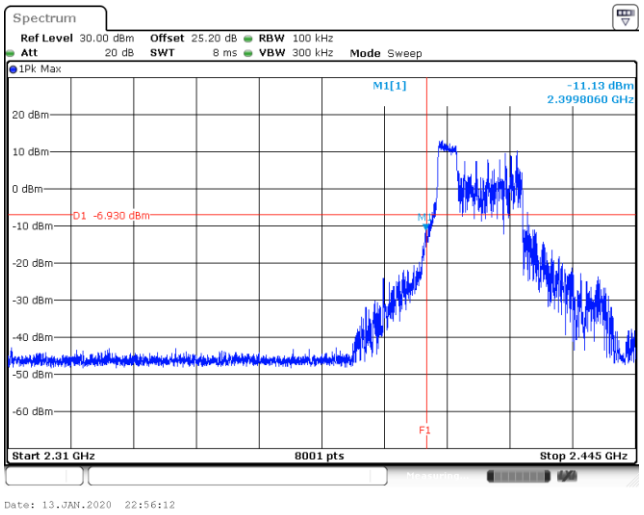
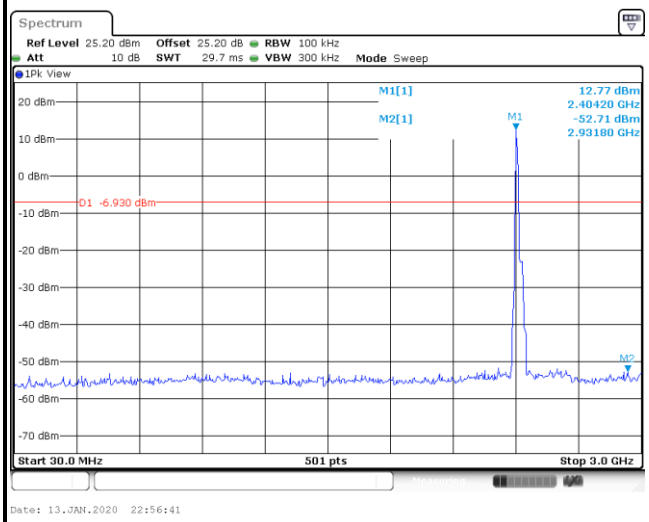
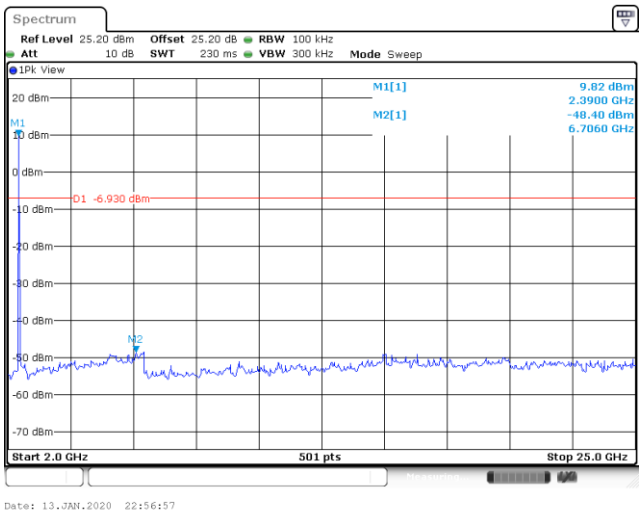
Test Mode :	802.11ax HE20	Test Channel :	01 Full RU

100kHz PSD reference Level	Low Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

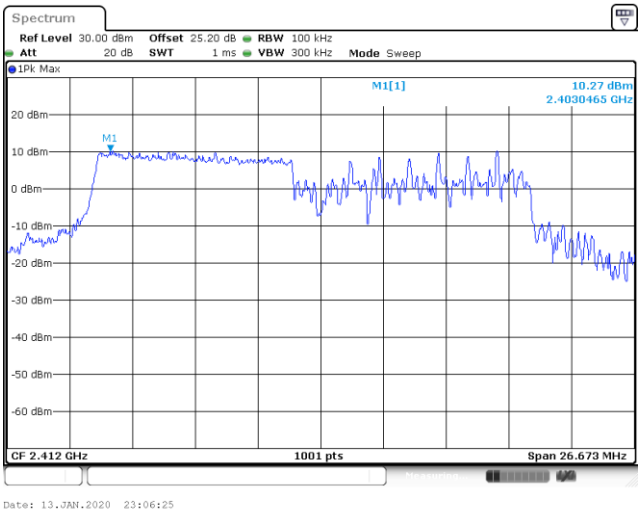
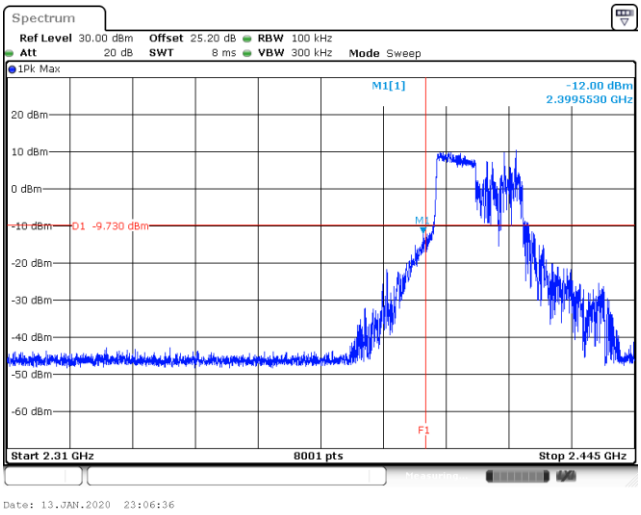
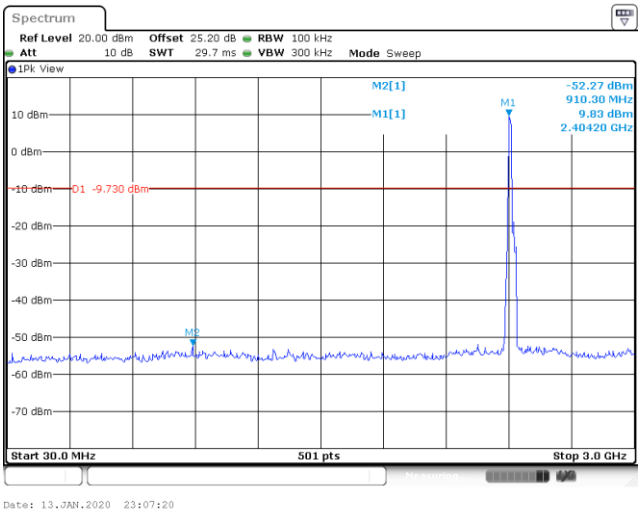
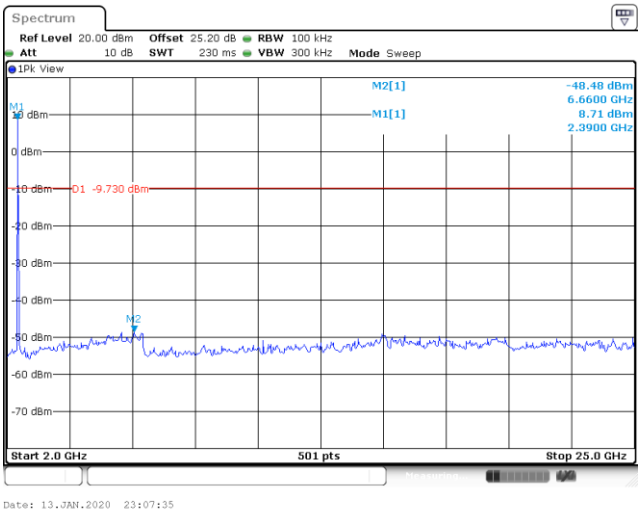
Test Mode :	802.11ax HE20	Test Channel :	01 Partial RU 26/0

100kHz PSD reference Level	Low Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

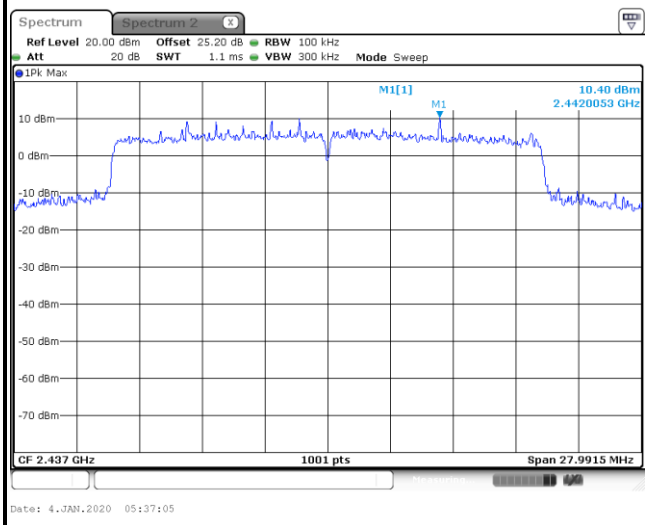
Test Mode :	802.11ax HE20	Test Channel :	01 Partial RU 52/37

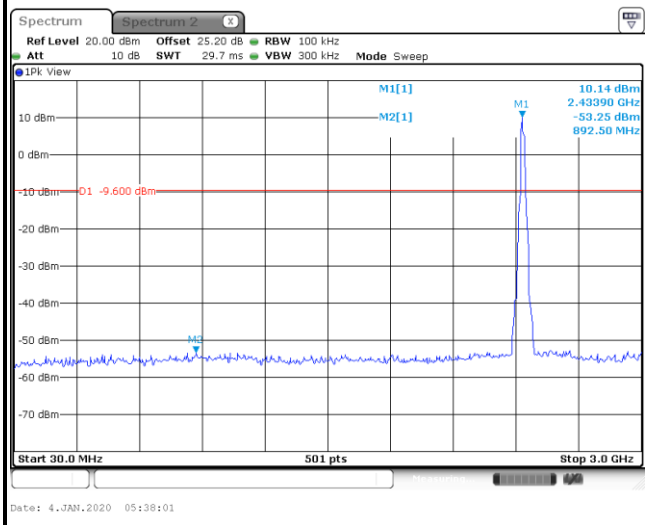
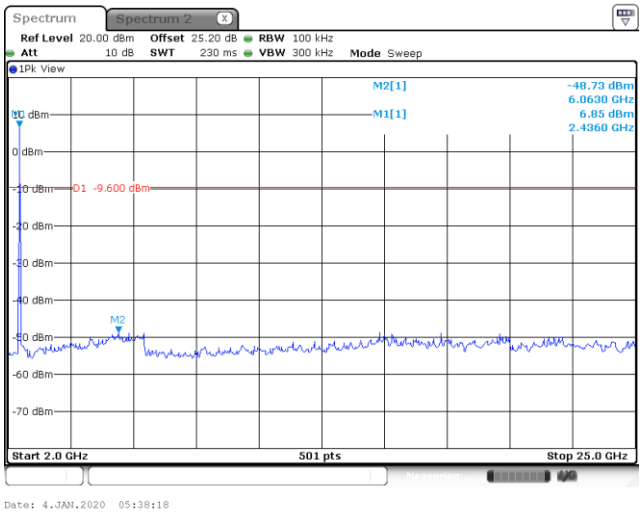
100kHz PSD reference Level	Low Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11ax HE20	Test Channel :	01 Partial RU 106/53

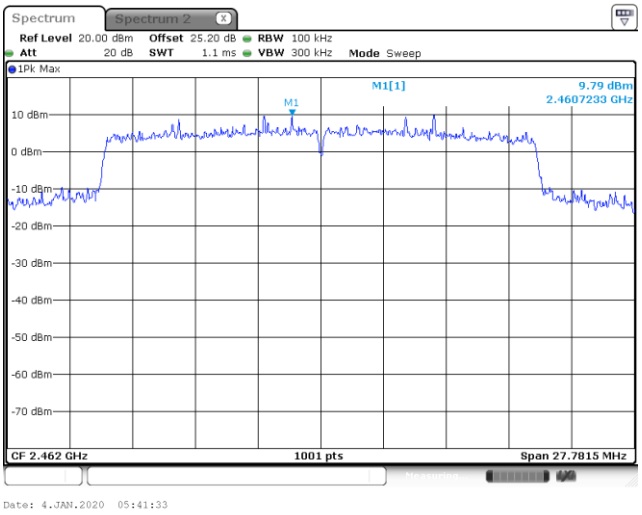
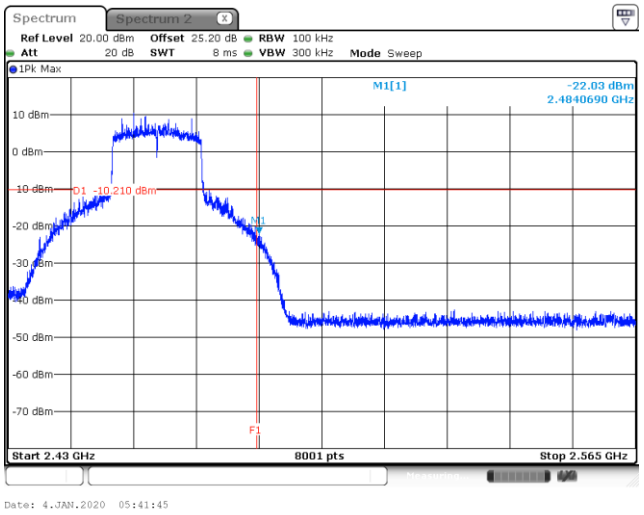
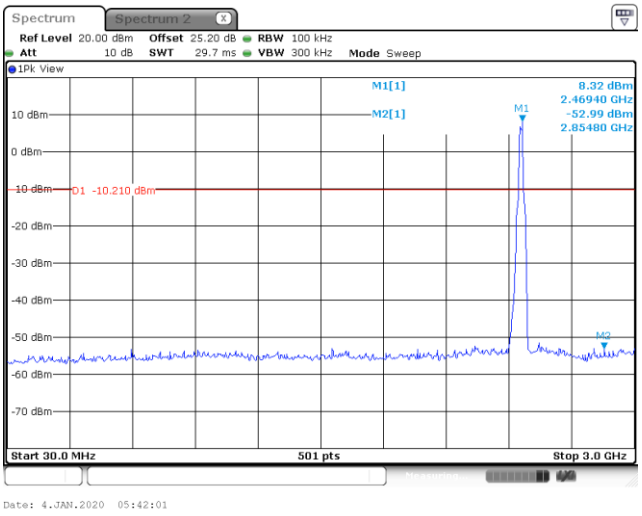
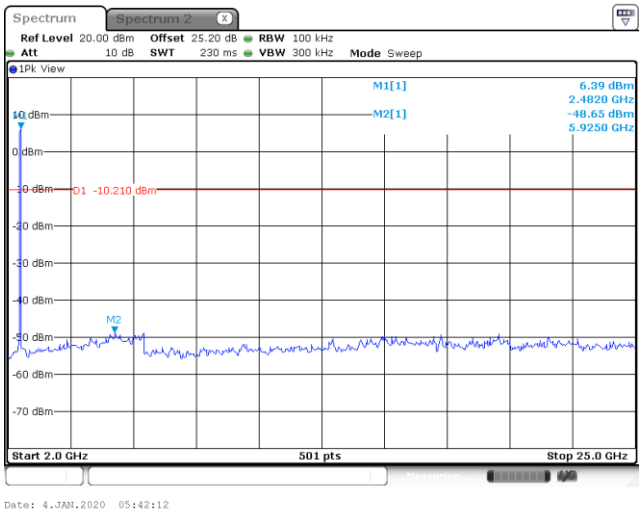
100kHz PSD reference Level	Low Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11ax HE20	Test Channel :	06 Full RU

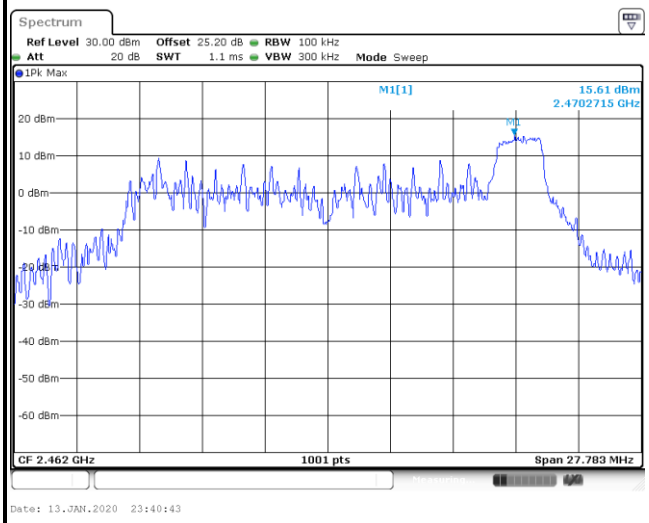
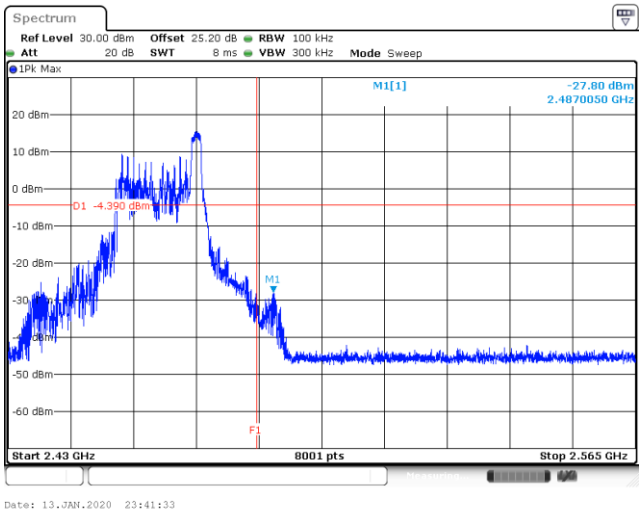
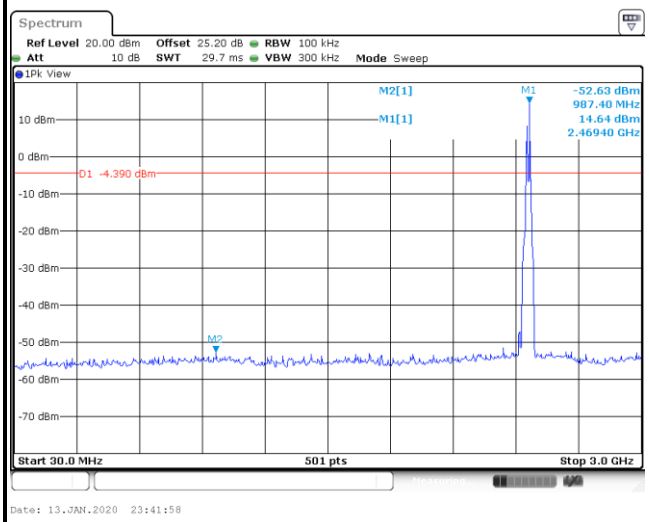
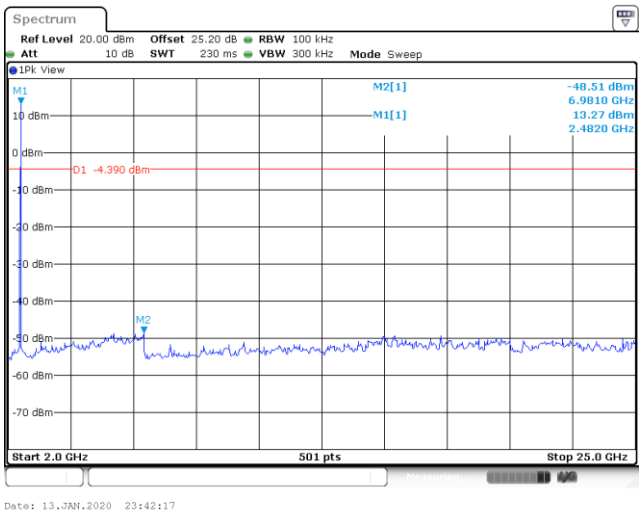
100kHz PSD reference Level	Mid Channel Plot
	

Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

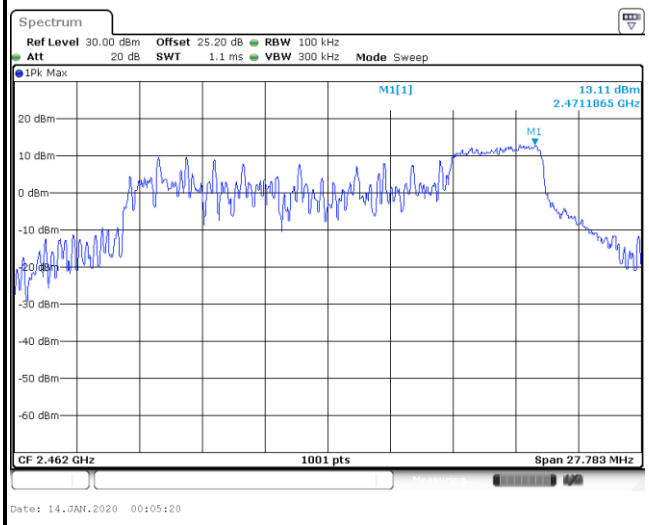
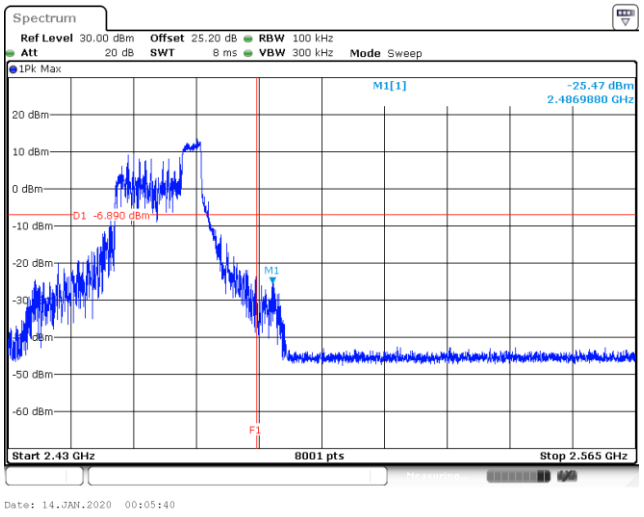
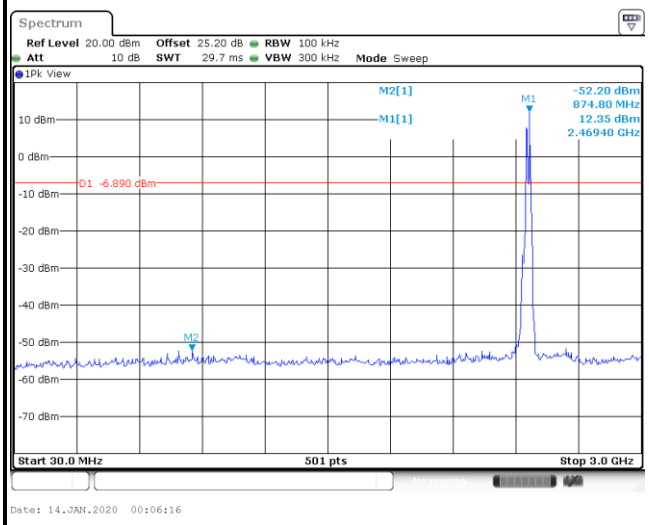
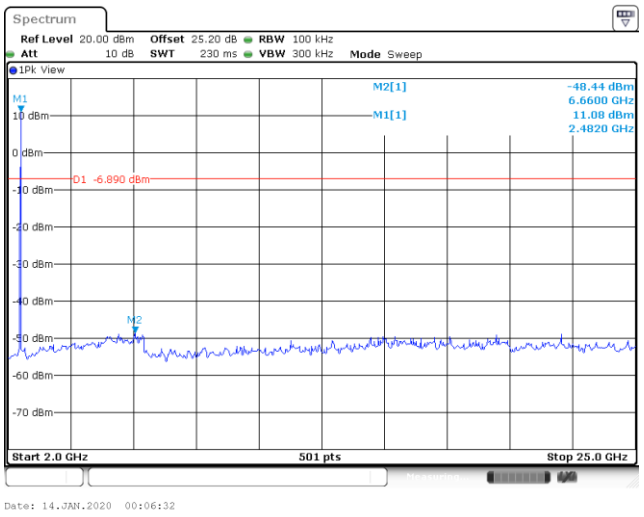
Test Mode :	802.11ax HE20	Test Channel :	11 Full RU

