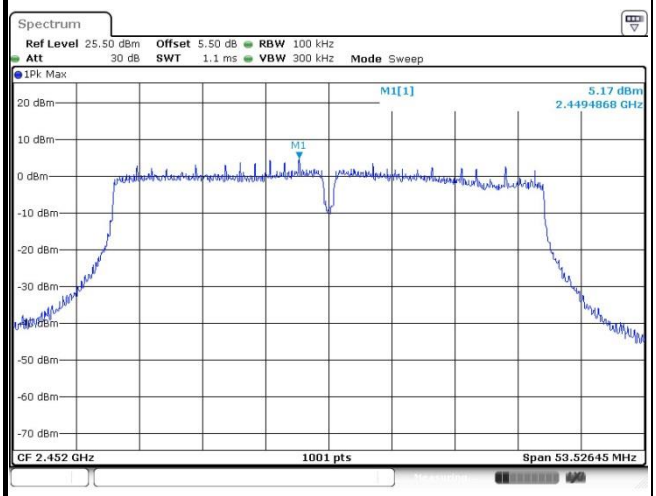
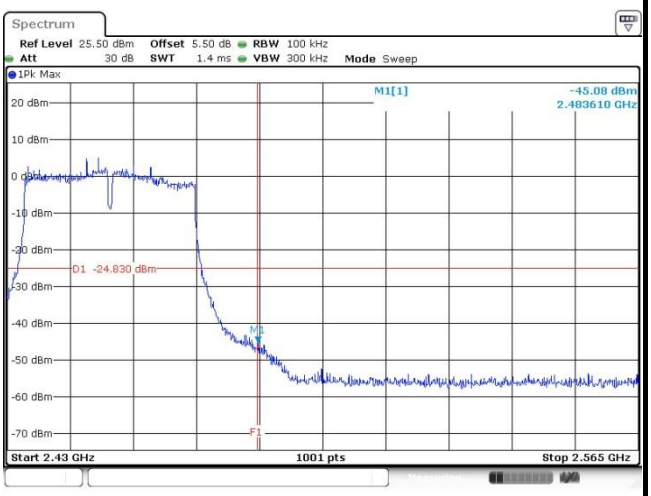
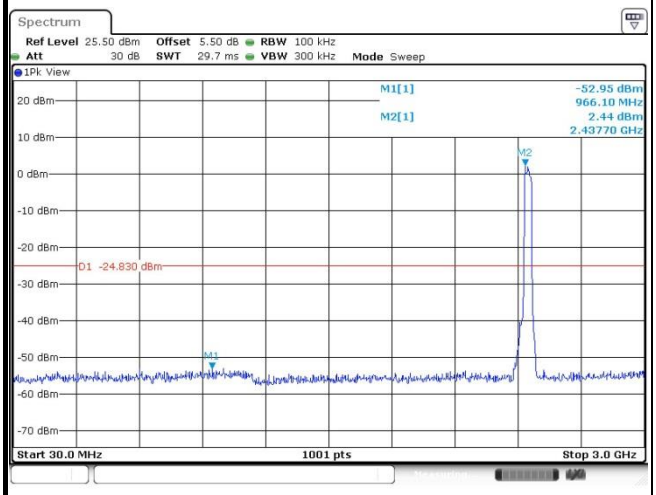
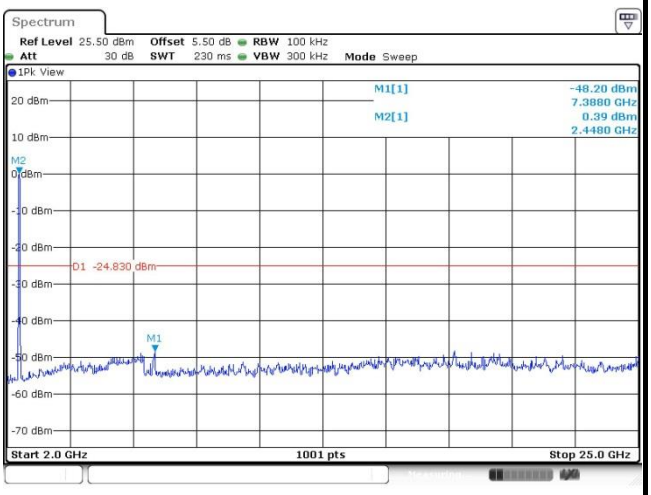
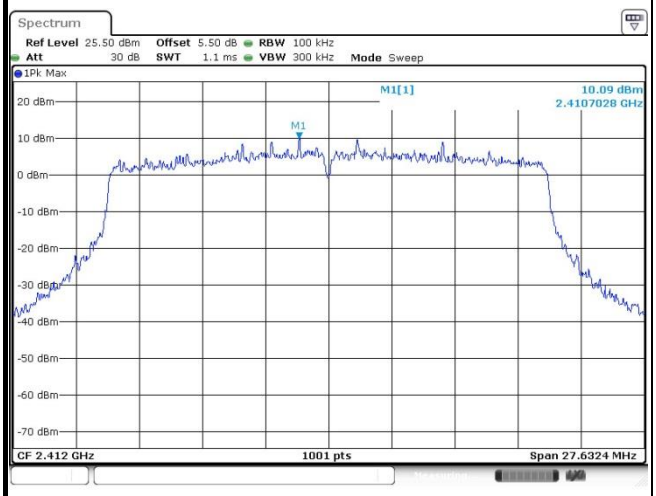
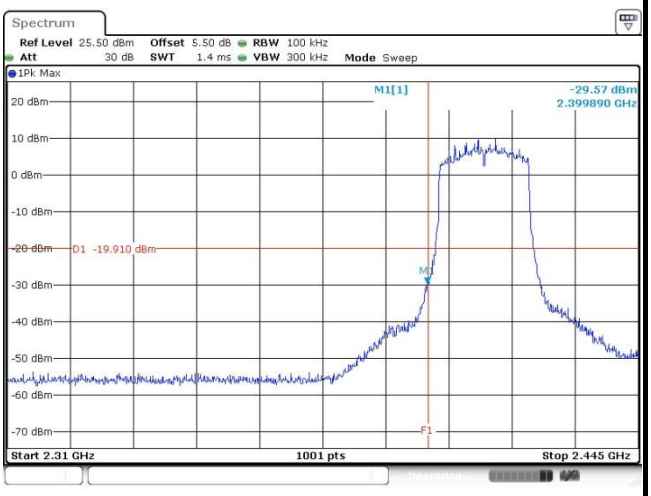
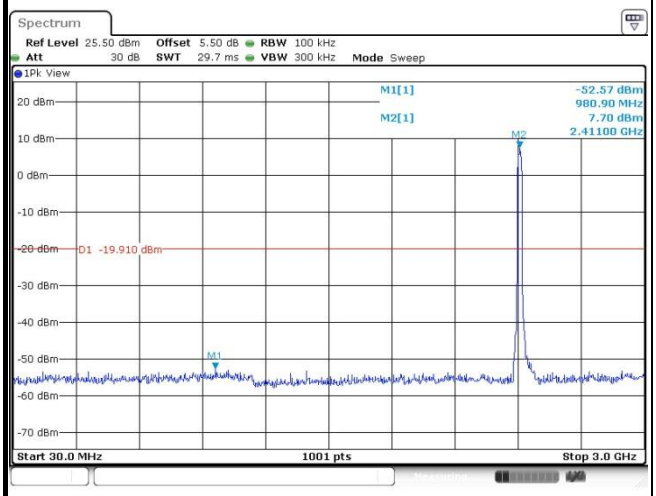
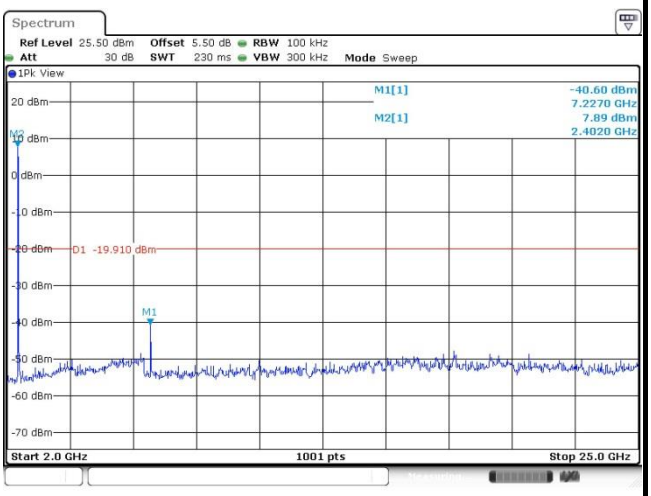
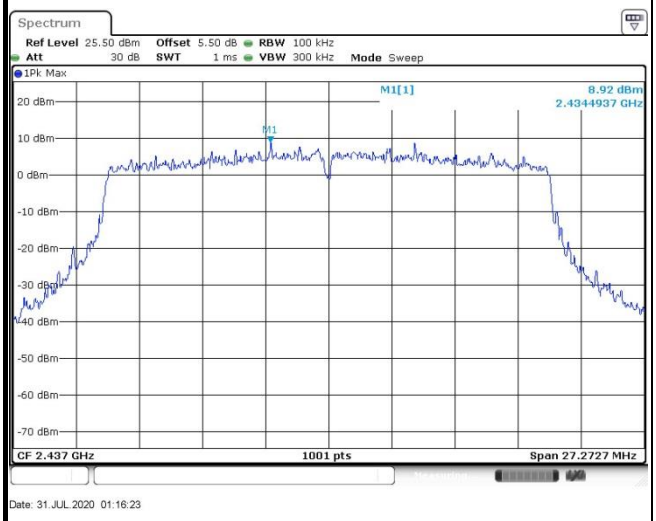
Test Mode :	802.11n HT40	Test Channel :	09

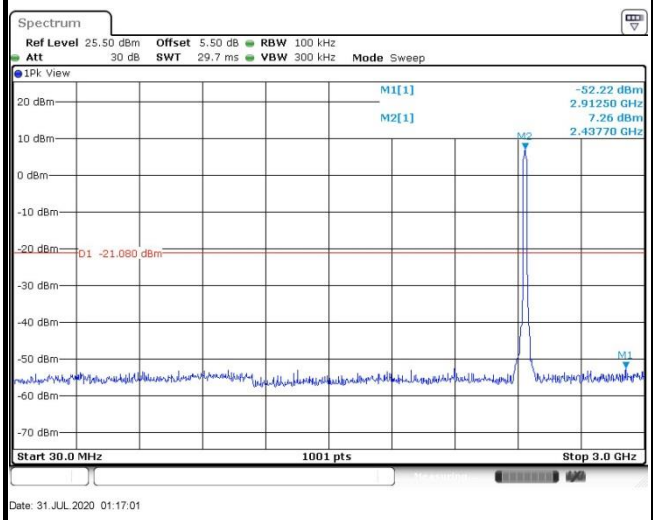
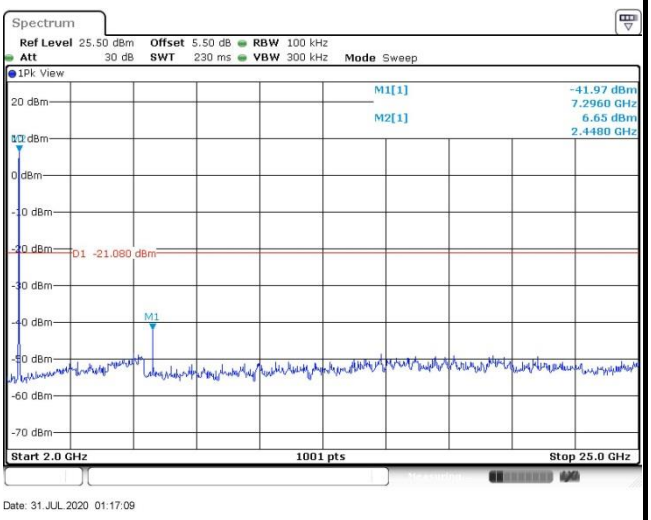
100kHz PSD reference Level	Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11ax HE20	Test Channel :	01

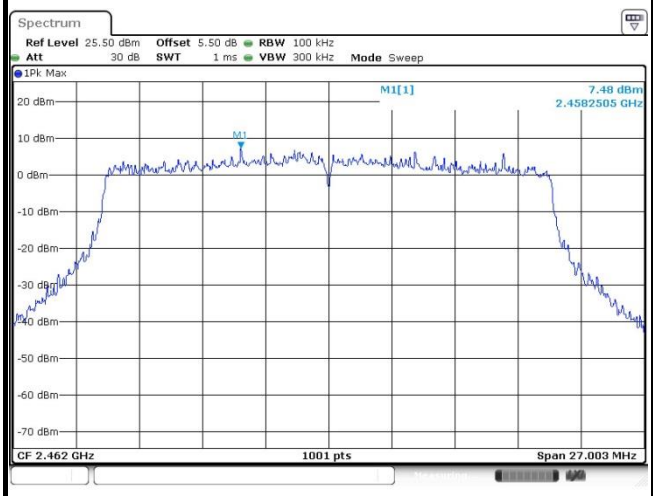
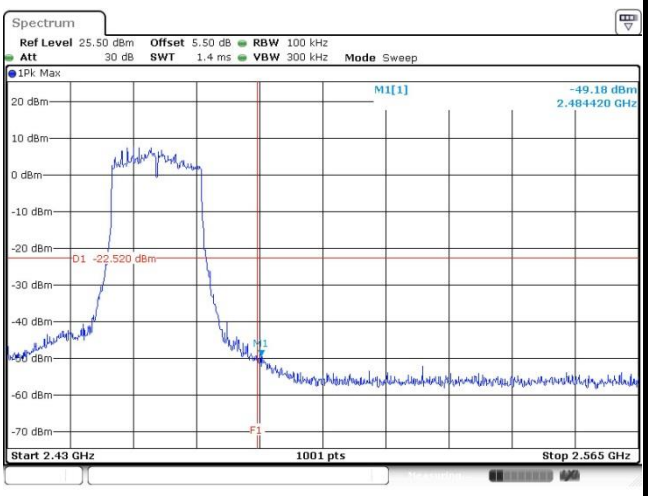
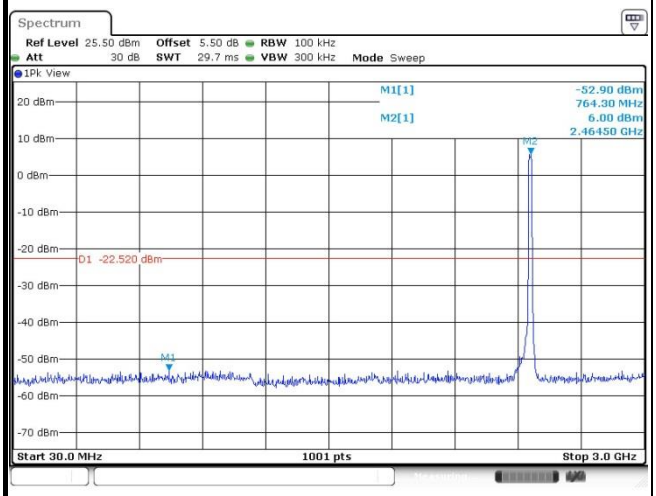
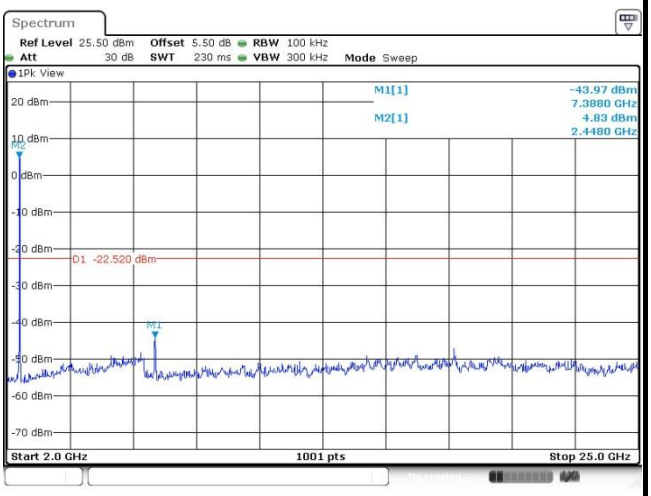
100kHz PSD reference Level	Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11ax HE20	Test Channel :	06