100kHz PSD reference Level	High Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

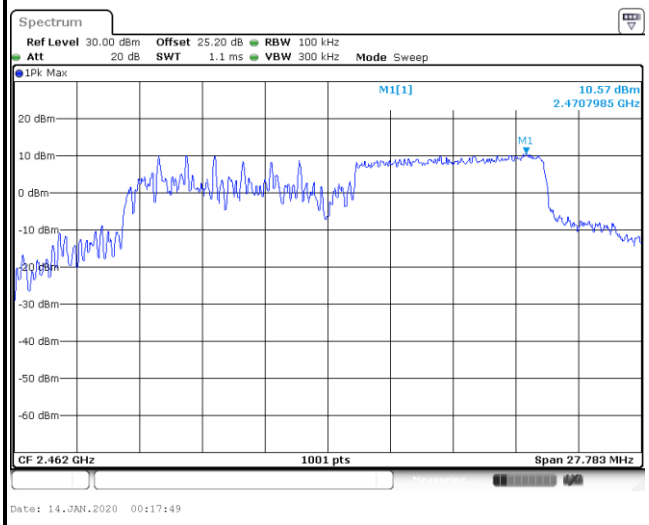
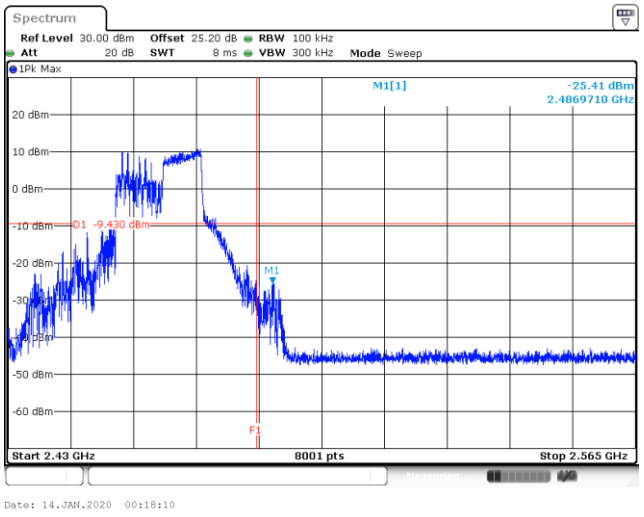
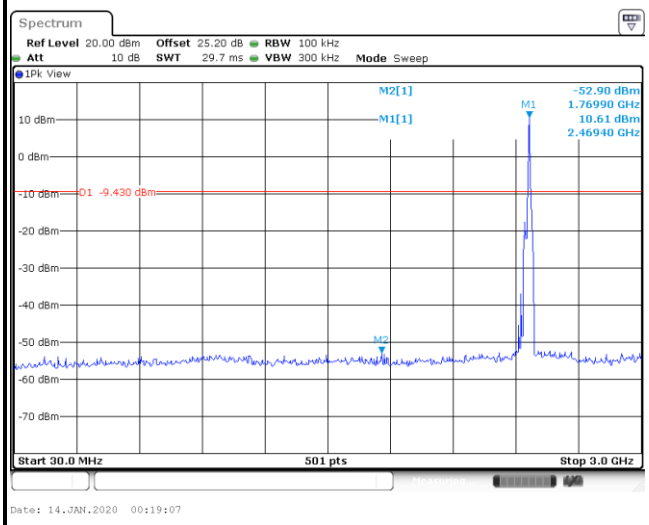
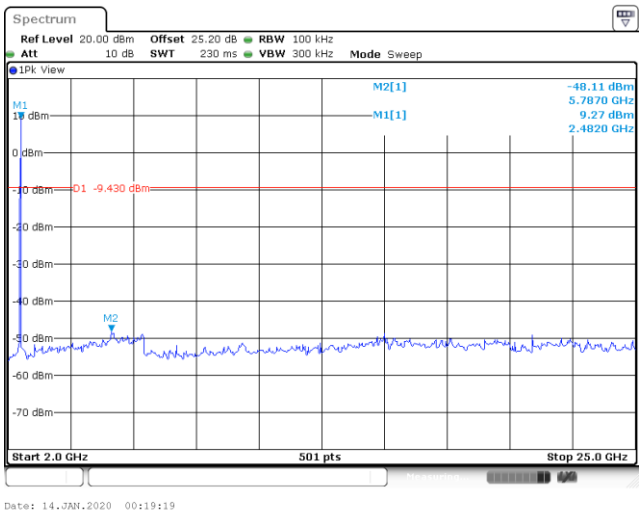
Test Mode :	802.11ax HE20	Test Channel :	11 Partial RU 26/8

100kHz PSD reference Level	High Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

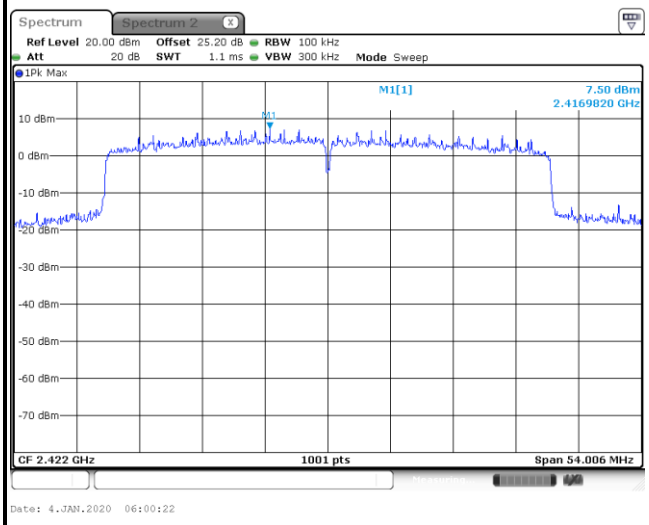
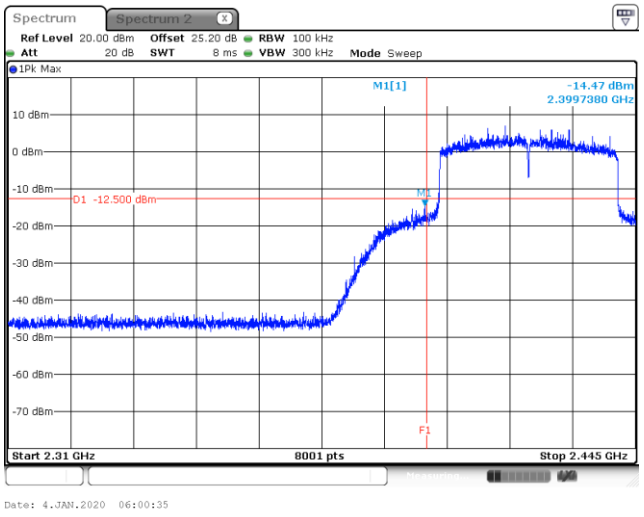
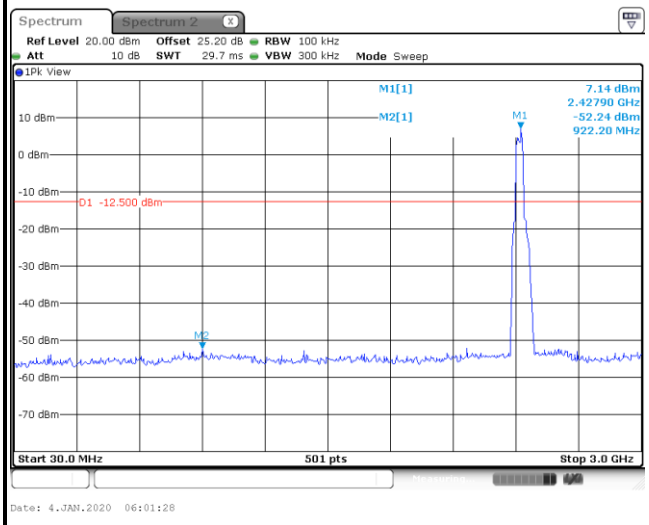
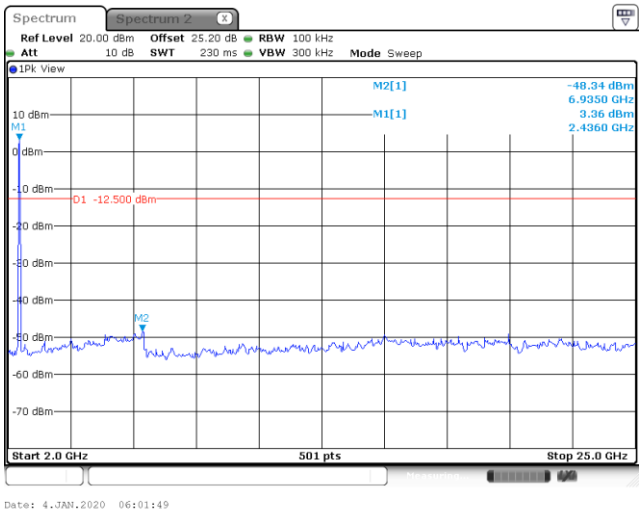
Test Mode :	802.11ax HE20	Test Channel :	11 Partial RU 52/40

100kHz PSD reference Level	High Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

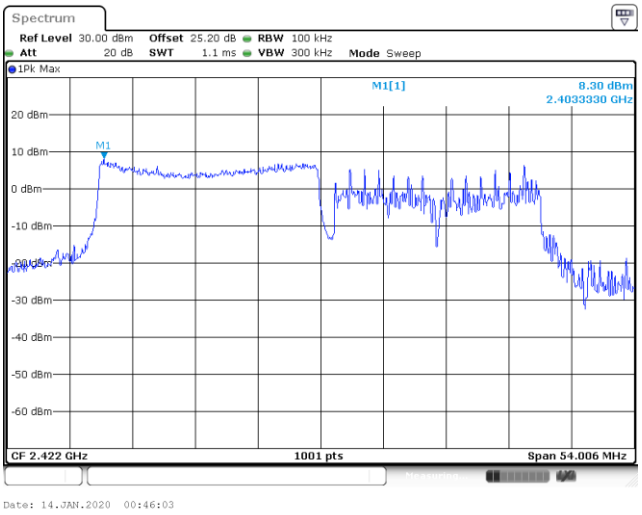
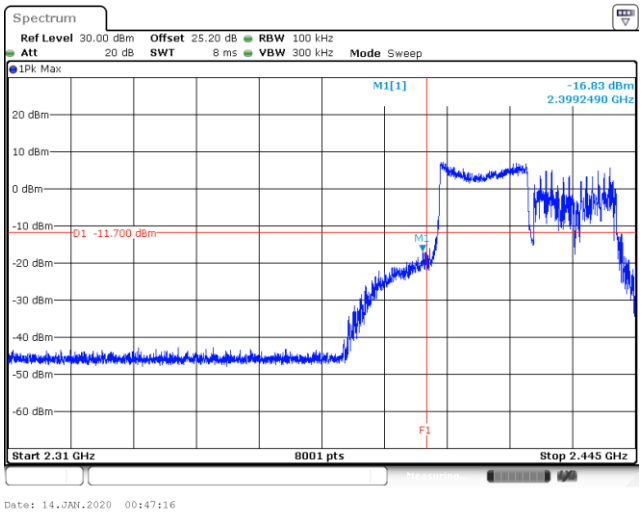
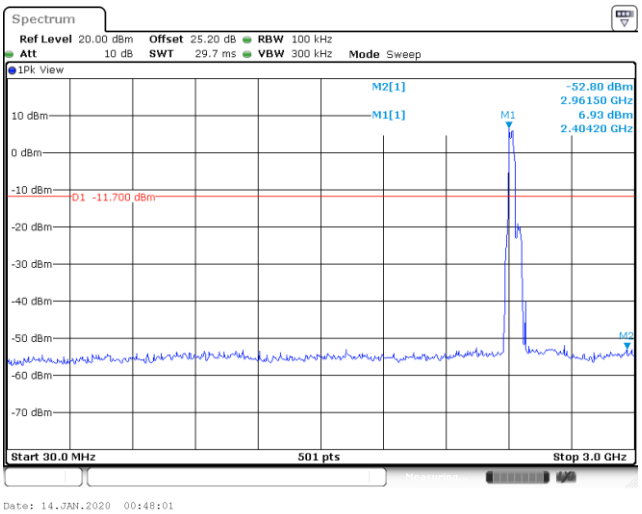
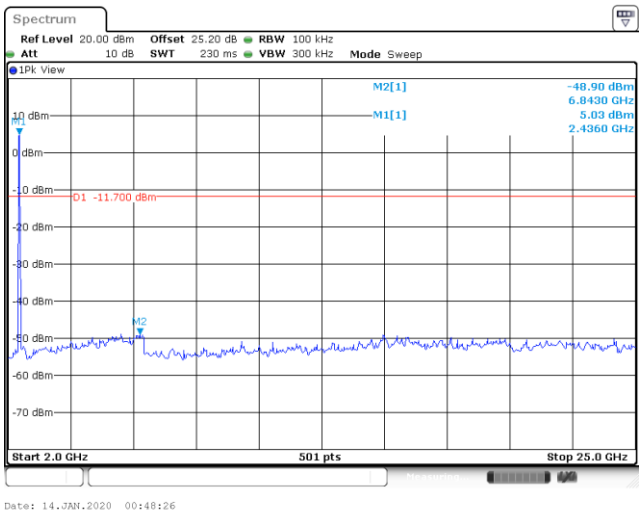
Test Mode :	802.11ax HE20	Test Channel :	11 Partial RU 106/54

100kHz PSD reference Level	High Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

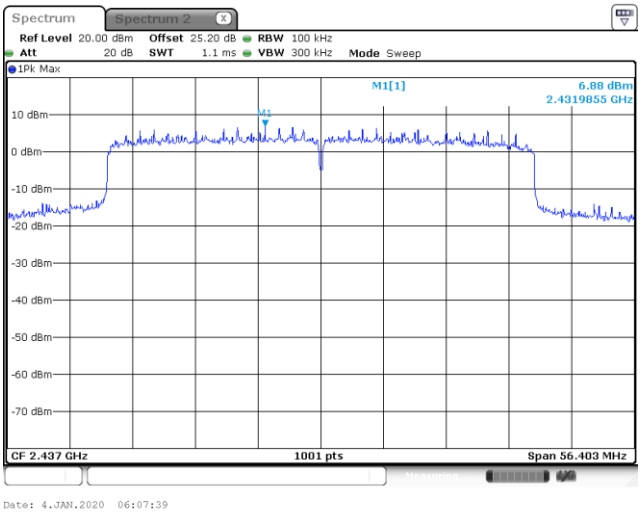
Test Mode :	802.11ax HE40	Test Channel :	03 Full RU

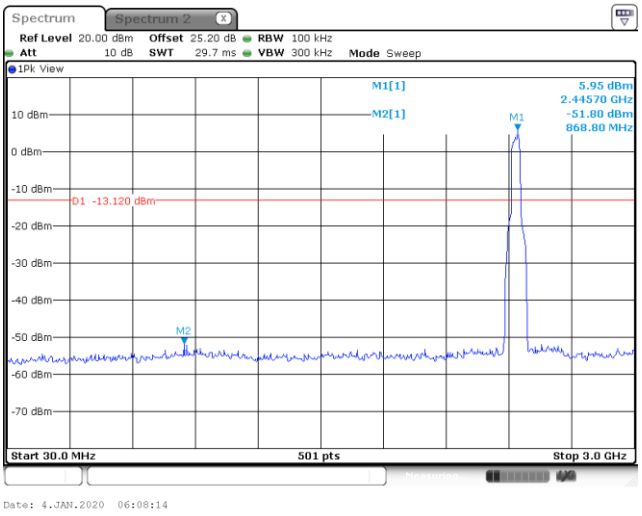
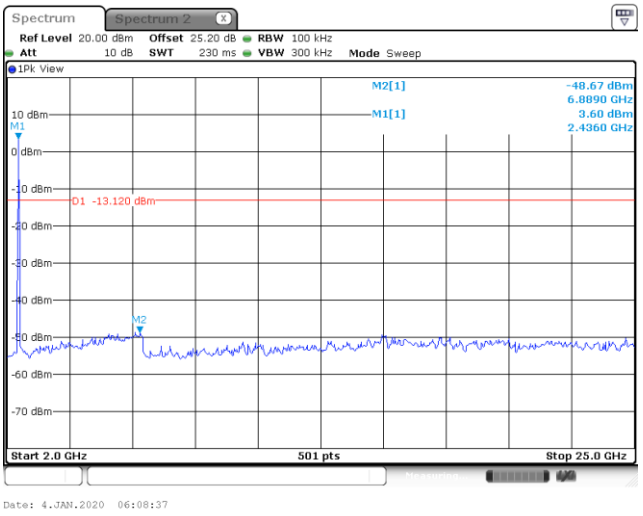
100kHz PSD reference Level	Low Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11ax HE40	Test Channel :	03 Partial RU 262/61

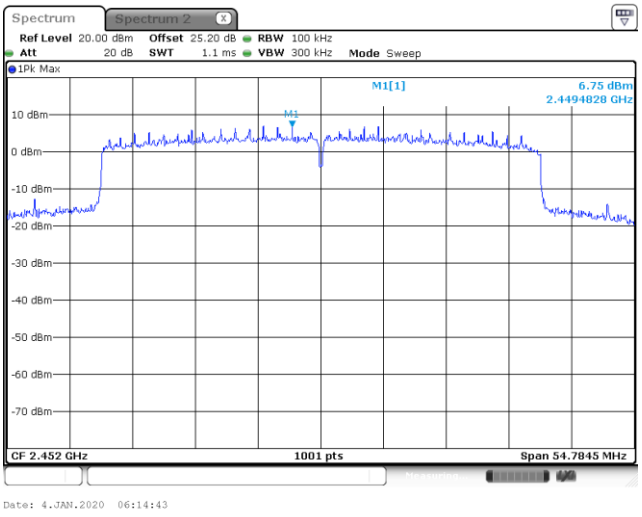
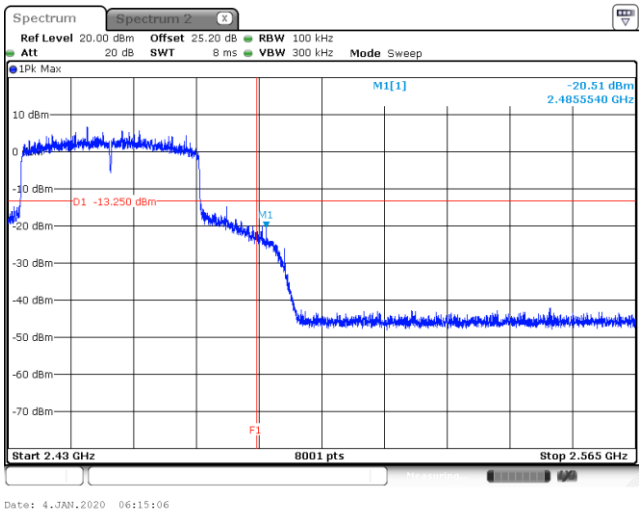
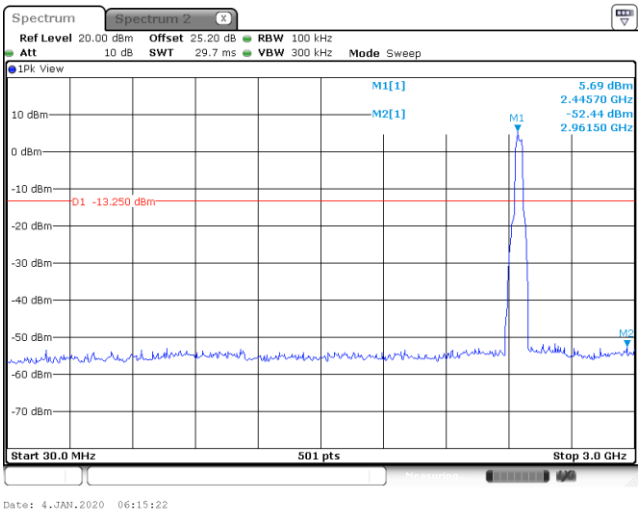
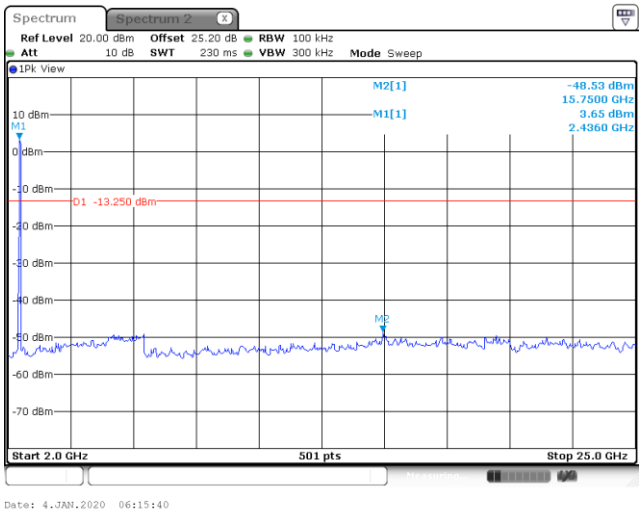
100kHz PSD reference Level	Low Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11ax HE40	Test Channel :	06 Full RU

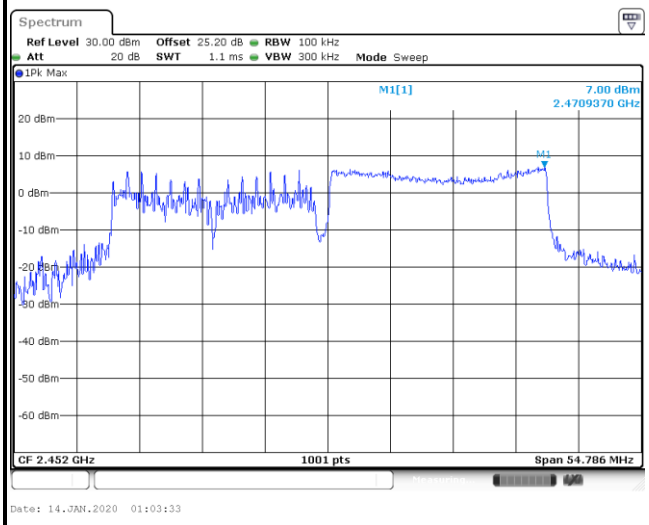
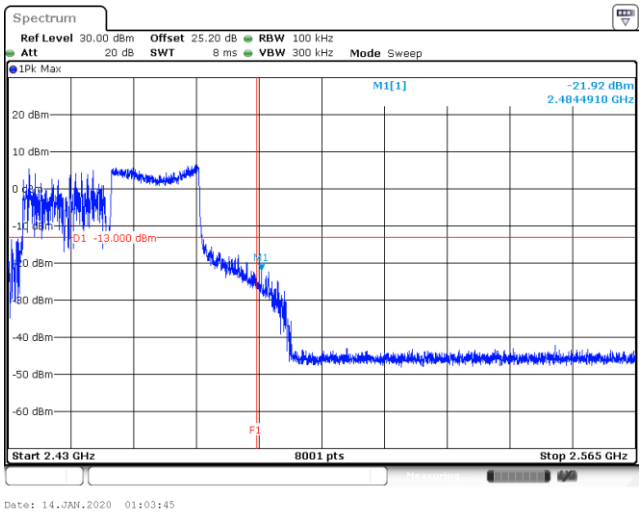
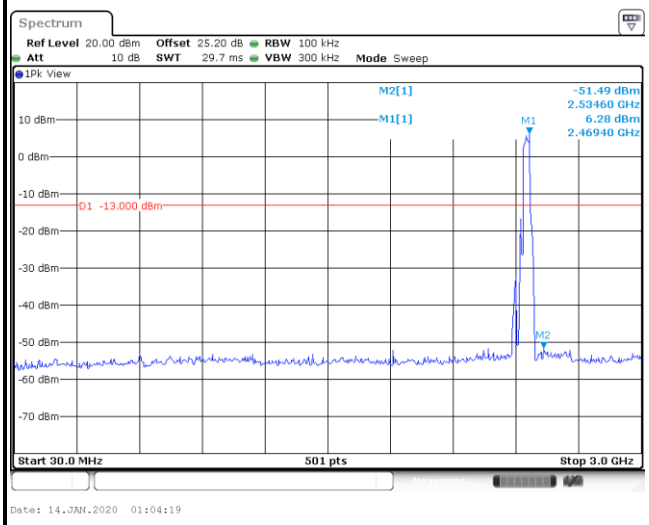
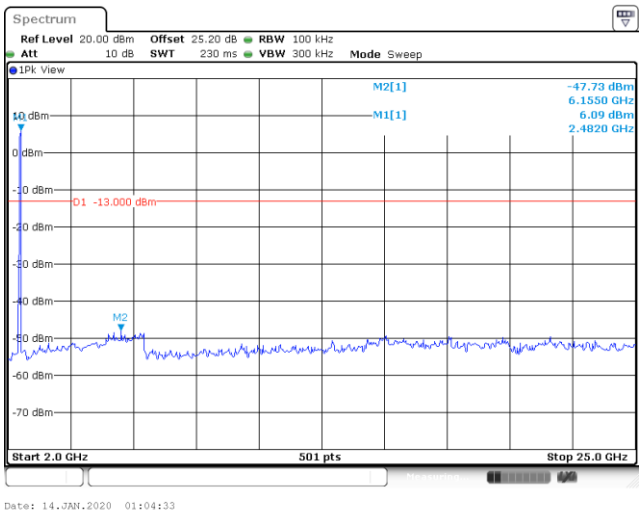
100kHz PSD reference Level	Mid Channel Plot
	

Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

Test Mode :	802.11ax HE40	Test Channel :	09 Full RU

100kHz PSD reference Level	High Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

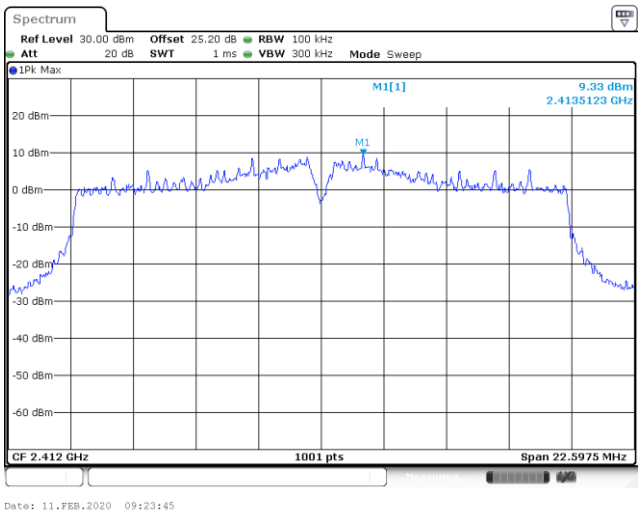
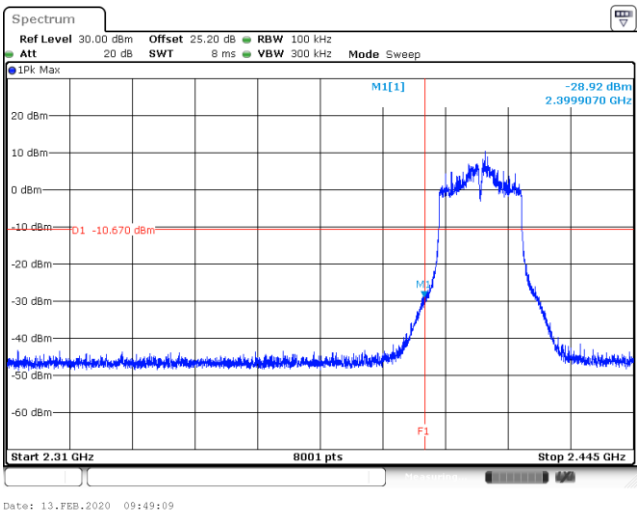
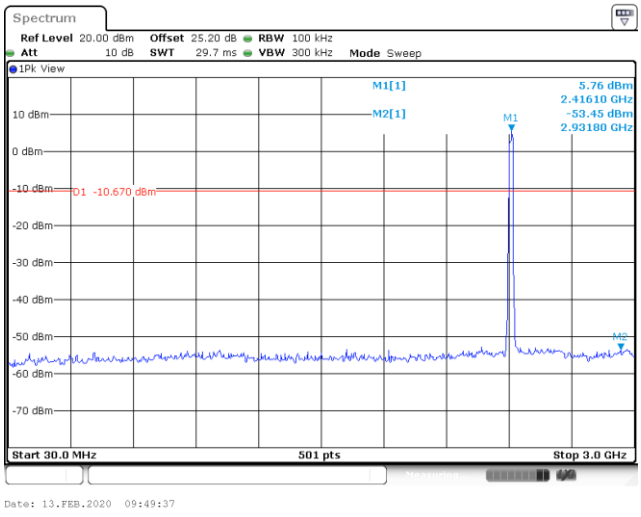
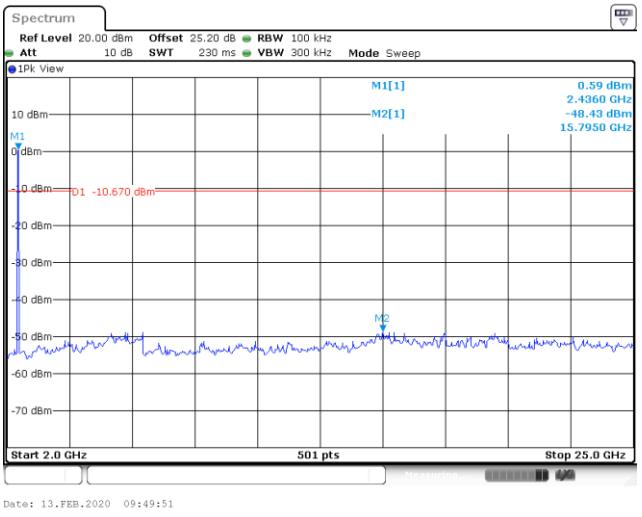
Test Mode :	802.11ax HE40	Test Channel :	09 Partial RU 242/62

100kHz PSD reference Level	High Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

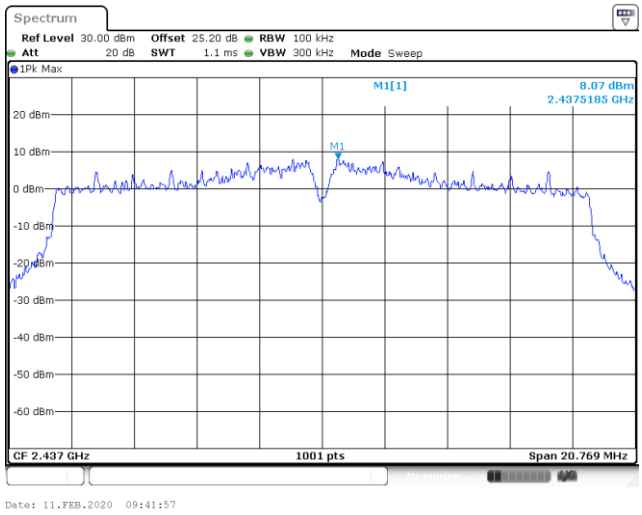
<TXBF Modes>

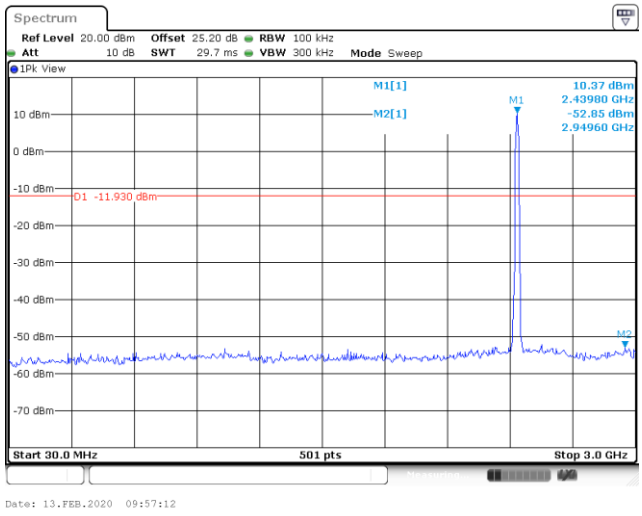
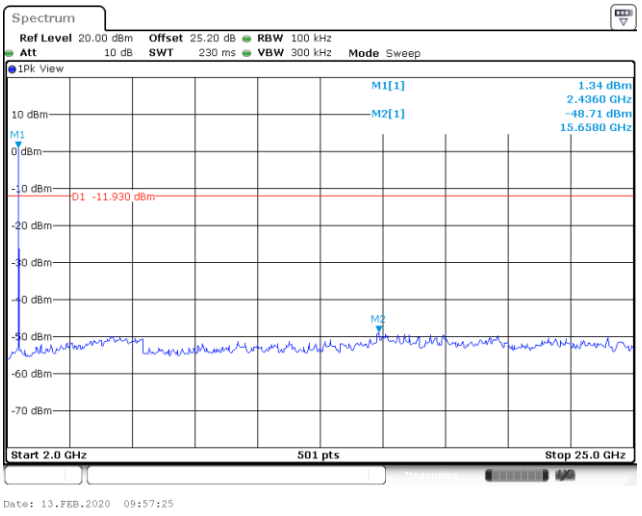
Number of TX = 2, Ant. 1 (Measured)

Test Mode :	802.11ax HE20	Test Channel :	01

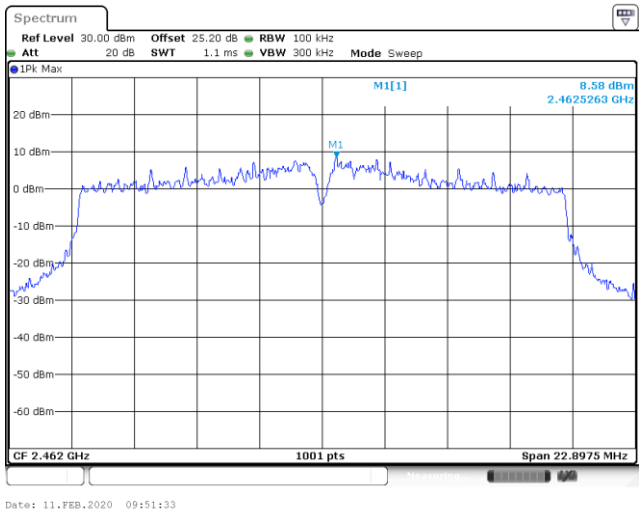
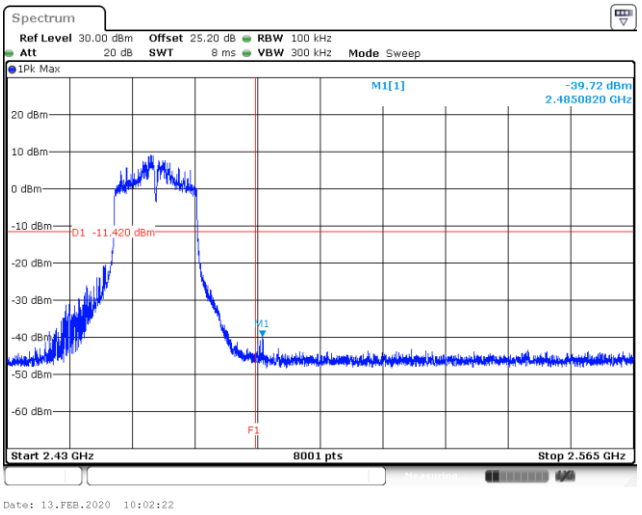
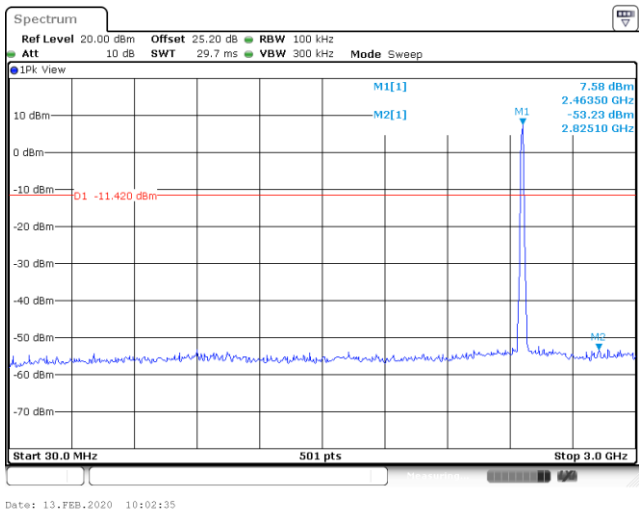
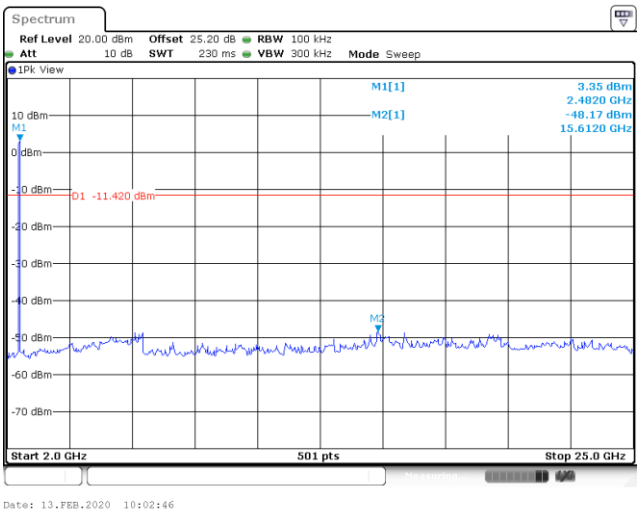
100kHz PSD reference Level	Low Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11ax HE20	Test Channel :	06

100kHz PSD reference Level	Mid Channel Plot
	

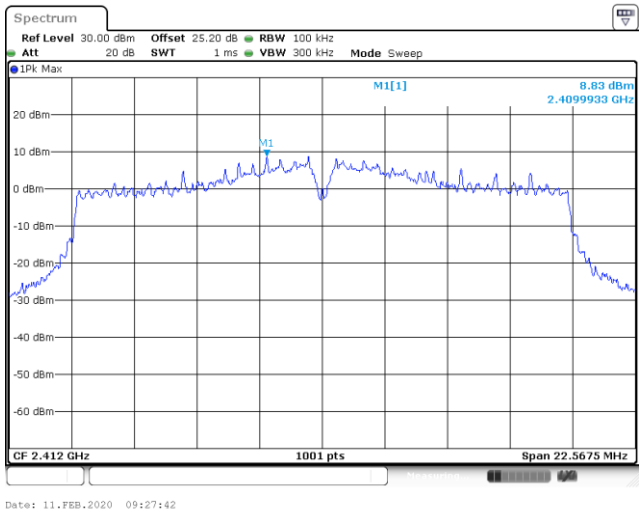
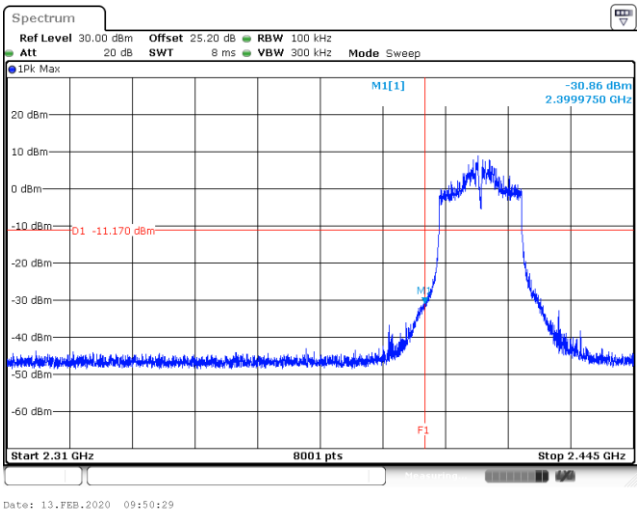
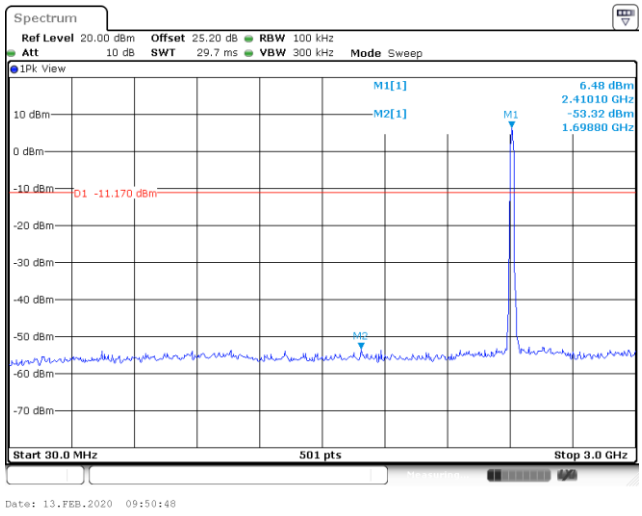
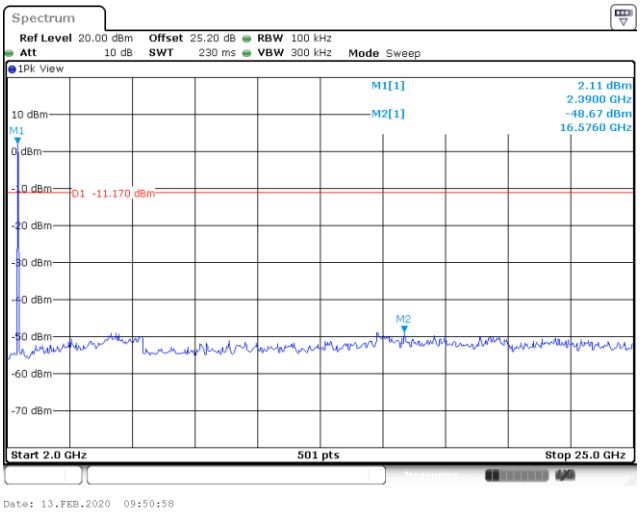
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

Test Mode :	802.11ax HE20	Test Channel :	11

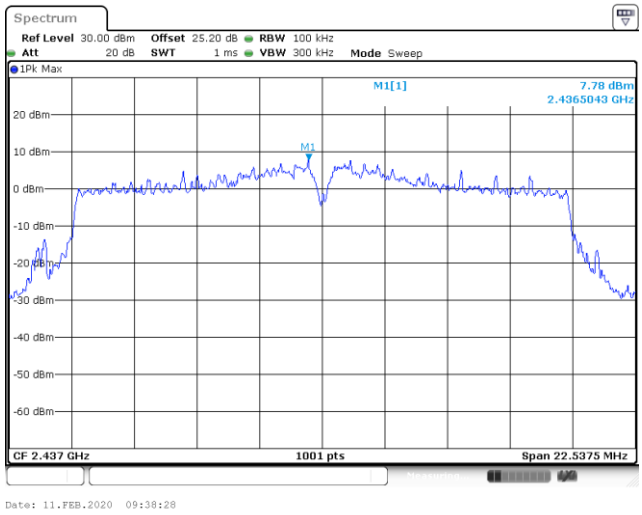
100kHz PSD reference Level	High Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

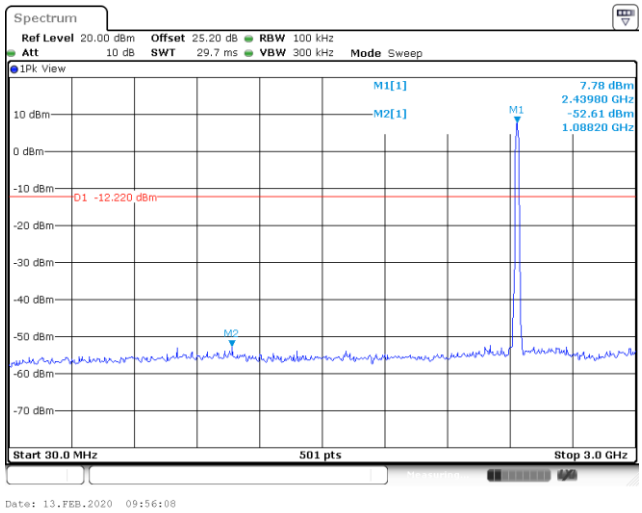
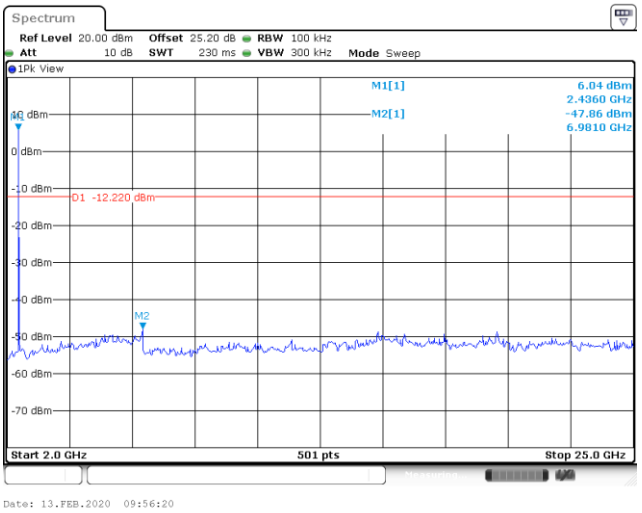
Number of TX = 2, Ant. 2 (Measured)