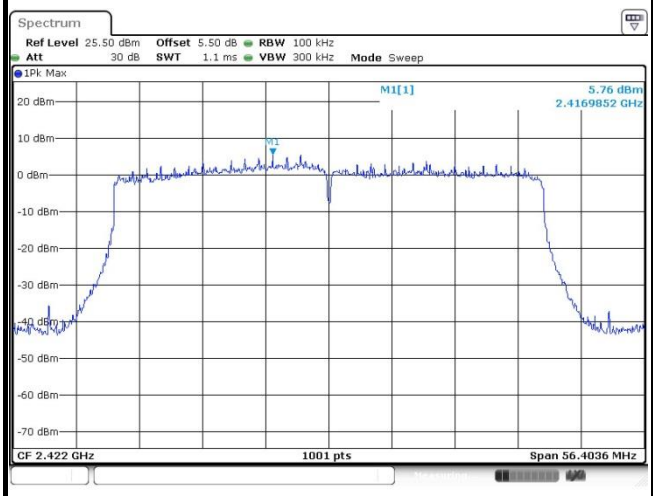
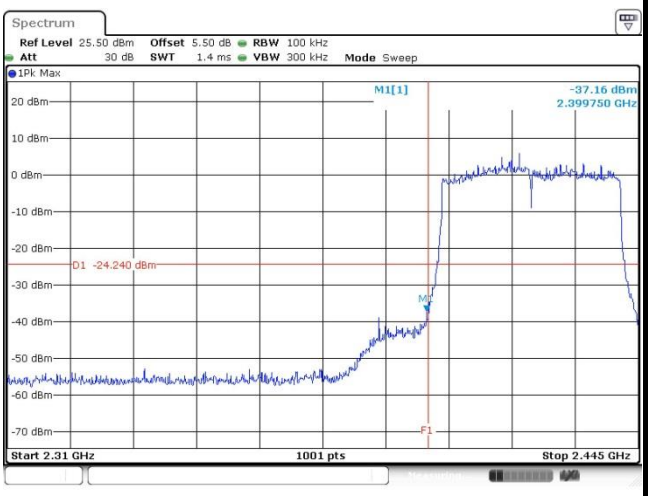
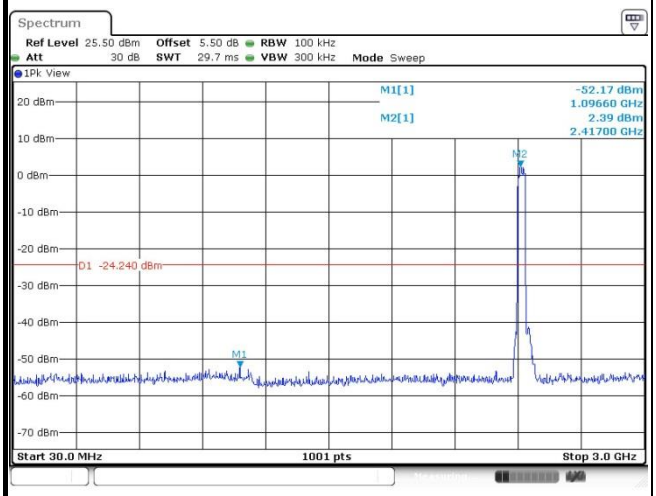
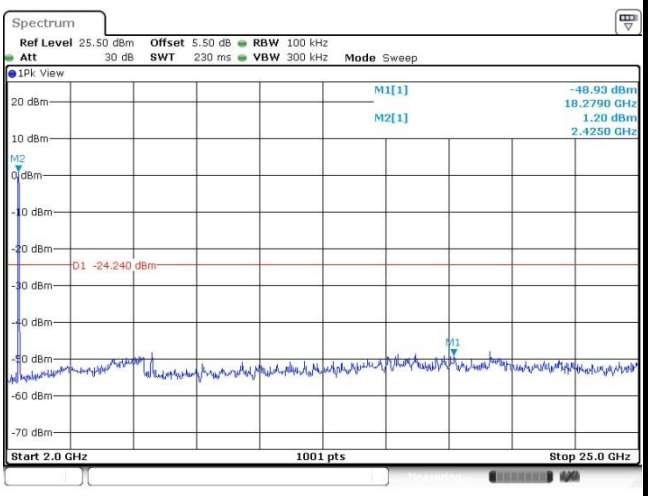
100kHz PSD reference Level	
	

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

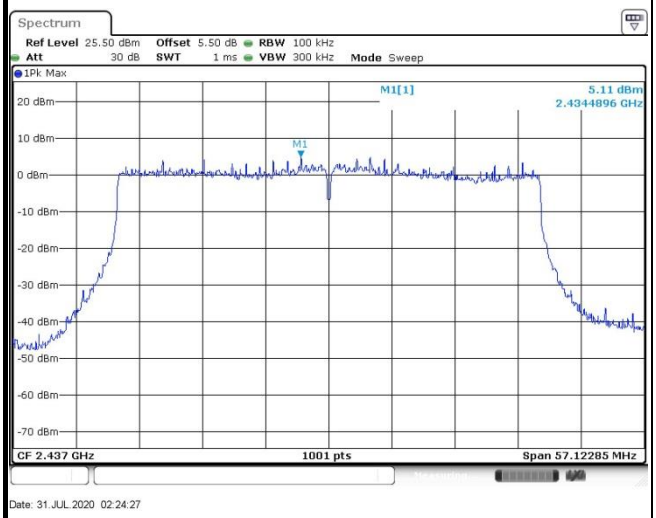
Test Mode :	802.11ax HE20	Test Channel :	11

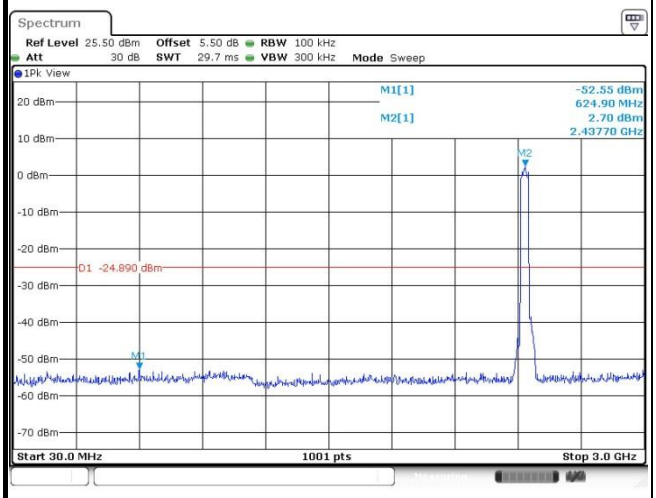
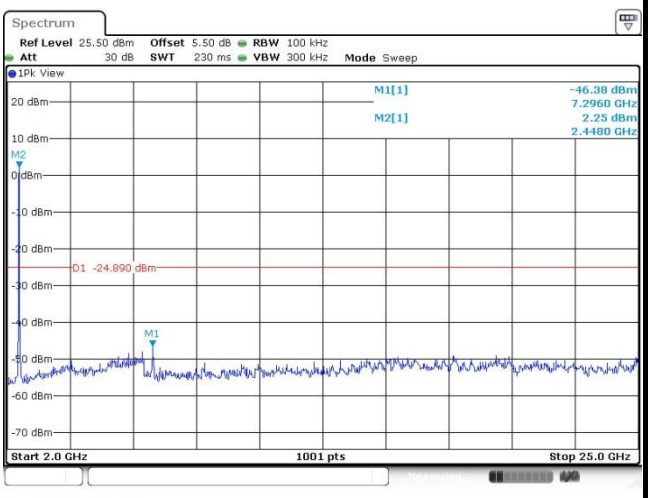
100kHz PSD reference Level	Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11ax HE40	Test Channel :	03

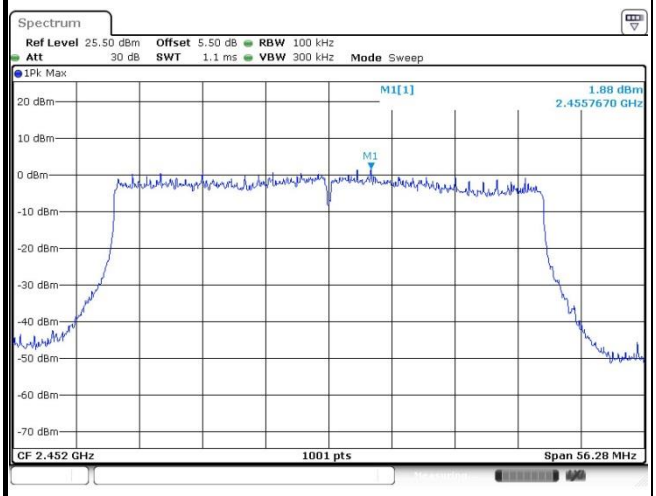
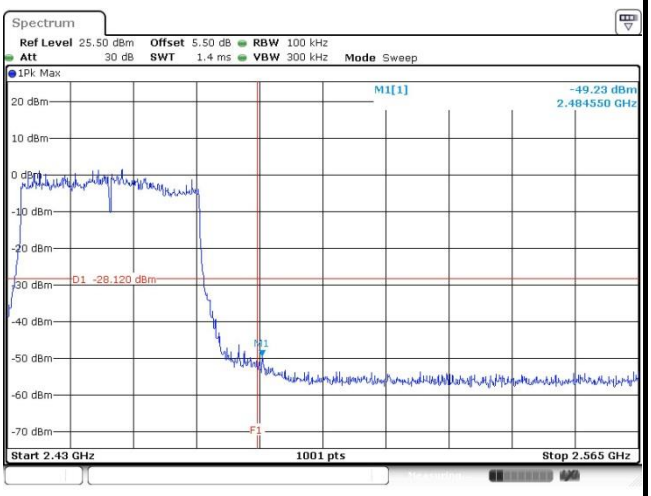
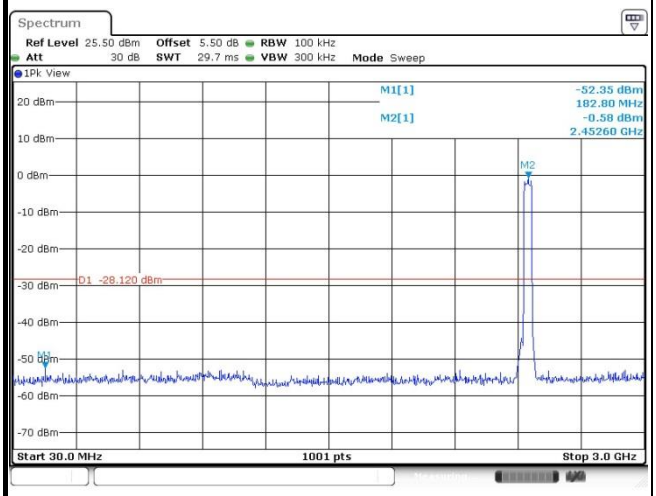
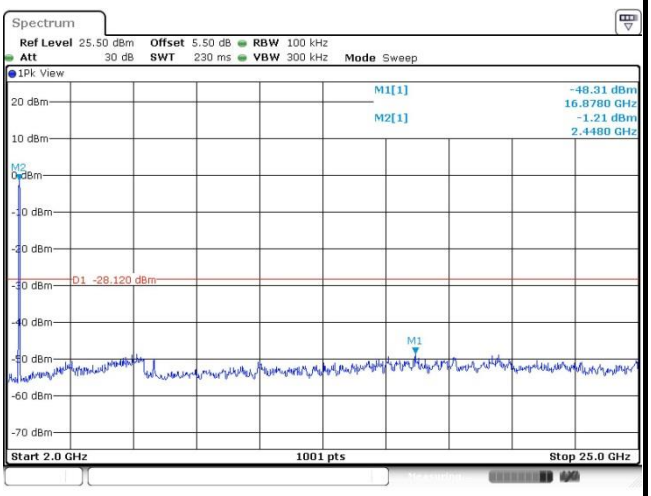
100kHz PSD reference Level	Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11ax HE40	Test Channel :	06

100kHz PSD reference Level	
	

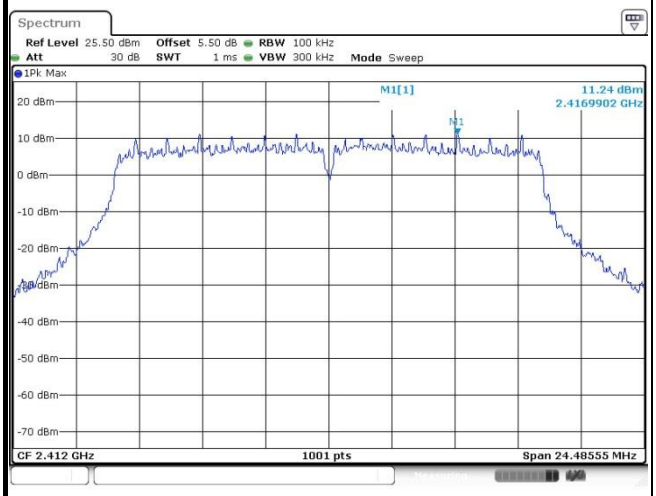
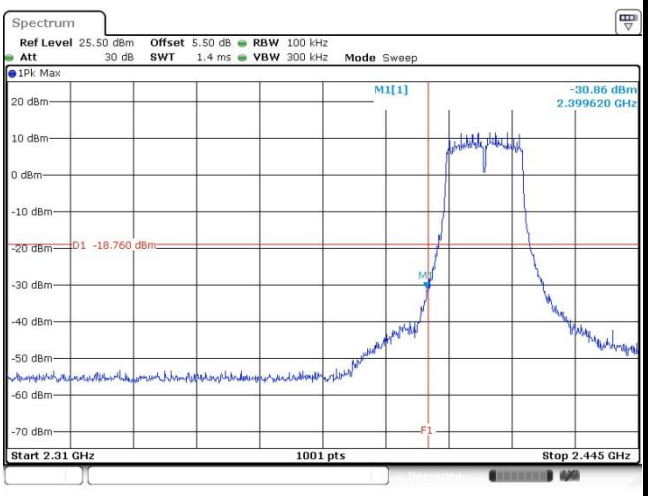
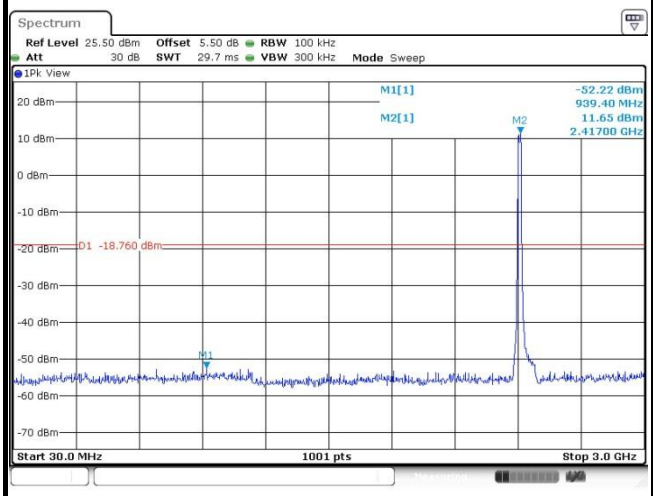
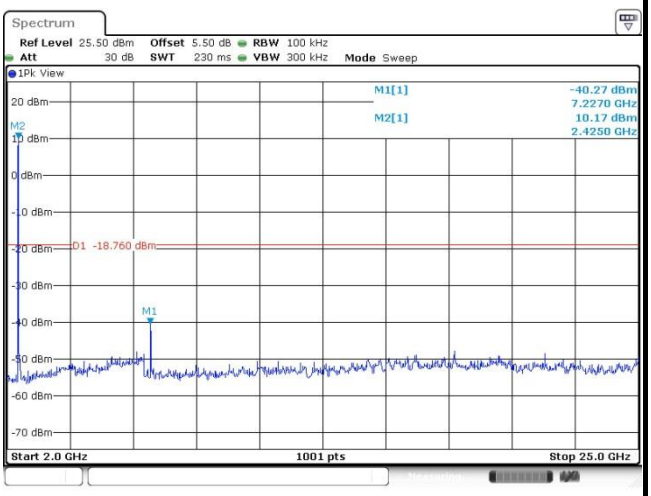
Spurious Emission 30MHz~3GHz	Spurious Emission 2GHz~25GHz
	

Test Mode :	802.11ax HE40	Test Channel :	09

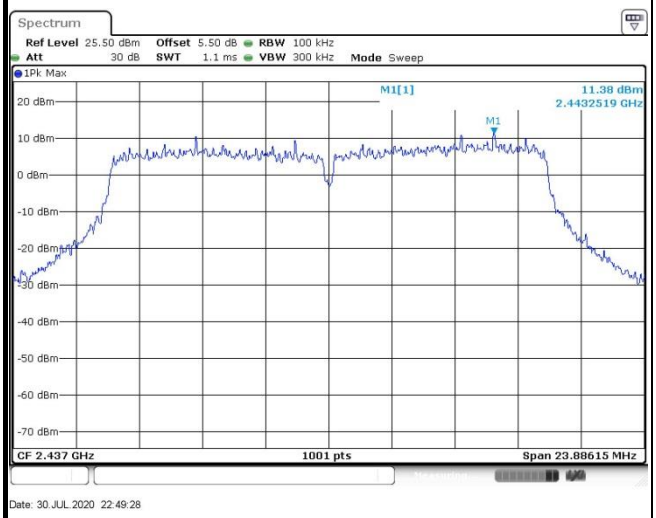
100kHz PSD reference Level	Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

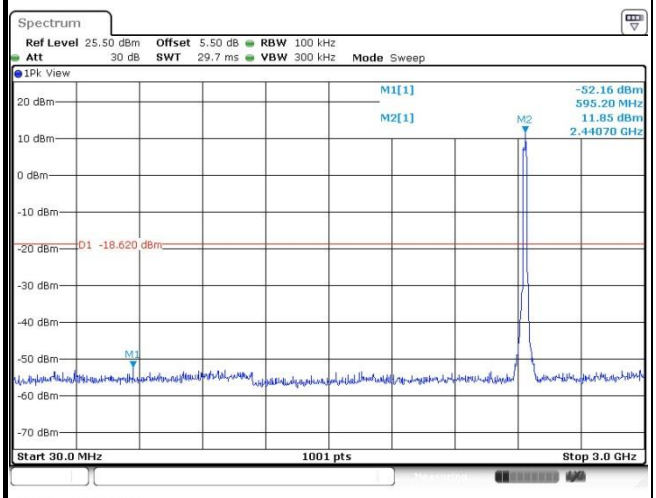
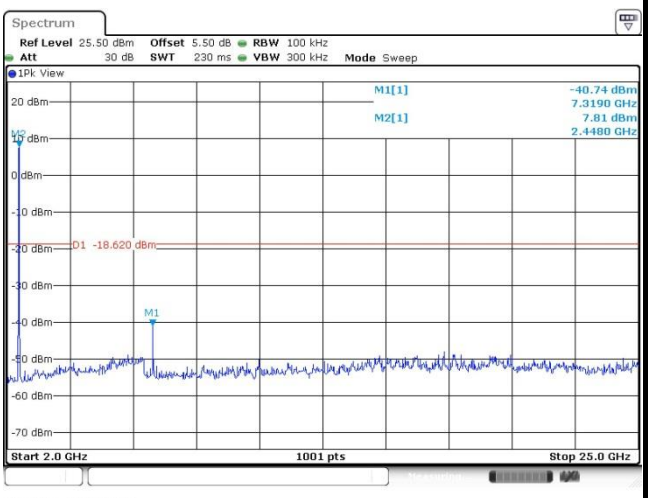
Number of TX = 4, Ant. 4 (Measured)