Test Mode :	802.11ax HE20	Test Channel :	01

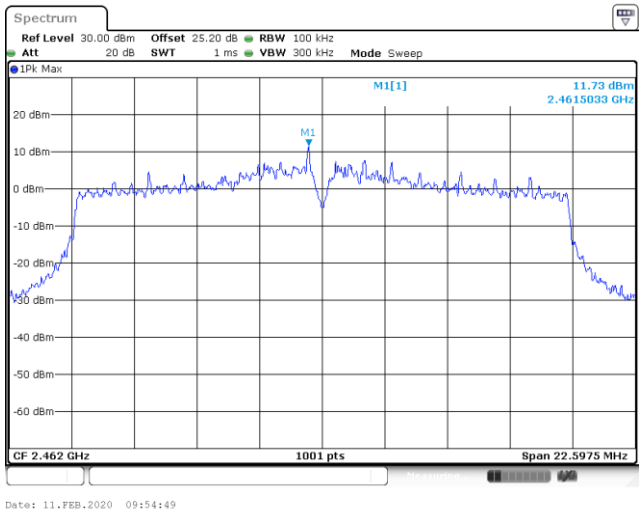
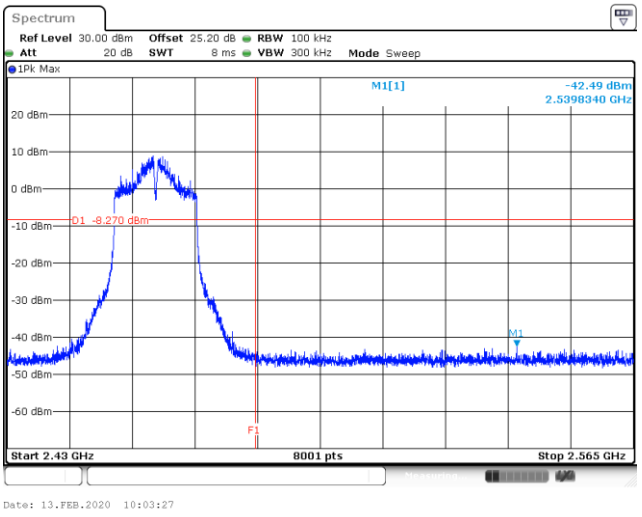
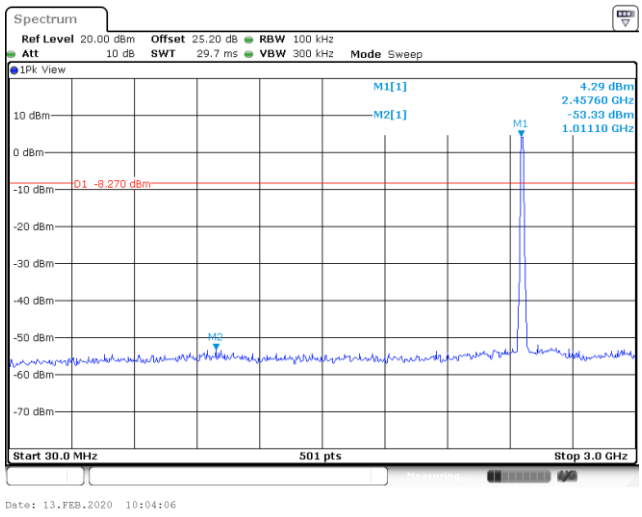
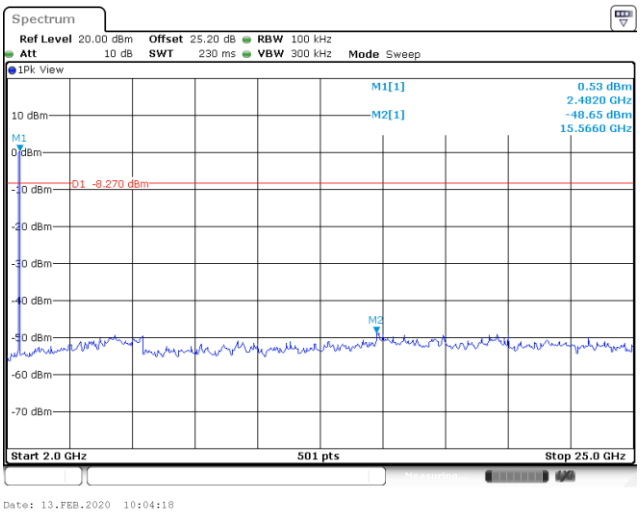
100kHz PSD reference Level	Low Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11ax HE20	Test Channel :	06

100kHz PSD reference Level	Mid Channel Plot
	

Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

Test Mode :	802.11ax HE20	Test Channel :	11

100kHz PSD reference Level	High Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

3.5 Radiated Band Edges and Spurious Emission Measurement

3.5.1 Limit of Radiated band edge and Spurious Emission Measurement

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. If the output power of this device was measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB. In addition, radiated emissions which fall in the restricted bands must also comply with the limits as below.

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

3.5.2 Measuring Instruments

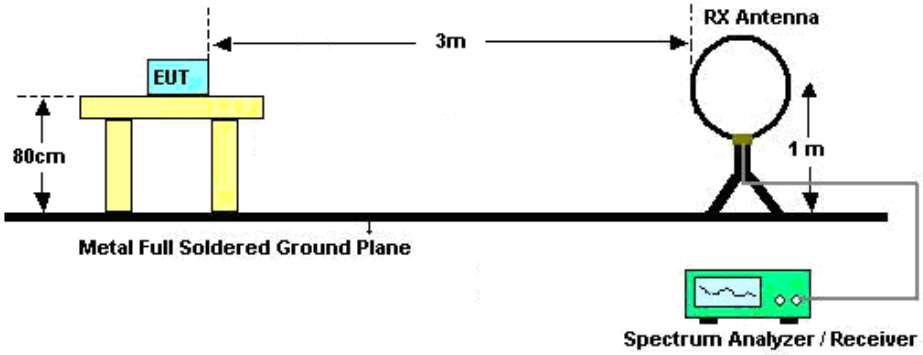
See list of measuring equipment of this test report.

3.5.3 Test Procedures

1. The testing follows the ANSI C63.10 Section 11.12.1 Radiated emission measurements
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
8. Use the following spectrum analyzer settings:
   (1) Span shall wide enough to fully capture the emission being measured;
   (2) Set RBW=100 kHz for f < 1 GHz; VBW ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold;
   (3) Set RBW = 1 MHz, VBW= 3MHz for f ≥ 1 GHz for peak measurement.
   For average measurement:
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

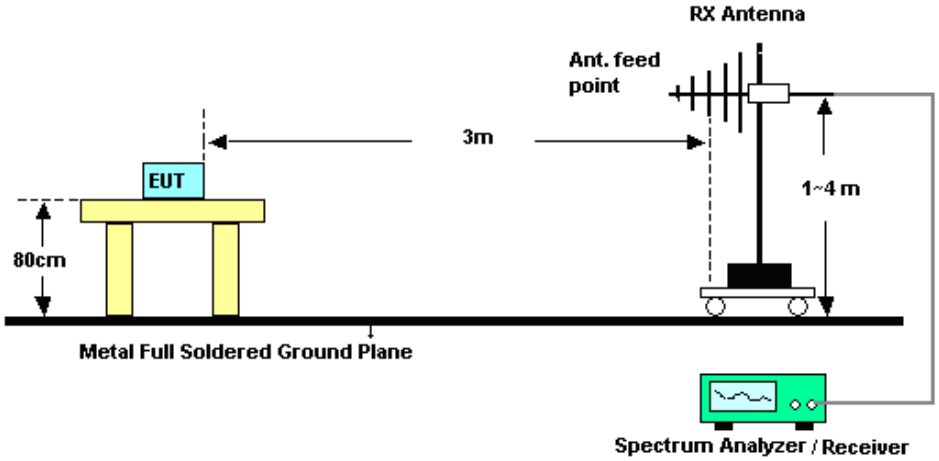
3.5.4 Test Setup

For radiated emissions below 30MHz

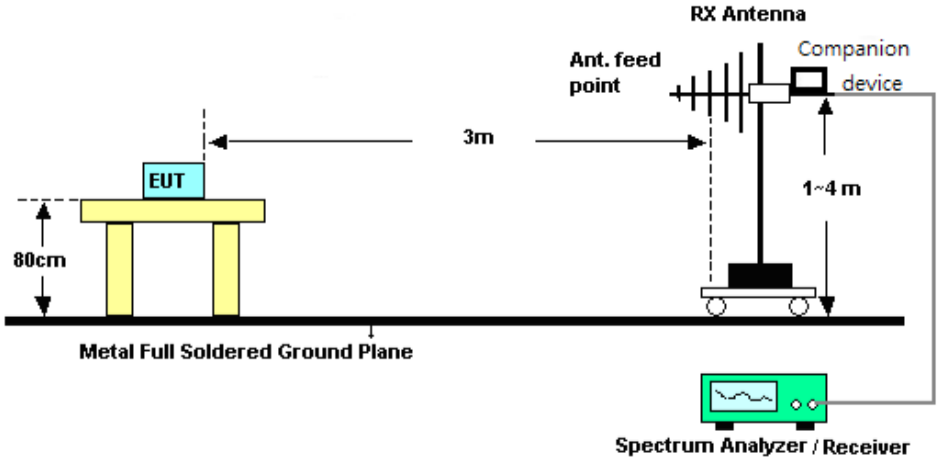


For radiated emissions from 30MHz to 1GHz

<CDD Mode>

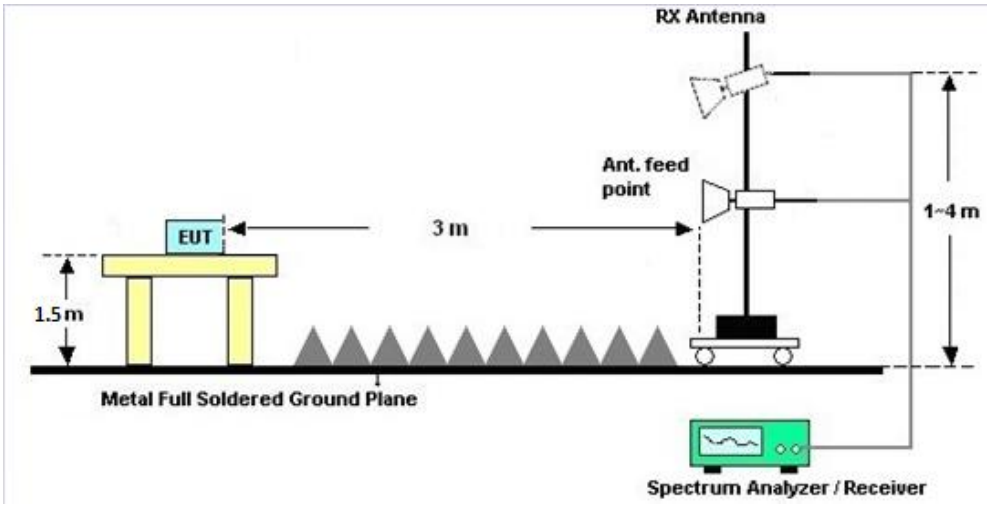


<TXBF Modes>

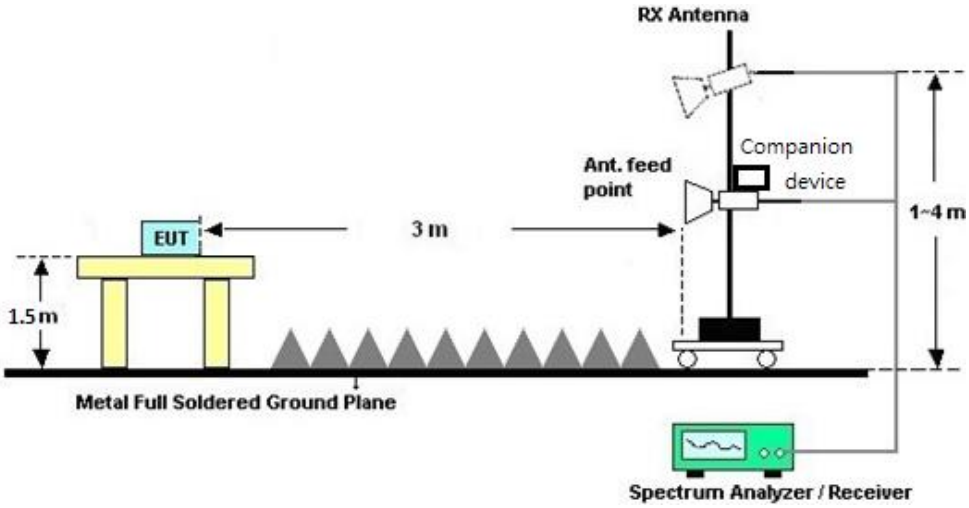


For radiated emissions above 1GHz

<CDD Mode>



<TXBF Modes>



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

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

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

3.5.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C and D.

3.5.7 Duty Cycle

Please refer to Appendix E.

3.5.8 Test Result of Radiated Spurious Emission (30MHz ~ 10th Harmonic)

Please refer to Appendix C and D.

3.6 AC Conducted Emission Measurement

3.6.1 Limit of AC Conducted Emission

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

Frequency of Emission (MHz)	Conducted Limit (dBμV)	
	Quasi-Peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

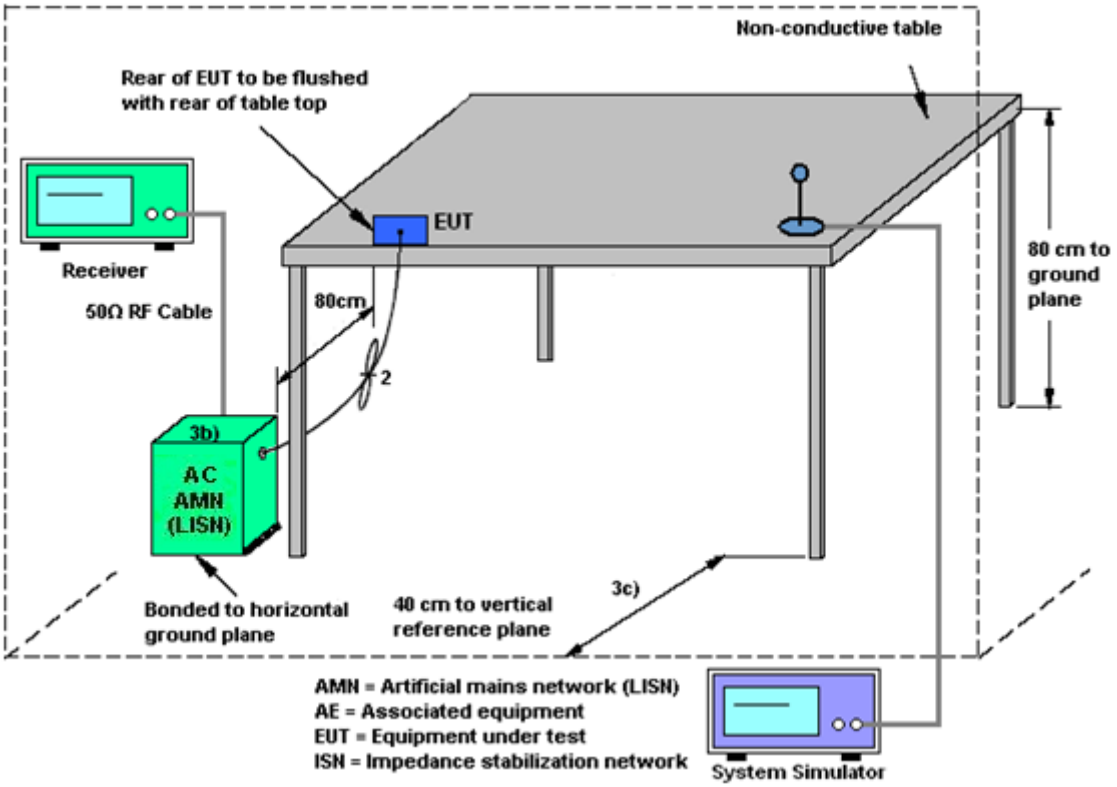
3.6.2 Measuring Instruments

See list of measuring equipment of this test report.

3.6.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room, and it was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF bandwidth = 9kHz) with Maximum Hold Mode.

3.6.4 Test Setup



3.6.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.7 Antenna Requirements

3.7.1 Standard Applicable

If directional gain of transmitting Antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi. The use of a permanently attached Antenna or of an Antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the rule.

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 Antenna Gain

<CDD Modes >

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

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

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

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

For power measurements on IEEE 802.11 devices,

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

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

The EUT supports CDD mode.

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

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

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

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

<CDD Modes>

	Ant. 1 (dBi)	Ant. 2 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
2.4 GHz	-2.50	-6.60	-2.50	-1.30	0.00	0.00

Power Limit Reduction = DG(Power) – 6dBi, (min = 0)

PSD Limit Reduction = DG(PSD) – 6dBi, (min = 0)

TXBF modes

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

$$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$$

where

Each antenna is driven by no more than one spatial stream;

N_{SS} = the number of independent spatial streams of data;

N_{ANT} = the total number of antennas

$g_{j,k} = 10^{G_k / 20}$ if the kth antenna is being fed by spatial stream j, or zero if it is not;

G_k is the gain in dBi of the kth antenna.

The EUT supports beamforming for 802.11ac modes.

The directional gain calculation is following F)2)e)ii) of KDB 662911 D01 v02r01.

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

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

	Ant. 1 (dBi)	Ant. 2 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
2.4 GHz	-2.50	-6.60	-1.30	-1.30	0.00	0.00

Power Limit Reduction = DG(Power) – 6dBi, (min = 0)

PSD Limit Reduction = DG(PSD) – 6dBi, (min = 0)

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Jan. 07, 2020	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Nov. 15, 2019	Jan. 07, 2020	Nov. 14, 2020	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Mar. 19, 2019	Jan. 07, 2020	Mar. 18, 2020	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Nov. 15, 2019	Jan. 07, 2020	Nov. 14, 2020	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Jan. 07, 2020	N/A	Conduction (CO05-HY)
LF Cable	HUBER + SUHNER	RG-214/U	LF01	N/A	Jan. 02, 2020	Jan. 07, 2020	Jan. 01, 2021	Conduction (CO05-HY)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100851	N/A	Jan. 02, 2020	Jan. 07, 2020	Jan. 01, 2021	Conduction (CO05-HY)
Hygrometer	Testo	608-H2	41410069	N/A	Jun. 17, 2019	Dec. 25, 2019~ Feb. 13, 2020	Jun. 16, 2020	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	16I00054SNO10	10MHz~6GHz	Dec. 23, 2019	Dec. 25, 2019~ Feb. 13, 2020	Dec. 22, 2020	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101566	10Hz~40GHz	Jul. 15, 2019	Dec. 25, 2019~ Feb. 13, 2020	Jul. 14, 2020	Conducted (TH05-HY)
Power Supply	GW Instek	SPS-606	GES842931	NA	Aug. 19, 2019	Dec. 25, 2019~ Feb. 13, 2020	Aug. 18, 2020	Conducted (TH05-HY)
Switch Box & RF Cable	Burgeon	ETF-058	EC1208382	N/A	Mar. 27, 2019	Dec. 25, 2019~ Feb. 13, 2020	Mar. 26, 2020	Conducted (TH05-HY)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Preamplifier	EMEC INSTRUMENTS&PE	EMC184045B &PE7005-6	980192	18GHz ~ 40GHz	Aug. 01, 2019	Jan. 09, 2020~ Feb. 11, 2020	Jul. 31, 2020	Radiation (03CH15-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1620	1-18GHz	Oct. 28, 2019	Jan. 09, 2020~ Feb. 11, 2020	Oct. 27, 2020	Radiation (03CH15-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170576	18GHz~40GHz	May 14, 2019	Jan. 09, 2020~ Feb. 11, 2020	May 13, 2020	Radiation (03CH15-HY)
Preamplifier	Jet-Power	JPA0118-55-303	1710001800055007	1GHz~18GHz	Apr. 01, 2019	Jan. 09, 2020~ Feb. 11, 2020	May 31, 2020	Radiation (03CH15-HY)
Preamplifier	Keysight	83017A	MY53270195	1GHz~26.5GHz	Aug. 23, 2019	Jan. 09, 2020~ Feb. 11, 2020	Aug. 22, 2020	Radiation (03CH15-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY54130085	20MHz~8.4GHz	Nov. 01, 2019	Jan. 09, 2020~ Feb. 11, 2020	Oct. 31, 2020	Radiation (03CH15-HY
Signal Analyzer	R&S	FSV3044	101009	10Hz~44GHz	Nov. 11, 2019	Jan. 09, 2020~ Feb. 11, 2020	Nov. 10, 2020	Radiation (03CH15-HY)
Controller	ChainTek	3000-1	N/A	Control Turn table & Ant Mast	N/A	Jan. 09, 2020~ Feb. 11, 2020	N/A	Radiation (03CH15-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Jan. 09, 2020~ Feb. 11, 2020	N/A	Radiation (03CH15-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Jan. 09, 2020~ Feb. 11, 2020	N/A	Radiation (03CH15-HY)
Software	Audix	E3 6.2009-8-24(k5)	RK-000451	N/A	N/A	Jan. 09, 2020~ Feb. 11, 2020	N/A	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY36980/4	30M-18G	Apr. 15, 2019	Jan. 09, 2020~ Feb. 11, 2020	Apr. 14, 2020	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9838/4PE	30M-18G	Apr. 15, 2019	Jan. 09, 2020~ Feb. 11, 2020	Apr. 14, 2020	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY802430/4	30M~18G	May. 13, 2019	Jan. 09, 2020~ Feb. 11, 2020	May. 12, 2020	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30MHz-40GHz	Feb. 26, 2019	Jan. 09, 2020~ Feb. 11, 2020	Feb. 25, 2020	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30MHz-40GHz	Feb. 26, 2019	Jan. 09, 2020~ Feb. 11, 2020	Feb. 25, 2020	Radiation (03CH15-HY)
Filter	Wainwright	WHKX12-2700-3000-18000-60ST	SN2	3GHz High Pass Filter	Jul. 17, 2019	Jan. 09, 2020~ Feb. 11, 2020	Jul. 14, 2020	Radiation (03CH15-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.0**

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.0**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.4**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.0**

Appendix A. Test Result of Conducted Test Items

<CDD Mode>

Test Engineer:	Luffy Lin / Richard Qiu	Temperature:	21~25	°C
Test Date:	2019/12/25 ~2020/02/12	Relative Humidity:	51~54	%

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band MIMO										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Occupied BW (MHz)		6dB BW (MHz)		6dB BW Limit (MHz)	Pass/Fail
					Ant1	Ant2	Ant1	Ant2		
11b	1Mbps	2	1	2412	13.09	13.19	8.07	7.07	0.50	Pass
11b	1Mbps	2	6	2437	13.39	13.79	8.53	8.53	0.50	Pass
11b	1Mbps	2	11	2462	13.19	13.74	8.07	8.53	0.50	Pass
11g	6Mbps	2	1	2412	16.48	16.68	15.74	15.92	0.50	Pass
11g	6Mbps	2	6	2437	16.58	17.08	15.70	16.30	0.50	Pass
11g	6Mbps	2	11	2462	16.58	17.03	15.49	16.30	0.50	Pass
HT20	MCS0	2	1	2412	17.63	17.73	16.78	16.52	0.50	Pass
HT20	MCS0	2	6	2437	17.78	18.48	16.90	16.78	0.50	Pass
HT20	MCS0	2	11	2462	17.63	19.23	16.52	17.14	0.50	Pass

Report Number : FR9D0635C

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band MIMO											
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	99% Occupied BW (MHz)		6dB BW (MHz)		6dB BW Limit (MHz)	Pass/Fail
						Ant1	Ant2	Ant1	Ant2		
HE20	MCS0	2	1	2412	Full	18.93	19.03	17.76	17.78	0.50	Pass
HE20	MCS0	2	1	2412	26/0	18.83	18.98	2.08	2.08	0.50	Pass
HE20	MCS0	2	1	2412	52/37	18.78	19.43	17.06	17.06	0.50	Pass
HE20	MCS0	2	1	2412	106/53	18.68	18.83	18.12	18.08	0.50	Pass
HE20	MCS0	2	6	2437	Full	19.08	21.68	18.44	18.66	0.50	Pass
HE20	MCS0	2	11	2462	Full	19.13	21.28	18.52	18.52	0.50	Pass
HE20	MCS0	2	11	2462	26/8	18.93	18.98	2.12	2.10	0.50	Pass
HE20	MCS0	2	11	2462	52/40	18.83	19.58	17.08	17.08	0.50	Pass
HE20	MCS0	2	11	2462	106/54	18.98	20.80	18.38	17.44	0.50	Pass
HE40	MCS0	2	3	2422	Full	38.06	38.36	36.32	36.00	0.50	Pass
HE40	MCS0	2	3	2422	242/61	38.16	38.56	36.72	36.60	0.50	Pass
HE40	MCS0	2	6	2437	Full	38.26	38.86	37.28	37.60	0.50	Pass
HE40	MCS0	2	9	2452	Full	38.26	38.96	36.24	36.52	0.50	Pass
HE40	MCS0	2	9	2452	242/62	38.56	38.76	37.92	37.88	0.50	Pass

Report Number : FR9D0635C

TEST RESULTS DATA
Peak Output Power

2.4GHz Band Single Antenna																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant1	Ant2	SUM	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	
11b	1Mbps	1	1	2412	23.33	23.06		30.00	30.00	-2.50	-6.60	20.83	16.46	36.00	36.00	Pass
11b	1Mbps	1	6	2437	23.08	22.88		30.00	30.00	-2.50	-6.60	20.58	16.28	36.00	36.00	Pass
11b	1Mbps	1	11	2462	23.18	22.81		30.00	30.00	-2.50	-6.60	20.68	16.21	36.00	36.00	Pass
11g	6Mbps	1	1	2412	24.93	24.67		30.00	30.00	-2.50	-6.60	22.43	18.07	36.00	36.00	Pass
11g	6Mbps	1	6	2437	26.15	24.80		30.00	30.00	-2.50	-6.60	23.65	18.20	36.00	36.00	Pass
11g	6Mbps	1	11	2462	24.88	24.08		30.00	30.00	-2.50	-6.60	22.38	17.48	36.00	36.00	Pass
HT20	MCS0	1	1	2412	24.06	23.96		30.00	30.00	-2.50	-6.60	21.56	17.36	36.00	36.00	Pass
HT20	MCS0	1	6	2437	25.95	24.78		30.00	30.00	-2.50	-6.60	23.45	18.18	36.00	36.00	Pass
HT20	MCS0	1	11	2462	24.58	23.77		30.00	30.00	-2.50	-6.60	22.08	17.17	36.00	36.00	Pass

2.4GHz Band MIMO																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant1	Ant2	SUM	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	
11b	1Mbps	2	1	2412	23.68	22.67	26.21	30.00		-2.50		23.71		36.00		Pass
11b	1Mbps	2	6	2437	23.62	22.78	26.23	30.00		-2.50		23.73		36.00		Pass
11b	1Mbps	2	11	2462	23.69	22.62	26.20	30.00		-2.50		23.70		36.00		Pass
11g	6Mbps	2	1	2412	25.23	23.99	27.66	30.00		-2.50		25.16		36.00		Pass
11g	6Mbps	2	6	2437	26.01	24.11	28.17	30.00		-2.50		25.67		36.00		Pass
11g	6Mbps	2	11	2462	25.27	23.81	27.61	30.00		-2.50		25.11		36.00		Pass
HT20	MCS0	2	1	2412	24.77	23.77	27.31	30.00		-2.50		24.81		36.00		Pass
HT20	MCS0	2	6	2437	26.00	23.98	28.12	30.00		-2.50		25.62		36.00		Pass
HT20	MCS0	2	11	2462	24.95	23.49	27.29	30.00		-2.50		24.79		36.00		Pass

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Peak Output Power

2.4GHz Band Single Antenna																	
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	RU Config.	Peak Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
						Ant1	Ant2	SUM	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	
HE20	MCS0	1	1	2412	Full	24.87	24.07		30.00	30.00	-2.50	-6.60	22.37	17.47	36.00	36.00	Pass
HE20	MCS0	1	1	2412	26/0	26.55	25.73		30.00	30.00	-2.50	-6.60	24.05	19.13	36.00	36.00	Pass
HE20	MCS0	1	1	2412	52/37	26.62	25.96		30.00	30.00	-2.50	-6.60	24.12	19.36	36.00	36.00	Pass
HE20	MCS0	1	1	2412	106/53	26.22	25.60		30.00	30.00	-2.50	-6.60	23.72	19.00	36.00	36.00	Pass
HE20	MCS0	1	6	2437	Full	26.74	24.96		30.00	30.00	-2.50	-6.60	24.24	18.36	36.00	36.00	Pass
HE20	MCS0	1	11	2462	Full	24.55	23.89		30.00	30.00	-2.50	-6.60	22.05	17.29	36.00	36.00	Pass
HE20	MCS0	1	11	2462	26/8	26.88	24.63		30.00	30.00	-2.50	-6.60	24.38	18.03	36.00	36.00	Pass
HE20	MCS0	1	11	2462	52/40	26.11	24.00		30.00	30.00	-2.50	-6.60	23.61	17.40	36.00	36.00	Pass
HE20	MCS0	1	11	2462	106/54	25.91	24.65		30.00	30.00	-2.50	-6.60	23.41	18.05	36.00	36.00	Pass
HE40	MCS0	1	3	2422	Full	24.79	24.35		30.00	30.00	-2.50	-6.60	22.29	17.75	36.00	36.00	Pass
HE40	MCS0	1	3	2422	242/61	24.67	24.45		30.00	30.00	-2.50	-6.60	22.17	17.85	36.00	36.00	Pass
HE40	MCS0	1	6	2437	Full	24.12	24.74		30.00	30.00	-2.50	-6.60	21.62	18.14	36.00	36.00	Pass
HE40	MCS0	1	9	2452	Full	23.66	23.55		30.00	30.00	-2.50	-6.60	21.16	16.95	36.00	36.00	Pass
HE40	MCS0	1	9	2452	242/62	23.60	22.92		30.00	30.00	-2.50	-6.60	21.10	16.32	36.00	36.00	Pass

2.4GHz Band MIMO																	
Mod.	Data Rate	NTx	CH.	Freq. (MHz)	RU Config.	Peak Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
						Ant1	Ant2	SUM	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	
HE20	MCS0	2	1	2412	Full	24.89	24.88	27.90	30.00		-2.50		25.40		36.00		Pass
HE20	MCS0	2	1	2412	26/0	26.88	25.42	29.22	30.00		-2.50		26.72		36.00		Pass
HE20	MCS0	2	1	2412	52/37	26.80	25.45	29.19	30.00		-2.50		26.69		36.00		Pass
HE20	MCS0	2	1	2412	106/53	26.45	25.13	28.85	30.00		-2.50		26.35		36.00		Pass
HE20	MCS0	2	6	2437	Full	26.18	24.33	28.36	30.00		-2.50		25.86		36.00		Pass
HE20	MCS0	2	11	2462	Full	25.05	23.55	27.37	30.00		-2.50		24.87		36.00		Pass
HE20	MCS0	2	11	2462	26/8	26.12	24.12	28.24	30.00		-2.50		25.74		36.00		Pass
HE20	MCS0	2	11	2462	52/40	26.09	24.47	28.37	30.00		-2.50		25.87		36.00		Pass
HE20	MCS0	2	11	2462	106/54	26.08	24.45	28.35	30.00		-2.50		25.85		36.00		Pass
HE40	MCS0	2	3	2422	Full	25.11	24.17	27.68	30.00		-2.50		25.18		36.00		Pass
HE40	MCS0	2	3	2422	242/61	25.22	24.06	27.69	30.00		-2.50		25.19		36.00		Pass
HE40	MCS0	2	6	2437	Full	25.85	24.25	28.13	30.00		-2.50		25.63		36.00		Pass
HE40	MCS0	2	9	2452	Full	24.36	22.96	26.73	30.00		-2.50		24.23		36.00		Pass
HE40	MCS0	2	9	2452	242/62	24.08	22.91	26.54	30.00		-2.50		24.04		36.00		Pass

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Average Output Power

2.4GHz Band Single Antenna																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant1	Ant2	SUM	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	
11b	1Mbps	1	1	2412	20.80	20.70		30.00	30.00	-2.50	-6.60	18.30	14.10	36.00	36.00	Pass
11b	1Mbps	1	6	2437	20.70	20.60		30.00	30.00	-2.50	-6.60	18.20	14.00	36.00	36.00	Pass
11b	1Mbps	1	11	2462	20.80	20.60		30.00	30.00	-2.50	-6.60	18.30	14.00	36.00	36.00	Pass
11g	6Mbps	1	1	2412	18.00	18.00		30.00	30.00	-2.50	-6.60	15.50	11.40	36.00	36.00	Pass
11g	6Mbps	1	6	2437	20.20	20.30		30.00	30.00	-2.50	-6.60	17.70	13.70	36.00	36.00	Pass
11g	6Mbps	1	11	2462	18.10	18.40		30.00	30.00	-2.50	-6.60	15.60	11.80	36.00	36.00	Pass
HT20	MCS0	1	1	2412	17.10	17.00		30.00	30.00	-2.50	-6.60	14.60	10.40	36.00	36.00	Pass
HT20	MCS0	1	6	2437	20.10	20.20		30.00	30.00	-2.50	-6.60	17.60	13.60	36.00	36.00	Pass
HT20	MCS0	1	11	2462	17.40	17.30		30.00	30.00	-2.50	-6.60	14.90	10.70	36.00	36.00	Pass

2.4GHz Band MIMO																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant1	Ant2	SUM	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	
11b	1Mbps	2	1	2412	21.00	20.30	23.67	30.00		-2.50		21.17		36.00		Pass
11b	1Mbps	2	6	2437	21.00	20.40	23.72	30.00		-2.50		21.22		36.00		Pass
11b	1Mbps	2	11	2462	20.90	20.40	23.67	30.00		-2.50		21.17		36.00		Pass
11g	6Mbps	2	1	2412	18.40	17.50	20.98	30.00		-2.50		18.48		36.00		Pass
11g	6Mbps	2	6	2437	20.50	20.00	23.27	30.00		-2.50		20.77		36.00		Pass
11g	6Mbps	2	11	2462	19.00	17.90	21.50	30.00		-2.50		19.00		36.00		Pass
HT20	MCS0	2	1	2412	17.60	16.80	20.23	30.00		-2.50		17.73		36.00		Pass
HT20	MCS0	2	6	2437	20.50	20.10	23.31	30.00		-2.50		20.81		36.00		Pass
HT20	MCS0	2	11	2462	17.70	17.10	20.42	30.00		-2.50		17.92		36.00		Pass

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Average Output Power

2.4GHz Band Single Antenna																	
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Average Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
						Ant1	Ant2	SUM	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	
HE20	MCS0	1	1	2412	Full	16.70	16.60		30.00	30.00	-2.50	-6.60	14.20	10.00	36.00	36.00	Pass
HE20	MCS0	1	1	2412	26/0	16.60	16.40		30.00	30.00	-2.50	-6.60	14.10	9.80	36.00	36.00	Pass
HE20	MCS0	1	1	2412	52/37	16.50	16.40		30.00	30.00	-2.50	-6.60	14.00	9.80	36.00	36.00	Pass
HE20	MCS0	1	1	2412	106/53	16.30	16.50		30.00	30.00	-2.50	-6.60	13.80	9.90	36.00	36.00	Pass
HE20	MCS0	1	6	2437	Full	20.70	20.70		30.00	30.00	-2.50	-6.60	18.20	14.10	36.00	36.00	Pass
HE20	MCS0	1	11	2462	Full	16.60	16.80		30.00	30.00	-2.50	-6.60	14.10	10.20	36.00	36.00	Pass
HE20	MCS0	1	11	2462	26/8	16.60	16.70		30.00	30.00	-2.50	-6.60	14.10	10.10	36.00	36.00	Pass
HE20	MCS0	1	11	2462	52/40	16.30	16.40		30.00	30.00	-2.50	-6.60	13.80	9.80	36.00	36.00	Pass
HE20	MCS0	1	11	2462	106/54	16.40	16.40		30.00	30.00	-2.50	-6.60	13.90	9.80	36.00	36.00	Pass
HE40	MCS0	1	3	2422	Full	17.00	17.00		30.00	30.00	-2.50	-6.60	14.50	10.40	36.00	36.00	Pass
HE40	MCS0	1	3	2422	242/61	14.90	14.70		30.00	30.00	-2.50	-6.60	12.40	8.10	36.00	36.00	Pass
HE40	MCS0	1	6	2437	Full	18.60	18.70		30.00	30.00	-2.50	-6.60	16.10	12.10	36.00	36.00	Pass
HE40	MCS0	1	9	2452	Full	16.10	16.20		30.00	30.00	-2.50	-6.60	13.60	9.60	36.00	36.00	Pass
HE40	MCS0	1	9	2452	242/62	13.60	13.60		30.00	30.00	-2.50	-6.60	11.10	7.00	36.00	36.00	Pass

2.4GHz Band MIMO																	
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Average Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
						Ant1	Ant2	SUM	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	
HE20	MCS0	2	1	2412	Full	17.20	16.40	19.83	30.00		-2.50		17.33		36.00		Pass
HE20	MCS0	2	1	2412	26/0	17.20	16.30	19.78	30.00		-2.50		17.28		36.00		Pass
HE20	MCS0	2	1	2412	52/37	17.00	15.90	19.50	30.00		-2.50		17.00		36.00		Pass
HE20	MCS0	2	1	2412	106/53	16.90	16.10	19.53	30.00		-2.50		17.03		36.00		Pass
HE20	MCS0	2	6	2437	Full	21.00	20.50	23.77	30.00		-2.50		21.27		36.00		Pass
HE20	MCS0	2	11	2462	Full	17.30	16.30	19.84	30.00		-2.50		17.34		36.00		Pass
HE20	MCS0	2	11	2462	26/8	17.20	16.30	19.78	30.00		-2.50		17.28		36.00		Pass
HE20	MCS0	2	11	2462	52/40	17.00	15.90	19.50	30.00		-2.50		17.00		36.00		Pass
HE20	MCS0	2	11	2462	106/54	17.00	16.00	19.54	30.00		-2.50		17.04		36.00		Pass
HE40	MCS0	2	3	2422	Full	17.60	16.90	20.27	30.00		-2.50		17.77		36.00		Pass
HE40	MCS0	2	3	2422	242/61	15.10	14.80	17.96	30.00		-2.50		15.46		36.00		Pass
HE40	MCS0	2	6	2437	Full	19.30	18.50	21.93	30.00		-2.50		19.43		36.00		Pass
HE40	MCS0	2	9	2452	Full	16.80	15.60	19.25	30.00		-2.50		16.75		36.00		Pass
HE40	MCS0	2	9	2452	242/62	14.10	13.10	16.64	30.00		-2.50		14.14		36.00		Pass

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Peak Power Spectral Density

2.4GHz Band MIMO												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak PSD (dBm/3kHz)			DG (dBi)		Peak PSD Limit (dBm/3kHz)		Pass/Fail
					Ant1	Ant2	Worse + 3.01	Ant1	Ant2	Ant1	Ant2	
11b	1Mbps	2	1	2412	-3.94	-4.25	-0.93	-1.30		8.00		Pass
11b	1Mbps	2	6	2437	-2.65	-2.66	0.36	-1.30		8.00		Pass
11b	1Mbps	2	11	2462	-2.62	-3.78	0.39	-1.30		8.00		Pass
11g	6Mbps	2	1	2412	-6.79	-7.70	-3.78	-1.30		8.00		Pass
11g	6Mbps	2	6	2437	-5.70	-6.99	-2.69	-1.30		8.00		Pass
11g	6Mbps	2	11	2462	-5.19	-6.62	-2.18	-1.30		8.00		Pass
HT20	MCS0	2	1	2412	-2.82	-4.60	0.19	-1.30		8.00		Pass
HT20	MCS0	2	6	2437	-4.88	-4.38	-1.37	-1.30		8.00		Pass
HT20	MCS0	2	11	2462	-3.68	-5.17	-0.67	-1.30		8.00		Pass

Measured power density (dBm) has offset with cable loss.

TEST RESULTS DATA
Peak Power Spectral Density

2.4GHz Band MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Peak PSD (dBm/3kHz)			DG (dBi)		Peak PSD Limit (dBm/3kHz)		Pass/Fail
						Ant1	Ant2	Worse + 3.01	Ant1	Ant2	Ant1	Ant2	
HE20	MCS0	2	1	2412	Full	-4.63	-6.68	-1.62	-1.30		8.00		Pass
HE20	MCS0	2	1	2412	26/0	4.55	3.22	7.56	-1.30		8.00		Pass
HE20	MCS0	2	1	2412	52/37	1.56	1.02	4.57	-1.30		8.00		Pass
HE20	MCS0	2	1	2412	106/53	-0.90	-2.21	2.11	-1.30		8.00		Pass
HE20	MCS0	2	6	2437	Full	-5.28	-6.21	-2.27	-1.30		8.00		Pass
HE20	MCS0	2	11	2462	Full	-4.03	-5.82	-1.02	-1.30		8.00		Pass
HE20	MCS0	2	11	2462	26/8	3.45	2.81	6.46	-1.30		8.00		Pass
HE20	MCS0	2	11	2462	52/40	1.92	1.46	4.93	-1.30		8.00		Pass
HE20	MCS0	2	11	2462	106/54	-0.65	-1.42	2.36	-1.30		8.00		Pass
HE40	MCS0	2	3	2422	Full	-7.32	-8.51	-4.31	-1.30		8.00		Pass
HE40	MCS0	2	3	2422	242/61	-4.40	-5.33	-1.39	-1.30		8.00		Pass
HE40	MCS0	2	6	2437	Full	-7.41	-8.86	-4.40	-1.30		8.00		Pass
HE40	MCS0	2	9	2452	Full	-8.14	-8.63	-5.13	-1.30		8.00		Pass
HE40	MCS0	2	9	2452	242/62	-3.52	-4.26	-0.51	-1.30		8.00		Pass

Measured power density (dBm) has offset with cable loss.

<TXBF Mode>

Test Engineer:	Richard Qiu	Temperature:	21~25	°C
Test Date:	2020/1/31~2020/2/11	Relative Humidity:	51~54	%

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band MIMO											
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	99% Occupied BW (MHz)		6dB BW (MHz)		6dB BW Limit (MHz)	Pass/Fail
						Ant1	Ant2	Ant1	Ant2		
HE20	MCS0	1	1	2412	Full	17.63	17.53	15.06	15.05	0.50	Pass
HE20	MCS0	1	6	2437	Full	17.33	17.43	13.85	15.03	0.50	Pass
HE20	MCS0	1	11	2462	Full	17.53	17.53	15.26	15.06	0.50	Pass

TEST RESULTS DATA
Peak Output Power

2.4GHz Band MIMO																	
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Peak Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
						Ant1	Ant2	SUM	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	
HE20	MCS0	2	1	2412	Full	24.77	23.61	27.24	30.00		-1.30		25.94		36.00		Pass
HE20	MCS0	2	6	2437	Full	24.03	22.61	26.39	30.00		-1.30		25.09		36.00		Pass
HE20	MCS0	2	11	2462	Full	24.67	23.51	27.14	30.00		-1.30		25.84		36.00		Pass

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Average Output Power

2.4GHz Band MIMO																	
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Average Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
						Ant1	Ant2	SUM	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	
HE20	MCS0	2	1	2412	Full	18.60	18.50	21.56	30.00		-1.30		20.26		36.00		Pass
HE20	MCS0	2	6	2437	Full	19.20	18.20	21.74	30.00		-1.30		20.44		36.00		Pass
HE20	MCS0	2	11	2462	Full	19.50	18.20	21.91	30.00		-1.30		20.61		36.00		Pass

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Peak Power Spectral Density

2.4GHz Band MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Peak PSD (dBm/3kHz)			DG (dBi)		Peak PSD Limit (dBm/3kHz)		Pass/Fail
						Ant1	Ant2	Worse + 3.01	Ant1	Ant2	Ant1	Ant2	
HE20	MCS0	2	1	2412	Full	-4.37	-5.30	-1.36	-1.30		8.00		Pass
HE20	MCS0	2	6	2437	Full	-6.28	-6.53	-3.27	-1.30		8.00		Pass
HE20	MCS0	2	11	2462	Full	-5.23	-5.44	-2.22	-1.30		8.00		Pass

Measured power density (dBm) has offset with cable loss.