Test Mode :	802.11g	Test Channel :	01

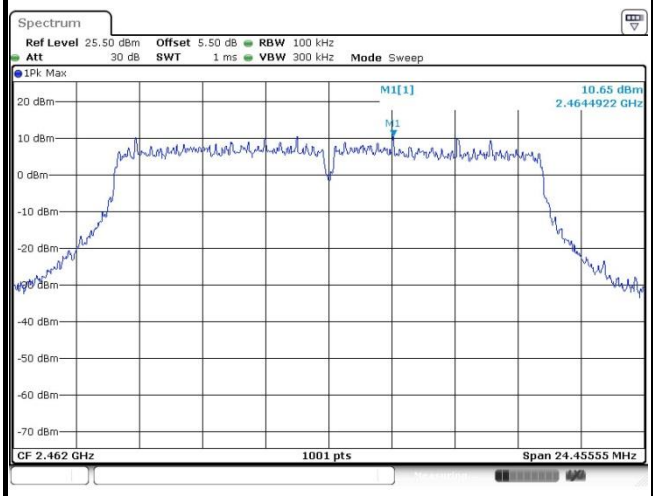
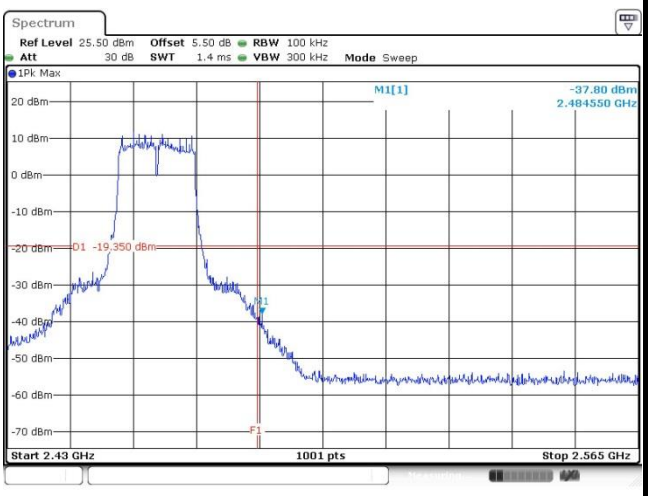
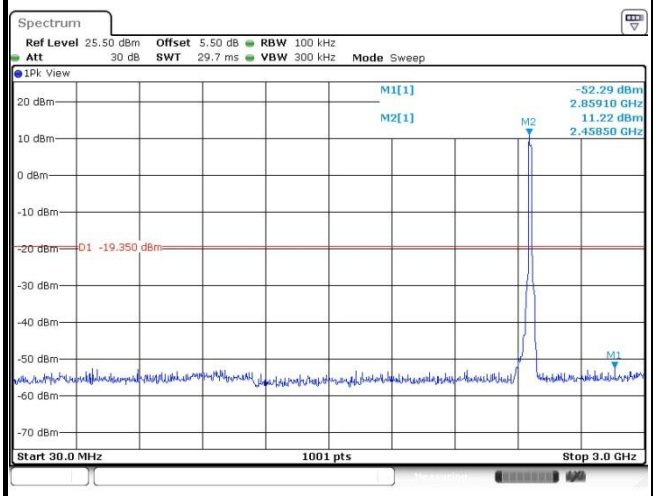
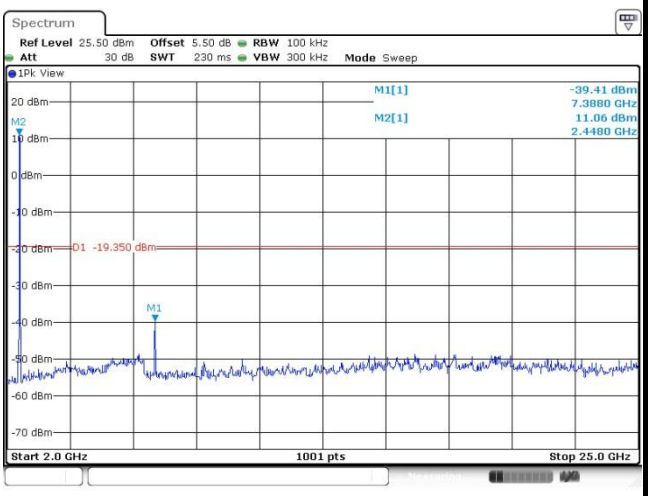
100kHz PSD reference Level	Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11g	Test Channel :	06

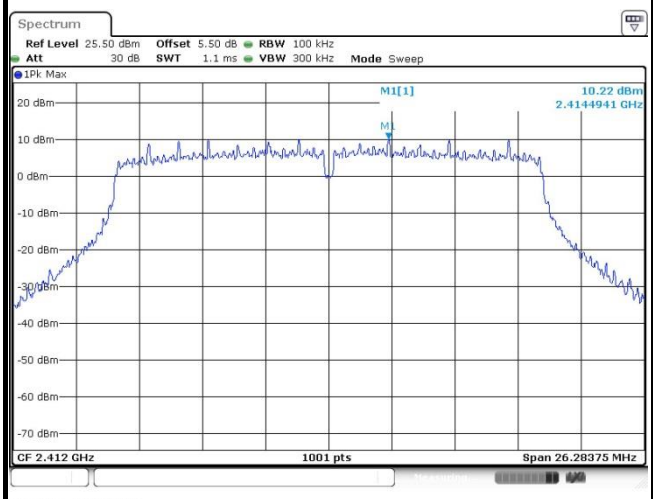
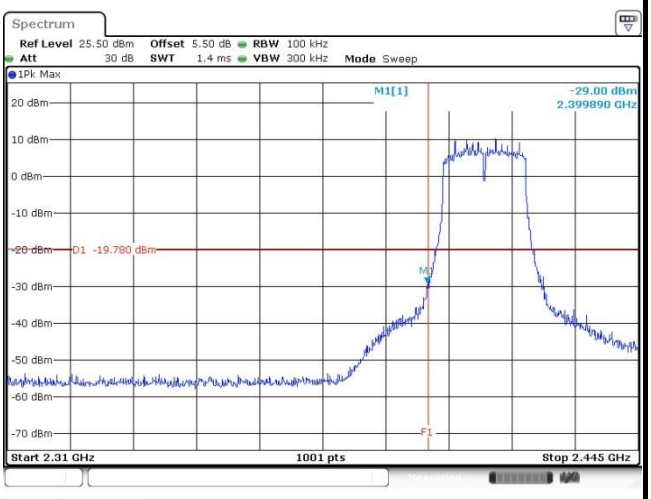
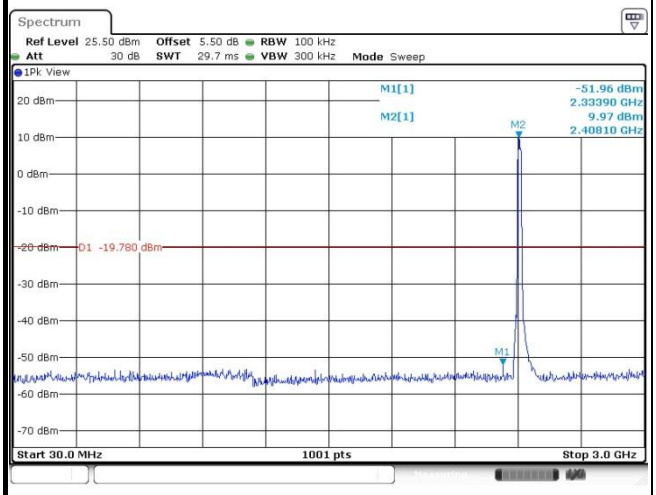
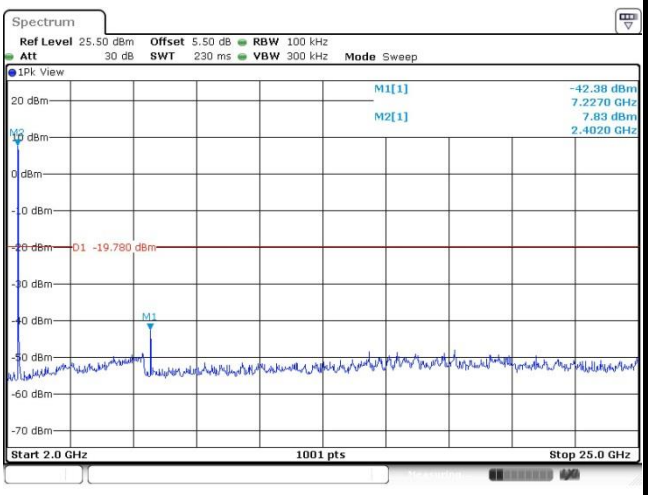
100kHz PSD reference Level	
	

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

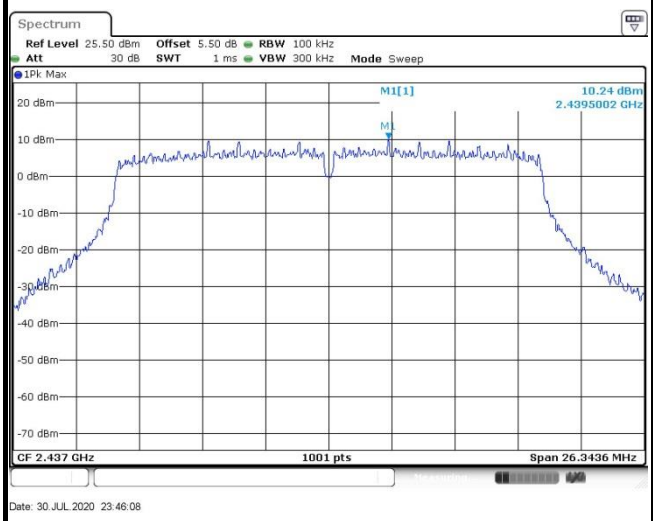
Test Mode :	802.11g	Test Channel :	11

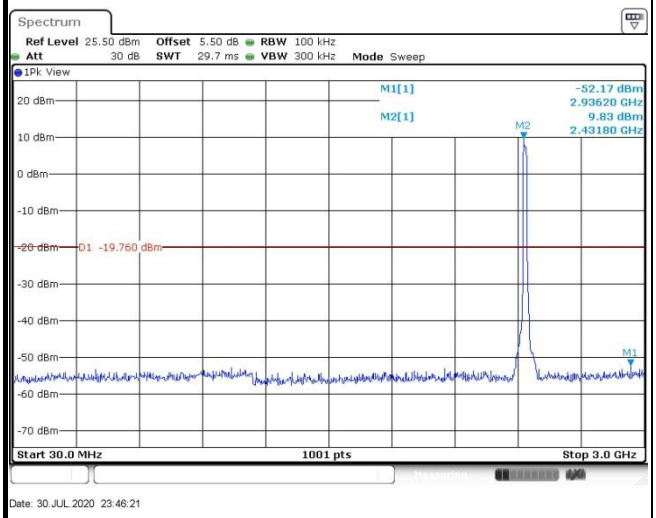
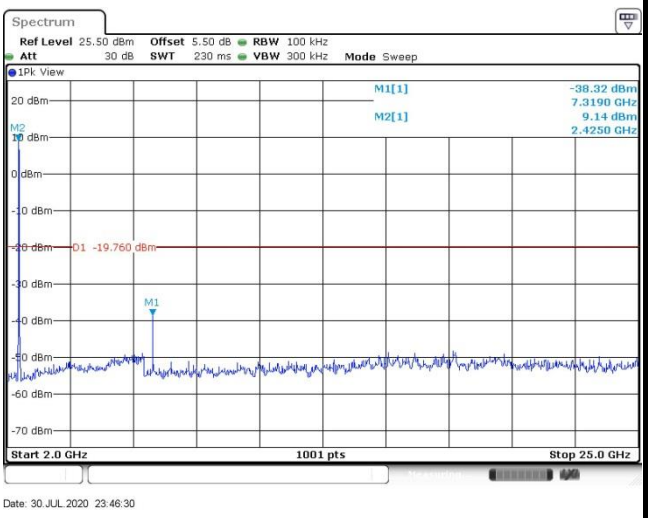
100kHz PSD reference Level	Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11n HT20	Test Channel :	01

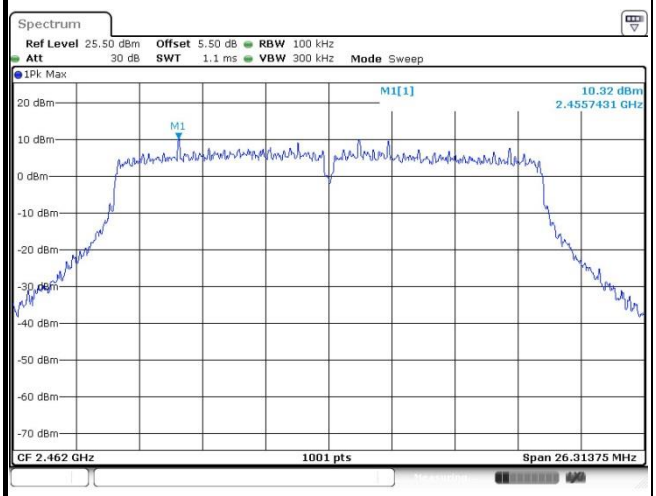
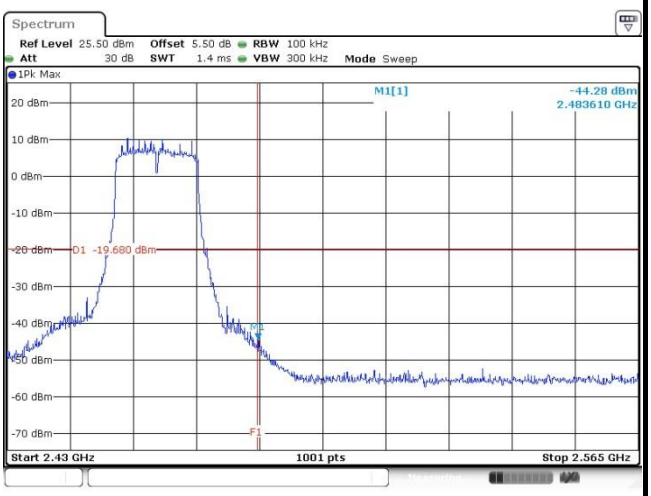
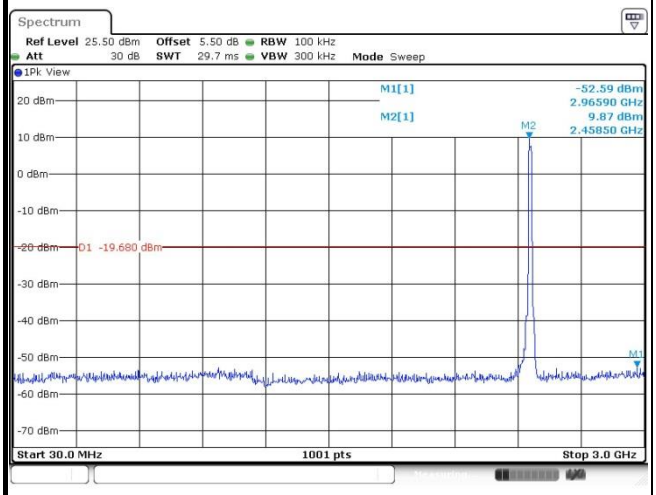
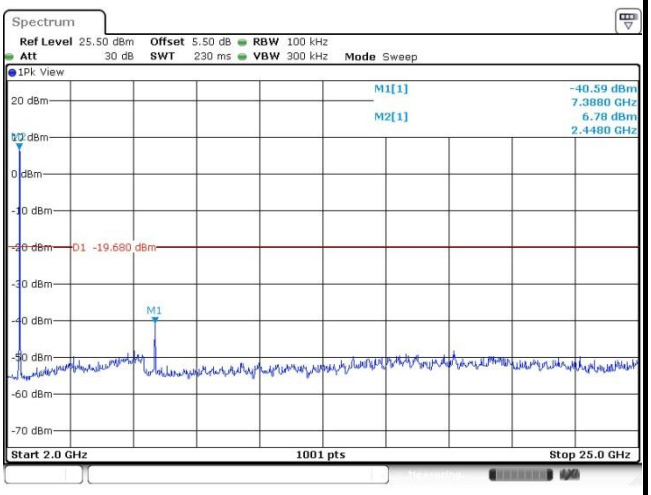
100kHz PSD reference Level	Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11n HT20	Test Channel :	06