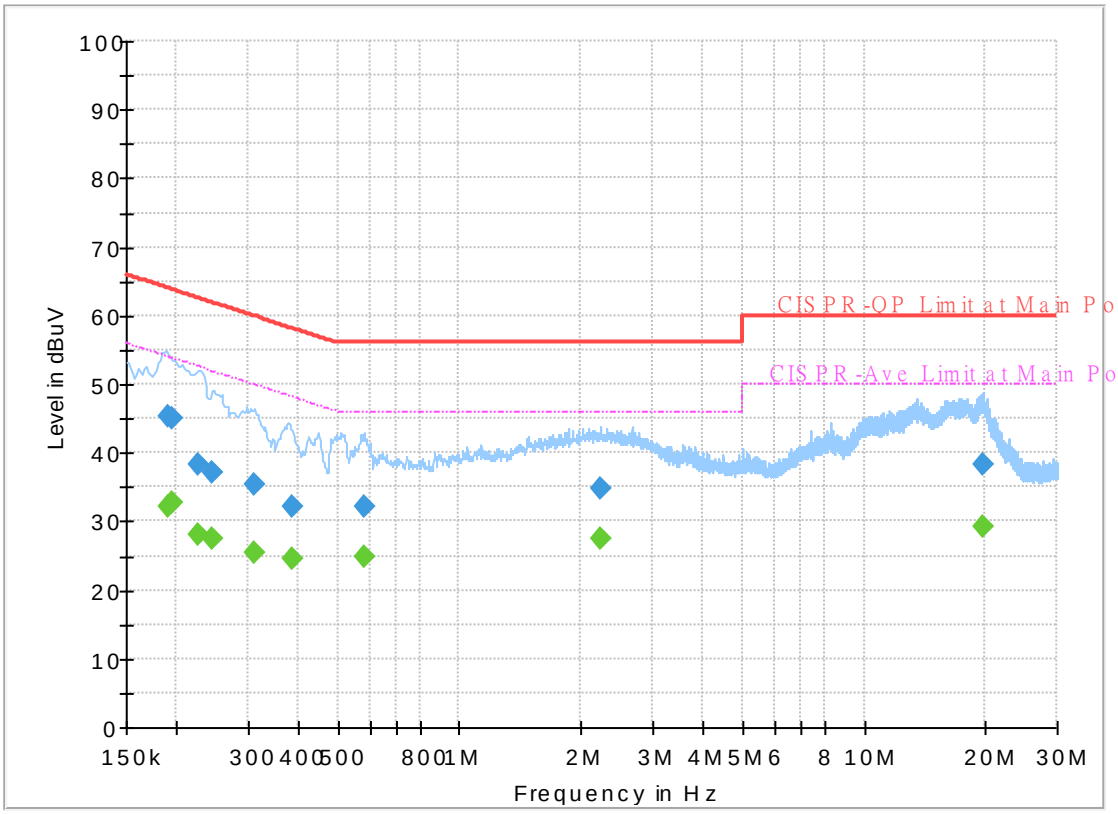
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Tom Lee	**Temperature :**	21~24℃
		Relative Humidity :	42~45%

EUT Information

Report NO :	9D0635
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line

Full Spectrum



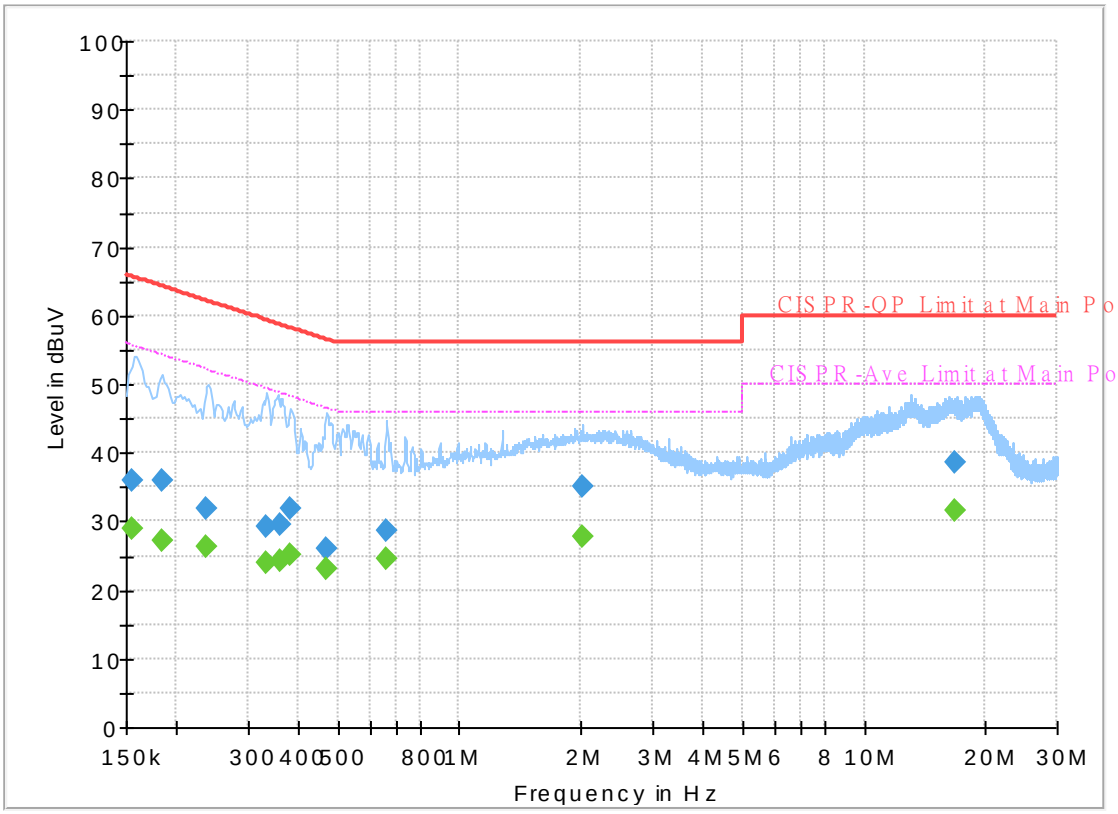
Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.190770	---	32.11	54.00	21.89	L1	OFF	19.5
0.190770	45.24	---	64.00	18.76	L1	OFF	19.5
0.195000	---	32.64	53.82	21.18	L1	OFF	19.5
0.195000	45.02	---	63.82	18.80	L1	OFF	19.5
0.225600	---	28.01	52.61	24.60	L1	OFF	19.5
0.225600	38.22	---	62.61	24.39	L1	OFF	19.5
0.244500	---	27.57	51.94	24.37	L1	OFF	19.5
0.244500	37.11	---	61.94	24.83	L1	OFF	19.5
0.312540	---	25.45	49.90	24.45	L1	OFF	19.5
0.312540	35.52	---	59.90	24.38	L1	OFF	19.5
0.386250	---	24.66	48.14	23.48	L1	OFF	19.5
0.386250	32.14	---	58.14	26.00	L1	OFF	19.5
0.581100	---	24.77	46.00	21.23	L1	OFF	19.5
0.581100	32.07	---	56.00	23.93	L1	OFF	19.5
2.229000	---	27.62	46.00	18.38	L1	OFF	19.7
2.229000	34.85	---	56.00	21.15	L1	OFF	19.7
19.711500	---	29.35	50.00	20.65	L1	OFF	20.2
19.711500	38.40	---	60.00	21.60	L1	OFF	20.2

EUT Information

Report NO :	9D0635
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Neutral

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.154500	---	29.05	55.75	26.70	N	OFF	19.6
0.154500	36.07	---	65.75	29.68	N	OFF	19.6
0.184110	---	27.20	54.30	27.10	N	OFF	19.6
0.184110	36.05	---	64.30	28.25	N	OFF	19.6
0.235500	---	26.21	52.25	26.04	N	OFF	19.6
0.235500	31.80	---	62.25	30.45	N	OFF	19.6
0.332520	---	24.00	49.39	25.39	N	OFF	19.6
0.332520	29.29	---	59.39	30.10	N	OFF	19.6
0.359250	---	24.29	48.75	24.46	N	OFF	19.6
0.359250	29.67	---	58.75	29.08	N	OFF	19.6
0.381570	---	25.17	48.25	23.08	N	OFF	19.6
0.381570	31.75	---	58.25	26.50	N	OFF	19.6
0.471030	---	23.12	46.50	23.38	N	OFF	19.6
0.471030	26.01	---	56.50	30.49	N	OFF	19.6
0.662010	---	24.55	46.00	21.45	N	OFF	19.6
0.662010	28.64	---	56.00	27.36	N	OFF	19.6
2.013000	---	27.77	46.00	18.23	N	OFF	19.6
2.013000	34.98	---	56.00	21.02	N	OFF	19.6
16.707480	---	31.69	50.00	18.31	N	OFF	20.2
16.707480	38.73	---	60.00	21.27	N	OFF	20.2

Appendix C. Radiated Spurious Emission

Test Engineer :	Leo Lee, Mancy Chou, and Bigshow Wang	Temperature :	23.9~25.2°C
		Relative Humidity :	53~60%

<CDD Mode>

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2346.96	54.17	-19.83	74	41.23	28.01	16.1	31.17	366	312	P	H
		2390	43.41	-10.59	54	30.64	27.76	16.16	31.15	366	312	A	H
	*	2412	105.78	-	-	93.05	27.68	16.18	31.13	366	312	P	H
	*	2412	102.82	-	-	90.09	27.68	16.18	31.13	366	312	A	H
													H
		2351.895	54.01	-19.99	74	41.07	27.99	16.11	31.16	119	0	P	V
		2390	44.14	-9.86	54	31.37	27.76	16.16	31.15	119	0	A	V
	*	2412	108.57	-	-	95.84	27.68	16.18	31.13	119	0	P	V
	*	2412	105.35	-	-	92.62	27.68	16.18	31.13	119	0	A	V
													V
802.11b CH 06 2437MHz		2348.4	54.83	-19.17	74	41.9	28	16.1	31.17	235	48	P	H
		2334.16	43.52	-10.48	54	30.58	28.03	16.08	31.17	235	48	A	H
	*	2437	104.52	-	-	91.8	27.63	16.21	31.12	235	48	P	H
	*	2437	101.37	-	-	88.65	27.63	16.21	31.12	235	48	A	H
		2487.84	54.2	-19.8	74	41.52	27.52	16.26	31.1	235	48	P	H
		2484.8	43.31	-10.69	54	30.63	27.53	16.25	31.1	235	48	A	H
		2388.24	54.77	-19.23	74	42	27.77	16.15	31.15	100	3	P	V
		2311.28	43.51	-10.49	54	30.56	28.08	16.05	31.18	100	3	A	V
	*	2437	105.66	-	-	92.94	27.63	16.21	31.12	100	3	P	V
	*	2437	102.68	-	-	89.96	27.63	16.21	31.12	100	3	A	V
		2484.08	54.29	-19.71	74	41.61	27.53	16.25	31.1	100	3	P	V
		2483.68	43.33	-10.67	54	30.65	27.53	16.25	31.1	100	3	A	V

802.11b CH 11 2462MHz	*	2462	107.24	-	-	94.54	27.58	16.23	31.11	400	294	P	H
	*	2462	104	-	-	91.3	27.58	16.23	31.11	400	294	A	H
		2489.24	53.78	-20.22	74	41.1	27.52	16.26	31.1	400	294	P	H
		2483.72	43.78	-10.22	54	31.1	27.53	16.25	31.1	400	294	A	H
													H
													H
	*	2462	110.47	-	-	97.77	27.58	16.23	31.11	112	8	P	V
	*	2462	107.33	-	-	94.63	27.58	16.23	31.11	112	8	A	V
		2498.8	53.82	-20.18	74	41.14	27.5	16.27	31.09	112	8	P	V
		2483.64	44.25	-9.75	54	31.57	27.53	16.25	31.1	112	8	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic @ 3m)

WIFI Ant. 1+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)
802.11b CH 01 2412MHz		4824	35.4	-38.6	74	53.68	31.25	9.63	59.16	100	0	P	H
													H
													H
													H
		4824	34.9	-39.1	74	53.18	31.25	9.63	59.16	100	0	P	V
													V
													V
													V
802.11b CH 06 2437MHz		4874	35.61	-38.39	74	53.89	31.25	9.64	59.17	100	0	P	H
		7311	41.51	-32.49	74	52.48	36.52	11.69	59.18	100	0	P	H
													H
													H
		4874	35.18	-38.82	74	53.46	31.25	9.64	59.17	100	0	P	V
		7311	41.9	-32.1	74	52.87	36.52	11.69	59.18	100	0	P	V
													V
													V
802.11b CH 11 2462MHz		4924	34.91	-39.09	74	53.1	31.34	9.65	59.18	100	0	P	H
		7386	41.01	-32.99	74	51.96	36.46	11.74	59.15	100	0	P	H
													H
													H
		4924	34.98	-39.02	74	53.17	31.34	9.65	59.18	100	0	P	V
		7386	40.47	-33.53	74	51.42	36.46	11.74	59.15	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11g CH 01 2412MHz		2389.8	60.12	-13.88	74	47.35	27.76	16.16	31.15	100	306	P	H
		2390	47.63	-6.37	54	34.86	27.76	16.16	31.15	100	306	A	H
	*	2412	105.74	-	-	93.01	27.68	16.18	31.13	100	306	P	H
	*	2412	98.39	-	-	85.66	27.68	16.18	31.13	100	306	A	H
													H
													H
		2389.485	61.08	-12.92	74	48.31	27.76	16.16	31.15	164	10	P	V
		2390	49.38	-4.62	54	36.61	27.76	16.16	31.15	164	10	A	V
	*	2412	107.51	-	-	94.78	27.68	16.18	31.13	164	10	P	V
	*	2412	99.89	-	-	87.16	27.68	16.18	31.13	164	10	A	V
													V
													V
802.11g CH 06 2437MHz		2336.72	55.15	-18.85	74	42.2	28.03	16.09	31.17	314	299	P	H
		2317.68	43.5	-10.5	54	30.56	28.06	16.06	31.18	314	299	A	H
	*	2437	107.27	-	-	94.55	27.63	16.21	31.12	314	299	P	H
	*	2437	99.92	-	-	87.2	27.63	16.21	31.12	314	299	A	H
		2488.16	54.61	-19.39	74	41.93	27.52	16.26	31.1	314	299	P	H
		2484.4	43.32	-10.68	54	30.64	27.53	16.25	31.1	314	299	A	H
		2369.52	55.79	-18.21	74	42.94	27.88	16.13	31.16	100	25	P	V
		2318	43.5	-10.5	54	30.56	28.06	16.06	31.18	100	25	A	V
	*	2437	107.96	-	-	95.24	27.63	16.21	31.12	100	25	P	V
	*	2437	99.85	-	-	87.13	27.63	16.21	31.12	100	25	A	V
		2498.64	55.02	-18.98	74	42.34	27.5	16.27	31.09	100	25	P	V
		2483.92	43.35	-10.65	54	30.67	27.53	16.25	31.1	100	25	A	V

802.11g CH 11 2462MHz	*	2462	106.22	-	-	93.52	27.58	16.23	31.11	100	294	P	H
	*	2462	98.43	-	-	85.73	27.58	16.23	31.11	100	294	A	H
		2484.28	60.08	-13.92	74	47.4	27.53	16.25	31.1	100	294	P	H
		2483.6	47.64	-6.36	54	34.96	27.53	16.25	31.1	100	294	A	H
													H
													H
	*	2462	108.86	-	-	96.16	27.58	16.23	31.11	132	11	P	V
	*	2462	101.12	-	-	88.42	27.58	16.23	31.11	132	11	A	V
		2484.12	61.87	-12.13	74	49.19	27.53	16.25	31.1	132	11	P	V
		2483.52	50.05	-3.95	54	37.37	27.53	16.25	31.1	132	11	A	V
													V
													V

Remark

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

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Harmonic @ 3m)

WIFI Ant. 1+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)
802.11g CH 01 2412MHz		4824	35.01	-38.99	74	53.29	31.25	9.63	59.16	100	0	P	H
													H
													H
													H
		4824	35.15	-38.85	74	53.43	31.25	9.63	59.16	100	0	P	V
													V
													V
													V
802.11g CH 06 2437MHz		4874	35.38	-38.62	74	53.66	31.25	9.64	59.17	100	0	P	H
		7311	41.88	-32.12	74	52.85	36.52	11.69	59.18	100	0	P	H
													H
													H
		4874	36.28	-37.72	74	54.56	31.25	9.64	59.17	100	0	P	V
		7311	41.8	-32.2	74	52.77	36.52	11.69	59.18	100	0	P	V
													V
													V
802.11g CH 11 2462MHz		4924	35.47	-38.53	74	53.66	31.34	9.65	59.18	100	0	P	H
		7386	40.33	-33.67	74	51.28	36.46	11.74	59.15	100	0	P	H
													H
													H
		4924	34.86	-39.14	74	53.05	31.34	9.65	59.18	100	0	P	V
		7386	40.74	-33.26	74	51.69	36.46	11.74	59.15	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		2389.485	54.83	-19.17	74	42.06	27.76	16.16	31.15	100	352	P	H
		2390	45.02	-8.98	54	32.25	27.76	16.16	31.15	100	352	A	H
	*	2412	99.81	-	-	87.08	27.68	16.18	31.13	100	352	P	H
	*	2412	91.81	-	-	79.08	27.68	16.18	31.13	100	352	A	H
802.11n													H
HT20													H
CH 01		2389.8	59.58	-14.42	74	46.81	27.76	16.16	31.15	165	15	P	V
2412MHz		2390	49.16	-4.84	54	36.39	27.76	16.16	31.15	165	15	A	V
	*	2412	107.11	-	-	94.38	27.68	16.18	31.13	165	15	P	V
	*	2412	99.34	-	-	86.61	27.68	16.18	31.13	165	15	A	V
													V
													V
		2330.96	54.86	-19.14	74	41.91	28.04	16.08	31.17	100	55	P	H
		2336.24	43.52	-10.48	54	30.57	28.03	16.09	31.17	100	55	A	H
	*	2437	107.5	-	-	94.78	27.63	16.21	31.12	100	55	P	H
	*	2437	99.04	-	-	86.33	27.63	16.2	31.12	100	55	A	H
802.11n		2489.2	54.13	-19.87	74	41.45	27.52	16.26	31.1	100	55	P	H
HT20		2483.76	43.36	-10.64	54	30.68	27.53	16.25	31.1	100	55	A	H
CH 06		2338.96	54.13	-19.87	74	41.19	28.02	16.09	31.17	100	345	P	V
2437MHz		2335.6	43.55	-10.45	54	30.6	28.03	16.09	31.17	100	345	A	V
	*	2437	105.91	-	-	93.19	27.63	16.21	31.12	100	345	P	V
	*	2437	97.96	-	-	85.24	27.63	16.21	31.12	100	345	A	V
		2485.92	53.67	-20.33	74	40.98	27.53	16.26	31.1	100	345	P	V
		2485.76	43.32	-10.68	54	30.63	27.53	16.26	31.1	100	345	A	V

	*	2462	104.96	-	-	92.26	27.58	16.23	31.11	394	299	P	H
	*	2462	97.56	-	-	84.86	27.58	16.23	31.11	394	299	A	H
		2483.64	55.76	-18.24	74	43.08	27.53	16.25	31.1	394	299	P	H
		2483.52	46.25	-7.75	54	33.57	27.53	16.25	31.1	394	299	A	H
802.11n													H
HT20													H
CH 11	*	2462	108.68	-	-	95.98	27.58	16.23	31.11	160	9	P	V
2462MHz	*	2462	100.9	-	-	88.2	27.58	16.23	31.11	160	9	A	V
		2483.76	61.1	-12.9	74	48.42	27.53	16.25	31.1	160	9	P	V
		2483.52	50.21	-3.79	54	37.53	27.53	16.25	31.1	160	9	A	V
													V
													V

Remark

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

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+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)
		4824	34.37	-39.63	74	52.65	31.25	9.63	59.16	100	0	P	H
													H
802.11n													H
HT20													H
CH 01		4824	34.94	-39.06	74	53.22	31.25	9.63	59.16	100	0	P	V
2412MHz													V
													V
													V
		4874	35.5	-38.5	74	53.78	31.25	9.64	59.17	100	0	P	H
		7311	41.85	-32.15	74	52.82	36.52	11.69	59.18	100	0	P	H
802.11n													H
HT20													H
CH 06		4874	36.17	-37.83	74	54.45	31.25	9.64	59.17	100	0	P	V
2437MHz		7311	42.41	-31.59	74	53.38	36.52	11.69	59.18	100	0	P	V
													V
													V
		4924	35.02	-38.98	74	53.21	31.34	9.65	59.18	100	0	P	H
		7386	40.44	-33.56	74	51.39	36.46	11.74	59.15	100	0	P	H
802.11n													H
HT20													H
CH 11		4924	34.62	-39.38	74	52.81	31.34	9.65	59.18	100	0	P	V
2462MHz		7386	41.14	-32.86	74	52.09	36.46	11.74	59.15	100	0	P	V
													V
													V

Remark

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

2.4GHz 2400~2483.5MHz

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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		2333.415	54.47	-19.53	74	41.53	28.03	16.08	31.17	367	303	P	H
		2390	44.72	-9.28	54	31.95	27.76	16.16	31.15	367	303	A	H
	*	2412	104.94	-	-	92.21	27.68	16.18	31.13	367	303	P	H
	*	2412	94.77	-	-	82.04	27.68	16.18	31.13	367	303	A	H
802.11ax													H
HE20 Full													H
CH 01		2389.485	60.85	-13.15	74	48.08	27.76	16.16	31.15	100	354	P	V
2412MHz		2390	50.69	-3.31	54	37.92	27.76	16.16	31.15	100	354	A	V
	*	2412	107.1	-	-	94.37	27.68	16.18	31.13	100	354	P	V
	*	2412	98.37	-	-	85.64	27.68	16.18	31.13	100	354	A	V
													V
													V
		2375.76	54.17	-19.83	74	41.33	27.85	16.14	31.15	399	304	P	H
		2335.12	43.49	-10.51	54	30.54	28.03	16.09	31.17	399	304	A	H
	*	2437	108.54	-	-	95.82	27.63	16.21	31.12	399	304	P	H
	*	2437	99.21	-	-	86.49	27.63	16.21	31.12	399	304	A	H
802.11ax		2495.92	54.78	-19.22	74	42.09	27.51	16.27	31.09	399	304	P	H
HE20 Full		2483.52	43.31	-10.69	54	30.63	27.53	16.25	31.1	399	304	A	H
CH 06		2335.44	54	-20	74	41.05	28.03	16.09	31.17	138	14	P	V
2437MHz		2311.28	43.51	-10.49	54	30.56	28.08	16.05	31.18	138	14	A	V
	*	2437	110.46	-	-	97.74	27.63	16.21	31.12	138	14	P	V
	*	2437	102.14	-	-	89.42	27.63	16.21	31.12	138	14	A	V
		2493.6	54.53	-19.47	74	41.85	27.51	16.26	31.09	138	14	P	V
		2483.52	43.44	-10.56	54	30.76	27.53	16.25	31.1	138	14	A	V

	*	2462	108.03	-	-	95.33	27.58	16.235	31.11	396	304	P	H
	*	2462	97.26	-	-	84.56	27.58	16.235	31.11	396	304	A	H
		2483.52	57.97	-16.03	74	45.29	27.53	16.255	31.1	396	304	P	H
		2483.52	46.71	-7.29	54	34.03	27.53	16.255	31.1	396	304	A	H
802.11ax													H
HE20 Full													H
CH 11	*	2462	109.96	-	-	97.26	27.58	16.235	31.11	160	15	P	V
2462MHz	*	2462	99.83	-	-	87.13	27.58	16.235	31.11	160	15	A	V
		2484.04	62.09	-11.91	74	49.41	27.53	16.255	31.1	160	15	P	V
		2483.52	49.1	-4.9	54	36.42	27.53	16.255	31.1	160	15	A	V
													V
													V

Remark

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

2.4GHz 2400~2483.5MHz

WIFI 802.11 ax HE20 Full (Harmonic @ 3m)

WIFI Ant. 1+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)
		4824	35.31	-38.69	74	53.59	31.25	9.63	59.16	100	0	P	H
													H
802.11ax													H
HE20 Full													H
CH 01		4824	34.72	-39.28	74	53	31.25	9.63	59.16	100	0	P	V
2412MHz													V
													V
													V
		4874	34.9	-39.1	74	53.18	31.25	9.64	59.17	100	0	P	H
		7311	41.81	-32.19	74	52.78	36.52	11.69	59.18	100	0	P	H
802.11ax													H
HE20 Full													H
CH 06		4874	34.81	-39.19	74	53.09	31.25	9.64	59.17	100	0	P	V
2437MHz		7311	41.57	-32.43	74	52.54	36.52	11.69	59.18	100	0	P	V
													V
													V
		4924	35.01	-38.99	74	53.2	31.34	9.65	59.18	100	0	P	H
		7386	40.59	-33.41	74	51.54	36.46	11.74	59.15	100	0	P	H
802.11ax													H
HE20 Full													H
CH 11		4924	35.65	-38.35	74	53.84	31.34	9.65	59.18	100	0	P	V
2462MHz		7386	40.6	-33.4	74	51.55	36.46	11.74	59.15	100	0	P	V
													V
													V