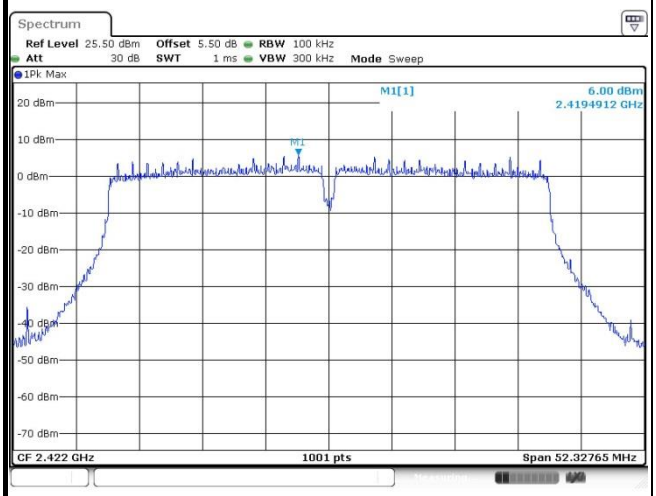
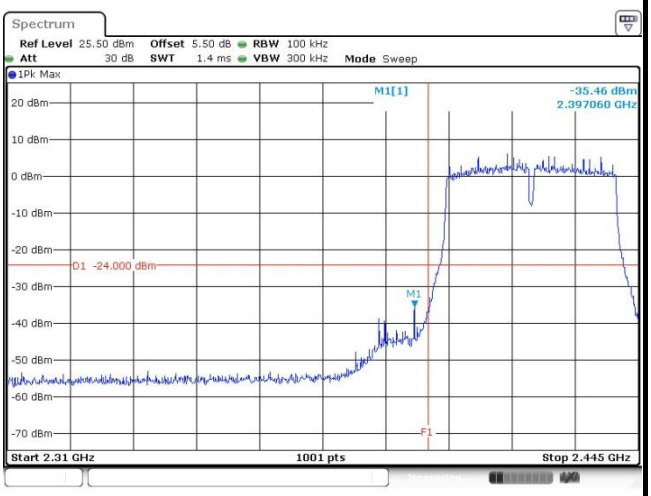
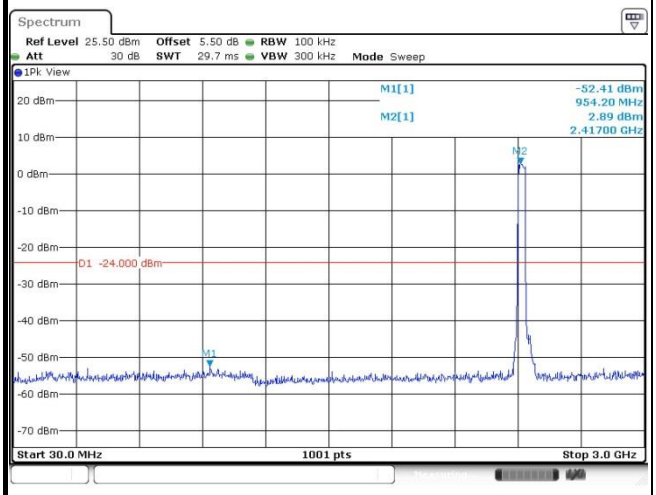
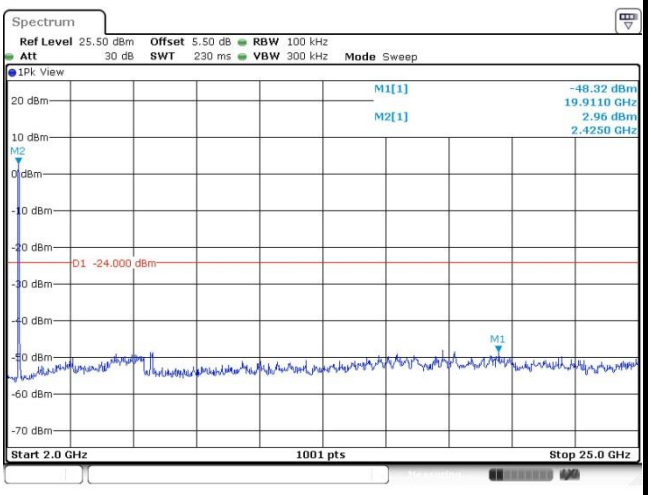
100kHz PSD reference Level	
	

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

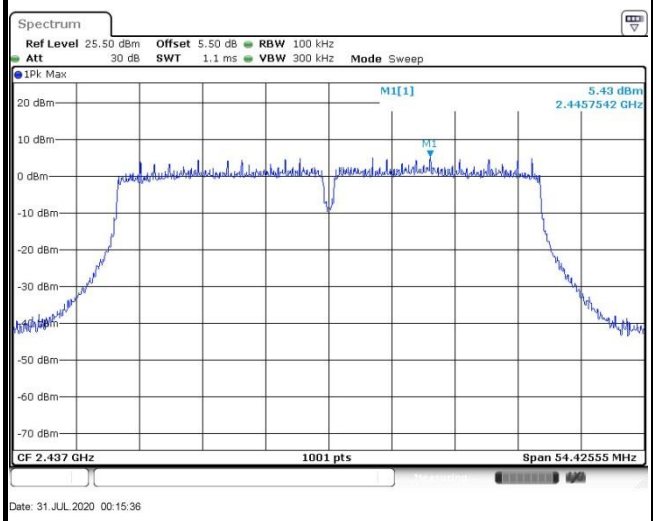
Test Mode :	802.11n HT20	Test Channel :	11

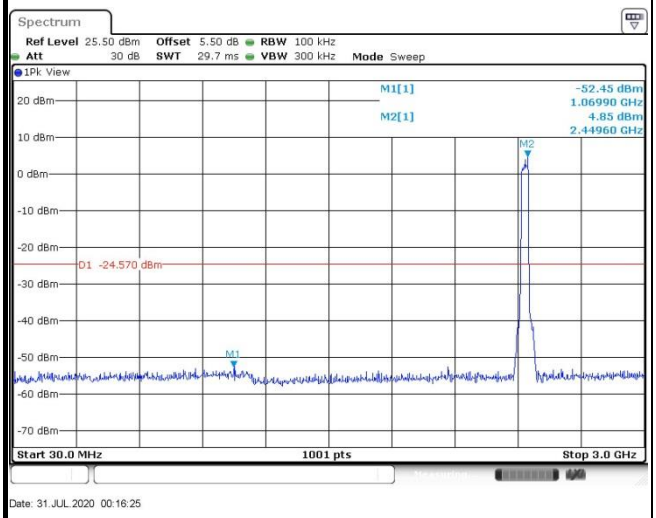
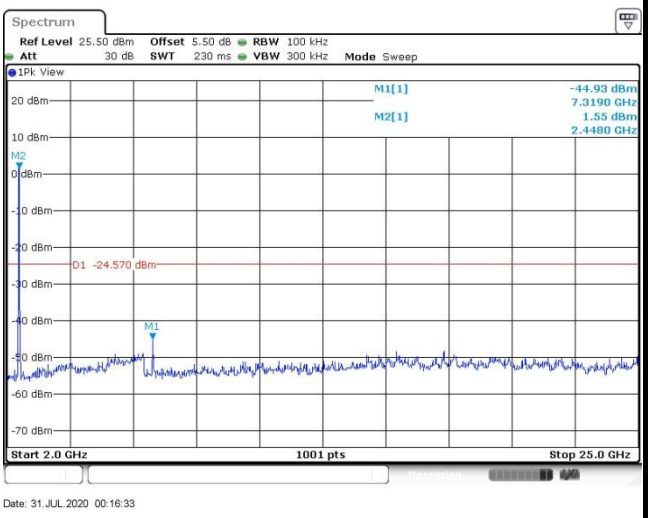
100kHz PSD reference Level	Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11n HT40	Test Channel :	03

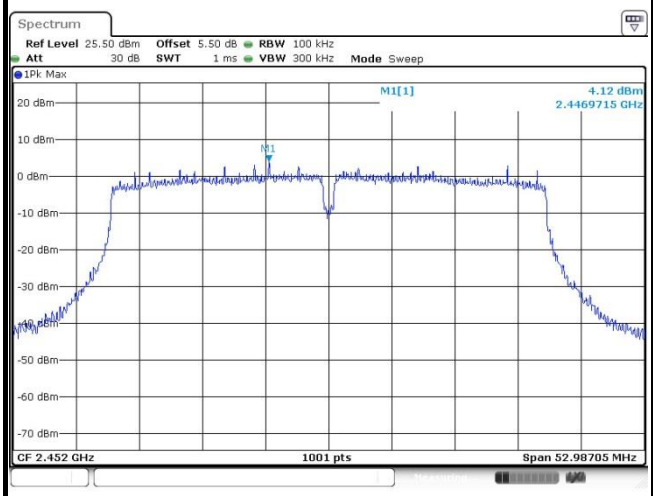
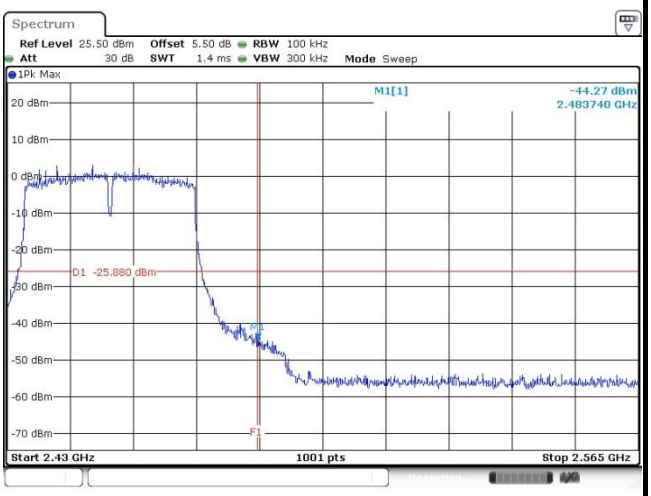
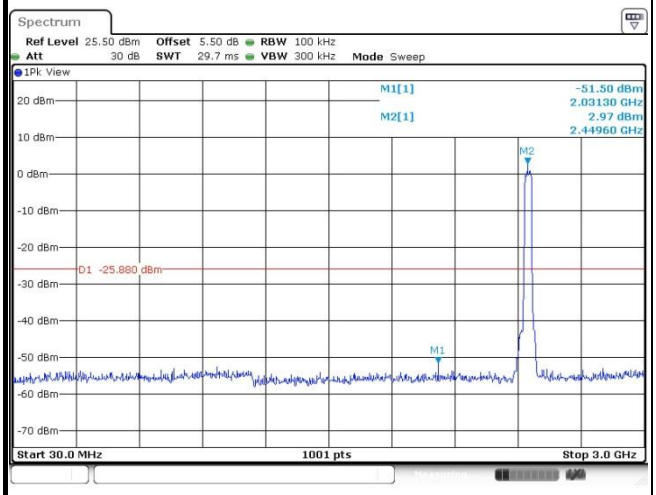
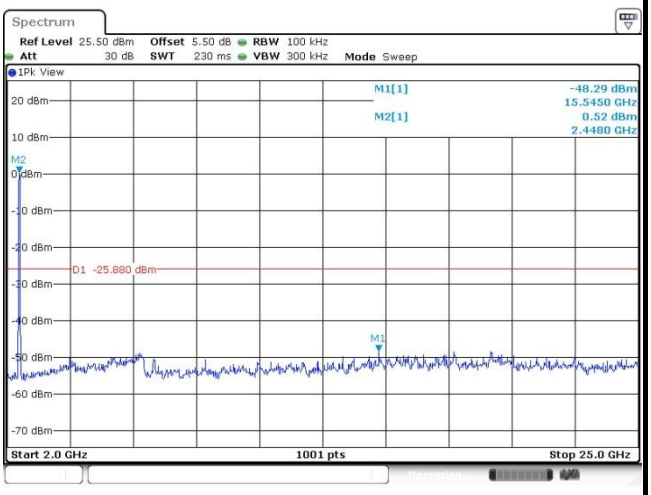
100kHz PSD reference Level	Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11n HT40	Test Channel :	06

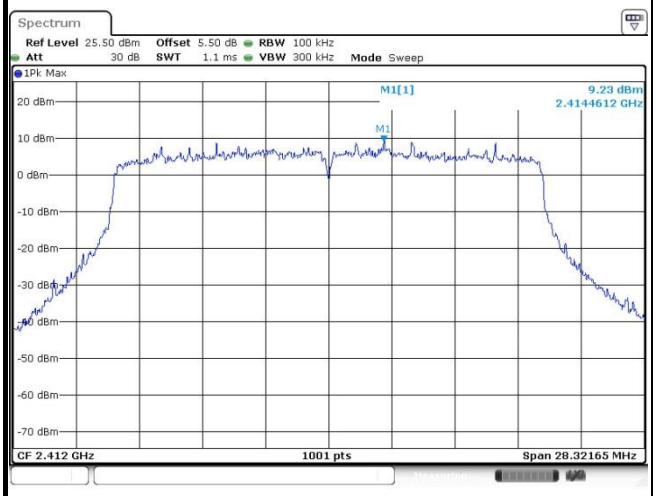
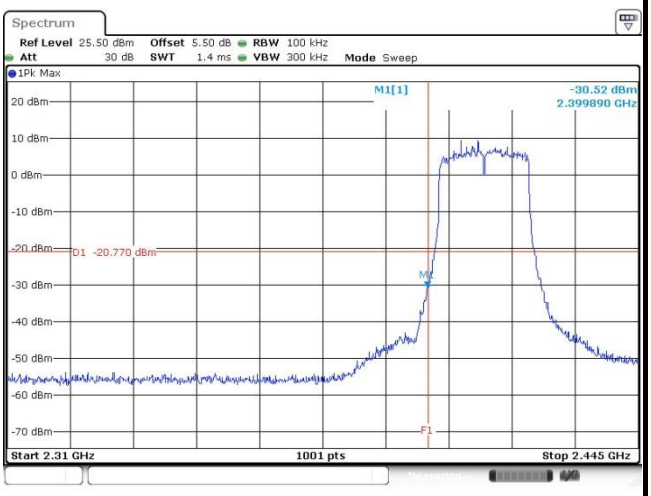
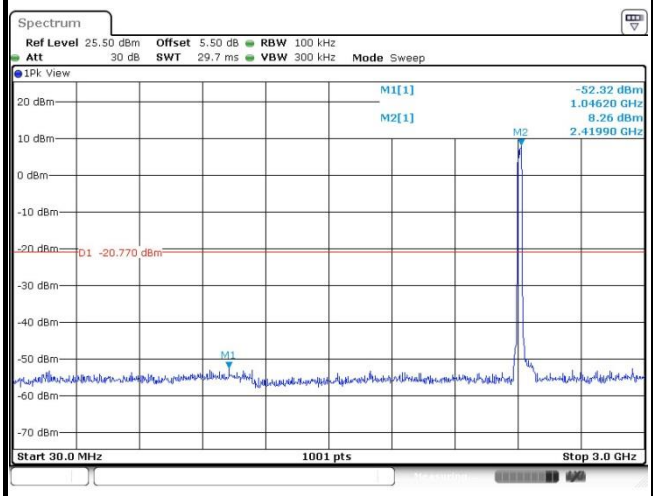
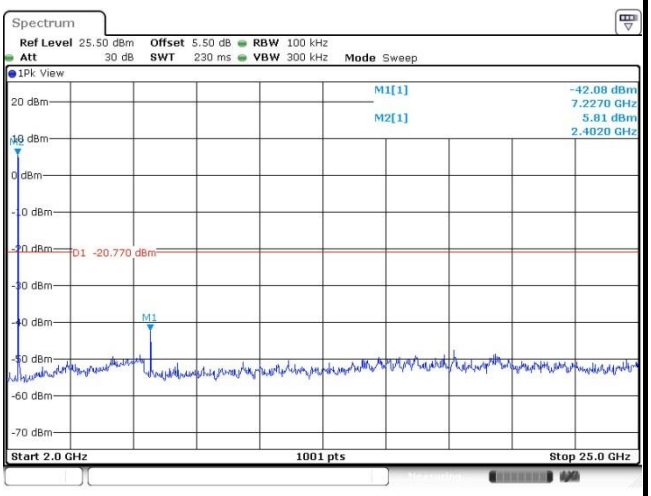
100kHz PSD reference Level	
	

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

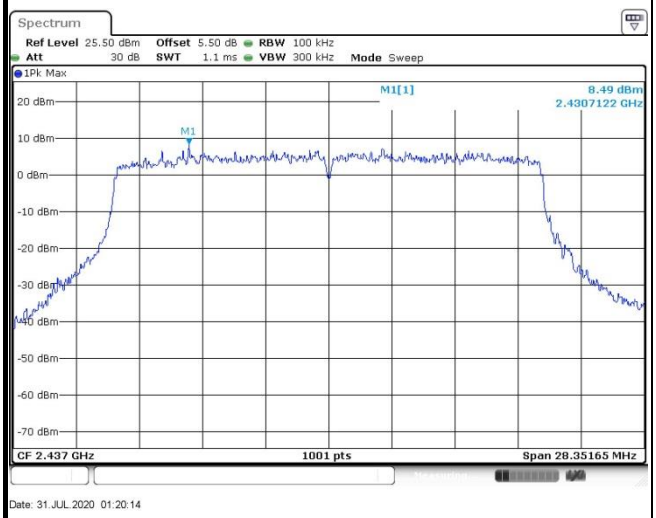
Test Mode :	802.11n HT40	Test Channel :	09