Remark

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

2.4GHz 2400~2483.5MHz

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

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ax HE20 Partial 26/0 CH 01 2412MHz		2386.44	70.57	-3.43	74	57.79	27.78	16.15	31.15	230	3	P	H
		2390	47.94	-6.06	54	35.17	27.76	16.16	31.15	230	3	A	H
	*	2412	116.46	-	-	103.73	27.68	16.18	31.13	230	3	P	H
	*	2412	110.83	-	-	98.1	27.68	16.18	31.13	230	3	A	H
													H
													H
		2388.12	60.71	-13.29	74	47.94	27.77	16.15	31.15	346	2	P	V
		2390	43.94	-10.06	54	31.17	27.76	16.16	31.15	346	2	A	V
	*	2412	108.28	-	-	95.55	27.68	16.18	31.13	346	2	P	V
	*	2412	102.38	-	-	89.65	27.68	16.18	31.13	346	2	A	V
													V
													V
802.11ax HE20 Partial 26/8 CH 11 2462MHz	*	2462	117.61	-	-	104.91	27.58	16.23	31.11	189	33	P	H
	*	2462	110.32	-	-	97.62	27.58	16.23	31.11	189	33	A	H
		2487.08	70.48	-3.52	74	57.79	27.53	16.26	31.1	189	33	P	H
		2483.52	48.14	-5.86	54	35.46	27.53	16.25	31.1	189	33	A	H
													H
													H
	*	2462	111.51	-	-	98.81	27.58	16.23	31.11	397	354	P	V
	*	2462	104.81	-	-	92.11	27.58	16.23	31.11	397	354	A	V
		2486.96	67.83	-6.17	74	55.14	27.53	16.26	31.1	397	354	P	V
		2483.52	45.49	-8.51	54	32.81	27.53	16.25	31.1	397	354	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

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

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		2386.65	69.56	-4.44	74	56.78	27.78	16.15	31.15	229	3	P	H
		2385.81	47.28	-6.72	54	34.49	27.79	16.15	31.15	229	3	A	H
	*	2412	114.49	-	-	101.76	27.68	16.18	31.13	229	3	P	H
802.11ax	*	2412	107.9	-	-	95.17	27.68	16.18	31.13	229	3	A	H
HE20													H
Partial													H
52/37		2387.595	60.3	-13.7	74	47.53	27.77	16.15	31.15	346	3	P	V
CH 01		2388.96	43.84	-10.16	54	31.06	27.77	16.16	31.15	346	3	A	V
2412MHz	*	2412	107.31	-	-	94.58	27.68	16.18	31.13	346	3	P	V
	*	2412	99.75	-	-	87.02	27.68	16.18	31.13	346	3	A	V
													V
													V
	*	2462	114.35	-	-	101.65	27.58	16.23	31.11	244	38	P	H
	*	2462	107.06	-	-	94.36	27.58	16.23	31.11	244	38	A	H
		2487.36	68.73	-5.27	74	56.04	27.53	16.26	31.1	244	38	P	H
802.11ax		2483.52	45.79	-8.21	54	33.11	27.53	16.25	31.1	244	38	A	H
HE20													H
Partial													H
52/40	*	2462	107.69	-	-	94.99	27.58	16.23	31.11	284	6	P	V
CH 11	*	2462	99.1	-	-	86.4	27.58	16.23	31.11	284	6	A	V
2462MHz		2487.48	62.33	-11.67	74	49.64	27.53	16.26	31.1	284	6	P	V
		2483.52	43.72	-10.28	54	31.04	27.53	16.25	31.1	284	6	A	V
													V
													V

2.4GHz 2400~2483.5MHz

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

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		2386.44	70.14	-3.86	74	57.36	27.78	16.15	31.15	209	1	P	H
		2390	49.06	-4.94	54	36.29	27.76	16.16	31.15	209	1	A	H
	*	2412	112.7	-	-	99.97	27.68	16.18	31.13	209	1	P	H
802.11ax	*	2412	105.99	-	-	93.26	27.68	16.18	31.13	209	1	A	H
HE20													H
Partial													H
106/53		2386.965	62.48	-11.52	74	49.7	27.78	16.15	31.15	395	333	P	V
CH 01		2390	44.74	-9.26	54	31.97	27.76	16.16	31.15	395	333	A	V
2412MHz	*	2412	106.5	-	-	93.77	27.68	16.18	31.13	395	333	P	V
	*	2412	98.96	-	-	86.23	27.68	16.18	31.13	395	333	A	V
													V
													V
	*	2462	112.19	-	-	99.49	27.58	16.23	31.11	242	39	P	H
	*	2462	104.58	-	-	91.88	27.58	16.23	31.11	242	39	A	H
		2487.52	69.03	-4.97	74	56.35	27.52	16.26	31.1	242	39	P	H
802.11ax		2488	47.28	-6.72	54	34.6	27.52	16.26	31.1	242	39	A	H
HE20													H
Partial													H
106/54	*	2462	104.13	-	-	91.43	27.58	16.23	31.11	283	9	P	V
CH 11	*	2462	97.15	-	-	84.45	27.58	16.23	31.11	283	9	A	V
2462MHz		2487.48	61.16	-12.84	74	48.47	27.53	16.26	31.1	283	9	P	V
		2483.52	43.94	-10.06	54	31.26	27.53	16.25	31.1	283	9	A	V
													V
													V

2.4GHz 2400~2483.5MHz

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

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		2390	56.36	-17.64	74	43.59	27.76	16.16	31.15	400	312	P	H
		2390	46.28	-7.72	54	33.51	27.76	16.16	31.15	400	312	A	H
	*	2422	99.96	-	-	87.24	27.66	16.19	31.13	400	312	P	H
	*	2422	91.12	-	-	78.4	27.66	16.19	31.13	400	312	A	H
802.11ax		2487.28	53.51	-20.49	74	40.82	27.53	16.26	31.1	400	312	P	H
HE40 Full		2483.52	43.28	-10.72	54	30.6	27.53	16.25	31.1	400	312	A	H
CH 03		2390	62.64	-11.36	74	49.87	27.76	16.16	31.15	119	355	P	V
2422MHz		2390	50.28	-3.72	54	37.51	27.76	16.16	31.15	119	355	A	V
	*	2422	105.53	-	-	92.81	27.66	16.19	31.13	119	355	P	V
	*	2422	95.43	-	-	82.71	27.66	16.19	31.13	119	355	A	V
		2485.92	53.65	-20.35	74	40.96	27.53	16.26	31.1	119	355	P	V
		2483.6	43.37	-10.63	54	30.69	27.53	16.25	31.1	119	355	A	V
		2389.68	57.27	-16.73	74	44.5	27.76	16.16	31.15	400	292	P	H
		2390	45.37	-8.63	54	32.6	27.76	16.16	31.15	400	292	A	H
	*	2437	104.24	-	-	91.52	27.63	16.21	31.12	400	292	P	H
	*	2437	93.92	-	-	81.2	27.63	16.21	31.12	400	292	A	H
802.11ax		2483.6	55.1	-18.9	74	42.42	27.53	16.25	31.1	400	292	P	H
HE40 Full		2483.52	45.29	-8.71	54	32.61	27.53	16.25	31.1	400	292	A	H
CH 06		2389.68	59.43	-14.57	74	46.66	27.76	16.16	31.15	134	12	P	V
2437MHz		2390	49.13	-4.87	54	36.36	27.76	16.16	31.15	134	12	A	V
	*	2437	106.16	-	-	93.44	27.63	16.21	31.12	134	12	P	V
	*	2437	97.48	-	-	84.76	27.63	16.21	31.12	134	12	A	V
		2483.52	58.94	-15.06	74	46.26	27.53	16.25	31.1	134	12	P	V
		2483.52	47.45	-6.55	54	34.77	27.53	16.25	31.1	134	12	A	V

		2366.48	54.26	-19.74	74	41.39	27.9	16.13	31.16	397	308	P	H
		2343.6	43.45	-10.55	54	30.51	28.01	16.1	31.17	397	308	A	H
	*	2452	101.94	-	-	89.23	27.6	16.22	31.11	397	308	P	H
	*	2452	92.93	-	-	80.22	27.6	16.22	31.11	397	308	A	H
802.11ax		2485.96	60.12	-13.88	74	47.43	27.53	16.26	31.1	397	308	P	H
HE40 Full		2483.52	46.77	-7.23	54	34.09	27.53	16.25	31.1	397	308	A	H
CH 9		2310.32	54.43	-19.57	74	41.48	28.08	16.05	31.18	111	12	P	V
2452MHz		2315.6	43.46	-10.54	54	30.51	28.07	16.06	31.18	111	12	A	V
	*	2452	104.96	-	-	92.25	27.6	16.22	31.11	111	12	P	V
	*	2452	96.45	-	-	83.74	27.6	16.22	31.11	111	12	A	V
		2486.24	63.82	-10.18	74	51.13	27.53	16.26	31.1	111	12	P	V
		2483.52	50.6	-3.4	54	37.92	27.53	16.25	31.1	111	12	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11 ax HE40 Full (Harmonic @ 3m)

WIFI Ant. 1+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)
		4844	35.84	-38.16	74	54.09	31.29	9.63	59.17	100	0	P	H
		7266	41.62	-32.38	74	52.65	36.5	11.66	59.19	100	0	P	H
802.11ax													H
HE40 Full													H
CH 03		4844	35.47	-38.53	74	53.72	31.29	9.63	59.17	100	0	P	V
2422MHz		7266	41.33	-32.67	74	52.36	36.5	11.66	59.19	100	0	P	V
													V
													V
		4874	34.37	-39.63	74	52.65	31.25	9.64	59.17	100	0	P	H
		7311	41.18	-32.82	74	52.15	36.52	11.69	59.18	100	0	P	H
802.11ax													H
HE40 Full													H
CH 06		4874	35.11	-38.89	74	53.39	31.25	9.64	59.17	100	0	P	V
2437MHz		7311	41.04	-32.96	74	52.01	36.52	11.69	59.18	100	0	P	V
													V
													V
		4904	34.7	-39.3	74	53.02	31.22	9.64	59.18	100	0	P	H
		7356	41.66	-32.34	74	52.52	36.58	11.72	59.16	100	0	P	H
802.11ax													H
HE40 Full													H
CH 9		4904	35.93	-38.07	74	54.25	31.22	9.64	59.18	100	0	P	V
2452MHz		7356	40.84	-33.16	74	51.7	36.58	11.72	59.16	100	0	P	V
													V
													V

Remark

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

2.4GHz 2400~2483.5MHz

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

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		2388.4	60.48	-13.52	74	47.71	27.77	16.15	31.15	200	30	P	H
		2390	47.81	-6.19	54	35.04	27.76	16.16	31.15	200	30	A	H
	*	2422	108.38	-	-	95.66	27.66	16.19	31.13	200	30	P	H
802.11ax	*	2422	98.12	-	-	85.4	27.66	16.19	31.13	200	30	A	H
HE40		2494.72	53.86	-20.14	74	41.18	27.51	16.26	31.09	200	30	P	H
Partial		2485.44	43.54	-10.46	54	30.85	27.53	16.26	31.1	200	30	A	H
242/61		2323.6	54.86	-19.14	74	41.92	28.05	16.07	31.18	393	337	P	V
CH 03		2390	44.28	-9.72	54	31.51	27.76	16.16	31.15	393	337	A	V
2422MHz	*	2422	101.05	-	-	88.33	27.66	16.19	31.13	393	337	P	V
	*	2422	90.94	-	-	78.22	27.66	16.19	31.13	393	337	A	V
		2495.6	53.62	-20.38	74	40.93	27.51	16.27	31.09	393	337	P	V
		2485.92	43.41	-10.59	54	30.72	27.53	16.26	31.1	393	337	A	V
		2315.44	54.68	-19.32	74	41.73	28.07	16.06	31.18	239	10	P	H
		2326.8	43.76	-10.24	54	30.82	28.05	16.07	31.18	239	10	A	H
	*	2452	107.1	-	-	94.39	27.6	16.22	31.11	239	10	P	H
802.11ax	*	2452	96.24	-	-	83.53	27.6	16.22	31.11	239	10	A	H
HE40		2483.76	63.3	-10.7	74	50.62	27.53	16.25	31.1	239	10	P	H
Partial		2484.32	50.01	-3.99	54	37.33	27.53	16.25	31.1	239	10	A	H
242/62		2348.72	54.86	-19.14	74	41.93	28	16.1	31.17	351	354	P	V
CH 09		2312.08	43.69	-10.31	54	30.73	28.08	16.06	31.18	351	354	A	V
2452MHz	*	2452	103.94	-	-	91.23	27.6	16.22	31.11	351	354	P	V
	*	2452	92.02	-	-	79.31	27.6	16.22	31.11	351	354	A	V
		2484.32	59.9	-14.1	74	47.22	27.53	16.25	31.1	351	354	P	V
		2483.68	45.79	-8.21	54	33.11	27.53	16.25	31.1	351	354	A	V

Emission below 1GHz

2.4GHz WIFI 802. 11ax(HE20) (LF)

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+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11ax (HE20) LF		30.97	23.57	-16.43	40	30.46	24.81	0.72	32.42	-	-	P	H
		177.44	22.76	-20.74	43.5	38.24	15.16	1.9	32.54	-	-	P	H
		298.69	36.84	-9.16	46	47.5	19.27	2.28	32.21	100	0	P	H
		325.85	32.93	-13.07	46	43.08	19.63	2.35	32.13	-	-	P	H
		406.36	27.64	-18.36	46	34.88	22.13	2.6	31.97	-	-	P	H
		718.7	33.83	-12.17	46	35.16	27.12	3.47	31.92	-	-	P	H
													H
													H
													H
													H
													H
													H
		35.82	26.04	-13.96	40	35.59	22.13	0.77	32.45	-	-	P	V
		82.38	23.79	-16.21	40	41.21	13.78	1.24	32.44	-	-	P	V
		298.69	31.23	-14.77	46	41.89	19.27	2.28	32.21	-	-	P	V
		325.85	31.86	-14.14	46	42.01	19.63	2.35	32.13	-	-	P	V
		352.04	25.8	-20.2	46	34.94	20.48	2.43	32.05	-	-	P	V
		718.7	39.62	-6.38	46	40.95	27.12	3.47	31.92	100	0	P	V
													V
													V
													V
													V
													V
													V

Remark

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

<WPC Mode>

2.4GHz 2400~2483.5MHz

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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		2388.96	57.81	-16.19	74	45.03	27.77	16.16	31.15	100	176	P	H
		2390	46.42	-7.58	54	33.65	27.76	16.16	31.15	100	176	A	H
	*	2412	104.74	-	-	92.01	27.68	16.18	31.13	100	176	P	H
	*	2412	95.09	-	-	82.36	27.68	16.18	31.13	100	176	A	H
802.11ax													H
HE20 Full													H
CH 01		2390	59.22	-14.78	74	46.45	27.76	16.16	31.15	100	70	P	V
2412MHz		2390	47.01	-6.99	54	34.24	27.76	16.16	31.15	100	70	A	V
	*	2412	104.47	-	-	91.74	27.68	16.18	31.13	100	70	P	V
	*	2412	94.81	-	-	82.08	27.68	16.18	31.13	100	70	A	V
													V
													V

Remark

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

2.4GHz 2400~2483.5MHz

WIFI 802.11 ax HE20 Full (Harmonic @ 3m)

WIFI Ant. 1+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)
		4824	35.31	-38.69	74	53.59	31.25	9.63	59.16	100	0	P	H
													H
802.11ax													H
HE20 Full													H
CH 01		4824	34.72	-39.28	74	53	31.25	9.63	59.16	100	0	P	V
2412MHz													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

2.4GHz WIFI 802. 11ax(HE20) (LF)

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+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		55.22	31.25	-8.75	40	50.3	12.48	0.99	32.52	100	0	P	H
		101.78	32.65	-10.85	43.5	47.42	16.26	1.35	32.38	-	-	P	H
		168.71	24.71	-18.79	43.5	39.67	15.73	1.83	32.52	-	-	P	H
		217.21	24.65	-21.35	46	40.08	15.08	2.01	32.52	-	-	P	H
		217.21	24.65	-21.35	46	40.08	15.08	2.01	32.52	-	-	P	H
		714.82	33.58	-12.42	46	35.14	26.89	3.46	31.91	-	-	P	H
													H
													H
													H
													H
2.4GHz													H
802.11ax													H
(HE20)		39.7	33.55	-6.45	40	45.17	20.04	0.82	32.48	100	0	P	V
LF		55.22	32.93	-7.07	40	51.98	12.48	0.99	32.52	-	-	P	V
		100.81	34.53	-8.97	43.5	49.49	16.08	1.34	32.38	-	-	P	V
		217.21	22.41	-23.59	46	37.84	15.08	2.01	32.52	-	-	P	V
		717.73	32.09	-13.91	46	33.48	27.06	3.47	31.92	-	-	P	V
		968.96	34.86	-19.14	54	30.34	31.22	4.12	30.82	-	-	P	V
													V
													V
													V
													V
													V
													V

Remark

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

<TXBF Mode>

2.4GHz 2400~2483.5MHz

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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		2389.905	62.1	-11.9	74	49.33	27.76	16.16	31.15	147	28	P	H
		2389.905	48.01	-5.99	54	35.24	27.76	16.16	31.15	147	28	A	H
	*	2412	106.42	-	-	93.69	27.68	16.18	31.13	147	28	P	H
	*	2412	94.21	-	-	81.48	27.68	16.18	31.13	147	28	A	H
802.11ax													H
HE20 Full													H
CH 01		2389.905	54.53	-19.47	74	41.76	27.76	16.16	31.15	400	9	P	V
2412MHz		2390	43.84	-10.16	54	31.07	27.76	16.16	31.15	400	9	A	V
	*	2412	97.59	-	-	84.86	27.68	16.18	31.13	400	9	P	V
	*	2412	84.98	-	-	72.25	27.68	16.18	31.13	400	9	A	V
													V
													V
		2353.68	54.57	-19.43	74	41.64	27.98	16.11	31.16	222	17	P	H
		2336.08	43.6	-10.4	54	30.65	28.03	16.09	31.17	222	17	A	H
	*	2437	107.09	-	-	94.37	27.63	16.21	31.12	222	17	P	H
	*	2437	93.64	-	-	80.92	27.63	16.21	31.12	222	17	A	H
802.11ax		2486.59	54.39	-19.61	74	41.7	27.53	16.26	31.1	222	17	P	H
HE20 Full		2485.15	43.37	-10.63	54	30.68	27.53	16.26	31.1	222	17	A	H
CH 06		2327.6	54.88	-19.12	74	41.94	28.04	16.08	31.18	385	6	P	V
2437MHz		2310.8	43.58	-10.42	54	30.63	28.08	16.05	31.18	385	6	A	V
	*	2437	98.6	-	-	85.88	27.63	16.21	31.12	385	6	P	V
	*	2437	85.95	-	-	73.23	27.63	16.21	31.12	385	6	A	V
		2489.74	54.49	-19.51	74	41.81	27.52	16.26	31.1	385	6	P	V
		2484.79	43.31	-10.69	54	30.63	27.53	16.25	31.1	385	6	A	V

	*	2462	108.12	-	-	95.42	27.58	16.23	31.11	251	42	P	H
	*	2462	93.76	-	-	81.06	27.58	16.23	31.11	251	42	A	H
		2483.6	65.91	-8.09	74	53.23	27.53	16.25	31.1	251	42	P	H
		2483.52	47.72	-6.28	54	35.04	27.53	16.25	31.1	251	42	A	H
802.11ax													H
HE20 Full													H
CH 11	*	2462	99.66	-	-	86.96	27.58	16.23	31.11	199	21	P	V
2462MHz	*	2462	85.82	-	-	73.12	27.58	16.23	31.11	199	21	A	V
		2484.88	54.04	-19.96	74	41.36	27.53	16.25	31.1	199	21	P	V
		2483.52	44.03	-9.97	54	31.35	27.53	16.25	31.1	199	21	A	V
													V
													V

Remark

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

2.4GHz 2400~2483.5MHz

WIFI 802.11 ax HE20 Full RU (Harmonic @ 3m)

WIFI Ant. 1+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)
		4824	34.66	-39.34	74	52.94	31.25	9.63	59.16	100	0	P	H
													H
802.11ax													H
HE20 Full													H
CH 01		4824	35.05	-38.95	74	53.33	31.25	9.63	59.16	100	0	P	V
2412MHz													V
													V
													V
		4874	36.41	-37.59	74	54.69	31.25	9.64	59.17	100	0	P	H
		7311	42.12	-31.88	74	53.09	36.52	11.69	59.18	100	0	P	H
802.11ax													H
HE20 Full													H
CH 06		4874	36.11	-37.89	74	54.39	31.25	9.64	59.17	100	0	P	V
2437MHz		7311	42.64	-31.36	74	53.61	36.52	11.69	59.18	100	0	P	V
													V
													V
		4924	35.29	-38.71	74	53.48	31.34	9.65	59.18	100	0	P	H
		7386	40.4	-33.6	74	51.35	36.46	11.74	59.15	100	0	P	H
802.11ax													H
HE20 Full													H
CH 11		4924	34.82	-39.18	74	53.01	31.34	9.65	59.18	100	0	P	V
2462MHz		7386	40.84	-33.16	74	51.79	36.46	11.74	59.15	100	0	P	V
													V
													V

Remark

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

Emission below 1GHz

2.4GHz WIFI 802. 11ax(HE20) (LF)

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+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		47.46	26.07	-13.93	40	42.45	15.24	0.9	32.52	-	-	P	H
		203.63	29.35	-14.15	43.5	44.92	15.06	1.95	32.58	-	-	P	H
		260.86	26.48	-19.52	46	36.91	19.76	2.17	32.36	-	-	P	H
		369.5	33.06	-12.94	46	41.8	20.77	2.49	32	-	-	P	H
		372.41	33.28	-12.72	46	41.94	20.83	2.5	31.99	-	-	P	H
		913.67	33.31	-12.69	46	31.62	29.24	4	31.55	100	0	P	H
													H
													H
													H
													H
2.4GHz													H
802.11ax													H
(HE20)		33.88	21.8	-18.2	40	30.86	22.63	0.75	32.44	-	-	P	V
LF		165.8	22.57	-20.93	43.5	37.38	15.89	1.82	32.52	-	-	P	V
		204.6	25.45	-18.05	43.5	40.99	15.07	1.96	32.57	-	-	P	V
		713.85	34.46	-11.54	46	36.26	26.65	3.46	31.91	100	0	P	V
		720.64	33.48	-12.52	46	35	26.94	3.47	31.93	-	-	P	V
		889.42	33.7	-12.3	46	32.58	28.96	3.94	31.78	-	-	P	V
													V
													V
													V
													V
													V
													V

Remark

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

Note symbol

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

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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

1. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)
2. Level(dBμV/m) =

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

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

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 43.54 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

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

Appendix D. Radiated Spurious Emission Plots

Test Engineer :	Leo Lee, Mancy Chou, and Bigshow Wang	**Temperature :**	23.9~25.2°C
		Relative Humidity :	53~60%

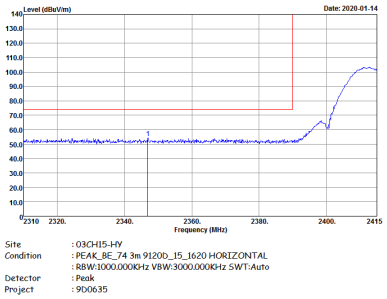
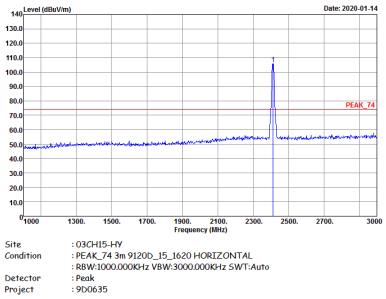
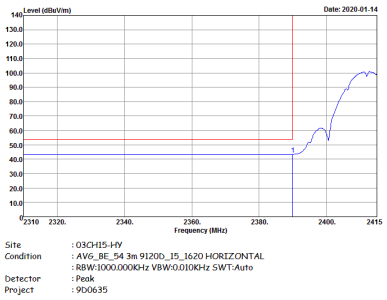
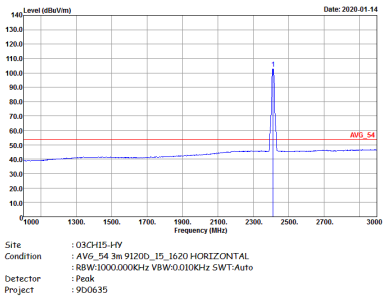
Note symbol