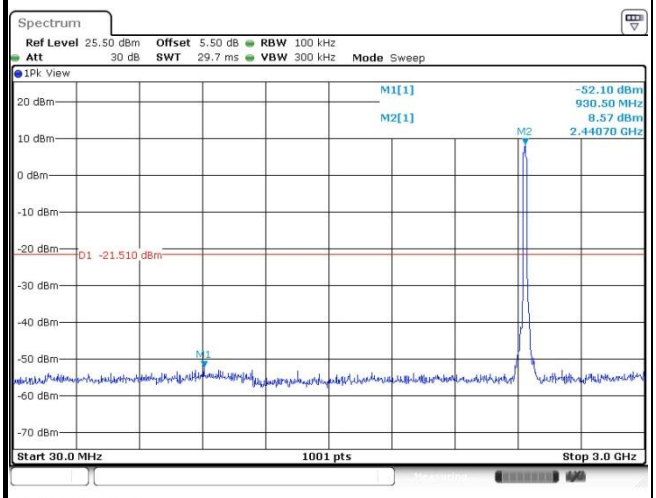
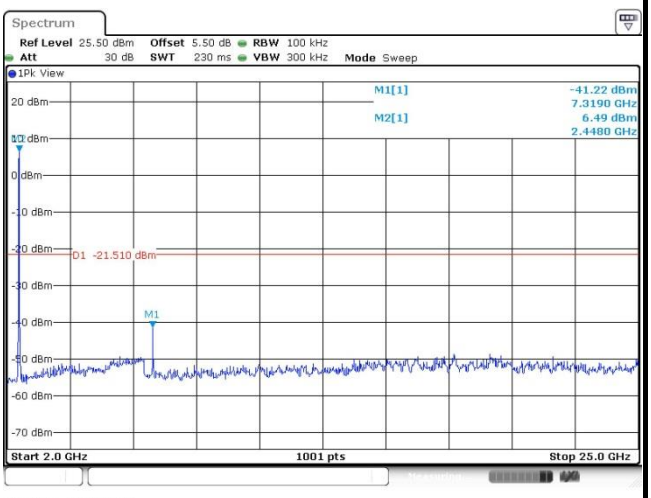
100kHz PSD reference Level	Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11ax HE20	Test Channel :	01

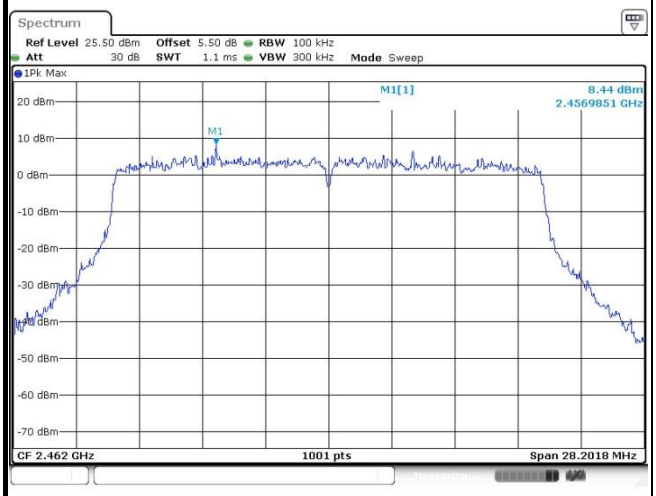
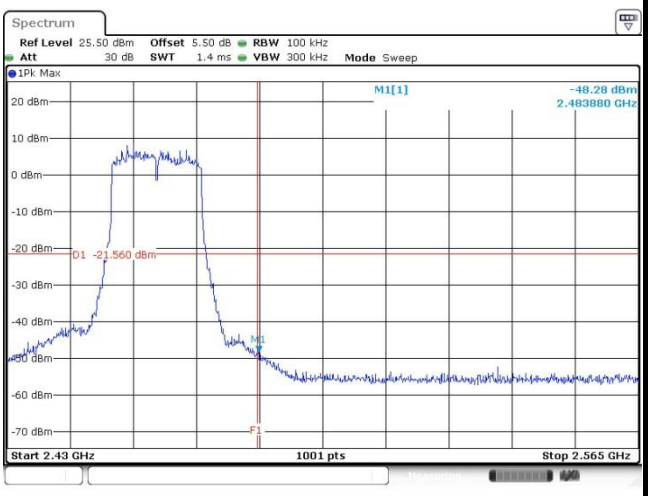
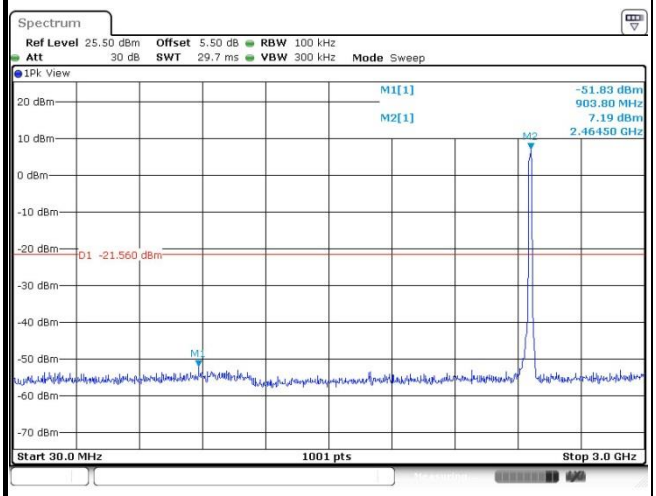
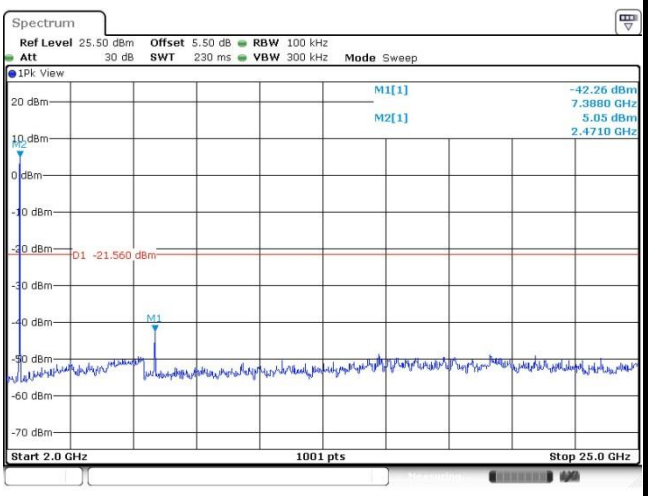
100kHz PSD reference Level	Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11ax HE20	Test Channel :	06

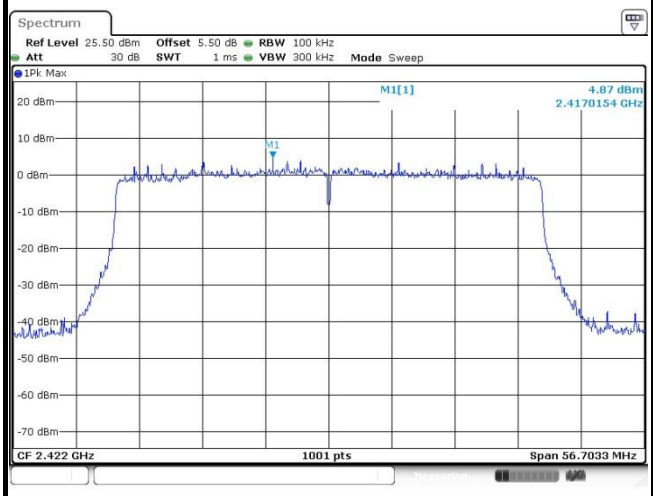
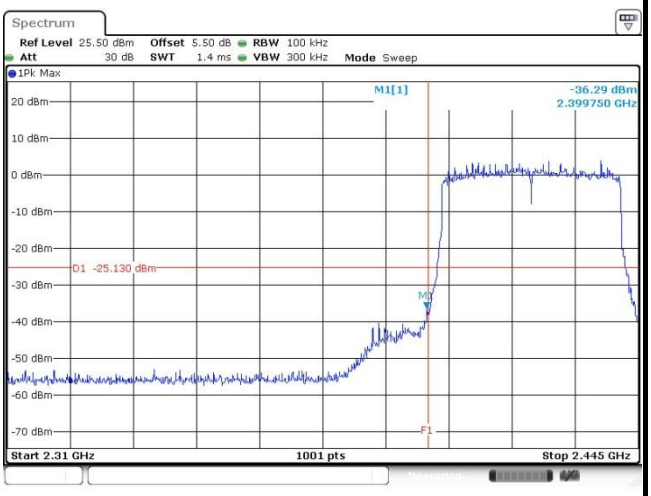
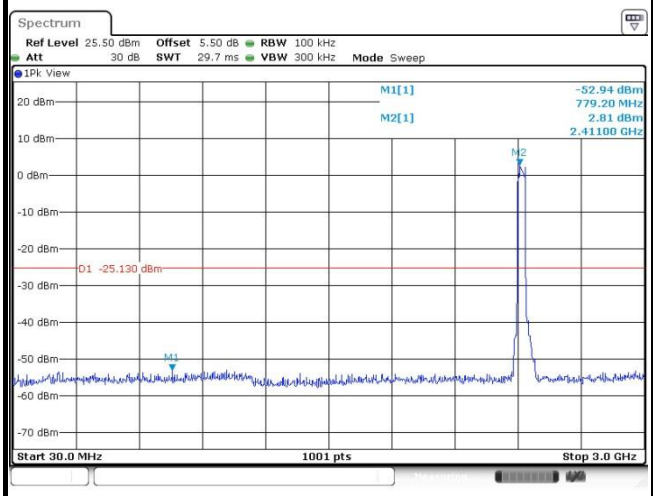
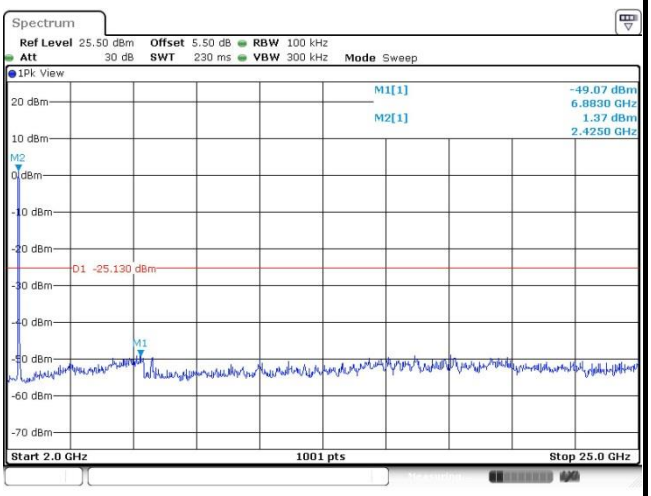
100kHz PSD reference Level	
	

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

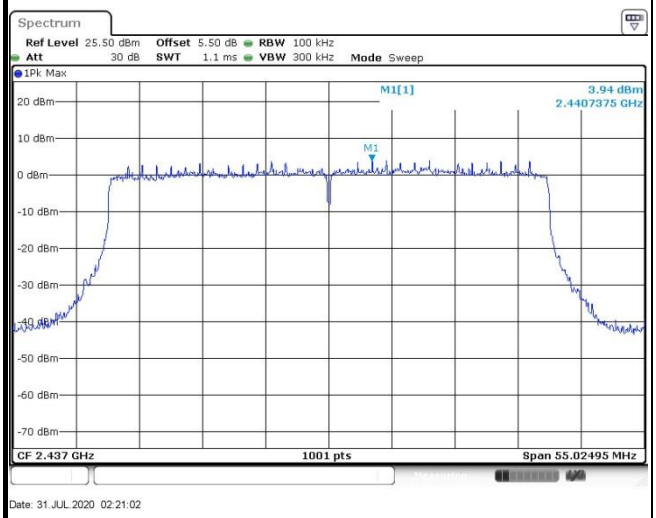
Test Mode :	802.11ax HE20	Test Channel :	11

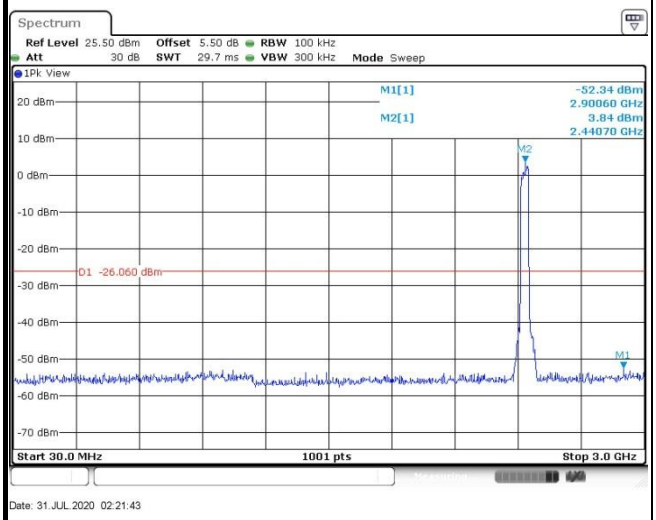
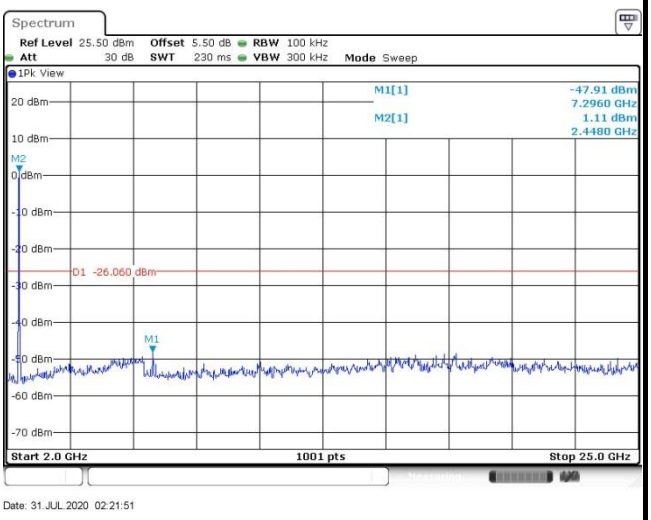
100kHz PSD reference Level	Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11ax HE40	Test Channel :	03

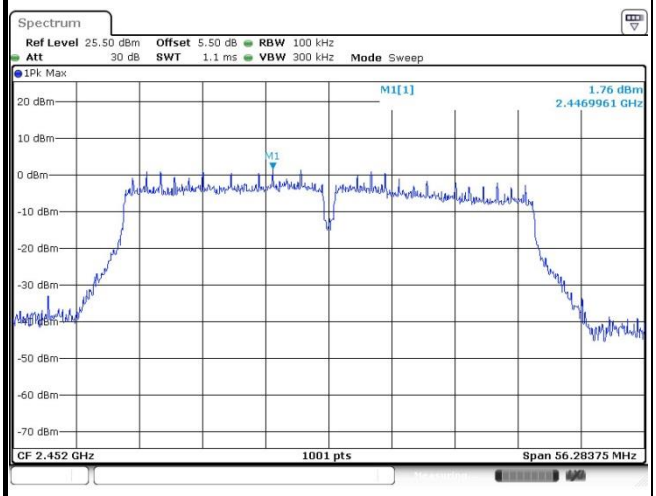
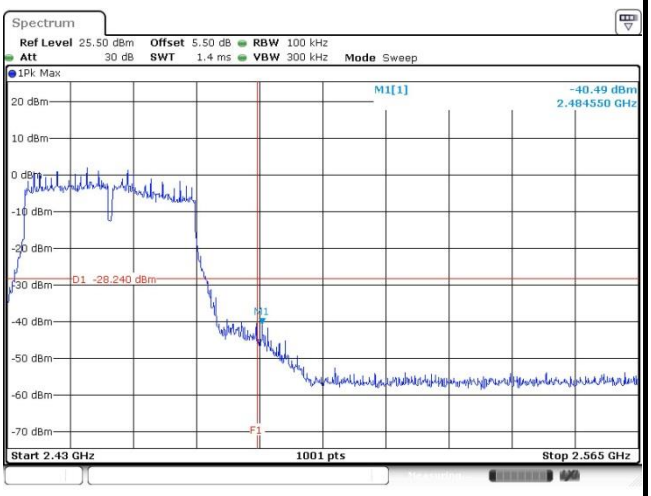
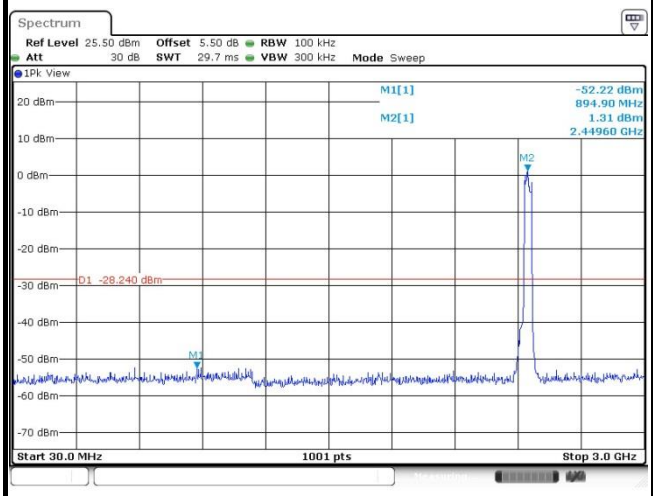
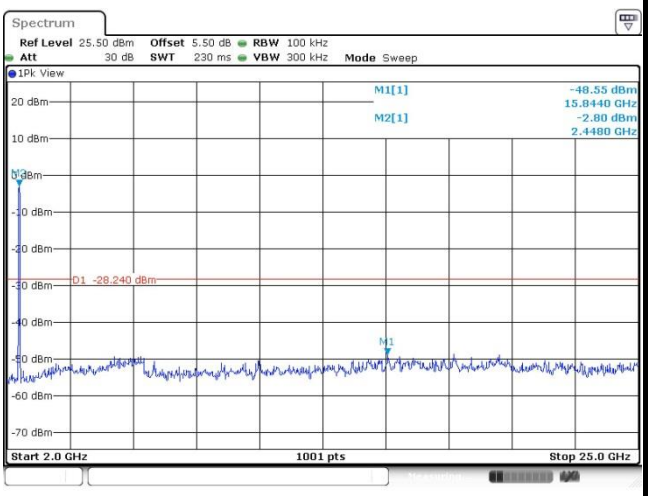
100kHz PSD reference Level	Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11ax HE40	Test Channel :	06

100kHz PSD reference Level	
	

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

Test Mode :	802.11ax HE40	Test Channel :	09

100kHz PSD reference Level	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

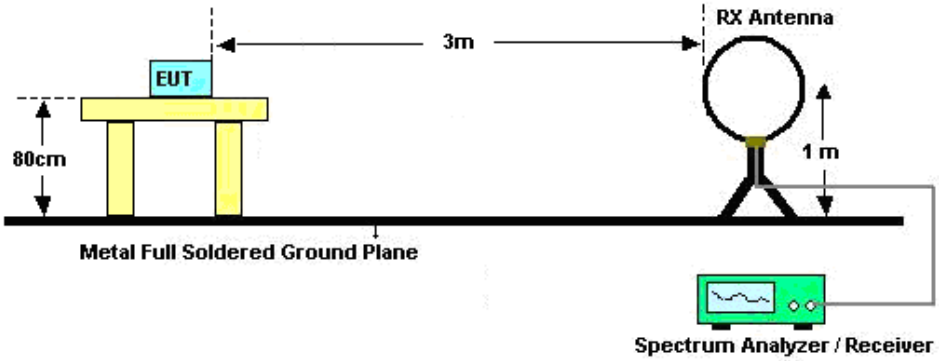
The measuring equipment is listed in the section 4 of this test report.

3.5.3 Test Procedures

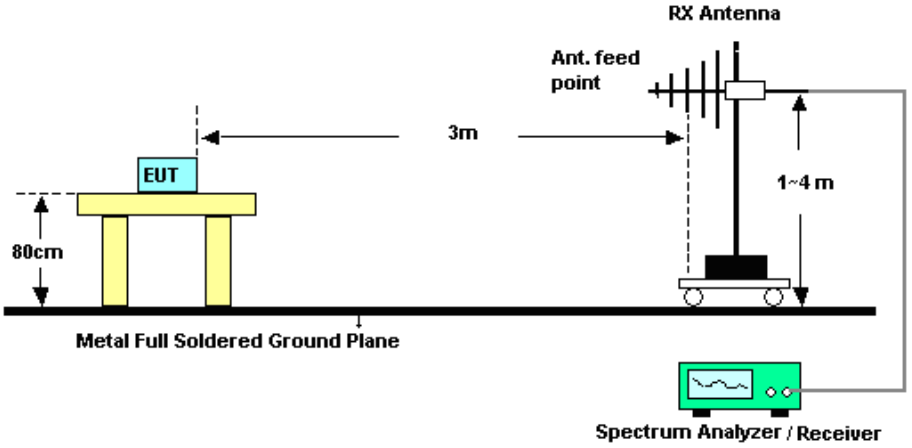
1. The testing follows ANSI C63.10-2013 clause 11.11 & 11.12
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better 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

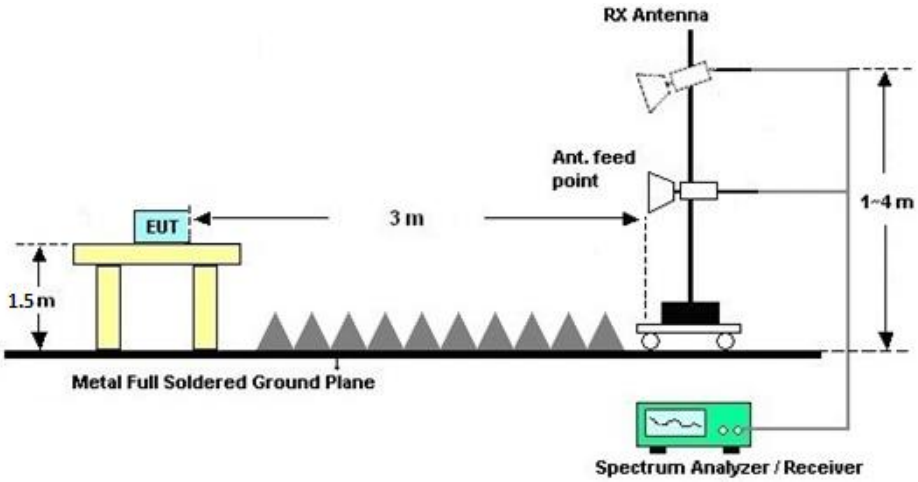
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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 semi-Anechoic chamber, and the result came out very similar.

3.5.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C.

3.5.7 Duty Cycle

Please refer to Appendix D.

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

Please refer to Appendix C.

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.

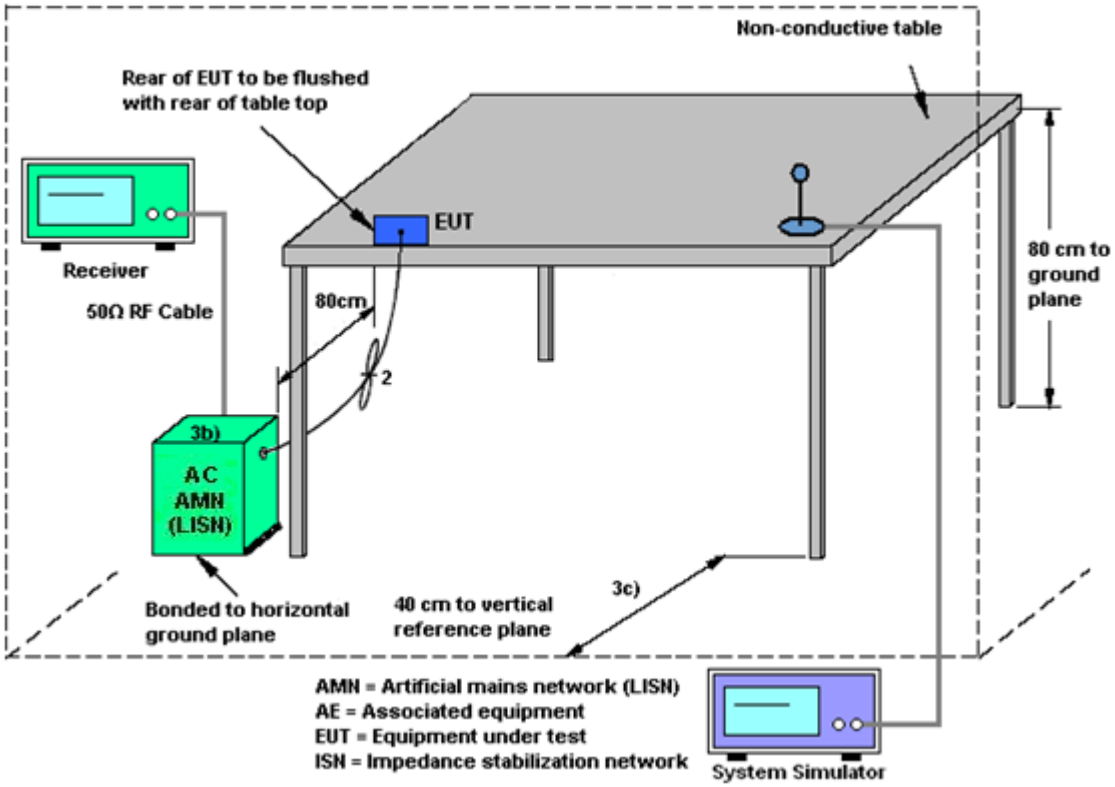
3.6.2 Measuring Instruments

The measuring equipment is listed in the section 4 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

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

Directional gain = GANT + Array Gain, where Array Gain is as follows.

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for NANT ≤ 4.

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.

	Ant. 1 (dBi)	Ant. 2 (dBi)	Ant. 3 (dBi)	Ant. 4 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
2.4 GHz	3.00	3.00	3.00	3.00	3.00	5.58	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
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Nov. 02, 2019	Jul. 30, 2020~ Jul. 31, 2020	Nov. 01, 2020	Conducted (TH01-KS)
Pulse Power Senor	Anritsu	MA2411B	0917070	300MHz~40GHz	Jan. 15, 2020	Jul. 30, 2020~ Jul. 31, 2020	Jan. 14, 2021	Conducted (TH01-KS)
Power Meter	Anritsu	ML2495A	1005002	50MHz Bandwidth	Jan. 08, 2020	Jul. 30, 2020~ Jul. 31, 2020	Jan. 07, 2021	Conducted (TH01-KS)
EMI Test Receiver	Keysight	N9038A	MY57290157	3Hz~8.5GHz;Max 30dBm	Jul. 17, 2020	Jul. 22, 2020	Jul. 16, 2021	Radiation (03CH06-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150208	10Hz-44GHz	Apr. 15, 2020	Jul. 22, 2020	Apr. 14, 2021	Radiation (03CH06-KS)
Loop Antenna	R&S	HFH2-Z2	100321	9kHz~30MHz	Nov. 10, 2019	Jul. 22, 2020	Nov. 09, 2020	Radiation (03CH06-KS)
Bilog Antenna	TeseQ	CBL6111D	49921	30MHz-1GHz	May 30, 2020	Jul. 22, 2020	May 29, 2021	Radiation (03CH06-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00218652	1GHz~18GHz	Apr. 27, 2020	Jul. 22, 2020	Apr. 26, 2021	Radiation (03CH06-KS)
SHF-EHF Horn	Com-power	AH-840	101115	18GHz~40GHz	Nov. 10, 2019	Jul. 22, 2020	Nov. 09, 2020	Radiation (03CH06-KS)
Amplifier	SONOMA	310N	187289	9KHz ~1GHZ	Aug. 06, 2019	Jul. 22, 2020	Aug. 05, 2020	Radiation (03CH06-KS)
Amplifier	MITEQ	EM18G40GGA	060728	18~40GHz	Jan. 08, 2020	Jul. 22, 2020	Jan. 07, 2021	Radiation (03CH06-KS)
high gain Amplifier	MITEQ	AMF-7D-00101800-30-10P	2025788	1Ghz-18Ghz	Aug. 16, 2019	Jul. 22, 2020	Aug. 15, 2020	Radiation (03CH06-KS)
Amplifier	Keysight	83017A	MY53270203	500MHz~26.5GHz	Apr. 15, 2020	Jul. 22, 2020	Apr. 14, 2021	Radiation (03CH06-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Jul. 22, 2020	NCR	Radiation (03CH06-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Jul. 22, 2020	NCR	Radiation (03CH06-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Jul. 22, 2020	NCR	Radiation (03CH06-KS)
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz;	Apr. 14, 2020	Jul. 22, 2020	Apr. 13, 2021	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060103	9kHz~30MHz	Oct. 18, 2019	Jul. 22, 2020	Oct. 17, 2020	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060105	9kHz~30MHz	Oct. 28, 2019	Jul. 22, 2020	Oct. 27, 2020	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 18, 2019	Jul. 22, 2020	Oct. 17, 2020	Conduction (CO01-KS)

NCR: No Calibration Required

5 Uncertainty of Evaluation

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.10-2013. All the measurement uncertainty value were shown with a coverage K=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.9dB**

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

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

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

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

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

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

Appendix A. Conducted Test Results

Report Number : FR9D2703B

Test Engineer:	Weller Liu	Temperature:	21~25	°C
Test Date:	2020/7/30~2020/7/31	Relative Humidity:	51~54	%

Report Number : FR9D2703B

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Occupied BW (MHz)				6dB BW (MHz)				6dB BW Limit (MHz)	Pass/ Fail
					Ant 1	Ant 2	Ant 3	Ant 4	Ant 1	Ant 2	Ant 3	Ant 4		
11b	1Mbps	1	1	2412	12.94	12.94	12.99	12.94	8.03	8.03	8.03	7.55	0.50	Pass
11b	1Mbps	1	6	2437	12.89	12.94	12.94	12.94	8.05	8.03	8.03	7.55	0.50	Pass
11b	1Mbps	1	11	2462	13.09	13.04	13.09	13.09	8.03	8.03	8.05	8.05	0.50	Pass
11g	6Mbps	4	1	2412	17.08	17.13	17.03	17.03	16.04	16.30	15.68	16.32	0.50	Pass
11g	6Mbps	4	6	2437	17.08	17.23	16.88	17.13	15.92	16.34	15.68	15.92	0.50	Pass
11g	6Mbps	4	11	2462	17.18	17.23	16.88	16.98	16.30	16.32	15.68	16.30	0.50	Pass
HT20	MCS0	4	1	2412	18.08	18.13	18.03	18.13	17.02	17.52	16.08	17.52	0.50	Pass
HT20	MCS0	4	6	2437	18.08	18.28	17.93	18.18	17.02	17.58	15.70	17.56	0.50	Pass
HT20	MCS0	4	11	2462	18.18	18.23	17.98	18.18	17.16	17.56	17.44	17.54	0.50	Pass
HT40	MCS0	4	3	2422	36.06	36.26	36.36	36.26	35.12	35.44	35.28	34.89	0.50	Pass
HT40	MCS0	4	6	2437	36.06	36.36	36.56	36.46	36.08	35.72	36.28	36.28	0.50	Pass
HT40	MCS0	4	9	2452	35.96	36.16	36.36	36.16	36.05	35.12	35.68	35.32	0.50	Pass
AX20	MCS0	4	1	2412	19.38	19.38	19.28	19.33	18.60	18.84	18.42	18.88	0.50	Pass
AX20	MCS0	4	6	2437	19.28	19.43	19.23	19.33	18.58	18.96	18.18	18.90	0.50	Pass
AX20	MCS0	4	11	2462	19.38	19.38	19.33	19.38	18.64	18.92	18.00	18.80	0.50	Pass
AX40	MCS0	4	3	2422	37.66	37.86	37.96	37.96	36.32	36.88	37.60	37.80	0.50	Pass
AX40	MCS0	4	6	2437	37.66	37.96	38.16	38.06	36.36	37.28	38.08	36.68	0.50	Pass
AX40	MCS0	4	9	2452	37.96	37.76	38.06	37.96	35.24	37.24	37.52	37.52	0.50	Pass

TEST RESULTS DATA
Average Output Power

Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)				Average Conducted Power (dBm)					Conducted Power Limit (dBm)				DG (dBi)				Pass /Fail
					Ant 1	Ant 2	Ant 3	Ant 4	Ant 1	Ant 2	Ant 3	Ant 4	SUM	Ant 1	Ant 2	Ant 3	Ant 4	Ant 1	Ant 2	Ant 3	Ant 4	
11b	1Mbps	1	1	2412	1.26	1.29	1.29	1.29	23.41	23.65	23.43	23.83		30.00	30.00	30.00	30.00	3.00	3.00	3.00	3.00	Pass
11b	1Mbps	1	6	2437	1.26	1.29	1.29	1.29	23.01	22.82	23.16	23.25		30.00	30.00	30.00	30.00	3.00	3.00	3.00	3.00	Pass
11b	1Mbps	1	11	2462	1.26	1.29	1.29	1.29	23.34	23.64	23.54	23.52		30.00	30.00	30.00	30.00	3.00	3.00	3.00	3.00	Pass
11g	6Mbps	4	1	2412	0.32	0.32	0.34	0.32	22.67	22.97	22.82	22.70	28.81	30.00				3.00				Pass
11g	6Mbps	4	6	2437	0.32	0.32	0.34	0.32	22.49	22.70	22.52	22.60	28.60	30.00				3.00				Pass
11g	6Mbps	4	11	2462	0.32	0.32	0.34	0.32	22.21	22.45	22.34	22.45	28.38	30.00				3.00				Pass
HT20	MCS0	4	1	2412	1.71	1.56	1.56	1.90	23.23	23.07	23.04	23.35	29.19	30.00				3.00				Pass
HT20	MCS0	4	6	2437	1.71	1.56	1.56	1.90	23.08	23.01	23.19	23.30	29.17	30.00				3.00				Pass
HT20	MCS0	4	11	2462	1.71	1.56	1.56	1.90	23.10	23.24	22.84	23.31	29.15	30.00				3.00				Pass
HT40	MCS0	4	3	2422	1.81	1.60	1.57	1.85	20.87	20.75	20.66	21.06	26.86	30.00				3.00				Pass
HT40	MCS0	4	6	2437	1.81	1.60	1.57	1.85	20.80	20.79	20.61	21.00	26.82	30.00				3.00				Pass
HT40	MCS0	4	9	2452	1.81	1.60	1.57	1.85	18.96	18.98	18.61	18.94	24.90	30.00				3.00				Pass
AX20	MCS0	4	1	2412	1.59	1.54	1.73	1.54	21.93	22.21	22.21	21.96	28.10	30.00				3.00				Pass
AX20	MCS0	4	6	2437	1.59	1.54	1.73	1.54	22.68	23.02	23.21	23.17	29.05	30.00				3.00				Pass
AX20	MCS0	4	11	2462	1.59	1.54	1.73	1.54	20.94	21.28	21.17	21.10	27.15	30.00				3.00				Pass
AX40	MCS0	4	3	2422	1.75	1.78	1.86	1.57	20.03	20.27	20.54	20.23	26.29	30.00				3.00				Pass
AX40	MCS0	4	6	2437	1.75	1.78	1.86	1.57	21.11	21.41	21.36	20.86	27.21	30.00				3.00				Pass
AX40	MCS0	4	9	2452	1.75	1.78	1.86	1.57	16.96	17.23	17.39	16.88	23.14	30.00				3.00				Pass