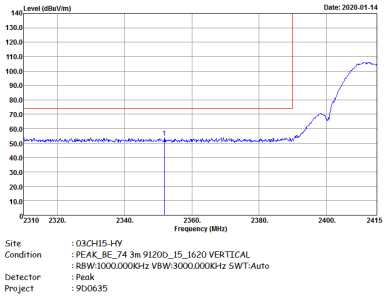
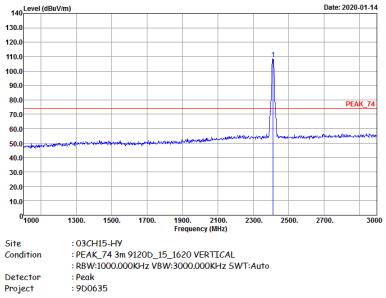
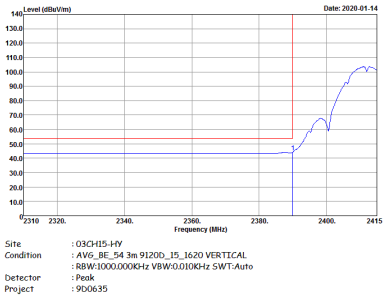
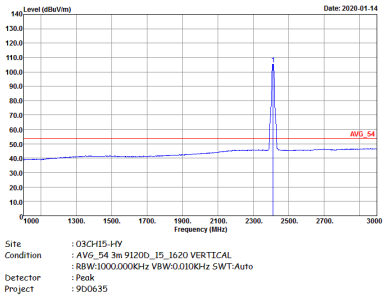
-L	**Low channel location**
-R	**High channel location**

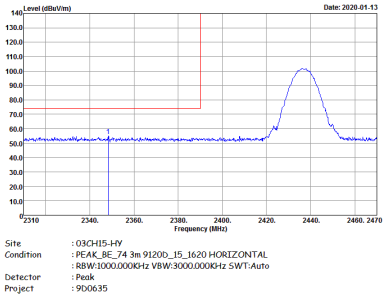
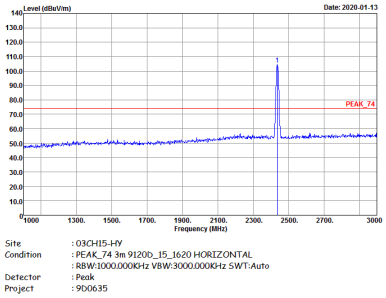
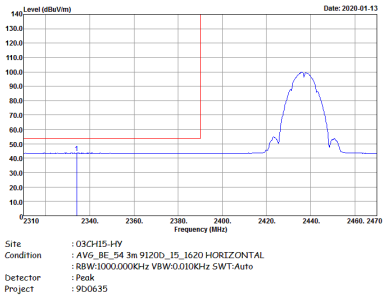
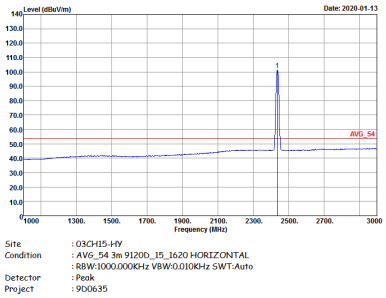
<CDD Mode>

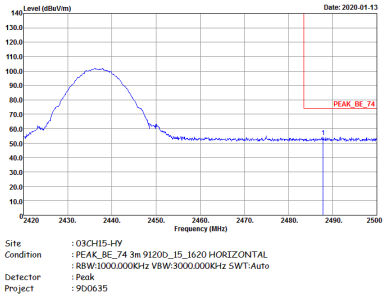
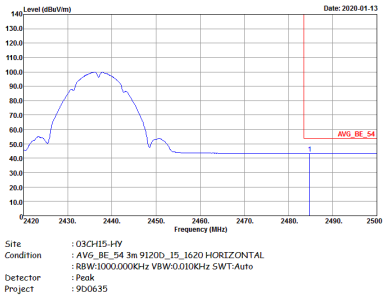
2.4GHz 2400~2483.5MHz

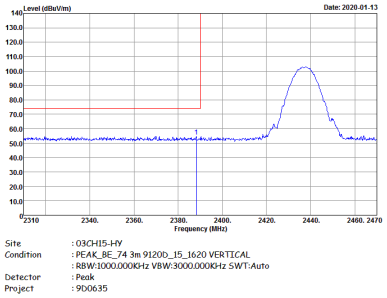
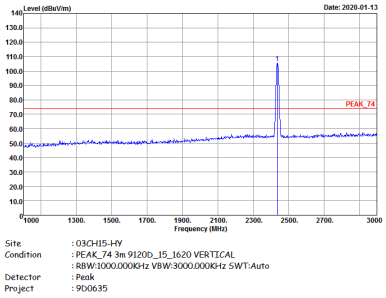
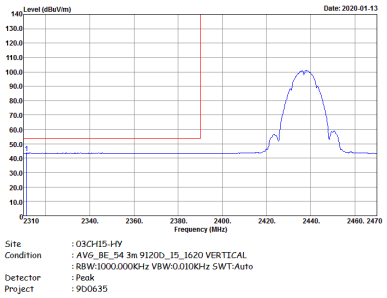
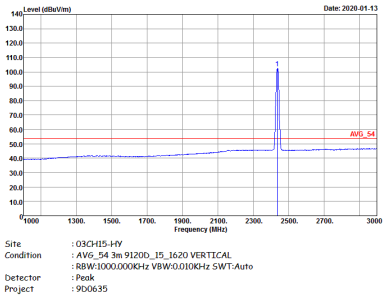
WIFI 802.11b (Band Edge @ 3m)

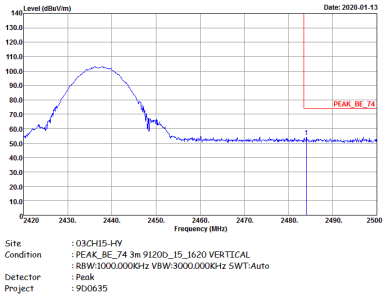
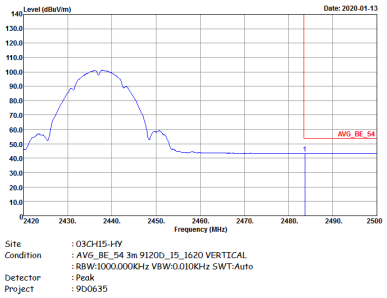
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1+2	Horizontal	Fundamental
Peak		
Avg.		

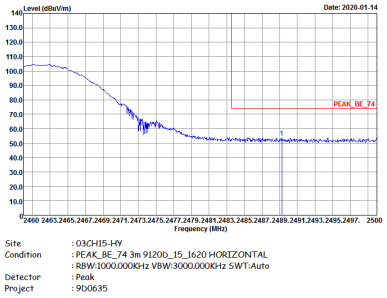
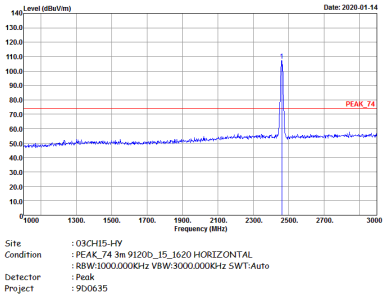
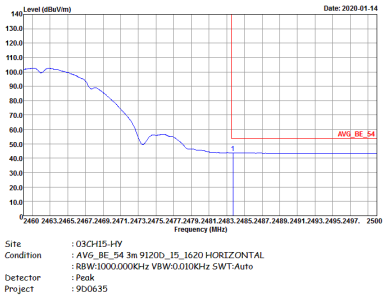
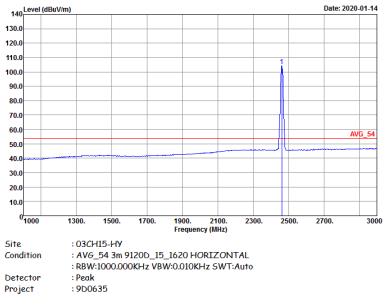
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1+2	Vertical	Fundamental
Peak		
Avg.		

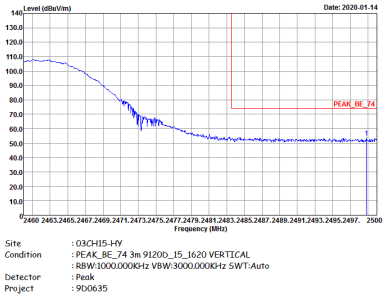
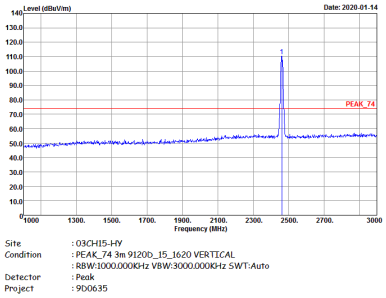
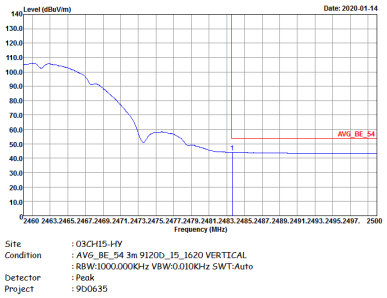
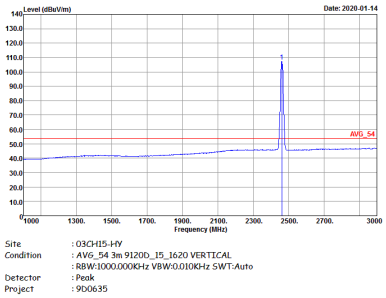
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		

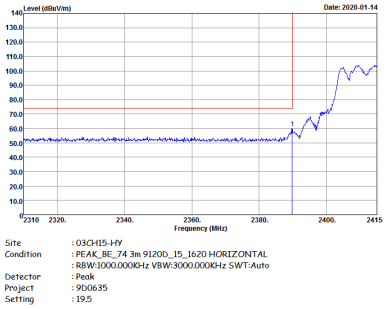
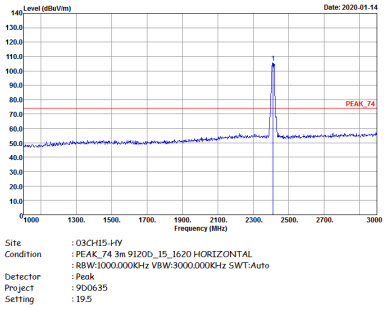
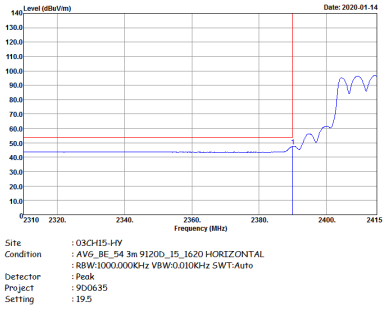
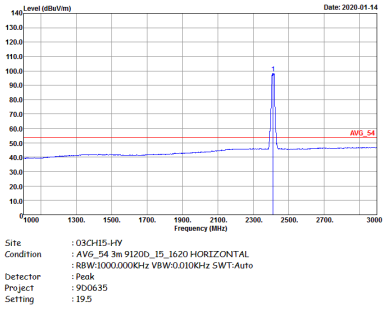
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

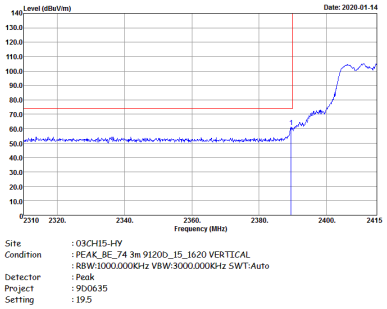
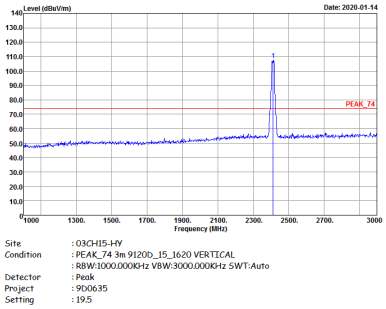
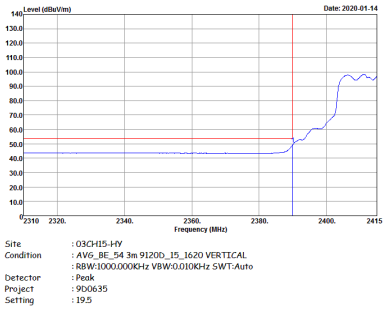
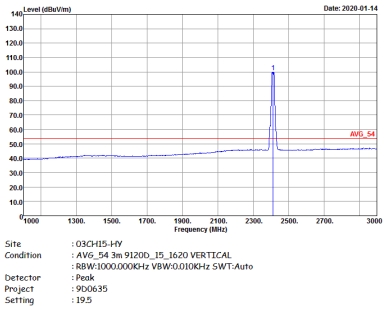
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE_74 3m 9120D_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 9D0635	 Site : 03CH15-HY Condition : PEAK_74 3m 9120D_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 9D0635
Avg.	 Site : 03CH15-HY Condition : AVG_BE_54 3m 9120D_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 9D0635	 Site : 03CH15-HY Condition : AVG_54 3m 9120D_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 9D0635

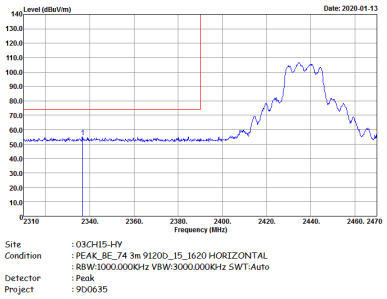
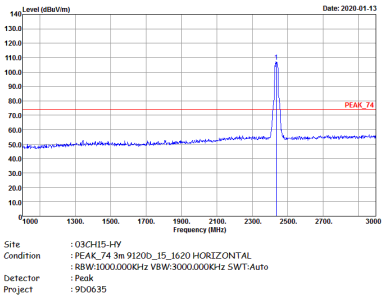
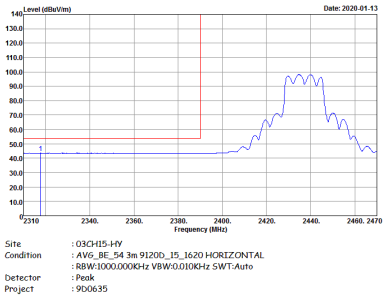
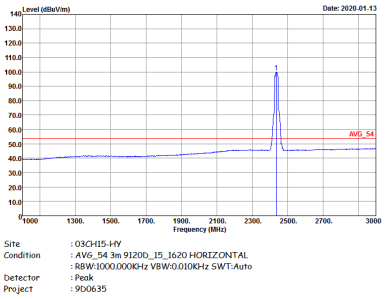
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE_74 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 9D0635	 Site : 03CH15-HY Condition : PEAK_74 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 9D0635
Avg.	 Site : 03CH15-HY Condition : AVG_BE_54 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 9D0635	 Site : 03CH15-HY Condition : AVG_54 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 9D0635

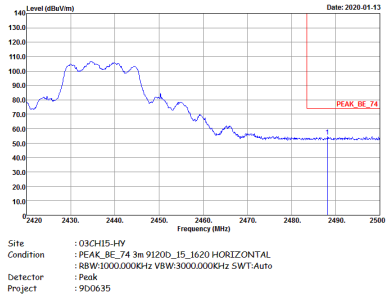
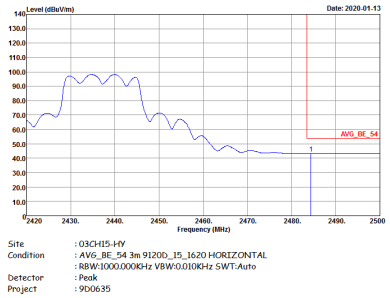
2.4GHz 2400~2483.5MHz

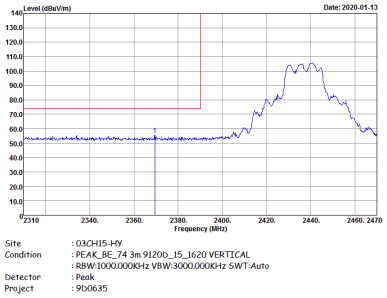
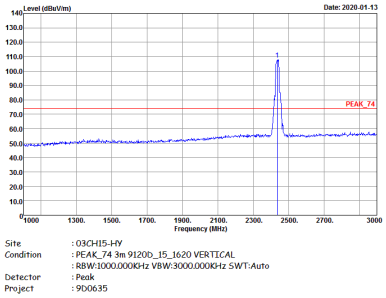
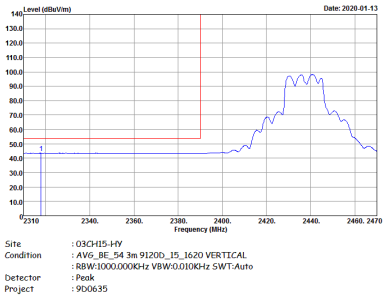
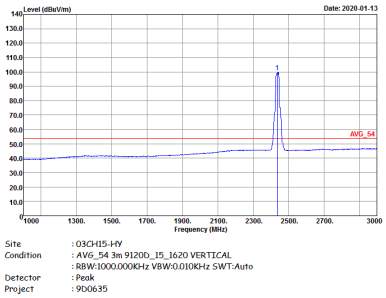
WIFI 802.11g (Band Edge @ 3m)

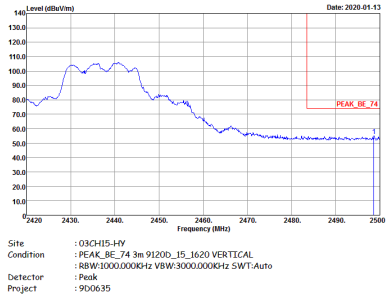
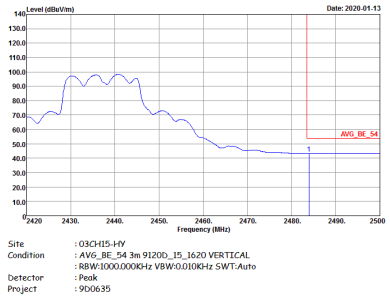
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1+2	Horizontal	Fundamental
Peak		
Avg.		

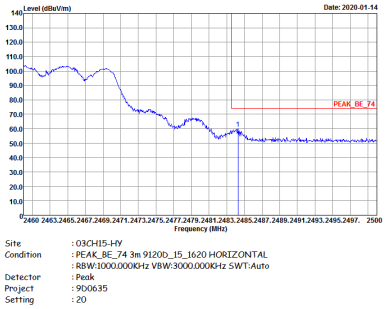
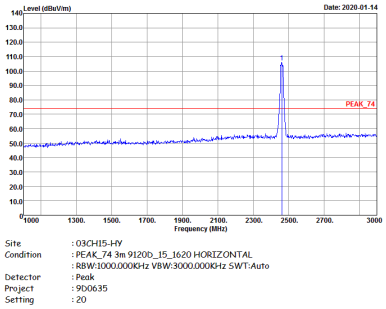
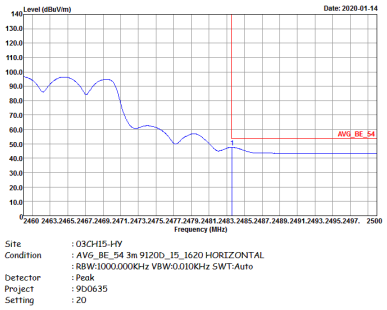
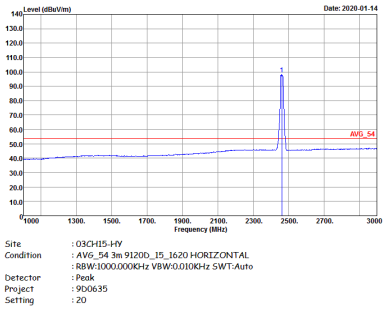
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1+2	Vertical	Fundamental
Peak		
Avg.		

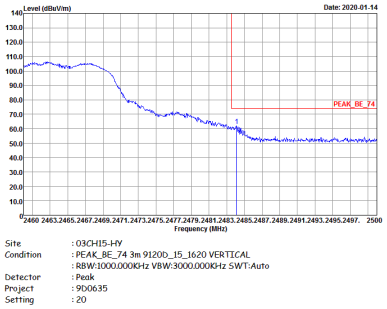
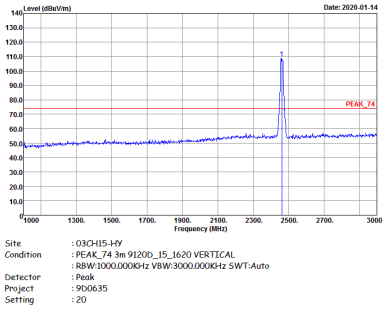
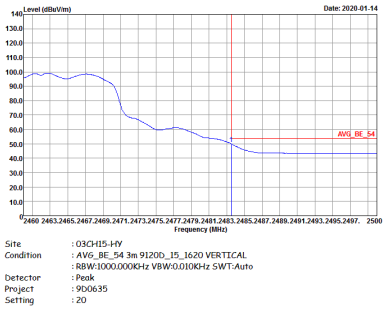
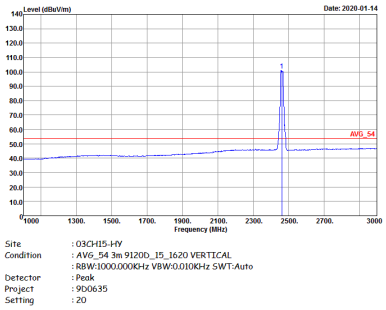
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		

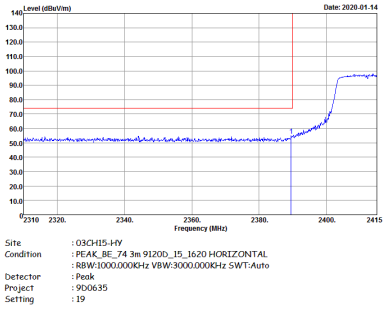
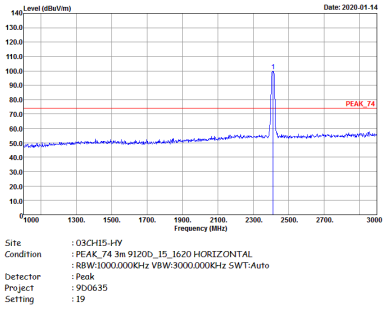
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1+2	Vertical	Fundamental
Peak		Left Blank
Avg.		Left Blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE_74 3m 9120D_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 9D0635 Setting : 20	 Site : 03CH15-HY Condition : PEAK_74 3m 9120D_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 9D0635 Setting : 20
Avg.	 Site : 03CH15-HY Condition : AVG_BE_54 3m 9120D_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 9D0635 Setting : 20	 Site : 03CH15-HY Condition : AVG_54 3m 9120D_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 9D0635 Setting : 20

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE_74 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 9D0635 Setting : 20	 Site : 03CH15-HY Condition : PEAK_74 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 9D0635 Setting : 20
Avg.	 Site : 03CH15-HY Condition : AVG_BE_54 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 9D0635 Setting : 20	 Site : 03CH15-HY Condition : AVG_54 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto Detector : Peak Project : 9D0635 Setting : 20

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1+2	Horizontal	Fundamental
Peak		
Avg.