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

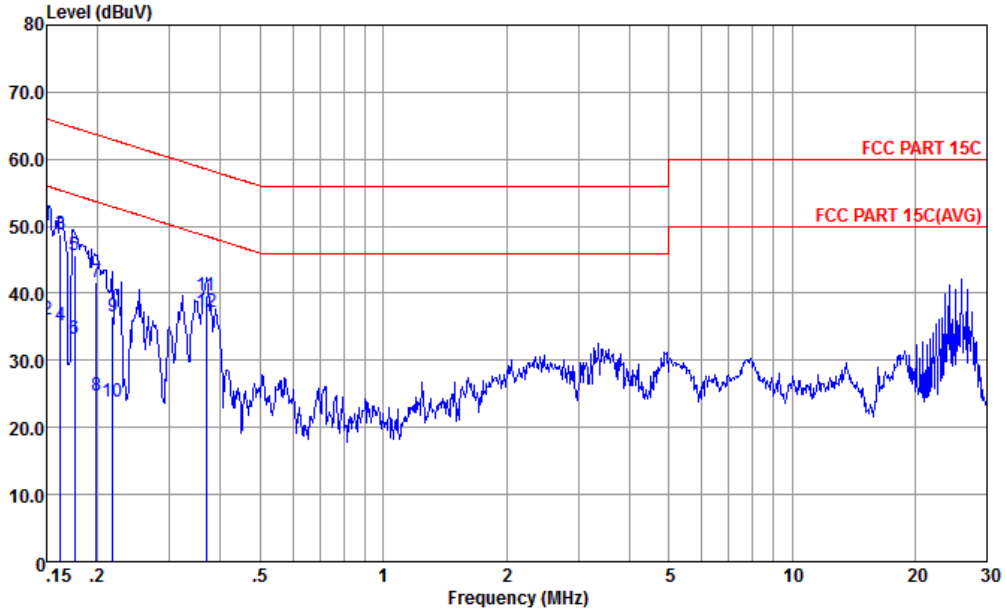
TEST RESULTS DATA
Peak Power Spectral Density

2.4GHz Band																		
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak PSD (dBm/3kHz)					DG (dBi)				Peak PSD Limit (dBm/3kHz)				Pass/ Fail
					Ant 1	Ant 2	Ant 3	Ant 4	Worse + 6.02	Ant 1	Ant 2	Ant 3	Ant 4	Ant 1	Ant 2	Ant 3	Ant 4	
11b	1Mbps	1	1	2412	-2.04	-1.42	-1.63	0.19		3.00	3.00	3.00	3.00	8.00	8.00	8.00	8.00	Pass
11b	1Mbps	1	6	2437	-0.59	-1.22	-2.04	-1.72		3.00	3.00	3.00	3.00	8.00	8.00	8.00	8.00	Pass
11b	1Mbps	1	11	2462	-1.15	-1.60	-2.01	-0.33		3.00	3.00	3.00	3.00	8.00	8.00	8.00	8.00	Pass
11g	6Mbps	4	1	2412	-9.23	-9.02	-8.52	-8.30	-2.28	5.58				8.00				Pass
11g	6Mbps	4	6	2437	-9.16	-8.73	-8.42	-9.08	-2.40	5.58				8.00				Pass
11g	6Mbps	4	11	2462	-8.92	-8.50	-7.93	-9.35	-1.91	5.58				8.00				Pass
HT20	MCS0	4	1	2412	-8.53	-9.44	-6.85	-8.64	-0.83	5.58				8.00				Pass
HT20	MCS0	4	6	2437	-9.22	-9.37	-6.62	-9.82	-0.60	5.58				8.00				Pass
HT20	MCS0	4	11	2462	-8.46	-8.93	-7.89	-8.65	-1.87	5.58				8.00				Pass
HT40	MCS0	4	3	2422	-15.69	-14.99	-15.52	-15.55	-8.97	5.58				8.00				Pass
HT40	MCS0	4	6	2437	-14.78	-15.61	-14.83	-16.16	-8.76	5.58				8.00				Pass
HT40	MCS0	4	9	2452	-17.11	-17.23	-16.16	-17.40	-10.14	5.58				8.00				Pass
AX20	MCS0	4	1	2412	-11.70	-11.48	-11.01	-11.75	-4.99	5.58				8.00				Pass
AX20	MCS0	4	6	2437	-11.65	-11.41	-11.24	-12.36	-5.22	5.58				8.00				Pass
AX20	MCS0	4	11	2462	-11.39	-12.51	-10.58	-12.56	-4.56	5.58				8.00				Pass
AX40	MCS0	4	3	2422	-16.79	-17.52	-17.56	-18.81	-10.77	5.58				8.00				Pass
AX40	MCS0	4	6	2437	-18.12	-18.28	-17.32	-18.40	-11.30	5.58				8.00				Pass
AX40	MCS0	4	9	2452	-20.45	-20.67	-19.92	-19.97	-13.90	5.58				8.00				Pass

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

Appendix B. AC Conducted Emission Test Results

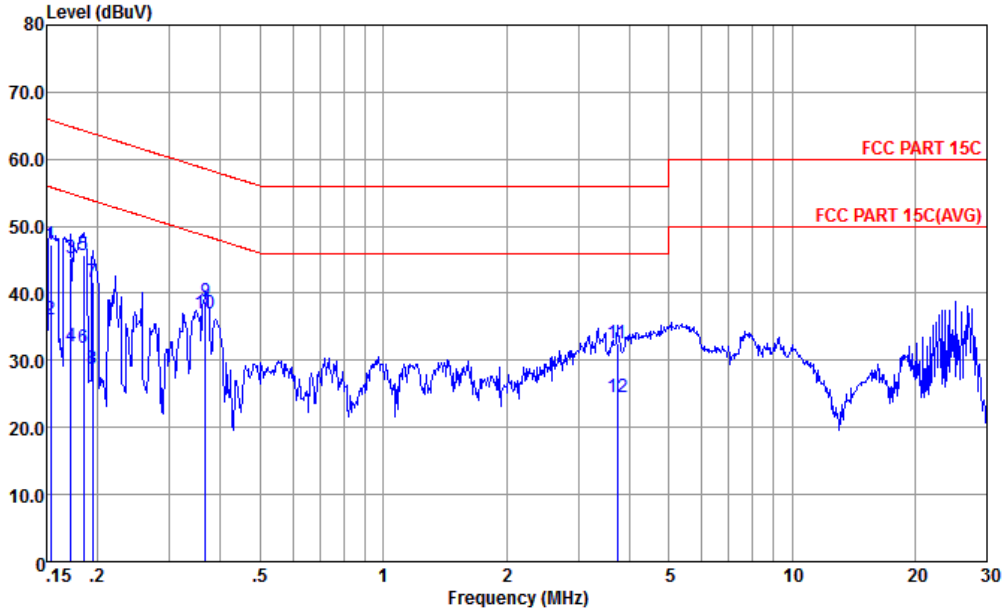
Test Engineer :	Amos Zhang	**Temperature :**	25.3~26.2℃
		Relative Humidity :	38~40%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line
Test mode :	LTE Band 5 Idle + Bluetooth Link + WLAN Link (2.4G) + Lan 1 Link + Lan 2 Link + RJ11 Link + Adapter 1		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Site : CO01-KS
Condition : FCC PART 15C LISN-L-191028-CN02 LINE

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.150	50.15	-15.85	66.00	39.60	0.07	10.48	QP
2	0.150	36.05	-19.95	56.00	25.50	0.07	10.48	Average
3	0.162	48.72	-16.62	65.34	38.20	0.07	10.45	QP
4	0.162	35.12	-20.22	55.34	24.60	0.07	10.45	Average
5	0.176	45.70	-18.98	64.68	35.20	0.08	10.42	QP
6	0.176	33.10	-21.58	54.68	22.60	0.08	10.42	Average
7	0.199	41.65	-22.02	63.67	31.19	0.09	10.37	QP
8	0.199	24.75	-28.92	53.67	14.29	0.09	10.37	Average
9	0.217	36.64	-26.28	62.92	26.20	0.09	10.35	QP
10	0.217	23.94	-28.98	52.92	13.50	0.09	10.35	Average
11	0.369	39.59	-18.93	58.52	29.19	0.12	10.28	QP
12 *	0.369	37.19	-11.33	48.52	26.79	0.12	10.28	Average

Test Engineer :	Amos Zhang	**Temperature :**	25.3~26.2℃
		Relative Humidity :	38~40%
Test Voltage :	120Vac / 60Hz	**Phase :**	Neutral
Test mode :	LTE Band 5 Idle + Bluetooth Link + WLAN Link (2.4G) + Lan 1 Link + Lan 2 Link + RJ11 Link + Adapter 1		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Site : CO01-KS
Condition : FCC PART 15C LISN-N-191028-CN02 NEUTRAL

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.153	47.22	-18.60	65.82	36.60	0.15	10.47	QP
2		0.153	36.12	-19.70	55.82	25.50	0.15	10.47	Average
3		0.172	45.18	-19.68	64.86	34.60	0.16	10.42	QP
4		0.172	32.18	-22.68	54.86	21.60	0.16	10.42	Average
5		0.184	45.76	-18.52	64.28	35.20	0.16	10.40	QP
6		0.184	31.76	-22.52	54.28	21.20	0.16	10.40	Average
7		0.194	41.74	-22.10	63.84	31.20	0.17	10.37	QP
8		0.194	28.74	-25.10	53.84	18.20	0.17	10.37	Average
9		0.367	38.69	-19.87	58.56	28.20	0.21	10.28	QP
10	*	0.367	37.09	-11.47	48.56	26.60	0.21	10.28	Average
11		3.740	32.58	-23.42	56.00	21.60	0.73	10.25	QP
12		3.740	24.48	-21.52	46.00	13.50	0.73	10.25	Average

Note:

1. Level(dBμV) = Read Level(dBμV) + LISN Factor(dB) + Cable Loss(dB)
2. Over Limit(dB) = Level(dBμV) – Limit Line(dBμV)

Appendix C. Radiated Spurious Emission

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
4		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2387.61	60.74	-13.26	74	55.23	32.2	7.3	33.99	127	178	P	H
		2386.83	51.59	-2.41	54	46.08	32.2	7.3	33.99	127	178	A	H
	*	2412	122.01	-	-	116.49	32.16	7.34	33.98	127	178	P	H
	*	2414	118.85	-	-	113.33	32.16	7.34	33.98	127	178	A	H
		2361.61	60.25	-13.75	74	55.01	32	7.25	34.01	182	33	P	V
		2388.26	51.16	-2.84	54	45.65	32.2	7.3	33.99	182	33	A	V
	*	2412	118.65	-	-	113.13	32.16	7.34	33.98	182	33	P	V
	*	2414	115.61	-	-	110.09	32.16	7.34	33.98	182	33	A	V
802.11b CH 11 2462MHz		2484.28	60.45	-13.55	74	54.92	31.99	7.48	33.94	244	201	P	H
		2485.9	50.69	-3.31	54	45.16	31.99	7.48	33.94	244	201	A	H
	*	2462	120.66	-	-	115.14	32.03	7.44	33.95	244	201	P	H
	*	2462	117.46	-	-	111.94	32.03	7.44	33.95	244	201	A	H
		2487.4	60.45	-13.55	74	54.91	31.99	7.48	33.93	287	88	P	V
		2488.12	50.24	-3.76	54	44.71	31.94	7.52	33.93	287	88	A	V
	*	2462	116.02	-	-	110.5	32.03	7.44	33.95	287	88	P	V
	*	2462	112.97	-	-	107.45	32.03	7.44	33.95	287	88	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 802.11b (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11b CH 01 2412MHz		4824	46.5	-27.5	74	62.86	35.16	10.96	62.48	100	360	P	H
		4824	51.7	-22.3	74	68.06	35.16	10.96	62.48	344	302	P	V
		4824	48.02	-5.98	54	64.38	35.16	10.96	62.48	344	302	A	V
802.11b CH 06 2437MHz		4872	41.3	-32.7	74	58.2	34.13	10.58	61.61	300	0	P	H
		7308	41.74	-32.26	74	53.85	36.6	13.62	62.33	300	0	P	H
		4872	40.72	-33.28	74	57.62	34.13	10.58	61.61	300	360	P	V
		7308	42.23	-31.77	74	54.34	36.6	13.62	62.33	300	360	P	V
802.11b CH 11 2462MHz		4926	52.74	-21.26	74	68.53	35.18	11.1	62.07	322	251	P	H
		4926	48.8	-5.2	54	64.59	35.18	11.1	62.07	322	351	A	H
		7386	41.85	-32.15	74	53.69	36.88	13.54	62.26	100	360	P	H
		4926	48.22	-25.78	74	64.01	35.18	11.1	62.07	100	360	P	V
		7386	41.59	-32.41	74	53.43	36.88	13.54	62.26	100	360	P	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. 1+2+3+4	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz		2389.82	66.04	-7.96	74	60.53	32.2	7.3	33.99	128	116	P	H
		2389.95	53.3	-0.7	54	47.79	32.2	7.3	33.99	128	116	A	H
	*	2418	122.51	-	-	116.98	32.16	7.34	33.97	128	116	P	H
	*	2418	114.56	-	-	109.03	32.16	7.34	33.97	128	116	A	H
		2389.3	64.02	-9.98	74	58.51	32.2	7.3	33.99	262	214	P	V
		2389.95	52.62	-1.38	54	47.11	32.2	7.3	33.99	262	214	A	V
	*	2414	118.33	-	-	112.81	32.16	7.34	33.98	262	214	P	V
	*	2414	110.47	-	-	104.95	32.16	7.34	33.98	262	214	A	V
802.11g CH 11 2462MHz		2483.56	62.8	-11.2	74	57.27	31.99	7.48	33.94	143	110	P	H
		2483.5	53.18	-0.82	54	47.65	31.99	7.48	33.94	143	110	A	H
	*	2460	120.44	-	-	114.92	32.03	7.44	33.95	143	110	P	H
	*	2460	112.71	-	-	107.19	32.03	7.44	33.95	143	110	A	H
		2484.52	62.77	-11.23	74	57.24	31.99	7.48	33.94	281	0	P	V
		2483.5	51.16	-2.84	54	45.63	31.99	7.48	33.94	281	0	A	V
	*	2466	115.43	-	-	109.91	32.03	7.44	33.95	281	0	P	V
	*	2466	107.61	-	-	102.09	32.03	7.44	33.95	281	0	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 802.11g (Harmonic @ 3m)

WIFI Ant. 1+2+3+4	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11g CH 01 2412MHz		4824	42.49	-31.51	74	58.85	35.16	10.96	62.48	100	360	P	H
		4824	41.41	-32.59	74	57.77	35.16	10.96	62.48	100	360	P	V
802.11g CH 06 2437MHz		4872	40.57	-33.43	74	57.47	34.13	10.58	61.61	300	0	P	H
		7308	42.04	-31.96	74	54.15	36.6	13.62	62.33	300	0	P	H
		4872	40.67	-33.33	74	57.57	34.13	10.58	61.61	300	360	P	V
		7308	42.4	-31.6	74	54.51	36.6	13.62	62.33	300	360	P	V
802.11g CH 11 2462MHz		4926	45.07	-28.93	74	60.86	35.18	11.1	62.07	100	360	P	H
		7386	42.34	-31.66	74	54.18	36.88	13.54	62.26	100	360	P	H
		4926	45.9	-28.1	74	61.64	35.19	11.12	62.05	100	360	P	V
		7386	41.25	-32.75	74	53.09	36.88	13.54	62.26	100	360	P	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. 1+2+3+4	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		2387.61	65.24	-8.76	74	59.73	32.2	7.3	33.99	100	107	P	H
		2388.65	53.34	-0.66	54	47.83	32.2	7.3	33.99	100	107	A	H
802.11n	*	2406	121.12	-	-	115.6	32.16	7.34	33.98	100	107	P	H
HT20	*	2406	113.52	-	-	108	32.16	7.34	33.98	100	107	A	H
CH 01		2389.56	61.12	-12.88	74	55.61	32.2	7.3	33.99	177	33	P	V
2412MHz		2389.95	51.11	-2.89	54	45.6	32.2	7.3	33.99	177	33	A	V
	*	2414	118.79	-	-	113.27	32.16	7.34	33.98	177	33	P	V
	*	2414	111.09	-	-	105.57	32.16	7.34	33.98	177	33	A	V
		2484.52	62.19	-11.81	74	56.25	31.99	7.89	33.94	100	325	P	H
		2483.5	52.66	-1.34	54	46.72	31.99	7.89	33.94	100	325	A	H
802.11n	*	2468	121.06	-	-	115.12	32.03	7.86	33.95	100	325	P	H
HT20	*	2466	113.3	-	-	107.36	32.03	7.86	33.95	100	325	A	H
CH 11		2484.16	65.25	-8.75	74	59.31	31.99	7.89	33.94	353	335	P	V
2462MHz		2483.5	53.32	-0.68	54	47.38	31.99	7.89	33.94	353	335	A	V
	*	2464	118.25	-	-	112.31	32.03	7.86	33.95	353	335	P	V
	*	2466	110.21	-	-	104.27	32.03	7.86	33.95	353	335	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 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1+2+3+4	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 01 2412MHz		4824	42.19	-31.81	74	58.55	35.16	10.96	62.48	100	360	P	H
		4824	43.33	-30.67	74	59.69	35.16	10.96	62.48	100	360	P	V
802.11n HT20 CH 06 2437MHz		4872	40.84	-33.16	74	57.74	34.13	10.58	61.61	100	360	P	H
		7308	42.02	-31.98	74	54.13	36.6	13.62	62.33	100	360	P	H
		4872	39.82	-34.18	74	56.72	34.13	10.58	61.61	100	0	P	V
		7308	41.74	-32.26	74	53.85	36.6	13.62	62.33	100	0	P	V
802.11n HT20 CH 11 2462MHz		4926	43.46	-30.54	74	59.25	35.18	11.1	62.07	100	360	P	H
		7386	41.54	-32.46	74	53.38	36.88	13.54	62.26	100	360	P	H
		4926	42.98	-31.02	74	58.77	35.18	11.1	62.07	100	360	P	V
		7386	42.36	-31.64	74	54.2	36.88	13.54	62.26	100	360	P	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 HT40 (Band Edge @ 3m)

WIFI Ant. 1+2+3+4	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		2389.95	63.76	-10.24	74	57.81	32.2	7.74	33.99	176	130	P	H
		2389.82	53.68	-0.32	54	47.73	32.2	7.74	33.99	176	130	A	H
		2487.64	60.91	-13.09	74	54.97	31.94	7.93	33.93	176	130	P	H
		2486.8	51.2	-2.8	54	45.25	31.99	7.89	33.93	176	130	A	H
802.11n	*	2416	117.69	-	-	111.74	32.16	7.77	33.98	176	130	P	H
HT40	*	2416	109.92	-	-	103.97	32.16	7.77	33.98	176	130	A	H
CH 03		2389.95	62.31	-11.69	74	56.36	32.2	7.74	33.99	125	320	P	V
2422MHz		2389.3	52.96	-1.04	54	47.01	32.2	7.74	33.99	125	320	A	V
		2496.46	60.83	-13.17	74	54.89	31.94	7.93	33.93	125	320	P	V
		2499.76	51.02	-2.98	54	45.08	31.94	7.93	33.93	125	320	A	V
	*	2426	114.67	-	-	108.73	32.11	7.8	33.97	125	320	P	V
	*	2424	106.79	-	-	100.85	32.11	7.8	33.97	125	320	A	V
		2389.82	63.05	-10.95	74	57.1	32.2	7.74	33.99	144	127	P	H
		2389.95	53.16	-0.84	54	47.21	32.2	7.74	33.99	144	127	A	H
		2485.24	61.97	-12.03	74	56.03	31.99	7.89	33.94	144	127	P	H
		2485.78	52.29	-1.71	54	46.35	31.99	7.89	33.94	144	127	A	H
802.11n	*	2430	117.94	-	-	112	32.11	7.8	33.97	144	127	P	H
HT40	*	2430	109.68	-	-	103.74	32.11	7.8	33.97	144	127	A	H
CH 06		2386.7	61.45	-12.55	74	55.5	32.2	7.74	33.99	125	319	P	V
2437MHz		2389.69	51.8	-2.2	54	45.85	32.2	7.74	33.99	125	319	A	V
		2498.26	61.19	-12.81	74	55.25	31.94	7.93	33.93	125	319	P	V
		2485.24	51.02	-2.98	54	45.08	31.99	7.89	33.94	125	319	A	V
	*	2440	113.76	-	-	107.82	32.07	7.83	33.96	125	319	P	V
	*	2440	106.29	-	-	100.35	32.07	7.83	33.96	125	319	A	V

		2383.32	60.85	-13.15	74	55.03	32.1	7.71	33.99	284	343	P	H
		2384.36	50.64	-3.36	54	44.82	32.1	7.71	33.99	284	343	A	H
		2483.86	62.55	-11.45	74	56.61	31.99	7.89	33.94	284	343	P	H
		2483.56	53.49	-0.51	54	47.55	31.99	7.89	33.94	284	343	A	H
802.11n	*	2444	115.17	-	-	109.23	32.07	7.83	33.96	284	343	P	H
HT40	*	2444	107.3	-	-	101.36	32.07	7.83	33.96	284	343	A	H
CH 09		2381.37	60.51	-13.49	74	54.69	32.1	7.71	33.99	127	321	P	V
2452MHz		2387.87	50.78	-3.22	54	44.83	32.2	7.74	33.99	127	321	A	V
		2485.12	61.84	-12.16	74	55.9	31.99	7.89	33.94	127	321	P	V
		2484.34	51.13	-2.87	54	45.19	31.99	7.89	33.94	127	321	A	V
	*	2436	111.28	-	-	105.33	32.11	7.8	33.96	127	321	P	V
	*	2436	103.74	-	-	97.79	32.11	7.8	33.96	127	321	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 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1+2+3+4	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n		4842	39.75	-34.25	74	56.61	34.2	10.54	61.6	100	360	P	H
HT40		7266	42.02	-31.98	74	54.17	36.53	13.64	62.32	100	360	P	H
CH 03		4842	37.71	-36.29	74	54.57	34.2	10.54	61.6	100	0	P	V
2422MHz		7266	41.87	-32.13	74	53.24	36.86	13.64	61.87	100	0	P	V
802.11n		4872	41.57	-32.43	74	57.56	35.17	11.04	62.2	100	360	P	H
HT40		7308	41.86	-32.14	74	53.65	36.86	13.46	62.11	100	360	P	H
CH 06		4872	41.79	-32.21	74	57.78	35.17	11.04	62.2	100	360	P	V
2437MHz		7308	43.24	-30.76	74	55.03	36.86	13.46	62.11	100	360	P	V
802.11n		4902	42.32	-31.68	74	58.13	35.18	11.09	62.08	100	360	P	H
HT40		7356	42.97	-31.03	74	54.79	36.87	13.51	62.2	100	360	P	H
CH 09		4902	41.86	-32.14	74	57.67	35.18	11.09	62.08	100	360	P	V
2452MHz		7356	42.81	-31.19	74	54.63	36.87	13.51	62.2	100	360	P	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 HEX20 (Band Edge @ 3m)

WIFI Ant. 1+2+3+4	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		2389.17	63.32	-10.68	74	57.37	32.2	7.74	33.99	230	107	P	H
		2389.82	53.56	-0.44	54	47.61	32.2	7.74	33.99	230	107	A	H
802.11ax		2408	122.1	-	-	116.15	32.16	7.77	33.98	230	107	P	H
HE20		2406	111.92	-	-	105.97	32.16	7.77	33.98	230	107	A	H
CH 01		2388.26	61.19	-12.81	74	55.24	32.2	7.74	33.99	304	30	P	V
2412MHz		2389.82	51.35	-2.65	54	45.4	32.2	7.74	33.99	304	30	A	V
		2414	119.34	-	-	113.39	32.16	7.77	33.98	304	30	P	V
		2414	109.32	-	-	103.37	32.16	7.77	33.98	304	30	A	V
		2483.92	63.7	-10.3	74	57.76	31.99	7.89	33.94	300	192	P	H
		2483.5	53.71	-0.29	54	47.77	31.99	7.89	33.94	300	192	A	H
802.11ax		2456	121.71	-	-	115.77	32.03	7.86	33.95	300	192	P	H
HE20		2456	112.05	-	-	106.11	32.03	7.86	33.95	300	192	A	H
CH 11		2483.86	62.08	-11.92	74	56.14	31.99	7.89	33.94	335	307	P	V
2462MHz		2484.34	52.31	-1.69	54	46.37	31.99	7.89	33.94	335	307	A	V
		2464	118.65	-	-	112.71	32.03	7.86	33.95	335	307	P	V
		2464	109.51	-	-	103.57	32.03	7.86	33.95	335	307	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 802.11ax HEX20 (Harmonic @ 3m)

WIFI Ant. 1+2+3+4	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax HE20 CH 01 2412MHz		4824	41.93	-32.07	74	58.29	35.16	10.96	62.48	100	360	P	H
		4824	44.44	-29.56	74	60.8	35.16	10.96	62.48	100	360	P	V
802.11ax HE20 CH 06 2437MHz		4872	41.13	-32.87	74	58.03	34.13	10.58	61.61	300	0	P	H
		7308	42.39	-31.61	74	54.5	36.6	13.62	62.33	300	0	P	H
		4872	38.27	-35.73	74	55.17	34.13	10.58	61.61	300	360	P	V
		7308	42.32	-31.68	74	54.43	36.6	13.62	62.33	300	360	P	V
802.11ax HE20 CH 11 2462MHz		4926	43.66	-30.34	74	59.45	35.18	11.1	62.07	100	360	P	H
		7386	42.1	-31.9	74	53.94	36.88	13.54	62.26	100	360	P	H
		4926	44.29	-29.71	74	60.08	35.18	11.1	62.07	100	360	P	V
		7386	41.53	-32.47	74	53.37	36.88	13.54	62.26	100	360	P	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 HEX40 (Band Edge @ 3m)

WIFI Ant. 1+2+3+4	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		2389.69	66.61	-7.39	74	60.66	32.2	7.74	33.99	186	126	P	H
		2389.69	53.52	-0.48	54	47.57	32.2	7.74	33.99	186	126	A	H
		2495.74	60.77	-13.23	74	54.83	31.94	7.93	33.93	186	126	P	H
		2484.52	51.11	-2.89	54	45.17	31.99	7.89	33.94	186	126	A	H
802.11ax		2416	117.35	-	-	111.4	32.16	7.77	33.98	186	126	P	H
HE40		2414	107.84	-	-	101.89	32.16	7.77	33.98	186	126	A	H
CH 03		2385.01	61.22	-12.78	74	55.4	32.1	7.71	33.99	215	31	P	V
2422MHz		2386.7	51.24	-2.76	54	45.29	32.2	7.74	33.99	215	31	A	V
		2484.76	60.66	-13.34	74	54.72	31.99	7.89	33.94	215	31	P	V
		2496.4	50.95	-3.05	54	45.01	31.94	7.93	33.93	215	31	A	V
		2424	115.14	-	-	109.2	32.11	7.8	33.97	215	31	P	V
		2424	106.8	-	-	100.86	32.11	7.8	33.97	215	31	A	V
		2389.82	63.76	-10.24	74	57.81	32.2	7.74	33.99	201	131	P	H
		2389.95	53.8	-0.2	54	47.85	32.2	7.74	33.99	201	131	A	H
		2485	62.92	-11.08	74	56.98	31.99	7.89	33.94	201	131	P	H
		2485.84	52.26	-1.74	54	46.32	31.99	7.89	33.94	201	131	A	H
802.11ax		2430	118.91	-	-	112.97	32.11	7.8	33.97	201	131	P	H
HE40		2430	108.98	-	-	103.04	32.11	7.8	33.97	201	131	A	H
CH 06		2389.43	61.03	-12.97	74	55.08	32.2	7.74	33.99	190	44	P	V
2437MHz		2388	51.58	-2.42	54	45.63	32.2	7.74	33.99	190	44	A	V
		2491.6	61.06	-12.94	74	55.12	31.94	7.93	33.93	190	44	P	V
		2484.04	50.81	-3.19	54	44.87	31.99	7.89	33.94	190	44	A	V
		2438	118.29	-	-	112.35	32.07	7.83	33.96	190	44	P	V
		2438	106.79	-	-	100.85	32.07	7.83	33.96	190	44	A	V

		2352.12	61.1	-12.9	74	55.43	32	7.68	34.01	286	0	P	H
		2383.71	50.51	-3.49	54	44.69	32.1	7.71	33.99	286	0	A	H
		2484.64	62.23	-11.77	74	56.29	31.99	7.89	33.94	286	0	P	H
		2483.56	53.09	-0.91	54	47.15	31.99	7.89	33.94	286	0	A	H
802.11ax		2452	113.46	-	-	107.51	32.07	7.83	33.95	286	0	P	H
HE40		2450	104.4	-	-	98.46	32.07	7.83	33.96	286	0	A	H
CH 09		2387.48	61.11	-12.89	74	55.16	32.2	7.74	33.99	314	236	P	V
2452MHz		2389.56	50.57	-3.43	54	44.62	32.2	7.74	33.99	314	236	A	V
		2487.1	62.15	-11.85	74	56.2	31.99	7.89	33.93	314	236	P	V
		2487.82	51.36	-2.64	54	45.42	31.94	7.93	33.93	314	236	A	V
		2450	110.9	-	-	104.96	32.07	7.83	33.96	314	236	P	V
		2450	102.74	-	-	96.8	32.07	7.83	33.96	314	236	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 802.11ax HEX40 (Harmonic @ 3m)

WIFI Ant. 1+2+3+4	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax		4842	41.42	-32.58	74	57.66	35.17	10.98	62.39	100	360	P	H
HE40		7266	43.49	-30.51	74	55.41	36.86	13.42	62.2	100	360	P	H
CH 03		4842	42.3	-31.7	74	58.54	35.17	10.98	62.39	100	360	P	V
2422MHz		7266	42.49	-31.51	74	54.41	36.86	13.42	62.2	100	360	P	V
802.11ax		4872	41.86	-32.14	74	57.85	35.17	11.04	62.2	100	360	P	H
HE40		7308	43.45	-30.55	74	55.24	36.86	13.46	62.11	100	360	P	H
CH 06		4872	41.94	-32.06	74	57.93	35.17	11.04	62.2	100	360	P	V
2437MHz		7308	41.66	-32.34	74	53.45	36.86	13.46	62.11	100	360	P	V
802.11ax		4902	42.19	-31.81	74	58	35.18	11.09	62.08	100	360	P	H
HE40		7356	43.59	-30.41	74	55.41	36.87	13.51	62.2	100	360	P	H
CH 09		4904	41.56	-32.44	74	57.37	35.18	11.09	62.08	100	360	P	V
2452MHz		7356	43.04	-30.96	74	54.86	36.87	13.51	62.2	100	360	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

WIFI 802.11ax HE40 (LF)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2+3+4		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ax HE40 LF		30	21.75	-18.25	40	28.64	25.1	1.11	33.1	100	360	P	H
		187.14	18.99	-24.51	43.5	34.87	14.89	2.16	32.93	-	-	P	H
		239.52	26.45	-19.55	46	39.34	17.5	2.43	32.82	-	-	P	H
		380.17	21.63	-24.37	46	29.9	21.2	3.03	32.5	-	-	P	H
		677.96	25.4	-20.6	46	27.32	26.61	4.01	32.54	-	-	P	H
		912.7	29.64	-16.36	46	27.59	29.58	4.64	32.17	-	-	P	H
		31.94	32.07	-7.93	40	39.99	24.04	1.1	33.06	100	360	P	V
		128.94	24.89	-18.61	43.5	38.5	17.6	1.83	33.04	-	-	P	V
		265.71	21.1	-24.9	46	31.3	20	2.57	32.77	-	-	P	V
		455.83	23.31	-22.69	46	29.03	23.2	3.31	32.23	-	-	P	V
		618.79	27.73	-18.27	46	30.57	26.06	3.83	32.73	-	-	P	V
		951.5	31.96	-14.04	46	28.37	30.98	4.71	32.1	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Beamforming mode:

WIFI 802.11ax HE20 (Band Edge @ 3m)

WIFI Ant. 1+2+3+4	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		2484.58	62.98	-11.02	74	55.24	31.77	7.55	31.58	296	178	P	H
		2483.62	50.15	-3.85	54	42.41	31.77	7.55	31.58	296	178	A	H
802.11ax		2460	113.44	-	-	105.86	31.66	7.52	31.6	296	178	P	H
HE20		2462	108.43	-	-	100.85	31.66	7.52	31.6	296	178	A	H
CH 11		2483.98	63.07	-10.93	74	55.33	31.77	7.55	31.58	357	306	P	V
2462MHz		2483.56	48.17	-5.83	54	40.43	31.77	7.55	31.58	357	306	A	V
		2454	111.24	-	-	103.66	31.66	7.52	31.6	357	306	P	V
		2454	101.1	-	-	93.52	31.66	7.52	31.6	357	306	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

WIFI 802.11ax HE20 (Harmonic @ 3m)

WIFI Ant. 1+2+3+4	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ax		4926	41.12	-32.88	74	56.48	33.82	10.84	60.02	300	0	P	H
HE20		7386	42.81	-31.19	74	54.09	36.01	13.24	60.53	300	0	P	H
CH 11		4926	41.91	-32.09	74	57.27	33.82	10.84	60.02	300	360	P	V
2462MHz		7386	42.68	-31.32	74	53.96	36.01	13.24	60.53	300	360	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2+3+4	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		2389.56	67.79	-6.21	74	60.82	31.2	7.42	31.65	225	112	P	H
		2389.95	53.64	-0.36	54	46.67	31.2	7.42	31.65	225	112	A	H
		2486.64	55.85	-18.15	74	48.11	31.77	7.55	31.58	225	112	P	H
		2483.84	45.8	-8.2	54	38.06	31.77	7.55	31.58	225	112	A	H
802.11n	*	2416	113.47	---	---	106.35	31.31	7.44	31.63	225	112	P	H
HT40	*	2416	104.92	---	---	97.8	31.31	7.44	31.63	225	112	A	H
CH 03		2386.83	61.28	-12.72	74	54.31	31.2	7.42	31.65	153	299	P	V
2422MHz		2389.95	47.65	-6.35	54	40.68	31.2	7.42	31.65	153	299	A	V
		2483.92	57.94	-16.06	74	50.2	31.77	7.55	31.58	153	299	P	V
		2483.68	45.95	-8.05	54	38.21	31.77	7.55	31.58	153	299	A	V
	*	2406	109.17	---	---	102.07	31.31	7.44	31.65	153	299	P	V
	*	2406	101.49	---	---	94.39	31.31	7.44	31.65	153	299	A	V

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1+2+3+4	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		4842	39.74	-34.26	74	55.41	33.73	10.63	60.03	300	360	P	H
802.11n		7266	41.62	-32.38	74	53.13	35.8	13.2	60.51	300	360	P	H
HT40		9684	48.14	-25.86	74	56.85	36.86	15.36	60.93	100	360	P	H
CH 03		4842	39.4	-34.6	74	55.07	33.73	10.63	60.03	300	360	P	V
2422MHz		7266	42.31	-31.69	74	53.82	35.8	13.2	60.51	300	360	P	V
		9684	45.69	-28.31	74	54.4	36.86	15.36	60.93	100	360	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Note symbol

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